

CONTRACT 2 WASTEWATER TREATMENT PLANT IMPROVEMENTS

Project No. 19MW103.2

The Water Works & Sewer Board of the City of Monroeville
Monroeville, Alabama
May 2024

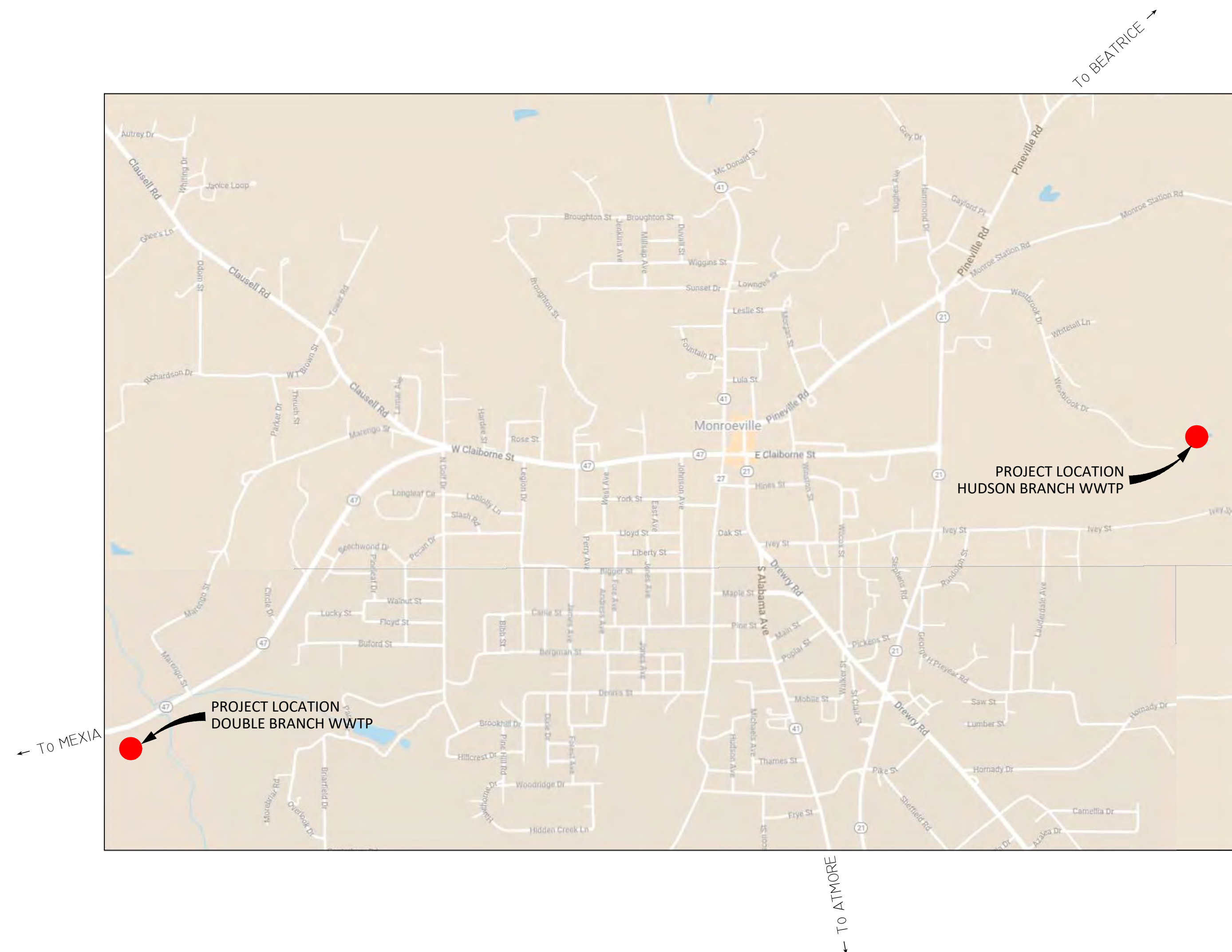


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GENERAL NOTES:

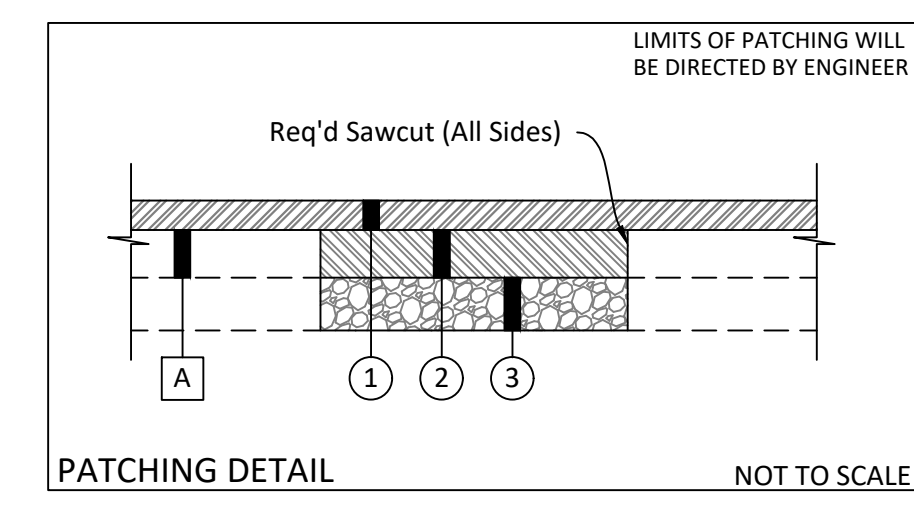
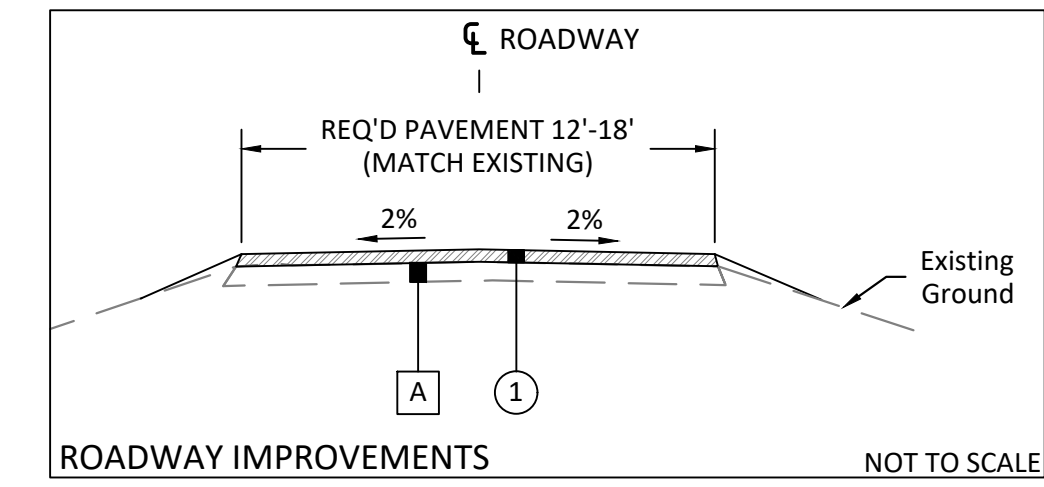
1. ALL NECESSARY PERMITS AND APPROVALS FROM AGENCIES GOVERNING THE CONSTRUCTION OF THIS WORK SHALL BE SECURED PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL CONTACT "ONE CALL" (811) 72 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION.
3. ANY WORK UNACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
4. REPAIR ANY EXISTING CURBS, WALKS, LANDSCAPING, ETC. THAT ARE DAMAGED BY CONSTRUCTION ACTIVITIES TO A LIKE NEW CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE OWNER AND ENGINEER. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
6. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL INSTALLED ITEMS AND PROVIDE THESE DRAWINGS TO THE ENGINEER PRIOR TO FINAL PROJECT ACCEPTANCE.
7. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES DURING ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE LATEST MUTCD STANDARDS.
8. PRE-CONSTRUCTION STORMWATER RUNOFF CONDITIONS SHALL NOT BE ALTERED BY CONSTRUCTION ACTIVITIES. ALL AREAS SHALL BE RE-ESTABLISHED AS TO NOT ALTER PRE-CONSTRUCTION CONDITIONS.
9. ALL CONCRETE SHALL BE A MINIMUM OF 3,000 PSI CONCRETE.

UTILITY NOTES:

1. ALL SEWER LINES, AND APPURTENANCES SHALL BE OF MATERIALS AND CONSTRUCTION THAT CONFORM TO THE UTILITY OWNER'S REQUIREMENTS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING MANHOLES OR SANITARY SEWER LINES AT THE POINT OF CONNECTION PRIOR TO THE COMMENCEMENT OF ORDERING MATERIALS OR CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
3. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION SO THAT SERVICE IS NOT INTERRUPTED. SHOULD SERVICE INTERRUPTIONS BE EXPERIENCED, THE CONTRACT MUST NOTIFY THE OWNER, ENGINEER, AND AFFECTED CUSTOMERS IMMEDIATELY.
5. BEFORE CONNECTIONS ARE MADE INTO EXISTING UTILITIES, THE NEW LINES ARE TO BE FLUSHED AND TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE OWNERS SPECIFICATIONS.
6. THE CONTRACTOR SHALL VERIFY REQUIRED STRUCTURE DIMENSIONS, PIPE LENGTHS, PIPE MATERIAL AND SIZES AS SHOWN ON PLANS.
7. ANY DEVIATIONS FROM THE DESIGN LOCATIONS OF THE PROPOSED IMPROVEMENTS SHALL BE REPORTED TO THE OWNER AND ENGINEER.

EROSION CONTROL NOTES:

1. INSTALL ALL EROSION CONTROL MEASURES AS DIRECTED BY THE ENGINEER BEFORE BEGINNING OPERATIONS.
2. REMOVE SEDIMENT FROM ALL STRUCTURES BEFORE ACCEPTANCE BY THE OWNER, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
3. ALL DISTURBED AREAS SHALL BE SEEDED/SODDED WITHIN 10 DAYS OF THE COMPLETED ACTIVITY FOR THAT AREA UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NO MORE THAN 0.75 ACRES SHALL BE DISTURBED AT A GIVEN TIME.
4. REMOVE TEMPORARY EROSION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED AND IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
5. PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF DEBRIS AND DIRT.
6. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO COMPACT FILL SUFFICIENTLY AROUND AND OVER ALL PIPES, STRUCTURES, VALVES, ETC., INSIDE THE PROPOSED PAVED AREAS TO AVOID SETTLEMENT. ANY SETTLEMENT DURING THE WARRANTY PERIOD SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS.
8. AN ADEM STORMWATER PERMIT IS NOT REQUIRED FOR THIS PROJECT. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MEASURES UNTIL FINAL PROJECT ACCEPTANCE.



ITEM	UNIT	DESCRIPTION
①	REQ'D TON	SUPERPAVE BITUMINOUS CONCRETE WEARING SURFACE LAYER, 3/4" MAX. AGG. SIZE MIX (165 LBS/SY) (1.5" THICK)
②	REQ'D TON	SUPERPAVE BITUMINOUS CONCRETE PATCHING, 3/4" MAX. AGG. SIZE MIX (330 LBS/SY) (3" THICK)
③	REQ'D TON	CRUSHED AGG. BASE, TYPE B - 4" COMPACTED THICKNESS
A	IN-PLACE	BITUMINOUS PAVEMENT/GRAVEL SURFACE (RETAIN)

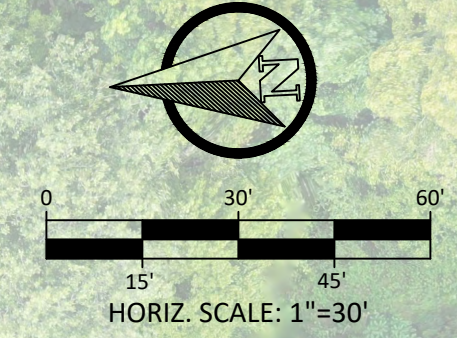
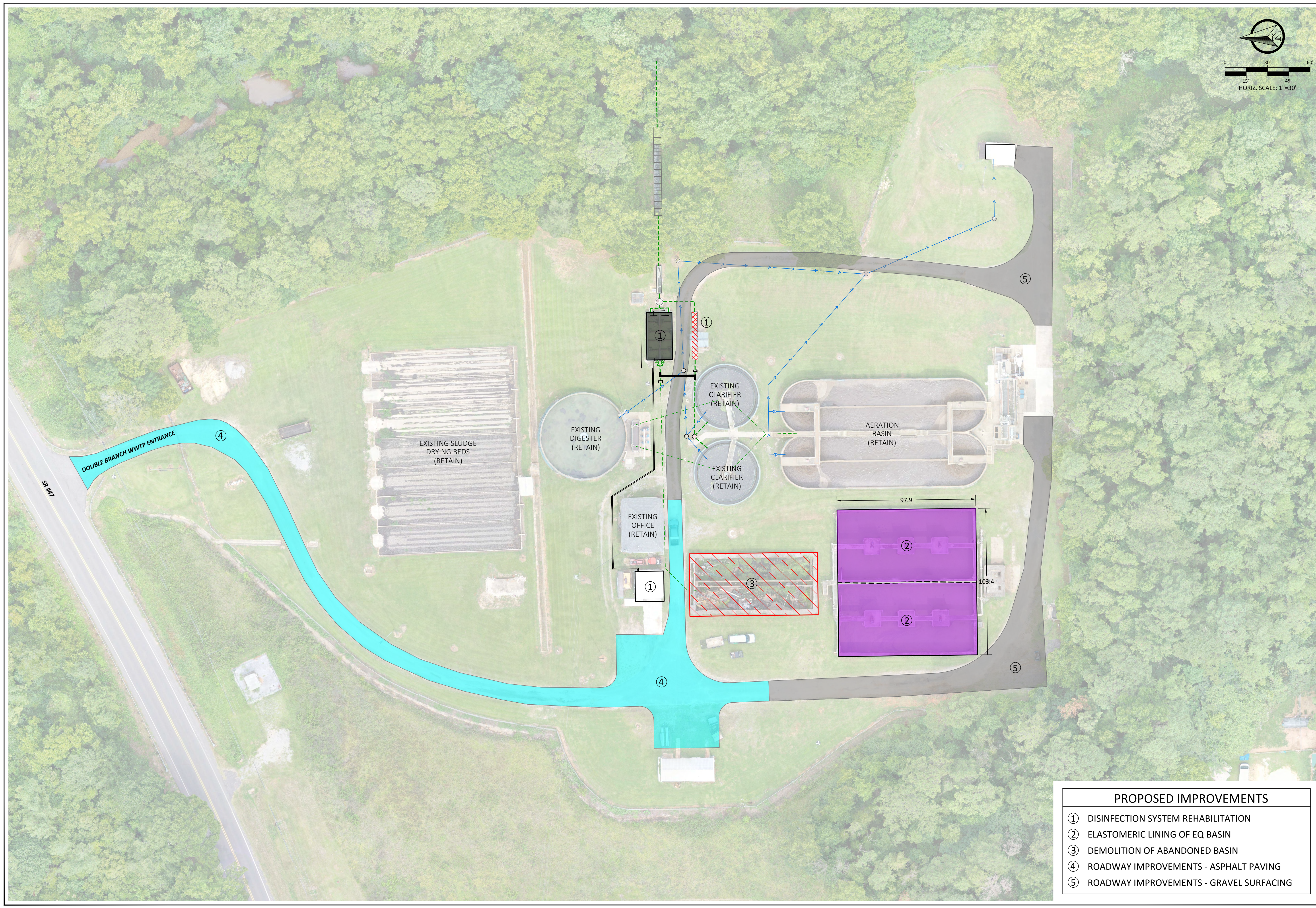
CONTACTS:

MWWSB <i>General Manager</i> William Snyder 251.575.2617	MWWSB <i>Sewer Superintendent</i> Kendall Norris 251.362.0587	Civil Southeast <i>Project Engineer</i> Chase Cotton, P.E. 334.488.0933
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ISSUE	DATE	DESCRIPTION

CHECKED BY: JTM	PROJECT NUMBER: 19MW103.1
DRAWN BY: CDC	DATE DRAWN: 3/27/2024
PLAN SUBMITTAL: FOR BID	

PROJECT: CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS
SHEET TITLE: PROJECT NOTES / DETAILS



ISSUE	DATE	DESCRIPTION

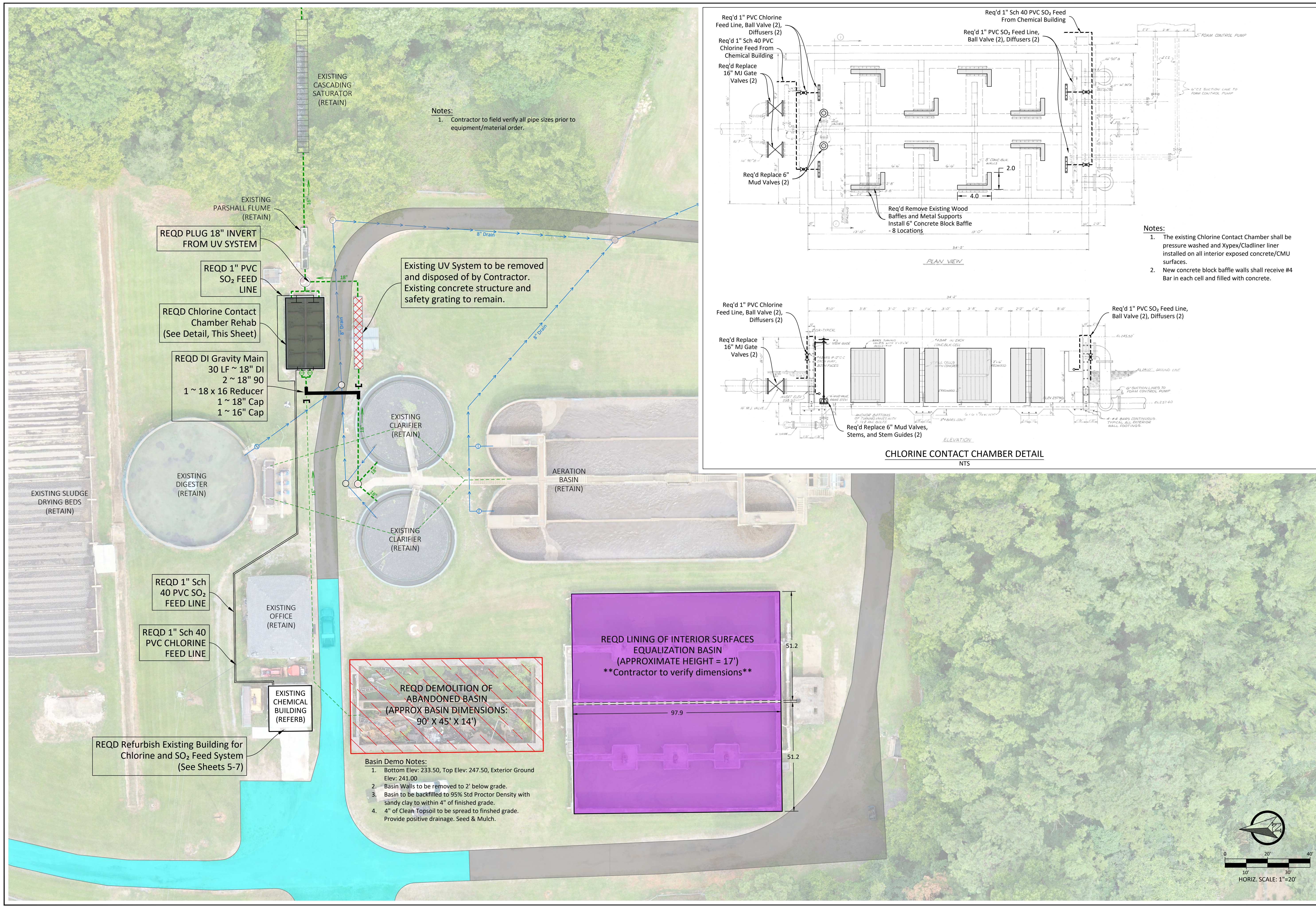
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PROJECT:	CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS
PROJECT NUMBER:	19MW103.2

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DATE DRAWN:	3/27/2024
CHECKED BY:	JTM
DRAWN BY:	CDC
PLAN SUBMITTAL:	FOR BID

PROJECT:	CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS
SHEET TITLE:	DOUBLE BRANCH - OVERALL SITE PLAN

- PROPOSED IMPROVEMENTS**
- ① DISINFECTION SYSTEM REHABILITATION
 - ② ELASTOMERIC LINING OF EQ BASIN
 - ③ DEMOLITION OF ABANDONED BASIN
 - ④ ROADWAY IMPROVEMENTS - ASPHALT PAVING
 - ⑤ ROADWAY IMPROVEMENTS - GRAVEL SURFACING

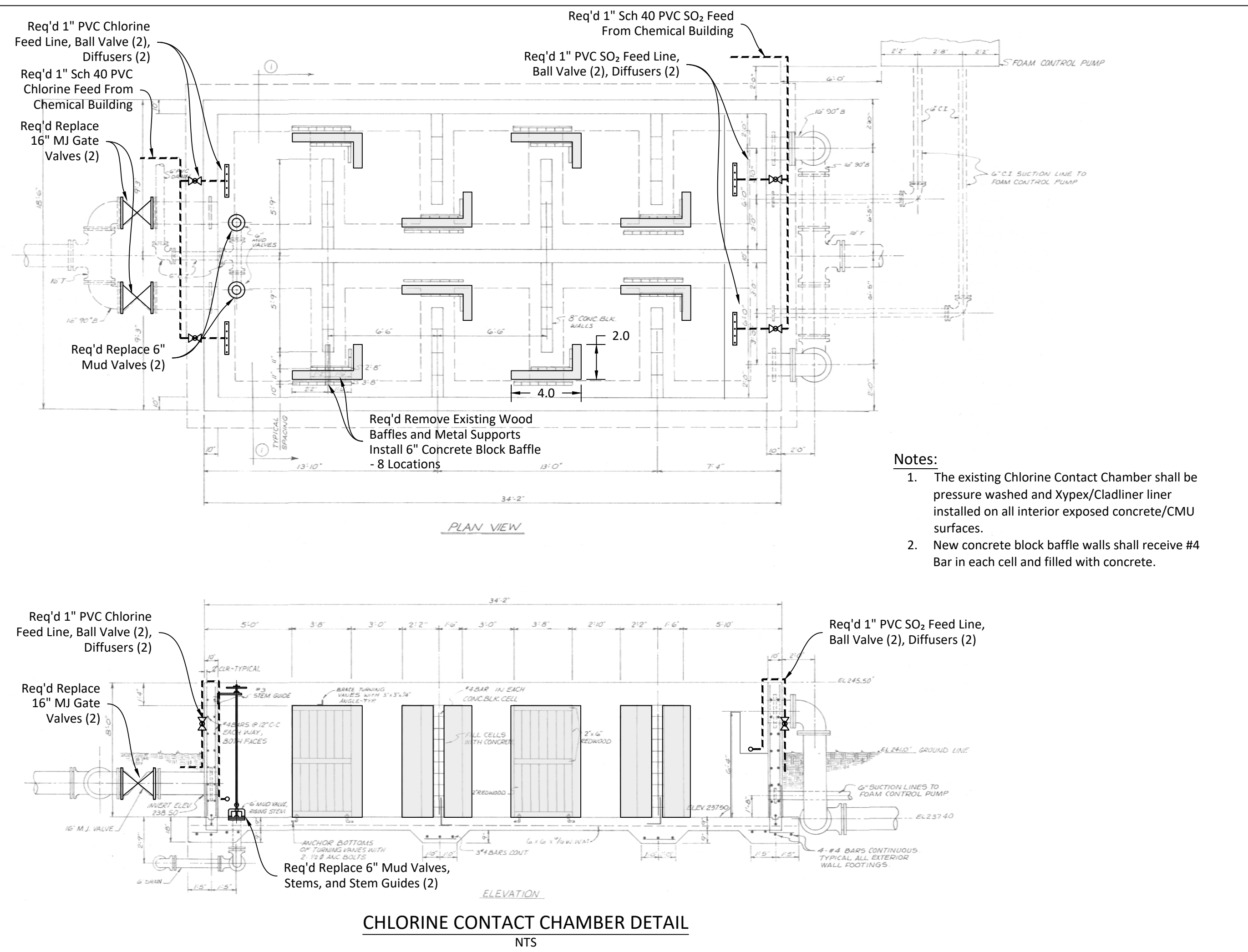


Notes:
 1. Contractor to field verify all pipe sizes prior to equipment/material order.

Existing UV System to be removed and disposed of by Contractor. Existing concrete structure and safety grating to remain.

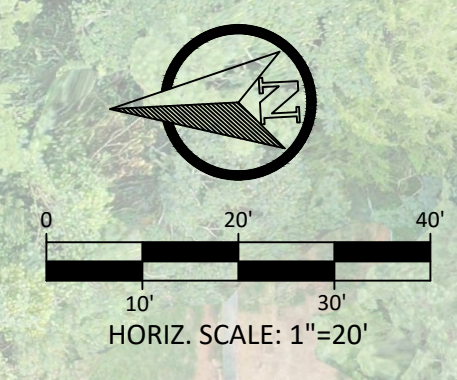
REQD DEMOLITION OF ABANDONED BASIN (APPROX BASIN DIMENSIONS: 90' X 45' X 14')

Basin Demo Notes:
 1. Bottom Elev: 233.50, Top Elev: 247.50, Exterior Ground Elev: 241.00
 2. Basin Walls to be removed to 2' below grade.
 3. Basin to be backfilled to 95% Std Proctor Density with sandy clay to within 4" of finished grade.
 4. 4" of Clean Topsoil to be spread to finished grade. Provide positive drainage. Seed & Mulch.



Notes:
 1. The existing Chlorine Contact Chamber shall be pressure washed and Xypex/Cladliner liner installed on all interior exposed concrete/CMU surfaces.
 2. New concrete block baffle walls shall receive #4 Bar in each cell and filled with concrete.

SHEET NUMBER		4	
PROJECT:	CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS	CHECKED BY:	JTM
SHEET TITLE:	DOUBLE BRANCH - SITE PLAN	DATE DRAWN:	3/27/2024
		PROJECT NUMBER:	19MW103.2
		PLAN SUBMITTAL:	FOR BID
		DRAWN BY:	CDC

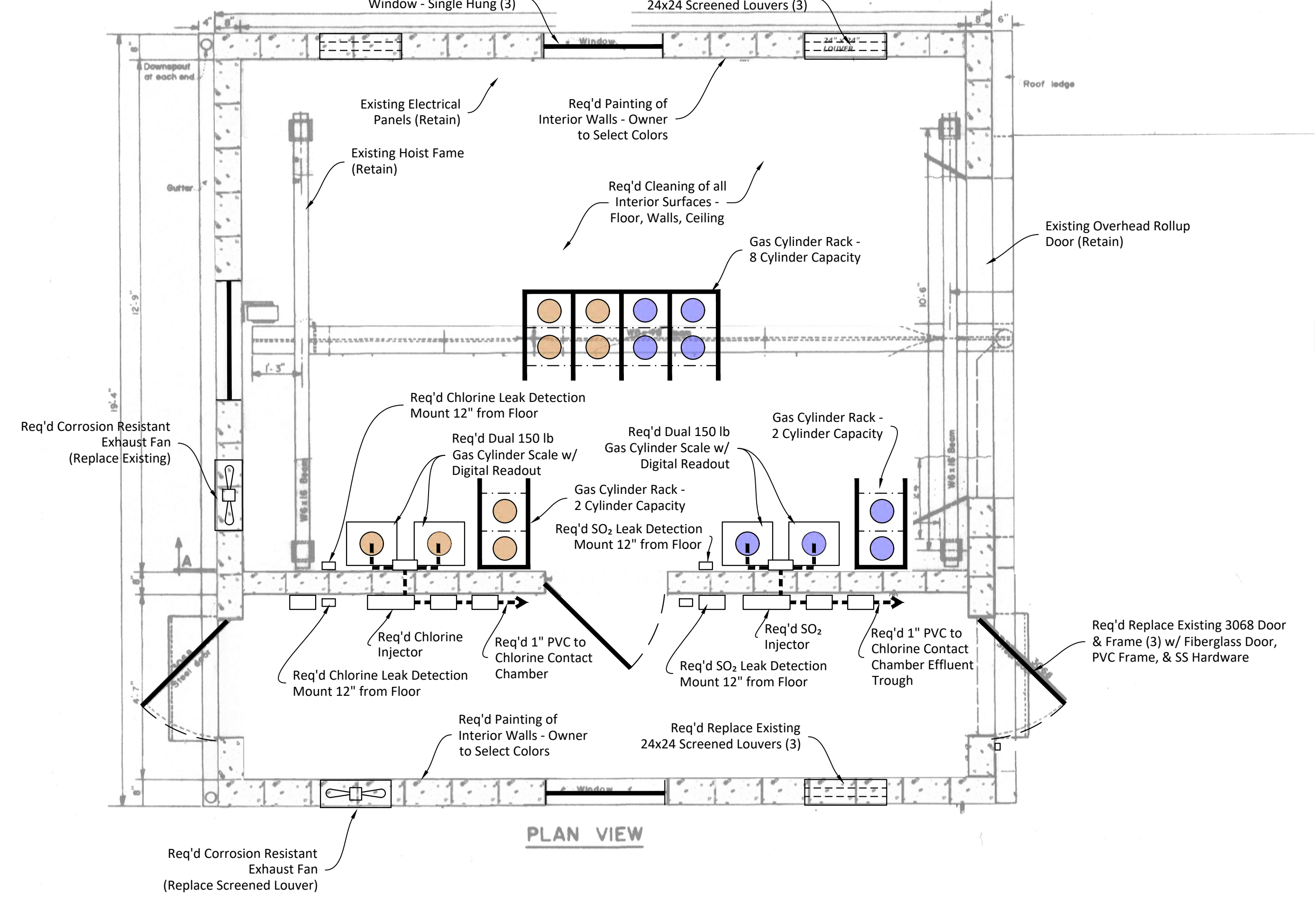
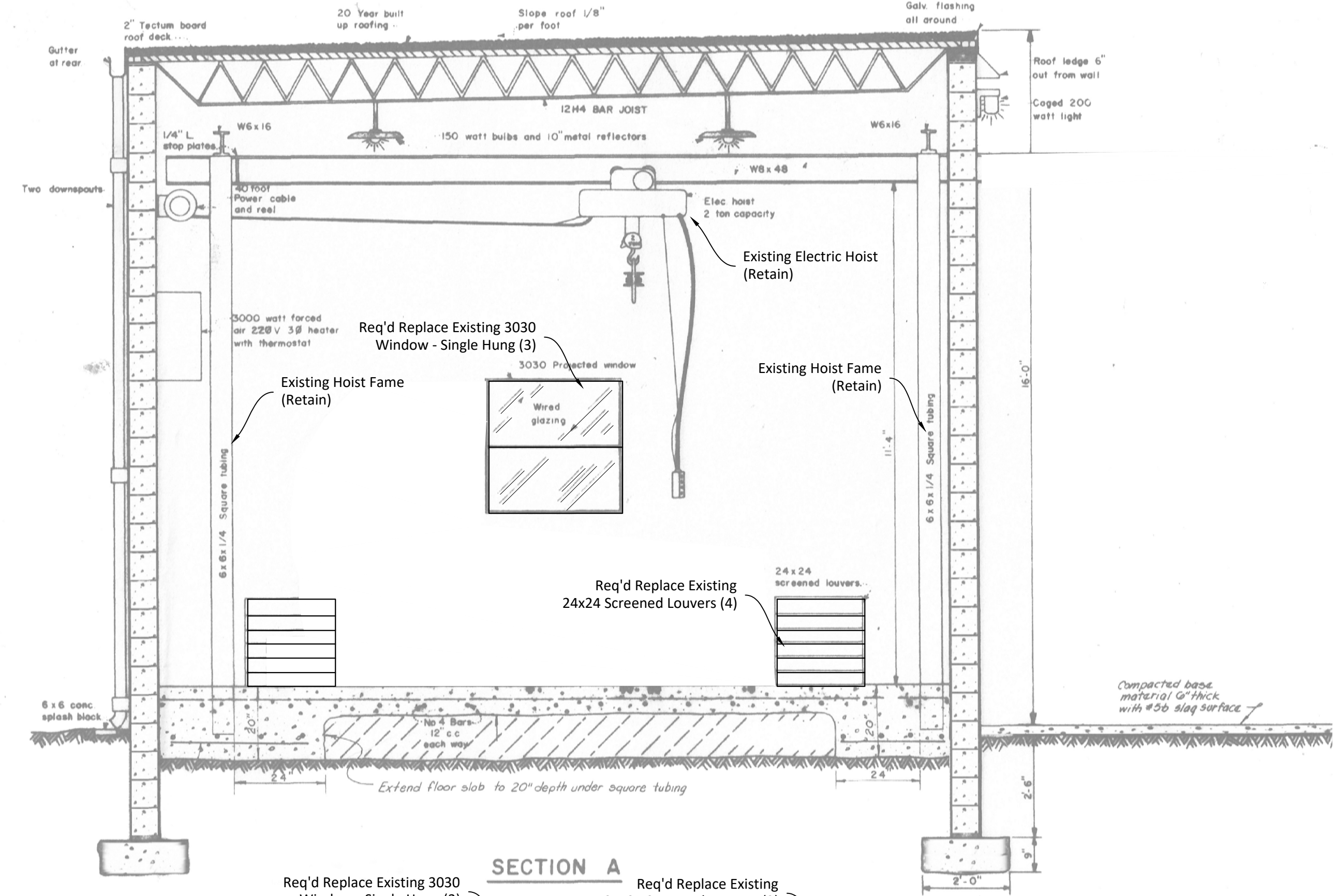
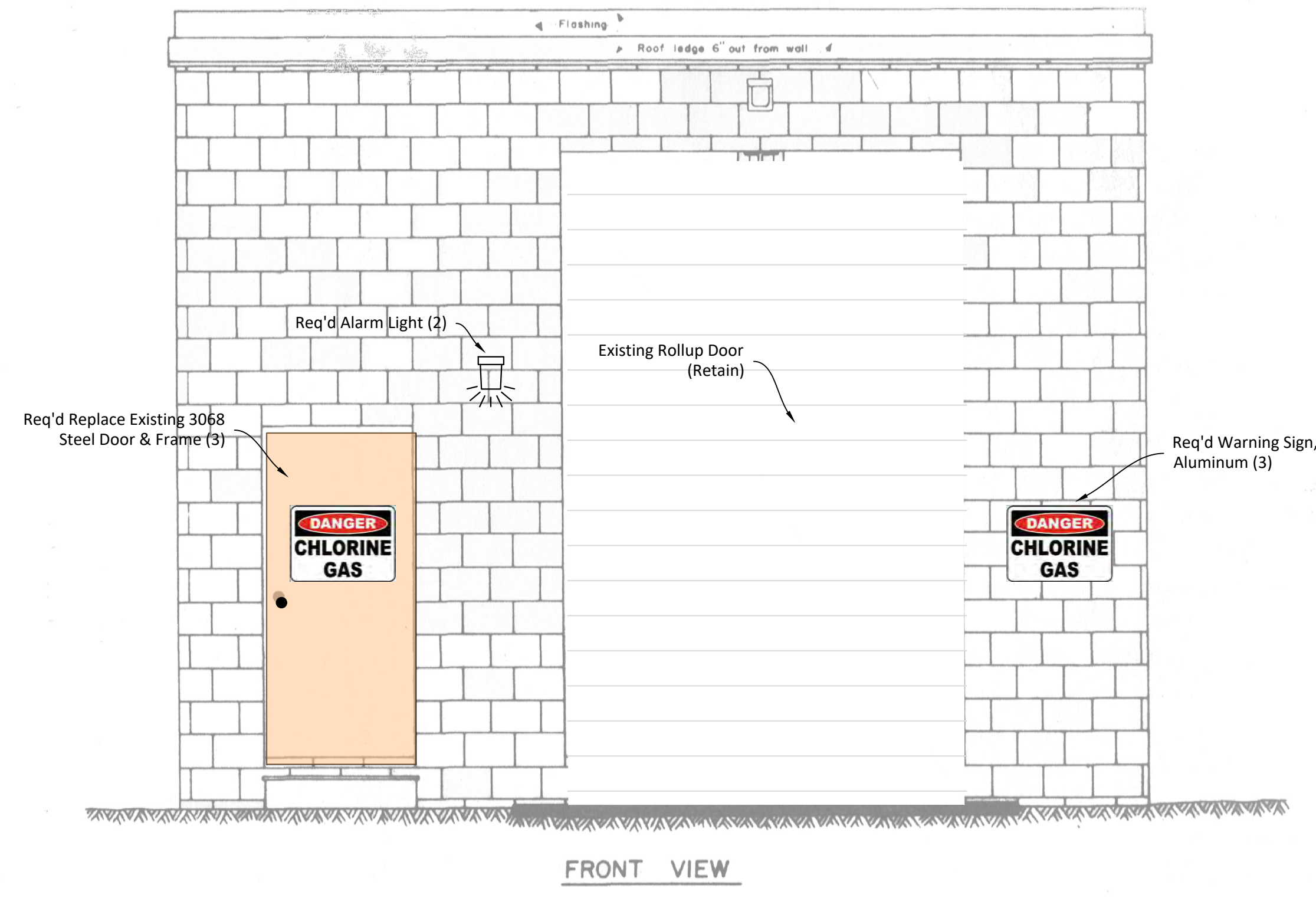


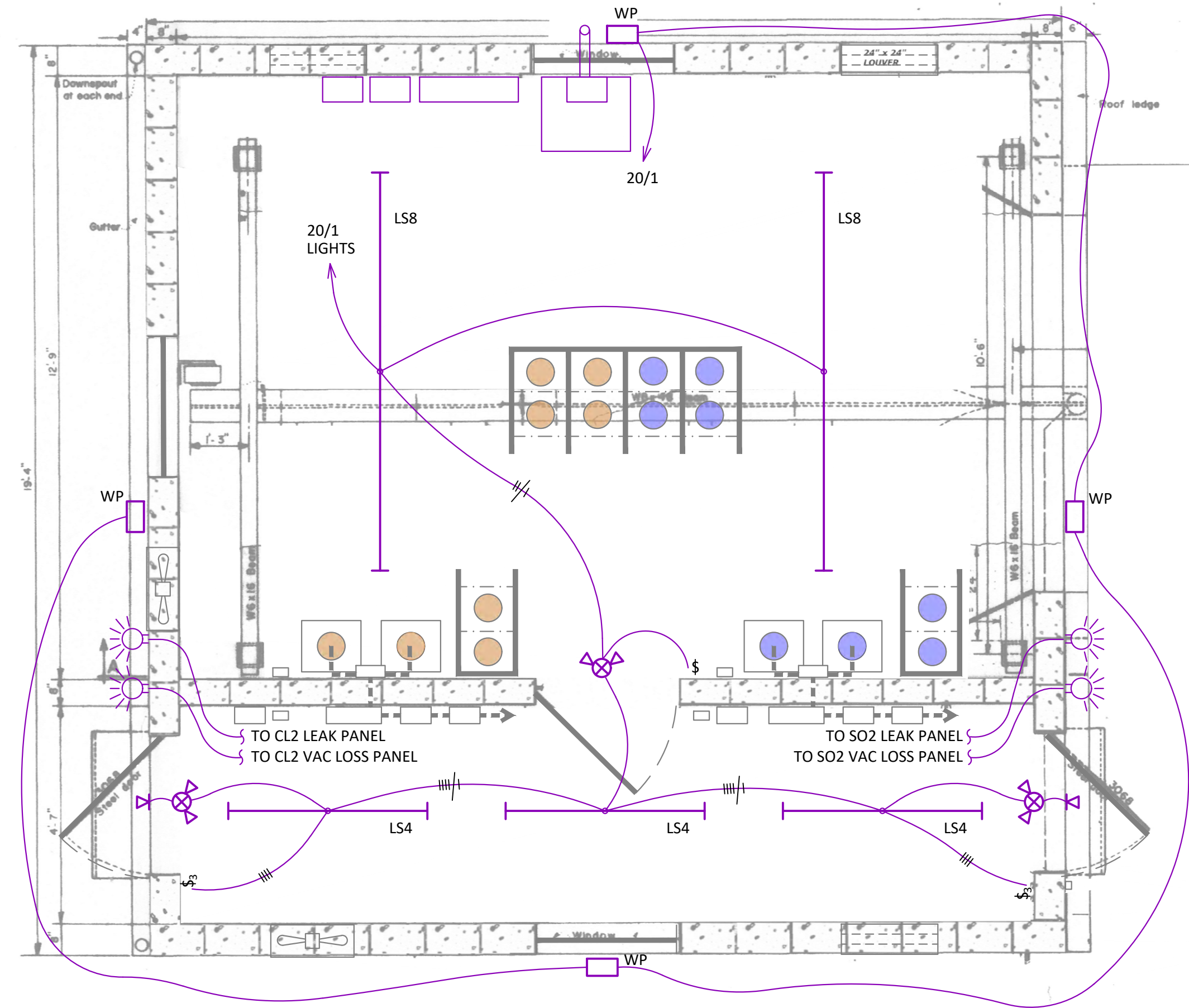
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PROJECT: CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS

SHEET TITLE: DOUBLE BRANCH - CHEMICAL BUILDING

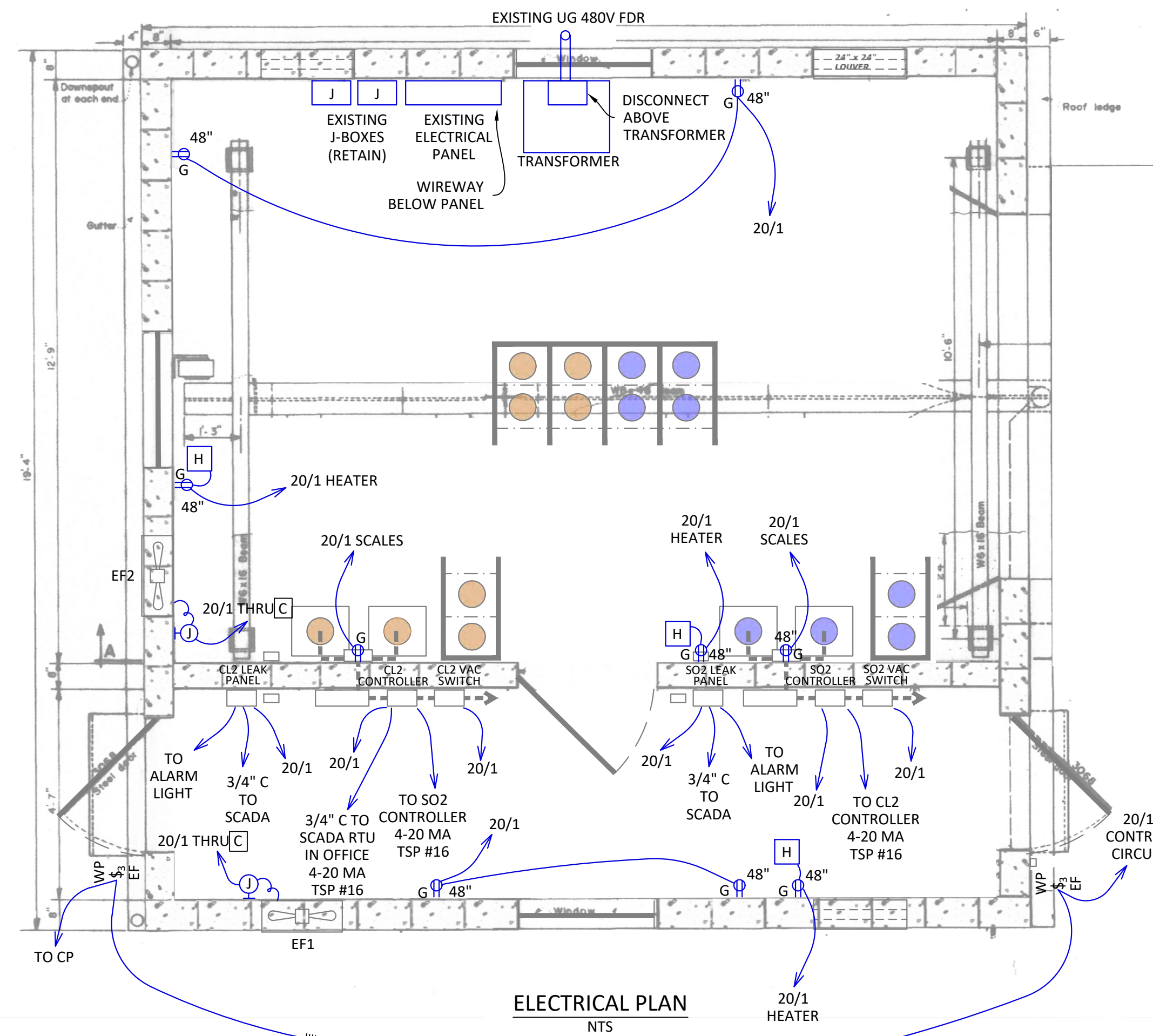




LIGHTING PLAN
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- FIXTURE SCHEDULE:**
- LS8: 8', LED FIXTURE EQUAL TO LITHONIA #CSV-L96-10000LM-MVOLT, 40K, 80 CRI
 - LS4: 4', ED FIXTURE EQUAL TO LITHONIA #CSV-L48-5000LM-MVOLT, 40K, 80 CRI
 - COMBINATION EXIT/EMERGENCY LIGHT W REMOTE CAPABILITY, BATTERY BACKUP
 - REMOTE EMERGENCY HEAD, COMPATIBLE WITH COMBO EMERGENCY EXIT LIGHT ABOVE
 - WP WALL PACK, LED, EQUAL TO LITHONIA #TWR-LED-ALO-SWW2-UVOLT-PE-DDBTD (USE 4000K COLOR SETTING AND HIGH LUMEN SETTING, TURN PHOTOCELL ON)

- GENERAL NOTES:**
1. REMOVE ALL EXISTING EXPOSED CONDUIT, WIRE, BOXES, EXHAUST FANS, HEATERS, LIGHT FIXTURES, DEVICES, COVERS.
 2. EXISTING POWER PANEL TO REMAIN
 3. EXISTING TRANSFORMER AND DISCONNECT TO REMAIN
 4. EXISTING CIRCUITS NOT CONTAINED INSIDE BUILDING TO REMAIN
 5. EXISTING WIREWAY UNDER POWER PANEL TO REMAIN
 6. ALL NEW WIRING SHALL BE COPPER, THHN/THWN
 7. ALL NEW CONDUIT TO BE SCH 40 PVC
 8. ALL NEW BOXES TO BE PVC
 9. ALL DEVICES TO BE CORROSION RESISTANT
 10. EC TO UPDATE PANEL DIRECTORY UPON COMPLETION OF ALL WORK



ELECTRICAL PLAN
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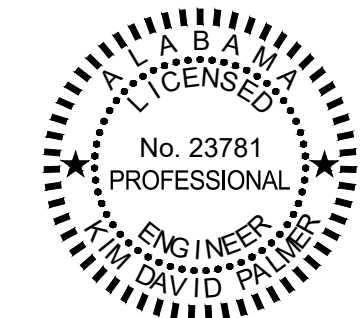
- LEGEND:**
- 1500W, 120V, MILKHOUSE HEATER, MOUNTED ON SHELF OF HOOK - 48" AFF
 - EF1: EXHAUST FAN, SHUTTER TYPE, CORROSION RESISTANT, 400 CFM, 120V - MOUNT 8" AFF USE CORROSION RESISTANT GRILLE TO FINISH OUT OPENING
 - EF2: EXHAUST FAN, SHUTTER TYPE, CORROSION RESISTANT, 1,100 CFM, 120V - MOUNT 8" AFF USE CORROSION RESISTANT GRILLE TO FINISH OUT OPENING
 - DUPLEX, CORROSION RESISTANT RECEPTACLE, 20 AMP, GFCI

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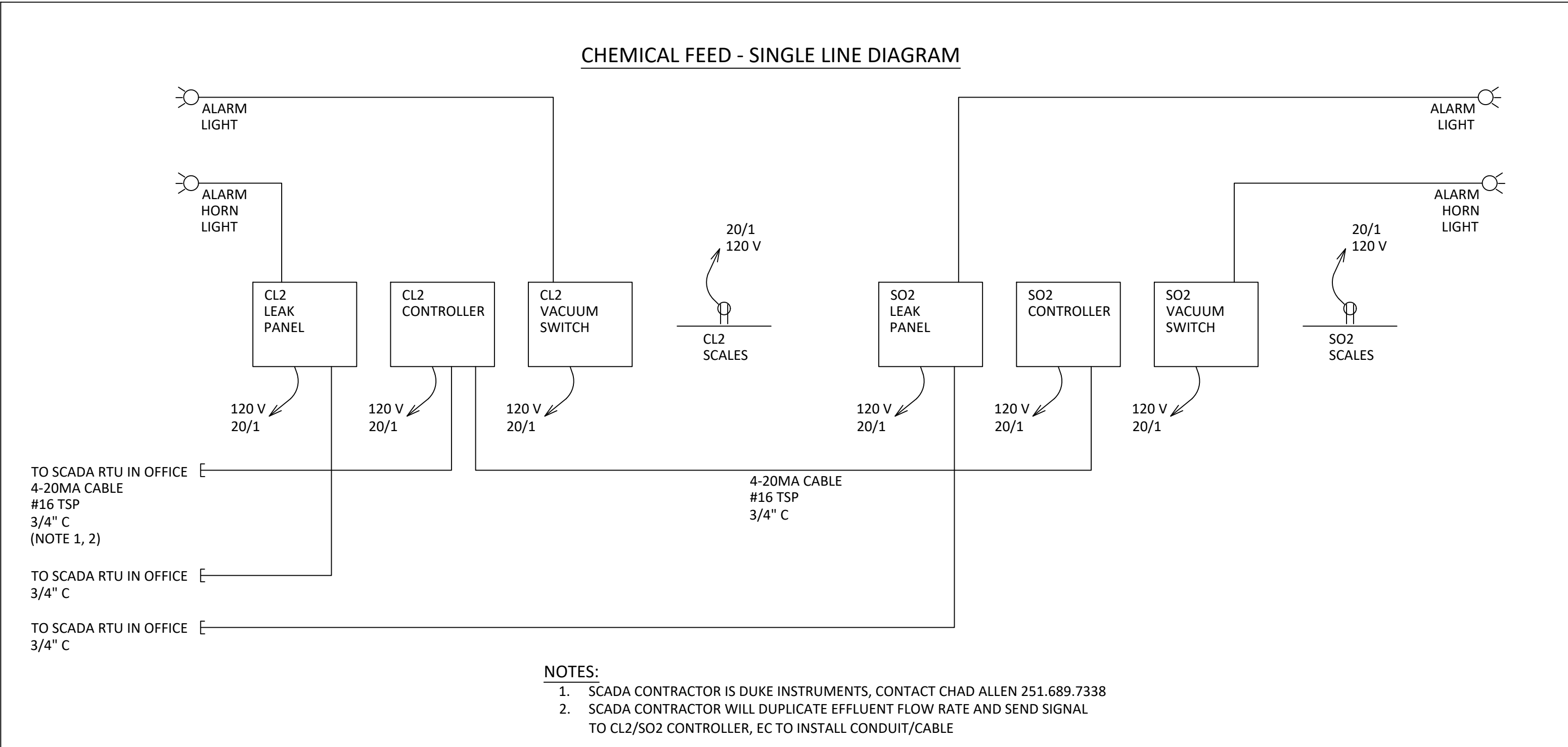
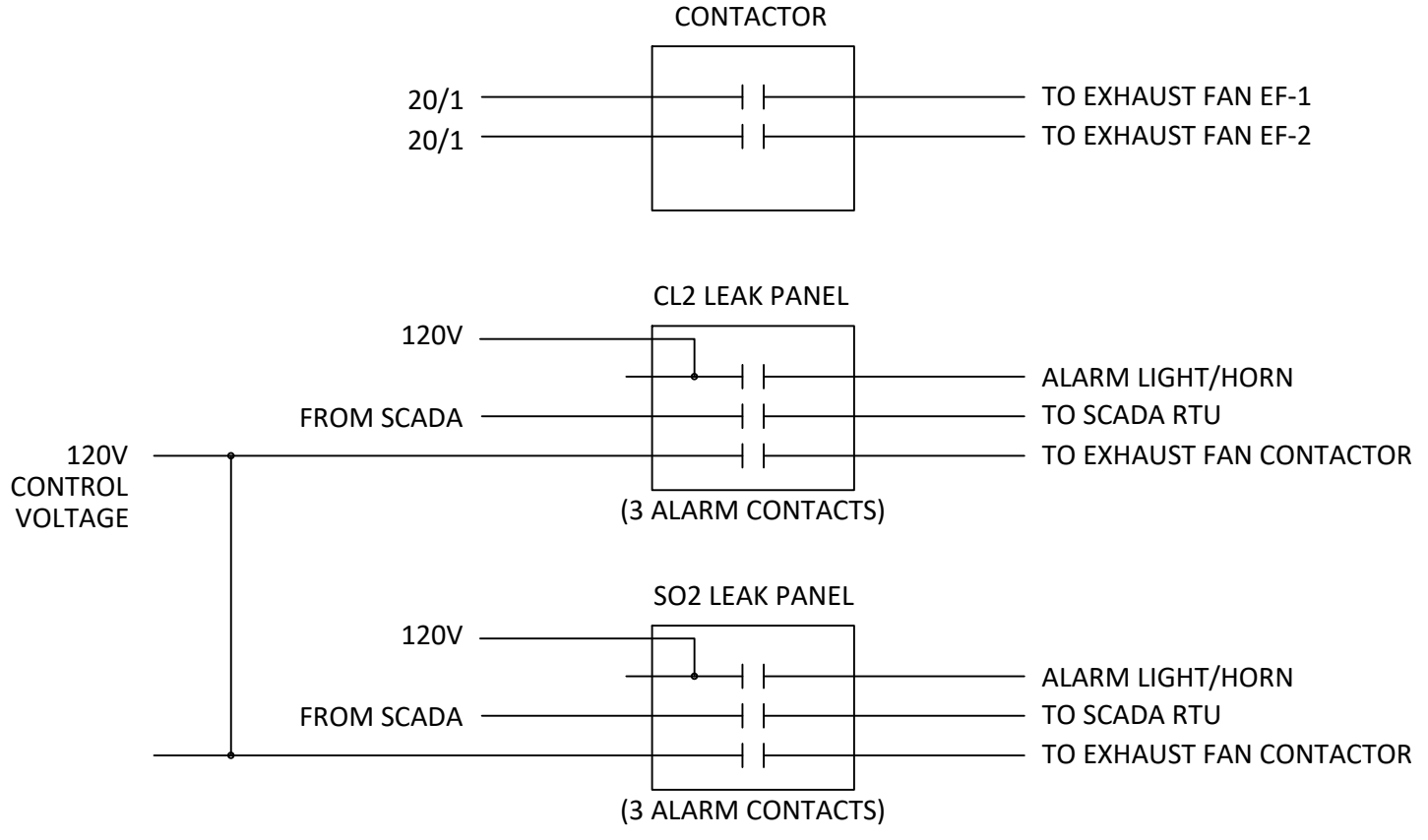
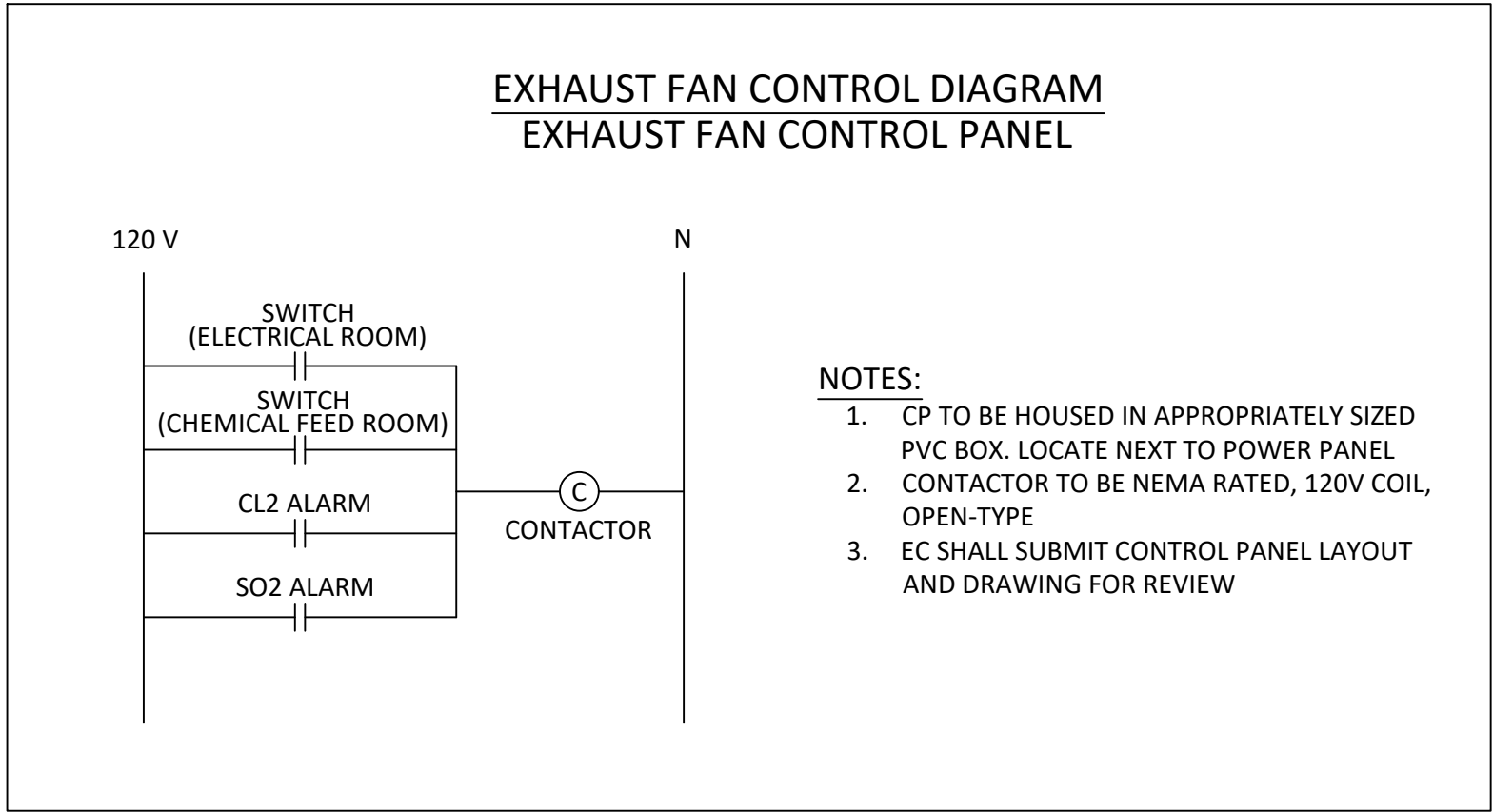
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PLAN SUBMITTAL:	FOR BID
DRAWN BY:	CDC

PROJECT: CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS

SHEET TITLE: DOUBLE BRANCH ELECTRICAL IMPROVEMENTS



EE DESIGNS, INC.
1023 N. BEVERLYE RD
DOTHAN, AL 36303

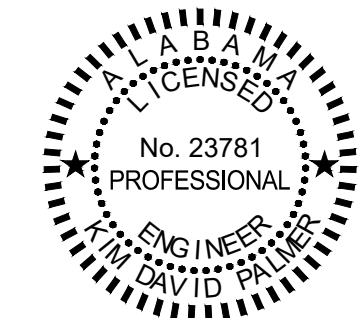


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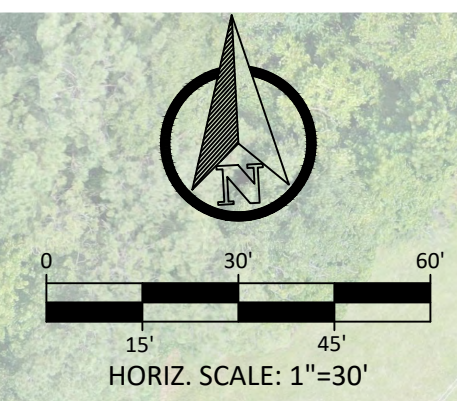
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DATE DRAWN:	3/27/2024
PLAN SUBMITTAL:	FOR BID

PROJECT: **CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS**

SHEET TITLE: **DOUBLE BRANCH ELECTRICAL IMPROVEMENTS**



EE DESIGNS, INC.
1023 N. BEVERLYE RD
DOTHAN, AL 36303



ISSUE	DATE	DESCRIPTION

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PROJECT:	CONTRACT 2: WASTEWATER TREATMENT PLANT IMPROVEMENTS
SHEET TITLE:	HUDSON BRANCH - OVERALL SITE PLAN

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PLAN SUBMITTAL:	FOR BID		

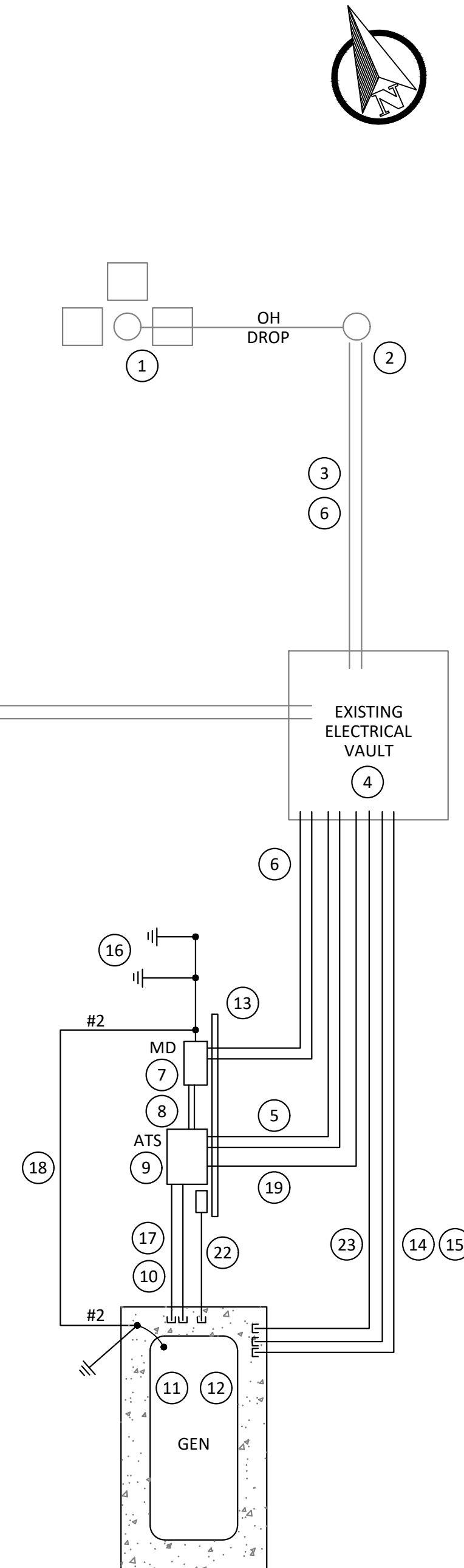
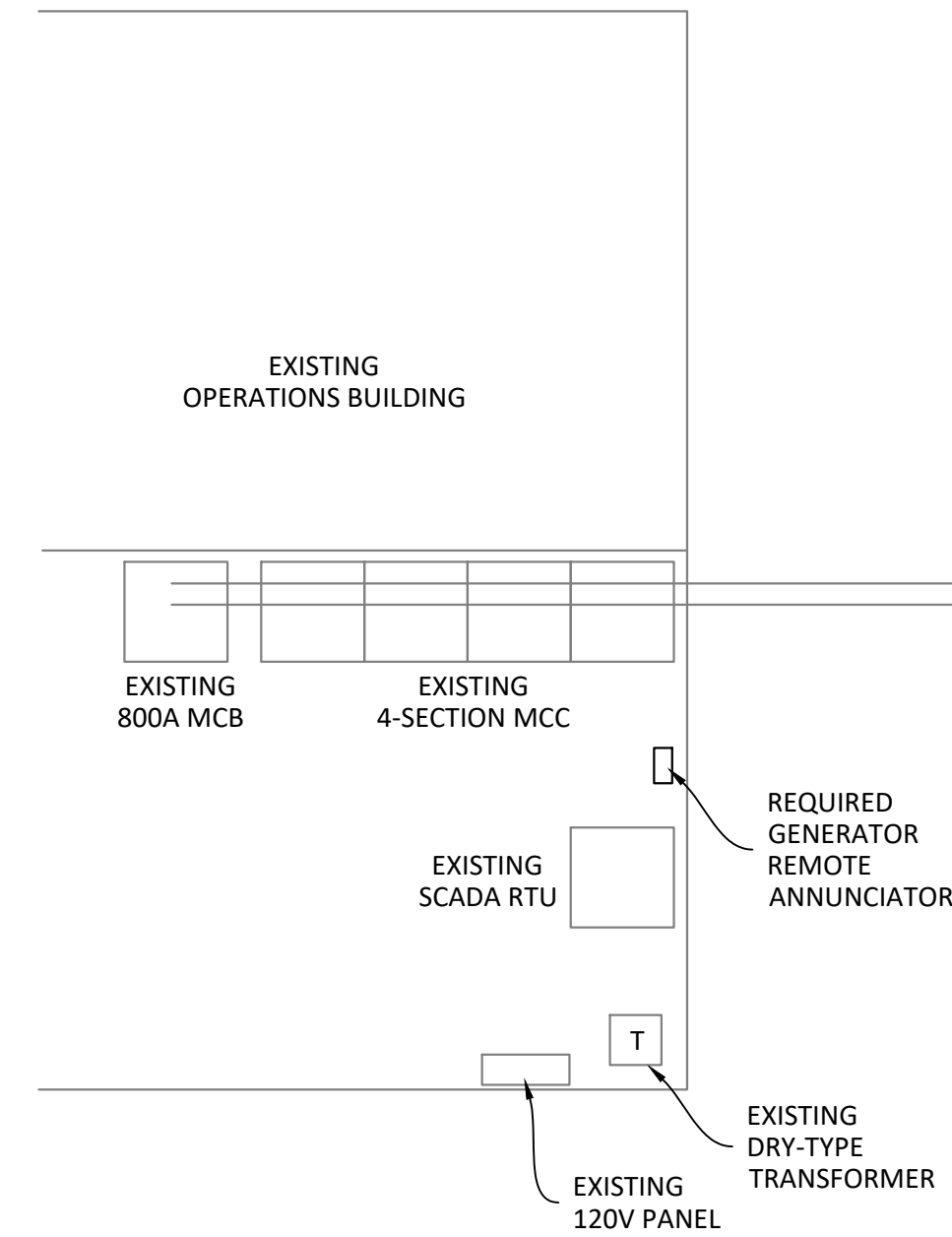
- PROPOSED IMPROVEMENTS**
- ① BACKUP GENERATOR
 - ② MUD VALVE REPLACEMENT
 - ③ ROADWAY IMPROVEMENTS - ASPHALT PAVING
 - ④ ROADWAY IMPROVEMENTS - GRAVEL SURFACING

GENERAL NOTES:

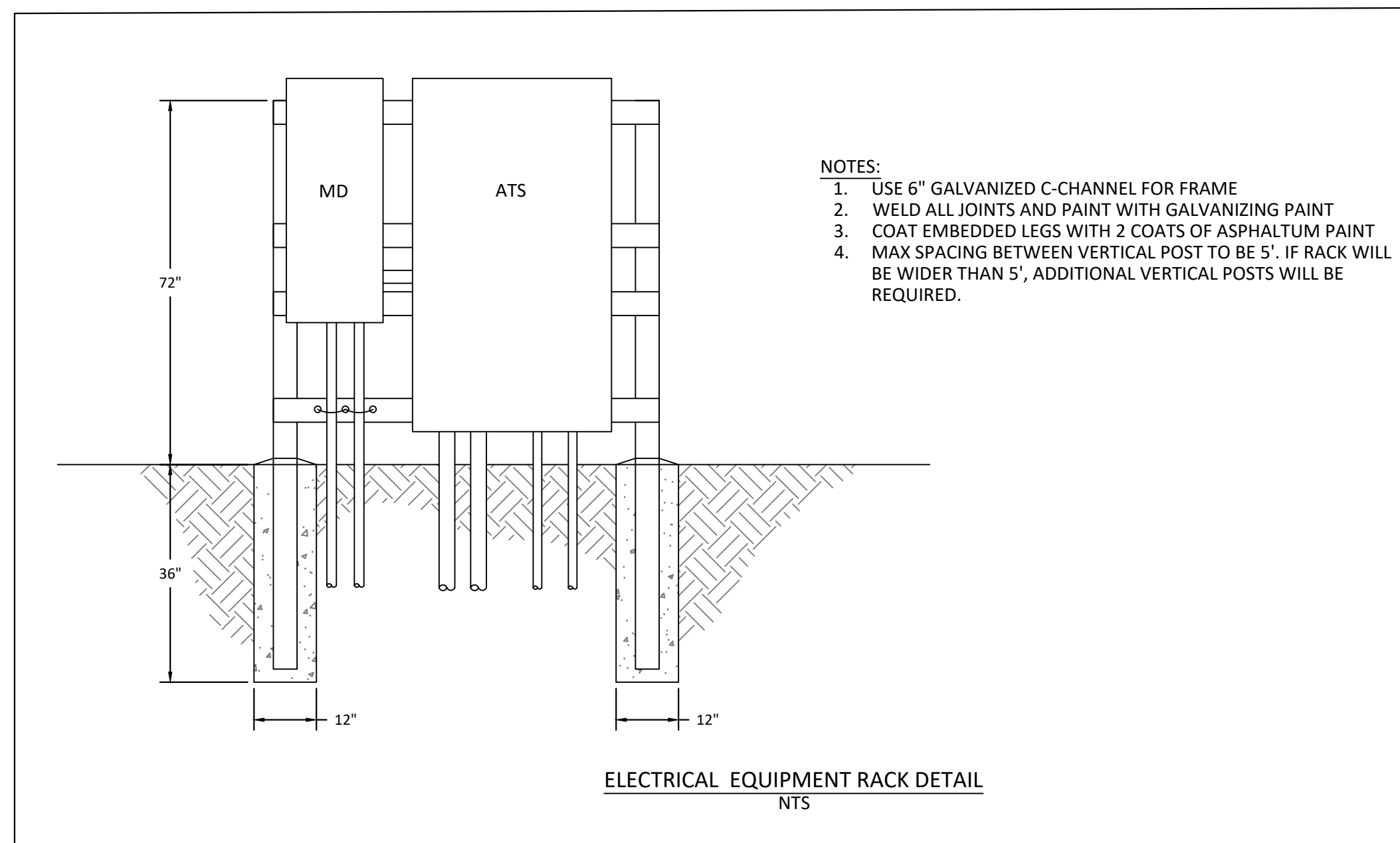
- EXISTING HIGH DEMAND RECORDED IN PAST 24 MONTHS FROM ALABAMA POWER IS 36 KW, WHICH IS APPROXIMATELY 43 AMPS.
- PROVIDE A TEMPORARY GENERATOR TO POWER THE WWTP WHEN POWER OUTAGE IS REQUIRED TO PERFORM WORK. EC TO SCHEDULE WORK 1 WEEK IN ADVANCE WITH OWNER & ENGINEER.
- ALABAMA POWER CONTACT IS SHANNON HENNIS 334.525.0253
- EC TO UPDATE EXISTING PANEL DIRECTORY UPON COMPLETION OF ALL WORK

NOTES:

- EXISTING ALABAMA POWER TRANSFORMER BANK POLE TO REMAIN
- EXISTING DIP POLE TO REMAIN
- REMOVE WIRE UP POLE BACK TO ELECTRICAL VAULT AND RE-ROUTE TO LOAD TERMINALS OF ATS.
- EXISTING ELECTRICAL VAULT TO REMAIN
- (2) 3-1/2" SCH 40 PVC CONDUIT FROM ELECTRICAL VAULT TO ATS - USE WIRE IN NOTE 3 TO LOAD TERMINALS
- (2) RUNS OF 4-500 THHN COPPER FROM WEATHERHEAD ON DIP POLE TO NEW MAIN DISCONNECT VIA ELECTRICAL VAULT. REUSE EXISTING CONDUIT FROM POLE TO VAULT
- NEW MAIN DISCONNECT, 800 A, 277/480V, 3-POLE, 4-WIRE, SE RATED, FUSIBLE, NEMA 3R ENCLOSURE, NEUTRAL AND GROUND KIT. FUSE AT 800 A
- (2) RUNS 4-500, 1-1/0 THHN COPPER FROM MD TO ATS
- NEW ATS, 800 A, 277/400V, 3-POLE, 4-WIRE, SOLID NEUTRAL, DELAYED TRANSITION, NEMA 3R ENCLOSURE, 7-DAY PROGRAMMABLE EXERCISER.
- 4-#2, 1-#6 THHN COPPER, 2" C FROM GENERATOR TO ATS EMERGENCY TERMINALS
- GENERATOR, 60KW, 277/480V, 3 PHASE, DIESEL, LEVEL 2 SOUND ATTENUATED WEATHERPROOF ENCLOSURE, SUBBASE FUEL TANK, 48-HOUR RUN CAPACITY, MAIN-LINE CIRCUIT BREAKER, BLOCK HEATER, BATTERY CHARGER, BATTERY.
- CONCRETE SLAB FOR GENERATOR - SIZE AND REINFORCING PER GENERATOR MANUFACTURER RECOMMENDATIONS.
- ELECTRICAL EQUIPMENT RACK - SEE DETAIL THIS SHEET
- 5-#12, 3/4" C FROM GENERATOR TO ELECTRICAL VAULT FOR BATTERY CHARGER AND BLOCK HEATER CIRCUIT. USE SPARE CONDUIT FROM VAULT TO MCC. ROUTE 5-#12, 3/4" C FROM MCC TO EXISTING 120V PANEL IN OPERATIONS BUILDING. ADD (2) 20/1 CB IN PANEL.
- INSTALL 4-#14, 3/4" C FROM GENERATOR TO ELECTRICAL VAULT FOR SCADA WIRING (COMMON, GENERAL ALARM, RUNNING, LOW FUEL). USE SPARE CONDUIT FROM VAULT TO MCC, ROUTE 4-#14, 3/4" C FROM MCC TO SCADA RTU IN OPERATIONS BUILDING.
- 3/0 COPPER TO (2) 3/4"x10' COPPER CLAD GROUND ROD. EXOTHERMIC WELD CONNECTIONS. SPACE RODS 10' APART.
- 2-#14, 3/4" C FROM ATS TO GENERATOR FOR START WIRES
- #2 BARE COPPER FROM MAIN GROUND BUS IN MAIN DISCONNECT TO GENERATOR FRAME AND REBAR IN GENERATOR SLAB
- 3-#14, 3/4" C FROM ATS TO ELECTRICAL VAULT FOR MONITORING ATS POSITION ROUTE THE WIRE IN SPARE CONDUIT FROM VAULT TO SCADA RTU.
- EC TO CONTACT CHAD ALLEN WITH DUKE INSTRUMENTS (251.689.7338) FOR SCADA INTEGRATION COORDINATION.
- SCADA CONTRACTOR TO INTEGRATE THE FOLLOWING SIGNALS INTO THEIR SYSTEM: ATS POSITION (NORMAL OR EMERGENCY POWER), GENERATOR RUNNING, GENERATOR GENERAL ALARM, GENERATOR LOW FUEL.
- 3/4" C, 2-#14, FROM GENERATOR TO EMERGENCY STOP BUTTON MOUNTED ON EQUIPMENT RACK
- 3/4" C, INSTALL MANUFACTURER'S RECOMMENDED CABLE FROM GENERATOR TO REMOTE ANNUNCIATOR IN OPERATIONS BUILDING, USE SPARE CONDUIT FROM DUCT BANK TO OPERATIONS BUILDING.



SITE PLAN
NTS



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