

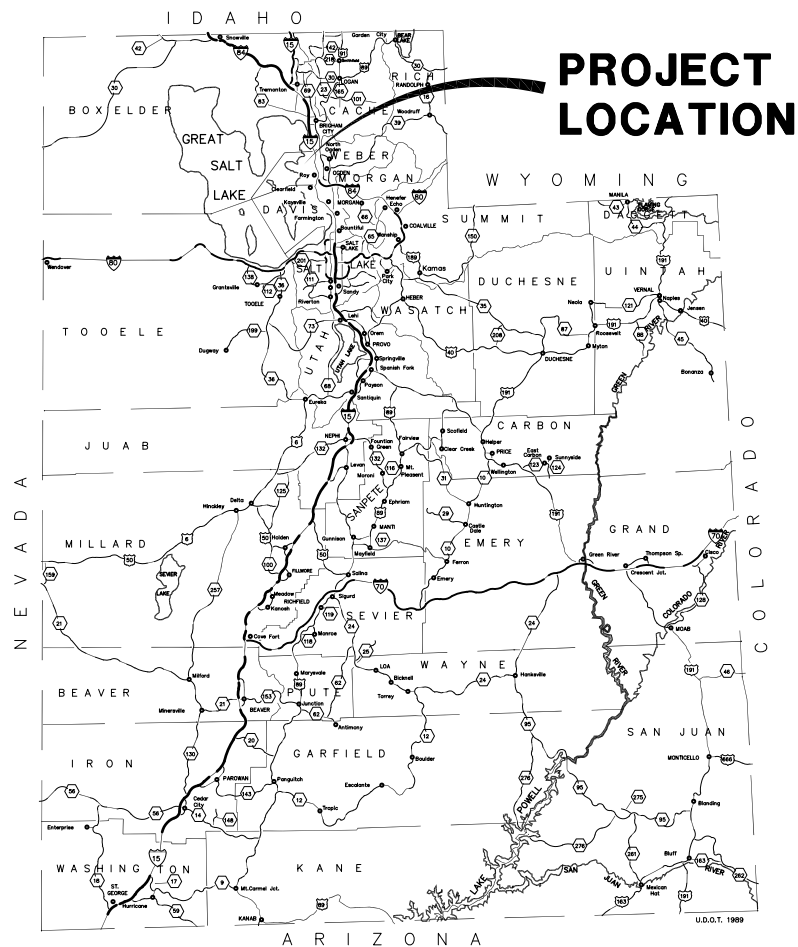
WESTINGHOUSE ELECTRIC COMPANY

WESTERN ZIRCONIUM PLANT

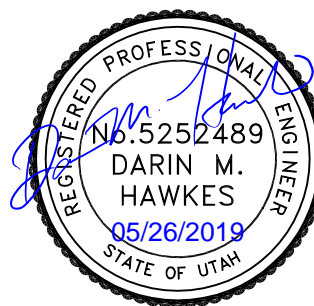
POTABLE WATER SUPPLY RPZD UPGRADE

REV 0 - MAY 15, 2019
REV 1 - MAY 23, 2019

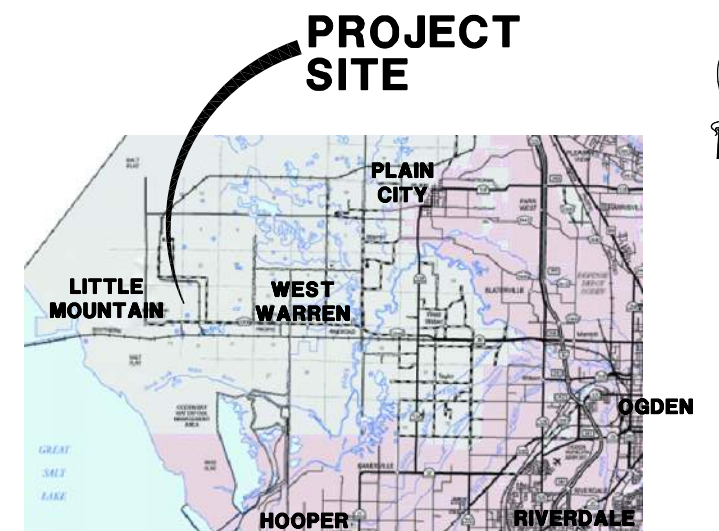
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**PROJECT
LOCATION**



533 W 2600 S, SUITE 275, BOUNTIFUL, UT 84010
PHONE (801) 299-1327 FAX (801) 299-0153



**PROJECT
SITE**

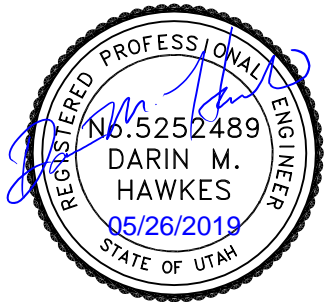
LOCATION MAP

VICINITY MAP

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SHEET HAS BEEN REVISED




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DRAWING IS TO SCALE
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WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE
GENERAL
INDEX

**AQUA**
ENGINEERING

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NO.	DATE	DESIGN	DRAWN	CHECKED
0	05/15/2019	DMH	CAL	DMH
1	05/23/19	DMH	KRB	DMH

LEGEND		
PLAN VIEW		
EXISTING	PROPOSED	
PROPERTY OR R/W LINE	-----	-----
EASEMENT LINE	-----	-----
FENCE	--- x --- x --- x ---	--- x --- x --- x ---
CONTOUR LINE	----- 4250 -----	----- 4250 -----
SPOT ELEVATION	+ 4250.00	o 550.00 TOA
BANK SLOPES	--- Y --- Y --- Y ---	--- Y --- Y --- Y ---
STORM DRAIN LINE	--- SD ---	--- SD ---
WATER LINE	--- W ---	--- W ---
GAS LINE	--- G ---	--- G ---
TELEPHONE CABLE	--- T ---	--- T ---
ELECTRIC CABLE	--- E ---	--- E ---
SANITARY SEWER LINE	--- SS ---	--- SS ---
ASPHALT PAVING	-----	-----
FIRE HYDRANT	--- FH ---	--- FH ---
WATER VALVE	--- WV ---	--- WV ---
WATER METER	--- WM ---	--- WM ---
MANHOLE	--- MH ---	--- MH ---
CATCH BASIN	--- CB ---	--- CB ---
CLEAN OUT BOX	--- COB ---	--- COB ---
OVERHEAD POWER LINE	--- P ---	--- P ---
POLE & ANCHOR	--- PA ---	--- PA ---
STREET LIGHT	--- SL ---	--- SL ---
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FLOW DIRECTION	--->---	--->---

ABBREVIATIONS					
⊙	AT	FD	FLOOR DRAIN	PC	POINT OF CURVATURE
℄	CENTER LINE	FDC	FIRE DEPARTMENT CONNECTION	PCC	POINT OF COMPOUND CURVATURE
*	DEGREE	FND	FOUNDATION	PCD	PLANT CHLORIDE DRAIN
∅	DIAMETER	FE	FIRE EXTINGUISHER	PCW	PLANT COOLING WATER
#	NUMBER	FEN COR	FENCE CORNER	PDW	PLANT DEIONIZED WATER
ℙ	PROPERTY LINE	FF	FINISHED FLOOR	PE	PLAIN END
		FG	FINISHED GRADE	PERF	PERFORATED
ABUT	ABUTMENT	FIN	FINISH	PFW	PLANT FIRE WATER
AL	AIR LINE	FLG	FLANGE	PI	POINT OF INTERSECTION
ASPH	ASPHALT	FLR	FLOOR	PIV	POSITION INDICATING VALVE
ADT	AVERAGE DAILY TRAFFIC	FL	FLOW LINE	PL	PROPERTY LINE
APPROX	APPROXIMATELY	FP	FLOOR PENETRATION	PNG	PLANT NATURAL GAS
AZ	AZIMUTH	FPS	FEET PER SECOND	POB	POINT OF BEGINNING
		FT	FEET	POC	POINT ON CURVE
BAL	BALANCE	FTG	FOOTING	PP	POWER POLE
BEG	BEGINNING / BEGIN	FW	FLAT WASHER	PPA	PLANT PRESSURIZED AIR
BDRY	BOUNDARY			PPW	PLANT POTABLE WATER
BK	BACK	G	GAS	PRC	POINT OF REVERSE CURVE
BKFL	BACKFILL	GA	GAGE OR GAUGE	PROJ	PROJECT
BLD FLG	BLIND FLANGE	GAL	GALLONS	PROP	PROPERTY
BLDG	BUILDING	GALV	GALVANIZED	PSF	POUNDS PER SQUARE FOOT
BLM	BUREAU OF LAND MANAGEMENT	GEN	GENERAL	PSI	POUNDS PER SQUARE INCH
BM	BENCH MARK	GM	GAS METER	PT	POINT OF TANGENCY
BLK	BLOCK	GPH	GALLONS PER HOUR	PTS	PLANT STEAM
BOD	BIOLOGICAL OXYGEN DEMAND	GPM	GALLONS PER MINUTE	PVC	POLYVINYL CHLORIDE
BOT	BOTTOM	GSP	GALVANIZED STEEL PIPE	PVMT	PAVEMENT
BP	BURIED POWER	GV	GATE VALVE	PW	PROCESS WATER
BRG	BEARING	GYP	GYP SUM		
BSMT	BASEMENT			QTY	QUANTITY
BTWN	BETWEEN	H&T	HUB & TACK		
		HB	HOSE BIBB	R	RANGE / RADIUS
CALC	CALCULATED	HDG	HOT DIPPED GALVANIZE	RAS	RETURN ACTIVATED SLUDGE
CB	CATCH BASIN	HDWL	HEADWALL	RCP	REINFORCED CONCRETE PIPE
CCW	COUNTER CLOCKWISE	HORIZ	HORIZONTAL	RD	ROAD
C-C	CENTER TO CENTER	HP	HORSE POWER	RCCP	REINFORCED CONCRETE CYLINDER PIPE
C&G	CURB AND GUTTER	HW	HOT WATER	REF	REFERENCE
CEM	CEMETERY	HWL	HIGH WATER LEVEL	REINF	REINFORCED
CFS	CUBIC FEET PER SECOND	HWY	HIGHWAY	REQ'D	REQUIRED
CJ	CONSTRUCTION JOINT	HYD	HYDRANT	REV	REVISION
CL	CENTERLINE			RJ	RING TYPE JOINT
CIP	CAST IRON PIPE	ID	INSIDE DIAMETER	RP	REFERENCE POINT
CMP	CORRUGATED METAL PIPE	IJ	ISOLATION JOINT	RR	RAILROAD
CMP-A	CORRUGATED METAL PIPE-ARCH	IN	INCH	RT	RIGHT / ROUTE
CMU	CONCRETE MASONRY UNIT	INFO	INFORMATION	R/W	RIGHT OF WAY
CO	CLEAN OUT	IRR	IRRIGATION		
COL	COLUMN	INV	INVERT	S	SOUTH / SLOPE
CONC	CONCRETE			SAN	SANITARY
CONST	CONSTRUCT	JCT	JUNCTION	SCH	SCHEDULE
COR	CORNER			SD	STORM DRAIN
CTR	CENTER	L	LENGTH	SEC COR	SECTION CORNER
CU FT	CUBIC FEET	LB	POUND	SHT	SHEET
CU YD	CUBIC YARD	LG	LONG OR LENGTH	SIM	SIMILAR
CUL	CULINARY	LIC	LICENSE	SJ	SAWED JOINT
CULV	CULVERT	LIN	LINEAR / LINEAL	SL	SOLIDS LINE
CW	COLD WATER	LS	LAND SURVEYOR	SP	SPACING OR SPACE
		LT	LEFT	SPECS	SPECIFICATIONS
D	DRAIN	LWL	LOW WATER LEVEL	SQ	SQUARE
DEG	DEGREE			SQ FT	SQUARE FEET
DET	DETAIL	MAINT	MAINTENANCE	SQ YD	SQUARE YARD
DIA	DIAMETER	MATL	MATERIAL	SS	STAINLESS STEEL
DIP	DUCTILE IRON PIPE	MAX	MAXIMUM	SSL	SECONDARY SEWAGE LINE
DIST	DISTANCE	MGD	MILLION GALLONS PER DAY	ST	STREET
DL	DRAIN LINE	MH	MANHOLE	STL	STEEL
DN	DOWN	MI	MILE	STN STL	STAINLESS STEEL
DWG	DRAWINGS	MIN	MINIMUM	STA	STATION
DWV	DRAIN WASTE VENT	MISC	MISCELLANEOUS	STD	STANDARD
		MJ	MECHANICAL JOINT	STRUCT	STRUCTURE
E	EAST	MKR	MARKER		
EB	ELECTRON BEAM	MON	MONUMENT	T	TOWNSHIP
EA	EACH	MPH	MILES PER HOUR	TAN	TANGENT
EF	EACH FACE			TBC	TOP BACK CURB
EL	ELBOW	N	NORTH	TEL	TELEPHONE
ELEV	ELEVATION	NO	NUMBER	TEMP	TEMPORARY
ELEC	ELECTRIC	NTS	NOT TO SCALE	TEL	TELEPHONE
EMB	EMBANKMENT			TKN	TOTAL KJELDAHL NITROGEN
ENGR	ENGINEER	OC	ON CENTER	TOA	TOP OF ASPHALT
ENT	ENTRANCE	OD	OUTSIDE DIAMETER	TOD	TOP OF DRAIN
EO	EDGE OF OIL	O-O	OUTSIDE TO OUTSIDE	TOF	TOP OF FOOTING
EOA	EDGE OF ASPHALT	OP	OVERHEAD POWER	TOM	TOP OF MANHOLE
EQ	EQUAL	ORIG	ORIGINAL	TOP	TOP OF PIER
EQUIP	EQUIPMENT			TOS	TOP OF SLAB
ES	EXIT SIGN			TOW	TOP OF WALL
EST	ESTIMATE			TP	TELEPHONE POLE
EW	EACH WAY			TSS	TOTAL SUSPENDED SOLIDS
EXC	EXCAVATION			TYP	TYPICAL
EXIST	EXISTING				

SECTION AND DETAIL IDENTIFICATION

SECTION IDENTIFICATION

SECTION LETTER

DRAWING NUMBER ON WHICH SECTION APPEARS

DETAIL IDENTIFICATION

DETAIL NUMBER

DRAWING NUMBER ON WHICH DETAIL APPEARS

SECTION

SECTION LETTER

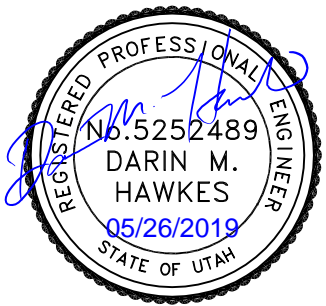
DRAWING NUMBER FROM WHICH SECTION WAS TAKEN

DETAIL

DETAIL NUMBER

DRAWING NUMBER FROM WHICH DETAIL WAS TAKEN

NOTE: IF PLAN AND SECTION (OR DETAIL REFERENCE AND DETAIL) ARE SHOWN ON THE SAME DRAWING, THE DRAWING NUMBER IS REPLACED WITH A LINE.



DRAWING IS TO SCALE
IF BAR MEASURES:
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0	05/15/2019	DMH	CAL	DMH

WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE

GENERAL

LEGEND, SYMBOLS AND ABBREVIATIONS

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SHEET

G-3

05/24/2019 10:52:43 AM W:\Z\Main Wtr Supply Vault Upgrade #001452.c\Drafting\General\G-4.dwg CAL

GENERAL NOTES

1. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
3. ALL WORK SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE (LATEST EDITION), WESTERN ZIRCONIUM PLANT STANDARDS AND OTHER REGULATORY AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK WHERE APPLICABLE.
4. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, TYPICAL DETAILS AND SPECIFICATIONS.
5. THE CONTRACTOR SHALL REFER TO THE WESTERN ZIRCONIUM PLANT STANDARDS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE DRAWINGS.
6. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE TEMPORARY ERECTION OF BRACING AND SHORING AS REQUIRED FOR STABILITY OF STRUCTURES AND EXCAVATIONS DURING ALL PHASES OF CONSTRUCTION.
7. THE CONTRACTOR SHALL BE REQUIRED TO COORDINATE WITH THE OWNER ABOUT TEMPORARY WATER, POWER, OR OTHER UTILITIES AS REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT AS DETAILED. WATER FOR COMPACTION, FLUSHING AND HYDROSTATIC TESTING WILL BE SUPPLIED BY THE OWNER AT NO CHARGE TO THE CONTRACTOR.
8. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL BARRICADES AS MAY BE NECESSARY TO ENSURE SAFETY DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL HOLD A VALID UTAH'S CONTRACTOR'S LICENSE PRIOR TO BEGINNING CONSTRUCTION.
10. THE CONTRACTOR SHALL MAINTAIN CLEAN CONSTRUCTION AREAS. ALL DEBRIS, RUBBISH AND TRASH MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
11. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE PURPOSE OF RECORDING ALL ACTUAL MEASUREMENTS AND DETAILS TO BE USED IN THE PREPARATION OF "AS-BUILTS" OR "RECORD" DRAWINGS. FINAL PAYMENT WILL NOT BE RELEASED UNTIL "AS-BUILTS" OR "RECORD" DRAWINGS HAVE BEEN SUBMITTED TO AND ACCEPTED BY THE ENGINEER.
12. ITEMS NOTED ON DRAWINGS AND IN BILLS OF MATERIALS SHALL BE INSTALLED AS NOTED. CONTRACTOR SHALL PROPOSE ANY SUBSTITUTIONS TO ENGINEER AND OWNER FOR APPROVAL PRIOR TO PURCHASE OR INSTALLATION.
13. ALL COMPONENTS, VALVES, FITTINGS, PIPE, AND APPURTENANCES IN CONTACT WITH POTABLE WATER SHALL BE NSF61 CERTIFIED.

STRUCTURAL NOTES

1. MATERIALS:

STEEL ANGLES	ASTM A36
STEEL CHANNELS	ASTM A36
STEEL SIDE FLANGE SHAPES	ASTM A992, GRADE 50
STEEL PLATES	ASTM A36
STEEL PIPE	ASTM A53/106 B, SCH 80
STEEL TUBING	ASTM A500, GRADE B
HIGH STRENGTH BOLTS	ASTM A325
MACHINE BOLTS	ASTM A307
ANCHOR BOLTS	ASTM F1554, GRADE 36
ANCHOR RODS	ASTM F1554, GRADE 36
WELDING ELECTRODES	E70 SERIES
2. NON-SHRNK, NON-METALLICA GROUT WITH A 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES.
3. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES.
4. TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS.
5. ALL AREAS OF FERROUS METAL ELEMENTS SHALL BE COATED PER WZ REQUIREMENTS AND THESE GENERAL NOTES. DO NOT COAT AREAS TO BE FIELD WELDED OR EMBEDDED IN CONCRETE.
6. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
7. FIELD CONNECTIONS SHALL BE BOLTED TO THE EXTENT PRACTICABLE. FIELD WELDING SHALL BE KEPT TO A MINIMUM AND USED ONLY AS REQUIRED. SHOP CONNECTIONS MAY BE BOLTED OR WELDED. USE ¼" FILLET WELD MINIMUM.
8. MINIMUM BOLT SIZE SHALL BE 5/8" ASTM A325 UNLESS OTHERWISE NOTED.
9. DURING ERECTION OF STEEL BEAMS, COLUMNS, DIAGONAL BRACING, ETC., ALL BOLTING AND FIELD WELDING SHALL BE COMPLETE BEFORE RELEASING HOISTING CABLES AND/OR TEMPORARY SUPPORTS.
10. SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO FABRICATING STRUCTURAL STEEL.
11. WELDED STEEL & ALUMINUM GRATING OHIO GRATING MODEL 19-W-4 & 19-SG-4, RESPECTIVELY MILL FINISH WITH 1 1/2" X 3/16" (SERRATED SURFACE) BAR OR EQUAL. COAT PER WZ REQUIREMENT AND THESE GENERAL NOTES.

CONCRETE NOTES

1. ALL WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO ACI LATEST EDITIONS OF 318, ACI 301, AND THE WESTERN ZIRCONIUM PLANT STANDARD.
2. ALL STRUCTURAL CONCRETE INCLUDING FOOTINGS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI AND CONTAIN 4% TO 6% ENTRAINED AIR. ALL CONCRETE FOR THRUST RESTRAINT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3500 PSI.
3. NO CONCRETE SHALL BE PLACED WITH A SLUMP IN EXCESS OF 4 INCHES.
4. THE CONTRACTOR SHALL SUBMIT A CONCRETE MIX DESIGN FOR APPROVAL AT LEAST 5 WORKING DAYS BEFORE PLACING ANY CONCRETE PRODUCED WITH THAT MIX DESIGN.
5. AGGREGATE FOR CONCRETE SHALL CONFORM TO ALL THE REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. MAXIMUM AGGREGATE SIZE SHALL BE 1 INCH.
6. ANY USE OF HIGH-EARLY CONCRETE SHALL BE CONTINGENT ON ENGINEER'S APPROVAL WHICH SHALL BE BASED ON TIMELY SUBMITTAL OF MIX DESIGN PRIOR TO PLACEMENT.
7. ALL CONCRETE PLACEMENTS SHALL BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE TO ALLOW SCHEDULING OF FIELD TESTING. ALL CONCRETE TESTING SHALL BE PROVIDED BY THE OWNER.
8. EXCEPT AS OTHERWISE NOTED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS.
9. ALL REINFORCING STEEL DOWELS, ANCHOR BOLTS, AND OTHER INSERTS OR EMBEDMENTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
10. CONCRETE SHALL NOT BE ALLOWED TO DROP MORE THAN 6 FEET VERTICALLY DURING PLACEMENT. TREMIE HOSES AND CHUTE EXTENSIONS SHALL BE USED TO ALLOW CONCRETE TO BE PLACED AS CLOSE TO ITS FINAL RESTING POSITION AS POSSIBLE.
11. INTERNAL VIBRATORS SHALL BE USED TO CONSOLIDATE ALL PLACED CONCRETE. VIBRATORS SHALL NOT BE USED TO TRANSPORT CONCRETE.
12. ALL CONCRETE WALLS SHALL BE ALLOWED TO CURE A MINIMUM OF 21 DAYS OR REACH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI BEFORE BACKFILLING.
13. ALL CONCRETE THRUST BLOCKS, COLLARS, AND RESTRAINTS SHALL BE ALLOWED TO CURE A MINIMUM OF 3 DAYS BEFORE BACKFILLING. ALL THRUST RESTRAINTS MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE BACKFILLING. THRUST BLOCKS SHALL BE RATED AT 250 PSI GAUGE.
14. ALL CONCRETE SHALL BE PROPERLY AND ADEQUATELY PROTECTED AND CURED AS FOLLOWS:

TEMPERATURE – THE TEMPERATURE OF THE CONCRETE SHALL BE MAINTAINED BETWEEN 50 AND 70 DEGREES FAHRENHEIT FOR A MINIMUM OF 7 DAYS. THIS MAY REQUIRE HEATING AND/OR COOLING OF CONCRETE.

MOISTURE – ALL CONCRETE SURFACES, HORIZONTAL AND VERTICAL SHALL BE KEPT MOIST FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT. CURING COMPOUNDS MAY ONLY BE USED WITH WRITTEN PERMISSION OF THE ENGINEER.
15. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS BUT PROPOSED BY THE CONTRACTOR SHALL BE LOCATED AND DETAILED ON CONTRACTOR DRAWINGS AND SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO PLACEMENT.
16. CONCRETE TESTING & QUALITY ASSURANCE: 5 TEST CYLINERS SHALL BE TAKEN PER 50 YARDS OF CONCRETE PLACE, OR AT LEAST ONCE PER DAY. AIR ENTRAINMENT AND SLUMP SHALL BE TESTED AT THE TIME CYLINDERS ARE TAKEN.
17. ALL CONCRETE PLACED SHALL MEET THE FOLLOWING SPECIFICATIONS:
 - MIN. COMPRESSIVE STRENGTH: 4500 PSI @ 28 DAYS
 - SLUMP LIMIT: 4", PLUS 1/2", MINUS 1"
 - AIR CONTENT: 5.0%, PLUS OR MINUS 1% AT POINT OF DELIVERY

EARTHWORK NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER TO MARK ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ALL EARTHWORK OPERATIONS.
2. THE SITE SHALL BE CLEARED OF ALL GRASSES, SHRUBS, TREES, AND ROOTS. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR REUSE ON FILL SLOPES, AND DISTURBED NON-TRAFFIC AREAS. SIDE SLOPES SHALL BE LAID BACK AT SLOPES NO STEEPER THAN 3:1.
3. ALL TRENCHES AND EXCAVATIONS SHALL BE CUT, PROTECTED AND SUPPORTED AS PRESCRIBED BY OSHA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ANY EQUIPMENT NECESSARY TO DEWATER EXCAVATIONS.
5. TOPSOIL SHALL BE REPLACED AND GRADED PRIOR TO REVEGETATION. DISTURBED AREAS SHALL BE RESEEDING USING A SEED MIX SPECIFIED BY ON THE EROSION CONTROL PLAN AND DETAILS.

PROTECTIVE COATING NOTES

1. ALL FERROUS METAL SURFACES SHALL BE PREPARED PER SSPC-SP10 NEAR WHITE BLAST CLEANING.
2. PRIMER: TNE MEC SERIES 90-97 or, TNE MEC SERIES 394 AT 2.5 – 3.0 MILS (2 COATS @ 2.5 – 3.5 MILS DFT PER COAT)
3. INTERMEDIATE: TNE MEC SERIES 1075U AT 3.0 – 5.0 MILS DFT.
4. FINISH: TNE MEC SERIES 1075U AT 3.0 – 5.0 MILS DFT.
5. FINISH COLORS AS FOLLOWS:
PLATFORM STRUCTURES AND GRATING – GRAY 33GR
STEP NOSING – CANARY YELLOW 14YW
STEP TREADS AND RISERS – GRAY 33GR
CULINARY WATER – GREEN 28BS
FIRE WATER – SAFETY RED 69HT
RAILING – CANARY YELLOW 14YW
AIR – SPEARMINT GREEN 09SF
BOLLARDS – SAFETY RED 69HT
6. CONTRACTOR SHALL PROVIDE 1" HOLD-BACK FOR ALL FILED WELDS.
7. ALL COATINGS IN CONTACT WITH POTABLE WATER SHALL BE NSF61 CERTIFIED

STRUCTURAL AND MECHANICAL DEMOLITION NOTES

1. CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING MAIN VALVE VAULT AND ALL ASSOCIATED COMPONENTS WITH THE INSTALLATION OF THE NEW RPZD FACILITY TO MINIMIZE DOWN TIME AND MEET THE TIME LINE OF COMPLETION.
2. WESTERN ZIRCONIUM WILL PROVIDE A LAY DOWN AREA FOR MATERIALS REMOVED DURING DEMOLITION AND WILL IDENTIFY A DUMP LOCATION AT THE WESTERN ZIRCONIUM FACILITY FOR EXCAVATION SPOIL REMOVED DURING CONSTRUCTION.
3. CONTRACTOR TO COORDINATE AND VERIFY THE LOCATIONS OF THE CUT-IN POINTS TO THE EXISTING PIPING SYSTEM. CONTRACTOR TO CUT EXISTING PIPES AND CONNECT AT CUT-IN-POINTS WITH NEW PIPE LINES AND FOLLOW ROUTES PER MECHANICAL DESIGN ON DRAWINGS.

ELECTRICAL DEMOLITION NOTES

1. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL WIRES AND CABLES PRIOR TO DEMOLITION. THE ELECTRICAL CONTRACTOR SHALL REMOVE ALL WIRED EQUIPMENT AND DEVICES CONNECTED TO POWER.
2. CONTRACTOR TO REMOVE ALL EXISTING SAFETY LIGHTS, SIREN ALARMS, AND CAMERAS AND STORE SAFELY UNTIL REINSTALLATION.
3. BEFORE REMOVING EQUIPMENT OR WIRE THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO ENSURE THE EQUIPMENT IS PROPERLY DEENERGIZED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MARK AND LABEL ALL WIRE AS TO ITS ORIGIN AND DESTINATION SUCH THAT THE EQUIPMENT CAN BE REINSTALLED AND CORRECTLY RECONNECTED.
4. AT THE COMPLETION OF THE ELECTRICAL DEMOLITION THE CONTRACTOR SHALL BE REINSTALLING OR RELOCATING THE LIGHT POLE AND APPURTENANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL REMOVAL AND STORAGE OF THIS EQUIPMENT UNTIL IT IS REINSTALLED.

GRADING NOTES

1. IMPROVEMENT ELEVATION LABELS AND ELEVATION CONTOURS REFERENCE FINISH ELEVATIONS. REFER TO ABBREVIATIONS AND SYMBOL LEGEND INCLUDED HEREIN.



0 1/2 1
DRAWING IS TO SCALE
IF BAR MEASURES:
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WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE

GENERAL
GENERAL NOTES

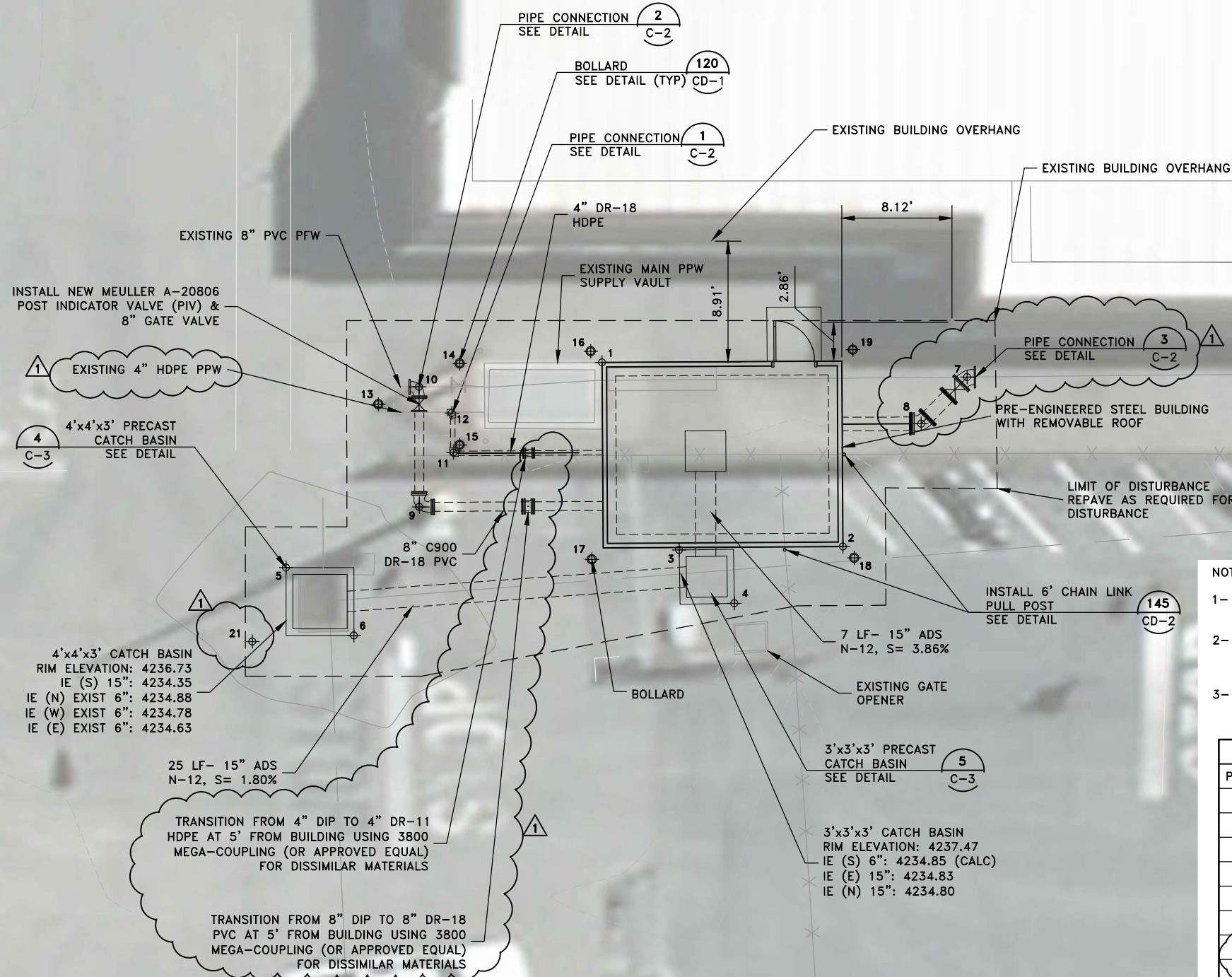


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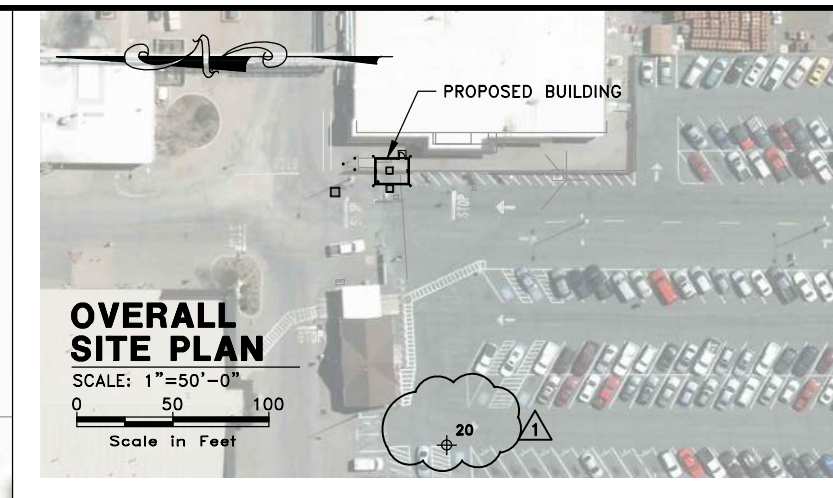
SHEET

G-4

NO.	DATE	DESIGN	DRAWN	CHECKED
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REVISIONS				

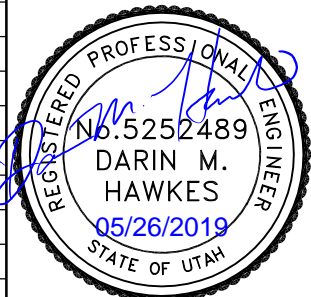


SITE PLAN
SCALE: 1"=5'-0"
0 5 10
Scale in Feet



- NOTE:
- EXISTING PPW MAIN SUPPLY VAULT TO BE ABANDONED-IN-PLACE AND FILLED WITH CONCRETE, FLUSH TO GRADE, UPON COMPLETION, CUT-OVER, AND SUCCESSFUL OPERATION OF NEW FACILITY.
 - CONTRACTOR TO PHASE PROJECT TO COMPLETE IMPROVEMENTS TO THE MAXIMUM EXTEND PRACTICABLE WHILE MAINTAINING WATER SERVICE TO THE PLANT. FINAL CONNECTIONS AND CUT-OVER SHALL BE ACCOMPLISHED DURING THE PLANT SCHEDULED SHUT DOWN BEGINNING JULY 9, 2019.
 - AFTER COMPLETION OF TIE IN AND CUT OVER TO NEW SYSTEM, THE EXISTING VALVE VAULT SHALL BE REMOVED TO 12" BELOW GRADE, FILLED WITH COMPACTED ROAD BASE (95% MODIFIED PROCTOR) AND TOPPED WITH 3" OF ASPHALT TO MATCH EXISTING GRADE.

HORIZONTAL CONTROL				
PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	3619414.49	1439410.08	4237.95	BUILDING CORNER
2	3619396.75	1439396.51	4237.95	BUILDING CORNER
3	3619408.80	1439396.27	4237.47	CATCH BASIN CORNER
4	3619404.74	1439392.33	4237.47	CATCH BASIN CORNER
5	3619437.77	1439394.98	4236.73	CATCH BASIN CORNER
6	3619432.77	1439389.98	4236.73	CATCH BASIN CORNER
7	3619387.58	1439409.00	*	45° BEND
8	3619390.97	1439405.58	*	45° BEND
9	3619427.96	1439399.44	*	90° BEND
10	3619427.96	1439408.28	*	90° BEND
11	3619425.43	1439403.44	*	90° BEND
12	3619425.55	1439406.36	*	90° BEND
13	3619430.96	1439407.00	4237.45	BOLLARD
14	3619424.96	1439410.00	4237.63	BOLLARD
15	3619424.96	1439404.00	4237.44	BOLLARD
16	3619415.32	1439410.91	4237.65	BOLLARD
17	3619415.24	1439395.57	4237.28	BOLLARD
18	3619395.91	1439395.68	4237.50	BOLLARD
19	3619396.00	1439411.02	4237.56	BOLLARD
20	3619377.05	1439260.74	4238.99	CK CP MAG
21	3619440.25	1439389.52	4236.88	SURVEY CONTROL MONUMENT 3



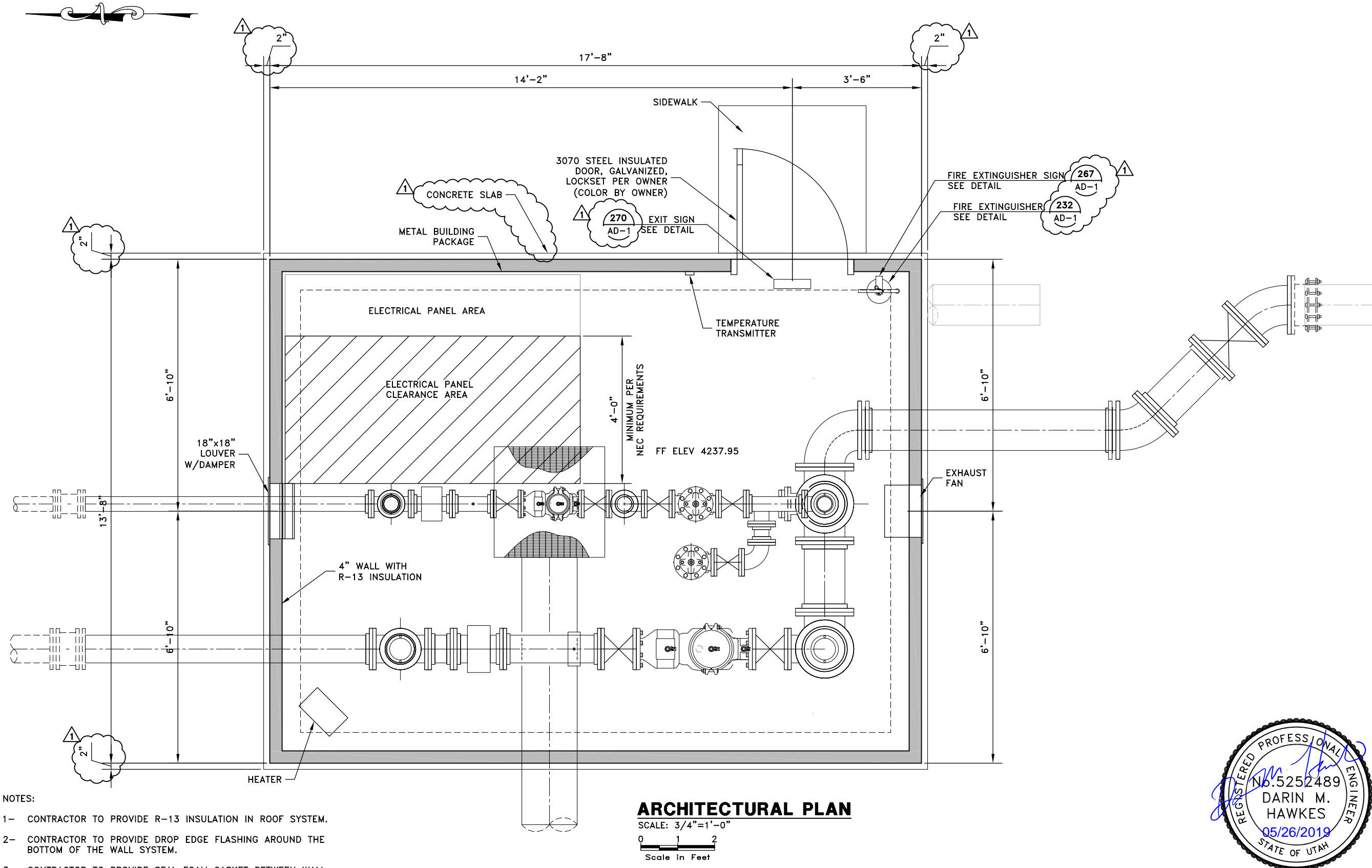
* MATCH DEPTH OF EXISTING PIPING

0 1/2 1
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1" = FULL SCALE
1/2" = HALF SCALE

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POTABLE WATER SUPPLY RPZD UPGRADE			
CIVIL			
SITE PLAN			
AQUA ENGINEERING			
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SHEET C-1			

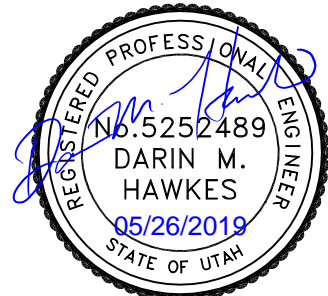
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1	05/23/19	PLD	DCH	DMH	



- NOTES:
- 1- CONTRACTOR TO PROVIDE R-13 INSULATION IN ROOF SYSTEM.
 - 2- CONTRACTOR TO PROVIDE DROP EDGE FLASHING AROUND THE BOTTOM OF THE WALL SYSTEM.
 - 3- CONTRACTOR TO PROVIDE SEAL FOAM GASKET BETWEEN WALL AND CONCRETE.
 - 4- BUILDING SHALL BE PROVIDED WITH LIFTING RINGS/LUGS FOR THE REMOVABLE ROOF AND STRUCTURE.

ARCHITECTURAL PLAN

SCALE: 3/4"=1'-0"
0 1 2
Scale in Feet



0 1/2 1
DRAWING IS TO SCALE
IF BAR MEASURES:
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1/2" = HALF SCALE

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REVISIONS				
1	05/23/19	PLD	CAL	DMH

WESTINGHOUSE ELECTRIC COMPANY
POTABLE WATER SUPPLY RPZD UPGRADE
VAULT BUILDING
ARCHITECTURAL - PLAN

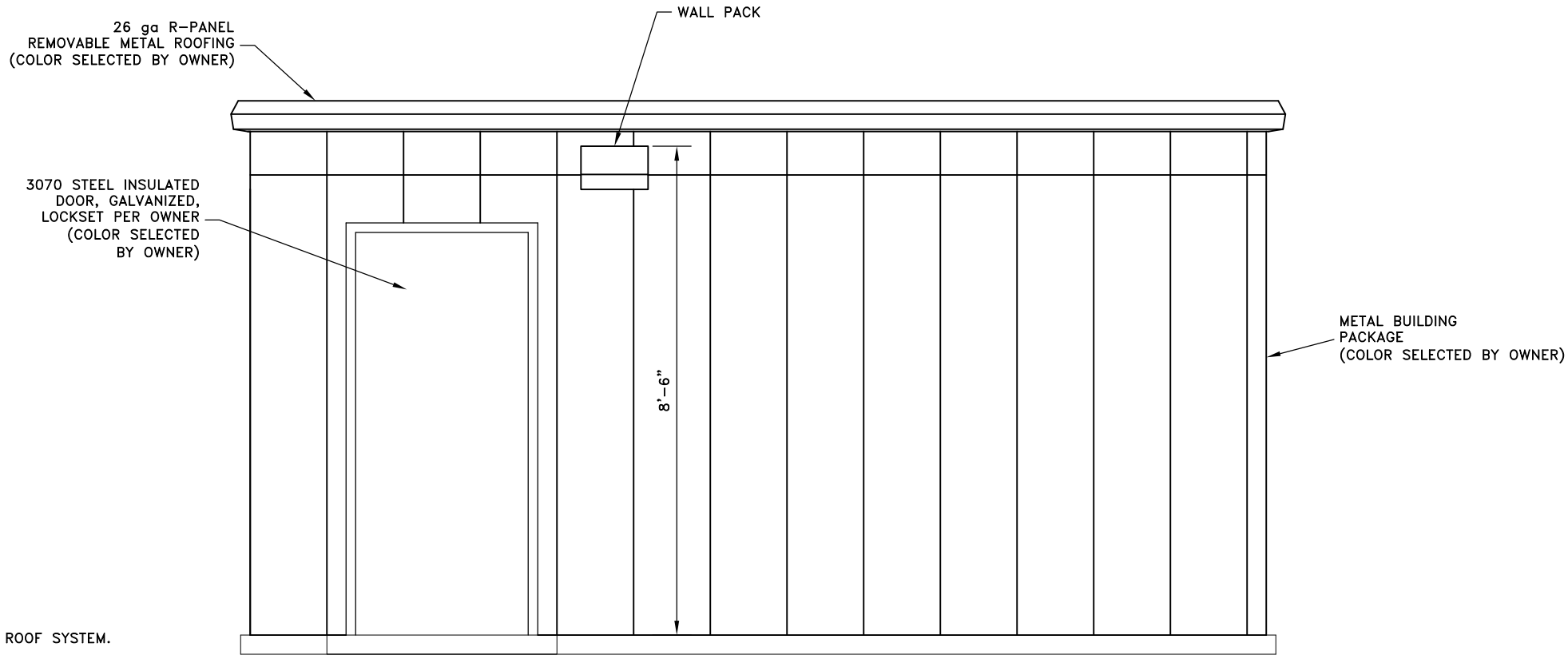


SHEET
A-1

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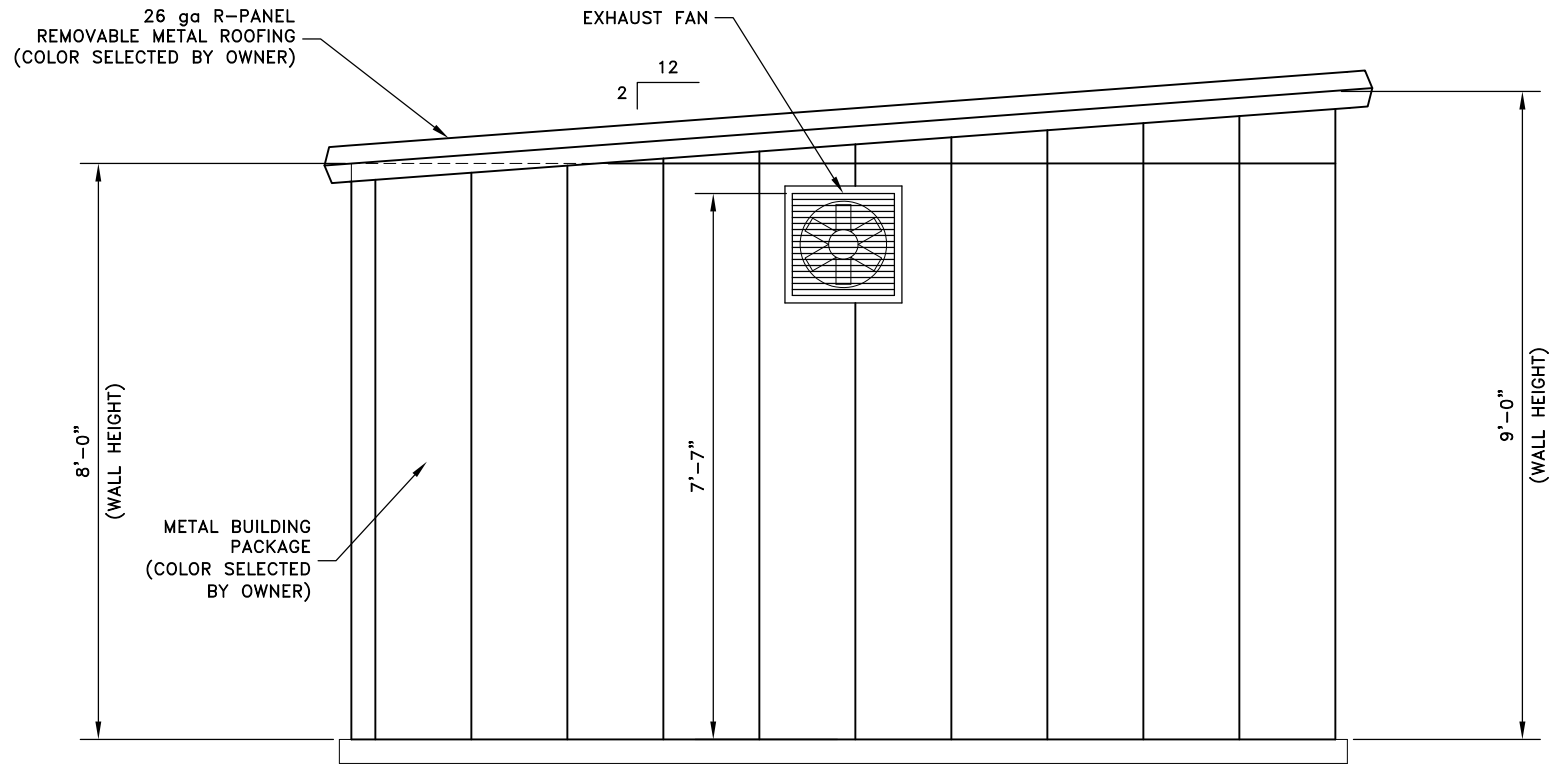
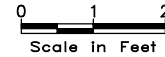
NOTES:

- 1- CONTRACTOR TO PROVIDE R-13 INSULATION IN ROOF SYSTEM.
- 2- CONTRACTOR TO PROVIDE DROP EDGE FLASHING AROUND THE BOTTOM OF THE WALL SYSTEM.
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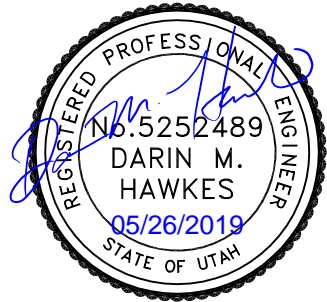
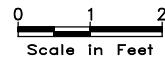
EAST ELEVATION

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



SOUTH ELEVATION

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



0 1/2 1
DRAWING IS TO SCALE
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WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE

VAULT BUILDING

ARCHITECTURAL - ELEVATIONS



SHEET

A-2

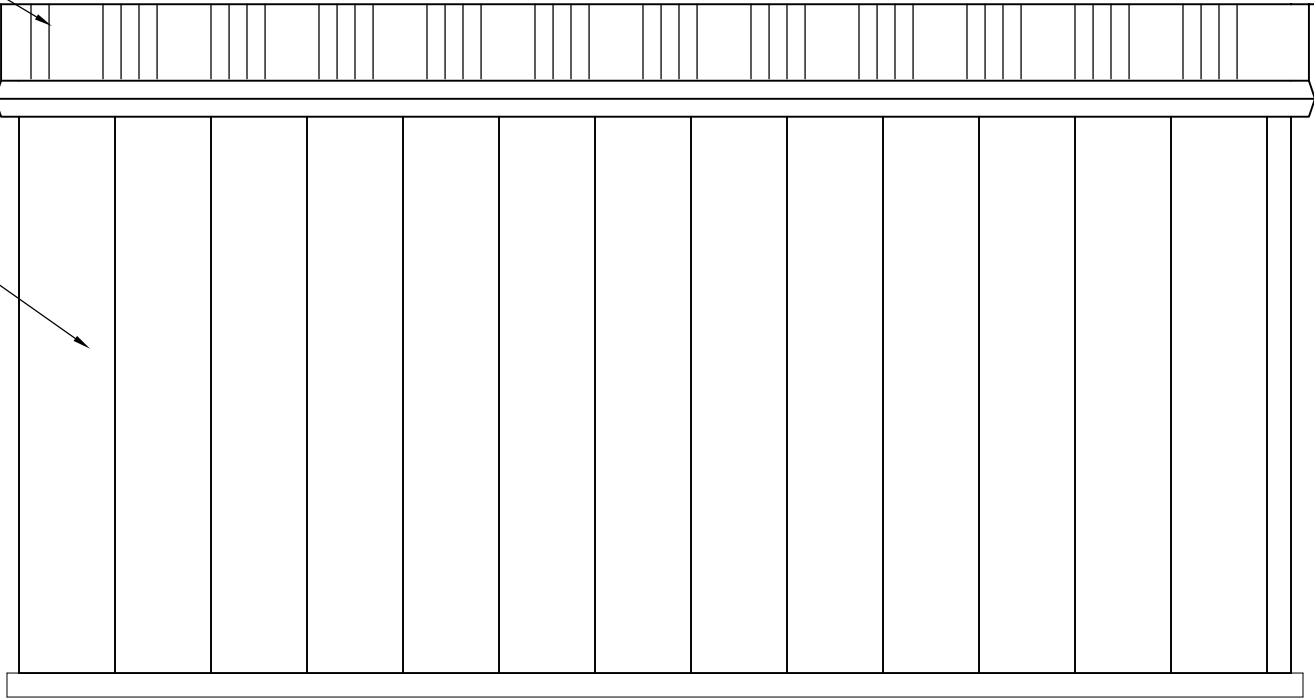
NO.	DATE	DESIGN	DRAWN	CHECKED
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REVISIONS				

NOTES:

- 1- CONTRACTOR TO PROVIDE R-13 INSULATION IN ROOF SYSTEM.
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- 4- BUILDING SHALL BE PROVIDED WITH LIFTING RINGS/LUGS FOR THE REMOVABLE ROOF AND STRUCTURE.

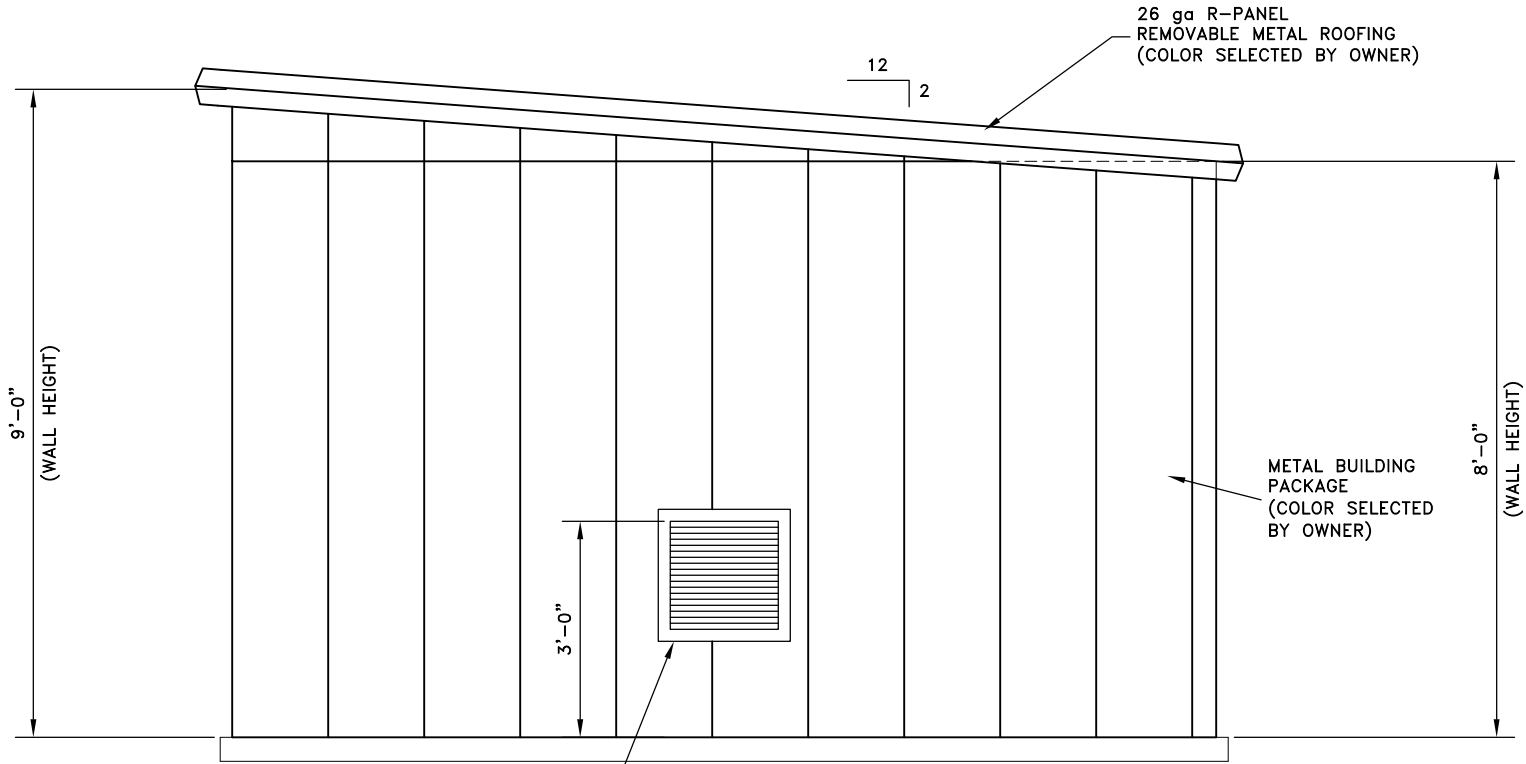
26 ga R-PANEL
REMOVABLE METAL ROOFING
(COLOR SELECTED BY OWNER)

METAL BUILDING
PACKAGE
(COLOR SELECTED
BY OWNER)



WEST ELEVATION

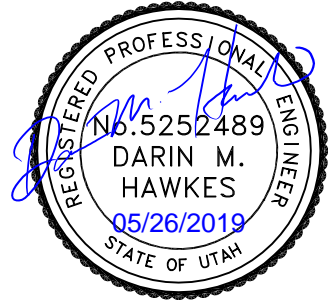
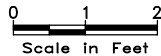
SCALE: 3/4"=1'-0"



18"x18" LOUVER
W/DAMPER

NORTH ELEVATION

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



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WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE

VAULT BUILDING

ARCHITECTURAL - ELEVATIONS

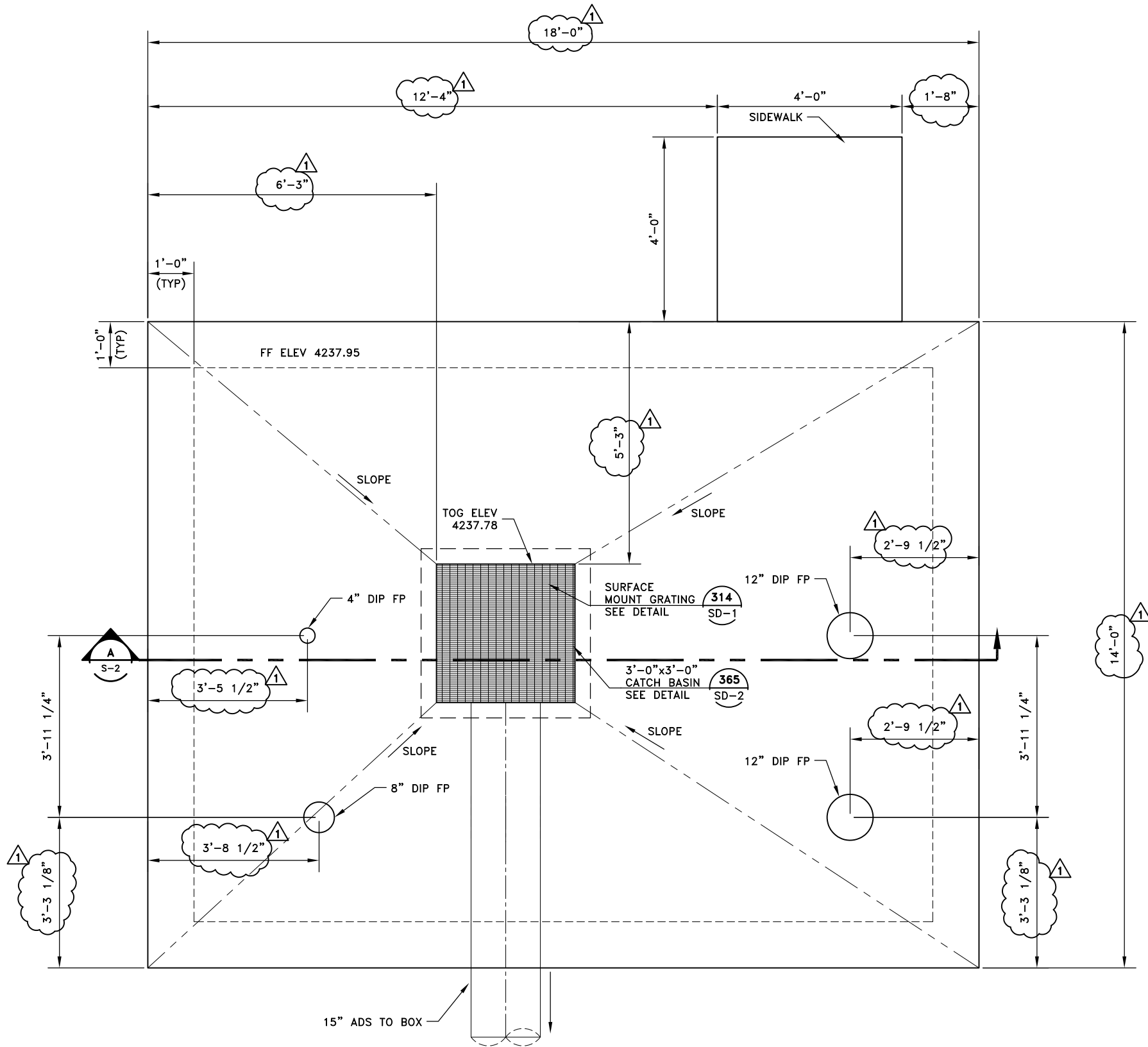


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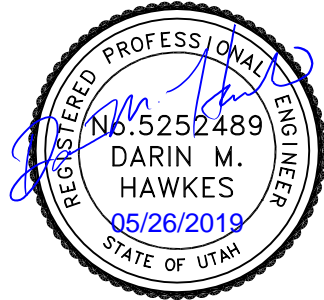
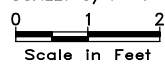
A-3

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REVISIONS				



STRUCTURAL PLAN

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



DRAWING IS TO SCALE
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1/2" = HALF SCALE

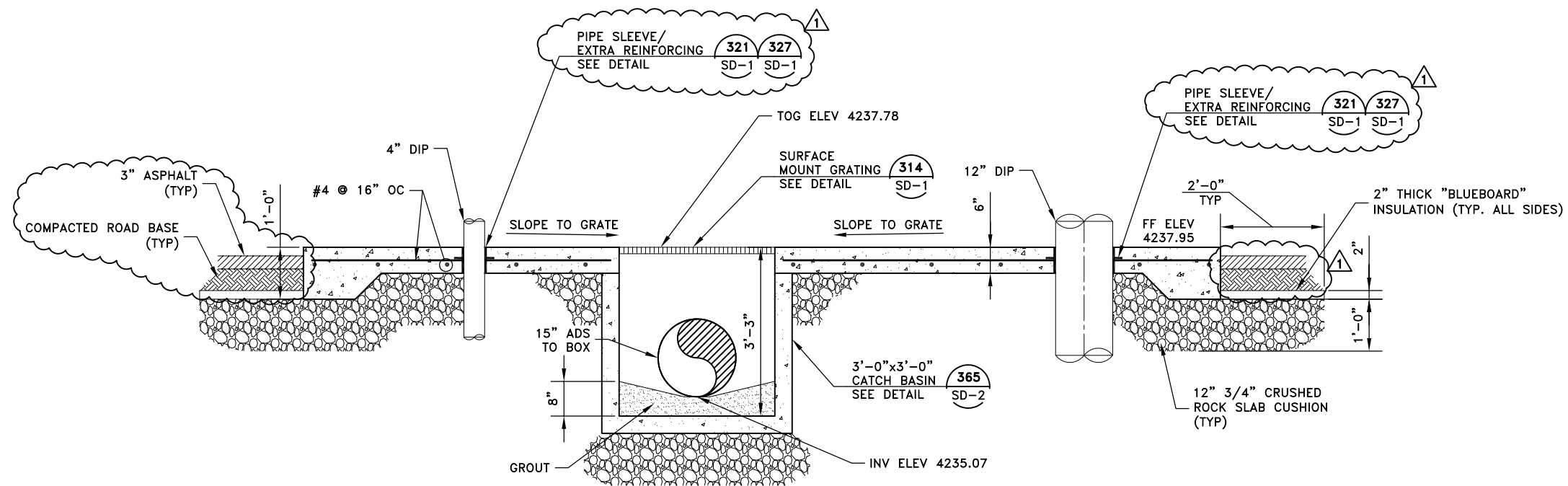
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WESTINGHOUSE ELECTRIC COMPANY
POTABLE WATER SUPPLY RPZD UPGRADE
VAULT BUILDING
STRUCTURAL - PLAN

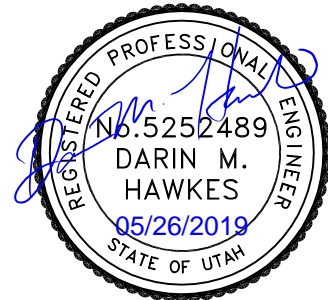


SHEET
S-1



SECTION

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



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WESTINGHOUSE ELECTRIC COMPANY

POTABLE WATER SUPPLY RPZD UPGRADE

VAULT BUILDING

STRUCTURAL - SECTION

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1	05/23/19	PLD	DCH	DMH

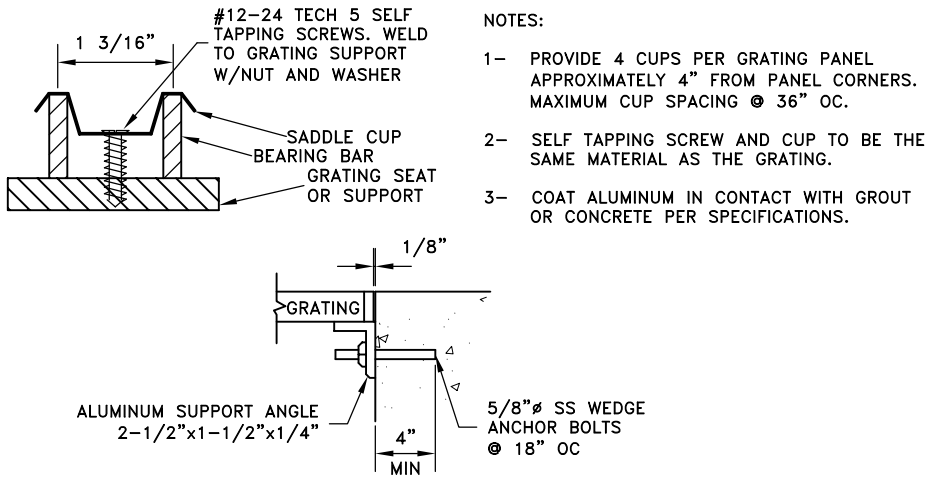
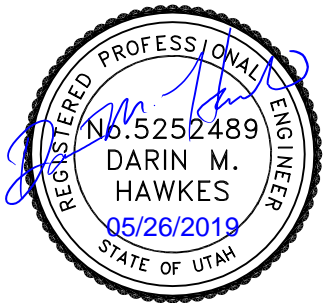


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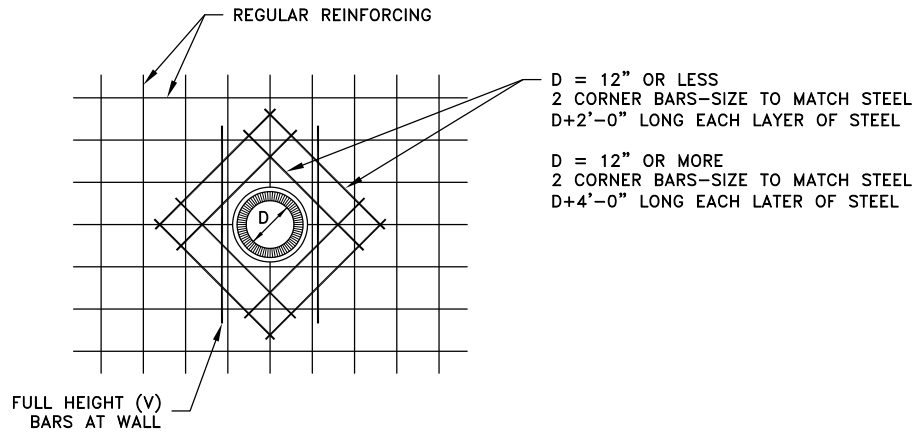
SHEET

S-2

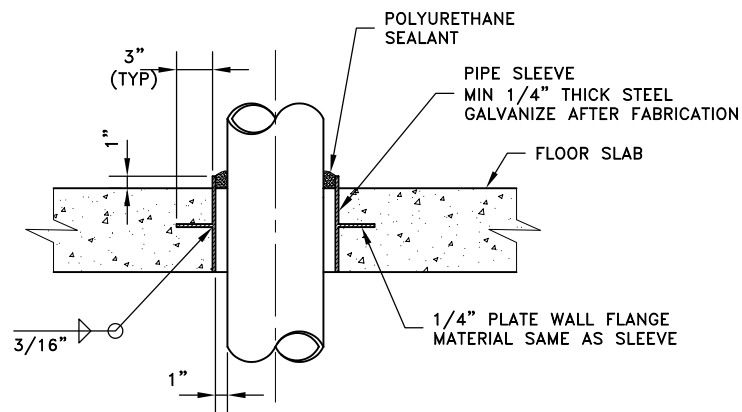
05/24/2019 05:24/2019 W:\WZ\Main Wtr Supply Vault Upgrade #001452.c\Drafting\Details\STRUCTURAL DETAILS.dwg CAL



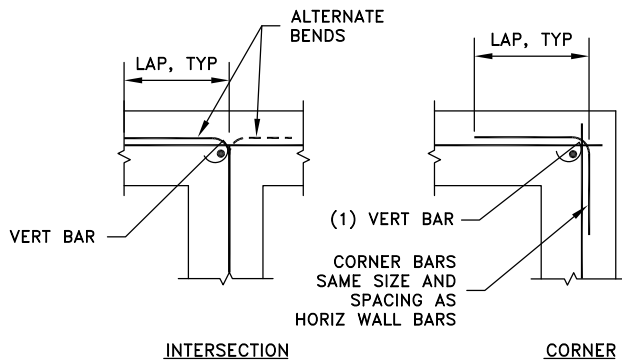
SURFACE MOUNT ALUMINUM GRATING (314)
SCALE: NTS



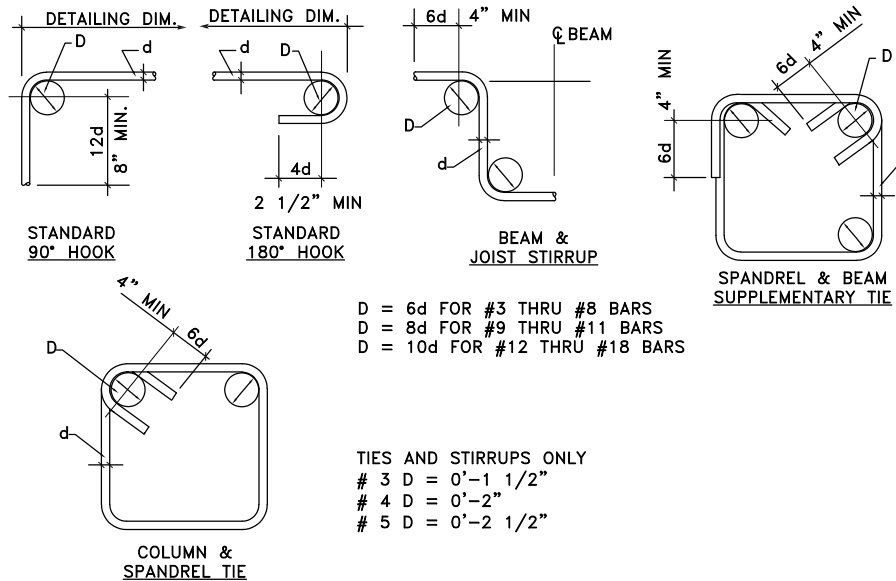
WALL AND FLOOR PIPE PENETRATION EXTRA REINFORCING (321)
SCALE: NTS



FLOOR PIPE SLEEVE (327)
SCALE: NTS



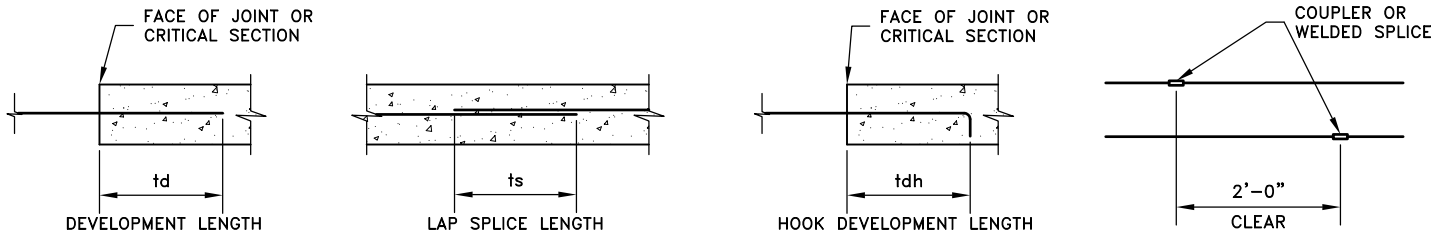
SINGLE CURTAIN OF REBAR (344)
SCALE: NTS



BAR BENDING (346)
SCALE: NTS

REBAR LAP SPLICE SCHEDULE																								
BAR LOCATION	CONCRETE REINFORCING & SPLICE LENGTHS (IN)																							
	CONCRETE		BAR SIZE																					
			#3			#4			#5			#6			#7			#8			#9			#10
	TYPE	STRENGTH	td	ts	tdh	td	ts	tdh	td	ts	tdh	td	ts	tdh	td	ts	tdh	td	ts	tdh	td	tdh	td	tdh
VERT WALL BARS, FILL ON METAL DECK	NWC	4500 PSI	14	18	7	18	23	6	23	30	8	27	35	9	40	52	11	45	59	13	51	14	56	16
HORIZ WALL BARS, FOOTING TOP BARS	NWC	4500 PSI	14	18	7	18	23	6	23	30	8	27	35	9	40	52	11	45	59	13	51	14	56	16
BEAM BOTTOM BARS, COLUMN BARS	NWC	4500 PSI	14	18	7	18	23	6	23	30	11	27	35	13	40	52	16	45	59	18	51	20	56	22
FOOTING BOTTOM BARS	NWC	4500 PSI	12	16	7	12	16	6	14	18	8	17	22	9	24	31	11	27	35	13	31	14	34	16
BEAM TOP BARS	NWC	4500 PSI	18	23	7	24	31	9	30	39	11	35	46	13	51	66	16	59	77	18	66	20	73	22
SLAB ON GRADE	NWC	4500 PSI	12	16	7	12	16	6	14	18	8	17	22	9	27	35	11	34	44	13	44	14	56	16

REINFORCING LAP SCHEDULE (351)
SCALE: NTS



- NOTES:
- MECHANICAL COUPLERS MAY BE USED IN LIEU OF LAP SPLICE SHOWN. SEE STRUCTURAL NOTES FOR MINIMUM COUPLER CAPACITY. WHERE MECHANICAL COUPLERS ARE USED, STAGGER ADJACENT SPLICES A MINIMUM OF 24" AS INDICATED ABOVE.
 - DEVELOPMENT LENGTHS SHALL BE INCREASED BY 50% FOR STRAIGHT BAR DEVELOPMENT AND 20% FOR HOOKED BARS WHERE EPOXY COATING IS USED.
 - WHEN SPLICING BARS OF DIFFERENT SIZES, USE LAP SPLICE LENGTH OF LARGER BARS UNO.
 - SPLICE #9 AND LARGER BARS USING MECHANICAL COUPLERS.

DRAWING IS TO SCALE
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REVISIONS

WESTINGHOUSE ELECTRIC COMPANY
POTABLE WATER SUPPLY RPZD UPGRADE
DETAILS
STRUCTURAL

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ENGINEERING
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SD-1