# CITY OF AUSTIN, TEXAS
# AUSTIN WATER

## HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS IMPROVEMENTS

MARCH 2026

BID SET

C.I.P. ID NO. 3164.075

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839

GP-2025-0271.AWU

### NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF AUSTIN MUST RELY UPON THE COMPETENCE OF THE DESIGN ENGINEERS.
2. RELEASE OF THESE DRAWINGS DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER AND HIS SUBCONSULTANTS IN RESPONSIBLE CHARGE OF THE RELEVANT PROJECT COMPONENTS SHALL BE SOLELY RESPONSIBLE FOR COMPLETENESS, ACCURACY, AND ADEQUACY OF ALL THEIR SUBMITTALS, WHETHER THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS OR NOT.
3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN OWNER'S REPRESENTATIVE (INSPECTOR) 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
4. CONTRACTOR SHALL CALL "ONE CALL" AT 1-800-344-8377 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET RIGHTS-OF-WAY.
5. THIS PROJECT IS LOCATED WITHIN THE COLORADO RIVER WATERSHED. COLORADO RIVER IS CLASSIFIED AS SUBURBAN (OUTSIDE OF CITY LIMITS). THE PROJECT SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
6. NO PORTION OF THIS SITE IS LOCATED WITHIN PARK LAND OR LAND USE FOR PARK PURPOSES.
7. NO PORTION OF THIS SITE IS INCLUDED WITHIN THE 100-YEAR FLOODPLAIN PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE MAPS.
8. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
9. THERE ARE NO CRITICAL ENVIRONMENTAL FEATURES WITHIN 150 FEET OF ANY PORTION OF THIS PROJECT.
10. THE LIMITS OF CONSTRUCTION CONSISTS OF 1.76 ACRES (76,599 SQUARE FOOTAGE).
11. THIS PROJECT IS LOCATED IN AUSTIN ETJ (ZONING DOES NOT APPLY).
12. THE AREA OF THIS PROJECT IS 1.13 ACRES (49,387 SQUARE FOOTAGE).
13. THE NEW IMPERVIOUS COVER IS OF 4,340 SQUARE FEET WITH A TOTAL CHANGE IMPERVIOUS COVER OF -1,860 SQUARE FEET.
14. THE PLANNED USE FOR THIS SITE IS A WASTEWATER TREATMENT FACILITY.

NOTES:
GENERAL PERMIT PROGRAM APPROVAL DOES NOT CONSTITUTE UTILITY ALIGNMENT/ASSIGNMENT APPROVAL. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

### GENERAL PERMIT CORRECTIONS RECORD

| NO | DESCRIPTION | BY | REVISE (R) ADD (D) VOID (V) SHEET NO.'S | TOTAL # SHEETS IN PLAN SET | GENERAL PERMIT PROGRAM APPROVAL | DATE |
|---|---|---|---|---|---|---|
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### REVIEWED BY TRAVIS COUNTY:

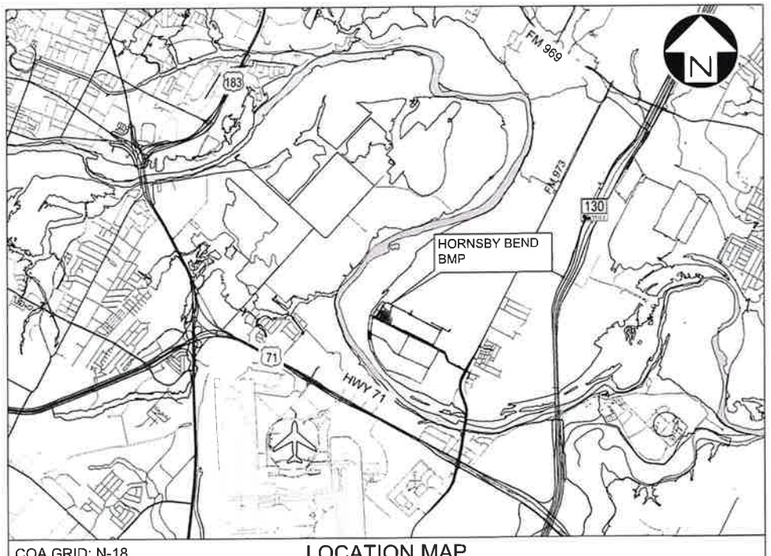
25-52326
TRAVIS COUNTY PERMIT NUMBER

"TRAVIS COUNTY TNR HAS COMPLETED THE REVIEW OF HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS IMPROVEMENTS, TRAVIS COUNTY DEVELOPMENT PERMIT NUMBER 25-52326, ON JANUARY 15, 2026. ANY QUESTIONS MAY BE DIRECTED TO JOHN STRUBE, TNR DEVELOPMENT SERVICES, AT (512) 854-2310, AND JOHN.STRUBE@TRAVISCOUNTYTX.GOV."

### TRAVIS COUNTY REVISIONS

| NO. | REVISION DESCRIPTION | REVIEWED BY | DATE |
|---|---|---|---|
| | | | |
| | | | |

NOTES:
THE ENGINEER WHO PREPARED THESE PLANS IS RESPONSIBLE FOR THEIR ADEQUACY. IN APPROVING THESE PLANS, TRAVIS COUNTY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER. ALL REVISIONS TO THIS SITE PLAN MUST BE SUBMITTED TO TRAVIS COUNTY FOR REVIEW AND APPROVAL.




COA GRID: N-18

LOCATION MAP
NTS

REVIEWED
March 17, 2026
RB McMillan
Austin Water Roger McMillan

AUSTIN WATER EXPIRATION DATE
March 17, 2029

### PROJECT INFORMATION:

STREET ADDRESS:
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT
2210 FM-973 AUSTIN, TEXAS 78725

OWNER:
CITY OF AUSTIN
AUSTIN WATER
P.O. BOX 1088
AUSTIN, TEXAS 78767

CONTACTS:
JOHN MITCHELL, P.E.
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT
2210 FM-973 AUSTIN, TEXAS 78725
(512) 972-1951

CHRIS IRWIN
CAPITAL DELIVERY SERVICES
(512) 974-7332

### PREPARED BY:


STV, INC.
13809 RESEARCH BOULEVARD, SUITE 300
AUSTIN, TEXAS 78750
(512) 349-0700

TEXAS REGISTERED ENGINEERING FIRM F-204

IN ASSOCIATION WITH:
AZCARATE & ASSOCIATES CONSULTING ENGINEERS, LLC
TEXAS REGISTERED ENGINEERING FIRM F-10804
CAS CONSULTING & SERVICES, INC.
TEXAS REGISTERED ENGINEERING FIRM F-3572
HOLT ENGINEERING, INC.
TEXAS REGISTERED ENGINEERING FIRM F-430
MWM DESIGN GROUP, INC.
TEXAS REGISTERED ARCHITECTURAL FIRM BR 1452
THE RIOS GROUP, INC.
TEXAS REGISTERED ENGINEERING FIRM F-14595
V&A CONSULTING ENGINEERS
TEXAS REGISTERED ENGINEERING FIRM F-9154


### PREPARED & SUBMITTED FOR APPROVAL BY:

STATE OF TEXAS · LINDSAY C. WEBB · 110398 · LICENSED PROFESSIONAL ENGINEER

Lindsay Webb — 3/3/2026
LINDSAY C. WEBB, P.E. — DATE
ENGINEER OF RECORD

### REVIEWED BY:

RB McMillan FO/OM 3/17/2026
ROGER McMILLAN — DATE
AUSTIN WATER

4-10-26
JOHN MITCHELL, P.E. — DATE
AUSTIN WATER, FACILITIES ENGINEERING

DATE
CHRIS IRWIN
PUBLIC WORKS DEPARTMENT,
CAPITAL DELIVERY SERVICES

GP-10-2020-AWU — DATE
GENERAL PERMIT NUMBER

HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT
HEADWORKS IMPROVEMENTS



PRINTED BY: MedinaSR DATE: 3/2/2026
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## TRAVIS COUNTY STANDARD CONSTRUCTION NOTES

1. EACH DRIVEWAY MUST BE CONSTRUCTED IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.302(G), AND EACH DRAINAGE STRUCTURE OR SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, UNLESS OTHER DESIGN CRITERIA ARE APPROVED BY TRAVIS COUNTY.

2. BEFORE BEGINNING ANY CONSTRUCTION, THE OWNER MUST OBTAIN A TRAVIS COUNTY DEVELOPMENT PERMIT AND POST THE DEVELOPMENT PERMIT, THE TCEQ SITE NOTICE, AND ANY OTHER REQUIRED PERMITS AT THE JOB SITE.

3. CONSTRUCTION MAY NOT TAKE PLACE WITHIN TRAVIS COUNTY RIGHT-OF-WAY UNTIL AFTER THE OWNER HAS SUBMITTED A TRAFFIC CONTROL PLAN TO TRAVIS COUNTY AND OBTAINED WRITTEN APPROVAL OF THE TRAFFIC CONTROL PLAN FROM TRAVIS COUNTY.

4. THE CONTRACTOR AND PRIMARY OPERATOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AND THE SWP3 IN THESE APPROVED PLANS. THE CONTRACTOR AND PRIMARY OPERATOR SHALL REQUEST TRAVIS COUNTY INSPECTION AT SPECIFIC MILESTONES IN THE SEQUENCE OF THE CONSTRUCTION OF THE SITE DEVELOPMENT CORRESPONDING TO THE PRIORITY INSPECTIONS SPECIFIED IN CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS. DEVELOPMENT OUTSIDE THE LIMITS OF CONSTRUCTION SPECIFIED IN THE APPROVED PERMIT AND CONSTRUCTION PLANS IS PROHIBITED.

5. BEFORE BEGINNING ANY CONSTRUCTION, ALL STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENTS SHALL BE MET, AND THE FIRST PHASE OF THE TEMPORARY EROSION CONTROL (ESC) PLAN INSTALLED WITH A SWP3 INSPECTION REPORT UPLOADED TO MYPERMITNOW.ORG. ALL SWP3 AND ESC PLAN MEASURES AND PRIMARY OPERATOR SWP3 INSPECTIONS MUST BE PERFORMED BY THE PRIMARY OPERATOR IN ACCORDANCE WITH THE APPROVED PLANS AND SWP3 AND ESC PLAN NOTES THROUGHOUT THE CONSTRUCTION PROCESS.

6. BEFORE STARTING CONSTRUCTION, THE OWNER OR THEIR DESIGNATED REPRESENTATIVES SHALL SUBMIT A REQUEST VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY TO REQUEST AND SCHEDULE A MANDATORY PRECONSTRUCTION CONFERENCE AND ESC INSPECTION. IF FURTHER ASSISTANCE IS NEEDED, THE TNR PLANNING AND ENGINEERING DIVISION STAFF OR TNR STORM WATER MANAGEMENT PROGRAM STAFF CAN BE CONTACTED BY TELEPHONE AT 512-854-9383.

7. THE CONTRACTOR SHALL KEEP TRAVIS COUNTY TNR ASSIGNED INSPECTION STAFF CURRENT ON THE STATUS OF SITE DEVELOPMENT AND UTILITY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY TRAVIS COUNTY AND REQUEST PRIORITY INSPECTIONS THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY IN ACCORDANCE WITH THE SPECIFIC MILESTONES IN THE CONSTRUCTION SEQUENCING NOTES IN THESE APPROVED PLANS.

8. CONTOUR DATA SOURCE: SURVEY PROVIDED BY MWM DESIGNGROUP (TBPELS 10065600) ON 10/06/2023.

9. FILL MATERIAL MUST BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS SPECIFIED IN THE APPROVED PLANS, SWP3, AND THE TRAVIS COUNTY CODE. THE CONTRACTOR SHALL STOCKPILE FILL AND CONSTRUCTION MATERIALS ONLY IN THE AREAS DESIGNATED ON THE APPROVED PLANS AND NOT WITHIN THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN OR THE 1 PERCENT ANNUAL CHANCE FLOODPLAIN, WATERWAY SETBACK, CRITICAL ENVIRONMENTAL FEATURE SETBACK, OR OUTSIDE THE LIMITS OF CONSTRUCTION. DISPOSAL OF SOLID WASTE MATERIALS, AS DEFINED BY STATE LAW (E.G., LITTER, TIRES, DECOMPOSABLE WASTES, ETC.) IS PROHIBITED IN PERMANENT FILL SITES.

10. BEFORE DISPOSING ANY EXCESS FILL MATERIAL OFF-SITE, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR DOCUMENTATION THAT DEMONSTRATES THAT ALL REQUIRED PERMITS FOR THE PROPOSED DISPOSAL SITE LOCATION, INCLUDING TRAVIS COUNTY, TCEQ NOTICE, AND OTHER APPLICABLE DEVELOPMENT PERMITS, HAVE BEEN OBTAINED. THE OWNER OR PRIMARY OPERATOR MUST REVISE THE SWP3 AND ESC PLAN IF HANDLING OR PLACEMENT OF EXCESS FILL ON THE CONSTRUCTION SITE IS REVISED FROM THE EXISTING SWP3. IF THE FILL DISPOSAL LOCATION IS OUTSIDE TRAVIS COUNTY OR DOES NOT REQUIRE A DEVELOPMENT PERMIT, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR THE SITE ADDRESS, CONTACT INFORMATION FOR THE PROPERTY OWNER OF THE FILL

11. THE DESIGN ENGINEER IS RESPONSIBLE FOR THE ADEQUACY OF THE CONSTRUCTION PLANS. IN REVIEWING THE CONSTRUCTION PLANS, TRAVIS COUNTY WILL RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

12. IN THE EVENT OF ANY CONFLICTS BETWEEN THE CONTENT IN THE SWP3 SITE NOTEBOOK AND THE CONTENT IN THE CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY, THE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE.

13. A MINIMUM OF TWO SURVEY BENCHMARKS SHALL BE SET, INCLUDING DESCRIPTION, LOCATION, AND ELEVATION; THE BENCHMARKS SHOULD BE TIED TO A TRAVIS COUNTY CONTROL BENCHMARK WHEN POSSIBLE.

14. ANY EXISTING PAVEMENT, CURBS, SIDEWALKS, OR DRAINAGE STRUCTURES WITHIN COUNTY RIGHT-OF-WAY WHICH ARE DAMAGED, REMOVED, OR SILTED, WILL BE REPAIRED BY THE CONTRACTOR AT OWNER OR CONTRACTOR'S EXPENSE BEFORE APPROVAL AND ACCEPTANCE OF THE CONSTRUCTION BY TRAVIS COUNTY.

15. CALL THE TEXAS EXCAVATION SAFETY SYSTEM AT 8-1-1 AT LEAST 2 BUSINESS DAYS BEFORE BEGINNING EXCAVATION ACTIVITIES.

16. ALL STORM SEWER PIPES SHALL BE CLASS III RCP, UNLESS OTHERWISE NOTED.

17. CONTRACTOR IS REQUIRED TO OBTAIN A UTILITY INSTALLATION PERMIT IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.901(A)(3) BEFORE ANY CONSTRUCTION OF UTILITIES WITHIN ANY TRAVIS COUNTY RIGHT-OF-WAY.

18. THIS PROJECT IS LOCATED ON FLOOD INSURANCE RATE MAP TRAVIS COUNTY 481026 0610 L.

## TRAVIS COUNTY STANDARD CONSTRUCTION NOTES (CONTINUED)

19. TEMPORARY STABILIZATION MUST BE PERFORMED IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.

20. PERMANENT SITE STABILIZATION/RE-VEGETATION MUST BE PERFORMED IMMEDIATELY IN ALL SITE AREAS WHICH ARE AT FINAL PLAN GRADE AND IN ALL SITE AREAS SPECIFIED IN THE APPROVED PLANS FOR PHASED RE-VEGETATION, IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN THE SWP3 AND ESC PLAN SHEET NOTES.

21. ALL TREES WITHIN THE RIGHT-OF-WAY AND DRAINAGE EASEMENTS SHALL BE SAVED OR REMOVED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS. TRAVIS COUNTY TREE PRESERVATION STANDARDS IN TRAVIS COUNTY CODE SECTION 482.973, INCLUDING INSTALLATION AND MAINTENANCE OF ALL SPECIFIED TREE PROTECTION MEASURES, MUST BE FOLLOWED DURING CONSTRUCTION.

22. AN ENGINEER'S CONCURRENCE LETTER IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.953 MUST BE SUBMITTED VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE. THE ENGINEER'S CONCURRENCE LETTER MUST BE SUBMITTED BEFORE THE CONTRACTOR OR PRIMARY OPERATOR REQUESTS A FINAL INSPECTION BY TRAVIS COUNTY.

23. SITE IMPROVEMENTS MUST BE CONSTRUCTED IN CONFORMANCE WITH THE ENGINEER'S CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY. NON-CONFORMANCE WITH THE APPROVED PLANS WILL DELAY FINAL INSPECTION APPROVAL BY THE COUNTY UNTIL PLAN CONFORMANCE IS ACHIEVED OR ANY REQUIRED PLAN REVISIONS ARE APPROVED.

24. FINAL SITE STABILIZATION. ALL AREAS DISTURBED BY THE CONSTRUCTION MUST BE PERMANENTLY REVEGETATED AND ALL TEMPORARY SEDIMENT CONTROLS AND ACCUMULATED SEDIMENTATION MUST BE REMOVED BEFORE THE COUNTY WILL ISSUE A CERTIFICATE OF COMPLIANCE FOR FINAL SITE STABILIZATION AS PART OF FINAL INSPECTION AND PROJECT COMPLETION. A DEVELOPERS CONTRACT, AS DESCRIBED IN THE SWP3 AND ESC NOTES SHEET MAY BE EXECUTED WITH TRAVIS COUNTY FOR CONDITIONAL ACCEPTANCE OF A PROJECT FOR WHICH HAS ESC FISCAL SECURITY POSTED AND FOR WHICH ALL ITEMS ARE COMPLETE

25. ALL SUBDIVISION LOTS AND AREAS OUTSIDE THE RIGHT-OF-WAY WHICH ARE DISTURBED DURING THE CONSTRUCTION PROCESS MUST BE INCLUDED IN THE FINAL STABILIZATION/REVEGETATION PLAN OF THE SUBDIVISION FOR FINAL INSPECTION APPROVAL, EXCEPT FOR SUBDIVISION LOTS THAT ARE SUBJECT TO SEPARATE TRAVIS COUNTY DEVELOPMENT PERMIT(S), SWP3 NOTICE(S), AND ESC PLAN(S).

26. SOIL DATA SOURCES: SUBSURFACE INVESTIGATION AND FOUNDATION RECOMMENDATIONS FOR HORNSBY BEND BMP HEADWORKS IMPROVEMENTS DESIGN, DATED 3/12/2024, PREPARED BY HOLT ENGINEERING, INC

27. THE OWNER OR A DESIGNATED REPRESENTATIVE SHALL SUBMIT A NOTICE OF CONSTRUCTION VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. IF FURTHER ASSISTANCE IS NEEDED, THE TNR PLANNING AND ENGINEERING DIVISION STAFF CAN BE CONTACTED BY TELEPHONE AT 512-854-9383

28. THE WORK WILL NOT BE ACCEPTED AND THE ONE-YEAR WARRANTY PERFORMANCE PERIOD WILL NOT BEGIN UNTIL AFTER THE CONTRACTOR HAS OBTAINED TNR APPROVAL OF THE CONSTRUCTION.

29. THE CONTRACTOR SHALL INSTALL ALL TRAFFIC MARKINGS, BARRICADES, AND SIGNAGE IN ACCORDANCE WITH THE LATEST EDITION OF TXDOT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PRIOR TO TNR APPROVAL OF THE ROADWAY CONSTRUCTION.

CITY OF AUSTIN
APPROVED
Date 03/18/26
FOUNDED 1839
GP-2025-0271.AWU

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · LINDSAY C. WEBB · 110398 · LICENSED PROFESSIONAL ENGINEER · 3/10/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

SHEET INDEX AND TRAVIS COUNTY STANDARD CONSTRUCTION NOTES

| | |
|---|---|
| DESIGN: | K.BACKHAUS |
| DRAWN: | S.MEDINA |
| REVIEW: | L.WEBB |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
G-2
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PRINTED BY: MedinaSR DATE: 3/6/2026
FILE PATH: C:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_01_G-02 TO G-05_CPY.dwg

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TEXAS REGISTERED ENGINEERING FIRM F-204

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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

SHEET INDEX

| | |
|---|---|
| DESIGN: | K.BACKHAUS |
| DRAWN: | S.MEDINA |
| REVIEW: | L.WEBB |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
G-2A
3 of 196

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GENERAL NOTES:

1. THE CONTRACT SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL HAVE PRECEDENT OVER CITY OF AUSTIN SPECIFICATIONS. FOR ITEMS NOT COVERED BY THE PROJECT MANUAL SPECIFICATIONS, THE "CITY OF AUSTIN STANDARD SPECIFICATIONS" AS AMENDED BY SPECIAL PROVISION, CURRENT AT THE TIME OF BIDDING ARE TO GOVERN MATERIALS AND METHODS USED TO DO THIS WORK. UNLESS OTHERWISE NOTED, ANY REVISIONS MADE AFTER BIDDING DO NOT APPLY.
2. THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS WHICH INCLUDE A TRENCH SAFETY PLAN AND PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH TEXAS HEALTH AND SAFETY CODE, TITLE 9, CHAPTER 756, SUBCHAPTER C, MUST BE RECEIVED BY THE TRANSPORTATION AND PUBLIC SERVICES CONTRACT ADMINISTRATION OFFICE BEFORE BEGINNING WORK ON THE PROJECT.
3. ALL MATERIALS TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSES, TO BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE CITY OF AUSTIN, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. CONCEALED AND BURIED FACILITIES (PIPING, CONDUIT, DUCTBANK, ETC.) ARE NOT EXEMPT FROM THIS REQUIREMENT. CONTRACTOR IS TO UTILIZE ALL APPLICABLE METHODS AND TECHNOLOGIES TO ENSURE THE EXISTING FACILITIES ARE IDENTIFIED, LOCATED AND PROTECTED. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.
5. CONTRACTOR TO GIVE A MINIMUM OF 48 HOURS NOTICE TO ALL AUTHORIZE INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN ONLY BE ISSUED TO CONTRACTOR TO BE OBTAINED AT HIS EXPENSE.
6. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING DISPOSAL.
7. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.
8. INTERRUPTION OF WATER FLOWS THROUGH EXISTING PROCESS FACILITIES IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL. SUBMIT TO ENGINEER CONSTRUCTION PLAN WHICH DETAILS SCHEDULE AND TECHNIQUES TO BE USED FOR REVIEW PRIOR TO ANY CONNECTIONS TO EXISTING PIPES OR STRUCTURES. PARTIAL INTERRUPTION OF FLOWS IS TO BE SCHEDULED DURING LOW FLOW PERIODS FOR AS SHORT A DURATION AS PRACTICAL. MAKE PROVISIONS FOR ACCOMMODATING PEAK FLOWS WHICH MAY OCCUR DURING CONSTRUCTION OPERATIONS. ENGINEER AND PLANT SUPERINTENDENT TO BE NOTIFIED WHEN ANY INTERRUPTIONS ARE TO BE MADE.
9. LOCATION OF EXISTING PIPING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION AND SOME SUBSURFACE UTILITY ENGINEERING DATA. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION.
10. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.
11. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROTECT ENGINEERING REFERENCE POINTS. REESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO OWNER.
12. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES.
13. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR TO ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED.
14. THESE PLANS, PREPARED BY THE ENGINEER, DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF ENGINEER'S REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS.
15. CONTRACTOR TO KEEP ACCESS ROAD TO EXISTING PLANT OPEN AT ALL TIMES. AREA USED FOR CONTRACTOR'S PERSONNEL PARKING, MATERIAL STORAGE, STOCKPILE, MATERIAL FABRICATION, AND RELATED CONSTRUCTION USES WILL NOT BE ALLOWED TO INTERFERE WITH NORMAL PLANT OPERATION, UNLESS OTHERWISE APPLIED BY THE CONTRACTOR AND APPROVED BY THE OWNER.
16. BLASTING IS NOT ALLOWED ON THIS PROJECT.
17. BURNING IS NOT ALLOWED ON THIS PROJECT.
18. REFER TO LOCATION KEY MAP DRAWING FOR LOCATION OF BENCHMARKS
19. PLANT COORDINATES SHOWN FOR STRUCTURE LOCATIONS ARE REFERENCED TO OUTSIDE FACE OF EXTERNAL WALL AT GRADE OR TO CENTERLINE OF STRUCTURE, UNLESS NOTED OTHERWISE ON PLANS.
20. THE FINISHED GRADE ELEVATIONS SHOWN ARE INTENDED TO PROVIDE DRAINAGE AWAY FROM THE FACILITIES. MINOR FIELD CHANGES MAY BE NECESSARY TO PROVIDE ADEQUATE DRAINAGE. GRADE UNIFORMLY BETWEEN ELEVATIONS SHOWN TO PROVIDE DRAINAGE.
21. MAINTAIN DRAINAGE OF SITE DURING ALL PHASE OF CONSTRUCTION; DO NOT BLOCK DRAINAGE FROM ADJACENT AREAS NOR ADD FLOW TO ADJACENT AREAS.
22. ALL EXCESS EXCAVATED MATERIAL AND SOIL TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE. NO DISPOSAL IS PERMITTED IN THE 100-YEAR FLOOD PLAIN OR WATER OF THE U.S. OF ANY SITE WITHOUT PROPER PERMITTING BY THE CONTRACTOR.
23. THE ATTENTION OF ALL PROSPECTIVE BIDDERS IS DIRECTED TO THE STATE LAW, VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 (C) AND THE NEED FOR EFFECTIVE PRECATIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. IF THE CONTRACTOR CHOOSES TO USE EQUIPMENT WITH THE POTENTIAL OF COMING WITHIN THE DISTANCES PROSCRIBED BY THE STATUTE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH THE APPROPRIATE ELECTRICAL UTILITY COMPANY. ALL COSTS ASSOCIATED WITH THIS EFFORT ARE TO BE BORN BY THE CONTRACTOR.

GENERAL NOTES (CONTINUED).

24. ALL SITE WORK MUST COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
25. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALK DAMAGED OR REMOVED BY THE CONTRACTOR ARE TO BE REPAIRED BY THE CONTRACTOR OR AT LEAST THE PRE-EXISTING CONDITION AT HIS EXPENSE BEFORE ACCEPTANCE OF THE WORK.
26. UPON COMPLETION OF THE PROJECT SITE IMPROVEMENTS AND PRIOR TO THE INSTALLATION OF AN ELECTRIC OR WATER METER, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.
27. CONTRACTOR IS ADVISED THAT THE EXISTING PAINT AND PIPE JOINTS CONTAIN LEAD. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE OSHA SAFETY REQUIREMENTS TO PROTECT ITS WORKERS AND PLANT PERSONNEL AND MUST EXERCISE APPROPRIATE REGULATORY SAFETY PRECATIONS THROUGHOUT THE PERFORMANCE OF THIS WORK, TO INCLUDE SAFETY PRECAUTIONS TO AVOID EXHAUSTING HAZARDOUS MATERIALS, PERSONNEL SAFETY, AND PROPERLY DISPOSING OF WASTE MATERIALS.
28. IN ADDITION TO THE PRE-CONSTRUCTION PHOTOGRAPHS SPECIFIED BY "SECTION 01380 - CONSTRUCTION PHOTOGRAPHS," CONTRACTOR SHALL WALK THE WORK AREAS WITH OWNER AND SHALL VIDEO RECORD THE WORKING AREAS BEFORE STARTING ANY WORK. A COPY OF THE VIDEO RECORD SHALL BE MADE AVAILABLE TO THE OWNER AFTER THE SITE WALK AND BEFORE STARTING CONSTRUCTION WORK.
29. CONTRACTOR SHALL KEEP ALL STORAGE AREAS WEED FREE AND MOWED. ALL TRASH AND DEBRIS SHALL BE REMOVED EVERY FRIDAY.
30. REPLACE EXISTING ROADWAY THAT IS CUT BY PIPE TRENCHES WITH SIMILAR ROADWAY.
31. ADJUST MANHOLE COVERS, VALVE BOXES, ELECTRICAL MANHOLES, ETC. TO MATCH PROPOSED FINISHED GRADE.
32. CONTRACTOR TO NOT OBSTRUCT DELIVERIES ON THE PLANT ACCESS ROAD. WORK WITHIN THAT ACCESS ROAD MUST BE DONE IN A WAY THAT PROVIDES DELIVERY ACCESS. ACCESS ROAD CLOSURES MUST BE AGREED UPON WITH THE CITY OF AUSTIN IN ADVANCE.
33. TRAFFIC CONTROLS DURING CONSTRUCTION TO BE CONTRACTOR'S RESPONSIBILITY AND INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
34. DURING CONSTRUCTION, THE STORM WATER RUNOFF FROM ALL DISTURBED AREAS TO BE FILTERED BY SILT FENCES AND/OR ROCK BERMS AND SHOWN ON THE PLANS. THESE TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO REMAIN IN PLACE UNTIL THE DISTURBED ARES HAVE BECOME PERMANENTLY STABILIZED. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS TO BE INSPECTED PERIODICALLY FOR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES AND FOLLOWING EVERY RAINFALL. DAMAGED OR OBSTRUCTED CONTROLS TO BE REPAIRED/REPLACED AS NECESSARY TO MAINTAIN THEIR PROPER OPERATION.

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

FIRE DEPARTMENT NOTES

1. THE AUSTIN FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL-WEATHER DRIVING SURFACE"
2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE FOUR-INCH OPENING AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE FOUR-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH THREE-TO SIX-FOOT SET BACKS FROM THE CURBLINE(S). NO CONSTRUCTION IS ALLOWED WITHIN THREE-FEET OF ANY HYDRANT AND THE FOUR-INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.
3. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE FIRE CHIEF, ARE PROVIDED, THE ABOVE MAY BE MODIFIED OR WAVED.
4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE-VEHICLE LOADS. ANY PREVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.
5. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.
6. FIRE LANES DESIGNED ON SITE PLAN SHALL BE REGISTERED WITH CITY OF AUSTIN FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL
7. VERTICAL CLEARANCE FOR FIRE APPARATUS IS 14 FOR FULL WIDTH OF ACCESS DRIVE.

AUSTIN ENERGY ELECTRIC NOTES:

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER 25-8, SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25-8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
3. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.
4. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.
5. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S/DEVELOPER'S EXPENSE.


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TEXAS REGISTERED ENGINEERING FIRM F-204


CITY OF AUSTIN TEXAS — HOMETOWN

12/22/2025
STATE OF TEXAS — LINDSAY C. WEBB — 110398 — LICENSED PROFESSIONAL ENGINEER

| NO. | REVISION | BY | DATE |
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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

GENERAL CONSTRUCTION NOTES

DESIGN: K.BACKHAUS
DRAWN: S.MEDINA
REVIEW: R.OWEN
STV: AUST1500124
CLIENT: CIP 3164.075

SHEET
G-3
4 of 196

CITY OF AUSTIN — APPROVED — Date 03/18/26 — FOUNDED 1839
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PRINTED BY: MedinaSR DATE: 12/18/2025
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GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN – SITE & SUBDIVISION DIVISION TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT HTTP://AUSTINTEXAS.GOV/PAGE/COMMERCIAL-SITE-AND-SUBDIVISION-INSPECTIONS FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.

4. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN TEXAS.)

5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

DEVELOPER INFORMATION:

CITY OF AUSTIN, CONTACT CHRIS IRWIN, P.E. (512) 974-7332
PHONE #

2210 FM-973 AUSTIN, TEXAS 78725
OWNER ADDRESS:

CAS CONSULTING & SERVICES, INC (512) 836-2388
OWNERS REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS PHONE #

CONTRACTOR
RESPONSIBLE FOR EROSION/SEDIMENT CONTROL MAINTENANCE

CONTRACTOR
RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE

STANDARD SEQUENCE OF CONSTRUCTION NOTES:

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, INITIATE TREE MITIGATION MEASURES AND CONDUCT "PRE - CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE).
2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
3. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
4. IF APPLICABLE: ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S
5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
7. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR
11. IF APPLICABLE: UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
12. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D) NOTES:

1. PRIOR TO EXCAVATION WITHIN TREE DRIP LINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.
2. IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC, PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH. ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.
3. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
4. WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
5. WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

CITY OF AUSTIN
APPROVED
Date 03/18/25
FOUNDED 1839
GP-2025-0271.AWU


STV
TEXAS REGISTERED ENGINEERING FIRM F-204


CITY OF AUSTIN TEXAS TRANSMITTED

12/22/2025

STATE OF TEXAS LINDSAY C. WEBB 110398 LICENSED PROFESSIONAL ENGINEER

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

GENERAL CONSTRUCTION NOTES AND SEQUENCE OF CONSTRUCTION

| | |
|---|---|
| DESIGN: | K.BACKHAUS |
| DRAWN: | S.MEDINA |
| REVIEW: | R.OWEN |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
G-4
5 of 196

PRINTED BY: MedinaSR DATE: 12/18/2025
FILE PATH: C:\pwworking\copy\pw_cpy\smedinald0747958\AUST1500124_01_G-02 TO G-05_CPY.dwg

| ITEM | DESCRIPTION |
|---|---|
| @ | AT |
| AB | ANCHOR BOLT |
| ACI | AMERICAN CONCRETE INSTITUTE |
| ADJ | ADJUSTABLE |
| AGGR | AGGREGATE |
| AISC | AMERICAN INSTITUTE OF STEEL CONSTRUCTION |
| ALUM | ALUMINUM |
| ALT | ALTERNATE |
| ANDZ | ANODIZE |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| API | AMERICAN PETROLEUM INSTITUTE |
| ARCH | ARCHITECTURAL |
| ASCE | AMERICAN SOCIETY OF CIVIL ENGINEERS |
| ASHRAE | AMERICAN SOCIETY OF HEATING, REFRIGERATING & AIR CONDITIONING ENGINEERS |
| ASME | AMERICAN SOCIETY OF MECHANICAL ENGINEERS |
| ASTM | AMERICAN SOCIETY OF TESTING & MATERIALS |
| AW | AUSTIN WATER |
| AWS | AMERICAN WELDING SOCIETY |
| AWWA | AMERICAN WATER WORKS ASSOCIATION |
| AUTO | AUTOMATIC |
| AUX | AUXILIARY |
| AVG | AVERAGE |
| BC | BACK OF CURB |
| BF | BLIND FLANGE |
| BFP | BACKFLOW PREVENTER |
| BFV | BUTTERFLY VALVE |
| BLDG | BUILDING |
| BM | BENCHMARK |
| BOT | BOTTOM |
| BRC | BRIDGE CRANE |
| BV | BALL VALVE |
| BWCP | BAR WRAPPED CONCRETE CYLINDER PIPE |
| C | CHANNEL (BEAM), CENTRATE |
| CAB | CABINET |
| CC | CONCENTRIC |
| CEIL | CEILING |
| CFM | CUBIC FEET PER MINUTE |
| CFS | CUBIC FEET PER SECOND |
| CHEM | CHEMICAL |
| CJ | CONSTRUCTION JOINT |
| CLO | CLOSET |
| CLR | CLEAR |
| ? | CENTERLINE |
| CMU | CONCRETE MASONRY UNIT |
| CO | CLEANOUT |
| COL | COLUMN |
| CONC | CONCRETE |
| CONT | CONTINUOUS |
| COORD | COORDINATE |
| CPLG | COUPLING |
| CRS | COLD ROLLED STEEL |
| CTR | CENTER |
| CF, CU FT | CUBIC FOOT |
| CU IN | CUBIC INCH |
| CV | CHECK VALVE |
| CY, CU YD | CUBIC YARD |
| °C | DEGREE CENTIGRADE |
| D | PENNY (NAIL SIZE), DRAIN |
| DBL | DOUBLE |
| DET | DETAIL |
| DI | DUCTILE IRON |
| ?, DIA | DIAMETER |
| DIST | DISTRIBUTION |
| DSP | DISTRIBUTION PUMP |
| DWG | DRAWING |
| E | EAST |
| EA | EACH |
| EC | ECCENTRIC |
| EF | EACH FACE |
| EFF | EFFLUENT |
| EL, ELEV | ELEVATION |
| ELB | ELBOW |
| ELEC | ELECTRICAL |
| EMB | EMBEDMENT |
| ENGR | ENGINEER |
| E/S | EROSION/SEDIMENTATION |
| EQPT | EQUIPMENT |
| EW | EACH WAY |
| EWEF | EACH WAY EACH FACE |
| EX, EXIST | EXISTING |
| EXH | EXHAUST |
| EXP | EXPANSION |
| EXP AB | EXPANSION ANCHOR BOLT |
| EXP JT | EXPANSION JOINT |

| ITEM | DESCRIPTION |
|---|---|
| FC | FLEXIBLE COUPLING |
| FCE | FINAL CLARIFIER EFFLUENT |
| FCA | FLANGED COUPLING ADAPTER |
| FCE | FINAL CLARIFIER EFFLUENT |
| FD | FLOOR DRAIN |
| FDA | FLOOR DRAIN W/INTERNAL TRAP |
| FDN | FOUNDATION |
| FE/FES | IRON/IRON SULFIDE |
| FEB | FLOW EQUALIZATION BASIN |
| FF | FINISHED FLOOR |
| FG | FINISHED GRADE |
| FH | FIRE HYDRANT |
| FIG | FIGURE |
| FIN | FINISH |
| FIT | FLOW INDICATING TRANSMITTER |
| FL | FLOWLINE, FLOOR |
| FLG | FLANGE |
| FLH | FLAT HEAD |
| FLTR | FILTER |
| FRP | FIBERGLASS REINFORCED PLASTIC |
| FT | FOOT, FEET |
| FTG | FOOTING |
| FV | FLAP VALVE |
| FWD | FORWARD |
| °F | DEGREES, FAHRENHEIT |
| GA | GAUGE |
| GAL | GALLON |
| GALV | GALVANIZED |
| GC | GROOVED COUPLING |
| GCF | GROOVED COUPLING FITTING |
| GL | GLASS |
| GPD | GALLONS PER DAY |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| GR | GRIT |
| GS | GALVANIZED STEEL |
| GV | GATE VALVE |
| HB | HOSE BIBB |
| HCL | HYDROCHLORIC ACID |
| HDW | HARDWARE |
| HG, HGL | HYDRAULIC GRADE |
| HGT | HEIGHT |
| HH | HAND HOLE |
| HMC | HARNESSED MECHANICAL COUPLING |
| HORIZ | HORIZONTAL |
| HP | HORSEPOWER |
| HSP | HIGH SERVICE PUMP |
| HT | HOIST/TROLLEY |
| HWL | HIGH WATER LEVEL |
| ID | INSIDE DIAMETER |
| IEEE | INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS |
| IES | ILLUMINATING ENGINEERING SOCIETY |
| IF | INSIDE FACE |
| IN | INCH, INCHES |
| INFL | INFLUENT |
| INSTM | INSTRUMENT |
| INV | INVERT |
| ISA | INSTRUMENT SOCIETY OF AMERICA |
| JT | JOINT |
| KIP | THOUSAND POUNDS |
| KW | KILOWATT |
| L OR Δ | ANGLE |
| LAB | LABORATORY |
| LAV | LAVATORY |
| LB | POUND |
| LB/CU FT | POUNDS PER CUBIC FOOT |
| LF | LINEAR FEET |
| LOC | LIMITS OF CONSTRUCTION |
| LR | LONG RADIUS |
| LT | LEFT |
| LWL | LOW WATER LEVEL |
| M | MIDDLE ORDINATE |
| MAS | MASONRY |
| MAX | MAXIMUM |
| MCC | MOTOR CONTROL CENTER |
| MECH | MECHANICAL |
| MFR | MANUFACTURER |
| MFM | MAGNETIC FLOW METER |
| MGD | MILLION GALLONS PER DAY |
| MH | MANHOLE |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| MJ | MECHANICAL JOINT |
| ML | MIXED LIQUOR |
| MWS | MAXIMUM WATER SURFACE |

| ITEM | DESCRIPTION |
|---|---|
| N | NORTH |
| NEC | NATIONAL ELECTRIC CODE |
| NEMA | NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION |
| NIC | NOT IN CONTRACT |
| NO | NUMBER |
| NPT | NATIONAL PIPE THREADS |
| NPW | NON-POTABLE WATER |
| NSF | NATIONAL SANITARY FOUNDATION |
| NTS | NOT TO SCALE |
| NWL | NORMAL WATER LEVEL |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER, OVERHEAD DOOR |
| OF | OUTSIDE FACE |
| OH | OVERHEAD POWER LINE |
| OSD | OPEN SITE DRAIN |
| OSHA | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION |
| OPNG | OPENING |
| OZ | OUNCE |
| P | PIPE |
| PC | POINT OF CURVATURE |
| PCE | PRIMARY CLARIFIER EFFLUENT |
| PCI | PRIMARY CLARIFIER INFLUENT |
| PD | PLANT DRAIN |
| PE | PLANT EFFLUENT/PLAIN END |
| PI | PLANT INFLUENT |
| PL | PLATE (STEEL) |
| PLC(S) | PLACE(S) |
| PLYWD | PLYWOOD |
| PO | POLYMER |
| POS | POLYMER SOLUTION |
| PREFAB | PREFABRICATED |
| PRESS | PRESSURE |
| PR/PSV | PRESSURE RELIEF/PRESSURE SUSTAINING VALVE |
| PROP | PROPOSED, PROPERTY |
| PSC | PRIMARY SCUM |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PSL | PRIMARY SLUDGE |
| PSIG | POUNDS PER SQUARE INCH GAUGE |
| PV | PLUG VALVE |
| PVC | POLYVINYL CHLORIDE |
| PW | POTABLE WATER |
| Q | FLOW |
| RAD | RADIUS |
| RAS | RETURN ACTIVATED SLUDGE |
| RC | REINFORCED CONCRETE |
| RD | ROOF DRAIN |
| RDCR | REDUCER |
| RECIRC | RECIRCULATION |
| RECT | RECTANGULAR |
| REF | REFER, REFERENCE |
| REFR | REFRIGERATOR |
| REINF | REINFORCE, REINFORCED, REINFORCING |
| REP | REPRESENTATIVE |
| REQ'D | REQUIRED |
| RH | ROD HOLE |
| RL | RAIN LEADER |
| RM | ROOM |
| ROW | RIGHT-OF-WAY |
| RS | RAW SEWAGE |
| RST | REINFORCING STEEL |
| RT | RIGHT |
| RTN | RETURN |
| RV | ROOF VENT |
| S | STEEL |
| SCFM | STANDARD CUBIC FEET PER MINUTE |
| SCHED | SCHEDULE |
| SD | STORM DRAIN |
| SEC | SECONDARY |
| SECT | SECTION |
| SEW | SEWAGE |
| SHT | SHEET |
| SIM | SIMILAR |
| SL | SLUDGE |
| SLG | SLIDE GATE |
| SOLN | SOLUTION |
| SP | SUMP PUMP |
| SPEC | SPECIFICATIONS |
| SPKR | SPRINKLER |
| SPPT | SUPPORT |
| SQ | SQUARE |
| SQ FT | SQUARE FOOT |
| SQ IN | SQUARE INCH |
| SS | STAINLESS STEEL |
| SSC | SECONDARY SCUM |
| ST | STORM |
| STA | STATION |
| STD | STANDARD |
| STL | STRUCTURAL STEEL |

| ITEM | DESCRIPTION |
|---|---|
| STM | STORM |
| STRUC | STRUCTURE |
| SUB | SUBSTANTIAL |
| SYMN | SYMMETRICAL |
| TAN | TANGENT |
| TB | TEST BORING |
| TBG | TUBING |
| TC | TOP OF CURB |
| TDCV | TILT DISK CHECK VALVE |
| TDH | TOTAL DYNAMIC HEAD |
| TECH | TECHNICAL |
| TEL | TELEPHONE |
| TEMP | TEMPERATURE |
| THD | THREAD |
| TP | TURNING POINT |
| TS | TOP OF SLAB |
| TSL | THICKENED SLUDGE |
| TT | THRUST TIE |
| TW | TOP OF WALL |
| TYP | TYPICAL |
| UBC | UNIFORM BUILDING CODE |
| UFC | UNIFORM FIRE CODE |
| UMC | UNIFORM MECHANICAL CODE |
| UNO | UNLESS OTHERWISE NOTED |
| UPC | UNIFORM PLUMBING CODE |
| V | VENT, VOLT |
| VAC | VACUUM |
| VC | VERTICAL CURVE |
| VERT | VERTICAL |
| VFD | VARIABLE FREQUENCY DRIVE |
| VTR | VENT THRU ROOF |
| WAS | WASTE ACTIVATED SLUDGE |
| W/ | WITH |
| WC | WATER CLOSET |
| WF | WIDE FLANGE (BEAM) |
| WH | WATER HEATER |
| WL | WATER LEVEL |
| WS | WATERSTOP |
| WSL | WATER SURFACE LEVEL |
| WST | WASHWATER STRAINER |
| WTR | WATER |
| WW | WASTEWATER |
| WWL | WASTEWATER LINE |
| WWMH | WASTEWATER MANHOLE |
| Y, YD | YARD, YARDS |

NOTES:
1. FOR SPECIFIC STRUCTURAL, HVAC, AND ELECTRICAL ABBREVIATIONS, SEE STRUCTURAL, HVAC, ELECTRICAL DRAWINGS.
2. FOR SPECIFIC INSTRUMENTATION ABBREVIATIONS, REFER TO I-1.
3. CONTACT THE ENGINEER FOR ABBREVIATIONS NOT LISTED.
4. THIS SHEET INCLUDES STANDARD ABBREVIATIONS; THEREFORE, SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT ON THE PLANS.

## DRAFTING SYMBOLS

EXISTING / PROPOSED

- REINFORCED CONCRETE SECTION
- BUILDING PLAN VIEW
- CONCRETE ROAD, DRIVEWAY, OR SIDEWALK
- GRATING - PLAN VIEW
- ALUMINUM OR STEEL DECK PLATE
- SELECT BACKFILL
- GRANULAR FILL OR GRAVEL ROAD
- DEMOLITION
- ASPHALT PAVEMENT
- STEEL IN SECTION
- MASONRY (BRICK OR BLOCK)
- X" XX (XX) OR PIPE LEGEND — PIPE, SMALL SIZE. SEE PIPING LEGEND
- PIPE LEGEND — PIPE, LARGE SIZE. SHOWN AS TWO LINES WITH CENTERLINE
- X — FENCE
- PL — PROPERTY LINE
- TP — TREE PROTECTION
- IP — INLET PROTECTION
- SF — SILT FENCE
- MS — MULCH SOCK
- RB — ROCK BERM
- STABILIZED CONSTRUCTION ENTRANCE
- SEEDING/SODDING
- TB-1 — TEST BORING LOCATION AND NUMBER
- BENCHMARK LOCATION
- COORDINATE LOCATION

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

## DRAFTING SYMBOLS

NOTE: IF SECTION, DETAIL OR PHOTO APPEARS ON THE SAME SHEET, INDICATE WITH A "-"

### SECTION CUT

1 / M-4 — SECTION APPEARS ON SHEET "M-4"

SECTION NUMBER
1 / M-4 SECTION
SECTION IS CUT ON SHEET "M-4"

### DETAIL CALLOUT

A DETAIL NAME
DETAIL LETTER
A / M-4 DETAIL NAME
DETAIL APPEARS ON SHEET "M-4"

### PHOTO REFERENCE

DIRECTION OF VIEW
PHOTO NUMBER
5 / M-4
PHOTO APPEARS ON SHEET "M-4"

1 PHOTO NAME

### DRAWING IDENTIFICATION SYSTEM

M - 1
SEQUENTIAL SHEET NUMBER
DISCIPLINE CODE

### DISCIPLINE CODES

| CODE | DESCRIPTION |
|---|---|
| G | GENERAL |
| C | CIVIL |
| A | ARCHITECTURAL |
| S | STRUCTURAL |
| M | MECHANICAL |
| O | ODOR CONTROL |
| H | HVAC |
| E | ELECTRICAL |
| I | INSTRUMENTATION |

### AW IMD POSITION ID

HBD-SCR-SLUDGELINE-07

### EQUIPMENT IDENTIFIER TAGS

SCR-SCREEN-01C


STV
TEXAS REGISTERED ENGINEERING FIRM F-204
CITY OF AUSTIN TEXAS
STATE OF TEXAS LINDSAY C. WEBB 110398 LICENSED PROFESSIONAL ENGINEER
12/22/2025


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

GENERAL ABBREVIATIONS, DRAFTING SYMBOLS, & DRAWING LEGEND

| | |
|---|---|
| DESIGN: | K.BACKHAUS |
| DRAWN: | S.MEDINA |
| REVIEW: | R.OWEN |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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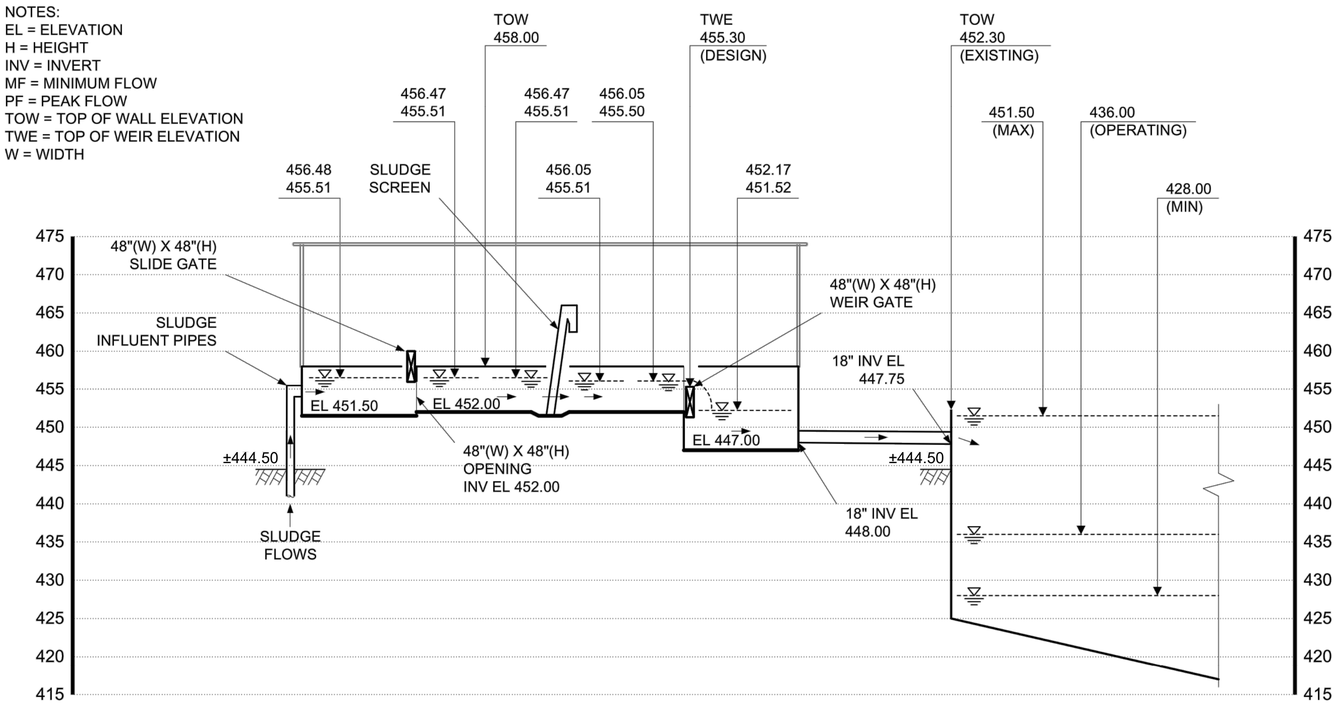
| WATER SURFACE ELEVATION | FLOW CONDITIONS USED TO PREPARE HYDRAULIC PROFILES AT MAXIMUM WATER SURFACE ELEVATION IN EXISTING FEB = 451.50 FT |
|---|---|
| 000.00<br>000.00 | @PF = 5 MGD w/ 1 SCREEN @60% BLINDING<br>@MF = 500 GPM w/ 1 SCREEN @CLEAN |

NOTES:
EL = ELEVATION
H = HEIGHT
INV = INVERT
MF = MINIMUM FLOW
PF = PEAK FLOW
TOW = TOP OF WALL ELEVATION
TWE = TOP OF WEIR ELEVATION
W = WIDTH




| PUMPED SLUDGE FLOWS | INFLUENT CHANNEL | SCREEN CHANNEL | EFFLUENT CHANNEL | SCREENED SLUDGE FLOWS | EXISTING FLOW EQUALIZATION BASIN (FEB) |
|---|---|---|---|---|---|
| | PROPOSED HEADWORKS | | | | |

HYDRAULIC PROFILE
NTS

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STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · PAWAN A. GUNJUR · 101095 · LICENSED PROFESSIONAL ENGINEER · 3/5/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

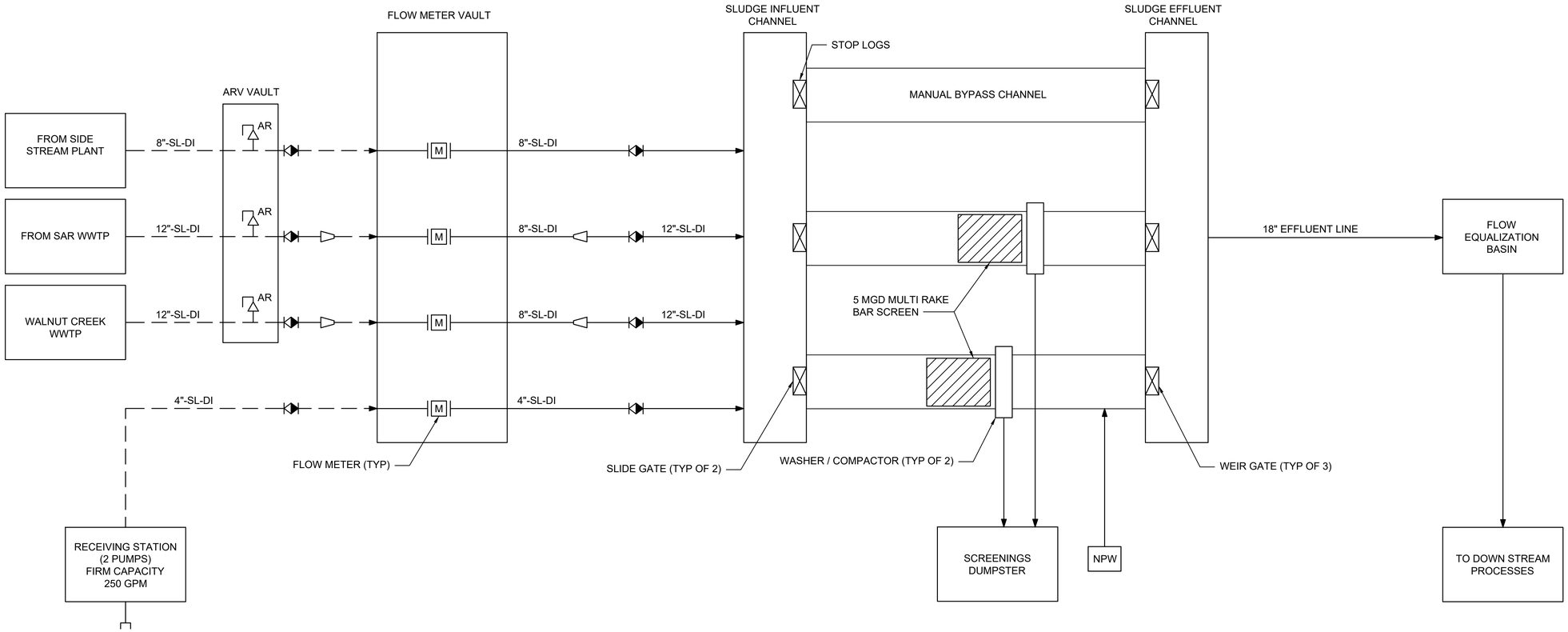
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HYDRAULIC PROFILE

| | |
|---|---|
| DESIGN: | P.GUNJUR |
| DRAWN: | S.MEDINA |
| REVIEW: | L.WEBB |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
G-6
7 of 196

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
PAWAN A. GUNJUR
101095
LICENSED
PROFESSIONAL ENGINEER
3/5/2026

| NO. | REVISION | BY | DATE |
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VERIFY SCALE 1" 0
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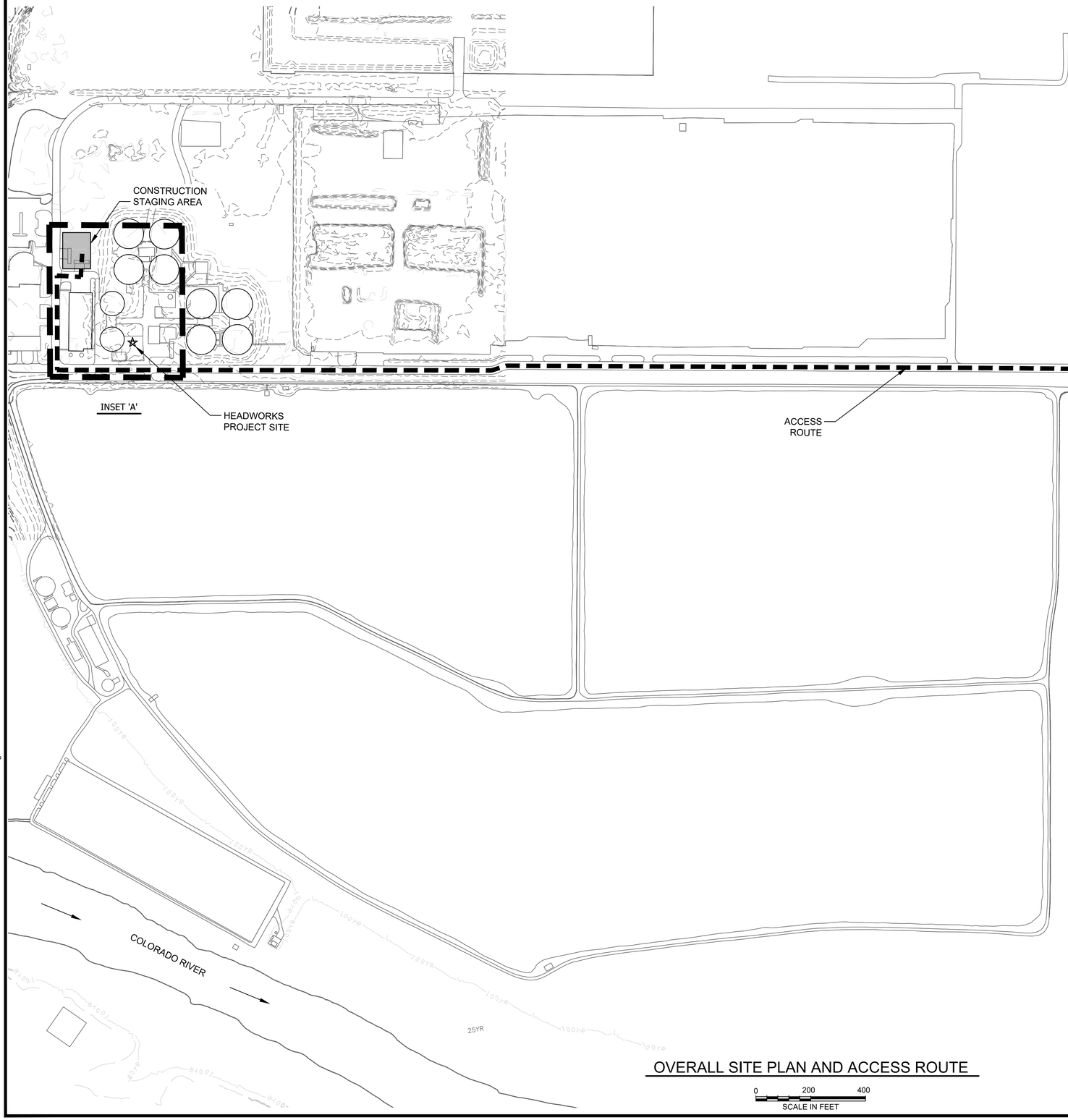
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED HEADWORKS
PROCESS FLOW DIAGRAM

| | |
|---|---|
| DESIGN: | P.GUNJUR |
| DRAWN: | S.MEDINA |
| REVIEW: | L.WEBB |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

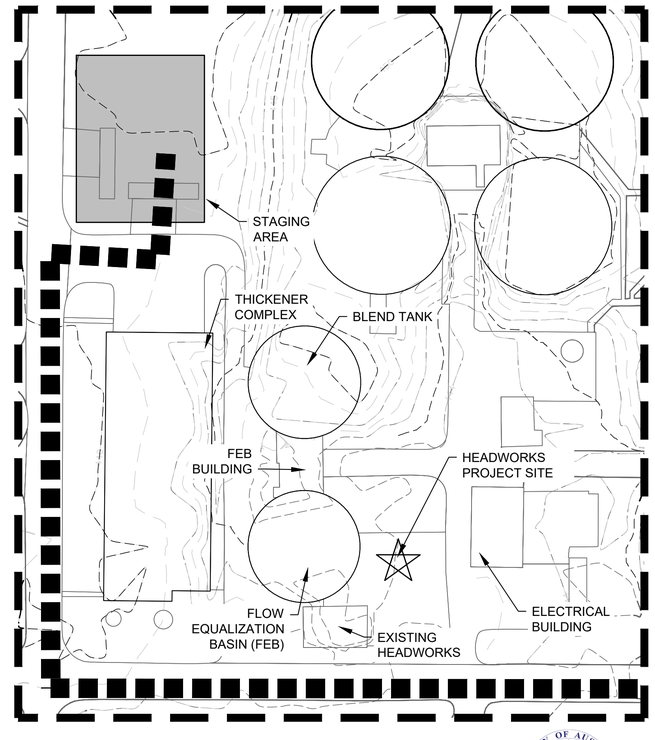
SHEET
G-7




OVERALL SITE PLAN AND ACCESS ROUTE

0 200 400

SCALE IN FEET




INSET 'A'

0 60 120

SCALE IN FEET

CITY OF AUSTIN
APPROVED
Date 03/18/26
FOUNDED 1839

GP-2025-0271.AWU

PRINTED BY: jane.fu DATE: 3/6/2026
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7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.832.2282 | Fax | 512.832.2512

TEXAS REGISTERED ENGINEERING FIRM F-204

J. CLAIRE SEMBERA 145410 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

03-06-2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

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1" 0

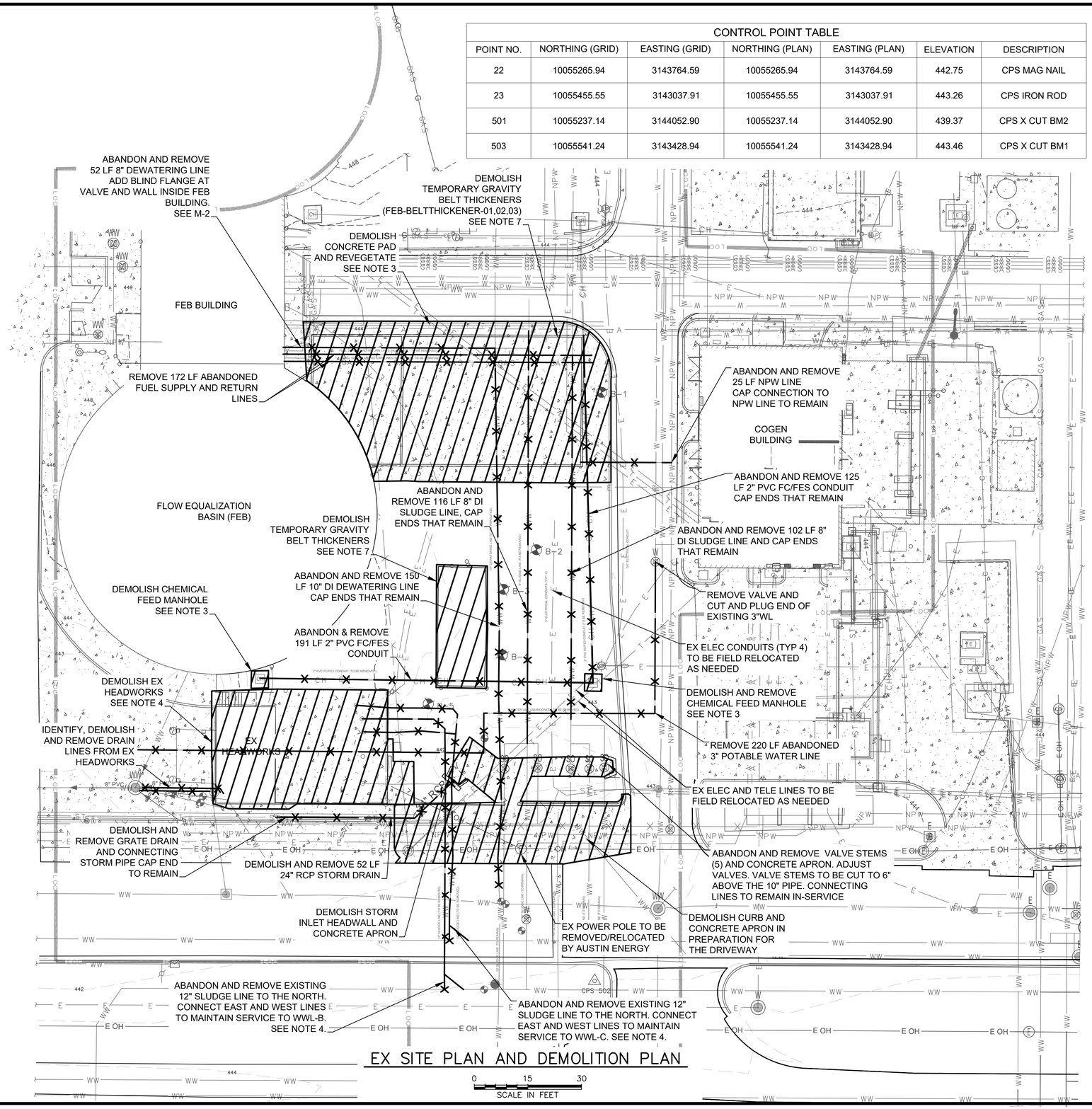
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# OVERALL SITE PLAN AND ACCESS ROUTE

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-1
9 of 196

| CONTROL POINT TABLE | | | | | | |
|---|---|---|---|---|---|---|
| POINT NO. | NORTHING (GRID) | EASTING (GRID) | NORTHING (PLAN) | EASTING (PLAN) | ELEVATION | DESCRIPTION |
| 22 | 10055265.94 | 3143764.59 | 10055265.94 | 3143764.59 | 442.75 | CPS MAG NAIL |
| 23 | 10055455.55 | 3143037.91 | 10055455.55 | 3143037.91 | 443.26 | CPS IRON ROD |
| 501 | 10055237.14 | 3144052.90 | 10055237.14 | 3144052.90 | 439.37 | CPS X CUT BM2 |
| 503 | 10055541.24 | 3143428.94 | 10055541.24 | 3143428.94 | 443.46 | CPS X CUT BM1 |




EX SITE PLAN AND DEMOLITION PLAN

0 15 30

SCALE IN FEET

REVIEWED
March 17, 2026
RB McMillan
Austin Water
Roger McMillan

LEGEND

| | |
|---|---|
| LIMITS OF CONSTRUCTION | LOC |
| EX WASTEWATER LINE | WW |
| EX ABANDONED UTILITY | X X |
| EX UNKNOWN UTILITY | |
| COMMUNICATION LINE | T T |
| EX GAS LINE | GAS GAS |
| EX ELECTRIC/POWER LINE | E E |
| EX WATER LINE | W W |
| EX NON POTABLE WATER LINE | NPW NPW |
| EX STORM LINE | ST |
| EX AIR LINE | A A |
| EX CHEMICAL LINE | CH |
| PROP LINE ABANDONMENT/REMOVAL | |
| PROP DEMOLITION | |
| BORE HOLE | |

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING ELECTRICAL/MECHANICAL/ETC UNDERGROUND UTILITIES/SYSTEMS WHETHER SHOWN HERE OR NOT. THE INFORMATION SHOWN HEREIN SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF CONFIRMING OR FINDING THE EXISTING UNDERGROUND UTILITIES/SYSTEMS. THE CONTRACTOR MUST EXERCISE EXTREME CARE AS THERE ARE NOT RELIABLE AS-BUILT RECORDS IDENTIFYING THE ROUTING OF UNDERGROUND UTILITIES/SYSTEMS AND THERE WAS MINIMAL SUBSURFACE INVESTIGATION PERFORMED AS PART OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MATERIALS AND LABOR TO ADEQUATELY SUPPORT EXISTING UNDERGROUND UTILITIES/SYSTEMS EXPOSED DURING EXCAVATION/CONSTRUCTION ACTIVITIES IN A MANNER THAT WILL MAINTAIN THE INTEGRITY OF THE EXPOSED UNDERGROUND UTILITY/SYSTEM AND PREVENT POSSIBLE DAMAGE TO AND/OR INTERRUPTION OF THE UTILITY/SYSTEM AND/OR FACILITY/PLANT OPERATION.
2. SEE SECTION 00220 FOR GEOTECHNICAL DATA REPORT AND BORE LOG INFORMATION.
3. SURFACE FEATURES TO BE DEMOLISHED SHALL BE REMOVED IN ENTIRETY. SELECT FILL SHALL FILL THE REMAINING VOID COMPACTED TO 95% DENSITY PER STANDARD SPEC ITEM 130S. THE AREA SHALL EITHER BE REVEGETATED IN ACCORDANCE WITH STANDARD SPEC ITEM 604S "SEEDING FOR EROSION CONTROL" OR BE PREPARED FOR PROPOSED CONSTRUCTION PER SHEET C-5.
4. EXISTING HEADWORKS TO BE DEMOLISHED ONCE PROPOSED HEADWORKS IS OPERATIONAL. SEE M-2 FOR ADDITIONAL DEMOLITION DETAILS. SEE SECTION 01015 - CONSTRUCTION COORDINATION AND SEQUENCING.
5. CONTRACTOR SHALL MONITOR EXCAVATED MATERIAL AND GROUNDWATER FOR CONTAMINATION AND NOTIFY OWNER IMMEDIATELY IF CONTAMINATION IS DETECTED. IF CONTRACTOR OR OWNER'S REPRESENTATIVE DETECTS CONTAMINATION IN EXCAVATED MATERIAL, WORK IN THE AREA SHALL STOP AND CONTRACTOR AND OWNER SHALL COORDINATE PER THE REQUIREMENTS OF SECTION 01901 CONTAMINATED SOIL AND GROUNDWATER.
6. ALL EXISTING UNDERGROUND UTILITIES ABANDONED OR TO BE ABANDONED AS PART OF THIS PROJECT SHALL BE REMOVED WITHIN THE PROJECT AREA. NO LINE SHALL REMAIN ABANDONED WITHIN THE PROJECT AREA. UNDERGROUND UTILITIES OUTSIDE OF THE PROJECT AREA NOT IN-USE SHALL BE CAPPED, FILLED WITH GROUT, AND ABANDONED IN-PLACE AT NO ADDITIONAL COST TO THE OWNER.
7. REMOVE TEMPORARY THICKENING SYSTEM PER THE REQUIREMENTS OF SECTION 01015 - CONSTRUCTION COORDINATION AND SEQUENCING AND ALLOWANCE NO. 13 NOTES IN 01020 - ALLOWANCES.

CITY OF AUSTIN
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Date 03/18/26
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Main | 512.452.2484 | Fax | 512.452.4433


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TEXAS REGISTERED ENGINEERING FIRM F-204

SAA

CLAIRE SEMBERA 145410 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
03-06-2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

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VERIFY SCALE 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING SITE PLAN AND DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-2
10 of 196

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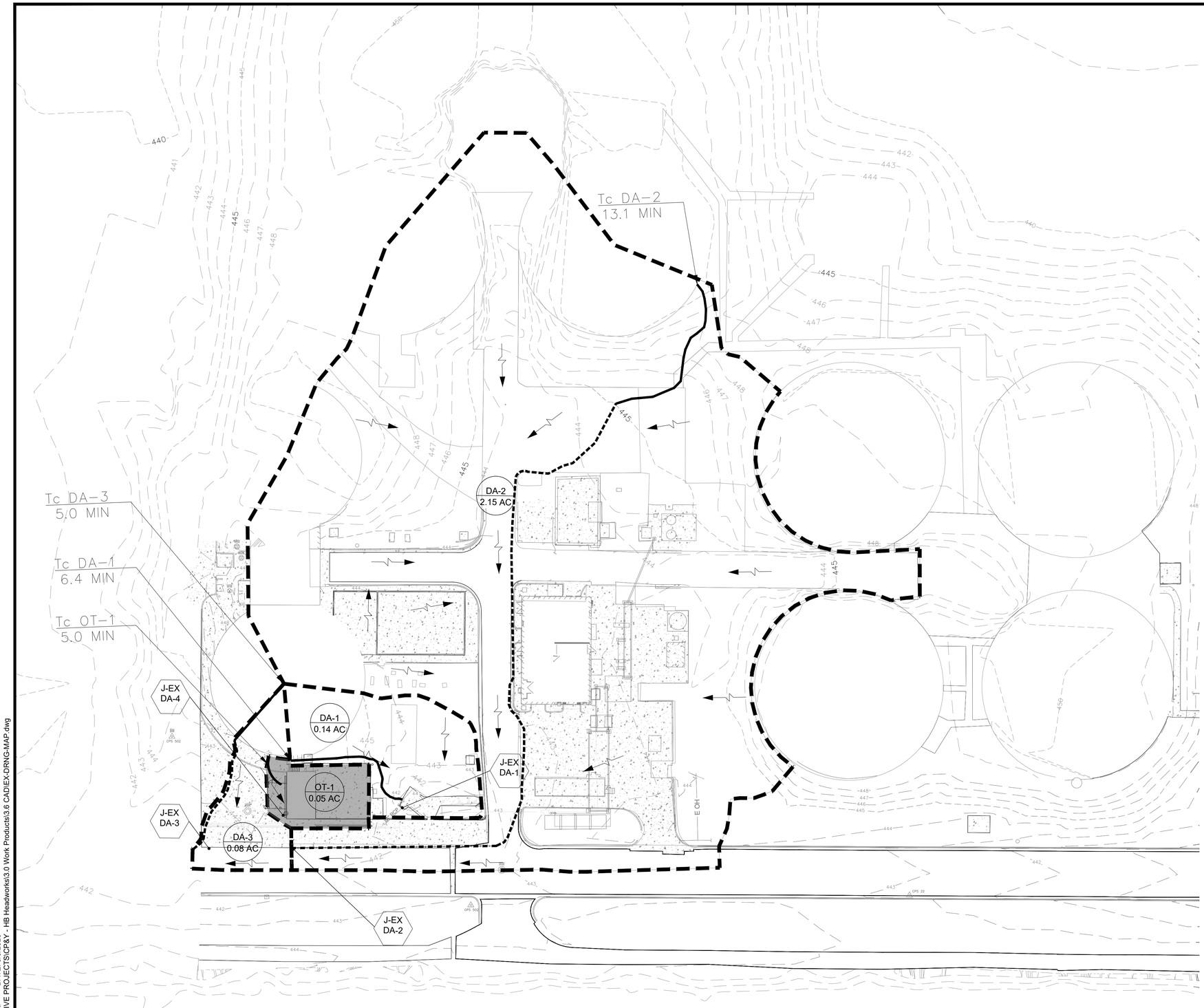


EXISTING DRAINAGE MAP

0 15 30

SCALE IN FEET

LEGEND

- ROAD/CURB
- MAJOR CONTOUR — 460
- MINOR CONTOUR — 461
- DRAINAGE AREA
- 100 YEAR FLOODPLAIN — 100YR
- EXISTING STORM DRAIN — SD
- FLOW ARROW
- SHEET FLOW
- SHALLOW CONCENTRATION FLOW
- CHANNEL FLOW
- DRAINAGE AREA NAME / ACREAGE — DA-1 0.35 AC
- JUNCTION / FLOW POINTS — J-EX DA-1

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Main | 512.502.2804 | Fax | 512.502.2843

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
BOBBY ROSS
149389
LICENSED PROFESSIONAL ENGINEER
03-06-2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING DRAINAGE MAP

| | |
|---|---|
| DESIGN: | B. ROSS |
| DRAWN: | B. ROSS |
| REVIEW: | M. SPIROVA |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-3
11 of 196

CITY OF AUSTIN
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## RUNOFF COEFFICIENT CALCULATIONS FOR EXISTING DRAINAGE AREAS

| EXISTING DRAINAGE AREAS | IMPERVIOUS COVER SUMMARY | | | | | | | 25-YR WEIGHTED C | | | | 100-YR WEIGHTED C | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL AREA (SF) | IC% | TOTAL IMPERVIOUS (SF) | TOTAL PERVIOUS (SF) | GRASS (SF) | CONCRETE (SF) | ASPHALT (SF) | GRASS | CONCRETE | ASPHALT | C25 | GRASS | CONCRETE | ASPHALT | C100 |
| DA-1 | 6,182 | 39% | 2,403 | 3,780 | 3,780 | 2,403 | -- | 0.42 | 0.88 | 0.86 | 0.60 | 0.49 | 0.97 | 0.95 | 0.68 |
| DA-2 | 93,816 | 70% | 65,860 | 27,956 | 27,956 | 43,305 | 22,555 | 0.42 | 0.88 | 0.86 | 0.74 | 0.49 | 0.97 | 0.95 | 0.82 |
| DA-3 | 3,357 | 100% | 3,357 | -- | -- | 2,037 | 1,320 | 0.42 | 0.88 | 0.86 | 0.87 | 0.49 | 0.97 | 0.95 | 0.96 |
| OT-1* | 2,125 | 100% | 2,125 | -- | -- | 2,125 | -- | 0.42 | 0.88 | 0.86 | 0.88 | 0.49 | 0.97 | 0.95 | 0.97 |

** Treated WW, Excluded from IC and Runoff Calculations*

### IMPERVIOUS COVER SUMMARY

| WATERSHED | EXISTING CONDITION (AC) | | | |
|---|---|---|---|---|
| | DRAINAGE AREA | IMPERVIOUS | PERVIOUS | OPEN-TOP |
| COLORADO RIVER | 2.42 | 1.69 | 0.73 | 0.05 |

### EXISTING RUNOFF SUMMARY

| WATERSHED | 2-YR | 10-YR | 25-YR | 100-YR |
|---|---|---|---|---|
| | CFS | CFS | CFS | CFS |
| COLORADO RIVER | 6.77 | 11.27 | 14.81 | 21.72 |

### EXISTING TIME OF CONCENTRATION

| EXISTING TIME OF CONCENTRATION | | J-EX DA-1 | J-EX DA-2 | J-EX DA-3 | J-EX OT-1* |
|---|---|---|---|---|---|
| **SHEET FLOW** | | | | | |
| ROUGHNESS | -- | 0.24 | 0.24 | 0.015 | 0.015 |
| FLOW LENGTH | FT | 80.71 | 100.00 | 43.48 | 41.13 |
| SLOPE | FT/FT | 0.07 | 0.05 | 0.01 | 0.01 |
| TRAVEL TIME | MIN | 6.36 | 8.74 | 1.23 | 1.18 |
| **SHALLOW CONCENTRATED FLOW** | | | | | |
| SURFACE | U/P | -- | P | P | P |
| FLOW LENGTH | FT | -- | 301.56 | 70.72 | 50.79 |
| SLOPE | FT/FT | -- | 0.01 | 0.04 | 0.03 |
| TRAVEL TIME | MIN | -- | 3.43 | 0.29 | 0.23 |
| **CHANNEL FLOW** | | | | | |
| FLOW LENGTH | FT | -- | 117.83 | -- | -- |
| ROUGHNESS | -- | -- | 0.020 | -- | -- |
| SLOPE | FT/FT | -- | 0.01 | -- | -- |
| VELOCITY | FPS | -- | 6.00 | -- | -- |
| TRAVEL TIME | MIN | -- | 0.95 | -- | -- |
| TOTAL TRAVEL TIME | MIN | 6.36 | 13.12 | 5.00 | 5.00 |

### EXISTING DRAINAGE AREAS RUNOFF CALCULATIONS

| FLOW POINT | TOTAL ACRES | TIME (MIN.) | I25 (IN/HR) | C25 | Q25 (CFS) | I100 (IN/HR) | C100 | Q100 (CFS) |
|---|---|---|---|---|---|---|---|---|
| J-EX DA-1 | 0.14 | 6.36 | 10.82 | 0.60 | 0.92 | 14.25 | 0.68 | 1.37 |
| J-EX DA-2 | 2.15 | 13.12 | 8.24 | 0.74 | 13.11 | 10.85 | 0.82 | 19.22 |
| J-EX DA-3 | 0.08 | 5.00 | 11.62 | 0.87 | 0.78 | 15.32 | 0.96 | 1.14 |
| J-EX OT-1* | 0.05 | 5.00 | 11.62 | 0.88 | 0.50 | 15.32 | 0.97 | 0.72 |


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TEXAS REGISTERED ENGINEERING FIRM F-204


STATE OF TEXAS
BOBBY ROSS
149399
LICENSED PROFESSIONAL ENGINEER
03-06-2026

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VERIFY SCALE 1" 0

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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING DRAINAGE CALCULATIONS

| | |
|---|---|
| DESIGN: | B. ROSS |
| DRAWN: | B. ROSS |
| REVIEW: | M. SPIROVA |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-4
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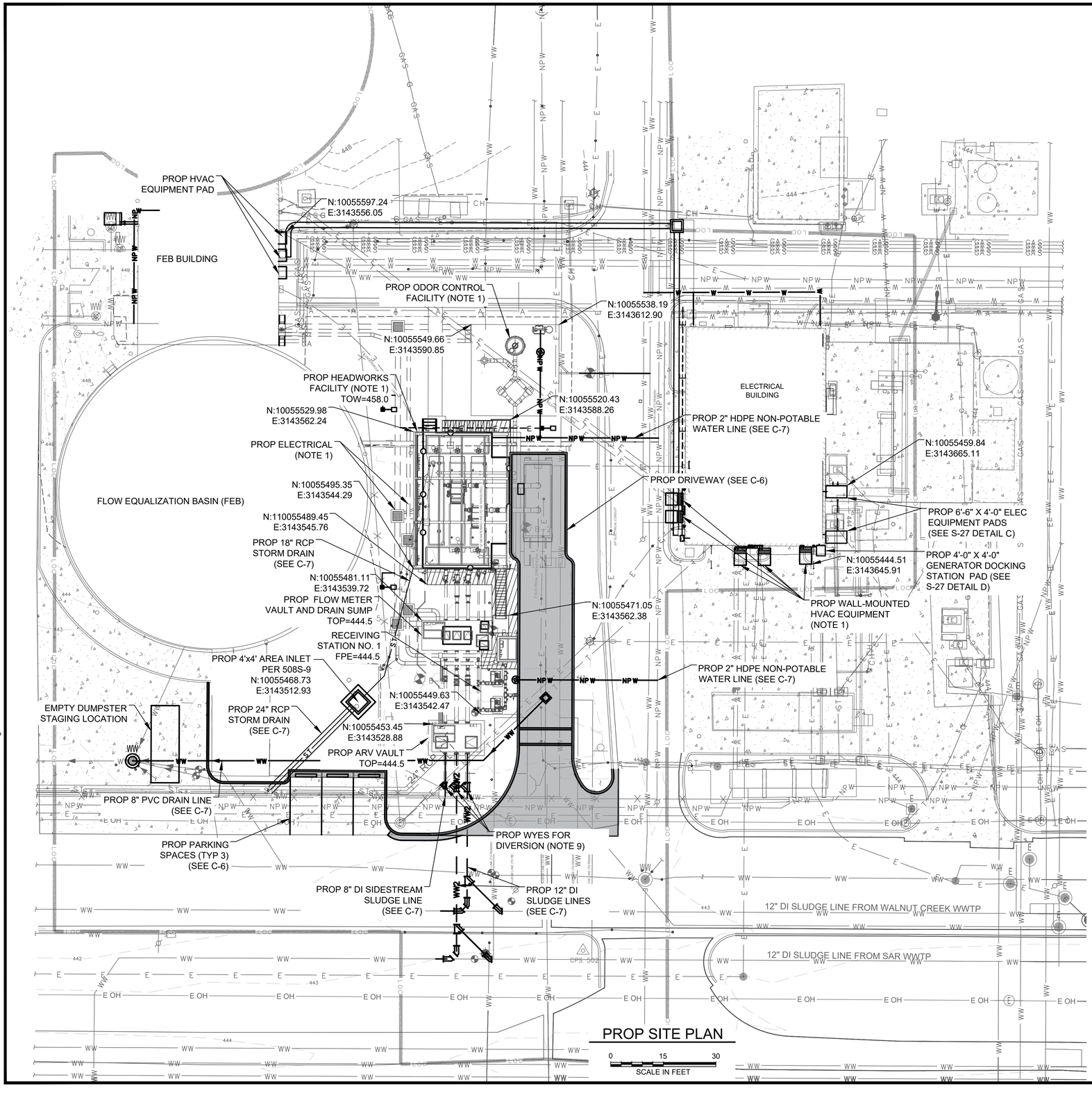


LEGEND

| | |
|---|---|
| LIMITS OF CONSTRUCTION | LOC |
| EX WASTEWATER LINE | WW |
| EX ABANDONED UTILITY | X X |
| EX UNKNOWN UTILITY | |
| COMMUNICATION LINE | T T |
| EX GAS LINE | GAS GAS |
| EX ELECTRIC/POWER LINE | E E |
| EX WATER LINE | W W W |
| EX STORM LINE | ST |
| EX AIR LINE | A A A |
| EX CHEMICAL LINE | CH |
| PROP PAVEMENT | |
| PROP GRAVEL | |
| PROP UTILITY | |
| PROP UNDERGROUND ELECTRICAL LINE | UGE |
| PROP NON-POTABLE WATER LINE | NPW NPW |
| PROP DRAIN LINE | WW |
| PROP SIDESTREAM SLUDGE LINE | WW1 |
| PROP SLUDGE LINE | WW2 |
| PROP DEWATERING LINE | WW3 |
| PROP STORM LINE | ST |
| PROP WWMH | WW |
| HOSE BIBB | |

NOTES:

1. SEE MECHANICAL, STRUCTURAL, ELECTRICAL AND HVAC SHEETS FOR THE PROPOSED PLANS, RESPECTIVELY.
2. TEMPORARY DRAINAGE SHALL BE PROVIDED BY THE CONTRACTOR FOR THE DURATION THE EX STORM INLET IS DEMOLISHED AND THE PROP INLET IS CONSTRUCTED AND TIED IN TO THE EX STORM DRAIN NETWORK.
3. LOCATION OF EXISTING PIPING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION AND SOME SUBSURFACE UTILITY ENGINEERING DATA. ACTUAL LOCATION OF SUBSURFACE UTILITIES IS TO BE CONFIRMED VIA FIELD INVESTIGATION AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL MONITOR EXCAVATED MATERIAL AND GROUNDWATER FOR CONTAMINATION AND NOTIFY OWNER IMMEDIATELY IF CONTAMINATION IS DETECTED. IF CONTRACTOR OR OWNER'S REPRESENTATIVE DETECTS CONTAMINATION IN EXCAVATED MATERIAL, WORK IN THE AREA SHALL STOP AND CONTRACTOR AND OWNER SHALL COORDINATE PER THE REQUIREMENTS OF SECTION 01901 CONTAMINATED SOIL AND GROUNDWATER.
5. GRAVEL SHALL BE ZEROSCAPING GRAVEL FOR LANDSCAPING / PEDESTRIAN USE AND SHALL NOT BE CONSTRUCTED WITH COMPACTED BASE. A PERMEABLE WEED INHIBITIVE LINER PER COA SPECIFICATION 620 SHALL BE USED BENEATH THE GRAVEL TO PREVENT VEGETATION GROWTH.
6. TEMPORARY LINES SHALL BE USED TO CONNECT TO EXISTING HEADWORKS UNTIL PROPOSED HEADWORKS IS FULLY COMMISSIONED. PROPOSED WYES ON PROPOSED SLUDGE LINES TO REMAIN IN-PLACE WITH A BLIND FLANGE ON THE BRANCH ONCE THE EXISTING HEADWORKS IS DECOMMISSIONED. SEE SECTION 01015 - CONSTRUCTION COORDINATION AND SEQUENCING.
7. CONTRACTOR SHALL COORDINATE TO PROVIDE PERMANENT SIGNAGE FOR DIRECTING DELIVERY TRAFFIC PER THE ALLOWANCE AS NOTED IN SECTION 01020 - ALLOWANCES.

REVIEWED
March 17, 2026
RBMcMillan
Austin Water
Roger McMillan

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
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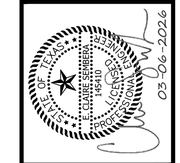


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|---|---|---|---|

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1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED SITE PLAN

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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C-5
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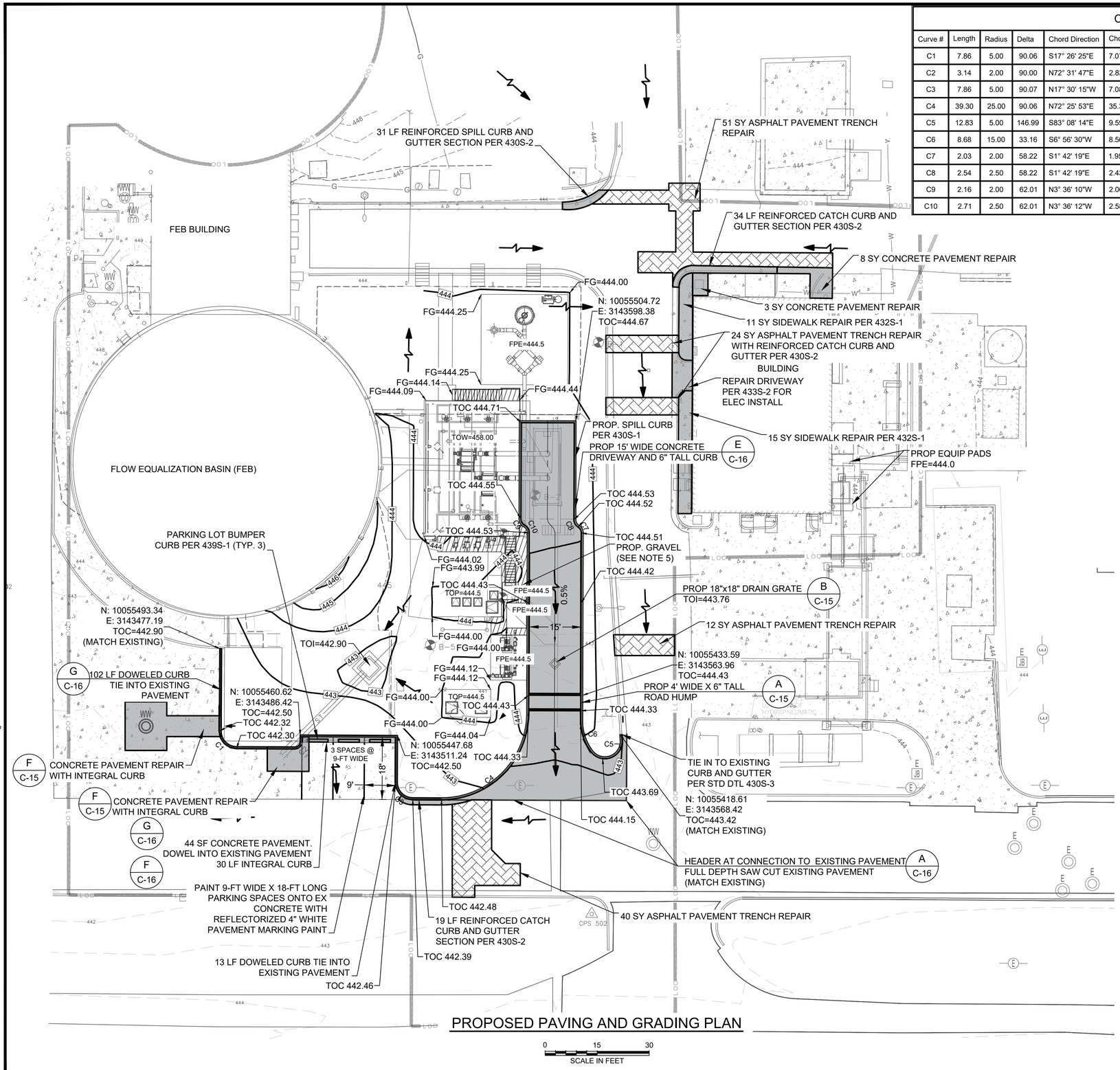


## PROPOSED PAVING AND GRADING PLAN

| Curve Table | | | | | | | |
|---|---|---|---|---|---|---|---|
| Curve # | Length | Radius | Delta | Chord Direction | Chord Length | Starting Coordinates | Ending Coordinates |
| C1 | 7.86 | 5.00 | 90.06 | S17° 26' 25"E | 7.07 | N:10055472.32, E:3143466.21 | N:10055465.57, E:3143468.33 |
| C2 | 3.14 | 2.00 | 90.00 | N72° 31' 47"E | 2.83 | N:10055457.80, E:3143483.25 | N:10055458.64, E:3143485.95 |
| C3 | 7.86 | 5.00 | 90.07 | N17° 30' 15"W | 7.08 | N:10055429.26, E:3143506.73 | N:10055436.01, E:3143504.60 |
| C4 | 39.30 | 25.00 | 90.06 | N72° 25' 53"E | 35.37 | N:10055425.44, E:3143514.09 | N:10055436.12, E:3143547.81 |
| C5 | 12.83 | 5.00 | 146.99 | S83° 08' 14"E | 9.59 | N:10055418.01, E:3143558.69 | N:10055416.86, E:3143568.21 |
| C6 | 8.68 | 15.00 | 33.16 | S6° 56' 30"W | 8.56 | N:10055426.51, E:3143559.72 | N:10055418.01, E:3143558.69 |
| C7 | 2.03 | 2.00 | 58.22 | S1° 42' 19"E | 1.95 | N:10055477.29, E:3143584.98 | N:10055475.34, E:3143585.04 |
| C8 | 2.54 | 2.50 | 58.22 | S1° 42' 19"E | 2.43 | N:10055479.72, E:3143584.91 | N:10055477.29, E:3143584.98 |
| C9 | 2.16 | 2.00 | 62.01 | N3° 36' 10"W | 2.06 | N:10055484.82, E:3143571.56 | N:10055486.87, E:3143571.43 |
| C10 | 2.71 | 2.50 | 62.01 | N3° 36' 12"W | 2.58 | N:10055482.25, E:3143571.72 | N:10055484.82, E:3143571.56 |

LEGEND

- LIMITS OF CONSTRUCTION
- PROP CONCRETE PAVEMENT
- PROP GRAVEL
- PROP ASPHALT PAVEMENT TRENCH REPAIR
- PROP STRUCTURE
- PROP STORM LINE (ST)
- PROP CONTOUR (445)
- PROP WWMH (WW)
- HOSE BIBB
- FLOW ARROW

FG = FINISHED GRADE ELEVATION
FPE = FINISHED PAD ELEVATION
TOC = TOP OF CURB ELEVATION

NOTES:

1. PROP ROAD HUMPS SHALL BE FLUSH WITH THE TOP OF CURB ELEVATION AND CREATE A SEAL TO CONTAIN THE AREA WITHOUT GAPS.
2. EX HEADWORKS TO BE DEMOLISHED ONCE THE PROP HEADWORKS IS CONSTRUCTED AND COMMISSIONED. SEE SECTION 01015 - CONSTRUCTION COORDINATION AND SEQUENCING.
3. TEMPORARY DRAINAGE SHALL BE PROVIDED BY THE CONTRACTOR FOR THE DURATION THE EX STORM INLET IS DEMOLISHED AND THE PROP INLET IS CONSTRUCTED AND TIED IN TO THE EX STORM DRAIN NETWORK.
4. CONTRACTOR SHALL MONITOR EXCAVATED MATERIAL AND GROUNDWATER FOR CONTAMINATION AND NOTIFY OWNER IMMEDIATELY IF CONTAMINATION IS DETECTED. IF CONTRACTOR OR OWNER'S REPRESENTATIVE DETECTS CONTAMINATION IN EXCAVATED MATERIAL, WORK IN THE AREA SHALL STOP AND CONTRACTOR AND OWNER SHALL COORDINATE PER THE REQUIREMENTS OF SECTION 01901 CONTAMINATED SOIL AND GROUNDWATER.
5. GRAVEL SHALL BE ZEROSCAPING GRAVEL FOR LANDSCAPING / PEDESTRIAN USE AND SHALL NOT BE CONSTRUCTED WITH COMPACTED BASE. A PERMEABLE WEED INHIBITIVE LINER PER COA SPECIFICATION 620 SHALL BE USED BENEATH THE GRAVEL TO PREVENT VEGETATION GROWTH.
6. ASPHALT PAVEMENT TRENCH REPAIR SHALL BE PER DETAIL 1100S-8A OR 1100S-6D TRENCH REPAIR AND PAVEMENT REPLACEMENT. THE FINAL LIMITS OF MILLING AND OVERLAY SHALL BE PER DETAIL 1100S-7 AND COORDINATED IN THE FIELD WITH THE OWNER'S REPRESENTATIVE AND ENGINEER.
7. CONTRACTOR SHALL SUBMIT A DETAILED PAVEMENT JOINT PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT ON THE SITE. ANY DEVIATIONS FROM THE FOLLOWING GUIDELINES MUST BE HIGHLIGHTED ON THE PLAN AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
   A. CONTROL JOINTS SHALL BE SPACED A MAXIMUM OF 15 FEET ON CENTER.
   B. ISOLATION JOINTS SHALL BE USED AROUND LIGHTING STANDARDS, AREA DRAINS, INLETS, BETWEEN PAVEMENT AND SIDEWALKS, AND BETWEEN BUILDINGS.
   C. EXPANSION JOINTS SHALL BE USED AT FIXED OBJECTS OR STRUCTURES AND UNSYMMETRICAL AREAS WHERE JOINT GRIDS ARE DIFFICULT.
   D. SAW CUT CONTRACTION JOINTS SHALL BE AT LEAST 1/4 OF THE SLAB DEPTH OR 1 INCH DEEP WHEN USING EARLY ENTRY SAWS AND CUT AS SOON AS CONCRETE IS HARDENED.
8. TEMPORARY TRENCH REPAIR SHALL BE PROVIDED PER DETAIL 1100S-4 AS NEEDED TO MAINTAIN USE OF THE ROADS IN COORDINATION WITH PLANT OPERATORS.

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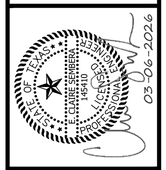


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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED PAVING AND GRADING PLAN

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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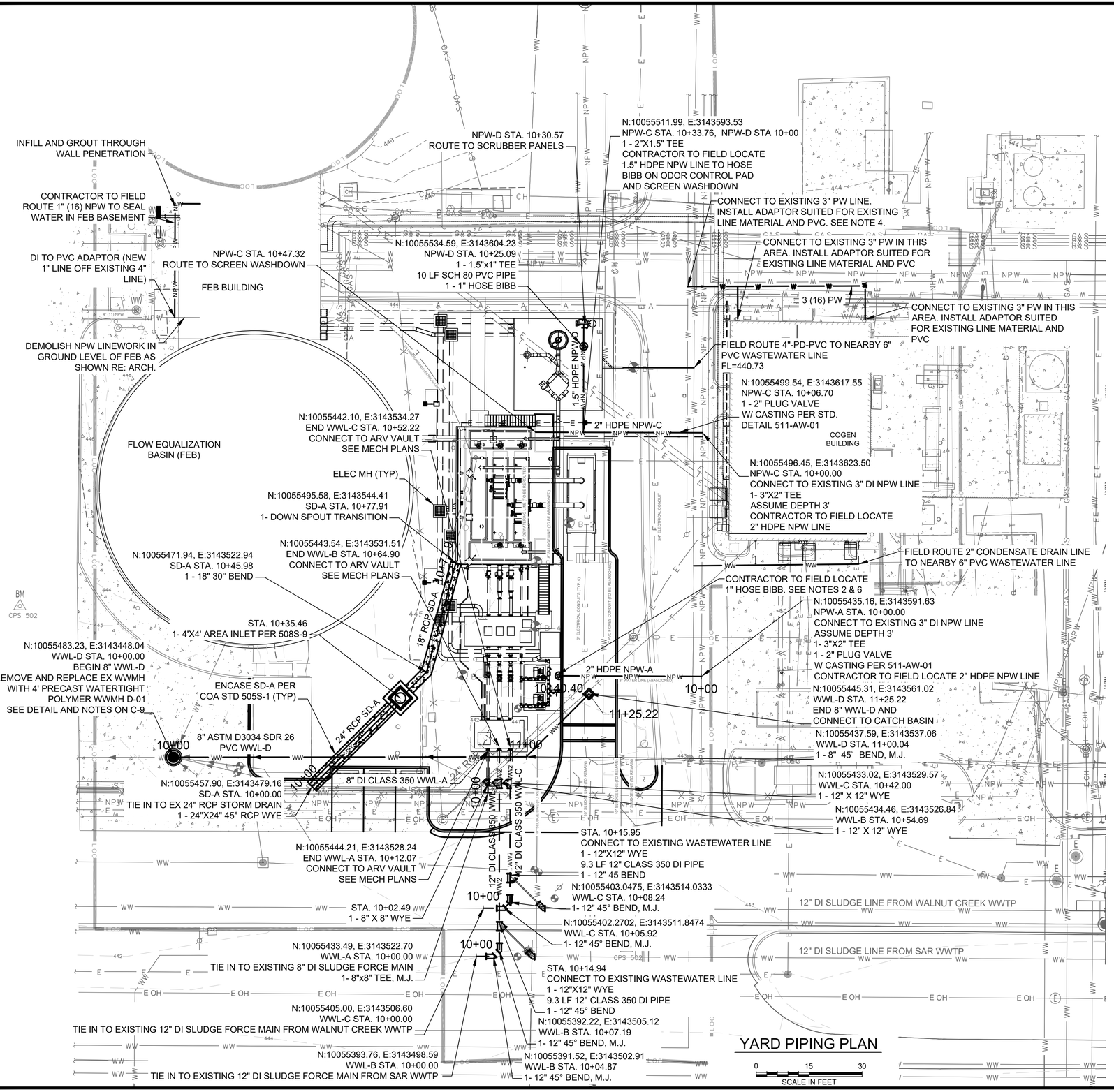


LEGEND

| | |
|---|---|
| LIMITS OF CONSTRUCTION | LOC |
| EXISTING WASTEWATER LINE | WW |
| EXISTING ABANDONED UTILITY | X X |
| EXISTING UNKNOWN UTILITY | |
| COMMUNICATION LINE | T T |
| EXISTING GAS LINE | GAS GAS |
| EXISTING ELECTRIC/POWER LINE | E E |
| EXISTING WATER LINE | W W W |
| EXISTING STORM LINE | ST |
| EXISTING AIR LINE | A A A |
| EXISTING CHEMICAL LINE | CH |
| PROP UTILITY | |
| PROP UNDERGROUND ELECTRICAL LINE | UGE |
| PROP NON-POTABLE WATER LINE | NPW NPW |
| PROP DRAIN LINE | WW |
| PROP SIDESTREAM SLUDGE LINE | WW1 |
| PROP SLUDGE LINE | WW2 |
| PROP STORM LINE | ST |

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING ELECTRICAL/MECHANICAL/ETC UNDGERGOUND UTILITIES/SYSTEMS WHETHER SHOWN HERE OR NOT. THE INFORMATION SHOWN HEREIN SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF CONFIRMING OR FINDING THE EXISTING UNDERGROUND UTILITIES/SYSTEMS. THE CONTRACTOR MUST EXERCISE EXTREME CARE AS THERE ARE NOT RELIABLE AS-BUILT RECORDS IDENTIFYING THE ROUTING OF UNDERGROUND UTILITIES/SYSTEMS AND THERE WAS MINIMAL SUBSURFACE INVESTIGATION PERFORMED AS PART OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MATERIALS AND LABOR TO ADEQUATELY SUPPORT EXISTING UNDERGROUND UTILITIES/SYSTEMS EXPOSED DURING EXCAVATION/CONSTRUCTION ACTIVITIES IN A MANNER THAT WILL MAINTAIN THE INTEGRITY OF THE EXPOSED UNDERGROUND UTILITY/SYSTEM AND PREVENT POSSIBLE DAMAGE TO AND/OR INTERRUPTION OF THE UTILITY/SYSTEM AND/OR FACILITY/PLANT OPERATION.
2. HOSE BIBB TO BE WATTS LF008-PC-QT-SC-1 VACUUM BREAKER W/ 1" HOSE BIBB OR APPROVED EQUAL.
3. CONTRACTOR SHALL MONITOR EXCAVATED MATERIAL AND GROUNDWATER FOR CONTAMINATION AND NOTIFY OWNER IMMEDIATELY IF CONTAMINATION IS DETECTED. IF CONTRACTOR OR OWNER'S REPRESENTATIVE DETECTS CONTAMINATION IN EXCAVATED MATERIAL, WORK IN THE AREA SHALL STOP AND CONTRACTOR AND OWNER SHALL COORDINATE PER THE REQUIREMENTS OF SECTION 01901 CONTAMINATED SOIL AND GROUNDWATER.
4. LOCATION OF EXISTING PIPING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION AND SOME SUBSURFACE UTILITY ENGINEERING DATA. ACTUAL LOCATION OF SUBSURFACE UTILITIES IS TO BE CONFIRMED VIA FIELD INVESTIGATION AT NO ADDITIONAL COST TO THE OWNER.
5. EXISTING RECORD DRAWINGS ARE NOT CLEAR REGARDING THE ROUTING OF THE EXISTING POTABLE WATER (PW) LINE. AT NO ADDITIONAL COST TO THE OWNER, CONTRACTOR SHALL INVESTIGATE EXISTING PW LINE ROUTED THROUGH THE BUILDING (TO BE DEMOLISHED; RE: ARCH SHEETS) TO ENSURE THAT DESIGN AS SHOWN PROVIDES INTERCONNECTION NEEDED TO SERVE ALL PW LINES CURRENTLY SERVED BY THE PW THROUGH THE COGEN BUILDING.
6. HOSE BIBB TO BE PLACED ON SLUDGE RECEIVING STATION PAD TO ALLOW FOR ADEQUATE ACCESS FOR TRUCK WASHDOWN IN COORDINATION WITH OWNER. HOSE RACK SHALL BE PLACED ALONGSIDE EACH HOSE BIBB.
7. ALL DUCTILE IRON TO BE RESTRAINED

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Main | 512.821.2488 | Fax | 512.821.2433

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STATE OF TEXAS | CLAIRE SEMBERA | 145410 | LICENSED PROFESSIONAL ENGINEER | 03-06-2026

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|---|---|---|---|

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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

YARD PIPING PLAN

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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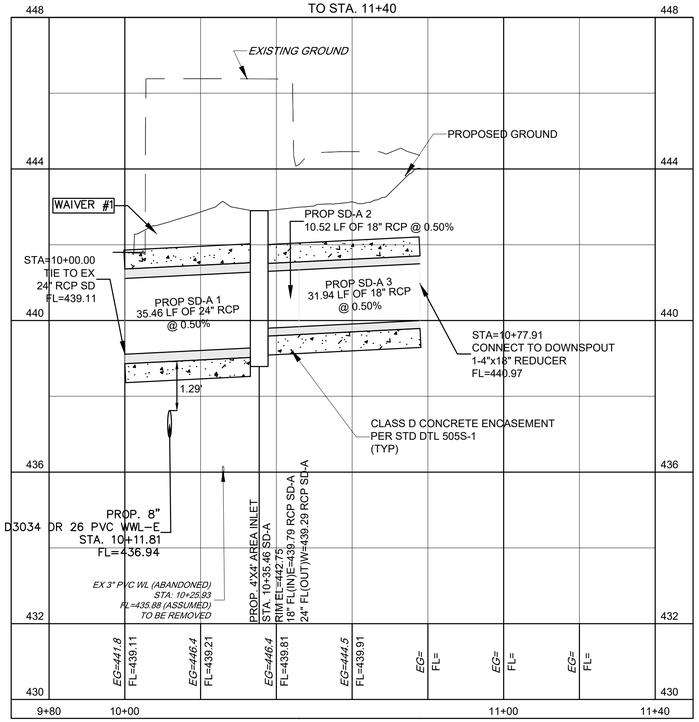


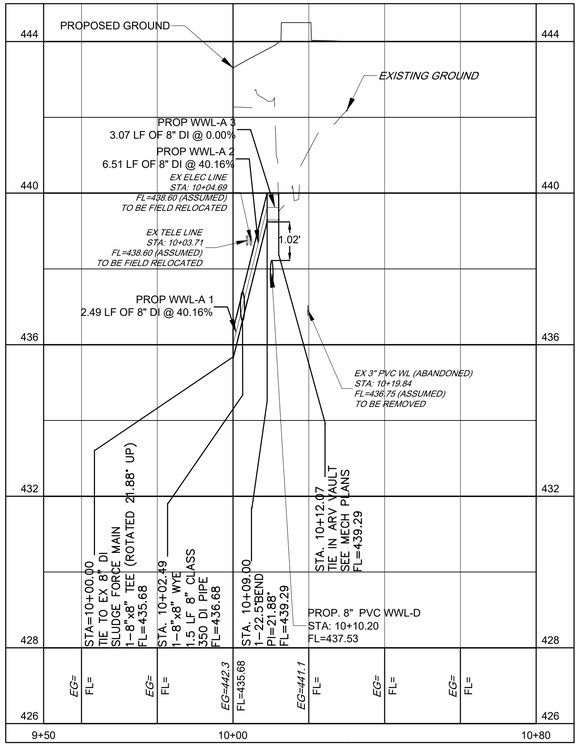


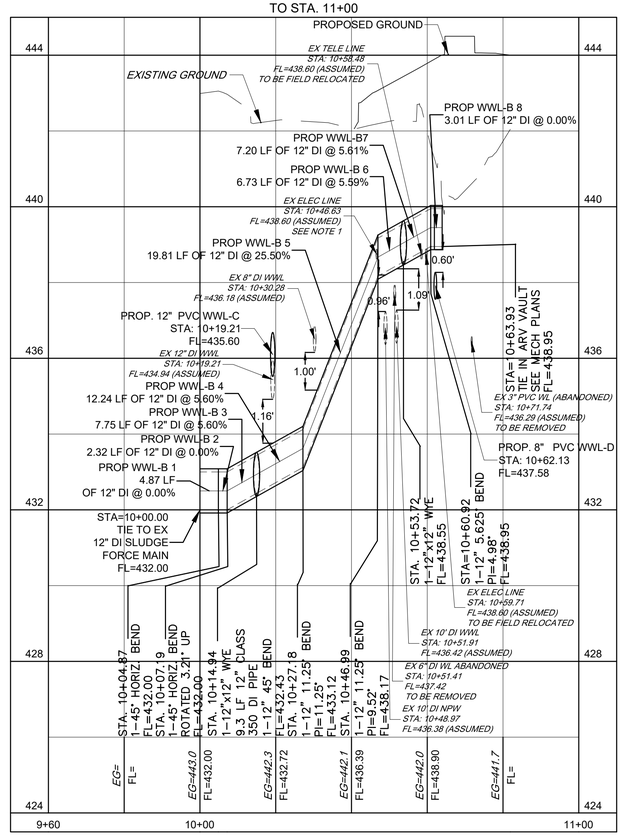


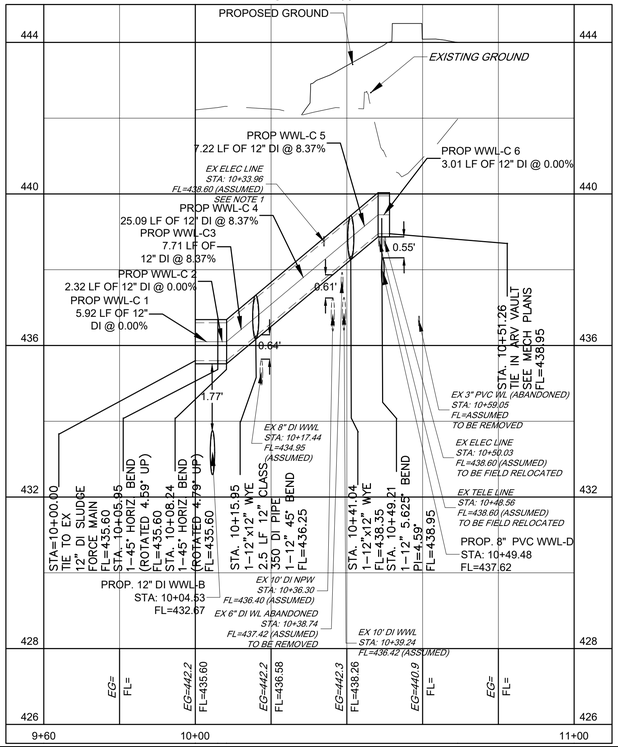


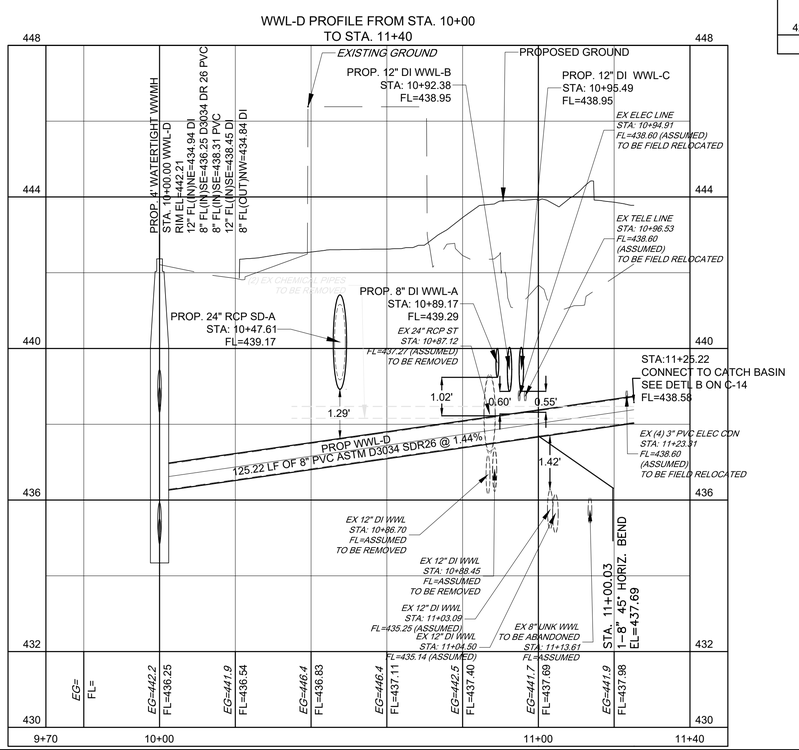


| PROFILE LEGEND: | PROFILE SCALE: |
|---|---|
| EXISTING GROUND — — — | 1"=20' HORIZONTAL |
| PROPOSED GROUND ——— | 1"=2' VERTICAL |

**WAIVER REQUEST #1: DCM 5.7.0**

WAIVER REQUEST FOR 2.5' MINIMUM DEPTH OF COVER FOR STORM DRAIN SD-A. SD-A CONNECTS TO EXISTING 24" STORM DRAIN WITH A FLOW LINE ELEVATION OF APPROXIMATELY 439.11 FT.

APPROVED BY _____ DATE _____

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GP-2025-0271.AWU

REVIEWED
March 17, 2026
RBMcMillan
Austin Water
Roger McMillan

NOTES:

1. CONTRACTOR TO CONFIRM ELEVATIONS OF EXISTING UTILITIES IN THE FIELD. IF 6IN CHES OF CLEARANCE IS NOT OBTAINABLE FROM ALL CROSSING UTILITIES, CONTRACTOR TO FIELD RELOCATE ELECTRICAL LINE TO PROVIDE SUFFICIENT CLEARANCE.
2. ALL DUCTILE IRON (DI) PIPE SHALL BE CLASS 350.

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7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.837.3808 | Fax | 512.837.3813

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS — C. CLAIRE SEMBERA — 145410 — LICENSED PROFESSIONAL ENGINEER — 03-06-2026

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

YARD PIPING PROFILES

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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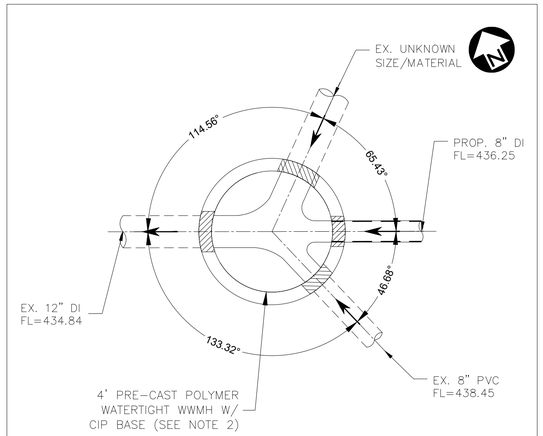


| WWL-D STA 10+00 NOT TO SCALE | WWMH D-01 | WWMH INVERT DETAIL |
|---|---|---|

NOTES:

1. CONTRACTOR TO CONFIRM EXISTING LINE SIZE, ANGLE, AND ELEVATION IN THE FIELD AND PROVIDE A REDLINE TO THE ENGINEER. DRAIN LINES FROM EXISTING HEADWORKS ARE TO BE INDENTIFIED, DEMOLISHED, AND REMOVED, PRIOR TO THE INSTALLATION OF THE PROPOSED MANHOLE.
2. MANHOLE SHALL BE CONSTRUCTED OF POLYMER CONCRETE PER SPL WW-146F WITH FACTORY CANTILEVERED ANTI FLOTATION BASE EXTENDED 1.25 FOOT PAST THE OUTSIDE DIAMETER OF THE MANHOLE AND BE MADE WATERTIGHT PER AUSTIN WATER SPECIAL DETAIL (6/24/24) PRECAST CONCRETE WASTEWATER MANHOLE. CONTRACTOR TO PROVIDE SUBMITTAL OF WWMH TO ENGINEER PRIOR TO INSTALLATION.

REVIEWED
March 17, 2026
RB McMillan
Austin Water
Roger McMillan

CITY OF AUSTIN
APPROVED
Date 03/18/26
FOUNDED 1839
GP-2025-0271.AWU

CAS CONSULTING & SERVICES, INC.
CIVIL ENGINEERING | PROGRAM MANAGEMENT | CONSTRUCTION MANAGEMENT
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Main: 512.835.3444 | Fax: 512.835.4515

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
C. CLAIRE SEMBERA
145410
LICENSED PROFESSIONAL ENGINEER
03-06-2026

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VERIFY SCALE
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

WASTEWATER
MANHOLE INVERT

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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LEGEND

| | |
|---|---|
| ROAD/CURB | |
| MAJOR CONTOUR | 460 |
| MINOR CONTOUR | 461 |
| DRAINAGE AREA | |
| 100 YEAR FLOODPLAIN | 100YR |
| EXISTING STORM DRAIN | SD |
| FLOW ARROW | |
| SHEET FLOW | |
| SHALLOW CONCENTRATION FLOW | |
| CHANNEL FLOW | |
| GRASS | |
| CONCRETE | |
| XERISCAPE | |
| OPEN TOP BASINS DRAINING TO PLANT PROCESS | |
| DRAINAGE AREA NAME / ACREAGE | DA-1 0.35 AC |
| JUNCTION / FLOW POINTS | J-DA-1 |
| PROP. CONTOUR | 443 |
| PROP. STORM DRAIN | |
| PROP. STORM INLET | |

PROPOSED DRAINAGE MAP

0 30 60

SCALE IN FEET

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839

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Main | 512.837.2348 | Fax | 512.837.4533

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS BOBBY ROSS 143599 LICENSED PROFESSIONAL ENGINEER 03-06-2026

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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED DRAINAGE MAP

| | |
|---|---|
| DESIGN: | B. ROSS |
| DRAWN: | B. ROSS |
| REVIEW: | M. SPIROVA |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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C-10
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## RUNOFF COEFFICIENT CALCULATIONS FOR PROPOSED DRAINAGE AREAS

| PROPOSED DRAINAGE AREAS | IMPERVIOUS COVER SUMMARY | | | | | | | 25-YR WEIGHTED C | | | | 100-YR WEIGHTED C | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TOTAL AREA (SF) | IC% | TOTAL IMPERVIOUS (SF) | TOTAL PERVIOUS (SF) | GRASS (SF) | CONCRETE (SF) | ASPHALT (SF) | GRASS | CONCRETE | ASPHALT | C25 | GRASS | CONCRETE | ASPHALT | C100 |
| DA-1 | 5,807 | 51% | 2,937 | 2,617 | 2,617 | 2,937 | -- | 0.42 | 0.88 | 0.86 | 0.63 | 0.49 | 0.97 | 0.95 | 0.71 |
| DA-2 | 90,170 | 67% | 60,634 | 29,535 | 29,535 | 39,248 | 21,387 | 0.42 | 0.88 | 0.86 | 0.72 | 0.49 | 0.97 | 0.95 | 0.81 |
| DA-3 | 8,241 | 75% | 6,190 | 2,051 | 2,051 | 3,860 | 2,330 | 0.42 | 0.88 | 0.86 | 0.76 | 0.49 | 0.97 | 0.95 | 0.84 |
| OT-1* | 1,263 | 100% | 1,263 | -- | -- | 1,263 | -- | 0.42 | 0.88 | 0.86 | 0.88 | 0.49 | 0.97 | 0.95 | 0.97 |

** Treated WW, Excluded from IC and Runoff Calculations*

### IMPERVIOUS COVER SUMMARY

| WATERSHED | EXISTING CONDITION (AC) | | | | PROPOSED CONDITION (AC) | | | | NET DRAINAGE AREA CHANGES (AC) | NET IMPERVIOUS COVER ADDED (AC) | NET PERVIOUS COVER ADDED (AC) | NET OPEN-TOP ADDED (AC) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DRAINAGE AREA | IMPERVIOUS | PERVIOUS | OPEN-TOP | DRAINAGE AREA | IMPERVIOUS | PERVIOUS | OPEN-TOP | | | | |
| COLORADO RIVER | 2.42 | 1.69 | 0.73 | 0.05 | 2.42 | 1.60 | 0.82 | 0.03 | 0.00 | -0.09 | 0.09 | -0.02 |

| | EXISTING RUNOFF SUMMARY | | | | PROPOSED RUNOFF SUMMARY | | | | NET RUNOFF SUMMARY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WATERSHED | 2-YR | 10-YR | 25-YR | 100-YR | 2-YR | 10-YR | 25-YR | 100-YR | 2-YR | 10-YR | 25-YR | 100-YR |
| | CFS | CFS | CFS | CFS | CFS | CFS | CFS | CFS | CFS | CFS | CFS | CFS |
| COLORADO RIVER | 6.77 | 11.27 | 14.81 | 21.72 | 6.76 | 11.25 | 14.79 | 21.70 | -0.01 | -0.02 | -0.02 | -0.02 |

### PROPOSED TIME OF CONCENTRATION

| PROPOSED TIME OF CONCENTRATION | | J-DA-1 | J-DA-2 | J-DA-3 | J-OT-1* |
|---|---|---|---|---|---|
| **SHEET FLOW** | | | | | |
| ROUGHNESS | -- | 0.24 | 0.24 | 0.24 | 0.015 |
| FLOW LENGTH | FT | 80.73 | 100 | 49.87 | 48.68 |
| SLOPE | FT/FT | 0.01 | 0.05 | 0.04 | 0.01 |
| TRAVEL TIME | MIN | 12.45 | 8.74 | 5.48 | 0.93 |
| **SHALLOW CONCENTRATED FLOW** | | | | | |
| SURFACE | U/P | U | P | P | P |
| FLOW LENGTH | FT | -- | 301.56 | -- | 22.61 |
| SLOPE | FT/FT | -- | 0.01 | -- | 0.05 |
| TRAVEL TIME | MIN | -- | 3.43 | -- | 0.08 |
| **CHANNEL FLOW** | | | | | |
| FLOW LENGTH | FT | -- | 47.30 | 116.55 | -- |
| ROUGHNESS | -- | -- | 0.020 | 0.02 | -- |
| SLOPE | FT/FT | -- | 0.01 | 0.75 | -- |
| VELOCITY | FPS | -- | 2.04 | 0.94 | -- |
| TRAVEL TIME | MIN | -- | 0.39 | 2.07 | -- |
| TOTAL TRAVEL TIME | MIN | 12.45 | 12.55 | 7.55 | 5.00 |

### PROPOSED DRAINAGE AREAS RUNOFF CALCULATIONS

| FLOW POINT | TOTAL ACRES | TIME (MIN.) | I25 (IN/HR) | C25 | Q25 (CFS) | I100 (IN/HR) | C100 | Q100 (CFS) |
|---|---|---|---|---|---|---|---|---|
| J-DA-1 | 0.13 | 12.45 | 8.43 | 0.63 | 0.71 | 11.10 | 0.71 | 1.05 |
| J-DA-2 | 2.07 | 12.55 | 8.40 | 0.72 | 12.60 | 11.06 | 0.81 | 18.50 |
| J-DA-3 | 0.19 | 7.55 | 10.23 | 0.76 | 1.47 | 13.47 | 0.84 | 2.15 |
| J-OT-1* | 0.03 | 5.00 | 11.62 | 0.88 | 0.30 | 15.32 | 0.97 | 0.43 |


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7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.837.3300 | Fax | 512.837.3310

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS | BOBBY ROSS | 149389 | LICENSED PROFESSIONAL ENGINEER | 03-06-2026

NO. | REVISION | BY | DATE


VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED DRAINAGE CALCULATIONS

| | |
|---|---|
| DESIGN: | B. ROSS |
| DRAWN: | B. ROSS |
| REVIEW: | M. SPIROVA |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-11
19 of 196

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

PRINTED BY: jane.fu DATE: 3/6/2026
FILE PATH: L:\ACTIVE PROJECTS\CP&Y - HB Headworks\3.0 Work Products\3.6 CAD\PROP-DRNG-CAL.dwg

## CITY OF AUSTIN – STANDARD NOTES EROSION AND SEDIMENTATION CONTROL (MODIFIED FOR USE ON GENERAL PERMIT PROJECTS)

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE–CONSTRUCTION CONFERENCE SHALL BE HELD ON–SITE WITH THE CONTRACTOR, DESIGN ENGINEER, PERMIT APPLICANT, AND GENERAL PERMIT PROGRAM REPRESENTATIVE AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND THE TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE CONTRACTOR SHALL NOTIFY THE GENERAL PERMIT PROGRAM OFFICE AT 512/974–6330, AT LEAST 3 DAYS PRIOR TO THE MEETING DATE.
5. ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE REVIEWING ENGINEER AND THE GENERAL PERMIT PROGRAM REPRESENTATIVE.
6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT DAILY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES. SILT ACCUMULATION AT INLET DEVICES SHOULD BE REMOVED WHEN THE DEPTH REACHES TWO (2) INCHES.
7. PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS ONE SQUARE FOOT OR LARGER IN TOTAL AREA, BLOWS AIR FROM WITHIN THE SUBSTRATE, AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME, IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT THE GENERAL PERMIT PROGRAM REPRESENTATIVE FOR FURTHER INVESTIGATION.
9. FIELD REVISIONS TO THE EROSION/SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES. ANY REVISIONS TO THE PERMITTED PLAN MUST BE APPROVED BY THE GENERAL PERMIT PROGRAM OFFICE OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.

PERMANENT EROSION/SEDIMENTATION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE THE CRITERIA MANUAL AND CONTRACT DOCUMENTS DIFFER THE MOST ENVIRONMENTALLY BENEFICIAL MATERIALS/METHOD SHALL BE REQUIRED UNLESS OTHERWISE APPROVED BY THE GENERAL PERMIT PROGRAM REPRESENTATIVE.

10. DEVELOPER INFORMATION:

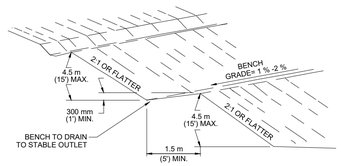
OWNER:
COMPANY: CITY OF AUSTIN, AUSTIN WATER
CONTACT: JOHN MITCHELL, P.E.
ADDRESS: 2210 FM–973
AUSTIN, TEXAS 78725
PHONE: (512) 972–1951
FAX:

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
COMPANY: CAS CONSULTING AND SERVICES, INC
CONTACT: E. CLAIRE SEMBERA, P.E.
ADDRESS: 7908 CAMERON ROAD
AUSTIN, TEXAS 78754
PHONE: (512) 836–2388
FAX: (512) 836–4515

PARTY RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
COMPANY: CONTRACTOR

PARTY RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
COMPANY: CONTRACTOR

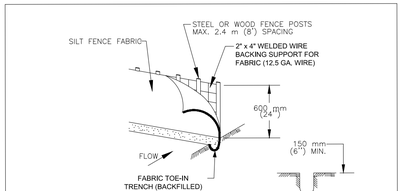
11. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE GENERAL PERMIT PROGRAM REPRESENTATIVE, AT 974–6330, AT LEAST 48 HOURS PRIOR TO THE SPOILS REMOVAL. THIS NOTIFICATION SHALL INCLUDE THE DISPOSAL LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.
12. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO STREET WORK, AND WILL BE REMOVED AS SOON AS THE GENERAL PERMIT PROGRAM REPRESENTATIVE AGREES THAT THERE IS NO POTENTIAL FOR SEDIMENTATION.




SLOPE DETAIL (WITH BENCH)

GENERAL NOTES:
1. ALL GRADES OR DISTURBED AREAS, INCLUDING SLOPES, SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN, UNTIL THEY ARE PERMANENTLY STABILIZED.
2. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN.
3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
4. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
5. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO MINIMUM DEPTH OF 75 mm (3") PRIOR TO PLACEMENT OF TOPSOIL.
6. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH ITEM 1325 "EMBANKMENT" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
7. ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 200 mm (8") IN THICKNESS.
8. FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCK, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
9. SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
10. TRENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.
11. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARDS FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
12. ALL GRADES SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

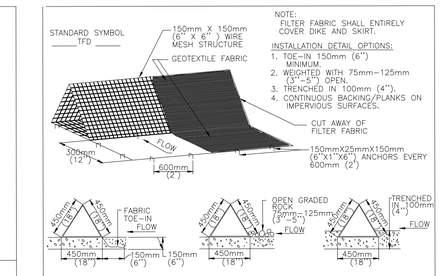
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | LANDGRADING | |
|---|---|---|
| RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED | STANDARD NO. 633S-1 |




TRENCH CROSS SECTION

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | SILT FENCE | |
|---|---|---|
| RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 642S-1 |

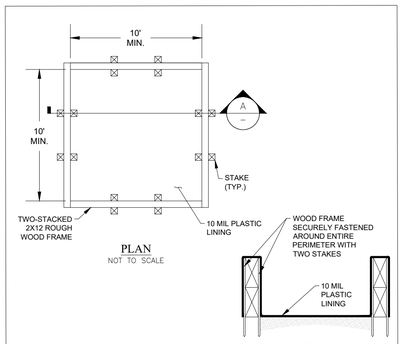



NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:
1. TOE–IN 150mm (6") MINIMUM.
2. WEIGHTED WITH 75mm–125mm (3"–5") OPEN.
3. TRENCHED IN 100mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

GENERAL NOTES
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75–125mm (3–5") OPEN GRADED ROCK OR TOE–IN 150mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150mm (6") WIRE STAPLES ON .600mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 1OM ( 3/8 ") DIAMETER RE–BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40–150mmX150mm (6 GA. 6"X6") WIRE MESH, 450mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | TRIANGULAR SEDIMENT FILTER DIKE | |
|---|---|---|
| RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 628S |

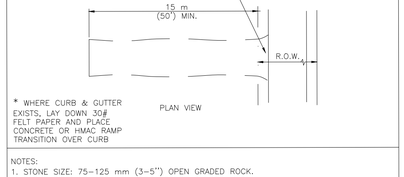



PLAN
NOT TO SCALE

SECTION A
NOT TO SCALE

NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. INSTALL CONCRETE WASHOUT SIGN WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. IN LIEU OF DESIGN SHOWN ABOVE, CONTRACTOR MAY SUBSTITUTE PREFABRICATED DESIGN OR OTHER FABRICATED ON–SITE DESIGN PROVIDED HE/SHE SUBMITS SKETCH TO ENVIRONMENTAL INSPECTOR FOR APPROVAL.
4. CONTRACTOR SHALL SUBMIT MAINTENANCE PLAN TO ENVIRONMENTAL INSPECTOR FOR APPROVAL. PLAN SHALL INCLUDE ANTICIPATED NUMBER OF CONCRETE TRUCKS PER DAY, CLEANING SCHEDULE, DISPOSAL PLAN FOR SOLIDS AND LIQUIDS, AND FREQUENCY OF INSPECTION.
5. CONTRACTOR SHALL IMMEDIATELY REPAIR LINER IF LEAKAGE IS OBSERVED.

## CONCRETE WASHOUT AREA

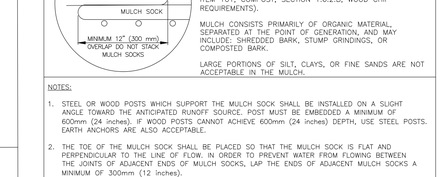



PLAN VIEW

* WHERE CURB & GUTTER EXISTS, LAY DOWN 30# FELT PAPER AND PLACE CONCRETE OR HMAC RAMP TRANSITION OVER CURB

NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | STABILIZED CONSTRUCTION ENTRANCE | |
|---|---|---|
| RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 641S-1 |




MULCH SOCK MATERIAL

USE UNTREATED WOOD CHIPS PRODUCED FROM A 3 (THREE) INCH MINUS SCREENING PROCESS (EQUIVALENT TO TXDOT ITEM 161, COMPOST, SECTION 1.6.2.B, WOOD CHIP REQUIREMENTS).

MULCH CONSISTS PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, OR COMPOSTED BARK.

LARGE PORTIONS OF SILT, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MULCH.

NOTES:
1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.
2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).
3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.
4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.
5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | MULCH SOCK | |
|---|---|---|
| RECORD COPY SIGNED BY MORGAN BYARS 08/24/2010 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 648S-1 |

CAS CONSULTING & SERVICES, INC.
CIVIL ENGINEERING, PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Voice: 512.836.2388 | Fax: 512.836.4515

TEXAS REGISTERED ENGINEERING FIRM F-204

CITY OF AUSTIN TEXAS 1839

E. CLAIRE SEMBERA 105410 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 03-06-2026

GENERAL PERMIT OFFICE
EROSION/SEDIMENTATION CONTROL
CITY OF AUSTIN STANDARD NOTES AND DETAILS

# GENERAL PERMIT PROGRAM

| NO. | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

REVISIONS
NO. | BY | DATE | REMARKS

SHEET INFORMATION
DATE ____
SHEET ____ OF ____
CAD REF. NO. ____

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-12
20 of 196

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

PRINTED BY: Brandy DATE: 1/7/2026
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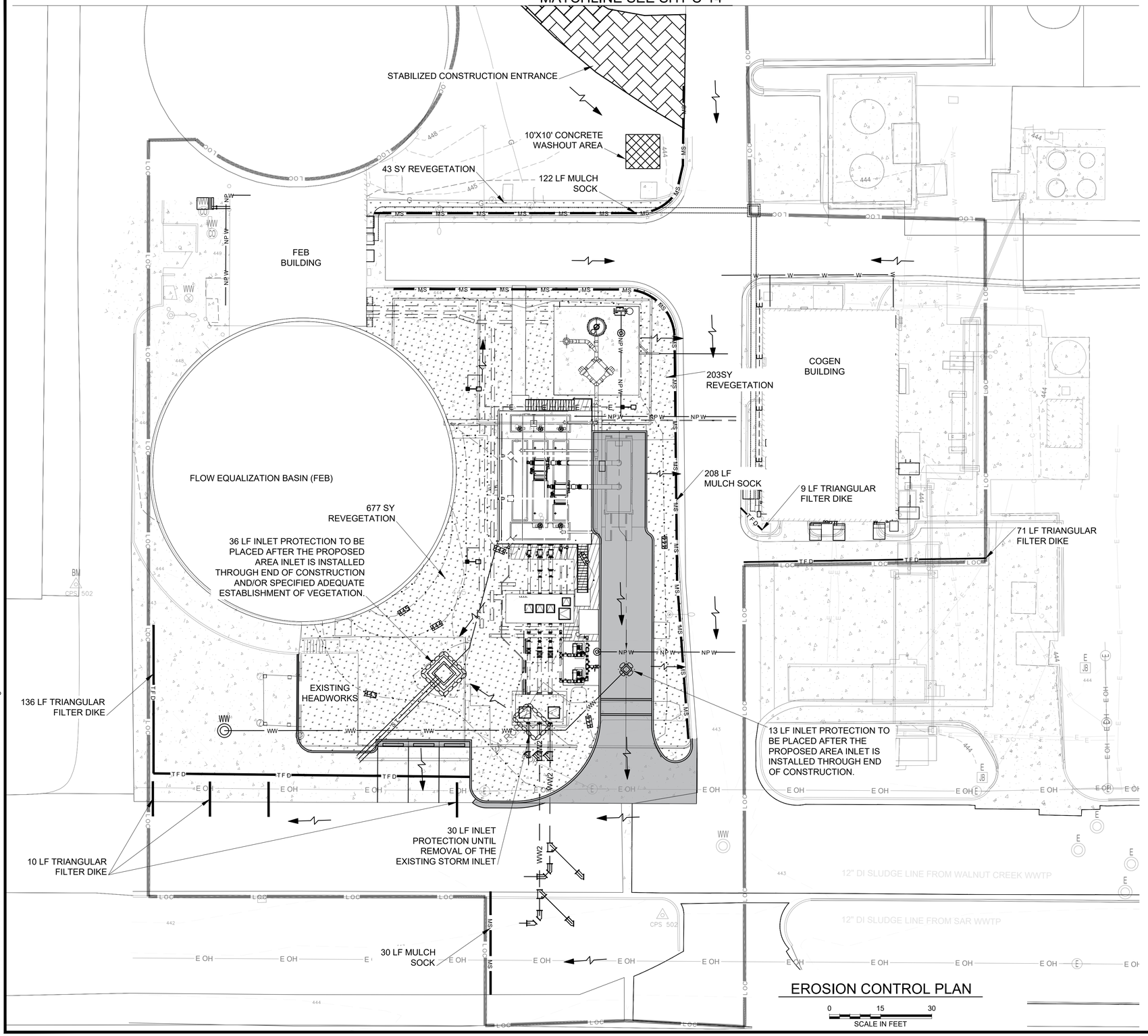


EROSION CONTROL PLAN

0 15 30

SCALE IN FEET

LEGEND

| | |
|---|---|
| LIMITS OF CONSTRUCTION | LOC |
| MULCH SOCK | MS MS |
| INLET PROTECTION | |
| TRIANGULAR FILTER DIKE | TFD |
| SILT FENCE | S F |
| FLOW ARROW | |
| REVEGETATION PER 604S-A | |
| STABILIZED CONSTRUCTION ENTRANCE | |

NOTES:

1. REVEGETATE EXISTING VEGETATED AREAS PER ITEM 604S-A. AREAS WHERE EXISTING STRUCTURES AND CONCRETE PADS HAVE BEEN REMOVED, THE AREA SHALL BE DECOMPACTED AND PERMANENTLY REVEGETATED PER ITEM 604S-A.
2. INSTALL TRIANGULAR FILTER DIKE PER 628S.
3. CONTRACTOR TO PLACE STABILIZED CONSTRUCTION ENTRANCE TO THE SITE PER 641S.
4. INSTALL SILT FENCE PER 642S.
5. INSTALL MULCH SOCK PER 648S.
6. INSTALL INLET PROTECTION PER 648S.
7. TRIANGULAR FILTER DIKE SHALL BE USED FOR CONSTRUCTION WITHIN THE ROADWAY. FOR ALL OTHER CONSTRUCTION, ROAD ACCESS SHALL BE MAINTAINED.
8. CONTRACTOR TO ADJUST EROSION AND SEDIMENTATION CONTROL DEVICES AS NEEDED FOR EACH PHASE OF THE PROJECT TO ENSURE NO EROSION OR SEDIMENTATION RUN OFF.


CAS CONSULTING & SERVICES, INC.
CIVIL ENGINEERING | PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.452.2288 | Fax | 512.452.4433

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS | J. CLAIRE SEMBERA | 145410 | LICENSED PROFESSIONAL ENGINEER | 03-06-2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 0 1"

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# EROSION CONTROL PLAN (1 OF 2)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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C-13
21 of 196

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

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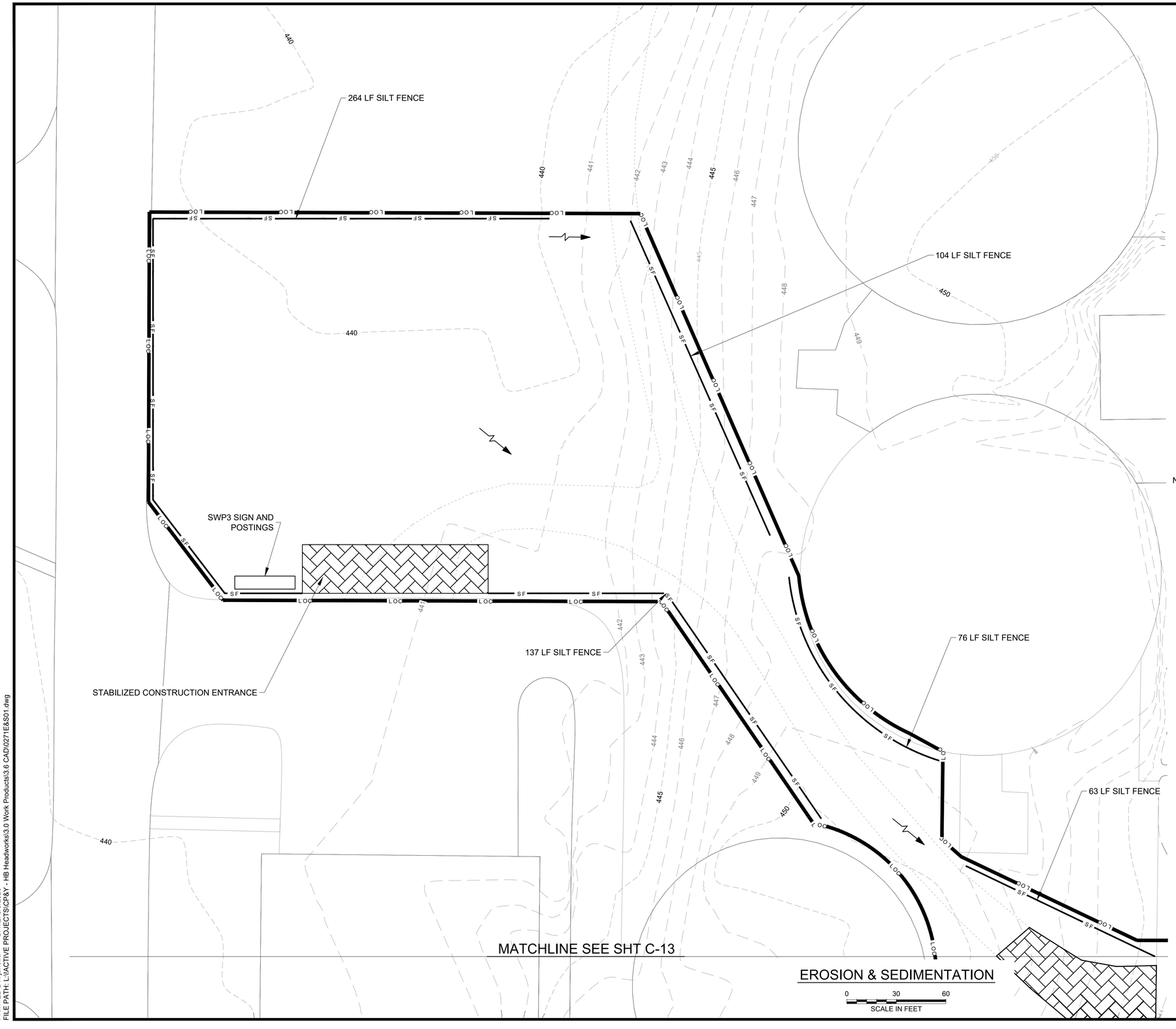



LEGEND

| | |
|---|---|
| LIMITS OF CONSTRUCTION | LOC |
| MULCH SOCK | MS MS |
| INLET PROTECTION | |
| TRIANGULAR FILTER DIKE | TFD |
| SILT FENCE | SF |
| FLOW ARROW | |
| REVEGETATION PER 604S-A | |
| STABILIZED CONSTRUCTION ENTRANCE | |

NOTES:

1. REVEGETATE EXISTING VEGETATED AREAS PER ITEM 604S-A.
2. INSTALL TRIANGULAR FILTER DIKE PER 628S.
3. CONTRACTOR TO PLACE STABILIZED CONSTRUCTION ENTRANCE TO THE SITE PER 641S.
4. INSTALL SILT FENCE PER 642S.
5. INSTALL MULCH SOCK PER 648S.
6. INSTALL INLET PROTECTION PER 648S.
7. TRIANGULAR FILTER DIKE SHALL BE USED FOR CONSTRUCTION WITHIN THE ROADWAY. FOR ALL OTHER CONSTRUCTION, ROAD ACCESS SHALL BE MAINTAINED.
8. CONTRACTOR TO ADJUST EROSION AND SEDIMENTATION CONTROL DEVICES AS NEEDED FOR EACH PHASE OF THE PROJECT TO ENSURE NO EROSION OR SEDIMENTATION RUN OFF.

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

CAS CONSULTING & SERVICES, INC.
CIVIL | LAND DEVELOPMENT | PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.832.2282 | Fax | 512.832.2433

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS | J. CLAIRE SERRIEN | 145410 | LICENSED PROFESSIONAL ENGINEER
03-06-2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1" 0

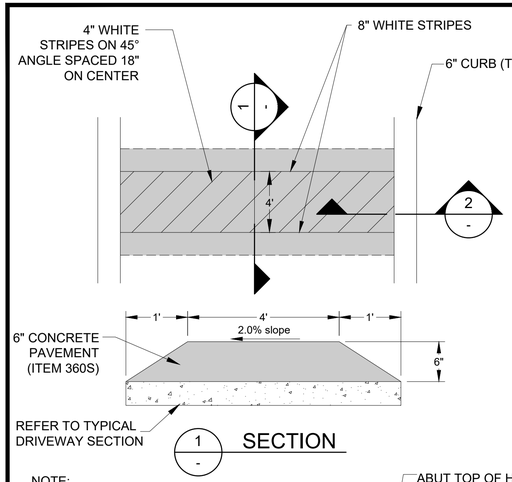
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# EROSION CONTROL PLAN (2 OF 2)

| | |
|---|---|
| DESIGN: | B. ROSS |
| DRAWN: | B. ROSS |
| REVIEW: | M. SPIROVA |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

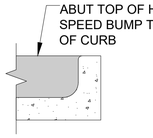
SHEET
C-14
22 of 196

PRINTED BY: jane.fu DATE: 3/6/2026
FILE PATH: L:\ACTIVE PROJECTS\CP&Y - HB Headworks\3.0 Work Products\3.6 CAD\0271E&S01.dwg

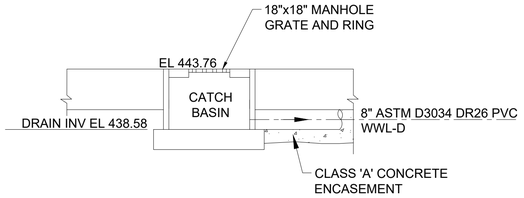



NOTE:

1. CONTRACTOR TO SLOPE TOP OF ROAD HUMP AWAY FROM TRUCK WASHDOWN AREA. SEE C-06 FOR PROPOSED GRADING.
2. CONTRACTOR TO ABUT TOP OF ROAD HUMP WITH THE TOP OF CURB TO CREATE CONTAINMENT WITHIN THE TRUCK WASHDOWN AREA.
3. CONTRACTOR TO USE REFLECTORIZED WHITE PAVEMENT MARKING PAINT PER COA SPECIFICATION 860S.



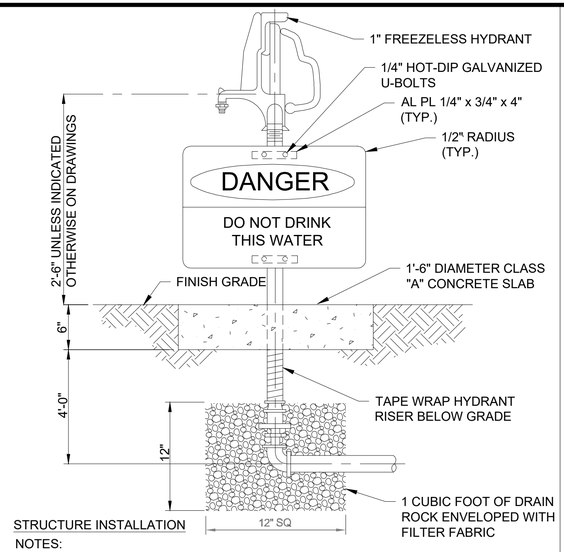

A ROAD HUMP DETAIL
NTS




NOTES:

1. 18"X18" MANHOLE GRATE AND RING SHALL BE EJCO V5718 FR V5718 GR UND SET OR APPROVED EQUAL AND SHALL BE RATED FOR HS-20 LOAD DESIGN.
2. CONTRACTOR TO PROVIDE CUT SHEET FOR CATCH BASIN UNIT WITH HS-20 LOAD DESIGN FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION.
3. SEE SHEET C-5 FOR PROPOSED SLOPES OF DRIVEWAY. SEE SHEET C-9 FOR PROFILE OF OUTLET PIPE.

B TRUCK WASHDOWN DRAIN DETAIL
NTS




STRUCTURE INSTALLATION

NOTES:

1. SIGN SHALL BE 3/8" THICK PLASTIC RESISTANT TO SUNLIGHT (ULTRAVIOLET) DETERIORATION.
2. SIGN SHALL BE 7" X 10" AND SHALL CONFORM TO THE SPECIFICATIONS.
3. SIGN AS SHOWN IS RATED 90° OFF TRUE POSITION. SIGN SHALL BE MOUNTED TO PERMIT EASY READING.
4. INSTALL HOSE RACK, E - AT EACH HOSE VALVE.

C FREEZELESS HOSE BIBB
NTS

CAS CONSULTING & SERVICES, INC.
CIVIL | LAND DEVELOPMENT | PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.837.2369 | Fax | 512.837.4713

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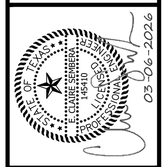
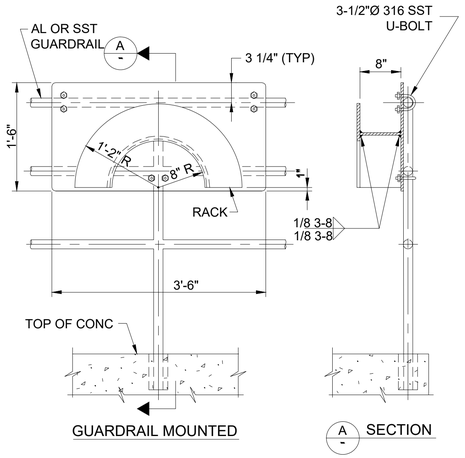
TEXAS REGISTERED ENGINEERING FIRM F-204

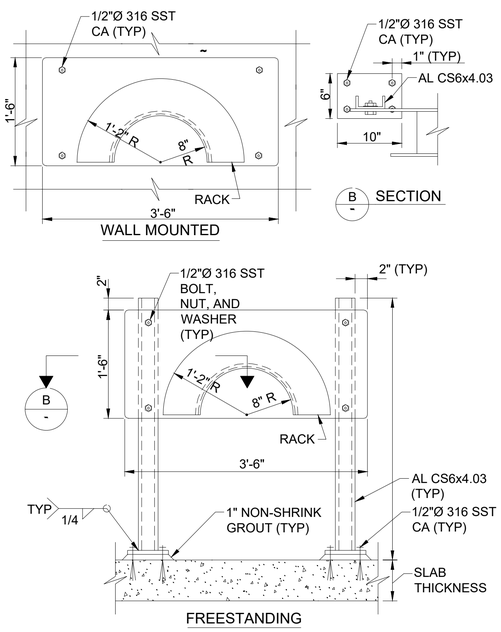



CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

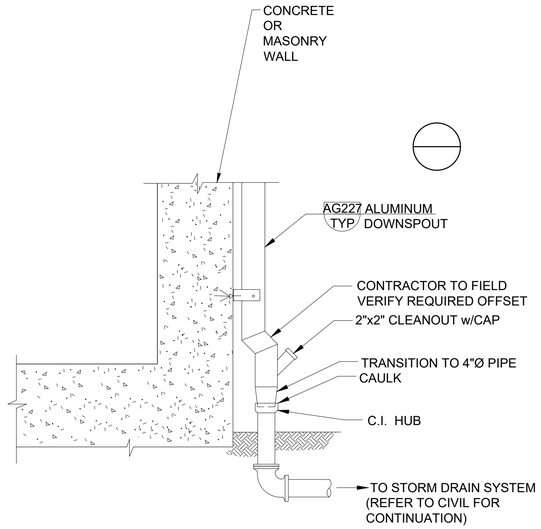



NOTES:

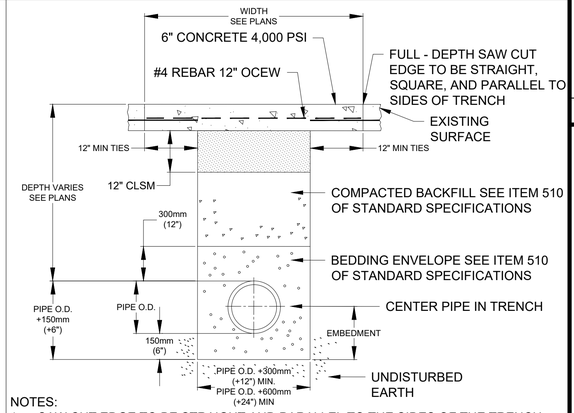
1. HOSE RACK SHALL BE FABRICATED FROM 3/16" ALUMINUM PLATE. ROUND ALL EDGES SMOOTH.
2. HOSE RACKS INSTALLED IN YARD LOCATIONS SHALL BE FREESTANDING A 4'-6" LONG X 2'-0" WIDE X 8" DEEP CONCRETE PAD W/#5@12" EW CENTERED.
3. WALL MOUNTED HOUSE RACKS ON MASONRY WALL SHALL BE FASTENED TO GROUTED CELLS.




D HOSE RACK
NTS




E DOWN SPOUT - TRANSITION DETAIL
NTS




NOTES:

1. SAW CUT EDGE TO BE STRAIGHT AND PARALLEL TO THE SIDES OF THE TRENCH.
2. THE EXISTING CONCRETE PAVEMENT SHALL BE REMOVED AT LEAST 12 INCHES BACK FROM THE FIRM BANKS OF THE TRENCH. REBAR OF MATCHING SIZE TO THE EXISTING SHALL BE OVERLAPPING AND TIED A MIN. OF 12" AT EACH BAR.
3. THE BACKFILL AND BEDDING ENVELOPE SHALL BE INSTALLED ACCORDING TO COA STANDARD SPECIFICATION 510.
4. 12 INCHES OF CLSM SHALL BE PLACED BENEATH THE PAVEMENT.
5. THE CONCRETE PAVEMENT SHALL MATCH EXISTING DEPTH AND STRENGTH.
6. IF SPLCES CANNOT BE MADE WITH THE EXISTING PAVEMENT REINFORCING BARS OR IF THERE ARE NO EXISTING REINFORCING BARS APPARENT, THE EXISTING CONCRETE PAVEMENT SHALL BE DRILLED 12 INCHES DEEP. #4 REBAR WITH A MINIMUM LENGTH OF 30 INCHES SHALL BE EPOXY GROUTED INTO THE EXISTING SLAB 12 INCHES DEEP ON 12 INCH CENTERS ALONG THE SIDES OF THE EXPOSED EXISTING CONCRETE PAVEMENT CUT AND LAPPED WITH THE NEW REINFORCING BARS.
7. MATCH EXISTING CONSTRUCTION AND CONTROL JOINT SPACING OF ADJACENT PAVEMENT.
8. PLACE AN ISOLATION JOINT AROUND PROPOSED MANHOLE.

F CONCRETE PAVEMENT REPAIR
NTS

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS (1 OF 7)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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C-15
23 of 196

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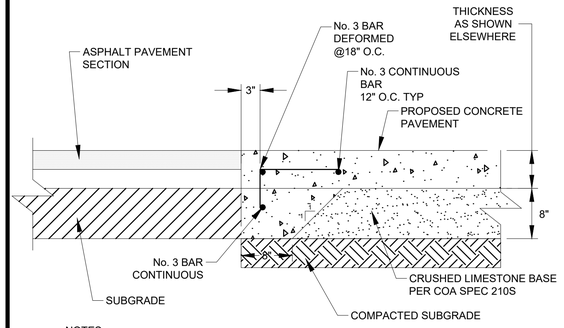
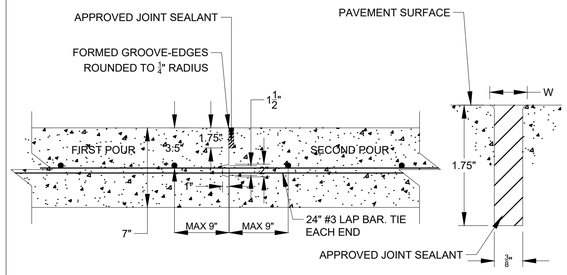


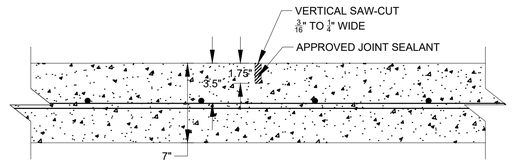

NOTES:
1. HEADER SHALL BE PLACED AT ALL INTERFACES BETWEEN PROPOSED CONCRETE PAVEMENT AND EXISTING OR PROPOSED ASPHALT PAVEMENT.

## A TYPICAL HEADER DETAIL
NTS




NOTES:
1. ALL JOINTS SHALL BE SEALED.
2. JOINTS SHOULD BE CLEAN AND DRY PRIOR TO PLACEMENT OF SEALANT.
3. JOINT SEALER TO FOLLOW STANDARD SPECIFICATION 408S.

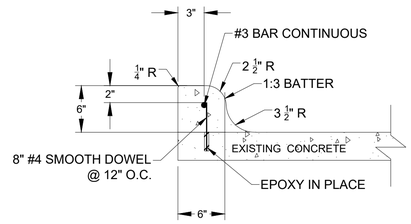
## B CONSTRUCTION JOINT DETAIL
NTS



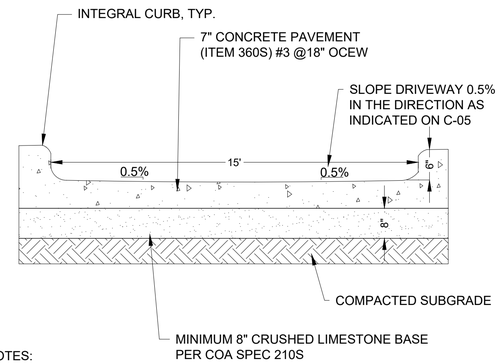

NOTES:

1. CONTROL JOINTS SHOULD BE SPACED A MAXIMUM OF 15 FEET ON CENTER EACH WAY.
2. JOINT SEALER TO FOLLOW STANDARD SPECIFICATION 408S.

## C CONTROL JOINT DETAIL
NTS



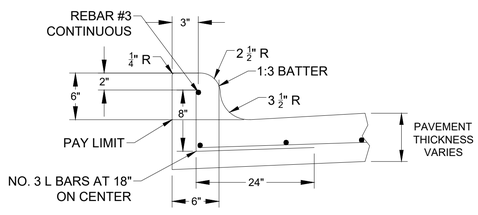

## D DOWELED CURB DETAIL
NTS



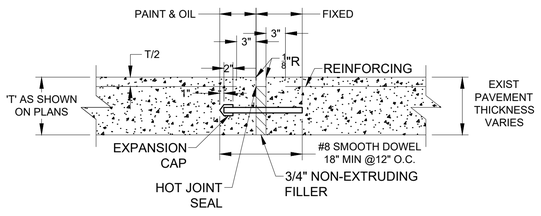

NOTES:

1. CONTRACTOR TO REMOVE A MINIMUM OF THE TOP 36" OF EXISTING SOIL AND ANY ORGANIC SOILS AND REPLACE WITH A LOW P.I. (P.I. 3 TO 8) SELECT FILL. SELECT FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES LOOSE MEASURE AND COMPACTED TO 95% OR GREATER OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH TXDOT TEST METHOD TEX 113E. THERE SHALL BE A MINIMUM OF 36" OF SELECT FILL BELOW THE PAVEMENT.
2. PAVEMENT SECTION FROM GEOTECHNICAL SUBSURFACE INVESTIGATION AND FOUNDATION RECOMMENDATIONS FOR HORNSBY BEND BMP HEADWORKS IMPROVEMENTS DESIGN REPORT DATED MARCH 12, 2024.

## E TYPICAL DRIVEWAY SECTION
NTS



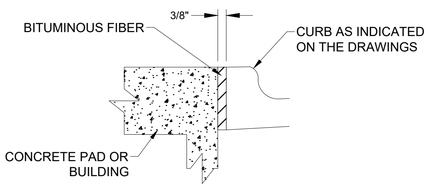

## F INTEGRAL CURB DETAIL
NTS




NOTES:

1. WHEN DOWELING INTO EXISTING CONCRETE PAVEMENT, EPOXY DOWEL IN PLACE.

## G DOWEL JOINT DETAIL
NTS




NOTES:

1. PROVIDE ISOLATION JOINTS AROUND AREA DRAINS AND BETWEEN PAVEMENT/CURBS AND BUILDINGS.
2. PROVIDE ISOLATION JOINTS AT FACE OF STRUCTURE OR PAD. JOINTS SHALL BE 3/8" WIDE BITUMINOUS FIBER PER STANDARD SPECIFICATION 408S.

## H ISOLATION JOINT
NTS

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU

CAS CONSULTING & SERVICES, INC.
CIVIL | LAND DEVELOPMENT | PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.302.2384 | Fax | 512.302.2413

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · CLAIRE SEMBERA · 145410 · LICENSED PROFESSIONAL ENGINEER · 03-06-2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS (2 OF 7)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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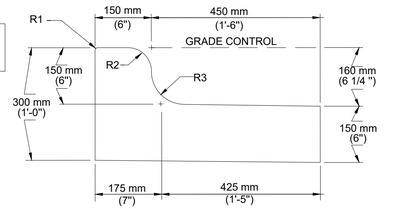
C-16
24 of 196

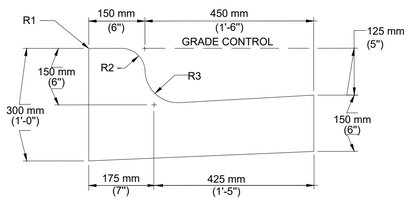
PRINTED BY: Brandy DATE: 1/7/2026
FILE PATH: L:\ACTIVE PROJECTS\CP&Y - HB Headworks\3.0 Work Products\3.6 CAD\0271\DETL01B.dwg

R1 = 6 mm ( 1/4 ")
R2 = 65 mm (2 1/2 ")
R3 = 90 mm (3 1/2 ")




SPILL

R1 = 6 mm ( 1/4 ")
R2 = 65 mm (2 1/2 ")
R3 = 90 mm (3 1/2 ")

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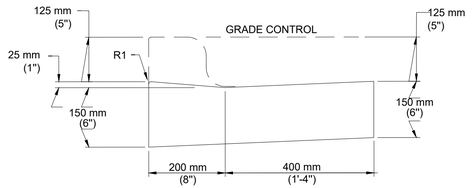
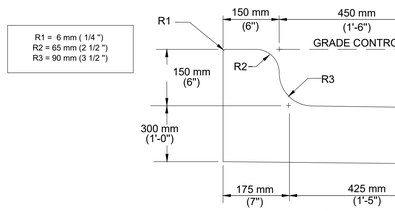



LAYDOWN CURB

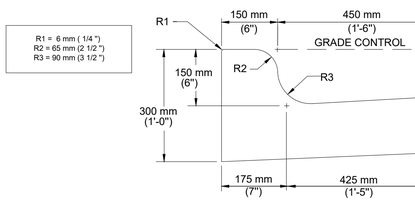
| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION | | CURB AND GUTTER SECTION | |
|---|---|---|---|
| *RECORD COPY SIGNED BY LINO RIVERA* | *9/29/99* | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED | STANDARD NO. 430S-1 |
| | ADOPTED | | |

R1 = 6 mm ( 1/4 ")
R2 = 65 mm (2 1/2 ")
R3 = 90 mm (3 1/2 ")




SPILL

R1 = 6 mm ( 1/4 ")
R2 = 65 mm (2 1/2 ")
R3 = 90 mm (3 1/2 ")

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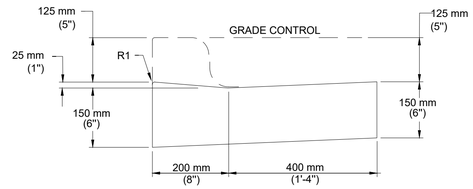
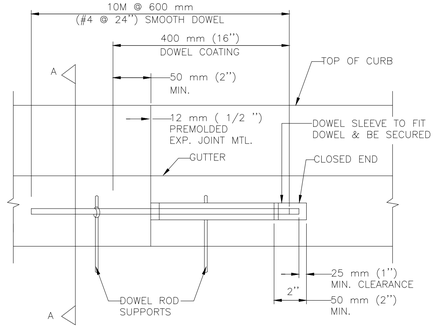
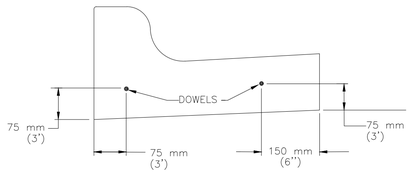



LAYDOWN CURB

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | | REINFORCED CURB AND GUTTER SECTION | |
|---|---|---|---|
| RECORD COPY SIGNED BY SAM ANGOORI | 01/04/10 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 430S-2 |
| | ADOPTED | | |



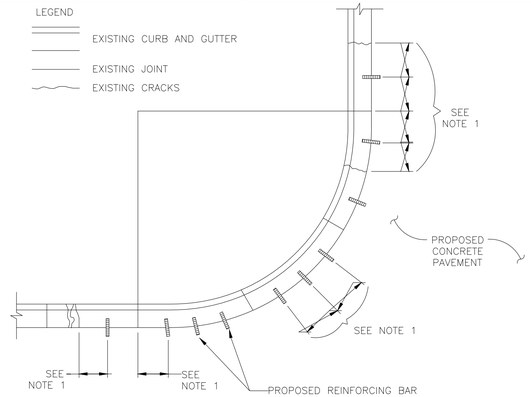

CURB EXPANSION JOINT DOWEL DETAIL



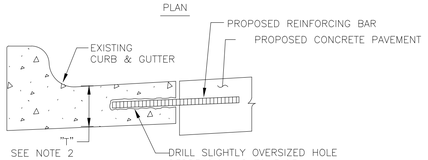

SECTION A–A

SEE STANDARD 430S-1 FOR TYPICAL CURB AND GUTTER SECTIONS.

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION | | CURB EXPANSION JOINT DOWEL DETAIL | |
|---|---|---|---|
| RECORD COPY SIGNED BY LINO RIVERA | 9/29/99 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 430S-3 |
| | ADOPTED | | |



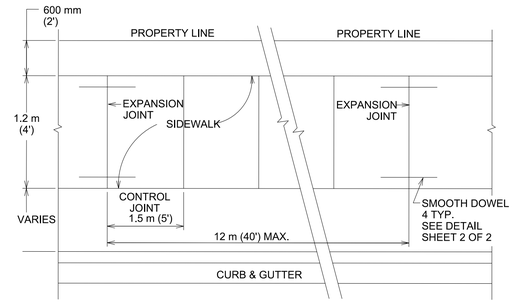

PLAN



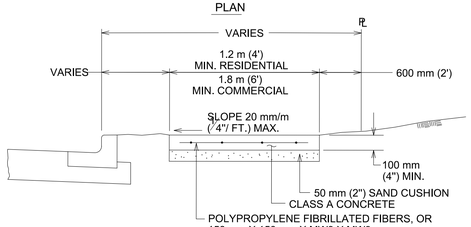

NOTES:

1. NORMAL SPACING OF REINFORCING BARS SHALL BE NOT LESS THAN 600 mm (24") AND NOT MORE THAN 900 mm (36") HOWEVER, REINFORCING BARS SHALL BE AT LEAST 300 mm (12") FROM EXISTING CRACKS OR JOINTS IN THE CURB AND GUTTER UNIT.
2. DO NOT ATTEMPT TO DRILL A HOLE IF "T" IS LESS THAN 100 mm (4").

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION | | REINFORCING BAR DETAIL AT EXISTING CURB AND GUTTER | |
|---|---|---|---|
| RECORD COPY SIGNED BY LINO RIVERA | 4/5/99 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 430S-5 |
| | ADOPTED | | |



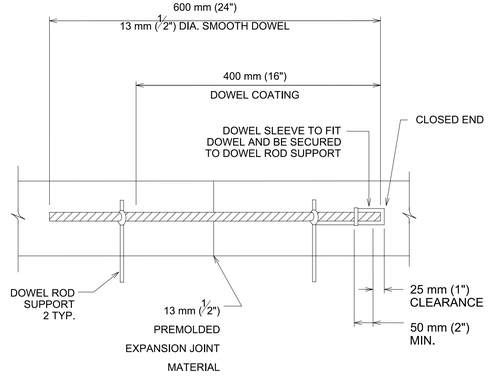

PLAN




POLYPROPYLENE FIBRILLATED FIBERS, OR 150 mm X 150 mm X MW9 X MW9 (6" X 6" X W1.4 X W1.4) WELDED WIRE FABRIC OR ONE LAYER 10M (#3) BARS PLACED NOT MORE THAN 450 mm (18") C.C. BOTH DIRECTIONS.
REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID-DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

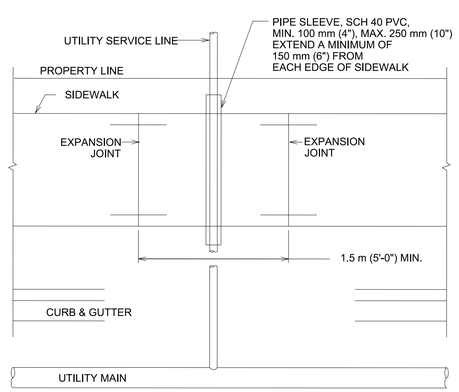
SECTION

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | | SIDEWALK | |
|---|---|---|---|
| RECORD COPY SIGNED BY BILL GARDNER | 03/26/08 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 432S-1 1 OF 3 |
| | ADOPTED | | |

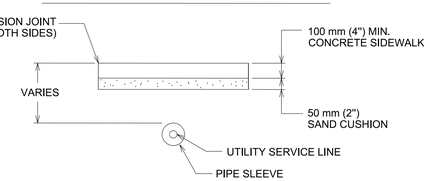



DOWEL DETAIL

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | | SIDEWALK | |
|---|---|---|---|
| RECORD COPY SIGNED BY BILL GARDNER | 03/26/08 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 432S-1 2 OF 3 |
| | ADOPTED | | |




SIDEWALK OVER UTILITY SERVICE LINE PLAN




SECTION OF SIDEWALK OVER
UTILITY SERVICE LINES

NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | | SIDEWALK | |
|---|---|---|---|
| RECORD COPY SIGNED BY BILL GARDNER | 03/26/08 | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 432S-1 3 OF 3 |
| | ADOPTED | | |


CAS CONSULTING & SERVICES, INC.
CIVIL | MECHANICAL | PROJECT MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main | 512.837.2038 | Fax | 512.837.2433


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · CLAIRE SEMBERA · 145410 · LICENSED PROFESSIONAL ENGINEER · 03-06-2026

CITY OF AUSTIN
APPROVED
Date 03/18/26
FOUNDED 1839
GP-2025-0271.AWU

| NO | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

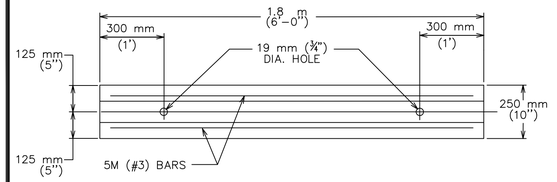
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS
(3 OF 7)

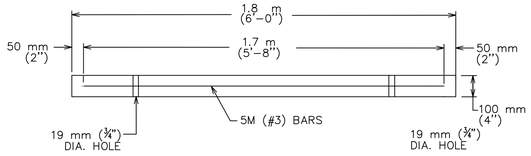
| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-17
25 of 196

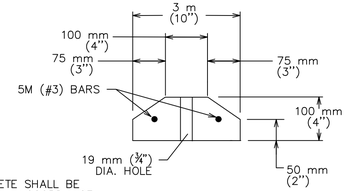
PRINTED BY: Brandy DATE: 1/7/2026
FILE PATH: L:\\ACTIVE PROJECTS\CP&Y - HB Headworks\3.0 Work Products\3.6 CAD\02271DETL02.dwg




PLAN



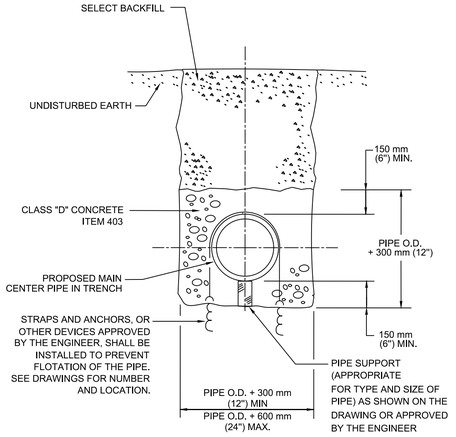

LONGITUDINAL SECTION



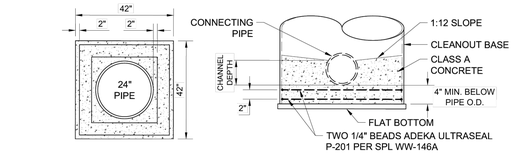

ALL CONCRETE SHALL BE CLASS "A" IN ACCORDANCE WITH ITEM 403S.

CROSS SECTION

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | PARKING LOT BUMPER CURB | |
|---|---|---|
| RECORD COPY SIGNED BY BILL GARDNER 3/15/05 | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED | STANDARD NO. 439S-1 |

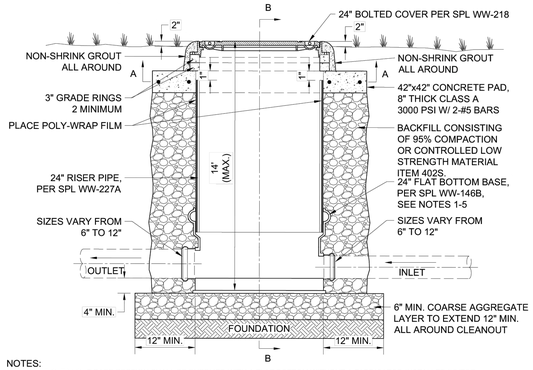



| CITY OF AUSTIN<br>WATER AND WASTEWATER UTILITY | CONCRETE ENCASEMENT | |
|---|---|---|
| RECORD COPY SIGNED BY KATHI L FLOWERS 08/18/00 ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO. 505S-1 1 OF 1 |




SECTION A-A
42"x42" CONCRETE PAD

SECTION B-B
U-SHAPED INVERT CHANNEL CAST IN PLACE BY CLEANOUT INSTALLATION CONTRACTOR




NOTES:
1. THE CLEANOUT BASE SECTION SHALL BE SUPPLIED WITH A FLAT BOTTOM WITHOUT A FABRICATOR-INSTALLED INVERT.
2. A U-SHAPED INVERT CHANNEL CONNECTING THE FLOWLINES OF THE INLET AND OUTLET PIPES SHALL BE CAST IN PLACE BY THE CLEANOUT INSTALLATION CONTRACTOR.
3. THE CHANNEL DEPTH SHALL BE 3/4 OF THE DIAMETER OF THE LARGEST PIPE CONNECTING TO THE CLEANOUT.
4. USE CLASS A CONCRETE FOR THE CAST IN PLACE INVERT AND COAT IT WITH AN ORGANIC SPRAY LINER LISTED ON SPL WW-511.
5. THE CLEANOUT FOUNDATION SHALL MEET OR EXCEED STANDARD SPECIFICATION ITEM 506.5B.
6. IN CASES WHERE THE WASTEWATER SERVICE LINE IS LARGER THAN 12" DIAMETER, THE CONTRACTOR MUST INSTALL A MINIMUM 48" DIAMETER MANHOLE IN LIEU OF THE LARGE DIAMETER CLEANOUT. THE ENGINEER MUST PROVIDE AN ACCEPTABLE SAMPLE PORT AND RECEIVE APPROVAL IN WRITING FROM THE INDUSTRIAL WASTE REVIEWER BEFORE INSTALLATION. THE 48" DIA. MANHOLE SHALL CONFORM TO STD. 506S-10 AND INCLUDE A SAMPLE PORT.

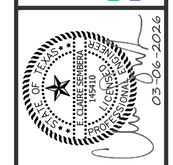
| CITY OF AUSTIN<br>AUSTIN WATER | LARGE DIAMETER CLEANOUT | |
|---|---|---|
| JEFF A. KYLE 08/14/2020 ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO. 506-AW-04 1 OF 1 |

CAS CONSULTING & SERVICES, INC.
CIVIL ENGINEERING | PROGRAM MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Main: 512.836.3388 | Fax: 512.836.4515

TEXAS REGISTERED ENGINEERING FIRM F-204

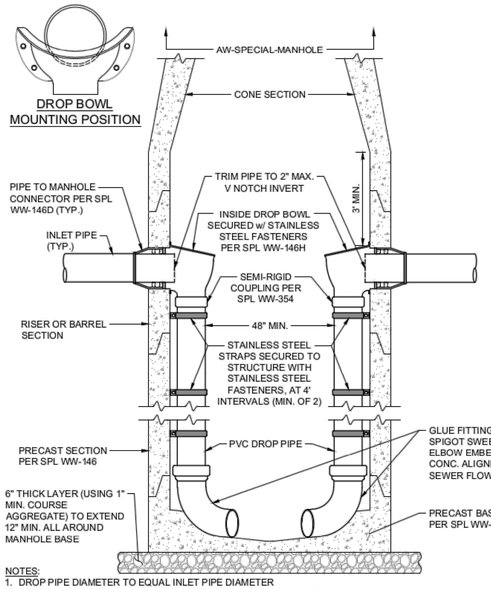
REVIEWED
March 17, 2026
RB McMillan
Austin Water
Roger McMillan

CITY OF AUSTIN APPROVED Date 03/18/26 FOUNDED 1839
GP-2025-0271.AWU




| NO. | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

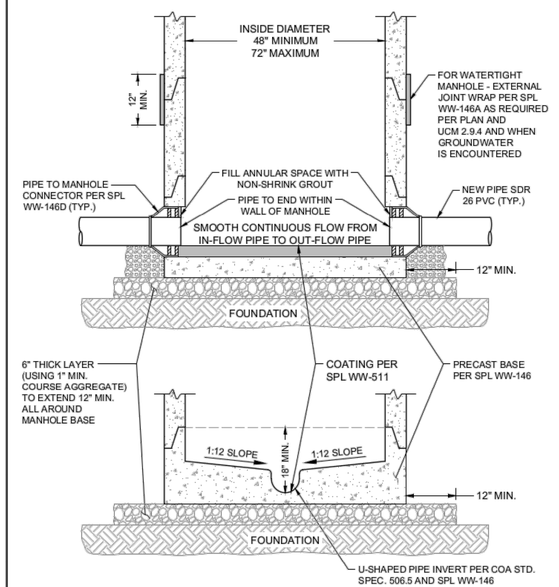
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET 0 1" AND ADJUST SCALE ACCORDINGLY.




NOTES:
1. DROP PIPE DIAMETER TO EQUAL INLET PIPE DIAMETER
2. MANHOLE DIAMETER SHALL ALLOW 48" MIN. CLEARANCE AS SHOWN
3. DROP MANHOLES IN EXCESS OF 15' DEEP MUST BE DESIGNED WITH AN INTERNAL DROP AND MUST BE A MIN. SIZE OF 5' DIAMETER

SINGLE OR MULTIPLE INTERNAL DROP CONNECTIONS

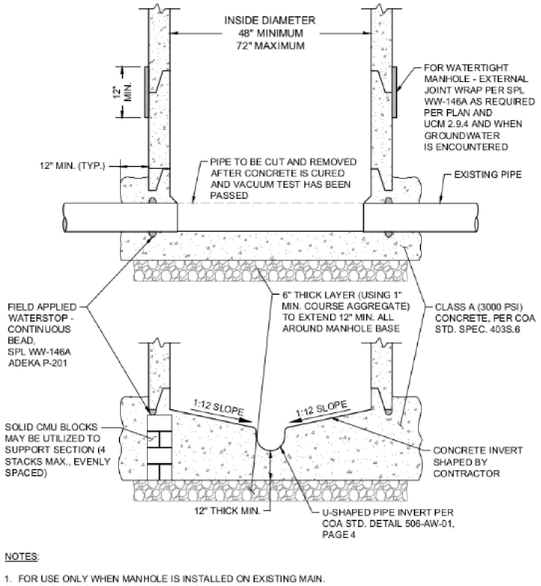
| AUSTIN WATER SPECIAL DETAIL (6/24/24)<br>CONCRETE WASTEWATER MANHOLE<br>INTERNAL DROP CONNECTIONS<br>1 OF 1 | USE OF THIS SPECIAL DETAIL<br>1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED.<br>2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT. |
|---|---|




NOTES:
1. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MANHOLE FOUNDATION SHALL MEET OR EXCEED COA STD. SPEC. 506.5B.

TYPICAL PRECAST BASE

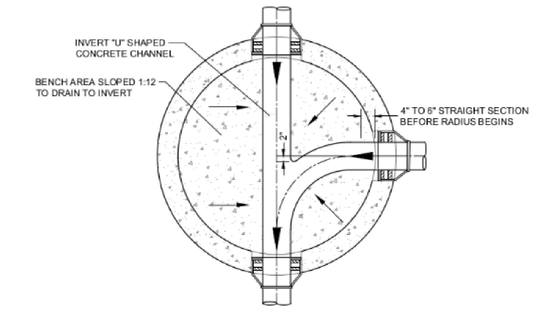
| AUSTIN WATER SPECIAL DETAIL (6/24/24)<br>PRECAST CONCRETE WASTEWATER MANHOLE<br>2 OF 5 | USE OF THIS SPECIAL DETAIL<br>1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED.<br>2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT. |
|---|---|



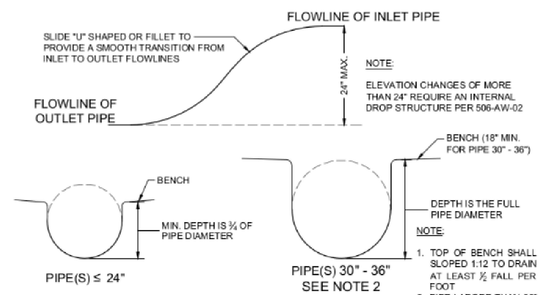

NOTES:
1. FOR USE ONLY WHEN MANHOLE IS INSTALLED ON EXISTING MAIN.
2. ALL PVC PIPE SHALL BE REMOVED FROM INVERT.
3. CIP SECTION SHALL BE PLACED PLUMB, LEVEL, AND CONCRETE HAS ADEQUATELY CURED PRIOR TO SETTING ANY ADDITIONAL RISER SECTIONS.
4. MANHOLE FOUNDATION SHALL MEET OR EXCEED COA STD. SPEC. 506.5B.
5. DOGHOUSE MANHOLES NOT ALLOWED.

TYPICAL CAST IN PLACE BASE

| AUSTIN WATER SPECIAL DETAIL (6/24/24)<br>PRECAST CONCRETE WASTEWATER MANHOLE<br>3 OF 5 | USE OF THIS SPECIAL DETAIL<br>1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED.<br>2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT. |
|---|---|




EXAMPLE MANHOLE INVERT PLAN VIEW




U-SHAPED INVERTS ELEVATION VIEWS

| AUSTIN WATER SPECIAL DETAIL (6/24/24)<br>PRECAST CONCRETE WASTEWATER MANHOLE<br>4 OF 5 | USE OF THIS SPECIAL DETAIL<br>1. THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS SPECIAL DETAIL. MODIFICATIONS TO THIS SPECIAL DETAIL ARE PROHIBITED.<br>2. THIS SPECIAL DETAIL IS TEMPORARY AND IS TO BE USED UNTIL A NEW STANDARD DETAIL IS ADOPTED TO REPLACE IT. |
|---|---|

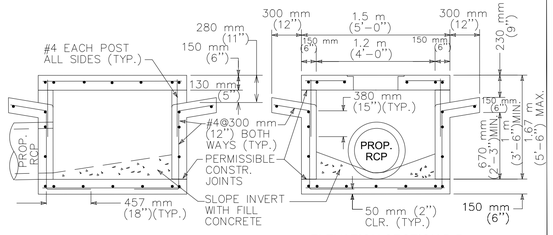
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS (4 OF 7)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

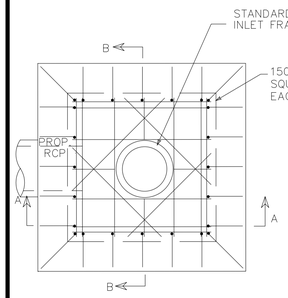
SHEET
C-18
26 of 196

PRINTED BY: jane.fu DATE: 3/6/2026
FILE PATH: L:\DACTIVE PROJECTS\CIP&T - HB Headworks\3.0 Work Products\3.6 CAD\0271DETL03.dwg




ELEVATION-SECTION A-A

ELEVATION-SECTION B-B



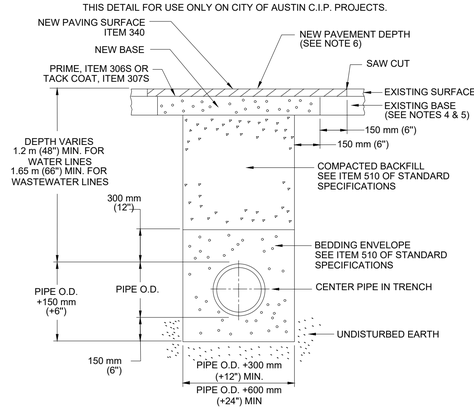

PLAN

NOTES:

1. CHAMFER ALL EXPOSED EDGES 20 mm (3/4").
2. REINFORCING STEEL SHALL BE CUT OR FIELD-BENT AS REQUIRED TO CLEAR PIPE AND INLET FRAME OPENING. ALL CUT STEEL SHALL BE REPLACED WITH ADDITIONAL DIAGONAL BARS OF THE SAME DIAMETER.
3. INLET FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
4. CONCRETE COVERAGE OF STEEL SHALL BE 50 mm (2") MIN. AT ALL SURFACES.

| CITY OF AUSTIN<br>WATERSHED PROTECTION DEPARTMENT | 4-SIDED AREA INLET | |
|---|---|---|
| *RECORD COPY SIGNED BY ARTHUR C. ROMERO 08/18/2010*<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED | STANDARD NO.<br>508S-9 |

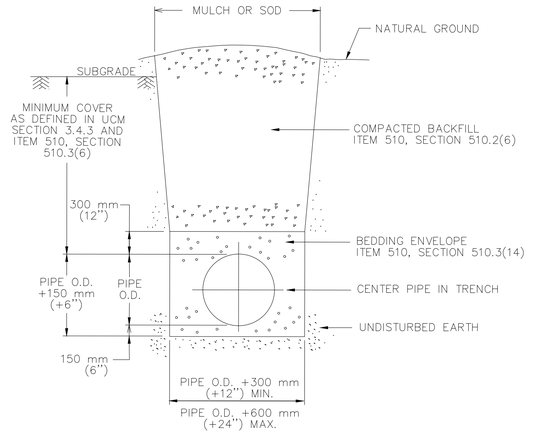
THIS DETAIL FOR USE ONLY ON CITY OF AUSTIN C.I.P. PROJECTS.




NOTE:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 MM (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 MM (6") WIDER THAN UNDISTURBED SIDE OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 MM (10"), WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE OF THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 MM (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 MM (2"), WHICHEVER IS GREATER.

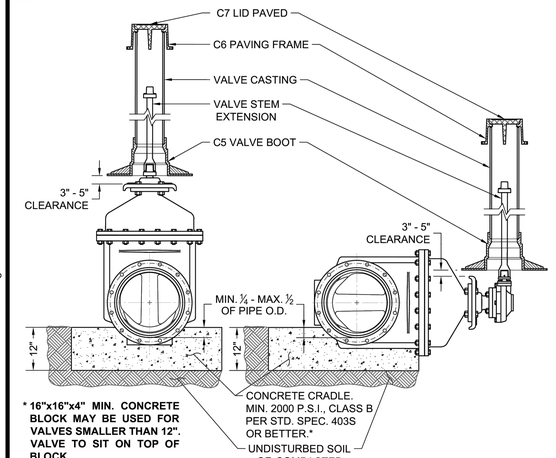
| CITY OF AUSTIN<br>WATER AND WASTEWATER UTILITY | TYPICAL TRENCH WITH PAVED SURFACE | |
|---|---|---|
| RECORD COPY SIGNED BY LEON BARBA 8/19/02<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO.<br>510S-3<br>1 OF 1 |




REFERENCES:

1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

| CITY OF AUSTIN<br>DEPARTMENT OF PUBLIC WORKS | TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE | |
|---|---|---|
| RECORD COPY SIGNED BY BILL GARDNER 03/13/06<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED | STANDARD NO.<br>510S-5 |




*** "16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK**

VERTICAL VALVE

HORIZONTAL VALVE

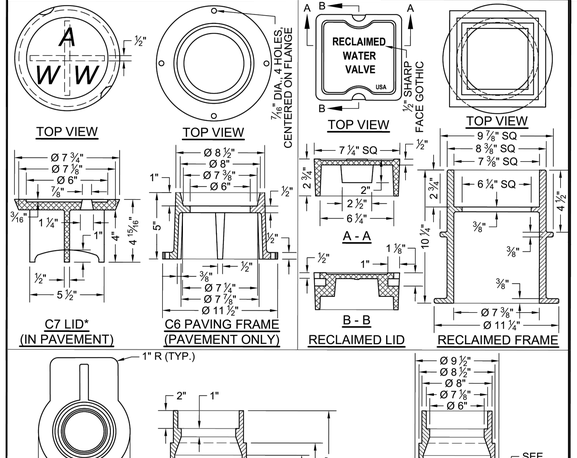
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

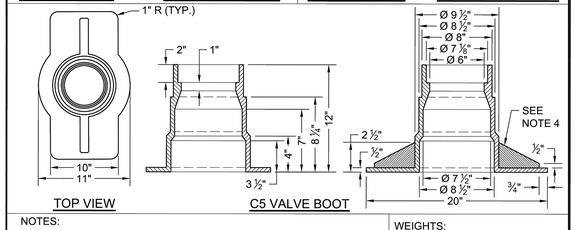
NOTES:

1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

**RECLAIMED WATER:** ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

| CITY OF AUSTIN<br>AUSTIN WATER | TYPICAL GATE VALVE 4" - 16" | |
|---|---|---|
| *RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016*<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO.<br>511-AW-01<br>1 OF 4 |




NOTES:

1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:

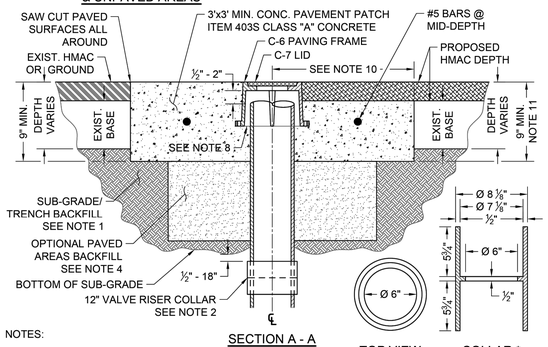
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

| CITY OF AUSTIN<br>AUSTIN WATER | TYPICAL GATE VALVE 4" - 16" | |
|---|---|---|
| *RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016*<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO.<br>511-AW-01<br>2 OF 4 |

FULL DEPTH CONCRETE & UNPAVED AREAS

CONCRETE & H.M.A.C.




SECTION A - A

TOP VIEW

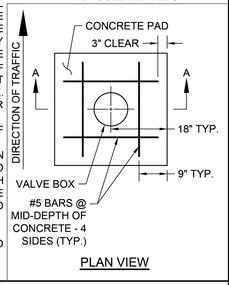
COLLAR *

NOTES:

1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

12" VALVE RISER COLLAR

* 12" COLLAR: 39 LBS

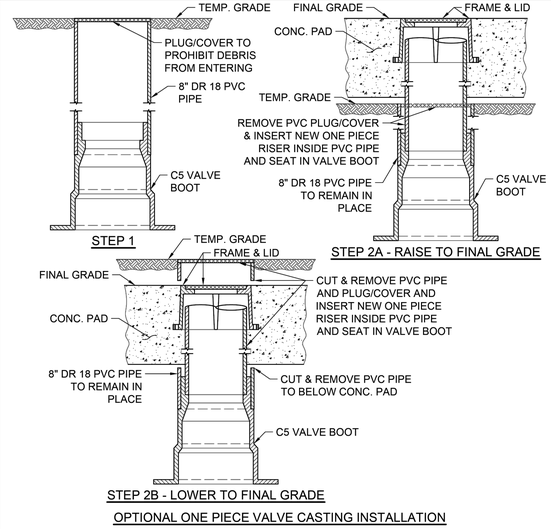



PLAN VIEW

| CITY OF AUSTIN<br>AUSTIN WATER | TYPICAL GATE VALVE 4" - 16" | |
|---|---|---|
| *RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016*<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO.<br>511-AW-01<br>3 OF 4 |

NOTES (CON'T):

8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"




OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

| CITY OF AUSTIN<br>AUSTIN WATER | TYPICAL GATE VALVE 4" - 16" | |
|---|---|---|
| *RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016*<br>ADOPTED | THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED. | STANDARD NO.<br>511-AW-01<br>4 OF 4 |

REVIEWED
March 17, 2026
RB McMillan
Austin Water
Roger McMillan

APPROVED
Date 03/18/26

GP-2025-0271.AWU

CAS CONSULTING & SERVICES, INC.
CIVIL ENGINEERING | SURVEYING | MANAGEMENT | CONSTRUCTION MANAGEMENT
7908 Cameron Road | Austin, TX 78754 | REG. NO. F-003572
Voice 512.832.2282 | Fax 512.832.2433

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS | CLAIRE SEMBERA | 145410 | LICENSED PROFESSIONAL ENGINEER | 03-06-2026

| NO | REVISION | BY | DATE |
|---|---|---|---|
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS (5 OF 7)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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C-19
27 of 196

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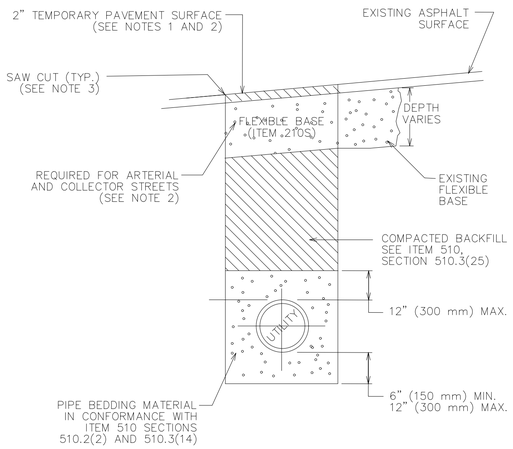
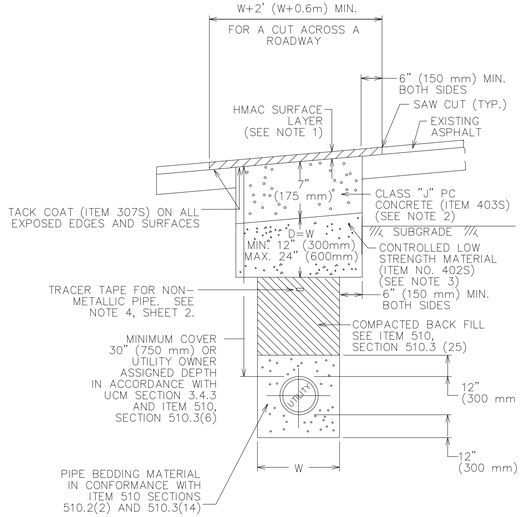
## TEMPORARY TRENCH REPAIR IN ASPHALTIC SURFACE
## ITEM 510 SECTION 510.3 (25)(h)




FINISHED SURFACE SHALL PROVIDE A SMOOTH AND SAFE RIDING SURFACE (SEE NOTE 6)

1. TEMPORARY PAVEMENT REPAIRS SHALL BE ALLOWED NO LONGER THAN 90 DAYS AFTER PASSING THE WATER PRESSURE AND/OR WASTEWATER MANDREL TESTS. IF TEMPORARY PAVEMENT REPAIRS ARE TO REMAIN IN PLACE FOR A PERIOD EXCEEDING 90 DAYS, ON ANY SINGLE TRENCH LINE OR INDIVIDUAL STREET, SUCH TEMPORARY PAVEMENT SHALL BE HMAC, PLACED AND COMPACTED SUFFICENTLY TO WITHSTAND THE ANTICIPATED TRAFFIC LOADS OVER THE DURATION OF THE TEMPORARY REPAIR.
2. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE USING COLD MIX AC IN ACCORDANCE WITH TxDOT "DMS-9203, RAPID CURING ASPHALT CONCRETE PATCHING MATERIAL" OR TEMPORARY HMAC PER COA ITEM "340S HOT MIX ASPHALTIC CONCRETE PAVEMENT". A MINIMUM OF TWO INCHES (2") OF TEMPORARY COLD MIX OR HMAC SHALL BE PLACED OVER COMPACTED BACKFILL. FLEXIBLE BASE SHALL ALSO BE REQUIRED, FOR ALL COLLECTOR OR ARTERIAL STREETS.
3. THE EXISTING CONCRETE OR ASPHALT PAVING SURFACE SHALL BE SAW CUT. SAW CUTS SHALL BE IN A STRAIGHT LINE, ALONG THE SIDES OF THE TRENCH (OR MANHOLE EXCAVATION) AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION. ANY DAMAGED EDGES SHALL BE RE-SAW CUT IF REQUIRED BY THE OWNER.
4. HMAC OR COLD MIX SHALL BE FREE OF CONTAMINATION, AS DETERMINED BY A VISUAL INSPECTION BY THE OWNER'S REPRESENTATIVE, REFERENCE ITEM 340S SECTION 340S.10 A.
5. TEMPORARY PAVING MATERIAL MUST BE COMPACTED WITH A SMOOTH DRUM VIBRATORY ROLLER.
6. THE FINISHED SURFACE SHALL BE MAINTAINED DUST FREE AND PROVIDE A SMOOTH AND SAFE RIDING SURFACE FOR ALL VEHICLES ALONG THE ROUTE, INCLUDING, BUT NOT LIMITED TO SMALL CARS, MOTORCYCLES, MOPEDS AND BICYCLES. THE TEMPORARY SURFACE SHALL BE MAINTAINED BY THE CONTRACTOR THE ENTIRE TIME THE TEMPORARY SURFACE IS IN PLACE. DAILY MAINTENANCE SHALL BE PERFORMED BASED ON FIELD CONDITIONS AND AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE, UNTIL THE FINAL PAVEMENT SURFACE IS PLACED.
7. THE TEMPORARY PAVEMENT SURFACE SHALL HAVE A MAXIMUM ALLOWABLE DEVIATION OF ¼" ABOVE OR BELOW THE EXISTING PAVEMENT SURFACE DIRECTLY ADJACENT TO THE PATCH.
8. ANY PORTIONS OF THE TEMPORARY PAVEMENT SURFACE THAT HAVE SETTLED, BECOME DAMAGED, OR DETERIORATED MUST BE REPAIRED BY REMOVING THE EXISTING TEMPORARY SURFACE MATERIAL TO A MINIMUM DEPTH OF 2" BELOW THE SURFACE ELEVATION PRIOR TO REPLACING AND RECOMPACTING NEW COLD MIX/HOT MIX IN THE EXCAVATION AREA.
9. IF IT IS DETERMINED DURING CORRECTIVE ACTION THAT SOFT, SATURATED AND/OR UNSTABLE SUBSURFACE SOILS ARE CONTRIBUTING TO THE FAILURE OF THE TEMPORARY PAVEMENT SECTION, THE UNSUITABLE MATERIALS MUST BE REMOVED AND REPLACED WITH BACKFILL SOILS FREE OF ORGANICS, STONES OR ROCKS OVER 8 INCHES, AND HAVING A PLASTICITY INDEX OF 20 OR LESS, AND SHALL HAVE A MC WITHIN 2% OF OPTIMUM, PRIOR TO REPLACING THE TEMPORARY PAVEMENT SURFACE.
10. CLASS "J" PC CONCRETE (ITEM 403S) OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE SUBSTITUTED IN THESE REPAIRS FOR THE FLEXIBLE BASE AND COMPACTED BACKFILL. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
11. ALL EXISTING ROADWAY STRIPING AND PAVEMENT MARKINGS REMOVED OR DAMAGED BY THE CONTRACTOR'S WORK SHALL BE RESTORED PRIOR TO OPENING THE STREET TO TRAFFIC.

## REPAIR OF TRANSVERSE EXCAVATIONS
## (UCM SECTIONS 5.5.7.1 and 5.5.7.2)




CITY OF AUSTIN
APPROVED
Date 03/18/26
FOUNDED 1839
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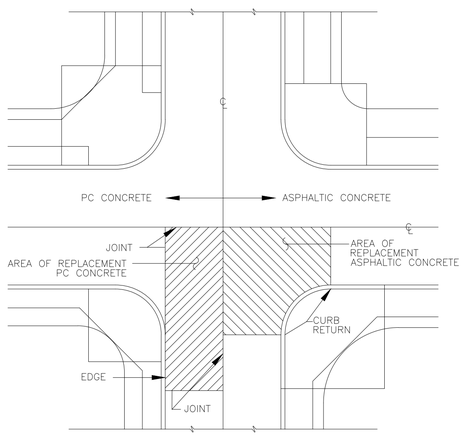
NOTE:
1. REPLACEMENT AC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION.
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
2. BASE LAYER ALTERNATIVES:
   a) 7" (175 mm) CLASS "J" PC CONCRETE (ITEM 403s). (A PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.)
   b) 10" (250 mm) CONTROLLED LOW STRENGTH MATERIAL (ITEM 402S); OR
   c) FLEXIBLE BASE (ITEM 210S) THICKNESS TWICE THE EXISTING BASE THICKNESS BUT A MINIMUM OF 18" (450 mm).
3. CLASS "J" (2 SACK MIX) MAY BE SUBSTITUTED FOR CONTROLLED LOW STRENGTH MATERIAL, IF APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. AS PER CITY OF AUSTIN STANDARD SPECIFICATION 510, SECTION 510.2(8)(K)5, FOR ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND A MINIMUM OF 12" (300 mm) BELOW THE SUBGRADE, OR A MINIMUM OF 18" (450 mm) BELOW FINISHED GRADE ON AREAS OUTSIDE THE LIMITS OF PAVEMENT, SHALL BE PLACED INDUCTIVE TRACER TAPE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. THE TAPE SHALL BE ENCASED IN A PROTECTIVE, INERT, PLASTIC JACKET AND COLOR CODED IN ACCORDANCE WITH APWA UNIFORM COLOR CODE.

## REPAIR OF NEW STREETS and ARTERIAL STREETS in GOOD CONDITION
## (UCM SECTION 5.3.3 and 5.3.4)

TYPICAL RESTORATION FOR EXCAVATION IN INTERSECTIONS



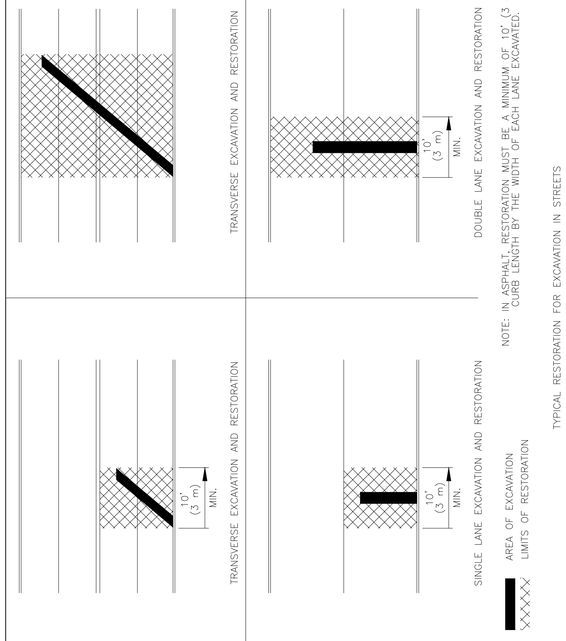

TYPICAL PLAN

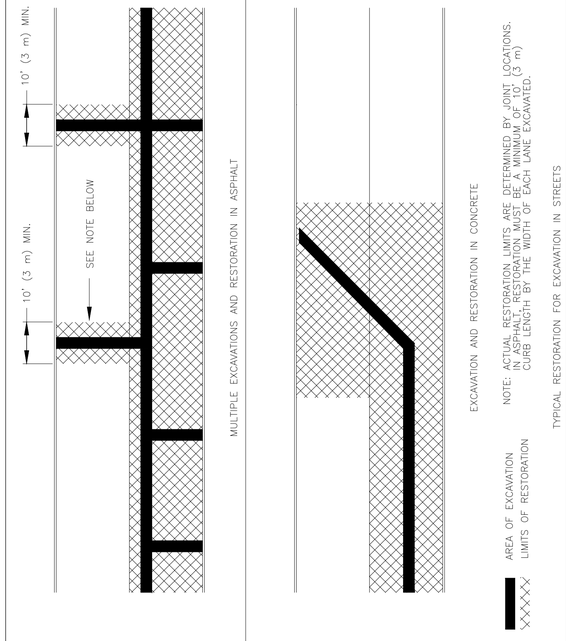
TRENCH REPAIRS WITHIN PORTLAND CEMENT CONCRETE PAVEMENTS NOTE:

IF ANY PART OF THE TRENCH REPAIR FALLS WITHIN AN INTERSECTION, THEN THE ENTIRE CONCRETE SLAB FROM JOINT TO JOINT AND JOINT TO EDGE SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED IN WRITING BY THE DIRECTOR.

TRENCH REPAIRS WITHIN ASPHALTIC CONCRETE PAVEMENTS NOTES:

1. IF ANY PART OF THE TRENCH REPAIR FALLS WITHIN AN INTERSECTION, DEFINED FROM CURB RETURN TO CURB RETURN, THE ENTIRE QUADRANT OF THE EXISTING SURFACE SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
2. A QUADRANT IS DEFINED AS THE CROSS-HATCHED AREA IN THE ABOVE DETAIL.

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Main: 512.837.3808 | Fax: 512.837.3433

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STATE OF TEXAS | CLAIRE SEMBERA | 145410 | LICENSED PROFESSIONAL ENGINEER
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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS
(6 OF 7)

| | |
|---|---|
| DESIGN: | C. SEMBERA |
| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TEMPORARY TRENCH REPAIR– ASPHALT SURFACE | | |
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TEMPORARY TRENCH REPAIR– ASPHALT SURFACE | | |
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TRANSVERSE EXCAVATIONS | | |
|---|---|---|---|
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TRANSVERSE EXCAVATIONS | | |
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | STREET REPAIR REQUIREMENTS | | |
|---|---|---|---|
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | STREET REPAIR REQUIREMENTS | | |
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| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | STREET REPAIR REQUIREMENTS | | |
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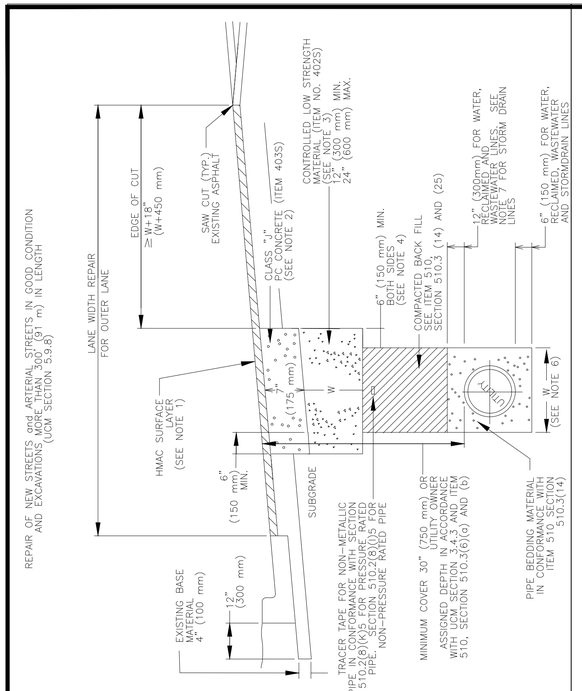


NOTES:

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   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS.
   SEE ITEM 340S, SECTION 340S.4.
2. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
3. CLASS "J" (2 SACK MIX) MAY BE SUBSTITUTED FOR CONTROLLED LOW STRENGTH MATERIAL, IF APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PC CONCRETE GREATER THAN A 2 SACK MIX WILL NOT BE ALLOWED.
4. FOR TRENCH WIDTHS 6" (150 mm) OR LESS, WIDENING OF THE BASE BEYOND THE TRENCH FACE MAY BE ELIMINATED IF THE EXISTING PAVEMENT STRUCTURE (INCLUDING THE BASE) REMAINS INTACT AND STABLE AFTER COMPLETION OF EXCAVATION.
5. TACK COAT (ITEM 307S) ALL EXPOSED EDGES AND SURFACES.
6. FOR WATER, RECLAIMED AND WASTEWATER LINE TRENCHES REFER TO 510.3(5) W=TRENCH WIDTH.
7. FOR STORM DRAINS, THE PIPE BEDDING ENVELOPE SHALL EXTEND THE FULL TRENCH WIDTH TO A DEPTH OF 6" (150 mm) BELOW THE PIPE, AND SHALL RISE AT LEAST TO THE SPRING LINE OF THE PIPE. THE DESIGN OF STORM DRAIN PIPES SUBJECTED TO VEHICULAR TRAFFIC OR OTHER LOADING SHALL BE SUPPORTED BY STRUCTURAL ENGINEERING CALCULATIONS OR REFERENCED TO ENGINEERING STANDARDS. IN ADDITION TO THE PIPE SELECTION, THE DESIGN INCLUDES THE PIPE BEDDING ENVELOPE, DEPTH OF COVER AND COMPACTION REQUIREMENTS.

| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TRAFFIC LANE REPLACEMENT FOR OUTER LANE EXCAVATIONS | |
|---|---|---|
| RECORD COPY SIGNED BY CUONG TRAN 02/24/10 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. | STANDARD NO. 1100S-8A 1 OF 2 |

| CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS | TRAFFIC LANE REPLACEMENT FOR OUTER LANE EXCAVATIONS | |
|---|---|---|
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Voice 512.832.9698 | Fax 512.832.9413

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STATE OF TEXAS | CLAIRE SEMBERA | 145410 | REGISTERED PROFESSIONAL ENGINEER
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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CIVIL DETAILS (7 OF 7)

| | |
|---|---|
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| DRAWN: | J. FU |
| REVIEW: | T. ROHLACK |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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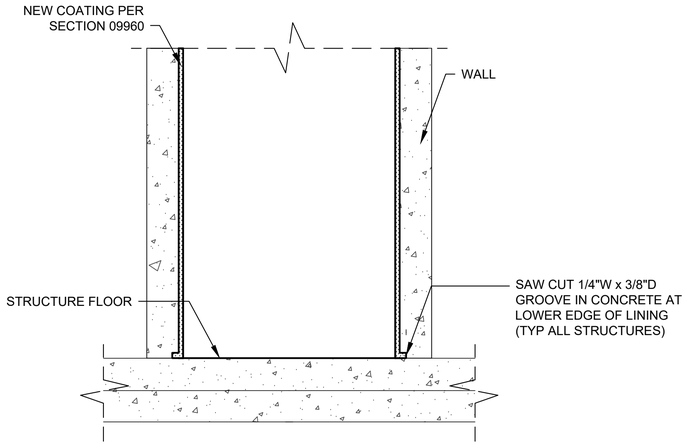
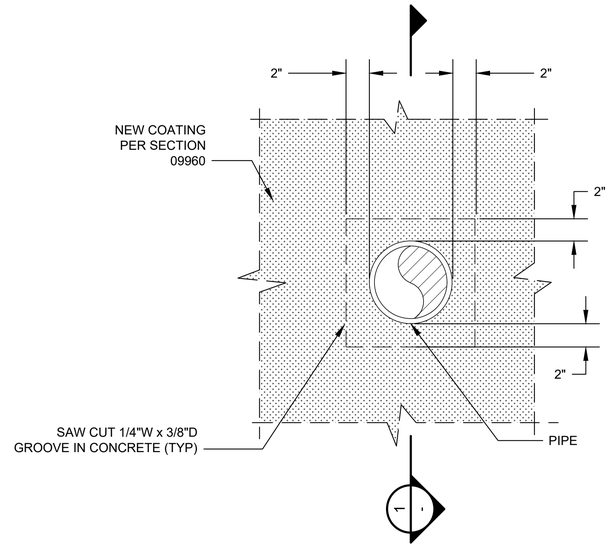
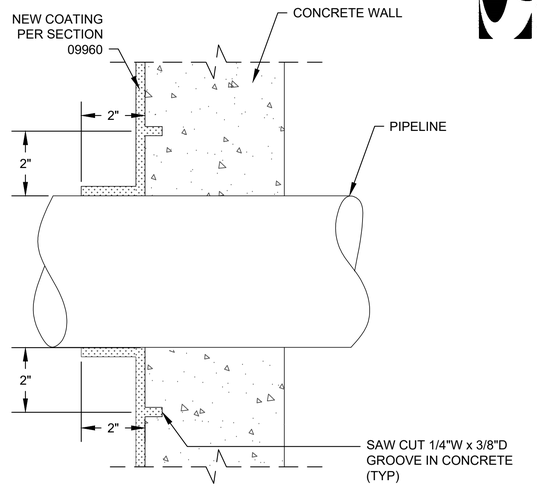


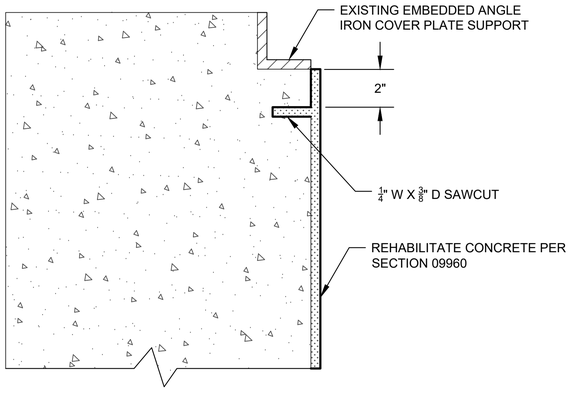

A VERTICAL WALL COATING TERMINATION DETAIL
NTS



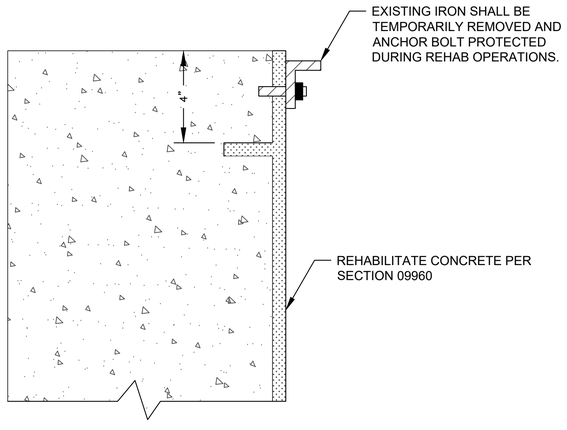

B PIPE PENETRATION COATING TERMINATION DETAIL
NTS




1 - PIPE PENETRATION COATING TERMINATION SECTION
NTS




C COATING TERMINATION AT EMBEDDED COVER PLATE SUPPORTS
NTS




D COATING TERMINATION AT ANCHORED COVER PLATE SUPPORT
NTS

NOTE:

REFER TO SPECIFICATION SECTION 09960, 3.12.A FOR COATINGS SYSTEMS SCHEDULE.

V&A Consulting Engineers, Inc.
15720 Park Row, Suite 500
Houston, TX 77084 Tel. (713) 568-9067
F-9154
V&A Project No.: 22-0417

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

MARCH 5, 2026
JARRED A. RIVERA
97143
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F-9154

| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

CONCRETE PROTECTIVE COATING DETAILS

| | |
|---|---|
| DESIGN: | VH |
| DRAWN: | ET |
| REVIEW: | CH |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
C-22
30 of 196

PRINTED BY: SongkietVongsavanh DATE: 3/2/2026
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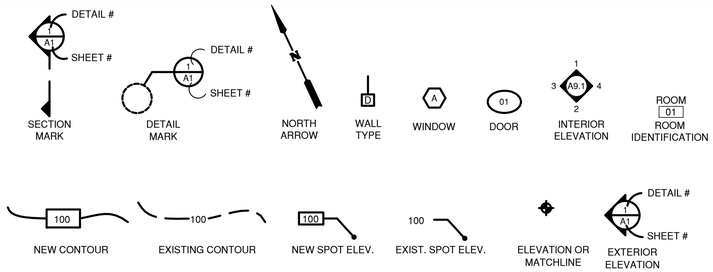
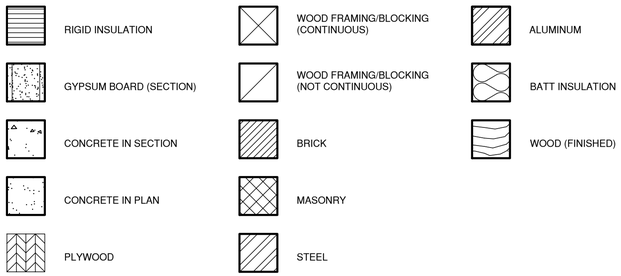
## ARCHITECTURAL SYMBOLS LEGEND




## MATERIAL LEGEND




## ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| ABV. | ABOVE | GA. | GAUGE or GAGE | R.O. | ROUGH OPENING |
| A.C.T. | ACOUSTICAL CEILING TILE | G.C. | GENERAL CONTRACTOR | S.C. | SOLID CORE |
| ACM | ALUMINUM COMPOSITE MATERIAL | GYP. BD. | GYPSUM BOARD | S.F. | SQUARE FEET |
| ADJ. | ADJUSTABLE | H.C. | HOLLOW CORE | SIM. | SIMILAR |
| A.F.F. | ABOVE FINISH FLOOR | H.M. | HOLLOW METAL | SPEC. | SPECIFICATIONS |
| ALUM. | ALUMINUM | HORIZ. | HORIZONTAL | S.S. | STAINLESS STEEL |
| ANOD. | ANODIZED | HT. | HEIGHT | STD. | STANDARD |
| ARCH. | ARCHITECT(URAL) | I.D. | INSIDE DIAMETER | STL. | STEEL |
| BLDG. | BUILDING | ISO. | ISOMETRIC | STRUCT. | STRUCTURAL |
| B.U.R. | BUILT UP ROOF | JT. | JOINT | T. | TREAD |
| C.J. | CONTROL JOINT | K.S. | KNEE SPACE | T.O.S. | TOP OF STEEL |
| CLG. | CEILING | LAV. | LAVATORY | T.O.C. | TOP OF CONCRETE/CURB |
| CONC. | CONCRETE | MAX. | MAXIMUM | T.O.M. | TOP OF MASONRY |
| CONT. | CONTINUOUS | MBM | METAL BUILDING MANUFACTURER | T.O.R. | TOP OF ROOF |
| C.T. | CERAMIC TILE | MECH. | MECHANICAL | T.O.W. | TOP OF WALL |
| DIA. | DIAMETER | MET. | METAL | TYP. | TYPICAL |
| DK | DARK | MFR. | MANUFACTURER | U.N.O. | UNLESS NOTED OTHERWISE |
| D.S. | DOWN SPOUT | M.R. | MOISTURE RESISTANT | V.C.T. | VINYL COMPOSITION TILE |
| DWG. | DRAWING | MTL. | MATERIAL | VERT. | VERTICAL |
| DW | DISHWASHER | (N) | NEW | V.I.F. | VERIFY IN FIELD |
| (E) | EXISTING | NAT. | NATURAL | V.W.C. | VINYL WALL COVERING |
| EXIST. | EXISTING | N.I.C. | NOT IN CONTRACT | W/ | WITH |
| EA. | EACH | NOM. | NOMINAL | W.C. | WATER CLOSET |
| E.J. | EXPANSION JOINT | N.T.S. | NOT TO SCALE | W.H. | WATER HEATER |
| ELEC. | ELECTRICAL | O.C. | ON CENTER | W.R. | WATER RESISTANT |
| EL. | ELEVATION | O.D. | OUTSIDE DIAMETER | W.W.F. | WELDED WIRE FABRIC |
| EQ. | EQUAL | O.F. | OVERFLOW DRAIN | | |
| EQUIP. | EQUIPMENT | O.F.C.I. | OWNER FURNISHED CONTRACTOR INSTALLED | | |
| E.W.C. | ELECTRIC WATER COOLER | OPG. | OPENING | | |
| FIN. | FINISH(ES)(ED) | OPP. | OPPOSITE | | |
| F.E. | FIRE EXTINGUISHER | PR. | PAIR | | |
| F.E.C. | FIRE EXTINGUISHER CABINET | PRKG. | PARKING | | |
| F.D.C. | FIRE DEPARTMENT CONNECTION | PLAS. LAM. | PLASTIC LAMINATE | | |
| F.D. | FLOOR DRAIN | R. | RISER | | |
| FL. | FLOW | RE: | REFER (T0) | | |
| F.O.C. | FACE OF CONCRETE | REF. | REFRIGERATOR | | |
| F.O.F. | FACE OF FINISH | REINF. | REINFORCE(D) | | |
| F.O.S. | FACE OF STUD | REQD. | REQUIRED | | |
| FRP | FIBERGLASS REINFORCED PLASTIC | R.D. | ROOF DRAIN | | |
| GALV. | GALVANIZED | RND. | ROUND | | |


TEXAS REGISTERED ARCHITECTURE FIRM
BR-4334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VERIFY SCALE
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL DRAFTING SYMBOLS & ABBREVIATIONS

| | |
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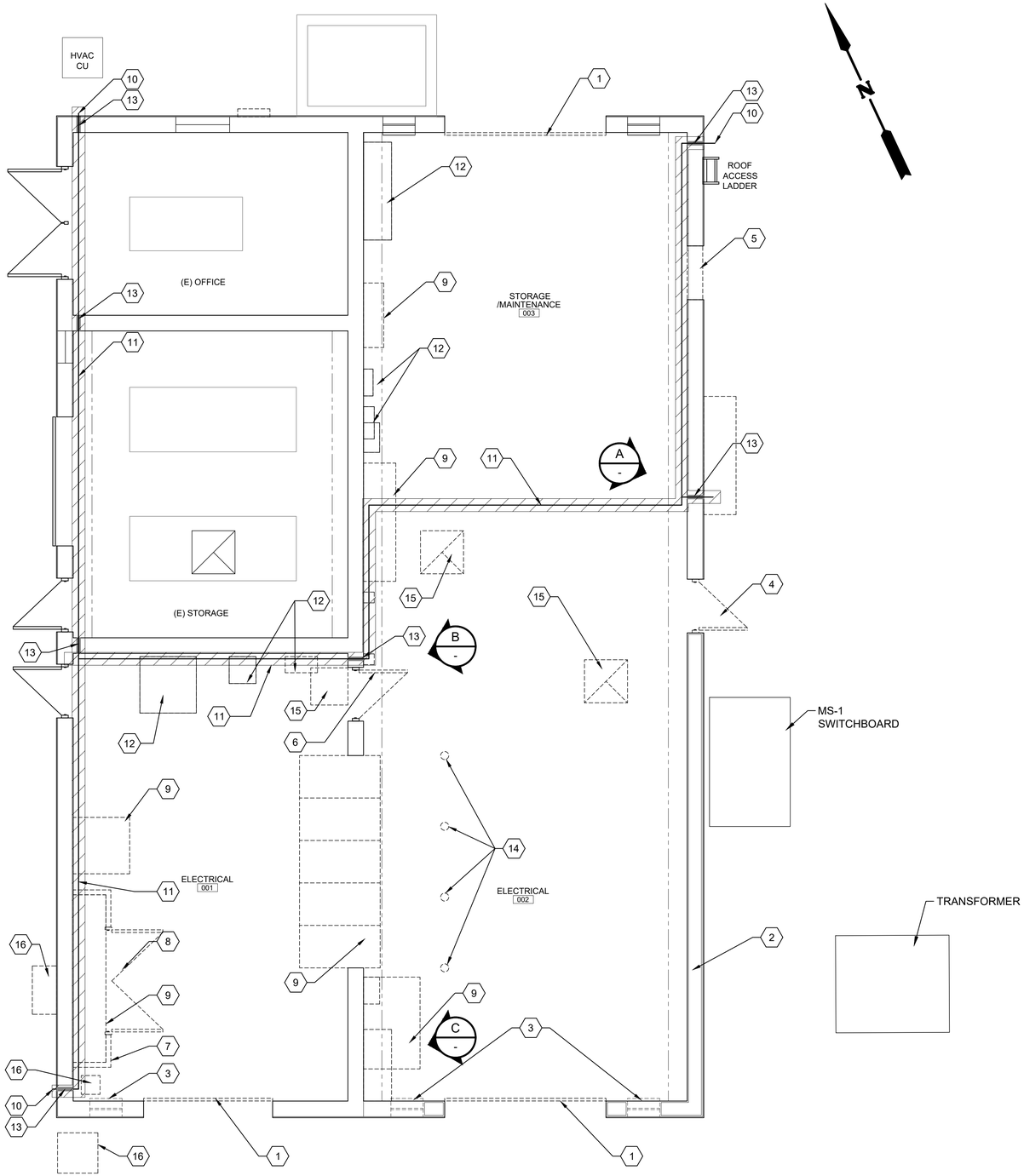
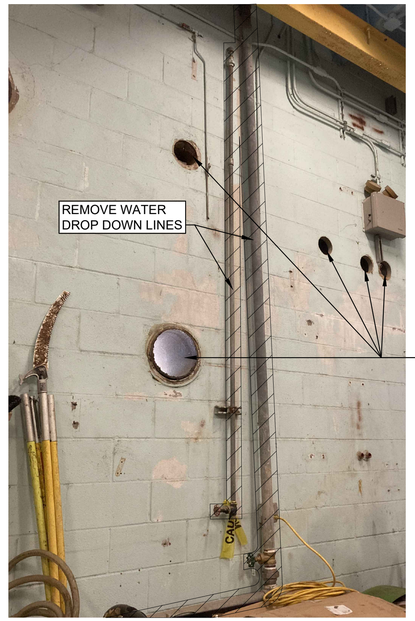
SHEET
A-1



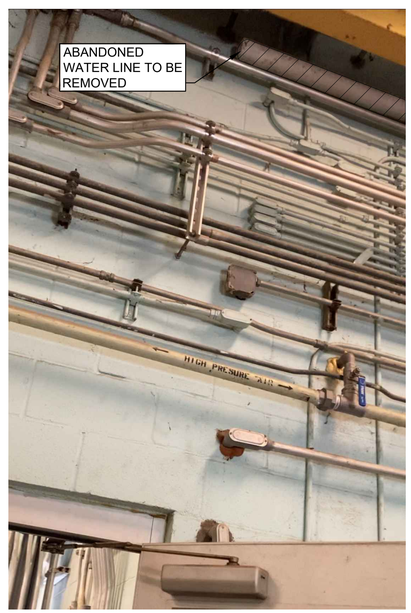

EXISTING & DEMOLITION PLAN

4 2 0 4

SCALE IN FEET




A WATER DROP DOWN LINES




B COMPRESSED AIR LINE

C AIR COMPRESSOR TO BE RELOCATED

## NOTES BY SYMBOL (X)

1. REMOVE (E) OVERHEAD DOOR
2. REMOVE THROUGH WALL PIPIING PENETRATIONS
3. REMOVE THROUGH WALL LOUVERS
4. REMOVE (E) PEDESTRIAN DOOR
5. CUT IN NEW DOOR OPENING
6. REMOVE (E) DOOR, FRAME TO REMAIN
7. REMOVE (E) CMU PARTITION
8. REMOVE (E) DOOR
9. RE: ELECT.
10. WATER SPIGOT TO REMAIN. WATER LINES TO BE REROUTED OUTSIDE OF ELECTRICAL SPACES
11. REMOVE WATER LINES
12. EQUIPMENT TO BE REPLACED WITH NEW INSTALLED IN SAME LOCATION
13. INFILL AND GROUT THROUGH WALL PIPE PENETRATIONS, PAINT INTERIOR TO MATCH ADJACENT. SEE D & E/A-9 FOR EXTERIOR FINISH.
14. REMOVE (4) PIPE BOLLARDS
15. REMOVE (E) DUCT AND DIFFUSERS ABOVE
16. REMOVE EXISTING EQUIPMENT, RE: HVAC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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
EXISTING & DEMOLITION PLAN

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| REVIEW: | DV |
| STV: | AUST1500124 |
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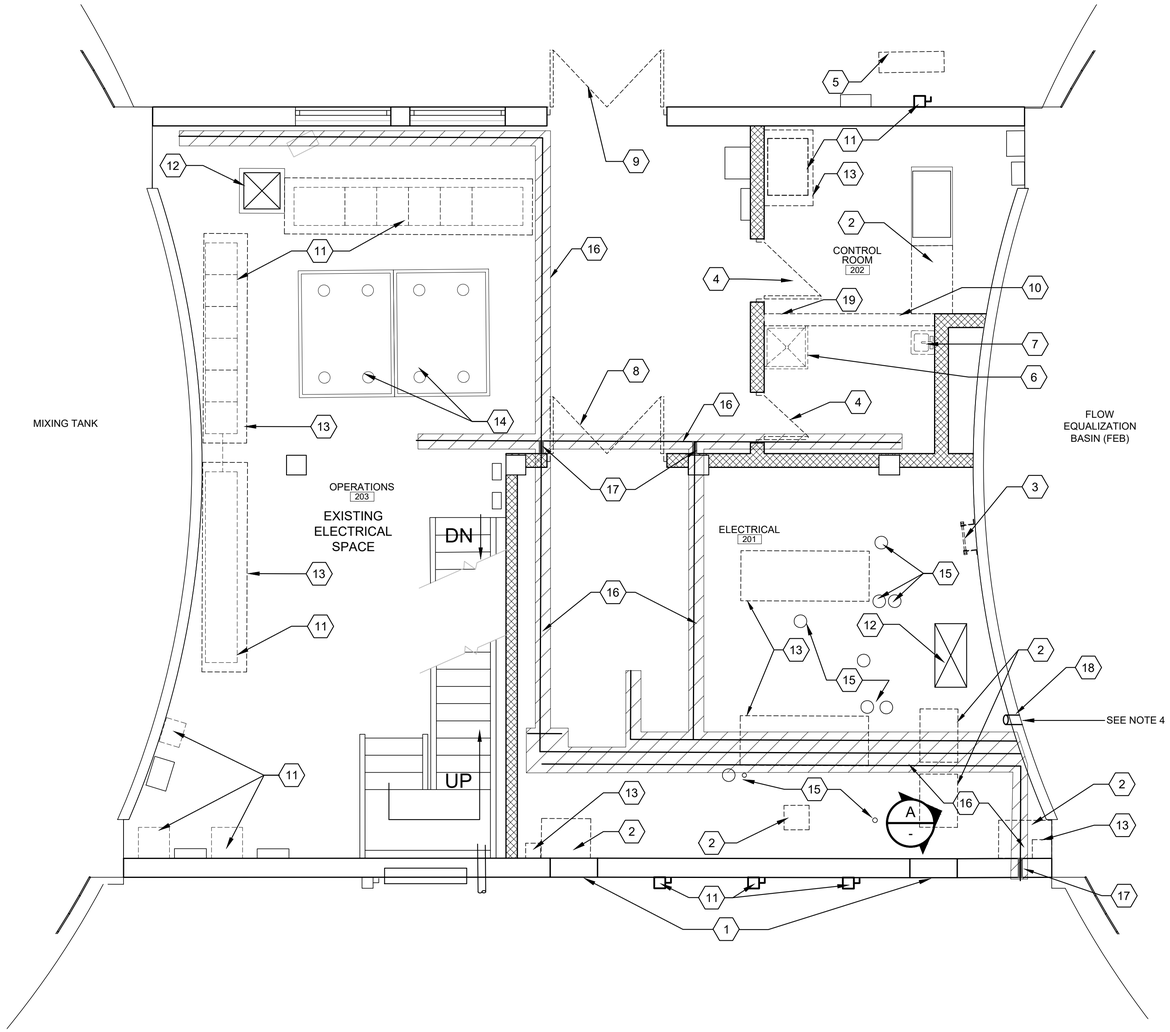
SHEET
A-2




FEB BUILDING DEMOLITION FLOOR PLAN

4 2 0 4

SCALE IN FEET

A NPW SEAL WATER LINE

## NOTES BY SYMBOL (X)

1. RE: HVAC, REMOVE LOUVERS
2. DEMOLISH PORTION OF (E) PAD NOT NEEDED FOR NEW NETWORK RACK PER THE REQUIREMENTS OF 03740 - CONCRETE REPAIR AND MODIFICATIONS.
3. REMOVE ACCESS LADDER & ROOF HATCH
4. REMOVE (E) DOOR
5. REMOVE (E) A/C, RE: HVAC
6. REMOVE SHOWER, FILL ANY DRAINS WITH GROUT
7. REMOVE SINK
8. REPLACE (E) 3'-0"x7'-0" DOORS AND TRANSOM WITH A PAIR OF 3'-0"x9'-0" DOORS
9. REPLACE (E) 3'-0"x8'-6" DOORS WITH A PAIR OF 3'-0"x8'-6" DOORS
10. REMOVE WALL AND COMBINE CONTROL ROOM & RESTROOM ONCE SINK AND SHOWER HAVE BEEN DEMOLISHED.
11. RE: ELECT.
12. RE: HVAC
13. (E) CONC. EQUIP. SUPPORT TO BE REMOVED
14. (E) FLOOR ACCESS PANEL
15. (E) FLOOR DRAIN, FILL W/ NON-SHRINK GROUT, TYP.
16. REMOVE PROCESS LINES
17. INFILL AND GROUT THROUGH WALL PIPE PENETRATIONS
18. PATCH PENETRATIONS THROUGH WALL, RE: STRUCT
19. GRIND (E) CONCRETE FLOOR WHERE REQUIRED TO ACHIEVE A LEVEL FINISH.

## GENERAL NOTES

1. PATCH PENETRATIONS THROUGH ROOF & APPLY LIQUID ROOFING MEMBRANE OVER PATCHES. RE: SPEC SECTION 07555 - FLUID APPLIED PROTECTED ROOF MEMBRANE.
2. REMOVE ALL EXISTING EQUIPMENT PADS WHETHER INDICATED OR NOT, THAT ARE NOT SCHEDULED FOR REUSE.
3. PATCH PENETRATIONS THROUGH FLOOR, RE: STRUCTURAL FOR TYPICAL DETAILS, ALL PROJECTING FLOOR PENETRATIONS ARE TO BE CUT / TRIMMED TO FLOOR LEVEL AND FILLED.
4. CONTRACTOR SHALL COORDINATE CLOSELY WITH THE OWNER TO PERFORM WORK RELATED TO INFILL OF FEB WALL. REFER TO REQUIREMENTS OF SECTION 01015 - CONSTRUCTION COORDINATION AND SEQUENCING. ENSURE THAT FEB LEVEL IS WELL BELOW LEVEL OF PENETRATION BEING INFILLED DURING ACTIVE CONSTRUCTION.
5. ELECTRICAL ROOM 201 AND CONTROL ROOM 202, PREP FLOOR TO RECEIVE FOR SAKRETE SELF LEVELING RESURFACER, OR APPROVED EQUAL. INSTALL TO 1/4" IN DEPTH TYPICAL.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VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
EXISTING & DEMOLITION PLAN

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| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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A-3
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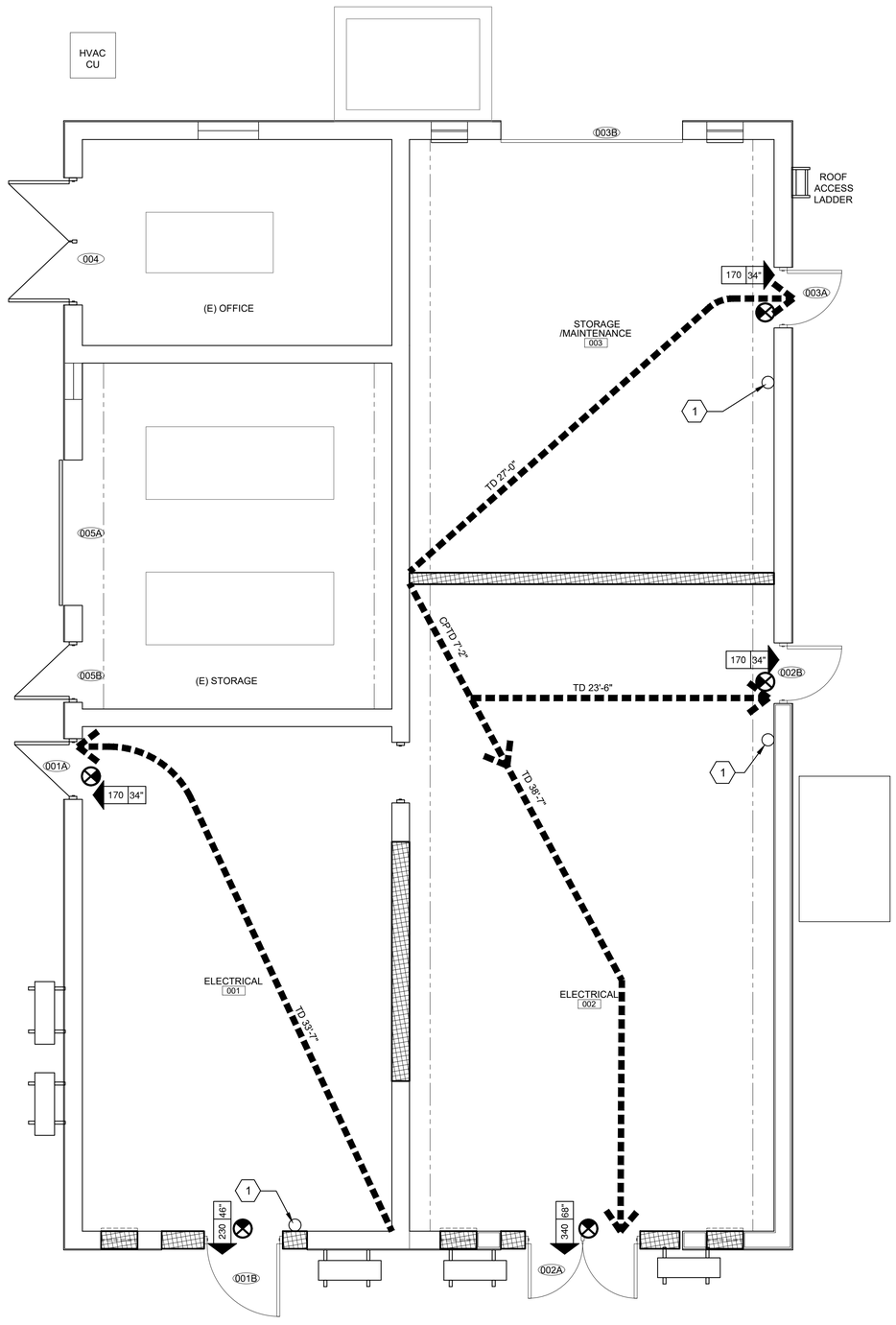


LIFE SAFETY PLAN

4 2 0 4

SCALE IN FEET

NUMBER OF OCCUPANTS — EGRESS WIDTH

## XX

EXIT ACCESS TRAVEL DISTANCE - TABLE 1017.2

OCC. TYPE 'F-1' WITHOUT SPRINKLER 200'-0" (MAX ALLOWED) 38'-7" (PROVIDED)

MAXIMUM COMMON PATH OF TRAVEL

OCC. TYPE 'F' OL LESSTHAN/EQUAL TO 30 LESS THAN 75'-0" REQUIRED 23'-4" PROVIDED

EGRESS COMPONENTS

MIN. WIDTH-STAIR 0.3/OCCUPANT 36" MIN. PROVIDED
MIN. WIDTH-OTHER THAN STAIR 0.2/OCCUPANT 34" MIN. PROVIDED

INTERIOR WALL & CEILING FINISH
IBC TABLE 803.13 - NON SPRINKLERED

| GROUP | INTERIOR EXIT PASSAGEWAYS | CORRIDORS | ROOMS & ENCLOSED SPACES |
|---|---|---|---|
| F | B | C | C |
| | | | |

TRAVEL DISTANCE (TD)

N

## NOTES BY SYMBOL (X)

1. FIRE EXTINGUISHER - MP10 CLASS A,B, & C


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VERIFY SCALE 1" 0
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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
LIFESAFETY PLAN

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| DESIGN: | DV |
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| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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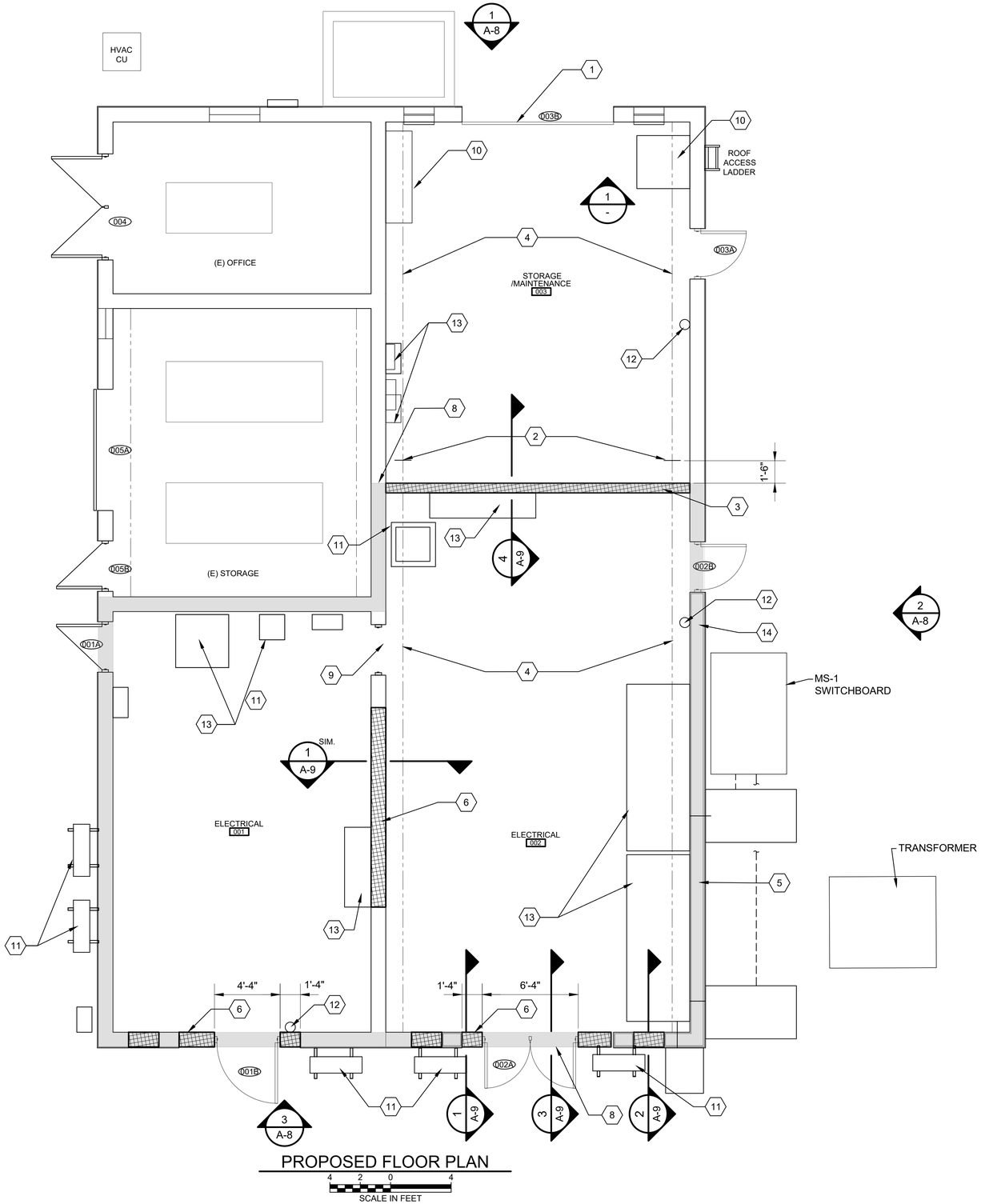
A-4




PROPOSED FLOOR PLAN

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. REPLACE (E) OVERHEAD DOOR W/ NEW.
2. PROVIDE NEW STOPS @ BRIDGE CRANE RAIL TO REMAIN, RE: A/A-6
3. INSTALL DEMISING WALL BETWEEN (N) ELEC. ROOM AND (E) MAINTENANCE AREA. LIMITS OF WALL TO BE ADJUSTED IN DESIGN TO ACCOMMODATE FINAL ELECTRICAL LAYOUT.
4. BRIDGE CRANE RAILS TO REMAIN.
5. PATCH HOLES IN EXTERIOR WALL
6. INFILL OPENING W/ WALL TO MATCH ADJACENT CONSTRUCTION
7. A/C, RE: HVAC
8. INJECT FOAM INSULATION INTO CMU CELLS @ ELECTRICAL RM. PERIMITER, TYP. (SHADED AREA)
9. INFILL HINGE POINTS @ DOOR FRAME TO REMAIN
10. RECONNECT RELOCATED AIR COMPRESSOR TO HEADER PER MARKUPS IN PHOTO BELOW.
11. RE: HVAC
12. FIRE EXTINGUISHER
13. RE: ELEC.
14. FINISH (N) CONDUIT PENETRATIONS PER C/A-9

## GENERAL NOTES

1. EXISTING CRANE TO REMAIN IN STORAGE MAINTENANCE SPACE
2. REFER TO ELECTRICAL DRAWINGS FOR PROPOSED CONDUIT ROUTINGS / PENETRATIONS THROUGH EXTERIOR / INTERIOR WALLS AND PARTITIONS. RE: C/A-9 FOR PENETRATION DETAILS LESS THAN 2", RE: STRUCTURAL DRAWINGS FOR PENETRATION DETAILS LESS THAN 12".
3. REFER TO SECURITY DRAWINGS FOR LOCATIONS OF SECURITY DEVICES, CARD READERS, CAMERAS, ETC.

CMU WALLS TO RECEIVE FOAM INJECTION

CONTRACTOR SHALL FIELD ROUTE APPROX. 40 LF OF AIR PIPING (MATCH EXISTING SIZE AND MATERIAL) TO RECONNECT TO NEW LOCATION OF AIR COMPRESSOR. RE: ELEC. SHEETS

1 AIR PIPING

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VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
ARCHITECTURAL PLAN

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| REVIEW: | DV |
| STV: | AUST1500124 |
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A-5
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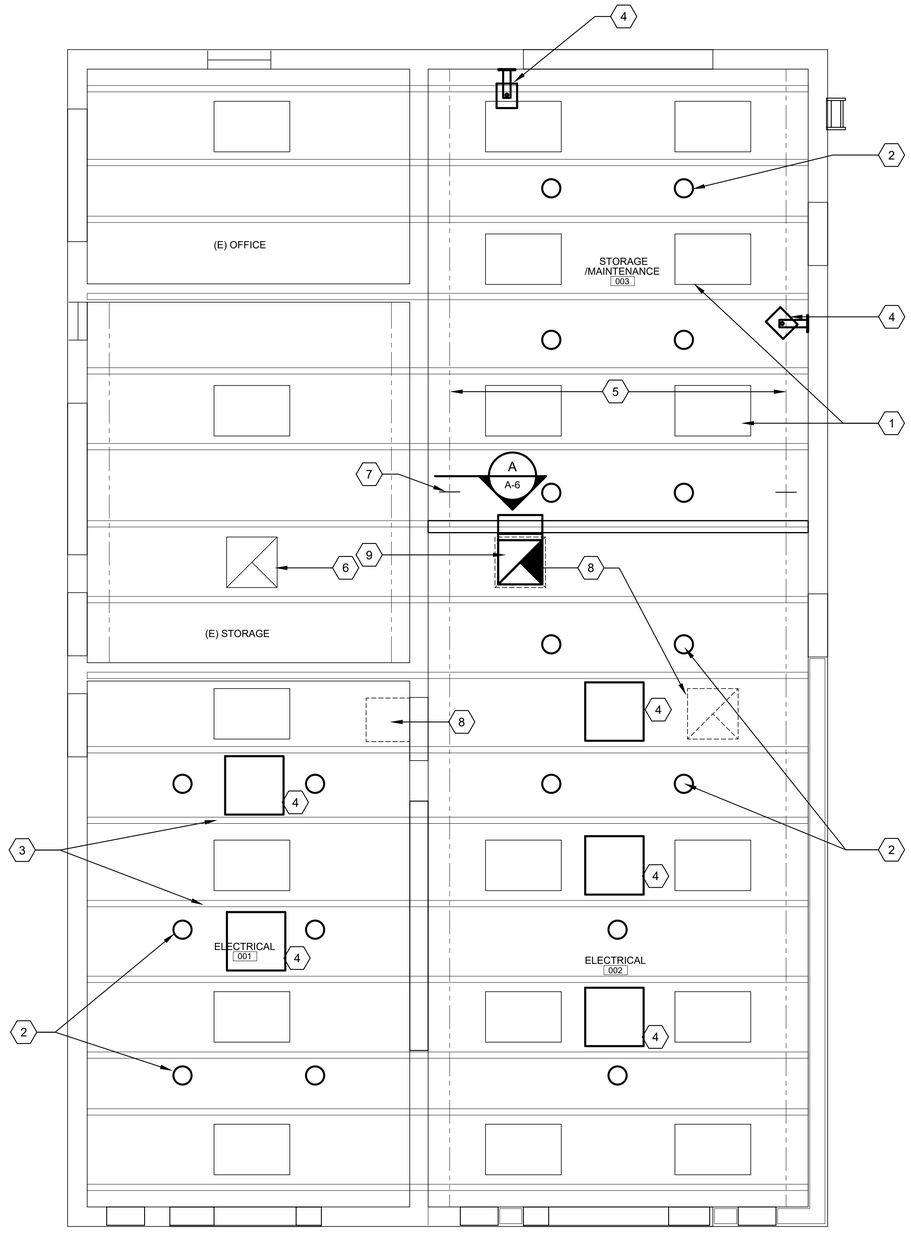


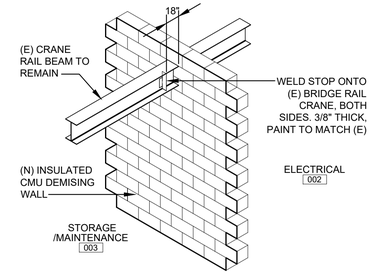

REFLECTED CEILING PLAN

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. FORMER SKYLIGHT OPENINGS IN DECK TO REMAIN
2. LIGHTS, RE: ELECT.
3. EXISTING CONC. DOUBLE TEE ROOF
4. SUSPENDED EQUIP., RE: HVAC
5. EXISTING CRANE RAIL, TO REMAIN
6. EXISTING EXHAUST FANS
7. NEW RAIL STOPS
8. EXHAUST FAN REMOVED, PATCH ROOF WITH THE LIKE ADJACENT MATERIAL. FOLLOW EXISTING MFR. DIRECTIONS IN ORDER TO NOT VOID THE EXISTING ROOF WARRANTY
9. INSTALL NEW FAN IN OPENING VACATED BY THE REMOVED UNIT. RE: HVAC




A CRANE RAIL STOP

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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
REFLECTED CEILING PLAN

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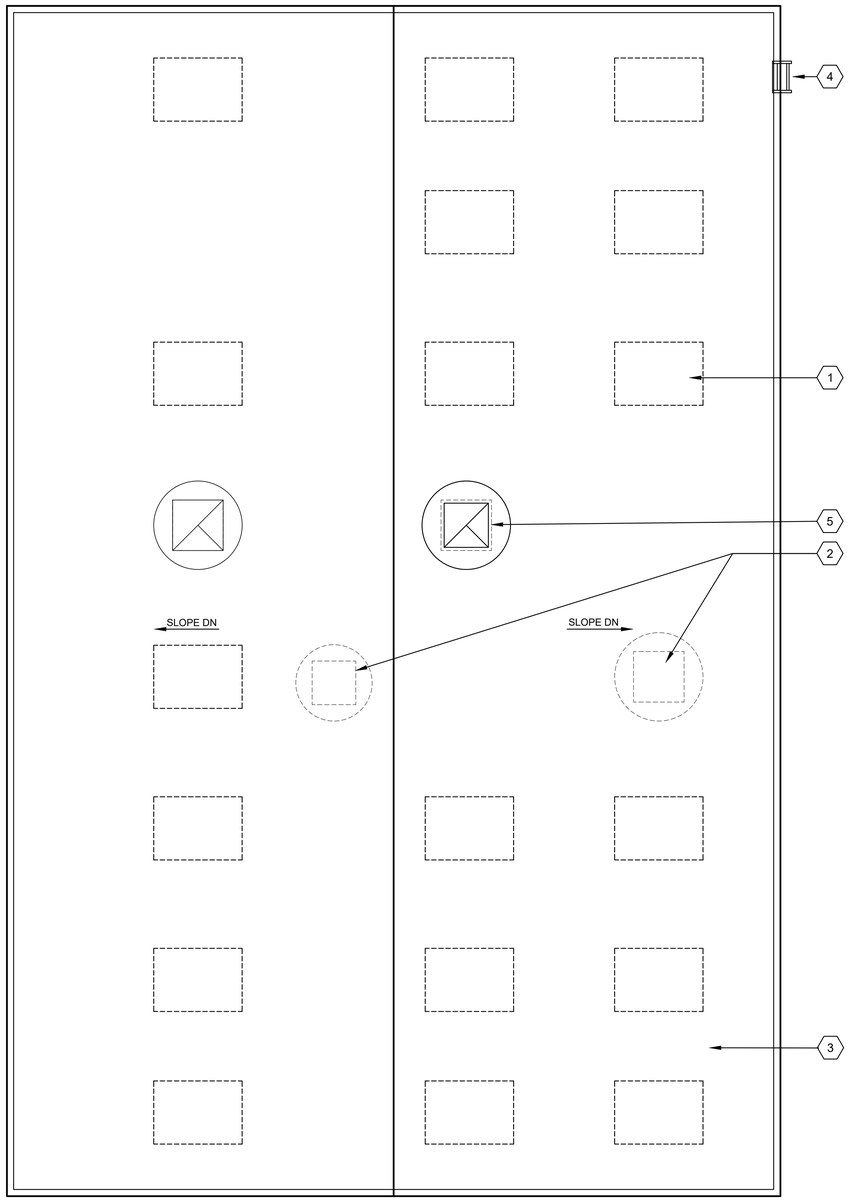
SHEET
A-6




EXISTING ROOF PLAN

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. EXISTING SKYLIGHTS, ROOFED OVER ABOVE, TYP.
2. PATCH ROOF @ REMOVED EXHAUST FANS. RE: F/S-24. SEE GEN. NOTE 1 BELOW
3. EXISTING ROOF TO REMAIN
4. EXISTING ROOF ACCESS LADDER
5. EXHAUST, RE: HVAC INSTALL IN LOCATION OF REMOVED UNIT

## GENERAL NOTES

1. ROOF MATERIALS WILL NEED TO BE APPROVED/COORDINATED WITH NEW ROOF, SO AS NOT TO VOID THE NEW ROOF WARRANTY. SEE H-9.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REGISTERED ARCHITECT DAVID VOSS 03-05-26

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BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
ROOF PLAN

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| DESIGN: | DV |
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| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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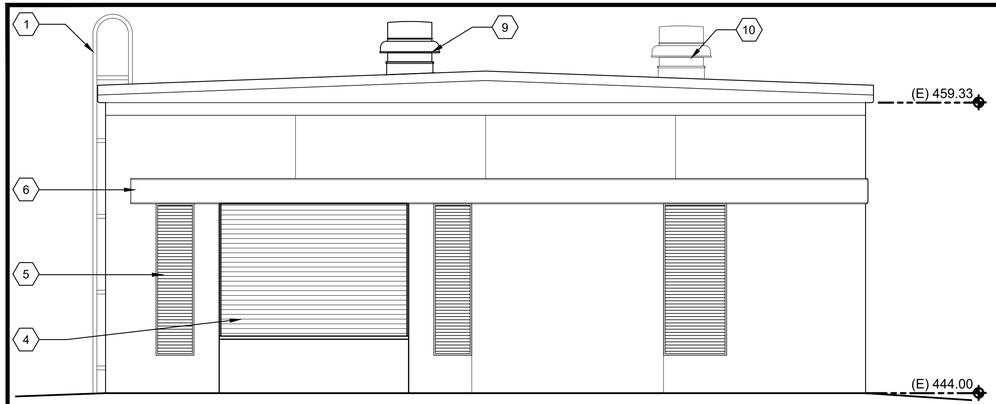
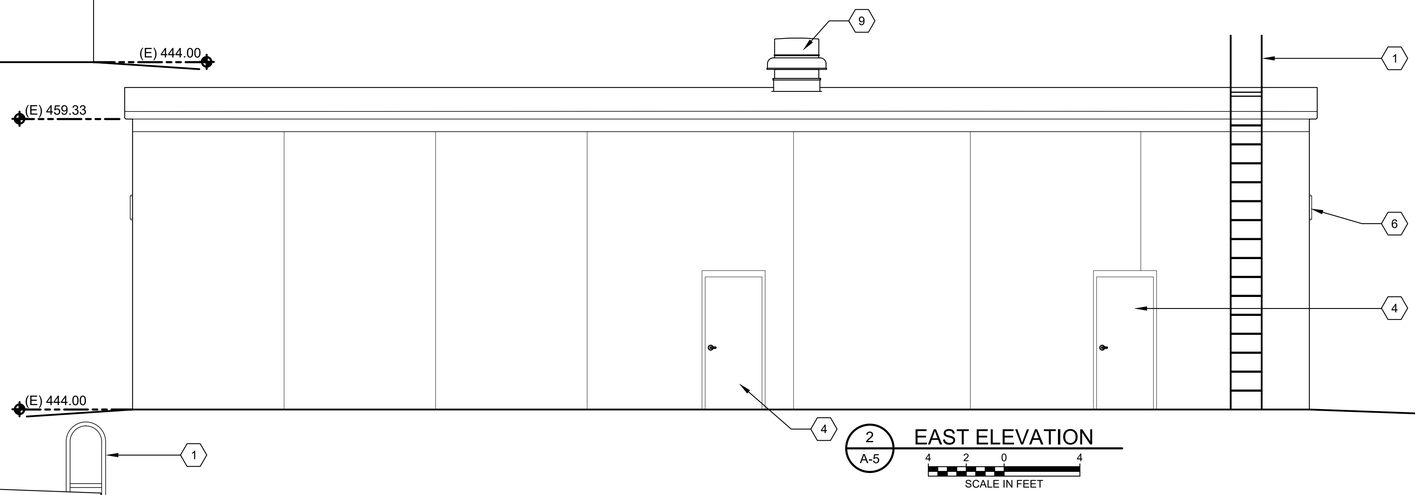



1 A-5 NORTH ELEVATION

4 2 0 4

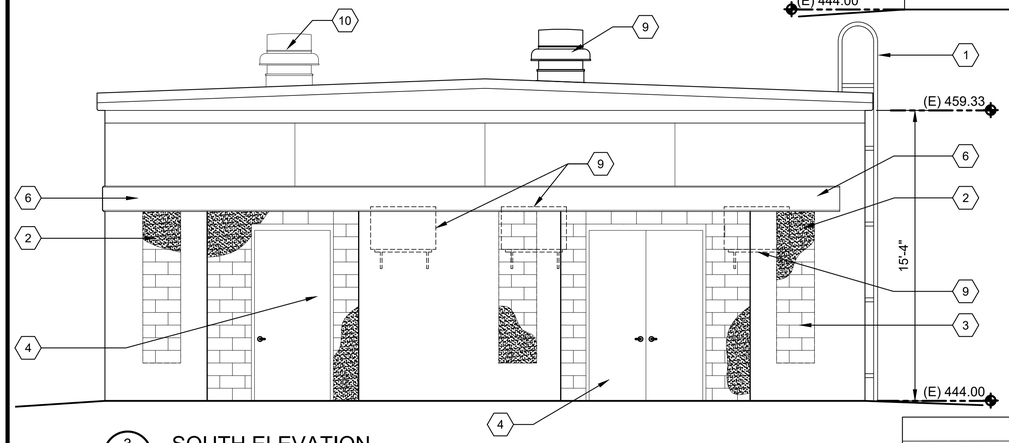
SCALE IN FEET




2 A-5 EAST ELEVATION

4 2 0 4

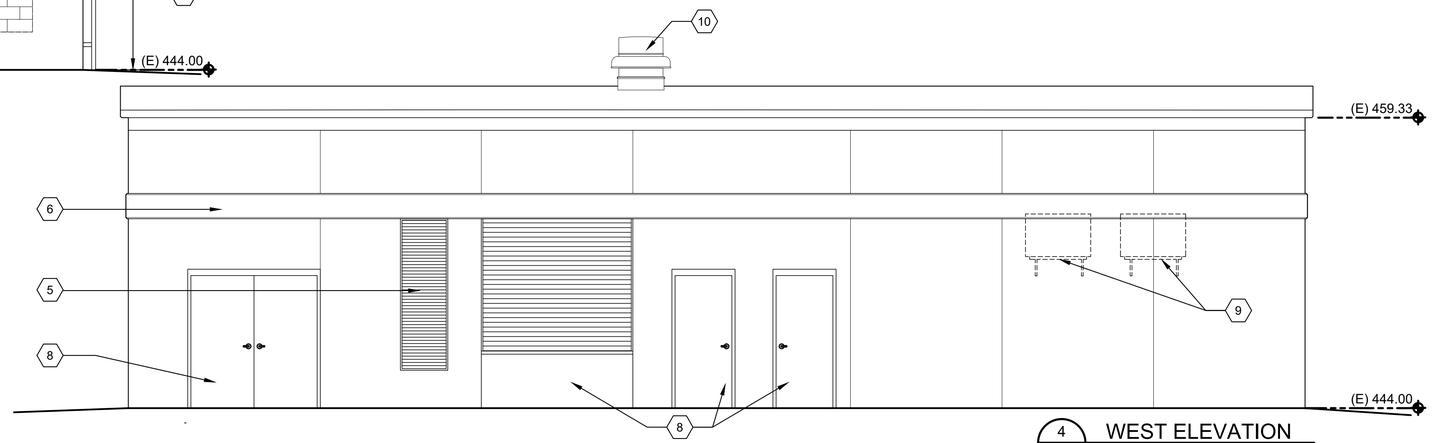
SCALE IN FEET




3 A-5 SOUTH ELEVATION

4 2 0 4

SCALE IN FEET




4 A-5 WEST ELEVATION

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. (E) ROOF ACCESS LADDER
2. INFILL (E) OPENING AT REMOVED LOUVER W/ (N) CMU BLOCK, FACED WITH STUCCO, RE: F/A-9
3. (N) PALSTER APPLIED TO NEW BLOCK TO MATCH (E) ADJACENT FINISH
4. DOOR, RE: SCHED.
5. (E) LOUVER
6. (E) CONC. BEAM
7. (E) PLASTER OVER (E) CMU
8. (E) DOOR TO REMAIN
9. RE: HVAC
10. (E) FAN TO REMAIN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TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


03-05-26

| NO. | REVISION | BY | DATE |
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VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

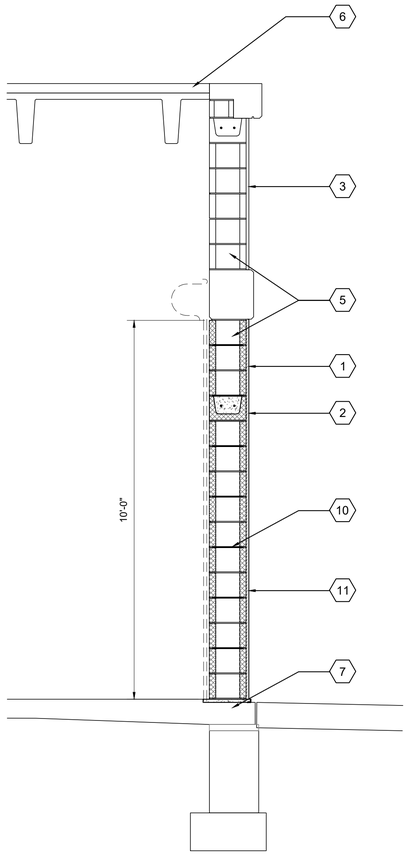
# ARCHITECTURAL COGEN BUILDING ELEVATIONS & DETAILS

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-8

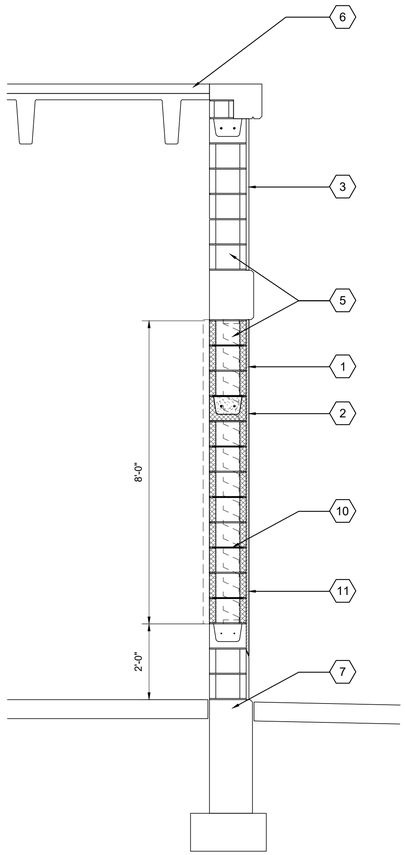
## NOTES BY SYMBOL (X)

1. 12x8x16 CMU TO MATCH EXISTING
2. BOND BEAM REINF. W/ (2) #4'S CONT., IN GROUTED SOLID CELL
3. (E) WALL TO REMAIN
4. (N) DOOR, RE: SCHED.
5. INJECTED CELLS, SEE PLAN FOR LOCATIONS
6. EXISTING ROOF
7. EXISTING FOUNDATION
8. 8x8x16 CMU
9. FLATWORK, RE: CIVIL
10. HORIZ. CONT. LADDER TIES @ 16" O.C. VERT.
11. (N) STUCCO, TEXTURE & COLOR TO MATCH (E)




1 A-5 WALL SECTION

2 1 0 2
SCALE IN FEET




2 A-5 WALL SECTION

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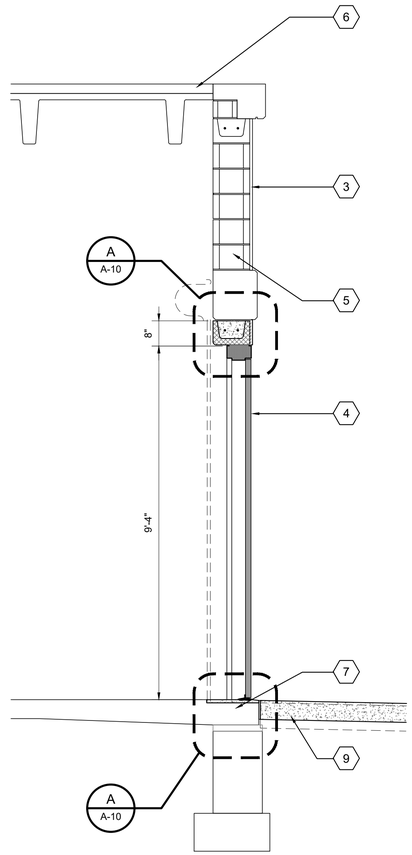
SCALE IN FEET




3 A-5 WALL SECTION

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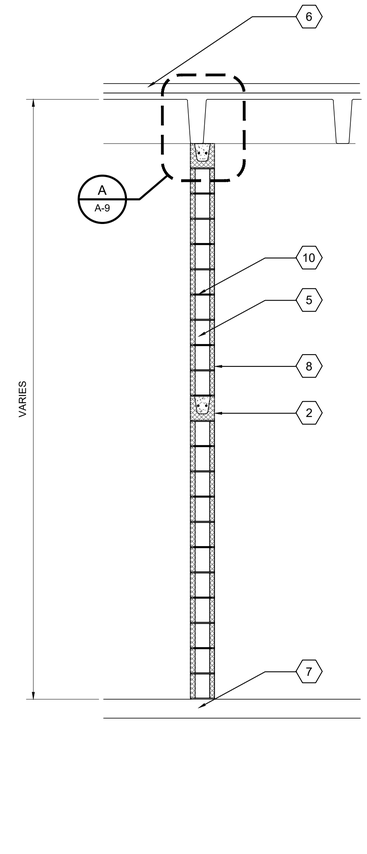


4 A-5 WALL SECTION

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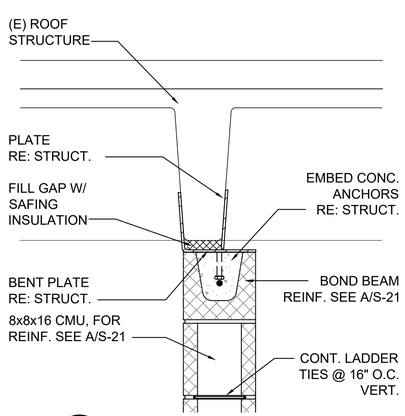
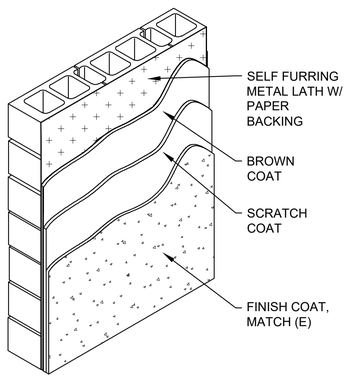
SCALE IN FEET



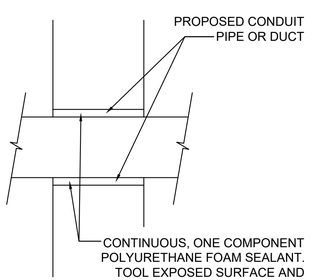

A ROOF TO WALL DETAIL

1/2 0 1/2 1
SCALE IN FEET



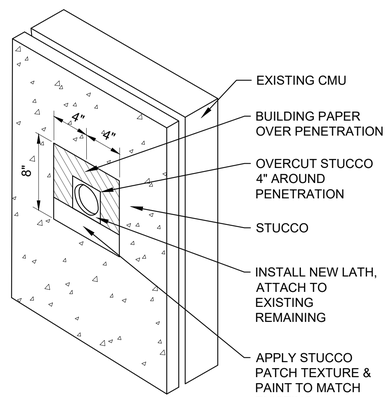

B STUCCO DETAIL

1/2 0 1/2 1
SCALE IN FEET




C CONDUIT PENETRATION

1/2 0 1/2 1
SCALE IN FEET

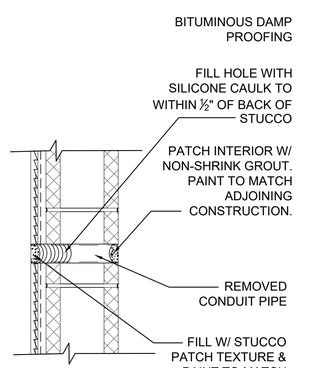


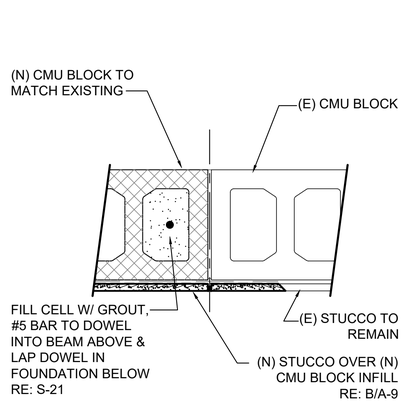

D STUCCO PATCH OVER 2"

1/2 0 1/2 1
SCALE IN FEET

E STUCCO PATCH LESS THAN 2"

1/2 0 1/2 1
SCALE IN FEET




F WALL PATCH

1/2 0 1/2 1
SCALE IN FEET


sti
TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


REGISTERED ARCHITECT DAVID WILLIAM VOLLMER 03-05-26

| NO. | REVISION | BY | DATE |
|---|---|---|---|

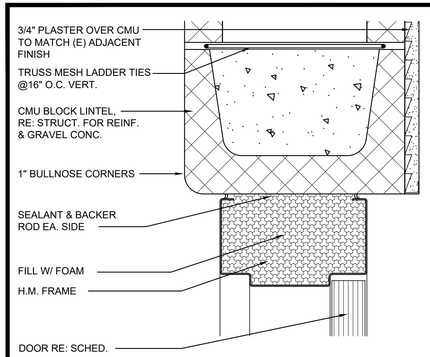
VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

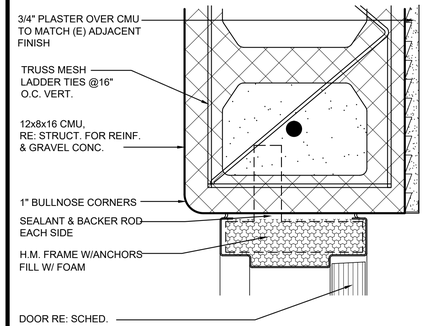
# ARCHITECTURAL COGEN BUILDING SECTIONS & DETAILS

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

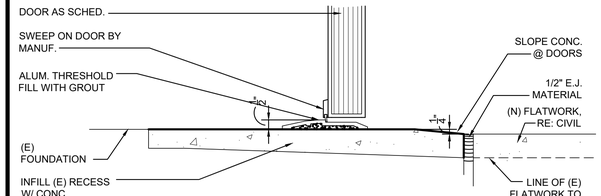
SHEET
A-9
39 of 196




HEAD



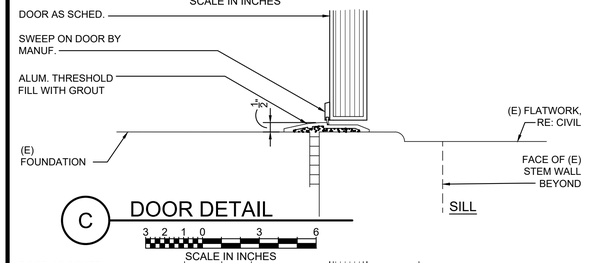

JAMB




SILL

## A DOOR DETAIL

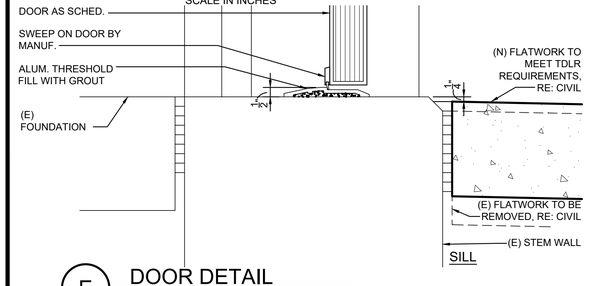
SCALE IN INCHES




SILL

## C DOOR DETAIL

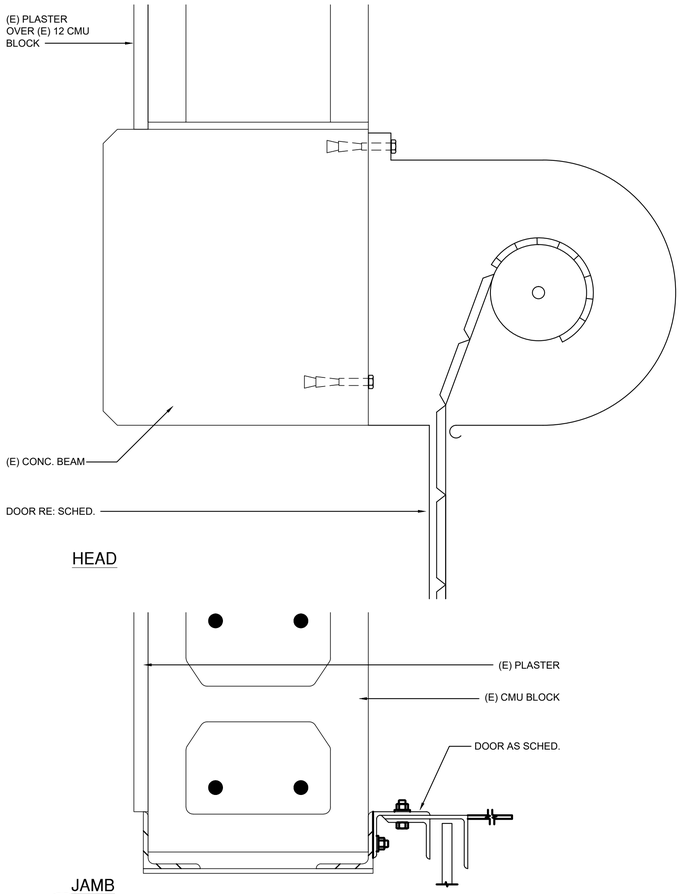
SCALE IN INCHES




SILL

## E DOOR DETAIL

SCALE IN INCHES



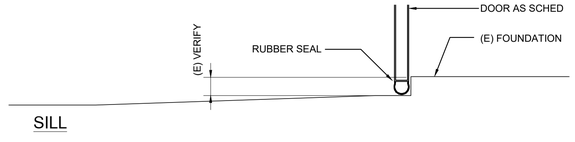

HEAD




JAMB

## B OVERHEAD DOOR DETAIL

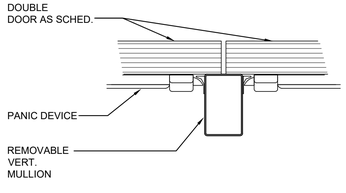
SCALE IN INCHES




SILL

## D OVERHEAD DOOR DETAIL

SCALE IN INCHES




## F VERT. MULLION

SCALE IN INCHES

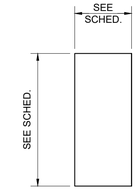
# ROOM FINISH SCHEDULE

| Room | | ELECTRICAL ROOM 001 | ELECTRICAL ROOM 002 | STORAGE / MAINTENANCE 003 |
|---|---|---|---|---|
| | N W E S — DENOTES WALL WHERE FINISH OCCURS | | | |
| | N W E S — DENOTES SAME FINISH ON ALL WALLS | | | |
| FLOOR | EXISTING CONC. | ○ | ○ | ○ |
| BASE | 4" RUBBER - COVED | ⊗ | ⊗ | ⊗ |
| WALLS | CMU - PAINTED | ● | ● | ● |
| | EXISTING CMU - PAINTED | ⊗ | ◆ | ◆ |
| CEILINGS | EXPOSED STRUCTURE - PAINT | ○ | ○ | ○ |
| | Height | | | |
| | Notes: | | | |

# DOOR SCHEDULE

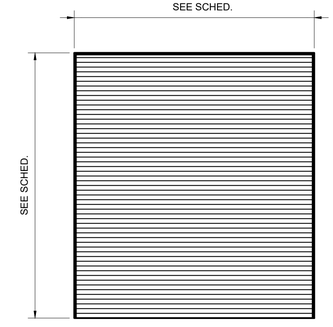
| NUMBER | DOOR TYPE | DOOR MAT. | DOOR WIDTH | DOOR HT. | DOOR THK. | FRAME MAT. | FRAME HEAD | FRAME JAMB | FRAME SILL | FIRE RATING LABEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001A | | | | | | | | | | | 1. |
| 001B | A | HM | 4'-0" | 9'-0" | 1¾" | HM | A/A-10 | A/A-10 | A/A-10 | | 2. |
| 002A | A | HM | (2)3'-0" | 9'-0" | 1¾" | HM | A/A-10 | A/A-10 | A/A-10 | | 2., 3. |
| 002B | A | HM | 3'-0" | 7'-0" | 1¾" | HM | SIM. A/A-10 | SIM. A/A-10 | C/A-10 | | 2. |
| 003A | A | HM | 3'-0" | 7'-0" | 1¾" | HM | A/A-10 | A/A-10 | E/A-10 | | 2. |
| 003B | B | ALUMN | 10'-0" | 10'-0" | 1¾" | HM | B/A-10 | B/A-10 | D/A-10 | | |
| 004 | | | | | | | | | | | 1. |
| 005A | | | | | | | | | | | 1. |
| 005B | | | | | | | | | | | |

REMARKS:
1. ADD CARD READER - EXISTING DOOR
2. PROVIDE CARD READER
3. VERT. MULLION TO MATCH FRAME




HM

A




INSULATED COILING DOOR

B

## G DOOR TYPE

SCALE IN FEET

STV
TEXAS REGISTERED ARCHITECTURE FIRM BR-4334

DAVID VILLARREAL 03-05-26

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL COGEN BUILDING
DOOR DETAILS & SCHEDULES

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-10
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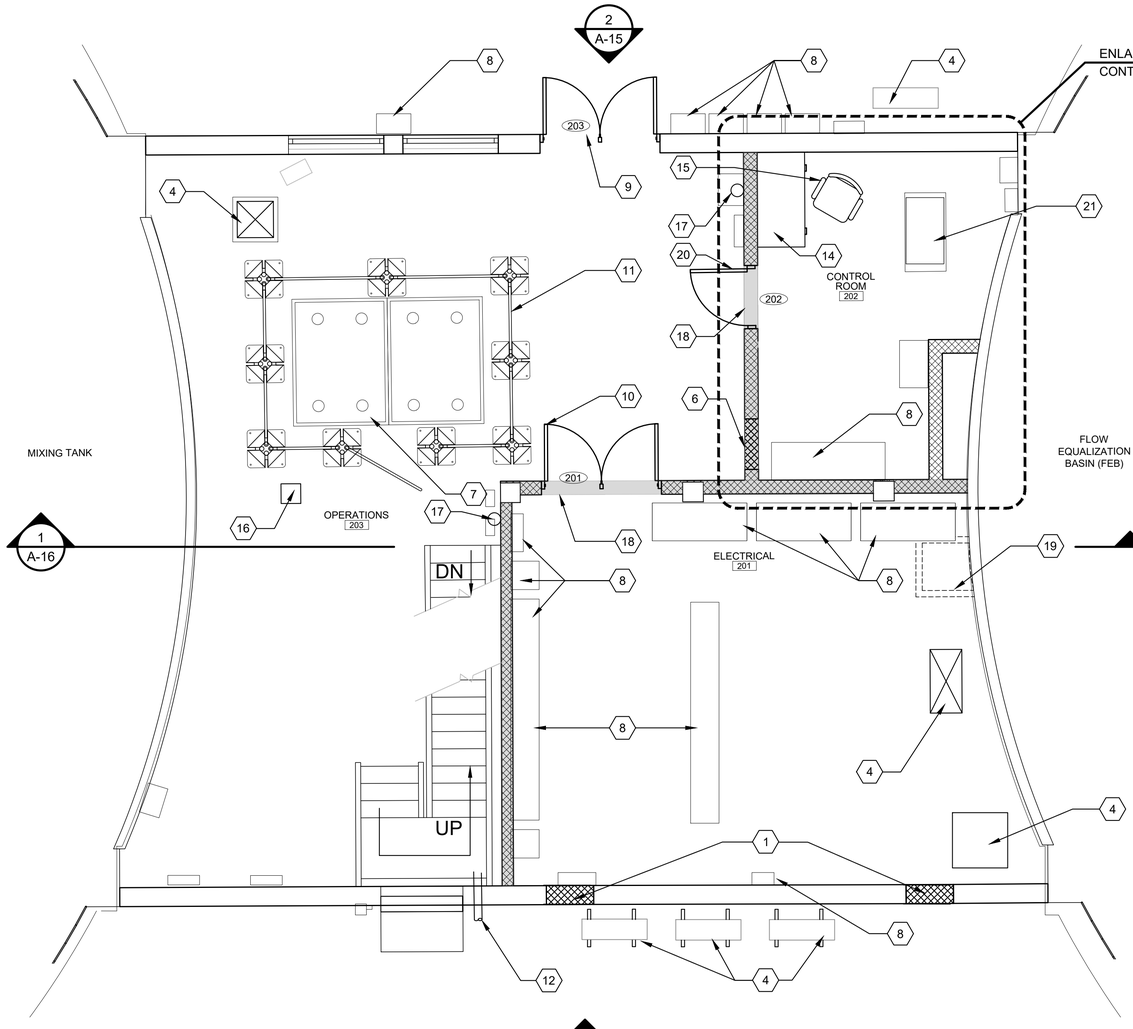
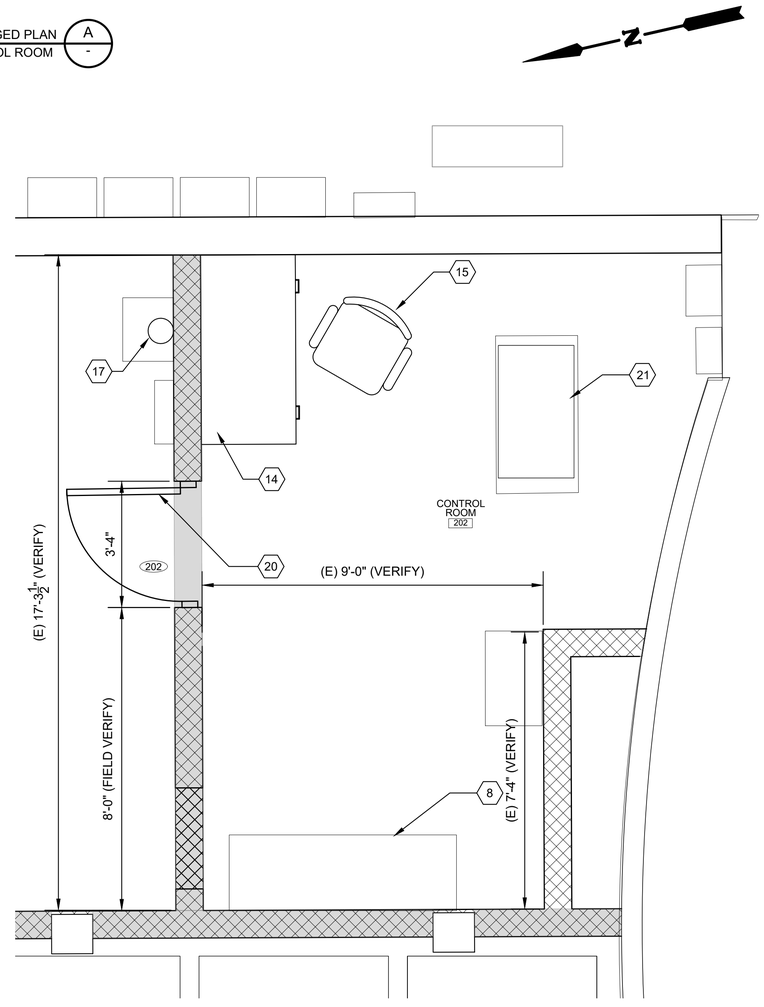



FEB BUILDING FLOOR PLAN

4 2 0 4

SCALE IN FEET




A ENLARGED PALN

- 2 1 0 2

SCALE IN FEET

CMU WALLS TO RECEIVE FOAM INJECTION

## NOTES BY SYMBOL (X)

1. OPENING @ REMOVED LOUVER, RE: F/ A-9. PATCH WALLS AS REQUIRED
2. INFILL ALL DRAINS W/ NON-SHRINK GROUT LEVEL TO EXISTING FLOOR FINISH.
3. (E) CONC. EQUIPMENT PAD
4. RE: HVAC
5. (N) EQUIPMENT PAD, RE: STRUCT.
6. INFILL OPENING TO MATCH ADJACENT, PAINT
7. (E) FLOOR ACCESS TO REMAIN
8. RE: ELECT.
9. REPLACE (E) PAIR 3'-0"x7'-0" DOORS AND TRANSOM WITH A PAIR OF 3'-0"x9'-0" DOORS
10. REPLACE (E) PAIR 3'-0"X7'-0" DOORS WITH A PAIR OF 3'-0"X9'-0" DOORS
11. VESTIL ADKR SAFETY RAIL SYSTEM, W/ VDKR-BASE-W PORTABLE SUPPORTS
12. RE: CIVIL. CONTRACTOR SHALL FIELD ROUTE NPW TO SEAL WATER IN FEB BASEMENT.
13. NOT USED
14. PROVIDE SIT/STAND DESK W/ DUAL MONITOR ARMS. CONSIST OF THE FOLLOWING MODEL PART NUMBERS:
    - (1) # HPADD.SVR - DUAL MONITOR ARM
    - (2) #HPACSM.SVR - SLIDERS
    - (1) HNLRC3060.GDE.T1.LWBE - 30x60 TOP IN BEIGEWOOD
    - (1) HHATB3S2LT.PR6.X.MEM - SIT/STAND BASE
    - (1) HHSLZ5SC54.P - SIT/STAND BASE STIFFNER
    - (1) HHABCSTRPK - CASTER PACK FOR SIT/STAND BASE
    - (1) HABPWRMOD.AC.S.DWT - DESKTOP POWER MODULE W/ INTEGRATED POWER STRIP
    - (1) HPWRTRGH17 - CABLE MANAGEMENT FOR UNDER DESK
15. PROVIDE TASK CHAIR MODEL HIWMM.Y1.A.S.IM.APX14.BL.SB.T
16. (E) COLUMN
17. SURFACE MOUNTED FIRE EXTINGUISHER
18. INJECT FOAM INSULATION INTO CMU CELLS @ ELECTRICAL RM. PERIMITER, TYP. (SHADED AREA)
19. ROOF HATCH ABOVE
20. REPLACE (E) 3'-0"X7'-0" DOOR WITH A NEW 3'-0"X7'-0" DOOR
21. NETWORK RACK, RE: ELECT.

## GENERAL NOTES

1. PAINT EXPOSED CMU BLOCK ONLY
2. INFILL EXISTING FLOOR DRAINS, FILL W/NON-SHRINK GROUT TO LEVEL FLOOR FINISH. GRIND FLOOR TO CLASS "A" FINISH, AND POLISH TO A LEVEL 2 SATIN SHEEN (400 GRIT), COAT WITH A PENETRATING SEALER SUCH AS H&C ENDURA POLISH WATER BASED LIQUID HARDENER AND DENSIFIER.
3. REFER TO ELECTRICAL DRAWINGS FOR PROPOSED CONDUIT ROUTINGS / PENETRATIONS THROUGH EXTERIOR / INTERIOR WALLS AND PARTITIONS. RE: C/A-9 FOR PENETRATION DETAILS LESS THAN 2", RE: STRUCTURAL DRAWINGS FOR PENETRATION DETAILS LESS THAN 12".
4. REFER TO SECURITY DRAWINGS FOR LOCATIONS OF SECURITY DEVICES, CARD READERS, CAMERAS, ETC.


stv
TEXAS STATE CERTIFIED ARCHITECTURE FIRM
BR-2084



REGISTERED ARCHITECT
STATE OF TEXAS
03-05-26


| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
ARCHITECTURAL PLAN

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-11
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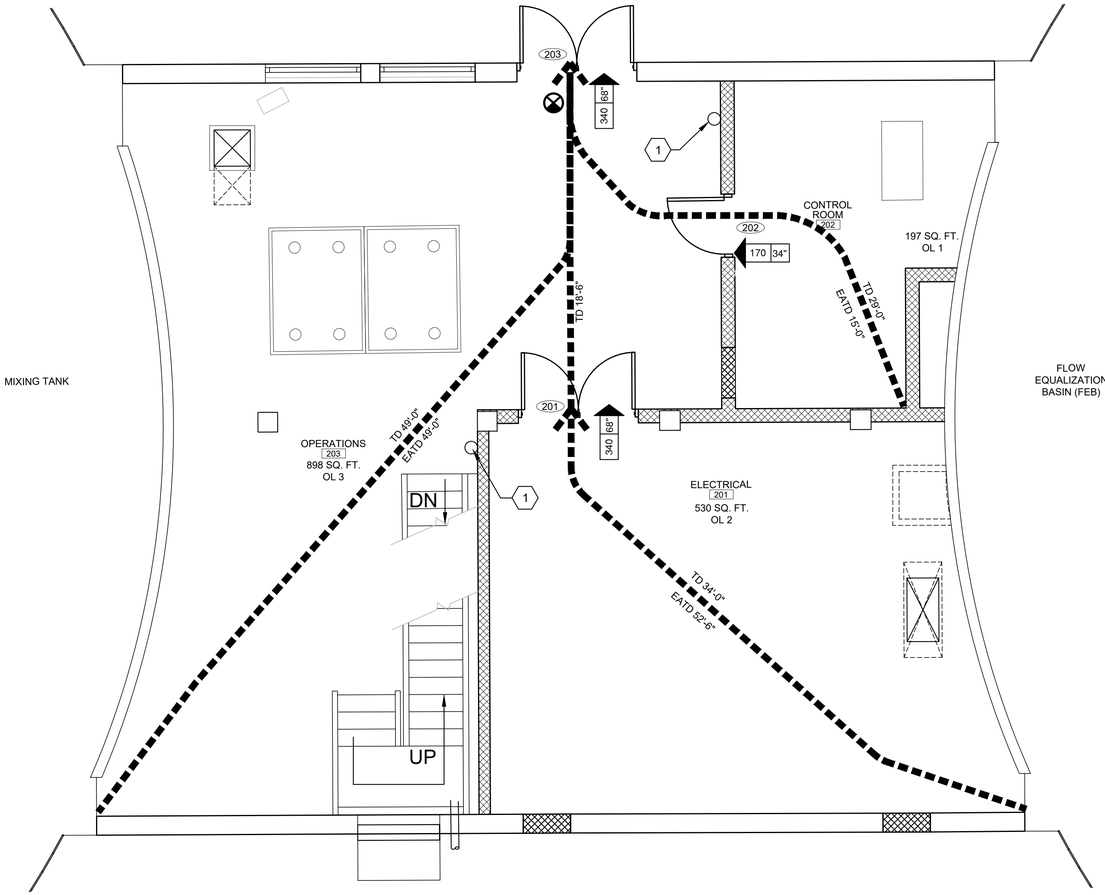



FEB LIFE SAFETY PLAN

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. FIRE EXTINGUISHER - MP10 CLASS A,B, & C

NUMBER OF OCCUPANTS — EGRESS WIDTH

## | XX

EXIT ACCESS TRAVEL DISTANCE - TABLE 1017.2

OCC. TYPE 'F-1' WITHOUT SPRINKLER 200'-0" (MAX ALLOWED) 52'-6" (PROVIDED)

MAXIMUM COMMON PATH OF TRAVEL

OCC. TYPE 'F' OL LESSTHAN/EQUAL TO 30 LESS THAN 75'-0" REQUIRED 52'-6" PROVIDED

EGRESS COMPONENTS

| | | |
|---|---|---|
| MIN. WIDTH-STAIR | 0.3/OCCUPANT | 36" MIN. PROVIDED |
| MIN. WIDTH-OTHER THAN STAIR | 0.2/OCCUPANT | 34" MIN. PROVIDED |

INTERIOR WALL & CEILING FINISH
IBC TABLE 803.13 - NON SPRINKLERED

| GROUP | INTERIOR EXIT PASSAGEWAYS | CORRIDORS | ROOMS & ENCLOSED SPACES |
|---|---|---|---|
| F | B | C | C |
| | | | |

TRAVEL DISTANCE (TD)
ESTIMATED ACCESS TRAVEL DISTANCE (EATD)


TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


03-05-26

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

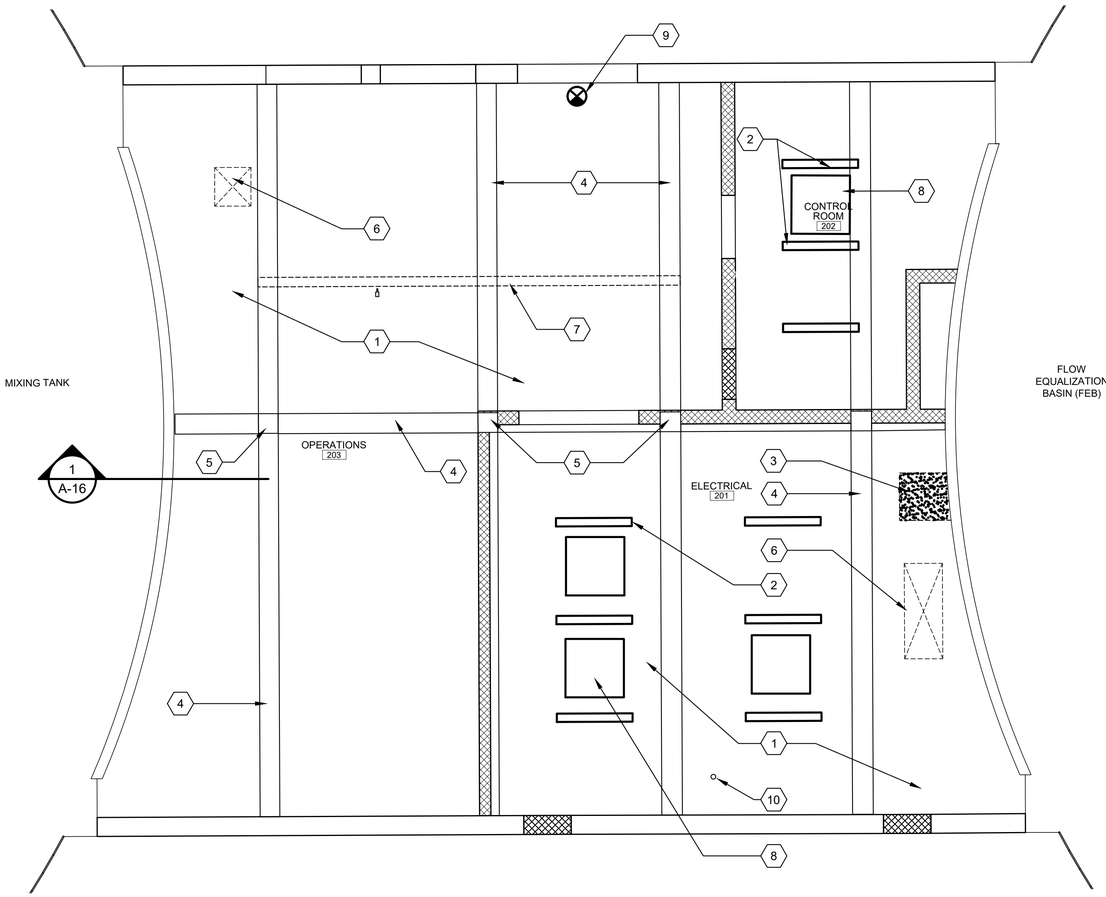
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
LIFE SAFETY PLAN

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-12




FEB BUILDING REFLECTED CEILING PLAN

4 2 0 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. EXPOSED (E) CONC. DECK ABOVE, PAINT
2. SUSPENDED LIGHT FIXTURE, RE: ELECT.
3. PATCHED (E) OPENING AT REMOVED ACCESS HATCH, RE: F/S-22
4. (E) CEILING BEAMS ABOVE, PAINT
5. (E) COLUMN
6. (E) DUCT TO REMAIN
7. (E) HOIST BEAM
8. SUSPENDED EQUIP., RE: HVAC
9. EXIT SIGNAGE, RE: ELECT.
10. SEALED OPENING FROM ROOF ABOVE. RE: F/S-21 (SMALLER PENETRATIONS SEE A/A-16)

## GENERAL NOTES

1. PATCH PENETRATIONS THROUGH ROOF PER F/S-21 & APPLY LIQUID ROOFING MEMBRANE OVER PATCHES.


stv
TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


03-05-26

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0

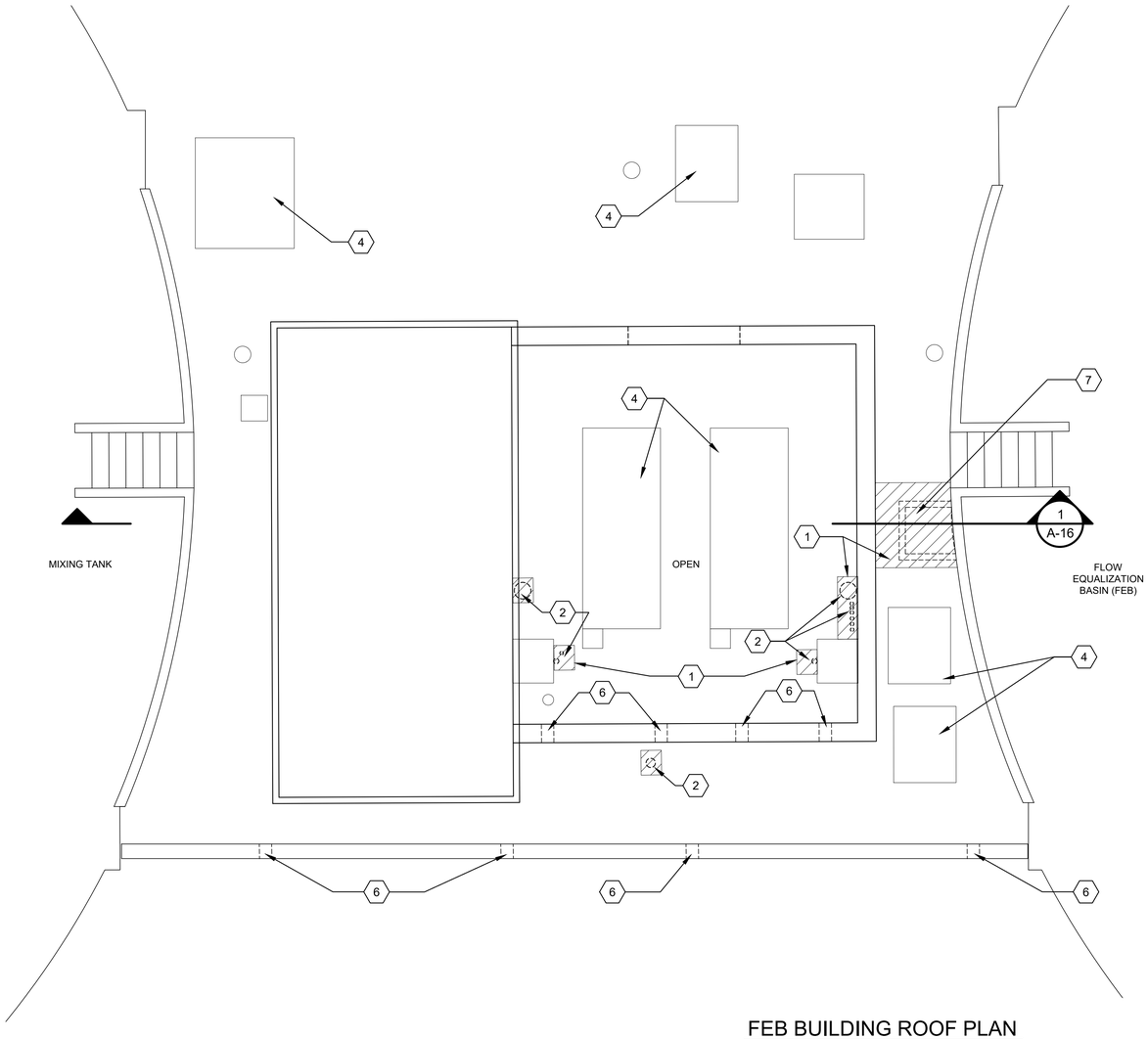
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
REFLECTED CEILING PLAN

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-13




FEB BUILDING ROOF PLAN

4 2 0 4

SCALE IN FEET

N

INDICATES LIMITS OF LIQUID APPLIED ROOF COVERING

## NOTES BY SYMBOL (X)

1. EXTENTS OF SILICON ROOF MEMBRANE INSTALLATION
2. REMOVE PENETRATION & PATCH (E) ROOF OPENING, RE: A/A-16
3. REMOVE EXISTING EQUIP. & PATCH. (E) ROOF OPENINGS GREATER THAN 6" RE: F/S-21
4. (E) EQUIP. TO REMAIN
5. NOT USED.
6. EXISTING THRU-WALL ROOF SCUPPER DRAINS TO REMAIN
7. REMOVED ROOF HATCH, PATCH AS PER RE: F/S-22

## GENERAL NOTES

1. PATCH PENETRATIONS THROUGH ROOF PER F/S-21 & APPLY LIQUID ROOFING MEMBRANE OVER PATCHES.
2. GC TO FIELD VERIFY LOCATION OF ALL COMPONENTS ON THE ROOF.
3. CONTRACTOR TO ENSURE ROOF REPAIRS ARE TO BE SEALED WITH AN ELASTOMERIC SEALER AND TO NOT VOID THE WARRANTY OF RECENT ROOF REPAIR BY EMPIRE ROOFING COMPANIES, INC.


stv
TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


03-05-26

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

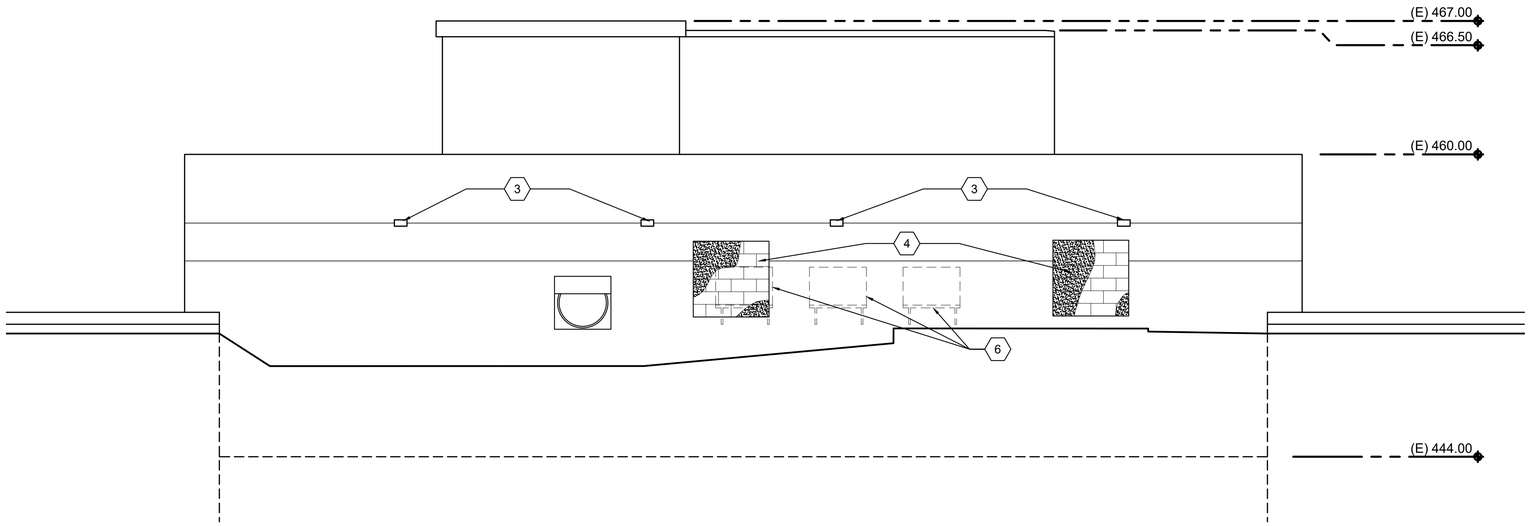
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING ROOF PLAN

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

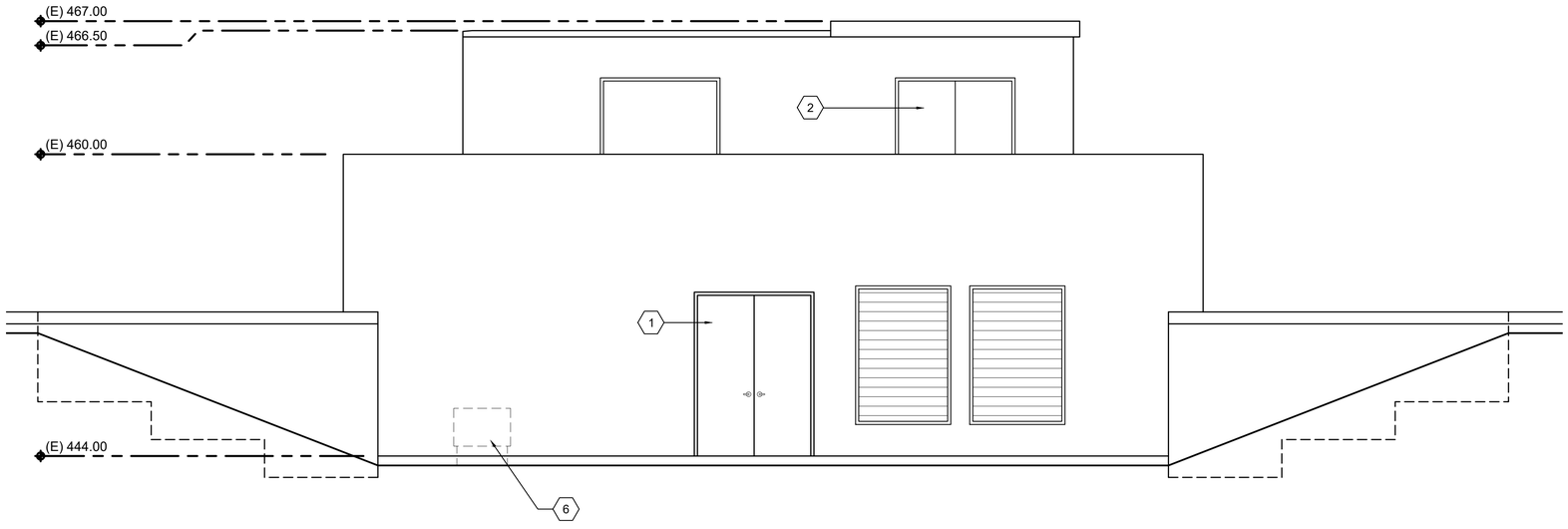
SHEET
A-14




1 A-11 WEST ELEVATION

2 1 0 2

SCALE IN FEET




2 A-11 EAST ELEVATION

2 1 0 2

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. (N) DOOR AS SCHED.
2. (E) DOOR TO REMAIN
3. (E) ROOF SCUPPER DRAIN
4. FILL OPNG AT REMOVE THRU WALL EQUIPMENT, RE: 6/A-9
5. NOT USED
6. RE: HVAC


TEXAS REGISTERED ARCHITECTURE FIRM BR-4334

REGISTERED ARCHITECT DAVID W. VOLKERT 03-05-26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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ARCHITECTURAL FEB BUILDING ELEVATIONS & DETAILS

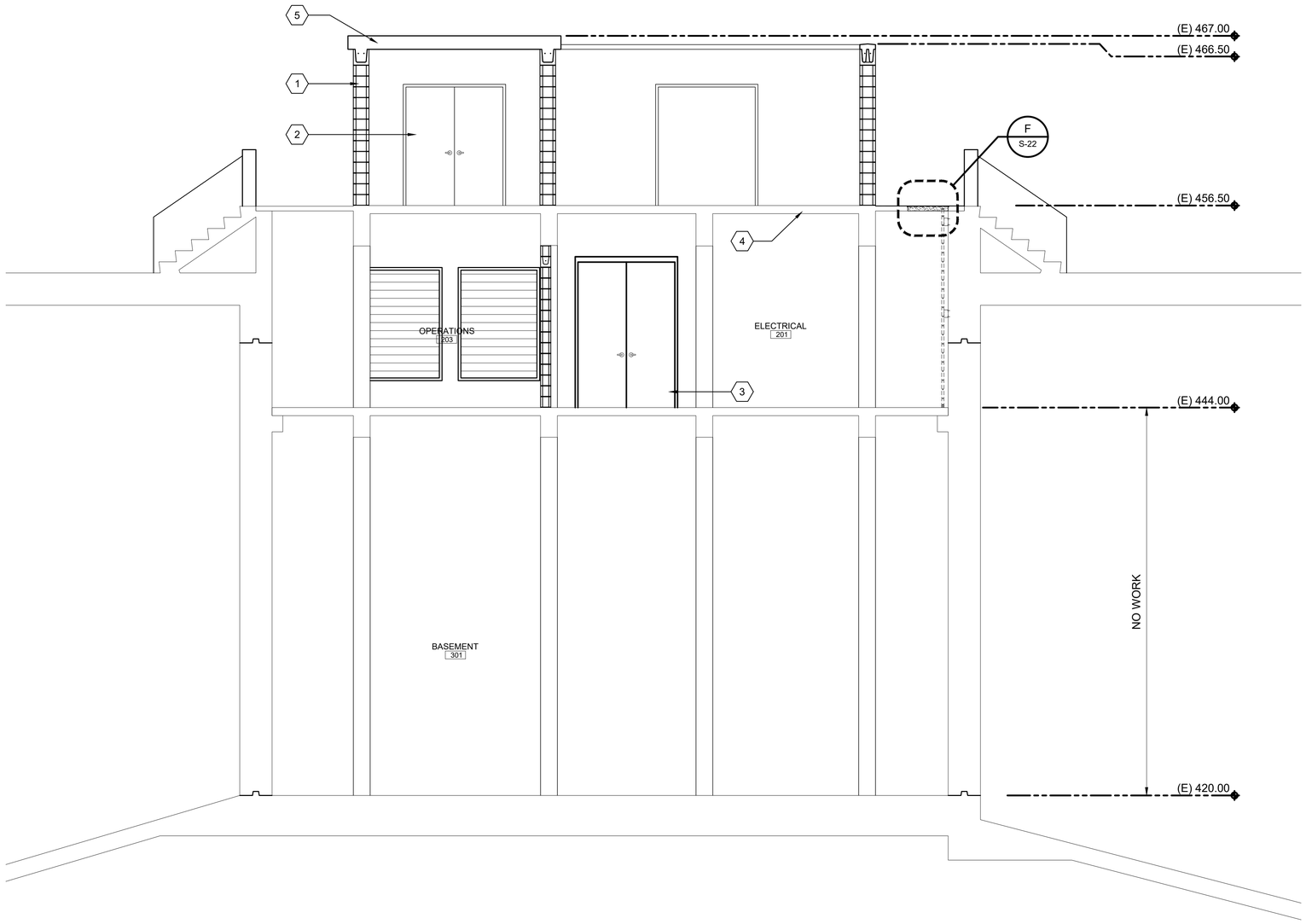
| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

A-15

## NOTES BY SYMBOL (X)

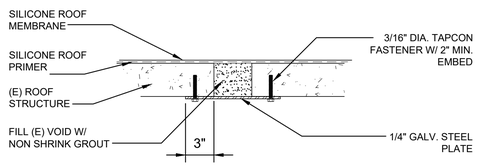
1. (E) CMU WALL TO REMAIN
2. (E) DOORS TO REMAIN
3. (N) DOOR AS SCHED.
4. (E) FLOOR STRUCT.
5. (E) ROOF STRUCT. TO REMAIN




1 A-11 SECTION

2 1 0 2

SCALE IN FEET




A ROOF PATCH DETAIL

1/2 0 1/2 1

SCALE IN FEET


TEXAS REGISTERED ARCHITECTURE FIRM BR-4334

REGISTERED ARCHITECT DAVID VOSS 03-05-26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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL 1" DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

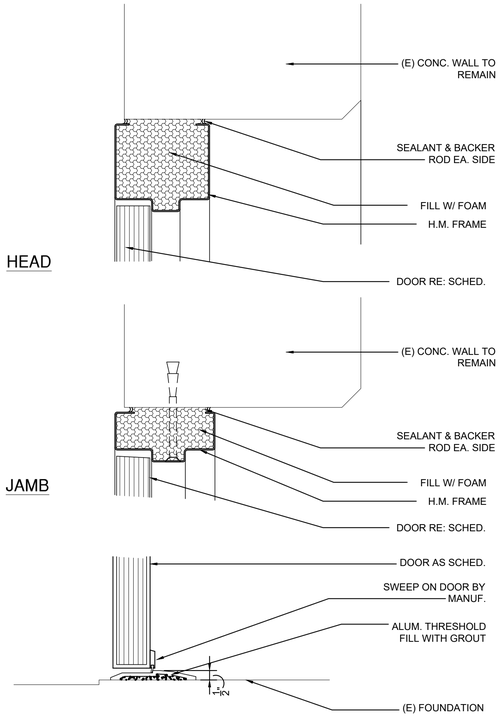
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
SECTION & DETAILS

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

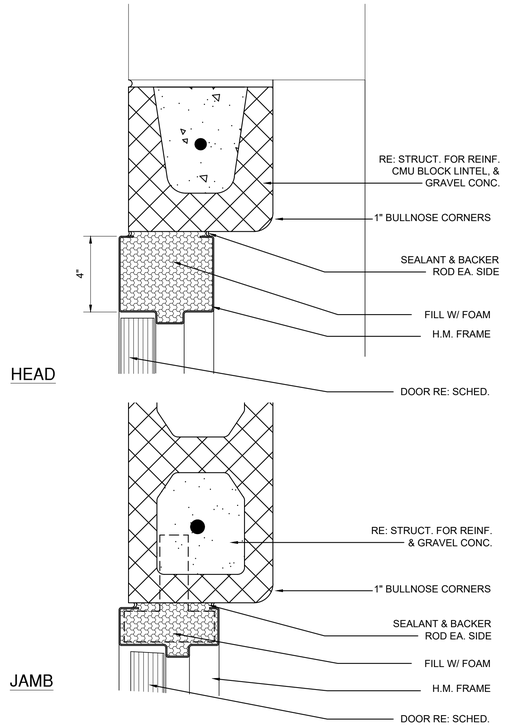
SHEET
A-16




A DOOR DETAIL

3 2 1 0 3 6

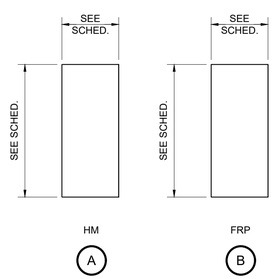
SCALE IN INCHES




B DOOR DETAIL

3 2 1 0 3 6

SCALE IN INCHES




C DOOR TYPE

4 2 0 4

SCALE IN FEET

# ROOM FINISH SCHEDULE

| Room | | ELECTRICAL ROOM 201 | CONTROL ROOM 202 | OPERATIONS 203 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | E N S W — DENOTES WALL WHERE FINISH OCCURS; E N S W — DENOTES SAME FINISH ON ALL WALLS | | | | | | | | | | | |
| FLOOR | EXISTING CONC. | ○ | | ○ | | | | | | | | |
| | POLISHED CONC. FLOOR | | ○ | | | | | | | | | |
| | | | | | | | | | | | | |
| BASE | NO BASE | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| | 4" RUBBER - COVED | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| WALLS | (E) CMU - PAINTED | ● | ● | ● | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| | (E) CONCRETE | ● | ● | ● | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| CEILINGS | EXPOSED STRUCTURE | ○ | ○ | ○ | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | Height | | | | | | | | | | | |
| | Notes: | | | | | | | | | | | |

# DOOR SCHEDULE

| NUMBER | DOOR TYPE | DOOR MAT. | DOOR WIDTH | DOOR HT. | DOOR THK. | FRAME MAT. | FRAME HEAD | FRAME JAMB | FRAME SILL | FIRE RATING LABEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 201 | A | HM | (2)3'-0" | 9'-0" | 1 3/4" | HM | B/A-17 | B/A-17 | | | 1., 2. |
| 202 | A | HM | 3'-0" | 7'-0" | 1 3/4" | HM | B/A-17 | B/A-17 | | | 1. |
| 203 | B | FRP | (2)3'-0" | 8'-6" | 1 3/4" | FRP | A/A-17 | A/A-17 | A/A-17 | | 1., 2. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

REMARKS:
1. ADD CARD READER
2. VERT. MULLION


sti
TEXAS REGISTERED ARCHITECTURE FIRM BR-4334


03-05-26

| NO. | REVISION | BY | DATE |
|---|---|---|---|

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

VERIFY SCALE 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARCHITECTURAL FEB BUILDING
DOOR DETAILS & SCHEDULES

| | |
|---|---|
| DESIGN: | DV |
| DRAWN: | CC |
| REVIEW: | DV |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
A-17
47 of 196

REINFORCED CONCRETE:

1. REINFORCED CONCRETE REQUIREMENTS SHALL BE PER THE DRAWINGS AND SPECIFICATIONS. REINFORCED CONCRETE DESIGN STRENGTHS SHALL BE AS FOLLOWS:

| | |
|---|---|
| HEADWORKS FACILITY | CLASS C, 3600 PSI |
| DUMPSTER PAD | CLASS C, 3600 PSI |
| METER VAULT | CLASS C, 3600 PSI |
| RECEIVING STATION | CLASS C, 3600 PSI |
| ODOR CONTROL PAD | CLASS C, 3600 PSI |
| AVR VAULT | CLASS C, 3600 PSI |

2. MINIMUM DEVELOPMENT LENGTH FOR REINFORCING BARS IN TENSION AND COMPRESSION, FOR STANDARD HOOKS IN TENSION, AND MINIMUM LAP SPLICE LENGTH FOR REINFORCING BARS IN TENSION AND COMPRESSION SHALL BE AS GIVEN IN THE FOLLOWING TABLE FOR GR 60 REINFORCEMENT IN 3600 PSI CONCRETE.

| BAR SIZE | DEVELOPMENT LENGTH (IN) | | | | LAP SPLICE LENGTH (IN) | | |
|---|---|---|---|---|---|---|---|
| | TOP BARS IN TENSION LD | OTHER BARS IN TENSION LD | BARS IN COMPRESSION LDC | STD HOOK IN TENSION LDH | TOP BARS IN TENSION LST | OTHER BARS IN TENSION LST | BARS IN COMPRESSION LSC |
| #3 | 18 | 14 | 8 | 7 | 24 | 18 | 12 |
| #4 | 25 | 19 | 9 | 9 | 32 | 25 | 15 |
| #5 | 31 | 24 | 12 | 12 | 40 | 31 | 19 |
| #6 | 37 | 28 | 14 | 14 | 48 | 37 | 23 |
| #7 | 54 | 42 | 17 | 17 | 70 | 54 | 26 |
| #8 | 62 | 47 | 19 | 19 | 80 | 62 | 30 |
| #9 | 70 | 54 | 21 | 21 | 90 | 70 | 34 |
| #10 | 78 | 60 | 24 | 24 | 102 | 78 | 38 |
| #11 | 87 | 67 | 27 | 27 | 113 | 87 | 42 |

a. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR. HORIZONTAL BARS IN WALLS ARE TO BE PROVIDED WITH LAPS AS REQUIRED FOR TOP BARS.

b. EXCEPT AS OTHERWISE INDICATED ON THE PLANS, USE DEVELOPMENT LENGTH AND LAP SPLICE LENGTH FOR REINFORCING BARS IN TENSION.

c. MINIMUM DEVELOPMENT AND LAP SPLICE LENGTHS FOR BARS IN TENSION AS SHOWN IN THE ABOVE TABLE ARE BASED ON 2 BAR DIAMETER CLEAR SPACING (MIN) AND 1 BAR DIAMETER CLEAR CONCRETE (MIN).

d. MINIMUM DEVELOPMENT LENGTH FOR #11 OR SMALLER STANDARD HOOKS IN TENSION MAY BE MULTIPLIED BY 0.7 IF SIDE COVER IS LARGER THAN 2-1/2 IN AND FOR 90-DEGREE HOOK WITH COVER ON BAR EXTENSION BEYOND HOOK LARGER THAN 2 IN.

e. MINIMUM DEVELOPMENT LENGTH FOR BARS IN COMPRESSION MAY BE MULTIPLIED BY 0.75 IF CONFINEMENT CONDITIONS DEFINED IN ACI 318-19 TABLE 25.4.9.3 ARE MET.

3. UNLESS OTHERWISE SHOWN, THE MINIMUM CONCRETE CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

| CONCRETE EXPOSURE | COVER (IN) |
|---|---|
| CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND | 3 |
| EXPOSED TO EARTH, LIQUID, WEATHER OR IN CONTACT WITH GROUND | 2 |
| NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND | 1 1/2 |

4. REINFORCING BAR SPACING INDICATED IN DRAWINGS SHALL BE MEASURED FROM BARS CENTER TO CENTER.
5. DESIGN DRAWINGS DO NOT SHOW ADDITIONAL REINF. BARS AT WALL CORNERS AND OPENINGS. CONTRACTOR SHALL REFER TO STRUCTURAL STANDARD SHEETS TO ADD ALL REQUIRED REINF. BARS IN THE SHOP DRAWINGS.
6. CONTRACTOR TO REPAIR, PATCH, ETC. ANY CONCRETE SURFACE AFTER DEMOLISHING WALL, WALKWAY, ETC. INCLUDING ALL HOLES DUE TO REMOVAL OF PIPES, UTILITIES, ETC PER SPECIFICATION AND STANDARD DETAIL.
7. CONTRACTOR TO REPAIR CRACKS, EXPANSION JOINTS, ETC PER SPECIFICATIONS AND STANDARD DETAILS.

MASONRY:

1. MASONRY VENEER SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. CONCRETE BLOCKS SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. USE BOND BEAMS AT HORIZONTAL REINFORCING. USE KNOCK-OUT LINTEL UNITS WHERE HORIZONTAL AND VERTICAL REINFORCEMENT CROSS.
3. MASONRY WALL ASSEMBLY SHALL BE CONSTRUCTED SUCH THAT PRISM STRENGTH OF F'M=1500 PSI IS DEVELOPED. MORTAR SHALL CONFORM TO ASTM C270, TYPE S.
4. HORIZONTAL JOINT REINFORCING SHALL BE TRUSS TYPE 9 GA. WELDED WIRE @ 16 IN VERTICALLY. LAP HORIZONTAL JOINT REINFORCING 6" AT SPLICES.
5. GROUT WITH 3/8 INCH AGGREGATE WITH A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED FOR VERTICAL & HORIZONTAL REINFORCED SECTIONS. ALL CELLS SCHEDULED OR INDICATED AS BEING REINFORCED AND AS SHOWN ON MASONRY DETAILS SHALL BE FULLY GROUTED. 1/2 INCH MAXIMUM AGGREGATE SHALL BE USED FOR LINTELS AND BOND BEAMS.
6. ALL REINFORCING SHALL BE ASTM A615 GRADE 60. PROVIDE MINIMUM 1/2 INCH CLEARANCE BETWEEN MAIN REINFORCING AND MASONRY UNITS. VERTICAL AND HORIZONTAL REINFORCING SHALL BE AS INDICATED ON THE DRAWINGS. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE DETAILED OTHERWISE ON THE DRAWINGS.
7. MINIMUM DEVELOPMENT LENGTH AND LAP SPLICE LENGTH FOR REINFORCING BARS SHALL BE AS GIVEN IN THE FOLLOWING TABLE.

| BAR SIZE | DEVELOPMENT LENGTH & LAP SPLICE (IN) | | | |
|---|---|---|---|---|
| | BARS CENTERED IN WALL (SINGLE REINFORCING) | | BARS PLACED WITH COVER = 3" (DOUBLE REINFORCING) | |
| | 8" CMU | 12" CMU | 8" CMU | 12" CMU |
| #3 | 18 | 18 | 18 | 18 |
| #4 | 24 | 24 | 24 | 24 |
| #5 | 30 | 30 | 30 | 30 |
| #6 | 37 | 36 | 49 | 49 |
| #7 | - | 42 | - | 63 |

8. USE 'LOW LIFT' CONSTRUCTION, WITH A MAXIMUM GROUT POUR HEIGHT OF 4 FEET.
9. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOUNDATIONS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL. PROVIDE DOWELS EQUAL TO WALL REINFORCEMENT IN SIZE, QUANTITY AND SPACING AND HOOK INTO CONCRETE FOOTINGS WITH STANDARD HOOKS.
10. REFER TO BUILDING ELEVATION DRAWINGS FOR SURFACE AND HEIGHT OF MASONRY UNITS, LAYING PATTERN AND JOINT TYPE.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL AND MISC METAL REQUIREMENTS SHALL BE PER THE DRAWINGS AND SPECIFICATIONS.
2. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION.

METAL DECK:

1. MATERIAL AND FASTENING REQUIREMENTS SHALL BE PER THE DRAWINGS AND DIVISION 5 SPECIFICATIONS.
2. ALL METAL DECKING HAS BEEN DESIGNED FOR UNSHORED CONSTRUCTION, UNLESS NOTED. WHERE POSSIBLE, DECK SHALL EXTEND OVER THREE OR MORE SUPPORTS.
3. METAL DECK FABRICATION AND INSTALLATION MUST COMPLY WITH STEEL DECK INSTITUTE (SDI) STANDARDS. DECK MANUFACTURER SHALL BE A MEMBER OF THE SDI.
4. SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, PIPES OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE METAL DECK.

POST-INSTALLED ANCHORS:

1. POST-INSTALLED CONCRETE AND MASONRY ANCHOR REQUIREMENTS SHALL BE PER THE DRAWINGS AND DIVISION 5 SPECIFICATIONS.
2. DESIGN OF ALL POST-INSTALLED ANCHORS SHALL BE BASED ON THE CRACKED CONCRETE DESIGN CONDITION, UNLESS NOTED.
3. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
4. INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL TRAINED AND QUALIFIED TO INSTALL ADHESIVE ANCHORS.
5. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO THE EDGE OF CONCRETE OR MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
6. LOCATE BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO THE INSTALLATION OF ANCHORS. IF THE EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

COORDINATION:

1. PIPING AND MECHANICAL PENETRATIONS IN THE STRUCTURAL FRAMING COMPONENT MEMBERS ARE INDICATED ON THE STRUCTURAL DRAWINGS AT CRITICAL LOCATIONS. HOWEVER, ALL SLEEVES, INSERTS AND OPENINGS, INCLUDING FRAMES AND/OR SLEEVES SHALL BE PROVIDED FOR PASSAGE, PROVISION AND/OR INCORPORATION OF THE WORK OF THE CONTRACT, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL, HVAC PIPING, ELECTRICAL AND PLUMBING WORK. THIS WORK SHALL INCLUDE THE COORDINATION OF SIZES, ALIGNMENT, DIMENSIONS, POSITION, LOCATIONS, ELEVATIONS AND GRADES AS REQUIRED TO SERVE THE INTENDED PURPOSE. OPENINGS NOT INDICATED ON THE STRUCTURAL DRAWINGS, BUT REQUIRED AS NOTED ABOVE, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. NOT ALL PENETRATIONS ARE SHOWN IN STRUCTURAL DRAWINGS. CONTRACTOR TO COORDINATE W/ALL OTHER DISCIPLINE DRAWINGS PRIOR TO FABRICATION OR PLACING CONCRETE.
2. FLOOR ELEVATIONS, SLOPES, DRAINS AND LOCATION OF DEPRESSED AND ELEVATED FLOOR AREAS SHALL BE COORDINATED WITH ALL DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IN THE EVENT OF A DISCREPANCY BETWEEN DISCIPLINES.
3. COMPATIBILITY OF THE STRUCTURE AND PROVISIONS FOR BUILDING EQUIPMENT SUPPORTED ON OR FROM STRUCTURAL COMPONENTS SHALL BE VERIFIED AS TO SIZE, DIMENSIONS, CLEARANCES, ACCESSIBILITY, WEIGHTS AND REACTION WITH THE EQUIPMENT FOR WHICH THE STRUCTURE HAS BEEN DESIGNED PRIOR TO SUBMISSION OF SHOP DRAWINGS AND DATA FOR EACH PIECE OF EQUIPMENT AND FOR STRUCTURAL COMPONENTS. DIFFERENCES SHALL BE NOTED ON THE SUBMITTALS.
4. SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL ITEMS AND SUBMITTED FOR REVIEW BY THE ENGINEER. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS. ALL ITEMS DEVIATING FROM THE CONTRACT DRAWINGS OR FROM PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL BE CLOUDED.
5. THE DETAILS DESIGNATED AS "TYPICAL DETAILS" OR "STANDARD DETAILS" APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS.
6. ALL RELEVANT DIMENSIONS AND CONDITIONS OF EXISTING CONSTRUCTION SHALL BE FIELD VERIFIED AT THE PROJECT SITE PRIOR TO FABRICATION OR CONSTRUCTION. DISCREPANCIES BETWEEN EXISTING CONSTRUCTION AND THE DRAWINGS SHALL BE REFERRED TO THE ENGINEER FOR RESOLUTION THROUGH A REQUEST FOR INFORMATION (RFI). DIFFERENCES SHALL ALSO BE CLOUDED ON THE SHOP DRAWINGS.
7. THE DESIGN AND PROVISION OF ALL TEMPORARY SUPPORTS SUCH AS GUYS, BRACES, FALSEWORK, SUPPORTS AND ANCHORS FOR SAFETY LINES, RIBBING, OR ANY OTHER TEMPORARY ELEMENTS REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THESE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY SUPPORTS SHALL NOT RESULT IN THE OVERSTRESS OR DAMAGE OF THE ELEMENTS TO BE BRACED NOR ANY ELEMENTS USED AS BRACE SUPPORTS.

CODES:

1. INTERNATIONAL BUILDING CODE IBC (2021).
2. MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES (ASCE/SEI 7-16).
3. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-19).
4. CODE REQUIREMENTS OF ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI 350-20).
5. AISC MANUAL OF STEEL CONSTRUCTION (15TH EDITION).

DESIGN LOADS:

1. RISK CATEGORY: III
2. FLOOR LIVE LOADS: 125 PSF
3. ROOF LIVE LOAD: 20 PSF
4. SNOW LOADS:
   - GROUND SNOW LOAD, Pg: 5 PSF
   - FLAT ROOF SNOW LOAD, Pf: 4.2 PSF
   - SNOW EXPOSURE FACTOR, Ce: 0.9
   - SNOW IMPORTANCE FACTOR, Is: 1.1
   - THERMAL FACTOR, Ct: 1.2
5. WIND LOADS:
   - DESIGN WIND SPEED, V: 115 MPH
   - NOMINAL WIND SPEED, V asd: 89 MPH
   - EXPOSURE CATEGORY: C
6. SEISMIC LOADS:
   - SEISMIC IMPORTANCE FACTOR, Ie: 1.25
   - SEISMIC SITE CLASS: E
   - 0.2 SEC SPECTRAL RESPONSE, Ss: 5.4 % g
   - 1.0 SEC SPECTRAL RESPONSE, S1: 3.1 % g
   - DESIGN SPECTRAL RESPONSE, Sds: 8.6 % g
   - DESIGN SPECTRAL RESPONSE, Sd1: 8.7 % g
   - SEISMIC DESIGN CATEGORY: B
7. RAIN LOADS:
   - RAIN INTENSITY, i: 11.2 INCHES PER HR

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL GENERAL NOTES, ABBREVIATIONS, & SPECIAL INSPECTIONS (1 OF 3)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | S.MEDINA |
| REVIEW: | K.BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-1
48 of 196

PRINTED BY: CantuM DATE: 6/18/2025
FILE PATH: C:\pwworkingstv\pw_stvd0747958\AUST1500124_04_S-1 to S-3_CPY.dwg

STRUCTURAL ABBREVIATIONS:

| | |
|---|---|
| AFF | ABOVE FINISH FLOOR |
| ADDN'L | ADDITIONAL |
| AB | ANCHOR BOLT |
| ALUM | ALUMINUM |
| APPROX | APPROXIMATE |
| ARCH | ARCHITECT |
| ARCH'L | ARCHITECTURAL |
| A/C | AIR CONDITIONER |
| AHU | AIR HANDLING UNIT |
| BSMT | BASEMENT |
| BM | BEAM |
| BRG | BEARING |
| BFF | BELOW FINISH FLOOR |
| BTWN | BETWEEN |
| BLK | BLOCK |
| BLKG | BLOCKING |
| BOT | BOTTOM |
| BLDG | BUILDING |
| BL | BUILDING LINE |
| CIP | CAST-IN-PLACE |
| CLG | CEILING |
| CL OR ℄ | CENTER LINE |
| CHKD | CHECKERED |
| CLR | CLEAR |
| COL | COLUMN |
| C OR COMP | COMPRESSION |
| CONC | CONCRETE |
| CMU | CONCRETE MASONRY UNIT |
| CONN(S) | CONNECTION (S) |
| CONT | CONTINUOUS |
| CJ | CONSTRUCTION JOINT |
| DET | DETAIL |
| DL | DEAD LOAD |
| DEMO | DEMOLITION |
| DIAG | DIAGONAL |
| DIA OR Ø | DIAMETER |
| DIM(S) | DIMENSION(S) |
| DWG(S) | DRAWING(S) |
| DBL | DOUBLE |
| DWL(S) | DOWEL(S) |
| EA | EACH |
| EF | EACH FACE |
| ES | EACH SIDE |
| EW | EACH WAY |
| ELEC | ELECTRICAL |
| EL | ELEVATION |
| EMBED | EMBEDMENT |
| EQ | EQUAL |
| EJ | EXPANSION JOINT |
| EXIST OR EX | EXISTING |
| F TO F | FACE TO FACE |
| FS | FAR SIDE |
| FF | FINISHED FLOOR |
| FLG | FLANGE |
| FL OR | FLOOR OR FLOW LEVEL |
| FD | FLOOR DRAIN |
| FTG | FOOTING |
| FDN | FOUNDATION |
| GA | GAGE OR GAUGE |
| GALV | GALVANIZED |
| GC | GENERAL CONTRACTOR |
| GR BM | GRADE BEAM |
| HS | HEADED STUDS |
| HT | HEIGHT |
| HP | HIGH POINT |
| HSS | HOLLOW STRUCTURAL SECTION |
| HORIZ | HORIZONTAL |
| INFO | INFORMATION |
| ID | INSIDE DIAMETER |
| IF | INSIDE FACE |
| INT | INTERIOR |
| INTERM | INTERMEDIATE |
| JT | JOINT |
| JST(S) | JOIST(S) |
| K | KIPS (1000 LBS) |
| KLF | KIP PER LINEAR FOOT |
| KSF | KIP PER SQUARE FOOT |
| LL | LIVE LOAD |
| LG | LONG |
| LONG | LONGITUDINAL |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LP | LOW POINT |
| MFR | MANUFACTURER |
| MAX | MAXIMUM |
| MECH | MECHANICAL |
| MEZZ | MEZZANINE |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| MC | MOMENT CONNECTION |
| NS | NEAR SIDE |
| NOM | NOMINAL |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| NO OR # | NUMBER |
| OC | ON CENTER |
| OPNG(S) | OPENING(S) |
| OPP | OPPOSITE |
| OH | OPPOSITE HAND |
| OF | OUTSIDE FACE |
| OD | OUTSIDE DIAMETER |
| PERP | PERPENDICULAR |
| PC | PIECE |
| PL OR | PLATE |
| P-T | POST-TENSION(ED)(ING) |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| P/C | PRECAST CONCRETE |
| R | RADIUS |
| RCP | REINFORCED CONCRETE PIPE |
| REINF | REINFORCE(ING) (ED) (MENT) |
| REQ'D | REQUIRED |
| RD | ROOF DRAIN |
| SCHED | SCHEDULE(D) |
| SECT | SECTION |
| SHT(S) | SHEET(S) |
| SIM | SIMILAR |
| SP | SPACE |
| SPEC(S) | SPECIFICATION(S) |
| SF | SQUARE FOOT (FEET) |
| SS | STAINLESS STEEL |
| STD | STANDARD |
| STL | STEEL |
| STIFF | STIFFENER |
| STR | STRAIGHT |
| STIR | STIRRUPS |
| STRUCT'L | STRUCTURAL |
| SYM | SYMMETRICAL |
| THK | THICK |
| T&G | TONGUE AND GROOVE |
| T&B | TOP AND BOTTOM |
| TOB | TOP OF BEAM |
| TOF | TOP OF FOOTING |
| TOJ | TOP OF JOIST |
| TOP | TOP OF PIER |
| TOPC | TOP OF PIER CAP |
| TOS | TOP OF STEEL |
| TOSC | TOP OF STRUCTURAL CONCRETE |
| TOW | TOP OF WALL |
| TYP | TYPICAL |
| UON | UNLESS OTHERWISE NOTED |
| VERT | VERTICAL |
| WWF | WELDED WIRE FABRIC |
| W/ | WITH |
| W/O | WITHOUT |
| WP | WORK POINT |

SPECIAL INSTRUCTIONS - IBC 2021:

1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER FOR THE ITEMS IDENTIFIED IN THIS SECTION AND IN OTHER AREAS OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS, UNLESS WAIVED BY THE BUILDING OFFICIAL (SEE IBC CHAPTER 17).

2. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL FOR APPROVAL.

3. DUTIES OF THE SPECIAL INSPECTOR.

   a. THE SPECIAL INSPECTOR SHALL REVIEW ALL WORK LISTED BELOW FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AND THE 2021 IBC.
   b. THE SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE ENGINEER OF RECORD, CONTRACTOR, OWNER AND BUILDING OFFICIAL ON A WEEKLY BASIS, OR MORE FREQUENTLY AS REQUIRED BY THE BUILDING OFFICIAL. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND IF UNCORRECTED, TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL.
   c. ONCE CORRECTIONS HAVE BEEN MADE BY THE CONTRACTOR, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS AS WELL AS THE APPLICABLE WORKMANSHIP PROVISIONS OF THE 2021 IBC.

4. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:

   a. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER, ENGINEER OF RECORD AND THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. IN ACCORDANCE WITH IBC 1704.4, THE STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS CONTAINED WITHIN THIS "STATEMENT OF SPECIAL INSPECTIONS".
   b. THE CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
   c. ALL WORK REQUIRING SPECIAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.

5. SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AND STRUCTURAL TESTS AS PART OF THIS PROJECT.

IBC TABLE 1705.6 - REQUIRED VERIFICATION AND INSPECTION OF SOILS

| | VERIFICATION AND INSPECTION | CONTINUOUS | PERIODIC | REFERENCED STANDARD |
|---|---|---|---|---|
| 1 | VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY | | X | |
| 2 | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL | | X | |
| 3 | PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS | | X | |
| 4 | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED SOIL | X | | |
| 5 | PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY | | X | |

IBC SECTION 1704.2.5 - INSPECTION OF FABRICATED ITEMS

| | AREAS REQUIRING SPECIAL INSPECTION | FREQUENCY | | COMMENTS |
|---|---|---|---|---|
| | | CONTINUOUS | PERIODIC | |
| 1 | STRUCTURAL STEEL | X | | IF FABRICATOR IS APPROVED, ON-SITE INSPECTION IS NOT REQUIRED BUT A CERTIFICATE OF COMPLIANCE MUST BE PROVIDED TO THE BUILDING OFFICIAL (IBC 1704.2.5.1) |
| 2 | PRECAST CONCRETE | X | | |

IBC SECTION 1705.2.1 - VERIFICATION & INSPECTION OF STRUCTURAL STEEL CONSTRUCTION

AISC CHAPTER N TABLE N5.6-1 INSPECTION TASKS PRIOR TO BOLTING

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| 1 | MANUFACTURER'S CERTIFICATION AVAILABLE FOR FASTENER MATERIALS | | X |
| 2 | FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS | | X |
| 3 | CORRECT FASTENERS SELECTED FOR JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE | | X |
| 4 | CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL | X | |
| 5 | CONNECTING ELEMENTS, INCLUDING APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS | | X |
| 6 | PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED | X | |
| 7 | PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS | | X |

AISC CHAPTER N TABLE N5.6-2 INSPECTION TASKS DURING BOLTING

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| 1 | FASTENER ASSEMBLIES OF SUITABLE CONDITION, PACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED | | X |
| 2 | JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATIONS | | X |
| 3 | FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING | | X |
| 4 | FASTENER ARE PRETENSIONED IN ACCORDANCE WITH RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES | | X |

AISC CHAPTER N TABLE N5.6- 3 INSPECTION TASKS AFTER BOLTING

| | | | |
|---|---|---|---|
| 1 | DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS | X | |

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STATE OF TEXAS · CHRIS POTTER · 137577 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL GENERAL NOTES, ABBREVIATIONS, & SPECIAL INSPECTIONS (2 OF 3)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | S.MEDINA |
| REVIEW: | K.BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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S-2
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SPECIAL INSTRUCTIONS - IBC 2021 (CONTINUED):

IBC TABLE 1705.3 - REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

| | VERIFICATION AND INSPECTION | CONTINUOUS | PERIODIC | REFERENCED STANDARD (a) | IBC REFERENCE |
|---|---|---|---|---|---|
| 1 | INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT | | X | ACI 318 CH. 20, 25.2, 25.3, 26.6.1-26.6.3 | |
| 2 | REINFORCING BAR WELDING | | | | |
| a | VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706; | | X | AWS D1.4 ACI 318: 26.6.4 | |
| b | INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; | | X | | |
| c | INSPECT ALL OTHER WELDS | X | X | | |
| 3 | INSPECT ANCHOR CAST IN CONCRETE | | X | ACI 318: 17.8.2 | |
| 4 | INSPECT ANCHOR POST-INSTALLED IN HARDENED CONCRETE MEMBERS (b) | | | | |
| a | ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTAINED TENSION LOADS | X | | ACI 318: 17.8.2.4 | |
| b | MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a | | X | ACI 318: 17.8.2 | |
| 5 | VERIFY USE OF REQUIRED DESIGN MIX | | X | ACI 318 CH. 19, 26.4.3, 26.4.4 | 1904.1, 1904.2 |
| 6 | PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE | X | | ASTM C172, ASTM C31, ACI 318: 26.5, 26.12 | |
| 7 | INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES | X | | ACI 318: 26.5 | |
| 8 | VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES | | X | ACI 318 CH. 26.5.3-26.5.5 | |
| 9 | INSPECT ERECTION OF PRECAST CONCRETE MEMBERS | | | | |
| a | APPLICATION OF PRESTRESSING FORCES | X | | ACI 318: 26.10 | |
| b | GROUTING OF BONDED PRESTRESSING TENDONS | X | | | |
| 10 | INSPECT ERECTION OF PRECAST CONCRETE MEMBERS | | X | ACI 318: 26.9 | |
| 11 | FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OF REINFORCEMENT OF JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR: | | | ACI 318: 26.13.1.3 ACI 550.5 | |
| a | INSTALLATION OF EMBEDDED PARTS | X | | | |
| b | COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS | X | | | |
| c | COMPLETION OF CONNECTIONS IN THE FIELD | X | | | |
| 12 | INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS IN ACCORDANCE WITH ACI 55O.5. | | X | ACI 318: 26.13.1.3 | |
| 13 | VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS | | X | ACI 318: 26.11.2 | |
| 14 | INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED | | X | ACI 318: 26.11.1.2(b) | |

a) WHERE APPLICABLE, SEE SECTION 1705.13, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.
b) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTIONS SHALL BE INCLUDED IN RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK.

IBC SECTION 1705.2.1 - VERIFICATION & INSPECTION OF STRUCTURAL STEEL CONSTRUCTION

AISC CHAPTER N TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING

| INSPECTION TASKS PRIOR TO WELDING | CONTINUOUS | PERIODIC |
|---|---|---|
| WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS | | X |
| WPS AVAILABLE | X | |
| MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE | | X |
| MATERIAL IDENTIFICATION (TYPE/GRADE) | | X |
| WELDER IDENTIFICATION SYSTEM (a) | | X |
| FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)<br>• JOINT PREPARATIONS<br>• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)<br>• CLEANLINESS (CONDITION OF STEEL SURFACES)<br>• TACKING (TACK WELD QUALITY AND LOCATION)<br>• BACKING TYPE AND FIT (IF APPLICABLE) | | X |
| FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K -JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)<br>• JOINT PREPARATIONS<br>• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)<br>• CLEANLINESS (CONDITION OF STEEL SURFACES)<br>• TACKING (TACK WELD QUALITY AND LOCATION) | | X |
| CONFIGURATION AND FINISH OF ACCESS HOLES | | X |
| FIT-UP OF FILLET WELDS<br>• DIMENSIONS (ALIGNMENT, GAPS AT ROOT)<br>• CLEANLINESS (CONDITION OF STEEL SURFACES)<br>• TACKING (TACK WELD QUALITY AND LOCATION) | | X |
| CHECK WELDING EQUIPMENT | | X |

(a) THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED SHALL BE LOW-STRESS TYPE.

AISC CHAPTER N TABLE N5.4-2 INSPECTION TASKS DURING WELDING

| INSPECTION TASKS DURING WELDING | CONTINUOUS | PERIODIC |
|---|---|---|
| CONTROL AND HANDLING OF WELDING CONSUMABLES<br>• PACKAGING<br>• EXPOSURE CONTROL | | X |
| NO WELDING OVER CRACKED TACK WELDS | | X |
| ENVIRONMENTAL CONDITIONS<br>• WIND SPEED WITHIN LIMITS<br>• PRECIPITATION AND TEMPERATURE | | X |
| WPS FOLLOWED<br>• SETTINGS ON WELDING EQUIPMENT<br>• TRAVEL SPEED<br>• SELECTED WELDING MATERIALS<br>• SHIELDING GAS TYPE/FLOW RATE<br>• PREHEAT APPLIED<br>• INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)<br>• PROPER POSITION (F, V, H, OH) | | X |
| WELDING TECHNIQUES<br>• INTERPASS AND FINAL CLEANING<br>• EACH PASS WITHIN PROFILE LIMITATIONS<br>• EACH PASS MEETS QUALITY REQUIREMENTS | | X |
| PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS | | X |

AISC CHAPTER N TABLE N5.4-3 INSPECTION TASKS AFTER WELDING

| INSPECTION TASKS AFTER WELDING | CONTINUOUS | PERIODIC |
|---|---|---|
| WELDS CLEANED | | X |
| SIZE, LENGTH AND LOCATION OF WELDS | X | |
| WELDS MEET VISUAL ACCEPTANCE CRITERIA<br>• CRACK PROHIBITION<br>• WELD/BASE-METAL FUSION<br>• CRATER CROSS SECTION<br>• WELD PROFILES<br>• WELD SIZE<br>• UNDERCUT<br>• POROSITY | X | |
| ARC STRIKES | X | |
| K-AREA (a) | X | |
| WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES (b) | X | |
| BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED) | X | |
| REPAIR ACTIVITIES | X | |
| DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER | X | |
| NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR | X | |

(a) WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN (75mm) OF THE WELD.
(b) AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP SHAPES (SEE SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

IBC SECTION 1705.2.2 VERIFICATION & INSPECTION OF COLD FORM DECK

SDI - QA/QC - 2017 TABLE 1.1. INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS | | X |
| B | DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES | | X |

SDI - QA/QC - 2017 TABLE 1.2 INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS | | X |
| B | VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS | | X |
| C | DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES. | | X |

SDI - QA/QC - 2017 TABLE1.6 INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS | | X |
| B | PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION | | X |
| C | PROPER STORAGE FOR MECHANICAL FASTENERS | | X |

SDI - QA/QC - 2017 TABLE1.7 INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | FASTENERS ARE POSITIONED AS REQUIRED | | X |
| B | FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS | | X |

SDI - QA/QC - 2017 TABLE1.8 INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS | | X |
| B | CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS | | X |
| C | CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS | | X |
| D | VERIFY REPAIR ACTIVITIES | | X |
| E | DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS | | X |

SDI - QA/QC - 2017 TABLE1.3 INSPECTION OR EXECUTION TASKS PRIOR TO WELDING DECK

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE | X | |
| B | MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE | | X |
| C | MATERIAL IDENTIFICATION (TYPE/GRADE) | | X |
| D | CHECK WELDING EQUIPMENT | | X |

SDI - QA/QC - 2017 TABLE1.4 INSPECTION OR EXECUTION TASKS DURING WELDING DECK

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | USE OF QUALIFIED WELDERS | | X |
| B | CONTROL AND HANDLING OF WELDING CONSUMABLES | | X |
| C | ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) | | X |
| D | WPS FOLLOWED | | X |

SDI - QA/QC - 2017 TABLE1.5 INSPECTION OR EXECUTION TASKS AFTER WELDING DECK

| | TASK | CONTINUOUS | PERIODIC |
|---|---|---|---|
| A | VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS | | X |
| B | WELDS MEET VISUAL ACCEPTANCE CRITERIA | | X |
| C | VERIFY REPAIR ACTIVITIES | | X |
| D | DOCUMENT ACCEPTANCE OR REJECTION OF WELDS | X | |

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS CHRIS POTTER 137577 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL GENERAL NOTES, ABBREVIATIONS, & SPECIAL INSPECTIONS (3 OF 3)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | S.MEDINA |
| REVIEW: | K.BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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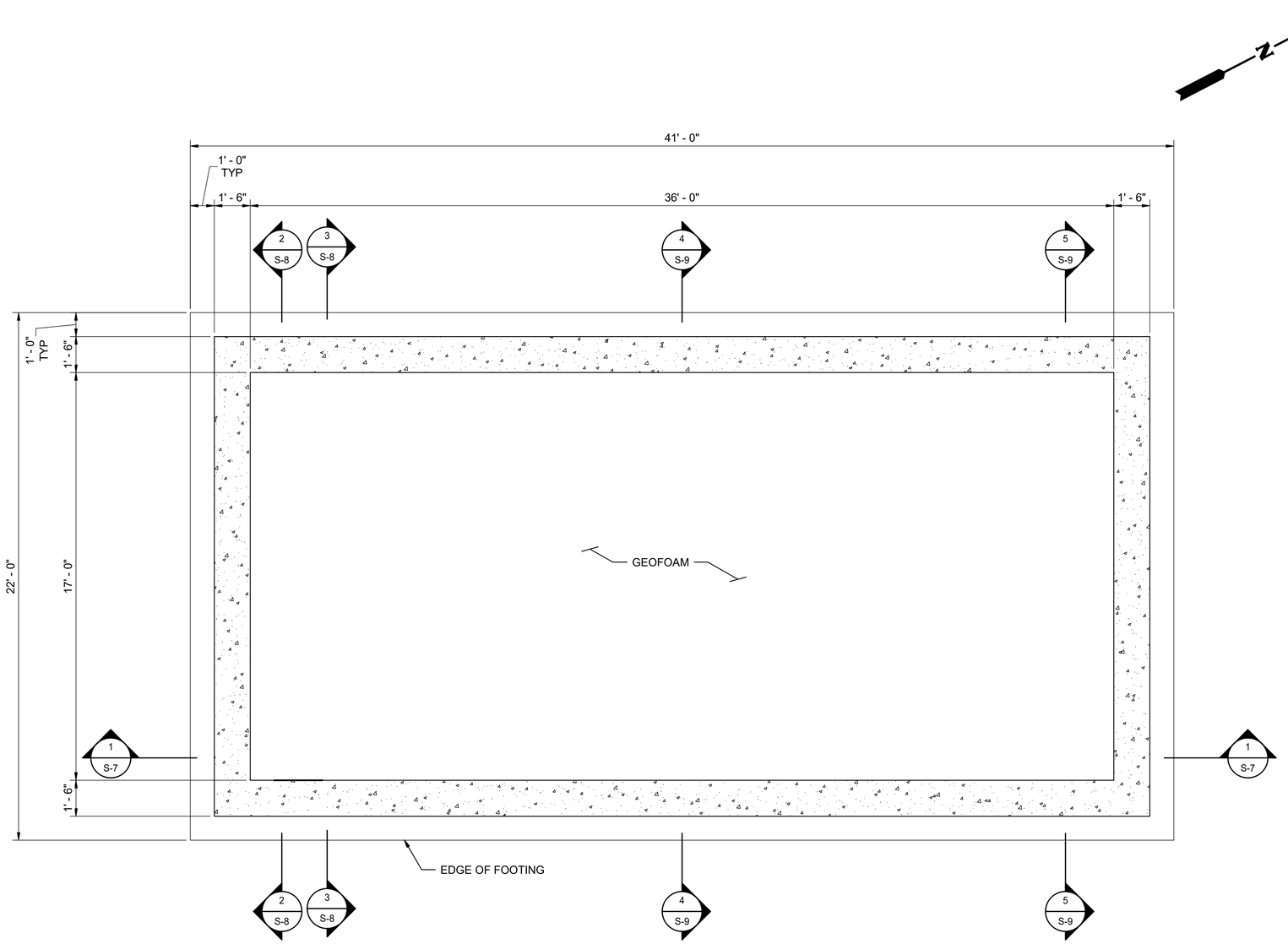


## STRUCTURAL PLAN - HEADWORKS FACILITY FOUNDATION PLAN

**3/8" = 1'-0"**

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.

GENERAL NOTES FOR HEADWORKS MAT FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE HEADWORKS GENERALLY, CONSIST OF THE FOLLOWING:
   0' - 4' FINE SANDY SILT FILL
   4' - 8' CLAYEY SILTY SAND FILL
   8' - 15' SANDY LEAN CLAY
   15' - 60' LEAN CLAY
   60' – 72' SAND
   72' – 80' SHALE
3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. HEADWORKS MAT FOUNDATION HAS BEEN DESIGNED FOR BEARING INTO SANDY LEAN CLAY AT A DEPTH OF 10' BELOW GRADE. THE BEARING CAPACITY OF THE MAT AT THAT DEPTH IS A VALUE OF 1,000 PSF.
5. A 12" THICK GRAVEL PAD CONISITING OF 1" DIAMETER UNIFORMLY GRADED CRUSHED ROCK OR WASHED GRAVEL (ASTM NO. 57 STONE OR APPROVED EQUAL) MAY BE USED UNDER THE SLAB.
6. REMOVE ALL FILL MATERIAL AND ALL BROWN OR DARK BROWN SANDY LEAN CLAY AND ANY ORGANIC TO A MINIMUM DEPTH OF 10'. THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E.
7. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.

2 1 0 4
SCALE IN FEET

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


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STATE OF TEXAS · CHRIS POTTER · 133757 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLAN - HEADWORKS FACILITY FOUNDATION PLAN

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-4
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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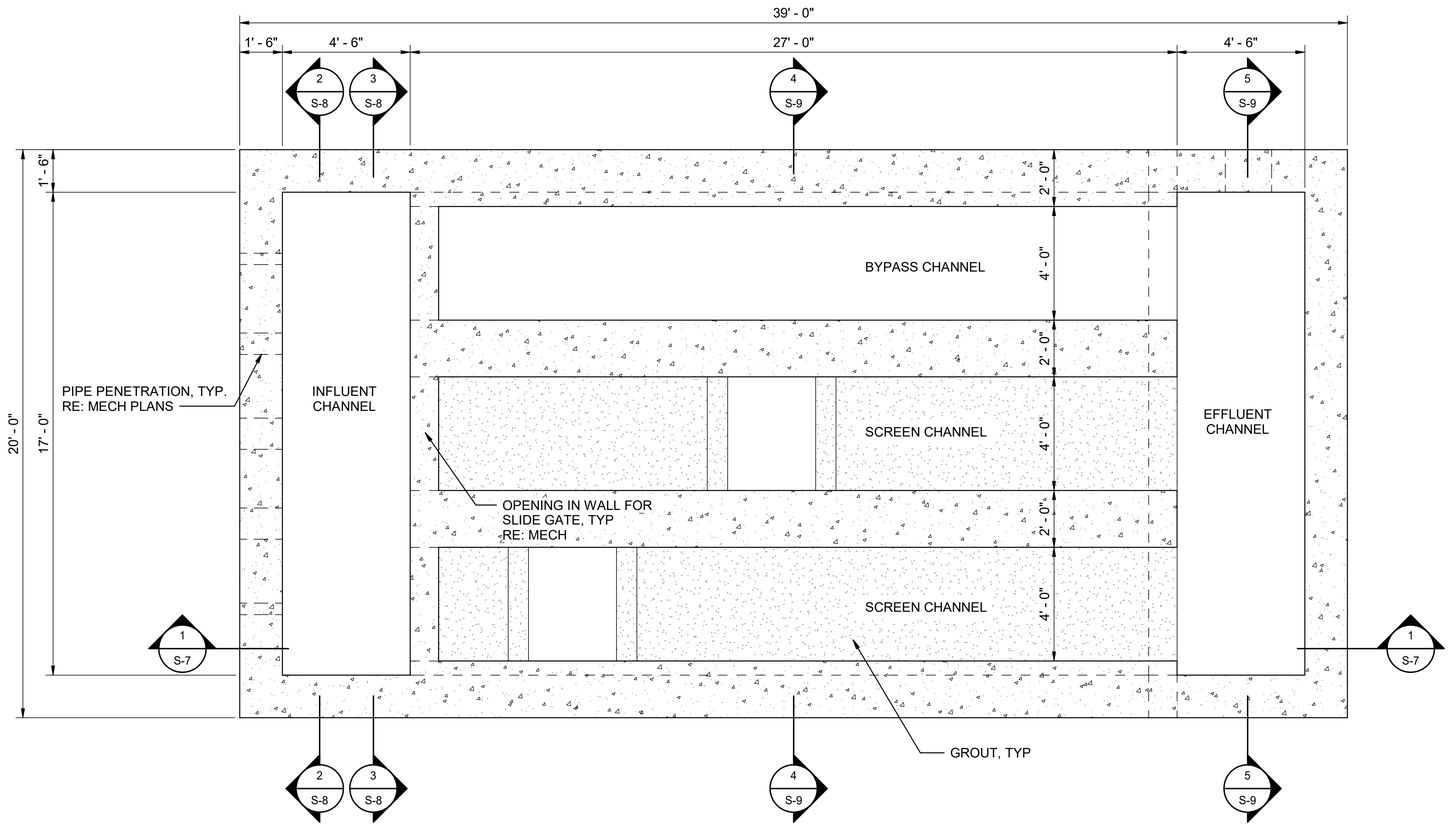


STRUCTURAL PLAN - HEADWORKS FACILITY PLAN AT EL 457.00

**3/8" = 1'-0"**

N

2 1 0 4

SCALE IN FEET

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

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
Plot Date: 3/5/2026 11:24:56 AM

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STATE OF TEXAS
CHRIS POTTER
133757
LICENSED
PROFESSIONAL ENGINEER
03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF ANSWER IS LESS THAN ONE INCH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLAN - HEADWORKS FACILITY PLAN AT EL 457.00

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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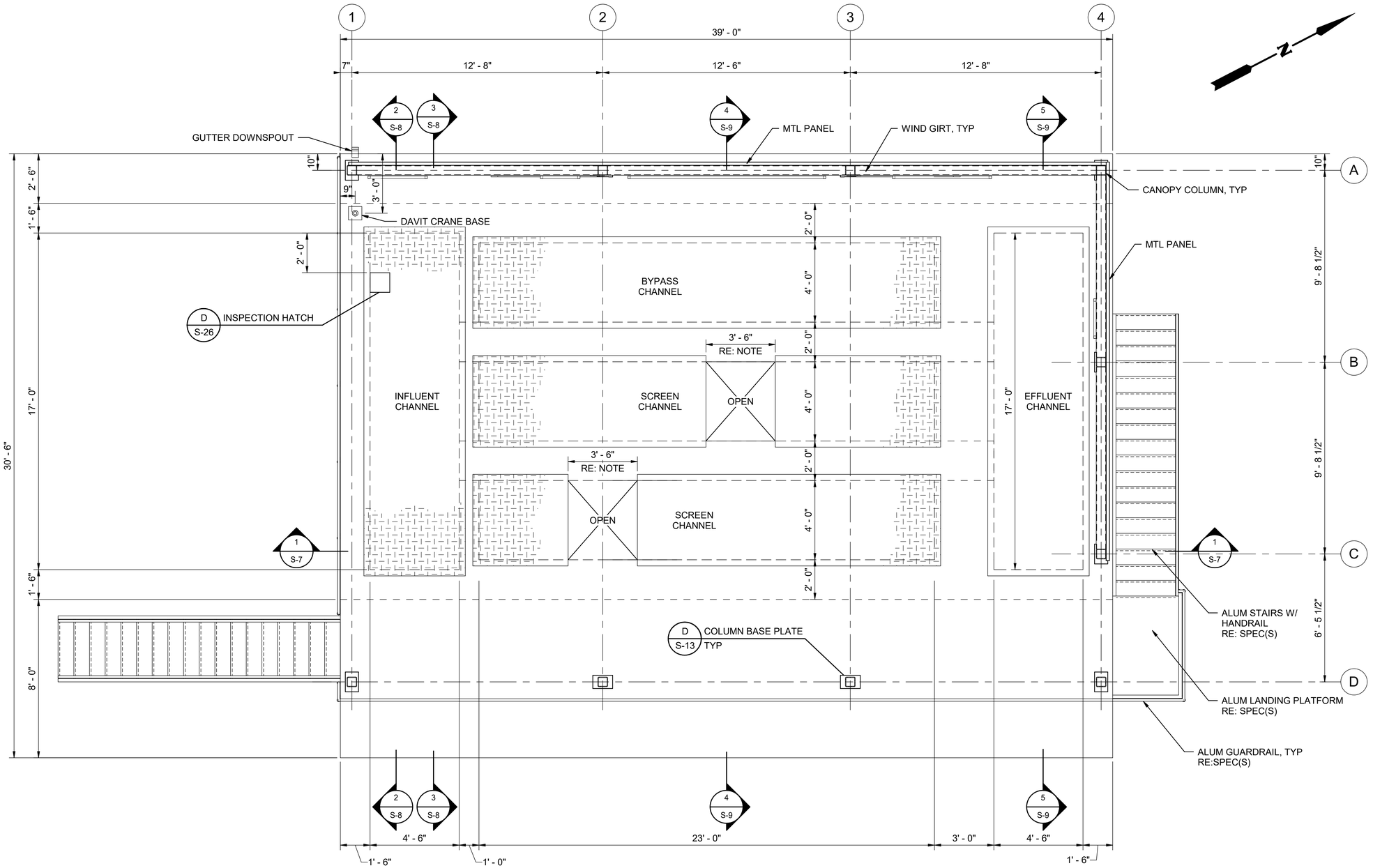


PLAN NOTE:

1. COORDINATE OPENING IN COVER PLATE SYSTEM WITH BAR SCREEN EQUIPMENT MANUFACTURER. ADJUST DIMENSIONS TO ALLOW A MAXIMUM GAP OF 1" BETWEEN COVER PLATE AND EQUIPMENT.

## STRUCTURAL PLAN - HEADWORKS FACILITY TOP PLAN

**3/8" = 1'-0"**

SCALE IN FEET: 2 1 0 4

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


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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|---|---|---|---|

VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLAN
HEADWORKS FACILITY TOP PLAN

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-6
53 of 196

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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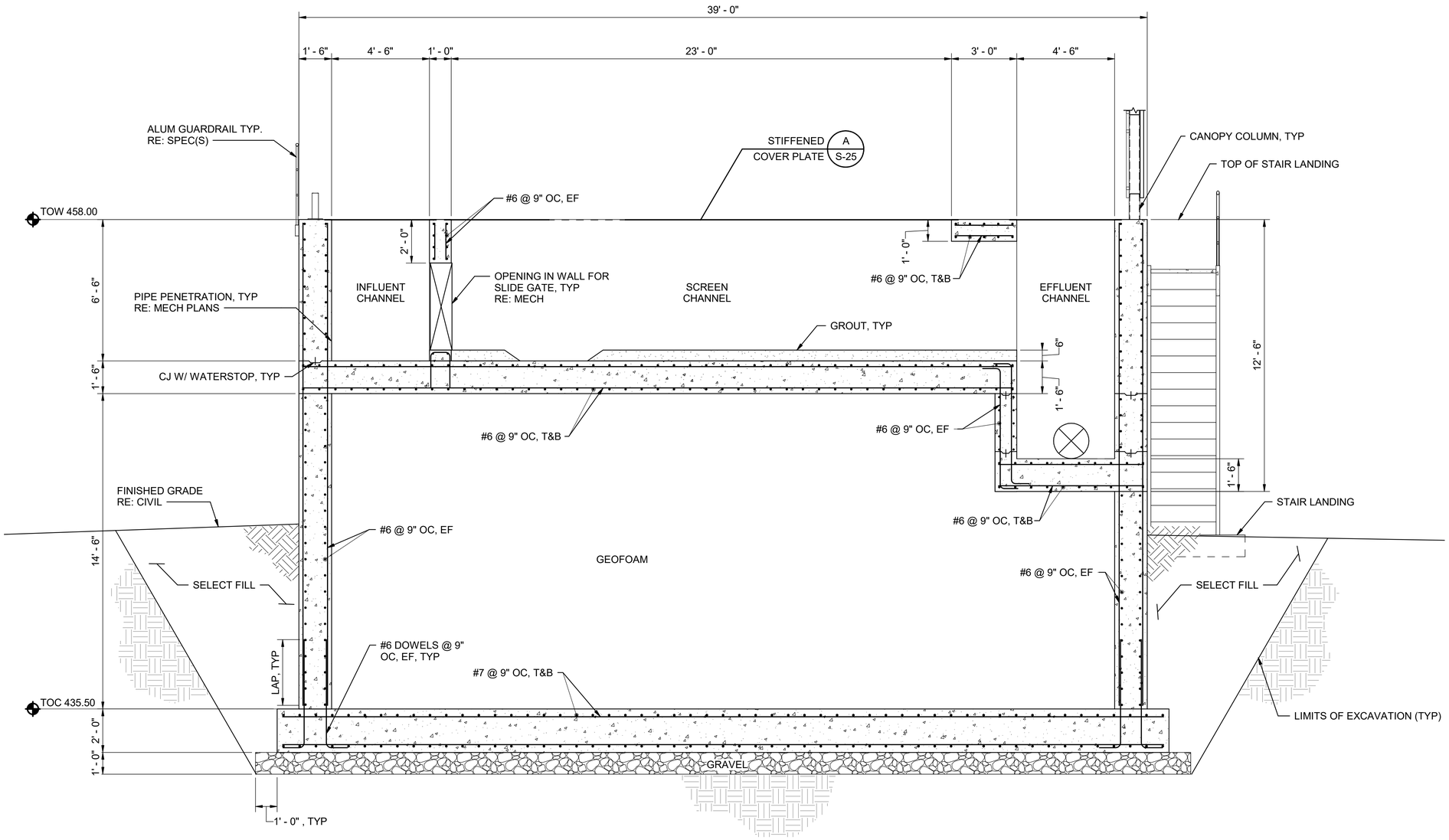


1 S-4 STRUCTURAL SECTION - HEADWORKS FACILITY

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

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

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · CHRIS POTTER · 133757 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL SECTIONS HEADWORKS FACILITY (1 OF 3)

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-7
54 of 196

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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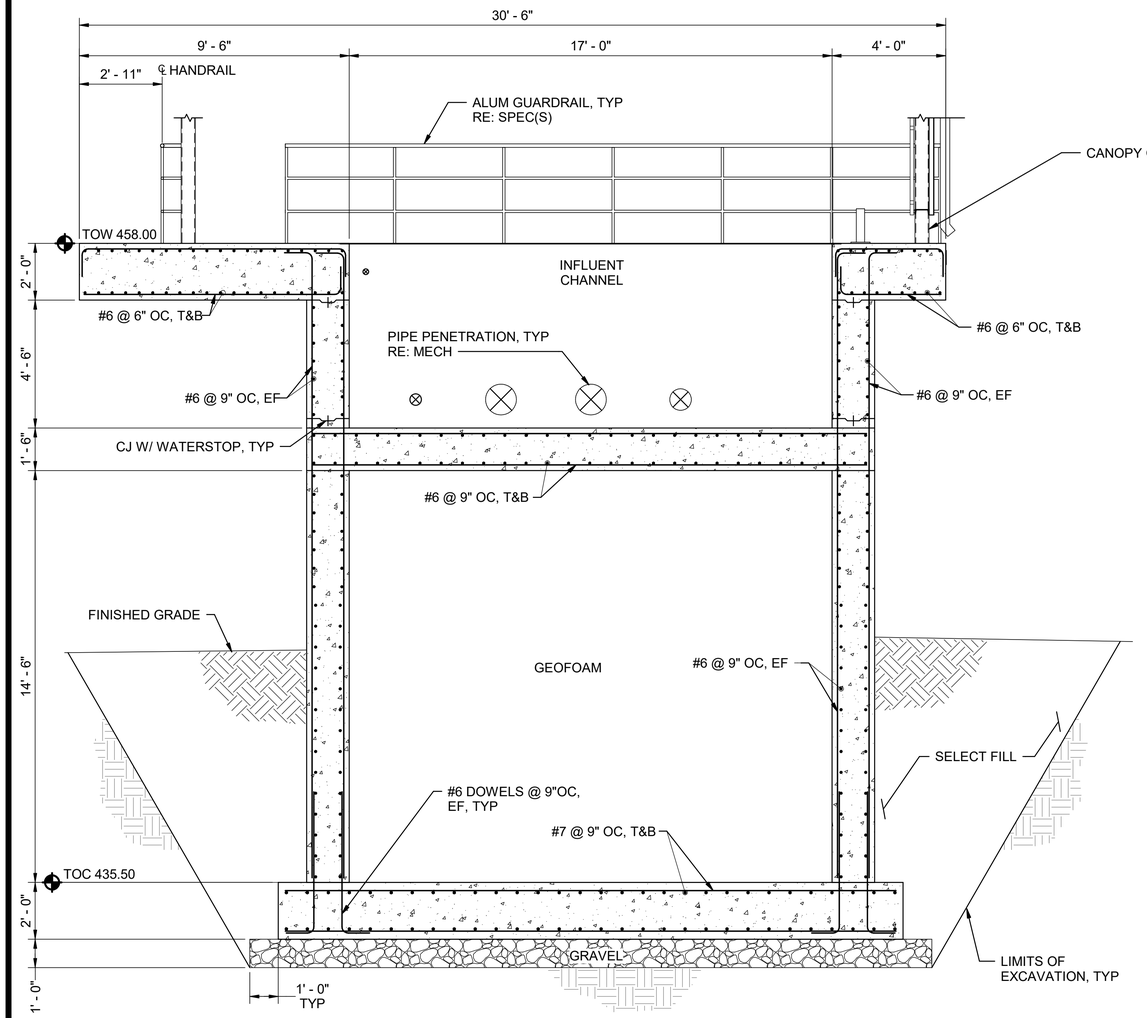
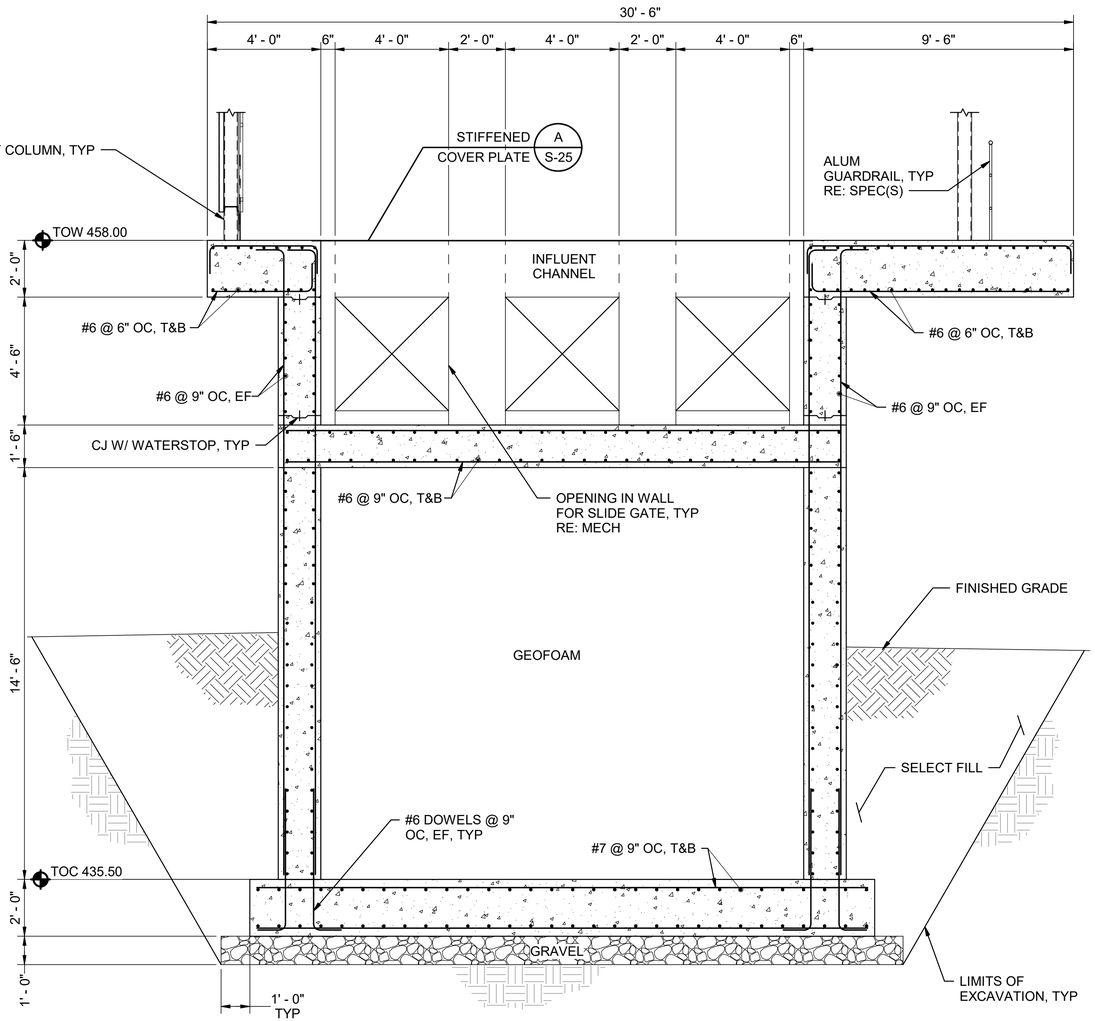



2 S-4 STRUCTURAL SECTION - HEADWORKS FACILITY

3/8" = 1'-0"




3 S-4 STRUCTURAL SECTION - HEADWORKS FACILITY

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

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

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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PROFESSIONAL ENGINEER
03/13/2026

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
DRAWING IF NOT, ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL SECTIONS
HEADWORKS FACILITY (2 OF 3)

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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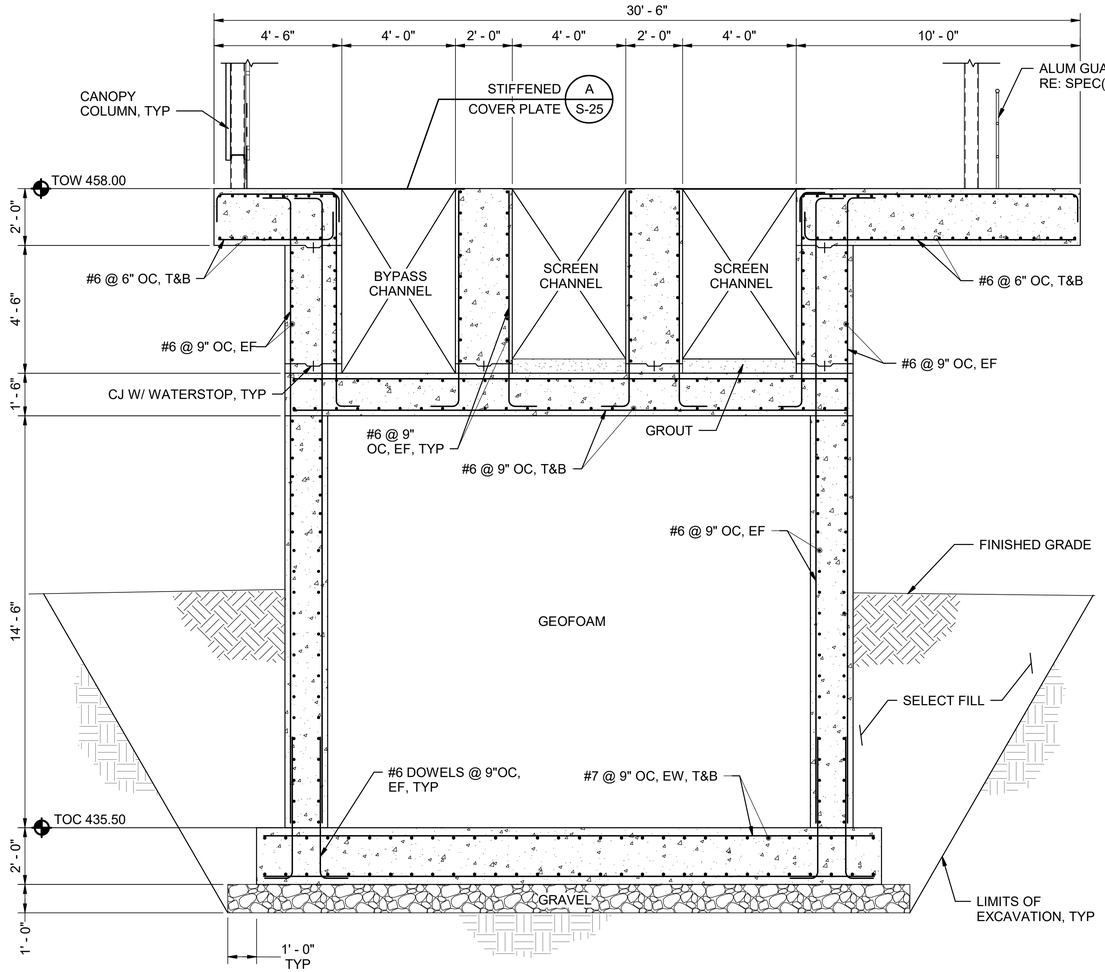
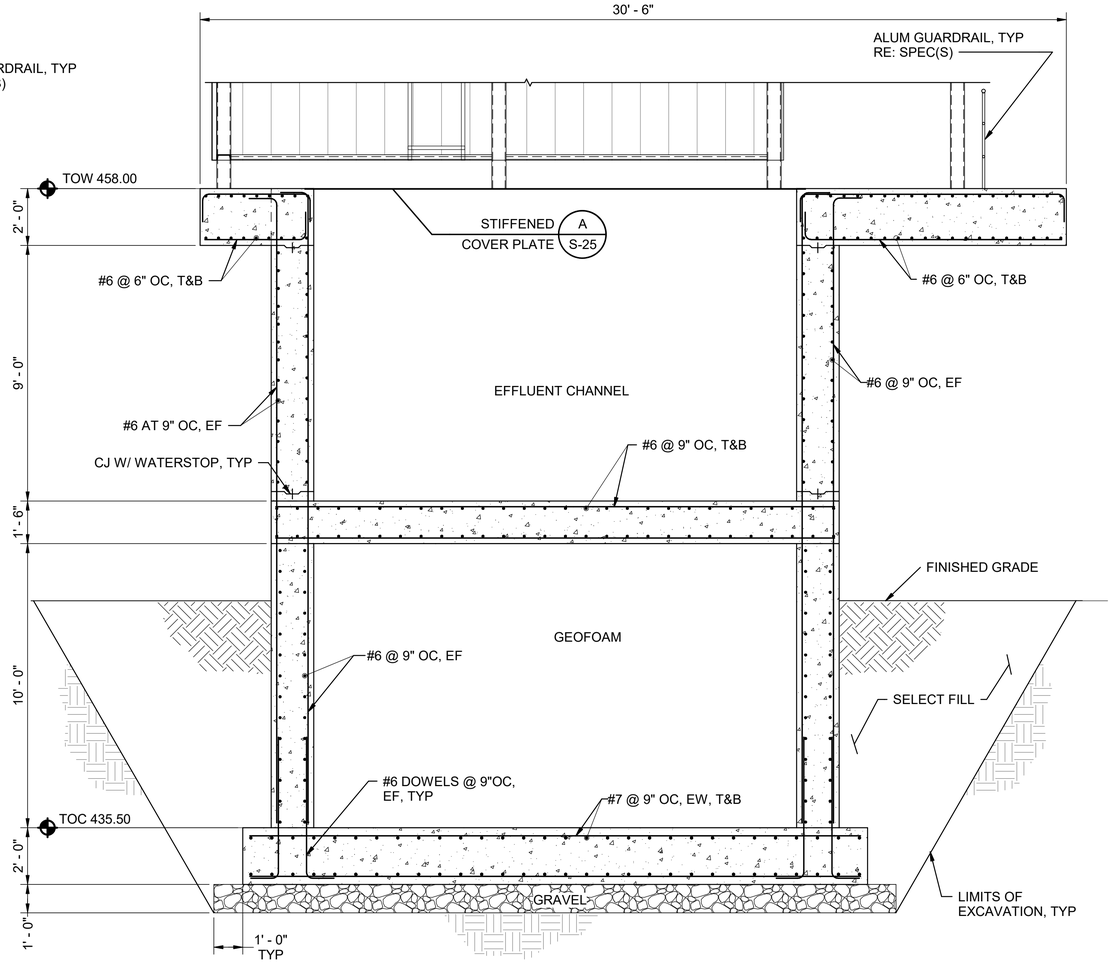



4 S-4 STRUCTURAL SECTION - HEADWORKS FACILITY

3/8" = 1'-0"




5 S-4 STRUCTURAL SECTION - HEADWORKS FACILITY

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

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

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. 0 1"

CITY OF AUSTIN - AUSTIN WATER

HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL SECTIONS HEADWORKS FACILITY (3 OF 3)

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

S-9

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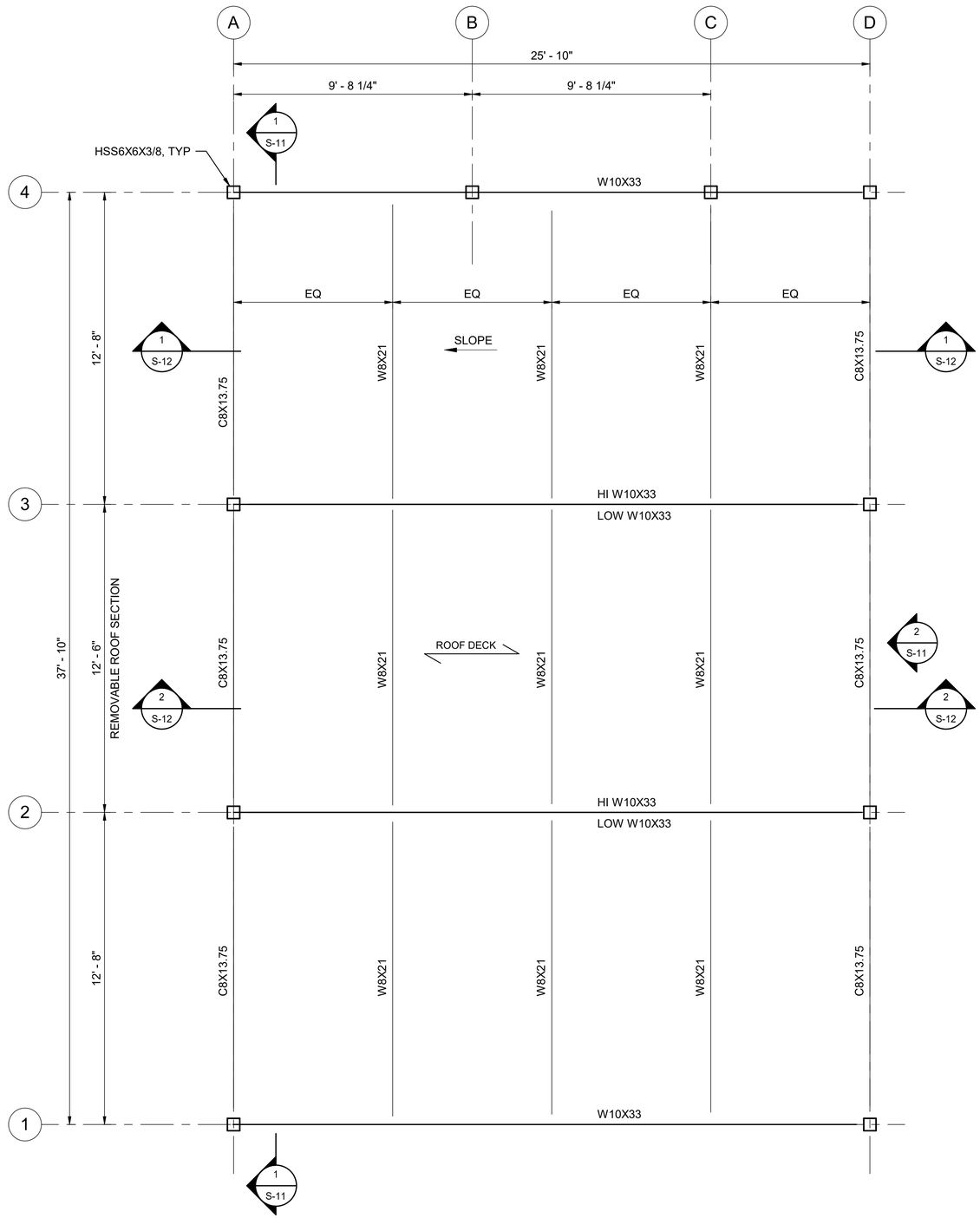


## STRUCTURAL PLAN - CANOPY

**3/8" = 1'-0"**

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
4. ALL STRUCTURAL MEMBERS SHALL BE:
   a. BASE BID - 304 STAINLESS STEEL.
   b. BID ALTERNATE - GALVANIZED STEEL.
5. STEEL DECK:
   a. STEEL DECK SHALL BE 1 1/2" DEEP TYPE B AND GALVANIZED. METAL DECK GRADE SHALL CONFORM TO SDI MAX CONSTRUCTION SPAN REQUIREMENT.
6. LIFTING UPPER CANOPY ROOF:
   a. FOR FUTURE REPLACEMENT OF BAR SCREENS, THE UPPER CANOPY ROOF SHALL UNBOLT FROM THE COLUMNS IN ONE PIECE.

2 1 0 4
SCALE IN FEET

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


TEXAS REGISTERED ENGINEERING FIRM F-204

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLAN
HEADWORKS CANOPY

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-10
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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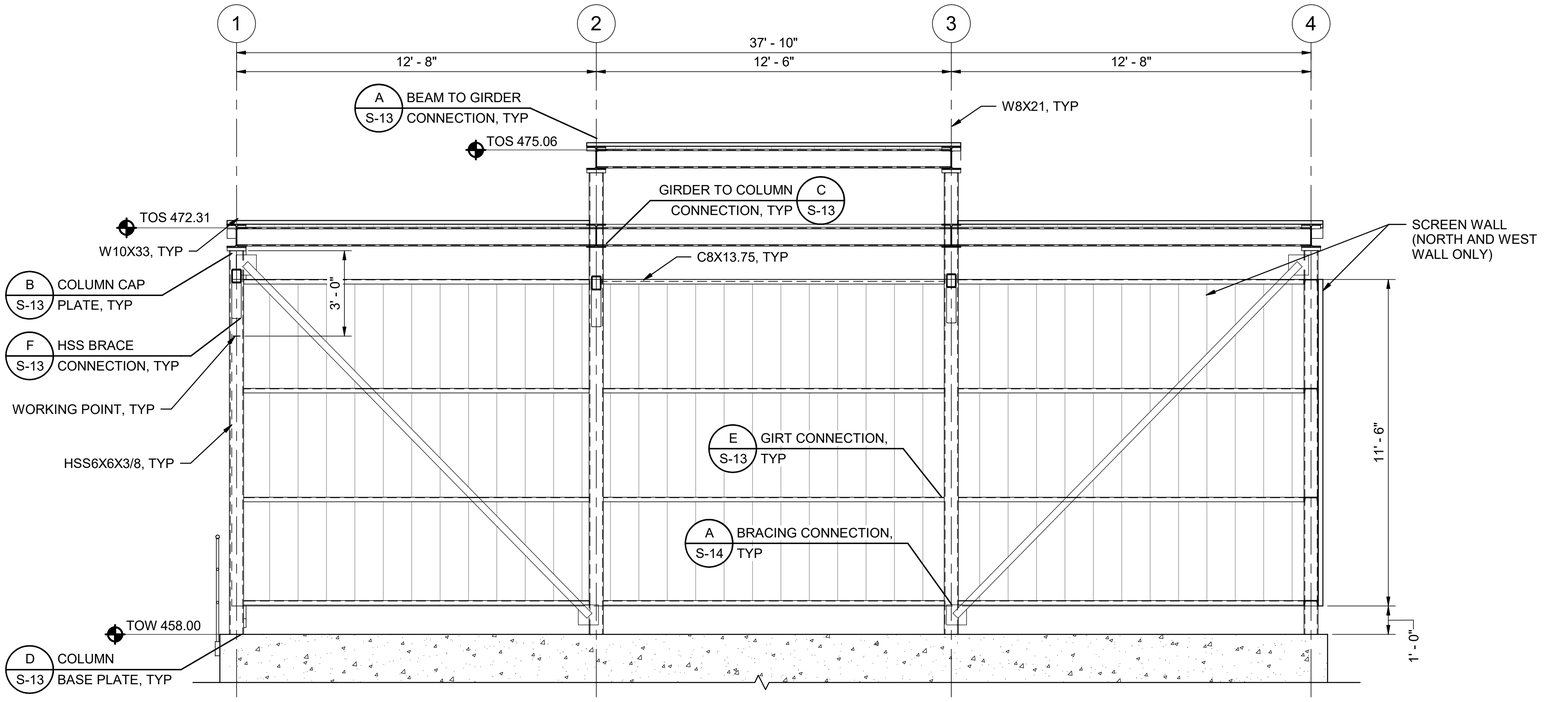
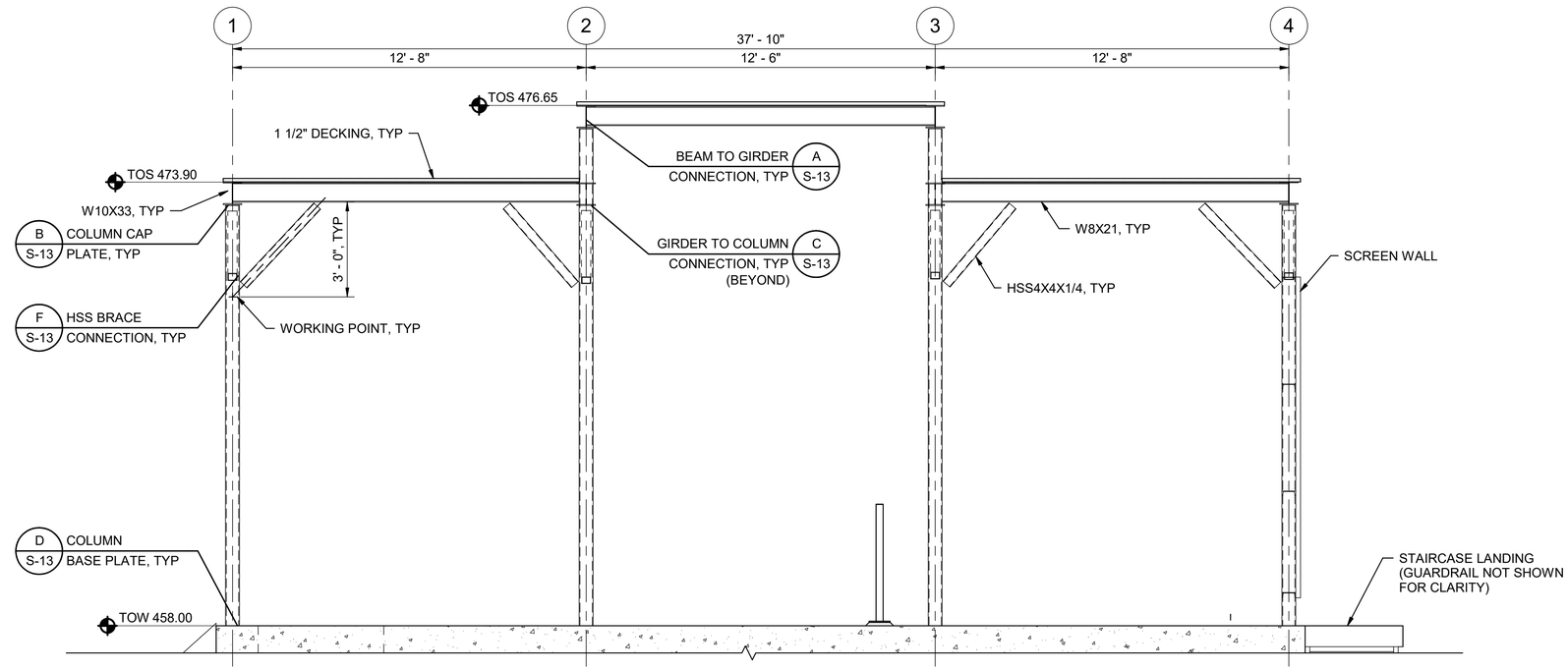



1 S-10 STRUCTURAL SECTION - CANOPY
3/8" = 1'-0"




2 S-10 STRUCTURAL SECTION - CANOPY
3/8" = 1'-0"

GENERAL NOTES:

1. METAL SCREEN WALL:

   METAL SCREEN WALL SHALL BE 1 1/2" DEEP TYPE B AND GALVANIZED. METAL DECK GRADE SHALL CONFORM TO SDI MAX CONSTRUCTION SPAN REQUIREMENT.

2 1 0 4
SCALE IN FEET

SCALE: 3/8" = 1'-0"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STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY. 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL SECTIONS HEADWORKS CANOPY (1 OF 2)

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-11
58 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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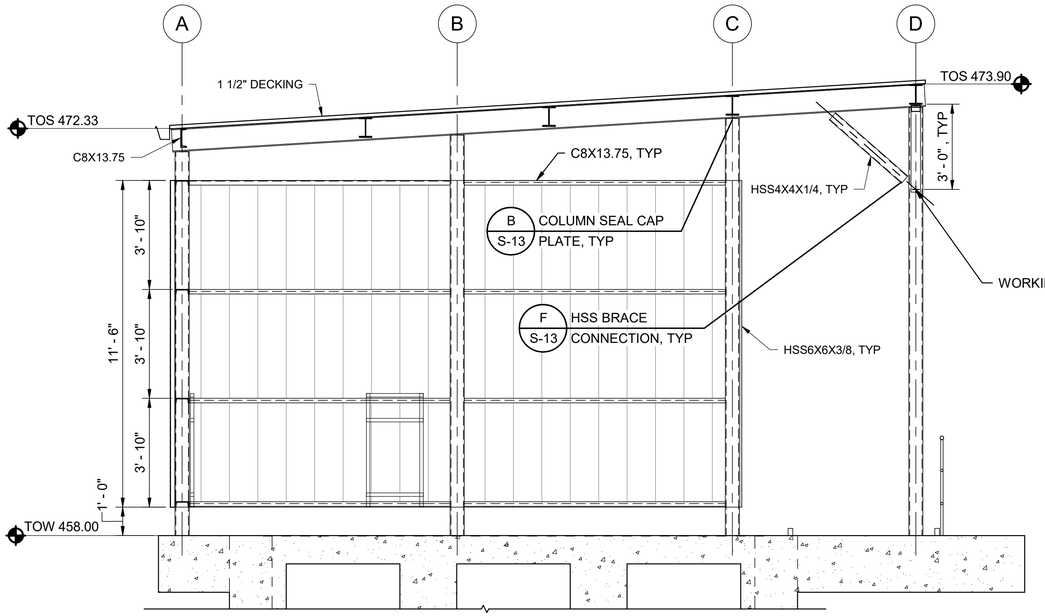
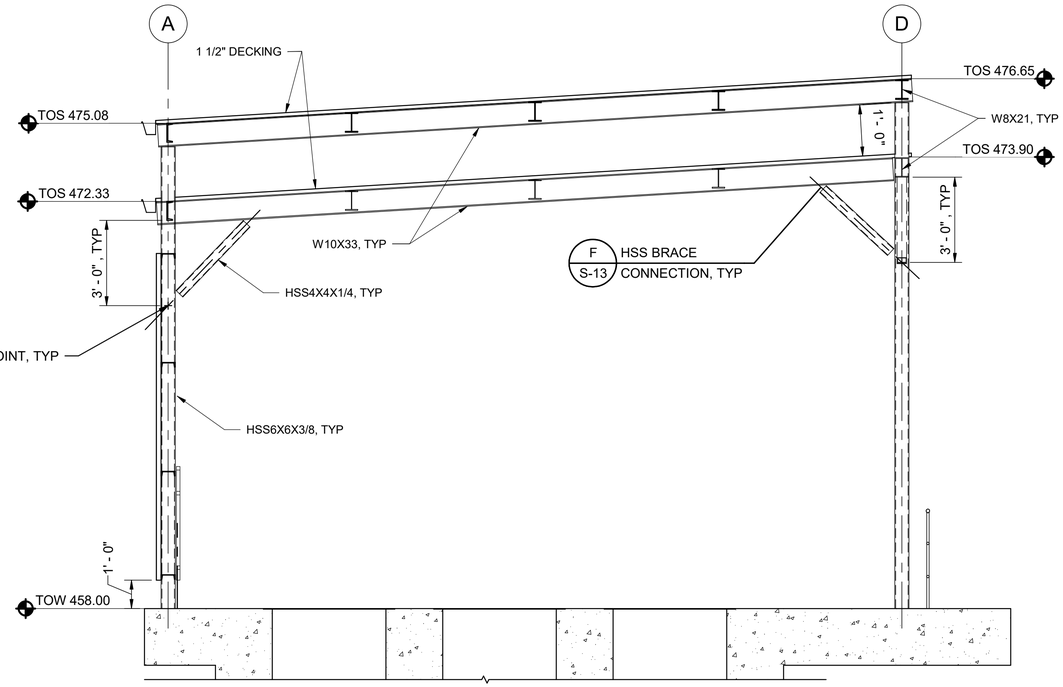



1 S-10 STRUCTURAL SECTIONS - CANOPY

3/8" = 1'-0"




2 S-10 STRUCTURAL SECTIONS - CANOPY

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

SCALE: 3/8" = 1'-0"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STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING IF NOT, ADJUST SCALE ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF AUSTIN - AUSTIN WATER

HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL SECTIONS HEADWORKS CANOPY (2 OF 2)

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

S-12

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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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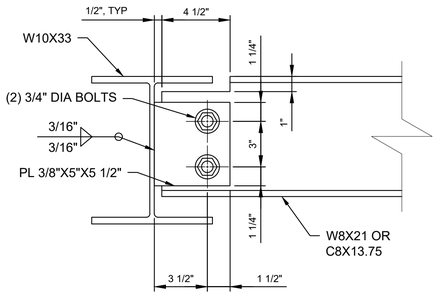
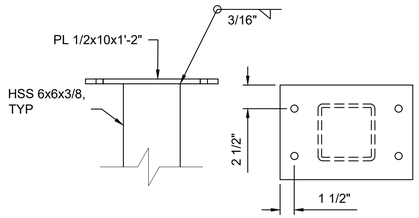
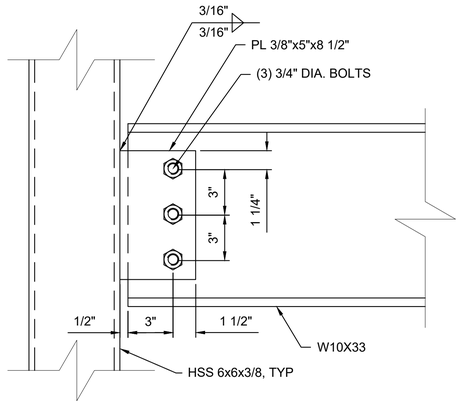


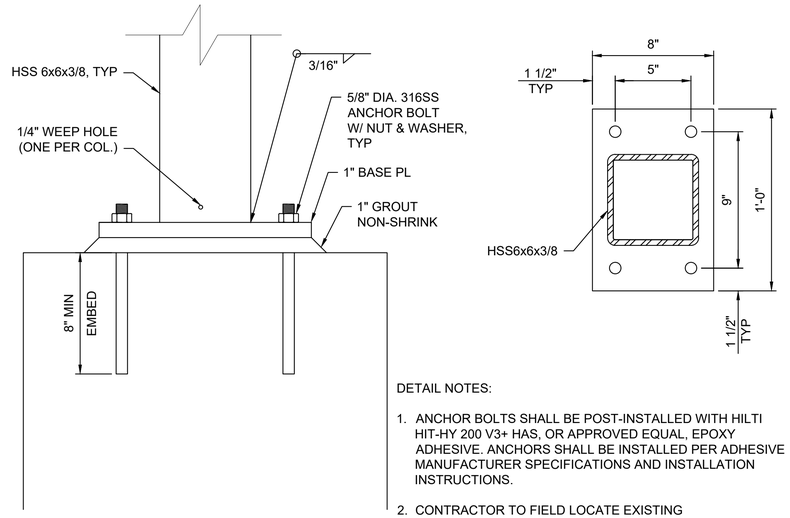

A BEAM TO GIRDER CONNECTION
NTS




B COLUMN CAP PLATE
NTS



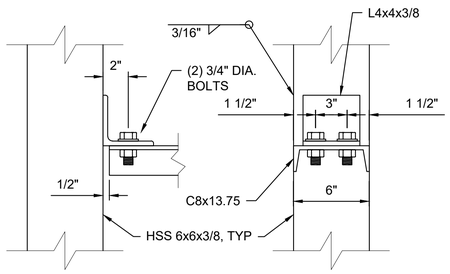

C GIRDER TO COLUMN CONNECTION
NTS



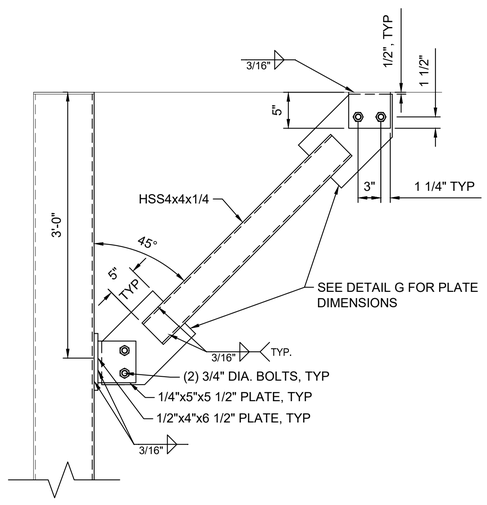

D COLUMN BASE PLATE
NTS

DETAIL NOTES:

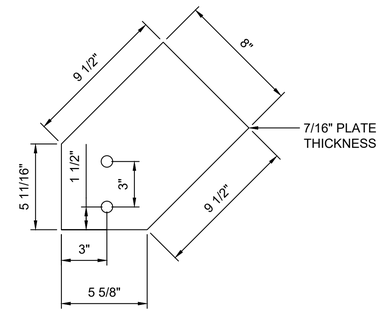
1. ANCHOR BOLTS SHALL BE POST-INSTALLED WITH HILTI HIT-HY 200 V3+ HAS, OR APPROVED EQUAL, EPOXY ADHESIVE. ANCHORS SHALL BE INSTALLED PER ADHESIVE MANUFACTURER SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. CONTRACTOR TO FIELD LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING TO AVOID DAMAGING EXISTING REINFORCEMENT.




E GIRT CONNECTION
NTS




F HSS BRACE CONNECTION, TYP
NTS




G HSS PLATE CONNECTION
NTS

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
CHRIS POTTER
137577
LICENSED
PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

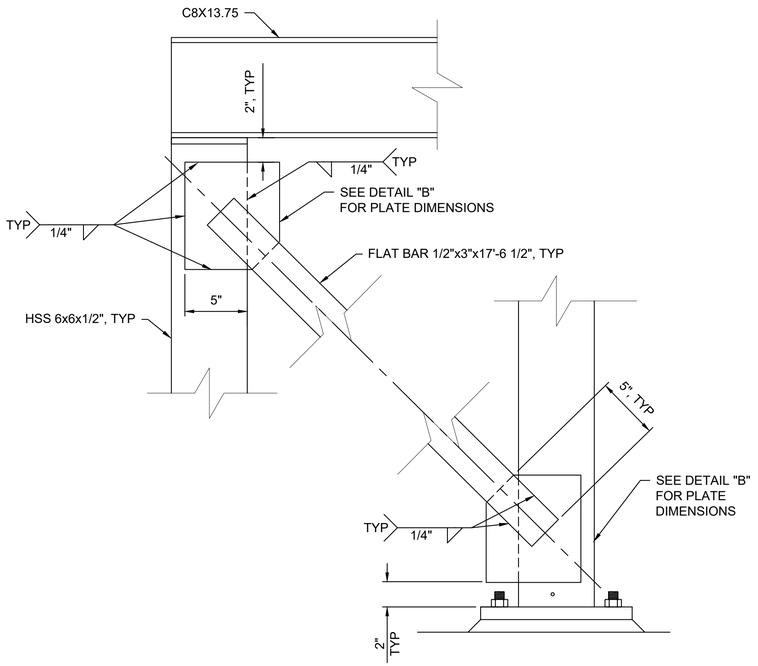
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL DETAILS
HEADWORKS CANOPY I

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | T.BENSON |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-13
60 of 196




A BRACING DETAIL, TYP
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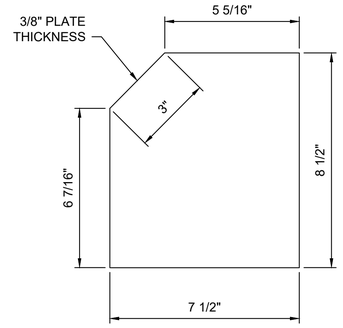


B GUSSET PLATE DETAIL, TYP
NTS

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LICENSED
PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

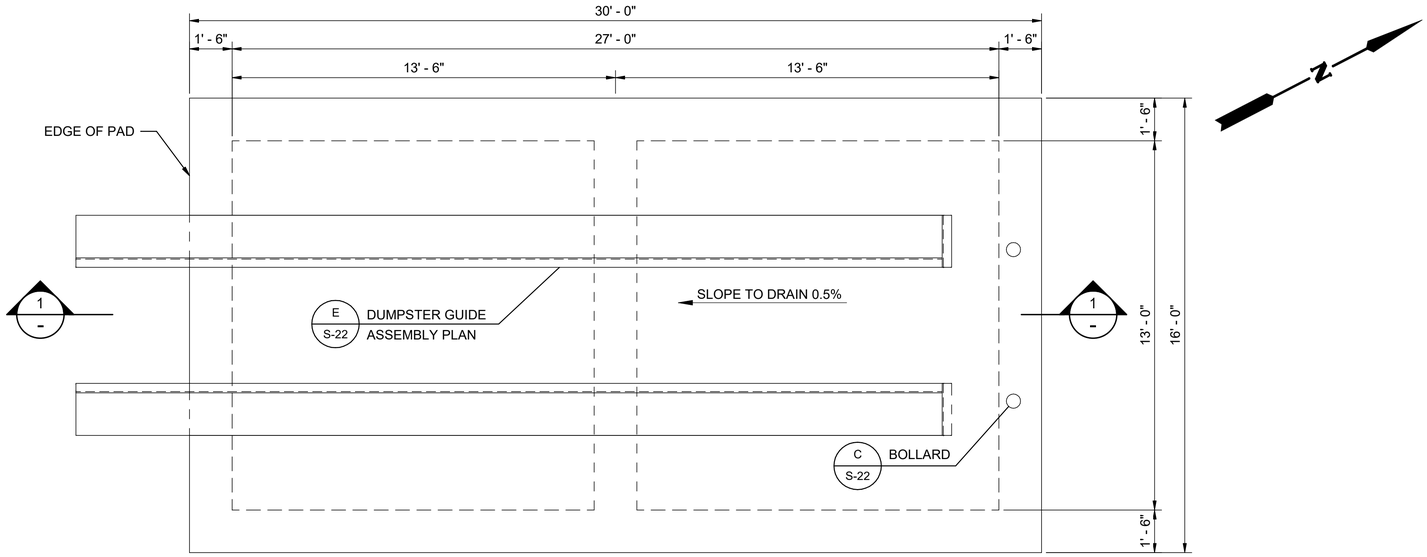
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
0 1" DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL DETAILS
HEADWORKS CANOPY II

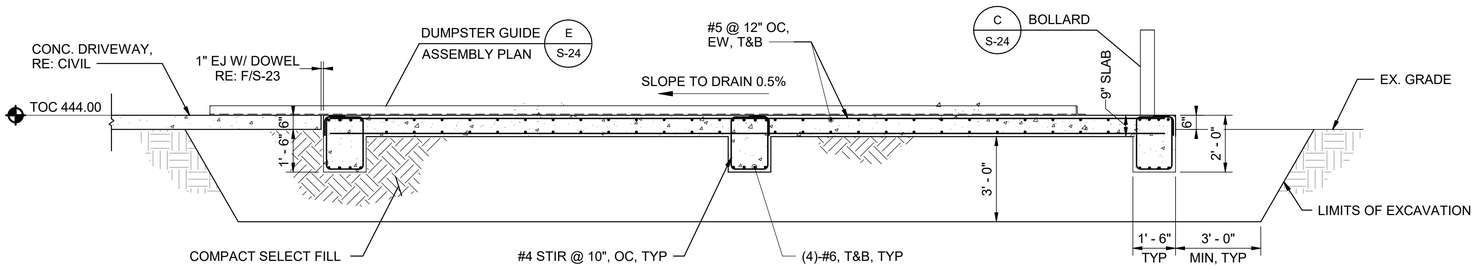
| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | T.BENSON |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-14
61 of 196




## STRUCTURAL PLAN - DUMPSTER PAD

3/8" = 1'-0"




## 1 - STRUCTURAL SECTION - DUMPSTER PAD

3/8" = 1'-0"

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.

GENERAL NOTES FOR DUMPSTER PAD MAT FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE DUMPSTER PAD GENERALLY, CONSIST OF THE FOLLOWING:

   0' - 4' FINE SANDY SILT FILL
   4' – 8' SANDY CLAY FILL
   8' - 15' SANDY LEAN CLAY
   15' – 60' LEAN CLAY
   60' – 72' SAND
   72' – 80' SHALE

3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. DUMPSTER PAD HAS BEEN DESIGNED FOR BEARING ON COMPACTED SELECT FILL. THE ALLOWABLE BEARING CAPACITY OF THE MAT IS 500 PSF.
5. REMOVE A MINIMUM OF THE TOP 36 INCHES OF EXISTING SOIL AND ANY ORGANIC SOILS AND REPLACING WITH A LOW P.I. (P.I. 3 TO 18) SELECT FILL. THERE SHOULD BE A MINIMUM OF 36 INCHES OF SELECT FILL BELOW THE SLAB. THE EXPOSED SUBGRADE AND ALL FILL SHOULD BE COMPACTED IN 8-INCH LIFTS TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E. SOIL MOISTURE SHOULD BE WITHIN 3% OF OPTIMUM.
6. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.

2 1 0 4
SCALE IN FEET

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


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
CHRIS POTTER
133757
LICENSED
PROFESSIONAL ENGINEER
03/12/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL FOUNDATION
PLAN & SECTION - DUMPSTER PAD

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-15
62 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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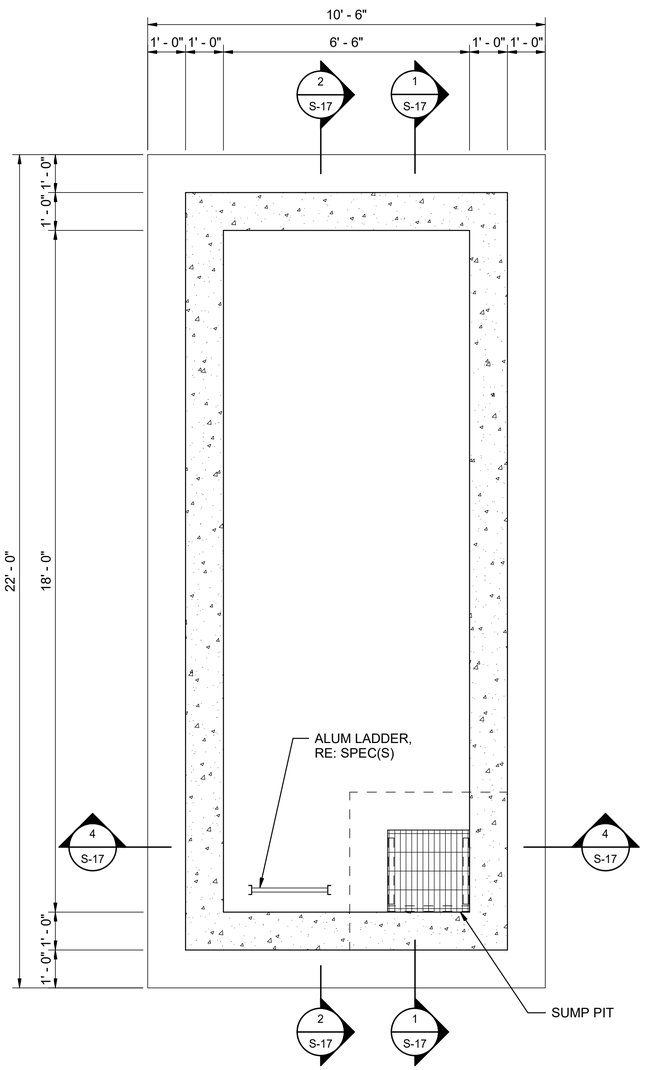
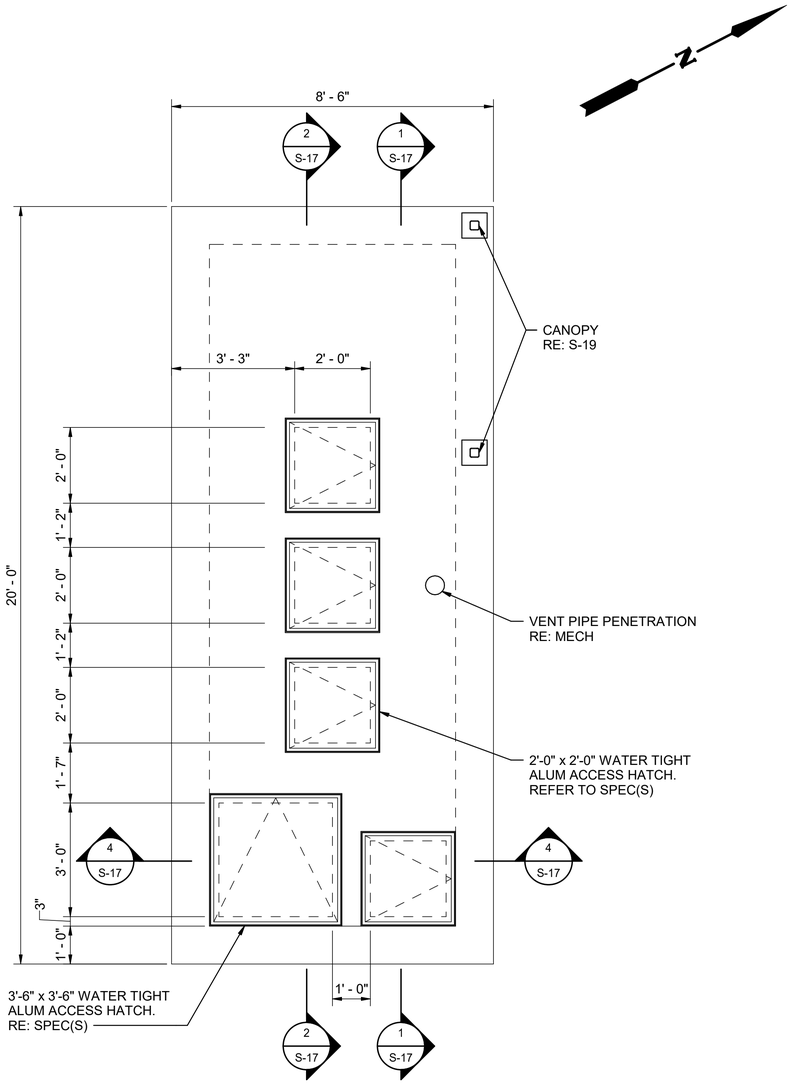



STRUCTURAL PLAN - METER VAULT FOUNDATION PLAN

**1/2" = 1'-0"**




STRUCTURAL PLAN - METER VAULT TOP PLAN

**1/2" = 1'-0"**

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.

GENERAL NOTES FOR VALVE VAULT MAT FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE VALVE VAULT GENERALLY, CONSIST OF THE FOLLOWING:
   0' - 4' FINE SANDY SILT FILL
   4' - 8' SANDY CLAY FILL
   8' - 10' SANDY LEAN CLAY
   10' – 60' LEAN CLAY
   60'-72' SAND
   72' -80' SHALE
3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. VALVE VAULT MAT FOUNDATION HAS BEEN DESIGNED FOR BEARING INTO SANDY LEAN CLAY AT A DEPTH OF 8' BELOW GRADE. THE BEARING CAPACITY OF THE MAT AT THAT DEPTH IS A VALUE OF 500 PSF.
5. A 12" THICK GRAVEL PAD CONISITING OF 1" DIAMETER UNIFORLILY GRADED CRUSHED ROCK OR WASHED GRAVEL (ASTM NO. 57 STONE OR APPROVED EQUAL) MAY BE USED UNDER THE SLAB.
6. REMOVAL ALL FILL MATERIAL AND ALL BROWN OR DARK BROWN SANDY LEAN CLAY AND ANY ORGANIC TO A MINIMUM DEPTH OF 10'. THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E.
7. THE BELOW GRADE WALLS SHOULD BE BACKFILLED WITH ONSITE LOW P.I. LEAN CLAY SOILS OR A LOW P.I. (P.I. 3 TO 18) GRANULAR SELECT FILL. THE LEAN CLAY OR SELECT FILL SHOULD BE COMPACTED IN 8-INCH LIFTS TO A MINIMUM OF 95% OF THE OPTIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E. MOISTURE CONTENT SHOULD BE WITHIN 3% OF OPTIMUM. THE FINAL 12 INCHES SHOULD BE BACKFILLED WITH A CLAY TOPSOIL TO PREVENT MIGRATION OF WATER IN THE BACKFILL.
8. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.

2 1 0 2
SCALE IN FEET

SCALE: 1/2" = 1'-0"


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY. 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLANS - METER VAULT

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-16
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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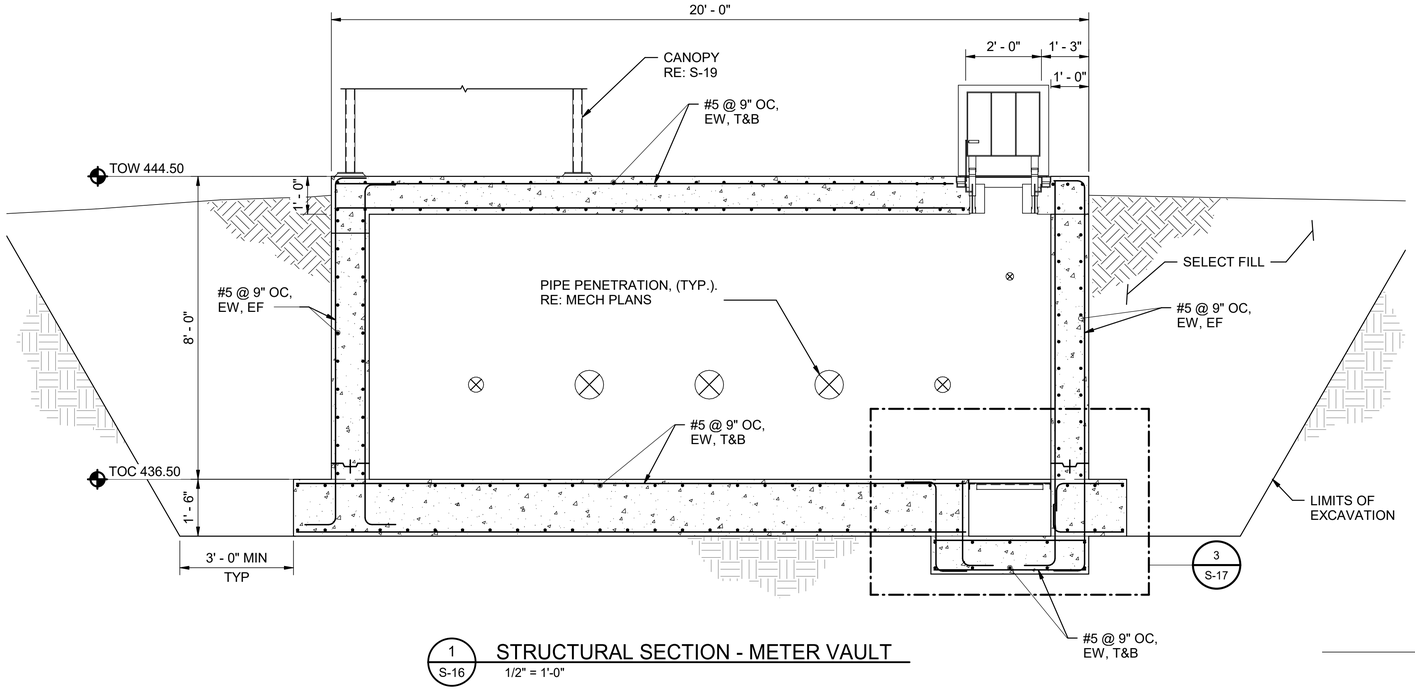
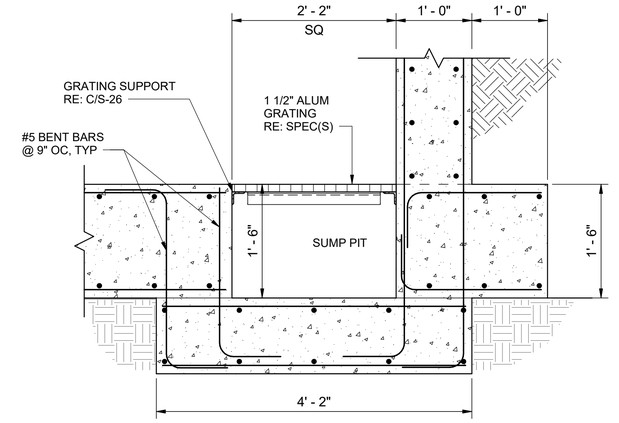
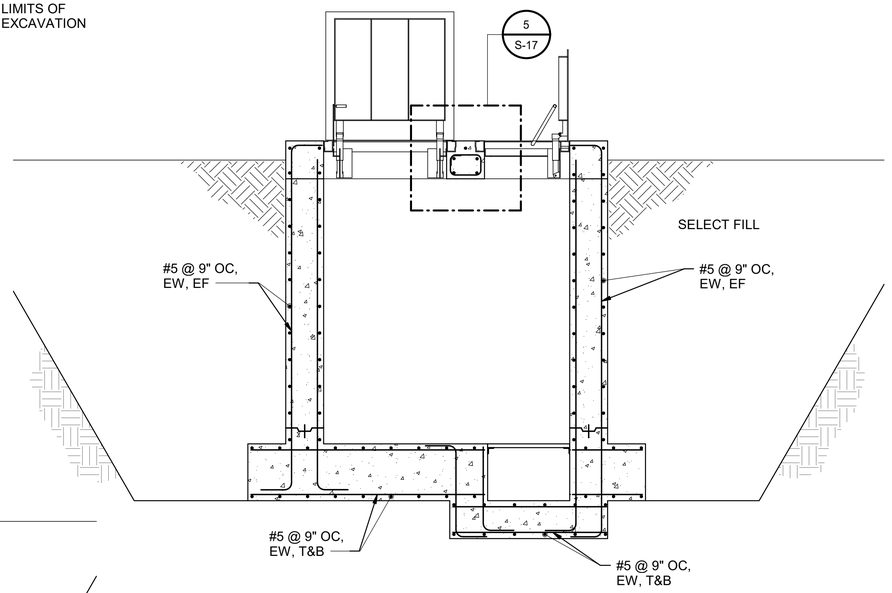


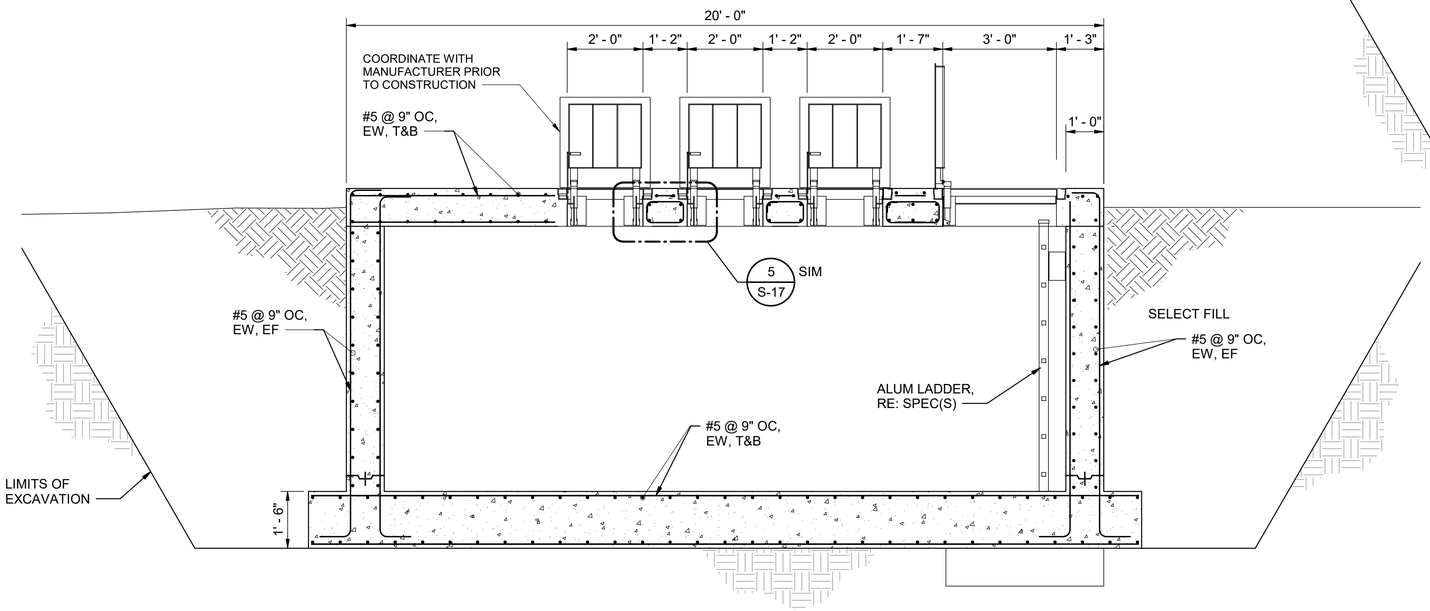

1 S-16 STRUCTURAL SECTION - METER VAULT
1/2" = 1'-0"



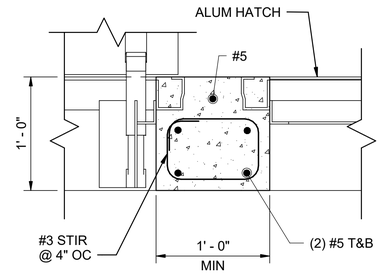

3 S-17 STRUCTURAL SECTION - METER VAULT
1" = 1'-0"




4 S-16 STRUCTURAL SECTION - METER VAULT
1/2" = 1'-0"




2 S-16 STRUCTURAL SECTION - METER VAULT
1/2" = 1'-0"




5 S-17 ROOF BEAM DETAIL
1 1/2" = 1'-0"

1 1/2 0 1
SCALE IN FEET
SCALE: 1" = 1'-0"

2 1 0 2
SCALE IN FEET
SCALE: 1/2" = 1'-0"

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
CHRIS POTTER
133757
LICENSED
PROFESSIONAL ENGINEER
03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
1" 0
AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL SECTIONS - METER VAULT

| | |
|---|---|
| DESIGN: | C. CASEY |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-17
64 of 196

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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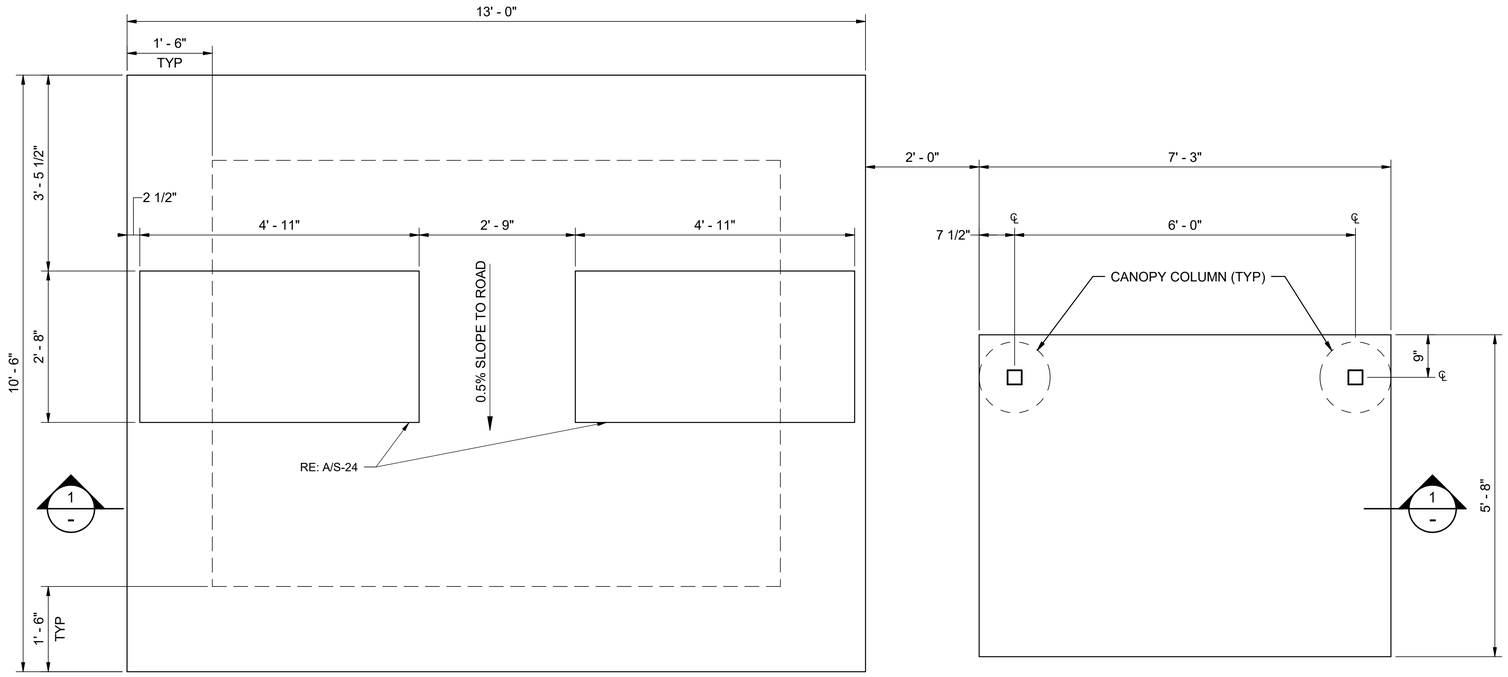
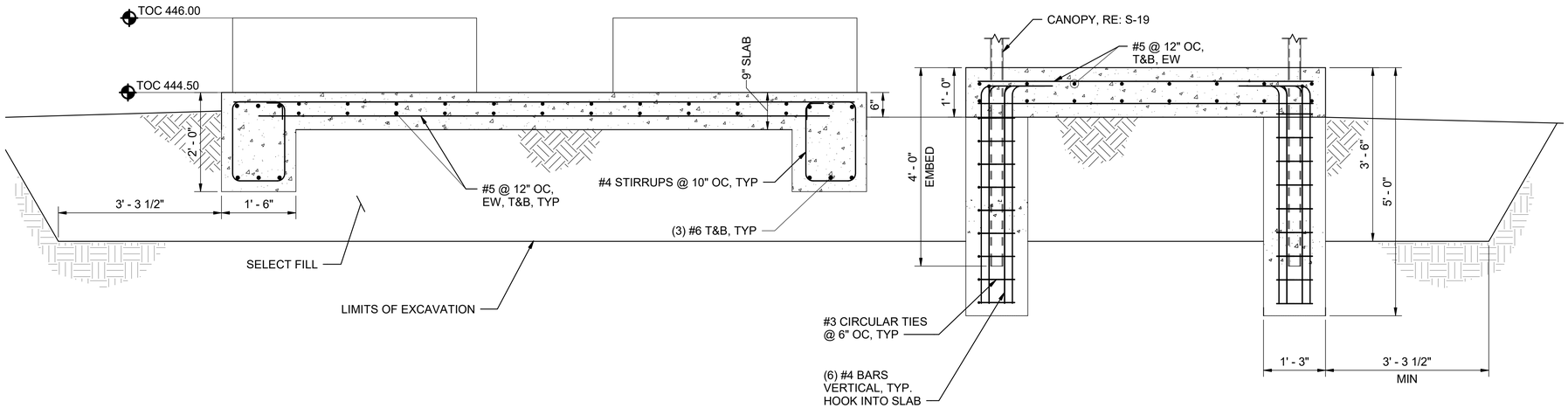



## STRUCTURAL PLAN - RECEIVING STATION FOUNDATION PLAN

3/4" = 1'-0"




1 / - STRUCTURAL SECTIONS - RECEIVING STATION FOUNDATION SECTION

3/4" = 1'-0"

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
4. REFER TO SITE PLAN FOR ORIENTATION OF EACH RECEIVING STATION WITH RESPECT TO NORTH.

GENERAL NOTES FOR RECEIVING STATION MAT FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE RECEIVING STATION GENERALLY, CONSIST OF THE FOLLOWING:
   0' - 2' FINE SANDY SILT FILL
   2' – 9' SANDY CLAY FILL
   9' - 20' SANDY LEAN CLAY
   20' – 60' LEAN CLAY
   60' – 72' SAND
   72' – 80' SHALE.
3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. RECEIVING STATION MAT HAS BEEN DESIGNED FOR BEARING ON COMPACTED SELECT FILL. THE ALLOWABLE BEARING CAPACITY OF THE MAT IS 500 PSF.
5. REMOVE A MINIMUM OF THE TOP 36 INCHES OF EXISTING SOIL AND ANY ORGANIC SOILS AND REPLACING WITH A LOW P.I. (P.I. 3 TO 18) SELECT FILL. THERE SHOULD BE A MINIMUM OF 36 INCHES OF SELECT FILL BELOW THE SLAB. THE EXPOSED SUBGRADE AND ALL FILL SHOULD BE COMPACTED IN 8-INCH LIFTS TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E. SOIL MOISTURE SHOULD BE WITHIN 3% OF OPTIMUM.
6. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.

GENERAL CANOPY NOTES:

1. ALL STRUCTURAL MEMBERS SHALL BE GALVANIZED STEEL.
2. STEEL DECK:

   a. STEEL DECK SHALL BE 1 1/2" DEEP TYPE B AND GALVANIZED. METAL DECK GRADE SHALL CONFORM TO SDI MAX CONSTRUCTION SPAN REQUIREMENT.
3. METAL SCREEN WALL:

   a. METAL SCREEN WALL SHALL BE 1 1/2" DEEP TYPE B AND GALVANIZED. METAL DECK GRADE SHALL CONFORM TO SDI MAC CONSTRUCTION SPAN REQUIREMENT.

SCALE IN FEET 1 0 2

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


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS CHRIS POTTER 133757 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL FOUNDATION PLAN & SECTION - RECEIVING STATION

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-18
65 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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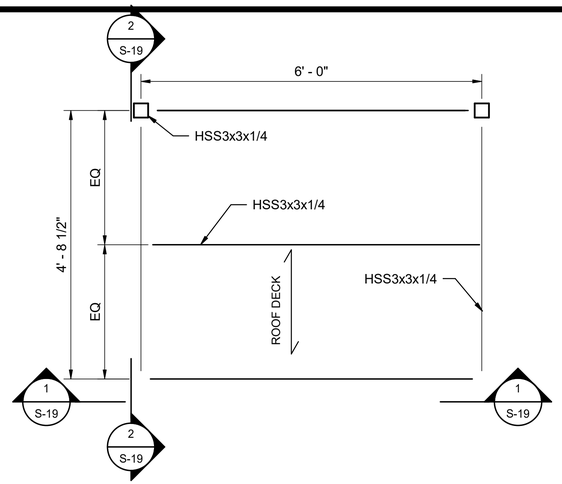
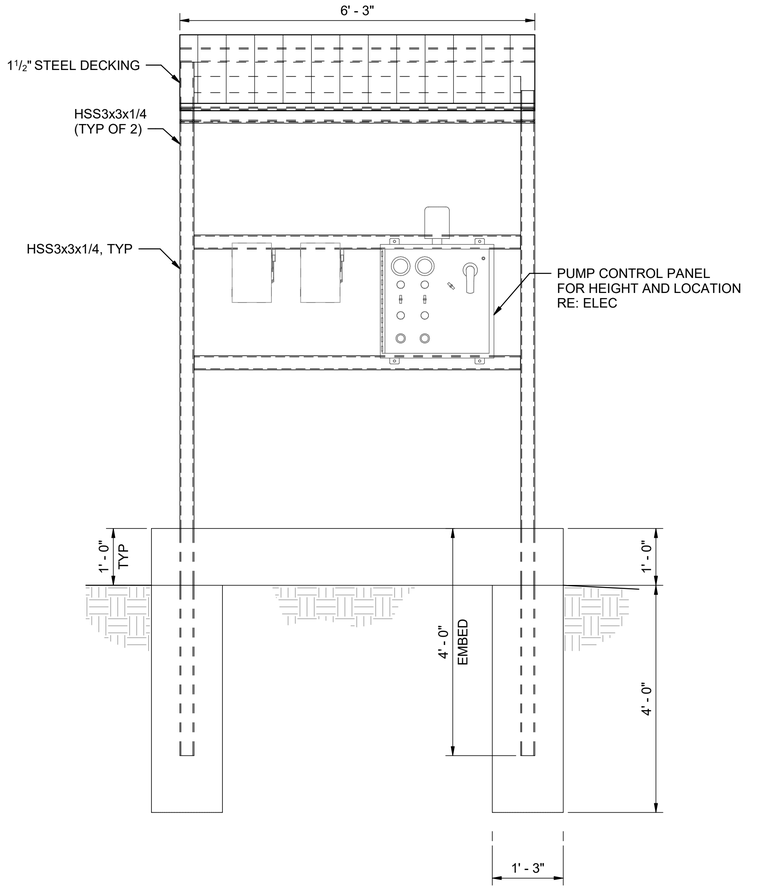


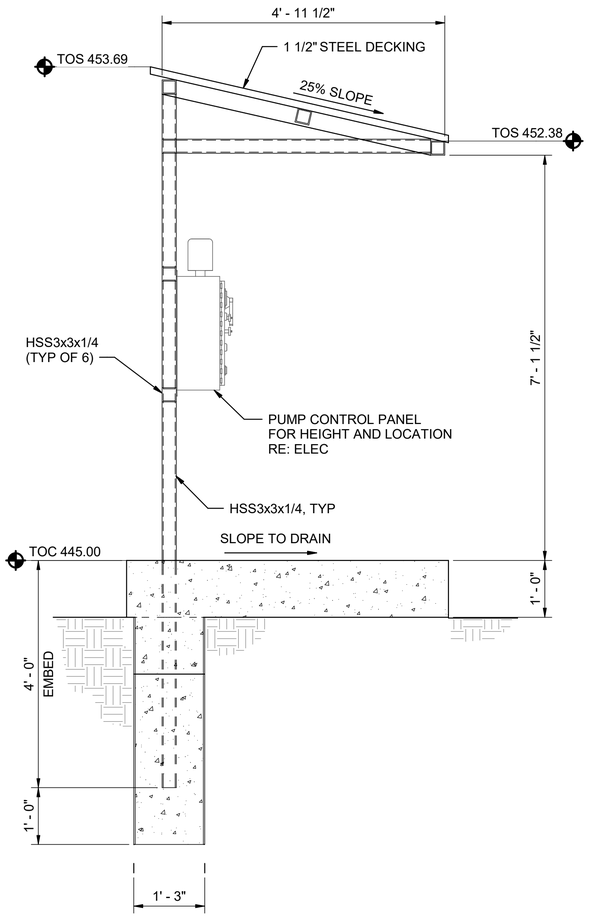

## STRUCTURAL PLAN - ELECTRICAL CANOPY FRAMING

**3/4" = 1'-0"**




1 — STRUCTURAL SECTION - ELECTRICAL CANOPY

3/4" = 1'-0"



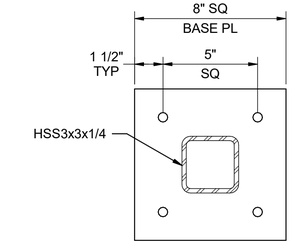

2 — STRUCTURAL SECTION - ELECTRICAL CANOPY

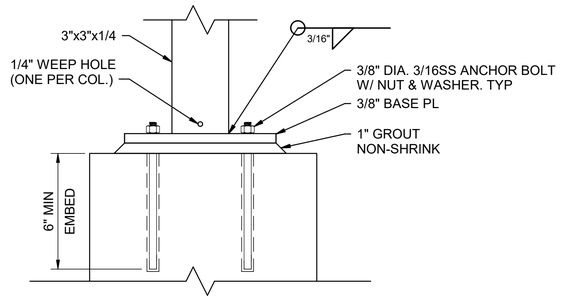
3/4" = 1'-0"

GENERAL CANOPY NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
4. ALL STRUCTURAL MEMBERS SHALL BE GALVANIZED STEEL.
5. STEEL DECK:

   a. STEEL DECK SHALL BE 1 1/2" DEEP TYPE B AND GALVANIZED. METAL DECK GRADE SHALL CONFORM TO SDI MAX CONSTRUCTION SPAN REQUIREMENT.




**NOTE:**

1. ANCHOR BOLTS SHALL BE POST-INSTALLED WITH HILTI HIT-RE 500 V3, OR APPROVED EQUAL, EPOXY ADHESIVE. ANCHORS SHALL BE INSTALLED PER ADHESIVE MANUFACTURER SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
2. ALTERNATIVE COLUMNS BASE PLATE CONNECTION SHALL BE USED WHERE APPLICABLE AND WHEN MOUNTING TO THE METER VAULT CONCRETE WALLS.

## ALTERNATIVE COLUMN BASE PLATE CONNECTION

NTS

1 0 2
SCALE IN FEET

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


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · CHRIS POTTER · 133757 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, CONTACT ENGINEER IMMEDIATELY AND ADJUST SCALE ACCORDINGLY. 0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL PLAN & SECTIONS
ELECTRICAL CANOPY

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-19
66 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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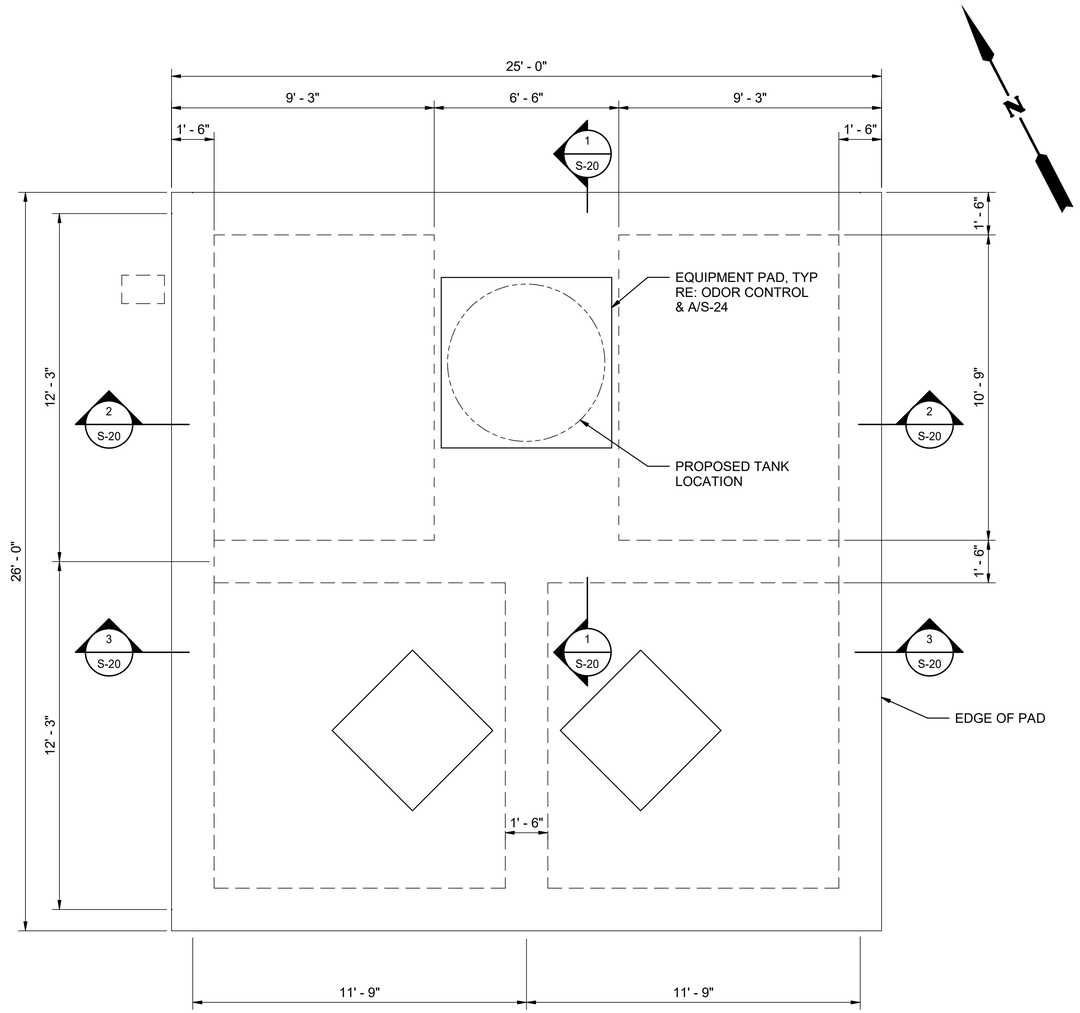
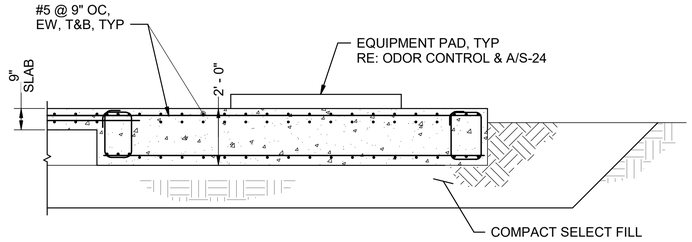


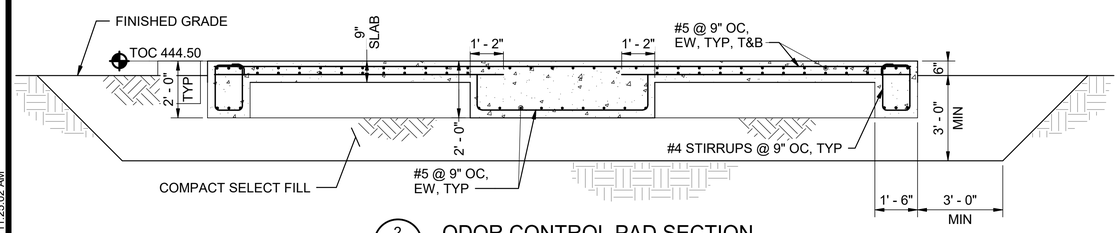

## ODOR CONTROL PAD PLAN

**3/8" = 1'-0"**



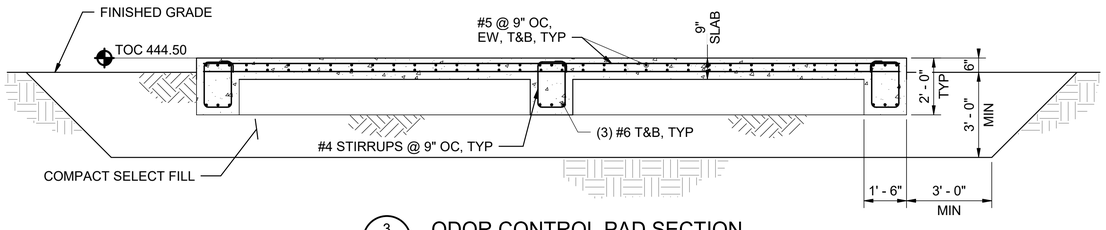

1 — ODOR CONTROL PAD SECTION

3/8" = 1'-0"




2 — ODOR CONTROL PAD SECTION

3/8" = 1'-0"




3 — ODOR CONTROL PAD SECTION

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

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

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.

GENERAL NOTES FOR ODOR CONTROL PAD FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE VALVE VAULT GENERALLY, CONSIST OF THE FOLLOWING:
   0' - 4' FINE SANDY SILT FILL
   4' - 8' SANDY CLAY FILL
   8' - 10' SANDY LEAN CLAY
   10' – 60' LEAN CLAY
   60'-72' SAND
   72' -80' SHALE
3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. VALVE VAULT MAT FOUNDATION HAS BEEN DESIGNED FOR BEARING INTO SANDY LEAN CLAY AT A DEPTH OF 8' BELOW GRADE. THE BEARING CAPACITY OF THE MAT AT THAT DEPTH IS A VALUE OF 500 PSF.
5. A 12" THICK GRAVEL PAD CONSISTING OF 1" DIAMETER UNIFORMLY GRADED CRUSHED ROCK OR WASHED GRAVEL (ASTM NO. 57 STONE OR APPROVED EQUAL) MAY BE USED UNDER THE SLAB.
6. REMOVE ALL FILL MATERIAL AND ALL BROWN OR DARK BROWN SANDY LEAN CLAY AND ANY ORGANIC TO A MINIMUM DEPTH OF 10'. THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E.
7. THE BELOW GRADE WALLS SHOULD BE BACKFILLED WITH ONSITE LOW P.I. LEAN CLAY SOILS OR A LOW P.I. (P.I. 3 TO 18) GRANULAR SELECT FILL. THE LEAN CLAY OR SELECT FILL SHOULD BE COMPACTED IN 8-INCH LIFTS TO A MINIMUM OF 95% OF THE OPTIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E. MOISTURE CONTENT SHOULD BE WITHIN 3% OF OPTIMUM. THE FINAL 12 INCHES SHOULD BE BACKFILLED WITH A CLAY TOPSOIL TO PREVENT MIGRATION OF WATER IN THE BACKFILL.
8. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
CHRIS POTTER
133757
LICENSED
PROFESSIONAL ENGINEER
03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ODOR CONTROL PAD PLAN & SECTION

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | T. BENSON |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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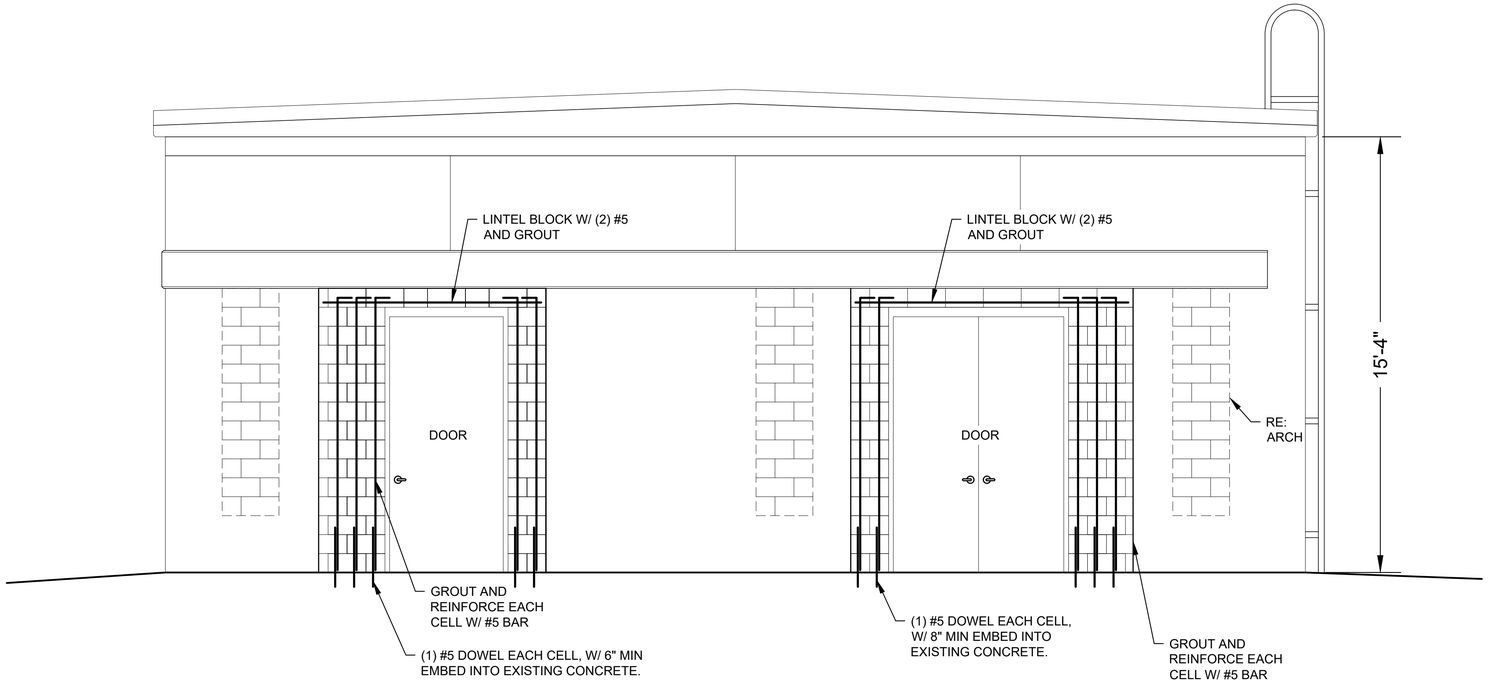
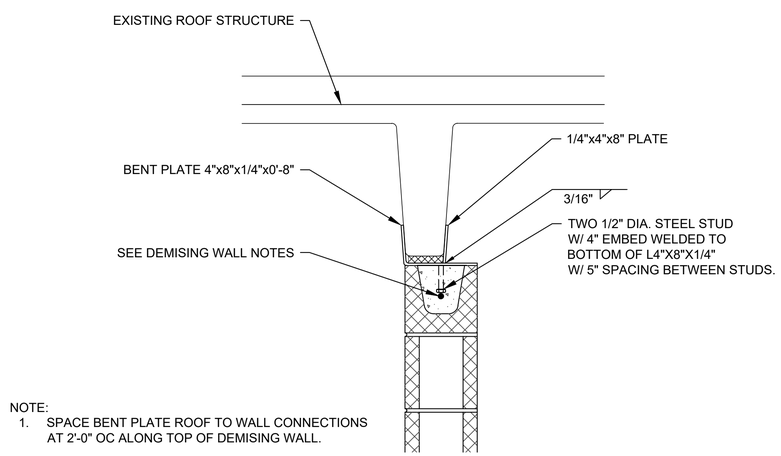



NOTE:
1. REBAR DOWELS SHALL BE POST-INSTALLED WITH HILTI HIT-RE 500 V3, OR APPROVED EQUAL, EPOXY ADHESIVE. SHALL BE INSTALLED PER ADHESIVE MANUFACTURER SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.

## COGEN BUILDING
## SOUTH ELEVATION VIEW
## MASONRY REINFORCEMENT AT NEW DOORS

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




NOTE:
1. SPACE BENT PLATE ROOF TO WALL CONNECTIONS AT 2'-0" OC ALONG TOP OF DEMISING WALL.

A ROOF TO WALL DETAIL
NTS

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. SEE STRUCTURAL GENERAL NOTES, STANDARD DETAILS, AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
4. REFER TO ARCH FOR INTERIOR AND EXTERIOR CMU FINISHES.

DEMISING WALL NOTES:

1. REFER TO ARCH SHEETS FOR NEW CMU DEMISING WALL LOCATION AND DIMENSIONS IN EXISTING COGEN BUILDING.
2. VERTICAL REINFORCEMENT SHALL BE #4 BARS SPACED AT 10'-0" O.C., AND AT EACH END OF THE DEMISING WALL.
3. EACH VERTICAL REINFORCEMENT SHALL HAVE A #4 DOWEL EMBED A MINIMUM OF 5" INTO THE EXISTING CONCRETE.
4. HORIZONTAL REINFORCEMENT SHALL BE #4 BARS SPACED AT 10'-0" O.C., OR TYPICAL BED JOINT WIRE REINFORCEMENT AT 16" O.C.
5. A CONTINUOUS HORIZONTAL #4 BAR SHALL BE PLACED AT THE TOP OF WALL IN THE DEMISING WALL.
6. ALL CMU CELLS WITH REINFORCEMENT SHALL BE GROUTED.


sti
TEXAS REGISTERED ENGINEERING FIRM F-204


STATE OF TEXAS · CHRIS POTTER · 137577 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL COGEN BUILDING MASONRY REINFORCEMENT AT NEW DOORS

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | C.CASEY |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-21
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2 1 0 4
SCALE: 3/8" = 1'-0"


PRINTED BY: LeuenbD DATE: 7/29/2025
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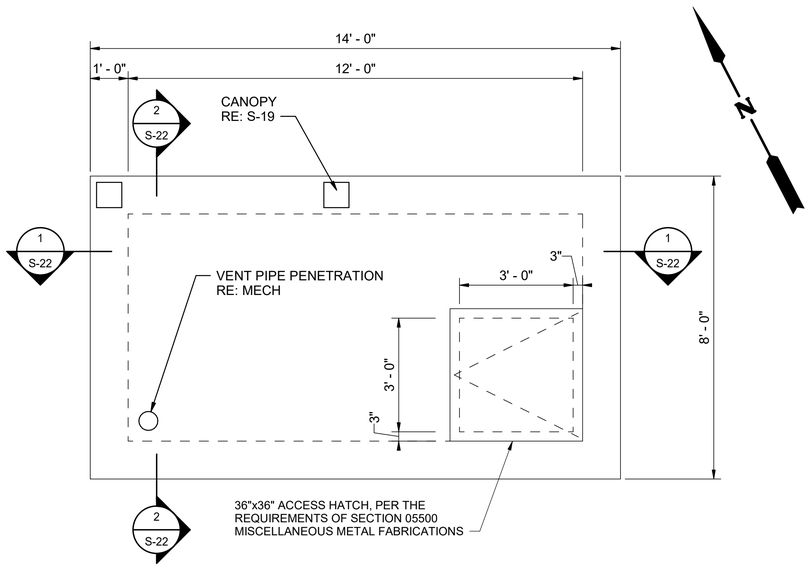
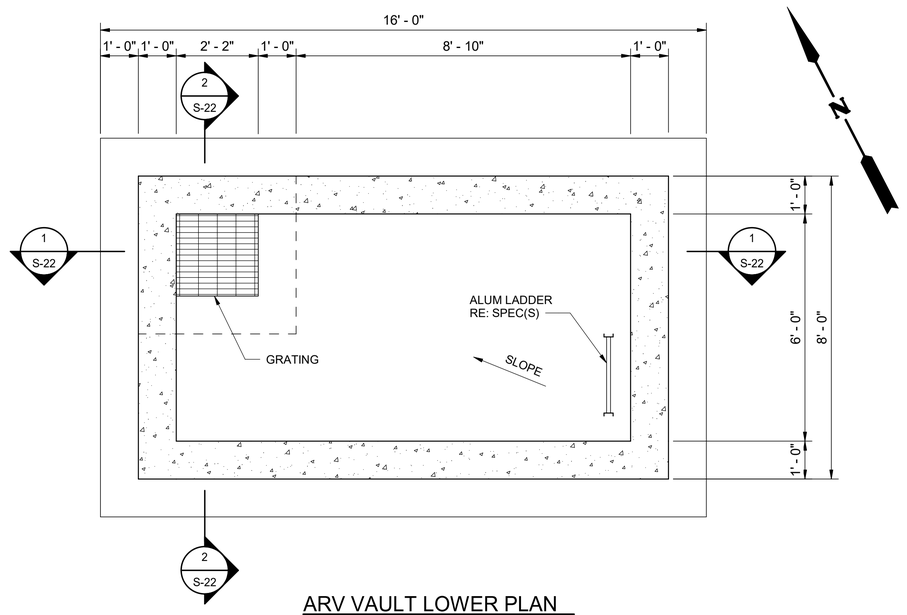


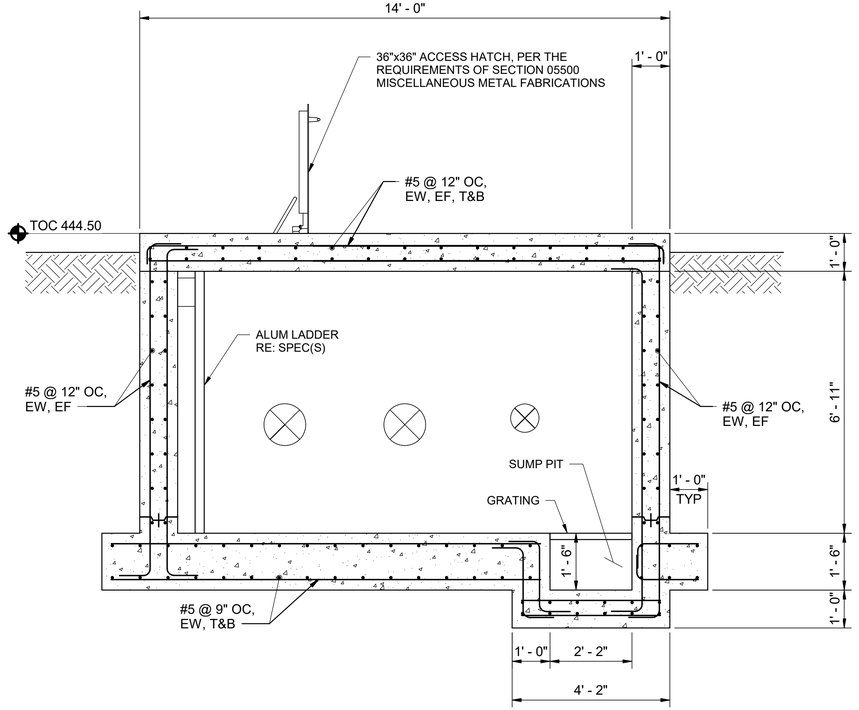

## ARV VAULT UPPER PLAN

SCALE: 1/2" = 1'-0"



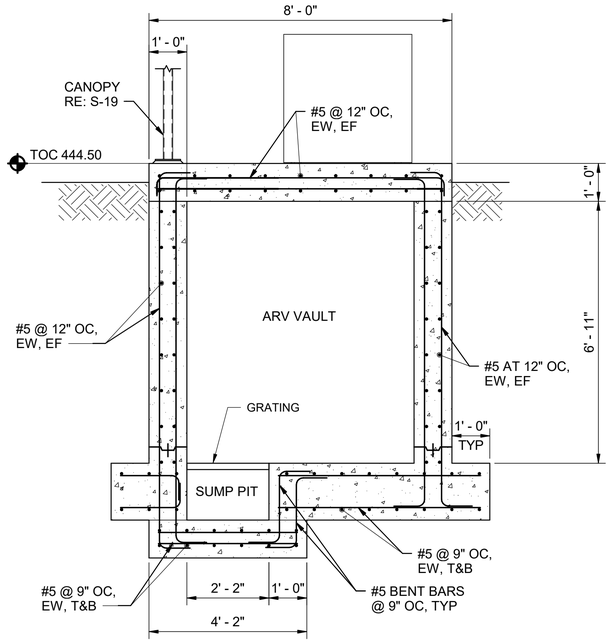

## ARV VAULT LOWER PLAN

SCALE: 1/2" = 1'-0"




1 S-22 ARV VAULT SECTION I

1/2" = 1'-0"




2 S-22 ARV VAULT SECTION II

1/2" = 1'-0"

GENERAL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
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3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.

GENERAL NOTES FOR ARV VAULT PAD FOUNDATION:

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH SUBSURFACE EXPLORATION REPORT BY HOLT ENGINEERING, INC., DATED NOVEMBER 20, 2023. COPIES OF THE REPORT MAY BE OBTAINED FROM THE OWNER. THE FOLLOWING INFORMATION IS PROVIDED TO ASSIST IN THE LEVEL OF UNDERSTANDING OF THE SUBSURFACE CONDITIONS BUT SHALL NOT BE CONSIDERED TO COMPLETELY DESCRIBE ALL CONDITIONS PRESENT AND RELEVANT TO THE FOUNDATION CONSTRUCTION.
2. SITE CONDITIONS AT THE VALVE VAULT GENERALLY, CONSIST OF THE FOLLOWING:
   0' - 4' FINE SANDY SILT FILL
   4' - 8' SANDY CLAY FILL
   8' - 10' SANDY LEAN CLAY
   10' – 60' LEAN CLAY
   60'-72' SAND
   72' -80' SHALE
3. AT THE TIME OF TESTING, GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 61.5 FT, SEE BORING LOG #B-05, TYPICAL. GROUNDWATER LEVELS MAY BE DIFFERENT DURING CONSTRUCTION. HOWEVER, DEWATERING EFFORTS SHOULD BE EXPECTED.
4. VALVE VAULT MAT FOUNDATION HAS BEEN DESIGNED FOR BEARING INTO SANDY LEAN CLAY AT A DEPTH OF 8' BELOW GRADE. THE BEARING CAPACITY OF THE MAT AT THAT DEPTH IS A VALUE OF 500 PSF.
5. A 12" THICK GRAVEL PAD CONISITING OF 1" DIAMETER UNIFORLILY GRADED CRUSHED ROCK OR WASHED GRAVEL (ASTM NO. 57 STONE OR APPROVED EQUAL) MAY BE USED UNDER THE SLAB.
6. REMOVAL ALL FILL MATERIAL AND ALL BROWN OR DARK BROWN SANDY LEAN CLAY AND ANY ORGANIC TO A MINIMUM DEPTH OF 10'. THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E.
7. THE BELOW GRADE WALLS SHOULD BE BACKFILLED WITH ONSITE LOW P.I. LEAN CLAY SOILS OR A LOW P.I. (P.I. 3 TO 18) GRANULAR SELECT FILL. THE LEAN CLAY OR SELECT FILL SHOULD BE COMPACTED IN 8-INCH LIFTS TO A MINIMUM OF 95% OF THE OPTIMUM DRY DENSITY IN ACCORDANCE WITH TXDOT TEST METHOD TEX-113-E. MOISTURE CONTENT SHOULD BE WITHIN 3% OF OPTIMUM. THE FINAL 12 INCHES SHOULD BE BACKFILLED WITH A CLAY TOPSOIL TO PREVENT MIGRATION OF WATER IN THE BACKFILL.
8. AT THE TIME OF THE EXCAVATION, THE OWNER'S TESTING LABORATORY SHALL BE NOTIFIED TO EXAMINE THE SUBGRADE TO ENSURE THAT A DESIRABLE STRATUM HAS BEEN REACHED.

2 1 0 2

SCALE: 1/2" = 1'-0"


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO | REVISION | BY | DATE |
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VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ARV VAULT REINFORCEMENT PLANS AND SECTIONS

| | |
|---|---|
| DESIGN: | J. CURTIS |
| DRAWN: | J. TORRES |
| REVIEW: | C. POTTER,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

S-22




Revit File: BIM 360://AUST1500124 02 Hornsby Bend BMP Headworks/AUST1500124 02 - Mechanical.rvt
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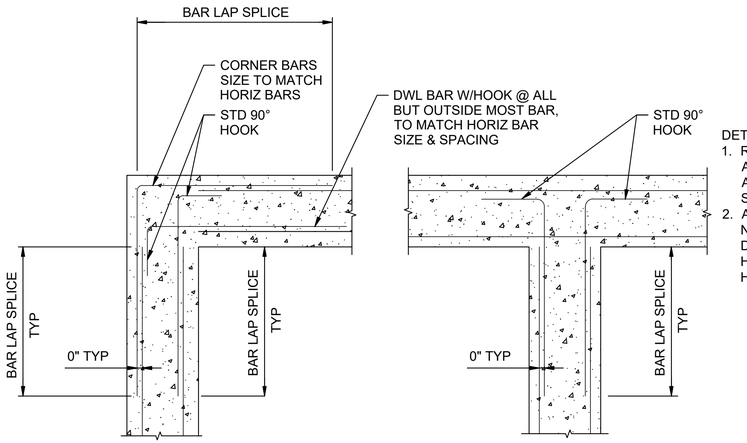
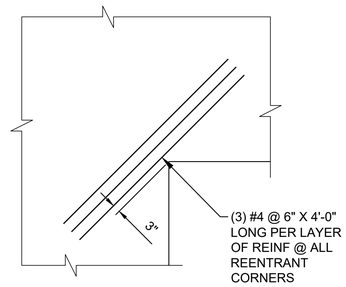
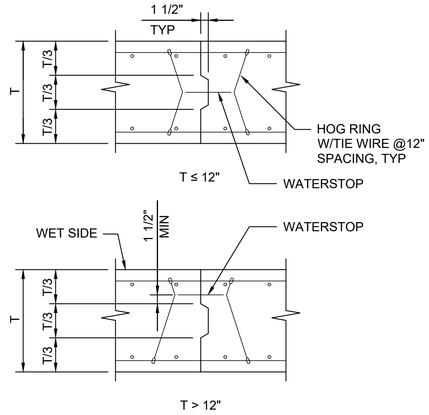



DETAIL NOTES:
1. REINFORCING SHOWN APPLIES TO ALL TOP, BOTTOM AND SIDE BARS. ALL REQUIRED BARS ARE NOT SHOWN IN DETAIL.
2. AT CONTRACTOR'S OPTION, UNLESS NOTED OTHERWISE, ELIMINATE DOWELS AND TERMINATE HORIZONTAL BARS WITH STANDARD HOOKS.

## A CORNER & INTERSECTION REINFORCEMENT
NTS




## B SLAB AT RE-ENTRANT CORNER
NTS




## C SLAB CONSTRUCTION JOINT DETAIL
NTS







## D WALL CONSTRUCTION JOINT AT SLAB DETAIL
NTS

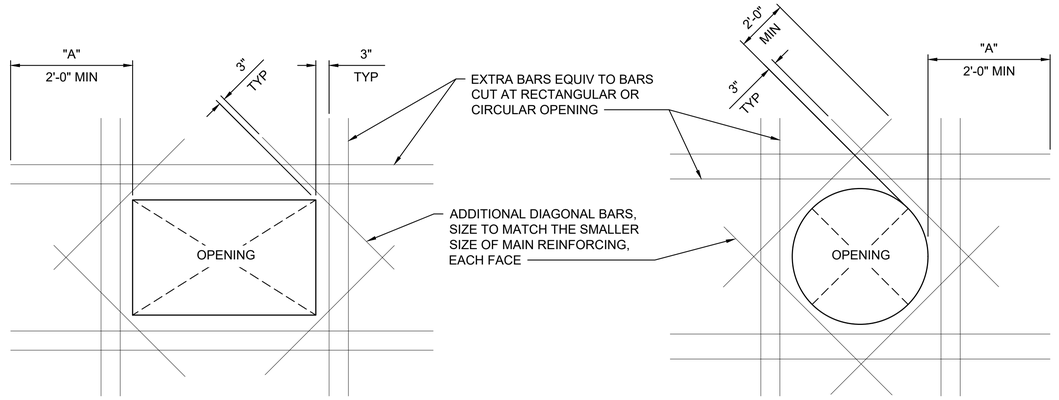



## E WALL CONSTRUCTION JOINT DETAIL
NTS




NOTE:
REFER TO PLAN FOR SLAB JOINT LOCATIONS.

## F SLAB DOWELED EXPANSION JOINT DETAIL
NTS




DETAIL NOTES:
1. THIS DETAIL IS APPLICABLE FOR OPENINGS NOT GREATER THAN 12" IN DIAMETER OR DIMENSIONS.
2. DISCONTINUE TYPICAL REINFORCING AT OPENING.
3. PLACE ADDITIONAL BARS IN SAME ORIENTATION AND POSITION AS BARS CUT BY OPENING. PROVIDE ONE SET OF BARS FOR EACH LAYER OF REINFORCING CUT.
4. "A" = TOP BAR EMBEDMENT LENGTH (24" MINIMUM). PROVIDE STANDARD HOOK IF FULL EMBEDMENT LENGTH IS NOT POSSIBLE.
5. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.
6. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR SLAB AND WALL OPENING NOT SHOWN ON STRUCTURAL DRAWINGS.
7. ADDITIONAL REINFORCING MAY BE OMITTED ONLY WHERE OPENINGS IS FRAMED BY BEAMS OR WALLS.
8. ADDITIONAL REINFORCING NOT REQUIRED WHEN SPECIFIED REINFORCEMENT IS NOT CUT.
9. ALL REINFORCING SPACING SHALL BE GREATER THAN 3" CENTER TO CENTER.

## G WALL OR SLAB OPENING ADDITIONAL REINFORCEMENT
NTS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TEXAS REGISTERED ENGINEERING FIRM F-204
STATE OF TEXAS CHRIS POTTER 137577 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL STANDARD DETAILS (1 OF 5)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | K.KOLLARS |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
S-23
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PRINTED BY: LeuenbD DATE: 7/29/2025
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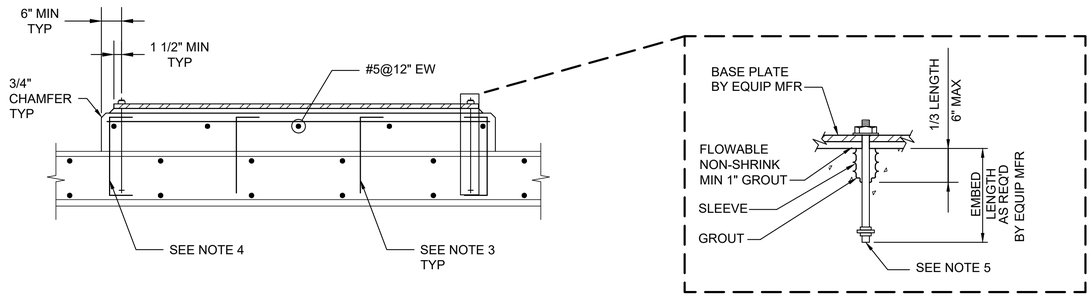
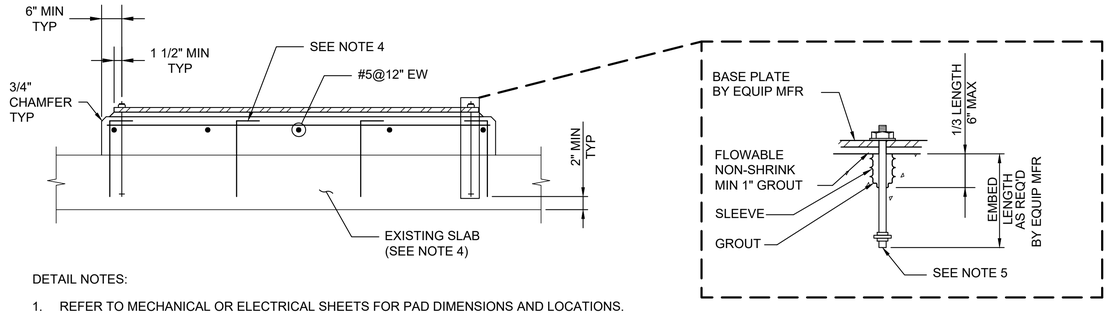



DETAIL NOTES:

1. REFER TO MECHANICAL OR ELECTRICAL SHEETS FOR PAD DIMENSIONS AND LOCATIONS.
2. PAD THICKNESS 6" MINIMUM OR GREATER IF REQUIRED BY EQUIPMENT MANUFACTURER.
3. #4 DOWELS W/ STD HOOK AT 2'-0" MAXIMUM SPACING WITH A MINIMUM OF 2 DOWELS IN EACH DIRECTION.
4. #5 DOWELS W/ 12" MIN LEGS @ 12" AROUND THE PERIMETER.
5. ALL ANCHOR BOLTS TO BE 316 SS. BASE PLATE, ANCHOR BOLT SIZE, NUMBER & LOCATION AS REQUIRED BY EQUIPMENT MANUFACTURER.

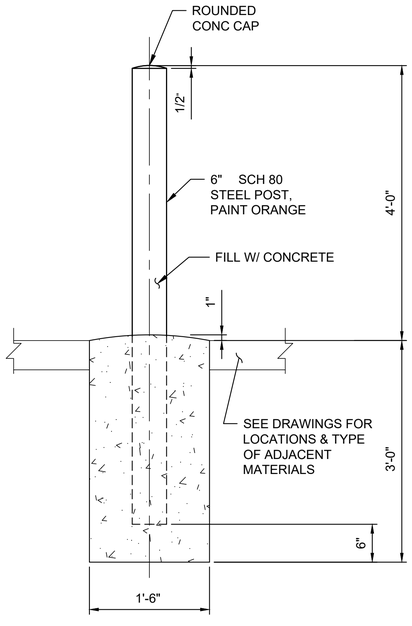
A EQUIPMENT PAD AT NEW SLAB
NTS



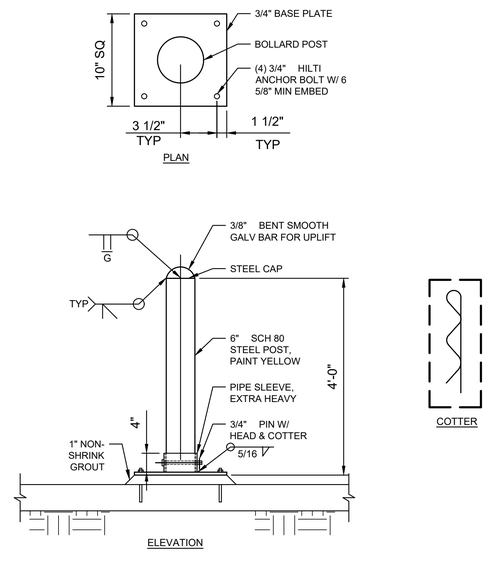

DETAIL NOTES:

1. REFER TO MECHANICAL OR ELECTRICAL SHEETS FOR PAD DIMENSIONS AND LOCATIONS.
2. CONTRACTOR TO VERIFY SLAB EXISTING CONDITION AND THICKNESS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. CLEAN AND ROUGHEN TOP SURFACE IN CONTACT WITH EQUIPMENT PAD AND APPLY BONDING AGENT PRIOR TO INSTALLATION.
3. PAD THICKNESS 6" MINIMUM OR GREATER IF REQUIRED BY EQUIPMENT MANUFACTURER.
4. #4 DOWELS W/ STD HOOK AT 2'-0" MAXIMUM SPACING WITH A MINIMUM OF 2 DOWELS IN EACH DIRECTION. DOWEL INTO EXISTING SLAB USING HILTI HIT-HY 200 OR HVU CAPSULE. REDUCE STANDARD EMBEDMENT DEPTH TO MAINTIAN 2" MINIMUM END COVER AS REQUIRED.
5. ALL ANCHOR BOLTS TO BE 316 SS. BASE PLATE AND ANCHOR BOLT SIZE, NUMBER, SPACING ETC. AS REQUIRED BY EQUIPMENT MANUFACTURER. EXTEND ANCHOR BOLTS INTO EXISTING SLAB AS REQUIRED.

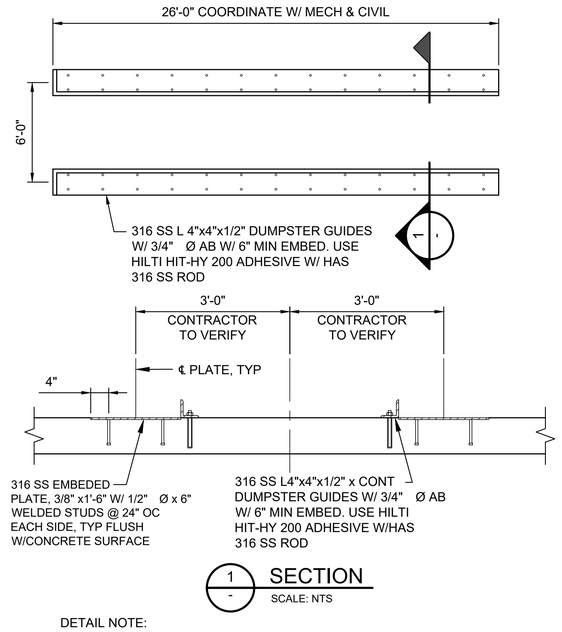
B EQUIPMENT PAD AT EXISTING SLAB
NTS




C BOLLARD
NTS




D FLOOR MOUNT REMOVABLE BOLLARD
NTS

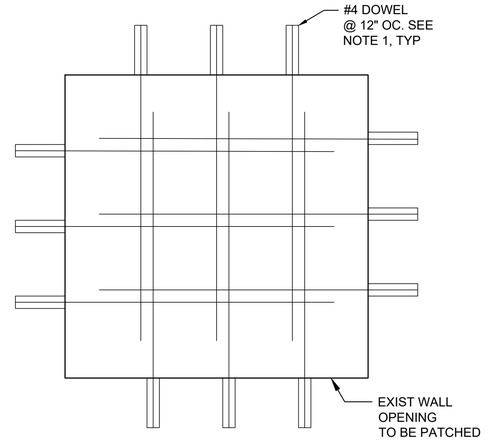



1 SECTION
- SCALE: NTS

DETAIL NOTE:

1. CONTRACTOR TO VERIFY PLATE SPACE WITH PLANT OPERATOR AND WASTE MANAGEMENT CONTRACTOR.

E DUMPSTER GUIDE ASSEMBLY PLAN
NTS




DETAIL NOTES:

1. DOWELS SHALL HAVE A MIN. EMBED OF 4" WITH MIN. EDGE DISTANCE FROM TOP AND BOTTOM OF CONCRETE OF 2 1/2" STOP DOWEL 1" BEFORE THE OPPOSITE EDGE OF OPENING.
2. CONTRACTOR MAY USE HILTI HIT-HY 200 OR HUV CAPSULE.
3. DETAIL TO BE USED FOR ROOF SLAB OPENINGS BETWEEN 2'-6" BY 2'-6" TO 4'-0" BY 4'-0".
4. ROUGHEN EXISTING CONCRETE SURFACE, PROVIDE BONDING AGENT. FOR LIQUID BEARING STRUCTURES, PROVIDE HYDROPHILIC WATERSTOP ALL AROUND.
5. CONTRACTOR TO FIELD LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING TO AVOID DAMAGING EXISTING REINFORCEMENT.

F EXISTING CONCRETE ROOF PATCH
NTS


STV
TEXAS REGISTERED ENGINEERING FIRM F-204
STATE OF TEXAS CHRIS POTTER 137357 LICENSED PROFESSIONAL ENGINEER 07/31/2026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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL STANDARD DETAILS
(2 OF 5)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | K.KOLLARS |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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PRINTED BY: LeuenbD DATE: 7/29/2025
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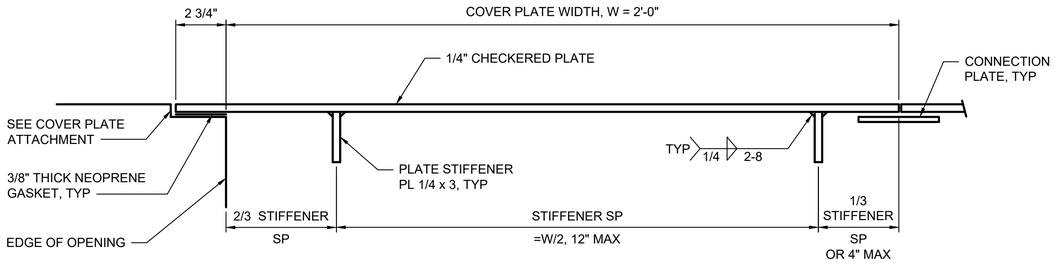
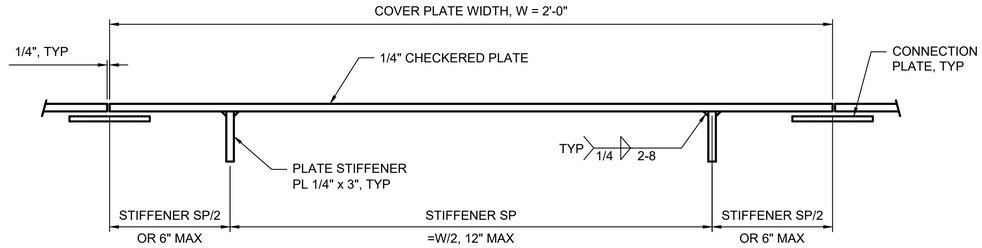
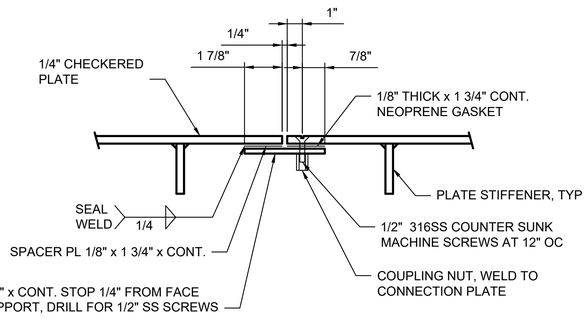
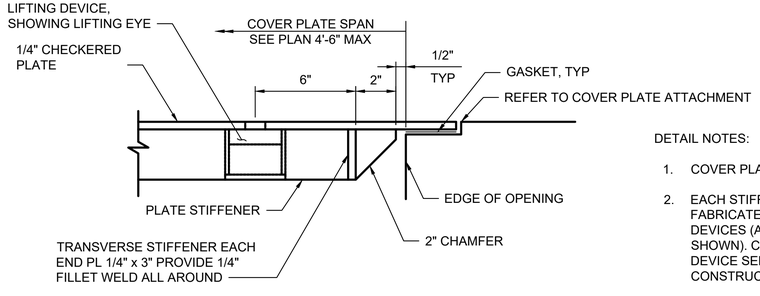



## TYPICAL EDGE PLATE




## TYPICAL COVER PLATE



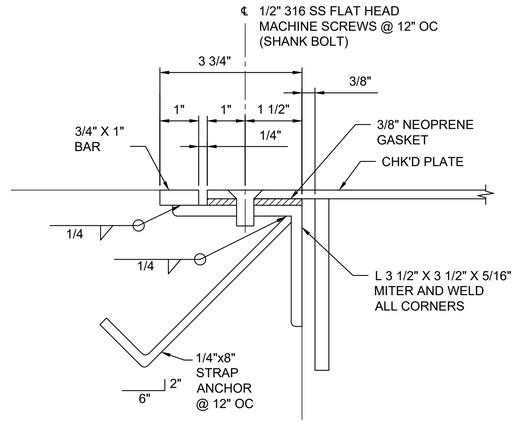




DETAIL NOTES:

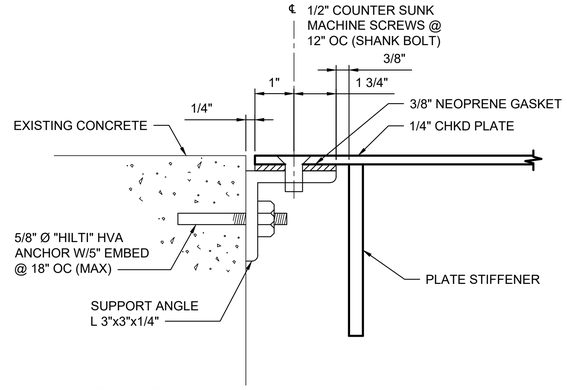
1. COVER PLATE MATERIAL SHALL BE 316SS.
2. EACH STIFFENED COVER PLATE SHALL BE FABRICATED WITH A MINIMUM OF 2 LIFT DEVICES (A AT EACH END OF LOCATION SHOWN). CONTRACTOR TO COORDINATE LIFT DEVICE SELECTION WITH OWNER PRIOR TO CONSTRUCTION OR ORDERING MATERIALS.
3. COUNTER SUNK MACHINE SCREW SHALL BE ALLEN TYPE DRIVE.
4. REFER TO SPECIFICATION SECTION 05530 FOR ANY ADDITIONAL COVER PLATE INFORMATION NOT SHOWN.

## END DETAIL OF CONC

A STIFFENED COVER PLATE
NTS



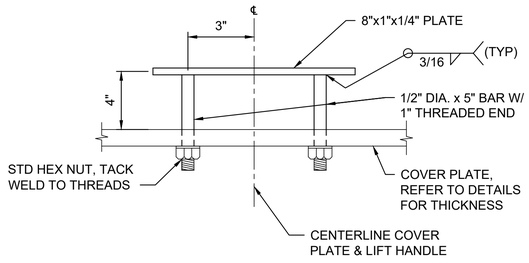

B COVER PLATE ATTACHMENT
NTS




DETAIL NOTE:

1. CONTRACTOR TO FIELD LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING TO AVOID DAMAGING EXISTING REINFORCEMENT.

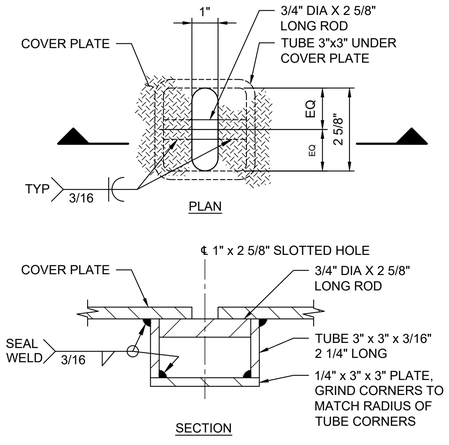
C COVER PLATE ATTACHMENT
NTS




DETAIL NOTES:

1. LIFT HANDLE SHALL BE 316SS.
2. ROUND CORNERS OF LIFT HANDLE WITH 1/4" RADIUS AND GRIND TO REMOVE SHARP EDGES.
3. LIFT HANDLE SHALL FREELY DROP TO REST ON TOP OF COVER PLATE WHEN NOT IN USE.

D LIFT HANDLE
NTS




E LIFTING EYE
NTS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STATE OF TEXAS CHRIS POTTER 137577 LICENSED PROFESSIONAL ENGINEER 03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL STANDARD DETAILS (3 OF 5)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | K.KOLLARS |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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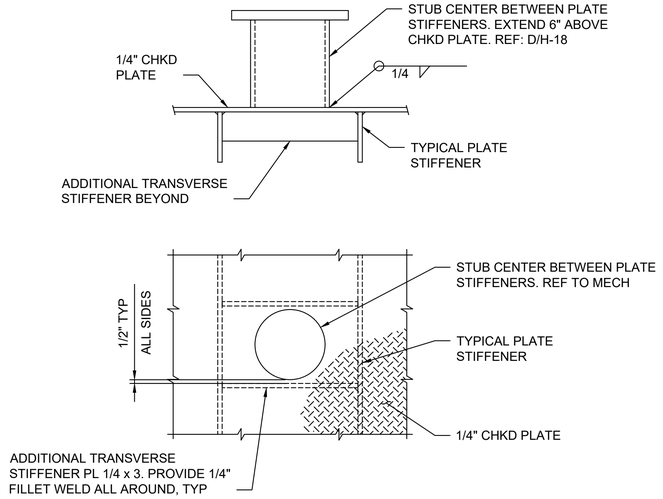
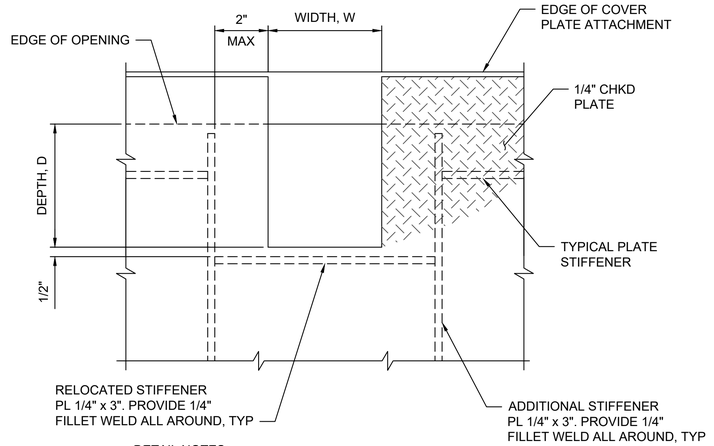
PRINTED BY: LeuenbD DATE: 7/29/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\0747958\AUST1500124_04_S-21 & S-23 TO S-27_CPY.dwg




DETAIL NOTES:

1. OPENINGS SHOWN SHALL BE SHOP FABRICATED. NO OPENINGS MAY BE CUT IN THE FIELD WITHOUT APPROVAL IN WRITING BY THE ENGINEER.

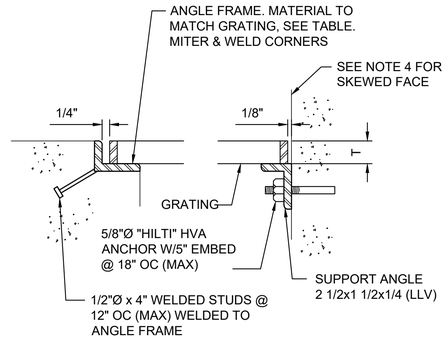
## A COVER PLATE ODOR CONTROL OPENING
NTS




DETAIL NOTES:

1. DIMENSIONS D & W SHALL BE COORDINATED WITH FIELD DIMENSIONS OF EXISTING SLUICE GATE FRAME / STEM OR OBSTRUCTION.
2. THE SIZE AND SHAPE OF THE OPENING SHALL NOT RESULT IN A GAP LARGER THAN 3/4" BETWEEN OBSTRUCTION AND COVER PLATE.
3. OPENINGS SHOWN SHALL BE SHOP FABRICATED. NO OPENINGS MAY BE CUT IN THE FIELD WITHOUT APPROVAL IN WRITING BY THE ENGINEER.

## B COVER PLATE NOTCH DETAIL
NTS

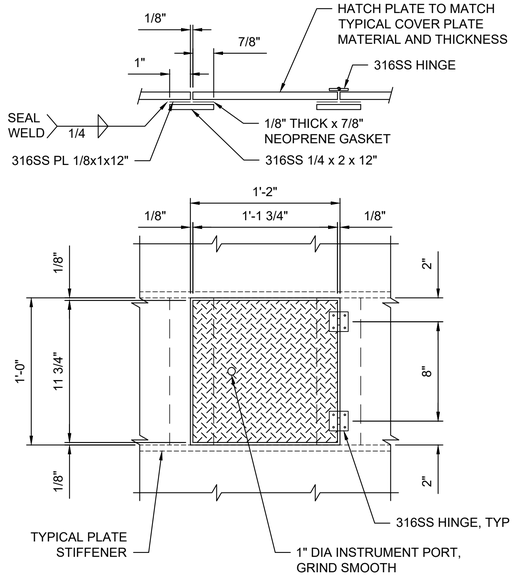



| GRATING FRAME TABLE | |
|---|---|
| GRATING DEPTH, T | FRAME ANGLE |
| 1" | 2 1/2x1 1/2x1/4" |
| 1 1/4" | 2 1/2x1 1/2x1/4" |
| 1 1/2" | 2 1/2x2x1/4" |
| 1 3/4" | 2 1/2x2x1/4" |
| 2" | 2 1/2x2 1/2x1/2" |
| 2 1/4" | 2 1/2x2 1/2x1/2" |

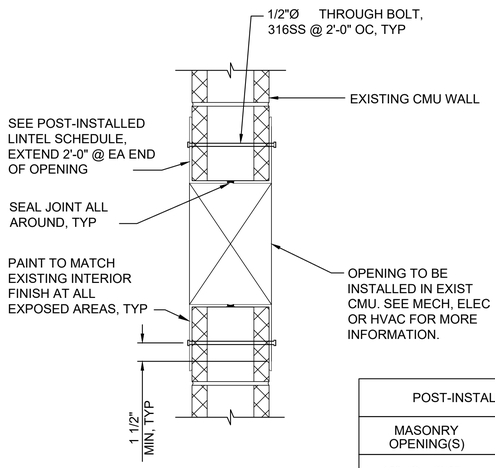
DETAIL NOTES:

1. ALL GRATING ENDS AND OPENINGS SHALL BE BANDED.
2. ALL GRATING SHALL BE SECURED IN PLACE WITH REMOVABLE FASTENERS OR WELDINGS.
3. FOR REMOVABLE GRATING SECTION, WEIGHT SHALL NOT EXCEED 80 LBS.
4. FOR SKEWED FACE, USE BENT PLATE IN LIEU OF ANGLE (SAME SIZE & THICKNESS).
5. ALL BOLTS, RIVETS, ANCHOR BOLTS & FASTENERS SHALL BE 316 SS UNO.
6. FOR ALUMINUM CONSTRUCTION, REFER TO SPECIFICATIONS FOR TREATMENT OF EMBEDED/CONTACT SURFACES.

## C GRATING SUPPORT
NTS




## D INSPECTION HATCH
NTS




DETAIL NOTES:

1. ALL STEEL MEMBERS TO BE GALVANIZED.
2. NO LOOSE LINTEL NECESSARY FOR RECTANGULAR OPENINGS WITH DIMENSIONS OF 16" OR LESS AND CIRCULAR OPENINGS WITH OUTSIDE DIAMETERS OF 16" OR LESS.
3. REFER TO ARCH'L, STRU'L, ELEC, MECH AND/OR HVAC SHEETS FOR OPENING, LOUVER OR FAN SIZES AND LOCATIONS.
4. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY. ENGINEER IS NOT RESPONSIBLE FOR MEANS & METHODS OF CONSTRUCTION TO INSTALL OPENING, LOUVER OR FAN AT EXISTING CMU & BRICK.
5. CONTRACTOR TO INSTALL GALVANIZED STEEL LINTEL ABOVE OPENING PRIOR TO DEMOLITION OF THE EXISTING CMU BLOCK AND BRICK. EXTEND LINTEL 2'-0" MIN BEYOND OPENING AT EACH SIDE. REINFORCE SIDE AND BOTTOM OF OPENING WITH GALVANIZED STEEL ANGLE TO MATCH LINTEL ANGLE. ANGLE SHALL BE SECURELY ANCHORED TO CMU AND SHALL COMPLETELY COVER THE INTERIOR AND FACE OF RAW OPENING. WELD TOGETHER WHERE STEEL INTERSECTS AT CORNER AND AT LINTELS. GROUT AS REQUIRED TO SEAL AGAINST EXISTING CMU WALL.

| POST-INSTALLED LINTEL SCHEDULE | |
|---|---|
| MASONRY OPENING(S) | ANGLE SIZE |
| 16"< S < 4'-0" | L 4" X 3 1/2" X 1/4" (LLV) |
| 4'-0"< S < 6'-0" | L 5" X 3 1/2" X 1/4" (LLV) |
| 6'-0"< S < 7'-0" | L 5" X 3 1/2" X 3/8" (LLV) |
| 7'-0"< S < 8'-0" | L 6" X 4" X 3/8" (LLV) |

## E NEW OR ENLARGED OPENING AT EXIST CMU WALL
NTS

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STATE OF TEXAS CHRIS POTTER 137577 LICENSED PROFESSIONAL ENGINEER 03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

STRUCTURAL STANDARD DETAILS (4 OF 5)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | K.KOLLARS |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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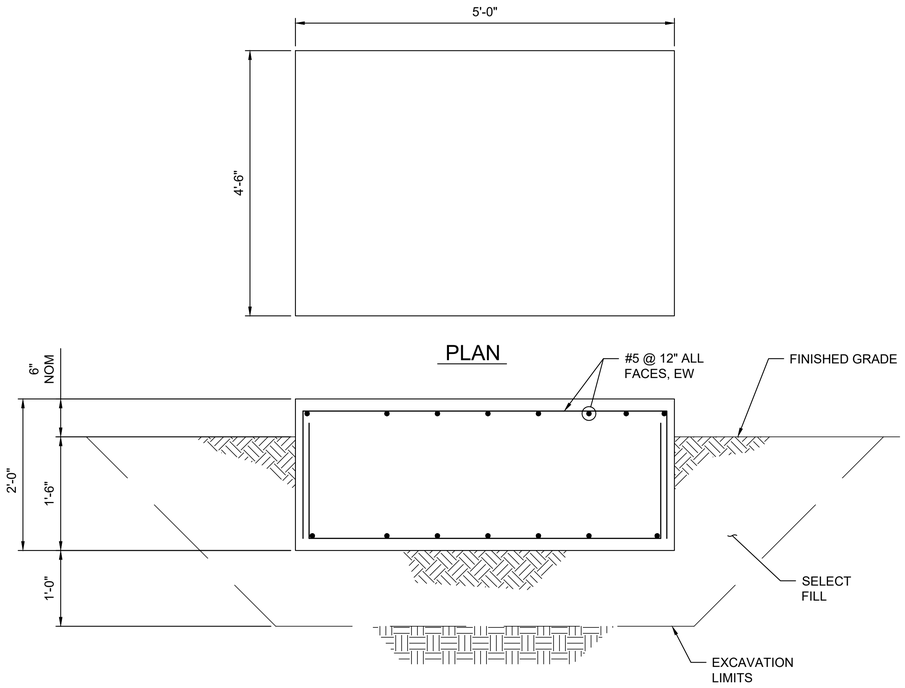
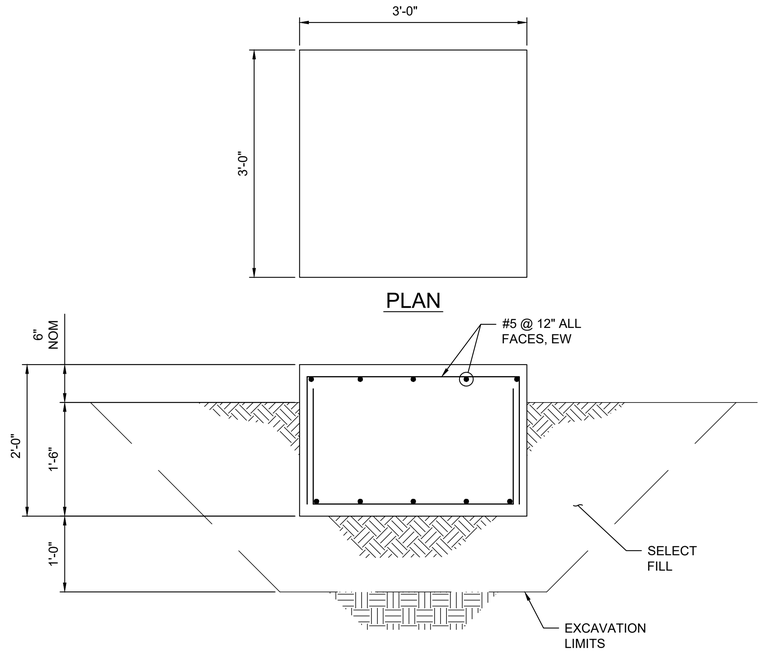
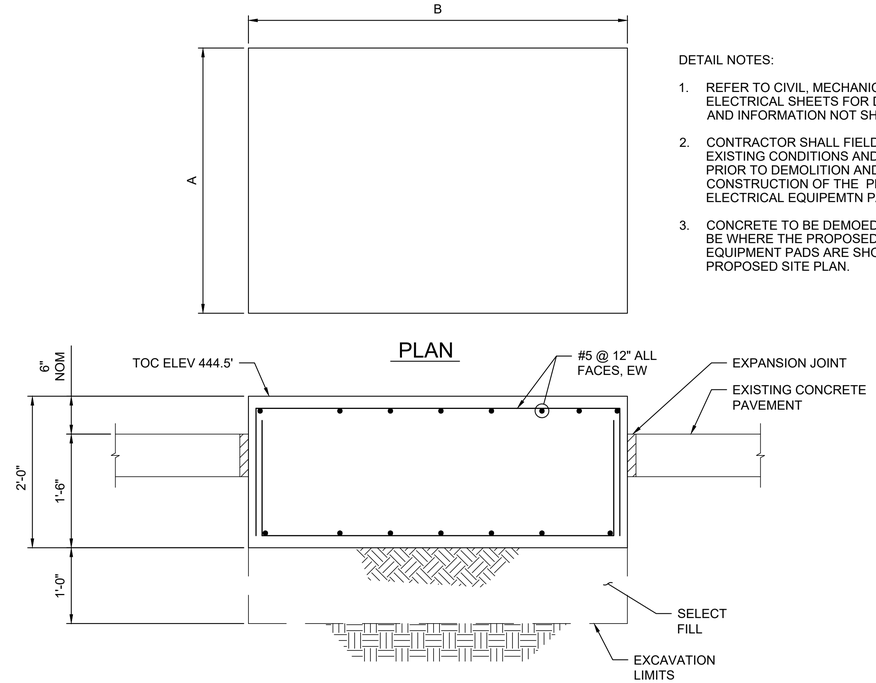
PRINTED BY: LeuenbD DATE: 7/29/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_04_S-21 & S-23 TO S-27_CPY.dwg




A STAIR LANDING PAD DETAIL
NTS



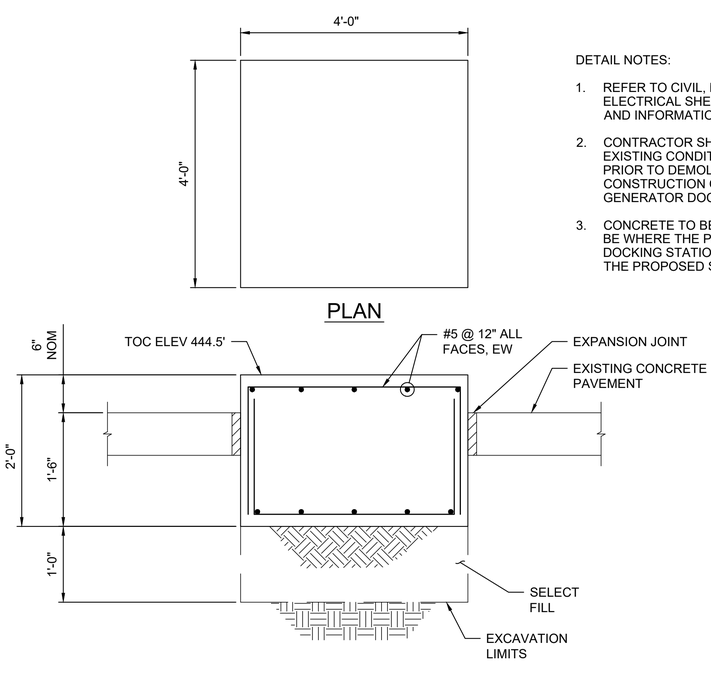

B YARD PIPE SUPPORT PAD
NTS




DETAIL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIEMSNIONS PRIOR TO DEMOLITION AND CONSTRUCTION OF THE PROPOSED ELECTRICAL EQUIPEMTN PADS.
3. CONCRETE TO BE DEMOED SHALL ONLY BE WHERE THE PROPOSED ELECTRICAL EQUIPMENT PADS ARE SHOWN ON THE PROPOSED SITE PLAN.

C ELECTRICAL EQUIPMENT PAD
NTS




DETAIL NOTES:

1. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL SHEETS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIEMSNIONS PRIOR TO DEMOLITION AND CONSTRUCTION OF THE PROPOSED GENERATOR DOCKING STATION PAD.
3. CONCRETE TO BE DEMOED SHALL ONLY BE WHERE THE PROPOSED GENERATOR DOCKING STATION PAD IS SHOWN ON THE PROPOSED SITE PLAN.

D GENERATOR DOCKING STATION PAD
NTS


sti
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# STRUCTURAL STANDARD DETAILS (5 OF 5)

| | |
|---|---|
| DESIGN: | C.POTTER |
| DRAWN: | T.BENSON |
| REVIEW: | H.DOYLE |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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S-27
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PRINTED BY: LeuenbD DATE: 7/29/2025
FILE PATH: C:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_04_S-21 & S-23 TO S-27_CPY.dwg

## VALVE SYMBOLS

- AIR RELIEF & VACUUM VALVE
- AIR RELEASE VALVE
- ANGLE VALVE
- BACKFLOW PREVENTER
- BALL CHECK VALVE
- BALL VALVE
- GATE VALVE
- KNIFE GATE VALVE
- MUD VALVE
- MULTI PORT VALVE
- NEEDLE VALVE
- PINCH VALVE
- BUTTERFLY VALVE
- COMBINATION AIR VALVE
- CONE VALVE
- DIAPHRAGM VALVE
- DOUBLE DISC CHECK VALVE
- FLAP GATE
- PLUG VALVE
- PUMP CONTROL VALVE
- SOLENOID VALVE
- MOTOR ACTUATOR VALVE
- SWING CHECK VALVE
- GLOBE VALVE
- PRESSURE RELIEF VALVE

## PIPING SYMBOLS

- COUPLING FOR GROOVED END JOINTS
- DIRECTION OF FLOW
- FLANGED JOINT
- MECHANICAL COUPLING
- MECHANICAL JOINT
- RESTRAINED MECHANICAL COUPLING
- QUICK CONNECT COUPLING
- UNION
- WELDED JOINT

## MISCELLANEOUS SYMBOLS

- FLOOR DRAIN
- OPEN EQUIPMENT DRAIN
- CONCENTRIC REDUCER OR REDUCING BUSHING
- ECCENTRIC REDUCER OR REDUCING BUSHING
- Y-STRAINER
- MAG METER
- SOLIDS METER
- BLIND FLANGE
- CENTRIFUGAL PUMP
- MIXER
- SUBMERSIBLE PUMP

## PIPE LEGEND

8" SL (11)

- 11 — PIPE DIAMETER (INCHES)
- SL — FLUID ABBREVIATION
- 11 — MATERIAL GROUP NUMBER

| FLUID ABBREVIATION | FUNCTION (THIS LIST MAY INCLUDE SOME LINES NOT USED IN THIS PROJECT) | PIPING MATERIALS (SEE SCHEDULE RIGHT) | | | |
|---|---|---|---|---|---|
| | | EXPOSED PIPING GROUP NO. | | BURIED PIPING GROUP NO. | |
| | | 4" DIA AND SMALLER | 6" DIA AND LARGER | 4" DIA AND SMALLER | 6" DIA AND LARGER |
| D | DRAIN | 15,16,43 | 11,15,16,26,43 | 16 | 16,26 |
| PW | POTABLE WATER | 11,15,16,24,33,43 | 11,15,16,43 | 11,16,24 | 11,16 |
| WW | WASTEWATER | - | 11 | - | 11,16 |
| NPW | NON-POTABLE | 11,15,16,43 | 11,15,16,43 | 11,15,16,43 | 11 |
| SL | WATER (UTILITY WATER) SLUDGE | 11 | 11 | 11 | 11 |

**PROPOSED EQUIPMENT SCHEDULE**

| EQUIPMENT TAG NO. | POSITION_ID | NAME | SPEC REF. | SERVICE | TYPE | DESIGN FLOW RATE | HORSEPOWER | OPERATOR |
|---|---|---|---|---|---|---|---|---|
| SCR-BS-01 | HBD-SCR-SCREEN-01 | BAR SCREEN 1 | 11335 | RAW SLUDGE | BAR SCREEN | 5 MGD | 3 | N/A |
| SCR-BS-02 | HBD-SCR-SCREEN-02 | BAR SCREEN 2 | 11335 | RAW SLUDGE | BAR SCREEN | 5 MGD | 3 | N/A |
| SCR-CMPC-01 | HBD-SCR-SCREEN-01 | COMPACTOR 1 | 11335 | RAW SLUDGE | COMPACTOR | 177 CUFT/HR | 5 | N/A |
| SCR-CMPC-02 | HBD-SCR-SCREEN-02 | COMPACTOR 2 | 11335 | RAW SLUDGE | COMPACTOR | 177 CUFT/HR | 5 | N/A |
| SCR-SLP-01 | HBD-SCR-SLUDGEPUMP-01 | SLUDGE RECEIVING PUMP 1A | 11315 | RAW SLUDGE | SLUDGE PUMP | 250 GPM | 5 | N/A |
| SCR-SLP-02 | HBD-SCR-SLUDGEPUMP-02 | SLUDGE RECEIVING PUMP 1B | 11315 | RAW SLUDGE | SLUDGE PUMP | 250 GPM | 5 | N/A |
| SCR-SUMP-01 | HBD-SCR-SUMPPUMP-01 | METER VAULT SUMP PUMP | 11314 | RAW SLUDGE, STORMWATER | SLUDGE PUMP | 50 GPM | 1 | AUTO |
| SCR-SUMP-02 | HBD-SCR-SUMPPUMP-02 | AIR RELEASE VALVE SUMP PUMP | 11314 | RAW SLUDGE, STORMWATER | SLUDGE PUMP | 50 GPM | 1 | AUTO |
| SCR-OC-01 | HBD-SCR-ODORCONTROL-01 | ODOR CONTROL UNIT | 11340 | FOUL AIR | BIOTRICKLING FILTER | N/A | N/A | N/A |
| SCR-OC-EF-01 | HBD-SCR-BLOWER-01 | ODOR CONTROL FAN NO. 1 | 15861 | FOUL AIR | BLOWER FAN | N/A | 3 | N/A |
| SCR-OC-EF-02 | HBD-SCR-BLOWER-02 | ODOR CONTROL FAN NO. 2 | 15861 | FOUL AIR | BLOWER FAN | N/A | 3 | N/A |
| SCR-INF-SG-01 | N/A | INFLUENT SLIDE GATE 1 | 11280 | RAW SLUDGE | SLIDE GATE | 5 MGD | N/A | ELECTRIC |
| SCR-INF-SG-02 | N/A | INFLUENT SLIDE GATE 2 | 11280 | RAW SLUDGE | SLIDE GATE | 5 MGD | N/A | ELECTRIC |
| SCR-EFF-SG-01 | N/A | EFFLUENT WEIR GATE 1 | 11281 | RAW SLUDGE | WEIR GATE | 5 MGD | N/A | ELECTRIC |
| SCR-EFF-SG-02 | N/A | EFFLUENT WEIR GATE 2 | 11281 | RAW SLUDGE | WEIR GATE | 5 MGD | N/A | ELECTRIC |
| SCR-EFF-SG-03 | N/A | EFFLUENT WEIR GATE 3 | 11281 | RAW SLUDGE | WEIR GATE | 5 MGD | N/A | ELECTRIC |

NOTE:
EQUIPMENT SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR ITS USE. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND APPURTENANCES PER THE CONTRACT DOCUMENTS, WHETHER OR NOT IT IS INCLUDED IN THIS SCHEDULE.

**PROPOSED VALVE SCHEDULE**

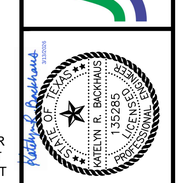
| VALVE NAME | TAG NO. | VALVE TYPE | OPERATOR TYPE | SIZE (INCH) | INSTALLATION CONFIGURATION | DRAWING REFERENCE | SPEC REFERENCE |
|---|---|---|---|---|---|---|---|
| SLUDGE RECEIVING STATION NO. 1 SUCTION PIPING PLUG VALVE NO. 1 (AT QUICK CONNECT) | SCR-SLUDGEPIPING1-PLUGVALVE-01 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE RECEIVING STATION NO. 1 SUCTION PIPING PLUG VALVE NO. 2 (BYPASS) | SCR-SLUDGEPIPING1-PLUGVALVE-02 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE RECEIVING STATION NO. 1 DISCHARGE PIPING PLUG VALVE NO. 1 (AT METER VAULT) | SCR-SLUDGELINE6-PLUGVALVE-01 | PLUG VALVE - BURIED | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE RECEIVING STATION NO. 1 DISCHARGE PIPING PLUG VALVE NO. 2 (AT HEADWORKS) | SCR-SLUDGELINE6-PLUGVALVE-02 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE PUMP NO. 1 PLUG VALVE NO. 1 | SCR-SLP1-PLUGVALVE-01 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE PUMP NO. 1 PLUG VALVE NO. 2 | SCR-SLP1-PLUGVALVE-02 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE PUMP NO. 2 PLUG VALVE NO. 1 | SCR-SLP2-PLUGVALVE-01 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE PUMP NO. 2 PLUG VALVE NO. 2 | SCR-SLP2-PLUGVALVE-02 | PLUG VALVE | MANUAL | 4 | FLANGED | M-9 | 15116 - PLUG VALVES |
| SLUDGE PUMP NO. 1 CHECK VALVE NO. 1 | SCR-SLP1-CHECKVALVE-01 | CHECK VALVE | MANUAL | 4 | FLANGED | M-10 | 15119 - CHECK VALVES |
| SLUDGE PUMP NO. 2 CHECK VALVE NO. 1 | SCR-SLP2-CHECKVALVE-01 | CHECK VALVE | MANUAL | 4 | FLANGED | M-10 | 15119 - CHECK VALVES |
| SAR PLUG VALVE NO. 1 (UPSTREAM OF FLOW METER VAULT) | SCR-SLUDGELINE1-PLUGVALVE-01 | PLUG VALVE - BURIED | MANUAL | 12 | FLANGED | M-7 | 15116 - PLUG VALVES |
| SAR PLUG VALVE NO. 2 (AT HEADWORKS) | SCR-SLUDGELINE1-PLUGVALVE-02 | PLUG VALVE | MANUAL | 12 | FLANGED | M-4 | 15116 - PLUG VALVES |
| SIDESTREAM PLUG VALVE NO. 1 (UPSTREAM OF FLOW METER VAULT) | SCR-SLUDGELINE2-PLUGVALVE-01 | PLUG VALVE - BURIED | MANUAL | 8 | FLANGED | M-7 | 15116 - PLUG VALVES |
| SIDESTREAM PLUG VALVE NO. 2 (AT HEADWORKS) | SCR-SLUDGELINE2-PLUGVALVE-02 | PLUG VALVE | MANUAL | 8 | FLANGED | M-4 | 15116 - PLUG VALVES |
| WALNUT CREEK PLUG VALVE NO. 1 (UPSTREAM OF FLOW METER VAULT) | SCR-SLUDGELINE3-PLUGVALVE-01 | PLUG VALVE - BURIED | MANUAL | 12 | FLANGED | M-7 | 15116 - PLUG VALVES |
| WALNUT CREEK PLUG VALVE NO. 2 (AT HEADWORKS) | SCR-SLUDGELINE3-PLUGVALVE-02 | PLUG VALVE | MANUAL | 12 | FLANGED | M-4 | 15116 - PLUG VALVES |

NOTES:
1. A MAJORITY OF VALVES SMALLER THAN 3" ARE NOT TAGGED AND NOT INCLUDED IN VALVE SCHEDULE.
2. VALVE SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR ITS USE. CONTRACTOR SHALL PROVIDE ALL VALVES AND APPURTENANCES PER THE CONTRACT DOCUMENTS, WHETHER OR NOT INCLUDED IN THIS SCHEDULE.

**PIPING MATERIAL SCHEDULE (REFER ALSO TO SPECIFICATIONS)**

| GROUP NO. | PIPE | FITTINGS | VALVES, 6" AND SMALLER |
|---|---|---|---|
| 5 | WELDED STEEL, AWWA C200/ASTM A134, UNLINED | WELDED STEEL, FABRICATED, AWWA C-200, UNLINED | AS INDICATED IN CONTRACT DOCUMENTS |
| 11 | DUCTILE IRON, ANSI A21.51/A21.10, (AWWA C-110/C-153), ENDS PUSH ON, FLANGED, OR MECHANICAL JOINT. | DUCTILE IRON AWWA C-110/C-153, PUSH ON, FLANGED, OR MECHANICAL JOINT. | GATE: AWWA C509, O-RING SEALS, MECHANICAL JOINT ENDS. ECCENTRIC PLUG: DEZURIK PEC, CAST IRON OR MILLIKEN 603E. BALL: PRATT OR APCO-WILLAMETTE. AS INDICATED ON DRAWINGS. |
| 15 | STAINLESS STEEL, TYPE 316, ASTM A312. | STAINLESS STEEL, TYPE 316 ANSI 816.9 BUTT-MOLDED SCHEDULE 10S OR 150 PSI FLANGE. | STAINLESS STEEL, AS INDICATED ON THE DRAWINGS. |
| 16 | POLYVINYL CHLORIDE, SCHEDULE 80, NORMAL IMPACT, ASTM D1785. | POLYVINYL CHLORIDE, SCHEDULE 80, AWWA C900, NORMAL IMPACT, BELL AND SPIGOT JOINTS. SOCKET SOLVENT WELD JOINTS SMALLER THAN 4-INCH DIAMETER, ASTM D2467. SOLVENT SHALL BE COMPATIBLE WITH FLUID SERVICE. | POLYVINYL CHLORIDE, BALL, DIAPHRAGM, BUTTERFLY OR LIFT CHECK: NIBCO/CHEMTROL, MCCANNA-MARPAC, OR GEORGE FISCHER SLOANE. |
| 17 | POLYVINYL CHLORIDE, HEAVY WALL, GASKETED, SDR-26. | POLYVINYL CHLORIDE, HEAVY WALL, SDR-26. | AS INDICATED IN CONTRACT DOCUMENTS |
| 24 | COPPER, ASTM B88, HARD TEMPERED. | WROUGHT COPPER OR CAST BRONZE, ANSI B16.22, SOLDER JOINT, ISO PSI, OR COMPRESSION FITTINGS. | AS SPECIFIED AND AS INDICATED ON DRAWINGS. |
| 33 | STAINLESS STEEL TUBING, TYPE 316L, Rb 80, ASTM A632. | 316 SS COMPRESSION FITTINGS. | - |
| 43 | STAINLESS STEEL, TYPE 304, ASTM A312. | STAINLESS STEEL, TYPE 304 ANSI B16.9 BUTT-WELDED SCHEDULE 10S OR 150 PSI FLANGED. | AS SPECIFIED AND AS INDICATED ON DRAWINGS. |

TEXAS REGISTERED ENGINEERING FIRM F-204




| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# MECHANICAL NOTES, SCHEDULES, SYMBOLS & LEGENDS

| | |
|---|---|
| DESIGN: | L.WEBB |
| DRAWN: | S.MEDINA |
| REVIEW: | K.BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-1
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PRINTED BY: LeuenbD DATE: 3/2/2026
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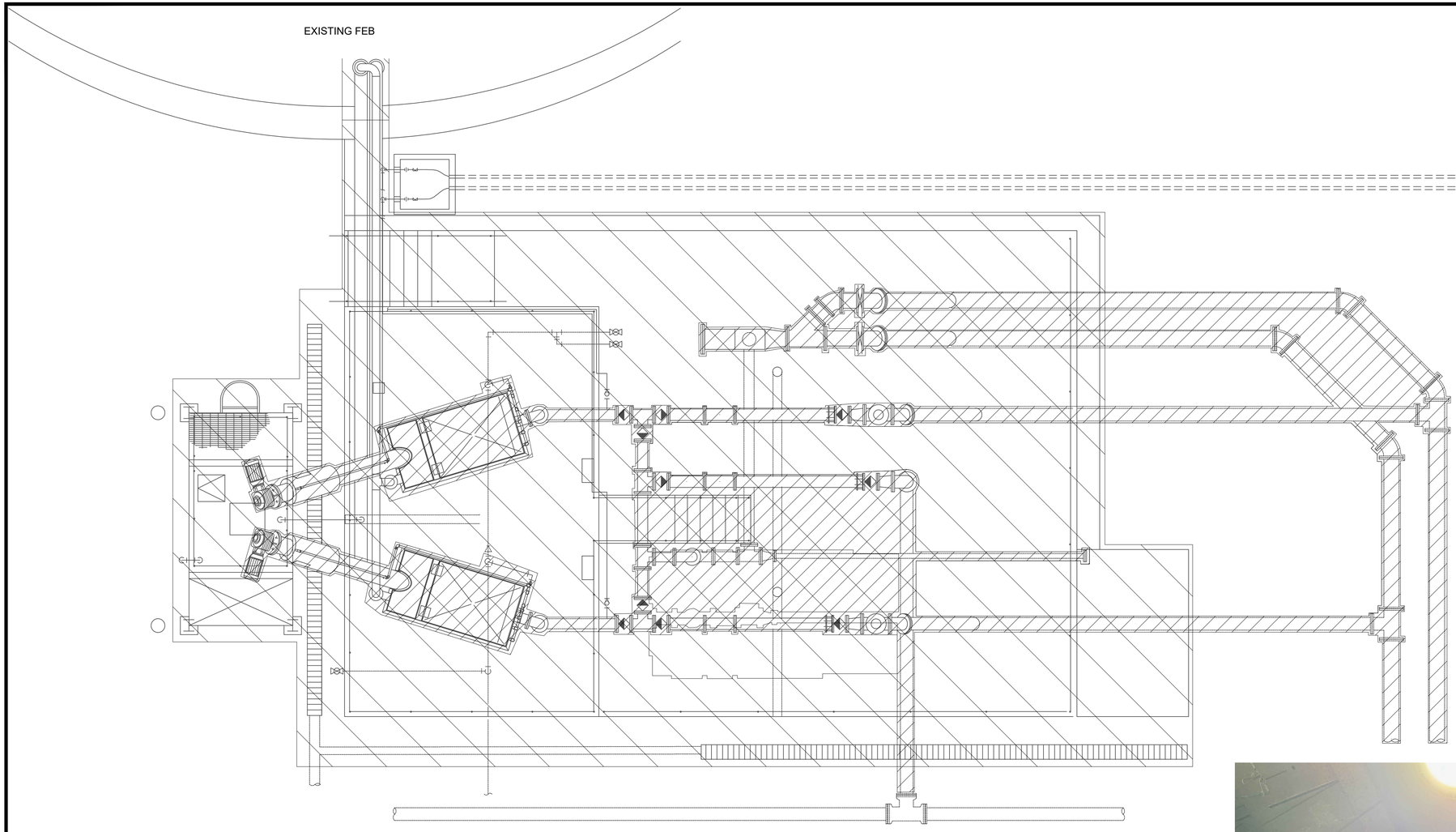


SCREENING FACILITY DEMOLITION PLAN

4 2 0 4
SCALE IN FEET

LEGEND

ITEMS TO BE DEMOLISHED

NOTES:

1. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO DEMOLITION.
4. COMPLETELY DEMOLISH ALL EXISTING SCREENING FACILITY CONCRETE; INCLUDING WALLS, SLABS, AND FOUNDATIONS.
5. REFER TO C-2 FOR SUBSURFACE PIPE DEMOLITION / ABANDONMENT.
6. THE FOLLOWING EXISTING POSITION_IDS ARE IMPACTED BY THIS DEMOLITION WORK:
   - HBD-Y-SCREENEDPIPING-01
   - HBD-Y-SCREENEDPIPING-02
   - SCR-HOPPER-01
   - SCR-SCREEN-01
   - SCR-SCREEN-02
   - SCR-STRUCTURE-01
   - SCR-SLUDGELINE-01
   - SCR-SLUDGELINE-02
   - SCR-SLUDGELINE-03
   - SCR-SLUDGELINE-04
   - SCR-SLUDGELINE-05

FEB BASEMENT PIPING DEMOLITION

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
PAWAN A. GUNJUR
101095
LICENSED PROFESSIONAL ENGINEER
3/5/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MECHANICAL DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | P.VILLAREAL |
| DRAWN: | J.TORRES |
| REVIEW: | P.GUNJUR, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-2
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PRINTED BY: MedinaSR DATE: 2/20/2026
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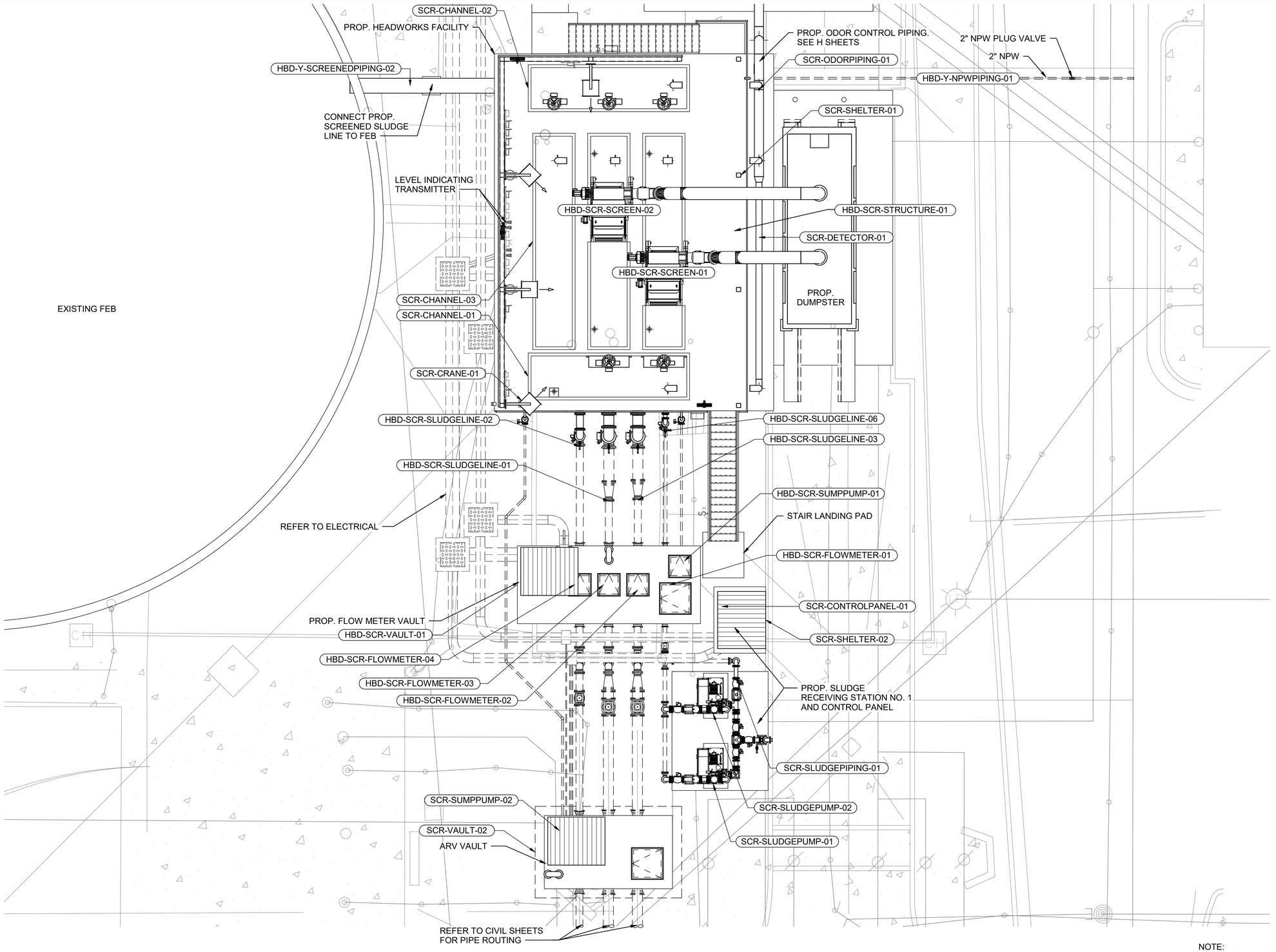


## HEADWORKS FACILITY MECHANICAL AREA PLAN

4 2 0 4 8
SCALE IN FEET

NOTE:
ALL PROPOSED FACILITIES ARE DESIGNATED TO BE IN A CORROSIVE AREA.

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Plot Date: 3/5/2026 9:05:38 AM

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · PAWAN A. GUNJUR · 101095 · LICENSED PROFESSIONAL ENGINEER
Pawan Gunjur 3/5/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# HEADWORKS FACILITY MECHANICAL AREA PLAN

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | T. BENSON |
| REVIEW: | P. GUNJUR,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-3
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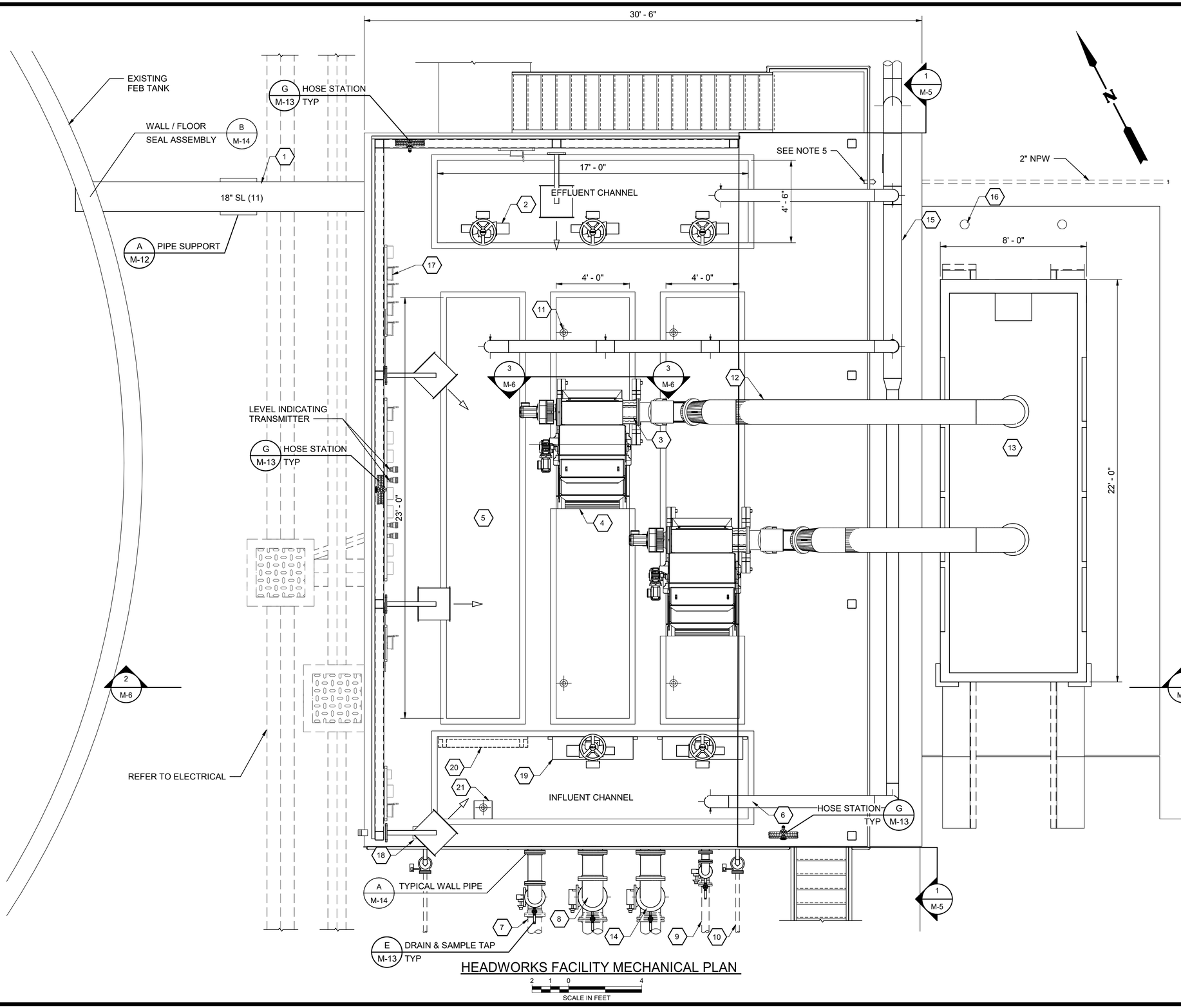


## HEADWORKS FACILITY MECHANICAL PLAN

SCALE IN FEET 2 1 0 4

| NOTES BY SYMBOL (X) | |
|---|---|
| 1 | SCREENED FLOW TO FEB (18" DI) |
| 2 | DOWNWARD OPENING WEIR GATES (4'x4') |
| 3 | WASHER/COMPACTOR (TYP OF 2) |
| 4 | MECHANICAL BAR SCREEN (TYP OF 2) |
| 5 | BYPASS CHANNEL/FUTURE SCREEN |
| 6 | CHECKERED PLATE COVER (TYP) |
| 7 | SIDE STREAM FLOW |
| 8 | SAR-WWTP SLUDGE FLOW |
| 9 | TRUCKED SLUDGE FLOW |
| 10 | 2" SUMP DISCHARGE |
| 11 | INSTRUMENT PORT (TYP OF 4) |
| 12 | INSULATED AND HEAT TRACED COMPACTED SCREENINGS DISCHARGE PIPING |
| 13 | SCREENING DUMPSTER |
| 14 | WC-WWTP SLUDGE FLOW |
| 15 | ODOR CONTROL PIPING |
| 16 | BOLLARD, TYPICAL |
| 17 | LOCAL ELECTRICAL DISCONNECT (TYP) |
| 18 | DAVIT CRANE BASE |
| 19 | INFLUENT SLIDE GATES (4'x4') |
| 20 | INFLUENT STOP LOG (4'x4') |
| 21 | ACCESS HATCH (H2S MONITOR) SEE NOTE 8 |

GENERAL NOTES:

1. RECIRCULATING FANS WILL BE INSTALLED UNDER THE CANOPY FOR AIR CIRCULATION.
2. PLAN SET BASED ON ONE MANUFACTURER FOR SCREENING, WASHER AND COMPACTOR. CONTRACTOR SHALL MODIFY THE LAYOUT AND OBTAIN APPROVAL BY THE ENGINEER AS NEEDED FOR CHOSEN MANUFACTURER.
3. SCREEN MANUFACTURER RECOMMENDED ATTACHMENT TO CONCRETE WALLS MAY VARY. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR MOUNTING AND SEALING OF THE SCREEN.
4. CONTRACTOR SHALL COORDINATE WITH WASHER/COMPACTOR MANUFACTURER FOR PROPER SUPPORT OF SCREENING DISCHARGE PIPE.
5. CONTRACTOR TO FIELD ROUTE NPW TO THE SCREENS AND WASHER/COMPACTORS PER MANUFACTURER'S RECOMMENDATION.
6. HEAT TRACE AND INSULATE ALL EXPOSED WATER LINES AND SCREENING DISCHARGE CHUTE. REFER TO SPECIFICATION SECTION 15256 PROCESS PIPING AND INSULATION AND HEAT TRACING.
7. ADD DRAIN AND SAMPLE PORT ON EACH OF THE INFLUENT LINES NAMELY SAR AND WC WWTP INFLUENT LINES, SIDE STREAM LINE AND SLUDGE RECEIVING STATION LINE.
8. CONTRACTOR SHALL INSTALL THE H2S MONITOR IN A PVC PIPE ATTACHED TO CHANNEL WALL AND PER H2S MONITOR MANUFACTURER RECOMMENDATION.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS PAWAN A. GUNJUR 101095 LICENSED PROFESSIONAL ENGINEER 3/5/2026


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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS FACILITY MECHANICAL PLAN

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | T. BENSON |
| REVIEW: | P. GUNJUR,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-4
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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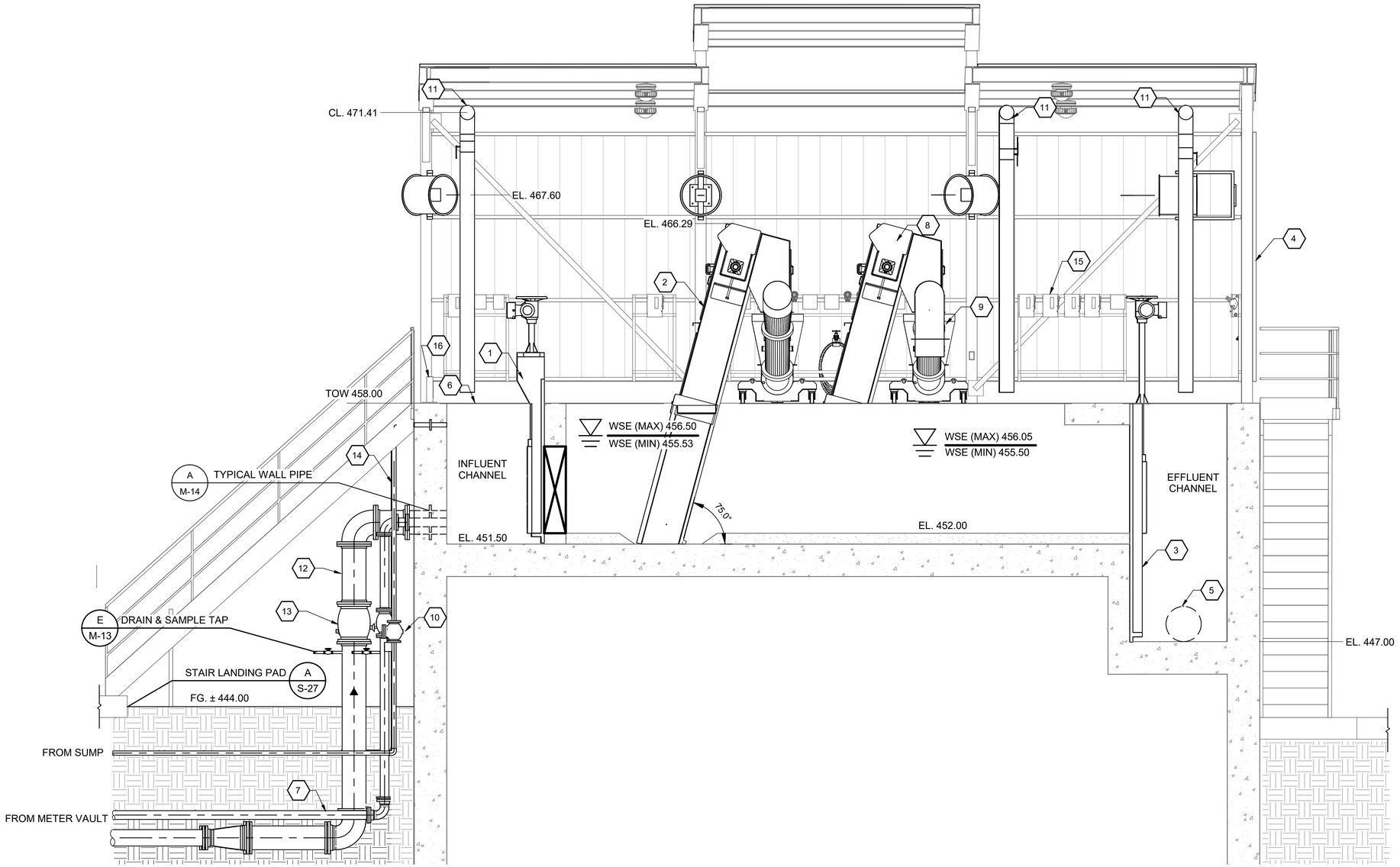


1 M-4 HEADWORKS FACILITY MECHANICAL SECTION I

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET

| NOTES BY SYMBOL | X |
|---|---|
| 1 | INFLUENT SLIDE GATES (4'x4') |
| 2 | MECHANICAL BAR SCREEN (TYP OF 2) |
| 3 | DOWNWARD OPENING WEIR GATES (4'x4') |
| 4 | SCREENING WALL |
| 5 | SCREENED FLOW TO FEB (18" DI) |
| 6 | CHECKERED PLATE COVER (TYP) |
| 7 | TRUCKED SLUDGE FLOW |
| 8 | WASHER/COMPACTOR (TYP OF 2) |
| 9 | INSULATED AND HEAT TRACED COMPACTED SCREENINGS DISCHARGE PIPING |
| 10 | CHECK VALVE |
| 11 | ODOR CONTROL PIPING |
| 12 | WC-WWTP SLUDGE FLOW |
| 13 | PLUG VALVE (TYP) |
| 14 | 2" SUMP DISCHARGE |
| 15 | LOCAL ELECTRICAL DISCONNECT (TYP) |
| 16 | DAVIT CRANE BASE |

GENERAL NOTES:

1. RECIRCULATING FANS WILL BE INSTALLED UNDER THE CANOPY FOR AIR CIRCULATION.
2. PLAN SET BASED ON ONE MANUFACTURER FOR SCREENING, WASHER AND COMPACTOR. CONTRACTOR SHALL MODIFY THE LAYOUT AND OBTAIN APPROVAL BY THE ENGINEER AS NEEDED FOR CHOSEN MANUFACTURER.
3. SCREEN MANUFACTURER RECOMMENDED ATTACHMENT TO CONCRETE WALLS MAY VARY. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR MOUNTING AND SEALING OF THE SCREEN.
4. CONTRACTOR SHALL COORDINATE WITH WASHER/COMPACTOR MANUFACTURER FOR PROPER SUPPORT OF SCREENING DISCHARGE PIPE.
5. ADD DRAIN AND SAMPLE PORT ON EACH OF THE INFLUENT LINES NAMELY SAR AND WC WWTP INFLUENT LINES, SIDE STREAM LINE AND SLUDGE RECEIVING STATION LINE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS PAWAN A. GUNJUR 101095 LICENSED PROFESSIONAL ENGINEER
3/5/2026


| NO | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING IF NOT, ADJUST SCALE ACCORDINGLY AND ADJUST TEXT ON THIS SHEET
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS FACILITY MECHANICAL SECTION I

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | T. BENSON |
| REVIEW: | P. GUNJUR,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-5
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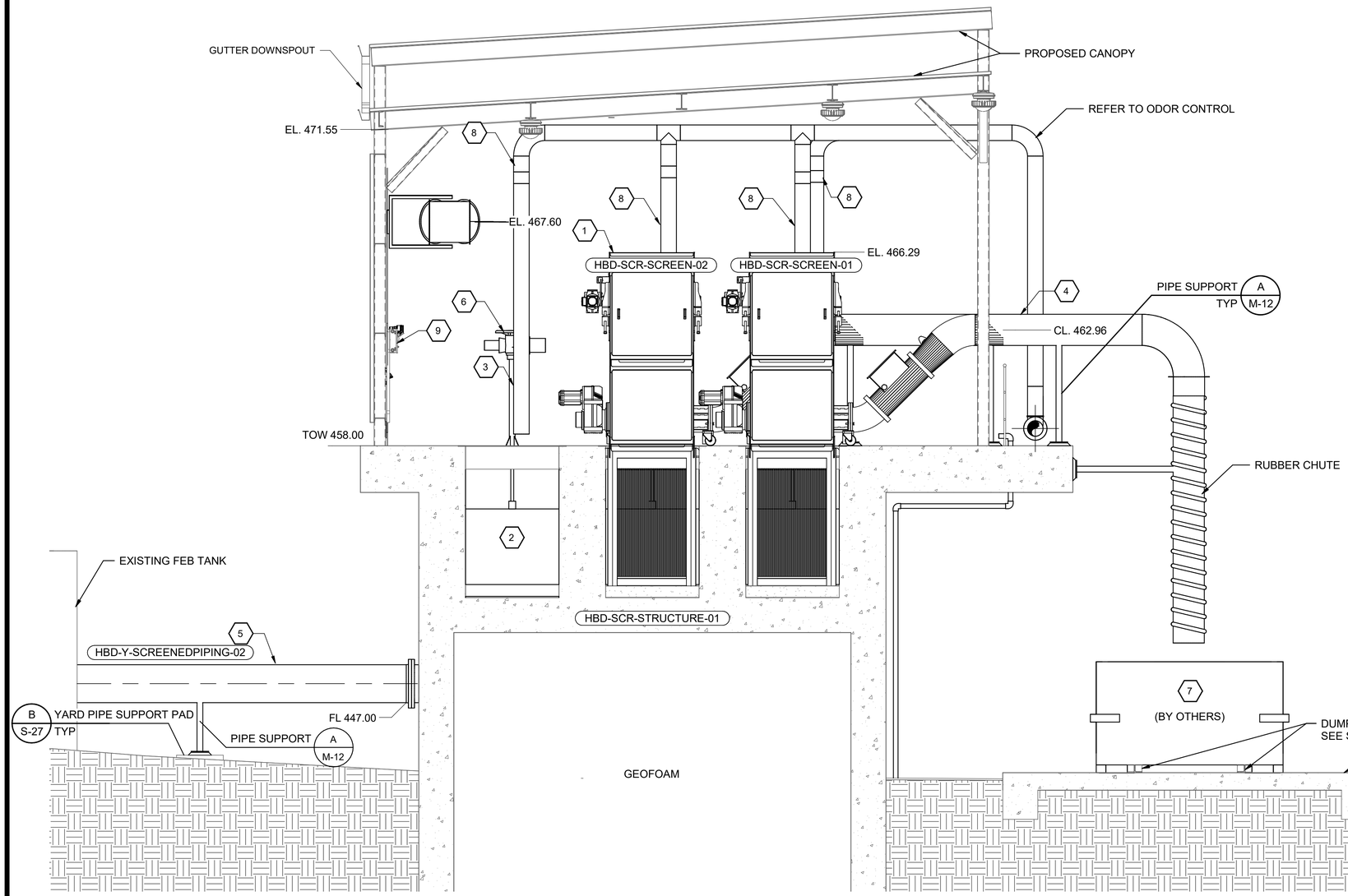
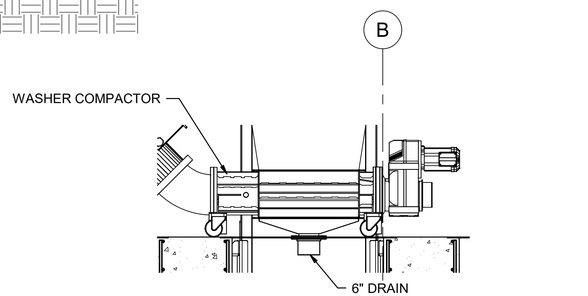



2 M-4 HEADWORKS FACILITY MECHANICAL SECTION II

3/8" = 1'-0"

2 1 0 4

SCALE IN FEET




3 M-4 HEADWORKS FACILITY MECHANICAL SECTION III

1/2" = 1'-0"

2 1 0 2

SCALE IN FEET

| NOTES BY SYMBOL (X) | |
|---|---|
| 1 | MECHANICAL BAR SCREEN (TYP OF 2) |
| 2 | BYPASS CHANNEL/FUTURE SCREEN |
| 3 | WASHER/COMPACTOR (TYP OF 2) |
| 4 | INSULATED AND HEAT TRACED COMPACTED SCREENINGS DISCHARGE PIPING |
| 5 | SCREENED FLOW TO FEB (18" DI) |
| 6 | DOWNWARD OPENING WEIR GATES (4'x4') |
| 7 | SCREENING DUMPSTER |
| 8 | ODOR CONTROL PIPING |
| 9 | LOCAL ELECTRICAL DISCONNECT (TYP) |

GENERAL NOTE:

1. RECIRCULATING FANS WILL BE INSTALLED UNDER THE CANOPY FOR AIR CIRCULATION.
2. PLAN SET BASED ON ONE MANUFACTURER FOR SCREENING, WASHER AND COMPACTOR. CONTRACTOR SHALL MODIFY THE LAYOUT AND OBTAIN APPROVAL BY THE ENGINEER AS NEEDED FOR CHOSEN MANUFACTURER.
3. SCREEN MANUFACTURER RECOMMENDED ATTACHMENT TO CONCRETE WALLS MAY VARY. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR MOUNTING AND SEALING OF THE SCREEN.
4. CONTRACTOR SHALL COORDINATE WITH WASHER/COMPACTOR MANUFACTURER FOR PROPOSED SUPPORT OF SCREENING DISCHARGE PIPE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS PAWAN A. GUNJUR 101095 LICENSED PROFESSIONAL ENGINEER

Pawan Gunjur 3/5/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS FACILITY MECHANICAL SECTIONS II & III

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | T. BENSON |
| REVIEW: | P. GUNJUR,P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-6
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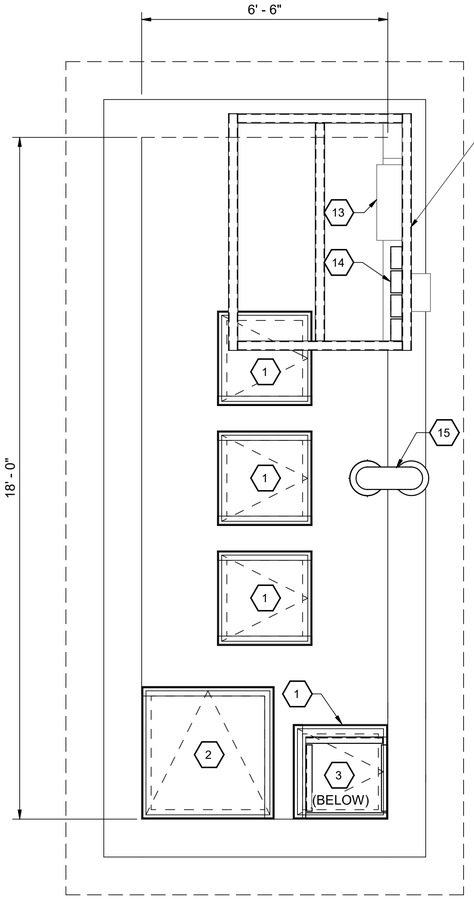
Revit File: BIM 360://AUST1500124 02 Hornsby Bend BMP Headworks/AUST1500124 02 - Mechanical.rvt
Plot Date: 3/5/2026 9:12:50 AM

| NOTES BY SYMBOL | X |
|---|---|
| 1 | 24" X 24" ACESS HATCH |
| 2 | 36" X 36" ACCESS HATCH |
| 3 | SUMP PIT |
| 4 | 4" PLUG VALVE |
| 5 | 12" PLUG VALVE |
| 6 | 8" PLUG VALVE |
| 7 | 60" X 96" DOUBLE LEAF HATCH |
| 8 | 8" 45° BEND |
| 9 | 8" FLANGED COUPLING ADAPTOR |
| 10 | 8" MAGNETIC FLOW METER |
| 11 | 4" MAGNETIC FLOW METER |
| 12 | 12"X8" REDUCER |
| 13 | SUMP PUMP CONTROL PANEL |
| 14 | FLOW METER READOUT (TYP of 5) |
| 15 | VENT PIPE WITH BUG SCREEN |

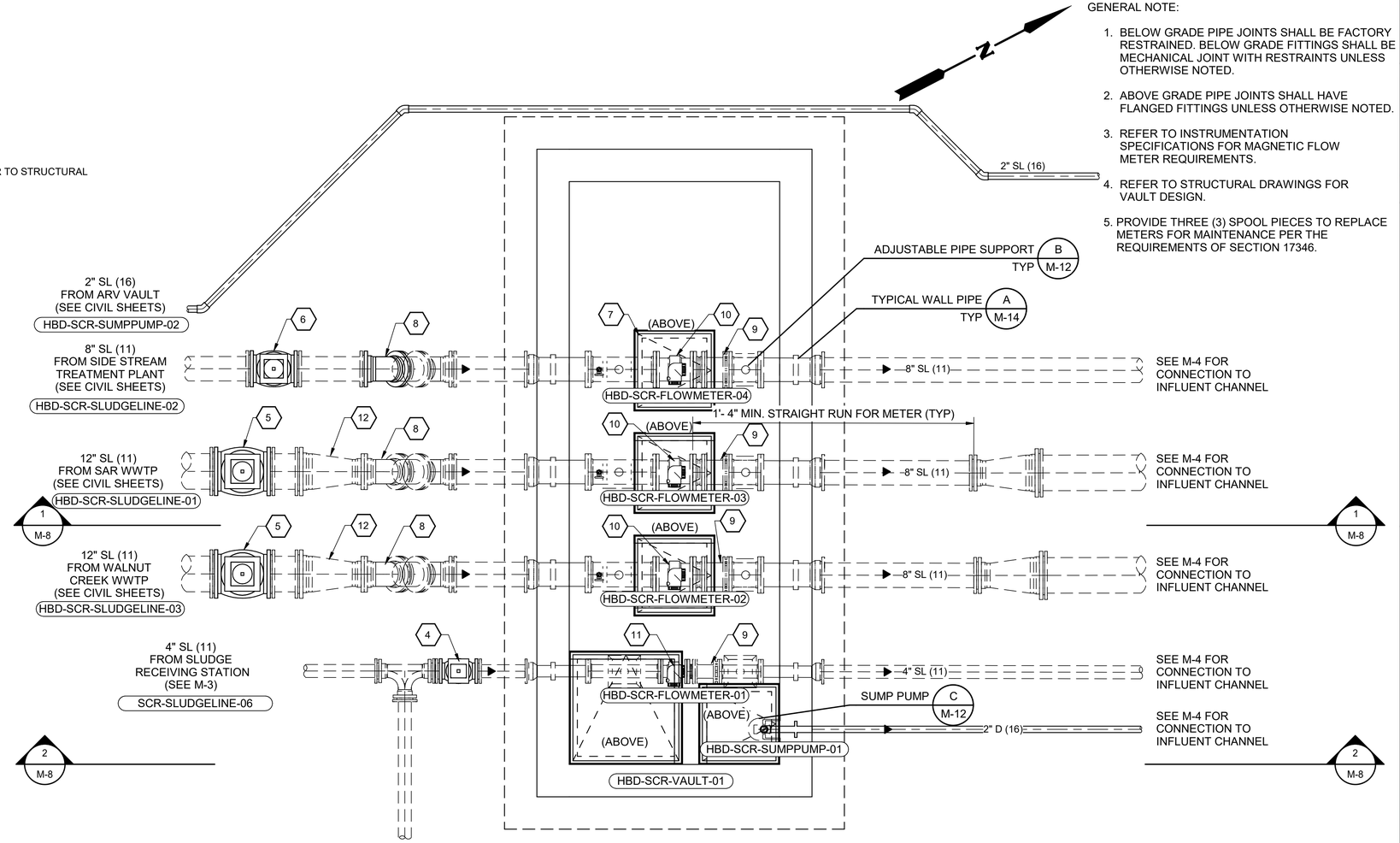
GENERAL NOTE:

1. BELOW GRADE PIPE JOINTS SHALL BE FACTORY RESTRAINED. BELOW GRADE FITTINGS SHALL BE MECHANICAL JOINT WITH RESTRAINTS UNLESS OTHERWISE NOTED.
2. ABOVE GRADE PIPE JOINTS SHALL HAVE FLANGED FITTINGS UNLESS OTHERWISE NOTED.
3. REFER TO INSTRUMENTATION SPECIFICATIONS FOR MAGNETIC FLOW METER REQUIREMENTS.
4. REFER TO STRUCTURAL DRAWINGS FOR VAULT DESIGN.
5. PROVIDE THREE (3) SPOOL PIECES TO REPLACE METERS FOR MAINTENANCE PER THE REQUIREMENTS OF SECTION 17346.




METER VAULT MECHANICAL TOP VIEW

2 1 0 2
SCALE IN FEET




METER VAULT MECHANICAL BOTTOM VIEW

2 1 0 2
SCALE IN FEET

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Plot Date: 3/5/2026 9:14:37 AM

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

Kathryn Backhaus
STATE OF TEXAS
KATELYN R. BACKHAUS
135285
LICENSED PROFESSIONAL ENGINEER

| NO | REVISION | BY | DATE |
|---|---|---|---|

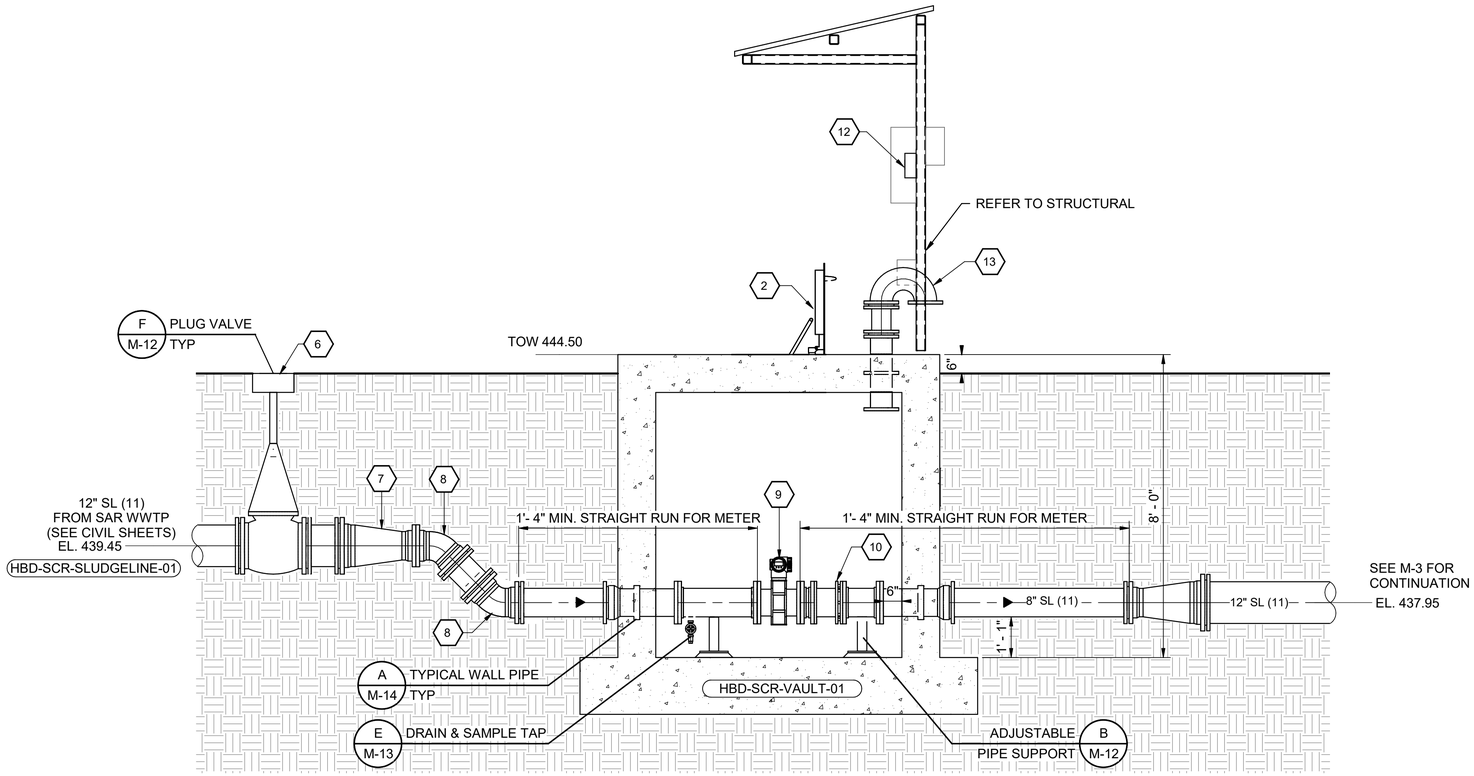
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# METER VAULT MECHANICAL PLAN

| | |
|---|---|
| DESIGN: | K. BACKHAUS |
| DRAWN: | T. BENSON |
| REVIEW: | K. BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

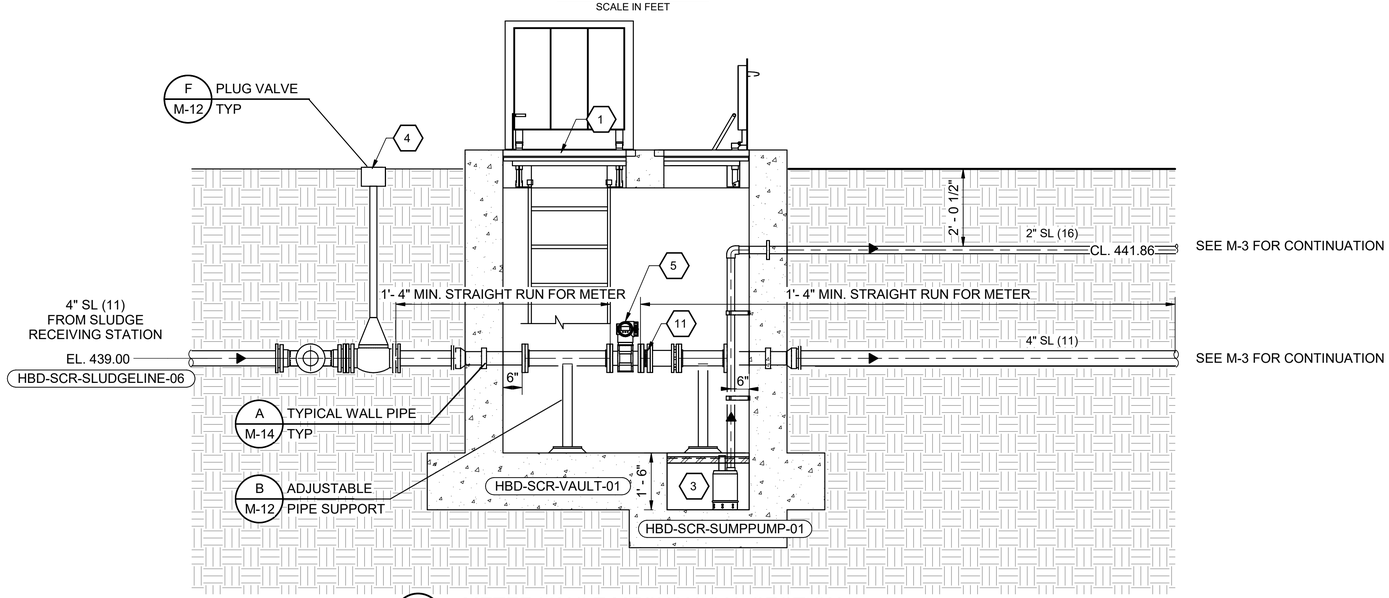
SHEET
M-7
81 of 196




1 M-7 METER VAULT MECHANICAL SECTION I

1/2" = 1'-0"

SCALE IN FEET




2 M-7 METER VAULT MECHANICAL SECTION II

1/2" = 1'-0"

SCALE IN FEET

| NOTES BY SYMBOL | X |
|---|---|
| 1 | 30" X 30" ACCESS HATCH |
| 2 | 60" X 96" DOUBLE LEAF HATCH |
| 3 | SUMP PIT |
| 4 | 4" PLUG VALVE |
| 5 | 4" MAGNETIC FLOW METER |
| 6 | 12" PLUG VALVE |
| 7 | 12"X8" REDUCER |
| 8 | 8" 45° BEND |
| 9 | 8" MAGNETIC FLOW METER |
| 10 | 8" FLANGED COUPLING ADAPTOR |
| 11 | 4" FLANGED COUPLING ADAPTOR |
| 12 | METER AND SUMP PUMP PANELS WITH SUNDSHADE; REFER TO CIVIL AND STRUCTURAL |
| 13 | VENT PIPE WITH BUG SCREEN |

GENERAL NOTE:

1. BELOW GRADE PIPE JOINTS SHALL BE FACTORY RESTRAINED. BELOW GRADE FITTINGS SHALL BE MECHANICAL JOINT WITH RESTRAINTS UNLESS OTHERWISE NOTED.
2. REFER TO STRUCTURAL DRAWINGS FOR VAULT DESIGN
3. REFER TO CIVIL DRAWINGS FOR UTILITY CROSSING CONFIGURATION.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

METER VAULT
MECHANICAL SECTIONS I & II

| | |
|---|---|
| DESIGN: | K. BACKHAUS |
| DRAWN: | T. BENSON |
| REVIEW: | K. BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-8
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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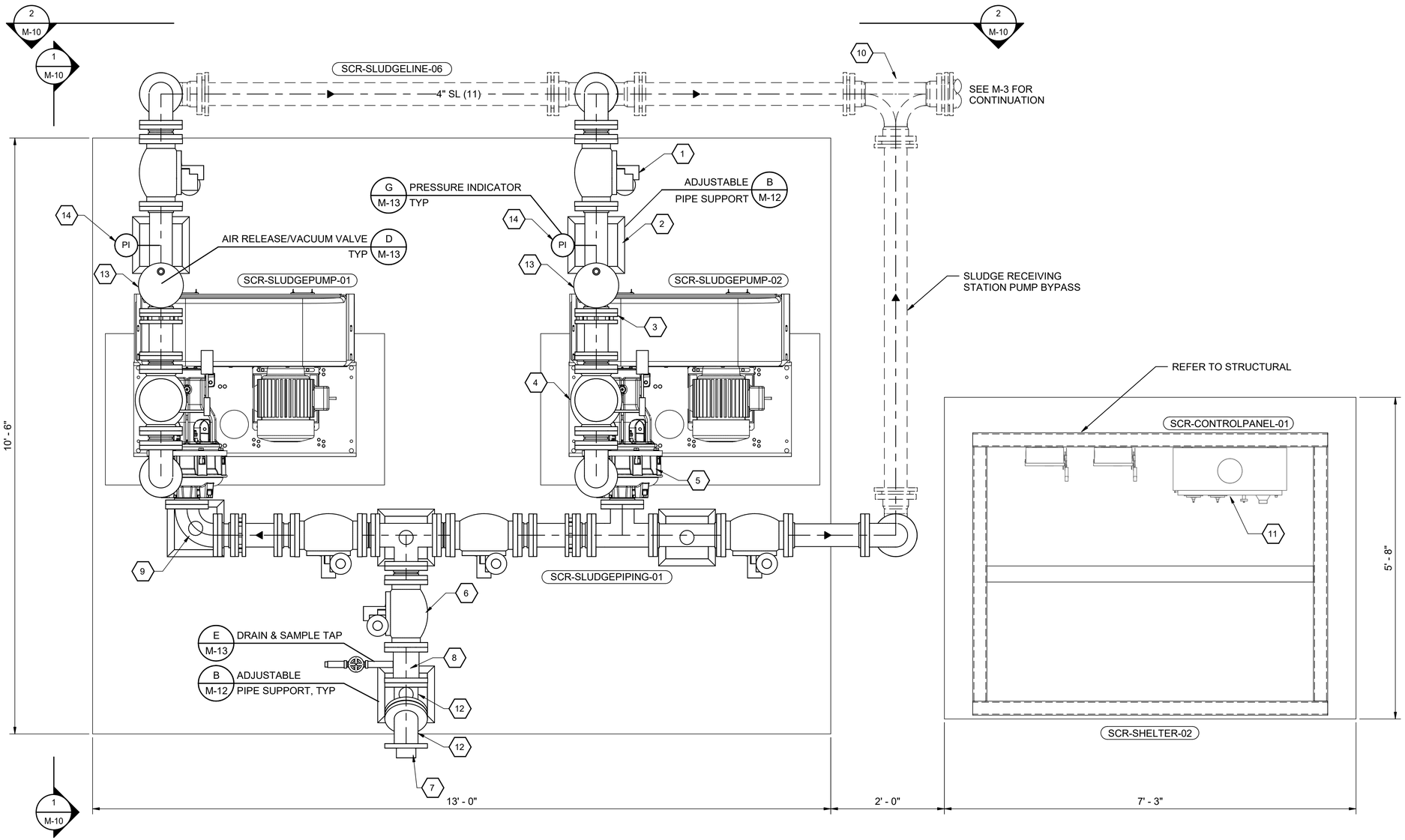



## RECEIVING STATION MECHANICAL PLAN

1 1/2 0 1

SCALE IN FEET

| NOTES BY SYMBOL (X) | |
|---|---|
| 1 | 4" PLUG VALVE (TYP OF 5) |
| 2 | ADJUSTABLE PIPE SUPPORT (TYP) |
| 3 | 4" FLANGED COUPLING ADAPTOR (TYP OF 4) |
| 4 | 4" CHECK VALVE |
| 5 | 250 GPM CENTRIFIGAL PUMP (TYP OF 2) |
| 6 | 4" PLUG VALVE |
| 7 | 4" FEMALE ALUMINUM CAMLOCK QUICK CONNECTION X 4" FEMALE NPT FITTING WITH ALUMINUM CAP |
| 8 | 4" DOUBLE BALE IRON SERVICE SADDLE WITH 1" FNPT OUTLET, 1" STAINLESS STEEL NIPPLE AND 1" STAINLESS STEEL BALL VALVE (TYP OF 2) |
| 9 | 4" DI 90° BEND (TYP OF 4) |
| 10 | 4" DI TEE |
| 11 | RECEIVING STATION CONTROL PANEL AND CANOPY |
| 12 | 4" 45° BEND |
| 13 | 1" AIR RELEASE VALVE |
| 14 | PRESSURE GAUGE WITH DIAPHRAGM SEAL |

GENERAL NOTES::

1. REFER TO SHEET C-3 AND M-3 FOR ORIENTATION AND LOCATION OF SLUDGE RECEIVING STATIONS.
2. BELOW GRADE PIPE JOINTS SHALL BE FACTORY RESTRAINED. BELOW GRADE FITTINGS SHALL BE MECHANICAL JOINT WITH RESTRAINTS UNLESS OTHERWISE NOTED.
3. ABOVE GRADE PIPE JOINS SHALL BE FLANGED FITTINGS UNLESS OTHERWISE NOTED.
4. REFER TO STRUCTURAL DRAWINGS FOR PAD DESIGN.
5. INSULATE AND HEAT TRACE ALL ABOVE-GRADE PIPE PER THE REQUIREMENTS OF SECTION 15256 - PROCESS PIPING INSULATION AND HEAT TRACING.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS KATELYN R. BACKHAUS 135285 LICENSED PROFESSIONAL ENGINEER


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST ACCORDINGLY.
0 1"

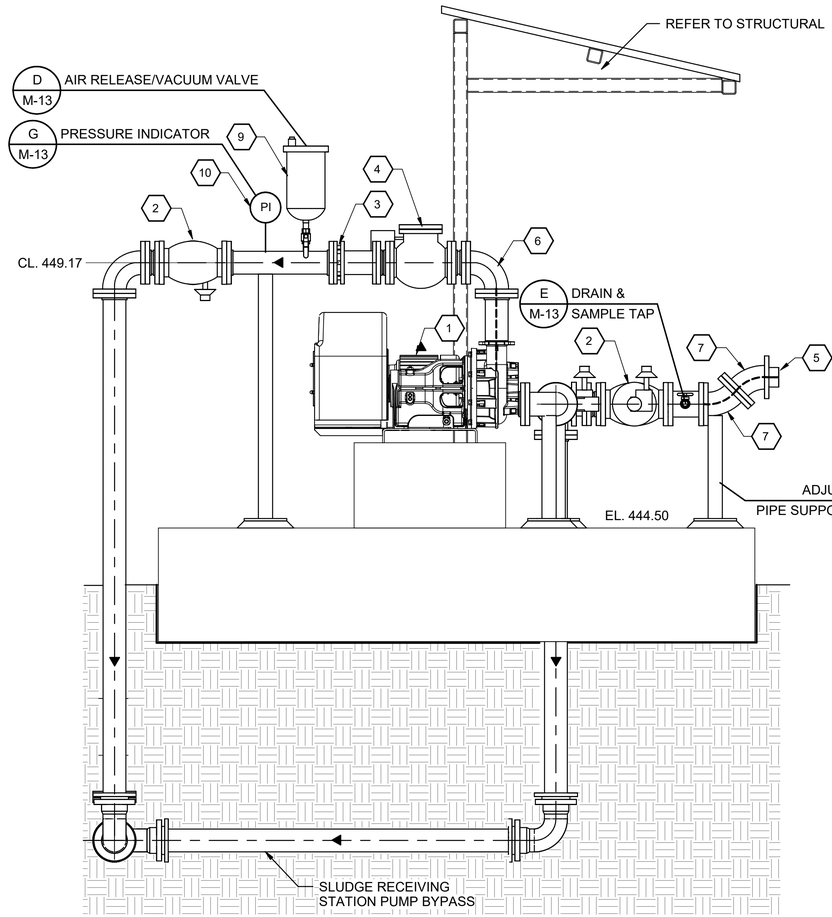
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

RECEIVING STATION MECHANICAL PLAN

| | |
|---|---|
| DESIGN: | K. BACKHAUS |
| DRAWN: | T. BENSON |
| REVIEW: | K. BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-9
83 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
Plot Date: 3/5/2026 9:24:45 AM

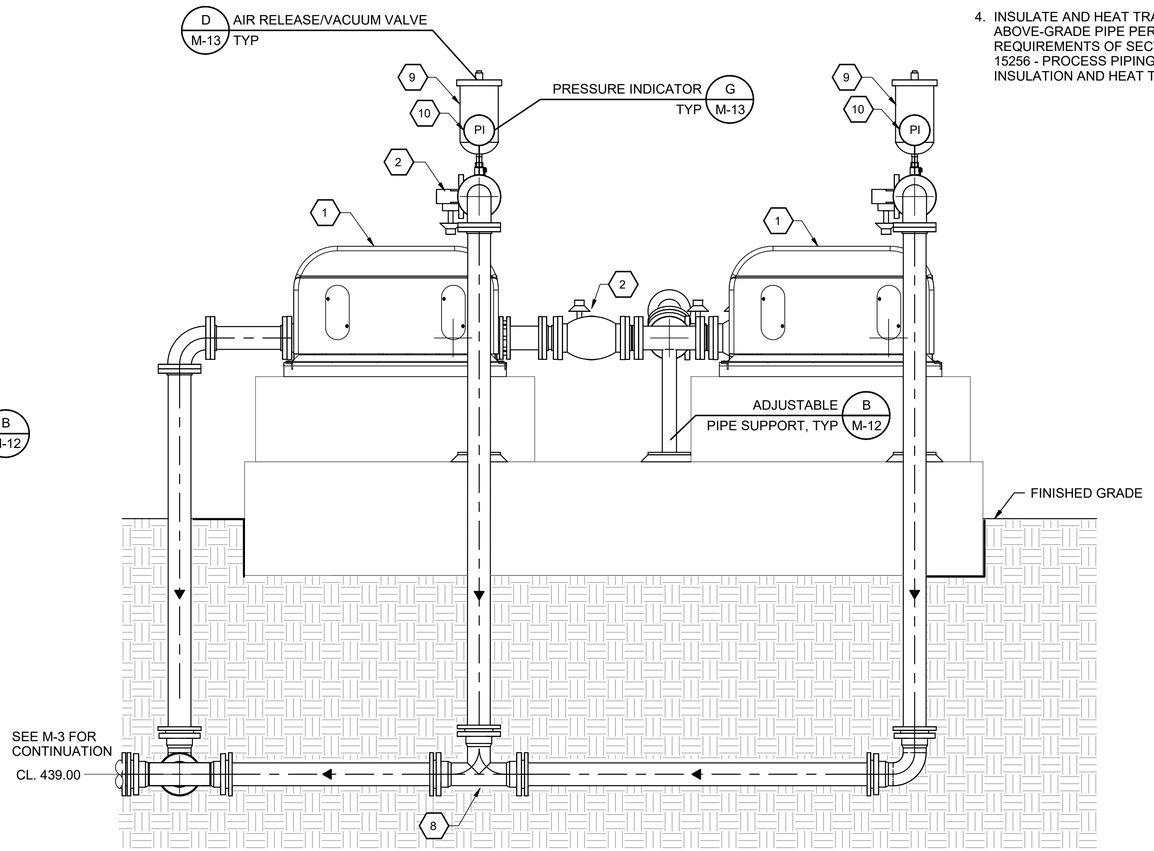



1 M-9 RECEIVING STATION MECHANICAL SECTION I

3/4" = 1'-0"

1 0 2

SCALE IN FEET




2 M-9 RECEIVING STATION MECHANICAL SECTION II

3/4" = 1'-0"

1 0 2

SCALE IN FEET

| NOTES BY SYMBOL | X |
|---|---|
| 1 | 250 GPM CENTRIFIGAL PUMP |
| 2 | 4" PLUG VALVE |
| 3 | 4" FLANGED COUPLING ADAPTOR |
| 4 | 4" CHECK VALVE |
| 5 | 4" FEMALE ALUMINUM CAMLOCK QUICK CONNECTION X 4" FEMALE NPT FITTING WITH ALUMINUM CAP |
| 6 | 4" 90° BEND |
| 7 | 4" 45° BEND |
| 8 | 4" DI TEE |
| 9 | 1" AIR RELEASE VALVE |
| 10 | PRESSURE GAUGE WITH DIAPHRAGM SEAL |

GENERAL NOTES:

1. BELOW GRADE PIPE JOINTS SHALL BE FACTORY RESTRAINED. BELOW GRADE FITTINGS SHALL BE MECHANICAL JOINT WITH RETRAINTS UNLESS OTHERWISE NOTES.
2. ABOVE GRADE PIPE JOINTS SHALL HAVE FLANGED FITTINGS UNLESS OTHERWISE NOTES.
3. REFER TO STRUCTURAL DRAWINGS FOR PAD DESIGN.
4. INSULATE AND HEAT TRACE ALL ABOVE-GRADE PIPE PER THE REQUIREMENTS OF SECTION 15256 - PROCESS PIPING INSULATION AND HEAT TRACING.


stv
TEXAS REGISTERED ENGINEERING FIRM F-204
STATE OF TEXAS KATELYN R. BACKHAUS 135285 LICENSED PROFESSIONAL ENGINEER 3/5/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY.

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# RECEIVING STATION MECHANICAL SECTIONS I & II

| | |
|---|---|
| DESIGN: | K. BACKHAUS |
| DRAWN: | T. BENSON |
| REVIEW: | K. BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-10
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Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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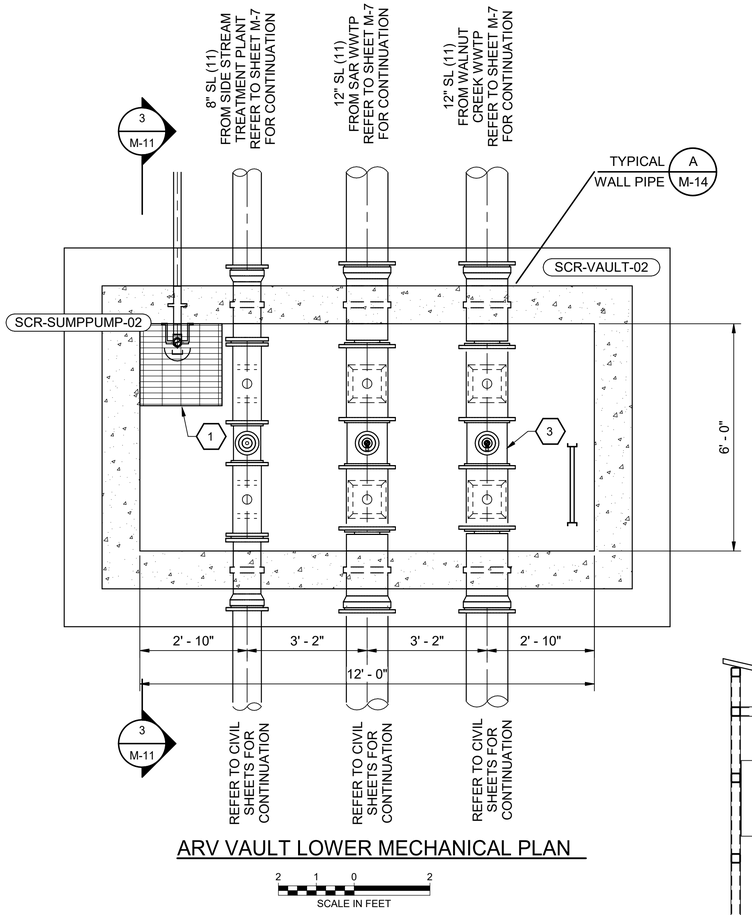
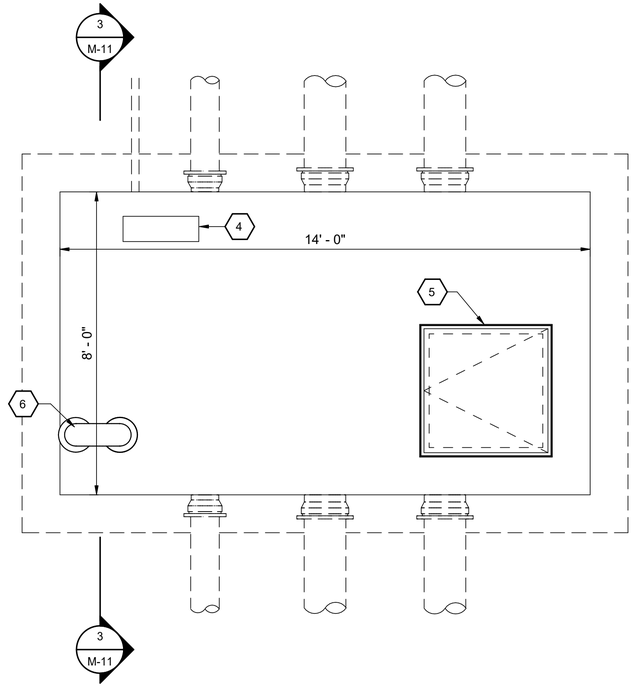


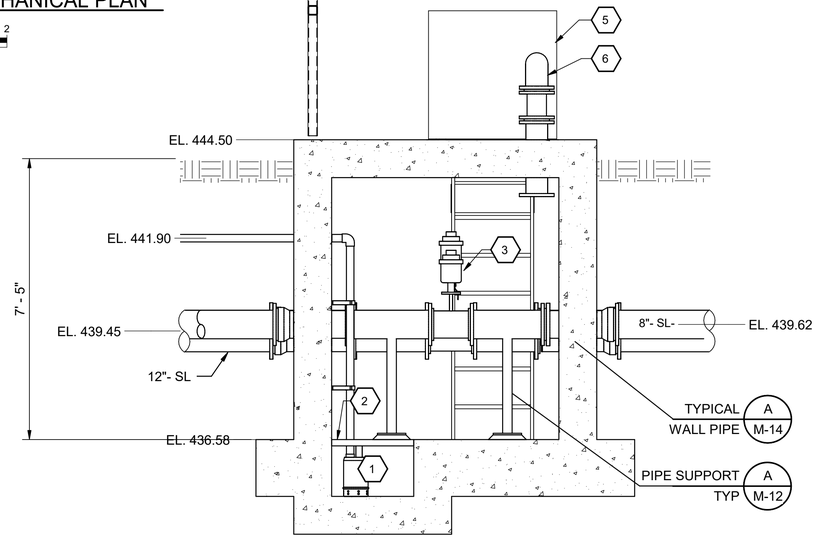

ARV VAULT LOWER MECHANICAL PLAN

2 1 0 2
SCALE IN FEET




ARV VAULT UPPER MECHANICAL PLAN

2 1 0 2
SCALE IN FEET




3 M-11 ARV VAULT MECHANICAL SECTION

1/2" = 1'-0"

2 1 0 2
SCALE IN FEET

| NOTES BY SYMBOL (X) | |
|---|---|
| 1 | SUMP PIT |
| 2 | GRATING |
| 3 | 2" AIR RELEASE VALVE, TYP OF 3. ROUTE DRAIN TO SUMP |
| 4 | METER AND SUMP PUMP PANELS WITH SUNDSHADE; REFER TO CIVIL AND STRUCTURAL |
| 5 | 42" X 42" ACCESS HATCH, PER THE REQUIREMENTS OF SECTION 05500 MISCELLANEOUS METAL FABRICATIONS |
| 6 | VENT PIPE WITH BUG SCREEN |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STATE OF TEXAS · KATELYN R. BACKHAUS · 135285 · LICENSED PROFESSIONAL ENGINEER


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ARV MECHANICAL PLAN AND SECTION

| | |
|---|---|
| DESIGN: | K. BACKHAUS |
| DRAWN: | J. GONZALEZ |
| REVIEW: | K. BACKHAUS |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-11
85 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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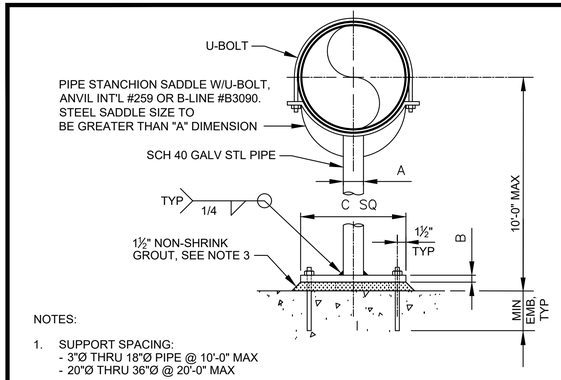
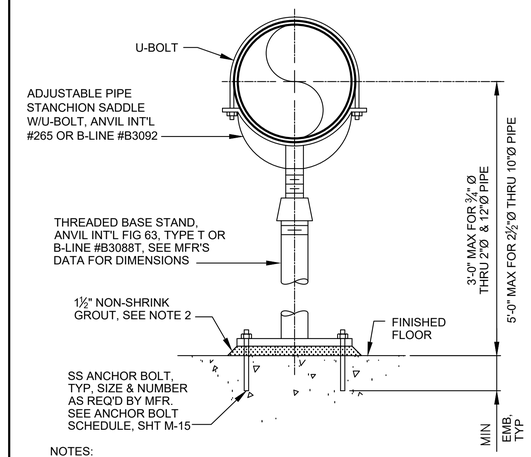



NOTES:

1. SUPPORT SPACING:
   - 3"Ø THRU 18"Ø PIPE @ 10'-0" MAX
   - 20"Ø THRU 36"Ø @ 20'-0" MAX
2. PROVIDE HALF ROUND RIGID INSULATION AND INSULATION PROTECTION SHIELD, SIMILAR TO ANVIL INT'L #167, WHERE PIPING IS INSULATED.
3. WHERE PIPING IS ADJACENT TO MECHANICAL EQUIPMENT, REPLACE GROUT WITH NEOPRENE WAFFLE ISOLATION PAD, MASON TYPE "W" OR KORPAD 40.
4. SEE ANCHOR BOLT SCHEDULE, SHT M-15, FOR MINIMUM EMBEDMENT.

| DIMENSION TABLE (INCHES) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIPE SIZE | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 30 | 36 |
| A | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| B | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| C | 9 | 9 | 9 | 9 | 9 | 12 | 12 | 12 | 12 | 12 | 16 | 16 | 16 | 16 | 16 | 16 |
| BOLT DIA. | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |

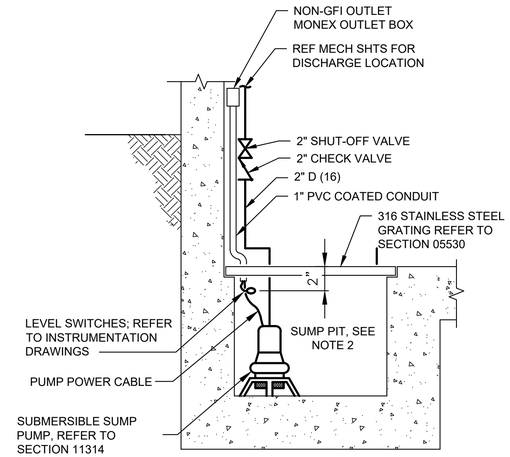
A PIPE SUPPORT
NTS




NOTES:

1. PROVIDE HALF ROUND RIGID INSULATION AND INSULATION PROTECTION SHIELD, SIMILAR TO ANVIL INTERNATIONAL #167, WHERE PIPING IS INSULATED.
2. WHERE PIPING IS ADJACENT TO MECHANICAL EQUIPMENT, REPLACE GROUT WITH NEOPRENE WAFFLE ISOLATION PAD, MASON TYPE "W" OR KORPAD 40.
3. SUPPORT SPACING:
   - 2½"Ø THRU 12"Ø PIPE @ 10'-0" MAX
   - ¾"Ø THRU 2"Ø PIPE @ 5'-0" MAX

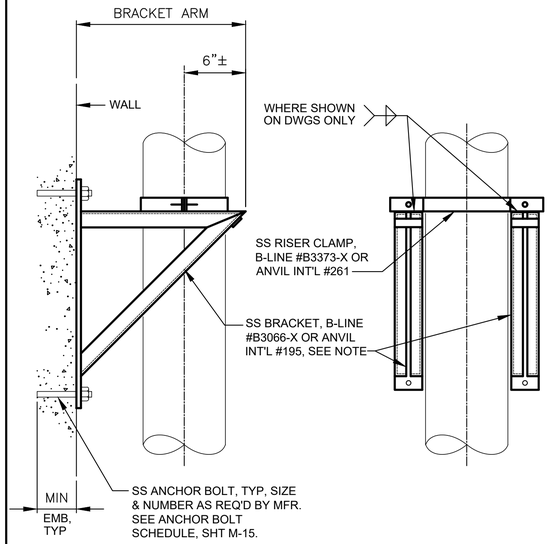
B ADJUSTABLE PIPE SUPPORT
NTS




NOTES:

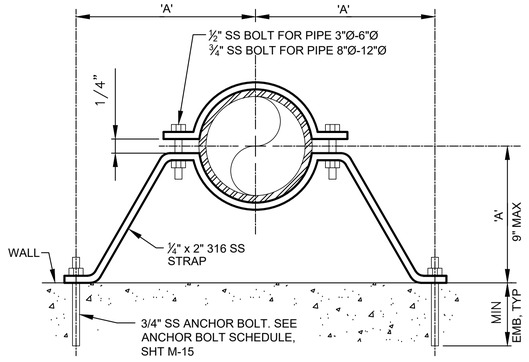
1. THE CONTRACTOR SHALL PROVIDE PIPE SUPPORTS AT SPACING RECOMMENDED BY THE MANUFACTURER.
2. REFER TO MECHANICAL PLANS FOR SUMP PIT DIMENSIONS AND LOCATIONS.

C SUMP PUMP
NTS

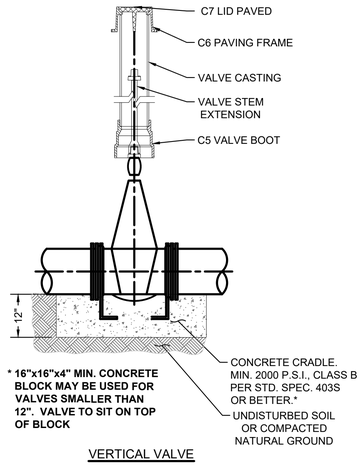



NOTE:
FOR PIPES REQUIRING BRACKET ARM DISTANCES GREATER THAN 24", USE B-LINE #B3067-X OR ANVIL INT'L #199.

D RISER SUPPORT
NTS




E RISER SUPPORT
NTS

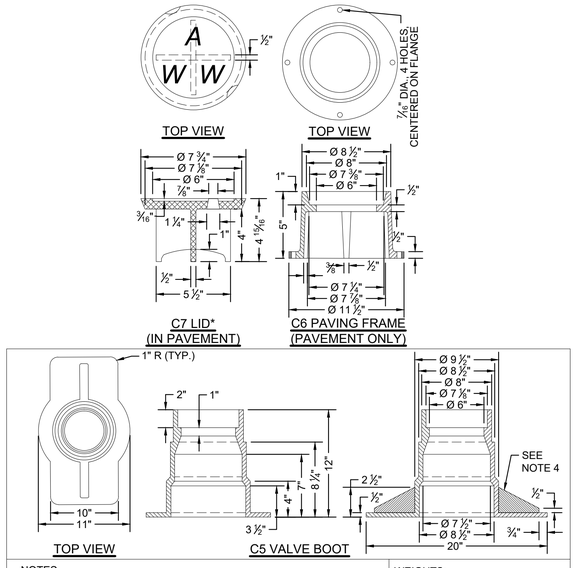



*** 16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK**

VERTICAL VALVE

NOTES:

1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.




NOTES:

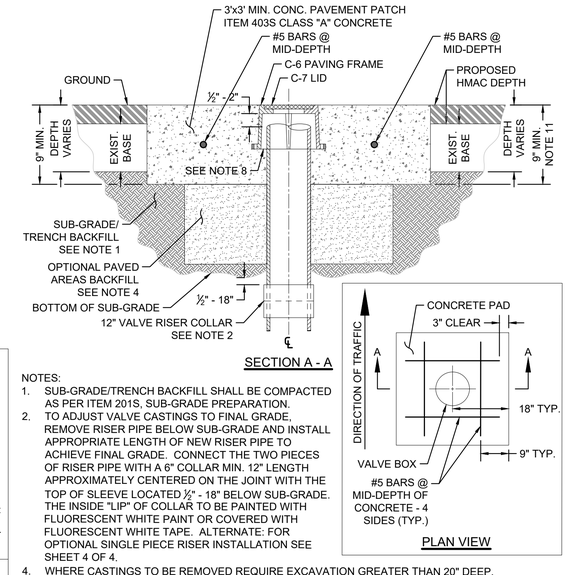
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:

C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½"
2 PICK BAR SLOTS REQUIRED

F PLUG VALVE
NTS




SECTION A - A

PLAN VIEW

NOTES:

1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.
8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. NOT USED.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. NOT USED.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STATE OF TEXAS PAWAN A. GUNJUR 101095 LICENSED PROFESSIONAL ENGINEER 3/5/2026


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|---|---|---|---|
| | | | |

VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MECHANICAL DETAILS (1 OF 4)

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | J.TORRES |
| REVIEW: | P. GUNJUR |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-12
86 of 196

PRINTED BY: LeuenbD DATE: 6/18/2025
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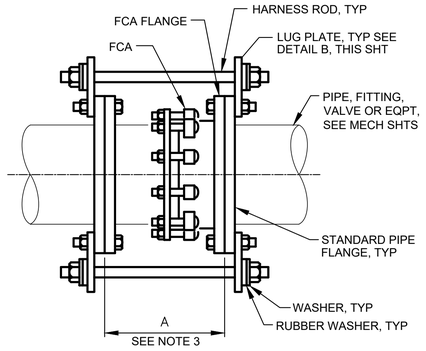
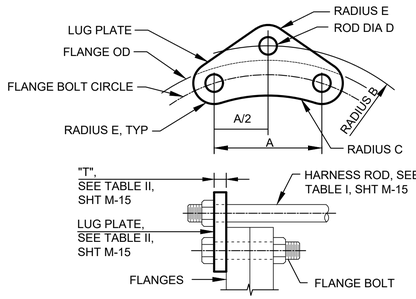



NOTES:

1. FOR NUMBER AND SIZE OF HARNESS RODS, SEE TABLE I, SHT 15.
2. FOR LUG PLATE NUMBER, THICKNESS AND SIZE, SEE TABLE II, SHT 15.
3. LAY LENGTH "A" EQUALS OVERALL LENGTH OF COUPLING + 2", MINIMUM, FOR EASE OF DISASSEMBLY. REFER TO MANUFACTURER'S INFORMATION FOR COUPLING LENGTH.

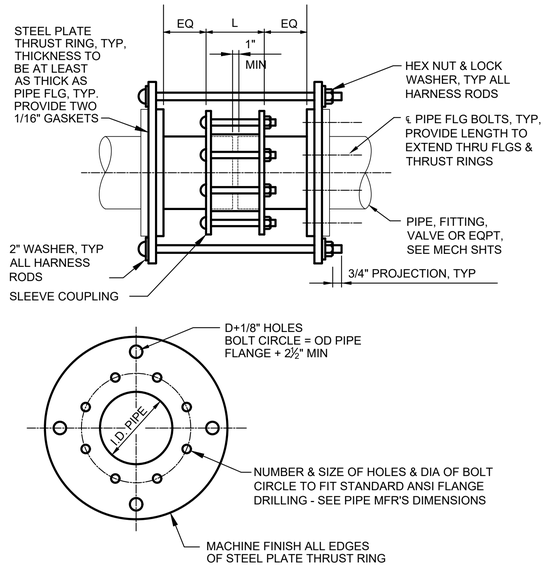
## A FLANGED COUPLING ADAPTOR W/THRUST HARNESS
NTS




NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DIMENSION "A" AS REQUIRED BY FLANGE SPECIFIED.
3. RADIUS "B" = $\frac{\text{(FLANGE OD)}}{2}$ + DIA D + 1/4"
4. RADIUS "C" = $\frac{\text{(FLG BOLT CIRCLE)}}{2}$ - RADIUS E
5. DIAMETER "D" = ROD DIAMETER + 1/8"
6. RADIUS "E" = BOLT DIAMETER X 1.25
7. INSTALL HARNESS ROD ASSEMBLIES SUCH THAT ALL RODS ARE EQUALLY SPACED AROUND FLANGE. ON PIPING 20 INCHES AND LARGER, RODS MAY BE GROUPED IN PAIRS BUT GROUPS MUST BE EQUALLY SPACED AROUND FLANGE. THE TOTAL NUMBER OF THE RODS SHALL BE INCREASED ABOVE THAT TABULATED AS NECESSARY TO MEET SPACING REQUIREMENTS.
8. LUG PLATE MAY BE USED TO HARNESS MECHANICAL COUPLING, FLANGED COUPLING ADAPTOR OR EXPANSION JOINT, AS APPLICABLE.

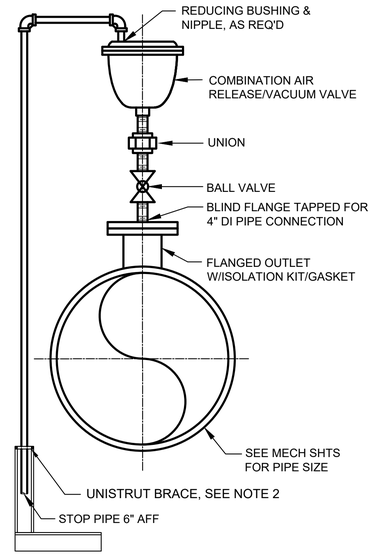
## B HARNESSED LUG PLATE
NTS




NOTES:

1. LUG PLATE MAY BE USED TO HARNESS MECHANICAL COUPLING, FLANGED COUPLING ADAPTOR OR EXPANSION JOINT, AS APPLICABLE.
2. SEE TABLE I, SHEET M-15, FOR NUMBER AND DIAMETER OF HARNESS RODS.

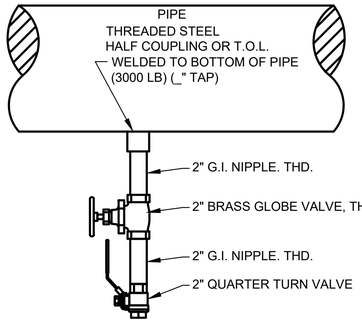
## C THRUST PLATE FOR FLEXIBLE COUPLING
NTS

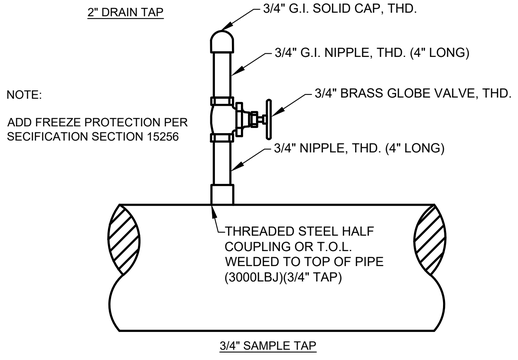



NOTE:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON COMBINATION AIR RELEASE/VACUUM VALVE.
2. UNISTRUT AND FASTENERS SHALL BE 316SS AND USE U-BOLT TO CONNECT UNISTRUT TO PIPE.

## D AIR RELEASE/VACUUM VALVE
NTS

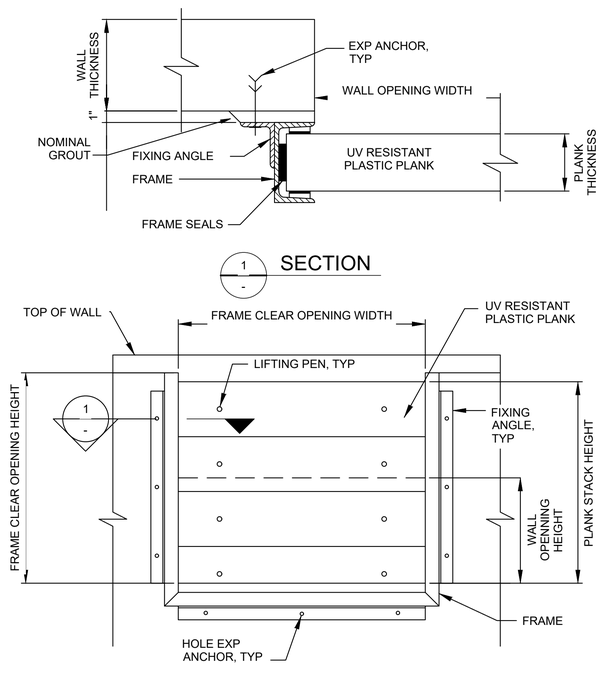



NOTE:

ADD FREEZE PROTECTION PER SECIFICATION SECTION 15256

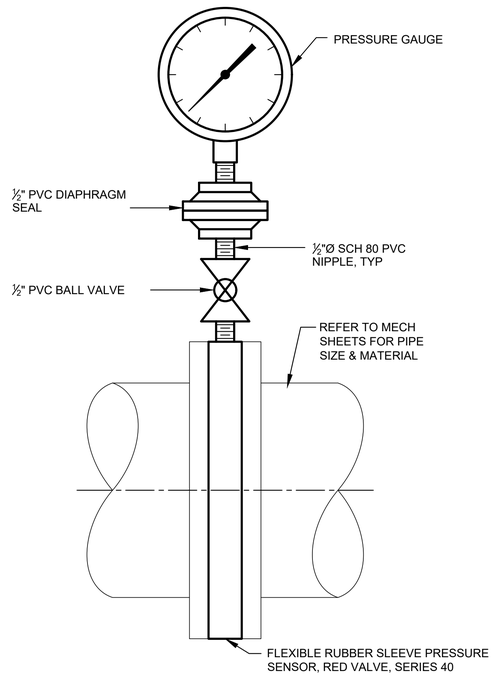
## E DRAIN & SAMPLE TAP DETAIL
NTS




NOTES:

1. ALL ASSOCIATED MOUNTING ANCHORAGE SYSTEM SHALL BE PER STOP LOG MANUFACTURERS REQUIREMENTS.
2. REFER TO SPECIFICATION SECTION 15152 FOR ADDITIONAL INFORMATION.
3. PROVIDE STOP LOG LIFTER AS SPECIFIED.
4. REFER TO SECTION FOR LOG SIZE AND QUANTITY.

## F WALL-MOUNTED STOP LOG
NTS




## G PRESSURE INDICATOR
NTS

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · PAWAN A. GUNJUR · 101095 · LICENSED PROFESSIONAL ENGINEER · 3/5/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MECHANICAL DETAILS (2 OF 4)

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | J.TORRES |
| REVIEW: | P. GUNJUR |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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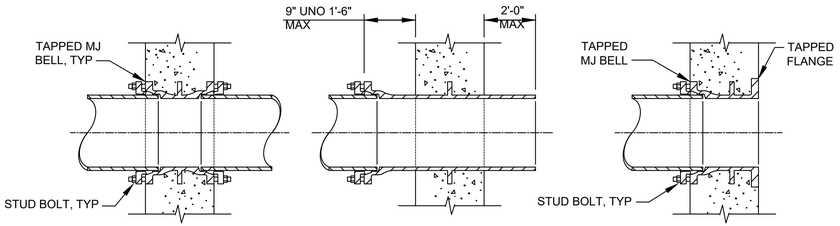
M-13
87 of 196

PRINTED BY: LeuenbD DATE: 6/18/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_05_M-12 TO M-15_CPY.dwg



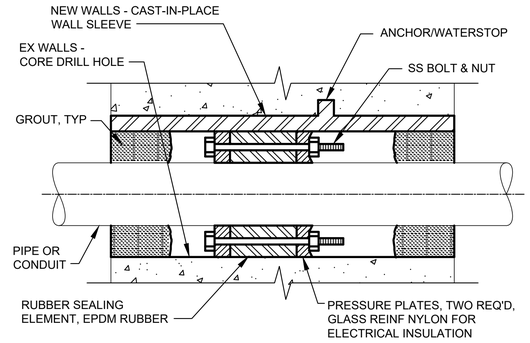

TYPE A - MJxMJ | TYPE B - MJxPE | TYPE C - MJxFLG (FLUSH)

TYPE D - PExFLG | TYPE E - FLGxFLG | TYPE F - PExFLG

NOTES:

1. ANY COMBINATION OF END CONNECTIONS OTHER THAN THOSE SHOWN ABOVE ARE POSSIBLE. FOR COMBINATIONS USED, REFER TO MECHANICAL DRAWINGS.
2. REFER TO SPECIFICATIONS FOR RESTRAINT OF MECHANICAL JOINTS AT CONCRETE STRUCTURES.
3. REFER TO STRUCTURAL DRAWINGS FOR WALL THICKNESSES.
4. PROVIDE STUD BOLTS WITH WASHERS AND NUTS AT ALL MECHANICAL JOINT WALL PIPES.
5. WALL PIPE SHALL BE IN PLACE PRIOR TO PLACING CONCRETE. COAT WALL PIPE WITH SPECIFIED COATING SYSTEM PRIOR TO CONCRETE PLACEMENT.
6. WHEN WALL PIPE IS FLUSH WITH WALL, PROVIDE TEMPORARY PLUGS FOR BOLT HOLES IN WALL PIPE TO FACILITATE INSTALLATION OF STUD BOLTS AFTER WALL IS POURED.

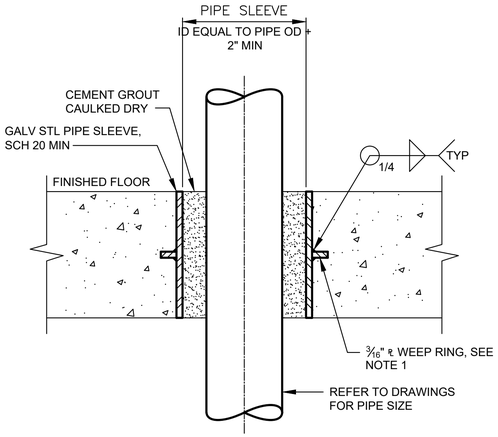
## A TYPICAL WALL PIPE
NTS




NOTES:

1. INSIDE DIAMETER OF EACH WALL OPENING SHALL BE OF THE SIZE RECOMMENDED BY THE MANUFACTURER TO FIT THE PIPE OR CONDUIT AND THE WALL SEAL ASSEMBLY TO ASSURE WATERTIGHT JOINT.
2. PIPE TO WALL PENETRATION CLOSURES SHALL BE OF THE MODULAR TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. A PRESSURE PLATE SHALL BE PROVIDED UNDER EACH BOLT HEAD AND NUT, WITH THE SEAL CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN PIPE AND WALL.
3. WALL SEAL ASSEMBLY SHALL BE "LINK SEAL" AS MANUFACTURED BY ENPRO INDUSTRIES, CHARLOTTE, NORTH CAROLINA.
4. PROVIDE 3 HOUR FIRE RATED MODULAR, INTERLOCKING MECHANICAL SEAL, "LINK SEAL" MODELFD/FS IN FIRE RATED STRUCTURES.
5. PROVIDE ESCUTCHEONS IN FINISHED SPACES.

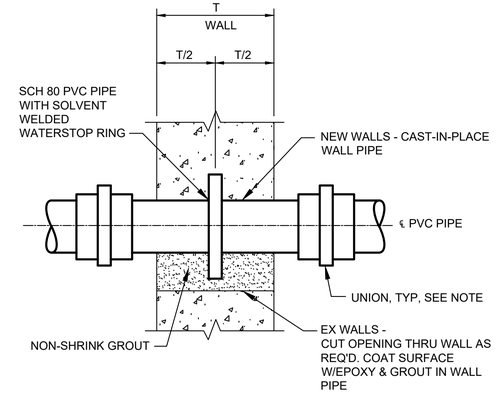
## B WALL/FLOOR SEAL ASSEMBLY
NTS




NOTE:

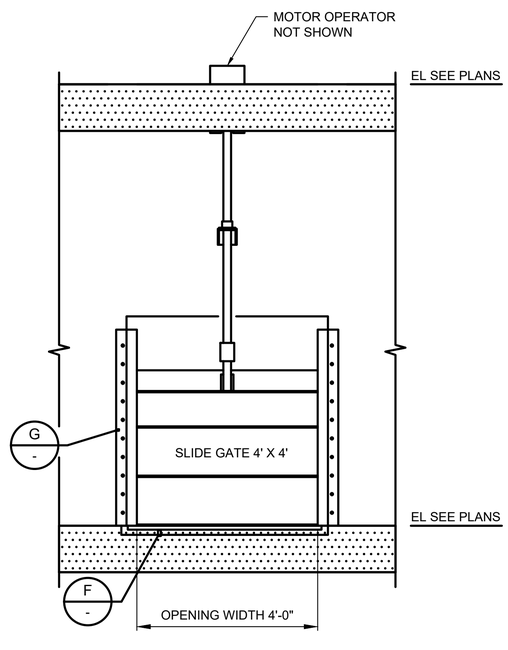
1. WEEP RING SHALL HAVE A MINIMUM DIAMETER EQUAL TO THE PIPE DIAMETER + 6".
2. PROVIDE FLEXIBLE COUPLING WITHIN 6'-0" OF BOTH TOP AND BOTTOM OF FLOOR SLAB.

## C PIPE SLEEVE W/GROUT INTERMEDIATE FLOOR PENETRATION
NTS

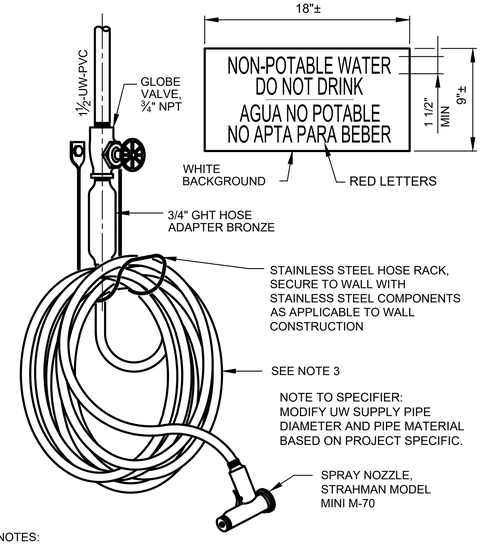



NOTE:
UNIONS OR FLANGES SHALL BE USED AS INDICATED ON THE DRAWINGS.

## D PVC WALL PIPE
NTS



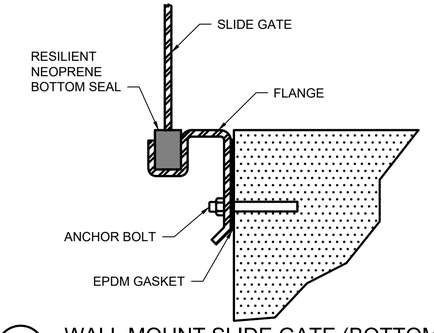

## E WALL MOUNT SLIDE GATE
NTS



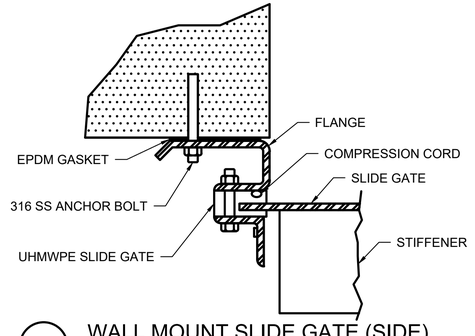

NOTES:

1. PROVIDE AND MOUNT ONE NON-POTABLE WATER SIGN AT EACH HOSE STATION OR WALL HYDRANT PER SPECIFICATION SECTION 15047, IDENTIFICATION.
2. MOUNT HOSE STATION WITH GLOBE VALVE 3'-6" AFF.
3. FURNISH 50' OF ⅝" DIAMETER RUBBER HOSE AT EACH HOSE STATION. HOSE SHALL BE INDUSTRIAL RATED FOR MINIMUM 150 PSI WORKING PRESSURE AND SHALL HAVE NEOPRENE EXTERIOR THAT RESISTS OIL, ABRASION AND SEVERE WEATHER CONDITIONS FOR INDUSTRIAL USE. BOTH ENDS OF HOSE SHALL BE THREADED, ONE END MALE AND ONE END FEMALE.

## F HOSE STATION
NTS




## G WALL MOUNT SLIDE GATE (BOTTOM)
NTS




## H WALL MOUNT SLIDE GATE (SIDE)
NTS


TEXAS REGISTERED ENGINEERING FIRM F-204
STATE OF TEXAS PAWAN A. GUNJUR 101095 LICENSED PROFESSIONAL ENGINEER 3/5/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MECHANICAL DETAILS (3 OF 4)

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | J.TORRES |
| REVIEW: | P. GUNJUR |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-14
88 of 196


PRINTED BY: LeuenbD DATE: 6/18/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_05_M-12 TO M-15_CPY.dwg

## TABLE I - HARNESS RODS

| | PRESSURE=50 psi | | PRESSURE=100 psi | | PRESSURE=150 psi | | PRESSURE=200 psi | | PRESSURE=250 psi | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE SIZE (inch) | NO. RODS | SIZE RODS | NO. RODS | SIZE RODS | NO. RODS | SIZE RODS | NO. RODS | SIZE RODS | NO. RODS | SIZE RODS |
| 3 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 |
| 4 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 |
| 6 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 |
| 8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 |
| 10 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 | 4 | 5/8 |
| 12 | 4 | 5/8 | 4 | 5/8 | 4 | 3/4 | 4 | 3/4 | 4 | 3/4 |
| 14 | 4 | 5/8 | 4 | 5/8 | 4 | 3/4 | 4 | 3/4 | 4 | 7/8 |
| 16 | 4 | 5/8 | 4 | 5/8 | 4 | 3/4 | 4 | 7/8 | 4 | 1 |
| 18 | 4 | 5/8 | 4 | 3/4 | 4 | 7/8 | 4 | 1 | 4 | 1 |
| 20 | 4 | 5/8 | 4 | 3/4 | 4 | 7/8 | 4 | 1 | 4 | 1 1/8 |
| 24 | 4 | 5/8 | 6 | 3/4 | 6 | 7/8 | 4 | 1 1/4 | 4 | 1 3/8 |
| 30 | 6 | 3/4 | 6 | 1 | 6 | 1 1/8 | 6 | 1 1/4 | 6 | 1 3/8 |
| 36 | 6 | 7/8 | 6 | 1 1/8 | 6 | 1 1/4 | 6 | 1 1/2 | 6 | 1 5/8 |
| 42 | 6 | 1 | 6 | 1 1/4 | 6 | 1 1/2 | 8 | 1 1/2 | 8 | 1 5/8 |
| 48 | 6 | 1 | 6 | 1 3/8 | 6 | 1 5/8 | 8 | 1 5/8 | 8 | 1 3/4 |
| 54 | 6 | 1 1/8 | 6 | 1 1/2 | 8 | 1 1/2 | 8 | 2 | 8 | 2 1/4 |
| 60 | 6 | 1 1/4 | 6 | 1 5/8 | 8 | 1 3/4 | 8 | 2 | 8 | 2 1/4 |
| 66 | 6 | 1 3/8 | 6 | 1 3/4 | 8 | 2 | 10 | 2 | 10 | 2 1/4 |
| 72 | 6 | 1 1/2 | 6 | 2 | 8 | 2 | 12 | 2 | 12 | 2 1/4 |

NOTES:

1. DIMENSIONS SHOWN ARE IN INCHES.
2. PRESSURE SHOWN IN TABLES I AND III, IS THE FIELD TEST PRESSURE OF THE PIPELINE.
3. HARNESS RODS SHALL BE INSTALLED BASED ON PIPE SIZE AND TEST PRESSURE OF THE PIPELINE. SPACE HARNESS LUGS EQUALLY AROUND PIPE.
4. STUD BOLTS 5/8" THROUGH 7/8" DIA SHALL HAVE UNC THREADS. STUD BOLTS 1" DIA & LARGER SHALL HAVE EIGHT UN THREADS PER INCH.
5. STUD MATERIAL SHALL CONFORM TO ASTM A193, GRADE B8, 304 STAINLESS STEEL FOR SUBMERGED, BURIED, IN VAULTS, SUBJECT TO SPLASHING OR CORROSIVE ENVIRONMENT.
6. NUTS AND WASHERS SHALL CONFORM TO ASTM A194, GRADE 8, 304 STAINLESS STEEL FOR SUBMERGED, BURIED, IN VAULTS, SUBJECT TO SPLASHING OR CORROSIVE ENVIRONMENT.
7. COAT THREADED PORTIONS OF STAINLESS STEEL BOLTS AND NUTS WITH ANTI-SEIZE LUBRICANT PRIOR TO ASSEMBLY.
8. LUG MATERIAL SHALL CONFORM TO ASTM A283, GRADE C OR ASTM A36.
9. DURING INSTALLATION OF THRUST HARNESS HAND TIGHTEN THE NUT & LOCKNUT GRADUALLY & EQUALLY AT OPPOSITE SIDES UNTIL SNUG TO PREVENT MISALIGNMENT AND ENSURE ALL STUDS CARRY EQUAL LOADS. THEN WRENCH TIGHTEN THE LOCKNUT 1/6 OF COMPLETE TURN. THE THREADS OF THE STUDS SHALL PROTRUDE A MINIMUM OF 3/4" FROM NUT.
10. SPACE REQUIRED NUMBER OF RODS EVENLY ABOUT CENTERLINE OF PIPE. ROD LOCATION MAY BE ROTATED TO ACCOMMODATE SPECIFIC REQUIREMENTS.
11. VERIFY THAT CENTER SLEEVE WILL BE ABLE TO CLEAR PLAIN END OF PIPE WHEN MOVED IN ONE DIRECTION.
12. WHERE INSULATED SLEEVE COUPLINGS ARE INDICATED, INSTALL SLEEVES AND WASHERS ON THRUST RODS. INSULATED SLEEVE COUPLING SHALL HAVE RUBBER BOOT ON BOTH ENDS.
13. PUMP MANUFACTURER SHALL DESIGN THRUST HARNESS FOR PUMP SUCTION AND DISCHARGE PIPING IN ACCORDANCE WITH HYDRAULIC INSTITUTE STANDARDS. PUMP MANUFACTURER SHALL PROVIDE THIS INFORMATION TO THE CONTRACTOR. CONTRACTOR SHALL PROVIDE ANY AND ALL RESTRAINTS, EXCEEDING THOSE SHOWN ON THIS DRAWING, THAT ARE REQUIRED BY THE MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER.
14. WHEN USING TWO DIFFERENT DETAILS FOR THRUST HARNESS, CONTRACTOR TO MODIFY GUSSET PLATE HEIGHT TO INSTALL THE THRUST ROD PARALLEL TO THE CENTERLINE OF THE PIPE.

## TABLE II - LUG PLATES

| | PRESSURE=50 psi | | PRESSURE=100 psi | | PRESSURE=150 psi | | PRESSURE=200 psi | | PRESSURE=250 psi | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE SIZE (inch) | NO. LUGS | LUG THICK. T | NO. LUGS | LUG THICK. T | NO. LUGS | LUG THICK. T | NO. LUGS | LUG THICK. T | NO. LUGS | LUG THICK. T |
| 3 | 4 | 3/8 | 4 | 3/8 | 4 | 3/8 | 4 | 1/2 | 4 | 1/2 |
| 4 | 4 | 1/2 | 4 | 1/2 | 4 | 1/2 | 4 | 3/4 | 4 | 3/4 |
| 6 | 4 | 3/4 | 4 | 3/4 | 4 | 3/4 | 4 | 1 | 4 | 1 |
| 8 | 4 | 3/4 | 4 | 3/4 | 4 | 1 | 4 | 1 | 4 | 1 |
| 10 | 4 | 1 | 4 | 1 | 4 | 1 1/4 | 4 | 1 | 4 | 1 1/4 |
| 12 | 4 | 1 | 4 | 1 | 4 | 1 1/4 | 4 | 1 1/4 | 4 | 1 1/4 |
| 14 | 4 | 1 | 4 | 1 | 4 | 1 1/4 | 4 | 1 1/4 | 4 | 1 1/2 |
| 16 | 4 | 1 | 4 | 1 | 4 | 1 1/4 | 4 | 1 1/2 | 4 | 1 1/2 |
| 18 | 4 | 1 1/4 | 4 | 1 1/4 | 4 | 1 1/4 | 4 | 1 1/2 | 4 | 1 3/4 |
| 20 | 4 | 1 1/4 | 4 | 1 1/4 | 4 | 1 1/2 | 4 | 1 1/2 | 4 | 1 3/4 |
| 24 | 4 | 1 1/4 | 6 | 1 1/4 | 6 | 1 1/2 | 4 | 2 | 4 | 2 1/4 |
| 30 | 6 | 1 1/2 | 6 | 1 1/2 | 6 | 1 3/4 | 6 | 2 | 6 | 2 1/4 |
| 36 | 6 | 1/1/2 | 6 | 1/1/2 | 6 | 2 | 6 | 2 | 6 | 2 1/4 |

## TABLE III - THRUST PLATES

| ROD DIA | T | TYPE | A | Y | W | X | HB | E | HF | HOLE DIA |
|---|---|---|---|---|---|---|---|---|---|---|
| 5/8 | 3/8 | P | 5 | 5 | 1 3/8 | 5 | 3 7/8 | 3 | 2 | 3/4 |
| 3/4 | 3/8 | P | 5 | 5 | 1 1/2 | 5 | 4 1/8 | 3 1/8 | 2 | 7/8 |
| 7/8 | 1/2 | P | 5 1/2 | 5 | 1 5/8 | 5 | 4 1/4 | 3 1/8 | 2 | 1 |
| 1 | 1/2 | RR | 5 3/4 | RING | 1 3/4 | RING | 4 1/2 | 3 1/4 | 2 | 1 1/8 |
| 1 1/8 | 1/2 | RR | 7 | RING | 1 7/8 | RING | 4 3/4 | 3 5/8 | 2 1/2 | 1 1/4 |
| 1 1/4 | 5/8 | RR | 7 1/2 | RING | 2 | RING | 5 | 3 3/4 | 2 1/2 | 1 3/8 |
| 1 3/8 | 5/8 | RR | 8 3/4 | RING | 2 1/8 | RING | 5 3/8 | 3 3/4 | 2 1/2 | 1 1/2 |
| 1 1/2 | 3/4 | RR | 10 | RING | 2 1/4 | RING | 5 1/2 | 3 7/8 | 2 1/2 | 1 5/8 |
| 1 5/8 | 3/4 | RR | 10 3/4 | RING | 2 3/8 | RING | 5 5/8 | 3 7/8 | 2 1/2 | 1 3/4 |
| 1 3/4 | 7/8 | RR | 12 | RING | 2 1/2 | RING | 5 7/8 | 4 | 2 1/2 | 1 7/8 |
| 1 7/8 | 7/8 | RR | 13 | RING | 2 5/8 | RING | 6 | 4 | 2 1/2 | 2 |
| 2 | 1 | RR | 14 | RING | 2 3/4 | RING | 6 1/4 | 4 1/4 | 2 1/2 | 2 1/8 |
| 2 1/4 | 1 | RR | 15 3/4 | RING | 3 | RING | 6 3/4 | 4 5/16 | 2 1/2 | 2 3/8 |

NOTE:
REFER TO SPECIFICATION SECTION 15140 FOR SPACING REQUIREMENTS FOR ALL SUPPORTS AND HANGERS, UNLESS NOTED OTHERWISE.

GENERAL PIPE SUPPORT NOTES:

1. ALL BOLTS AND NUTS SHALL BE TYPE 316 SS.
2. ALL PIPE SUPPORT ASSEMBLIES, INCLUDING FRAMING, SHALL BE STAINLESS STEEL UNLESS OTHERWISE INDICATED.
   A. SUBMERGED SUPPORTS: ALL SUBMERGED PIPING, AS WELL AS PIPING, CONDUITS AND EQUIPMENT IN HYDRAULIC STRUCTURES, WITHIN 24 INCHES OF WATER LEVEL, SHALL BE SUPPORTED WITH SUPPORT ASSEMBLIES, INCLUDING FRAMING, HARDWARE AND ANCHORS, CONSTRUCTED OF TYPE 316 STAINLESS STEEL UNLESS OTHERWISE INDICATED.
   B. CORROSIVE: ALL PIPING IN CHEMICAL AND CORROSIVE AREAS SHALL BE SUPPORTED WITH SUPPORT ASSEMBLIES, INCLUDING FRAMING, HARDWARE AND ANCHORS, CONSTRUCTED OF TYPE 316 STAINLESS STEEL OR FRP UNLESS OTHERWISE INDICATED.
3. WHEN SUPPORT IS USED WITH COPPER, PVC OR FRP PIPE, WRAP PIPE WITH 1/4" NEOPRENE SHEET. IF PIPE IS SUBMERGED, REPLACE NEOPRENE SHEET WITH 1/4" FLUOROLON PTFE 1000 (TEFLON) BY AP TECHNOLOGIES.
4. WHEN SUPPORT IS USED WITH PVC OR FIBERGLASS PIPE, PROVIDE LOOSE FITTING STEEL SHIELD AROUND PIPE AT U-BOLT/CLIP.
5. ALL SUPPORTS SHOWN ARE FOR USE WITH CONCRETE WALL/FLOOR SLAB CONSTRUCTION. CONTRACTOR SHALL VERIFY THAT WALL/FLOOR SLAB THICKNESS IS ADEQUATE TO ACCOMMODATE MINIMUM ANCHOR BOLT EMBEDMENT.
6. FOR CMU WALLS, USE THE TABLE BELOW WITH HILTI HIT-HY 150 ADHESIVE ANCHOR.
7. WHEN BASE MATERIAL TEMPERATURE DROPS BELOW 40° F, USE HILTI HIT-ICE/HIT-HY 150 ADHESIVE.

## ANCHOR BOLT SCHEDULE

| AB (INCHES) | MIN EMB (INCHES) | ANCHOR TYPE |
|---|---|---|
| 1/4 | 4 | "HILTI" SS KWIK BOLT II |
| 3/8 | 3 1/2 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |
| 1/2 | 6 3/8 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |
| 5/8 | 5 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |
| 3/4 | 6 5/8 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |
| 7/8 | 6 5/8 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |
| 1 | 8 1/4 | "HILTI" SS (HAS ROD) W/HVA ADHESIVE ANCHOR |

## GENERAL PIPE SUPPORT INFORMATION

NOTES TO SPECIFIER:

1. SHOW WHERE SS SUPPORTS ARE REQUIRED ON PLANS.
2. FOR WASTEWATER PROJECTS, USE TYPE 316 SS SUPPORTS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · PAWAN A. GUNJUR · 101095 · LICENSED PROFESSIONAL ENGINEER · 3/5/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MECHANICAL DETAILS
(4 OF 4)

| | |
|---|---|
| DESIGN: | T. KRUZIC |
| DRAWN: | J.TORRES |
| REVIEW: | P. GUNJUR |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
M-15
89 of 196

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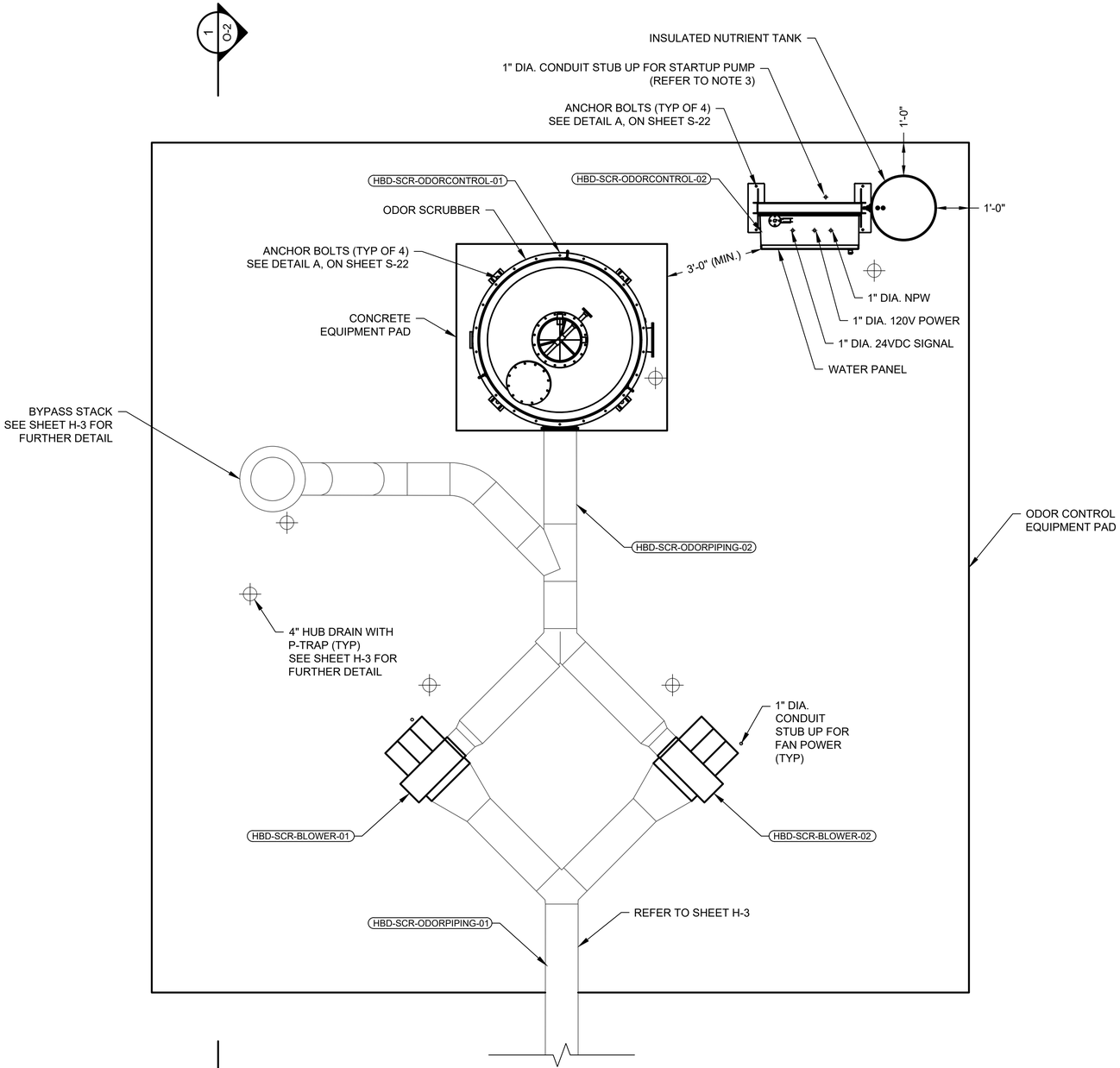
GENERAL NOTES:
1. ELECTRICAL CONTROL PANEL LOCATED IN ELECTRICAL ROOM.
2. ODOR CONTROL SYSTEM CONSISTS OF ODOR SCRUBBER VESSEL, WATER PANEL AND FANS. SEE SHEET H-3 FOR DUCT AND BYPASS STACK DETAILS.
3. TEMPORARY STARTUP PUMP POWER CONNECTION IS EXTERNAL TO WATER PANEL. REFER TO SPECIFICATION SECTION 11340.




PLAN VIEW

2 1 0 2
SCALE IN FEET

V&A Consulting Engineers, Inc.
15720 Park Row, Suite 500
Houston, TX 77084 Tel. (713) 568-9067
F-9154
V&A Project No.: 22-0417

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

MARCH 5, 2026
JAMES VAUGHAN HARSHMAN
152A7
LICENSED PROFESSIONAL ENGINEER
V&A CONSULTING ENGINEERS, INC.
F-9154

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED ODOR CONTROL PLAN

| | |
|---|---|
| DESIGN: | VH |
| DRAWN: | ET |
| REVIEW: | CH |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
O-1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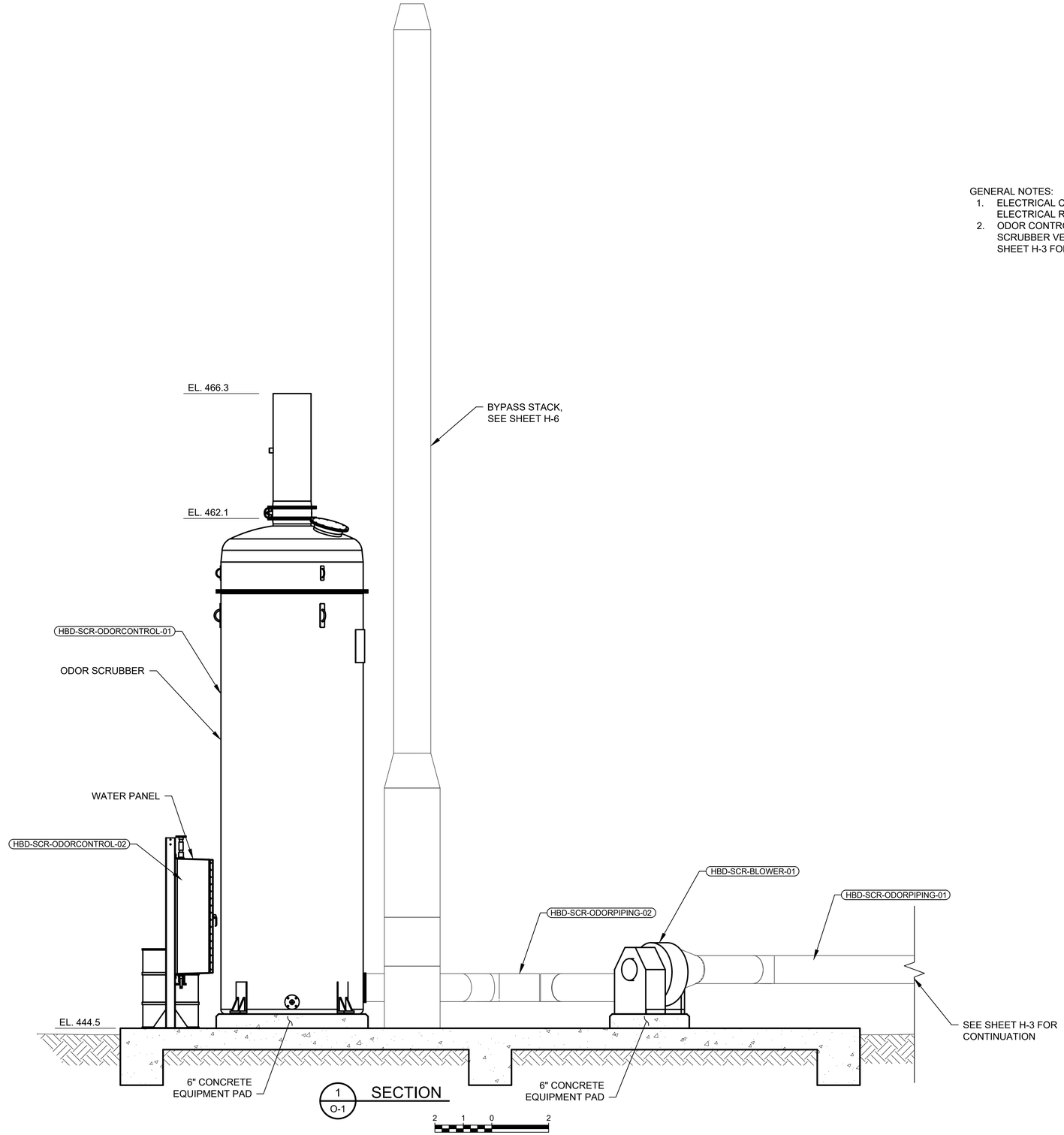
FILE PATH: E:\Projects\2022\0400 thru 0499\22-0417 CP&Y City of Austin\500 Drawings\DESIGN\100%\8.30 Cut Sheets\AUST1500124_05_O-1_VA.dwg

V&A
V&A Consulting Engineers, Inc.
15720 Park Row, Suite 500
Houston, TX 77084 Tel. (713) 568-9067
F-9154
V&A Project No.: 22-0417

GENERAL NOTES:
1. ELECTRICAL CONTROL PANEL LOCATED IN ELECTRICAL ROOM, SEE SHEET E-35.
2. ODOR CONTROL SYSTEM CONSISTS OF ODOR SCRUBBER VESSEL, WATER PANEL AND FANS. SEE SHEET H-3 FOR DUCT AND BYPASS STACK DETAILS.




1 / O-1 SECTION

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

JAMES VAUGHAN HARSHMAN
151247
LICENSED PROFESSIONAL ENGINEER
MARCH 5, 2026
JAMES VAUGHAN HARSHMAN
V&A CONSULTING ENGINEERS, INC.
F-9154

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# PROPOSED ODOR CONTROL SECTION

| | |
|---|---|
| DESIGN: | VH |
| DRAWN: | ET |
| REVIEW: | CH |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
O-2
91 of 196

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## DUCTWORK SYMBOLS

- SUPPLY DIFFUSER/GRILLE
- RETURN GRILLE
- EXHAUST GRILLE
- 12" DIA. — ROUND DUCT. SIZE IN INCHES. SIZE INDICATED IS DUCT DIAMETER.
- 24x12 — RECTANGULAR DUCT. SIZE IN INCHES. FIRST NUMBER IS SIDE SHOWN.
- 20x12 — SUPPLY OR OUTSIDE AIR DUCT UP
- 20x12 — SUPPLY OR OUTSIDE AIR DUCT DOWN
- 20x12 — RETURN DUCT UP
- 20x12 — RETURN DUCT DOWN
- 20x12 — EXHAUST DUCT UP
- 20x12 — EXHAUST DUCT DOWN
- ROUND DUCT UP
- ROUND DUCT DOWN
- RECTANGULAR ELBOW WITH TURNING VANES
- 20x12 / 16x8 — TRANSITION - RECTANGULAR TO RECTANGULAR
- 20x12 / 10" — TRANSITION - RECTANGULAR TO ROUND
- UP — ELEVATION CHANGE (UP) RISE, (DN) DROP
- FLEXIBLE CONNECTION
- FLEXIBLE DUCT - SINGLE LINE
- DIFFUSER TAKEOFF WITH FLARED SPIN-IN TAP, MANUAL DAMPER AND FLEX DUCT
- RECTANGULAR DUCT BRANCH TAKEOFF WITH 45 DEG TAP
- ROUND DUCT BRANCH TAKEOFF WITH CONICAL TAP FROM RECT. OR ROUND MAIN

## HVAC SYMBOLS

- DPT — DIFFERENTIAL PRESSURE TRANSMITTER
- DX — DIRECT EXPANSION (REFRIGERANT)
- ES — END SWITCH (DAMPER MOTOR)
- FS — FLOW SENSOR
- FS — FLOW SWITCH
- GUI — GRAPHICAL USER INTERFACE
- H — HUMIDISTAT
- H — HUMIDITY SENSOR
- HOA — HAND-OFF-AUTO SWITCH
- M — MOTORIZED OPPOSED BLADE DAMPER
- MCP — MANUFACTURER'S CONTROL PANEL
- PT — PRESSURE TRANSMITTER
- PRESSURE TEMPERATURE PORT
- SD — DUCT MOUNTED SMOKE DETECTOR
- S/D — COMBINATION STARTER/DISCONNECT
- SP — DUCT STATIC PRESSURE SENSOR
- T — TEMPERATURE SENSOR/TRANSMITTER
- TC — TEMPERATURE CONTROLLER
- TS — TEMPERATURE SENSOR/TRANSMITTER
- T — THERMOSTAT
- C — CURRENT SWITCH
- VFD — VARIABLE FREQUENCY DRIVE
- CONNECTION POINT NEW TO EXISTING
- FORCED AIR TO SPACE
- INDIRECT AIR FROM SPACE
- 1001 — FLEX DUCT

## GENERAL ABBREVIATIONS

| | | |
|---|---|---|
| A | @ | AT |
| | AD | AIR DROP |
| | AFF | ABOVE FINISHED FLOOR |
| | ALT | ALTITUDE |
| | AP | ACCESS PANEL |
| | ASD | ADJUSTABLE SPEED DRIVE |
| | AUTO | AUTOMATIC |
| | AUX | AUXILIARY |
| | AVG | AVERAGE |
| B | BDD | BACKDRAFT DAMPER |
| | BHP | BRAKE HORSEPOWER |
| | BLDG | BUILDING |
| | BOD | BOTTOM OF DUCT |
| | BOP | BOTTOM OF PIPE |
| | BTM | BOTTOM |
| | BTU | BRITISH THERMAL UNIT |
| C | ℄ | CENTER LINE |
| | CCW | COUNTER CLOCKWISE |
| | CENT | CENTRIFUGAL |
| | CFM | CUBIC FEET PER MINUTE |
| | CLASS/DIV | NEC AREA CLASSIFICATION |
| | CLG | CEILING |
| | CLR | CLEAR |
| | COL | COLUMN |
| | CONT | CONTINUE, CONTINUOUS |
| | CTR | CENTER |
| | CU FT | CUBIC FEET |
| | CW | CLOCKWISE |
| D | DACS | DATA ACQUISITION AND CONTROL SYSTEM |
| I | DB | DRY BULB |
| | DCVBP | DOUBLE CHECK VALVE BACKFLOW PREVENTER |
| K | DEG | DEGREE |
| | DIA, Ø | DIAMETER |
| L | DN | DOWN |
| | DWG | DRAWING |
| E | EA | EACH |
| M | EL | ELEVATION |
| | EMERG | EMERGENCY |
| | ENT | ENTERING |
| | EQUIP | EQUIPMENT |
| | EWT | ENTERING WATER TEMPERATURE |
| F | F | FAHRENHEIT |
| | FCO | FLOOR CLEANOUT |
| | FLR | FLOOR |
| | FLG | FLANGE |
| | FL | FLOW LINE |
| | FOB | FLAT ON BOTTOM |
| | FPC | FIRE PROTECTION CONTRACTOR |
| | FPS | FEET PER SECOND |
| | FT | FEET |
| | FWE | FURNISHED WITH EQUIPMENT |
| G | GPM | GALLONS PER MINUTE |
| H | H-O-A | HAND-OFF-AUTO |
| | HP | HORSEPOWER |
| | HVAC | HEATING, VENTILATION AND AIR CONDITIONING |
| | HZ | HERTZ |
| | ID | INSIDE DIAMETER |
| | IE | INVERT ELEVATION |
| | INV | INVERT |
| | IOS | INSTALLED BY OTHER SECTION |
| | IPS | IRON PIPE SIZE |
| | KS | KITCHEN SINK |
| | KW | KILOWATT |
| | LAB | LABORATORY |
| | LVG | LEAVING |
| | LWT | LEAVING WATER TEMPERATURE |
| | M | MOTOR |
| | MATL | MATERIAL |
| | MAX | MAXIMUM |
| | MBH | THOUSAND BTU PER HOUR |
| | MCC | MOTOR CONTROL CENTER |
| | MECH | MECHANICAL |
| | MFR | MANUFACTURER |
| | MIN | MINIMUM |
| | MISC | MISCELLANEOUS |
| | MTD | MOUNTED |
| N | NA | NOT APPLICABLE |
| | NC | NORMALLY CLOSED |
| | NO | NORMALLY OPEN OR NUMBER |
| | NOM | NOMINAL |
| | NTS | NOT TO SCALE |

## ABBREVIATIONS - CONTINUED

| | | |
|---|---|---|
| O | OD | OUTSIDE DIAMETER |
| P | PD | PRESSURE DROP |
| | PG | PRESSURE GAUGE |
| | PLC | PROGRAMMABLE LOGIC CONTROLLER |
| | PNL | PANEL |
| | PSI | POUNDS PER SQUARE INCH |
| | PSIA | PSI ABSOLUTE |
| | PSIG | PSI GAUGE |
| | P&T | PRESSURE AND TEMPERATURE |
| R | RM | ROOM |
| | RPM | REVOLUTIONS PER MINUTE |
| S | SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| | SF | SQUARE FOOT (FEET) |
| | SHT | SHEET |
| | SPEC | SPECIFICATIONS |
| | SSTL | STAINLESS STEEL |
| | SQ | SQUARE |
| T | T&P | TEMPERATURE & PRESSURE RELIEF |
| | TEMP | TEMPERATURE |
| | THK | THICK(NESS) |
| | TOC | TOP OF CONCRETE |
| | TOP | TOP OF PIPE |
| | TOS | TOP OF STEEL |
| | TYP | TYPICAL |
| U | UL | UNDERWRITERS LABORATORY |
| | UNO | UNLESS NOTED OTHERWISE |
| W | W/ | WITH |
| | W/O | WITHOUT |
| | WxH | WIDTH BY HEIGHT |
| | W&T | WASTE AND TRAP |
| | W&V | WASTE AND VENT |

## HVAC ABBREVIATIONS

| | |
|---|---|
| AFU | AIR FILTRATION UNIT |
| AHU | AIR HANDLING UNIT |
| EA | EXHAUST AIR |
| EF | EXHAUST FAN |
| FA | FOUL AIR |
| OA | OUTSIDE AIR |
| RA | RETURN AIR |
| RF | RECIRCULATION FAN |
| SA | SUPPLY AIR |
| SF | SUPPLY FAN |

## EQUIPMENT IDENTIFICATION

| Equipment Tag no. | Position_ID |
|---|---|
| SCR-OC-01 | HBD-SCR-ODORCONTROL-01 |
| SCR-OC-EF-01 | HBD-SCR-BLOWER-01 |
| SCR-OC-EF-02 | HBD-SCR-BLOWER-02 |
| SCR-RF-01 | HBD-SCR-HVAC-01 |
| SCR-RF-02 | HBD-SCR-HVAC-02 |
| SCR-RF-03 | HBD-SCR-HVAC-03 |
| SCR-RF-04 | HBD-SCR-HVAC-04 |
| FEB-CU-01 | HBD-FEB-HVAC-05 |
| FEB-CU-02 | HBD-FEB-HVAC-07 |
| FEB-CU-03 | HBD-FEB-HVAC-06 |
| FEB-CU-04 | HBD-FEB-HVAC-01 |
| FEB-AC-01 | HBD-FEB-HVAC-09 |
| FEB-AC-02 | HBD-FEB-HVAC-11 |
| FEB-AC-03 | HBD-FEB-HVAC-10 |
| FEB-AC-04 | HBD-FEB-HVAC-8 |
| FEB-AFU-01 | HBD-FEB-HVAC-12 |
| COGEN-CU-01 | HBD-COGEN-HVAC-01 |
| COGEN-CU-02 | HBD-COGEN-HVAC-06 |
| COGEN-CU-03 | HBD-COGEN-HVAC-04 |
| COGEN-CU-04 | HBD-COGEN-HVAC-05 |
| COGEN-CU-05 | HBD-COGEN-HVAC-02 |
| COGEN-AC-01 | HBD-COGEN-HVAC-07 |
| COGEN-AC-02 | HBD-COGEN-HVAC-11 |
| COGEN-AC-03 | HBD-COGEN-HVAC-09 |
| COGEN-AC-04 | HBD-COGEN-HVAC-10 |
| COGEN-AC-05 | HBD-COGEN-HVAC-08 |
| COGEN-EF-01 | HBD-COGEN-HVAC-13 |
| COGEN-AFU-01 | HBD-COGEN-HVAC-12 |

AAACE TBPE REG. NO. F-10804

STV — TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

STATE OF TEXAS — RICARDO J. ZOARATE — 81363 — LICENSED PROFESSIONAL ENGINEER — 2026

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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
SYMBOLS AND ABBREVIATIONS

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
H-1
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OVERALL PLAN

4 2 0 4
SCALE IN FEET

N

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TBPE F-1741

STATE OF TEXAS
EDUARDO J. ACOSTA
81284
LICENSED PROFESSIONAL ENGINEER

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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
NEW HEADWORKS OVERALL SITE PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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H-2
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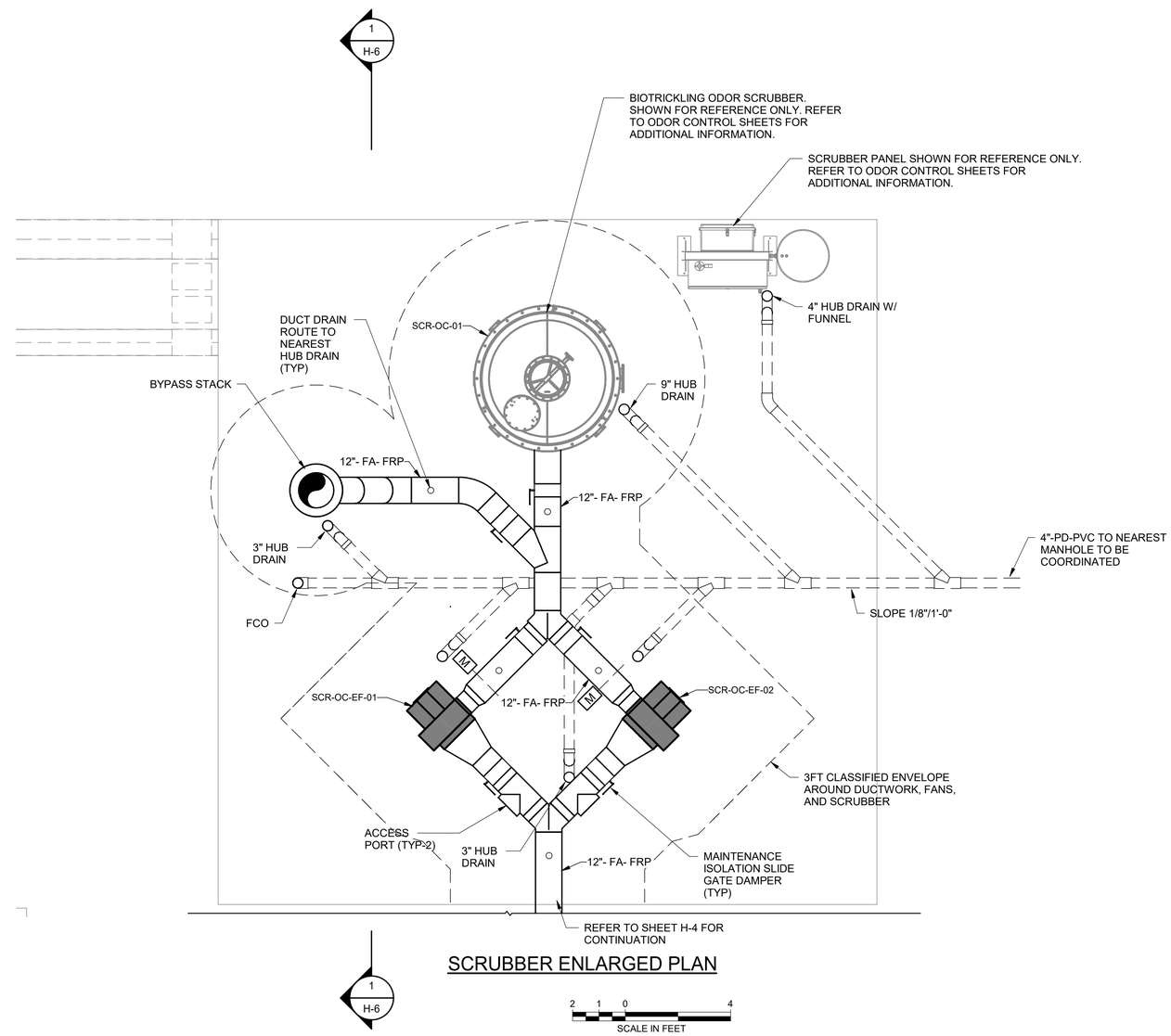


## SCRUBBER ENLARGED PLAN

GENERAL NOTES:

1. DUE TO THE PLANT'S CORROSIVE ENVIRONMENT, ALL HVAC MATERIALS SHALL BE ALUMINUM, 316 STAINLESS STEEL, OR FIBERGLASS REINFORCED PLASTIC (FRP), UNLESS NOTED OTHERWISE.
2. EQUIPMENT CLEARANCES SHALL BE PROVIDED PER THE NATIONAL ELECTRIC CODE (NEC) AND ACCESS REQUIREMENTS PER EQUIPMENT MANUFACTURER FOR MAINTENANCE AND REMOVAL OF PARTS.
3. ALL EQUIPMENT SHALL BE SECURELY ANCHORED TO STRUCTURE AND/OR ITS CONCRETE PAD.
4. ODOR CONTROL & FOUL AIR EXHAUST, AND THEIR ASSOCIATED DAMPERS SHALL BE FIBERGLASS REINFORCED PLASTIC (FRP). FRP SHALL BE PROTECTED WITH UV INHIBITORS WITH WHITE GEL COAT PAINT.
5. AREAS WITHIN 3FT OF LEAKAGE SOURCES OF ODOR EXHAUST SYSTEM SUCH AS FANS, DAMPERS, FLEXIBLE CONNECTIONS, FLANGES, UNWELDED DUCTWORK, BIOTRICKLING ODOR SCRUBBER, AND BYPASS STACK SHALL BE CLASS 1 DIV 2 RATED.
6. BELOW GRADE DRAIN PIPING SHALL BE SCH 40 PVC WITH DWV FITTINGS. PROVIDE ALL HUB DRAINS WITH DEEP SEAL P-TRAPS.
7. ABOVE-GROUND DRAIN PIPING SHALL BE SCHEDULE 80 PVC. PAINT PIPING FOR UV RESISTANCE.

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PROFESSIONAL ENGINEER
03/5/26

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
NEW HEADWORKS ENLARGED SCRUBBER PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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H-3
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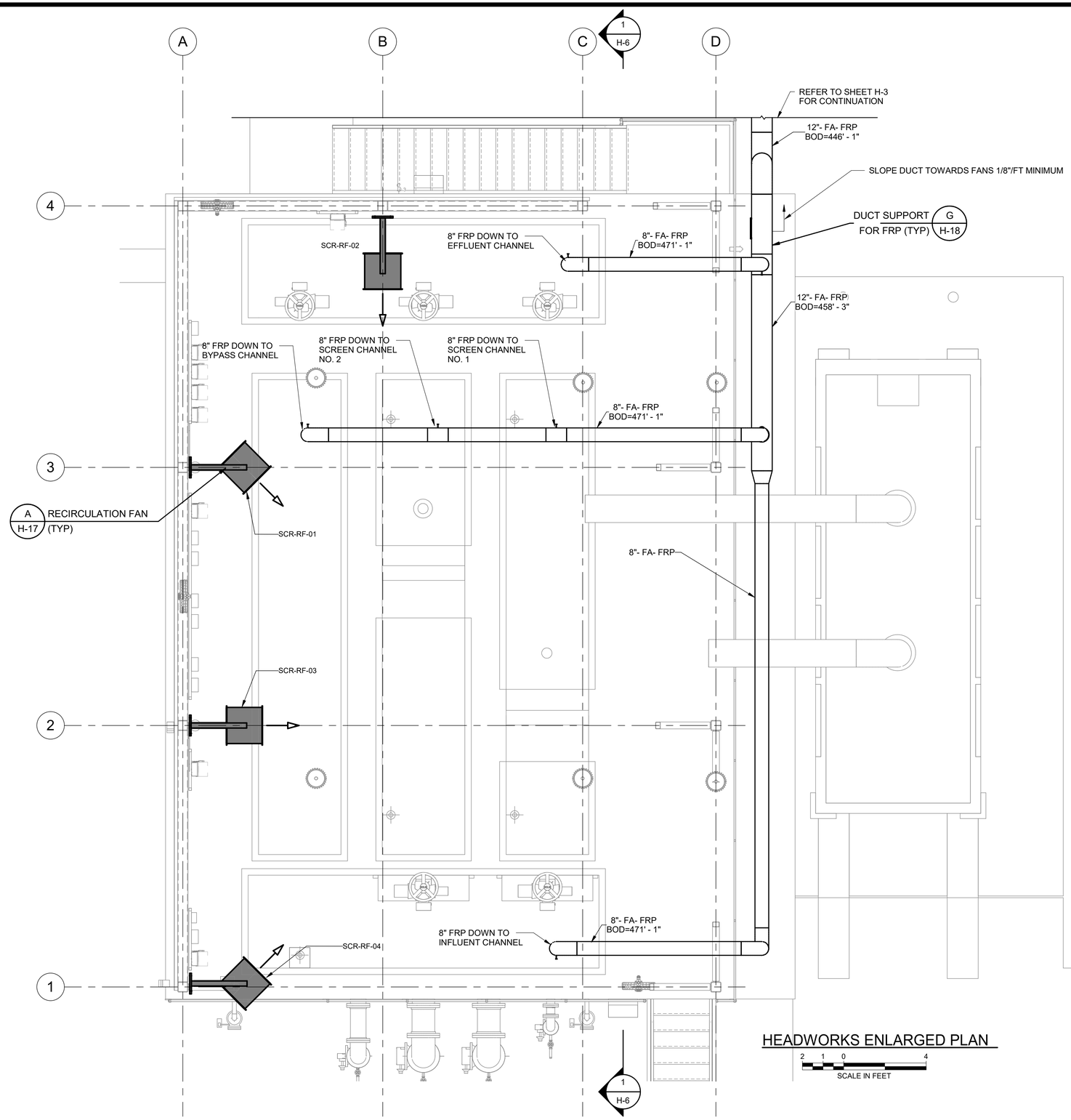


## HEADWORKS ENLARGED PLAN

2 1 0 4

SCALE IN FEET

GENERAL NOTES:

1. DUE TO THE PLANT'S CORROSIVE ENVIRONMENT, SUPPORTS AND FASTENERS SHALL BE ALUMINUM, 316 STAINLESS STEEL, AND ALL DUCTWORK SHALL BE FIBERGLASS REINFORCED PLASTIC (FRP), UNLESS NOTED OTHERWISE.
2. EQUIPMENT CLEARANCES SHALL BE PROVIDED PER THE NATIONAL ELECTRIC CODE (NEC) AND ACCESS REQUIREMENTS PER EQUIPMENT MANUFACTURER FOR MAINTENANCE AND REMOVAL OF PARTS.
3. ALL EQUIPMENT SHALL BE SECURELY ANCHORED TO STRUCTURE AND/OR ITS CONCRETE PAD.
4. ODOR CONTROL & FOUL AIR EXHAUST, AND THEIR ASSOCIATED DAMPERS SHALL BE FIBERGLASS REINFORCED PLASTIC (FRP). FRP SHALL BE PROTECTED WITH UV INHIBITORS WITH WHITE GEL COAT PAINT.
5. AREAS WITHIN 3FT OF LEAKAGE SOURCES OF ODOR EXHAUST SYSTEM SUCH AS FANS, DAMPERS, FLEXIBLE CONNECTIONS, FLANGES, UNWELDED DUCTWORK, BIOTRICKLING ODOR SCRUBBER, AND BYPASS STACK SHALL BE CLASS 1 DIV 2 RATED.

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STATE OF TEXAS

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AND ADJUST SCALE ACCORDINGLY.

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
NEW HEADWORKS ENLARGED HEADWORKS
PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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H-4
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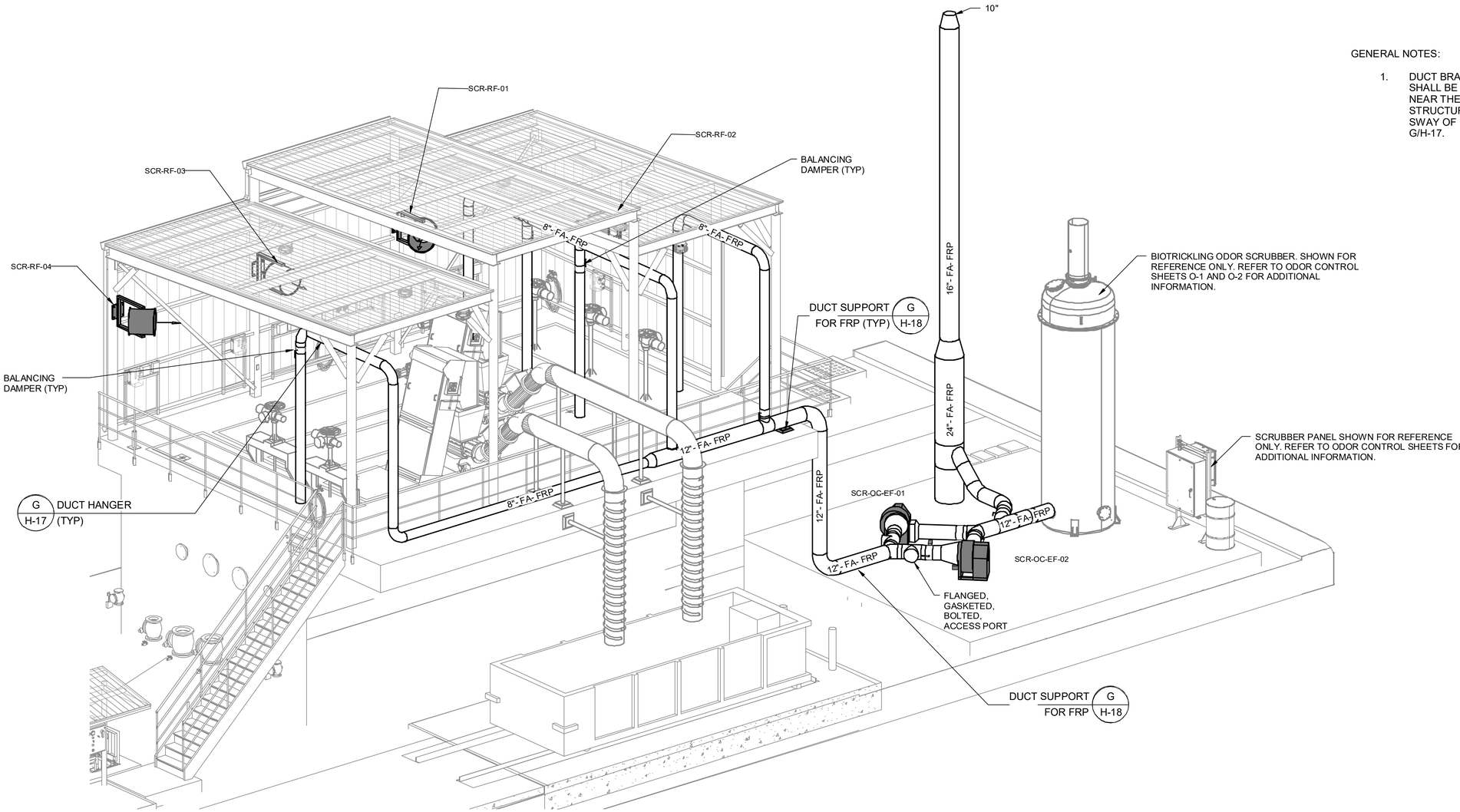


## ISOMETRIC PLAN

4 2 0 4
SCALE IN FEET

GENERAL NOTES:

1. DUCT BRANCH RISERS AT CANOPY SHALL BE SUPPORTED AT THE TOP NEAR THE ELBOW FROM CANOPY STRUCTURE OVERHEAD TO PREVENT SWAY OF DUCT. REFER TO DETAIL G/H-17.

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CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
NEW HEADWORKS ISOMETRIC

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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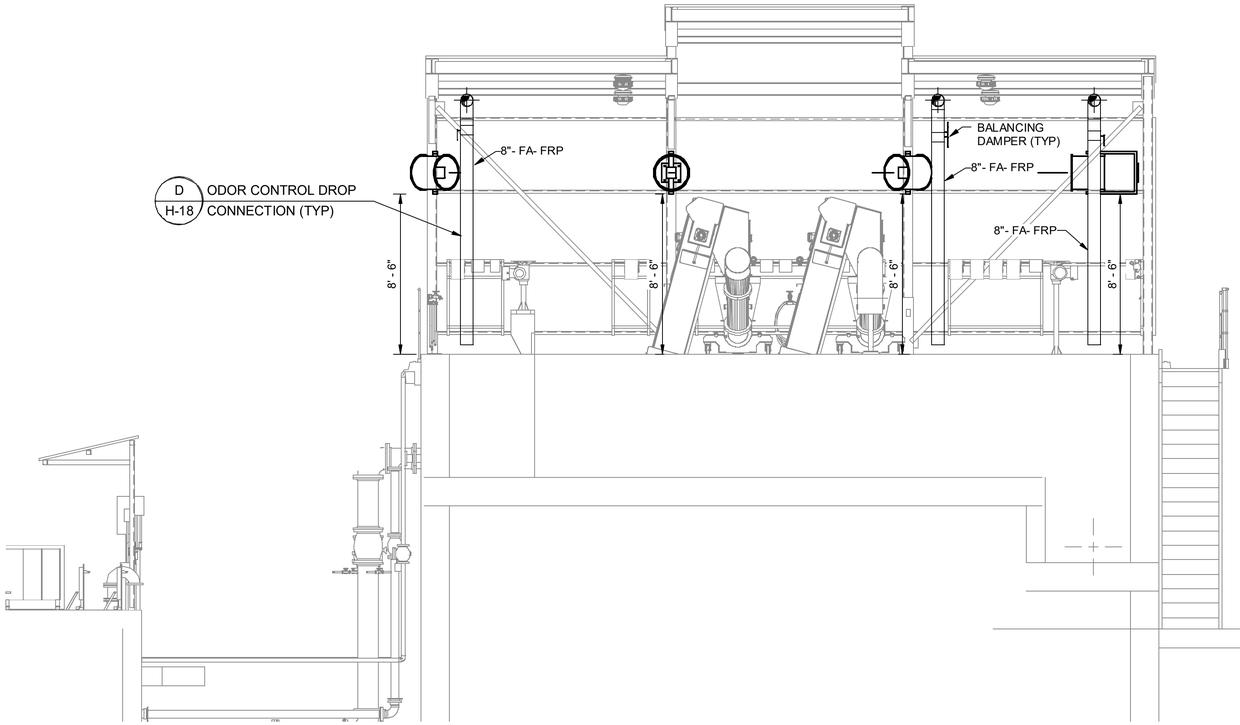


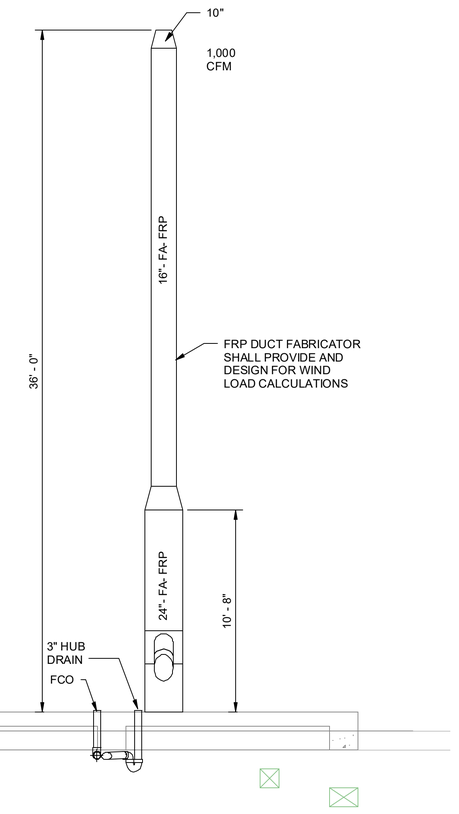


1 H-2 SECTION

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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ODOR STACK SECTION

| | |
|---|---|
| DESIGN: | Designer |
| DRAWN: | Author |
| REVIEW: | Checker |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
H-6
97 of 196

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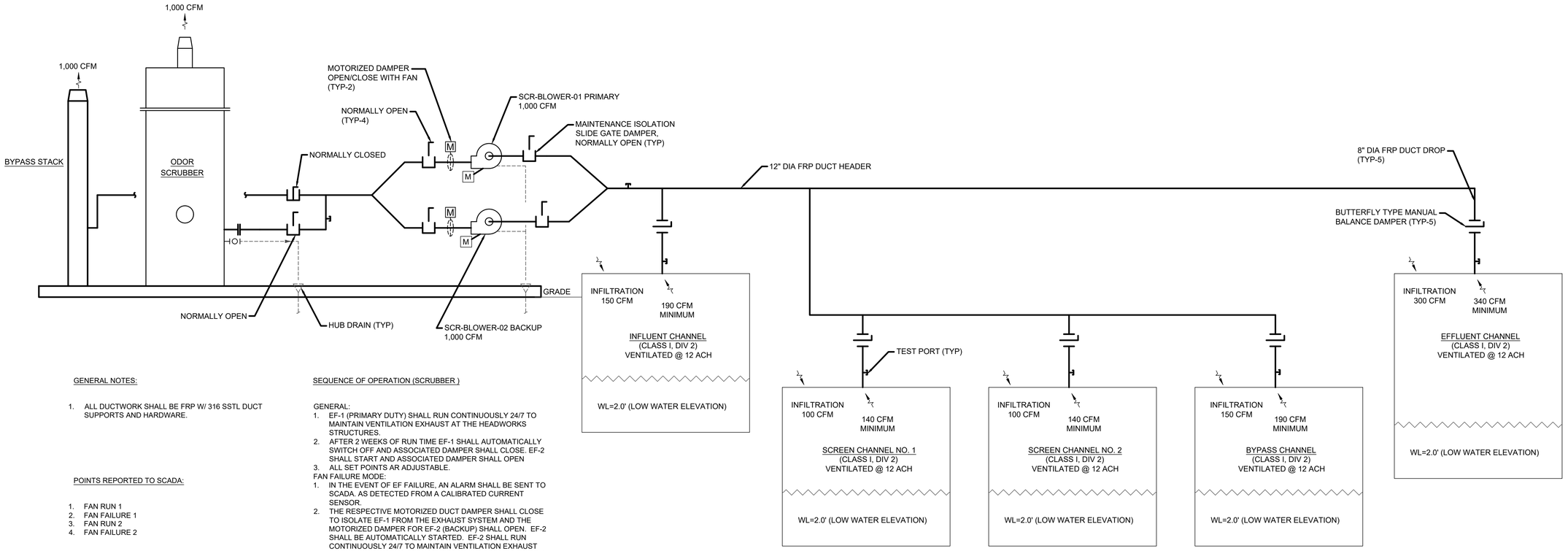


GENERAL NOTES:

1. ALL DUCTWORK SHALL BE FRP W/ 316 SSTL DUCT SUPPORTS AND HARDWARE.

POINTS REPORTED TO SCADA:

1. FAN RUN 1
2. FAN FAILURE 1
3. FAN RUN 2
4. FAN FAILURE 2

SEQUENCE OF OPERATION (SCRUBBER )

GENERAL:
1. EF-1 (PRIMARY DUTY) SHALL RUN CONTINUOUSLY 24/7 TO MAINTAIN VENTILATION EXHAUST AT THE HEADWORKS STRUCTURES.
2. AFTER 2 WEEKS OF RUN TIME EF-1 SHALL AUTOMATICALLY SWITCH OFF AND ASSOCIATED DAMPER SHALL CLOSE. EF-2 SHALL START AND ASSOCIATED DAMPER SHALL OPEN
3. ALL SET POINTS AR ADJUSTABLE.

FAN FAILURE MODE:
1. IN THE EVENT OF EF FAILURE, AN ALARM SHALL BE SENT TO SCADA. AS DETECTED FROM A CALIBRATED CURRENT SENSOR.
2. THE RESPECTIVE MOTORIZED DUCT DAMPER SHALL CLOSE TO ISOLATE EF-1 FROM THE EXHAUST SYSTEM AND THE MOTORIZED DAMPER FOR EF-2 (BACKUP) SHALL OPEN. EF-2 SHALL BE AUTOMATICALLY STARTED. EF-2 SHALL RUN CONTINUOUSLY 24/7 TO MAINTAIN VENTILATION EXHAUST AT THE HEADWORKS STRUCTURES WHILE REPAIRS TO EF-1 ARE DONE.

BYPASS STACK:
1. BYPASS ODOR EXHAUST STACK AND ITS RESPECTIVE INTAKE DAMPER SHALL BE CLOSED. IN THE EVENT THE ODOR SCRUBBER NEEDS TO BE TAKEN OFFLINE FOR MAINTENANCE, THE ISOLATION DAMPER UPSTREAM OF THE ODOR SCRUBBER SHALL BE CLOSED AND ISOLATION DAMPER AT THE BYPASS STACK OPEN SO ODOR EXHAUST AIR IS DISCHARGED THROUGH THE BYPASS STACK. THERE WILL BE NO ODOR TREATMENT DURING THE USE OF THE BYPASS STACK.

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
NEW HEADWORKS - CONTROLS SCHEMATIC I

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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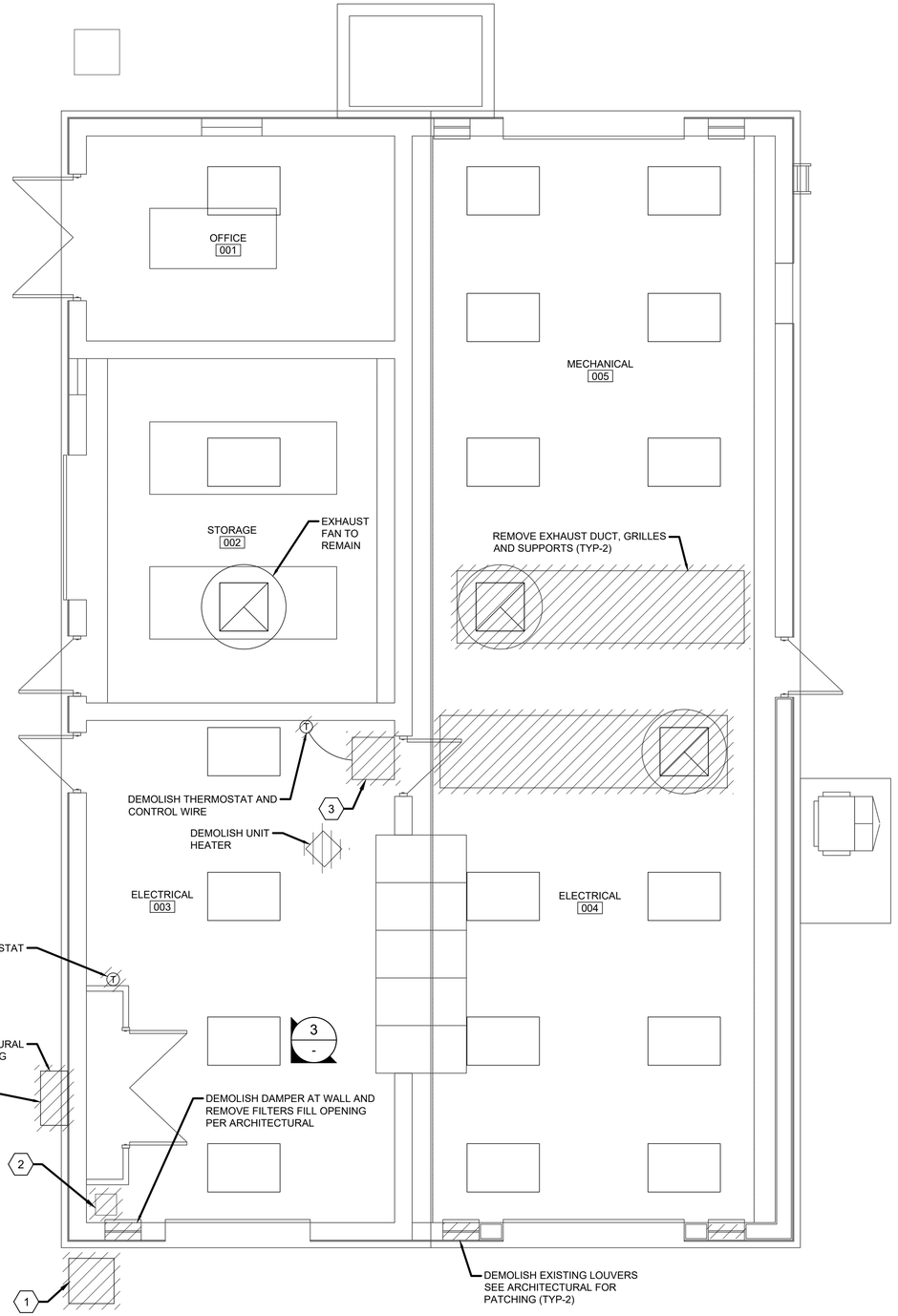


1 -

FLOOR PLAN

4 2 0 4

SCALE IN FEET

1 PHOTO

2 PHOTO

3 PHOTO

## NOTES BY SYMBOL (X)

1. DEMOLISH CONDENSING UNIT (COGEN-HVAC-01) AND ASSOCIATED AIR HANDLING UNIT INSIDE REMOVE PLATFORM, REFRIGERANT PIPING AND ASSOCIATED ELECTRICAL. REFER TO ELECTRICAL SHEETS FOR ELECTRICAL DEMOLITION WORK. REPAIR ABANDONED WALL OPENINGS PER ARCHITECTURAL.
2. DEMOLISH AHU, STAND, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, AND ASSOCIATED ELECTRICAL. REFER TO ELECTRICAL SHEETS FOR ELECTRICAL DEMOLITION.
3. DEMOLISH DUCT AND GRILLE.

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
COGEN BUILDING DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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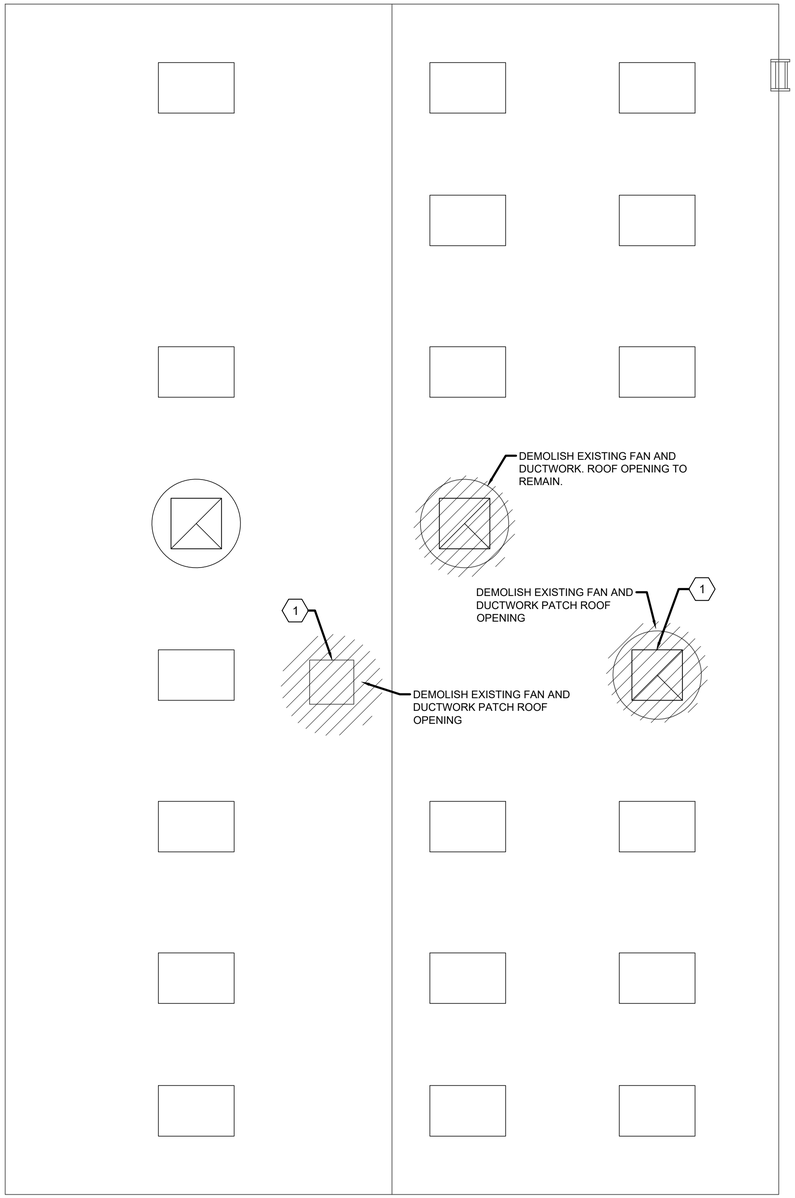


ROOF PLAN

4 2 0 4

SCALE IN FEET

1 PHOTO

2 PHOTO

## NOTES BY SYMBOL (X)

1. PROVIDE ALUMINUM CAP, PLATE 1/16" THICK MIN W/ 3" LIP TO ROOF CURB SIMILAR TO EXISTING. USE 316 SSTL FASTENERS. SEAL AIR TIGHT, INSULATE BOTTOM OF CAP WITH 3-2" THICK RIGID FIBERGLASS INSULATION WITH FSK JACKET, SUPPORT INSULATION WITH ALUMINUM ANGLES, SEAL AIRTIGHT WITH SILVER APPROVED TAPE.

AACE TBPE REG. NO. F-10804

STV TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

STATE OF TEXAS RICARDO J. AZCARATE 81363 LICENSED PROFESSIONAL ENGINEER

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
COGEN BUILDING DEMOLITION ROOF PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
H-9
100 of 196

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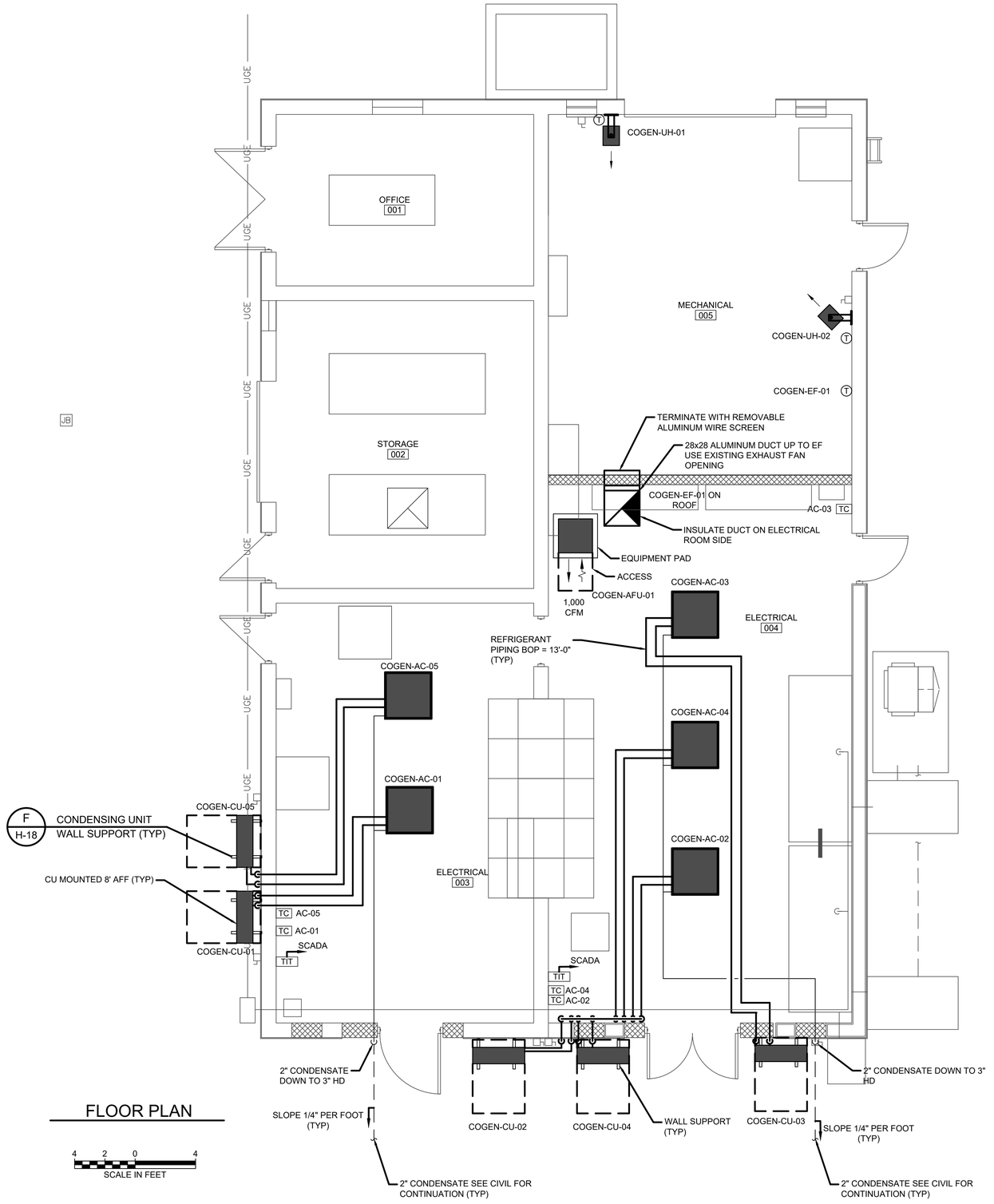


FLOOR PLAN

4 2 0 4
SCALE IN FEET

GENERAL NOTES:

1. REFER TO H-1 FOR TABLE OF TAGS AS RELATED TO ASSOCIATED AW IMD POSITION_IDS.
2. DUE TO THE PLANT'S CORROSIVE ENVIRONMENT, ALL HVAC MATERIALS SHALL BE ALUMINUM, 316 STAINLESS STEEL, OR FIBERGLASS REINFORCED PLASTIC (FRP), UNLESS NOTED OTHERWISE.
3. OUTDOOR EQUIPMENT THAT IS SCHEDULED TO BE MANUFACTURER'S STANDARD MATERIALS (E.G. PACKAGED DX AIR HANDLING UNITS, AC/CU EQUIPMENT) SHALL HAVE COATINGS FOR EXPOSURE TO HYDROGEN SULFIDE (H2S) PER SPECIFICATION.
4. EQUIPMENT THAT IS SCHEDULED TO BE ALUMINUM OR STAINLESS STEEL CONSTRUCTION AND HAS ANY COMPONENT THAT IS NOT OF THOSE MATERIALS, SHALL HAVE COATINGS SUITABLE FOR EXPOSURE TO HYDROGEN SULFIDE (H2S).
5. WHERE COATINGS ARE REQUIRED, ALL COMPONENTS INSIDE AND OUTSIDE OF THE EQUIPMENT EXPOSED TO THE ENVIRONMENT (I.E. NOT CHEMICALLY SCRUBBED OR TREATED) ARE TO BE COATED.
6. ALL SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL, UNLESS NOTED OTHERWISE.
7. DO NOT ROUTE CONDENSATE OR REFRIGERANT OVER ELECTRICAL GEAR.
8. REFRIGERANT PIPING SHALL BE COPPER WITH INSULATION. EXPOSED INSULATED PIPING INDOORS SHALL HAVE PVC JACKETING AND OUTDOOR PIPING SHALL HAVE ALUMINUM JACKETING.
9. SEAL ALL PIPING WALL PENETRATIONS WATERTIGHT.
10. CONDENSATE DRAIN PIPING SHALL BE SOLVENT WELDED PVC WITH DWV FITTINGS. INSULATE INDOOR PIPING PER SPECIFICATION 15895. PAINT EXTERIOR PIPING FOR UV PROTECTION.

AACE
TBPE REG. NO. F-10804

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

STATE OF TEXAS
RICARDO J. AZCARATE
81363
LICENSED PROFESSIONAL ENGINEER
3/5/26

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|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
COGEN BUILDING PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
H-10
101 of 196

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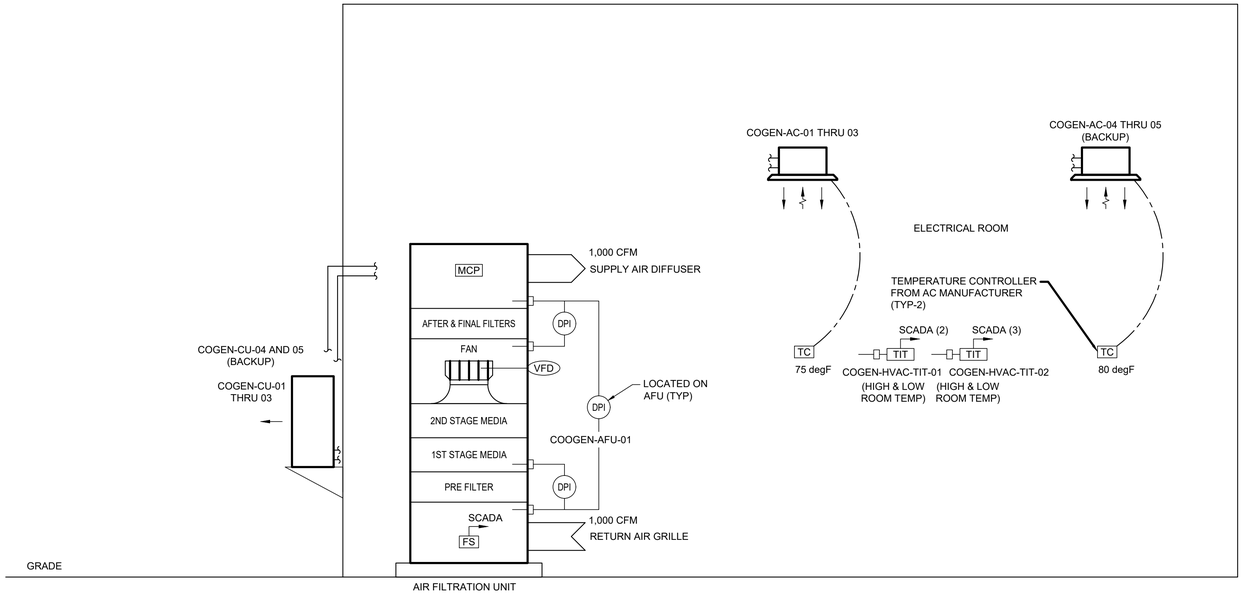


COGEN ELECTRICAL ROOM

## AIRFLOW AND CONTROL SCHEMATIC

N.T.S.

SEQUENCE OF OPERATION - ELECTRICAL ROOM

GENERAL:

1. THE ELECTRICAL ROOM IS AIR-CONDITIONED AND HEATED BY DUCTLESS DX REFRIGERANT SPLIT SYSTEMS.
2. TWO SYSTEMS SHALL BE BACKUP FOR N+1 REDUNDANCY FOR EACH SIDE OF THE ELECTRICAL ROOM.
3. ALL SETPOINTS ARE ADJUSTABLE.
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).
5. ALL TEMPERATURE SETPOINTS, DEADBANDS, DIFFERENTIALS, ETC, SHALL BE FIELD ADJUSTABLE WITHOUT EXTERNAL COMPUTERS OR SOFTWARE.

COOLING SYSTEM:

1. EACH DUCTLESS DX SPLIT SYSTEM SHALL BE CONTROLLED BY ITS OWN WALL MOUNTED TEMPERATURE CONTROLLER.
2. INTERNAL OPERATION AND CONTROL OF EACH DX SPLIT SYSTEM COOLING AND HEATING CONTROL, AND CAPACITY MODULATION, SHALL BE BY THE INTEGRAL MANUFACTURERS CONTROLLER.

SCADA:

1. TEMPERATURE INDICATOR/TRANSMITTER SIGNAL DIRECT TO SCADA. PROGRAM SCADA FOR LOW AND HIGH TEMPERATURE ROOM ALARMS.

HEATING MODE:

1. HEATING IS PRIMARILY PROVIDED TO MAINTAIN MINIMUM ROOM TEMPERATURE IN CASE ELECTRICAL EQUIPMENT IS SHUTDOWN OR NOT PROVIDING SUFFICIENT HEAT LOSS TO THE ROOM.
2. COOLING WILL BE DISABLED IN HEATING MODE.
3. HEATING SHALL CYCLE ON/OFF AS NEEDED TO MAINTAIN ROOM TEMPERATURE SETPOINT. INITIAL SETPOINT SHALL BE 55°F (ADJUSTABLE).

AIR FILTRATION UNIT:

1. FAN SHALL RUN CONTINUOUSLY (24/7) TO FILTER THE AIR IN THE ROOM. FILTRATION IS PROVIDED BY MULTIPLE STAGES OF FILTRATION, INCLUDING TWO-STAGES OF CHEMICAL MEDIA.
2. AIRFLOW SWITCH SHALL SEND FAILURE ALARM TO SCADA.
3. THE DIFFERENTIAL PRESSURE GAGES WILL PROVIDE LOCAL INDICATION OF FILTER STATUS AT THE AFU.

POINT LIST:

POINTS REPORTED TO SCADA (HARD WIRE CONTACTS):

NOTE: (XX) ON SCHEMATIC INDICATES LINE NUMBER BELOW.

1. AIR FILTRATION UNIT FLOW (FROM AFU).
2. ELECTRICAL ROOM WEST SIDE TEMPERATURE SIGNAL (FROM TIT-01).
3. ELECTRICAL ROOM EAST SIDE TEMPERATURE SIGNAL (FROM TIT-02).

AAACE TBPE REG. NO. F-10804
stv TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741
STATE OF TEXAS RICARDO J. AZCARATE 81383 LICENSED PROFESSIONAL ENGINEER 2026-1-16

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|---|---|---|---|

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
COGEN BUILDING - CONTROL SCHEMATIC

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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102 of 196

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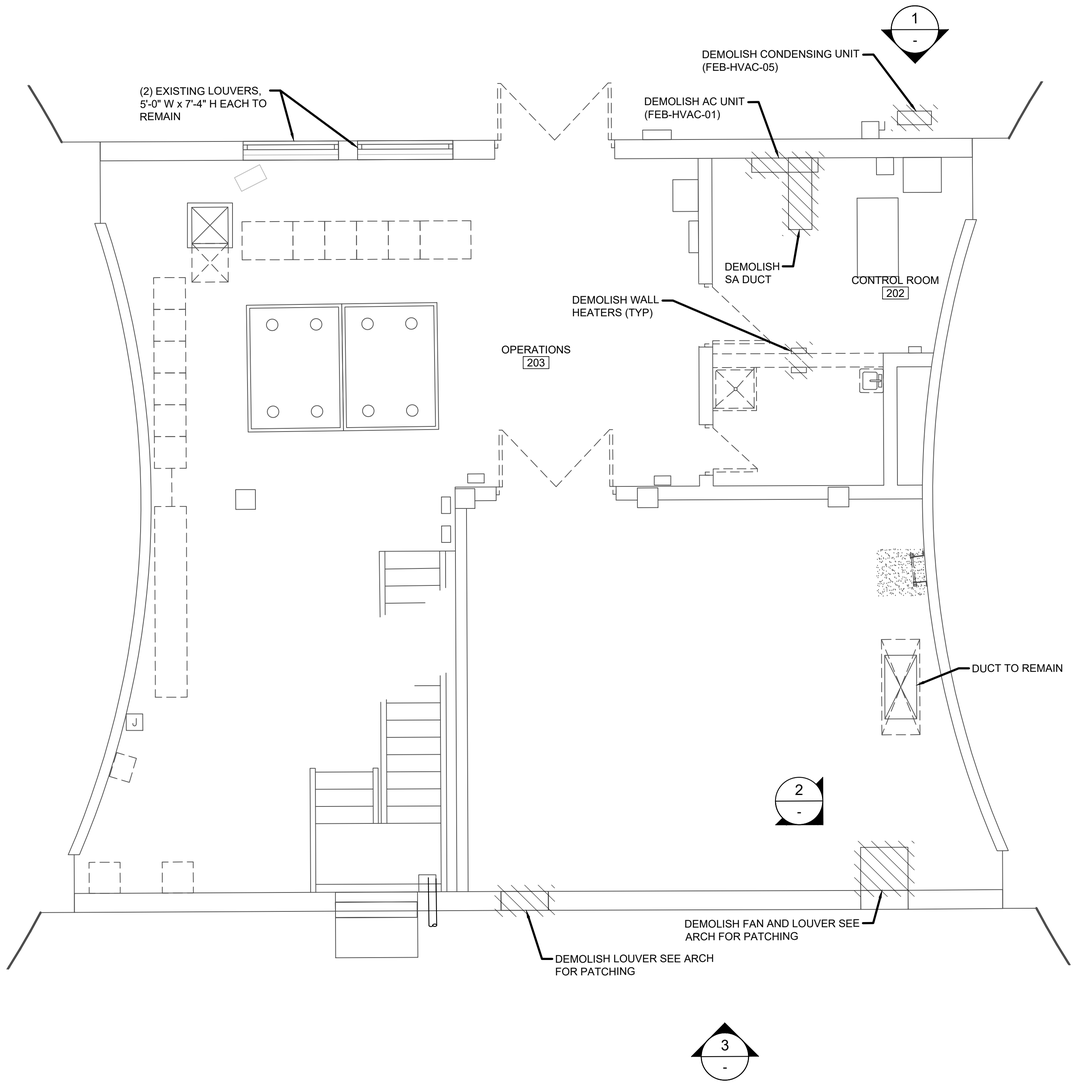
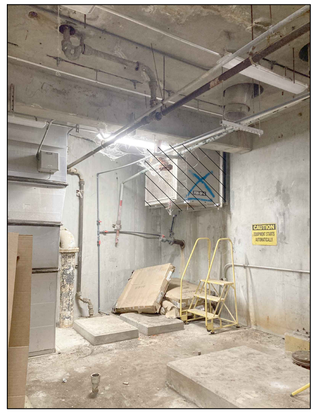



FLOOR PLAN

4 2 0 4
SCALE IN FEET

1 PHOTO



2 PHOTO

3 PHOTO

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TBPE REG. NO. F-10804

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

STATE OF TEXAS
RICARDO J. AZCARATE
81364
LICENSED PROFESSIONAL ENGINEER
2/6/26

| NO. | REVISION | BY | DATE |
|---|---|---|---|

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1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
FEB BUILDING DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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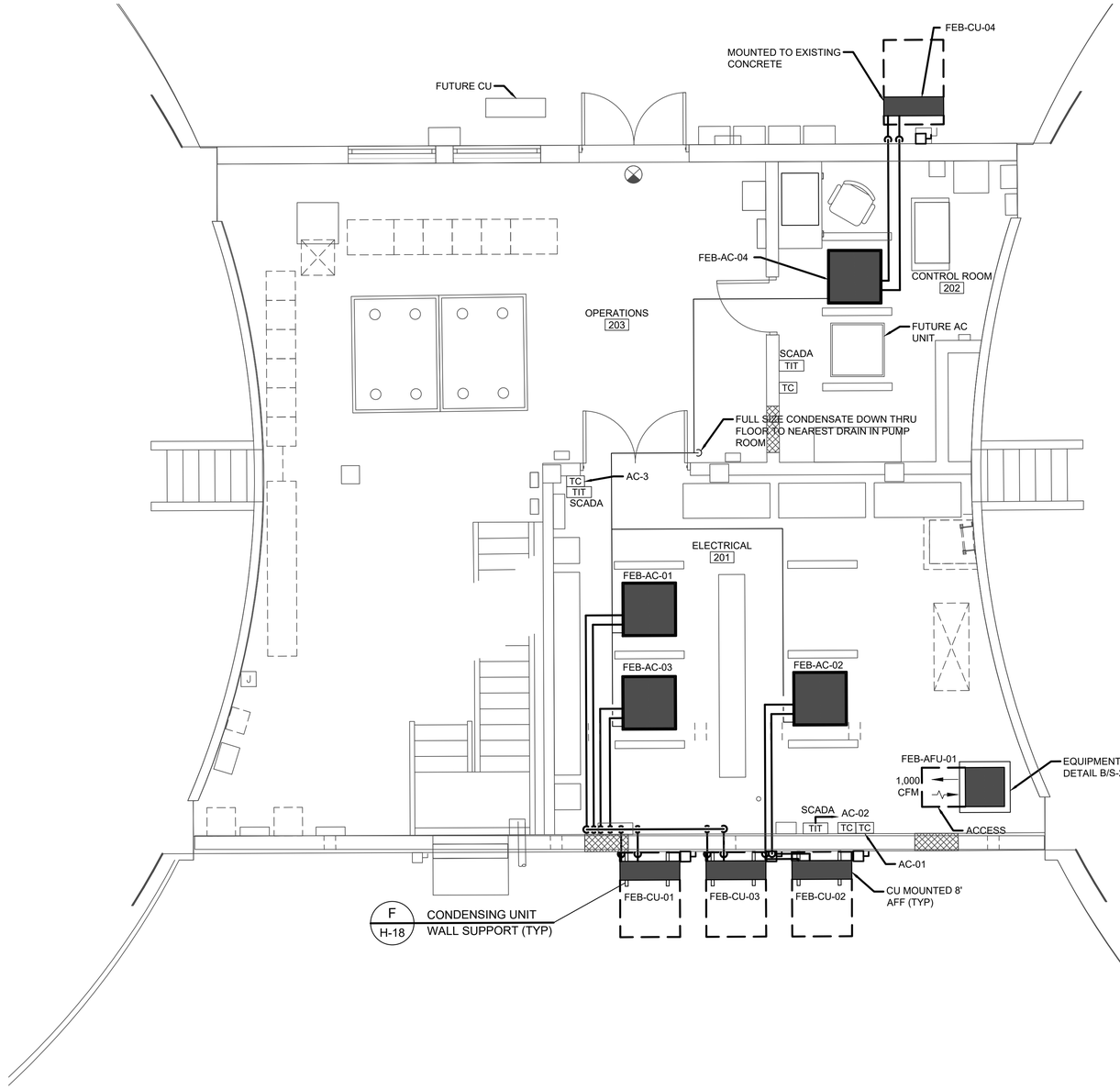


FLOOR PLAN

4 2 0 4

SCALE IN FEET

GENERAL NOTES:

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8. REFRIGERANT PIPING SHALL BE COPPER WITH INSULATION. EXPOSED INSULATED PIPING INDOORS SHALL HAVE PVC JACKETING AND OUTDOOR PIPING SHALL HAVE ALUMINUM JACKETING.
9. SEAL ALL PIPING WALL PENETRATIONS WATERTIGHT.
10. CONDENSATE DRAIN PIPING SHALL BE SOLVENT WELDED PVC WITH DWV FITTINGS. INSULATE INDOOR PIPING PER SPECIFICATION 15895. PAINT EXTERIOR PIPING FOR UV PROTECTION.

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TBPE REG. NO. F-10804

stv
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TBPE F-1741

STATE OF TEXAS
RICARDO J. AZCARATE
81363
LICENSED PROFESSIONAL ENGINEER
2026-01-05

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
FEB BUILDING PLAN

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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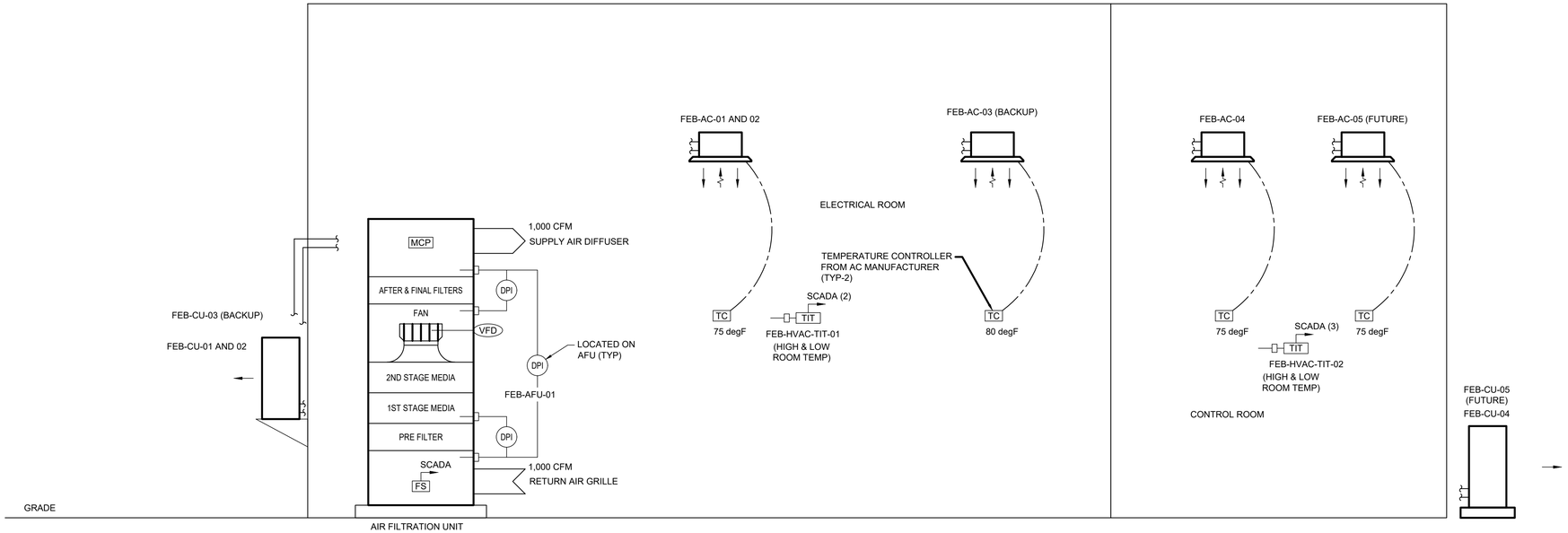


FEB

## AIRFLOW AND CONTROL SCHEMATIC

N.T.S.

SEQUENCE OF OPERATION - ELECTRICAL ROOM

GENERAL:
1. THE ELECTRICAL ROOM IS AIR-CONDITIONED AND HEATED BY DUCTLESS DX REFRIGERANT SPLIT SYSTEMS.
2. TWO SYSTEMS SHALL BE BACKUP FOR N+1 REDUNDANCY FOR EACH SIDE OF THE ELECTRICAL ROOM.
3. ALL SETPOINTS ARE ADJUSTABLE.
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).
5. ALL TEMPERATURE SETPOINTS, DEADBANDS, DIFFERENTIALS, ETC, SHALL BE FIELD ADJUSTABLE WITHOUT EXTERNAL COMPUTERS OR SOFTWARE.

COOLING SYSTEM:
1. EACH DUCTLESS DX SPLIT SYSTEM SHALL BE CONTROLLED BY ITS OWN WALL MOUNTED TEMPERATURE CONTROLLER.
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HEATING MODE:
1. HEATING IS PRIMARILY PROVIDED TO MAINTAIN MINIMUM ROOM TEMPERATURE IN CASE ELECTRICAL EQUIPMENT IS SHUTDOWN OR NOT PROVIDING SUFFICIENT HEAT LOSS TO THE ROOM.
2. COOLING WILL BE DISABLED IN HEATING MODE.
3. HEATING SHALL CYCLE ON/OFF AS NEEDED TO MAINTAIN ROOM TEMPERATURE SETPOINT. INITIAL SETPOINT SHALL BE 55°F (ADJUSTABLE).

AIR FILTRATION UNIT:
1. FAN SHALL RUN CONTINUOUSLY (24/7) TO FILTER THE AIR IN THE ROOM. FILTRATION IS PROVIDED BY MULTIPLE STAGES OF FILTRATION, INCLUDING TWO-STAGES OF CHEMICAL MEDIA.
2. AIRFLOW SWITCH SHALL SEND FAILURE ALARM TO SCADA.
3. THE DIFFERENTIAL PRESSURE GAGES WILL PROVIDE LOCAL INDICATION OF FILTER STATUS AT THE AFU.

SEQUENCE OF OPERATION - CONTROL ROOM

GENERAL:
1. THE CONTROL ROOM IS AIR-CONDITIONED AND HEATED BY A DUCTLESS DX REFRIGERANT SPLIT SYSTEM.
2. ALL SETPOINTS ARE ADJUSTABLE.
3. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).
4. ALL TEMPERATURE SETPOINTS, DEADBANDS, DIFFERENTIALS, ETC, SHALL BE FIELD ADJUSTABLE WITHOUT EXTERNAL COMPUTERS OR SOFTWARE.

COOLING SYSTEM:
1. EACH DUCTLESS DX SPLIT SYSTEM SHALL BE CONTROLLED BY ITS OWN WALL MOUNTED TEMPERATURE CONTROLLER.
2. INTERNAL OPERATION AND CONTROL OF EACH DX SPLIT SYSTEM COOLING AND HEATING CONTROL, AND CAPACITY MODULATION, SHALL BE BY THE INTEGRAL MANUFACTURERS CONTROLLER.

HEATING MODE:
1. COOLING WILL BE DISABLED IN HEATING MODE.
2. HEATING SHALL CYCLE ON/OFF AS NEEDED TO MAINTAIN ROOM TEMPERATURE SETPOINT. INITIAL SETPOINT SHALL BE 55°F (ADJUSTABLE).

POINT LIST:

POINTS REPORTED TO SCADA (HARD WIRE CONTACTS):
NOTE: (XX) ON SCHEMATIC INDICATES LINE NUMBER BELOW.
1. AIR FILTRATION UNIT FLOW (FROM AFU).
2. ELECTRICAL ROOM TEMPERATURE SIGNAL (FROM TIT-01).
3. CONTROL ROOM TEMPERATURE SIGNAL (FROM TIT-02).

AAACE TBPE REG. NO. F-10804

STV TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

STATE OF TEXAS · RICARDO J. AZCARATE · 81383 · LICENSED PROFESSIONAL ENGINEER · 2025-11-05

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
FEB BUILDING CONTROL SCHEMATIC

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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H-14
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## AIR FILTRATION UNIT SCHEDULE

| EQUIPMENT TAG NUMBER | AFU-01 | AFU-02 | |
|---|---|---|---|
| BUILDING | FEB | COGEN BUILDING | |
| ROOM | ELECTRICAL ROOM | ELECTRICAL ROOM | |
| UNIT TYPE | PACKAGED INDOOR | PACKAGED INDOOR | |
| UNIT CONFIGURATION | VERTICAL UPFLOW | VERTICAL UPFLOW | |
| TOTAL (SUPPLY) CFM | 1,000 | 1,000 | |
| PRESSURIZATION (OUTSIDE) AIR CFM | 0 | 0 | |
| RECIRCULATION (RETURN) AIR CFM | 1,000 | 1,000 | |
| PRIMARY GAS CONTAMINANT | H2S | H2S | |
| CONTAMINANT CONCENTRATION, PPB | - | - | |
| UNIT SIZE, W X D X H, IN | 27x27x87 | 27x27x87 | |
| ENTERING TEMP. RANGE, DEG F | 40-86 | 40-86 | |
| ENTERING RELATIVE HUMIDITY, % | 30-60 | 30-60 | |
| SOUND DATA, DBA | 63 | 63 | |
| OPERATING WEIGHT, LBS | 900 | 900 | |
| MANUFACTURER | CIRCUL-AIRE | CIRCUL-AIRE | |
| MODEL NUMBER | APS-1000-V | APS-1000-V | |
| PREFILTER | | | |
| EFFICIENCY, % | 30 | 30 | |
| UNIT SIZE, L X W X D, IN | 24X24X2 | 24X24X2 | |
| FILTER MANUFACTURER | FARR | FARR | |
| FILTER MODEL NUMBER | 30/30 | 30/30 | |
| ODOR FILTERS | | | |
| ODOR FILTER STAGES | 2 | 2 | |
| ODOR FILTER MEDIA (1ST STAGE) | CIRCUL-AIRE MM-9000 | CIRCUL-AIRE MM-9000 | |
| MEDIA MODULE (1ST STAGE) | MM-12B | MM-12B | |
| MEDIA QUANTITY (1ST STAGE), CU FT | 2 | 2 | |
| MEDIA DENSITY (1ST STAGE), LB/CU FT | 36 | 36 | |
| H2S ADSORPTION CAPACITY, G/CC | 0.16 | 0.16 | |
| ODOR FILTER MEDIA (2ND STAGE) | CIRCUL-AIRE MM-1000 | CIRCUL-AIRE MM-1000 | |
| MEDIA MODULE (2ND STAGE) | MM-12B | MM-12B | |
| MEDIA QUANTITY (2ND STAGE), CU FT | 2 | 2 | |
| MEDIA DENSITY (2ND STAGE), LB/CU FT | 50 | 50 | |
| H2S ADSORPTION CAPACITY, G/CC | 0.1 | 0.1 | |
| AFTER FILTER | | | |
| EFFICIENCY, % | 30 | 30 | |
| UNIT SIZE, L X W X D, IN | 24X24X2 | 24X24X2 | |
| FILTER MANUFACTURER | FARR | FARR | |
| FILTER MODEL NUMBER | 30/30 | 30/30 | |
| FINAL FILTER | | | |
| EFFICIENCY, % | 60 | 60 | |
| UNIT SIZE, L X W X D, IN | 24X24X6 | 24X24X6 | |
| FILTER MANUFACTURER | FARR | FARR | |
| FILTER MODEL NUMBER | RIGAFLO 15 | RIGAFLO 15 | |
| FAN | | | |
| AIRFLOW, CFM | 1000 | 1000 | |
| EXTERNAL SP, IN WG | 0.4 | 0.4 | |
| TOTAL SP, IN WG | BY VENDOR | BY VENDOR | |
| FAN MOTOR, HP | 3 | 3 | |
| MOTOR ENCLOSURE | TEFC | TEFC | |
| CONTROL PANEL | NEMA 12 | NEMA 12 | |
| ELECTRICAL | | | |
| VOLTS/PHASE/HERTZ | 460/3/60 | 460/3/60 | |
| NOTES | 1,2 | 1,2 | |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15856.
B. EXTERNAL STATIC PRESSURE INDICATED ABOVE DOES NOT INCLUDE INTERNAL COMPONENTS. VENDOR SHALL ADD 0.8 IN WG FOR DIRTY FILTER LOADING AT PARTICULATE FILTERS WHEN SELECTING FAN MOTOR SIZE.
C. PROVIDE INTEGRAL MOTOR STARTER AND CONTROLLER FROM FACTORY READY FOR SINGLE POINT CONNECTION IN THE FIELD.
D. PROVIDE OUTPUT TERMINALS FOR "RUN STATUS", "FAULT", AND "FLOW".
E. DISCONNECTS PROVIDED BY ELECTRICAL.
F. REFER TO PLANS FOR CONTROLS ACCESS SIDE (E.G. FRONT FACING OR SIDE) AND PROVIDE REQUIRED MFR AND NEC CLEARANCES.

NOTES:

1. PROVIDE SYSTEM AND FILTER MONITORING PACKAGE, DPMS-3.
2. PROVIDE HIGH EFFICIENCY MOTOR.

## AIR CONDITIONING UNIT SCHEDULE (DUCTLESS SPLIT SYSTEMS)

| AIR CONDITIONER TAG NUMBER | COGEN-AC-01 THRU 05 | FEB-AC-01 THRU 03 | FEB-AC-04 |
|---|---|---|---|
| BUILDING | COGEN BUILDING | FEB BUILDING | FEB BUILDING |
| AREA SERVED | ELECTRICAL ROOM | ELECTRICAL ROOM | CONTROL ROOM |
| UNIT TYPE | SPLIT DX | SPLIT DX | SPLIT DX |
| UNIT CONFIGURATION | 4-WAY | 4-WAY | 4-WAY |
| MOUNTING | CEILING-CASSETTE | CEILING-CASSETTE | CEILING-CASSETTE |
| FAN CONFIGURATION | MFR. STD. | MFR. STD. | MFR. STD. |
| ALTITUDE, FT. ABOVE SEA LEVEL | 20 (APPROX) | 20 (APPROX) | 20 (APPROX) |
| NOMINAL TONS | 3 | 3 | 1.5 |
| SUPPLY FAN: | | | |
| FAN TYPE | CENTRIFUGAL | CENTRIFUGAL | CENTRIFUGAL |
| TOTAL AIRFLOW, CFM (H/M/L) | 670-850-1020-1200 | 670-850-1020-1200 | 460-490-570-600 |
| MIN. OUTSIDE AIR, CFM | NONE | NONE | NONE |
| FAN CONTROL | 4-SPEED | 4-SPEED | 4-SPEED |
| DRIVE TYPE | DIRECT | DIRECT | DIRECT |
| COOLING COIL: | | | |
| ENT. AIR TEMP. DB/WB, DEG F | 80/67 | 80/67 | 80/67 |
| APPROX. LVG. AIR TEMP. DB/WB, DEG F | 55/54 | 55/54 | 55/54 |
| TOTAL COOLING CAPACITY, MBH | 36.0 | 36.0 | 14.5 |
| SENSIBLE CAPACITY, MBH | 28.98 | 28.98 | 14.0 |
| CALCULATED SENSIBLE LOAD, MBH | 22.2 | 22.2 | 12.9 |
| HEATING: | | | |
| TYPE | HEAT PUMP | HEAT PUMP | HEAT PUMP |
| RATED CAPACITY, MBH | 23.6 | 23.6 | N/A |
| REFRIGERANT TYPE | R454B | R454B | R454B |
| FILTERS | MFR STD | MFR STD | MFR STD |
| REFRIGERANT LIQUID PIPE SIZE, IN | 3/8 | 3/8 | 1/4 |
| REFRIGERANT GAS PIPE SIZE, IN | 5/8 | 5/8 | 1/2 |
| DRAIN PIPE SIZE | 1-1/4 | 1-1/4 | 1-1/4 |
| ELECTRICAL: | NOTE 1 | NOTE 1 | NOTE 1 |
| VOLTS/PHASE/HERTZ | 208/1/60 | 230/1/60 | 230/1/60 |
| MINIMUM CIRCUIT AMPACITY, MCA | 2 | 2 | 1 |
| OPERATING WEIGHT, LBS | 57 | 57 | 50 |
| MANUFACTURER | MITSUBISHI | MITSUBISHI | MITSUBISHI |
| MODEL NUMBER | PLA-AE36NL | PLA-AE36NL | PLA-AE18NL |
| ASSOCIATED CONDENSING UNITS | COGEN-CU-01 THRU 05 | FEB-CU-01 THRU 03 | FEB-CU-04 |
| NOTES | 1 | 1 | 1 |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15857.
B. PROVIDE WIRED WALL MOUNTED CONTROLLER.
C. PROVIDE MANUFACTURER STANDARD CONDENSATE PUMP AND HIGH WATER CUTOFF.
D. PROVIDE WITH EEV KITS PER MANUFACTURER.

NOTES:

1. INDOOR UNIT IS POWERED BY OUTDOOR CONDENSING UNIT. FIELD WIRING/CONDUIT BY DIV.16.

## CONDENSING UNIT SCHEDULE (DUCTLESS SPLIT SYSTEMS)

| CONDENSING UNIT TAG NUMBER | COGEN-CU-01 THRU 05 | FEB-CU-01 THRU 03 | FEB-CU-04 |
|---|---|---|---|
| BUILDING | BELT PRESS BUILDING | BELT PRESS BUILDING | CHEMICAL FACILITIES |
| AREA SERVED | ELECTRICAL ROOM | ELECTRICAL ROOM | ELECTRICAL ROOM |
| UNIT TYPE | AIR-COOLED | AIR-COOLED | AIR-COOLED |
| UNIT CONFIGURATION | HORIZONTAL | HORIZONTAL | HORIZONTAL |
| MOUNTING | PAD MOUNTED | PAD MOUNTED | PAD MOUNTED |
| AMBIENT TEMP. RATING DEG F. MAX. | 110 | 110 | 110 |
| AMBIENT TEMP. RATING DEG F. MIN. | 20 | 20 | 20 |
| NOMINAL TONS | 3.0 | 3.0 | 1.5 |
| GROSS COOLING CAPACITY, MBH | 36.0 | 36.0 | 18.0 |
| GROSS HEATING CAPACITY, MBH | 40.0 | 40.0 | N/A |
| VOLTS/PHASE/HERTZ | 208/1/60 | 230/1/60 | 230/1/60 |
| ELECTRICAL MCA, AMPS | 34 | 34 | 16 |
| ELECTRICAL MOCP, AMPS | 56 | 56 | 27 |
| MANUFACTURER | TRANE/MITSUBISHI | TRANE/MITSUBISHI | TRANE/MITSUBISHI |
| MODEL NUMBER | PUZ-AK36NL | PUZ-AK36NL | PUZ-AK18NL |
| COMPRESSOR TYPE | SCROLL | SCROLL | SCROLL |
| REFRIGERANT TYPE | R454B | R454B | R454B |
| COOLING SEER | 23.3 | 23.3 | 24.7 |
| COOLING EER @ 95 DEG.F. | 13.7 | 13.7 | 13.7 |
| MOTOR HP | MFR. STD. | MFR. STD. | MFR. STD. |
| OPERATING WEIGHT, LBS | 215 | 215 | 100 |
| NOTES: | 1 | 1 | 1 |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15857.
B. PROVIDE LOW AMBIENT CONTROL WIND BAFFLE FOR OPERATION DOWN TO 0 DEG.F..
C. UNIT SHALL HAVE SPECIAL COATINGS ON UNIT, INSIDE AND OUT, INCLUDING CONDENSER COIL AND TUBES. COATINGS SHALL RESIST HYDROGEN SULFIDE.

NOTES:

1. INDOOR UNIT IS POWERED BY OUTDOOR CONDENSING UNIT, FIELD WIRING/CONDUIT BY DIV. 16.

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TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741
RICARDO J. AZCARATE
81786
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
2026

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
0 1" DRAWING. VERIFY LENGTH ON THIS SHEET
AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC
SCHEDULES I

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## EXHAUST FAN SCHEDULE

| EQUIPMENT TAG NUMBER | SCR-OC-01 | SCR-OC-02 | COGEN-EF-01 |
|---|---|---|---|
| BUILDING | NEW HEADWORKS | NEW HEADWORKS | COGEN |
| AREA SERVED | HEADWORKS ODOR CONTROL | HEADWORKS ODOR CONTROL | MECHANICAL |
| UNIT CONFIGURATION | CENTRIFUGAL PAD MOUNTED | CENTRIFUGAL PAD MOUNTED | ROOF MOUNTED |
| DISCHARGE | CW/BH | CCW/BH | UPBLAST |
| ALTITUDE, FT. ABOVE SEA LEVEL | 500 | 500 | 500 |
| FAN MATERIAL OF CONSTRUCTION | FRP | FRP | ALUMINUM |
| FAN TYPE | SWSI BACKWARD CURVED | SWSI BACKWARD CURVED | CENTRIFUGAL |
| AIRFLOW, CFM | 1,000 | 1,000 | 4,500 |
| EXTERNAL STATIC PRESSURE, IN. WG | 0.4 (Suction) + 4.5 (Discharge) | 0.4 (Suction) + 4.5 (Discharge) | 0.375 |
| AIR STREAM TEMP RANGE, DEG F | 40-110 | 40-110 | 70-110 |
| FAN RPM | 3,260 | 3,260 | 925 |
| DRIVE TYPE | BELT | BELT | DIRECT |
| MOTOR BHP | 1.62 (Operating) / 1.89 (Cold) | 1.62 (Operating) / 1.89 (Cold) | |
| MOTOR NOMINAL HP | 3.0 | 3.0 | 0.5 |
| MOTOR RPM | 3,450 | 3,450 | 1,140 |
| MOTOR ENCLOSURE | TEFC-IEE841 | TEFC-IEE841 | TEFC |
| FAN CONTROL | CONSTANT VOLUME | CONSTANT VOLUME | VARIABLE |
| VOLTS/PHASE/HERTZ | 460/3/60 | 460/3/60 | 460/3/60 |
| RADIATED SOUND PRESS.(dBA @ 5 FT) | 78 | 78 | 64 |
| VIBRATION ISOLATORS | MFG. STD. | MFG. STD. | MFG. STD. |
| ROOF/WALL OPENING SIZE, IN X IN | N/A | N/A | 30x30 |
| OPERATING WEIGHT, LBS | 340 | 340 | 181 |
| MANUFACTURER | HARTZELL | HARTZELL | GREENHECK |
| MODEL NUMBER | A41-9-122FA-66FGI8KS-57KE | A41-9-122FA-66FGI8KS-57KE | CUE-200-VG |
| NOTES | 1,2,3,4,5 | 1,2,3,4,5 | 8 |
| CONTROLS NOTES | C1 | C1 | C1 |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15500, 15860, & 15861.

B. PROVIDE WITH SINGLE POINT POWER CONNECTION.

C. ALL FAN MOTORS SHALL HAVE SPACE HEATERS.

NOTES:

1. PROVIDE WITH SEVERE DUTY MOTOR (IEEE841).
2. PROVIDE WITH 316 STAINLESS STEEL BASE FRAME AND HARDWARE.
3. FAN AND MOTOR SHALL BE RATED FOR CLASS I DIV 2 ENVIRONMENT.
4. PROVIDE MOTOR WITH MOTOR HEATER.
5. PROVIDE SUBBASE WITH ARRANGEMENT 1 MOTOR POSITION (MOUNTED ON BASE).
6. PROVIDE SUBBASE WITH ARRANGEMENT 9 MOTOR POSITION.
7. RATED TO SUPPORT 6FT. TALL DISCHARGE STACK. (NOT REQUIRED)
8. PROVIDE WITH ALUMINUM GRAVITY BACKDRAFT DAMPER WITH 304 SSTL LINKAGES. PROVIDE COATINGS FOR H2S.

CONTROLS NOTES:

PROVIDE FAN CONTROL AS INDICATED BELOW AND IN ACCORDANCE WITH HVAC SEQUENCE OF OPERATION.
CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES TO PROVIDE CONTROL INDICATED BELOW.

C1 HAND-OFF-AUTO CONTROL BY DIV 16.

## RECIRCULATION FAN SCHEDULE

| EQUIPMENT TAG NUMBER | RF-01 THRU 4 | | |
|---|---|---|---|
| AREA SERVED | HEADWORKS CANOPY | | |
| SERVICE | RECIRCULATION | | |
| UNIT CONFIGURATION | INLINE | | |
| ALTITUDE, FT. ABOVE SEA LEVEL | 3,663 | | |
| FAN MATERIAL OF CONSTRUCTION | ALUMINUM | | |
| FAN TYPE | PROPELLER | | |
| AIRFLOW, CFM | 3,430 | | |
| TOTAL STATIC PRESSURE, IN. WG | N/A | | |
| AIR STREAM TEMP RANGE, DEG F | 50-110 | | |
| MAXIMUM FAN RPM | 1,200 | | |
| DRIVE TYPE | DIRECT | | |
| MOTOR HP | 1/4 | | |
| MOTOR RPM | 1,200 | | |
| MOTOR ENCLOSURE | TEFC | | |
| FAN SPEED CONTROL | CONSTANT | | |
| VOLTS/PHASE/HERTZ | 120/1/60 | | |
| SOUND DATA (DBA @ 5 FT. RADIUS) | 64 | | |
| VIBRATION ISOLATORS | MFG. STD. | | |
| OPERATING WEIGHT, LBS | 200 | | |
| MANUFACTURER | AEROVENT | | |
| MODEL NUMBER | PUM21L4 | | |
| NOTES | 1, 2, 3 | | |
| CONTROLS NOTES | C1 | | |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15860.

B. PROVIDE WITH SINGLE POINT POWER CONNECTION.

NOTES:

1. PROVIDE WITH PREMIUM EFFICIENCY TEFC MOTOR.
2. PROVIDE WITH MANUFACTURER'S 'PEDESTAL MOUNT' FOR WALL MOUNTING AND OSHA GUARDS.
3. PROVIDE WITH ALL ALUMINUM CONSTRUCTION AND 304 SSTL HARDWARE.

CONTROLS NOTES:

PROVIDE FAN CONTROL AS INDICATED BELOW AND IN ACCORDANCE WITH HVAC SEQUENCE OF OPERATION.
CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES TO PROVIDE CONTROL INDICATED BELOW.

C1 LOCAL MOTOR-RATED SWITCH BY ELECTRICAL.

## ELECTRIC UNIT HEATER SCHEDULE

| EQUIPMENT TAG NUMBER | COGEN-UH-01 AND 02 | |
|---|---|---|
| BUILDING | COGEN BUILDING | |
| ROOM SERVED | MECHANICAL 005 | |
| TOTAL CAPACITY, KW PER HEATER | 5.0 | |
| AIRFLOW, CFM | 700 | |
| AIR THROW, FT | 26 | |
| AIR TEMP RISE, DEG F | 24 | |
| FAN TYPE | PROPELLER | |
| MOTOR ENCLOSURE | TEFC | |
| TERMINAL ENCLOSURE | NEMA 4X | |
| RATING | WASHDOWN CORROSION RESISTANT | |
| VOLTS/PHASE/HERTZ PER HEATER | 460/3/60 | |
| TOTAL CURRENT DRAW, AMPS | 12 | |
| EMERGENCY POWER | NO | |
| OPERATING WEIGHT, LBS | 60 | |
| MANUFACTURER | TRIAD | |
| MODEL NUMBER | 234-U11N-005U-L | |
| CONTROLS NOTES | C1 | |

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15550.

B. PROVIDE CLEARANCES PER MANUFACTURER.

C. UNIT SHALL BE MOUNTED AT 8'-0" UNLESS NOTED OTHERWISE.

NOTES:

1. UNIT SHALL BE SINGLE POINT ELECTRICAL CONNECTION WITH INTEGRAL TRANSFORMER FOR UNIT CONTROLS. DISCONNECT BY ELECTRICAL.
2. PROVIDE WITH SWIVEL BRACKET FOR WALL OR CEILING MOUNTING AS INDICATED ON PLANS.
3. HEATING ELEMENTS SHALL BE 316 STAINLESS STEEL.
4. PROVIDE WITH REMOTE MOUNTED NEMA4X THERMOSTAT AND AUTO RESET THERMAL CUTOUT.

CONTROLS NOTES:

C1. UNIT SHALL RUN INTERMITTENTLY, TURNING ON/OFF BASED ON ROOM THERMOSTAT SETPOINT.

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|---|---|---|---|

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC SCHEDULES II

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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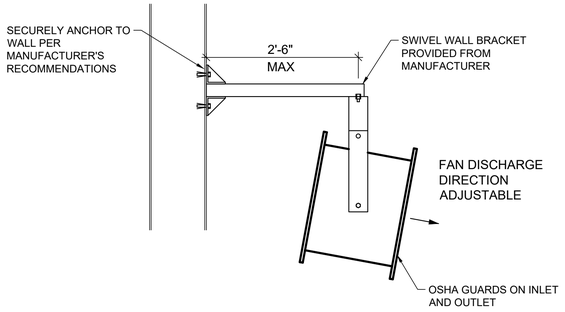
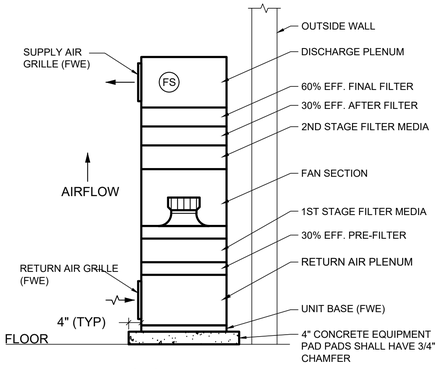
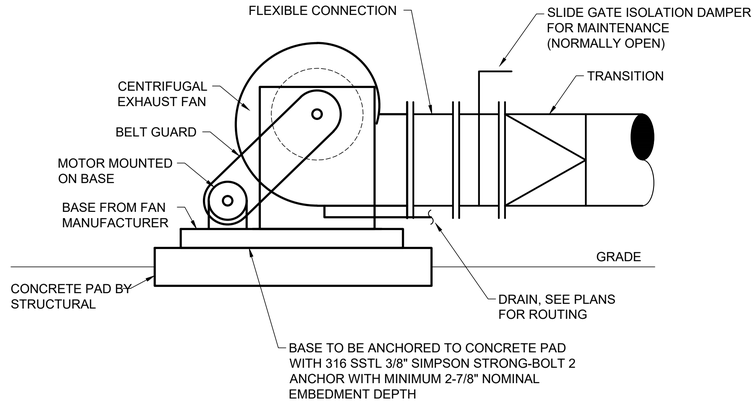



## A RECIRCULATION FAN
NTS



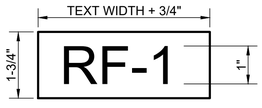

NOTES:
1. FWE - FURNISHED WITH EQUIPMENT.

## B POSITIVE PRESSURIZATION /FILTRATION UNIT (PPU)
NTS



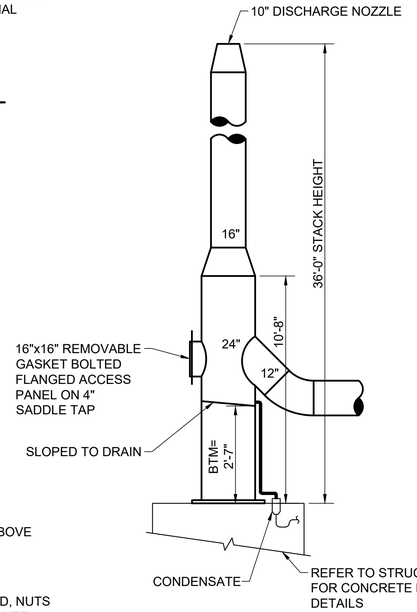

NOTES:
1. FAN MATERIAL SHALL BE ALL FRP WITH 316 STAINLESS BASE. REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. SUPPORTS AND FASTENERS SHALL BE 316 SSTL.

## C CENTRIFUGAL FAN
NTS



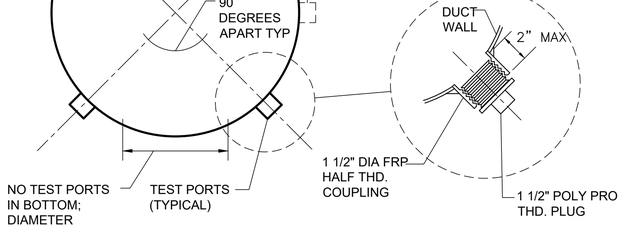

NOTE:
1. PROVIDE ON ALL HVAC EQUIPMENT AS LABELED ON PLANS AND SCHEDULES.
2. SIMILAR FOR AHU, PPU, EF, AC & CU.

## F EQUIPMENT LABELS
NTS




STACK NOTES:
1. STACK SHALL BE ALL FRP CONSTRUCTION.
2. STACK SHALL BE SELF SUPPORTING WITH BASE PLATE FOR ANCHORING TO CONCRETE BASE.
2. PROVIDE WITH SLOPED BOTTOM AND 1" DRAIN OUTLET.
3. REFER TO STRUCTURAL FOR CONCRETE BASE DETAILS.
4. CONTRACTOR SHALL COORDINATE STACK CONNECTION SIZE WITH MANUFACTURER AND PROVIDE TRANSITION.
5. CONTRACTOR SHALL PROVIDE DETAILED SHOP FABRICATION DRAWINGS.

## H BYPASS STACK
NTS







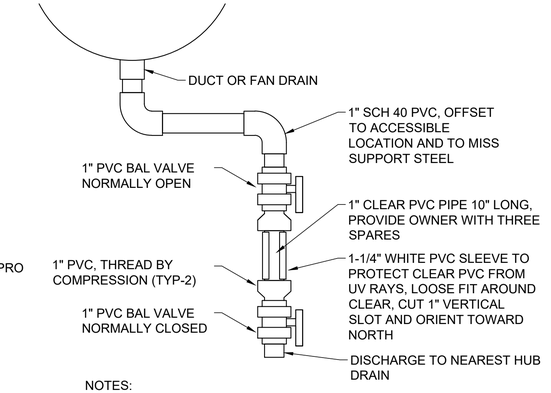
NOTES:

1. FOR DUCTS OVER 48" DIA. PROVIDE 4 PORTS, 90 DEGREES APART.

2. LOCATE AND POSITION TEST PORTS IN ACCESSIBLE LOCATIONS FOR A PERSON WITH A PITOT TUBE. IN SOME CASES THE TEST PORTS MAY NEED TO BE ON THE TOP OR THE SIDE.

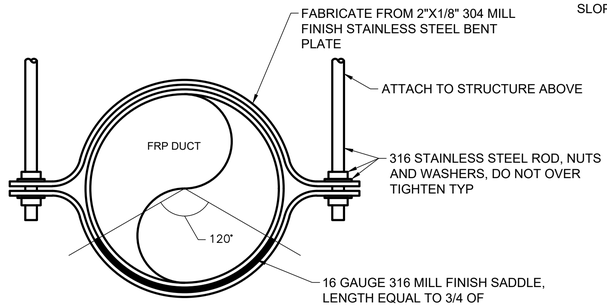
3. LOCATION OF TEST PORTS SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF AABC & NEBB.

## D TEST PORTS FOR FRP DUCT
NTS




NOTES:
1. PROVIDE AT EACH FAN DRAIN AND AT INLET DUCT TO EACH FAN BEFORE TRANSITION.

## E CONDENSATE DRAIN FOR DUCT OR FAN
NTS




## G DUCT HANGER FOR FRP
NTS

AAACE TBPE REG. NO. F-10804

STV TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

STATE OF TEXAS RICARDO J. ZAMARRIPA 81363 LICENSED PROFESSIONAL ENGINEER 2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY. 0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC DETAILS I

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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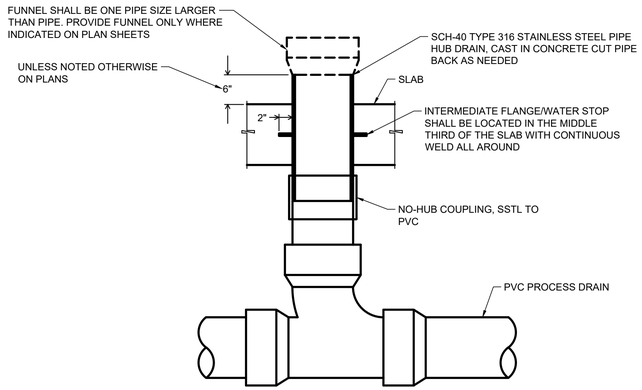
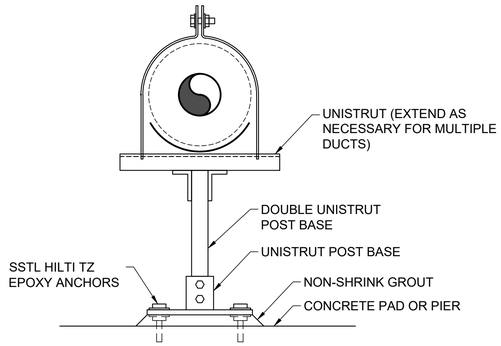



NOTES:

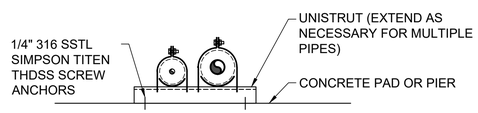
1. REFER TO PLANS FOR REQUIRED PIPE SIZES

## A PROCESS HUB DRAIN
N.T.S.



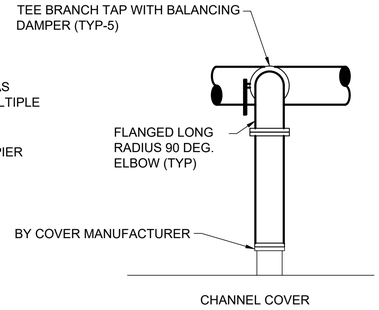

NOTES:
1. FABRICATE FROM 316 MILL FINISH STAINLESS STEEL.

## B SUPPORT FOR EXTERIOR HORIZONTAL PIPING
NTS



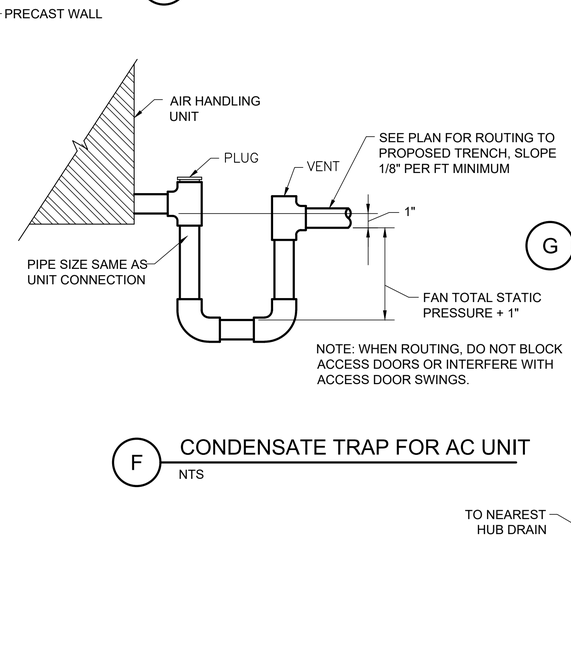

NOTES:
1. FABRICATE FROM 316 MILL FINISH STAINLESS STEEL.

## C SUPPORT FOR EXTERIOR HORIZONTAL PIPING
NTS




NOTE:
1. SUPPORTS, FASTENERS, AND HARDWARE SHALL BE 316 SSTL.
2. DUCT AND FITTINGS SHALL BE FLANGED FOR MAINTENANCE REMOVAL.
3. NUMBER, SIZE, AND LOCATION OF DUCT CONNECTIONS WILL VARY BETWEEN CENTRIFUGE MANUFACTURERS. DUCT LAYOUT WILL BE AFFECTED. CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS AND SUBMIT FOR ENGINEER'S REVIEW AT NO ADDITIONAL COST TO THE OWNER.

## D ODOR CONTROL DROP CONNECTION
NTS

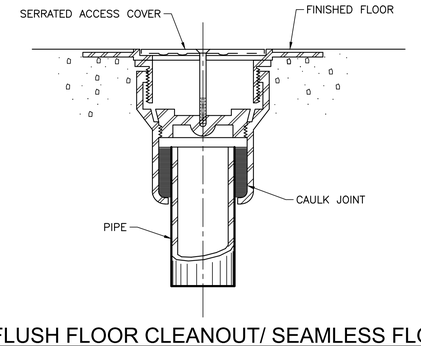



## E CONDENSING UNIT WALL SUPPORT
NTS

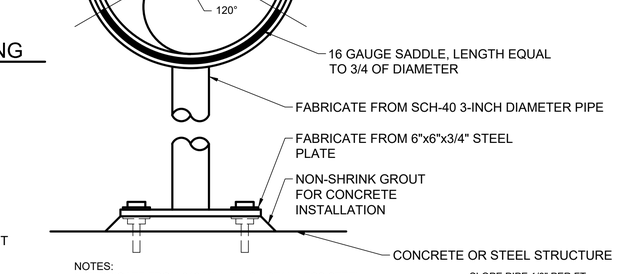



NOTE: WHEN ROUTING, DO NOT BLOCK ACCESS DOORS OR INTERFERE WITH ACCESS DOOR SWINGS.

## F CONDENSATE TRAP FOR AC UNIT
NTS



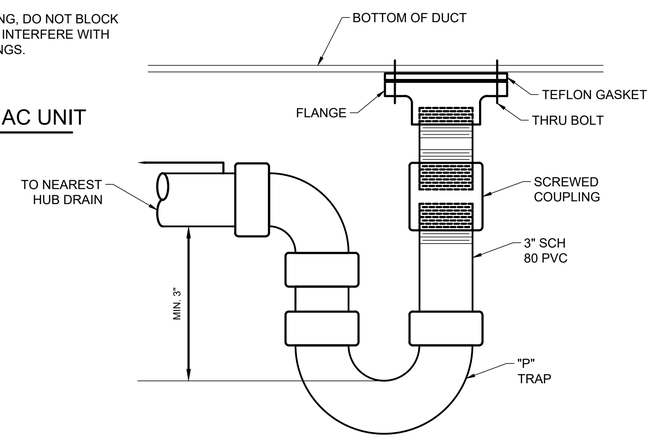

## G FLUSH FLOOR CLEANOUT/ SEAMLESS FLOORING
N.T.S.




NOTES:
1. FABRICATE FROM 316 MILL FINISH STAINLESS STEEL.

2. ALL WELDED CONSTRUCTION, COAT WELDS WITH GALVANIZED PAINT.

## H DUCT SUPPORT FOR FRP
NTS




NOTES:

1. TO BE USED IN ABOVE GROUND DUCTWORK OR AT FANS.

## I DUCT SUPPORT FOR FRP
NTS

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STATE OF TEXAS RICARDO J. ZAMARRIPA 81783 LICENSED PROFESSIONAL ENGINEER 2026-03-05

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC DETAILS II

| | |
|---|---|
| DESIGN: | RJA |
| DRAWN: | MKA |
| REVIEW: | TPG |
| CP&Y: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## ONE LINE DIAGRAMS-1

| SYMBOL | DESCRIPTION |
|---|---|
| OR | STRESS CONE |
| | NEMA RATED ACROSS THE LINE STARTERS |
| | THERMAL OVERLOAD RELAY |
| | CIRCUIT BREAKER - THERMAL MAGNETIC 3 POLE UNLESS INDICATED OTHERWISE CONTINUOUS AMP TRIP SETTING INDICATED |
| 100A | SWITCH - CURRENT RATING INDICATED. 3 POLE UNLESS INDICATED OTHERWISE |
| 800AF/600AT | DRAWOUT AIR CIRCUIT BREAKER LOW VOLTAGE. FRAME SIZE AND TRIP SETTING INDICATED. |
| 1200A 52 | DRAWOUT AIR OR VACUUM CIRCUIT BREAKER. (VCB) MEDIUM VOLTAGE. FRAME SIZE INDICATED. |
| ATS | ATS = AUTOMATIC TRANSFER SWITCH<br>MTS = MANUAL TRANSFER SWITCH |
| | MEDIUM VOLTAGE<br>VACUUM INTERRUPTER |
| 10 | MOTOR, SQUIRREL CAGE INDUCTION-HORSEPOWER INDICATED ON ONE LINE. NUMBER INDICATES HORSEPOWER. |
| G | GENERATOR, KW/KVA RATING SHOWN |
| | GROUND CONNECTION |
| 10 | CAPACITOR - KVAR INDICATED |
| | FUSE |
| $ $ $ | PADMOUNT SWITCH VACUUM FAULT INTERUPTER |
| 400 400 | CIRCUIT BREAKER WITH CURRENT LIMITING FUSES, TRIP AND FUSE RATING INDICATED, 3 POLE, UNO |
| 400 400 | FUSED SWITCH, SWITCH AND FUSE CURRENT RATING AS INDICATED, 3 POLE, UNO |
| 1 | MAGNETIC STARTER WITH OVERLOAD, NEMA SIZE INDICATED, FVNR |
| V F D | ELECTRONIC STARTER/SPEED CONTROL<br>RVSS = REDUCED VOLTAGE SOFT STARTER<br>VFD = AC VARIABLE FREQUENCY DRIVE<br>DC = DC ADJUSTABLE SPEED DRIVE<br>RVAT = REDUCED VOLTAGE AUTO TRANSFORMER |
| | CABLE OR BUS CONNECTION POINT |
| VS V 0-600V | ANALOG METER WITH SWITCH - SCALE RANGE SHOWN<br>V = VOLTAGE KW = KILOWATTS<br>A = AMPERAGE KVAR = KILOVARS<br>PF = POWER FACTOR |
| PM | POWER METER (MULTIFUNCTION) |
| M | ELECTRICAL SERVICE METER |
| SPD | SURGE PROTECTION DEVICE |
| | CURRENT TRANSFORMERS |
| | POTENTIAL TRANSFORMER |
| 30 | FUSED DISCONNECT 3 POLE, (SIZE AS INDICATED OR AS PER NEC) |
| 30 | NON FUSED DISCONNECT 3 POLE (SIZE AS INDICATED OR PER NEC) FUSE WITH CLASS J FUSES PER NEC |
| | FVNR STARTER WITH H-O-A SELECTOR SWITCH AND BI-METALLIC OVERLOADS. |
| 30 | FUSED COMBINATION STARTER FUSED WITH H-O-A SELECTOR SWITCH AND BI-METALLIC OVERLOADS. |
| XXAF XXAT CB | ENCLOSED CIRCUIT BREAKERS, SIZE AS INDICATED ON DRAWING XXAF INDICATES (FRAME SIZE). XXAT INDICATES (AMP TRIP). |
| | DELTA CONNECTION |
| | WYE GROUNDED CONNECTION, SOLID GROUND |
| MPR | MOTOR PROTECTION RELAY |
| ST | SHUNT TRIP |
| MO | MOTOR OPERATED |

## ONE LINE DIAGRAMS-2

| SYMBOL | DESCRIPTION |
|---|---|
| | LIGHTNING AND SURGE ARRESTOR |
| 30KVA 480V-120/208V 3PH, 4W | DRY TYPE TRANSFORMER |
| | PANELBOARD |
| S P D | SURGE PROTECTION DEVICE |
| ZZA | FUSED CUTOUT "ZZA" INDATES FUSE RATING |
| | EXTERIOR LOAD CENTER |
| | MEDIUM VOLTAGE DISCONNECT SWITCH NON-FUSED CUTOUT |
| | MEDIUM VOLTAGE DISCONNECT SWITCH FUSED CUTOUT |
| | MEDIUM VOLTAGE LIVE FRONT TERMINATOR |
| | MEDIUM VOLTAGE ELBOW |
| 25 | SYNCHRONOUS CHECK RELAY |
| 27 | UNDERVOLTAGE PROTECTIVE RELAY |
| 32 | REVERSE POWER PROTECTIVE RELAY |
| 47 | PHASE-SEQUENCE VOLTAGE RELAY |
| 49 | OVERLOAD TEMPERATURE RELAY |
| 50/51 | TIME OVERCURRENT RELAY WITH INSTANTANEOUS ATTACHMENT |
| 50G | INSTANTANEOUS OVERCURRENT GROUND FAULT RELAY |
| 50N | INSTANTANEOUS NEUTRAL OVERCURRENT RELAY |
| 51 | TIME OVERCURRENT RELAY |
| 51G | TIME GROUND OVERCURRENT RELAY |
| 55 | POWER FACTOR RELAY |
| 59 | OVERVOLTAGE RELAY |
| 63 | TRANSFORMER SUDDEN PRESSURE RELAY |
| 67 | DIRECTIONAL OVERCURRENT RELAY |
| 74T | TEMPERATURE ALARM RELAY |
| 81 | UNDERFREQUENCY RELAY |
| 83 | AUTOMATIC TRANSFER RELAY |
| 86 | LOCKOUT RELAY |
| 87 | DIFFERENTIAL PROTECTIVE RELAY |
| 87T | TRANSFORMER DIFFERENTIAL PROTECTIVE RELAY |
| AM | AMMETER |
| AS | AMMETER SWITCH |
| CS | BREAKER CONTROL SWITCH |
| E | ELECTRICAL INTERLOCK |
| K | KEY INTERLOCK |
| PF | POWER FACTOR METER |
| VAR | VAR METER |
| SST | SOLID STATE TRIP |
| VM | VOLTMETER |
| VS | VOLTMETER SWITCH |
| W | WATTMETER |
| W WH | WATT/WATT HOUR TRANSDUCER |

## ELECTRICAL LINE TYPES

| SYMBOL | DESCRIPTION |
|---|---|
| | EXISTING |
| | PROPOSED |
| | FUTURE |
| | DEMOLISH |
| | EXPOSED CONDUIT |
| E | UNDERGROUND POWER |
| C | UNDERGROUND CONTROLS |
| OHE | OVERHEAD ELECTRIC LINES |
| F/O | FIBER OPTIC LINES |
| COM | COMMUNICATION LINES |
| | GROUND MAT/GROUND COUNTERPOISE |
| T | TELEPHONE |
| | CURVED LINES ON PLANS INDICATES BRANCH CIRCUITS |
| | FLEXIBLE CONDUIT |
| | CONDUIT - UP |
| | CONDUIT - DOWN |
| | CONDUIT - STUBBED AND CAPPED |

## GENERAL SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | NOTE ON SHEET, NO. AS INDICATED |
| P-XXXX | CONDUIT AND CONDUCTOR WIRE TAGS (SEE SCHEDULE)<br>MV - 1000V-15KV POWER CABLE<br>P - 301V-600V POWER CABLER<br>L - 51V-300V POWER CABLE<br>LV - POWER/CONTROL CABLE <50V<br>I - INSTRUMENTATION CABLES ASSOCIATED WITH A PLC<br>C - CONTROL CABLES ASSOCIATED WITH MOTOR CONTROLLERS<br>F - FIBER OPTIC CABLES<br>C6 - CAT6 |
| CNTRL-xxx | INSTRUMENT TAG |
| LP-1,3 | HOME RUN, LP INDICATES PANEL LP, 1,3 INDICATES CIRCUITS 1 & 3. |
| JB | JUNCTION BOX |
| PB | PULLBOX |
| HH | HANDHOLE |
| MH | MANHOLE |
| HT | HEAT TRACE |
| 24" W | CABLE TRAY, LADDER TYPE, WIDTH AS INDICATED |

## GROUNDING SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | GROUND TEST WELL |
| | GROUND ROD |
| | GROUNDING PLATE |
| | CONCRETE ENCASE ELECTRODE/REBAR |
| | GROUND CONNECTION (EXOTHERMIC IF UNDERGROUND; MECHANICAL IF ABOVE GROUND) |
| | GROUND BAR, 6"L x 3"W x 1/4", TIN-PLATED COPPER, MOUNT 1'-6" AFF/AFG ON INSULATED STANDOFFS |

## GENERAL NOTES

1. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS.
   1.1. NFPA 70, NATIONAL ELECTRICAL CODE
   1.2. NFPA 101 LIFE SAFETY CODE
   1.3. NFPA 820 STANDARD FOR FIRE PROTECTION IN WASTEWATER TREATMENT AND COLLECTION FACILITIES.
2. ALL SPACES SHALL BE CLASSIFIED PER NFPA 820. (CONTRACTOR TO HAVE A COPY OF NAFA 820 ON THE JOB SITE AT ALL TIMES).
3. ALL ELECTRICAL CIRCUITS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED PER NEC.
4. CONDUIT AND DEVICE LOCATIONS ARE SHOWN DIAGRAMMATICALLY ONLY, CONTRACTOR SHALL FIELD LOCATE OR ROUTE AS REQUIRED.
5. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDINGS OR STRUCTURES.
6. ALL EXTERIOR ELECTRICAL ENCLOSURES SHALL BE NEMA 4X STAINLESS STEEL UNLESS OTHERWISE NOTED.
7. CONTACTOR TO PROVIDE ALL REQUIRED POWER AND STARTERS FOR PROCESS EQUIPMENT (COORDINATE WITH PROCESS EQUIPMENT SUPPLIER).
8. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL SERVICE WITH UTILITY COMPANY.
9. CONTROL AND POWER CONDUITS SHALL BE SEPARATED BY 12" MIN. AND SHALL BE IN SEPARATE JUNCTION BOXES AND DUCT BANKS. THE CONTRACTOR SHALL MAINTAIN 12" SEPARATION BETWEEN DUCT BANKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING ALL PROJECT SPECIFICATIONS AND WILL BE RESPONSIBLE FOR MEETING ALL REQUIREMENTS OUTLINED IN THE SPECIFICATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COORDINATED ELECTRICAL EQUIPMENT SYSTEM IN ACCORDANCE WITH NEC ARTICLE 240.12 AND ARTICLE 700.27.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DETAILED ELECTRICAL EQUIPMENT LAYOUT DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
13. CONTRACTOR SHALL PROVIDE PROTECTION AGAINST FIRE AND EXPLOSION HAZARDS IN ACCORDANCE WITH NFPA 820 INCLUDING COMBUSTIBLE GAS DETECTION SYSTEMS, PORTABLE FIRE EXTINGUISHERS, FIRE DETECTION SYSTEMS, HYDRANT PROTECTION AS REQUIRED BASED ON CLASSIFICATION.
14. ALL FIELD MOUNTED CONTROL PANELS SHALL BE ORIENTED IN A NORTH/SOUTH CONFIGURATION SUCH THAT THE FRONT MOUNTED DISPLAYS ARE NOT SUBJECTED TO DIRECT SUN LIGHT.

## ELECTRICAL ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| A | AMPERAGE | GEN | GENERATOR | PMT | PAD MOUNTED TRANSFORMER |
| AC | ALTERNATING CURRENT | GFCI | GROUND FAULT CIRCUIT INTERRUPTER | PMGR | PAD MOUNTED SWITCHGEAR |
| ACU | AIR CONDITIONING UNIT | GFR | GROUND FAULT RELAY | PNL | PANEL |
| AFF | ABOVE FINISH FLOOR | H | HORN | PP | POWER PANEL |
| AFG | ABOVE FINISH GRADE | HSP | HOUSEKEEPING PAD | PR | PRESETTING RELAY(TIMER) |
| AHU | AIR HANDLING UNIT | HDG | HOT DIPPED GALVANIZED | PSI | POUNDS PER SQUARE INCH |
| AIC | AMP INTERRUPTING CURRENT | HID | HIGH INTENSITY DISCHARGE | PT | POTENTIAL TRANSFORMER |
| AIT | ANALYZER INDICATING TRANSMITTER | HH | HAND HOLE | PTT | PUSH TO TEST |
| AJB | ANALOG JUNCTION BOX | HOA | HAND OFF AUTOMATIC | PVC | POLYVINYL CHLORIDE |
| AM | AMMETER | HPS | HIGH PRESSURE SODIUM | PWR | POWER |
| ANN | ANNUNCIATOR | HS | HAND SWITCH | R | RELAY |
| ANSI | AMERICAN NATIONAL STANDARD INSTITUTE | HSPS | HIGH SERVICE PUMP STATION | R | REVERSE |
| | | HV | HIGH VOLTAGE | REQD | REQUIRED |
| APP EQ. | APPROVED EQUAL | IC | INTERRUPTING CAPACITY | RGS | RIGID GALVANIZED STEEL |
| AS | AMPMETER SWITCH | IGV | INLET GUIDE VANE | RLY | RELAY |
| ATS | AUTOMATIC TRANSFER SWITCH | INCAND | INCANDESCENT | RS | RIGID STEEL |
| AUTO | AUTOMATIC | INST | INSTANTANEOUS | RVNR | REDUCED VOLTAGE NON-REVERSING |
| AUX | AUXILIARY | INB | INBOARD | RVR | REDUCE VOLTAGE REVERSING |
| B | BELL | JB | JUNCTION BOX | RVSS | REDUCE VOLTAGE SOLID STATE |
| BFM | BLOWER FILTER MOTOR | K | KEY INTERLOCK | RTD | RESISTANCE TEMP DETECTORS |
| BYZ | WINDOW CURRENT TRANSFORMER | KAIC | KILO AMP INTERRUPTING CURRENT | RTU | REMOTE TERMINAL UNIT |
| C.COND | CONDUIT | KS | KEY SWITCH | S.SV | SOLENOID VALVE |
| C | CONTACTOR COIL | KVA | KILOVOLT-AMPERE | SC | SHORT CIRCUIT |
| C | VALVE CLOSE CONTACTOR | KW | KILOWATT | SCR | SECURITY CARD READER |
| C | CONDUCTORS (#/C IN CABLE) | L,LP | LIGHTING PANEL | SCCR | CURRENT RATING |
| CAP | CAPACITOR | LA | LIGHTNING ARRESTOR | SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| CB | CIRCUIT BREAKER | LC | LIGHTING CONTACTOR | | |
| CC | CONTROL CABLE | LCP | LOCAL CONTROL PANEL | SCU | SPEED CONTROL UNIT |
| C/C | CENTER TO CENTER | LE | LEVEL ELEMENT | SF | SUPPLY FAN |
| CHH | COMMUNICATIONS HAND HOLE | LIT | LEVEL INDICATING TRANSMITTER | SRV | SURGE RELIEF VALVE |
| CJB | CONTROL JUNCTION BOX | LLO | LEVEL LOW LOCKOUT | SS | STAINLESS STEEL |
| CKT | CIRCUIT | LO | LOCKOUT | SW | NETWORK SWITCH |
| CLD | CHLORINE LEAK DETECTOR | LPU | LOCAL PROCESSING UNIT | SWGR | SWITCHGEAR |
| CM | CONDUIT MARKER | LR | LATCH RELAY | SWT | SWITCH |
| CMH | COMMUNICATION MANHOLE | LRC | LOCKED ROTOR CURRENT | T | THERMOSTAT |
| CO | CONDUIT ONLY | LS,LMS | LIMIT SWITCH | TB | TERMINAL BOX |
| CP | CONTROL PANEL | LS | LEVEL SWITCH | TD | TIME DELAY |
| CPB | CONCRETE PULL BOX | LSC | LIMIT SWITCH VALVE CLOSE | TDC | TIME DELAY CLOSING |
| CPT | CONTROL POWER TRANSFORMER | LSIG | LONG TIME/SHORT TIME/ INSTANTANEOUS GROUND FAULT | TDE | TIME DELAY ENERGIZED |
| CR | CONTROL RELAY | | | TDO | TIME DELAY OPENING |
| CS | CONTROL SWITCH | LSH | LEVEL HIGH SWITCH | TJB | TERMINAL JUNCTION BOX |
| CT | CURRENT TRANSFORMER | LSL | LEVEL LOW SWITCH | TP | TWISTED PAIR |
| CTRL | CONTROL | LSO | LIMIT SWITCH VALVE OPEN | TRN | TRANSFORMER |
| CU | CONDENSING UNIT | LTG | LIGHTING | TSC | TORQUE SWITCH CLOSE DIRECTION |
| DC | DIRECT CURRENT | LV | LOW VOLTAGE | TSO | TORQUE SWITCH OPEN DIRECTION |
| DF | DRINKING FOUNTAIN | M | MAGNETIC CONTACTOR COIL | TSP | TWISTED SHIELDED PAIR |
| DFR | DIFFERENTIAL RELAY | M | ELECTRIC MOTOR | TST | TWISTED SHIELDED TRIAD |
| DS | DISCONNECT SWITCH | MAU | MAKEUP AIR UNIT | TX | TRANSFORMER |
| DTL | DETAIL | MB | MOTOR BEARING | UG | UNDERGROUND |
| EC | EMPTY CONDUIT | MCB | MAIN CIRCUIT BREAKER | UGT | UNDERGROUND TELEPHONE |
| EF | EXHAUST FAN | MCC | MOTOR CONTROL CENTER | UH | UNIT HEATER |
| EHH | ELECTRIC HAND HOLE | MJB | MOTOR JUNCTION BOX | UPS | UNINTERRUPTIBLE POWER SUPPLY |
| EHU | ELECTRIC HEATER UNIT | MSC | MANUFACTURES SUPPLIED CABLE | UV | UNDERVOLTAGE |
| EMH | ELECTRIC MANHOLE | MV | MERCURY VAPOR | V | VOLT |
| EP | EXPLOSION PROOF | MH | METAL HALIDE | VCB | VACUUM CIRCUIT BREAKER |
| ETM | ELAPSED TIME METER | MLO | MAIN LUGS ONLY | VCR | VALVE CLOSE RELAY |
| EUH | ELECTRIC UNIT HEATER | MOV | MOTOR OPERATED VALVE | VF | VARIABLE FREQUENCY |
| EW | EACH WAY | MPR | MOTOR PROTECTION RELAY | VFD | VARIABLE FREQUENCY DRIVE |
| EWC | ELECTRIC WATER COOLER | N | NEUTRAL GROUNDED CONDUCTOR | VM | VOLTMETER |
| EWF | ELECTRIC WATER HEATER | NA | NON-AUTOMATIC | VP | VAPOR PROOF |
| EXF | EXHAUST FAN | NC | NORMALLY CLOSED | VOR | VALVE OPEN RELAY |
| EXHST | EXHAUST | NF | NON-FUSED | VS | VOLT METER SWITCH |
| F | FORWARD | NO | NORMALLY OPEN | W | WIRE, WATT OR WITH |
| FCV | FLOW CONTROL VALVE | OB | OUTBOARD | WHD | WATT HOUR DEMAND METER |
| FIT | FLOW INDICATING TRANSMITTER | OC | OVERCURRENT | WP | WEATHER PROOF |
| FT | FLOW TRANSMITTER | OG&E | OKLAHOMA GAS & ELECTRIC | XFMR | TRANSFORMER |
| FLA | FULL LOAD AMPERE | OHD | OVERHEAD DOOR | | |
| FLOU | FLUORESCENT | OL | OVERLOAD | | |
| FMR | FEEDER MANAGEMENT RELAY | OPDU | OVERALL POWER DISTRIB. UNIT | | |
| FO | FIBER OPTIC | OV | OVERVOLTAGE | | |
| FQI | FLOW INTEGRATED TOTALIZER | PB | PUSHBUTTON PULLBOX | | |
| FU | FUSE | PBR | PUMP-BEARING RELAY | | |
| FVNR | FULL VOLTAGE NON-REVERSING | PC | PHOTOCELL | | |
| FVR | FULL VOLTAGE REVERSING | PC | PERSONAL COMPUTER | | |
| G, GND | GROUND | PH | PHASE | | |
| GALV | GALVANIZED | PLC | PROGRAMMABLE LOGIC CONTROLLER | | |


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL NOTES, ABBREVIATIONS, SYMBOLS & LEGENDS (SHEET 1 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-1
110 of 196


PRINTED BY: LeuenbGR DATE: 2/20/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinal\d0747958\AUST1500124_07_E-01_CPY.dwg

## CONTROL DIAGRAMS

| SYMBOL | DESCRIPTION |
|---|---|
| 5 | NEMA SIZE 5 CONTACTOR |
| | PUSH-BUTTON SWITCH - MOMENTARY CONTACT. NORMALLY OPEN |
| | PUSH-BUTTON SWITCH - MOMENTARY CONTACT. NORMALLY CLOSED |
| | PUSH-BUTTON SWITCH - MAINTAINED CONTACTS WITH MECHANICAL INTERLOCK |
| OFF / LOCAL / REMOTE / POLE 1 / XOO / POLE 2 / OOX | SELECTOR SWITCH-MAINTAINED CONTACT. CHART DEFINES OPERATION: |

| | POSITION | | |
|---|---|---|---|
| POLE | LOCAL | OFF | REMOTE |
| 1 | X | O | O |
| 2 | O | O | X |

X = CLOSED CONTACT
O = OPEN CONTACT

| | |
|---|---|
| | TOGGLE SWITCH, ON-OFF TYPE |
| | FLOAT SWITCH, NORMALLY OPEN, CLOSES ON DESCENDING LEVEL |
| | FLOAT SWITCH, NORMALLY OPEN, CLOSES ON RISING LEVEL |
| | FLOW SWITCH, CLOSES ON INCREASED FLOW |
| | FLOW SWITCH, OPENS ON INCREASED FLOW |
| | LIMIT SWITCH, NORMALLY OPEN, CLOSES AT END OF TRAVEL |
| | LIMIT SWITCH, NORMALLY CLOSED, OPENS AT END OF TRAVEL |
| | PRESSURE SWITCH, NORMALLY CLOSED, OPENS ON RISING PRESSURE |
| | PRESSURE SWITCH, NORMALLY CLOSED, CLOSES ON RISING PRESSURE |
| | PRESSURE SWITCH |
| | TEMPERATURE SWITCH, OPENS ON TEMPERATURE RISE |
| | TEMPERATURE SWITCH, CLOSES ON TEMPERATURE RISE |
| | VACUUM SWITCH |
| L.O. STOP | LOCKOUT STOP PUSH-BUTTON |
| | NORMALLY OPEN DELAY ON MAKE |
| | NORMALLY CLOSE DELAY ON MAKE |
| | NORMALLY OPEN DELAY ON BREAK |
| | NORMALLY CLOSE DELAY ON BREAK |
| | NORMALLY OPEN DELAY ON BREAK |
| 480V / 120V | CONTROL POWER TRANSFORMER - VOLTAGES. INDICATED. |
| | MUSHROOM HEAD PUSH BUTTON SWITCH |
| A | INDICATING LIGHT, PUSH-TO-TEST, LETTER INDICATES COLOR |
| ETM | ELAPSED TIME METER |
| M | MOTOR STARTER CONTACTOR COIL |
| CRX | CONTROL RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT |
| TDR X | TIME DELAY RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT |
| SV X | SOLENOID VALVE, X INDICATES NUMERICAL ORDER IN CIRCUIT |
| | REMOTE DEVICE |
| | TERMINAL BLOCK, REMOTE |
| | TERMINAL BLOCK, INTERNAL |
| | FUSED TERMINAL BLOCK |

| SYMBOL | DESCRIPTION |
|---|---|
| | THERMOCOUPLE |
| GEN | TACHOMETER GENERATOR |
| | GROUND FAULT SENSOR |
| | FLASHER |
| | SEALED CONTACT |
| | BUZZER |
| | POTENTIOMETER |
| | RESISTOR |
| | BLOWN FUSE INDICATOR |
| | FULLWAVE DIODE BRIDGE (AC TO DC) |
| * | BASIC RELAY SYMBOL SOME RELAY FUNCTIONS:<br>ALT = ALTERNATOR<br>CR = CONTROL RELAY<br>TR = TIMING RELAY<br>M = MOTOR CONTACTOR |
| | ALARM INDICATING DEVICE:<br>BZ = BUZZER<br>CH = CHIME |
| | TERMINALS FOR FIELD OR REMOTE WIRING CONNECTIONS. DEVICES LOCATED BETWEEN THESES SYMBOLS ARE LOCATED IN THE FIELD OR REMOTELY. |
| + - | |
| A | INDICATING LIGHT - LETTER INDICATES COLOR<br>A - AMBER G - GREEN S - STORAGE<br>B - BLUE R - RED<br>C - CLEAR W - WHITE |
| ETM | ELAPSED TIME METER |
| RPM | RPM METER |
| T | TACHOMETER (4-20ma) |
| TDR | TIME DELAY RELAY |
| J | JUNCTION BOX |
| T | THERMOSTAT |
| | INSTRUMENT |
| 480V / 120V / 2000KVA / 4160/480V | CONTROL POWER TRANSFORMER - VOLTAGES INDICATED |
| | POWER DISTRIBUTION TRANSFORMER VOLTAGES AND RATING INDICATED |
| | SHIELDED ISOLATED TRANSFORMER VOLTAGES AND RATING INDICATED |
| 3 | CURRENT TRANSFORMER - NUMBER INDICATES QUANTITY |
| 1 | WINDOW CURRENT TRANSFORMER ENCLOSING ALL CONDUCTORS |
| OR | CONTROL STATION |
| A | INDICATING LIGHT - PUSH TO TEST LETTER INDICATES COLOR. |

## LUMINAIRES SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | BRANCH CIRCUIT PANEL BOARD |
| | CONTROL PANEL |
| | TELEPHONE TERMINAL BOARD |
| TB | TERMINAL BOARD |
| | CONDUIT WITH WIRE<br>HOT<br>NEUTRAL<br>SWITCH LEG<br>GROUND |
| | LUMINAIRE FLUORESCENT, TYPE AS NOTED |
| | LUMINAIRE WITH EMERGENCY BACKUP, TYPE AS NOTED |
| | LUMINAIRE, TYPE AS NOTED |
| | LUMINAIRE WITH EMERGENCY BACKUP, TYPE AS NOTED |
| | WALL MOUNTED LUMINAIRE, TYPE AS NOTED |
| | WALL MOUNTED LUMINAIRE WITH EMERGENCY BACKUP, TYPE AS NOTED |
| | EMERGENCY LIGHT, TYPE AS NOTED |
| | FLOODLIGHTS AIM IN DIRECTION SHOWN |
| | EXIT LUMINAIRE FIXTURE. ARROWS AND EXIT FACE AS INDICATED ON DRAWINGS (MOUNTING HEIGHTS TO BE DETERMINED BY JOB SPECIFICATIONS) |
| | SINGLE LUMINAIRE POLE MOUNTED SITE LUMINAIRE FIXTURE |
| | TWIN LUMINAIRE POLE MOUNTED SITE LUMINAIRE FIXTURE |
| LC | LIGHTING CONTACTOR 6 POLE, ELECTRICALLY HELD NEMA 1 WITH H-O-A SELECTOR SWITCH UNLESS OTHERWISE INDICATED. |
| PC | PHOTO CELL |
| | EXTERIOR BUILDING WALL RACK |

## SWITCHES SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| $ | SINGLE POLE SWITCH |
| $3 | THREE WAY SWITCH |
| $4 | FOUR WAY SWITCH |
| $M | MOTION SWITCH |
| $WP | WEATHER PROOF SWITCH |
| $K | KEY OPERATED SWITCH |
| $D | DIMMER SWITCH |

## FIRE ALARM

| SYMBOL | DESCRIPTION |
|---|---|
| FACP | FIRE ALARM CONTROL PANEL |
| SD | SMOKE DETECTOR |
| H | HEAT DETECTOR |
| SD | DUCT SMOKE DETECTOR |
| F | FLOW SWITCH |
| T | TAMPER SWITCH |
| | HORN |
| | HORN/STROBE |
| F | MANUAL PULL STATION |

## OUTLET AND RECEPTACLES SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| F | FLOOR DUPLEX RECEPTACLE. F=FLUSH MTD. S=SURFACE |
| | DOUBLE DUPLEX CONVENIENCE RECEPTACLE |
| | CONVENIENCE RECEPTACLE-DUPLEX UNLESS SPECIFIED OTHERWISE<br>C = CLOCK HANGER<br>CR = CORROSION RESISTANT<br>EWC = WATER COOLER<br>TL = TWIST LOCK<br>WP = WEATHERPROOF<br>GFCI = GROUND FAULT CIRCUIT INTERRUPTER |
| | RECEPTACLE - 240V, 1PH OR 208V., 1PH |
| | RECEPTACLE - 480V, 3PH OR 208V., 3PH |
| | SPECIAL PURPOSE RECEPTACLE |
| | MULTI-OUTLET ASSEMBLY |
| | TELEPHONE/DATA OUTLET |

## SECURITY

| SYMBOL | DESCRIPTION |
|---|---|
| | SECURITY CAMERA (FIXED UNLESS OTHERWISE NOTED)<br>-P = PAN<br>-T = TILT<br>-Z = ZOOM |
| M | MAG LOCK |
| CR | CARD READER |
| DC | DOOR CONTACT |


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VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ELECTRICAL NOTES, ABBREVIATIONS, SYMBOLS & LEGENDS (SHEET 2 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-2
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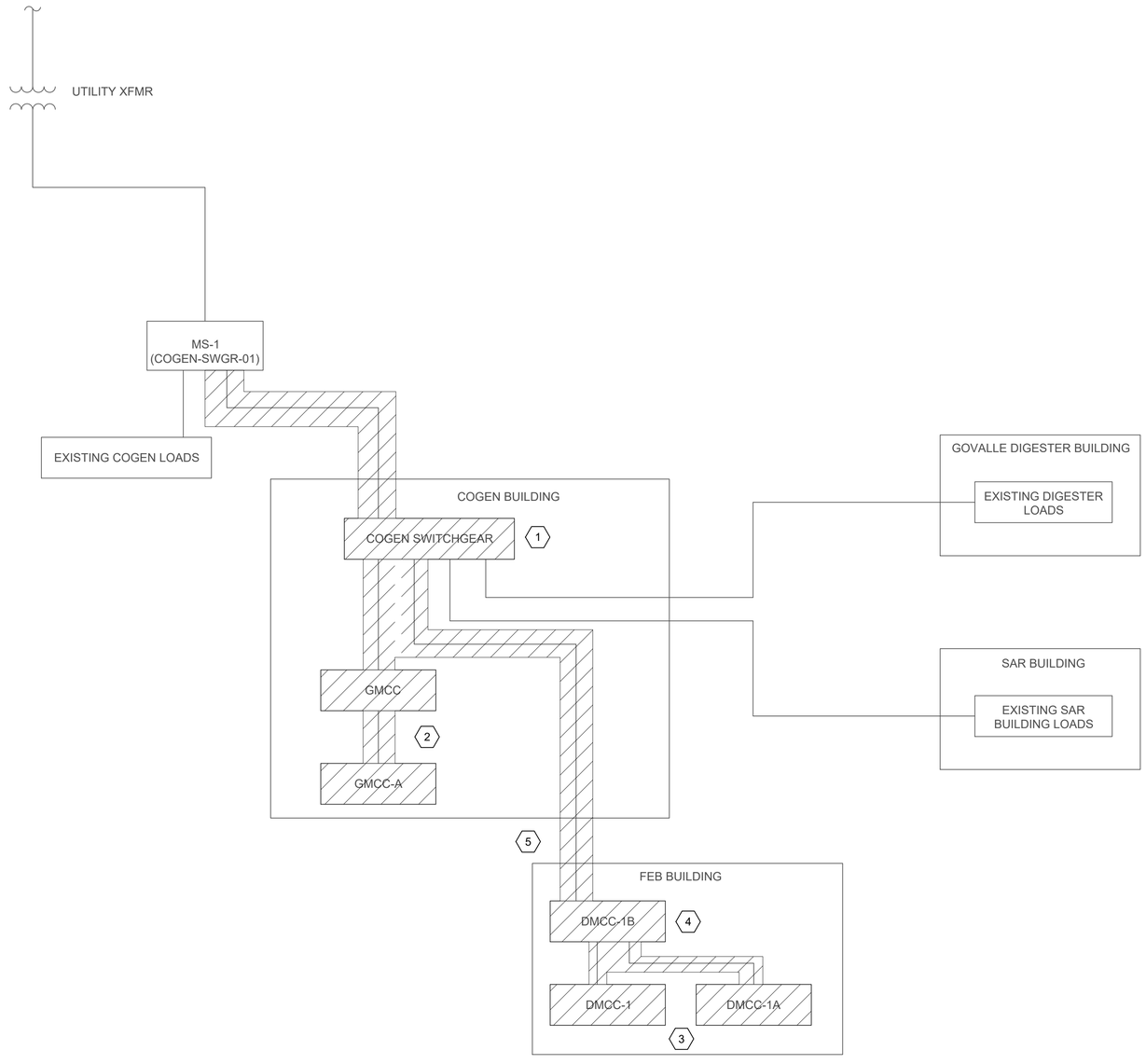


EXISTING ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

## NOTES BY SYMBOL (X)

1. SEE SHEET E-5 FOR DETAILS
2. SEE SHEET E-6 FOR DETAILS
3. SEE SHEET E-7 FOR DETAILS
4. SEE SHEET E-8 FOR DETAILS
5. THE CONTRACTOR SHALL DEMOLISH THE EXISTING CONDUITS AND CONDUCTORS.

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.


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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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112 of 196

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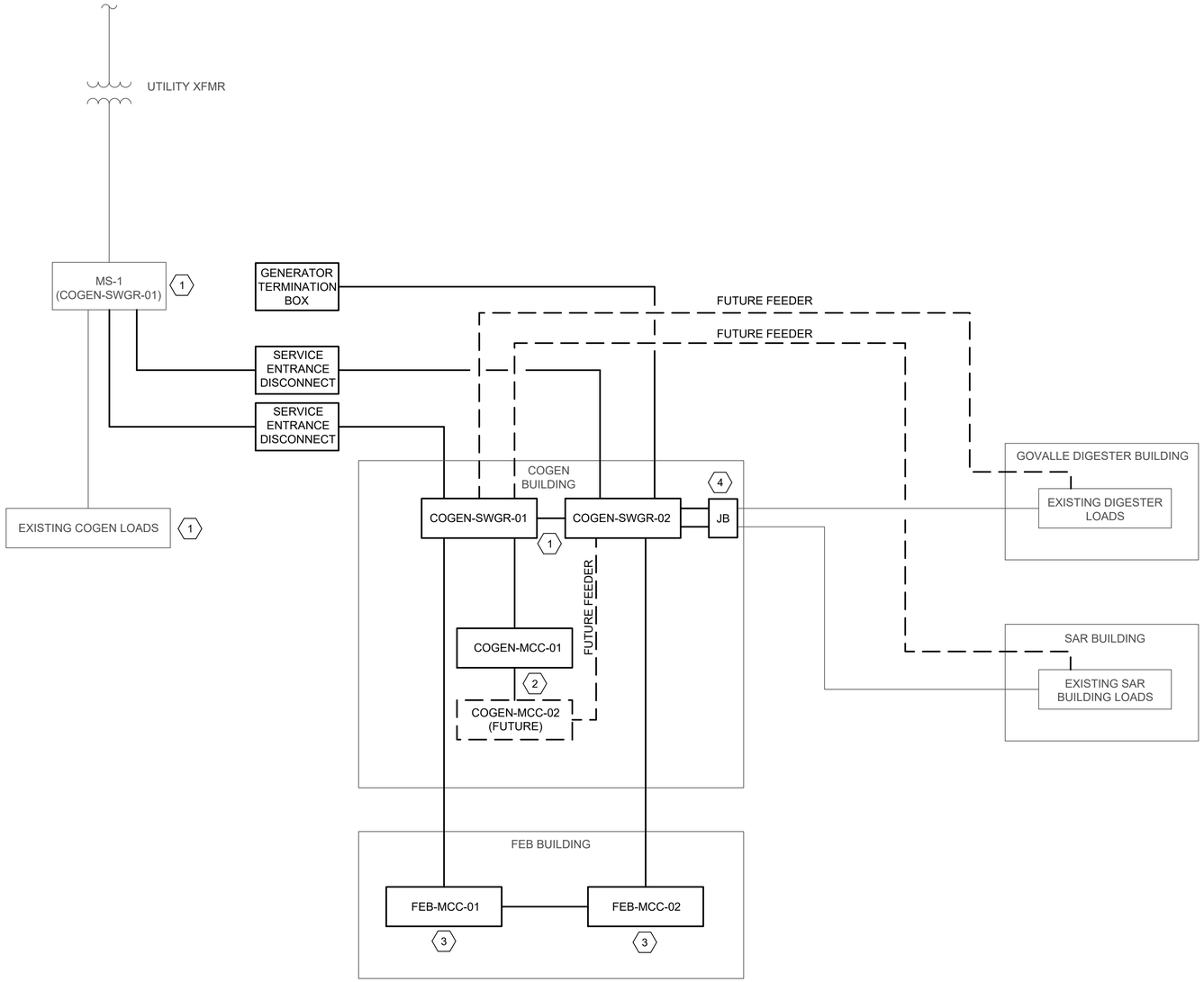


## PROPOSED ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

### NOTES BY SYMBOL (X)

1. SEE SHEET E-14 FOR DETAILS
2. SEE SHEET E-15 FOR DETAILS
3. SEE SHEETS E-16 & E-17 FOR DETAILS
4. THE SPLICING JUNCTION BOX OVER EXISTING SWITCHGEAR.

GENERAL NOTES:

1. CONTRACTOR SHALL CLOSELY COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE OWNER TO MINIMIZE FUNCTIONAL INTERPRETATIONS AT ALL SITES.
2. LIGHTER WEIGHT LINES INDICATE EQUIPMENT OR STRUCTURES THAT ARE EXISTING OR REUSED.
3. COORDINATE WITH OWNER TO SCHEDULE SHUT DOWN TO ALL EXISTING ELECTRICAL EQUIPMENT PRIOR TO WORK.


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VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED ELECTRICAL DISTRIBUTION BLOCK DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-4



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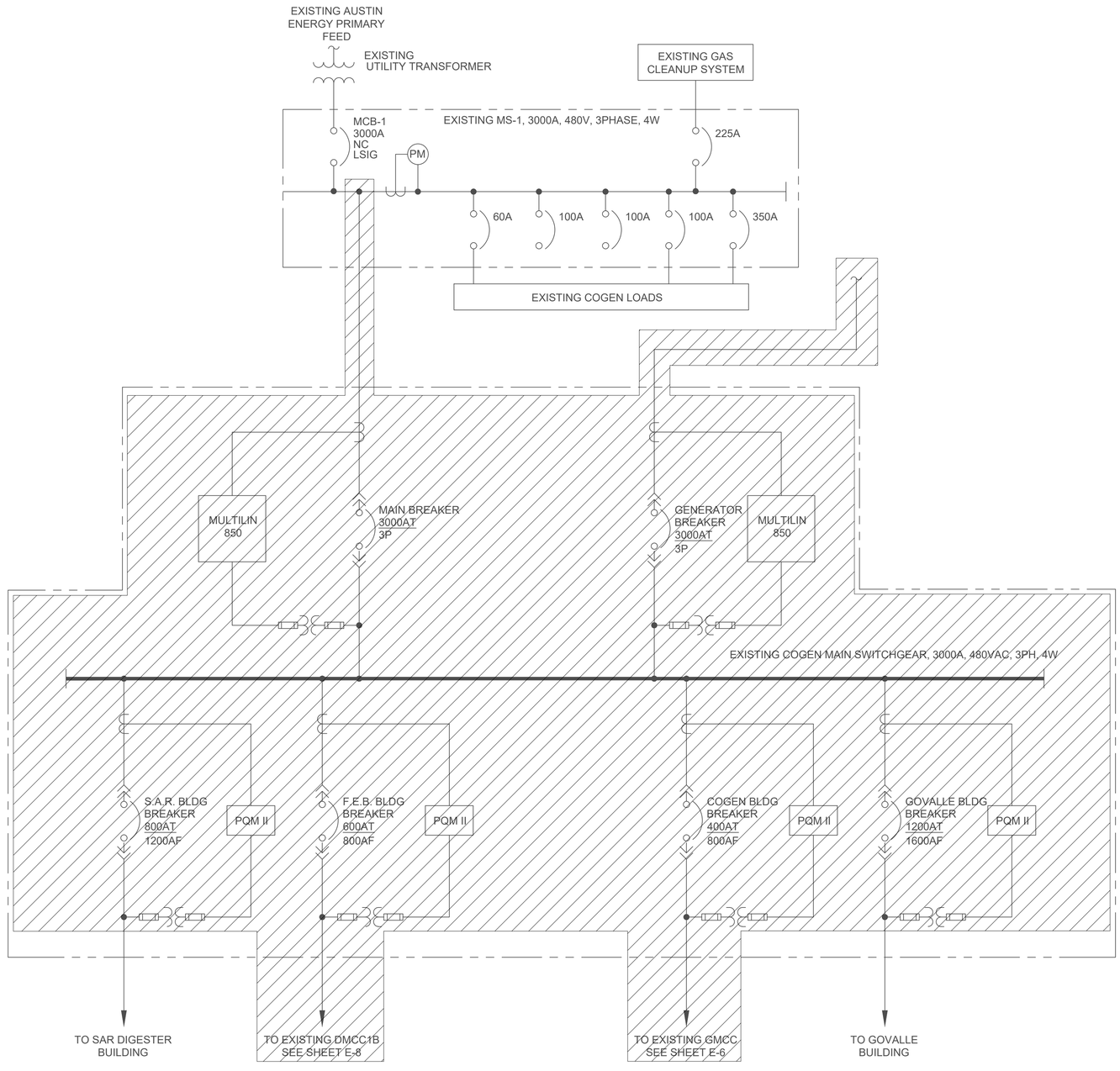


EXISTING COGEN BUILDING MAIN ONE-LINE DIAGRAM

GENERAL NOTES:

1. EXISTING COGEN SWITCHGEAR SHALL BE DEMOLISHED. CABLES AND CONDUIT FEEDING TO THE EXISTING GOVALLE AND SAR COMPLEXES SHALL REMAIN IN PLACE. A NEW JUNCTION BOX SHALL BE PLACED OVER THE EXISTING CABLE SECTION TO EXTEND CABLES TO NEW SWITCHGEAR. EXISTING PAD OUTSIDE OF EXISTING FEEDER CABLE AREA SHALL BE DEMOLISHED AND THE WALL SHALL BE FILLED IN PER ARCHITECTURAL DRAWINGS.
2. CABLE FROM THE EXISTING COGEN SWITCHGEAR TO THE EXISTING GOVALLE AND SAR COMPLEXES WILL REMAIN IN PLACE AND SHALL CONNECT TO THE NEW SWITCHGEAR CABLES WITH EPOXY ENCAPSULATED SPLICE KITS WITHIN THE EXISTING GEAR.
3. THE CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"x22" MIN) PROTECTED BY PLEXIGLASS DURING CONSTRUCTION. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.
4. THE CONTRACTOR SHALL VERIFY ALL DEMOLITION WORK WITH ENGINEER PRIOR TO BEGINNING WORK.
5. THE CONTRACTOR SHALL DEMOLISH ALL UNUSED CONDUCTORS. REMOVE CONDUIT FLUSH WITH CONCRETE, GRIND SMOOTH AND FILL WITH GROUT.
6. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.
7. EXISTING ABANDONED/DEMOLISHED POWER CONDUIT. SEE DETAIL E/E-71 FOR ADDITIONAL INFORMATION.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# EXISTING COGEN MAIN SWITCHGEAR ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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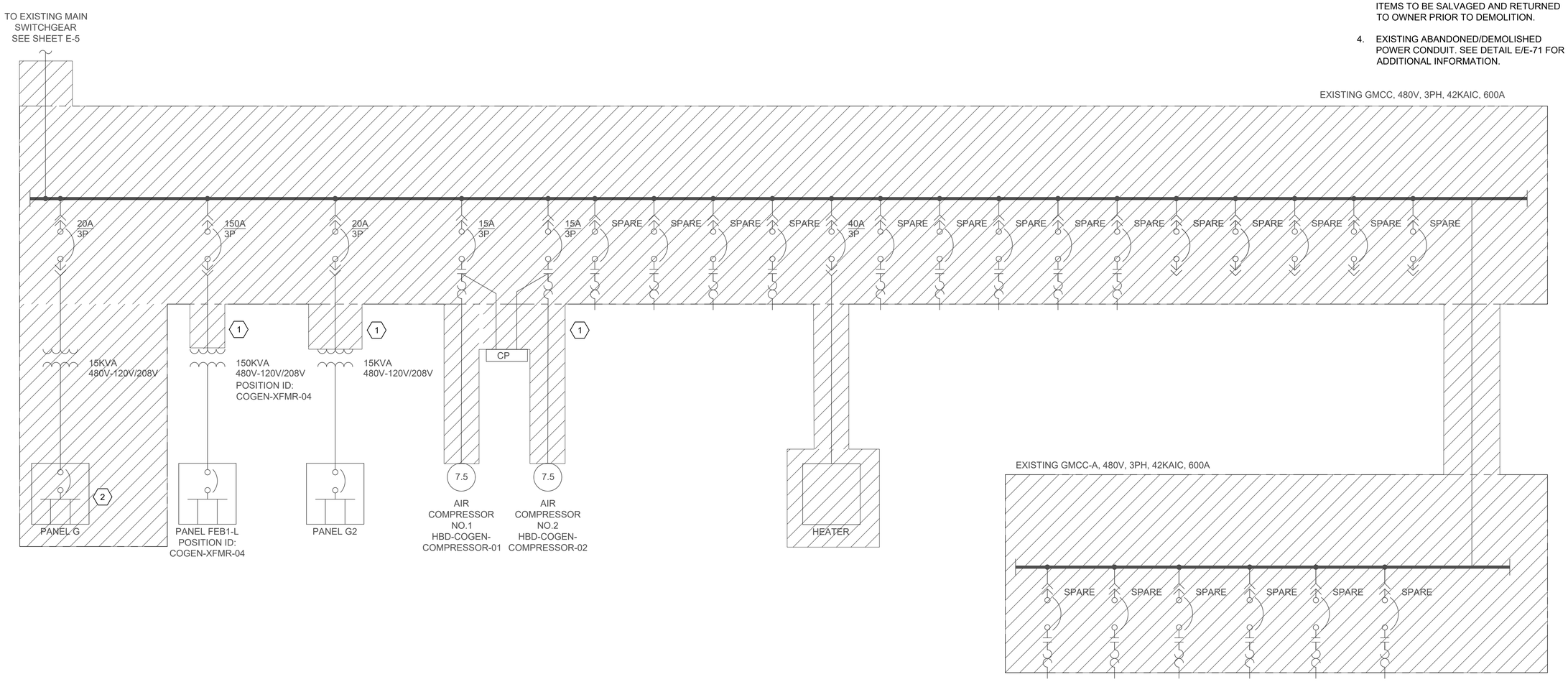
## NOTES BY SYMBOL (X)

1. EXISTING LOAD TO REMAIN. RE-FEED FROM NEW POWER DISTRIBUTION EQUIPMENT.
2. THE CONTRACTOR SHALL FIELD VERIFY AND DISCONNECT ALL THE WIRES AND CONDUITS FROM PANEL G TO VARIOUS LOADS, REFER TO SHEET E-19, AND PRESERVE IT FOR CONNECTING TO THE NEW PANEL G.

GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN) PROTECTED BY PLEXIGLASS DURING CONSTRUCTION. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.
2. ONE-LINE DIAGRAM FOR THE EXISTING MCC'S MAY NOT REPRESENT THE AS-EXIST CONDITION, FIELD VERIFY ALL CIRCUITS AS REQUIRED.
3. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.
4. EXISTING ABANDONED/DEMOLISHED POWER CONDUIT. SEE DETAIL E/E-71 FOR ADDITIONAL INFORMATION.




# EXISTING COGEN BUILDING GMCC/GMCC-A ONE-LINE DIAGRAM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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING COGEN BUILDING GMCC/GMCC-A ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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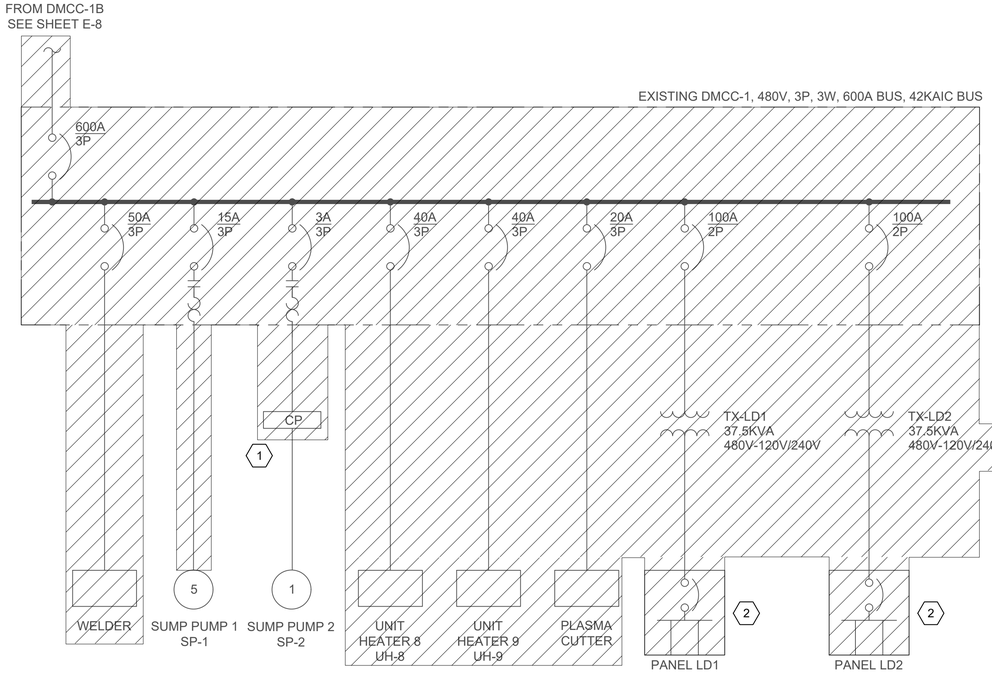
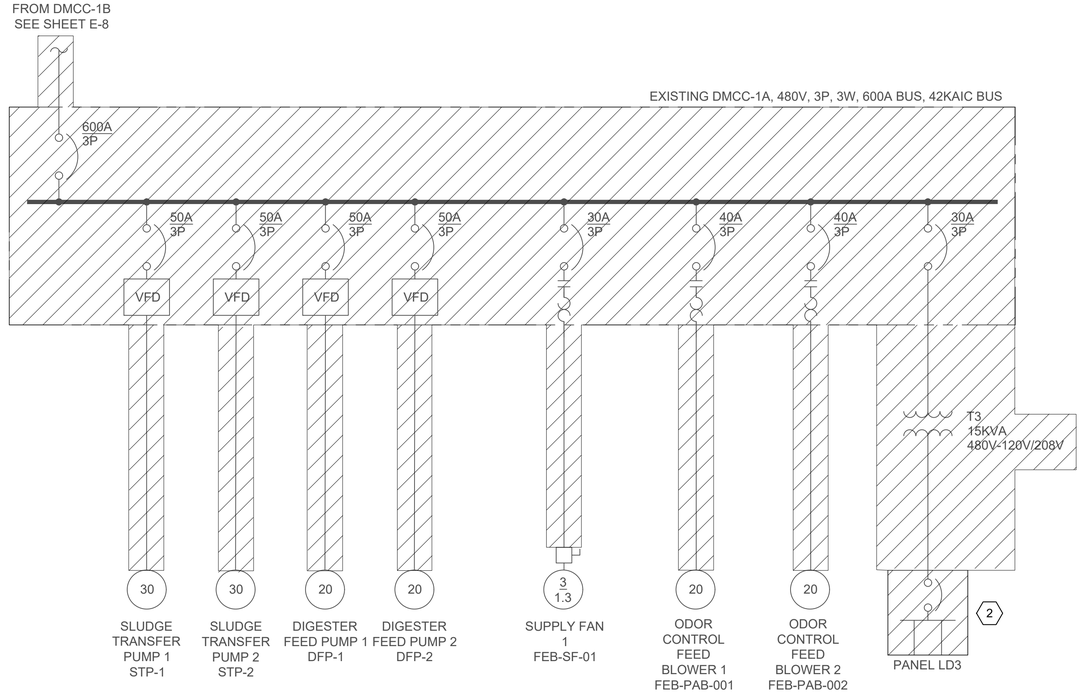
## NOTES BY SYMBOL (X)

1. DEMO EXISTING SUMP PUMP CONTROL PANEL. KEEP JUNCTION BOX.
2. THE CONTRACTOR SHALL DEMOLISH ALL THE COMPONENTS INSIDE THE PANEL AND MODIFY THE PANEL AS REQUIRED FOR USING IT AS A JUNCTION BOX FOR CONNECTING EXISTING WIRES AND NEW WIRES. THE CONTRACTOR SHALL FIELD VERIFY AND DISCONNECT ALL THE WIRES AND CONDUITS FROM PANELS LD1, LD2, AND LD3 TO VARIOUS LOADS. PANELS SHALL BE CONVERTED TO JUNCTION BOXES AND THE WIRES EXTENDED TO NEW PANELS. REFER TO SHEETS E-18 AND E-34.

GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN) PROTECTED BY PLEXIGLASS DURING CONSTRUCTION. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.
2. ONE-LINE DIAGRAM FOR THE EXISTING MCC'S MAY NOT REPRESENT THE AS-EXIST CONDITION, FIELD VERIFY ALL CIRCUITS AS REQUIRED.
3. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.
4. EXISTING ABANDONED/DEMOLISHED POWER CONDUIT. SEE DETAIL E/E-71 FOR ADDITIONAL INFORMATION.




EXISITNG FEB BUILDING DMCC-1/DMCC-1A ONE-LINE DIAGRAM


STV
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STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING FEB BUILDING DMCC-1/DMCC-1A ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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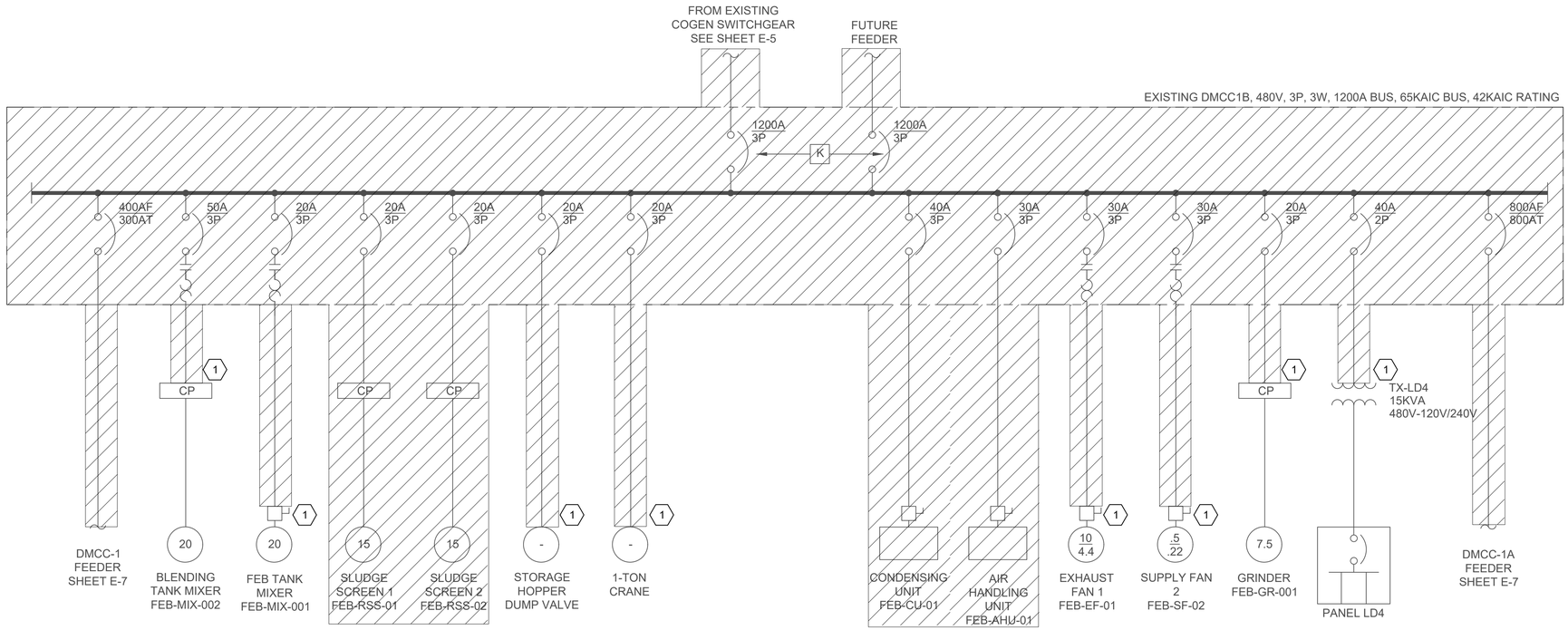


EXISITNG FEB BUILDING DMCC-1B ONE-LINE DIAGRAM

## NOTES BY SYMBOL (X)

| | |
|---|---|
| 1. | EXISTING LOAD TO REMAIN. RE-FEED FROM NEW POWER DISTRIBUTION EQUIPMENT. |

GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN) PROTECTED BY PLEXIGLASS DURING CONSTRUCTION. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.
2. ONE-LINE DIAGRAM FOR THE EXISTING MCC'S MAY NOT REPRESENT THE AS-EXIST CONDITION, FIELD VERIFY ALL CIRCUITS AS REQUIRED.
3. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.
4. EXISTING ABANDONED/DEMOLISHED POWER CONDUIT. SEE DETAIL E/E-71 FOR ADDITIONAL INFORMATION.


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TEXAS REGISTERED ENGINEERING FIRM F-204
TEXAS LICENSED PROFESSIONAL ENGINEER HALEY A. JONES 141585 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING FEB BUILDING DMCC-1B ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
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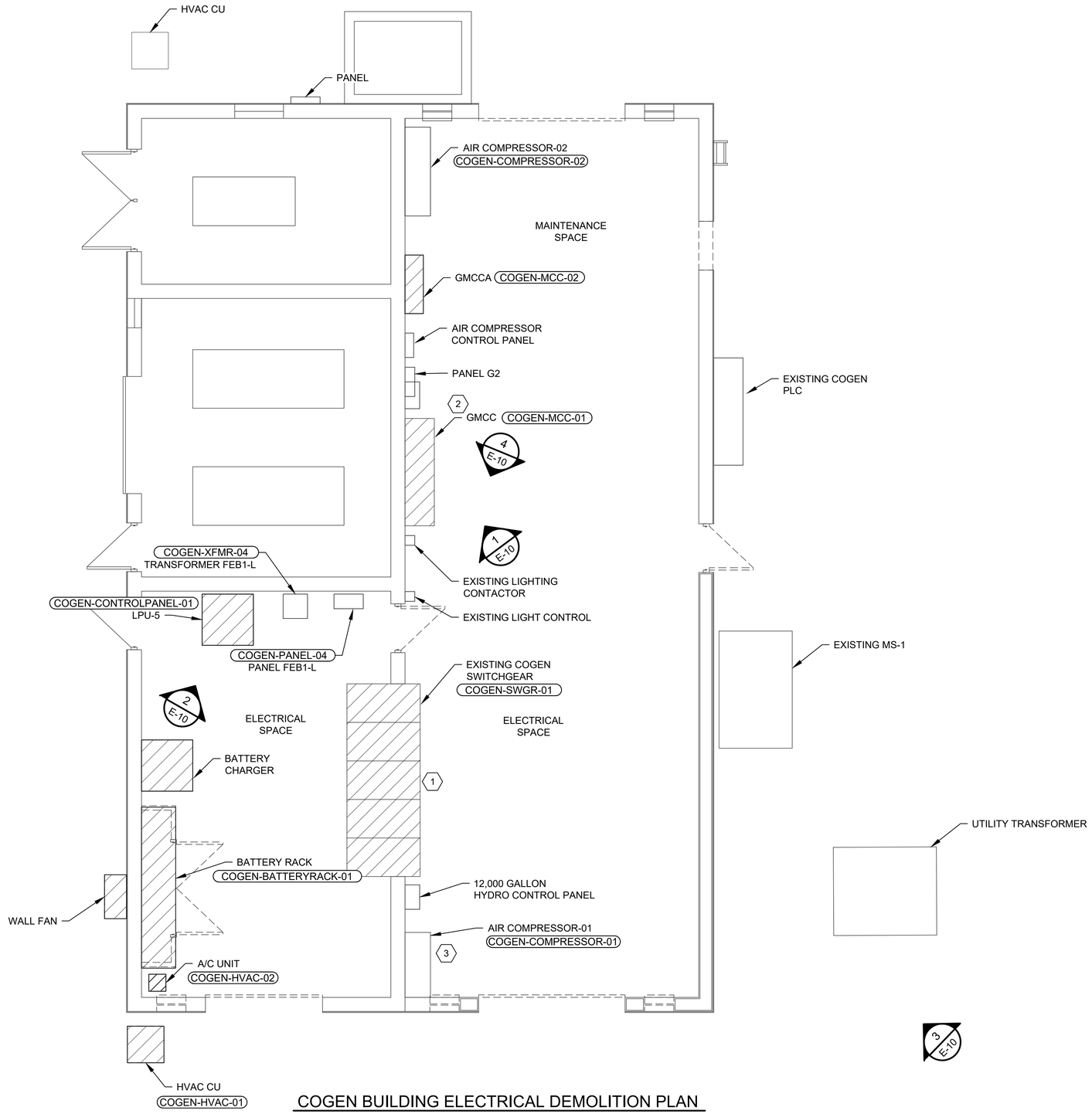


## COGEN BUILDING ELECTRICAL DEMOLITION PLAN

4 2 0 4
SCALE IN FEET

## NOTES BY SYMBOL (X)

1. EXISTING COGEN SWITCHGEAR SHALL BE DEMOLISHED. CABLES AND CONDUIT FEEDING TO THE EXISTING GOVALLE AND SAR COMPLEXES SHALL REMAIN IN PLACE. A NEW JUNCTION BOX SHALL BE PLACED OVER THE EXISTING CABLE SECTION TO EXTEND CABLES TO NEW SWITCHGEAR. EXISTING PAD OUTSIDE OF EXISTING FEEDER CABLE AREA SHALL BE DEMOLISHED AND THE WALL SHALL BE FILLED IN PER ARCHITECTURAL DRAWINGS.
2. THE CONTRACTOR SHALL FIELD VERIFY AND DISCONNECT ALL THE WIRES AND CONDUITS FROM PANEL G INSIDE GMMC TO VARIOUS LOADS. INSTALL JUNCTION BOX AND EXTEND WIRING TO NEW PANEL G INSIDE NEW COGEN MCC-01. REFER TO SHEET E-19 AND E-29.
3. THE CONTRACTOR SHALL FIELD VERIFY,REMOVE AND RELOCATE AIRCOMPRESSOR-01 AND 12,000 TO NORTH END OF BUILDING, REFER TO SHEET E-29. THE CONTRACTOR SHALL INSTALL NEW WIRES AS REQUIRED AND CONNECT ALL THE CONTROLS BETWEEN BOTH COMPRESSORS AND CONTROL PANEL AS NECESSARY TO RESTORE THE COMPRESSOR AND ITS ORIGINAL METHOD OF OPERATION. ALL PROVISIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES:

1. SEE ARCHITECTURAL SHEETS FOR BUILDING IMPROVEMENTS, INCLUDING PATCHING WALLS, REMOVING LOUVERS, DEMOLITION OF EXISTING WATER LINE, ETC.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL THE STRUCTURES AND FACILITIES SCHEDULED UNDER THIS CONTRACT WITH THE OWNER TO IDENTIFY AND RESOLVE POTENTIAL CONFLICTS WITH ALL ABOVE AND BELOW GRADE STRUCTURES AND FACILITIES.
3. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.


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TEXAS REGISTERED ENGINEERING FIRM F-204

03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN BUILDING ELECTRICAL DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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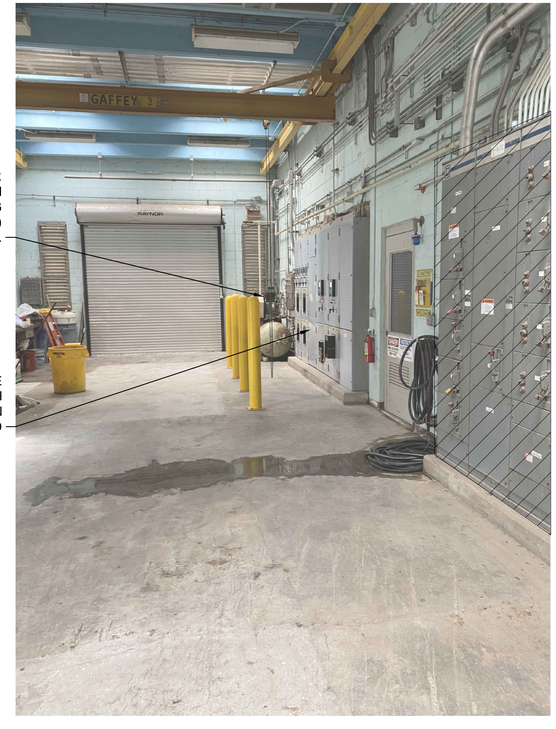
GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.

1 DEMOLITION GMCC AND GMCC-A
SCALE: NTS

2 DEMOLITION LPU-5
SCALE: NTS

3 COGEN BUILDING SERVICE ENTRANCE MODIFICATION
SCALE: NTS




4 COGEN BUILDING MODIFICATION
SCALE: NTS


TEXAS REGISTERED ENGINEERING FIRM F-204

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LICENSED PROFESSIONAL ENGINEER
03/13/2026


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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# EXISTING COGEN BUILDING DEMOLITION PHOTOS

| | |
|---|---|
| DESIGN: | S. SHAW |
| DRAWN: | G.LEUENBERGER |
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| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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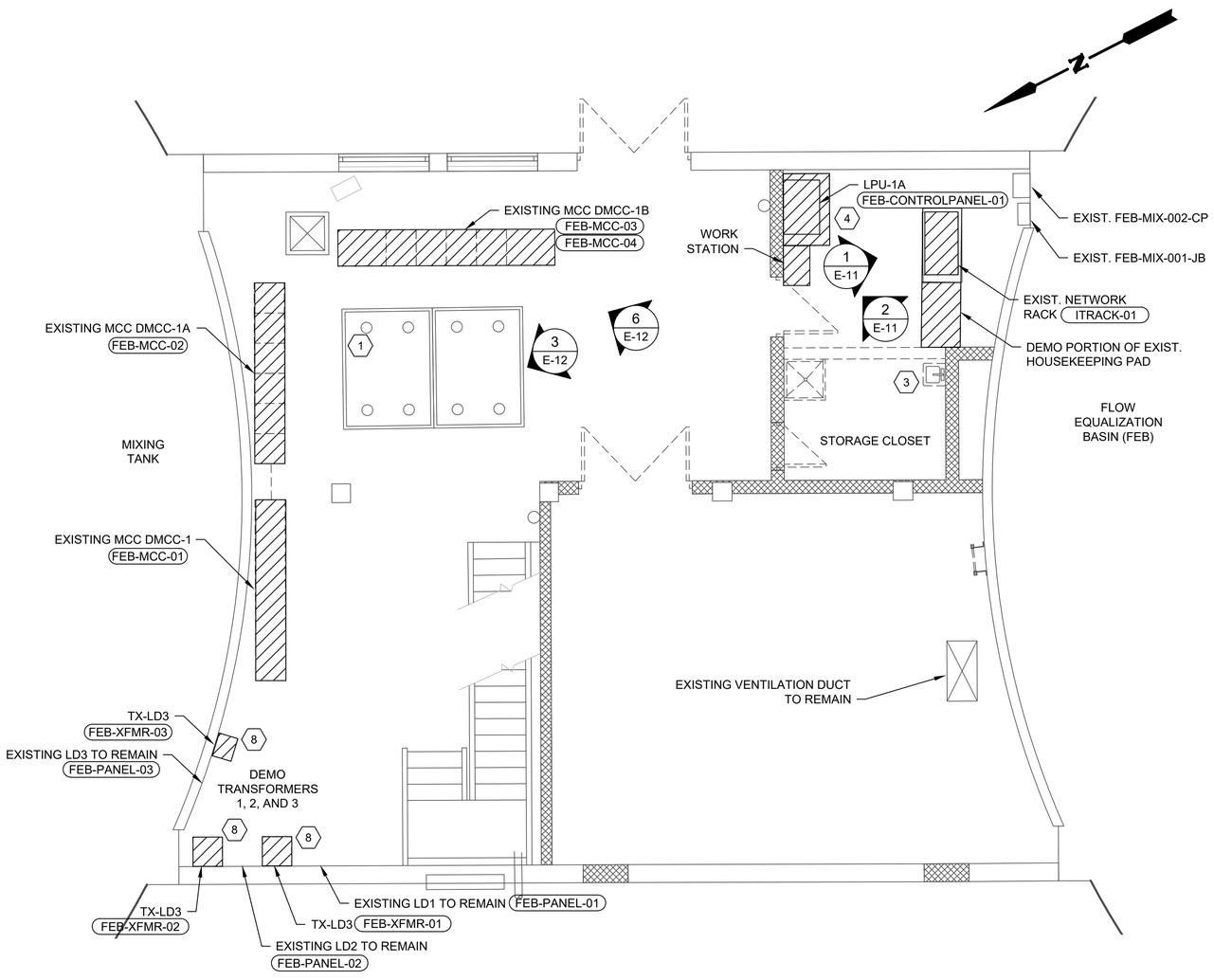
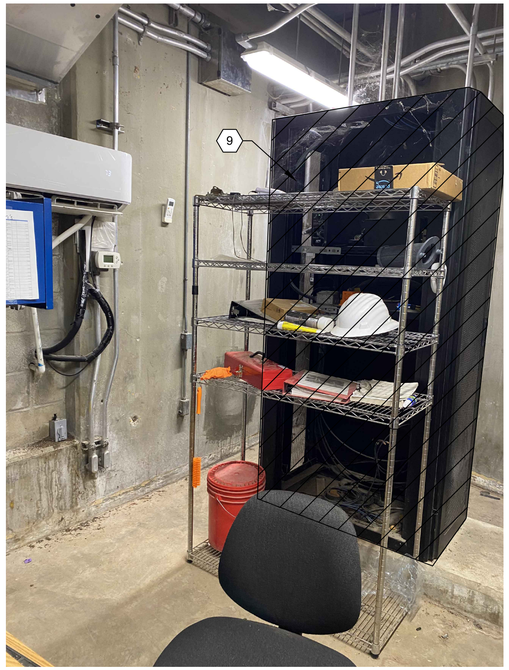
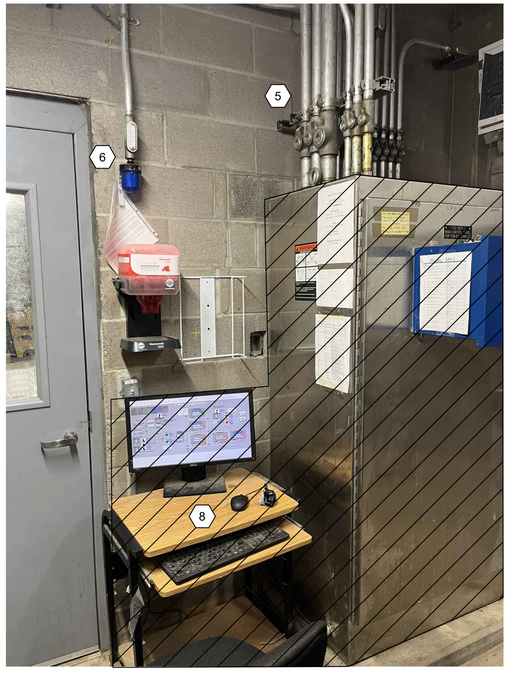



## FEB BUILDING ELECTRICAL DEMOLITION PLAN

4 2 0 4
SCALE IN FEET




1 / E-11 DEMO EXISTING NETWORK RACK




2 / E-11 LPU-1A (FEB-CONTROLPANEL-01) DEMOLITION PHOTO

## NOTES BY SYMBOL (X)

1. DEMOLISH EXISTING FEB MCC'S AFTER NEW FEB ELECTRICAL ROOM IS ENERGIZED AND THE NEW HEADWORK IS IN SERVICE.
2. EXISTING CONTROL ROOM TO BE UPGRADED.
3. WALL TO BE REMOVED TO CREATE LARGER CONTROL ROOM. RELOCATE AND RE-FEED ANY EXISTING ELECTRICAL EQUIPMENT LOCATED ON WALL.
4. DEMOLISH LPU-1A AND RETURN ALL PLC PARTS TO THE OWNER.
5. EXISTING CABLE AND CONDUITS SHALL BE DEMOLISHED.
6. RELOCATE TO THE TOP OF THE DOOR.
7. DEMOLISH WORK STATION.
8. THE CONTRACTOR SHALL FIELD VERIFY AND DISCONNECT ALL THE WIRES AND CONDUITS FROM PANELS LD1, LD2, AND LD3 TO VARIOUS LOADS. PANELS SHALL BE CONVERTED TO JUNCTION BOXES AND THE WIRES EXTENDED TO NEW PANELS. REFER TO SHEETS E-18 AND E-32.
9. CARE SHALL BE TAKEN DURING THE DEMOLITION OF THE NETWORK RACK TO PRESERVE ALL EXISTING CABLES RISING THROUGH THE FLOOR FOR FUTURE REUSE OR RE-ROUTING.

GENERAL NOTES:

1. RE-ROUTE OR DEMOLISH ALL EXISTING PIPING WITHIN ELECTRICAL ROOM. REFERENCE MECHANICAL SHEETS FOR DETAILS.
2. EXISTING CABLE AND CONDUIT FROM THE ELECTRICAL PANEL TO LOCAL DISCONNECT TO BE REPLACED.
3. ONCE ALL EQUIPMENT IS RE-POWERED AND COMMISSIONED FROM NEW ELECTRICAL SYSTEM, EXISTING MCCs AND ASSOCIATED RACEWAYS TO BE DEMOLISHED.
4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE STRUCTURES AND FACILITIES SCHEDULED UNDER THE CONTRACT WITH THE OWNER TO IDENTIFY AND RESOLVE POTENTIAL CONFLICTS WITH ALL ABOVE AND BELOW GRADE STRUCTURES AND FACILITIES.
5. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.


TEXAS REGISTERED ENGINEERING FIRM F-204
TEXAS REGISTERED ENGINEERING FIRM F-2005
STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING ELECTRICAL DEMOLITION PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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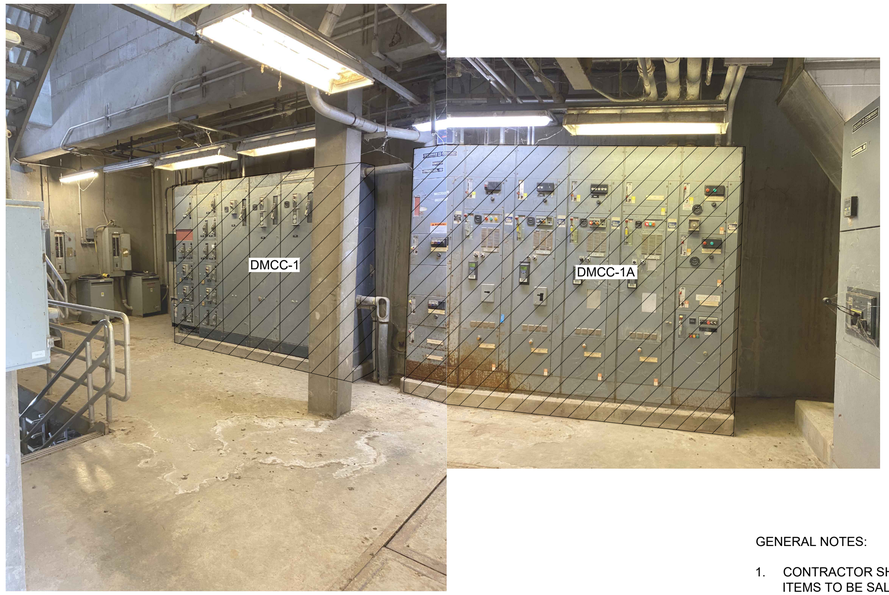
EXISTING CONDUIT FROM EXISTING MCCs. Conduit AND CABLE TO BE REPLACED AND RE-FED FROM THE FEB MCCs.

1 REPLACE CONDUIT AND CABLE TO EXISTING DIGESTER FEED PUMPS
SCALE: NTS

NOTE: LOCAL CONTROLS TO REMAIN

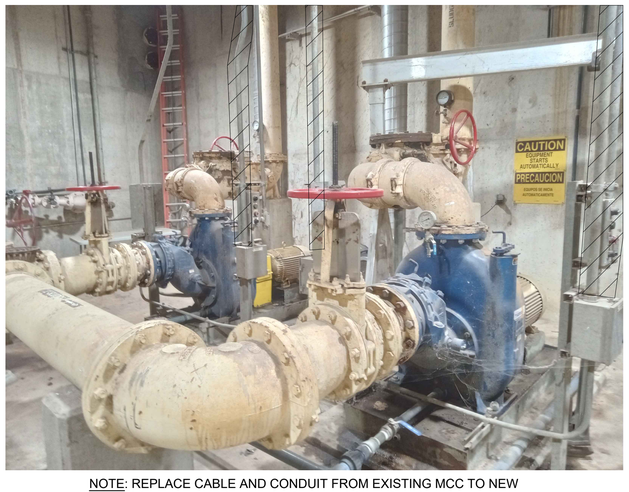
2 REPLACE CONDUIT AND CABLE TO GRINDER PUMP
SCALE: NTS




3 MOTOR CONTROL CENTERS DMCC-1 AND DMCC-1A TO BE DEMOLISHED
SCALE: NTS

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.




NOTE: REPLACE CABLE AND CONDUIT FROM EXISTING MCC TO NEW FEB MCC. TERMINATION JUNCTION AND CONTROL BOX TO REMAIN.

4 REPLACE CONDUIT AND CABLE TO EXISTING SLUDGE TRANSFER PUMP
SCALE: NTS

NOTE: REPLACE CABLE AND CONDUIT FROM EXISTING MCC TO NEW FEB MCC. TERMINATION JUNCTION BOX TO REMAIN.

5 REPLACE CONDUIT AND CABLE TO EXISTING SUMP PUMP CONTROL PANEL
SCALE: NTS

6 MOTOR CONTROL CENTER DMCC1B TO BE DEMOLISHED
SCALE: NTS

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

EXISTING FEB BUILDING DEMOLITION PHOTOS

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-12

GENERAL NOTES:

1. REFERENCE MECHANICAL DEMOLITION SHEET M-2 ENTIRE EXISTING HEADWORKS WILL BE DEMOLISHED AFTER THE NEW HEADWORKS IS IN SERVICE AND TESTED.
2. REMOVE ALL ELECTRICAL EQUIPMENT, CABLES, CONDUIT AND SERVICE.
3. COORDINATE WITH OWNER ON EQUIPMENT TO BE REMOVED AND RETURNED TO OWNER.
4. DEMOLISH CABLE AND CONDUIT BACK TO SOURCE. CONTRACTOR RESPONSIBLE TO VERIFY CONDUIT SERVICE AND REMOVE UNUSED CABLE AND CONDUIT.
5. REPAIR AND PATCH WALLS AFTER CONDUIT AND SUPPORT IS REMOVED.
6. CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND RETURNED TO OWNER PRIOR TO DEMOLITION.

EXISTING HEADWORKS FACILITY ELECTRICAL DEMOLITION

EXISTING HEADWORKS CONDUIT FROM FEB BUILDING TO EXISTING HEADWORKS

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# EXISTING HEADWORKS DEMOLITION PHOTOS

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-13
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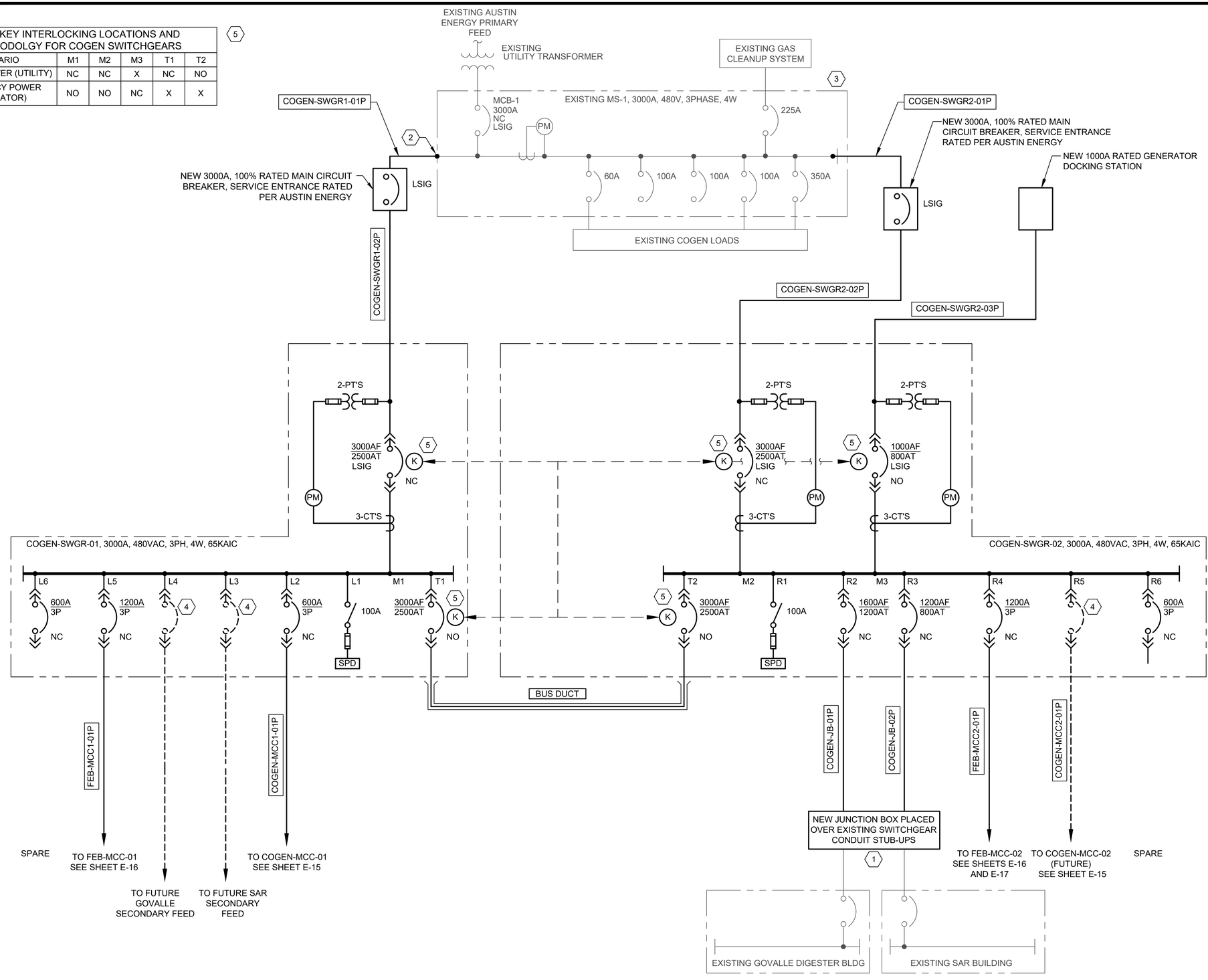
| KIRK KEY INTERLOCKING LOCATIONS AND METHODOLGY FOR COGEN SWITCHGEARS | | | | | |
|---|---|---|---|---|---|
| SCENARIO | M1 | M2 | M3 | T1 | T2 |
| NORMAL POWER (UTILITY) | NC | NC | X | NC | NO |
| EMERGENCY POWER (GENERATOR) | NO | NO | NC | X | X |




## PROPOSED COGEN BUILDING SWITCHGEAR ONE-LINE DIAGRAM

COGEN-SWGR-01 & COGEN SWGR-02

### NOTES BY SYMBOL (X)

1. CABLE FROM THE EXISTING COGEN SWITCHGEAR TO THE EXISTING GOVALLE AND SAR COMPLEXES SHALL REMAIN IN PLACE AND SHALL CONNECT TO THE NEW SWITCHGEAR WITH EPOXY ENCAPSULATED SPLICE KITS WITHIN NEW JUNCTION BOX PLACED OVER EXISTING CONDUIT STUB-UPS FROM EXISTING SWITCHGEAR.
2. TAP EXISTING SWITCHGEAR BUS AND INSTALL CABLES AS SHOWN.
3. CONTRACTOR TO ANALYZE THE EXISTING GROUND SYSTEM AND CONFIRM THAT THE NEUTRAL AND GROUND ARE BONDED AT MS-1.
4. THE CONTRACTOR SHALL PROVIDE NECESSARY PROVISION IN SWITCHGEAR FOR INSTALLING FUTURE BREAKERS.
5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION REQUIRED FOR THE OPERATION OF SWITCHGEAR AS MENTIONED IN OPERATING PHILOSOPHY. PROVIDE 2 KIRK KEY SYSTEMS. ONE SYSTEM SHALL BE ACROSS M1, M2, T1, AND T2 AND SHALL CONSIST OF 3 KEYS SO THAT POWER CAN BE TRANSFERRED BETWEEN BUSSES IN THE EVENT OF ONE UTILITY BEING OUT. THE SECOND SYSTEM SHALL BE ACROSS M1, M2, AND M3 AND SHALL CONSIST OF 2 KEYS WHICH REQUIRE BOTH THE KEYS FROM M1 AND M2 TO BE USED TO CLOSE IN THE GENERATOR BREAKER SO THAT THERE IS NO CHANCE OF CLOSING IN THE GENERATOR ON UTILITY POWER.

GENERAL NOTES:

1. EXISTING COGEN PROCESS LOADS ARE FED FROM SWITCHBOARD MS-1, LOCATED OUTSIDE THE NEW COGEN ELECTRICAL BUILDING. PROJECT WILL INSTALL SPARE BREAKERS AND INCLUDE SPACE AVAILABLE IN COGEN ELECTRICAL ROOM TO ALLOW FOR FUTURE PROJECT TO FEED COGEN PROCESS LOADS FROM NEW MCC LOCATED IN THE COGEN ELECTRICAL BUILDING. A NEW SERVICE DISCONNECT WILL BE INSTALLED MEETING AUSTIN ENERGEY'S REQUIREMENTS, TO FEED THE NEW MAIN-TIE-TIE-MAIN SWITCHGEAR.
2. CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"x22" MIN.) PROTECTED BY PLEXIGLASS DURING CONSTRUCTION. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED COGEN BUILDING SWITCHGEAR ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## NOTES BY SYMBOL (X)

1. PROVISION FOR FUTURE COGEN-MCC-2 FEEDER CIRCUIT BREAKER.
2. CIRCUIT BREAKER FOR SURGE PROTECTION DEVICE SHALL BE SIZED BY THE MOTOR CONTROL CENTER MANUFACTURER.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN.) PROTECTED BY PLEXIGLASS. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.

(FUTURE) FEEDER FROM COGEN-SWGR-02 SEE SHEET E-14

FEEDER FROM COGEN-SWGR-01 SEE SHEET E-14

COGEN-MCC-02, 600A (FUTURE)

COGEN-MCC-01, 480V, 3PH, 3W, 65KAIC, 600A

2-PT'S

600A 3P

LSIG NC

PM

3-CT'S

2

SPD

1

20A 3P

250A 3P

30A 3P

20A 3P

20A 3P

20A 3P

20A 3P

20A 3P

20A 3P

20A 3P

20A 3P

200A 3P

MCP

1

15KVA 480V-120V/208V

PANEL G

TX-04-01P

FIELD TAG: XFMR FEB1-L POSITION ID: COGEN-XFMR-04 150KVA 480V-120V/208V

FIELD TAG: PANEL FEB1-L POSITION ID: COGEN-XFMR-04

TX-G2-01P

TX-G2 15KVA 480V-120V/208V

PANEL G2

COGEN-COMPRESSOR1-01P

AIR COMPRESSOR CONTROLLER

COGEN-COMPRESSOR2-01P

7.5

AIR COMPRESSOR NO. 1 COGEN-COMPRESSOR-01

7.5

AIR COMPRESSOR NO. 2 COGEN-COMPRESSOR-02

COGEN-UH1-01P

UNIT HEATER 1 COGEN-UH-01

COGEN-UH2-01P

UNIT HEATER 2 COGENUH-02

COGEN-EF1-01P

0.5

EXHAUST FAN COGEN-EF-01

COGEN-AFU1-01P

3

AIR FILTRATION UNIT COGEN-AFU-01

SPARE

SPARE

SPARE

FUTURE COGEN PROCESS EQUIPMENT

FUTURE COGEN PROCESS EQUIPMENT

PROPOSED COGEN BUILDING COGEN-MCC-01 & MCC-02 ONE-LINE DIAGRAM


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED COGEN BUILDING GMCC1 AND GMCC2 ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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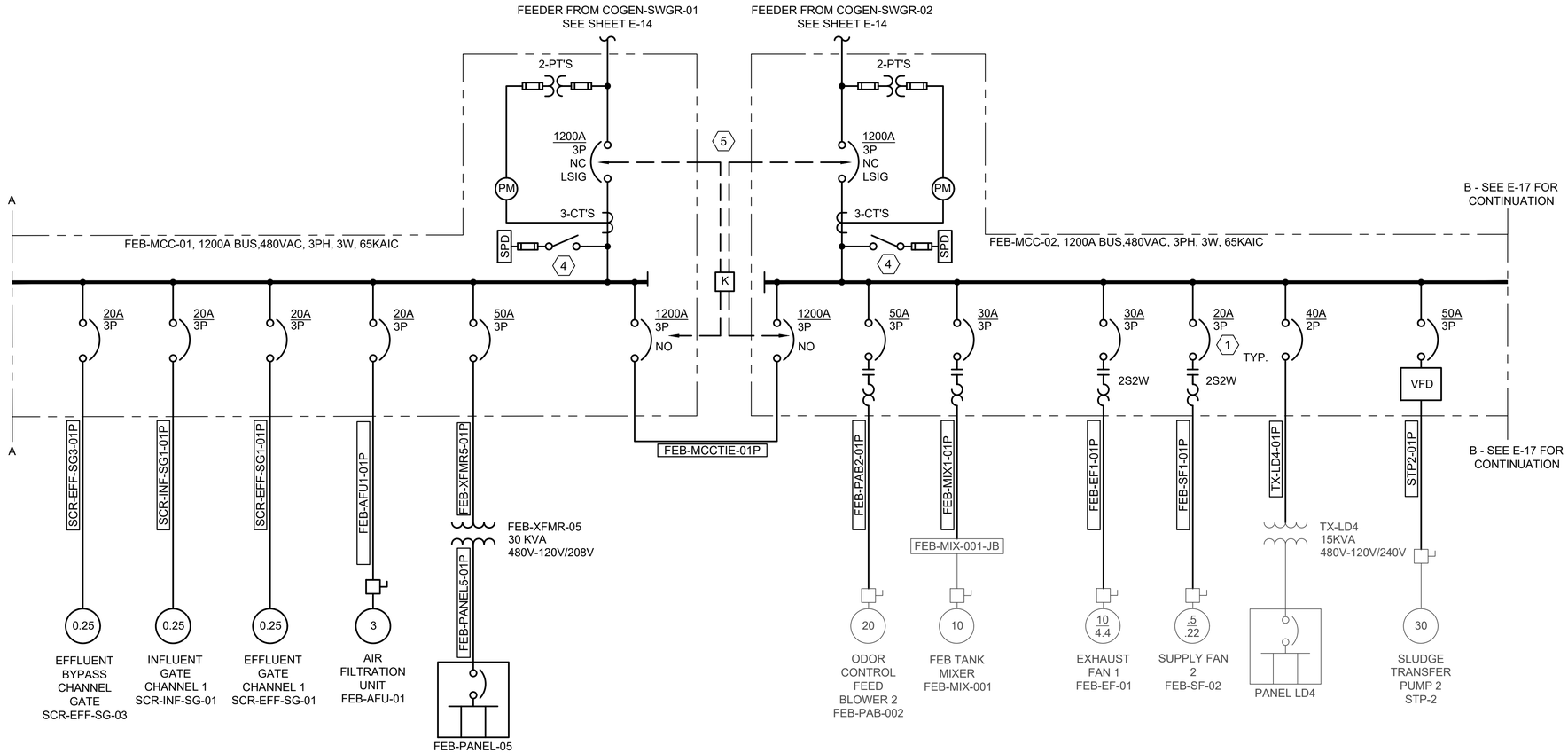


## PROPOSED FEB BUILDING FEB-MCC-01 & FEB-MCC-02 ONE-LINE DIAGRAM

### NOTES BY SYMBOL (X)

1. THE CONTRACTOR SHALL COORDINATE WITH MCC MANUFACTURER AND SIZE ALL COMPONENTS INSIDE STARTER WHICH INCLUDES MCP, CONTACTOR, OVERLOAD RELAY, ETC., BASED ON MOTOR RATINGS.
2. THE CONTRACTOR SHALL COORDINATE WITH THE BAR SCREEN MANUFACTURER AND FINALIZE THE BREAKER RATING.
3. THE CONTRACTOR SHALL COORDINATE WITH THE RECEIVING PUMP STATION MANUFACTURER AND FINALIZE THE BREAKER RATING.
4. OVERCURRENT PROTECTION FOR SURGE PROTECTION DEVICE SHALL BE SIZED BY THE MOTOR CONTROL CENTER MANUFACTURER.
5. PROVIDE KIRK KEY SYSTEM CONSISTING OF 3 KEYS ACROSS M1, M2, T1, AND T2 SO THAT POWER CAN BE TRANSFERRED ACROSS THE TIES IN THE EVENT OF LOSS OF ONE UTILITY FEED BREAKER.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN.) PROTECTED BY PLEXIGLASS. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO. | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED FEB BUILDING FEB-MCC-01 AND FEB-MCC-02 ONE-LINE DIAGRAM

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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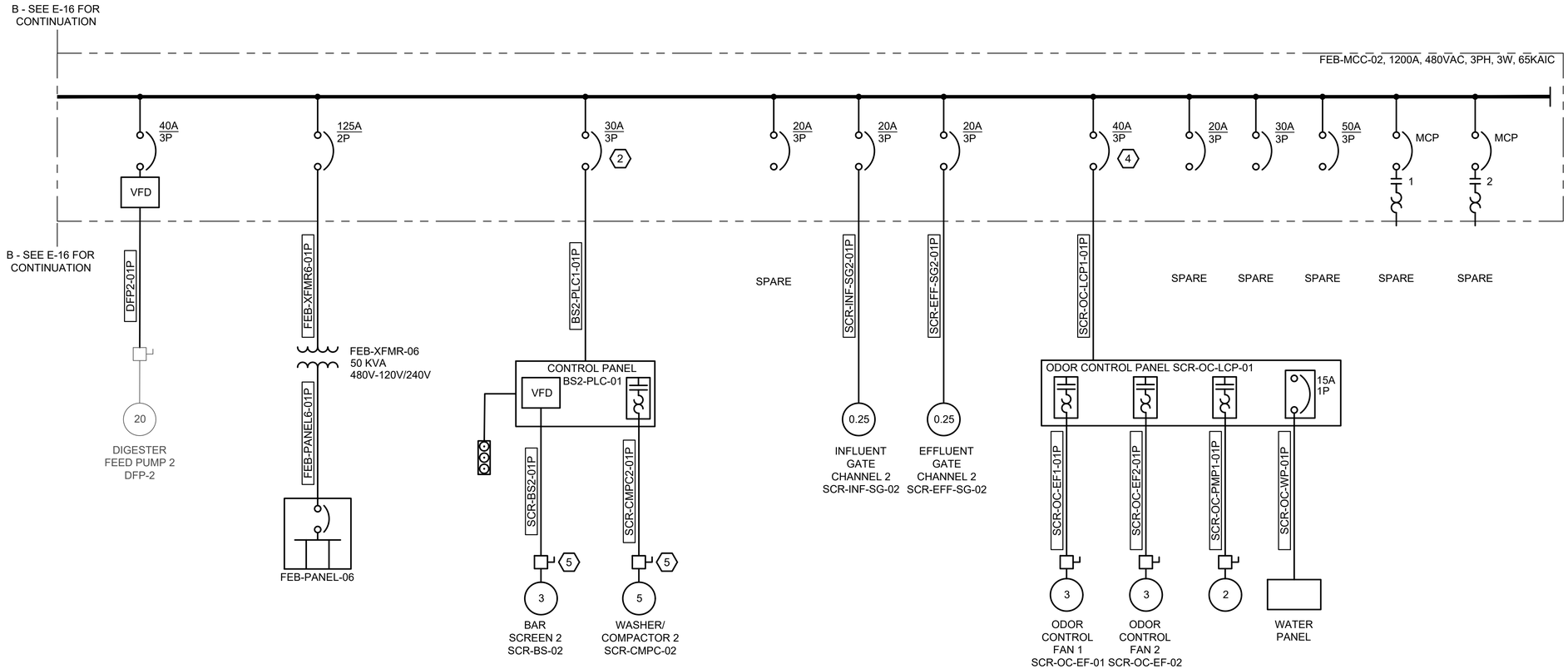


## NOTES BY SYMBOL (X)

1. THE CONTRACTOR SHALL COORDINATE WITH MCC MANUFACTURER AND SIZE ALL COMPONENTS INSIDE STARTER WHICH INCLUDES MCP, CONTACTOR, OVERLOAD RELAY, ETC., BASED ON MOTOR R.
2. THE CONTRACTOR SHALL COORDINATE WITH THE BAR SCREEN MANUFACTURER AND FINALIZE THE BREAKER RATING.
3. THE CONTRACTOR SHALL COORDINATE WITH THE RECEIVING PUMP STATION MANUFACTURER AND FINALIZE THE BREAKER RATING.
4. THE CONTRACTOR SHALL COORDINATE WITH THE ODOR CONTROL SYSTEM MANUFACTURER AND FINALIZE THE BREAKER RATING.
5. NEMA 4X, 316 STAINLESS STEEL, HEAVY DUTY DISCONNECT SWITCH.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE A FULL SIZED ONE-LINE DIAGRAM (34"X22" MIN.) PROTECTED BY PLEXIGLASS. MOUNT ON WALL, EXACT LOCATION TO BE FIELD VERIFIED.

PROPOSED FEB BUILDING FEB-MCC-01 & FEB-MCC-02 ONE-LINE DIAGRAM (CONTINUED)


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE 1" 0
BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

PROPOSED FEB BUILDING FEM-MCC-01 & FEB-MCC-02 ONE-LINE DIAGRAM (CONTINUED)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## FEB-PANEL-05

3 PH | 4 WIRE | VOLTAGE L-L: 208 | L-N: 120 | MAIN: 110A MCB

| LOCATION: ELECTRICAL BUILDING | | | | | | PH | PH | PH | MOUNTING: SURFACE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CKT# | WIRE | BKR. | POLE | DESCRIPTION | VA | A | B | C | VA | DESCRIPTION | POLE | BKR. | WIRE | CKT# |
| 1 | #12 | 20 | 1 | HEADWORKS BAR AREA SCREEN LIGHTING | 498 | 612 | | | 114 | CONTROL ROOM LIGHTING | 1 | 20 | #12 | 2 |
| 3 | #12 | 20 | 1 | ELECTRICAL ROOM LIGHTING | 228 | | 928 | | 700 | SCR-RF-01 | 1 | 20 | #12 | 4 |
| 5 | #12 | 20 | 1 | SCR-RF-02 | 700 | | | 1400 | 700 | SCR-RF-03 | 1 | 20 | #12 | 6 |
| 7 | #12 | 20 | 1 | SCR-RF-04 | 700 | 2300 | | | 1600 | SCR-SUMP-LCP-01 | 2 | 20 | #12 | 8 |
| 9 | #12 | 20 | 1 | SCR-FIT-01 | 500 | | 2100 | | 1600 | | | | #12 | 10 |
| 11 | #12 | 20 | 1 | SCR-FIT-03 | 500 | | | 875 | 375 | HEADWORKS AREA LIGHTING | 1 | 20 | #12 | 12 |
| 13 | #12 | 20 | 2 | SCR-SUMP-LCP-02 | 1600 | 2100 | | | 500 | SCR-FIT-02 | 1 | 20 | #12 | 14 |
| 15 | #12 | | | | 1600 | | 2100 | | 500 | SCR-FIT-04 | 1 | 20 | #12 | 16 |
| 17 | 12 | 20 | 1 | HEADWORKS AREA POLE LIGHTING | 375 | | | 735 | 360 | HEADWORKS GFCI | 1 | 20 | #12 | 18 |
| 19 | #12 | 20 | 1 | (1) EXISTING 120/208 LOADS CONNECTED TO LD3 | 600 | 1200 | | | 600 | (1) EXISTING 120/208 LOADS CONNECTED TO LD3 | 1 | 20 | #12 | 20 |
| 21 | #12 | 20 | 1 | | 600 | | 1200 | | 600 | | 1 | 20 | #12 | 22 |
| 23 | #12 | 20 | 1 | | 600 | | | 1200 | 600 | | 1 | 20 | #12 | 24 |
| 25 | #12 | 20 | 1 | | 600 | 1200 | | | 600 | | 1 | 20 | #12 | 26 |
| 27 | #12 | 20 | 1 | | 600 | | 1200 | | 600 | | 1 | 20 | #12 | 28 |
| 29 | #12 | 20 | 1 | | 600 | | | 1200 | 600 | | 1 | 20 | #12 | 30 |
| 31 | #12 | 20 | 1 | | 600 | 1200 | | | 600 | | 1 | 20 | #12 | 32 |
| 33 | #12 | 20 | 1 | | 600 | | 1200 | | 600 | | 1 | 20 | #12 | 34 |
| 35 | #12 | 20 | 1 | | 600 | | | 1200 | 600 | | 1 | 20 | #12 | 36 |
| 37 | #12 | 20 | 1 | | 600 | 1200 | | | 600 | | 1 | 20 | #12 | 38 |
| 39 | #12 | 20 | 1 | | 600 | | 1200 | | 600 | | 1 | 20 | #12 | 40 |
| 41 | #12 | 20 | 1 | | 600 | | | 1200 | 600 | | 1 | 20 | #12 | 42 |
| | | | | TOTAL LOAD(VA)/PHASE THIS PANEL: | | 9812 | 9928 | 7810 | | | | | | |
| | | | | TOTAL CONNECTED LOAD(VA) THIS PANEL: | | | 27550 | | | TOTAL CONNECTED LOAD (AMPS): | 76.5 | | | |
| | | | | TOTAL DEMAND LOAD(VA) THIS PANEL: | | | 27550 | | | TOTAL DEMAND LOAD (AMPS): | 76.5 | | | |

NOTES:
1. 22 K.A.I.C
2. NEMA 1
3. NEUTRAL + GROUND BUS
4. PANEL TO BE PROVIDED WITH MFG. STANDARD INTERNAL SPD
5. GND WIRES SHALL BE SIZED PER NEC TABLE 250.122
6. MULTIPLE CIRCUITS MAY BE COMBINED IN A SINGLE CONDUIT FOR FIELD ROUTING PROVIDED NEC MAXIMUM CONDUIT FILL IS NOT EXCEEDED

## FEB-PANEL-06

1 PH | 3 WIRE | VOLTAGE L-L: 240 | L-N: 120 | MAIN: 250 MCB

| LOCATION: | | | | | | PH | PH | MOUNTING: | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CKT# | WIRE | BKR. | POLE | DESCRIPTION | VA | A | B | VA | DESCRIPTION | POLE | BKR. | WIRE | CKT# |
| 1 | #10 | 30 | 2 | FEB-CU-01 | 3240 | 6480 | | 3240 | FEB-CU-02 | 2 | 30 | #10 | 2 |
| 3 | | | | | 3240 | | 6480 | 3240 | | | | | 4 |
| 5 | #10 | 30 | 2 | FEB-CU-03 | 3240 | 4680 | | 1440 | FEB-CU-04 | 2 | 20 | #10 | 6 |
| 7 | | | | | 3240 | | 4680 | 1440 | | | | | 8 |
| 9 | - | 30 | 2 | SPARE | | 0 | | | SPARE | 2 | 30 | | 10 |
| 11 | | | | | | | 0 | | | | | | 12 |
| 13 | #12 | 20 | 1 | SCR-OC-FIT-01 | 1000 | 2000 | | 1000 | HEADWORKS HEAT TRACE 4 | 1 | 20 | #12 | 14 |
| 15 | #12 | 20 | 1 | SCR-OC-FIT-02 | 1000 | | 2000 | | SPACE | - | - | - | 16 |
| 17 | #12 | 20 | 1 | HEADWORKS HEAT TRACE 1 | 1000 | 2000 | | 1000 | FEB-SECITRACK-01 | 1 | 20 | #12 | 18 |
| 19 | #12 | 20 | 1 | HEADWORKS HEAT TRACE 2 | 1000 | | 1200 | 200 | SCR-INF-AIT-01 | 1 | 20 | #12 | 20 |
| 21 | #12 | 20 | 1 | HEADWORKS HEAT TRACE 3 | 1000 | 1000 | | | SPARE | 1 | 20 | - | 22 |
| 23 | #12 | 20 | 1 | (1) EXISTING 120/240V LOADS CONNECTED TO LD1 AND LD2 | 1000 | | 2000 | 1000 | (1) EXISTING 120/240V LOADS CONNECTED TO LD1 AND LD2 | 1 | 20 | #12 | 24 |
| 25 | #12 | 20 | 1 | | 1000 | 2000 | | 1000 | | 1 | 20 | #12 | 26 |
| 27 | #12 | 20 | 1 | | 1000 | | 2000 | 1000 | | 1 | 20 | #12 | 28 |
| 29 | #12 | 20 | 1 | | 1000 | 2000 | | 1000 | | 1 | 20 | #12 | 30 |
| 31 | #12 | 20 | 1 | | 1000 | | 2000 | 1000 | | 1 | 20 | #12 | 32 |
| 33 | #12 | 20 | 1 | | 1000 | 2000 | | 1000 | | 1 | 20 | #12 | 34 |
| 35 | #12 | 20 | 1 | | 1000 | | 2000 | 1000 | | 1 | 20 | #12 | 36 |
| 37 | #12 | 20 | 1 | | 1000 | 2000 | | 1000 | | 1 | 20 | #12 | 38 |
| 39 | #12 | 20 | 1 | | 1000 | | 2000 | 1000 | | 1 | 20 | #12 | 40 |
| 41 | #12 | 20 | 1 | | 1000 | 2000 | | 1000 | | 1 | 20 | #12 | 42 |
| | | | | TOTAL LOAD(VA)/PHASE THIS PANEL: | | 26160 | 24360 | | | | | | |
| | | | | TOTAL CONNECTED LOAD(VA) THIS PANEL: | | 50520 | | | TOTAL CONNECTED LOAD (AMPS): | | 210.5 | | |
| | | | | TOTAL DEMAND LOAD(VA) THIS PANEL: | | 50520 | | | TOTAL DEMAND LOAD (AMPS): | | 210.5 | | |

NOTES:
1. 22 K.A.I.C
2. NEMA 3R, STAINLESS STEEL
3. NEUTRAL + GROUND BUS, COPPER (ALUMINUM NOT ALLOWED)
4. PANEL TO BE PROVIDED WITH MFG. STANDARD INTERNAL SPD
5. (G) DEMOTES GFCI CIRCUIT BREAKER
6. GND WIRES SHALL BE SIZED PER NEC TABLE 250.122
7. MULTIPLE CIRCUITS MAY BE COMBINED IN A SINGLE CONDUIT FOR FIELD ROUTING PROVIDED NEC MAXIMUM CONDUIT FILL IS NOT EXCEEDED

### NOTES BY SYMBOL (X)

1. REFER TO SHEET E-34 FOR INSTRUCTIONS ON TRANSFERRING LOADS FROM EXISTING PANELS TO NEW PANELS.

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL PANEL SCHEDULES (1 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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E-18
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| PANEL G (LOCATED IN COGEN-MCC-01) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 PH | | | 4 WIRE | VOLTAGE | L-L: 208 | | L-N: 120 | | MAIN: 200A MCB | | | |
| LOCATION: ELECTRICAL BUILDING | | | | | PH | PH | PH | MOUNTING: SURFACE | | | | |
| CKT# | BKR. | POLE | DESCRIPTION | VA | A | B | C | VA | DESCRIPTION | POLE | BKR. | CKT# |
| 1 | 30 | 2 | **COGEN-CU-03** | **4860** | 4860 | | | 0 | SPARE | 2 | 20 | 2 |
| 3 | | | | **4860** | | 4860 | | 0 | | | | 4 |
| 5 | 30 | 2 | **COGEN-CU-04** | **4860** | | | 5260 | 400 | Lighting New Office | 1 | 20 | 6 |
| 7 | | | | **4860** | 5260 | | | 400 | Lighting Ext. Bldg. via ELA | 1 | 20 | 8 |
| 9 | 20 | 1 | Lighting Engine Room | 400 | | 800 | | 400 | Receptacles Shop Sump Area | 1 | 20 | 10 |
| 11 | 20 | 1 | Lighting Shop | 400 | | | 800 | 400 | Receptacles New Office | 1 | 20 | 12 |
| 13 | 20 | 1 | Receptacles Shop | 400 | 800 | | | 400 | Receptacles Engine Rm. East | 1 | 20 | 14 |
| 15 | 20 | 1 | Receptacles Workshop | 400 | | 800 | | 400 | Fuel Oil Transfer Pump | 1 | 20 | 16 |
| 17 | 20 | 1 | H2S Gas Detection and Receptacles Engine Rm. West | 400 | | | 800 | 400 | Shop Sump | 3 | 20 | 18 |
| 19 | 20 | 1 | Receptacles Exterior East | 400 | 800 | | | 400 | | | | 20 |
| 21 | 20 | 1 | EF 10 Exhaust Fan Battery Room | 400 | | 800 | | 400 | | | | 22 |
| 23 | 20 | 1 | Receptacles New Office | 400 | | | 800 | 400 | Emerg. Lights Eng. Rm. | 1 | 20 | 24 |
| 25 | 20 | 1 | Compressor Alarm Panel | 400 | 800 | | | 400 | Receptacles New Workshop | 1 | 20 | 26 |
| 27 | 20 | 1 | Emerg. Lights Shop&Comp | 400 | | 800 | | 400 | Hydropnuematic Control | 1 | 20 | 28 |
| 29 | 20 | 2 | Boiler | 400 | | | 800 | 400 | Air Compressor Timers | 1 | 20 | 30 |
| 31 | | | | 400 | 800 | | | 400 | Drip Return Pump Eng. 2 | 1 | 20 | 32 |
| 33 | 20 | 1 | Oil/Water Separator Alarm | 400 | | 800 | | 400 | Heater Eng. 2 | 1 | 20 | 34 |
| 35 | 20 | 1 | Drip Return Pump Eng. 1 | 400 | | | 800 | 400 | EX. Fan Battery Charger Room | 1 | 20 | 36 |
| 37 | 20 | 1 | Heater Eng. 1 | 400 | 800 | | | 400 | Ext. Area Lighting via ELA | 1 | 20 | 38 |
| 39 | 20 | 1 | Ext. Area Lighting via ELA | 400 | | 400 | | | | 1 | 20 | 40 |
| 41 | | | | | | | 0 | | | 1 | 20 | 42 |
| TOTAL LOAD(VA)/PHASE THIS PANEL: | | | | | 14120 | 9260 | 9260 | | | | | |
| TOTAL CONNECTED LOAD(VA) THIS PANEL: | | | | | | 32640 | | TOTAL CONNECTED LOAD (AMPS): 91 | | | | |
| TOTAL DEMAND LOAD(VA) THIS PANEL: | | | | | | 32640 | | TOTAL DEMAND LOAD (AMPS): 91 | | | | |

NOTES:

1. 22 K.A.I.C
2. NEMA 1
3. NEUTRAL + GROUND BUS
4. PANEL TO BE PROVIDED WITH MFG. STANDARD INTERNAL SPD
5. THE CONTRACTOR SHALL FIELD VERIFY AND DISCONNECT ALL THE WIRES AND CONDUITS FROM THE EXISTING PANEL G IN GMCC TO VARIOUS LOADS (REFER SHEET E-6 & E-9) AND PRESERVE IT FOR RE-CONNECTING TO THE NEW PANEL G IN COGEN-MCC-01 (REFER SHEET E-16 & E-33).

| PANEL 04 (LOCATED IN COGEN BUILDING) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 PH | | | 4 WIRE | VOLTAGE | L-L: 208 | | L-N: 120 | | MAIN: 200A MCB | | | |
| LOCATION: ELECTRICAL BUILDING | | | | | PH | PH | PH | MOUNTING: SURFACE | | | | |
| CKT# | BKR. | POLE | DESCRIPTION | VA | A | B | C | VA | DESCRIPTION | POLE | BKR. | CKT# |
| 1 | 20 | 2 | SPARE | 0 | 8500 | | | 8500 | Chemical Feed DCSCR-1 | 1 | 30 | 2 |
| 3 | | | | 0 | | 8500 | | 8500 | Chemical Feed DCSCR-2 | 1 | 30 | 4 |
| 5 | 20 | 2 | SPARE | 0 | | | 8500 | 8500 | Chemical Feed DCSCR-3 | 1 | 30 | 6 |
| 7 | | | | 0 | 540 | | | 540 | Chemical Feed FEB1-FP-230 | 1 | 20 | 8 |
| 9 | 20 | 1 | Chemical Feed GFCI | 540 | | 1080 | | 540 | Chemical Feed FEB1-FP-2001 | 1 | 20 | 10 |
| 11 | 20 | 1 | Chemical Feed Canopy Lights | 540 | | | 740 | 200 | LIT-FEB1-2001-01 | 1 | 20 | 12 |
| 13 | 20 | 1 | Chemical Feed Pole Lights | 540 | 740 | | | 200 | LIT-FEB1-2001-02 | 1 | 20 | 14 |
| 15 | 20 | 1 | Chemical Feed Pole Lights | 540 | | 5840 | | 5300 | New AC Split Unit | 1 | 20 | 16 |
| 17 | 20 | 1 | Chemical Feed Spare Circuit | 540 | | | 5840 | 5300 | New AC Split Unit | 1 | 20 | 18 |
| 19 | 30 | 2 | **COGEN-CU-01** | **4860** | 9720 | | | **4860** | **COGEN-CU-05** | **2** | **30** | 20 |
| 21 | | | | **4860** | | 9720 | | **4860** | | | | 22 |
| 23 | 30 | 2 | **COGEN-CU-02** | **4860** | | | 5860 | **1000** | **FEB-SECITRACK-01** | **1** | **20** | 24 |
| 25 | | | | **4860** | 4860 | | | | SPACE | 1 | 20 | 26 |
| 27 | **20** | **1** | **COGEN-SWGR-CP** | **1000** | | 1000 | | | SPACE | 1 | 20 | 28 |
| 29 | 20 | 1 | SPACE | | | | 0 | | SPACE | 1 | 20 | 30 |
| 31 | 20 | 1 | SPACE | | 0 | | | | SPACE | 1 | 20 | 32 |
| 33 | 20 | 1 | SPACE | | | 0 | | | SPACE | 1 | 20 | 34 |
| 35 | 20 | 1 | SPACE | | | | 0 | | SPACE | 1 | 20 | 36 |
| 37 | 20 | 1 | SPACE | | 0 | | | | SPACE | 1 | 20 | 38 |
| 39 | 20 | 1 | SPACE | | | 0 | | | SPACE | 1 | 20 | 40 |
| 41 | 20 | 1 | SPACE | | | | 0 | | SPACE | 1 | 20 | 42 |
| TOTAL LOAD(VA)/PHASE THIS PANEL: | | | | | 24360 | 26140 | 20940 | | | | | |
| TOTAL CONNECTED LOAD(VA) THIS PANEL: | | | | | | 71440 | | TOTAL CONNECTED LOAD (AMPS): 198 | | | | |
| TOTAL DEMAND LOAD(VA) THIS PANEL: | | | | | | 71440 | | TOTAL DEMAND LOAD (AMPS): 198 | | | | |

NOTES:

1. 22 K.A.I.C
2. NEMA 1
3. NEUTRAL + GROUND BUS
4. PANEL TO BE PROVIDED WITH MFG. STANDARD INTERNAL SPD


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


REVISION | BY | DATE | NO.

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL PANEL SCHEDULES (2 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-19
128 of 196


PRINTED BY: LeuenbGR DATE: 6/23/2025
FILE PATH: C:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-19_CPY.dwg

| LIGHTING FIXTURE SCHEDULE | | | | | |
|---|---|---|---|---|---|
| TYPE | MANUFACTURER | VOLT | MANUFACTURER MODEL # | FIXTURE DESCRIPTION | WATTAGE |
| A | HOLOPHANE | MVOLT | EMS_L48_6000LM_IMAFD_MD_MVOLT_50K_80CRI_SB01R0 | LOW-PROFILE ENCLOSED AND GASKETED | 38 |
| AE | HOLOPHANE | MVOLT | EMS_L48_6000LM_IMAFD_MD_MVOLT_50K_80CRI_E10WMCP_SB01R0 | LOW-PROFILE ENCLOSED AND GASKETED / W EMERGENCY BATTERY | 38 |
| B | HOLOPHANE | MVOLT | PXLW_8000LM_MD0_MVOLT_30K_80CRI | PETROLUX LED LOW BAY | 58 |
| BE | HOLOPHANE | MVOLT | PXLW_8000LM_MD0_MVOLT_30K_80CRI_E10WMCP | PETROLUX LED LOW BAY | 58 |
| C | HOLOPHANE | MVOLT | HLWPC2_P30_30K_MVOLT_T3M_80CRI | FULL CUTOFF LED WALLPACK | 71 |
| D | HOLOPHANE | MVOLT | PXLW_3000LM_MD0_MVOLT_30K_80CRI | PETROLUX LED LOW BAY | 22 |
| E | HOLOPHANE | MVOLT | MGLEDM_P15_30K_MVOLT_AG | 25' POLE MOUNTED MONGOOSE MEDIUM LED | 125 |


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL LIGHTING SCHEDULE

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-20
129 of 196

PRINTED BY: MedinaSR DATE: 2/20/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-20_CPY.dwg

# Power Cable and Conduit Schedule

| SR. NO. | CONDUIT/ CABLE TAG | CONDUIT SIZE | CONDUCTOR SIZE | FROM | TO | REMARKS |
|---|---|---|---|---|---|---|
| 1 | BS-LTG-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | BAR SCREEN LIGHTING | |
| 2 | COGEN-AFU1-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-AFU-01 | COGEN AIR FILTRATION UNIT |
| 3 | COGEN-COMPRESSOR1-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-COMPRESSOR-01 | AIR COMPRESSOR NO 1 |
| 4 | COGEN-COMPRESSOR2-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-COMPRESSOR-02 | AIR COMPRESSOR NO 2 |
| 5 | COGEN-CU1-01L | 1" | 2#10, 1#10 G | PANEL 04 | COGEN-CU-01 | |
| 6 | COGEN-CU2-01L | 1" | 2#10, 1#10 G | PANEL 04 | COGEN-CU-02 | |
| 7 | COGEN-CU3-01L | 1" | 2#10, 1#10 G | PANEL 04 | COGEN-CU-05 | |
| 8 | COGEN-CU4-01L | 1" | 2#10, 1#10 G | PANEL G | COGEN-CU-03 | |
| 9 | COGEN-CU5-01L | 1" | 2#10, 1#10 G | PANEL G | COGEN-CU-04 | |
| 10 | COGEN-EF1-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-EF-01 | COGEN EXHAUST FAN |
| 11 | COGEN-JB-01P | 4" | (4)3#500 KCMIL, 1#3/0 G | COGEN-SWGR-02 | EXISTING GOVALLE DIGESTER BUILDING | CONNECTION TO EXISTING DIGESTER BUILDING THROUGH JUNCTION BOX |
| 12 | COGEN-JB-02P | 4" | (3)3#350 KCMIL, 1#1/0 G | COGEN-SWGR-02 | EXISTING SAR BUILDING | CONNECTION TO EXISTING SAR BUILDING THROUGH JUNCTION BOX |
| 13 | COGEN-MCC1-01P | 4" | (2)3#350 KCMIL, 1#1 G | COGEN-SWGR-01 | COGEN-MCC-01` | |
| 14 | COGEN-SWGR1-01P | 4" | (8)4#500 KCMIL, 1 #400 KCMIL G<br>4"C + (2)4"C SPARE | MS-1 SWITCHBOARD (COGEN-SWBD-01) | 3000A NEW SERVICE ENTRANCE | |
| 15 | COGEN-SWGR1-02P | 4" | (8)4#500 KCMIL, 1 #400 KCMIL G<br>4"C + (2)4"C SPARE | 3000A SERVICE ENTRANCE | COGEN-SWGR-01 | |
| 16 | COGEN-SWGR2-01P | 4" | (8)4#500 KCMIL, 1 #400 KCMIL G<br>4"C + (2)4"C SPARE | MS-1 | 3000A NEW SERVICE ENTRANCE | |
| 17 | COGEN-SWGR2-02P | 4" | (8)4#500 KCMIL, 1 #400 KCMIL G<br>4"C + (2)4"C SPARE | 3000A SERVICE ENTRANCE | COGEN-SWGR-02 | |
| 18 | COGEN-SWGR2-03P | 4" | (3)4#400 KCMIL, 1 #2/0 G<br>3"C + (1)3"C SPARE | GENERATOR CONNECTION BOX | COGEN-SWGR-02 | |
| 19 | COGEN-SWGR-CP-01P | 1" | 2#12, 1#12 G | PANEL LD4 | COGEN-SWGR-CP | |
| 20 | COGEN-UH1-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-UH-01 | COGEN UNIT HEATER 1 |
| 21 | COGEN-UH2-01P | 1" | 3#12, 1#12 G | COGEN-MCC-01 | COGEN-UH-02 | COGEN UNIT HEATER 2 |
| 22 | CRANE-01P | 1" | 3#12, 1#12G | FEB-MCC-01 | 1-TON CRANE RECEPTACLE | |
| 23 | CR-LTG-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | CONTROL ROOM LIGHTING | |
| 24 | DFP1-01P | 1" | 3#8, 1#10G | FEB-MCC-01 | DFP-1 | DIGESTER FEED PUMP 1 |
| 25 | DFP2-01P | 1" | 3#8, 1#10G | FEB-MCC-02 | DFP-2 | DIGESTER FEED PUMP 2 |
| 26 | ER-LTG-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | ELECTRICAL ROOM LIGHTING | |
| 27 | FEB-AFU1-01P | 1" | 3#12, 1#12 G | FEB-MCC-01 | FEB-AFU-01 | AIR FILTRATION UNIT |
| 28 | FEB-CU1-01P | 1" | 2#10, 1#10 G | FEB-PANEL-06 | FEB-CU-01 | |
| 29 | FEB-CU2-01P | 1" | 2#10, 1#10 G | FEB-PANEL-06 | FEB-CU-02 | |
| 30 | FEB-CU3-01P | 1" | 2#10, 1#10 G | FEB-PANEL-06 | FEB-CU-03 | |
| 31 | FEB-CU4-01P | 1" | 2#10, 1#10 G | FEB-PANEL-06 | FEB-CU-04 | |
| 32 | FEB-EF1-01P | 1" | 3#12, 1#12 G | FEB-MCC-02 | FEB-EF-01 | EXHAUST FAN 1 |
| 33 | FEB-GR1-01P | 1" | 3#12, 1#12G | FEB-MCC-01 | FEB-GR-001 | GRINDER CONTROL PANEL |
| 34 | FEB-MCC1-01P | 4" | (4)3#500 KCMIL, 1#3/0 G | COGEN-SWGR-01 | FEB-MCC-01 | |
| 35 | FEB-MCC2-01P | 4" | (4)3#500 KCMIL, 1#3/0 G | COGEN-SWGR-02 | FEB-MCC-02 | |
| 36 | FEB-MCCTIE-01P | 4" | (4) 3#500 KCMIL, 1#250 KCMIL G | FEB-MCC-01 | FEB-MCC-02 | FEB-MCC-01 BUSTIE TO FEB-MCC-02 BUSTIE |
| 37 | FEB-MIX1-01P | 1" | 5#12, 1#12 G | FEB-MCC-02 | FEB-MIX-001 | FEB TANK MIXER JUNCTION BOX |
| 38 | FEB-MIX2-01P | 1" | 3#8, 1#10G | FEB-MCC-01 | FEB-MIX-002 | BLENDING TANK MIXER |
| 39 | FEB-PAB1-01P | 1" | 3#8, 1#10G | FEB-MCC-01 | FEB-PAB-001 | ODOR CONTROL FEED BLOWER 1 |
| 40 | FEB-PAB2-01P | 1" | 3#8, 1#10G | FEB-MCC-02 | FEB-PAB-002 | ODOR CONTROL FEED BLOWER 2 |
| 41 | FEB-PANEL5-01P | 2" | 3#2, 1#8 G | FEB-XFMR-05 | FEB-PANEL-05 | Panel 5 |
| 42 | FEB-PANEL6-01P | 3" | 2#250KCMIL, #250KCMIL N, 1#4G | FEB-MCC-02 | FEB-PANEL-06 | PANEL 6 |
| 43 | FEB-SECITRACK-01-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | FEB-SECITRACK-01 | |
| 44 | FEB-SECTRACK-02P | 2" | PULL STRING | COGEN BUILDING CPJB1 | FEB-SECITRACK-01 | |
| 45 | FEB-SF1-01P | 1" | 3#12, 1#12G | FEB-MCC-01 | FEB-SF-01 | SUPPLY FAN 1 |
| 46 | FEB-SF2-01P | 1" | 3#12, 1#12 G | FEB-MCC-02 | FEB-SF-02 | SUPPLY FAN 2 |
| 47 | FEB-SP-LCP-01P | 1" | 3#12, 1#12G | FEB-MCC-01 | FEB-SP-LCP | SUMP PUMP CONTROL PANEL |
| 48 | FEB-XFMR5-01P | 1" | 3#8, 1#10 G | FEB-MCC-01 | FEB-XFMR-05 | TRANSFORMER 5 |
| 49 | FEB-XFMR6-01P | 2" | 2#1, 1#8G | FEB-MCC-02 | FEB-XFMR-06 | TRANSFORMER 6 |
| 50 | HW-GFCI-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | HEADWORKS AREA GFCI | |
| 51 | HW-HT1-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | HEADWORKS HEAT TRACE 1 | |
| 52 | HW-HT2-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | HEADWORKS HEAT TRACE 2 | |
| 53 | HW-HT3-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | HEADWORKS HEAT TRACE 3 | |
| 54 | HW-HT4-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | HEADWORKS HEAT TRACE 4 | |
| 55 | HW-LTG-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | HEADWORKS AREA LIGHTING | |
| 56 | SCR-BS1-01P | 1" | 3#12, 1#12G | SCR-BS1-PLC-01 | SCR-BS-01 | BAR SCREEN 1 CONTROL PANEL |
| 57 | SCR-BS1-CMPC1-01P | 1" | 6#12, 1#12G | SCR-BS1-PLC-01 | HPJB | COMBINED SCR-BS1-PLC-01P, SCR-CMPC1-01P |
| 58 | SCR-BS1-PLC1-01P | 1" | 3#10, 1#10 G | FEB-MCC-01 | SCR-BS1-PLC-01 | BAR SCREEN 1 CONTROL PANEL |
| 59 | SCR-BS2-CMPC2-01P | 1" | 6#12, 1#12 G | SCR-BS2-PLC-01 | HPJB | COMBINED SCR-BS2-PLC-01P, SCR-CMPC2-01P |
| 60 | SCR-BS2-PLC-01P | 1" | 3#12, 1#12 G | SCR-BS2-PLC-01 | SCR-BS-02 | BAR SCREEN 2 |


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL POWER
CABLE AND CONDUIT SCHEDULES
(SHEET 1 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-21
130 of 196

PRINTED BY: LeuenbGR DATE: 3/4/2026
FILE PATH: C:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-21_E-22_CPY.dwg

# Power Cable and Conduit Schedule

| SR. NO. | CONDUIT/ CABLE TAG | CONDUIT SIZE | CONDUCTOR SIZE | FROM | TO | REMARKS |
|---|---|---|---|---|---|---|
| 61 | SCR-BS2-PLC1-01P | 1" | 3#10, 1#10 G | FEB-MCC-02 | SCR-BS2-PLC-01 | BAR SCREEN 2 CONTROL PANEL |
| 62 | SCR-CMPC1-01P | 1" | 3#12, 1#12G | SCR-BS1-PLC-01 | SCR-CMPC-01 | WASHER/COMPACTOR 1 |
| 63 | SCR-CMPC2-01P | 1" | 3#12, 1#12 G | SCR-BS2-PLC-01 | SCR-CMPC-02 | WASHER/COMPACTOR 2 |
| 64 | SCR-EFF-INF-01P | 1-1/4" | 9#12, 1#12G | FEB-MCC-01 | HPJB | COMBINED SCR-EFF-SG3-01P, SCR-INF-SG1-01P, SCR-EFF-SG1-01P |
| 65 | SCR-EFF-INF-02P | 1-1/4" | 6#12, 1#12G | FEB-MCC-02 | HPJB | SCR-INF-SG2-01P, SCR-EFF-SG2-01P |
| 66 | SCR-EFF-SG1-01P | 1" | 3#12, 1#12 G | FEB-MCC-01 | SCR-EFF-SG-01 | EFFLUENT GATE - CHANNEL 1 |
| 67 | SCR-EFF-SG2-01P | 1" | 3#12, 1#12 G | FEB-MCC-02 | SCR-EFF-SG-02 | EFFLUENT GATE - CHANNEL 2 |
| 68 | SCR-EFF-SG3-01P | 1" | 3#12, 1#12 G | FEB-MCC-01 | SCR-EFF-SG-03 | EFFLUENT BYPASS CHANNEL GATE 3 |
| 69 | SCR-FIT-01P | 1" | 8#12, 1#12 G | FEB-PANEL-05 | MP120JB | COMBINED SCR-FIT1-01P, SCR-FIT2-01P, SCR-FIT3-01P,SCR-FIT4-01P |
| 70 | SCR-FIT1-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-FIT-01 | |
| 71 | SCR-FIT2-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-FIT-02 | |
| 72 | SCR-FIT3-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-FIT-03 | |
| 73 | SCR-FIT4-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-FIT-04 | |
| 74 | SCR-INF-AIT-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | SCR-INF-AIT | |
| 75 | SCR-INF-SG1-01P | 1" | 3#12, 1#12 G | FEB-MCC-01 | SCR-INF-SG-01 | INFLUENT GATE - CHANNEL 1 |
| 76 | SCR-INF-SG2-01P | 1" | 3#12, 1#12 G | FEB-MCC-02 | SCR-INF-SG-02 | INFLUENT GATE - CHANNEL 2 |
| 77 | SCR-OC-EF1-01P | 1" | 3#12, 1#12 G | SCR-OC-LCP-01 | SCR-OC-EF-01 | ODOR CONTROL EXHAUST FAN 1 |
| 78 | SCR-OC-EF2-01P | 1" | 3#12, 1#12 G | SCR-OC-LCP-01 | SCR-OC-EF-02 | ODOR CONTROL EXHAUST FAN 2 |
| 79 | SCR-OC-EF-PMP-01P | 1-1/4" | 9#12, 1#12 G | SCR-OC-LCP-01 | OPJB | COMBINED SCR-OC-EF1-01P, SCR-OC-EF2-01P, SCR-OC-PMP1-01P |
| 80 | SCR-OC-FIT-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | OP120JB | COMBINED SCR-OC-FIT1-01P, SCR-OC-FIT2-01P |
| 81 | SCR-OC-FIT1-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | SCR-OC-FIT1 | |
| 82 | SCR-OC-FIT2-01P | 1" | 2#12, 1#12 G | FEB-PANEL-06 | SCR-OC-FIT2 | |
| 83 | SCR-OC-LCP1-01P | 1" | 3#8, 1#10G | FEB-MCC-02 | SCR-OC-LCP-01 | ODOR CONTROL PANEL |
| 84 | SCR-OC-PMP1-01P | 1" | 3#12, 1#12 G | SCR-OC-LCP-01 | SCR-OC-PMP1 | ODOR CONTROL RECIRCULATIONG PUMP1 |
| 85 | SCR-OC-WP-01P | 1" | 2#12, 1#12 G | SCR-OC-LCP-01 | WATER PANEL | |
| 86 | SCR-RF-01P | 1" | 8#12, 1#12 G | FEB-PANEL-05 | HP120JB | COMBINED SCR-RF1-01P, SCR-RF2-01P, SCR-RF3-01P, SCR-RF4-01P |
| 87 | SCR-RF1-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | RF-01 | |
| 88 | SCR-RF2-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | RF-02 | |
| 89 | SCR-RF3-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | RF-03 | |
| 90 | SCR-RF4-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | RF-04 | |
| 91 | SCR-SLP1-01P | 1" | 3#12, 1#12 G | SCR-SLP-LCP-01 | SCR-SLP-01 | SLUDGE RECEIVING STATION PUMP 1 |
| 92 | SCR-SLP2-01P | 1" | 3#12, 1#12 G | SCR-SLP-LCP-01 | SCR-SLP-02 | SLUDGE RECEIVING STATION PUMP 2 |
| 93 | SCR-SLP-LCP1-01P | 1" | 3#10, 1#10 G | FEB-MCC-01 | SCR-SLP-LCP-01 | SLUDGE RECEIVING STATION 1 CONTROL PANEL |
| 94 | SCR-SUMP1-01P | 1" | 2#12, 1#12 G | SCR-SUMP-LCP-01 | SCR-SUMO-01 | |
| 95 | SCR-SUMP1-LCP-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-SUMP-LCP-01 | |
| 96 | SCR-SUMP2-01P | 1" | 2#12, 1#12 G | SCR-SUMP-LCP-02 | SCR-SUMP-02 | |
| 97 | SCR-SUMP2-LCP-01P | 1" | 2#12, 1#12 G | FEB-PANEL-05 | SCR-SUMP-LCP-02 | |
| 98 | SP1-01P | 1" | 3#12, 1#12G | FEB-SP-LCP | SP-1 | SUMP PUMP 1 |
| 99 | SP2-01P | 1" | 3#12, 1#12G | FEB-SP-LCP | SP-2 | SUMP PUMP 2 |
| 100 | STP1-01P | 1" | 3#6, 1#10G | FEB-MCC-01 | STP-1 | SLUDGE TRANSFER PUMP 1 |
| 101 | STP2-01P | 1" | 3#6, 1#10 G | FEB-MCC-02 | STP-2 | SLUDGE TRANSFER PUMP 2 |
| 102 | TX-04-01P | 3" | 3#250KCMIL, 1#4 G | COGEN-MCC-01 | TX-04 | 150KVA COGEN BUILDING TRANSFORMER 04 |
| 103 | TX-G2-01P | 1" | 3#10, 1#10 G | COGEN-MCC-01 | TX-G2 | 15KVA COGEN BUILDING TRANSFORMER G2 |
| 104 | TX-LD4-01P | 1" | 3#8, 1#10 G | FEB-MCC-02 | TX-LD4 | 15KVA TRANSFORMER |
| 105 | TX-LD4-01P | 1" | 2#12, 1#12 G | PANEL LD4 | FEB-CP1-PLC-01 | POWER TO PLC PANEL |
| | | | | | | |

NOTES:

1. MULTIPLE CIRCUITS MAY BE COMBINED IN A SINGLE CONDUIT FOR FIELD ROUTING PROVIDED NEC MAXIMUM CONDUIT FILL IS NOT EXCEEDED AND WIRE AMPACITY DERATING IS NOT EXCEEDED.

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL POWER
CABLE AND CONDUIT SCHEDULES
(SHEET 2 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-22
131 of 196

PRINTED BY: LeuenbGR DATE: 3/4/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\d747958\AUST1500124_07_E-21_E-22_CPY.dwg

# Controls Cable and Conduit Schedule

| SR. NO. | CONDUIT TAG | CONDUIT SIZE | CONDUCTOR SIZE | FROM | TO | REMARKS |
|---|---|---|---|---|---|---|
| 1 | ABV1-01C | 1" | 2#14, 1#14 G | OCJB | ABV-01 | |
| 2 | ABV1-NP1-01C | 1" | 4#14, 1#14 G | SCR-OC-LCP1-PLC-01 | OCJB | COMBINED ABV1-01C, NP1-01C |
| 3 | AC1-MCC-01-01C | 1" | 7#14 MULTI CONDUCTOR CABLE | COGEN-MCC-01 | COGEN-CP1-PLC-01 | AIR COMPRESSOR 1 BUCKET |
| 4 | AC1-PS-01C | 3/4" | 2#14 & #14G | COGEN-MCC-01 | AC1-PS | AIR COMPRESSOR 1 |
| 5 | AC2-MCC-01-01C | 1" | 7#14 MULTI CONDUCTOR CABLE | COGEN-MCC-01 | COGEN-CP1-PLC-01 | AIR COMPRESSOR 2 BUCKET |
| 6 | AC2-PS-01C | 3/4" | 2#14 & #14G | COGEN-MCC-01 | AC2-PS | AIR COMPRESSOR 2 |
| 7 | COGEN-AFU-FIT-01-01C | 3/4" | 1#16 TSP | COGEN-AFU-FIT-01 | COGEN-CP1-PLC-01 | |
| 8 | COGEN-AFU-FS-01-01C | 3/4" | 2#14 & #14G | COGEN-AFU-FS-01 | COGEN-CP1-PLC-01 | |
| 9 | COGEN-MCC1-PM-01C | 3/4" | 2#16 TSP | COGEN-MCC-01 | COGEN-SWGR-02 | POWER METER COGEN MCC-01 (RS-485) |
| 10 | COGEN-SWGR1-01C | 2" | 44#14 & 14G | COGEN-SWGR-01 | COGEN-SWGR-CP | |
| 11 | COGEN-SWGR1-PM-01C | 3/4" | CAT6 | COGEN-SWGR-01 | COGEN-CP1-PLC-01 | POWER METER COGEN SWGR-01 |
| 12 | COGEN-SWGR2-01C | 2" | 44#14 & 14G | COGEN-SWGR-02 | COGEN-SWGR-CP | |
| 13 | COGEN-SWGR2-PM-01C | 3/4" | 2#16 TSP | COGEN-SWGR-02 | COGEN-SWGR-01 | POWER METER COGEN SWGR-01 (RS-485) |
| 14 | COGEN-SWGR-CP | 2-1/2" | 88#14 & 14G | COGEN-SWGR-CP | FEB-CP1-PLC-01 | |
| 15 | COGEN-TIT-01-01C | 3/4" | 1#16 TSP | COGEN-TIT-01 | COGEN-CP1-PLC-01 | |
| 16 | COGEN-TIT-02-01C | 3/4" | 1#16 TSP | COGEN-TIT-02 | COGEN-CP1-PLC-01 | |
| 17 | FEB-AFU-FIT-01-01C | 3/4" | 1#16 TSP | FEB-AFU-FIT-01 | FEB-CP1-PLC-01 | |
| 18 | FEB-AFU-FS-01-01C | 3/4" | 2#14 & #14G | FEB-AFU-FS-01 | FEB-CP1-PLC-01 | |
| 19 | FEB-BT-LVLB-01-01C | 3/4" | 1#16 TSP | FEB-BT-LVLB-01 | FEB-CP1-PLC-01 | BLEND TANK PRESSURE TRANSMITTER |
| 20 | FEB-EF1-DS-01C | 3/4" | 2#14 & #14G | FEB-EF-001 | FEB-EF-01-DS | FEB-EF-01 BUCKET |
| 21 | FEB-EF1-GDP1-01C | 1" | 14#14 & #14G | FEB-EF-001 | FEB-GDP-01 | FEB-EF-01 BUCKET |
| 22 | FEB-EF1-PLC1-01C | 1" | 6#14 & #14G | FEB-EF-001 | FEB-CP1-PLC-01 | FEB-EF-01 BUCKET |
| 23 | FEB-EF1-SD-01C | 3/4" | 4#14 & #14G | FEB-EF-001 | SMOKE DETECTOR | FEB-EF-01 BUCKET |
| 24 | FEB-FIT-0901-01C | 3/4" | 1#16 TSP | FEB-FIT-0901 | FEB-CP1-PLC-01 | BLEND TANK SLUDGE TO DIGESTER FLOW TRANSMITTER |
| 25 | FEB-GR1-01C | 1" | 6#14, 1#14 G | FEB-GR-01 | FEB-CP1-PLC-01 | FEB GRINDER CONTROL PANEL |
| 26 | FEB-ITRACK1-01C | 2" | 2-CAT6 | FEB BUILDING ELECTRICAL ROOM | COGEN BUILDONG ELECTRICAL ROOM | SPARE PATHWAY AND CABLES |
| 27 | FEB-ITRACK1-HMI-01C | 3/4" | CAT6 | FEB-ITRACK-01 | HMI WORKSTATION | |
| 28 | FEB-ITRACK1-PLC1-01C | 3/4" | CAT6 | FEB-ITRACK-01 | FEB-CP1-PLC-01 | |
| 29 | FEB-LIT-100-01C | 3/4" | 1#16 TSP | FEB-LIT-100 | FEB-CP1-PLC-01 | FLOW EQUALIZATION ULTRASONIC LEVEL TRANSMITTER |
| 30 | FEB-LIT-101-01C | 3/4" | 1#16 TSP | FEB-LIT-101 | FEB-CP1-PLC-01 | BLEND TANK ULTRASONIC LEVEL TRANSMITTER |
| 31 | FEB-LVL-01A-01C | 3/4" | 1#16 TSP | FEB-LVL-01A | FEB-CP1-PLC-01 | |
| 32 | FEB-LVLB-01-01C | 3/4" | 1#16 TSP | FEB-LVLB-01 | FEB-CP1-PLC-01 | FLOW EQUALIZATION PRESSURE TRANSMITTER |
| 33 | FEB-MCC1-DFP-1-01C | 1" | 15#14 MULTI CONDUCTOR CABLE | FEB-MCC-01 | FEB-CP1-PLC-01 | DISCREET DIGESTER FEED PUMP1 DFP-1 BUCKET |
| 34 | FEB-MCC1-DFP-1-02C | 3/4" | CAT6 | FEB-MCC-01 | FEB-CP1-PLC-01 | CAT6 PUMP1 DFP-1 BUCKET |
| 35 | FEB-MCC1-DFP-1-03C | 3/4" | 2#16 TSP | FEB-MCC-01 | FEB-CP1-PLC-01 | ANALOG DIGESTER FEED PUMP1 DFP-1 BUCKET |
| 36 | FEB-MCC1-PAB-001-01C | 1" | 7#14 MULTI CONDUCTOR CABLE | FEB-MCC-01 | FEB-CP1-PLC-01 | ODOR CONTROL FEED BLOWER FEB-PAB-001 BUCKET |
| 37 | FEB-MCC1-PM-01C | 3/4" | CAT 6 | FEB-MCC-01 | FEB-ITRACK-01 | POWER METER FEB-MCC-01 (RS-485) |
| 38 | FEB-MCC1-SF-001-01C | 1" | 9#14 MULTI CONDUCTOR CABLE | FEB-MCC-01 | FEB-SF-001 | SUPPLY FAN1 FEB-SF-001 BUCKET |
| 39 | FEB-MCC1-STP-1-01C | 1" | 13#14 MULTI CONDUCTOR CABLE | FEB-MCC-01 | FEB-CP1-PLC-01 | DISCREET SLUDGE TRANSFER PUMP1 STP-1 BUCKET |
| 40 | FEB-MCC1-STP-1-02C | 3/4" | CAT6 | FEB-MCC-01 | FEB-CP1-PLC-01 | CAT6 SLUDGE TRANSFER PUMP1 STP-1 BUCKET |
| 41 | FEB-MCC1-STP-1-03C | 3/4" | 2#16 TSP | FEB-MCC-01 | FEB-CP1-PLC-01 | ANALOG SLUDGE TRANSFER PUMP1 STP-1 BUCKET |
| 42 | FEB-MCC2-DFP-2-01C | 1" | 15#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-CP1-PLC-01 | DISCREET DIGESTER FEED PUMP2 DFP-2 BUCKET |
| 43 | FEB-MCC2-DFP-2-02C | 3/4" | CAT6 | FEB-MCC-02 | FEB-CP1-PLC-01 | CAT6 FEED PUMP2 DFP-2 BUCKET |
| 44 | FEB-MCC2-DFP-2-03C | 3/4" | 2#16 TSP | FEB-MCC-02 | FEB-CP1-PLC-01 | ANALOG DIGESTER FEED PUMP2 DFP-2 BUCKET |
| 45 | FEB-MCC2-EF-01-01C | 1" | 9#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-EF-01 | EXHAUST FAN1 FEB-EF-01 BUCKET |
| 46 | FEB-MCC2-MIX-001-01C | 1" | 9#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-CP1-PLC-01 | FEB TANK MIXER FEB-MIX-001 BUCKET |
| 47 | FEB-MCC2-PAB-002-01C | 1" | 7#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-CP1-PLC-01 | ODOR CONTROL FEED BLOWER FEB-PAB-002 BUCKET |
| 48 | FEB-MCC2-PM-01C | 3/4" | 2#16 TSP | FEB-MCC-02 | FEB-MCC-01 | POWER METER FEB-MCC-02 (RS-485) |
| 49 | FEB-MCC2-SF-002-01C | 1" | 9#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-SF-002 | SUPPLY FAN2 FEB-SF-002 BUCKET |
| 50 | FEB-MCC2-STP-2-01C | 1" | 13#14 MULTI CONDUCTOR CABLE | FEB-MCC-02 | FEB-CP1-PLC-01 | DISCREET SLUDGE TRANSFER PUMP2 STP-2 BUCKET |
| 51 | FEB-MCC2-STP-2-02C | 3/4" | CAT6 | FEB-MCC-02 | FEB-CP1-PLC-01 | CAT6 SLUDGE TRANSFER PUMP2 STP-2 BUCKET |
| 52 | FEB-MCC2-STP-2-03C | 3/4" | 2#16 TSP | FEB-MCC-02 | FEB-CP1-PLC-01 | ANALOG SLUDGE TRANSFER PUMP2 STP-2 BUCKET |
| 53 | FEB-MIX-002-CP-01C | 1" | 8#14, 1#14 G | FEB-MIX-002 CONTROL PANEL | FEB-CP1-PLC-01 | BLENDING TANK MIXER FEB-MIX-002 CP |
| 54 | FEB-PLC-EJB1-C120 | 2" | 38#14 & #14G | EJB1C120 | FEB-CP1-PLC-01 | |
| 55 | FEB-PLC-IJB1-C120 | 2" | 26#14 & #14G | IJB1C120 | FEB-CP1-PLC-01 | |
| 56 | FEB-PLC-SCR-BS1-LCP1-01C | 1" | 2-CAT6 | SCR-BS1-LCP1-PLC-01 | FEB-ITRACK-01 | |
| 57 | FEB-PLC-SCR-BS2-LCP1-01C | 1" | 2-CAT6 | SCR-BS2-LCP1-PLC-01 | FEB-ITRACK-01 | |
| 58 | FEB-PLC-SCR-SLP-LCP-01-01C | 1" | 6#14 & #14G | SCR-SLP-LCP-01 | FEB-CP1-PLC-01 | |
| 59 | FEB-PLC-SCR-SUMP-LCP-01-01C | 1" | 6#14 & #14G | SCR-SUMP1-LCP-01 | FEB-CP1-PLC-01 | |
| 60 | FEB-PLC-SCR-SUMP-LCP-02-01C | 1" | 6#14 & #14G | SCR-SUM2P-LCP-01 | FEB-CP1-PLC-01 | |
| 61 | FEB-SECTRACK-02C | 2" | PULL STRING | COGEN BUILDING CPJB1 | FEB BUILDING SECTRACK | |
| 62 | FEB-SF1-DS-01C | 3/4" | 2#14 & #14G | FEB-SF-001 | FEB-SF-01-DS | FEB-SF-01 BUCKET |

TEXAS REGISTERED ENGINEERING FIRM F-204

03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROLS
CABLE AND CONDUIT SCHEDULE
(SHEET 1 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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E-23
132 of 196

PRINTED BY: LeuenbGR DATE: 3/4/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\07479958\AUST1500124_07_E-23_E-24_CPY.dwg

## Controls Cable and Conduit Schedule

| SR. NO. | CONDUIT TAG | CONDUIT SIZE | CONDUCTOR SIZE | FROM | TO | REMARKS |
|---|---|---|---|---|---|---|
| 63 | FEB-SF1-GDP1-01C | 1" | 10#14 & #14G | FEB-SF-001 | FEB-GDP-01 | FEB-SF-01 BUCKET |
| 64 | FEB-SF1-PLC1-01C | 1" | 7#14 & #14G | FEB-SF-001 | FEB-CP1-PLC-01 | FEB-SF-01 BUCKET |
| 65 | FEB-SF2-DS-01C | 3/4" | 2#14 & #14G | FEB-SF-002 | FEB-SF-02-DS | FEB-SF-02 BUCKET |
| 66 | FEB-SF2-GDP1-01C | 1" | 10#14 & #14G | FEB-SF-002 | FEB-GDP-01 | FEB-SF-02 BUCKET |
| 67 | FEB-SF2-PLC1-01C | 1" | 7#14 & #14G | FEB-SF-002 | FEB-CP1-PLC-01 | FEB-SF-02 BUCKET |
| 68 | FEB-SP-LCP-01C | 1" | 4#14, 1#14 G | FEB-SP-LCP | FEB-CP1-PLC-01 | |
| 69 | FEB-SUMP01-LVL-01C | 3/4" | 1#16 TSP | FEB-SUMP01-LVL | FEB-CP1-PLC-01 | SUMP PUMP LEVEL |
| 70 | FEB-TIT-01-01C | 3/4" | 1#16 TSP | FEB-TIT-01 | FEB-CP1-PLC-01 | |
| 71 | FEB-TIT-02-01C | 3/4" | 1#16 TSP | FEB-TIT-02 | FEB-CP1-PLC-01 | |
| 72 | HW-CMA | 2" | 4#16 TSP & 1#16 TSP | HIJB | FIJB | COMBINED SCR-BS1-LCP1-S1JB1-CMA, SCR-BS2-LCP1-S2JB1-CMA & SCR-INF-AIT-01-01C |
| 73 | LOS-DFP1-01C | 1" | 10#14, 1#14 G | LOS-DFP1 | FEB-MCC-01 | |
| 74 | LOS-DFP1-02C | 3/4" | 2#16 TSP | LOS-DFP1 | FEB-MCC-01 | |
| 75 | LOS-DFP2-01C | 1" | 10#14, 1#14 G | LOS-DFP2 | FEB-MCC-02 | |
| 76 | LOS-DFP2-02C | 3/4" | 2#16 TSP | LOS-DFP2 | FEB-MCC-02 | |
| 77 | LOS-STP1-01C | 1" | 8#14, 1#14 G | LOS-STP1 | FEB-MCC-01 | |
| 78 | LOS-STP1-02C | 3/4" | 2#16 TSP | LOS-STP1 | FEB-MCC-01 | |
| 79 | LOS-STP2-01C | 1" | 8#14, 1#14 G | LOS-STP2 | FEB-MCC-02 | |
| 80 | LOS-STP2-02C | 3/4" | 2#16 TSP | LOS-STP2 | FEB-MCC-02 | |
| 81 | NP1-01C | 1" | 2#14, 1#14 G | OCJB | NP-01 | |
| 82 | SCR-BS-01-LOS-01-01C | 1" | 12#14 & #14G | SCR-BS-01-LOS-01 | S1JB1C120 | |
| 83 | SCR-BS-01-OTS-01-01C | 3/4" | 2#14 & #14G | SCR-BS-01-OTS-01 | S1JB1C120 | |
| 84 | SCR-BS-01-ZS-01-01C | 3/4" | 2#14 & #14G | SCR-BS-01-ZS-01 | S1JB1C120 | |
| 85 | SCR-BS-02-LOS-01-01C | 1" | 12#14 & #14G | SCR-BS-02-LOS-01 | S2JB1C120 | |
| 86 | SCR-BS-02-OTS-01-01C | 3/4" | 2#14 & #14G | SCR-BS-02-OTS-01 | S2JB1C120 | |
| 87 | SCR-BS-02-ZS-01-01C | 3/4" | 2#14 & #14G | SCR-BS-02-ZS-01 | S2JB1C120 | |
| 88 | SCR-BS1-LCP1-S1JB1-C120 | 2" | 28#14 & #14G, | S1JB1C120 | SCR-BS1-LCP1-PLC-01 | |
| 89 | SCR-BS1-LCP1-S1JB1-CMA | 3/4" | 2#16 TSP | S1JB1CMA | SCR-BS1-LCP1-PLC-01 | |
| 90 | SCR-BS2-LCP1-S1JB1-CMA | 3/4" | 2#16 TSP | S2JB1CMA | SCR-BS2-LCP1-PLC-01 | |
| 91 | SCR-BS2-LCP1-S2JB1-C120 | 2" | 28#14 & #14G, | S2JB1C120 | SCR-BS2-LCP1-PLC-01 | |
| 92 | SCR-CMPC-01-LOS-01-01C | 1" | 12#14 & #14G | SCR-CMPC-01-LOS-01 | S1JB1C120 | |
| 93 | SCR-CMPC-01-LSH-01-01C | 3/4" | 2#14 & #14G | SCR-CMPC-01-LSH-01 | S1JB1C120 | |
| 94 | SCR-CMPC-02-LOS-01-01C | 1" | 12#14 & #14G | SCR-CMPC-02-LOS-01 | S2JB1C120 | |
| 95 | SCR-CMPC-02-LSH-01-01C | 3/4" | 2#14 & #14G | SCR-CMPC-02-LSH-01 | S2JB1C120 | |
| 96 | SCR-EFF-LSH-01-01C | 3/4" | 2#14 & #14G | EJB1C120 | SCR-EFF-LSH-01 | |
| 97 | SCR-EFF-SG-01-01C | 1" | 12#14 & #14G, 1"C | EJB1C120 | SCR-EFF-SG-01 | |
| 98 | SCR-EFF-SG-02-01C | 1" | 12#14 & #14G, 1"C | EJB1C120 | SCR-EFF-SG-02 | |
| 99 | SCR-EFF-SG-03-01C | 1" | 12#14 & #14G, 1"C | EJB1C120 | SCR-EFF-SG-03 | |
| 100 | SCR-FIT1-01C | 3/4" | 1#16 TSP | SCR-FIT-01 | MJB1CMA | |
| 101 | SCR-FIT2-01C | 3/4" | 1#16 TSP | SCR-FIT-02 | MJB1CMA | |
| 102 | SCR-FIT3-01C | 3/4" | 1#16 TSP | SCR-FIT-03 | MJB1CMA | |
| 103 | SCR-FIT4-01C | 3/4" | 1#16 TSP | SCR-FIT-04 | MJB1CMA | |
| 104 | SCR-INF-AIT-01-01C | 3/4" | 1#16 TSP | SCR-INF-AIT-01 | FEB-CP1-PLC-01 | |
| 105 | SCR-INF-LSH-01-01C | 3/4" | 2#14 & #14G | IJB1C120 | SCR-INF-LSH-01 | |
| 106 | SCR-INF-SG-01-01C | 1" | 12#14 & #14G, 1"C | IJB1C120 | SCR-INF-SG-01 | |
| 107 | SCR-INF-SG-02-01C | 1" | 12#14 & #14G, 1"C | IJB1C120 | SCR-INF-SG-02 | |
| 108 | SCR-LIT-01-01C | 3/4" | 1#16 TSP | SCR-LIT-01 | S1JB1CMA | |
| 109 | SCR-LIT-02-01C | 3/4" | 1#16 TSP | SCR-LIT-02 | S1JB1CMA | |
| 110 | SCR-LIT-03-01C | 3/4" | 1#16 TSP | SCR-LIT-03 | S2JB1CMA | |
| 111 | SCR-LIT-04-01C | 3/4" | 1#16 TSP | SCR-LIT-04 | S2JB1CMA | |
| 112 | SCR-OC-FIT-01C | 3/4" | 2#16 TSP | SCR-OC-LCP1-PLC-01 | OIJB | COMBINED SCR-OC-FIT1-01C, SCR-OC-FIT2-01C |
| 113 | SCR-OC-FIT1-01C | 3/4" | 1#16 TSP | OIJB | SCR-OC-FIT-01 | |
| 114 | SCR-OC-FIT2-01C | 3/4" | 1#16 TSP | OIJB | SCR-OC-FIT-02 | |
| 115 | SCR-OC-PLC1-01C | 1" | 2-CAT6 | SCR-OC-LCP1-PLC-01 | FEB-ITRACK-01 | |
| 116 | SCR-SUMP1-LSH-01C | 3/4" | 2#14 & #14G | SCR-SUMP1-LSH-01 | SCR-SUMP-LCP-01 | |
| 117 | SCR-SUMP2-LSH-01C | 3/4" | 2#14 & #14G | SCR-SUMP2-LSH-01 | SCR-SUMP2-LCP-01 | |
| 118 | SCR-SUMP-LCP-MJB1-CMA | 2" | 4#16 TSP | MJB1CMA | FEB-CP1-PLC-01 | COMBINED SCR-FIT1-01C, SCR-FIT2-01C, SCR-FIT3-01C, SCR-FIT4-01C |
| 119 | SCR-VLV-01-01C | 3/4" | 2#14 & #14G | SCR-VLV-01 | S1JB1C120 | |
| 120 | SCR-VLV-02-01C | 3/4" | 2#14 & #14G | SCR-VLV-02 | S1JB1C120 | |
| 121 | SCR-VLV-03-01C | 3/4" | 2#14 & #14G | SCR-VLV-03 | S1JB1C120 | |
| 122 | SCR-VLV-04-01C | 3/4" | 2#14 & #14G | SCR-VLV-04 | S2JB1C120 | |
| 123 | SCR-VLV-05-01C | 3/4" | 2#14 & #14G | SCR-VLV-05 | S2JB1C120 | |
| 124 | SCR-VLV-06-01C | 3/4" | 2#14 & #14G | SCR-VLV-06 | S2JB1C120 | |


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROLS
CABLE AND CONDUIT SCHEDULES
(SHEET 2 OF 2)

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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| COGEN-SWGR-01 | |
|---|---|
| UNIT LOC. | UNIT DESIGNATION |
| 1A | SPACE |
| 1B | MAIN 1 |
| 1C | SPARE |
| 1D | SPARE |
| 2A | SPACE |
| 2B | SPARE |
| 2C | FUTURE GOVALLE SECONDARY FEED |
| 2D | FUTURE SAR SECONDARY FEED |
| 3B | COGEN-SWGR-02 TIE |
| 3C | FEB-MCC-01 FEEDER |
| 3D | COGEN-MCC-01 FEEDER |

COGEN-SWGR-01 FRONT ELEVATION

| COGEN-SWGR-02 | |
|---|---|
| UNIT LOC. | UNIT DESIGNATION |
| 1B | COGEN-SWGR-01 TIE |
| 1C | FEB-MCC-02 FEEDER |
| 1D | SPARE |
| 2A | FUTURE COGEN-MCC-02 |
| 2B | COGEN-JB-01P FEEDER |
| 2C | COGEN-JB-02P FEEDER |
| 2D | SPACE |
| 3A | SPACE |
| 3B | MAIN 2 |
| 3C | SPARE |
| 3D | PORTABLE GENERATOR |

COGEN-SWGR-02 FRONT ELEVATION

S SHIPPING SPLIT

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

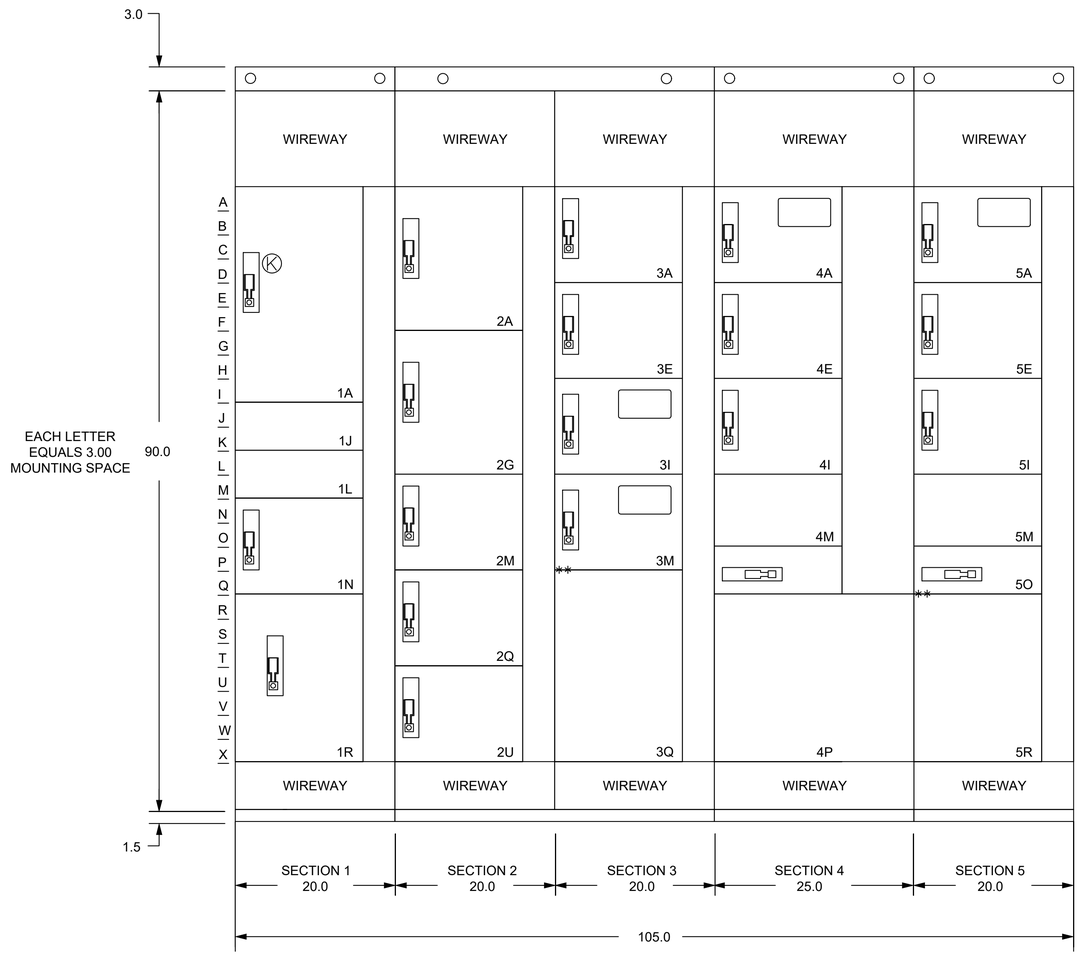
CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN-SWGR-1 AND COGEN-SWGR-2 PROPOSED FRONT ELEVATIONS

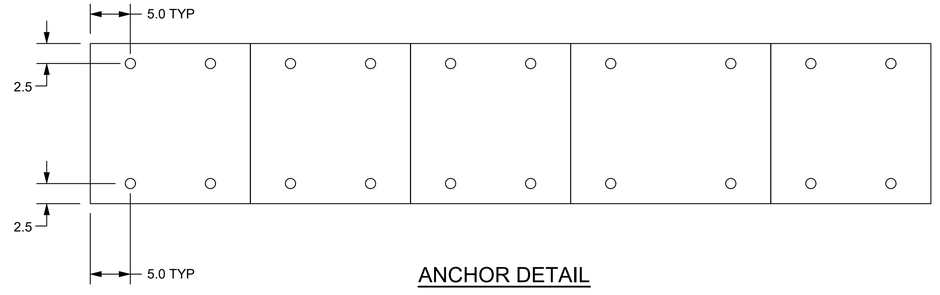
| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-25

| | COGEN-MCC-01 |
|---|---|
| UNIT LOC. | UNIT DESIGNATION |
| 1A | MAIN 1 |
| 1J | MONOTORING UNIT FOR MAIN 1 |
| 1L | SPD |
| 1N | SPARE |
| 1R | FUTURE COGEN |
| 2A | COGEN-XFMR-04 |
| 2G | 200A |
| 2M | TRANSFORMER G2 |
| 2Q | SPARE |
| 2U | UNIT HEATER 1 |
| 3A | UNIT HEATER 2 |
| 3E | EXHAUST FAN |
| 3I | COGEN-COMPRESSOR-01 |
| 3M | COGEN-COMPRESSOR-02 |
| 3Q | FUTURE COGEN PROCESS EQUIPMENT |
| 4A | SPARE NEMA 1 STARTER |
| 4E | AIR FILTRATION UNIT |
| 4I | SPARE |
| 4M | FUTURE COGEN PROCESS EQUIPMENT |
| 4P | 15KVA TRANSFORMER |
| 5A | PANEL BOARD |
| 5R | SPACE |




COGEN-MCC-01 ELEVATION

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MCC FRONT ELEVATION
PROPOSED COGEN-GMCC-1

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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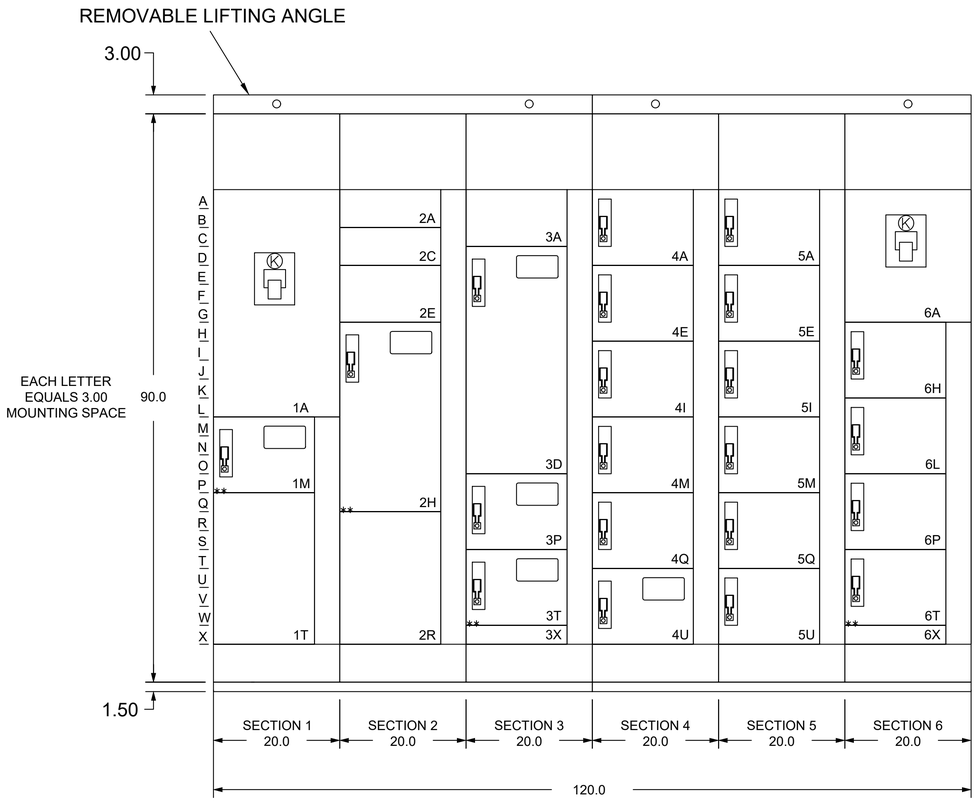
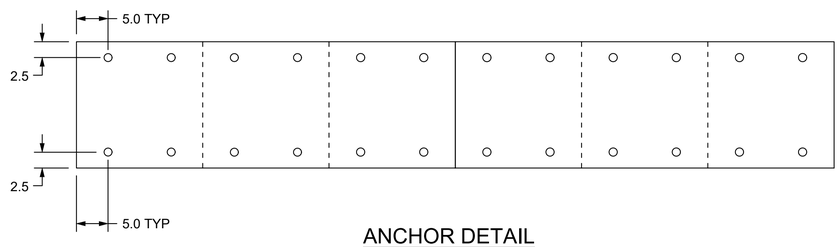
| FEB-MCC-01 | |
|---|---|
| UNIT LOC. | UNIT DESIGNATION |
| 1A | MAIN 1 |
| 1M | SUPPLY FAN 1 |
| 1T | SPACE |
| 2A | MONITORING UNIT MAIN 1 |
| 2C | SPD |
| 2E | LINE REACTOR FOR DIGESTER FEED PUMP 1 |
| 2H | DIGESTER FEED PUMP 1 |
| 2R | SPACE |
| 3A | LINE REACTOR FOR SLUGE TRANSFER PUMP 1 |
| 3D | SLUGE TRANSFER PUMP 1 |
| 3P | NEMA 2 SPARE |
| 3T | NEAM 1 SPARE |
| 3X | SPACE |
| 4A | AIR FILTERATION UNIT |
| 4E | EFFLUENT GATE CHANNEL 1 |
| 4I | INFLUENT GATE CHANNEL 1 |
| 4M | EFFLUENT BYPASS CHANNEL GATE 3 |
| 4Q | SPARE |
| 4U | ODOR CONTROL FEED BLOWER 001 |
| 5A | SPARE |
| 5E | RECEIVING STATION PUMP PANEL |
| 5I | BAR SCREEN 1 CONTROL PANEL |
| 5M | SUMP PUMP PANEL |
| 5Q | GRINDER |
| 5U | 1-TON CRANE REC |
| 6A | FEB-MCC-02 TIE |
| 6H | FEB-XFMR-05 |
| 6L | 50 SPARE |
| 6P | BLENDING TANK MIXER 002 |
| 6T | SPARE |
| 6X | SPACE |




** GASKET FLANGE

## PROPOSED FEB-MCC-01

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MCC FRONT ELEVATION
PROPOSED FEB-MCC-1

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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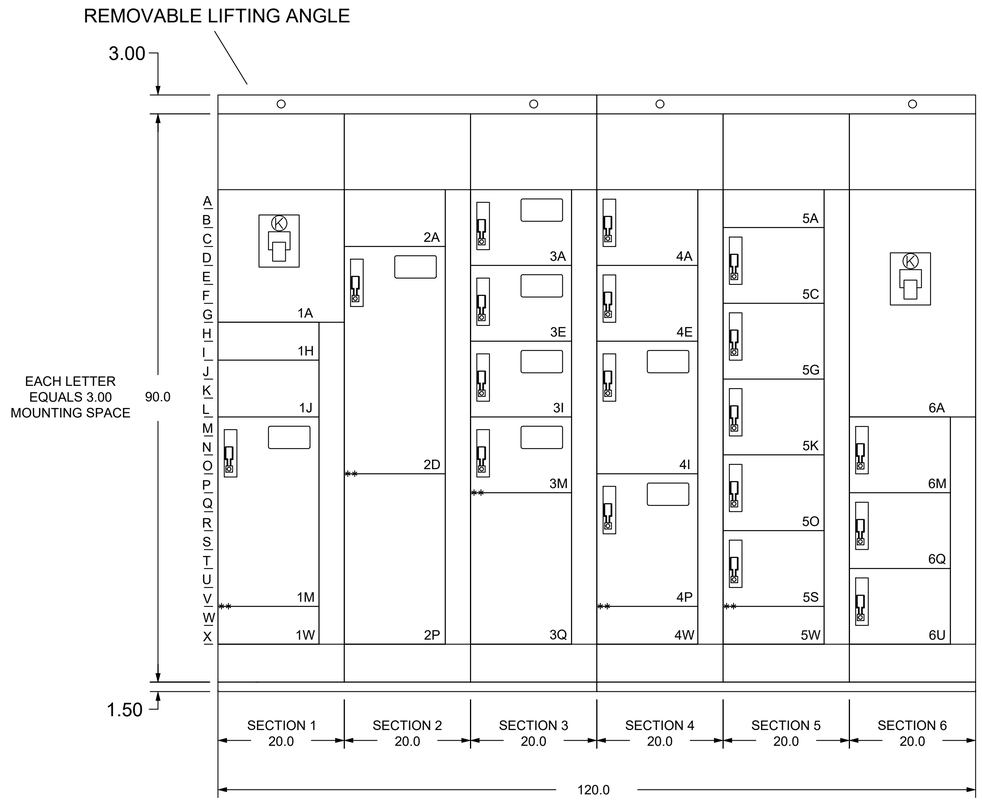
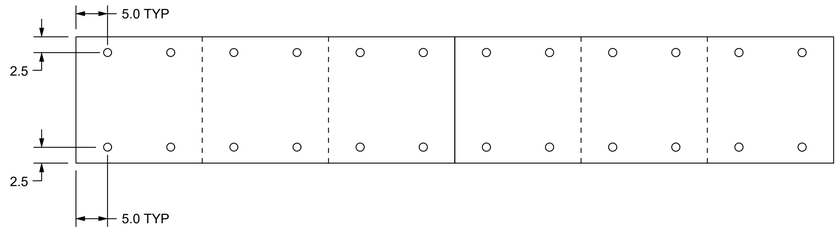
| FEB-MCC-02 | |
|---|---|
| UNIT LOC. | UNIT DESIGNATION |
| 1A | FEB-MCC-01 TIE BREAKER |
| 1H | SPACE |
| 1J | LINE REACTOR FOR DIGESTER FEED PUMP 2 |
| 1M | DIGESTER FEED PUMP 2 |
| 1W | SAPCE |
| 2A | LINE REACTOR FOR SULDGE TRANSFER PUMP 2 |
| 2D | SLUDGE TRANSFER PUMP 2 |
| 2P | SPACE |
| 3A | ODOR CONTROL FEED BLOWER 2 |
| 3E | NEMA 2 SPARE |
| 3I | FEB TANK MIXER 001 |
| 3M | NEAM 1 SPARE |
| 3Q | SPACE |
| 4A | SPARE |
| 4E | SPARE |
| 4I | EXHAUST FAN 1 |
| 4P | SUPPLY FAN 2 |
| 4W | SPACE |
| 5A | 1200A MAIN 1 |
| 5C | TRANSFORMER LD4 |
| 5G | BAR SCREEN 2 CONTROL PANEL |
| 5K | SPARE |
| 5O | INFLUENT GATE CHANNEL 2 |
| 5S | EFFLUENT GATE CHANNEL 2 |
| 5W | SPACE |
| 6A | MAIN 2 |
| 6M | TRANSFORMER 06 |
| 6Q | SPARE |
| 6U | ODOR CONTROL PANEL |




** GASKET FLANGE

## PROPOSED FEB-MCC-02

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STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

MCC FRONT ELEVATION
PROPOSED FEB-MCC-2

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-28
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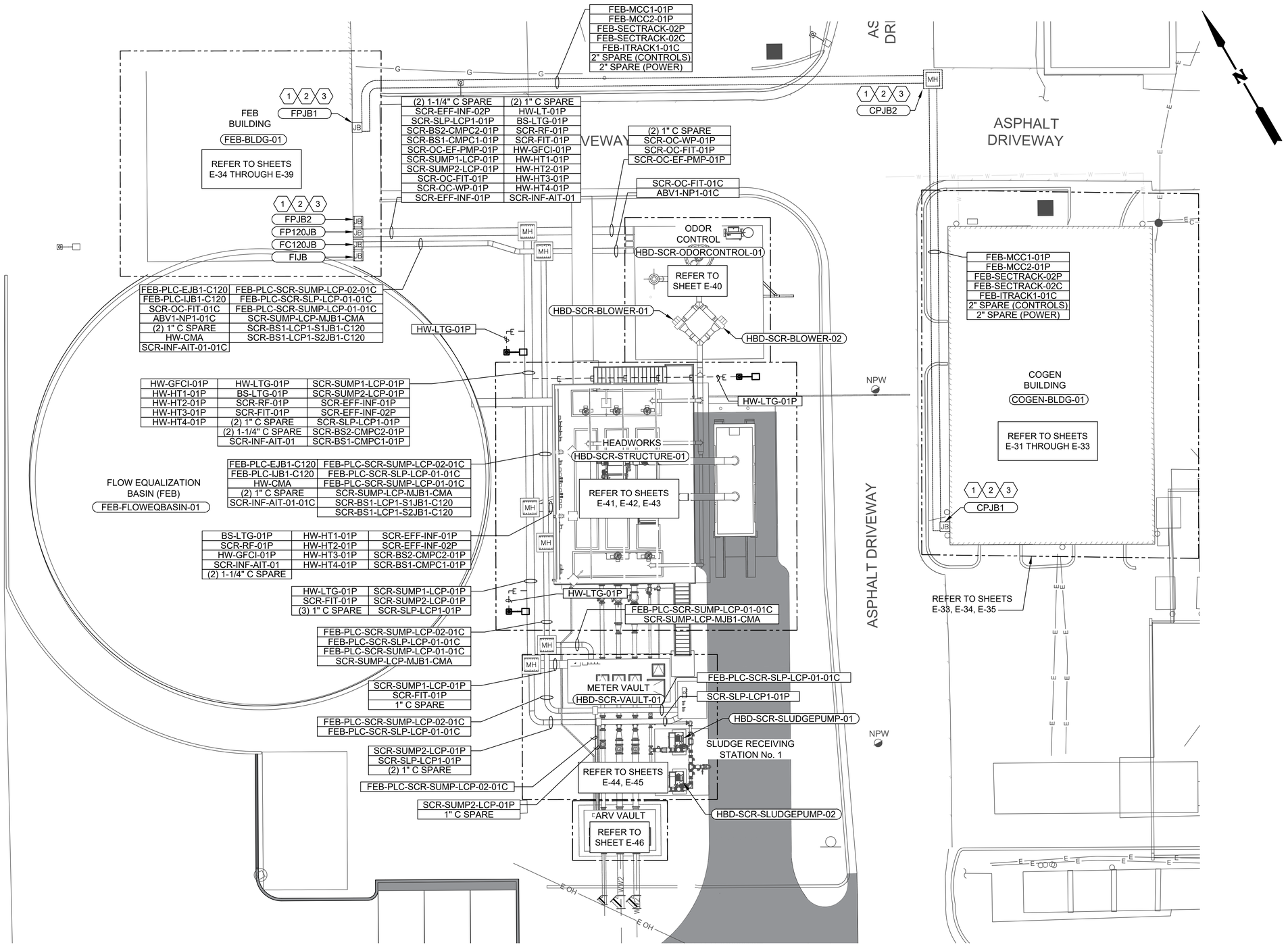


ELECTRICAL SITE PLAN

0 10 20

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. OUTSIDE THE BUILDING, CONDUIT IS BELOW GRADE. INSIDE BUILDING, CONDUIT IS ABOVE GRADE, FIELD ROUTE WITH LOCATION APPROVAL BY ENGINEER AND OWNER.
2. THE CONTRACTOR SHALL FINALIZE THE LOCATION OF ALL JUNCTION BOXES AS PER SITE CONDITIONS.
3. PROVIDE SEPARATE JUNCTION BOXES TO TRANSFER CONDUIT FROM WALL MOUNTED TO UNDERGROUND.

GENERAL NOTES:

1. THE CONTRACTOR SHALL DEMOLISH ALL UNUSED CONDUCTORS. REMOVE CONDUIT FLUSH WITH CONCRETE, GRIND SMOOTH AND FILL WITH GROUT.
2. THIS IS AN ACTIVE FACILITY THAT MUST MAINTAIN OPERATION. PROTECT ELECTRICAL AND CONTROL EQUIPMENT DURING ALL CONSTRUCTION ACTIVITIES FROM DUST AND DEBRIS.
3. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY, THE CONTRACTOR SHALL FIELD VERIFY AND SUBMIT A CONDUIT ROUTING PLAN FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
4. THE CONTRACTOR SHALL PROVIDE JUNCTION BOXES AS NECESSARY TO MANAGE THE MAXIMUM NUMBER OF BENDS ALLOWED IN SINGLE CONDUIT RUN. NOTE THAT NOT ALL PULL PINTS, BOXES AND FITTINGS ARE SHOWN.
5. ALL CONDUITS ENTERING CLIMATE CONTROLLED ELECTRICAL ROOMS SHALL HAVE CONDUIT SEALS ON NON-CLIMATE CONTROLLED SIDE, INSTALL UL-LISTED POURED SEALS TO ALL CONDUITS ENTERING/EXITING FIELD CONTROL PANELS.
6. THE CONTRACTOR SHALL NOT COMBINE DIGITAL AND ANALOG SIGNALS. THIS SIGNALS SHALL HAVE SEPARATE JUNCTION BOXES AND CONDUIT RUNS SEPARATED BY A MINIMUM DISTANCE OF 12".


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL SITE PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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CITY OF AUSTIN
APPROVED
Date 03/16/26
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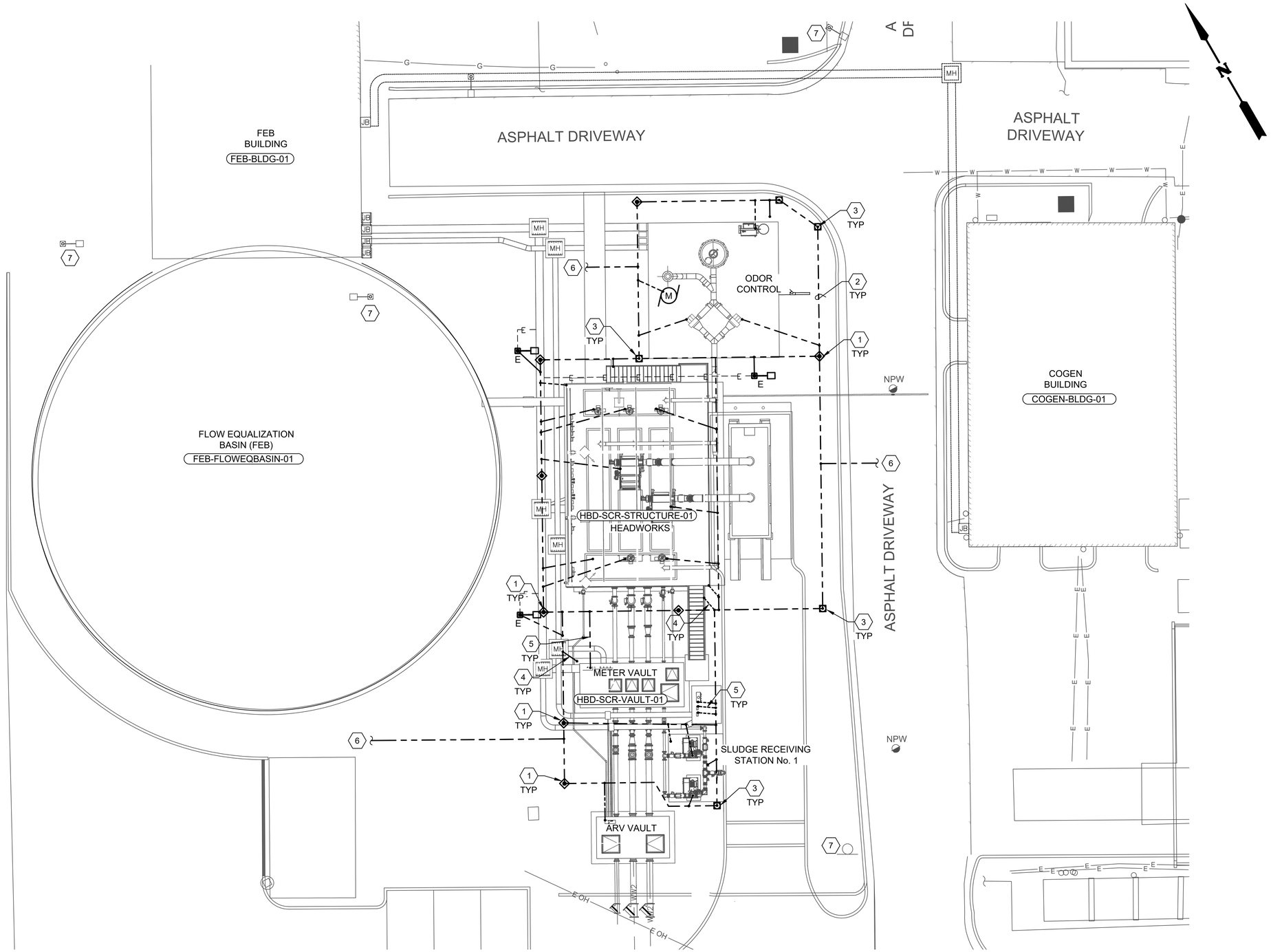


## ELECTRICAL SITE LIGHTING AND GROUNDING PLAN

0 10 20

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. 24" x 24" STAINLESS STEEL GROUND PLATE BONDED TO COUNTERPOISE WITH 4/0 TINNED COPPER.
2. MAIN BURIED GROUND LOOP SHALL BE CONSTRUCTED OF A CONTINUOUS #4/0 BARE TIN COATED COPPER CONDUCTOR INSTALLED AS PER LATEST NEC REQUIREMENTS .
3. GROUND ROD TEST WELL.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL A #4/0 BARE TIN COATED COPPER CONDUCTOR EXOTHERMICALLY WELDED TO THE GROUND PLATE TO THE CONCRETE REINFORCEMENT AND METAL BUILDING COLUMNS.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL A #4/0 BARE TIN COATED COPPER CONDUCTOR EXOTHERMICALLY WELDED TO THE GROUND LOOP AND MECHANICALLY ATTACHED TO THE ELECTRICAL EQUIPMENT UNLESS NOTED OTHERWISE.
6. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL A #4/0 BARE TIN COATED COPPER CONDUCTOR EXOTHERMICALLY WELDED TO THE NEW GROUND LOOP AND TO THE EXISTING GROUND LOOP.
7. EXISTING LIGHT POLE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/10/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1"

0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ELECTRICAL SITE LIGHTING AND GROUNDING PLAN

| | |
|---|---|
| DESIGN: | S.SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

E-30

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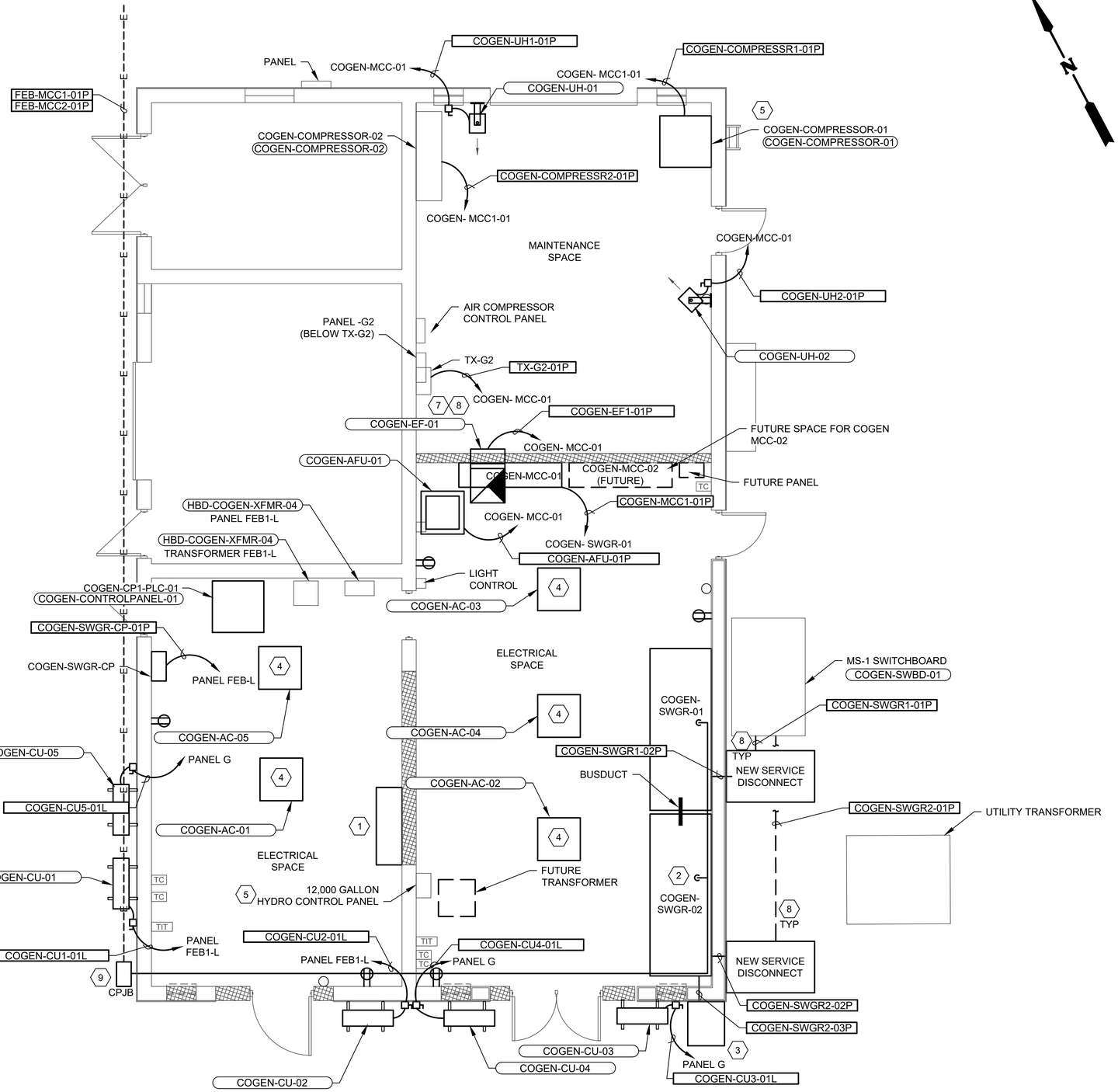


## COGEN BUILDING ELECTRICAL POWER PLAN

4 2 0 4
SCALE IN FEET

## NOTES BY SYMBOL (X)

1. EXISTING SWITCHGEAR TO BE DEMOLISHED. NEW JUNCTION BOX TO BE INSTALLED ON BACKSIDE OF SWITCHGEAR TO ENCLOSE THE EXISTING SAR AND GOVALLE DIGESTER FEEDER CABLES. CONTRACTOR TO FIELD VERIFY CABLE ENTRY AND PROVIDE JUNCTION BOX SIZE NECESSARY.
2. NEW FRONT ACCESS ONLY MAIN-TIE-TIE-MAIN SWITCHGEAR.
3. GENERATOR DOCKING STATION. TRYSTAR OR APPROVED EQUAL. NEMA 4X STAINLESS STEEL CONSTRUCTION. FACTORY INSTALLED PHASE ROTATION MONITOR. INDUSTRY STANDARD 16 SERIES CAMLOCK FOR CONNECTION TO (2) 500 KW PORTABLE GENERATORS. INCLUDE SAFETY DOOR INTERLOCK. CONTRACTOR TO COORDINATE WITH THE OWNER AND CONFIRM DOCKING STATION IS ACCEPTABLE PER CHOSEN PORTABLE GENERATOR IN ALLOWANCE.
4. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER AND PROVIDE ALL NECESSARY POWER AND CONTROL WIRING AS REQUIRED BETWEEN CU AND AHU.
5. EXISTING COMPRESSOR-01 IS RELOCATED (REFER TO SHEET E-9). THE CONTRACTOR SHALL LAY NEW WIRES AS REQUIRED AND CONNECT ALL THE CONTROLS BETWEEN BOTH COMPRESSORS AND CONTROL PANEL AS NECESSARY TO RESTORE THE COMPRESSOR TO ITS ORIGINAL METHOD OF OPERATION. ALL PROVISIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
6. THE CONTRACTOR SHALL FIELD VERIFY AND INSTALL NEW JUNCTION BOXES FOR PANEL G AS REQUIRED TO CONNECT THE EXISTING WIRES AND CONDUITS FROM VARIOUS EXISTING LOADS REFER SHEET E-19.
7. THE CONTRACTOR SHALL INSTALL NEW WIRES AND CONDUITS FROM NEW JUNCTION BOXES TO NEW PANEL G AS NECESSARY TO RESTORE ALL THE LOADS TO ITS ORIGINAL METHOD OF OPERATION. ALL PROVISIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
8. THE CONDUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY, THE CONTRACTOR SHALL FIELD VERIFY AND SUBMIT A CONDUIT ROUTING PLAN FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK. ALL PROVISIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
9. MINIMUM JUNCTION BOX SIZE 60"X60"X12".

GENERAL NOTES:

1. SEE ARCHITECTURAL SHEETS FOR BUILDING IMPROVEMENTS, INCLUDING PATCHING WALLS, REMOVING LOUVERS, DEMOLITION OF EXISTING WATER LINE, ETC.
2. CABLE AND CONDUIT FEEDING EXISTING EQUIPMENT TO BE REPLACED FROM THE ELECTRICAL PANEL TO THE LOCAL DISCONNECT.
3. REFERENCE HVAC EQUIPMENT SCHEDULE FOR REFERENCE TO CIP ASSET POSITION ID TABLE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


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VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN BUILDING ELECTRICAL POWER PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
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| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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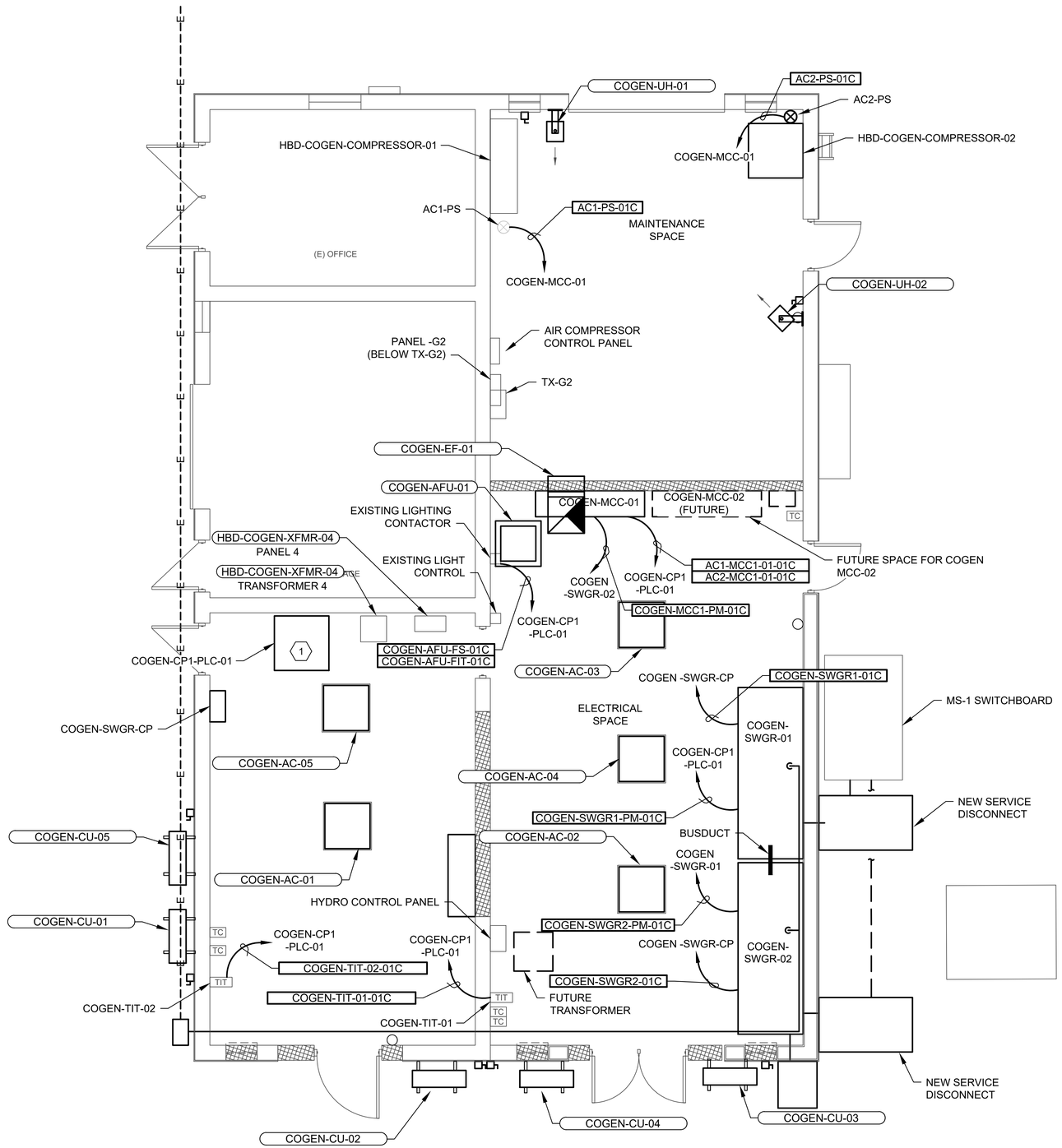


## COGEN BUILDING ELECTRICAL CONTROLS PLAN

4 2 0 4
SCALE IN FEET

### NOTES BY SYMBOL (X)

1. NEW PLC COGEN-CP1-PLC-01 TO REPLACE EXISTING. THE PLC PROCESSOR WILL BE SCHNEIDER ELECTRIC M580. NEW PLC WILL PROVIDE CONTROLS FOR:
   - -ALL EXISTING EQUIPMENT CONTROL AND MONITORING.
   - -NEW SWITCHGEAR MAIN BREAKER OPEN AND CLOSE STATUS.
   - -SWITCHGEAR POWER SYSTEM MONITORING. PLC WILL BE PROGRAMMED TO PULL CRITICAL POWER/PROTECTION DATA FROM ALL POWER SMART METERS AND PROTECTION RELAYS.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204


STATE OF TEXAS — HALEY A. JONES — 141585 — LICENSED PROFESSIONAL ENGINEER — 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN BUILDING ELECTRICAL CONTROLS PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-32
141 of 196

PRINTED BY: LeuenbGR DATE: 3/4/2026
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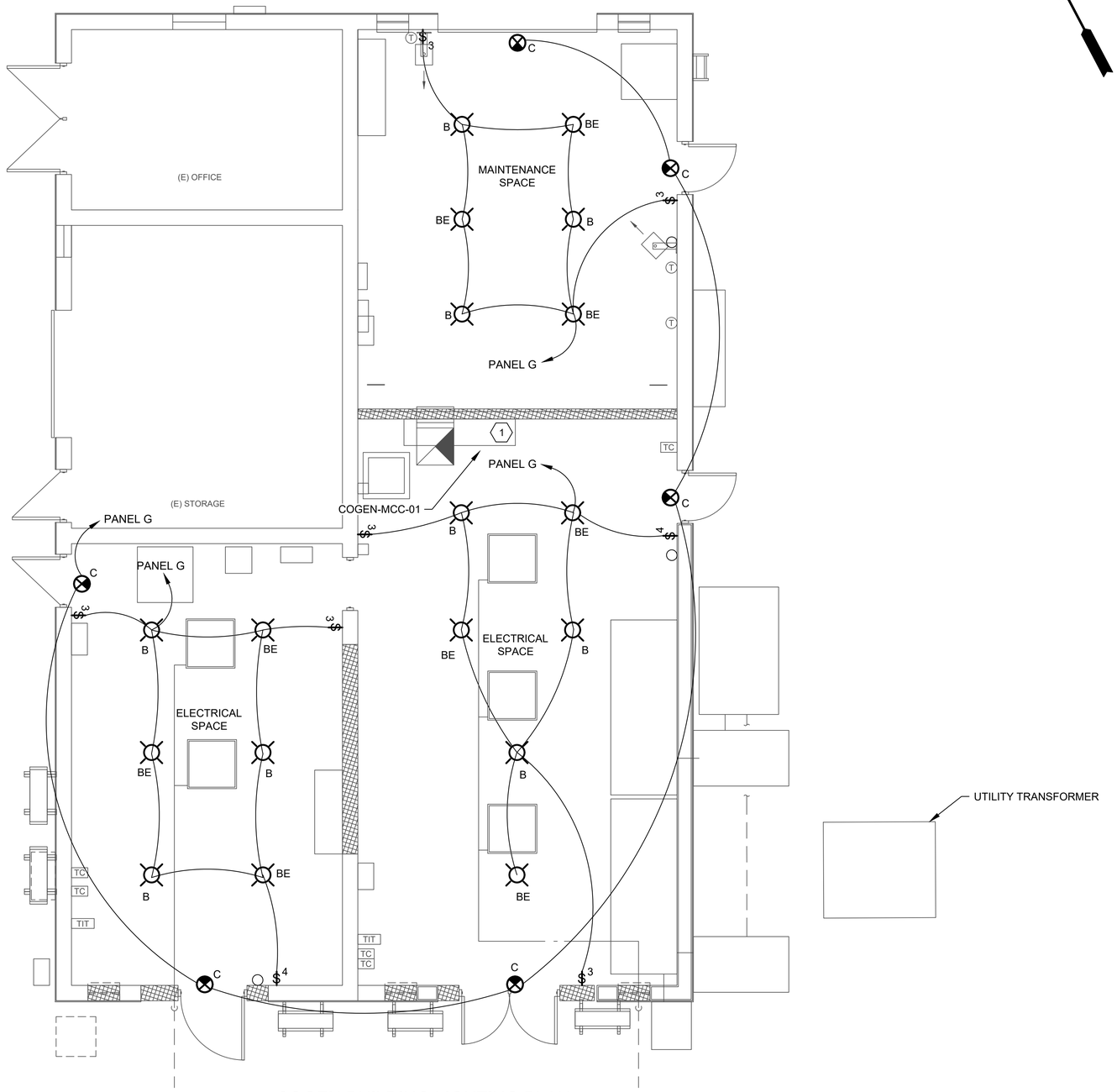


## COGEN BUILDING LIGHTING PLAN

4 2 0 4
SCALE IN FEET

## NOTES BY SYMBOL (X)

1. PANEL G IS PART OF COGEN-MCC-01. REFER DRAWING E-15.

GENERAL NOTES:

1. LOCATE AND TIE NEW EQUIPMENT TO EXISTING GROUND.
2. EXIT LIGHTS SHALL NOT BE WIRED THROUGH SWITCH SO THEY REMAIN ENERGIZED AT ALL TIMES

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN BUILDING LIGHTING PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-33
142 of 196

PRINTED BY: LeuenbGR DATE: 3/4/2026
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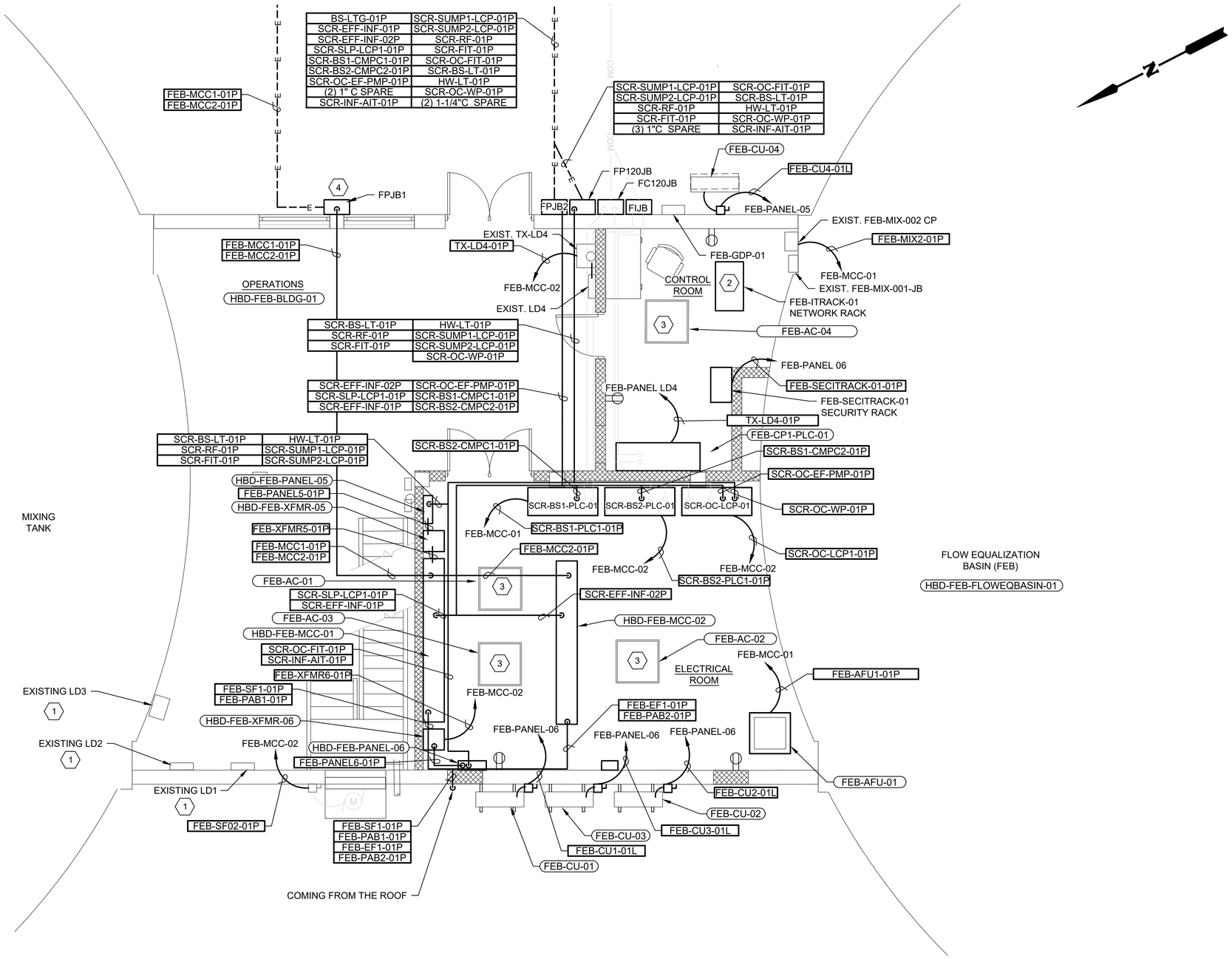


## FEB BUILDING GROUND FLOOR POWER PLAN

4 2 0 4
SCALE IN FEET

## NOTES BY SYMBOL (X)

1. PANELBOARD TO JUNCTION BOX CONVERSION NOTES. CONTRACTOR SHALL CONVERT PANELS LD1, LD2, AND LD3 INTO JUNCTION BOXES. REFER TO ALLOWANCE NO. 12. THE WORK SHALL INCLUDE BUT IS NOT LIMITED TO:
   - A. IDENTIFICATION, TRACING, AND TAGGING OF ALL EXISTING CONDUITS AND CONDUCTORS FROM THE EXISTING PANELS TO THE EXISTING LOADS. PROVIDE ELECTRONIC CIRCUIT TRACING EQUIPMENT, AS REQUIRED. TAG ALL ACTIVE CIRCUITS IN ACCORDANCE WITH AUSTIN WATER'S STANDARDS.
   - B. VISUAL INSPECTION OF ALL EXPOSED EXISTING CONDUITS FROM THE PANELS TO THE EXITING LOADS.
   - C. ABANDONMENT OF EXISTING CONDUITS FOUND UNSUITABLE FOR USE. INSTALLATION OF NEW CONDUIT TO REPLACE THOSE ABANDONED.
   - D. TESTING EACH CIRCUIT AND REPLACE WIRES THAT FAIL , OR ARE FOUND TO BE TOO SHORT TO TERMINATE IN THE CONVERTED JUNCTION BOXES. REMOVE WIRES THAT HAVE BEEN ABANDONED OR SERVE LOADS THAT NO LONGER EXIST.
   - E. REMOVING THE PANELBOARDS INTERIOR, INCLUDING BREAKERS AND BUSES, AND REPLACING WITH TERMINAL BLOCKS.
   - F. INSTALLING WIREWAYS ABOVE THE EXISTING PANELS TO RECEIVE WIRING FROM NEW PANELS AND TO DISTRIBUTE WIRES TO CONVERTED JUNCTION BOXES.
   - G. INSTALLING FITTINGS AND CONDUITS BETWEEN THE WIREWAYS AND CONVERTED JUNCTION BOXES.
   - H. TERMINATING EXISTING WIRES ONTO LOAD SIDE OF THE TERMINAL BLOCKS.
   - I. INSTALLING NEW CONDUITS AND CONDUCTORS FROM NEW PANELBOARDS TO NEW WIREWAY. PULL NEW WIRES THROUGH THE WIREWAYS TO EACH CONVERTED JUNCTION BOX AND TERMINATE NEW CIRCUITS TO LINE SIDE OF THE TERMINAL BLOCKS TO MATCHING CIRCUITS.
   - J. PROVIDE A TERMINAL BLOCK AND CIRCUIT SCHEDULE MOUNTED IN EACH CONVERTED JUNCTION BOX
   - K. GROUT ABANDONED RECEPTACLES AND BOXES. CUT ABANDONED CONDUITS FLUSH WITH WALLS AND FLOORS, AND GROUT FILL.
   - L. REVIEWING ALL LOADS AND CONFIRMING THAT THE PROPOSED PANELS ARE ADEQUATE TO ACCOMMODATE THE EXISTING LOADS ALONG WITH THE PROPOSED LOADS PER THE PANEL SCHEDULES.
2. REPLACEMENT OF EXISTING NETWORK RACK. THIS WORK INCLUDES THE REPLACEMENT OF THE EXISTING NETWORK RACK WITH A NEW NETWORK RACK. CARE SHALL BE TAKEN DURING THE DEMOLITION OF THE EXISTING NETWORK RACK TO PRESERVE ALL EXISTING CABLES RISING THROUGH THE FLOOR FOR FUTURE REUSE OR RE-ROUTING.
   - A. IDENTIFICATION, TRACING, AND TAGGING OF ALL EXISTING CONDUITS AND CONDUCTORS/ETHERNET CABLES FROM THE NETWORK RACK TO THE EXISTING COMPONENTS. PROVIDE ELECTRONIC CIRCUIT TRACING EQUIPMENT, AS REQUIRED. TAG ALL ACTIVE CIRCUITS IN ACCORDANCE WITH AUSTIN WATER'S STANDARDS.
   - B. CONDUCT A VISUAL INSPECTION OF ALL EXPOSED EXISTING CONDUITS FROM THE NETWORK RACK TO THE EXITING COMPONENTS.
   - C. ABANDON EXISTING CONDUITS FOUND UNSUITABLE FOR CONTINUED USE. INSTALL NEW CONDUITS TO REPLACE THOSE THAT ARE ABANDONED.
   - D. USE EXISTING POWER CABLE AND CONDUIT TO RE-FEED NEW NETWORK RACK.
3. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER AND PROVIDE ALL NECESSARY POWER AND CONTROL WIRING AS REQUIRED BETWEEN CU, AHU AND ITS CONTROL PANEL. THE HVAC UNIT IS MOUNTED ON THE CEILING.
4. MINIMUM JUNCTION BOX SIZE 60"x60"x12".


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING GROUND FLOOR POWER PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-34
143 of 196


PRINTED BY: LeuenbGR DATE: 3/4/2026
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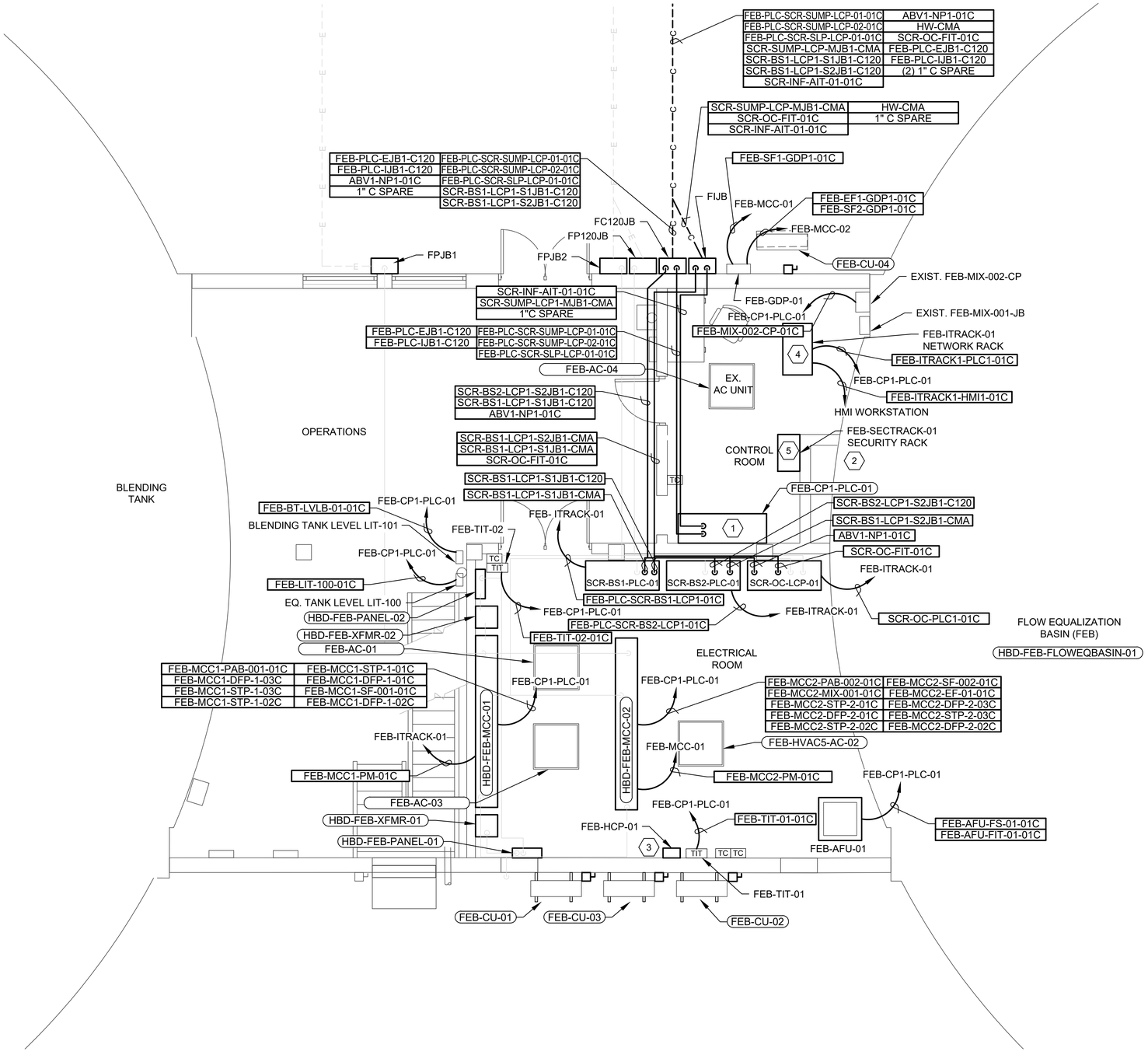


## FEB BUILDING GROUND FLOOR CONTROLS PLAN

4 2 0 4
SCALE IN FEET

## NOTES BY SYMBOL (X)

1. NEW FEB-CP1-PLC-01 TO REPLACE EXISTING. THE PLC PROCESSOR WILL BE SCHNEIDER ELECTRIC M580. NEW PLC WILL PROVIDE CONTROLS FOR:
   - -ALL EXISTING EQUIPMENT CONTROLS AND MONITORING.
   - -NEW HEADWORKS.
   - -NEW ELECTRICAL EQUIPMENT AND POWER SYSTEM MONITORING.
2. TO BE CONFIRMED BY AW SECURITY.
3. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER AND PROVIDE ALL NECESSARY CONTROL WIRING AS REQUIRED BETWEEN CU, AHU AND ITS CONTROL PANEL.
4. RACK SIZES TO BE 74x24x42.
5. SECURITY RACK PROVIDED BY COA THIRD-PARTY CONTRACTOR UNDER ALLOWANCE 1.

GENERAL NOTES:

1. REFERENCE HVAC EQUIPMENT SCHEDULE FOR REFERENCE TO CIP ASSET POSITION TABLE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING GROUND FLOOR CONTROLS PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-35
144 of 196

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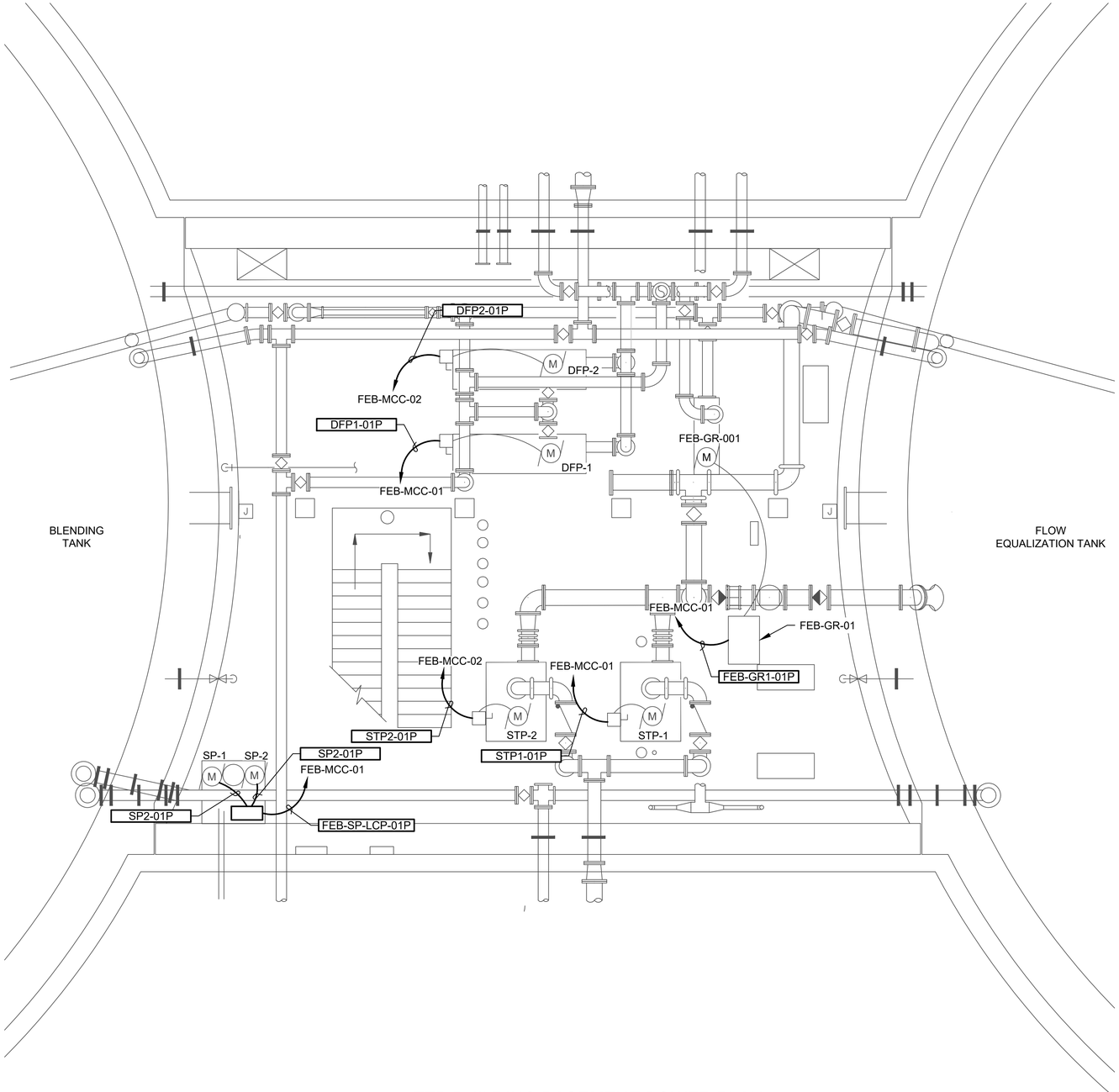
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-35_CPY.dwg

GENERAL NOTES:

1. REPLACE CABLES AND CONDUIT TO DIGESTER FEED PUMPS, SLUDGE TRANSFER PUMPS, GRINDER, AND SUMP PUMPS.
2. NO PROCESS IMPROVEMENTS PROPOSED.




## FEB BUILDING BASEMENT POWER PLAN

4 2 0 4
SCALE IN FEET

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FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-36_CPY.DWG

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

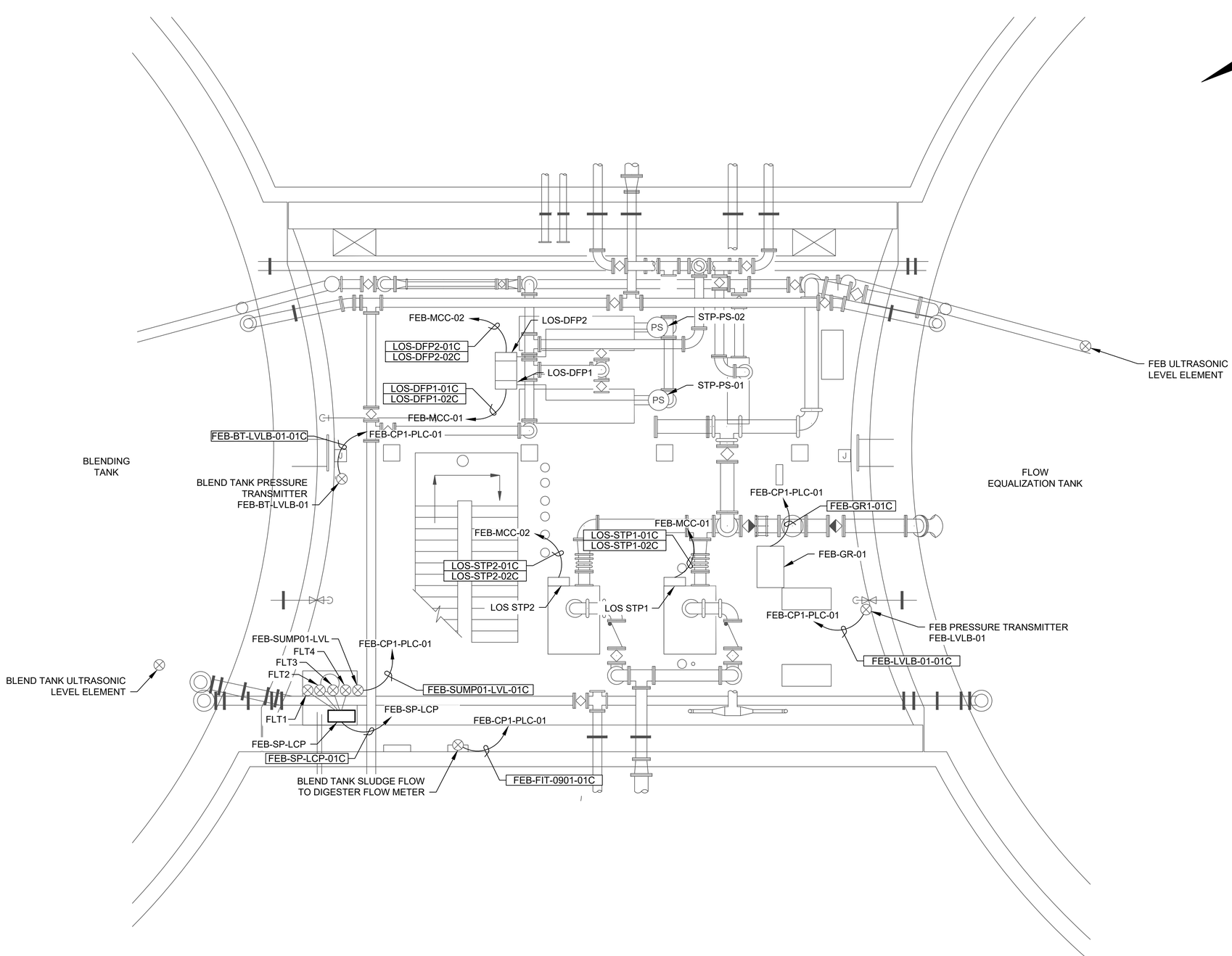
FEB BUILDING BASEMENT POWER PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-36
145 of 196

GENERAL NOTES:

1. REPLACE CABLES AND CONDUIT TO DIGESTER FEED PUMPS, SLUDGE TRANSFER PUMPS, GRINDER, AND SUMP PUMPS.
2. NO PROCESS IMPROVEMENTS PROPOSED.




## FEB BUILDING BASEMENT CONTROLS PLAN

4 2 0 4
SCALE IN FEET

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 1" 0

BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING BASEMENT CONTROLS PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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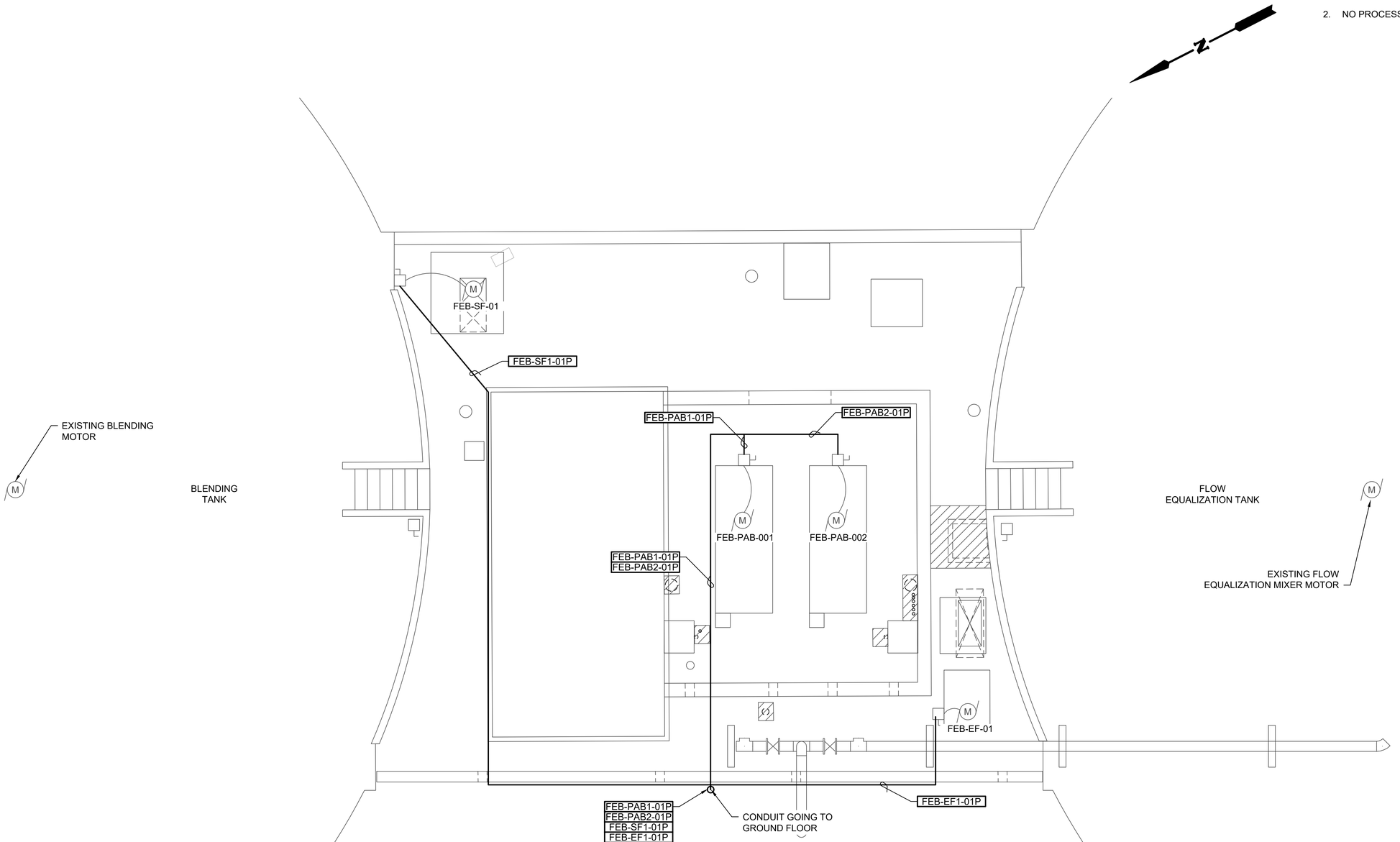
GENERAL NOTES:

1. REPLACE CABLES AND CONDUIT TO DIGESTER FEED PUMPS, SLUDGE TRANSFER PUMPS, GRINDER, AND SUMP PUMPS.
2. NO PROCESS IMPROVEMENTS PROPOSED.




## FEB BUILDING ROOF POWER PLAN

4 2 0 4
SCALE IN FEET

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

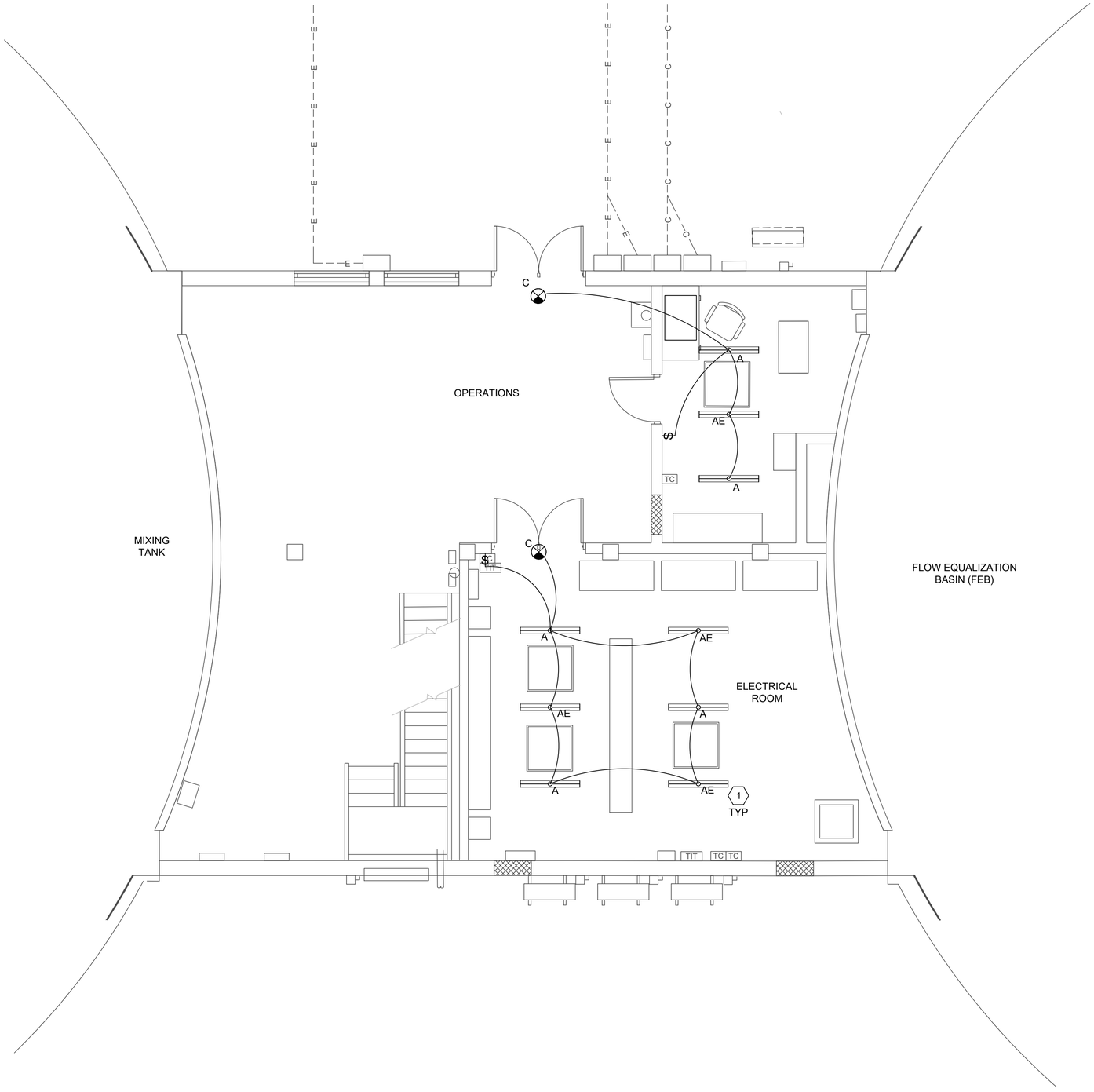
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING ROOF ELECTRICAL PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-38




## NOTES BY SYMBOL (X)

1. THE CONTRACTOR SHALL CO-ORDINATE AND FINALIZE THE ELEVATION OF LIGHT FIXTURES SO THAT IT DOES NOT CLASH WITH HVAC DUCT.

GENERAL NOTES:

1. LOCATE AND TIE NEW EQUIPMENT TO EXISTING GROUNDING GRID.
2. EXIT LIGHTS SHALL NOT BE WIRED THROUGH SWITCH SO THEY REMAIN ENERGIZED AT ALL TIMES.

FEB BUILDING LIGHTING AND GROUNDING PLAN

4 2 0 4
SCALE IN FEET


sti
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING LIGHTING AND GROUNDING PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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E-39
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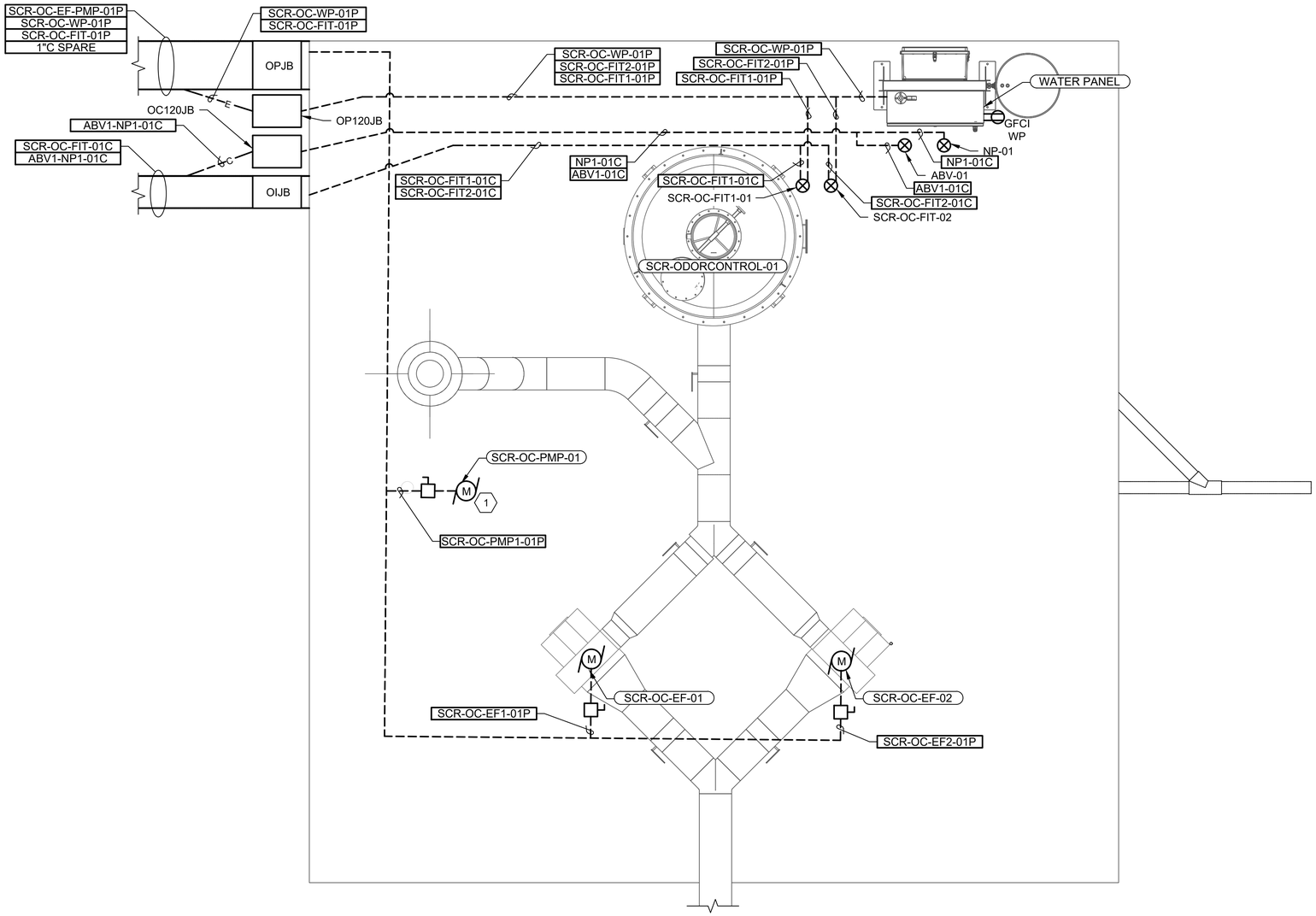


## ODOR CONTROL AREA - POWER AND CONTROL PLAN

0 2 4

SCALE IN FEET

## NOTES BY SYMBOL (X)

1. THE CONTRACTOR SHALL COORDINATE WITH ODOR CONTROL MANUFACTURER FOR THE LOCATION OF RECIRCULATION PUMP (SCR-OC-PMP-01) AND PROVIDE CONDUIT STUB UP ACCORDINGLY.

GENERAL NOTES:

1. MAINTAIN A MINIMUM DISTANCE OF 12" BETWEEN ANALOG SIGNAL CONDUIT AND POWER/DISCRETE SIGNAL CONDUIT.
2. ALL ELECTRICAL ENCLOSURES DISCONNECT SWITCHES, PUSHBUTTON STATIONS, JUNCTION BOXES, ETC. SHALL BE RATED NEMA 4X AND CONSTRUCTED OF 316 STAINLESS STEEL. ALL ELECTRICAL ENCLOSURES SHALL BE SIZED PER NEC REQUIREMENTS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO. | REVISION | BY | DATE |
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VERIFY SCALE 1" 0 BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ODOR CONTROL AREA
POWER AND CONTROL PLAN

| | |
|---|---|
| DESIGN: | R. RAJAN, P.E. |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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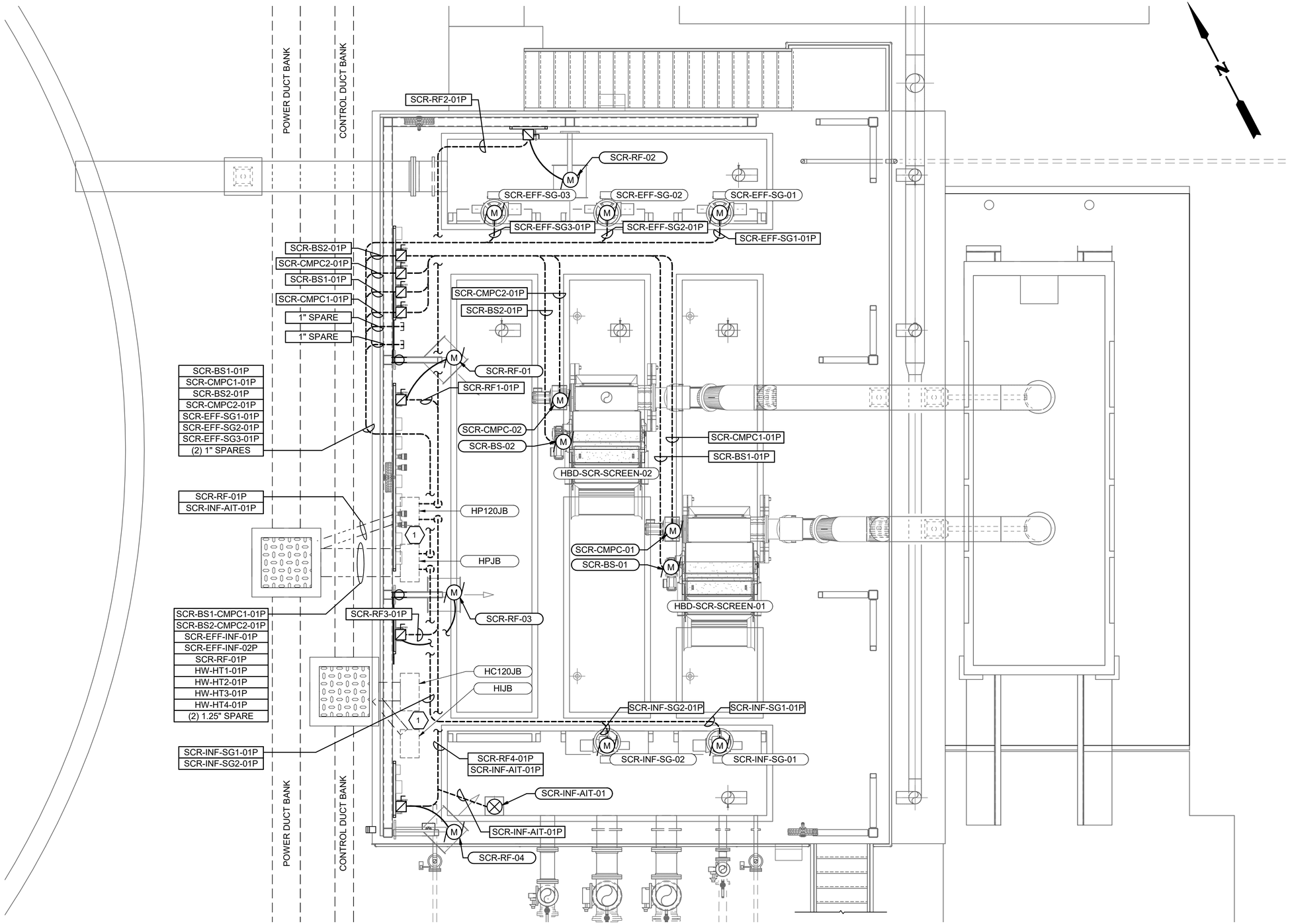


## HEADWORKS FACILITY POWER PLAN

2 1 0 4
SCALE IN FEET

| NOTES BY SYMBOL | X |
|---|---|
| 1 | J-BOXES TO BE MOUNTED TO LOWER HEADWORKS WALL UNDER OVERHANG. |

GENERAL NOTES:

1. HEAT TRACE INSTALLATION SHALL COMPLY WITH SPECIFICATION 15256. THE ASSIGNED BREAKER MUST BE USED FOR THE HEAT TRACE. IF ADDITIONAL CIRCUITS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE THEM AT NO ADDITIONAL COST TO THE OWNER.
2. ALL CONDUIT TO BE FIELD ROUTED AND DETERMINED BY CONTRACTOR WITH APPROVAL BY ENGINEER AND OWNER. ALL CONDUIT PASSING THROUGH CONCRETE SLAB TO BE SLEEVED AS NECESSARY. REFER TO ELECTRICAL DETAILS.
3. HAZARDOUS CLASSIFICATION AREA WITHIN A 10' HORIZONTALLY AND 18" VERTICALLY AROUND EQUIPMENT AND OPEN CHANNEL PER NFPA 820.


stv
TEXAS REGISTERED ENGINEERING FIRM F-204


STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY.
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS FACILITY POWER PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-41
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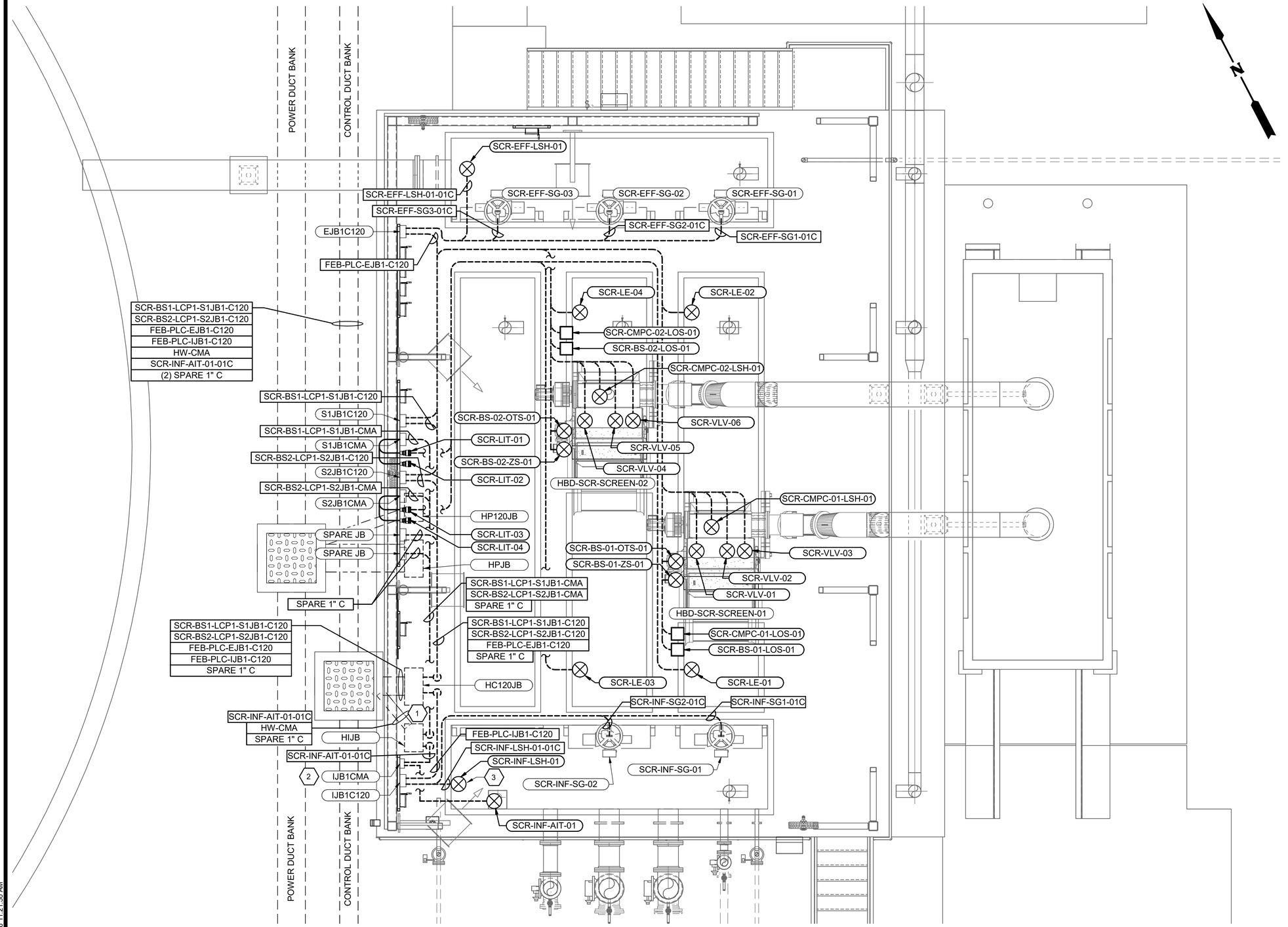


## HEADWORKS FACILITY CONTROLS PLAN

2 1 0 4
SCALE IN FEET

| NOTES BY SYMBOL | X |
|---|---|
| 1 | J-BOXES TO BE MOUNTED TO LOWER HEADWORKS WALL UNDER OVERHANG. |
| 2 | JUNCTION BOX IS NEMA 4X RATED AND CONTAINS AN INTRINSICALLY SAFE BARRIER. |
| 3 | H2S SENSOR BY SULFLOGGER MODEL S1/X1-1010 (WASTEWATER) WITH POWER COM BOX OPTION, 4-20MA, LOOP POWERED. IN ADDITION TO THE CONDUIT SHOWN, INSTALL (1)1"C SPARE FROM JUNCTION BOX IJB1C120 BACK TO THE FEB BUILDING AND FROM IJB1C120 TO THE SENSOR. |

GENERAL NOTES:

1. HEAT TRACE INSTALLATION SHALL COMPLY WITH SPECIFICATION 15256. THE ASSIGNED BREAKER MUST BE USED FOR THE HEAT TRACE. IF ADDITIONAL CIRCUITS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE THEM AT NO ADDITIONAL COST TO THE OWNER.
2. ALL CONDUIT TO BE FIELD ROUTED AND DETERMINED BY CONTRACTOR WITH APPROVAL BY ENGINEER AND OWNER. ALL CONDUIT PASSING THROUGH CONCRETE SLAB TO BE SLEEVED AS NECESSARY. REFER TO ELECTRICAL DETAILS.
3. REFER TO THE BLOCK DIAGRAMS ON SHEET E-47 AND CABLE/CONDUIT SCHEDULE FOR SPECIFIC CONDUIT, CONDUCTORS AND CONNECTION REQUIREMENTS ASSOCIATED WITH PACKAGED FIELD MOUNTED COMPONENTS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY. 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS FACILITY CONTROLS PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-42
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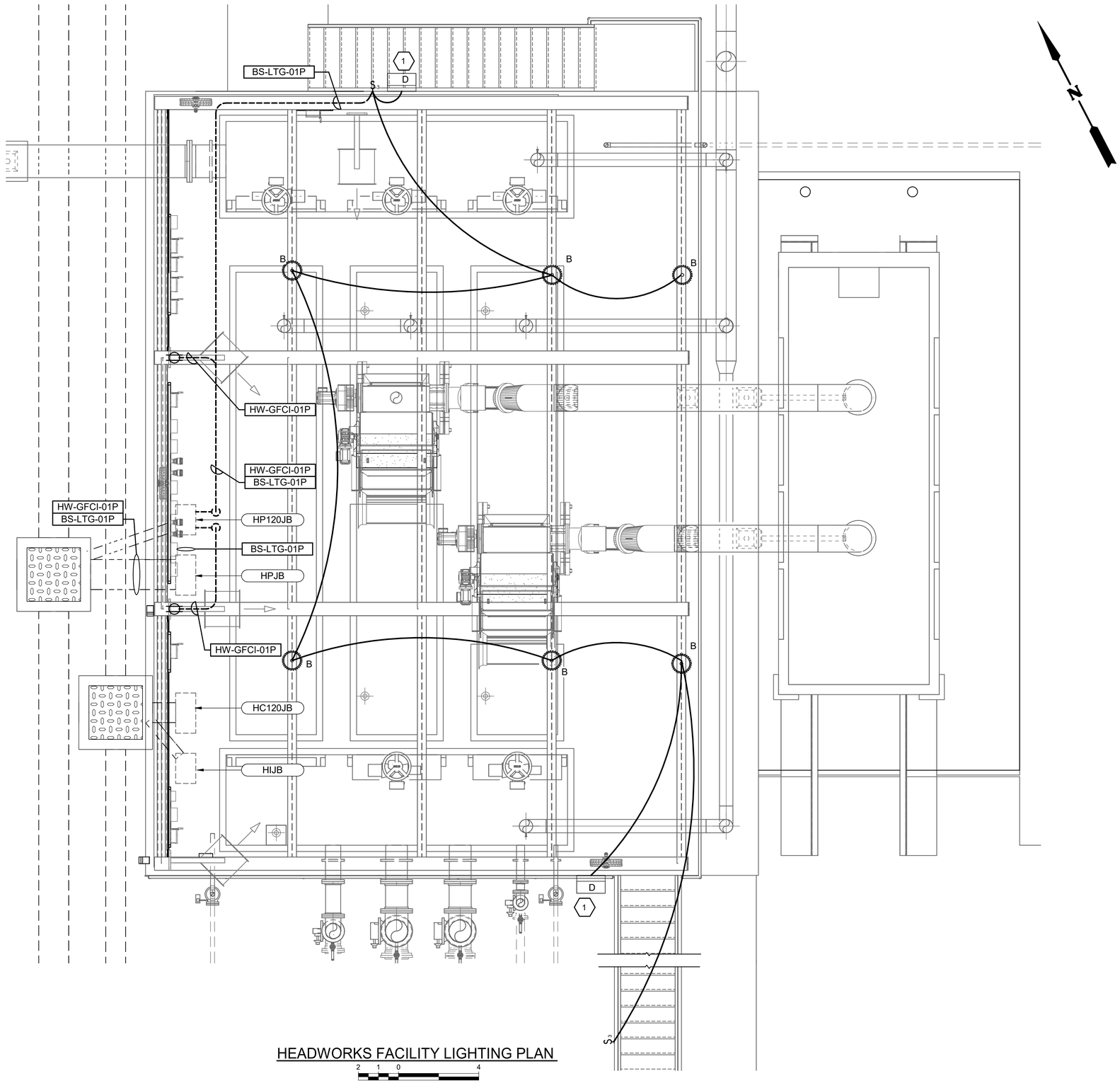


HEADWORKS FACILITY LIGHTING PLAN

2 1 0 4

SCALE IN FEET

| NOTES BY SYMBOL (X) | |
|---|---|
| 1 | MOUNT WALLPACK LEDS AT 8.5 FEET ABOVE WALKABLE SURFACE OF HEADWORKS SCREENING AREA |


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED
PROFESSIONAL ENGINEER
03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, SCALE DRAWING ACCORDINGLY. AND ADJUST SCALE ACCORDINGLY.

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# HEADWORKS FACILITY LIGHTING PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

E-43




Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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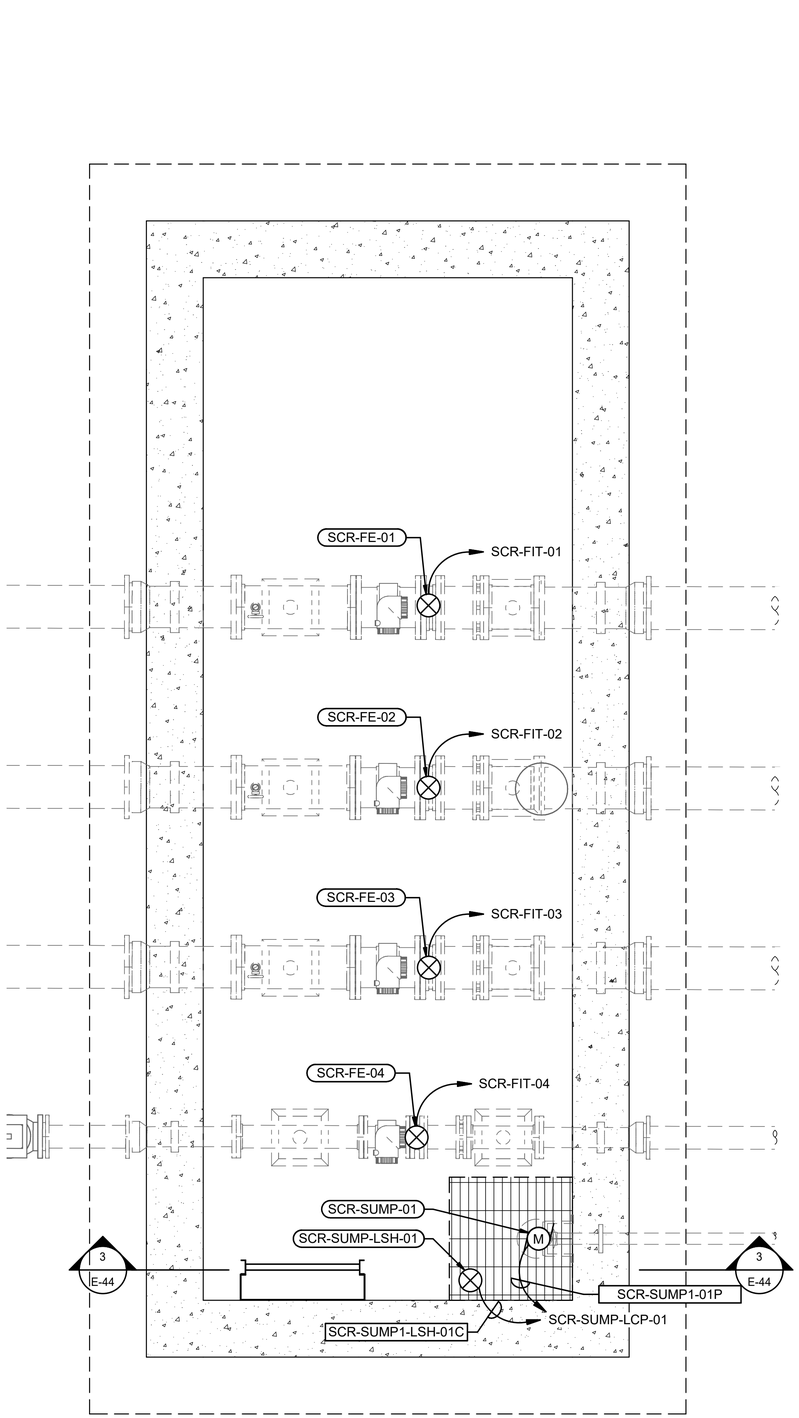
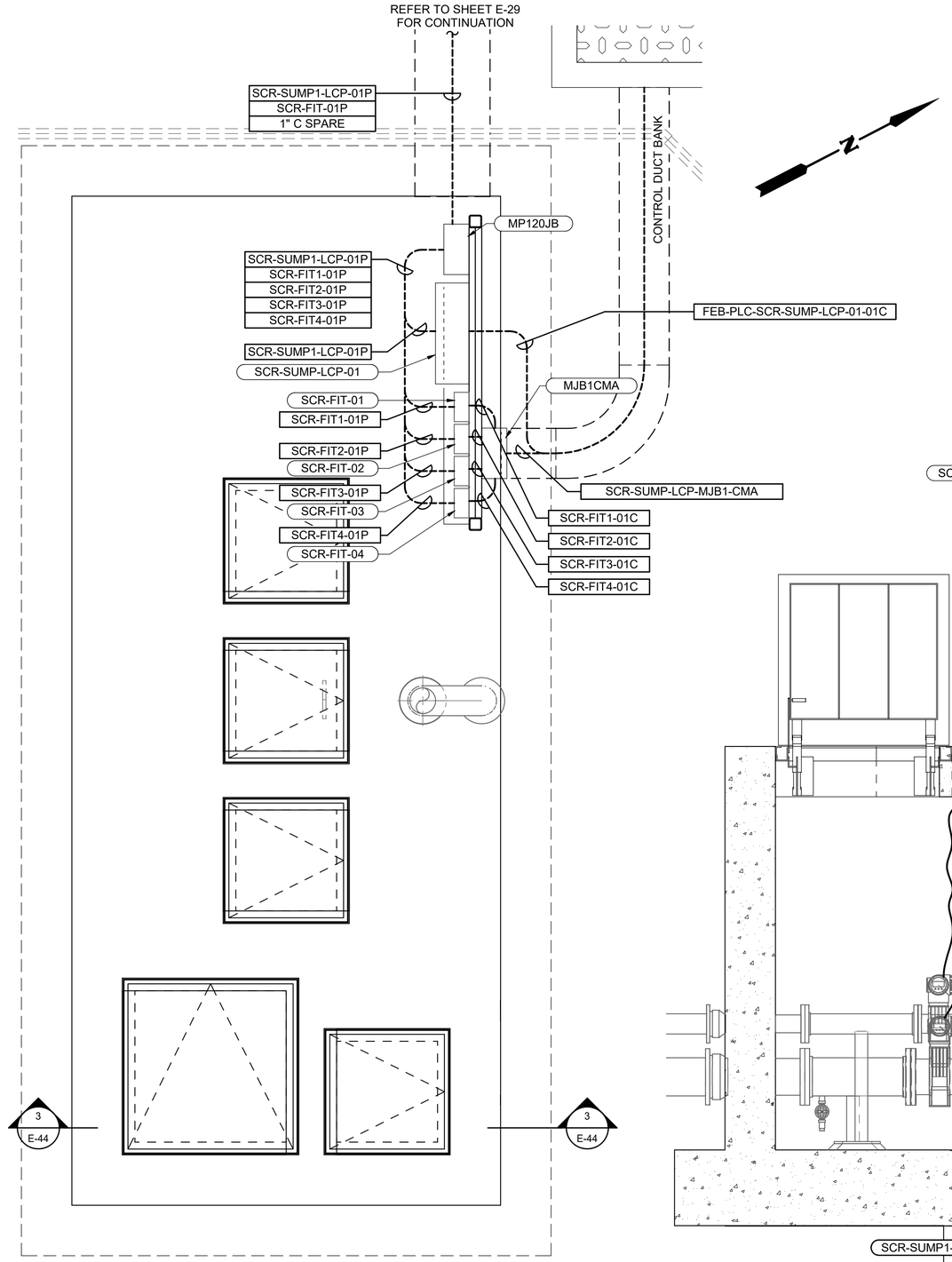


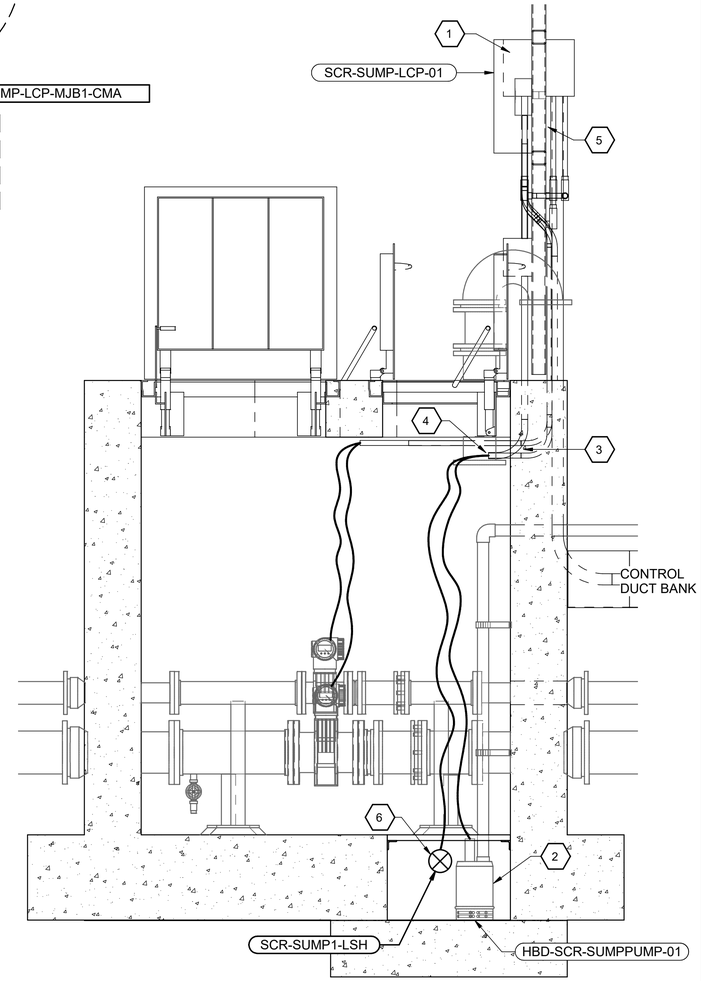

METER VAULT ELECTRICAL POWER & CONTROL BOTTOM PLAN

2 1 0 2
SCALE IN FEET




METER VAULT ELECTRICAL POWER & CONTROL TOP PLAN

1 0 2
SCALE IN FEET




3
E-44
METER VAULT ELECTRICAL SECTION

3/4" = 1'-0"

| NOTES BY SYMBOL | X |
|---|---|
| 1 | SUMP PUMP CONTROL PANEL (RACK MOUNTED) |
| 2 | CLASS I, DIV I SUMP PUMP |
| 3 | CORE DRILL METER VAULT AS REQUIRED |
| 4 | PROVIDE SS FLOAT RACK AND KELLUM GRIPS FOR ALL CABLES |
| 5 | EQUIPMENT RACK |
| 6 | FLOAT SWITCH |

GENERAL NOTES:

1. ELECTRICAL POWER AND CONTROL ROUTING IS DIAGRAMATIC AND TO BE FIELD ROUTED PER THE CONTRACTOR.
2. VAULT IS A CLASS I, DIV 1 SPACE


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# METER VAULT PLANS & SECTION

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-44
153 of 196


Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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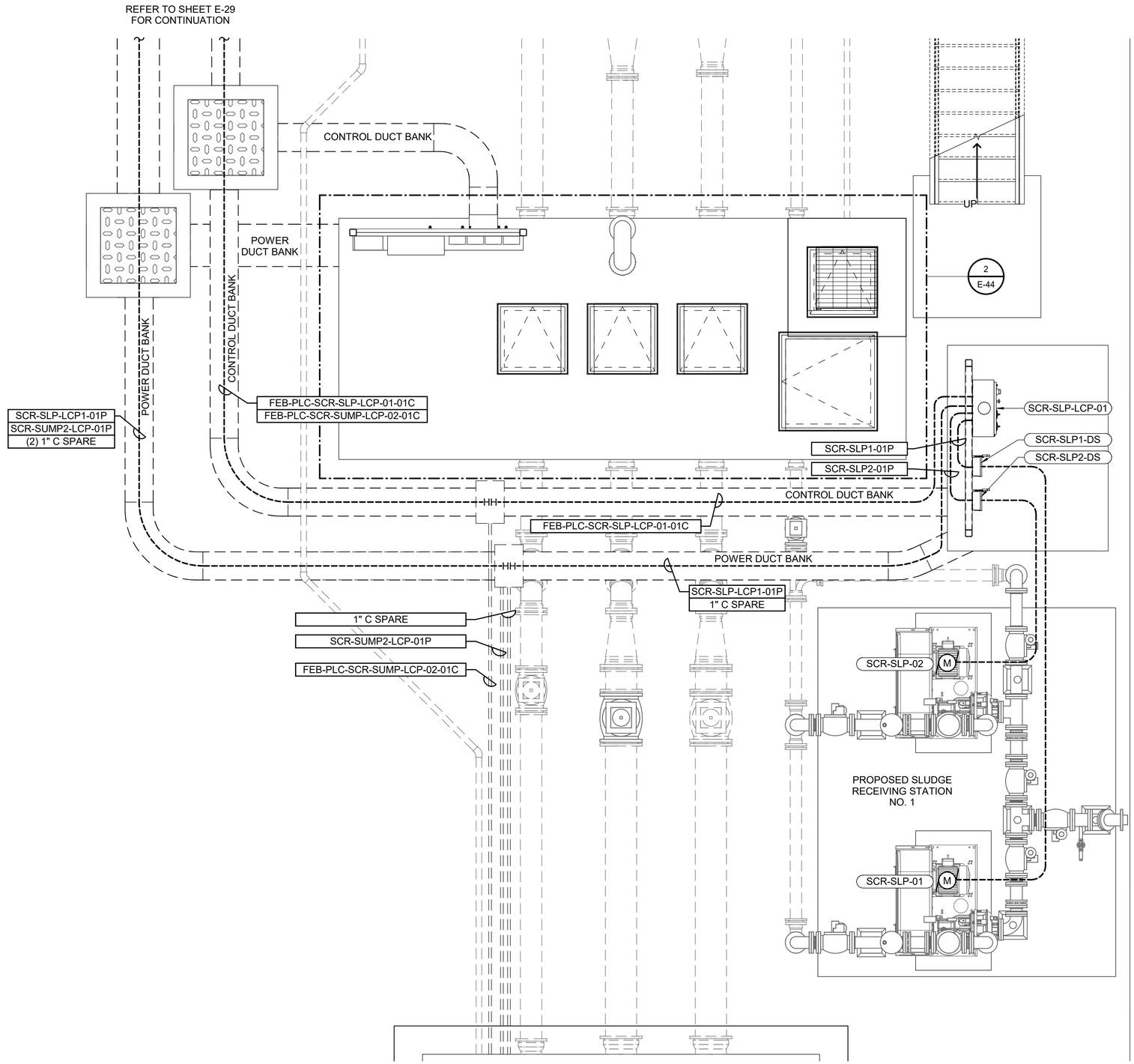


RECEIVING STATION ELECTRICAL POWER & CONTROLS PLAN

2 1 0 2
SCALE IN FEET

GENERAL NOTES:

1. RECEIVING STATION CONTROL PANEL - WITH FOLLOWING OPTIONS:
   - MAIN BREAKER
   - PUMP BREAKERS
   - FVNR STARTER
   - ALTERNATION RELAY
   - H-O-A
   - MOTOR OVERLOAD
   - PHASELOSS/OVER, UNDER VOLTAGE PROTECTION
   - SCADA CONTACTS PER
   - UL 508A RATED
   - ALARM LIGHT AND SWITCHES MOUNTED ON EXTERIOR DOOR
   - LED INTERIOR LIGHT
   - NEMA 4X SS
   - LOW CURRENT RELAY
   - PHYSICAL BARRIER TO SEPARATE 480V FROM 120V AND LOWER


STV
TEXAS REGISTERED ENGINEERING FIRM F-204


STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# RECIEVING STATION ELECTRICAL POWER & CONTROLS PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-45
154 of 196

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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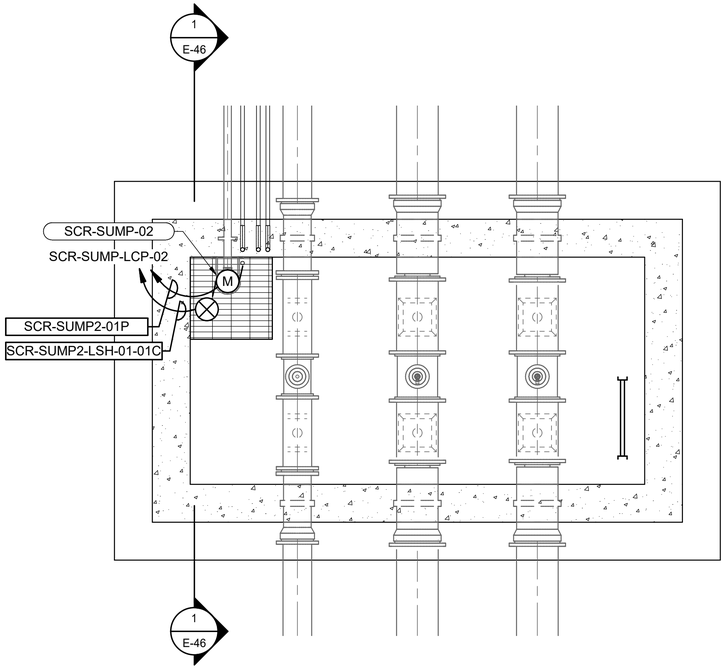
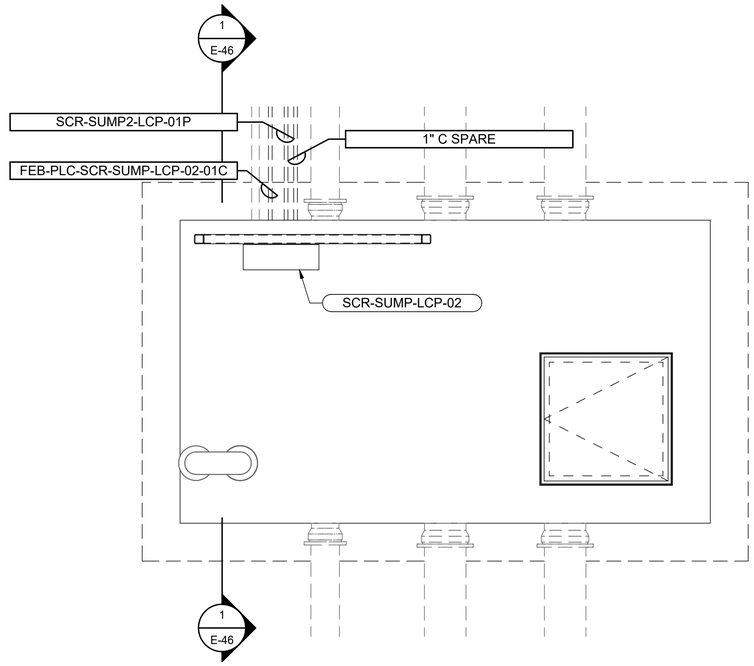


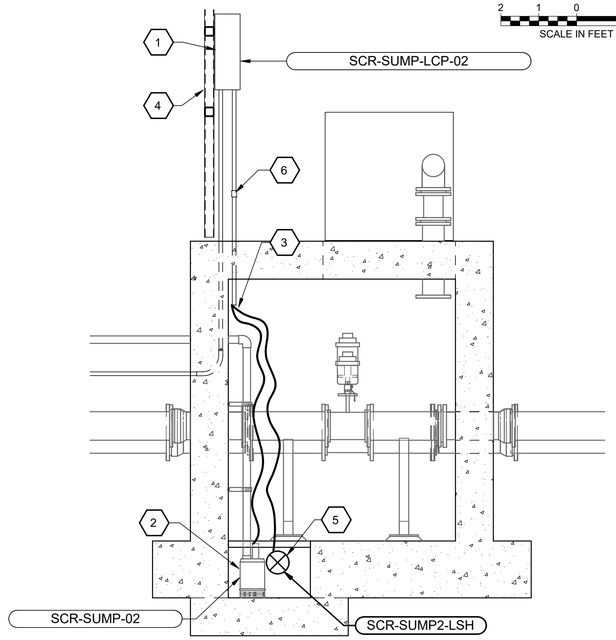

ARV VAULT LOWER ELECTRICAL PLAN

2 1 0 2
SCALE IN FEET




ARV VAULT UPPER ELECTRICAL PLAN

2 1 0 2
SCALE IN FEET




1
E-46
ARV VAULT ELECTRICAL SECTION
1/2" = 1'-0"

| NOTES BY SYMBOL | X |
|---|---|
| 1 | SUMP PUMP CONTROL PANEL (RACK MOUNTED) |
| 2 | CLASS I, DIV I SUMP PUMP |
| 3 | PROVIDE SS FLOAT RACK AND KELLUM GRIPS FOR ALL CABLES |
| 4 | EQUIPMENT RACK |
| 5 | FLOAT SWITCH |
| 6 | CONDUIT SEALING FITTING |

GENERAL NOTES:

1. ELECTRICAL POWER AND CONTROL ROUTING IS DIAGRAMATIC AND TO BE FIELD ROUTED PER THE CONTRACTOR.
2. VAULT IS A CLASS I, DIV 1 SPACE


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. IF NOT, ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ARV VAULT PLANS & SECTION

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-46
155 of 196

Revit File: BIM 360://AUST1500124.02 Hornsby Bend BMP Headworks/AUST1500124.02 - Mechanical.rvt
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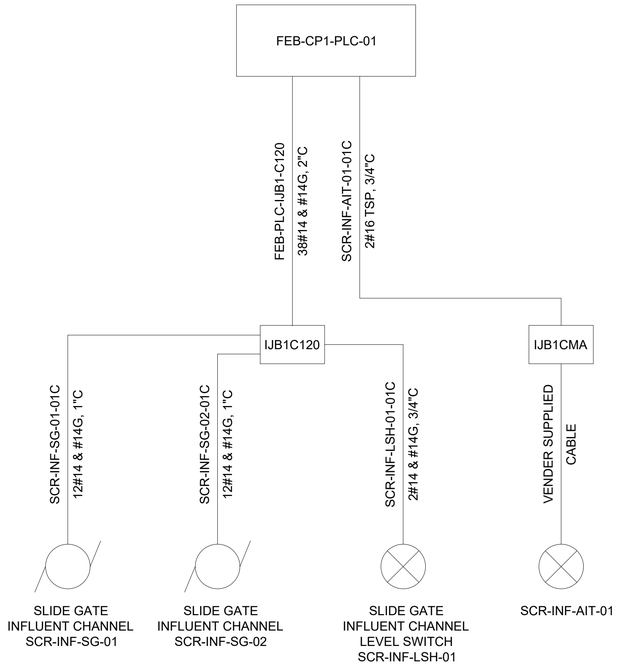
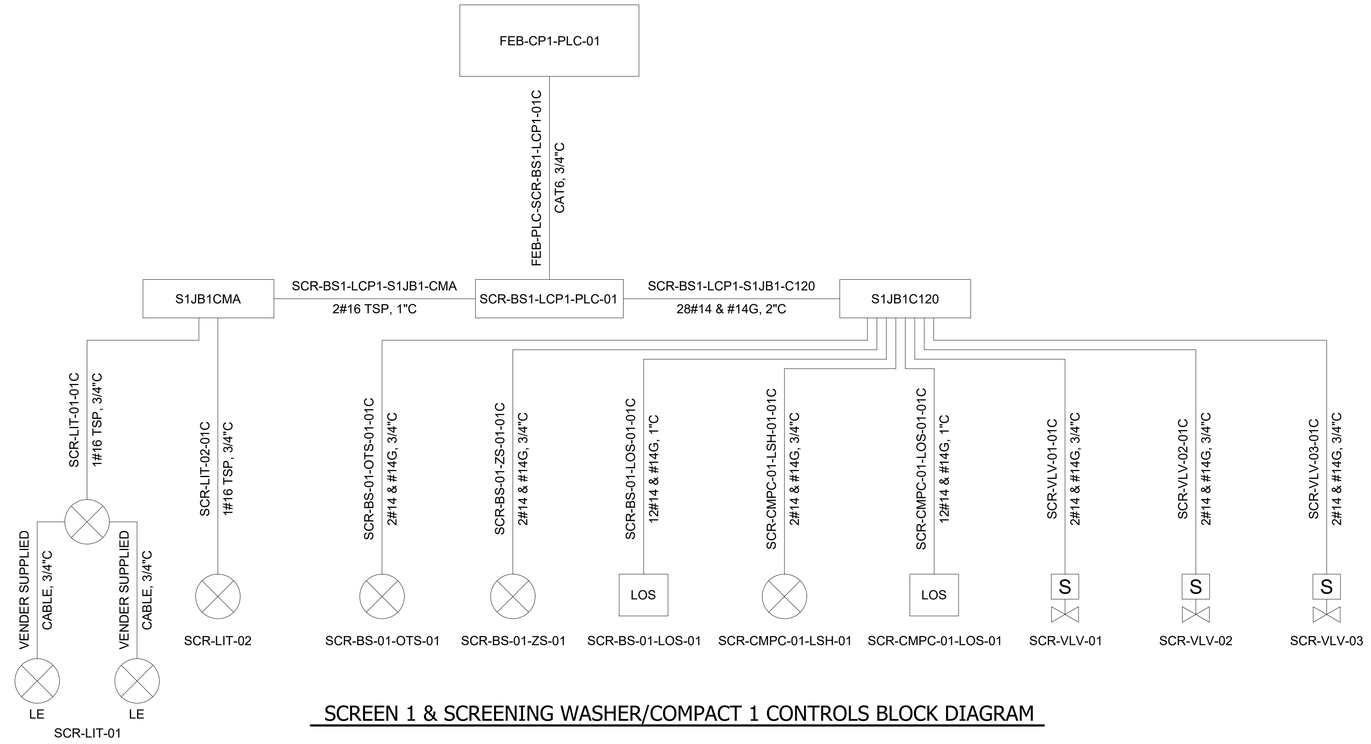
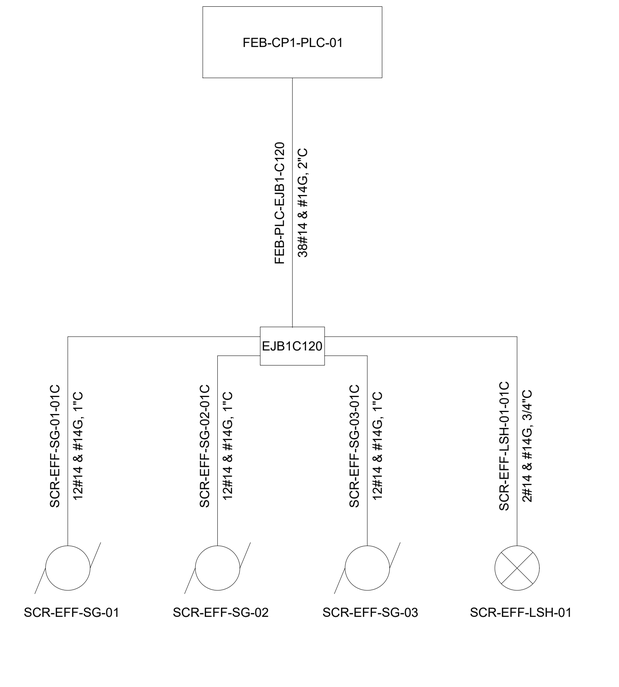


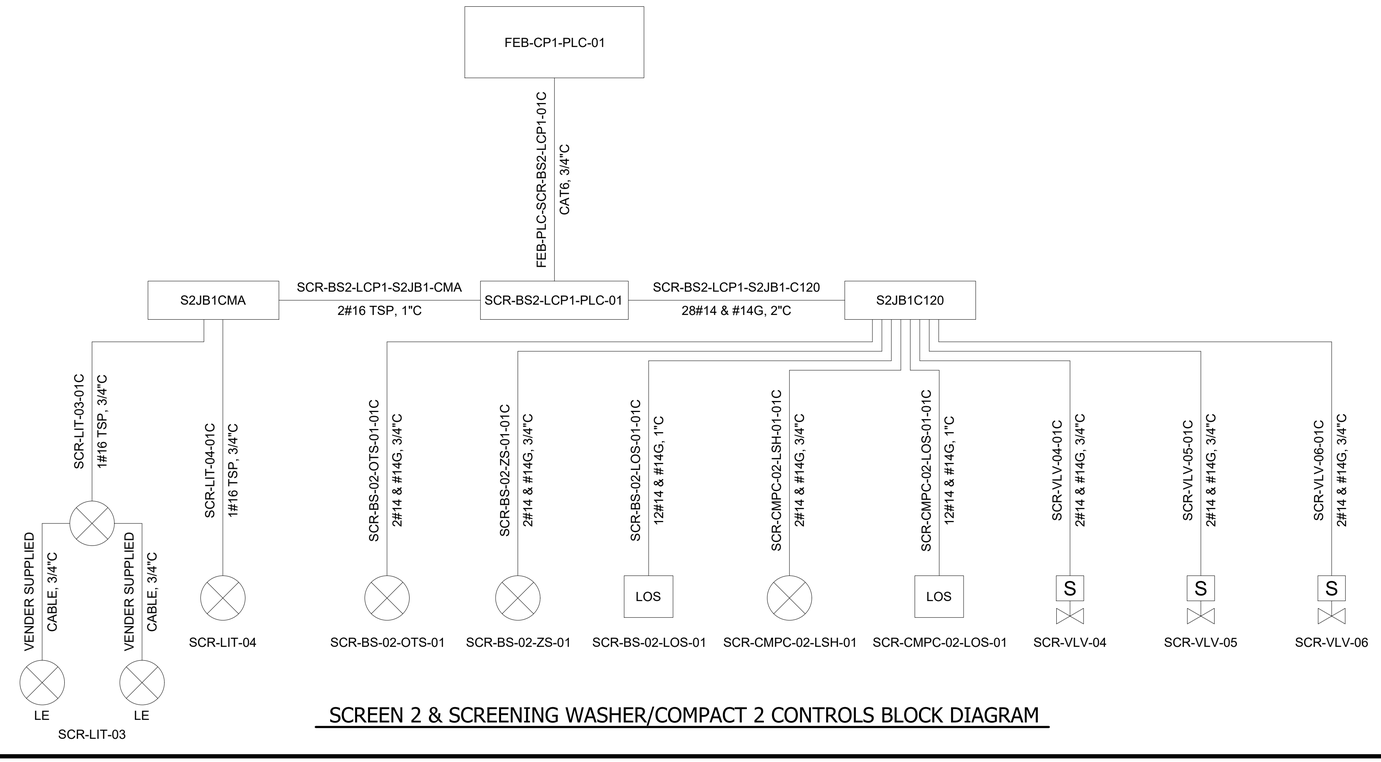

SLIDE GATES INFLUENT CHANNEL CONTROLS BLOCK DIAGRAM




SCREEN 1 & SCREENING WASHER/COMPACT 1 CONTROLS BLOCK DIAGRAM




SLIDE GATES EFFLUENT CHANNEL CONTROLS BLOCK DIAGRAM




SCREEN 2 & SCREENING WASHER/COMPACT 2 CONTROLS BLOCK DIAGRAM

PRINTED BY: LeuenbD DATE: 6/25/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-47_CPY.dwg

TEXAS REGISTERED ENGINEERING FIRM F-204

TEXAS LICENSED PROFESSIONAL ENGINEER HALEY A. JONES 141585 03/13/2026

| NO. | REVISION | BY | DATE |
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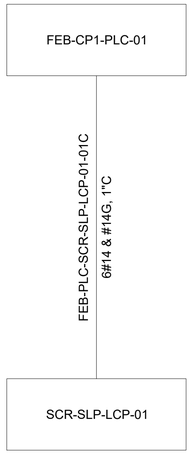
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

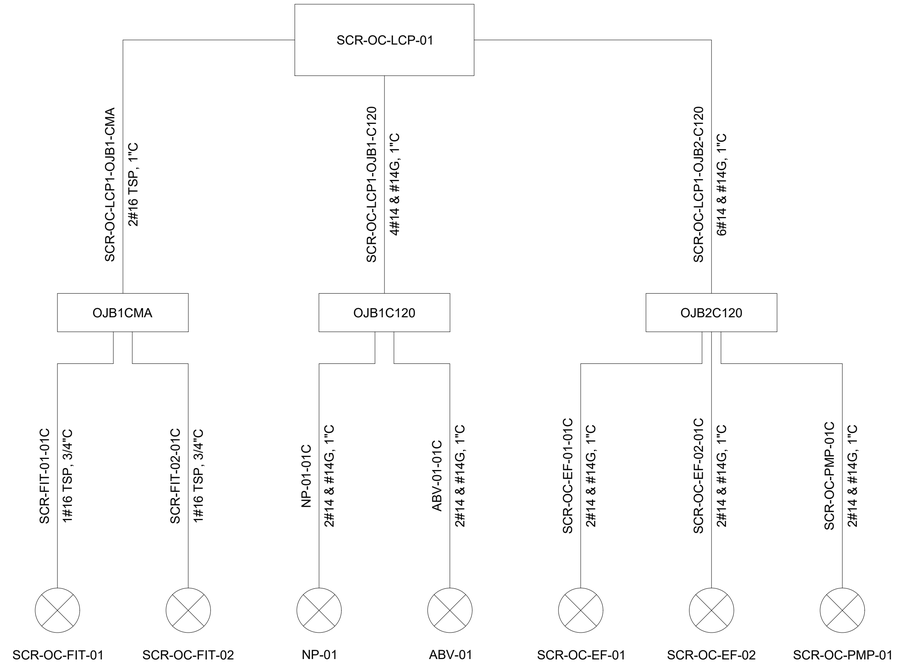
# ELECTRICAL CONTROL BLOCK DIAGRAMS I

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

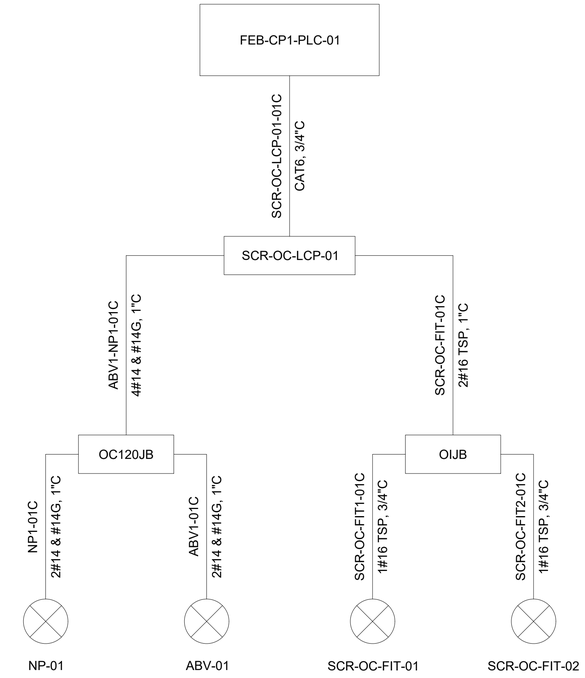
SHEET
E-47




SLUDGE RECEIVING STATION NO. 1
CONTROLS BLOCK DIAGRAM



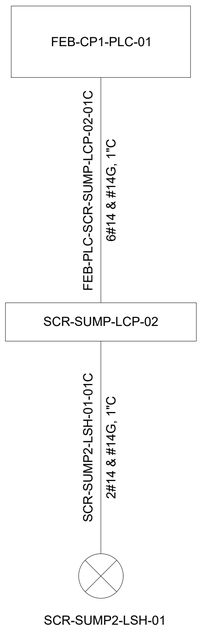

FLOW METER VAULT CONTROLS BLOCK DIAGRAM



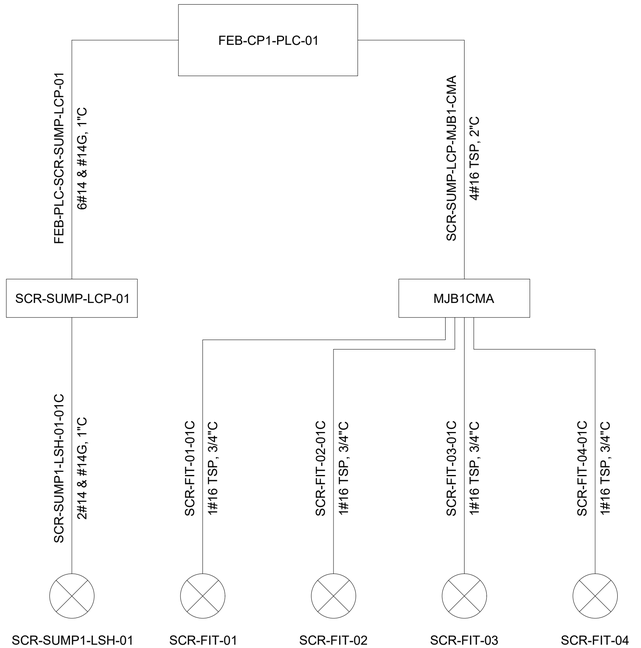

ODOR CONTROL CONTROLS BLOCK DIAGRAM

FEB HVAC CONTROLS BLOCK DIAGRAM

COGEN HVAC CONTROLS BLOCK DIAGRAM




ARV VAULT CONTROLS BLOCK DIAGRAM




FLOW METER VAULT CONTROLS BLOCK DIAGRAM

PRINTED BY: LeuenbGR DATE: 3/3/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-48_CPY.dwg

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

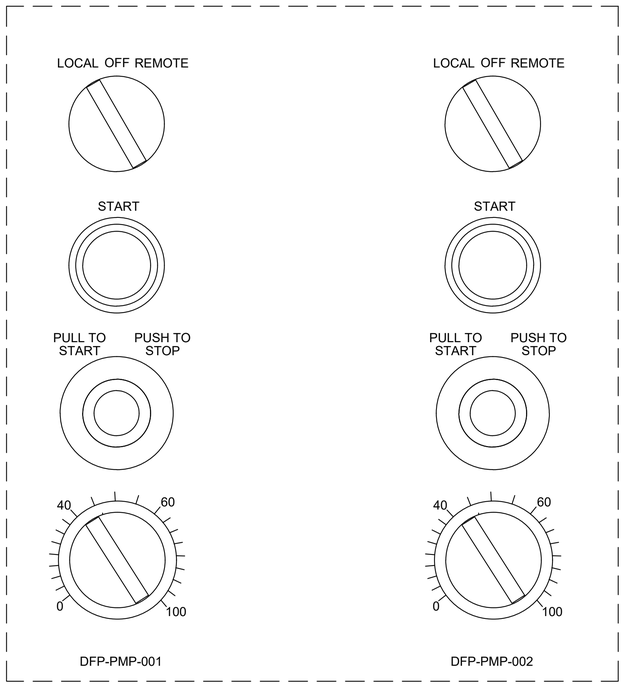
VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
0 1" DRAWING. VERIFY LENGTH ON THIS SHEET
AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROL BLOCK DIAGRAMS II

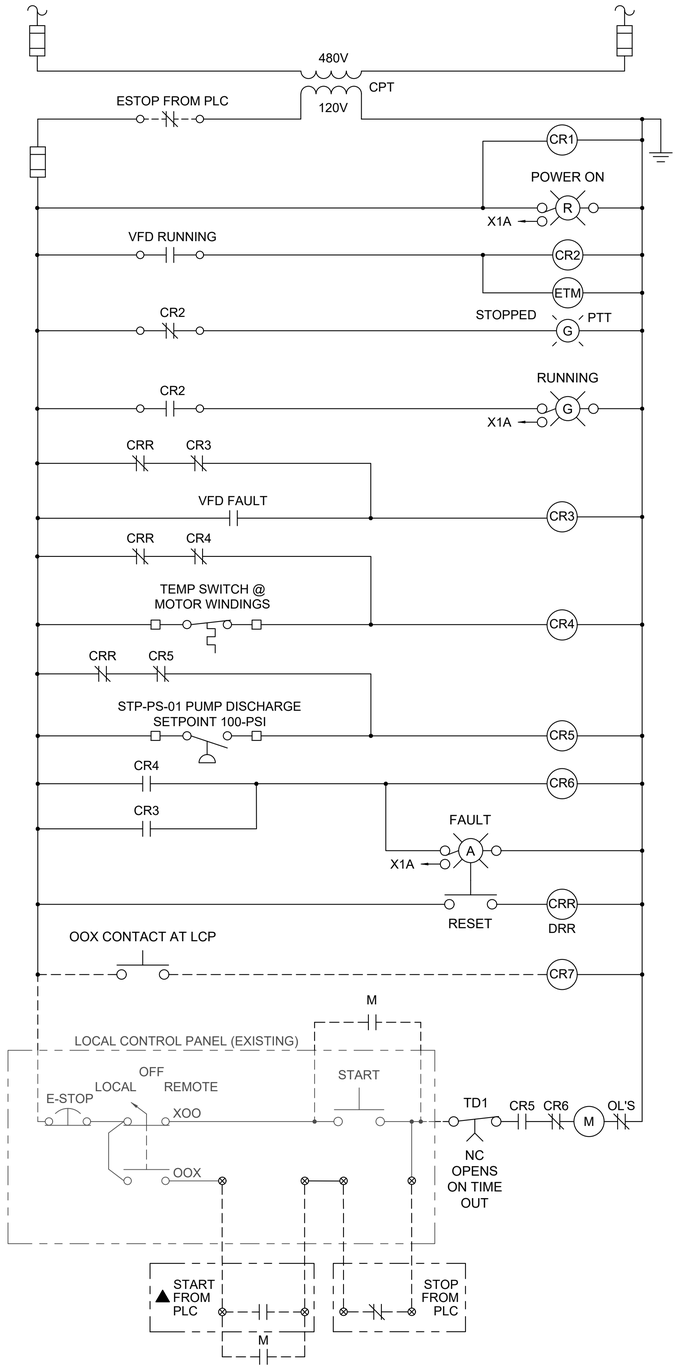
| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-48
157 of 196




## DFP LOCAL CONTROL PANEL (EXISTING)

DFP-LCP-001
DFP-LCP-002

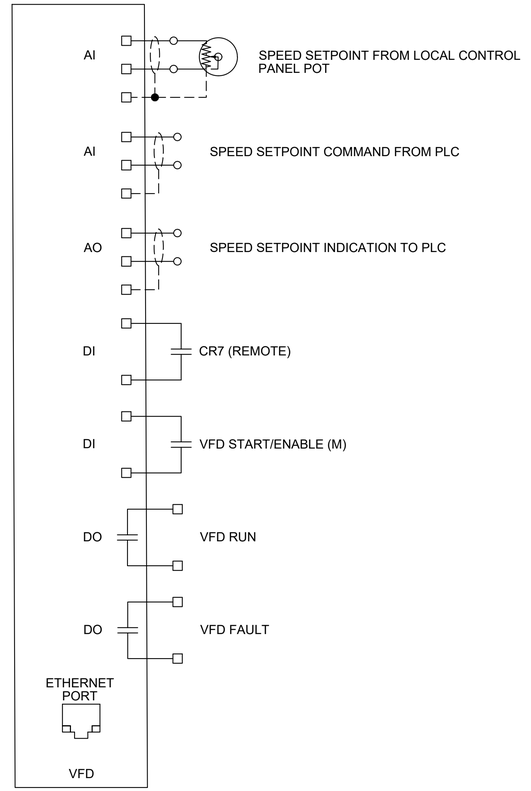


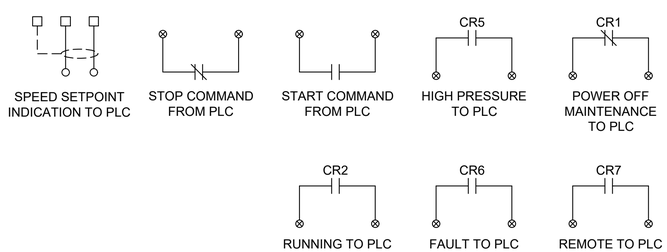

## DIGESTER FEED PUMPS

DFP-VFD-001, 20 HP
DFP-VFD-002, 20 HP

GENERAL NOTES:

1. LOCAL CONTROL PANEL IS EXISTING. CONTRACTOR TO CONFIRM DEVICES ARE WIRED PER SCHEMATIC AND UPDATE LCP TO MEET FUNCTIONAL REQUIREMENTS AS NEEDED.




TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026

| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROL LOGIC DIAGRAMS I

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-49
158 of 196

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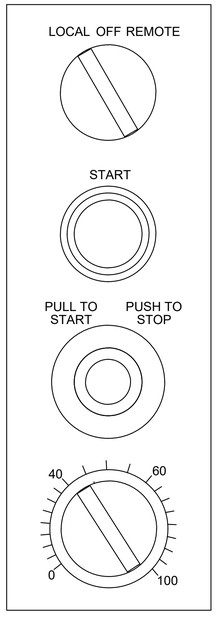
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-49_CPY.dwg

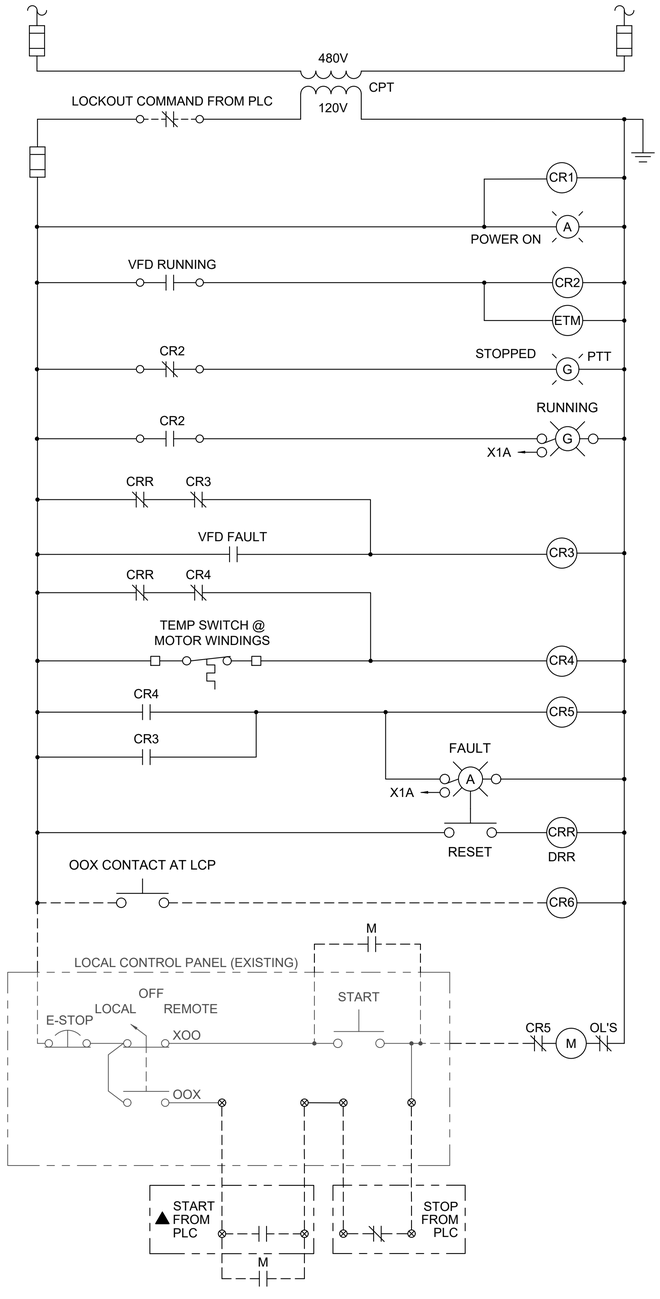
GENERAL NOTES:

1. LOCAL CONTROL PANEL IS EXISTING. CONTRACTOR TO CONFIRM DEVICES ARE WIRED PER SCHEMATIC AND UPDATE LCP TO MEET FUNCTIONAL REQUIREMENTS AS NEEDED.



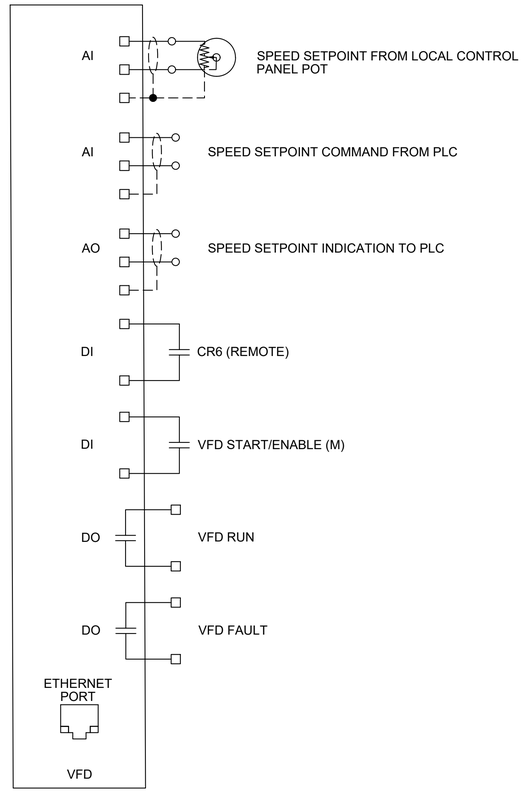

## STP LOCAL CONTROL PANEL (EXISTING)

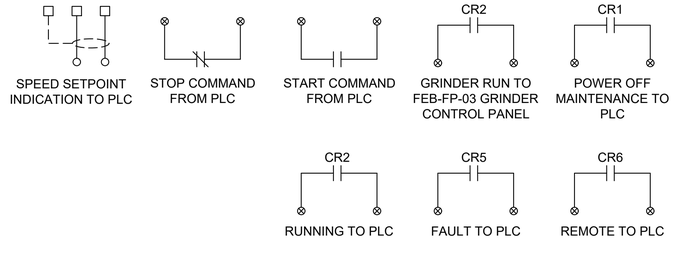
STP-LCP-001
STP-LCP-002




## SLUDGE TRANSFER PUMPS

STP-VFD-001, 30 HP
STP-VFD-002, 30 HP





TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL 1" DRAWING. VERIFY LENGTH ON THIS SHEET 0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ELECTRICAL CONTROL LOGIC DIAGRAMS II

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-50
159 of 196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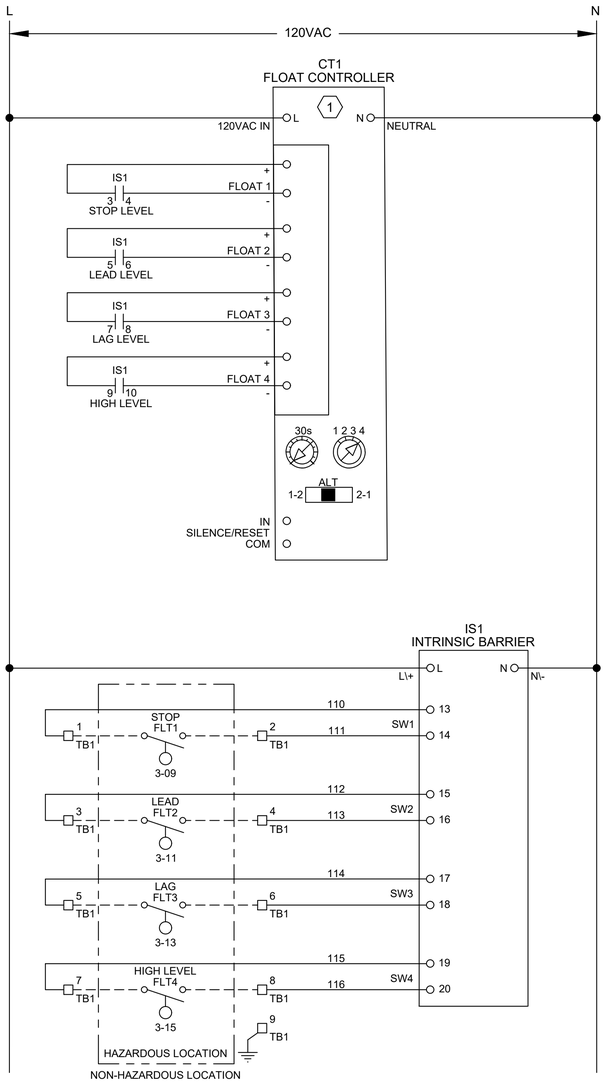
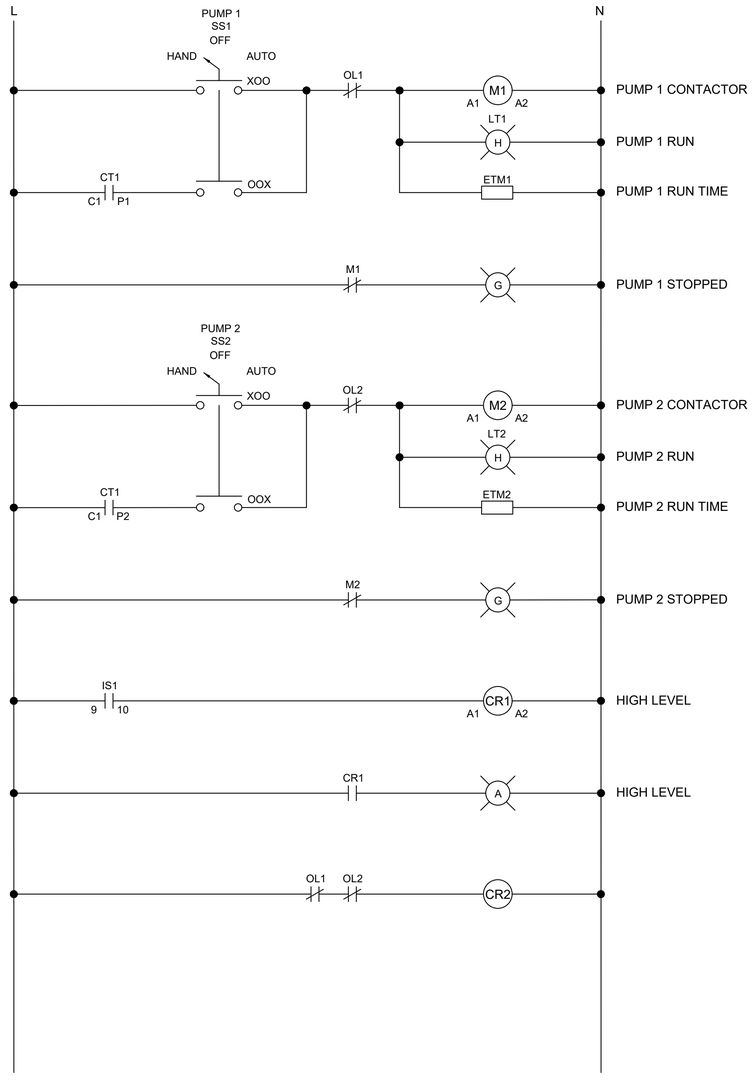
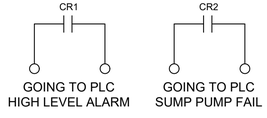
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-50_CPY.dwg

## NOTES BY SYMBOL (X)

1. THE FLOAT CONTROL SYSTEM SHALL BE A FOUR FLOAT PUMP CONTROLLER MODEL TPC-4P BY PRIMEX, OR EQUAL.

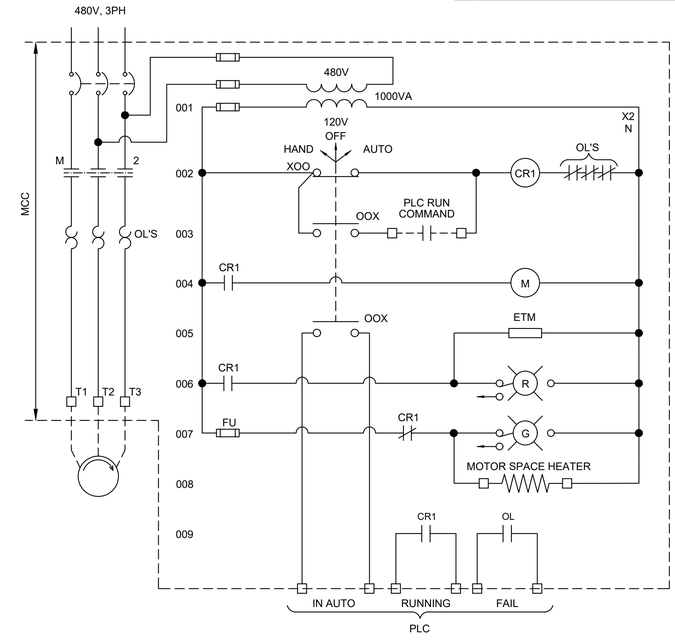


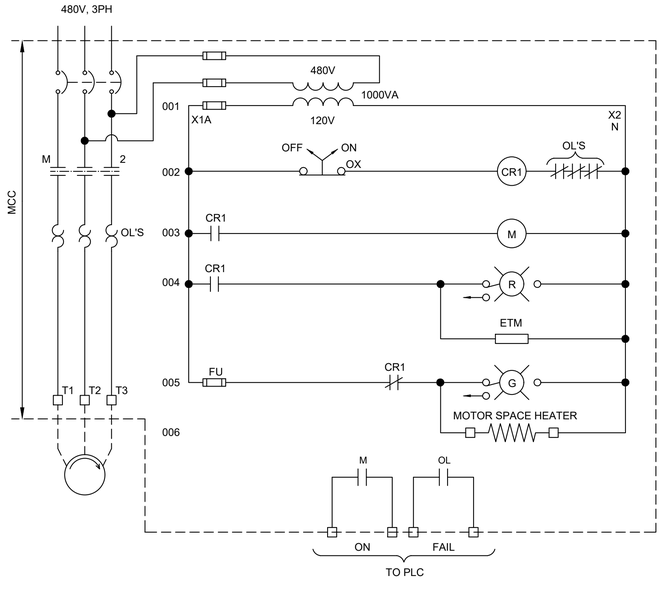

## SUMP PUMP PANEL SCHEMATICS (FEB-SP-LCP)

FEB-SP-01, 5-HP
FEB-SP-02, 1-HP




## FEB MIXER FEB-MIX-001

FEB-MIX-001, 10-HP, S2 STARTER




## ODOR CONTROL FEED BLOWERS

FEB-PAB-001, 20-HP, S2 STARTER
FEB-PAB-002, 20-HP, S2 STARTER

TEXAS REGISTERED ENGINEERING FIRM F-204

03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROL LOGIC DIAGRAMS III

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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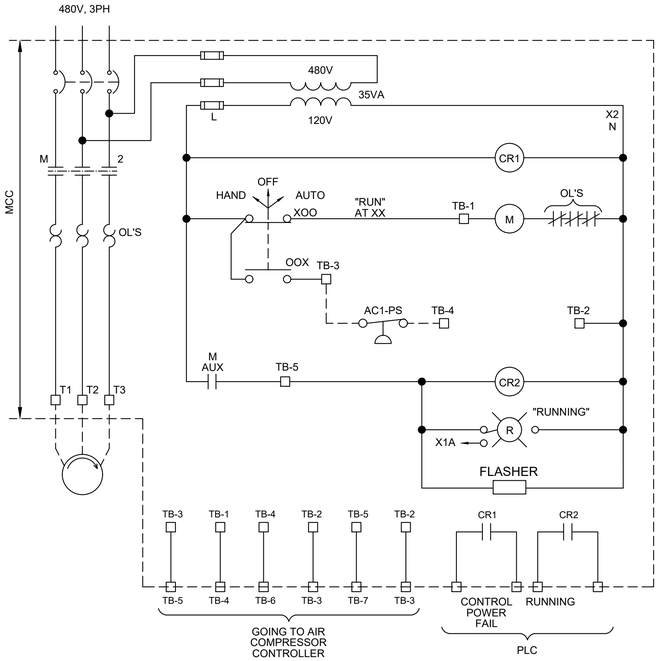
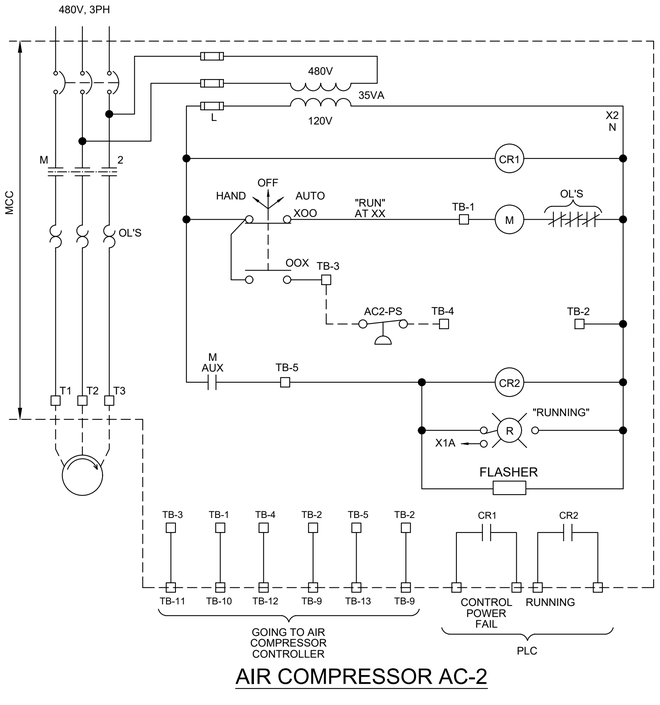
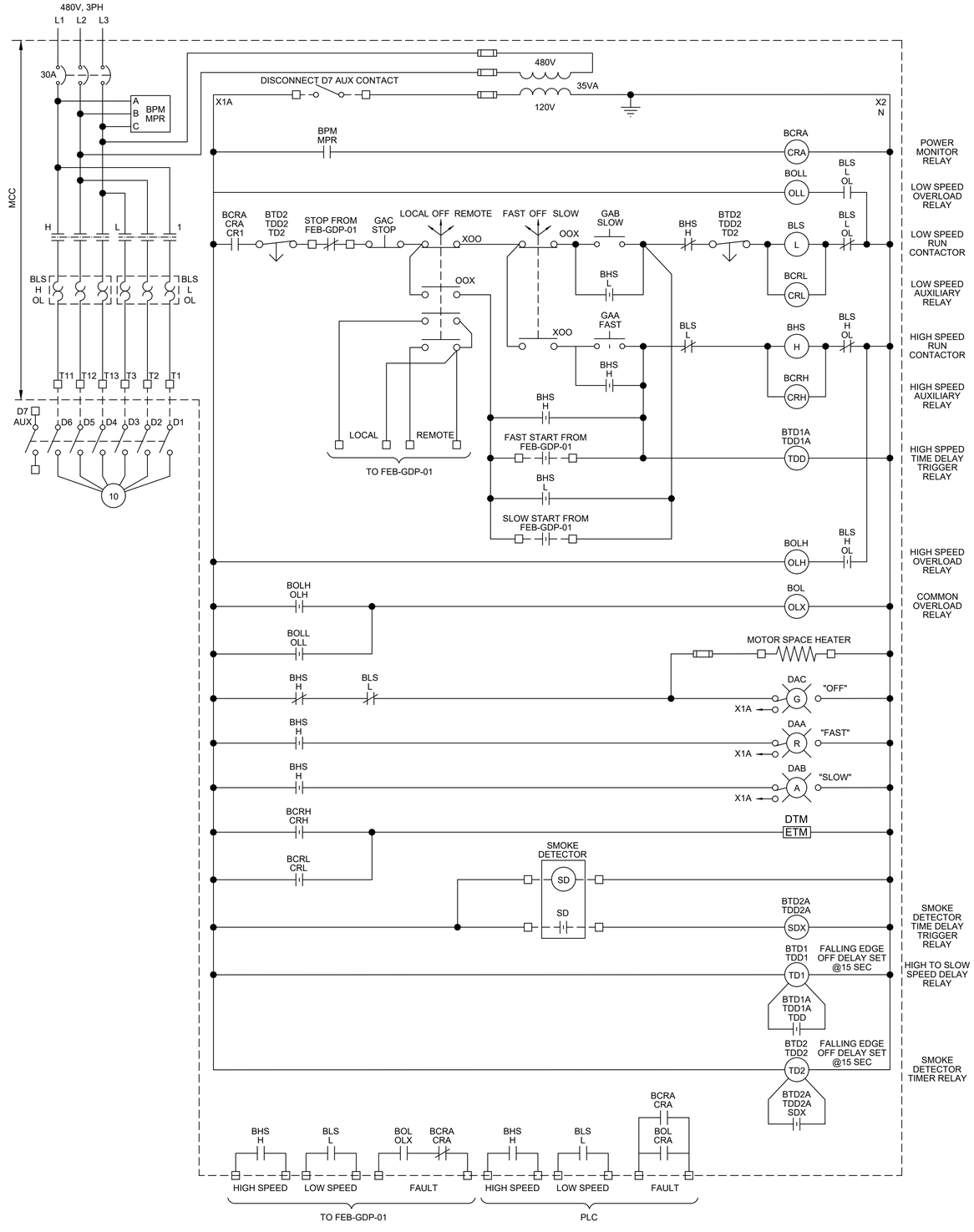



## AIR COMPRESSOR AC-1




## AIR COMPRESSOR AC-2




## FEB FACILITY EXHAUST FAN

FEB-EF-001, 10-HP, S2 STARTER

GENERAL NOTES:

1. INSTALL THE ELECTRICAL STARTER AS PER THE SCHEMATIC. HOWEVER, INCLUDE JUMPERS FOR THE PANELS/SENSORS IN THE SCHEMATIC THAT ARE NOT CURRENTLY IN OPERATION. THE SETUP ENSURES THAT THE SYSTEM IS INSTALLED CORRECTLY FOR FUTURE USE.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|
| | | | |

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROL LOGIC DIAGRAMS IV

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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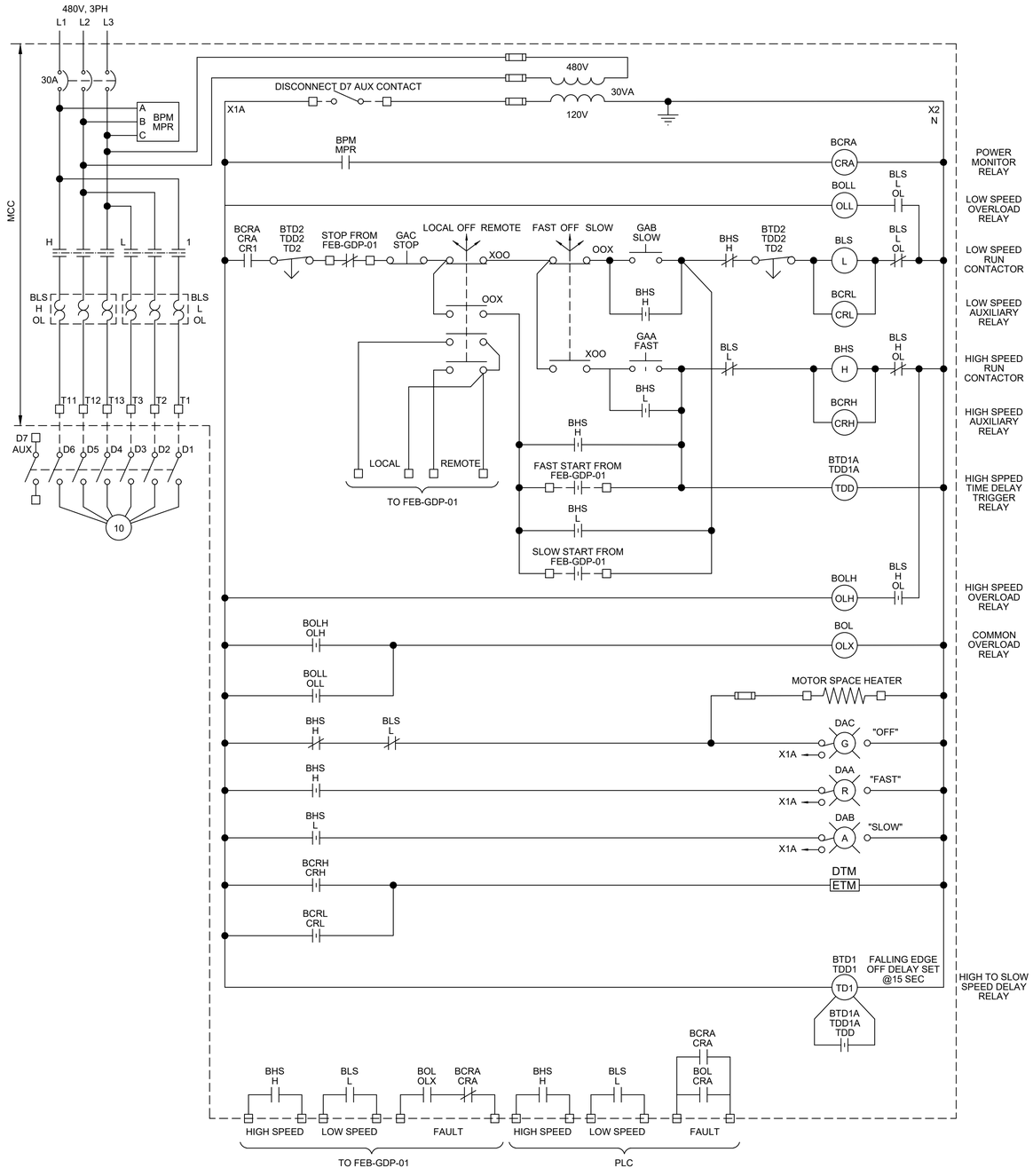
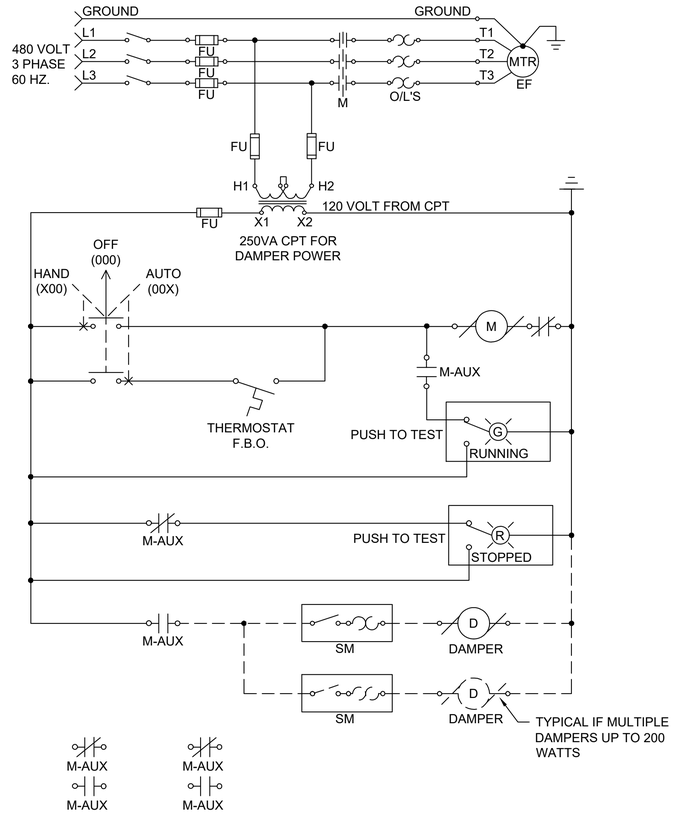



## FEB FACILITY SUPPLY FAN

FEB-SF-001, 3-HP, S1 STARTER
FEB-SF-002, 10-HP, S2 STARTER

GENERAL NOTES:

1. INSTALL THE ELECTRICAL STARTER AS PER THE SCHEMATIC. HOWEVER, INCLUDE JUMPERS FOR THE PANELS/SENSORS IN THE SCHEMATIC THAT ARE NOT CURRENTLY IN OPERATION. THE SETUP ENSURES THAT THE SYSTEM IS INSTALLED CORRECTLY FOR FUTURE USE.




## COGEN EXHAUST FAN


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED
PROFESSIONAL
ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL CONTROL LOGIC DIAGRAMS V

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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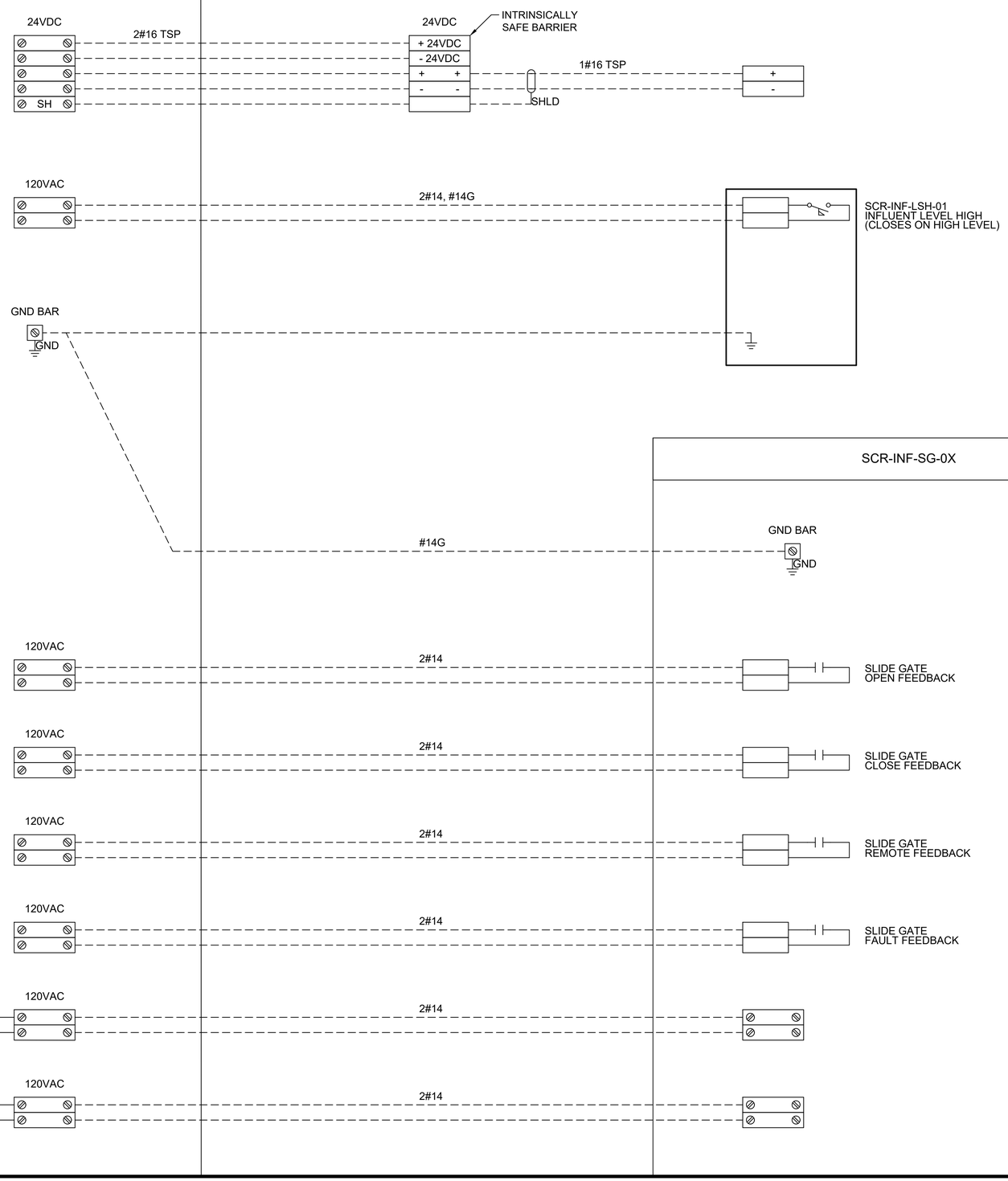
PRINTED BY: LeuenbGR DATE: 6/20/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-53_CPY.dwg

FEB-CP1-PLC-01

FIELD PROCESS AREA




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1"
0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS I

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-54
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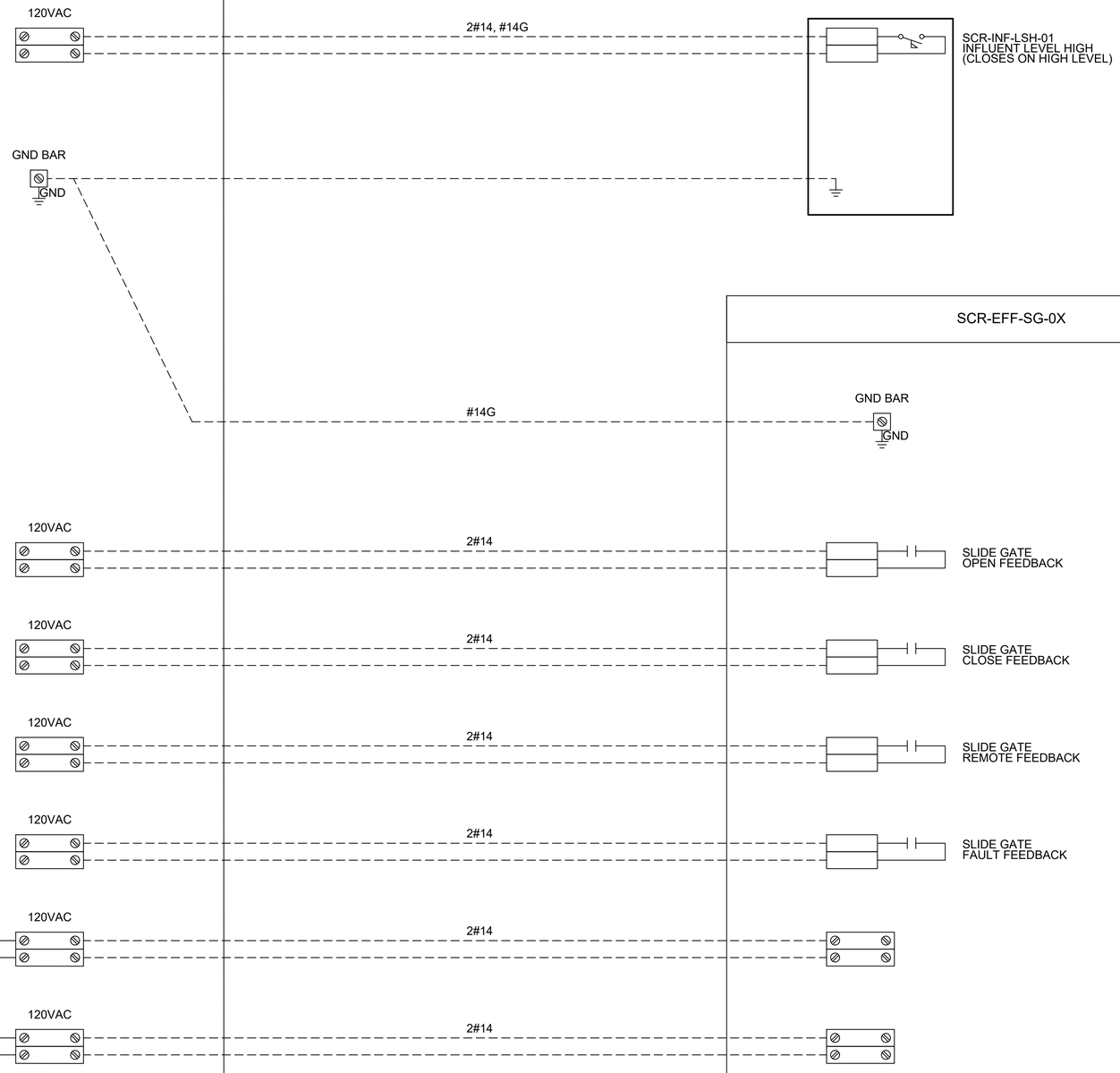
PRINTED BY: LeuenbD DATE: 6/25/2025
FILE PATH: C:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-54_CPY.dwg

FEB-CP1-PLC-01

FIELD PROCESS AREA




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INTERCONNECTION DIAGRAMS II

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-55



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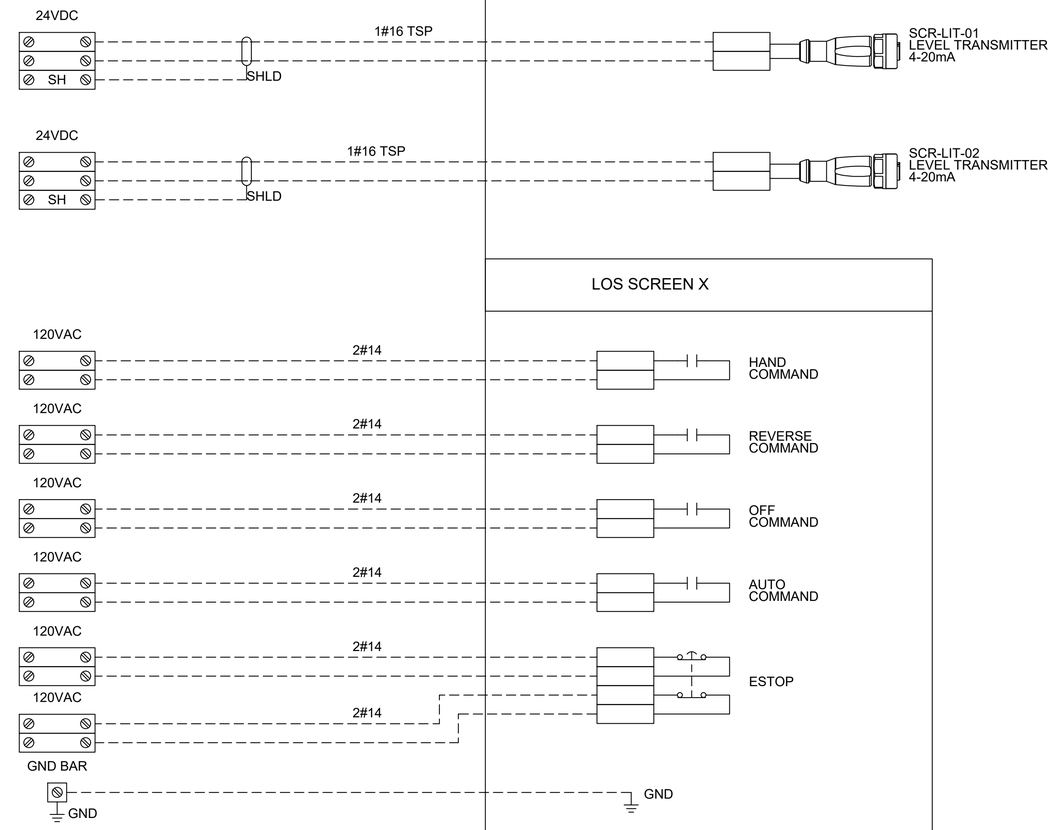
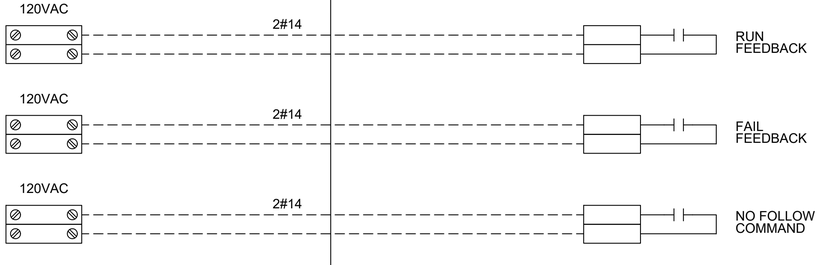
| FEB-CP1-PLC-01 | SCR-BSX-LCP1-PLC-01 | FIELD PROCESS AREA |
|---|---|---|




SCR-SLP-LCP-01




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS III

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-56
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PRINTED BY: LeuenbD DATE: 6/19/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\07479584\AUST1500124_07_E-56_CPY.dwg

FEB-ITRACK-01

SCR-BSX-LCP1-PLC-01

FIELD PROCESS AREA

## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.

CPP1

CAT 6

ETHERNET SWITCH

CPP2

CAT 6

NOC M580

### LOS WASHER/COMPACTOR X

120VAC — 2#14 — HAND COMMAND

120VAC — 2#14 — OFF COMMAND

120VAC — 2#14 — AUTO COMMAND

120VAC — 2#14 — REVERSE COMMAND

120VAC — 2#14 — ESTOP

120VAC — 2#14 — GND BAR — GND

GND

120VAC — 2#14 — WASHER/COMPACTOR LEVEL HIGH (CLOSES ON HIGH LEVEL)

120VAC N — 2#14, #14 G — GND BAR — GND — WASHER/COMPACTOR SOLENOID VALVE

120VAC N — 2#14, #14 G — GND BAR — GND — WASHER/COMPACTOR SOLENOID VALVE

120VAC N — 2#14, #14 G — GND BAR — GND — WASHER/COMPACTOR SOLENOID VALVE


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS — HALEY A. JONES — 141585 — LICENSED PROFESSIONAL ENGINEER — 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER

HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS IV

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET

E-57

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PRINTED BY: LeuenbD DATE: 6/19/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald07479584\AUST1500124_07_E-57_CPY.dwg

FEB-CP1-PLC-01

(4-20mA)

SH

SHLD

1#16 TSP

FEB-PANEL-05

120VAC

N

GND BAR

GND

2#12, #12 G

FIELD PROCESS AREA

SCR-OC-FIT-01
FLOW METER FLOW
METER VAULT

+

-

L

N

GND

FEB-CP1-PLC-01

(4-20mA)

SH

SHLD

1#16 TSP

FEB-PANEL-05

120VAC

N

GND BAR

GND

2#12, #12 G

SCR-OC-FIT-02
FLOW METER FLOW
METER VAULT

+

-

L

N

GND

FEB-CP1-PLC-01

(4-20mA)

SH

SHLD

1#16 TSP

FEB-PANEL-05

120VAC

N

GND BAR

GND

2#12, #12 G

SCR-OC-FIT-03
FLOW METER FLOW
METER VAULT

+

-

L

N

GND

FEB-CP1-PLC-01

(4-20mA)

SH

SHLD

1#16 TSP

FEB-PANEL-05

120VAC

N

GND BAR

GND

2#12, #12 G

SCR-OC-FIT-04
FLOW METER FLOW
METER VAULT

+

-

L

N

GND

## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


sti
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED
PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS V

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## SCR-OC-LCP-01

24VDC

SH

SHLD

1#16 TSP

## FEB-PANEL-06

120VAC

N

GND BAR

GND

2#12, #12 G

## SCR-OC-LCP-01

24VDC

SH

SHLD

1#16 TSP

## FEB-PANEL-06

120VAC

N

GND BAR

GND

2#12, #12 G

120VAC

120VAC

120VAC

N

GND BAR

GND

2#14

2#12, #12 G

## FEB-CP1-PLC-01

## SCR-SUMP-LCP-0X

120VAC

2#14

RUN FEEDBACK

120VAC

2#14

FAIL FEEDBACK

120VAC

2#14

LEVEL HIGH

## FIELD PROCESS AREA

SCR-OC-FIT-01
FLOW METER FLOW
ODOR CONTROL SYSYEM

+

-

L

N

GND

SCR-OC-FIT-02
FLOW METER FLOW
ODOR CONTROL SYSYEM

+

-

L

N

GND

ABV-01
WATER VALVE STATUS

ABV-01 VALVE

GND

2#14

LEVEL HIGH
(CLOSES ON HIGH LEVEL)

## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED
PROFESSIONAL
ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS VI

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## FEB-CP1-PLC-01

## COGEN-CP-PLC-01

24VDC/(4-20mA) — 1#16 TSP — SH — SHLD

24VDC/(4-20mA) — 1#16 TSP — SH — SHLD

## FEB-CP-PLC-01

24VDC/(4-20mA) — 1#16 TSP — SH — SHLD

24VDC/(4-20mA) — 1#16 TSP — SH — SHLD

## FIELD PROCESS AREA

COGEN-HVAC-TIT-01
COGEN BLDG/ELECTRICAL ROOM (+, -)

COGEN-HVAC-TIT-01
COGEN BLDG/ELECTRICAL ROOM (+, -)

FEB-HVAC-TIT-01
FEB BLDG/ELECTRICAL ROOM (+, -)

FEB-HVAC-TIT-01
FEB BLDG/ELECTRICAL ROOM (+, -)

## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.

## FEB-ITRACK-01

CPP1 — CAT 6 — NOC M580

CPP2 — CAT 6 — ETHERNET SWITCH

## SCR-OC-LCP-01

## HMI WORKSTATION

ETHERNET SWITCH — CAT 6 — CPP1

ETHERNET SWITCH — CAT 6 — CPP2

CPP2 — CAT 6 — MCC-1 GATEWAY

## MCC1

## MCC2

PQM-01 (TX, RX, GND) — 2#16 TSP — PQM-01 (TX, RX)


TEXAS REGISTERED ENGINEERING FIRM F-204

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| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INTERCONNECTION DIAGRAMS VII

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-60
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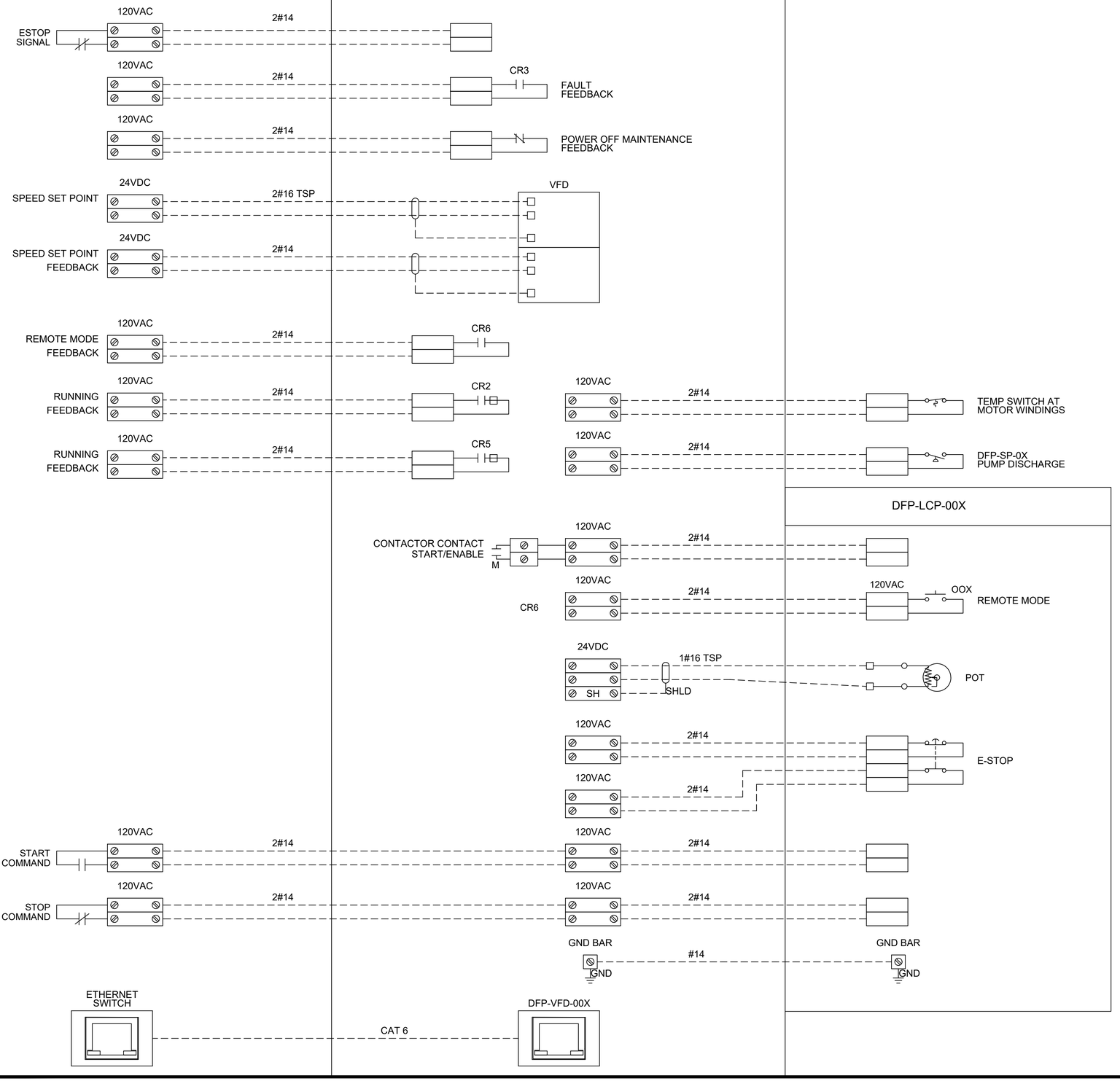
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald07479S8\AUST1500124_07_E-60_CPY.dwg

FEB-CP1-PLC-01

FEB-MCC-0X (DIGESTER FEED PUMP BUCKET)

FIELD PROCESS AREA




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


sti
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INTERCONNECTION DIAGRAMS VIII

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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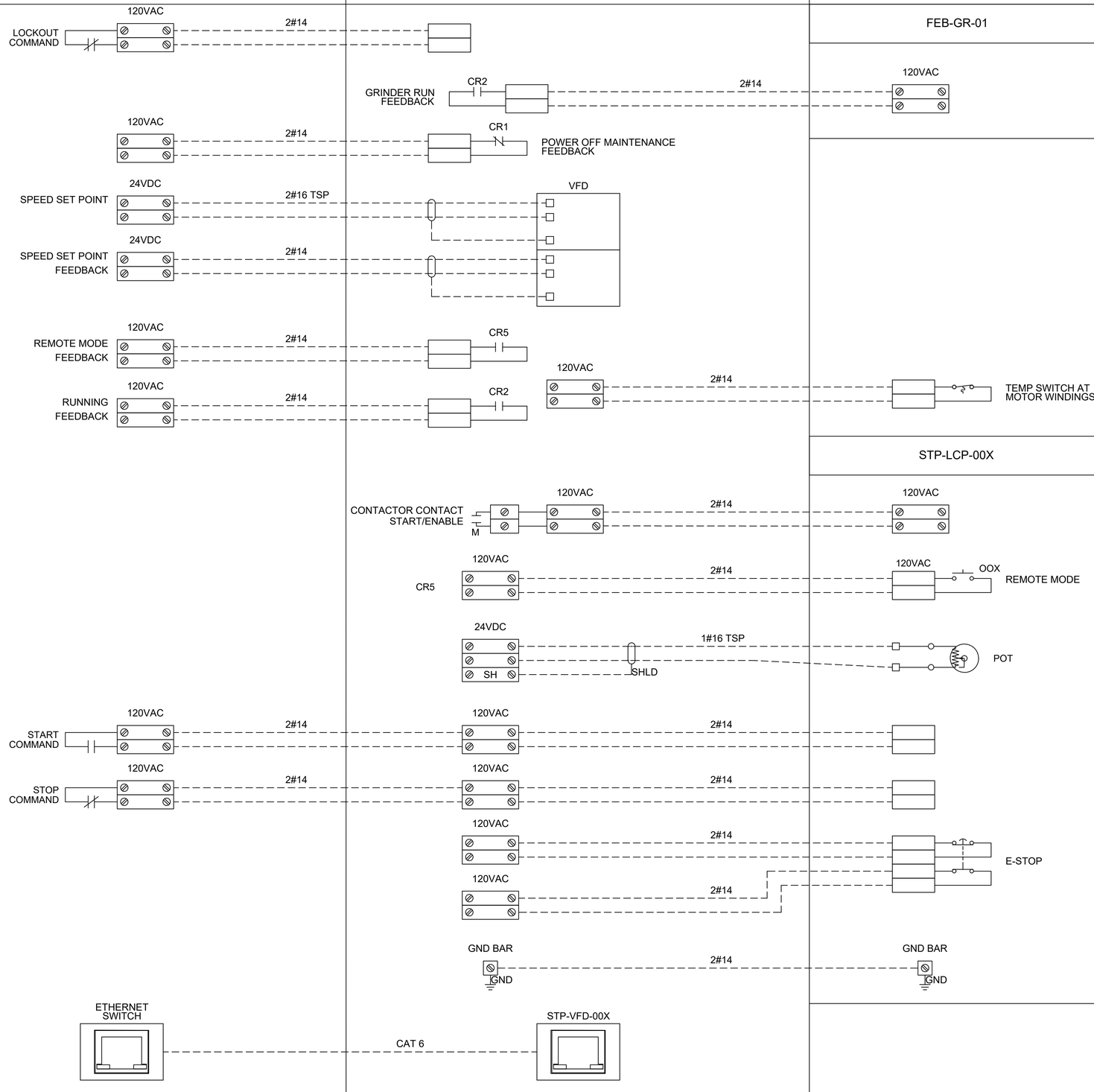


## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
2. TERMINAL BLOCK NUMBERING IS THE RESPONSIBILITY OF THE HEADWORKS MANUFACTURER.
3. THIS SHEET SHOWS BOTH PROCESS TRAINS. "X" REPRESENTS THE PROCESS TRAIN NUMBER. X=1 DENOTES PROCESS TRAIN NO. 1. X=2 DENOTES PROCESS TRAIN NO. 2.
4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER 03/13/2026


| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INTERCONNECTION DIAGRAMS IX

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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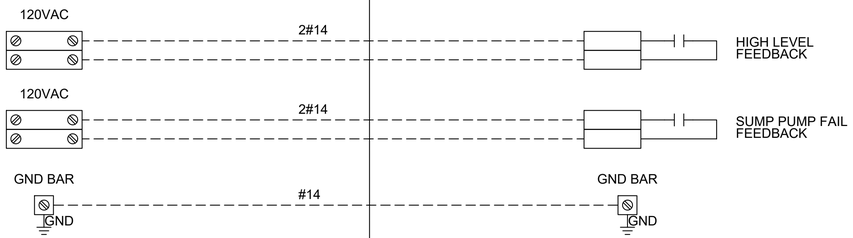
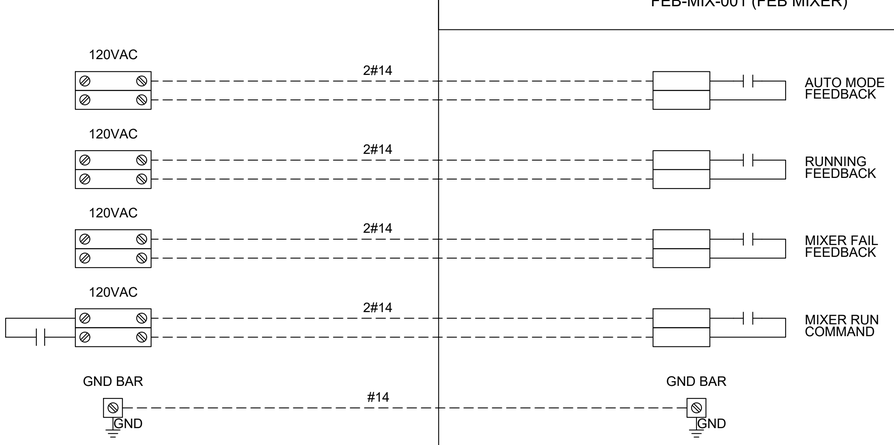
## FEB-CP1-PLC-01

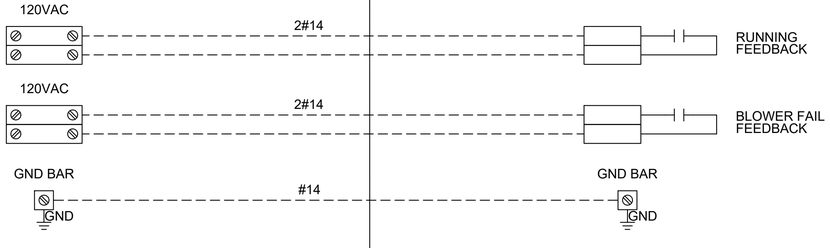
## FEB-SP-LCP (DUPLEX SUMP PUMP PANEL)



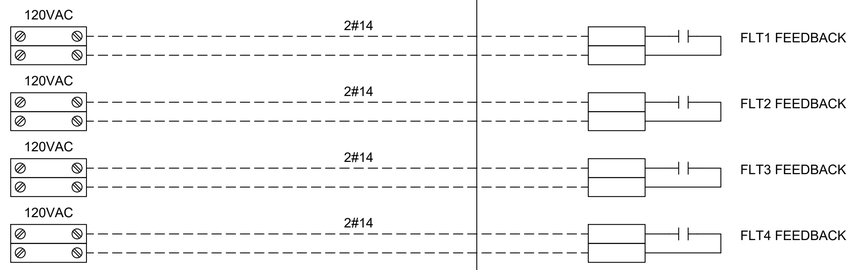

## FEB-MIX-001 (FEB MIXER)




## FEB-PAB-00X (ODOR CONTROL FEED BLOWERS)




## FIELD PROCESS AREA




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

1. MOTOR GROUND WIRE MUST GO DIRECTLY TO VFD GROUND TERMINAL (PE).
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4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS X

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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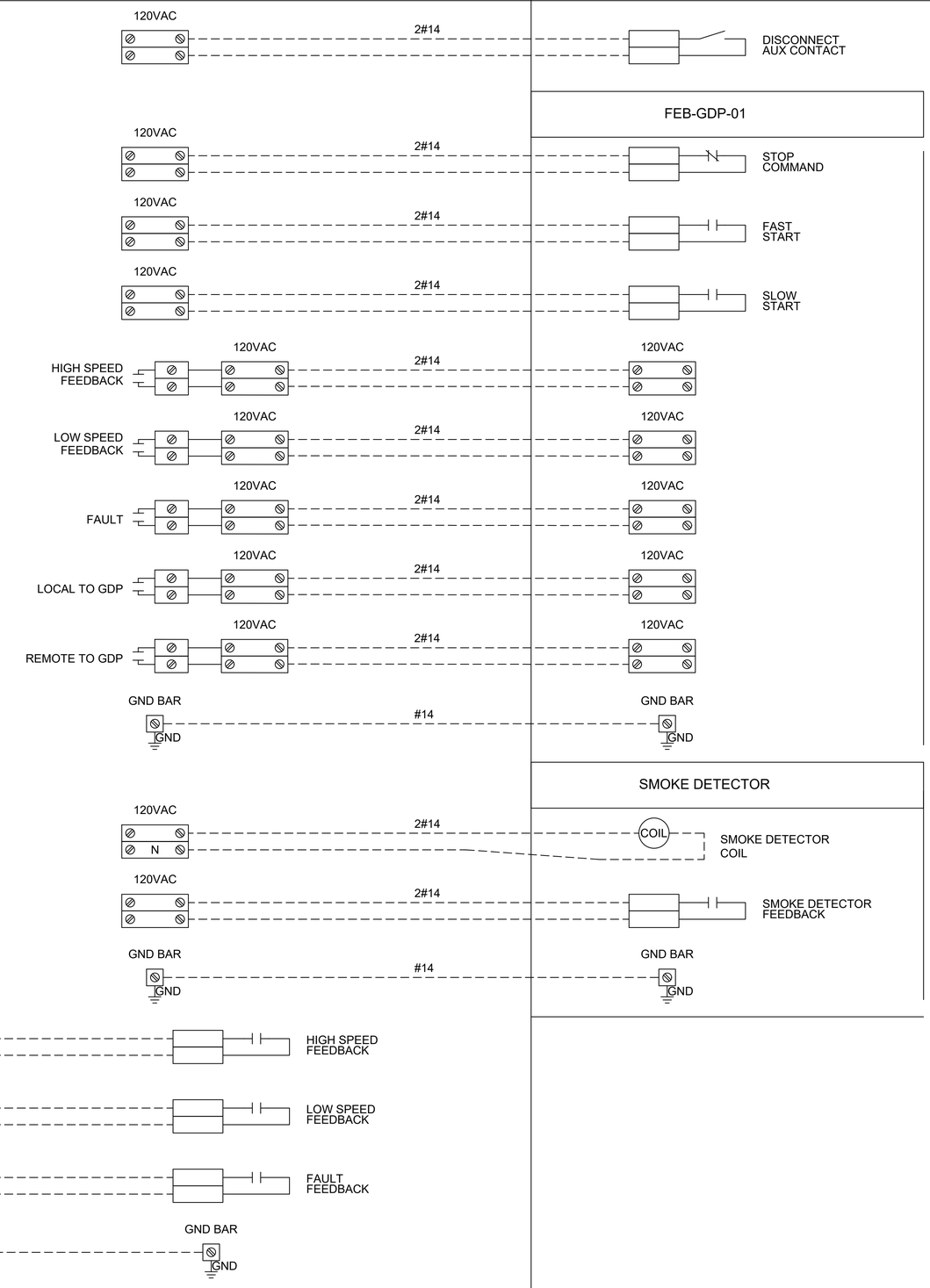
| FEB-CP1-PLC-01 | FEB-EF-001 (FEB FACILITY EXHAUST FAN) | FIELD PROCESS AREA |
|---|---|---|




## NOTES

CONTROL PANEL MUST BE SUPPLIED WITH POWER SOURCE GROUND FOR PROPER OPERATION OF INSTRUMENTS.

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4. PROVIDE CLEAR COVERS FOR ALL E-STOPS.
5. INSTALL THE ELECTRICAL STARTER AS PER THE SCHEMATIC. HOWEVER, INCLUDE JUMPERS FOR THE PANELS/SENSORS IN THE SCHEMATIC THAT ARE NOT CURRENTLY IN OPERATION. THE SETUP ENSURES THAT THE SYSTEM IS INSTALLED CORRECTLY FOR FUTURE USE.


sti
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS XI

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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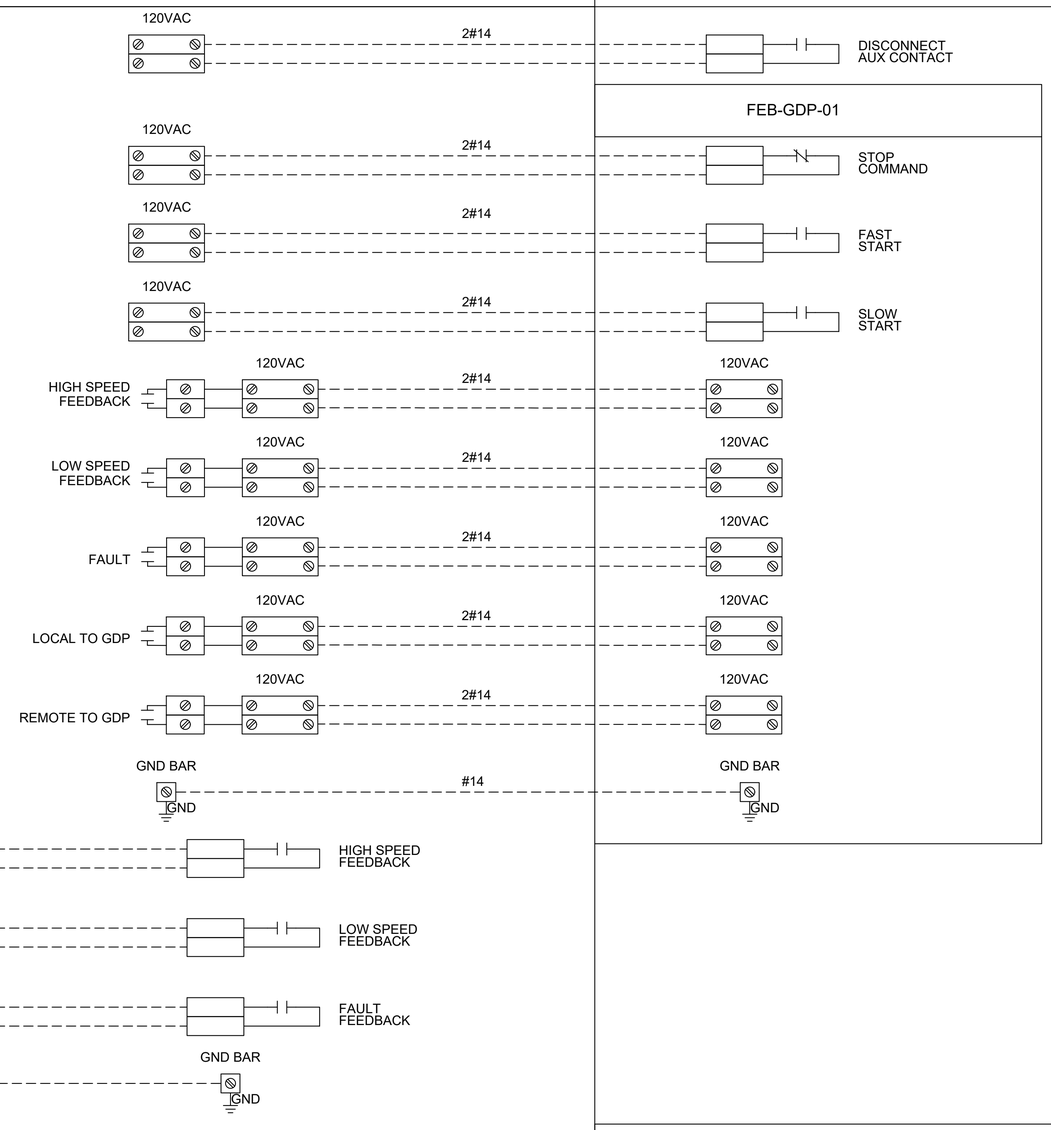
FEB-CP1-PLC-01

FEB-SF-00X (FEB FACILITY SUPPLY FAN)

FIELD PROCESS AREA




## NOTES

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sti
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
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1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INTERCONNECTION DIAGRAMS XII

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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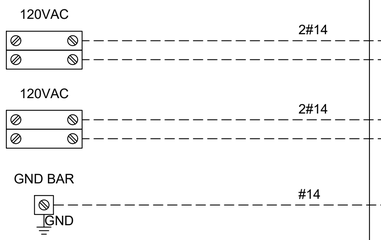
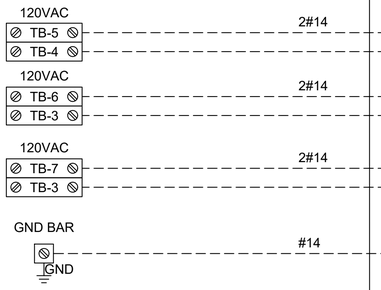
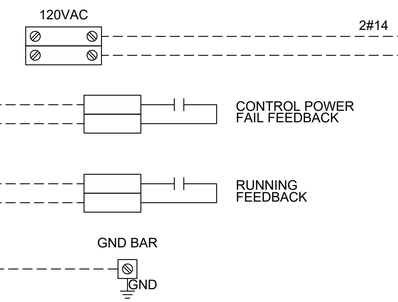
COGEN-CP1-PLC-01

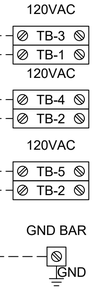



AIR COMPRESSOR CONTROLLER

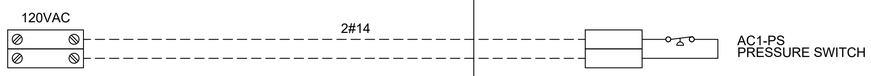



COGEN-MCC-01 (AIR COMPRESSOR 1 BUCKET)




FIELD PROCESS AREA




NOTES

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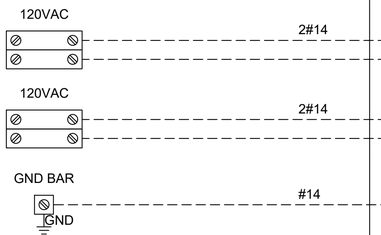
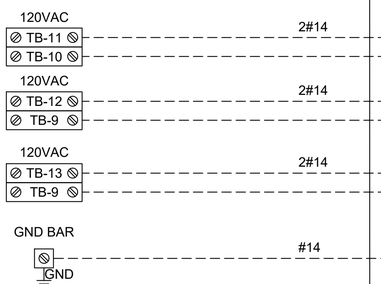
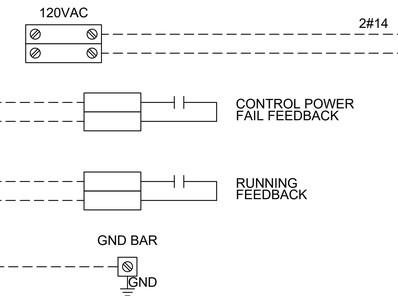
COGEN-CP1-PLC-01

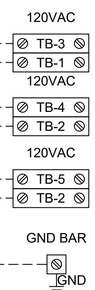



AIR COMPRESSOR CONTROLLER




COGEN-MCC-01 (AIR COMPRESSOR 2 BUCKET)




FIELD PROCESS AREA

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
HALEY A. JONES
141585
LICENSED PROFESSIONAL ENGINEER
03/13/2026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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INTERCONNECTION DIAGRAMS XIII

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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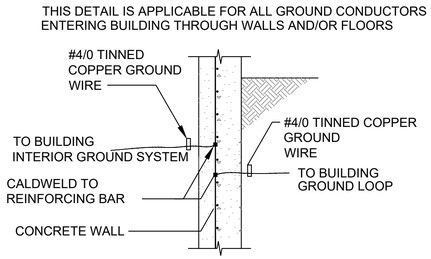
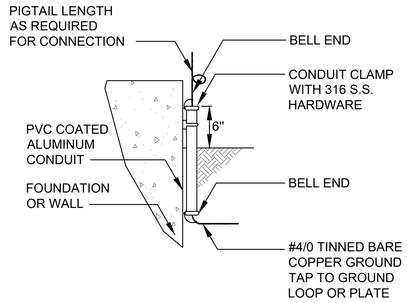
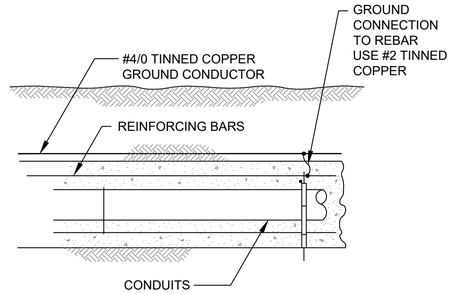


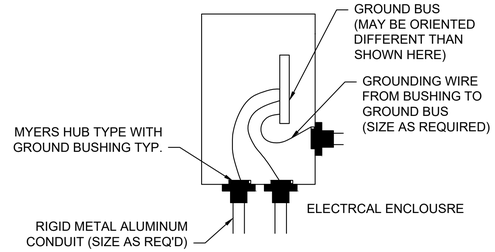

A GROUNDING STEEL GROUND
SCALE: NTS



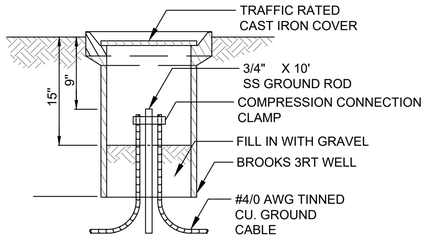

B GROUNDING STUB AT WALL
SCALE: NTS



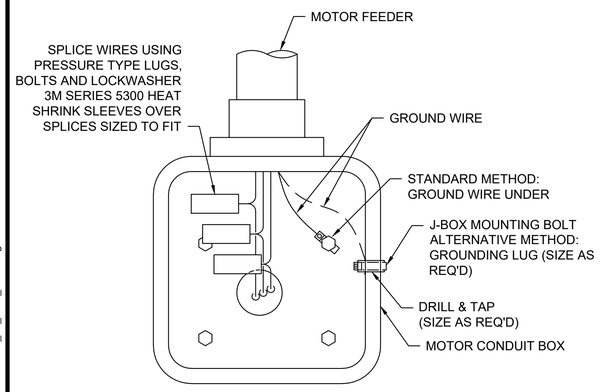

C DUCT BANK GROUNDING
SCALE: NTS




D ENCLOSURE/CONDUIT DETAIL
SCALE: NTS



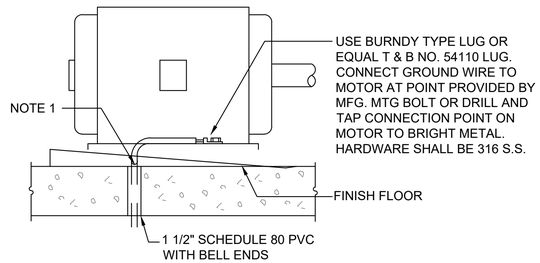

E GROUND TEST WELL
SCALE: NTS



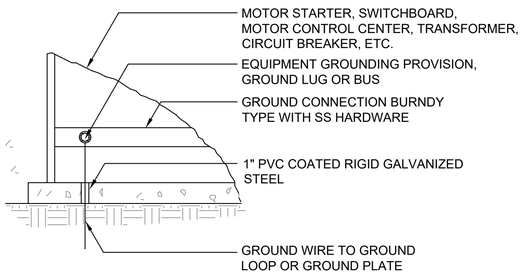

NOTES:

1. STANDARD GROUNDING METHOD IS TO USE A PRESSURE TYPE LUG (SIZE AS REQUIRED) ON GROUND WIRE INSTALLED UNDER JUNCTION BOX MOUNTING BOLT.
2. ALTERNATIVE GROUNDING METHOD FOR NON-EXPLOSION PROOF MOTORS WITHOUT JUNCTION BOX MOUNTING BOLTS IS TO DRILL AND TAP THE SIDE WALL OF THE MOTOR JUNCTION BOX AND INSTALL A GROUNDING LUG (SIZE AS REQUIRED).

F MOTOR CONDUIT BOX CONNECTION DETAIL
SCALE: NTS




TYPICAL MOTOR GROUNDING

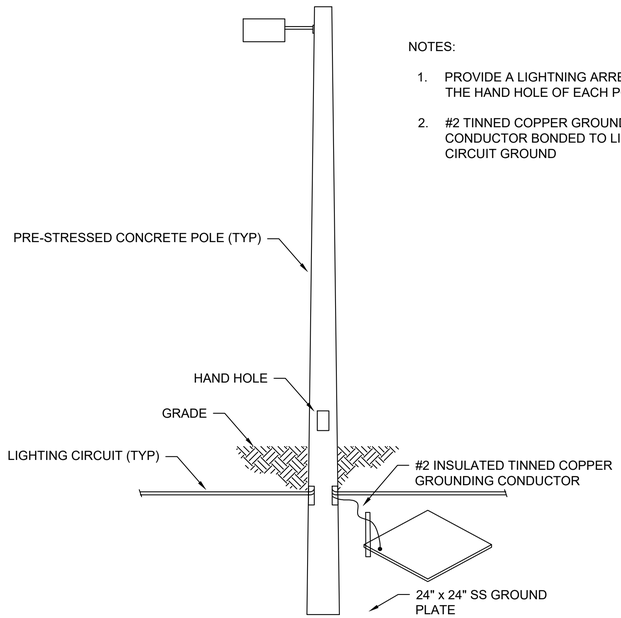



TYPICAL EQUIPMENT GROUNDING

NOTE:

1. PROVIDE INSULATED GROUNDING CONDUCTORS TO TERMINATION FOR ALL ABOVE GROUND OR EXPOSED TO THE ATMOSPHERE INCLUDING WHEN INSIDE A CONDUIT, TYPICAL FOR ALL GROUNDING APPLICATIONS.

G EQUIPMENT GROUNDING DETAIL
SCALE: NTS




NOTES:

1. PROVIDE A LIGHTNING ARRESTER IN THE HAND HOLE OF EACH POLE
2. #2 TINNED COPPER GROUNDING CONDUCTOR BONDED TO LIGHTING CIRCUIT GROUND

H LIGHT POLE GROUNDING DETAIL
SCALE: NTS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TEXAS REGISTERED ENGINEERING FIRM F-204

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL DETAILS I

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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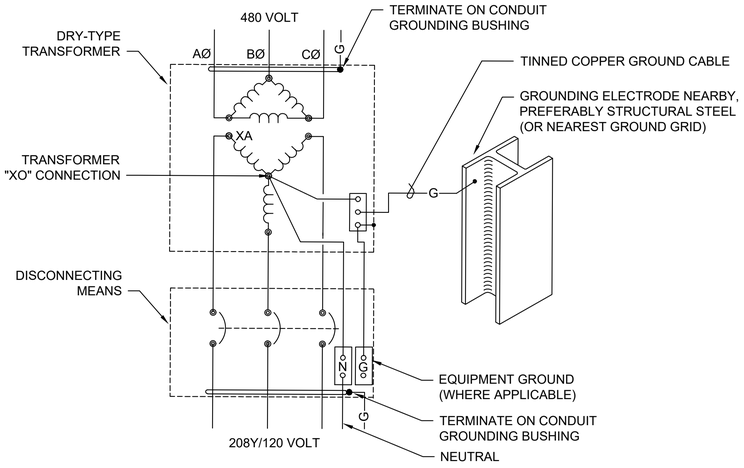
NOTES:
1. GROUND PER NEC




A LOW VOLTAGE TRANSFORMER GROUNDING DETAIL
SCALE: NTS

## COGEN SWITCHGEAR CONTROL PANEL

### SWGR-01

| MAIN1 1B | TIE1 3B | | |
|---|---|---|---|
| OPEN | OPEN | | |
| CLOSE | CLOSE | | |
| SPARE 1C | COGEN-MCC-01 1D | | |
| OPEN | OPEN | | |
| CLOSE | CLOSE | | |
| SPACE 2A | SPARE 2B | SPACE 2C | SPACE 2D |
| OPEN | OPEN | OPEN | OPEN |
| CLOSE | CLOSE | CLOSE | CLOSE |
| FEB-MCC-01 3C | SPARE 3D | | |
| OPEN | OPEN | | |
| CLOSE | CLOSE | | |

### SWGR-02

| TIE2 1B | MAIN2 3B | GENERATOR 3D | |
|---|---|---|---|
| OPEN | OPEN | OPEN | |
| CLOSE | CLOSE | CLOSE | |
| FEB-MCC-02 1C | SPARE 1D | | |
| OPEN | OPEN | | |
| CLOSE | CLOSE | | |
| SPACE 2A | GOVALLE DIGESTER MCC 2B | SAR BUILDING MCC 2C | SPACE 2D |
| OPEN | OPEN | OPEN | OPEN |
| CLOSE | CLOSE | CLOSE | CLOSE |
| SPARE 3C | SPARE 3D | | |
| OPEN | OPEN | | |
| CLOSE | CLOSE | | |

NOTES:
1. THE CIRCULAR DEVICES SHOWN ON THE SWITCHGEAR CONTROL PANEL ARE PUSH BUTTONS.

B COGEN-SWGR-CP
COGEN SWITCHGEAR CONTROL PANEL
SCALE: NTS

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS — HALEY A. JONES — 141585 — LICENSED PROFESSIONAL ENGINEER — 03/13/2026

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL DETAILS II

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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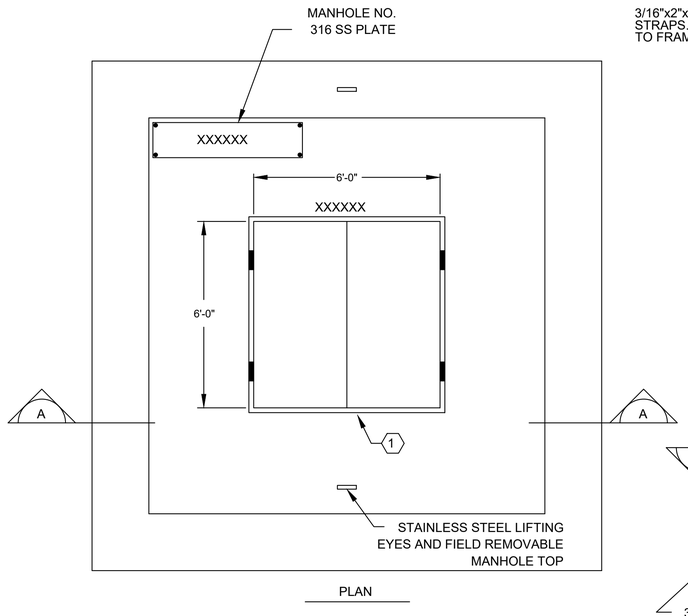
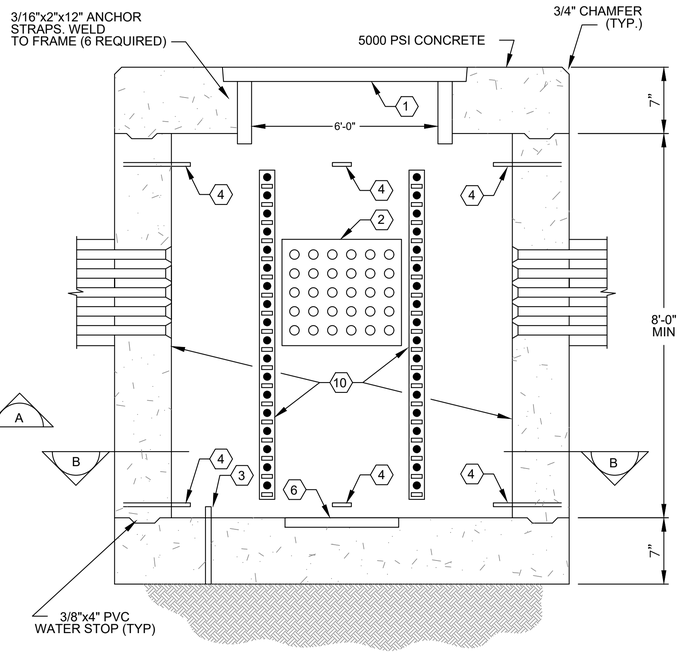
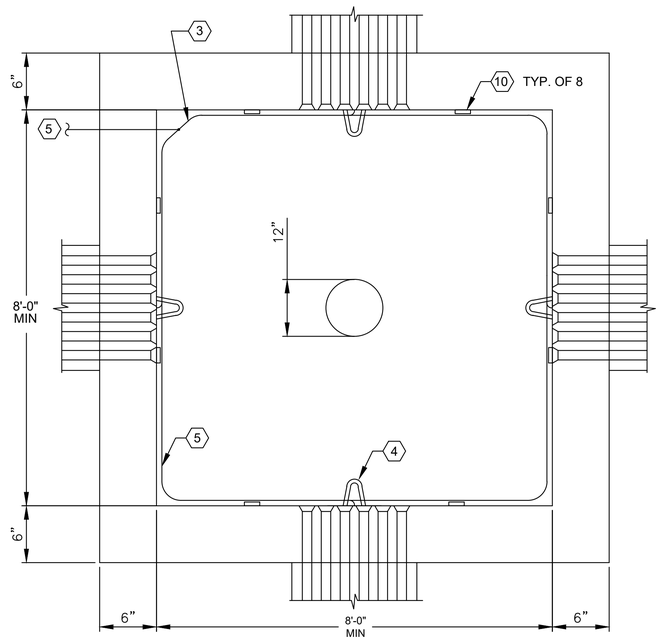


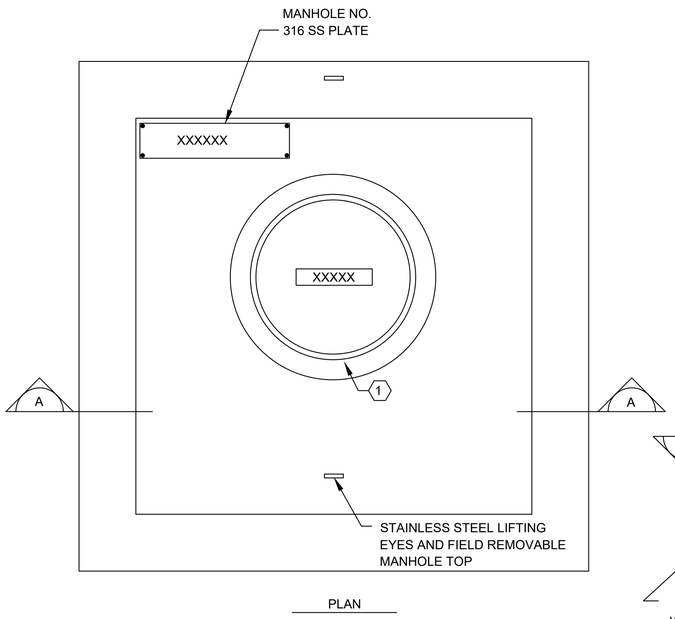



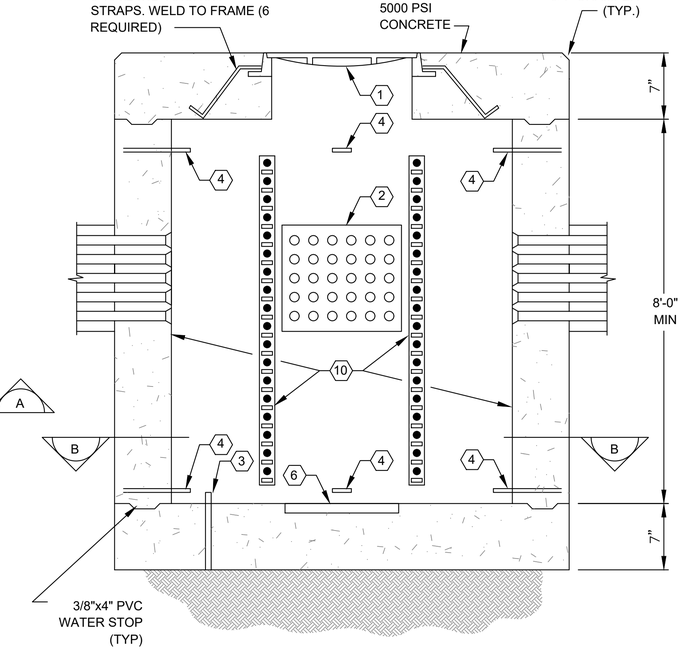

SECTION A-A
NOT TO SCALE




SECTION B-B
NOT TO SCALE

A NON-ROADWAY ELECTRICAL/CONTROL MANHOLE 9
SCALE: NTS




SECTION A-A
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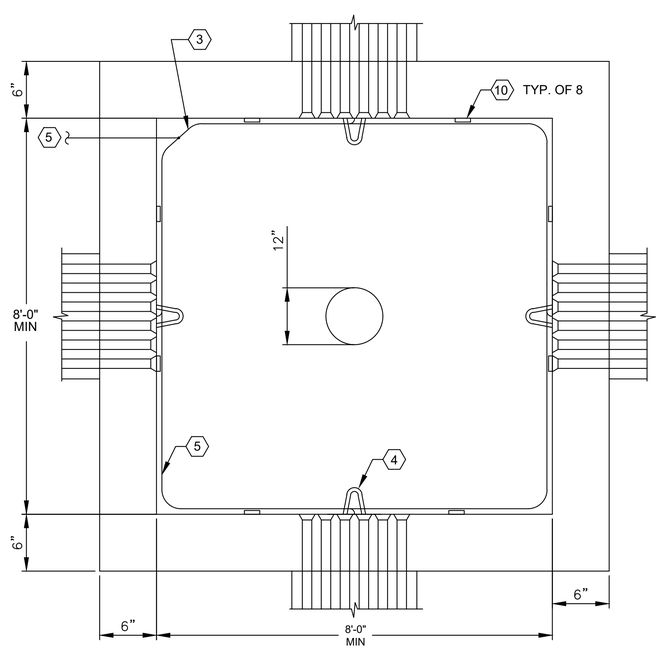


SECTION B-B
NOT TO SCALE

B ROADWAY ELECTRICAL/CONTROL MANHOLE
SCALE: NTS

## NOTES BY SYMBOL (X)

1. MANHOLE COVER SHALL BE AS SPECIFIED AND SHALL BE STAMPED ELECTRICAL OR COMMUNICATION AS REQUIRED BY CONTRACTOR.
2. ALL CONDUITS SHALL BE TERMINATED IN MANHOLE WITH BELL ENDS AND CENTERED ON THE ENTERING WALL.
3. 24" x 24" GROUND PLATE.
4. PROVIDE PULLING IRONS AS SPECIFIED.
5. #4/0 BARE STRANDED COPPER CONDUCTOR TO MAIN GROUND ROD.
6. MANHOLES SHALL BE EQUIPPED WITH 12" SUMP OPENING.
7. MANHOLE EXTENSIONS SHALL BE USED WHEREVER BOX IS BELOW EXISTING GRADE.
8. ANCHORS SHALL BE 316SS AS SPECIFIED.
9. MANHOLE SHALL BE 12" ABOVE GRADE WHEN LOCATED IN GRASSY AREAS.
10. MOUNTING RACKS


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# ELECTRICAL DETAILS III

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
E-69



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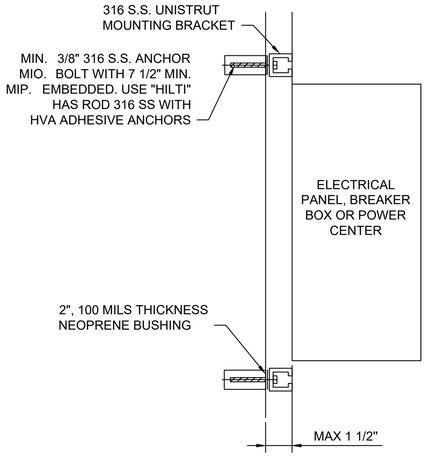
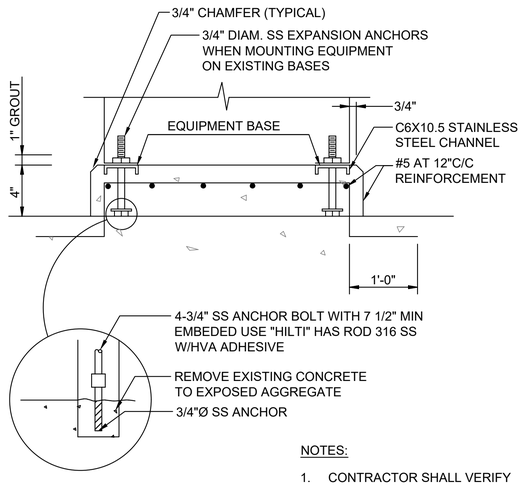



NOTES:

1. CONTRACTOR SHALL VERIFY THE EXISTING SLAB THICKNESS IS ADEQUATE TO ACCOMMODATE MIN. EMBED LENGTH PRIOR TO DRILLING

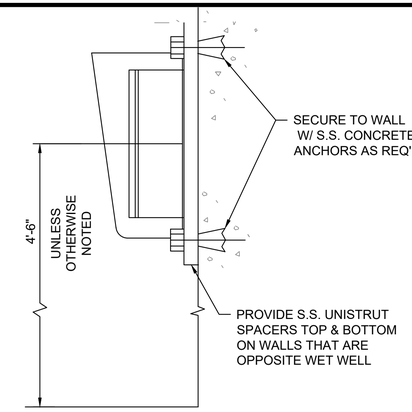
## A EQUIPMENT WALL MOUNTING DETAIL
SCALE: NTS




NOTES:

1. CONTRACTOR SHALL VERIFY THE EXISTING FLOOR SLAB THICKNESS IS ADEQUATE TO ACCOMMODATE MIN. EMBED LENGTH PRIOR TO DRILLING

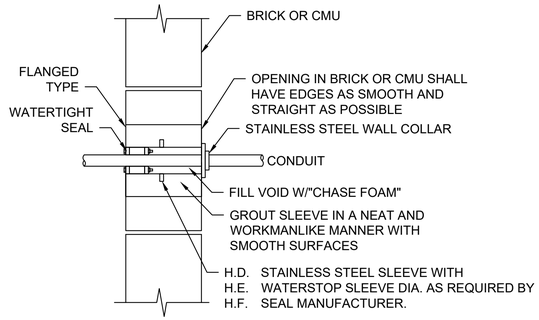
## B TYPICAL EQUIPMENT BASE DETAIL
SCALE: NTS




NOTE:

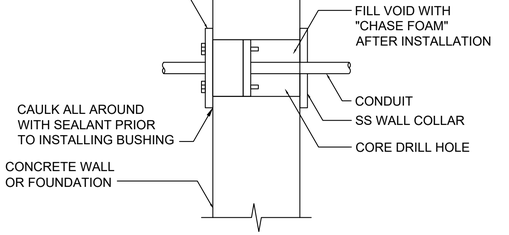
1. INSTALLATION FOR CONCRETE WALL SHOWN. FOR CMU WALL USE S.S. TOGGLE BOLTS IN UN-GROUTED CELLS AND S.S. WEDGE.

## C TYPICAL WALL SUPPORT FOR MOUNTED INSTRUMENTS
SCALE: NTS

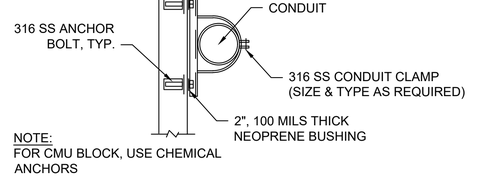



H.D. STAINLESS STEEL SLEEVE WITH
H.E. WATERSTOP SLEEVE DIA. AS REQUIRED BY
H.F. SEAL MANUFACTURER.

## D CONCEALED CONDUIT INSTALLATION
SCALE: NTS

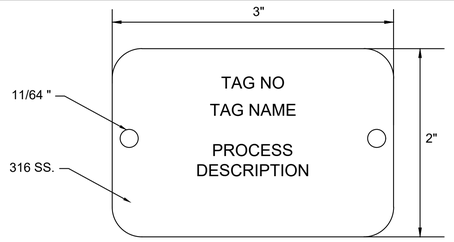



## E WATERTIGHT CONDUIT PENETRATION
SCALE: NTS




NOTE:
FOR CMU BLOCK, USE CHEMICAL ANCHORS

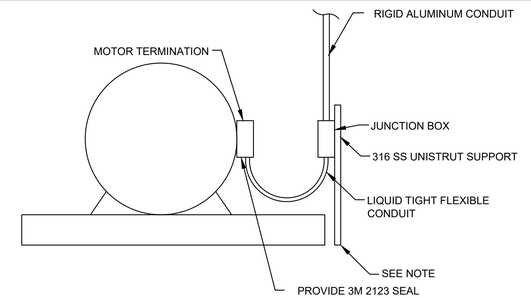
## F CONDUIT SUPPORT
SCALE: NTS




NOTES:

1. THE INSTRUMENT TAG IS TO HAVE THE PROCESS AREA, INSTRUMENT NUMBER, AND PROCESS DESCRIPTION LISTED ON THE TAG.
2. REFER TO DRAWINGS FOR TAG NAME.
3. THE INSTRUMENT TAG WILL BE SIZED IN A 3 X 2 RATIO. THE EXAMPLE IS 3 INCHES BY 2 INCHES. ALL LETTERING WILL BE 3/16" IN HEIGHT.
4. INSTRUMENT TAG TO BE AFFIXED IN A LOCATION ADJACENT TO THE INSTRUMENT WITH EITHER SELF TAPPING STAINLESS STEEL SCREWS OR STAINLESS STEEL WIRE OR CHAIN.

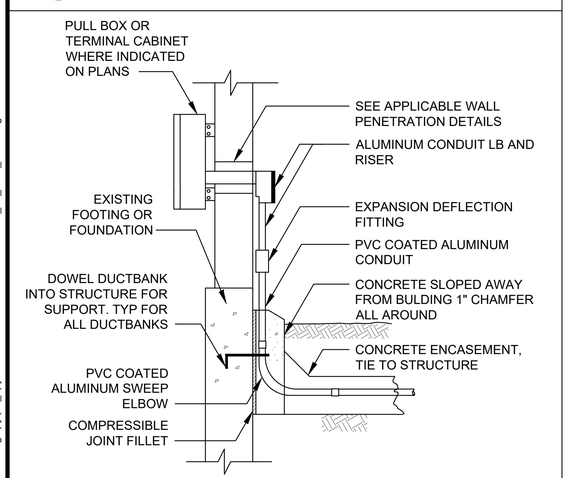
## G INSTRUMENT TAG
SCALE: NTS



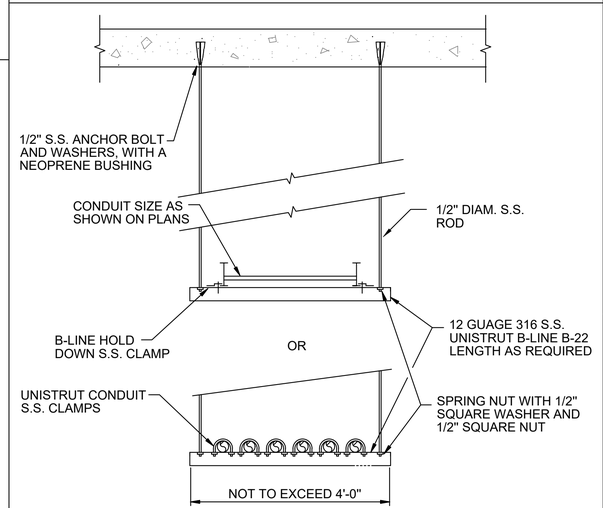

NOTE:

STRUT SUPPORT: USE POST BASE FOR FLOOR ATTACHMENT.

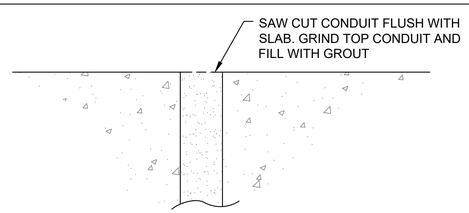
## H TYPICAL MOTOR DETAIL
SCALE: NTS



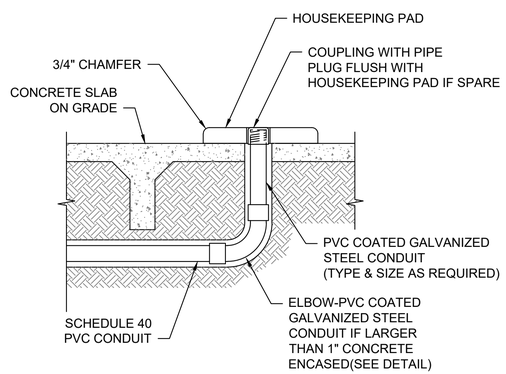

## I ABOVE GRADE CONDUIT PENETRATION
SCALE: NTS




## J CABLE TRAY CONDUIT SUPPORT DEATIL
SCALE: NTS




## K DEMOLITION CONDUIT DETAIL
SCALE: NTS




## L UNDERGROUND CONDUIT AND CONDUIT STUB UP DETAIL
SCALE: NTS

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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL DETAILS IV

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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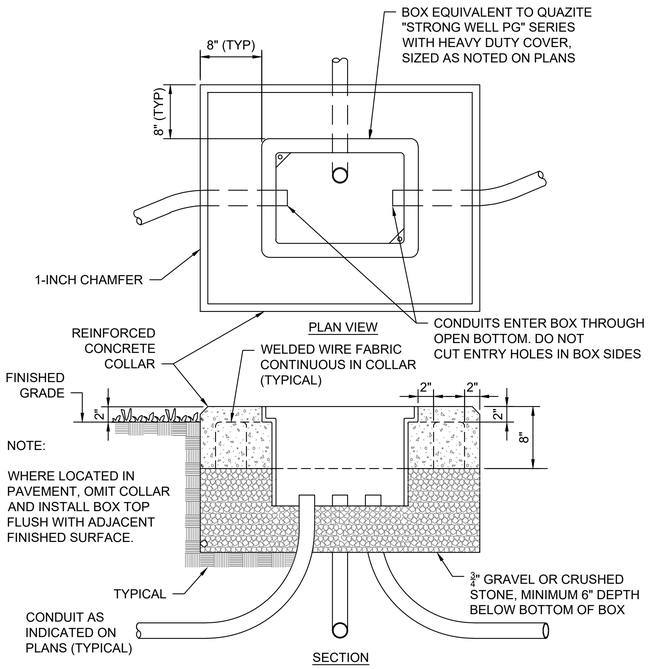
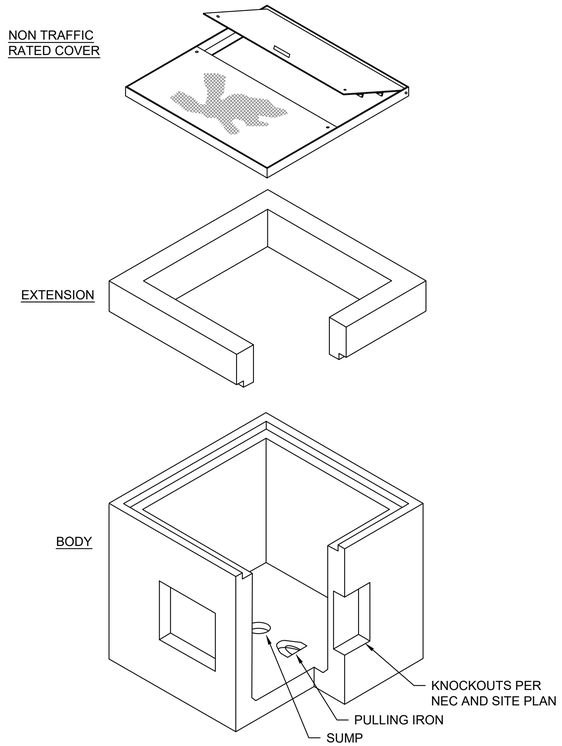
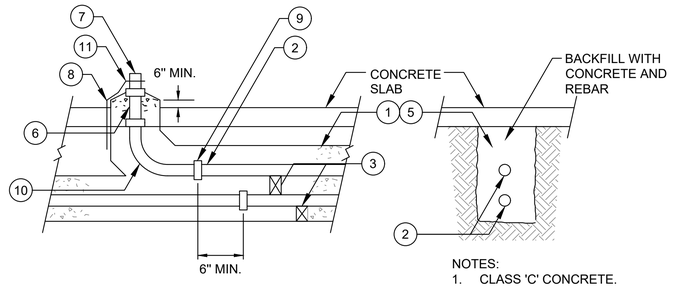
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_07_E-70_CPY.dwg



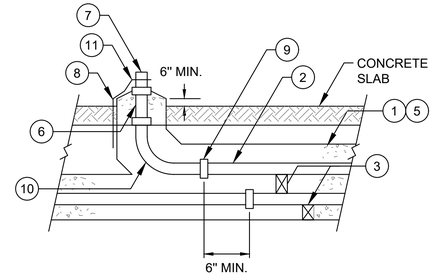

A UNDERGROUND CONDUIT DETAIL - TYPICAL IN-GROUND ELECTRICAL HAND HOLE(UP TO 17"x30")
SCALE: NTS




B 3'x3'x4' TO 6'x6'x6' HAND HOLE
SCALE: NTS



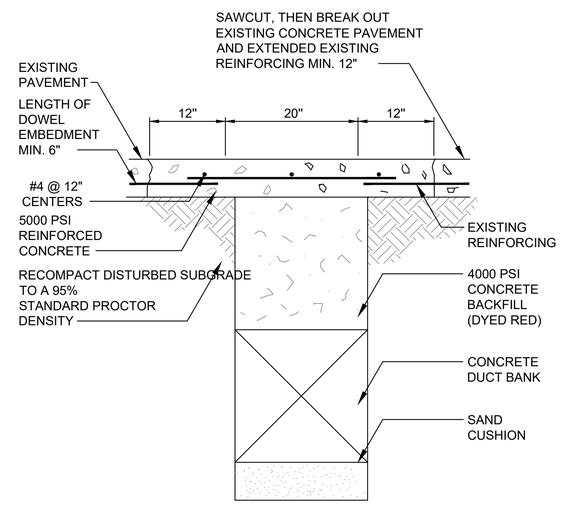

TRANSITION UNDER CONCRETE SLAB



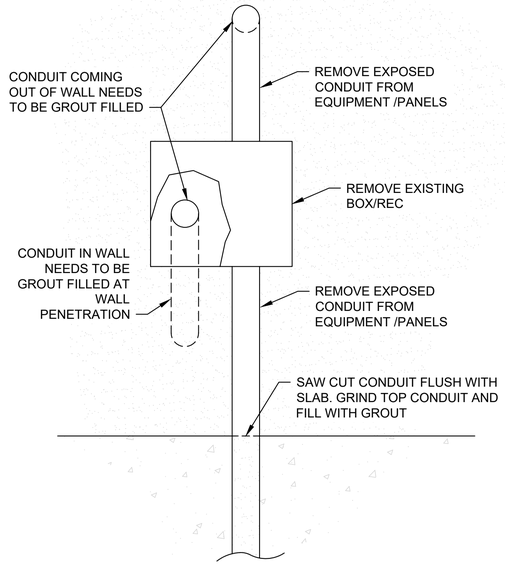

TRANSITION UNDER EARTH COVER

NOTES:
1. CLASS 'C' CONCRETE.
2. SEE DESIGN DRAWINGS FOR NUMBER AND SIZE OF CONDUITS. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE SPECIFIED.
3. SPACERS SHALL BE CARLON PLASTIC SPACERS OR EQUIVALENT, SPACED 3" SIDE TO SIDE O.C. OR A MINIMUM OF ONE SUPPORT PER JOINT.
4. NOT USED.
5. UNDERGROUND CONDUIT SHALL BE ENCASED IN AN ENVELOPE OF CONCRETE COLORED RED THROUGHOUT.
6. PVC COATED GALVANIZED RIGID STEEL RISER WITH PVC COATED COUPLINGS.
7. PROTECT EXPOSED CONDUIT ENDS DURING CONSTRUCTION WITH PIPE PLUG OR CAPS. FUTURE AND SPARE CONDUIT ENDS SHALL HAVE PIPE PLUGS OR CAPS.
8. CONNECT GROUND WIRE TO GROUND ROD OR PLANT GROUND BUS. FOR GROUND WIRE SIZE, USE #2 TO REBAR IN DUCTBANK AND #3/0 LONGITUDINALLY.
9. ADAPTER FROM NON-METALLIC CONDUIT AS REQUIRED.
10. PVC COATED GALVANIZED RIGID STEEL CONDUIT ELBOW AND COUPLING WITH LONG RADIUS ELBOWS SHALL BE USED AS REQUIRED.
11. CONDUIT GROUND STRAP AND CONDUIT COUPLING WITH "OZ" OR T & B GROUNDED TYPE INSULATED BUSHING.

C UNDERGROUND CONDUIT INSTALLATION
SCALE: NTS WITH CONCRETE ENCASEMENT UNDER SLAB

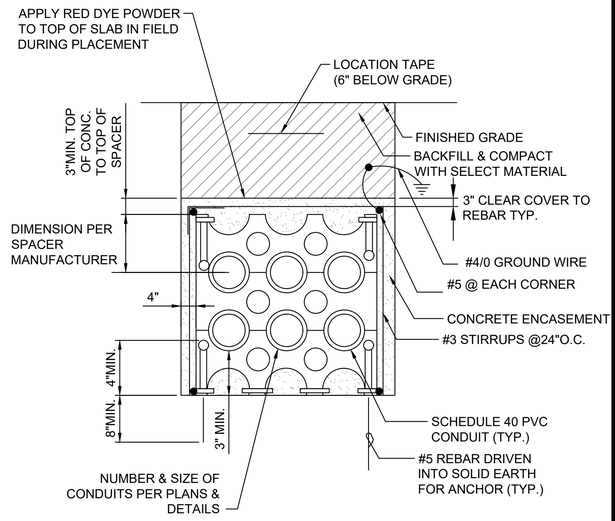



D SAWCUT DETAIL
SCALE: NTS




E CONDUIT DEMOLITION DETAIL
SCALE: NTS

NOTES:
1. CONCRETE ENCASEMENT: ALL CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS. NO AGGREGATE LARGER THAN 3/4". SHALL BE COLORED RED THROUGHOUT.
2. INSTALL SPACERS EVERY 5 FEET. ALL SPACERS TO PROVIDE 3". VERTICAL AND HORIZONTAL SEPARATION BETWEEN CONDUITS. CONDUITS CONTAINING MEDIUM VOLTAGE WIRING SHALL HAVE MINIMUM SEPARATION OF 7.5" C-C. SPACERS TO BE CARLON SNAP-LOC PLASTIC SPACERS OR EQUIVALENT.
3. INSTALL #5 STEEL REINFORCING RODS THROUGH THE INTERNAL VERTICAL CHANNELS AT BOTH OUTER EDGES OF SPACER AND DRIVE REINFORCING RODS INTO EARTH TO ANCHOR ASSEMBLY.
4. INSTALL #5 STEEL REINFORCING RODS IN EACH CORNER OF THE CONCRETE ENCASEMENT. OVERLAP REBAR MINIMUM 1'-3" AT EACH END. INSTALL #3 STIRRUPS AT 24" O.C.
5. TIE HORIZONTAL AND VERTICAL RODS TOGETHER WITH #16 STEEL TIE WIRE.
6. GROUND THE STEEL REINFORCING RODS AT 100 FEET SPANS MAXIMUM. CONNECT TO GROUND CONDUCTOR ON TOP OF DUCT BANK WITH EXOTHERMIC WELD. GROUNDING CABLE SIZE SHALL BE 4/0 BARE COPPER.




F ELECTRICAL CONDUIT SPACER FOR UNDERGROUND DUCT BANK
SCALE: NTS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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL DETAILS V

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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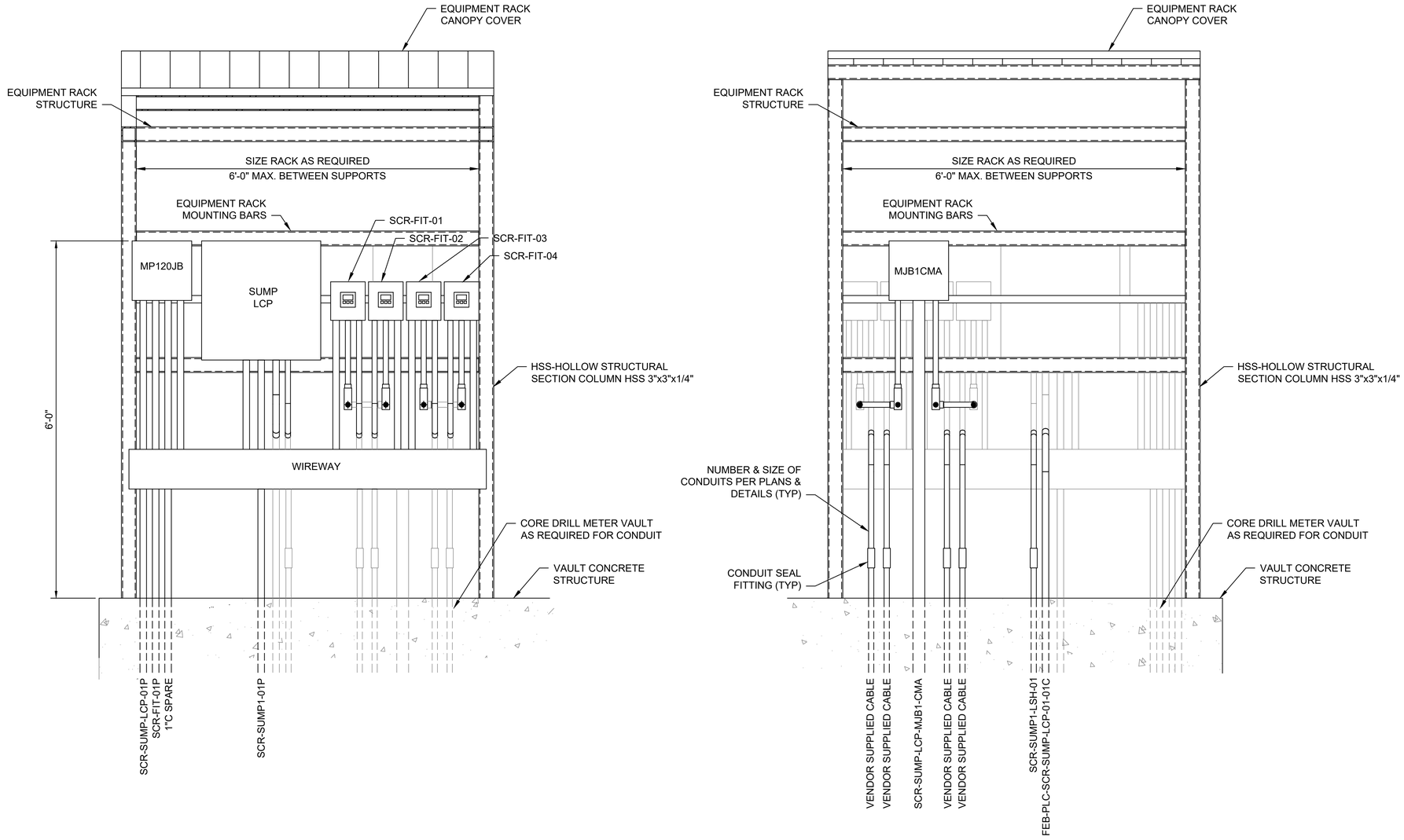


A METER VAULT EQUIPMENT RACK DETAIL
SCALE: NTS

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STATE OF TEXAS · HALEY A. JONES · 141585 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026

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|---|---|---|---|
| 0 | VERIFY SCALE 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY | | |

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ELECTRICAL DETAILS VI

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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## INTERNATIONAL SOCIETY OF AUTOMATION (ISA) TABLE

| FIRST LETTERS | | | SUCCEEDING LETTERS | | |
|---|---|---|---|---|---|
| | MEASURED OR INITIATING VARIABLE | VARIABLE MODIFIER | READOUT OR PASSIVE FUNCTION | OUTPUT/ACTIVE FUNCTION | FUNCTION MODIFIER |
| A | ANALYSIS | | ALARM | | |
| B | BURNER, COMBUSTION | | USER'S CHOICE (+) | USER'S CHOICE (+) | USER'S CHOICE (+) |
| C | USER'S CHOICE (+) | | | CONTROL | CLOSE |
| D | USER'S CHOICE (+) | DIFFERENTIAL | | | DEVIATION |
| E | VOLTAGE | | SENSOR, PRIMARY ELEMENT | | |
| F | FLOW, FLOW RATE | RATIO (FRACTION) | | | |
| G | USER'S CHOICE (+) | | GLASS, GAUGE, VIEWING DEVICE | | |
| H | HAND | | | | HIGH |
| I | CURRENT (ELECTRICAL) | | INDICATE | | |
| J | POWER | | SCAN | | |
| K | TIME, TIME SCHEDULE | TIME RATE OF CHANGE | | CONTROL STATION | |
| L | LEVEL | | LIGHT | | LOW |
| M | MOTOR | | | | MIDDLE, INTERMEDIATE |
| N | USER'S CHOICE (+) | | USER'S CHOICE (+) | USER'S CHOICE (+) | USER'S CHOICE (+) |
| O | USER'S CHOICE (+) | | ORIFICE, RESTRICTION | | OPEN |
| P | PRESSURE (VACUUM) | | POINT (TEST CONNECTION) | | |
| Q | QUANTITY | INTEGRATE, TOTALIZE | INTEGRATE, TOTALIZE | | |
| R | RADIATION | | RECORD | | RUN |
| S | SPEED, FREQUENCY | SAFETY | | SWITCH | STOP |
| T | TEMPERATURE | | | TRANSMIT | |
| U | MULTIVARIABLE | | MULTIFUNCTION | MULTIFUNCTION | |
| V | VIBRATION, MECH. ANALYSIS | | | VALVE, DAMPER, LOUVER | |
| W | WEIGHT, FORCE | | WELL, PROBE | | |
| X | UNCLASSIFIED (+) | X-AXIS | ACCESSORY DEVICES, UNCLASSIFIED (+) | UNCLASSIFIED (+) | UNCLASSIFIED (+) |
| Y | EVENT, STATE, PRESENCE | Y-AXIS | | AUXILLARY DEVICES (RELAY, COMPUTE, CONVERT) | |
| Z | POSITION, DIMENSION | Z-AXIS | | DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT | |

WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

## PROCESS SYMBOLS

| SYMBOL | CODE | DESCRIPTION |
|---|---|---|
| | AV | AIR RELEASE ASSEMBLY |
| | BA | BALL VALVE |
| | BV | BUTTERFLY VALVE |
| | CK | CHECK VALVE |
| CA | CAV | COMBINATION AIR VALVE ASSEMBLY |
| | BFD | DOUBLE CHECK VALVE (BACKFLOW PREVENTER) |
| | GV | GATE VALVE |
| | PRV | PRESSURE & VACUUM RELIEF VALVE |
| M | M | MOTOR ACTUATOR |
| | - | MANUAL ACTUATOR |
| | S | SOLENOID ACTUATOR |
| | GL | GLOBE VALVE |
| | PL | PLUG VALVE |
| | SRV | SURGE VALVE |
| | MV | MUD VALVE |
| | PU | HORIZONTAL CENTRIFUGAL PUMP |
| | SP | SUBMERSIBLE PUMP |
| | MP | PERISTALTIC METERING PUMP |

| SYMBOL | CODE | DESCRIPTION |
|---|---|---|
| | FM | VENTURI METER |
| M | FM | MAG METER |
| | FM | ULTRASONIC METER |
| | FM | TURBINE METER |
| H | HB | HOSE BIB - NON FREEZE |
| | BF | BLIND FLANGE |
| | SD | SLIDE GATE DAMPER (NORMALLY CLOSED) |
| | SD | SLIDE GATE DAMPER (NORMALLY OPEN) |
| | - | REDUCER |
| | - | ADJUSTABLE SPEED/POSITION EQUIPMENT |

## HAND SWITCH ABBREVIATIONS

| | |
|---|---|
| H/O/A | HAND/OFF/AUTO |
| L/O/C | LOCAL/OFF/COMPUTER |
| L/O/R | LOCAL/OFF/REMOTE |
| O/C/S | OPEN/CLOSE/STOP |
| L/C | LOCAL/COMPUTER |
| L/R | LOCAL/REMOTE |
| O/C | OPEN/CLOSE |
| A/H | AUTO/HAND |
| L/A | LOCAL/AUTO |
| O/O/C | ON/OFF/COMPUTER |
| N/B | NORMAL/BYPASS |

## ISA INSTRUMENT IDENTIFICATION

| | PRIMARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR (2) | FIELD MOUNTED | AUXILIARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR (2) |
|---|---|---|---|
| DISCRETE INSTRUMENTS | | | |
| SHARED DISPLAY, SHARED CONTROL | | | |
| COMPUTER FUNCTION | | | |
| PROGRAMMABLE LOGIC CONTROL | | | |
| | | INSTRUMENT WITH LONG TAG NUMBERS | INSTRUMENTS SHARING COMMON HOUSING |
| | PILOT LIGHT | C / 12 PANEL MOUNTED PATCHBOARD POINT 12 | P PURGE OR FLUSHING DEVICE |
| | R RESET FOR LATCH-TYPE ACTUATOR | DIAPHRAGM SEAL | I UNDEFINED INTERLOCK LOGIC |

(1) ABBREVIATIONS OF THE USER'S CHOICE SUCH AS IP1 (INSTRUMENT PANEL #1), IC2 (INSTRUMENT CONSOLE #2), CC3 (COMPUTER CONSOLE #3), ETC., MAY BE USED WHEN IT IS NECESSARY TO SPECIFY INSTRUMENT OR FUNCTION LOCATION.

(2) NORMALLY INACCESSIBLE OR BEHIND THE PANEL DEVICES OR FUNCTIONS MAY BE DEPICTED BY USING THE SAME SYMBOLS BUT WITH DASHED HORIZONTAL BARS, I.E.



## LINE SYMBOLS

(1) INSTRUMENT SUPPLY OR SOLENOID OPERATED VALVE (1)

(2) UNDEFINED SIGNAL

(3) PNEUMATIC SIGNAL (2)

(4) ELECTRIC BINARY SIGNAL (ON/OFF)

(5) HYDRAULIC SIGNAL

(6) CAPILLARY TUBE

(7) ELECTROMAGNETIC OR SONIC SIGNAL (GUIDED) (3)

(8) ELECTROMAGNETIC OR SONIC SIGNAL (NOT GUIDED) (3)

(9) INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)

(10) MECHANICAL LINK

(11) PNEUMATIC BINARY SIGNAL (ON-OFF)

(12) ELECTRIC ANALOG SIGNAL (ON-OFF)

(13) CONNECTING LINES

(14) NON-CONNECTING LINES

## GENERAL NOTES

(1) THE FOLLOWING ABBREVIATIONS ARE SUGGESTED TO DENOTE THE TYPES OF POWER SUPPLY. THESE DESIGNATIONS MAY ALSO BE APPLIED TO PURGE FLUID SUPPLIES.

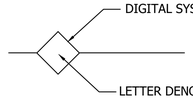
OPTIONS

AS - AIR SUPPLY
IA - INSTRUMENT AIR
PA - PLANT AIR
ES - ELECTRIC SUPPLY
GS - GAS SUPPLY
HS - HYDRAULIC SUPPLY
NS - NITROGEN SUPPLY
SS - STEAM SUPPLY
WS - WATER SUPPLY

THE SUPPLY LEVEL MAY BE ADDED TO THE INSTRUMENT SUPPLY LINE, E.G, AS-100, 100-PSIG AIR SUPPLY: ES-24DC, A 24-VOLT DIRECT CURRENT POWER SUPPLY.

(2) THE PNEUMATIC SIGNAL SYMBOL APPLIES TO A SIGNAL USING ANY GAS AS THE SIGNAL MEDIUM. IF A GAS OTHER THAN AIR IS USED, THE GAS MAY BE IDENTIFIED BY A NOTE ON THE SIGNAL SYMBOL OR OTHERWISE.

(3) ELECTROMAGNETIC PHENOMENA INCLUDE HEAT, RADIO WAVES, NUCLEAR RADIATION AND LIGHT.




LETTER DENOTES SIGNAL TYPE. THE LETTER "A" DENOTES AN ANALOG SIGNAL. THE LETTER "D" DENOTES A DISCRETE SIGNAL. SUCCEEDING LETTERS ARE "I" FOR INPUT AND "O" FOR OUTPUT. THE LETTER "FO" DENOTES FIBER OPTIC CONNECTION.

## GENERAL ABBREVIATIONS

| | |
|---|---|
| AI | ANALOG INPUT |
| ALM | ALARM |
| AO | ANALOG OUTPUT |
| AS | AIR SUPPLY |
| CL | CLOSE |
| CMD | COMMAND |
| COM | COMMUNICATION |
| CPP | CAT6 COPPER PATCH PANEL |
| CPU | CENTRAL PROCESSOR UNIT |
| DC | DIRECT CURRENT |
| DCU | DISTRIBUTED CONTROL UNIT |
| DI | DIGITAL INPUT |
| DO | DIGITAL OUTPUT |
| EFF | EFFLUENT |
| ES | ELECTRIC SUPPLY |
| ESW | ETHERNET SWITCH |
| ETM | ELAPSED TIME METER |
| FC | FAIL CLOSE |
| FE | FLOW ELEMENT |
| FIT | FLOW INDICATOR TRANSMITTER |
| FLP | FAIL LAST POSITION |
| FO | FAIL OPEN |
| F/O | FIBER OPTIC CABLE |
| FOM | FIBER OPTIC MODEM |
| FOPP | FIBER OPTIC PATCH PANEL |
| FREQ | FREQUENCY |
| FS | FLOW SWITCH |
| FV | FLOW VALVE |
| FWD | FORWARD |
| GW | GATEWAY |
| HDC | HISTORICAL DATA COLLECTION |
| HMI | HUMAN MACHINE INTERFACE |
| IND | INDICATION |
| INF | INFLUENT |
| I/O | INPUT OUTPUT |
| IPC | INDUSTRIAL PERSONAL COMPUTER |
| LAH | LEVEL ALARM HIGH |
| LAHH | LEVEL ALARM HIGH HIGH |
| LCP | LOCAL CONTROL PANEL |
| LE | LEVEL ELEMENT |
| LI | LEVEL INDICATOR |
| LIT | LEVEL INDICATOR TRANSMITTER |
| LS | LEVEL SWITCH |
| LSH | LEVEL SWITCH HIGH |
| LSL | LEVEL SWITCH LOW |
| MC | MOTOR CONTROLLER |
| MCC | MOTOR CONTROL CENTER |
| MCP | MASTER CONTROL PANEL |
| MPR | MOTOR PROTECTION RELAY |
| MST | MOTOR STARTER |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| OEM | ORIGINAL EQUIPMENT MANUFACTURER |
| OIU | OPERATOR INTERFACE UNIT |
| OIT | OPERATOR INTERFACE TERMINAL |
| OP | OPEN |
| ORP | OXIDATION REDUCTION POTENTIAL |
| OWS | OPERATOR WORK STATION |
| PE | PRESSURE ELEMENT/SENSOR |
| PI | PRESSURE INDICATOR |
| PIT | PRESSURE INDICATOR TRANSMITTER |
| PLC | PROGRAMMABLE LOGIC CONTROLLER |
| PMR | POWER MONITOR RELAY |
| POS | POSITION |
| PQM | POWER QUALITY METER |
| PRES | PRESSURE |
| PSH | PRESSURE SWITCH HIGH |
| PSL | PRESSURE SWITCH LOW |
| PWR | POWER SUPPLY |
| RCP | RECEPTACLE |
| RE | REFERENCE |
| REV | REVERSE |
| RIO | REMOTE INPUT OUTPUT |
| RM | REDUNDANCY MODULE |
| RTU | REMOTE TERMINAL UNIT |
| SE | SPEED ELEMENT/SENSOR |
| SC | SPEED / POSITION CONTROL |
| STPT | SETPOINT |
| SIK | SPEED INDICATE CONTROL STATION |
| SI | SPEED/POSITION INDICATION |
| SL | SLUDGE |
| SS | SOFT STARTER |
| SW | ETHERNET SWITCH |
| TE | TEMPERATURE ELEMENT/SENSOR |
| TIT | TEMPERATURE INDICATOR TRANSMITTER |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| UV | ULTRAVIOLET |
| VFD | VARIABLE FREQUENCY DRIVE |
| VLV | VALVE |
| XFR | TRANSFORMER |
| YA | EVENT ALARM |
| YL | EVENT INDICATION |
| YS | EVENT SWITCH |
| ZSC | CLOSE LIMIT SWITCH |
| ZSO | OPEN LIMIT SWITCH |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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

INSTRUMENTATION ABBREVIATIONS AND LEGEND

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
I-1
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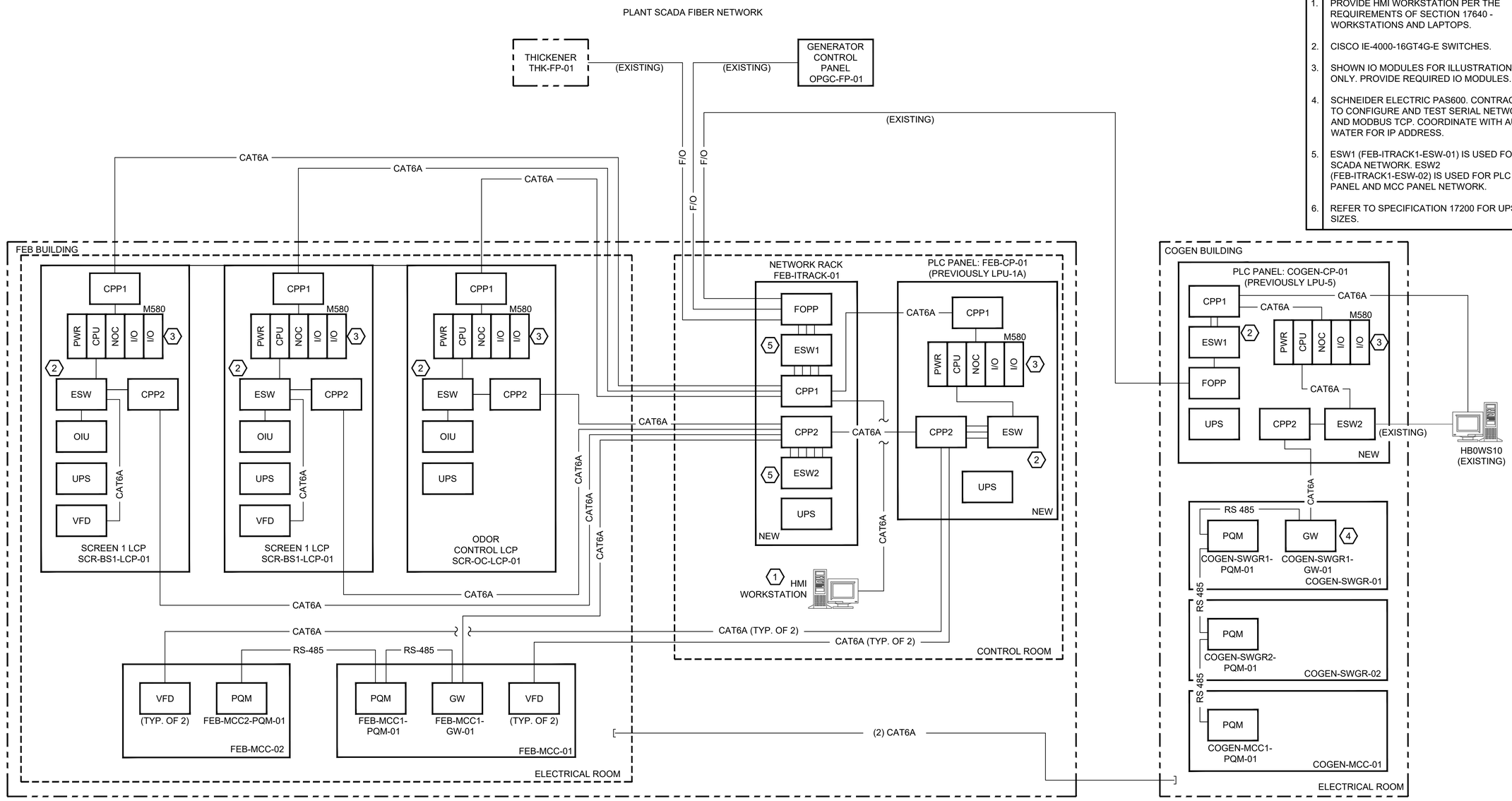
## NOTES BY SYMBOL (X)

1. PROVIDE HMI WORKSTATION PER THE REQUIREMENTS OF SECTION 17640 - WORKSTATIONS AND LAPTOPS.
2. CISCO IE-4000-16GT4G-E SWITCHES.
3. SHOWN IO MODULES FOR ILLUSTRATION ONLY. PROVIDE REQUIRED IO MODULES.
4. SCHNEIDER ELECTRIC PAS600. CONTRACTOR TO CONFIGURE AND TEST SERIAL NETWORK AND MODBUS TCP. COORDINATE WITH AUSTIN WATER FOR IP ADDRESS.
5. ESW1 (FEB-ITRACK1-ESW-01) IS USED FOR SCADA NETWORK. ESW2 (FEB-ITRACK1-ESW-02) IS USED FOR PLC PANEL AND MCC PANEL NETWORK.
6. REFER TO SPECIFICATION 17200 FOR UPS SIZES.




## FEB BUILDING

## COGEN BUILDING

| PANEL: FEB-MCC-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| SLUDGE TRANSFER PUMP 1 VFD | FEB-MCC1-STP1-VFD-01 |
| DIGESTER FEED PUMP 1 VFD | FEB-MCC1-DFP1-VFD-01 |

| PANEL: FEB-MCC-02 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| SLUDGE TRANSFER PUMP 2 VFD | FEB-MCC2-STP2-VFD-01 |
| DIGESTER FEED PUMP 2 VFD | FEB-MCC2-DFP2-VFD-01 |

| PANEL: SCR-BS1-LCP-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| PLC | SCR-BS1-LCP1-PLC-01 |
| ESW | SCR-BS1-LCP1-ESW-01 |
| OIU | SCR-BS1-LCP1-OIU-01 |
| UPS | SCR-BS1-LCP1-UPS-01 |
| VFD | SCR-BS1-LCP1-VFD-01 |
| CPP1 | SCR-BS1-LCP1-CPP-01 |
| CPP2 | SCR-BS1-LCP1-CPP-02 |

| PANEL: SCR-BS2-LCP-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| PLC | SCR-BS2-LCP1-PLC-01 |
| ESW | SCR-BS2-LCP1-ESW-01 |
| OIU | SCR-BS2-LCP1-OIU-01 |
| UPS | SCR-BS2-LCP1-UPS-01 |
| VFD | SCR-BS2-LCP1-VFD-01 |
| CPP1 | SCR-BS2-LCP1-CPP-01 |
| CPP2 | SCR-BS2-LCP1-CPP-02 |

| PANEL: SCR-OC-LCP-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| PLC | SCR-OC-LCP1-PLC-01 |
| ESW | SCR-OC-LCP1-ESW-01 |
| OIU | SCR-OC-LCP1-OIU-01 |
| UPS | SCR-OC-LCP1-UPS-01 |
| CPP1 | SCR-OC-LCP1-CPP-01 |
| CPP2 | SCR-OC-LCP1-CPP-02 |

| PANEL: FEB-ITRACK-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| FOPP | FEB-ITRACK1-FOPP-01 |
| ESW1 | FEB-ITRACK1-ESW-01 |
| ESW2 | FEB-ITRACK1-ESW-02 |
| CPP1 | FEB-ITRACK1-CPP-01 |
| CPP2 | FEB-ITRACK1-CPP-02 |
| UPS | FEB-ITRACK1-UPS-01 |

| PANEL: FEB-CP-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| PLC | FEB-CP1-PLC-01 |
| ESW | FEB-CP1-ESW-01 |
| UPS | FEB-CP1-UPS-01 |
| CPP1 | FEB-CP1-CPP-01 |
| CPP2 | FEB-CP1-CPP-02 |

| PANEL: COGEN-CP-01 | |
|---|---|
| EQUIPMENT | EQUIPMENT ID |
| PLC | COGEN-CP1-PLC-01 |
| ESW1 | COGEN-CP1-EWS-01 |
| ESW2 | COGEN-CP1-EWS-02 |
| FOPP | COGEN-CP1-FOPP-01 |
| UPS | COGEN-CP1-UPS-01 |
| CPP1 | COGEN-CP1-CPP-01 |
| CPP2 | COGEN-CP1-CPP-02 |

## TAG NAME TABLES

## SCADA SYSTEM ARCHITECTURE

SCALE: NTS

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0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

SCADA SYSTEM ARCHITECTURE

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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SCADA HMI

FEB-CP1-PLC-01

FIELD

TREND | INDICATOR | ALARM — AIR, AI, YA

INDICATION | INDICATION | INDICATION | ALARM | COMMAND | COMMAND — YL, YL, YL, YA, YA, YA

INDICATOR | ALARM | ALARM | TREND — LI, LAL, LAH, LIR

INDICATION | CONTROL | INDICATION | ALARM | COMMAND | COMMAND | ALARM | ALARM | ALARM | COMMAND | COMMAND | INDICATION — ZI, ZC, YL, YA, HC, HC, YA, YA, YA, HC, HC, YL

INDICATOR | ALARM | ALARM | TREND — LI, LAL, LAH, LIR

INDICATION | CONTROL | INDICATION | ALARM | COMMAND | COMMAND | ALARM | ALARM | ALARM | COMMAND | COMMAND | INDICATION — ZI, ZC, YL, YA, HC, HC, YA, YA, YA, HC, HC, YL

INDICATION | INDICATION | INDICATION | ALARM | COMMAND | COMMAND | ALARM — YL, YL, YL, YA, YA, YA, YA

A — D

OPEN | CLOSED | REMOTE | FAULT | OPEN CMD | CLOSE CMD — ZH | ZL | RM | YA | ZSH | ZSL

ACTUATOR

TYP. 2
SCR-INF-SG-01
SCR-INF-SG-02

SCR-LIT-01

SPEED RATE | SPEED SETPOINT | REMOTE | OVERLOAD | START CMD | STOP CMD | COMMON FAULT | ESTOP | LEVEL HIGH | FORWARD | REVERSE | RUNNING

SCREEN 1 LOCAL CONTROL PANEL
(BY VENDOR)
PLC
SCR-BS1-LCP1-PLC-01

SCR-BS1-LCP-01

SCR-LIT-02

SPEED RATE | SPEED SETPOINT | REMOTE | OVERLOAD | START CMD | STOP CMD | COMMON FAULT | ESTOP | LEVEL HIGH | FORWARD | REVERSE | RUNNING

SCREEN 2 LOCAL CONTROL PANEL
(BY VENDOR)
PLC
SCR-BS2-LCP1-PLC-01

SCR-BS2-LCP-01

OPEN | CLOSED | REMOTE | FAULT | OPEN CMD | CLOSE CMD — ZH | ZL | RM | YA | ZSH | ZSL

ACTUATOR

TYP. 3
SCR-EFF-SG-01
SCR-EFF-SG-02
SCR-EFF-SG-03

LEVEL HIGH

TYP. FOR
SCR-LOS-01
SCR-LOS-02
SCR-LOS-03
SCR-LOS-04
HOA
DRIVE REVERSE
ESTOP

LIT — SCR-LIT-01

OTS | HOME | ZS | LE

LOS — SCR-LOS-01

LOS — SCR-LOS-02

LOS — SCR-LOS-03

LOS — SCR-LOS-04

LSH — SCR-INF-LSH-01

AIT — SCR-INF-AIT-01
H2S SENSOR

SLIDE GATE
SCR-INF-SG-01

SLIDE GATE
SCR-INF-SG-02

SCREENING
CHANNEL 1

SCREEN 1
SCR-BS-01

LSH — SCR-LSH-01

SCREENING
WASHER /
COMPACT 1
SCR-CMPC-01

SCR-LIT-02

SCREENING
CHANNEL 2

SCREEN 2
SCR-BS-02

LSH — SCR-LSH-02

SCREENING
WASHER /
COMPACT 2
SCR-CMPC-02

SIDE STREAM FLOW

WC-WWTP

SAR-WWTP

RECEIVING STATION

INFLUENT CHANNEL

BYPASS CHANNEL

2-NPW — NPW SUPPLY

12-SS

12-SS

DUMPSTER
20 CY
CONTAINER

4-DR

4-DR

SLIDE GATE
SCR-EFF-SG-01

SLIDE GATE
SCR-EFF-SG-02

SLIDE GATE
SCR-EFF-SG-03

LSH — SCR-EFF-LSH-01

EFFLUENT CHANNEL

18-PVC — TO FEB

# HEADWORKS P&ID

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STATE OF TEXAS — LIANG LI — 96785 — LICENSED PROFESSIONAL ENGINEER — 03/13/2026

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VERIFY SCALE 1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HEADWORKS P&ID

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
I-3
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SCADA HMI

FEB-CP1-PLC-01

FIELD

(TYP. 2)

INDICATION
ALARM
ALARM
YL
YA
YA
I
D
D
D
RUNNING
FAIL
NO FLOW

LOCAL CONTROL PANEL
(BY VENDOR)

| PUMP 1 | PUMP 2 |
|---|---|
| RUN | RUN |
| ON-OFF | ON-OFF |
| TRIP | TRIP |
| NO FLOW | NO FLOW |
| RESET | RESET |

SCR-SLP-LCP-01

INDICATION
ALARM
ALARM
YL
YA
YA
D
D
D
RUNNING
FAIL
HIGH LEVEL

LOCAL CONTROL PANEL
(BY VENDOR)

SCR-SUMP-LCP-02

INDICATION
ALARM
ALARM
YL
YA
YA
D
D
D
RUNNING
FAIL
HIGH LEVEL

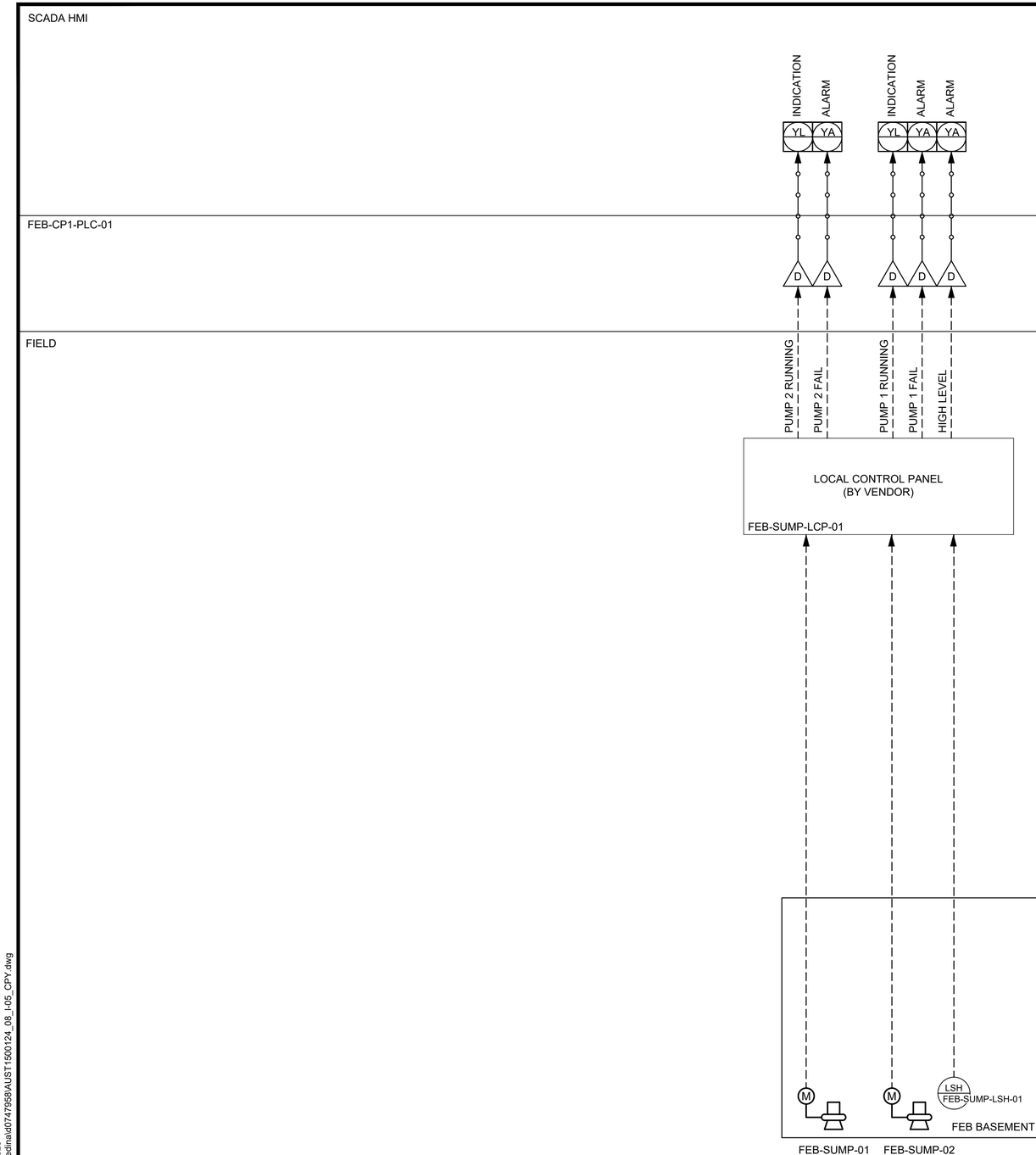
LOCAL CONTROL PANEL
(BY VENDOR)

SCR-SUMP-LCP-01

INDICATOR
ALARM
ALARM
TREND
TOTALIZATION
FI
FAL
FAH
FIR
FQI
A
FQI

TYP. FOR
SCR-FLOWMETER-01
SCR-FLOWMETER-02
SCR-FLOWMETER-03
SCR-FLOWMETER-04

A — A — A —




# FEB SUMP PUMPS P&ID

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TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS
LIANG LI
96785
LICENSED PROFESSIONAL ENGINEER
03/13/2026

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB SUMP PUMPS P&ID

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | D.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
I-5

SCADA HMI

COGEN-CP1-PLC-01

FEB-CP1-PLC-01

FIELD

ALARM YL
ALARM YA
ALARM YA
ALARM YA
INDICATION TI
ALARM TAH
TREND TIR
INTRUSION D
24VDC POWER FAIL D
UPS FAIL D
UPS BATTERY FAIL D
PANEL TEMPERATURE A
XS
YA
YA
YA
TIT

ALARM YL
ALARM YA
ALARM YA
ALARM YA
INDICATION TI
ALARM TAH
TREND TIR
INTRUSION D
24VDC POWER FAIL D
UPS FAIL D
UPS BATTERY FAIL D
PANEL TEMPERATURE A
XS
YA
YA
YA
TIT

NUTRIENT NOT FLOWING ALARM YA
WATER FLOW RATE INDICATION FI / TREND FIR / TREND FQ / ALARM YA
WATER FLOW INSTRUMENT BAD ALARM YA
FAN NO. 1 REMOTE INDICATION YL
FAN NO. 1 RUNNING INDICATION YL
FAN NO.1 FAULT ALARM YA
FAN NO. 2 REMOTE INDICATION YL
FAN NO. 2 RUNNING INDICATION YL
FAN NO.2 FAULT ALARM YA
WATER VALVE REMOTE INDICATION YL
WATER VALVE POSITION INDICATION YL
WATER VALVE FAULT ALARM YA
RECIRCULATION PUMP RUNNING INDICATION YL
RECIRCULATION PUMP FAULT ALARM YA
NUTRIENT PUMP REMOTE INDICATION YL
NUTRIENT PUMP RUNNING INDICATION YL
NUTRIENT PUMP FAULT ALARM YA

ODOR CONTROL LOCAL CONTROL PANEL
(BY VENDOR)
PLC
SCR-OC-LCP1-PLC-01
SCR-OC-LCP-01

CLEAN DISCHARGE
TO ATMOSPHERE

C|B F09_W10
F01_A16
BV-08
PVC-U BALL
VALVE AIR
SAMPLING POINT

MEDIA
dP
BYPASS STACK

C|B F23_W10
PI
WP-01
MV-01
ABV-01
HEATER
SCR-OC-FIT-01
FT 01
SCR-OC-FIT-02
FT 02
BV-04
NP-01
ST-01
BV-05
BV-03
BV-01
BV-02
CV-01
NT-01
C|B F22_W10
C|B F21_W10
FROM SITE
WATER SUPPLY
BV-06

ROTAMETER
MV-02
ST-03
BV-07
F21_W08
1" FPT
C|B W20
BV-08
F03_W40
ECOFILTER REACTOR
F01
BV-09
BV-10
PVC-U BALL VALVE
DRAIN SAMPLE POINT

M SCR-OC-EF-01
EF-1
M SCR-OC-EF-02
EF-2
C|B F06
FOUL AIR INLET

STARTUP SYSTEM
BV-12
M
F15_W15
BV-11
ST-02
F16_W15
RP-01
F17_W15
SCR-OC-PMP-01

F04_W40
WL-01
F05_W40

ODOR CONTROL SYSTEM P&ID

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STATE OF TEXAS LIANG LI 96785 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

ODOR CONTROL SYSTEM P&ID

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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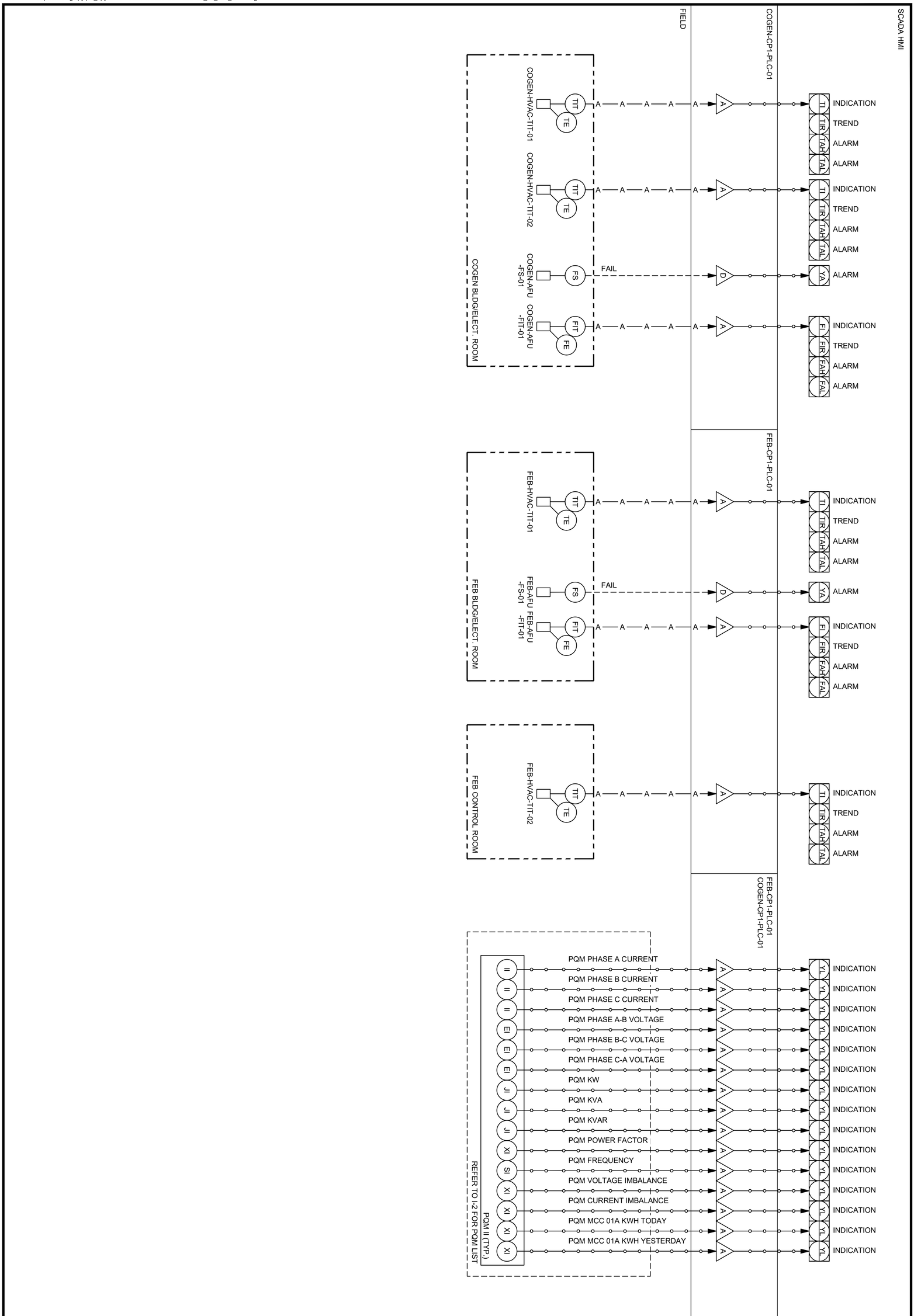


CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

HVAC AND POWER METER P&ID

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE 0 1" BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

STATE OF TEXAS LIANG LI 96785 LICENSED PROFESSIONAL ENGINEER
03/13/2026

TEXAS REGISTERED ENGINEERING FIRM F-204

DESIGN: KT. WU
DRAWN: GLEUENBERGER
REVIEW: L. LI
STV: AUST1500124
CLIENT: CIP 3164.075

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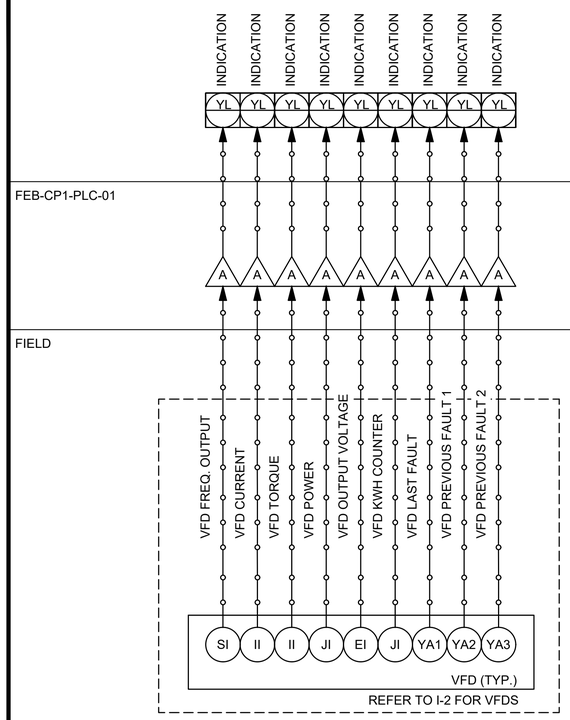


| FEEDBACK FROM THE DRIVE - FEB | | PROTOCOL REFERENCE | | | |
|---|---|---|---|---|---|
| DRIVE PARAMETER | | MODBUS | N2 | FLN | BACNET |
| 103 | FREQ OUTPUT | 40103 | AI1 | 2 | AV1 |
| 104 | CURRENT | 40104 | AI4 | 6 | AV4 |
| 105 | TORGUE | 40105 | AI5 | 7 | AV5 |
| 106 | POWER | 40106 | AI6 | 8 | AV6 |
| 109 | OUTPUT VOLTAGE | 40109 | AI12 | 14 | AV3 |
| 115 | KWH COUNTER | 40115 | AI18 | 10 | AV8 |

| DIAGNOSTICS - FEB | | PROTOCOL REFERENCE | | | |
|---|---|---|---|---|---|
| DRIVE PARAMETER | | MODBUS | N2 | FLN | BACNET |
| 401 | LAST FAULT | 40401 | 17 | 90 | AV18 |
| 412 | PREVIOUS FAULT 1 | 40402 | 18 | 91 | AV19 |
| 413 | PREVIOUS FAULT 2 | 40403 | 19 | 92 | AV20 |

## VFD MEMORY MAP

REFER TO SPECIFICATION 16120

| VFD FREQUENCY OUTPUT TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_FREQ | SLUDGE TRANSFER PUMP 1 VFD FREQ OUTPUT |
| DFP1_VFD_FREQ | DIGESTER FEED PUMP 1 VFD FREQ OUTPUT |
| SCR_BS1_VFD_FREQ | BAR SCREEN 1 VFD FREQ OUTPUT |
| STP2_VFD_FREQ | SLUDGE TRANSFER PUMP 2 VFD FREQ OUTPUT |
| DFP2_VFD_FREQ | DIGESTER FEED PUMP 2 VFD FREQ OUTPUT |
| SCR_BS2_VFD_FREQ | BAR SCREEN 2 VFD FREQ OUTPUT |

| VFD CURRENT TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_IT | SLUDGE TRANSFER PUMP 1 VFD CURRENT |
| DFP1_VFD_IT | DIGESTER FEED PUMP 1 VFD CURRENT |
| SCR_BS1_VFD_IT | BAR SCREEN 1 VFD CURRENT |
| STP2_VFD_IT | SLUDGE TRANSFER PUMP 2 VFD CURRENT |
| DFP2_VFD_IT | DIGESTER FEED PUMP 2 VFD CURRENT |
| SCR_BS2_VFD_IT | BAR SCREEN 2 VFD CURRENT |

| VFD TORQUE TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_NS | SLUDGE TRANSFER PUMP 1 VFD TORQUE |
| DFP1_VFD_NS | DIGESTER FEED PUMP 1 VFD TORQUE |
| SCR_BS1_VFD_NS | BAR SCREEN 1 VFD TORQUE |
| STP2_VFD_NS | SLUDGE TRANSFER PUMP 2 VFD TORQUE |
| DFP2_VFD_NS | DIGESTER FEED PUMP 2 VFD TORQUE |
| SCR_BS2_VFD_NS | BAR SCREEN 2 VFD TORQUE |

| VFD POWER TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_JT | SLUDGE TRANSFER PUMP 1 VFD POWER |
| DFP1_VFD_JT | DIGESTER FEED PUMP 1 VFD POWER |
| SCR_BS1_VFD_JT | BAR SCREEN 1 VFD POWER |
| STP2_VFD_JT | SLUDGE TRANSFER PUMP 2 VFD POWER |
| DFP2_VFD_JT | DIGESTER FEED PUMP 2 VFD POWER |
| SCR_BS2_VFD_JT | BAR SCREEN 2 VFD POWER |

| VFD OUTPUT VOLTAGE TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_ET | SLUDGE TRANSFER PUMP 1 VFD OUTPUT VOLTAGE |
| DFP1_VFD_ET | DIGESTER FEED PUMP 1 VFD OUTPUT VOLTAGE |
| SCR_BS1_VFD_ET | BAR SCREEN 1 VFD OUTPUT VOLTAGE |
| STP2_VFD_ET | SLUDGE TRANSFER PUMP 2 VFD OUTPUT VOLTAGE |
| DFP2_VFD_ET | DIGESTER FEED PUMP 2 VFD OUTPUT VOLTAGE |
| SCR_BS2_VFD_ET | BAR SCREEN 2 VFD OUTPUT VOLTAGE |

| VFD KWH COUNTER TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_JQIL | SLUDGE TRANSFER PUMP 1 VFD KWH COUNTER |
| DFP1_VFD_JQIL | DIGESTER FEED PUMP 1 VFD KWH COUNTER |
| SCR_BS1_VFD_JQIL | BAR SCREEN 1 VFD KWH COUNTER |
| STP2_VFD_JQIL | SLUDGE TRANSFER PUMP 2 VFD KWH COUNTER |
| DFP2_VFD_JQIL | DIGESTER FEED PUMP 2 VFD KWH COUNTER |
| SCR_BS2_VFD_JQIL | BAR SCREEN 2 VFD KWH COUNTER |

| VFD LAST FAULT TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_FAULT | SLUDGE TRANSFER PUMP 1 VFD LAST FAULT |
| DFP1_VFD_FAULT | DIGESTER FEED PUMP 1 VFD LAST FAULT |
| SCR_BS1_VFD_FAULT | BAR SCREEN 1 VFD LAST FAULT |
| STP2_VFD_FAULT | SLUDGE TRANSFER PUMP 2 VFD LAST FAULT |
| DFP2_VFD_FAULT | DIGESTER FEED PUMP 2 VFD LAST FAULT |
| SCR_BS2_VFD_FAULT | BAR SCREEN 2 VFD LAST FAULT |

| VFD PREVIOUS FAULT 1 TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_FAULT_1 | SLUDGE TRANSFER PUMP 1 VFD PREVIOUS FAULT 1 |
| DFP1_VFD_FAULT_1 | DIGESTER FEED PUMP 1 VFD PREVIOUS FAULT 1 |
| SCR_BS1_VFD_FAULT_1 | BAR SCREEN 1 VFD PREVIOUS FAULT 1 |
| STP2_VFD_FAULT_1 | SLUDGE TRANSFER PUMP 2 VFD PREVIOUS FAULT 1 |
| DFP2_VFD_FAULT_1 | DIGESTER FEED PUMP 2 VFD PREVIOUS FAULT 1 |
| SCR_BS2_VFD_FAULT_1 | BAR SCREEN 2 VFD PREVIOUS FAULT 1 |

| VFD PREVIOUS FAULT 2 TAGS | |
|---|---|
| DESCRIPTOR | DESCRIPTION |
| STP1_VFD_FAULT_2 | SLUDGE TRANSFER PUMP 1 VFD PREVIOUS FAULT 2 |
| DFP1_VFD_FAULT_2 | DIGESTER FEED PUMP 1 VFD PREVIOUS FAULT 2 |
| SCR_BS1_VFD_FAULT_2 | BAR SCREEN 1 VFD PREVIOUS FAULT 2 |
| STP2_VFD_FAULT_2 | SLUDGE TRANSFER PUMP 2 VFD PREVIOUS FAULT 2 |
| DFP2_VFD_FAULT_2 | DIGESTER FEED PUMP 2 VFD PREVIOUS FAULT 2 |
| SCR_BS2_VFD_FAULT_2 | BAR SCREEN 2 VFD PREVIOUS FAULT 2 |

## VFD TAG TABLES


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TEXAS REGISTERED ENGINEERING FIRM F-204

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

VFD P&ID

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
I-8
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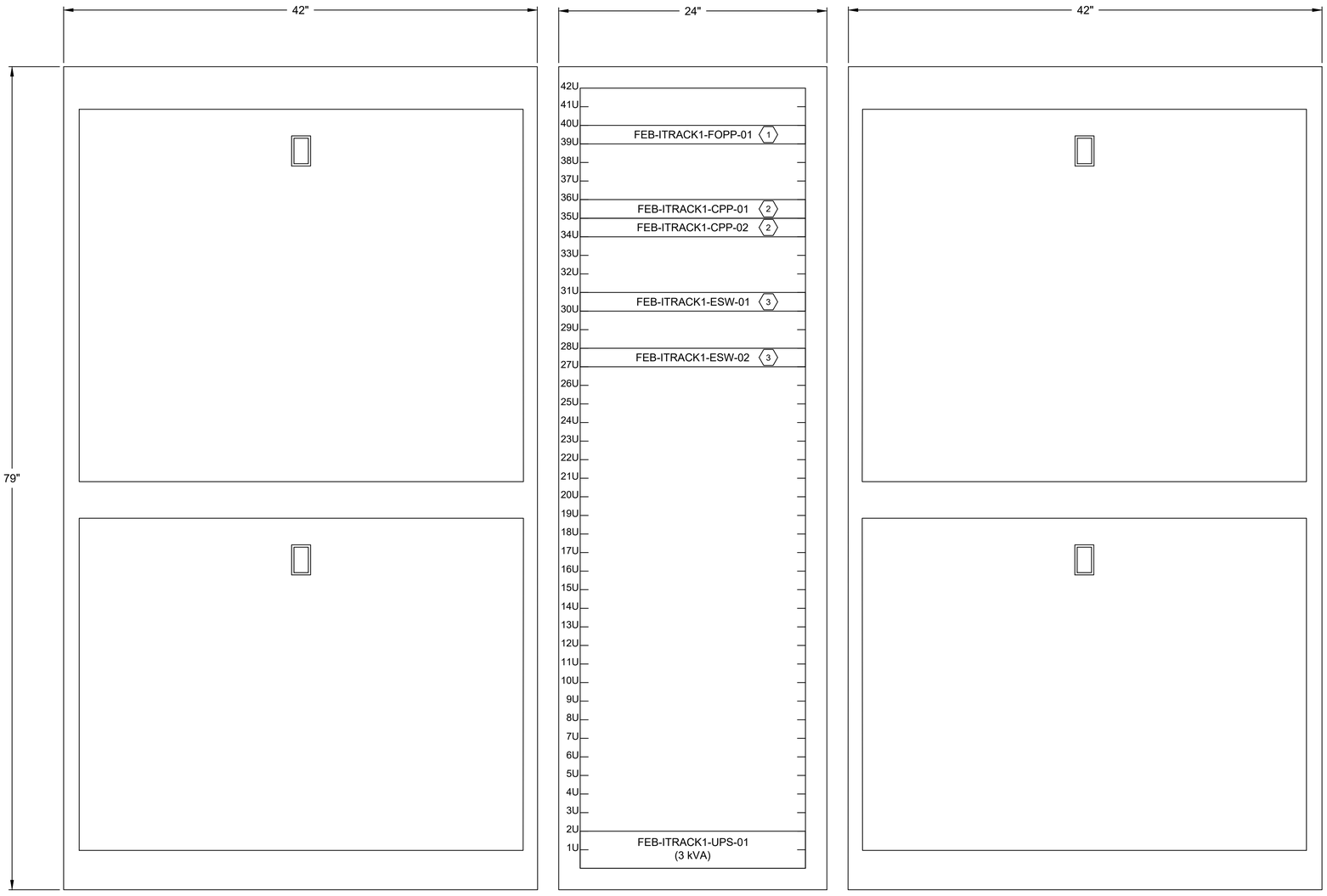
PRINTED BY: LeuenbGR DATE: 2/18/2026
FILE PATH: c:\pwworking\cpy\pw_cpy\smedina\d0747958\AUST1500124_08_I-08_CPY.dwg




NETWORK RACK (FEB-ITRACK-01)
LOCATION: FEB CONTROL ROOM

## NOTES BY SYMBOL (X)

1. FIBER PATCH PANEL. CORNING CCH-02U.
2. CAT 6 COPPER PATCH PANEL. FEB-ITRACK1-CPP-01 FOR SCADA NETWORK. FEB-ITRACK1-CPP-02 FOR PLC AND MCC PANEL LOCAL NETWORK.
3. CISCO IE-4010 SWITCHES. FEB-ITRACK1-ESW-01 FOR SCADA NETWORK. FEB-ITRACK1-ESW-02 FOR FEB LOCAL PLC NETWORK.

GENERAL NOTE:

1. PROVIDE SC TO LC PATCH CABLES.

CONSTRUCTION NOTES:

1. REPLACE NETWORK PANEL WITH NEW. PANEL IS SHOWN ON SHEET E-37.
2. CONTRACTOR SHALL VISIT NETWORK PANEL AT FEB CONTROL ROOM BEFORE PLANNING CONSTRUCTION PLAN. REPORT ANY ISSUES THAT MIGHT CAUSE CONSTRUCTION ISSUES TO ENGINEER AND AW.
3. ALL EXISITNG FIBER CABLES ARE FROM BOTTOM. ALL EXISTING CAT5/6 CABLES ARE FROM TOP.
4. ALL NEW CAT6A CABLES SHALL BE FROM TOP.
5. PROVIDE FIBER CABLE SCHEDULE OF EACH PATCH PANEL IN THE PANEL DRAWING. EACH FIBER CABLE SHALL BE LABELED PER AW FIBER WIRE LABEL STANDARD.


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · LIANG LI · 96785 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB NETWORK RACK

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
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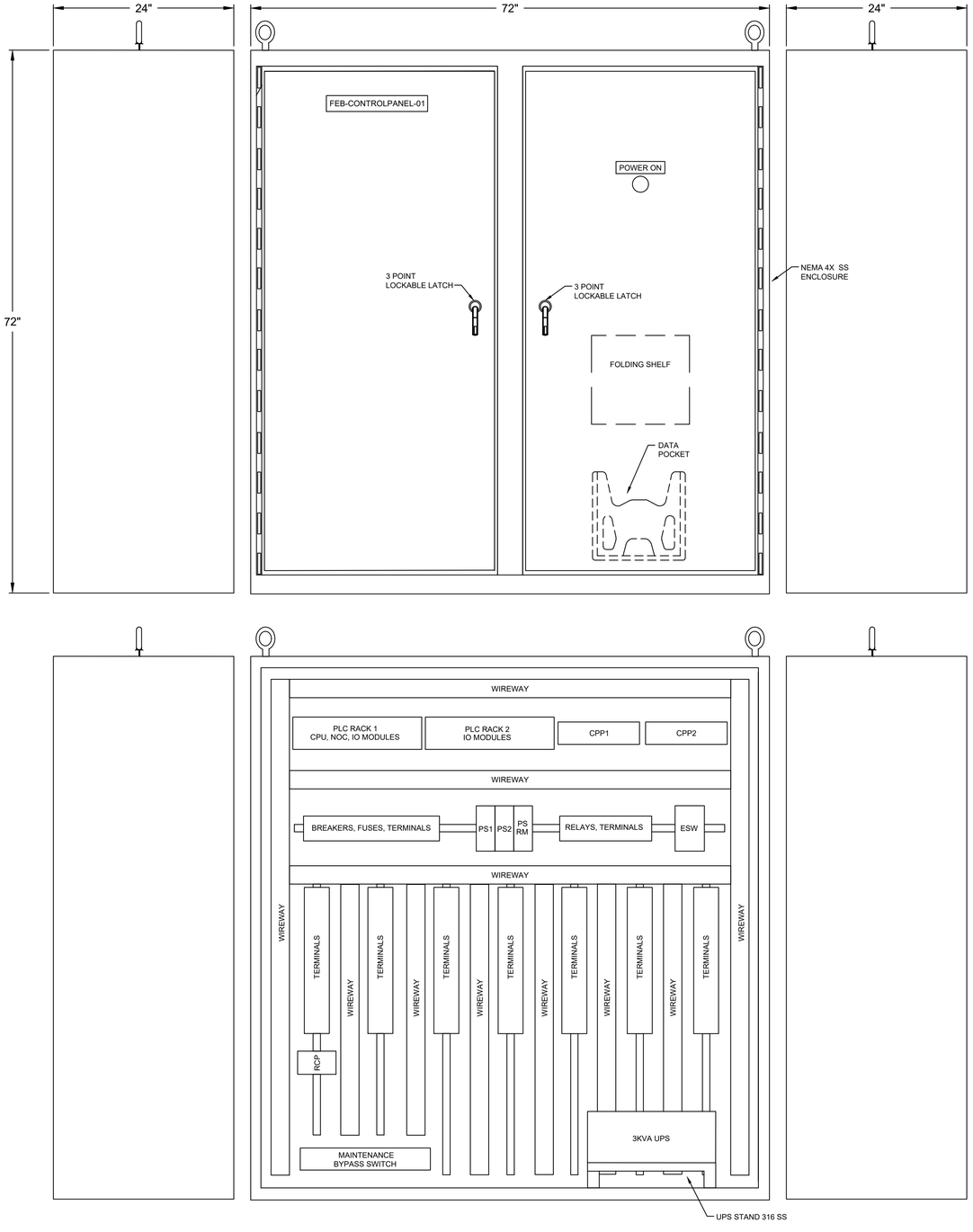
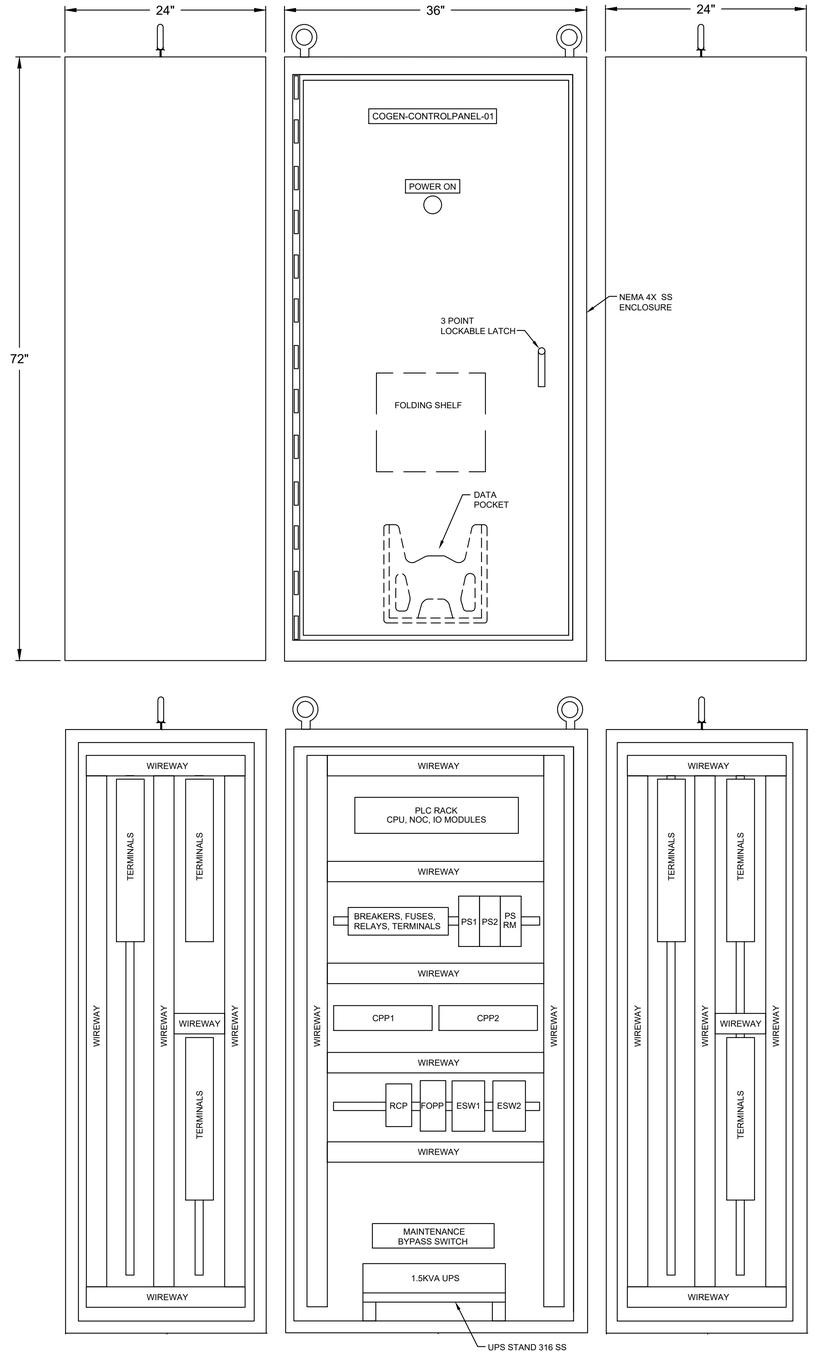
PRINTED BY: LeuenbD DATE: 6/26/2025
FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\07475958\AUST1500124_08_I-09_CPY.dwg

GENERAL NOTE:

1. THE PANEL LAYOUTS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REARRANGE THE LAYOUT AS NEEDED, AND PROVIDE AND INSTALL ALL NECESSARY DEVICES, CONNECTIONS, CONDUCTORS, TERMINAL BLOCKS, RELAYS AND OTHER MISCELLANEOUS ELECTRICAL ITEMS TO ENSURE A FULL AND COMPLETE SCADA CONTROL SYSTEM. SEE SPECIFICATIONS FOR FURTHER DETAILS.




FEB PLC PANEL (FEB-CP-01)
LOCATION: FEB CONTROL ROOM




COGEN PLC PANEL (COGEN-CP-01)
LOCATION: COGEN ELECTRICAL ROOM

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FILE PATH: c:\pwworking\cpy\pw_cpy\smedinald\07479584\AUST1500124_08_I-10_CPY.dwg

TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS LIANG LI 96785 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

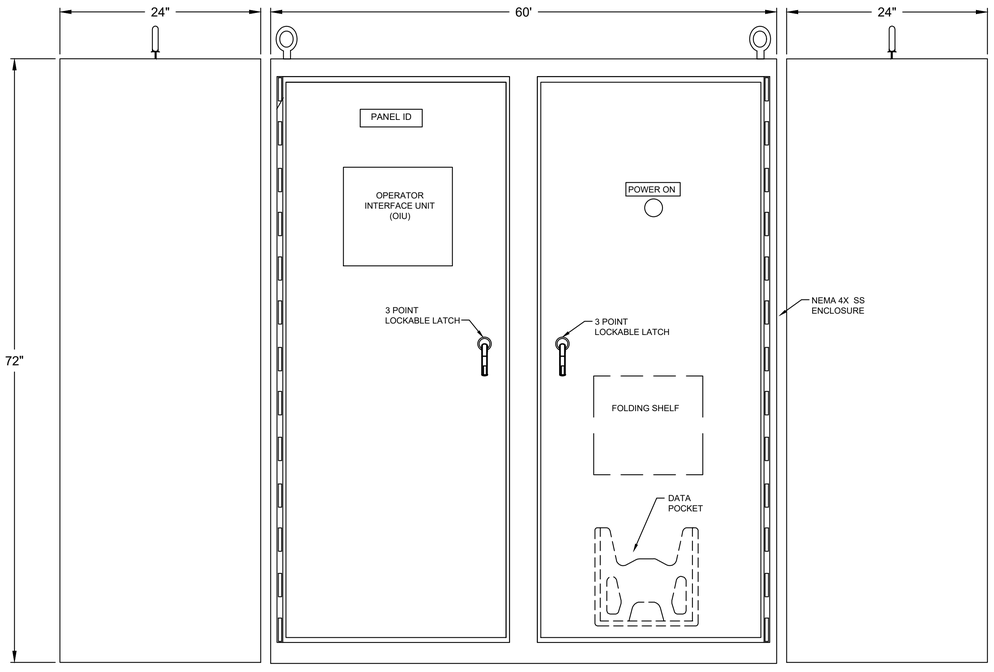
FEB AND COGEN PLC PANELS PLAN

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L .LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

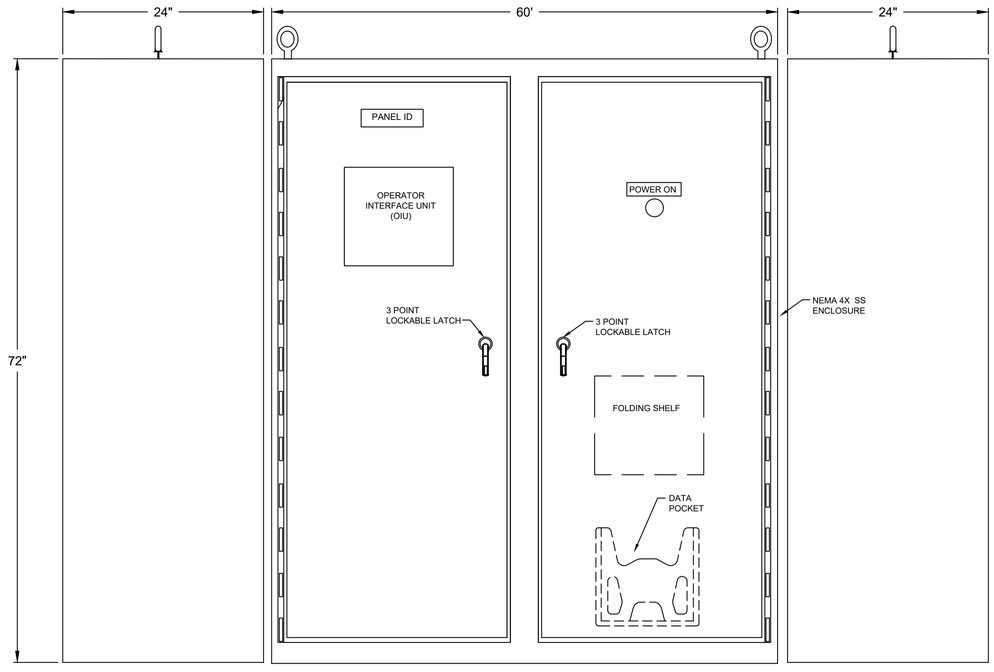
SHEET
I-10
191 of 196

GENERAL NOTE:

1. THE PANEL LAYOUTS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REARRANGE THE LAYOUT AS NEEDED, AND PROVIDE AND INSTALL ALL NECESSARY DEVICES, CONNECTIONS, CONDUCTORS, TERMINAL BLOCKS, RELAYS AND OTHER MISCELLANEOUS ELECTRICAL ITEMS TO ENSURE A FULL AND COMPLETE SCADA CONTROL SYSTEM. SEE SPECIFICATIONS FOR FURTHER DETAILS.




SCREEN PLC PANELS (SCR-BS1-LCP-01, SCR-BS2-LCP-01)
LOCATION: FEB ELECTRICAL ROOM




ODOR CONTROL PLC PANEL (SCR-OC-LCP-01)
LOCATION: FEB ELECTRICAL ROOM

PRINTED BY: LeuenbD DATE: 6/26/2025
FILE PATH: C:\pwworkingstv\pw_stvid0747958\AUST1500124_08_I-11_CPY.dwg

STV
TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS LIANG LI 96785 LICENSED PROFESSIONAL ENGINEER 03/13/2026

| NO. | REVISION | BY | DATE |
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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

SCREEN AND ODOR CONTROL PLC PANELS PLAN

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L .LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

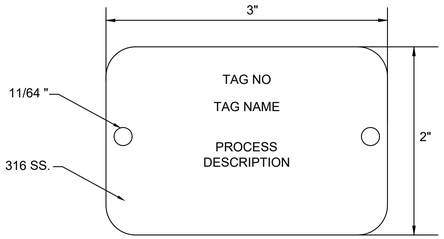
SHEET
I-11

NOTES:

1. ALL INSTALLATIONS WILL ADHERE TO ALL LOCAL, STATE AND NATIONAL CODES. PROVIDE CONDUIT SEAL AS REQUIRED BY THE NEC IN THE CLASSIFIED AREA.
2. ALL DETAILS ARE FOR GENERAL INSTALLATION. VERIFY ALL SITE CONDITIONS AT THE TIME OF INSTALLATION. SEE MANUFACTURER'S PRODUCT DATA FOR ADDITIONAL DETAILS.
3. PROVIDE 316 SS FITTINGS FOR ALL PROCESS CONNECTIONS.
4. PROVIDE LIQUID TYPE FLEXIBLE CONDUIT FOR ALL CONNECTIONS TO ALL TRANSMITTERS AND ASSOCIATED SENSORS. LIQUID TYPE FLEXIBLE CONDUIT SHALL BE LIMITED TO LENGTHS OF 6 FEET PER NEC REQUIREMENTS.
5. PROVIDE EPOXY TYPE ANCHORS WHERE APPLICABLE. EXPANSION OR WEDGE TYPE ANCHORS ARE NOT ACCEPTABLE FOR MASONRY OR CONCRETE.
6. INSTRUMENT TAG TO BE AFFIXED IN A LOCATION ADJACENT TO THE INSTRUMENT WITH EITHER SELF TAPPING STAINLESS STEEL SCREWS OR STAINLESS STEEL WIRE OR CHAIN.
7. ALL OUTSIDE INSTALLED ELECTRONIC DISPLAY UNIT AND INDICATION GAUGE SHALL BE INSTALLED FACING TOWARD NORTH TO AVOID DIRECT SUN LIGHT. THE ELECTRONIC DISPLAY UNIT SHALL BE INSTALLED WITH SUN SHIELD.

## 1 GENERAL NOTES

SCALE: NTS

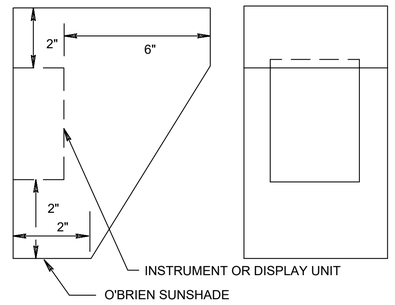



NOTES:

1. THE INSTRUMENT TAG IS TO HAVE THE PROCESS AREA, INSTRUMENT NUMBER, AND PROCESS DESCRIPTION LISTED ON THE TAG, PER AUSTIN WATER STANDARDS.
2. REFER TO DRAWINGS FOR TAG NAME.
3. THE INSTRUMENT TAG WILL BE SIZED IN A 3 X 2 RATIO. THE EXAMPLE IS 3 INCHES BY 2 INCHES. ALL LETTERING WILL BE 3/16" IN HEIGHT.
4. INSTRUMENT TAG TO BE AFFIXED IN A LOCATION ADJACENT TO THE INSTRUMENT WITH EITHER SELF TAPPING 316 STAINLESS STEEL SCREWS OR 316 STAINLESS STEEL WIRE OR CHAIN.

## 2 INSTRUMENT TAG

SCALE: NTS

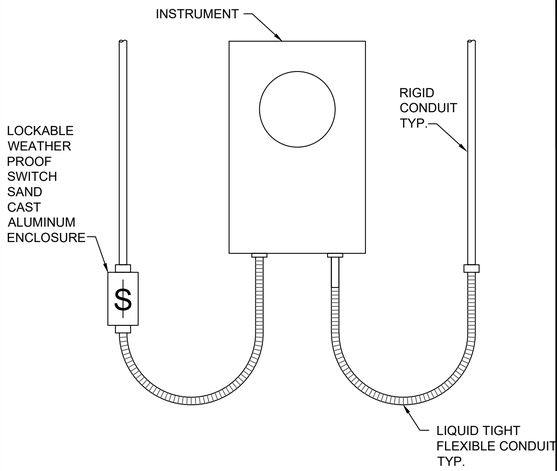



NOTES:

1. PROVIDE SUNSHADE FOR ALL INSTRUMENTS EXPOSED TO THE WEATHER.
2. THE DISPLAY SHALL BE MOUNTED FACING TOWARD NORTH.
3. MATERIAL SHALL BE ALUMINUM.

## 3 INSTRUMENT SUNSHADE

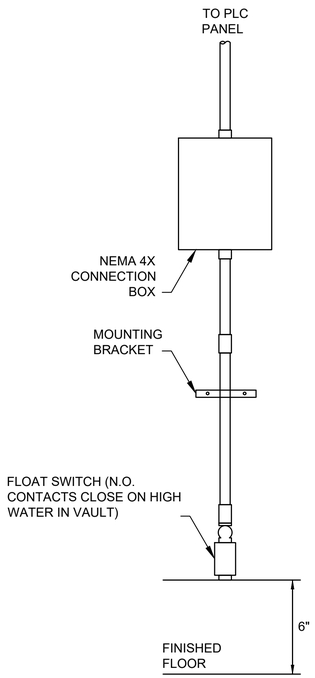
SCALE: NTS




CLARIFICATION:
POWER IS SHOWN ON LEFT SIDE OF INSTRUMENT WITH A DISCONNECT AND ANALOG ON RIGHT SIDE WITH SURGE PROTECTOR.

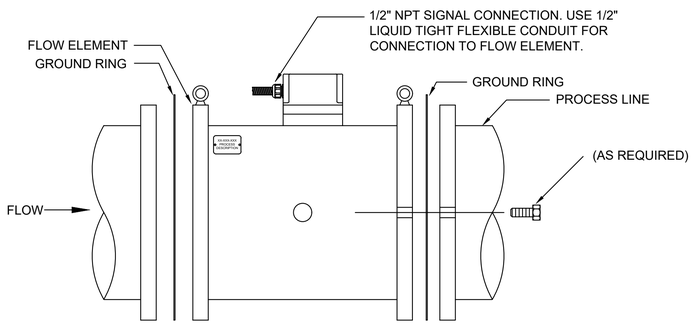
## 4 INSTRUMENT WIRING DIAGRAM

SCALE: NTS




## 5 LEVEL SWITCH

SCALE: NTS




NOTE:

GROUNDING WIRE USING O-RING TERMINALS TO GROUND PLATES TO DEVICE.

## 6 ELECTROMAGNETIC FLOW TRANSMITTER

SCALE: NTS


TEXAS REGISTERED ENGINEERING FIRM F-204

STATE OF TEXAS · LIANG LI · 96785 · LICENSED PROFESSIONAL ENGINEER · 03/13/2026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VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

# INSTRUMENTATION DETAILS

| | |
|---|---|
| DESIGN: | KT. WU |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | L. LI |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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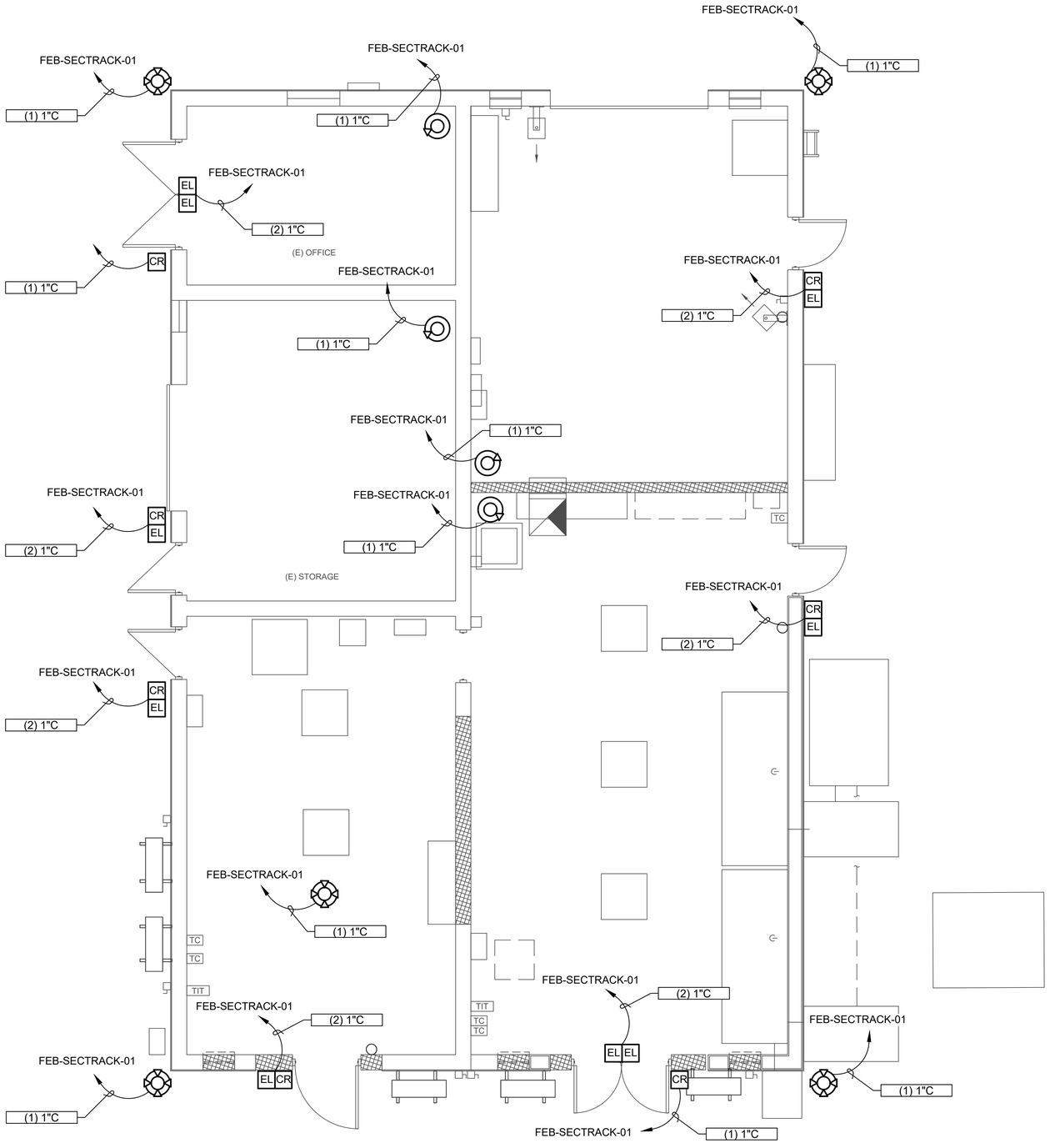


## COGEN BUILDING ELECTRICAL POWER PLAN

4 2 0 4
SCALE IN FEET

## SECURITY LEGEND

- SECURITY CAMERAS
- CR — CARD READER BACKBOX (SURFACE-MOUNTED)
- EL — ELECTRIC LOCK AND DOOR CONTACT
- EMPTY CONDUIT WITH PULL STRING

GENERAL NOTES:

1. ALL PATHWAYS, CONDUITS, BACKBOXES, ELECTRIC LOCKS, AND DOOR CONTACTS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID.
2. ALL SECURITY SYSTEM DEVICES AND HARDWARE INCLUDING BUT NOT LIMITED TO CARD READERS, CAMERAS, CABLES AND WIRING, FIBER OPTIC CABLES, AND SECURITY RACK SHALL BE PROVIDED BY THE OWNER'S 3RD-PARTY SECURITY CONTRACTOR UNDER SPECIFICATION 01020, ALLOWANCE NO. 4.
3. THE SECURITY RACK IS LOCATED IN THE FEB BUILDING.
4. COORDINATE THE INSTALLATION WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.
5. ALL CONDUITS AND CARD READER BACKBOXES SHALL BE SURFACE MOUNTED.
6. CONDUITS MAY BE COMBINED. COORDINATE WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

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|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

COGEN BUILDING SECURITY PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

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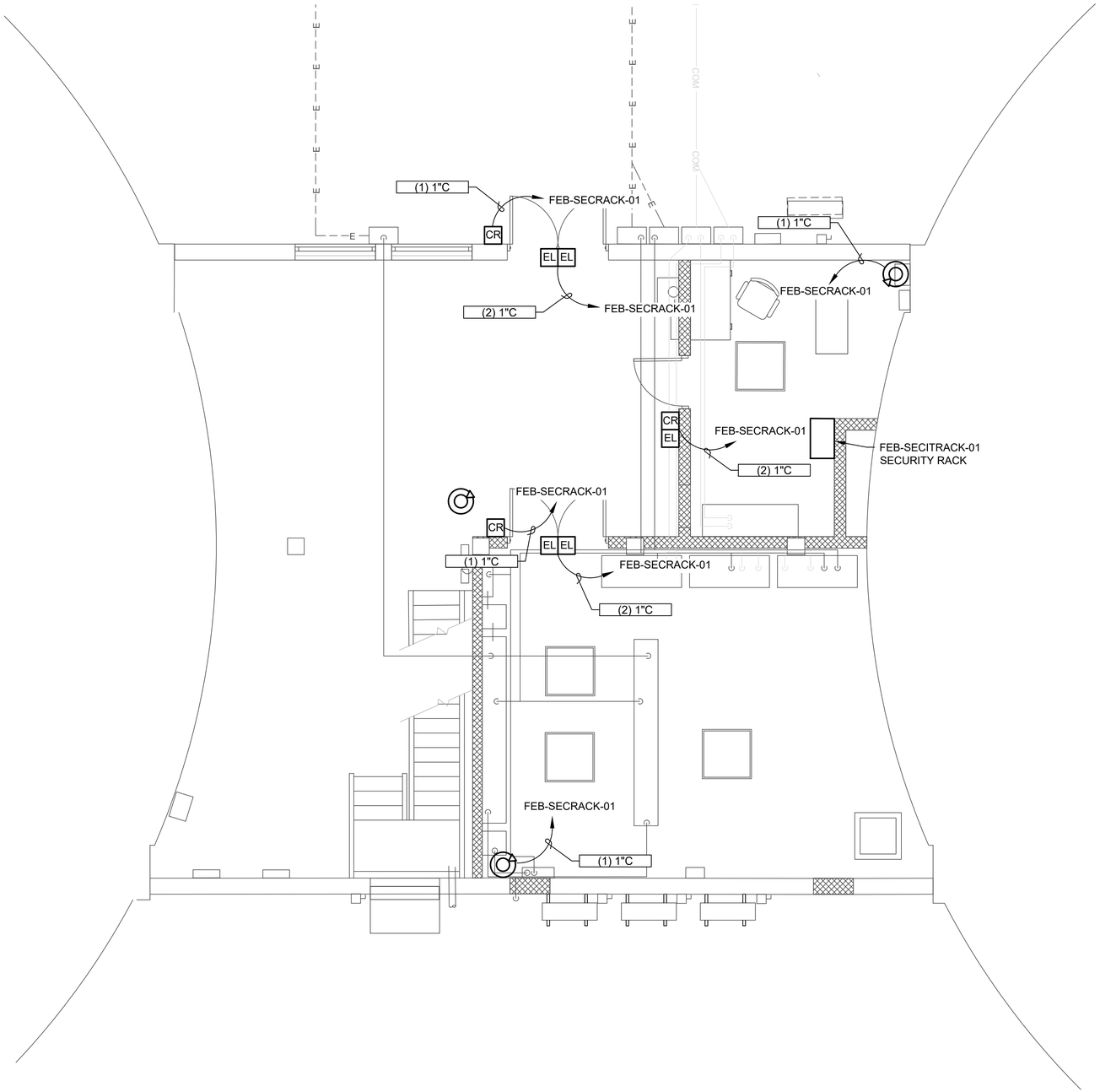


FEB BUILDING GROUND FLOOR POWER PLAN

4 2 0 4
SCALE IN FEET

## SECURITY LEGEND

- SECURITY CAMERAS
- CR — CARD READER BACKBOX (SURFACE-MOUNTED)
- EL — ELECTRIC LOCK AND DOOR CONTACT
- EMPTY CONDUIT WITH PULL STRING

GENERAL NOTES:

1. ALL PATHWAYS, CONDUITS, BACKBOXES, ELECTRIC LOCKS, AND DOOR CONTACTS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID.
2. ALL SECURITY SYSTEM DEVICES AND HARDWARE INCLUDING BUT NOT LIMITED TO CARD READERS, CAMERAS, CABLES AND WIRING, FIBER OPTIC CABLES, AND SECURITY RACK SHALL BE PROVIDED BY THE OWNER'S 3RD-PARTY SECURITY CONTRACTOR UNDER SPECIFICATION 01020, ALLOWANCE NO. 4.
3. THE SECURITY RACK IS LOCATED IN THE FEB BUILDING.
4. COORDINATE THE INSTALLATION WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.
5. ALL CONDUITS AND CARD READER BACKBOXES SHALL BE SURFACE MOUNTED.
6. CONDUITS MAY BE COMBINED. COORDINATE WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204
STATE OF TEXAS HALEY A. JONES 141585 LICENSED PROFESSIONAL ENGINEER
03/13/2026


| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING GROUND FLOOR SECURITY PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
TY-2
195 of 196

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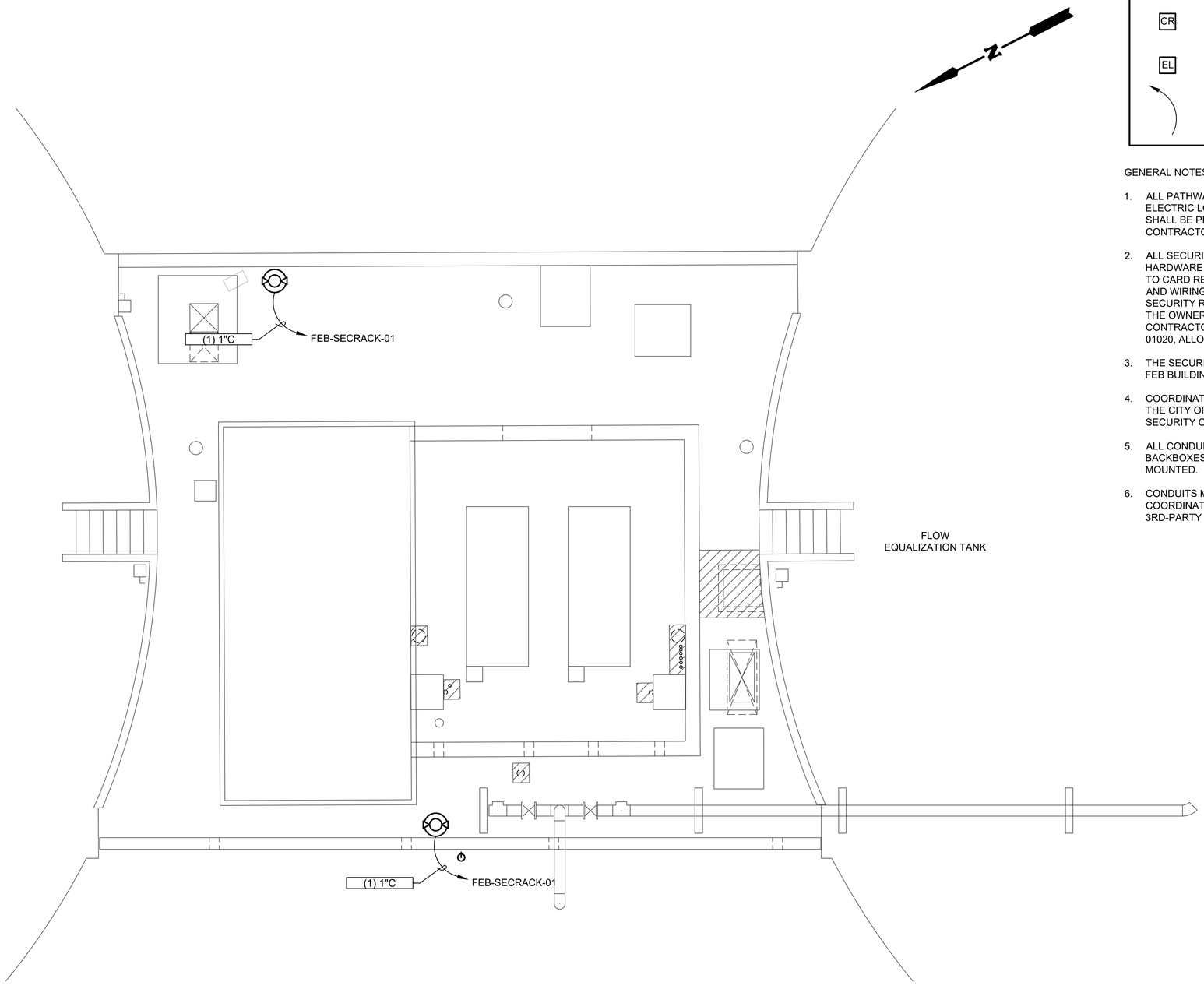


FEB BUILDING ROOF POWER PLAN

4 2 0 4
SCALE IN FEET

## SECURITY LEGEND

- SECURITY CAMERAS
- CR — CARD READER BACKBOX (SURFACE-MOUNTED)
- EL — ELECTRIC LOCK AND DOOR CONTACT
- EMPTY CONDUIT WITH PULL STRING

GENERAL NOTES:

1. ALL PATHWAYS, CONDUITS, BACKBOXES, ELECTRIC LOCKS, AND DOOR CONTACTS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID.
2. ALL SECURITY SYSTEM DEVICES AND HARDWARE INCLUDING BUT NOT LIMITED TO CARD READERS, CAMERAS, CABLES AND WIRING, FIBER OPTIC CABLES, AND SECURITY RACK SHALL BE PROVIDED BY THE OWNER'S 3RD-PARTY SECURITY CONTRACTOR UNDER SPECIFICATION 01020, ALLOWANCE NO. 4.
3. THE SECURITY RACK IS LOCATED IN THE FEB BUILDING.
4. COORDINATE THE INSTALLATION WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.
5. ALL CONDUITS AND CARD READER BACKBOXES SHALL BE SURFACE MOUNTED.
6. CONDUITS MAY BE COMBINED. COORDINATE WITH THE CITY OF AUSTIN'S 3RD-PARTY SECURITY CONTRACTOR.


STV
TEXAS REGISTERED ENGINEERING FIRM F-204

| NO. | REVISION | BY | DATE |
|---|---|---|---|

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

1" 0

CITY OF AUSTIN - AUSTIN WATER
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS

FEB BUILDING ROOF SECURITY PLAN

| | |
|---|---|
| DESIGN: | S. SHAH |
| DRAWN: | G.LEUENBERGER |
| REVIEW: | H. JONES, P.E. |
| STV: | AUST1500124 |
| CLIENT: | CIP 3164.075 |

SHEET
TY-3
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