

VICINITY MAP

PROJECT LOCATION:

NEAR S. 1ST STREET AND COWLITZ STREET ST. HELENS, OREGON LATITUDE =45°51'34"N, LONGITUDE =122°47'48"W

PROPERTY DESCRIPTION:

WILLAMETTE MERIDIAN, COLUMBIA COUNTY, OREGON T4N R1W SEC 3 TL 100, 200, T4N R1W SEC 3BA TL 7500, S. 1ST STREET, COWLITZ STREET, STRAND STREET R/W

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU 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. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

EROSION AND SEDIMENT CONTROL PLANS

OWNER

CITY OF ST. HELENS CONTACT: MOUHAMAD ZAHER, PE ADDRESS: 265 STRAND STREET ST. HELENS, OR 97051 (503) 366-8223 PHONE: FAX:

ENGINEERING FIRM

ENGINEER: KEITH BUISMAN, P.E. 808 SW THIRD AVENUE, SUITE 800 ADDRESS: PORTLAND, OR 97204 (503) 287-6825 PHONE: FAX: 503-415-2304

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

VACANT INDUSTRIAL SITE

DEVELOPED CONDITIONS

NEW STREET/UTILITY INFRASTRUCTURE INCLUDING PUMP STATION

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

- * CLEARING (JULY 2022)
- * MASS GRADING (JULY-SEPTEMBER 2022)
- * UTILITY INSTALLATION (OCTOBER 2022-FEBRUARY 2023)
- * STREET CONSTRUCTION (MARCH-MAY 2023)
- * FINAL STABILIZATION (JUNE-JULY 2023)

TOTAL SITE AREA = 29.6 ACRES TOTAL DISTURBED AREA = 11.2 ACRES

SITE SOIL CLASSIFICATION:

45 - ROCK OUTCROP-XERUMBREPTS COMPLEX, UNDULATING 46 - SAUVIE SILT LOAM

ON-SITE SOILS HAVE A SLIGHT EROSION POTENTIAL. ALL FILL MATERIAL SHALL BE GENERATED ON-SITE FROM GRADING **EXCAVATION AND UTILITY TRENCH SPOILS.**

RECEIVING WATER BODIES

COLUMBIA RIVER

WATER BODIES WITHIN 1 MILE OF PROJECT SITE: **COLUMBIA RIVER**

FROGMORE SLOUGH

THE COLUMBIA RIVER (FROGMORE SLOUGH TO TIDE CREEK) IS 303(D) LISTED FOR ARSENIC, DDE 4.4, PCBS, AND TEMPERATURE. THIS SECTION OF THE COLUMBIA RIVER ALSO HAS A TMDL FOR DIOXINS AND TOTAL DISSOLVED GAS. THIS PROJECT IS NOT EXPECTED TO INCREASE LEVELS OF THESE LISTED POLLUTANTS.

PERMITTEE'S SITE INSPECTOR:

NAME: MICHAEL WILLIAMS COMPANY/AGENCY: OTAK, INC PHONE: 503-287-6825 FAX: 503-415-2304 E-MAIL: MICHAEL.WILLIAMS@OTAK.COM CERTIFICATION ID: CESCL ID# - #310B80B1 (Exp. 03/25/2024)

INSPECTION FREQUENCY:

CONSTRUCTION ACTIVITIES ARE

CONDUCTED AND RUNOFF IS

UNLIKELY DURING FROZEN

CONDITIONS.

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	-ON THE INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCEWITHIN 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE FROM THE SITEAT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STROMWATER RUNOFF IS OCCURRING.
2. INACTIVE PERIODS GREATER THAN 14 CONSECUTIVE CALENDAR DAYS.	THE INSPECTOR MAY REDUCE THE FREQUENCY OF INSPECTIONS IN ANY AREA OF THE SITE WHERE THE STABILIZATION STEPS IN SECTION 2.2.20 HAVE BEEN COMPLETED TO TWICE PER MONTH FOR THE FIRST MONTH, NO LESS THAN 14 CALENDAR DAYS APART, THEN ONCE PER MONTH
3. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF SAFE, ACCESSIBLE AND PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT DISCHARGE POINT OR DOWNSTREAM LOCATION OF THE RECEIVING WATERBODY.
4. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE TEMPORARILY SUSPENDED. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.
5. PERIODS DURING WHICH	VISUAL MONITORING INSPECTIONS MAY BE

REDUCED TO ONCE A MONTH.

MAKE DISCHARGES LIKELY.

IMMEDIATELY RESUME MONITORING UPON

THAWING. OR WHEN WEATHER CONDITIONS

STANDARD EROSION AND SEDIMENT **CONTROL PLAN DRAWING NOTES:**

- AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.I). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN. INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)

- SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
- FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2) CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVEN
- VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE
- 11. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS

- BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
- 14. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SECTIONS 2.1.1. AND 2.2.16)
- 15. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN
- 16. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRE

- 22. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
- 23. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. 24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED.
- 25. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND
- EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
- 26. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A) 27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE
- SECTIONS 2.2.17 AND 2.2.18)
- 28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
- 29. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES. EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
- 30. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL
- 31. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
- 32. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION
- 33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE
- 34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8) 35. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE
- HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
- 36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C) 37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND

AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)

38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)

SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT

- 39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
- BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.) 41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
- 42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

BMP MATRIX FOR CONSTRUCTION **PHASES**

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMP'S.

		MASS	STREET/UTILITY	FINA
	CLEARING	GRADING	CONSTRUCTION	STABILIZ
EROSION PREVENTION	•			•
PRESERVE NATURAL VEGETATION	** X	х	х	х
GROUND COVER		х	х	х
HYDRAULIC APPLICATIONS				
PLASTIC SHEETING		х	Х	х
MATTING	x	х	Х	х
DUST CONTROL	x	х	х	х
TEMPORARY/ PERMANENT SEEDING		х	X	х
BUFFER ZONE				
OTHER: COMPOST BLANKET				
OTHER: ORANGE CONSTRUCT FENCE		х	х	х
SEDIMENT CONTROL				
SEDIMENT FENCE (PERIMETER)	** X	х	х	X
SEDIMENT FENCE (INTERIOR)		х	х	X
INLET PROTECTION	** X	х	Х	х
DEWATERING				
SEDIMENT BASIN				
STRAW WATTLES	** X	х	х	х
OTHER:				
CONSTRUCTION ENTRANCE	** X	х	х	Х
PIPE SLOPE DRAIN				
OUTLET PROTECTION		х	x	x
SURFACE ROUGHENING				
CHECK DAMS				
OTHER:				
POLLUTION PREVENTION				
PROPER SIGNAGE	х	х	×	×
HAZ WASTE MGMT	X	X	x	x
SPILL KIT ON-SITE	x	X	x	X
CONCRETE WASHOUT AREA			x	X
OTHER:				
OTTEN.				

** SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS OF THE 1200-C PERMIT. THIS ESCP AND GENERAL CONDITIONS HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH THE 1200-C PERMIT REQUIREMENTS. IN CASES OF DISCREPANCIES OR OMISSIONS, THE 1200-C PERMIT REQUIREMENTS SUPERCEDE REQUIREMENTS OF THIS PLAN.

USE ONLINE WEATHER SOURCE FOR LOCALIZED RAINFALL AMOUNTS. SEE URL:

https://www.wunderground.com/weather/us/or/st-helens/KORSTHEL35

STATION: KORSTHEL35

SHEET INDEX							
SHEET NUMBER SHEET TITLE							
EROSION AND SEDIMENT CONTROL PLANS							
EC-00	COVER SHEET AND GENERAL NOTES						
EC-10	EXISTING CONDITIONS AND DEMOLITION						
EC-11	EXISTING CONDITIONS AND DEMOLITION						
EC-20	GRADING CONSTRUCTION						
EC-21	GRADING CONSTRUCTION						
EC-22	STREET, UTILITY CONSTRUCTION PLAN						
EC-23	STREET, UTILITY CONSTRUCTION PLAN						
EC-24	FINAL STABILIZATION PLAN						
EC-25	FINAL STABILIZATION PLAN						
EC-30	DETAILS						
EC-31	DETAILS						

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP's WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY 40. DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.





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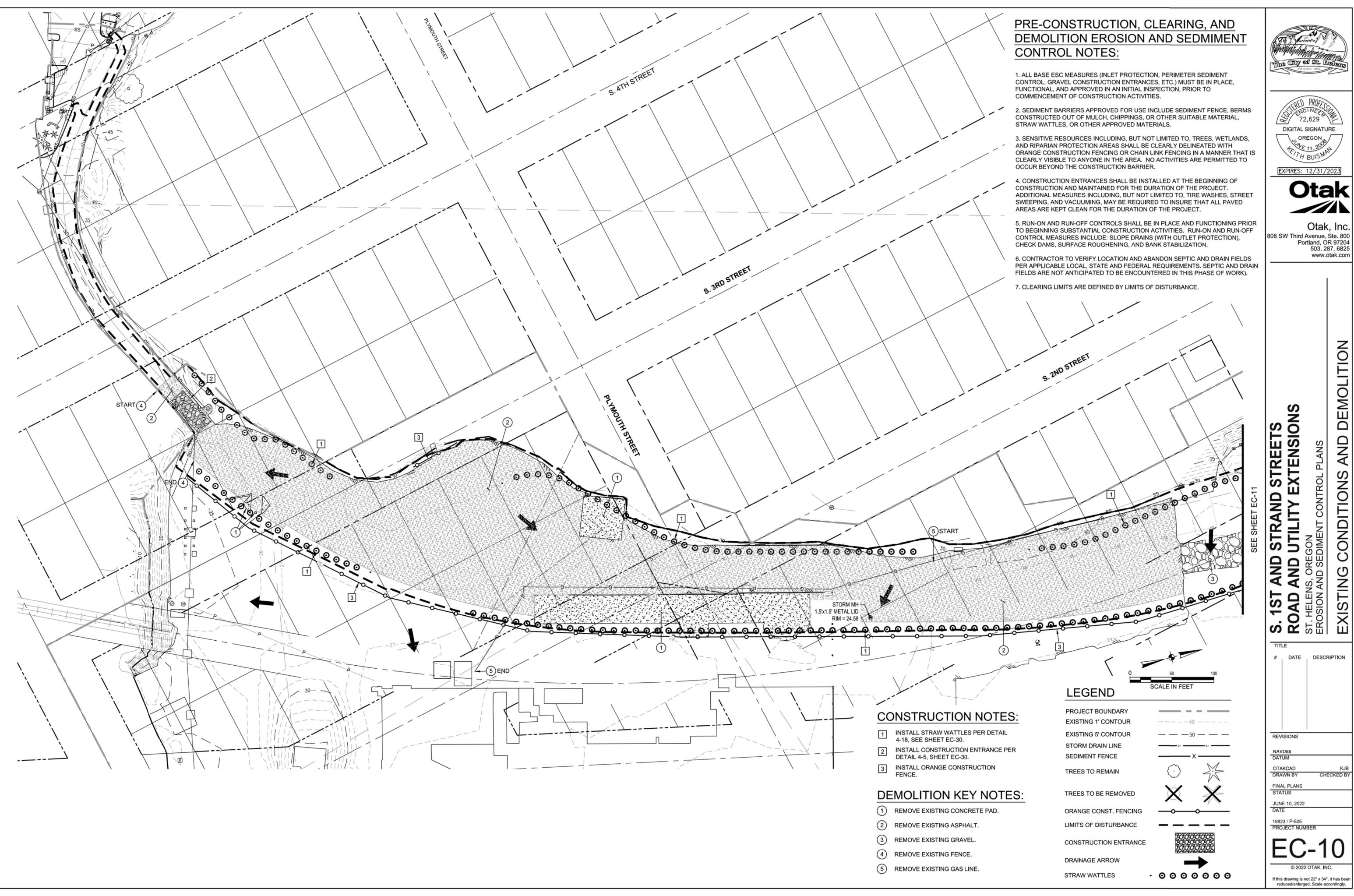
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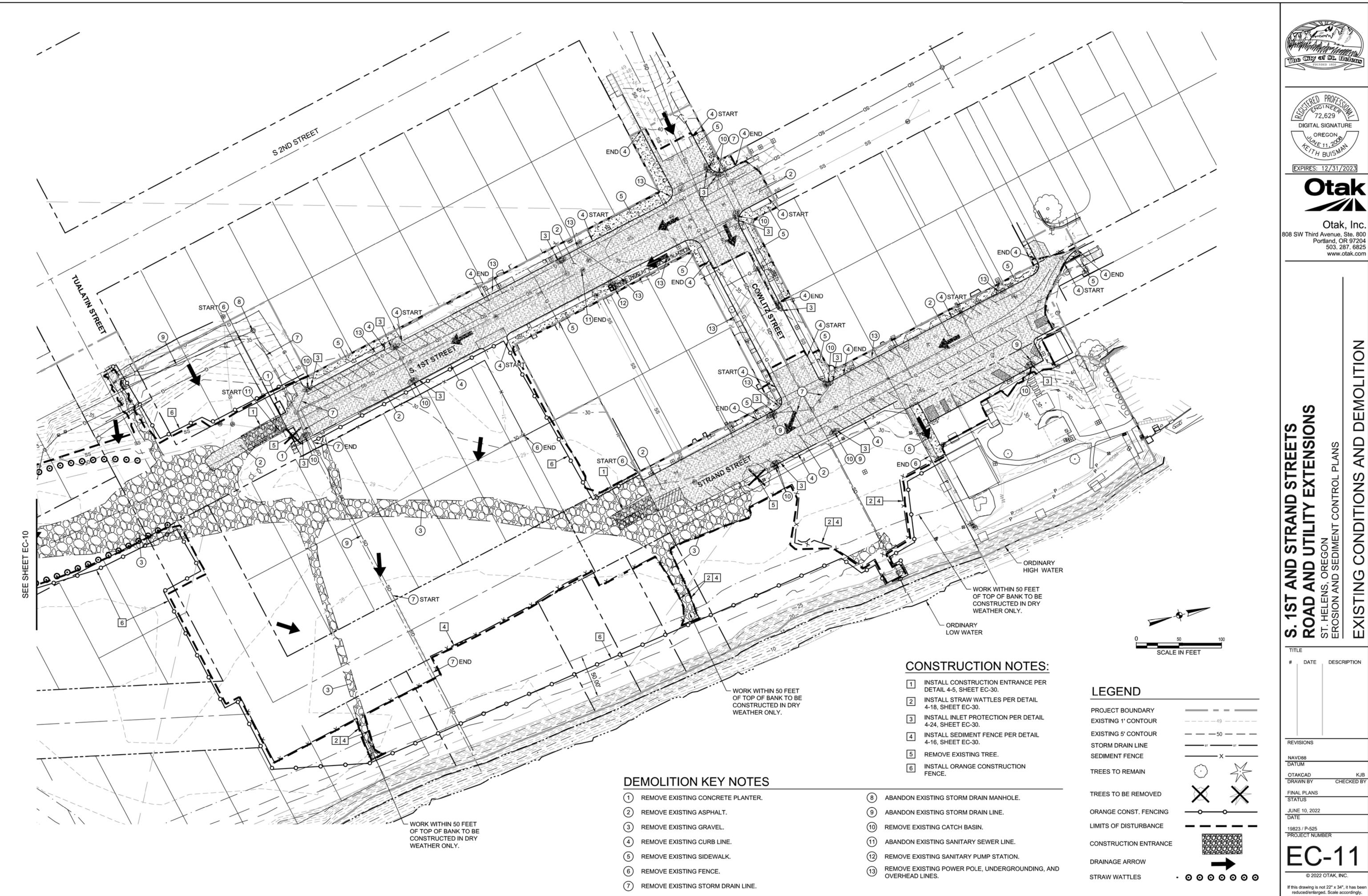
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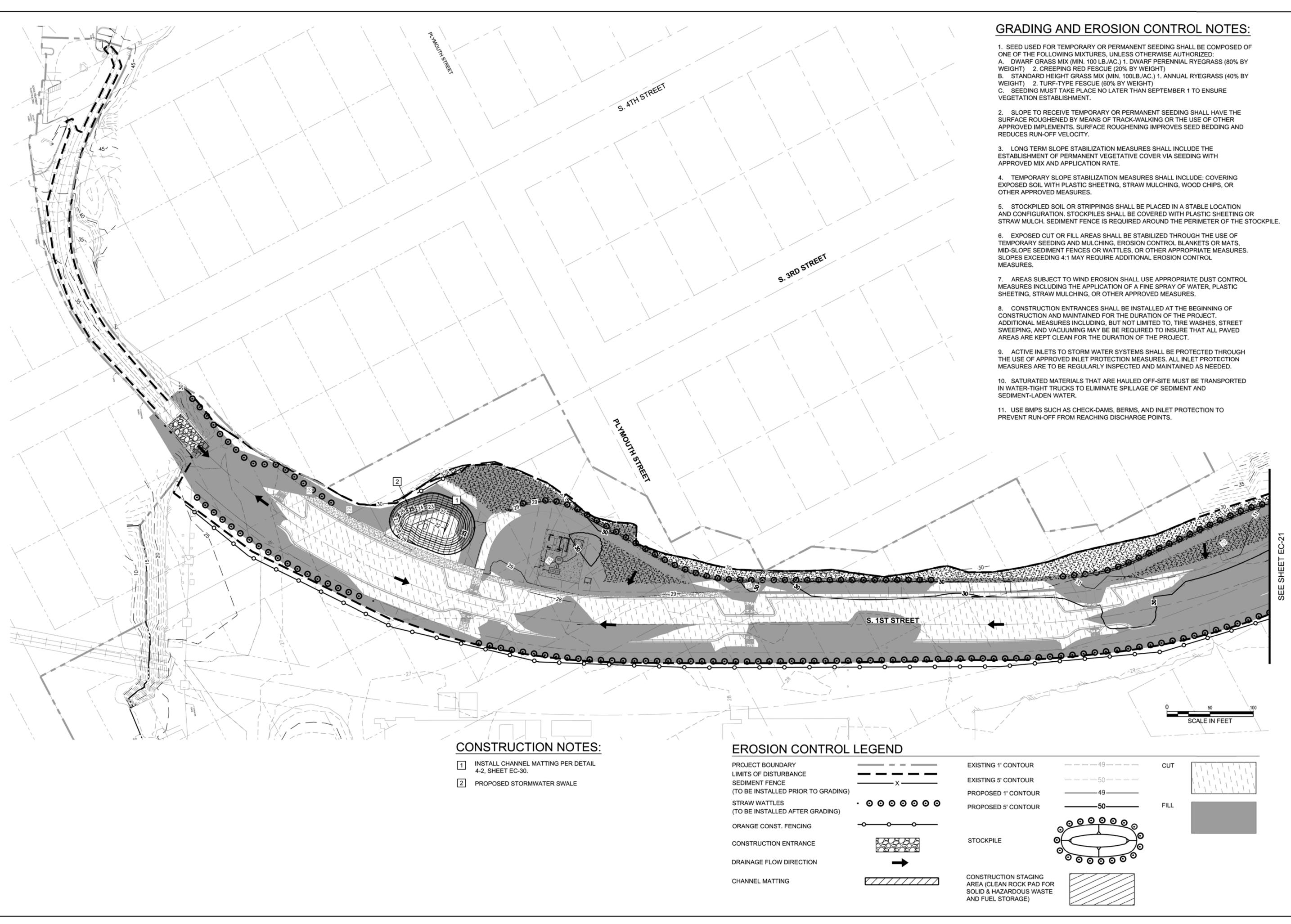
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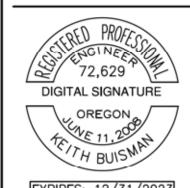
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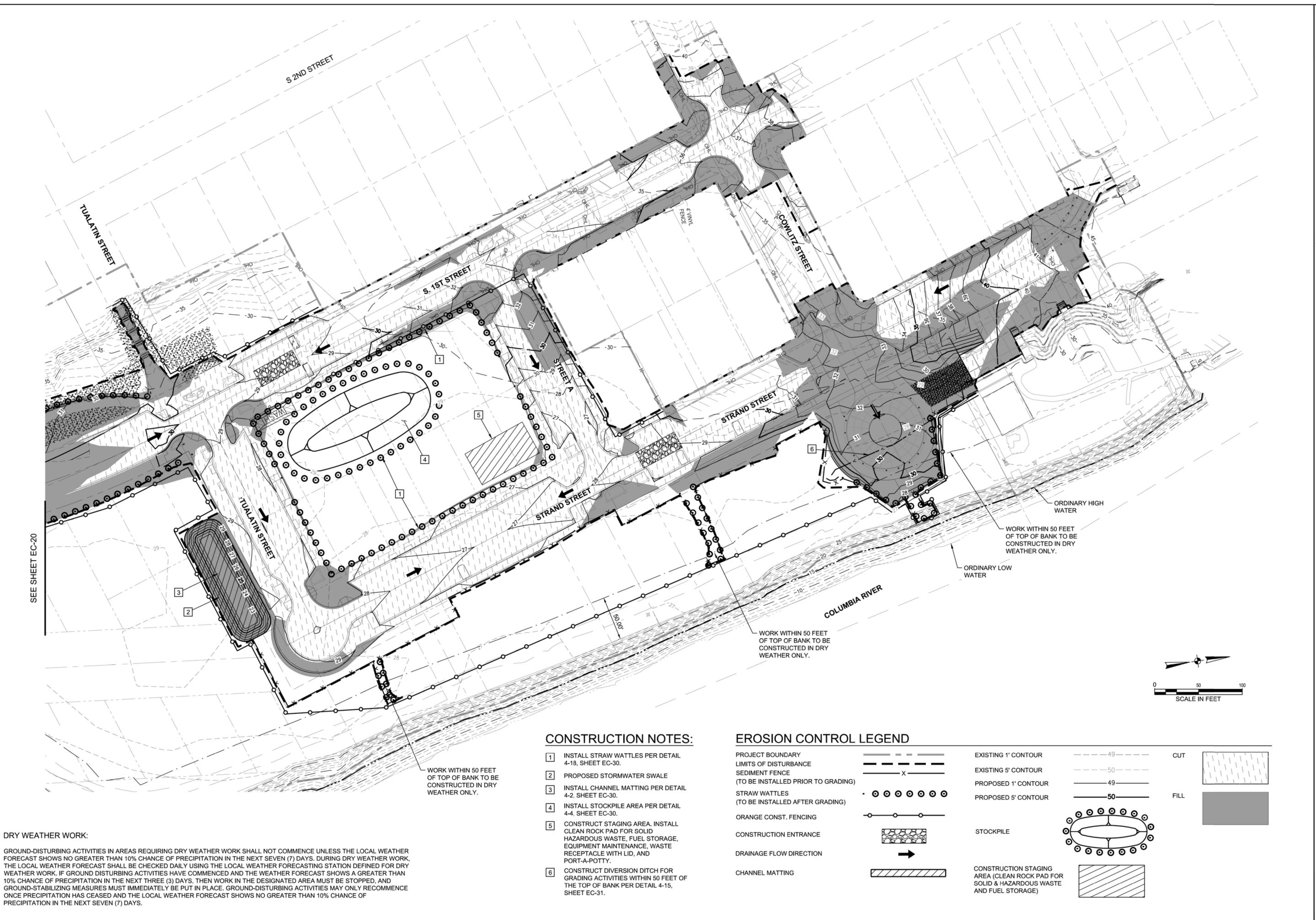
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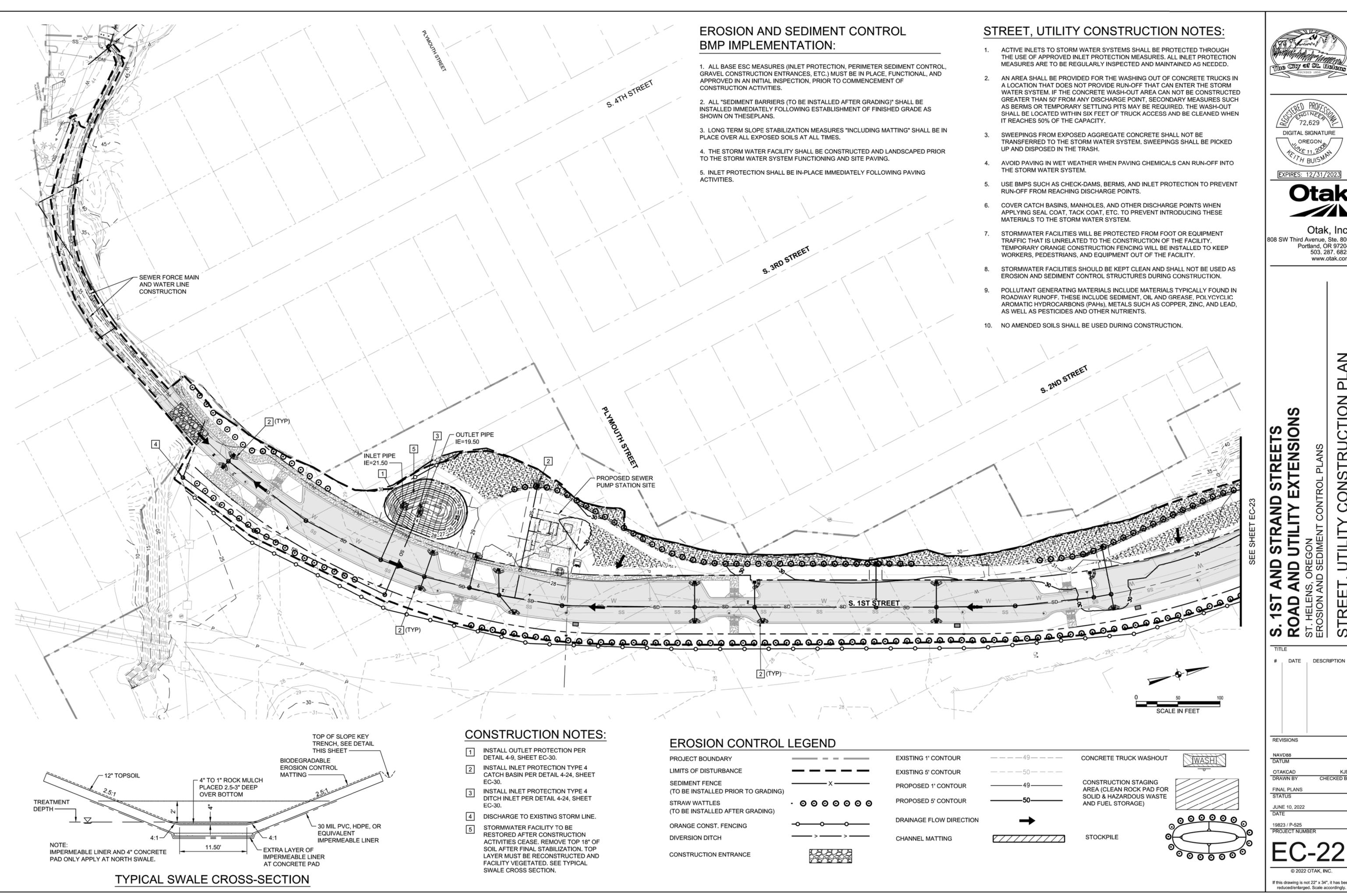
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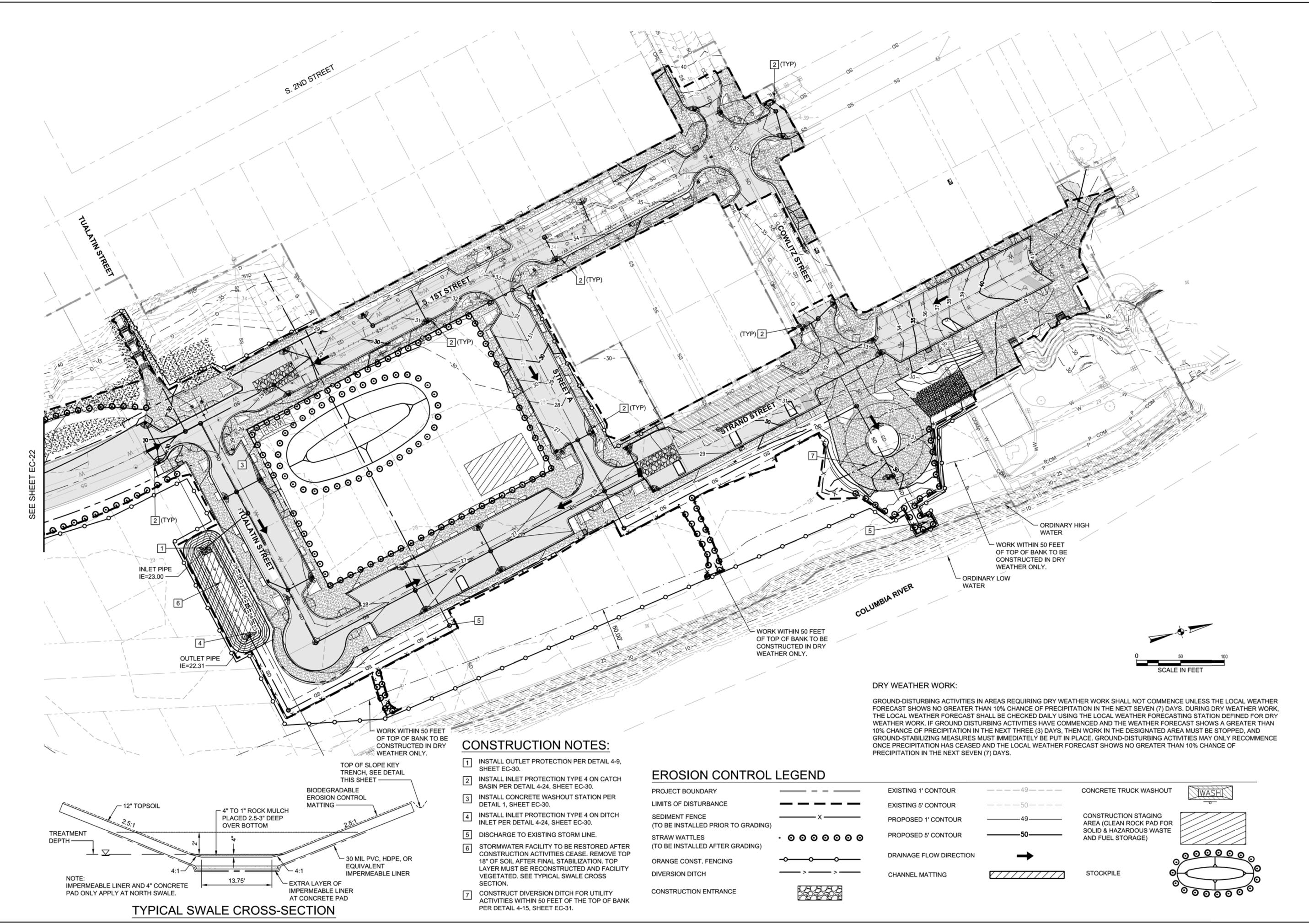
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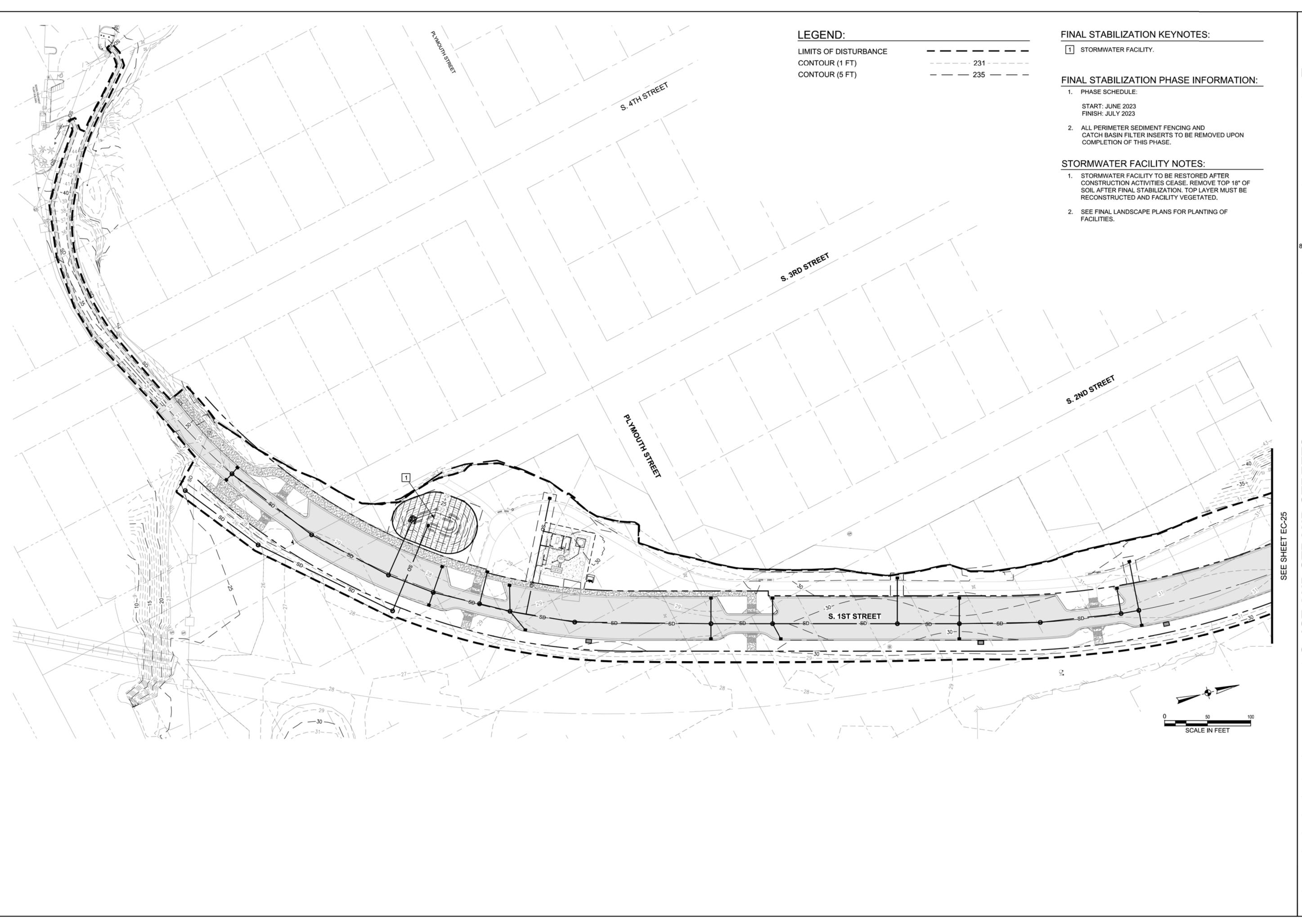
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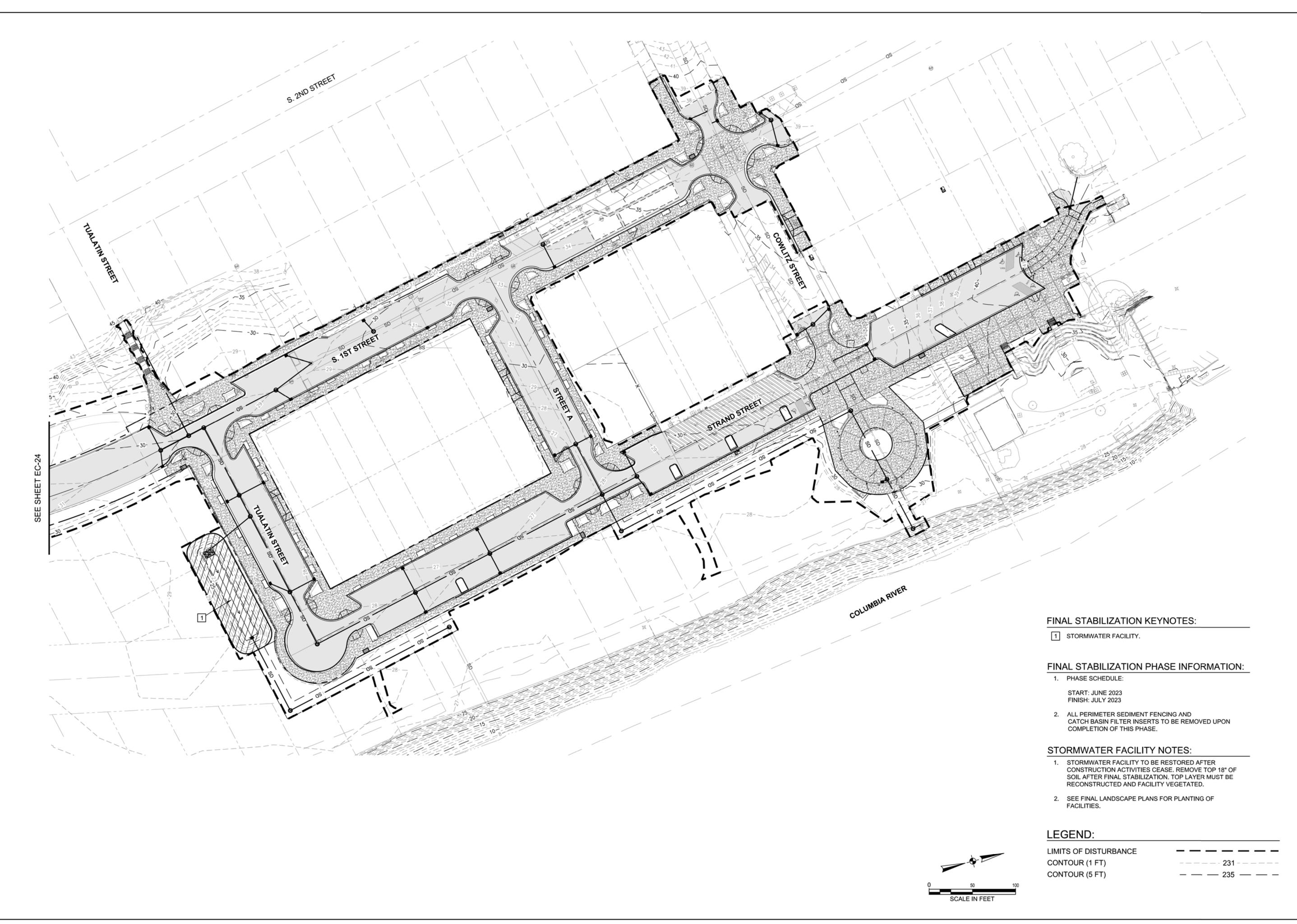
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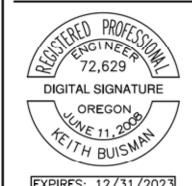
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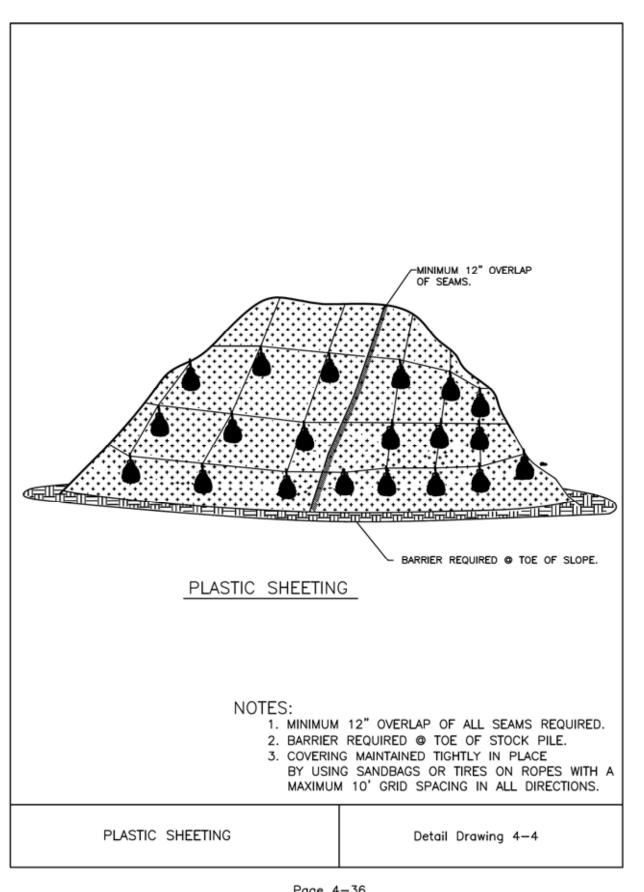
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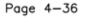
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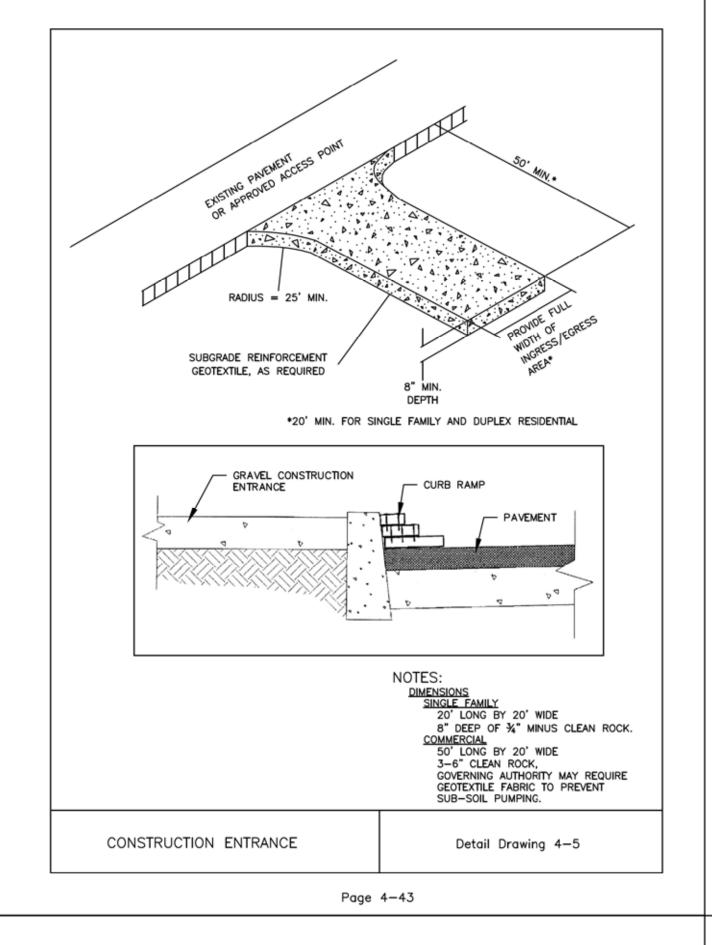
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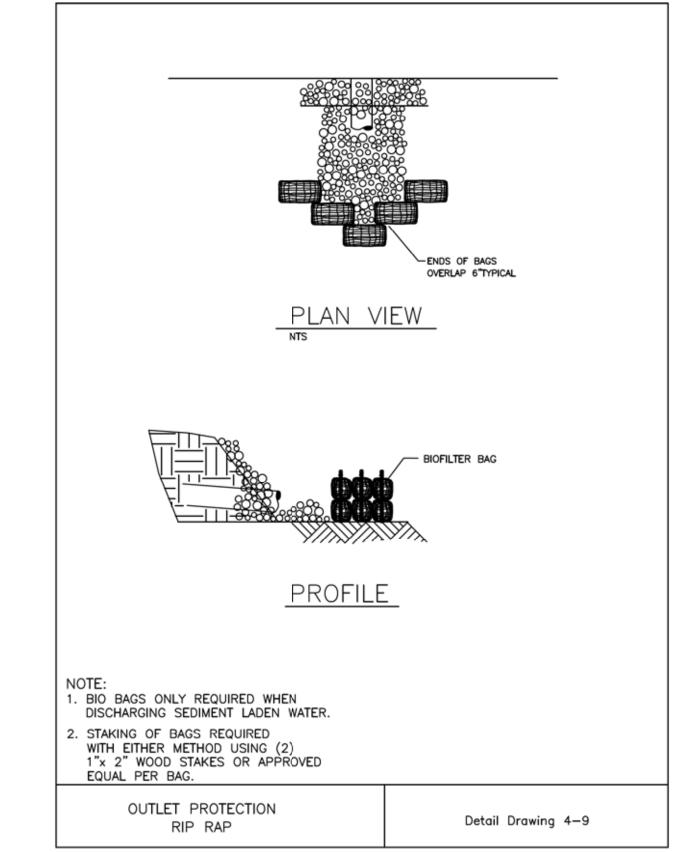
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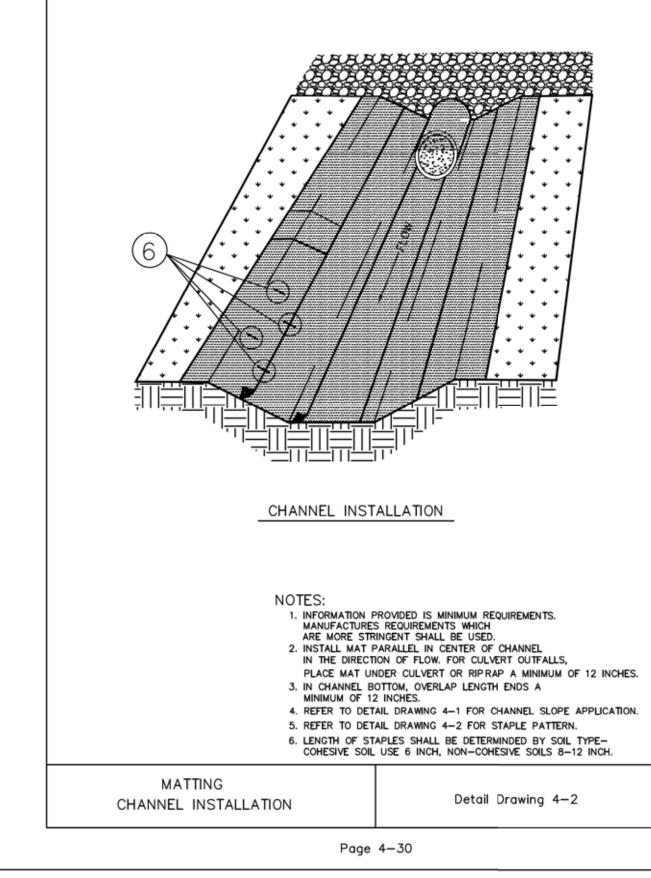


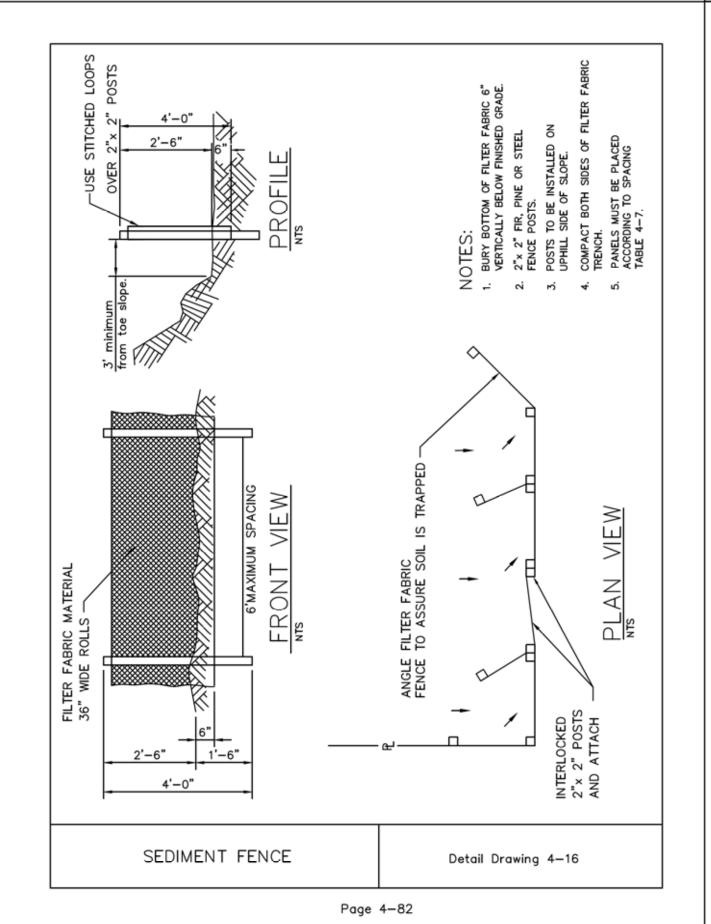


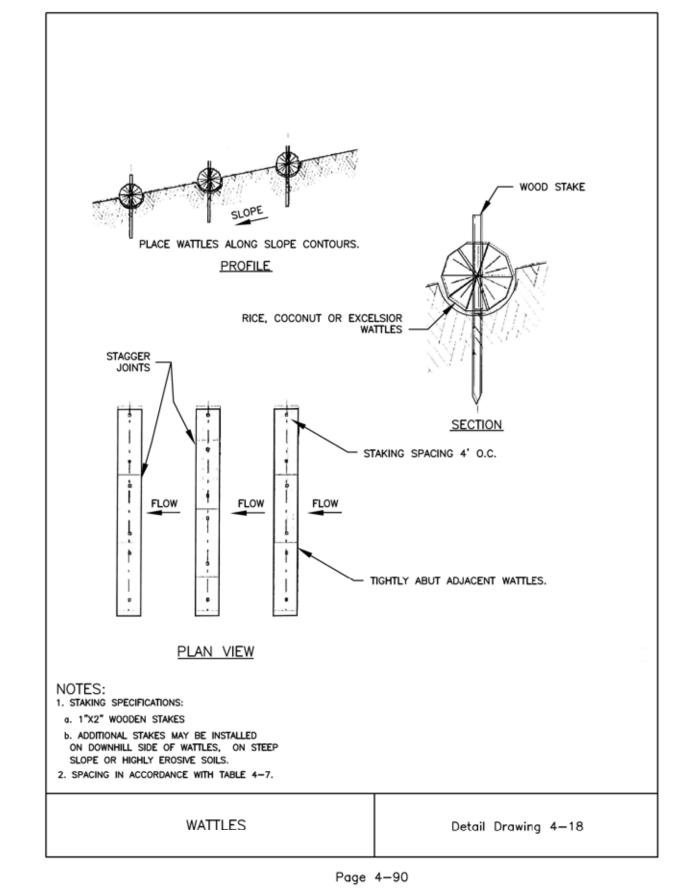


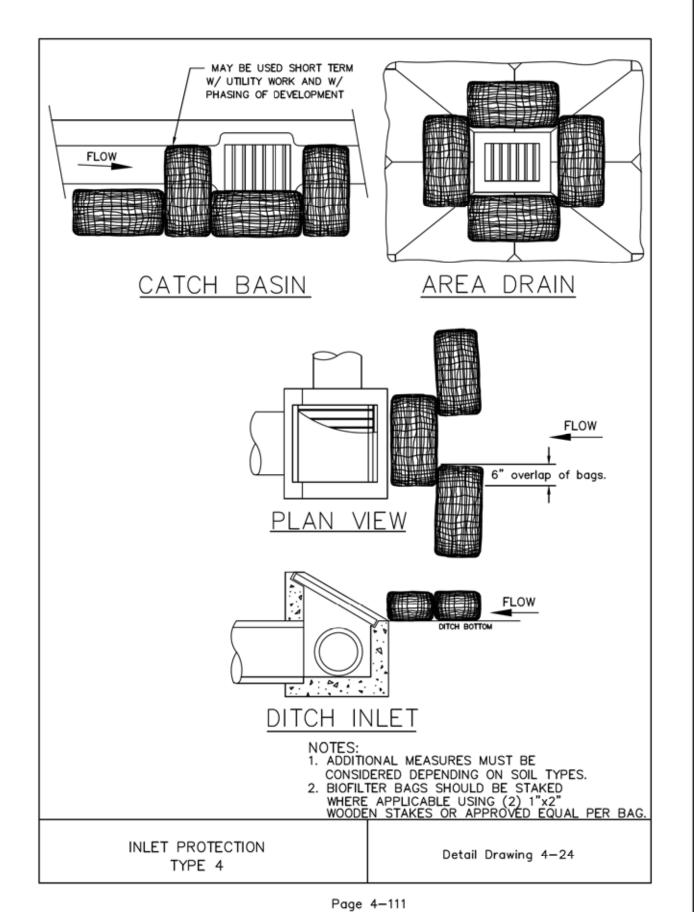


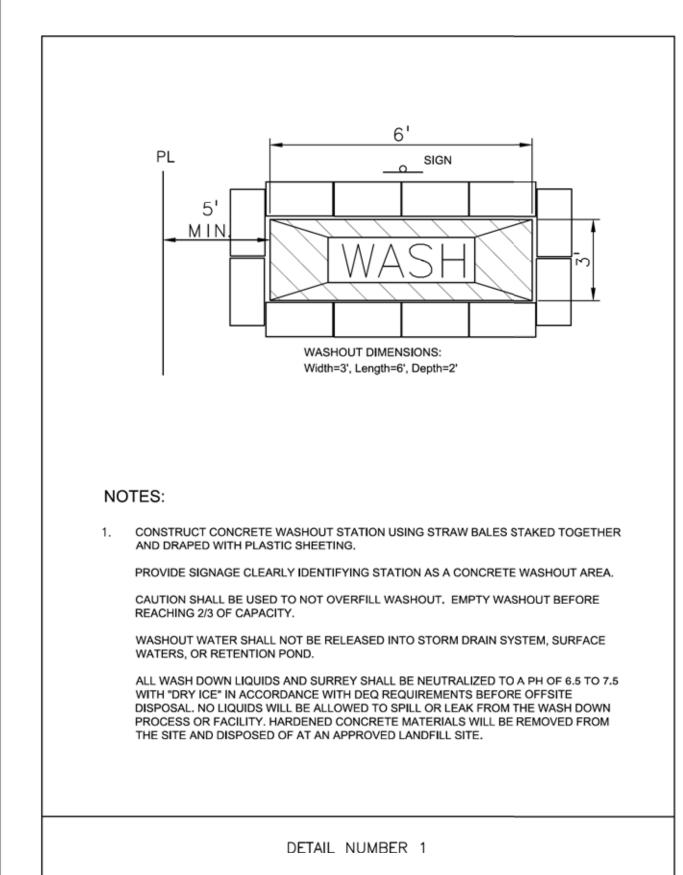
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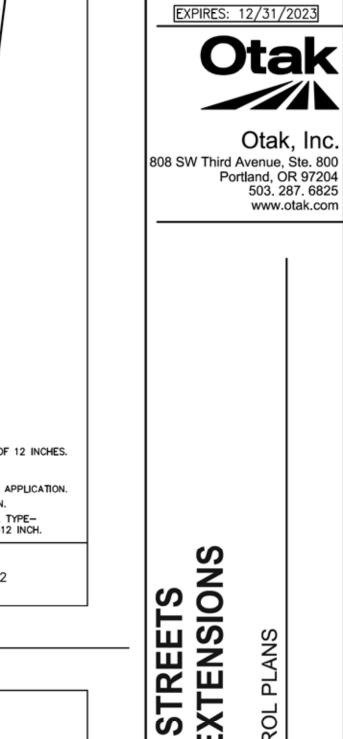












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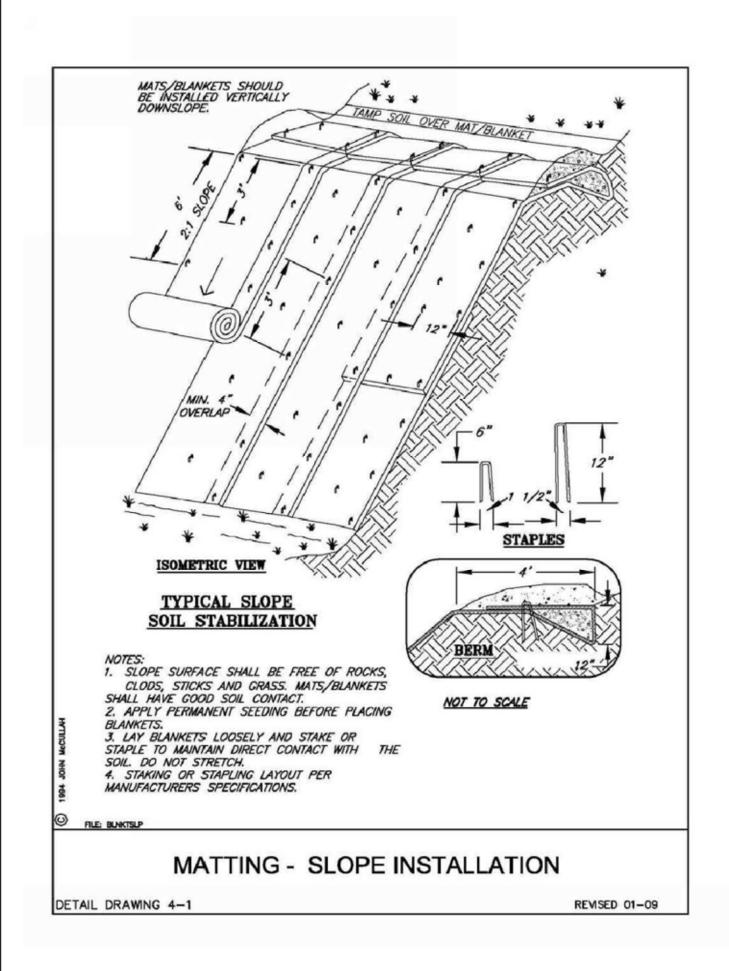
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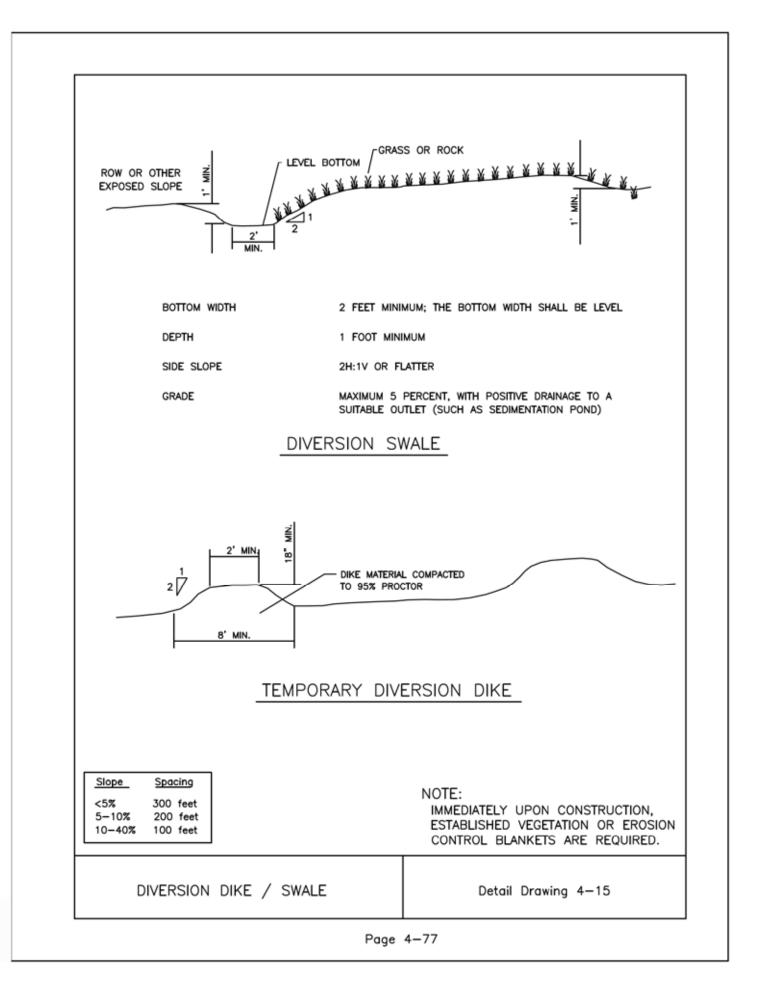
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STREETS S. 1ST AND STRAND S
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GENERAL NOTES

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, THE SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS OF THESE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION (ODOT).
- 2. BEFORE ANY CONSTRUCTION ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE CITY, CONTRACTOR, AND THE ENGINEER.
- 3. 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 PRIOR TO STARTING WORK.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES, INCLUDING THE INVERT AND TOP ELEVATIONS, PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. CONTRACTOR SHALL CONTACT THE NW UTILITY NOTIFICATION CENTER AT LEAST 2. BUT NOT MORE THAN 10 WORKING DAYS BEFORE THE START OF CONSTRUCTION OF THE WORK AND SHALL COMPLY WITH STATE REQUIREMENTS FOR UTILITY LOCATING.
- 5. CONTRACTOR SHALL KEEP AND MAINTAIN A CURRENT SET OF DRAWINGS ON SITE. CONTRACTOR TO KEEP ACCURATE "AS-BUILT" RECORD COPY OF PLANS. "AS-BUILT" PLANS TO BE RETURNED TO ENGINEER AT COMPLETION OF PROJECT.
- 6. CONTRACTOR SHALL MAINTAIN ACCESS TO HOMES AND BUSINESSES AT ALL TIMES. PROVIDE WRITTEN NOTICE TO ALL PROPERTY OWNERS AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE OF WORK ADJACENT TO PROPERTIES.
- 7. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER AT LEAST 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 ENGINEER A MINIMUM OF 48 HOURS PRIOR TO ANY TESTING OR REQUIRED INSPECTION.
- 8. ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENTS NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL FIRST BE APPROVED BY THE ENGINEER. ANY PROPOSED CHANGES IN CONSTRUCTION PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY ENGINEER PRIOR TO COMMENCING WORK. ANY ALTERATIONS OR VARIANCE FROM THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION "AS-BUILT" PLANS AND TRANSMITTED TO THE ENGINEER.
- 9. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNERS, SURVEY MONUMENTS AND CONTROL POINTS, SURVEY MONUMENTS OF THIS TYPE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE, WITH APPROPRIATE SURVEYS FILED WITH THE CITY OR COUNTY SURVEYOR.
- 10. CONTRACTOR TO PROVIDE SHORING, AS NEEDED, IN ACCORDANCE WITH ODOT STANDARD SPECIFICATION 00510.44(B).
- 11. 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.
- 12. CONTRACTOR TO PROVIDE DEWATERING, AS NEEDED, IN ACCORDANCE WITH SECTION 31 23 19, DEWATERING.

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SECTION IS REFERENCED*

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ABBREVIATIONS

ABS	ACRYLONITRILE BUTADIENE STYRENE		
AC.	ACRE	LIN	LINEAR
AC	ASPHALTIC CONCRETE OR ASBESTOS CEMENT	LOC	LOCATION
AL	ALUMINUM	LP	LIGHT POLE
AGGR	AGGREGATE	LVL	LEVEL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LVL	
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	MATL	MATERIAL
APPROX	APPROXIMATE	MAX	MAXIMUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MIN	MINIMUM
ASTIVI	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MIX	MIXTURE
D o C	DELL AND ODICOT	MJ	MECHANICAL JOINT
B&S	BELL AND SPIGOT		
BO	BLOWOFF	MGD	MILLION GALLONS PER DAY
BOTT	BOTTOM	MOD	MODIFIED
BDRY	BOUNDARY	MON	MONOLITHIC
BFV	BUTTERFLY VALVE		
BKFL	BACKFILL	N/C	NORMALLY CLOSED
BLVD	BOULEVARD	N/O	NORMALLY OPEN
BLDG	BUILDING	NO	NUMBER
BM	BENCH MARK	NOM	NOMINAL
BPS	BOOSTER PUMP STATION	NORM	NORMAL
		NTS	NOT TO SCALE
CB	CATCH BASIN		
CFS	CUBIC FEET PER SECOND	OC	ON CENTER
CI	CAST IRON	OD	OUTSIDE DIAMETER
CIP	CAST IRON PIPE	OPS	OPERATIONS
CL	CENTERLINE		
CLR	CLEARANCE	PE	POLYETHYLENE
CLSM	CONCRETE LOW STRENGTH MIX	PERF	PERFORATED
CMP	CORRUGATED METAL PIPE	PERM	PERMANENT
CND	CONDUIT	PH	PHASE
CO	CLEANOUT OR COUNTY	P/L	PROPERTY LINE
COMB	COMBINATION, COMBINATION SEWER	LB	POUND
COMP	COMPACTED	PROF	PROFILE
CONC	CONCRETE	PROP	PROPOSED
CONN	CONNECTION	PS	PUMPING STATION
CONST	CONSTRUCT	PS	PER SQUARE INCH
CORR	CORRUGATED	PVC	POLYVINYL CHLORIDE
CU.	CUBIC	PVMT	PAVEMENT
CULV	CULVERT		
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
		RDWY	ROADWAY
D	DEGREE OF CURVE OR DELTA	RDCR	REDUCER
DC	DIRECT CURRENT	REINF	REINFORCE
DEFL	DEFLECTION	REQ'D	REQUIRED
DET	DETAIL	REV	REVISE
DEMO	DEMOLISH	RPM	REVOLUTIONS PER MINUTE
DI	DUCTILE IRON	RT	RIGHT
DIAM.	DIAMETER	RTP	RIDGEFIELD TREATMENT PLANT
DIP	DUCTILE IRON PIPE	R/W, ROW	RIGHT-OF-WAY
DWG	DRAWING		
DWY	DRIVEWAY	SALV	SALVAGE
		SCTP	SALMON CREEK TREATMENT PLANT
ECC	ECCENTRIC	SEG	SEGMENT
EL	ELEVATION	SF	SQUARE FEET
ELEC	ELECTRIC OR ELECTRICAL	SHT	SHEET
EMB	EMBANKMENT	SL	SLOPE
ESMT	EASEMENT	SQ.	SQUARE
EW	EACH WAY	SST	STAINLESS STEEL
EXC	EXCAVATION	STA	STATION
EXIST	EXISTING	STD	STANDARD
EXP	EXPANSION	SURF	SURFACE
EDE	FUSION BONDED EROXY	ТВ	THRUST BLOCK
FBE FDTN	FUSION BONDED EPOXY	TCP	TRAFFIC CONTROL PLAN
FF	FOUNDATION	TEMP	TEMPORARY
FH	FINISHED FLOOR FIRE HYDRANT	THKN	THICKNESS
FIN		TOPO	TOPOGRAPHY
FL	FINISHED FLOW LINE	TP	TEST PIT
FLG	FLANGE	TYP	TYPICAL
FT	FOOT OR FEET	111	TITIOAL
		UG	UNDERGROUND
GA	GAUGE		
GAL	GALLONS	VAR	VARIES
GALV	GALVANIZED	VERT	VERTICAL
GEN	GENERAL		
GPM	GALLONS PER MINUTE	WM	WATER METER
GV	GATE VALVE	WS	WATER STANDPIPE
		WT	WEIGHT
HDPE	HIGH-DENSITY POLYETHYLENE	WV	WATER VALVE
HMAC	HOT-MIXED ASPHALT CONCRETE	w/	WITH
HORIZ	HORIZONTAL		
HWL	HIGH WATER LINE	YD	YARD
HWY	HIGHWAY		
ID	INSIDE DIAMETER		
IE	INVERT ELEVATION		
IN	INCHES		
	WWW.		
JCT	JUNCTION		







STREETS EXTENSION

OAD AND UTILITY
HELENS, OREGON

STATION

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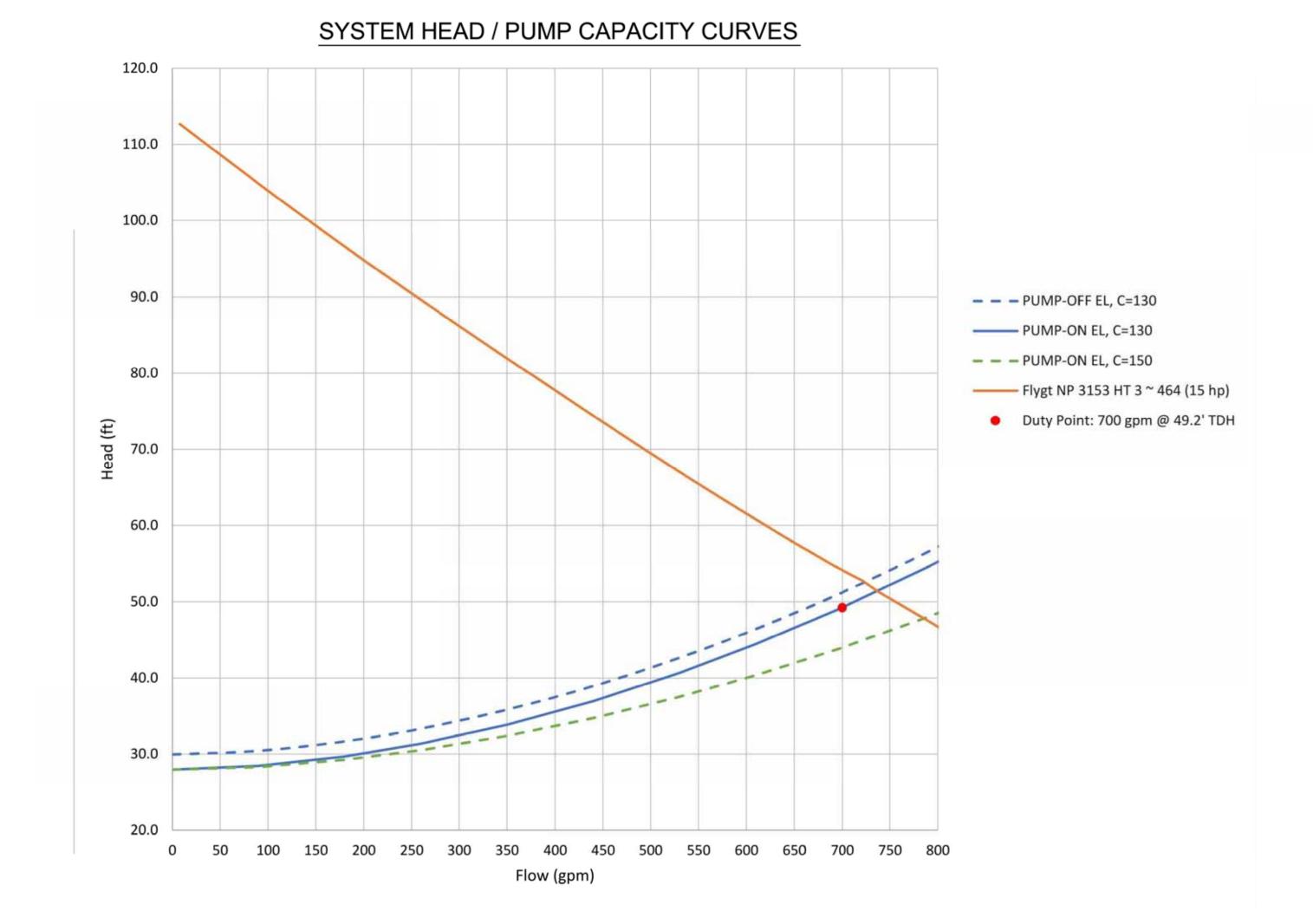
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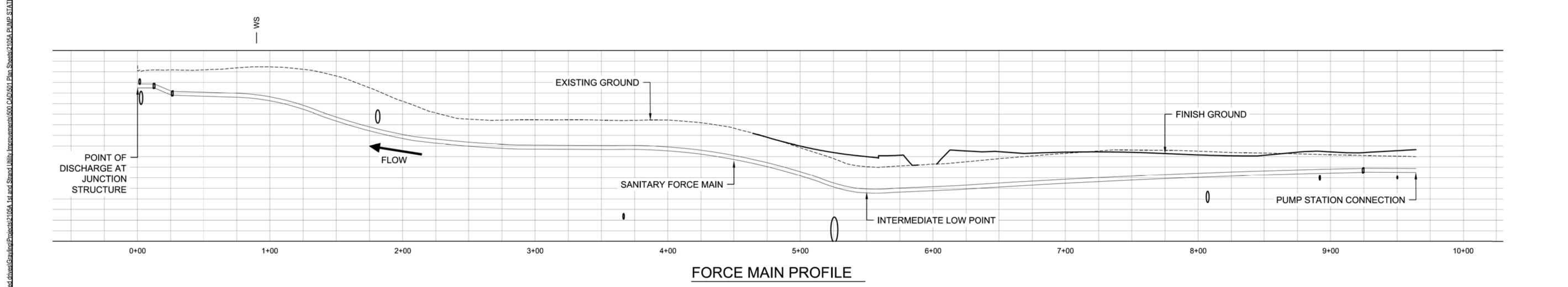
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ENGINEERS

DESIGN DATA SUMMARY TABLE

PUMP STATION					
NAME	PUMP STATION # 1				
TYPE	DUPLEX PUMP STATION WITH SUBMERSIBLE NON-CLOG SEWAGE PUMPS				
PUMP MODEL	FLYGT NP 3153 HT 3 ~ 464				
CAPACITY (PER PUMP)	MINIMUM 700 GPM AT 49.2 FEET TDH				
MOTOR HORSEPOWER	15 HP				
MOTOR DATA	460 V, 60 HZ, 3 PHASE, 1760 RPM				
PUMP STARTS AT INFLOW = 50% OF PUMP CAPACITY	14 PER HOUR				
WET WELL VOLUME	752 GALLONS (PUMPS OFF TO LEAD PUMP ON)				
LEVEL CONTROL TYPE	SIEMENS HYDRORANGER 200 CONTROLLER w/ ECHOMAX XPS-15F ULTRASONIC TRANSDUCER				
ALARM TELEMETRY TYPE	MISSION COMMUNICATIONS CELLULAR SCADA SYSTEM				
STANDBY POWER TYPE	ON-SITE DIESEL GENERATOR				
OVERFLOW POINT	SSMH B4				
OVERFLOW ELEVATION	26.2 FEET				
100-YEAR FLOOD ELEVATION	26 FEET				
EPA RELIABILITY CLASS	1				
COR	ROSION / ODOR CONTROL SYSTEM				
CHEMICAL STORAGE AND TYPE	FUTURE (IF NEEDED)				
METERING SYSTEM	FUTURE (IF NEEDED)				
	FORCE MAIN				
TYPE AND LENGTH	DR 17 HDPE 8", 905 FEET				
FORCE MAIN VELOCITY	5.0 FEET PER SECOND AT 700 GPM (8" FORCE MAIN)				
PROFILE DESCRIPTION	SINGLE INTERMEDIATE LOW POINT				
AIR RELEASE VALVES	SINGLE AIR RELEASE AT VALVE VAULT				
AVERAGE FORCE MAIN DETENTION TIME (ADWF)	9 MINUTES (700 GPM AT 7.55" INNER DIAMETER)				
FLOW METER	TOSHIBA ELECTROMAGNETIC				
JUNCTION STRUCTURE LOCATION	PLYMOUTH STREET AT THE WASTEWATER TREATMENT PLANT				









S. 1ST AND STRAND STREETS
ROAD AND UTILITY EXTENSIONS
ST. HELENS, OREGON

ESIGN DATA

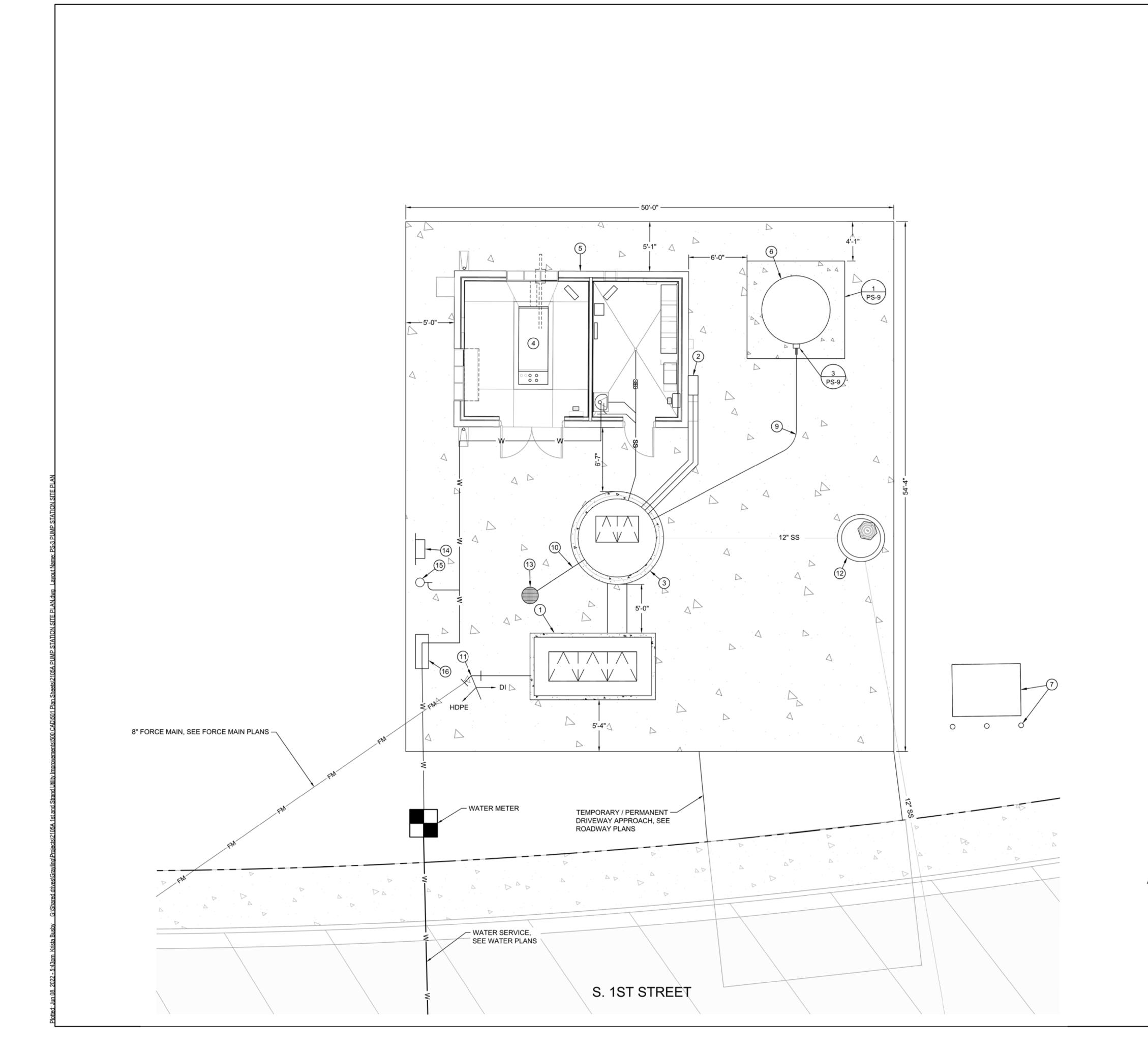
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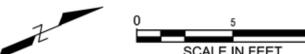


PUMP STATION KEY NOTES

- 7' x 13' VALVE VAULT, TOP SLAB, AND HATCH, SEE SHEET PS-5
- 2 PUMP DISCONNECT PANEL AND CONDUIT, SEE ELECTRICAL
- 3 8' DIAM. PRE-CAST WET WELL, TOP SLAB, AND HATCH, SEE SHEET PS-5
- 4 50 KW GENERATOR, SEE ELECTRICAL
- 5 ELECTRICAL CONTROL BUILDING, SEE ARCHITECTURAL
- 6 1,000 GAL CHEMICAL FEED TANK (FUTURE)
- 7 ELECTRICAL SERVICE, TRANSFORMER, AND BOLLARDS, SEE ELECTRICAL
- 8) NOT USED
- 9 2" SCH 40 PVC CHEMICAL FEED CASING WITH LONG SWEEP ELBOWS, ROUTE BETWEEN CHEMICAL FEED SYSTEM AND WET WELL AT 2-FOOT MIN DEPTH WITH 2% MIN SLOPE TOWARDS WET WELL
- 10 10" DI STORM PIPE WITH 2% MIN SLOPE TOWARDS WET WELL
- 8" DI 45° BEND w/ RESTR JOINTS, CONNECT TO HDPE FORCE MAIN
- 12 4' ID MH, SEE SHEET SA 8
- (13) AREA DRAIN, SEE DETAIL 3, SHEET PS-9
- 14 HOSE RACK, SEE DETAIL 3, SHEET PS-8
- (15) YARD HYDRANT, SEE DETAIL 2, SHEET PS-8
- (16) RPBA AND ENCLOSURE, SEE DETAIL 1, SHEET PS-8

NOTES

- 1. SEE PLANTING PLANS FOR LANDSCAPING REQUIREMENTS.
- SEE CITY STANDARD DETAIL 300 FOR TYPICAL TRENCH SECTION.













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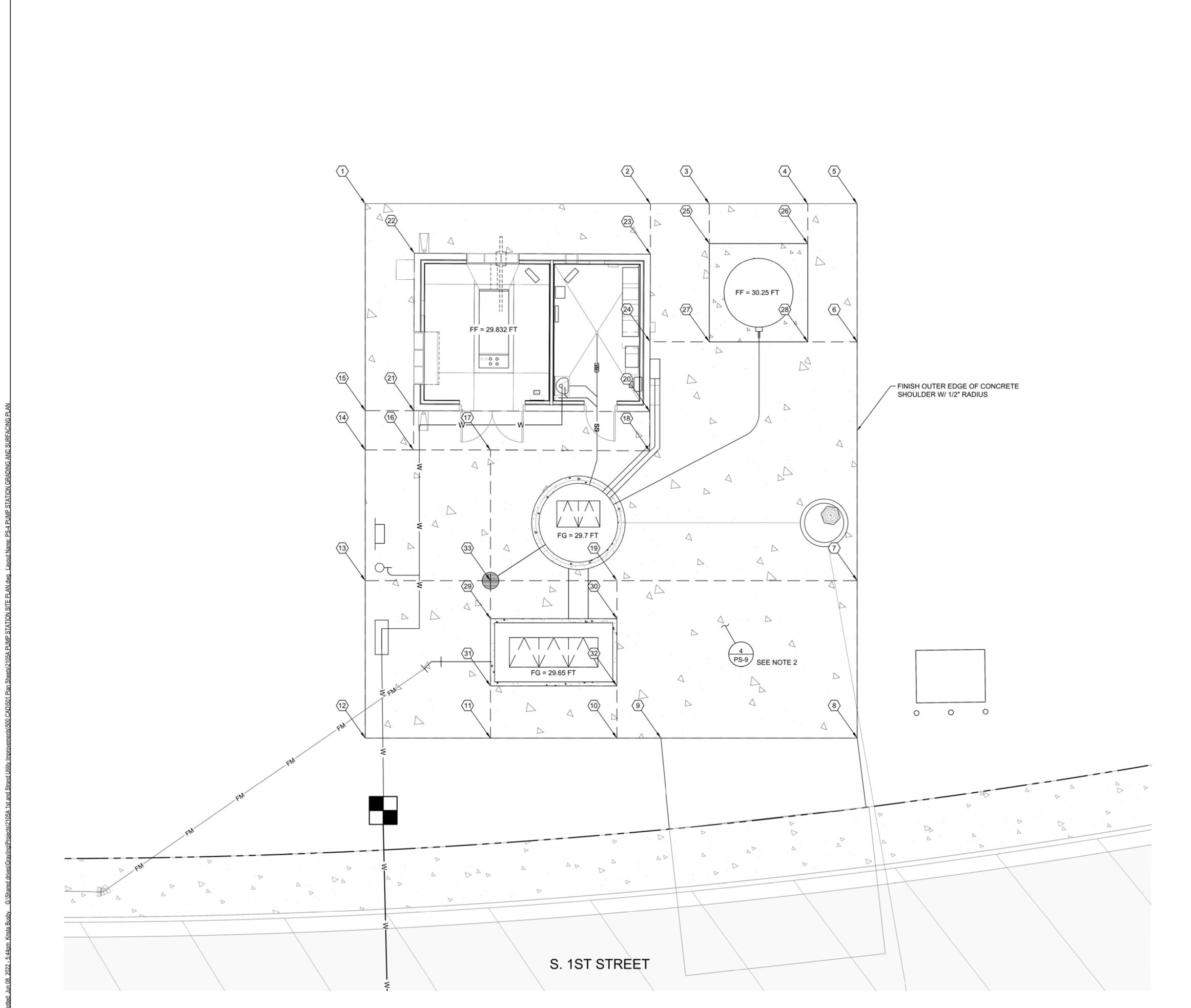
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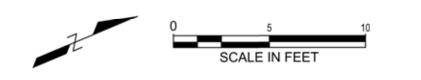


SURVEY STAKING POINTS

PT NO.	DESCRIPTION	EL.	NORTHING	EASTING
1	EOP	29.8250	587702.7312	603764.9135
2	EOP	29.9700	587729.4620	603776.1080
3	EOP	29.9100	587734.9960	603778.4256
4	EOP	30.0090	587744.2198	603782.2884
(5)	EOP	30.0600	587748.8503	603784.2275
6	EOP	29.9900	587743.4259	603797.1802
7	EOP	29.6260	587734.0552	603819.5560
8	EOP	29.7860	587727.8748	603834.3141
9	EOP	29.6860	587709.4668	603826.6052
(10)	EOP	29.6640	587705.3468	603824.8798
(11)	EOP	29.6000	587693.5096	603819.9225
(12)	EOP	29.6600	587681.7560	603815.0003
(13)	EOP	29.5800	587687.9361	603800.2421
(14)	EOP	29.8040	587693.0668	603787.9910
(15)	EOP	29.8440	587694.6119	603784.3014
(16)	FG	29.8120	587697.5886	603789.8846
(17)	FG	29.7150	587704.8206	603792.9133
(18)	FG	29.8100	587719.7014	603799.2134
(19)	FG	29.5210	587711.5273	603810.1217
20>	BLDG FOUNDATION	29.8320	587721.2490	603795.5580
21>	BLDG FOUNDATION	29.8320	587699.1481	603786.2011
(22)	BLDG FOUNDATION	29.8890	587705.3861	603771.4672
23>	BLDG FOUNDATION	29.9440	587727.4869	603780.8242
24	BLDG FOUNDATION	29.9000	587724.0149	603789.0252
25>	CHEM FOUNDATION	29.8900	587733.4344	603782.1544
26>	CHEM FOUNDATION	29.9900	587742.6580	603786.0177
27	CHEM FOUNDATION	29.8400	587729.5719	603791.3775
28	CHEM FOUNDATION	29.9400	587738.7954	603795.2410
29	VAULT	29.4800	587698.1949	603808.7346
(30)	VAULT	29.5400	587710.0321	603813.6919
(31)	VAULT	29.5060	587695.5553	603815.0376
(32)	VAULT	29.5700	587707.3926	603819.9948
(33)	STRM DRAIN	29.4500	587699.6900	603805.1644

NOTES

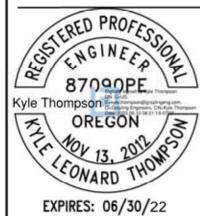
- ALL SURVEY STAKING POINTS ARE AT CONCRETE SURFACING.
- PLACE CONCRETE PAVEMENT MEETING SECTION 00756 OF THE STANDARD SPECIFICATIONS USING CLASS 4000 CONCRETE WITH COARSE AGGREGATE MEETING AASHTO GRADING NO. 7. PROVIDE BROOM FINISH.
- CUT CONTRACTION JOINTS AT APPROXIMATE 10-FOOT SPACING USING POWER SAWS PER 00756.48. SEAL CONTRACTION JOINTS USING SIKAFLEX-2C SL, OR APPROVED EQUAL. CONTRACTOR TO LAYOUT JOINT SPACING FOR ENGINEER REVIEW PRIOR TO CUTTING JOINTS. PROVIDE ADDITIONAL JOINTS IN LOCATIONS THAT MAY BE PRONE TO CRACKING.
- PLACE ISOLATION JOINTS WITH PREMOLDED JOINT FILLERS AROUND ALL PRECAST CONCRETE STRUCTURES AND FOUNDATIONS. PREMOLDED JOINT FILLER SHALL BE W.R. MEADOWS CERAMAR, OR APPROVED EQUAL.
- PLACE CONSTRUCTION JOINTS AS NECESSARY. 30" LONG #5
 REBAR SHALL BE PLACED AT 36" O.C. IN CONSTRUCTION JOINTS.
 SEAL CONSTRUCTION JOINTS USING SIKAFLEX-2C SL, OR
 APPROVED EQUAL. CONTRACTOR TO LAYOUT FOR ENGINEER
 REVIEW PRIOR TO POURING.





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1ST AND STRAND STREETS

DAD AND UTILITY EXTENSIONS
HELENS, OREGON

AND

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DATE

DATE

19823 / P-525

PROJECT NUMBER

KEY NOTES

- 96-INCH ID PCC WET WELL w/ INTERIOR EPOXY COATING
- 6" CL 53 DI PE PIPE SEGMENT w/ EPOXY COATING (TYP 6)
- 3 6" DI MJ LONG SLEEVE w/ JOINT RESTRAINTS (TYP 2)
- CORE IN FIELD AND INSTALL KOR-N-SEAL BOOT W/ SST HARDWARE, OR APPROVED EQUAL (TYP 10)
- 5 6" RESTRAINED FLANGE ADAPTER (TYP 2)
- 6 6" DI FL SWING CHECK VALVE (TYP 2)
- 7 6" DI FL GATE VALVE W/ HAND WHEEL (TYP 2)
- 8 8" x 6" DI FL LONG SWEEP BEND
- 9 8" x 6" DI FL TEE
- 8" DI FL WYE w/ BLIND FLANGE, 2" CAMLOCK ASSY NOT SHOWN FOR CLARITY, SEE SECTION B, SHEET PS-7
- 2" NPT DI PIPE SADDLE W/ SST STRAP, ROUTE 2" DIA SCH 80 PVC PIPING TO COMBINATION AIR RELEASE VALVE (CARV)
- 8" CL 53 DI FL SPOOL, LENGTH = 12 INCHES ± (TYP 2)
- 8" DI FL GATE VALVE W/ HAND WHEEL
- 8" RESTRAINED FLANGE ADAPTER
- 15 2" CARV, ARI SERIES D-025 L, PROVIDE 2" SST BV ON INLET OF VALVE
- H-20 RATED TRIPLE LEAF ACCESS HATCH w/ SAFETY GRATE AND CHANNEL FRAME, CLR OPENING AS SHOWN
- AL LADDER W/ 36" LADDERUP SAFETY POST EXTENSION, OSHA APPROVED
- 18 3" CL52 DI DRAIN W/ FITTINGS AS NECESSARY
- H-20 RATED DOUBLE LEAF ACCESS HATCH w/ SAFETY GRATE AND CHANNEL FRAME, CLR OPENING AS SHOWN
- 20 PUMP DISCONNECT CONDUIT, SEE ELECTRICAL
- 2" SCH 80 PVC VENT PIPING FROM CARV TO WET WELL, 2% SLOPE TOWARDS WET WELL
- SEAL PENETRATION W/ MECHANICAL SEAL, SEE DETAIL 4, SHEET PS 8
- 2" SCH 40 PVC CHEMICAL FEED CASING, ROUTE BETWEEN CHEMICAL TANK FOUNDATION AND WET WELL AT 2' DEPTH
- 8" DI PIPE SEGMENT, CONNECT TO FORCE MAIN
- 25 PRECAST SOLID WALL VAULT, OLD CASTLE MODEL 712 LA
- 26 8" FL MAGNETIC FLOW METER, SEE SPECS
- PRESSURE GAUGE ASSY, SEE DETAIL 7, SHEET PS 8. GAUGE RANGE
- 8" DI FLOOR DRAIN W/ P-TRAP AND SST COVER

NOTES

- CONTRACTOR RESPONSIBLE FOR ALL REQUIRED SHORING AND DEWATERING DESIGN. SUBMIT CALCULATIONS FOR THE SHORING AND DEWATERING DESIGN, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF OREGON.
- BACKFILL STRUCTURES WITH 1.5" 0" DENSE GRADED AGGREGATE COMPACTED TO 95% MAX DENSITY.
- ALL HARDWARE INSIDE THE WET WELL SHALL BE EITHER TYPE 316 SST OR COATED IN A BAKED-ON, CERAMIC-FILLED FLUOROCARBON RESIN.
- ALL CONCRETE STRUCTURE PIPE PENETRATIONS SHALL BE FIELD CORED, SEE SPECIFICATIONS.
- 5. PIPE AND FITTINGS TO BE COATED PER THE SPECIFICATIONS.
- SECURE CARV VENT PIPING TO VAULT WALL PER DETAIL 6, SHEET PS - 8. SECURE CARV TO VAULT WALL WITH SST KINDORF BRACKETS AND HARDWARE.







NICAL PLAN

STATION MECHANIC

S. 1ST AND STRAN ROAD AND UTILITY ST. HELENS, OREGON

STREETS EXTENSION

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

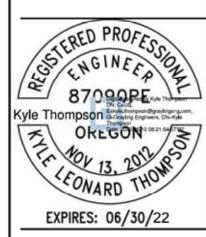
KEY NOTES

- 1 FLYGT SUBMERSIBLE WASTEWATER PUMPS SUPPLY ONE PUMP W/ MIX-FLUSH VALVE, INCLUDE SPARE PUMP
- 2 BASE ELBOW, 4" FL OUTLET (TYP 2), ANCHOR TO FLOOR PER MANUFACTURER RECOMMENDATIONS
- 3 6" X 4" DI FL REDUCER (TYP 2)
- 4 6" CL 53 DI PE x FL PIPE SEGMENT (TYP 2)
- 5 PIPE SUPPORT, SEE DETAIL 5, SHEET PS 8
- 6 6" DI MJ 90° BEND w/ JOINT RESTRAINTS (TYP 2)
- 7 6" DI MJ LONG SLEEVE w/ JOINT RESTRAINTS (TYP 2)
- 8 ADJUSTABLE PIPE STAND, SEE SPECIFICATIONS
- 9 SST GUIDE RAIL PROVIDED BY PUMP MANUFACTURER (TYP 4)
- 4" DUCKBILL STYLE CHECK VALVE CONNECTED TO 4" PVC BLDG DRAIN PIPING
- 11) DROP BOWL, RELINER B10R96 OR APPROVED EQUAL
- 8" NPC EXTERNAL SEAL OR APPROVED EQUAL. INSTALL ON WET WELL
- INSTALL CONCRETE FILLET AS RECOMMENDED BY PUMP MANUFACTURER
- EPOXY COATING SYSTEM, APPLY ON ALL INTERIOR CONCRETE SURFACES, SEE SPECIFICATIONS
- (15) ULTRASONIC LEVEL TRANSDUCER, SEE ELECTRICAL
- 16 FLOAT FOR HIGH WET WELL ALARM
- 17) FLOAT FOR OVERFLOW ALARM
- (18) ELECTRICAL CONDUIT FROM DISCONNECT PANEL, SEE ELECTRICAL
- 19 PRECAST CONCRETE WETWELL LID
- SEAL PENETRATION WITH MECHANICAL SEAL, SEE DETAIL 4, SHEET PS 8
- 3" DUCKBILL STYLE CHECK VALVE CONNECTED TO 3" DI VAULT DRAIN PIPING

NOTES

- WET WELL BASE SECTION SHALL BE CAST WITH A WALL SECTION TO ALLOW FOR WATER TIGHT SEAL TO BE PLACED ON EXTERIOR SIDE OF JOINT.
- 2. CONTRACTOR RESPONSIBLE FOR ALL REQUIRED SHORING AND DEWATERING DESIGN. SUBMIT CALCULATIONS FOR THE SHORING AND DEWATERING DESIGN, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF OREGON.
- 3. BACKFILL STRUCTURES WITH 1.5"-0" DENSE GRADED AGGREGATE COMPACTED TO 95% MAX DENSITY PER AASHTO T 180 TESTING METHODS.
- 4. ALL HARDWARE INSIDE THE WET WELL AND VAULT SHALL BE EITHER TYPE 316 SST OR COATED IN A BAKED-ON, CERAMIC-FILLED FLUOROCARBON RESIN.
- 5. ALL CONCRETE STRUCTURE PIPE PENETRATIONS SHALL BE FIELD CORED.
- 6. PIPE AND FITTINGS IN VAULTS AND WET WELL TO BE COATED PER THE SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE SIZE AND CONSTRUCTION METHOD OF THE EXTENDED BASE, WHICH WILL BE NECESSARY TO COUNTERACT BUOYANCY FORCES. SEE SPECIFICATIONS, SECTION 33 05 17.
- 8. AREA DRAIN CONNECTION NOT SHOWN FOR CLARITY.
- CHEMICAL FEED CONNECTION NOT SHOWN FOR CLARITY.







STREETS EXTENSION OAD AND UTILITY
HELENS, OREGON

STATION

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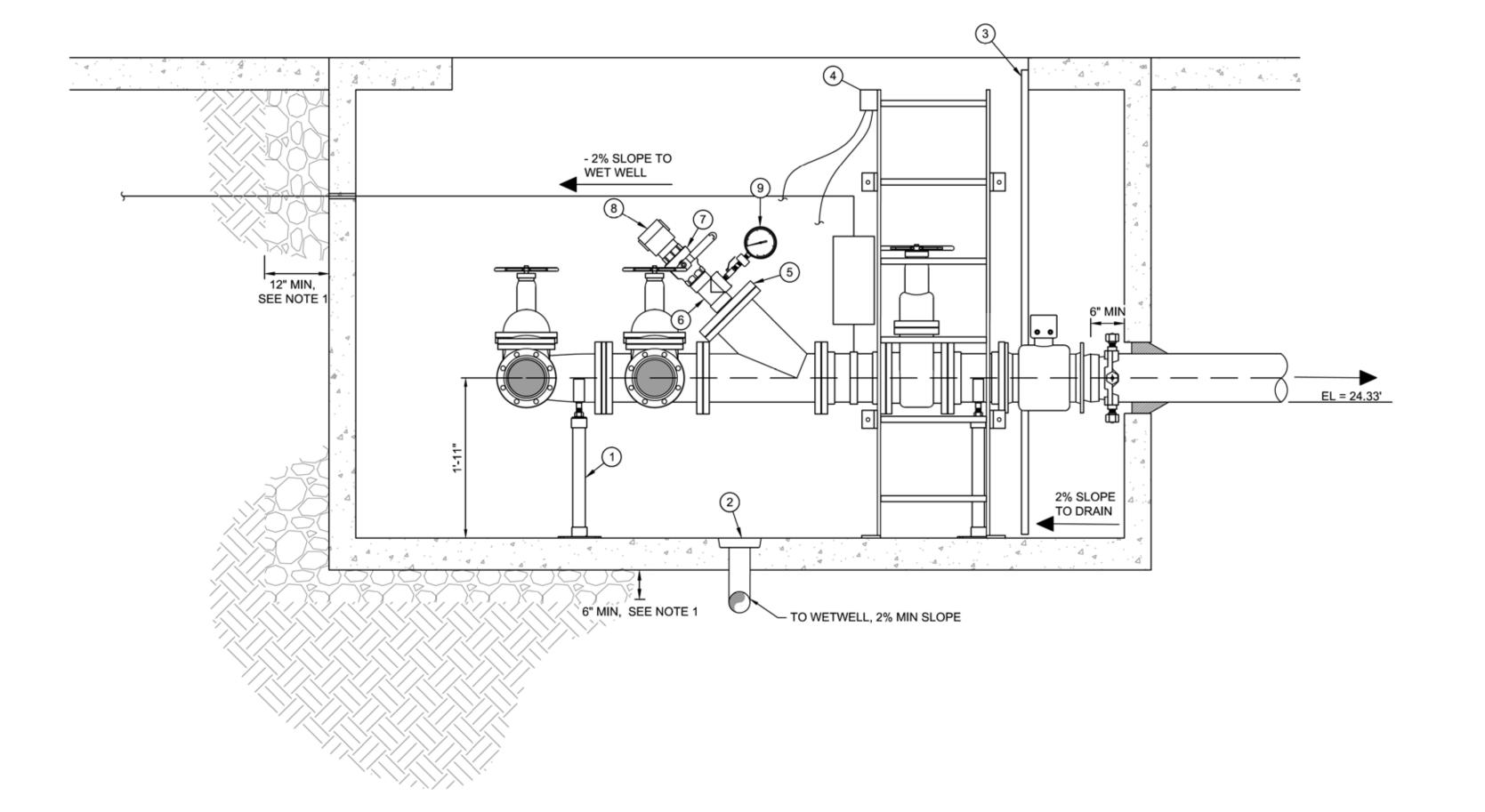
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SECTION B - VALVE VAULT

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

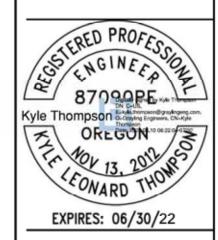
KEY NOTES

- 1 PIPE SUPPORT, STANDON MODEL S92, OR APPROVED EQUAL
- 2 8" FLOOR DRAIN W/ P-TRAP AND SST COVER
- 3 1-1/4" SCH 40 PVC FROM HATCH TO DRAIN ALONG VAULT WALL TO FLOOR, DIRECT OUTLET TO VAULT DRAIN, ANCHOR PIPE TO WALL PER DETAIL 6, SHEET PS 8.
- 4 TONING WIRE AND LOCATOR FINK
- 5 8" BLIND FL WITH 2" FIPT TAP
- 6 2" SST MIPT TEE 2" SST MIPT NIPPLE (TYP 2) 1/4" SST MIPT x FIPT BUSHING
- 7 2" SST FIPT BALL VALVE
- 8 2" MIPT x MALE CAMLOCK w/ FEMALE CAMLOCK DUST CAP
- 9 ¼" SST MIPT NIPPLE (TYP 2) 1/4" SST FIPT BALL VALVE $\mbox{$\chi$}$ " 3.5" DISPLAY 60 PSI LIQUID FILLED PRESSURE GAUGE w/ DIAPHRAGM SEAL, GAUGE TO BE ROTATED TO FACE HATCH OPENING

NOTES

- BACKFILL STRUCTURES WITH 1.5" 0" DENSE GRADED AGGREGATE COMPACTED TO 95% MAX DENSITY PER AASHTO T 180 TESTING METHODS.
- 2. ALL CONCRETE STRUCTURE PIPE PENETRATIONS SHALL BE FIELD CORED.
- PIPE AND FITTINGS TO BE COATED PER SPECIFICATIONS.







STREETS S. 1ST AND STRAN ROAD AND UTILITY ST. HELENS, OREGON

DATE DESCRIPTION

REVISIONS

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FINAL PLANS STATUS

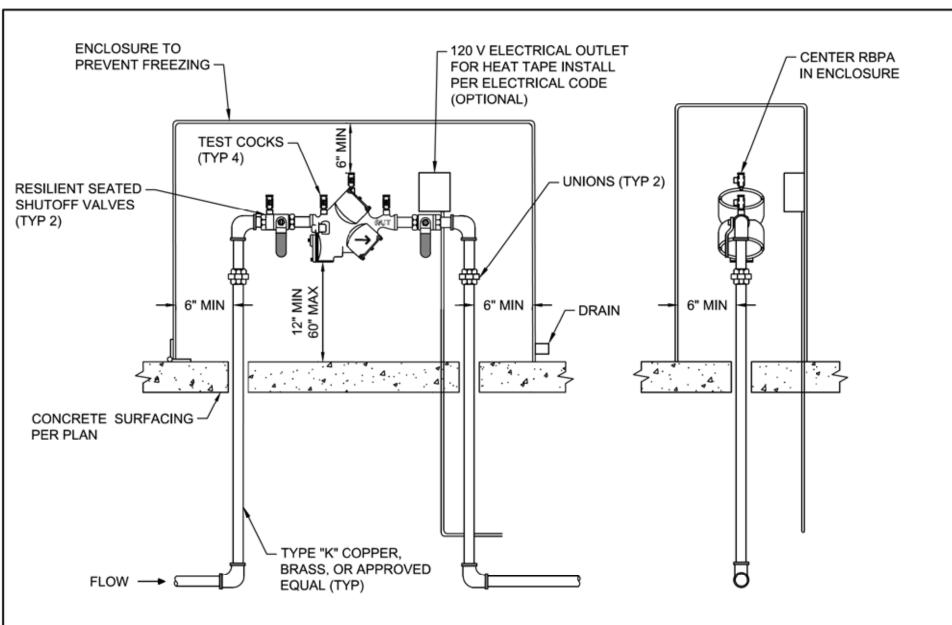
PROJECT NUMBER

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- 1. APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RBPA) TO LAY HORIZONTAL WITH GROUND. (VERTICAL ALLOWED IF APPROVED BY OR. HEALTH AUTHORITY).
- 2. DESIGN RBPA FOR BACK SIPHONAGE AND BACK PRESSURE.
- 3. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACKFLOW PREVENTER.
- 4. DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING.
- RBPA MUST BE ACCESSIBLE.
- PROTECT RPBA FROM FREEZING.
- 7. A PLUMBING PERMIT IS REQUIRED CONTACT THE APPROPRIATE JURISDICTION'S PERMITS COUNTER.
- 8. RPBA MUST BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A OR. STATE CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE CITY WATER QUALITY SERVICES.
- RPBA SHALL BE APPROVED BY THE STATE OF OREGON.
- 10. DRAIN SHALL BE SIZED PER THE AWWA CROSS CONNECTION CONTROL MANUAL.
- RPBA MUST BE RETESTED IF MOVED OR REPAIRED.
- 12. AS OF JANUARY 4, 2014 ALL NEWLY INSTALLED FITTINGS IN CONTACT WITH WATER SHALL BE IN COMPLIANCE WITH THE REVISED SECTION 1417 OF THE EPA SAFE WATER DRINKING ACT AND CERTIFIED LEAD FREE USING NSF 372 STANDARDS.
- CONTRACTOR TO SIZE ENCLOSURE.
- 14. ENCLOSURE TO BE FASTENED TO CONCRETE PAD w/ STAINLESS STEEL HARDWARE.

DISCHARGE LINES -

PLAN

SECTION A-A

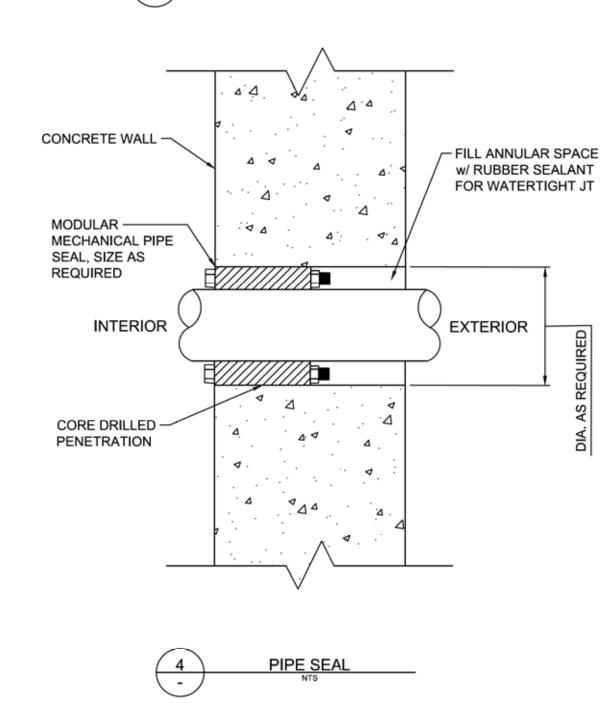
WET WELL SUPPORT SHOWN. VALVE VAULT SUPPORT

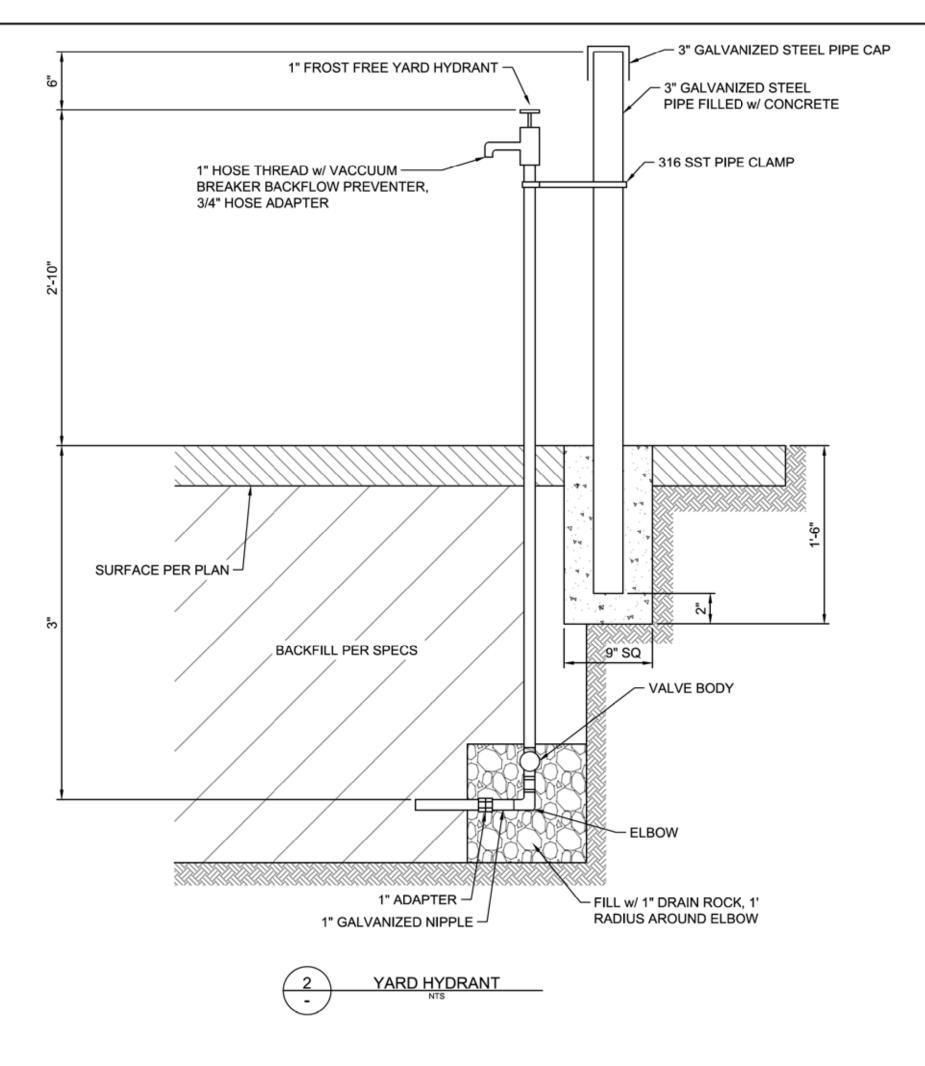
DISCHARGE PIPE SUPPORT

CONFIGURATIONS FOR ONE DISCHARGE LINE.

WET WELL







WELD 4"x4"x3/8" SST END PLATE ON

(4) 4"X3/4" SST EPOXIED ANCHOR

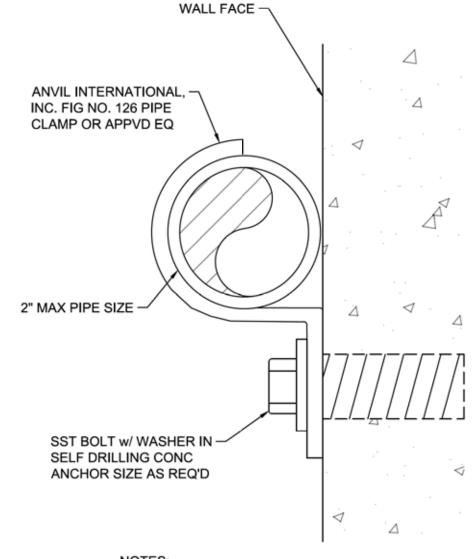
BOLTS (TYP OF EACH SIDE)

- DISCHARGE PIPE

- 3/4" SST ROD & NUT

- SST ANGLE MIN 3/8" THICK

ANGLE. SECURE END PLATE TO MH w/

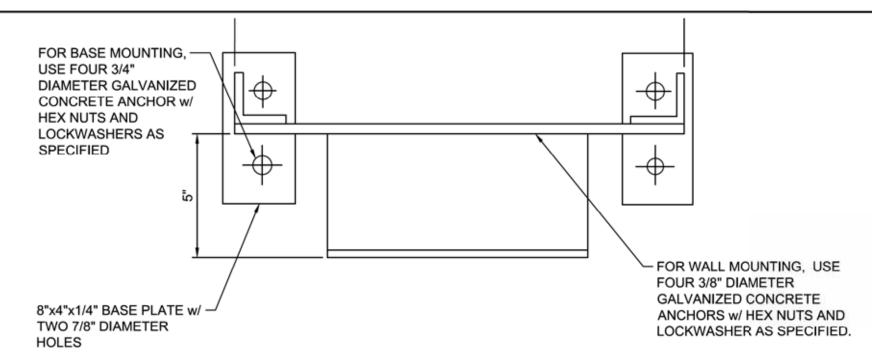


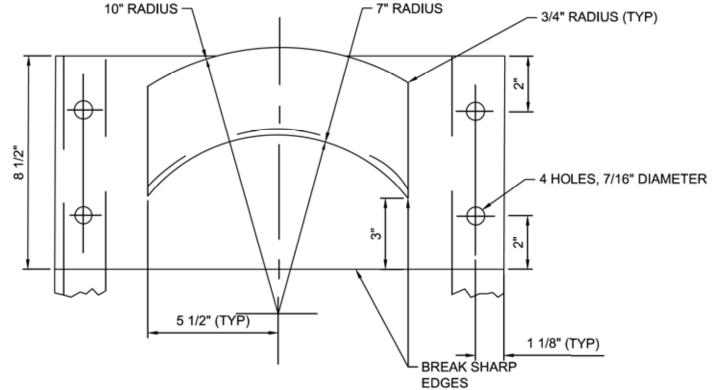
WHEN USED WITH PVC OR FIBERGLASS PIPE, PROVIDE STEEL SHIELD AROUND PIPE AT CLAMP w/ LOOSE FIT. WRAP COPPER TUBES w/ 2" WIDE STRIP

2. PROVIDE CLAMP AT ALL CHANGES IN DIRECTION AND AT TWO (2) FOOT INTERVALS ON STRAIGHT RUNS.



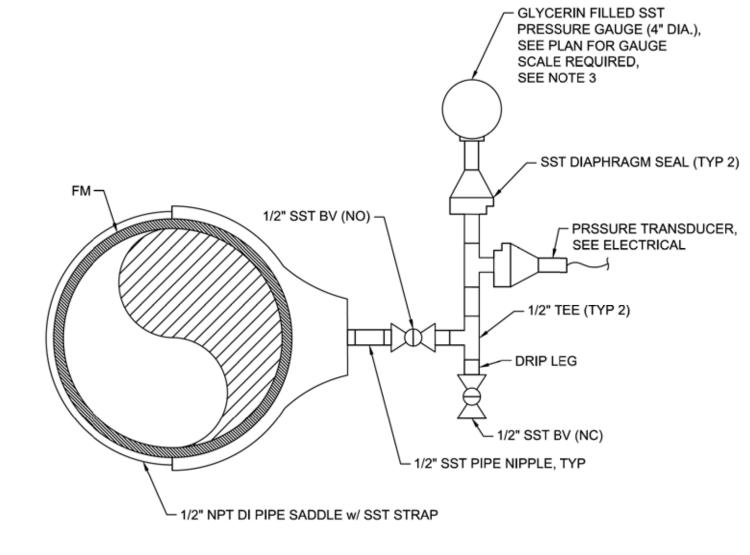
OF NEOPRENE FABRIC.





- 1. WHERE THE HOSE RACK IS FREE-STANDING, PROVIDE TWO STEEL ANGLES 2 x 2 x 1/4 w/ BASE PLATES (OMIT BASE PLATES WHERE ANGLES CAN BE SET IN CONCRETE).
- 2. ALL WELDED CONSTRUCTION. 8 GAUGE STEEL SHEET GALVANIZED AFTER FABRICATION.
- COORDINATE FINAL LOCATION OF HOSE RACK w/ OWNER.





- 1. ALL PIPE AND FITTINGS SHALL BE SCHEDULE 80 STAINLESS STEEL WITH THREADED ENDS.
- 2. INSTALL PRESSURE GAUGE AND DIAPHRAGM SEAL PER MANUFACTURER'S REQUIREMENTS.
- ORIENT GAUGE SO IT CAN BE READ FROM THE GROUND SURFACE.





ADDRESS: 654 OFFICERS ROW







STREETS EXTENSION STRAND UTILITY I AND AND S, OREC JAD A HELENS,

S R

TITLE DATE DESCRIPTION

REVISIONS

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STATUS JUNE 10, 2022 DATE

19823 / P-525

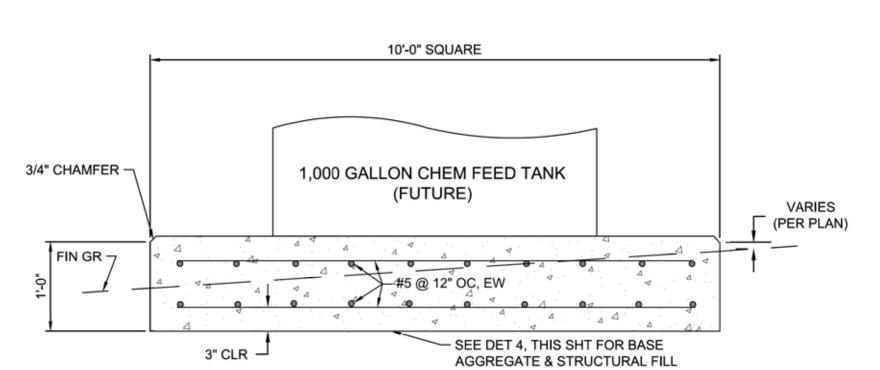
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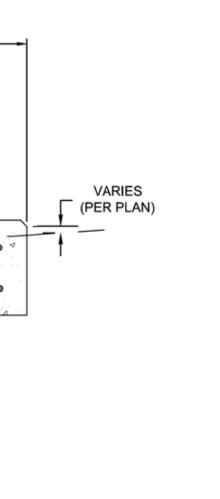
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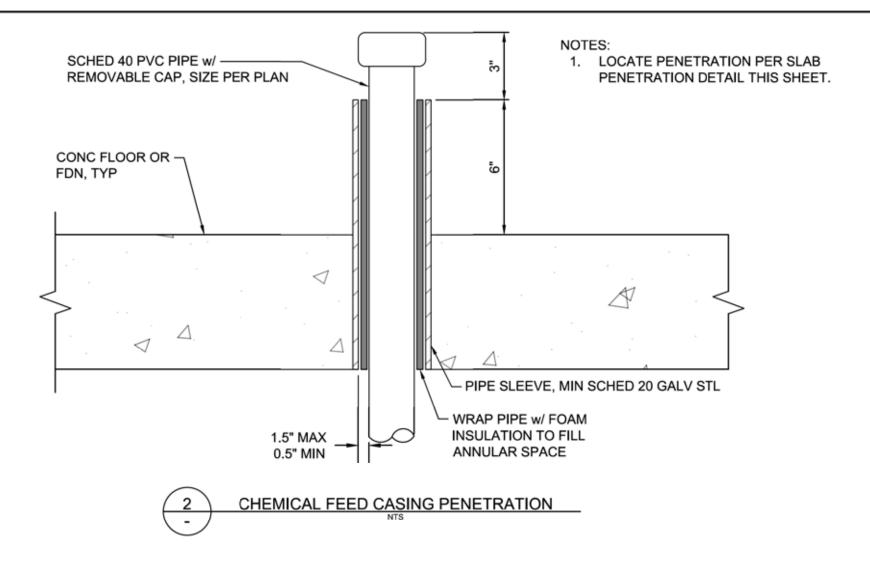
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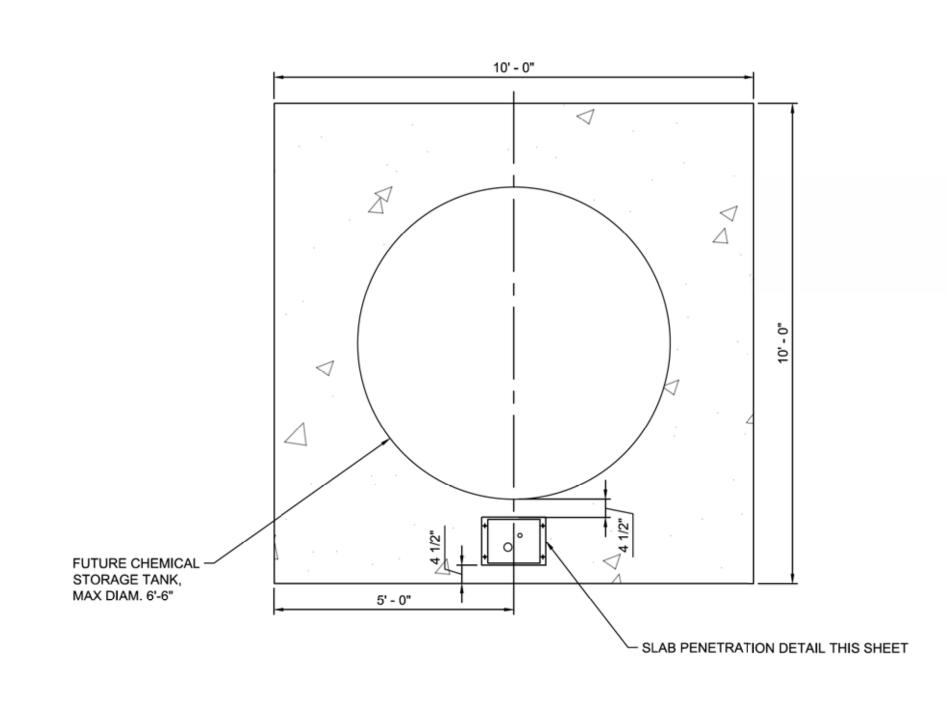
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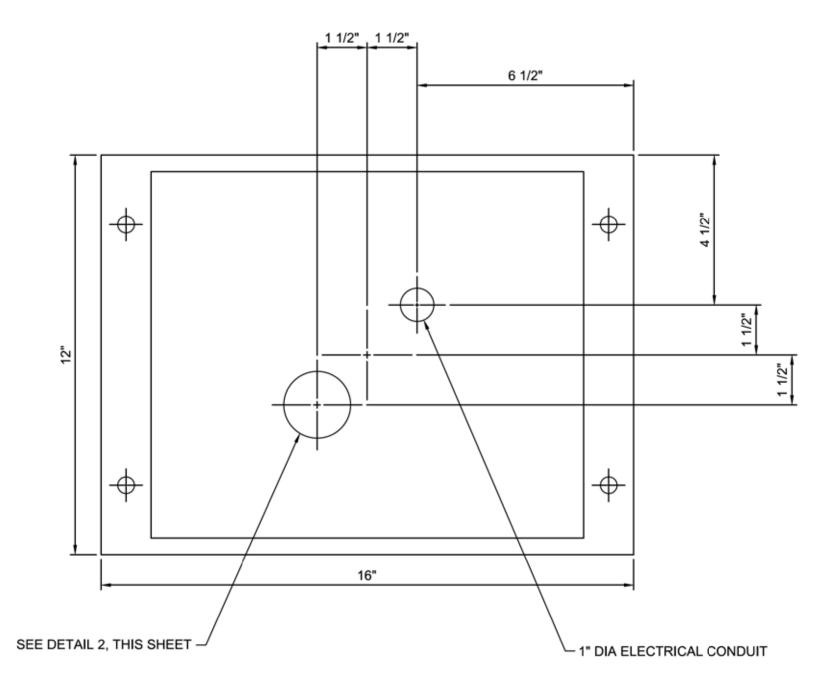
CHEMICAL TANK FOUNDATION



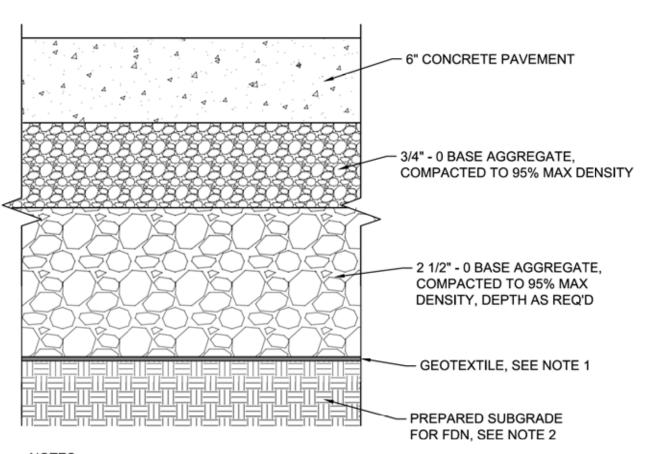




CHEM FEED TANK PAD



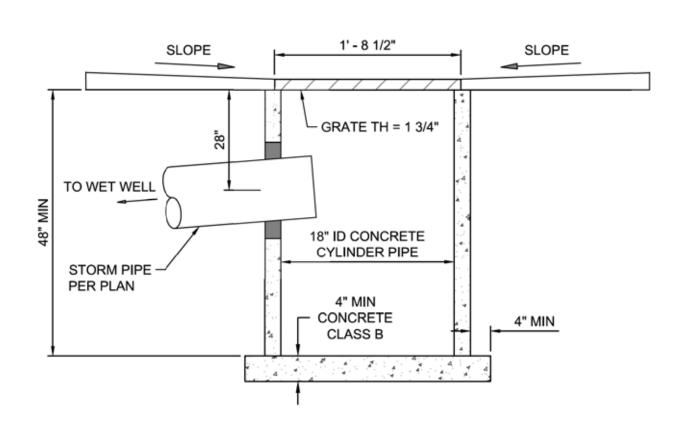
CHEM FEED TANK SLAB PENETRATION



GEOTEXTILE SHALL BE MIRAFI 500X, OR APPROVED EQUAL.

REMOVE 18" MINIMUM OF EXISTING SURFACING.

CONCRETE PAVEMENT SECTION











S. 1ST AND STRAND STREETS
ROAD AND UTILITY EXTENSIONS
ST. HELENS, OREGON

FAILS

STATION

TITLE # DATE DESCRIPTION

REVISIONS

DATUM

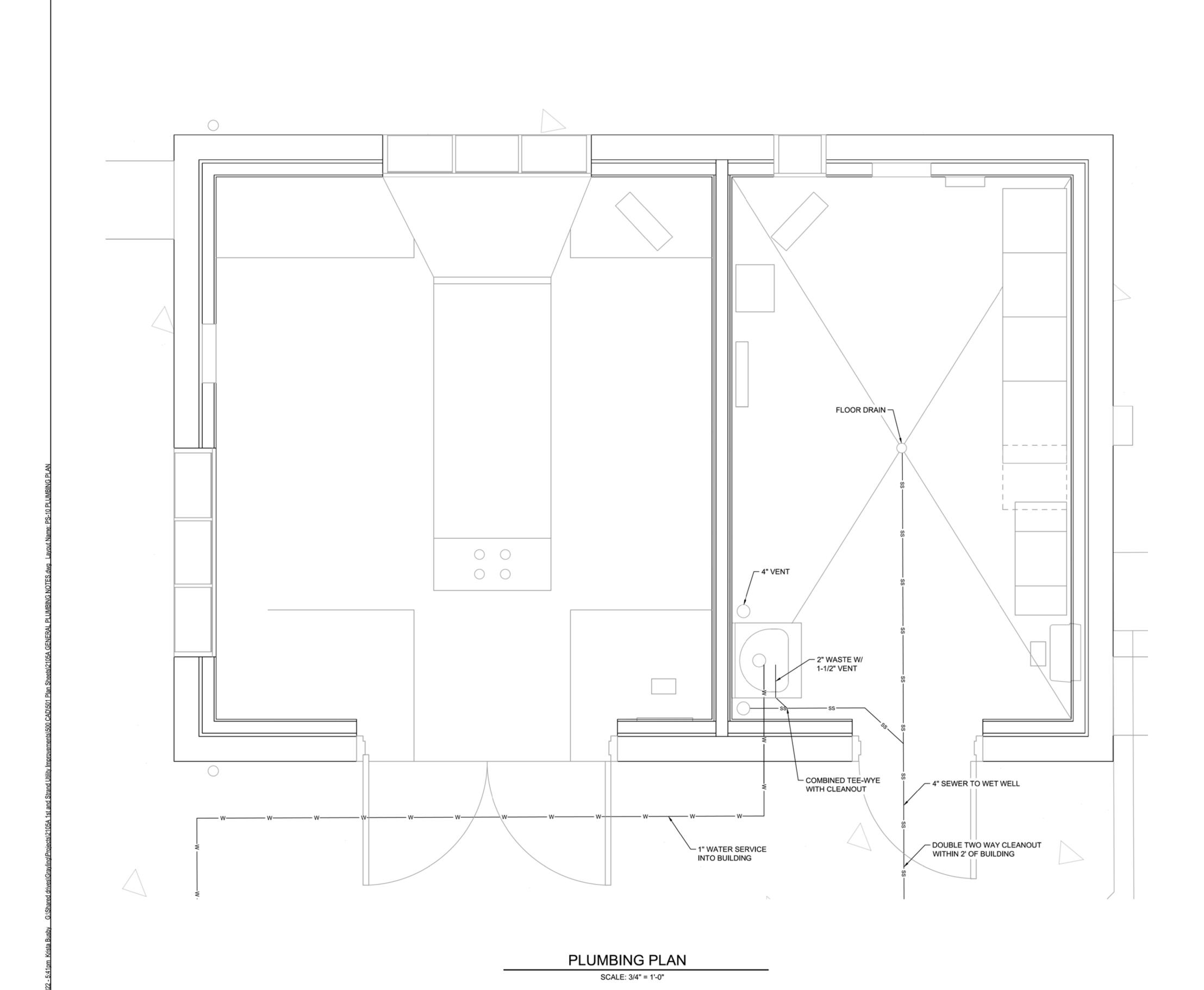
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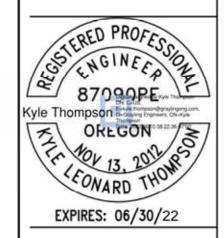
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GENERAL PLUMBING NOTES

- 1. ALL PIPE (WATER, SEWER, VENT), JOINTS, AND WORK SHALL CONFORM TO INTERNATIONAL PLUMBING CODE, STATE CODES, COUNTY AND LOCAL CODES AND ORDINANCES.
- 2. CONTRACTOR TO CONFIRM LOCATIONS OF SEWER AND WATER TIE-INS.
- CONTRACTOR TO SOLIDLY BRACE ALL PIPING TIGHT AGAINST WALLS. FOR LONG OR COMPLICATED RUNS, SECURELY MOUNT USING UNISTRUT. IN STRAIGHT AND UNIFORM MANNER FOR FINISHED APPEARANCE. PIPING SHOWN IS DIAGRAMMATIC ONLY AND ACTUAL DESIGN BY CONTRACTOR.
- 4. CONTRACTOR MAY CHANGE PIPE SIZING IN FIELD TO PROVIDE ADEQUATE WATER PRESSURE TO ALL PLUMBING FIXTURES AS APPROVED BY INSPECTOR.
- 5. CONTRACTOR TO DETERMINE AND PROVIDE MEANS FOR DRAINING INTERIOR WATER AND SANITARY SEWER SYSTEMS, AS WELL AS SHUTOFF OF ALL FIXTURES.
- 6. WHEN FIXTURES REQUIRE WALL CARRIERS THE WALL CARRIER SHALL BE SUPPLIED BY CONTRACTOR.
- 7. PROVIDE CLEAN-OUT BENEATH ALL SINKS AS REQUIRED BY CODE.







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ELECTRICAL LEGEND AND ABBREVIATIONS

			ELEC	I RICAL LEG	SEND AND ABBREVIATIONS				
S/N	SOLID NEUTRAL CONNECTION	4	AMPERES, AMPS	FLEX	FLEXIBLE	NA	NON-AUTOMATIC	TD	THERMAL DETECTOR
3/ N	SOLID NEUTRAL CONNECTION	AC	ALTERNATING CURRENT, AMPS CONTINUOUS	FLR	FLOOR	NC	NORMALLY CLOSED, NON-CONTINOUS	TDR	TIME DELAY RELAY
GN		AF	AMP FRAME	FLUOR	FLUORESCENT	NEC	NATIONAL ELECTRICAL CODE	TEL	TELEPHONE
- •	GROUNDING AND NEUTRAL LUGS	AFCI	ARC-FAULT CIRCUIT INTERRUPTER	FMC	FLEXIBLE METALLIC CONDUIT	NECA	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION	TEL/DATA	TELEPHONE/DATA
		AFD AFF	ADJUSTABLE FREQUENCY DRIVE ABOVE FINISHED FLOOR	FNC FRE	FLEXIBLE NON-METALLIC CONDUIT FIBERGLASS REINFORCED EPOXY CONDUIT	NEUT NF	NEUTRAL NON-FUSED	TEMP TERM	TEMPORARY TERMINAL(S)
_т ф ф	DUPLEX RECEPTACLE-NORMAL, GROUND FAULT INTERRUPTING	AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	FU	FUSE	NIC	NOT IN CONTRACT	TJB	TERMINAL JUNCTION BOX
 	DOPLEX RECEPTABLE—NORMAL, GROUND FAULT INTERROPTING	AHU	AIR HANDLING UNIT	FURN	FURNITURE	NL	NIGHT LIGHT	ТО	TIME OPENING
A	CONNECTION TO SPECIAL EQUIPMENT OR OUTLET AS SHOWN	AIC	AMPERE INTERRUPTING CAPACITY	FVNR	FULL VOLTAGE NON-REVERSING	NM	NON-METALLIC	TR	TIMER-REPEAT CYCLE
9 9	CONNECTION TO SI EGIAL EQUI MENT ON COTLET AS SHOWN	AL	ALUMINUM, ALARM	FVR	FULL VOLTAGE REVERSING	NMC	NON-METALLIC SHEATHED CABLE	TRANS	TRANSFORMER
Q 225		AM ANT	AMMETER ANTENNA	G, GND GC	GROUND GENERAL CONTRACTOR	NO NRTL	NORMALLY OPEN NATIONALLY RECOGNIZED TESTING LAB	TSP TST	TWISTED SHIELD(ED) PAIR TWISTED SHIELD(ED) TRIAD
>>	TRANSFER SWITCH, CURRENT RATING SHOWN	ARCH	ARCHITECT	GEN	GENERATOR	NTS	NOT TO SCALE	TV	TELEVISION
6		AS	AMP SWITCH	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	OD	OUTSIDE DIAMETER	TYP	TYPICAL
		ASD	ADJUSTABLE SPEED DRIVE	GFI	GROUND FAULT INTERRUPTER	OHD	OVERHEAD DOOR OPERATOR	U	UP
(\vee)	GENERATOR SET	AT	AMP TRIP	GFPE GFR	GROUND FAULT PROTECTION EQUIPMENT GROUND FAULT RELAY	OIT	OPERATOR INTERFACE TERMINAL OVERLOAD RELAY	UC	UNDER COUNTER, UNDERGROUND CONDUIT UP-DOWN
$\overline{}$		ATS AUD	AUTOMATIC TRANSFER SWITCH AUDIOMETER BOX CONNECTION	GRC	GALVANIZED RIGID CONDUIT	00	ON-OFF	UG	UNDERGROUND
	MOTOR OUTLET HORSEROWER INDICATES	AUX	AUXILIARY	GRS	GALVANIZED RIGID STEEL CONDUIT	P	POWER, POLE, PHASE, PANEL	UH	UNIT HEATER
(5))	MOTOR OUTLET, HORSEPOWER INDICATED.	AWG	AMERICAN WIRE GAUGE	Н	HORN	PA	PUBLIC ADDRESS	UOI	UNLESS OTHERWISE INDICATED
, 6 30		BFF	BELOW FINISHED FLOOR	HH	HANDHOLE	PB	PULL BOX, PUSHBUTTON	UON	UNLESS OTHERWISE NOTED
_30 _0	DISCONNECT SWITCH, RATING SHOWN	BFG	BELOW FINISHED GRADE	HID HMI	HIGH INTENSITY DISCHARGE HUMAN-MACHINE INTERFACE	PC PF	PHOTOCELL, PLUMBING SYSTEM CONTRACTOR PRIMARY ELECTRIC (SERVICE)	UOS UPS	UNLESS OTHERWISE SHOWN UNINTERRUPTIBLE POWER SOURCE
δ —		BLDG BTCW	BUILDING BARE TINNED COPPER WIRE	HOA	HAND-OFF-AUTOMATIC	PFR	PHASE FAIL RELAY	US, U/S	ULTRASONIC
	ELECTRICAL EQUIPMENT	C	CONDUIT, CONTROL, CONTINUOUS	HP	HORSEPOWER, HEAT PUMP	PH or O	PHASE	UTL	UTILITY
	ELECTRICAL EQUIPMENT	CAM	CAMERA	HPS	HIGH PRESSURE SODIUM	PHH	POWER HANDHOLE	UTP	UNSHIELDED TWISTED PAIR
144441		CAT	CATALOG	H-STAT	HUMIDISTAT	PIV	POST INDICATING VALVE	UVR	UNDER VOLTAGE RELAY
XXXXX	ELECTRICAL EQUIPMENT TO BE DEMO'D	CATV	CABLE TELEVISION CIRCUIT BREAKER	HT, HGT HV	HEIGHT HIGH VOLTAGE	PMH PMR	POWER MANHOLE PHASE MONITOR RELAY	V VFD	VOLTAGE, VOLTS, VAULT VARIABLE FREQUENCY DRIVE
/////		CC	CONTROL CABLE	HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	PNL	PANEL(BOARD)	VM	VOLT METER
•	CONDUIT SEAL-OFF	CCTV	CLOSED-CIRCUIT TELEVISION	HW	HOT WATER	PP	POWER PANEL	VP	VAPORPROOF
•		СНН	COMMUNICATIONS HANDHOLE	HZ	HERTZ (CYCLE PER SECOND)	PR	PAIR	VSD	VARIABLE SPEED DRIVE
(J)	JUNCTION BOX	CKT	CIRCUIT	IAM	INDIVIDUAL ADDRESSABLE MODULE INTERRUPTING CAPACITY, INTERCOMMUNICATION	PRI	PRIMARY PRESSURE	VT W	VAPORTIGHT, VOLTAGE TRANSFORMER WATT
\$	LIGHT SWITCH	CMH CNTRL, CTRL	COMMUNICATIONS MANHOLE CONTROL	ID	IDENTIFICATION, INSIDE DIAMETER	PSI PT	POTENTIAL TRANSFORMER	w/	WITH
- P4	HOME RUN, ELECTRICAL PANEL DESTINATION SHOWN.	CO CO	CONDUIT ONLY	IG	ISOLATED GROUND	PTT	PUSH-TO-TALK	w _G	WIRE GUARD
.1 .		COL	COLUMN	IMC	INTERMEDIATE METALLIC CONDUIT	PV	POWER VAULT, PHOTO-VOLTAIC (SOLAR CELL)	WH	WATT-HOUR, WATER HEATER
— / —	CONDUIT CONCEALED UNDERFLOOR OR UNDERGROUND.*	CONT	CONTINUOUS, CONTROL	INC	INTERMEDIATE NON-METALLIC CONDUIT, INCANDESCENT	PVC	POLYVINYL CHLORIDE CONDUIT	WHD	WATT-HOUR DEMAND METER
 /	CONDUIT CONCEALED IN WALL OR ABOVE CEILING IN FINISHED AREAS, EXPOSED IN PROCESS AND EQUIPMENT AREAS.*	CP CPT	CONTROL PANEL CONTROL POWER TRANSFORMER	IPS IR	INTERRUPTIBLE POWER SUPPLY PASSIVE INFRARED	PWR R	POWER RELAY	WLH WP	WALL HEATER WEATHERPROOF
·		CR	CONTROL POWER TRANSFORMER CONTROL RELAY	IR, ISR	INTRINSICALLY SAFE RELAY	RE	REMOVE EXISTING	l wτ	WATER, WATERTIGHT
	*NOTES:	ст	CURRENT TRANSFORMER	J, JB	JUNCTION BOX	REC	RECESSED	XFMR	TRANSFORMER
	1. RUNS MARKED WITH CROSS-HATCHES INDICATE NUMBER OF NO. 12	CU	COPPER	K	KEY INTERLOCK (KIRK-KEY)	RECP, RECEPT	RECEPTACLE	XP	EXPLOSION PROOF
	WIRE. LARGER GAUGES ARE SHOWN OR NOTED ELSEWHERE. LONG CROSS HATCH INDICATES NEUTRAL, REVERSE SLANT INDICATES GREEN	CV	CONTROL VAULT, CHECK VALVE	K/O KCMIL	KNOCK-OUT THOUSAND CIRCULAR MILS	REF	ROOF EXHAUST FAN RIGID GALVANIZED STEEL CONDUIT	Y	WYE ZONE
	GROUND WIRE.	CVLS D, DISC	CHECK VALVE LIMIT SWITCH DISCONNECT	KVA	KILOVOLT AMPERE	RGS RI	RELOCATE EXISTING	7AM	ZONE ADAPTER MODULE
	2. FOR UNMARKED CONDUIT RUNS, CONTRACTOR SHALL INSTALL REQUIRED	DC DC	DIRECT CURRENT	KVAR	KILOVOLT AMPERE REACTIVE	RM	ROOM		20112 7 27 11 12 11 11 11 11 11 11 11 11 11 11 11
	NUMBER OF WIRES FOR POWER AND/OR CONTROL OF ELEMENTS IN CIRCUIT(S) SHOWN. SIZE OF WIRE SHALL BE NO. 12, UNLESS	DEMO	DEMOLISH	KW	KILOWATT	RMC	RIGID METALLIC CONDUIT	NOTES:	
	OTHERWISE NOTED OR REQUIRED BY CODE.	DET	DETECTOR	LA LO	LIGHTNING ARRESTER	RNC	RIGID NON-METALLIC CONDUIT		EVIATIONS USED. ABBREVIATIONS LISTED
	3. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE.	DIST	DISTRIBUTION DOWN	LC	LIGHTING CONTACTOR LOAD RELAY	RSC RT	RIGID STEEL CONDUIT RAINTIGHT		CAL AND INSTRUMENTATION DRAWINGS
(DT	DUST-TIGHT	LFMC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT	RTU	ROOFTOP UNIT	1	ME ABBREVIATIONS MAY BE DERIVED FROM
\succeq	CURRENT TRANSFORMER	DWG	DRAWING	LFNC	LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT	RVNR	REDUCED VOLTAGE NON-REVERSING	MULTIPLE, INDIVIDUA NOTE 2.	AL ONES. LIST MAY BE INCOMPLETE; SEE
ىلىد بىلىد		E	EMERGENCY, EMERGENCY CIRCUIT	LOR	LOCAL-OFF-REMOTE	RVR	REDUCED VOLIAGE REVERSING	NOIE 2.	
₩ ₩	TRANSFORMER	(E), EXIST	EXISTING EACH	LOS	LOCKOUT STOP LIGHTING PANELBOARD	SCADA	SOLENOID, SURFACE MOUNTED SUPERVISORY CONTROL AND DATA ACQUISITION	2. MEANING OF A	BBREVIATIONS WILL DEPEND ON THE
·	GROUND CONNECTION PER NEC ARTICLE 250	EC	ELECTRICAL CONTRACTOR	LR	LIGHTING RELAY	SCH	SCHEDULE	1	E. IF MEANING IS UNCLEAR, SEEK
-	ONOGHO CONNECTION FER NEC ARTICLE 250	EF	EXHAUST FAN	LTG	LIGHTING	SD	SMOKE DAMPER		M ENGINEER BEFORE BIDDING. FAILURE
\sim	THERMAL MAGNETIC CIRCUIT BREAKER	EL, ELEV	ELEVATION, ELEVATOR	LV	LOW VOLTAGE	SE	SECONDARY ELECTRIC	1	BBREVIATIONS AND THEIR POTENTIAL ON THE CONTRACTOR SHALL NOT BE
-		ELEC EMER	ELECTRIC(AL) EMERGENCY CIRCUIT	M MAINT	MAGNETIC CONTACTOR COIL MAINTAINED	SIG	SECONDARY SIGNAL	1	OITIONAL COMPENSATION AFTER BID
015AC	MAGNETIC ONLY CIRCUIT BREAKER (MOTOR CIRCUITS ONLY) CONTINUOUS	EMT	ELECTRICAL METALLIC TUBING	MAU	MAKE-UP AIR UNIT	SN, S/N	SOLID NEUTRAL	OPENING.	
15AC V 400AT	CURRENT RATING AND TRIP SETTINGS SHOWN	ENCL	ENCLOSURE	MAX	MAXIMUM	SP	SPARE		ELECTRICAL APPRENTATIONS OF STATE
	UELL DITTO CONTINTO WITH MOTOR THEOLOGY OF DELLA	ENT	ELECTRICAL NON-METALLIC TUBING	MC	METAL CLAD CABLE	SPD	SPEED		-ELECTRICAL ABBREVIATIONS, SUCH AS NS (N, S, E, W, ETC.) AND CHEMICAL
9	NEMA RATED CONTACTOR WITH MOTOR THERMAL OVERLOAD RELAY (MOTOR STARTER)	EOL	END OF LINE	MCB MCC	MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER	SPKR	SPEAKER SPLICE	1	CL2, ETC.), ARE NOT INCLUDED.
400AT	,	EPO EPO	EXPLOSION PROOF EMERGENCY POWER OFF	MCP	MOTOR CONTROL CENTER MOTOR CIRCUIT PROTECTOR	SPL SS	STAINLESS STEEL, SOLID-STATE	, ,	,
——————————————————————————————————————	FUSE	EQUIP	EQUIPMENT	MD	MOTORIZED DAMPER	SSSS	SOLID-STATE SOFT STARTER	1	BREVIATIONS FOR INSTRUMENTATION
		ES, E-STOP	EMERGENCY STOP	MDP	MAIN DISTRIBUTION PANEL	STL	CARBON STEEL	1	MENTS (FLOAT SWITCHES, ETC.) ARE SI/ISA-S5.1, AND ARE NOT NECESSARILY
$\langle x \rangle$	DRAWING NOTE	ETM	ELAPSED TIME METER	MFR, MANUF	MANUFACTURER	STP	SHIELDED TWISTED PAIR	LISTED HERE.	SI/ISA-33.1, AND ARE NOT NECESSARIET
(1)	ELECTRICAL CIRCUIT IDENTIFICATION	EWC EWH	ELECTRIC WATER COOLER ELECTRIC WATER HEATER	MH MISC	MANHOLE, METAL HALIDE MISCELLANEOUS	SUSP	SUSPENDED SOLENOID VALVE		
Š		F	FLUSH, FUSE	MLO	MAIN LUGS ONLY	SW	SWITCH	<u> </u>	
134	MULTIPLE ELECTRICAL CIRCUITS, SEPARATE CONDUITS	FA	FIRE ALARM	MOD	MOTOR OPERATED DISCONNECT SWITCH	SWBD	SWITCHBOARD		
Ŷ		FB0	FURNISHED BY OTHERS	MS	MOTOR STARTER	SWGR	SWITCHGEAR		
1"C-124	MULTIPLE ELECTRICAL CIRCUITS, COMMON CONDUIT (SIZE SHOWN)	FC FOLL	FIRE PROTECTION CONTRACTOR	MTD MTG	MOUNTED MOUNTING	T, T-STAT	THERMOSTAT TERMINAL BOARD		
1"C-134	MOETH LE LECTRIONE DIROCHTS, COMMINION CONDUIT (SIZE SHOWN)	FCU FDN	FAN COIL UNIT FOUNDATION	MTS	MANUAL TRANSFER SWITCH	TC	TELEPHONE CABINET, TIME CLOSING		
-		FDR	FEEDER	N	NEUTRAL	TC	TIME CLOCK, TIME CLOSING		
6	WALL MOUNTED LUMINAIRE	FIXT	FIXTURE	(N)	NEW	TCI	TELECOMMUNICATIONS CABLING INSTALLER		
	SURFACE MOUNTED LINEAR LUMINAIRE	FLA	FULL LOAD AMPS	N/A	NOT APPLICABLE	TCP	TEMPERATURE CONTROL PANEL		
								I	



9615 S.W. Allen Boulevard

Project No.: 1655.002.001 Contact: MICHAEL FOSTER



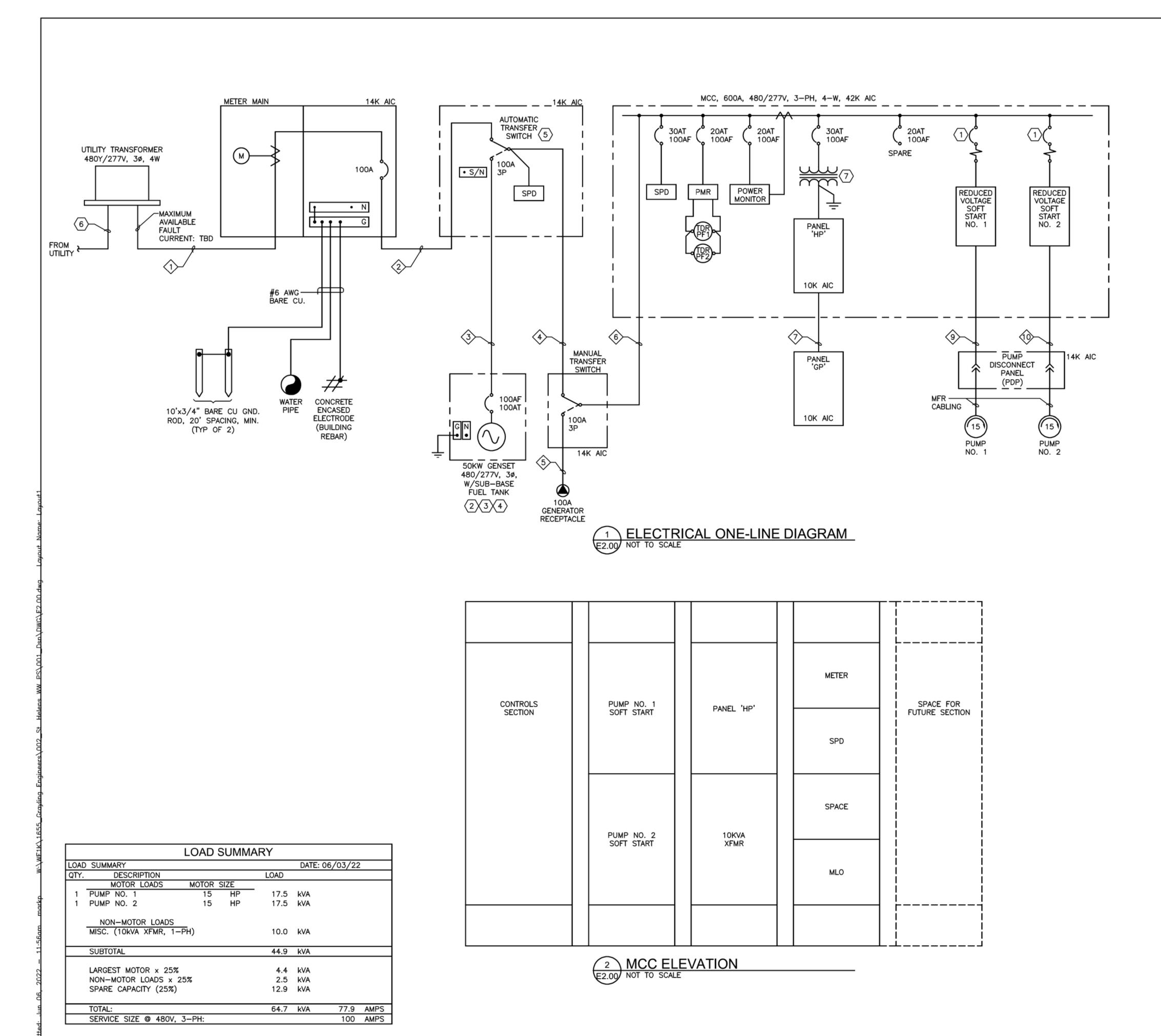


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Portland, OR 97204
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www.otak.com

ABBREVIATIONS END AND

S. 1ST AND STRAND STREETS
ROAD AND UTILITY EXTENSIONS
ST. HELENS, OREGON

ELECTRICAL LEG # DATE DESCRIPTION



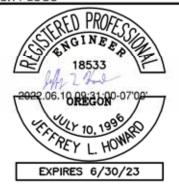
GENERAL NOTES

- A. ALL CONDUCTORS ARE COPPER, UNLESS SPECIFICALLY NOTED
- GROUNDING METHOD SHALL BE VIA RACEWAY AND EQUIPMENT GROUNDING CONDUCTORS, PER NEC ARTICLE 250.
- C. ALL WITHSTAND (AIC) EQUIPMENT VALUES SHOWN ARE MINIMUM RATINGS.
- D. VERIFY MAXIMUM AVAILABLE FAULT CURRENT (AFC) WITH POWER UTILITY PRIOR TO ORDERING EQUIPMENT. FOR BIDDING PURPOSES, ASSUME AFC OF 14K AMPS.

NOTES THIS SHEET

- 1) CB FOR SOFT STARTER TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 100% RATED CIRCUIT BREAKER WITH SOLID-STATE ELECTRONIC TRIP. ELECTRONIC TRIP SHALL HAVE L, S, I, AND DELAY ADJUSTMENTS.
- CONTRACTOR TO COORDINATE GENERATOR CIRCUIT BREAKER WITH ALL CIRCUIT BREAKERS IN MCC, PER NEC ARTICLE 701.
- REMOVE NEUTRAL/GROUND BOND FROM GENSET. SYSTEM IS SOLIDLY GROUNDED THROUGH ATS AND IS NOT A SEPARATELY DERIVED SYSTEM.
- 5 AUTOMATIC TRANSFER SWITCH PROVIDED WITH SOLID NEUTRAL AND DELAYED TRANSFER OPTIONS.
- 6 COORDINATE CONDUIT INSTALLATION WITH UTILITY. PROVIDE AND INSTALL 4-IN, SCHEDULE 40 PVC (VERIFY), IF REQUIRED BY UTILITY.
- 7 TRANSFORMER 'T1'. 480V:240/120V, 10KVA, SINGLE PHASE, STEP DOWN TRANSFORMER.







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SCHEMATIC

STREETS EXTENSIONS

S. 1ST AND STRAN ROAD AND UTILITY ST. HELENS, OREGON

ELECTRICAL # DATE DESCRIPTION

REVISIONS

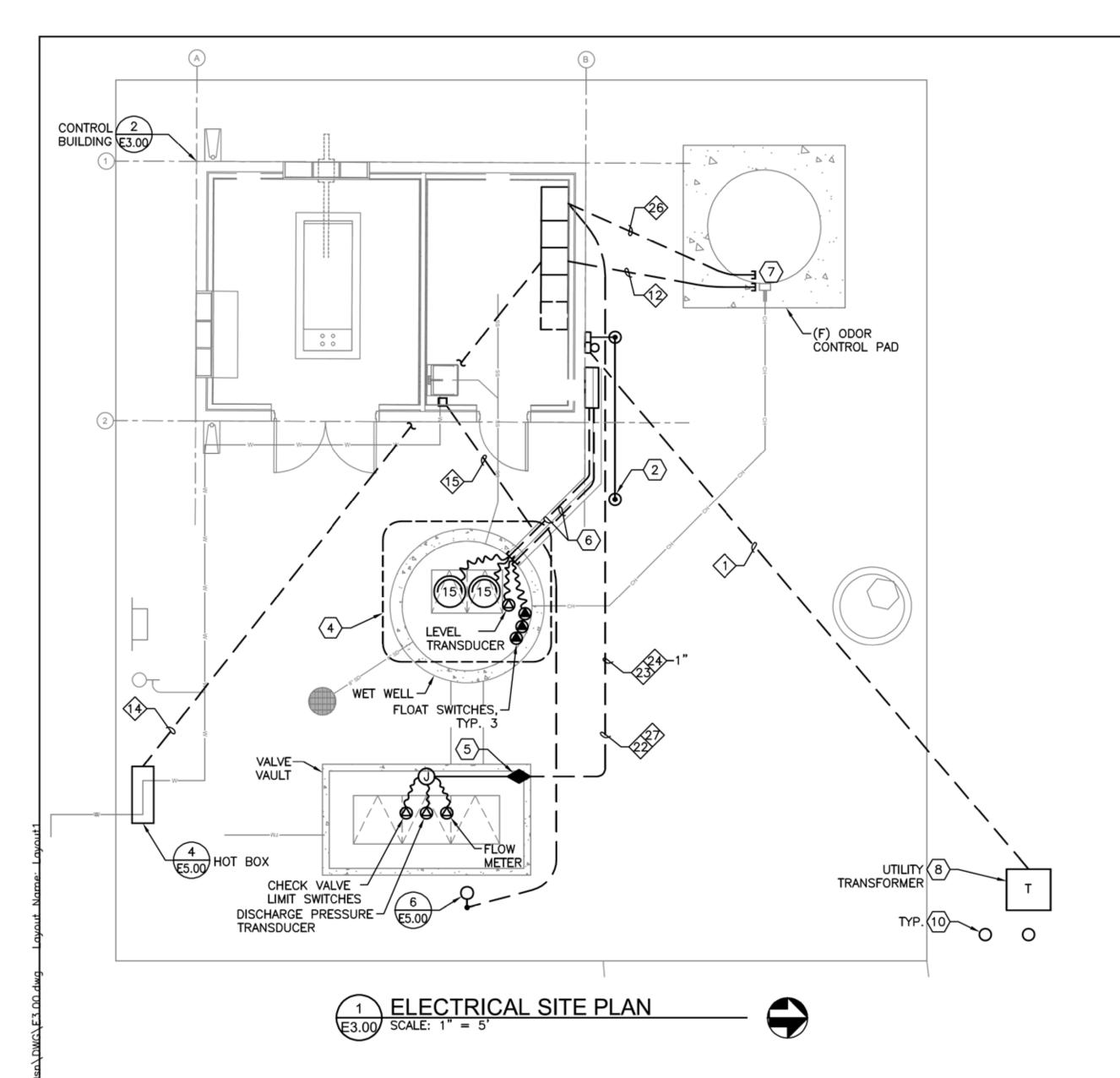
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Project No.: 1655.002.001 Contact: MICHAEL FOSTER

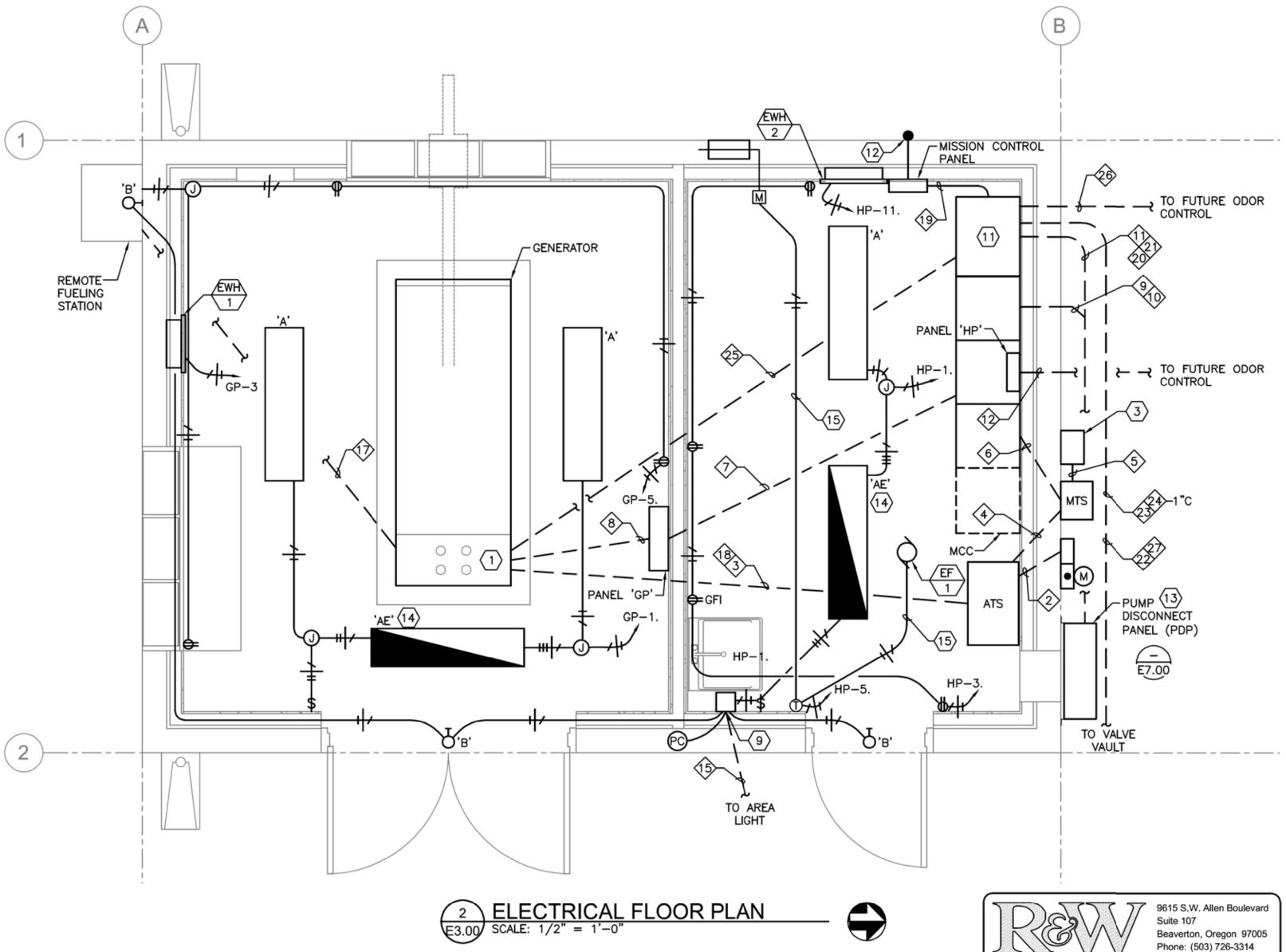


GENERAL NOTES

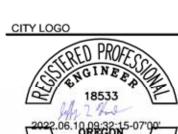
- A. ALL CONDUCTORS ARE COPPER, UNLESS SPECIFICALLY NOTED OTHERWISE.
- B. GROUNDING METHOD SHALL BE VIA RACEWAY AND EQUIPMENT GROUNDING CONDUCTOR, PER NEC ARTICLE 250.
- C. WET WELL INTERIOR IS A CLASS 1, DIVISION 1 HAZARDOUS (CLASSIFIED) AREA.
- VALVE VAULT INTERIOR IS A CLASS 1, DIVISION 2 HAZARDOUS (CLASSIFIED) AREA.
- E. REFER TO MECHANICAL SHEETS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT.

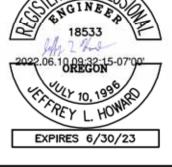
NOTES THIS SHEET

- (1) COORDINATE GENERATOR STUB-UP LOCATION WITH MANUFACTURER.
- 2 PROVIDE (2) GROUND RODS FOR GROUNDING ELECTRODE SYSTEM. SEE SHEET E5.00 FOR ADDITIONAL DETAILS.
- 3 GENERATOR RECEPTACLE APPLETON MODEL ADR10034-RS. VERIFY RECEPTACLE MAKE/MODEL WITH CITY PERSONNEL.
- CLASS 1, DIVISION 2 HAZARDOUS (CLASSIFIED) AREA EXTENDS IN AN ENVELOPE 18-INCHES HIGH OUT TO 3-FT HORIZONTALLY FROM WET WELL HATCH.
- SEAL-OFF RATED FOR CLASS 1, DIVISION 2 AREAS, IDENTIFIED FOR THE PURPOSE OF MINIMIZING THE PASSAGE OF GASES PER NEC 501.15(B)(2).
- PROVIDE 5" CONDUIT SLEEVE FOR PUMP MANUFACTURER'S CABLES AND 3" CONDUIT SLEEVE FOR LEVEL TRANSDUCER AND FLOAT SWITCH MANUFACTURER'S CABLES, ROUTE FROM PUMP DISCONNECT PANEL TO WET WELL.
- (7) STUB AND CAP CONDUITS TO ODOR CONTROL PAD FOR FUTURE USE.
- (8) UTILITY TRANSFORMER LOCATION TO BE COORDINATED WITH FINAL UTILITY DESIGN, COORDINATE ALL REQUIREMENTS WITH UTILITY.
- PROVIDE ENCLOSURE FOR EXTERIOR LIGHT SWITCH CONTROLS, MOUNT PHOTOCELL ON EXTERIOR BUILDING WALL FACING NORTH. FIELD COORDINATE EXACT LOCATION. SEE DETAIL 5/E5.00 FOR MORE INFORMATION.
- PROVIDE BOLLARDS FOR TRAFFIC PROTECTION OF UTILITY TRANSFORMER, COORDINATE REQUIREMENTS WITH UTILITY.
- CONTROL SECTION OF MCC TO BE 25" WIDE. FLOW METER ELECTRONICS AND LEVEL (HYDRORANGER) ELECTRONICS PACKAGES TO BE MOUNTED ON CONTROL SECTION DOOR.
- PENETRATE WALL AND MOUNT CELLULAR ANTENNA TO OUTSIDE WALL FOR THE MISSION CONTROL PANEL. SEE DETAIL 10/E5.00 FOR MORE INFORMATION.
- MOUNT PUMP DISCONNECT PANEL TO CONCRETE PAD AND ATTACH TO WALL FOR STABILITY, COORDINATE REQUIREMENTS WITH STRUCTURAL.
- (14) PROVIDE UNSWITCHED BRANCH CIRCUIT TO EMERGENCY LUMINAIRE FOR CONTINUOUS BATTERY CHARGING.
- (15) ROUTE CONDUIT IN ATTIC, FIELD COORDINATE EXACT ROUTING.











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STREETS EXTENSION

ELECTRICAL

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STATUS

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Project No.: 1655.002.001 Contact: MICHAEL FOSTER

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ENGINEERING, INC. Office: (503) 292-6000

	LUMINAIRE SCHEDULE								
LUMINAIRE TYPE	DESCRIPTION	LAMP TYPE	INPUT WATTS	DRIVER/ BALLAST	COLOR TEMP	MANUFACTURER AND MODEL SERIES			
'A'	54" x 8" LINEAR ROUGH SERVICE LUMINAIRE. FROSTED POLYCARBONATE LENS, MEDIUM DISTRIBUTION, SURFACE MOUNTED.	LED 6000 LM	49W	STANDARD MVOLT 0-10V	4000K	LITHONIA LIGHTING: VAP SERIES OR APPROVED.			
'AE'	SAME AS TYPE 'A' EXCEPT WITH 15W EMERGENCY BATTERY PACK.	LED 6000 LM	49W	STANDARD MVOLT 0-10V	4000K	LITHONIA LIGHTING: VAP SERIES OR APPROVED.			
,B,	EXTERIOR WALL SCONCE, BRONZE FINISH, WET LOCATION RATED.	LED (1) E26	20W	120V	4000K	LAMPS PLUS: WYNDMERE COLLECTION BRONZE 9" HIGH OUTDOOR WALL LIGHT OR APPROVED.			
,c,	33" X 13" POLE MOUNTED AREA LUMINAIRE, P6 FORWARD OPTICS, TYPE IV MEDIUM DISTRIBUTION, SQUARE POLE MOUNTING.	LED 17299 LM	163W	STANDARD MVOLT 0-10V	4000K	LITHONIA LIGHTING: DSX1 SERIES OR APPROVED.			

NOTES:

- 1. VERIFY FINISHES WITH ENGINEER AND OWNER PRIOR TO PURCHASE.
- 2. ALL LUMINAIRES WITH BATTERY BACKUP TO OPERATE FOR A MINIMUM OF 90-MINUTES PER CODE REQUIREMENTS.
- 3. LUMINAIRE SOCKETS TO HAVE LABEL 'MAXIMUM 20 WATT LED LAMP'.

PANEL		BUS:		^	DAIL	06/03/22			120 / 240 VOLTS, 1 PHASE, 3 WIRE	
EEDE	R: SEE ONE-LINE DIAGRAM	MAIN BRKR:	60	A				MOUNTING:		
CKT		CKT BKR	LOAD	LOAD		LOAD	LOAD	CKT BKR		CK
NO.	CIRCUIT DESCRIPTION	AMPS/POLE	TYPE	VA	PHASE	VA	TYPE	AMPS/POLE	CIRCUIT DESCRIPTION	N
1	LIGHTING AND POLE RECEPTACLE	20/1	L	510	Α			20/1	SPARE	
3	RECEPTACLES	20/1	R	540	В			20/1	SPARE	
5	EF-1, TSTAT, LOUVER	20/1	М	200	Α			20/1	SPARE	
7	HOT BOX GFCI	20/1	R	180	В			20/1	SPARE	
9	PUMP DISCONNECT PANEL HEATER	20/1	н	500	Α			20/1	SPARE	1
11	EWH-2	20/1	Н	1500	В			20/1	SPARE	1
13	SPACE				Α	2437	Z	60/2	PANEL GP	1
15	SPACE				В	2250	z		_	
	LOAD PER PHASE (VA)		A= B=	3,647 4,470		NOTES1				
			b=	4,470	٧٨	2				
	LOAD PER PHASE (AMPS)		A=	30.4		3	i.			
			B=	37.3	A	4				
		TOTAL LOAD (KVA)	8.1	KVA	5	i.			

PANEL:	'GP'	BUS:	100 A		DATE:	06/03/22		VOLTAGE:	120 / 240 VOLTS, 1 PHASE, 3 WIRE	
FEEDER		MAIN BRKR:	60 A			, ,		MOUNTING:	•	
СКТ		CKT BKR	LOAD	LOAD		LOAD	LOAD	CKT BKR		CKT
NO.	CIRCUIT DESCRIPTION	AMPS/POLE	TYPE	VA	PHASE	VA	TYPE	AMPS/POLE	CIRCUIT DESCRIPTION	NO.
	GENERATOR ROOM LIGHTING	20/1	L	147	Α	500	Z		GENERATOR BATTERY CHARGER	2
	EWH-1	20/1	Н	1500	В	750	Н	20/2	GENERATOR JACKET HEATER	4
	GENERATOR ROOM RECEPTACLES AND REMOTE FUEL	20/1	R	1040	Α	750	Н	-	-	6
7	SPARE	20/1			В				SPACE	8
	SPARE	20/1			Α				SPACE	10
11	SPARE	20/1			В				SPACE	12
13	SPARE	20/1			Α				SPACE	14
15	SPARE	20/1			В				SPACE	16
	LOAD PER PHASE (VA) LOAD PER PHASE (AMPS)		CONNECTE A= B= A= B=	2,437 2,250 20.3 18.8	VA A	NOTES				
	TOTAL LOAD (KVA) 4.7 KVA TOTAL LOAD AMPS 19.5 A			4. 5.						

	EQUIPMENT CONNECTION SCHEDULE							
TAG	DESCRIPTION	LOCATION	LOAD	VOLT/PH	CIRCUIT	DISCONNECT	FEEDER	NOTES
EF-1	EXHAUST FAN	ELEC. ROOM	1/40 HP	120V / 1PH	HP - 5.	MANUAL SW.	(2) 12 AWG (1) 12 GND IN 3/4" C.	1.
EWH-1	ELECTRIC WALL HEATER	GEN. ROOM	1500W	120V / 1PH	GP - 3.	MANUAL SW.	(2) 12 AWG (1) 12 GND IN 3/4" C.	
EWH-2	ELECTRIC WALL HEATER	ELEC. ROOM	1500W	120V / 1PH	HP - 11.	MANUAL SW.	(2) 12 AWG (1) 12 GND IN 3/4" C.	
NOTES: 1. CONTROLLED BY WALL MOUNTED TSTAT, INTERLOCK WITH LOUVER.								

CIRCUIT SCHEDULE

ALL CIRCUITS ARE IDENTIFIED ON THE PLANS WITH THE DIAMOND SYMBOL. CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTORS. CONDUIT SIZES ARE SHOWN FOR CASES WHEN CIRCUIT CONDUCTORS ARE RUN WITHOUT OTHER CIRCUITS. MULTIPLE CIRCUITS RUN IN COMMON CONDUITS ARE SHOWN ON PLANS AND SUPERSEDE THE BASIC CONDUIT SIZE SHOWN.

RACEWAY SIZES ARE IN INCHES WITH QUANTITIES IN EXCESS OF (1) SHOWN IN ADJACENT PARENTHESIS. CONDUCTOR CONFIGURATIONS ARE CODED AS FOLLOWS: P— FOR POWER CONDUCTORS, G — FOR GROUND CONDUCTORS, N — FOR NEUTRAL CONDUCTORS, C — FOR CONTROL CONDUCTORS, TSP — FOR TWISTED SHIELDED PAIR, AND SP — FOR SPARE CONDUCTORS.

CIRCUIT I FROM I TO I CONDUCTORS I RACEWAY I NOTES

CIRCUIT FROM	<u> </u>	CONTROL CONDUCTORS, 13F	- FOR TWISTED SHIELDED	FAIR, AND SE - FO	IN STAINE C	
TINLITY		FROM	TO	CONDUCTORS	RACEWAY	NOTES
TRANSFORMER	NUMBER	LITILITY	METER MAIN	(7) 7 (0 AWO D	7	VEDIEV ALL DEGLIDEMENTS
TRANSPER (1) 2 AWG, N	1		METER MAIN		3	I
GEREATOR	2	METER MAIN	TRANSFER	(1) 2 AWG, N	1.5	
Automatic Manual (3) 2 AWG, P 1.5	3	GENERATOR	AUTOMATIC	(3) 2 AWG, P	1.5	
SWITCH			MANUAL	(1) 8 AWG, G (3) 2 AWG, P	1.5	
MANUAL MCC	4	SWITCH	SWITCH	(1) 8 AWG, G	1.5	
FRANSFER SWITCH 10 8 AWG, G 1.5	5		SWITCH	(1) 8 AWG, G	1.5	
1	6	TRANSFER SWITCH		(1) 2 AWG, N (1) 8 AWG, G		
B PANEL GP	7	MCC - PANEL 'HP'	PANEL GP	(1) 4 AWG, N	1.5	
MCC	8	PANEL GP	GENERATOR	(3) 12 AWG, P (1) 12 AWG, N	1	
MCC	9	мсс		(3) 10 AWG, P	1	PUMP 1
11	10	мсс			1	PUMP 2
PAD (FUTURE)	11	мсс			1.5	SPARE
MCC - PANEL 'HP'	12	MCC - PANEL 'HP'			1	
14	13	NOT USED				
EXTERIOR LIGHT L	14	MCC - PANEL 'HP'	HOT BOX GFCI	(1) 12 AWG, N	1	
REMOTE FUELING GENERATOR (6) 14 AWG, C 1 FILL SOLENID AND TANK SIGNALS, COORDINATE WITH MFR.	15	LIGHTING		(2) 12 AWG, P (1) 12 AWG, N	1	I
MCC	16	NOT USED				
18	17		GENERATOR	1 /	1	
CONTROL PANEL CONTROL PANE	18		TRANSFER		1	GENERATOR CONTROLS
MCC CONTROL PANEL PANEL PUMP DISCONNECT PANEL (1) 12 AWG, P (1) 12 AWG, G PUMP DISCONNECT PANEL MCC PUMP DISCONNECT PANEL MFR CABLES (1) 12 AWG, G MFR CABLES (1) 12 AWG, G MFR CABLES (1) 12 AWG, G MFR CABLES (1) 12 AWG, G MFR CABLES (2) 1.25 FLOW METER, VERIFY CONDUIT SIZE AND COUNT REQUIRED WITH MFR RECOMMENDATIONS. MCC CONTROL PANEL MCC VALVE VAULT DISCHARGE PRESS. XDCR MCC VALVE VAULT (1) 16 TSP, C (1) 12 AWG, G MCC VALVE VAULT DISCHARGE (1) 12 AWG, G MCC VALVE VAULT, CHECK VALVE LIMIT SWITCH (1) 12 AWG, G MCC CONTROL PANEL MCC GENERATOR (8) 14 AWG, C (1) 12 AWG, G MCC CONTROL PANEL MCC CONTROL PANEL	19			(15) 14 AWG, C	2	
MCC CONTROL PANEL MCC YALVE VAULT (1) 12 AWG, G MCC CONTROL PANEL MCC YALVE VAULT (1) 12 AWG, G MCC CONTROL PANEL MCC YALVE VAULT (1) 16 TSP, C CONTROL PANEL MCC YALVE VAULT (1) 16 TSP, C CONTROL PANEL MCC YALVE VAULT (1) 16 TSP, C MCC ONTROL PANEL MCC YALVE VAULT (1) 12 AWG, G MCC YALVE VAULT, CHECK (4) 14 AWG, C CONTROL PANEL MCC YALVE VAULT, CHECK (1) 12 AWG, G MCC YALVE VAULT, CHECK (1) 12 AWG, G MCC YALVE VAULT, CHECK (1) 12 AWG, G MCC GENERATOR MCC GENERATOR MCC GENERATOR MCC (1) 12 AWG, G MCC GENERATOR MCC (1) 12 AWG, G MCC GENERATOR MCC (2) 1.5 SPARE	20			(6) 14 AWG, C (1) 12 AWG, P (1) 12 AWG, N	1	HIGH, LOW) PUMP DISCONNECT PANEL HEATER
MCC CONTROL PANEL MCC CONTROL P	21			MFR CABLES	1.5	LEVEL TRANSDUCER, VERIFY CONDUIT SIZE REQUIRED WITH
MCC CONTROL PANEL VALVE VAULT DISCHARGE PRESS. XDCR MCC VALVE VAULT, CHECK VALVE LIMIT SWITCH (1) 12 AWG, G INTRINSICALLY SAFE CIRCUIT. MCC CONTROL PANEL MCC VALVE VAULT, CHECK VALVE LIMIT SWITCH (1) 12 AWG, G INTRINSICALLY SAFE CIRCUIT. MCC GENERATOR MCC CONTROL PANEL MCC (2) 1.5 SPARE	22				(2) 1.25	FLOW METER, VERIFY CONDUIT SIZE AND COUNT REQUIRED WITH
MCC CONTROL PANEL VALVE VAULT, CHECK VALVE LIMIT SWITCH (1) 12 AWG, G INTRINSICALLY SAFE CIRCUIT. MCC GENERATOR (8) 14 AWG, C 1 GENERATOR CONTROLS CONTROL PANEL ODOR CONTROL PANEL PAD (FUTURE) MCC (2) 1.5 SPARE	23		DISCHARGE		1	PRESSURE XDCR
25 CONTROL PANEL MCC CONTROL PANEL ODOR CONTROL PAD (FUTURE) ODOR CONTROL PAD (FUTURE) CONTROL PANEL ODOR CONTROL PAD CONTROL PAD CONTROLS. (2) 1.5 SPARE	24		VALVE VAULT, CHECK		1	
26 CONTROL PANEL PAD (FUTURE) PAD CONTROLS. MCC (2) 1.5 SPARE	25		GENERATOR		1	GENERATOR CONTROLS
	26				2	I
	27		VALVE VAULT		(2) 1.5	SPARE



CITY LOGO





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TRAND STREETS
TILITY EXTENSIONS

SCHEDULES

ROAD AND UTILITY EX ST. HELENS, OREGON

TITLE

DATE DESCRIPTION

REVISIONS

REVISIONS

NAVD88 DATUM

DRAWN BY

STATUS JUNE 10, 2022

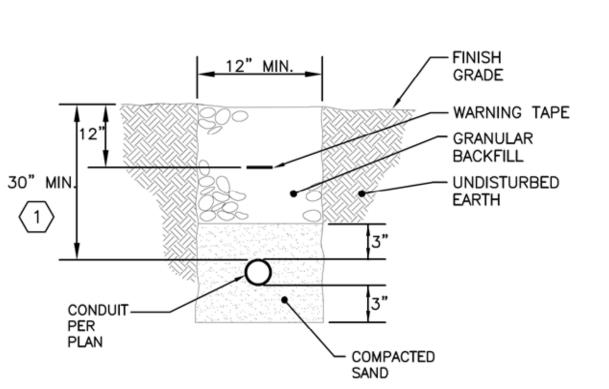
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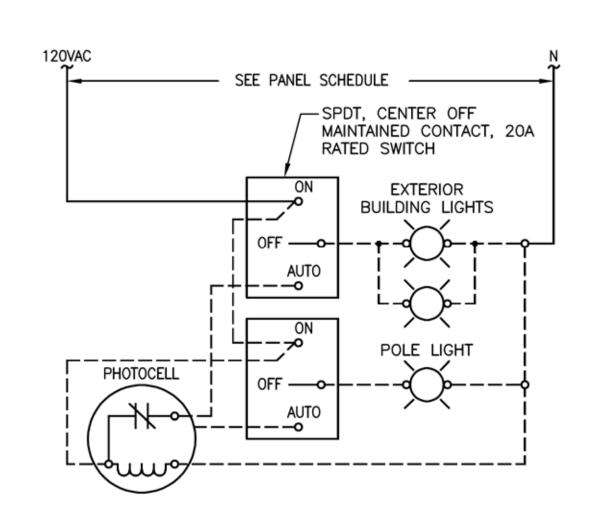
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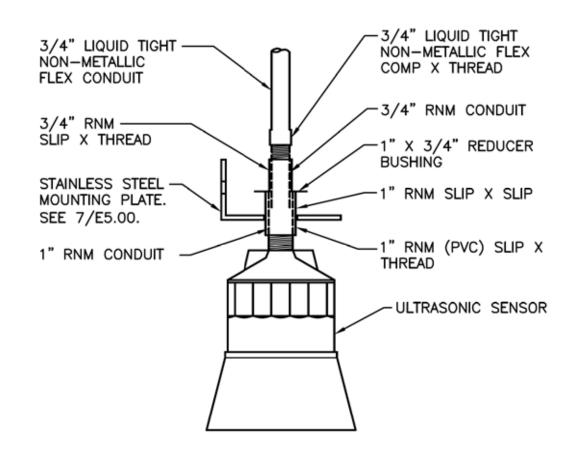
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Suite 107
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Office: (503) 292-6000
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TYPICAL CONDUIT TRENCH E5.00 NOT TO SCALE



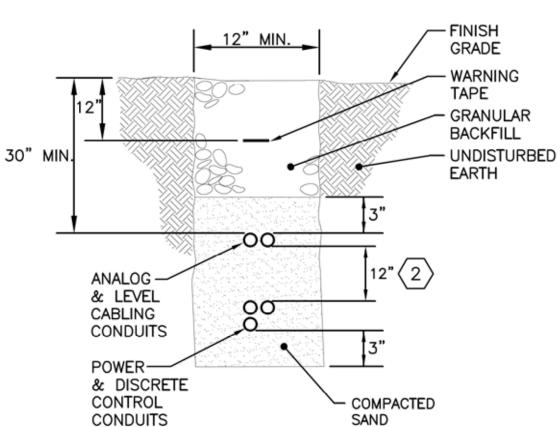
5 LIGHTING SWITCH CONTROL DETAIL E5.00 NOT TO SCALE

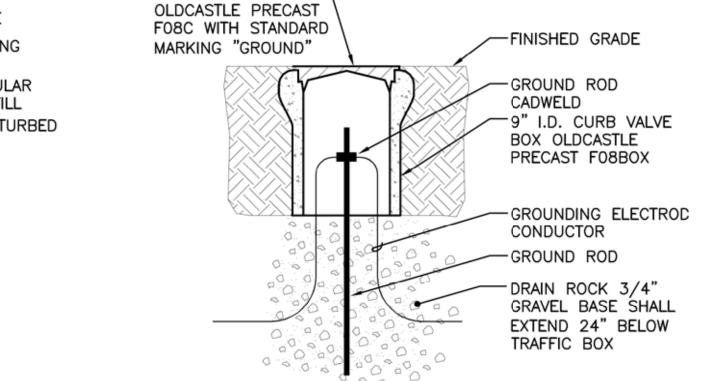


DETAIL NOTES:

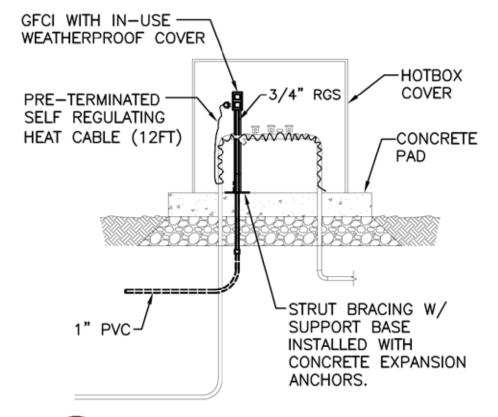
- ALL ASSOCIATED FIXINGS TO BE STAINLESS STEEL.
- 2. TRANSDUCER MOUNTING PLATE TO UNISTRUT BOLTS SHALL BE 3/8" TO ALLOW FOR PLUMB AND LEVEL ADJUSTMENT OF TRANSDUCER.
- 3. TRANSDUCER CABLE SHALL BE FULLY ENCLOSED BY 3/4" LT FLEX, UP TO TRENCH. DO NOT RUN LT FLEX IN TRENCH.
- TRANSDUCER CABLE SHALL BE A "HOME RUN" WITH NO SPLICES OR TERMINATIONS UNTIL LANDED AT CONTROLLER.

ULTRASONIC MOUNTING DETAIL E5.00 NOT TO SCALE



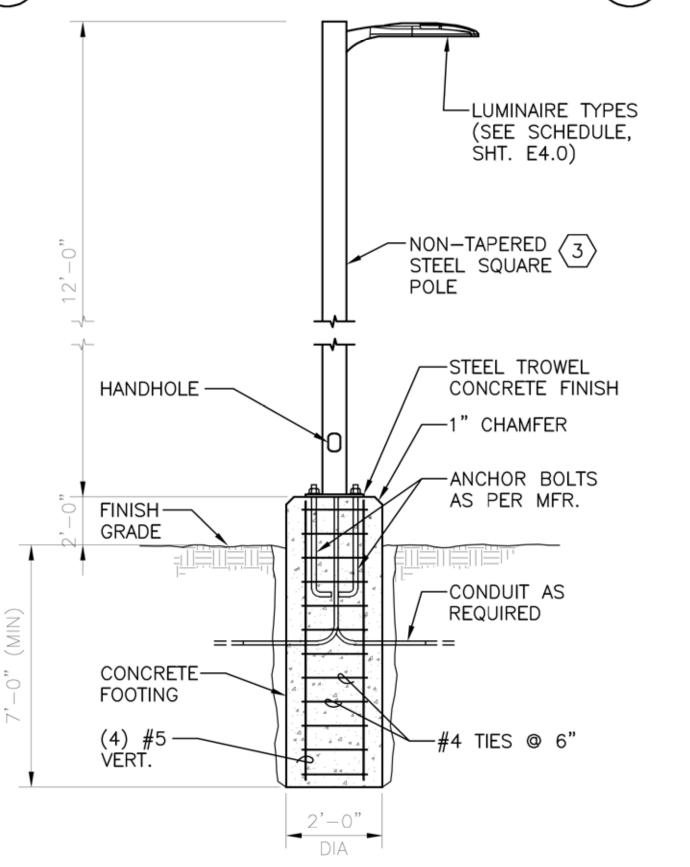


CAST IRON COVER -



HOTBOX GFCI DETAIL NOT TO SCALE

MIXED CONDUIT TRENCH **GROUND ROD TEST DETAIL** E5.00 NOT TO SCALE NOT TO SCALE



AREA LIGHT DETAIL

MOUNT CELLULAR

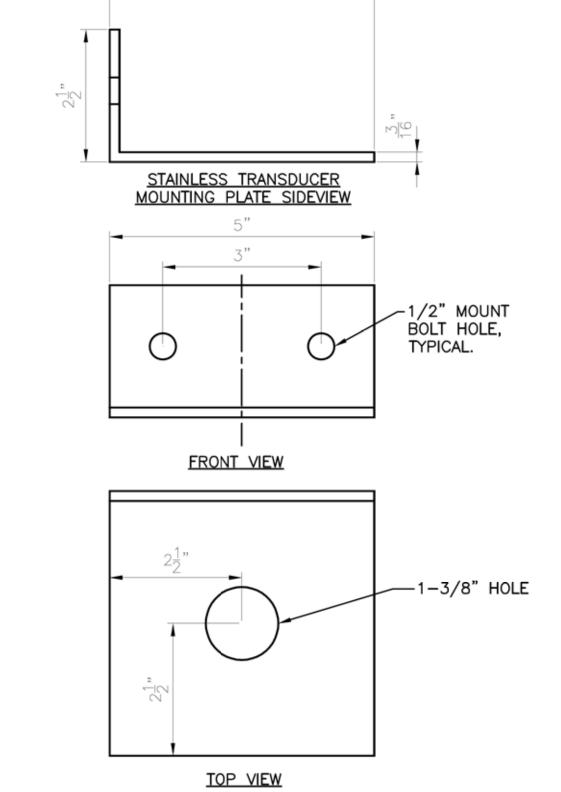
GROUT CONDUIT PENETRATION -

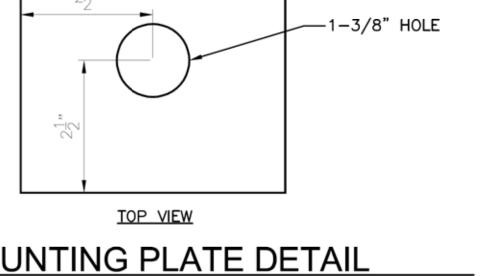
CELLULAR ANTENNA MOUNTING DETAIL

ON BOTH SIDE OF THE WALL

ANTENNA TO OUTSIDE WALL

E5.00 NOT TO SCALE



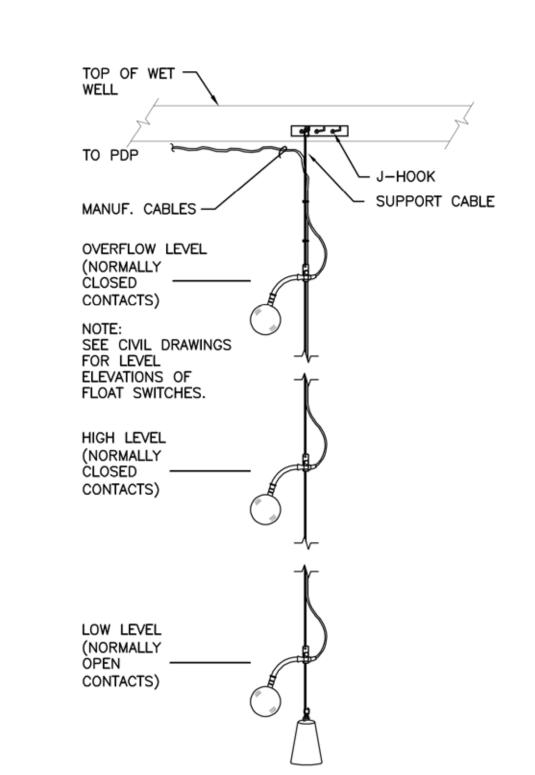


MOUNTING PLATE DETAIL

-INSTALL 1" CABLE SEAL

GLAND IN THE MAIN

CONTROL CABINET



FLOAT SWITCH MOUNTING DETAIL

NOTES THIS SHEET

- (1) VERIFY TRENCH DEPTH AND COVERING FOR INCOMING SERVICE CONDUIT WITH LOCAL UTILITY AND CIVIL DISCIPLINE FOR INTERSECTING PIPES.
- 2 12" SEPARATION MAY BE HORIZONTAL WITH SAME 30" TRENCH DEPTH FOR MIXED
- 4" SQUARE STEEL POLE WITH 4'-0" ARM. POLE AND ARM FINISH SHALL BE DARK BRONZE AND MATCH LUMINAIRE. POLE SHALL BE WELDABLE-GRADE, HOT-ROLLED CARBON STEEL TUBING WITH MINIMUM YIELD OF 55,000 PSI. PROVIDE MANUAL RECEPTACLE WITH DIE CAST METAL WEATHERPROOF IN-USE COVER MOUNTED ON POLE AT 18" AFG.



Project No.: 1655.002,001 Contact: MICHAEL FOSTER

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18533 YPEY L. HON EXPIRES 6/30/23

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R&W CAD DRAWN BY FINAL PLANS

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19823 / P-525

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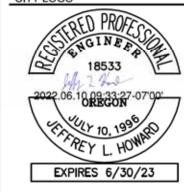
SOFT STARTER DIAGRAM

NOT TO SCALE

NOTES THIS SHEET

- 1) OPTION INPUT #1 PROGRAMMED FOR "STOP OPTION" (PUMP CONTROL
- 2 AUX #1 PROGRAMMED FOR "UP TO SPEED (NO)".
- 3 AUX #2 PROGRAMMED FOR "FAULT (NC)" (CONTACTS TO OPEN ON FAULT CONDITION OR LOSS OF POWER).
- POWER FAIL TIME DELAY LOCATED IN SEPARATE MCC SECTION. SEE ONE-LINE DIAGRAM.
- 5 FLYGT MINICAS 120 SENSOR. THERMAL CONTACT CLOSED IN "NORMAL CONDITION", OPENING ON FAULT. LEAK CONTACT OPEN IN "NORMAL CONDITION", CLOSING ON FAULT. MOUNTED ON INTERIOR DOOR NEAR INTERFACE UNIT.







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DIAGRAMS ING

S. 1ST AND STRAND STREETS
ROAD AND UTILITY EXTENSIONS
ST. HELENS, OREGON

ELECTRICAL WIR # DATE DESCRIPTION

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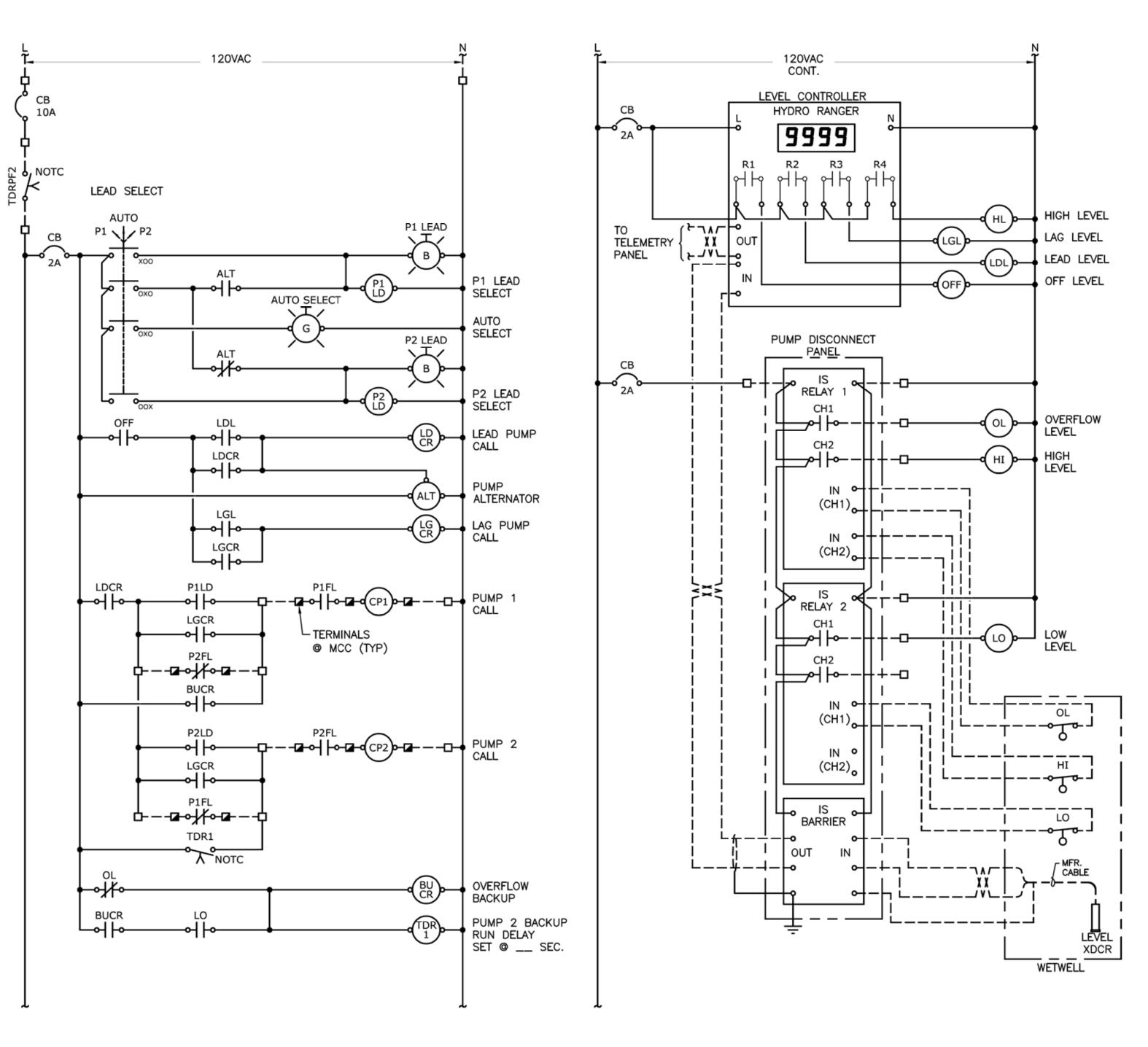
Project No.: 1655.002.001 Contact: MICHAEL FOSTER

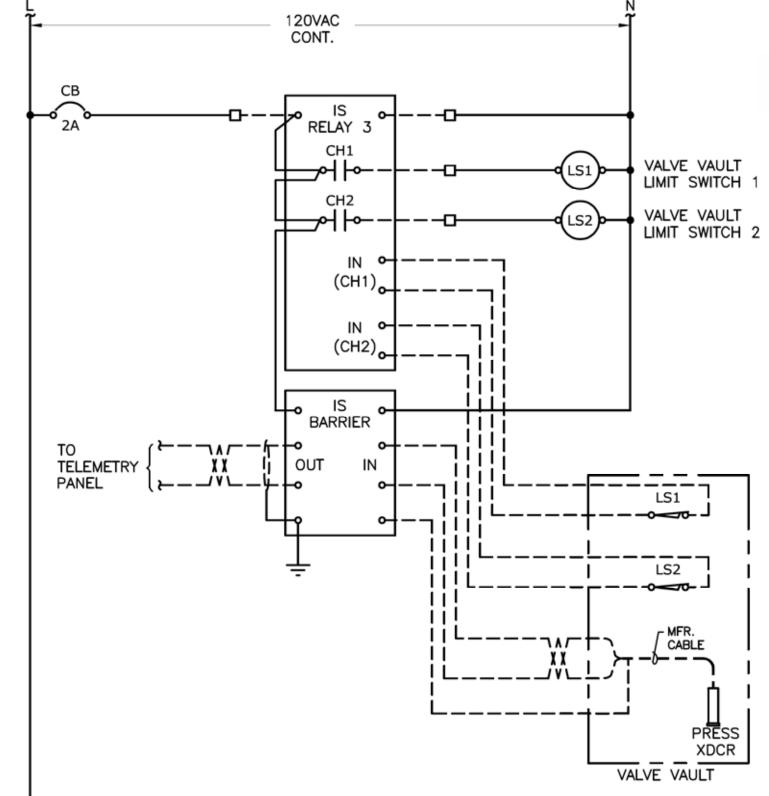
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PUMP CONTROL DIAGRAM NOT TO SCALE

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TRED PROFESSION 18533



EXPIRES 6/30/23

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ELECTRICAL WIRING DIAGRAMS

S. 1ST AND STRAND STREETS
ROAD AND UTILITY EXTENSIONS
ST. HELENS, OREGON

DATE DESCRIPTION

REVISIONS

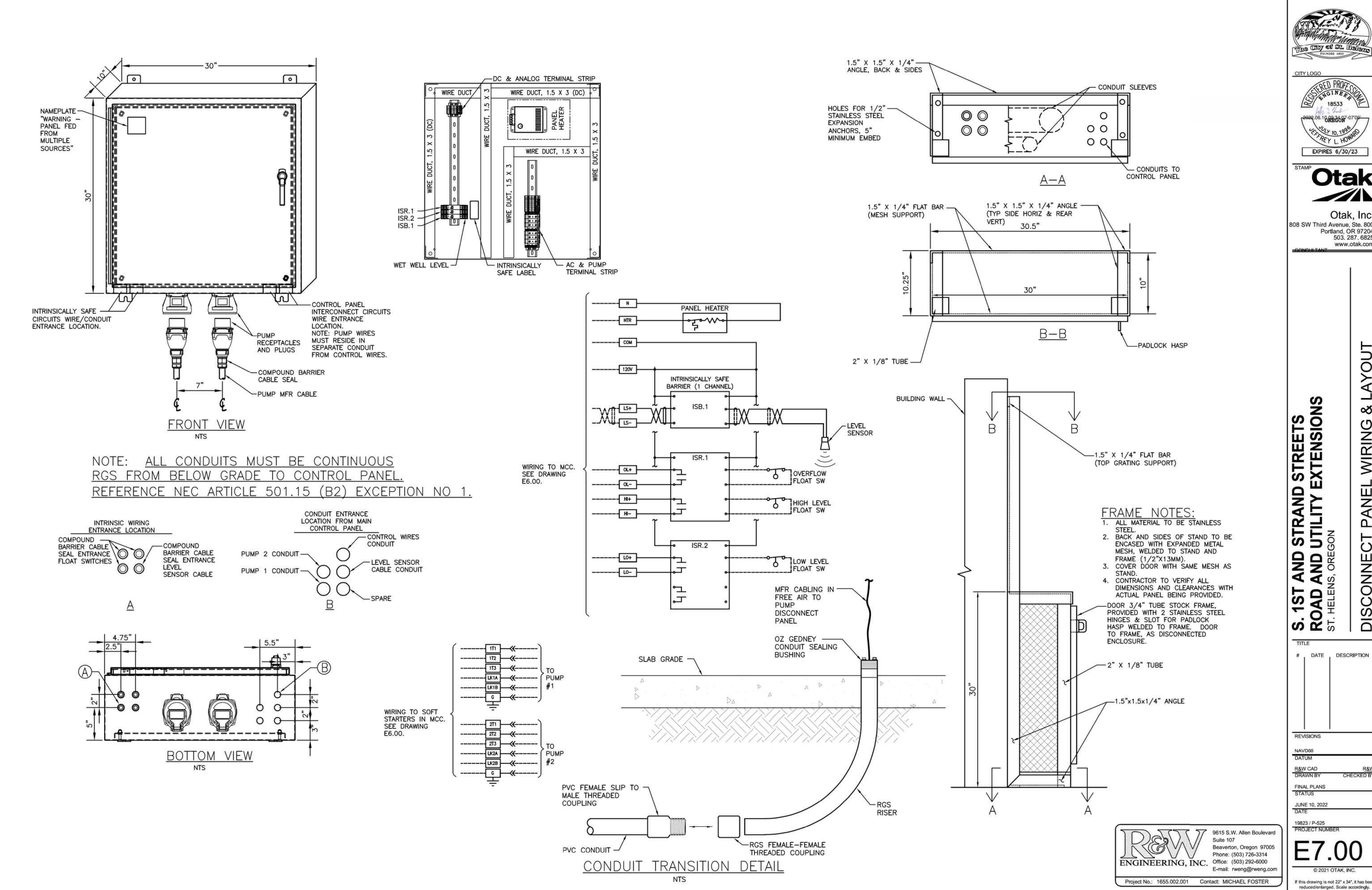
NAVD88 DATUM

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STATUS

19823 / P-525 PROJECT NUMBER

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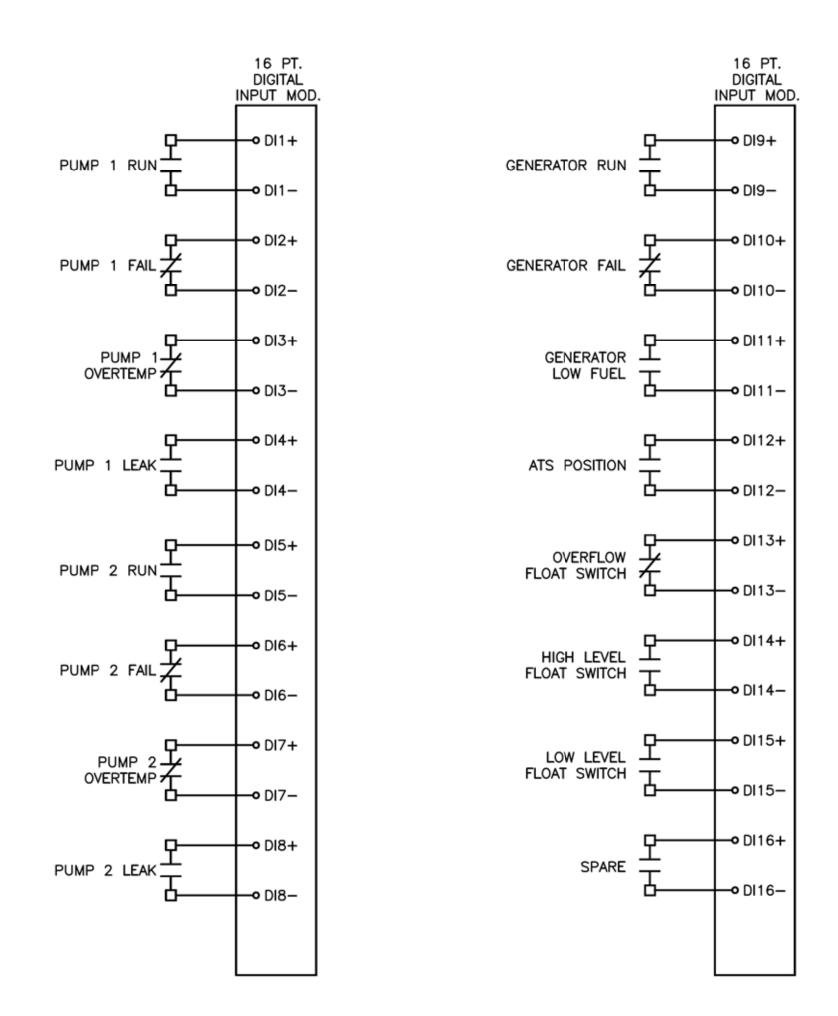
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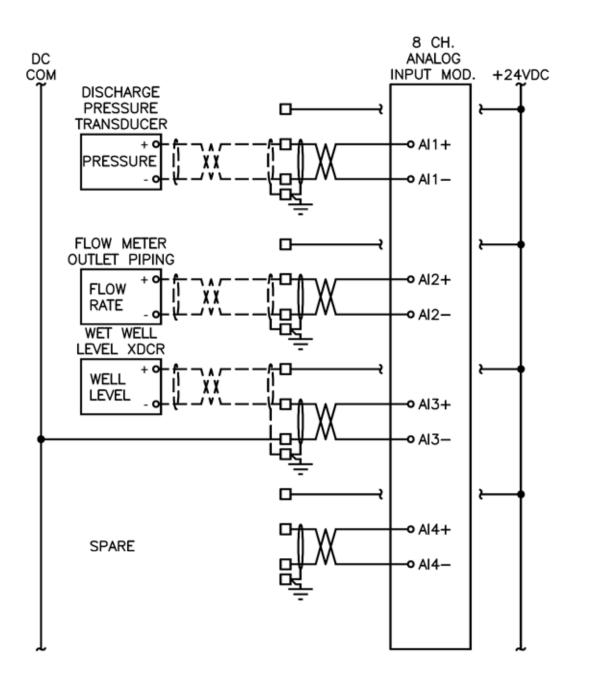
GENERAL NOTES

A, ANALOG AND DIGITAL INPUTS SHOWN FOR MISSION CONTROL PANEL.



GENERIC DIGITAL INPUTS

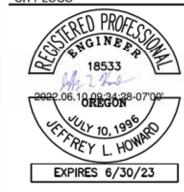
SCALE: N.T.S.



GENERIC ANALOG INPUTS

SCALE: N.T.S.







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S. 1ST AND STRAND STREETS
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AILS

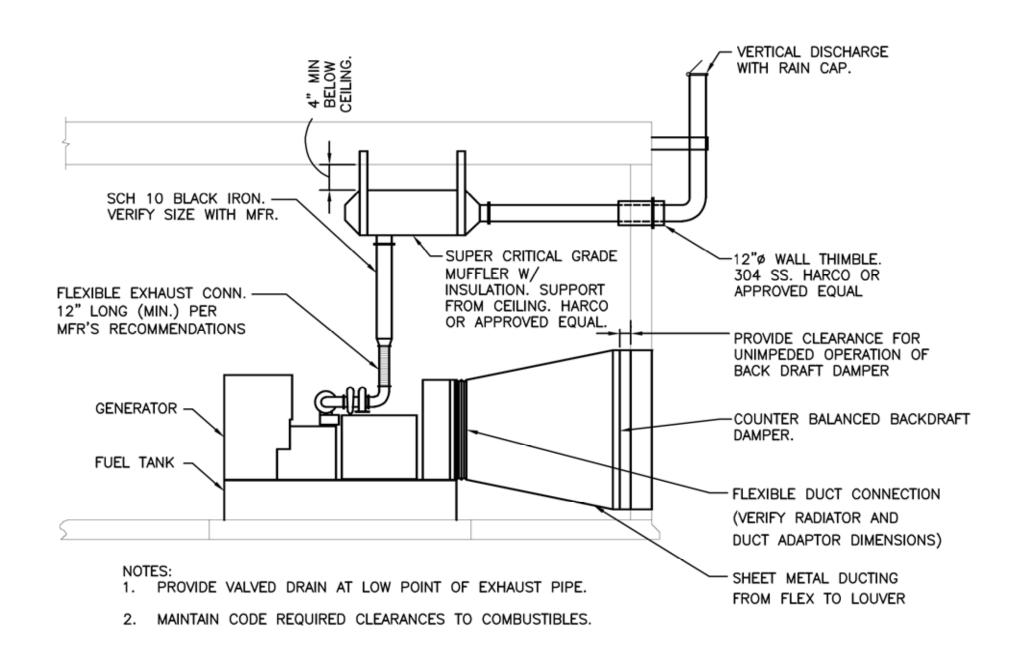
S. 1ST AND STRA	ROAD AND UTILIT	SI. HELENS, OREGON	ELECTRICAL DET
#	LE DATE	DESC	RIPTION

REVISIONS

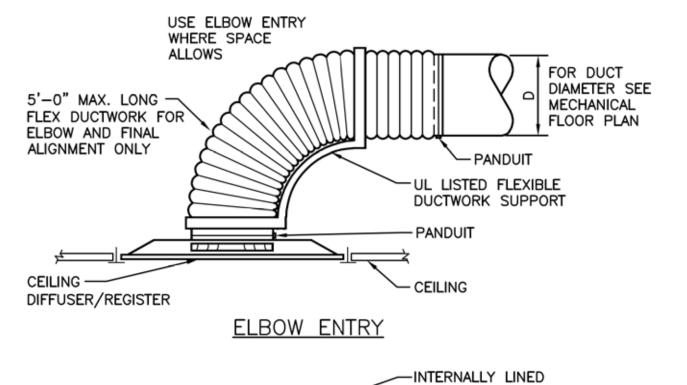
FINAL PLANS STATUS

JUNE 10, 2022 DATE

19823 / P-525 PROJECT NUMBER







PLENUM

24"

MAX

- ATTACH PLENUM TO DIFFUSER/REGISTER

and S**e**aĹ

- CEILING

- FLEX DUCTWORK

ALIGNMENT ONLY

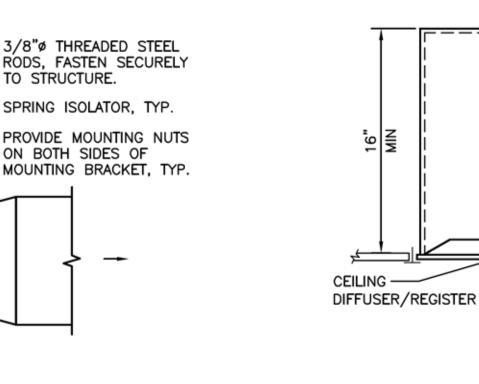
FOR FINAL

FOR DUCT DIAMETER SEE

MECHANICAL

FLOOR PLAN

— PANDUIT

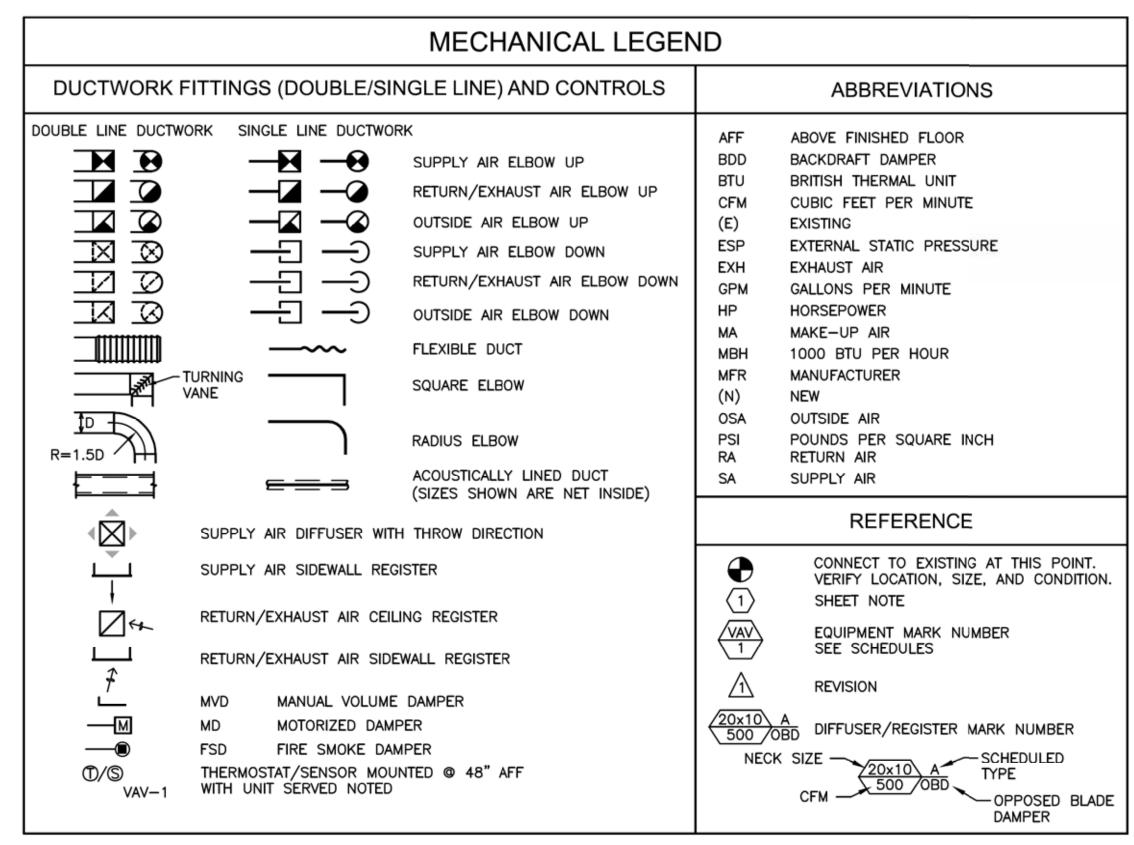


TO STRUCTURE.

NOTE: USE PLENUM ENTRY WHERE SPACE DOES NOT ALLOW FOR ELBOW ENTRY.

PLENUM ENTRY





NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS CONTAINED IN THIS LEGEND WILL APPEAR ON DRAWINGS.

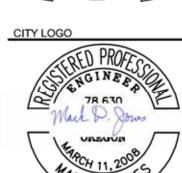
DIFFUSER, REGISTER, AND GRILLE SCHEDULE					
TYPE	DESCRIPTION	MFR/MODEL	OBD	NOTES	
Α	RETURN REGISTER SURFACE OR DUCT MOUNTED	TITUS/350RL	YES		

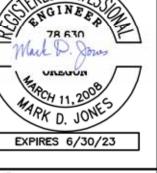
MARK NUMBER	EWH 1	EWH 2
SYSTEM	GENERATOR ROOM	CONTROL ROOM
TYPE	FAN-FORCED	FAN-FORCED
HEATING CAPACITY (KW)	1.5	1.5
ELECTRICAL (V-PH)	120-1	120-1
INTEGRAL T-STAT	YES	YES
NOTES	1.	1.
MANUFACTURER/ MODEL	QMARK/ LFK151F	QMARK/ LFK151F

MARK NUMBER SYSTEM CONTROL ROOM TYPE INLINE CABINET AIR FLOW (CFM) SPECURPM O.05 SPEED (RPM) DISCHARGE INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED INLET GUARD INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) MANUFACTURER/ MODEL NOTES:		
ROOM TYPE INLINE CABINET AIR FLOW (CFM) 300 ESP("H20) 0.25 MOTOR (BHP) 0.05 SPEED (RPM) 732 DISCHARGE INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL GREENHECK/ CSP-A710		(EF)
AIR FLOW (CFM) SPEP("H20) MOTOR (BHP) O.05 SPEED (RPM) DISCHARGE INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL O.05 NO25 HORIZONTAL INTAKE LOUVER T'STAT YES NO SERVED NO GREENHECK/ CSP-A710	SYSTEM	
ESP("H20) 0.25 MOTOR (BHP) 0.05 SPEED (RPM) 732 DISCHARGE HORIZONTAL INTERLOCK WITH INTAKE CONTROLLED BY T'STAT BACKDRAFT DAMPER YES ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) 120-1 DESIGN WEIGHT (LBS) 36 NOTES MANUFACTURER/ MODEL GREENHECK/ CSP-A710	TYPE	
MOTOR (BHP) SPEED (RPM) 732 DISCHARGE HORIZONTAL INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL OUNCE 732 HORIZONTAL 1NTAKE LOUVER 7'STAT YES NO 120-1 120-1 GREENHECK/ CSP-A710	AIR FLOW (CFM)	300
SPEED (RPM) DISCHARGE HORIZONTAL INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL HORIZONTAL HORIZONTAL INTAKE LOUVER YES 1'STAT YES 120-1 36 ROTES GREENHECK/ CSP-A710	ESP("H20)	0.25
DISCHARGE INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL HORIZONTAL INTAKE LOUVER YES 12S VES RES RES RES RES RES GREENHECK/ CSP-A710	MOTOR (BHP)	0.05
INTERLOCK WITH INTAKE LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED YES INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL INTAKE LOUVER T'STAT YES YES SEMERGY STAR RATED YES NO GREENHECK/ CSP-A710	SPEED (RPM)	732
LOUVER CONTROLLED BY T'STAT BACKDRAFT DAMPER ENERGY STAR RATED INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL T'STAT YES NO 120-1 36 GREENHECK/ CSP-A710		
BACKDRAFT DAMPER ENERGY STAR RATED INLET GUARD ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) MANUFACTURER/ MODEL YES NO 120-1 120-1 GREENHECK/ CSP-A710	INTERLOCK WITH	
ENERGY STAR RATED INLET GUARD NO ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL YES NO 120-1 120-1 GREENHECK/ CSP-A710	CONTROLLED BY	T'STAT
INLET GUARD ELECTRICAL (V-PH) DESIGN WEIGHT (LBS) NOTES MANUFACTURER/ MODEL NO NO REENHECK/ CSP-A710	BACKDRAFT DAMPER	YES
ELECTRICAL (V-PH) 120-1 DESIGN WEIGHT (LBS) 36 NOTES MANUFACTURER/ GREENHECK/ MODEL CSP-A710	ENERGY STAR RATED	YES
DESIGN WEIGHT (LBS) 36 NOTES MANUFACTURER/ GREENHECK/ MODEL CSP-A710	INLET GUARD	NO
NOTES MANUFACTURER/ GREENHECK/ MODEL CSP-A710	ELECTRICAL (V-PH)	120-1
MANUFACTURER/ GREENHECK/ MODEL CSP-A710	DESIGN WEIGHT (LBS)	36
MODEL CSP-A710		
	MODEL	











Otak, Inc 808 SW Third Avenue, Ste. 800 Portland, OR 97204 503. 287. 6825 www.otak.com

AND ËS

SCHEDUL GEND **1ECHANICAL**

STRA UTILIT S. 1ST AND S ROAD AND U

STREETS EXTENSION

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TITL	E		
#	DATE	DESCRI	PTION
REVI	SIONS		
NAVE	088		

CHECKED B

STATUS DATE

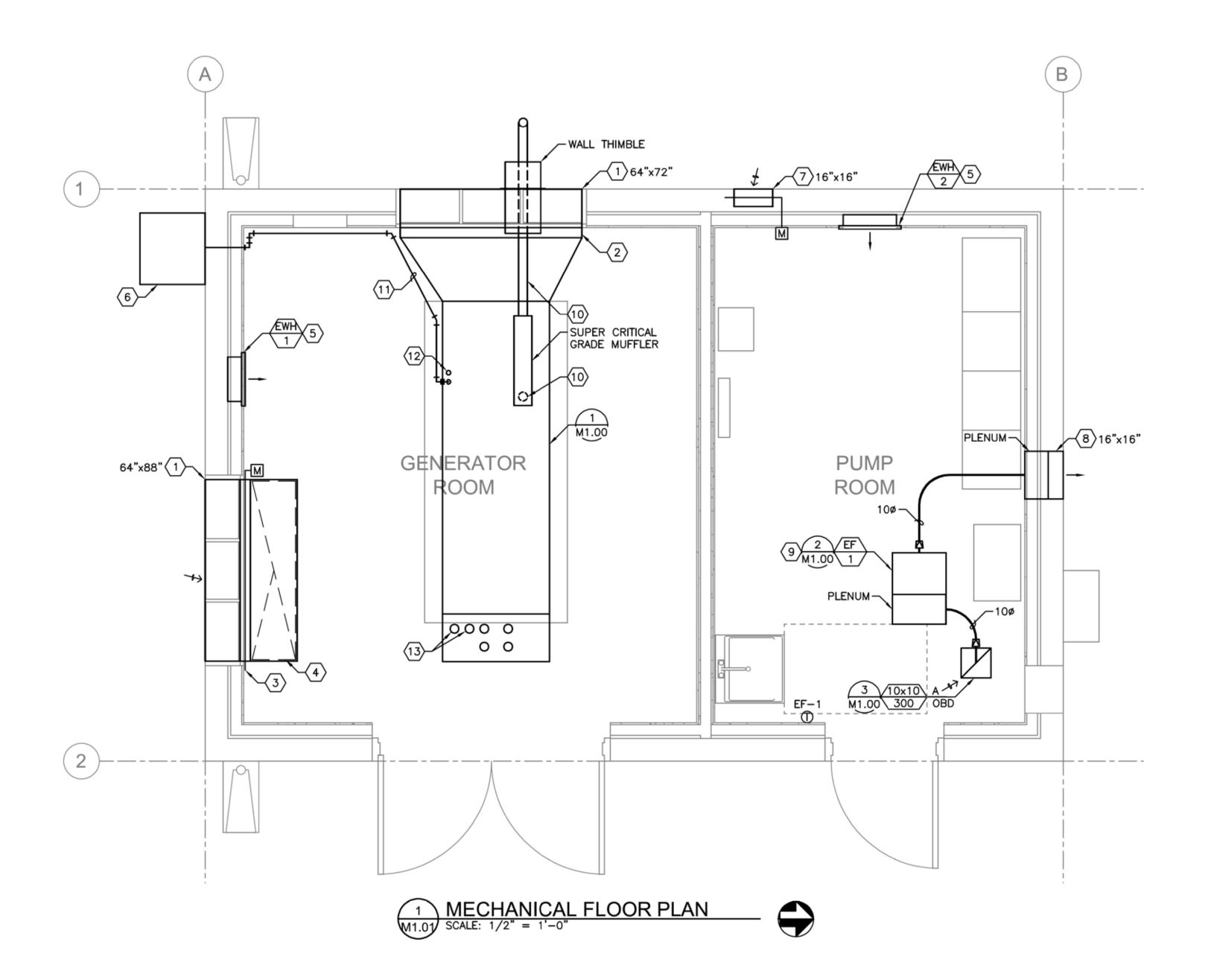
PROJECT NUMBER

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reduced/enlarged. Scale accordingly.

SPRING ISOLATOR, TYP. MOUNTING BRACKET -OR FLANGE, TYP. PROVIDE MOUNTING NUTS ON BOTH SIDES OF FLEXIBLE DUCT -CONNECTION, TYP. MOUNTING BRACKET, TYP. \rightarrow TRANSITION FROM -DUCT TO FAN INLET AND DISCHARGE AS REQUIRED. 2 INLINE EXHAUST FAN DETAIL
M1.00 NOT TO SCALE

Project No.: 1655.002.001 Contact: MARK JONES

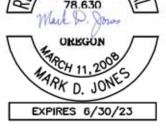


NOTES THIS SHEET

- GALVANIZED STEEL STATIONARY ACOUSTICAL LOUVER WITH BIRD SCREEN. LOUVER SHALL COME PRIMED, READY FOR PAINTING. SIZE INDICATED SHALL BE ON MODULE WITH CMU BLOCK. MOUNT AT 8" AFF. RUSKIN ACL845 OR APPROVED EQUAL.
- 2 EXTRUDED ALUMINUM COUNTER BALANCED BACKDRAFT DAMPER (SAME SIZE AS LOUVER) RUSKIN CBD4 OR APPROVED EQUAL.
- MOTORIZED CONTROL DAMPER WITH ACTUATOR. SAME SIZE AS LOUVER. RUSKIN CD36 OR APPROVED EQUAL. DAMPER SHALL FAIL OPEN AND BE PROVED OPEN PRIOR TO GENSET RUNNING.
- 4 1'-4"x5'-4" ACOUSTICALLY LINED PLENUM ATTACHED TO BACKSIDE OF DAMPER. PLENUM SHALL BE 8" AFF. AND OPEN AT BOTTOM.
- 5 MOUNT HEATER AT 24" AFF.
- FUEL FILL BOX SURFACE MOUNTED AT 24" ABOVE GRADE WITH 2" BACK PIPE CONNECTION. BOX SHALL BE 304 STAINLESS STEEL. COVER STICKERS TEMPORARILY AND PAINT PER ARCHITECTURAL. BOX SHALL BE MORE THAN 5' FROM ANY BUILDING OPENING. BOX TO COMPLY WITH NFPA REQUIREMENTS AND INCLUDE:
 - MAIN SUPPLY LINE WITH MANUAL BALL VALVE, ANGLE CHECK VALVE AND TIGHTFILL ADAPTER. - LOCKABLE, WEATHERPROOF, ENCLOSURE WITH 10-GALLON CONTAINMENT.
 - LOCKABLE, MANUAL BALL VALVE.
 - TWO-POINT ALARM PANEL TO RECEIVE HIGH LEVEL AND LEAK DETECTION ALARM INDICATIONS. GROUND CONNECTION.
 - ON/OFF POWER SWITCH AND VISUAL INDICATION
 - 90% AND 95% TANK FULL ALARM, VISUAL AND AUDIBLE, WITH AUTOMATICALLY CLOSING VALVE TO STOP FUEL DELIVERY.
 - MORRISON BROS. 715 REMOTE FILLPORT, SIMPLX, PRYCO OR APPROVED EQUAL.
- 7 EXTRUDED ALUMINUM COMBINATION LOUVER/DAMPER WITH BIRDSCREEN. LOUVER SHALL COME PRIMED, READY FOR PAINTING. SIZE INDICATED SHALL BE ON MODULE WITH CMU BLOCK. MOUNT AT 24" AFF. RUSKIN ELC6375DAX OR APPROVED EQUAL. PROVIDE WITH DAMPER ACTUATOR. DAMPER SHALL FAIL OPEN.
- 8 EXTRUDED ALUMINUM STATIONARY LOUVER WITH BIRDSCREEN. LOUVER SHALL COME PRIMED, READY FOR PAINTING. SIZE INDICATED SHALL BE ON MODULE WITH CMU BLOCK. MOUNT IN GABLE. RUSKIN ELF375DX OR APPROVED EQUAL.
- 9 PROVIDE 24"x24" CODE REQUIRED ACCESS DOOR IN CEILING BELOW EF-1 FOR SERVICE.
- (10) 3" EXHAUST PIPE. PIPE SLOPE TOWARD GENERATOR.
- (11) 2" FUEL PIPE. SLOPE A MINIMUM OF 2% TOWARD TANK.
- 2" VENT PIPE THROUGH ROOF. FLASH PENETRATION WATER TIGHT. TERMINATE WITH APPROVED VENT CAP.
- 3" EMERGENCY VENT THROUGH ROOF. FLASH PENETRATION WATER TIGHT. TERMINATE WITH APPROVED VENT CAP.









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STREETS EXTENSIONS

S. 1ST AND STRAN ROAD AND UTILIT ST. HELENS, OREGON

S. 1ST AND ST		SI. HELENS, OREGON	MECHANICAL
#	DATE	DESC	RIPTION
REV	ISIONS		

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Beaverton, Oregon 97005 Phone: (503) 726-3324 ENGINEERING, INC. Office: (503) 292-6000 E-mail: rweng@rweng.com

Project No.: 1655.002.001 Contact: MARK JONES

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MAYER / REED 319 SW WASHINGTON STREET, SUITE 820 PORTLAND, OR 97204 PHONE: (503) 223-5953 CONTACT: JERAMIE SHANE, ASLA

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ELECTRICAL ENGINEER

R&W ENGINEERING, INC. 9615 SW ALLEN BOULEVARD, SUITE 107 BEAVERTON, OR 97005 PHONE: (503) 292-6000 CONTACT: MICHAEL FOSTER

PLUMBING ENGINEER

GRAYLING ENGINEERS 654 OFFICERS ROW VANCOUVER, WA 98661 PHONE: (360) 347-6399 CONTACT: KYLE THOMPSON, PE

DRAWING SHEET INDEX

GENERAL G0.01 COVER SHEET G0.02 SITE PLAN G0.11 CODE SUMMARY AND FLS PLAN STRUCTURAL S0.01 GENERAL NOTES S2.01 FLOOR PLAN \$3.01 DETAILS

CONSTRUCTION ASSEMBLIES AND SCHEDULES

PS-4 PUMP STATION GRADING AND SURFACING PLAN PS-5 PUMP STATION MECHANICAL PLAN PS-6 PUMP STATION SECTION A - WETWELL & VAULT PS-7 PUMP STATION SECTION B - VAULT PS-8 PUMP STATION DETAILS I PS-9 PUMP STATION DETAILS II PS-10 PUMP STATION DETAILS III

PLUMBING

PS-1

PS-2

PS-3

MECHANICAL M1.00 MECHANICAL LEGEND, SCHEDULES AND DETAILS M1.01 MECHANICAL SITE PLAN

PUMP STATION NOTES AND ABBREVIATIONS

PUMP STATION DESIGN DATA

PUMP STATION SITE PLAN

ELECTRICAL LEGEND AND ABBREVIATIONS ELECTRICAL ONE-LINE, SCHEMATIC & DETAILS ELECTRICAL SITE PLAN

ELECTRICAL SCHEDULES ELECTRICAL DETAILS ELECTRICAL WIRING DIAGRAMS ELECTRICAL WIRING DIAGRAMS DISCONNECT PANEL, WIRING & LAYOUT

ELECTRICAL DETAILS

ELECTRICAL

E1.00

E2.00

E3.00

E4.00

E5.00

E6.00

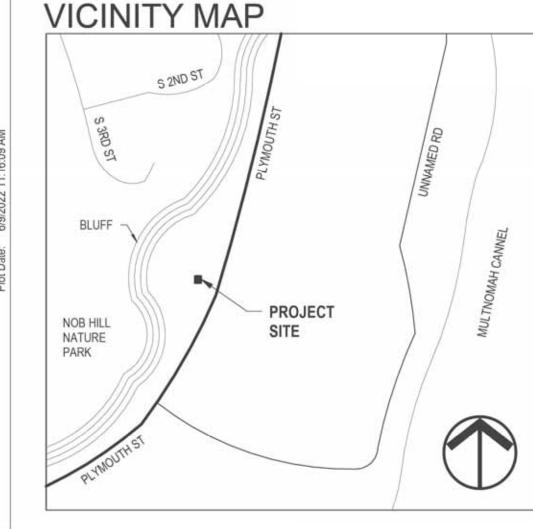
E6.01

E7.00

E8.00

DEFERRED SUBMITTALS

- FIRE ALARMS / DETECTION WOOD ROOF TRUSSES



PROJECT INFORMATION

SITE

ADDRESS: 1ST & STRAND LIFT STATION, ST HELENS, OR

FLOOR PLAN

ROOF PLAN

EXTERIOR ELEVATIONS

REFLECTED CEILING PLAN

BUILDING SECTION

EXTERIOR DETAILS

INTERIOR DETAILS

ARCHITECTURE

A1.01

A2.01

A2.02

A3.01

A4.01

A7.01

A8.01

A8.11

NEW PUMP STATION EQUIPPED WITH UNDERGROUND UTILITIES AND PUMP HOUSE. PUMP HOUSE INCLUDES A GENERATOR ROOM.

THE 384 SF BUILDING IS CONSTRUCTED WITH CMU AND METAL FRAMED WALLS WITH A WOOD TRUSS ROOF ON A STRUCTURALLY DESIGNED CONCRETE FOUNDATION AND SLAB ON GRADE.

THE PROJECT CONFORMS TO ABAAS ENTRY CLEARANCES, CIRCULATION AND EQUIPMENT CLEARANCES.

TOTAL SITE: 4,131 SF (0.09 ACRES)

ON-SITE IMPERVIOUS (BLDGS): 469 SF (0.01 ACRE) ON-SITE IMPERVIOUS (ROADS, WALKS): 2,247 SF (0.05 ACRE)

ZONING

RD - RIVERFRONT DISTRICT

(ORDINANCE NO. 3215 - ATTACHMENT "B" - ZONING)

EXISTING USE: NA

PROPOSED USE: PUMP STATION AND GENERATOR STORAGE

BUILDING DATA

CONSTRUCTION TYPE NUMBER OF FLOORS BUILDING AREA 384 SF BUILDING HEIGHT 11' - 0" +/-

ABBF

FLR

FND

FOC

FOF

FOS FOW

FT FTG FLOOR

FACE OF

FOUNDATION

FACE OF CONCRETE

FACE OF FINISH

FACE OF STUD

FACE OF WALL

FOOTING WALL

FEET

#	NUMBER	GA	GAUGE, GYPSUM ASSOCIATION
&	AND	GAL	GALVANIZED
Ģ	CENTERLINE	GB	GRAB BAR
A.	OLIVI LIKLING	GPM	GALLONS PER MINUTE
AC	ACRE	GYP	GYPSUM
ACC	ACCESSIBLE	GII	OTT OOM
AED	AUTOMATED	НВ	HOSE BIB
ALD	EXTERNAL	HC-PHB	HOLLOW CORE PRIMED
		пс-Рпв	HARDBOARD
AFF	DEFIBRILLATOR	LIDD	
AFF	ABOVE FINISH FLOOR	HDR	HEADER
ADJ	ADJUSTABLE	HDW	HARDWARE
AHU	AIR HANDLING UNIT	HM	HOLLOW METAL
ALUM	ALUMINUM	HORIZ	HORIZONTAL
APPROX	APPROXIMATE	HR	HOUR
APT	APARTMENT	HVAC	HEATING VENTILATION AND AIR
			CONDITIONING
BD	BOARD	19292	
BDRM	BEDROOM	IBC	INTERNATIONAL BUILDING
BLDG	BUILDING		CODE
BLKG	BLOCKING	IN	INCH
BM	BEAM	INFO	INFORMATION
BOD	BASIS OF DESIGN	INSUL	INSULATE(D), (ION)
BOT	BOTTOM	INT	INTERIOR
BR	BEDROOM		
		JAN	JANITOR'S
CIP	CAST-IN-PLACE	JST	JOIST
CJ	CONTROL JOINT		7.717
CL	CLOSET	KDHM	KNOCK-DOWN HOLLOW METAL
CLG	CEILING	KIT	KITCHEN
CLR	CLEAR(ANCE)	1811	MIGHEN
CMU	CONCRETE MASONRY UNIT	LAM	LAMINATE
CPT	CARPET	LAUN	LAUNDRY
COL		LD	LOAD
	COLUMNS		
CONT	CONTINUOUS	LGT	LIGHT
CONC	CONCRETE	LN	LINEN
CORR	CORRIDOR	LVT	LUXURY VINYL TILE
27		LW	LIVE/WORK
D	DRYER	*****	
DBL	DOUBLE	MAINT	MAINTENANCE
DF	DRINKING FOUNTAIN	MATL	MATERIAL
DIA	DIAMETER	MAX	MAXIMUM
DIM	DIMENSION	MDF	MEDIUM DENSITY FIBERBOARD
DN	DOWN	MECH	MECHANICAL
DR	DOOR	MEMB	MEMBRANE
DS	DOWN SPOUT	MFR	MANUFACTURER
DU	DWELLING UNIT	MIN	MINIMUM
DW	DISHWASHER	MIRR	MIRROR(ED)
DWG	DRAWING	MISC	MISCELLANEOUS
		MTL	METAL
EA	EACH		
EJ	EXPANSION JOINT	N	NORTH
EL	ELEVATION	NA	NOT APPLICABLE
ELEC	ELECTRICAL	NIC	NOT IN CONTRACT
ELEV	ELEVATOR	NO	NUMBER
EP	ELECTRICAL PANEL	NR	NON RATED
		5 57 770 7 4 4	NOT TO SCALE
EQUIP EQ	EQUIPMENT EQUAL	NTS	NOT TO SUALE
		00	ON CENTED
EXIST	EXISTING	000	ON CENTER
EXT	EXTERIOR	OCC	OCCUPANT(S), OCCUPANCY,
THE RESERVE	and an arrange of the latter is a second order of the latter of the latter is a second order of the latter of the		(IES)
FCP	FIBER CEMENT PANEL	OLF	OCCUPANT LOAD FACTOR
FD	FLOOR DRAIN	OPP	OPPOSITE
FEC	FIRE EXTINGUISHER CABINET	OPNG	OPENING
FIN	FINISH	ORD	OVERFLOW ROOF DRAIN
CLD	FLOOR	OCD	ODJENITED OTDANIO DOADO

OSB

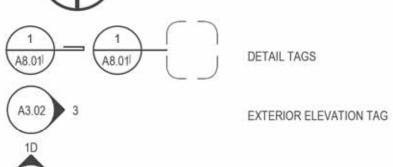
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OVFL

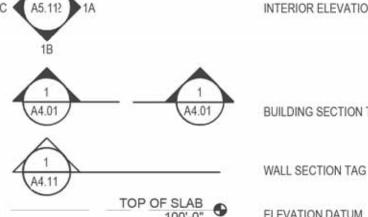
REATED, POST EILING PLAN(S) CTOR SPEC SPECIFICATION STD STANDARD STL STEEL STOR STORAGE STC STRUCT STRUCTURAL SHEET VINYL TREAD, TEMPERED T&G TONGUE & GROOVE TOWEL BAR TEMPERED GLASS THK THICK, THICKNESS TOP OF TOILET PAPER T/S

SYMBOLS









ELEVATION DATUM

GRID LINE/ GRID BUBBLE ROOM TITLE

TEMPERED GLAZING

GRAPHIC SCALE

REVISION TAG AND CLOUD

PROJECT NUMBER

JUNE 10, 2022

GENERAL NOTES

- FOR USE BY OTAK, INC. CLIENTS ONLY. IT HAS BEEN PREPARED SPECIFIC TO THIS PROJECT AT THIS SITE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE, LOCATION OR OWNER WITHOUT WRITTEN CONSENT OF OTAK, INC. UNAUTHORIZED REPRODUCTION, PUBLICATION OR DISSEMINATION, IN WHOLE OR IN PART IS EXPRESSLY PROHIBITED. INFORMATION CONTAINED HEREIN REMAINS PROPERTY OF OTAK, INC., AND RECEIPT OR POSSESSION OF THIS INFORMATION CONFERS NO RIGHT IN OR LICENSE TO USE OR DISCLOSE TO OTHERS THE SUBJECT MATTER CONTAINED HEREIN FOR ANY BUT AUTHORIZED PURPOSES. ALL RIGHTS RESERVED. COPYRIGHT 2022.
- 2. THE CONTRACT DOCUMENTS CONSIST OF THE AGREEMENT BETWEEN OWNER AND CONTRACTOR, CONDITIONS OF THE CONTRACT (GENERAL, SUPPLEMENTARY, AND OTHER 9. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND CONDITIONS), DRAWINGS, SPECIFICATIONS, ADDENDA ISSUED PRIOR TO AGREEMENT AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT.
- 3. ANY DOCUMENT IN THIS SET WHICH HAS BEEN PREPARED BY ANY SUBCONTRACTOR, DESIGNER, AND/OR SUBCONSULTANT WHO IS UNDER A CONTRACT DIRECTLY WITH THE OWNER AND/OR CONTRACTOR IS ONLY INCLUDED IN THIS SET FOR PURPOSES OF REFERENCE AND COORDINATION. OTAK DISCLAIMS ALL LIABILITY RELATING TO THE DRAWING AND CONSTRUCTION OF THE IMPROVEMENTS OR SYSTEMS IT DEPICTS EXCEPT AS SPECIFICALLY ASSUMED IN A WRITTEN CONTRACT SIGNED BY OTAK AND THE OWNER.
- 4. THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, INCLUDING THOSE IN ELECTRONIC FORM, PREPARED BY THE ARCHITECT, AND THE ARCHITECT'S CONSULTANTS ARE INSTRUMENTS OF SERVICE THROUGH WHICH THE WORK TO BE EXECUTED BY THE CONTRACTOR IS DESCRIBED. UNLESS INDICATED OTHERWISE, THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL BE DEEMED THE AUTHORS OF THEM AND WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, IN ADDITION TO THE
- IF COORDINATION OF ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER ELEMENTS RESULT IN CONFLICTS, NOTIFY ARCHITECT IMMEDIATELY PRIOR TO COMMENCING ANY WORK OF ELEMENTS RESULTING IN

- 1. THE INFORMATION HEREIN IS OF A PROPRIETARY NATURE AND IS SUBMITTED IN CONFIDENCE 6. SLOPE ALL GRADES AT PLANTING AREAS, SIDEWALKS AND ASPHALT PARKING PAVING WITHIN 5' OF A BUILDING AWAY FROM THE BUILDING. IF CONFLICTS OCCUR, NOTIFY ARCHITECT IMMEDIATELY. SEE CIVIL DRAWINGS FOR FINISHED GRADES ADJACENT TO
 - FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH
 - 8. DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS, DO NOT SCALE DRAWINGS, NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.
 - AND VERTICAL CARRYING SYSTEMS ARE COMPLETED. 10. DIMENSIONS ARE SHOWN TO FACE OF STUD, FACE OF CONCRETE, FACE OF MASONRY, GRID/COLUMN LINE, CENTERLINE OF ELEMENT, COUNTERTOP EDGE, OR AS NOTED.
 - 11. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF SUBCONTRACTOR WORK, COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS, AND ACCURATE LOCATION OF STRUCTURAL MEMBERS, OPENINGS FOR MECHANICAL, ELECTRICAL, AND MISCELLANEOUS EQUIPMENT. CONTRACTOR SHALL VERIFY DIMENSIONS AND OPENING SIZES (CLEARANCES REQUIRED) FROM THE MANUFACTURERS PRIOR TO CONSTRUCTION OF OR INSTALLATION OF EQUIPMENT, FURNISHINGS, AND ACCESSORIES

SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF CONSTRUCTION UNTIL FINAL LATERAL

REVIATIO	NS			
NUMBER	GA	GAUGE, GYPSUM ASSOCIATION	PLAM	PLASTIC LAMINATE
AND	GAL	GALVANIZED	PL	PLATE, PROPERTY LINE
CENTERLINE	GB	GRAB BAR	PLYWD	PLYWOOD
	GPM	GALLONS PER MINUTE	PNL	PANEL
ACRE	GYP	GYPSUM	PNT	PAINT
ACCESSIBLE			PR	PAIR
AUTOMATED	HB	HOSE BIB	PREFIN	PREFINISHED
EXTERNAL	HC-PHB	HOLLOW CORE PRIMED	PREPR	PRE-PRIMED
DEFIBRILLATOR		HARDBOARD	PT	PRESSURE TREATED, PO
ABOVE FINISH FLOOR	HDR	HEADER	3505	TENSION
ADJUSTABLE	HDW	HARDWARE		
AIR HANDLING UNIT	HM	HOLLOW METAL	R	RISER, RADIUS
ALUMINUM	HORIZ	HORIZONTAL	R&S	ROD AND SHELF
APPROXIMATE	HR	HOUR	RCP	REFLECTED CEILING PLA
APARTMENT	HVAC	HEATING VENTILATION AND AIR	RD	ROOF DRAIN
	10710	CONDITIONING	REF	REFERENCE
BOARD			REFL	REFLECTED
BEDROOM	IBC	INTERNATIONAL BUILDING	REFR	REFRIGERATOR
BUILDING	7.55	CODE	REQD	REQUIRED
BLOCKING	IN	INCH	REST	RESTROOM
BEAM	INFO	INFORMATION	RM	ROOM
BASIS OF DESIGN	INSUL	INSULATE(D), (ION)	RO	ROUGH OPENING
BOTTOM	INT	INTERIOR	1.32	110001101
BEDROOM	3,55	111111111111111111111111111111111111111	SAMF	SELF-ADHERING MEMBRA
DEDITOOM	JAN	JANITOR'S	- C- 1411	FLASHING
CAST-IN-PLACE	JST	JOIST	SD	SMOKE DETECTOR
CONTROL JOINT	001	00.01	SF	SQUARE FOOT
CLOSET	KDHM	KNOCK-DOWN HOLLOW METAL	SHTHG	SHEATHING
CEILING	KIT	KITCHEN	SIM	SIMILAR
CLEAR(ANCE)	1311	IM I STITLET	CDEC	COECIFICATION

NG MEMBRANE SOUND TRANSMISSION CLASS

WD

WIC

WIN

WRB

ORIENTED STRAND BOARD

OREGON STRUCTURAL

SPECIALTY CODE

OVERFLOW

TUB/SHOWER TYPICAL UNO UNLESS NOTED OTHERWISE UNFIN UNFINISHED VCT VINYL COMPOSITION TILE VERT VERTICAL VRFY VERIFY

WASHER WITH WOOD WATER HEATER WALK IN CLOSET WINDOW WATERPROOF WATER RESISTANT WATER RESISTANT BARRIER ROOM NAME

9 Z V AD BUILDING SECTION TAG

5 0

E S

STREE

9

S

ST STS TITLE # DATE DESCRIPTION

Otak Architects, Inc.

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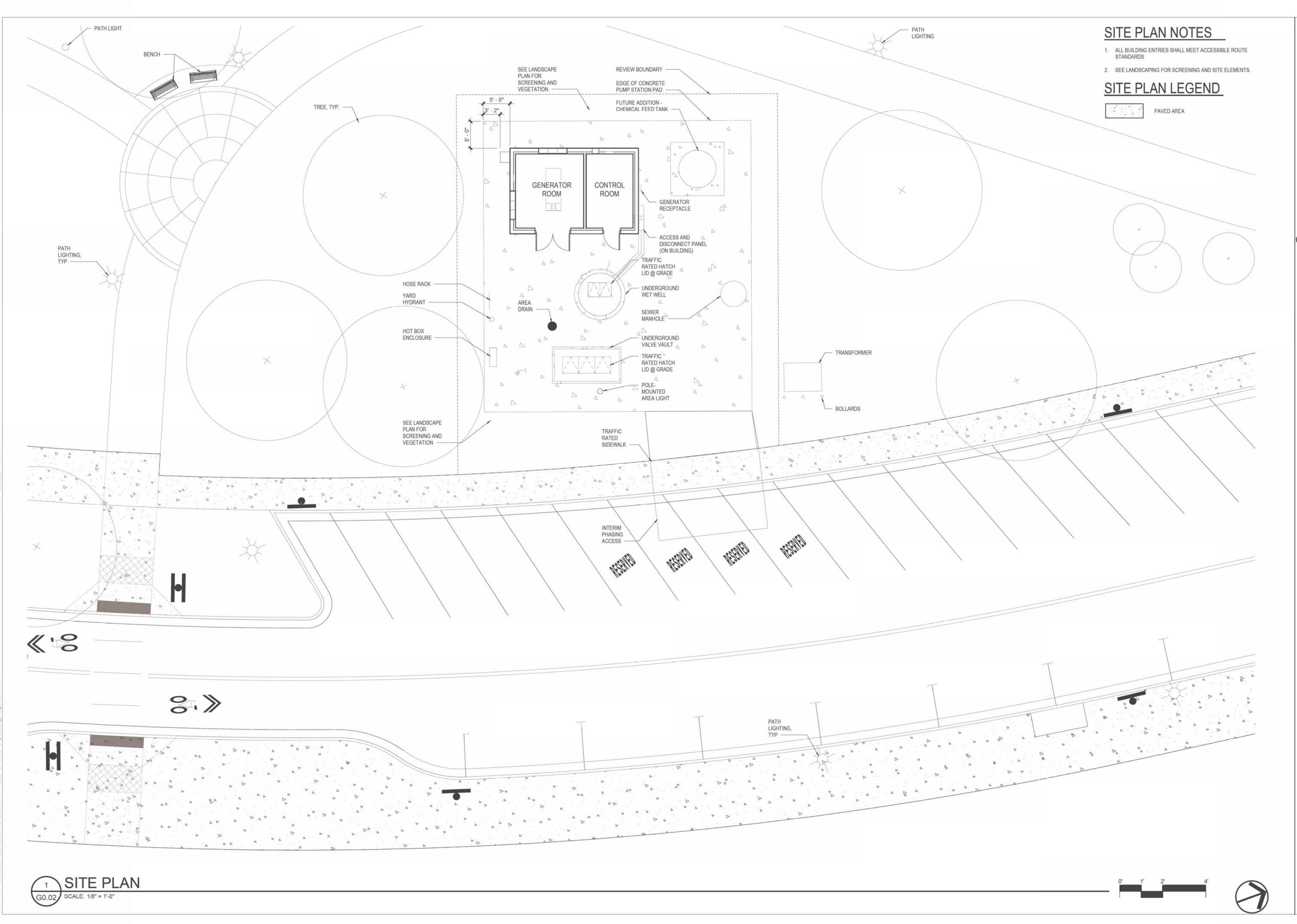
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REVISIONS

NAVD88 DATUM

DRAWN BY CHECKED BY FINAL PLANS STATUS

DATE 19823







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TY EXTENSIONS

DATE DESCRIPTION REVISIONS

CJ DRAWN BY FINAL PLANS STATUS

JUNE 10, 2022 DATE

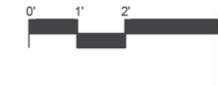
19823 PROJECT NUMBER

GENERATOR ROOM

50 KW

GENERATOR

00



FLS LEGEND

FEC

CODE PLAN GENERAL NOTES

CONTINUITY: FIRE BARRIERS SHALL EXTEND FROM THE TOP OF

ABOVE AND SHALL BE SECURELY ATTACHED THERETO. FIRE BARRIERS SHALL BE CONTINUOUS THROUGH CONCEALED SPACES.

CONTROL ROOM

2

CLEAR REQ'D

THE FLOOR ASSEMBLY BELOW TO THE UNDERSIDE OF THE ROOF

OCCUPANT LOAD

SURFACE MOUNTED

FIRE EXTINGUISHER CABINET

2- HR RATED FIRE BARRIER



1 | SCOPE & ADMINISTRATION

CODE PATH

STRUCTURAL CODE: 2019 OREGON STRUCTURAL SPECIALTY CODE MECHANICAL CODE: 2019 OREGON MECHANICAL SPECIALTY CODE PLUMBING CODE: 2021 OREGON PLUMBING SPECIALTY CODE ELECTRICAL CODE: 2021 OREGON ELECTRICAL SPECIALTY CODE ENERGY CODE: 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC) ACCESSIBLITY: 2015 ARCHITECTURAL BARRIERS ACT (ABAAS)

MUNICIPAL CODE

ST. HELENS MUNICIPAL CODE - SECTION 17.32.170 - GUIDELINES FOR THE RIVERFRONT DISTRICT ZONING DISTRICT

3 | USE & OCCUPANCY

OCCUPANCY GROUPS

S-1: STORAGE U: UTILITY

4 | SPECIAL OCCUPANCY REQUIREMENTS

5 | BUILDING CONSTRUCTION

CONSTRUCTION TYPE

CONSTRUCTION TYPE: V-B, NON-SPRINKLERED

HEIGHT IN FEET

PROVIDED: 10 - 10" ALLOWED: 40' - 0"

NUMBER OF STORIES

PROVIDED: 1 STORY ALLOWED: 1 STORY

GROSS BUILDING AREA SUMMARY

OCCUPANCY GROUP S-1 FLOOR TOTAL 165 GSF 219 GSF 384 GSF

FIRE-RATING REQUIREMENTS FOR BUILDING ELEMENTS

S-1 AND U OCCUPANCY REQUIRED SEPARATION

OCCUPANCY GROUP AREA SUMMARY & TABULAR ALLOWABLE AREA

BASE GSF:

9,000 GSF

5,500 GSF

TYPE & OCCUPANCY:

TYPE VB - S-1 (STORAGE - NOT-SPRINKLERED) OCCUPANCY TYPE VB - U (UTILITY - NOT-SPRINKLERED) OCCUPANCY

TABULAR ALLOWABLE AREA FOR TYPE VB BUILDING:

Aa= [At+ (NS x If)] WHERE:

 $A_t = 5,500$

NS= NA

 $I_f = NA$

 $A_a = [A_t + (NS \times I_f)] = [5,500 + (0 + 0)] = 5,500 GSF$

MAX TOTAL BUILDING AREA = 5,500 GSF

6 | TYPES OF CONSTRUCTION

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

PRIMARY STRUCTURAL FRAME EXTERIOR BEARING WALLS INTERIOR BEARING WALLS STRUCTURAL FRAME SUPPORTING ROOF ONLY FLOORS & SECONDARY MEMBERS ROOF CONSTRUCTION

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS

FIRE SEPARATION DISTANCE	V-B & S-1 OCC	V-B & U OCC
X < 5	2	1
5 < X < 10	1	1
10 < X < 30	0	0
X > 30	0	0

7 | FIRE & SMOKE PROTECTION FEATURES

BUILDING SEPARATION

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

FACADE	PROTECTION / SPRINKLERING	DISTANCE TO MEASURED SEPARATION
NORTH	UNPROTECTED / NONSPRINKLERED	D NA
EAST	UNPROTECTED / NONSPRINKLERED	D NA
SOUTH	UNPROTECTED / NONSPRINKLEREI	D NA
WEST	UNPROTECTED / NONSPRINKLEREI	D NA

FIRE BARRIERS

WHERE THE PROVISIONS OF SECTION 508.4 ARE APPLICABLE, THE FIRE BARRIER SEPARATING MIXED OCCUPANCIES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THAT INDICATED IN TABLE 508.4 BASED ON THE OCCUPANCIES BEING SEPARATED PER SECTION 707.3.9.

8 | INTERIOR FINISHES

FLAME-SPREAD RATING

WALL AND CEILING FINISH MATERIALS TO HAVE THE FOLLOWING FLAME SPREAD RATING OR HIGHER:

1.000	TERIOR EXIT STAIRWAYS & MPS & EXIT PASSAGEWAYS	CORRIDORS & ENCOSURE FOR EXIT ACCESS STAIRWAYS & RAMPS	ROOMS & ENCLOSED SPAC
S-1 NA		NA	CLASS C
U NA		NA	NO RESTRICTION

9 | FIRE PROTECTION SYSTEMS

SPRINKLER SYSTEM

SPRINKLER SYSTEM NOT REQUIRED PER OSSC 903.2.

10 | MEANS OF EGRESS

OCCUPANCY LOAD SUMMARY

LEVEL 01:

STORAGE @ 300 GROSS OLF = 1 OCCUPANT

TOTAL BUILDING OCCUPANTS: 2 OCCUPANTS

NUMBER OF EXITS

LEVEL 01: PROVIDED: 2 REQUIRED: 2

AREAS OF REFUGE

NO AREAS OF REFUGE ARE REQUIRED FOR THE SCOPE.

11 | ACCESSIBILITY

PARKING

SCOPE DOES NOT REQUIRE ADDITIONAL PARKING, NO ADDITIONAL PARKING PROVIDED AS PART OF THIS PROJECT.

SIGNAGE

NO SIGNAGE WILL BE ADDED OR MODIFIED AS PART OF THIS PROJECT.

13 | ENERGY EFFICIENCY

CRITERIA

BUILDINGS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE ENERGY CODE, PER SECTION 1301.1.1.

ASHRAE 90.1 - 2019

5.4.3.1 THE ENTIRE BUILDING ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED WITH A CONTINUOUS AIR BARRIER.

TABLE 5.5-4 (CLIMATE ZONE 4C)

JILDING ELEMENT	REQUIRED	PROVIDED
OOFS - ATTIC AND OTHER (SEMIHEATED)	R-30	R-30
ALLS - STEEL-FRAMED (ABOVE GRADE)	R-13	R-13
ABS - HEATED (SEMIHEATED)	R-10 for 24*	R-10 for 24"
PAQUE DOORS - SWINGING	U-0.37	U-0.37 MIN







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STREETS
EXTENSIONS 2

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DATE DESCRIPTION

REVISIONS NAVD88

DATUM

DRAWN BY CHECKED BY FINAL PLANS

STATUS JUNE 10, 2022

> 19823 PROJECT NUMBER

reduced/enlarged. Scale accordingly.

THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS GOVERNED BY THE THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF REGON, 2019 OREGON STRUCTURAL SPECIALTY CODE (2019 OSSC).

THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK USE DETAILS MARKED "TYPICAL" WHEREVER THEY APPLY.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK; FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; FOR SELECTING FABRICATION PROCESSES; FOR TECHNIQUES OF ASSEMBLY; AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA.

THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND REQUIREMENTS FOR EXECUTING IT PROPERLY. THE STRUCTURE SHOWN ON THE PLANS HAS BEEN DESIGNED FOR STABILITY UNDER THE FINAL CONFIGURATION ONLY.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICTS BETWEEN THE DRAWINGS AND THE ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

FOUNDATION ALLOWABLE BEARING 1500PSF

WIND 130MPH, Vult, RISK CAT. IV EXPOSURE C SEISMIC Ss=0.830g Sds=0.664g SITE CLASS D DESIGN CATEGORY D RISK CATEGORY IV

> SYT: EQUIVALENT LATERAL FORCE LATERAL SYSTEM: MASONRY SHEAR WALLS

SNOW LOAD 25 PSF(MIN, ROOF - CITY OF ST, HELENS DESIGN CRITERIA)

DEAD LOAD ROOF 20 PSF WALLS 94 PSF LIVE LOAD ROOF 20 PSF

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH IBC CHAPTER 17 AND THE STANDARDS REFERENCED THEREIN. FOUNDATIONS, FOOTINGS, UNDER SLAB SYSTEMS AND FRAMING ARE SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL IN ACCORDANCE WITH IBC 110.3. CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE ARCHITECT.

SPECIAL INSPECTORS SHALL BE EMPLOYED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS FOR THE PROJECT.

SPECIAL INSPECTIONS SHALL CONFORM TO PROJECT STATEMENT OF STRUCTURAL TESTS & INSPECTIONS FORM.

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:

CONCRETE MIX DESIGNS, CONCRETE REINFORCEMENT, CMU GROUT MIX DESIGNS, CMU REINFORCEMENT, EMBEDDED STEEL ITEMS, STRUCTURAL STEEL ASSEMBLIES, AND PREFABRICATED WOOD TRUSSES.

IF THE SHOP DRAWINGS DIFFER FROM, OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO, AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF, THE ARCHITECT & ENGINEER OF RECORD.

DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS, INCLUDING PREFABRICATED WOOD TRUSSES SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE BUILDING OFFICIAL, PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE CODES LISTED ABOVE AND THE LOADS OUTLINED ABOVE.

THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. ANY CONNECTIONS TO STRUCTURE NOT CONFORMING TO SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA), OR SPECIFICALLY DETAILED ON THE MECHANICAL ENGINEER'S DRAWINGS, SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.

FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO, THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION.

CAST-IN-PLACE CONCRETE

CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR TO SUBMIT ALL MIX DESIGNS REQUIRED BY ACI 301 SECTIONS 4.2.1. CONTRACTOR TO VERIFY CONCRETE STRENGTHS BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39. CONTRACTOR TO USE THE FOLLOWING MIX DESIGN REQUIREMENTS

FOOTINGS AND FLOOR SLABS F'C = 4000 PSI, 28 DAY STRENGTH 1 INCH MAXIMUM AGGREGATE

0.5 MAXIMUM WATER/CEMENT RATIO

HIGHER WATER/CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318-14, CHAPTER 19.

FLY ASH CONFORMING TO ASTM C845 MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS AS OUTLINED ABOVE, ALONG WITH TEST DATA AS REQUIRED, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE ARCHITECT BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

CONCRETE REINFORCING SHALL CONFORM TO ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE".

CONTRACTOR SHALL SUBMIT PLACING DRAWINGS SHOW FABRICATION DIMENSIONS AND LOCATIONS FOR PLACEMENT OF REINFORCEMENT AND REINFORCEMENT SUPPORTS.

MATERIALS

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS AND ASTM A185 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. COLUMN SPIRALS SHALL BE PLAIN OR DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE.

BARS IN SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.

WELDING OF REINFORCING STEEL IS NOT PERMITTED.

UNLESS OTHERWISE NOTED ON PLANS, CONCRETE COVER SHALL BE: 1" TOP COVER SLAB BARS

WALL BARS: INTERIOR FACES 3/4"

EXPOSED TO EARTH OR WEATHER 1-1/2" (#5 AND SMALLER) 2" (#6 AND LARGER)

FOOTING BARS 3" BOTTOM COVER ALL OTHER LOCATIONS 1-1/2"

SPLICES

SPLICES SHALL CONFORM TO ACI 301, SECTION 3.3.2.7 "SPLICES". LAP SPLICES SHALL CONFORM TO THE TABLE BELOW:

REINFORCING SPLICE LENGTHS (CLASS B) GRADE 60 fc = 4.0 ksi					= 4.0 ksi			
BAR SIZE	#3	#4	#5	#6	#6 #7 #8			
UNCOATED 2'-0" 2'-6" 3'-6" 4'-0" 5'-0" 5'-						5'-6"		

CONCRETE ACCESSORIES

PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED, GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED, NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER PAINTING.

EPOXY ADHESIVE: EPOXY ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO-COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND A LONG POT LIFE, AND SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES. MINIMUM SLANT SHEAR STRENGTH SHALL BE 5,000 PSI, AND MINIMUM TENSILE STRENGTH SHALL BE 4,000 PSI. HOLES FOR GROUTED RODS AND REBAR SHALL BE 1/4" LARGER THAN THE BAR DIAMETER. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL

STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS. CONSTRUCTIONS SHALL CONFORM TO CHAPTER 22 OF THE IBC. ALL STRUCTURAL STEEL EXPOSED TO WEATHER OR IN CONTACT WITH MOISTURE OR PARTIALLY BURIED SHOULD BE HOT DIP GALVANIZED.

STRUCTURAL STEEL SHALL BE THE TYPES AND STRENGTHS LISTED BELOW:

STRUCTURAL BARS AND PLATES (PL) ASTM A36 FY=36KSI ASTM A500 GRADE C FY=50KSI WELDING ELECTRODES E70XX UNLESS OTHERWISE NOTED ASTM A53 BOLTS: ASTM A307 NUTS: ASTM A563 B. HEX WASHERS ASTM F436

ROOFING MATERIAL: SEE ARCH PLANS

WELDING SHALL CONFORM TO AWS D1.1 AND VISUALLY CONFORM TO AWS SECTION 6 AND TABLE 6.1. WELDERS SHALL BE QUALIFIED FOR THE SPECIFIC PREQUALIFIED JOINTS REQUIRED BY THE DESIGN AND CERTIFIED IN ACCORDANCE WITH AWS REQUIREMENTS. WELDING SHALL BE DONE IN ACCORDANCE WITH APPROPRIATE WELD PROCEDURE SPECIFICATIONS (WPSS); WELDERS SHALL BE FAMILIAR WITH THE APPLICABLE WSPSS. WELDING SHALL BE DONE WITH AWS PREQUALIFIED WELDING PROCESSES UNLESS OTHERWISE APPROVED. WELDER QUALIFICATIONS AND WPSS SHALL BE MAINTAINED AT THE SITE OF THE WORK AND SHALL BE READILY AVAILABLE FOR INSPECTION UPON REQUEST, BOTH IN THE SHOP AND IN THE FIELD.

TIMBER MEMBERS, INCLUDING WOOD TRUSSES, SHALL CONFORM TO CHAPTER 23 OF THE IBC AND THE STANDARDS LISTED THEREIN. TRUSSES SHALL BE DESIGNED FOR LOADS INDICATED IN THE DESIGN LOADS SECTION OF THE GENERAL NOTES. UPLIFT AT EAVES AND ON ROOF AS CALCULATED BY TRUSS DESIGN ENGINEER.

SUBMITTALS

SUPPLY SHOP DRAWINGS AND CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN THE STATE OF OREGON FOR THE ENGINEERED WOOD TRUSSES. LOADINGS SHALL BE AS NOTED ON THE PLANS. TRUSS DESIGNER TO REVIEW LIGHT GAUGE CONNECTORS AND TO ACCOMMODATE THEIR ATTACHMENT THROUGH TRUSS PLATES TO STRUCTURE.

2" TO 4" THICK, 2" AND WIDER

ALL SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY. SAWN LUMBER SHALL CONFORM TO GRADING RULES OF WWPA, WCLIB OR NLGA AND THE TABLE BELOW.

2" TO 4" THICK, 2" AND WIDER #2 DFL

ALL BLOCKING SHOULD BE TOE NAILED AT EACH END WITH (2)-8D COMMON NAILS. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE

TREATED UNLESS AN APPROVED BARRIER IS PROVIDED. ALL SHEATHING SHALL BE APA RATED. UNLESS OTHERWISE NOTED ON DRAWINGS, INSTALL ROOF AND FLOOR PANELS WITH LONG DIMENSIONS ACROSS SUPPORTS AND THE PANEL CONTINUOUS OVER TWO OR MORE SPANS. END JOINTS SHALL OCCUR OVER SUPPORTS. GRADE MARKING OF SHEATHING CERTIFICATION IS REQUIRED.

#2 PT-DFL

TIMBER CONNECTORS SHALL BE "STRONG TIE" BY SIMPSON COMPANY AS SPECIFIED IN THEIR CURRENT CATALOG. ALTERNATE CONNECTORS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD CAPACITIES AND ARE REVIEWED AND APPROVED BY THE ARCHITECT PRIOR TO ORDERING. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT

TWO MEMBERS. PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. WHERE STRAPS ARE USED AS HOLD-DOWNS, NAIL STRAP TO WOOD FRAMING JUST PRIOR TO DRYWALL APPLICATION, AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. PREMATURE NAILING OF THE STRAP MAY LEAD TO STRAP BUCKLING AND POTENTIAL FINISH DAMAGE. WHERE CONNECTORS ARE IN EXPOSED EXTERIOR APPLICATIONS IN CONTACT WITH PRESERVATIVE TREATED WOOD (PT) OTHER THAN CCA, CONNECTORS SHALL BE EITHER BATCH HOT-DIPPED GALVANIZED, MECHANICALLY GALVANIZED, OR STAINLESS STEEL.

ALL WORK AND MATERIALS SHALL CONFORM TO IBC CHAPTER 21 "MASONRY" AND ACI 530 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (MSJC) AND ACI 530.1 "SPECIFICATIONS FOR MASONRY STRUCTURES" (MSJC.1).

SUBMITTALS

MASONRY REINFORCEMENT, SIZE, LAYOUT, AND GRADE IN ACCORDANCE WITH PLANS. MATERIAL CERTIFICATES FOR ALL STEEL REINFORCING, ANCHORS, TIES, AND METAL ACCESSORIES CERTIFYING COMPLIANCE WITH REQUIRED STRENGTH, GRADE, AND ASTM STANDARDS. CERTIFICATION LETTER FOR MASONRY BLOCK AND GROUT MIX DESIGN CERTIFYING COMPLIANCE WITH REQUIRED STRENGTH AND RESPECTIVE ASTM STANDARDS. MIX DESIGNS FOR EACH GROUT MIX INDICATING TYPE AND PROPORTIONS OF INGREDIENTS IN COMPLIANCE OF PROPORTION SPECIFICATION.

THE ASSUMED COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLAGE, F'M, IS 1500 PSI BASED ON IBC SECTION 2105.2.2.1.2 FOR CONCRETE MASONRY.

CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, TYPE I (MOISTURE CONTROLLED) MEDIUM WEIGHT (APPROX. 115 PCF) UNITS. PROVIDE 1900PSI COMPRESSIVE STRENGTH TO ACHIEVE MASONRY ASSEMBLY STRENGTH AS INDICATED ABOVE UNDER THE SECTION 'STRENGTH'. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. AND IBC SECTION 2103, "MORTAR", GROUT SHALL CONFORM TO ASTM C476 AND IBC SECTION 2103.12 PROPORTION SPECIFICATIONS. USE FIN GROUT EXCEPT COARSE GROUT MAY BE USED WHERE PERMITTED BY MSJC TABLE 1.16.1. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 DEFORMED BARS AND IBC SECTION 2103.12 UNLESS OTHERWISE NOTED. LAP SPLICES SHALL BE AS NOTED ABOVE. FABRICATION SHALL BE IN ACCORDANCE WITH MSJC.1 SECTION 2.7. JOINT REINFORCEMENT SHALL CONFORM TO ASTM A951 AND IBC SECTION 2103.13. ANCHORS, TIES AND ACCESSORIES SHALL CONFORM TO IBC SECTION 2103.13 AND MSJC.1 SECTION 2.4D. WATER SHALL BE CLEAN AND POTABLE. ADMIXTURES SHALL NOT BE USED. SECOND HAND UNITS SHALL NOT BE USED.

(2)-#5 HORIZONTAL BARS SHALL BE PROVIDED AT ALL ROOF LINES AND AT TOP OF WALL, AND (2) #4 BOND BEAMS AT 4'-0"O.C. MAX. DOWELS TO MASONRY WALLS SHALL BE EMBEDDED A MINIMUM OF 2'-0" OR HOOKED INTO THE SUPPORTING STRUCTURE AND BE OF THE SAME SIZE AND SPACING AS THE WALL REINFORCING. PROVIDE CORNER BARS TO MATCH THE HORIZONTAL WALL REINFORCING AT WALL INTERSECTIONS. ALL BARS SHALL BE LAPPED A MINIMUM 48 DIAMETERS OR 2'-0" MINIMUM UNLESS NOTED OTHERWISE ON THE PLANS. USE RUNNING BOND BLOCK PATTERN UNLESS NOTED OTHERWISE. PROVIDE (2) #4 HORIZONTAL BARS IN BOND BEAM ABOVE AND BELOW ALL OPENINGS, AND EXTEND THESE BARS 2'-0" PAST THE OPENING AT EACH SIDE. PROVIDE ONE BAR MATCHING VERTICAL BAR SIZE, FOR THE FULL HEIGHT OF THE WALL, AT EACH SIDE OF OPENINGS.

FILL CELLS WITH SOLID GROUT, UNO. MINIMUM GROUTING SPACES AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH MSJC SECTION 1.16 AND MSJC.1 SECTION 3.5. GROUT POUR HEIGHTS SHALL CONFORM TO REQUIREMENTS OF THE MSJC. GROUT LIFTS SHALL NOT EXCEED 5 FT. CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE EQUAL TO 1". BARS SHALL BE CENTERED IN CELLS OF BLOCK.

ABBREVIATIONS

			
O.C.	- ON CENTER SPACING	FDN.	-FOUNDATION
EL.	- ELEVATION	FTG.	-FOOTING
U.N.O.	- UNLESS NOTED OTHERWISE	E.C.	-EACH SIDE
T.O.F	- TOP OF FOOTING	CONT.	-CONTINUOUS
T.O.S.	- TOP OF FOOTING	A.B.	-ANCHOR BOLT
REF.	- REFER	T.O.	BTOP OF BEAM

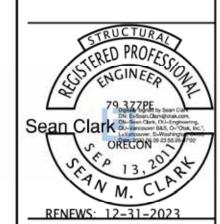
TABLE 1705.4 MASONRY CONSTRUCTION	CONTINUOUS	PERIODIC
INSPECT MASONRY CONSTRUCTION IN ACCORDANCE WITH IBC-18 SECTION 1 705.4 AND TMS 602-16/ASCE 6 ARTICLE 1.6.	-	×
TESTS:		
VERIFY F'M AND F'AAC IN ACCORDANCE WITH TMS602-16/ASCE 6 SPECIFICATION ARTICLE 1.4B PRIOR TO CONSTRUCTION, AND FOR EVERY 5000 SQUARE FEET DURING CONSTRUCTION.	-	х
2. VERIFY PROPORTIONS OF MATERIALS IN PREMIXED OR PRE-BLENDED MORTAR, PRESTRESSING GROUT, AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT AS DELIVERED TO THE PROJECT SITE.	-	x
3. VERIFY SLUMP SLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT IN ACCORDANCE WITH TMS 602-16/ACSE 6 SPECIFICATION ARTICLE 1.5B.1.b.3 FOR SELF-CONSOLIDATING GROUT.	×	ş
INSPECTION:		
VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS AND PROJECT SPECIFICATIONS.	-	х
	ı	
A. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT.		×
B. GRADE, TYPE AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS.		×
C. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS.		×
D. PLACEMENT OF REINFORCEMENT, CONNECTORS.	x	
E. GROUT SPACE PRIOR TO GROUTING.	×	
F. PLACEMENT OF GROUT.	X	
G. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.		х
H. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING		
OTHER DETAILS OF ANCHORAGE OF MASONRY TO	×	
STRUCTURAL MEMBERS, FRAMES OR OTHER	^	
CONSTRUCTION. I. WELDING OF REINFORCEMENT.		
J. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	X	x
3. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS.	х	
TABLE 1705.6 - SOILS		

TABLE 1705.6 - SOILS		
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIO
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	х
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	х
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	х
4. VERIFY USE OF PROPER MATERIALS. DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	×	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	×

NOTE: ALL PERIODIC TESTS & INSPECTIONS ARE PERFORMED EITHER 50% OF EACH MATERIAL TYPE/GRADE OR 50% OF EACH ACTIVITY/ ACTIVITY

TABLE 1704.3				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL:				
A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	-	×	AISC 360, SECTION M5.5	
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	•	×	APPLICABLE ASTM MATERIAL STANDARDS	
C. MANUFACTURER'S CERTIFIED TEST REPORTS.	•	×		
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	x	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS	
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	×		
3. INSPECTION OF WELDING:				
A. STRUCTURAL STEEL:				
1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	Х	-		1704.3.1
2) SINGLE-PASS FILLET WELDS < 5/ 16"	-	Х	AWS D1.1	
B.REINFORCING STEEL:				
1) REINFORCING STEEL.	-	Х		
TABLE 1704.4				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT.	-	×	ACI 318: 3.5, 7.1-7.7	1913.4
2. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	х	-	ACI 318: 8.1.3, 21.2.8	1911.5, 1912.1
3. VERIFYING USE OF REQUIRED DESIGN MIX.	x	-	ACI 318: CH. 4.5.2-5.4	1904.2.2, 1913.2, 1913.
4. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	×	-	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.1
5. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	х	-	ACI 318: 5.9, 5.10	1913.6, 1913. 1913.8
6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	×	ACI 318: 5.11-5.13	1913.9
7. INSPECT FORMWORK FOR SHAPE. LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	х	ACI 318: 6.1.1	-







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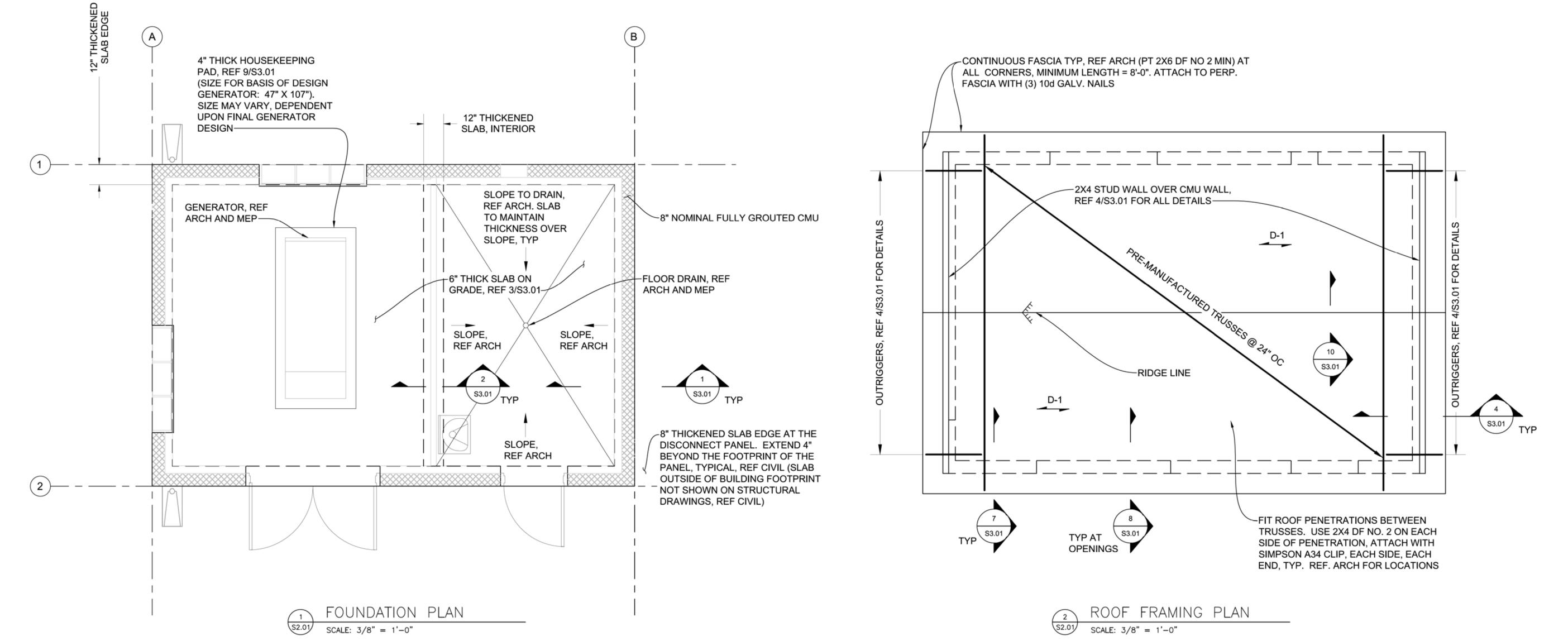
STATUS

PROJECT NUMBER

06/10/22

FOUNDATION AND FRAMING PLAN NOTES:

- 1. ALL FOOTINGS SHALL BE CENTERED BELOW WALLS OR COLUMNS UNLESS NOTED/SHOWN OTHERWISE. ROOF JOISTS AND ROOF BEAMS TO BE SIZE NOTED
- 2. TYPICAL INTERIOR SLAB TO BE 6" THICK SLAB ON GRADE, REFERENCE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS. REFERENCE
- 3. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
- 4. D-1 INDICATES SPAN DIRECTION OF 5/8" PLYWOOD ROOF SHEATHING. WITH 10D COMMON NAILS @ 6" OC AT ALL PANEL EDGES AND 12" OC IN FIELD.
- 5. REFERENCE 5/S3.01 & 6/S3.01 FOR CMU REINFORCEMENT DETAILS.
- 6. INDICATES 8" NOMINAL FULLY GROUTED CMU WALL.
- 7. REFERENCE 11/S3.01 FOR PRE-MANUFACTURED ROOF TRUSS NOTES.









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STREETS EXTENSIONS

S. 1ST AND STRAN ROAD AND UTILITY ST. HELENS, OREGON

FLOOR AND ROOF TITLE # DATE DESCRIPTION

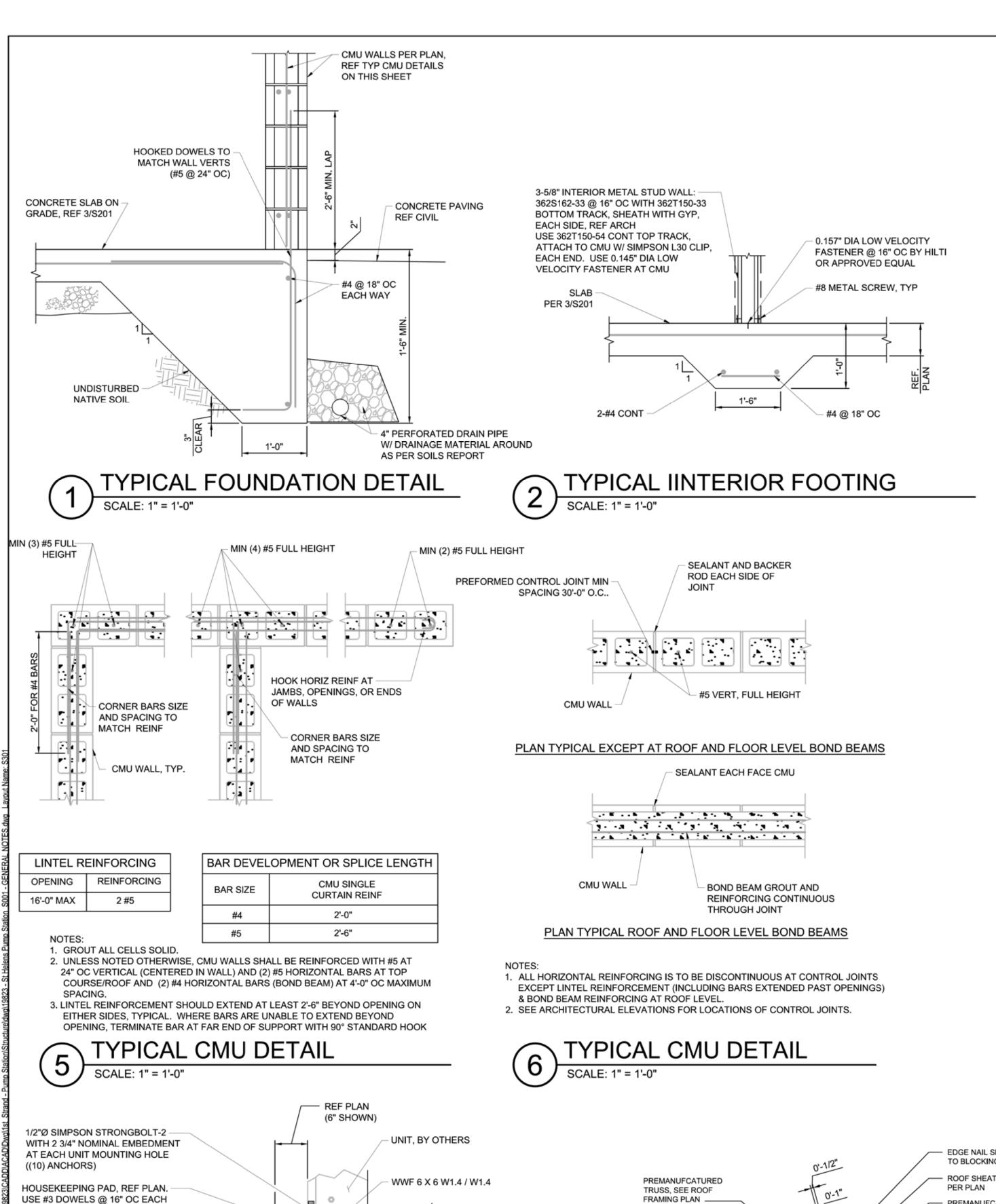
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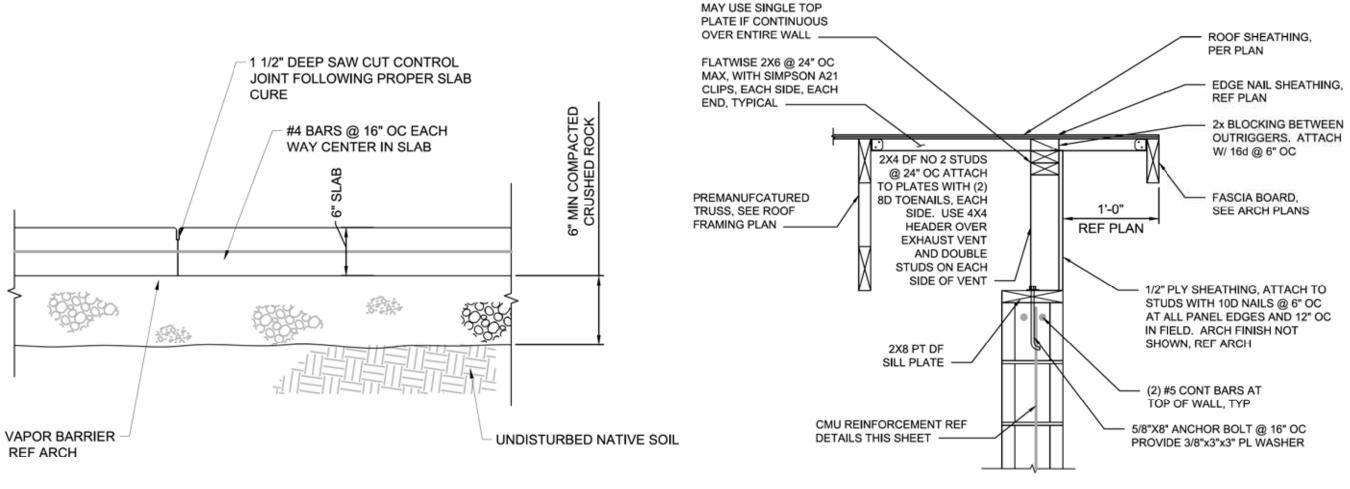
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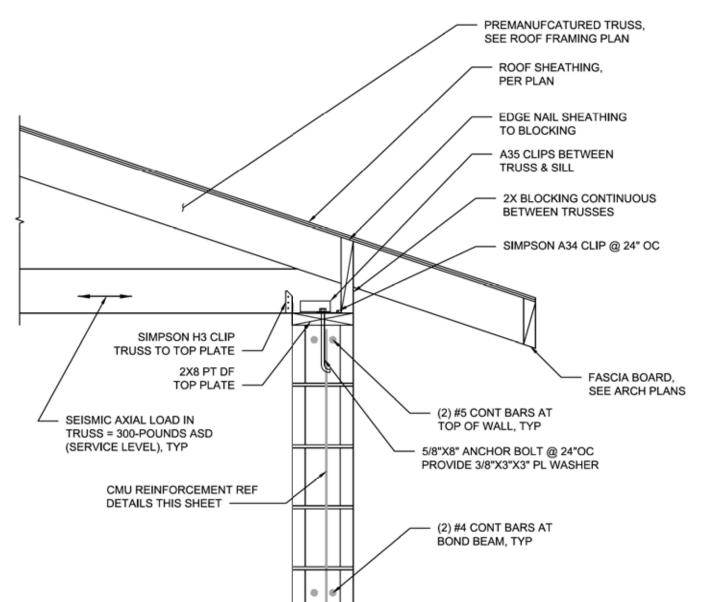
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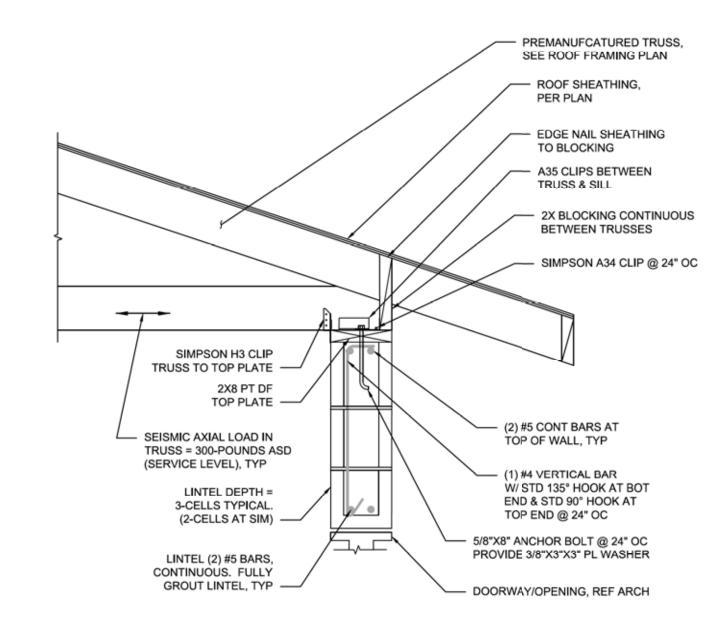


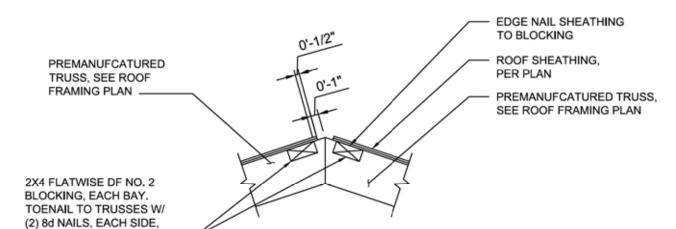
WALL DOUBLE TOP PLATE.

TYPICAL SLAB ON GRADE



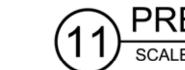
GABLE END - OUTRIGGERS





PRE-MANUFACTURED ROOF TRUSS NOTES:

- TOP AND BOTTOM CHORDS SHOWN IN DETAILS AS 2X6. MAXIMUM CHORD DEPTH = 5 1/2" MINIMUM = 3 1/2". TRUSS MANUFACTURER TO DETERMINE SIZE OF TOP AND BOTTOM CHORDS.
- MINIMUM TOP CHORD GRADE = DF NO. 2
- TOP CHORD MINIMUM DEAD LOAD: 14 PSF
- BOTTOM CHORD MINIMUM DEAD LOAD: 6 PSF TOP CHORD MINIMUM LIVE LOAD: 25 PSF (SNOW
- BOTTOM CHORD MINIMUM LIVE LOAD: 10 PSF
- MAXIMUM DEFLECTIONS:
- L/240 FOR LIVE OR SNOW L/180 FOR TOTAL LOAD
- CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF TRUSSES DURING CONSTRUCTION.
- REFERENCE DETAILS 4/S3.02, 7/S3.02 & 8/S3.02 FOR AXIAL LOAD REQUIREMENTS (SEISMIC, ASD (SERVICE LEVEL) FORCES).
- REFERENCE GENERAL STRUCTURAL NOTES FOR OTHER REQUIREMENTS.



PRE-MANUFACTURED ROOF TRUSS NOTES





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GENERATOR UNIT - ANCHORAGE

WAY WITH STANDARD 90° HOOKS.

SIMPSON SET-XP WITH 3" NOMINAL

EMBEDMENT DEPTH. LET SLAB ON

REF 3/S3.01 FOR ALL SLAB ON GRADE AND -

DRILL & EPOXY INTO SLAB WITH

GRADE CURE 21-DAYS BEFORE

EPOXYING

UNDERSLAB DETAILS

RIDGE VENT DETAIL

EACH END, TYP .

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR MATERIAL / FINISH	BASE MATERIAL / FINISH	WALL MATERIAL / FINISH	CEILING MATERIAL / FINISH	COMMENTS
1	GENERATOR ROOM	SEALED CONCRETE	RB	FRP / PAINT	PAINT	FRP TO 4 FT AFF
2	CONTROL ROOM	SEALED CONCRETE	RB	FRP / PAINT	PAINT	FRP TO 4 FT AFF

DOOR SCHEDULE

DOOR		OPENING			DO	OOR	FR	AME			
NO	LOCATION	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	MATERIAL	FINISH	HARDWARE	FIRE RATING	COMMENTS
A1	PUMP ROOM	3' - 0"	7" - 0"	1 3/4"	HM	PRE-PRIMED	HM	PRE-PRIMED	1	NR	INSULATED, 180 DEGREE SWING HINGES - FULL OPEN
B1	GENERATOR ROOM	6' - 4"	7" - 0"	1 3/4"	HM	PRE-PRIMED	HM	PRE-PRIMED	2	NR	INSULATED, 180 DEGREE SWING HINGES - FULL OPEN

DOOR HARDWARE GROUPS

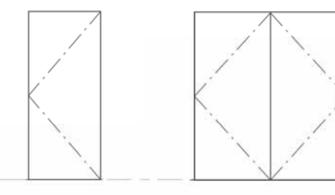
GROUP 1: DOOR A1 - CONTROL ROOM

3	BUTTS	STANLEY	FBB179 NRP 4-1/2" X X4-1/2
1	LOCKSET	SCHLAGE	ND80PD NEP 626 (LEVER)
1	DEADBOLT	SCHLAGE	B660
1	CLOSER	LCN	1461 SCUSH-AL
1	KICK PLATE	IVES	8400 8" X 34" LDW 630
1	WEATHERSTRIPPING	PEMKO	PK33D
1	THRESHOLD	PEMKO	271A
1	DOOR SHOE	PEMKO	216AV

GROUP 2: DOOR B1 - GENERATOR ROOM

4	BUTTS	STANLEY	FBB179 NRP 4-1/2" X X4-
1	LOCKSET	SCHLAGE	ND80PD NEP 626 (LEVER
1	CLOSER	LCN	1461 SCUSH-AL
2	KICK PLATE	IVES	8400 8" X 34" LDW 630
2	WEATHERSTRIPPING	PEMKO	PK33D
1	THRESHOLD	PEMKO	271A
2	DOOR SHOE	PEMKO	216AV

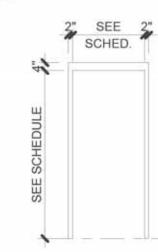
SCHEDULE ABBREVATIONS	NOTES		
GYP BD GYPSUM BOARD HC-PHB HOLLOW CORE PRIMED HARDBOARD HM HOLLOW METAL MDF MEDIUM DENSITY FIBREBOARD MFR MANUFACTURER PRE-FIN PREFINISHED PRE-PR PREPRIMED RB RUBBER BASE SC-PHB SOLID CORE PRIMED HARDBOARD	1. SEE A8.01 FOR HEAD AND JAMB DETAIL INFORMATION.		



B. FLUSH - DOUBLE





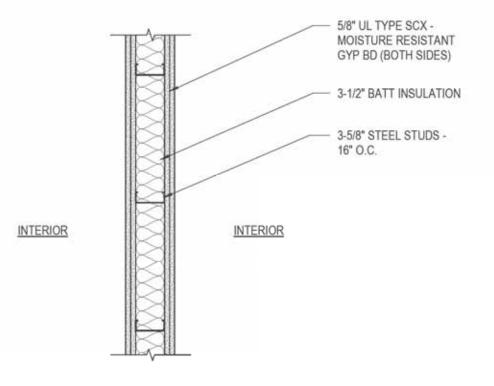


FRAME TYPES

A. HOLLOW METAL

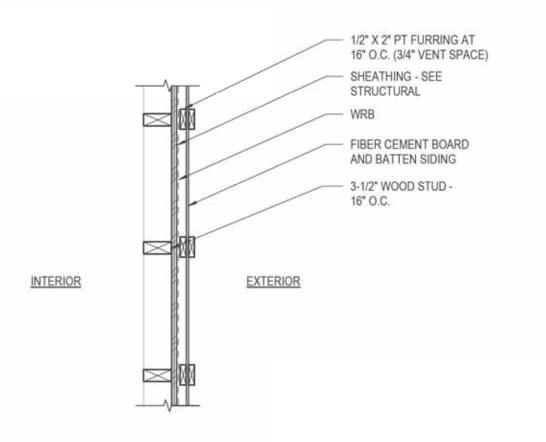
ASSEMBLY NOTES

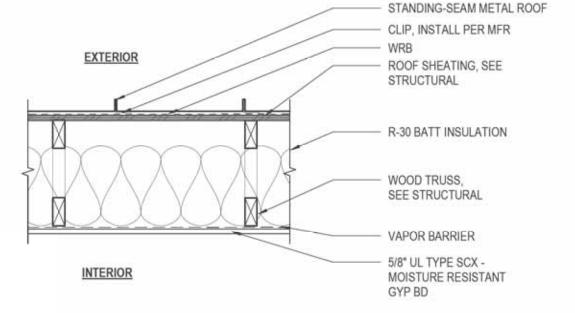
- 1. SEE STRUCTURAL FOR SHEAR WALL LOCATIONS. ADD SHEATHING TO ASSEMBLY AS REQUIRED BY STRUCTURAL ENGINEER. WHERE A NON-SHEAR WALL EXTENDS AND ALIGNS PARALLEL WITH A SHEAR WALL, PROVIDE ADDITIONAL SHEATHING LAYERS TO THE NON-SHEAR WALL TO PROVIDE CONTINUOUS FACE OF FINISH.
- PROVIDE FIRE BLOCKS AND DRAFT STOPS PER 2019 OREGON STRUCTURAL SPECIALTY CODE SECTION 718.
- 3. LOCATE THERMAL INSULATION ON THE COLD SIDE (IN WINTER) OF DOMESTIC WATER PIPES AS REQUIRED TO PROTECT PIPES FROM
- 4. PROVIDE ADDITIONAL FRAMING, BLOCKING, AND FINISHES AS REQUIRED FOR PLUMBING ACCESS PANELS.
- 5. PROVIDE ADDITIONAL BLOCKING AS REQUIRED TO SUPPORT SHELVING, TOWEL BARS, RAILINGS, AND ALL OTHER WALL-MOUNTED ACCESSORIES AND EQUIPMENT.
- 6. PROVIDE UL APPROVED THROUGH PENETRATION AND MEMBRANE PENETRATION FIRESTOP SYSTEMS AS REQUIRED BY CODE AT ALL ELECTRICAL, PLUMBING, AND MECHANICAL PENETRATIONS IN FIRE-RATED ASSEMBLIES, SEE A8.11.



INTERIOR WALL - RATED - PARTITION

FIRE: 2-HR STC: 53



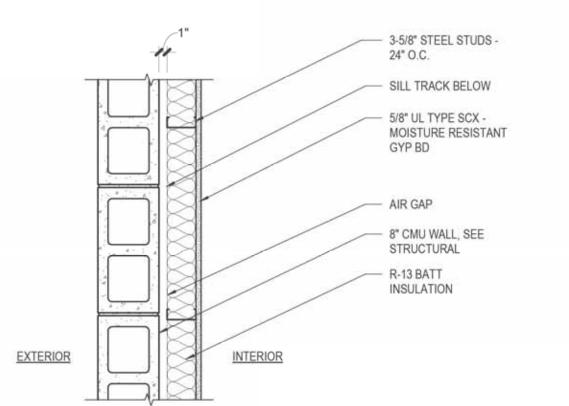


FIRE: NR STC: NA

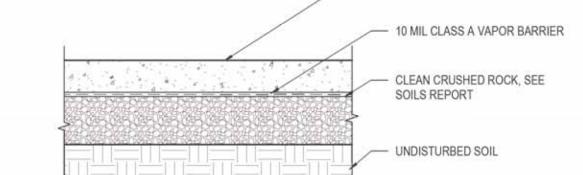
REINFORCED CONCRETE SLAB, SEE STRUCTURAL FOR THICKNESS

EXTERIOR WALL - NON-RATED - FIBER CEMENT

FIRE: NR STC: NA



114	EXTERIOR WALL	- NON-RATED -	CMU W/	FURRING
11/	ASSEMBLY: NA	FIRE: NR	STC: NA	





2A ROOF/CEILING

ASSEMBLY: NA

SLAB - NON-RATED

FIRE: NR STC: NA





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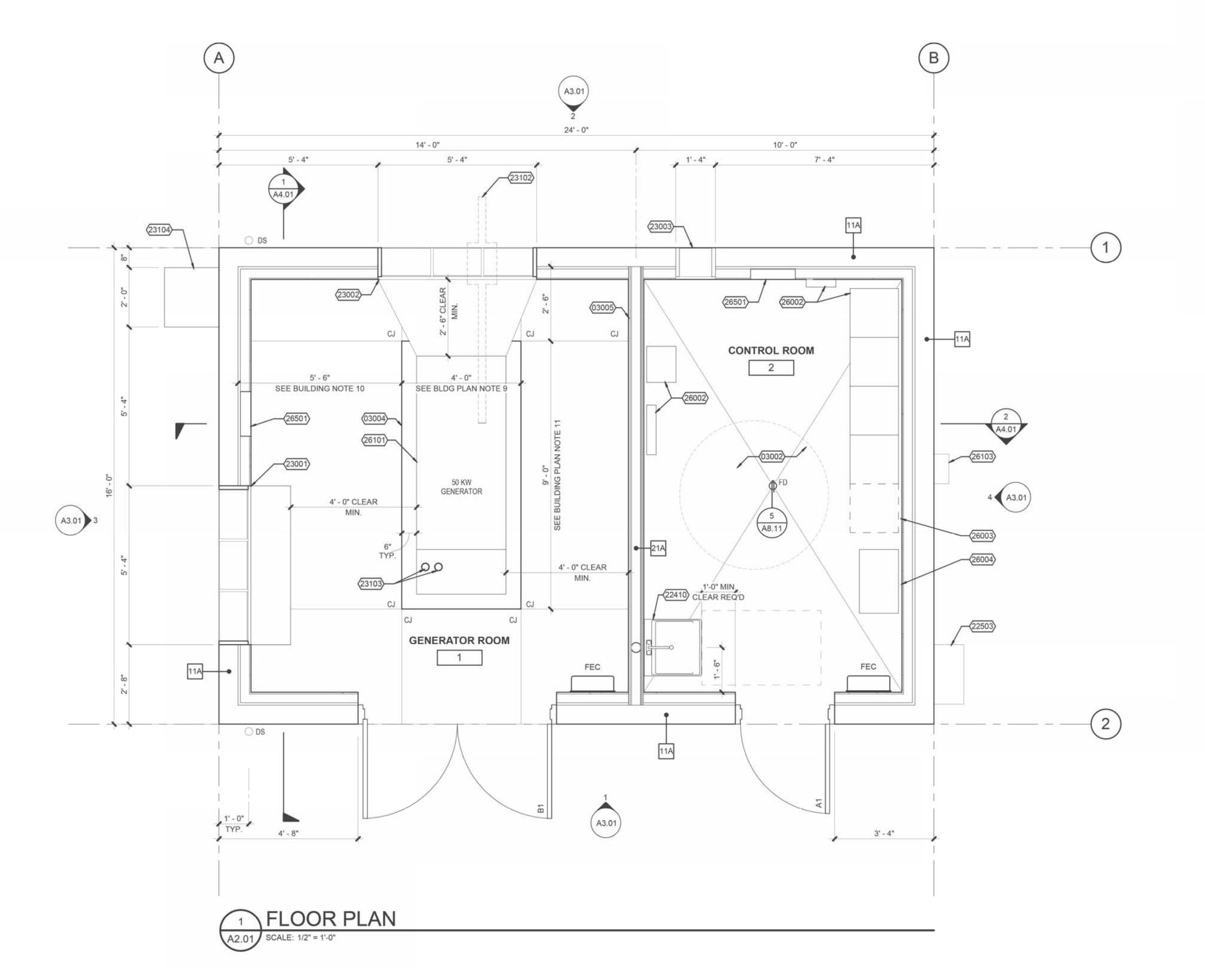
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PROJECT NUMBER



BUILDING PLAN NOTES

- ALL DIMENSIONS AND GRIDS ARE TO FACE OF CMU, CENTERLINE OF STUD AND EDGE OF ROUGH OPENING UNLESS OTHERWISE NOTED.
- FOR ARCHITECTURAL ABBREVIATIONS & SYMBOL LEGEND SEE SHEET G0.01.
- 3. FOR CONSTRUCTION ASSEMBLY DESCRIPTIONS SEE SHEET
- SEE SHEET A1.01 FOR ROOM FINISH SCHEDULE AND FOR DOOR SCHEDULES.
- SIDEWALKS AND PATIOS SHALL SLOPE AT 2% MAXIMUM AS SHOWN ON PLANS.
- WARP CONCRETE AT WALLS AND COLUMNS AS SHOWN TO FORCE WATER TO MIGRATE AWAY FROM AND AROUND WITHOUT EXCEEDING 1.5% MAXIMUM SLOPE.
- FOR MECHANICAL SYSTEMS & EQUIPMENT SEE MECHANICAL DRAWINGS.
- FOR ELECTRICAL LIGHTING & EQUIPMENT SEE ELECTRICAL DRAWINGS.
- FINAL GENERATOR SIZE MAY VARY. MINIMUM CLEAR DIMENSIONS TO WALLS AND 6" EXTENSION OF PAD AROUND THE FINAL GENERATOR TO BE MAINTAINED.
- FINAL GENERATOR SIZE MAY VARY POTENTIALLY AFFECTING NORTH-SOUTH POSITIONING OF PAD. ADJUST AS NEEDED TO ALIGN GENERATOR WITH LOUVER OPENING.
- ADD A CONTROL JOINT UNDER THE GYPSUM BOARD OF THE DEMISING WALL ON THE SIDE OF THE GENERATOR ROOM.

□ KEYNOTE LEGEND

\subseteq	KEYNOTE LEGEND
03002	SLOPE SLAB TO FLOOR DRAIN, 1/4" / 1' - 0"
03004	GENERATOR PAD, SEE STRUCTURAL
03005	CONTROL JOINT UNDER DEMISING WALL, SEE PLAN NOTE 11
22410	UTILITY SINK WITH WALL-MOUNT FAUCET (BASIS OF DESIGN - 24 X 24 X 14 BK RESOURCES 1-COMPARTMENT BUDGET SINK W/ GALVANIZED LEGS AND KROWNE SILVER SERIES 8" CENTER WALL MOUNT FAUCET W/ 16" SPOUT)
22503	ACCESS AND DISCONNECT PANELS - COLOR TO MATCH MUTUAL MATERIALS ONYX, SEE PLUMBING
23001	5'-4" x 7'-4" SOUND-ATTENUATED INTAKE LOUVER W/ INTERIOR SHROUD MOUNTED 8" AFF AND SET WITHIN THE CMU MODULE - PAINT TO MATCH MUTUAL MATERIALS ONYX
23002	5'-4" x 6'-0" SOUND-ATTENUATED EXHAUST LOUVER MOUNTED 8" AFF AND SET WITHIN THE CMU MODULE - PAINT TO MATCH MUTUAL MATERIALS ONYX
23003	16" x 16" INTAKE LOUVER MOUNTED 24" AFF AND SET WITHIN THE CMU MODULE - PAINT TO MATCH MUTUAL MATERIALS ONYX
23102	HEAVY DUTY GENERATOR EXHHAUST VENT W/ SUPPORT THIMBLE ABOVE, SEE MECHANICAL
23103	VENT PIPE, SEE 19/A8.01 AND MECHANICAL
23104	POST-MOUNT REMOTE FUEL FILL BOX - COLOR TO MATCH MUTUAL MATERIALS ONYX, SEE MECHANICAL
26002	CONTROL EQUIPMENT, SEE ELECTRICAL
26003	SPACE FOR FUTURE EQUIPMENT, SEE ELECTRICAL

TRANSFER SWITCH, SEE ELECTRICAL

ELECTRIC WALL HEATER, SEE ELECTRICAL

MECHANICAL

GENERATOR (BASIS OF DESIGN - 50 KW UNIT), SEE

GENERATOR RECEPTACLE - COLOR TO MATCH MUTUAL MATERIALS ONYX, SEE ELECTRICAL

26004

26101

26501





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ROAD AND UTILITY E

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STREETS EXTENSION



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1 ROOF PLAN
A2.02 SCALE: 1/2" = 1'-0"

ROOF PLAN NOTES

- SEE FLOOR PLANS FOR BUILDING DIMENSIONS.
- SEE SHEET A8.01 FOR ROOF PENETRATIONS DETAILS.

ROOF PLAN LEGEND

ROOF VENT CALCULATIONS

PROVIDED VENT AREA (SQ IN)

REQUIRED VENT AREA (SQ IN)

STANDING SEAM METAL ROOF -FOREST GREEN

KEYNOTE LEGEND

RIDGE VENT (BASIS OF DESIGN - AEP SPAN VENTED RIDGE CAP - COLOR TO MATCH ROOF PANELS - FOREST GREEN) VENT PIPE, SEE 19/A8.01 AND MECHANICAL





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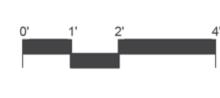
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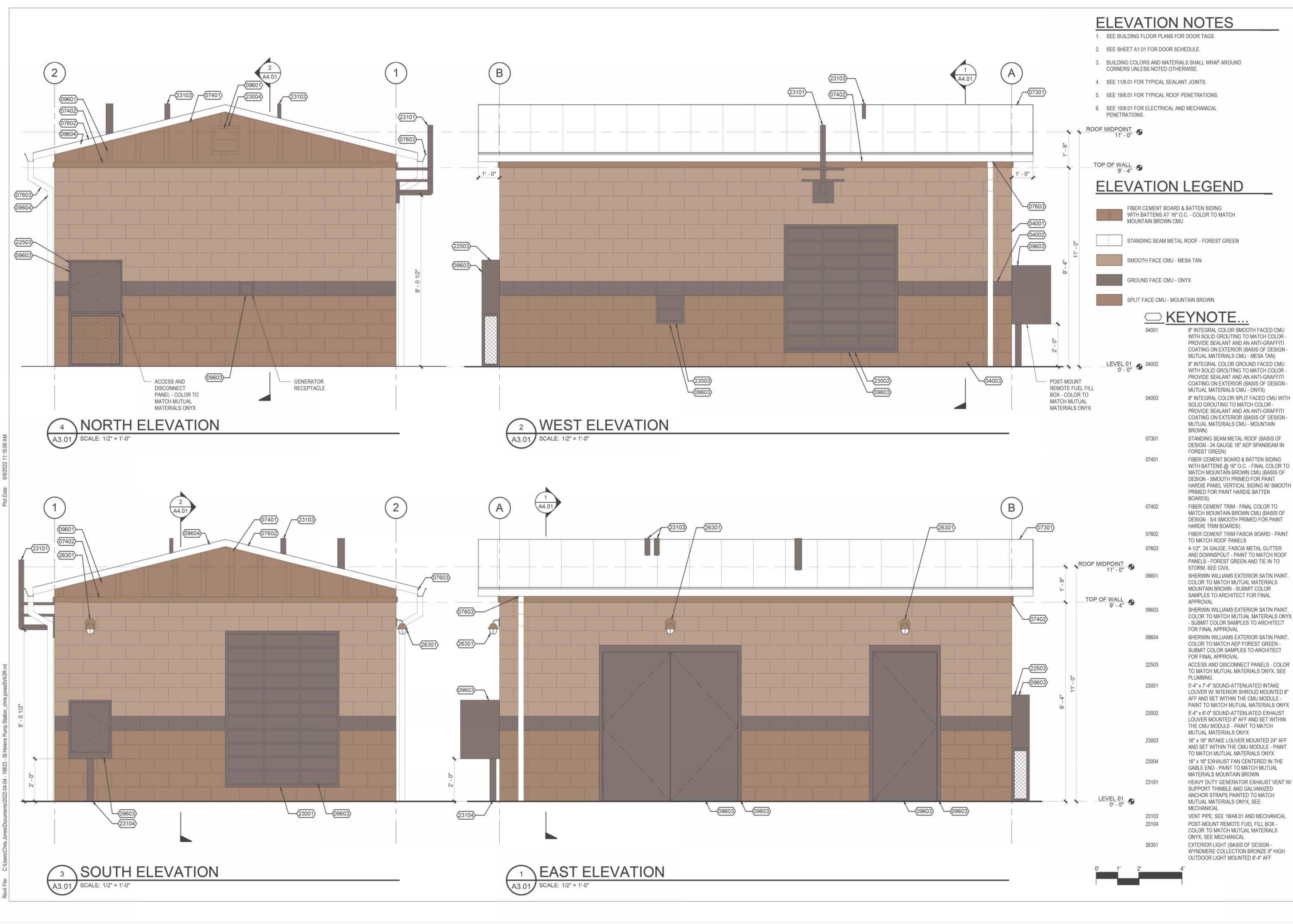
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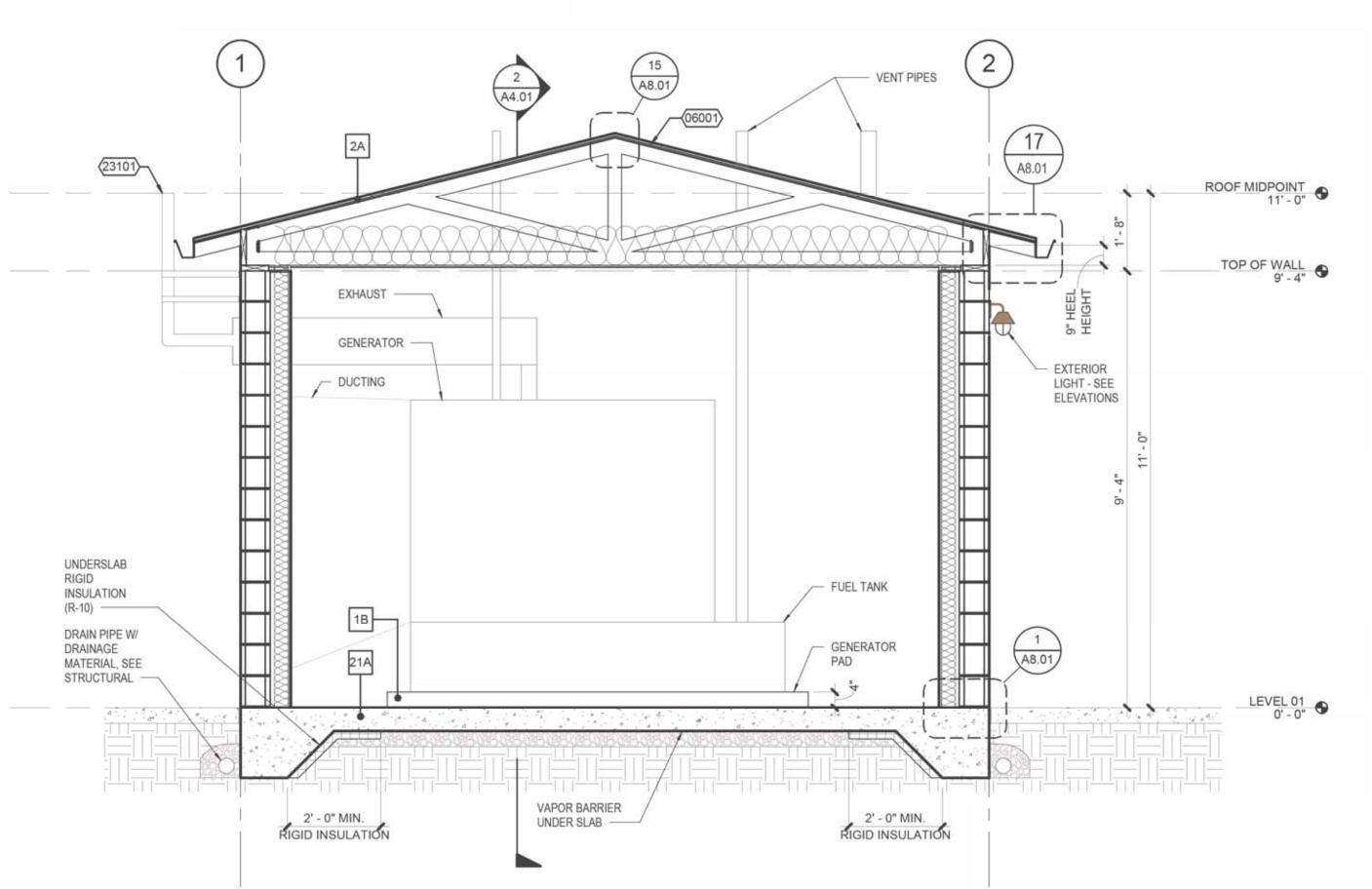
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EAST-WEST BUILDING SECTION

A4.01) SCALE: 1/2" = 1'-0"

□ KEYNOTE LEGEND

22410

26101

PREFABRICATED WOOD ROOF TRUSSES, SEE STRUCTURAL UTILITY SINK WITH WALL-MOUNT FAUCET (BASIS OF DESIGN - 24 X 24 X 14 BK RESOURCES 1-COMPARTMENT BUDGET SINK W/ GALVANIZED LEGS AND KROWNE SILVER SERIES 8"

CENTER WALL MOUNT FAUCET W/ 16" SPOUT) HEAVY DUTY GENERATOR EXHAUST VENT W/ SUPPORT THIMBLE AND GALVANIZED ANCHOR STRAPS PAINTED TO

MATCH MUTUAL MATERIALS ONYX, SEE MECHANICAL GENERATOR (BASIS OF DESIGN - 50 KW UNIT), SEE



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AND STREETS
TY EXTENSIONS

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CEILING PLAN NOTES

SEE MECHANICAL AND ELECTRICAL PLANS FOR CEILING FIXTURE AND EQUIPMENT INFORMATION.

CEILING LEGEND

GYP. BD. CEILING

KEYNOTE LEGEND

VENT PIPE, SEE 19/A8.01 AND MECHANICAL





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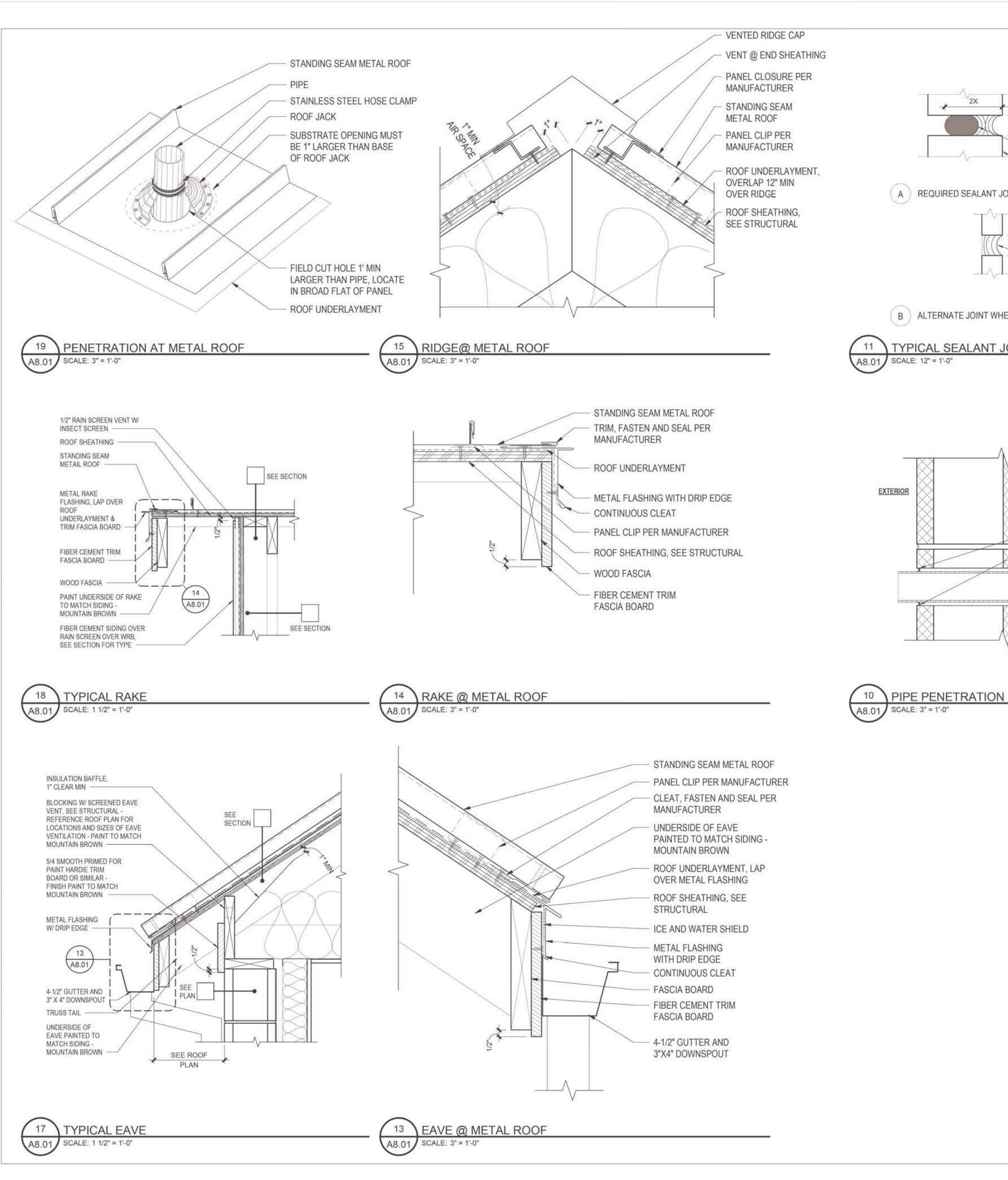
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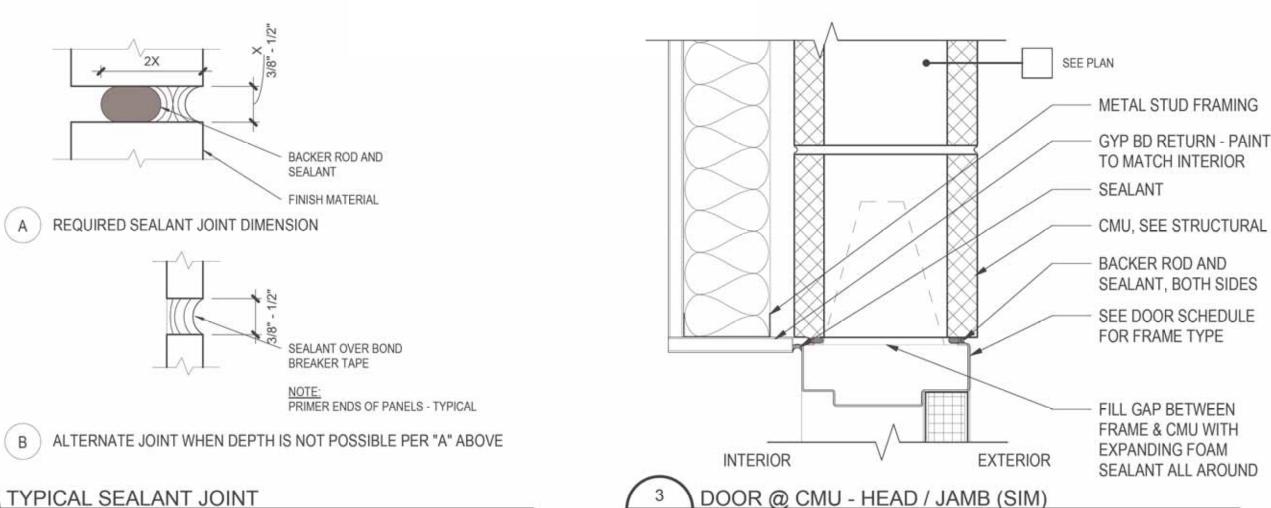
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INTERIOR

CMU PENETRATION

AND EXTERIOR SEAL

PER MEP, ENSURE

FILL GAP BETWEEN

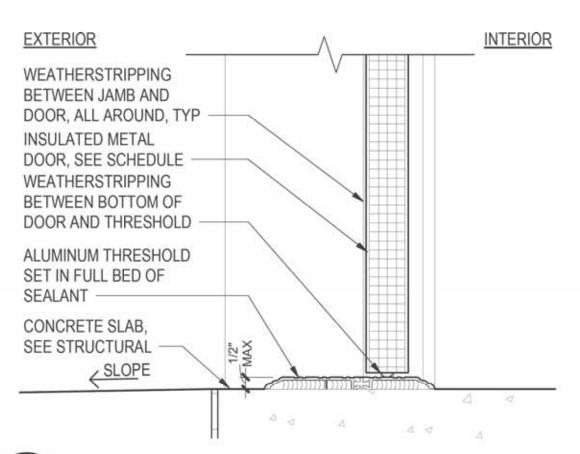
PIPE AND WALL W/

EXPANDING FOAM

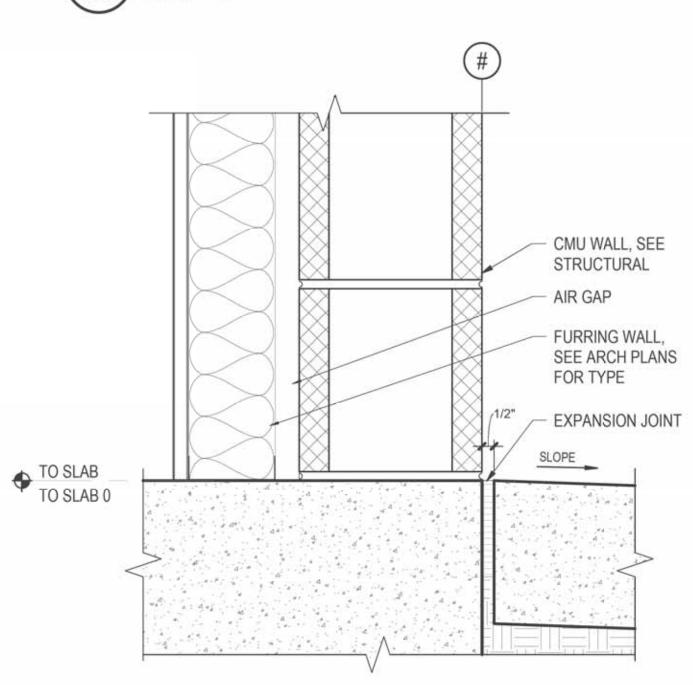
SEAL IS WATERTIGHT

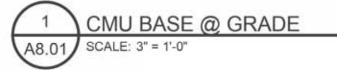
SEALANT

SCALE: 3" = 1'-0"



DOOR @ ADA THRESHOLD





Otak

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SS STREETS 2 STRAN UTILIT

TAIL S. 1ST AND SRIST & ST. HELENS, OREGO XTERIOR

TITLE # DATE DESCRIPTION REVISIONS NAVD88

DATUM

DS DRAWN BY CHECKED BY

FINAL PLANS STATUS

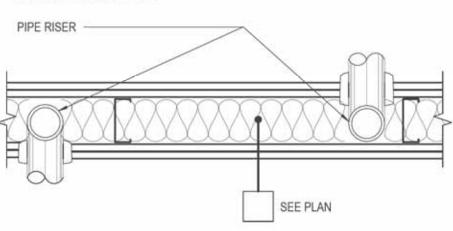
JUNE 10, 2022 DATE 19823

PROJECT NUMBER

NOTE
CAULKING AND RELATED MATERIALS SPECIFIED IN UL
SYSTEMS MUST BE APPROVED MATERIALS TO MEET THE REQUIRED FIRE RATING.

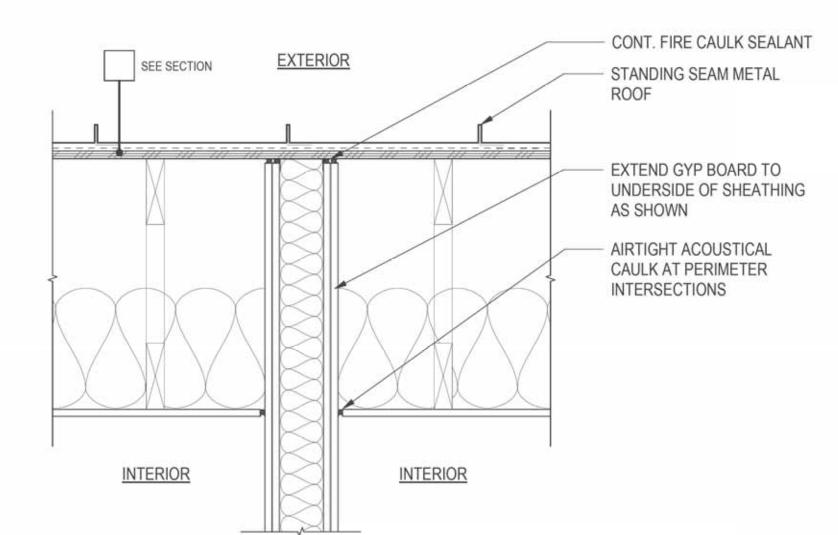
- UL SYSTEM NO WL1001 AT METALLIC PIPE OR CONDUIT CONDITIONS
- UL SYSTEM NO WL2003 AT NON-METALLIC PIPE OR CONDUIT CONDITIONS

CONTRACTOR TO SUBMIT UL-LISTED DETAIL FOR EXACT PENETRATION CONDITION

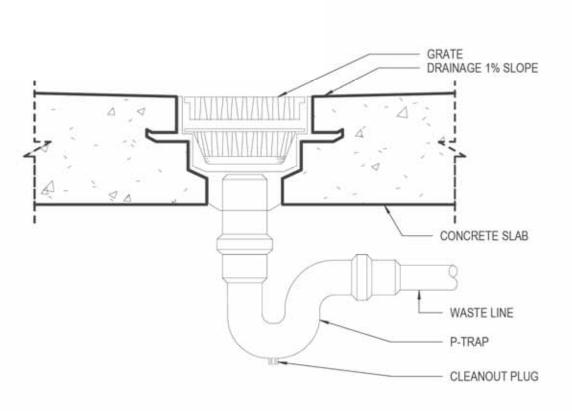


2HR WALL PENETRATION

A8.11 SCALE: 1 1/2" = 1'-0"



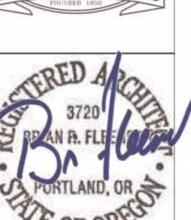
DEMISING WALL @ CEILING





5 FLOOR DRAINAGE
A8.11 SCALE: 3/4" = 1'-0"





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AND STREETS
TY EXTENSIONS

INTERIOR DETAIL # DATE DESCRIPTION

REVISIONS DATUM

CJ DRAWN BY FINAL PLANS

STATUS JUNE 10, 2022 DATE

19823 PROJECT NUMBER