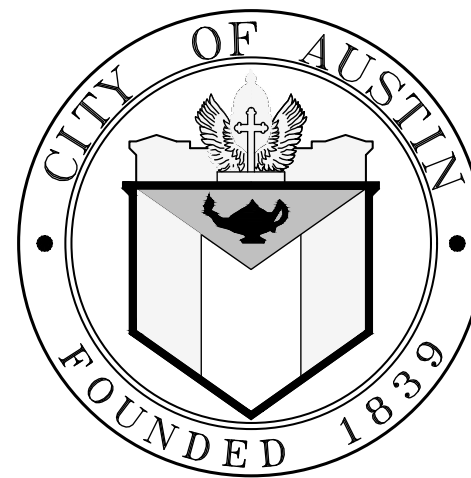


REVISED 7/6/22

CITY OF AUSTIN, TEXAS

AUSTIN WATER



WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL C.I.P. NO. 3023.066

SOLICITATION NUMBER: IFB 6100 CLMC940

MAYOR
STEVE ADLER

CITY COUNCIL MEMBERS

NATASHA HARPER-MADISON	MACHENZIE KELLY
VENESSA FUENTES	LESLIE POOL
SABINO RENTERIA	PAIGE ELLIS
GREGORIO E. CASAR	KATHIE TOVO
ANN KITCHEN	ALISON ALTER

CITY MANAGER
SPENCER CRONK

STREET ADDRESS: 7113 FARM TO MARKET 969
AUSTIN, TX 78724-6006

OWNERS: AUSTIN WATER
WALLER CREEK CENTER
625 EAST 10TH STREET
AUSTIN, TX 78701

CONTACT: GABRIEL CASTAÑO, PE, PMP
CAPITAL DELIVERY PROJECT MANAGER
CITY OF AUSTIN, PUBLIC WORKS DEPARTMENT
605 E. 10TH STREET, SUITE 400
AUSTIN, TX 78701 (512) 974-2937

SPONSORS: SEAN COOK, PE
WALNUT CREEK WWTP
FACILITY ENGINEER
7113 FARM TO MARKET 969
AUSTIN, TX 78724-6006

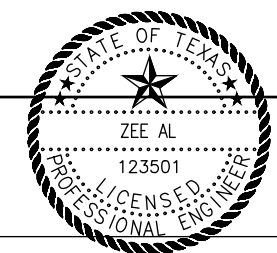
ATKINS

11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
TBPE REG. NO. F-474

ASHOK PERERA, PE, ENV SP
ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 340-1190

SUBMITTED FOR APPROVAL BY:

ZEE AL, PE



JULY 6, 2022

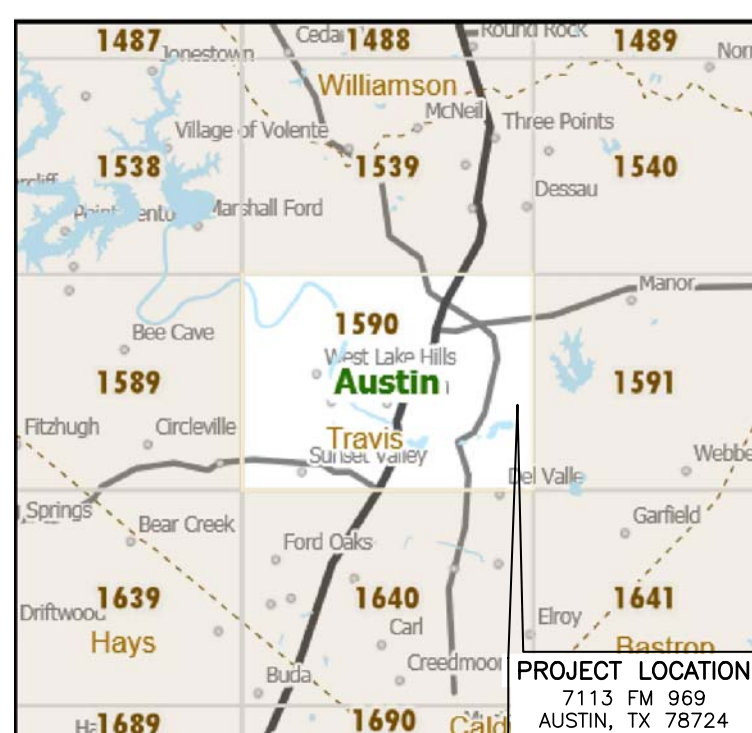
REVIEWED BY:

SEAN COOK, PE

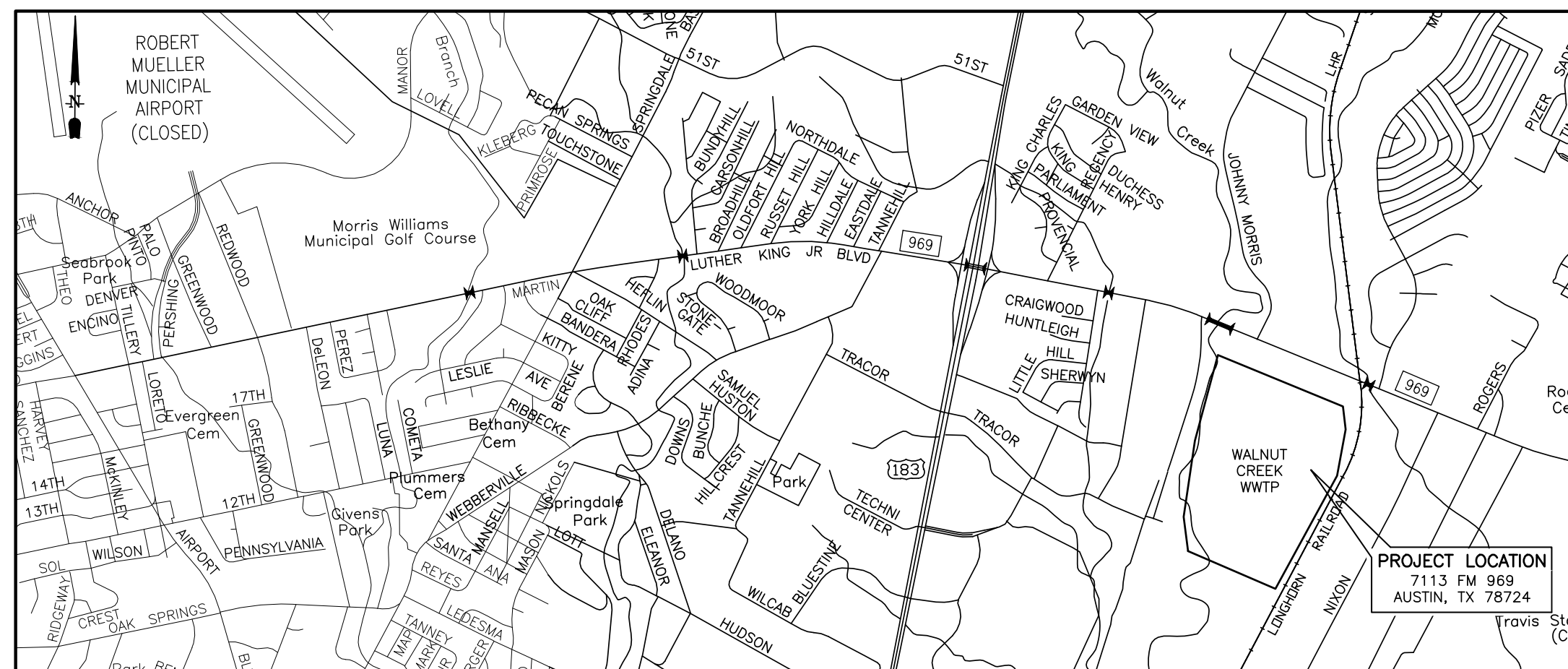
DATE

PREVENTATIVE MAINTENANCE

AUSTIN WATER GP PERMIT:
GP-10-2020-AWU



NOT TO SCALE



NOT TO SCALE

Jul 06, 2022 - 11:13am 40212830 - \\sers\m\m\Project\US\CA\Project\Program\W\10002219 - Walnut Creek WWTP Final Design\2 - Design\03\SET\5 - 57315-001.dwg

Jul 06, 2022 - 11:15am NGUY2830 \\wsatkins.com\project\USASA\Projects\100057315 Walnut Creek WWP Final Design\2. Design\SHEETS\ 57315-CV01.dwg

Table with 2 columns: SHEET NUMBER and SHEET TITLE. Lists sheets G-1 through E-58 with their respective titles, including cover sheets, index sheets, and various HVAC and electrical details.

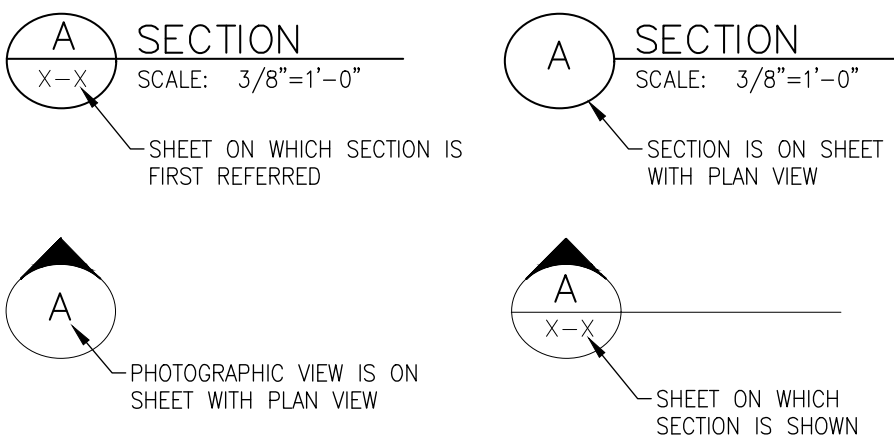
GENERAL CONSTRUCTION NOTES:

- 1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF CONSTRUCTION. ANY CONFLICT OR DISCREPANCY DISCOVERED MUST BE IMMEDIATELY BROUGHT TO THE ENGINEER OF RECORD'S ATTENTION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING DUCTS, CONCRETE WORK, AND ELECTRICAL CONTROL DEVICES THAT ARE FROM CONSTRUCTION WORK PERFORMED BY THE CONTRACTOR...
3. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
...
27. ATKINS ENGINEER TAKES RESPONSIBILITY FOR THE EDIT AND THE NEW DESIGN BEING MADE ON THE ORIGINAL-RECORD PLANS ONLY.

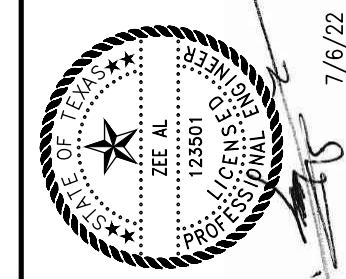
GENERAL ABBREVIATIONS

Table listing abbreviations and their corresponding descriptions. Includes terms like ABN/ABON (ABANDON), ASSY (ASSEMBLY), AW (AUSTIN WATER), BLDG (BUILDING), etc.

SECTION AND DETAIL KEY



REVISION DESCRIPTION table with columns for REVISION, DATE, and DESCRIPTION.



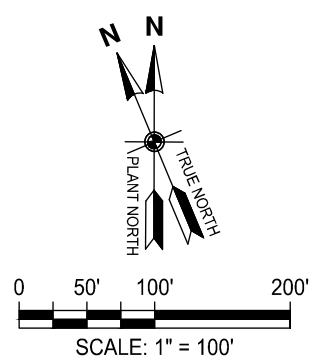
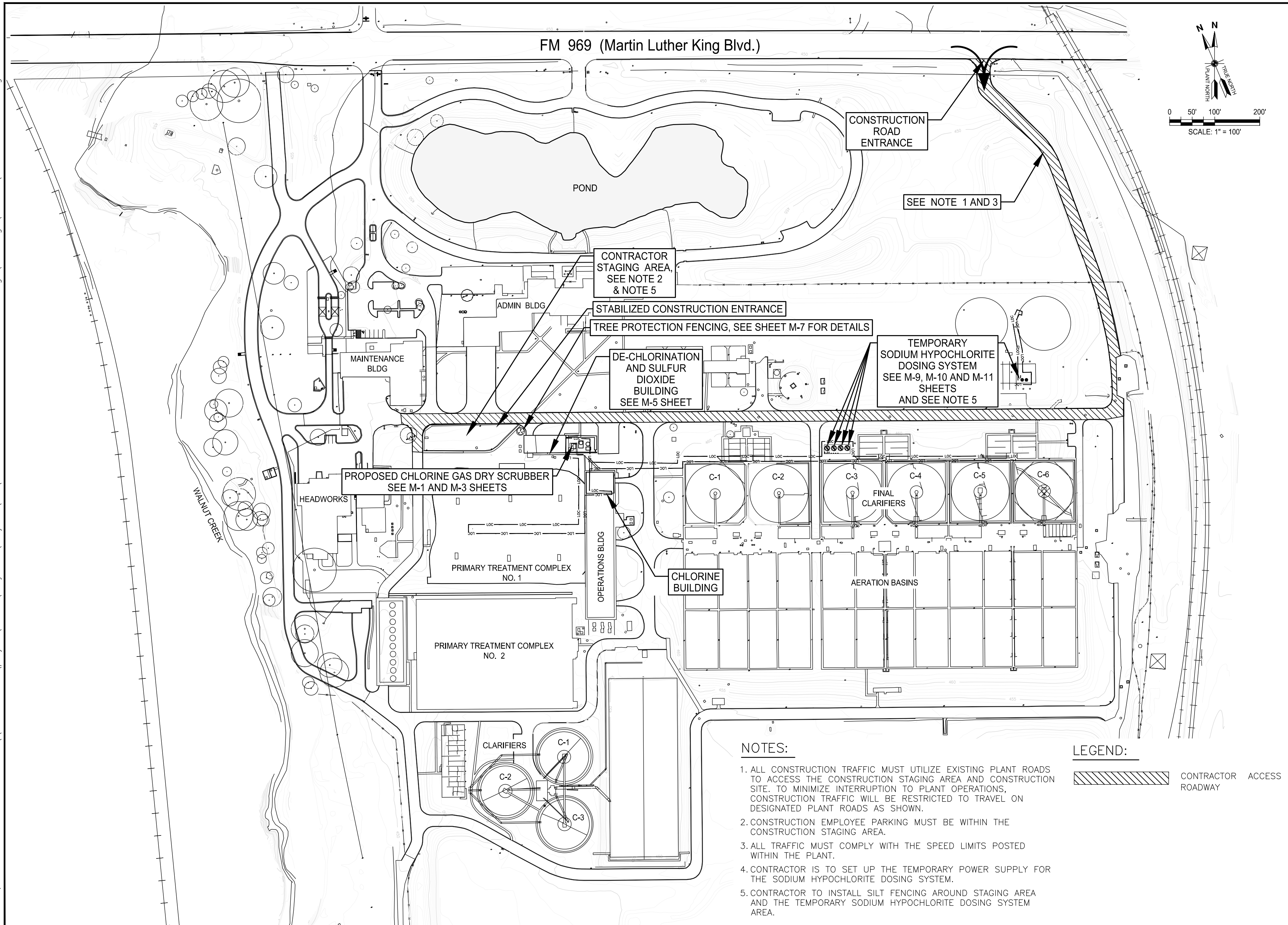
CITY OF AUSTIN
WALNUT CREEK WWP GAS SCRUBBER SYSTEM RENEWAL
SHEET INDEX, GENERAL CONSTRUCTION NOTES & LEGEND



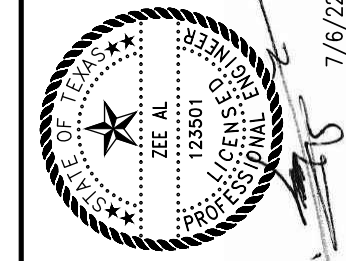
Table with 3 columns: NOTES, NAME, DATE. Lists project personnel including Survey By, Drawn By, Checked By, etc.

SHEET NUMBER table with SHEET NUMBER (G-2) and NUMBER (G-2).

Jul 06, 2022 - 11:17am TSOI2829 - \\wsatkins.com\project\USASA\Projects1\Projects\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\ 57315-SITE-00.dwg



REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 OVERALL SITE PLAN & STAGING AREA

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBP# REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22
SCALE:	AS NOTED	
CADD REF. NO.:	57315-SITE-00.dwg	
CADD DIR.:	100057315	

NOTES:

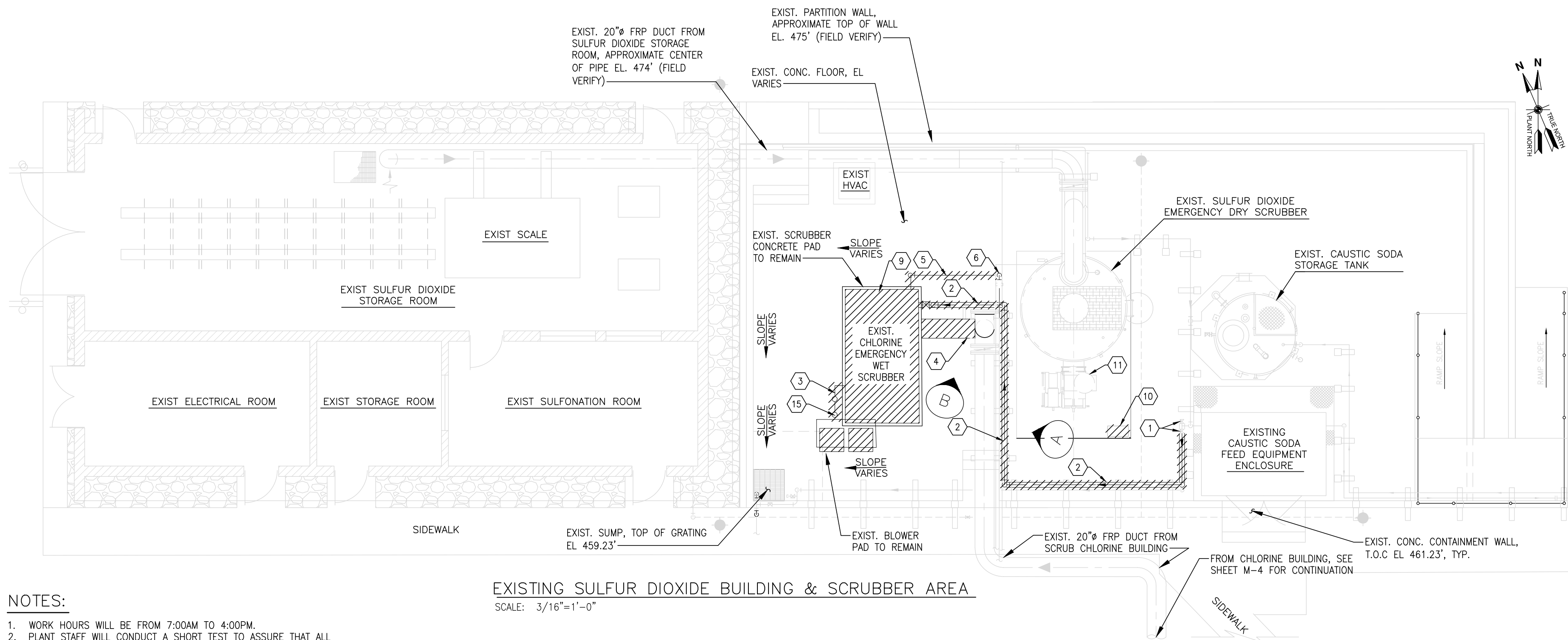
1. ALL CONSTRUCTION TRAFFIC MUST UTILIZE EXISTING PLANT ROADS TO ACCESS THE CONSTRUCTION STAGING AREA AND CONSTRUCTION SITE. TO MINIMIZE INTERRUPTION TO PLANT OPERATIONS, CONSTRUCTION TRAFFIC WILL BE RESTRICTED TO TRAVEL ON DESIGNATED PLANT ROADS AS SHOWN.
2. CONSTRUCTION EMPLOYEE PARKING MUST BE WITHIN THE CONSTRUCTION STAGING AREA.
3. ALL TRAFFIC MUST COMPLY WITH THE SPEED LIMITS POSTED WITHIN THE PLANT.
4. CONTRACTOR IS TO SET UP THE TEMPORARY POWER SUPPLY FOR THE SODIUM HYPOCHLORITE DOSING SYSTEM.
5. CONTRACTOR TO INSTALL SILT FENCING AROUND STAGING AREA AND THE TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM AREA.

LEGEND:



SHEET NUMBER C-1

Jul 06, 2022 - 11:37am NGUY2830 \\wsatkins.com\project\USASA\Projects\H11\100057315 Walnut Creek WWP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg



EXISTING SULFUR DIOXIDE BUILDING & SCRUBBER AREA
SCALE: 3/16"=1'-0"

NOTES:

1. WORK HOURS WILL BE FROM 7:00AM TO 4:00PM.
2. PLANT STAFF WILL CONDUCT A SHORT TEST TO ASSURE THAT ALL ALARMS AND DOORS ARE CURRENTLY WORKING CORRECTLY.
3. PLANT STAFF WILL CONDUCT THE FOLLOWING TASKS:
 - 3.1. PLANT STAFF WILL DRAIN THE SCRUBBER OF ALL LIQUIDS.
 - 3.2. PLANT STAFF WILL REMOVE ALL CAUSTIC SODA FROM INSIDE THE EXIST. EMERGENCY CHLORINE WET SCRUBBER.
 - 3.3. ALL CAUSTIC SODA MATERIAL WILL BE HANDLED BY OWNER TO DISPOSE OF THROUGH THE PLANT OPERATIONS.
 - 3.4. CONTRACTOR SHALL NOT START ANY WORK INSIDE THE EXIST. SCRUBBER UNTIL CAUSTIC SODA IS REMOVED BY OWNER.
4. THE OLD SCRUBBER WILL BE DISPOSED OF BY CONTRACTOR.
5. ALL WORKERS ON SITE WILL BE REQUIRED TO WEAR THEIR PPE 100% OF THE TIME. THIS INCLUDES AT MINIMUM HARD HAT, SAFETY VEST, AND SAFETY GLASSES. CONTRACTOR TO UTILIZE ADDITIONAL PPE AS REQUIRED PER NOTE 7 OR ANY OTHER SAFETY PROCEDURES.
6. ALL WORKERS ON SITE WILL BE REQUIRED TO WEAR AUSTIN WATER SECURITY BADGES.
7. ALL WORKERS THAT WILL BE DISMANTLING AND DISPOSING OF EQUIPMENT AND MATERIALS FORMERLY CAUSTIC SODA, ARE REQUIRED TO WEAR:
 - EYE PROTECTION AND FACE SHIELD AT ALL TIMES.
 - PROTECTIVE SUIT TO AVOID ANY CHANCE OF BURNS THROUGH THEIR CLOTHING
 - RUBBER BOOTS RATED FOR CHEMICALS
 - LONG SLEEVED RUBBER GLOVES RATED FOR CHEMICALS
 - FULL-FACE PIECE SAFETY RESPIRATORS WITH APPROPRIATE CARTRIDGE(S) AND FILTERS PROVIDING PROTECTION AGAINST THE COMPOUND OF CONCERN.
8. CONTRACTOR SHALL NOTIFY PLANT SAFETY STAFF PRIOR TO REMOVING ANY CAUSTIC.
9. REFER TO PROJECT MANUAL SS01311 FOR THE SUGGESTED CONSTRUCTION SEQUENCE
10. SAFETY PERSONNEL TO ATTEND AND MONITOR THE LIQUID FLUSHING AND REMOVAL ACTIVITIES.

KEY NOTES:

1. CLOSE VALVE, DISCONNECT & CAP 1 1/2" PVC CAUSTIC PIPE FROM THE EXIST. CAUSTIC FEED EQUIPMENT.
2. REMOVE 1 1/2" PVC CAUSTIC SODA LINES (BOTTOM OF PIPE EL. 469.0, FIELD VERIFY). REMOVE EXISTING PIPE SUPPORTS THAT SUPPORT NO OTHER LINES.
3. REMOVE EXIST. PVC PIPES AND FITTINGS ABOVE CONCRETE CONTAINMENT FLOOR.
4. REMOVE EXIST. 20" FRP INLET & REUSE EXIST. 20" FRP TEE.
5. DISCONNECT AND REUSE THE EXIST. 1" CHLORINE VAPOR RELIEF LINE, FIELD COORDINATE WITH OWNER.
6. CAP THE EXIST. 1" CHLORINE VAPOR RELIEF LINE.
7. NOT USED.
8. NOT USED.
9. REMOVE EXIST. CHLORINE EMERGENCY WET SCRUBBER, SEE NOTES IN THIS SHEET AND ELECTRICAL DEMOLITION SHEETS FOR THIS AREA.
10. EXIST. SULFUR DIOXIDE SCRUBBER CONTROL PANEL TO BE DEMOLISHED PER ELECTRICAL SHEETS.
11. EXIST. BLOWER/MOTOR ASSY. TO BE RELOCATED, SEE SHEET M-3 AND ELECTRICAL DEMOLITION SHEETS.
12. NOT USED.
13. NOT USED.
14. EXIST. 20" FRP TEE TO BE REUSED.
15. PLUG EXIST. PVC LINE ON THE CONCRETE FLOOR, AND ABANDON IN PLACE.

LEGEND:

DEMOLITION/REMOVAL

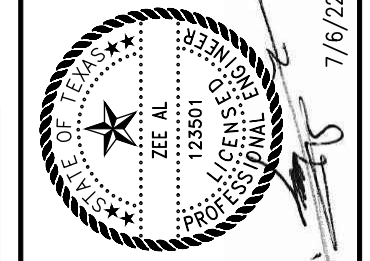


A PHOTO



B PHOTO

REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWP GAS SCRUBBER SYSTEM RENEWAL
TEMP. PIPING PLAN & EXIST. CONDITIONS,
DEMO. PLAN - 1

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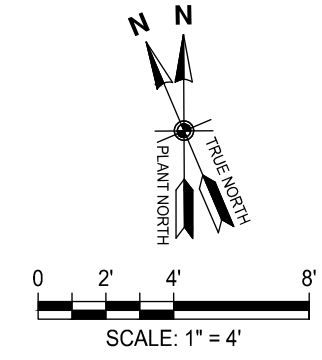
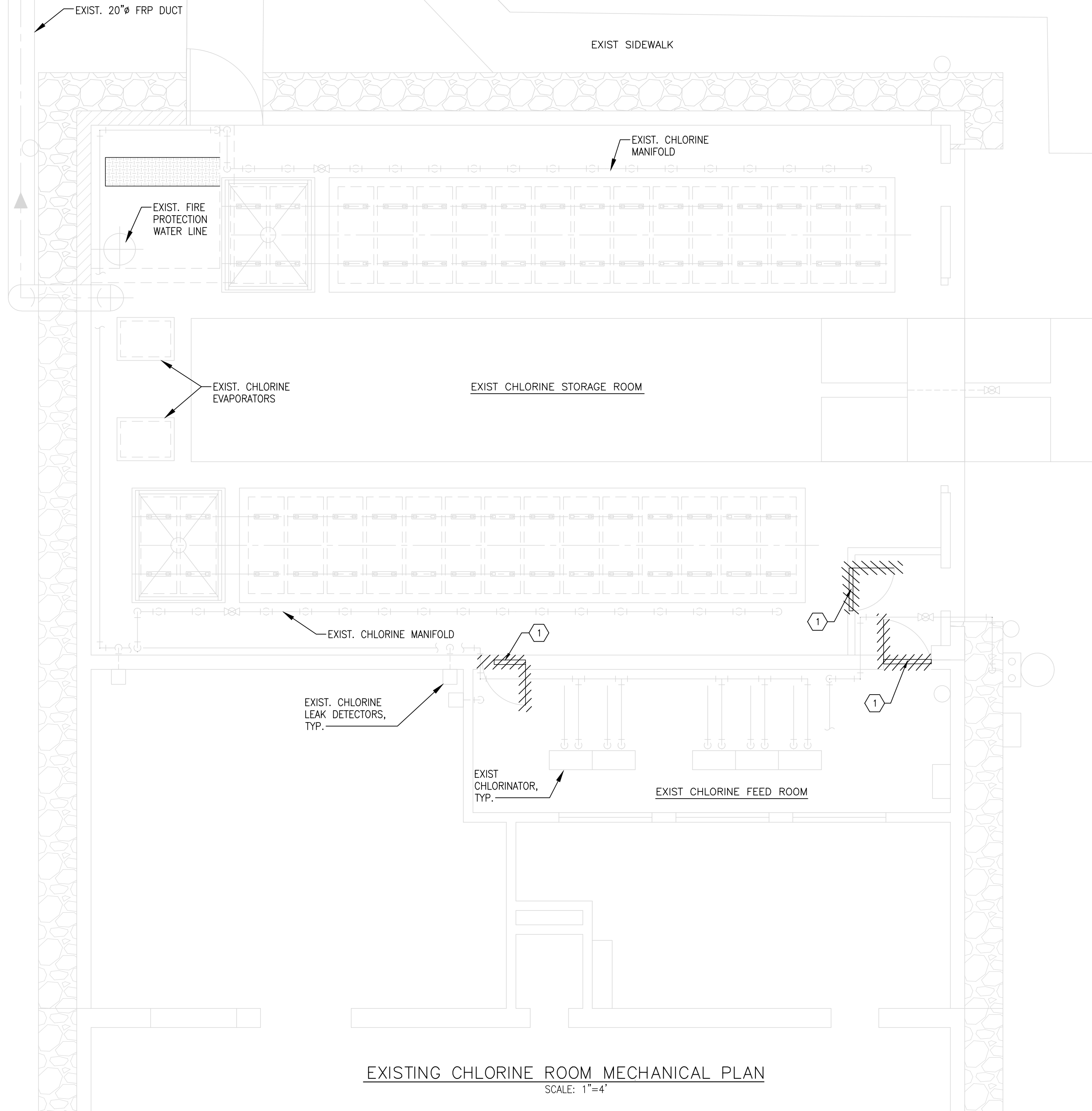
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DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER: M-1

Jul 06, 2022 - 11:18am NGUY2830 \\wsatkins.com\project\USASA\Projects1\Projects\Hi1\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg

MATCHLINE SEE SHEET M-3
 TO CHLORINE EMERGENCY SCRUBBER, SEE SHEET M-3 FOR CONTINUATION

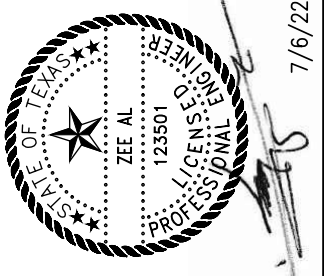


NOTES:
 1. CONTRACTOR TO PROVIDE TEMPORARY MEASURE TO CLOSE OFF THE OPENINGS ONCE THE EXIST. DOORS AND FRAMES ARE REMOVED.

KEY NOTES:
 ① REMOVE EXIST. DOOR & FRAME

EXISTING CHLORINE ROOM MECHANICAL PLAN
 SCALE: 1"=4'

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 EXIST. CONDITIONS & DEMO PLAN-2

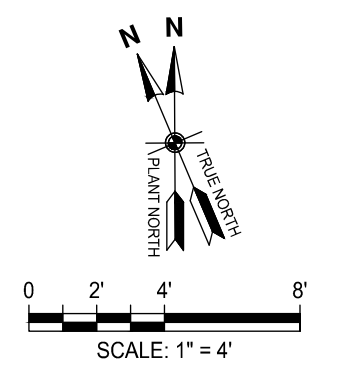
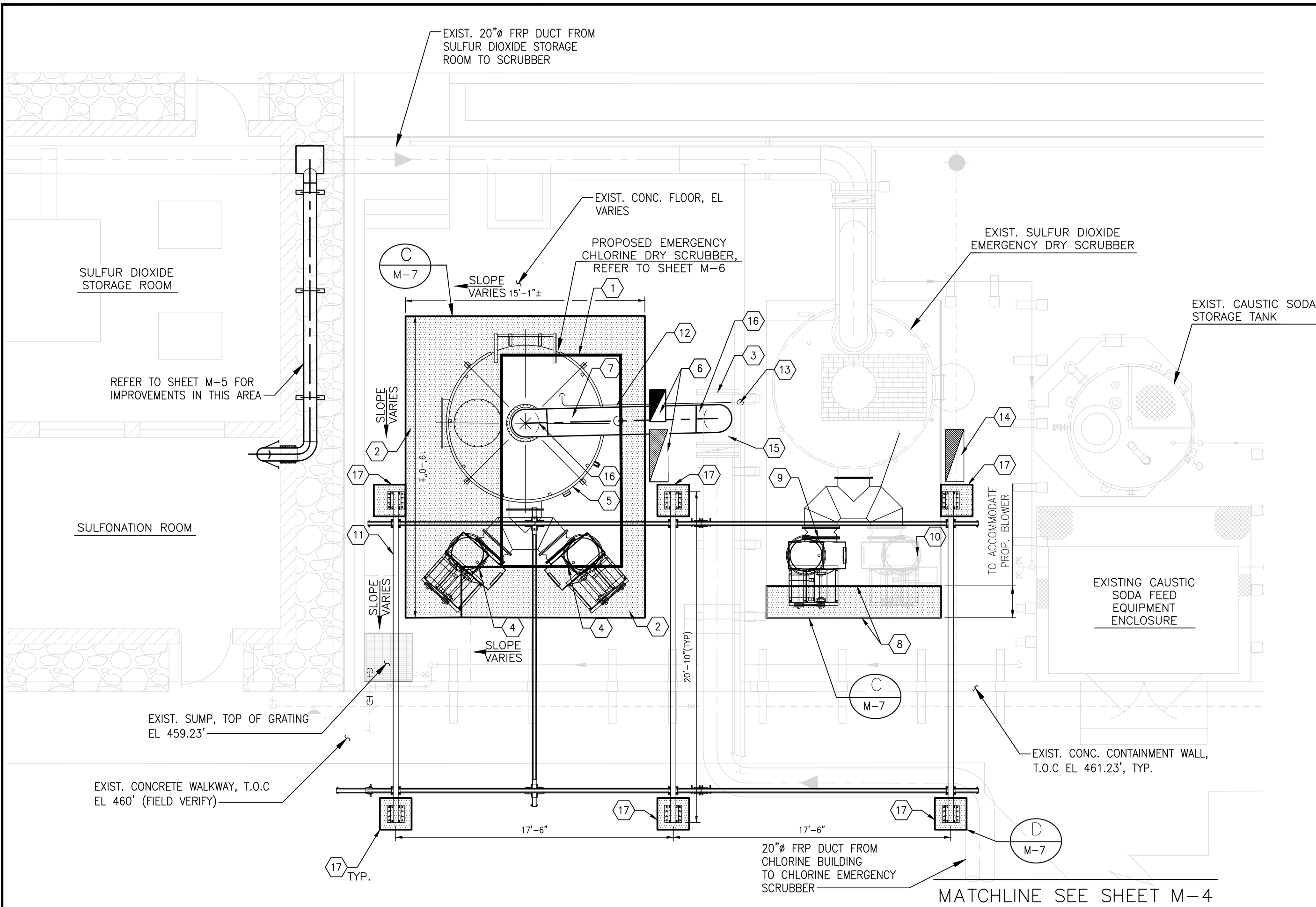
ATKINS
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 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBPE REG. NO. F-474

NOTES	NAME	DATE
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DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER: M-2

Jul 06, 2022 - 11:20am NGUY2830 \\wsatkins.com\project\USASA\Projects\H11\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg



KEY NOTES:

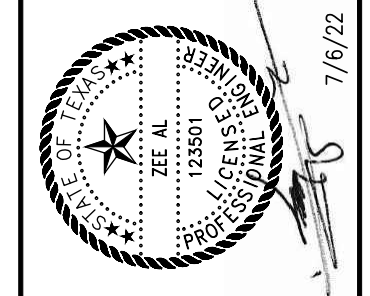
- 1 EXISTING SCRUBBER PAD (TO REMAIN), APPROXIMATE T.O.C E.L. 460.33'.
- 2 PROPOSED SCRUBBER PAD EXTENSION TO ACCOMMODATE NEW CHLORINE SCRUBBER/BLOWER FOOTPRINT, SEE SHEETS M-6 AND M-7.
- 3 EXISTING 20"x20"x20" FRP TEE (DUCT) WITH FRP BLIND FLANGE.
- 4 CHLORINE SCRUBBER BLOWERS, SEE SHEET M-6.
- 5 FRP MEDIA VESSEL, SEE SHEET M-6.
- 6 PROPOSED CHLORINE SCRUBBER CONTROL PANEL AND MANUAL TRANSFER SWITCH, SEE ELECTRICAL SHEETS. PROVIDE MIN. 36" CLEARANCE AT THE FRONT FOR A FULL 90 DEGREES DOOR SWING.
- 7 20" FRP DUCT TO MATCH EXISTING (FRP DUCT SHALL BE OF THE SAME SIZE, SHAPE, THICKNESS, AND MATERIAL, FIELD VERIFY). DUCT ELEVATION SHALL BE COMPATIBLE WITH THE CONNECTION ON THE FRP MEDIA VESSEL (SEE SHEET M-6).
- 8 PROPOSED SCRUBBER PAD EXTENSION TO ACCOMMODATE NEW SULFUR DIOXIDE BLOWER CONFIGURATION FOOTPRINT, SEE DETAIL SHEET M-7.
- 9 PROPOSED SULFUR DIOXIDE SCRUBBER BLOWER/ MOTOR ASSY ADDITION.
- 10 RELOCATED EXIST. BLOWER/MOTOR ASSY.
- 11 PROVIDE FREE-STANDING WORKSTATION BRIDGE CRANE AND HOIST KITS, SEE DETAIL B IN SHEET M-7.
- 12 EXTEND 1" CHLORINE GAS RELIEF LINE TO SCRUBBER, MATCH EXISTING MATERIAL. SEE KEY NOTE 24 OF SHEET M-6.
- 13 1" 90 DEG. S.S. ELBOW.
- 14 PROPOSED SO₂ SCRUBBER CONTROL PANEL FACING WEST, SEE SHEET E-26. PROVIDE MIN. 36" CLEARANCE AT THE FRONT FOR A FULL 90 DEGREES DOOR SWING.
- 15 ROTATE EXIST. 20"x20"x20" TEE 90 DEG. WITH BRANCH POINTING UPWARDS AND EXTEND 20" DUCT INITIALLY TO THE TEMPORARY CHLORINE DRY SCRUBBER AND LATER TO THE PROPOSED CHLORINE EMERGENCY DRY SCRUBBER. SEE SHEET M-6.
- 16 PROPOSED 20" 90 DEG. FRP ELBOW.
- 17 EXTEND THE EXISTING CONCRETE WALKWAY AND PROVIDE 2'(L)x2'(W) SLAB FOR CRANE POST, MIN. THICKNESS OF SLAB 24", SEE DETAIL D IN SHEET M-7 FOR REINFORCEMENT DETAILS.

PLAN
SCALE: 1"=4'

NOTES:

- 1. A TEMPORARY CHLORINE SCRUBBER SHALL BE USED TO TREAT THE AIR FROM CHLORINE BUILDING. REFER TO SS11260 FOR SPECIFICATIONS.
- 2. RECORD DRAWINGS WERE USED TO GENERATE THESE DRAWINGS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROPOSED IMPROVEMENTS.
- 3. REFER TO PROJECT MANUAL SECTION SS01311 FOR SUGGESTED CONSTRUCTION SEQUENCE.
- 4. CONTRACTOR SHALL FIELD VERIFY INTERFERENCE OF THE PROPOSED BRIDGE CRANE WITH EXIST. FACILITIES AND SUBMIT PRODUCT DATA PER SPECIFICATIONS FOR APPROVAL.
- 5. SUPPLY FANS AND EXHAUST FANS SHALL BE SHUT DOWN WHEN THE SCRUBBER IS ENERGIZED.
- 6. SEE SHEET M-6 FOR SCRUBBER SECTIONS

REVISION DESCRIPTION	DATE



CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL

PROPOSED IMPROVEMENTS - EMERGENCY
CHLORINE SCRUBBER REPLACEMENT

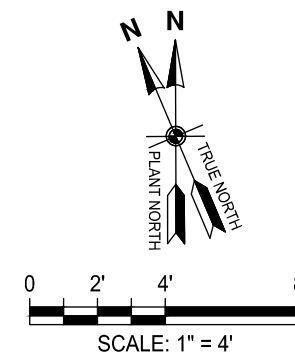
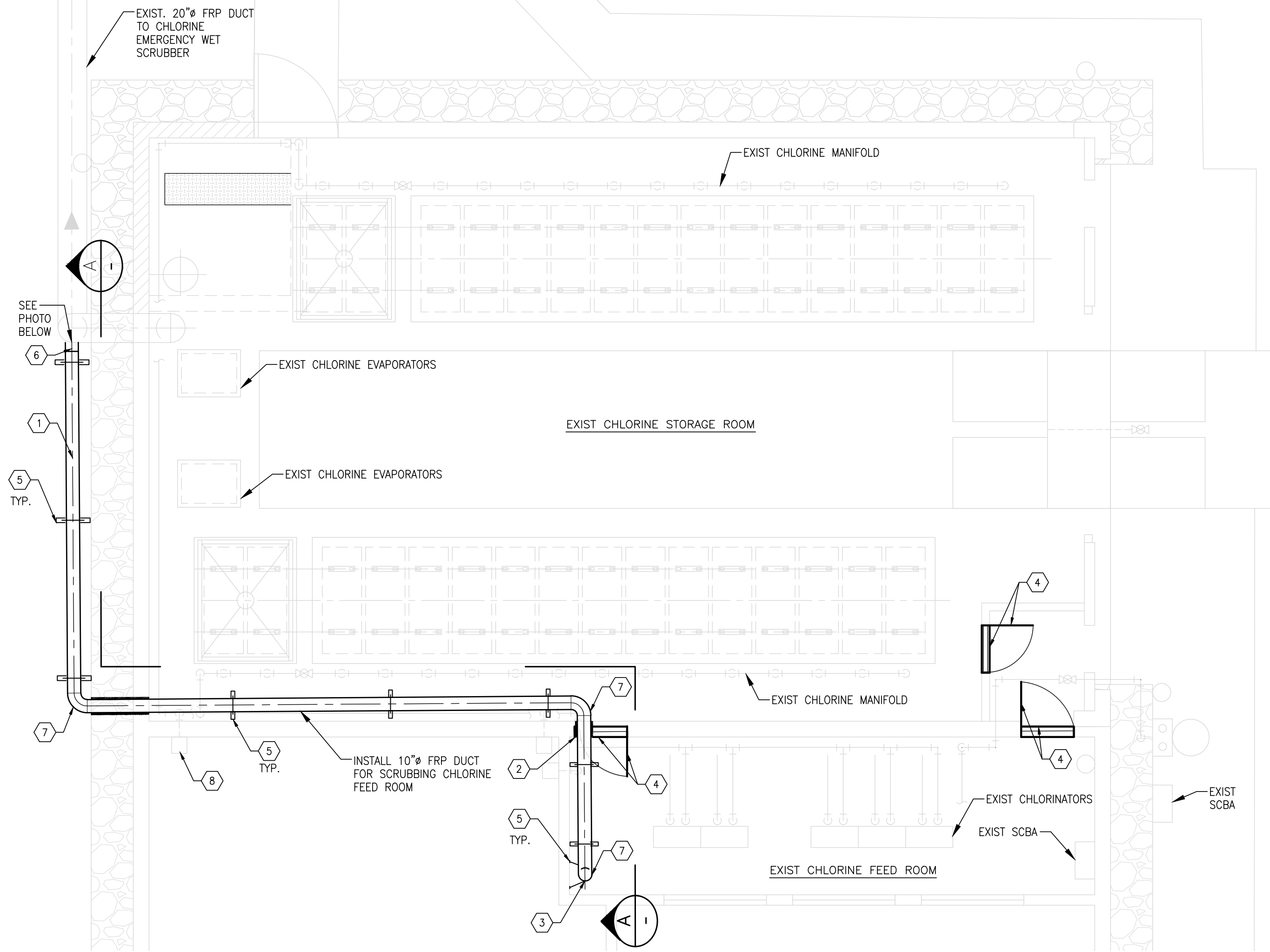
ATKINS
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AUSTIN, TEXAS 78758 - (512) 327-8840
TBP REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22
SCALE:		
CADD REF. NO.:		
CADD DIR.: 100057315		

SHEET NUMBER	M-3
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Jul 06, 2022 - 11:21am NGUY2830 \\wsatkins.com\project\USASA\Projects\H11\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg

MATCHLINE SEE SHEET M-3



NOTES

1. DRAWING IS DIAGRAMMATIC ONLY, CONTRACTOR SHALL FIELD VERIFY AND COORDINATE EXACT LOCATION OF DUCT WORK AND OTHER BUILDING ELEMENTS.
2. ALL MATERIAL AND EQUIPMENT REMOVED AND NOT SCHEDULED FOR REUSE SHALL BE PRESENTED TO THE OWNERS REPRESENTATIVE FOR DISPOSITION. ITEMS DEEMED UNSALVAGEABLE BY OWNER SHALL BE TRANSPORTED TO A LOCATION OFF THE PROJECT SITE AND LEGALLY DISPOSED OF.
3. ACTUAL SIZE OF EXISTING DOORS AND FRAMES MUST BE FIELD VERIFIED BEFORE ORDERING REPLACEMENT DOORS AND FRAMES.
4. REFER TO PROJECT MANUAL SECTION SS01311 FOR SUGGESTED CONSTRUCTION SEQUENCE.
5. EXIST. CHLORINE VACUUM REGULATOR AND ASSOCIATED PIPING LAYOUT ARE SCHEMATIC ONLY, CONTRACTOR SHALL FIELD VERIFY TO AVOID CONFLICTS WITH EXIST. FACILITIES.

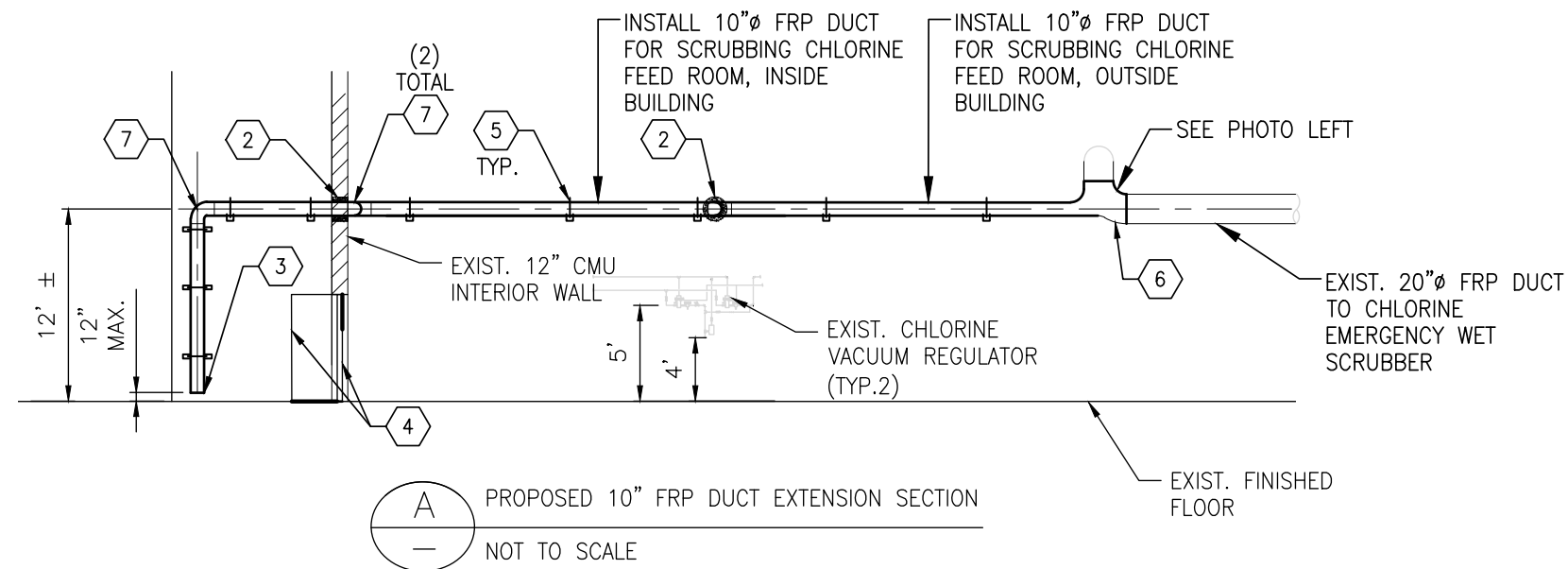
KEY NOTES

- 1 PROPOSED 10" DUCT EXTENSION, CONNECT TO EXIST. 20" FRP WITH 20"x10"x20" FRP REDUCING TEE, 10" DUCT, & 90° BEND. SEE SECTION A.
- 2 CORE WALL TO GAIN ACCESS TO CHLORINE FEED ROOM, CAULK CORE OPENING GAS TIGHT AFTER DUCT INSTALLATION. FILL WITH NON-SHRINK GROUT.
- 3 EXTEND DUCT TO 12" ABOVE FINISHED FLOOR.
- 4 INSTALL NEW FRP DOORS AND FRAME WITH TEMPERED GLASS, SEE NOTE 4 AND SEE DETAIL E, SHEET M-7.
- 5 DUCT SUPPORT, SEE DETAILS F, SHEET M-7.
- 6 PROPOSED 20"x 20"x 10" FRP REDUCING TEE.
- 7 10" FRP 90° BEND.
- 8 EXIST. CHLORINE GAS LEAK DETECTORS, TYP.

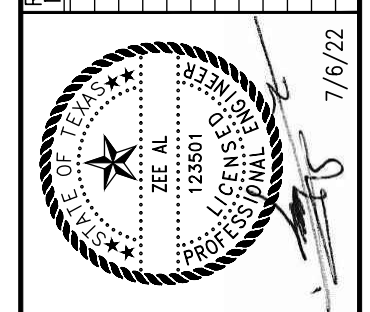
EXISTING CHLORINE STORAGE & FEED BUILDING
SCALE: 1"=4'



NEW 10" FRP CONNECTION TO EXIST. 20" FRP DUCT



REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
PROPOSED IMPROVEMENTS - CHLORINE STORAGE & FEED BLDG.

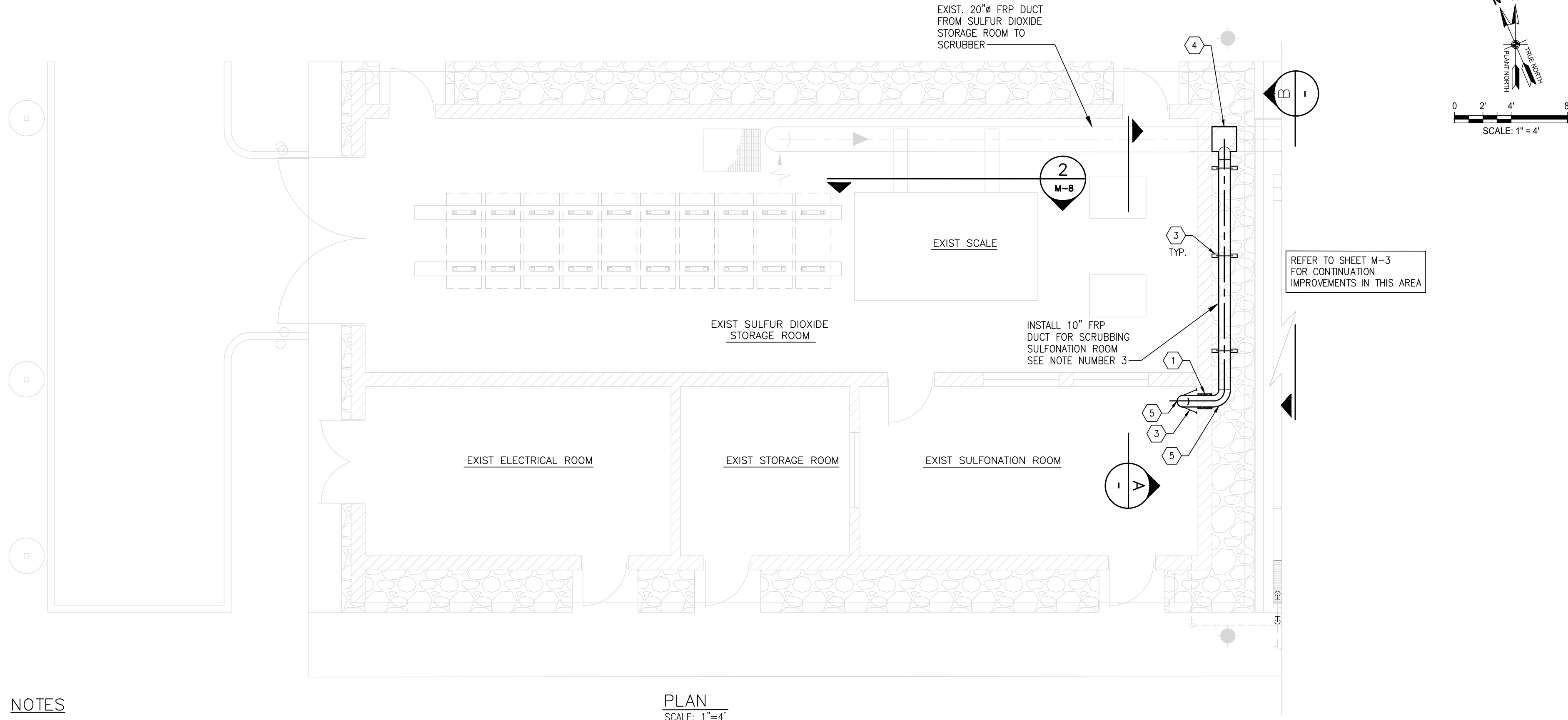
ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP# REG. NO. F-474

NOTES	NAME	DATE
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DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER M-4

Jul 06, 2022 - 11:22am NGUY2830 \\wsatkins.com\project\USASA\Projects\Projects1\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg

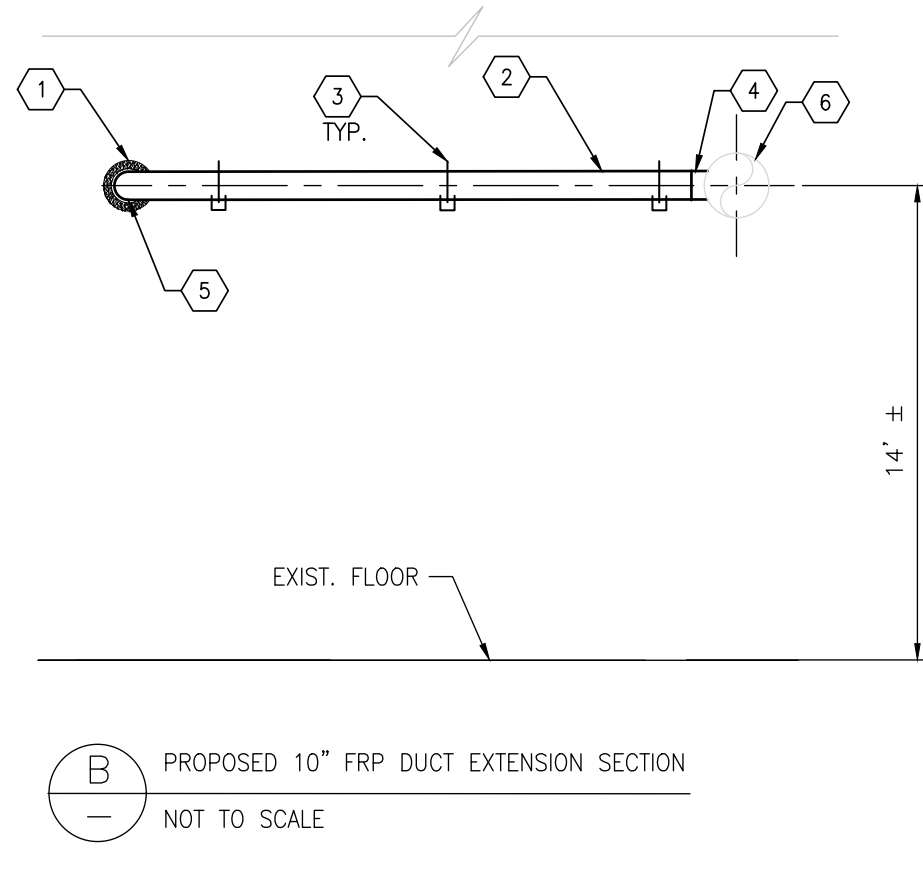
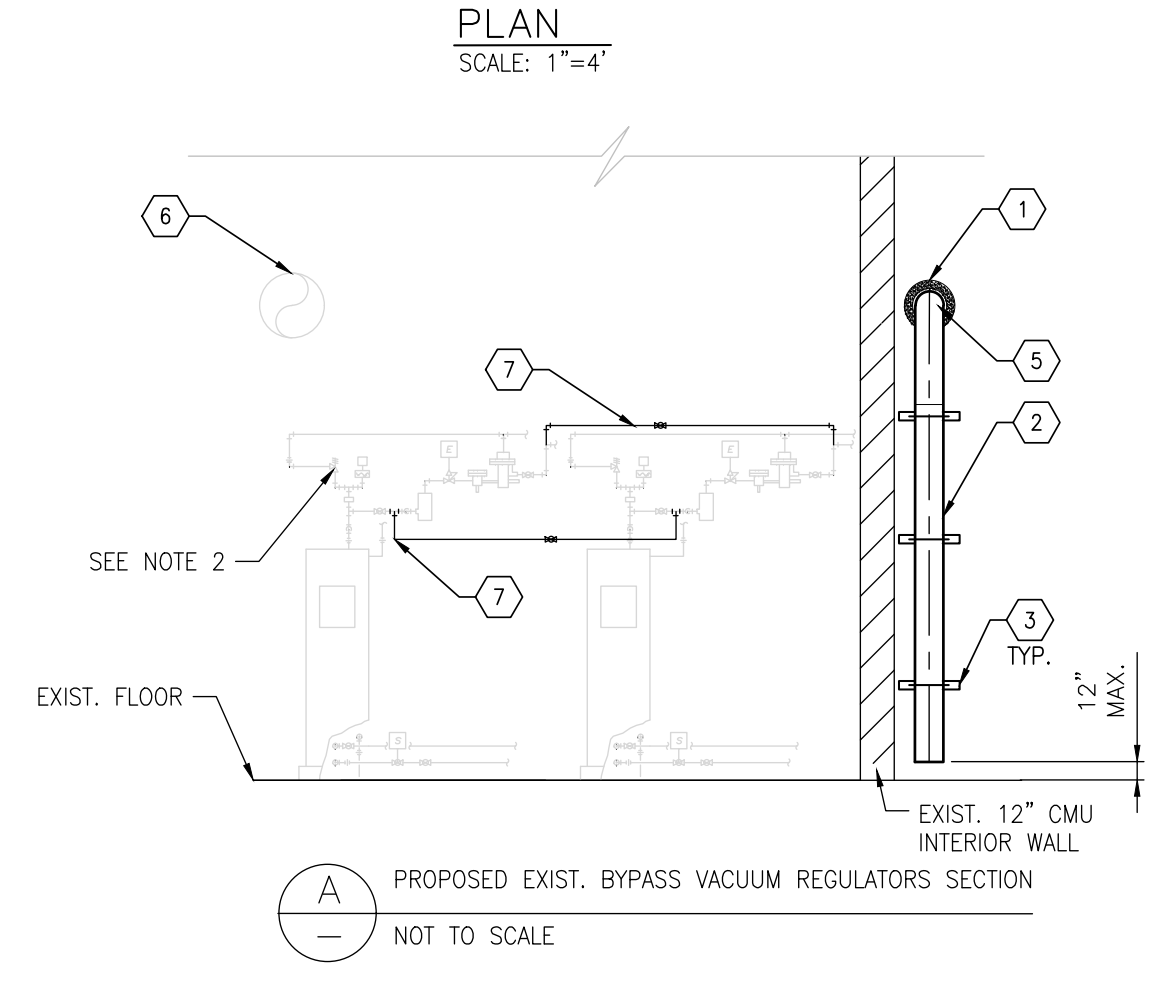


NOTES

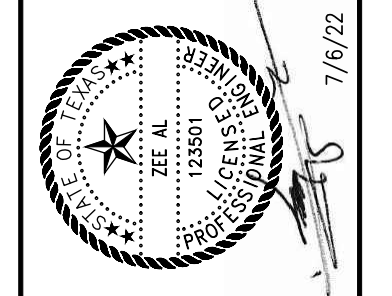
1. DRAWINGS ARE DIAGRAMMATIC AND ARE REPRODUCTIONS OF "AS BUILT" RECORD DRAWINGS, AND ARE PROVIDED FOR INFORMATION ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF DUCT WORK AND OTHER BUILDING ELEMENTS.
2. EXIST. SULFUR DIOXIDE VACUUM REGULATORS AND ASSOCIATED PIPING LAYOUT ARE SCHEMATIC ONLY. CONTRACTOR SHALL FIELD VERIFY TO AVOID CONFLICTS WITH EXIST. FACILITIES.
3. PROPOSED 10" DUCT EXTENSION, CONNECT TO EXIST. 20" Ø FRP WITH 20"x10"x20" FRP REDUCING TEE, 10" DUCT, & 90° BENDS. EXTEND DUCT 10" TO 12" ABOVE FINISHED FLOOR, SEE SECTIONS A AND B.

KEY NOTES

- 1 CORE WALL TO GAIN ACCESS TO SULFONATION ROOM, CAULK CORE OPENING GAS TIGHT AFTER DUCT INSTALLATION. FILL WITH NON-SHRINK GROUT.
- 2 EXTEND DUCT TO 12" ABOVE FINISHED FLOOR.
- 3 DUCT SUPPORT, SEE DETAILS SHEET M-7 SECTION F.
- 4 PROPOSED 20"x 20"x 10" FRP TEE.
- 5 PROPOSED 10" FRP 90° BEND.
- 6 EXIST. 20" FRP DUCT.
- 7 PROPOSED BYPASS FOR EXIST. SO2 VACUUM REGULATORS, SEE DETAILS



REV. NO.	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 PROPOSED IMPROVEMENTS - DE-CHLORINATION BLDG.

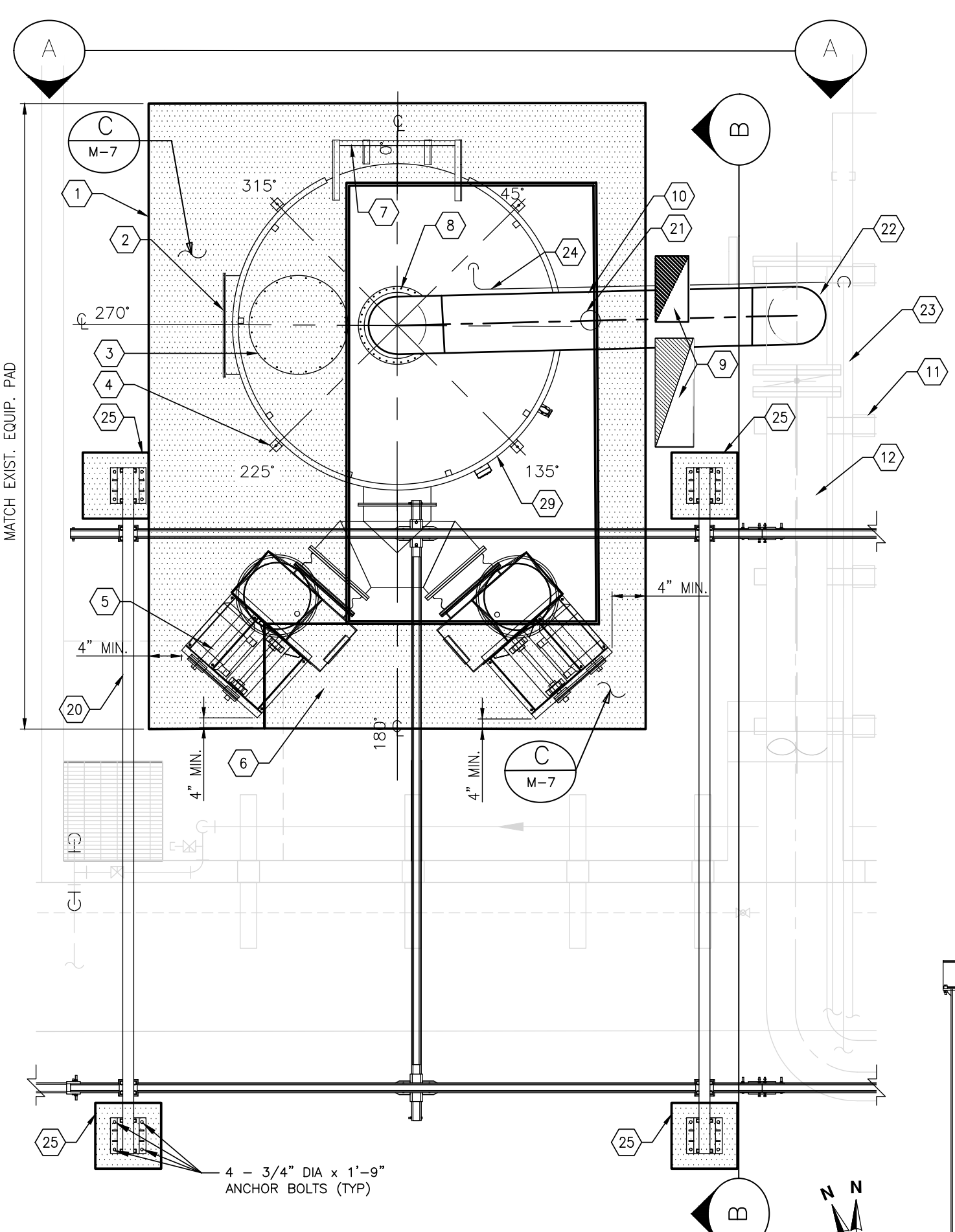
ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBPE REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER: M-5

Jul 06, 2022 - 11:23am NGUY2830 \\wsatkins.com\project\USASA\Projects\H11\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg

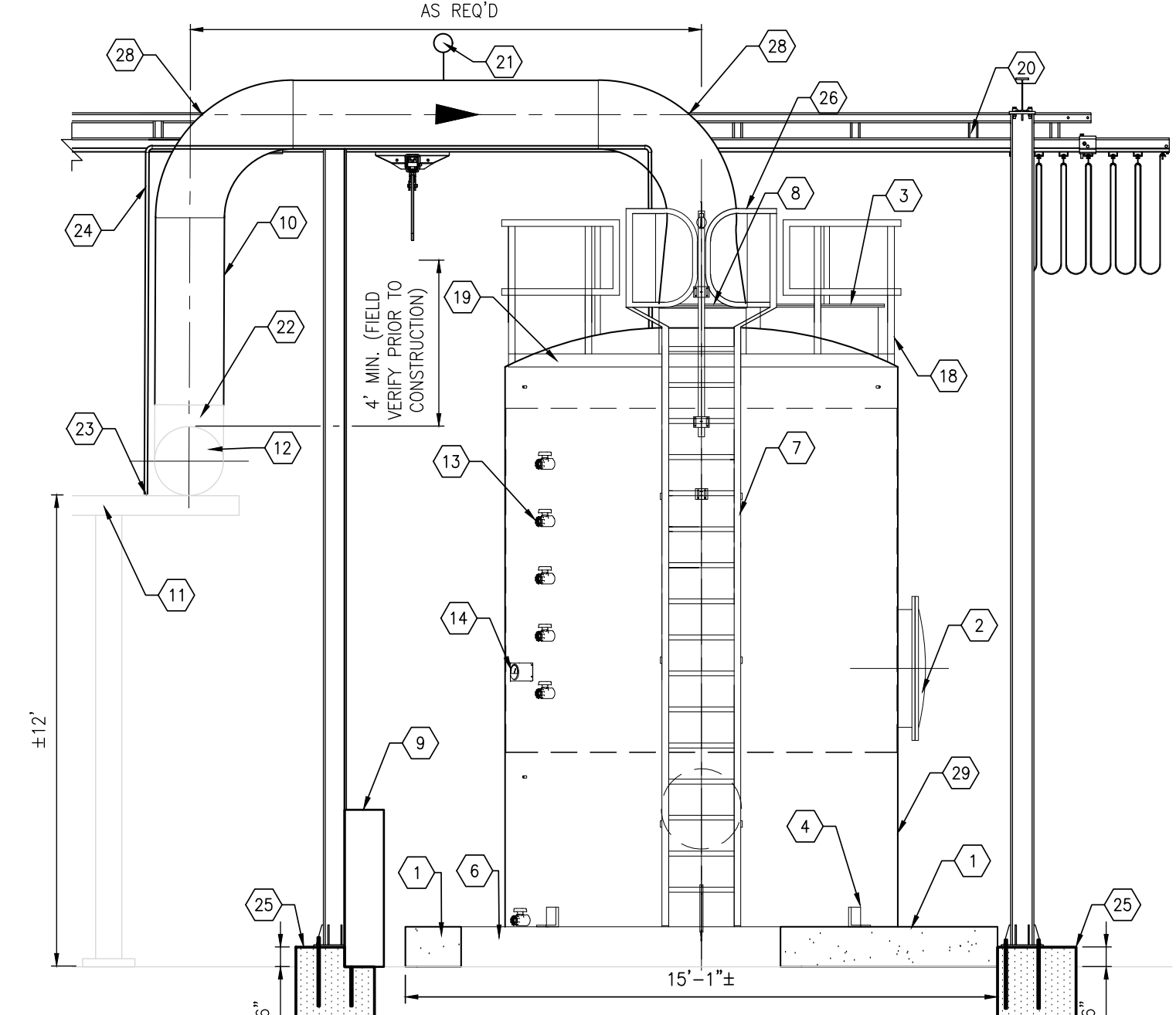


PLAN VIEW
SCALE: 3/8"=1'-0"

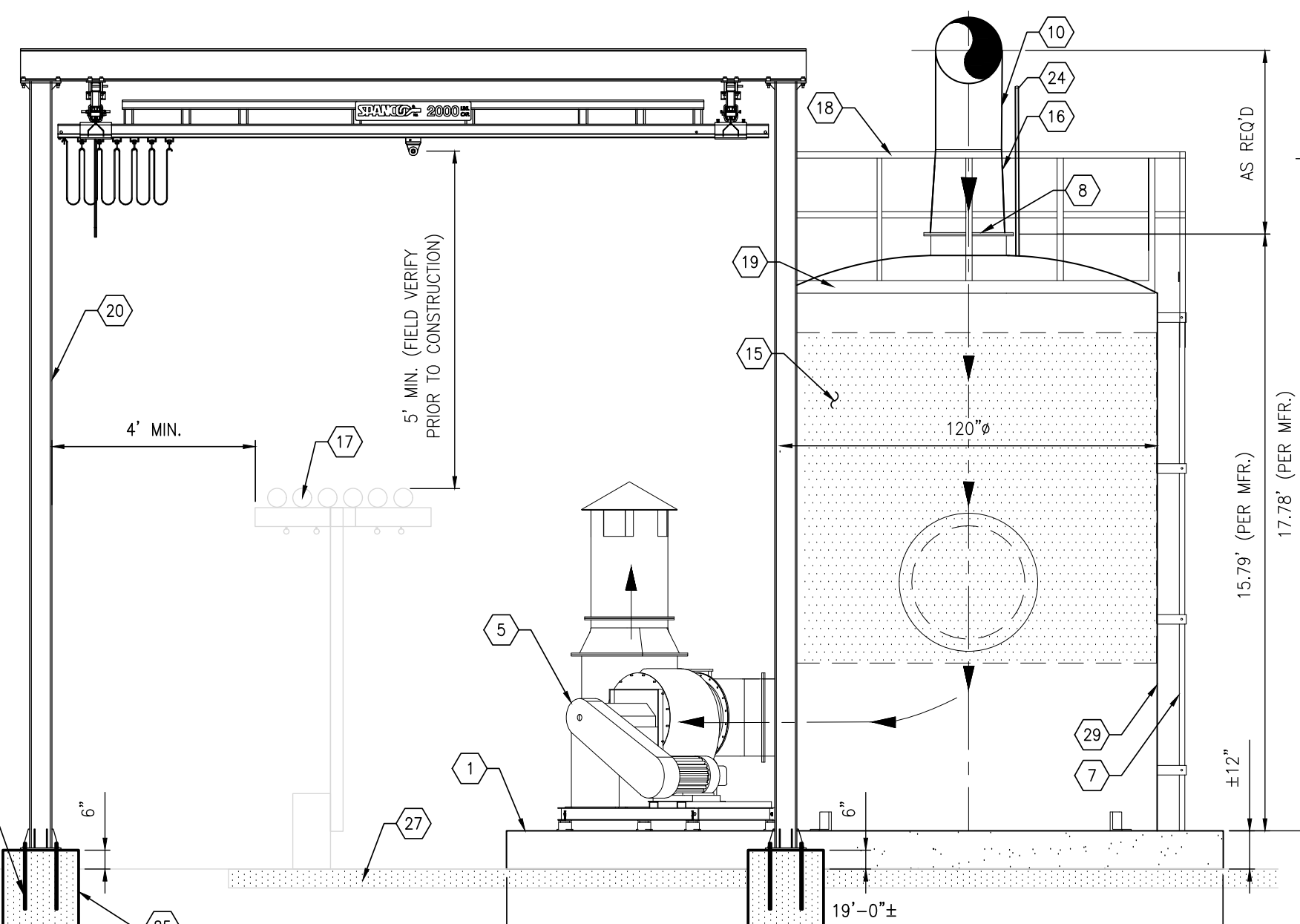
NOTES:

- DRAWINGS ARE DIAGRAMMATIC AND ARE REPRODUCTIONS OF "AS BUILT" RECORD DRAWINGS, AND ARE PROVIDED FOR INFORMATION ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF DUCT WORK AND OTHER BUILDING ELEMENTS.
- DISCHARGE RAIN CAP SHALL BE PROVIDED WITH SS MESH SCREEN.
- ALL CONCRETE SHALL BE TYPE C WITH MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3,600 PSI.
- REINFORCING BARS SHALL BE BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60.
- PICKLE AND PASSIVATE ALL S.S. UNISTRUT, JUNCTION BOXES, AND CABINETS. ALL S.S. CABINETS AND JUNCTION BOXES SHOULD HAVE A POLISHED 2B FINISH.
- HOLD DOWN LUGS SHOULD BE 316 STAINLESS STEEL.
- REFER PROJECT MANUAL SS01311 FOR SUGGESTED CONSTRUCTION SEQUENCE.
- CONTRACTOR SHALL PROVIDE CRANE PERFORMANCE AND STRUCTURAL REQUIREMENTS, INCLUDING CRANE CONCRETE PAD SIZE, PLAN VIEW, SIZE, DEPTH AND SUBGRADE PREPARATION IN CRANE SHOP DRAWING SUBMITTAL AS PER TECHNICAL SPECIFICATION SS14630. CONTRACTOR SHALL ENSURE CONCRETE PAD IS CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION ASSOCIATED WITH THIS PROJECT AND PROVIDE ENGINEERED STRUCTURAL DESIGN AND CALCULATIONS FOR CRANE FRAME, ANCHORS, AND CONCRETE PAD/FOUNDATION, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.

4 - 3/4" DIA x 1'-9" ANCHOR BOLTS (TYP)



ELEVATION A
SCALE: 3/8"=1'-0"



ELEVATION B
SCALE: 3/8"=1'-0"

KEY NOTES:

- PROPOSED CONCRETE SCRUBBER PAD EXTENSION TO ACCOMMODATE NEW SCRUBBER/BLOWER FOOTPRINT, SEE DETAIL M-7.
- 36"Ø SIDE MANWAY.
- 36"Ø TOP MANWAY.
- 316 S.S. HOLD DOWN LUGS PER MANUFACTURER'S RECOMMENDATION.
- FRP BLOWER/MOTOR ASSY. (TYP. 2).
- EXIST. CONCRETE SCRUBBER PAD (TO REMAIN).
- VERTICAL ALUMINUM LADDER SYSTEM ASSEMBLY WITH EXTENSION POST, MSA OR EQU.
- 24"Ø RFP LINE FOR PROPOSED CHLORINE DRY SCRUBBER.
- PROPOSED CONTROL PANELS, SEE ELECTRICAL SHEET E-26.
- PROPOSED 20"Ø FRP SCRUBBER DUCT, REFER TO SHEET M-3 FOR CONTINUATION.
- EXIST. DUCT RACK.
- EXIST. 20" FRP DUCTWORK FROM CHLORINATION BUILDING.
- SAMPLE PORTS (TYP.) FOR SCRUBBER MEDIA SAMPLING (TYP. 5).
- MAGNEHELIC PRESSURE DIFFERENTIAL GAGE.
- MEDIA BED.
- 24" X 20" FRP REDUCER.
- EXIST. 1 1/2" TO 2" PVC CONDUIT, BOTTOM OF CONDUIT EL APPROXIMATE 469' (FIELD VERIFY).
- ALUMINUM RAILING PER OSHA STANDARDS.
- 4" TOEBOARD.
- PROPOSED S.S. FREE STANDING WORKSTATION BRIDGE CRANE, RATED CAPACITY 2000 LBS., SHOULD MEET OR EXCEED THE ANSI B30.11 SPECIFICATION FOR UNDER-HUNG BRIDGE CRANE. SEE SHEET M-7 FOR DETAIL B.
- PROPOSED AIRFLOW MEASUREMENT DEVICE FOR DUCTS WITH REMOTE MONITOR; CPVC PROBE, MIN. 3' RUN INLET AND OUTLET OR PER MANUFACTURER'S RECOMMENDATION, MATERIALS OF CONSTRUCTION SHALL BE COMPATIBLE WITH CHLORINE.
- ROTATE EXIST. FLANGED 20"X20"X20" TEE TO EXTEND DUCT TO PROPOSED SCRUBBER.
- EXIST. 1" CARBON STEEL CHLORINE PIPE HIGH PRESSURE VENT FROM EVAPORATORS.
- EXTEND 1" CARBON STEEL CHLORINE HIGH PRESSURE VENT FROM SCRUBBER AND MATCH EXIST. MATERIAL (FIELD VERIFICATION). THREADED OR SOCKET-WELDED CONNECTIONS ARE ACCEPTABLE. PIPE MATERIALS SHOULD BE ASTM A 106 GRADE B SCH. 80 SEAMLESS PIPE. FITTINGS SHOULD BE ASTM A 105 CLASS 3000 CARBON STEEL.
- PROVIDE 2'X2' CONCRETE SLAB FOR CRANE POST, MIN. SLAB THICKNESS 24". MINIMUM EDGE DISTANCE SHALL BE NO LESS THAN 3 INCHES, OR PER ANCHOR MANUFACTURER REQUIREMENTS, WHICHEVER IS GREATER. SEE NOTE 8 IN SHEET M-6 AND DETAIL D IN SHEET M-7 FOR REINFORCEMENT DETAILS.
- PAIRED LADDER SAFETY GATE.
- EXIST. CONC. SIDEWAY.
- 20" RFP 90° ELBOW.
- FRP MEDIA VESSEL.

REV	BY	DATE	REVISION DESCRIPTION
C			

CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
EMERGENCY CHLORINE SCRUBBER PLAN & ELEVATIONS

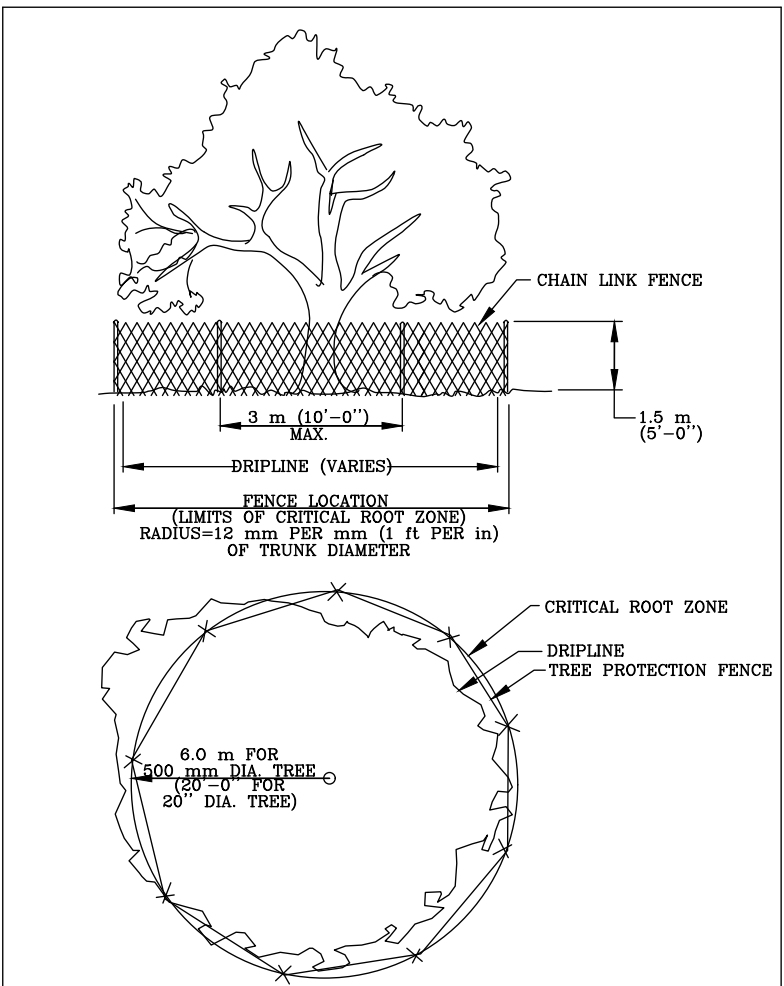
ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
CADD REF. NO.:
CADD DIR.: 100057315

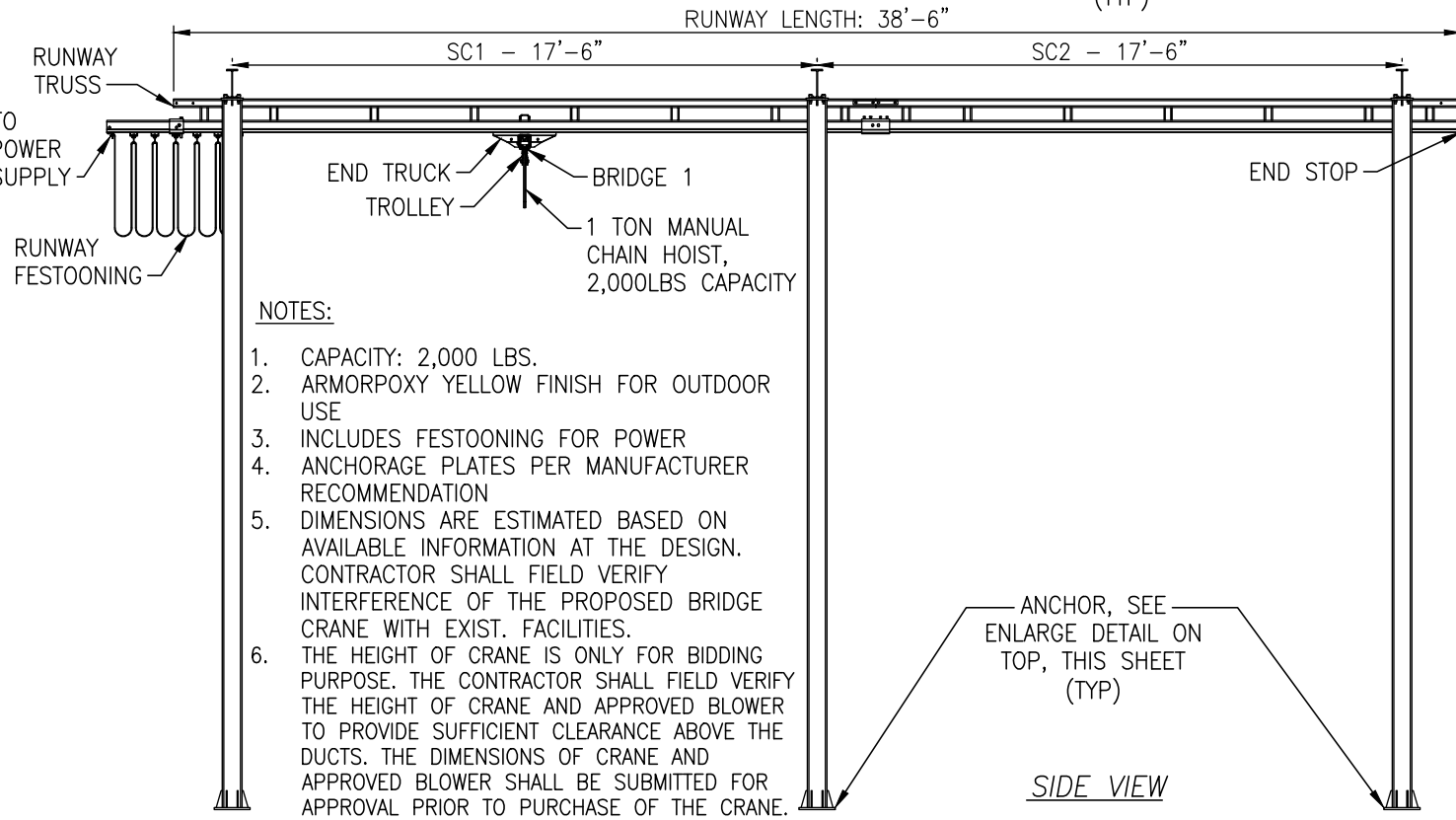
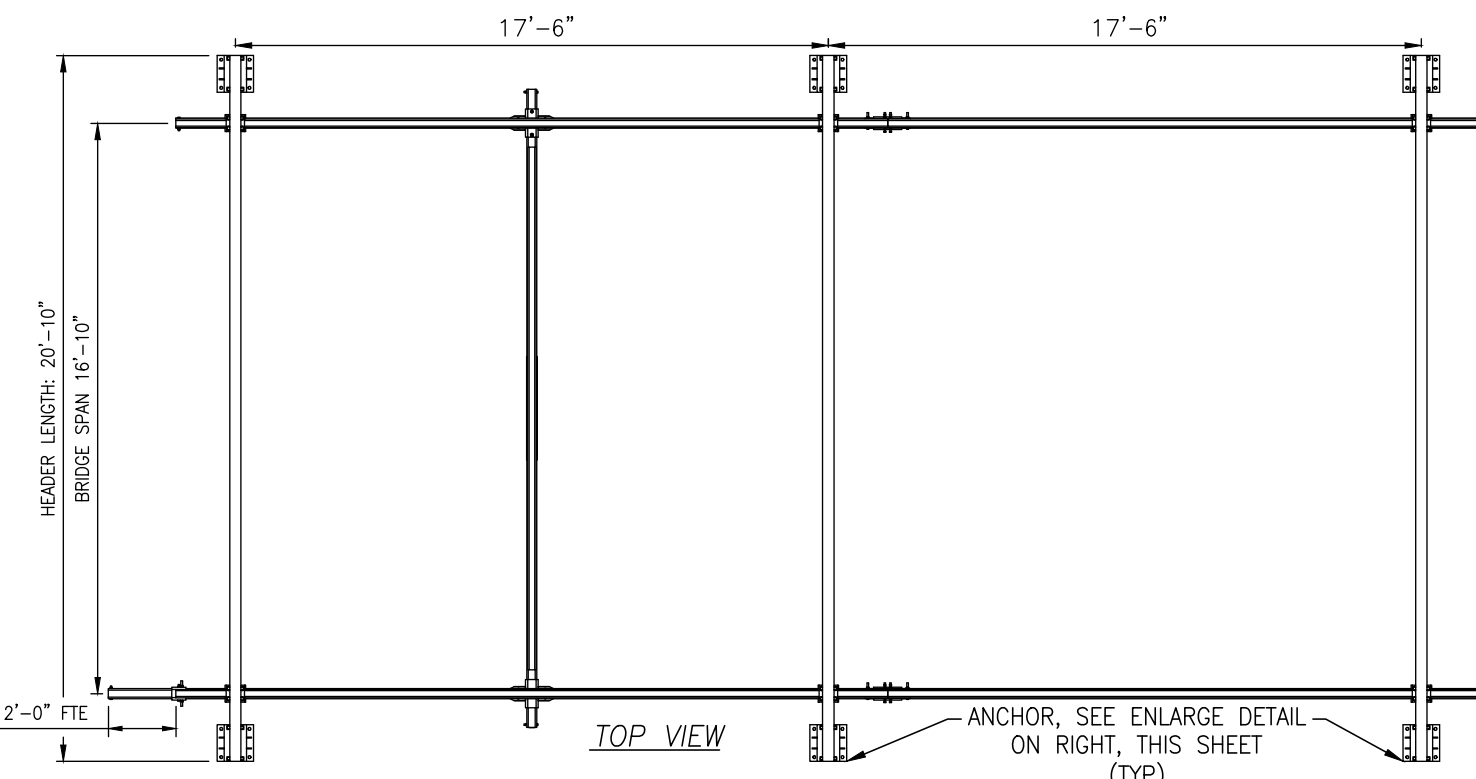
SHEET NUMBER	M-6
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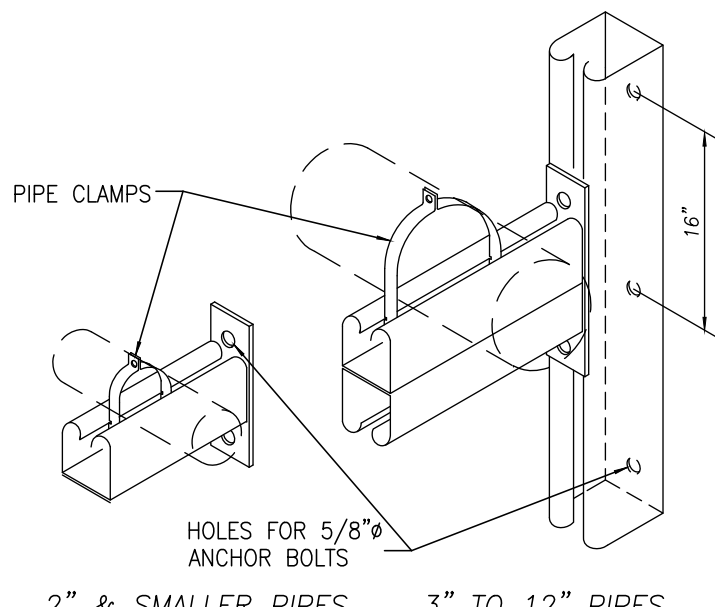


A TREE PROTECTION FENCE
NTS
C-1

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99
TREE PROTECTION FENCE
TYPE A - CHAIN LINK
STANDARD NO. 610S-2
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

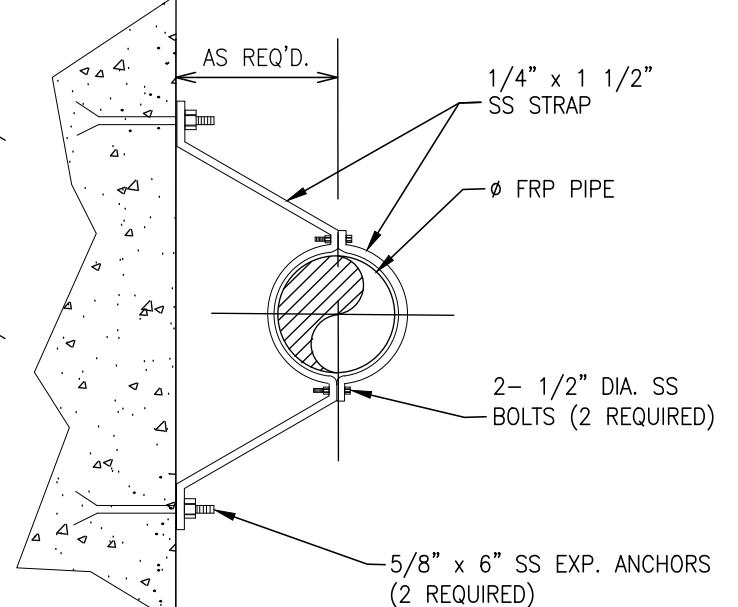


B MONORAIL DETAILS
M-3, M-6
1/4" = 1'

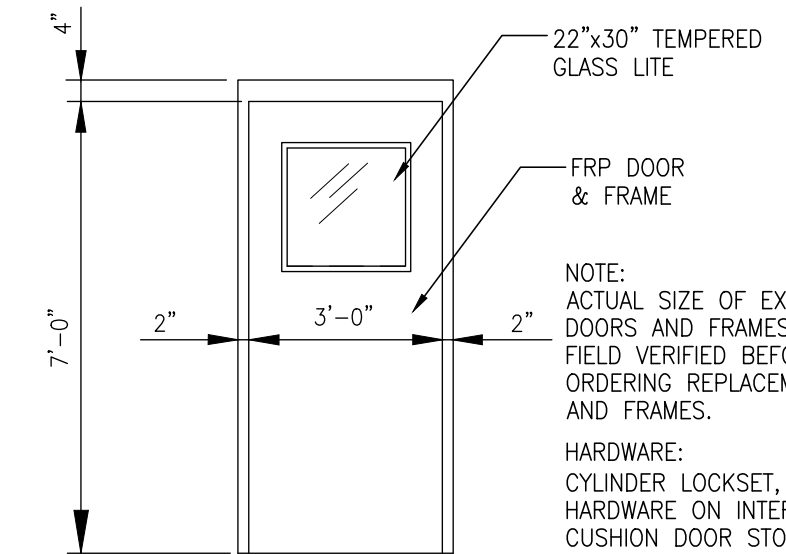


F PIPE WALL SUPPORT DETAILS
M-4, M-5
NTS

NOTES:
1. PIPE SUPPORT SPACING SHOULD NOT EXCEED 10'.
2. COULD SUBSTITUTE PRE-FABRICATED WITH ENGINEER APPROVAL.
3. ALL COMPONENTS SHALL BE NONMETALLIC EXCEPT WHERE TYPE 316 STAINLESS STEEL HARDWARE IS USED AS PART OF THE ASSEMBLY.
4. NONMETALLIC COMPONENTS SHALL BE MANUFACTURED FROM LONG GLASS FIBER REINFORCED POLYURETHANE TO ENSURE MAXIMUM STRENGTH AND SO2 CORROSION RESISTANCE.
5. ANCHORS EMBED MIN. 6".



F PIPE WALL SUPPORT DETAILS
M-4, M-5
NTS

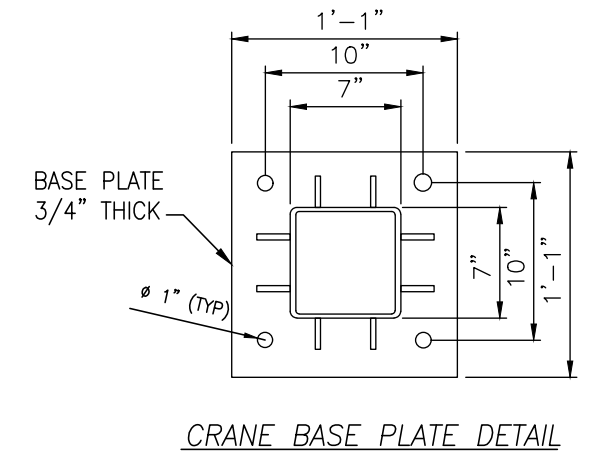


E TYPICAL FRP DOOR & FRAME
M-5
NTS

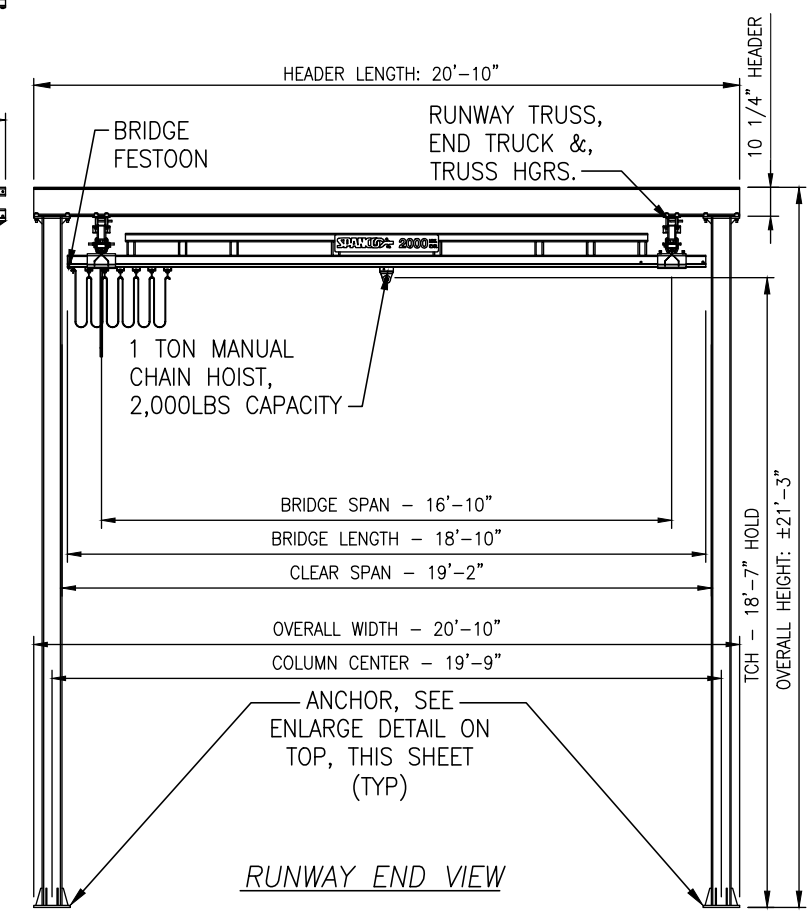
NOTE: ACTUAL SIZE OF EXISTING DOORS AND FRAMES MUST BE FIELD VERIFIED BEFORE ORDERING REPLACEMENT DOORS AND FRAMES.

HARDWARE: CYLINDER LOCKSET, KEY W/PANIC BAR HARDWARE ON INTERIOR, AND SPRING CUSHION DOOR STOP. REMAINING HARDWARE BY DOOR SUPPLIER, ALL DOOR HARDWARE SHALL BE PROVIDED IN TYPE 316 STAINLESS STEEL.

Door #	Door Size		Door Style			Frame	Hardware	Comments
	Width	Height	Operation	Top Shape	Slab Style			
1	36"	84"	1-3/4"	Swing Simple	Square	Solid	FRP	316 S.S.
2	36"	84"	1-3/4"	Swing Simple	Square	Solid	FRP	316 S.S.
3	36"	84"	1-3/4"	Swing Simple	Square	Solid	FRP	316 S.S.



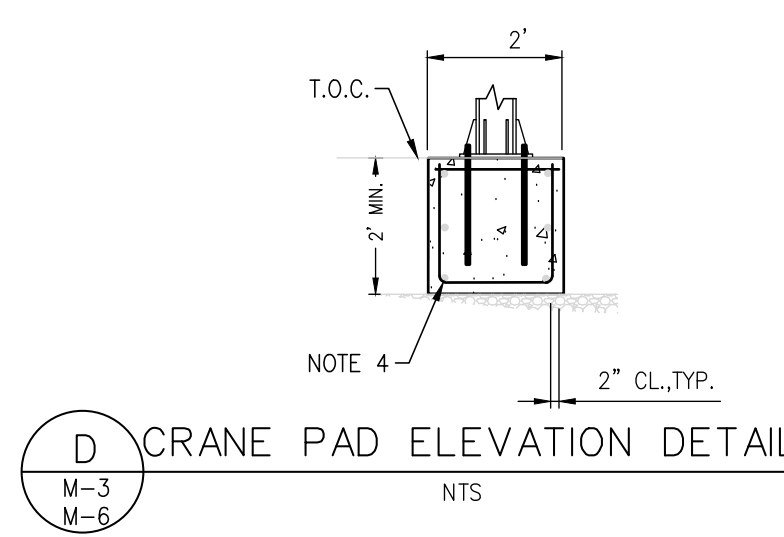
NOTES:
1. THE CRANE BASE PLATE DETAIL IS AN EXAMPLE AND FINAL BASE PLATE SHALL BE DESIGNED BY A REGISTERED TEXAS PROFESSIONAL ENGINEER.



C EQUIPMENT PAD EXTENSION TYPICAL SECTION
M-3, M-6
NTS

NOTES:

- ALL CONCRETE SHALL BE TYPE "C" WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3,600 PSI
- T.O.C E.L. OF THE PROPOSED CONCRETE PAD EXTENSION SHOULD MATCH THE T.O.C. EL. OF EXISTING CONCRETE PAD.
- COMPACT SUBGRADE TO A DENSITY OF 98 PERCENT OF MAXIMUM DRY DENSITY TO 2'-0" BELOW THE STRUCTURE AND/OR EXCAVATED SURFACE. COMPACT SUBGRADE FOR A MINIMUM DISTANCE OF 1'-0" OUTSIDE STRUCTURE PERIPHERY.
- CRANE CONCRETE PAD, REBAR AND ANCHORS SHALL BE DESIGNED BY REGISTERED TEXAS PROFESSIONAL ENGINEER.

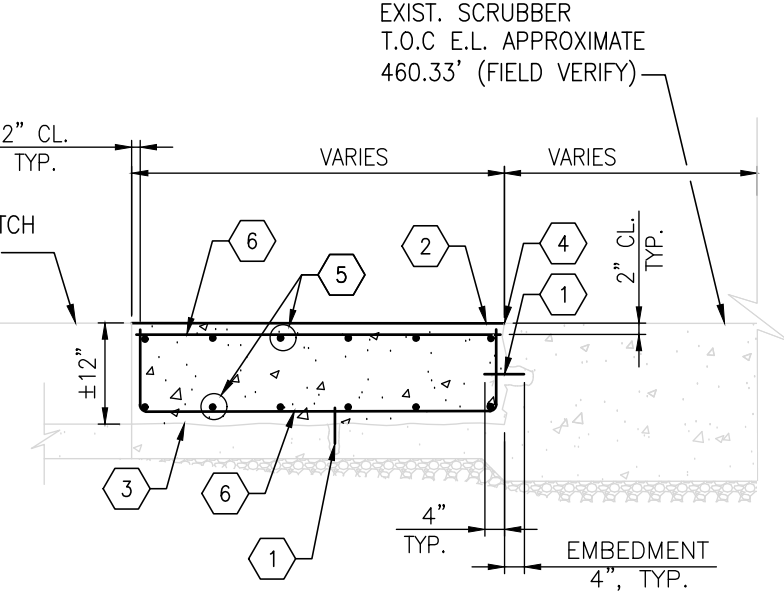


NOTES:

- CONCRETE SHALL BE TYPE "C" WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3,600 PSI
- T.O.C E.L. OF THE PROPOSED CONCRETE PAD EXTENSION SHOULD MATCH THE T.O.C. EL. OF EXISTING CONCRETE PAD.

KEY NOTES:

- #4 DOWEL @ 12" O.C.E.W EMBEDMENT 4", DRILL AND EPOXY INTO SLAB & PAD W/HILTI HIT-RE 500 V3 EPOXY ANCHOR SYSTEM OR EQUIVALENT, TYP.
- PROPOSED CONCRETE SCRUBBER EQUIPMENT PAD EXTENSION
- ROUGHEN SURFACE W/CHIPPING HAMMER, APPLY BONDING AGENT, TYP. CONCRETE BONDING AGENT SHALL BE A HIGH SOLIDS, MOISTURE-TOLERANT STRUCTURAL EPOXY ADHESIVE THAT CONFORMS TO THE ASTM C-881.
- MATCH EXIST. SCRUBBER PAD ELEVATION
- #4@12" O.C.E.W T&B
- #4@24" O.C.E.W T&B



D CRANE PAD ELEVATION DETAIL
M-3, M-6
NTS

REV. NO.	DATE	REVISION DESCRIPTION

CITY OF AUSTIN
WALNUT CREEK WWP GAS SCRUBBER SYSTEM RENEWAL
GENERAL DETAILS-1

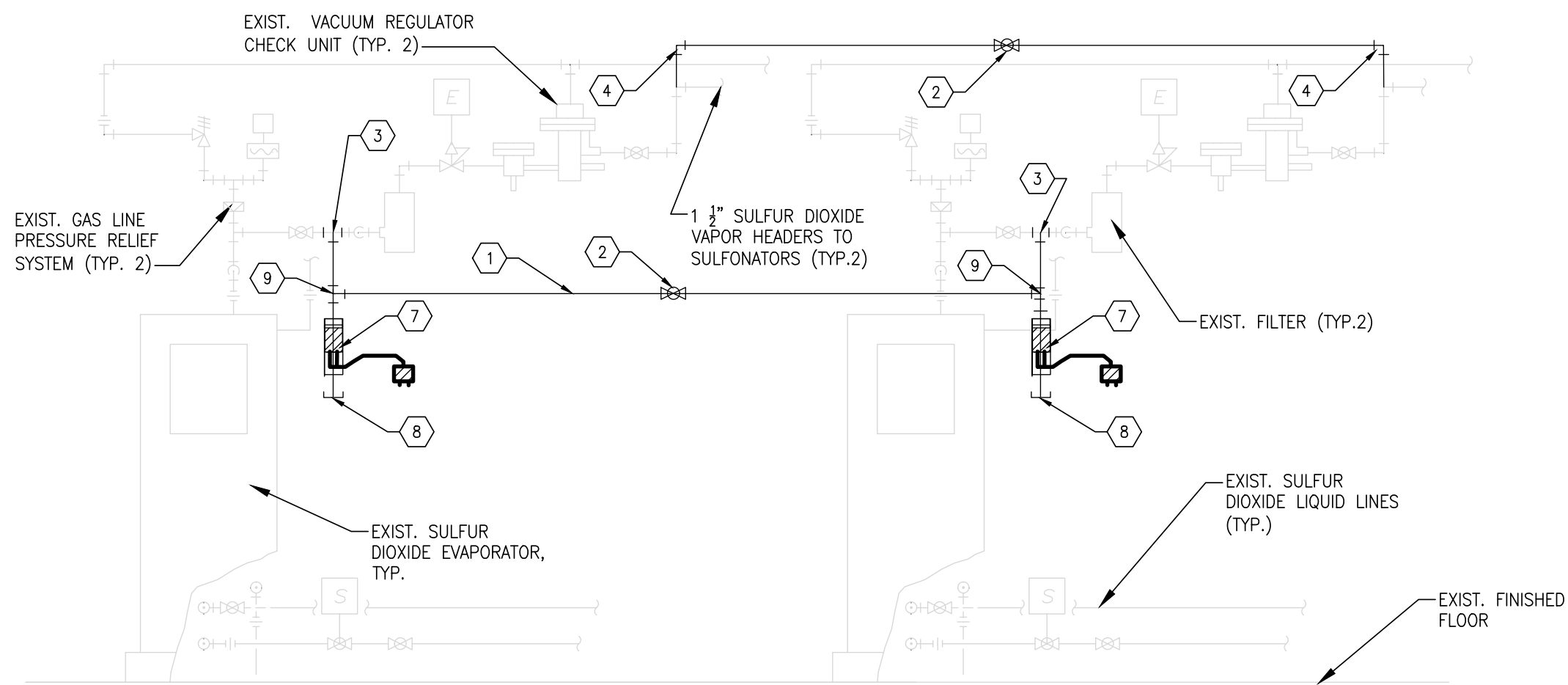
ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER M-7

Jul 06, 2022 - 11:38am NGUY2830 \\wsatkins.com\project\USASA\Projects1\Projects1\100057315 Walnut Creek WWTP Final Design\2. Design\SHEETS\57315-XCOND_DEMO_PROP.dwg

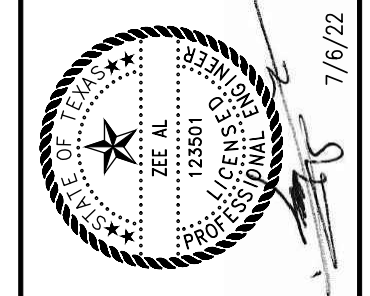


1 SULFUR DIOXIDE VACUUM REGULATOR BYPASS PIPING DETAILS
M-5 NTS

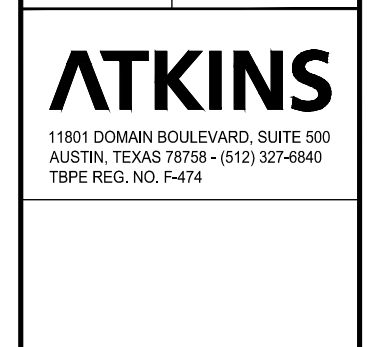
KEY NOTES

- 1 PROPOSED 1 1/2" S.S. SULFUR DIOXIDE VAPOR BYPASS LINE
- 2 PROPOSED 1 1/2" S.S. BALL VALVE
- 3 PROPOSED 1 1/2" S.S. TEE
- 4 PROPOSED 1 1/2" S.S. 90 DEG. ELBOW
- 5 PROPOSED 1" S.S. DRIP-LEG, 3" MIN. (TYP. 4)
- 6 PROPOSED UNION FOR EASE OF MAINTENANCE
- 7 PROVIDE FORMED HEATER WITH CLAMPS FOR ALL DRIP-LEGS TO EVAPORATE LIQUID SULFUR DIOXIDE AND PREVENT RE-LIQUEFACTION OF SULFUR DIOXIDE GAS, TYP HYDRO INSTRUMENT HTH-111-115 OR EQUAL. PROVIDE 115 VAC 50/60HZ POWER SUPPLY, TYP.
- 8 PROVIDE 1 1/2" S.S. DRIP-LEG, 3" MIN. (TYP. 2)
- 9 1 1/2" S.S. TEE

REV. NO.	BY	DATE	REVISION DESCRIPTION



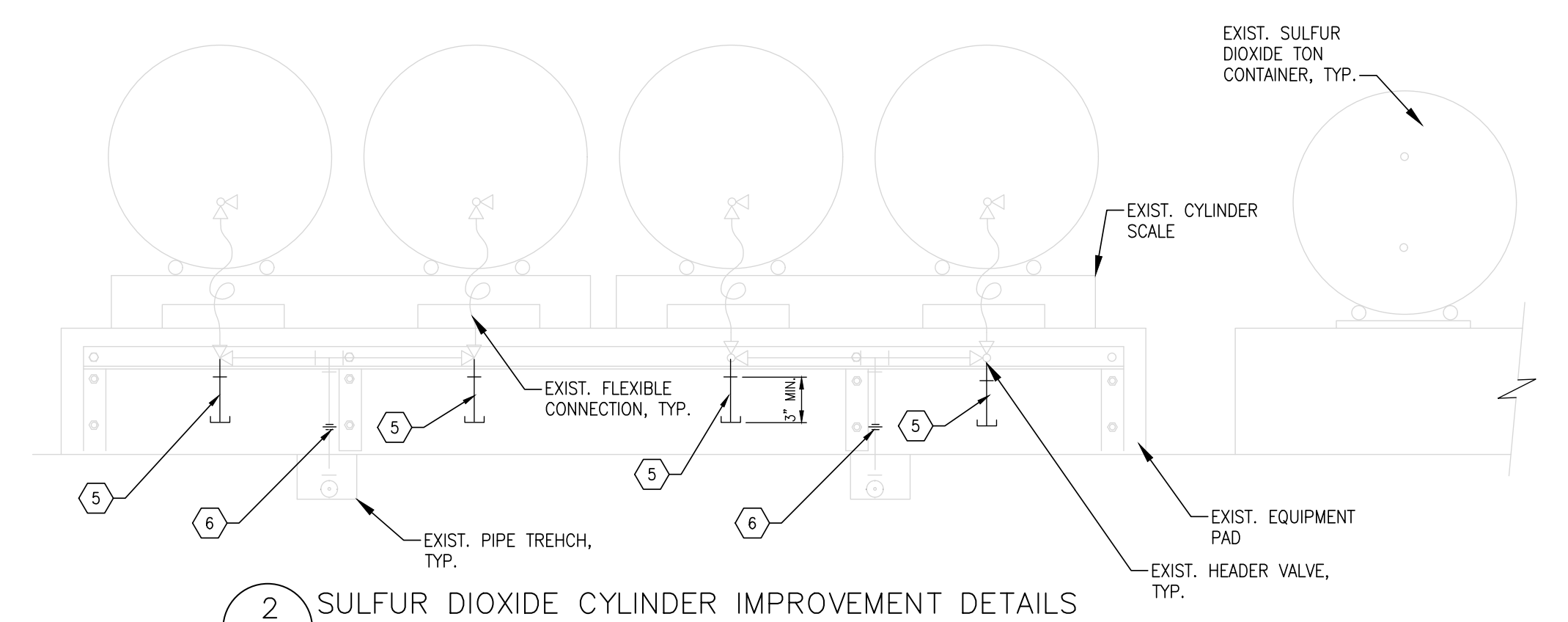
CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
GENERAL DETAILS-2



NOTES	NAME	DATE
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DRAWN BY	JH	2/22/22
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REVIEWED BY	DT	2/22/22

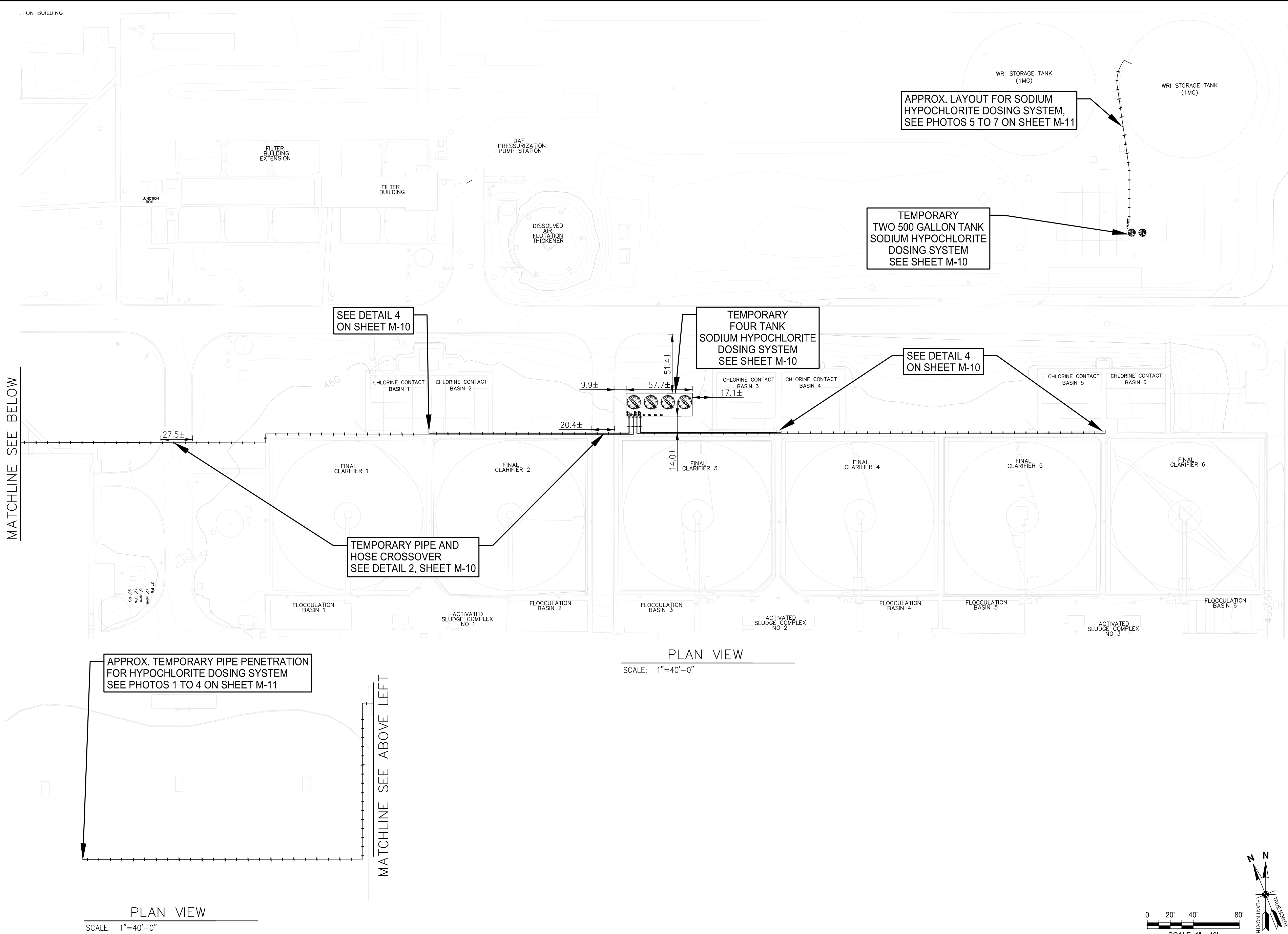
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CADD DIR.: 100057315

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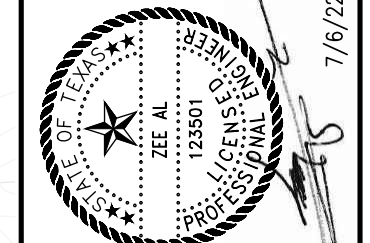


2 SULFUR DIOXIDE CYLINDER IMPROVEMENT DETAILS
M-5 NTS

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REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN

WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL

TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBPE REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER M-9

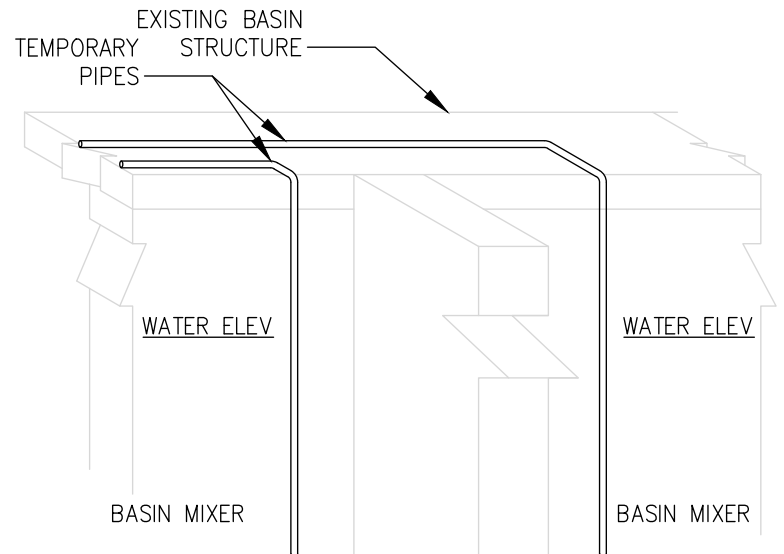
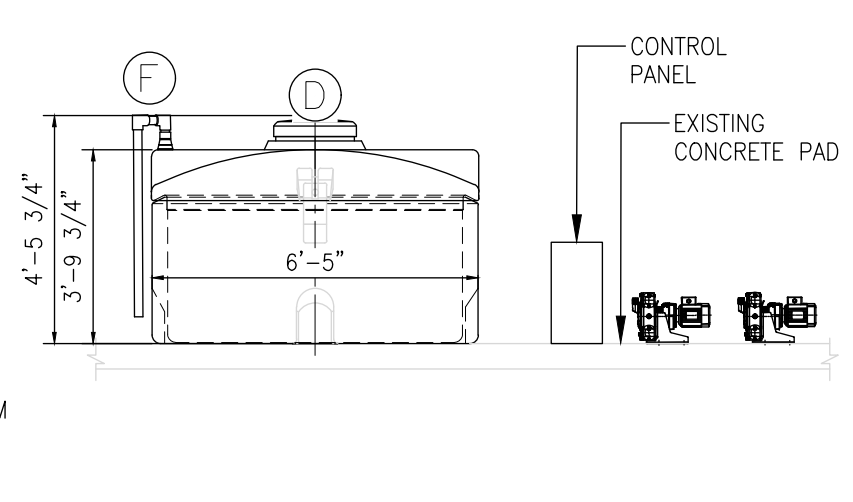
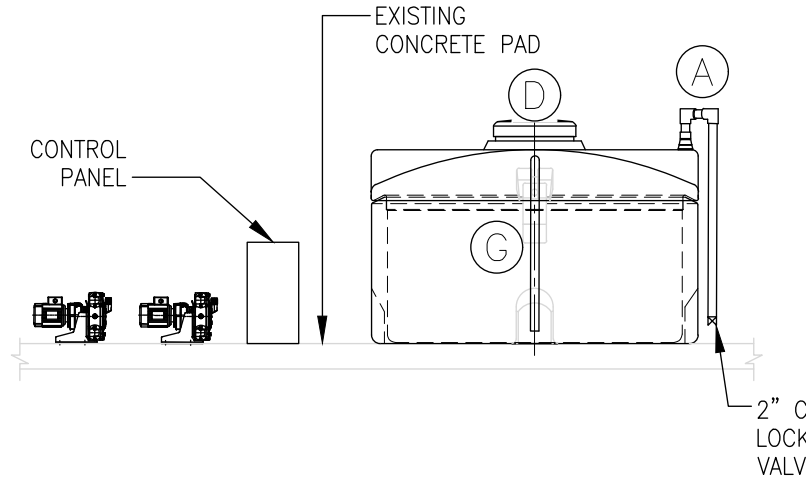
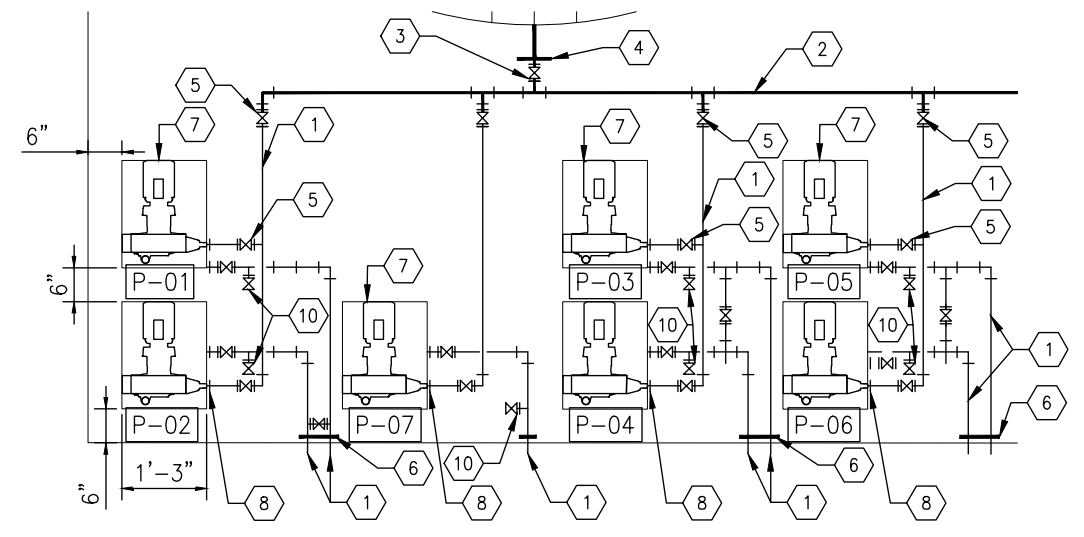
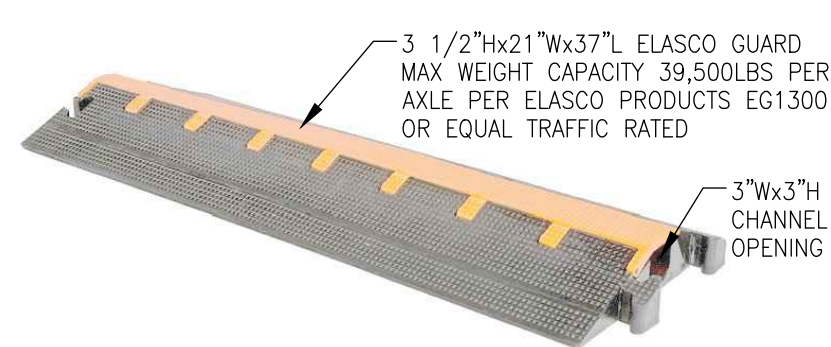
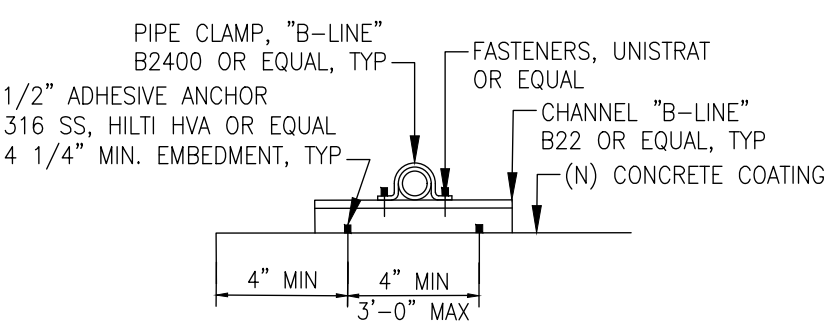
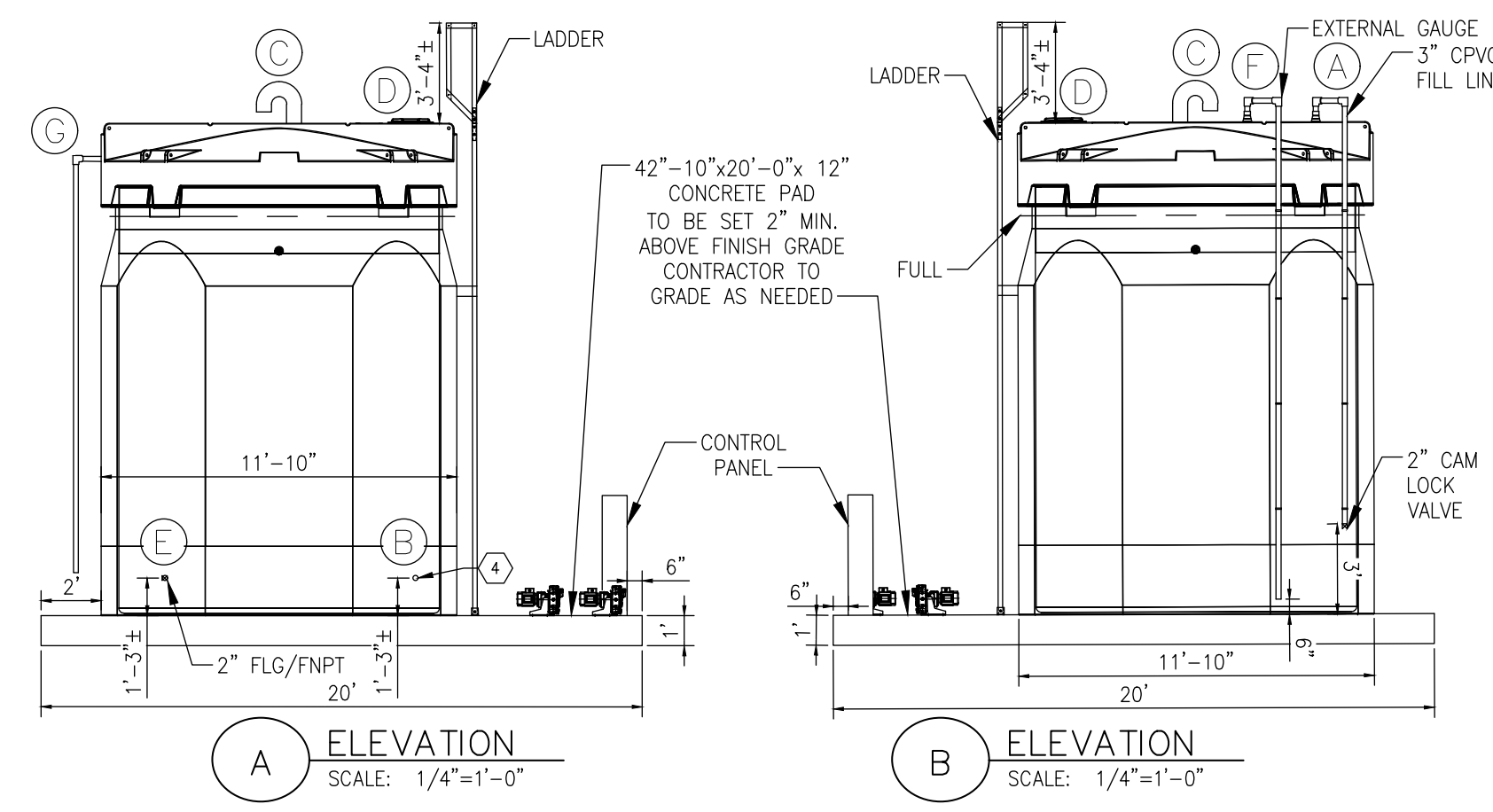
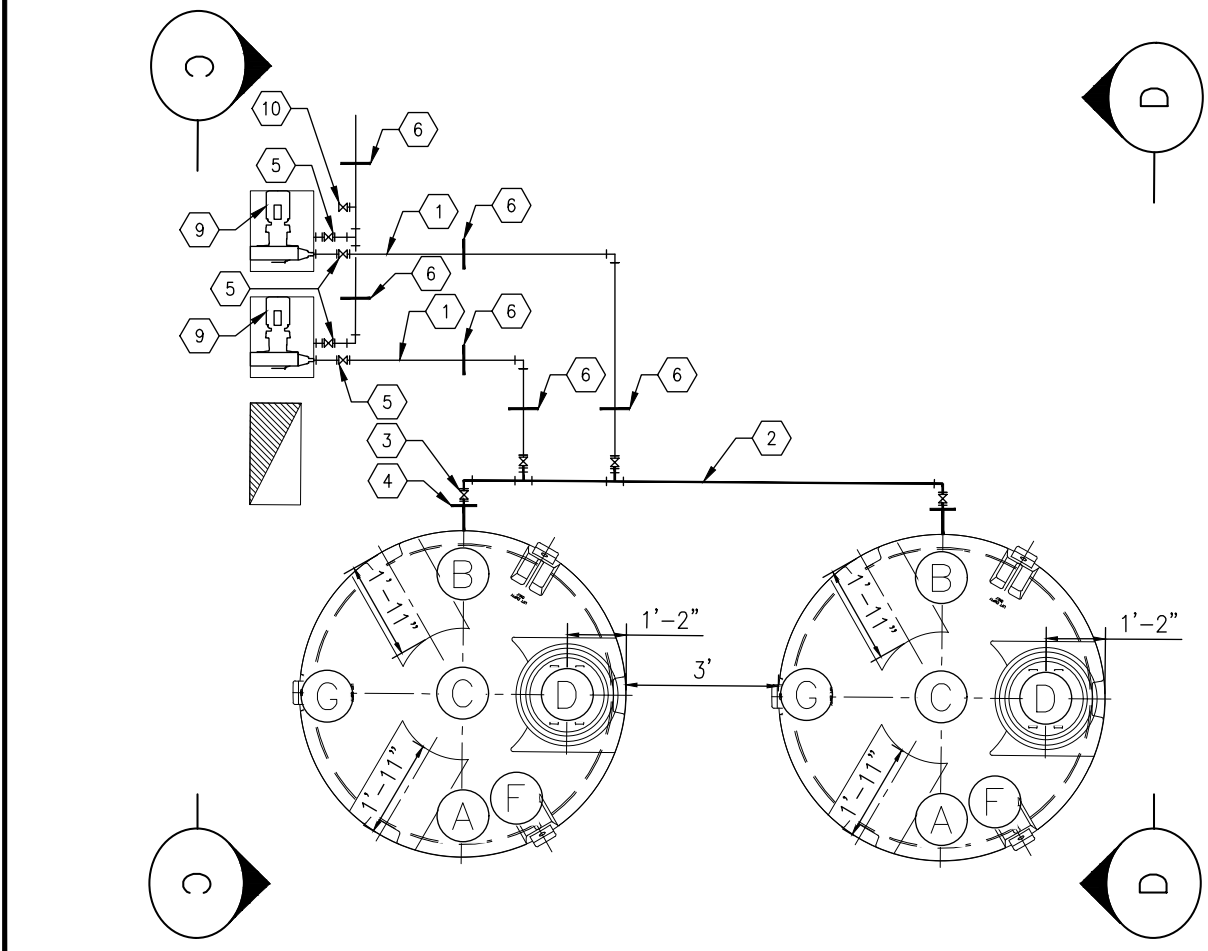
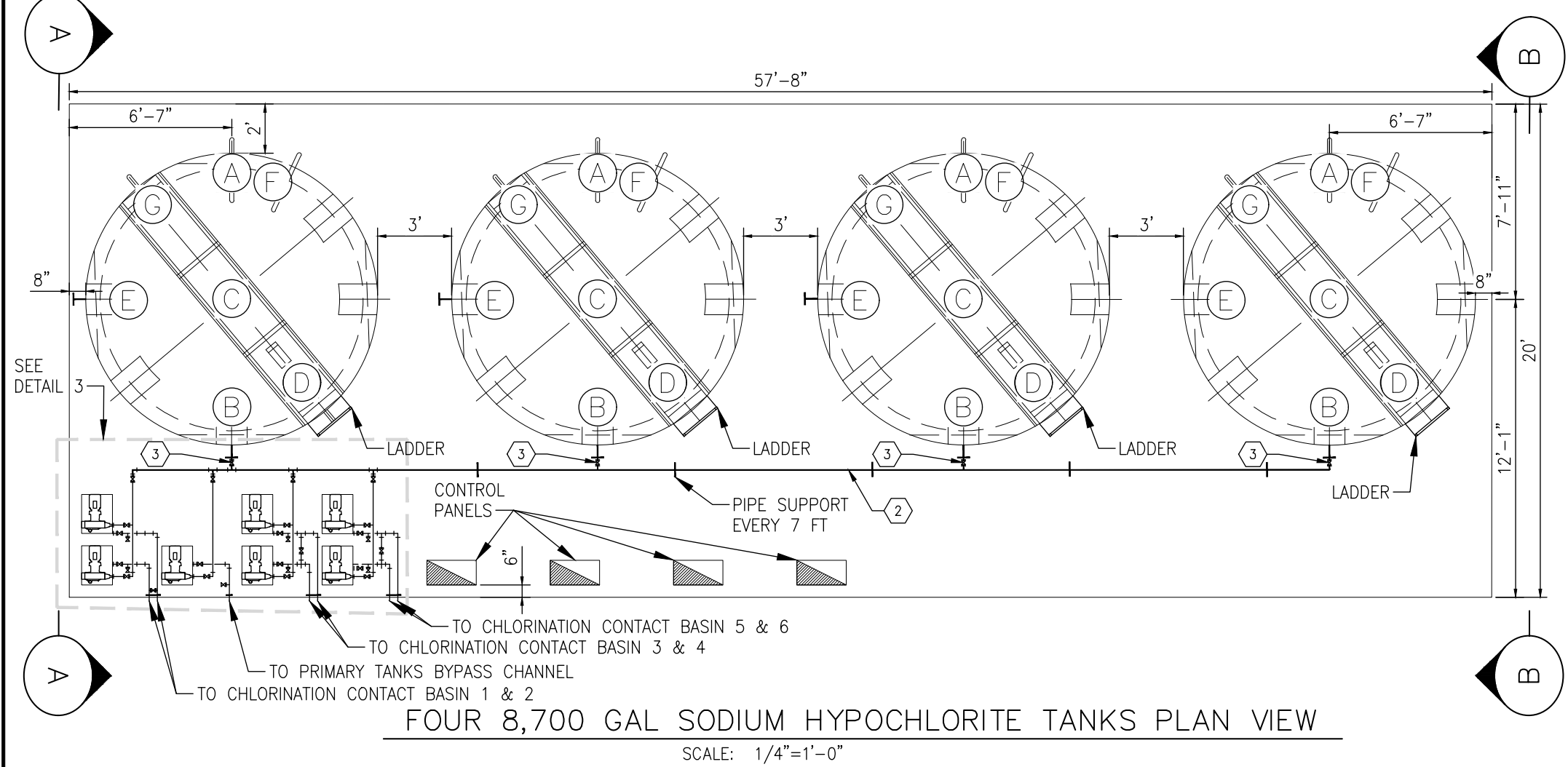
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SODIUM HYPOCHLORITE TANK NOZZLE SCHEDULE

ITEM	QTY	SIZE	TYPE	DESCRIPTION
A	1	2"	BULKHEAD	FILL
B	1	2"	BULKHEAD	OUTLET/DRAW
C	1	6"	BULKHEAD	VENT/LEVEL
D	1	24"	FLANGE	MANWAY
E	1	2"	FLANGE/FNPT	INTERSTITIAL
F	1	2"	BULKHEAD	FLOAT
G	1	2 1/5"	BULKHEAD	OVERFLOW

- KEY NOTES**
- 1 1/2" SCH. 80 DOUBLE WALL CPVC PIPE (TYP.)
 - 2" SCH. 80 DOUBLE WALL CPVC PIPE
 - 2" CPVC BALL VALVE
 - 2" BULKHEAD
 - 1/2" CPVC BALL VALVE FLGxFLG (TYP.)
 - FLOOR/WALL MOUNTED UNISTRUCT PIPE SUPPORT, SEE DETAIL 1
 - METERING PUMP, APEX 20 OR EQUAL
 - FLANGE CONNECTION (TYP.)
 - METERING PUMP, APEX 10 OR EQUAL
 - 1/2" CPVC BALL VALVE TRUE UNION THREADED. (CARRIER WATER CONNECTION)

- NOTES**
1. PROVIDE 1' THICK CONCRETE PAD FOR ALL SODIUM HYPOCHLORITE TANKS, #4 @ 12 TOP AND BOTTOM OR PER RECOMMENDATION OF TANK MANUFACTURER.
 2. THE CONTRACTOR SHALL DISASSEMBLE, CLEAN, RELOCATE, UNLOAD AND STORE THE PUMPS AND TANKS IN THE DESIGNATED AREA AT SAR WASTEWATER TREATMENT PLANT AT THE END OF THE PROJECT.
 3. THE CONTRACTOR SHALL DEMOLISH AND DISPOSE OF THE PAD, PIPING, SUPPORTS AND RETURN SITE TO THE ORIGINAL CONDITION.
 4. CONTRACTOR SHALL PROVIDE TEMPORARY SECONDARY CONTAINMENT ON THE CONCRETE PAD. A CONCRETE OR BERM CONTAINMENT WITH MINIMUM 1'-3" HEIGHT IS ACCEPTABLE.



REV. NO.	DATE	REVISION DESCRIPTION

CITY OF AUSTIN
WALNUT CREEK WWP GAS SCRUBBER SYSTEM RENEWAL
TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM DETAILS

ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP# REG. NO. F-474

NOTES	NAME	DATE
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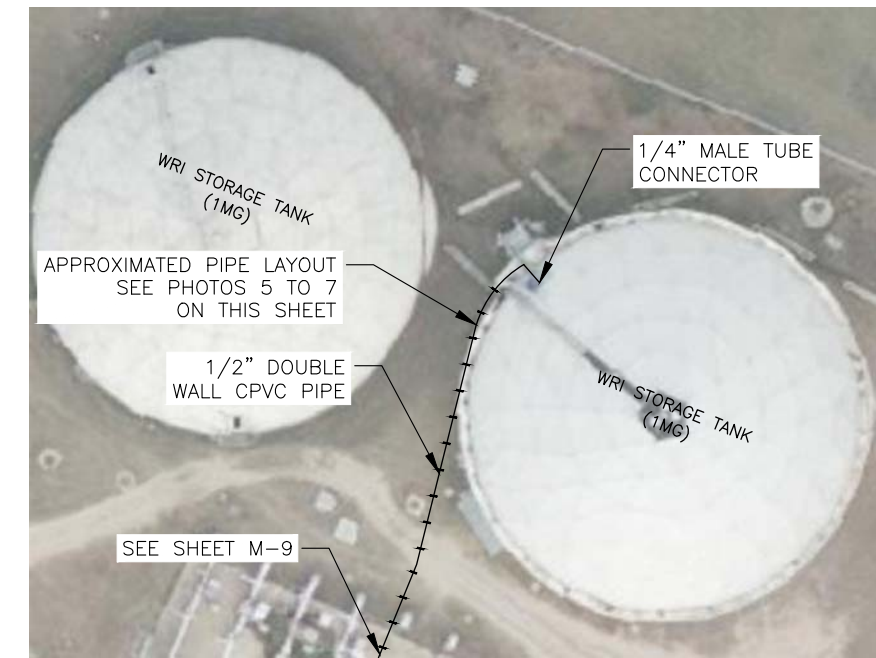
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SHEET NUMBER **M-10**

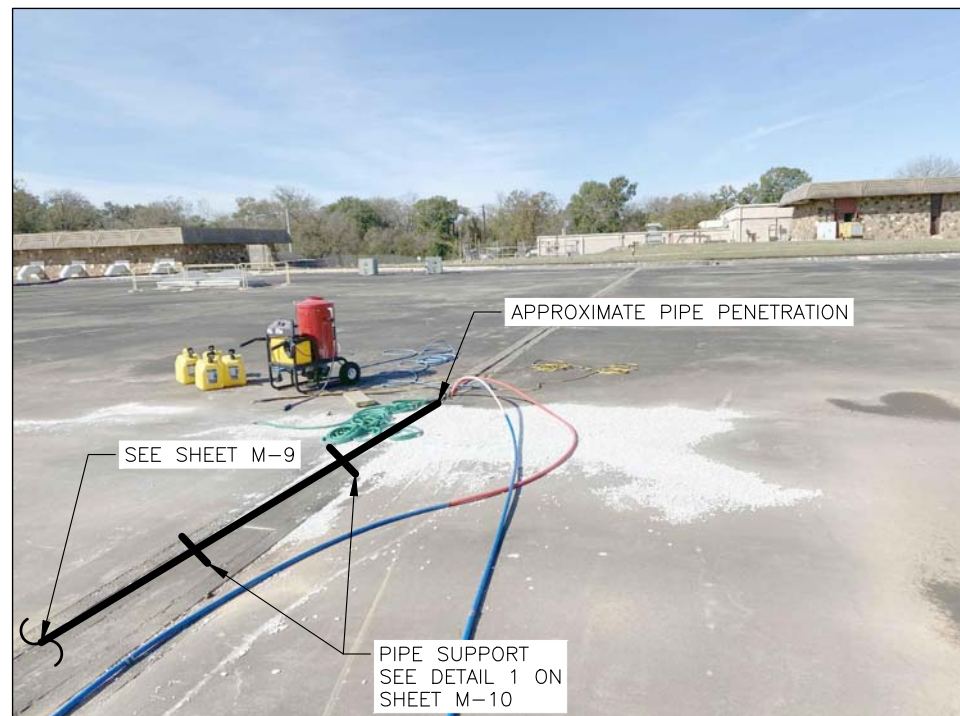
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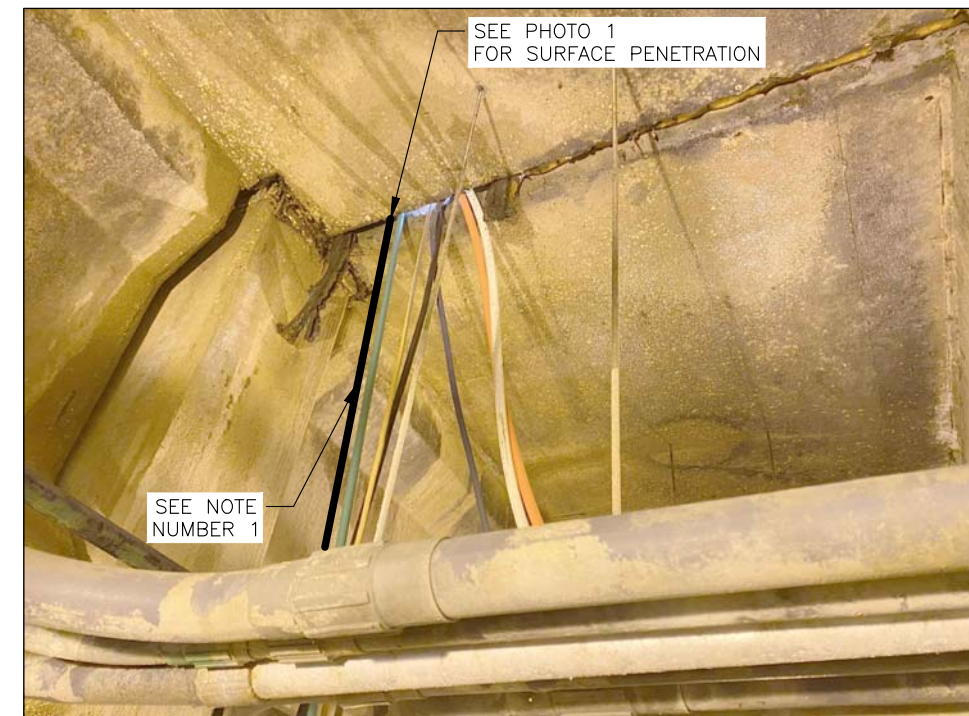
PLAN VIEW
SCALE: 1"=40'-0"



PLAN VIEW
SCALE: 1"=40'-0"



1 APPROXIMATE PIPE PENETRATION



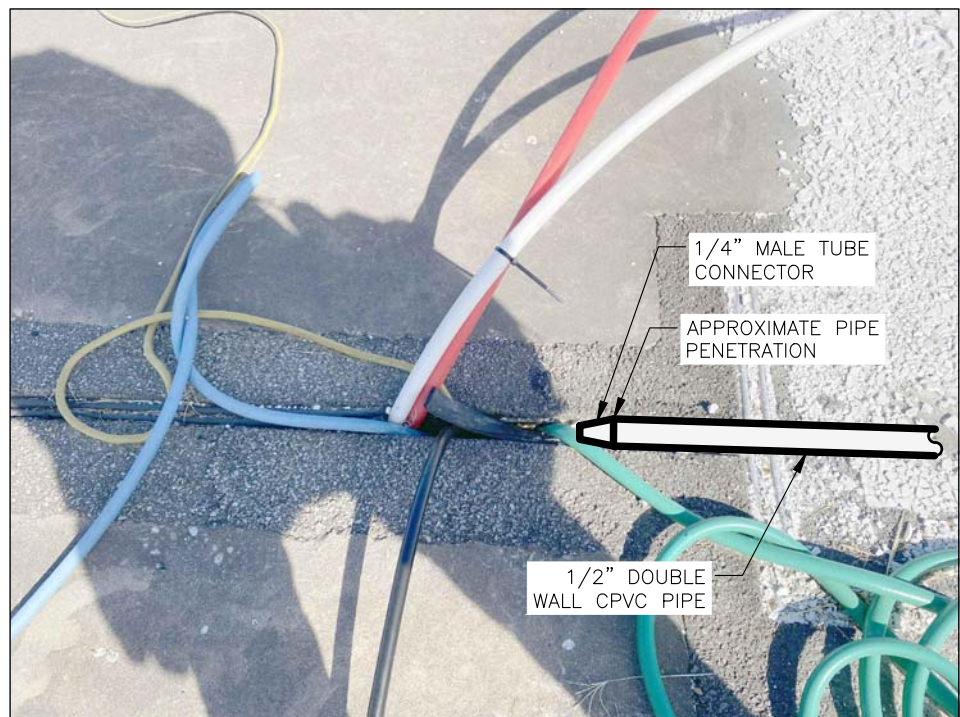
3 APPROXIMATE PIPE PENETRATION



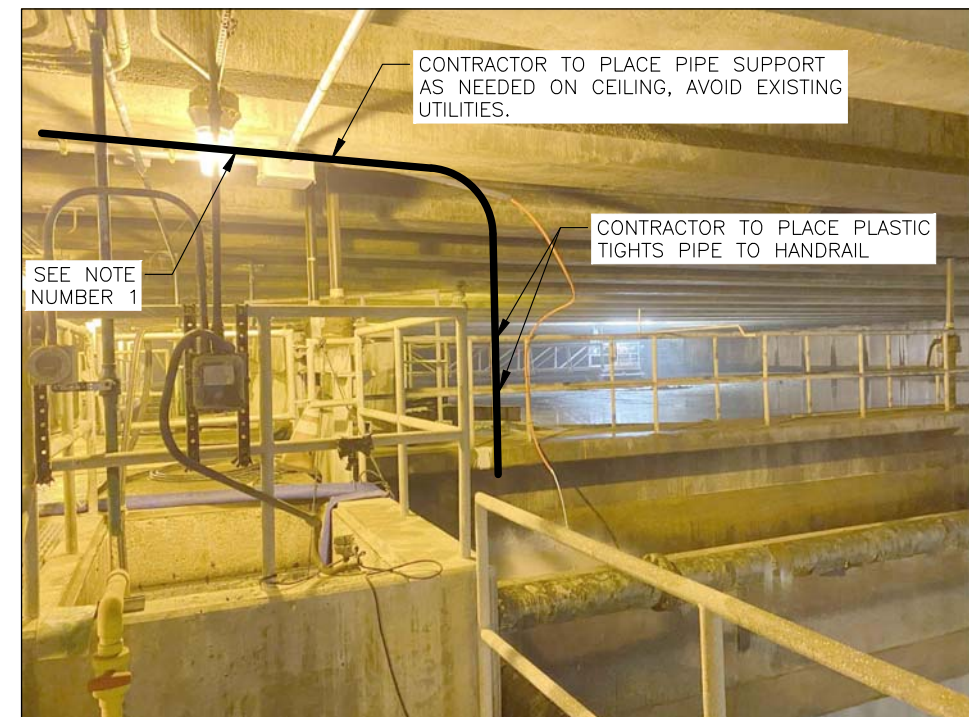
5 APPROXIMATE PIPE LOCATION



6 APPROXIMATE PIPE LOCATION



2 APPROXIMATE PIPE PENETRATION



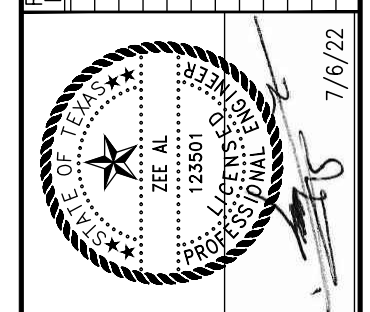
4 APPROXIMATE PIPE PENETRATION

NOTES
1. THE CONTRACTOR SHALL RUN THE 1/4" NYLON TUBE INSIDE A 1/2" PVC PIPE OR CONDUIT. SEE SHEET M-10, DETAILS 5.



7 APPROXIMATE PIPE LOCATION

REV. NO.	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WTP GAS SCRUBBER SYSTEM RENEWAL
TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM DETAILS

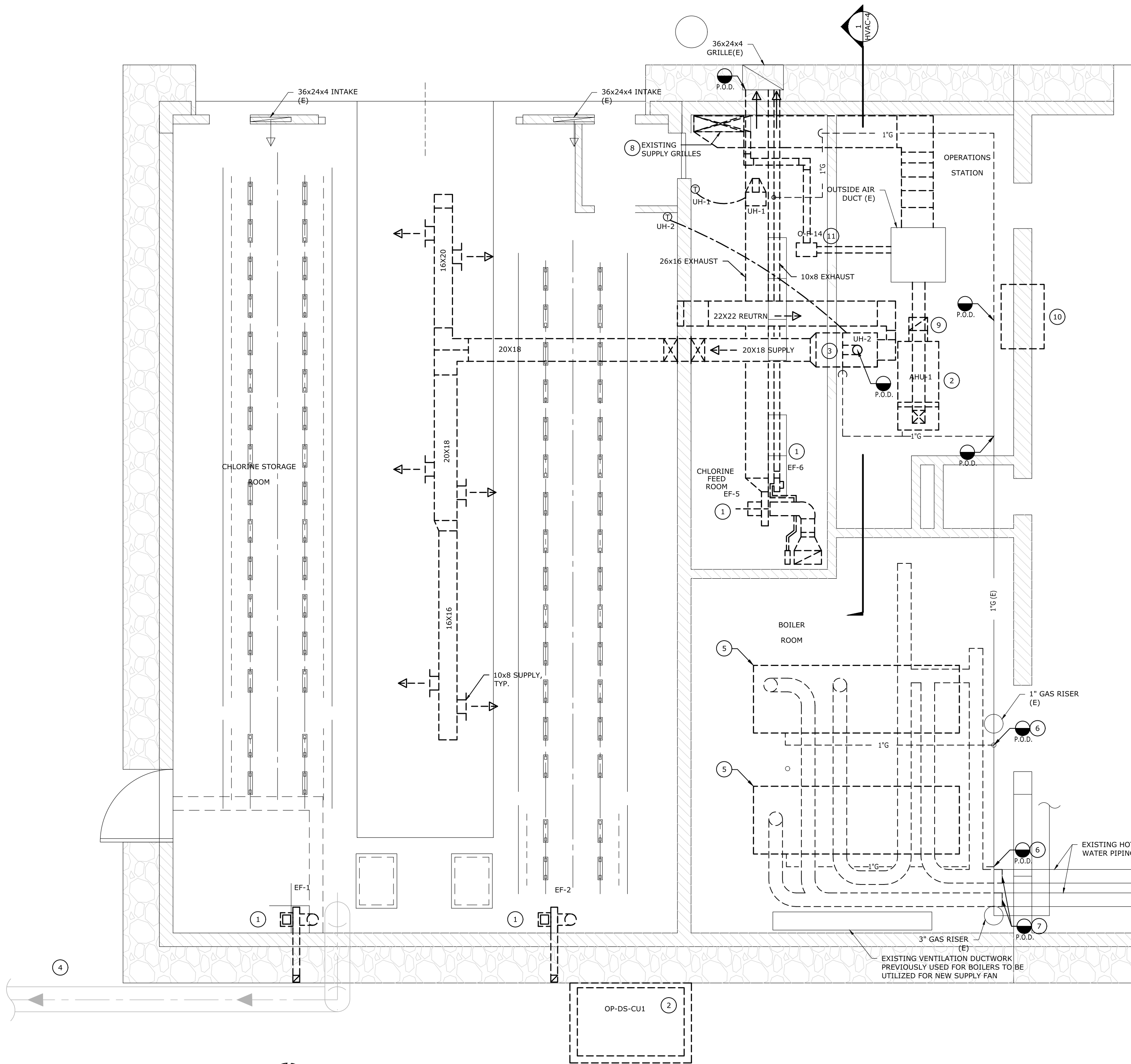
ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	2/22/22
DRAWN BY	JH	2/22/22
CHECKED BY	ZA	2/22/22
DESIGNED BY	JH/EM	2/22/22
REVIEWED BY	DT	2/22/22

SCALE:
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER M-11

May 19, 2022 - 2:52pm jdeangelo F:\16049_Waln\WTP\DRAWINGS\CAD\16049_HVAC-2 - Chlorination Mechanical Demolition Plan.dwg



1 HVAC DEMOLITION FLOOR PLAN - CHLORINATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF CONDUIT, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

ALL MATERIAL AND EQUIPMENT REMOVED AND NOT SCHEDULED FOR REUSE SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE FOR DISPOSITION. ITEMS DEEMED UNSALVAGEABLE BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE TRANSPORTED TO A LOCATION OFF THE PROJECT SITE AND LEGALLY DISPOSED OF.

PRIOR TO BIDDING THE WORK, BIDDERS SHALL TAKE RELEVANT FIELD MEASUREMENTS AND PERFORM RELEVANT FIELD INVESTIGATION, AND EXAMINE AND COMPARE THE CONTRACT DOCUMENTS AND INFORMATION FURNISHED BY OWNER TO DISCERN ANY VISIBLE OR REASONABLY ANTICIPATED CONDITIONS AT THE SITE AFFECTING THE WORK. BIDDERS PROPOSAL SHALL ACCOUNT FOR ALL REASONABLY INFERABLE CONDITIONS.

DRAWINGS HEREON ARE REPRODUCTIONS OF "AS-BUILT" RECORD DRAWINGS PROVIDED TO JOSE I. GUERRA, INC. BY OWNER AND ARE PROVIDED FOR INFORMATION ONLY.

CONTRACTOR TO COORDINATE WITH OWNER AND ENGINEER TO DEVELOP A DETAILED CONSTRUCTION SEQUENCE TO ENSURE THAT CONTINUOUS SERVICE IS MAINTAINED TO THE BUILDING.

KEYED NOTES:

- 1 REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCT WORK.
- 2 REMOVE EXISTING AIR HANDLING UNIT AHU-1 AND ASSOCIATED CONDENSING UNIT OP-DS-CU1 AND REFRIGERANT PIPING. TEST AND REUSE EXISTING INTAKE LOUVER.
- 3 REMOVE EXISTING UNIT HEATER, THERMOSTAT AND DUCTWORK. DISCONNECT FROM EXISTING GAS PIPING.
- 4 REFERENCE MECHANICAL SHEETS M-1 THROUGH M-7 FOR FULL SCRUBBER INFORMATION AND DEMOLITION EXTENT.
- 5 DEMOLISH EXISTING CONCRETE BOILER PAD. BOILERS REMOVED IN PREVIOUS RENOVATION.
- 6 REMOVE EXISTING BOILER GAS PIPING BACK TO MAIN BRANCH AND CAP WITH A BLIND FLANGE.
- 7 REMOVE EXISTING HOT WATER PIPING BACK TO FLANGE.
- 8 REMOVE EXISTING GRILLE. PREPARE OPENING FOR NEW GRILLE AND CONNECTION.
- 9 PATCH EXISTING SUPPLY PENETRATION.
- 10 DEMOLISH EXISTING WINDOW A/C UNIT IN WALL OF OPERATIONS STATION.
- 11 REMOVE EXISTING SUPPLY FAN AND ASSOCIATED DUCTWORK.

REV	BY	DATE	REVISION DESCRIPTION
		05/20/2022	100% DOCUMENTS



CITY OF AUSTIN
WALNUT CREEK WWTG GAS SCRUBBER SYSTEM RENEWAL
HVAC DEMOLITION
FLOOR PLAN - CHLORINATION

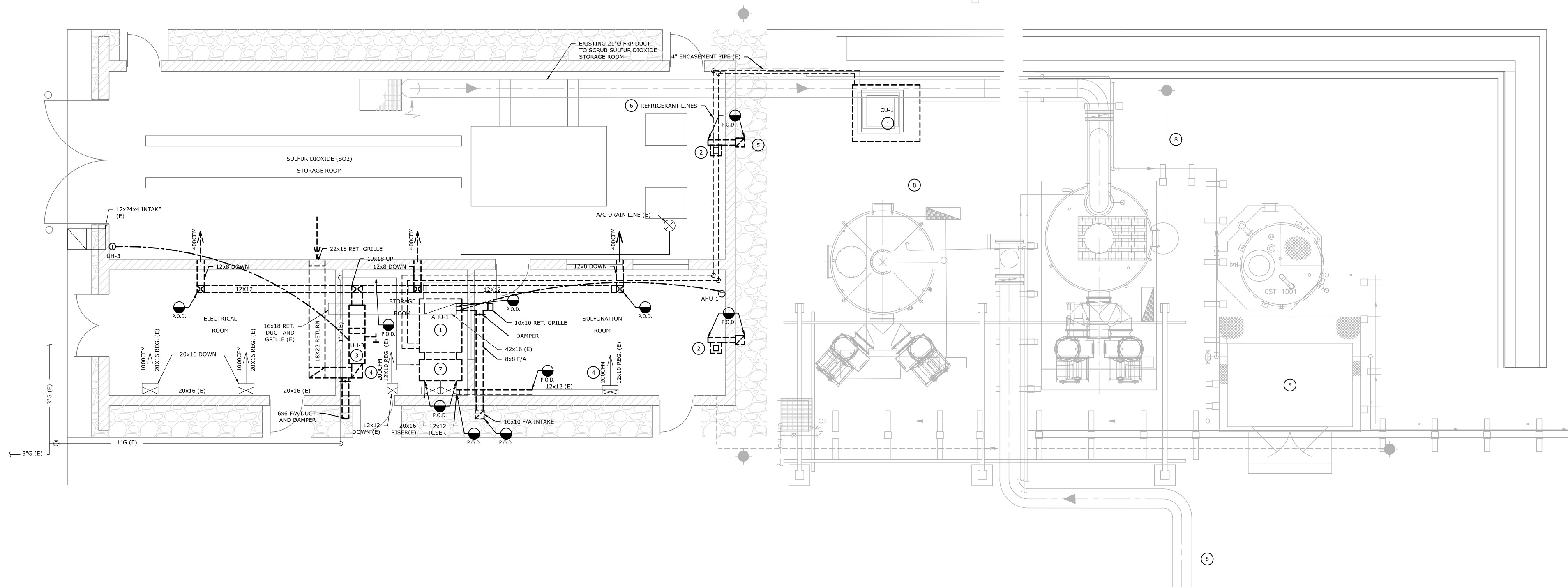
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TBP REG. NO. F-474

Jose I. Guerra, Inc.
Consulting Engineers
Civil • Structural • Mechanical • Electrical
2401 South 118th Suite 210
Austin, Texas 78741
(512) 445-2090
TBP REG. NO. F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	
SCALE:	AS NOTED	
CADD REF. NO.:		
CADD DIR.:	100057315	

SHEET NUMBER	HVAC-2
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May 19, 2022 - 2:52pm jdeangelo F:\16049_Walnut_WTP\DRAWINGS\CAD\16049_HVAC-3 - Dechlorination Mechanical Demolition Plan.dwg



GENERAL NOTES:

SEE SHEET HVAC-2 FOR GENERAL NOTES.

KEYED NOTES:

- 1 REMOVE EXISTING AHU-1 AND THERMOSTAT AND CU-1. TEST AND REUSE EXISTING DUCT CONNECTIONS.
- 2 REMOVE EXISTING EXHAUST FAN AND DUCTWORK.
- 3 REMOVE EXISTING UNIT HEATER, GAS PIPING, THERMOSTAT AND DUCTWORK.
- 4 REFER TO SHEET HVAC-6 FOR NEW AIR VOLUMES.
- 5 CAP EXISTING EXHAUST FAN PENETRATION.
- 6 DEMOLISH EXISTING REFRIGERANT LINES.
- 7 REMOVE EXISTING DUCT FURNACE, DISCONNECT FROM EXISTING GAS LINES.
- 8 REFERENCE MECHANICAL SHEETS M-1 THROUGH M-7 FOR FULL SCRUBBER INFORMATION AND DEMOLITION EXTENT.

REV. NO.	BY	DATE	REVISION DESCRIPTION
		05/20/2022	100% DOCUMENTS



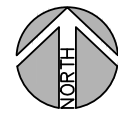
CITY OF AUSTIN
 WALNUT CREEK WTP GAS SCRUBBER SYSTEM RENEWAL
 HVAC DEMOLITION FLOOR PLAN - DECHLORINATION

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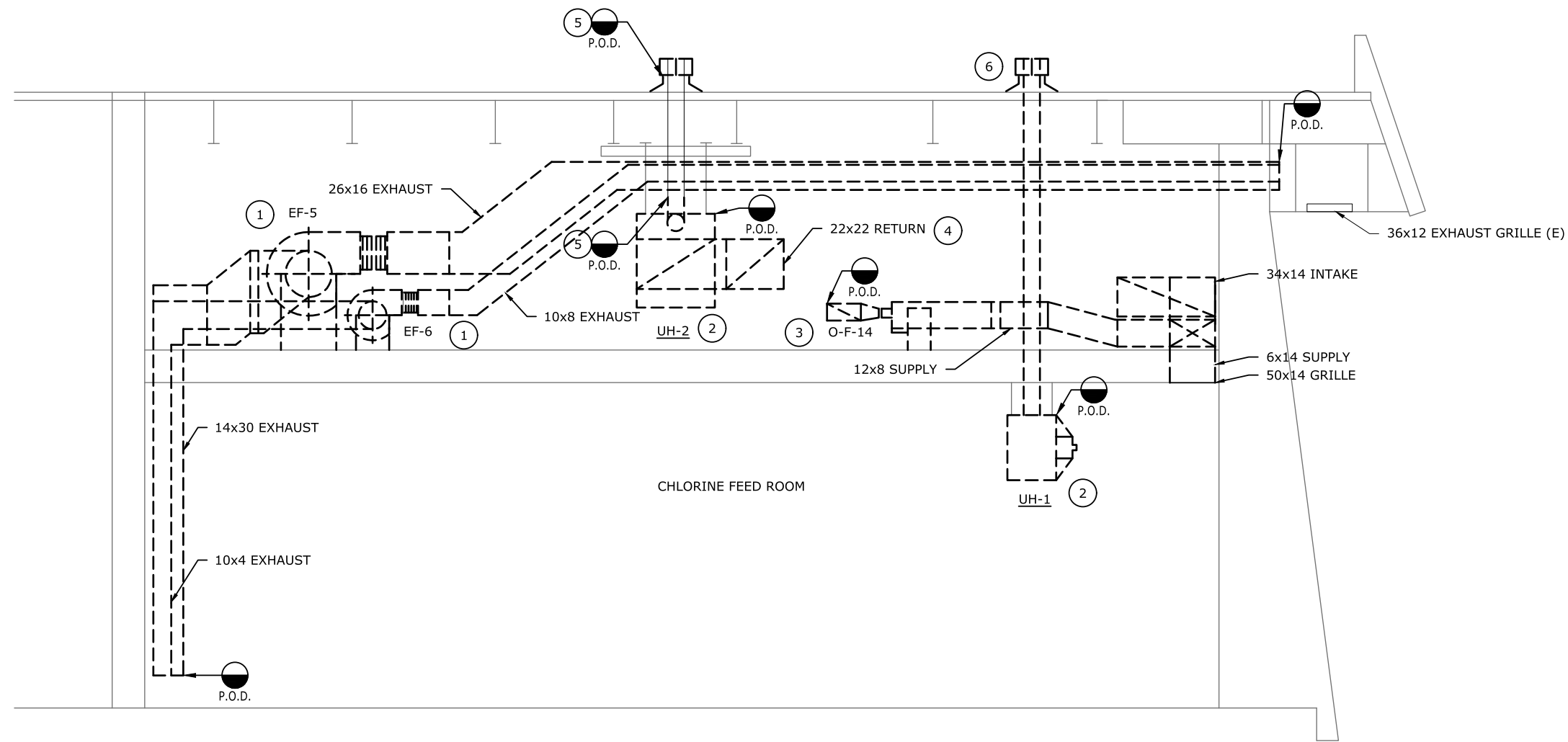
NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	
SCALE:	AS NOTED	
CADD REF. NO.:		
CADD DIR.:	100057315	

SHEET NUMBER HVAC-3



1 HVAC DEMOLITION FLOOR PLAN - DECHLORINATION
 SCALE: 3/16" = 1'-0"

May 19, 2022 - 2:52pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-4 - Mechanical Demolition Section.dwg



1 HVAC DEMOLITION SECTION - CHLORINATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

SEE SHEET HVAC-2 FOR GENERAL NOTES.

KEYED NOTES:

- 1 REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK.
- 2 REMOVE EXISTING UNIT HEATER, GAS PIPING, THERMOSTAT AND DUCTWORK.
- 3 REMOVE EXISTING SUPPLY FAN AND ASSOCIATED DUCTWORK.
- 4 REMOVE EXISTING RETURN DUCT WORK.
- 5 GAS FLUE CONNECTION FOR UH-2 EXISTING TO REMAIN. PREPARE FOR NEW CONNECTION. REFERENCE INSTALL HVAC DRAWINGS FOR NEW WORK.
- 6 CAP EXISTING OPENING FOR UH-1 EXHAUST FLUE.

REV. NO.	DATE	REVISION DESCRIPTION
	05/20/2022	100% DOCUMENTS



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WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
HVAC DEMOLITION SECTION - CHLORINATION

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TBP# REG. NO. F-474

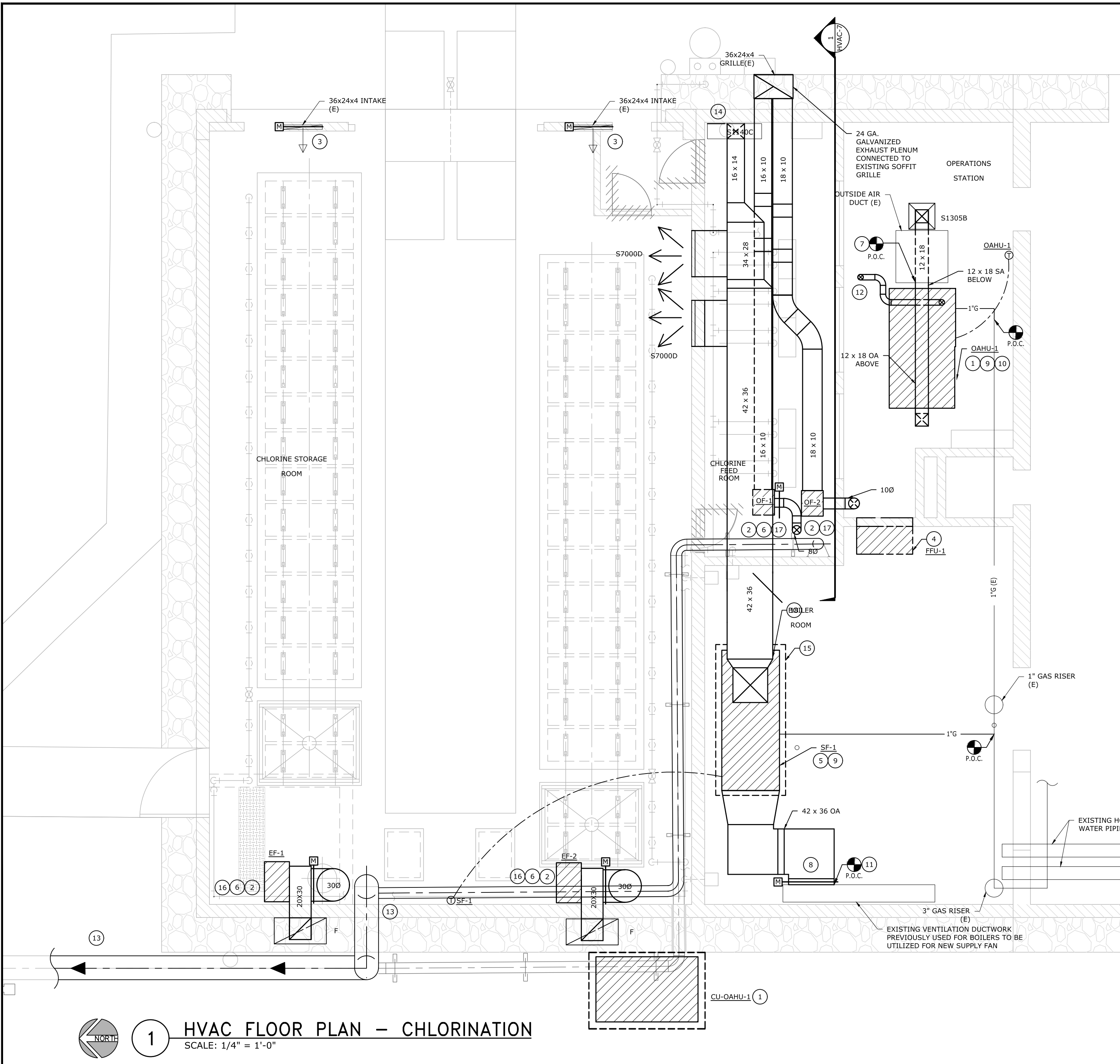
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(512) 445-2090
TBP# FIRM F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	

SCALE: AS NOTED
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER HVAC-4

May 19, 2022 - 2:51pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-5 - Chlorination Mechanical Floor Plan.DWG



KEYED NOTES:

- 1 NEW SPLIT SYSTEM OUTSIDE AIR UNIT OAHU-1 AND CONDENSING UNIT OAHU-CU-1. OAHU-1 TO BE LOCATED ABOVE OPERATIONS STATION IN MEZZANINE. INCLUDE A CARBON FILTER SECTION. PROVIDE NEW REFRIGERANT PIPING FROM CONDENSER TO EVAPORATOR.
- 2 NEW EXHAUST FAN AND FRP DUCTWORK, DUCT DOWN TO WITHIN 12 INCHES OF THE FINISHED FLOOR.
- 3 PROVIDE NEW DAMPER AND 120V EXPLOSION PROOF ACTUATOR INTERLOCKED WITH SF-1, DAMPER TO REMAIN CLOSED WHEN SF-1 IS ENERGIZED AND OPEN WHEN SF-1 IS OFFLINE.
- 4 NEW PURE AIR CHEMICAL FILTRATION SYSTEM, PFU-4000-V-2. DUCT OUTLET AND INTAKE OF UNIT THROUGH WALL TO OPERATIONS STATION. PROVIDE DOUBLE DEFLECTION GRILLES SIZED PER UNIT FRONT OUTLET AND INTAKE OPTIONS. REFERENCE SCHEDULE SHEET HVAC-10.
- 5 NEW SUPPLY AIR FAN WITH FILTER AND GAS FIRED FURNACE. CONNECT INTAKE TO EXISTING VENTILATION DUCTWORK.
- 6 PROVIDE NEW DAMPER AND 120V EXPLOSION PROOF ACTUATOR INTERLOCKED WITH FAN, DAMPER TO REMAIN OPEN WHEN FAN IS ENERGIZED AND CLOSED WHEN FAN IS OFFLINE.
- 7 EXISTING OUTSIDE AIR DUCT TO REMAIN. CONNECT TO OAHU-1.
- 8 CONTRACTOR TO PROVIDE NEW ISOLATION DAMPER AND EXPLOSION PROOF ACTUATOR. ACTUATOR TO BE OPERATED THROUGH THE OEM CONTROLLER TO OPEN WHEN THE UNIT IS ENERGIZED AND CLOSED WHEN THE UNIT IS OFFLINE. COORDINATE DAMPER CONNECTION WITH THE FINAL SUPPLY FAN SUBMITTAL DOCUMENTS.
- 9 PROVIDE UNIT WITH PROGRAMMABLE THERMOSTAT WITH DAY OF WEEK AND TIME OF DAY ADJUSTMENT.
- 10 CONNECT TO EXISTING GAS LINE.
- 11 CONNECT TO EXISTING VENTILATION DUCTWORK. UNCAP EXISTING INTAKES AT TOP OF DUCTWORK.
- 12 NEW 8" Ø EXHAUST FLUE FROM OAHU-1 TO EXISTING 8" Ø EXHAUST FLUE AND OPENING. PROVIDE A NEW CAP.
- 13 REFERENCE MECHANICAL SHEETS M-1 THROUGH M-7 FOR FULL EXTENT OF SCRUBBER INFORMATION AND NEW WORK.
- 14 CONNECT NEW SUPPLY GRILLE TO EXISTING OPENING. PATCH OPENING WHERE SIZE EXCEEDS NEW GRILLE.
- 15 PROVIDE A NEW 4" CONCRETE HOUSE KEEPING PAD. PAD TO EXTEND 4" BEYOND THE PERIMETER OF THE EQUIPMENT.
- 16 DUCTWORK TO BE FIBER REINFORCED PLASTIC.
- 17 EXHAUST FAN LOCATED ABOVE CHLORINE FEED ROOM IN MEZZANINE.
- 18 COORDINATE BOTTOM OF DUCT WITH MEZZANINE RAILING.

REV. NO.	DATE	DESCRIPTION
	05/20/2022	100% DOCUMENTS



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 HVAC FLOOR PLAN - CHLORINATION

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 TBPB REG. NO. F-474

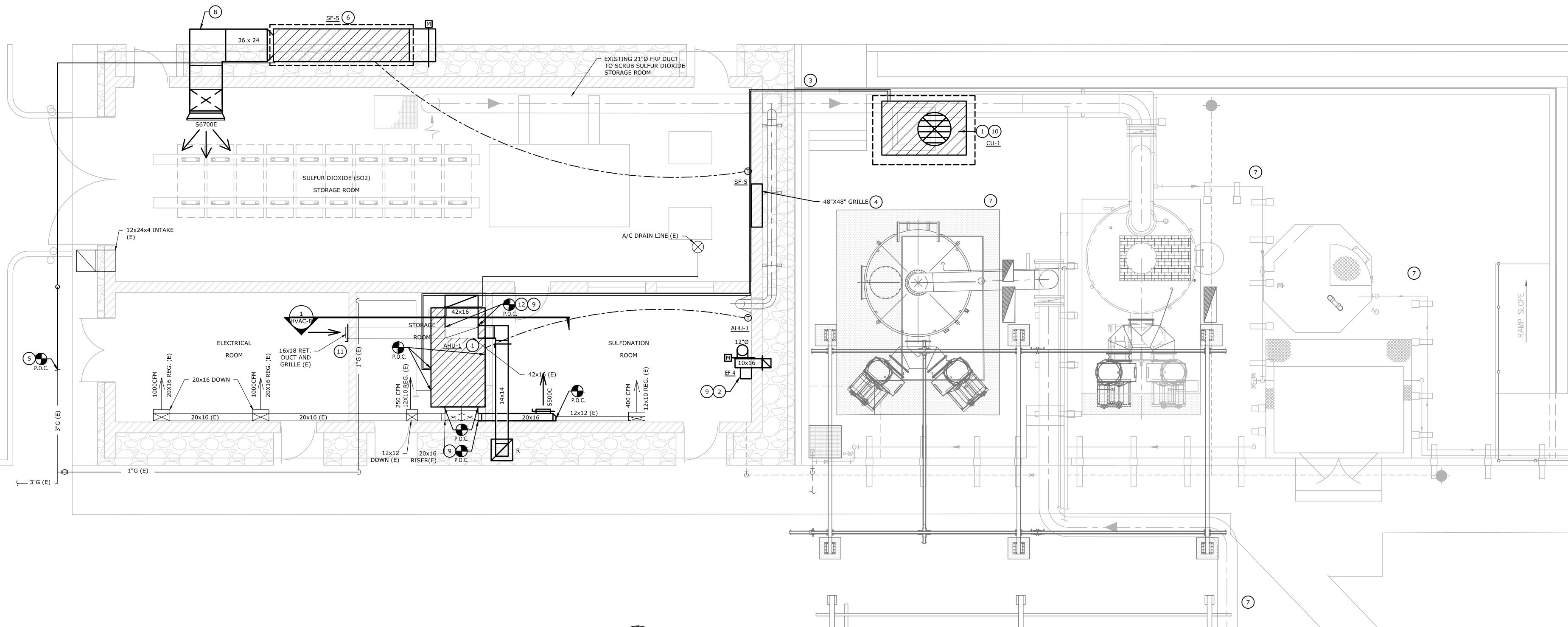
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 (512) 445-2090
 TBPB REG. NO. F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	
SCALE:	AS NOTED	
CADD REF. NO.:		
CADD DIR.:	100057315	

SHEET NUMBER HVAC-5

1 HVAC FLOOR PLAN - CHLORINATION
 SCALE: 1/4" = 1'-0"

May 19, 2022 - 2:51pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-6 - Dechlorination Mechanical Floor Plan.dwg



1 HVAC FLOOR PLAN - DECHLORINATION

SCALE: 3/16" = 1'-0"

KEYED NOTES:

- 1 NEW SPLIT SYSTEM AIR HANDLING UNIT AHU-1 AND CONDENSING UNIT CU-1. REUSE EXISTING DUCT CONNECTIONS, REFRIGERANT PIPING, EXHAUST FLUE CONNECTION AND OPENING, AND GAS LINES.
- 2 NEW EXHAUST FAN AND FRP DUCTWORK, DUCT DOWN TO WITHIN 12 INCHES OF THE FINISHED FLOOR. PROVIDE NEW DAMPER AND 120V EXPLOSION PROOF ACTUATOR INTERLOCKED WITH EF-1. DAMPER TO REMAIN OPEN WHEN DAN IS ENGAGED AND CLOSE WHEN FAN IS OFFLINE.
- 3 ROUTE NEW REFRIGERANT LINES TO MATCH OR EXCEED EXISTING ELEVATIONS OF SO2 RELEASE AND SO2 RELIEF LINE.
- 4 NEW WALL PENETRATION AND LOUVER WITHIN 12 INCHES OF THE FINISHED FLOOR. COORDINATE WITH EXISTING UTILITIES.
- 5 CONNECT TO EXISTING GAS LINE AND ROUTE TO SF-5 ON ROOF.
- 6 NEW SUPPLY AIR FAN WITH FILTER AND GAS FIRED FURNACE. PROVIDE NEW DAMPER AND 120V EXPLOSION PROOF ACTUATOR INTERLOCKED WITH SF-5. DAMPER TO REMAIN OPEN WHEN FAN IS ENGAGED AND CLOSE WHEN FAN IS OFFLINE. DUCT THROUGH WALL AND SUPPLY WITHIN 12" OF CEILING.
- 7 REFERENCE MECHANICAL SHEETS M-1 THROUGH M-7 FOR FULL EXTENT OF SCRUBBER INFORMATION AND NEW WORK.
- 8 ALL EXPOSED DUCTWORK TO BE DOUBLE WALL ALUMINUM CONSTRUCTION WITH 2" ELASTOMERIC INSULATION. DUCT TO BE SEALED WATER TIGHT AND RATED FOR EXTERIOR INSTALLATION.
- 9 DUCTWORK TO BE FIBER REINFORCED PLASTIC.
- 10 PROVIDE NEW REFRIGERANT PIPING FROM THE CONDENSER TO THE EVAPORATOR. COORDINATE PIPE ROUTING WITH EXISTING ACCESS PATHWAYS.
- 11 PROVIDE NEW 18x16 BALANCING DAMPER ON EXISTING RETURN AIR DUCT.
- 12 14"x14" OUTSIDE AIR DUCT CONNECTED TO EXISTING RETURN AIR PLENUM. CONNECT EXISTING PLENUM TO RETURN AIR CONNECTION OF NEW AHU-1. CONTRACTOR TO PROVIDE TRANSITION AS NECESSARY TO MAKE UNIT CONNECTION.

REV	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 HVAC FLOOR PLAN - DECHLORINATION

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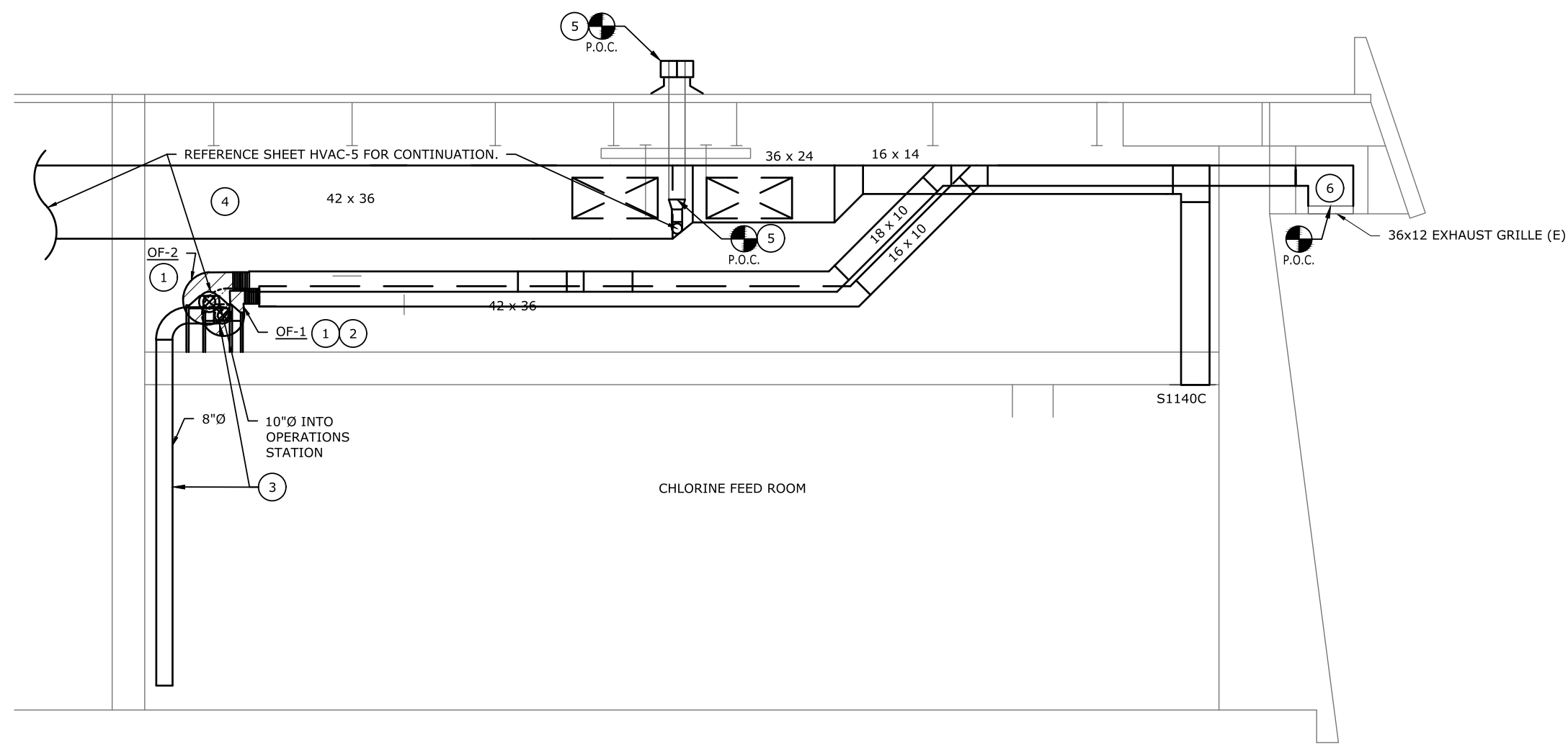
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 TBPE REG. NO. F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	

SCALE: AS NOTED
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER HVAC-6

May 19, 2022 - 2:50pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-7 - Chlorination Mechanical Section.DWG



1 HVAC SECTION - CHLORINATION
SCALE: 1/4" = 1'-0"

KEYED NOTES:

- 1 NEW EXHAUST FAN AND FRP DUCTWORK, DUCT DOWN TO WITHIN 12 INCHES OF THE FINISHED FLOOR.
- 2 PROVIDE NEW 120V DAMPER ACTUATOR INTERLOCKED WITH THE SCRUBBER SYSTEM. DAMPER TO REMAIN CLOSED DURING NORMAL OPERATION AND OPEN DURING AN EVENT.
- 3 DUCTWORK TO BE FIBER REINFORCED PLASTIC.
- 4 NEW DUCTWORK FOR SF-1, FROM BOILER ROOM, DUCTING INTO CHLORINE STORAGE ROOM.
- 5 CONNECT 5"Ø EXHAUST FLUE FOR OAHU-1 TO EXISTING 8"Ø EXHAUST FLUE AND OPENING. PROVIDE A NEW CAP.
- 6 24 GA. GALVANIZED EXHAUST PLENUM CONNECTED TO EXISTING SOFFIT GRILLES. CONTRACTOR TO PROVIDE TRANSITION AS NECESSARY TO MAKE DUCT CONNECTION.

REV. NO.	BY	DATE	REVISION DESCRIPTION
		05/20/2022	100% DOCUMENTS



CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
HVAC SECTION - CHLORINATION

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TBP# FIRM F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	

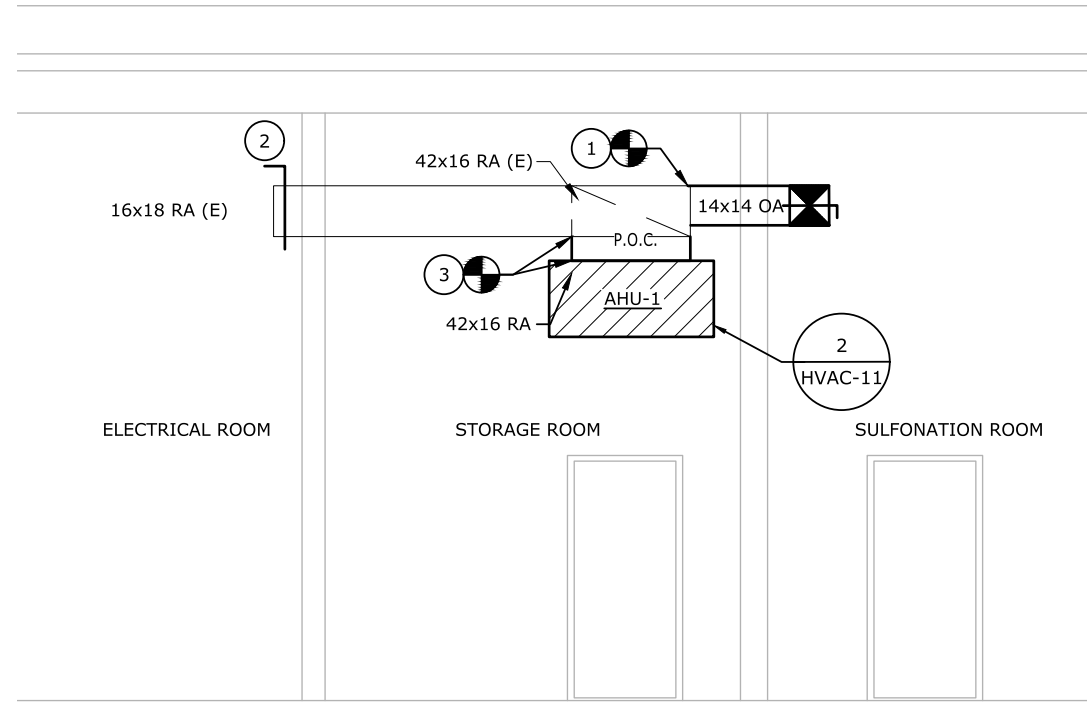
SCALE: AS NOTED
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER HVAC-7

May 19, 2022 - 2:50pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-8 - Dechlorination Mechanical Section.dwg

KEYED NOTES:

- ① 14"x14" OUTSIDE AIR DUCT CONNECTED TO EXISTING RETURN AIR PLENUM. CONNECT EXISTING PLENUM TO RETURN AIR CONNECTION OF NEW AHU-1. CONTRACTOR TO PROVIDE TRANSITION AS NECESSARY TO MAKE DUCT CONNECTION.
- ② PROVIDE NEW 18x16 BALANCING DAMPER ON EXISTING RETURN AIR DUCT.
- ③ CONNECT NEW 42X16 RA DUCT TO EXISTING RA PLENUM AND RETURN SECTION OF NEW AHU-1. CONTRACTOR TO PROVIDE TRANSITION AS NECESSARY TO MAKE UNIT CONNECTION.



① **HVAC SECTION - DECHLORINATION**
SCALE: 1/4" = 1'-0"

REV. NO.	BY	DATE	REVISION DESCRIPTION
		05/20/2022	100% DOCUMENTS



CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
HVAC SECTION - DECHLORINATION

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TBP# FIRM F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	

SCALE: AS NOTED
CADD REF. NO.:
CADD DIR.: 100057315

SHEET NUMBER HVAC-8

May 19, 2022 - 2:49pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-9 - Mechanical Schedules.dwg

WALNUT EXHAUST FAN SCHEDULE CHLORINATION BUILDING											
MARK	LOCATION	SERVES	CFM	S.P. IN W.G.	ELECTRICAL DATA			FAN TYPE	DRIVE	MODEL	CONTROL
					MOTOR RPM	POWER	V/PH/HZ				
EF-1	WALL	CHLORINE STORAGE ROOM	7,000	1.50	1598	4.4 HP	460/3/60	FIBERGLASS CENTRIFUGAL	DIRECT	22-BCSW-FRP-4-II-75	INTERLOCK WITH SCRUBBER AND 24VA ISOLATION DAMPER
EF-2	WALL	CHLORINE STORAGE ROOM	7,000	1.50	1598	4.4 HP	460/3/60	FIBERGLASS CENTRIFUGAL	DIRECT	22-BCSW-FRP-4-II-75	INTERLOCK WITH SCRUBBER AND 24VA ISOLATION DAMPER
OF-1	WALL	CHLORINE FEED ROOM	1,140	1.00	1627	.82 HP	460/3/60	FIBERGLASS CENTRIFUGAL	DIRECT	8-BCSW-FRP-4-I-15	INTERLOCK WITH SCRUBBER AND 24VA ISOLATION DAMPER
OF-2	WALL	OPERATIONS STATION NO. 1	1,270	1.00	1248	.49 HP	460/3/60	FIBERGLASS CENTRIFUGAL	DIRECT	10-BCSW-FRP-4-I-15	INTERLOCK WITH SCRUBBER AND 24VA ISOLATION DAMPER

- NOTES:
- EQUIPMENT SHALL BE MAKE AND MODEL LISTED, OR SPECIFIED APPROVED MANUFACTURER.
 - PROVIDE UNIT WITH INTERNAL FACTORY MOUNTED DISCONNECT SWITCH.
 - PROVIDE WITH NEMA PREMIUM EFFICIENCY MOTOR.

WALNUT EXHAUST FAN SCHEDULE DECHLORINATION BUILDING											
MARK	LOCATION	SERVES	CFM	S.P. IN W.G.	ELECTRICAL DATA			FAN TYPE	DRIVE	MODEL	CONTROL
					MOTOR RPM	POWER	V/PH/HZ				
EF-4	WALL STAND	SULFONATION ROOM	900	1.50	1770	.62 HP	460/3/60	FIBERGLASS CENTRIFUGAL	DIRECT	8-BCSW-FRP-4-I-20	INTERLOCK WITH SCRUBBER

- NOTES:
- EQUIPMENT SHALL BE MAKE AND MODEL LISTED, OR SPECIFIED APPROVED MANUFACTURER.
 - PROVIDE UNIT WITH INTERNAL FACTORY MOUNTED DISCONNECT SWITCH.
 - PROVIDE WITH NEMA PREMIUM EFFICIENCY MOTOR.

WALNUT SUPPLY FAN SCHEDULE DECHLORINATION BUILDING														
MARK	SERVES	CFM	HEATING CAPACITY (MBH)	E.S.P. IN W.G.	ELECTRICAL DATA						HEATING	COOLING	MAKE: MODEL	CONTROL
					MOTOR	MOTOR RPM	MCA	MOP	POWER	V/PH/HZ				
SF-5	SULFONATION ROOM	6,700	354	0.50	TEFC	1725	14	25	6 HP	460/3/60	DIRECT FIRED	NONE	GREENHECK: DG-115-H20	INTERLOCK WITH SCRUBBER

- NOTES:
- PROVIDE NEMA 3R DISCONNECT SWITCH
 - PROVIDE LOW LEAKAGE MOTORIZED INLET DAMPER
 - PROVIDE INSULATED DOUBLE WALL CONSTRUCTION
 - PROVIDE VARIABLE FREQUENCY DRIVE
 - PROVIDE TERMINAL STRIP
 - PROVIDE 30-1 TURN DOWN.

WALNUT SUPPLY FAN SCHEDULE CHLORINATION BUILDING														
MARK	SERVES	CFM	HEATING CAPACITY (MBH)	S.P. IN W.G.	ELECTRICAL DATA						HEATING	COOLING	MAKE: MODEL	CONTROL
					MOTOR	MOTOR RPM	MCA	MOP	POWER	V/PH/HZ				
SF-1	CHLORINE STORAGE ROOM	15,140	800	0.50	TEFC	1725	14	25	15 HP	460/3/60	DIRECT FIRED	NONE	GREENHECK: DGX-P128-H32	INTERLOCK WITH SCRUBBER

- NOTES:
- PROVIDE NEMA 3R DISCONNECT SWITCH
 - PROVIDE LOW LEAKAGE MOTORIZED INLET DAMPER
 - PROVIDE INSULATED DOUBLE WALL CONSTRUCTION
 - PROVIDE VARIABLE FREQUENCY DRIVE
 - PROVIDE TERMINAL STRIP
 - PROVIDE 30-1 TURN DOWN.

REV. NO.	DATE	BY	DESCRIPTION
	05/20/2022		100% DOCUMENTS



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 HVAC SCHEDULES

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBPB REG. NO. F-474

Jose I. Guerra, Inc.
 Consulting Engineers
 Civil • Mechanical • Electrical
 2401 South IH-35 Suite 210
 Austin, Texas 78741
 (512) 445-2090
 TBPB REG. NO. F-3

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	

SCALE: AS NOTED
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER HVAC-9

May 19, 2022 - 2:48pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-10 - Mechanical Schedules.dwg

WALNUT SPLIT SYSTEM AHU SCHEDULE

OUTDOOR UNIT								INDOOR UNIT																		
MARK	SERVES	EER	WEIGHT (LBS)	ELECTRICAL				MAKE: MODEL	MARK	COOLING CAPACITY MBH	HEATING CAPACIT Y MBH	REHEAT CAPACITY MBH	FAN						CONTROL	WEIGHT (LBS)	ELECTRICAL			MAKE: MODEL		
				V/PH	MCA	MOCP	FLA						TYPE & QUANTITY	CFM	OA CFM	ESP	COOLING EAT DB/WB	COOLIN G LAT DB/WB			HEATIN G EAT DB/WB	HEATIN G LAT DB/WB	MCA		MOCP	FLA
CU-1	DECHLORINATION: STORAGE, ELECTRICAL, SULFONATION	10.4	1154	460/3/60	28	35	25	AAON: CFA-015-B-A-3-DJ00K	AHU-1	127.0	126.0	57.0	1 x 450AZ @ 1.38 BHP	3150	1000	0.75 IN. WG.	84/67 (°F)	55/54 (°F)	25/20 (°F)	75/65 (°F)	INTERLOCK WITH SCRUBBER	1016	11	15	9	AAON: H3-CRB-3-0-162C-BKB
CU-OAHU-1	CHLORINATION : OPERATION STATION	10.7	1069	460/3/60	22	25	20	AAON: CFA-011-B-A-3-DJ00K	OAHU-1	86.0	127.0	24.0	1 x 310AX @ 0.39 BHP	1305	1305	0.75 IN. WG.	99.8/75 (°F)	54/53 (°F)	25/20 (°F)	75/65 (°F)	INTERLOCK WITH SCRUBBER	991	2	15	2	AAON: H3-CRB-3-0-162C-BKB

- NOTES:
 1. SINGLE POINT POWER CONNECTION
 2. PROVIDE UNITS WITH COROSION RESISTANT COATING

WALNUT FAN FILTER UNIT SCHEDULE CHLORINATION BUILDING

MARK	LOCATION	SERVES	CFM	S.P. IN W.G.	ELECTRICAL DATA			FAN TYPE	DRIVE	MODEL	NOTES
					MOTOR RPM	POWER	V/PH/HZ				
FFU-1	BOILER ROOM	CHLORINE CONTROL ROOM	4,000	4.00	3495	(2) 2 HP	460/3/60	DUAL	DIRECT	PFU-4000 V-2	1,2,3,4,5,6,7,8,9

- NOTES:
 1. MANUAL INLET CONTROL DAMPER
 2. TWO INCH PRE-FILTERS 35% EFFICIENCY ASHRAE 52-76
 3. TWO (2) STAGES OF ODOR CONTROL MODULES 24X12X12 MADE WITH BLACK POLYSTYRENE
 4. CHEMICAL MEDIA SHALL BE PURE AIR FILTRATION CPS12 (2FT3)
 5. POST FILTER 90% EFFICIENCY ASHRAE 52-76
 6. TWO (2) CORROSION RESISTANT BELT DRIVE BLOWERS WITH TEFC MOTORS
 7. DIFFERENTIAL PRESSURE GAUGE
 8. INTEGRAL MOTOR STARTERS AND OVERLOADS
 9. (1) YEAR WARRANTY

WALNUT AIR DEVICE SCHEDULE

MARK	CFM RANGE		FACE SIZE (INCHES)	NECK SIZE (INCHES)	MAX S.P. (INCHES)	MAX. NC LEVEL	MAKE / MODEL	NOTES
	MIN.	MAX.						
A	0	700	12x10	12x10	0.10	40	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE TITUS MODEL 300FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
B	1000	1500	24x24	12x18	0.10	40	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE TITUS MODEL 300FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
C	500	1300	16 x 14	16 x 14	0.10	40	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE TITUS MODEL 300FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
D	1600	7700	42x20	42x20	0.10	40	ALUMINUM SINGLE DEFLECTION SUPPLY GRILLE TITUS MODEL 301FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
E	3000	6700	42x36	36x24	0.10	40	ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE TITUS MODEL 300FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
F	1000	7000	48x24	20 x 30	0.05	40	ALUMINUM EXHAUST GRILLE TITUS MODEL 350FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6
R	375	1500	24x24	14x14	0.10	40	ALUMINUM RETURN/OUTSIDE AIR GRILLE TITUS MODEL 350FS OR APPROVED ALTERNATE	1, 2, 3, 4, 5, 6

- NOTES:
 1. FURNISH WITH FLUSH MOUNT FRAME OR T-BAR MOUNT FRAME AS REQUIRED TO MATCH CEILING CONDITION.
 2. FURNISH WITH FACTORY APPLIED, OFF-WHITE ENAMEL FINISH.
 3. FURNISH ALL SURFACE MOUNT SUPPLY AIR DEVICE WITH CONTINUOUS PERIMETER GASKET SEAL.
 4. COORDINATE WITH ARCHITECT FOR COLOR AND REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
 5. PROVIDE SQUARE TO ROUND DUCT TRANSITIONS AS REQUIRED.
 6. AIR DEVICES ARE TO BE BALANCED ACCORDING TO AIR VOLUMES INDICATED ON DRAWING.
 7. PROVIDE WITH FACE MOUNTED INTEGRAL DAMPER.

REV. NO.	DATE	DESCRIPTION
05/20/2022	100% DOCUMENTS	



CITY OF AUSTIN
 WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
 HVAC SCHEDULES

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-8840
 TBPB REG. NO. F-474

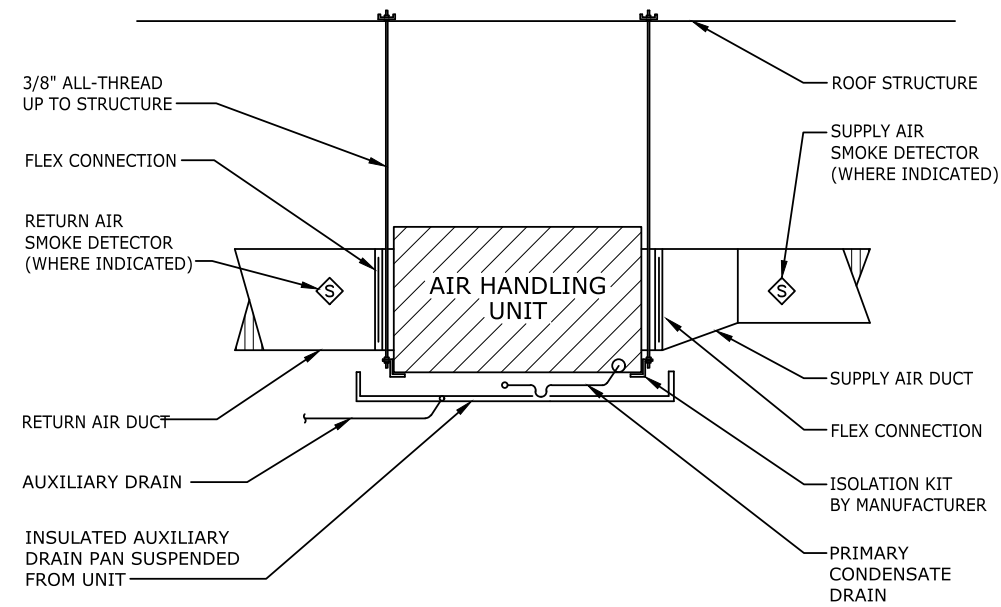
Jose I. Guerra, Inc.
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 2401 South IH-35 Suite 210
 Austin, Texas 78741
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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
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DESIGNED BY	BC	
REVIEWED BY	SA	

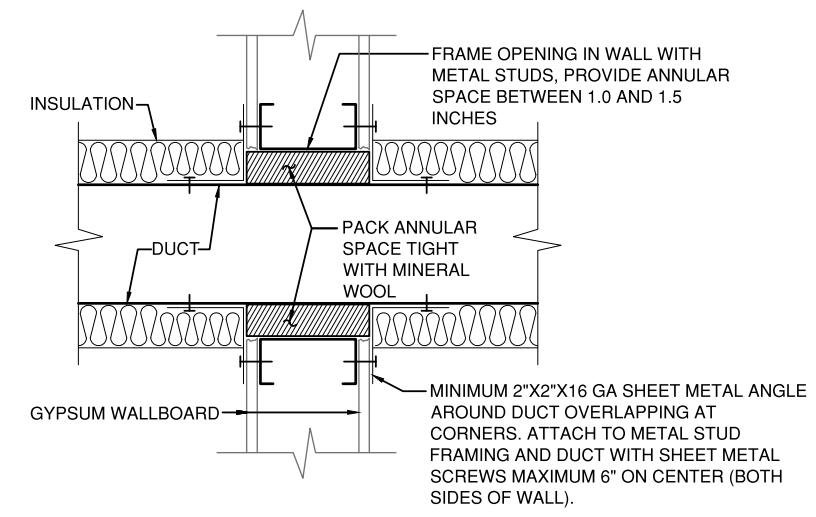
SCALE: AS NOTED
 CADD REF. NO.:
 CADD DIR.: 100057315

SHEET NUMBER HVAC-10

May 19, 2022 - 2:53pm jdeangelo F:\16049_Walnut_WWTP\DRAWINGS\CAD\16049_HVAC-11 - Mechanical Details.dwg



2 AIR HANDLING UNIT MOUNTING DETAIL
NO SCALE



1 DUCT THROUGH WALL DETAIL
NO SCALE

REV. NO.	BY	DATE	REVISION DESCRIPTION
		05/20/2022	100% DOCUMENTS



CITY OF AUSTIN
WALNUT CREEK WWTP GAS SCRUBBER SYSTEM RENEWAL
HVAC DETAILS

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TXPE REG. NO. F-474

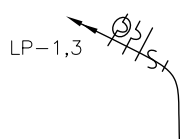
Jose I. Guerra, Inc.
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2401 South IH-35 Suite 210
Austin, Texas 78741
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TXPE REG. NO. F-3

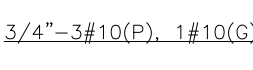
NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	KS	
CHECKED BY	BC	
DESIGNED BY	BC	
REVIEWED BY	SA	


SCALE: AS NOTED
CADD REF. NO.:
CADD DIR.: 100057315

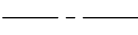
SHEET NUMBER HVAC-11

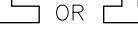
ELECTRICAL DRAWING SYMBOLS

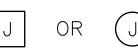
LP-1,3

 HOMERUN TO PANEL. CIRCUIT NUMBERS INDICATED. SHORT HASH MARKS INDICATE PHASE WIRES; LONG HASH MARK INDICATES NEUTRAL WIRE; ~ MARK INDICATES EQUIPMENT GROUND WIRE; ⊕ INDICATES ISOLATED GROUND WIRE; S INDICATES SWITCHED WIRE. NUMBER OF ARROWHEADS CORRESPONDS TO NUMBER OF CIRCUITS.

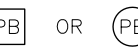
3/4"-3#10(P), 1#10(G)

 CONDUIT AND WIRE DESIGNATION. E.G. 3/4" CONDUIT, 3#10 POWER WIRES, 1#10 GROUND WIRE.
 (P) POWER (N) NEUTRAL
 (G) GROUND (SH) SPACE HEATER
 (C) CONTROL (IG) ISOLATED GROUND
 (I) INSTRUMENTATION



 GROUND ROD (3/4" DIA. X 10'-0" LG.)



 GROUND WIRE



 CONDUIT BODY



 JUNCTION BOX

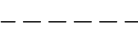

 PULL BOX

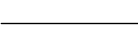

 DISCONNECT SWITCH (NONFUSED)



 DISCONNECT SWITCH COMBINATION MOTOR STARTER

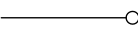

 DISCONNECT SWITCH ENCLOSED CIRCUIT BREAKER

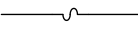

 ELECTRIC MOTOR - HORSEPOWER AS INDICATED (3HP SHOWN)



 CONDUIT RUN CONCEALED IN CEILING, WALLS, SLAB, UNDERGROUND, OR UNDER SLAB (WHEN CONDUIT IS LARGER THAN 1/3 OF SLAB THICKNESS OR CANNOT BE PLACED IN CENTER OF SLAB).

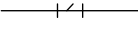

 CONDUIT RUN EXPOSED

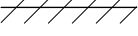

 CONDUIT TURNING DOWN



 CONDUIT TURNING UP



 FLEXIBLE CONDUIT



 CONDUIT CAPPED FOR FUTURE USE



 CONDUIT SEALING FITTING


 CONDUIT RUN OR ITEM DEMOLISHED



 DATA/COMMUNICATION OUTLET



 LIGHTING/AUXILIARY POWER PANEL-SURFACE MOUNTED



 LIGHTING/AUXILIARY POWER PANEL-FLUSH MOUNTED



 DISTRIBUTION POWER PANEL-SURFACE MOUNTED


ELECTRICAL DRAWING SYMBOLS



 QUADPLEX RECEPTACLE "18" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (44" SHOWN)



 SIMPLEX RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)



 DUPLEX RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)



 GROUND FAULT INTERRUPTER RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)



 WEATHER PROOF RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)



 SPECIAL OUTLET AS NOTED



 SINGLE POLE SWITCH



 3-WAY SWITCH



 4-WAY SWITCH



 MOTOR RATED MANUAL CONTROLLER SWITCH



 DATA/COMMUNICATION OUTLET



 HEATING ELEMENT



 SELECTOR SWITCH



 PUSH BUTTON



 INDICATING LIGHT



 FIELD INSTRUMENT, TYPE INDICATED (TEMPERATURE SHOWN)



 THERMOSTAT



 VISIBLE FLASHING ALARM BEACON


 CEILING, POLE, OR PENDANT MOUNTED LIGHTING FIXTURE, TYPE AS INDICATED (TYPE "L" SHOWN)

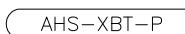

 WALL OR BRACKET MOUNTED LIGHTING FIXTURE. "B" INDICATES TYPE, "6" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (10'-0" SHOWN)



 UNSWITCHED FLUORESCENT LIGHTING FIXTURE USED FOR EGRESS LIGHTING. "A" INDICATES TYPE, "2" INDICATES CIRCUIT NUMBER.


 FLUORESCENT LIGHTING FIXTURE. "A" INDICATES TYPE, "b" INDICATES WHICH SWITCH CONTROLS. "2" INDICATES CIRCUIT NUMBER.



 EMERGENCY EXIT WALL OR BRACKET MOUNTED LIGHTING FIXTURE. "B" INDICATES TYPE, "6" INDICATES CIRCUIT NUMBER.


ELECTRICAL DRAWING SYMBOLS

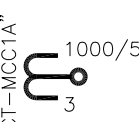

 ELECTRICAL CONDUIT TAG. REFER TO CONDUIT SCHEMATICS AND CONDUIT/WIRE SCHEDULE (TAGGED "AHS-XBT-P")

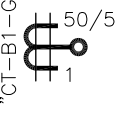

 TYPICAL DUCT BANK SECTIONAL VIEW. SOLID CIRCLE REPRESENTS AN OCCUPIED CONDUIT. HOLLOW CIRCLE REPRESENTS AN EMPTY CONDUIT. REFER TO APPROPRIATE CONDUIT/WIRE SCHEDULE.

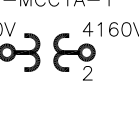
ELECTRICAL ONE-LINE DRAWING SYMBOLS



 TRANSFORMER "TA" POWER TRANSFORMER (30KVA, 3Ø, 480V CLOSED DELTA: 208/120V WYE GROUNDED TURN RATIO, TAGGED "TA" SHOWN)



 SHIELDED ULTRA-ISOLATION TRANSFORMER "OP-XFMR-CPP1" SHIELDED ULTRA-ISOLATION TRANSFORMER. (30KVA, 3Ø, 480V DELTA:120/208V WYE TURN RATIO, TAGGED "OP-XFMR-CPP1" SHOWN)



 WINDOW TYPE SINGLE-RATIO PHASE CURRENT TRANSFORMER (CT). RATIO AS INDICATED. NUMBER AT LOWER RIGHT INDICATES QUANTITY REQUIRED (1000:5 TURN RATIO, QUANTITY 3, TAGGED "CT-MCC1A" SHOWN)

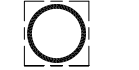

 WINDOW TYPE GROUND CURRENT TRANSFORMER, RATIO AS INDICATED. NUMBER AT LOWER RIGHT INDICATES QUANTITY. (50:5 TURN RATIO, QUANTITY 1, TAGGED "CT-B1-G" SHOWN)

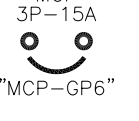

 POTENTIAL TRANSFORMER (PT) NUMBER INDICATES QUANTITY. (4160V:120V TURN RATIO, QUANTITY 2, TAGGED "PT-MCC1A-1" SHOWN)



 FUSE, NUMBER AT LOWER RIGHT INDICATES QUANTITY REQUIRED (3 SHOWN)



 DRAW OUT DISCONNECTS



 FUSE (DRAWOUT)

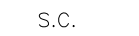

 MICROPROCESSOR BASED PROTECTIVE RELAY FUNCTION SEE PROTECTIVE RELAY ABBREVIATIONS



 MAGNETIC CIRCUIT PROTECTOR, (3 POLE, 15A MOTOR CIRCUIT PROTECTOR, TAGGED "MCP-GP6" SHOWN)


 THERMAL/MAGNETIC MOLDED CASE CIRCUIT BREAKER (3 POLE, 100A, TAGGED "BKR-GP6" SHOWN)



 TAP CHANGING/SHORTING TERMINAL BLOCK (TAGGED "STB-MCC1A")

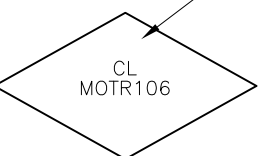

 SURGE PROTECTIVE DEVICE (SPD) (TAGGED "SPD-MT1" SHOWN)



 SURGE CAPACITOR



 LIGHTNING ARRESTOR


ELECTRICAL ONE-LINE DRAWING SYMBOLS

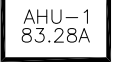

 LUGS INCOMING POWER CONNECTION TO MOTOR CONTROL CENTER MAIN BUS.



 DENOTES MULTI-FUNCTION CONTROL SYSTEM INTERLOCK
 MULTI-FUNCTION CONTROL SYSTEM INTERLOCK FOR EQUIPMENT (TAGGED "MOTR106").



 CONNECTION TO EQUIPMENT GROUND BUS (EARTH GROUND)



 TYPICAL CONNECTION TO MOTOR CONTROL CENTER BUS "1A" DENOTES MOTOR CONTROL CENTER SECTION NUMBER. REFER TO APPLICABLE MOTOR CONTROL CENTER ELEVATION DRAWING.



 MOTOR HORSEPOWER AS INDICATED (3HP SHOWN)



 ELECTRICAL LOAD (AIR HANDLING UNIT "AHU-1" SHOWN)

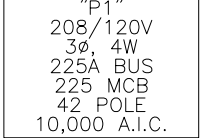

 MOTOR LOW VOLTAGE TERMINATION BOX



 MOTOR HIGH VOLTAGE TERMINATION BOX



 VALVE OPERATOR TERMINATION BOX



 TEMPERATURE INDICATING TRANSMITTER/CONTROLLER


 ELECTRICAL CONDUIT TAG. REFER TO CONDUIT SCHEMATICS AND CONDUIT/WIRE SCHEDULE (TAGGED "DEL-PDP02A-F1")

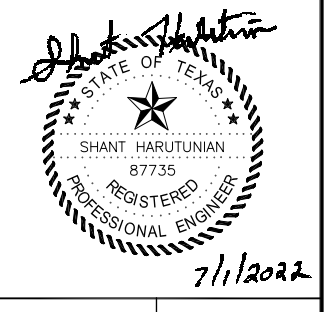

 LIGHTING PANEL. (TAGGED "P1", RATED 208/120 VOLT, 3 PHASE, 4 WIRE, 225 AMPERE, 10,000 A.I.C. INTERRUPT RATING, WITH 42 POLES AND 225 AMPERE MAIN CIRCUIT PROTECTOR)


 WATT-HOUR METER


 ELAPSED TIME METER

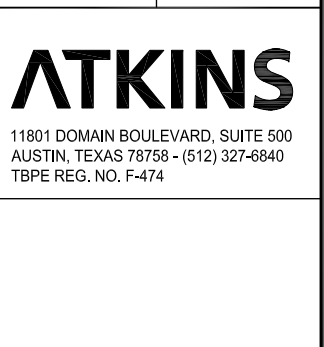

 PILOT LIGHT R=RED, G=GREEN, W=WHITE, A=AMBER, Y=YELLOW, O=ORANGE (RED SHOWN)

NO.	REVISION DESCRIPTION	DATE	REV. BY	IND.




CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

ELECTRICAL SYMBOLS LEGEND
 (SHEET 1 OF 3)



NOTES	NAME	DATE
SURVEY BY	N/A	
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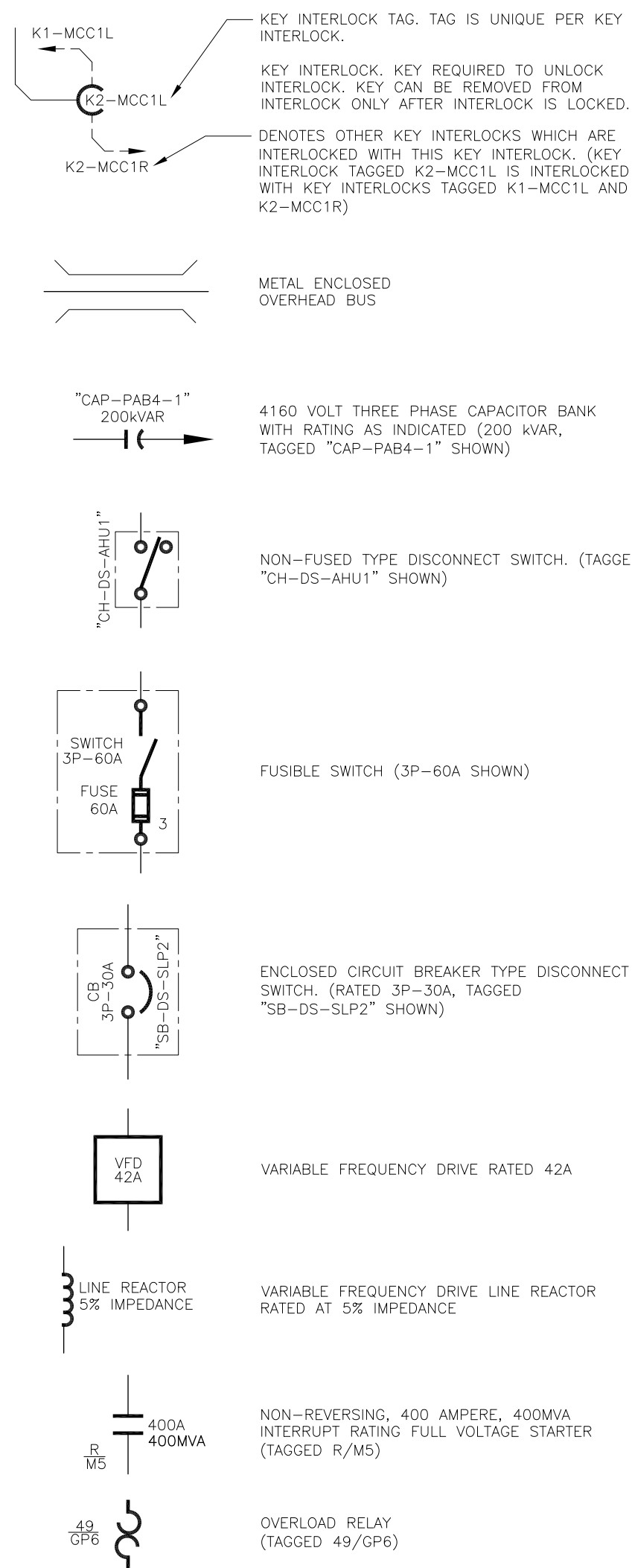

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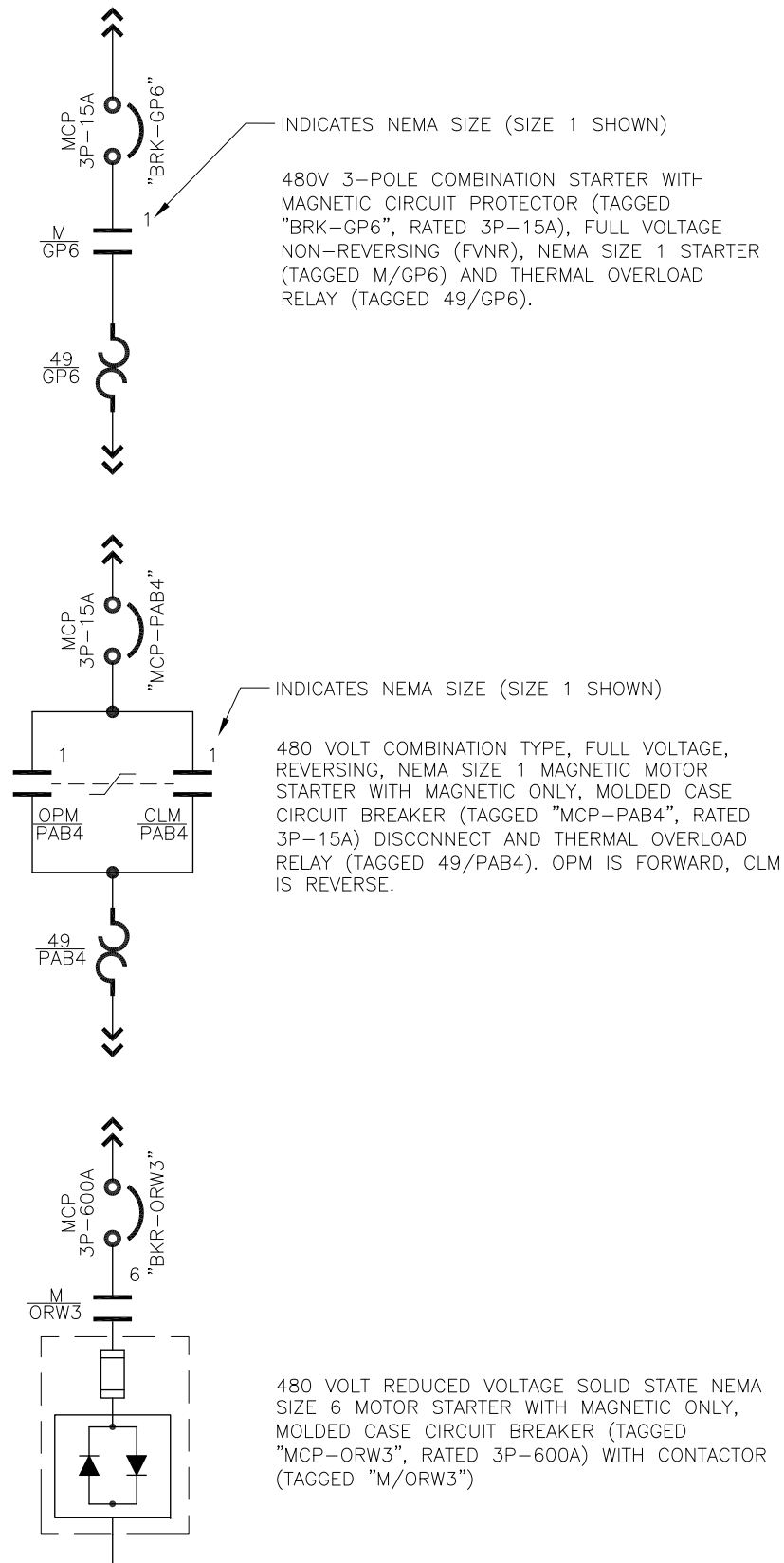
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 CADD DIR.: 100057315

SHEET NUMBER: E-01

ELECTRICAL ONE-LINE DRAWING SYMBOLS



ELECTRICAL ONE-LINE DRAWING SYMBOLS



PROTECTIVE RELAY ABBREVIATIONS

- ΔV VOLTAGE DIFFERENCE DISPLAY
- A CURRENT DISPLAY
- Δθ PHASE ANGLE DIFFERENCE DISPLAY
- ΔF FREQUENCY DIFFERENCE DISPLAY
- PF POWER FACTOR DISPLAY
- RS PROTECTIVE RELAY STATUS DISPLAY
- SR STALLED ROTOR DETECTION UNIT
- VAR REACTIVE POWER DISPLAY
- V VOLTAGE DISPLAY
- W REAL POWER DISPLAY
- WH WATT-HOUR DISPLAY
- 25 SYNC CHECK UNIT
- 26 TEMPERATURE (BEARING OR MOTOR WINDING) SENSING ELEMENT
- 27 UNDER VOLTAGE UNIT
- 37 UNDERCURRENT UNIT
- 38 BEARING PROTECTIVE DEVICE (TEMPERATURE)
- 39 VIBRATION CONTROL/ SENSING DEVICE
- 46 NEGATIVE SEQUENCE OVER CURRENT UNIT
- 47 NEGATIVE SEQUENCE OVERVOLTAGE UNIT
- 48 INCOMPLETE SEQUENCE UNIT

PROTECTIVE RELAY ABBREVIATIONS

- 50/46 INSTANTANEOUS NEGATIVE SEQUENCE OVERCURRENT
- 50/51 INSTANTANEOUS PHASED OVERCURRENT UNIT
- 50N/51N INSTANTANEOUS NEUTRAL OVERCURRENT UNIT
- 51/46 TIMED NEGATIVE SEQUENCE OVERCURRENT UNIT
- 50G INSTANTANEOUS GROUND OVERCURRENT UNIT
- 51G TIMED GROUND OVERCURRENT UNIT
- 55 POWER FACTOR UNIT
- 59 OVERVOLTAGE UNIT
- 67 DIRECTIONAL OVERCURRENT UNIT
- 74 ALARM RELAY OUTPUT
- 77 TELEMETERING UNIT
- 810/81U OVER/UNDER FREQUENCY UNIT
- 83 TRANSFER RELAY OUTPUT
- 86 LOCKOUT UNIT
- 87 DIFFERENTIAL OVERCURRENT UNIT
- 94 TRIP RELAY OUTPUT

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 ELECTRICAL SYMBOLS LEGEND
 (SHEET 2 OF 3)



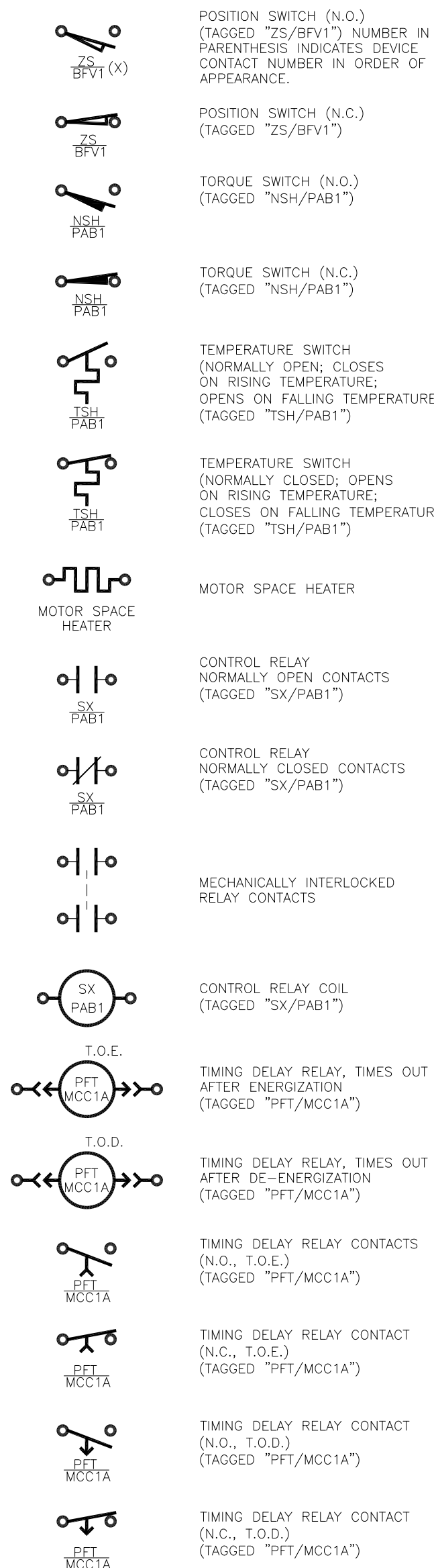
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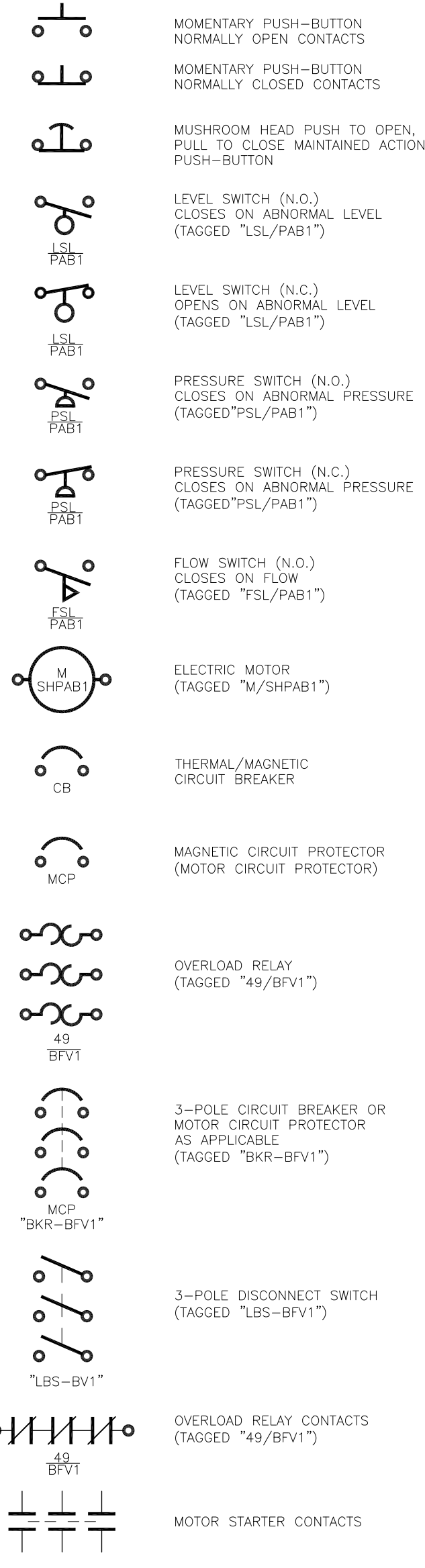
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CADD DIR.:	100057315	

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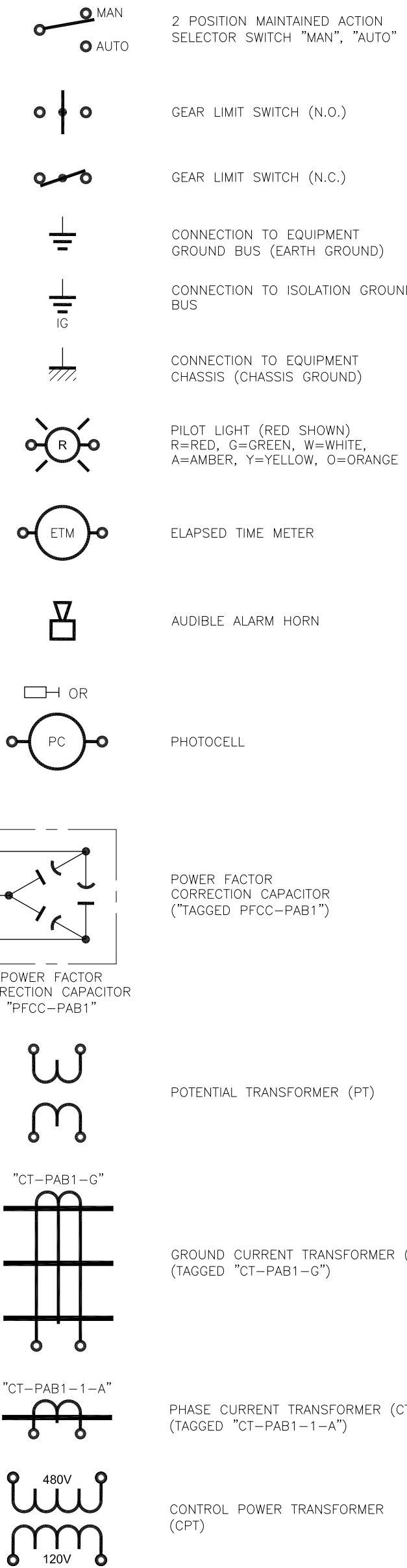
WIRING SCHEMATIC SYMBOLS



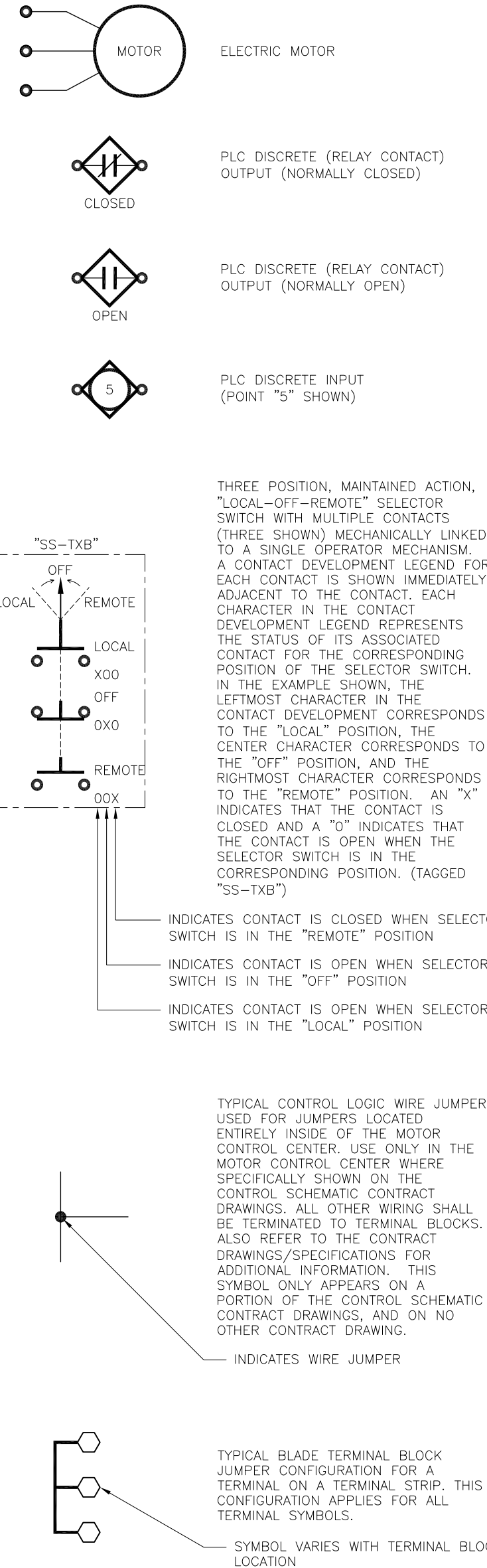
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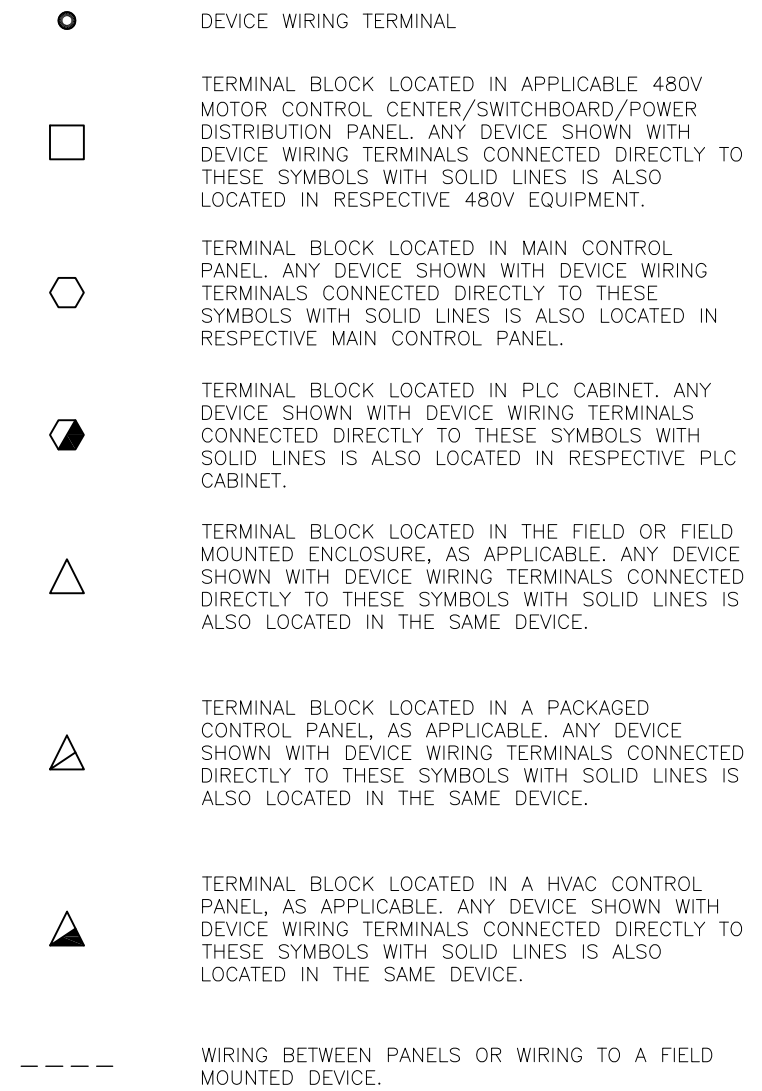
WIRING SCHEMATIC SYMBOLS



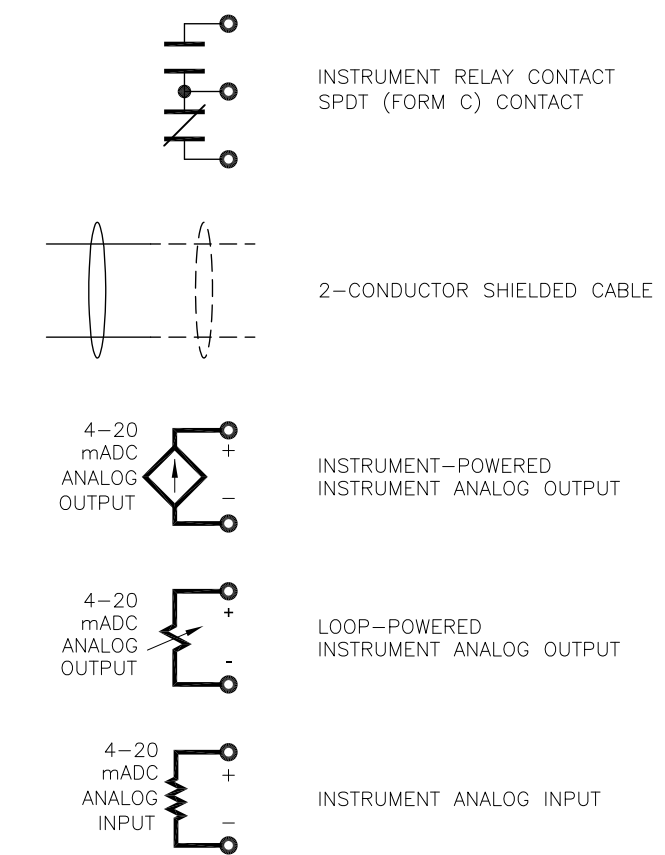
WIRING SCHEMATIC SYMBOLS



WIRING AND TERMINAL DEVICE LEGEND



INSTRUMENT LOOP WIRING SCHEMATIC SYMBOLS



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SHANT HARUTUNIAN
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REGISTERED PROFESSIONAL ENGINEER
7/1/2022

CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
ELECTRICAL SYMBOLS LEGEND
(SHEET 3 OF 3)

ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBE REG. NO. F-474

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SCALE:	AS SHOWN
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SHEET NUMBER	E-03

GENERAL DEMOLITION NOTES:

1. ALL EQUIPMENT SHOWN ON THE DEMOLITION DRAWINGS ARE EXISTING.
2. CROSS-HATCHED LINENWORK SHOWN ON THE DEMOLITION DRAWINGS DENOTES EQUIPMENT TO BE DEMOLISHED UNLESS OTHERWISE NOTED. ALL DEMOLITION ACTIVITIES SHALL ALSO BE FULLY COORDINATED WITH MECHANICAL/STRUCTURAL/CIVIL/ETC. DEMOLITION ACTIVITIES AND SHALL SUPPORT THE OPERATIONAL REQUIREMENTS OF THE WASTEWATER TREATMENT PLANT DURING ALL PHASES OF CONSTRUCTION. ALL DEMOLISHED ITEMS SHALL REMAIN THE PROPERTY OF THE OWNER. RELOCATE ALL DEMOLISHED ITEMS TO LOCATION(S) SPECIFIED BY OWNER AT NO ADDITIONAL COST TO THE OWNER. THE OWNER HAS THE RIGHT OF FIRST REFUSAL ON ANY EQUIPMENT TO BE DEMOLISHED.
3. EQUIPMENT/CONDUIT TAGS/NAMES HAVE BEEN ARBITRARILY ASSIGNED TO AID IN THE DRAWINGS. SOME EXISTING TAGS/NAMES HAVE BEEN USED WHERE POSSIBLE. CONTRACTOR SHALL MAKE EXTENSIVE VERIFICATION OF EXISTING EQUIPMENT PRIOR TO COMMENCING FULL SCALE DEMOLITION/RENOVATION ACTIVITIES.
4. VERIFY LOCATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION OF FACILITIES PROPOSED IN THIS CONTRACT. TAKE CARE TO AVOID DAMAGE TO EXISTING FACILITIES. REPAIR ANY FACILITY DAMAGED IN THE COURSE OF CONSTRUCTION OF ANY PART OF THIS CONTRACT TO ITS ORIGINAL OPERATING CONDITION IMMEDIATELY, WITH REPAIR CREWS WORKING 24 HOURS PER DAY UNTIL THE DAMAGE IS REPAIRED. (NO SEPARATE PAY).
5. THE CONTRACTOR SHALL BE AWARE THAT WHEN ANY EXISTING EQUIPMENT IS DISCONNECTED, REMOVED, RELOCATED OR OTHERWISE MODIFIED, THE POSSIBILITY MAY EXIST FOR SUCH ACTION TO LEAD TO INTERRUPTION OF OPERATION OF THE TREATMENT PLANT IF EXTREME CARE, VERIFICATION, AND VALIDATION IS NOT CAREFULLY EXERCISED PRIOR TO COMMENCEMENT OF SUCH ACTIVITY. THE CONTRACTOR SHALL KNOW THAT ANY INTERRUPTION TO THE CONTINUITY OF TREATMENT PLANT OPERATION AT ITS RATED CAPACITY IS UNACCEPTABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT. HOWEVER, SHOULD ANY INTERRUPTION TO THE TREATMENT PLANT OPERATION OCCUR FOR ANY UNFORESEEN REASON, WHETHER TOTALLY ACCIDENTAL OR DUE TO IMPROPER FIELD INVESTIGATION AND IMPROPER PLANNING PRIOR TO COMMENCEMENT OF THE ELECTRICAL/INSTRUMENTATION DEMOLITION EFFORT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND START UP THE INTERRUPTED EQUIPMENT WITHIN A CERTAIN TIME PERIOD AS DETERMINED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE CONTINUOUS, 24-HOUR, LABOR, EQUIPMENT, MATERIAL, AND ACCESSORIES UNTIL SUCH TIME THAT ANY EFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED, AT NO ADDITIONAL COST TO THE OWNER AND TO THE OWNER'S SATISFACTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE APPLICABLE CONDUIT/WIRING TO EXISTING EQUIPMENT WHETHER SHOWN HERE OR NOT. THE CONTRACTOR SHALL EXERCISE EVERY PRECAUTION TO ELIMINATE HAZARDS IN DISCONNECTING ANY DEVICE FROM AN ELECTRICAL CIRCUIT. THE CONTRACTOR MUST TAKE GREAT CARE FOR THERE ARE NO AVAILABLE AS BUILT RECORDS ACCURATELY AND COMPLETELY IDENTIFYING THE EXISTING ROUTING OF ALL DUCTBANK/CONDUIT BETWEEN THE VARIOUS EXISTING EQUIPMENT AND THEIR COORDINATION WITH THE EXISTING ELECTRICAL SYSTEM. THEREFORE THE CONTRACTOR IS TO EXERCISE EXTREME CARE, VERIFY THE ROUTING OF EXISTING DUCTBANK/CONDUIT PRIOR TO FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING THE DISCOVERY VERIFICATION OF THE EXISTING FIELD CONDITIONS, SHOULD ADJUSTMENTS BECOME A NECESSITY TO THE EXISTING OR PROPOSED SYSTEM (AS APPLICABLE), THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.
7. THE INTENT IS TO KEEP THE EXISTING FACILITIES OPERATIONAL AT ALL TIMES. COORDINATE WITH THE OWNER FOR SCHEDULING OF EQUIPMENT/POWER/INSTRUMENTATION AND CONTROL/PROCESS/ETC. OUTAGES REQUIRED PRIOR TO COMMENCING DEMOLITION/MODIFICATION ACTIVITIES.
8. SHOULD PROBLEMS OCCUR UPON THE ACTIVATION OF POWER, CORRECTION SHALL BE MADE PROMPTLY AT NO EXPENSE TO THE OWNER.
9. ALL ELECTRICAL SWITCHING, DE-ENERGIZATION OF LOADS, ENERGIZATION OF LOADS, ETC., SHALL BE PERFORMED IN THE PRESENCE OF, AND WITH THE CONSENT OF, THE OWNER.
10. THE OWNER'S EXISTING EQUIPMENT IS IN PERFECT WORKING CONDITION. SHOULD THE EXISTING EQUIPMENT, ITS ASSOCIATED INTERCONNECT CONDUIT/WIRE, ETC., AS APPLICABLE, BE DAMAGED OR BECOME OTHERWISE UNUSABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND FURNISH AND INSTALL ALL NECESSARY WIRING/HARDWARE/ETC., TO MATCH EXISTING AND MAKE ALL FINAL CONNECTIONS SUCH THAT ALL AFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.
11. EXISTING INFORMATION SHOWN ON THIS DRAWING WAS PRIMARILY OBTAINED FROM RECORD DRAWINGS OF THE PROJECTS ENTITLED:
 - A. "WALNUT CREEK CHLORINATION/DECHLORINATION IMPROVEMENTS" C.I.P. NO. 434-237-0934; 1993.
 - B. "WALNUT CREEK WWTP INFLUENT FLOW IMPROVEMENTS AND EQUIPMENT REPLACEMENT / REHAB" C.I.P. NO. 3023.027; 2014
 - C. "WALNUT CREEK WASTEWATER TREATMENT PLANT POWER DISTRIBUTION SYSTEM IMPROVEMENTS-PHASE II" C.I.P. NO. 3023.006; 2016.

GENERAL DEMOLITION NOTES (CONTINUED):

12. THE EXISTING/DEMOLITION CONDUIT/WIRING FLOOR PLANS PROVIDED IN THIS SET OF DRAWINGS REFLECT ONLY SOME OF THE INFORMATION FOUND IN THE AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING CONDUITS. CONDUIT WITH WIRING AND POSSIBLE PIPING MAY EXIST IN AREAS OF THE FLOOR TO BE CORE DRILLED. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL AVAILABLE DOCUMENTATION, RECORD DRAWINGS, ETC. FOR ADDITIONAL CONFIRMATION. ADDITIONALLY, THE CONTRACTOR, AT HIS/HER OWN EXPENSE, MAY UTILIZE ANY METHOD/MEANS NECESSARY FOR EXACT FIELD VERIFICATION TO IDENTIFY LOCATION AND FUNCTION OF ANY CONDUIT/WIRING THAT MAY POTENTIALLY BE EMBEDDED/BURIED IN THE CONCRETE WALLS/FLOORS OF THE AREA IN WHICH CORE DRILLING IS SCHEDULED TO TAKE PLACE. SUCH EFFORT IS STRICTLY THE CONTRACTOR'S PREROGATIVE AND WHEN EXECUTED SHALL NOT BE CONSIDERED AS ADDED SERVICES BY THE CONTRACTOR NOR SHALL THESE SERVICES BE COMPENSATED BY THE OWNER. E.G., SUCH SERVICES WILL BE PROVIDED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FOLLOWING THE RESULTS OF THE ACTUAL FIELD VERIFICATION MEANS/METHODS UTILIZED BY THE CONTRACTOR, SHOULD ADJUSTMENT/MODIFICATION OF THE CORE DRILLING BECOME A NECESSITY, THEN THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR THE EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
13. CONTINUOUS OPERATION OF OWNER'S FACILITIES IS OF CRITICAL IMPORTANCE. THE CONTRACTOR SHALL:
 - A. SCHEDULE AND CONDUCT ACTIVITIES TO ENABLE EXISTING FACILITIES TO OPERATE CONTINUOUSLY, UNLESS OTHERWISE SPECIFIED.
 - B. CONDUCT WORK OUTSIDE NORMAL WORKING HOURS AS MAY BE NECESSARY TO MEET PROJECT SCHEDULE AND AVOID UNDESIRABLE CONDITIONS.
 - C. NOTHING IN THESE DOCUMENTS SHALL RESTRICT THE OWNER FROM PARTIAL UTILIZATION OF ANY COMPLETED PART OF THE WORK, NOR SHALL THE RIGHT OF THE OWNER TO OPERATE FACILITIES BE RESTRAINED IN ANY WAY, EXCEPT WHERE SHUTDOWN OF SPECIFIC FACILITIES FOR CONSTRUCTION HAS BEEN AGREED UPON BY THE OWNER.
 - D. OWNER'S EQUIPMENT, INCLUDING GATES, VALVES, AND MOTORS SHALL NOT BE OPERATED WITHOUT THE APPROVAL OF THE OWNER. THE OWNER MAY ELECT TO HAVE AN AUTHORIZED OWNER'S REPRESENTATIVE OPERATE OWNER'S EQUIPMENT OR TO WITNESS OPERATION.
 - E. SHOULD A POWER OUTAGE TO A FACILITY BE REQUIRED, THE CONTRACTOR SHALL REQUEST SUCH AN OUTAGE IN WRITING NO LESS THAN NINETY-SIX (96) HOURS IN ADVANCE. CONTRACTOR'S WRITTEN REQUEST SHALL IDENTIFY THE DESIRED DATE, TIME, DURATION, AND PURPOSE OF THE REQUESTED DAY UNLESS HE/SHE OBTAINS A WRITTEN APPROVAL FROM THE OWNER AUTHORIZING THE OUTAGE. THE OWNER RESERVES THE RIGHT TO MODIFY OR REJECT ANY REQUEST SUCH AN OUTAGE. MODIFICATION OR REJECTION OF THE CONTRACTORS REQUEST BE THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE. UNLESS OTHERWISE NOTED, THE DURATION OF THE OUTAGE SHALL BE LIMITED TO FOUR (4) HOURS OR LESS. THE OWNER RESERVES THE RIGHT TO LIMIT THE DURATION OF THE OUTAGE TO LESS THAN 4 HOURS. MODIFICATION OF THE OUTAGE DURATION BY THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE.
14. NOT ALL ELECTRICAL/MECHANICAL/STRUCTURAL/CIVIL/ETC. COMPONENTS ARE SHOWN ON EACH DRAWING. REFER TO THE CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR MANY OF THE GENERAL LOCATIONS, QUANTITY, AND TYPES OF PROPOSED EQUIPMENT, INSTRUMENTS, ETC., TO BE INSTALLED. IN ADDITION, REFER TO THE APPLICABLE ELECTRICAL DRAWINGS AND MAKE ALL FINAL CONNECTIONS.
15. CONTRACTOR SHALL FIELD VERIFY ALL INTERCONNECT WIRING CONNECTING TO THE EXISTING PROGRAMMABLE LOGIC CONTROLLER INPUT/OUTPUT MODULES LOCATED WITHIN EXISTING CONTROL PANEL ENCLOSURES PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES.
16. THE CONTRACTOR IS REMINDED THAT ALTHOUGH THESE ATTACHMENTS ARE PRESENTED IN THE CONTRACT SPECIFICATIONS, THEY SHALL BE CONTINUALLY MAINTAINED, I.E. "BLUE-LINED" AS DESCRIBED IN SECTION 01300, BY THE CONTRACTOR ALONG WITH THE OTHER CONTRACT DOCUMENTS AS RECORD DRAWINGS THROUGHOUT THE ENTIRE PROJECT DURATION AND SUBMITTED AS PART OF THE "AS-BUILT" DRAWINGS. ALSO REFER TO THE SPECIFICATIONS.

GENERAL RENOVATION NOTES:

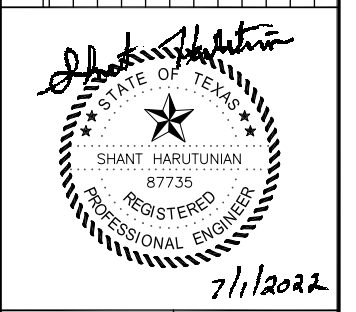
1. PROPOSED ITEMS ARE SHOWN IN DARK LINENWORK. EXISTING AND FUTURE ITEMS ARE SHOWN IN LIGHT LINENWORK, UNLESS NOTED OTHERWISE.
2. LOCATIONS AND SIZES OF ELECTRICAL EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS AND ALL POINTS OF CONNECTION PRIOR TO INSTALLATION OF PROPOSED COMPONENTS.
3. NOT ALL CIVIL/MECHANICAL/STRUCTURAL/ELECTRICAL/ETC. COMPONENTS ARE SHOWN ON EACH DRAWING. REFER TO THE CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR MANY OF THE GENERAL LOCATIONS, QUANTITY, AND TYPES OF PROPOSED EQUIPMENT, INSTRUMENTS, ETC., TO BE INSTALLED. IN ADDITION, REFER TO THE APPLICABLE ELECTRICAL DRAWINGS AND MAKE ALL FINAL CONNECTIONS.
4. EXACT LOCATIONS OF MECHANICAL/STRUCTURAL/CIVIL COMPONENTS ARE NOT SHOWN ON THE ELECTRICAL, INSTRUMENTATION, OR CONTROL SYSTEM DRAWINGS. REFER TO CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF CIVIL/MECHANICAL/STRUCTURAL ITEMS.
5. CONTRACTOR SHALL SIZE ALL PULL/JUNCTION BOXES PER, AND IN ACCORDANCE WITH, THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.).
6. UPON COMPLETION OF RENOVATION ACTIVITIES, COVER AND SEAL ALL UNUSED CONDUIT/WIRE PENETRATIONS ON EXISTING REMAINING PULLBOXES. IF EXISTING PULLBOX IS UNTAGGED, CONTRACTOR SHALL TAG EXISTING PULLBOX PER SPECIFICATIONS.
7. SEAL ALL DEMOLISHED CONDUIT/WIRE PENETRATIONS THROUGH STRUCTURE, THAT ARE NOT REUSED DURING RENOVATION ACTIVITIES, WITH 50 YEAR NON-SHRINK WATER TIGHT GROUT (GROUT FLUSH WITH STRUCTURAL FLOOR/WALL SLAB). ALSO REFER TO THE ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION AND MAKE ALL FINAL CONNECTIONS.
8. ANY MODIFICATION TO THE ROADWAY/CURBING/SIDEWALK/FENCE/ LANDSCAPING/ GRASSES/ ETC., WHETHER SHOWN ON THE DRAWINGS OR NOT, SHALL BE REPAIRED TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
9. THE ACTUAL REQUIRED SIZE OF CONDUIT ENTRANCE AREAS TO BE DETERMINED BY THE MANUFACTURER. THE LOCATION AND SIZE OF THE CONDUIT ENTRANCE AREAS FOR THE ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL EQUIPMENT, EQUIPMENT MANUFACTURER PACKAGED POWER/CONTROL PANELS, PROCESS/BUILDING MECHANICAL EQUIPMENT, ETC., AS APPLICABLE, SHALL BE COORDINATED WITH THE APPLICABLE EQUIPMENT MANUFACTURER. PRIOR TO FINAL CONDUIT/WIRE INSTALLATION.
10. CONTRACTOR SHALL COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE WITH PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ELECTRICAL SYSTEMS/COMPONENTS/EQUIPMENT/UTILITIES, ETC.
11. THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZES SHOWN REPRESENT THE MINIMUM REQUIRED SIZES AND ARE APPROXIMATE. CONTRACTOR TO DETERMINE EXACT AS-BUILT SIZE REQUIRED FOR THE MAIN CONTROL PANEL/FIELD CONTROLS STATION TO MEET THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) WITHOUT ANY ADDITIONAL COST TO THE OWNER (SHOULD THE FINAL SIZE BE LARGER THAN THE MINIMUM SIZE REQUIRED BY THIS DRAWING). ADDITIONALLY, THE CONTRACTOR IS TO CAREFULLY REVIEW THE ELECTRICAL/CONTROL FLOOR PLAN DRAWING AND MAKE ANY ADJUSTMENTS/EQUIPMENT REARRANGEMENTS NECESSARY TO MEET NATIONAL ELECTRICAL CODE REQUIREMENTS AND ANY OTHER SAFETY CODES ADOPTED BY THE OWNER SHOULD THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZE BE ANY GREATER/LARGER THAN THE MINIMUM SIZE REQUIRED BY THE PLANS. CONDUIT/WIRING, ETC. ADJUSTMENT CAUSED BY ANY EQUIPMENT REARRANGEMENT, ETC. SHALL ALSO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
12. THE MAIN CONTROL PANEL/FIELD CONTROL STATION FRONT ELEVATION DRAWINGS ARE INTENDED, IN PART, AS AN OVERALL CONCEPTUAL LAYOUT OF THE INTERIOR/EXTERIOR (AS APPLICABLE) OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION AND REPRESENTS THE OVERALL LAYOUT PATTERN OF MAJOR DEVICES AND TERMINATION OF DEVICES IN RELATION TO THE PROPOSED PROCESS/MECHANICAL SYSTEM. DO NOT INFER EXACT COMPONENT QUANTITIES AND LOCATIONS FROM THESE FRONT ELEVATION DRAWINGS. THE FRONT ELEVATION DRAWINGS ARE NOT INCLUSIVE OF ALL REQUIREMENTS AND DOES NOT DEPICT ALL COMPONENTS OR REQUIREMENTS OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION. COORDINATE ALL CONTROL DEVICES, CONTROL RELAYS, ETC., REQUIREMENTS WITH THE APPLICABLE EQUIPMENT WIRING SCHEMATICS. ALSO REFER TO THE WIRING SCHEMATICS DRAWINGS AND TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. PLEASE NOTE THAT THE EQUIPMENT AS IDENTIFIED ON EACH MAIN CONTROL PANEL/FIELD CONTROLS STATION FRONT ELEVATION DRAWING ARE TYPICAL FOR THE ENTIRE DRAWING UNLESS NOTED OTHERWISE. NUMBER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN THE APPLICABLE EQUIPMENT SCHEDULE.

GENERAL RENOVATION NOTES (CONTINUED):

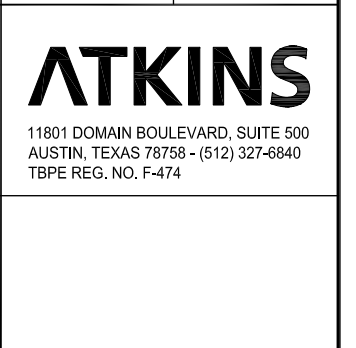
13. THE MAJORITY OF THE CONDUIT/WIRE ROUTES SHOWN ON THE DRAWINGS ARE SHOWN PARTIALLY (WITH "HOMERUNS"). ADDITIONALLY, CERTAIN SPECIFIC CONDUIT/WIRE/PULLBOX/ETC., LOCATION/ROUTING REQUIREMENTS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION/ROUTING FOR, FURNISH, AND INSTALL THE ENTIRE LENGTH OF THE PROPOSED CONDUIT/WIRE, REQUIRED INTERMEDIATE PULLBOXES, RELATED FITTINGS, AND ALL REQUIRED MOUNTING HARDWARE AND MAKE ALL FINAL CONNECTIONS. THE CONTRACTOR SHALL SIZE ALL NECESSARY REQUIRED PULLBOXES TO FACILITATE THE PROPOSED CONDUIT/WIRE INSTALLATION. ALSO REFER TO THE APPLICABLE CONDUIT/WIRE SCHEDULE, ONE-LINE DIAGRAMS, FLOOR PLAN DRAWINGS, ETC., TO AIDE IN THE LOCATION/ROUTING OF THE PROPOSED CONDUIT/WIRE/PULLBOXES/MOUNTING HARDWARE/ETC. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE PROPOSED ELECTRICAL EQUIPMENT WITH THE INSTALLATION OF THE PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES, AND THE EXISTING CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES.
14. REFER TO PLC I/O WIRING SCHEMATIC FOR INTERFACE POINTS TO THE DISTRIBUTED CONTROL SYSTEM THAT ARE SHOWN ON THE CONTROL WIRING SCHEDULE BUT NOT IDENTIFIED ON TAG REPLACEMENT SCHEDULE.
15. CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE, PULLBOXES, AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL PROPOSED VENDOR EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THEIR RESPECTIVE PROPOSED CONTROL PANEL/MOTOR CONTROL CENTER/ETC., AS APPLICABLE. FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL/MOTOR CONTROL CENTER/ETC., AS APPLICABLE, INSTALL THE CONTROL PANEL/MOTOR CONTROL CENTER/ ETC., AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

ALL GENERAL NOTES LISTED ON THIS SHEET ARE APPLICABLE TO ALL ELECTRICAL, INSTRUMENTATION AND CONTROLS SHEETS IN ADDITION TO ANY GENERAL NOTES SHOWN ON EACH INDIVIDUAL SHEET.

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DATE									
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NO.									



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 ELECTRICAL GENERAL NOTES



NOTES	NAME	DATE
SURVEY BY	N/A	
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 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

CONDUIT/WIRE SCHEDULE - DEMOLITION

Table with columns: CONDUIT TAG, SIZE, CABLE/WIRE DESCRIPTION. Lists various conduit and wire items for demolition, including items like CSB-AHU1-C1, CSB-AHU1-C2, etc.

CONDUIT/WIRE SCHEDULE - RENOVATION

Table with columns: CONDUIT TAG, SIZE, CABLE/WIRE DESCRIPTION. Lists various conduit and wire items for renovation, including items like ASC2-CLPULCP1-2-P, ASC2-CLPULCP3-4-P, etc.

KEY NOTES:

- 1 PLEASE NOTE, CONTENTS OF EXISTING POWER/CONTROLS CONDUIT IS UNKNOWN...
2 CONDUIT/WIRE SHALL INTERCONNECT COMPONENTS OF A MANUFACTURER PACKAGED SYSTEM...
3 REFER TO CHLORINE STORAGE BUILDING DEMOLITION PANELBOARD SCHEDULES ON DRAWING NO. [E-09].
4 REFER TO DECHLORINATION BUILDING DEMOLITION PANELBOARD SCHEDULES ON DRAWING NO. [E-10].
5 REFER TO CHLORINE STORAGE BUILDING RENOVATION PANELBOARD SCHEDULES ON DRAWING NO. [E-28].
6 REFER TO DECHLORINATION BUILDING RENOVATION PANELBOARD SCHEDULES ON DRAWING NO. [E-29].

Table with columns: REVISION DESCRIPTION, DATE, REV. BY, NO. Contains revision history information.



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
CONDUIT/WIRE SCHEDULE

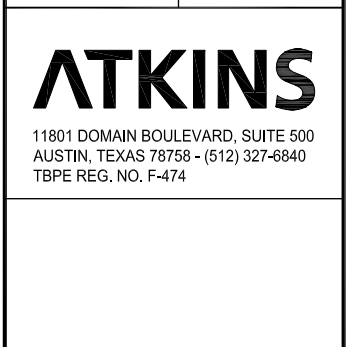
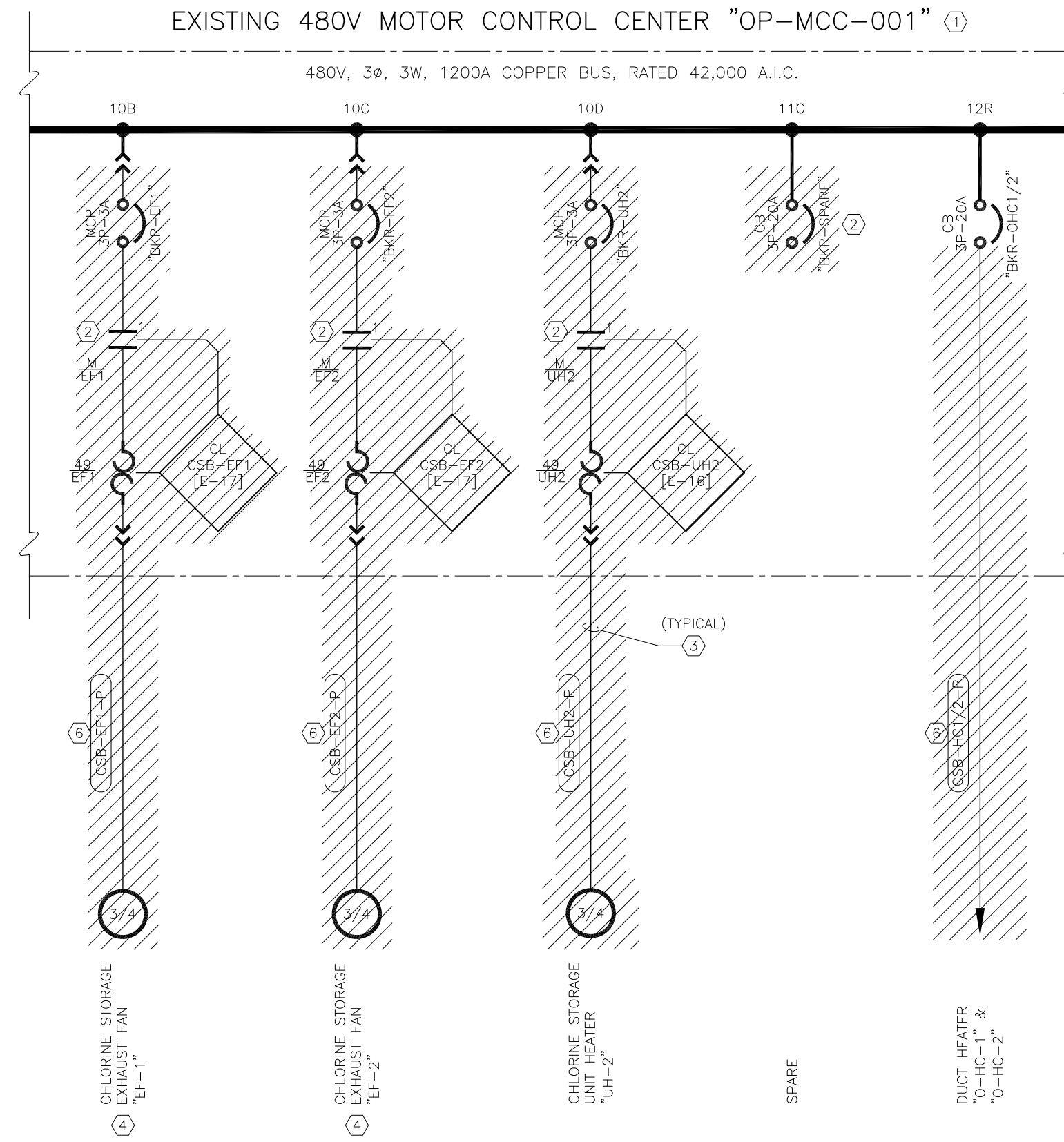
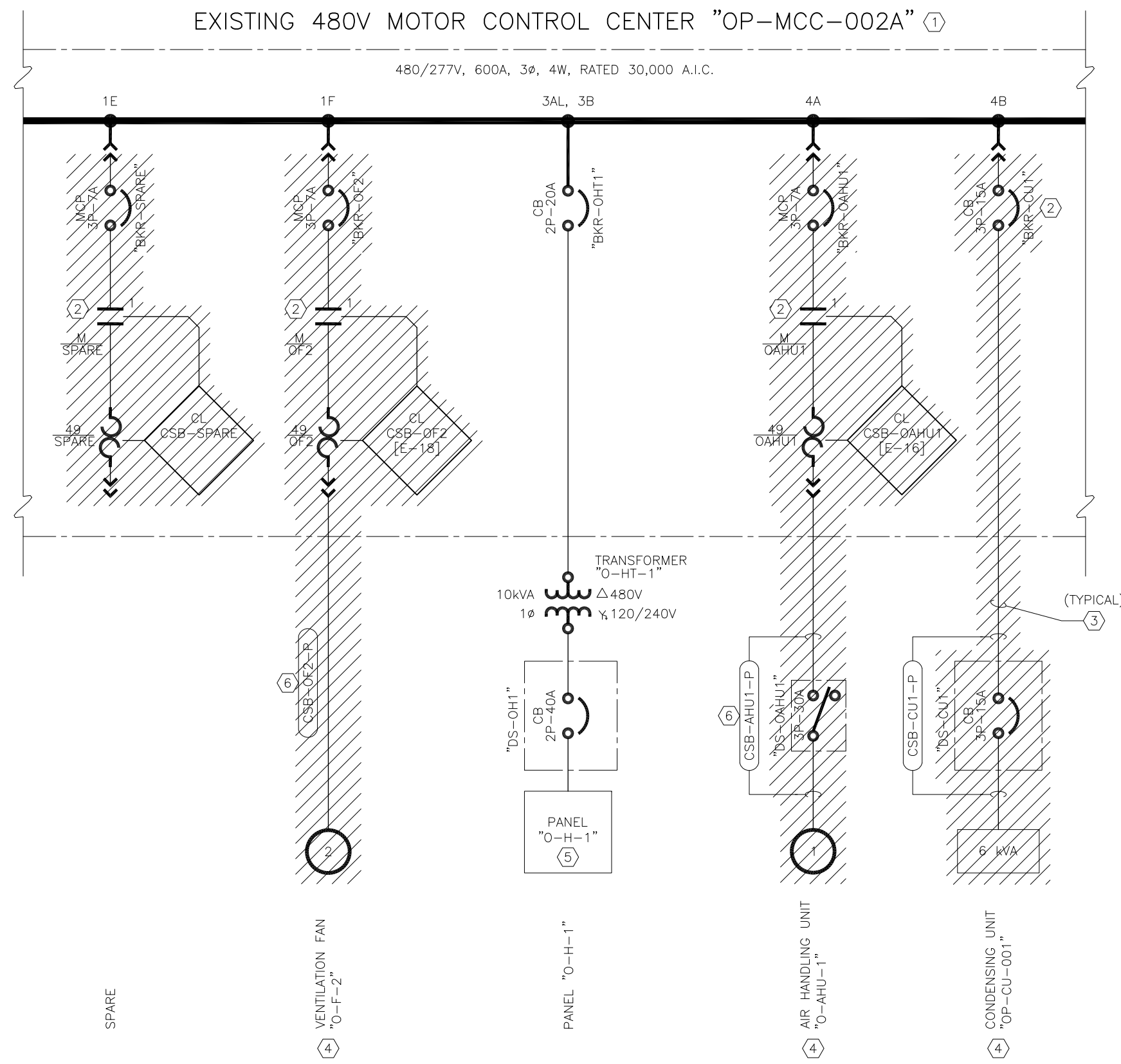


Table with columns: NOTES, NAME, DATE. Contains project notes and names of surveyors, drawers, and designers.

SHEET NUMBER: E-05





KEY NOTES:

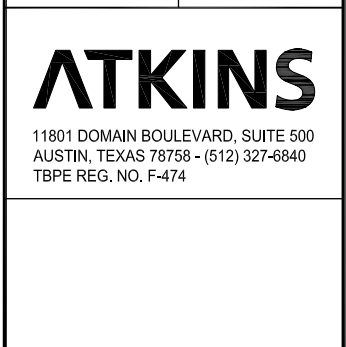
- ① EXISTING 480V MOTOR CONTROL CENTER MANUFACTURED BY "WESTINGHOUSE", MODEL "SERIES 2100", CATALOG# "CSN31200F", AND SERIAL# "G.O. DAF 88150 IT.3-3".
- ② DISCONNECT AND REMOVE MCC STARTER BUCKET, CONTROL DEVICES, AND ALL CONTROL CABLE/WIRE IN ITS ENTIRETY.
- ③ DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, WIRING DEVICES, SUPPORTS, CABLE/WIRE, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE. WHERE ABANDONED IN CONCRETE SLAB, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50-YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURAL FOUNDATION. REFER TO DEMOLITION FLOOR PLANS FOR ADDITIONAL INFORMATION.
- ④ COORDINATE WITH MECHANICAL/HVAC CONTRACTOR FOR DEMOLITION OF EXHAUST FANS AND UNIT HEATERS.
- ⑤ PANELBOARD LOCATED IN MOTOR CONTROL CENTER SECTION 3B.
- ⑥ PLEASE NOTE, THE EXACT CONDUIT ROUTING AND QUANTITY AND SIZE OF EXISTING POWER CONDUIT BETWEEN 480V MOTOR CONTROL CENTERS "OP-MCC-001" AND "OP-MCC-002A" LOCATED IN THE 480V MCC ROOM AND THE EXISTING PULL BOXES LOCATED IN BOILER ROOM IS UNKNOWN. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES. SHOULD IT BE FOUND THAT POWER WIRING TO BE DEMOLISHED SHARES A CONDUIT WITH EXISTING POWER WIRING TO REMAIN, CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ADJACENT CABLE/WIRE. REFER TO DEMOLITION PLANS ON DRAWING NOS. [E-11] AND [E-13] FOR ADDITIONAL INFORMATION.

REVISION	DESCRIPTION




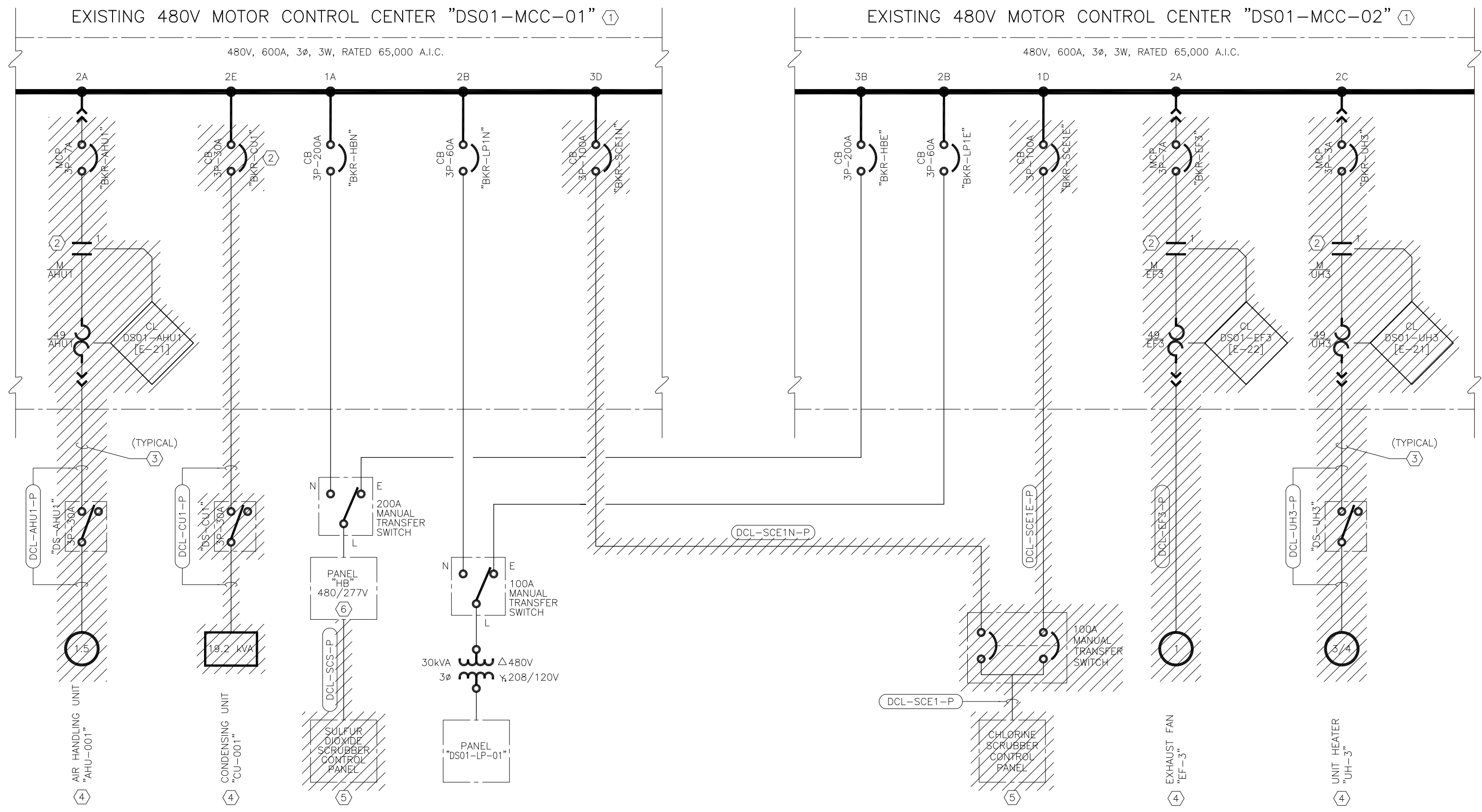
CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

480V "OP-MCC-001" & "OP-MCC-02A"
ONE-LINE DIAGRAM - DEMOLITION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	
SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	
SHEET NUMBER	E-06	

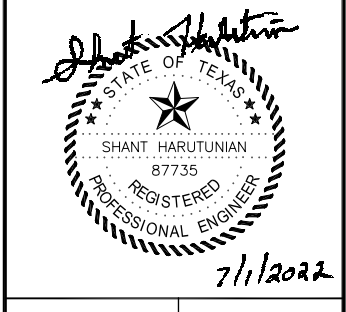

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 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408



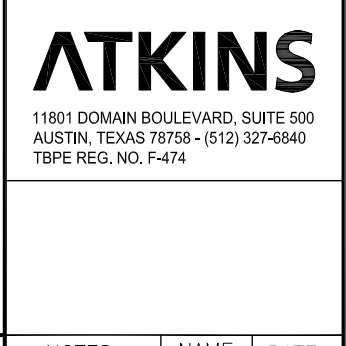
KEY NOTES:

- ① EXISTING 480V MOTOR CONTROL CENTER MANUFACTURED BY "WESTINGHOUSE", MODEL "SERIES 2100", CATALOG# "CSN31200F", AND SERIAL# "G.O. DAF 88150 IT.3-3".
- ② DISCONNECT AND REMOVE MCC STARTER BUCKET, CONTROL DEVICES, AND ALL CONTROL CABLE/WIRE IN ITS ENTIRETY.
- ③ DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, WIRING DEVICES, SUPPORTS, CABLE/WIRE, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE. WHERE ABANDONED IN CONCRETE SLAB, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50-YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURAL FOUNDATION. REFER TO DEMOLITION FLOOR PLANS FOR ADDITIONAL INFORMATION.
- ④ COORDINATE WITH MECHANICAL/HVAC CONTRACTOR FOR DEMOLITION OF MECHANICAL EQUIPMENT.
- ⑤ COORDINATE WITH PROCESS/MECHANICAL CONTRACTOR FOR DEMOLITION OF EMERGENCY SCRUBBER.
- ⑥ EXISTING 3P-125A CIRCUIT BREAKER WITH CIRCUIT NUMBER "HB-1,3,5" SHALL REMAIN AND BE REUSED DURING RENOVATION ACTIVITIES.

REV. NO.	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 480V "DS01-MCC-01" & "DS01-MCC-02"
 ONE-LINE DIAGRAM - DEMOLITION

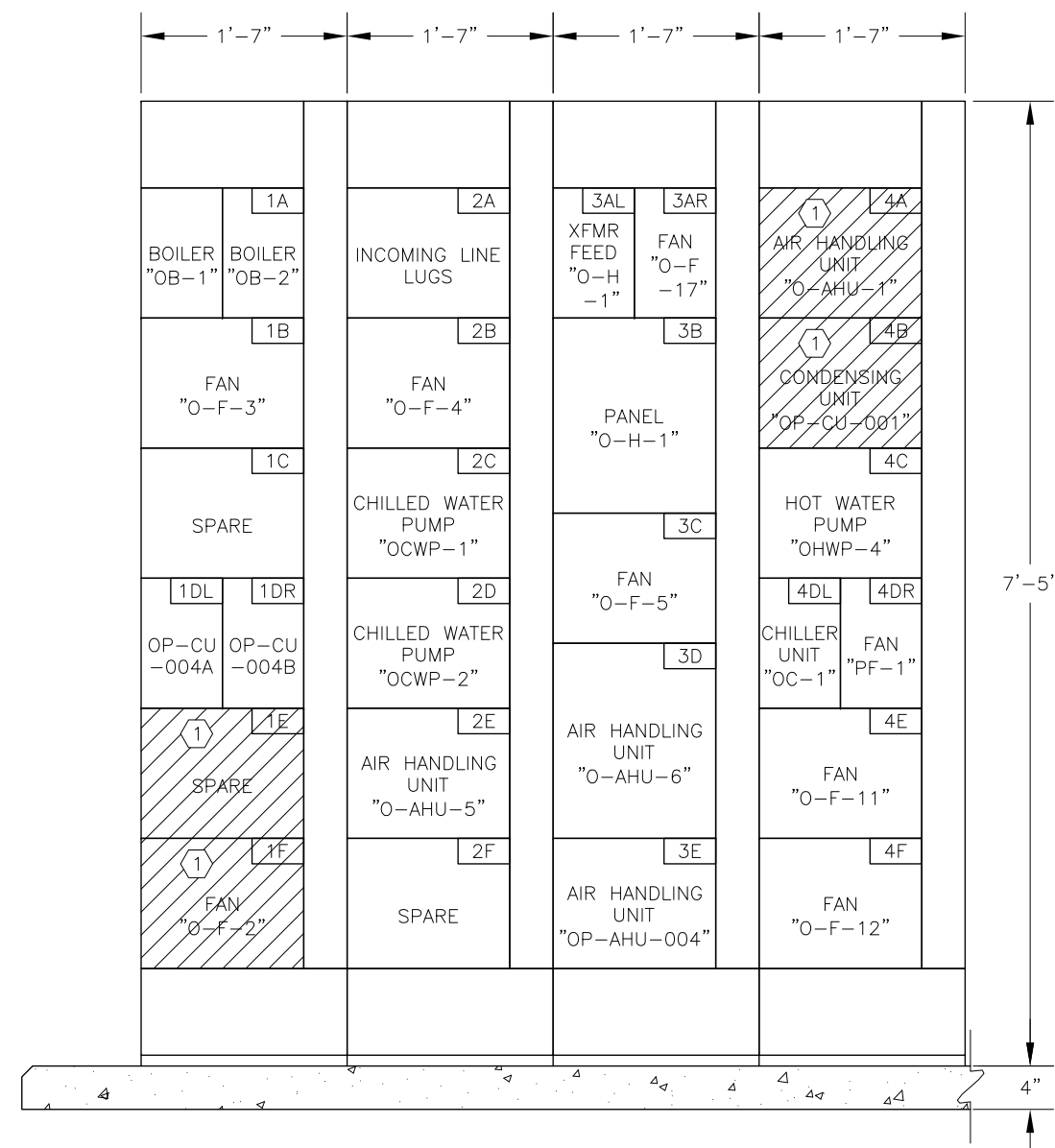


NOTES	NAME	DATE
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

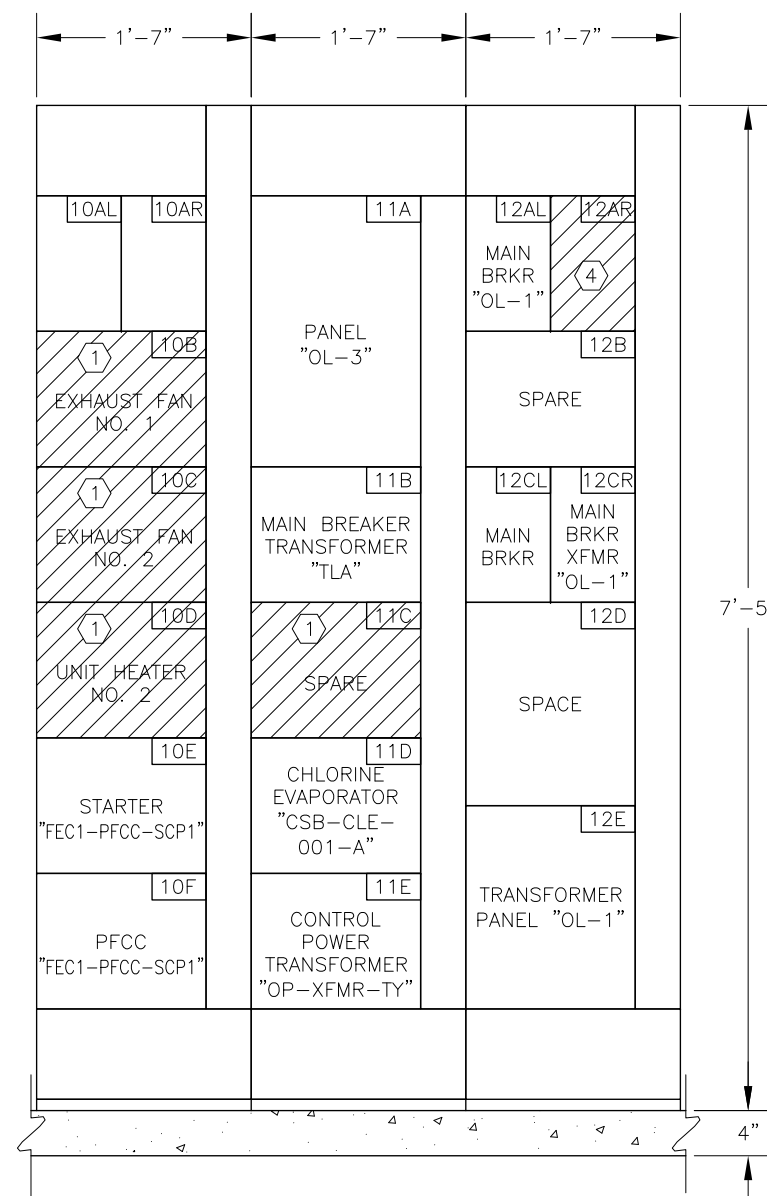
SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

HARUTUNIAN ENGINEERING INCORPORATED
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 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SHEET NUMBER
E-07



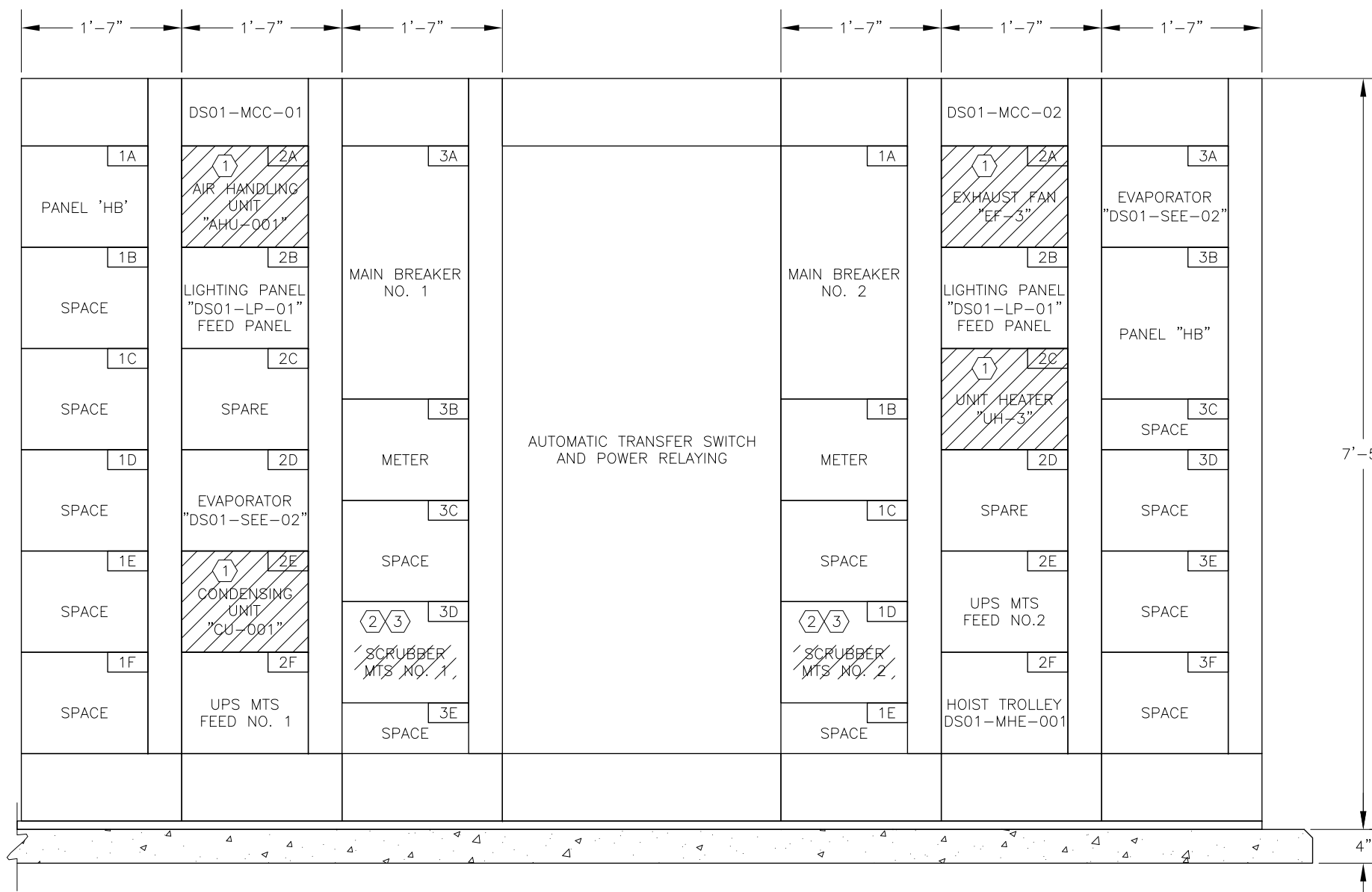
OPERATIONS BUILDING "OP-MCC-002A"
SECTIONS 1 THROUGH 4 - FRONT ELEVATION
SCALE: N.T.S.



OPERATIONS BUILDING "OP-MCC-001"
SECTIONS 10, 11, AND 12 - FRONT ELEVATION
SCALE: N.T.S.

KEY NOTES:

- ① DISCONNECT AND REMOVE MOTOR CONTROL CENTER BUCKET, CONTROL DEVICES, AND ALL CONTROL CABLE/WIRE IN ITS ENTIRETY.
- ② REMOVE EQUIPMENT TAGS/LABELS FROM THE INTERIOR AND EXTERIOR OF THE CIRCUIT BREAKER MCC BUCKET. CIRCUIT BREAKER SHALL BE REUSED DURING RENOVATION ACTIVITIES.
- ③ DISCONNECT CABLE/WIRE FROM CIRCUIT BREAKER. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, WIRING DEVICES, SUPPORTS, ETC. IN THEIR ENTIRETY.
- ④ MOTOR CONTROL CENTER BUCKET TAGGED "O-HC-1" AND "O-HC-2".

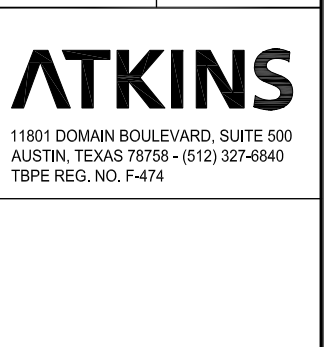


EXISTING 480V MOTOR CONTROL CENTER
"DS01-MCC-01" & "DS01-MCC-02" - FRONT ELEVATION
SCALE: N.T.S.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
480V MOTOR CONTROL CENTER
PARTIAL FRONT ELEVATIONS - DEMOLITION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

HARUTUNIAN ENGINEERING INCORPORATED
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SHEET NUMBER
E-08

CIRCUIT BREAKER PANEL SCHEDULE—"CS01-IP-01" ①
VOLTS: 208/120 AMPS: 40A BUS MAIN: 40A PHASE/WIRE: 3ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	LOCAL CONTROL PANEL "CS01-LCP-01"	---	---	---	CHLORINE LEAK DETECTOR "CS01-CLE-001"	2	20 1P
20 1P	3	CHLORINE STORAGE	---	---	---	CHLORINE LEAK DETECTOR "CS01-CLE-002"	4	20 1P
20 1P	5	ENVIRONMENTAL CONTROL PANEL "CS01-ECP-01"	---	---	---	CHLORINE LEAK DETECTOR "CS01-CLE-003"	6	20 1P
20 1P	7	WRS-1,2	---	---	---	"WC-CSB-ASO-01"	8	20 1P
20 1P	9	NORTH BANK CHLORINE ACTUATORS	---	---	---	SOUTH BANK CHLORINE ACTUATORS	10	20 1P
20 1P	11	NORTH BANK CHLORINE ACTUATORS	---	---	---	SOUTH BANK CHLORINE ACTUATORS	12	20 1P
20 1P	13	⑤	---	---	---		14	40 3P
20 1P	15	CONTROL ROOM	---	---	---	MAIN	16	
20 1P	17	GAS DETECTION CONTROLLER "CSB-AIC-GDS"	---	---	---		18	
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"CS01-LP-01" ②
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	STORAGE ROOM LIGHTS	---	---	---	CHLORINATOR "CS01-CHE-001"	2	20 1P
20 1P	3	STORAGE ROOM LIGHTS	---	---	---	CHLORINATOR "CS01-CHE-002"	4	20 1P
20 1P	5	CL2 ROOM LIGHTS	---	---	---	CHLORINATOR "CS01-CHE-003"	6	20 1P
20 1P	7	UNIT HEATER "UH-1"	---	---	---	CHLORINATOR "CS01-CHE-004"	8	20 1P
20 1P	9	STORAGE & CL2 ROOM LIGHTS	---	---	---	CHLORINATOR "CS01-CHE-005"	10	20 1P
20 1P	11	EMERGENCY LIGHTS	---	---	---	"CS01-URE-001"	12	20 1P
20 1P	13	ENVIRONMENTAL CONTROL PANEL "CS01-ECP-01"	---	---	---	"CS01-COCP-001"	14	20 1P
30 1P	15	SPARE	---	---	---	SOUTH BANK DRIP LEG HEATERS	16	20 1P
20 1P	17	SPARE	---	---	---	NORTH BANK DRIP LEG HEATERS	18	20 1P
20 1P	19	SPARE	---	---	---	SPARE	20	20 1P
20 1P	21	SPARE	---	---	---	SPARE	22	20 1P
20 1P	23	SPARE	---	---	---	SPARE	24	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"O-H-1" ③
VOLTS: 120/240 AMPS: 50A BUS MAIN: 50A PHASE/WIRE: 3ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	VENT FAN "O-F-13" (RAW WET WELL)	---	---	---		2	20 1P
20 1P	3	VENT FAN "O-F-14"	---	---	---	BAD BREAKER	4	20 1P
20 1P	5	VENT FAN "O-F-10" (OVER ELEVATOR)	---	---	---	AHU ROLL FILTER	6	20 1P
20 1P	7	CHILLER CONTROL	---	---	---	VENT FAN "O-F-9"	8	20 1P
20 1P	9	VENT FAN "O-F-14"	---	---	---		10	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"LA" ④
VOLTS: 208/120 AMPS: 175A BUS MAIN: 175A PHASE/WIRE: 3ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 2P	1	⑤	700			480V MCC ROOM LIGHTS	2	20 1P
20 1P	3	⑤		500		LPU-2 (PTC1)	4	20 1P
20 1P	5	480V MCC ROOM RECEPTACLES				480V MCC ROOM RCPT. - EAST WALL (EMERGENCY LTS.)	6	20 1P
30 1P	7	"OBCEP-LPU-4"				LPU-4 (OPS)	8	20 1P
20 2P	9	⑤				MAGNETIC FLOWMETER "SWW-FIT-NO. 1"	10	20 1P
20 1P	11					MAGNETIC FLOWMETER "SWW-FIT-NO. 2"	12	20 1P
60 3P	13	BLOWER PANEL "LB"				PTC1 HACH ANALYZER INDICATING TRANSMITTER & AIR BLAST SYSTEM	14	20 1P
20 1P	15					480V MCC ROOM A/C UNIT	16	30 2P
20 1P	17						18	
20 1P	19	CHLORINATOR #2				CHLORINATOR #2	20	20 1P
20 1P	21	CHLORINATOR #3				CONTROL PANEL "OP-CP-LPU2" VENTILATION FANS	22	20 1P
20 2P	23	CHLORINE STORAGE CONTROL ROOM A/C UNIT			1080	CONTROL PANEL "OP-CP-LPU2" LIGHTS & RECEPTACLES	24	20 1P
20 2P	25				1100	CONTROL PANEL "OP-CP-LPU1" VENTILATION FANS	26	20 1P
20 2P	27	480V MCC ROOM A/C UNIT			1080	CONTROL PANEL "OP-CP-LPU1" LIGHTS & RECEPTACLES	28	20 1P
20 1P	29				1100	AHU CONTROLS FOR BLOWER CONTROL ROOM	30	20 1P
20 1P	31	"OP-CU-004A" & "OP-CU-004B" RECEPTACLES				BLOWER CONTROL ROOM RECEPTACLES	32	20 1P
20 1P	33	"OP-CU-002A", "OP-CU-002B", & "OP-CU-003" RCPT.				BLOWER CONTROL ROOM LIGHTS	34	20 1P
0 1P	35	SPACE				"OP-CU-001" RECEPTACLE	36	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			1800	1580	2180			

KEY NOTES:

- ① PANELBOARD "CS01-IP-01" IS A WESTINGHOUSE TYPE PRL1 PANELBOARD MANUFACTURED CIRCA 1994.
- ② PANELBOARD "CS01-LP-01" IS A WESTINGHOUSE STYLE P48G28E30N MINI-POWER CENTER PANELBOARD MANUFACTURED CIRCA 1994.
- ③ PANELBOARD "O-H-1" IS A WESTINGHOUSE PANELBOARD MANUFACTURED CIRCA 1974 LOCATED WITHIN THE CONFINES OF MOTOR CONTROL CENTER "OP-MCC-002A". EXISTING BRANCH CIRCUIT BREAKERS ARE WESTINGHOUSE QUICKLAG TYPE BA CIRCUIT BREAKERS.
- ④ PANEL "LA" IS LOCATED INSIDE THE 480-VOLT MCC ELECTRICAL ROOM ON LEVEL 1. PANEL "LA" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1989; JOB NO. HU04900 IT.18.
- ⑤ PANEL SCHEDULE ENTRY IS ILLEGIBLE. CONTRACTOR SHALL VERIFY AND CORRECT PANEL SCHEDULE CIRCUIT DIRECTORY ENTRY.
- ⑥ DISCONNECT AND REMOVE EXISTING CONDUIT AND CABLE/WIRE IN ITS ENTIRETY. REFER TO DEMOLITION PLANS AND DEMOLITION CONDUIT/WIRE SCHEDULE FOR ADDITIONAL INFORMATION.
- ⑦ EXISTING CIRCUIT BREAKER TO REMAIN AND BE RE-USED DURING RENOVATION ACTIVITIES.
- ⑧ DISCONNECT AND REMOVE CIRCUIT BREAKER AT CIRCUIT NO. 4 THAT IS LABELED "BAD BREAKER".

GENERAL NOTES:

- 1. ALL ELECTRICAL EQUIPMENT, WIRING, CONDUITS, ETC., SHOWN ON THIS DRAWING ARE EXISTING UNLESS NOTED OTHERWISE.
- 2. THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS BASED UPON OBSERVATION OF INFORMATION CONTAINED ON EXISTING CIRCUIT BREAKER PANEL SCHEDULES. LOAD DESCRIPTIONS HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL EXERCISE CAUTION AND FIELD VERIFY CIRCUITS PROPOSED FOR DEMOLITION/RENOVATION PRIOR TO COMMENCING DEMOLITION/RENOVATION ACTIVITIES. SHOULD THE EXISTING DISCOVERED FIELD CONDITIONS REVEAL DEVIATIONS IN THE PANEL SCHEDULE SHOWN, CONTRACTOR SHALL INDICATE DISCOVERED DEVIATIONS ON THE PANEL SCHEDULE.

CAUTION:
480 VOLT CIRCUIT ROUTING BETWEEN "OAHU-3" AND "OP-MCC-002A" PASSES THROUGH 120/208 VOLT PANEL "LA"

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HARUTUNIAN ENGINEERING INCORPORATED
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM F-2408

REV. NO.	DATE	DESCRIPTION

CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

OPERATIONS BUILDING
PANELBOARD SCHEDULES - DEMOLITION

ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP# REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-09



CIRCUIT BREAKER PANEL SCHEDULE—"DS01-LP-01" ①								
VOLTS: 208/120 AMPS: 225A BUS MAIN: 110A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	ELECTRICAL ROOM & OUTSIDE WALL LIGHTS	---	---	---	LIQUID SWITCHOVER CONTROL PANEL "DS01-FCP-01"	2	20 1P
20 1P	3	CANOPY LIGHTS	---	---	---	SUMP PUMP CONTROL PANEL "DS01-FCP-02"	4	20 1P
20 1P	5	STORAGE ROOM LIGHTS	---	---	---	CHLORINE SCRUBBER CONTROL PANEL "DS01-FCP-03"	6	20 1P ③
20 1P	7	S02 ROOM LIGHTS	---	---	---	ENVIRONMENTAL CONTROL PANEL "DS01-FCP-01"	8	20 1P ③
20 1P	9	STORAGE ROOM RECEPT. & 4 FT. FLOUR. LIGHTS	---	---	---	VACUUM REGULATOR CHECK UNIT "DS01-VCE-001"	10	20 1P
20 1P	11	STORAGE ROOM RECEPTACLES	---	---	---	VACUUM REGULATOR CHECK UNIT "DS01-VCE-002"	12	20 1P
20 1P	13	ELECTRICAL ROOM RECEPTACLES	---	---	---	SULFONATOR "DS01-SUE-001"	14	20 1P
20 1P	15	ELECTRICAL ROOM RECEPTACLES & EMERGENCY LIGHTS	---	---	---	SULFONATOR "DS01-SUE-002"	16	20 1P
③ 20 1P ④	17	GAS FURNACE CONTROL POWER FOR "UH-3"	---	---	---	SULFONATOR "DS01-SUE-003"	18	20 1P
③ 20 1P ④	19	EXHAUST FAN "EF-4"	---	---	---	SPARE	20	20 1P
③ 20 1P ④	21	GAS FURNACE CONTROL POWER FOR "KHU-1"	---	---	---	SUMP PUMP "DS01-SUP-002" (SCRUBBER AREA)	22	20 1P
20 1P	23	EMERGENCY LIGHTS	---	---	---	F.A. COMPRESSOR	24	20 1P
20 1P	25	OUTSIDE LED LIGHTS & TIME CLOCK	---	---	---	DOOR OPERATOR	26	20 1P
20 1P	27	SUMP PUMP "DS01-SUP-003" (SCRUBBER AREA)	---	---	---	SPARE	28	30 3P
20 1P	29	SECURITY SYSTEM	---	---	---	SPARE	30	
20 1P	31	SPARE	---	---	---	SPARE	32	30 3P
100 2P	33	TRAILER	---	---	---	SPARE	34	
100 2P	35		SPARE	36				
100 2P	37	AW TRAILER	---	---	---	SPARE	38	20 2P
100 2P	39		AG TRAILER	40				
20 1P	41	SPARE	---	---	---	AG TRAILER	42	20 2P
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"DS01-IP-01" ②								
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	LOCAL CONTROL PANEL "DS01-LCP-01"	---	---	---	S02 LEAK DETECTOR "DS01-SLE-001" (STORAGE ROOM)	2	20 1P
30 1P	3	SPARE	---	---	---	S02 LEAK DETECTOR "DS01-SLE-002" (STORAGE ROOM)	4	20 1P
20 1P	5	SULFUR DIOXIDE EVAPORATOR "DS01-SEE-001"	---	---	---	S02 LEAK DETECTOR "DS01-SLE-003" (EVAPORATOR ROOM)	6	20 1P
40 3P	7	MAIN	---	---	---	SPARE	8	20 1P
	9		SULFUR DIOXIDE EVAPORATOR "DS01-SEE-002"	10	20 1P			
	11		GAS DETECTION CONTROLLER "DS01-AIC-GDS"	12	20 1P			
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

KEY NOTES:

- ① PANEL "DS01-LP-01" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1994; JOB NO. HUAU04208; ITEM NO. 02A.
- ② PANEL "DS01-IP-01" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1994; JOB NO. HUAU04208; ITEM NO. 03A.
- ③ DISCONNECT AND REMOVE EXISTING CONDUIT AND CABLE/WIRE IN ITS ENTIRETY. REFER TO DEMOLITION PLANS AND DEMOLITION CONDUIT/WIRE SCHEDULE FOR ADDITIONAL INFORMATION.
- ④ EXISTING CIRCUIT BREAKER TO REMAIN AND BE RE-USED DURING RENOVATION ACTIVITIES.

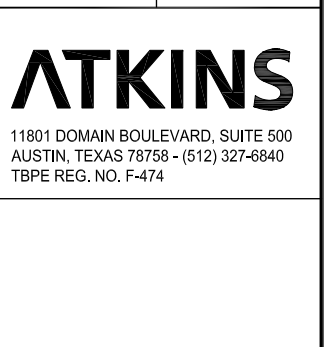
GENERAL NOTES:

- 1. ALL ELECTRICAL EQUIPMENT, WIRING, CONDUITS, ETC., SHOWN ON THIS DRAWING ARE EXISTING UNLESS NOTED OTHERWISE.
- 2. THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS BASED UPON OBSERVATION OF INFORMATION CONTAINED ON EXISTING CIRCUIT BREAKER PANEL SCHEDULES. LOAD DESCRIPTIONS HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL EXERCISE CAUTION AND FIELD VERIFY CIRCUITS PROPOSED FOR DEMOLITION/RENOVATION PRIOR TO COMMENCING DEMOLITION/RENOVATION ACTIVITIES. SHOULD THE EXISTING DISCOVERED FIELD CONDITIONS REVEAL DEVIATIONS IN THE PANEL SCHEDULE SHOWN, CONTRACTOR SHALL INDICATE DISCOVERED DEVIATIONS ON THE PANEL SCHEDULE.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 DECHLORINATION BUILDING
 PANELBOARD SCHEDULES - DEMOLITION

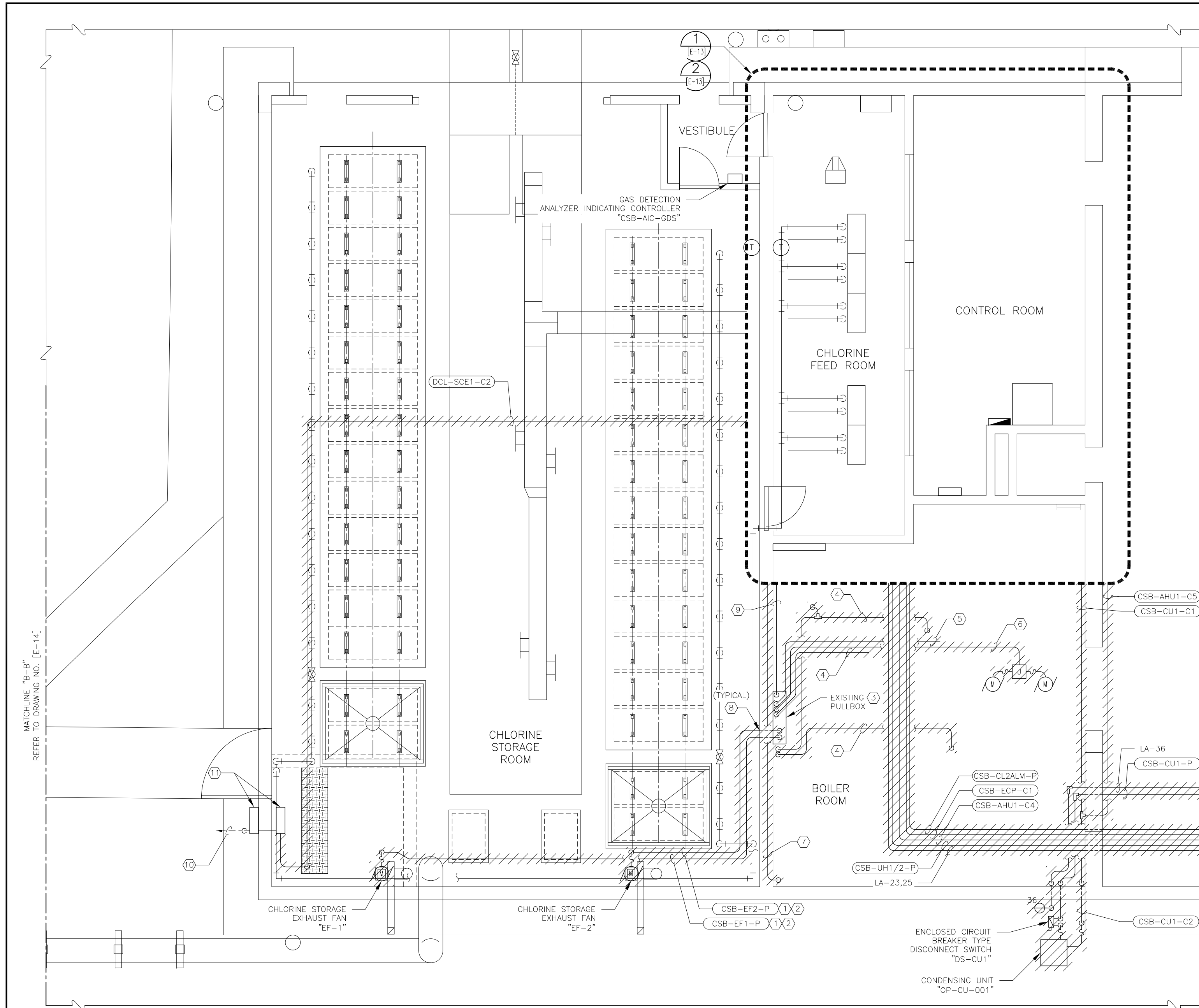


NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

HARUTUNIAN ENGINEERING INCORPORATED
 8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SHEET NUMBER **E-10**



- KEY NOTES:**
- DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY. COORDINATE WITH HVAC FOR DEMOLITION OF EQUIPMENT.
 - CONDUIT/WIRE CONTINUES TO MOTOR CONTROL CENTER "OP-MCC-001".
 - EXISTING CONDUIT/WIRE APPEARS TO BE ROUTED TO EXISTING PULL BOX WITHIN CONCRETE STRUCTURE. RECORD DOCUMENTS INDICATE EXISTING CONDUIT/WIRE IS ROUTED FROM EXISTING MOTOR CONTROL CENTERS "OP-MCC-001" AND "OP-MCC-002". CONTRACTOR SHALL FIELD VERIFY CONDUIT ENTRY POINT WITHIN EXISTING MCC'S AND DISCONNECT AND REMOVE CABLE/WIRE AS APPLICABLE.
 - EXISTING 3/4" INCH CONDUIT WAS ASSOCIATED WITH THE BOILER SYSTEM AND HAS BEEN ABANDONED IN PLACE. EXISTING CONDUIT IS EMPTY AND DOES NOT CONNECT TO ANY EXISTING EQUIPMENT. DISCONNECT AND REMOVE ABANDONED CONDUIT AND SUPPORT MATERIAL IN ITS ENTIRETY.
 - EXISTING 1-1/4" INCH CONDUIT WAS ASSOCIATED WITH THE BOILER SYSTEM AND HAS BEEN ABANDONED IN PLACE. EXISTING CONDUIT CONTAINS 6#6(P), #12(G) AND DOES NOT CONNECT TO ANY EXISTING EQUIPMENT. DISCONNECT AND REMOVE ABANDONED CONDUIT/WIRE AND SUPPORT MATERIAL IN ITS ENTIRETY.
 - EXISTING 1-1/4" CONDUIT WAS ASSOCIATED WITH THE BOILER SYSTEM AND HAS BEEN ABANDONED IN PLACE. EXISTING CONDUIT CONTAINS 6#6(P), #12(G) AND TERMINATES AT TWO (2) ABANDONED HOT WATER PUMPS LOCATED IN THE CEILING SPACE. DISCONNECT AND REMOVE ABANDONED CONDUIT/WIRE AND SUPPORT MATERIAL IN ITS ENTIRETY.
 - EXISTING 3/4" CONDUIT WAS ASSOCIATED WITH THE ORIGINAL CHLORINE LEAK DETECTION SYSTEM AND HAS BEEN ABANDONED IN PLACE. EXISTING CONDUIT IS EMPTY AND DOES NOT CONNECT TO ANY EXISTING EQUIPMENT. DISCONNECT AND REMOVE ABANDONED CONDUIT AND SUPPORT MATERIAL IN ITS ENTIRETY.
 - WHERE ABANDONED CONDUIT IS EMBEDDED IN CONCRETE STRUCTURE, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50 YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE.
 - CONDUIT TAGGED "CSB-HVAC-PC2".
 - CONDUIT/WIRE CONTINUES TO/ FROM CHLORINE SCRUBBER CONTROL PANEL LOCATED ON THE EAST SIDE OF THE DECHLORINATION BUILDING. REFER TO DRAWING NO. [E-14] FOR CONTINUATION AND ADDITIONAL INFORMATION.
 - EXISTING PULL BOXES TO REMAIN. COVER AND SEAL ALL CONDUIT/WIRE PENETRATIONS ON EXISTING REMAINING PULLBOX.

- GENERAL NOTES:**
- ALL ELECTRICAL EQUIPMENT, WIRING, CONDUITS, ETC., SHOWN ON THIS DRAWING ARE EXISTING UNLESS NOTED OTHERWISE.
 - THE INFORMATION CONTAINED ON THIS DRAWING WAS OBTAINED FROM INFORMATION AND DRAWINGS THAT WERE PROVIDED BY THE CITY OF AUSTIN. THIS INFORMATION HAS NOT BEEN FIELD VERIFIED.

MATCHLINE "A-A"
REFER TO DRAWING NO. [E-12]

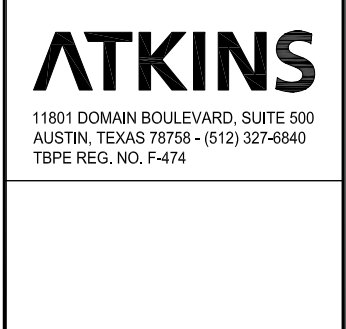
MATCHLINE "B-B"
REFER TO DRAWING NO. [E-14]

REVISION DESCRIPTION	DATE	REV. BY



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

OPERATIONS BUILDING - LEVEL 1
FLOOR PLAN - DEMOLITION (SHEET 1 OF 2)



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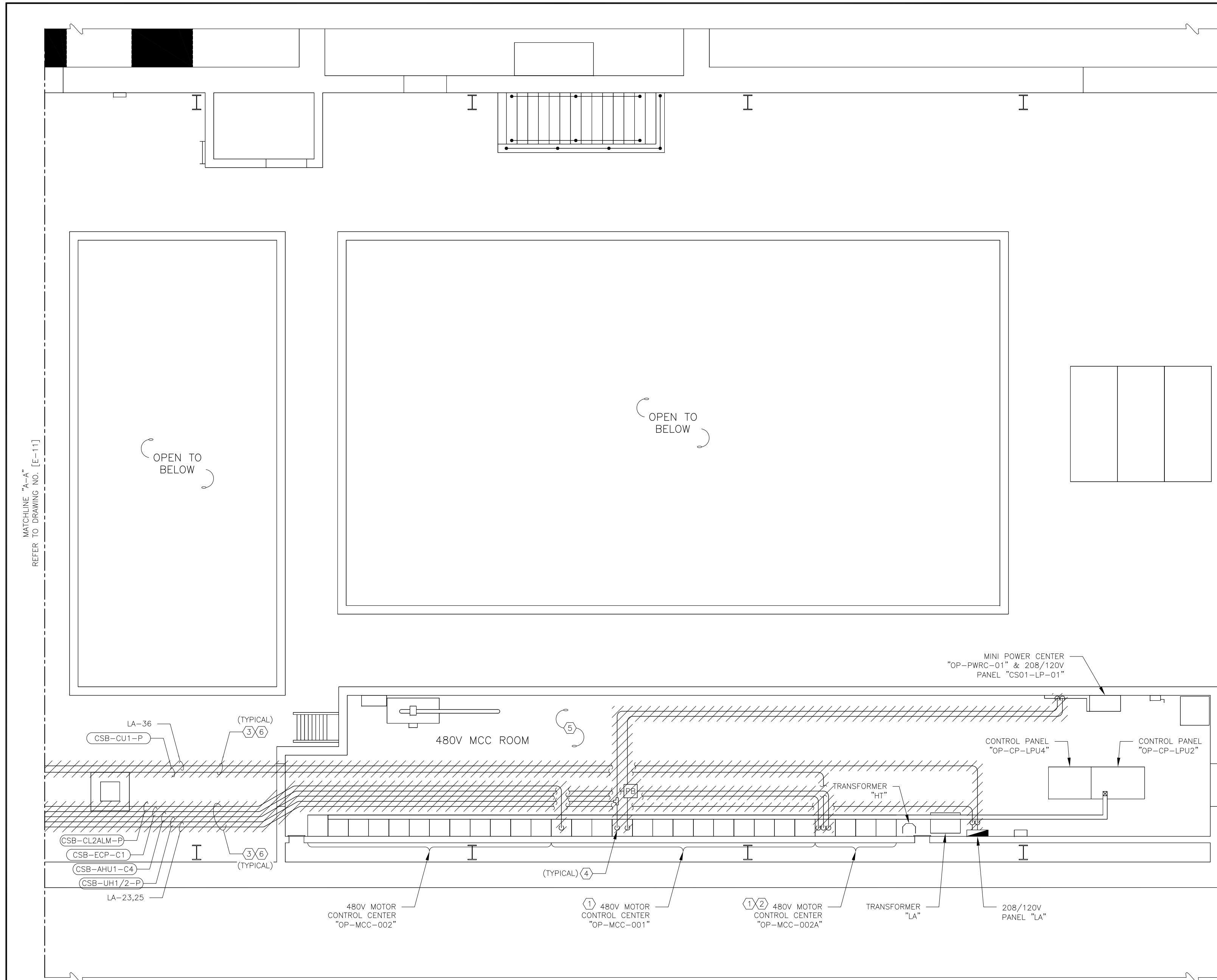
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

SHEET NUMBER	E-11
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CHLORINE STORAGE BUILDING
 SCALE: 1/4" = 1'
 PLANT NORTH



KEY NOTES:

- ① REFER TO ONE-LINE DIAGRAMS AND ELEVATIONS FOR MODIFICATIONS TO MOTOR CONTROL CENTERS "OP-MCC-001" AND "OP-MCC-002A".
- ② EXISTING 120/240V PANEL "O-H-1" IS LOCATED IN SECTION 3 OF 480V MOTOR CONTROL CENTER "OP-MCC-002A". REFER TO EQUIPMENT ONE-LINE DIAGRAM AND ELEVATION FOR ADDITIONAL INFORMATION.
- ③ DISCONNECT AND REMOVE CABLE/WIRE IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, SUPPORTS, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE.
- ④ WHERE ABANDONED CONDUIT IS EMBEDDED IN CONCRETE STRUCTURE, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50-YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE.
- ⑤ EXISTING CONDUIT IS ROUTED ABOVE THE ROOF OF THE 480V MCC ROOM. EXISTING CONDUIT TURNS DOWN AND PENETRATES STRUCTURAL CEILING AND CONTINUES INTO THE TOP OF THE EXISTING EQUIPMENT. LOCATIONS OF CONDUIT PENETRATIONS INTO EXISTING EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES.
- ⑥ PLEASE NOTE, THE EXACT ROUTING AND QUANTITY AND SIZE OF EXISTING POWER CONDUIT/WIRE BETWEEN EQUIPMENT WITHIN THE 480V MCC ROOM AND EQUIPMENT WITHIN THE BOILER ROOM IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES. SHOULD IT BE FOUND THAT POWER WIRING TO BE DEMOLISHED SHARES A CONDUIT WITH EXISTING POWER WIRING TO REMAIN, CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ADJACENT CABLE/WIRE.

REVISION DESCRIPTION	DATE	REV BY	NO.



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 OPERATIONS BUILDING - LEVEL 1
 FLOOR PLAN - DEMOLITION (SHEET 2 OF 2)



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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

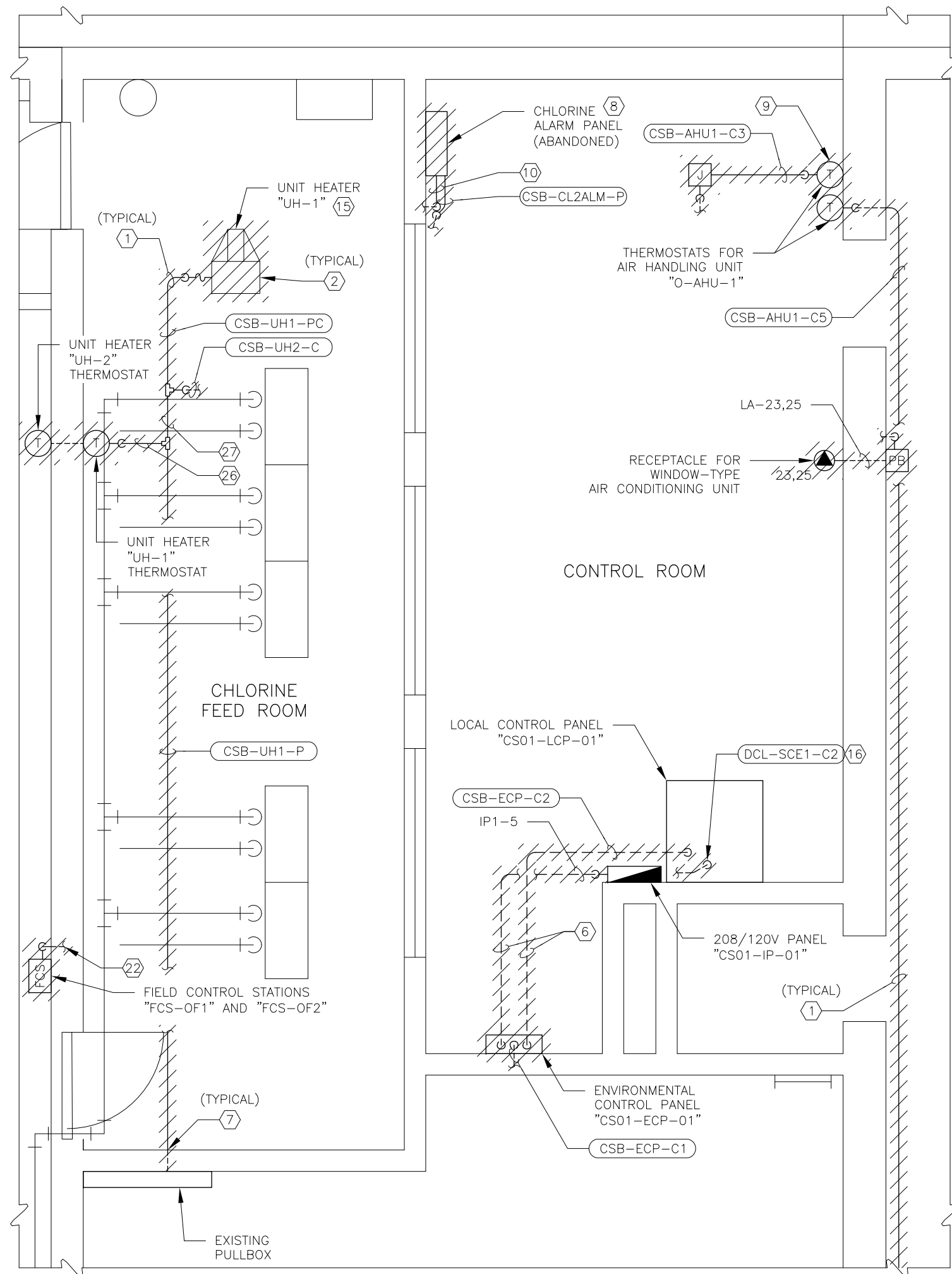


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 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

SHEET NUMBER	E-12
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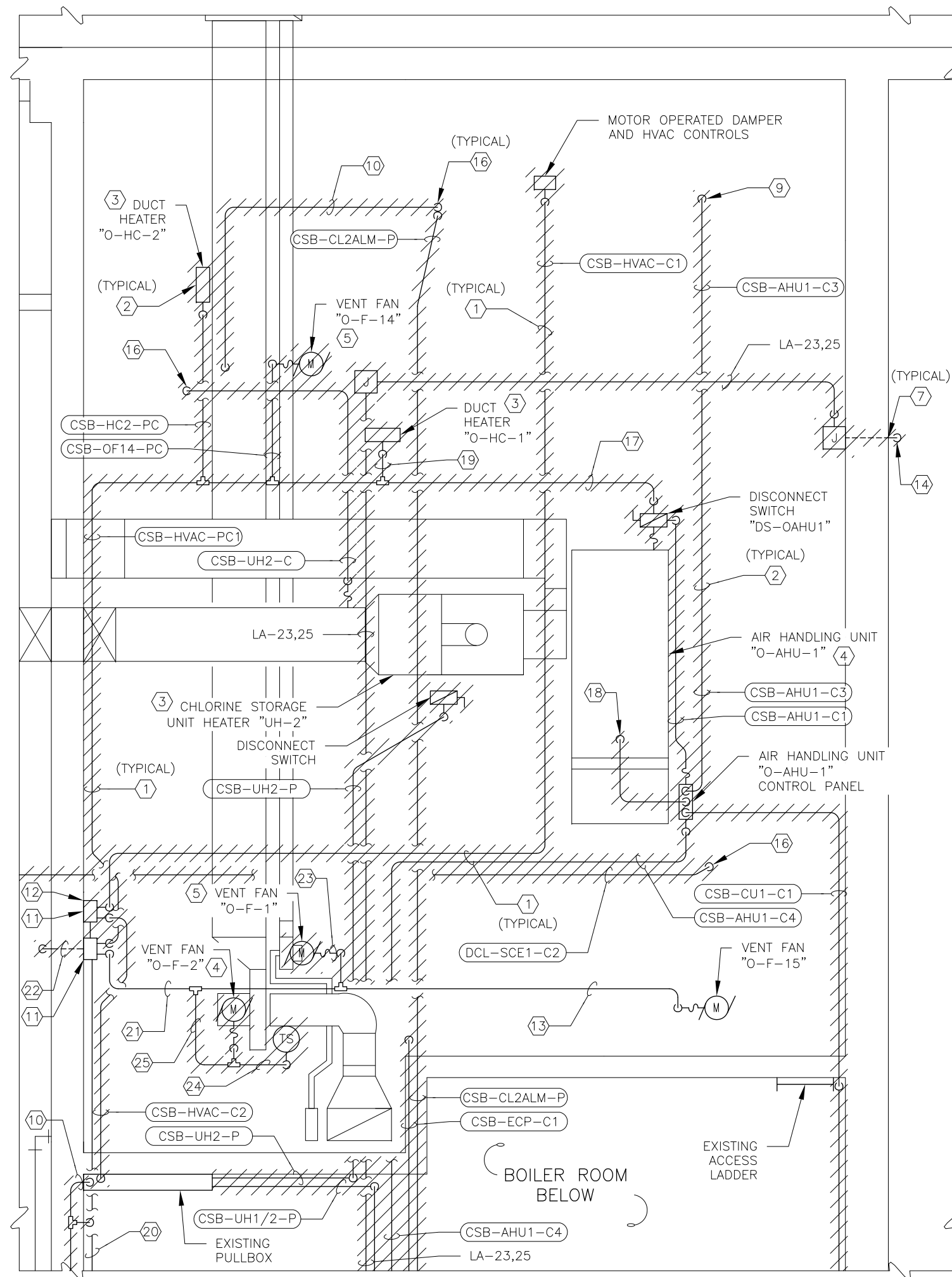
OPERATIONS BUILDING
 SCALE: 1/4" = 1'
 PLANT NORTH



**CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED FLOOR PLAN**

SCALE: 3/8" = 1'

1
[E-11]



**CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED ROOF PLAN**

SCALE: 3/8" = 1'

2
[E-11]

KEY NOTES:

- 1 DISCONNECT AND REMOVE CABLE/WIRE IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, SUPPORTS, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE.
- 2 COORDINATE WITH HVAC FOR DEMOLITION OF EQUIPMENT.
- 3 EQUIPMENT IS FED FROM MOTOR CONTROL CENTER "OP-MCC-001". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- 4 EQUIPMENT IS FED FROM MOTOR CONTROL CENTER "OP-MCC-002A". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- 5 EQUIPMENT IS FED FROM PANELBOARD "O-H-1" IN MOTOR CONTROL CENTER "OP-MCC-002A". REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
- 6 EXISTING CONDUIT/WIRE IS ROUTED BELOW STRUCTURAL CEILING BUT ABOVE FINISHED HARD LID CEILING.
- 7 WHERE ABANDONED CONDUIT IS EMBEDDED IN CONCRETE STRUCTURE, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50 YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE.
- 8 EXISTING CHLORINE ALARM PANEL IS ADJACENT TO TWO (2) CHLORINE EVAPORATOR ALARM ANNUNCIATOR PANELS. CONFIRM ALL THREE (3) ALARM PANELS HAVE BEEN ABANDONED IN PLACE WITH OWNER PRIOR TO DEMOLITION ACTIVITIES. DISCONNECT AND REMOVE ALL CABLE/WIRE, EXPOSED CONDUIT, SUPPORTS, ETC. ASSOCIATED WITH THE ALARM PANELS IN THEIR ENTIRETY.
- 9 EXISTING CONDUIT ROUTED FROM AIR HANDLING UNIT "O-AHU-1" CONTROL PANEL TO THE ORIGINAL THERMOSTAT HAS BEEN MODIFIED TO INCLUDE COPPER ETHERNET CABLES FOR A DATA OUTLET. DISCONNECT AND REMOVE THERMOSTAT AND ASSOCIATED CABLE/WIRE IN ITS ENTIRETY. PRIOR TO COMMENCING DEMOLITION ACTIVITIES, CONFIRM THE NECESSITY OF THE EXISTING DATA OUTLET WITH OWNER. SHOULD THE EXISTING DATA OUTLET NEED TO REMAIN, FURNISH AND INSTALL CONDUIT, CONDUIT FITTINGS, PULL BOXES, CONDUIT SUPPORT MATERIAL, ETC. NECESSARY TO PROVIDE A COMPLETE RACEWAY SYSTEM BETWEEN THE EXISTING DATA OUTLET AND THE EXISTING ETHERNET SWITCH LOCATED IN THE CONTROL ROOM ADJACENT TO THE LOCAL CONTROL PANEL "CS01-LCP-01".
- 10 EXISTING 3/4" CONDUIT WAS ASSOCIATED WITH THE ORIGINAL CHLORINE LEAK DETECTION SYSTEM AND HAS BEEN ABANDONED IN PLACE. EXISTING CONDUIT IS EMPTY AND DOES NOT CONNECT TO ANY EXISTING EQUIPMENT. DISCONNECT AND REMOVE ABANDONED CONDUIT AND SUPPORT MATERIAL IN ITS ENTIRETY.
- 11 EXISTING 6"H X 6"W X 4"D JUNCTION BOX. JUNCTION BOXES IN THIS LOCATION ARE LOCATED DIRECTLY ABOVE ONE ANOTHER, BUT ARE SHOWN ADJACENT TO ONE ANOTHER FOR CLARITY.

REVISION DESCRIPTION	DATE	REV. BY

CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED FLOOR/ROOF PLAN - DEMOLITION



KEY NOTES (CONTINUED):

- 12 FIELD VERIFY THE PURPOSE OF THE TWO (2) CONTROL RELAYS LOCATED ABOVE THE EXISTING JUNCTION BOX. SHOULD THE CONTROL RELAYS BE ASSOCIATED WITH HVAC EQUIPMENT SHOULD TO BE DEMOLISHED, THEN DISCONNECT AND REMOVE CONTROL RELAYS IN THEIR ENTIRETY.
- 13 EXISTING VENTILATION FAN "O-F-15" SERVES THE REST ROOM BELOW. EXISTING VENTILATION FAN SHALL REMAIN. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT DAMAGE TO EXISTING CABLE/WIRES THAT ARE TO REMAIN IN SERVICE. SHOULD SUCH WIRING SUSTAIN DAMAGE, CONTRACTOR SHALL REPLACE DAMAGED WIRING IN ITS ENTIRETY (WITHOUT SPLICES) AT NO ADDITIONAL COST TO THE OWNER.

KEY NOTES (CONTINUED):

- 14 CONDUIT TURNS DOWN AND CONTINUES TO PULL BOX AND WINDOW AIR CONDITIONING UNIT RECEPTACLE. REFER TO CONTROL ROOM FLOOR PLAN FOR CONTINUATION.
- 15 EQUIPMENT IS FED FROM PANELBOARD "CS01-LP-01" LOCATED IN THE 480V MCC ROOM. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
- 16 EXISTING CONDUIT TURNS DOWN AND PENETRATES STRUCTURAL CEILING AND CONTINUES INTO THE TOP OF THE EXISTING EQUIPMENT. LOCATIONS OF CONDUIT PENETRATIONS INTO EXISTING EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES.

KEY NOTES (CONTINUED):

- 17 CONDUIT TAGGED "CSB-AHU1-P".
- 18 CONDUIT TAGGED "CSB-AHU1-C2".
- 19 CONDUIT TAGGED "CSB-HC1-PC".
- 20 CONDUIT TAGGED "CSB-HVAC-PC2".
- 21 CONDUIT TAGGED "CSB-OF1/2/15-PC".
- 22 CONDUIT TAGGED "CSB-OF1/2-C".
- 23 CONDUIT TAGGED "CSB-OF1-P".

KEY NOTES (CONTINUED):

- 24 CONDUIT TAGGED "CSB-OF2-C".
- 25 CONDUIT TAGGED "CSB-OF2-PC".
- 26 CONDUIT TAGGED "CSB-UH1/2-C".
- 27 CONDUIT TAGGED "CSB-UH1/2-PC".

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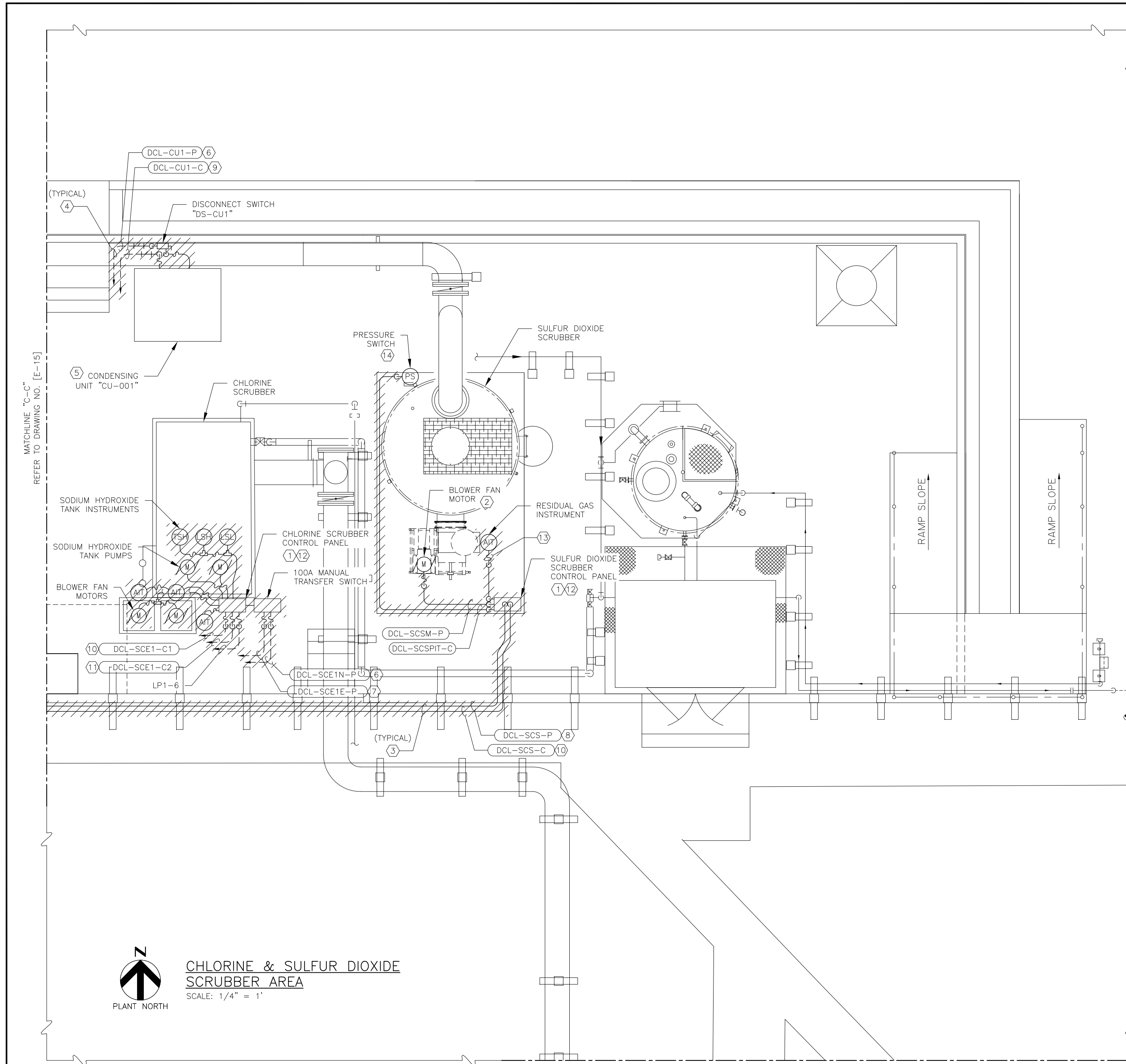


8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
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F-2408

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-13



KEY NOTES:

- ① COORDINATE DEMOLITION OF SCRUBBER UNIT CONTROL PANEL AND FAN/PUMP MOTORS WITH MECHANICAL. NOT ALL CONDUIT/WIRE/DEVICES FOR THE PACKAGED SCRUBBER UNIT ARE SHOWN HERE. DISCONNECT AND REMOVE EXPOSED CONDUIT AND ALL WIRE IN ITS ENTIRETY.
- ② DISCONNECT FAN MOTOR AND REMOVE CONDUIT/WIRE BETWEEN MOTOR AND CONTROL PANEL. FAN MOTOR TO BE RELOCATED DURING RENOVATION ACTIVITIES COORDINATE WITH MECHANICAL. REFER TO CONTROL WIRING SCHEMATICS ON DRAWING NOS. [E-24] AND [E-51] AND RENOVATION PLAN ON DRAWING NO. [E-34] FOR ADDITIONAL INFORMATION.
- ③ DISCONNECT AND REMOVE CABLE/WIRE IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, SUPPORTS, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE.
- ④ WHERE ABANDONED CONDUIT IS EMBEDDED IN CONCRETE STRUCTURE, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50 YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE.
- ⑤ COORDINATE WITH HVAC FOR DEMOLITION OF EQUIPMENT.
- ⑥ CONDUIT/WIRE CONTINUES TO MOTOR CONTROL CENTER "DS01-MCC-01". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑦ CONDUIT/WIRE CONTINUES TO MOTOR CONTROL CENTER "DS01-MCC-02". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑧ CONDUIT CONTINUES TO PANELBOARD "HB". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑨ CONDUIT/WIRE CONTINUES TO JUNCTION BOX "DS01-JB-ECP" LOCATED IN THE STORAGE ROOM. REFER TO DRAWING NUMBER [E-15] FOR ADDITIONAL INFORMATION.
- ⑩ CONDUIT/WIRE CONTINUES TO CONTROL PANEL "DS01-LCP-01".
- ⑪ CONDUIT/WIRE CONTINUES TO/FROM PULL BOX LOCATED ON THE EXTERIOR OF THE NORTH WALL OF THE CHLORINE STORAGE BUILDING ADJACENT TO THE ENTRY DOOR. CONDUIT/WIRE PENETRATES THE CHLORINE STORAGE BUILDING AND CONTINUES TO/FROM CONTROL PANEL "CS01-LCP-01" LOCATED IN THE CONTROL ROOM OF THE CHLORINE STORAGE BUILDING. REFER TO DRAWING NO. [E-11] FOR CONTINUATION AND ADDITIONAL INFORMATION.
- ⑫ CONTRACTOR SHALL FIELD VERIFY I/O POINTS ASSOCIATED WITH EXISTING SCRUBBER CONTROL PANEL PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS AND ASSOCIATED EQUIPMENT CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO AID IN COORDINATING THE PROPOSED WIRING CONNECTIONS TO THE EXISTING PLC AND MAKE ALL FINAL CONNECTIONS.
- ⑬ CONDUIT TAGGED "DCL-SCSAIT-C".
- ⑭ EXISTING PRESSURE SWITCH TO BE RE-USED DURING RENOVATION ACTIVITIES. REFER TO CONTROL WIRING SCHEMATICS ON DRAWING NOS. [E-24] AND [E-51] AND RENOVATION PLAN ON DRAWING NO. [E-34] FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT, WIRING, CONDUITS, ETC., SHOWN ON THIS DRAWING ARE EXISTING UNLESS NOTED OTHERWISE.
2. THE INFORMATION CONTAINED ON THIS DRAWING WAS OBTAINED FROM INFORMATION AND DRAWINGS THAT WERE PROVIDED BY THE CITY OF AUSTIN. THIS INFORMATION HAS NOT BEEN FIELD VERIFIED.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

DECHLORINATION BUILDING
 FLOOR PLAN - DEMOLITION (SHEET 1 OF 2)

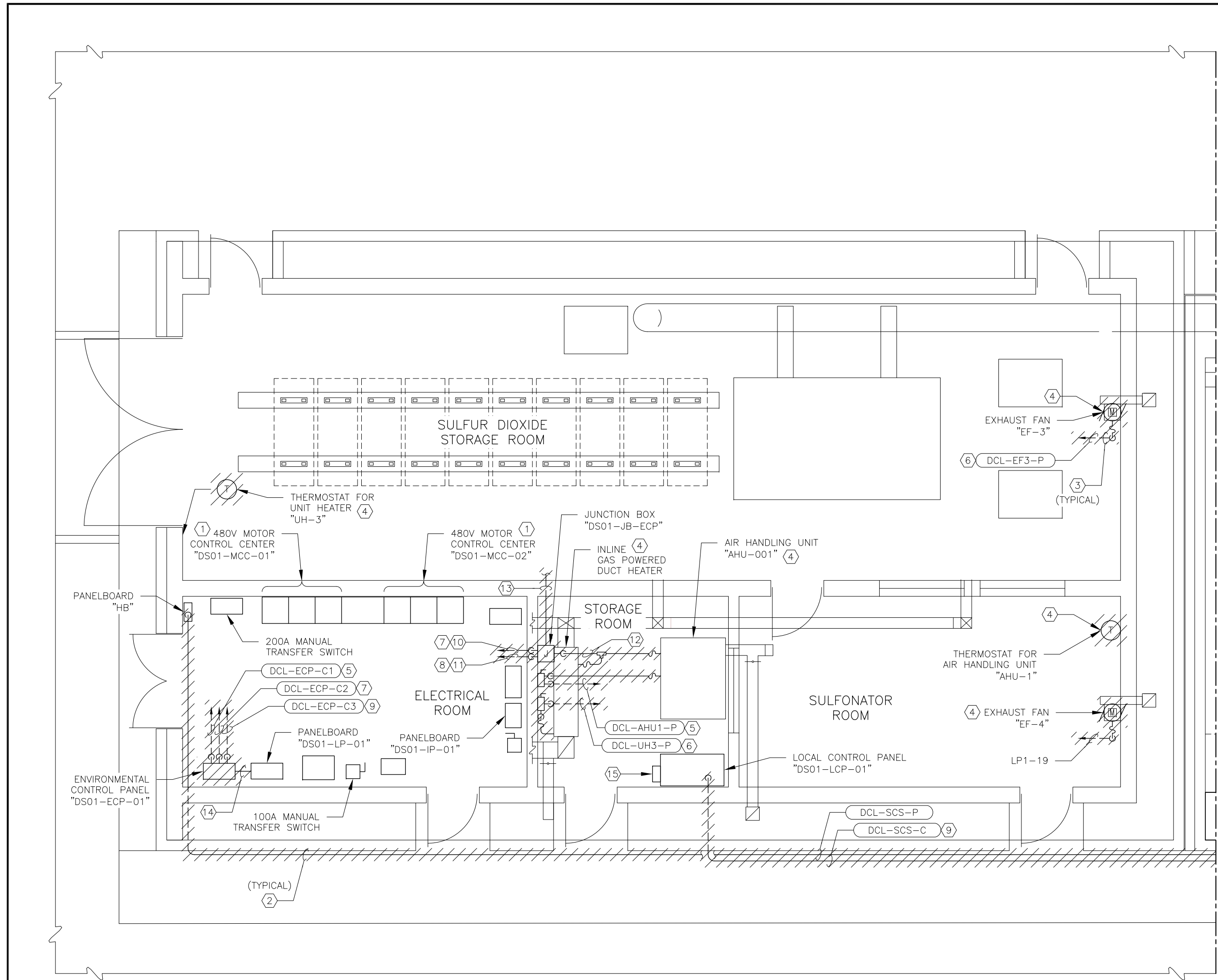


CHLORINE & SULFUR DIOXIDE SCRUBBER AREA
 SCALE: 1/4" = 1'

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

HARUTUNIAN ENGINEERING INCORPORATED
 8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM F-2408

SHEET NUMBER	E-14
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KEY NOTES:

- ① REFER TO ONE-LINE DIAGRAMS AND ELEVATIONS FOR DEMOLITION DETAILS FOR MOTOR CONTROL CENTERS "DS01-MCC-01" AND "DS01-MCC-02".
- ② DISCONNECT AND REMOVE CABLE/WIRE IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, SUPPORTS, ETC. IN THEIR ENTIRETY. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE.
- ③ WHERE ABANDONED CONDUIT IS EMBEDDED IN CONCRETE STRUCTURE, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50 YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE.
- ④ COORDINATE WITH HVAC FOR DEMOLITION OF EQUIPMENT.
- ⑤ CONDUIT/WIRE CONTINUES TO MOTOR CONTROL CENTER "DS01-MCC-01". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑥ CONDUIT/WIRE CONTINUES TO MOTOR CONTROL CENTER "DS01-MCC-02". REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑦ CONDUIT/WIRE ROUTED BETWEEN ENVIRONMENTAL CONTROL PANEL "DS01-CP-01" LOCATED IN THE ELECTRICAL ROOM AND JUNCTION BOX "DS01-JB-ECP" LOCATED IN THE STORAGE ROOM.
- ⑧ CONDUIT/WIRE CONTINUES TO/FROM CONDENSING UNIT "CU-001" LOCATED BEHIND THE EXISTING CHLORINE SCRUBBER. REFER TO DRAWING NUMBER [E-14] FOR ADDITIONAL INFORMATION.
- ⑨ CONDUIT/WIRE CONTINUES TO CONTROL PANEL "DS01-LCP-01".
- ⑩ CONDUIT TAGGED "DCL-ECP-C2".
- ⑪ CONDUIT TAGGED "DCL-CU1-C".
- ⑫ CONDUIT TAGGED "DCL-ECP-C4".
- ⑬ CONDUIT TAGGED "DCL-ECP-C5". CONTRACTOR SHALL FIELD VERIFY THE ROUTE AND FUNCTION OF CONTROL CONDUIT/WIRE INDICATED. SHOULD THE CONTROL CONDUIT/WIRE BE ASSOCIATED WITH HVAC EQUIPMENT SHOWN TO BE DEMOLISHED, THEN DISCONNECT AND REMOVE CONTROL CONDUIT/WIRE IN ITS ENTIRETY.
- ⑭ CONDUIT TAGGED "LP1-8,19".
- ⑮ EQUIPMENT TAGGED "GAS DETECTION ANALYZER INDICATING CONTROLLER "DS01-AIC-GDS""

GENERAL NOTES:

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CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

DECHLORINATION BUILDING
FLOOR PLAN - DEMOLITION (SHEET 2 OF 2)



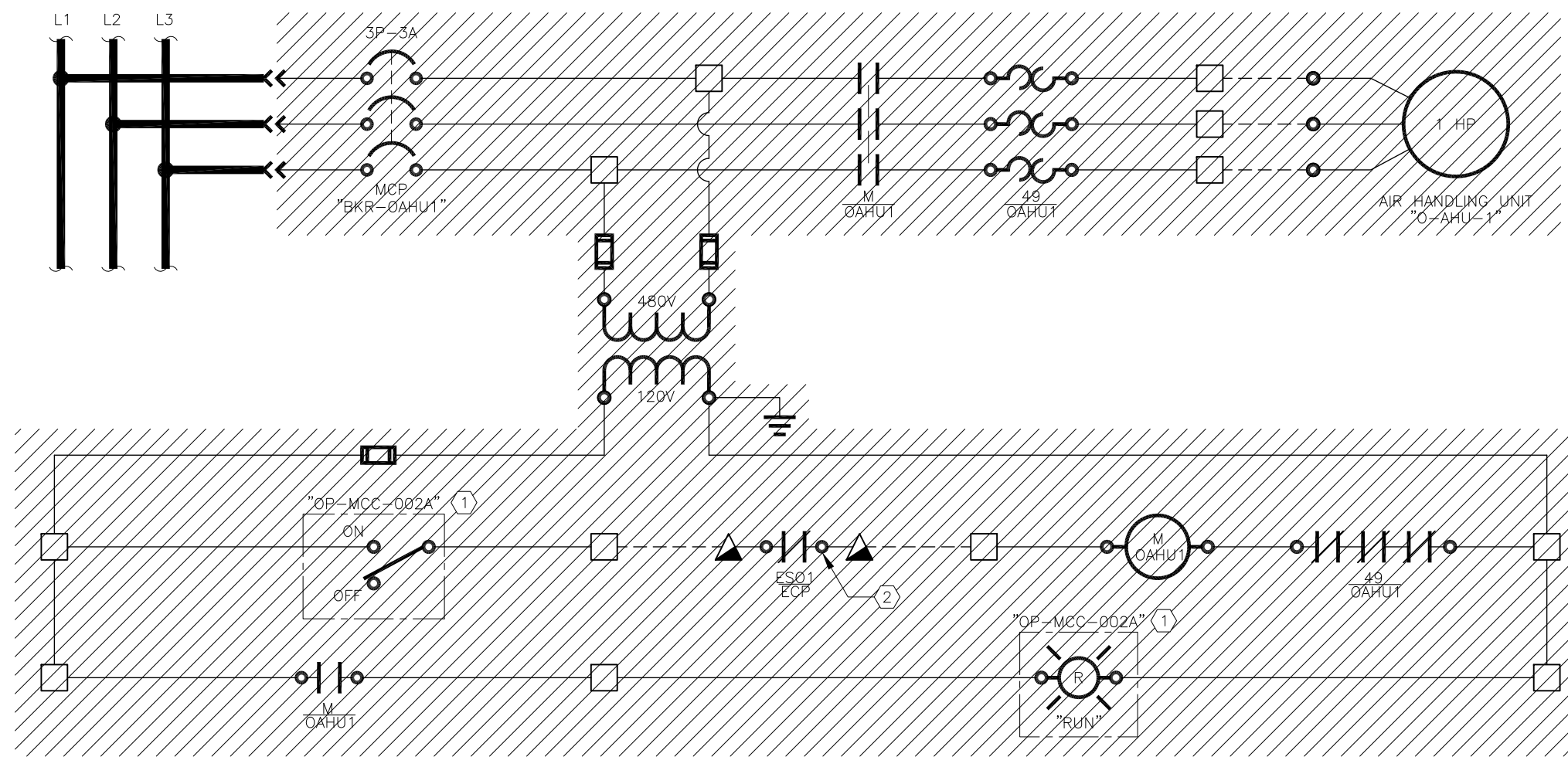
DECHLORINATION BUILDING
 SCALE: 1/4" = 1'

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

HARUTUNIAN ENGINEERING INCORPORATED
 8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

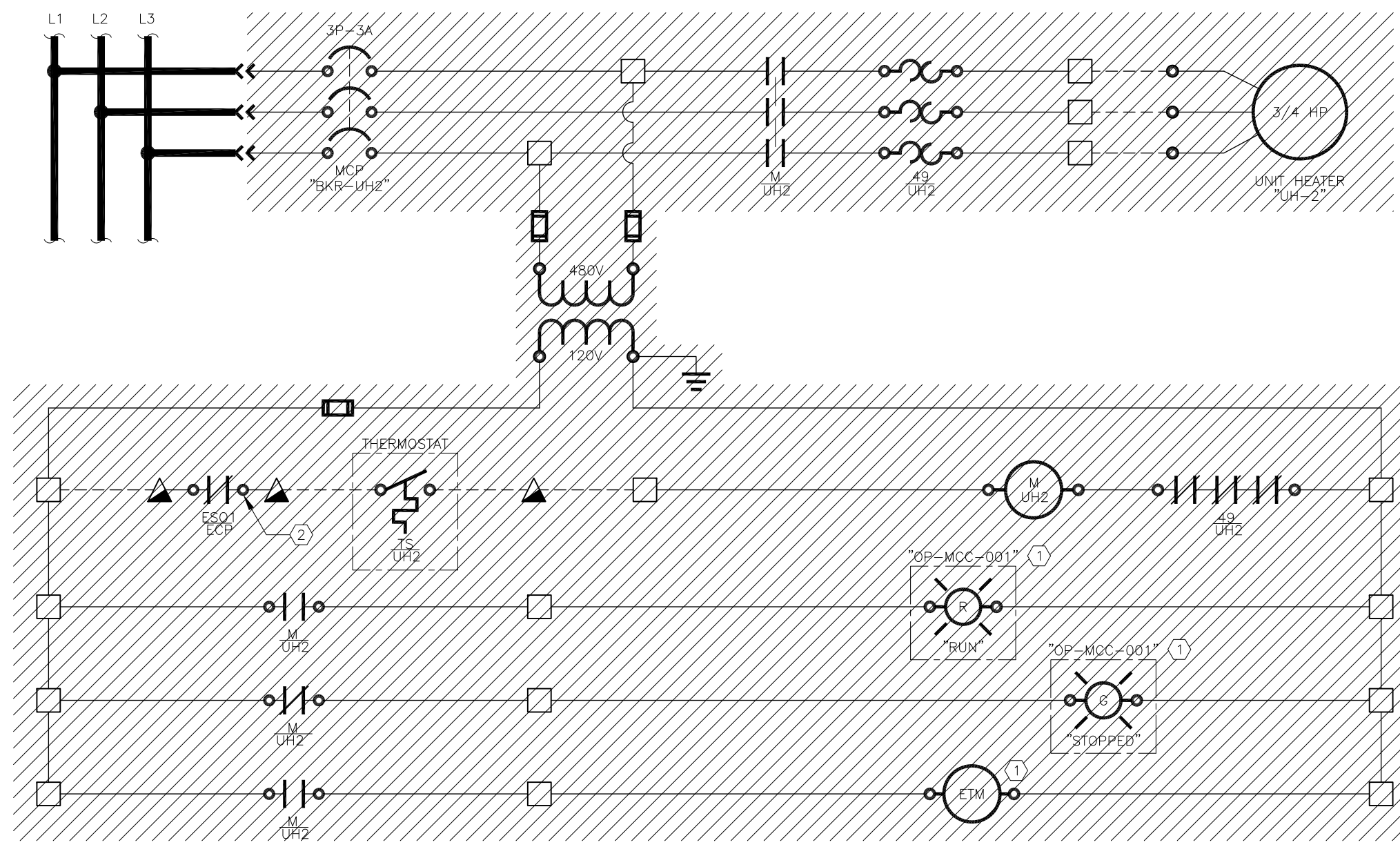
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CADD REF. NO.:	N/A
CADD DIR.:	100057315
SHEET NUMBER	E-15

480V MOTOR CONTROL CENTER
"OP-MCC-002A"
480V, 3Ø, 3W



AIR HANDLING UNIT "O-AHU-1" ① ③
SCALE: N.T.S.

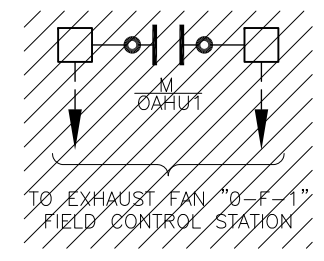
480V MOTOR CONTROL CENTER
"OP-MCC-001"
480V, 3Ø, 3W



UNIT HEATER "UH-2" ② ③
SCALE: N.T.S.

KEY NOTES:

- ① DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- ② EMERGENCY SHUT-OFF CONTACT LOCATED IN CHLORINE LEAK DETECTION & ALARM CONTROL LOGIC ON DRAWING NO. [E-19].
- ③ DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY.



REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

AIR HANDLING UNIT "OAHU-1" & UNIT HEATER "UH-2"
CONTROL WIRING SCHEMATICS - DEMOLITION

ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-8840
TBP# REG. NO. F-474

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NOTES	NAME	DATE
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

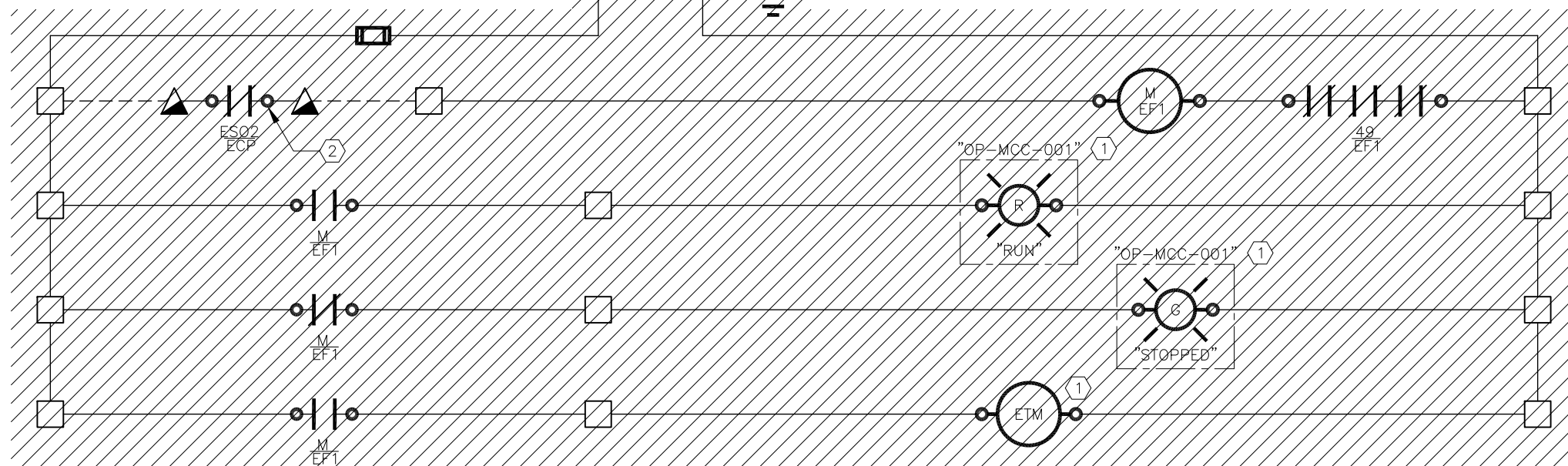
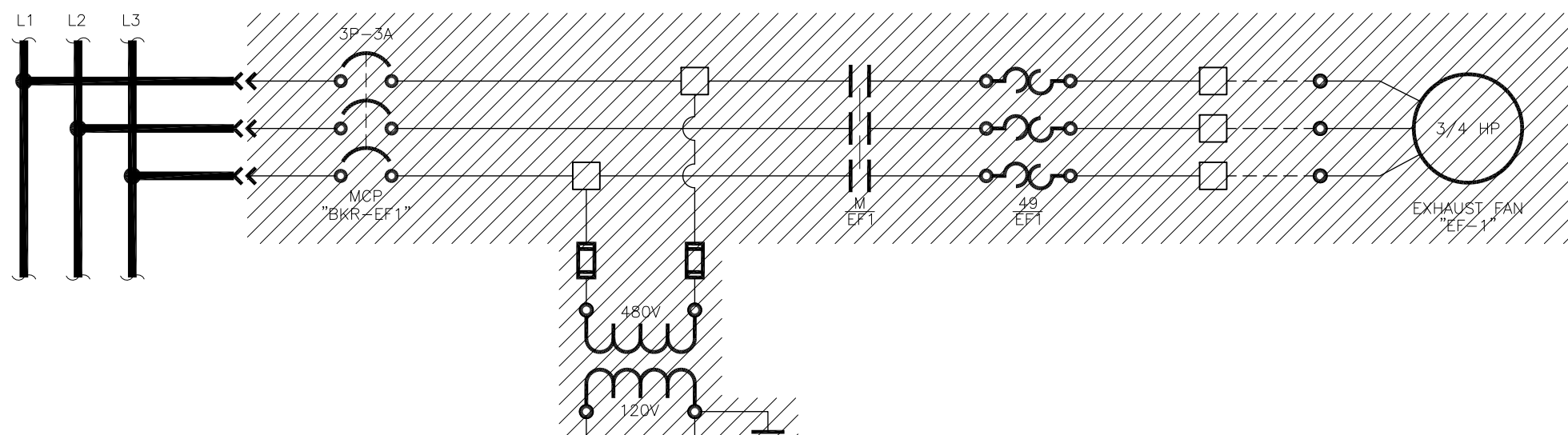


8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

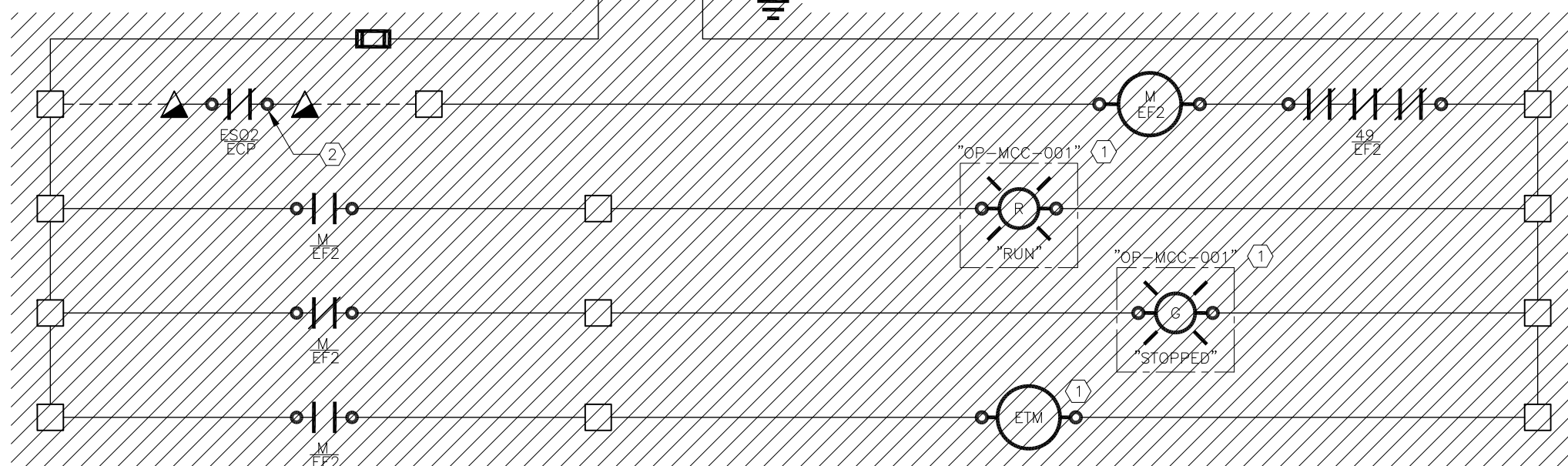
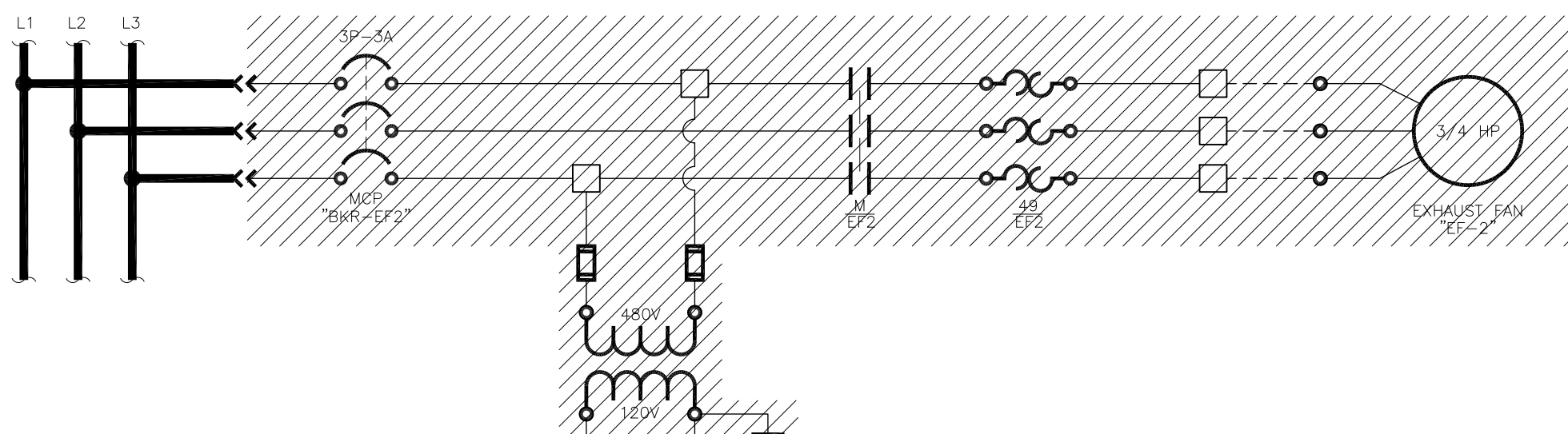
SHEET NUMBER E-16

480V MOTOR CONTROL CENTER
"OP-MCC-001"
480V, 3 ϕ , 3W



EXHAUST FAN "EF-1" (1) (3)
SCALE: N.T.S.

480V MOTOR CONTROL CENTER
"OP-MCC-001"
480V, 3 ϕ , 3W



EXHAUST FAN "EF-2" (2) (3)
SCALE: N.T.S.

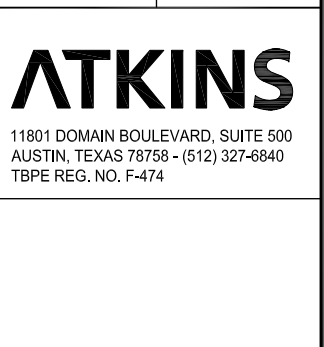
KEY NOTES:

- (1) DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- (2) EMERGENCY SHUT-OFF CONTACT LOCATED IN CHLORINE LEAK DETECTION & ALARM CONTROL LOGIC ON DRAWING NO. [E-19].
- (3) DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY.

REVISION	DESCRIPTION	DATE



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
EXHAUST FAN "EF-1" & "EF-2"
CONTROL WIRING SCHEMATIC - DEMOLITION

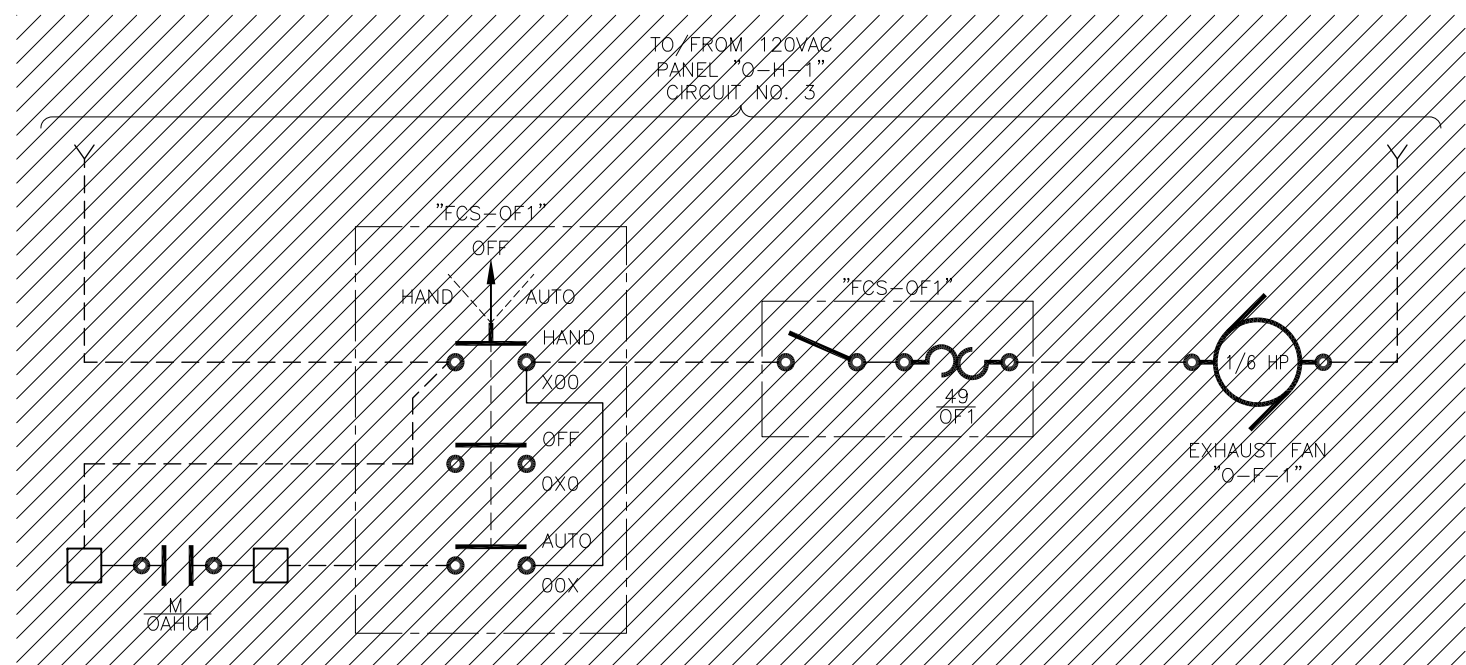


NOTES	NAME	DATE
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

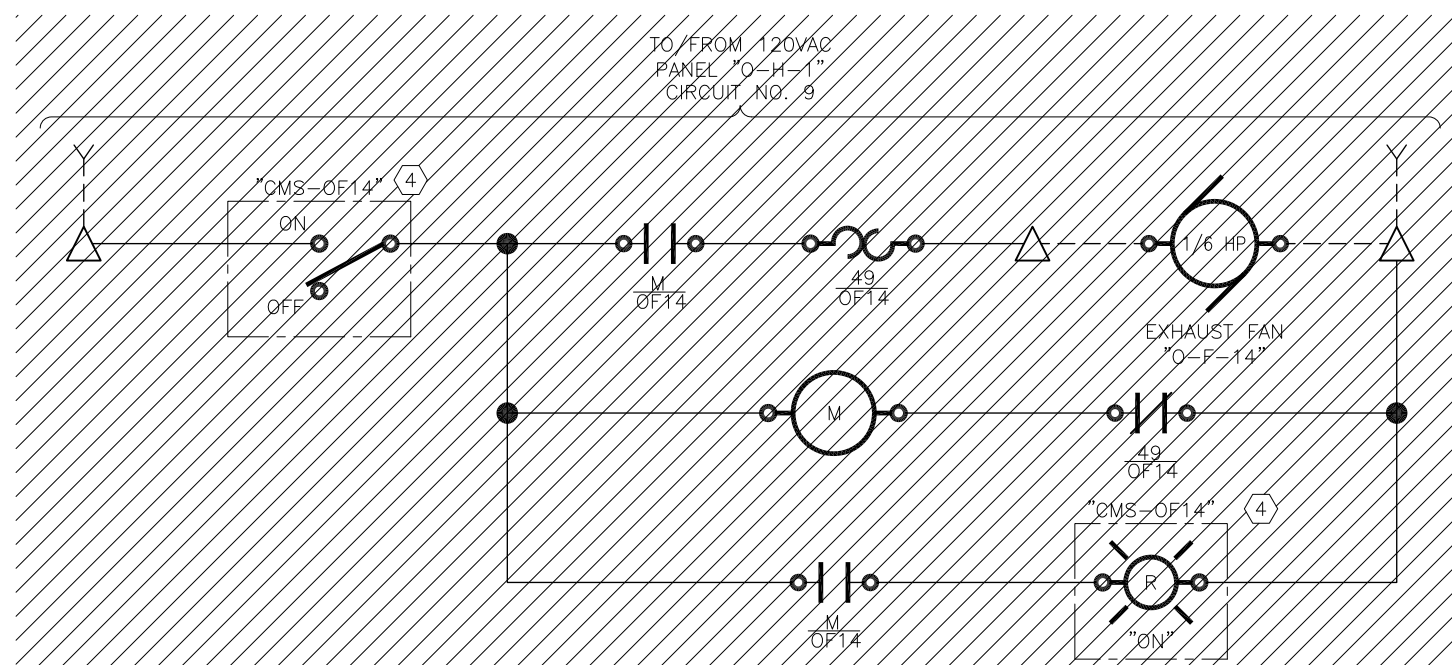
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CADD DIR.: 100057315

8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

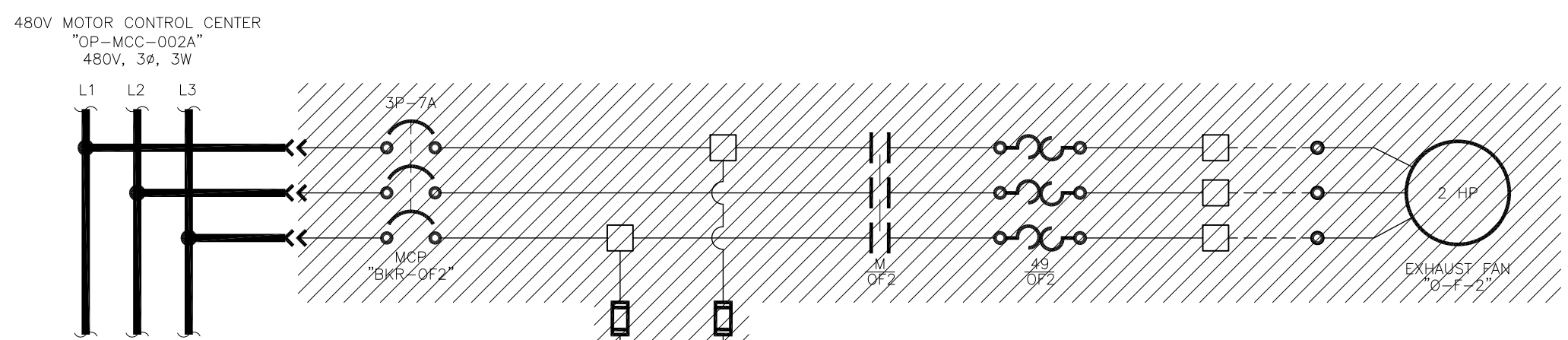
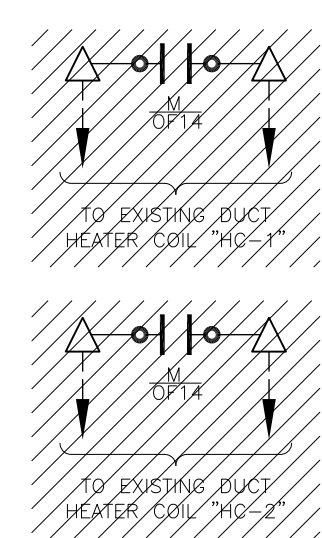
SHEET NUMBER E-17



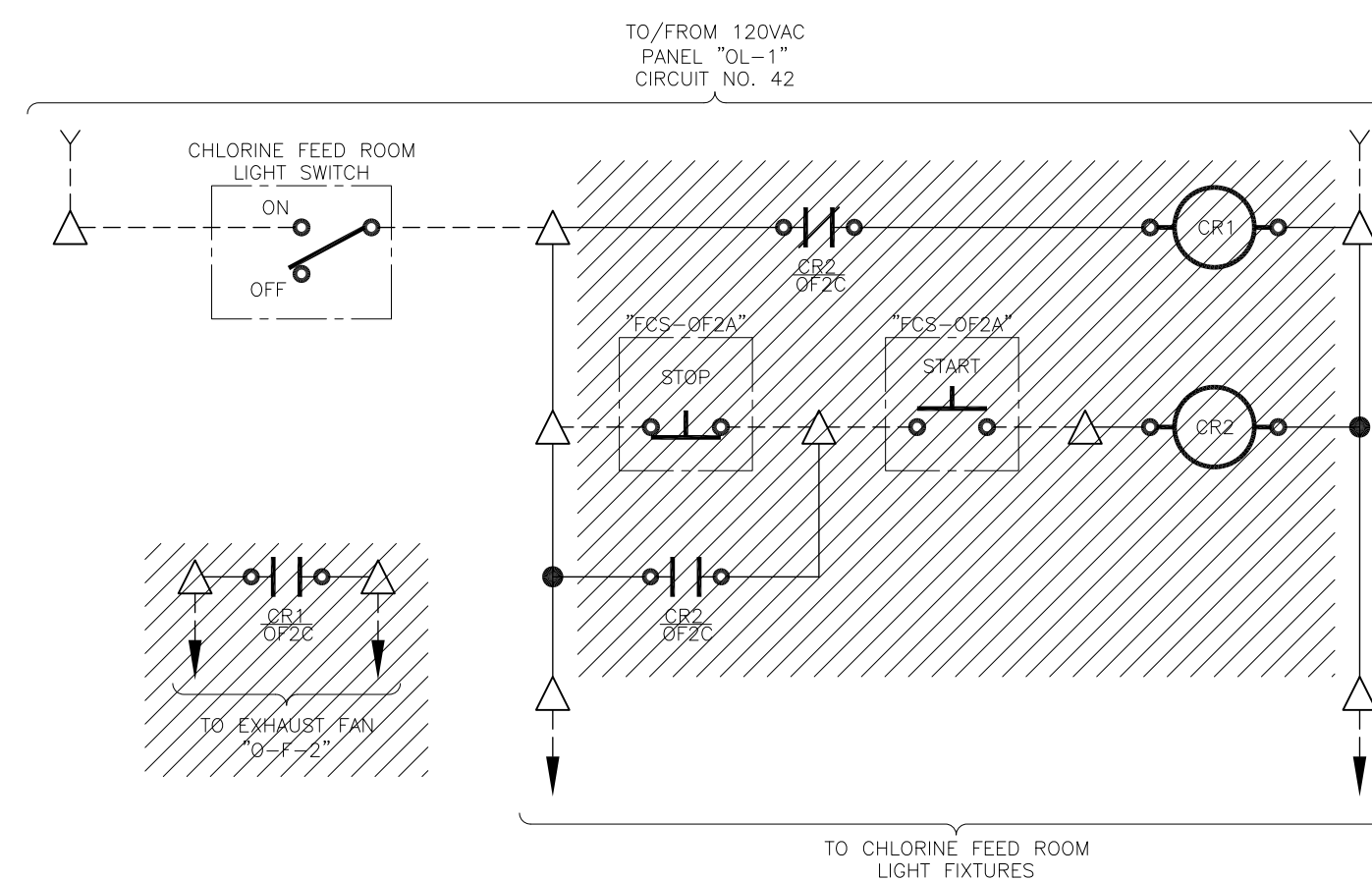
EXHAUST FAN "O-F-1" (1) (3)
SCALE: N.T.S.



SUPPLY FAN "O-F-14" (2) (3)
SCALE: N.T.S.



EXHAUST FAN "O-F-2" (3) (3)
SCALE: N.T.S.



EXHAUST FAN "O-F-2" CONTACTOR (4) (5)
SCALE: N.T.S.

KEY NOTES:

- (1) DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- (2) EMERGENCY SHUT-OFF CONTACT LOCATED IN CHLORINE LEAK DETECTION & ALARM CONTROL LOGIC ON DRAWING NO. [E-19].
- (3) DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY.
- (4) DEVICE MOUNTED ON FRONT OF COMBINATION MOTOR STARTER.
- (5) PER RECORD DOCUMENTS, EXISTING EXHAUST FAN "O-F-2" CONTACTOR ACTIVATED THE EXHAUST FAN WHEN THE CHLORINE FEED ROOM LIGHT SWITCH WAS CLOSED. EXHAUST FAN "O-F-2" CONTACTOR IS LOCATED IN THE CHLORINE SUPPLY ROOM OUTSIDE OF THE CHLORINE FEED ROOM. DISCONNECT AND REMOVE THE CONTACTOR AND ASSOCIATED CONTROL COMPONENTS. CONTACTOR SHALL ENSURE THE CHLORINE FEED ROOM LIGHT SWITCHES AND FIXTURES REMAIN OPERATIONAL BEFORE AND AFTER DEMOLITION AND RENOVATION ACTIVITIES.

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8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

REV. NO.	DATE	DESCRIPTION



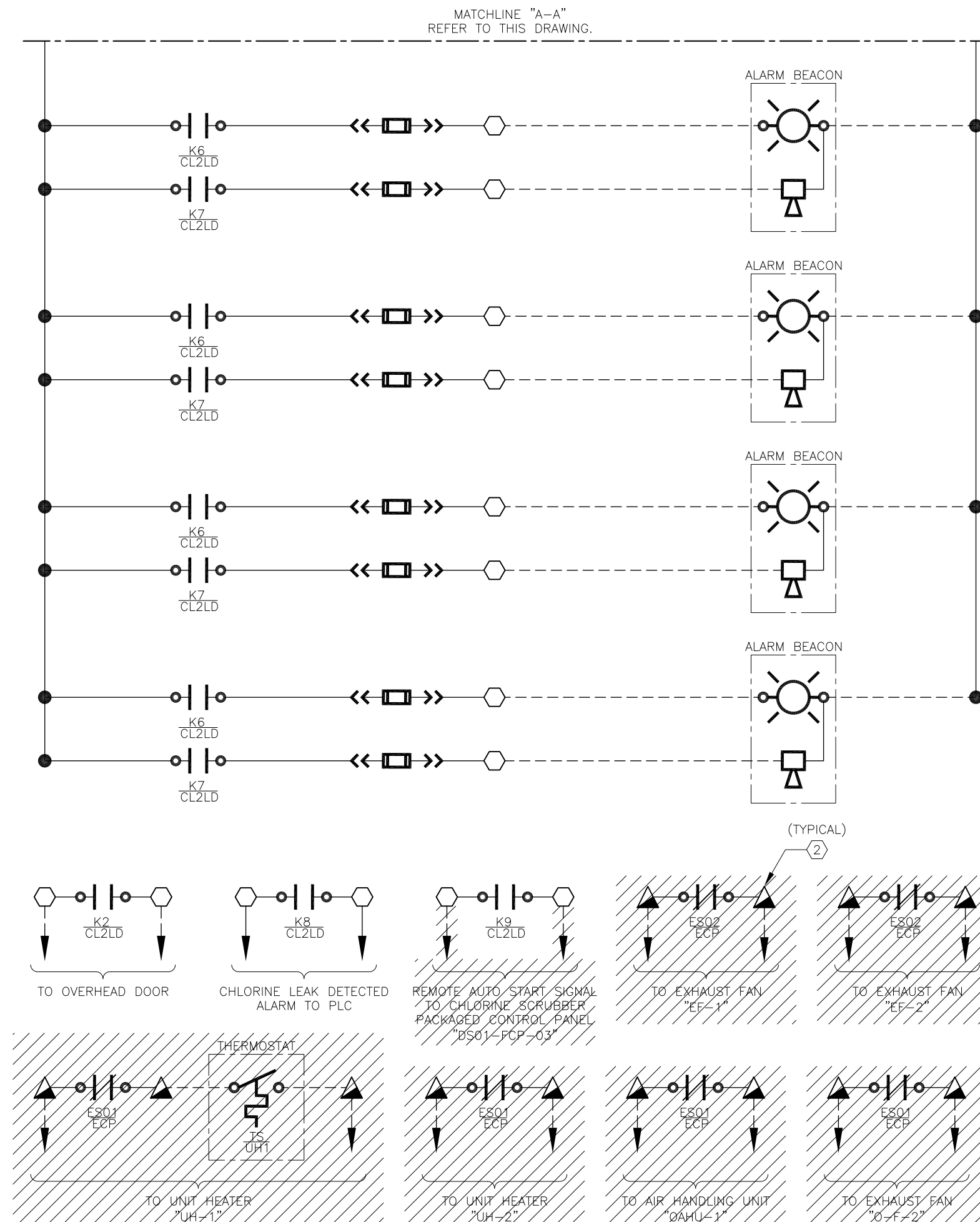
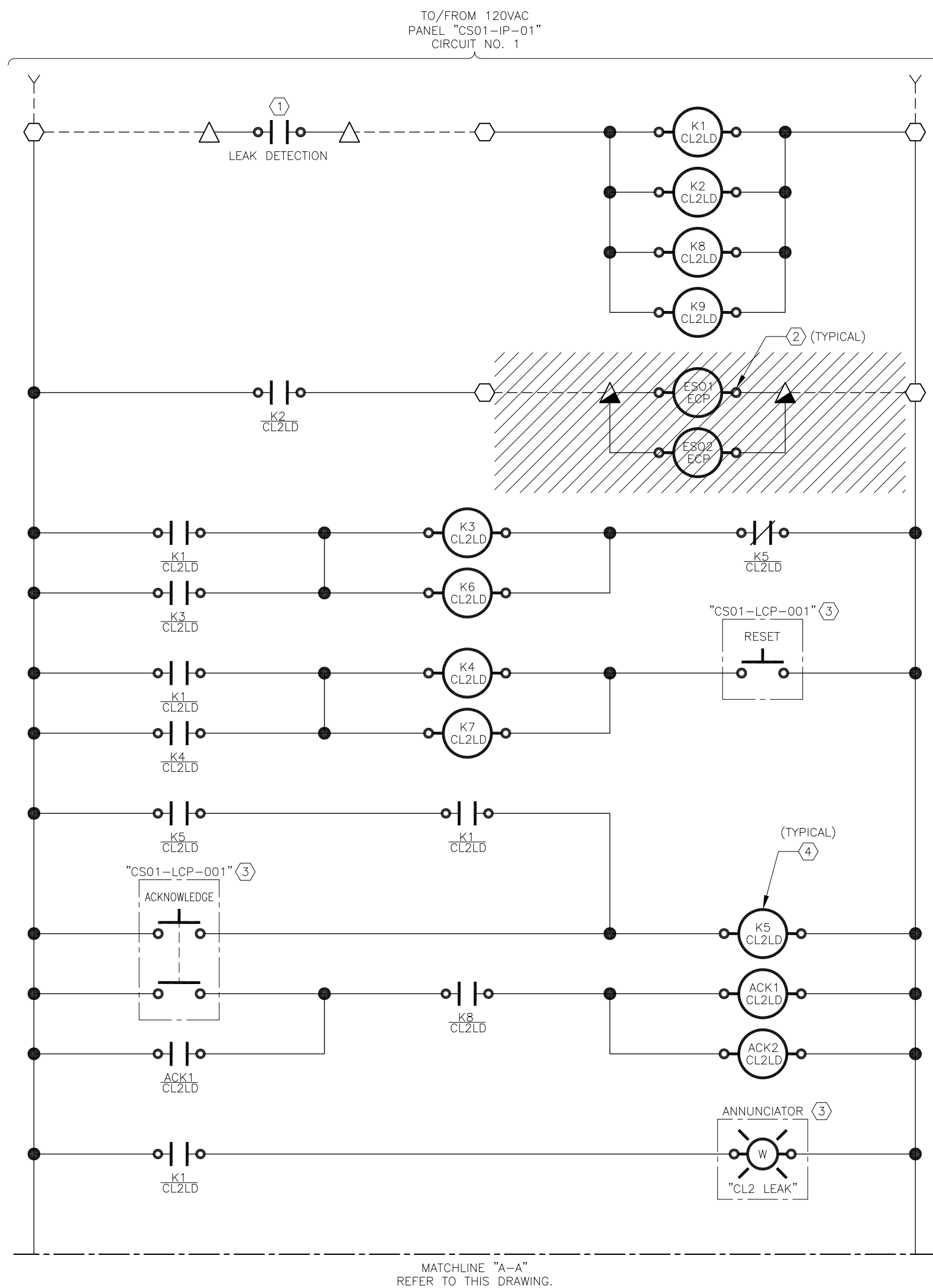
CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
VENTILATION FAN "O-F-1", "O-F-2", & "O-F-14"
CONTROL WIRING SCHEMATIC - DEMOLITION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-18



KEY NOTES:

- ① LEAK DETECTION CONTACT IS INTEGRAL TO CHLORINE GAS DETECTION CONTROLLER "CSB-CP-GDS" LOCATED IN THE CHLORINE STORAGE VESTIBULE.
- ② DISCONNECT AND REMOVE ENVIRONMENTAL CONTROL PANEL "CS01-ECP-01" IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, WIRING DEVICES, SUPPORTS, CABLE/WIRE, ETC. ASSOCIATED WITH THE ENVIRONMENTAL CONTROL PANEL. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE. WHERE ABANDONED IN CONCRETE SLAB, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50-YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURAL FOUNDATION. REFER TO DEMOLITION FLOOR PLANS FOR ADDITIONAL INFORMATION.

KEY NOTES (CONTINUED):

- ③ DEVICE MOUNTED ON FRONT OF LOCAL CONTROL PANEL "CS01-LCP-001".
- ④ EXISTING CONTROL ELEMENTS NOT SHOWN AS "TO BE DEMOLISHED" ARE TO REMAIN AND WILL BE RE-USED DURING RENOVATION ACTIVITIES. TAKE PRECAUTION TO PREVENT DAMAGE TO EXISTING CABLE/WIRES THAT ARE TO REMAIN IN SERVICE. SHOULD SUCH WIRING SUSTAIN DAMAGE, CONTRACTOR SHALL REPLACE DAMAGED WIRING IN ITS ENTIRETY (WITHOUT SPLICES) AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES:

1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

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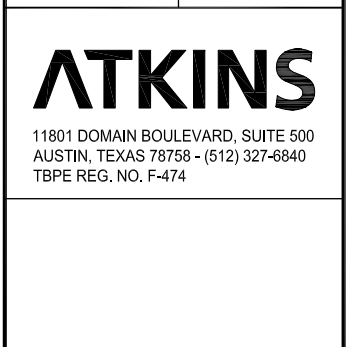
HARUTUNIAN ENGINEERING INCORPORATED

8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

REV. NO.	DATE	DESCRIPTION



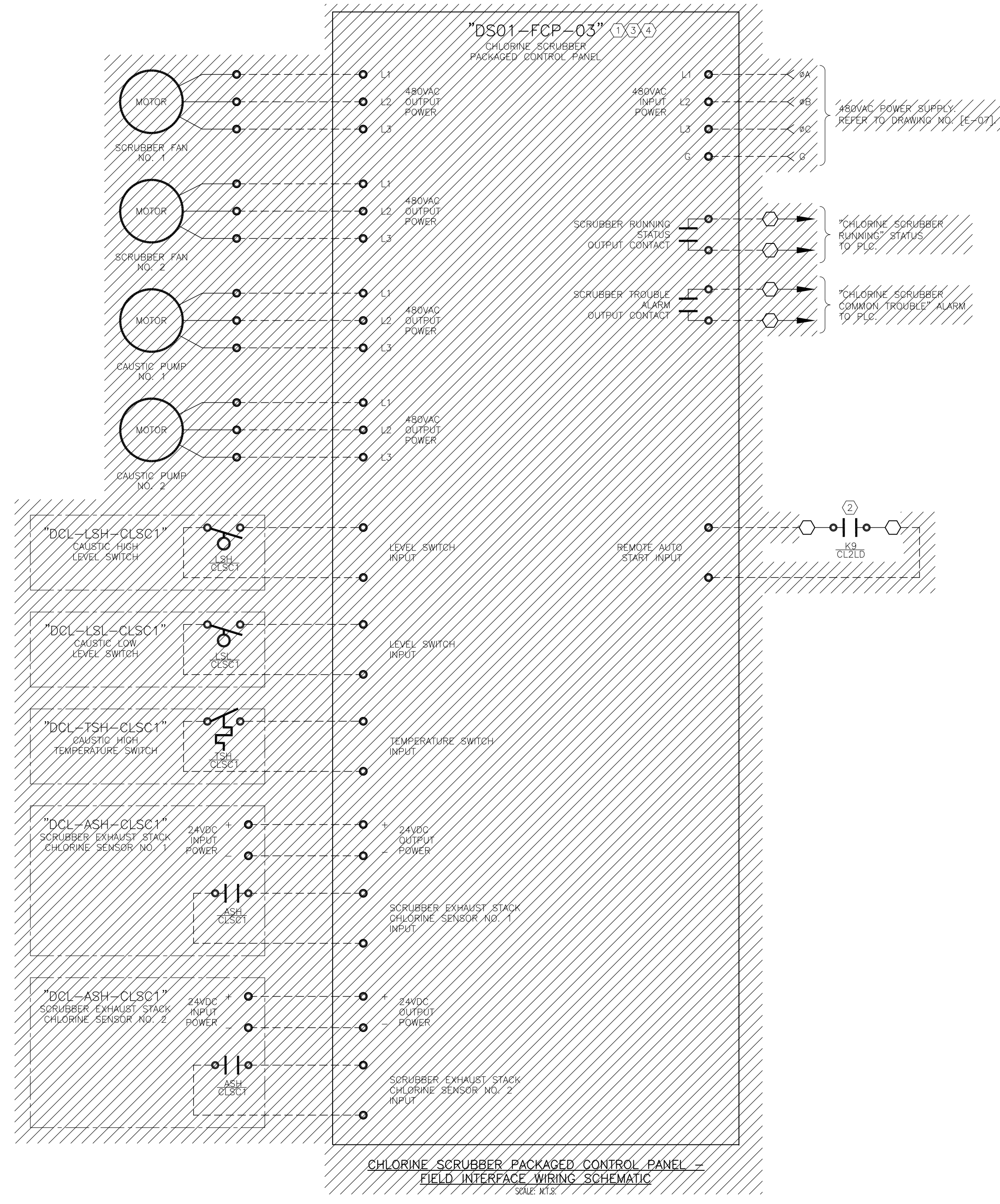
CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
CHLORINE LEAK DETECTION & ALARM
CONTROL WIRING SCHEMATIC - DEMOLITION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-19



KEY NOTES:

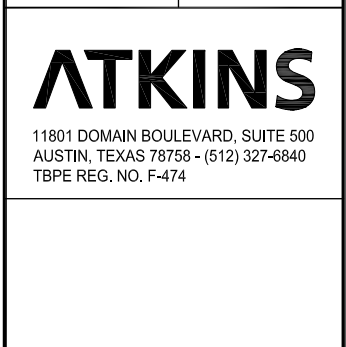
- ① DISCONNECT AND REMOVE EXISTING CHLORINE SCRUBBER PACKAGED CONTROL PANEL AND ALL ASSOCIATED FIELD CONDUIT/WIRE, SUPPORTS, ETC IN THEIR ENTIRETY. COORDINATE DEMOLITION OF CONTROL DEVICES ASSOCIATED WITH THE CAUSTIC STORAGE AND FEED SYSTEMS WITH PROCESS/MECHANICAL.
- ② SCRUBBER SYSTEM REMOTE-AUTO START CONTACT IS PART OF THE EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN LOCAL CONTROL PANEL "CS01-LCP-001". REFER TO DRAWING NO. [E-19] FOR ADDITIONAL INFORMATION.
- ③ CONTRACTOR SHALL FIELD VERIFY I/O POINTS ASSOCIATED WITH EXISTING SCRUBBER CONTROL PANEL PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS AND ASSOCIATED EQUIPMENT CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO AID IN COORDINATING THE PROPOSED WIRING CONNECTIONS TO THE EXISTING PLC AND MAKE ALL FINAL CONNECTIONS.
- ④ THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

CHLORINE SCRUBBER
INTERFACE WIRING SCHEMATIC - DEMOLITION



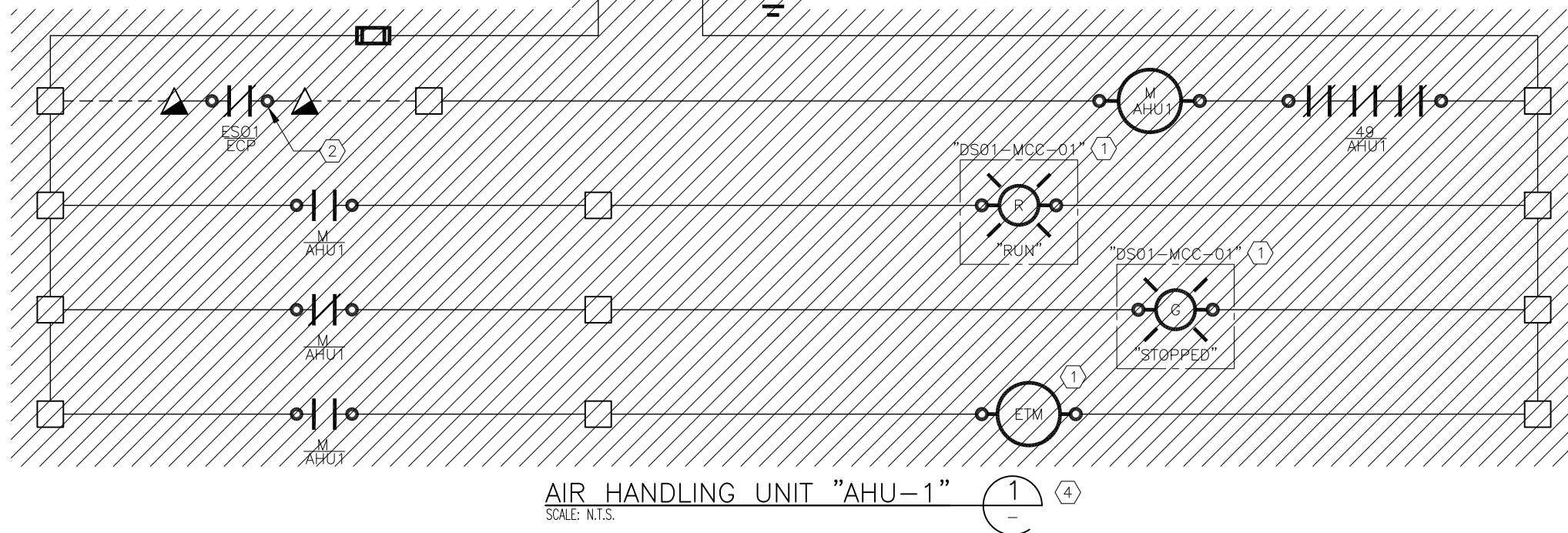
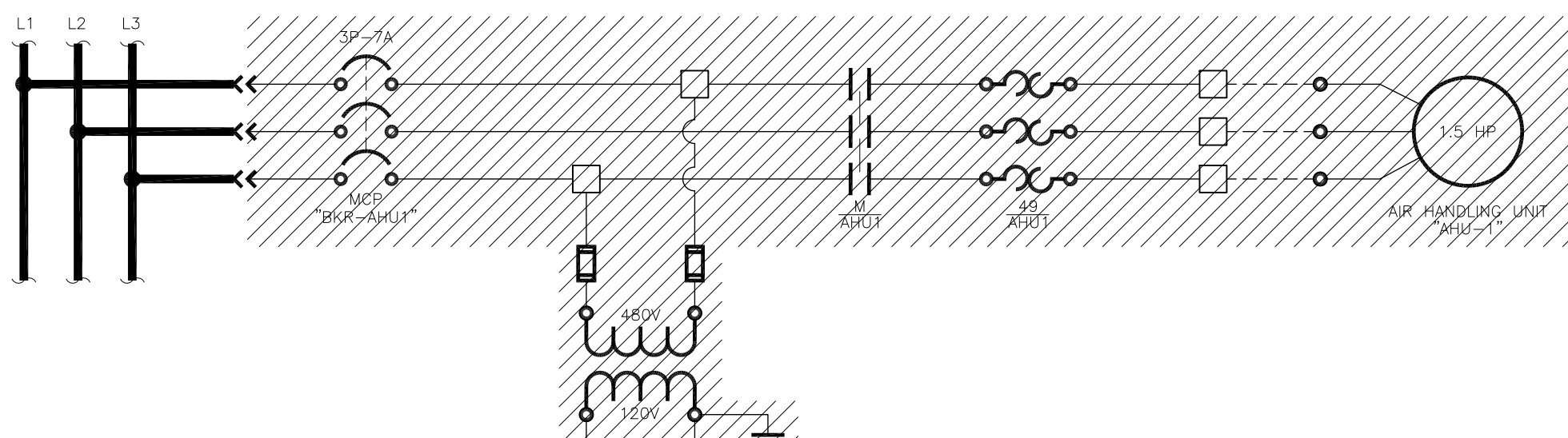
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SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

HARUTUNIAN ENGINEERING INCORPORATED

8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

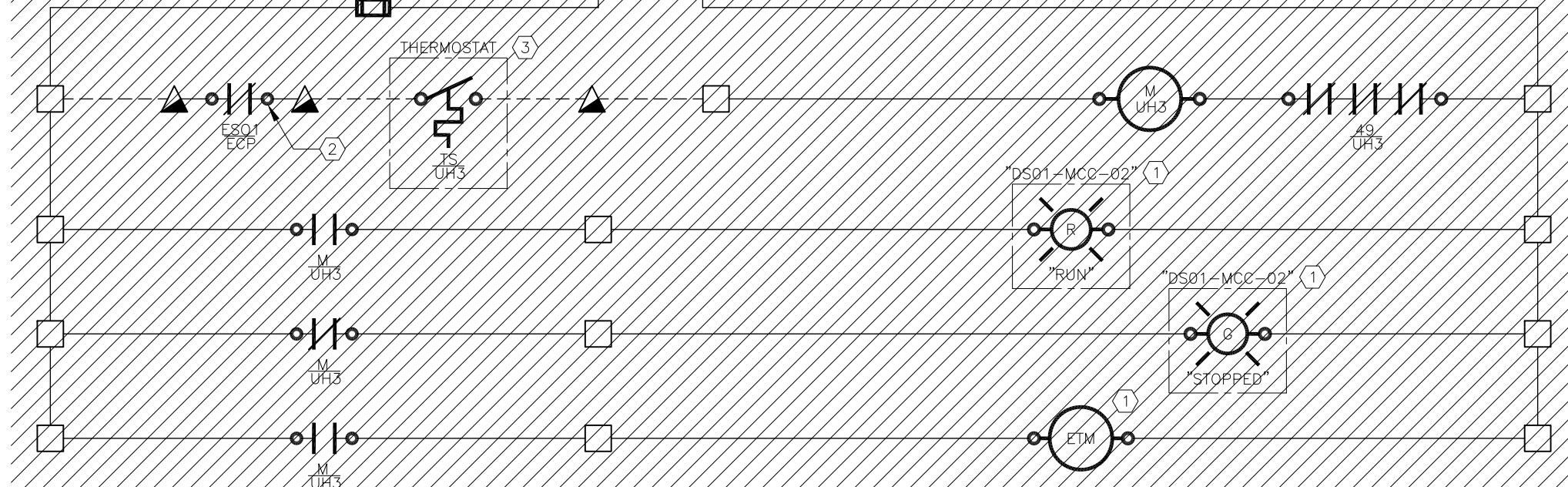
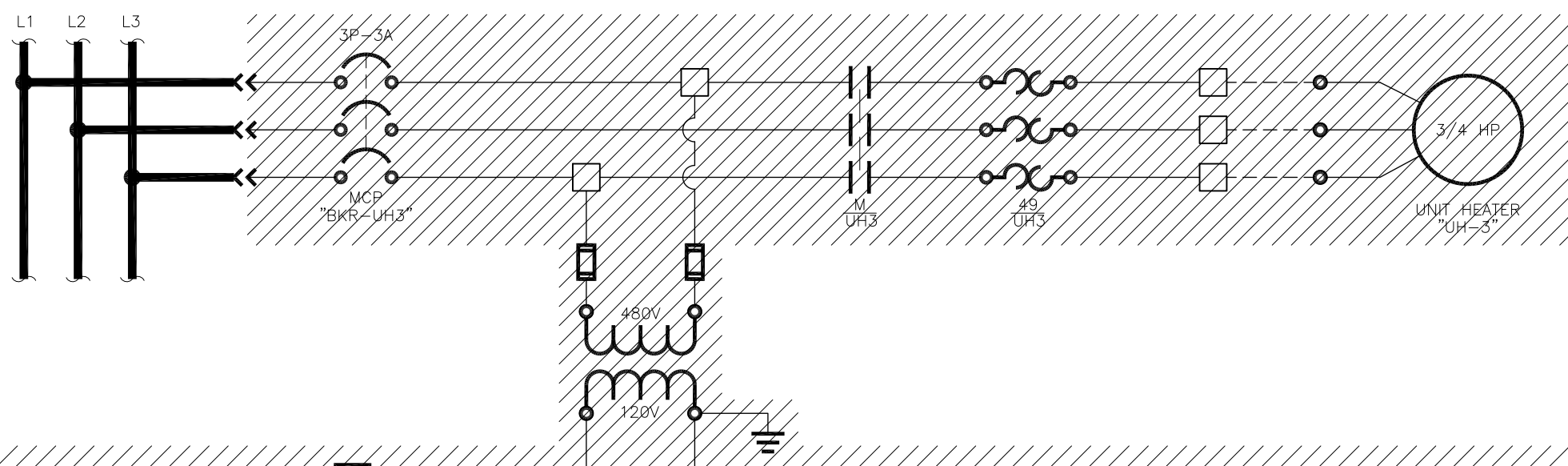
SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315
SHEET NUMBER	E-20

480V MOTOR CONTROL CENTER
"DS01-MCC-01"
480V, 3Ø, 3W



AIR HANDLING UNIT "AHU-1" (1) (4)
SCALE: N.T.S.

480V MOTOR CONTROL CENTER
"DS01-MCC-02"
480V, 3Ø, 3W



UNIT HEATER "UH-3" (2) (4)
SCALE: N.T.S.

KEY NOTES:

- (1) DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- (2) EMERGENCY SHUT-OFF CONTACT LOCATED IN SULPHUR DIOXIDE LEAK DETECTION & ALARM CONTROL LOGIC ON DRAWING NO. [E-23].
- (3) THERMOSTAT IS LOCATED IN THE SOUTHWEST CORNER OF THE SULPHUR DIOXIDE STORAGE ROOM.
- (4) DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY.

REVISION DESCRIPTION

DATE

REV. BY



7/1/2022

CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
AIR HANDLING UNIT "AHU-1" & UNIT HEATER "UH-3"
CONTROL WIRING SCHEMATIC - DEMOLITION

ATKINS
11801 DOMAIN BOULEVARD, SUITE 500
AUSTIN, TEXAS 78758 - (512) 327-6840
T&PE REG. NO. F-474

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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

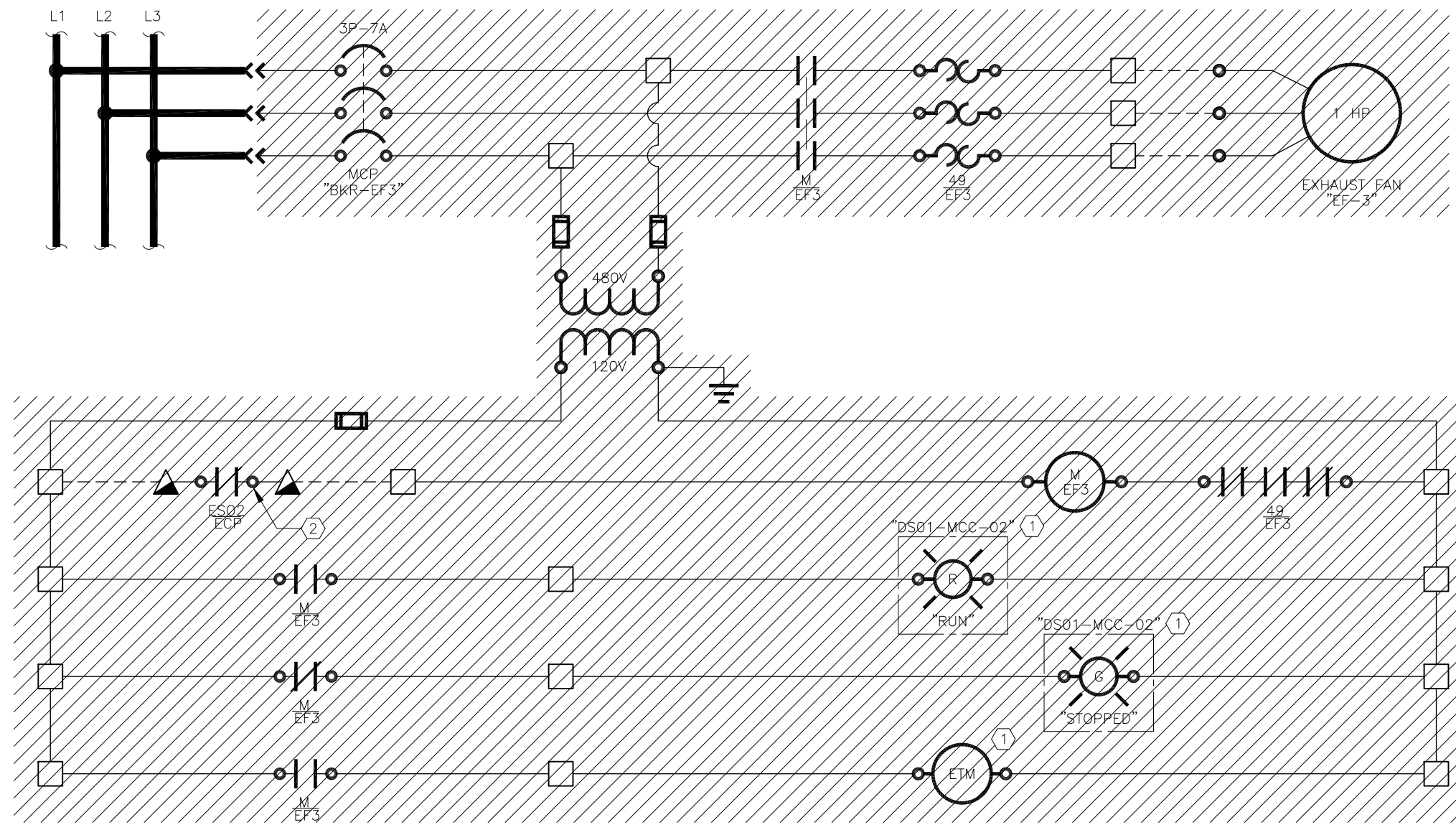


8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-21

480V MOTOR CONTROL CENTER
 "DS01-MCC-02"
 480V, 3Ø, 3W



EXHAUST FAN "EF-3" ① ③
 SCALE: N.T.S.

KEY NOTES:

- ① DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- ② EMERGENCY SHUT-OFF CONTACT LOCATED IN SULFUR DIOXIDE LEAK DETECTION & ALARM CONTROL LOGIC ON DRAWING NO. [E-23].
- ③ DISCONNECT AND REMOVE ALL POWER AND CONTROL COMPONENTS, POWER AND CONTROL WIRING, AND ALL ASSOCIATED EXPOSED CONDUITS/RACEWAYS AND RELATED SUPPORTS ASSOCIATED WITH HVAC EQUIPMENT IN THEIR ENTIRETY.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 EXHAUST FAN "EF-3"
 CONTROL WIRING SCHEMATIC - DEMOLITION

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-6840
 TBP REG. NO. F-474

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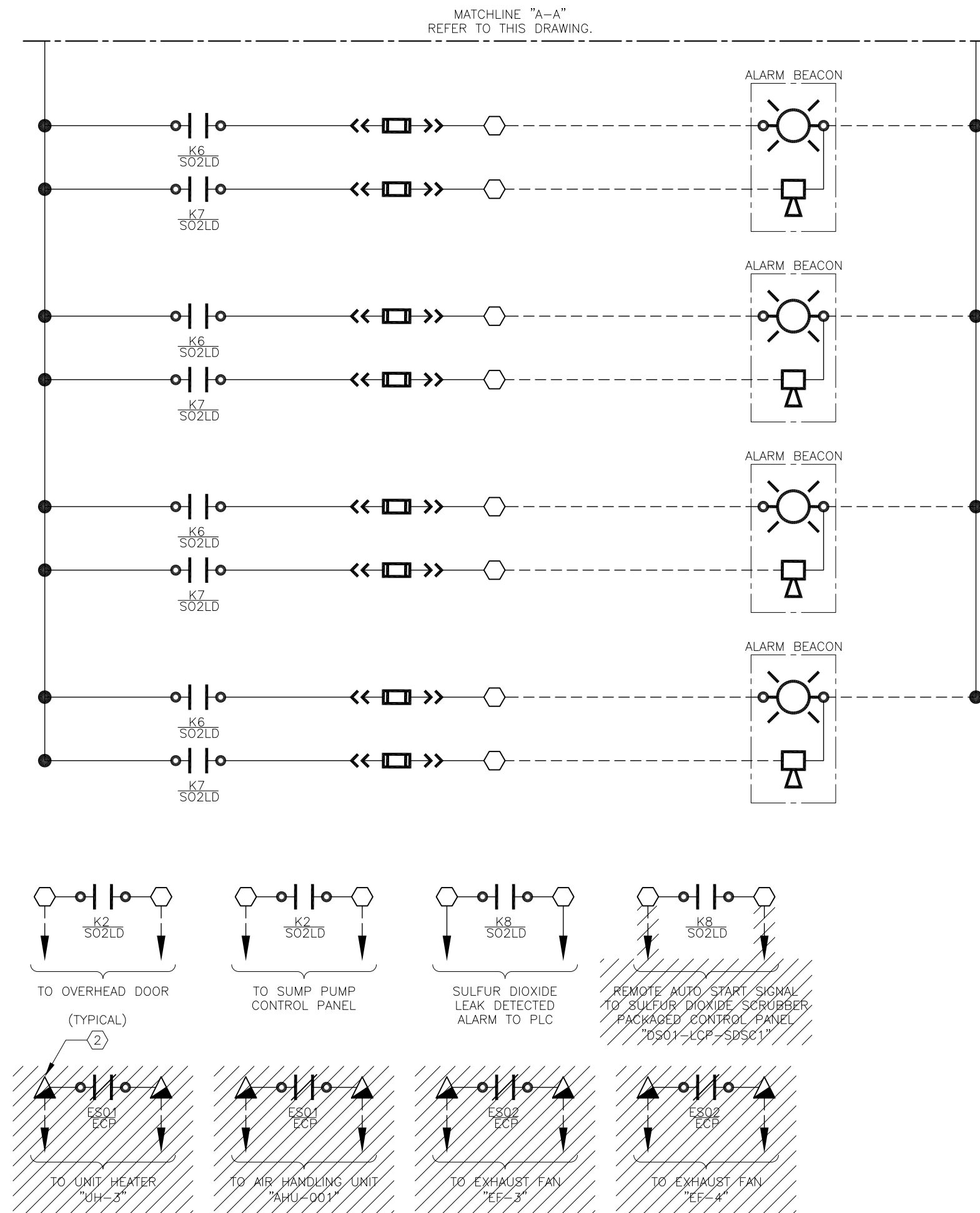
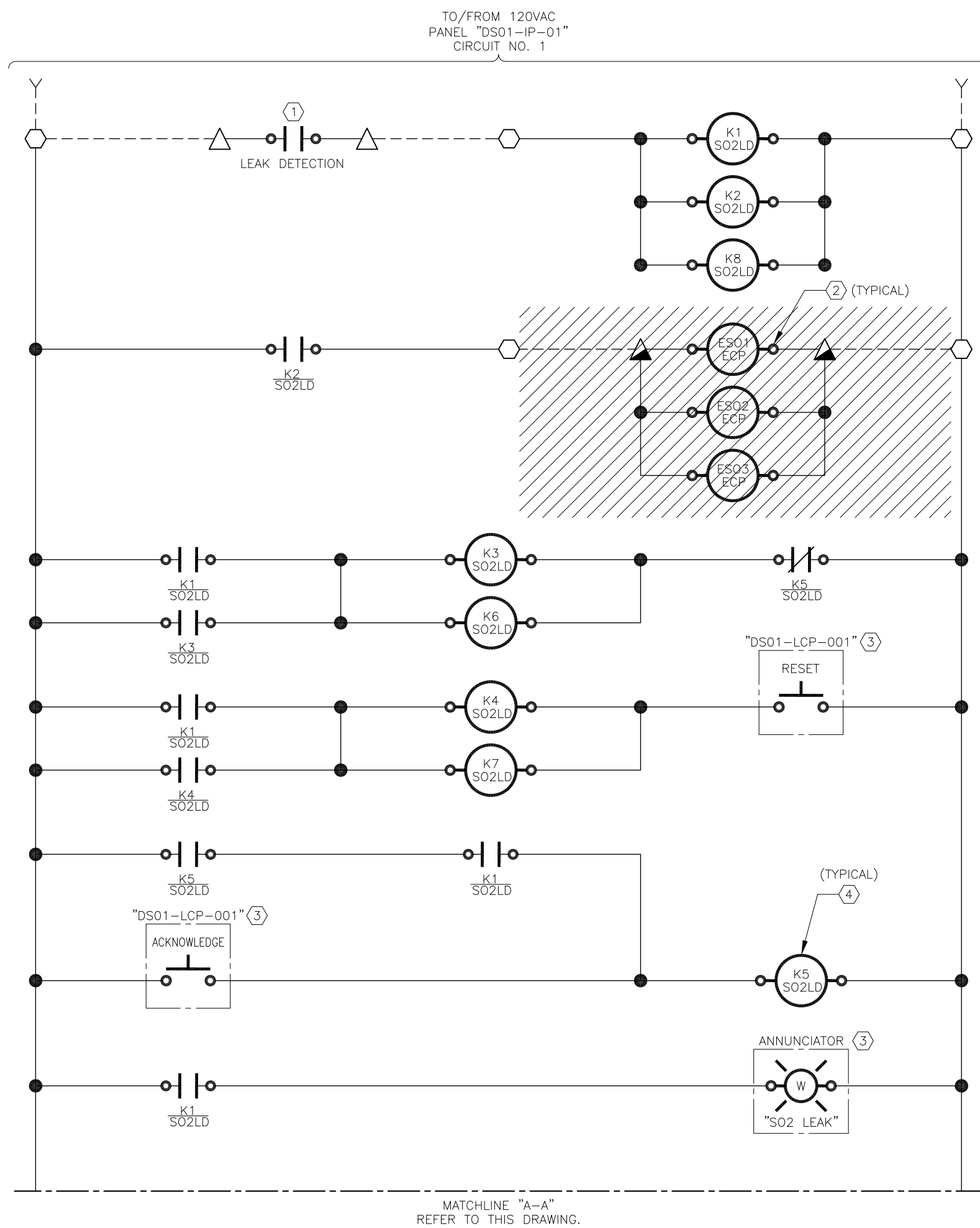
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SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315

SHEET NUMBER E-22



KEY NOTES:

- ① LEAK DETECTION CONTACT IS INTEGRAL TO SULFUR DIOXIDE GAS DETECTION CONTROLLER "DCL-CP-GDS". EXISTING GAS DETECTION CONTROLLER IS SURFACE-MOUNTED TO LOCAL CONTROL PANEL "DS01-LCP-001" LOCATED IN THE STORAGE ROOM.
- ② DISCONNECT AND REMOVE ENVIRONMENTAL CONTROL PANEL "DS01-CP-HVAC1" IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL EXPOSED CONDUIT, PULL/JUNCTION/OUTLET BOXES, WIRING DEVICES, SUPPORTS, CABLE/WIRE, ETC. ASSOCIATED WITH THE ENVIRONMENTAL CONTROL PANEL. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE. WHERE ABANDONED IN CONCRETE SLAB, TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50-YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURAL FOUNDATION. REFER TO DEMOLITION FLOOR PLANS FOR ADDITIONAL INFORMATION.

KEY NOTES (CONTINUED):

- ③ DEVICE MOUNTED ON FRONT OF LOCAL CONTROL PANEL "DS01-LCP-001".
- ④ EXISTING CONTROL ELEMENTS NOT SHOWN AS "TO BE DEMOLISHED" ARE TO REMAIN AND WILL BE RE-USED DURING RENOVATION ACTIVITIES. TAKE PRECAUTION TO PREVENT DAMAGE TO EXISTING CABLE/WIRES THAT ARE TO REMAIN IN SERVICE. SHOULD SUCH WIRING SUSTAIN DAMAGE, CONTRACTOR SHALL REPLACE DAMAGED WIRING IN ITS ENTIRETY (WITHOUT SPLICES) AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES:

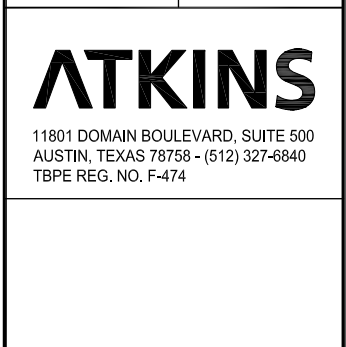
1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

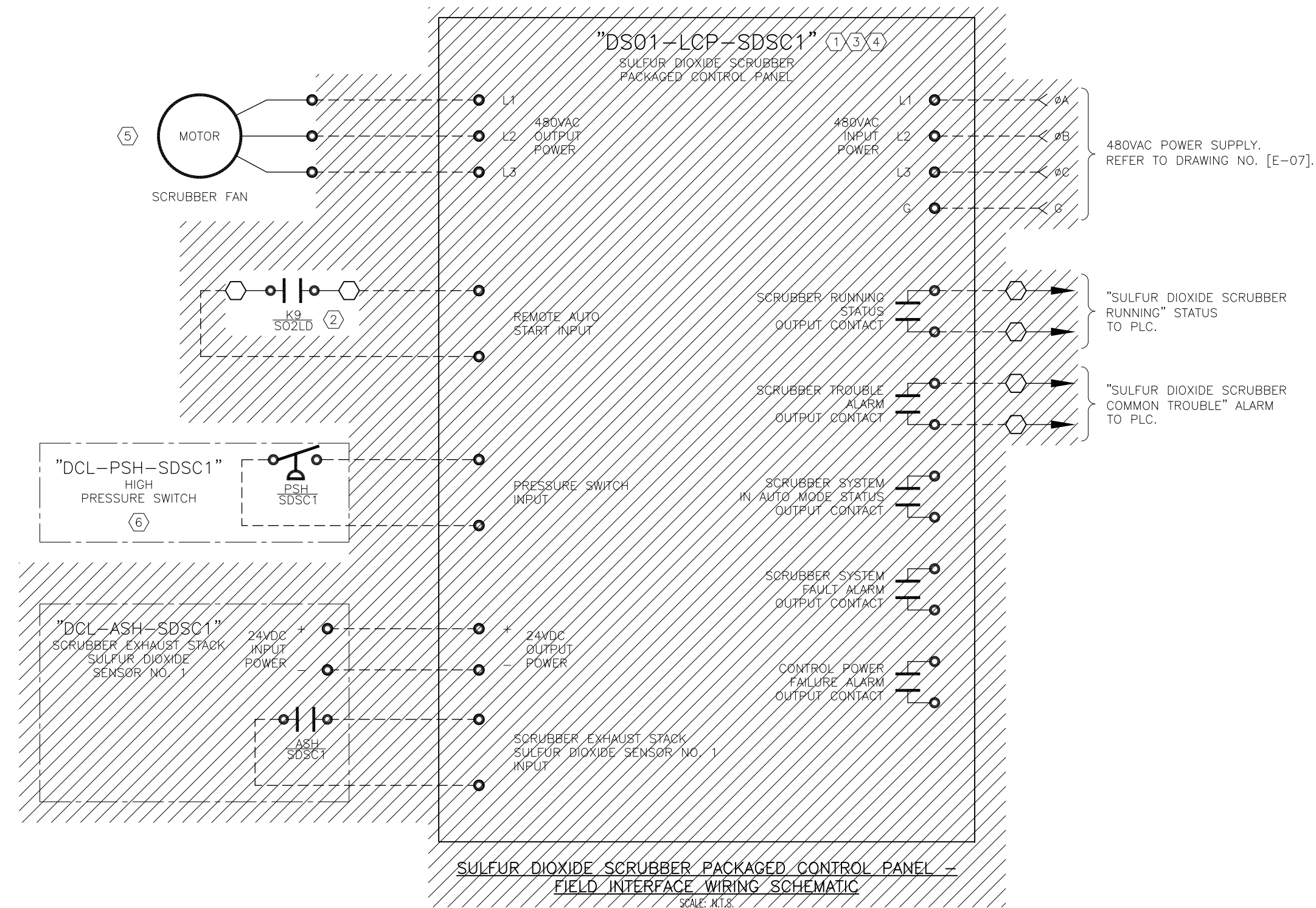
SULFUR DIOXIDE LEAK DETECTION & ALARM CONTROL WIRING SCHEMATIC - DEMOLITION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

SHEET NUMBER	E-23
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KEY NOTES:

- ① DISCONNECT AND REMOVE EXISTING SULFUR DIOXIDE SCRUBBER PACKAGED CONTROL PANEL AND ALL ASSOCIATED FIELD CONDUIT/WIRE, SUPPORTS, ETC IN THEIR ENTIRETY.
- ② SCRUBBER SYSTEM REMOTE-AUTO START CONTACT IS PART OF THE EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN LOCAL CONTROL PANEL "DS01-LCP-001". REFER TO DRAWING NO. [E-23] FOR ADDITIONAL INFORMATION.
- ③ CONTRACTOR SHALL FIELD VERIFY I/O POINTS ASSOCIATED WITH EXISTING SCRUBBER CONTROL PANEL PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS AND ASSOCIATED EQUIPMENT CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO AID IN COORDINATING THE PROPOSED WIRING CONNECTIONS TO THE EXISTING PLC AND MAKE ALL FINAL CONNECTIONS.
- ④ THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.
- ⑤ DISCONNECT FAN MOTOR AND REMOVE CONDUIT/WIRE BETWEEN MOTOR AND CONTROL PANEL. FAN MOTOR TO BE RELOCATED DURING RENOVATION ACTIVITIES. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NOS. [E-34] AND [E-51] FOR ADDITIONAL INFORMATION.
- ⑥ EXISTING PRESSURE SWITCH TO BE RE-USED DURING RENOVATION ACTIVITIES. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NOS. [E-34] AND [E-51] FOR ADDITIONAL INFORMATION.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

SULPHUR DIOXIDE SCRUBBER
INTERFACE WIRING SCHEMATIC - DEMOLITION



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NOTES	NAME	DATE
SURVEY BY	N/A	
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CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



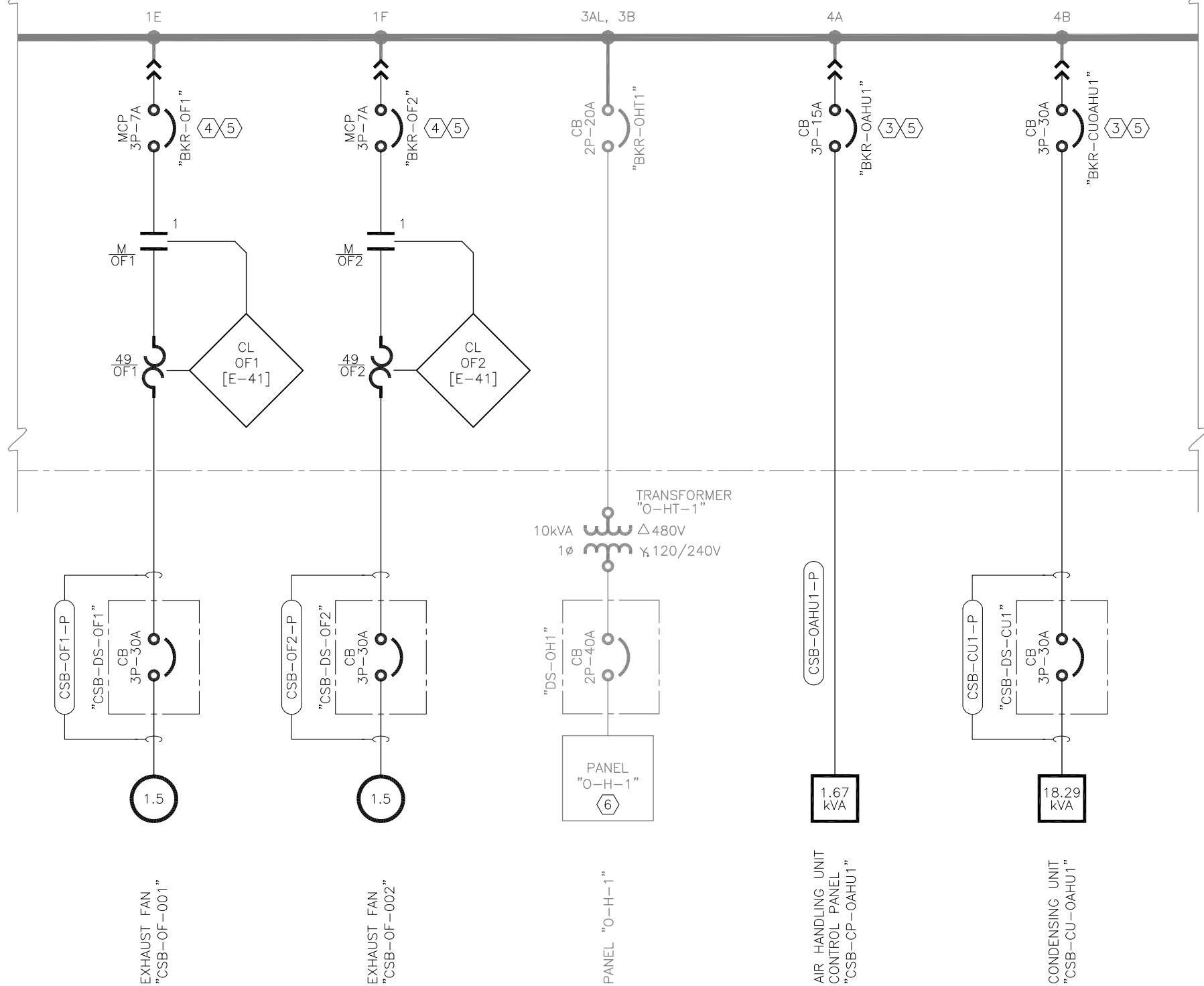
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-24

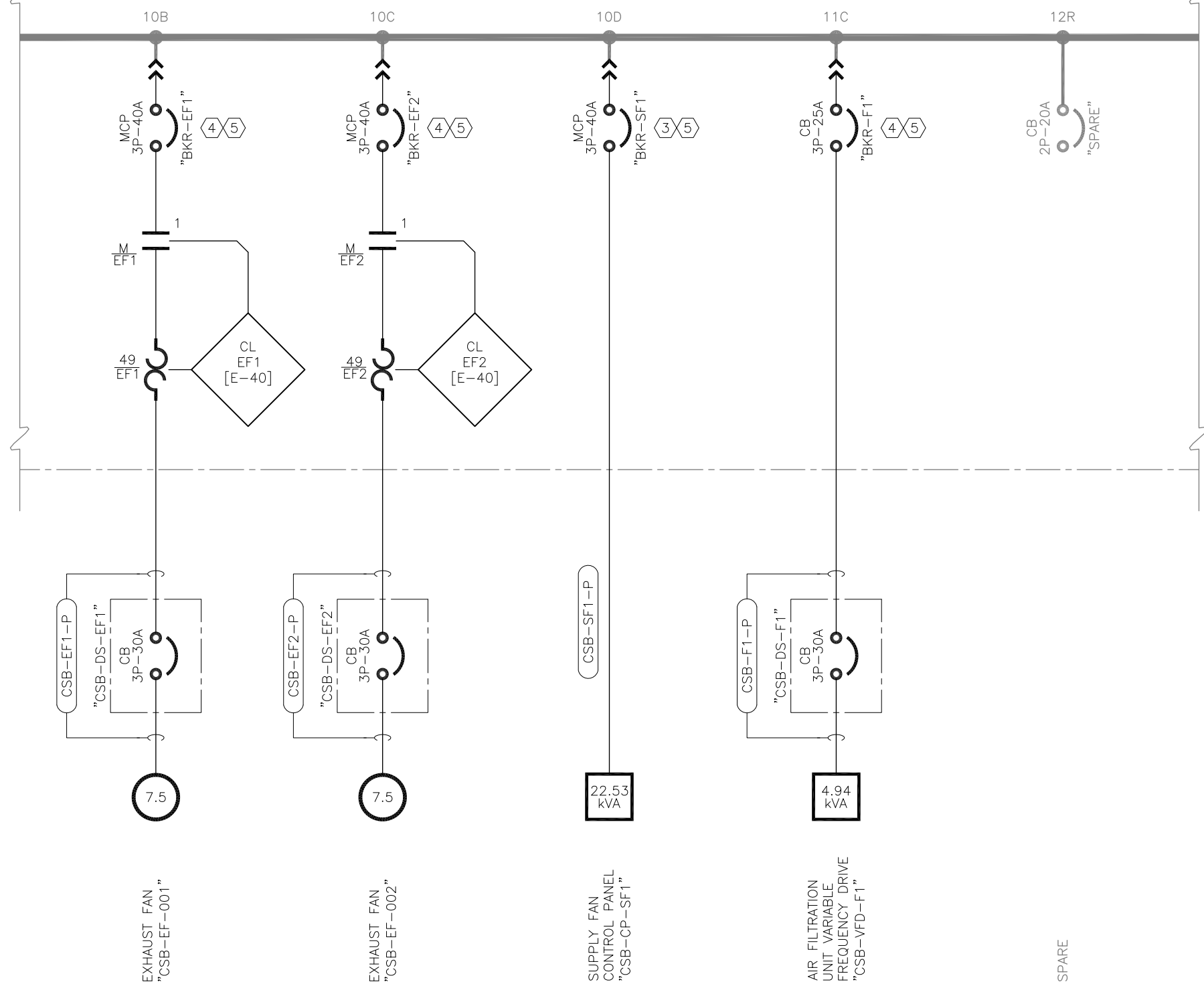
EXISTING 480V MOTOR CONTROL CENTER "OP-MCC-002A" (1)(2)

480/277V, 600A, 3Ø, 4W, RATED 30,000 A.I.C.



EXISTING 480V MOTOR CONTROL CENTER "OP-MCC-001" (1)(2)

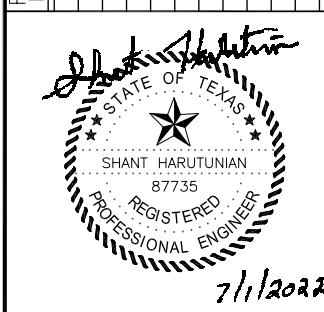
480V, 3Ø, 3W, 1200A COPPER BUS, RATED 42,000 A.I.C.



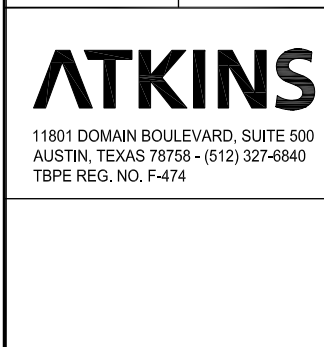
KEY NOTES:

- ① EXISTING 480V MOTOR CONTROL CENTER MANUFACTURED BY "WESTINGHOUSE", MODEL "SERIES 2100", AND SERIAL# "HUAU00918 IT.6-FVC".
- ② COORDINATE ALL PROPOSED CHANGES WITH MOTOR CONTROL CENTER MANUFACTURER. FIELD VERIFY EXISTING CONDITIONS AND MODIFY INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- ③ FURNISH AND INSTALL PROPOSED CIRCUIT BREAKER IN THE EXISTING MOTOR CONTROL CENTER.
- ④ FURNISH AND INSTALL PROPOSED MCC STARTER BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ⑤ FURNISH AND INSTALL PROPOSED MOTOR STARTER AND CIRCUIT BREAKER BUCKETS WITHIN EXISTING MOTOR CONTROL CENTERS PER SPECIFICATION SECTION SS16121. PROPOSED MOTOR CONTROL CENTER COMPONENTS SHALL BE THE PRODUCT OF THE ORIGINAL MANUFACTURER OF THE MOTOR CONTROL CENTERS AND/OR AS RECOMMENDED/APPROVED BY THE ORIGINAL MANUFACTURER OF THE MOTOR CONTROL CENTERS, NO EQUAL. SUBMIT SHOP DRAWINGS FOR THE MOTOR CONTROL CENTER COMPONENTS IN COMPLIANCE WITH SPECIFICATION SECTIONS 01300 AND SS16121. SUBMIT OPERATION AND MAINTENANCE MANUALS FOR THE MOTOR CONTROL CENTER COMPONENTS IN COMPLIANCE WITH SPECIFICATION SECTION 01730 AND SS16121.
- ⑥ PANELBOARD LOCATED IN MOTOR CONTROL CENTER SECTION 3B.

REV. NO.	BY	DATE	DESCRIPTION



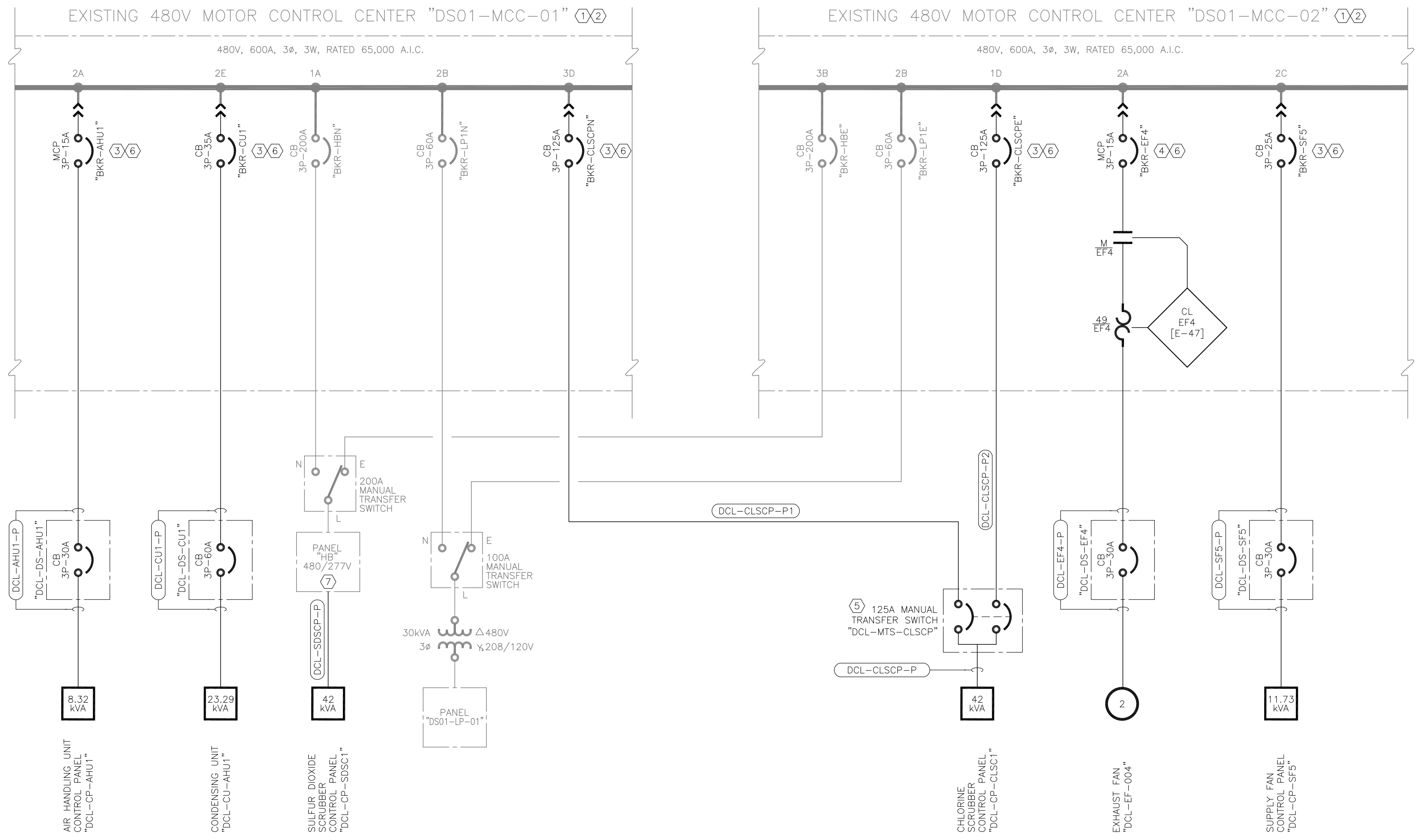
CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 480V "OP-MCC-001" & "OP-MCC-02A"
 ONE-LINE DIAGRAM - RENOVATION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

HARUTUNIAN ENGINEERING INCORPORATED
 8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315
 SHEET NUMBER: E-25



- KEY NOTES:**
- ① EXISTING 480V MOTOR CONTROL CENTER MANUFACTURED BY "WESTINGHOUSE", MODEL "SERIES 2100", AND SERIAL# "HUAU00918 IT.6-FVC".
 - ② COORDINATE ALL PROPOSED CHANGES WITH MOTOR CONTROL CENTER MANUFACTURER. FIELD VERIFY EXISTING CONDITIONS AND MODIFY INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
 - ③ FURNISH AND INSTALL PROPOSED CIRCUIT BREAKER IN THE EXISTING MOTOR CONTROL CENTER.
 - ④ FURNISH AND INSTALL PROPOSED MCC STARTER BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
 - ⑤ FURNISH AND INSTALL MANUAL TRANSFER SWITCH, PER SPECIFICATIONS, TO SERVE PROPOSED CHLORINE SCRUBBER.
 - ⑥ FURNISH AND INSTALL PROPOSED MOTOR STARTER AND CIRCUIT BREAKER BUCKETS WITHIN EXISTING MOTOR CONTROL CENTERS PER SPECIFICATION SECTION SS16121.
 - ⑦ TERMINATE PROPOSED WIRE FEEDING PROPOSED SULFUR DIOXIDE SCRUBBER CONTROL PANEL "DCL-CP-SDSC1" TO EXISTING 125A CIRCUIT BREAKER WITH CIRCUIT NUMBER "HB-1,3,5" IN EXISTING PANEL "HB".

REV. NO.	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

480V "DS01-MCC-01" & "DS01-MCC-02"
 ONE-LINE DIAGRAM - RENOVATION

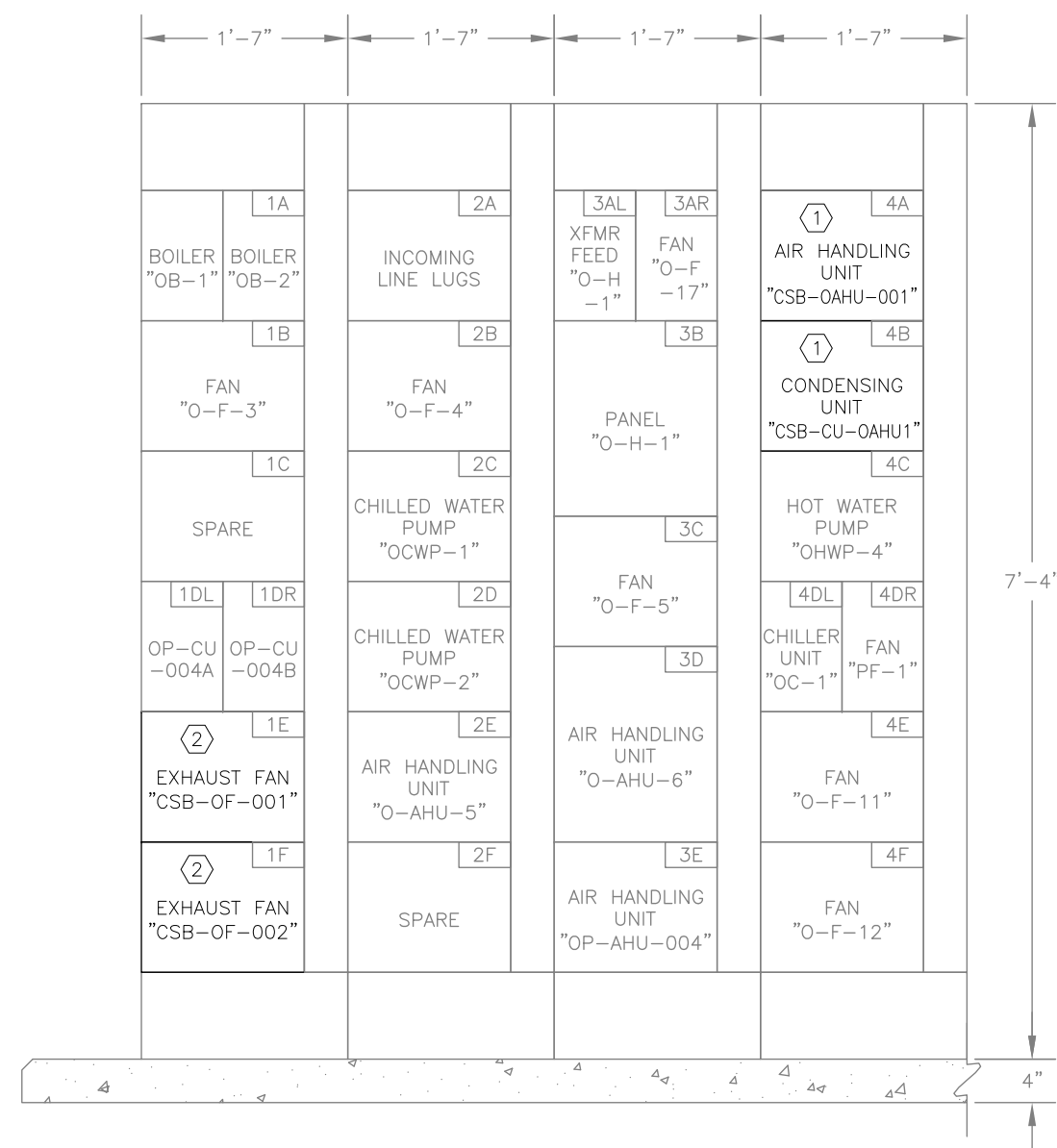


NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

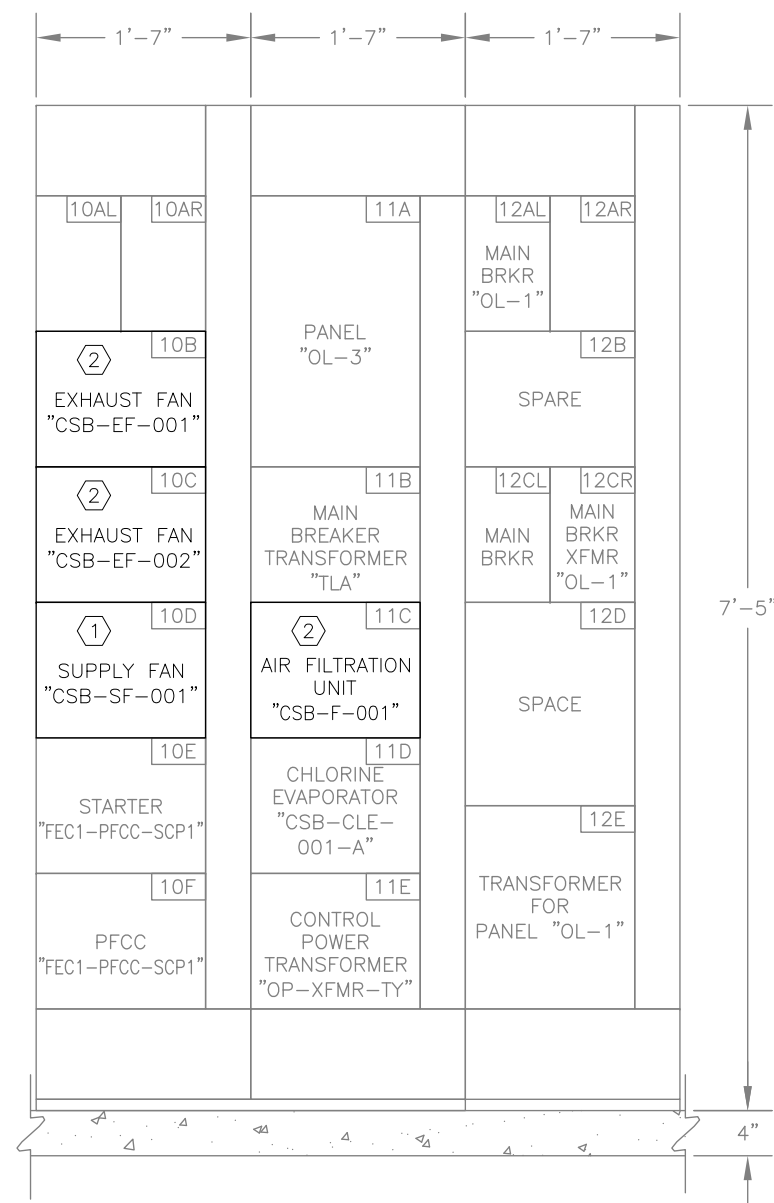


8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SHEET NUMBER	E-26
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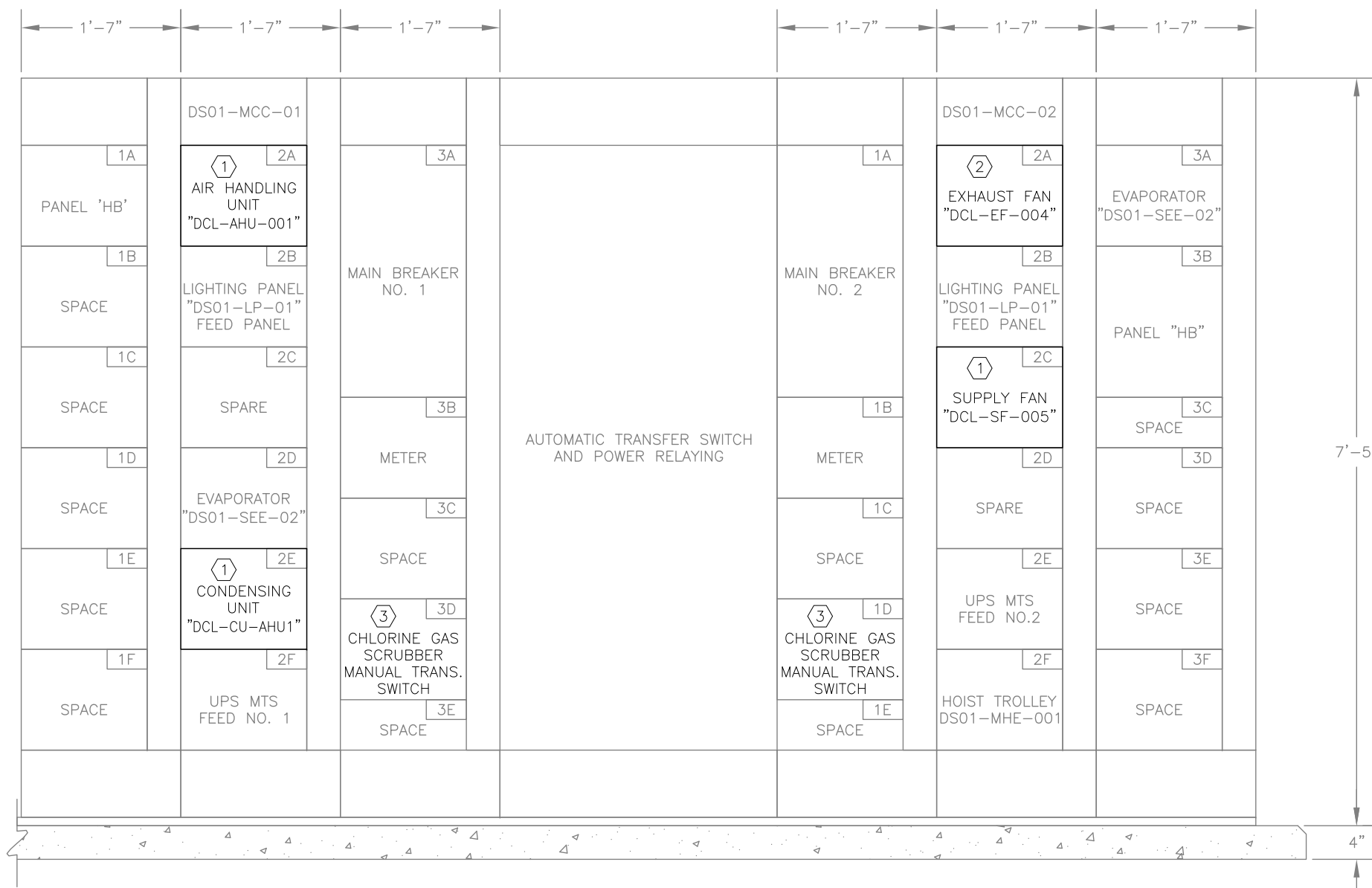
OPERATIONS BUILDING "OP-MCC-002A"
SECTIONS 1 THROUGH 4 - FRONT ELEVATION
SCALE: N.T.S.



OPERATIONS BUILDING "OP-MCC-001"
SECTIONS 10, 11, AND 12 - FRONT ELEVATION
SCALE: N.T.S.

KEY NOTES:

- ① FURNISH AND INSTALL PROPOSED CIRCUIT BREAKER MCC BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ② FURNISH AND INSTALL PROPOSED MOTOR STARTER MCC BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ③ FURNISH AND INSTALL DEVICE LABELS ON THE INTERIOR AND EXTERIOR OF THE MOTOR CONTROL CENTER BUCKET.



EXISTING 480V MOTOR CONTROL CENTER
"DS01-MCC-01" & "DS01-MCC-02" - FRONT ELEVATION
SCALE: N.T.S.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
480V MOTOR CONTROL CENTER
PARTIAL FRONT ELEVATIONS - RENOVATION



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DRAWN BY	HEI	
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DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-27

CIRCUIT BREAKER PANEL SCHEDULE—"CS01-IP-01" (1)5								
VOLTS: 208/120 AMPS: 40A BUS MAIN: 40A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	LOCAL CONTROL PANEL "CS01-LCP-01"	---			CHLORINE LEAK DETECTOR "CS01-CLE-001"	2	20 1P
20 1P	3	CHLORINE STORAGE	---			CHLORINE LEAK DETECTOR "CS01-CLE-002"	4	20 1P
20 1P	5	HVAC CONTROL PANEL "CSB-CP-HVAC"	---			CHLORINE LEAK DETECTOR "CS01-CLE-003"	6	20 1P
20 1P	7	WRS-1,2	---			"WC-CSB-ASO-01"	8	20 1P
20 1P	9	NORTH BANK CHLORINE ACTUATORS	---			SOUTH BANK CHLORINE ACTUATORS	10	20 1P
20 1P	11	NORTH BANK CHLORINE ACTUATORS	---			SOUTH BANK CHLORINE ACTUATORS	12	20 1P
20 1P	13	(6)	---			MAIN	14	40 3P
20 1P	15	CONTROL ROOM	---				16	
20 1P	17	GAS DETECTION CONTROLLER "CSB-AIC-GDS"	---				18	
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"CS01-LP-01" (2)5								
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	STORAGE ROOM LIGHTS	---			CHLORINATOR "CS01-CHE-001"	2	20 1P
20 1P	3	STORAGE ROOM LIGHTS	---			CHLORINATOR "CS01-CHE-002"	4	20 1P
20 1P	5	CL2 ROOM LIGHTS	---			CHLORINATOR "CS01-CHE-003"	6	20 1P
20 1P	7	SPARE	---			CHLORINATOR "CS01-CHE-004"	8	20 1P
20 1P	9	STORAGE & CL2 ROOM LIGHTS	---			CHLORINATOR "CS01-CHE-005"	10	20 1P
20 1P	11	EMERGENCY LIGHTS	---			"CS01-URE-001"	12	20 1P
20 1P	13	SPARE	---			"CS01-COCP-001"	14	20 1P
30 1P	15	SPARE	---			SOUTH BANK DRIP LEG HEATERS	16	20 1P
20 1P	17	SPARE	---			NORTH BANK DRIP LEG HEATERS	18	20 1P
20 1P	19	SPARE	---			SPARE	20	20 1P
20 1P	21	SPARE	---			SPARE	22	20 1P
20 1P	23	SPARE	---			SPARE	24	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"O-H-1" (3)5								
VOLTS: 120/240 AMPS: 50A BUS MAIN: 50A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	VENT FAN "O-F-13" (RAW WET WELL)	---				2	20 1P
20 1P	3	SPARE	---			SPARE	4	20 1P
20 1P	5	VENT FAN "O-F-10" (OVER ELEVATOR)	---			AHU ROLL FILTER	6	20 1P
20 1P	7	CHILLER CONTROL	---			VENT FAN "O-F-9"	8	20 1P
20 1P	9	SPARE	---				10	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE—"LA" (4)5								
VOLTS: 208/120 AMPS: 175A BUS MAIN: 175A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 2P	1	(6)	---			480V MCC ROOM LIGHTS	2	20 1P
	3	(6)	700			LPU-2 (PTC1)	4	20 1P
20 1P	5	480V MCC ROOM RECEPTACLES		500		480V MCC ROOM RCPT. - EAST WALL (EMERGENCY LTS.)	6	20 1P
30 1P	7	"OBCP-LPU-4"	---			LPU-4 (OPS)	8	20 1P
20 2P	9	(6)	---			MAGNETIC FLOWMETER "SWW-FIT-NO. 1"	10	20 1P
	11		---			MAGNETIC FLOWMETER "SWW-FIT-NO. 2"	12	20 1P
60 3P	13	BLOWER PANEL "LB"	---			PTC1 HACH ANALYZER INDICATING TRANSMITTER & AIR BLAST SYSTEM	14	20 1P
	15		---			480V MCC ROOM A/C UNIT	16	30 2P
	17		---					
20 1P	19	CHLORINATOR #2	---			CHLORINATOR #2	20	20 1P
20 1P	21	CHLORINATOR #3	---			CONTROL PANEL "OP-CP-LPU2" VENTILATION FANS	22	20 1P
20 2P	23	SPARE	---			CONTROL PANEL "OP-CP-LPU2" LIGHTS & RECEPTACLES	24	20 1P
	25		---			CONTROL PANEL "OP-CP-LPU1" VENTILATION FANS	26	20 1P
20 2P	27	480V MCC ROOM A/C UNIT	---			CONTROL PANEL "OP-CP-LPU1" LIGHTS & RECEPTACLES	28	20 1P
	29		---			AHU CONTROLS FOR BLOWER CONTROL ROOM	30	20 1P
20 1P	31	"OP-CU-004A" & "OP-CU-004B" RECEPTACLES	---			BLOWER CONTROL ROOM RECEPTACLES	32	20 1P
20 1P	33	"OP-CU-002A", "OP-CU-002B", & "OP-CU-003" RCPT.	---			BLOWER CONTROL ROOM LIGHTS	34	20 1P
0 1P	35	SPACE	---			"OP-CU-001" RECEPTACLE	36	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			1800	1580	2180			

KEY NOTES:

- PANELBOARD "CS01-IP-01" IS A WESTINGHOUSE TYPE PRL1 PANELBOARD MANUFACTURED CIRCA 1994. UPON COMPLETION OF RENOVATION ACTIVITY.
- PANELBOARD "CS01-LP-01" IS A WESTINGHOUSE STYLE P48C28E30N MINI-POWER CENTER PANELBOARD MANUFACTURED CIRCA 1994.
- PANELBOARD "O-H-1" IS A WESTINGHOUSE PANELBOARD MANUFACTURED CIRCA 1974 LOCATED WITHIN THE CONFINES OF MOTOR CONTROL CENTER "OP-MCC-002A". EXISTING BRANCH CIRCUIT BREAKERS ARE WESTINGHOUSE QUICKLAG TYPE BA CIRCUIT BREAKERS.
- PANEL "LA" IS LOCATED INSIDE THE 480-VOLT MCC ELECTRICAL ROOM ON LEVEL 1. PANEL "LA" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1989; JOB NO. HU04900 IT.18.
- UPON COMPLETION OF RENOVATION ACTIVITIES, FURNISH AND INSTALL UPDATED TYPED PANEL SCHEDULE TO REFLECT MODIFICATIONS RESULTING FROM DEMOLITION/RENOVATION ACTIVITY AND/OR INVESTIGATION/VERIFICATION ACTIVITY.
- PANEL SCHEDULE ENTRY IS ILLEGIBLE. CONTRACTOR SHALL VERIFY AND CORRECT PANEL SCHEDULE CIRCUIT DIRECTORY ENTRY.
- FURNISH AND INSTALL PROPOSED 20 AMP, SINGLE-POLE CIRCUIT BREAKER AND MARK AS SPARE ON PANEL SCHEDULE.

GENERAL NOTES:

- THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS BASED UPON OBSERVATION OF INFORMATION CONTAINED ON EXISTING CIRCUIT BREAKER PANEL SCHEDULES. LOAD DESCRIPTIONS HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL EXERCISE CAUTION AND FIELD VERIFY CIRCUITS PROPOSED FOR DEMOLITION/RENOVATION PRIOR TO COMMENCING DEMOLITION/RENOVATION ACTIVITIES. SHOULD THE EXISTING DISCOVERED FIELD CONDITIONS REVEAL DEVIATIONS IN THE PANEL SCHEDULE SHOWN, CONTRACTOR SHALL INDICATE DISCOVERED DEVIATIONS ON THE PANEL SCHEDULE.

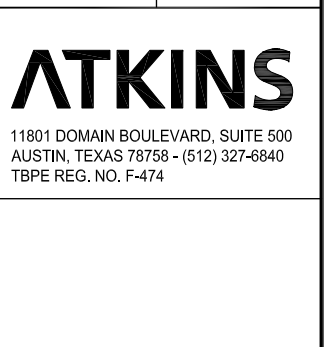
CAUTION:
480 VOLT CIRCUIT ROUTING BETWEEN "OAHU-3" AND "OP-MCC-002A" PASSES THROUGH 120/208 VOLT PANEL "LA"

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

OPERATIONS BUILDING
PANELBOARD SCHEDULES - RENOVATION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

HARUTUNIAN ENGINEERING INCORPORATED
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SHEET NUMBER
E-28

CIRCUIT BREAKER PANEL SCHEDULE--"DS01-LP-01" (1)(3)								
VOLTS: 208/120 AMPS: 225A BUS MAIN: 110A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	ELECTRICAL ROOM & OUTSIDE WALL LIGHTS	---	---	---	LIQUID SWITCHOVER CONTROL PANEL "DS01-FCP-01"	2	20 1P
20 1P	3	CANOPY LIGHTS	---	---	---	SUMP PUMP CONTROL PANEL "DS01-FCP-02"	4	20 1P
20 1P	5	STORAGE ROOM LIGHTS	---	---	---	SPARE	6	20 1P
20 1P	7	S02 ROOM LIGHTS	---	---	---	SPARE	8	20 1P
20 1P	9	STORAGE ROOM RECEPT. & 4 FT. FLOUR. LIGHTS	---	---	---	VACUUM REGULATOR CHECK UNIT "DS01-VCE-001"	10	20 1P
20 1P	11	STORAGE ROOM RECEPTACLES	---	---	---	VACUUM REGULATOR CHECK UNIT "DS01-VCE-002"	12	20 1P
20 1P	13	ELECTRICAL ROOM RECEPTACLES	---	---	---	SULFONATOR "DS01-SUE-001"	14	20 1P
20 1P	15	ELECTRICAL ROOM RECEPTACLES & EMERGENCY LIGHTS	---	---	---	SULFONATOR "DS01-SUE-002"	16	20 1P
20 1P	17	SPARE	---	---	---	SULFONATOR "DS01-SUE-003"	18	20 1P
20 1P	19	SPARE	---	---	---	SUPPLY FAN "DCL-SF-005" HVAC RECEPTACLE	20	20 1P (4)
20 1P	21	SPARE	---	---	---	SUMP PUMP "DS01-SUP-002" (SCRUBBER AREA)	22	20 1P
20 1P	23	EMERGENCY LIGHTS	---	---	---	F.A. COMPRESSOR	24	20 1P
20 1P	25	OUTSIDE LED LIGHTS & TIME CLOCK	---	---	---	DOOR OPERATOR	26	20 1P
20 1P	27	SUMP PUMP "DS01-SUP-003" (SCRUBBER AREA)	---	---	---	SPARE	28	30 3P
20 1P	29	SECURITY SYSTEM	---	---	---		30	
20 1P	31	SPARE	---	---	---		32	
100 2P	33	TRAILER	---	---	---	SPARE	34	30 3P
100 2P	35		---	---	---		36	
100 2P	37	AW TRAILER	---	---	---	AG TRAILER	38	20 2P
100 2P	39		---	---	---		40	
20 1P	41	SPARE	---	---	---		42	
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

CIRCUIT BREAKER PANEL SCHEDULE--"DS01-IP-01" (2)(3)								
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3Ø, 4W								
CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	LOCAL CONTROL PANEL "DS01-LCP-01"	---	---	---	S02 LEAK DETECTOR "DS01-SLE-001" (STORAGE ROOM)	2	20 1P
30 1P	3	SPARE	---	---	---	S02 LEAK DETECTOR "DS01-SLE-002" (STORAGE ROOM)	4	20 1P
20 1P	5	SULFUR DIOXIDE EVAPORATOR "DS01-SEE-001"	---	---	---	S02 LEAK DETECTOR "DS01-SLE-003" (EVAPORATOR ROOM)	6	20 1P
40 3P	7	MAIN	---	---	---	CONTROL PANEL "DCL-CP-HVAC"	8	20 1P (4)
	9		SULFUR DIOXIDE EVAPORATOR "DS01-SEE-002"	10	20 1P			
	11		GAS DETECTION CONTROLLER "DS01-AIC-GDS"	12	20 1P			
TOTAL CONNECTED VOLT AMPS (VA)			0	0	0			

KEY NOTES:

- ① PANEL "DS01-LP-01" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1994; JOB NO. HUAU04208; ITEM NO. 02A.
- ② PANEL "DS01-IP-01" IS A TYPE PRL1 PANELBOARD MANUFACTURED BY WESTINGHOUSE, CIRCA 1994; JOB NO. HUAU04208; ITEM NO. 03A.
- ③ UPON COMPLETION OF RENOVATION ACTIVITIES, FURNISH AND INSTALL UPDATED TYPED PANEL SCHEDULE TO REFLECT MODIFICATIONS RESULTING FROM DEMOLITION/RENOVATION ACTIVITY AND/OR INVESTIGATION/VERIFICATION ACTIVITY.
- ④ TERMINATE PROPOSED CABLE/WIRE ON EXISTING CIRCUIT BREAKER. REFER TO RENOVATION PLANS AND RENOVATION CONDUIT/WIRE SCHEDULE FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

- 1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS BASED UPON OBSERVATION OF INFORMATION CONTAINED ON EXISTING CIRCUIT BREAKER PANEL SCHEDULES. LOAD DESCRIPTIONS HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL EXERCISE CAUTION AND FIELD VERIFY CIRCUITS PROPOSED FOR DEMOLITION/RENOVATION PRIOR TO COMMENCING DEMOLITION/RENOVATION ACTIVITIES. SHOULD THE EXISTING DISCOVERED FIELD CONDITIONS REVEAL DEVIATIONS IN THE PANEL SCHEDULE SHOWN, CONTRACTOR SHALL INDICATE DISCOVERED DEVIATIONS ON THE PANEL SCHEDULE.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 DECHLORINATION BUILDING
 PANELBOARD SCHEDULES - RENOVATION



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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315

SHEET NUMBER: E-29

CIRCUIT BREAKER PANEL SCHEDULE—"ASC2-PWRC-01" (1)X(2)X(4)
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3Ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
20 1P	1	LOCAL CONTROL PANEL "ASC2-CLPU-LCP-01"	---			SPARE	2	20 1P
			1800					
20 1P	3	LOCAL CONTROL PANEL "ASC2-CLPU-LCP-02"	---			SPARE	4	20 1P
			1800					
20 1P	5	LOCAL CONTROL PANEL "ASC2-CLPU-LCP-03"	---			SPARE	6	20 1P
					1800			
20 1P	7	LOCAL CONTROL PANEL "ASC2-CLPU-LCP-04"	---			SPARE	8	20 1P
			1800					
20 1P	9	SPARE	---			SPARE	10	20 1P
20 1P	11	SPARE	---			SPARE	12	20 1P
20 1P	13	SPARE	---			SPARE	14	20 1P
20 1P	15	SPARE	---			SPARE	16	20 1P
20 1P	17	SPARE	---			SPARE	18	20 1P
20 1P	19	SPARE	---			SPARE	20	20 1P
20 1P	21	SPARE	---			SPARE	22	20 1P
20 1P	23	SPARE	---			SPARE	24	20 1P
TOTAL CONNECTED VOLT AMPS (VA)			3600	1800	1800			

CIRCUIT BREAKER PANEL SCHEDULE—"WRS-LP-3" (3)X(4)
VOLTS: 208/120 AMPS: 100A BUS MAIN: 100A PHASE/WIRE: 3Ø, 4W

CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE
100 3P	1	MAIN	800			HSP4 LV PANEL AUXILIARY POWER	2	20 1P
	3		---			HSP4 INSTRUMENTATION & MACHINE MONITORING	4	20 1P
	5			65			HSP5 LV PANEL AUXILIARY POWER (FUTURE)	6
20 1P	7	SPARE	80			HSP5 INSTRUMENTATION & MACHINE MONITORING (FUTURE)	8	20 1P
20 1P	9	HSP3 LV PANEL AUXILIARY POWER		800		HSP6 LV PANEL AUXILIARY POWER (FUTURE)	10	20 1P
20 1P	11	HSP3 INSTRUMENTATION & MACHINE MONITORING			80	HSP6 INSTRUMENTATION & MACHINE MONITORING (FUTURE)	12	20 1P
20 1P	13	HSP1 FLOW INDICATING TRANSMITTER "WRS-FIT-1180"	540			HSPS RECEPTACLES	14	20 1P
30 1P	15	HSP2 FLOW INDICATING TRANSMITTER "WRS-FIT-1280"		540		HSPS RECEPTACLES	16	20 1P
20 1P	17	HSP3 FLOW INDICATING TRANSMITTER "WRS-FIT-1380"			120	SAMPLE PUMP NO. 2 "WRS-SAP-002"	18	20 1P
20 1P	19	HSP4 FLOW INDICATING TRANSMITTER "WRS-FIT-1480"	250			CATHODIC PROTECTION "WRS-CATP-002"	20	20 1P
20 1P	21	HSP5 FLOW INDICATING TRANSMITTER "WRS-FIT-1580" FUTURE		130		"WRS-LIT-0712" SPACE HEATER & HEAT TAPE	22	20 1P
20 1P	23	HSP6 FLOW INDICATING TRANSMITTER "WRS-FIT-1680" FUTURE			360	STORAGE TANK 2 RECEPTACLES 2A & 2B	24	20 1P
20 1P	25	SAMPLE PUMP NO. 1 "WRS-SAP-001"	480			MIXER CONTROL PANEL "WRS-CP-MX2"	26	20 1P
20 1P	27	CATHODIC PROTECTION "WRS-CATP-001"		1500		MH-M3 RECEPTACLE	28	20 1P
20 1P	29	"WRS-LIT-0612" SPACE HEATER & HEAT TAPE			12	FLOW INDICATING TRANSMITTER "WRS-FIT-1710"	30	20 1P
20 1P	31	STORAGE TANK 1 RECEPTACLES 1A & 1C	100			"WRS-AITC-0811"	32	20 1P
20 1P	33	CL2 METER PUMP		400		"WRS-AITC-0811" SPACE HEATER & HEAT TAPE	34	20 1P
20 1P	35	MH-M2 RECEPTACLE			100	"WRS-AITC-0821"	36	20 1P
20 1P	37	FLOW INDICATING TRANSMITTER "WRS-FIT-1740"	400			"WRS-AITC-0821" SPACE HEATER & HEAT TAPE	38	20 1P
20 1P	39	"WRS-AITC-0810"		800		HSP2 LV PANEL AUXILIARY POWER	40	20 1P
20 1P	41	"WRS-AITC-0810" SPACE HEATER & HEAT TAPE			80	HSP2 INSTRUMENTATION & MACHINE MONITORING	42	20 1P
20 1P	43	HSP1 LV PANEL AUXILIARY POWER	1800			LOCAL CONTROL PANEL "WRS-CLPU-LCP-01"	44	20 1P (5)
20 1P	45	HSP1 INSTRUMENTATION & MACHINE MONITORING			80	SPACE	46	0 1P
0 1P	47	SPACE				SPACE	48	0 1P
0 1P	49	SPACE				SPACE	50	0 1P
0 1P	51	SPACE				SPACE	52	0 1P
0 1P	53	SPACE				SPACE	54	0 1P
TOTAL CONNECTED VOLT AMPS (VA)			6886	7039	5006			

KEY NOTES:

- EXISTING PANELBOARD "CS01-LP-02" IS A WESTINGHOUSE STYLE P48G2BE30N MINI-POWER CENTER PANELBOARD, DESIGN NO: R30007, FRAME: 291, SERIAL NO: J94 H4817, MANUFACTURED CIRCA 1994.
- EXISTING MINI-POWER CENTER IS TAGGED "CS01-LP-02". CONTRACTOR SHALL FURNISH AND INSTALL PHENOLIC NAME PLATE PER SPECIFICATIONS. PROPOSED NAME PLATE INSCRIPTION SHALL READ: "ASC2-POWERCENTER-01".
- EXISTING PANELBOARD "WRS-LP-3" IS A EATON/CUTLER-HAMMER TYPE PRL1A PANELBOARD, JOB NO: MUX01769, ITEM NO: 010, MANUFACTURED CIRCA 07/2001.
- UPON COMPLETION OF RENOVATION ACTIVITIES, FURNISH AND INSTALL UPDATED TYPED CIRCUIT BREAKER PANEL SCHEDULE INSIDE THE PANELBOARD TO REFLECT MODIFICATIONS RESULTING FROM DEMOLITION/RENOVATION ACTIVITY AND/OR INVESTIGATION/VERIFICATION ACTIVITY. ON THE TYPED SCHEDULE MARK ALL SPARE CIRCUIT BREAKERS AND ALL UNUSED CIRCUIT BREAKER SPACES WITH PENCIL.
- FURNISH AND INSTALL PROPOSED 20 AMP, SINGLE-POLE CIRCUIT BREAKER.

GENERAL NOTES:

- THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS BASED UPON OBSERVATION OF INFORMATION CONTAINED ON EXISTING CIRCUIT BREAKER PANEL SCHEDULES. LOAD DESCRIPTIONS HAVE NOT BEEN CONFIRMED. CONTRACTOR SHALL EXERCISE CAUTION AND FIELD VERIFY CIRCUITS PROPOSED FOR DEMOLITION/RENOVATION PRIOR TO COMMENCING DEMOLITION/RENOVATION ACTIVITIES. SHOULD THE EXISTING DISCOVERED FIELD CONDITIONS REVEAL DEVIATIONS IN THE PANEL SCHEDULE SHOWN, CONTRACTOR SHALL INDICATE DISCOVERED DEVIATIONS ON THE PANEL SCHEDULE.

REVISION DESCRIPTION	DATE	REV. BY



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM
 PANELBOARD SCHEDULES - RENOVATION



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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315

SHEET NUMBER E-30

KEY NOTES (CONTINUED):

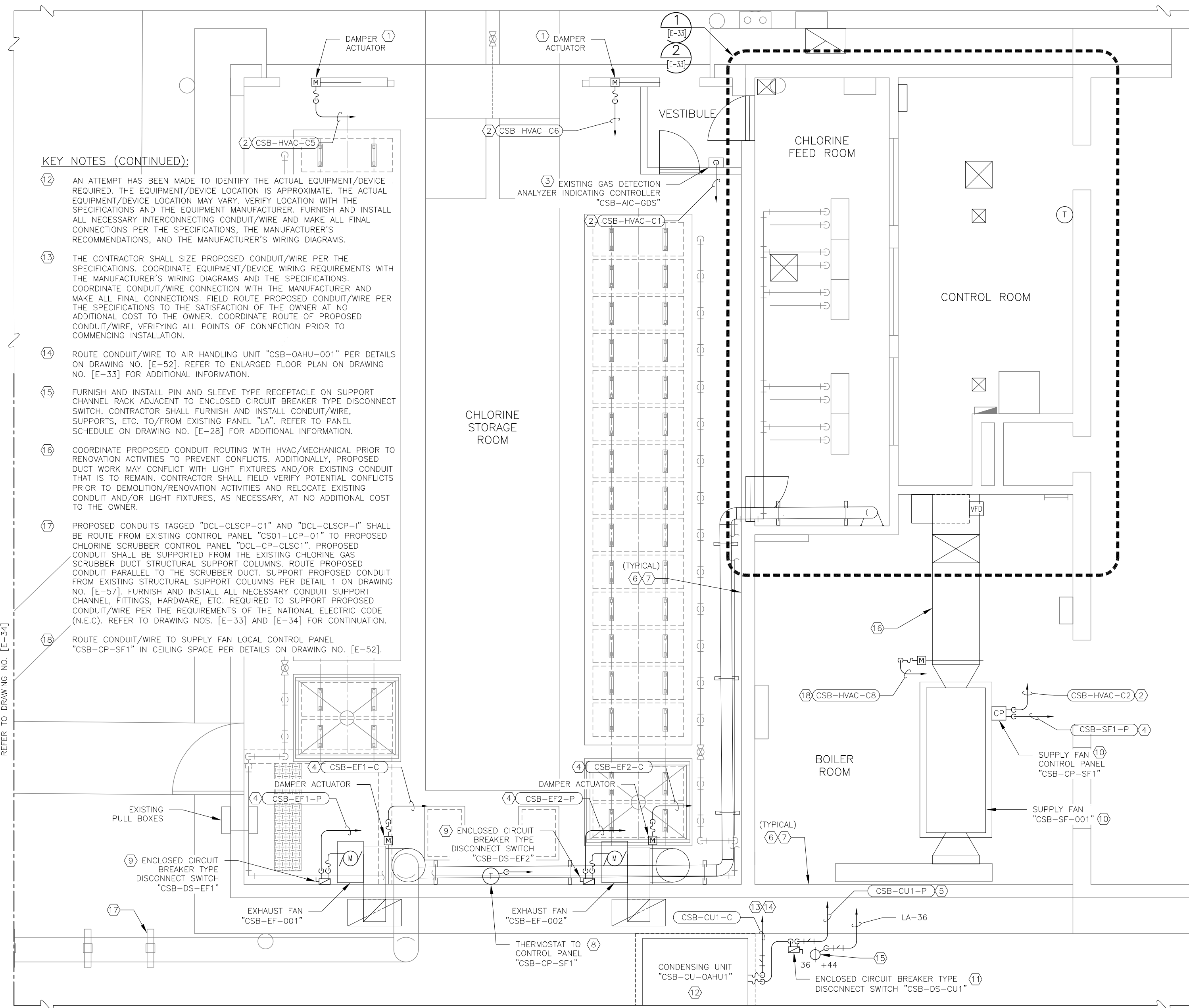
- 12 AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE EQUIPMENT/DEVICE LOCATION IS APPROXIMATE. THE ACTUAL EQUIPMENT/DEVICE LOCATION MAY VARY. VERIFY LOCATION WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- 13 THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- 14 ROUTE CONDUIT/WIRE TO AIR HANDLING UNIT "CSB-OAHU-001" PER DETAILS ON DRAWING NO. [E-52]. REFER TO ENLARGED FLOOR PLAN ON DRAWING NO. [E-33] FOR ADDITIONAL INFORMATION.
- 15 FURNISH AND INSTALL PIN AND SLEEVE TYPE RECEPTACLE ON SUPPORT CHANNEL RACK ADJACENT TO ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT/WIRE, SUPPORTS, ETC. TO/FROM EXISTING PANEL "LA". REFER TO PANEL SCHEDULE ON DRAWING NO. [E-28] FOR ADDITIONAL INFORMATION.
- 16 COORDINATE PROPOSED CONDUIT ROUTING WITH HVAC/MECHANICAL PRIOR TO RENOVATION ACTIVITIES TO PREVENT CONFLICTS. ADDITIONALLY, PROPOSED DUCT WORK MAY CONFLICT WITH LIGHT FIXTURES AND/OR EXISTING CONDUIT THAT IS TO REMAIN. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS PRIOR TO DEMOLITION/RENOVATION ACTIVITIES AND RELOCATE EXISTING CONDUIT AND/OR LIGHT FIXTURES, AS NECESSARY, AT NO ADDITIONAL COST TO THE OWNER.
- 17 PROPOSED CONDUITS TAGGED "DCL-CLSCP-C1" AND "DCL-CLSCP-I" SHALL BE ROUTE FROM EXISTING CONTROL PANEL "CS01-LCP-01" TO PROPOSED CHLORINE SCRUBBER CONTROL PANEL "DCL-CP-CLSC1". PROPOSED CONDUIT SHALL BE SUPPORTED FROM THE EXISTING CHLORINE GAS SCRUBBER DUCT STRUCTURAL SUPPORT COLUMNS. ROUTE PROPOSED CONDUIT PARALLEL TO THE SCRUBBER DUCT. SUPPORT PROPOSED CONDUIT FROM EXISTING STRUCTURAL SUPPORT COLUMNS PER DETAIL 1 ON DRAWING NO. [E-57]. FURNISH AND INSTALL ALL NECESSARY CONDUIT SUPPORT CHANNEL, FITTINGS, HARDWARE, ETC. REQUIRED TO SUPPORT PROPOSED CONDUIT/WIRE PER THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (N.E.C). REFER TO DRAWING NOS. [E-33] AND [E-34] FOR CONTINUATION.
- 18 ROUTE CONDUIT/WIRE TO SUPPLY FAN LOCAL CONTROL PANEL "CSB-CP-SF1" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52].

MATCHLINE "B-B" REFER TO DRAWING NO. [E-34]

MATCHLINE "A-A" REFER TO DRAWING NO. [E-32]

KEY NOTES:

- 1 PROPOSED 120V DAMPER ACTUATOR TO BE INTERLOCKED WITH CHLORINE SCRUBBER SYSTEM. REFER TO CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION.
- 2 ROUTE CONDUIT/WIRE TO HVAC LOCAL CONTROL PANEL "CSB-CP-HVAC" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-33] FOR CONTROL PANEL LOCATION.
- 3 ASSOCIATED CHLORINE GAS ANALYZER INDICATING TRANSMITTERS ARE NOT SHOWN FOR CLARITY. REFER TO CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-43] FOR ADDITIONAL INFORMATION.
- 4 ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "OP-MCC-002A" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-32] FOR 480V MOTOR CONTROL CENTER LOCATION.
- 5 ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "OP-MCC-001" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-32] FOR 480V MOTOR CONTROL CENTER LOCATION.
- 6 FURNISH AND INSTALL CONDUIT SEALING FITTING WHERE PROPOSED CONDUIT/WIRE PENETRATES THROUGH STRUCTURAL WALL PER DETAIL 1 ON DRAWING NO. [E-53]. ALTHOUGH NOT SHOWN, SEALING FITTINGS SHALL BE INSTALLED PRIOR TO ENTERING AREAS WITHOUT CHLORINE RELATED PROCESS/MECHANICAL EQUIPMENT. (I.E. CONTROL ROOM, BOILER ROOM, BUILDING EXTERIOR, ETC.)
- 7 CORE DRILL CONDUIT PENETRATIONS AS NECESSARY. COORDINATE LOCATIONS AND SIZES OF PENETRATIONS WITH STRUCTURAL CONTRACTOR. SHALL SEAL ANNULAR SPACE AROUND ALL CONDUIT PENETRATIONS PER DETAIL 6 ON DRAWING NO. [E-53] TO PREVENT THE MIGRATION OF CHLORINE GAS.
- 8 FURNISH AND INSTALL EMPTY OUTLET/DEVICE BOX AND CONDUIT/RACEWAY FOR INSTALLATION OF THERMOSTAT. THERMOSTAT SHALL BE PROVIDED BY MECHANICAL/HVAC CONTRACTOR. COORDINATE THERMOSTAT LOCATION, MOUNTING, WIRING REQUIREMENTS, AND CONDUIT SIZE WITH MECHANICAL HVAC CONTRACTOR AND/OR MANUFACTURER.
- 9 SURFACE MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH TO STRUCTURAL WALL PER DETAIL 3 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.
- 10 COORDINATE INSTALLATION OF SUPPLY FAN AND INTEGRATED CONTROL PANEL WITH HVAC. PROPOSED SUPPLY FAN, CONTROL PANEL, AND ASSOCIATED INSTRUMENTATION AND COMPONENTS SHOWN ON THIS DRAWING ARE FURNISHED BY FAN MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS, ASSOCIATED CONDUIT/WIRE, SUPPORTS, ETC. REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM THAT ARE NOT FURNISHED AND INSTALLED BY MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH FAN MANUFACTURER. REFER TO SUPPLY FAN FIELD INTERFACE WIRING SCHEMATIC ON DRAWING NO. [E-38] FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- 11 RACK MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH PER DETAIL 4 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.



CHLORINE STORAGE BUILDING
SCALE: 1/4" = 1'
PLANT NORTH


REVISION DESCRIPTION	DATE	REV. BY


 7/1/2022
 CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 OPERATIONS BUILDING - LEVEL 1
 FLOOR PLAN - RENOVATION (SHEET 1 OF 2)

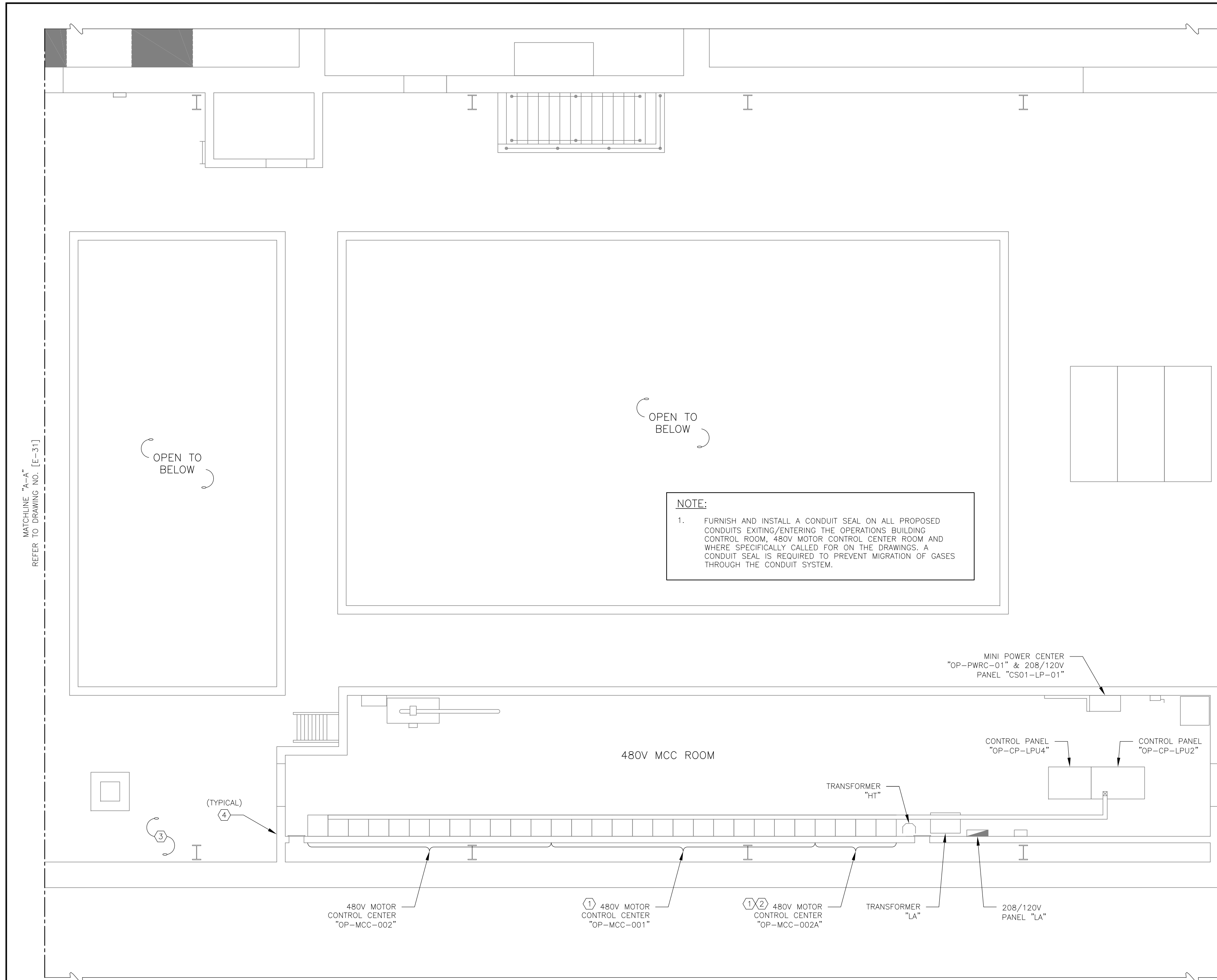
ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78756 - (512) 327-8840
 TBPE REG. NO. F-474

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
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SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315


HARUTUNIAN ENGINEERING INCORPORATED
 8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SHEET NUMBER	E-31
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KEY NOTES:

- ① REFER TO ONE-LINE DIAGRAMS AND ELEVATIONS FOR MODIFICATIONS TO MOTOR CONTROL CENTERS "OP-MCC-001" AND "OP-MCC-002A".
- ② EXISTING 120/240V PANEL "O-H-1" IS LOCATED IN SECTION 3 OF 480V MOTOR CONTROL CENTER "OP-MCC-002A". REFER TO EQUIPMENT ONE-LINE DIAGRAM AND ELEVATION FOR ADDITIONAL INFORMATION.
- ③ ROUTE PROPOSED CONDUIT/WIRE PER DETAILS ON DRAWING NO. [E-52]. PROPOSED CONDUIT SHALL TURN DOWN AND PENETRATE STRUCTURAL ROOF OF 480V MCC ROOM. CONDUIT/WIRE SHALL CONTINUE TO 480V MOTOR CONTROL CENTER "OP-MCC-001" OR "OP-MCC-002A" AS APPLICABLE. CONTRACTOR SHALL ENSURE THAT PROPOSED CONDUIT/WIRE DOES NOT IMPEDE THE OPERATION OF THE EXISTING TRAVELING BRIDGE CRANE.
- ④ FURNISH AND INSTALL CONDUIT SEALING FITTING AS LAST CONDUIT BODY PRIOR TO 480V MCC ROOM. REFER TO DETAIL 1 ON DRAWING NO. [E-53].

NOTE:
 1. FURNISH AND INSTALL A CONDUIT SEAL ON ALL PROPOSED CONDUITS EXITING/ENTERING THE OPERATIONS BUILDING CONTROL ROOM, 480V MOTOR CONTROL CENTER ROOM AND WHERE SPECIFICALLY CALLED FOR ON THE DRAWINGS. A CONDUIT SEAL IS REQUIRED TO PREVENT MIGRATION OF GASES THROUGH THE CONDUIT SYSTEM.

REV	BY	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 OPERATIONS BUILDING - LEVEL 1
 FLOOR PLAN - RENOVATION (SHEET 2 OF 2)



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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

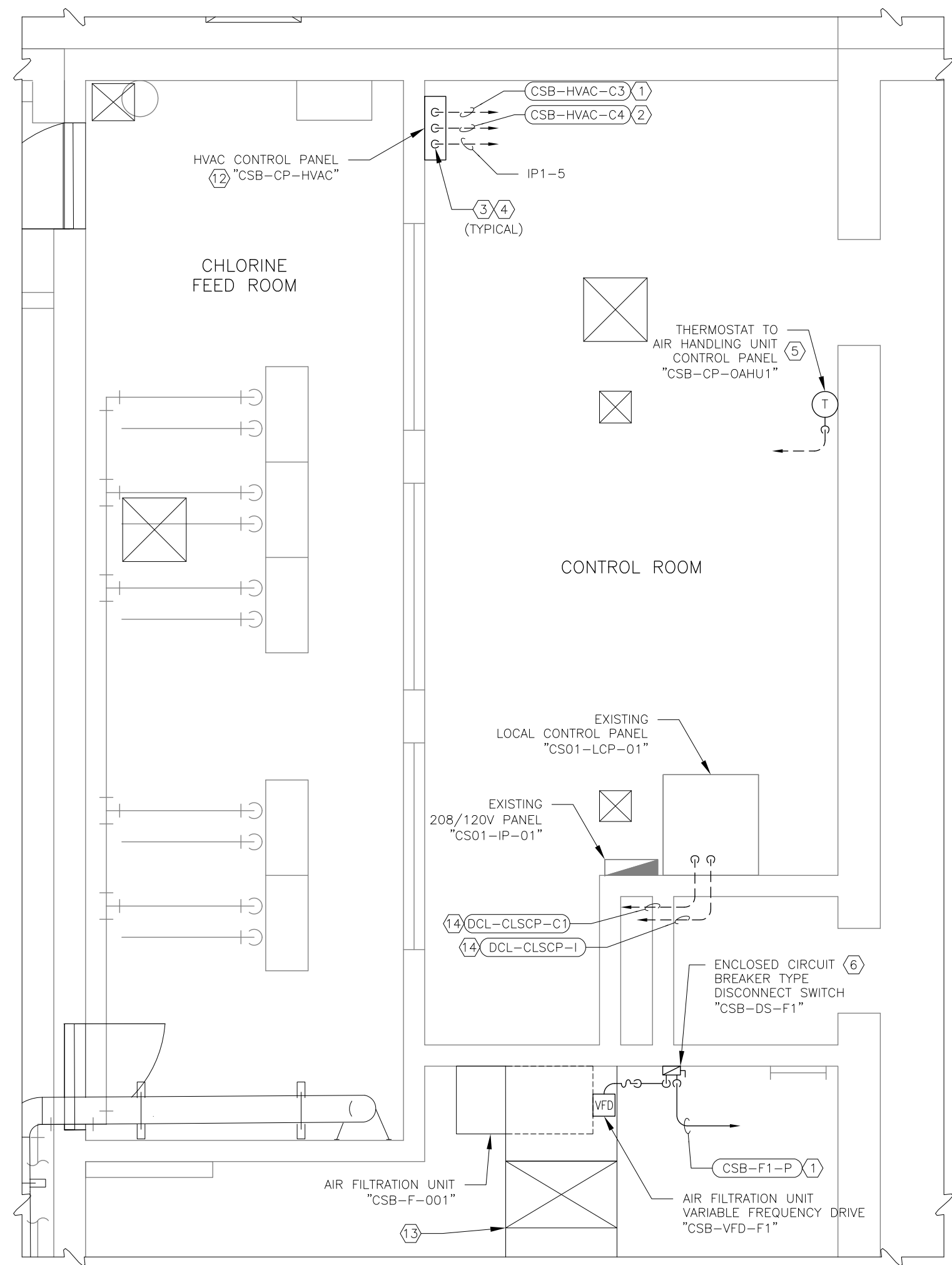


8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

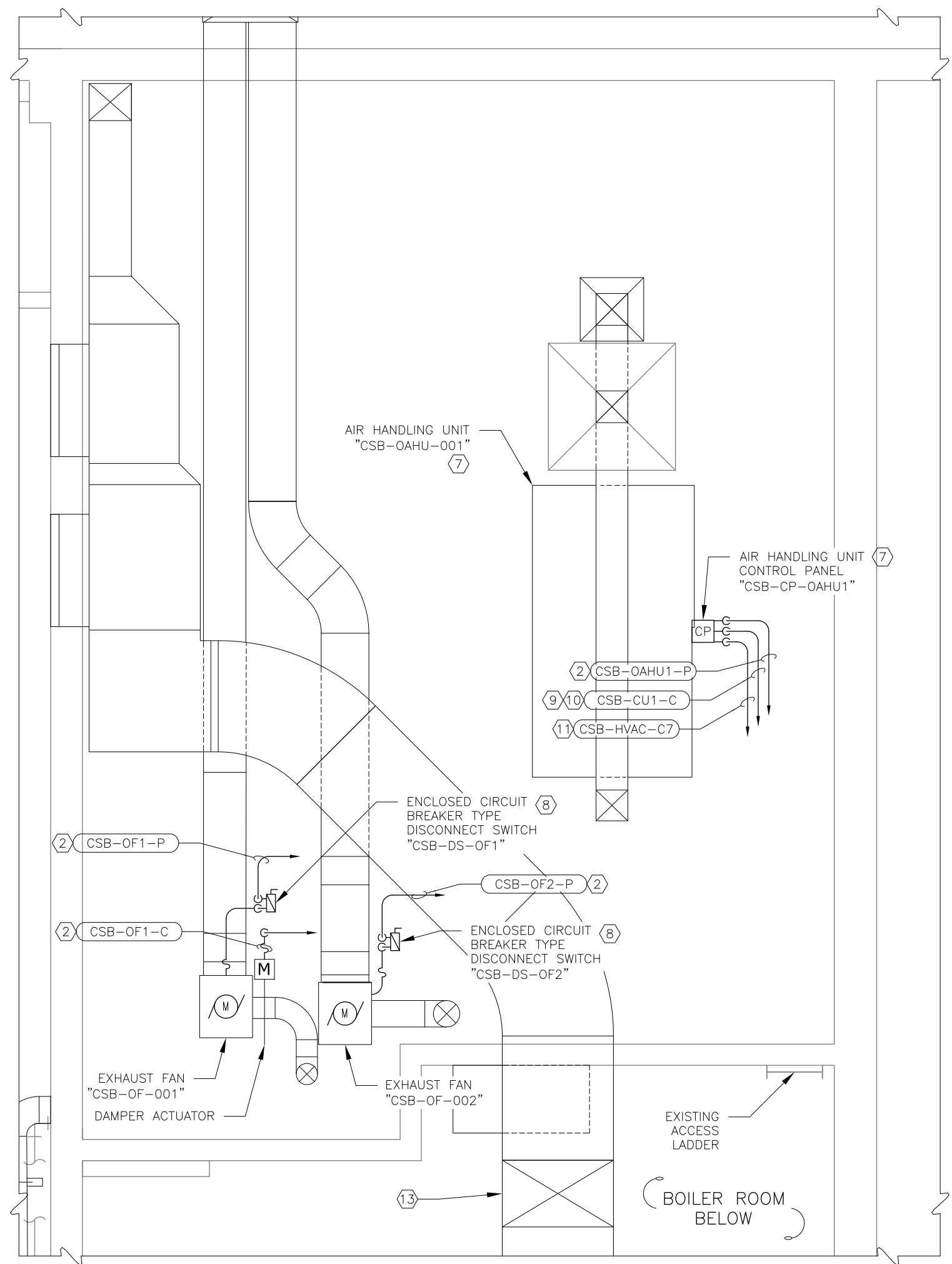
SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

SHEET NUMBER	E-32
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OPERATIONS BUILDING
 SCALE: 1/4" = 1'
 PLANT NORTH



**CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED FLOOR PLAN** (1) [E-31]
SCALE: 3/8" = 1'



**CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED ROOF PLAN** (2) [E-31]
SCALE: 3/8" = 1'

KEY NOTES:

- ① ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "OP-MCC-001" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-32] FOR 480V MOTOR CONTROL CENTER LOCATION.
- ② ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "OP-MCC-002A" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-32] FOR 480V MOTOR CONTROL CENTER LOCATION.
- ③ FURNISH AND INSTALL CONDUIT SEALING FITTING WHERE PROPOSED CONDUIT/WIRE PENETRATES THROUGH STRUCTURAL WALL PER DETAIL 1 ON DRAWING NO. [E-53]. ALTHOUGH NOT SHOWN, SEALING FITTINGS SHALL BE INSTALLED PRIOR TO ENTERING AREAS WITHOUT CHLORINE RELATED PROCESS/MECHANICAL EQUIPMENT. (I.E. CONTROL ROOM, BOILER ROOM, BUILDING EXTERIOR, ETC.)
- ④ CORE DRILL CONDUIT PENETRATIONS AS NECESSARY. COORDINATE LOCATIONS AND SIZES OF PENETRATIONS WITH STRUCTURAL CONTRACTOR. CONTRACTOR SHALL SEAL ANNUAL SPACE AROUND ALL CONDUIT PENETRATIONS PER DETAIL 6 ON DRAWING NO. [E-53] TO PREVENT THE MIGRATION OF CHLORINE GAS.
- ⑤ FURNISH AND INSTALL EMPTY OUTLET/DEVICE BOX AND CONDUIT/RACEWAY FOR INSTALLATION OF THERMOSTAT. THERMOSTAT SHALL BE PROVIDED BY MECHANICAL/HVAC CONTRACTOR. COORDINATE THERMOSTAT LOCATION, MOUNTING, WIRING REQUIREMENTS, AND CONDUIT SIZE WITH MECHANICAL HVAC CONTRACTOR AND/OR MANUFACTURER.
- ⑥ SURFACE MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH TO STRUCTURAL WALL PER DETAIL 3 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.
- ⑦ COORDINATE INSTALLATION OF AIR HANDLING UNIT AND INTEGRATED CONTROL PANEL WITH HVAC. PROPOSED AIR HANDLING UNIT, CONTROL PANEL, AND ASSOCIATED INSTRUMENTATION AND COMPONENTS SHOWN ON THIS DRAWING ARE FURNISHED BY EQUIPMENT MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS, ASSOCIATED CONDUIT/WIRE, SUPPORTS, ETC. REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM THAT ARE NOT FURNISHED AND INSTALLED BY MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH EQUIPMENT MANUFACTURER. REFER TO AIR HANDLING UNIT FIELD INTERFACE WIRING SCHEMATIC ON DRAWING NO. [E-38] FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- ⑧ RACK MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH PER DETAIL 4 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.

- KEY NOTES (CONTINUED):**
- ⑨ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
 - ⑩ ROUTE CONDUIT/WIRE TO CONDENSING UNIT "CSB-CU-001" PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-31] FOR ADDITIONAL INFORMATION.
 - ⑪ ROUTE CONDUIT/WIRE TO HVAC LOCAL CONTROL PANEL "CSB-CP-HVAC" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52].

- KEY NOTES (CONTINUED):**
- ⑫ FURNISH AND INSTALL NEXA 4X 316SS CONTROL PANEL ENCLOSURE MINIMALLY SIZED AT 16"W X 20"H X 6"D MOUNTED TO STRUCTURAL WALL PER DETAIL 3 ON DRAWING NO. [E-54]. MOUNT PROPOSED CIRCUIT BREAKERS, TERMINAL BLOCKS, AND CONTROL RELAYS TO BACKPLANE OF ENCLOSURE. REFER TO CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION. COORDINATE ADDITIONAL CONTROL PANEL DEVICES AND REQUIREMENTS WITH HVAC/MECHANICAL CONTROLS CONTRACTOR PRIOR TO RENOVATION ACTIVITIES.
 - ⑬ COORDINATE PROPOSED CONDUIT ROUTING WITH HVAC/MECHANICAL PRIOR TO RENOVATION ACTIVITIES TO PREVENT CONFLICTS. ADDITIONALLY, PROPOSED DUCT WORK MAY CONFLICT WITH LIGHT FIXTURES AND/OR EXISTING CONDUIT THAT IS TO REMAIN. CONTRACTOR SHALL FIELD VERIFY POTENTIAL CONFLICTS PRIOR TO DEMOLITION/RENOVATION ACTIVITIES AND RELOCATE EXISTING CONDUIT AND/OR LIGHT FIXTURES, AS NECESSARY, AT NO ADDITIONAL COST TO THE OWNER.

- KEY NOTES (CONTINUED):**
- ⑭ ROUTE CONDUIT/WIRE FROM CONTROL PANEL "CSO1-LCP-01" TO PROPOSED CHLORINE SCRUBBER CONTROL PANEL "DCL-CP-CLSC1". PROPOSED CONDUIT SHALL PENETRATE THE CEILING OF THE CONTROL ROOM AND CONTINUE WEST THROUGH THE BOILER ROOM CEILING SPACE. PROPOSED CONDUIT SHALL PENETRATE THE EXTERIOR WALL OF THE OPERATIONS BUILDING AND CONTINUE ALONG THE EXTERIOR SURFACE. ROUTE PROPOSED CONDUIT OVERHEAD ADJACENT TO THE EXISTING CHLORINE SCRUBBER SUPPLY DUCT. FURNISH AND INSTALL ALL NECESSARY SUPPORT MATERIAL NECESSARY TO SECURE PROPOSED CONDUIT TO EXISTING STRUCTURE PER DETAIL 1 ON DRAWING NO. [E-57]. REFER TO DRAWING NO. [E-34] FOR CONTINUATION.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
CHLORINE FEED ROOM & CONTROL ROOM
ENLARGED FLOOR/ROOF PLAN - RENOVATION



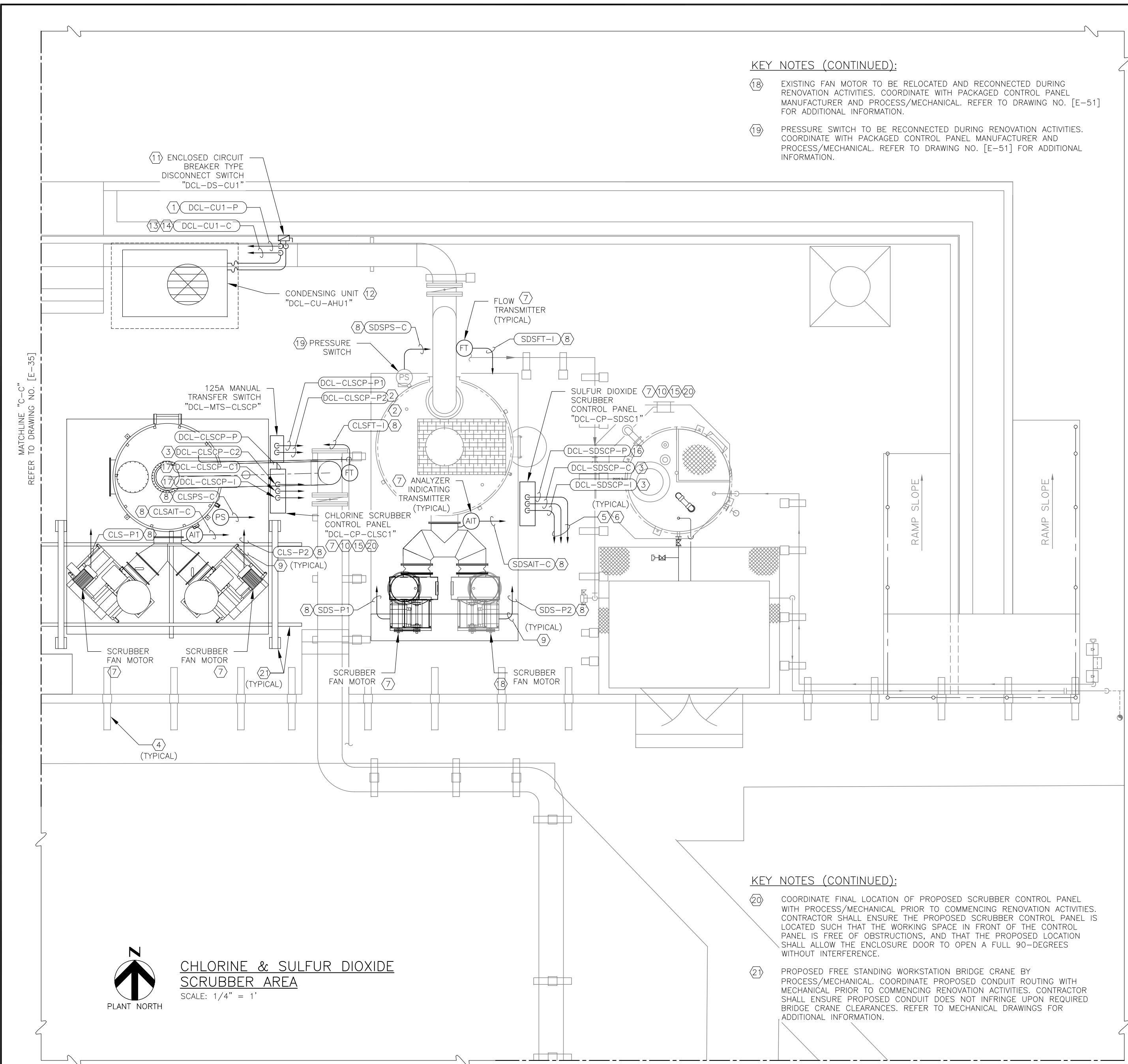
NOTES	NAME	DATE
SURVEY BY	N/A	
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CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-33



KEY NOTES (CONTINUED):

- ⑮ EXISTING FAN MOTOR TO BE RELOCATED AND RECONNECTED DURING RENOVATION ACTIVITIES. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NO. [E-51] FOR ADDITIONAL INFORMATION.
- ⑯ PRESSURE SWITCH TO BE RECONNECTED DURING RENOVATION ACTIVITIES. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NO. [E-51] FOR ADDITIONAL INFORMATION.

KEY NOTES (CONTINUED):

- ⑰ PROPOSED FREE STANDING WORKSTATION BRIDGE CRANE BY PROCESS/MECHANICAL. COORDINATE PROPOSED CONDUIT ROUTING WITH MECHANICAL PRIOR TO COMMENCING RENOVATION ACTIVITIES. CONTRACTOR SHALL ENSURE PROPOSED CONDUIT DOES NOT INFRINGE UPON REQUIRED BRIDGE CRANE CLEARANCES. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- ⑱ COORDINATE FINAL LOCATION OF PROPOSED SCRUBBER CONTROL PANEL WITH PROCESS/MECHANICAL PRIOR TO COMMENCING RENOVATION ACTIVITIES. CONTRACTOR SHALL ENSURE THE PROPOSED SCRUBBER CONTROL PANEL IS LOCATED SUCH THAT THE WORKING SPACE IN FRONT OF THE CONTROL PANEL IS FREE OF OBSTRUCTIONS, AND THAT THE PROPOSED LOCATION SHALL ALLOW THE ENCLOSURE DOOR TO OPEN A FULL 90-DEGREES WITHOUT INTERFERENCE.

KEY NOTES:

- ① ROUTE CONDUIT/WIRE TO MOTOR CONTROL CENTER "DS01-MCC-01" OVERHEAD ON EXISTING CONDUIT SUPPORT RACKS.
- ② ROUTE CONDUIT/WIRE TO MOTOR CONTROL CENTER "DS01-MCC-02" OVERHEAD ON EXISTING CONDUIT SUPPORT RACKS.
- ③ ROUTE CONDUIT/WIRE TO CONTROL PANEL "DS01-LCP-01" OVERHEAD ON EXISTING CONDUIT SUPPORT RACKS.
- ④ SHOULD EXISTING CONDUIT SUPPORT RACKS HAVE INSUFFICIENT PHYSICAL SPACE OR LOAD CAPACITY FOR PROPOSED CONDUIT/WIRE, CONTRACTOR SHALL FURNISH AND INSTALL ALL ADDITIONAL CONDUIT SUPPORT RACKS NECESSARY TO SUPPORT THE PROPOSED CONDUIT/WIRE AT NO ADDITIONAL COST TO THE OWNER. REFER TO DETAIL 3 ON DRAWING NO. [E-57] AND DETAILS ON DRAWING NO. [E-52] FOR ADDITIONAL INFORMATION.
- ⑤ CORE DRILL CONDUIT PENETRATIONS AS NECESSARY. COORDINATE LOCATIONS AND SIZES OF PENETRATIONS WITH STRUCTURAL. CONTRACTOR SHALL SEAL ANNULAR SPACE AROUND ALL CONDUIT PENETRATIONS PER DETAIL 6 ON DRAWING NO. [E-53].
- ⑥ FURNISH AND INSTALL CONDUIT SEALING FITTING WHERE PROPOSED CONDUIT/WIRE PENETRATES THROUGH STRUCTURAL WALL PER DETAIL 1 ON DRAWING NO. [E-53]. ALTHOUGH NOT SHOWN, CONDUIT SEALING FITTING SHALL BE INSTALLED AS THE LAST CONDUIT BODY PRIOR TO ENTERING BUILDING.
- ⑦ PROPOSED SCRUBBER, MOTORS, CONTROL PANEL, AND ASSOCIATED INSTRUMENTATION AND COMPONENTS SHOWN ON THIS DRAWING ARE FURNISHED BY SCRUBBER MANUFACTURER UNLESS NOTED OTHERWISE. ALL COMPONENTS, ASSOCIATED CONDUIT/ WIRE, SUPPORTS, ETC. REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM THAT ARE NOT FURNISHED AND INSTALLED BY MANUFACTURER SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH SCRUBBER MANUFACTURER. REFER TO SCRUBBER UNIT FIELD INTERFACE WIRING SCHEMATIC ON DRAWING NOS. [E-45] AND [E-51] FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- ⑧ EXTEND CONDUIT, AS REQUIRED, FROM THE INDIVIDUAL COMPONENTS WITHIN THE SCRUBBER SYSTEM TO THE SCRUBBER UNIT CONTROL PANEL. REPLACE WIRING IN ITS ENTIRETY, AS REQUIRED, TO AVOID SPLICES IN WIRING AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURERS RECOMMENDATIONS.
- ⑨ FURNISH AND INSTALL CONDUIT RACKING SYSTEM TO SUPPORT CONDUIT AND MAINTAIN A MINIMUM OF 6" CLEARANCE ABOVE FINISHED GRADE.
- ⑩ AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICES REQUIRED. LOCATIONS/QTYS SHOWN ARE APPROXIMATE AND ARE SHOWN FOR ILLUSTRATION PURPOSES. ACTUAL LOCATIONS/QTYS DETERMINED BY EQUIPMENT MANUFACTURER AND MAY VARY. COORDINATE REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND SPECIFICATIONS. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICES AND DEVICE INTERCONNECTING CONDUIT/WIRE, WHETHER SHOWN HERE OR NOT, AND MAKE ALL FINAL CONNECTIONS PER SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS AND WIRING DIAGRAMS, TO FACILITATE A COMPLETE AND FUNCTIONAL SYSTEM AT NO ADDITIONAL COST TO THE OWNER. TYPICAL FOR ALL SYSTEM COMPONENTS SHOWN ON THIS DRAWING UNLESS NOTED OTHERWISE.
- ⑪ RACK MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH PER DETAIL 4 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.
- ⑫ AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE EQUIPMENT/DEVICE LOCATION IS APPROXIMATE. THE ACTUAL EQUIPMENT/DEVICE LOCATION MAY VARY. VERIFY LOCATION WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- ⑬ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ⑭ ROUTE CONDUIT/WIRE TO AIR HANDLING UNIT "DCL-AHU-001" PER DETAILS ON DRAWING NO. [E-52]. REFER TO ENLARGED FLOOR PLAN ON DRAWING NO. [E-35] FOR ADDITIONAL INFORMATION.
- ⑮ MANUFACTURER-PACKAGED SCRUBBER CONTROL PANEL SHALL BE MOUNTED ON CONDUIT SUPPORT CHANNEL RACK PER DETAILS 2 AND 4 ON DRAWING NO. [E-55].
- ⑯ ROUTE CONDUIT/WIRE TO PANELBOARD "HB" OVERHEAD ON EXISTING CONDUIT SUPPORT RACKS AND TERMINATE PROPOSED WIRE FEEDING PROPOSED SULFUR DIOXIDE SCRUBBER CONTROL PANEL "DCL-CP-SDSC1" TO EXISTING 125A CIRCUIT BREAKER.
- ⑰ ROUTE CONDUIT/WIRE TO CONTROL PANEL "DS01-LCP-01" IN CHLORINE STORAGE BUILDING. ROUTE PROPOSED CONDUIT OVERHEAD ADJACENT TO THE EXISTING CHLORINE SCRUBBER SUPPLY DUCT. FURNISH AND INSTALL ALL NECESSARY SUPPORT MATERIAL NECESSARY TO SECURE PROPOSED CONDUIT TO EXISTING STRUCTURE PER DETAIL 1 ON DRAWING NO. [E-57].

MATCHLINE "C-C"
REFER TO DRAWING NO. [E-35]

MATCHLINE "B-B"
REFER TO DRAWING NO. [E-31]



**CHLORINE & SULFUR DIOXIDE
SCRUBBER AREA**
SCALE: 1/4" = 1'

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 DECHLORINATION BUILDING
 FLOOR PLAN - RENOVATION (SHEET 1 OF 2)



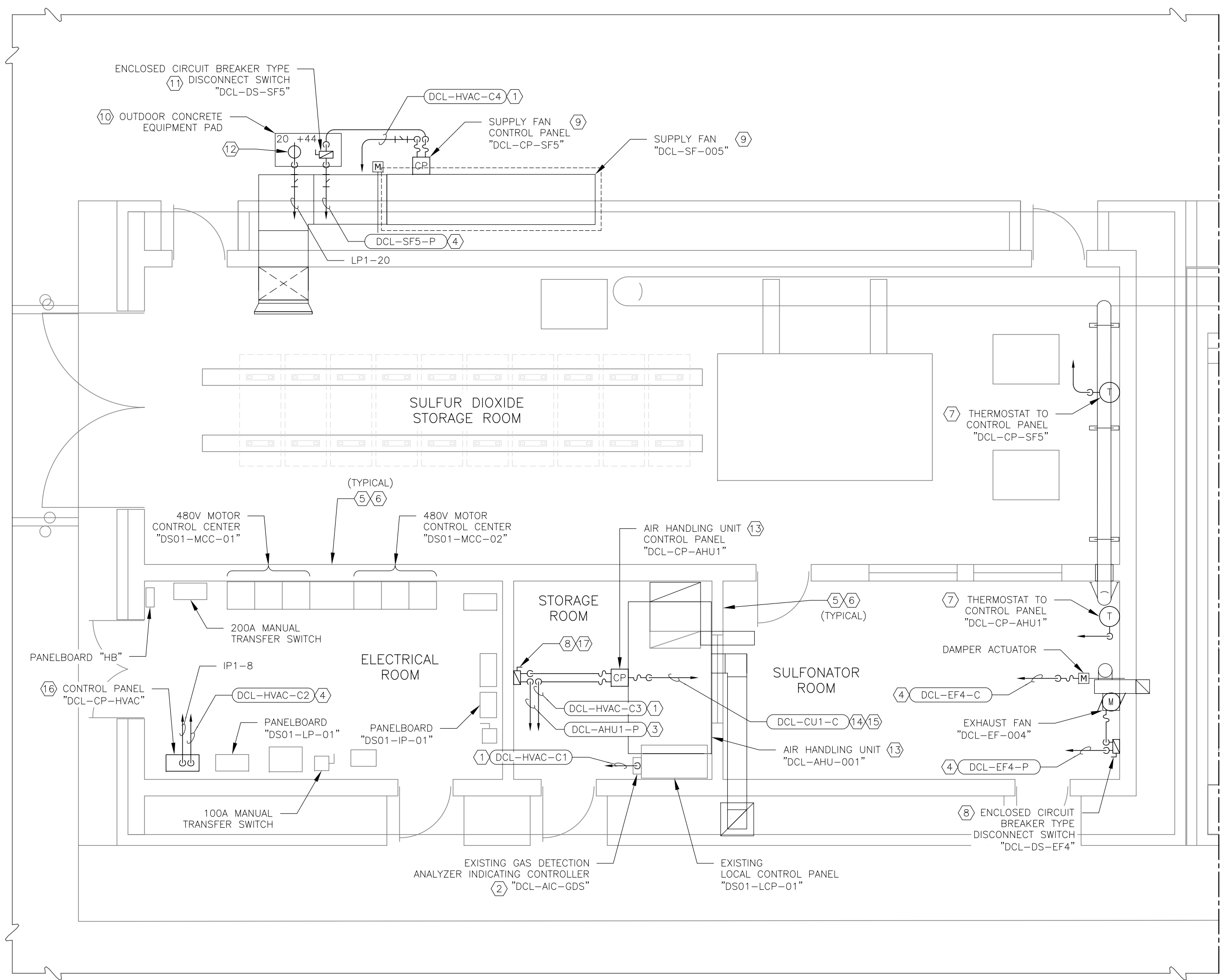
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SURVEY BY	N/A	
DRAWN BY	HEI	
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DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-34



MATCHLINE "C-C"
REFER TO DRAWING NO. [E-34]



DECHLORINATION BUILDING
SCALE: 1/4" = 1'

KEY NOTES:

- ① ROUTE CONDUIT/WIRE TO HVAC LOCAL CONTROL PANEL "DCL-CP-HVAC" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52].
- ② ASSOCIATED SULFUR DIOXIDE GAS ANALYZER INDICATING TRANSMITTERS ARE NOT SHOWN FOR CLARITY. REFER TO CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-49] FOR ADDITIONAL INFORMATION.
- ③ ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "DS01-MCC-01" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52].
- ④ ROUTE CONDUIT/WIRE TO 480V MOTOR CONTROL CENTER "DS01-MCC-02" IN CEILING SPACE PER DETAILS ON DRAWING NO. [E-52].
- ⑤ FURNISH AND INSTALL CONDUIT SEALING FITTING WHERE PROPOSED CONDUIT/WIRE PENETRATES THROUGH STRUCTURAL WALL PER DETAIL 1 ON DRAWING NO. [E-53]. ALTHOUGH NOT SHOWN, SEALING FITTINGS SHALL BE INSTALLED PRIOR TO ENTERING AREAS WITHOUT SULFUR DIOXIDE RELATED PROCESS/MECHANICAL EQUIPMENT. (I.E. ELECTRICAL ROOM, STORAGE ROOM, BUILDING EXTERIOR, ETC.)
- ⑥ CORE DRILL CONDUIT PENETRATIONS AS NECESSARY. COORDINATE LOCATIONS AND SIZES OF PENETRATIONS WITH STRUCTURAL CONTRACTOR SHALL SEAL ANNULAR SPACE AROUND ALL CONDUIT PENETRATIONS PER DETAIL 6 ON DRAWING NO. [E-53] TO PREVENT THE MIGRATION OF SULFUR DIOXIDE GAS.
- ⑦ FURNISH AND INSTALL EMPTY OUTLET/DEVICE BOX AND CONDUIT/RACEWAY FOR INSTALLATION OF THERMOSTAT. THERMOSTAT SHALL BE PROVIDED BY MECHANICAL/HVAC CONTRACTOR. COORDINATE THERMOSTAT LOCATION, MOUNTING, WIRING REQUIREMENTS, AND CONDUIT SIZE WITH MECHANICAL HVAC CONTRACTOR AND/OR MANUFACTURER.
- ⑧ SURFACE MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH TO STRUCTURAL WALL PER DETAIL 3 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.
- ⑨ COORDINATE INSTALLATION OF SUPPLY FAN AND INTEGRATED CONTROL PANEL WITH HVAC. PROPOSED SUPPLY FAN, CONTROL PANEL, AND ASSOCIATED INSTRUMENTATION AND COMPONENTS SHOWN ON THIS DRAWING ARE FURNISHED BY FAN MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS, ASSOCIATED CONDUIT/WIRE, SUPPORTS, ETC. REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM THAT ARE NOT FURNISHED AND INSTALLED BY MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH FAN MANUFACTURER. REFER TO SUPPLY FAN FIELD INTERFACE WIRING SCHEMATIC ON DRAWING NO. [E-46] FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- ⑩ FURNISH AND INSTALL OUTDOOR CONCRETE HOUSE-KEEPING PAD PER DETAIL 3 ON DRAWING NO. [E-53].
- ⑪ RACK MOUNT ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH PER DETAIL 4 ON DRAWING NO. [E-54]. COORDINATE EXACT LOCATION OF DISCONNECT SWITCH WITH MECHANICAL/HVAC CONTRACTOR AND EQUIPMENT MANUFACTURER IN ORDER TO OPTIMIZE CLEARANCES AND MAINTENANCE ACCESS TO UNIT.
- ⑫ FURNISH AND INSTALL PIN AND SLEEVE TYPE RECEPTACLE ON SUPPORT CHANNEL RACK ADJACENT TO ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT/WIRE, SUPPORTS, ETC. TO/FROM EXISTING PANEL "DS01-LP-01". REFER TO PANEL SCHEDULE ON DRAWING NO. [E-29] FOR ADDITIONAL INFORMATION.
- ⑬ COORDINATE INSTALLATION OF AIR HANDLING UNIT AND INTEGRATED CONTROL PANEL WITH HVAC. PROPOSED AIR HANDLING UNIT, CONTROL PANEL, AND ASSOCIATED INSTRUMENTATION AND COMPONENTS SHOWN ON THIS DRAWING ARE FURNISHED BY EQUIPMENT MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL FURNISH AND INSTALL ALL COMPONENTS, ASSOCIATED CONDUIT/WIRE, SUPPORTS, ETC. REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM THAT ARE NOT FURNISHED AND INSTALLED BY MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE WITH EQUIPMENT MANUFACTURER. REFER TO AIR HANDLING UNIT FIELD INTERFACE WIRING SCHEMATIC ON DRAWING NO. [E-38] FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- ⑭ ROUTE CONDUIT/WIRE TO CONDENSING UNIT "DCL-CU-001" PER DETAILS ON DRAWING NO. [E-52]. REFER TO FLOOR PLAN ON DRAWING NO. [E-34] FOR ADDITIONAL INFORMATION.
- ⑮ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ⑯ FURNISH AND INSTALL NEMA 4X 316SS CONTROL PANEL ENCLOSURE MINIMALLY SIZED AT 16"W X 20"H X 6"D MOUNTED TO STRUCTURAL WALL PER DETAIL 3 ON DRAWING NO. [E-54]. MOUNT PROPOSED CIRCUIT BREAKERS, TERMINAL BLOCKS, AND CONTROL RELAYS TO BACKPLANE OF ENCLOSURE. REFER TO CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION. COORDINATE ADDITIONAL CONTROL PANEL DEVICES AND REQUIREMENTS WITH HVAC/MECHANICAL CONTROLS CONTRACTOR PRIOR TO RENOVATION ACTIVITIES.
- ⑰ PROPOSED ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH TAGGED "DCL-DS-AHU1"

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 DECHLORINATION BUILDING
 FLOOR PLAN - RENOVATION (SHEET 2 OF 2)



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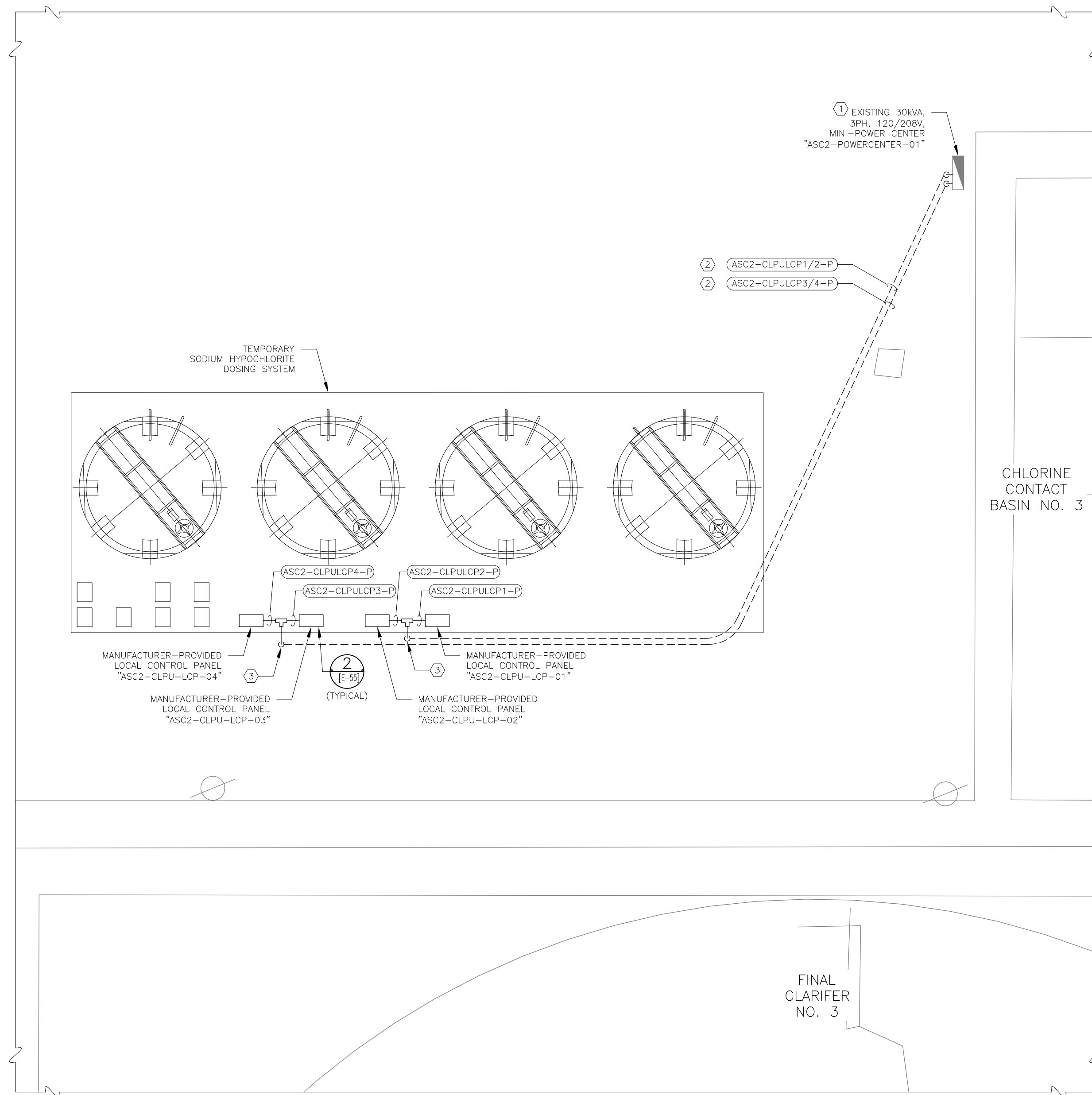
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	
SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	

SHEET NUMBER **E-35**

KEY NOTES:

- ① EXISTING MINI-POWER CENTER IS TAGGED "CS01-LP-02". CONTRACTOR SHALL FURNISH AND INSTALL PHENOLIC NAME PLATE PER SPECIFICATIONS. PROPOSED NAME PLATE INSCRIPTION SHALL READ: "ASC2-POWERCENTER-01". REFER TO PANEL SCHEDULE ON DRAWING NO. [E-30] FOR ADDITIONAL INFORMATION.
- ② PROPOSED CONDUIT/WIRE TURNS DOWN TO PROPOSED UNDERGROUND DUCT BANK. PROPOSED TEMPORARY DUCT BANK SHALL CONSIST OF THE REQUIRED QUANTITY OF PROPOSED CONDUITS ENCASED IN SUITABLE BACKFILL MATERIAL AND CAPPED WITH A MINIMUM OF 2" OF CONCRETE, DYED RED PER SPECIFICATIONS. SPACE CONDUITS PER THE DETAILS ON DRAWING NO. [E-58]. CONTRACTOR SHALL ENSURE MINIMUM SOIL COVER OF 24", MEASURED BETWEEN THE TOP OF THE CONCRETE CAP AND FINISHED GRADE, ACROSS THE ENTIRE LENGTH OF THE DUCT BANK. INCREASE SOIL COVER AS NEEDED PER FIELD CONDITIONS OR THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- ③ CONDUIT/WIRE TURNS UP FROM THE UNDERGROUND DUCT BANK ADJACENT TO PROPOSED TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM. CONDUIT/WIRE CONTINUE EXPOSED TO TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM MANUFACTURER-PROVIDED LOCAL CONTROL PANEL. COORDINATE FINAL EQUIPMENT LOCATION AND CONDUIT ENTRANCE LOCATION WITH PROCESS/MECHANICAL PRIOR TO RENOVATION ACTIVITIES. SUPPORT CONDUIT/WIRE ON SUPPORT RACK PER DETAILS ON DRAWING NO. [E-52] AND MAKE ALL FINAL CONNECTIONS.



**TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM
AT CHLORINE CONTACT BASIN NO. 3**
SCALE: 1" = 5'

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM
PARTIAL SITE PLAN (1 OF 2) - PROPOSED



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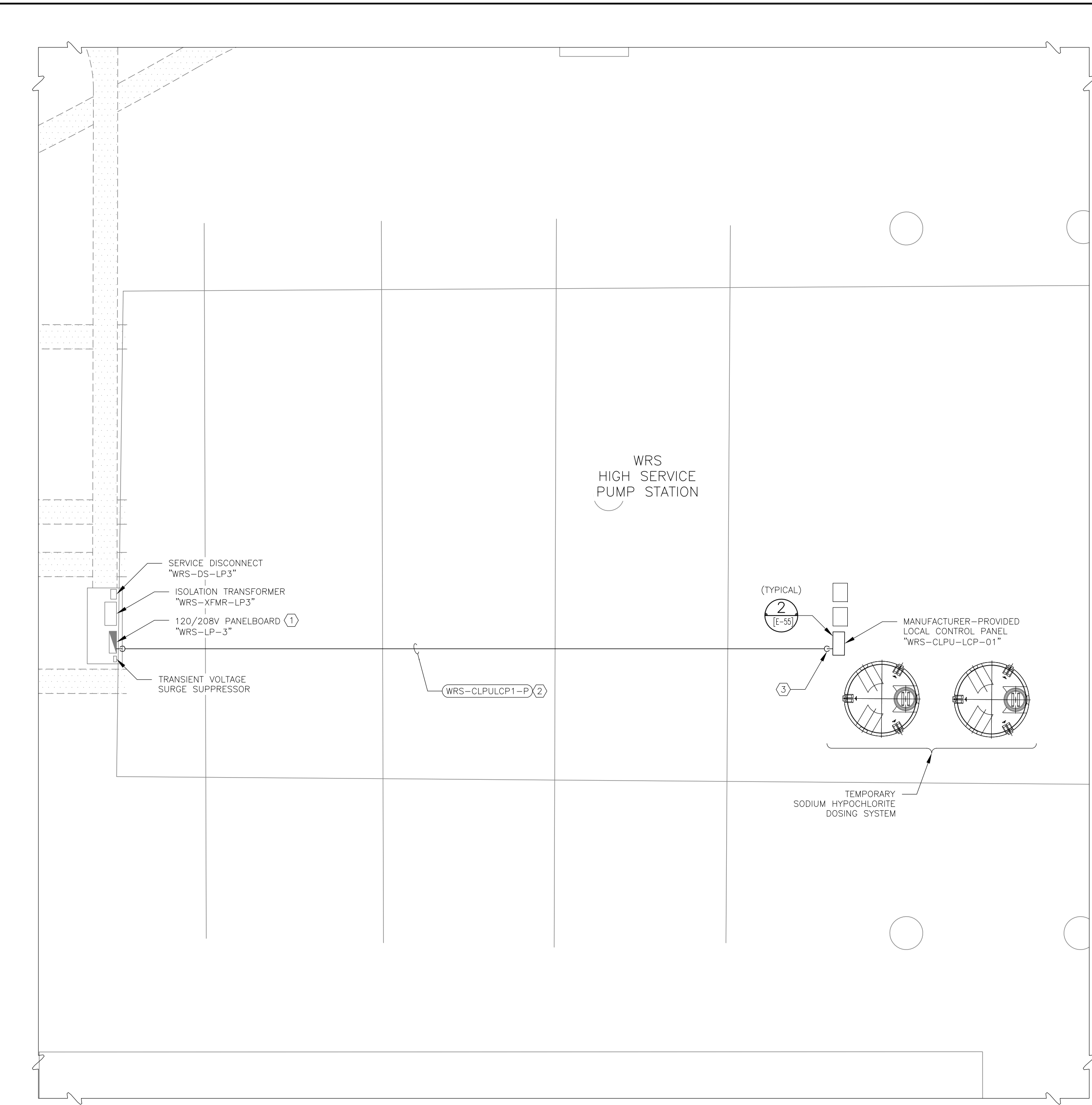
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REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER: E-36



KEY NOTES:

- ① REFER TO PANEL SCHEDULE ON DRAWING NO. [E-30] FOR ADDITIONAL INFORMATION.
- ② PROPOSED CONDUIT SHALL BE ROUTED EXPOSED ALONG THE EXTERIOR FLOOR OF WRS HIGH SERVICE PUMP STATION PER DETAILS ON DRAWING NO. [E-52]. FURNISH AND INSTALL ALL CONDUIT, FITTINGS, PULL BOXES, SUPPORTS, ETC NECESSARY TO CONSTRUCT A COMPLETE RACEWAY SYSTEM TO MANUFACTURER-PACKAGED SODIUM HYPOCHLORITE DOSING SYSTEM CONTROL PANEL "WRS-CLPU-LCP-01". ADJUST CONDUIT ROUTING AS NECESSARY TO MINIMIZE TRIPS HAZARDS. COORDINATE WITH PROCESS MECHANICAL TO AVOID CONFLICTS. FURNISH AND INSTALL PROPOSED CABLE/WIRE AND MAKE ALL FINAL TERMINATIONS.
- ③ CONDUIT/WIRE TURNS UP TO PROPOSED TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM. COORDINATE FINAL EQUIPMENT LOCATION AND CONDUIT ENTRANCE LOCATION WITH PROCESS/MECHANICAL PRIOR TO RENOVATION ACTIVITIES. SUPPORT CONDUIT/WIRE ON SUPPORT RACK PER DETAILS ON DRAWING NO. [E-52] AND MAKE ALL FINAL CONNECTIONS.

REV. NO.	BY	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM
 PARTIAL SITE PLAN (2 OF 2) - PROPOSED

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78756 - (512) 327-6840
 TBP REG. NO. F-474



**TEMPORARY SODIUM HYPOCHLORITE DOSING SYSTEM
 AT WRS HIGH SERVICE PUMP STATION**

SCALE: 1" = 5'

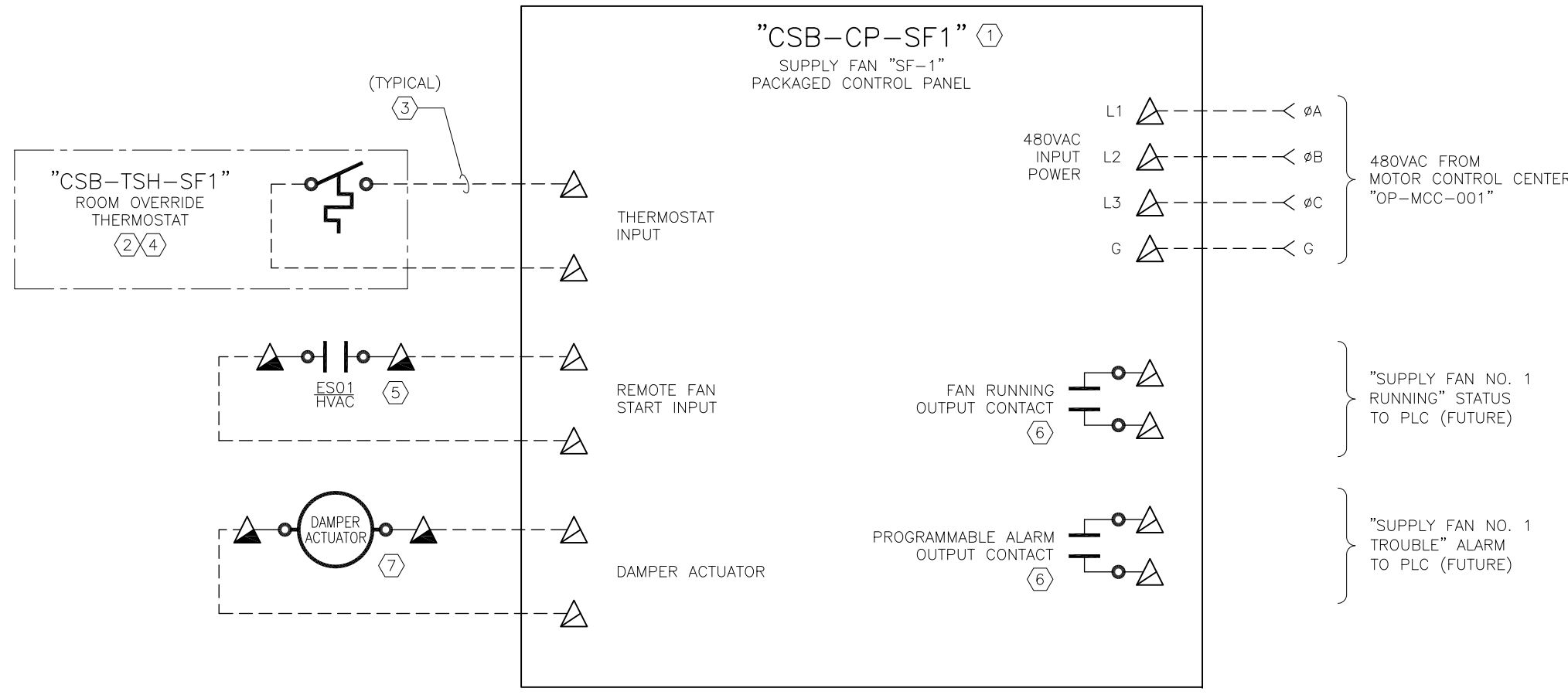
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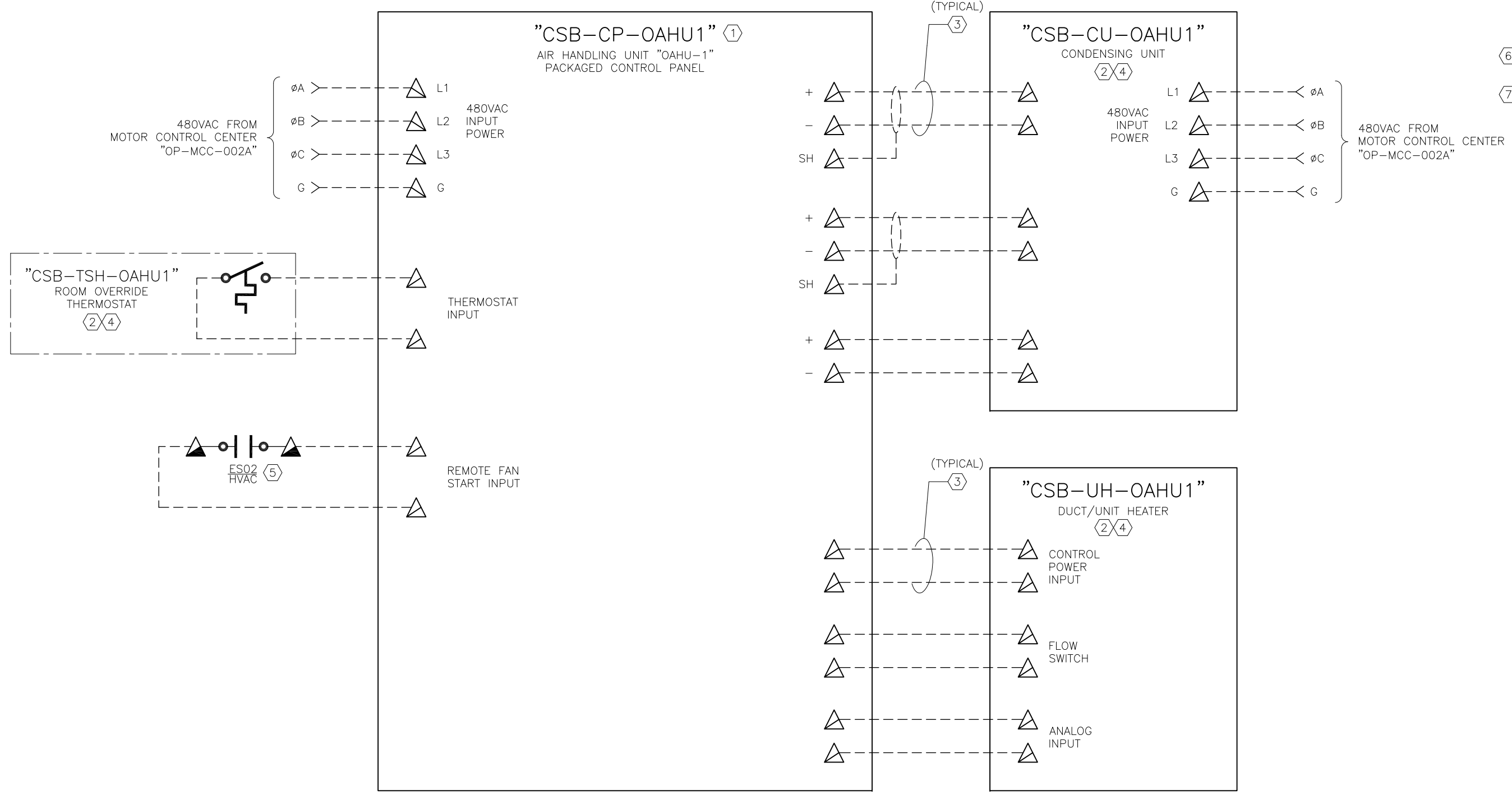
8100 CROSS PARK DRIVE
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NOTES	NAME	DATE
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DRAWN BY	HEI	
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DESIGNED BY	HEI	
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SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	

SHEET NUMBER **E-37**



**SUPPLY FAN "SF-1" PACKAGED CONTROL PANEL -
FIELD INTERFACE WIRING SCHEMATIC**
SCALE: N.T.S.



**AIR HANDLING UNIT "OAHU-1" PACKAGED CONTROL PANEL -
FIELD INTERFACE WIRING SCHEMATIC**
SCALE: N.T.S.

KEY NOTES:

- ① THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER AND IS LOCATED WITHIN SUPPLY FAN ENCLOSURE. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- ② AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE EQUIPMENT/DEVICE LOCATION IS APPROXIMATE. THE ACTUAL EQUIPMENT/DEVICE QUANTITY/LOCATION MAY VARY. VERIFY LOCATION AND QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- ③ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ④ FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ EMERGENCY SHUT-OFF CONTACT IS PART OF THE HVAC EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN HVAC CONTROL PANEL "CSB-CP-HVAC". CONTACT IS NORMALLY ENERGIZED AND DE-ENERGIZES ON ALARM CONDITION. REFER TO DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION.
- ⑥ CONTROL RELAY CONTACTS SHALL BE RATED 5A, 120VAC. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
- ⑦ PROPOSED 120V DAMPER ACTUATOR IS FURNISHED BY OTHERS. DAMPER TO BE INTERLOCKED WITH SUPPLY FAN OPERATION. DAMPER TO REMAIN OPEN WHEN SUPPLY FAN IS ENERGIZED AND CLOSED WHEN SUPPLY FAN IS DE-ENERGIZED. REFER TO FLOOR PLAN ON DRAWING NO. [E-31] FOR DAMPER ACTUATOR LOCATION.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

AIR HANDLING UNIT "OAHU-001" & SUPPLY FAN "SF-001" INTERFACE WIRING SCHEMATIC - RENOVATION

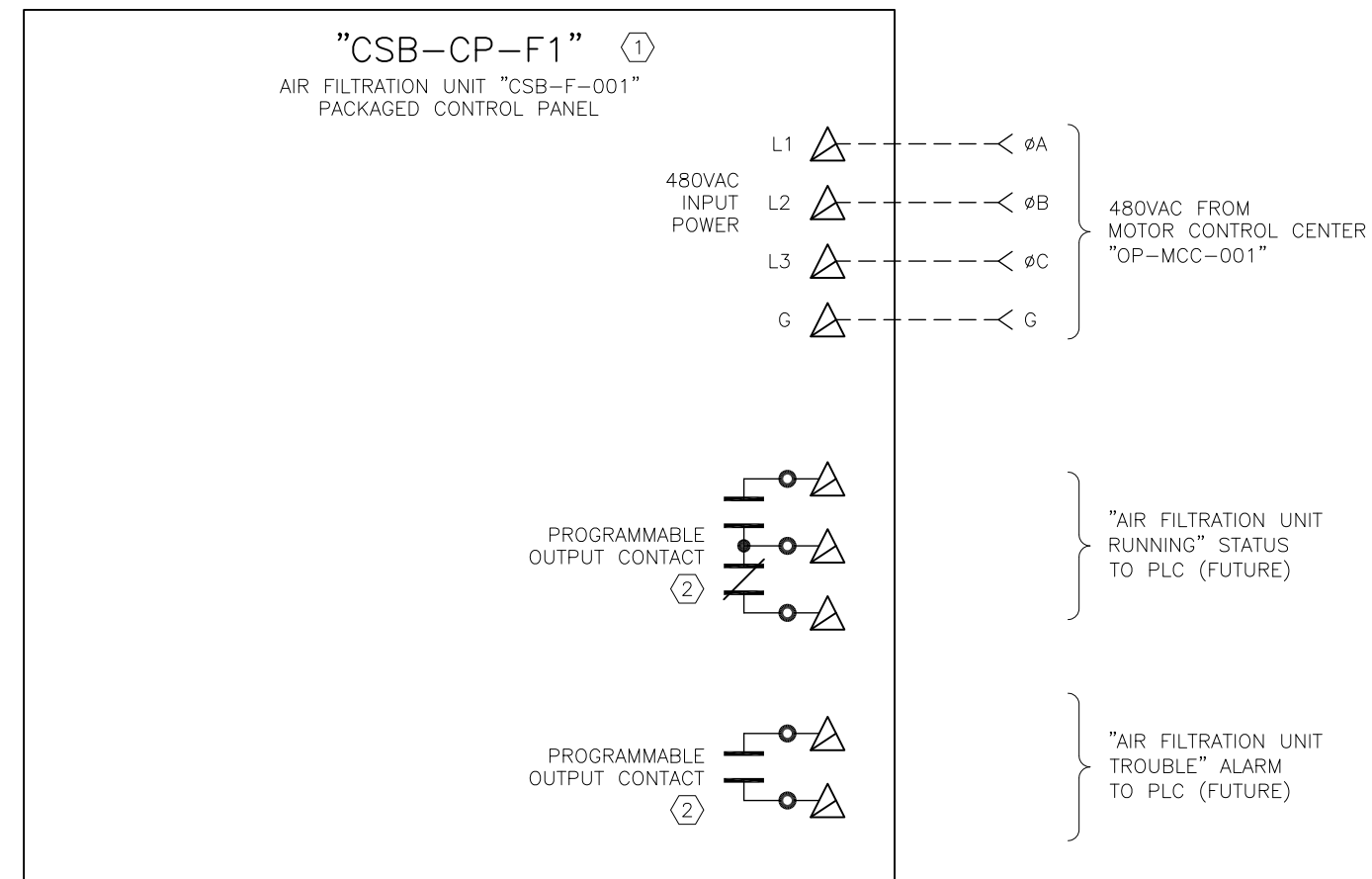


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SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

HARUTUNIAN ENGINEERING INCORPORATED

8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315
SHEET NUMBER	E-38



AIR FILTRATION UNIT "CSB-F-001" PACKAGED CONTROL PANEL -
FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

KEY NOTES:

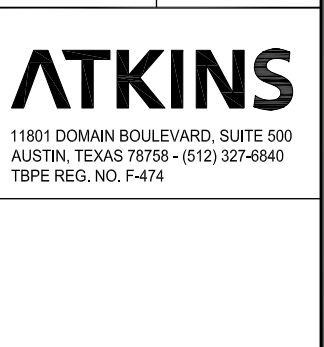
- ① THE PROPOSED VARIABLE FREQUENCY DRIVE IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- ② CONTROL RELAY CONTACTS SHALL BE RATED 5A, 120VAC. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.

REV. NO.	BY	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

AIR FILTRATION UNIT "CSB-PPU-001"
CONTROL WIRING SCHEMATIC - RENOVATION



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

**HARUTUNIAN
ENGINEERING
INCORPORATED**

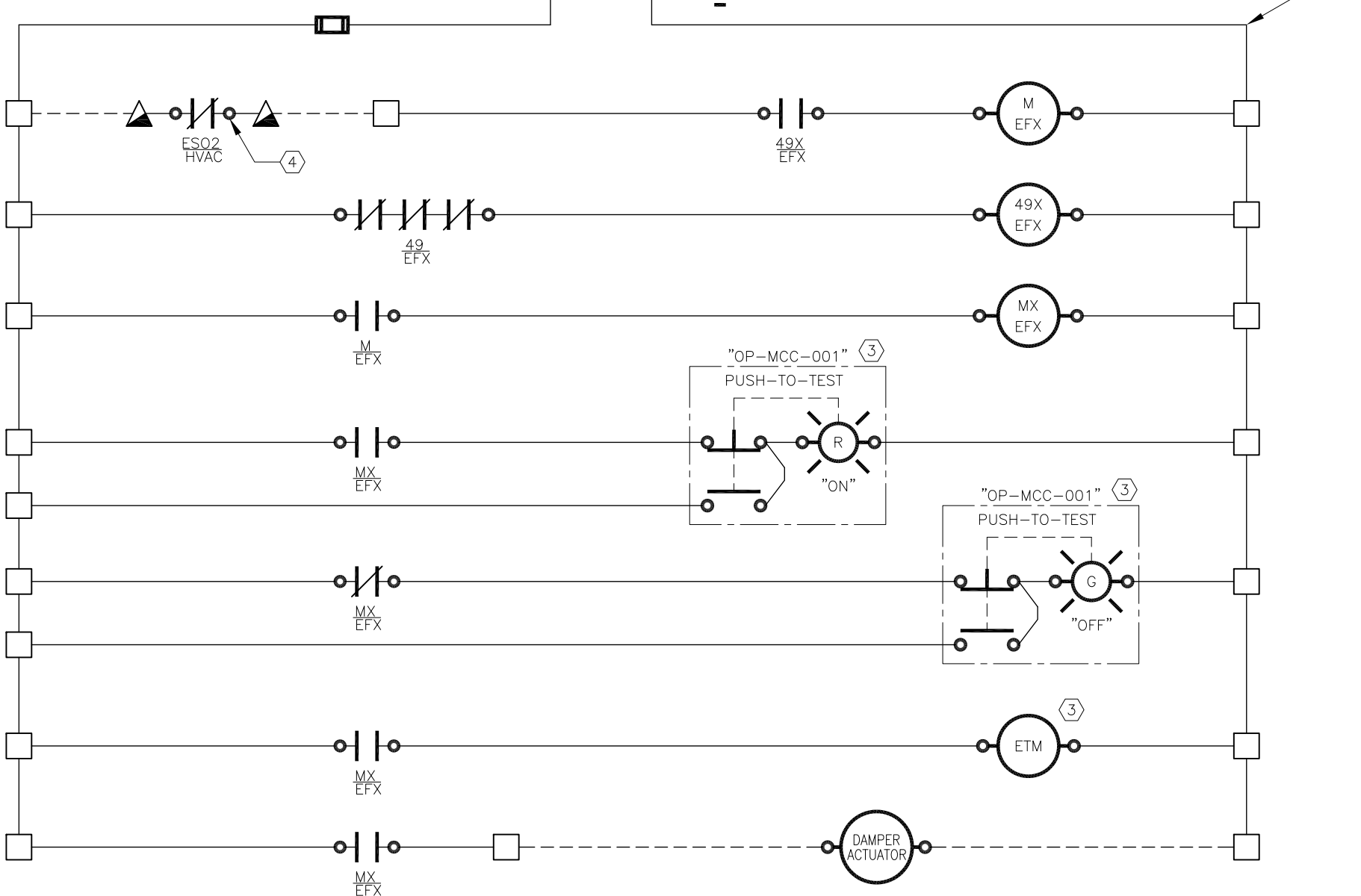
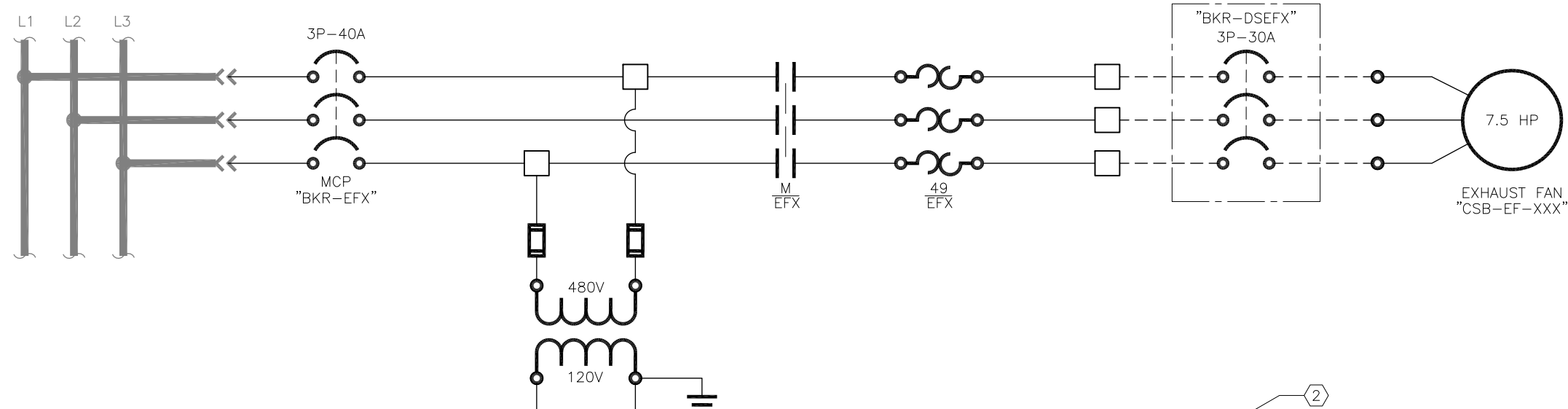
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315
SHEET NUMBER	E-39

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480V MOTOR CONTROL CENTER
"OP-MCC-001"
480V, 3Ø, 3W



KEY NOTES:

- ① THIS DRAWING IS TYPICAL FOR MULTIPLE EQUIPMENT. THE ACTUAL TAG FOR EACH EQUIPMENT WILL DIFFER FROM THAT SHOWN HERE. REFER TO THE APPLICABLE TAG REPLACEMENT SCHEDULE TO DERIVE THE CORRESPONDING TAGS FOR EACH PROPOSED EQUIPMENT.
- ② FURNISH AND INSTALL PROPOSED MCC STARTER BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ③ DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- ④ EMERGENCY SHUT-OFF CONTACT IS PART OF THE HVAC EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN HVAC CONTROL PANEL. "CSB-OP-HVAC". CONTACT IS NORMALLY ENERGIZED AND DE-ENERGIZES ON ALARM CONDITION. REFER TO DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION.

NOTE:
THIS DRAWING IS TYPICAL FOR PROPOSED EXHAUST FANS: "CSB-EF-001" AND "CSB-EF-002".

EXHAUST FAN TAG REPLACEMENT SCHEDULE ①

EQUIPMENT DESCRIPTION	XXX=	EFX=
EXHAUST FAN "CSB-EF-001"	001	EF1
EXHAUST FAN "CSB-EF-002"	002	EF2

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

EXHAUST FAN "CSB-EF-001" & "CSB-EF-002"
CONTROL WIRING SCHEMATIC - RENOVATION



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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

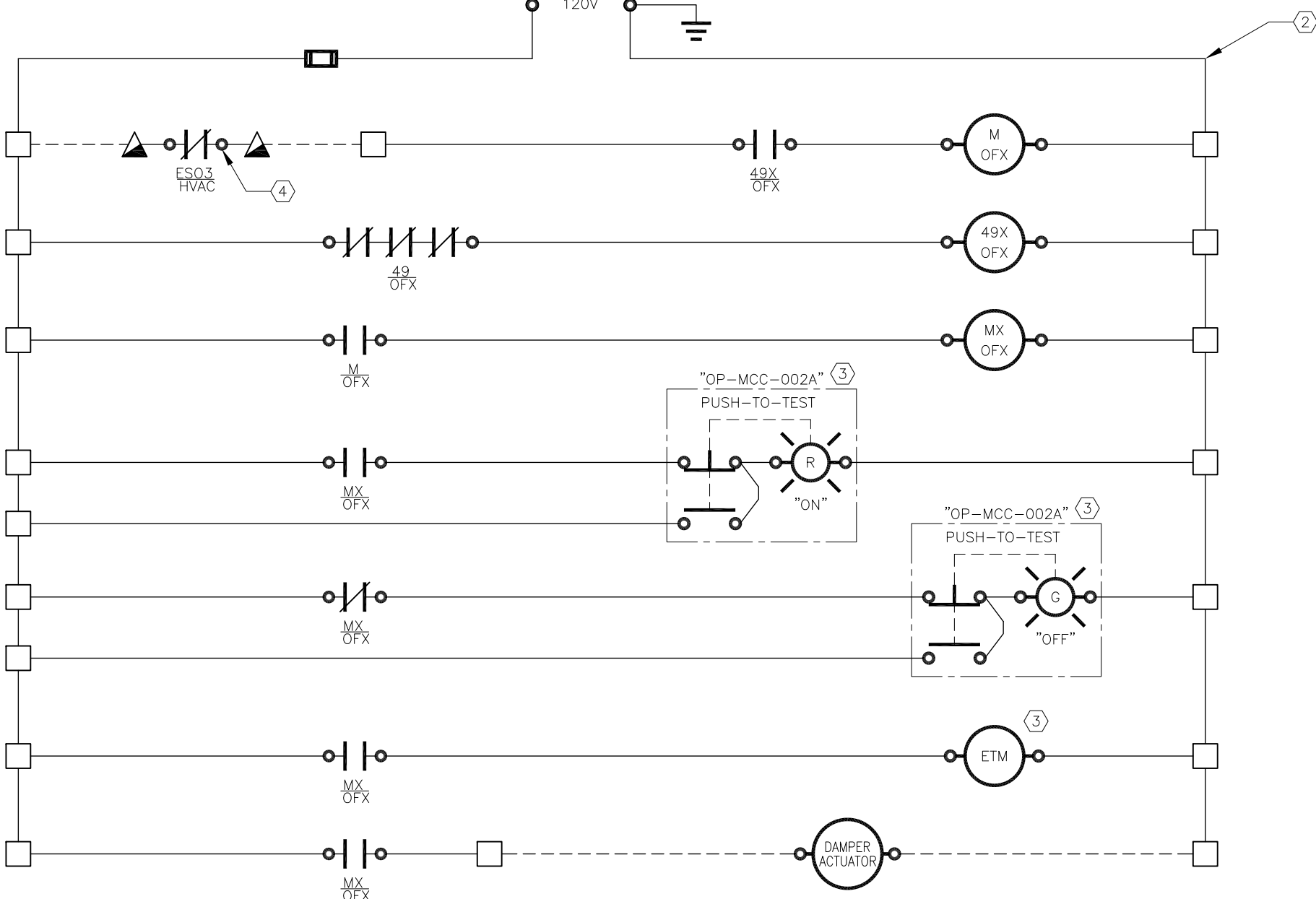
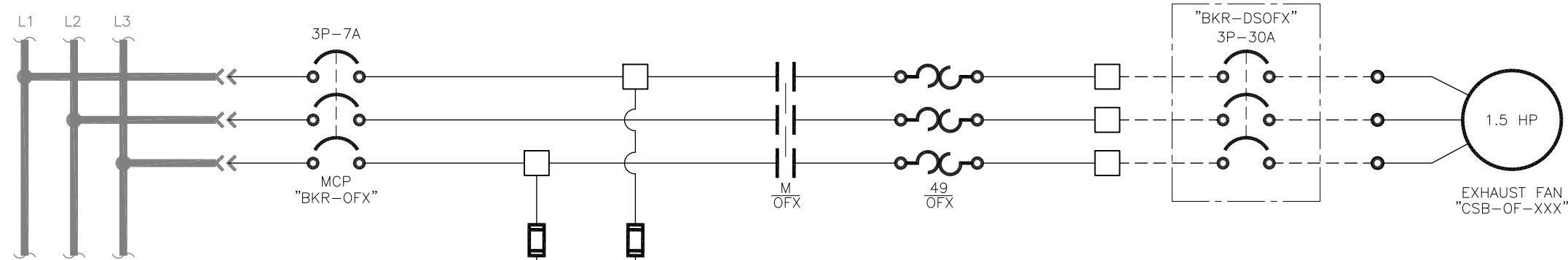


8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-40

480V MOTOR CONTROL CENTER
"OP-MCC-002A"
480V, 3Ø, 3W



KEY NOTES:

- ① THIS DRAWING IS TYPICAL FOR MULTIPLE EQUIPMENT. THE ACTUAL TAG FOR EACH EQUIPMENT WILL DIFFER FROM THAT SHOWN HERE. REFER TO THE APPLICABLE TAG REPLACEMENT SCHEDULE TO DERIVE THE CORRESPONDING TAGS FOR EACH PROPOSED EQUIPMENT.
- ② FURNISH AND INSTALL PROPOSED MCC STARTER BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ③ DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- ④ EMERGENCY SHUT-OFF CONTACT IS PART OF THE HVAC EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN HVAC CONTROL PANEL. "CSB-OP-HVAC". CONTACT IS NORMALLY ENERGIZED AND DE-ENERGIZES ON ALARM CONDITION. REFER TO DRAWING NO. [E-44] FOR ADDITIONAL INFORMATION.

NOTE:
THIS DRAWING IS TYPICAL FOR PROPOSED EXHAUST FANS: "CSB-OF-001" AND "CSB-OF-002".

EXHAUST FAN TAG REPLACEMENT SCHEDULE ①

EQUIPMENT DESCRIPTION	XXX=	EFX=
EXHAUST FAN "CSB-OF-001"	001	OF1
EXHAUST FAN "CSB-OF-002"	002	OF2

REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
EXHAUST FAN "CSB-OF-001" & "CSB-OF-002"
CONTROL WIRING SCHEMATIC - RENOVATION



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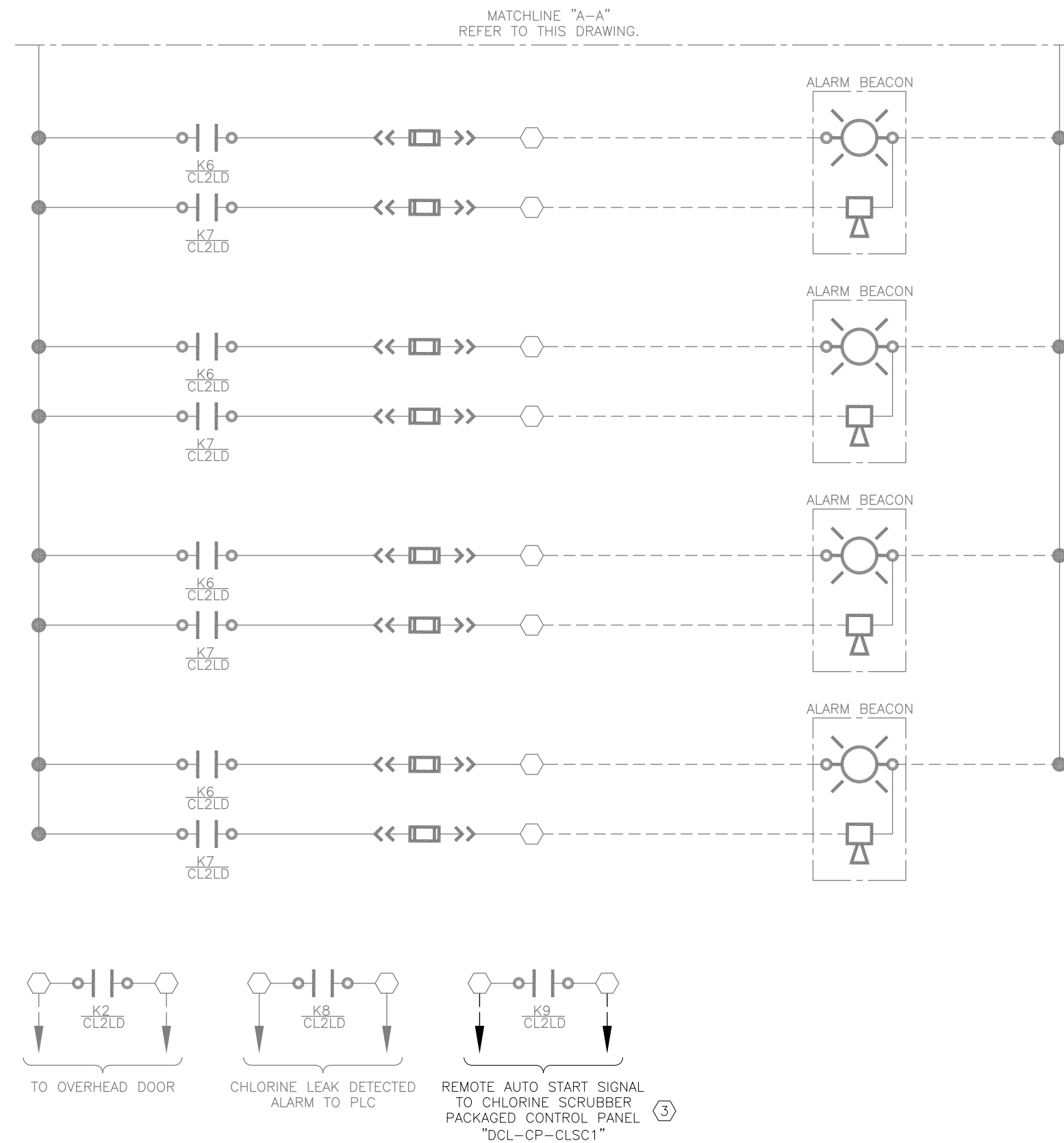
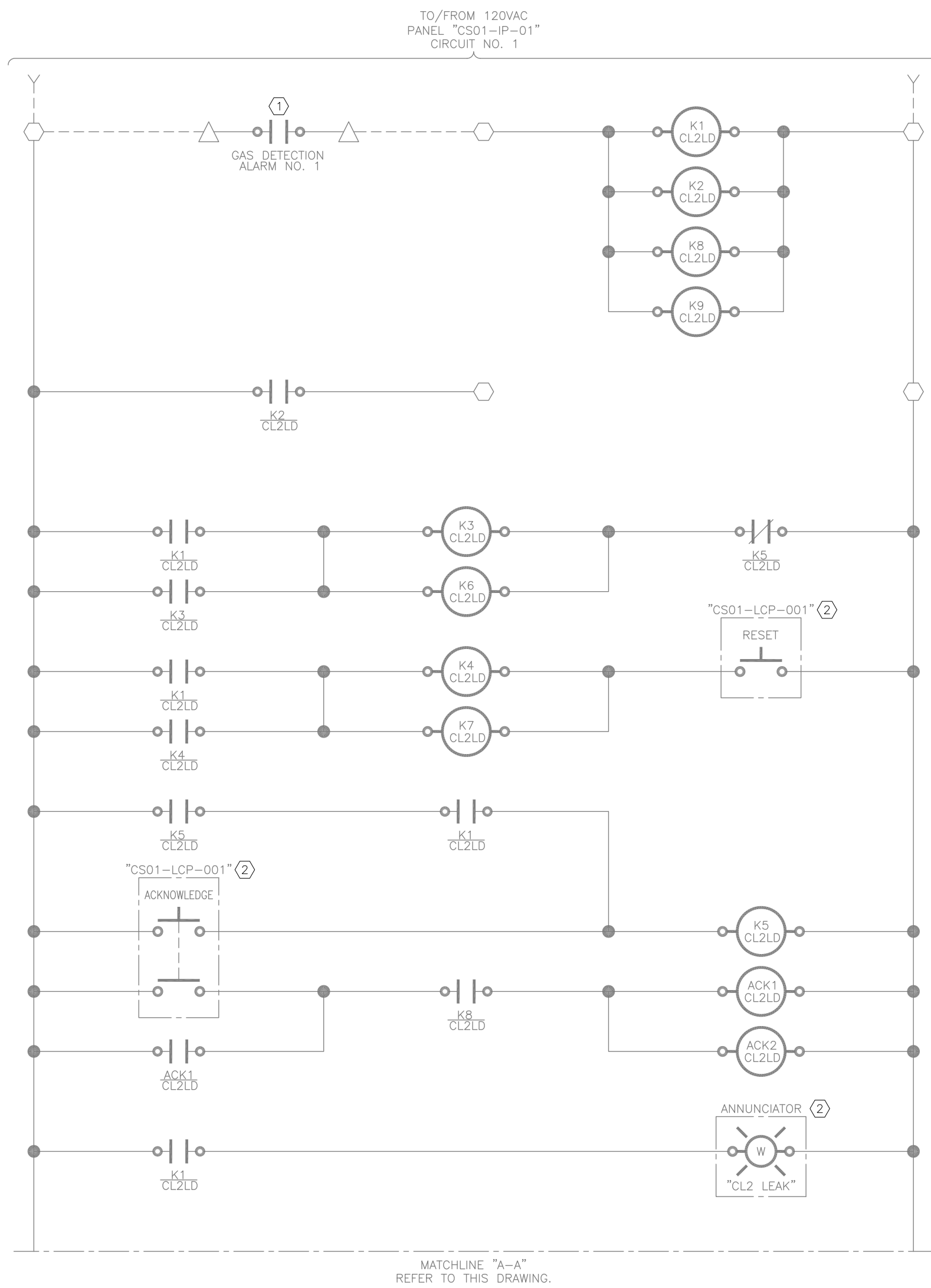
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CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-41



KEY NOTES:

- ① GAS DETECTION ALARM NO. 1 CONTACT IS INTEGRAL TO CHLORINE GAS DETECTION ANALYZER INDICATING CONTROLLER "CSB-AIC-GDS" LOCATED IN THE CHLORINE STORAGE VESTIBULE. REFER TO DRAWING NO. [E-43] FOR ADDITIONAL INFORMATION.
- ② DEVICE MOUNTED ON FRONT OF LOCAL CONTROL PANEL "CS01-LCP-001".
- ③ CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT/WIRE, FITTINGS, PULL BOXES, SUPPORTS, ETC. NECESSARY TO EXTEND EXISTING HARD-WIRED CHLORINE SCRUBBER REMOTE AUTO START SIGNAL TO PROPOSED MANUFACTURER-PACKAGED CHLORINE SCRUBBER CONTROL PANEL. MAKE ALL FINAL CONNECTIONS REQUIRED TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION IN WHICH POSITIVE CHLORINE DETECTION ACTIVATES THE PROPOSED CHLORINE SCRUBBER.

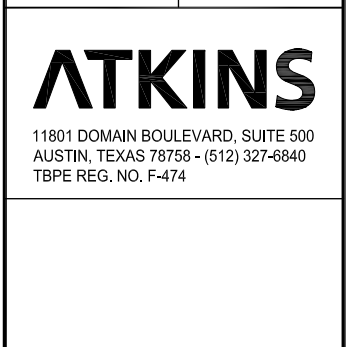
GENERAL NOTES:

- 1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 CHLORINE LEAK DETECTION & ALARM
 CONTROL WIRING SCHEMATIC - RENOVATION

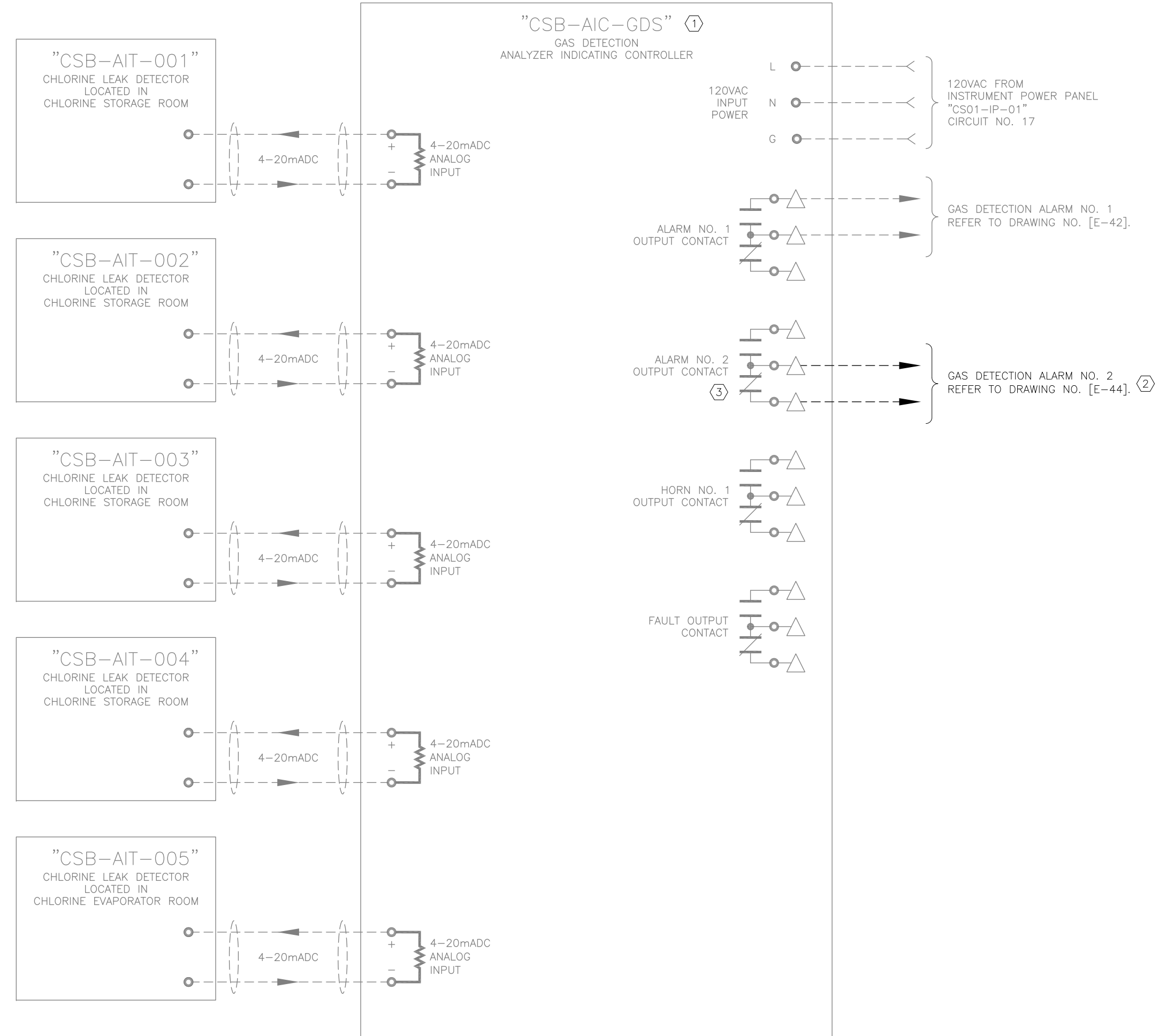


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SURVEY BY	N/A	
DRAWN BY	HEI	
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DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SHEET NUMBER
 E-42



GAS DETECTION ANALYZER "CSB-AIC-GDS" -
FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

KEY NOTES:

- ① CHLORINE GAS DETECTION ANALYZER INDICATING CONTROLLER "CSB-AIC-GDS" LOCATED IN THE CHLORINE STORAGE VESTIBULE. REFER TO DRAWING NO. [E-31] FOR ADDITIONAL INFORMATION.
- ② CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT/WIRE, FITTINGS, PULL BOXES, SUPPORTS, ETC. NECESSARY TO EXTEND PROGRAMMABLE GAS DETECTION ALARM NO. 2 CONTACT FROM CHLORINE GAS DETECTION ANALYZER INDICATING CONTROLLER "CSB-AIC-GDS" TO PROPOSED HVAC CONTROL PANEL "CSB-CP-HVAC".
- ③ CONTRACTOR SHALL ENSURE ALARM NO. 2 OUTPUT CONTACT IS PROGRAMMED TO OPEN ON POSITIVE CHLORINE GAS DETECTION AT THE SAME CONCENTRATIONS/DURATIONS AS ALARM NO. 1 OUTPUT CONTACT.

GENERAL NOTES:

- 1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

CHLORINE GAS DETECTION CONTROLLER
INTERFACE WIRING SCHEMATIC - RENOVATION



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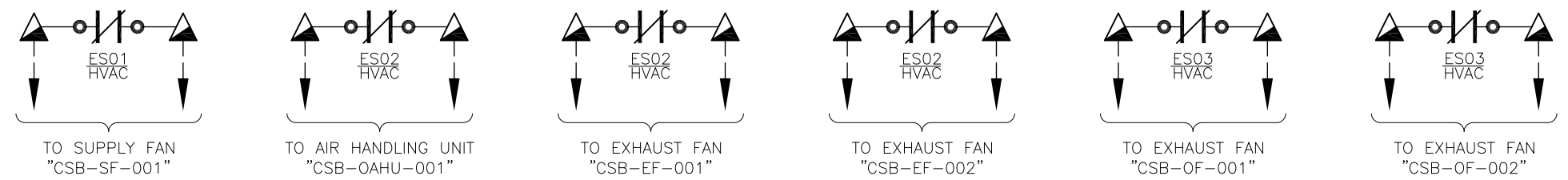
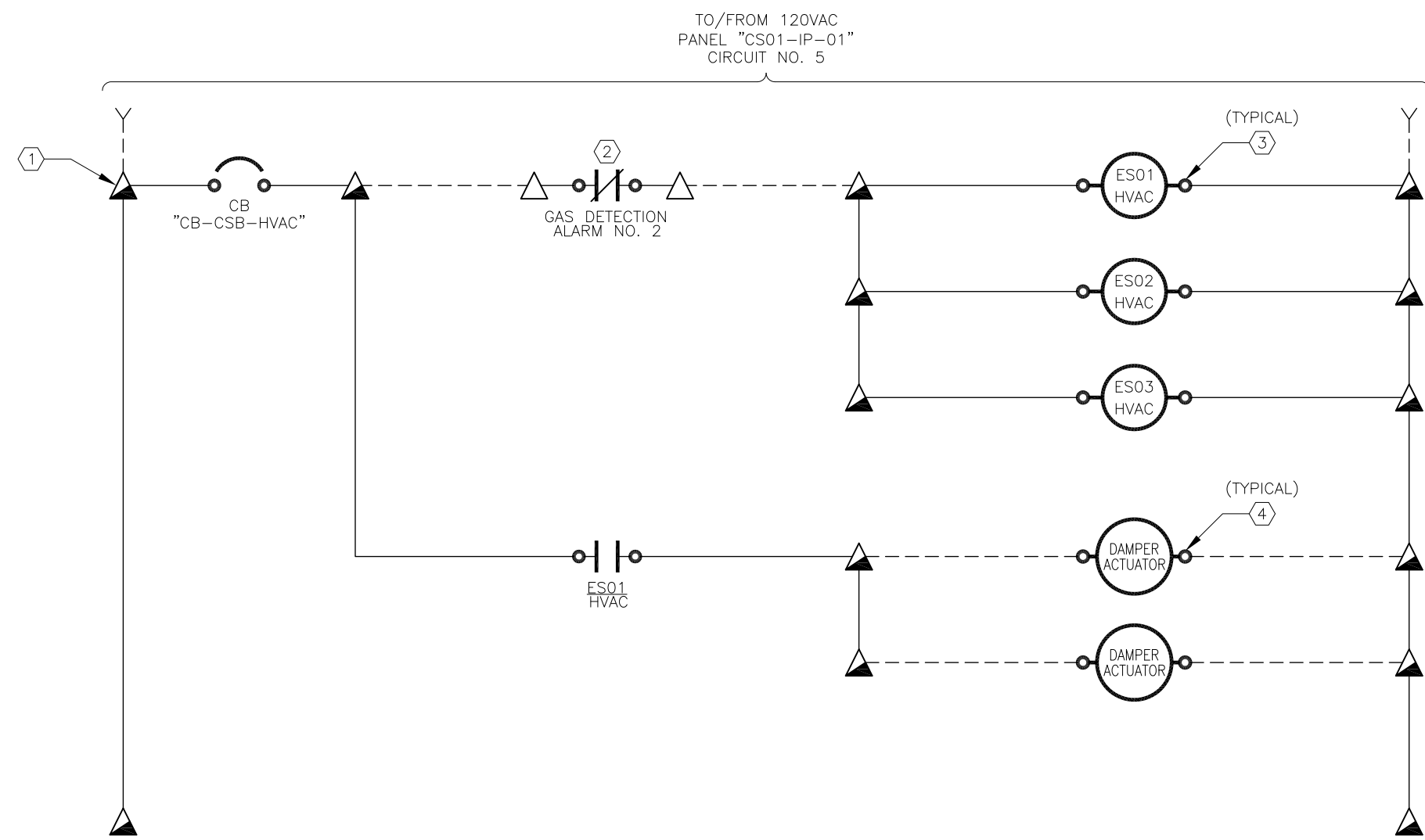
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CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-43



KEY NOTES:

- ① PROPOSED HVAC CONTROL PANEL "CSB-CP-HVAC" IS LOCATED IN THE CHLORINE STORAGE BUILDING CONTROL ROOM. REFER TO ENLARGED FLOOR PLAN ON DRAWING NO. [E-33] FOR EXACT LOCATION.
- ② GAS DETECTION ALARM NO. 2 CONTACT IS INTEGRAL TO CHLORINE GAS DETECTION ANALYZER INDICATING CONTROLLER "CSB-AIC-GDS" LOCATED IN THE CHLORINE STORAGE VESTIBULE. REFER TO DRAWING NO. [E-43] FOR ADDITIONAL INFORMATION.
- ③ FURNISH AND INSTALL EMERGENCY SHUT-OFF RELAY AND MAKE ALL FINAL CONNECTIONS REQUIRED TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION IN WHICH POSITIVE CHLORINE DETECTION DEACTIVATES THE PROPOSED HVAC EQUIPMENT SERVING THE CHLORINE STORAGE ROOM AND THE CHLORINE FEED ROOM. THE EMERGENCY SHUT-OFF RELAY SHALL BE NORMALLY ENERGIZED AND DE-ENERGIZE ON ALARM CONDITION.
- ④ PROPOSED 120V DAMPER ACTUATOR TO BE INTERLOCKED WITH CHLORINE SCRUBBER SYSTEM. DAMPER TO REMAIN CLOSED DURING NORMAL OPERATION AND OPEN DURING A GAS DETECTION EVENT. REFER TO FLOOR PLAN ON DRAWING NO. [E-31] FOR DAMPER ACTUATOR LOCATIONS.

REV. NO.	DATE	REVISION DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

HVAC LOCAL CONTROL PANEL "CSB-CP-HVAC"
CONTROL WIRING SCHEMATIC - RENOVATION

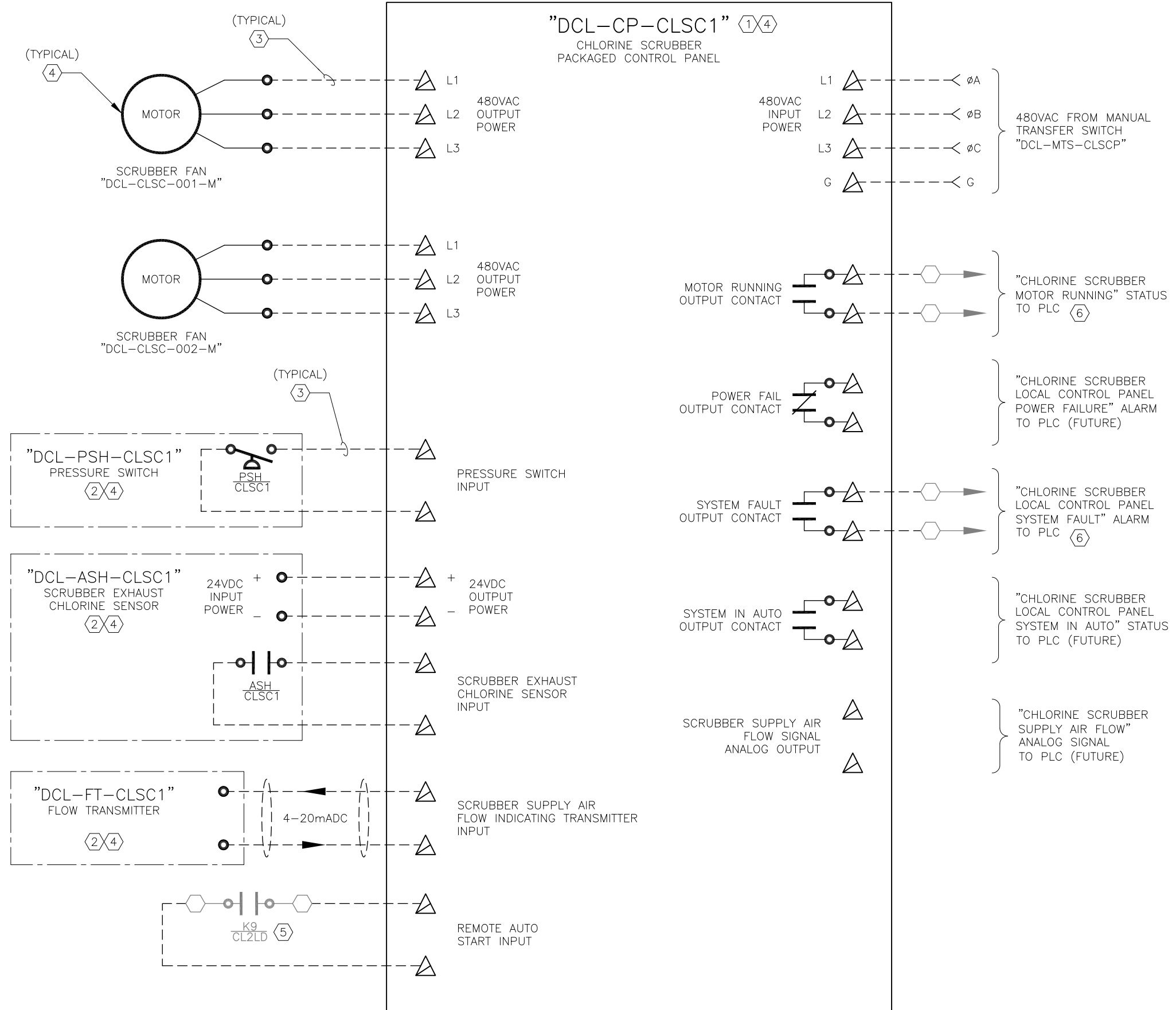


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NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	
SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	

SHEET NUMBER: E-44



CHLORINE SCRUBBER PACKAGED CONTROL PANEL –
FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

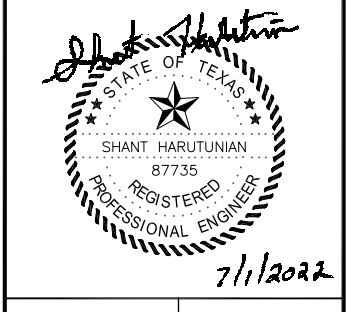
KEY NOTES:

- ① THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- ② AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE ACTUAL EQUIPMENT/DEVICE QUANTITY MAY VARY. VERIFY QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- ③ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ④ FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ EXISTING SCRUBBER SYSTEM REMOTE-AUTO START CONTACT IS PART OF THE CHLORINE LEAK DETECTION AND ALARM CONTROL LOGIC LOCATED IN LOCAL CONTROL PANEL "CS01-LCP-001". REFER TO DRAWING NO. [E-42] FOR ADDITIONAL INFORMATION.
- ⑥ CONTRACTOR SHALL FIELD VERIFY I/O POINTS ASSOCIATED WITH EXISTING SCRUBBER CONTROL PANEL PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS AND ASSOCIATED EQUIPMENT CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO AID IN COORDINATING THE PROPOSED WIRING CONNECTIONS TO THE EXISTING PLC AND MAKE ALL FINAL CONNECTIONS.

GENERAL NOTES:

1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

CHLORINE SCRUBBER CONTROL PANEL
INTERFACE WIRING SCHEMATIC – RENOVATION

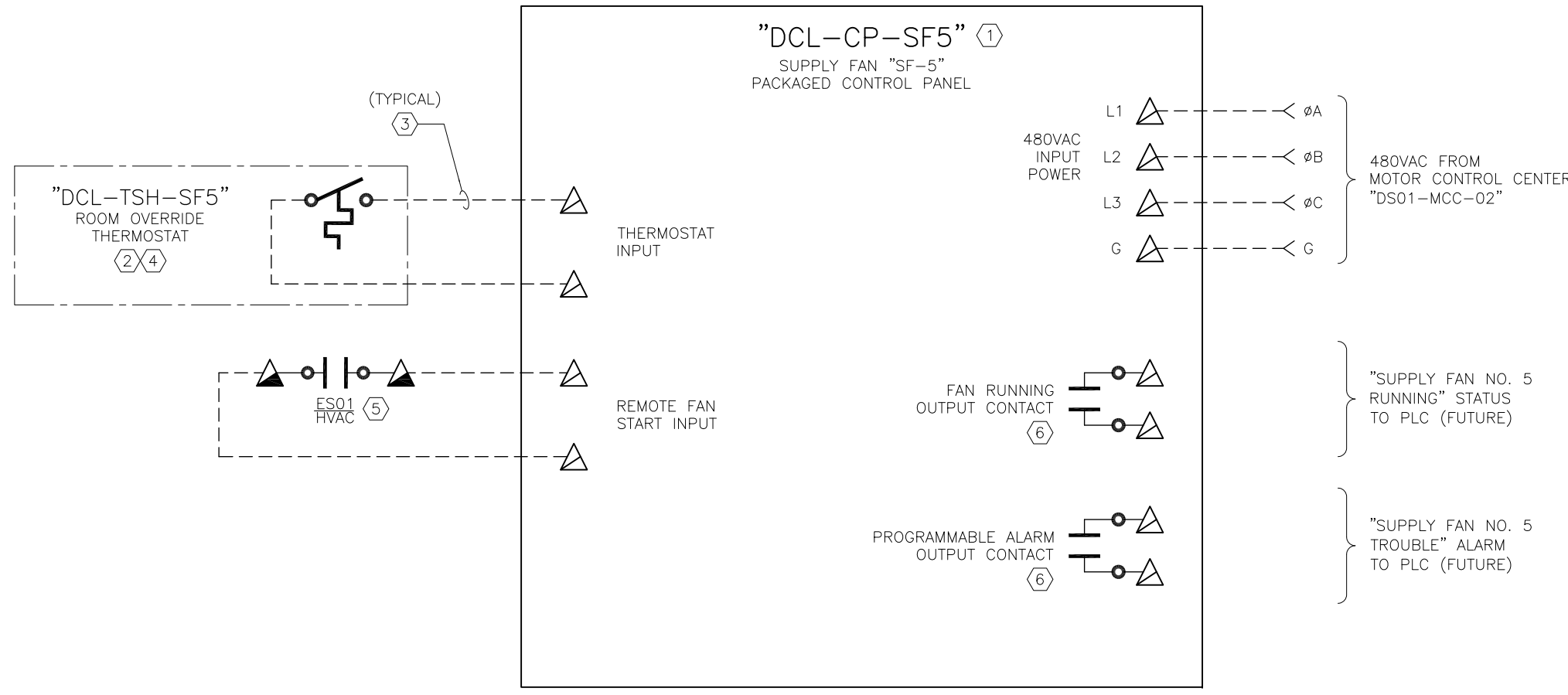


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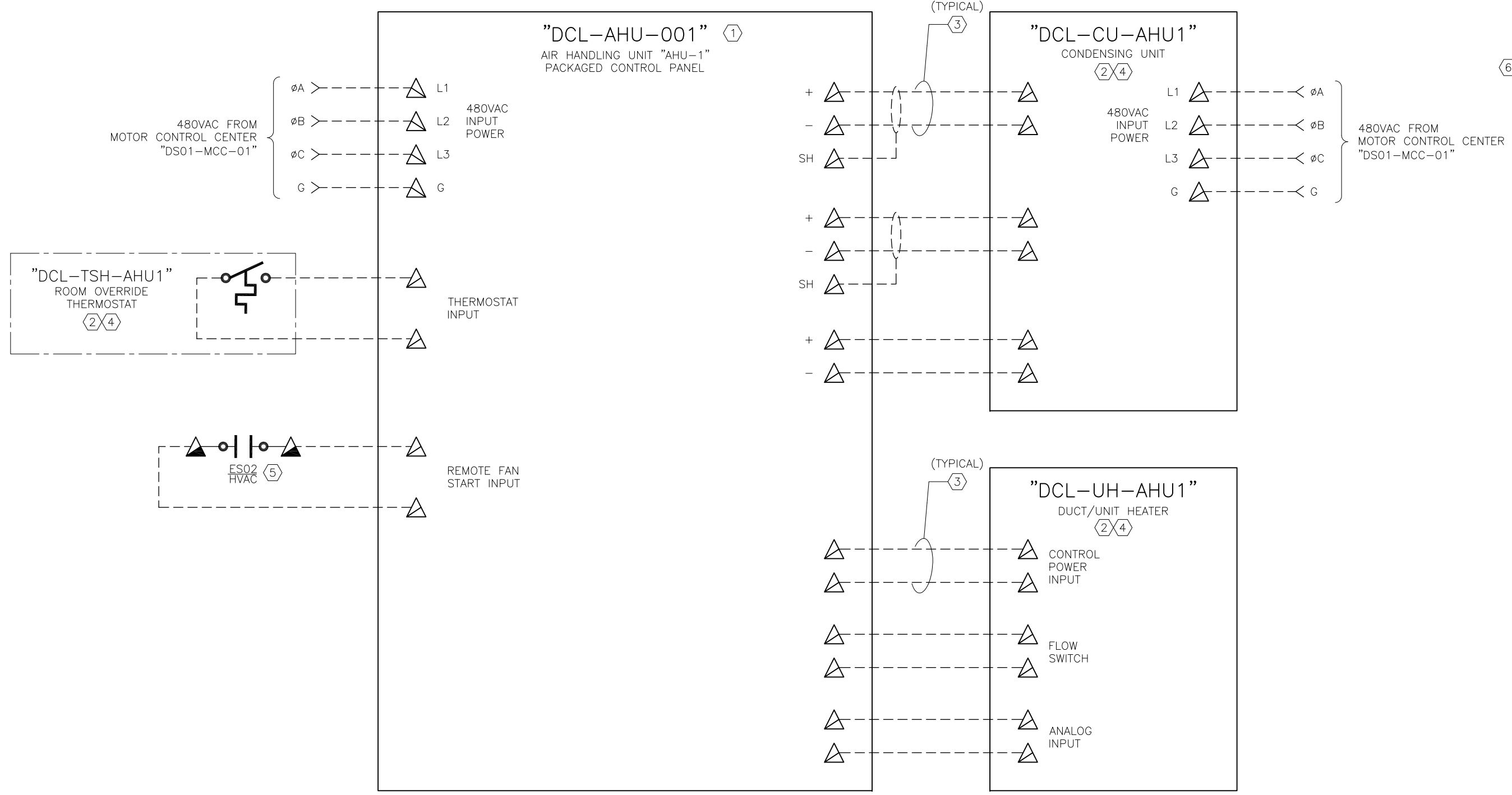


NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	
SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	

SHEET NUMBER E-45



SUPPLY FAN "SF-5" PACKAGED CONTROL PANEL - FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.



AIR HANDLING UNIT "AHU-1" PACKAGED CONTROL PANEL - FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

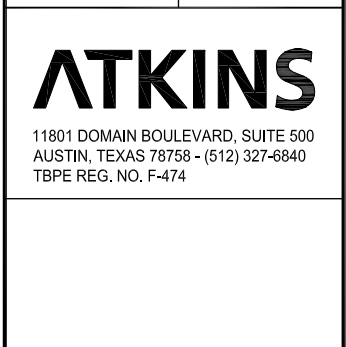
KEY NOTES:

- ① THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER AND IS LOCATED WITHIN SUPPLY FAN ENCLOSURE. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS. THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- ② AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE EQUIPMENT/DEVICE LOCATION IS APPROXIMATE. THE ACTUAL EQUIPMENT/DEVICE QUANTITY/LOCATION MAY VARY. VERIFY LOCATION AND QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- ③ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ④ FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ EMERGENCY SHUT-OFF CONTACT IS PART OF THE HVAC EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN HVAC CONTROL PANEL "DCL-CP-HVAC". CONTACT IS NORMALLY ENERGIZED AND DE-ENERGIZES ON ALARM CONDITION. REFER TO DRAWING NO. [E-50] FOR ADDITIONAL INFORMATION.
- ⑥ CONTROL RELAY CONTACTS SHALL BE RATED 5A, 120VAC. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
AIR HANDLING UNIT "AHU-001" & SUPPLY FAN "SF-005"
INTERFACE WIRING SCHEMATIC - RENOVATION



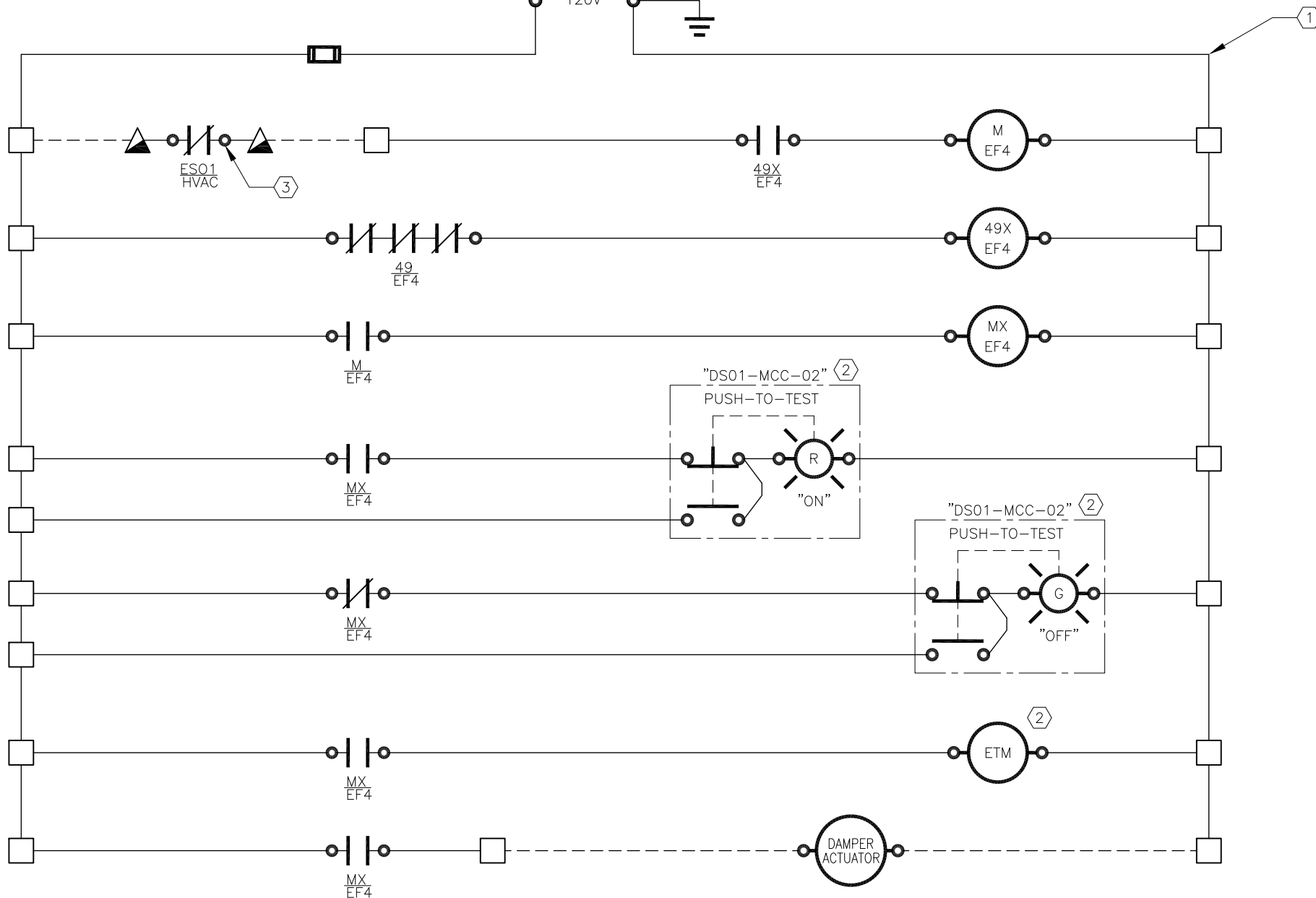
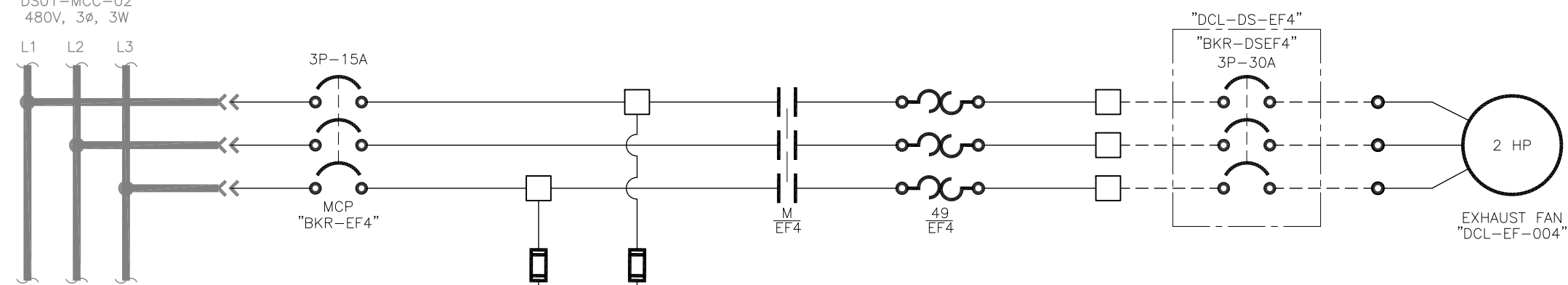
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

HARUTUNIAN ENGINEERING INCORPORATED
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SHEET NUMBER
E-46

480V MOTOR CONTROL CENTER
 "DS01-MCC-02"
 480V, 3Ø, 3W



KEY NOTES:

- ① FURNISH AND INSTALL PROPOSED MCC STARTER BUCKET IN THE EXISTING MOTOR CONTROL CENTER.
- ② DEVICE MOUNTED ON FRONT OF 480V MOTOR CONTROL CENTER.
- ③ EMERGENCY SHUT-OFF CONTACT IS PART OF THE HVAC EMERGENCY SHUT-OFF CONTROL LOGIC LOCATED IN HVAC CONTROL PANEL "DCL-CP-HVAC". CONTACT IS NORMALLY ENERGIZED AND DE-ENERGIZES ON ALARM CONDITION. REFER TO DRAWING NO. [E-50] FOR ADDITIONAL INFORMATION.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

EXHAUST FAN "DCL-EF-004"
 CONTROL WIRING SCHEMATIC - RENOVATION

ATKINS
 11801 DOMAIN BOULEVARD, SUITE 500
 AUSTIN, TEXAS 78758 - (512) 327-6840
 TBPE REG. NO. F-474

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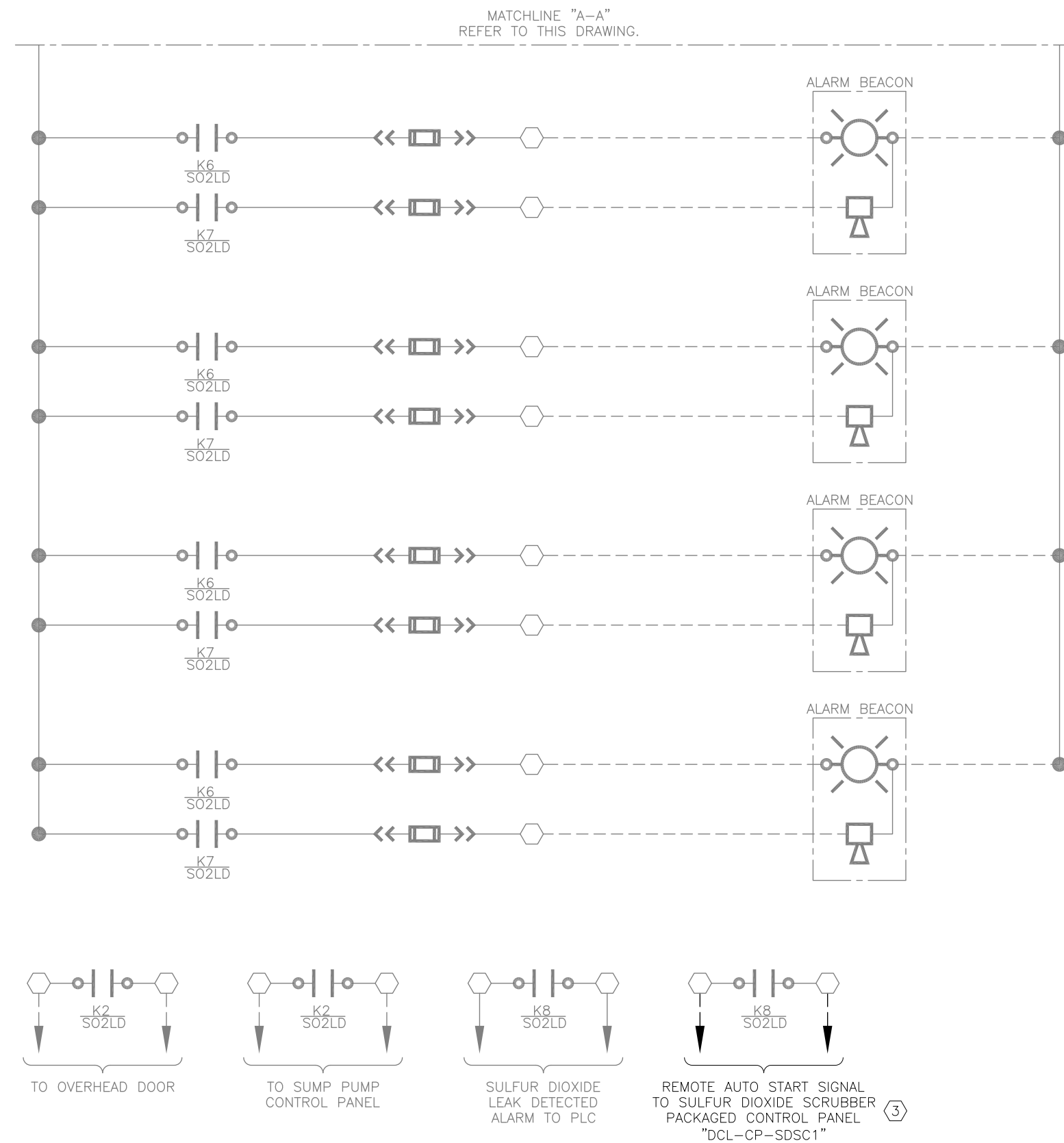
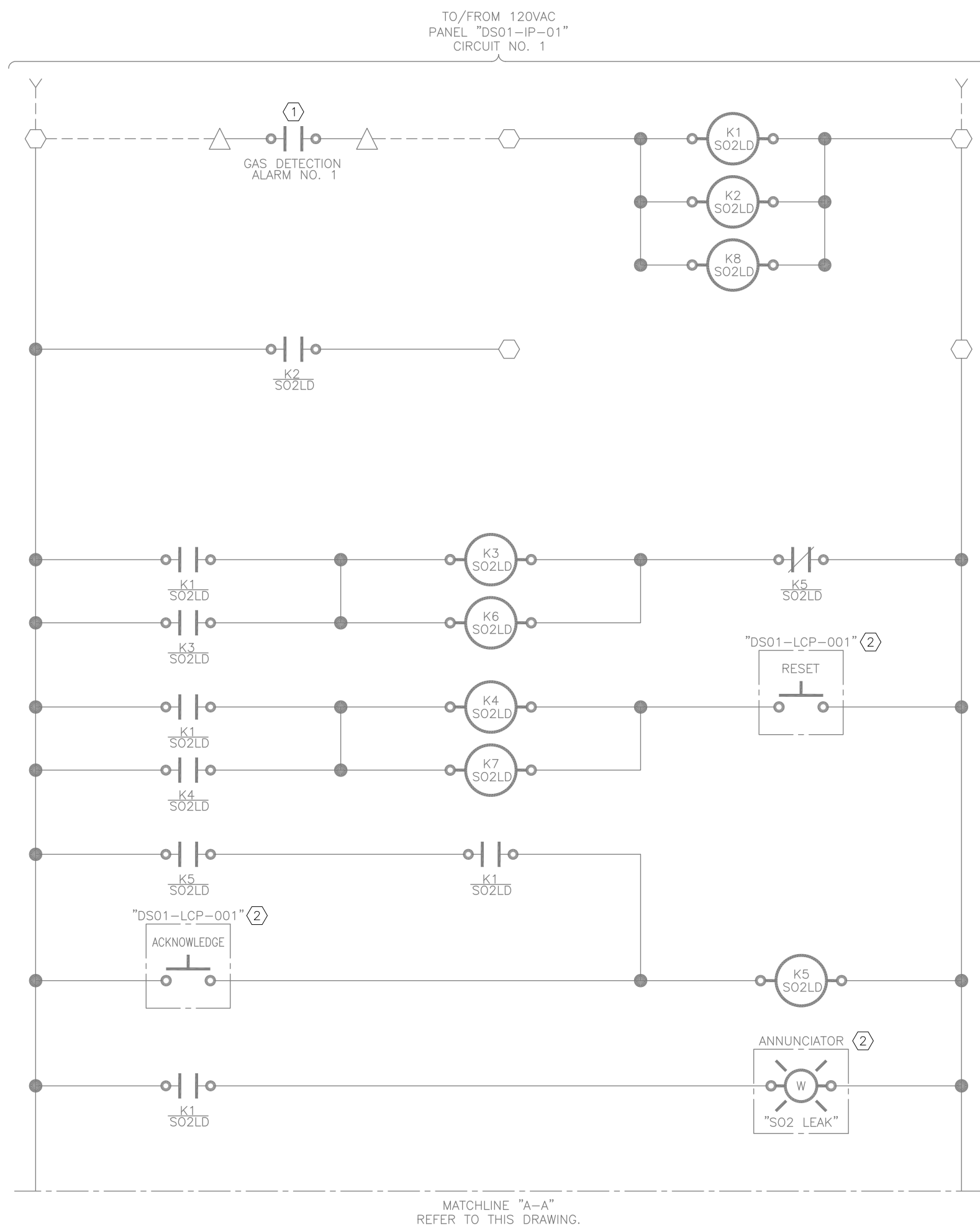
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
 AUSTIN, TEXAS 78754
 TEXAS REGISTERED ENGINEERING FIRM
 F-2408

SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315

SHEET NUMBER: E-47



KEY NOTES:

- ① GAS DETECTION ALARM NO. 1 CONTACT IS INTEGRAL TO SULFUR DIOXIDE GAS DETECTION ANALYZER INDICATING CONTROLLER "DCL-AIC-GDS". EXISTING GAS DETECTION CONTROLLER IS SURFACE-MOUNTED TO LOCAL CONTROL PANEL "DS01-LCP-001" LOCATED IN THE STORAGE ROOM. REFER TO DRAWING NO. [E-49] FOR ADDITIONAL INFORMATION.
- ② DEVICE MOUNTED ON FRONT OF LOCAL CONTROL PANEL "DS01-LCP-001".
- ③ CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT/WIRE, FITTINGS, PULL BOXES, SUPPORTS, ETC. NECESSARY TO EXTEND EXISTING HARD-WIRED SULFUR DIOXIDE SCRUBBER REMOTE AUTO START SIGNAL TO PROPOSED MANUFACTURER-PACKAGED SULFUR DIOXIDE SCRUBBER CONTROL PANEL. MAKE ALL FINAL CONNECTIONS REQUIRED TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION IN WHICH POSITIVE SULFUR DIOXIDE DETECTION ACTIVATES THE PROPOSED SULFUR DIOXIDE SCRUBBER.

GENERAL NOTES:

- 1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

SULFUR DIOXIDE LEAK DETECTION & ALARM
CONTROL WIRING SCHEMATIC - RENOVATION

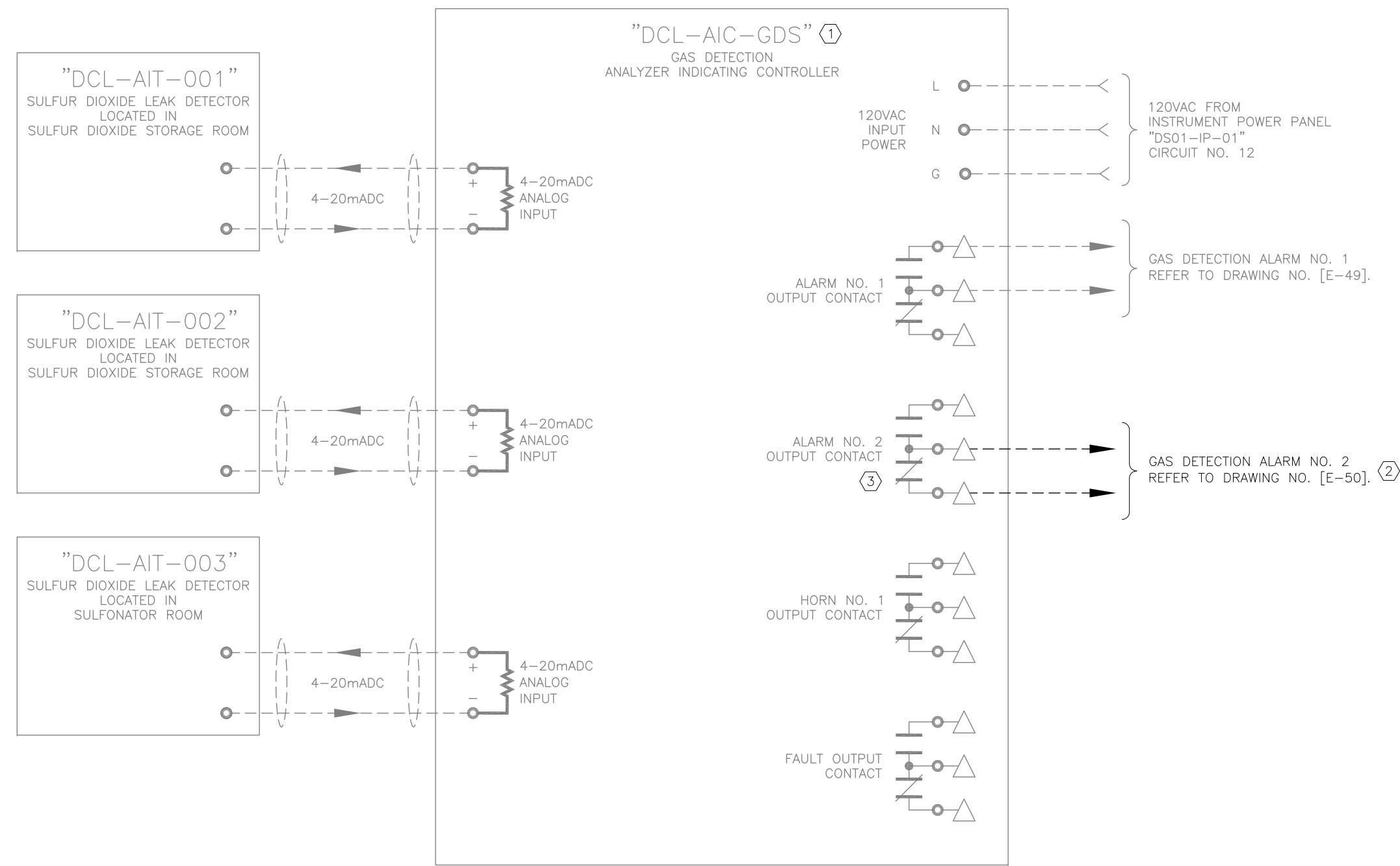


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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

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AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SHEET NUMBER E-48



GAS DETECTION ANALYZER "DCL-AIC-GDS" -
FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

KEY NOTES:

- ① SULFUR DIOXIDE GAS DETECTION ANALYZER INDICATING CONTROLLER "DCL-AIC-GDS" IS SURFACE-MOUNTED TO LOCAL CONTROL PANEL "DS01-LCP-001" LOCATED IN THE STORAGE ROOM. REFER TO DRAWING NO. [E-35] FOR ADDITIONAL INFORMATION.
- ② CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT/WIRE, FITTINGS, PULL BOXES, SUPPORTS, ETC. NECESSARY TO EXTEND PROGRAMMABLE GAS DETECTION ALARM NO. 2 CONTACT FROM SULFUR DIOXIDE GAS DETECTION ANALYZER INDICATING CONTROLLER "DCL-AIC-GDS" TO PROPOSED HVAC CONTROL PANEL "DCL-CP-HVAC".
- ③ CONTRACTOR SHALL ENSURE ALARM NO. 2 OUTPUT CONTACT IS PROGRAMMED TO OPEN ON POSITIVE SULFUR DIOXIDE DETECTION AT THE SAME CONCENTRATIONS/DURATIONS AS ALARM NO. 1 OUTPUT CONTACT.

GENERAL NOTES:

- 1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL

SULFUR DIOXIDE GAS DETECTION CONTROLLER
INTERFACE WIRING SCHEMATIC - RENOVATION



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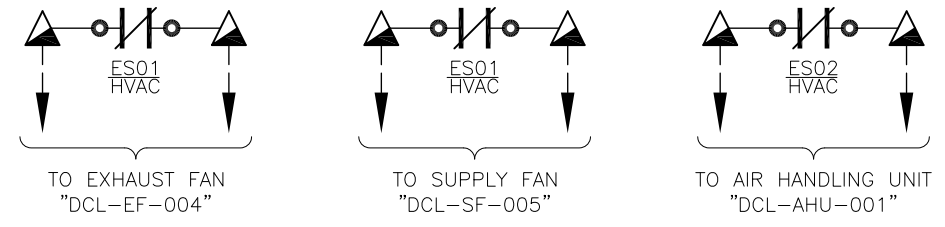
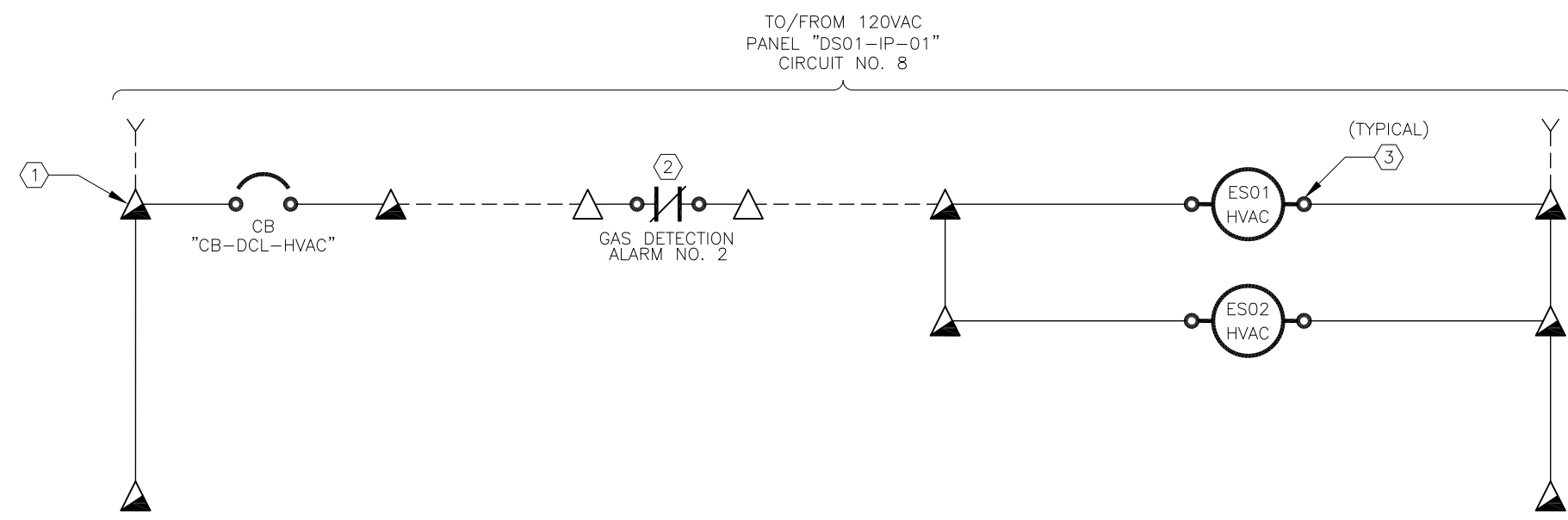
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DESIGNED BY	HEI	
REVIEWED BY	HEI	



8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

SHEET NUMBER E-49



KEY NOTES:

- ① PROPOSED HVAC CONTROL PANEL "DCL-CP-HVAC" IS LOCATED IN THE DECHLORINATION BUILDING ELECTRICAL ROOM. REFER TO ENLARGED FLOOR PLAN ON DRAWING NO. [E-35] FOR EXACT LOCATION.
- ② GAS DETECTION ALARM NO. 2 CONTACT IS INTEGRAL TO SULFUR DIOXIDE GAS DETECTION ANALYZER INDICATING CONTROLLER "DCL-AIC-GDS" WHICH IS SURFACE-MOUNTED TO LOCAL CONTROL PANEL "DS01-LCP-001" LOCATED IN THE STORAGE ROOM. REFER TO DRAWING NO. [E-49] FOR ADDITIONAL INFORMATION.
- ③ FURNISH AND INSTALL EMERGENCY SHUT-OFF RELAY AND MAKE ALL FINAL CONNECTIONS REQUIRED TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION IN WHICH POSITIVE SULFUR DIOXIDE DETECTION DEACTIVATES THE PROPOSED HVAC EQUIPMENT SERVING THE SULFUR DIOXIDE STORAGE ROOM AND THE SULFONATOR ROOM. THE EMERGENCY SHUT-OFF RELAY SHALL BE NORMALLY ENERGIZED AND DE-ENERGIZE ON ALARM CONDITION.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL
 HVAC LOCAL CONTROL PANEL "DCL-CP-HVAC"
 CONTROL WIRING SCHEMATIC - RENOVATION



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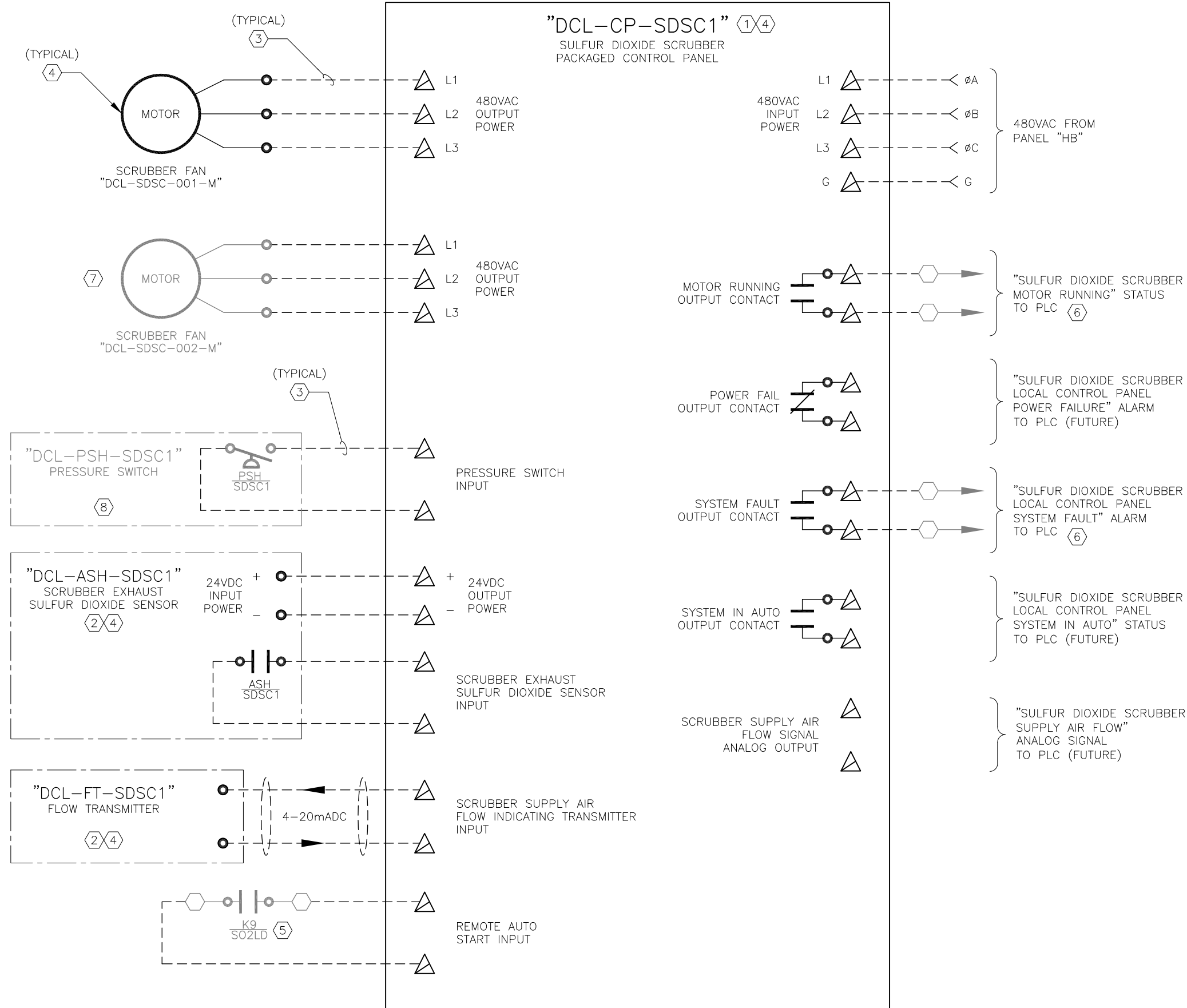
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HARUTUNIAN ENGINEERING INCORPORATED
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SCALE: AS SHOWN
 CADD REF. NO.: N/A
 CADD DIR.: 100057315

SHEET NUMBER: E-50



SULFUR DIOXIDE SCRUBBER PACKAGED CONTROL PANEL –
FIELD INTERFACE WIRING SCHEMATIC
SCALE: N.T.S.

KEY NOTES:

- ① THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- ② AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE ACTUAL EQUIPMENT/DEVICE QUANTITY MAY VARY. VERIFY QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
- ③ THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS, FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
- ④ FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ EXISTING SCRUBBER SYSTEM REMOTE-AUTO START CONTACT IS PART OF THE SULFUR DIOXIDE LEAK DETECTION AND ALARM CONTROL LOGIC LOCATED IN LOCAL CONTROL PANEL "DS01-LCP-001". REFER TO DRAWING NO. [E-48] FOR ADDITIONAL INFORMATION.
- ⑥ CONTRACTOR SHALL FIELD VERIFY I/O POINTS ASSOCIATED WITH EXISTING SCRUBBER CONTROL PANEL PRIOR TO DEMOLITION/RENOVATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS AND ASSOCIATED EQUIPMENT CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO AID IN COORDINATING THE PROPOSED WIRING CONNECTIONS TO THE EXISTING PLC AND MAKE ALL FINAL CONNECTIONS.
- ⑦ EXISTING FAN MOTOR TO BE RECONNECTED DURING RENOVATION ACTIVITIES. FURNISH AND INSTALL ALL NECESSARY INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NO. [E-34] FOR EQUIPMENT LOCATIONS.
- ⑧ EXISTING PRESSURE SWITCH TO BE RECONNECTED DURING RENOVATION ACTIVITIES. FURNISH AND INSTALL ALL NECESSARY INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS. COORDINATE WITH PACKAGED CONTROL PANEL MANUFACTURER AND PROCESS/MECHANICAL. REFER TO DRAWING NO. [E-34] FOR EQUIPMENT LOCATIONS.

GENERAL NOTES:

1. THE EXISTING INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM VARIOUS SOURCES INCLUDING: RECORD DOCUMENTS, MANUFACTURER-PROVIDED SCHEMATICS, AND O&M DOCUMENTS. DUE TO THE AGE OF THE EXISTING DOCUMENTATION, THIS DRAWING MAY NOT EXACTLY REFLECT THE EXISTING CONDITIONS. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CARE AND FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCING FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING FIELD VERIFICATION OF THE EXISTING CONDITIONS, SHOULD ADJUSTMENTS TO THE EXISTING OR PROPOSED SYSTEM BECOME A NECESSITY, THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

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8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
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F-2408

REV. NO.	DATE	DESCRIPTION

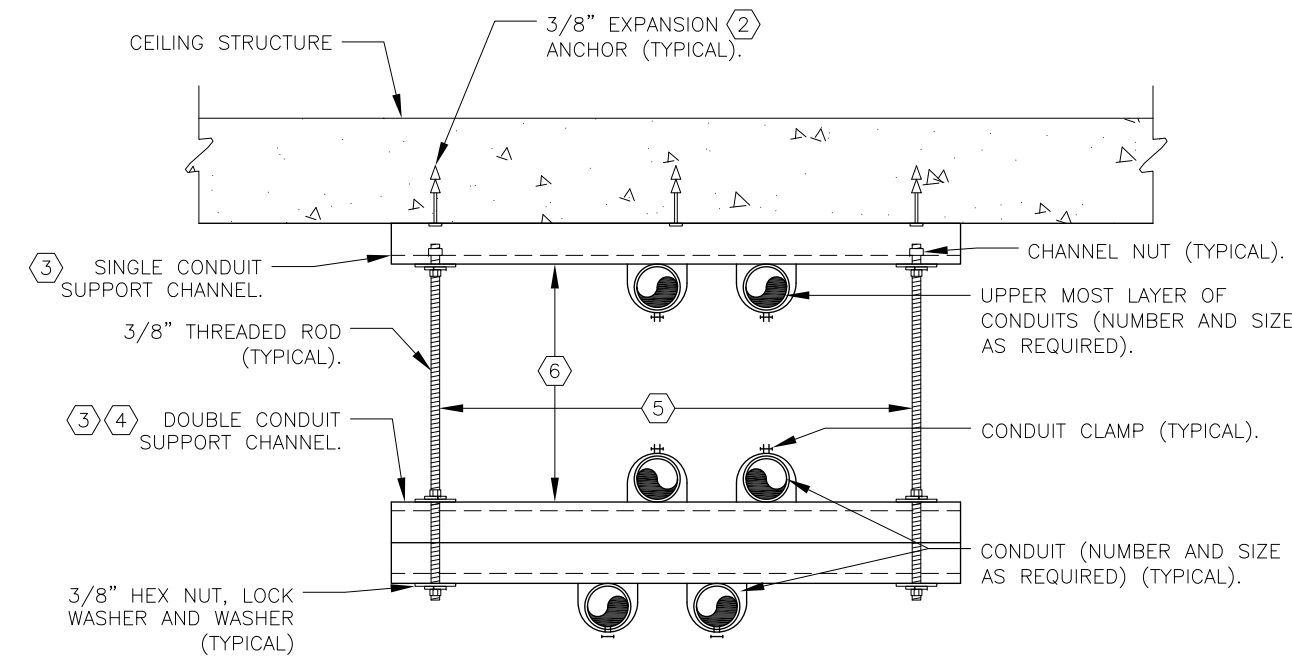


CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
SULFUR DIOXIDE SCRUBBER CONTROL PANEL
INTERFACE WIRING SCHEMATIC – RENOVATION

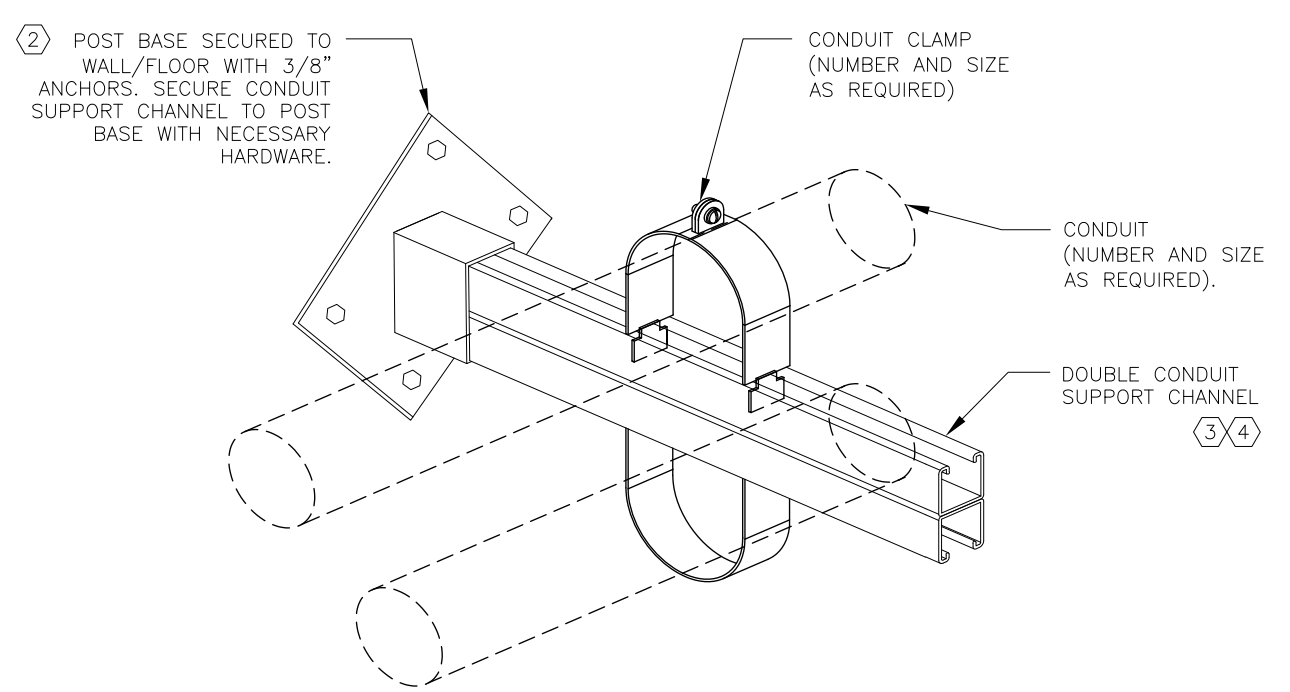


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SCALE:	AS SHOWN	
CADD REF. NO.:	N/A	
CADD DIR.:	100057315	

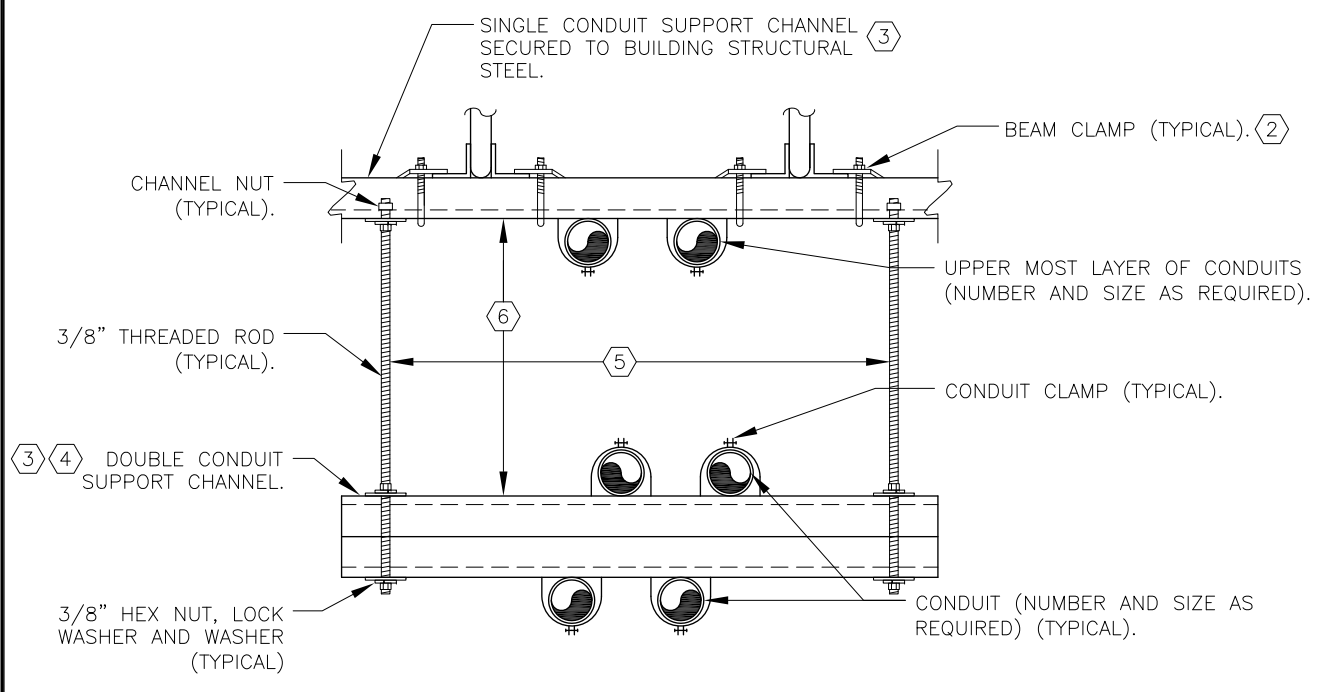
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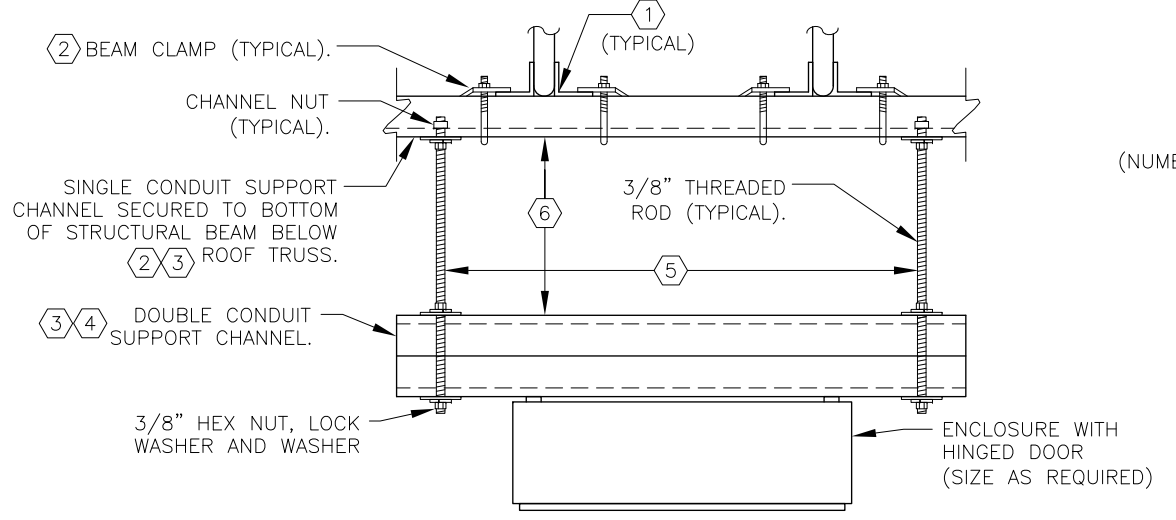
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SCALE: N.T.S.



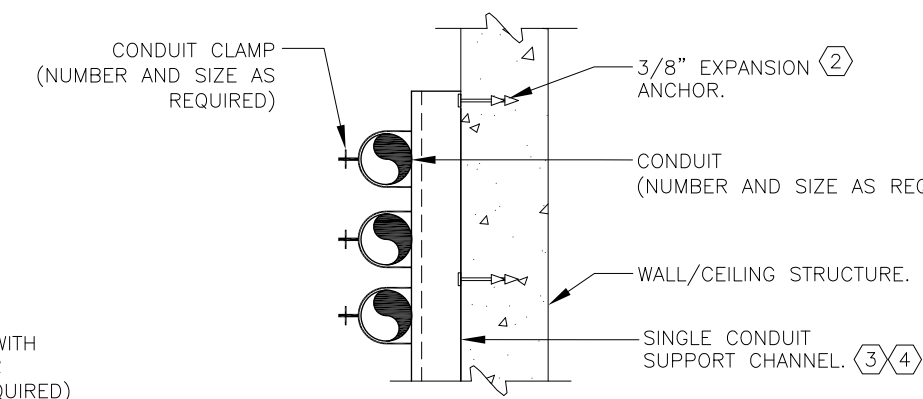
WALL/FLOOR CONDUIT SUPPORT DETAIL (2)
SCALE: N.T.S.



CONDUIT SUPPORT CEILING DETAIL (3)
SCALE: N.T.S.



CEILING ENCLOSURE SUPPORT DETAIL (4)
SCALE: N.T.S.



WALL/CEILING/FLOOR CONDUIT SUPPORT DETAIL (5)
SCALE: N.T.S.

KEY NOTES:

- ① SECURE/ATTACH CONDUIT SUPPORT CHANNEL TO BOTTOM CHORD OF CEILING JOIST.
- ② THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL.
- ③ THE LENGTH OF CHANNEL SHALL BE AS REQUIRED.
- ④ COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT, FURNISH AND INSTALL ADDITIONAL SUPPORT AS NECESSARY AT EACH LOCATION, IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.
- ⑤ MAINTAIN MAXIMUM DISTANCE BETWEEN ADJACENT THREADED SUPPORT RODS OF 4'-0".
- ⑥ COORDINATE SUPPORT ROD LENGTH (AND CORRESPONDING CONDUIT/WIRE SUPPORT/RACK ELEVATION) WITH PLANS. SUPPORT ROD LENGTH MAY VARY.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 1 OF 7)



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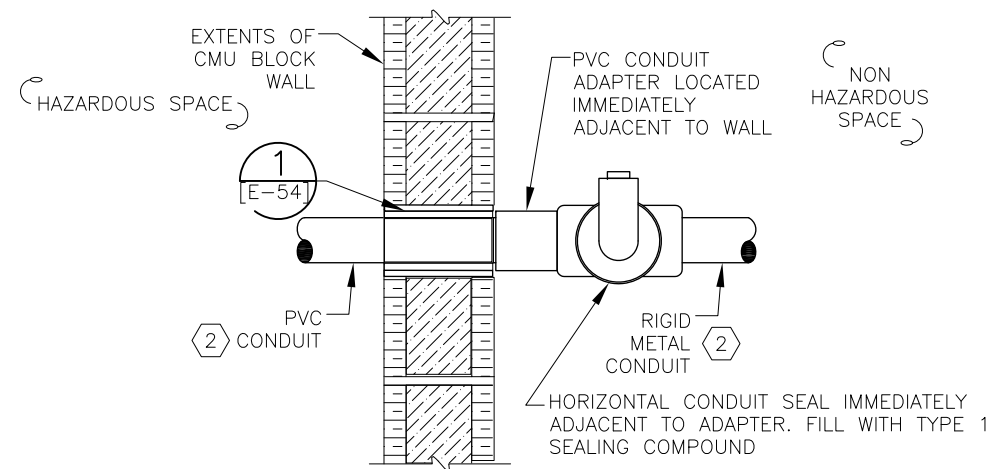
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REVIEWED BY	HEI	



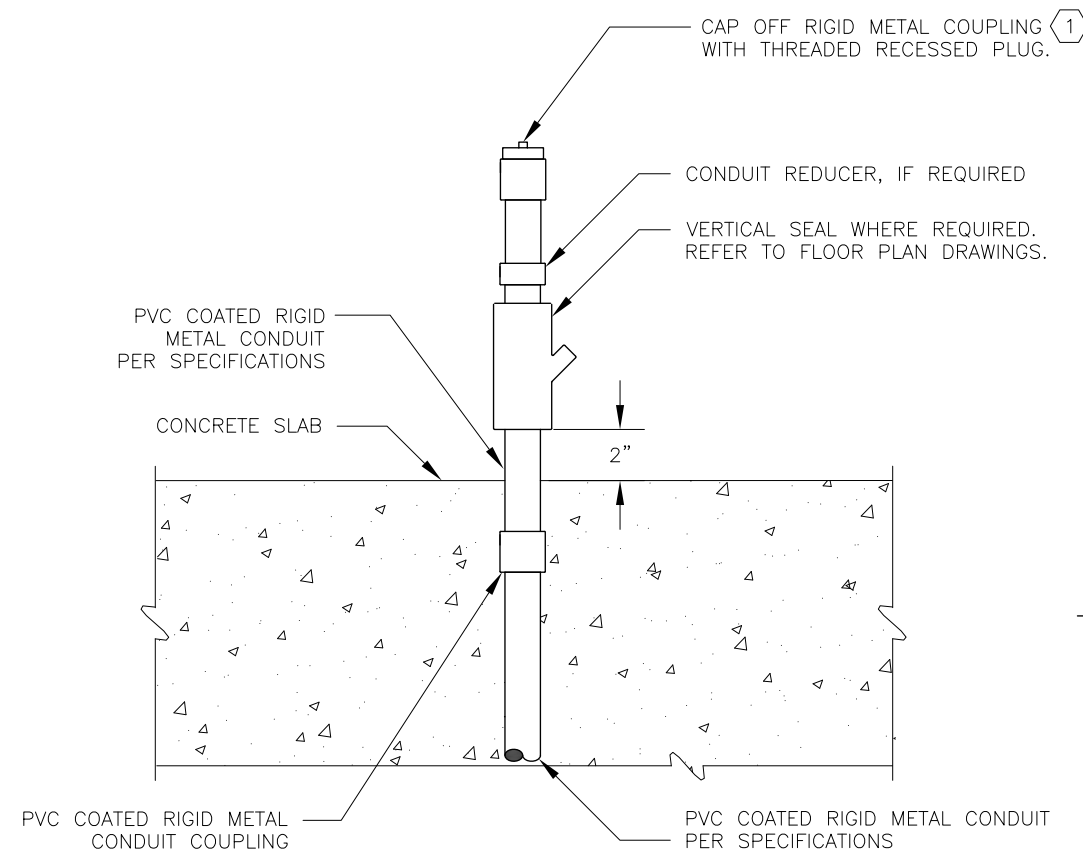
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754
TEXAS REGISTERED ENGINEERING FIRM
F-2408

SCALE: AS SHOWN
CADD REF. NO.: N/A
CADD DIR.: 100057315

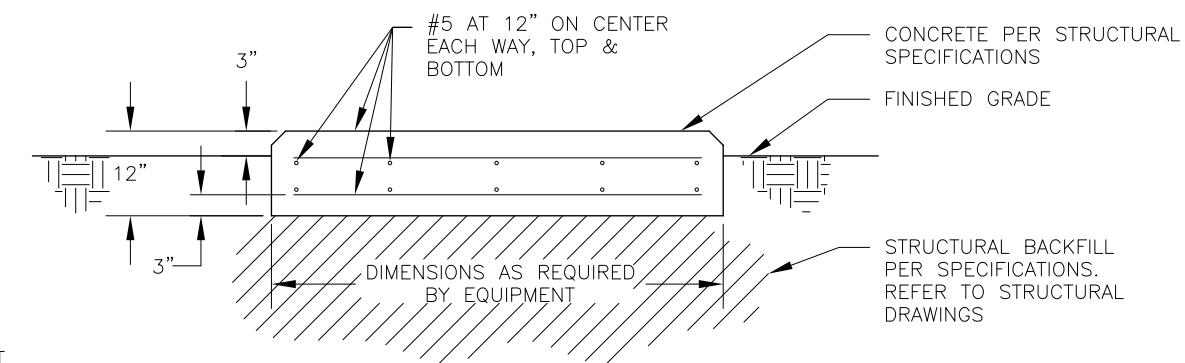
SHEET NUMBER E-52



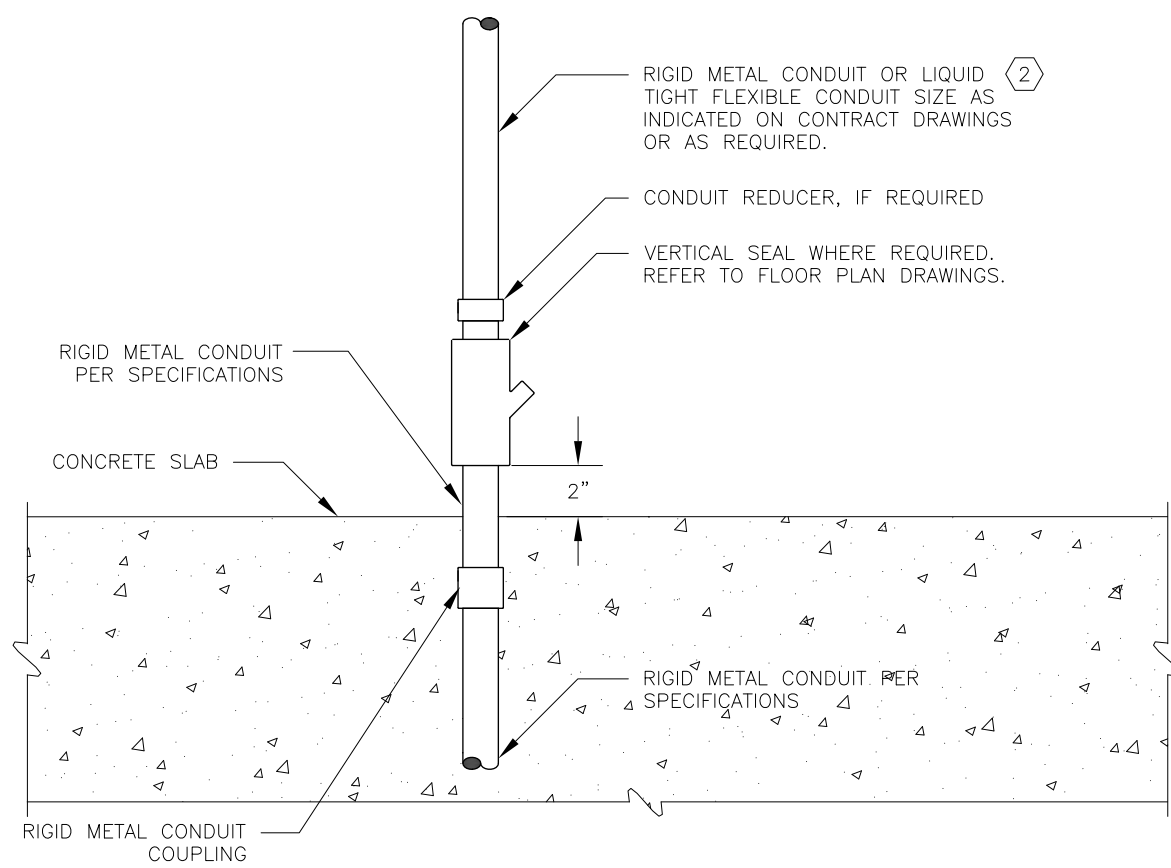
CONDUIT ENTRY INTO HAZARDOUS RATED SPACE DETAIL (1)
SCALE: N.T.S.



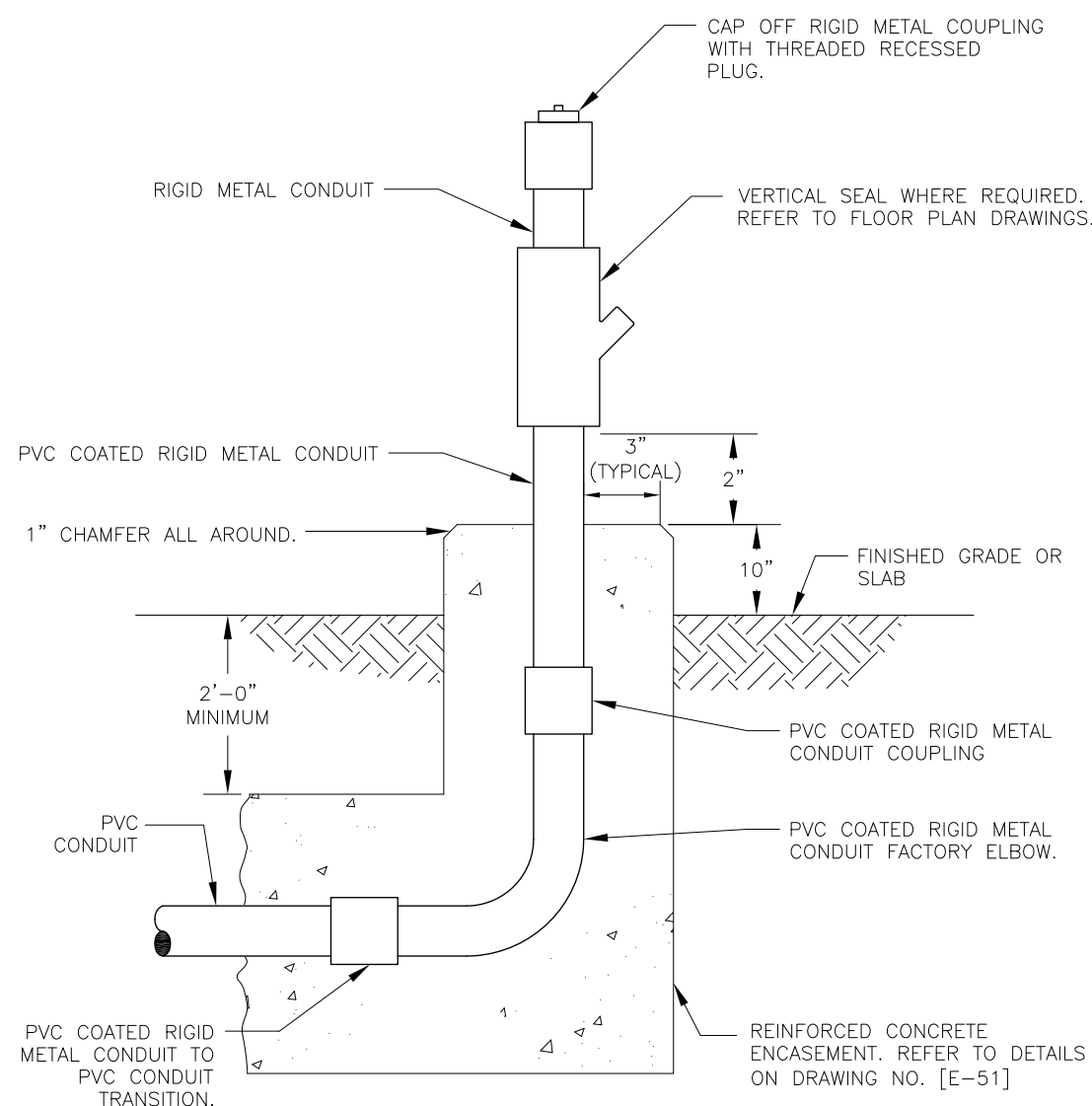
PROCESS AREA FUTURE CONDUIT STUB-UP DETAIL (2)
SCALE: N.T.S.



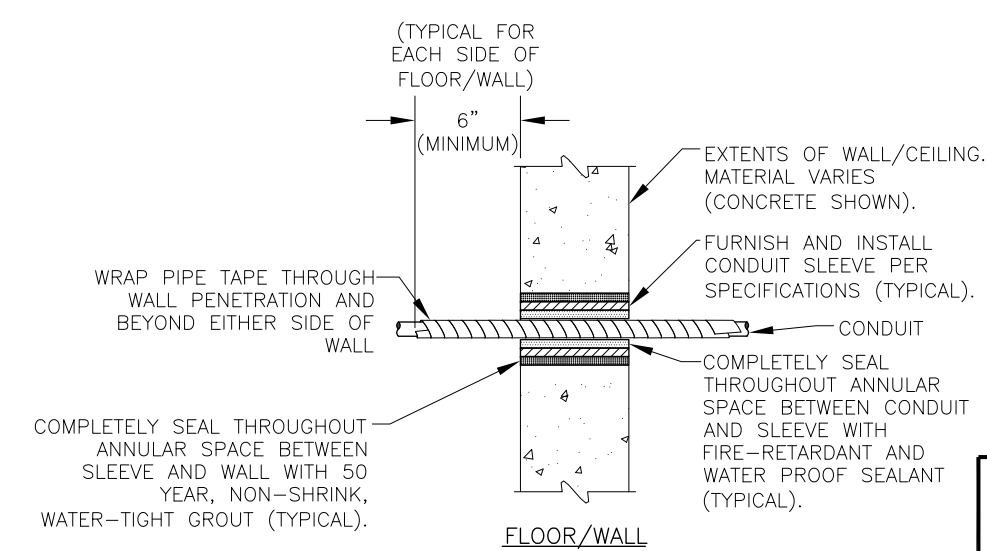
TYPICAL OUTDOOR ELECTRICAL EQUIPMENT PAD CONCRETE SLAB DETAIL (3)
SCALE: N.T.S.



PROCESS AREA CONDUIT STUB-UP DETAIL (4)
SCALE: N.T.S.



FUTURE OUTDOOR CONDUIT STUB-UP DETAIL (5)
SCALE: N.T.S.



CONDUIT PENETRATION DETAIL (6)
SCALE: N.T.S.

KEY NOTES:

- (1) FURNISH AND INSTALL PULLSTRING INSIDE AND ALONG ENTIRE LENGTH OF CONDUIT FOR FUTURE USE. TAPE PULLSTRING AROUND INTERIOR OF CONDUIT ADJACENT TO PLUG THREADS.
- (2) CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 2 OF 7)



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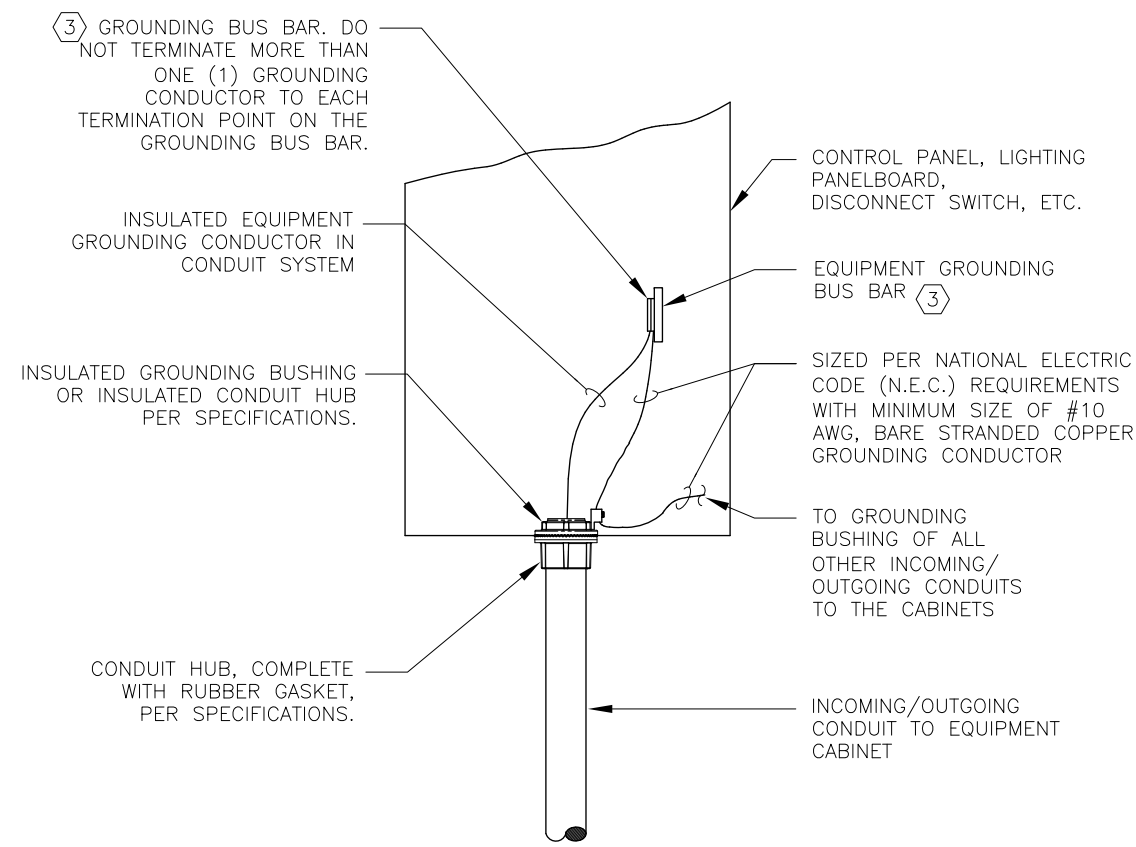
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



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AUSTIN, TEXAS 78754
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F-2408

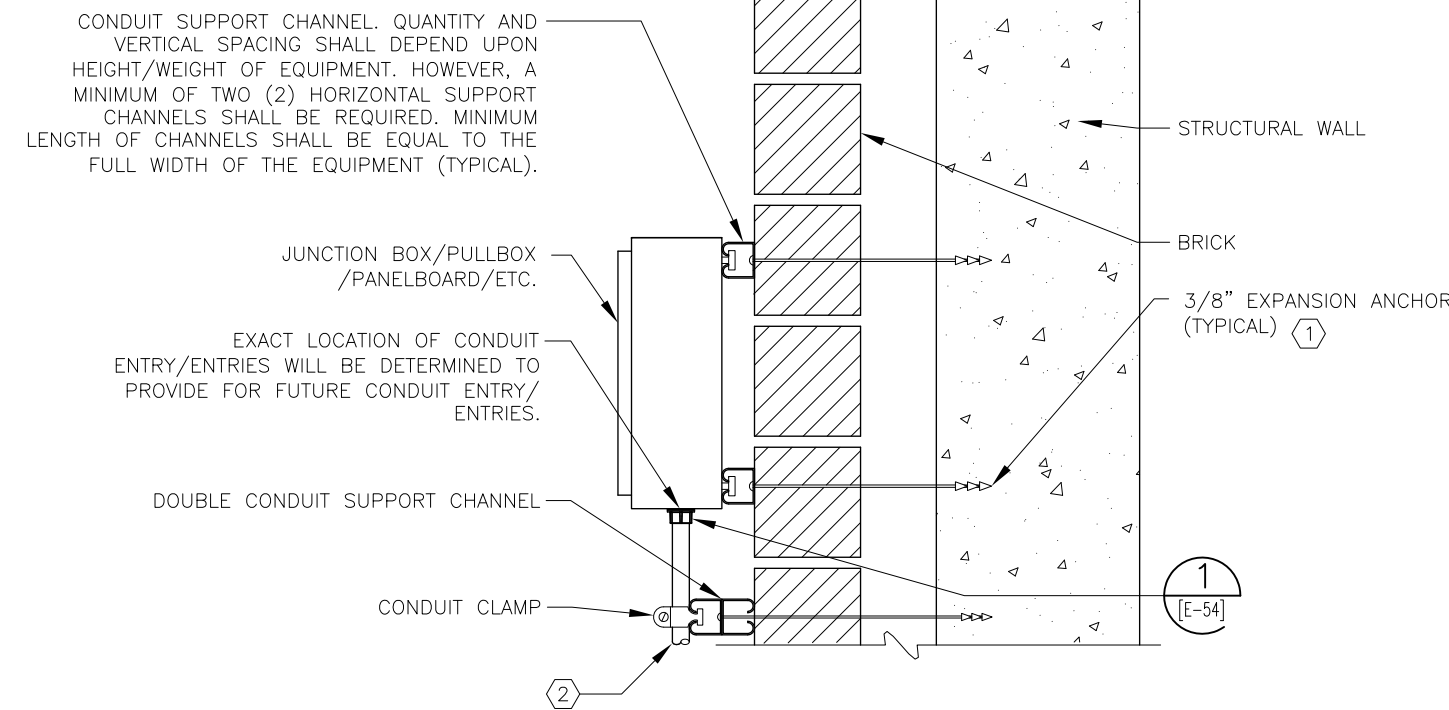
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CADD DIR.:	100057315

SHEET NUMBER	E-53
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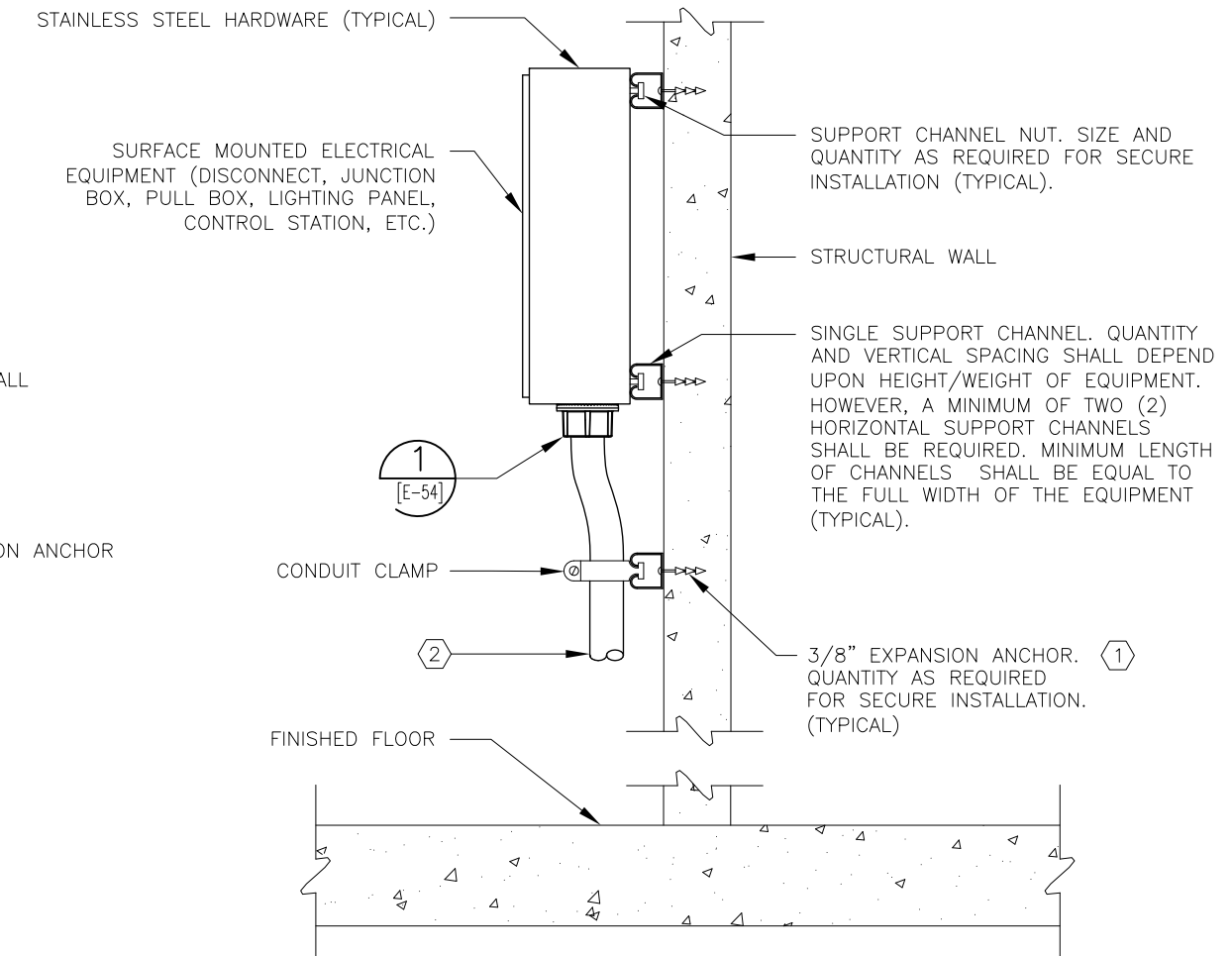
TYPICAL FOR BOTTOM AND TOP
CONDUIT ENTRY TO EQUIPMENT
SCALE: N.T.S.

1
[E-54]



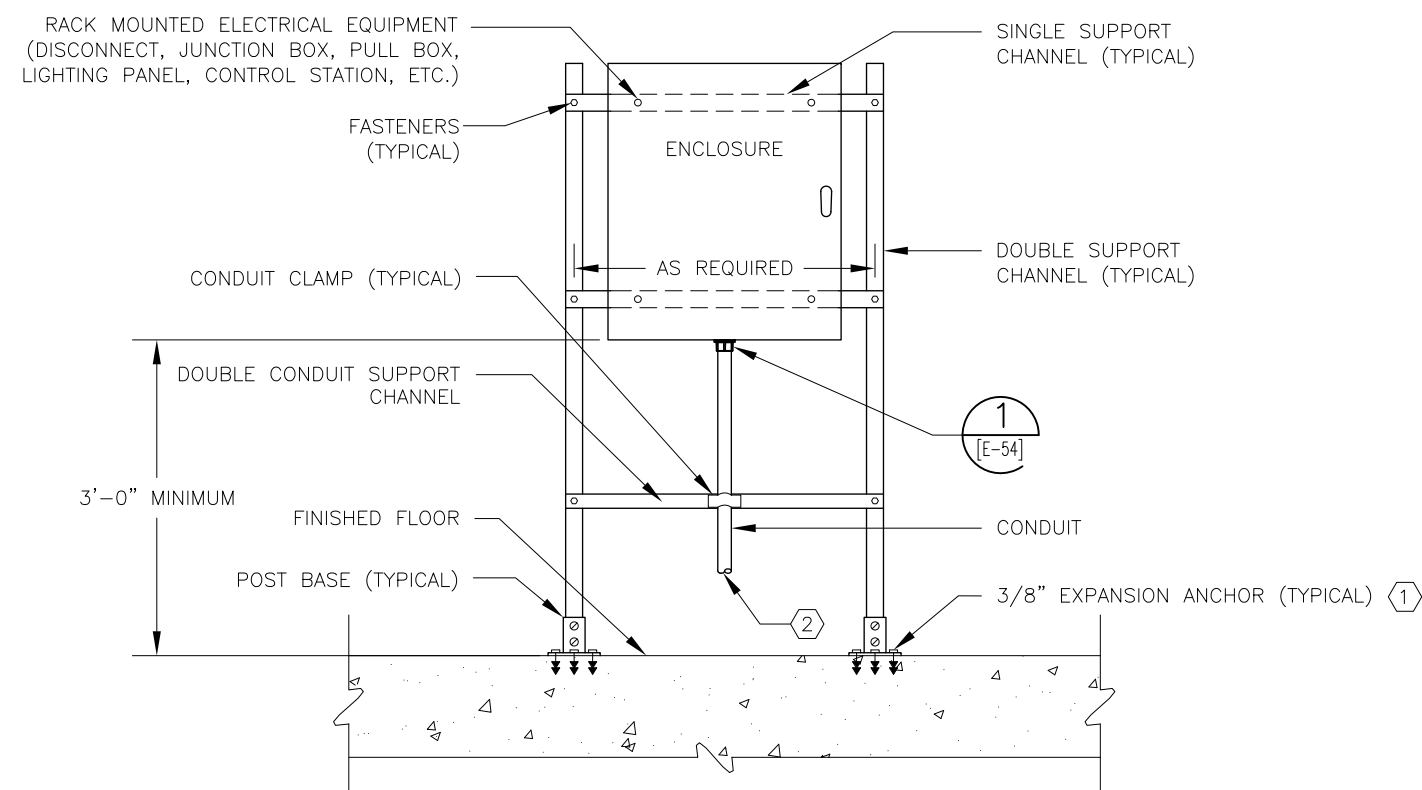
BRICK MOUNTED ELECTRICAL
EQUIPMENT INSTALLATION DETAIL
SCALE: N.T.S.

2
[E-54]



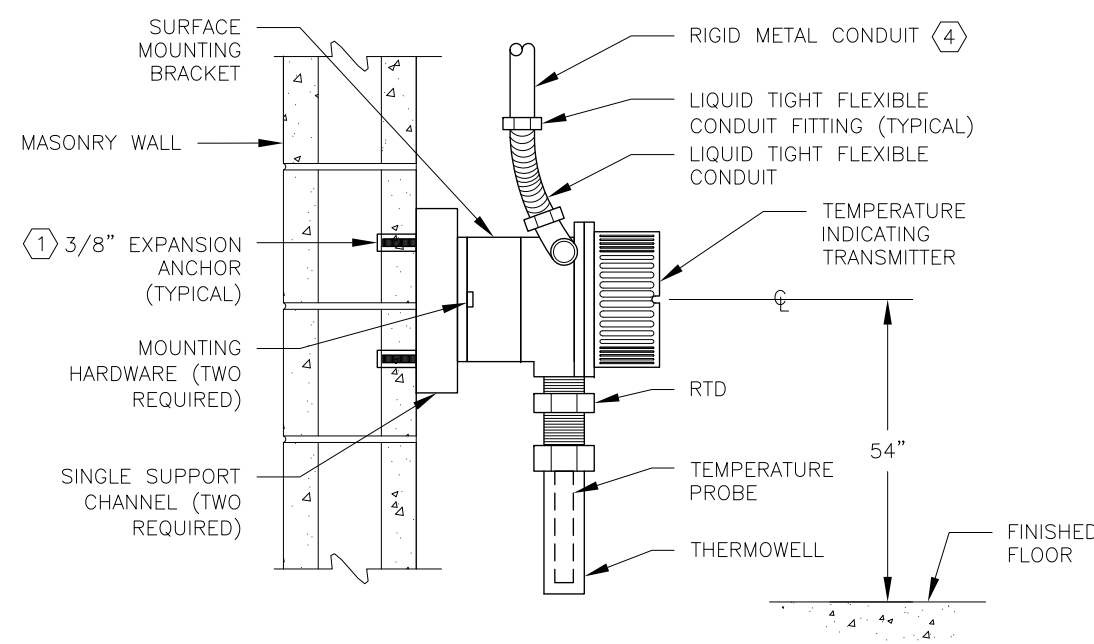
SIDE ELEVATION SURFACE/WALL MOUNTED
ELECTRICAL EQUIPMENT INSTALLATION DETAIL
SCALE: N.T.S.

3
[E-54]



FRONT ELEVATION RACK MOUNTED
ELECTRICAL EQUIPMENT INSTALLATION DETAIL
SCALE: N.T.S.

4
[E-54]



TEMPERATURE INDICATING TRANSMITTER AND
ELEMENT WALL MOUNT INSTALLATION DETAIL
SCALE: N.T.S.

5
[E-54]

KEY NOTES:

- ① THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL.
- ② CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.
- ③ GROUND BUS BAR NOT NECESSARILY IN EXACT LOCATION SHOWN ON THIS DRAWING. GROUND BUS BAR DEPICTED IN THIS MANNER FOR PURPOSES OF CLARITY. CONTRACTOR SHALL FURNISH AND INSTALL SUFFICIENT LENGTH OF ALL GROUNDING CONDUCTORS TO ROUTE THROUGH DESIGNATED WIRING AREAS OF EQUIPMENT TO/FROM ACTUAL LOCATION OF EQUIPMENT GROUND BUS BAR.
- ④ POINT OF CONDUIT ENTRY SHOWN FOR REPRESENTATION ONLY. ACTUAL POINT OF CONDUIT ENTRY AS WELL AS QUANTITY AND SIZE OF CONDUIT MAY VARY WITH EACH APPLICATION.

REVISION DESCRIPTION	DATE	REV. NO.	BY



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 3 OF 7)



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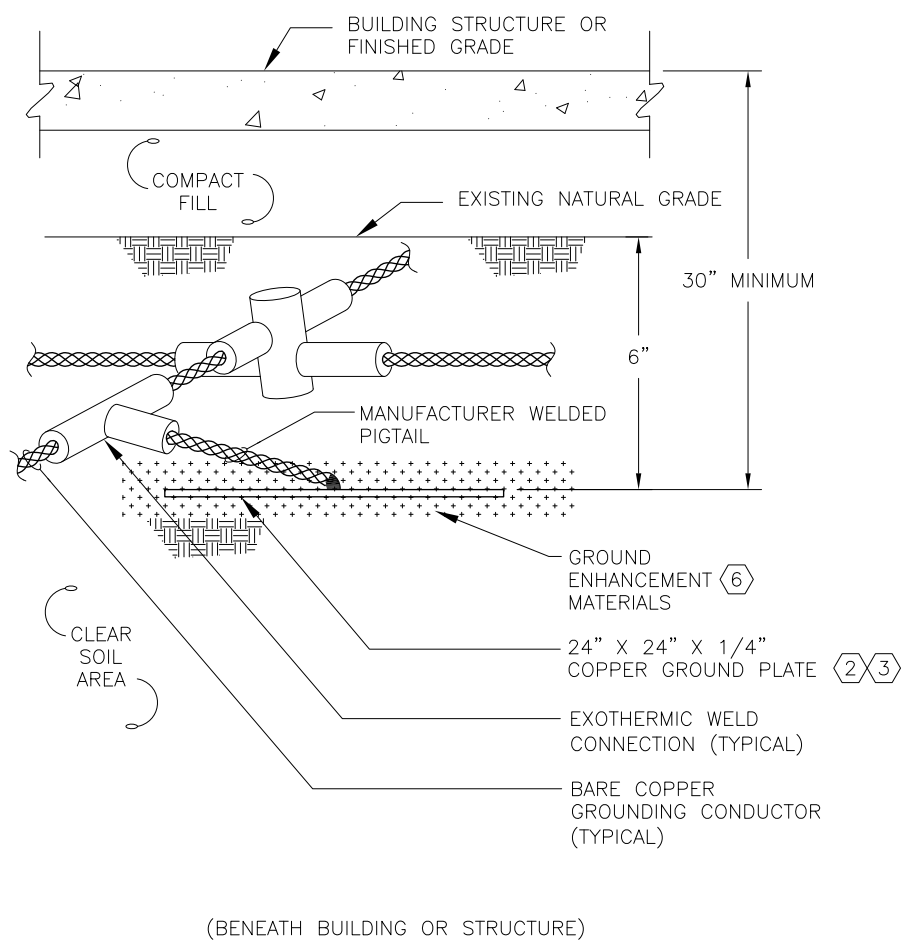
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DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	



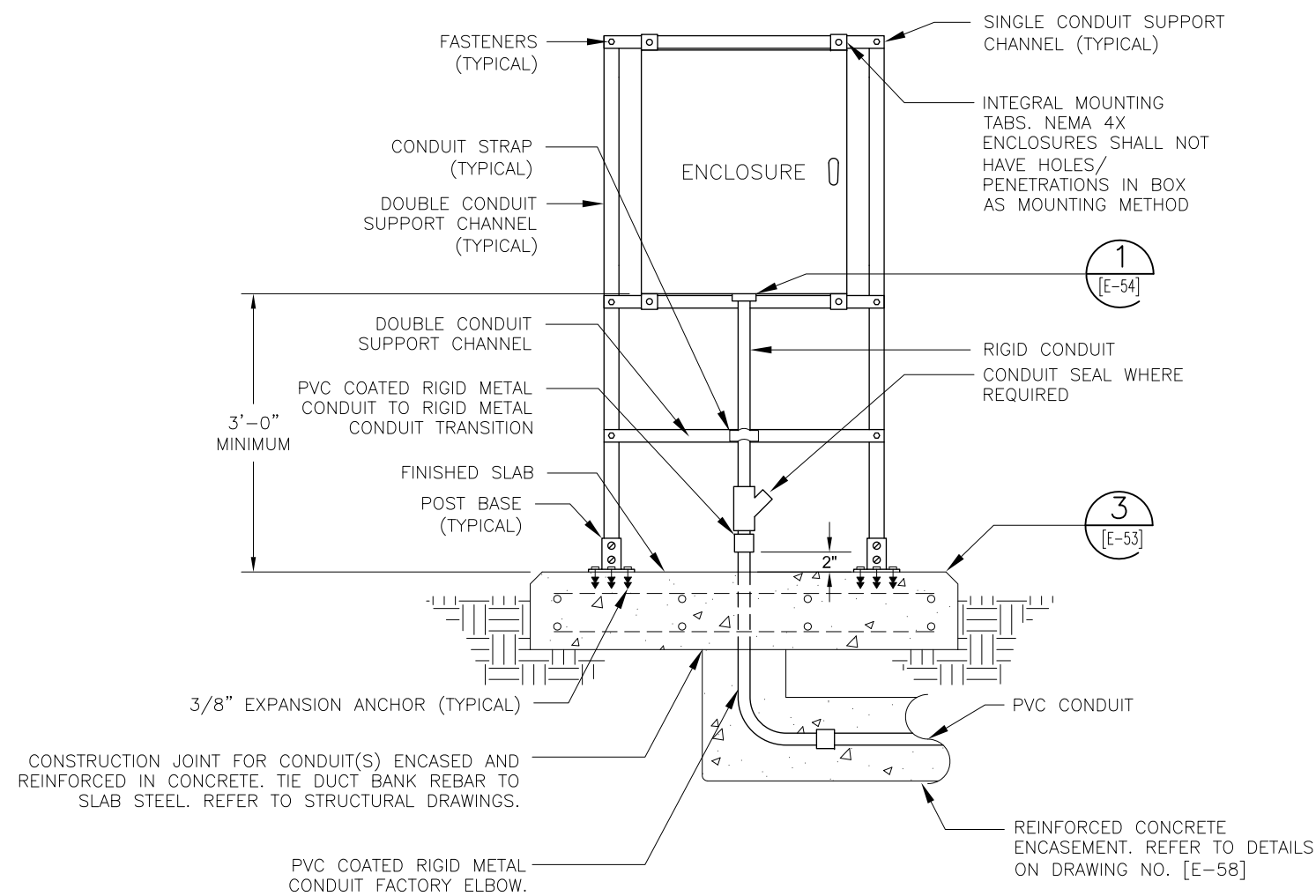
8100 CROSS PARK DRIVE
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F-2408

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

SHEET NUMBER	E-54
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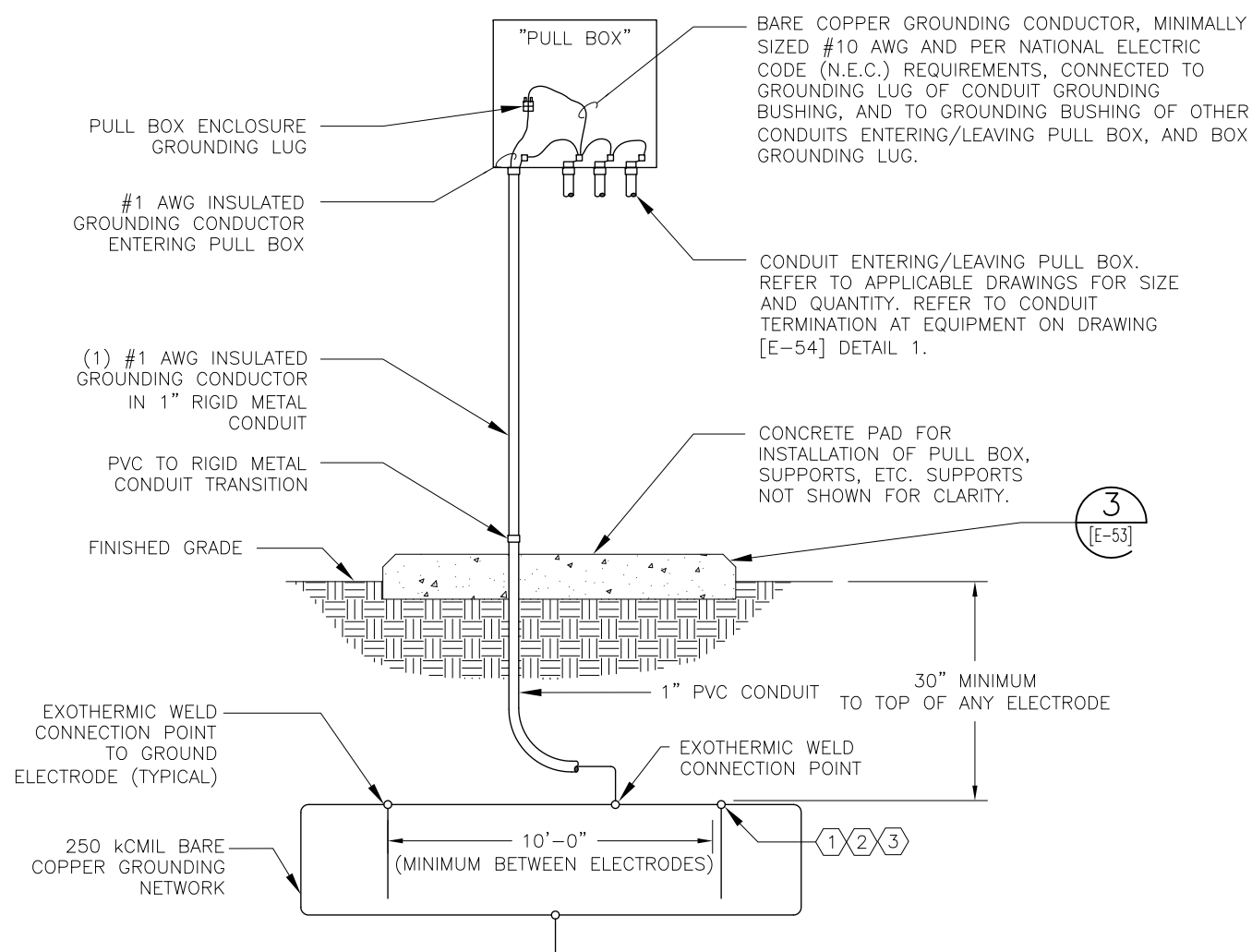
TYPICAL GROUND PLATE INSTALLATION DETAIL (1)
SCALE: N.T.S.



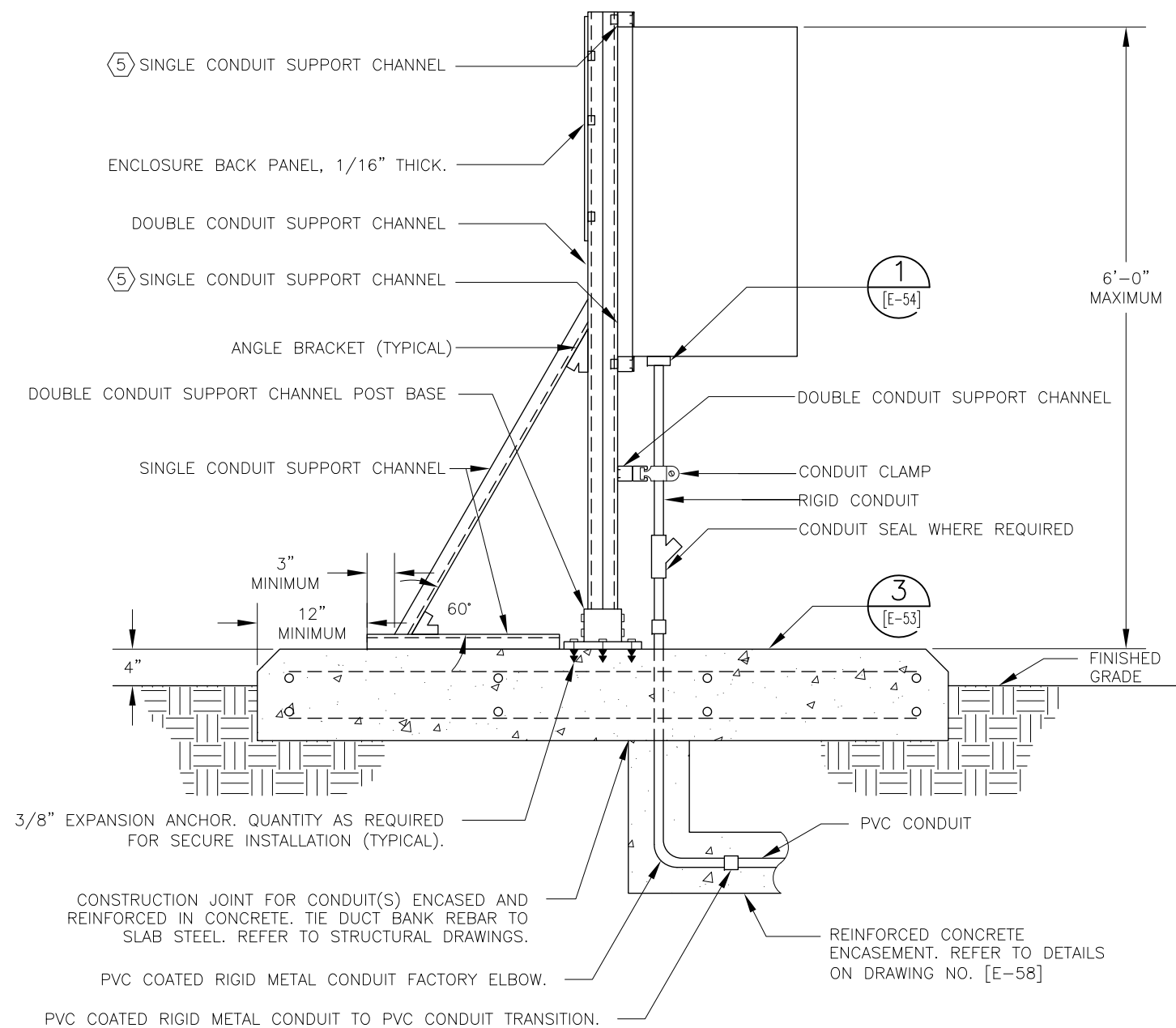
FRONT ELEVATION-TYPICAL ENCLOSURE RACK DETAIL FOR OUTDOOR (2)(4)
SCALE: N.T.S.

KEY NOTES:

- ① MINIMUM OF (3) PLATES ARE REQUIRED. REFER TO TYPICAL GROUND PLATE INSTALLATION DETAIL NO. 1 ON THIS DRAWING. FURNISH AND INSTALL THREE POINT GROUNDING NETWORK UNDER PULL BOX.
- ② COORDINATE THE LOCATION/INSTALLATION OF EACH GROUND PLATE WITH CIVIL/STRUCTURAL/MECHANICAL DRAWINGS/CONTRACTORS. SLIGHT RELOCATION OF GROUND PLATES AND/OR GROUNDING CONDUCTORS FROM THAT SHOWN ON GROUNDING PLAN MAY BE NECESSARY TO AVOID CONFLICTS. ARRANGE/INSTALL GROUND PLATES IN ORDER TO MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ANY OTHER GROUND PLATE.
- ③ CONTRACTOR SHALL COORDINATE THE INSTALLATION AND PROTECTION OF THE ENTIRE GROUNDING NETWORK (GROUND ELECTRODES AND ASSOCIATED GROUNDING CONDUCTORS IN AND AROUND THE STRUCTURE) WITH CIVIL/STRUCTURAL/MECHANICAL DRAWINGS/CONTRACTORS DURING ALL PHASES OF CONSTRUCTION.
- ④ FOR OUTDOOR ENCLOSURES, REFER TO DETAIL 3 ON THIS DRAWING FOR GROUNDING INFORMATION.
- ⑤ QUANTITY AND VERTICAL SPACING SHALL DEPEND UPON HEIGHT/WEIGHT OF EQUIPMENT. HOWEVER, A MINIMUM OF TWO (2) HORIZONTAL SUPPORT CHANNELS SHALL BE REQUIRED. MINIMUM LENGTH OF CHANNELS SHALL BE EQUAL TO THE FULL WIDTH OF THE EQUIPMENT.
- ⑥ ENCASE ALL BURIED PLATE TYPE GROUND ELECTRODES IN GROUND ENHANCEMENT MATERIAL. ENCASEMENT SHALL EXTEND BEYOND EXTENTS OF ELECTRODE A MINIMUM OF 4 INCHES IN ALL DIRECTIONS FOR ENTIRE LENGTH, WIDTH, AND DEPTH OF ELECTRODE. THE ENTIRE EXTENTS OF THE GROUND ENHANCEMENT MATERIAL IS NOT SHOWN ON THE DRAWING FOR CLARITY.



TYPICAL PULL BOX GROUNDING DETAIL (3)
SCALE: N.T.S.



SIDE ELEVATION-TYPICAL ENCLOSURE RACK DETAIL FOR OUTDOOR (4)
SCALE: N.T.S.

REVISION DESCRIPTION	DATE	REV. BY	NO.



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 4 OF 7)

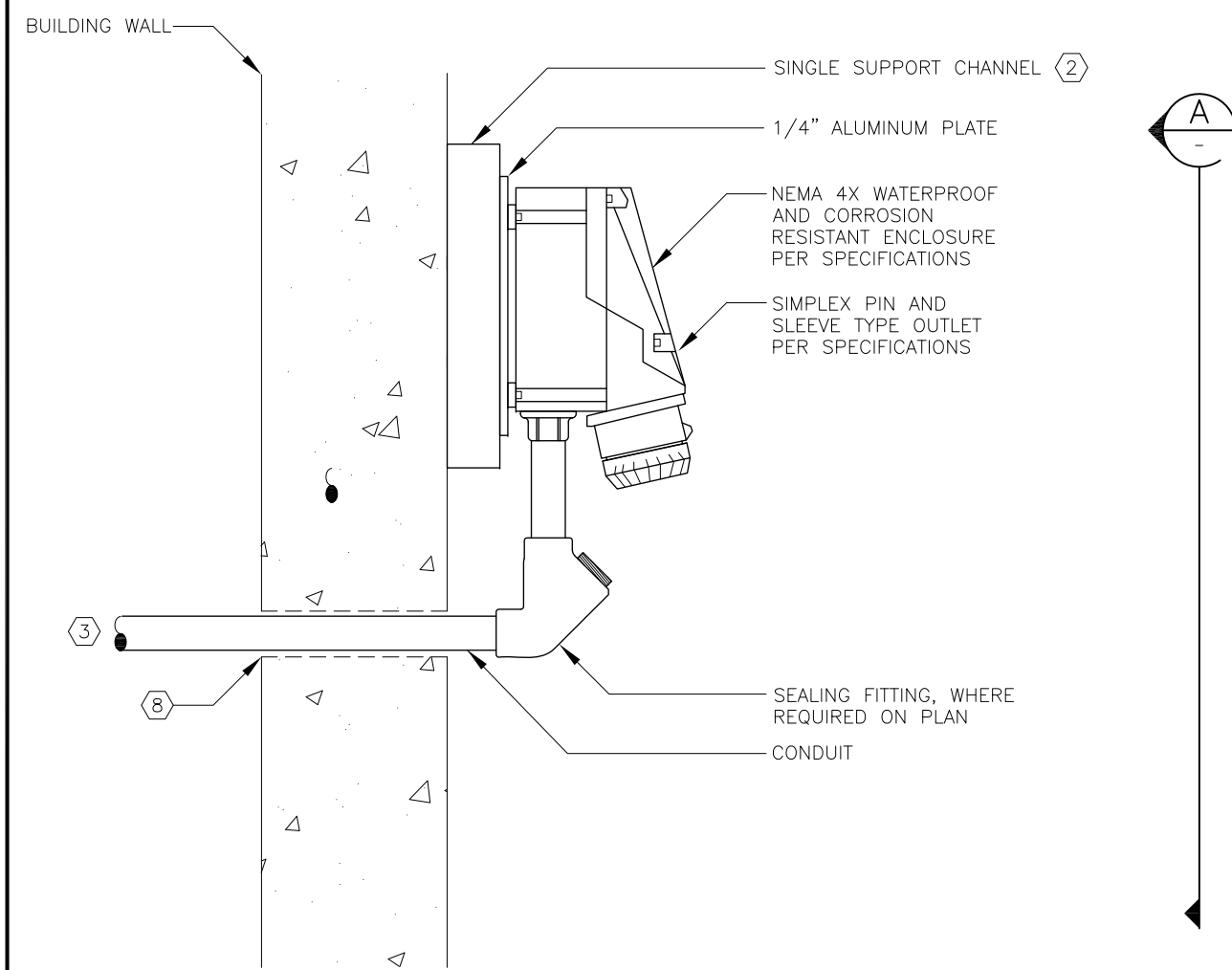


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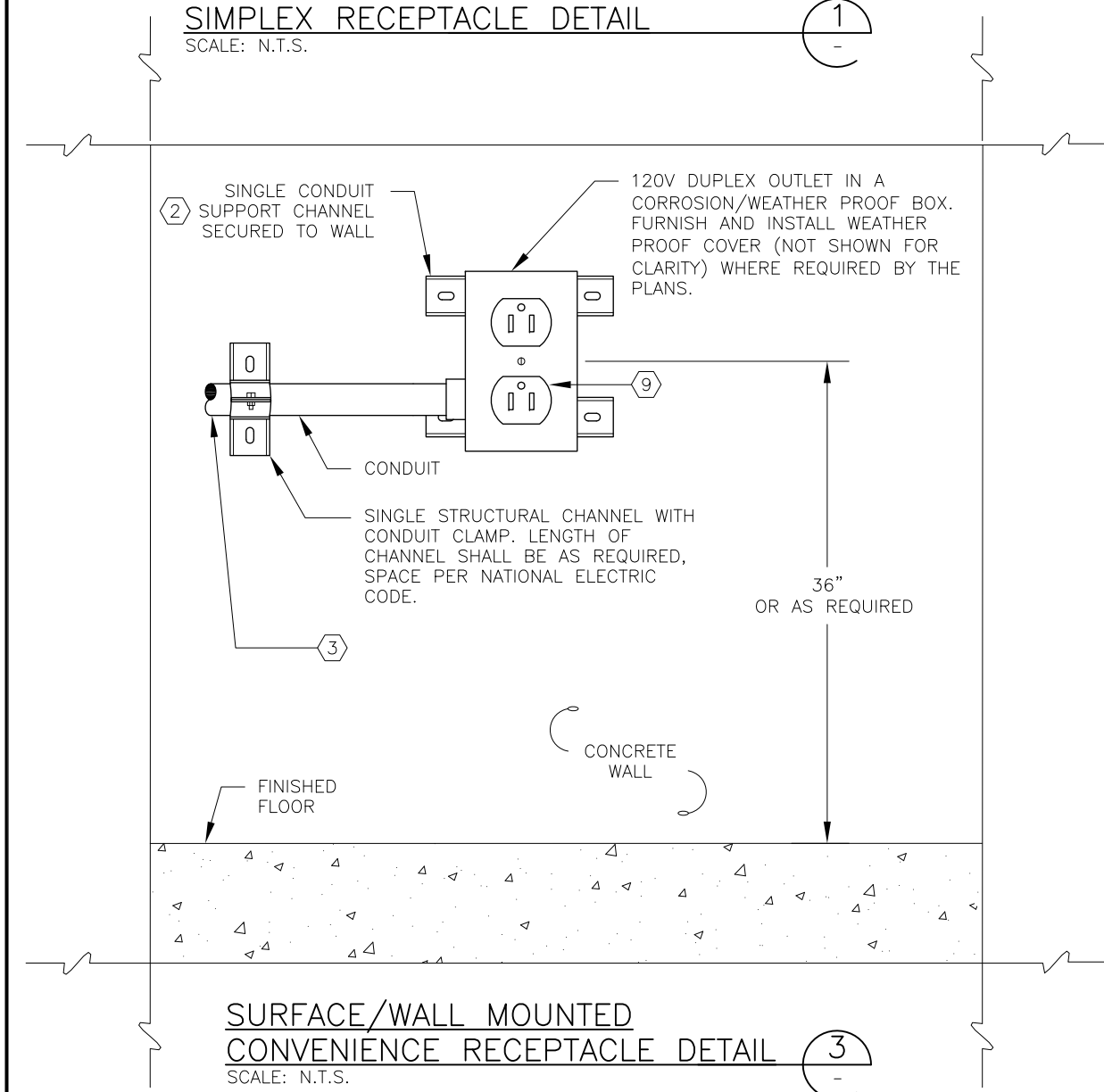
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CADD DIR.:	100057315

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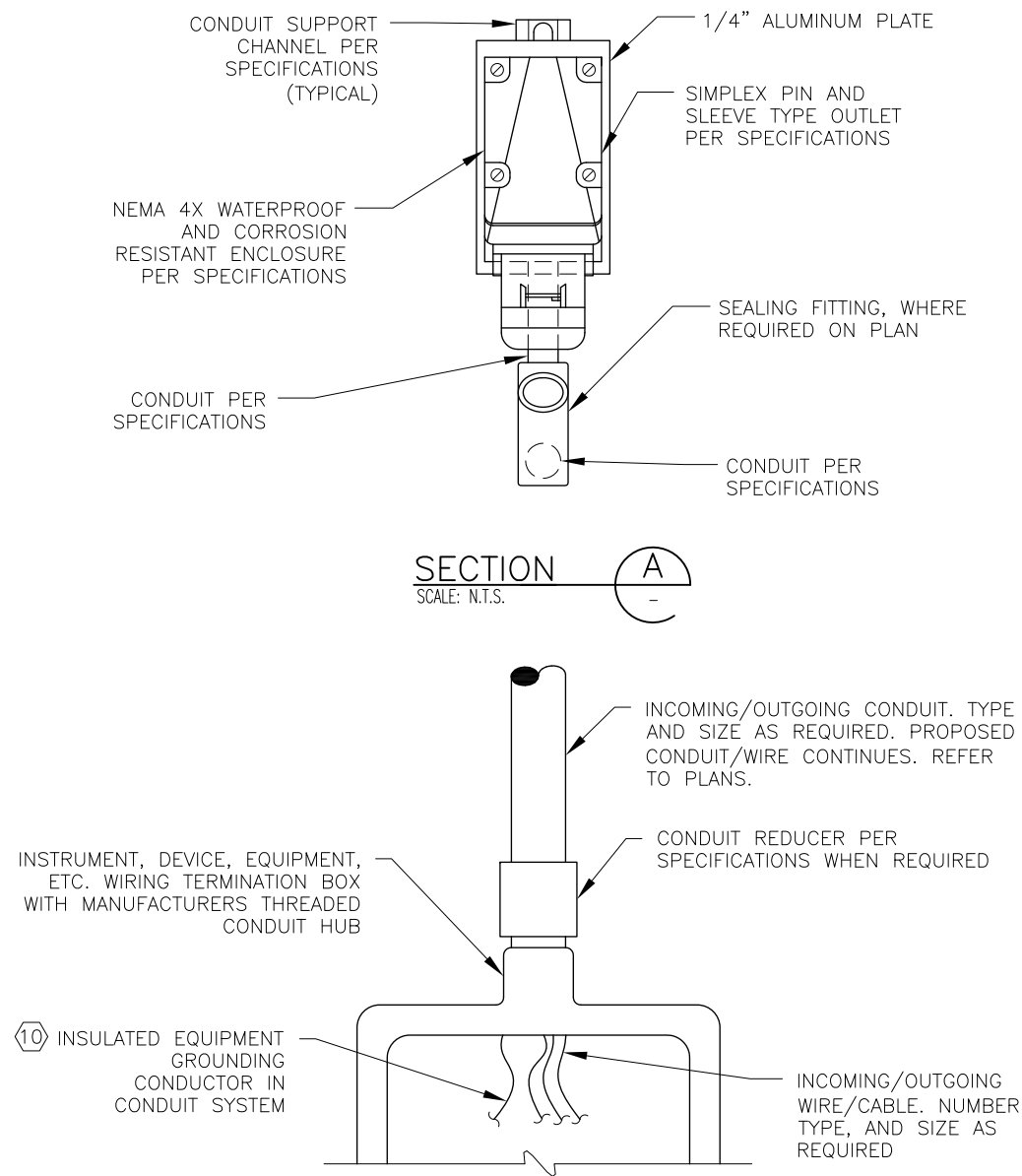
SHEET NUMBER **E-55**



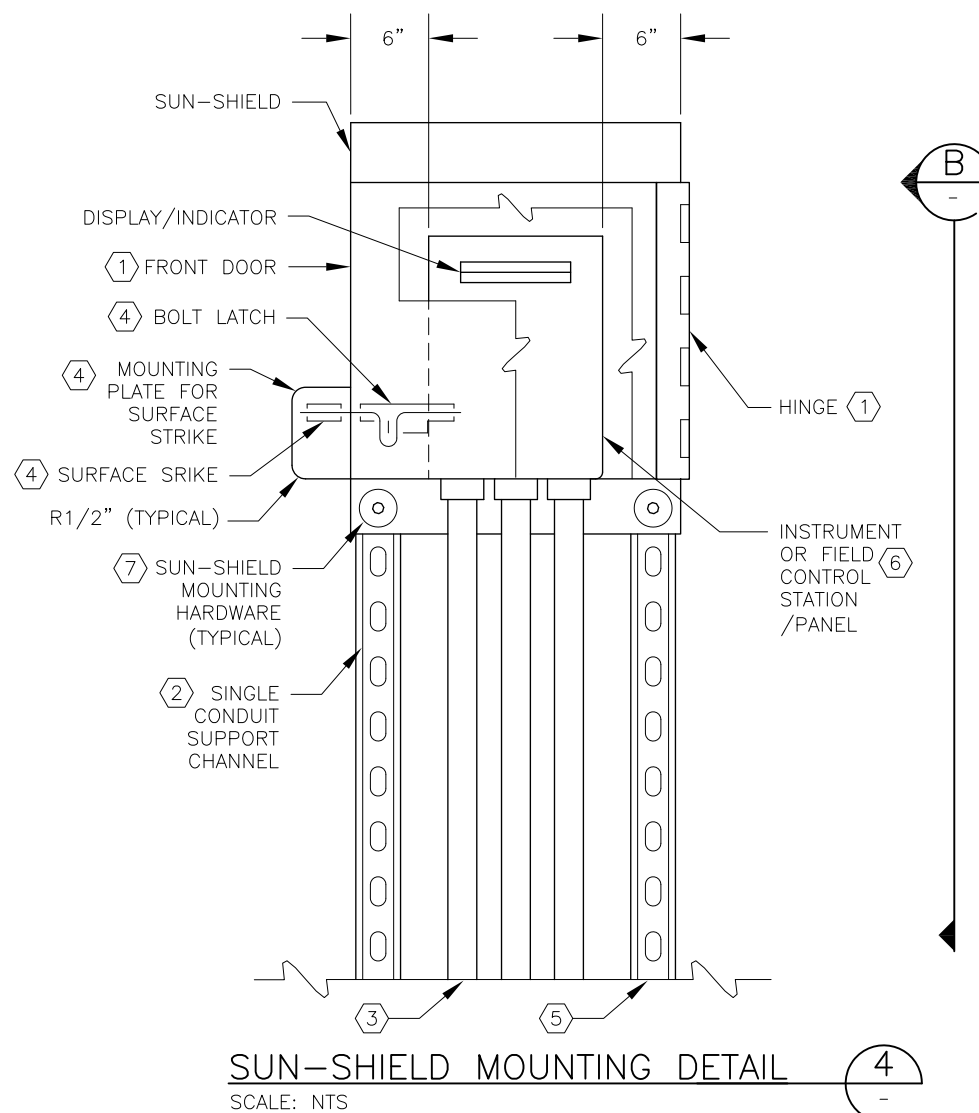
**SURFACE WALL EXTERIOR MOUNTED
SIMPLEX RECEPTACLE DETAIL**
SCALE: N.T.S.



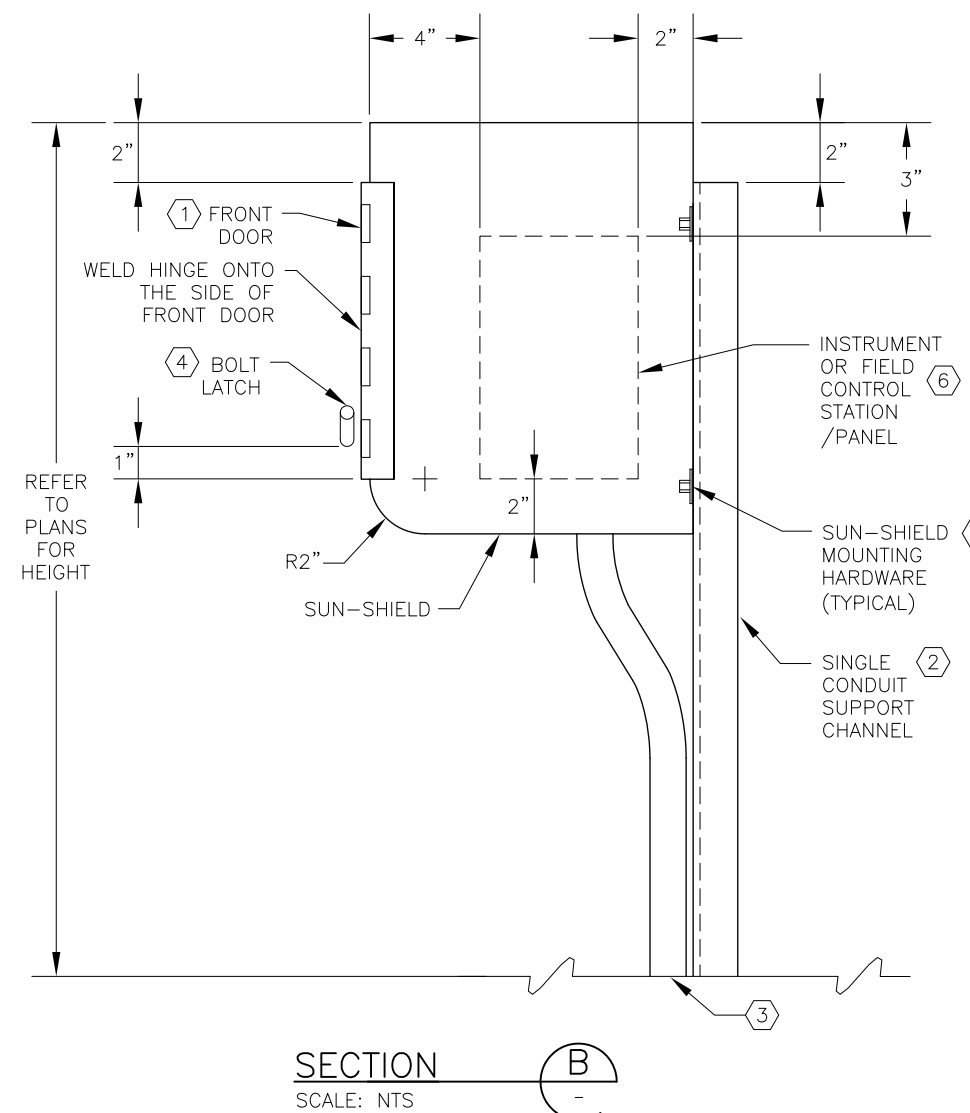
**SURFACE/WALL MOUNTED
CONVENIENCE RECEPTACLE DETAIL**
SCALE: N.T.S.



CONDUIT REDUCER INSTALLATION DETAIL
SCALE: N.T.S.



SUN-SHIELD MOUNTING DETAIL
SCALE: N.T.S.



SECTION B
SCALE: N.T.S.

KEY NOTES:

- ① FURNISH AND INSTALL HINGED FRONT DOOR TO PROTECT FRONT (FULL HEIGHT AND WIDTH) OF INSTRUMENT OR FIELD CONTROL STATION/PANEL. WHEN FACING THE SUN-SHIELD, THE HINGE SHALL BE LOCATED ALONG THE FULL LENGTH OF THE VERTICAL RIGHT EDGE OF THE FRONT DOOR/COVER SUCH THAT THE DOOR SWINGS OUT TO THE RIGHT AS SHOWN. DOOR SHALL SWING THROUGH A MINIMUM 180° OF ROTATION IN PLAN VIEW. SECURE DOOR TO SUN-SHIELD WITH HINGE PER SPECIFICATIONS. ENTIRE EXTENTS OF DOOR NOT SHOWN IN THIS VIEW FOR CLARITY.
- ② THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH THE EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR THE STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION INSERT ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO A CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL.
- ③ PROPOSED CONDUIT CONTINUES. QUANTITY OF CONDUITS SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. REFER TO PLANS.
- ④ PROVIDE A BOLT LATCH TO SECURE THE HINGED DOOR WHEN THE DOOR IS IN THE CLOSED POSITION. MOUNT BOTTOM OF BOLT LATCH 1-INCH ABOVE THE BOTTOM OF THE FRONT DOOR. PROVIDE A MOUNTING PLATE ON THE SIDE OF THE SUN-SHIELD AS SHOWN TO FASTEN THE SURFACE STRIKE TO ACCEPT THE BOLT FROM THE LATCH. OUTER EDGE OF THE MOUNTING PLATE SHALL EXTEND 1/2-INCH PAST THE TIP OF THE BOLT WHEN THE LATCH IS IN THE LOCKED POSITION. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ⑤ SUPPORT CHANNEL CONTINUES TO FINISHED FLOOR AND ATTACHES WITH POST BASE FITTINGS. LAYOUT AND LOCATIONS MAY VARY AND MAY REQUIRE ADDITIONAL SUPPORT METHODS. CAREFULLY COORDINATE THE NEED FOR SUCH AND FURNISH AND INSTALL AT NO ADDITIONAL COST TO THE OWNER.
- ⑥ INSTRUMENT OR FIELD CONTROL STATION/PANEL SHALL BE MOUNTED INDEPENDENT AND SEPARATE FROM THE SUN-SHIELD AND SUN-SHIELD SUPPORT STRUCTURAL ELEMENTS. REFER TO INSTRUMENT OR FIELD CONTROL STATION/PANEL SYSTEM PLANS AND SPECIFICATION FOR ADDITIONAL REQUIREMENTS. INSTRUMENT OR FIELD CONTROL STATION/PANEL SIZE SHOWN IS FOR REPRESENTATION ONLY. ACTUAL INSTRUMENT OR FIELD CONTROL STATION/PANEL DIMENSIONS VARY. COORDINATE EXACT ELEVATION OF EACH RESPECTIVE INSTRUMENT OR FIELD CONTROL STATION/PANEL WITHIN CONFINES OF SUN-SHIELD IN ORDER TO PROVIDE MAXIMUM SUN-SHIELDING OF DISPLAY/INDICATOR, WHILE MAINTAINING A REASONABLE LINE-OF-SIGHT TO DISPLAY/INDICATOR WHEN DOOR IS OPEN. COORDINATE THIS FINAL ELEVATION WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ⑦ MOUNT PROPOSED SUNSHIELD TO PROPOSED CONDUIT SUPPORT CHANNEL WITH MINIMUM 1/4" HARDWARE.
- ⑧ CONDUIT PENETRATION PER DETAIL 6 ON DRAWING NO. [E-53].
- ⑨ GROUND PRONGS SHALL BE ORIENTED VERTICALLY (AS SHOWN HERE), OR TO THE RIGHT FOR HORIZONTAL CONFIGURATION.
- ⑩ BOND CONDUIT SYSTEM INSULATED GROUNDING CONDUCTOR TO WIRING TERMINATION BOX BY MEANS OF GROUND BUS BAR/TERMINATION BLOCK/LUG FURNISHED IN WIRING TERMINATION BOX.

REV. NO.	DATE	DESCRIPTION



CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 5 OF 7)



NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
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SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

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TEXAS REGISTERED ENGINEERING FIRM
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SHEET NUMBER
E-56

KEY NOTES:

- ① DOUBLE CONDUIT SUPPORT CHANNEL PARALLEL WITH PIPING.
- ② THE LENGTH OF CHANNEL SHALL BE AS REQUIRED.
- ③ SECURE/ATTACH CONDUIT SUPPORT CHANNEL TO BOTTOM OF EXISTING SCRUBBER DUCT STRUCTURAL SUPPORT. UPPER LAYER OF SUPPORT CHANNEL SHALL RUN PARALLEL WITH MECHANICAL PIPING. LENGTH AS REQUIRED.
- ④ EXISTING CONDUITS NOT SHOWN FOR PURPOSE OF CLARITY. COORDINATE LOCATION OF PROPOSED CONDUITS ON EXISTING SUPPORT STRUCTURE WITH EXISTING CONDUITS.

REV. NO.	DATE	DESCRIPTION



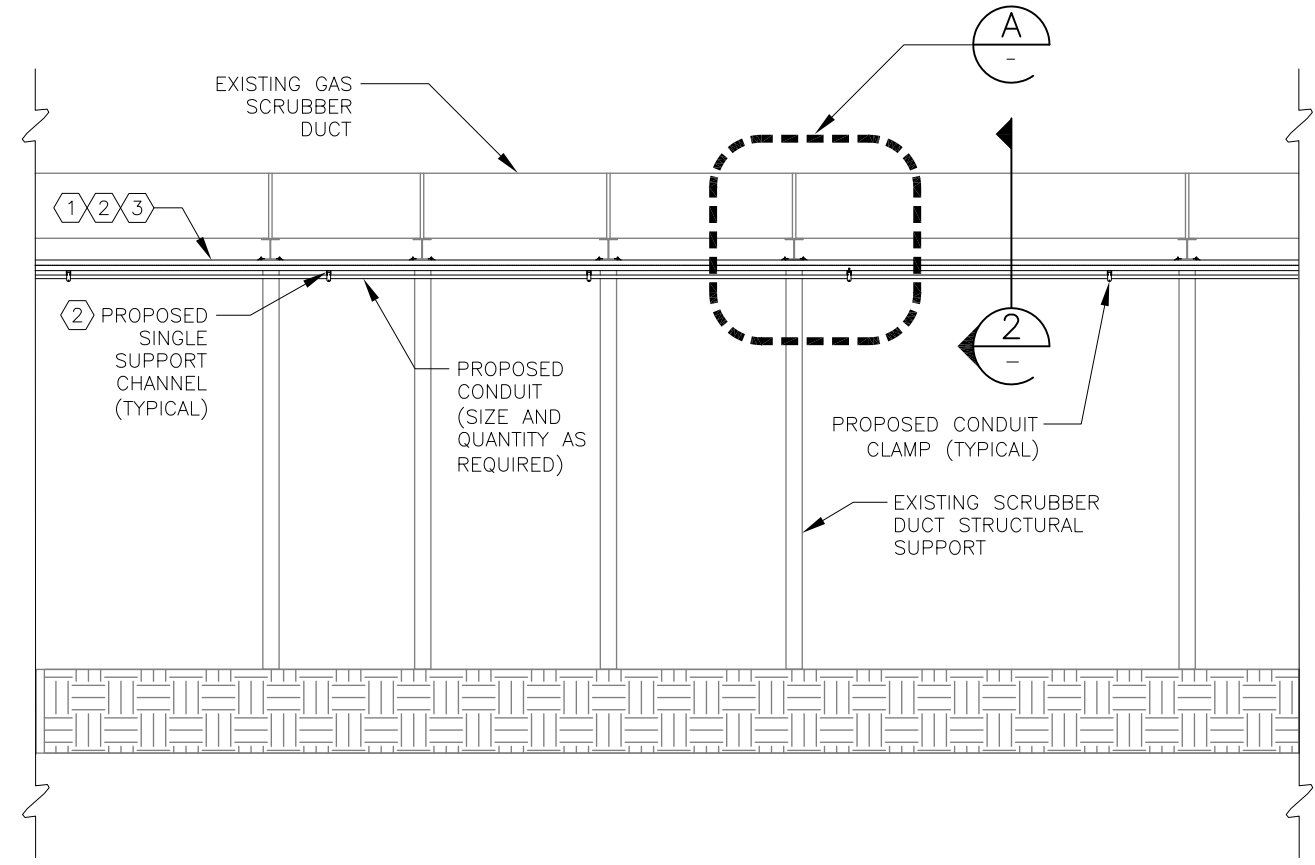
CITY OF AUSTIN
 WALNUT CREEK WWTP
 GAS SCRUBBER SYSTEM RENEWAL

TYPICAL ELECTRICAL DETAILS
 (SHEET 6 OF 7)

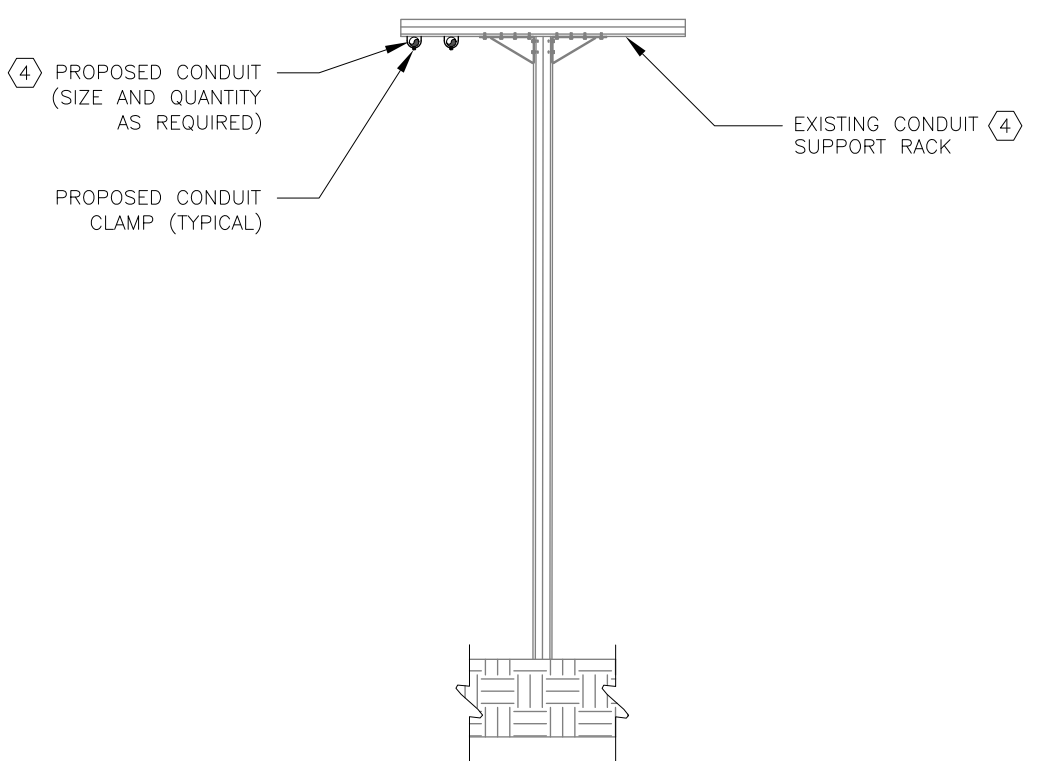


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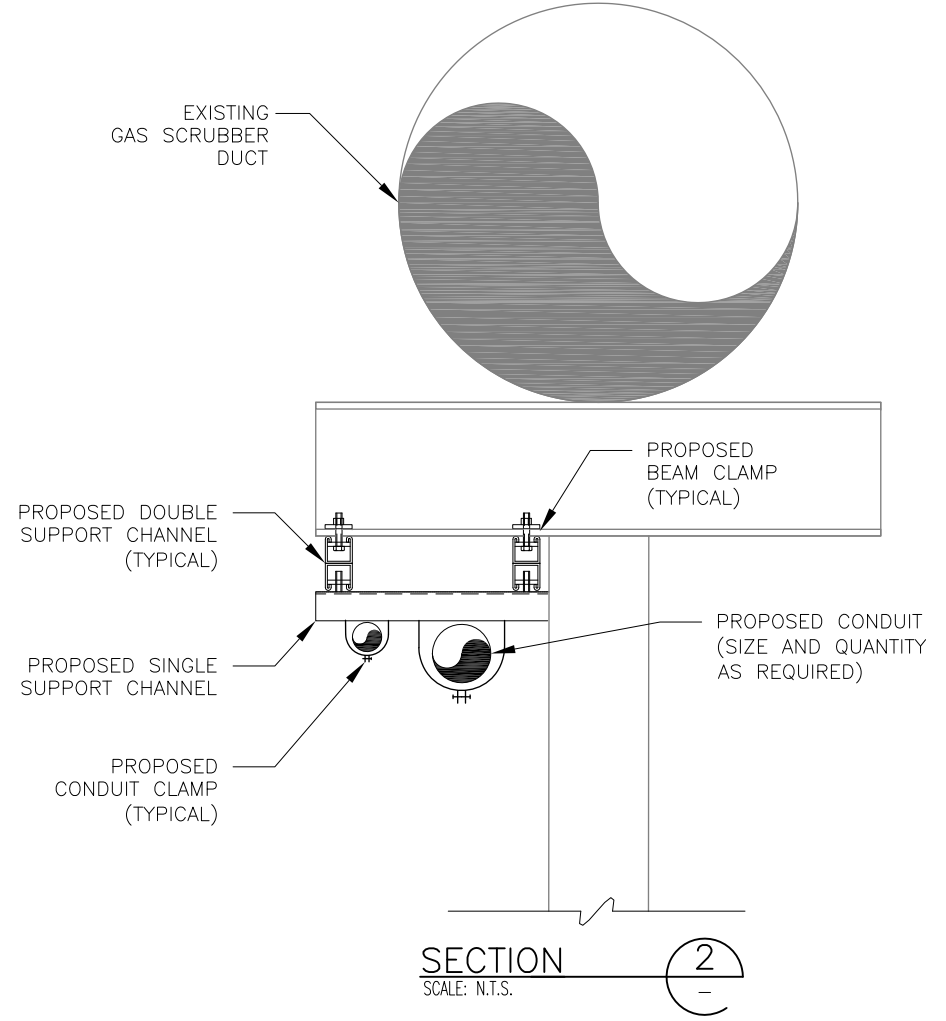
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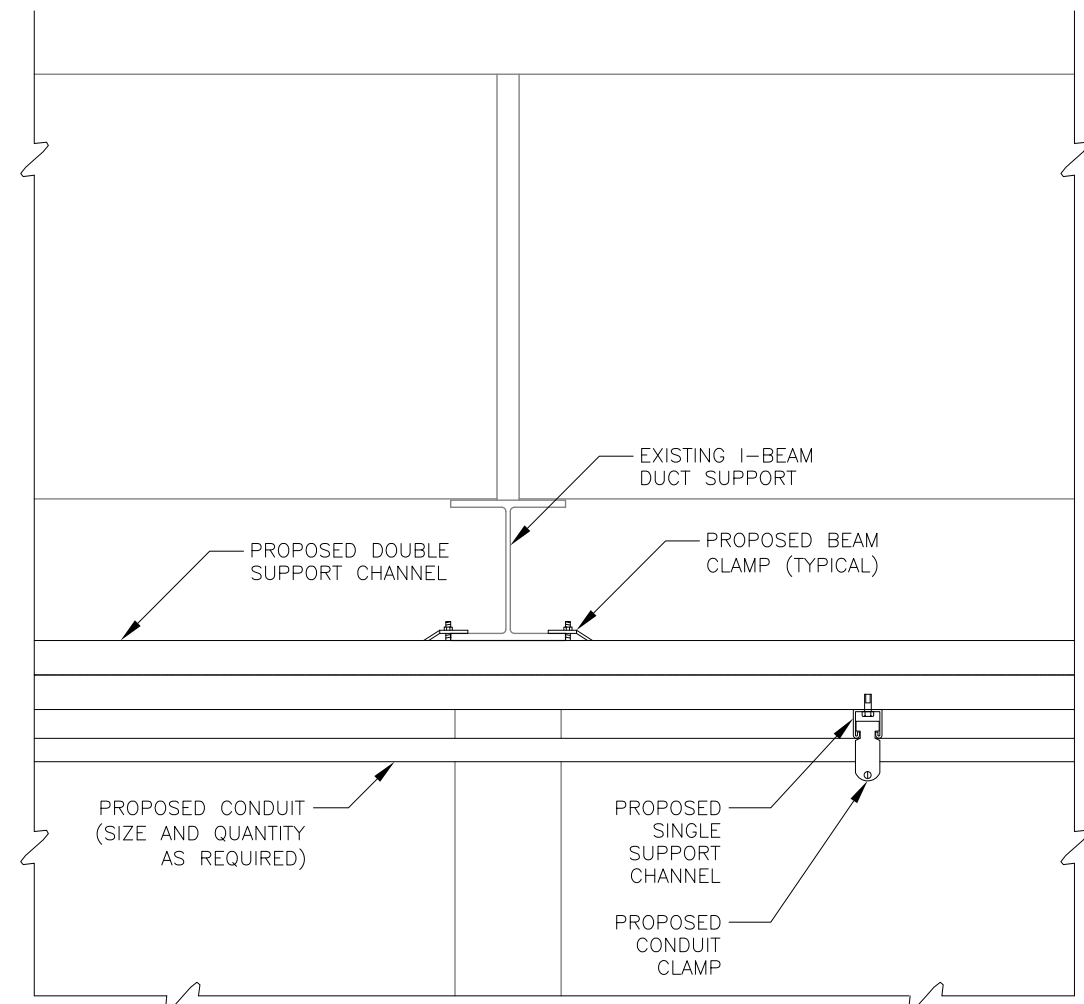
PROPOSED CONDUIT RACK MOUNTED TO EXISTING SCRUBBER DUCT SUPPORTS—DETAIL
 SCALE: N.T.S. ①



EXISTING CONDUIT RACK MOUNTING DETAIL
 SCALE: N.T.S. ③

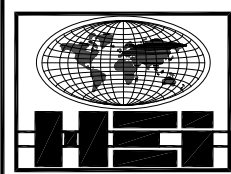


SECTION
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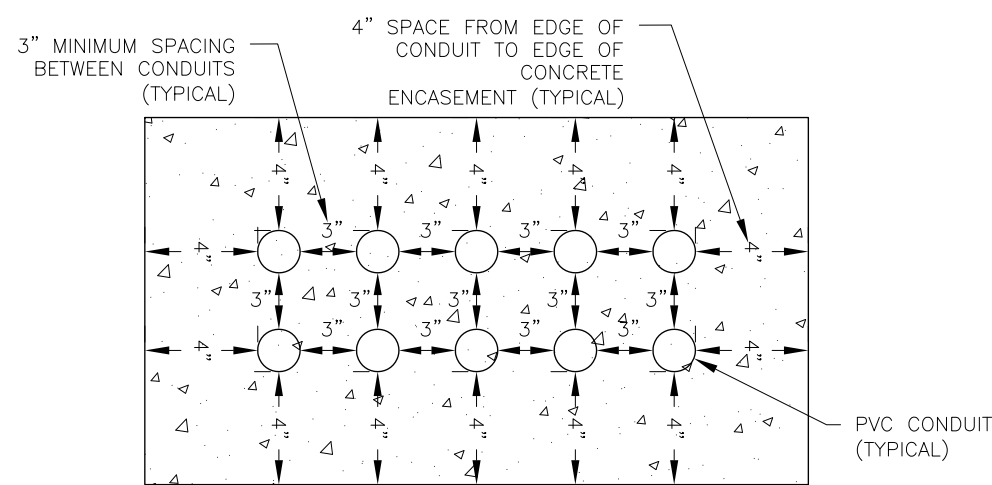
DETAIL 1 ENLARGMENT A
 SCALE: N.T.S. ①

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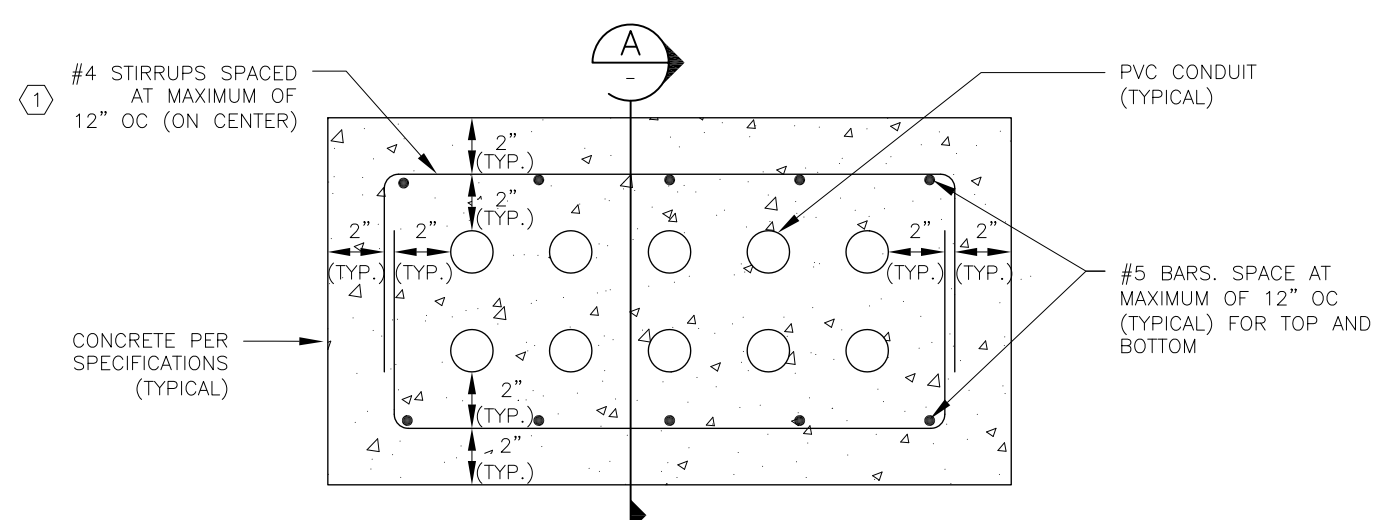


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**MULTI-LAYER DUCT/CONDUIT BANK-SPACING
DETAIL FOR REINFORCED AND CONCRETE
ENCASED DUCT/CONDUIT BANKS**
SCALE: N.T.S.



**MULTI-LAYER DUCT/CONDUIT BANK REINFORCEMENT
AND CONCRETE BANK ENCASEMENT DETAIL**
SCALE: N.T.S.

KEY NOTES:

- ① #4 STIRRUPS SHALL BE SPACED AT A MAXIMUM OF TWELVE INCHES (12") ON CENTER (O.C.). HOWEVER, THE MAXIMUM SPACING REQUIREMENT FOR THE STIRRUPS SHALL BE REDUCED WHEN THE UNDERGROUND DUCT/CONDUIT BANK IS A CERTAIN DISTANCE, AS DENOTED ON THE STRUCTURAL DRAWINGS, FROM THE WALL OF A MANHOLE/STRUCTURE/BUILDING/ETC. (I.E. THE CONTRACTOR SHALL INSTALL MORE STIRRUPS WHEN THE UNDERGROUND DUCT/CONDUIT BANK IS WITHIN A CERTAIN DISTANCE, AS DENOTED ON THE STRUCTURAL DRAWINGS, FROM A WALL OF A MANHOLE/BUILDING/STRUCTURE/ETC.).
- ② MINIMUM COVER IS SHOWN. INCREASE AS NEEDED PER THE REQUIREMENTS OF THE SITE PLANS/DUCT BANK PLAN/PROFILE DRAWINGS AND THE NATIONAL ELECTRICAL CODE.
- ③ PER NATIONAL ELECTRIC CODE, MINIMUM COVER FOR ALL DUCT BANKS BENEATH A ROADWAY IS 24".

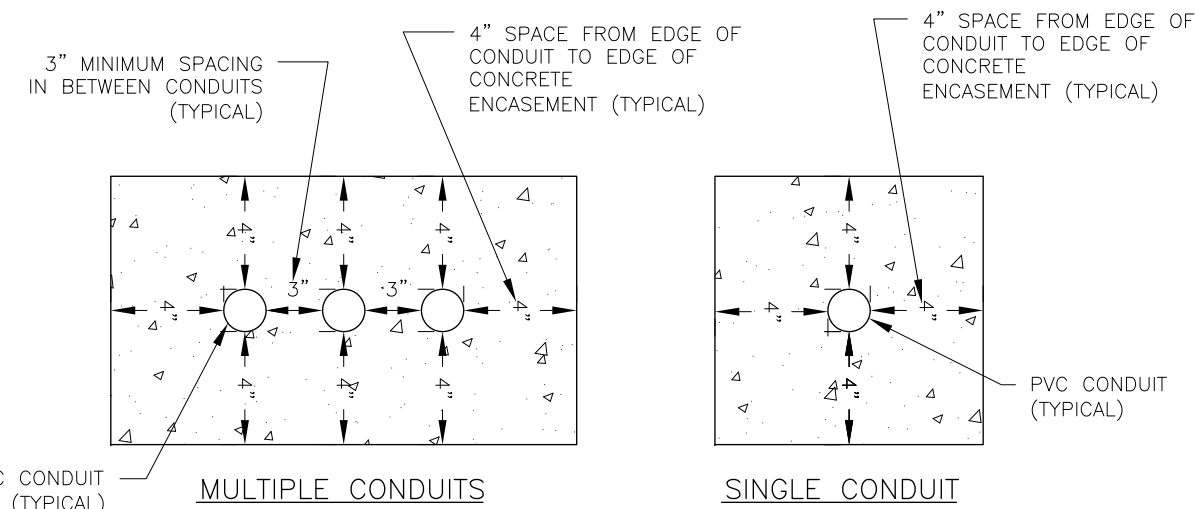
MINIMUM SOIL COVER ②

CONDUIT/DUCT BANK CONTENTS	"X"
600V (EXCEPT FOR OUTDOOR POLE MOUNTED WALKWAY LIGHTING FIXTURES)	24"
5KV AND 15KV	36"
15KV AND FIBER OPTIC IN COMBINED DUCT BANK	36"
STAND ALONE FIBER OPTIC AND/OR I&C DUCT BANK	24"
OUTDOOR POLE MOUNTED WALKWAY LIGHTING FIXTURES	18" ③
ALL OTHERS	24"

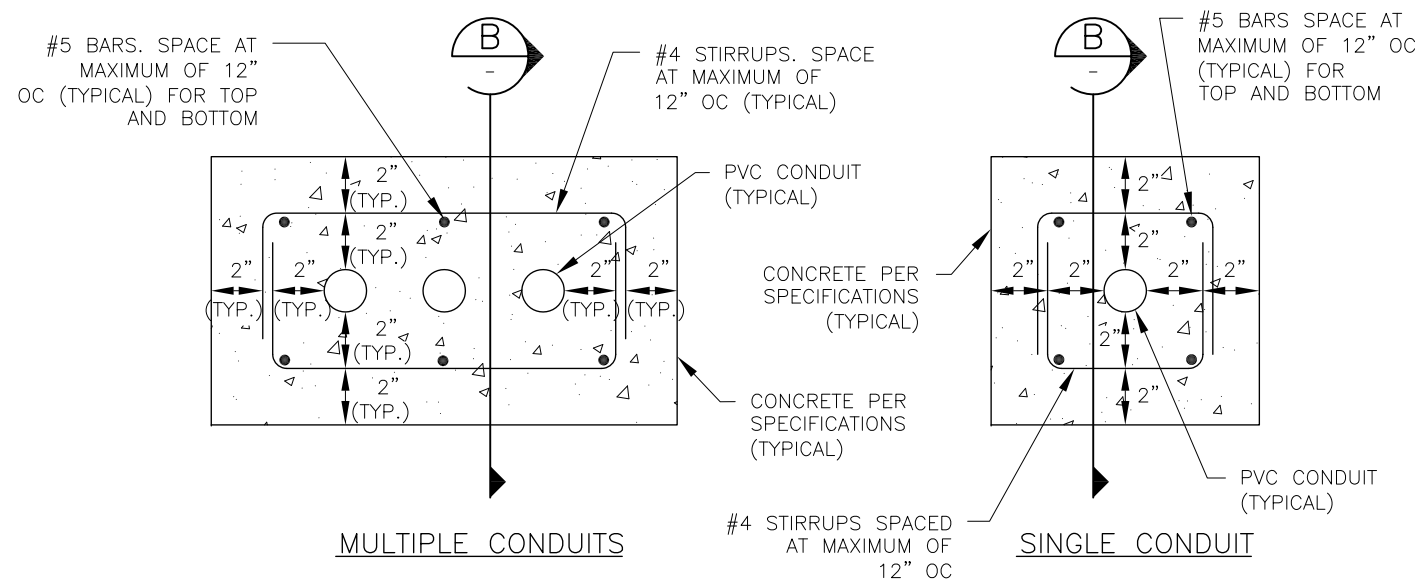
REV. NO.	DATE	DESCRIPTION



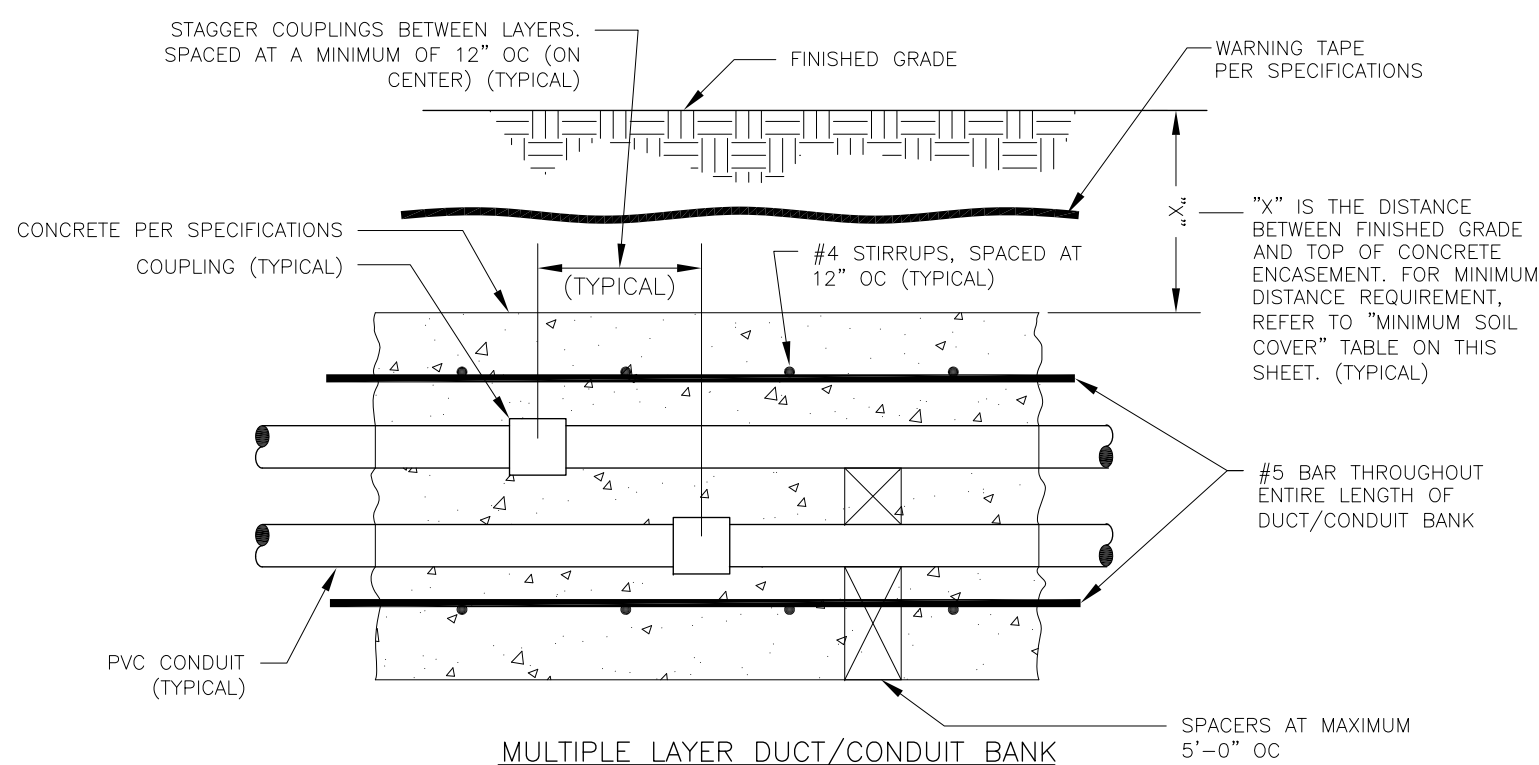
CITY OF AUSTIN
WALNUT CREEK WWTP
GAS SCRUBBER SYSTEM RENEWAL
TYPICAL ELECTRICAL DETAILS
(SHEET 7 OF 7)



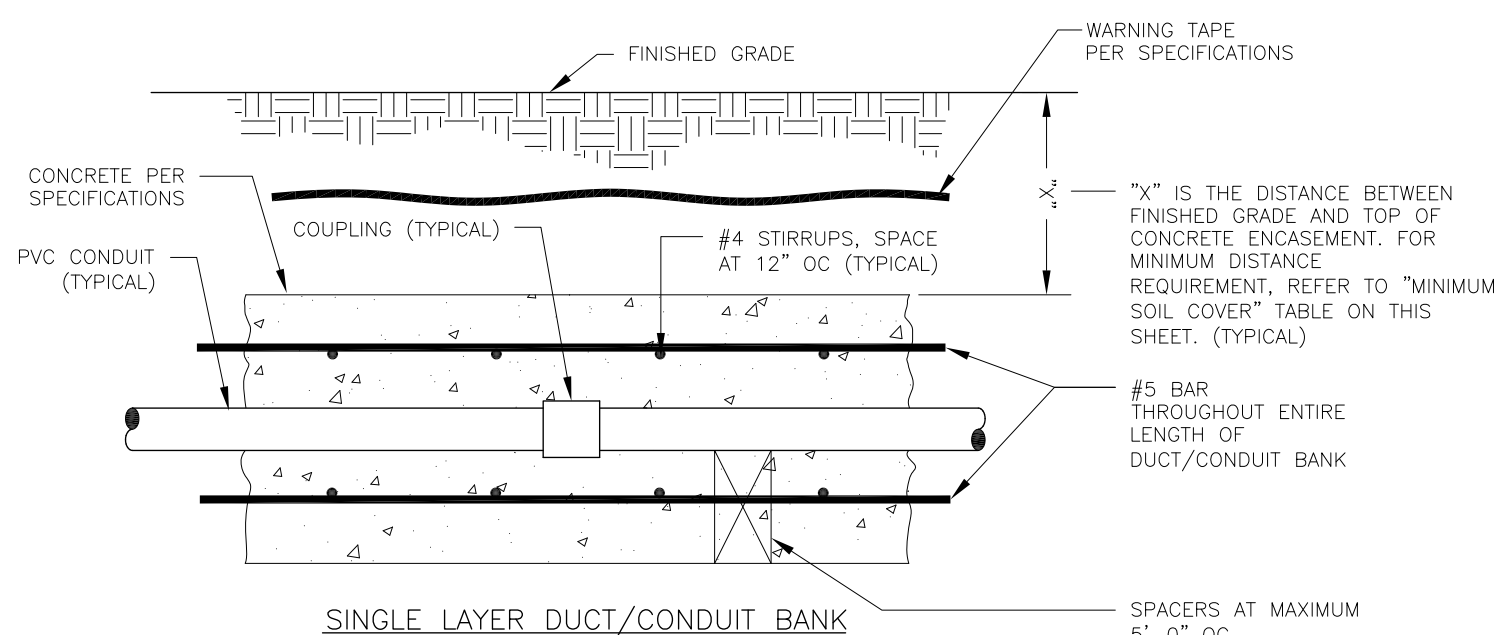
**SINGLE-LAYER DUCT/CONDUIT BANK-SPACING
DETAIL FOR REINFORCED AND CONCRETE
ENCASED DUCT/CONDUIT BANKS**
SCALE: N.T.S.



**TYPICAL SINGLE-LAYER DUCT/CONDUIT BANK REINFORCEMENT
AND CONCRETE BANK ENCASEMENT DETAIL**
SCALE: N.T.S.



**REINFORCEMENT AND CONCRETE ENCASEMENT
LONGITUDINAL SECTION- "A"**
SCALE: N.T.S.



**SINGLE-LAYER DUCT/CONDUIT BANK REINFORCEMENT
AND CONCRETE ENCASEMENT LONGITUDINAL SECTION- "B"**
SCALE: N.T.S.

This document, and the designs incorporated herein, is an instrument of professional service that has been developed, designed and prepared by Harutunian Engineering, Inc., and is not to be used, in whole or in part, for any other project without giving written notice to Harutunian Engineering, Inc.

NOTES	NAME	DATE
SURVEY BY	N/A	
DRAWN BY	HEI	
CHECKED BY	HEI	
DESIGNED BY	HEI	
REVIEWED BY	HEI	

SCALE:	AS SHOWN
CADD REF. NO.:	N/A
CADD DIR.:	100057315

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SHEET NUMBER **E-58**