### 9009 SOUTH DIANNE ST, NASHVILLE, INDIANA 47448

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REVISION NUMBER	REVISION DESCRIPTION	DATE						

THE ACCURACY OF ANY FLOOD HAZARD DATA SHOWN ON THESE PLANS IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP. THE WITHIN DESCRIBED TRACT OF LAND LIES WITHIN FLOOD HAZARD ZONE X AS SAID TRACT PLOTS BY SCALE ON COMMUNITY PANEL NUMBER 18105C0300D DATED 12/17/2010 FOR THE FLOOD INSURANCE RATE MAPS FOR MONROE COUNTY, INDIANA (UNINCORPORATED AREAS 180444).

### PLANS PREPARED FOR:

SALT CREEK SERVICES, INC C/O COMPASS POINTE 609 TREYBOURNE DRIVE GREENWOOD, INDIANA 46142 TELEPHONE: (812) 327-9053 CONTACT PERSON: CARL BAUER EMAIL: bauers@mac.com

### **OPERATING AUTHORITIES:**

SANITARY SEWER SALT CREEK SERVICES, INC C/O COMPASS POINTE 609 TREYBOURNE DRIVE GREENWOOD, INDIANA 46142 TELEPHONE: (812) 327-9053 **CONTACT: CARL BAUER** 

EMAIL: bauers@mac.com

WATER

SALT CREEK SERVICES, INC C/O COMPASS POINTE 609 TREYBOURNE DRIVE GREENWOOD, INDIANA 46142 TELEPHONE: (812) 327-9053 CONTACT: CARL BAUER EMAIL: bauers@mac.com

**ELECTRIC** 

CALL 2 WORKING DAYS BEFORE YOU DIG

1-800-382-5544

CALL TOLL FREE

PER INDIANA STATE LAW IC8-1-26.

IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE

**DUKE ENERGY - DISTRIBUTION** 100 SOUTH MILL CREEK RD. NOBLESVILLE, IN 46062 TELEPHONE: N/A CONTACT: N/A EMAIL: dei-dline-coord@duke-energy.com

### PLANS PREPARED BY:

RQAW | DCCM 8770 NORTH STREET, SUITE 110 FISHERS, INDIANA 46038 TELEPHONE: (317) 588-1785 CONTACT PERSON: RICARDO PAREDES EMAIL: rparedes@dccm.com

### **ELECTRIC**

**DUKE ENERGY - TRANSMISSION** 100 SOUTH MILL CREEK RD. NOBLESVILLE, IN 46062 TELEPHONE: N/A CONTACT: N/A EMAIL: dei-tline-coord@duke-energy.com

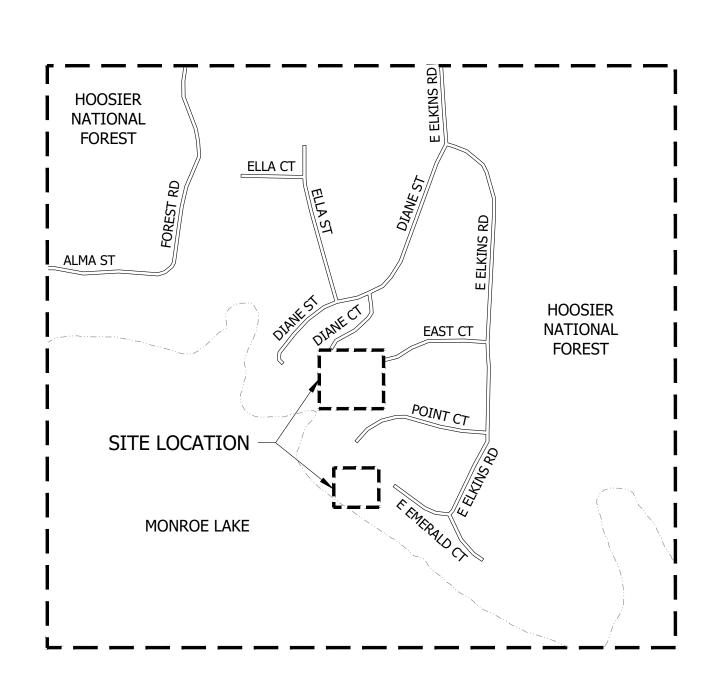
### COMMUNICATIONS

SMITHVILLE TELEPHONE COMPANY, INC 1600 WEST TEMPERANCE ST. ELLETSVILLE, IN 47429 TELEPHONE: (812) 876-2211 CONTACT: N/A EMAIL: N/A



### SITE VICINITY MAP

NOT TO SCALE



SITE LOCATION MAP

NOT TO SCALE

SET

PERMIT

Revision

RQAW

Project #: 23-400-188-1 Designed By: RJPA

SAL

Checked By: RJPA Date: 02/03/2025

Drawn By: RLH



**TITLE SHEET** 

G001

### GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS FOR THIS PROJECT. ADDITIONS, DELETIONS, AND/OR REVISIONS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL BY THE ENGINEER. KEEP AND MAINTAIN IN GOOD CONDITION A COMPLETE SET OF THE CONTRACT DOCUMENTS ON THE JOB SITE AT ALL TIMES.
- ALL WORK SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL CODES, ORDINANCES, RULES, REGULATIONS, ORDERS, AND OTHER LEGAL REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- IN THE EVENT THAT THE CONTRACTOR DISCOVERS A DISCREPANCY IN THE CONTRACT DOCUMENTS OR POTENTIAL UTILITY CONFLICT, NOTIFY THE ENGINEER IMMEDIATELY FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE PORTION OF THE WORK IN QUESTION. FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. VERTICAL AND HORIZONTAL LOCATIONS TO BE CONFIRMED. ANY NECESSARY PIPE MODIFICATIONS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL LOCAL NECESSARY PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING
- ALL RIGHT-OF-WAY AND PROPERTY LINES AND EASEMENTS ARE APPARENT AND WERE DETERMINED BASED UPON AVAILABLE INFORMATION. VERIFY ALL RIGHT-OF-WAY AND PROPERTY LINES. STAKE ALL RIGHT-OF-WAY, PROPERTY, AND EASEMENT LINES THROUGHOUT THE DURATION OF CONSTRUCTION.
- CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROPERTY LINES AND RIGHT-OF-WAY SHALL BE STAKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
- PROTECT ALL EXISTING UTILITIES FROM DAMAGE, IN A MANNER APPROVED BY THE UTILITY AND THE ENGINEER. COORDINATE WITH UTILITY AS NECESSARY TO COMPLETE THE WORK. PROTECT BENCH MARKS, SURVEY CONTROL POINTS, AND EXISTING STRUCTURES FROM UNNECESSARY DAMAGE OR DISPLACEMENT.
- PROVIDE ALL AUTOMOBILE AND PEDESTRIAN TRAFFIC CONTROL DEVICES REQUIRED BY FEDERAL, STATE, OR LOCAL AGENCIES. THE AMOUNT, LOCATION, AND SIZE SHALL BE AS REQUIRED IN ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- DURING CONSTRUCTION IT MAY BE NECESSARY TO TRIM OR REMOVE A TREE WITHIN THE RIGHT-OF-WAY OR AN EASEMENT. NOTIFY THE ENGINEER, OWNER, AND ANY AFFECTED PROPERTY OWNER PRIOR TO ANY REQUIRED TREE REMOVAL. TREE TRIMMING AS REQUIRED WITHIN THE RIGHT-OF-WAY OR EASEMENT SHALL BE MINIMIZED. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR TREE REMOVAL OR TRIMMING.
- ALL DISTURBED AREAS, INCLUDING, BUT NOT LIMITED TO, STREETS, DRIVES, WALKS, LAWNS, FENCES, RETAINING WALLS, ETC. SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PRIVATE DRIVES, ACCESS DRIVES TO THE PLANT OR PARKING AREAS AT OR AROUND THE WATER TREATMENT PLANT. THIS MATERIAL REMOVAL OR SWEEPING SHALL BE DONE AS FREQUENTLY AS NECESSARY TO MAINTAIN AREAS REASONABLY CLEAN. AIRBORNE DUST SHALL BE KEPT TO A MINIMUM BY USING WATER OR OTHER METHODS AS NECESSARY.
- 12. PROVIDE TEMPORARY GRASS SEED WITHIN 7-DAYS OF ALL EARTH DISTURBING ACTIVITIES.
- PROVIDE AND MAINTAIN ALL NECESSARY STRAW BALES, FILTER FENCE, INLET PROTECTION ETC. IN EXISTING AND PROPOSED DITCHES, CULVERTS, STORM PIPES, AND DRAINAGE STRUCTURES TO PREVENT DAMAGE. BIO-DEGRADABLE EROSION CONTROL DEVICES SHOULD BE PLACED IN ALL DISTURBED DRAINAGE DITCHES WITH DEPTHS GREATER THAN 12".
- REGRADE AREAS AS NECESSARY WITHIN THE CONSTRUCTION LIMITS TO ALLOW PROPER DRAINAGE TO
- MAINTAIN 10'-0" HORIZONTAL AND 1'-6" VERTICAL SEPARATION BETWEEN SEWERS AND WATER MAINS, UNLESS SPECIFICALLY NOTED IN THE PLANS.
- PROVIDE FILL AROUND PROPOSED AND EXISTING PIPING AT ALL OPEN-CUT UTILITY CROSSINGS TO ADEQUATELY SUPPORT AND PROTECT EACH CONDUIT.

MARKERS AT NO ADDITIONAL COST TO THE OWNER.

- PRESERVE EXISTING RIGHT-OF-WAY MARKERS. IF RIGHT-OF-WAY MARKERS ARE DISTURBED, RESET
- CALL LOCAL UTILITY LINE INFORMATION SERVICE NOT LESS THAN THREE WORKING DAYS BEFORE PERFORMING WORK. REQUEST UNDERGROUND UTILITIES TO BE LOCATED AND MARKED WITHIN AND SURROUNDING CONSTRUCTION AREAS. IDENTIFY REQUIRED LINES, LEVELS, CONTOURS, AND DATUM
- TRAFFIC CONTROL MEASURES WILL INCLUDE TEMPORARY SIGNAGE AND COMMUNICATION WITH THE OWNER WHEN CLOSING OF LANES OR ROAD WILL OCCUR. UNLESS PREVIOUSLY COORDINATED AND AGREED BY THE OWNER, CONTRACTOR TO MAINTAIN LOCAL TRAFFIC ACCESS OPEN AT ALL TIMES.
- DO NOT LEAVE MORE THAN 50 FEET OF TRENCH OPEN AT END OF WORKING DAY. PROTECT OPEN TRENCH TO PREVENT DANGER TO THE PUBLIC.
- STOCKPILE EXCAVATED AND FILL MATERIALS ON SITE AT LOCATIONS APPROVED BY OWNER. STOCKPILE IN SUFFICIENT QUANTITIES TO MEET PROJECT SCHEDULE AND REQUIREMENTS. SEPARATE DIFFERENT AGGREGATE MATERIALS WITH DIVIDERS OR STOCKPILE QUANTITIES TO MEET PROJECT SCHEDULE AND REQUIREMENTS, SEPARATE DIFFERENT AGGREGATE MATERIALS WITH DIVIDERS OR STOCKPILE INDIVIDUALLY TO PREVENT MIXING. DIRECT SURFACE WATER AWAY FROM STOCKPILE SITE TO PREVENT EROSION OR DETERIORATION OF MATERIALS. STOCKPILE CLEANUP: REMOVE STOCKPILE, AND LEAVE AREA IN CLEAN AND NEAT CONDITION. GRADE SITE SURFACE TO PREVENT FREE STANDING SURFACE WATER.
- FINAL CONTOURS: PERFORM FINISH GRADING AND BLEND INTO CONFIRMATION WITH REMAINING NATURAL GROUND SURFACES. LEAVE ALL FINISHED GRADING SURFACES SMOOTH AND FIRM TO DRAIN. FINISH GRADES TO ELEVATIONS WITHIN PLUS OR MINUS 0.10 FOOT OF EXISTING OR CONTOUR SHOWN.
- ALL ELEVATIONS AT CONSTRUCTION LIMITS SHALL MATCH EXISTING GRADE. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT STACKED GRADES MATCH DESIGN ELEVATIONS AND POSITIVE DRAINAGE TO STORMWATER MANAGEMENT SYSTEM IS ACHIEVED. CONTACT ENGINEER IF DESIGN ELEVATIONS DO NOT PROVIDE POSITIVE DRAINAGE.

CIVIL / PROC	ESS LINETYPES
LINETYPE	CIVIL TYPE
	EXISTING EASEMENT
	PROPERTY LINE
	EXISTING TOP OF BANK
	EXISTING TOE OF SLOPE
	EXISTING EDGE OF GRAVEL
	EXISTING EDGE OF CONCRETE
	EXISTING EDGE OF TREE LINE
— — <del>-</del> 870— — —	EXISTING CONTOURS
UE	EXISTING UNDERGROUND ELECTRICAL
FO	EXISTING FIBER OPTIC
OHE	EXISTING OVERHEAD ELECTRICAL
>000	EXISTING DRAINAGE DITCH
SAN	EXISTING SANITARY SEWER
———— W —————	EXISTING WATER LINE
	PROPOSED CONSTRUCTION LIMITS
	PROPOSED WATER PIPING
	PROPOSED SANITARY SEWER
	PROPOSED CHAIN LINK FENCE
870	PROPOSED CONTOURS
	EXISTING PROCESS FLOW
RW RW	PROPOSED RAW WATER
FW FW	PROPOSED FILTERED WATER
BWS BWS	PROPOSED BACKWASH WATER
	UNDERGROUND PROCESS PIPE
	ABOVE GROUND PROCESS PIPE

	SYMBOLS									
⊗ MON	SURVEY MONUMENT	$\bigcirc$ WM	EXISTING WATER METER							
× xxx.x	EXISTING SPOT ELEVATION	W	EXISTING WATER STRUCTURE							
	EXISTING ELECTRICAL POWER POLE	(SS)	EXISTING SANITARY STRUCTURE							
	EXISTING POWER POLE GUY WIRE		PROPOSED WATER CORP STOP							
○EM	EXISTING ELECTRICAL METER		PROPOSED CHECK VALVE							
T	EXISTING FIBER PEDESTAL	$\bowtie$	PROPOSED GATE VALVE							
E.R.	EXISTING ELECTRICAL RISER									

### MONROE CO. CDO SECTION 811-1 (F) PERFORMANCE STANDARDS FOR PERMITTED USES

- F. PERFORMANCE STANDARDS FOR PERMITTED USES. ALL PERMITTED USES ESTABLISHED OR PLACED INTO OPERATION AFTER THE EFFECTIVE DATE OF THIS ORDINANCE SHALL COMPLY WITH THE FOLLOWING PERFORMANCE STANDARDS IN THE INTEREST OF PROTECTING PUBLIC HEALTH, SAFETY, AND WELFARE, AND LESSENING INJURY TO PROPERTY. NO USE IN EXISTENCE ON THE EFFECTIVE DATE OF THIS ORDINANCE SHALL BE SO ALTERED AS TO CONFLICT (OR INCREASE AN EXISTING CONFLICT) WITH THESE STANDARDS. THE PLAN COMMISSION MAY ATTACH ADDITIONAL CONDITIONS TO ITS APPROVAL OF A USE TO PREVENT INJURIOUS OR NOXIOUS DUST, FUMES, GASES, NOISES, ODORS, REFUSE MATTER, SMOKE, VIBRATIONS, WATER-CARRIED WASTE, OR OTHER OBJECTIONAL CONDITIONS IN ORDER TO PRESERVE THE CHARACTER OF THE SURROUNDING NEIGHBORHOOD.
- 1) FIRE PROTECTION. FIREFIGHTING EQUIPMENT AND PREVENTION MEASURES ACCEPTABLE TO THE LOCAL FIRE DEPARTMENT SHALL BE READILY AVAILABLE AND APPARENT WHEN ANY ACTIVITY INVOLVING THE HANDLING OR STORAGE OF FLAMMABLE OR EXPLOSIVE MATERIALS IS CONDUCTED.
- 2) ELECTRICAL DISTURBANCE. NO USE SHALL CAUSE ELECTRICAL DISTURBANCE ADVERSELY AFFECTING RADIO, TELEVISION, TELECOMMUNICATION, OR OTHER EQUIPMENT IN THE VICINITY OF THE USE.
- 3) NOISE. NO USE SHALL PRODUCE NOISE IN SUCH A MANNER AS TO BE OBJECTIONAL BECAUSE OF VOLUME, FREQUENCY, INTERMITTENCE, HEAT, SHRILLNESS, OR VIBRATION. SUCH NOISE SHALL BE MUFFLED OR OTHERWISE CONTROLLED SO AS NOT BE DETRIMENTAL, PROVIDED HOWEVER, THAT PUBLIC SAFETY SIRENS AND RELATED APPARATUS USED SOLELY FOR PUBLIC PURPOSES SHALL BE EXEMPT FROM THIS
- 4) VIBRATION. NO USE SHALL CAUSE VIBRATIONS OR CONCUSSIONS DETECTABLE BEYOND LOT LINES WITHOUT THE AID OF INSTRUMENTS.
- 5) AIR POLLUTION. NO USE SHALL DISCHARGE ACROSS LOT LINES FLY-ASH, DUST, SMOKE, VAPORS, NOXIOUS, TOXIC, OR CORROSIVE MATTER, OR OTHER AIR POLLUTANTS IN SUCH CONCENTRATION AS TO BE DETRIMENTAL TO HEALTH, ANIMALS, VEGETATION, OR PROPERTY AND/OR IN CONFLICT WITH RELEVANT AIR QUALITY STANDARDS ESTABLISHED BY STATE AND/OR FEDERAL AGENCIES. DUST AND OTHER TYPES OF AIR POLLUTION BORNE BY THE WIND FROM SUCH SOURCES AS STORAGE AREAS AND ROADS SHALL BE MINIMIZED BY LANDSCAPING, PAVING, OR OTHER ACCEPTABLE MEANS.
- 6) HEAT AND GLARE. NO USE SHALL PRODUCE HEAT OR GLARE IN SUCH MANNER AS TO CREATE A NUISANCE PERCEPTIBLE FROM ANY POINT BEYOND THE LOT LINES OF THE PROPERTY ON WHICH THE USE IS CONDUCTED. IN NONRESIDENTIAL AREAS, ANY LIGHTING USED TO ILLUMINATE AN OFF-STREET PARKING AREA, LOADING AREA, DRIVEWAY, OR SERVICE DRIVE SHALL BE SHIELDED WITH APPROPRIATE LIGHT FIXTURES DIRECTING THE LIGHT DOWN AND AWAY FROM ADJACENT PROPERTIES IN ORDER THAT THE ILLUMINATION AT ANY PROPERTY LINE SHALL NOT EXCEED ONE FOOT CANDLE. ALL EXTERIOR LIGHTING SHALL BE HOODED AND SHIELDED TO DIRECT LIGHT DOWNWARD. IN RESIDENTIAL AREAS, EXTERIOR LIGHTING AT ANY PROPERTY LINE SHALL NOT EXCEED ONE FOOT CANDLE, UNLESS SPECIFICALLY REGULATED UNDER CHAPTER 815. ALL EXTERIOR LIGHTING SHALL COMPLY WITH THE CHAPTER
- 7) WATER POLLUTION. NO USE SHALL PRODUCE EROSION OR OTHER POLLUTANTS IN SUCH QUANTITY AS TO BE DETRIMENTAL TO ADJACENT PROPERTIES AND CONFLICT WITH RELEVANT WATER POLLUTION STANDARDS ESTABLISHED BY STATE AND/OR FEDERAL AGENCIES. SEE, FOR EXAMPLE, CHAPTER 761 OF THE MONROE COUNTY CODE.
- 8) WASTE MATTER. NO USE SHALL ACCUMULATE WITHIN THE LOT, OR DISCHARGE BEYOND THE BOUNDARY LINES OF THE LOT ON WHICH THE USE IS LOCATED, ANY WASTE MATTER, WHETHER LIQUID OR SOLID, IN VIOLATION OF APPLICABLE PUBLIC HEALTH, SAFETY AND WELFARE STANDARDS AND REGULATIONS. NO ORGANIC OR INORGANIC WASTE MATERIALS SHALL BE DISPOSED OF OR PERMANENTLY STORED OR PLACED ON THE SITE WITH THE EXCEPTION OF COMPOST BINS OR PILES AND APPROVED SEPTIC SYSTEMS UNLESS SPECIFICALLY APPROVED UNDER A SITE PLAN.

	ABBREV	IATIONS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	FCO	FLOOR CLEANOUT
ATR	ALL THREAD ROD	GV	GATE VALVE
AS	AQUASTAT	GLV	GLOBE VALVE
AAV	AIR ADMITTANCE VALVE	HSP	HIGH SERVICE PUMP
AC	AIR COMPRESSOR	НВ	HOSE BIBB
ARV	AIR RELEASE VALVE	HWRP	HOT WATER RETURN PUMP
AP	ACCESS PANEL	MV	MANUAL AIR VENT
AD	AREA DRAIN	М	MOTOR - OPERATED VALVE
AV	ANGLE VALVE	ORD	OVERFLOW ROOF DRAIN
AUV	AUTOMATIC AIR VALVE	PTU	PACKAGED TREATMENT UNIT
BV	BALL VALVE	PV	PLUG VALVE
BFV	BUTTERFLY VALVE	PA	PIPE ANCHOR
BFPA	BACKFLOW PREVENTER	PG	PIPE GUIDE
	ASSEMBLY	PS	PIPE SLEEVE
BS	BASKET STRAINER	PRV	PRESSURE RELIEF VALVE
CTLV	CONTROL VALVE, 2-WAY	PIV	POST INDICATOR VALVE
CV CR	CHECK VALVE  CONCENTRIC REDUCER/	PRG	PRESSURE GAUGE WITH GAUGE COOK
	INCREASER	PRS	PRESSURE SWITCH
DI	DUCTILE IRON  DUCTILE IRON MECHANICAL	ROW	RIGHT-OF-WAY
DIMJ	JOINT	RD	ROOF DRAIN
DBL	DOUBLE	RJ	RESTRAINED JOINT
ECO	EXTERIOR CLEANOUT	SV	SOLENOID VALVE
EL	EXPANSION LOOP	TPV	TEMPERATURE PRESSURE RELIEF VALVE
EC	ECCENTRIC REDUCER/ INCREASER	Т	THERMOMETER
EJ	EXPANSION JOINT	U	UNION
FFE	FINISHED FLOOR ELEVATION	WCO	WALL CLEANOUT
F	FLANGE	WHA	WATER HAMMER ARRESTOR
FS	FLOW SWITCH	WS	WYE STRANNER
FM	FLOW METER	WH	WALL HYDRANT
FC	FLEXIBLE CONNECTOR	YB	YARD BOX
FD	FLOOR DRAIN		



#	Revision	Date

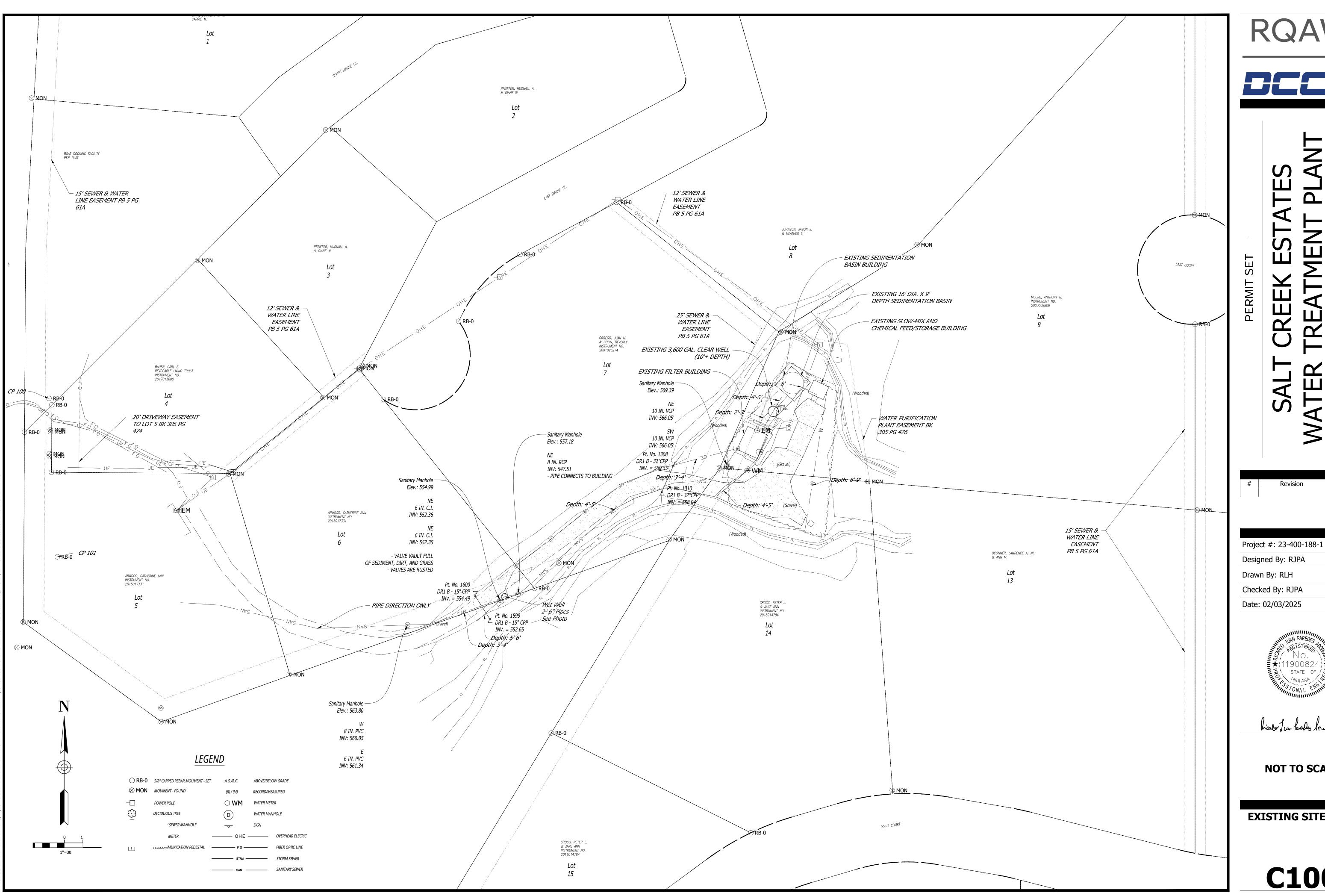
Designed By: RJPA Drawn By: RLH

Project #: 23-400-188-1

Checked By: RJPA Date: 02/03/2025



**GENERAL NOTES AND SYMBOLS** 





Revision

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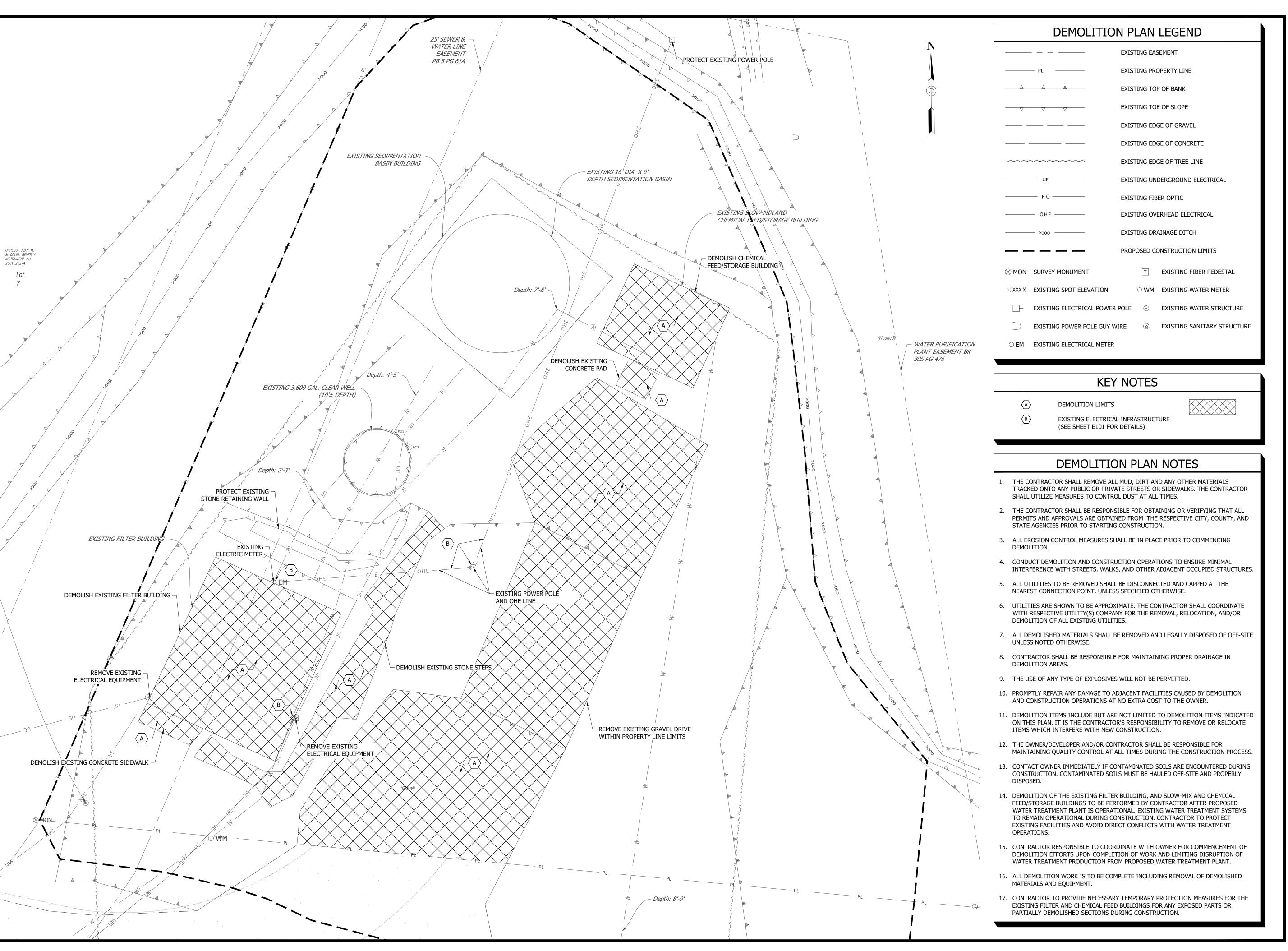
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Date: 02/03/2025



**NOT TO SCALE** 

**EXISTING SITE PLAN** 





S PERMIT

Revision

Project #: 23-400-188-1

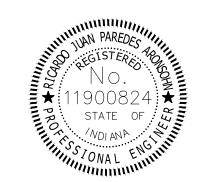
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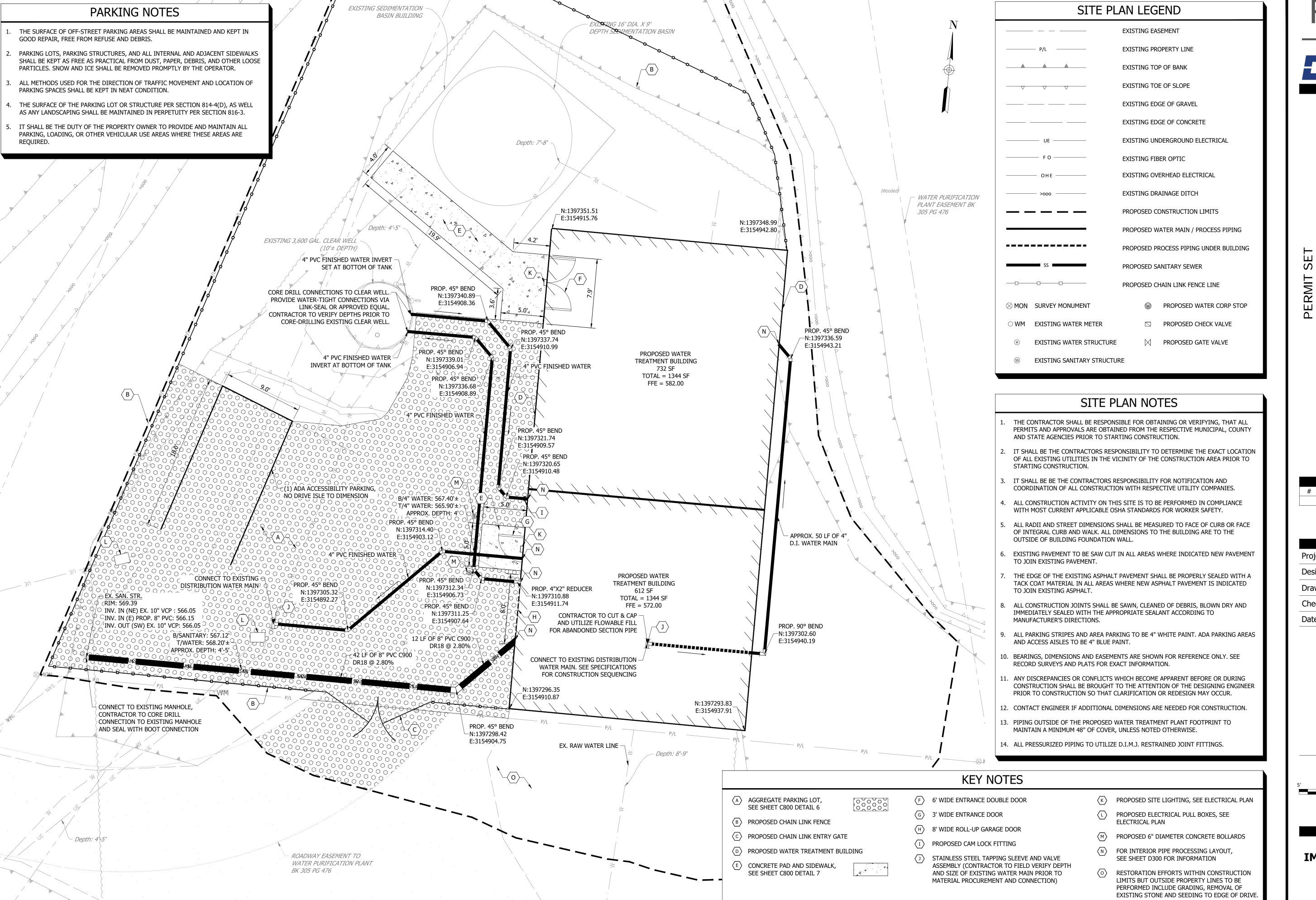
Drawn By: RLH

Checked By: RJPA

Date: 02/03/2025



**DEMOLITION SITE PLAN** 



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Revision Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH

Checked By: RJPA

, 02/02/2025

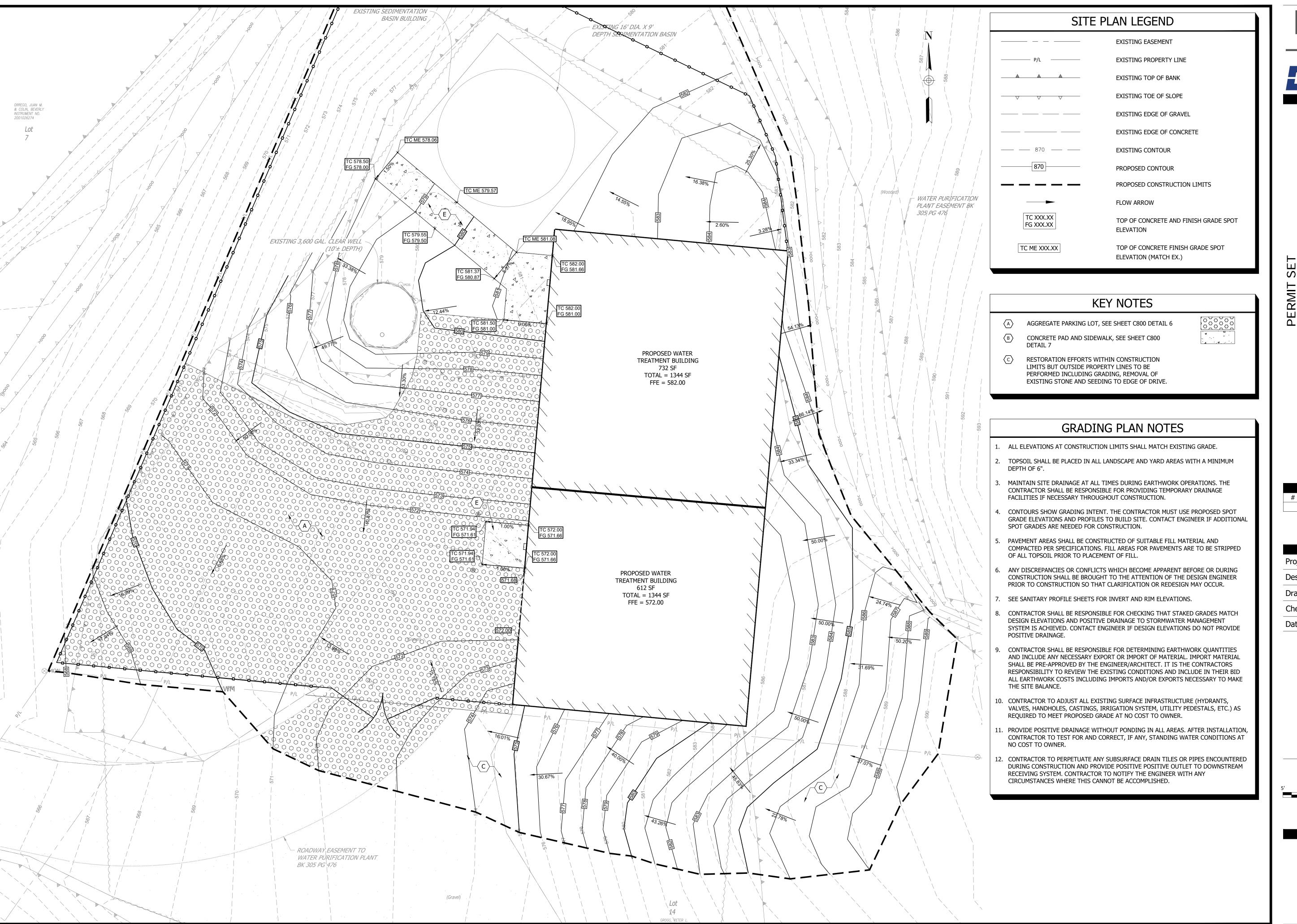
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PROPOSED SITE IMPROVEMENTS PLAN





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#	Revision	Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH

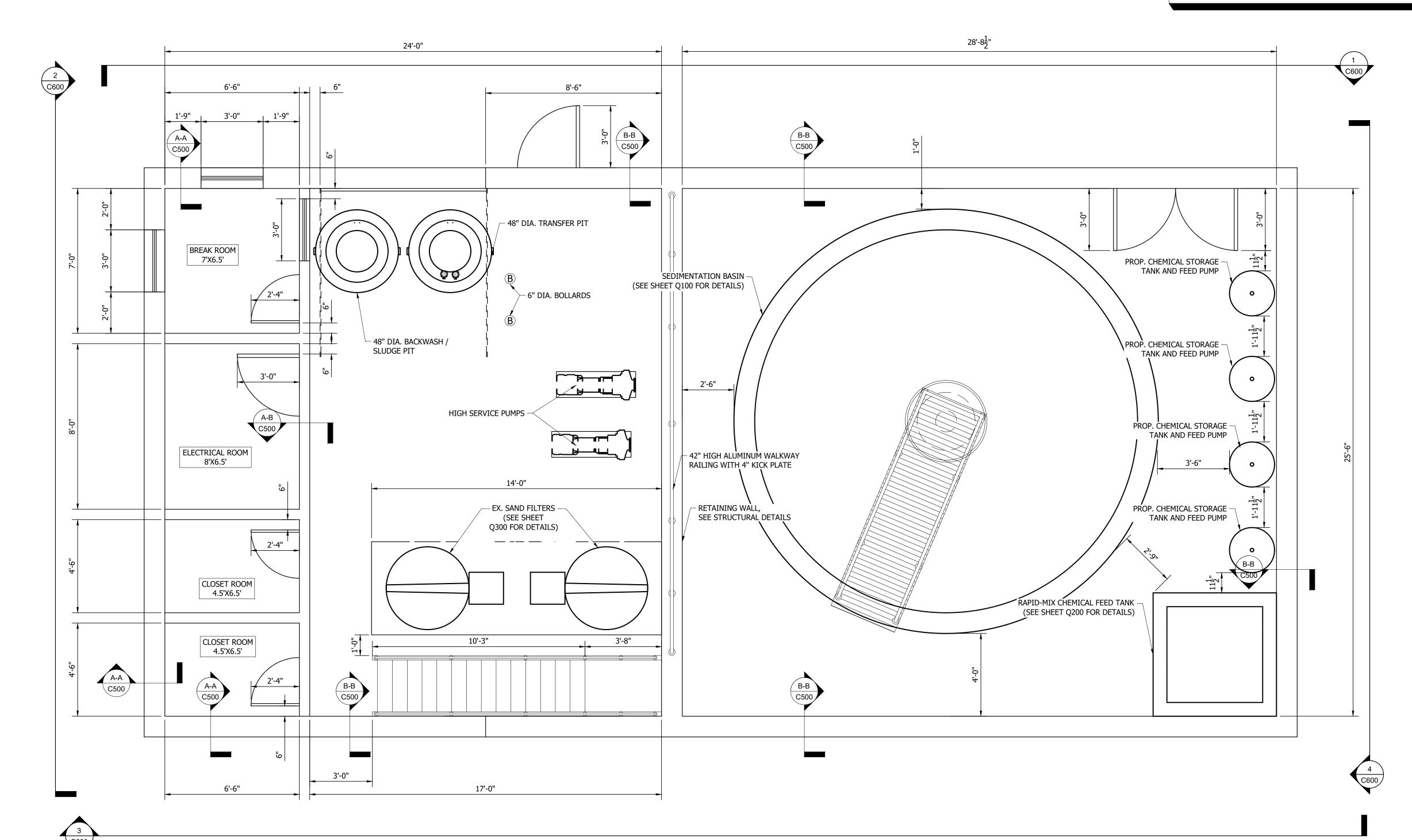
Checked By: RJPA

Date: 02/03/2025



**PROPOSED SITE GRADING PLAN** 

- 1. BREAK ROOM, ELECTRICAL ROOM, AND CLOSET ROOM (FUTURE BATHROOM AND FUTURE LAB ROOM) CEILINGS TO BE FRAMED WITH MOISTURE PROOF FLOOR JOISTS, DECKING AND INSULATION FOR A FUTURE MEZZANINE SPACE.
- 2. STRUCTURAL ELEMENTS OF BUILDING, UNLESS NOTED OTHERWISE, ARE TO BE DESIGNED BY THE CONTRACTOR OR THEIR MANUFACTURER. SEE DETAILS ON SHEET C501 AND SPECIFICATIONS FOR GUIDANCE.
- 3. TRANSFER PIT AND BACKWASH/SLUDGE PIT SHALL BE PRECAST CONCRETE STRUCTURES.
- 4. CONTRACTOR TO PROVIDE XYPEX BIO-SAN WATERPROOFING ADMIXTURE IN TRANSFER PIT STRUCTURE. COORDINATE THE QUANTITY OF ADMIXTURE WITH THE ADDITIVE PROVIDER.
- 5. CONTRACTOR TO LINE THE INSIDE OF THE BACKWASH/SLUDGE PIT STRUCTURE IN ACCORDANCE TO THE SPECIFICATIONS.



TREATMENT BUILDING FLOOR PLAN SCALE: 3/8" = 1'-0" RQAW



MENT PLANT

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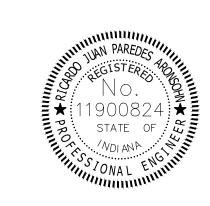
Revision Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH
Checked By: RJPA

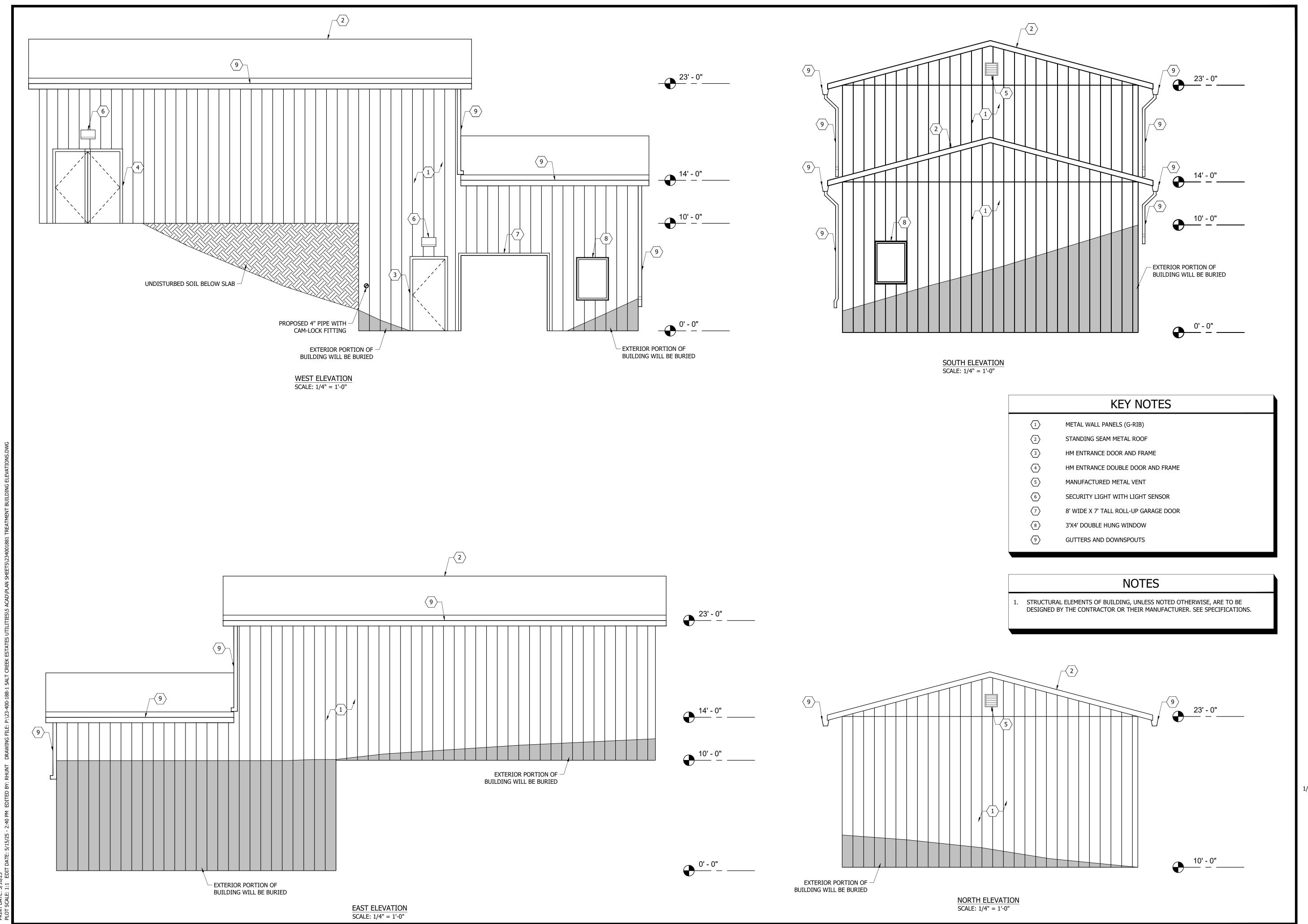
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PROPOSED TREATMENT BUILDING FLOOR PLAN





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Revision

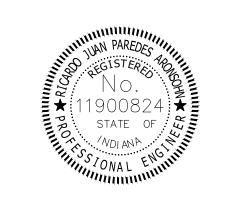
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Designed By: RJPA Drawn By: RLH

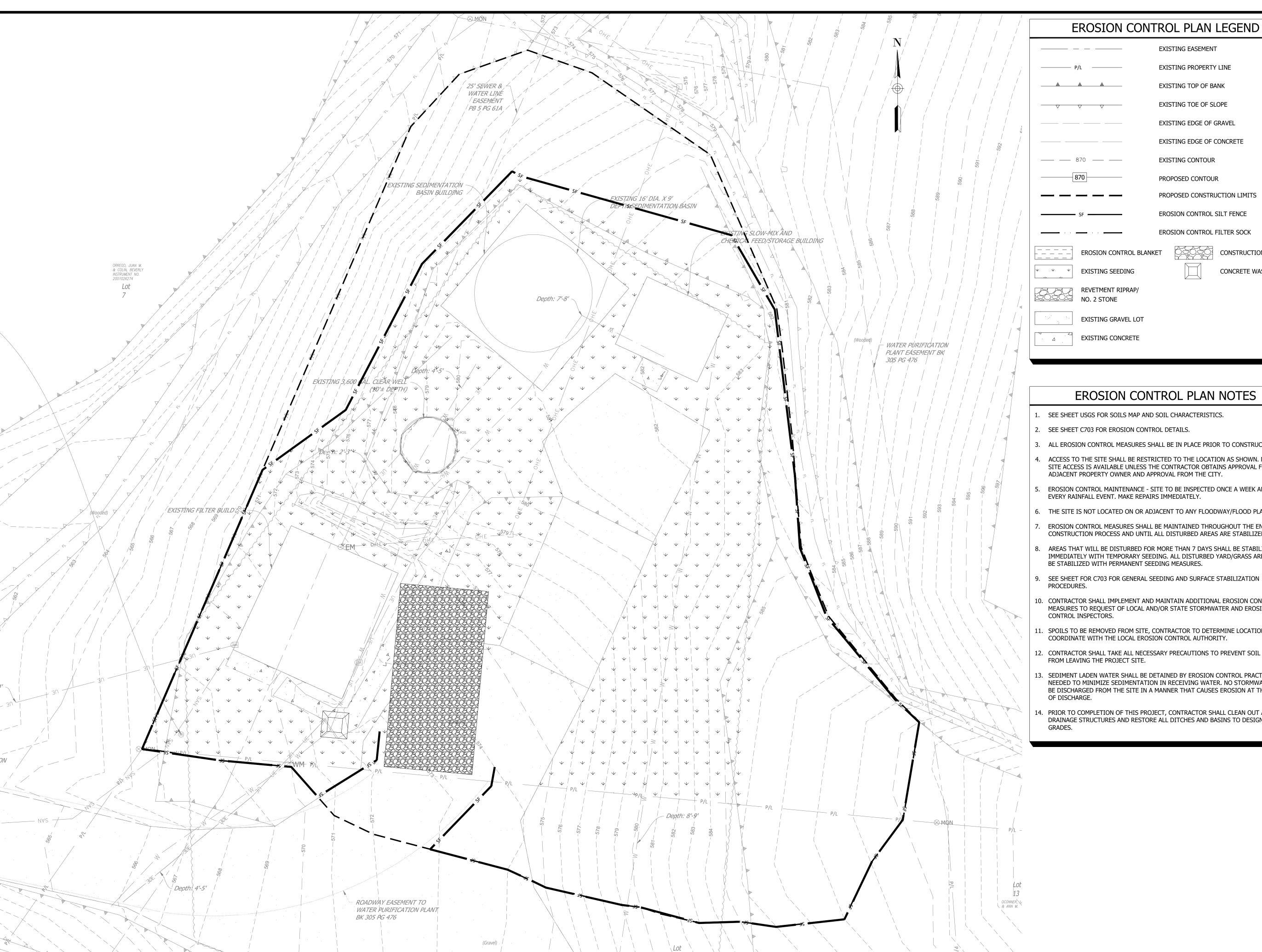
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Date: 02/03/2025



**GRAPHIC SCALE** 

PROPOSED TREATMENT **BUILDING ELEVATION VIEWS** 





SET PERMIT

### **EROSION CONTROL PLAN NOTES**

EXISTING EASEMENT

EXISTING PROPERTY LINE

EXISTING TOP OF BANK

EXISTING TOE OF SLOPE

EXISTING EDGE OF GRAVEL

EXISTING CONTOUR

PROPOSED CONTOUR

EXISTING EDGE OF CONCRETE

PROPOSED CONSTRUCTION LIMITS

**EROSION CONTROL SILT FENCE** 

EROSION CONTROL FILTER SOCK

CONSTRUCTION ENTRANCE

CONCRETE WASHOUT

SEE SHEET USGS FOR SOILS MAP AND SOIL CHARACTERISTICS.

EROSION CONTROL BLANKET

REVETMENT RIPRAP/

EXISTING GRAVEL LOT

EXISTING CONCRETE

- 2. SEE SHEET C703 FOR EROSION CONTROL DETAILS.
- SITE ACCESS IS AVAILABLE UNLESS THE CONTRACTOR OBTAINS APPROVAL FROM ADJACENT PROPERTY OWNER AND APPROVAL FROM THE CITY.
- EROSION CONTROL MAINTENANCE SITE TO BE INSPECTED ONCE A WEEK AND AFTER EVERY RAINFALL EVENT. MAKE REPAIRS IMMEDIATELY.
- 6. THE SITE IS NOT LOCATED ON OR ADJACENT TO ANY FLOODWAY/FLOOD PLAIN AREAS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE ENTIRE
- CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS ARE STABILIZED. 8. AREAS THAT WILL BE DISTURBED FOR MORE THAN 7 DAYS SHALL BE STABILIZED
- IMMEDIATELY WITH TEMPORARY SEEDING. ALL DISTURBED YARD/GRASS AREAS MUST BE STABILIZED WITH PERMANENT SEEDING MEASURES.
- 9. SEE SHEET FOR C703 FOR GENERAL SEEDING AND SURFACE STABILIZATION PROCEDURES.
- 10. CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ADDITIONAL EROSION CONTROL MEASURES TO REQUEST OF LOCAL AND/OR STATE STORMWATER AND EROSION CONTROL INSPECTORS.
- 11. SPOILS TO BE REMOVED FROM SITE, CONTRACTOR TO DETERMINE LOCATION AND COORDINATE WITH THE LOCAL EROSION CONTROL AUTHORITY.
- 12. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE PROJECT SITE.
- 13. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORMWATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT
- 14. PRIOR TO COMPLETION OF THIS PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND BASINS TO DESIGNED

#	Revision	Date

Project #: 23-400-188-1

SAL

Designed By: RJPA

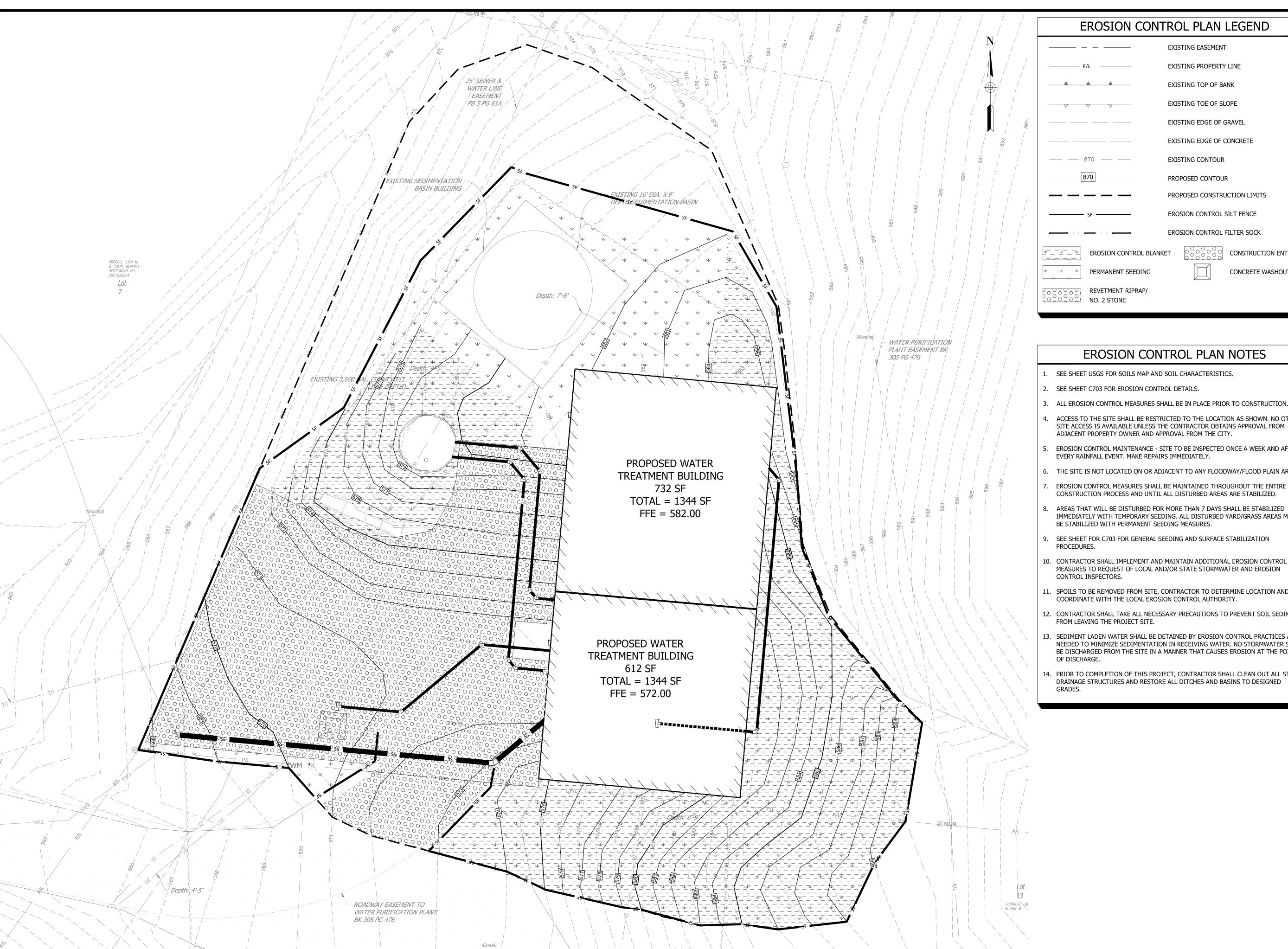
Drawn By: RLH

Checked By: RJPA

Date: 02/03/2025



PRE CONSTRUCTION **EROSION CONTROL PLAN** 



### EROSION CONTROL PLAN LEGEND

EXISTING EASEMENT EXISTING PROPERTY LINE EXISTING TOP OF BANK EXISTING TOE OF SLOPE EXISTING EDGE OF GRAVEL EXISTING EDGE OF CONCRETE EXISTING CONTOUR PROPOSED CONTOUR PROPOSED CONSTRUCTION LIMITS **EROSION CONTROL SILT FENCE** EROSION CONTROL FILTER SOCK **EROSION CONTROL BLANKET** CONSTRUCTION ENTRANCE PERMANENT SEEDING CONCRETE WASHOUT

### **EROSION CONTROL PLAN NOTES**

- 1. SEE SHEET USGS FOR SOILS MAP AND SOIL CHARACTERISTICS.
- 2. SEE SHEET C703 FOR EROSION CONTROL DETAILS.

REVETMENT RIPRAP/

- SITE ACCESS IS AVAILABLE UNLESS THE CONTRACTOR OBTAINS APPROVAL FROM ADJACENT PROPERTY OWNER AND APPROVAL FROM THE CITY
- EROSION CONTROL MAINTENANCE SITE TO BE INSPECTED ONCE A WEEK AND AFTER
- EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE ENTIRE
- BE STABILIZED WITH PERMANENT SEEDING MEASURES.
- 9. SEE SHEET FOR C703 FOR GENERAL SEEDING AND SURFACE STABILIZATION
- 10. CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ADDITIONAL EROSION CONTROL MEASURES TO REQUEST OF LOCAL AND/OR STATE STORMWATER AND EROSION CONTROL INSPECTORS.
- 11. SPOILS TO BE REMOVED FROM SITE, CONTRACTOR TO DETERMINE LOCATION AND COORDINATE WITH THE LOCAL EROSION CONTROL AUTHORITY.
- 12. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT
- 13. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORMWATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT
- 14. PRIOR TO COMPLETION OF THIS PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND BASINS TO DESIGNED



Revision

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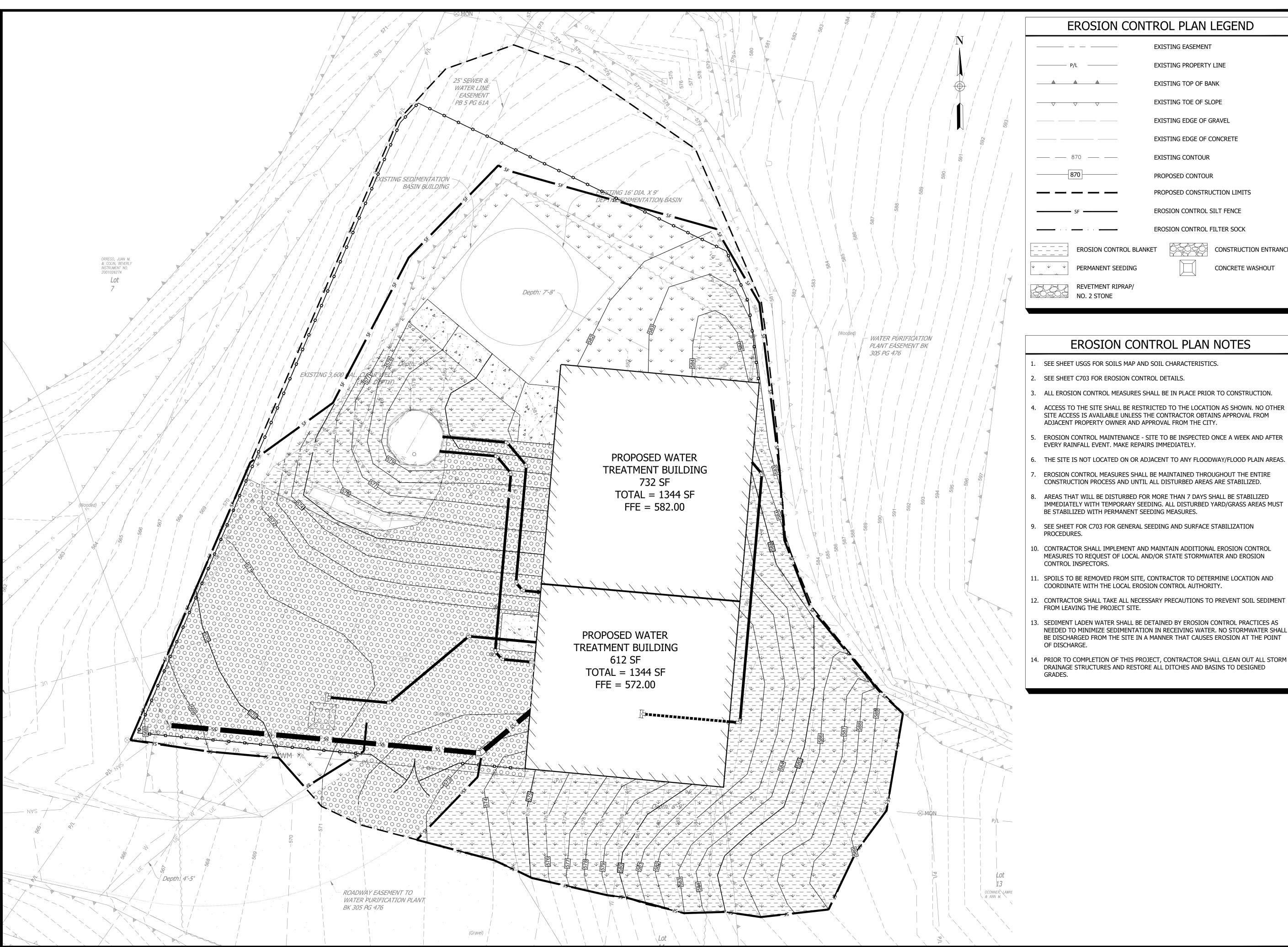
Drawn By: RLH

Date: 02/03/2025

Checked By: RJPA



**EROSION CONTROL PLAN** 



### **EROSION CONTROL PLAN LEGEND**

EXISTING EASEMENT EXISTING PROPERTY LINE EXISTING TOP OF BANK EXISTING TOE OF SLOPE EXISTING EDGE OF GRAVEL

> EXISTING EDGE OF CONCRETE EXISTING CONTOUR

PROPOSED CONTOUR PROPOSED CONSTRUCTION LIMITS

**EROSION CONTROL SILT FENCE** 

EROSION CONTROL BLANKET

CONSTRUCTION ENTRANCE

**EROSION CONTROL FILTER SOCK** 

CONCRETE WASHOUT

REVETMENT RIPRAP/ NO. 2 STONE

### **EROSION CONTROL PLAN NOTES**

- 1. SEE SHEET USGS FOR SOILS MAP AND SOIL CHARACTERISTICS.
- 2. SEE SHEET C703 FOR EROSION CONTROL DETAILS.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION.
- SITE ACCESS IS AVAILABLE UNLESS THE CONTRACTOR OBTAINS APPROVAL FROM ADJACENT PROPERTY OWNER AND APPROVAL FROM THE CITY.
- EROSION CONTROL MAINTENANCE SITE TO BE INSPECTED ONCE A WEEK AND AFTER
- EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE ENTIRE
- IMMEDIATELY WITH TEMPORARY SEEDING. ALL DISTURBED YARD/GRASS AREAS MUST BE STABILIZED WITH PERMANENT SEEDING MEASURES.
- 9. SEE SHEET FOR C703 FOR GENERAL SEEDING AND SURFACE STABILIZATION
- 10. CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ADDITIONAL EROSION CONTROL MEASURES TO REQUEST OF LOCAL AND/OR STATE STORMWATER AND EROSION
- 11. SPOILS TO BE REMOVED FROM SITE, CONTRACTOR TO DETERMINE LOCATION AND COORDINATE WITH THE LOCAL EROSION CONTROL AUTHORITY.
- 13. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORMWATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT
- 14. PRIOR TO COMPLETION OF THIS PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND BASINS TO DESIGNED

### RQAW



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Revision	Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH

Checked By: RJPA

Date: 02/03/2025



POST CONSTRUCTION **EROSION CONTROL PLAN** 

TEMPORARY PARKING AREAS SHALL BE

OTHERWISE PREPARED SUBGRADE, AT A MINIMUM DEPTH OF SIX INCHES (6") AND INSTALLED IMMEDIATELY AFTER GRADING.

STABILIZED USING TWO TO THREE INCHES

(2"-3") OR LARGER STONE OR INDOT #2 STONE PLACED ONTO PROPERLY COMPACTED OR

### **INSTALLATION NOTES:**

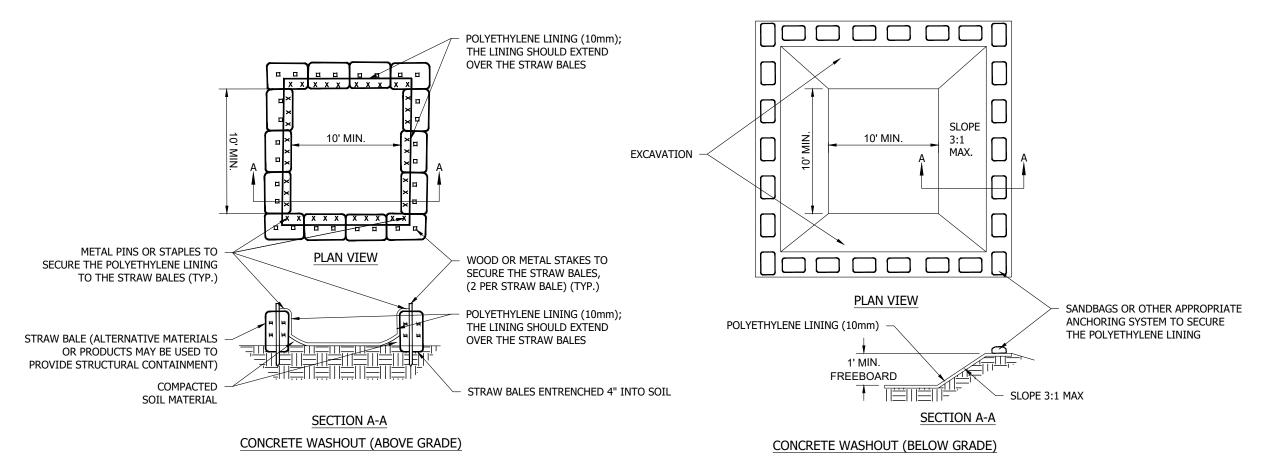
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
   GRADE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE. IF THE SLOPE OF THE CONSTRUCTION ENTRANCE IS TOWARD A PUBLIC ROAD AND EXCEEDS TWO PERCENT, CONSTRUCT AN EIGHT INCH HIGH DIVERSION RIDGE WITH A RATIO OF 3-TO-1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15
- FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD.

  3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
- 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
- PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
- 6. TOP-DRESS THE FIRST 50 FEET ADJACENT TO THE PUBLIC ROADWAY WITH TWO TO THREE INCHES OF WASHED AGGREGATE (INDOT CA NO. 53) [OPTIONAL, USED PRIMARILY WHERE THE PURPOSED OF THE PAD IS KEEP SOIL FROM ADHERING TO VEHICLE TIRES]
- 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE INGRESS,/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

### MAINTENANCE NOTES:

- 1. INSPECT DAILY.
- 2. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- 3. TOP DRESS WITH CLEAN AGGREGATE AS NEEDED.
- 4. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
- 5. FLUSHING SHOULD ONLY BE USED IF THE WATER CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

### TEMPORARY CONSTRUCTION ENTRANCE DETAIL NOT TO SCALE



### INSTALLATION:

PREFABRICATED WASHOUT SYSTEMS/CONTAINERS:

INSTALL AND LOCATE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

### DESIGNED AND INSTALLED SYSTEMS:

- 2. UTILIZE AND FOLLOW THE DESIGN IN THE STORM WATER POLLUTION PREVENTION PLAN TO INSTALL THE SYSTEM.

  3. DEPENDENT UPON THE TYPE OF SYSTEM, EITHER EXCAVATE THE PIT OR INSTALL THE CONTAINMENT SYSTEM.
- 4. A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.

  5. INSTALL THE POLYETHYLENE LINING FOR EXCAVATED SYSTEMS. THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR RERMED SYSTEMS.
- 5. INSTALL THE POLYETHYLENE LINING. FOR EXCAVATED SYSTEMS, THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS.
- 6. PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
- 7. PLACE A NON-COLLAPSING, NON-WATER HOLDING COVER OVER THE WASHOUT FACILITY PRIOR TO A PREDICTED RAINFALL EVENT TO PREVENT ACCUMULATION OF WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL).
- WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL).

  8. INSTALL SIGNAGE THAT IDENTIFIES CONCRETE WASHOUT AREAS.
- 9. POST SIGNS DIRECTING CONTRACTORS AND SUPPLIERS TO DESIGNATED LOCATIONS.
  10. WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD FOR CONCRETE WASHOUT SYSTEMS.

### MAINTENANCE:

- 11. INSPECT DAILY AND AFTER EACH STORM EVENT.

  12. INSPECT THE INTEGRITY OF THE OVERALL STRUCTURE IN
- 12. INSPECT THE INTEGRITY OF THE OVERALL STRUCTURE INCLUDING, WHERE APPLICABLE, THE CONTAINMENT SYSTEM. 13. INSPECT THE SYSTEM FOR LEAKS, SPILLS, AND TRACKING OF SOIL BY EQUIPMENT.
- 14. INSPECT THE STSTEPT OR LEARS, STILLS, AND TRACKING OF SOLE BY EQUIPMENT.

  14. INSPECT THE POLYETHYLENE LINING FOR FAILURE, INCLUDING TEARS AND PUNCTURES.

  15. ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL.
- 16. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY. USE OF THE SYSTEM SHOULD BE DISCONTINUED UNTIL APPROPRIATE MEASURES CAN BE INITIATED TO CLEAN THE STRUCTURE. PREFABRICATED SYSTEMS SHOULD ALSO UTILIZE THIS CRITERION,
- UNLESS THE MANUFACTURER HAS ALTERNATE SPECIFICATIONS.

  17. UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.
- 17. DPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.

  18. DISPOSE OF ALL CONCRETE IN A LEGAL MANNER. REUSE THE MATERIAL ON SITE, RECYCLE, OR HAUL THE MATERIAL TO AN APPROVED CONSTRUCTION/DEMOLITION LANDFILL SITE. RECYCLING OF MATERIAL IS ENCOURAGED. THE WASTE MATERIAL CAN BE USED FOR MULTIPLE APPLICATIONS INCLUDING BUT NOT LIMITED TO
- ROADBEDS AND BUILDING. THE AVAILABILITY FOR RECYCLING SHOULD BE CHECKED LOCALLY.

  19. THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE LINING.
- 20. THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
  21. CONCRETE WASHOUT SYSTEMS ARE DESIGNED TO PROMOTE EVAPORATION. HOWEVER, IF THE LIQUIDS DO NOT EVAPORATE AND THE SYSTEM IS NEAR CAPACITY IT
  MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD. DISPOSAL MAY BE ALLOWED AT THE LOCAL SANITARY
  SEWER AUTHORITY PROVIDED THEIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS ALLOW FOR ACCEPTANCE OF THIS MATERIAL. ANOTHER
- OPTION WOULD BE TO UTILIZE A SECONDARY CONTAINMENT SYSTEM OR BASIN FOR FURTHER DEWATERING.
  22. PREFABRICATED UNITS ARE OFTEN PUMPED AND THE COMPANY SUPPLYING THE UNIT PROVIDES THIS SERVICE.
  23. INSPECT CONSTRUCTION ACTIVITIES ON A REGULAR BASIS TO ENSURE SUPPLIERS, CONTRACTORS, AND OTHERS ARE UTILIZING DESIGNATED WASHOUT AREAS. IF
- CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.

  WHEN CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.
- 24. WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM.
- OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM.
  25.HOLES, DEPRESSIONS AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

### CONCRETE WASHOUT DETAIL NOT TO SCALE

### SILT FENCE:

### LOCATION INSTALLED PARAL

- INSTALLED PARALLEL TO THE SLOPE CONTOUR
   MINIMUM 10' BEYOND THE TOE OF SLOPE TO PROVIDE A BROAD, SHALLOW
- SEDIMENT POOL
   ACCESSIBLE FOR MAINTENANCE (REMOVAL OF SEDIMENT AND SILT FENCE REPAIR)

### INSTALLATIO

- 1. LAYOUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10' BEYOND THE TOE OF SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF THE CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
- EXCAVATE AN 8" DEEP BY 4" WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE 1 1/2"X1 1/12"X36" (MIN.) FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE. WOOD POST INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE
- DOWN-SLOPE SIDE OF THE TRENCH.

  4. DRIVE THE SUPPORT POSTS AT LEAST 18" INTO THE GROUND. TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. A MINIMUM OF 12" OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH. (IF IT IS NECESSARY TO JOIN THE ENDS OF THE TWO FENCE, USE THE WRAP JOINT METHOD SHOWN).

SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE

5. LAY THE LOWER 4" OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.6. BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

### MAINTENANCE

THE SURROUNDING AREA, AND STABILIZE.

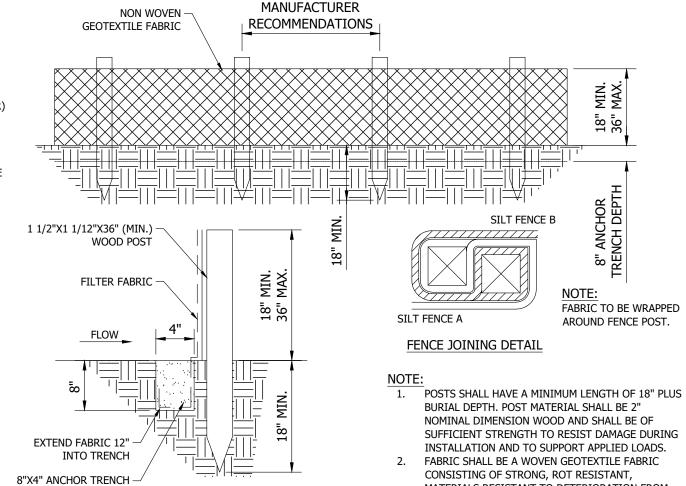
INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.

REMOVE THE FENCE AND SEDIMENT DEPOSITS, FRADE THE SITE TO BLEND WITH

INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITH THIS MEASURE.

• REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED

• IF FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES



MATERIALS RESISTANT TO DETERIORATION FROM

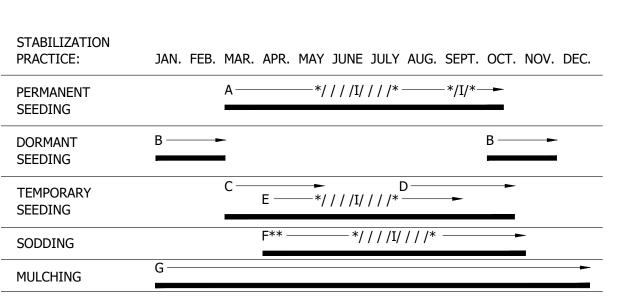
ULTRAVIOLET AND HEAT EXPOSURE.

SPACE POSTS PER

SILT FENCE DETAIL

NOT TO SCALE

(COMP. BACKFILL)



- A = KENTUCKY BLUEGRASS 40 LBS/ACRE: CREEPING RED FESCUE 40 LBS/ACRE:
- PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYEGRASS 20 LBS/ACRE B = KENTUCKY BLUEGRASS 60 LBS/ACRE: CREEPING RED FESCUE 60 LBS/ACRE:
- PLUS 2 TONS STRAW MULCH/ACRE, OR ADD ANNUAL RYEGRASS 30 LBS/ACRE
- C = SPRING OATS 3 BUSHEL/ACRE
- D = WHEAT OR RYE 2 BUSHEL/ACRE E = ANNUAL RYEGRASS 40 LBS/ACRE (1 LB/1000 SQ.FT.)
- F = SOD
- G = STRAW MULCH 2 TONS/ACRE
- \*/I/\* IRRIGATION NEEDED DURING JUNE, JULY, AND/OR SEPTEMBER.
  \*\* IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.

4 SEASONAL SOIL PROTECTION CHART

### RQAW



## WATER TREATMENT PLAN IMPROVEMENTS

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Revision Date

Project #: 23-400-188-1

Drawn By: RLH
Checked By: RJPA

Designed By: RJPA

Date: 02/03/2025



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EROSION CONTROL
DETAILS

ALL BACKFILL PLACED WITHIN TRAFFIC INFLUENCE ZONES SHALL CONFORM TO THE FOLLOWING CRITERIA:

- INSTALLED IN LIFTS NOT EXCEEDING SIX (6) INCHES
   COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AASHTO T 99 AS SPECIFIED IN INDOT SS SECTION 203 OR AS DIRECTED BY
- THE CITY ENGINEERING OR COUNTY ENGINEERING DEPARTMENT.

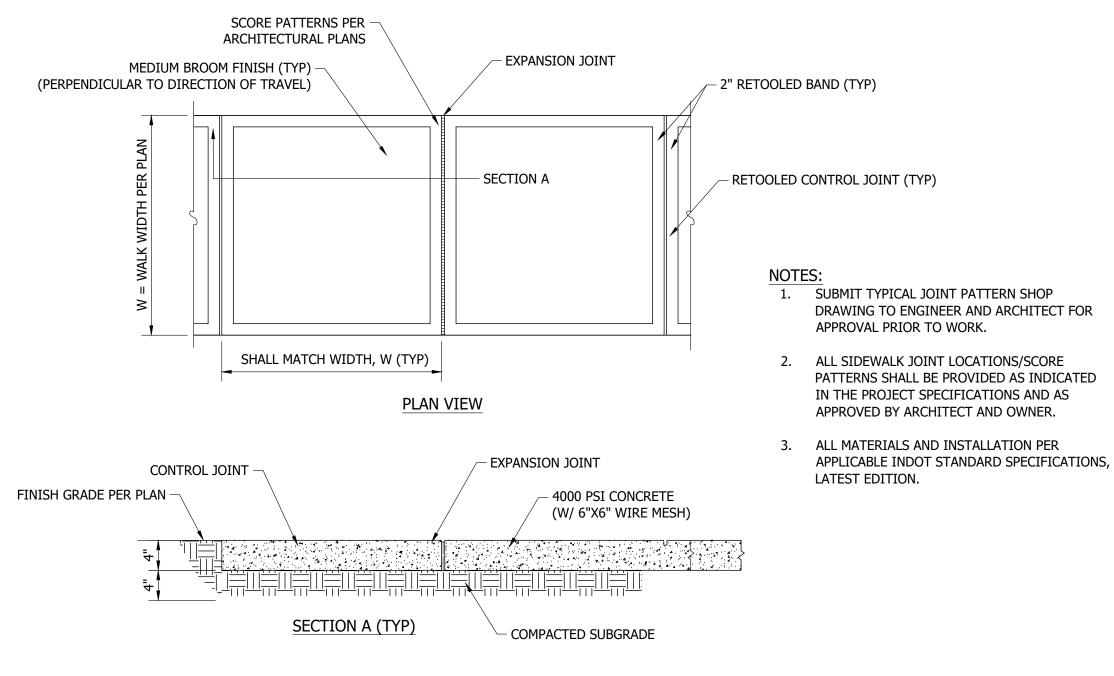
  3. SHALL CONSIST OF MANUFACTURED, CLEAN, ANGULAR, GRANULAR MATERIAL SUCH AS CRUSHED STONE, WITH GRADATION BETWEEN 1/4" TO 1 1/2" (6 TO 40 MM) IN SIZE.

### PIPE BEDDING AND BACKFILL MORE THAN 5' FROM PAVEMENT:

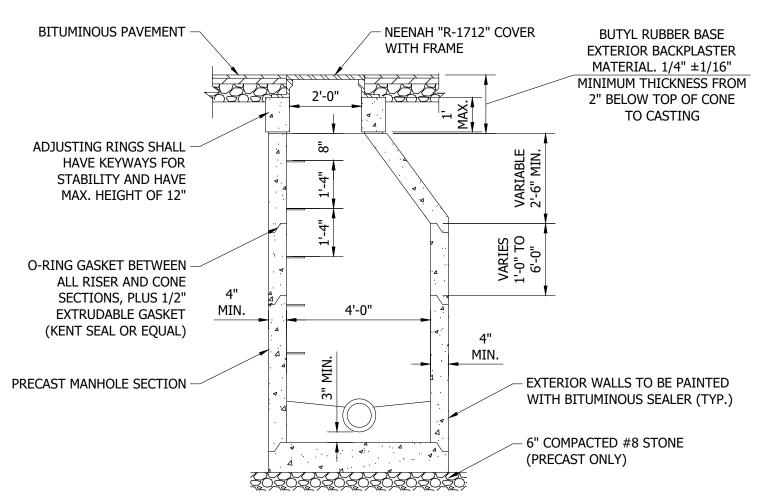
FINAL BACKFILL REQUIREMENTS, NOT SUBJECT TO THE INFLUENCE OF TRAFFIC AS NOTED ABOVE, SHALL GENERALLY BE BACKFILLED WITH ACCEPTABLE, EXCAVATED TRENCH IN-SITU SOIL MATERIALS IN ACCORDANCE WITH THE FOLLOWING:

- 1. IN-SITU SOIL MATERIALS SHALL BE PLACED AND COMPACTED IN TWELVE (12) INCH LIFTS AND/OR MOUNDED TO ACCOMMODATE SETTLEMENT DURING PROJECT DEVELOPMENT. THE MOUNDED AREAS SHALL MEET PROPOSED GRADE NO MORE THAN 30 DAYS AFTER PIPE INSTALLATION AND BACKFILL IS COMPLETE.
- IN-SITU SOIL MATERIALS SHALL BE FREE FROM ROCKS (THREE INCHES IN DIAMETER OR GREATER) CONCRETE, ROOTS, STUMPS, LARGE AMOUNTS OF SOD OR OTHER ORGANIC MATERIALS, RUBBISH, FROZEN MATERIALS AND OTHER SIMILAR ARTICLES WHOSE PRESENCE IN THE BACKFILL WOULD CAUSE EXCESSIVE SETTLEMENT.
- 3. TO ALLOW FOR SETTLEMENT, THE SURFACE OF THE TRENCH SHALL GENERALLY BE LEFT IN A SLIGHTLY ROUNDED CONDITION

### PVC AND HDPE PIPE TRENCH DETAIL NOT TO SCALE



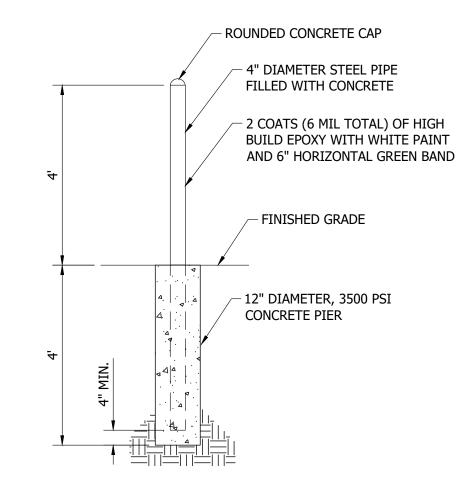
5 CONCRETE SIDEWALK DETAIL
NOT TO SCALE

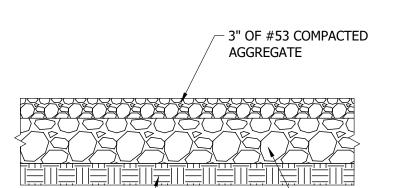


### NO.

- 1. ADJUSTING RINGS SHALL HAVE KEYWAYS FOR STABILITY AND HAVE MAXIMUM HEIGHT OF 12".
- 2. MANHOLE STEPS SHALL BE POLYPROPYLENE, POLYPROPYLENE COATED STEEL REINFORCING OR APPROVED NON-CORROSIVE FIBERGLASS MATERIAL. COPOLYMER POLYPROPYLENE SHALL MEET ASTM D-4101
- MATERIAL. COPOLYMER POLYPROPYLENE SHALL MEET ASTM D-4101
  REINFORCED WITH DEFORMED 3/8" STEEL MEETING ASTM A-615, GRADE 60.
  MANHOLE CONFORMS TO ASTM C-478 JOINT CONFORMS TO ASTM C-443.

### TYPICAL MANHOLE DETAIL NOT TO SCALE

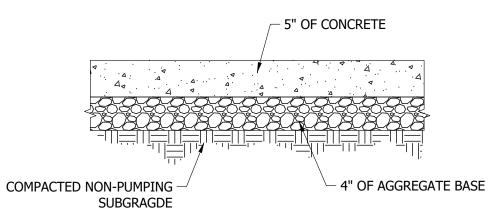




**BOLLARD DETAIL** 

NOT TO SCALE

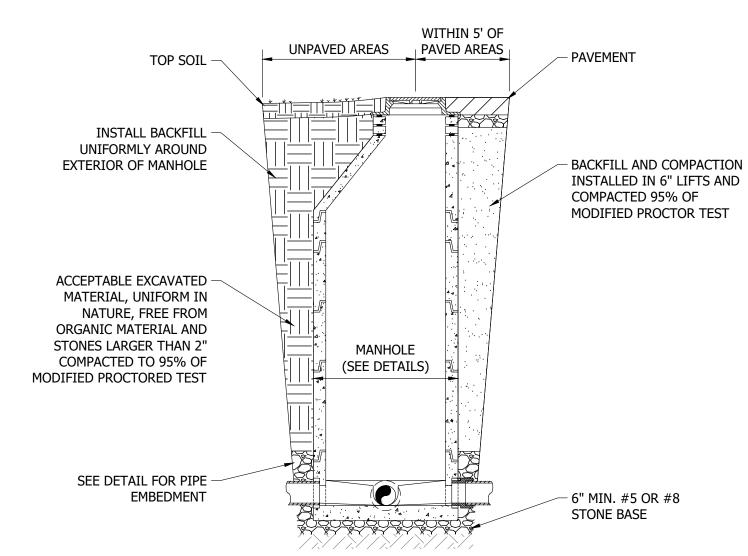
### 6 STONE PARKING AREA DETAIL NOT TO SCALE



STANDARD DUTY CONCRETE PAVEMENT
NOT TO SCALE

PIPE SIZE 3" TO 15" 18" TO 30"

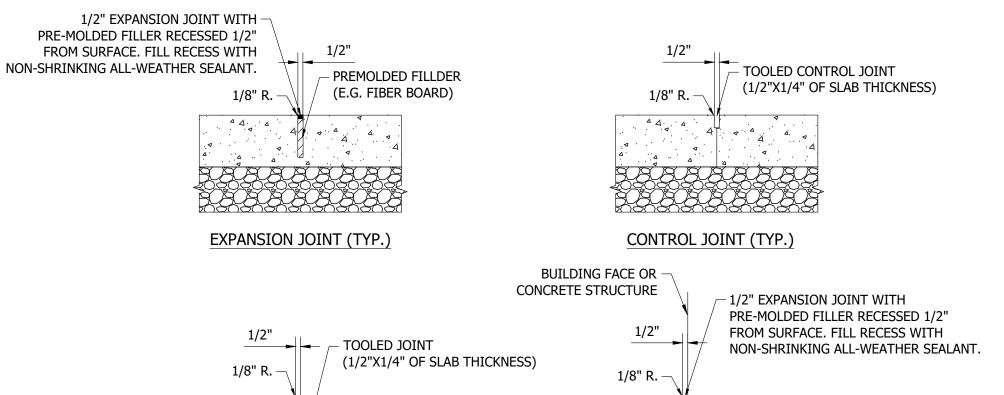
BEDDING BELOW THE PIPE BARREL 4" O.D. / 4



OTES:

- PROVIDE CLEARANCE AROUND SIDEWALLS STRUCTURE FOR CONSTRUCTION OPERATIONS.
- IF GROUNDWATER IS ENCOUNTERED, PREVENT ACCUMULATION OF WATER IN EXCAVATION.
- WHERE POSSIBILITY EXISTS OF STRUCTURE BECOMING
  BOUYANT IN FLOODED EXCAVATION, ANCHOR STRUCTURE TO
  AVOID FLOTATION, AS APPROVED BY ENGINEER.

### 4 STANDARD MANHOLE BACKFILL DETAIL NOT TO SCALE



NOTE:
ALL MATERIALS AND INSTALLATION PER APPLICABLE
INDOT STANDARD SPECIFICATIONS, LATEST EDITION.

COLD JOINT (TYP.)

8 CONCRETE PAVING JOINT DETAILS
NOT TO SCALE

44.4

PREMOLDED FILLDER

(E.G. FIBER BOARD)

EXPANSION JOINT AT BUILDING/ STRUCTURE

RQAW



SALT CREEK ESTATES
WATER TREATMENT PLANT

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# Revision Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH

Checked By: RJPA

Date: 02/03/2025



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CONSTRUCTION DETAILS

5" DIA. WASHER, 1" THICK

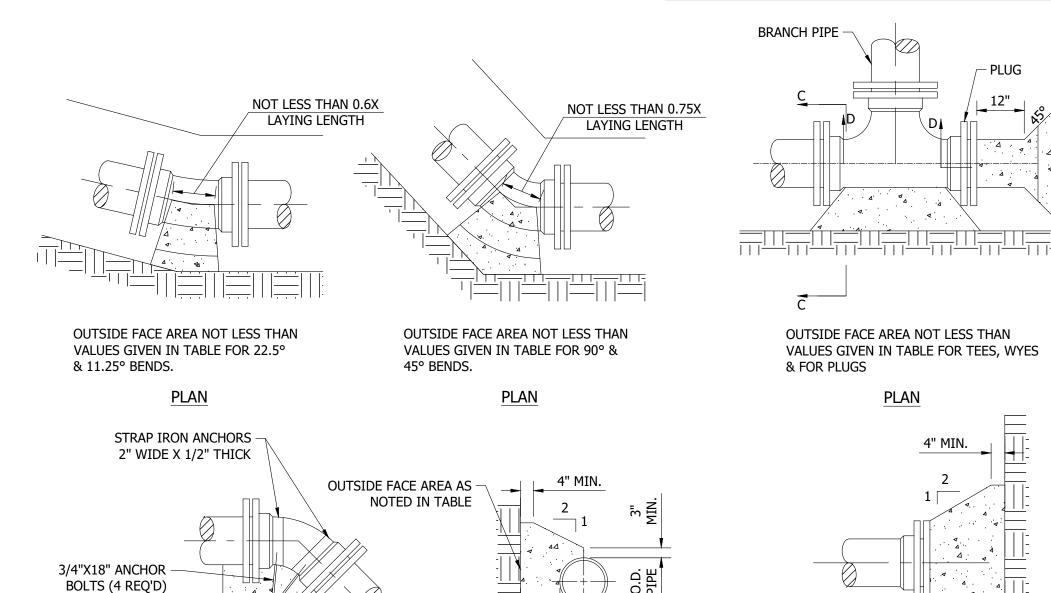
ANCHOR BLOCK TO BE OF -CLASS "B" CONCRETE

DOWNWARD BEND

FOR LANDSCAPED/ GRASS SURFACES

BLOCKING FOR TEES AND WYES							
SIZE OF RUN	SIZE OF BRANCH	OUTSIDE FACE AREA (SQ. FT.)					
	16"	12					
20" OR 16"	12"	7					
	10"	6					
	8"	5					
	12"	7					
	10"	6					
12" OR LESS	8"	4					
	6"	2					
	4"	2					

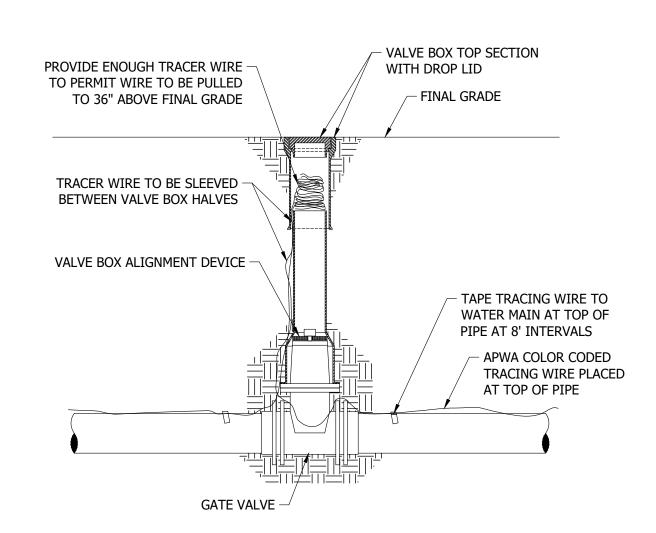
SECTION "D-D"



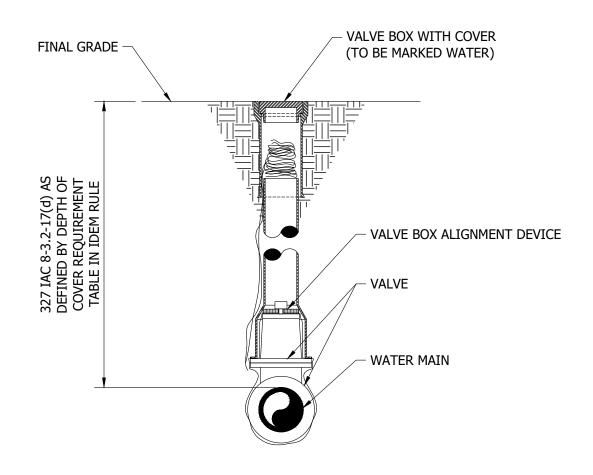
ALL CONCRETE BLOCKING TO CONSIST OF CLASS "B" CONCRETE POURED AGAINST FIRM GROUND.

SECTION "C-C"

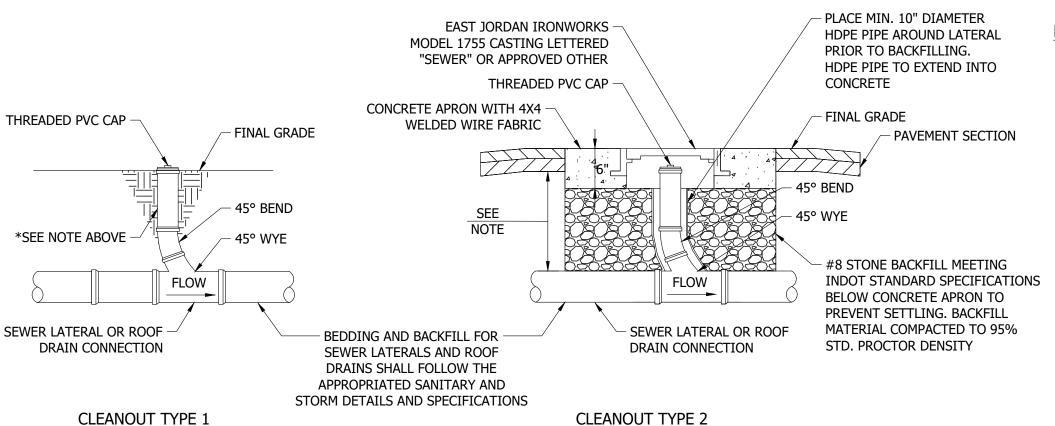




### TRACER WIRE DETAIL NOT TO SCALE





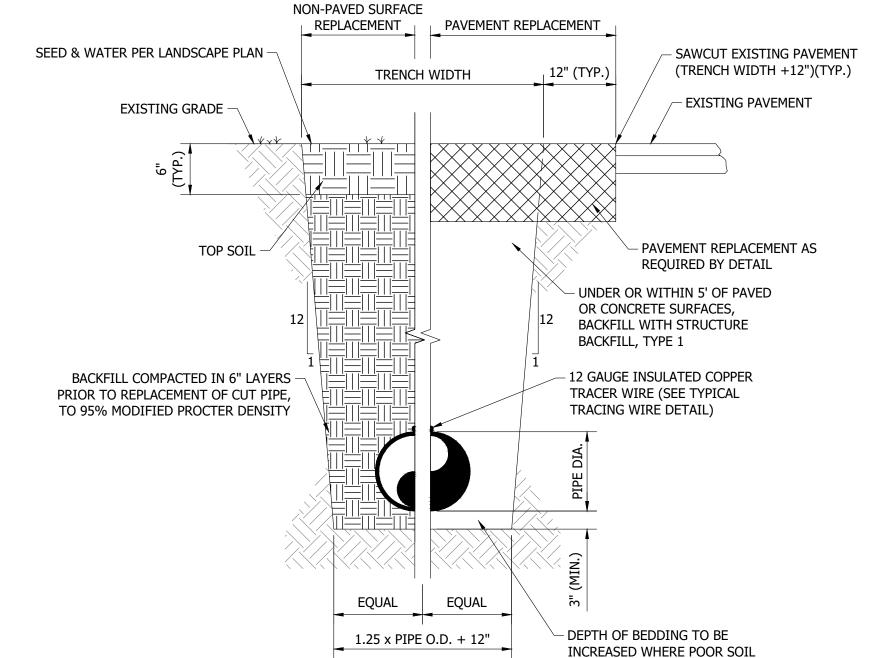


CLEANOUT TYPE 2 FOR HARDSCAPE/ RIGID SURFACES

### TYPICAL CLEANOUT DETAIL NOT TO SCALE

### NOTES:

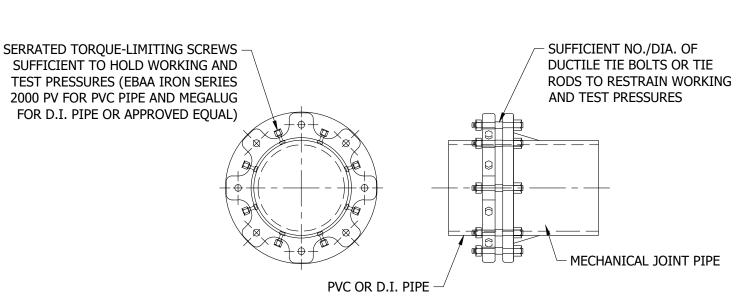
- 1. FOR SEWER LATERALS, THE CLEANOUT PIPE AND FITTING MATERIAL SHALL BE PVC SDR-35, WITH A MINIMUM PIPE SIZE OF 6 INCHES FOR ROOF DRAIN CONNECTION CLEANOUTS, THE MATERIAL SHALL BE PVC SDR-35 OR HDPE N-12, UNLESS SPECIFIED OTHERWISE THE CLEANOUT PIPE SIZE SHALL BE ONE SIZE SMALLER THAN THE ROOF DRAIN LINE ITS CONNECTING INTO UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2. MAX. CLEANOUT SPACING IS 100 LF BETWEEN CLEANOUTS
- CONCRETE APRON AND CASTING SHALL BE INSTALLED SO THAT THEY DO NOT CONTACT THE LATERAL OR LATERAL CAP.
- 4. TOP OF CASING OR CAP SHALL EXTEND 2" MIN. ABOVE FINISHED GRADE UNLESS CONSTRUCTED WITHIN PEDESTRIAN OR VEHICULAR TRAFFIC WAY.



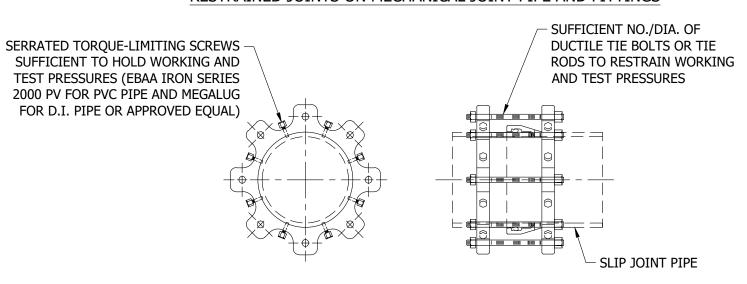
### **WATER MAIN TRENCH DETAIL** NOT TO SCALE

CONDITIONS ARE ENCOUNTERED

TO PROVIDE A STABLE BASE.



### RESTRAINED JOINTS ON MECHANICAL JOINT PIPE AND FITTINGS



### RESTRAINED JOINTS ON SLIP JOINT PIPE (USING GRIPPING TYPE RETAINERS)

		KESI	RAINE	ED LEI	1G I AS	FUR	Z D1/	A. PIP				
DEPTH OF PIPE	4'	4'	4'	4'	5'	5'	5'	5'	6'	6'	6'	6'
BEND ANGLE	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°
RESTRAINED LENGTH	1'-10"	3'-8"	7'-7"	18'-2"	1'-6"	3'-2"	6'-7"	15'-9"	1'-5"	2'-9"	5'-8"	13'-11"
		REST	RAINE	ED LEI	NGTHS	FOR	4" DI	A. PIP	E			
DEPTH OF PIPE	4'	4'	4'	4'	5'	5'	5'	5'	6'	6'	6'	6'
BEND ANGLE	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°
RESTRAINED LENGTH	3'-6"	7'-2"	14'-11"	36'-0"	3'-2"	6'-5"	13'-1"	31'-6"	2'-8"	5'-7"	11'-8"	28'-0"
		REST	RAINE	ED LEI	NGTHS	FOR	8" DI	A. PIP	E			
DEPTH OF PIPE	4'	4'	4'	4'	5'	5'	5'	5'	6'	6'	6'	6'
BEND ANGLE	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°
RESTRAINED LENGTH	5'-0"	10'-0"	20'-9"	50'-0"	4'-4"	8'-9"	18'-2"	43'-10"	3'-11"	7'-10"	16'-3"	39'-1"

RESTRA	RESTRAINED LENGTHS FOR 4' DEPTH OF PIPE										
SIZE OF PIPE	2"	4"	8"	4"X2"	4"X2"						
FITTING TYPE	DEAD END	DEAD END	DEAD END	REDUCER	REDUCER						
RESTRAINED LENGTH	55'-0"	85'-0"	112'-0"	57'-0"	47'-0"						

WATER MAIN PIPE JOINT RESTRAINT DETAIL NOT TO SCALE



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Project #: 23-400-188-1 Designed By: RJPA Drawn By: RLH

Checked By: RJPA

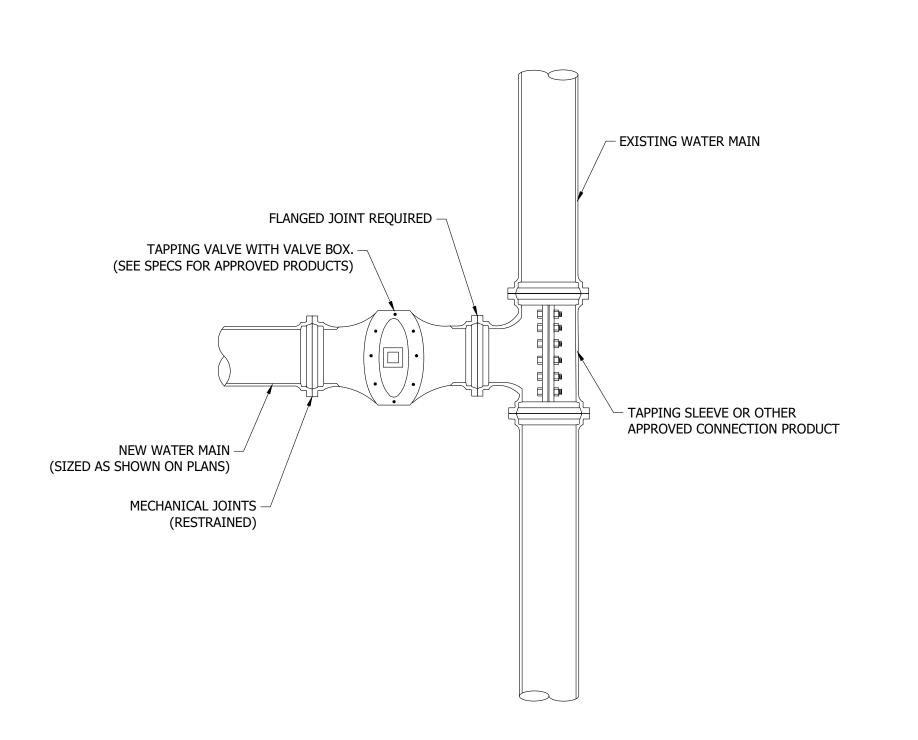
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**CONSTRUCTION DETAILS** 



WATER MAIN TAPPING DETAIL
NOT TO SCALE

NON-PAVED SURFACE REPLACEMENT | PAVEMENT REPLACEMENT - SAWCUT EXISTING PAVEMENT (TRENCH WIDTH +12")(TYP.) SEED & WATER PER LANDSCAPE PLAN -<sub>|</sub> 12" (TYP.) TRENCH WIDTH - EXISTING PAVEMENT EXISTING GRADE - PAVEMENT REPLACEMENT AS REQUIRED BY DETAIL TOP SOIL -- UNDER OR WITHIN 5' OF PAVED OR CONCRETE SURFACES, BACKFILL WITH STRUCTURE BACKFILL, TYPE 1 BACKFILL COMPACTED IN 6" LAYERS -- 12 GAUGE INSULATED COPPER PRIOR TO REPLACEMENT OF CUT PIPE, TRACER WIRE (SEE TYPICAL TO 95% MODIFIED PROCTER DENSITY TRACING WIRE DETAIL) DEPTH OF BEDDING TO BE INCREASED WHERE POOR SOIL CONDITIONS ARE ENCOUNTERED TO PROVIDE A STABLE BASE. **EQUAL** EQUAL 1.25 x PIPE O.D. + 12"

MEGALUG M.J. RESTRAINT

(TYP. ALL 45° BENDS)

M.J. 45° BENDS (TYP.)

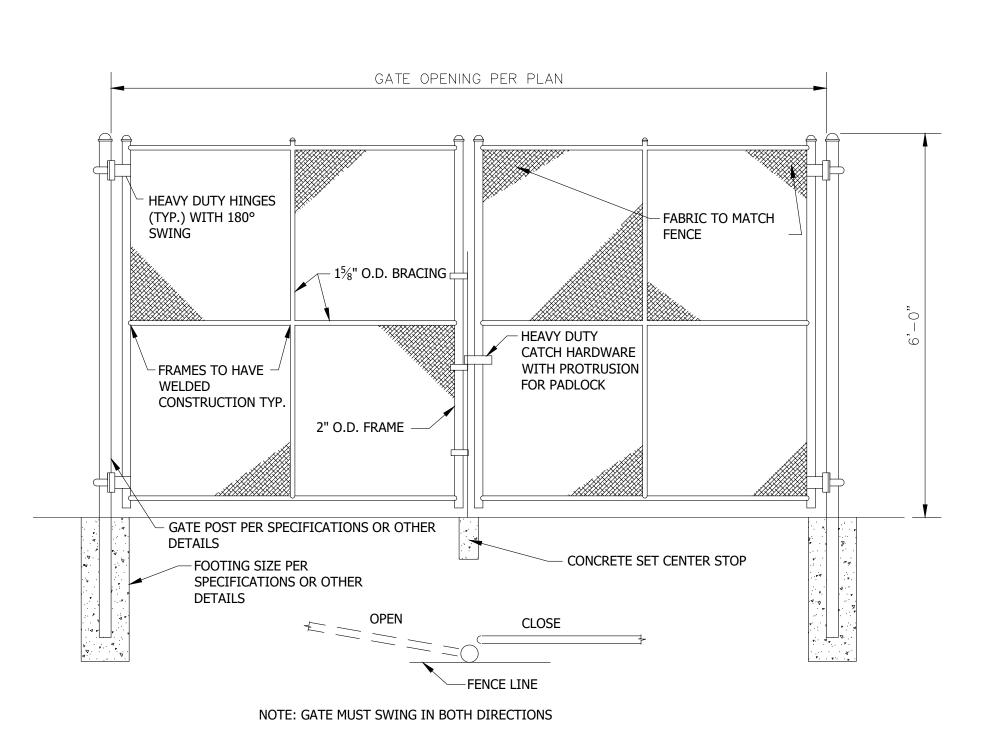
WATER AND SEWER CROSSING DETAIL
NOT TO SCALE

WATER MAIN TRENCH DETAIL
NOT TO SCALE

\* CONTRACTOR TO UTILIZE INDOT STANDARD DETAILS FOR ANY SECTIONS OF PAVEMENT REPAIR INSIDE INDOT ROW.

VERTICAL TERMINAL POST (TYP.) CONTRACTOR TO INSTALL BLACK VERTICAL PRIVACY SLATS - KNUCKLED SELVAGE - LINE POST PER — SPECIFICATIONS  $1\frac{5}{8}$ " O.D. TOP RAIL $^{-1}$ -TENSION HORIZONTAL BRACE RAIL (END, CORNER, AND GATE BANDS POST ONLY CORNER AND PULL POST PER SPECIFICATIONS TRUSS ROD (END, CORNER, AND GATE POST ONLY BARBED SELVAGE -- BOTTOM TENSION WIRE MAX. CLEARANCE ABOVE GRADE SHALL BE 2" CONCRETE FOOTING PER -SPECIFICATIONS

CHAIN LINK FENCE ELVATION DETAIL
NOT TO SCALE



19 DOUBLE SWING GATE DETAIL NOT TO SCALE

SALI CREEK ESTATES WATER TREATMENT PLANT

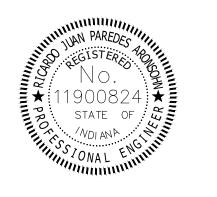
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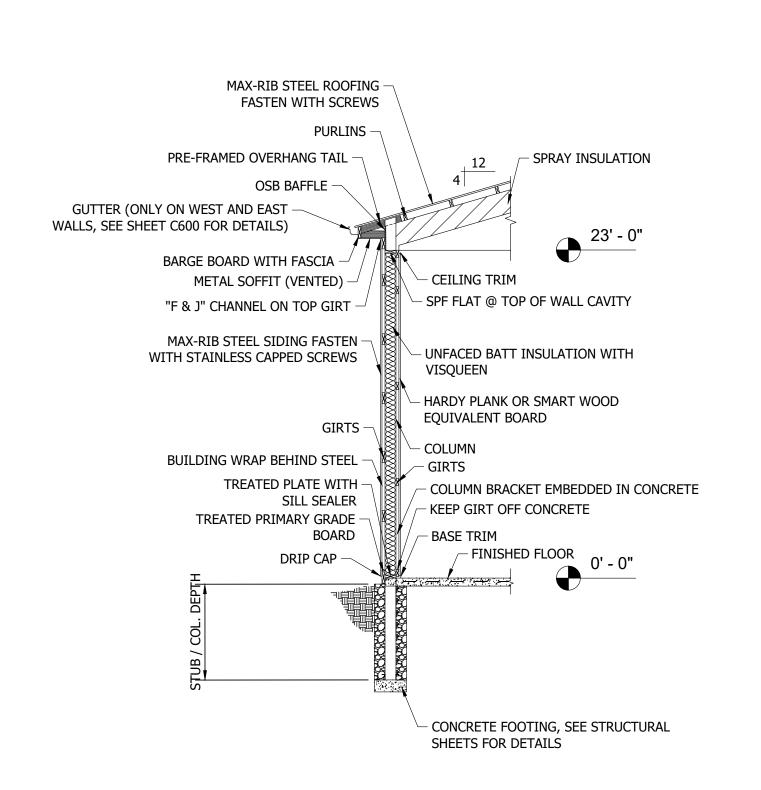
Project #: 23-400-188-1
Designed By: RJPA

Drawn By: RLH
Checked By: RJPA
Date: 02/03/2025



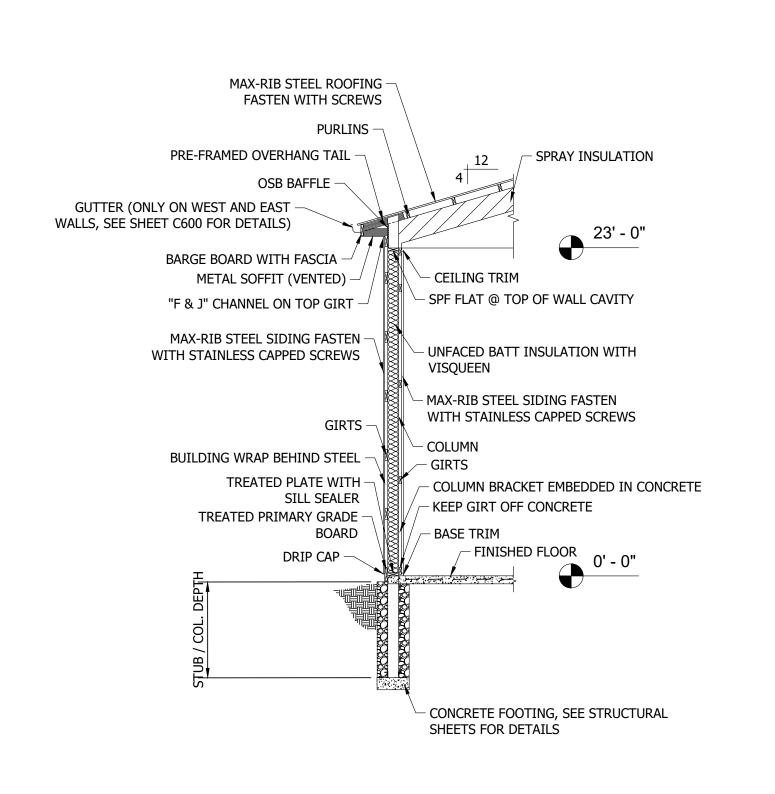
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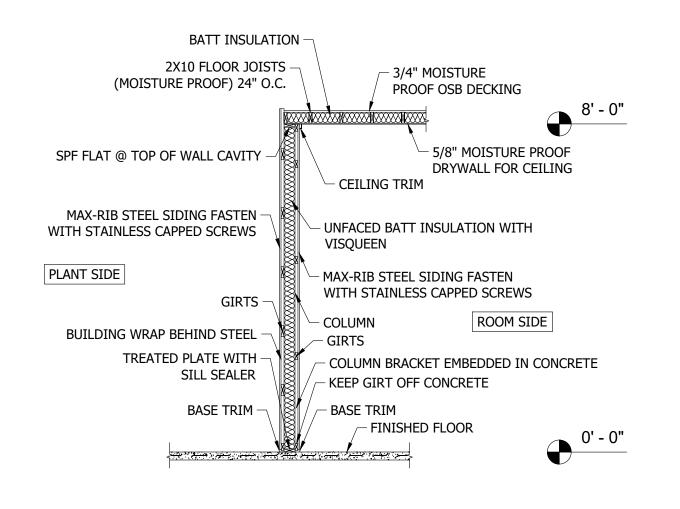
CONSTRUCTION DETAILS



A-A TYPICAL EXTERIOR WALL SECTION DETAIL- ROOM SECTIONS

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





B-B TYPICAL EXTERIOR WALL SECTION DETAIL SCALE: 1/4" = 1'-0"

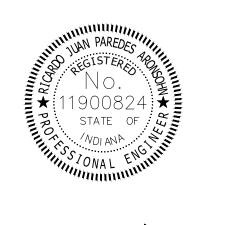
A-B TYPICAL INTERIOR WALL SECTION DETAIL- ROOM SECTIONS SCALE: 1/4" = 1'-0"

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> Date Revision

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Project #: 23-400-188-1 Designed By: RJPA Drawn By: RLH Checked By: RJPA Date: 02/03/2025



**CONSTRUCTION DETAILS** 



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Revision

Project #: 23-400-188-1 Designed By: RJPA

Drawn By: RLH Checked By: RJPA

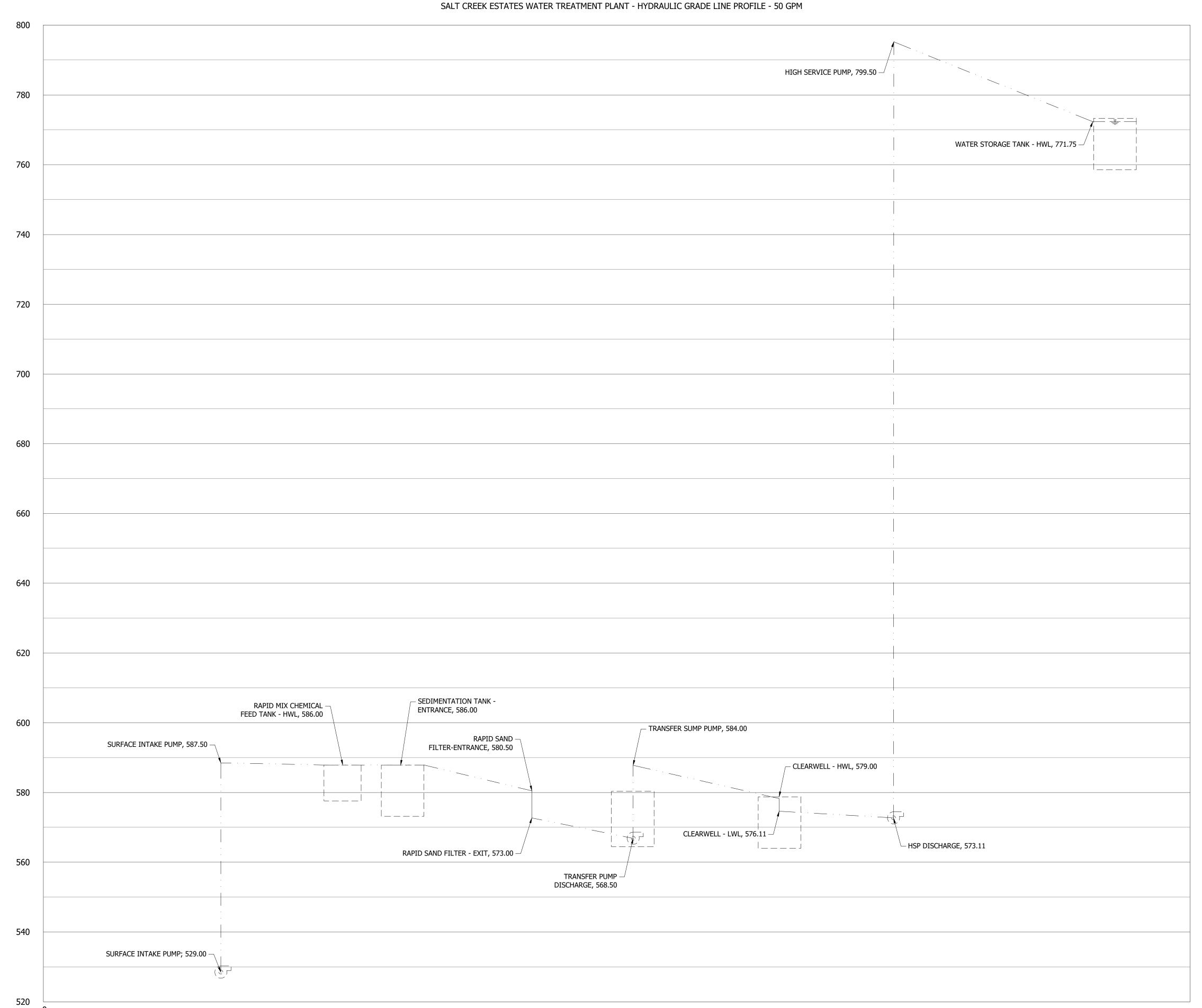
Date: 02/03/2025



PROCESS FLOW DIAGRAM

**D100** 







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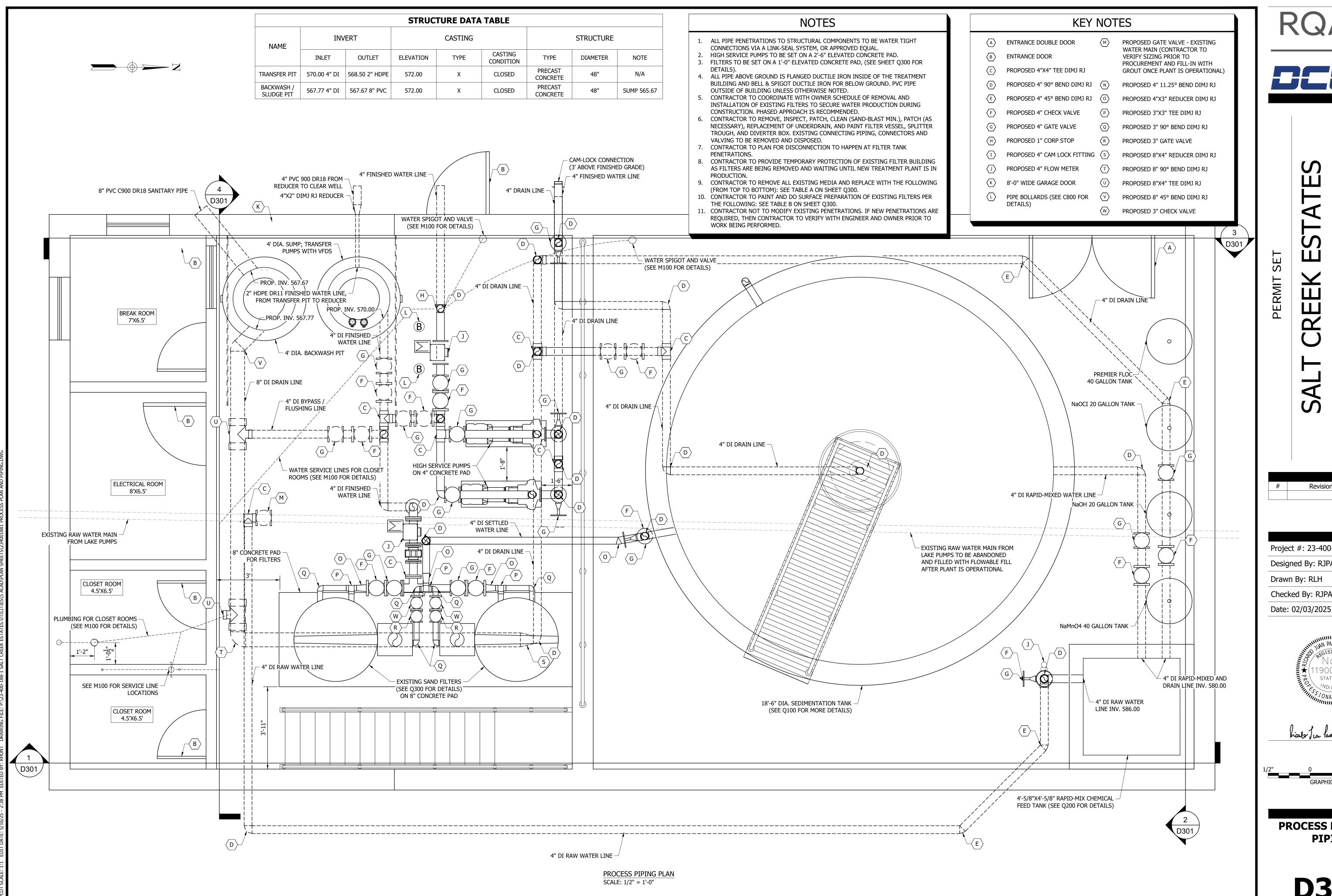
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Drawn By: RLH

Checked By: RJPA Date: 02/03/2025



**HYDRAULIC GRADE PROFILE** 



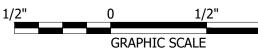


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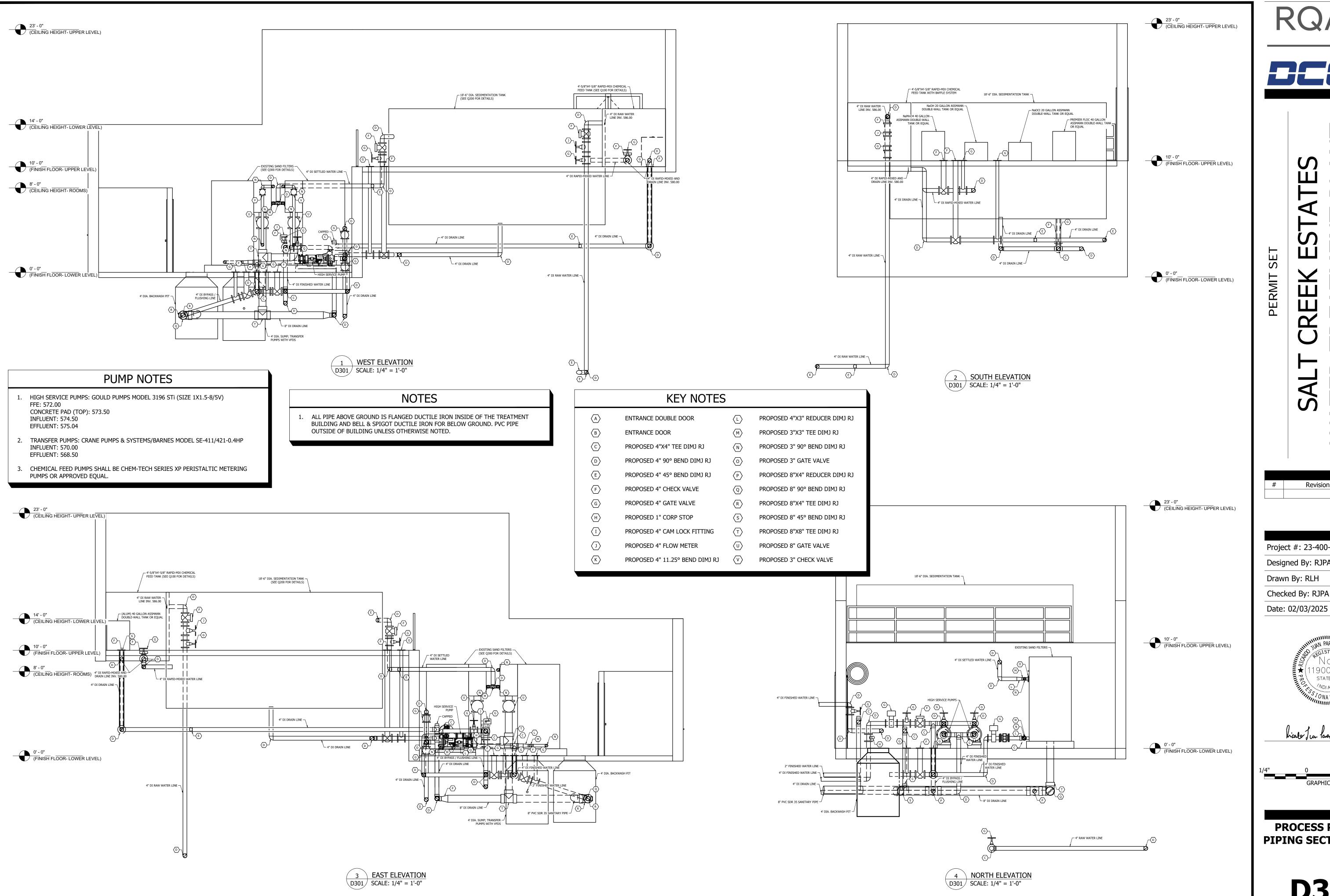
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**PROCESS PLAN AND PIPING** 





Revision

Project #: 23-400-188-1 Designed By: RJPA Drawn By: RLH Checked By: RJPA

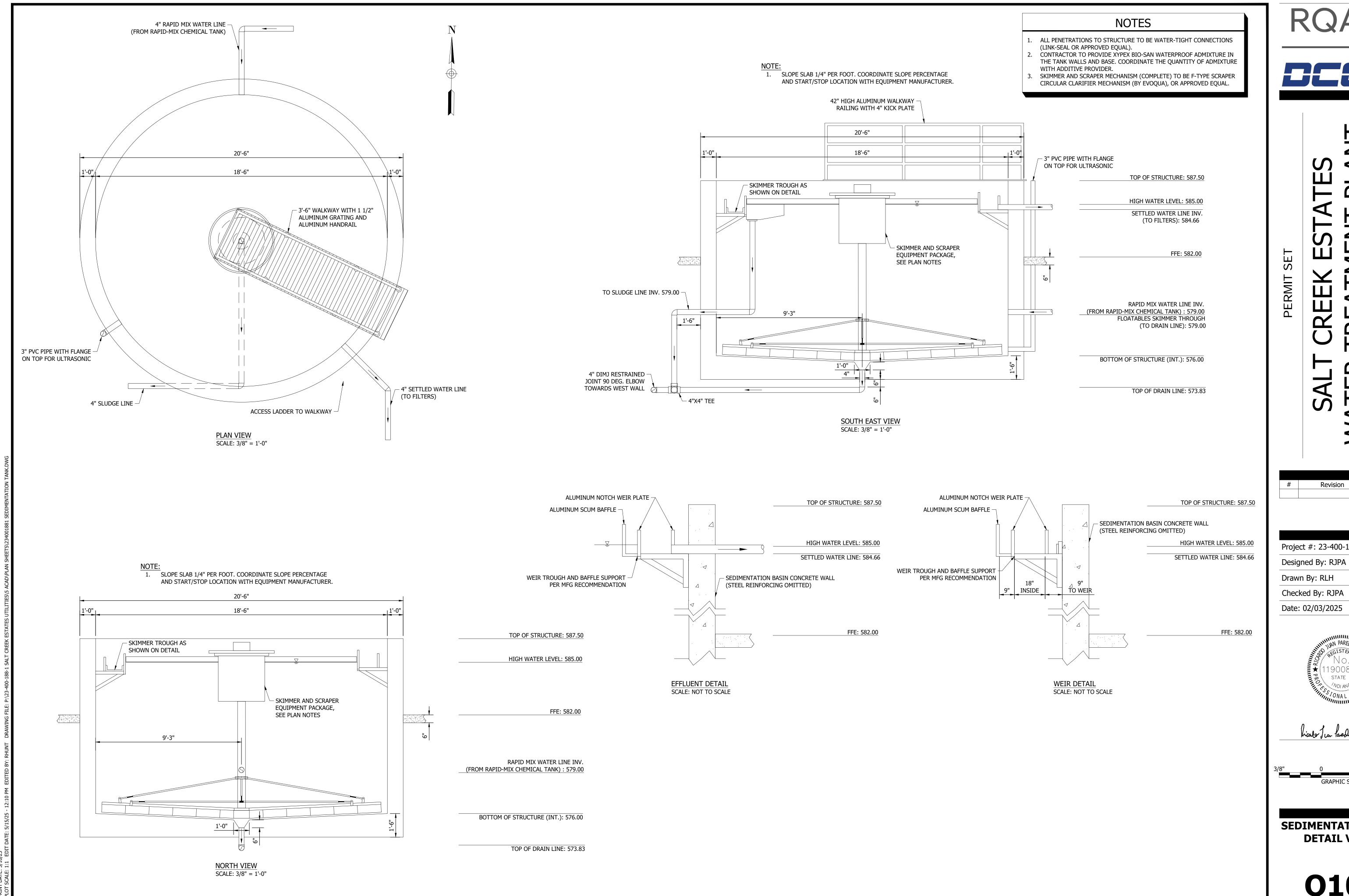


**GRAPHIC SCALE** 

PROCESS PLAN AND

**PIPING SECTION VIEWS** 

**D301** 





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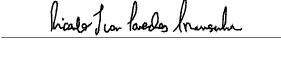
Revision	Date

Project #: 23-400-188-1

Drawn By: RLH

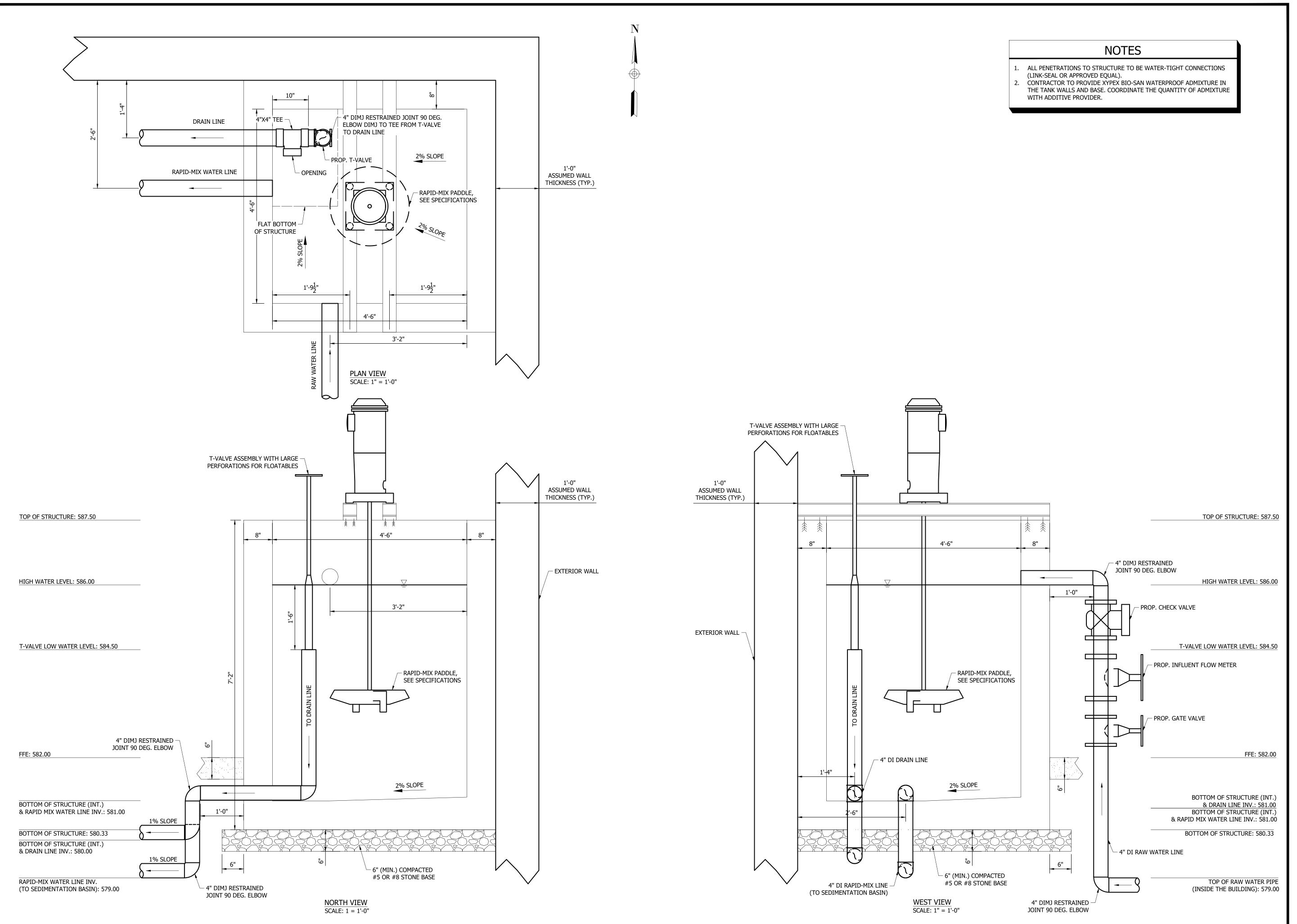
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**SEDIMENTATION TANK DETAIL VIEWS** 





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# Revision Date

Project #: 23-400-188-1

Designed By: RJPA

Drawn By: RLH

Checked By: RJPA

Date: 02/03/2025

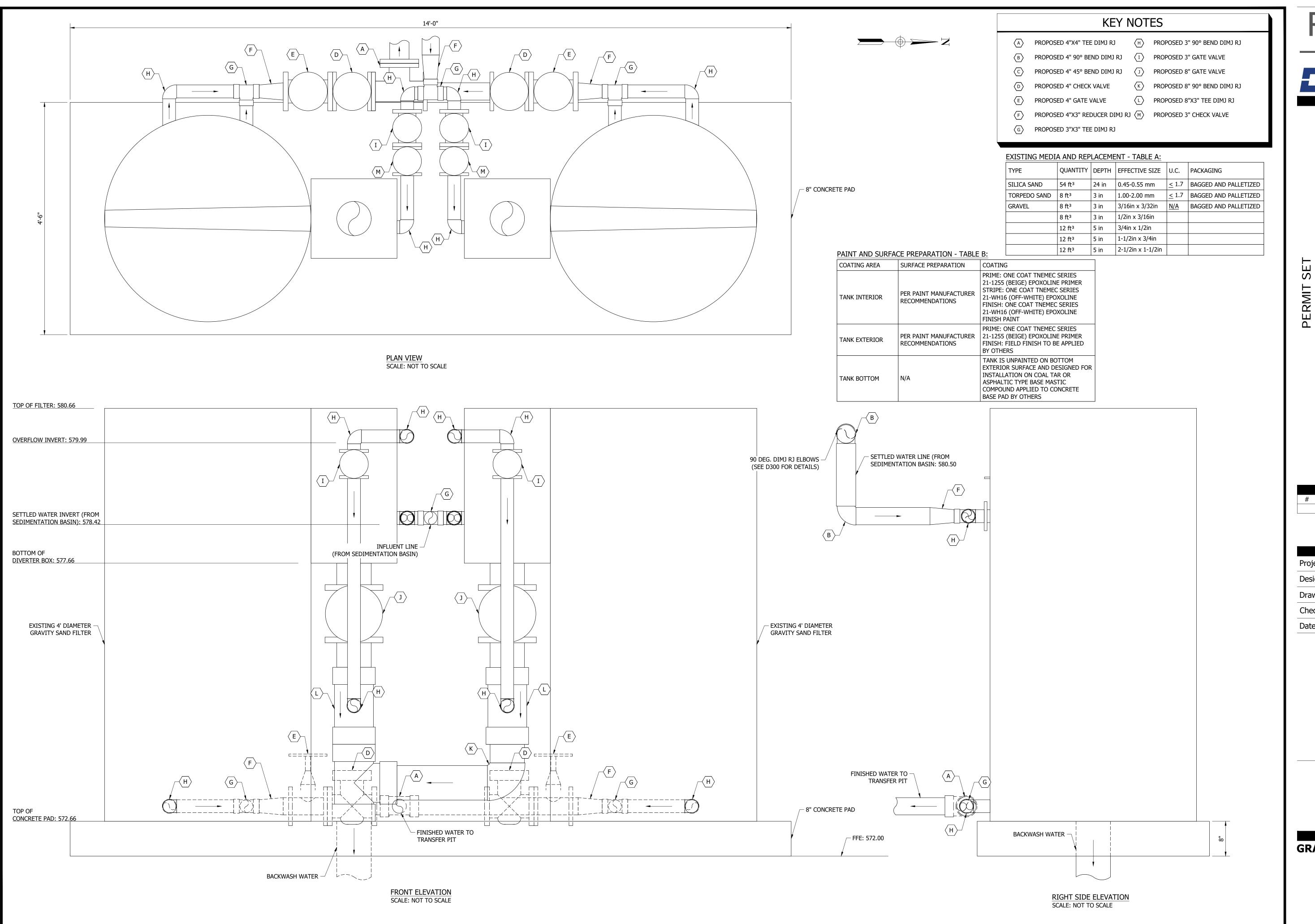


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GRAPHIC SCALE

RAPID MIX CHEMICAL FEEDING TANK DETAIL VIEWS

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#	Revision	Date

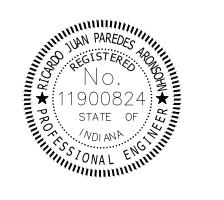
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Checked By: RJPA

Date: 02/03/2025



**GRAVITY SAND FILTERS DETAIL VIEWS** 

	, , , , , , , , , , , , , , , , , , , ,
☐ PB	PULLBOX, 36"H X 60"L X 36"D, UON
	PAD MOUNTED TRANSFORMER/ DRY TYPE TRANSFORMER
4	NON-FUSIBLE DISCONNECT SWITCH, SIZE AS NOTED ON ONE-LINE DIAGRAM
48	FUSIBLE DISCONNECT SWITCH, 3P UON SIZE AS NOTED ON ONE-LINE DIAGRAM
40	DISCONNECT WITH EMERGENCY STOP
0	FIELD CONTROL STATION SEE SCHEMATIC DIAGRAM
	FEEDER DESIGNATION SEE SCHEDULE FOR SIZE
	EQUIPMENT TAG
	CONDUIT CONCEALED IN WALLS OR CEILING 3/4"C, 2 - #12, 1 - #12G, UON
	CONDUIT UNDER GROUND 3/4" C., 2 - #12; 1 - #12G, UON
	CONDUIT EXPOSED 3/4" C., 2 - #12, 1 - #12G, UON
	QUANTITY #12 WIRE CURVE LINE INDICATES GROUND WIRE
——————————————————————————————————————	WIRE SIZE OTHER THAN #12 CURVE LINE INDICATES GROUND WIRE
	CONDUIT STUBBED UP INTO EQUIPMENT AND PLUGGED
	NUMBER OF 18 AWG TWISTED SHIELDED PAIR CABLE
— — G— <b>—</b>	CONNECTION TO GROUND BUS
— G— —	GROUNDING CONDUCTOR 30" BELOW GRADE, #4/O UON
•	GROUND ROD, 3/4" X 10' - 0" GW NEXT TO SYMBOL INDICATES GROUND ROD IN HANDHOLE
	EXOTHERMIC WELD CONNECTION
	DUCT BANK
—E—E—E—	EXISTING UNDERGROUND ELECTRICAL
A-1,3	HOMERUN TO PANEL A, CIRCUIT 1 AND 3
	CONDUIT BENDS TOWARD OBSERVER
	CONDUIT BENDS AWAY FROM OBSERVER
<del></del>	CONDUIT STUB-OUT AND CAPPED
	FLEXIBLE CONDUIT CONNECTION
	MOTOR CONNECTION
	MOTOR CONNECTION. DISCONNECT FURNISHED WITH MOTOR
SV	SOLENOID VALVE
	DISCONNECTS OR COMBINATION STARTERS SERVING EQUIPMETN SHOWN. PROVIDE CONNECTING FEEDERS BETWEEN DEVICES, SIZE TO MATCH SERVING FEEDER.
Î.	

HAND HOLE, 11"H X 17"L X 12" D, UON

	ELECTRICAL SYMBOLS - ONE-LINE DIAGRAM
(DM)	DIGITAL MULTI-FUNCTION METER
$\frac{3}{1}$	CURRENT TRANSFORMER, QUANTITY INDICATED
3	POTENTIAL TRANSFORMER, QUANTITY INDICATED
	POWER TRANSFORMER
	FEEDER DESIGNATION - SEE SCHEDULE OR ONE-LINE DIAGRAM FOR SIZE
) <u>30A</u>   MCP	CIRCUIT BREAKER, 3 POLE UNLESS NOTED MCP INDICATES MOTOR CIRCUIT PROTECTOR
L <sup>4</sup> T <sub>RV</sub>	MAGNETIC MOTOR STARTER, NEMA SIZE INDICATED FULL-VOLTAGE NON-REVERSING UNLESS NOTED RV=REDUCED VOLTAGE STARTING 2S, 2W = 2 SPEED, 2 WINDING
	FUSE
	DISCONNECT SWITCH, NON-FUSIBLE, SEE PLANS FOR RATING
F	DISCONNECT SWITCH, FUSIBLE, SEE PLANS FOR RATING
(X)	MOTOR, X = HORSEPOWER
G	GENERATOR
<u> </u>	SURGE ARRESTER
П	GROUND
$\triangle$	DELTA CONNECTION
YA	WYE CONNECTION
PFR	POWER FAILURE RELAY
VFD	VARIABLE FREQUENCY DRIVE
+	SOLID STATE STARTER
M	CONTROLLER/STARTER FURNISHED WITH EQUIPMENT
GFP	GROUND FAULT PROTECTION
<b>A</b>	INCOMING ELECTRIC SERVICE

### ELECTRICAL SYMBOLS - SCHEMATIC DIAGRAMS

NORMALLY OPEN	NORMALLY CLOSED	DEVICE
$\dashv$ $\vdash$	+	CONTACT
0	一个	TIMED CONTACT CONTACT ACTION RETARDED ON ENERGIZATION
0	00	TIMED CONTACT CONTACT ACTION RETARDED ON DE-ENERGIZATION
0 0	0 0	PUSH BUTTON SINLGE CIRCUIT MOMENTARY CONTACT
0 0	<u> </u>	PUSH BUTTON SINGLE CIRCUIT LOCK-OUT
~	00	LIMIT SWITCH
2	000	LIQUID LEVEL SWITCH
	000	PRESSURE OR VACUUM SWITCH
~~	0_[0	FLOW SWITCH
	0-50	TEMPERATURE SWITCH
7	<u>/</u>	SELECTOR SWITCH - CAN BE 2-WAY OR 3-WAY
	$\overset{\circ}{\mathcal{X}}$	MANUAL MOTOR STARTER
\	<u>D/I</u>	DOOR INTERLOCK SWITCH
	_OL	MOTOR OVERLOAD RELAY CONTACT
		MOTOR OVERLOAD HEATER
	<u>`</u> ~	PILOT LIGHT R=RED, W=WHITE,
	<u> </u>	G=GREEN, A=AMBER, C=CLEAR
0	R	PILOT LIGHT-PUSH TO TEST
F	8)	RELAY
(TI		TIME DELAY RELAY
(N	1)	STARTER COIL
	5)	SOLENOID OPERATED VALVE
		MOTOR
	þ	BELL OR BUZZER
E	ТМ	ELAPSED TIME METER
	<u> </u>	FUSE
ω ~		CONTROL POWER TRANSFORMER
1]		GROUND
		WIRING IN MOTOR STARTER OR CONTROL PANEL
		FIELD WIRING
		TERMINAL BLOCK IN FCS
Ç	$\otimes$	TERMINAL BLOCK IN MOTOR STARTER OR PANEL
<b></b>		TERMINAL BLOCK IN PLC
PFR		POWER FAIL RELAY
-111-a		SPACE HEATER
<b>-</b> //\-		RESISTOR
		CIRCUIT BREAKER
P	R	PLC OUTPUT ISOLATION RELAY

**GENERAL NOTES** 

- FIELD VERIFY EXACT LOCATIONSOF UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
- 2. REFERENCE MECHANICAL AND CIVIL DRAWINGS FOR NEW AND EXISITING
- 3. BELOW GRADE CONDUITS SHALL BE INSTALLED A MINIMUM DEPTH OF 18" BELOW THE FINISHED FLOOR/GRADE OR 18" BELOW ANY PIPE CROSSING THE CONDUIT PATH WHICHEVER IS DEEPER DOWN TO 5 FEET.
- 4. REFER TO CONDUIT AND WIRING SCHEDULE FOR CONDUIT AND WIRE REQUIREMENTS. ALL C, L & P DESIGNATED CONDUITS SHALL BE ROUTED THROUGH PPB PULL BOXES AND A & D DESIGNATED CONDUITS SHALL BE ROUTED THROUGH SPB PULL BOXES.
- 5. PROVIDE ELECTRICAL SYSTEM TESTING PER CONTRACT SPECIFICATION SECTION PRIOR TO ENERGIZING ANY ELECTRICAL EQUIPMENT OR SERVICES

FREQUENTLY USED	ABBREVIAT	TONS
A AMDEDE	141.0	MATNULLIC ONLY
A AMPERE AFF ABOVE FINISHED FLOOR	MLO	MAIN LUG ONLY
AFGABOVE FINISHED FLOOR  AFGABOVE FINISHED GRADE	MTD	MOUNTED
	MTS	MANUAL TRANSFER SWITCH
AIC AMPS INTERRUPTING CAPACITY ALTALTERNATE	NA NG	NOT APPLICABLE
	NC	NORMALLY CLOSED
ARCARCHITECT/ARCHITECTURAL ATSAUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
BFGBELOW FINISHED GRADE	NF	NON-FUSED
BPSBOLTED PRESSURE SWITCH	NIC	NOT IN CONTRACT
C CONDUIT	NL NO	NIGHT LIGHT
CB CIRCUIT BREAKER	NO	NORMALLY OPEN
CCTVLOSED CIRCUIT TELEVISION	NTS	NOT TO SCALE
CLGCEILING	OL	OVERLAY RELAY OR OVERLAY CONTACT
	P	POLE OR PHASE
CP CONTROL POWER TRANSFORMER	PC	PLUMBING CONTRACTOR
CPTCONTROL POWER TRANSFORMER	PF	POWER FACTOR
CT CURRENT TRANSFORMER CU COPPER	PH PT	PHASE
DISQISCONNECT	PRI	POTENTIAL TRANSFORMER
DP DOUBLE POLE	PVC	PRIMARY
DT DOUBLE THROW	SN	POLYVINLY CHLORIDE
EC ELECTRICAL CONTRACTOR	SP	SOLID NEUTRAL
EF EXHAUST FAN	SPKR	SINGLE POLE
EM EMERGENCY	ST	SPEAKER
EMSENERGY MANAGEMENT SYSTEM	SW	SINGLE THROW SWITCH
EMTELECTRICAL METALLIC TUBING		SWITCHBOARD
	SWBD	SQUARE
ENGENGINEER EWŒLECTRIC WATER COOLER	SQ TC	TIME CLOCK
_	TD	TIME DELAY
F FUSED FACPIRE ALARM CONTROL PANEL	TP	TAMPER PROOF
FARAIRE ALARM REMOTE ANNUNCIATOR	TR	TIMING RELAY
FDRFEEDER	TDCD	TD CLOSE TO DENERGIZATION
FDSFUSED DISCONNECT SWITCH	TDCE	TD CLOSE ON ENERGIZATION
FLR FLOOR	TDOD	TD OPEN ON DENERIZATION
FVNRULL VOLTAGE NON REVERSING	TDOE	TD OPEN ON ENERGIZATION
G/GNROUND	TEL	TELEPHONE
GC GENERAL CONTRACTOR	TTB	TELEPHONE TERMINAL BOARD
GFI GROUND FAULT INTERRUPTER	TTC	TELEPHONE TERMINAL CABINET
GFPGROUND FAULT PROTECTOR	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GRSGALVANIZED RIGID STEEL CONDUIT	TYP	TYPICAL
HH HANDHOLE	VA	VOLT-AMPERE
HP HORSEPOWER	VFD	VARIABLE FREQUENCY DRIVE
HZ HERTZ	W	WIRE OR WATTS
IG ISOLATED GROUND	WM	WIREMOLD (SURFACE MTD)
JB JUNCTION BOX	WP	WEATHERPROOF
MCMTHOUSAND CIRCULAR MILS	XP	EXPLOSION PROOF
KVAKILO-VOLT AMPERE	All	
KVARILO-VOLT AMPERE REACTIVE		
KW KILOWATT		
MC MECHANICAL CONTRACTOR		
MCGMOTOR CONTROL CENTER		
MCBMAIN CIRCUIT BREAKER		
MCPMOTOR CIRCUIT PROTECTOR		

MH MANHOLE
MICMICROPHONE

PHASE OR DIAMETER

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Revision Date

Project #: 23-400-188-1

Designed By: JAR

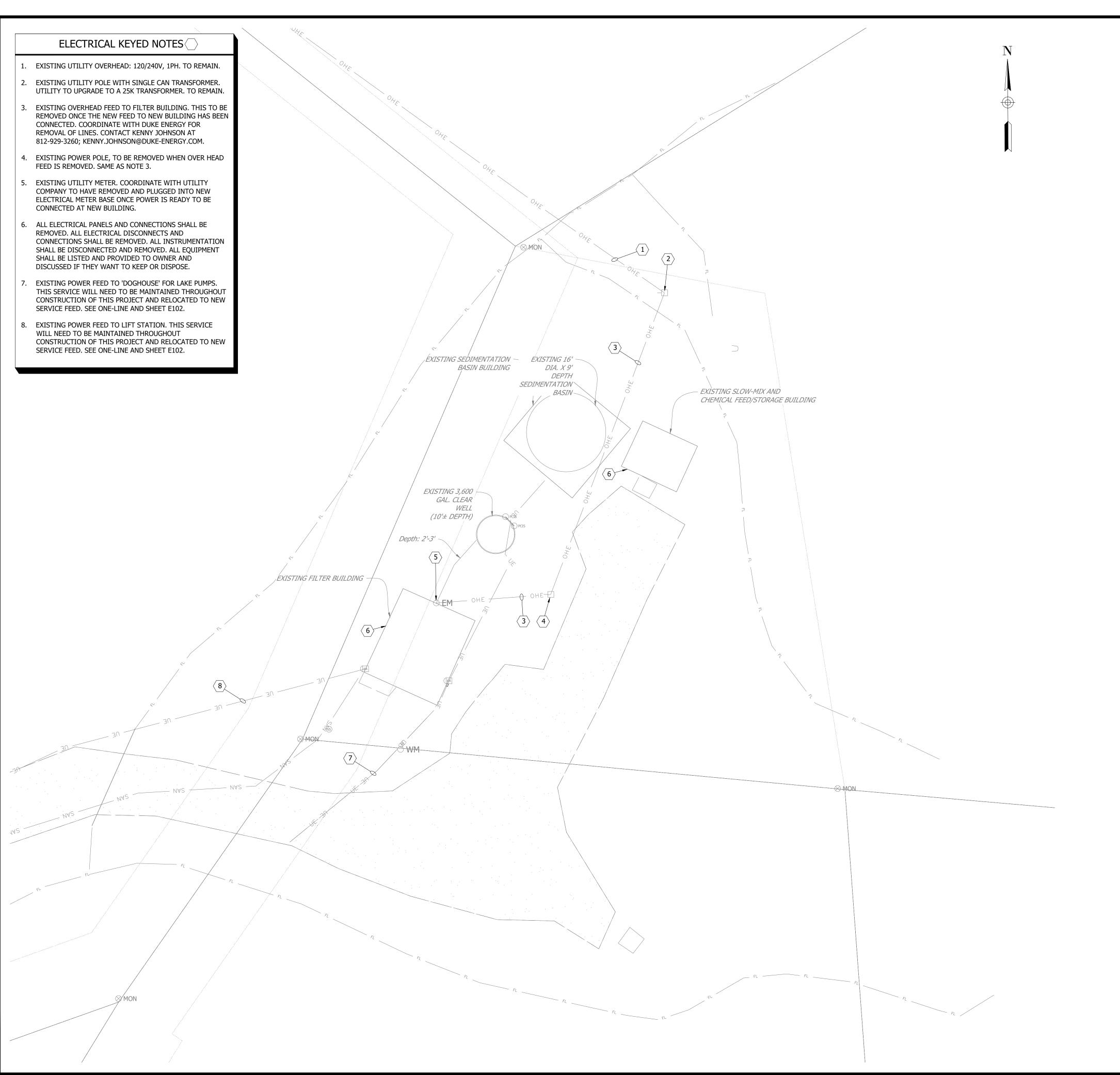
Drawn By: JAR

Checked By: JAR

Date: 05/16/2025



ELECTRICAL SYMBOLS AND ABBREVIATIONS



### DEMOLITION PLAN LEGEND **EXISTING EASEMENT** EXISTING PROPERTY LINE EXISTING TOP OF BANK EXISTING TOE OF SLOPE EXISTING EDGE OF GRAVEL EXISTING EDGE OF CONCRETE --------EXISTING EDGE OF TREE LINE EXISTING UNDERGROUND ELECTRICAL EXISTING FIBER OPTIC EXISTING OVERHEAD ELECTRICAL EXISTING DRAINAGE DITCH PROPOSED CONSTRUCTION LIMITS ⊗ MON SURVEY MONUMENT T EXISTING FIBER PEDESTAL × XXX.X EXISTING SPOT ELEVATION ○ WM EXISTING WATER METER EXISTING ELECTRICAL POWER POLE WE EXISTING WATER STRUCTURE EXISTING POWER POLE GUY WIRE EXISTING SANITARY STRUCTURE ○ EM EXISTING ELECTRICAL METER

DEMOLITION LIMITS

**KEY NOTES** 

1. THE CONTRACTOR SHALL REMOVE ALL MUD, DIRT, GRAVEL AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS OR SIDEWALKS. THE CONTRACTOR SHALL UTILIZE MEASURES TO CONTROL DUST AT ALL TIMES.

GENERAL ELECTRICAL DEMOLITION PLAN NOTES

- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- . ALL UTILITIES TO BE REMOVED SHALL BE DISCONNECTED AND CAPPED AT THE NEAREST CONNECTION POINT, UNLESS SPECIFIED OTHERWISE.
- 4. UTILITIES ARE SHOWN TO BE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY(S) COMPANY FOR THE REMOVAL, RELOCATION, AND/OR DEMOLITION OF ALL EXISTING UTILITIES.
- 5. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE UNLESS NOTED OTHERWISE.
- 6. THE USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.

ITEMS WHICH INTERFERE WITH NEW CONSTRUCTION.

- PROMPTLY REPAIR ANY DAMAGE TO ADJACENT FACILITIES CAUSED BY DEMOLITION AND CONSTRUCTION OPERATIONS AT NO EXTRA COST TO THE OWNER.
- 8. DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO DEMOLITION ITEMS INDICATED ON THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR RELOCATE
- 9. THE OWNER/DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING QUALITY CONTROL AT ALL TIMES DURING THE CONSTRUCTION PROCESS.
- 10. DEMOLITION OF THE EXISTING FILTER, SEDIMENTATION BASIN, AND SLOX-MIX AND CHEMICAL FEED/STORAGE BUILDINGS TO BE PERFORMED BY OTHERS. EXISTING WATER TREATMENT SYSTEMS TO REMAIN OPERATIONAL DURING CONSTRUCTION.

  CONTRACTOR TO PROTECT EXISTING FACILITIES AND AVOID DIRECT CONFLICTS WITH WATER TREATMENT OPERATIONS. CONTRACTOR TO COORDINATE WITH OWNER FOR DISCONNECTION OF ANY POWER SOURCES AND REMOVAL OF ELECTRICAL EQUIPMENT.
- 11. CONTRACTOR RESPONSIBLE TO COORDINATE WITH OTHERS FOR COMMENCEMENT OF DEMOLITION EFFORTS UPON COMPLETION OF WORK AND LIMITING DISRUPTION OF WATER TREATMENT PRODUCTION.

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Revision Date

Project #: 23-400-188-1

Designed By: JAR

Drawn By: JAR

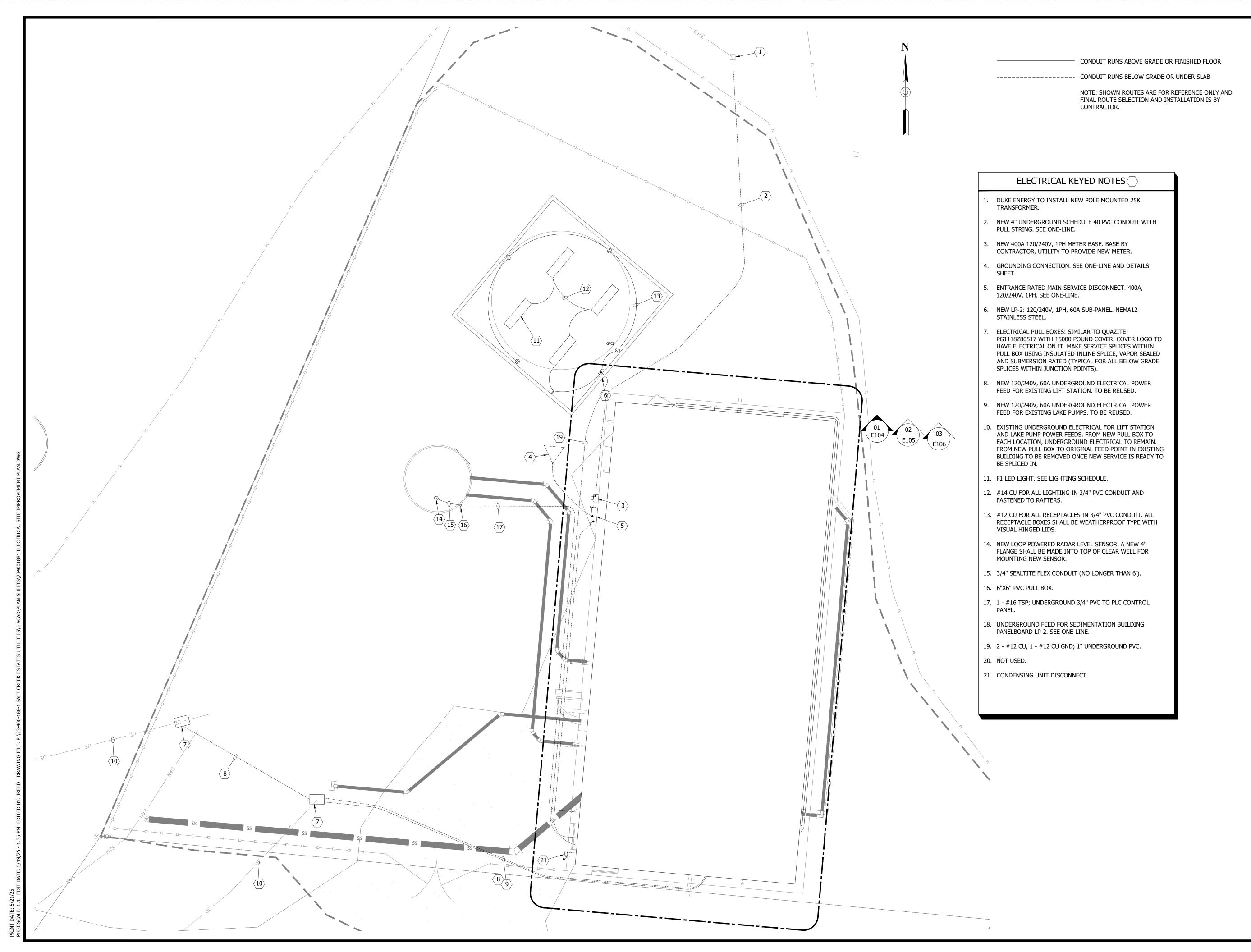
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GRAPHIC SCALE

ELECTRICAL DEMOLITION PLAN





Revision

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Drawn By: JAR

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**ELECTRICAL SITE IMPROVEMENTS PLAN** 



ELECTRICAL KEYED NOTES:

1. EXISTING OVERHEAD UTILITY.

2. EXISTING 120/240V, 1PH POLE MOUNTED TRANSFORMER. DUKE ENERGY SHALL UPGRADE TO ACCOMMODATE 400A SERVICE.

S. CONTRACTOR TO PROVIDE UNDERGROUND 4" SCHEDULE 40 PVC CONDUIT WITH PULL STRING TO BASE OF EXISTING POLE AND UTILITY METER BASE: CONTRACTOR TO COORDINATE WITH DUKE ENERGY FOR THE CONNECTION TO EXISTING POLE AND RISER INFORMATION. CONTACT KENNY JOHNSON AT 812-929-3260 OR EMAIL AT KENNY.JOHNSON@DUKE-ENERGY.COM.

4. UNDERGROUND: 2 SETS OF 3 - #3/O CU, 1 - #3 CU GROUND, 2" C.

- PROVIDE NEW 400A METER BASE FOR 120/240V, 1PH UTILITY METER. CONTRACTOR TO PROVIDE CONDUIT AS DIRECTED BY DUKE ENERGY. SEE BUILDING LAYOUT FOR MOUNTING LOCATIONS.
- . 400A FUSED SERVICE ENTRANCE RATED (25KAIC) MAIN SERVICE DISCONNECT; 120/240V, 1PH, 3W WITH GND. NEMA 4X STAINLESS STEEL (SS). BOND NEUTRAL TO GROUND AT THIS EQUIPMENT.
- 7. 1 #3 BARE CU GND.
- 8. 1 #3 CU GROUNDING ELECTRODE CONDUCTOR. CAD WELD, BURY GROUND ROD 12" BELOW GRADE; TYPICAL.
- 9. 3/4" X 10' CU CLAD GROUND ROD, TYPICAL OF 3. SEPARATED BY 10' OF CONDUCTOR TO EACH GROUND ROD.
- 10. 400A, NEMA 12 ENCLOSURE, MAIN DISTRIBUTION PANELBOARD, 54 SPACE "LP-1". FURNISHED
- 11. HIGH SERVICE PUMP JUNCTION BOX.
- 12. 3 #12 CU, 1 #12 CU GND, 1" C.

AND INSTALLED BY CONTRACTOR.

- 13. PROVIDE 240V, 1PH MAIN POWER DISTRIBUTION PANEL WITH A SURGE PROTECTION DEVICE (SPD).
- 14. 6 #12 CU, 2 #12 CU GND,1" C. TRANSFER PUMPS AND 2 POWER WIRES.
- 15. 2 #4 CU, 1 #8 CU NEUTRAL, 1 #8 CU GND, 1-1/2" C.
- 16. 6 #8 CU, 2 #10 CU GND, 1-1/4" C: UNDER SLAB.
- 17. 3 #8 CU, 1 #10 CU GND, 1" C: FLEX-SEAL CONDUIT TO MOTOR PECKER HEAD OR OPTIONALLY RUN UNDER SLAB TO STUB UP NEXT TO MOTOR POSITION IF DISTANCE IS TOO FAR FOR FLEX.
- 18. ABB ACQ580-01 SERIES (OR APPROVED EQUAL) NORMAL DUTY VFD UNITS. UNITS SHALL BE RATED AT 30A MINIMUM ON INPUT, MOUNTED IN ELECTRICAL ROOM. SEE SHEET I107. VFD SHALL CONVERT 240V 1PH TO 240V 3PH.
- 19. 30A OR 60A (AS SHOWN) WALL MOUNT, STAINLESS STEEL, NEMA12 NON-FUSED DISCONNECT. 2P OR 3P AS REQUIRED.
- 20. 2 #6 CU, 1 #8 CU GND, 2" C. TERMINATE IN NEW QUAZITE PULL BOX TO EXISTING CABLE RUNNING TO DOGHOUSE. (EXISTING CABLE IS #6, DOGHOUSE IS APPROXIMATELY 900 FEET AND LIFT STATION IS APPROXIMATELY 300 FEET FROM PLANT DISTRIBUTION PANEL).
- 21. PULL BOXES; SEE SHEET E102.
- 22. EXISTING LAKE PUMP ELECTRICAL SHELTER (DOGHOUSE), LOCATED NEAR LAKE. COORDINATE ALL WORK WITH OWNER AS THIS IS AN EASEMENT LOCATION ON PRIVATE PROPERTY.
- 23. NEW DOGHOUSE CONTROL PANEL. SEE SHEET I105 AND I106 FOR DETAILS.
- 24. 2 #10 CU, 1 #10 CU GND, 1" C FOR LAKE PUMP POWER.
- 25. EXISTING 30A LAKE PUMP DISCONNECTS, TO REMAIN AND BE REUSED.
- 26. EXISTING PUMP MOTOR STARTERS, TO BE REMOVED. NEW STARTERS LOCATED WITHIN PANEL.
- 27. NEW MAGNETIC FLOW METERS FOR RAWWATER, FILTERED AND FINISHED WATER FLOW RATES WITH INTEGRAL ELECTRONICS.
- 28. 120V CIRCUIT FOR FLOW METER POWER. 2 #12 CU, 1 #12 CU GND, 3/4" C.
- 29. 2 #12 CU, 1 #12 CU NEUTRAL, 1 #12 CU GND. 1" C.
- 30. MANUFACTURER PUMP CABLE PLUG, PLUG TO BE REMOVED AND PROPERLY SPLICED TO CONTROL STATION.
- 31. 2 #12 CU, 1 #12 CU GND, 3/4" C.
- 32. WALL MOUNT OPEN/CLOSE 2-BUTTON CONTROL STATION.
- 33. EXISTING #6 CU POWER FEED TO DOGHOUSE. TO REMAIN. (NOTE: THIS WIRE IS UNDERSIZED FOR THE DISTANCE AND VOLTAGE DROP ONLY ONE PUMP MAY RUN AT A TIME).
- 34. EXISTING UNDERGROUND, TO REMAIN AND BE REUSED. MAKE TERMINATIONS FROM NEW FEED INSIDE PULL BOX; SEE SHEET E102.
- 35. NEW STAINLESS STEEL NEMA12 120/240V, 50A (OR 60A) SUB-LIGHTING PANEL WITH 50A MAIN BREAKER AND MINIMUM OF 4 20A SUPPLEMENTARY BREAKERS.
- 36. NEW NEMA12 WALL MOUNT PLC CONTROL PANEL. SEE SHEETS I101 TO I104.
- 37. 2 #8 CU, 1 #10 CU GND, 1" C.
- 38. MOTOR CONTROL PANEL. SEE SHEET I107.
- 39. 2 #6 CU, 1 #8 CU GND. 1-1/2" C.
- 40. 1 #16 TSP, 2 #14 CU, 1" C. SIGNALS FOR FLOW METERS.
- 41. 2 #8 CU, 1 #10 CU GND, 1" C.
- 42. SEDIMENTATION TANK RAKE AND SCRAPER CONTROL PANEL. PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.
- 43. 2 #12 CU, 1 #12 CU GND. 1" C.
- 44. 20 #14 CU, 2 #16 TSP, 1-1/4" C. RAKE AND SCRAPER SIGNAL WIRES.

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SALT CREEK ESTATES
ATER TREATMENT PLANT
IMPROVEMENTS

Revision Date

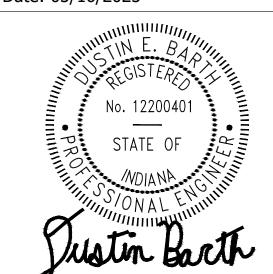
Project #: 23-400-188-1

Designed By: JAR

Drawn By: JAR

Checked By: JAR

Date: 05/16/2025





**ELECTRICAL ONE-LINE** 

DIAMETER UPSTREAM AND DOWNSTREAM SELECTION REQUIRED. 30. CONDUIT/WIRE FOR CEILING MOUNTED HEATER. SEE ONE-LINE.

31. 2P STAINLESS STEEL DISCONNECT. SEE ONE-LINE.

33. DUAL CHANNEL TURBIDITY METER ELECTRONICS.

32. CHLORINE RESIDUAL ANALYZER.

20. RAW WATER MAGNETIC FLOW METER.

ONE-LINE.

21. UNDERGROUND MAIN POWER FEEDER CONDUIT/WIRE. SEE

22. UNDERGROUND FEEDER TO LP-2 PANELBOARD IN EXISTING

9. SEDIMENTATION TANK LEVEL SENSOR UNDERGROUND 3/4" PVC TO

10. 4 - #12 CU, 2 - #12 CU GND; 1" UNDERGROUND PVC. FINISHED

11. 5 - #16 TSP, 1" C FOR ANALOG SIGNALS. PROVIDE ONE AS SPARE

WATER AND FILTERED WATER FLOW METER POWER.

PLC CONTROL PANEL. SEE E108.

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Revision	Date

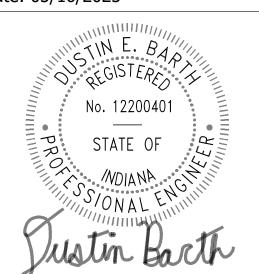
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**ENLARGED ELECTRICAL BUILDING PLAN** 

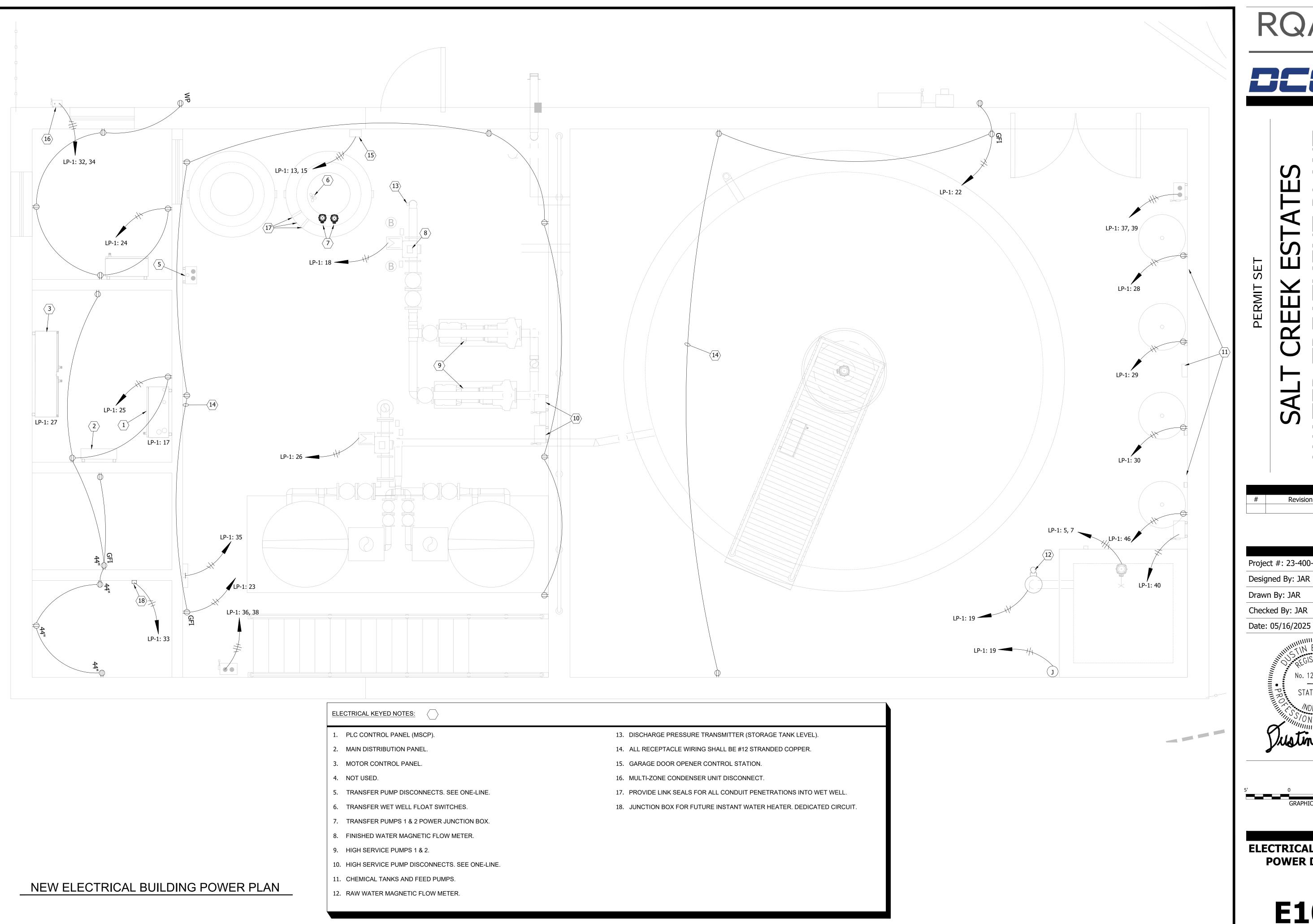
SHEET I101.

41. 6 - #14 CU, 1" C. (CANNOT BE PULLED IN MIXER POWER FEEDER 52. 1 - CAT5E OR CAT6 ETHERNET CABLE. 1" C.

51. REMOTE DISPLAY POWER. 2 - #12 CU, 1 - #12 CU GND, 3/4" C.

40. MIXER UNDERGROUND CONDUIT/WIRE TO MOTOR CONTROL

CONDUIT).





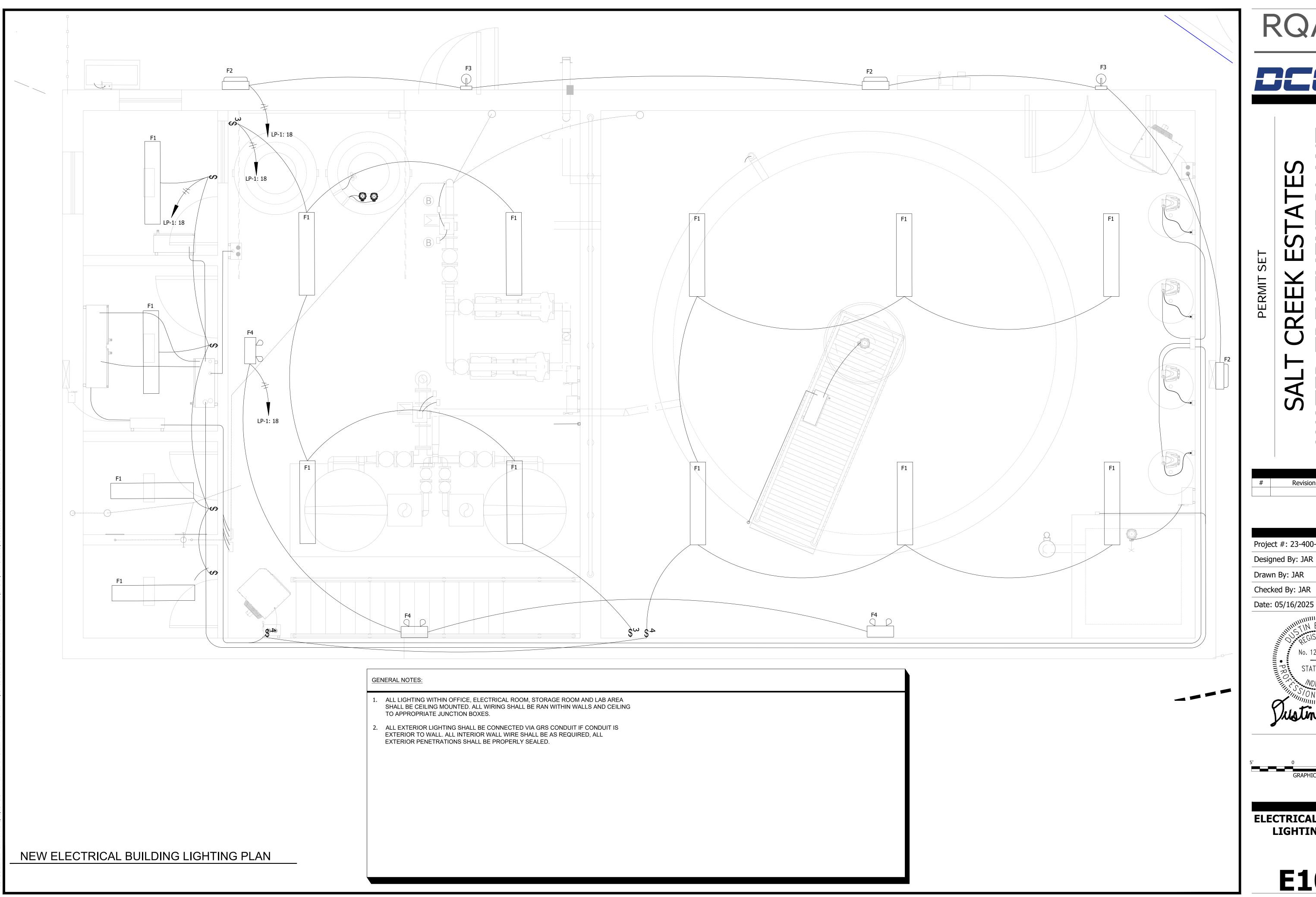
Revision

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**ELECTRICAL BUILDING POWER DETAILS** 





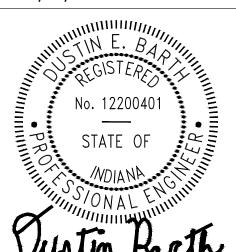
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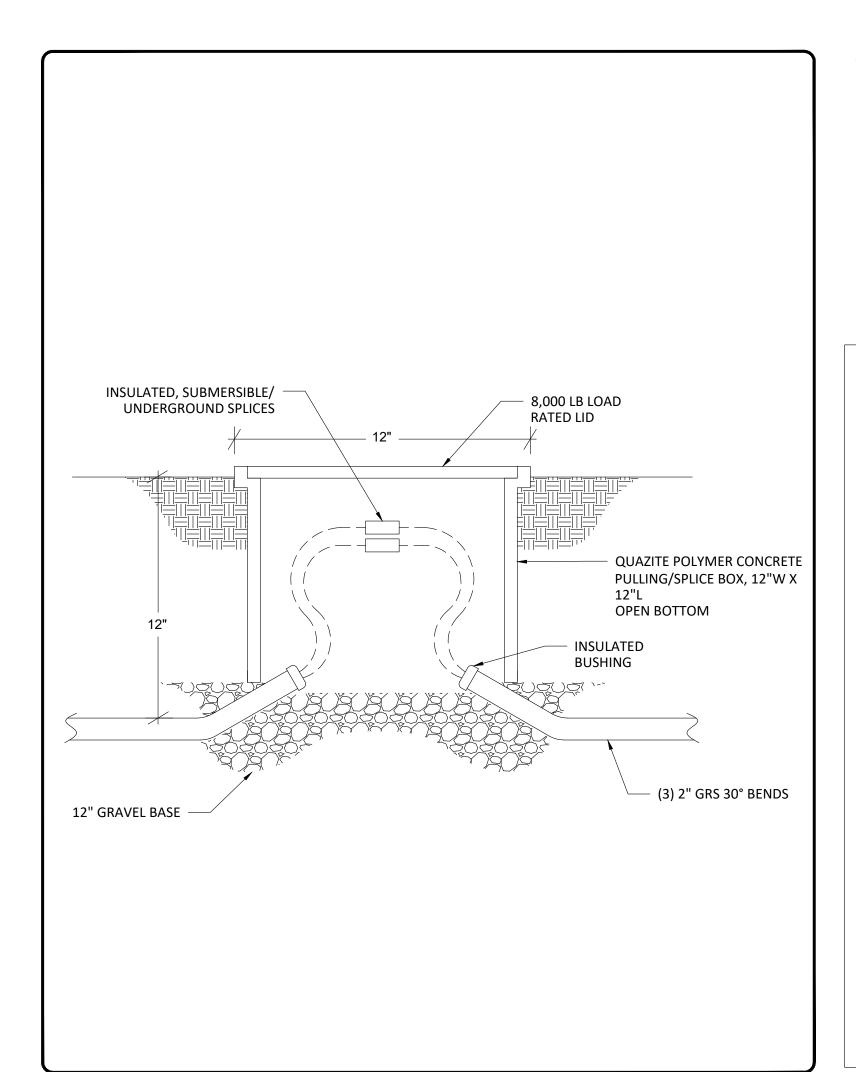
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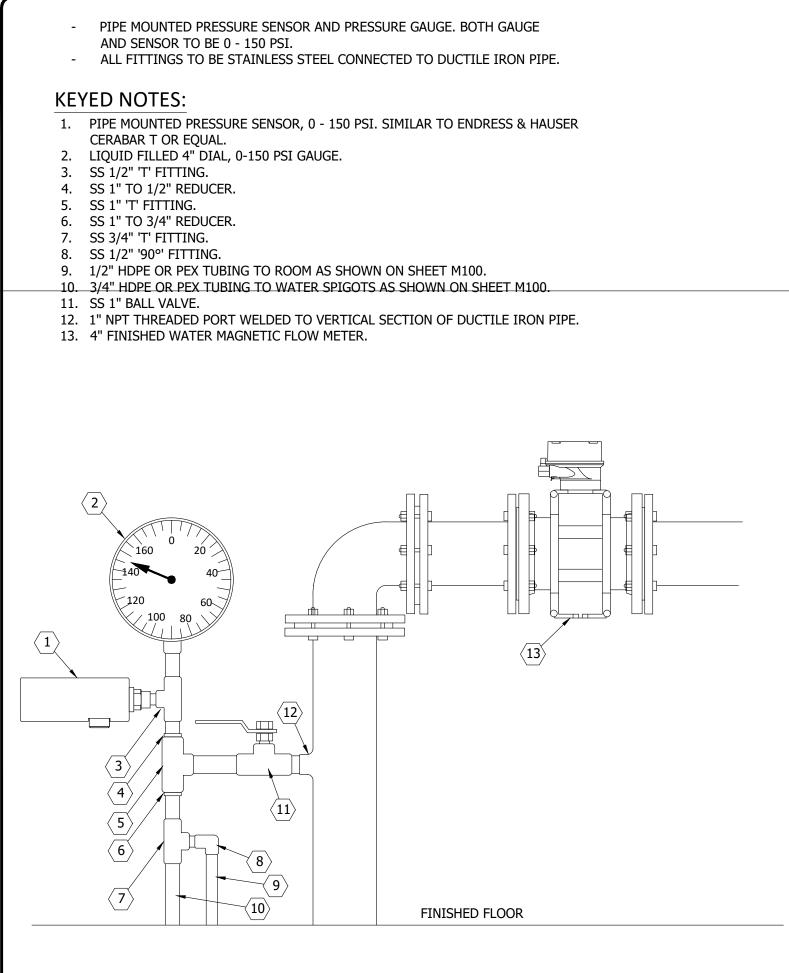


**ELECTRICAL BUILDING LIGHTING PLAN** 

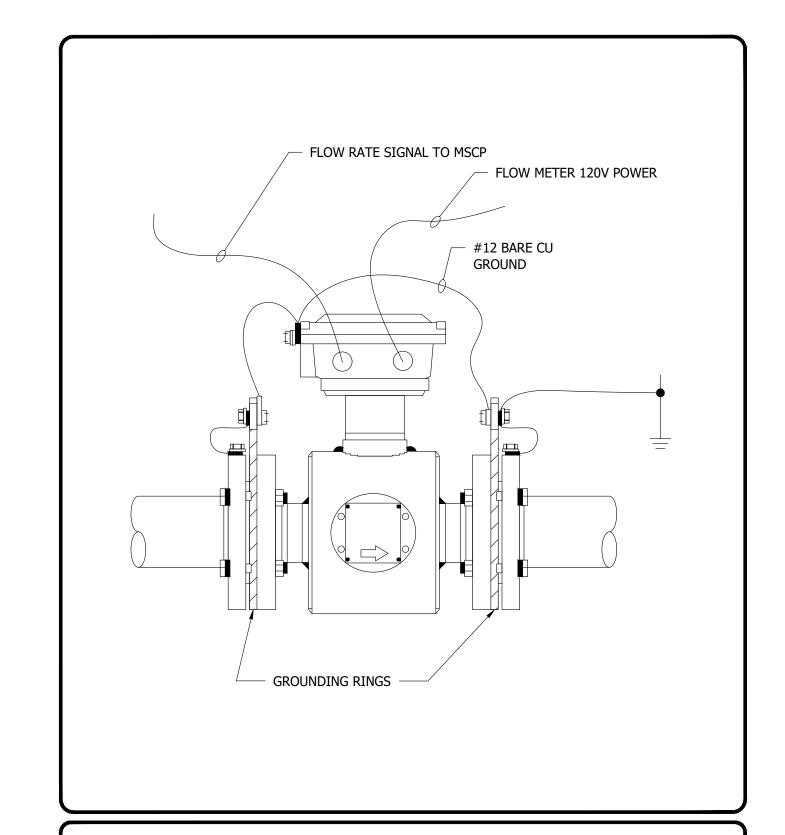


IN-GROUND PULL BOX WITH

SUBMERSIBLE SPLICES DETAIL

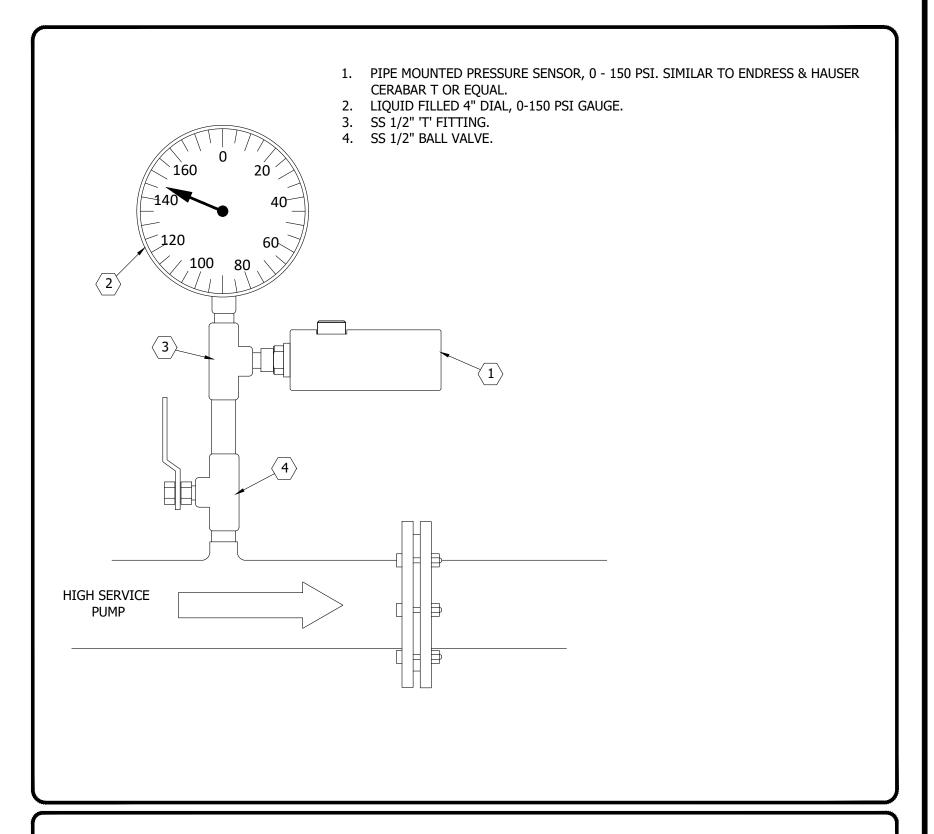


FLOW METER, PSI SENSOR AND ACCESSORY WATER PIPING DETAIL



FLOW METER INSTALLATION DETAIL

NOT TO SCALE



DISCHARGE AND SUCTION PRESSURE TRANSMITTER/GAUGE INSTALL DETAIL

NOT TO SCALE



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PERMIT

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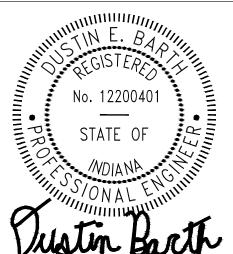
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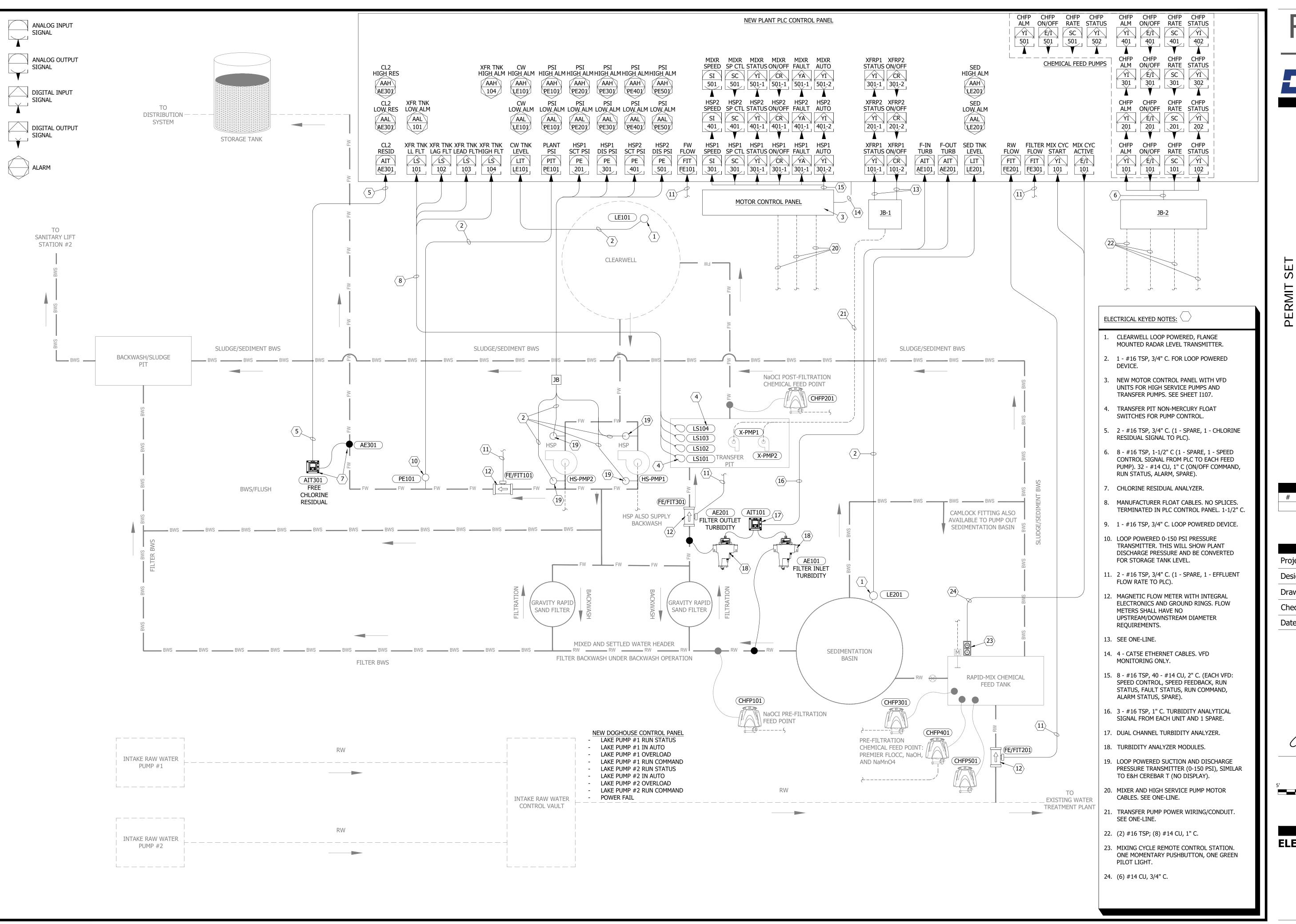
Designed By: JAR

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Date: 05/16/2025



**ELECTRICAL DETAILS** 





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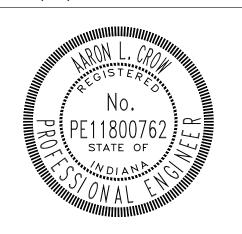
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Designed By: JAR

Drawn By: JAR

Checked By: JAR

Date: 05/16/2025





**ELECTRICAL-CONTROLS** P&ID

Amps Per Phase

Total Power (VA)

Feeder Information	
Source from (PDC/Transformer Tag Name):	UTILITY POLE
Source Room number:	
Relative Source Location:	
Feeder ID Tag:	
Feeder cable size:	2 SETS 3/0
Feeder Length (m):	~20
Feeder cable (Copper/ Aluminum):	Copper
Feeder cable Type (TECK90, Armoured Cable, etc):	
Cable Derating Factor (Free air/Multi Conductor):	
Bond or Ground Wire Size:	#3 AWG
Type of Raceway(Cable Tray, EMT, etc.):	
Size of Raceway:	
Incoming Feeder CB/Fuse Rating (@ 100%or80%):	
Single Line Diagram Reference Drawing Number:	E103
General Note:	

								1					
0:	1	70		LITCH CEDVICE DUMP #4		7296			LITCH CEDVICE DUMP #2	".4	70	02	
03	3	70	#4	HIGH SERVICE PUMP #1	2		7296	2	HIGH SERVICE PUMP #2	#4	70	04	
05	5	50	#8	MIXER	2	7296		2	SPARE		30	06	
07	7	50	#0	MIXER				]	SPARE		30	08	
09	9	60	#6	LAKE PUMP POWER	2	5280		2	LIFT STATION	#6	50	10	
1:	1	00	#0	LAKE FOINT FOWER			6480		LI I STATION	#0	50	12	
13		20	#12	GARAGE DOOR	2	3168		2	SEDIMENTATION BUILDING	#6	50	14	
15	_		# 12				1200		SEDIFICIAL TON POTEDTING	# <sup>0</sup>		16	
17	_	20	#12	PLC CONTROL PANEL	1	1680	650	1	FINISHED WATER FLOW METER	#12	15	18	
19		15	#12	RAW WATER FLOW METER	1		2280	1	UPPER LEVEL LIGHTS	#14	15	20	
2.		15	#14	LOWER LEVEL LIGHTS	1	2520	1500	1	UPPER LEVEL RECEPTACLES	#12	20	22	
23	3	20	#12	LOWER LEVEL RECEPTACLES	1		1800	1	OFFICE RECEPTACLES	#12	20	24	
25	5	20	#12	ELECT., LAB, STORAGE ROOM RECEPT.	1	1440		1	FILTERED WATER FLOW METER	#12	15	26	
27	7	15	#12	MOTOR CONT PANEL CONTROL POWER	1		500	1	CHEMICAL FEED PUMP #1 RECEPTACLE	#12	20	28	
29	9	20	#12	CHEMICAL FEED PUMP #2 RECEPTACLE	1	500	500	1	CHEMICAL FEED PUMP #3 RECEPTACLE	#12	20	30	
3:	1	15	#14	ELECT, OFFICE, LAB, STORAGE LIGHTING	1	1440	4320	2	MULTI-ZONE SPLIT UNIT CONDENSER	#8	40	32	
33	3	20	#12	LAB ROOM ON DEMAND W HTR (FUTURE)	1	1100			MOETI ZONE STET ONLI CONDENSER	#0	<del></del>	34	
35	5	20	#12	CL2 ANALYZER; TURBIDITY ANALYZER	1	650	7968	58 2	LOWER LEVEL HEATER	#8	40	36	
37		40	#8	UPPER LEVEL HEATER	2	7368			LOWER LEVEL HEATER	#0	UTU	38	
39	9	70	#0	OFFER LEVEL TILATER			400	1	MIXER PADDLE	#12	20	40	
4:	1	40	#8	SEDIMENTATION CONTROL PANEL	2	4800		1	EXERIOR AND EMERGENCY LIGHTING	#12	20	42	
43	3	40	#0	SEDIMENTATION CONTROL PANEL			1176	1	TRANSFER PUMP #1	#12	20	44	
45	5	20	#12	TRANSFER PUMP #2	1	1176	500	1	CHEMICAL FEED PUMP #4 RECEPTACLE	#12	20	46	
47		20		SPARE	1				SPARE			48	
49				SPACE					SPACE			50	
5:	1			SPACE					SPACE			52	
53	3			SPACE					SPACE			54	
				Power Per Phase (VA)		45714	36570						

380.95

304.75

82284

<u>LIGHT FIXTURE SCHEDULE</u>										
<u>DESIGNATION</u>	<u>MANUFACTURER</u>	<u>REMARKS</u>								
<u>F1</u>	LITHONIA	EVT4 4000LM PCL WD 120 4000K 80C RI SF (120V)	INDOOR LOW-PROFILE ENCLOSED AND GASKETED INDUSTRIAL STRIP LIGHT FIXTURE	44	LED 4K LUMENS	SURFACE	120V	SINGLE FUSE		
<u>F2</u>	LITHONIA	TWX2 LED P2 40K MVOLT PE DDBXD	WALL PACK LED WITH ADJUSTABLE 1250 - 6850 LUMENS, 4000K, DARK BRONZE	54	LED, SET FOR 5K LUMENS	SURFACE @ 10'	120V	ADJUST FOR PRELIMINARY USE AS LOWEST SETTING		
<u>F3</u>	LITHONIA	HGX LED 2RH ALO SWW2 120 PIR DDB	OUTDOOR MOTION ACTIVATED LED SECURITY FLOOD LIGHT, 2 ROUND HEADS, ADJ LUMEN, OUTPUT 3000K/4000K/5000K COLOR TEMP, WITH DUSK TO DAWN PHOTOCELL, BRONZ	36	LED, SET FOR 2.6K LUMENS	SURFACE @ 10'	120V			
<u>F4</u>	LITHONIA	LITHONIA LIGHTING, EU2C LED OR EQUAL	EMERGENCY BATTERY PACK LIGHT FIXTURE WITH TWO LED AIMABLE HEADS	40	LED	WALL MOUNT	120V			



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FEEDER SIZING TABLE

3/4"

3/4"

3/4"

3/4"

1-1/4"

1-1/4"

1-1/4"

1-1/4"

1-1/2"

2"

2"

2-1/2"

2-1/2"

BUILDING

GROUND

10

10

10

2

1/0

2

1/0

1/0

2/0

2/0

3/0

4/0

250

350

500

OR <sup>1P,</sup> 1N, 1G 2P, 1G OR <sup>2P,</sup> 1N, 1G 3P, 1G

3/4"

3/4"

3/4"

1"

1"

1-1/4"

1-1/4"

1-1/2"

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(4) 2-1/2"

(5) 3"

(6) 3"

(7) 4"

(8) 4"

CONDUIT SIZE AND QUANTITY

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3/4"

1-1/4"

1-1/4"

1-1/4"

1-1/2"

1-1/2"

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(6) 3-1/2"

(7) 4"

(8) 4"

3P, 3N, 1G 3P, 1N, 2G

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DESIGNATION

FXXX

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F40-F50

F70-F80

F90-F100

F110

F125

F150

F175

F200

F225

F250

F300

F301

F350

F400

F401

F450

F500

F600

F700

F800

F900

F1000

F1200

F1600

F2000

F2500

F3000

PHASE &

NEUTRAL

10

1/0

2/0

3/0

4/0

250

350

350

500

3/0

4/0

250

350

500

350

350

500

350

500

500

500

CONDUCTOR SIZE PER CONDUIT

ISOLATED

GROUND

10

10

6

6

4

4

4

2

3

1/0

2

1/0

1/0

2/0

2/0

3/0

4/0

250

350

500

SAL

Revision Date

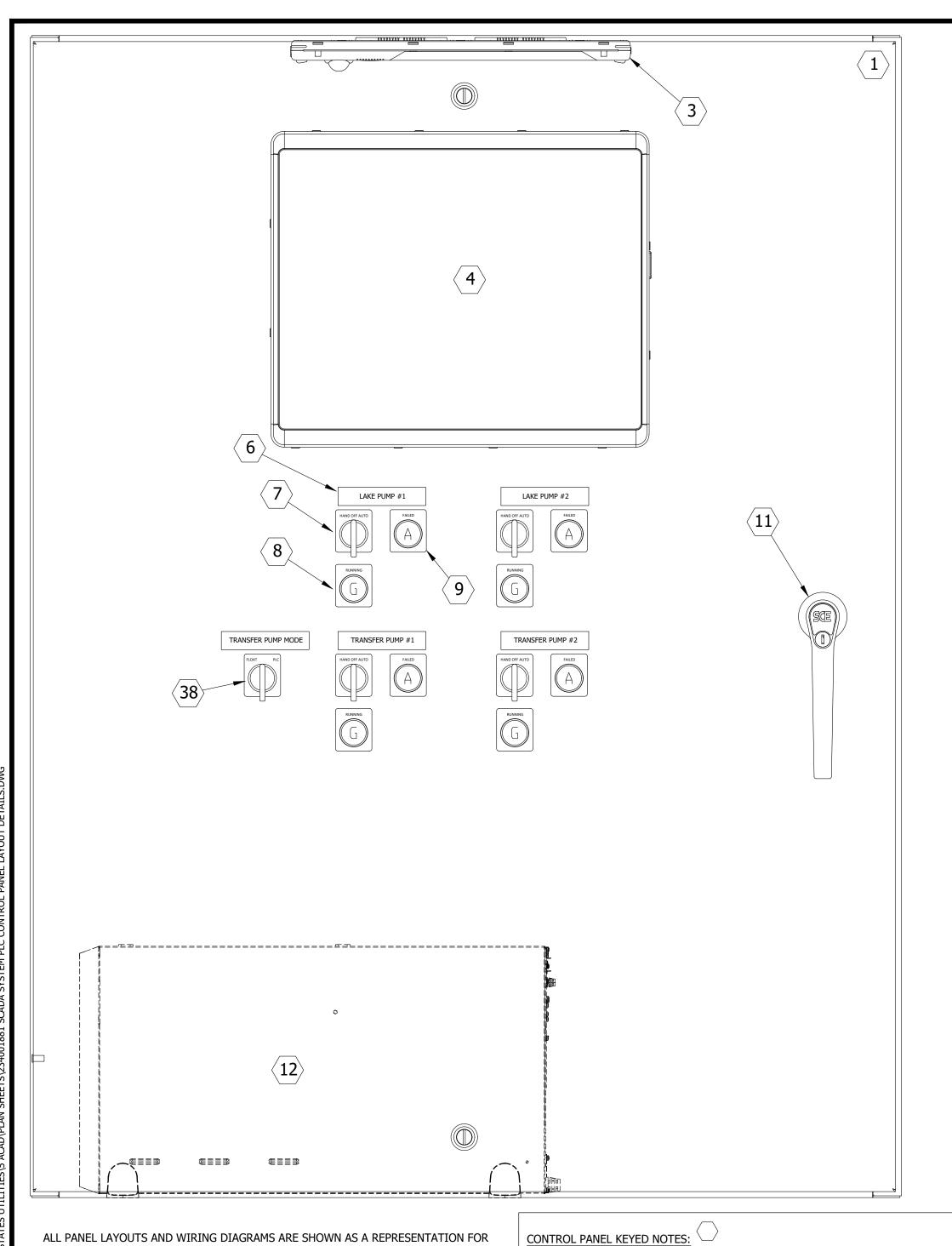
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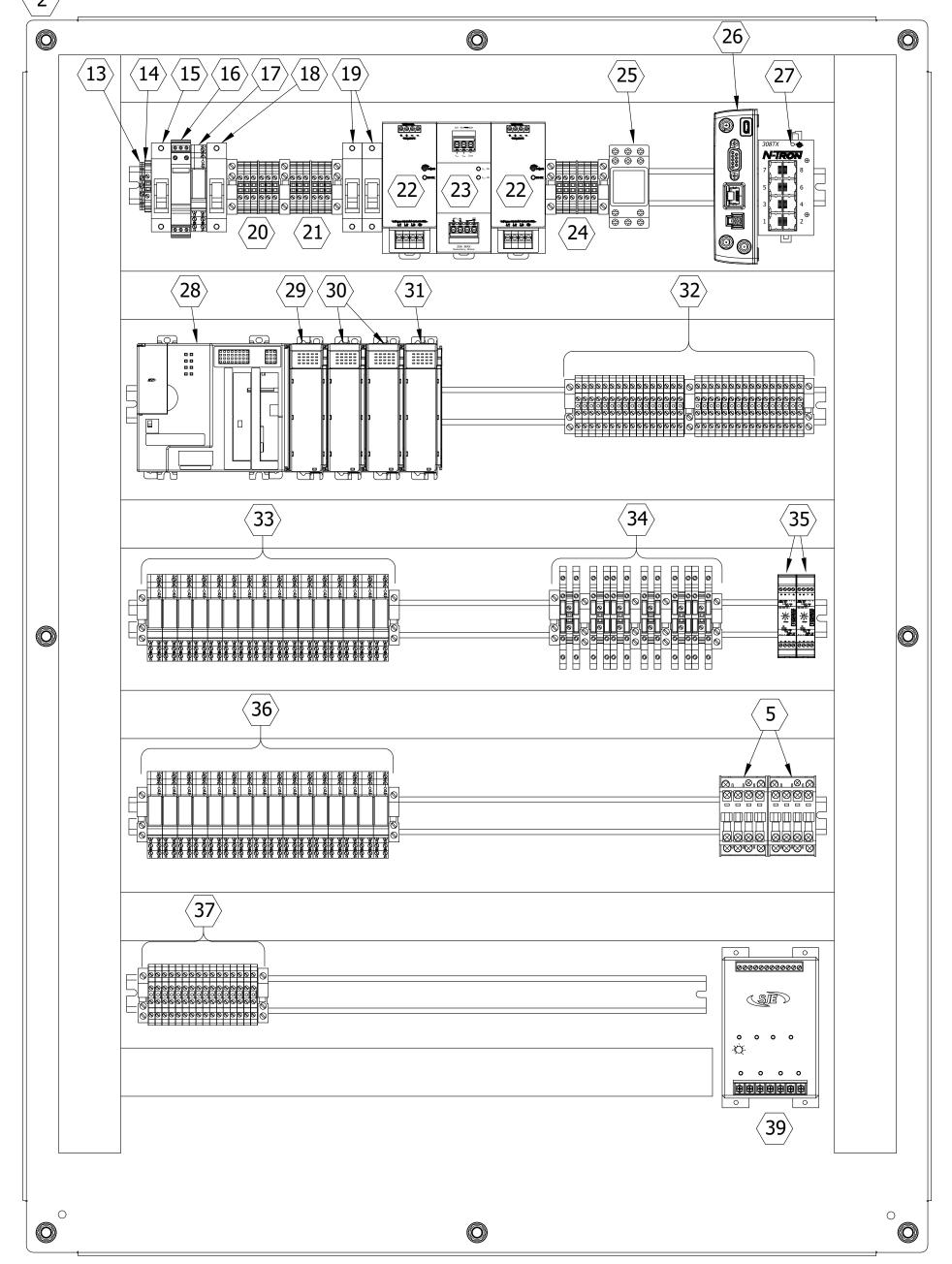
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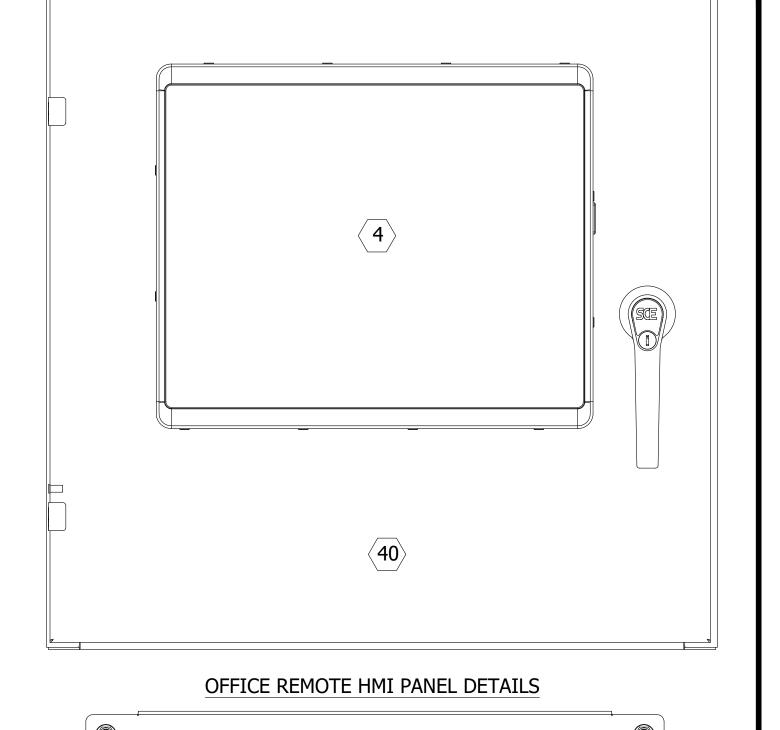
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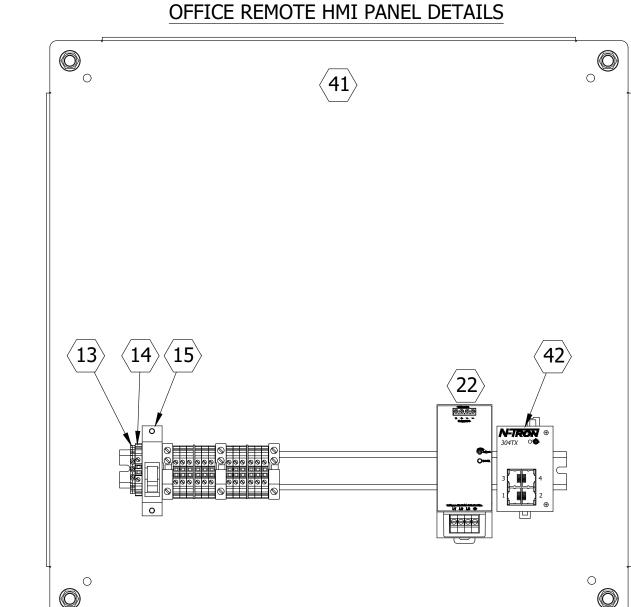
Checked By: JAR Date: 05/16/2025

**ELECTRICAL SCHEDULES** 









40. NEMA12 REMOTE DISPLAY CONTROL PANEL. 24"X24"X10".

41. 24"X24" EQUIPMENT PANEL.

42. 4 PORT ETHERNET SWITCH.

MAIN SCADA CONTROL PANEL DETAILS (MSCP)

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.

- 1. NEW NEMA12 PAINTED STEEL ENCLOSURE 48"X36"X12"
- 2. NEW INTERIOR EQUIPMENT PANEL 48"X36".
- 3. ENCLOSURE LED LIGHTING WITH AUTOMATIC DOOR SWITCH
- 4. MAPLE SYSTEMS 15" HIGH PERFORMANCE HMI WITH CAPACITIVE TOUCH. PROVIDE WITH PROTECTIVE SCREEN. MAPLE SYSTEMS CMT3152XV2 OR APPROVED EQUAL.
- 5. TRANSFER PUMP CONTACTORS. MINIMUM 15A CONTACT RATING.
- 6. PHENOLIC TAG, ENGRAVED. BLACK LETTERS ON WHITE/OFF-WHITE SURFACE. SELF-ADHESIVE. TYPICAL.
- 7. 30.5MM PILOT DEVICE: 3-POSITION SWITCH, HAND-OFF-AUTO (HOA). TYPICAL.
- 8. 30.5MM PILOT DEVICE: GREEN LED PILOT LIGHT WITH PUSH-TO-TEST (PTT) FUNCTION FOR RUNNING STATUS. TYPICAL.
- 9. 30.5MM PILOT DEVICE: AMBER LED PILOT LIGHT WITH PUSH-TO-TEST (PTT) FUNCTION FOR FAILED/ALARM CONDITION. 24. 24VDC POWER DISTRIBUTION BLOCKS.
- NOT USED.
- 11. LOCKABLE 3-POINT LATCH HANDLE.
- 12. TRIPP LITE SMART, DUAL CONVERSION UPS SU1500XL OR APPROVED EQUAL.

- 13. FIELD POWER GROUND TERMINAL BLOCK.
- 14. FIELD POWER NEUTRAL TERMINAL BLOCK.
- 15. FIELD POWER 120V 20A CIRCUIT BREAKER.
- 16. 120V MAIN POWER SURGE PROTECTION DEVICE.
- 17. 120V CONTROL POWER LOSS RELAY.
- 18. UPS FEED POWER 120V 15A CIRCUIT BREAKER.
- 19. 24 VDC POWER SUPPLY #1 PROTECTION CIRCUIT BREAKERS (120V SIDE).
- 20. 120VAC POWER DISTRIBUTION TERMINAL BLOCKS.
- 21. UPS FED 120V DISTRIBUTION TERMINAL BLOCKS.
- 22. 24 VDC POWER SUPPLIES MINIMUM 5A.
- 23. 24VDC POWER 5A SUPPLY REDUNDANCY MODULE.
- 25. UPS FAIL-OVER CONTACTOR/RELAY. 20A CONTACT RATING MINIMUM.
- 26. SIERRA WIRELESS RV50X CELL MODEM OR APPROVED EQUAL. OPTIONALLY, PROVIDE THE FLEXY 205 MODULE WITH CELL MODEM OPTION. PROVIDE ANTENNA OUTSIDE OF CABINET.

- 27. INDUSTRIAL RATED UNMANAGED ETHERNET SWITCH 8 PORT MINIMUM. REDLION OR EQUAL.
- 28. ALLEN BRADLEY COMPACTLOGIX L24ER PLC WITH EMBEDDED IO.
- 29. ALLEN BRADLEY COMPACTLOGIX 16 POINT DIGITAL INPUT
- 30. ALLEN BRADLEY COMPACTLOGIX 8 POINT ANALOG INPUT
- 31. ALLEN BRADLEY COMPACTLOGIX 4 POINT ANALOG OUTPUT
- 32. DIGITAL INPUT FIELD TERMINATION BLOCKS.
- 33. DIGITAL OUTPUT ISOLATION RELAYS.
- 34. ANALOG INPUT ISOLATOR/TERMINAL BLOCKS.
- 35. ANALOG SIGNAL SPLITTER. THIS WILL SPLIT THE SECONDARY SIGNALS BETWEEN THE PLC AND BACKUP CONTROLLER. SIMILAR TO ACROMAG 633T.
- 36. AUXILIARY RELAYS FOR BACKUP CONTROL.
- 37. MISCELLANEOUS FIELD TERMINAL BLOCKS AS NEEDED.
- 38. TRANSFER PUMP MODE SELECTION SWITCH.
- 39. TRANSFER PUMP FLOAT MODE CONTROLLER. SIMILAR TO SJE RHOMBUS DP4-4F.

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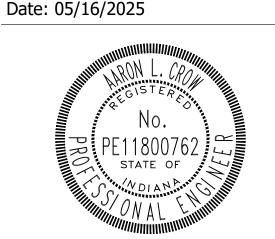
Revision

Project #: 23-400-188-1

Designed By: JAR

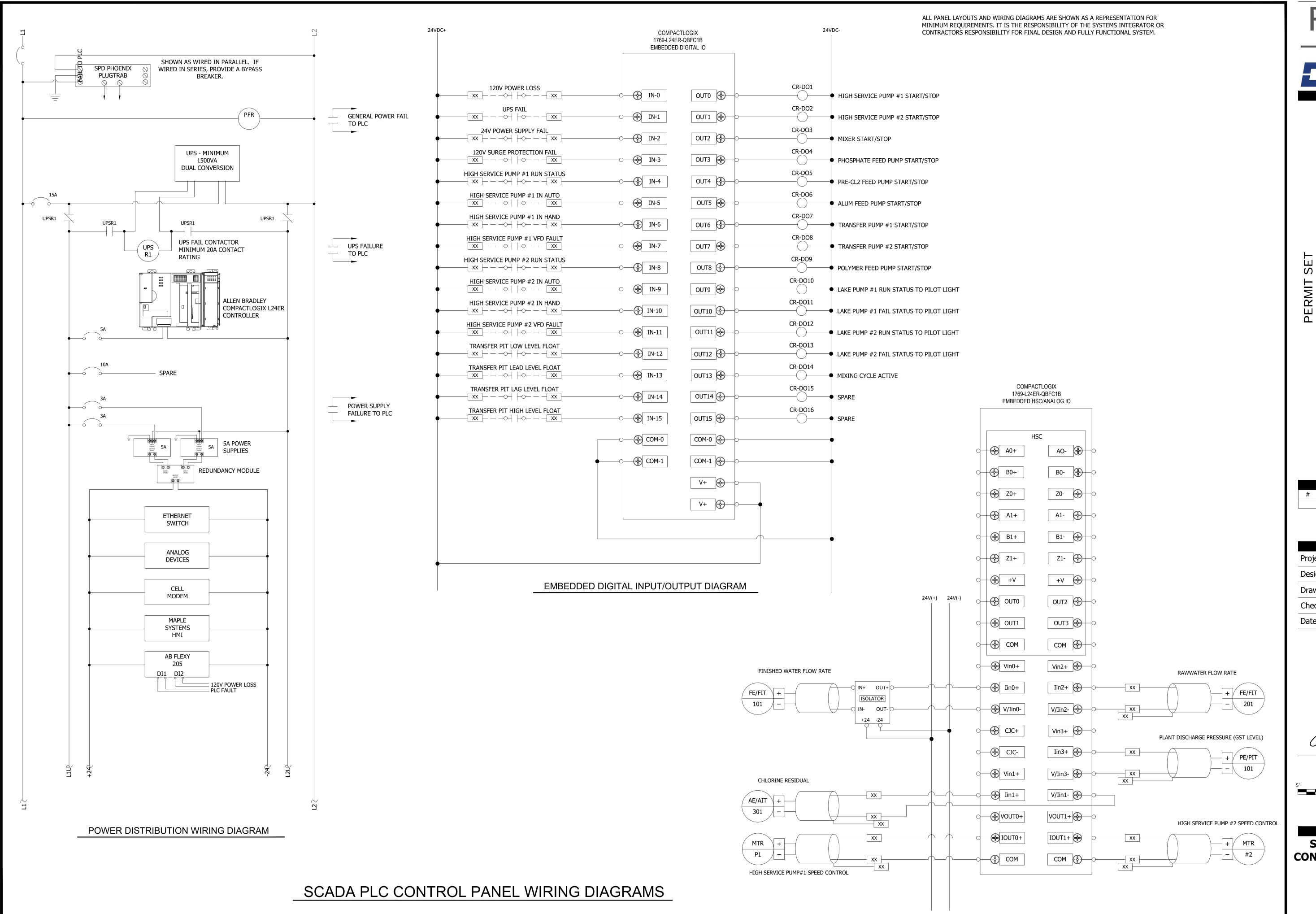
Drawn By: JAR

Checked By: JAR





**SCADA SYSTEM PLC CONTROL PANEL LAYOUT DETAILS** 





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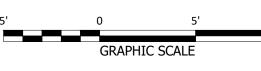
Revision

Project #: 23-400-188-1 Designed By: JAR

Drawn By: JAR Checked By: JAR

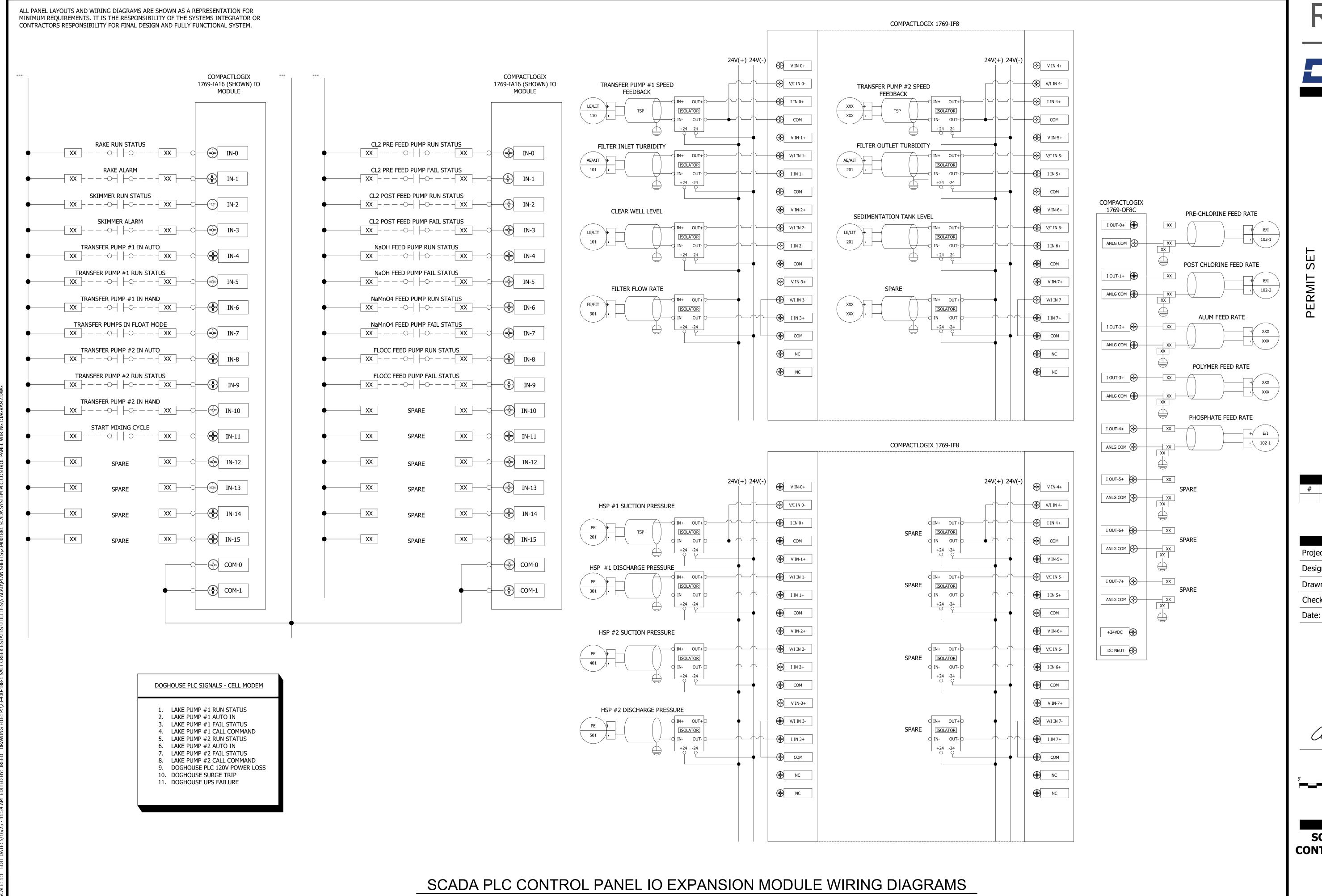
Date: 05/16/2025





**SCADA SYSTEM PLC CONTROL PANEL WIRING DIAGRAM 1** 

**I102** 





Revision

Project #: 23-400-188-1

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Designed By: JAR Drawn By: JAR

Checked By: JAR Date: 05/16/2025

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**SCADA SYSTEM PLC CONTROL PANEL WIRING DIAGRAM 2** 

**I103** 



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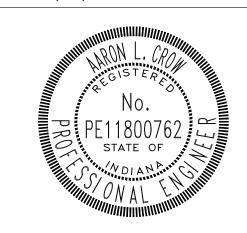
Revision

Project #: 23-400-188-1

Designed By: JAR

Drawn By: JAR Checked By: JAR

Date: 05/16/2025

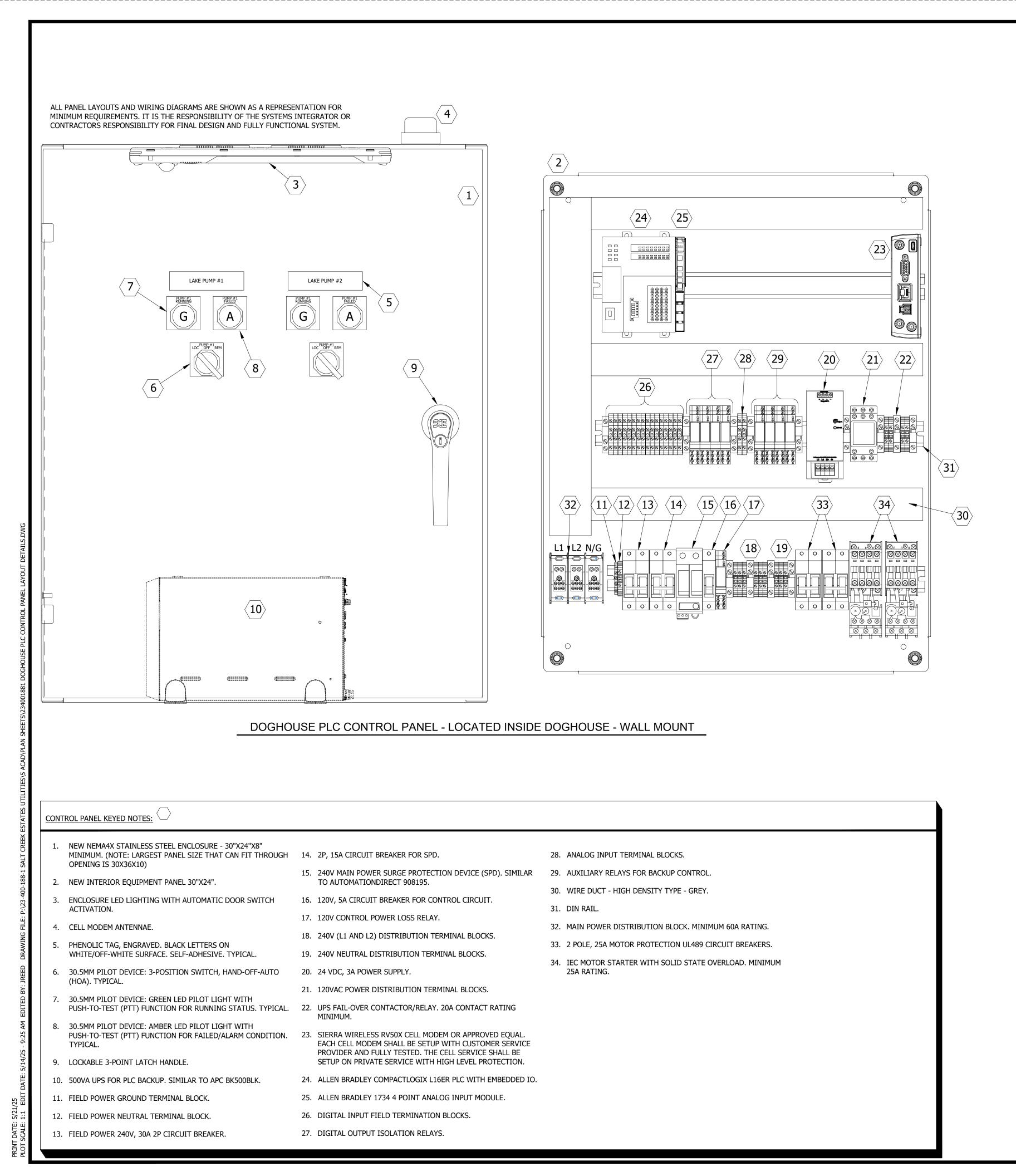


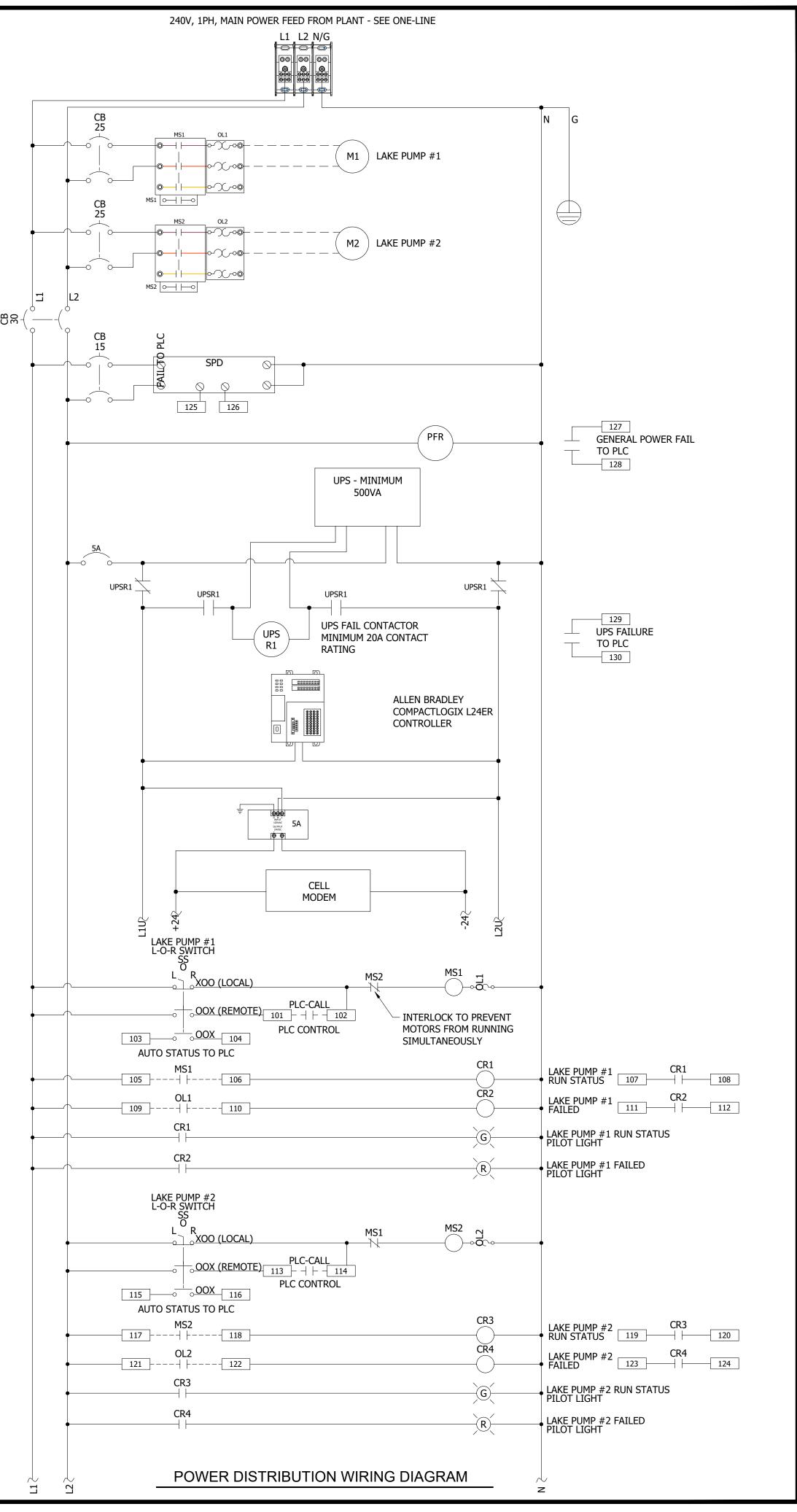


SCADA SYSTEM PLC **CONTROL PANEL WIRING** DIAGRAM 3

**I104** 

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.







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Revision

Project #: 23-400-188-1

Designed By: JAR

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Date: 05/16/2025

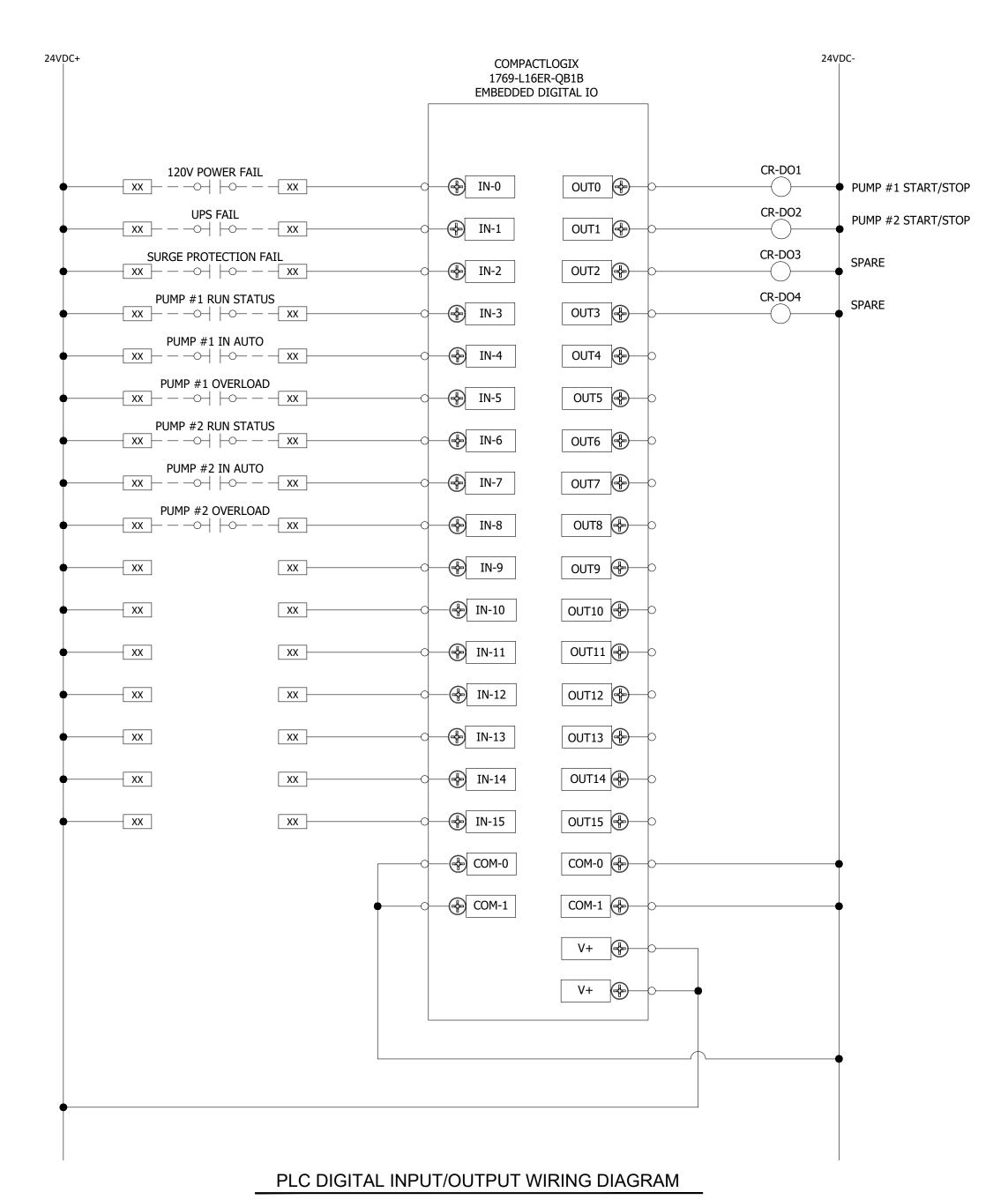




DOGHOUSE PLC CONTROL **PANEL LAYOUT** 

**I105** 

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.



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Revision

Project #: 23-400-188-1

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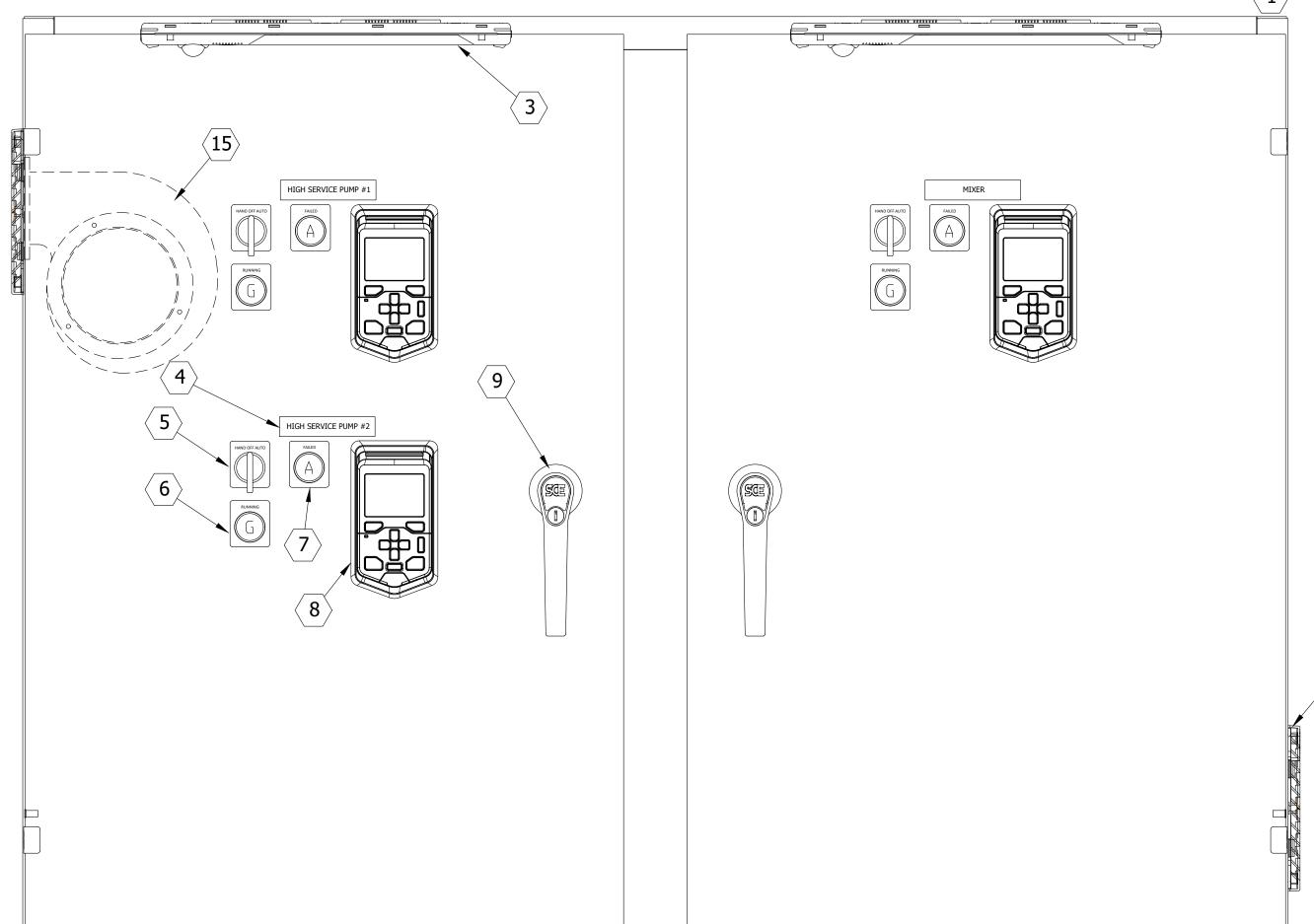
Designed By: JAR

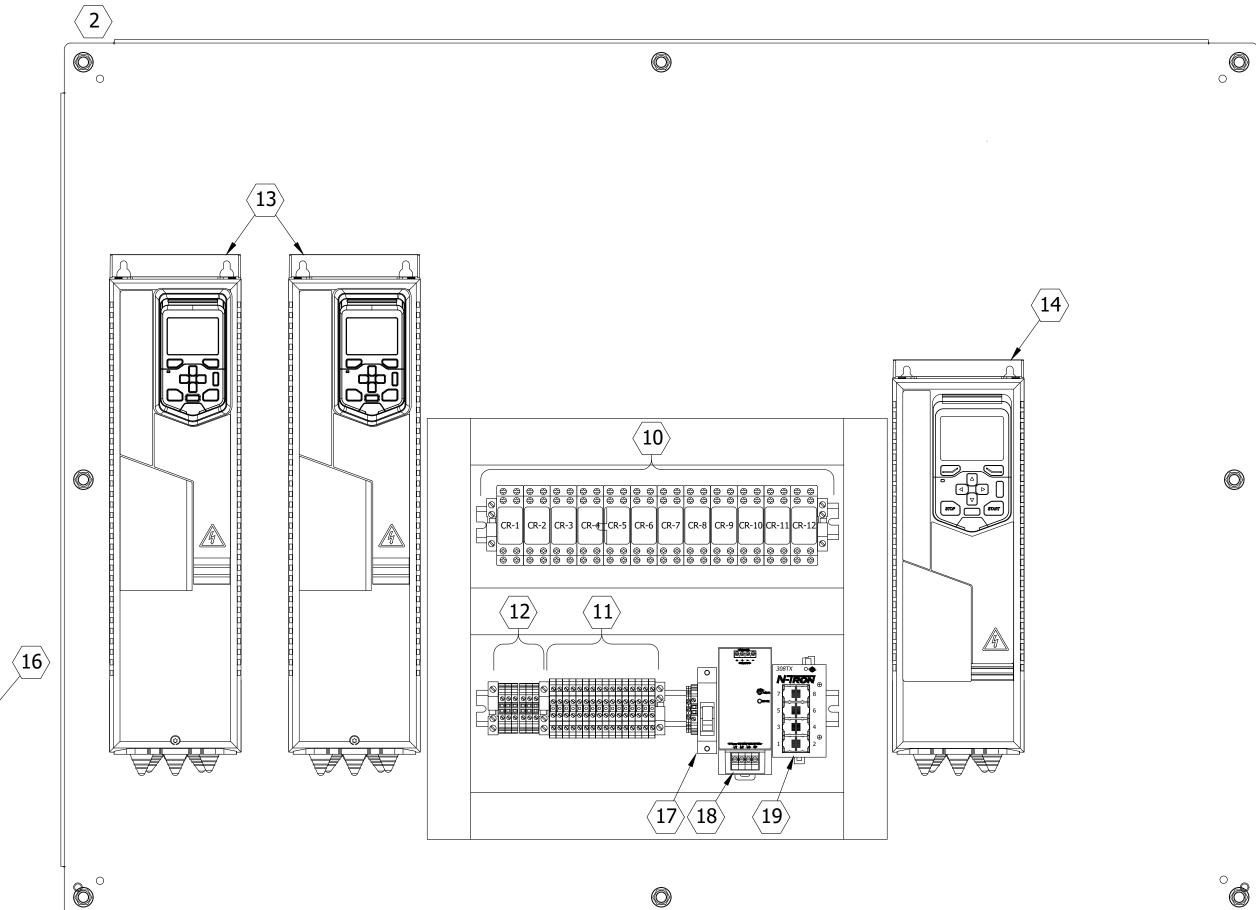
Drawn By: JAR

Checked By: JAR Date: 05/16/2025

**DOGHOUSE PLC CONTROL** PANEL IO DIAGRAMS

**I106** 





ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.

CONTROL PANEL KEYED NOTES:

1. NEW NEMA12 PAINTED STEEL ENCLOSURE - 48"X36"X12" MINIMUM. SIMILAR TO SAGINAW CONTROL ENGINEERING SCE-36EL4812WFLP OR EQUAL.

- 2. NEW INTERIOR EQUIPMENT PANEL 48"X36".
- 3. ENCLOSURE LED LIGHTING WITH AUTOMATIC DOOR SWITCH ACTIVATION.
- 4. PHENOLIC TAG, ENGRAVED. BLACK LETTERS ON
- WHITE/OFF-WHITE SURFACE. SELF-ADHESIVE. TYPICAL.
- 5. 30.5MM PILOT DEVICE: 3-POSITION SWITCH, HAND-OFF-AUTO (HOA). TYPICAL.
- 6. 30.5MM PILOT DEVICE: GREEN LED PILOT LIGHT WITH PUSH-TO-TEST (PTT) FUNCTION FOR RUNNING STATUS. TYPICAL. 18. 24VDC POWER SUPPLY, 3A.
- 7. 30.5MM PILOT DEVICE: AMBER LED PILOT LIGHT WITH PUSH-TO-TEST (PTT) FUNCTION FOR FAILED/ALARM CONDITION.
- 8. VFD REMOTE KEYPAD. SHOWN IS FOR ABB ACQ580 DRIVE UNIT.
- 9. LOCKABLE 3-POINT LATCH HANDLE.

- 10. 120V CONTROL RELAYS, DPDT.
- 11. FIELD TERMINAL BLOCKS TO PLC.
- 12. FIELD TERMINAL BLOCKS FOR SEAL/OVERTEMP SENSOR WIRES.
- 13. HIGH SERVICE PUMP VFD DRIVE. SEE ONE-LINE.
- 14. MIXER VFD DRIVE. SEE ONE-LINE.
- 15. 300 CFM MINIMUM COOLING FAN. SIMILAR TO KOOLTRONICS.
- 16. FILTERED INTAKE VENT.
- 17. 120V POWER, 15A BREAKER.
- 19. ETHERNET SWITCH.

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Revision

Project #: 23-400-188-1

Designed By: JAR

Drawn By: JAR

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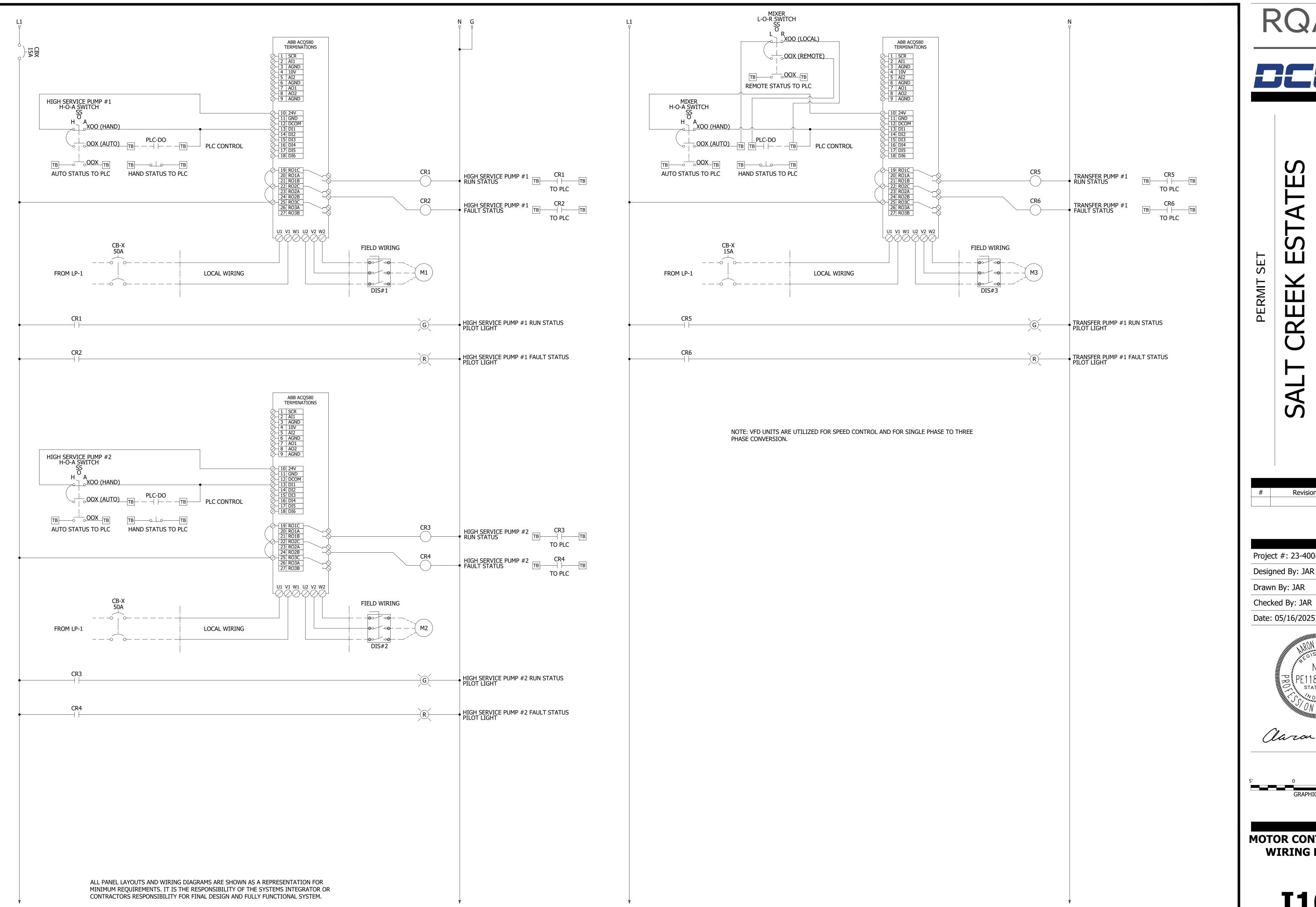
Checked By: JAR

Date: 05/16/2025





**MOTOR CONTROL PANEL LAYOUT DETAILS** 



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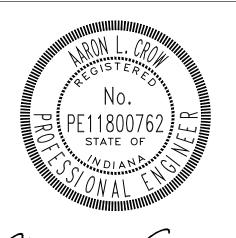
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Drawn By: JAR

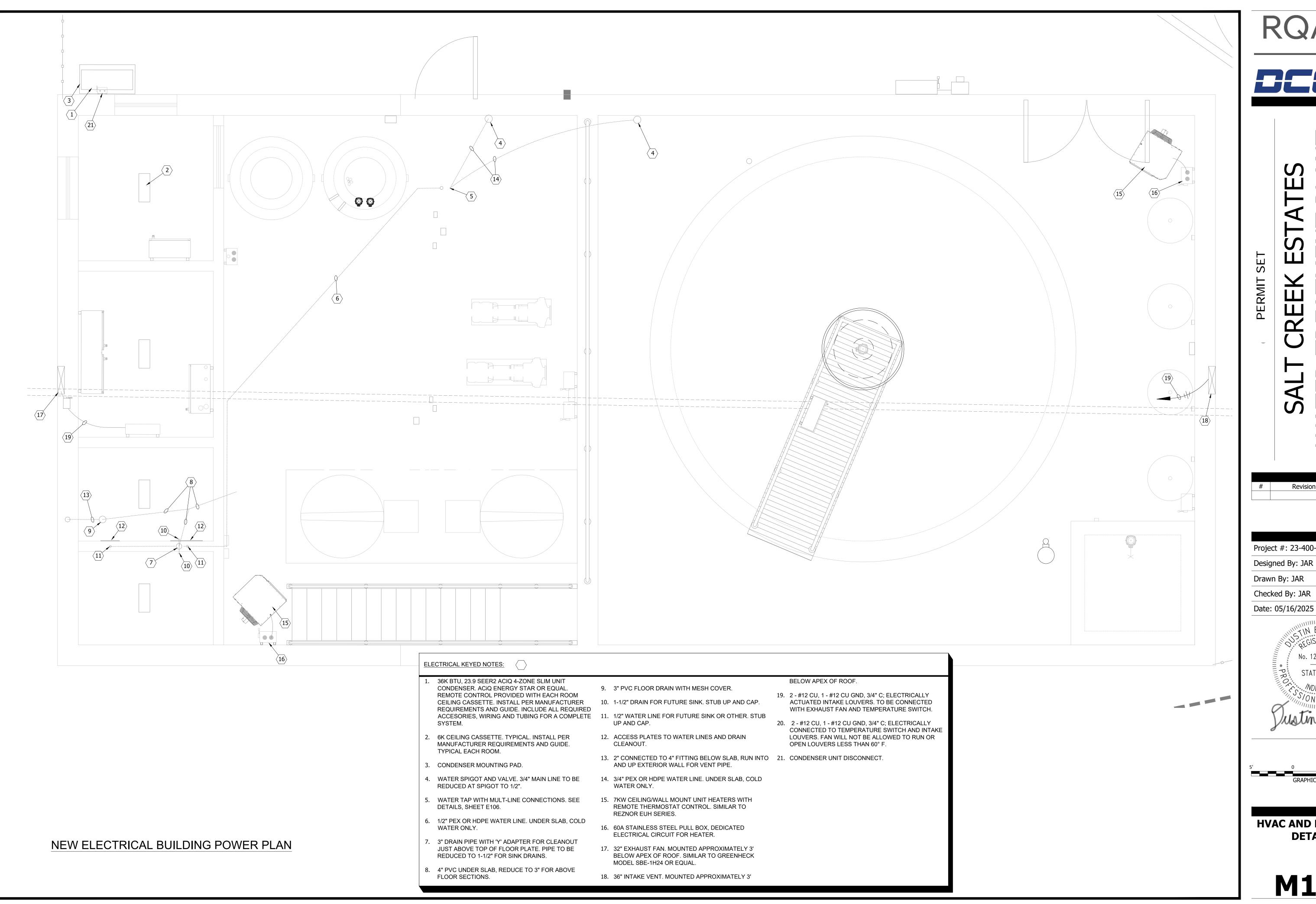
Date: 05/16/2025





**MOTOR CONTROL PANEL** WIRING DIAGRAM

**I108** 





Project #: 23-400-188-1

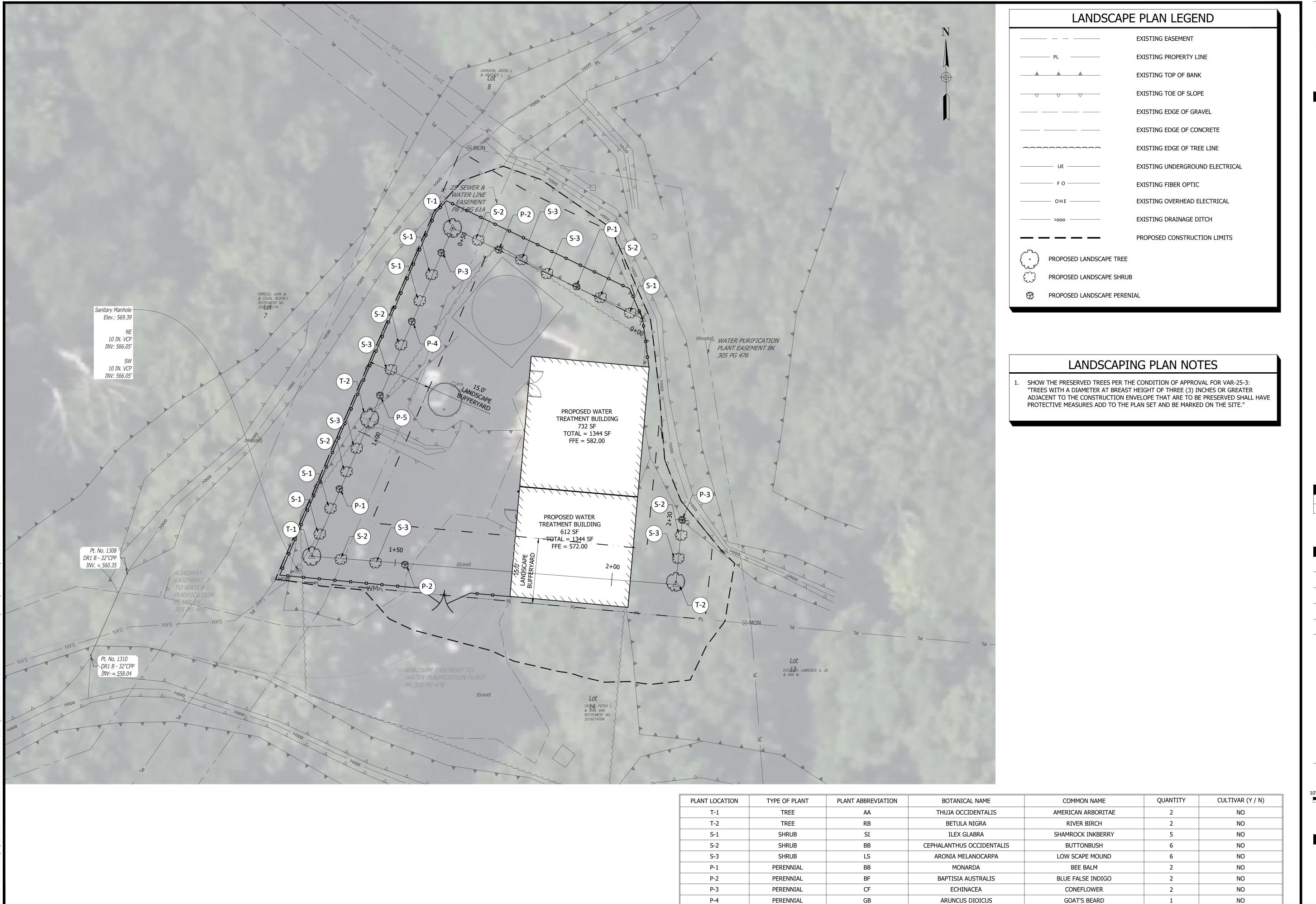
Designed By: JAR

Drawn By: JAR

STATE OF

**HVAC AND PLUMBING DETAILS** 

**M100** 



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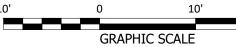
Project #: 23-400-188-1
Designed By: RJPA

Drawn By: RLH
Checked By: RJPA

Date: 02/03/2025



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LANDSCAPE SITE PLAN

**L100** 

### **GENERAL NOTES:**

### **GENERAL INFORMATION**

- 1. THE CONTRACTOR SHALL RESOLVE ANY CONFLICT ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE ARCHITECT / EOR BEFORE PROCEEDING WITH THE WORK. IN GENERAL, WHERE THE DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT RESTRICTIONS AND REQUIREMENTS SHALL GOVERN. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED AS SHOWN FOR SIMILAR WORK
- 2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.
- 3. PLAN NOTES, DETAILS AND SECTIONS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES. "TYPICAL DETAILS" ARE APPLICABLE THROUGHOUT CONSTRUCTION DOCUMENTS AND MAY NOT BE SPECIFICALLY REFERENCED THEREIN. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE TYPICAL DETAILS AND UNDERSTANDING EXTENT OF THEIR APPLICATION PRIOR TO PERFORMING WORK.
- 4. CONTRACT DOCUMENTS INDICATE INFORMATION SUFFICIENT TO CONVEY DESIGN INTENT. REVIEW CONTRACT DOCUMENTS AND VERIFY FIELD AND EXISTING CONDITIONS. PROMPTLY NOTIFY ARCHITECT / EOR, PRIOR TO PROCEEDING WITH WORK, IF FURTHER CLARIFICATION OF DESIGN INTENT IS
- 5. REFER TO ARCHITECTURAL AND/OR MEP DRAWINGS FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT SCALE DRAWINGS.
- 6. CONTRACTORS ARE REQUIRED TO COORDINATE THEIR RESPECTIVE WORK WITH ALL OTHER DISCIPLINES TO AVOID ANY CONFLICTS DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE STRUCTURAL DRAWINGS WITH ALL OTHER CONSTRUCTION DOCUMENTS.
- 7. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS.
- 8. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING, SHORING, UNDERPINNING, ETC. THE ARCHITECT / EOR IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR SAFETY PROCEDURES DURING CONSTRUCTION
- 9. SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMISSION TO ARCHITECT / EOR. ARCHITECT / EOR REVIEW IS FOR GENERAL CONFORMANCE WITH DESIGN INTENT AND WHEN INDICATED, THE SUBMITTAL SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT LOCATION.
- 10. MODIFICATIONS AND SUBSTITUTIONS MUST BE ACCEPTED IN WRITING BY ARCHITECT / EOR. NO MODIFICATION OR SUBSTITUTION WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
- 11. NON-STRUCTURAL ITEMS, INCLUDING BUT NOT LIMITED TO, STAIR FRAMING, ARCHITECTURAL CLADDING, ETC., WHEN NOT DETAILED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, SHALL BE THE DESIGN RESPONSIBILITY OF THE CONTRACTOR. THESE NON-STRUCTURAL ITEMS MAY BE SUPPORTED BY THE PRIMARY STRUCTURE BUT SHALL NOT IMPOSE TORSIONAL LOADS ONTO THE PRIMARY SUPPORT MEMBERS. PROVIDE BRACES, KICKERS, STIFFENERS, ETC., AS NECESSARY TO ELIMINATE TORSIONAL LOADS AT NO ADDITIONAL COSTS TO THE OWNER.

### **EXISTING CONDITIONS**

- EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM EXISTING CONSTRUCTION DOCUMENTS AND SITE INVESTIGATION AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK. DRAWINGS FOR THE EXISTING CONSTRUCTION ARE AVAILABLE FOR REVIEW.
- 2. THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT INFORMATION.
- 3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TAKE CARE TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE.
- 4. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE AND SMALL TOOLS IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF MEMBERS.
- 5. PRIOR TO CORING OR SAWING EXISTING CONCRETE WALLS AND SLABS FOR NEW PENETRATIONS, CONTRACTOR SHALL LOCATE EXISTING REINFORCING IN CONCRETE USING A NON-DESTRUCTIVE METHOD. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF NEW PENETRATION LOCATIONS IN CONFLICT WITH EXISTING REINFORCING. DO NOT CUT EXISTING REINFORCING WITHOUT PRIOR APPROVAL BY THE ARCHITECT/EOR.
- 6. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF THE NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE SPECIFIED BY A LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS LOCATED, TO BE RETAINED BY THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE ARCHITECT.

### **CONSTRUCTION LOADS**

- 1. CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION.
- 2. PROVIDE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION.
- 3. CONSTRUCTION MATERIALS, IF PLACED ON FRAMED FLOORS AND ROOFS, SHALL BE SPREAD OUT SUCH THAT THE DESIGN LIVE LOAD PER SQUARE FOOT IS NOT EXCEEDED. THIS INCLUDES BUT IS NOT LIMITED TO WEIGHTS OF MATERIALS, WEIGHTS OF EQUIPMENT AND LOADS APPLIED BY TEMPORARY LIFTS, HOISTS, CRANES, ETC.
- 4. PROVIDE ADEQUATE SHORING IF OVERLOAD IS ANTICIPATED OR WHERE STRUCTURAL ELEMENTS HAVE NOT ATTAINED DESIGN STRENGTH. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED VERIFYING THE ADEQUACY OF THE STRUCTURE FOR ANY PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS.
- 5. THE EOR IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.
- 6. OBSERVATION VISITS TO THE SITE BY THE EOR SHALL NOT CONSTITUTE ACCEPTANCE OF CONSTRUCTION MEANS AND METHODS.

### **DESIGN**

1. DESIGN LOAD CRITERIA

SEISMIC LOAD CRITERIA

SITE CLASS : D (ASSUMED) MAPPED SPECTRAL RESPONSE ACCELERATION :  $S_S = 0.22$ ,  $S_1 = 0.107$  DESIGN SPECTRAL RESPONSE :  $S_{ds} = 0.234$ ,  $S_{d1} = 0.169$  SEISMIC DESIGN CATEGORY : c

### **EARTHWORK/FOUNDATION NOTES**

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW THE PROJECT GEOTECHNICAL REPORT PRIOR TO BIDDING. CONTACT THE EOR WITH ANY DISCREPANCIES OR CONCERNS SO THAT A RESOLUTION MAY BE REACHED.
- BUILDING FOUNDATION DESIGN IS BASED ON NET ALLOWABLE SOIL BEARING PRESSURE OF:
   2000 PSF FOR SPREAD FOOTINGS AND FOR STRIP FOOTINGS. THIS VALUE IS ASSUMED AND MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- 3. BUILDING FOUNDATION SHALL BE PLACED ON FIRM, UNDISTURBED NATURAL SOILS OR ON ENGINEERED FILL MATERIAL. FOR AREAS REQUIRING ENGINEERED FILL, THIS MATERIAL SHALL CONSIST OF CLEAN GRANULAR FILL COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND PLACED IN LIFTS AS RECOMMENDED BY THE SOILS ENGINEER ON SITE OR AS SHOWN IN THE GEOTECHNICAL REPORT. SOIL BEARING PRESSURE OF ENGINEERED FILL TO BE FIELD VERIFIED BY A SOILS ENGINEER ON SITE PRIOR TO CONSTRUCTION.
- 4. BACKFILL MATERIAL FOR BASEMENT WALLS AND THE BACK SIDE (EARTH SIDE) OF RETAINING WALLS TO BE CLEAN, WASHED DRAINAGE FILL TO PERMIT DRAINAGE TO PERIMETER DRAIN SYSTEM. DRAINAGE FILL TO BE COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND PLACED IN LIFTS AS RECOMMENDED BY THE SOILS ENGINEER ON SITE OR AS SHOWN IN THE GEOTECHNICAL REPORT.
- 5. SUBBASE MATERIAL UNDER SLABS-ON-GRADE TO BE CLEAN GRANULAR FILL COMPACTED AS NOTED IN THE EARTHWORK SPECIFICATIONS AND/OR THE GEOTECHNICAL REPORT.
- 6. BACKFILL AGAINST GRADE BEAMS AND FROST WALLS SHALL BE PLACED EVENLY ON BOTH SIDES.
- 7. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL BOTH THE BASEMENT AND GROUND FLOOR SLABS HAVE BEEN COMPLETELY INSTALLED AND ATTAINED THEIR SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND ALL SLAB CONNECTIONS TO THE BASEMENT WALLS HAVE BEEN COMPLETELY INSTALLED.
- 8. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS.
- 9. ANY FOUNDATION INSULATION, WATERPROOFING, VAPOR BARRIER, ETC. SHOWN ON THE STRUCTURAL DRAWINGS IS FOR INFORMATION ONLY UNLESS SPECIFICALLY NOTED OTHERWISE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW THE ARCHITECTURAL DOCUMENTS FOR EXACT LOCATIONS, PLACEMENT AND MATERIAL REQUIREMENTS.
- 10. NO RECYCLED MATERIAL MAY BE USED AS BACKFILL BELOW THE BUILDING FOUNDATIONS OR SLABS. ALL BACKFILL MATERIAL SHALL BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE.
- 11. UNDERCUTTING OF THE SOIL FOR FOUNDATION PLACEMENT MAY BE REQUIRED. THE STRUCTURAL DRAWINGS MAY NOT INDICATE THE ENTIRE SCOPE OF UNDERCUTTING, FILL, BAD SOIL OR ROCK REMOVAL THAT MAY BE REQUIRED TO ATTAIN THE DESIGN SOIL BEARING PRESSURES.
- 12. A REPORT CERTIFIED BY THE SOILS ENGINEER ON SITE SHALL BE FURNISHED TO THE A/E VERIFYING THAT ALL FOUNDATIONS WERE PLACED ON A MATERIAL CAPABLE OF SUSTAINING THE DESIGN BEARING PRESSURES.
- 13. IF DEWATERING IS REQUIRED, SUMPS SHALL NOT BE PLACED WITHIN THE FOUNDATION EXCAVATION.

### REINFORCING STEEL

· SLABS, WALLS AND JOISTS ..

- 1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF ACI 315, ACI 318, AND CRSI.
- 2. REINFORCEMENT SHALL HAVE DEFORMED SURFACES IN ACCORDANCE WITH ASTM A615 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.
- 3. WELDED WIRE FABRIC SHALL BE SMOOTH CONFORMING TO ASTM A185.
- 4. THE SHOP DRAWINGS FOR REINFORCING STEEL SHALL INCLUDE SCALE ELEVATIONS OF ALL CONCRETE WALLS AS APPLICABLE.
- 5. PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF ALL WALLS AND GRADE BEAMS. REFER TO TYPICAL DETAILS.
- 6. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE PROTECTION (CLEAR COVER) UNLESS OTHERWISE NOTED:
- 7. PROVIDE ADDITIONAL REINFORCING BARS AROUND ALL OPENINGS IN CONCRETE SLABS AND WALLS EQUAL TO THE AMOUNT INTERRUPTED BY THE OPENINGS (1/2 EA. SIDE TYPICAL). WHERE OPENINGS ARE SUCH THAT THE REINFORCING STEEL IS NOT INTERRUPTED, NO ADDITIONAL REINFORCING IS REQUIRED. REFER TO TYPICAL CONCRETE OPENING DETAIL.

3/4"

- 8. ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN OR CALLED OUT ON THE DRAWINGS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE.
- 9. OPENINGS THROUGH CONCRETE WALLS, SLABS OR OTHER STRUCTURAL ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS MUST BE LOCATED AND SHOWN ON THE APPLICABLE REINFORCING STEEL SHOP DRAWINGS. THE FINAL LOCATION OF ALL OPENINGS MUST BE REVIEWED BY THE A/E BEFORE THE CONCRETE IS POURED.
- 10. THE WELDED WIRE FABRIC IN THE COMPOSITE ELEVATED SLAB SHALL BE SUPPORTED BY PLACING CONTINUOUS HEAVY BOLSTERS AT 2'-6" O.C. MAXIMUM OVER THE COMPOSITE METAL DECK.
- 11. THE WELDED WIRE FABRIC IN THE CONCRETE SLAB-ON-GRADE SHALL BE SUPPORTED BY CONTINUOUS #4 SUPPORT BARS AT 2'-6" O.C. MAXIMUM. THE #4 BARS SHALL BE TIED AND SUPPORTED BY CONTINUOUS CHAIRS AT 2'-6" O.C. MAXIMUM.
- 12. CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF xx TONS OF REINFORCING STEEL TO BE FABRICATED AND/OR PLACED DURING THE PROGRESS OF WORK AS MAY BE DIRECTED BY THE ARCHITECT (STRUCTURAL ENGINEER). THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF CONCRETE WORK.

### CONCRETE

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", WITH MODIFICATIONS AS NOTED IN THE CONTRACT DOCUMENTS.
- 2. ALL CONCRETE, UNLESS OTHERWISE NOTED IN SCHEDULES OR DETAILS, SHALL HAVE A MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), EXCEPT.
- 3. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED. FOR SURFACE FINISHES AND OTHER REQUIREMENTS, REFER TO THE CONCRETE SPECIFICATIONS. CONCRETE MIX PROPORTIONING SHALL BE SUBMITTED TO THE ARCHITECT / EOR FOR REVIEW AND APPROVAL.
- 4. THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.
- 5. DETAILS OF FABRICATION OF REINFORCEMENT, HANDLING AND PLACEMENT OF THE CONCRETE, CONSTRUCTION OF FORMS AND PLACEMENT OF REINFORCEMENT, NOT OTHERWISE COVERED BY THE PLANS AND SPECIFICATIONS, SHALL COMPLY WITH THE LATEST ADDITION OF THE ACI CODE AND CRSI REQUIREMENTS.
- 6. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES OF CONCRETE AND THE EXPOSED CORNERS OF BEAMS, GIRDERS AND COLUMNS UNLESS OTHERWISE SHOWN OR NOTED. COORDINATE WITH ARCHITECTURAL DRAWINGS
- 7. CORED HOLES IN CONCRETE WALLS, SLABS ETC., SHALL NOT BE PERMITTED WITHOUT PRIOR REVIEW AND APPROVAL FROM THE ARCHITECT/EOR.
- 8. ALL MISCELLANEOUS ITEMS TO BE INSTALLED IN ANY CONCRETE WORK, SUCH AS PIPES, ELECTRICAL CONDUITS, DOVETAIL ANCHOR SLOTS, REGLETS, ETC., SHALL BE PROPERLY LOCATED, INSTALLED AND CHECKED BY THE G.C. PRIOR TO PLACEMENT OF CONCRETE. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR THE EXACT EXTENT AND LOCATION OF THESE ITEMS THAT ARE NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
- 9. PROVIDE SLEEVES FOR ALL PIPE AND CONDUIT PENETRATIONS IN FOUNDATION WALLS, GRADE BEAMS, WALL FOOTINGS AND TRENCH FOOTINGS TO TOTALLY SEPARATE THE PIPES FROM THE CONCRETE. REFER TO TYPICAL DETAILS.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE PLACING SEQUENCES, SIZE, AND CONSTRUCTION PROCEDURES AND ACCOUNT FOR TEMPERATURE DIFFERENTIALS AND SHRINKAGE OCCURING DURING THE CONSTRUCTION PHASE UNTIL THE BUILDING IS PERMANENTLY IN A MECHANICALLY CONTROLLED ENVIRONMENT.
- 11. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER BEFORE STARTING CONCRETE WORK TO ESTABLISH A SATISFACTORY PLACING SCHEDULE AND TO DETERMINE THE LOCATION OF CONSTRUCTION JOINTS SO AS TO MINIMIZE THE EFFECTS OF SHRINKAGE.
- 12. NO HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS UNLESS SHOWN OR NOTED IN THE CONTRACT DRAWINGS. VERTICAL JOINTS ARE PERMITTED IN CONCRETE SLABS, WALLS, WALL FOOTINGS, TRENCH FOOTINGS AND GRADE BEAMS. REFER TO TYPICAL DETAILS
- 13. FORMS AND FALSEWORK SUPPORTING ANY VERTICAL LOADS SHALL REMAIN IN PLACE UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS UNLESS RESHORES ARE INSTALLED IN SUFFICIENT QUANTITIES TO TRANSMIT THE LOADS TO ADEQUATE FOUNDATIONS OR SUBSTRATE WITHOUT OVERSTRESSING THE PARTIALLY CURED STRUCTURE. IN NO CASE SHALL SUPERIMPOSED LOAD ON RELATIVELY NEW CONCRETE EXCEED 50 POUNDS PER SQUARE FOOT UNLESS PROPER SHORING TO SUITABLE FOUNDATIONS OR SUBSTRATE IS INSTALLED AS REQUIRED BY THE EOR.
- 14. ALL CONSTRUCTION JOINTS IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS SHALL BE PROVIDED WITH A KEYWAY. THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY CLEANED AND ALL LATIANCE REMOVED. IN ADDITION, THE JOINT SHALL BE THOROUGHLY WETTED AND SLUSHED WITH A COAT OF CEMENT GROUT OR A BONDING AGENT IMMEDIATELY BEFORE PLACING CONCRETE.
- 15. CONTROL JOINTS, IF NOT SHOWN ON DRAWINGS, SHALL BE PROVIDED IN ALL SLABS-ON-GRADE. JOINTS SHALL BE LOCATED ON EACH COLUMN LINE, AT RE-ENTRANT CORNERS AND THE JOINT SPACING SHALL NOT EXCEED:
- 15' IN EITHER DIRECTION FOR 6" THICK SLABS - 1.5:1 MAXIMUM PANEL LENGTH TO WIDTH RATIO
- SEE TYPICAL SLAB-ON-GRADE DETAILS FOR ADDITIONAL INFORMATION.
- 16. THE SAW CUTTING OF CONTROL JOINTS IN A SLAB-ON-GRADE MAY BEGIN WHEN THE CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE THE SURFACE AND BEFORE THE CONCRETE DEVELOPS RANDOM SHRINKAGE CRACKING. SAW CUTTING MAY BEGIN AND FINISH WITHIN 4 TO 12 HOURS AFTER SURFACE FINISHING IS COMPLETE.
- 17. REFER TO CONCRETE SPECIFICATIONS FOR FLOOR FLATNESS AND LEVELNESS REQUIREMENTS AT THE SLAB-ON-GRADE AND ELEVATED CONCRETE SLAB TYP.
- 18. CONCRETE SHALL BE PLACED AND CURED AS REQUIRED TO ACCOMMODATE ARCHITECTURAL FLOOR FINISHES AND MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW ALL ARCHITECTURAL DOCUMENTS AND DETERMINE APPROPRIATE CONCRETE MIX, PLACEMENT, FLATNESS REQUIREMENTS AND CURING TECHNIQUES TO COMPLY WITH FLOORING MANUFACTURERS' REQUIREMENTS.
- 19. MAINTAIN A MAXIMUM SLOPE OF 1 VERTICAL TO 2 HORIZONTALS BETWEEN BEARING ELEVATIONS OF ADJACENT FOOTINGS TO AVOID UNDERMINING FOUNDATIONS UNLESS NOTED OTHERWISE IN PLANS.
- 20. SET ANCHOR BOLTS WITH 3/4" THICK PLYWOOD TEMPLATES OR 1/4" THICK STEEL PLATE TEMPLATES AND BRACE AGAINST DISPLACEMENT.

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## EK ESTATES WATER PLANT IMPROVEMENTS

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Revision Date

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Project #: Project Number

Designed By: Designer

Drawn By: Author

Checked By: Checker

Date: Issue Date

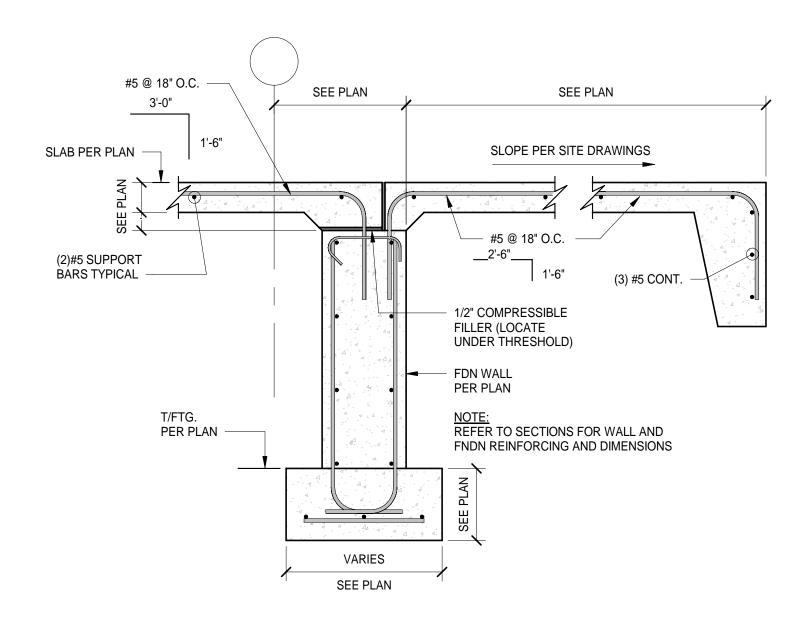
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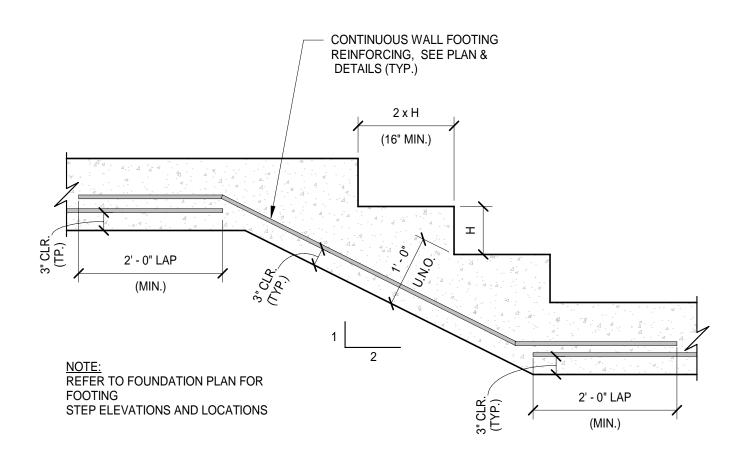


GENERAL NOTES

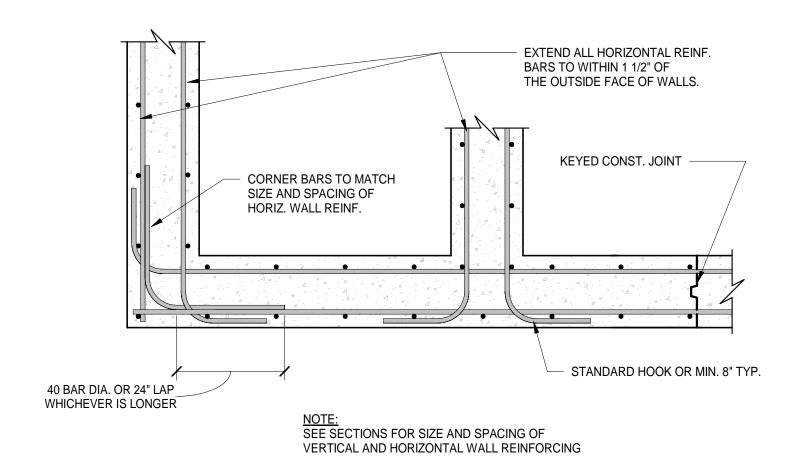
S001



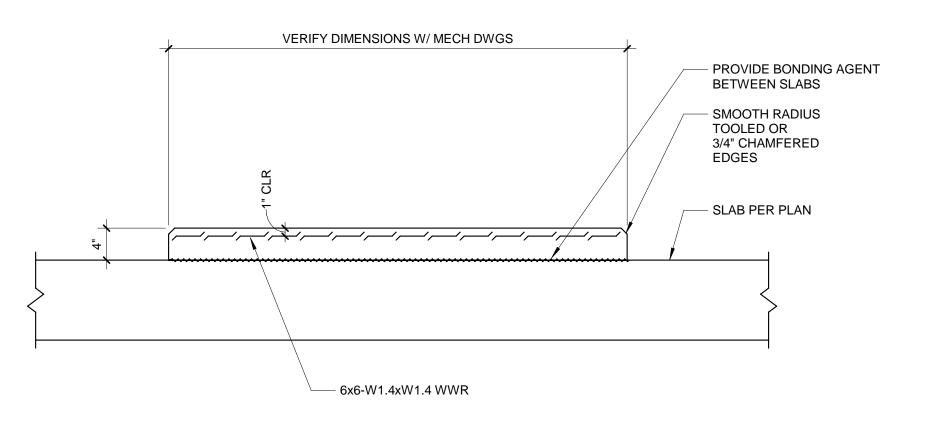
1 TYPICAL STOOP DETAIL S002 3/4" = 1'-0"



3 TYPICAL STEPPED FOOTING DETAIL S002 3/4" = 1'-0"



TYPICAL CONCRETE WALL REINFORCEMENT AT CORNER AND INTERSECTION S002 3/4" = 1'-0"



### NOTES:

COORDINATE EXACT LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND EQUIPMENT SUPPLIER.
 SEE EQUIPMENT CUT SHEETS FOR ADDITIONAL INFORMATION.

4 HOUSEKEEPING PAD DETAIL S002 1" = 1'-0"

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TREATMENT PLANT IMPROVEMENTS

SALT CREEK ESTATES WATER

PERMIT

Revision Date

Project #: Project Number

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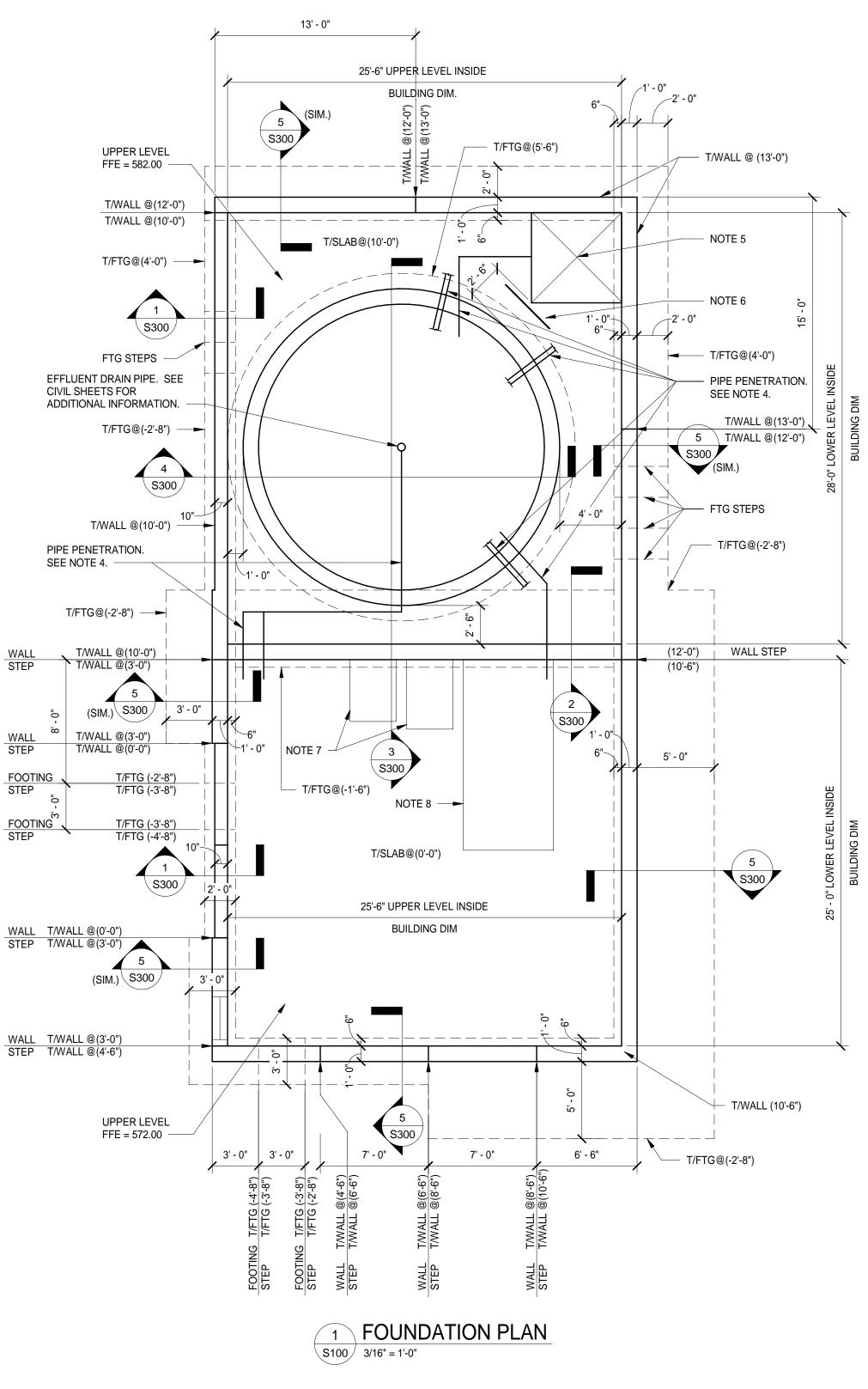
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TYPICAL DETAILS



### PLAN NOTES:

- 1. REFER TO SHEET S001 FOR GENERAL NOTES AND TYPICAL DETAILS.
- 2. THE SLAB ON GRADE SHALL BE A 6" NORMAL WEIGHT SLAB OVER 6" COMPACTED GRANULAR FILL OVER PROOF ROLLED SUBGRADE. TOP OF SLAB ELEVATION IS PER PLAN.
- 3. PROVIDE XYPEX BIO-SAN WATERPROOFING ADMIXTURE IN THE TANK WALLS AND THE BASE. COORDINATE THE QUANTITY OF ADMIXTURE WITH THE ADDITIVE PROVIDER.
- 4. COORDINATE QUANTITIY, ELEVATION, SIZE, AND LOCATION OF PIPE PENETRATIONS WITH THE VARIOUS TRADES. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- 5. PROVIDE SLAB BLOCKOUT FOR RAPID MIX TANK. APPROXIMATE SIZE IS 5'-10"x5'-10". COORDINATE ACTUAL SIZE WITH EQUIPMENT MANUFACTURER.
- 6. PROVIDE #4 BARS x 4'-0" LONG CENTERED ON ALL RE-ENTRANT CORNERS IN THE SLAB ON GRADE.
- 7. SEE SHEET S001 FOR HOUSEKEEPING PAD DETAILS. REFER TO CIVIL DRAWING FOR HOUSEKEEPING PAD QUANTITIES, SIZES, AND LOCATIONS.
- 8. 8" THICK PAD WITH #4@12" ON CENTER EACH WAY MIDDLE. PROVIDE BONDING AGENT BETWEEN SLABS. SEE CIVIL DRAWINGS FOR PAD DIMENSIONS.

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SALT CREEK ESTATES WATER TREATMENT PLANT IMPROVEMENTS

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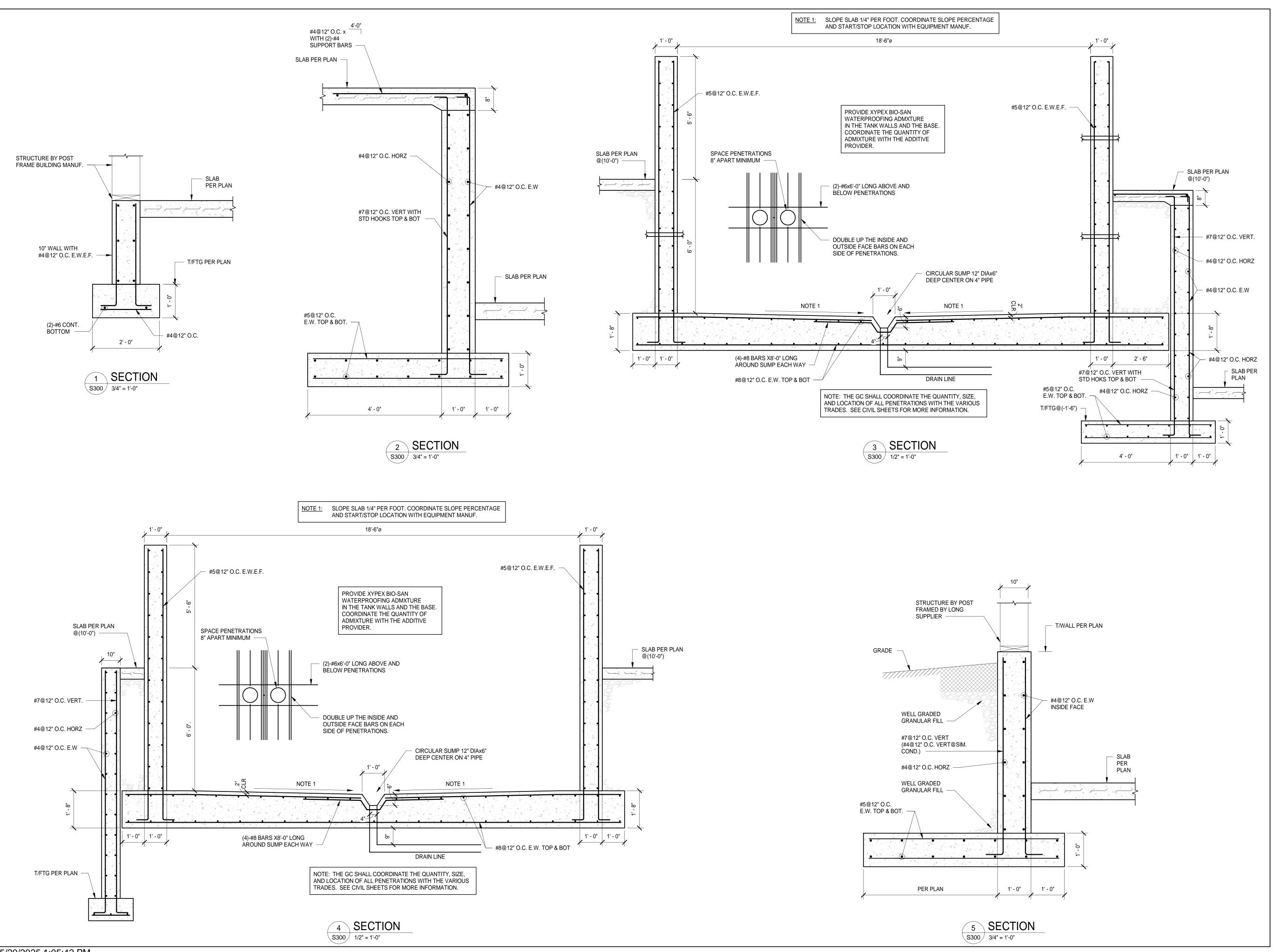
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FOUNDATION PLAN

S100



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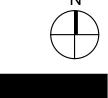
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**SECTIONS**