

CITY OF GROTON, CONNECTICUT

WATER POLLUTION CONTROL AUTHORITY

CONFORMED DRAWINGS FOR

POLLUTION ABATEMENT FACILITY

SODIUM HYPOCHLORITE SYSTEM DESIGN-BUILD

APRIL 2022

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--- COVER SHEET

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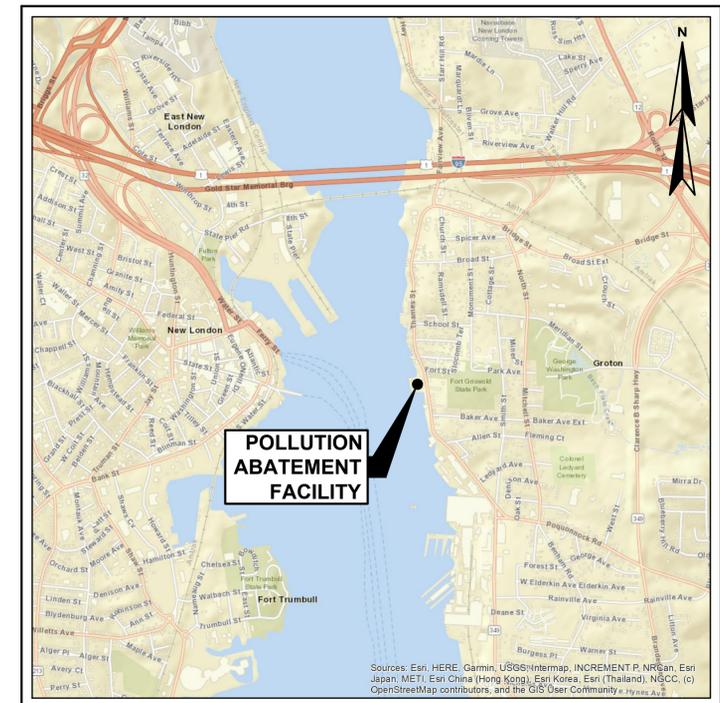
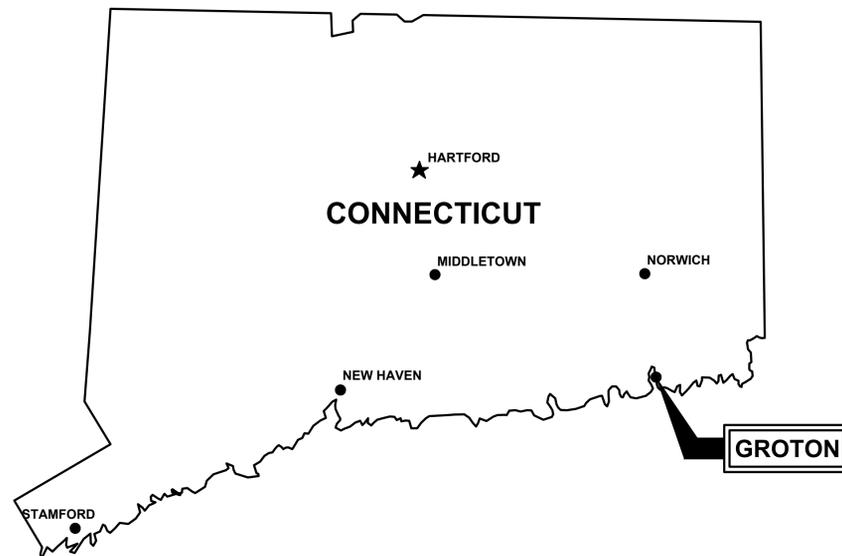
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LOCATION PLAN
 SCALE: 1"=2,000'



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GENERAL NOTES

1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS FOR THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
3. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.

EXISTING SITE CONDITIONS

1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE BASED ON PREVIOUS CONSTRUCTION DESIGN PLANS, WHICH ARE AVAILABLE FOR INSPECTION AT THE ENGINEER'S OFFICE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.
2. THERE ARE NO KNOWN HAZARDOUS ENVIRONMENTAL CONDITIONS WITHIN THE AREA OF WORK. IF THE PRESENCE OF HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS.

SITE DEMOLITION

1. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED, AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH CONCRETE.
2. ALL EXISTING PIPING AND UTILITIES WHICH ARE BENEATH PROPOSED STRUCTURES, AND ARE TO BE ABANDONED, SHALL BE REMOVED TO A MINIMUM OF 5-FEET OUTSIDE OF THE STRUCTURE. PIPE AND UTILITIES BENEATH PROPOSED STRUCTURES THAT ARE TO REMAIN SHALL BE CONCRETE ENCASED, UNLESS OTHERWISE INDICATED. REFER TO THE STRUCTURAL DRAWINGS FOR DETAILS.
3. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE OWNER/ENGINEER/CONTRACT OPERATOR. REFER TO SPECIFICATION SECTION 02050A.

SITE CLEARING, GRUBBING AND GRADING

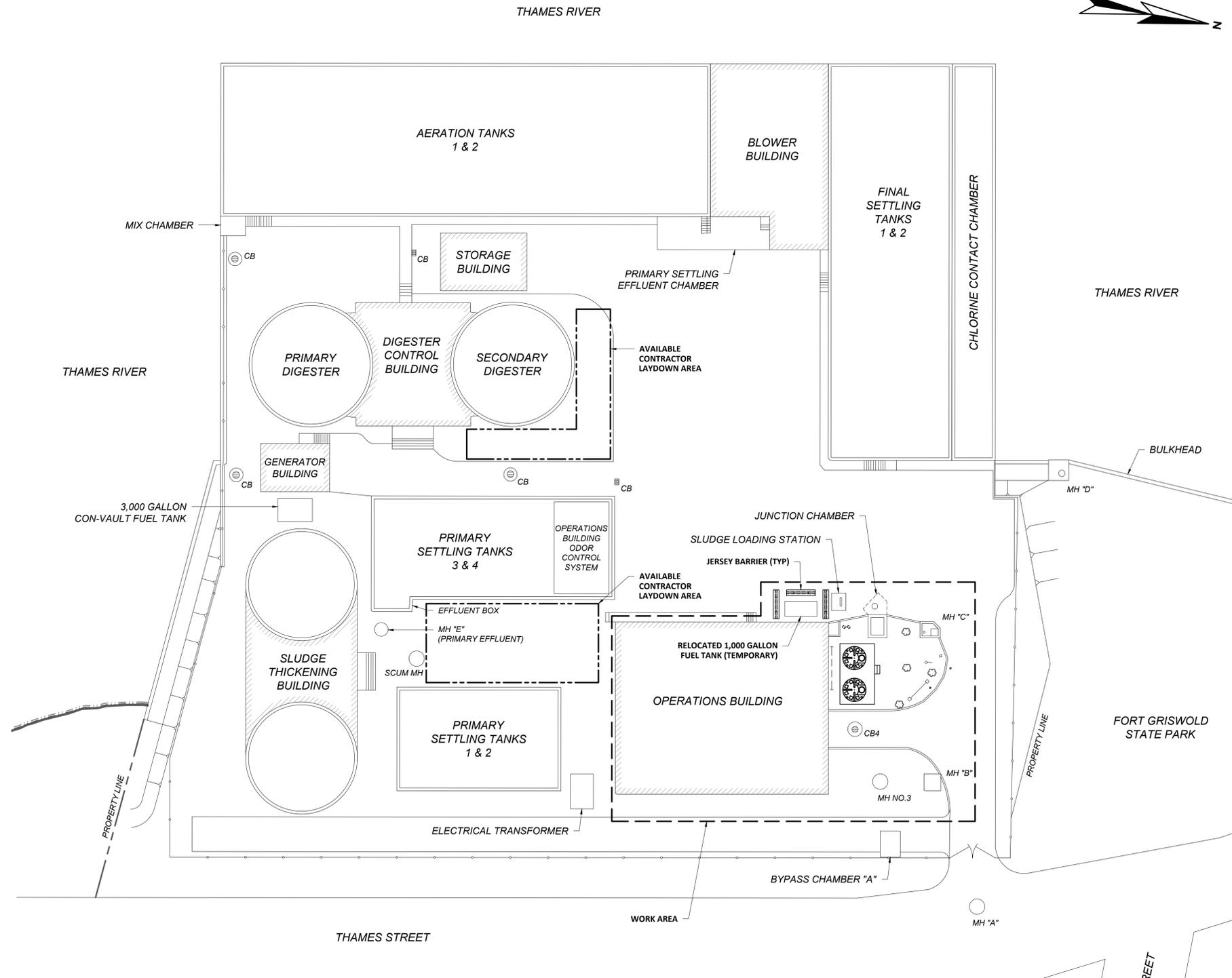
1. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT.
2. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.
3. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER.
4. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
5. ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
6. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
8. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.

CIVIL SITE LAYOUT

1. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
2. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
3. PROJECT BENCH MARK IS THE OPERATIONS BUILDING FINISH FLOOR ELEVATION OF 11.50 WHICH IS BASED ON THE MEAN LOW WATER DATUM (MLW=0.0). CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.

CIVIL SITE PIPING

1. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING PIPING AND UTILITIES IN THE FIELD BY TEST PIT EXCAVATION TWO WEEKS PRIOR TO COMMENCING INSTALLATION OF ANY OF THE NEW PIPING AFFECTED. WHERE NEW PIPE CONNECTS TO EXISTING PIPING OR STRUCTURAL PENETRATION, CONTRACTOR SHALL VERIFY ELEVATION BY TEST PIT, AS REQUIRED, TWO WEEKS PRIOR TO INSTALLATION OF ANY OF THE ASSOCIATED/AFFECTED NEW PIPING. IDENTIFIED CONFLICTS WITH EXISTING PIPING AND UTILITIES WILL BE REVIEWED WITH THE ENGINEER PRIOR TO COMMENCING INSTALLATION. THE HORIZONTAL ALIGNMENT OF NEW PIPING MAY BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR REVIEW AND ACCEPTANCE OF THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE WATERSTOPS. SEE PROCESS, MECHANICAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF PENETRATIONS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND LINK-TYPE SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES. SEE PROCESS DETAIL DRAWINGS.
3. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER IS LESS THAN 3.5-FEET. REFER TO THE CIVIL DETAIL DRAWINGS FOR THE TRENCH INSULATION DETAIL.
4. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE SITE DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO ANY TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE OWNER.
6. PIPING ON THE SITE PIPING PLAN HAS BEEN SHOWN BROKEN FOR CLARITY ONLY. PIPE BREAKS DO NOT INDICATE RELATIVE ELEVATIONS OF PIPING.



OVERALL SITE PLAN
SCALE: 1"=20'

CIVIL ABBREVIATIONS

&	AND	FFE	FINISHED FLOOR ELEVATION	SEW	SEWER
Ø, DIA	DIAMETER	FT	FEET	SF	SQUARE FEET
#, NO	NUMBER	G	GAS	SMH	SANITARY SEWER MANHOLE
AB	ABANDONED	HYD	HYDRANT	SQ	SQUARE
BLDG	BUILDING	IN	INCH	THK	THICKNESS
CB	CATCH BASIN	INF	INFLUENT	TOC	TOP OF CONCRETE
CEN	CENTER	INV	INVERT	TYP	TYPICAL
CFS	CUBIC FEET PER SECOND	LBS	POUNDS	UGE	UNDERGROUND ELECTRIC
CI	CAST IRON	LP	LIGHT POLE	W/	WITH
CL	CENTERLINE	MAX	MAXIMUM	W, CW	POTABLE WATER
CLS	CHLORINE SOLUTION	MH	MANHOLE		
CONC	CONCRETE	MIN	MINIMUM		
CW	CITY WATER	N/A	NOT AVAILABLE/APPLICABLE		
CY	CUBIC YARD	NTS	NOT TO SCALE		
DEMO	DEMOLITION	PSF	POUNDS PER SQUARE FOOT		
DMH	DRAIN MANHOLE	PSI	POUNDS PER SQUARE INCH		
DI	DUCTILE IRON	PVC	POLYVINYL CHLORIDE		
DR, D	DRAIN	REQ'D	REQUIRED		
DWG	DRAWING	S	SLOPE, SEWER		
EL	ELEVATION	SD	STORM DRAIN		

PROJECT NO. 20798	DESIGNED BY: D.DIEVERT	APP'D DATE:
CAD COORD: E.LAGNER	CAD: E.LAGNER	REVISIONS:
CHECKED: K.HICKEY	DATE: DECEMBER 2021	
APPROVED: D.DIEVERT	DATE: APRIL 2022	
SUBMISSION: CONFIRMED DRAWINGS		

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CITY OF GROTON, CONNECTICUT
WATER POLLUTION CONTROL AUTHORITY
POLLUTION ABATEMENT FACILITY
SODIUM HYPOCHLORITE SYSTEM DB

GENERAL NOTES & SITE KEY PLAN

DRAWING: C-1

PROCESS GENERAL NOTES

- 1. ALL EQUIPMENT AND PIPING LAYOUT DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH EQUIPMENT SUPPLIED, AND/OR EXISTING CONDITIONS. SOME INFORMATION ASSOCIATED WITH EXISTING STRUCTURES, PIPING AND EQUIPMENT LOCATIONS, ELEVATIONS AND SIZES, WERE TAKEN FROM:
1.1. 2016 - AS BUILT DRAWINGS FOR THE CITY OF GROTON, CONNECTICUT, POLLUTION ABATEMENT FACILITY PHASE 1 IMPROVEMENTS, CONTRACT #2 BY TIGHE & BOND
1.2. 1998 - CONTRACT DRAWINGS FOR THE CITY OF GROTON, CONNECTICUT, FORT STREET POLLUTION ABATEMENT FACILITY IMPROVEMENTS BY MONTGOMERY WATSON
1.3. 1969 - RECORD DRAWINGS FOR THE CITY OF GROTON, CONNECTICUT, SECONDARY TREATMENT WORKS AT FORT ST. POLLUTION ABATEMENT FACILITY, CONTRACT 1969-S3 BY METCALF & EDDY
1.4. 1963 - RECORD DRAWINGS FOR THE BOROUGH OF GROTON, CONNECTICUT, ADDITIONS TO FORT ST. POLLUTION ABATEMENT FACILITY, CONTRACT 1963-2, BY METCALF & EDDY
1.5. 1952 - RECORD DRAWINGS FOR THE BOROUGH OF GROTON, CONNECTICUT, FORT ST. SEWAGE TREATMENT PLANT, BY METCALF & EDDY
CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES, EQUIPMENT OR PIPING THAT MAY BE AFFECTED. IN SOME SPECIFIC INSTANCES, WHERE SPECIAL ATTENTION MAY BE REQUIRED BY THE CONTRACTOR, SOME DIMENSIONS, ELEVATIONS, ETC. HAVE BEEN NOTED WITH AN " * ". THIS DOES NOT HOWEVER, LIMIT THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE ALL NECESSARY INFORMATION FOR CONSTRUCTION.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DIMENSIONS, LAYOUT OR ELEVATION CHANGES REQUIRED TO SUIT THE SPECIFIC EQUIPMENT BEING PROVIDED UNDER THIS CONTRACT. WHEN SUCH EQUIPMENT REQUIRES PADS, PIERS, CURBING, ETC., THAT DIFFERS FROM THAT SHOWN ON THE CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL COORDINATE THE STEEL REINFORCING SHOP DRAWINGS ACCORDINGLY.
3. ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4- FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE TYPE).
4. ALL PIPING (EXCLUDING SEWER) INSTALLED BELOW SLABS SHALL BE ENCASED IN CONCRETE. PROCESS DRAWINGS DO NOT SHOW CONCRETE ENCASEMENT FOR CLARITY.
5. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE SEALING/ANCHORING COLLARS. SEE PROCESS, MECHANICAL, PLUMBING AND STRUCTURAL DRAWINGS FOR LOCATIONS OF PENETRATIONS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND LINK TYPE COMPRESSION SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES.
6. FOR PIPING MATERIAL, SEE THE PIPE SCHEDULE IN SPECIFICATION SECTION 15050.
7. PROVIDE DRIP PANS, WITH CENTRAL COLLECTION POINT AND DRAIN TO FLOOR, FOR ELECTRICAL AND INSTRUMENTATION EQUIPMENT LOCATED BENEATH LIQUID CARRYING PIPES.
8. INSTALL CORPORATION COCKS ON ALL BUILDING AND STRUCTURE INTERIOR PIPING HIGH POINTS TO PREVENT AIR BINDING. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT NUMBER AND LOCATIONS OF THESE CORPORATION COCKS BASED UPON INFORMATION DEPICTED ON DRAWINGS AND ACTUAL FIELD ROUTING OF PIPING. REVIEW LOCATIONS WITH ENGINEER BEFORE INSTALLATION. THESE MANUAL AIR RELEASES SHALL INCLUDE A 1/2-INCH BRASS CORPORATION COCK WITH 1/2-INCH COPPER TUBING ADEQUATELY SUPPORTED, EXTENDING TO A LOCAL AREA DRAIN. ROUTING OF TUBING AND SELECTED DRAIN TO BE REVIEWED WITH, AND ACCEPTED BY, ENGINEER.
9. PIPES 3-INCH IN DIAMETER AND UNDER SHALL HAVE UNIONS INSTALLED ADJACENT TO EQUIPMENT AND TANKS, UNLESS OTHERWISE NOTED ON DRAWINGS. FLANGES ARE ACCEPTABLE ON 3-INCH DIAMETER PIPING.
10. ALL PIPES SHALL BE ADEQUATELY RESTRAINED AND SUPPORTED IN ACCORDANCE WITH SPECIFICATION SECTION 15094.
11. AFTER INSTALLATION, ALL PIPELINES SHALL BE PRESSURE TESTED FOR TIGHTNESS IN ACCORDANCE WITH SPECIFICATION SECTIONS 15050. ALL LEAKS SHALL BE CORRECTED AND RETESTED UNTIL PRESSURE TEST IS SATISFACTORILY COMPLETED.
12. ALL PIPING SHALL BE CLEANED, TO THE SATISFACTION OF THE ENGINEER, BEFORE TESTING.
13. PROVIDE 4-INCH HIGH (MIN.) REINFORCED CONCRETE PAD UNDER ALL EQUIPMENT, CONTROL PANELS, PIPE AND EQUIPMENT SUPPORTS, TANKS, ETC. UNLESS OTHERWISE INDICATED.
14. REFER TO DRAWING PR-2 FOR A LISTING OF COMMONLY USED ABBREVIATIONS.
15. ALL REDUCERS SHALL BE CONCENTRIC TYPE UNLESS DESIGNATED AS ECCENTRIC (ECC) ON THE DRAWINGS. ECCENTRIC REDUCERS SHALL BE INSTALLED WITH FLAT SIDE UP.
16. ALL PENETRATIONS BETWEEN CLASS 1, DIVISION 1 AREAS AND UNCLASSIFIED AREAS SHALL BE GAS TIGHT.
17. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH, AND INSTALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE INSTALLATION. THE USE OF UNI-FLANGES WILL NOT BE ALLOWED UNLESS INDICATED ON THE DRAWINGS.
18. ALL STAINLESS STEEL FASTENERS FOR PIPING, EQUIPMENT, SUPPORTS, ETC., SHALL BE HAND TIGHTENED IN ORDER TO LIMIT THE POTENTIAL FOR GALLING.
19. CONTRACTOR TO NOTE THAT ALL EXISTING INFORMATION ON THE DRAWINGS IS SHOWN WITH A LIGHTER LINE WEIGHT AND INDICATED WITH A SLANTED TYPE TEXT. THE EXCEPTION IS WHEN SCANNED IMAGES ARE UTILIZED FROM THE PREVIOUS CONSTRUCTION PROJECTS NOTED IN GENERAL NOTE NO. 1, ABOVE. WHEN REVIEWING DRAWINGS NOTED AS "SCANNED" UNDER DRAWING TITLE, THE CONTRACTOR SHALL IGNORE ANY REFERENCE TO PREVIOUS CONTRACT WORK. SCANNED IMAGES ARE NOT TO SCALE; HOWEVER, AN APPROXIMATE SCALE MAY BE GIVEN FOR CONVENIENCE.
20. CONTRACTOR SHALL COORDINATE INSTRUMENTATION MOUNTING DETAILS WITH THE INSTRUMENTATION SUPPLIER AND THE ELECTRICAL CONTRACTOR. REFER TO DETAILS ON THE INSTRUMENTATION DRAWINGS, AND/OR EQUIPMENT MANUFACTURER MOUNT DETAILS AND REQUIREMENTS.
21. ALL CHECK VALVES SHALL BE SWING TYPE CHECK VALVES UNLESS SPECIFICALLY CALLED OUT ON THE DRAWINGS.
22. PHOTO TAGS, AS SHOWN ON THE PLAN, INDICATE THE LOCATION AND DIRECTION FROM WHICH THE PHOTO WAS TAKEN.
23. DO NOT SCALE DISTANCES OR DIMENSIONS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
24. HEAT TRACE ALL NEW PROCESS PIPELINES WHERE EXPOSED AND TO 5'-0" BELOW FINISHED GRADE. ALL HEAT TRACED PIPING SHALL BE COVERED WITH FIBERGLASS INSULATION AND ALUMINUM COVER, UNLESS SPECIFIED ELSEWHERE.

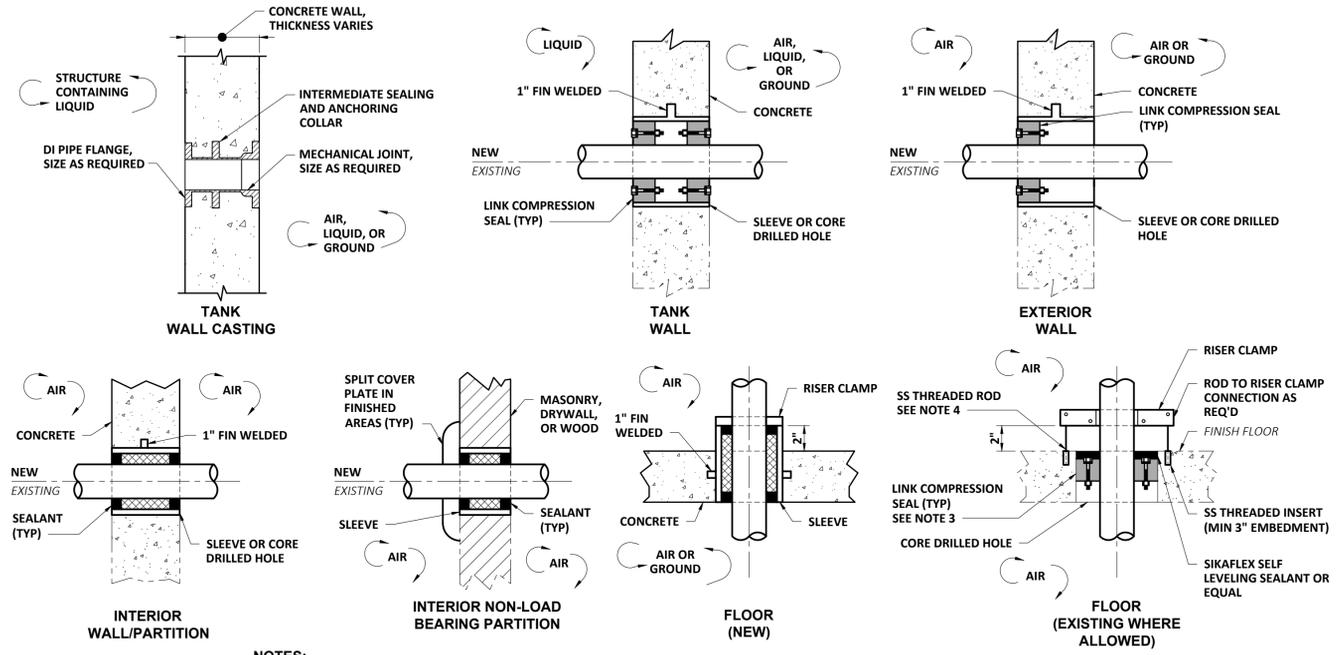


GENERAL DEMOLITION NOTES

- 1. REFER TO INDIVIDUAL DRAWINGS FOR SPECIFIC DEMOLITION NOTES.
2. [Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO REMAIN FOR RE-USE.
[Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO BE DEMOLISHED.
[Symbol] INDICATES EXISTING PIPING/EQUIPMENT TO BE RELOCATED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. THE OWNER RESERVES THE RIGHT TO RETAIN PIPING, EQUIPMENT AND/OR MATERIALS ON SITE FOR THEIR USE AS SPECIFIED IN SPECIFICATION SECTION 02050. SUCH MATERIAL TO BE RETAINED SHALL BE PLACED IN AN ON-SITE STORAGE AREA, REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO THE OWNER AND ENGINEER. RETAINED EQUIPMENT SHALL BE REMOVED IN SUCH A WAY AS NECESSARY TO MAINTAIN ITS FUNCTIONAL AND PHYSICAL INTEGRITY.
4. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AND LOCATION OF UTILITIES FOUND AS PART OF THE PROJECT RECORD DOCUMENTS, AS SPECIFIED IN SPECIFICATION SECTION 01720.
5. REFER TO THE DEMOLITION SPECIFICATION SECTION 02050, SUMMARY OF WORK SPECIFICATION SECTION 01010, AND SITE DEMOLITION PLAN FOR ADDITIONAL INFORMATION REGARDING DEMOLITION REQUIREMENTS AND CONSTRUCTION SEQUENCING.
6. REFER TO THE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING EXISTING UTILITIES. THE SIZES, LOCATIONS, AND MATERIALS OF CONSTRUCTION INDICATED ARE FROM THE BEST AVAILABLE INFORMATION AND MAY NOT BE COMPLETE OR ACCURATE. ALL SIZES, LOCATIONS, AND MATERIALS OF CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD AS REQUIRED. ALL EXISTING UTILITIES THAT ARE TO REMAIN, AND ARE DAMAGED BY THE CONTRACTORS ACTIVITIES, SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. SEVERING THE EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTING, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. THE METHOD OF CAPPING SHALL BE REVIEWED WITH, AND ACCEPTABLE TO, THE ENGINEER.
8. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE MUST BE COORDINATED WITH THE OWNER AND ENGINEER BEFOREHAND.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE THAT ALL FLOWS, FLOW METERING AND LEVEL CONTROLS ARE MAINTAINED DURING CONSTRUCTION. GRAVITY, PUMPED BYPASSES OR OTHER MEANS OF FLOW MAINTENANCE SHALL BE REVIEWED WITH, AND ACCEPTABLE TO, THE ENGINEER. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY STOPPAGES WITH THE OWNER AND ENGINEER. CONTRACTOR SHALL VERIFY WITH OWNER/ENGINEER ALL VALVES, GATES, EQUIPMENT, ETC., ARE FUNCTIONAL PRIOR TO ASSUMING UTILIZATION FOR FLOW ISOLATION.
10. WHERE PIPING OR CONDUIT THAT IS TO BE REMOVED PASSES THROUGH THE WALL OF THE STRUCTURE, IT SHALL BE CUT OFF AS NEAR TO THE WALL AS PRACTICAL AND PROPERLY SEALED ON EACH SIDE OF THE WALL, OR AS SHOWN ON THE DRAWINGS. SEAL METHOD SHALL BE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ENGINEER.
11. ALL WALL AND/OR FLOOR PENETRATIONS REMAINING AFTER THE REMOVAL OF PIPING OR CONDUIT ARE TO BE PATCHED AND FINISHED FLUSH TO MATCH EXISTING SURFACES.
12. REMOVE ALL PUMP AND EQUIPMENT PADS NOT BEING RE-USED AND FINISH FLUSH TO FLOOR LEVEL.
13. REMOVE ALL WALL BRACKETS, PIPE HANGERS AND PIPE SUPPORTS NOT BEING RE-USED. PATCH BOLT HOLES TO MATCH THE EXISTING SURFACE.
14. ALL WALL AND FLOOR SURFACES DAMAGED OR DISTURBED AS A RESULT OF DEMOLITION BY THE CONTRACTOR OR ITS SUB-CONTRACTORS, SHALL BE PATCHED AND PAINTED.
15. WHERE PIPING AND/OR EQUIPMENT THAT IS NOTED AS ABANDONED INTERFERES WITH THE CONTRACTOR'S CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL REMOVE AND DISPOSE OF AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
16. ALL ANCHOR BOLTS TO BE REMOVED SHALL BE CUT/MELTED TO A MINIMUM OF 3/4-INCH BELOW EXISTING CONCRETE OR MASONRY SURFACES AND PATCHED/FILLED FLUSH TO SURFACE WITH NON-SHRINK GROUT.

NOTES:
1. FOR LEGEND AND ABBREVIATIONS, REFER TO DRAWING PR-2.

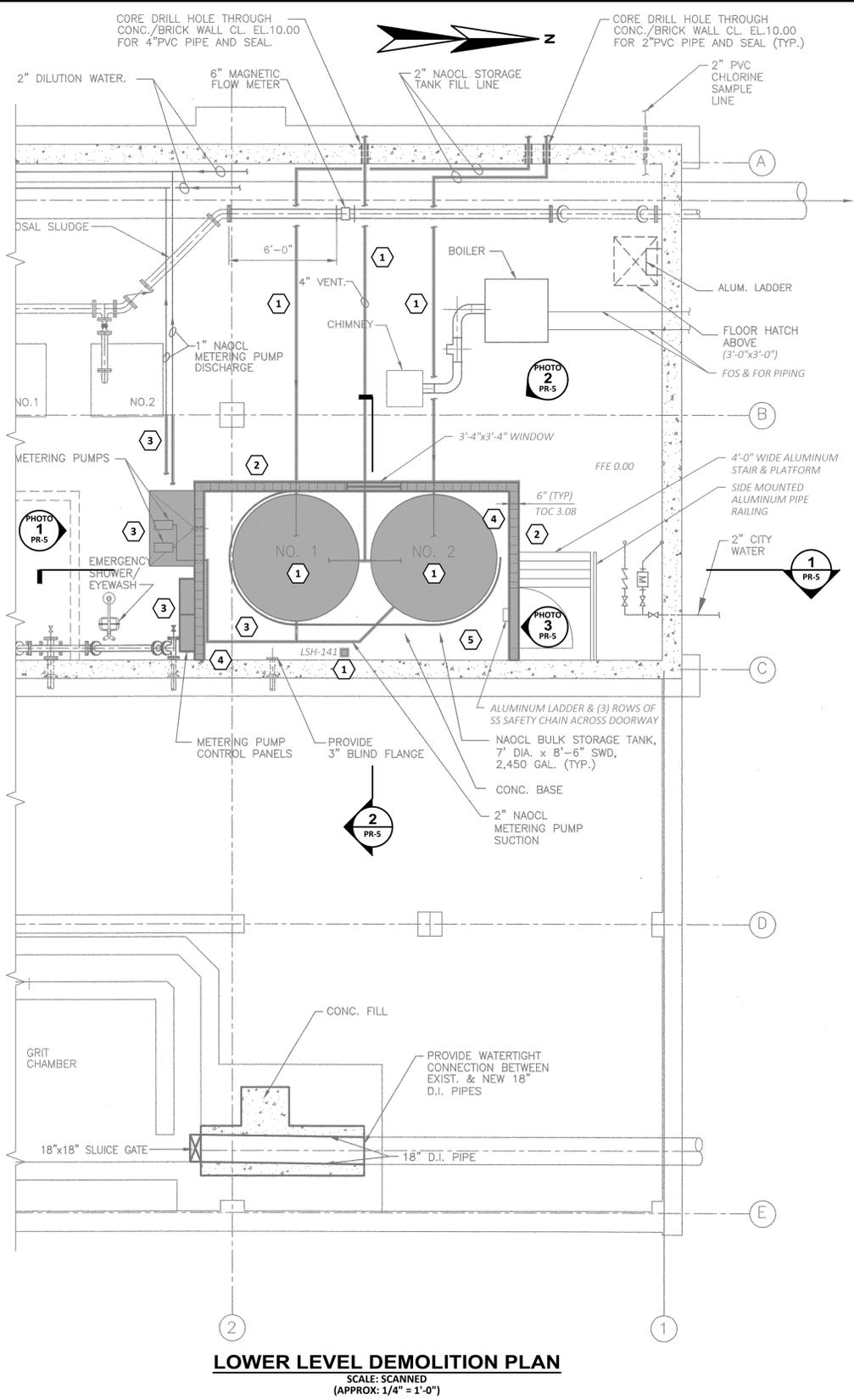
Table with columns: NO, REVISIONS, APPD, DATE. Includes project info: PROJECT NO: 20798, DESIGNED: D.DIEVERT, CAD COORD: E.LAGNER, CAD: E.LAGNER, CHECKED: K.HICKEY, DATE: DECEMBER 2021, APPROVED: D.DIEVERT, DATE: APRIL 2022, SUBMISSION: CONFORMED DRAWINGS.



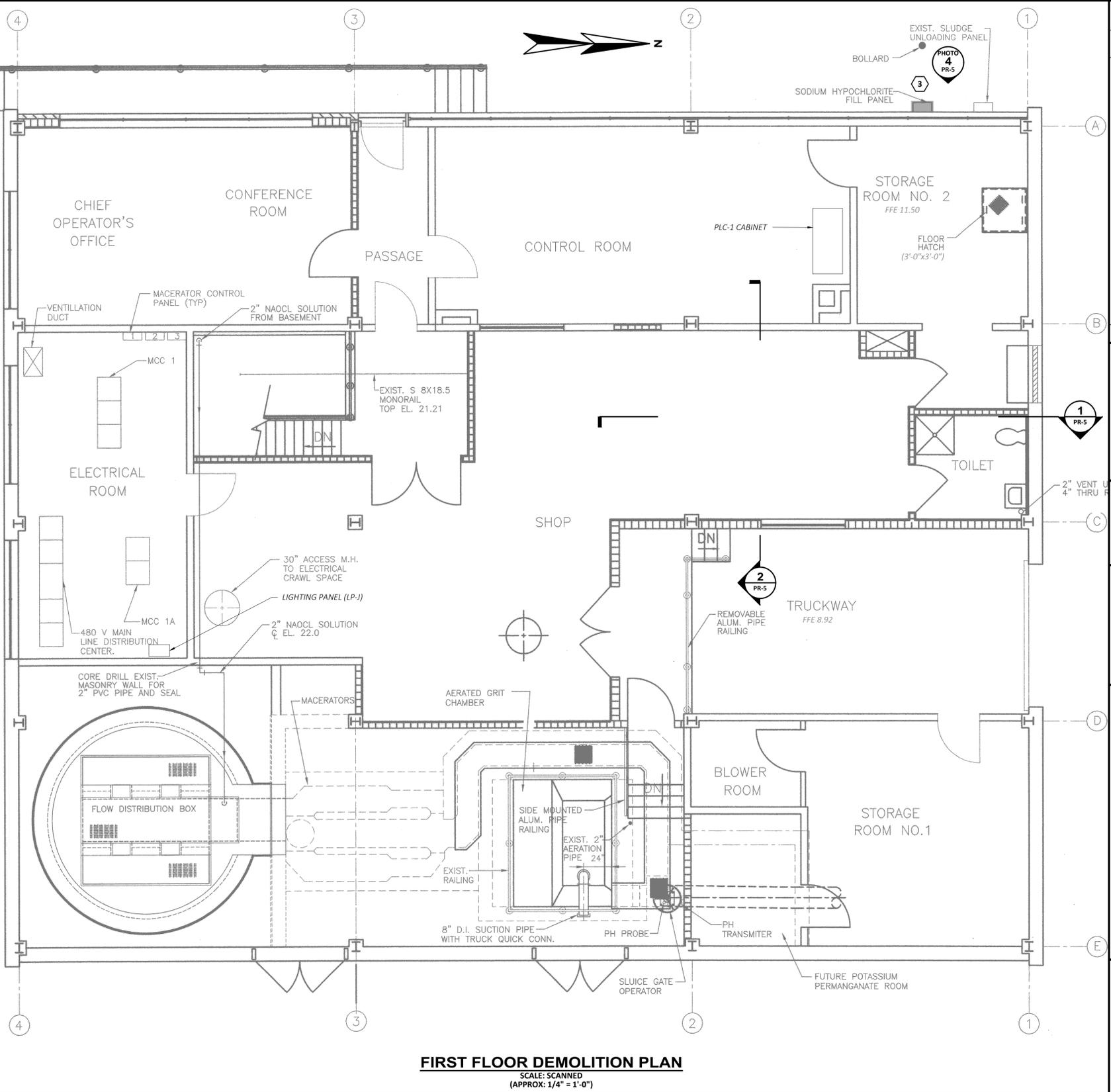
- NOTES:
1. REFER TO SPECIFICATION SECTION 15092 FOR REQUIREMENTS AND INFORMATION.
2. WALL CASTING CONNECTION SHOWN IS FLG TO MJ. PROVIDE TYPE OF WALL CASTING AS REQUIRED.
3. SET TOP OF LINK TYPE SEAL APPROXIMATE 1/2" TO 3/4" BELOW FINISH FLOOR.
4. LINK SEAL SHALL NOT BE USED TO SUPPORT PIPE. THREADED ROD SHALL BE SIZED AS REQUIRED TO SUPPORT PIPE BOTH VERTICALLY AND HORIZONTALLY.

CONSTRUCTION PIPING PENETRATION DETAILS
SCALE: NTS

WRIGHT-PIERCE logo and contact info: 860.343.8297 | www.wright-pierce.com | 169 MAIN STREET, 700 PLAZA MIDDLESEX, MIDDLETOWN, CT 06457. City of Groton, Connecticut Water Pollution Control Authority Pollution Abatement Facility Sodium Hypochlorite System DB. GENERAL NOTES. DRAWING PR-1



LOWER LEVEL DEMOLITION PLAN
SCALE: SCANNED
(APPROX: 1/4" = 1'-0")



FIRST FLOOR DEMOLITION PLAN
SCALE: SCANNED
(APPROX: 1/4" = 1'-0")

DEMOLITION NOTES:

- 1 REMOVE/DEMOLISH EXISTING BULK STORAGE TANKS, INCLUDING BUT NOT LIMITED TO, FILL/VENT/OVERFLOW/DISCHARGE PIPING, ELECTRICAL AND INSTRUMENTATION DEVICES AND WIRING, AND ALL OTHER ASSOCIATED APPURTENANCES IN THEIR ENTIRETY. REMOVE ALL WIRING BACK TO SOURCE. EXISTING CONDUITS MAY BE RE-USED FOR NEW POWER AND CONTROL FEEDERS. CONTRACTOR TO NOTE THAT TANKS WILL NEED TO BE CUT TO BE REMOVED FROM BASEMENT.
- 2 REMOVE EXISTING CMU WALLS (ABOVE CAST IN PLACE KNEE WALL) TO ALLOW FOR DEMOLITION/REMOVAL OF THE EXISTING STORAGE TANKS/EQUIPMENT TO BE CUT UP INTO SECTIONS. CONTRACTOR MAY REMOVE AS MUCH OR AS LITTLE OF THE WALL AS REQUIRED TO COMPLETE THE DEMOLITION AND NEW WORK. UPON COMPLETION OF ALL REMOVALS AND INSTALLATIONS, CONTRACTOR SHALL INFILL ANY OPENINGS CREATED TO CONDUCT THEIR WORK WITHIN THIS SPACE AND RESTORE THE WALLS BACK TO THEIR ORIGINAL CONDITION INCLUDING BLOCK-FILLER AND PAINTING.

DEMOLITION NOTES (cont.):

- 3 REMOVE/DEMOLISH EXISTING SODIUM HYPOCHLORITE SYSTEM, INCLUDING BUT NOT LIMITED TO, PUMPS, PIPING, CALIBRATION COLUMNS, CONCRETE PAD, SUPPORTS, ELECTRICAL AND INSTRUMENTATION DEVICES AND WIRING, AND ALL OTHER ASSOCIATED APPURTENANCES IN THEIR ENTIRETY. NEW SYSTEM SHALL CONNECT TO EXISTING DISCHARGE PIPING AT THE LOCATION SHOWN ON THE MODIFICATIONS DRAWINGS.
- 4 REMOVE/DEMOLISH EXISTING SUPPLY AND EXHAUST FANS AND DUCTWORK, INCLUDING BUT NOT LIMITED TO, ELECTRICAL AND INSTRUMENTATION DEVICES AND WIRING, SUPPORTS, AND ALL OTHER ASSOCIATED APPURTENANCES BACK TO THE PRIMARY HVAC HEADER. CAP DEMOLISHED BRANCH AT HEADER BY METHOD APPROVED BY OWNER AND ENGINEER.
- 5 SCRAPE/MECHANICALLY GRIND ALL LOOSE PAINT ON THE WALLS AND FLOORS OF THIS AREA.

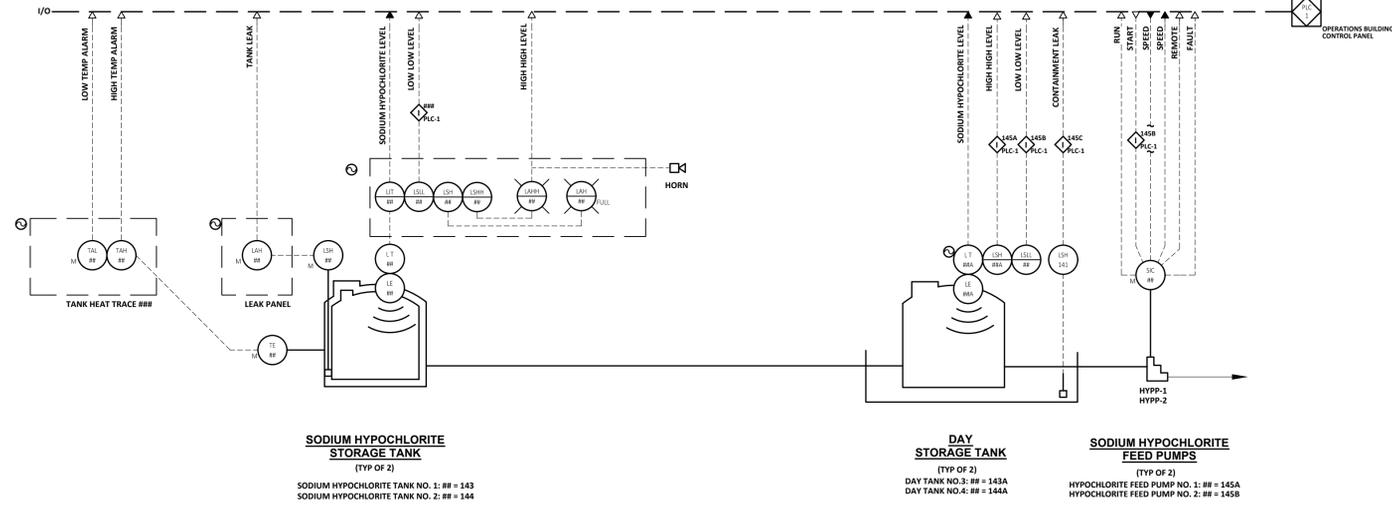
NOTES:

- 1. FOR GENERAL PROCESS AND DEMOLITION NOTES AND ABBREVIATIONS, REFER TO DRAWINGS PR-1.
- 2. CONTRACTOR TO NOTE A SCANNED IMAGE OF THE EXISTING DRAWINGS HAS BEEN USED FOR DEMOLITION. EXISTING INFORMATION HAS BEEN FADED BACK FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BIDDING AND/OR COMMENCING CONSTRUCTION. FOR INFORMATION PERTAINING TO EXISTING DRAWINGS, REFER TO THE GENERAL NOTES ON DRAWING PR-1.
- 3. CONTRACTOR TO NOTE THAT CHANGES MAY HAVE BEEN MADE SINCE SCANNED RECORD DRAWINGS WERE PREPARED. IMAGES MAY NOT REFLECT ACTUAL FIELD CONDITIONS. IN SOME INSTANCES, THOSE EQUIPMENT, PIPING SYSTEMS, AND APPURTENANCES NOT SHOWN ON THE SCANNED IMAGES ARE SHOWN IN PHOTOGRAPHS WHERE NOTED.
- 4. CONTRACTOR TO COORDINATE ALL DEMOLITION WORK WITH OWNER FOR ANY SALVAGE ITEMS AT A PRE-DEMOLITION MEETING.

NO.	REVISIONS	DATE
1	ADD	
2	ADD	
3	ADD	
4	ADD	
5	ADD	

PROJECT NO:	20798
DESIGNED BY:	D. DEVERT
CAD COORD:	E. LAGNER
CHECKED BY:	K. HICKEY
DATE:	DECEMBER 2021
APPROVED BY:	D. DEVERT
DATE:	APRIL 2022
SUBMISSION:	CONFORMED DRAWINGS

<p>WRIGHT-PIERCE 860.343.8297 www.wright-pierce.com 169 MAIN STREET, 700 PLAZA MIDDLESEX, MIDDLETOWN, CT 06457</p>	
<p>CITY OF GROTON, CONNECTICUT WATER POLLUTION CONTROL AUTHORITY POLLUTION ABATEMENT FACILITY SODIUM HYPOCHLORITE SYSTEM DB</p>	<p>OPERATIONS BUILDING LOWER LEVEL & FIRST FLOOR DEMOLITION PLANS</p>
<p>DRAWING PR-4</p>	

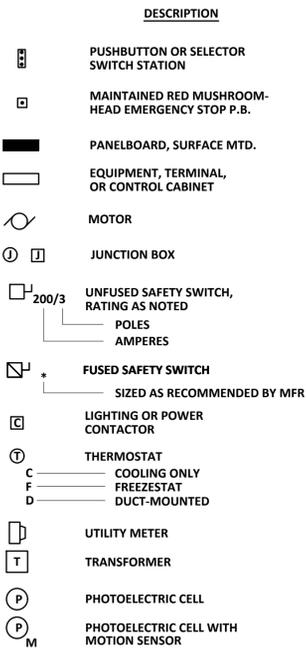


NOT FOR CONSTRUCTION -- FOR REFERENCE ONLY

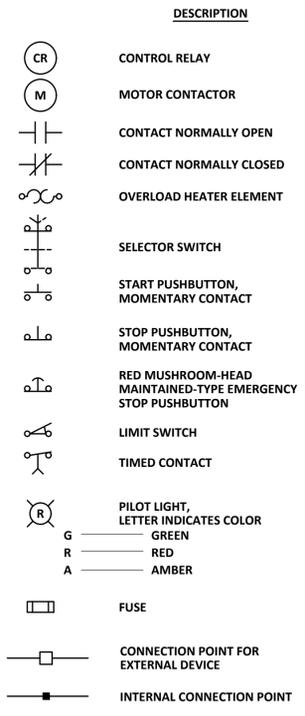
CITY OF GROTON, CONNECTICUT WATER POLLUTION CONTROL AUTHORITY POLLUTION ABATEMENT FACILITY SODIUM HYPOCHLORITE SYSTEM DB		WRIGHT-PIERCE 860.343.8297 www.wright-pierce.com 169 MAIN STREET, 700 PLAZA MIDDLESEX, MIDDLETOWN, CT 06457		PROJECT NO: 20798 DESIGNED: R. MECHAM CAD COORD: E. LAGNER CAD: R. MECHAM CHECKED: DECEMBER 2021 APPROVED: R. MECHAM DATE: APRIL 2022 SUBMISSION: CONFORMED DRAWINGS		NO REVISIONS		APPD DATE	
DRAWING		LOOPS							
I-2									

ELECTRICAL LEGEND

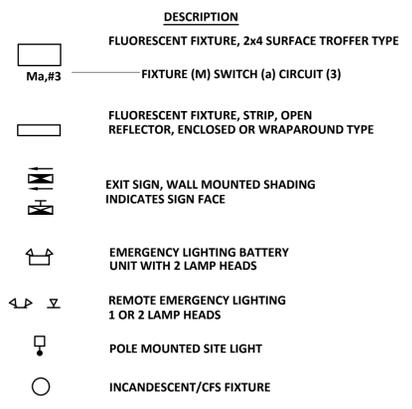
POWER



SCHEMATIC DIAGRAM



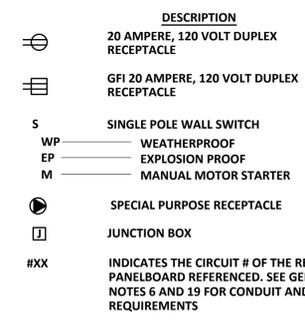
LIGHTING FIXTURES



SECURITY SYSTEM



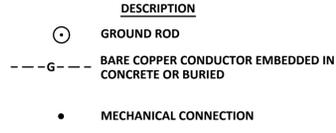
WIRING DEVICES



ABBREVIATIONS

- AMPERE, ALTERNATING CURRENT, ANALOG INPUT (PLC), AMPERE INTERRUPTING CAPACITY, ANALOG OUTPUT (PLC) AS REQUIRED, AUXILIARY, AMERICAN WIRE GAUGE CONDUIT, CIRCUIT BREAKER, CIRCUIT, CONTROL PANEL, CONTROL RELAY, CONTROL POWER TRANSFORMER, COPPER, DIRECT CURRENT, DIGITAL INPUT (PLC), DIGITAL OUTPUT (PLC), ELECTRICAL CONTRACTOR, EMERGENCY, ELECTRICAL METALLIC TUBING, EXPLOSION PROOF CL 1 DIV 1 GR D, ETHYLENE PROPYLENE RUBBER EQUIPMENT, EMERGENCY STOP, EXTERIOR EXISTING, FURNISHED BY OTHERS, FLOW ELEMENT, FLOW INDICATOR TRANSMITTER, FORWARD NEUTRAL REVERSE, FLOW SWITCH, FUSE, FULL VOLTAGE REVERSING, FULL VOLTAGE NON-REVERSING, FULL VOLTAGE NON-REVERSING GROUND, HAND-OFF-AUTOMATIC HORSEPOWER, HERTZ, INTERMEDIATE METAL CONDUIT, INTRINSICALLY SAFE RELAY, JUNCTION BOX, KILO, THOUSAND CIRCULAR MILS, KILOVOLT, KILOVOLT-AMPERE, LOCAL, LOCAL CONTROL PANEL, LOCAL CONTROL STATION, LEVEL ELEMENT, LEVEL INDICATOR, LEVEL INDICATOR TRANSMITTER, LIGHTING PANEL, LEVEL SWITCH, LOW, HIGH, LOW LOW, HIGH HIGH, LEVEL TRANSMITTER, MAIN CIRCUIT BREAKER, MOTOR CONTROL CENTER, MOTOR CIRCUIT PROTECTOR, MANUFACTURER, MAIN LUG ONLY, MOTOR STARTER, MOUNTED, NORMAL CLOSED, NEGATIVE, NEUTRAL, NORMALLY OPEN, NOT TO SCALE, OVERHEAD, OVERLOAD, POLE, PUSHBUTTON, PRESSURE ELEMENT, POWER FACTOR, PHASE, PRESSURE INDICATOR TRANSMITTER, PROGRAMMABLE LOGIC CONTROLLER, PANEL, PRIMARY, PRESSURE TRANSMITTER, POLYVINYL CHLORIDE, REMOTE, RIGID GALVANIZED STEEL CONDUIT, RIGID STEEL CONDUIT, SURFACE, SECONDARY, SHIELDED CABLE, SPEED INDICATOR, SOLID NEUTRAL, SPARE, SURGE PROTECTIVE DEVICE, SWITCH, SYMMETRICAL TRANSFORMER, TERMINAL BLOCKS, TIME DELAY RELAY, TEMPERATURE ELEMENT, TEMPERATURE INDICATING TRANSMITTER, TEMPERATURE LOW, TRANSFORMER, TEMPERATURE SWITCH, TWISTED SHIELDED CABLE, VOLT, VOLT-AMPERE, VARIABLE FREQUENCY DRIVE, WIRE, CROSS LINKED POLYETHYLENE TRANSFORMER, LIMIT SWITCH CLOSED, LIMIT SWITCH OPEN

GROUNDING



GENERAL NOTES

- 1. ALL CONDUIT AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CURRENT NATIONAL ELECTRICAL CODE.
2. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURES. EXPOSED CONDUITS SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS.
3. CONDUITS SHALL BE PROPERLY TERMINATED WITH NEAT CONNECTIONS TO ALL ASSOCIATED EQUIPMENT.
4. CONTROL AND INSTRUMENTATION CONDUIT SIZES AND NUMBER OF CONDUCTORS ARE TO BE DETERMINED FROM SCHEMATIC DIAGRAMS, INSTRUMENTATION DIAGRAMS, AND/OR SPECIFICATIONS, IF NOT DIRECTLY SHOWN ON POWER PLANS. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUIT REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL AND INSTRUMENTATION EQUIPMENT. MODIFICATIONS REVIEWED BY THE ENGINEER WITH NO EXCEPTIONS TAKEN, MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. EACH CONTROL AND INSTRUMENTATION CONDUIT SHALL ALSO CONTAIN 10 PERCENT SPARE CONDUCTORS, WITH A MINIMUM OF TWO SPARES, UP TO THE LIMIT OF CONDUIT FILL AS SPECIFIED BY THE NATIONAL ELECTRICAL CODE. INSTRUMENTATION SHIELDED CABLES SHALL BE INSTALLED IN RGS CONDUIT. SEPARATE FROM OTHER POWER WIRING.
5. EACH CONDUIT TO CARRY GROUND WIRE(S) IN ADDITION TO NUMBER OF CONDUCTORS SHOWN ON DRAWINGS OR PER NOTE 4 ABOVE. ALL GROUNDING MUST CONFORM TO ARTICLE 250 OF CURRENT NATIONAL ELECTRICAL CODE.
6. MINIMUM CONDUIT SIZE SHALL BE 3/4" TRADE SIZE, UNLESS OTHERWISE NOTED ON THE ELECTRICAL DRAWINGS. GENERAL LIGHTING, RECEPTACLE AND HVAC POWER CIRCUITS MAY BE 1/2" TRADE SIZE CONDUIT INSTALLED PER NEC. MINIMUM POWER WIRING SHALL BE 2CH12 AWG WITH GROUND AND 2CH14 AWG FOR CONTROL. MINIMUM INSTRUMENTATION CABLE SHALL BE 2/CH16 AWG TWS AND 3CH16 AWG TWS FOR SPEED POTENTIOMETERS AND RTD'S. PROVIDE CONDUIT AND WIRING AS INDICATED.
7. ALL SURFACE MOUNTED PANELS ON THE INSIDE OF EXTERIOR WALLS ABOVE GRADE, OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE MOUNTED TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.
8. ELECTRICAL EQUIPMENT LOCATIONS ARE APPROXIMATE ONLY. COORDINATE LOCATIONS WITH PROCESS PIPING AND OTHER DRAWINGS. CONTRACTOR SHALL COORDINATE MANUFACTURER'S EQUIPMENT REQUIREMENTS WITH SPACE AVAILABLE. FINAL CONTROL PANEL LOCATIONS SHALL BE FIELD COORDINATED.
9. ALL FIELD CONTROL CONDUCTORS WILL TERMINATE AT INDIVIDUAL TERMINAL BLOCKS WITHIN THE CONTROL ENCLOSURE. SERIES AND PARALLEL CONNECTION OF FIELD CONTROL CONDUCTORS WILL BE MADE ONLY AT CONTROL PANEL OR MOTOR CONTROL CENTER TERMINAL BLOCKS.
10. GROUND ALL CONDUCTOR SHIELDS AT CONTROL PANEL ONLY - DO NOT GROUND SHIELDS AT BOTH ENDS.
11. AT THE FOLLOWING LOCATIONS, UNLESS OTHERWISE NOTED, PULL, JUNCTION, TERMINAL, SWITCH, AND OUTLET BOXES SHALL BE CAST IRON WHERE STEEL CONDUIT IS TERMINATED; OR SHALL BE CAST ALUMINUM WHERE ALUMINUM CONDUIT IS TERMINATED:
A - AT LOCATIONS WHERE VAPORTIGHT LIGHTING FIXTURES AND/OR WATERTIGHT RECEPTACLES ARE INDICATED.
B - AT LOCATIONS ON OR IN ALL OUTSIDE WALLS.
C - OUTDOORS
12. NAMEPLATES SHALL CONFORM STRICTLY TO INSTRUCTIONS IN THE ELECTRICAL SPECIFICATIONS AND ON THE DRAWINGS. THE FOLLOWING SHALL HAVE NAMEPLATES:
A - ALL LOCAL CONTROL STATIONS AT OR NEAR EQUIPMENT
B - ALL PANELBOARDS, MOTOR CONTROL CENTERS
C - GANGED LIGHT SWITCHES
D - PROCESS CONTROL PANELS
13. PIPE SLEEVES FOR CONDUITS PASSING FROM NON-HAZARDOUS AREAS TO HAZARDOUS AREAS SHALL HAVE CAULKING APPLIED TO MAKE THE INSTALLATION GASTIGHT.
14. CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIRING, EQUIPMENT, AND CONTROL DEVICES AS INDICATED BY SCHEMATICS, SINGLE LINE DIAGRAMS, SCHEDULES, PLANS, SPECIFICATIONS, AND VENDOR DOCUMENTATION TO PROVIDE A COMPLETE WORKING SYSTEM. SINCE NOT ALL HOME RUNS ARE SHOWN ON PLANS, THE CONTRACTOR SHALL REFERENCE ALL SINGLE LINE AND SCHEMATIC DIAGRAMS, SCHEDULES, AND VENDOR DOCUMENTATION TO DETERMINE CONDUIT AND WIRING REQUIREMENTS.
15. PROVIDE CONCRETE HOUSEKEEPING PADS (4" HIGH) UNDER ELECTRICAL AND INSTRUMENTATION EQUIPMENT THAT IS DESIGNED TO BE FLOOR MOUNTED. PROVIDE SUBMITTAL SKETCH FOR ENGINEER REVIEW.
16. CONTRACTOR SHALL PROVIDE A COMPLETE WORKING OPERATING SYSTEM IN ACCORDANCE WITH ALL DRAWINGS, SPECIFICATIONS, CODES AND STANDARDS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL OF THE ELECTRICAL DRAWINGS AND CONDUIT AND WIRE SCHEDULES RELATIVE TO THE CONDUIT AND WIRE TO BE PROVIDED ON THIS PROJECT. THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE DETAILED INFORMATION OF SPECIFIC INDIVIDUAL RUNS OF CONDUIT AND WIRE TO SPECIFIC EQUIPMENT. THE CONTRACTOR IS DIRECTED TO COMBINE CONDUIT AND WIRE RUNS AS MUCH AS POSSIBLE. THE LIMITING FACTOR FOR COMBINING CONDUIT AND WIRE SHALL BE BASED ON THE DERATING FACTORS ALLOWED PER THE NATIONAL ELECTRICAL CODE (NEC) BASED ON EQUIPMENT RATINGS AND REQUIRED AMPACITY RATINGS. CONTRACTOR IS DIRECTED TO USE THE MOST COST-EFFECTIVE CONDUIT AND WIRE RUNS CONSISTENT WITH THESE REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
18. 120V CIRCUITS EXCEEDING 100 FEET IN LENGTH SHALL BE NO 10 AWG WIRING, MINIMUM.
19. POWER CONDUITS FOR THREE PHASE AND SINGLE PHASE CIRCUITS (DESIGNATED WITH "P" NUMBERS) ARE SHOWN ON POWER PLANS, WITH CONDUIT SIZES AND WIRING INFORMATION INDICATED IN THE CONDUIT AND WIRE SCHEDULES.
20. CONTROL AND INSTRUMENTATION SIGNAL CONDUITS (DESIGNATED WITH "C" AND "S" NUMBERS OR, ALTERNATIVELY, INDICATED BY WAY OF A LEGEND) ARE SHOWN ON CONTROL AND INSTRUMENTATION WIRING DIAGRAMS, WITH CONDUIT SIZES AND WIRING INFORMATION INDICATED EITHER IN THE LEGEND OR IN CONDUIT AND WIRE SCHEDULES. THE CONTRACTOR SHALL NOTE THAT THE MAJORITY OF CONTROL AND INSTRUMENTATION SIGNAL CONDUITS AND WIRING REQUIRED FOR THIS CONTRACT IS INDICATED IN THE AFOREMENTIONED LEGEND AND DOES NOT APPEAR IN THE CONDUIT AND WIRE SCHEDULES. FOR INSTRUMENTS REQUIRING 120V POWER SUPPLIES, THIS INFORMATION IS ALSO SHOWN ON THE CONTROL AND INSTRUMENTATION WIRING DIAGRAMS.
21. PROVIDE CONDUIT EXPANSION PROTECTION FOR ALL EXTERIOR CONDUIT SYSTEMS.
22. FOR ALL OUTDOOR ELECTRICAL EQUIPMENT AND INSTRUMENTATION, CONTRACTOR SHALL USE CONDUIT INSTALLATION MEANS AND METHODS NECESSARY TO MITIGATE MOISTURE AND CONDENSATION PER NEC AND INSTALLATION METHODS LISTED IN SPECIFICATIONS. MITIGATION METHODS INCLUDE DRIP LOOPS, AVOIDING TOP ENTRY, USE OF BREATHERS, DRAINS, AND DUCT SEALANT AS NECESSARY.
23. DO NOT SCALE DISTANCES OR DIMENSIONS FROM THE DRAWINGS. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE ENGINEER.

GENERAL DEMOLITION NOTES:

- 1. THE EXISTING ELECTRICAL PLAN FOR THIS PROJECT IS BASED ON INFORMATION PROVIDED BY OTHERS AND FIELD SURVEY OF THE SITE. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. FIELD VERIFY ALL CONDITIONS AFFECTING THE WORK PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. PROTECT ALL EXISTING ITEMS AND EQUIPMENT ADJACENT TO THE WORK AREA. ALL EXISTING ITEMS, EQUIPMENT AND MATERIALS DAMAGED OR AFFECTED BY THE WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
4. THE EXISTING FACILITY SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. SEE SPECIFICATION FOR ADDITIONAL DETAILS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE DEMOLITION AND CONSTRUCTION WITH THE OWNER'S REQUIREMENTS TO MAINTAIN FACILITY OPERATION. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS NECESSARY.
5. PATCH, REPAIR AND REFINISH ALL EXISTING SURFACES AFFECTED BY THE WORK, TO THE SATISFACTION OF THE ENGINEER.
6. ALL ITEMS SHOWN ON THE PLANS WITH SHADING ARE TO BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE INDICATED. THIS SHALL INCLUDE ALL ASSOCIATED CONDUIT, WIRING, BOXES, DEVICES, CONTROLS, ETC. UNLESS OTHERWISE NOTED. THE OWNER RESERVES THE RIGHT TO RETAIN ANY EQUIPMENT OR MATERIALS. THE CONTRACTOR WILL STORE ON SITE AND PROTECT SUCH ITEMS IN A MANNER ACCEPTABLE TO THE OWNER AND ENGINEER. ALSO REFER TO THE STRUCTURAL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS FOR A COMPLETE REQUIREMENT OF DEMOLITION WORK FOR THIS PROJECT.
7. ALL 120/208V ELECTRICAL EQUIPMENT TO REMAIN WHICH IS FED FROM PANELBOARDS OR EQUIPMENT DESIGNATED AS BEING REMOVED OR RELOCATED, SHALL REMAIN AND BE REWIRED FROM NEW OR RELOCATED PANELBOARDS OR EQUIPMENT AS NOTED ON THE MODIFIED DRAWINGS AS REQUIRED BY THE INTENDED OVERALL DEMOLITION OF THIS WORK. REMOVE EXISTING CONDUIT AND WIRING FROM THE APPLICABLE EXISTING PANELBOARD OR EQUIPMENT BACK TO THE CIRCUITS NEAREST PULLBOX, CONTROLLING DEVICE OR FIXTURE LOCATED OUTSIDE THE AREA BEING DEMOLISHED AND RE-FEED AS NOTED ON THE MODIFIED DRAWINGS. RE-FEED THE EXISTING EQUIPMENT WITH NEW CONDUIT AND WIRING FOR A COMPLETE INSTALLATION. SPLICING OF WIRING SHALL NOT BE ALLOWED.
8. THE EXISTING PANELBOARD CIRCUIT DESCRIPTIONS SHOWN WERE TAKEN FROM EXISTING PANELBOARD DIRECTORIES OBTAINED IN THE FIELD AND/OR BY EXISTING RECORD DRAWING PANELBOARD SCHEDULES. THE ACCURACY OF THESE DESCRIPTIONS HAS NOT BEEN FIELD VERIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CIRCUITRY, AS APPLICABLE FOR THIS PROJECT, ASSOCIATED WITH THE PANEL, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

NEMA CLASSIFICATIONS FOR NEW ELECTRICAL EQUIPMENT AND ENCLOSURES

Table with 3 columns: ROOM NAME, NEMA RATING, and specific ratings for General Outdoors, Lower Level Chemical Areas, and Electrical Room.

NOTES:

- 1. THE AREAS NOTED SHALL BE RATED AS INDICATED, EXCEPT THAT EQUIPMENT SUCH AS MOTOR CONTROL CENTERS, SWITCHBOARDS, AND TRANSFORMERS SHALL BE RATED AS SPECIFIED. PANELBOARDS AND TRANSFORMERS SHALL BE, AT A MINIMUM, RATED NEMA 12 IF NOT SPECIFIED.
2. AREAS WITHIN 3' OF VENTS ARE RATED NEMA 7 (CLASS 1, DIV. 1) AND BETWEEN 3' AND 5' ARE RATED NEMA 7 (CLASS 1, DIV. 2). AREAS 18" ABOVE AND WITHIN 3' FROM HATCH OPENINGS ARE RATED NEMA 7 (CLASS 1, DIV. 2). AREAS WITHIN A 3' ENVELOPE FROM DOORS ARE RATED NEMA 7 (CLASS 1, DIV. 2).
3. WATER SURFACE TO 18" ABOVE TANK AND 10 FEET FROM WALL 18" ABOVE GRADE IS RATED NEMA 7 (CLASS 1, DIV. 2) AREAS 18" ABOVE TANK WALL AND ABOVE GRADE ARE RATED UNCLASSIFIED NEMA 4X.
4. ALL CHEMICAL ROOMS ARE NEMA 4X CORROSIVE.

** CONDUIT INSTALLATION SCHEDULE

Table with 4 columns: AREA NEMA RATING PER E-1, CONDUIT REQUIRED IN EXPOSED AREAS, CONDUIT REQUIRED IN NON EXPOSED AREAS, and CONDUITS EMERGING FROM GRADE OR SLAB 12" AFF.

** SEE SPECIFICATIONS FOR FURTHER INFORMATION
* SIGNAL CONDUITS SHALL BE RGS

NOTE: ALL NOTES AND SYMBOL LISTS SHALL BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.

Project information including Project No. 20798, Designer S. Laprise, CAD Coordinator Elagner, and Wright-Pierce logo with contact information: 860.343.8297 | www.wright-pierce.com

