CITY OF AUSTIN, TEXAS
WATERSHED PROTECTION DEPARTMENT

CIP PROJECT No. 10878.007

WALLER CREEK TUNNEL INLET FACILITY
WET WELL MECHANICAL SCREENING SYSTEM
MARCH 2023

MAYOR — KIRK WATSON

COUNCIL MEMBERS

MAYOR PRO TEM	ALISON ALTER		
DISTRICT 1	NATASHA HARPER-MADISON	DISTRICT 6	MACKENZIE KELLY
DISTRICT 2	VANESSA FUENTES	DISTRICT 7	LESLIE POOL
DISTRICT 3	JOSE VELASQUEZ	DISTRICT 8	PAIGE ELLIS
DISTRICT 4	JOSE VELA	DISTRICT 9	ZOHAIB QADRI
DISTRICT 5	RYAN ALTER	DISTRICT 10	ALISON ALTER

INTERIM CITY MANAGER: JESUS GARZA

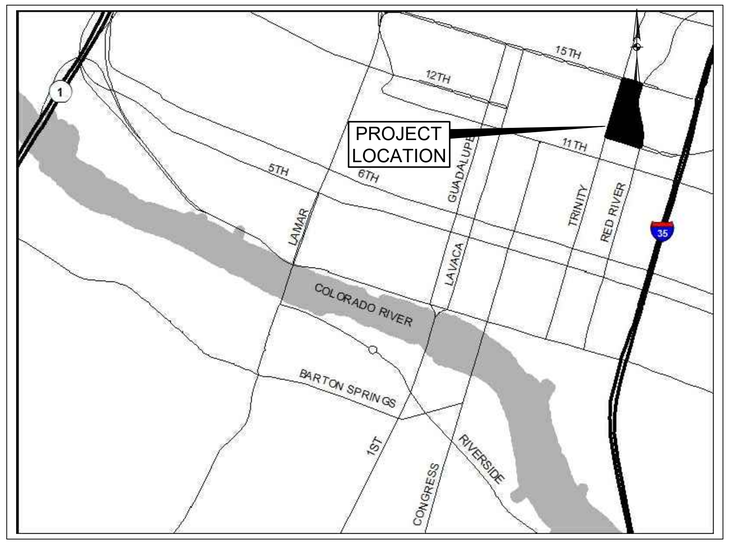
CONTACTS:

SUSAN KENZLE
PROJECT MANAGER
WATERSHED PROTECTION DEPARTMENT
411 CHICON ST.
AUSTIN, TEXAS 78702
(512) 284-1489

JOHN BEACHY
PROJECT SPONSOR
WATERSHED PROTECTION DEPARTMENT
411 CHICON ST.
AUSTIN, TEXAS 78702
(512) 974-3516

NOTES:

1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
2. 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.
3. THIS PROJECT IS LOCATED WITHIN THE WALLER CREEK WATERSHED, WHICH IS CLASSIFIED AS AN URBAN ZONE AND SHALL BE DEVELOPED, CONSTRUCTED, AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
4. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT IS NOT WITHIN THE EDWRDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
5. APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED.
6. THE PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, AS DEFINED BY THE CITY OF AUSTIN, AND AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48453C0465K, EFFECTIVE DATE SEPTEMBER 22, 2022. THE 100-YEAR FLOOD ELEVATION UPSTREAM OF INLET FACILITY IS 483.06', AND APPROXIMATELY 490.00' AT CONSTRUCTION STAGING AREA.



COA GRID: J22 & J23
MAPSCO: MAP 585 P & T

VICINITY MAP
NTS

PROJECT ADDRESS:
500 E 12TH ST.
AUSTIN TEXAS 78701

SUBMITTED FOR APPROVAL BY:

SHELBY G. ECKOLS, P.E.
SENIOR VICE-PRESIDENT
AECOM

STATE OF TEXAS — SHELBY G. ECKOLS — 41485 — REGISTERED PROFESSIONAL ENGINEER — 3/17/2023

DATE

JONATHAN I. CHEN, P.E.
PROJECT MANAGER
AECOM

STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER — 3/17/2023

DATE

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

COVER SHEET

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. G-01
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\G-01.DWG BY: GADHIAT DATE: 3/8/2023 8:38 AM

DWG No.	DESCRIPTION
G-01	COVER SHEET
G-02	SHEET INDEX
G-03	GENERAL NOTES
G-04	LEGEND AND ABBREVIATIONS
G-05	STRUCTURAL NOTES
P-01	EXISTING PROCESS FLOW DIAGRAM
P-02	PROPOSED PROCESS FLOW DIAGRAM
C-01	OVERALL SITE PLAN
C-02	EXISTING INLET FACILITY PLAN - ELEV. 486.00
C-03	ENLARGED EXISTING INLET FACILITY PLAN - ELEV. 486.00
D-01	INLET FACILITY DEMOLITION PLAN - ELEV. 486.00
D-02	INLET FACILITY DEMOLITION UPPER WET WELL
D-03	INLET FACILITY DEMOLITION LOWER WET WELL
D-04	INLET FACILITY DEMOLITION LOWER WET WELL SECTION
D-20	INLET FACILITY DEMOLITION IRRIGATION SKID
D-21	INLET FACILITY DEMOLITION IRRIGATION SKID SUCTION PIPING
D-22	INLET FACILITY DEMOLITION EXTERIOR HYDRANTS
M-01	INLET FACILITY PROPOSED MECHANICAL PLAN
M-02	UPPER WET WELL PROPOSED MECHANICAL PLAN
M-03	UPPER WET WELL PROPOSED MECHANICAL SECTIONS
M-10	LOWER WET WELL PROPOSED MECHANICAL PLAN
M-11	LOWER WET WELL PROPOSED MECHANICAL SECTIONS
M-20	PROPOSED INTERIOR IRRIGATION PIPING
M-21	PROPOSED EXTERIOR IRRIGATION PIPING
M-22	PROPOSED INTERIOR IRRIGATION PIPING SECTION VIEW (SHEET 1 OF 2)
M-23	PROPOSED INTERIOR IRRIGATION PIPING SECTION VIEW (SHEET 2 OF 2)
M-24	PROPOSED EXTERIOR IRRIGATION PIPING SECTIONS VIEW
M-30	MECHANICAL DETAILS (SHEET 1 OF 2)
M-31	MECHANICAL DETAILS (SHEET 2 OF 2)
S-01	INLET FACILITY PROPOSED STRUCTURAL PLAN
S-02	UPPER WET WELL PROPOSED STRUCTURAL PLAN
S-03	UPPER WET WELL PROPOSED STRUCTURAL SECTIONS
S-10	LOWER WET WELL PROPOSED STRUCTURAL PLAN
S-11	LOWER WET WELL PROPOSED STRUCTURAL SECTIONS
S-20	STRUCTURAL TYPICAL DETAILS
E-01	ELECTRICAL SYMBOLS LEGEND (SHEET 1 OF 3)
E-02	ELECTRICAL SYMBOLS LEGEND (SHEET 2 OF 3)
E-03	ELECTRICAL SYMBOLS LEGEND (SHEET 3 OF 3)
E-04	GENERAL NOTES
E-05	OVERALL ONE-LINE DIAGRAM RENOVATION
E-06	480V SWITCHBOARD "IPS-SWBD-001" PARTIAL ONE-LINE DIAGRAM RENOVATION
E-07	480V SWITCHBOARD "IPS-SWBD-002" ONE-LINE DIAGRAM RENOVATION
E-08	EQUIPMENT FRONT ELEVATIONS RENOVATION
E-09	PANEL SCHEDULE & CONDUIT/WIRE SCHEDULE RENOVATION
E-10	INLET PUMP STATION - LEVEL 1 POWER AND I&C PLAN - RENOVATION
E-11	INLET PUMP STATION - LEVEL 1 ENLARGED POWER AND I&C PLANS RENOVATION (SHEET 1 OF 2)
E-12	INLET PUMP STATION - LEVEL 1 ENLARGED POWER AND I&C PLANS RENOVATION (SHEET 2 OF 2)
E-13	INLET PUMP STATION - SUBLEVEL 2 POWER AND I&C PLANS - RENOVATION
E-14	UPPER CHANNEL MECH SCREEN NO. 1 MANUFACTURER-PACKAGED CONTROL PANEL INTERFACE WIRING SCHEMATIC - PROPOSED
E-15	LOWER CHANNEL MECH SCREEN NO. 2 MANUFACTURER-PACKAGED CONTROL PANEL INTERFACE WIRING SCHEMATIC - PROPOSED (1 OF 2)
E-16	LOWER CHANNEL MECH SCREEN NO. 2 MANUFACTURER-PACKAGED CONTROL PANEL INTERFACE WIRING SCHEMATIC - PROPOSED (2 OF 2)
E-17	GAS DETECTION SYSTEM WIRING SCHEMATICS - PROPOSED
E-18	IRRIGATION PUMP SKID MANUFACTURER-PACKAGED CONTROL PANEL INTERFACE WIRING SCHEMATIC - PROPOSED
E-19	TYPICAL ELECTRICAL DETAILS (SHEET 1 OF 2)
E-20	TYPICAL ELECTRICAL DETAILS (SHEET 2 OF 2)

DWG No.	DESCRIPTION
I-01	INSTRUMENTATION & CONTROLS SYMBOLS LEGEND
I-02	PLC NETWORK ARCHITECTURE RENOVATION
I-03	"IPS-PLC-R01" PLC I/O WIRING SCHEMATIC PROPOSED
I-04	"IPS-PLC-R03" PLC I/O WIRING SCHEMATIC RENOVATION
I-05	"IPS-PLC-R04" PLC I/O WIRING SCHEMATIC RENOVATION
I-06	MAIN CONTROL PANEL "IPS-MCP-01A" POWER WIRING SCHEMATICS RENOVATION
I-07	INSTRUMENT WIRING SCHEMATICS RENOVATION
I-08	TYPICAL INSTRUMENTATION & CONTROLS DETAILS
T-01	REFERENCE DRAWING - LOWER PLAN AT EL 431.00
T-02	REFERENCE DRAWING - TROUGH PLAN AT EL 475.00
T-03	REFERENCE DRAWING - FIRST FLOOR PLAN AT EL 486.00
T-04	REFERENCE DRAWING - TROUGH SECTIONS I
T-05	REFERENCE DRAWING - TROUGH SECTIONS II
T-06	REFERENCE DRAWING - TROUGH SECTIONS III
T-07	REFERENCE DRAWING - TROUGH SECTION IV
T-08	REFERENCE DRAWING - TROUGH PLAN AT EL 475.00
T-09	REFERENCE DRAWING - TROUGH PLAN AT EL 486.00

PROJECT AREA DESIGNATION	PROJECT AREA DISCIPLINE
G	GENERAL
P	PROCESS FLOW DIAGRAM
C	CIVIL
D	DEMOLITION
M	MECHANICAL
S	STRUCTURAL
I	INSTRUMENTATION
E	ELECTRICAL
T	RECORD DRAWING

DRAWING NUMBER CONVENTION

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

SHEET INDEX

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STATE OF TEXAS
JONATHAN I. CHEN
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LICENSED
PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
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DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. G-02
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

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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 THE ONE CALL CENTER (1-800-245-4545 OR 1-800-545-6005) OR DIG TESS (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION (DPWT) AT 499-7161 AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM No. 509 AND APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FORM OSHA, 611 E. 6TH STREET, AUSTIN, TEXAS.

COMPATIBILITY

1. HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.

2. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70% DBA AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.

3. ALL EXTERIOR LIGHTING SHALL BE HOODED TO SHIELD FROM THE VIEW OF ADJACENT RESIDENTIAL USES.

4. EXTERIOR LIGHTING ABOVE THE SECOND FLOOR IS PROHIBITED WHEN ADJACENT TO RESIDENTIAL PROPERTY.

5. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF-5 OR MORE RESTRICTIVE.

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 OTHERS LAWS, AND REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

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 A 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 OWNER, UNLESS NOTED OTHERWISE.

4. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. 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 NOTICE TO ALL AUTHORIZED DEPARTMENTS, INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY CONTRACTOR'S OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO ASSURE 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 CONTRACTOR'S EXPENSE.

6. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND 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.

GENERAL NOTES (CONTINUED)

8. INTERRUPTION OF STORMWATER FLOWS THROUGH EXISTING 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 CONSTRUCTION ACTIVITY. 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 TO BE NOTIFIED WHEN ANY INTERRUPTIONS ARE TO BE MADE.

9. THE LOCATION OF SOME EXISTING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION. 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 PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH 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. DO NOT BLOCK DRAINAGE FROM ADJACENT AREAS NOR ADD FLOW TO ADJACENT AREAS.

14. THESE PLANS, PREPARED BY AECOM, 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 AECOM'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, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE – REGULAR SESSION.

15. NO BLASTING ALLOWED ON THIS PROJECT.

16. NO BURNING IS ALLOWED ON THIS PROJECT.

17. DEMOLITION PERMITS (IF NEEDED) ARE TO BE OBTAINED AND PAID FOR BY THE CONTRACTOR.

18. ADJUST MANHOLE COVERS, VALVE BOXES, ELECTRICAL MANHOLES, ETC. TO MATCH PROPOSED FINISHED GRADE.

19. ALL EXCESS EXCAVATED MATERIAL AND SOIL TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE.

20. ALL ABANDONED UTILITIES REMOVED TO FACILITATE CONSTRUCTION TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE.

21. THE ATTENTION OF ALL PROSPECTIVE BIDDERS IS DIRECTED TO SECTION 00140; PARAGRAPHS 2.08, 3.09, AND 3.14, OF THE GENERAL CONDITIONS OF THE AGREEMENT, CITY OF AUSTIN STANDARD SPECIFICATIONS, AND TO THE STATE LAW, {VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 (C)} AND THE NEED FOR EFFECTIVE PRECAUTIONARY 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 STATUTE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH THE APPROPRIATE ELECTRIC UTILITY/ COMPANY. ALL COSTS ASSOCIATED WITH THIS EFFORT ARE TO BE BORNE BY CONTRACTOR.

22. ALL SITEWORK MUST COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

23. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5 FEET BETWEEN THE EDGE OF AN OPEN TRENCH AND ANY UTILITY POLE. IN THE EVENT THE 5 FEET MINIMUM SEPARATION CAN NOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER FOR NECESSARY POLE STABILIZATION REQUIREMENTS.

24. CONTRACTOR TO NOTIFY CAPITAL METRO AT LEAST TWO WEEKS IN ADVANCE OF UPCOMING CONSTRUCTION WORK WHICH WILL IMPACT BUS ROUTES AND/OR BUS STOPS. FOR BUS STOPS, CONTRACTOR TO COORDINATE WITH CAPITAL METRO PLANNING DEPARTMENT AT 389-7485. FOR STREET CLOSURES, CONTRACTOR TO CONTACT CAPITAL METRO RADIO CONTROL DISPATCH (OPEN 24 HOURS) AT 369-6119 OR 369-6115.

25. CONTRACTOR SHALL PROVIDE TEMPORARY SAFETY FENCING AS SHOWN IN PLANS AND AT ACCESS SHAFTS AND ENTRY/EXIT PITS TO PROHIBIT UNAUTHORIZED ENTRY TO THESE WORK ZONES.

26. CONTRACTOR SHALL KEEP ALL PAVED SURFACES WITHIN THE LIMITS OF CONSTRUCTION, INCLUDING WITHIN INLET FACILITY FREE OF MUD AND DEBRIS. CONTRACTOR SHALL WASH DOWN PAVED SURFACES AS NECESSARY TO REMOVE DIRT AND DEBRIS. ALL ASSOCIATED COSTS ARE SUBSIDIARY TO THE PROJECT.

27. CONTRACTOR SHALL PROVIDE DIFFUSERS ON ALL EQUIPMENT EXHAUST TO MINIMIZE HEAT DAMAGE TO TREE LIMBS. ANY DAMAGE TO TREES SHALL BE TRIMMED AND REPAIRED IMMEDIATELY WITH COORDINATION FROM THE CITY ARBORIST AND PROPERTY OWNER. ALL ASSOCIATED COSTS ARE SUBSIDIARY TO THE PROJECT.

28. CONTRACTOR SHALL PLACE CIP PROJECT SIGNS AT EACH END OF EACH WORK ZONE IN ACCORDANCE WITH ITEM 802S OF THE PROJECT MANUAL.

29. OTHER CONSTRUCTION CONTRACTS ARE UNDER WAY ON THIS SITE. CONTRACTOR SHALL COORDINATE THIS WORK ON THIS SITE WITH OTHER CONSTRUCTION CONTRACTS.

REFERENCE DRAWINGS

1. RECORD DRAWINGS ARE PROVIDED AS REFERENCE DRAWINGS TO SHOW EXISTING FACILITIES. THE RECORD DRAWINGS AND THE EXISTING FACILITIES ARE SHOWN WITH GRAY LINE TO DIFFERENTIATE FROM PROPOSED IMPROVEMENTS.

2. THE REFERENCE DRAWINGS INCLUDED IN THIS CONTRACT WERE SELECTED FROM PREVIOUS CONSTRUCTION CONTRACTS AND THESE DRAWINGS DEFINE WORK THAT WAS DONE DURING THOSE CONTRACTS.

3. THE WORK THAT IS PART OF THIS CONTRACT IS SHOWN WITH SOLID, BLACK LINE. CONTRACTOR TO DISREGARD ANY WORK SHOWN WITH THIN, GRAY LINE OR GRAY TEXT, SINCE THAT WORK WAS PART OF PREVIOUS CONTRACTS.

4. SOME INFORMATION ON THE REFERENCE DRAWINGS MAY BE DIFFERENT FROM THE ACTUAL FIELD CONDITIONS.

5. PARTS OF THE RECORD DRAWINGS ARE USED AS BACKGROUND TO DEPICT THE PROPOSED WORK. CONTRACTOR TO DISREGARD ANY WORK DIRECTIVES FOUND IN THE REFERENCE DRAWINGS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THE CONDITIONS SHOWN IN THE RECORD DRAWINGS BACKGROUND.

6. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THIS WORK PRIOR TO INITIATING WORK.

PROJECT SPECIFIC NOTES

1. ACCESS TO INLET FACILITY SHALL BE PROVIDED VIA EXISTING ACCESS DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH OWNER, AND WATERLOO PARK OPERATOR FOR ACCESS REQUIREMENTS.

2. PROJECT CONSTRUCTION WORKING HOURS ARE FROM 6:00 A.M. TO 4:00 P.M. MONDAYS THROUGH THURSDAYS. ANY WORK REQUEST OUTSIDE THE INDICATED HOURS SHALL BE COORDINATED DIRECTLY WITH THE OWNER PRIOR TO START OF ASSOCIATED WORK ACTIVITY.

3. WALLER CREEK IS SUBJECT TO FLASH FLOODING. CONTRACTOR IS RESPONSIBLE FOR MONITORING THE WEATHER FORECAST AND CREEK LEVEL. IN THE EVENT OF WET WEATHER, CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO SECURE THE WORK AND STAGING AREA TO PREVENT AND MINIMIZE ANY POTENTIAL DAMAGE. DURING CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR MONITORING WEATHER FORECAST AND CONDITIONS WITHIN THE WALLER CREEK BASIN.

4. CONTRACTOR TO REMOVE ALL EQUIPMENT FROM THE UPPER AND LOWER WET WELLS TO SPECIFIED STAGING AREA AT THE END OF EACH WORK DAY.

5. CONSTRUCTION EQUIPMENT SHALL BE EQUIPPED WITH SPILL PREVENTION MEASURES AND FUEL SECONDARY CONTAINMENT. REFER TO SPECIFICATION 01046, "SEQUENCE OF CONSTRUCTION" FOR SUBMITTAL REQUIREMENTS.

6. NO BENCHMARKS OR TEMPORARY BENCHMARKS HAVE BEEN ESTABLISHED FOR THIS PROJECT. ALL WORK TO BE PERFORMED IS LOCATED BY DIMENSIONAL REFERENCE TO EXISTING STRUCTURE. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL CONFIRM THE DIMENSIONAL REFERENCES DO NOT CONFLICT WITH WORK TO BE PERFORMED.

7. THE WALLER CREEK INLET FACILITY IS AN ACTIVE FLOOD CONTROL FACILITY. CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THAT CONSTRUCTION DOES NOT IMPACT THE PERFORMANCE AND OPERATIONS OF THE INLET BAYS AND TUNNEL ENTRANCE.

8. CONTRACTOR SHALL COORDINATE ISOLATION AND DEWATERING OF THE UPPER AND LOWER WET WELLS WITH THE OWNER AT LEAST TWO (2) WEEKS IN ADVANCE. CONTRACTOR SHALL COORDINATE WORK IN THE UPPER AND LOWER WET WELLS SUCH THAT NO EQUIPMENT / TOOLS / MATERIALS ARE LEFT IN THE UPPER AND LOWER WET WELLS AT THE END OF EACH DAY. IN ADDITION, DURING THE DAY ACTIVITIES SHALL BE COORDINATED BASED ON WEATHER FORECAST FOR RAIN WITHIN THE DRAINAGE AREA AND CAPABLE OF REMOVING PERSONNEL / EQUIPMENT / TOOLS / MATERIALS PROMPTLY.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

GENERAL NOTES

AECOM TECHNICAL SERVICES INC.
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STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. G-03
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

CIVIL LEGEND

96.5 / 96.5	CONTOUR LINE
93.6 OR 93.6	SPOT ELEVATION
W	WATER LINE
WW	WASTEWATER LINE
S	STORM SEWER LINE
E O/H	ELECTRIC LINE (OVERHEAD)
G	GAS LINE
	DRAWING MATCH LINE
	CENTERLINE, BUILDING, ROAD, ETC.
ROW	PROPERTY LINE/RIGHT OF WAY
	EASEMENT LINE
	SURVEY OR SUBDIVISION BOUNDARY
SF SF	SILT FENCING
TP TP	TREE PROTECTION
LOC LOC	LIMITS OF CONSTRUCTION
	TREE TO BE REMOVED
001	TREE WITH TAG NO.
	STABILIZED CONSTRUCTION ENTRANCE
	ROCK BERM
////	FENCE

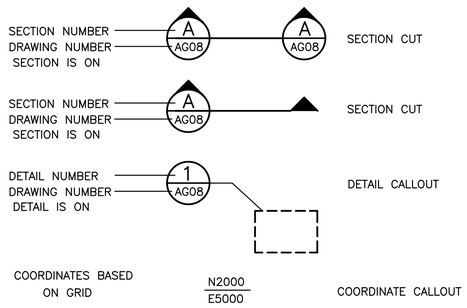
TSP	TRAFFIC SIGNAL POLE
TCB	TRAFFIC SIGNAL CONTROL BOX
PMT	PMT
PM	PM
	REFLECTOR POST
	SIGN
W	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
W	WATER LINE MARKER
WMH	WATER MANHOLE
S	SPRINKLER
BIB	SPRINKLER FAUCET / HOSE BIB
FH	FIRE HYDRANT
E	ELECTRIC METER
E	ELECTRIC JUNCTION BOX
E	ELECTRIC PEDESTAL
E	ELECTRIC LINE MARKER
EMH	ELECTRIC MANHOLE
	UTILITY POWER POLE
	GUY ANCHOR
	LIGHT POLE / STREET LIGHT / GROUND LIGHT
	BOREHOLE
G	GAS METER
GV	GAS VALVE
G	GAS LINE MARKER
GMH	GAS MANHOLE
	STORM DRAIN INLET
STMH	STORM DRAINAGE MANHOLE
CO	WASTEWATER CLEAN OUT
WWMH	WASTEWATER MANHOLE
TV	CABLE TELEVISION JUNCTION BOX
TV	CABLE TELEVISION PEDESTAL
TV	CABLE TELEVISION LINE MARKER
TEL	TELEPHONE JUNCTION BOX
T	TELEPHONE PEDESTAL
TMH	TELEPHONE MANHOLE
T	TELEPHONE LINE MARKER
FO	FIBER-OPTIC JUNCTION BOX
FMH	FIBER-OPTIC MANHOLE
FO	FIBER-OPTIC LINE MARKER

TYPICAL "A"	Parking Meter	0.90'x0.95'x5.80'
TYPICAL "B"	Utility/Light Pole	1.2'x1.2' Base, 8" Diameter Pole
TYPICAL "C"	Fire Hydrant	12.5" Diameter, 2.9' Tall
TYPICAL "D"	Utility/Light Pole	13.5"x13.5" Base, 9" Diameter Pole
TYPICAL "E"	Electric Meter	24" Diameter

NOTES:

1. IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE NOTED AS "EXISTING" AND ARE SHOWN IN LIGHT LINE WEIGHTS, OR AS SCREENED BACKGROUND. NEW STRUCTURES ARE SHOWN IN HEAVY LINE WEIGHTS.

GENERAL LEGEND



NOTES:

1. IF A SECTION OR DETAIL IS PROVIDED ON THE SAME DRAWING THAT IT IS TAKEN FROM, THE SHEET NUNBER IS REPLACED WITH A HYPHEN (-).

ABBREVIATIONS

ABDN	ABANDONED
ARV	AIR RELEASE VALVE
AWS	AVERAGE WATER SURFACE
BFV	BUTTERFLY VALVE
BOP	BOTTOM OF PIPE
BS	BAR SCREEN
C	CURVE, CONDUIT
CARV	COMBINATION AIR RELEASE/ VACUUM RELIEF VALVE
CATV	CABLE TV
CF	CUBIC FEETCAST
CI	CAST IRON
CL	CENTERLINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DESC	DESCRIPTION
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DOC. NO	DOCUMENT NUMBER
D.R.T.C.Tx	DEED RECORDS OF TRAVIS COUNTY, TEXAS
DWG	DRAWING
E	ELECTRIC
EJ	EXPANSION JOINT
EL	ELEVATION (ELEV)
EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EXIST	EXISTING
EXP	EXPANSION
FL	FLOWLINE
FLG	FLANGE
FO	FIBER OPTIC
FRPM	FIBERGLASS REINFORCED PLASTIC MORTAR
FT	FEET
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GV	GATE VALVE
HORIZ	HORIZONTAL
HWY	HIGHWAY
INV	INVERT
JT	JOINT
LF	LINEAR FEET
LOC	LIMITS OF CONSTRUCTION
LT	LEFT
MAX	MAXIMUM
MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MS	MULCH SOCK
N	NORTH
NG	NATURALGROUND
No.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCEF	ON CENTER EACH FACE
OCEW	ON CENTER EACH WAY
OD	OUTSIDE DIAMETER
O.P.R.T.C.Tx	OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PNTCR	POINT OF NON-TANGENT CURVE RETURN
PROP	PROPOSED
P.R.T.C.Tx	PLAT RECORDS OF TRAVIS COUNTY, TEXAS
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS
RB	ROCK BERM
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT-OF-WAY
RED	REDUCER
REF	REFERENCE
R.P.R.T.C.Tx	REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS
RT	RIGHT
SF	SILT FENCE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SF	SILT FENCE
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM SEWER
STR	STREAM
SUPT	SUPPORT
TBA	TO BE ABANDONED
T	TELEPHONE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
T.C.A.D.	TRAVIS COUNTY APPRAISAL DISTRICT
TEMP	TEMPORARY
TFD	TRIANGULAR FILTER DIKE
TOC	TOP OF CONCRETE
TP	TOP OF PAVEMENT
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VL	VENT LINE
VOL. PG.	VOLUME, PAGE
W	WATER
WL	WATER LINE
WSE	WATER SURFACE ELEVATION
WW	WASTEWATER
( )	RECORD INFORMATION

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LEGEND AND ABBREVIATIONS

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER
07/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. G-04
SHEET No. OF

GENERAL NOTES

1. THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS AND DETAILS.
2. CONSTRUCTION WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE 2015 INTERNATIONAL BUILDING CODE (IBC).
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL, CIVIL, ELECTRICAL, INSTRUMENTATION AND SECURITY DRAWINGS BEFORE STARTING WORK. IN CASE OF DISCREPANCY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SAME IN A TIMELY MANNER.
4. COMPLETE SHOP DRAWINGS FOR THE STRUCTURAL WORK SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS. REVIEW OF SHOP DRAWINGS BY THE ARCHITECT/ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
5. THE STRUCTURAL DRAWINGS SHALL NOT BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.
6. PRINCIPAL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, INSTRUMENTATION AND SECURITY DRAWINGS FOR SLEEVES, CURBS, INSERTS AND SIMILAR DETAILS NOT SHOWN. SIZE AND LOCATION OF ALL OPENINGS SHALL BE VERIFIED BY THE CONTRACTOR. ANY DEVIATION FROM OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEERS ATTENTION PRIOR TO CONSTRUCTION.
7. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKERS AND ALL OTHER PERSONS DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL WORK AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION SITE MANAGER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
9. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON FLOORS OR ROOFS IN EXCESS OF THE DESIGN LIVE LOADS. IMPACT SHALL BE AVOIDED WHEN PLACING MATERIALS ON FLOORS OR ROOFS
10. PROTECT EXISTING PAVEMENT FROM HEAVY CONSTRUCTION EQUIPMENT LOADS, BY USING BEARING PADS. (TIMBER, RUBBER OR STEEL PLATES). CONTRACTOR SHALL REPAIR OR REPLACE SECTIONS OF PAVEMENT DAMAGED DUE TO CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO THE OWNER.

GRATING AND COVER PLATES NOTES

1. GRATING SHALL BE GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM OR FIBER REINFORCED PLASTIC AS SHOWN ON THE DRAWINGS AND SPECIFIED. PROVIDE GALVANIZED STEEL GRATING AND SUPPORTS UNLESS OTHERWISE NOTED. GRATING SEATS AND SUPPORTS SHALL BE OF THE SAME TYPE MATERIAL AS THE GRATING SUPPORTS THEREON UNLESS OTHERWISE NOTED.
2. COVER PLATES AND SUPPORTS SHALL BE ALL GALVANIZED STEEL CONSTRUCTION UNLESS OTHERWISE NOTED. COVER PLATES SHALL BE GALVANIZED STEEL.
3. FASTENERS, ANCHORS, BOLTS, NUTS AND WASHERS FOR ALUMINUM GRATING, COVER PLATES AND SUPPORTS SHALL BE TYPE 316 STAINLESS STEEL.
4. BAND ALL GRATING ALONG EDGES AND AROUND OPENINGS WITH CONTINUOUS BAR EQUAL TO BEARING BARS.
5. ALL ANGELS FRAMES FOR GATING AND COVER PLATES ARE TO BE MITERED AND WELDED AT CORNERS.
6. ALL GRATING SHALL BE SECURELY FASTENED TO SUPPORTS WITH STAINLESS STEEL CLIPS AND ANCHORS, UNLESS NOTED OTHERWISE.
7. GRATING PANEL LAYOUT SHALL PROVIDE FOR THE REMOVAL OF GRATING AROUND PIPE AND OTHER GRATING PENETRATIONS.
8. ALL COVER PLATES SHALL BE SECURELY FASTENED TO SUPPORTS WITH 1/4" STAINLESS STEEL FLAT-HEAD MACHINE SCREWS AT 2'-0" ON CENTER, UNLESS OTHERWISE NOTED.
9. FIELD VERIFY GRATING SUPPORT LOCATIONS BEFORE FABRICATING GRATING. PLACE SUPPORTS WITH EXTREME CARE TO PROVIDE TOLERANCES SHOWN OR SPECIFIED.
10. FOR ADDITIONAL REQUIREMENTS SEE SPECIFICATIONS.

CONCRETE NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) SPECIFICATION, ACI #301 & BUILDING CODE REQUIREMENTS, ACI #318, LATEST EDITION, FOR BUILDING STRUCTURES & BUILDING CODE REQUIREMENTS, ACI #350-06, FOR ENVIRONMENTAL STRUCTURES.
2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE". ACI #315, LATEST EDITION.
3. UNLESS SHOWN OTHERWISE IN THE SPECIFICATIONS, CONCRETE SHALL BE CLASS 'S' CONCRETE WITH 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (5% TO 7%). ALSO REFER TO SPECIFICATIONS FOR ADDITIONAL CONCRETE MIX DESIGN REQUIREMENTS.
4. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60.
5. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL	3 IN.
WHERE CAST AGAINST SEAL SLAB	2 IN.
EXPOSED TO EARTH, WATER, OR WEATHER	2 IN.
SLABS AND WALLS	2 IN.
OTHER	2 IN.

6. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", ACI #315, LATEST EDITION. ACCESSORIES FOR INTERIOR CONCRETE SURFACES EXPOSED TO VIEW SHALL HAVE PLASTIC COATED FEET. ACCESSORIES FOR CONCRETE SURFACES EXPOSED TO EARTH, WEATHER, WATER, OR HIGH HUMIDITY SHALL BE FABRICATED OF STAINLESS STEEL OR PLASTIC. PROVIDE BOLSTERS AT SUSPENDED SLABS, WALLS AND WIDE BEAMS. PROVIDE STANDEES AT ALL SLABS WITH TWO LAYERS OF REINFORCING. FOR SLAB-ON-GRADE REINFORCING, PROVIDE CHAIRS MANUFACTURED FROM HOT--DIPPED GALVANIZED STEEL, STAINLESS STEEL, PLASTIC, OR PRECAST CONCRETE BLOCKS OF EQUAL OR GREATER COMPRESSIVE STRENGTH AS THE CONCRETE BEING POURED.
7. MAINTAIN A MINIMUM OF ONE BAR DIAMETER (BUT NOT LESS THAN 1") BETWEEN ALL CONTINUOUS REINFORCING BARS ON ALL SLABS. MAINTAIN A MINIMUM OF 1-1/2" BETWEEN BARS IN COLUMNS, AND A MINIMUM OF 1-1/2 TIMES THE MAXIMUM COARSE AGGREGATE SIZE IN ALL CASES.
8. BARS SCHEDULED AND DETAILED "CONT" SHALL BE LAPPED AS CLASS A TENSION SPLICES ACCORDING TO BAR PLACING DIAGRAM UNLESS OTHERWISE NOTED THE SPLICES SHALL OCCUR AT MIDSPAN FOR TOP BARS AND OVER THE SUPPORTS FOR BOTTOM BARS.
9. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
10. WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED, UNLESS APPROVED BY ENGINEER.
11. DURING PLACEMENT OF CONCRETE, USE TREMIE OR OTHER MEANS TO LIMIT FREE FALL OF CONCRETE TO 5'-0".
12. VERTICAL REINFORCING, DOWEL, AND LAPS ARE OFFSET IN DETAILS FOR CLARITY. BARS SHOULD BE CONSIDERED TO BE IN THE SAME PLANE AT EXTERNAL FACE.
13. CONCRETE SHALL MEET THE REQUIREMENTS OF THE FOLLOWING CLASS AS DEFINED BY THE PROJECT SPECIFICATIONS (COA SPECIFICATION ITEM No. 403S CONCRETE FOR STRUCTURES).

CONCRETE CLASS (MIN. 28 DAY STRENGTH)	CLASS S (4,000 PSI)
COARSE AG6, GRADE (MAX. NOM. SIZE)	GRADE 2 (1 1/2")
SUMP RANGE	3" TO 5"
HIGH RANGE WATER REDUCER REQ'D.	YES

14. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:
    a. COARSE AGGREGATE (AGG) SHALL BE GRADED FROM A MAXIMUM OF 1".
    b. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
    c. MAXIMUM WATER CEMENT RATIO WILL CONFORM TO REQUIREMENTS STATED IN THE PROJECT SPECIFICATIONS. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAYBE USED.
    d. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES (AGO) SHALL NOT EXCEED 2/3.
    e. REFER TO ACI 301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
    f. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.

STRUCTURAL STEEL NOTES

1. ALL W, S, I HOT-ROLLED STRUCTURAL SHAPES SHALL CONFORM TO ASTM A992, GRADE 36 STEEL ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO THE ASTM SPECIFICATION A-36 UNLESS OTHERWISE SHOWN OR NOTED.
2. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B.
3. ALL STAINLESS STEEL SHAPES SHALL CONFORM TO ASTM SPECIFICATION A-276, AND/OR A-479 TYPE 316L, UNLESS OTHERWISE SHOWN OR NOTED. ALL STAINLESS STEEL PLATE, SHEET, OR STRIP SHALL CONFORM TO ASTM A-666 OR A-240.
4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND THE STEEL JOIST INSTITUTE.
5. ALL STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325N UNLESS OTHERWISE SHOWN OR NOTED. FURNISH HARDENED WASHERS AT ALL BOLTED CONNECTIONS, INCLUDING ANCHOR BOLTS.
6. ALL STAINLESS STEEL BOLTS AND EXPANSION ANCHORS SHALL CONFORM TO ASTM F-593, TYPE 316 AND ALL NUTS SHALL CONFORM TO ASTM F-594, TYPE 316.
7. REFER TO ARCHITECTURAL, MECHANICAL, HVAC AND ELECTRICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC, FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
8. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE INDICATED ON PLANS.
9. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS WITHIN THE PREVIOUS SIX MONTHS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS A.W.S. D1.1.
10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN MEMBERS AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
11. SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

SPECIAL INSPECTIONS

1. EXISTING CONCRETE DECK IS REINFORCED WITH POST TENSIONED CABLES. CONTRACTOR SHALL DRILL NO HOLES INTO EXISTING CONCRETE DECK UNLESS EXISTING POST TENSION CABLES HAVE BEEN LOCATED, PROPOSED HOLE LOCATIONS DEFINED, AND LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY OWNER.
2. CONTRACTOR SHALL COORDINATE WITH OWNER TO ACCOMPLISH SPECIAL INSPECTIONS REQUIRED FOR THE PROJECT AND ENSURE PROPER NOTIFICATION TO THE SPECIAL INSPECTION OR TESTING AGENCY. OWNER IS RESPONSIBLE FOR CONTRACTING WITH AND PAYING THE SPECIAL INSPECTION AGENCY.
3. CONTRACTOR SHALL REVIEW THE LATEST VERSION OF THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT "STATEMENT OF SPECIAL INSPECTIONS" FORM TO IDENTIFY ALL ITEMS UNDER CONCRETE – SECTION 1705.3 THAT MUST BE PERFORMED AND WILL REQUIRE NOTIFICATION FOR INSPECTION FOR THIS PROJECT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

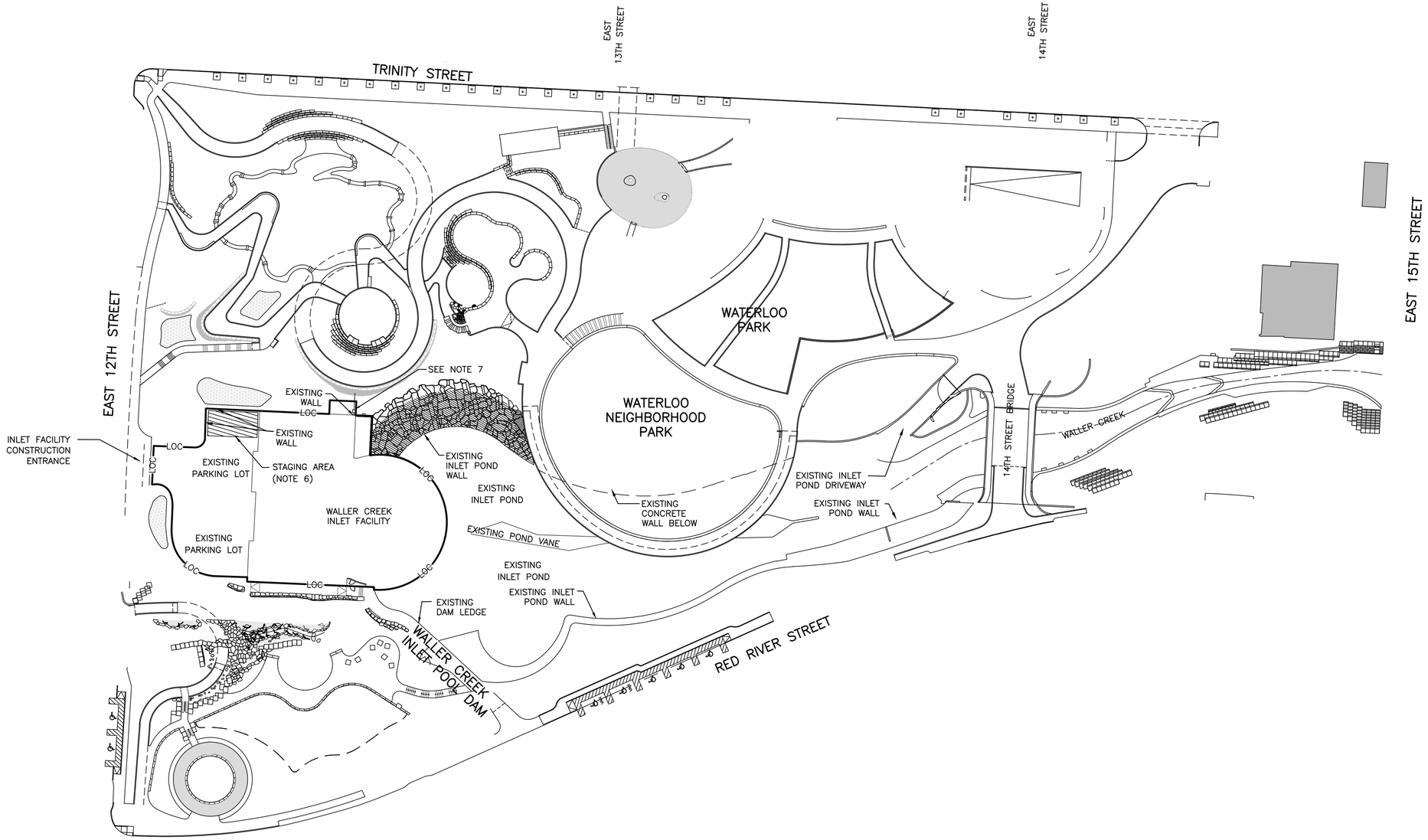
STRUCTURAL NOTES

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. G-05
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	



SCALE: 1"=50'

NOTES:

1. WATERLOO PARK SITE BACKGROUND IS BASED ON INFORMATION PROVIDED BY THE OWNER OF THE PARK FACILITIES.
2. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY HIS/HER WORK PRIOR TO THE START OF CONSTRUCTION.
3. ACCESS TO INLET FACILITY SHALL BE PROVIDED VIA EXISTING ACCESS DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH OWNER, AND WATERLOO PARK OPERATOR FOR ACCESS REQUIREMENTS. PARK WILL BE OPEN TO THE PUBLIC AND CONTRACTOR SHALL TAKE ALL SAFETY PRECAUTIONS WHEN TRAVELING THROUGH THE PARK.
4. THIS PROJECT IS LOCATED WITHIN THE WALLER CREEK WATERSHED, WHICH IS CLASSIFIED AS AN URBAN ZONE, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
5. THE PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, AS DEFINED BY THE CITY OF AUSTIN, AND AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48453C0465K, EFFECTIVE DATE SEPTEMBER 22, 2022. THE 100-YEAR FLOOD ELEVATION UPSTREAM OF INLET FACILITY IS 483.06',
6. STAGING AREA CAN BE PROVIDED IN THE 4 PARKING SPOTS AT THE INLET FACILITY. CONTRACTOR SHALL PROVIDE WRITTEN REQUEST TO THE OWNER TWO WEEKS IN ADVANCE AND SHALL INCLUDE DATES AND DURATION FOR STAGING AREA ACCESS.
7. LIMITS OF CONSTRUCTION INCLUDES THE EXISTING WALLER CREEK INLET FACILITY, THE EXISTING INLET FACILITY PARKING LOT, AND AN AREA WEST OF THE INLET FACILITY WITHIN 10 FEET OF THE INLET FACILITY'S WEST WALL. THE LIMITS OF CONSTRUCTION FOR THE AREA WEST OF THE INLET FACILITY EXTENDS NORTH TO THE EXISTING PARK FENCING AND SOUTH WITHIN 30 FEET OF THE SAME EXISTING PARK FENCE.

LEGEND:

LOC ——— LOC ——— LOC LIMITS OF CONSTRUCTION

APPROXIMATE LOCATION OF STAGING AREA

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

OVERALL SITE PLAN

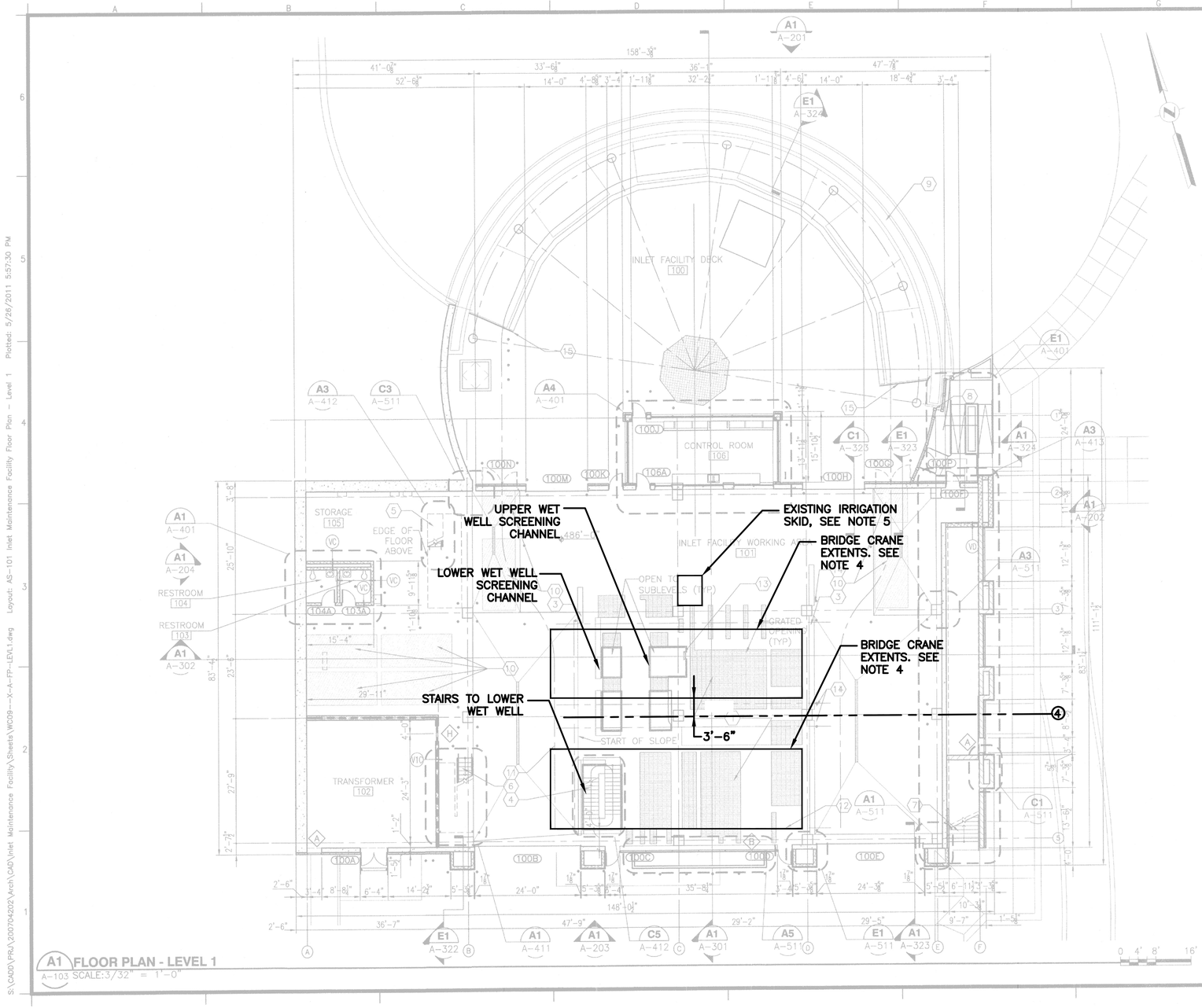
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. C-01
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\C-01.DWG BY: GADHIAT DATE: 3/8/2023 7:53 AM



SHEET KEYNOTES

1 OPENING IN FLOOR REF STRUC & PROCESS
2 COVERED OPENING IN SLAB REF STRUC & PROCESS
3 6" CONCRETE CURB
4 STAIR 1 (FROM SUBLEVEL 2 TO LEVEL 1)
5 STAIR 3 (FROM LEVEL 1 TO MECH MEZZ)
6 STAIR 2 (FROM LEVEL 1 TO MECH MEZZ)
7 STAIR 4 (FROM LEVEL 1 TO ROOF DECK)
8 METAL SECURITY FENCE
9 WATER FEATURE REF STRUC
10 MAINTENANCE EQUIPMENT REF PROCESS
11 MONORAIL REF PROCESS
12 BRIDGE CRANE REF PROCESS
13 LADDER
14 BOLLARD REF PROCESS
15 42" STEEL GUARD RAIL, SEE E3/A504
16 42" STEEL HANDRAIL

GENERAL SHEET NOTES

1 FOR THE PURPOSES OF THESE DRAWINGS, ROOM NAMES AND NUMBERS HAVE BEEN ASSIGNED TO AID IN THE COORDINATION OF THESE DOCUMENTS. THIS NUMBERING SYSTEM IS NOT NECESSARILY INTENDED TO REPRESENT OR COORDINATE WITH FINAL ROOM DESIGNATION.
2 REFER TO DOOR INFORMATION SHEET FOR FRAMING AND ANCHORAGE AT DOORS.
3 REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR SITE WORK.
4 FINISH FLOOR ELEVATIONS OR DIMENSIONS ARE TO THE TOP OF STRUCTURAL CONCRETE, U.N.O.
5 DO NOT CUT OR PATCH STRUCTURAL WORK IN A MANNER RESULTING IN REDUCTION OF LOAD CARRYING CAPACITY OF LOAD/DEFLECTION RATIO; SUBMIT PROPOSED CUTTING AND PATCHING TO ENGINEER FOR APPROVAL BEFORE PROCEEDING. DO NOT CUT OR PATCH OPERATIONAL ELEMENTS AND SAFETY-RELATED COMPONENTS IN A MANNER RESULTING IN REDUCTION OF CAPACITIES TO PERFORM IN A MANNER INTENDED OR RESULTING IN DECREASED OPERATIONAL LIFE, INCREASED MAINTENANCE, OR DECREASED SAFETY. DO NOT CUT OR PATCH WORK WHICH IS EXPOSED ON EXT OR EXPOSED IN OCCUPIED SPACES OF THE BUILDING, IN A MANNER RESULTING IN REDUCTION OF VISUAL QUALITIES OR RESULTING IN SUBSTANTIAL EVIDENCE OF CUT OR PATCH WORK, BOTH AS JUDGED BY THE ARCHITECT.
6 ALL CONCEALED BLOCKING TO BE FIRE-RETARDANT TREATED.
7 REFERENCE STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND PROCESS FOR ITEMS NOT SHOWN. COORDINATE AS REQUIRED INCLUDING NECESSARY FRAMING, BLOCKING, ETC.
8 FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF ANY CABINETRY, FRAMES, STRUCTURAL ITEMS, ETC.
9 PROVIDE PAINTED ACCESS PANELS IN WALLS AND CEILINGS AT CONCEALED ITEMS SUCH AS VALVES, SHOCK ABSORBERS, CONTROLS, SWITCHES, ETC, AND ANY OTHER ITEMS THAT MAY REQUIRE ACCESS NOT OTHERWISE PROVIDED. ACCESS PANEL LOCATIONS MAY NOT ALWAYS BE SHOWN ON THE PLANS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO DETERMINE ACCESS PANEL LOCATIONS. REVIEW CEILING PLAN TO DETERMINE LOCATION OF GYPSUM BOARD CEILINGS WHERE ACCESS PANELS TYPICALLY REQUIRED.
10 ALL DOORS SHALL BE HELD 4" OFF OF THE PERPENDICULAR WALL ON THE HINGE SIDE, U.N.O.
11 SLOPE FLOORS TO FLOOR DRAIN MAX ¼" PER FOOT.
12 ALIGN DIFFERENT WALL TYPES SO THAT CONTINUOUS FACES OF WALLS ARE FLUSH.
13 EQUIPMENT AND OPENINGS IN SLAB SHOWN FOR REFERENCE ONLY. REF. TO PROCESS AND STRUCTURAL FOR ACTUAL DIMENSIONS AND LOCATIONS.

Rev.	Description	Date	Appr.
1	GENERAL CORRECTION	05.27.11	

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 1, SUITE 150
AUSTIN, TEXAS 78735

Designed by: CSC
Drawn by: AW
Reviewed by: SF
Checked by: JJL
File name: WC09-----X-A-FP-LEVL1.DWG
Plot date: Wednesday, May 25, 2011
Drawing scale: AS NOTED

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

FLOOR PLAN – AT EL 486.00

ARCHITECT:
JOSEPH NICHOLAS LAROCCA
03.09.11

GSC Architects
901 S. 1th MoPac Expy
Bldg III, Suite 400
Austin, Texas 78746
Phone: 512.477.9417

Sheet Reference Number: A-103
Sheet 382 of 481

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. REFERENCE DEMOLITION DRAWINGS FOR PROPOSED DEMOLITION IN THIS AREA. REFERENCE SPECIFICATION 01046 "SEQUENCE OF CONSTRUCTION" FOR PROPOSED CONSTRUCTION IN THIS AREA.
3. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON THE RECORD DRAWING AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS.
4. WHEN NOT IN USE BY WCT OPERATIONS, THE EXISTING BRIDGE CRANE SYSTEMS ARE AVAILABLE FOR CONTRACTOR'S USE DURING CONSTRUCTION TO REMOVE EXISTING EQUIPMENT AND PIPING, AND TO TRANSPORT NEW PIPING, VALVES, AND EQUIPMENT. CONTRACTOR SHALL COORDINATE USE OF BRIDGE CRANE WITH WCT OPERATIONS AT LEAST 48 HOURS PRIOR TO USING BRIDGE CRANE. THE EXISTING BRIDGE CRANE CAN SERVE THE EXTENTS APPROXIMATELY SHOWN. IF THE CONTRACTOR CHOOSES TO USE THESE SYSTEMS, THE CRANE AND HOISTS SHALL BE INSPECTED BY THE MANUFACTURER (PAID BY CONTRACTOR) BEFORE AND AFTER CONSTRUCTION TO VERIFY THEIR CAPACITY AND OPERATION CONDITION, AND DETERMINE IF THE CRANE SYSTEMS HAVE BEEN DAMAGED BY THE CONTRACTOR'S USE. CONTRACTOR SHALL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE, INCLUDING REPAIRS REQUIRED DURING THE USE OF THE CRANE AND HOIST. CONTRACTOR SHALL RESTORE THE BRIDGE CRANE SYSTEM TO ITS ORIGINAL CONDITION WHEN THE INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE. REFER TO SPECIFICATION 01046 "SEQUENCE OF CONSTRUCTION" FOR OTHER CONTRACT REQUIREMENTS.
5. EXISTING IRRIGATION SKID IS APPROXIMATELY 6'x3'–11". REFERENCE SHEET M–20 FOR EXACT LOCATION.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

EXISTING INLET FACILITY PLAN - ELEV. 486.00

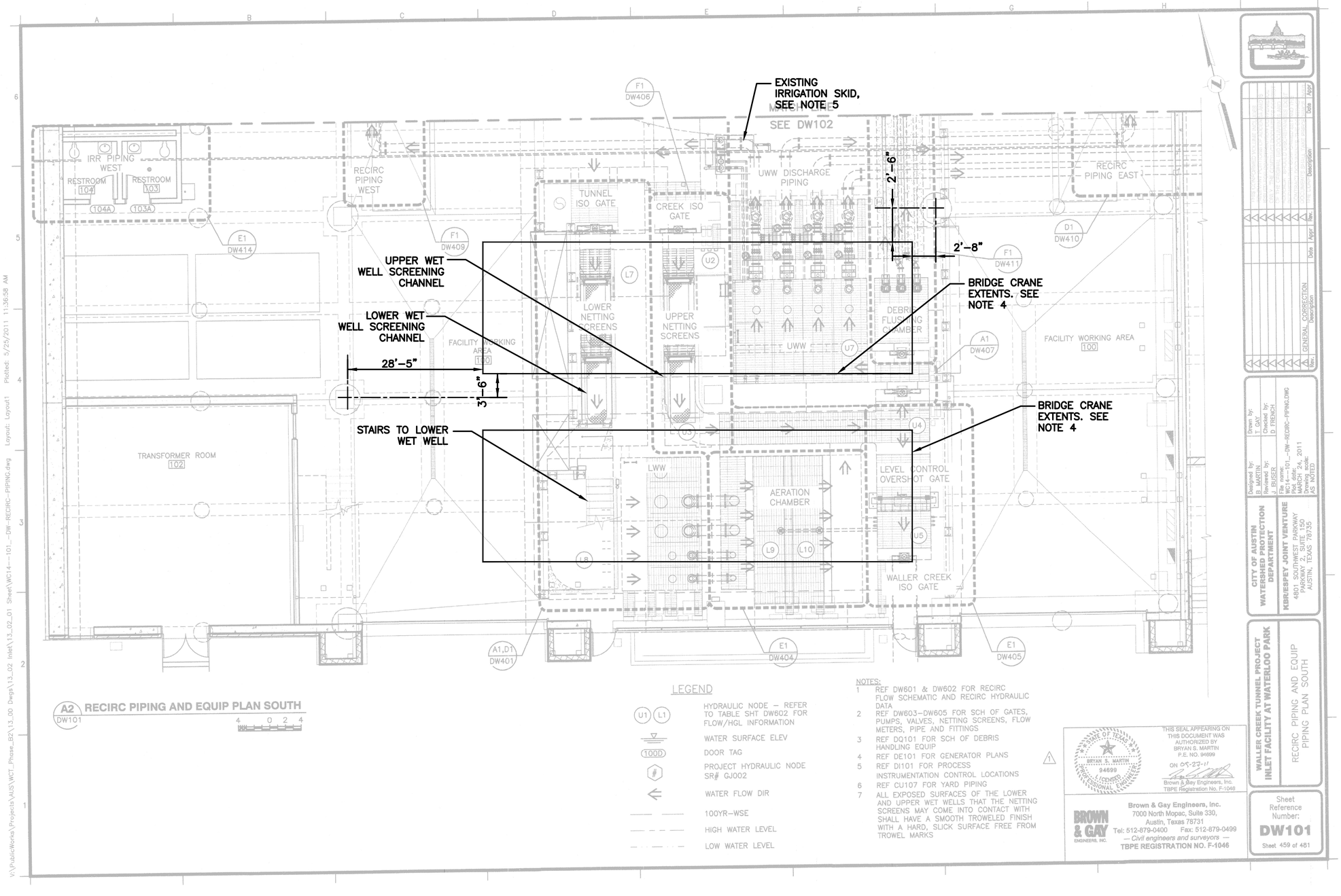
AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
5/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. C-02
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\C-02.DWG BY: GADHIAT DATE: 3/8/2023 8:09 AM



A2 RECIRC PIPING AND EQUIP PLAN SOUTH
DW101
4 0 2 4

LEGEND

- U1 / L1 — HYDRAULIC NODE – REFER TO TABLE SHT DW602 FOR FLOW/HGL INFORMATION
- WATER SURFACE ELEV
- 100D — DOOR TAG
- # — PROJECT HYDRAULIC NODE SR# GJ002
- WATER FLOW DIR
- 100YR–WSE
- HIGH WATER LEVEL
- LOW WATER LEVEL

NOTES:

1. REF DW601 & DW602 FOR RECIRC FLOW SCHEMATIC AND RECIRC HYDRAULIC DATA
2. REF DW603–DW605 FOR SCH OF GATES, PUMPS, VALVES, NETTING SCREENS, FLOW METERS, PIPE AND FITTINGS
3. REF DQ101 FOR SCH OF DEBRIS HANDLING EQUIP
4. REF DE101 FOR GENERATOR PLANS
5. REF DI101 FOR PROCESS INSTRUMENTATION CONTROL LOCATIONS
6. REF CU107 FOR YARD PIPING
7. ALL EXPOSED SURFACES OF THE LOWER AND UPPER WET WELLS THAT THE NETTING SCREENS MAY COME INTO CONTACT WITH SHALL HAVE A SMOOTH TROWELED FINISH WITH A HARD, SLICK SURFACE FREE FROM TROWEL MARKS

STATE OF TEXAS — BRYAN S. MARTIN — 94699 — LICENSED PROFESSIONAL ENGINEER

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699
ON 05-23-11
Brown & Gay Engineers, Inc.
TBPE Registration No. F-1046

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330,
Austin, Texas 78731
Tel: 512-879-0400 Fax: 512-879-0499
— Civil engineers and surveyors —
TBPE REGISTRATION NO. F-1046

Rev.	Description	Date	Appr.
1	GENERAL CORRECTION	5/25/11	

Designed by: B. MARTIN
Drawn by: T. GAY
Reviewed by: J. RUSER
Checked by: D. FRENCH
File name: 60677349_101_-DW-RECIRC-PIPING.DWG
Plot date: MARCH 24, 2011
Plot scale: AS NOTED

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY PARKWAY 2, SUITE 150 AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

RECIRC PIPING AND EQUIP PIPING PLAN SOUTH

Sheet Reference Number: DW101
Sheet 459 of 481

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. REFERENCE DEMOLITION DRAWINGS FOR PROPOSED DEMOLITION IN THIS AREA. REFERENCE SPECIFICATION 01046 "SEQUENCE OF CONSTRUCTION" FOR PROPOSED CONSTRUCTION IN THIS AREA.
3. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON THE RECORD DRAWING AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS.
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5. EXISTING IRRIGATION SKID IS APPROXIMATELY 6'x3'–11". REFERENCE SHEET M–20 FOR EXACT LOCATION.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

ENLARGED EXISTING INLET FACILITY PLAN
ELEV. 486.00

AECOM

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. C-03
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

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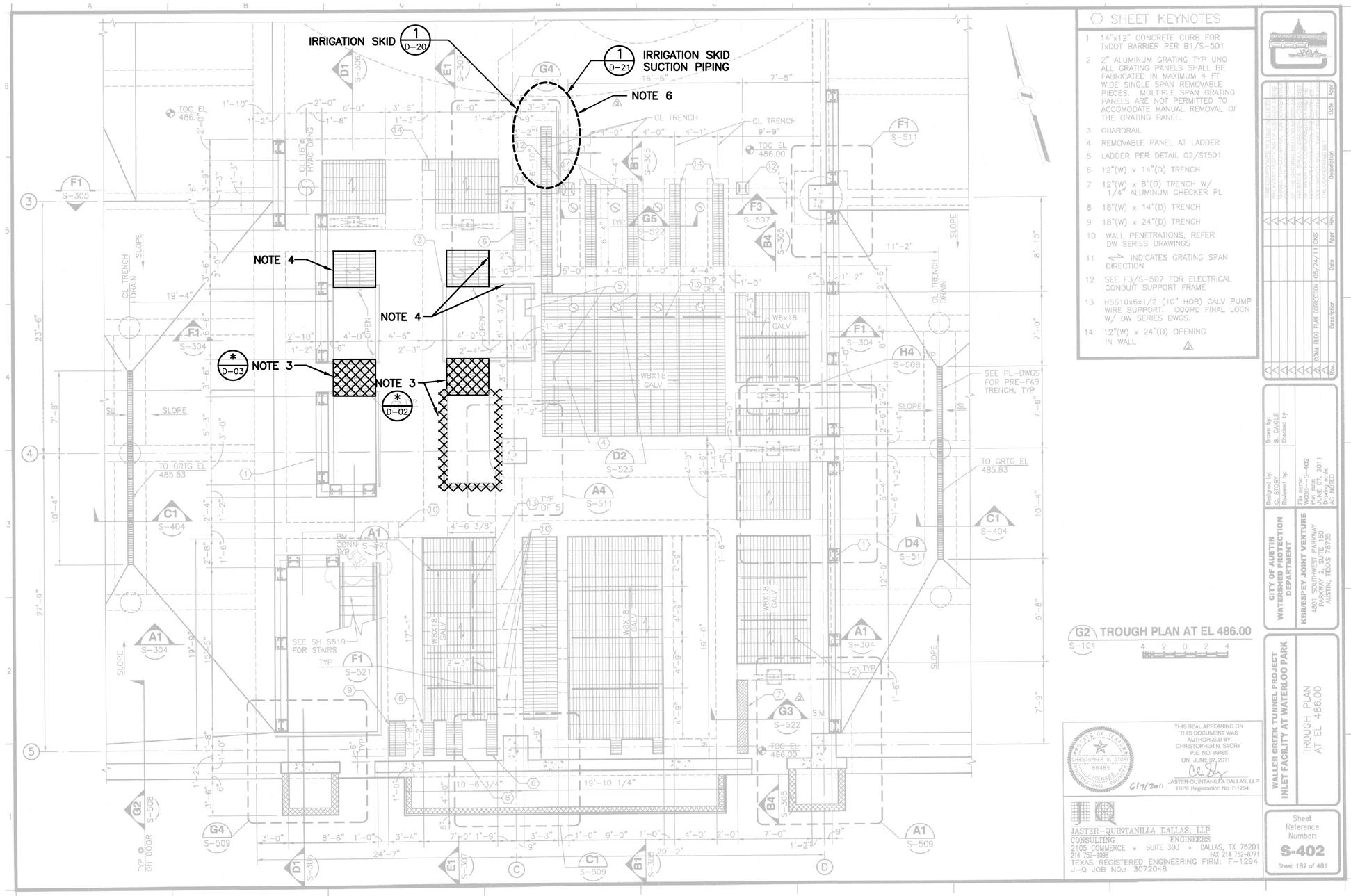

SHEET KEYNOTES

1. 14"x12" CONCRETE CURB FOR TxDOT BARRIER PER B1/S-501
2. 2" ALUMINUM GRATING TYP UNO ALL GRATING PANELS SHALL BE FABRICATED IN MAXIMUM 4 FT WIDE SINGLE SPAN REMOVABLE PIECES. MULTIPLE SPAN GRATING PANELS ARE NOT PERMITTED TO ACCOMODATE MANUAL REMOVAL OF THE GRATING PANEL.
3. GUARDRAIL
4. REMOVABLE PANEL AT LADDER
5. LADDER PER DETAIL G2/ST501
6. 12"(W) x 14"(D) TRENCH
7. 12"(W) x 8"(D) TRENCH W/ 1/4" ALUMINUM CHECKER PL
8. 18"(W) x 14"(D) TRENCH
9. 18"(W) x 24"(D) TRENCH
10. WALL PENETRATIONS, REFER DW SERIES DRAWINGS
11. ⇄ INDICATES GRATING SPAN DIRECTION
12. SEE F3/S-507 FOR ELECTRICAL CONDUIT SUPPORT FRAME
13. HSS10x6x1/2 (10" HOR) GALV PUMP WIRE SUPPORT. COORD FINAL LOCN W/ DW SERIES DWGS.
14. 12"(W) x 24"(D) OPENING IN WALL

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
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3. DEMOLISH GRATING AND HANDRAILS AS INDICATED ON THIS DRAWING.
4. GRATING AND HANDRAILS MAY BE TEMPORARY REMOVED FOR THE INSTALLATION OF EQUIPMENT. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION. WHEN INSTALLATION OF EQUIPMENT AS PART OF THIS BID PACKAGE IS COMPLETE.
5. DURING CONSTRUCTION, CONTRACTOR SHALL FURNISH AND INSTALL FALL PROTECTION DEVICES WHEREVER HANDRAILS ARE REMOVED AS PART OF WORK. FALL PROTECTION DEVICES SHALL INCLUDE TEMPORARY GUARD RAILS AND TOE BOARDS.
6. EXISTING IRRIGATION SKID TO BE DEMOLISHED IN ENTIRETY. SEE SHEET D-20 AND D-21 FOR DETAILS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY DEMOLITION PLAN - ELEV. 486.00

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

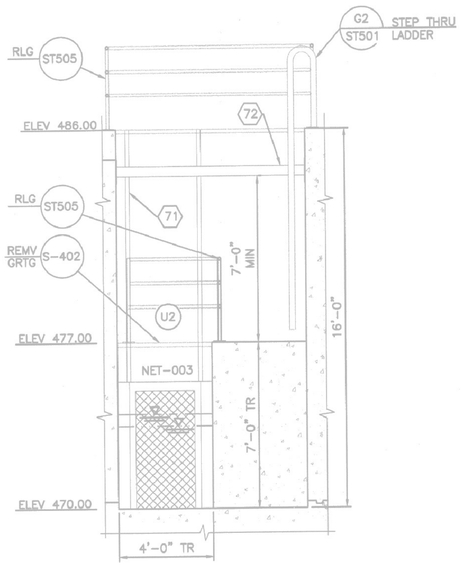
JONATHAN I. CHEN
146282
3/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

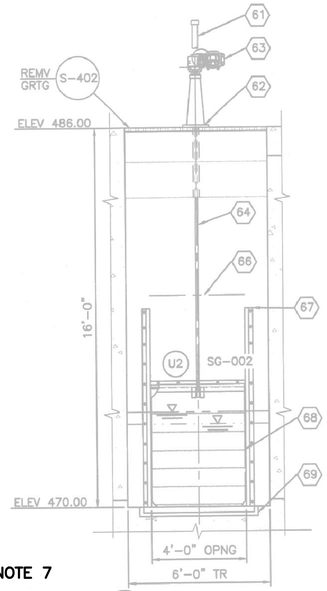
PROJECT No. 60677349
DRAWING No. D-01
SHEET No.
OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\D-01.DWG BY: GADHIAT DATE: 3/8/2023 7:58 AM



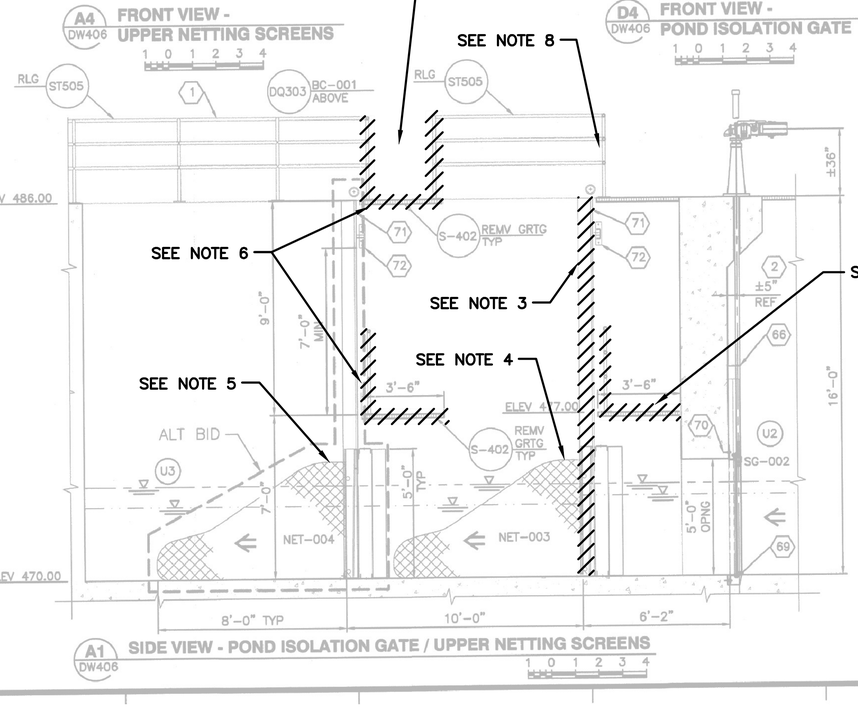
A4 DW406 FRONT VIEW - UPPER NETTING SCREENS

1 0 1 2 3 4



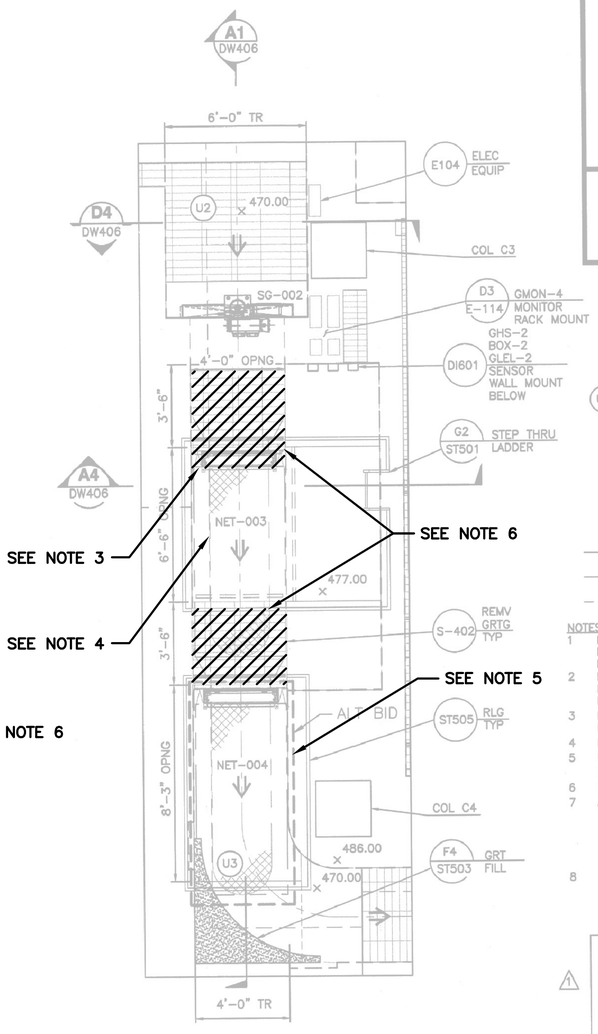
D4 DW406 FRONT VIEW - POND ISOLATION GATE

1 0 1 2 3 4



A1 DW406 SIDE VIEW - POND ISOLATION GATE / UPPER NETTING SCREENS

1 0 1 2 3 4



F1 DW101 PLAN VIEW - POND ISOLATION GATE/ UPPER NETTING SCREENS

1 0 1 2 3 4

SHEET KEYNOTES

1 ±23' TO TOP OF BRIDGE CRANE ROLLING SURFACE
2 DIMS PER SHOP DRAWINGS PER SLIDE GATE SPEC SS11286

SLIDE GATE – SS11286
REF SCH 12 DW605
61 STEM COVER
62 MOTOR ACTUATOR FLOORSTAND
63 ELEC ACTUATOR
64 OPERATING STEM
65 STEM GUIDE PER DETAIL G4/DW502
66 HEIGHT OF FULLY OPENED GATE
67 GATE FRAME
68 GATE DISK
69 FLUSH BOTTOM SEAL
70 ANCHOR BOLT

NETTING SCREENS – SS11173
REF SCH 13 DW605
REF DTLS DW501
71 NETTING GUIDE RAILS
72 NETTING GUIDE RAIL SUPPORT

LEGEND

U1 L1 HYDRAULIC NODE – REFER TO TABLE SHT DW602 FOR FLOW/HGL INFORMATION
WATER SURFACE ELEV
100D DOOR TAG
PROJECT HYDRAULIC NODE REF GJ002
WATER FLOW DIR
100YR–WSE
HIGH WATER LEVEL
LOW WATER LEVEL

NOTES:
1 REF DW601 & DW602 FOR RECIRC FLOW SCHEMATIC AND RECIRC HYDRAULIC DATA
2 REF DW603–DW605 FOR SCH OF GATES, PUMPS, VALVES, NETTING SCREENS, FLOW METERS, PIPE AND FITTINGS
3 REF DQ101 FOR SCH OF DEBRIS HANDLING EQUIP
4 REF DE101 FOR GENERATOR PLANS
5 REF DI101 FOR PROCESS INSTRUMENTATION CONTROL LOCATIONS
6 REF CU107 FOR YARD PIPING
7 ALL EXPOSED SURFACES OF THE LOWER AND UPPER WET WELLS THAT THE NETTING SCREENS MAY COME INTO CONTACT WITH SHALL HAVE A SMOOTH TROWELED FINISH WITH A HARD, SLICK SURFACE FREE FROM TROWEL MARKS
8 REFERENCE SPECIFICATION 01030 FOR DETAILS OF ALTERNATIVE BID ITEMS

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON THE RECORD DRAWING AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS.
3. REMOVE EXISTING NETTING SCREEN GUIDE RAILS AND SUPPORT.
4. NETTING SCREENS SHOWN IN THE RECORD DRAWING ARE NO LONGER INSTALLED AND HAVE BEEN REPLACED WITH A FABRICATED METAL MESH SCREEN. REMOVE FABRICATION METAL MESH SCREEN.
5. NETTING SCREEN ALTERNATE BID IS NOT INSTALLED AS SHOWN IN THE RECORD DRAWING.
6. DEMOLISH THE EXISTING GRATED WALKWAYS AND HANDRAILS THAT SPAN ACROSS THE DECK OPENING ABOVE THE UPPER WET WELL CHANNEL.
7. DURING CONSTRUCTION, CONTRACTOR SHALL FURNISH AND INSTALL FALL PROTECTION DEVICES WHEREVER HANDRAILS ARE REMOVED AS PART OF WORK. FALL PROTECTION DEVICES SHALL INCLUDE TEMPORARY GUARD RAILS AND TOE BOARDS.
8. GRATING AND HANDRAILS MAY BE TEMPORARY REMOVED FOR THE INSTALLATION OF EQUIPMENT. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION. WHEN INSTALLATION OF EQUIPMENT AS PART OF THIS BID PACKAGE IS COMPLETE.

THIS CONFORMED VOLUME INCLUDES RELEVANT PORTIONS OF ADDENDA AND ASSOCIATED CONFORMED DOCUMENTS ISSUED DURING THE CONSTRUCTION CONTRACT. THE CONFORMED DOCUMENTS CONSIST OF THE ORIGINAL BID DOCUMENTS AND ADDENDA. SHOULD DISCREPANCIES EXIST BETWEEN THE CONFORMED SET AND THE CONTRACT DOCUMENTS, THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER THE CONFORMED SET.

Rev.	Description	Date	Appr.
1	GENERAL CORRECTION	6-24-11	

Designed by: B. MARTIN
Drawn by: T. GAY
Reviewed by: J. BOSSER
Checked by: D. KRISCH
File name: WC14—406L—DW—UPPR—SCRNLDWG
Plot date: JUNE 24, 2011
Plot scale: 1:1
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KIRKSEPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

RECIRC PIPING AND EQUIP
UPPER NETTING SCREENS
PLAN AND SECTIONS

Sheet Reference Number: DW406
Sheet 465 of 481

STATE OF TEXAS
BRYAN S. MARTIN
94699
LICENSED PROFESSIONAL ENGINEER
6-24-11

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699 ON 6-24-11

Brown & Gay Engineers, Inc.
TBPE Registration No. F-1046

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330,
Austin, Texas 78731
Tel: 512-879-0400 Fax: 512-879-0499
— Civil engineers and surveyors —
TBPE REGISTRATION NO. F-1046

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY DEMOLITION UPPER WET WELL

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. D-02
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

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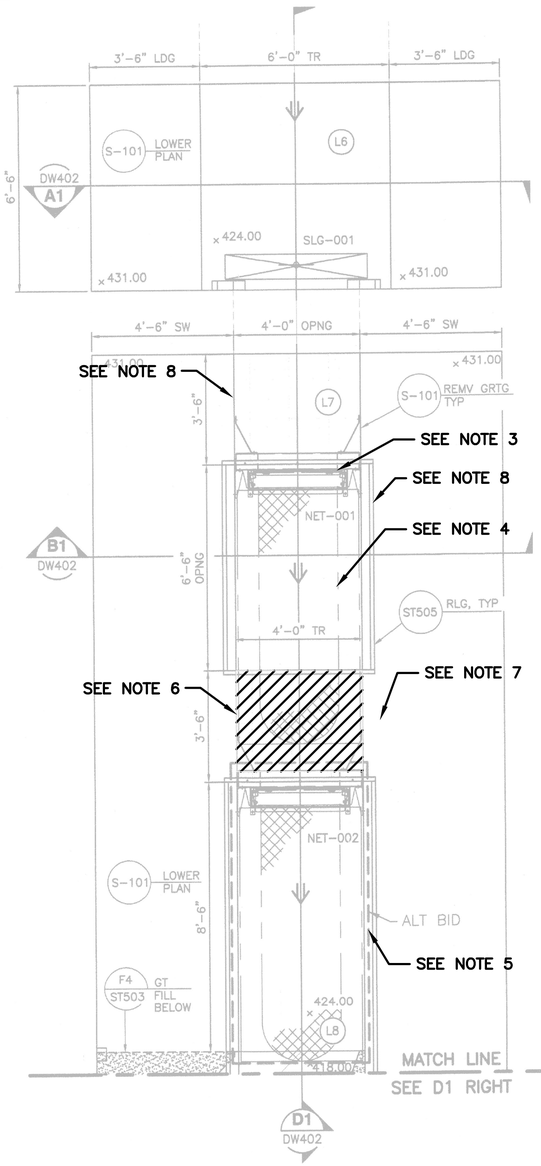
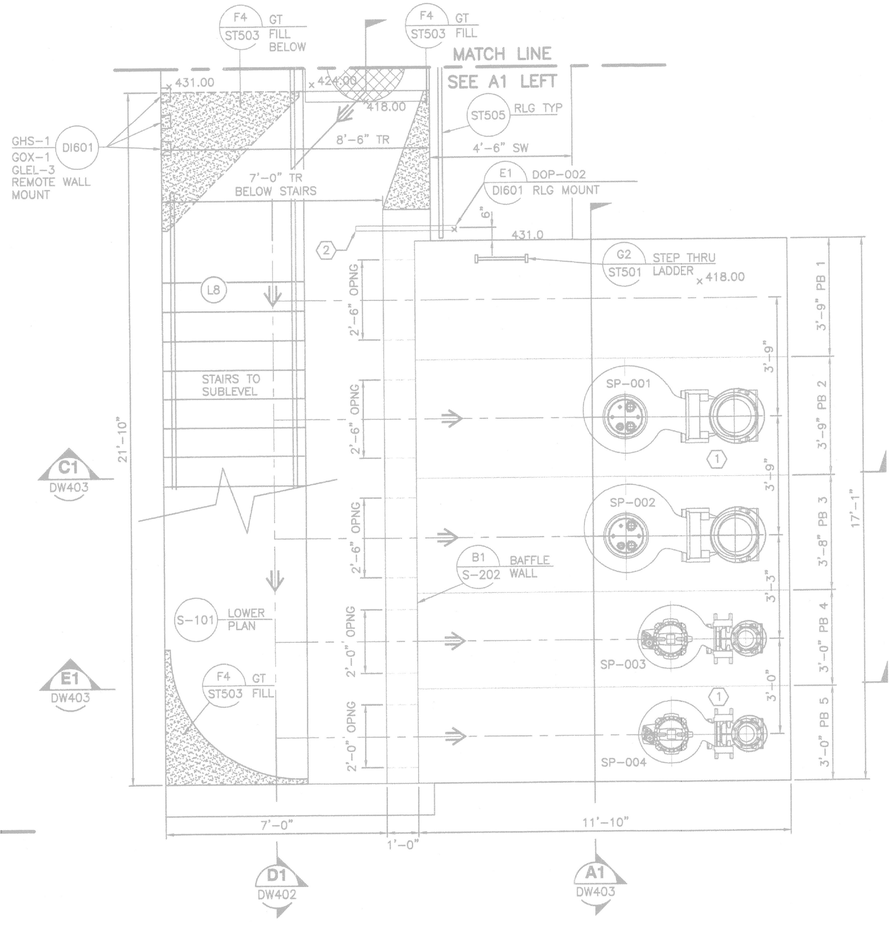




SHEET KEYNOTES

1 REF MFR, REF SS11309 FOR LWW PUMP GT PLAN

DO PROBE – SS13401
REF SCH 01 DI603

2 ±11' LONG 2" SCH 40 MIN PVC. POSITION SENSOR TO BE CENTERED IN CHANNEL AT A DEPTH OF ±424.

LEGEND

- U1 L1 — HYDRAULIC NODE – REFER TO TABLE SHT DW602 FOR FLOW/HGL INFORMATION
- WATER SURFACE ELEV
- 100D — DOOR TAG
- # — PROJECT HYDRAULIC NODE REF GJ002
- WATER FLOW DIR
- 100YR-WSE
- HIGH WATER LEVEL
- LOW WATER LEVEL

NOTES:
1 REF DW601 & DW602 FOR RECIRC FLOW SCHEMATIC AND RECIRC HYDRAULIC DATA
2 REF DW603–DW605 FOR SCH OF GATES, PUMPS, VALVES, NETTING SCREENS, FLOW METERS, PIPE AND FITTINGS
3 REF DQ101 FOR SCH OF DEBRIS HANDLING EQUIP
4 REF DE101 FOR GENERATOR PLANS
5 REF DI101 FOR PROCESS INSTRUMENTATION CONTROL LOCATIONS
6 REF CU107 FOR YARD PIPING
7 ALL EXPOSED SURFACES OF THE LOWER AND UPPER WET WELLS THAT THE NETTING SCREENS MAY COME INTO CONTACT WITH SHALL HAVE A SMOOTH TROWELED FINISH WITH A HARD, SLICK SURFACE FREE FROM TROWEL MARKS
8 REFERENCE SPECIFICATION 01030 FOR DETAILS OF ALTERNATIVE BID ITEMS

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON THE RECORD DRAWING AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS.
3. REMOVE EXISTING NETTING SCREEN GUIDE RAILS AND SUPPORT.
4. NETTING SCREENS SHOWN IN THE RECORD DRAWING ARE NO LONGER INSTALLED AND HAVE BEEN REPLACED WITH A FABRICATED METAL MESH SCREEN. REMOVE FABRICATION METAL MESH SCREEN.
5. NETTING SCREEN ALTERNATE BID IS NOT INSTALLED AS SHOWN IN THE RECORD DRAWING.
6. DEMOLISH THE EXISTING GRATED WALKWAYS AND HANDRAILS THAT SPAN ACROSS THE DECK OPENING ABOVE THE LOWER WET WELL CHANNEL.
7. DURING CONSTRUCTION, CONTRACTOR SHALL FURNISH AND INSTALL FALL PROTECTION DEVICES WHEREVER HANDRAILS ARE REMOVED AS PART OF WORK. FALL PROTECTION DEVICES SHALL INCLUDE TEMPORARY GUARD RAILS AND TOE BOARDS.
8. GRATING AND HANDRAILS MAY BE TEMPORARY REMOVED FOR THE INSTALLATION OF EQUIPMENT. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION. WHEN INSTALLATION OF EQUIPMENT AS PART OF THIS BID PACKAGE IS COMPLETE.

Rev.	Description	Date	Appr.
	GENERAL CORRECTION		

Designed by: B. MARTIN
Drawn by: T. GAY
Reviewed by: J. LEWIS
Checked by: D. FRENCH
File name: WC14---401_--DW-LOWR-WWET.dwg
Date plotted: JUNE 24, 2011
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
BUILDING 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

RECIRC PIPING AND EQUIP
LOWER WET WELL PLAN

Sheet Reference Number: DW401
Sheet 461 of 481

STATE OF TEXAS — BRYAN S. MARTIN — 94699 — LICENSED PROFESSIONAL ENGINEER
6-24-11
THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699 ON 6-24-11
Brown & Gay Engineers, Inc. TBPE Registration No. F-1046

BROWN & GAY ENGINEERS, INC.
Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330,
Austin, Texas 78731
Tel: 512-879-0400 Fax: 512-879-0499
— Civil engineers and surveyors —
TBPE REGISTRATION NO. F-1046

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY DEMOLITION LOWER WET WELL

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

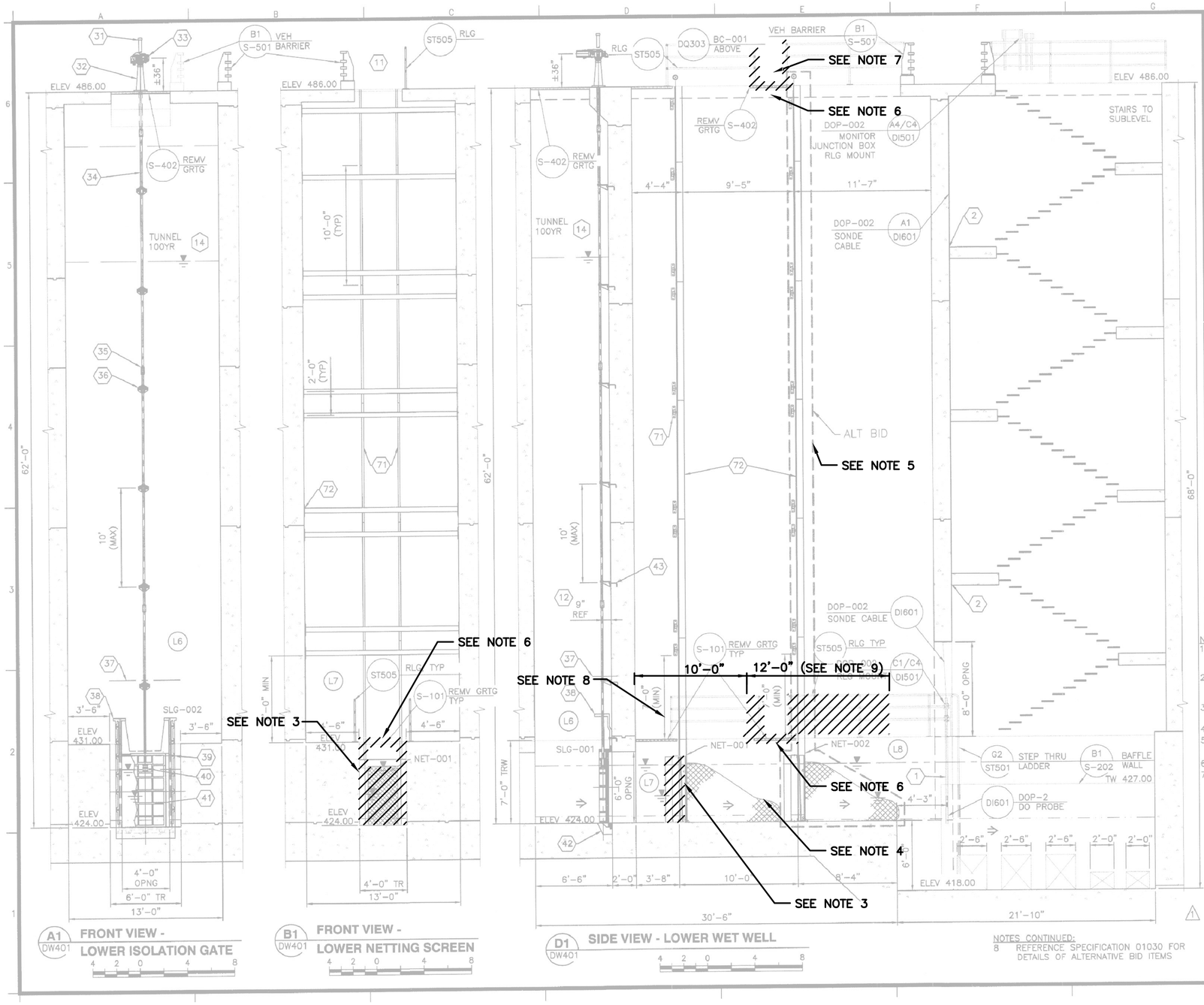
STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER — 3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. D-03
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\D-03.DWG BY: GADHIAT DATE: 3/8/2023 7:57 AM



SHEET KEYNOTES

DO PROBE – SS13401
REF SCH 01 DI601

1 ±11' LONG 2" SCH 40 MIN PVC. POSITION SENSOR TO BE CENTERED IN CHANNEL AT A DEPTH OF ±424.

2 PENETRATE STAIR LANDINGS AND SECURELY SUPPORT CABLE TO WALL

11 ±23' TO TOP OF BRIDGE CRANE ROLLING SURFACE

12 DIMS PER SHOP DRAWINGS PER SLUICE GATE SPEC SS11289

SLUICE GATE – SS11289
REF SCH 12 DW605

31 STEM COVER
32 MOTOR ACTUATOR FLOORSTAND
33 ELEC ACTUATOR
34 OPERATING STEM
35 STEM COUPLING
36 STEM GUIDE PER DETAIL G4/DW502
37 HEIGHT OF FULLY OPENED GATE
38 GATE FRAME / GUIDE
39 WEDGE
40 THRUST NUT
41 GATE DISC
42 FLUSH BOTTOM SEAL
43 ANCHOR BOLT 44 E TYPE WALL THIMBLE

NETTING SCREENS – SS11173
REF SCH 13 DW605
REF DTLS DW501

71 NETTING GUIDE RAILS
72 NETTING GUIDE RAIL SPT

LEGEND

U1 L1 HYDRAULIC NODE – REFER TO TABLE SHOT DW602 FOR FLOW/HGL INFORMATION
WATER SURFACE ELEVEN
PROJECT HYDRAULIC NODE REF GJ002
WATER FLOW DIR
100YR–WSE
HIGH WATER LEVEL
LOW WATER LEVEL

NOTES:
1 REF DW601 & DW602 FOR RECIRC FLOW SCHEMATIC AND RECIRC HYDRAULIC DATA
2 REF DW603–DW605 FOR SCH OF GATES, PUMPS, VALVES, NETTING SCREENS, FLOW METERS, PIPE AND FITTINGS
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4 REF DE101 FOR GENERATOR PLANS
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NOTES CONTINUED:
8 REFERENCE SPECIFICATION 01030 FOR DETAILS OF ALTERNATIVE BID ITEMS

THIS CONFORMED VOLUME INCLUDES RELEVANT PORTIONS OF ADDENDA AND IS ISSUED FOR CONSTRUCTION CONVENIENCE ONLY. THE CONTRACTOR SHOULD REVIEW THE CONFORMED DOCUMENTS AND ADDENDA, SHOULD DISCREPANCIES EXIST BETWEEN THE CONFORMED SET AND THE CONTRACT DOCUMENTS, THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER THE CONFORMED SET.

Rev.	Description	Date	Appr.
	GENERAL CORRECTION		

Designed by: B. MARTIN
Drawn by: T. GAY
Checked by: D. FRENCH
Reviewed by: T. BASSER
Plot date: JUNE 14, 2011
Drawing scale: AS NOTED
WC14-----402_-DW-LOWR-WWCT.DWG

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBRESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

RECIRC PIPING AND EQUIP
LOWER WET WELL SECTIONS

Sheet Reference Number: DW402
Sheet 462 of 481

STATE OF TEXAS
BRYAN S. MARTIN
94699
LICENSED PROFESSIONAL ENGINEER

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699 ON 6-24-11

Brown & Gay Engineers, Inc. TBPE Registration No. F-1046

BROWN & GAY ENGINEERS, INC.
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7000 North Mopac, Suite 330,
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— Civil engineers and surveyors —
TBPE REGISTRATION NO. F-1046

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9. DEMOLISH THE EXISTING HANDRAILS ON BOTH SIDES OF THE CHANNEL AS DIMENSIONED ON THIS DRAWING.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY DEMOLITION LOWER WET WELL SECTION

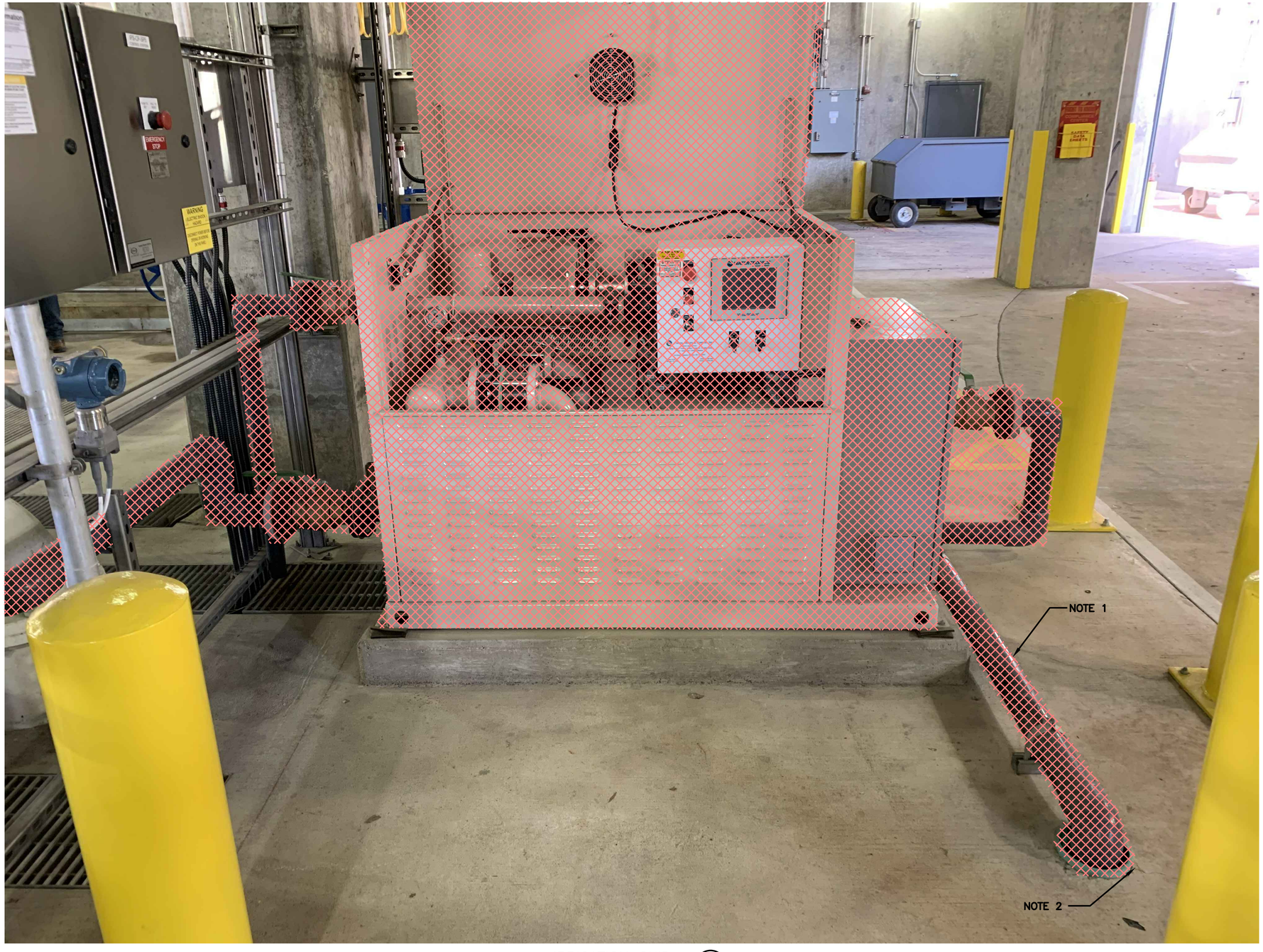
AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. D-04
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\D-04.DWG BY: GADHIAT DATE: 3/8/2023 7:56 AM



IRRIGATION SKID (1 / D-01)
SCALE: NTS

NOTES:

1. CUT AND REMOVE ALL ABOVE SLAB IRRIGATION SKID DISCHARGE PIPING, APPROXIMATELY 8 LF OF 3" PVC.
2. REMOVE PIPING AND CASING PIPING AND CAP BELOW SLAB PIPING TO BE FLUSH WITH SLAB.

LEGEND:

DEMOLITION

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY
DEMOLITION IRRIGATION SKID

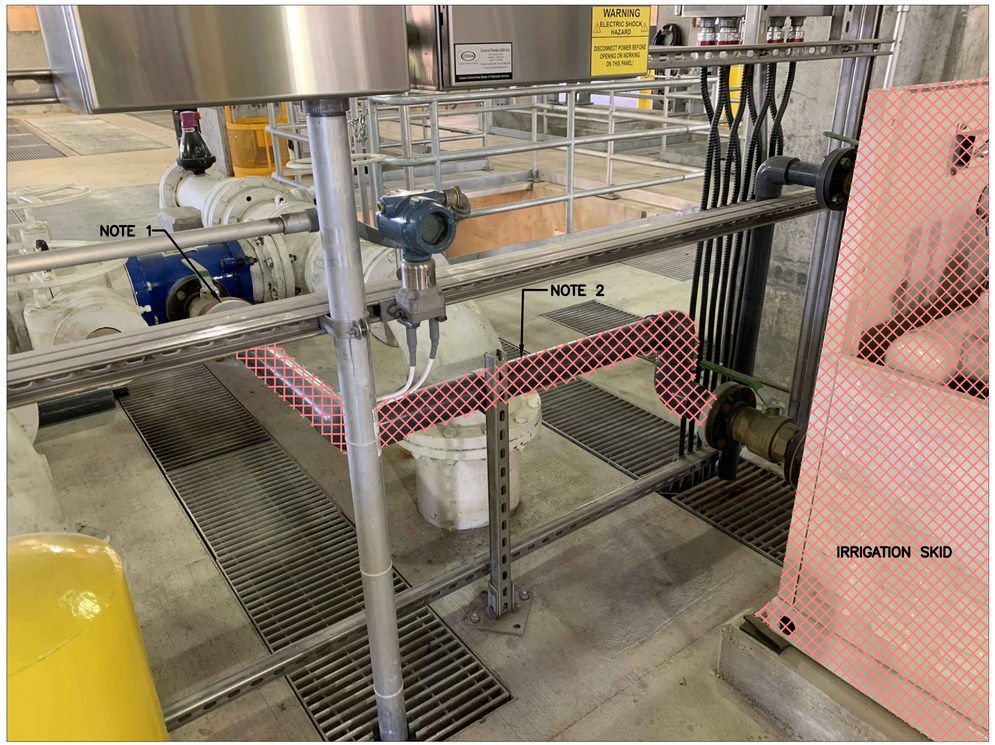
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER — 3/7/2023

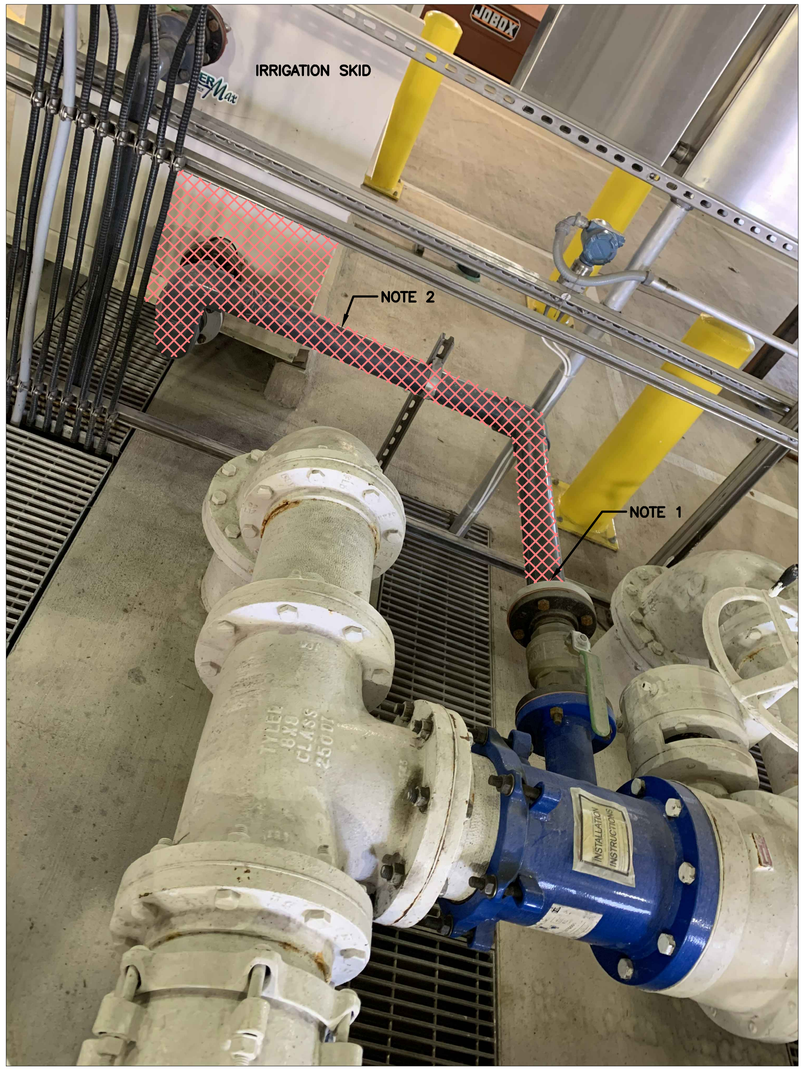
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. D-20
SHEET No. OF



IRRIGATION SKID SUCTION PIPING – VIEWPOINT SOUTH
SCALE: NTS



IRRIGATION SKID SUCTION PIPING – VIEWPOINT NORTH
SCALE: NTS

NOTES:

1. CUT AND PLUG WITH 3" BLIND FLANGE AT ENTRANCE TO VALVE.
2. DEMOLISH AND REMOVE APPROXIMATELY 8 LF OF EXISTING 3" PVC PIPE.

LEGEND:

DEMOLITION

IRRIGATION SKID SUCTION PIPING 1/D-01
SCALE: NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY
DEMOLITION IRRIGATION SKID SUCTION PIPING

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. D-21
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\D-21.DWG BY: GADHIAT DATE: 3/8/2023 7:54 AM

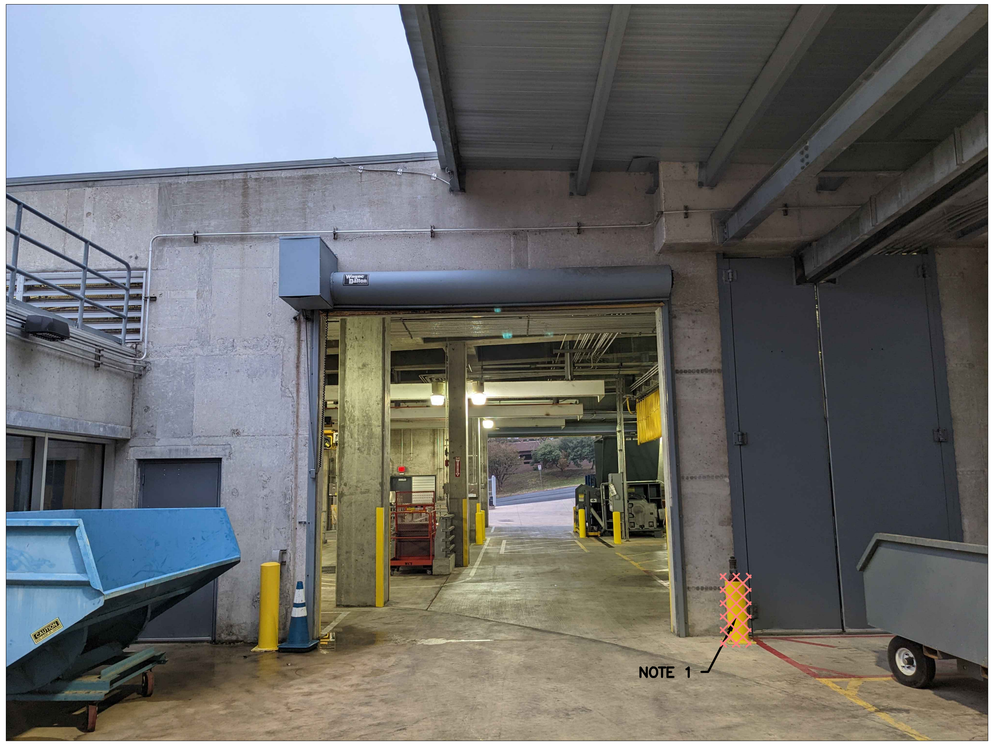
NOTES:

1. REMOVE BOLLARD/PIPE PROTECTION AND CUT AND REMOVE ALL PIPING AND APPURTENANCES ABOVE GRADE. CAP PIPE TO BE FLUSH WITH SLAB.

LEGEND:

DEMOLITION

HYDRANT DEMO
EXISTING CONDITIONS AT EAST OVERHEAD DOOR
SCALE: NTS



HYDRANT DEMO
EXISTING CONDITIONS AT WEST OVERHEAD DOOR
SCALE: NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY
DEMOLITION EXTERIOR HYDRANTS

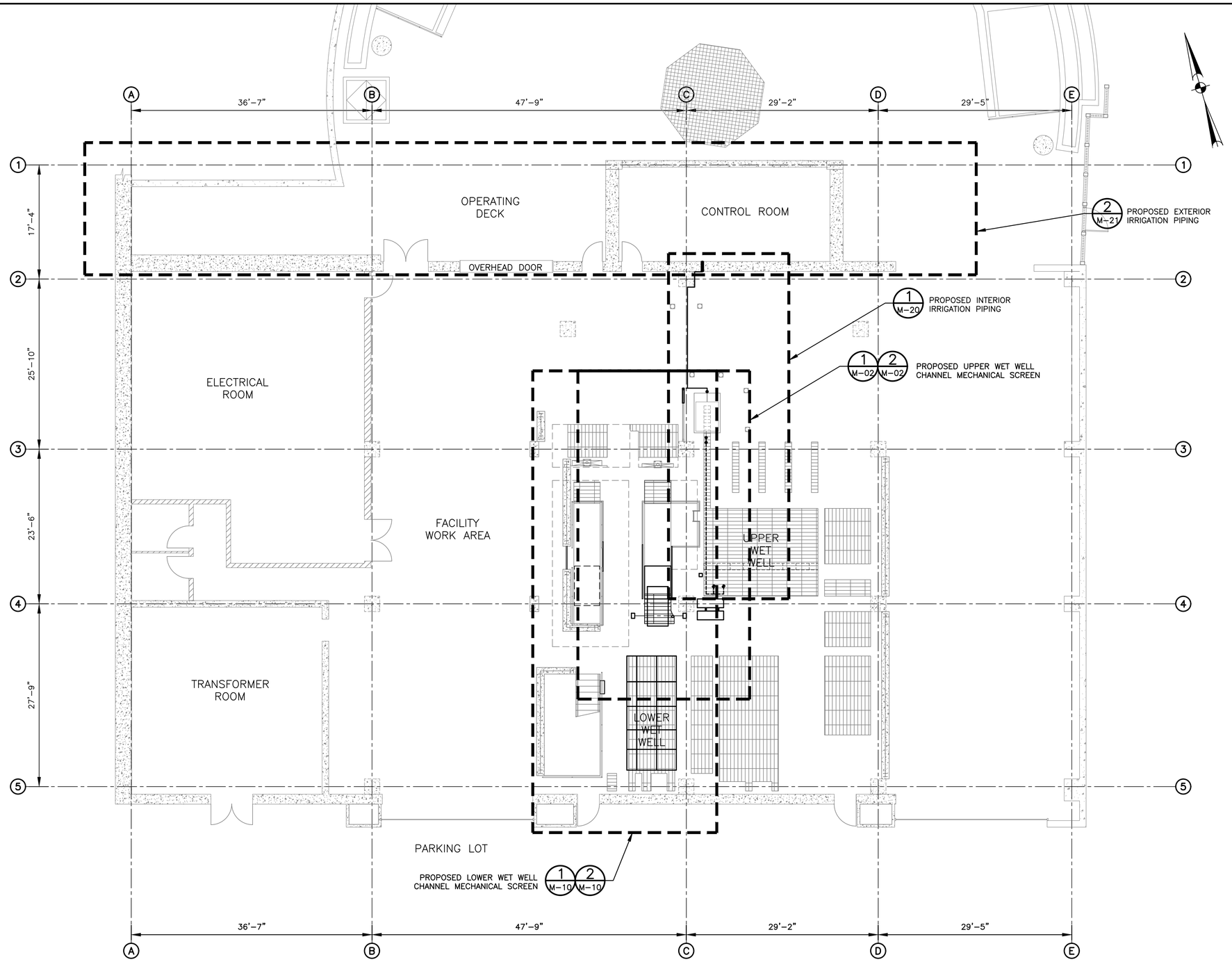
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. D-22
SHEET No. OF



NOTES:

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2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. FOR CLARITY, DRAWING DOES NOT SHOW ALL STRUCTURES, PIPING, ELECTRICAL, CONDUIT AND BOXES, OR EQUIPMENT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY PROPOSED MECHANICAL PLAN

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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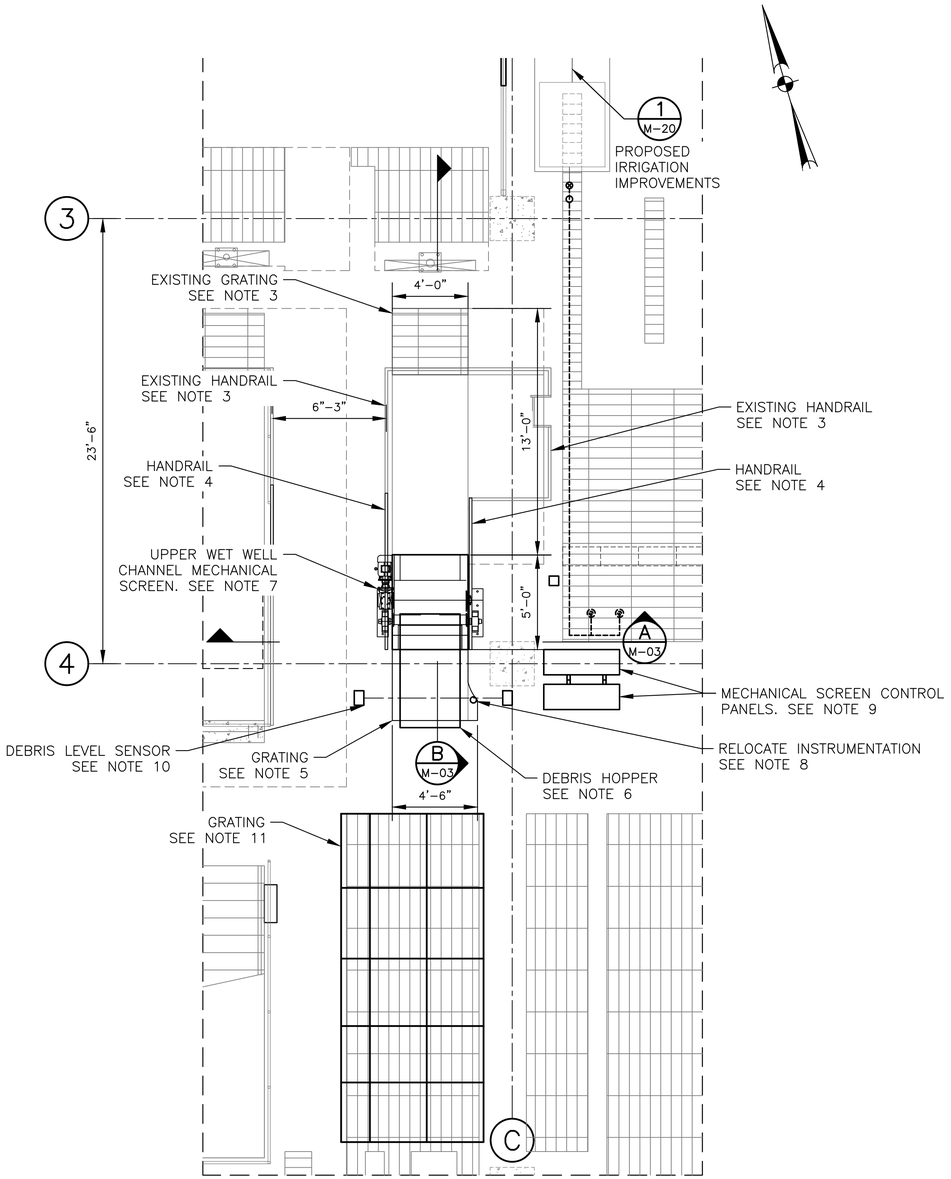
DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

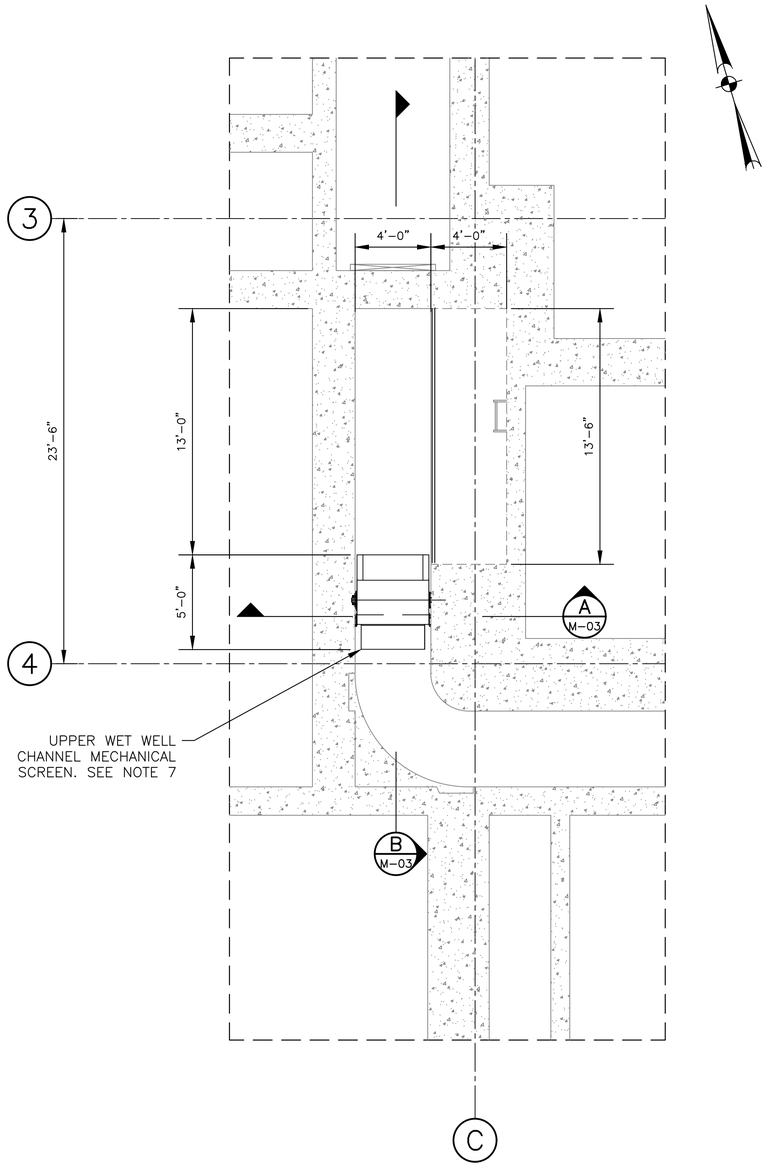
PROJECT No. 60677349
DRAWING No. M-01
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\M-01.DWG BY: GADHIAT DATE: 2/1/2023 1:54 PM



UPPER WET WELL PROPOSED MECHANICAL PLAN – OPERATING DECK LEVEL ELEV.486.00' (1 M-01)

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



UPPER WET WELL PROPOSED MECHANICAL PLAN – CHANNEL LEVEL ELEV.477.00' (2 M-01)

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

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
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3. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
4. INSTALL HANDRAIL AROUND DECK OPENING AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIAL. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL. REFERENCE STRUCTURAL DRAWINGS.
5. INSTALL GRATING PLATFORM AT EL 486.00 WITHIN DECK OPENING. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. REFERENCE STRUCTURAL DRAWINGS.
6. PROVIDE DEBRIS HOPPER. REFERENCE SPECIFICATION 11327.
7. MECHANICAL SCREEN INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
8. RELOCATE EXISTING SENSORS IPS–LE–0202 AND IPS–TE–2020. REFERENCE ELECTRICAL DRAWINGS.
9. MECHANICAL SCREEN CONTROL PANEL SHALL BE PROVIDED BY MECHANICAL MANUFACTURER. ENCLOSURE SHALL BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. REFERENCE ELECTRICAL DRAWINGS.
10. PROVIDE DEBRIS LEVEL SENSOR/TRANSMITTER MOUNTED AT EL. 489.25 ON THE COLUMN AND UNISTRUT SUPPORT ON EACH SIDE OF THE CHANNEL. COORDINATE INSTALLATION HEIGHT WITH SELECTION OF DEBRIS HOPPER. REFERENCE SPECIFICATION 11327 AND ELECTRICAL DRAWINGS.
11. REPLACE EXISTING GRATING WITH STEEL GRATING AT EL 486.00 WITHIN DECK OPENING. CONTRACTOR SHALL VERIFY DIMENSIONS. REFERENCE STRUCTURAL DRAWINGS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

UPPER WET WELL PROPOSED MECHANICAL PLAN

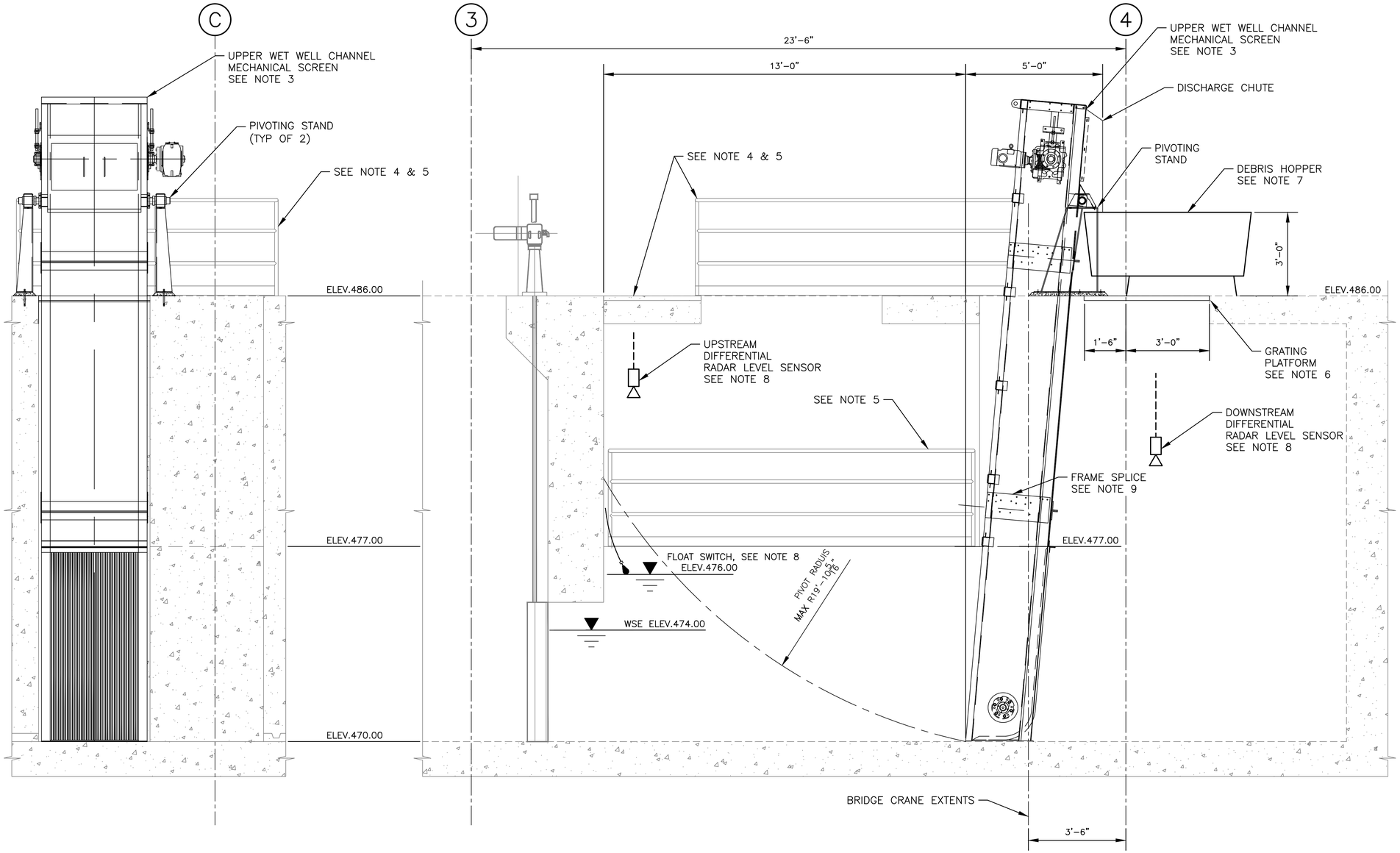
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER
3/1/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-02
CHECKED: CW	
APPROVED: SGE	SHEET No.
SCALE: AS NOTED	OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\M-02.DWG BY: GADHIAT DATE: 2/7/2023 12:56 PM



BACK VIEW– UPPER CHANNEL MECHANICAL SCREEN (A / M-02)

SCALE: 1/2" = 1'–0"

SIDE VIEW– UPPER CHANNEL MECHANICAL SCREEN (B / M-02)

SCALE: 1/2" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. MECHANICAL SCREEN INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
4. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
5. INSTALL HANDRAIL AROUND DECK OPENING AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL. REFERENCE STRUCTURAL DRAWINGS.
6. INSTALL GRATING PLATFORM AT EL 486.00 WITHIN DECK OPENING. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. REFERENCE STRUCTURAL DRAWINGS.
7. PROVIDE DEBRIS HOPPER. REFERENCE SPECIFICATION 11327.
8. DIFFERENTIAL LEVEL SENSORS AND FLOAT SWITCH SHALL BE MOUNTED AS REQUIRED BY MECHANICAL SCREEN MANUFACTURER IN A LOCATION THAT IS CLEAR OF CONFLICT WITH THE MECHANICAL SCREEN OR ANY OTHER OPERATIONS. REFERENCE SPECIFICATION 11327 AND ELECTRICAL DRAWINGS.
9. PROVIDE MECHANICAL SCREEN SIDE FRAME SPLICES AS REQUIRED FOR TRANSPORTATION AND INSTALLATION. COORDINATE THE QUALITY AND LOCATION OF THE SIDE FRAME SPLICES WITH THE MECHANICAL SCREEN MANUFACTURER.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

UPPER WET WELL
PROPOSED MECHANICAL SECTIONS

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

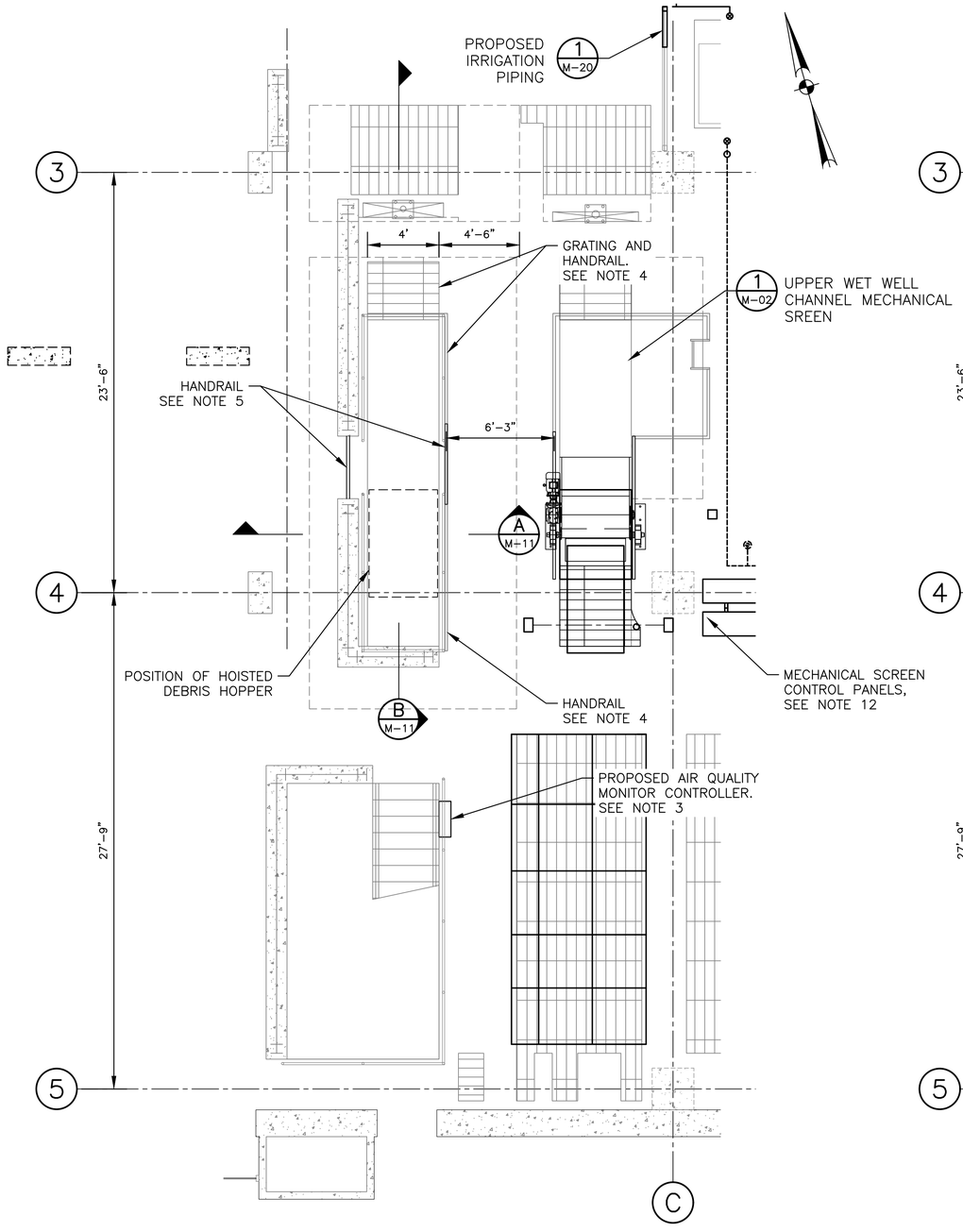
STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER — 3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

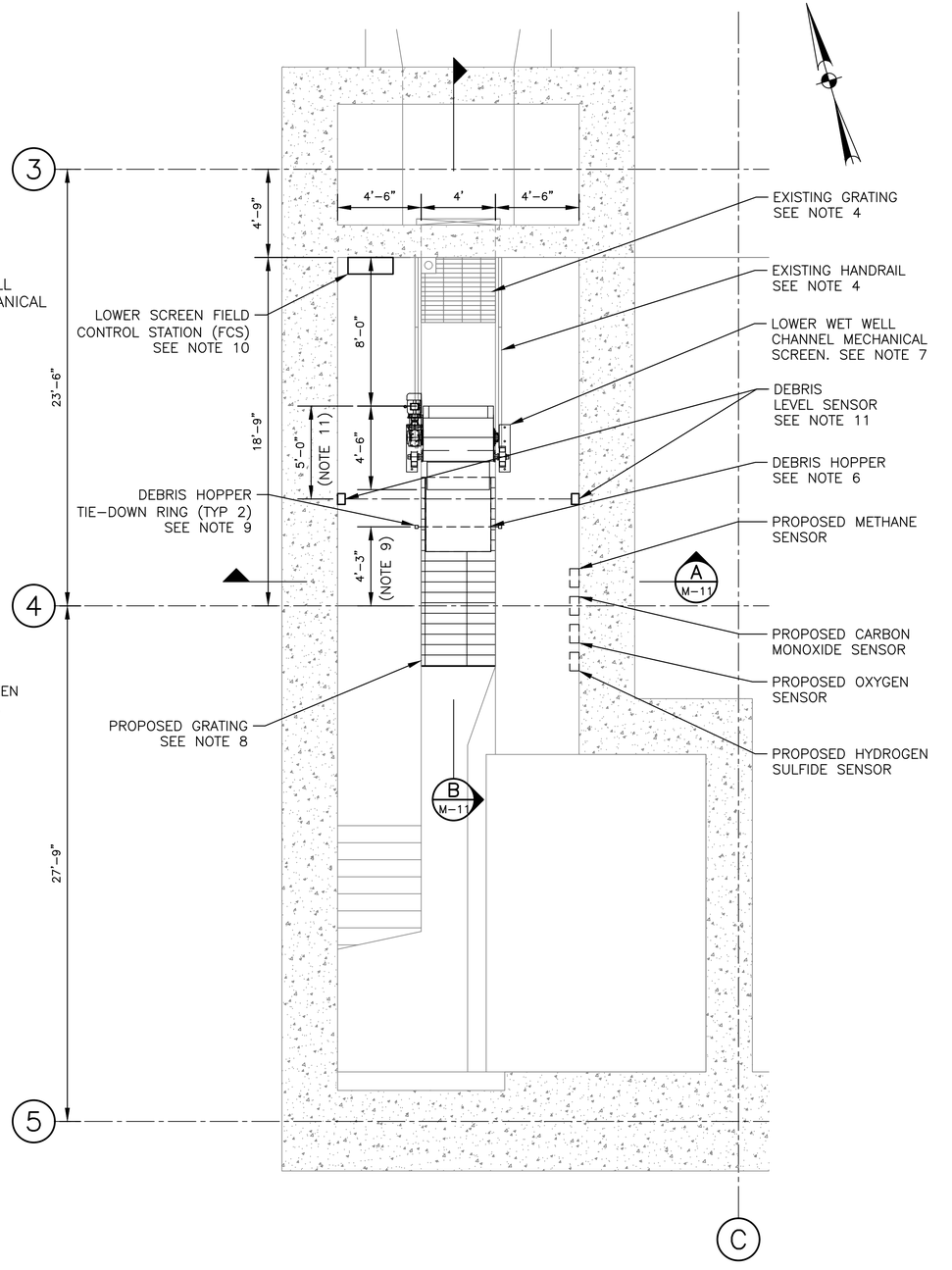
PROJECT No. 60677349
DRAWING No. M-03
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\M-03.DWG BY: GADHIAT DATE: 2/16/2023 1:54 PM



LOWER WET WELL PROPOSED MECHANICAL PLAN – OPERATION DECK LEVEL ELEV. 486.00' 1 M-01

SCALE: 1/4" = 1'–0"



LOWER WET WELL PROPOSED MECHANICAL – CHANNEL LEVEL ELEV. 431.00' 2 M-01

SCALE: 1/4" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. MOUNT PROPOSED AIR QUALITY MONITOR CONTROLLER ONTO EXISTING HANDRAIL. REFERENCE INSTRUMENTATION DRAWINGS.
4. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
5. INSTALL HANDRAIL AROUND CHANNEL AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL. REFERENCE STRUCTURAL DRAWINGS.
6. PROVIDE DEBRIS HOPPER. REFERENCE SPECIFICATION 11327.
7. MECHANICAL SCREEN INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
8. INSTALL GRATING PLATFORM AT EL 431.00 SPANNING THE CHANNEL. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. REFERENCE STRUCTURAL DRAWINGS.
9. INSTALL TWO (2) FLOOR–ANCHORED STAINLESS STEEL TIE–DOWN D–RINGS. REFERENCE STRUCTURAL DRAWINGS.
10. WALL MOUNT LOWER SCREEN FIELD CONTROL STATION. REFERENCE ELECTRICAL DRAWINGS.
11. WALL MOUNT DEBRIS LEVEL SENSOR/TRANSMITTER AT ELEV. 434.75. COORDINATE INSTALLATION HEIGHT WITH SELECTION OF DEBRIS HOPPER. REFERENCE SPECIFICATION 11327 AND ELECTRICAL DRAWINGS.
12. MECHANICAL SCREEN CONTROL PANEL SHALL BE PROVIDED BY MECHANICAL MANUFACTURER. ENCLOSURE SHALL BE MOUNTED PER MANUFACTURER RECOMMENDATIONS. REFERENCE ELECTRICAL DRAWINGS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LOWER WET WELL PROPOSED MECHANICAL PLAN

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

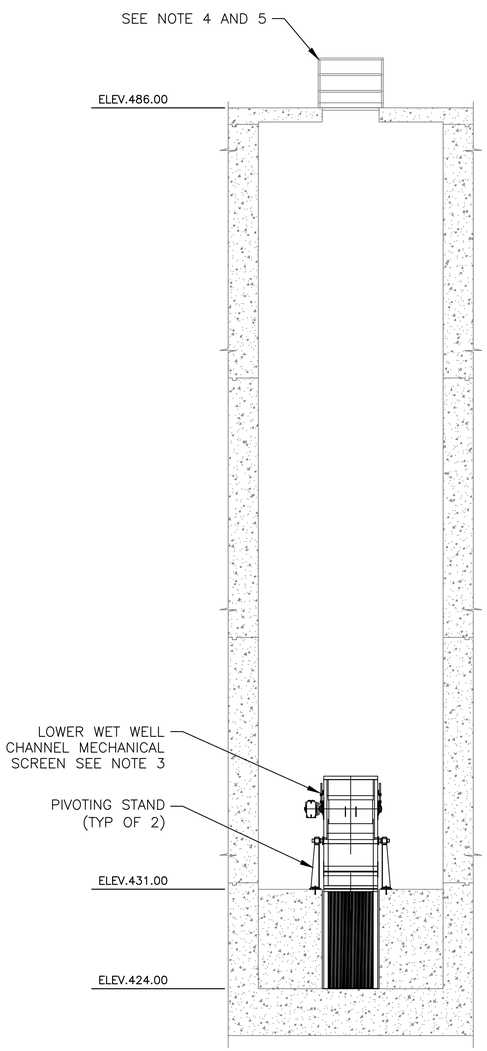
STATE OF TEXAS · JONATHAN I. CHEN · 146282 · LICENSED PROFESSIONAL ENGINEER · 01/31/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

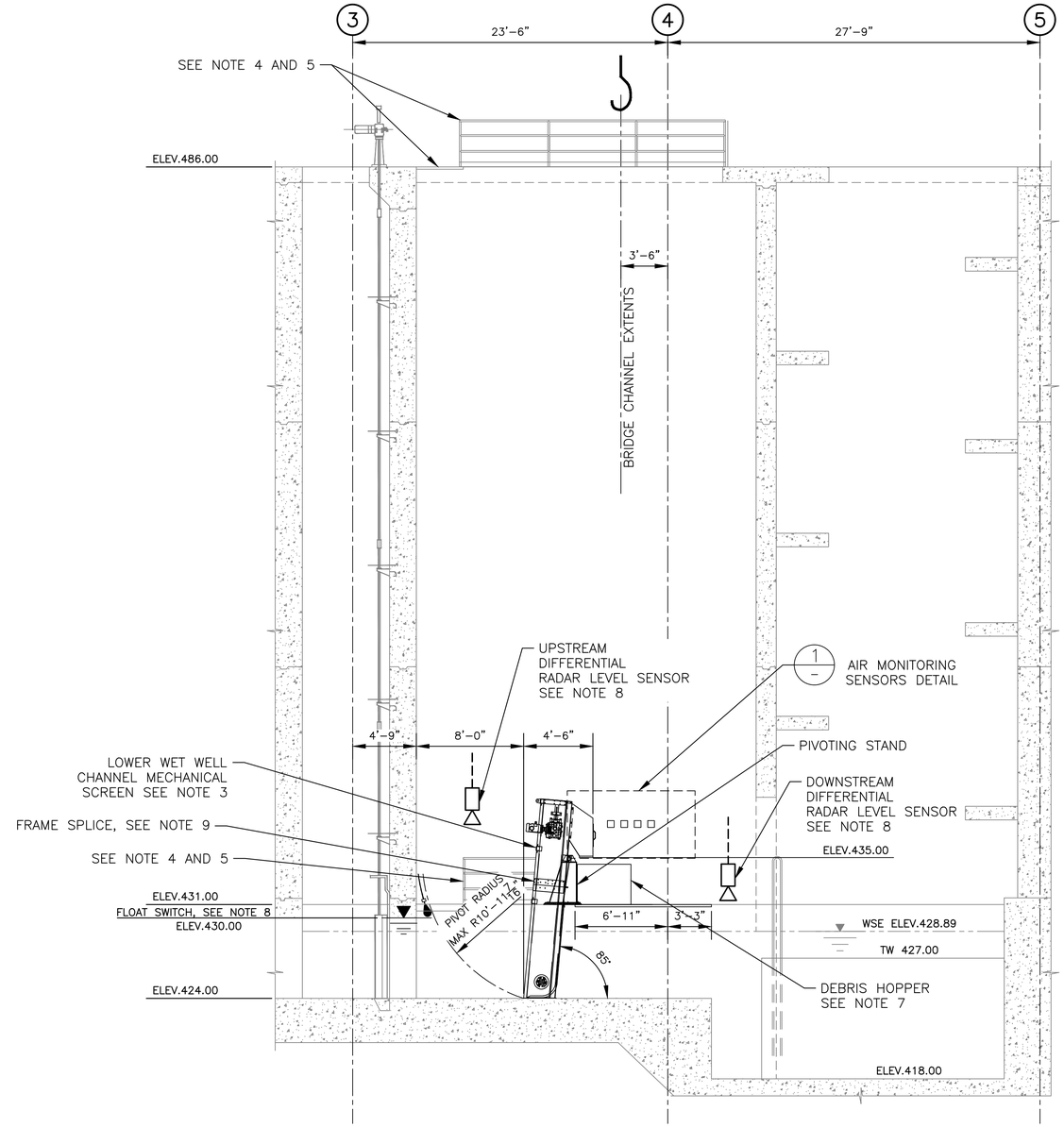
PROJECT No. 60677349
DRAWING No. M-10
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\M-10.DWG BY: GADHIAT DATE: 1/30/2023 10:53 AM



BACK VIEW – LOWER CHANNEL MECHANICAL SCREEN (A / M-10)

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



SIDE VIEW – LOWER CHANNEL MECHANICAL SCREEN (B / M-10)

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

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
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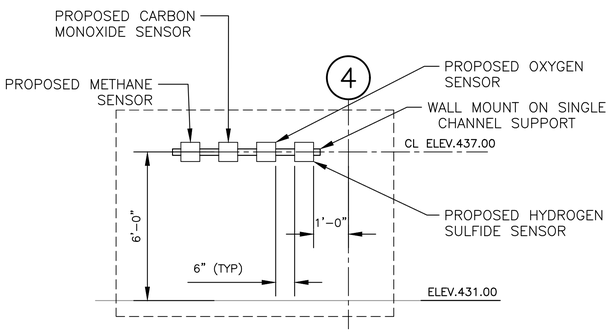
3. MECHANICAL SCREEN INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
4. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
5. INSTALL HANDRAIL AROUND THE CHANNEL AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL. REFERENCE STRUCTURAL DRAWINGS.
6. INSTALL GRATING PLATFORM AT EL 431.00 SPANNING THE CHANNEL. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. REFERENCE STRUCTURAL DRAWINGS.
7. PROVIDE DEBRIS HOPPER. REFERENCE SPECIFICATION 11327.
8. DIFFERENTIAL LEVEL SENSORS AND FLOAT SWITCH SHALL BE MOUNTED AS REQUIRED BY MECHANICAL SCREEN MANUFACTURER IN A LOCATION THAT IS CLEAR OF CONFLICT WITH THE MECHANICAL SCREEN OR ANY OTHER OPERATIONS. REFERENCE SPECIFICATION 11327 AND ELECTRICAL DRAWINGS.
9. PROVIDE MECHANICAL SCREEN SIDE FRAME SPLICES AS REQUIRED FOR TRANSPORTATION AND INSTALLATION. COORDINATE THE QUALITY AND LOCATION OF THE SIDE FRAME SPLICES WITH THE MECHANICAL SCREEN MANUFACTURER.



AIR MONITOR SENSORS DETAIL – LOWER WET WELL (1 / –)

NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LOWER WET WELL
PROPOSED MECHANICAL SECTIONS

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS – JONATHAN I. CHEN – 146282 – LICENSED PROFESSIONAL ENGINEER – 3/1/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-11
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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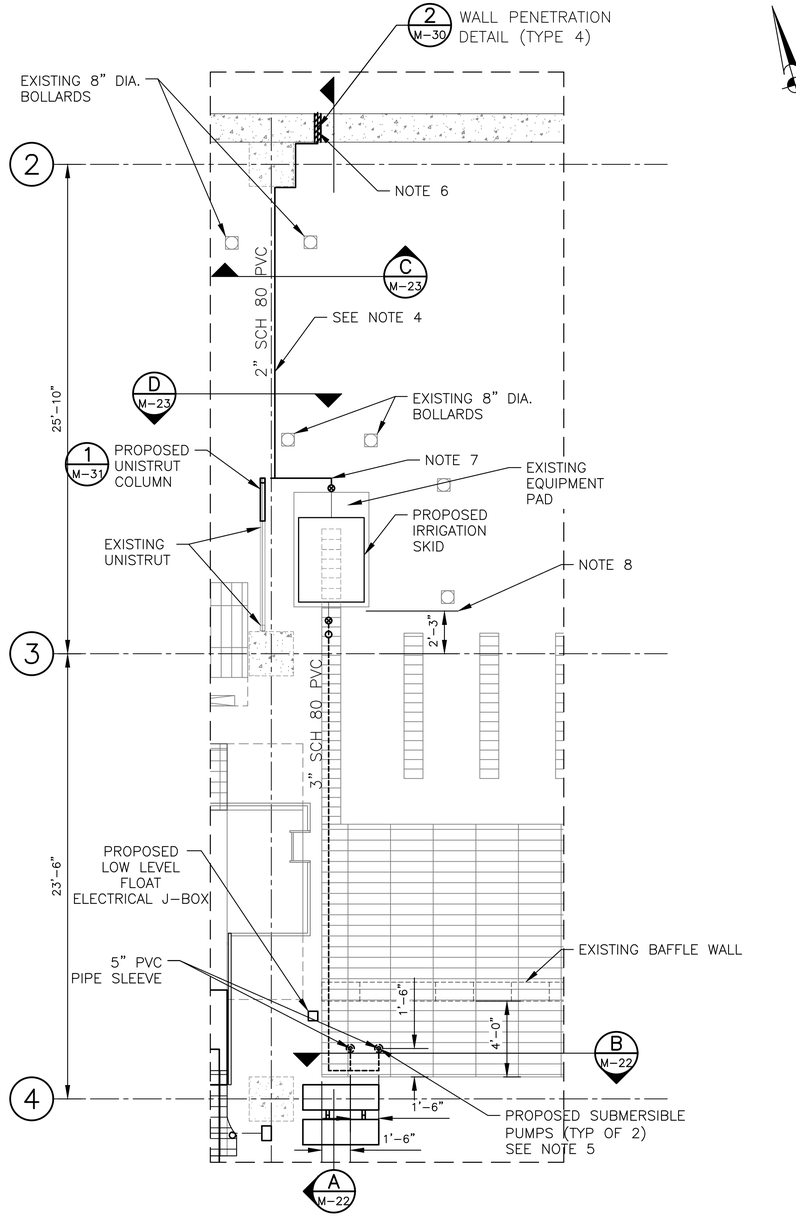

PROPOSED INTERIOR IRRIGATION PIPING – OPERATION LEVEL ELEV.486.00'

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

1
M-01

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
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3. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
4. 2" PVC IRRIGATION SKID DISCHARGE PIPING TO RUN UP PROPOSED UNISTRUT FROM CONCRETE SLAB TO CEILING BEFORE TURNING NORTH AND RUNNING ALONG CEILING BELOW EXISTING CONDUITS TO COLUMN C2.
5. MOUNT SUBMERSIBLE PUMPS 1'-6" NORTH OF SOUTHERN WALL OF UPPER WET WELL.
6. SEE SHEET M-21 FOR CONTINUATION OF IRRIGATION PIPING.
7. CONNECT TO 3" PVC PIPING AT IRRIGATION SKID DISCHARGE AT 3" PLUG VALVE WITH A 2" x 3" PVC REDUCER.
8. MEASUREMENT IS 2'-3" TO FROM BASE OF EXISTING EQUIPMENT PAD TO CENTERLINE OF COLUMN C3. EXISTING IRRIGATION SKID EQUIPMENT PAD ID APPROXIMATELY 6'-0" x 3'-11".

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED INTERIOR IRRIGATION PIPING

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-20
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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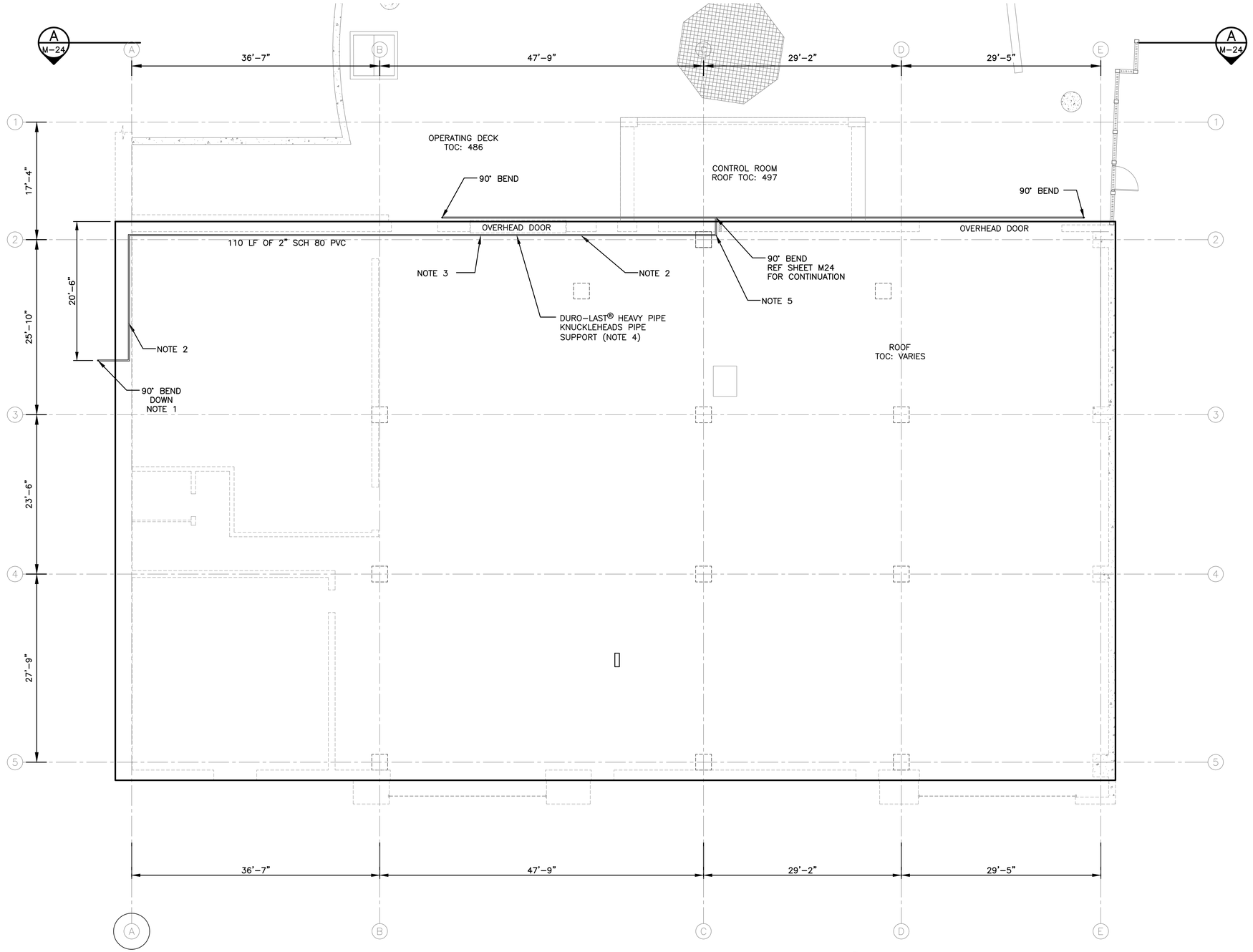

PROPOSED EXTERIOR IRRIGATION PIPING – ROOF PLAN VIEW (2 / M-02)

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

NOTES:

1. CONNECT TO EXISTING 2" PVC IRRIGATION PIPING AT EXISTING VALVE BOX APPROXIMATELY 1 LF WEST OF BUILDING. EXISTING BALL VALVE IS APPROXIMATELY 1' BELOW GRADE.
2. OFFSET 2" SCH 80 PVC PIPING 2 FEET FROM EDGE OF ROOF.
3. ALL OUTDOOR PIPING TO BE INSULATED PER SPECIFICATION 15082, AND PIPE SUPPORTS TO BE SIZED ACCORDINGLY.
4. IN ORDER TO REMAIN IN COMPLIANCE WITH EXISTING WARRANTY ON EXISTING DURO-LAST® 50 MIL MEMBRANE (28-410S), PIPE SUPPORTS FOR ROOFTOP PIPING TO BE HEAVY PIPE KNUCKLEHEADS BONDED WITH APPROVED DURO-LAST® CAULK WITH MECHANICAL FASTENERS. CONTRACTOR TO CONTACT DURO-LAST® PRIOR TO ANY WORK DONE ON EXISTING DURO-LAST® MEMBRANE TO ENSURE ALL SPECIFICATIONS AND REQUIREMENTS ARE FOLLOWED.
5. DURO-LAST® KNUCKLEHEAD PIPE SUPPORTS TO BE SPACED ACCORDING TO MANUFACTURER RECOMMENDATIONS, IN addition TO BEING RESTRAINED ON BOTH ENDS OF ALL 90° BENDS ON ROOFTOP.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED EXTERIOR IRRIGATION PIPING

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
07/14/23

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. M-21
SHEET No. OF

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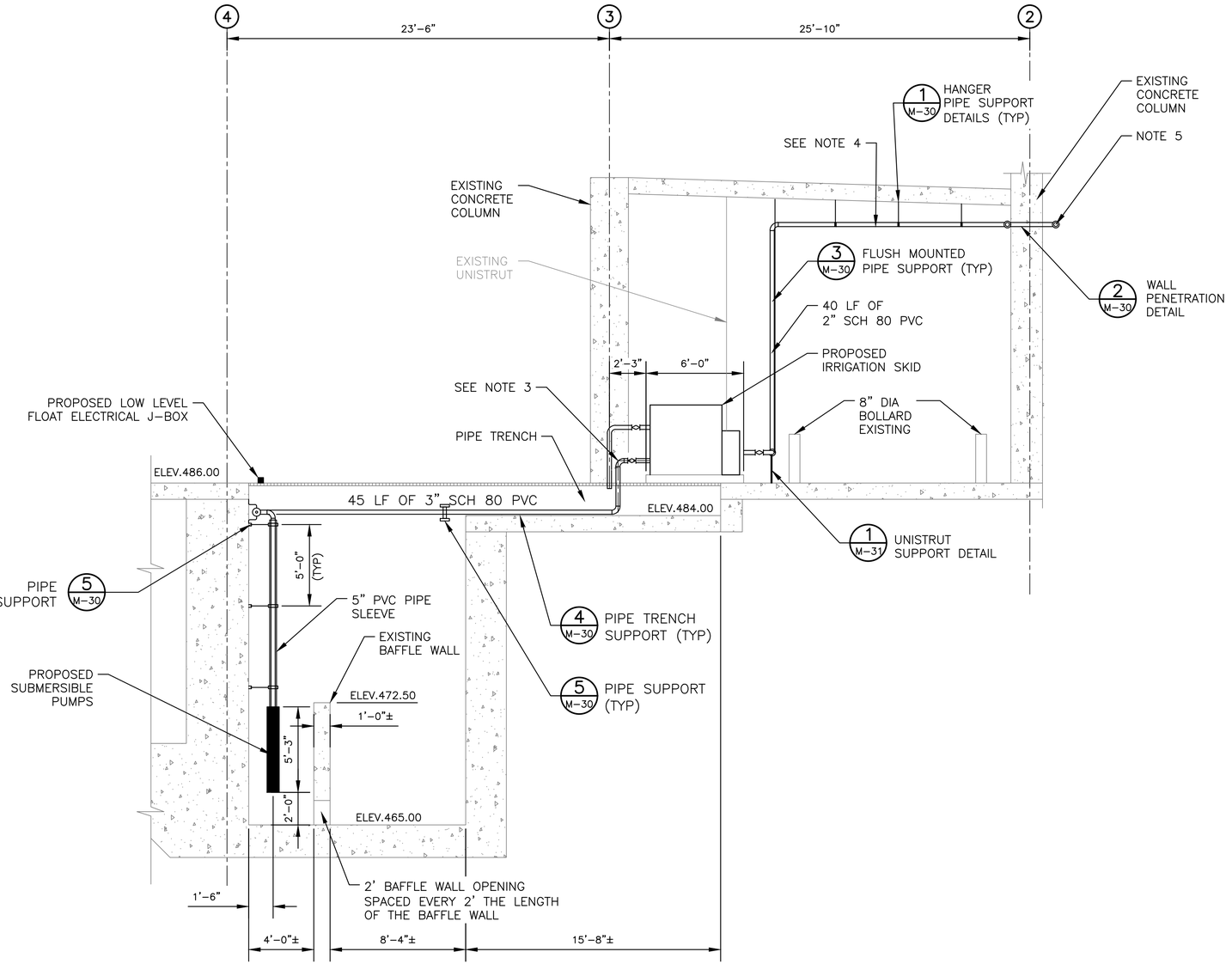
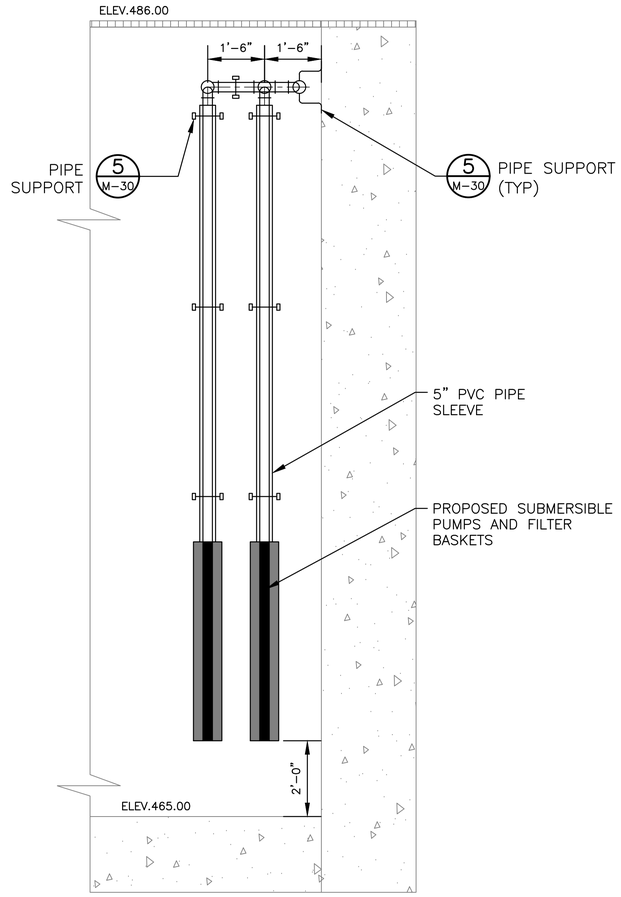
NOTES:

1. DRAWING PROVIDED FOR REFERENCE ONLY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO INITIATING WORK.
2. FOR CLARITY, DRAWING DOES NOT SHOWN ALL STRUCTURES, PIPING, ELECTRICAL, CONDUIT, AND BOXES, OR EQUIPMENT.
3. CONNECT TO EXISTING 3" PVC PIPING AT 3" PLUG VALVE.
4. 2" SCH 80 PVC TO BE HUNG APPROXIMATELY 1 FT OFF CONCRETE BEAM. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING CONDUITS AND PIPES AND ROUTE PROPOSED 2" SCH 80 PVC PIPE ACCORDINGLY.
5. SEE SHEET M-24 FOR CONTINUATIONS OF IRRIGATION PIPING.



SECTION VIEW – UPPER WET WELL (A M-20)
SCALE: 1/4" = 1'-0"



PROPOSED SUBMERSIBLE PUMPS – FRONT VIEW (B M-20)
SCALE: 1/2" = 1'-0"

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED INTERIOR IRRIGATION PIPING
SECTION VIEW (SHEET 1 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS – JONATHAN I. CHEN – 146282 – LICENSED PROFESSIONAL ENGINEER – 3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-22
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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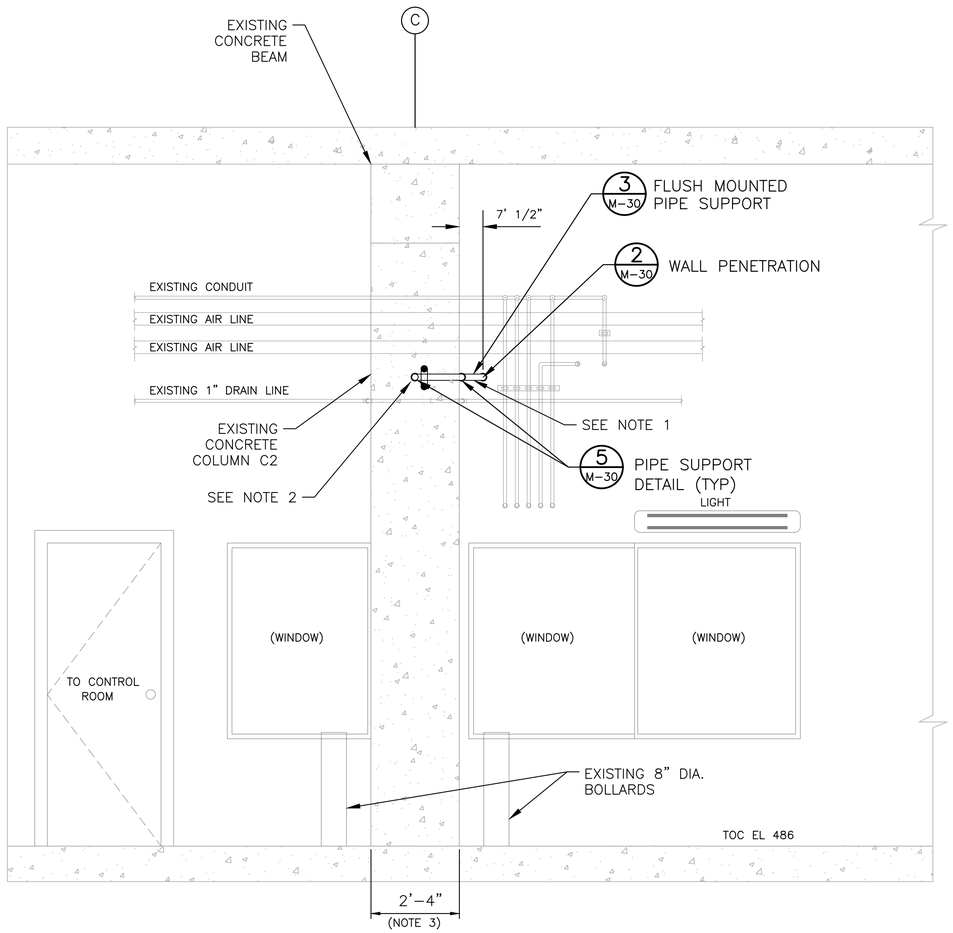
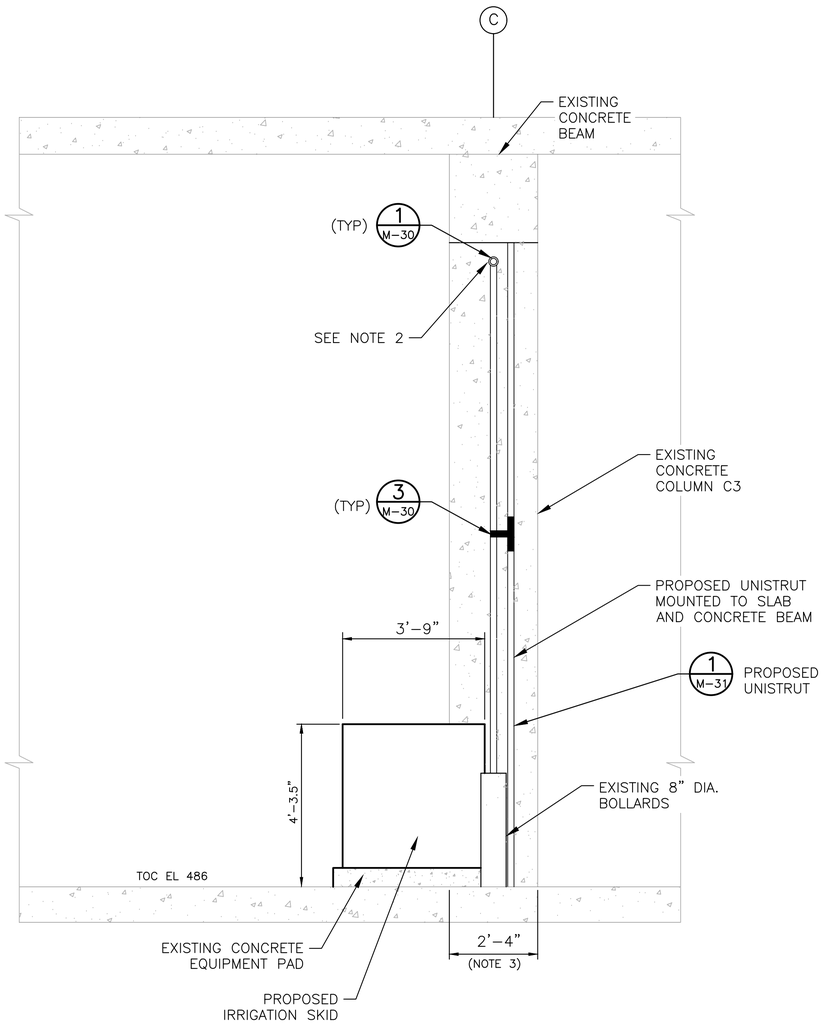


SECTION VIEW – OPERATION LEVEL (NORTH) C M-20

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



SECTION VIEW – OPERATION LEVEL (SOUTH) D M-20

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

NOTES:

1. CONTRACTOR TO MOUNT 2" SCH 80 PVC FLUSH WITH WALL PER DETAIL. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING CONDUITS AND PIPES. ROUTE PROPOSED 2" SCH 80 PVC ACCORDINGLY.
2. 2" SCH 80 PVC TO BE HUNG APPROXIMATELY 3 FT OFF CONCRETE BEAM. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING CONDUITS AND PIPES AND ROUTE PROPOSED 2" SCH 80 PVC PIPE ACCORDINGLY.
3. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED INTERIOR IRRIGATION
SECTION VIEW (SHEET 2 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

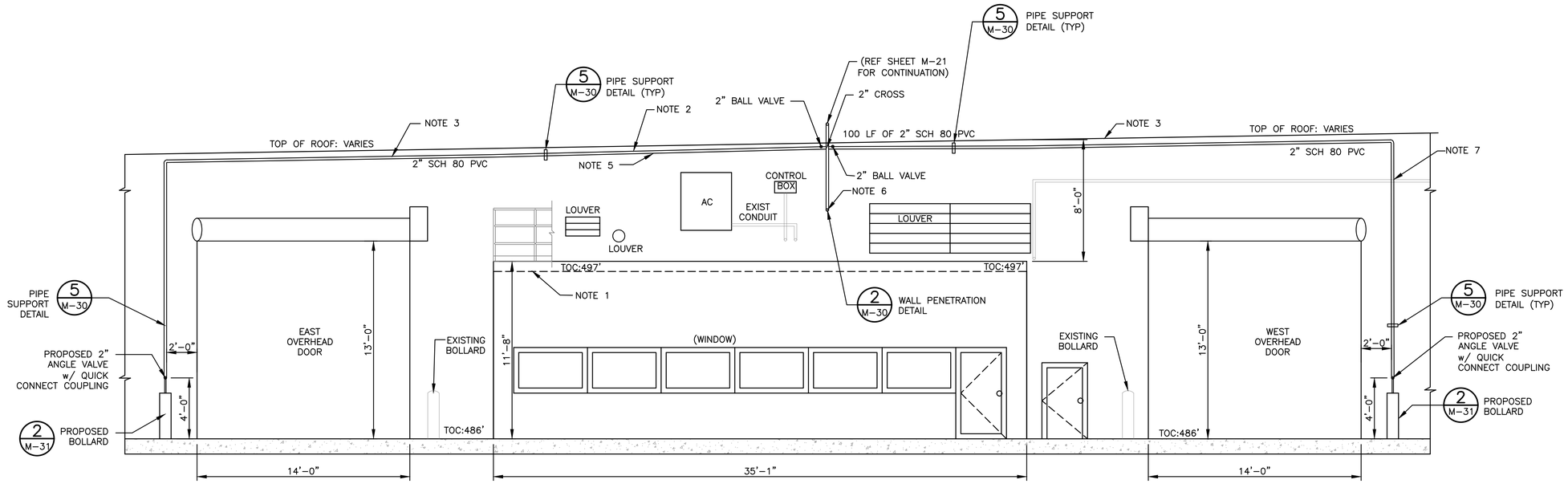
STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER
3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. M-23
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\M-23.DWG BY: GADHIAT DATE: 3/8/2023 8:20 AM

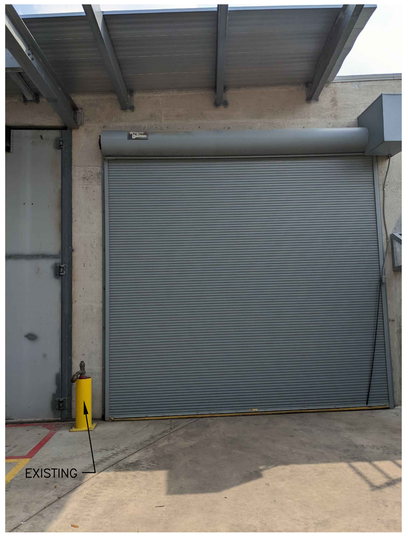


PROPOSED EXTERIOR IRRIGATION PIPING – SECTION NORTH EXTERIOR WALL (A M-21)

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

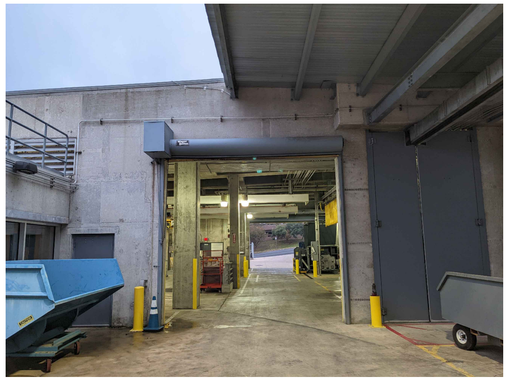
NOTES:

1. METAL BEAM GUARD (STANDARD DIMENSION, 42" IN HEIGHT) RAILING NOT SHOWN FOR CLARITY.
2. CONTRACTOR TO MAINTAIN CONSTANT SLOPE OF 2" SCH 80 PCS PIPE TO FOLLOW SLOPE OF ROOFLINE.
3. CONTRACTOR TO MAINTAIN CONSTANT SLOPE OF 2" SCH 90 PVC PIPE TO FOLLOW SLOPE OF ROOFLINE AND AVOID CONFLICT WITH EXISTING METAL BEAMS AND CONDUIT. SEE PHOTOGRAPHS FOR DEPICTION OF EXISTING CONDITIONS. PVC PIPE TO BE ROUTED BENEATH METAL BEAMS AND ABOVE OVERHEAD DOOR.
4. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
5. ALL OUTDOOR PIPING TO BE INSULATED PER SPECIFICATION 15082.
6. SEE SHEET M-22 FOR CONTINUATION FOR IRRIGATION PIPING.
7. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND ROUTE PROPOSED PIPING AROUND EXISTING CONDUIT.



EAST OVERHEAD DOOR

SCALE: NTS



WEST OVERHEAD DOOR

SCALE: NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED EXTERIOR IRRIGATION PIPING
SECTIONS VIEW

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-24
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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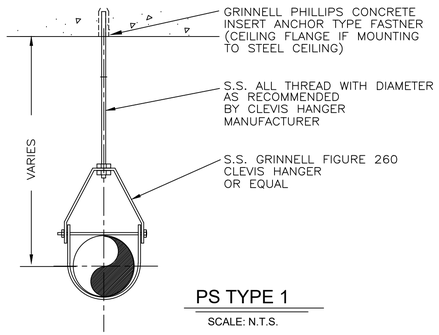
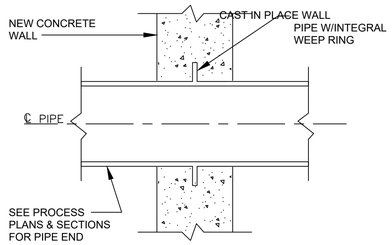


PS TYPE 1

SCALE: N.T.S.

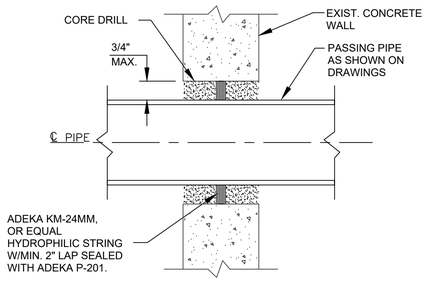
HANGER PIPE SUPPORT DETAIL 1

SCALE: N.T.S.



WP TYPE 1

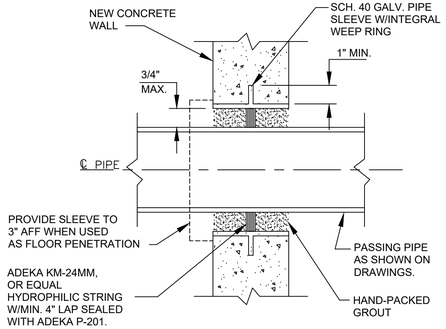
SCALE: N.T.S.



NOTE: COAT EXPOSED REBAR WITH EPOXY PAINT

WP TYPE 2

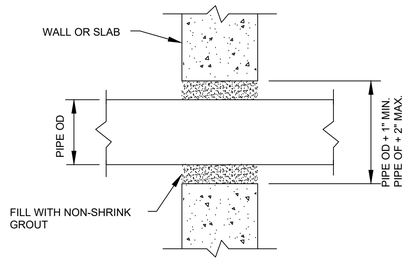
SCALE: N.T.S.



NOTE: DO NOT ALLOW PIPE SLEEVE TO COME INTO CONTACT WITH REINFORCING STEEL.

WP TYPE 3

SCALE: N.T.S.



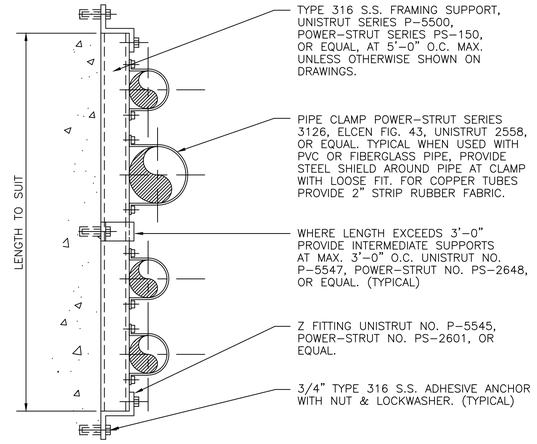
NOTE:
MAY BE USED FOR PIPES 4" DIA. AND SMALLER UNLESS NOTED OTHERWISE. LESS THAN 2" DIA. OPENING MAY BE FORMED OR CORE DRILLED AFTER CURING CONCRETE. FOR PIPES 2" DIA. AND LARGER, OPENING MUST BE FORMED.

WP TYPE 4

SCALE: N.T.S.

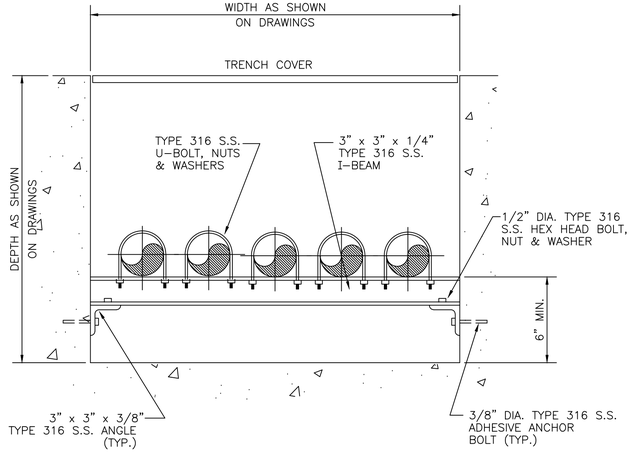
WALL PENETRATION DETAIL 2

SCALE: N.T.S.



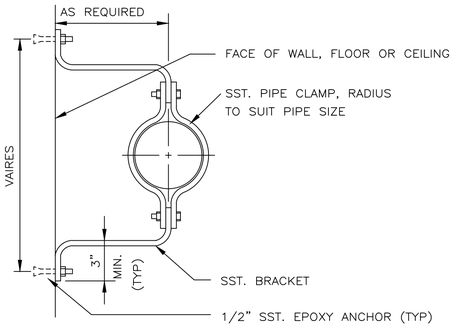
FLUSH MOUNTED PIPE SUPPORT 3

SCALE: N.T.S.



PIPE TRENCH SUPPORT 4

SCALE: N.T.S.



PIPE SUPPORT NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR DESIGNING, FURNISHING, AND INSTALLING HANGERS AND SUPPORTS FOR ALL PIPING AND VALVES TO PREVENT SAGGING AND LATERAL MOVEMENT, AND TRANSFERRING STRESS TO EQUIPMENT OR COUPLINGS.

AT A MINIMUM, SUPPORT PIPES AT EACH CHANGE OF DIRECTION, AT EACH VALVE, AT IN-LINE EQUIPMENT, AT LEAST ONCE FOR EACH LENGTH OF PIPE AND AT A MAXIMUM SPACING AS FOLLOWS:

MAXIMUM PIPE SUPPORT SPACING – (FT.)

	DIP	STEEL	PVC	COPPER	STAINLESS	OTHERS
1 1/4 & LESS	--	5	3	5	SEE S.S. SPEC	3
1 1/2	--	5	4	5	SEE S.S. SPEC	4
2	--	10	4	5	SEE S.S. SPEC	5
3	2/LENGTH	10	4	10	SEE S.S. SPEC	5
4	2/LENGTH	10	5	10	SEE S.S. SPEC	5
5 – 8	2/LENGTH	15	5	--	SEE S.S. SPEC	5
10 & LARGER	1/LENGTH	20	5	--	SEE S.S. SPEC	5

2. FOR CLARITY IN THE DRAWINGS, SOME PIPE SUPPORTS HAVE BEEN SHOWN BUT THE MAJORITY HAVE NOT. THE REQUIREMENTS OF THE ABOVE NOTE SUPERSEDE THE SUPPORTS SHOWN ON THE DRAWINGS.

3. PERFORATED STRAP HANGERS ARE NOT ACCEPTABLE.

4. PIPE HANGERS AND SUPPORTS TO BE COATED IN ACCORDANCE WITH SPECIFICATION ITEM TITLED "PAINTING AND PROTECTIVE COATING" BEFORE INSTALLATION EXCEPT FOR STAINLESS STEEL AND UNLESS OTHERWISE NOTED ON PLANS.

5. TWO NUTS TO BE PROVIDED (ONE FOR LOCKING PURPOSES) ON ALL HANGER RODS AND SUPPORTS.

6. ALL SUPPORTS TO BE SECURELY FASTENED.

7. HANGER RODS ARE TO BE SIZED AS REQUIRED TO ADEQUATELY SUSPEND THE EQUIPMENT WITH A MINIMUM SAFETY FACTOR OF 2. SECURE TIE RODS TO CONSTRUCTION AS SHOWN ON DRAWING.

8. PROVIDE ISOLATION OF DISSIMILAR METALS.

9. SADDLES FOR INSULATED PIPE TO INCLUDE PROTECTION SLEEVES.

10. PROVIDE LATERAL AND LONGITUDINAL SUPPORT AS REQUIRED TO RESIST LATERAL LOADING SUCH AS WIND.

PIPE SUPPORT DETAIL 5

SCALE: N.T.S.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

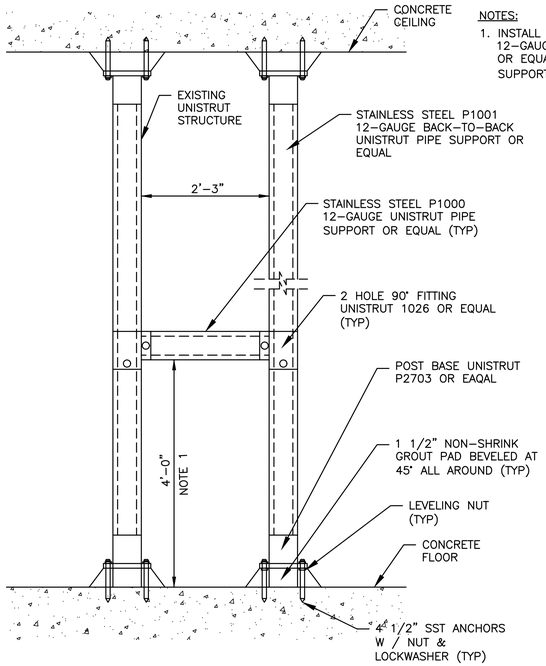
MECHANICAL DETAILS
(SHEET 1 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/31/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-30
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

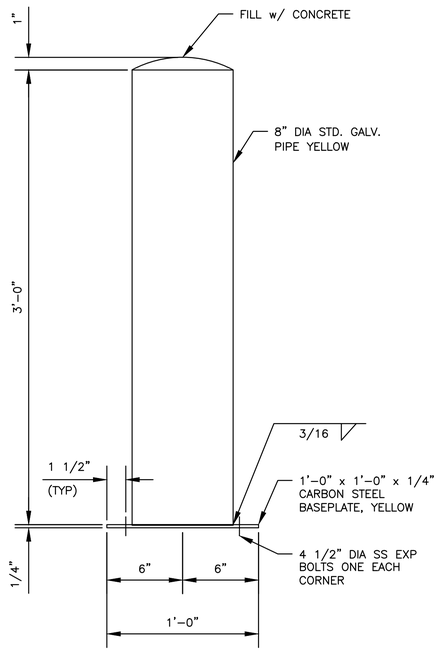


NOTES:

1. INSTALL CROSS BRACING P1000 12-GAUGE UNISTRUT PIPE SUPPORT OR EQUAL BETWEEN PROPOSED PIPE SUPPORT AND EXISTING EVERY 4 FT.

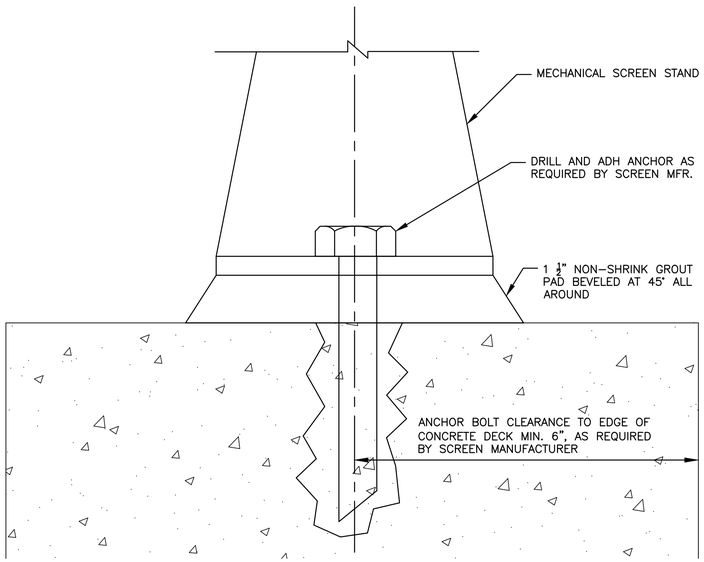
UNISTRUT SUPPORT DETAIL 1

SCALE: NTS



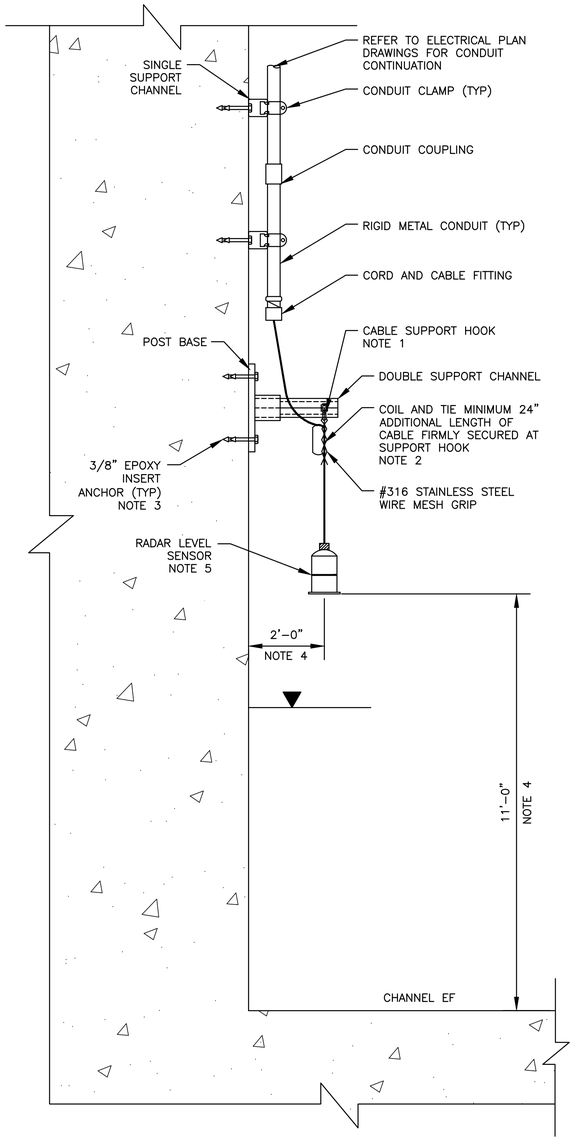
BOLLARD DETAIL 2

SCALE: NTS



MECHANICAL SCREEN FLOOR MOUNT 3

SCALE: NTS



MECHANICAL SCREEN DIFFERENTIAL LEVEL SENSOR INSTALLATION DETAIL 4

SCALE: NTS

NOTES:

1. THE #316 STAINLESS STEEL SUPPORT HOOK BOLT SIZE SHALL BE MINIMALLY SIZED 1/4 INCH, WITH A MINIMUM HOOK RADIUS OF 3/4 INCH.
2. CONTRACTOR SHALL COORDINATE VENDOR FURNISHED CABLE LENGTH WITH THE CONTRACT DOCUMENTS AND PROVIDE THE REQUIRED LENGTH FOR INTERCONNECTION TO TRANSMITTER/CONTROLLER. CONTRACTOR TO INSTALL AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.
3. THE PROPOSED STRUCTURE TYPE CONNECTING TO THE PROPOSED EQUIPMENT MAY VARY. THE EQUIPMENT ANCHOR TYPE MAY ALSO VARY BUT SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH THE EQUIPMENT IS ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR THE STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EPOXY INSERT ANCHOR.
4. CONTRACTOR SHALL COORDINATE LOCATION OF SENSOR INSTALLATION WITH MECHANICAL SCREEN MANUFACTURER. LEVEL SENSORS SHALL BE LOCATED CLEAR OF THE SWING PATH OF THE PIVOTING MECHANICAL SCREENS.
5. MOUNTING SYSTEM MAY DIFFER FROM INSTALLATION DETAIL. CONTRACTOR SHALL VERIFY WITH MECHANICAL SCREEN SYSTEM SUPPLIER AND MOUNT RADAR LEVEL SENSORS AS RECOMMENDED BY MANUFACTURER.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

MECHANICAL DETAILS
(SHEET 2 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. M-31
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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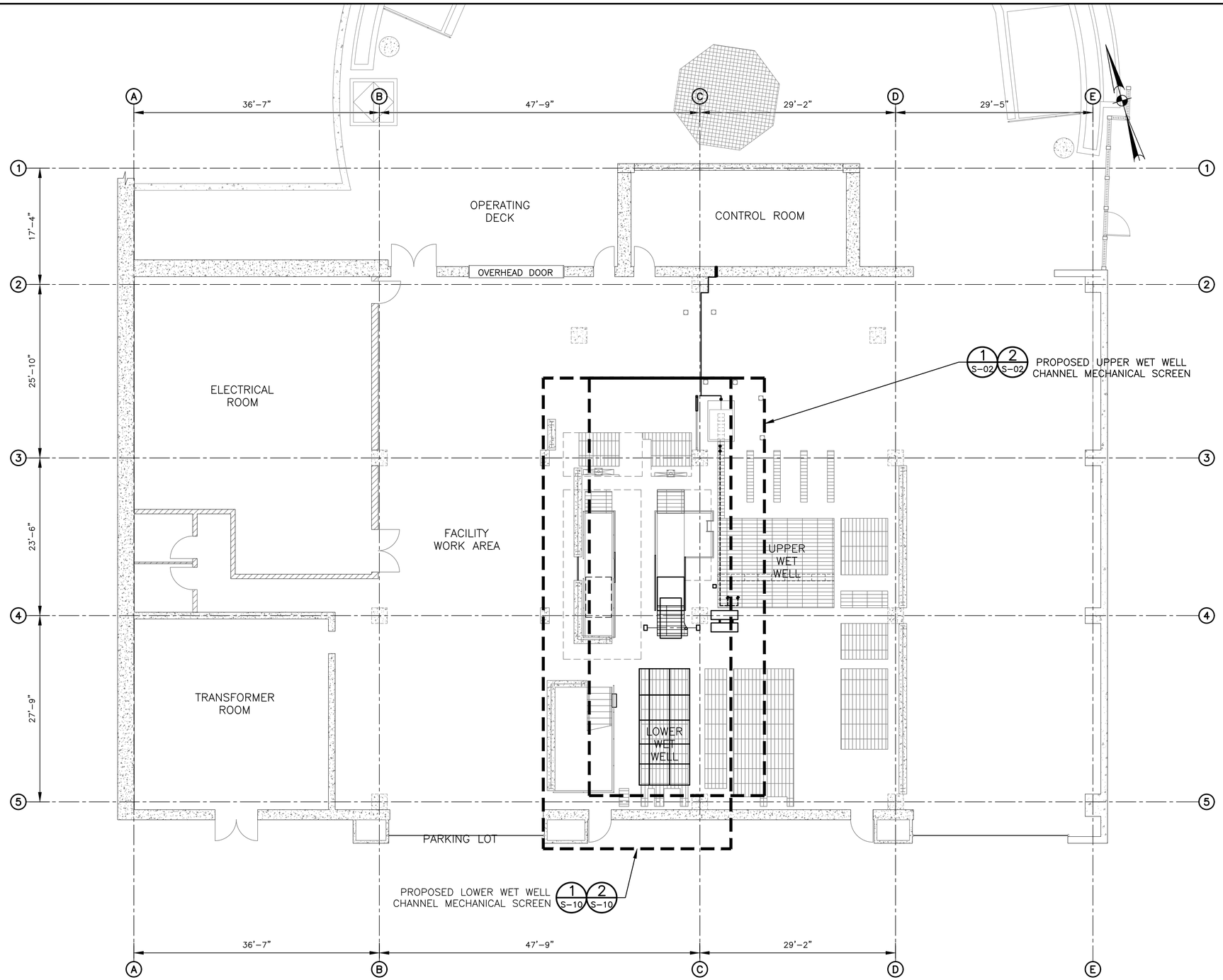


NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. FOR CLARITY, DRAWING DOES NOT SHOW ALL STRUCTURES, PIPING, ELECTRICAL, CONDUIT AND BOXES, OR EQUIPMENT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET FACILITY PROPOSED STRUCTURAL PLAN

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

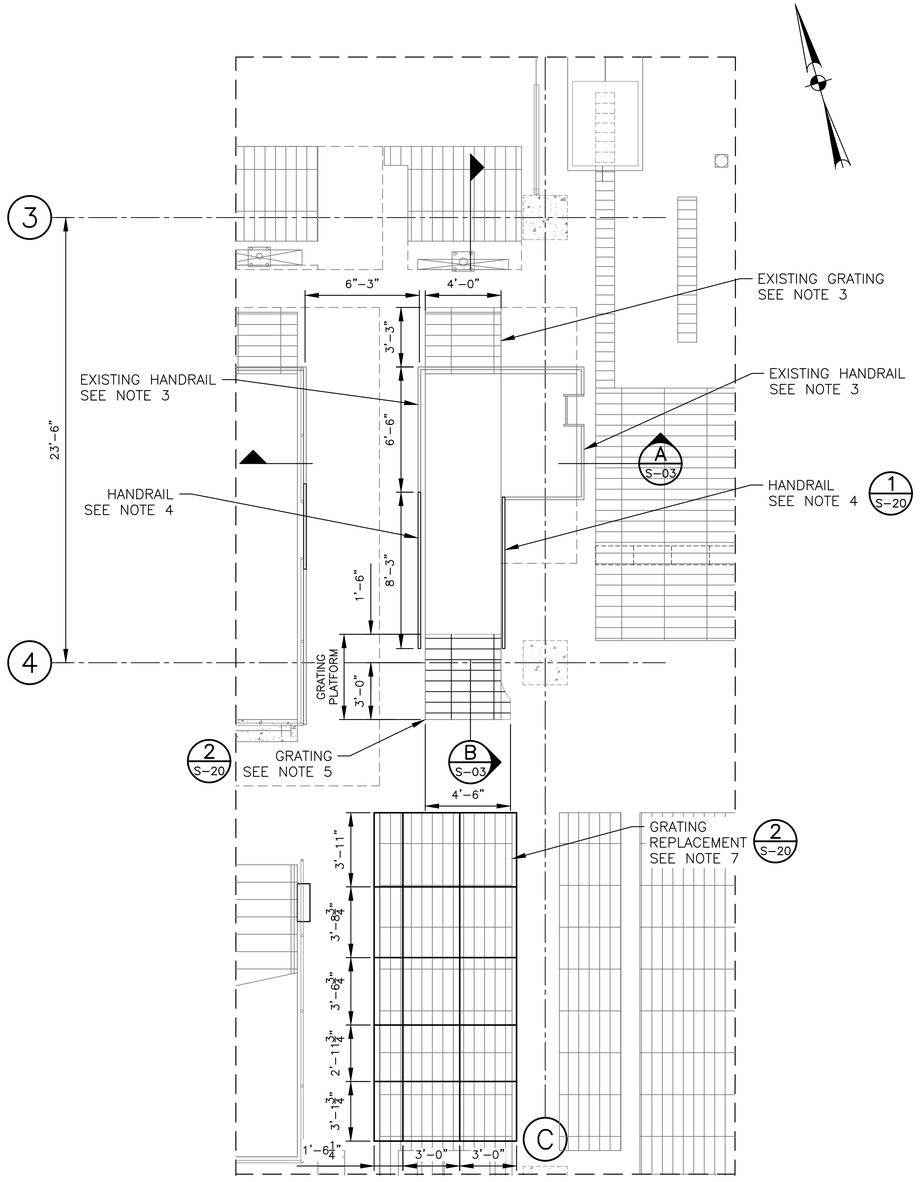
STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
3/8/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

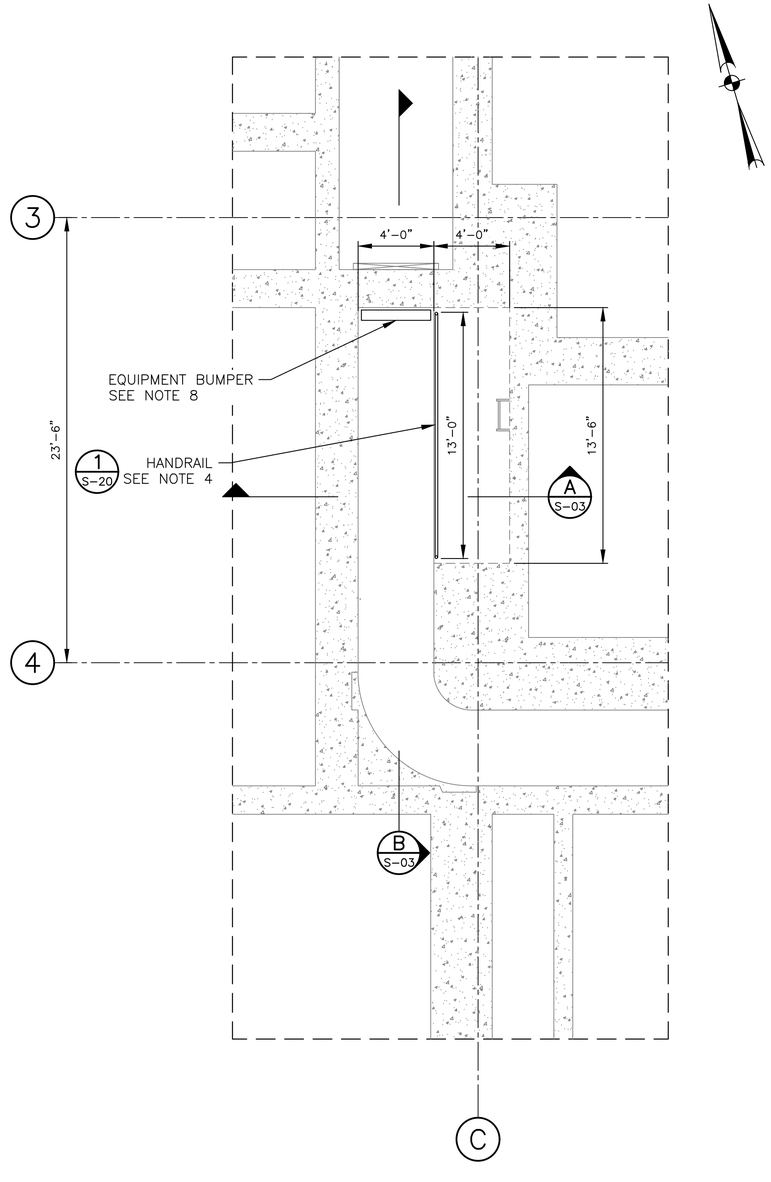
PROJECT No. 60677349
DRAWING No. S-01
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\S-01.DWG BY: GADHIAT DATE: 3/8/2023 8:27 AM



UPPER WET WELL PROPOSED STRUCTURAL PLAN – OPERATING DECK LEVEL ELEV.486.00' (1 S–01)

SCALE: 1/4" = 1'–0"



UPPER WET WELL PROPOSED STRUCTURAL PLAN – CHANNEL LEVEL ELEV.477.00' (2 S–01)

SCALE: 1/4" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
4. INSTALL HANDRAIL AROUND DECK OPENING AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIAL. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL. REFERENCE SPECIFICATION 05520.
5. INSTALL GALVANIZED STEEL GRATING PLATFORM AT EL 486.00 WITHIN DECK OPENING. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS.
6. GRATING PLATFORM INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
7. REPLACE EXISTING ALUMINUM GRATING WITH 1–3/4" THICK GALVANIZED STEEL GRATING PANELS WITH 1/4" THICK GALVANIZED STEEL TREAD PLATES NO WIDER THAN 2–FT. EXISTING GRATING SUPPORTS SHALL REMAIN IN PLACE AND SHALL BE USED TO SUPPORT THE PROPOSED GALVANIZED STEEL GRATING. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF EXISTING DECK OPENING PRIOR TO PROCURING MATERIALS.
8. INSTALL LAMINATED RUBBER BUMPERS, 12"H x 4–1/2"D, VESTIL OR APPROVED EQUAL. CONTRACTOR SHALL COORDINATE LOCATION OF INSTALLATION WITH CONFIGURATION OF MECHANICAL SCREEN TO ENSURE THAT THE BUMPERS PROTECT THE SCREEN FROM CONTACTING THE CORNER WALL WHILE THE SCREEN IS RAISED AROUND THE PIVOT MOUNT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

UPPER WET WELL PROPOSED STRUCTURAL PLAN

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

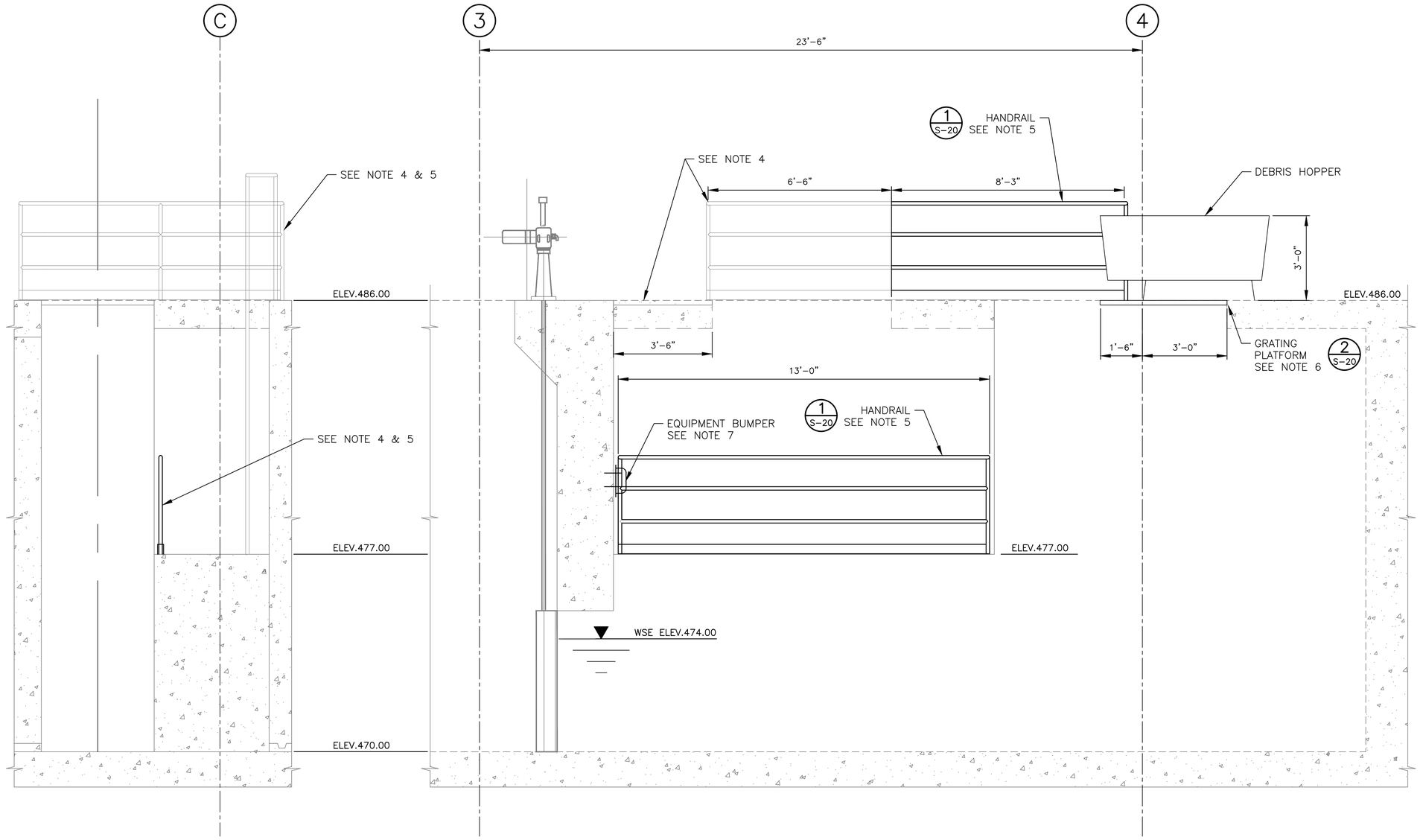
STATE OF TEXAS · SHELBY G. EKOLS · 41485 · REGISTERED PROFESSIONAL ENGINEER · 3/11/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. S-02
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\S-02.DWG BY: GADHIAT DATE: 3/8/2023 8:27 AM



BACK VIEW– UPPER CHANNEL MECHANICAL SCREEN (A / S–02)

SCALE: 1/2" = 1'–0"

SIDE VIEW– UPPER CHANNEL MECHANICAL SCREEN (B / S–02)

SCALE: 1/2" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. MECHANICAL SCREEN INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
4. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
5. INSTALL ALUMINUM HANDRAIL AROUND DECK AND CHANNEL OPENINGS AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL.
6. INSTALL GRATING PLATFORM AT EL 486.00 WITHIN DECK OPENING SUCH THAT THE TOP OF THE FLOOR PLATE MATCHES THE ELEVATION OF THE TOP OF THE CORNER DECK. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS.
7. INSTALL LAMINATED RUBBER BUMPERS, 12"H x 4–1/2"D, VESTAL OR APPROVED EQUAL. CONTRACTOR SHALL COORDINATE LOCATION OF INSTALLATION WITH CONFIGURATION OF MECHANICAL SCREEN TO ENSURE THAT THE BUMPERS PROTECT THE SCREEN FROM CONTACTING THE CORNER WALL WHILE THE SCREEN IS RAISED AROUND THE PIVOT MOUNT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

UPPER WET WELL
PROPOSED STRUCTURAL SECTIONS

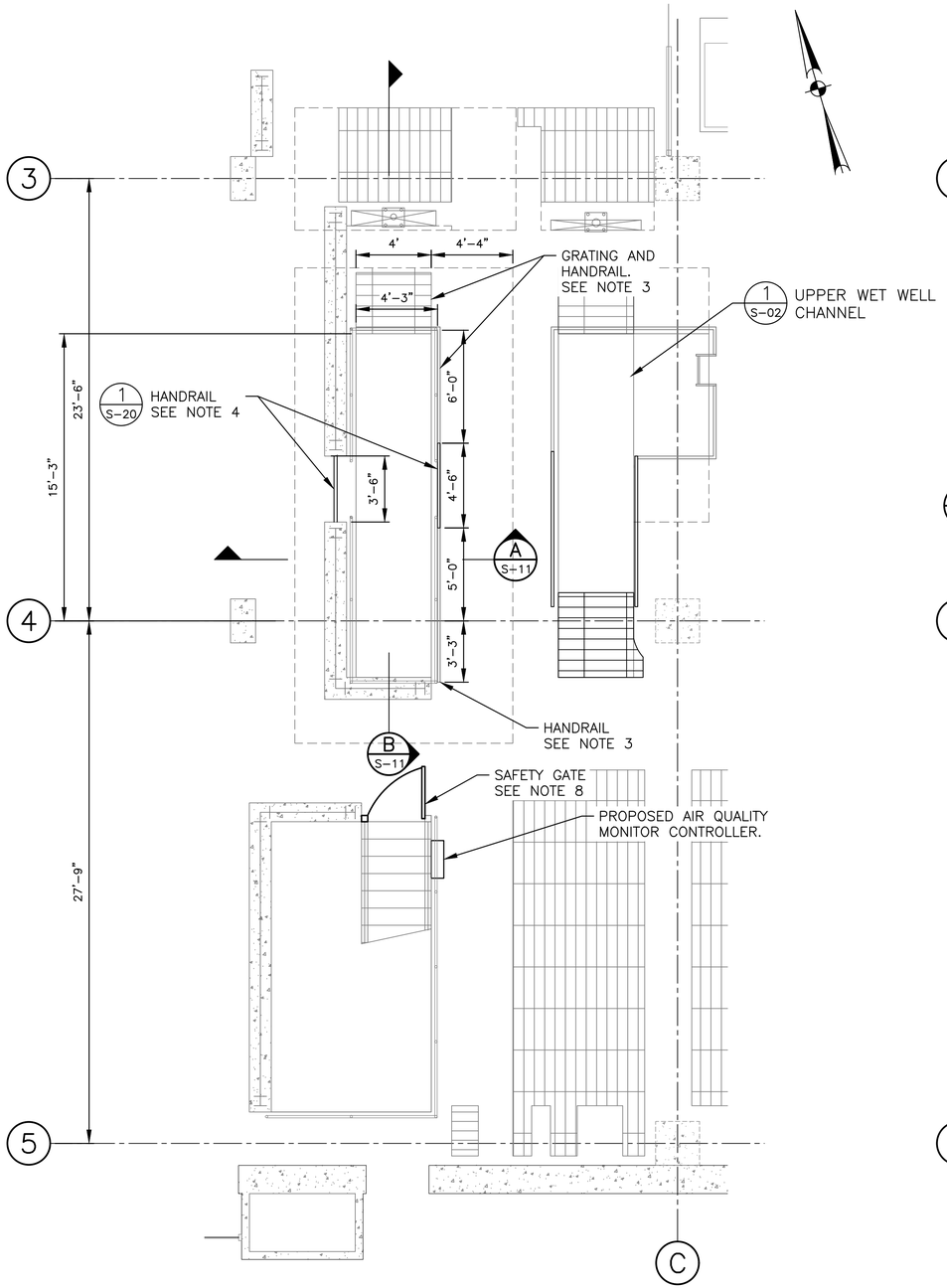
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
3/11/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

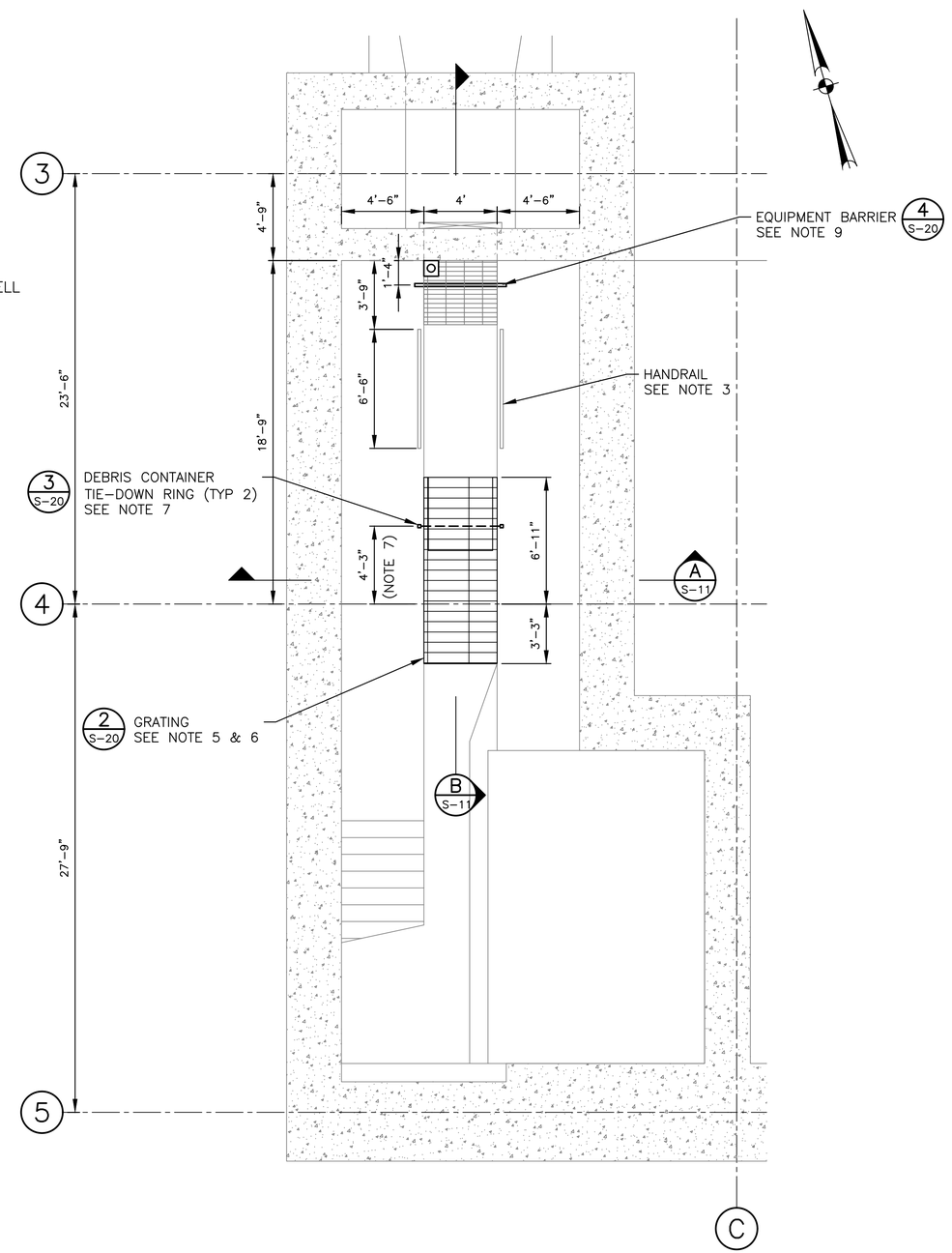
DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. S-03
SHEET No. OF



LOWER WET WELL PROPOSED MECHANICAL PLAN – OPERATION DECK LEVEL ELEV. 486.00' (1 S–01)

SCALE: 1/4" = 1'–0"



LOWER WET WELL PROPOSED MECHANICAL – CHANNEL LEVEL ELEV. 431.00' (2 S–01)

SCALE: 1/4" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
4. INSTALL HANDRAIL AROUND CHANNEL AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL.
5. GRATING PLATFORM INSTALLATION SHALL BE COORDINATED WITH WALLER CREEK TUNNEL OPERATORS. REFERENCE SEQUENCE OF CONSTRUCTION AND EQUIPMENT SPECIFICATIONS.
6. INSTALL GRATING PLATFORM AT EL 431.00 SPANNING THE CHANNEL. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS.
7. INSTALL TWO (2) FLOOR–ANCHORED STAINLESS STEEL TIE–DOWN D–RINGS.
8. FURNISH AND INSTALL EDGEHALT FULL HEIGHT LADDER SAFETY GATE, OR APPROVED EQUAL. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF EXISTING STAIRWAY CLEAR WIDTH PRIOR TO PROCURING MATERIALS.
9. INSTALL FLOOR MOUNT–MOUNTED DOUBLE CHANNEL SUPPORT BARRIER FRAME. COORDINATE FRAME HEIGHT WITH CONFIGURATION OF MECHANICAL SCREEN TO ENSURE THAT THE SCREEN DOES NOT CONTACT THE LEVEL SENSOR LINE THE SCREEN IS RAISED AROUND THE PIVOT MOUNT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LOWER WET WELL PROPOSED STRUCTURAL PLAN

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

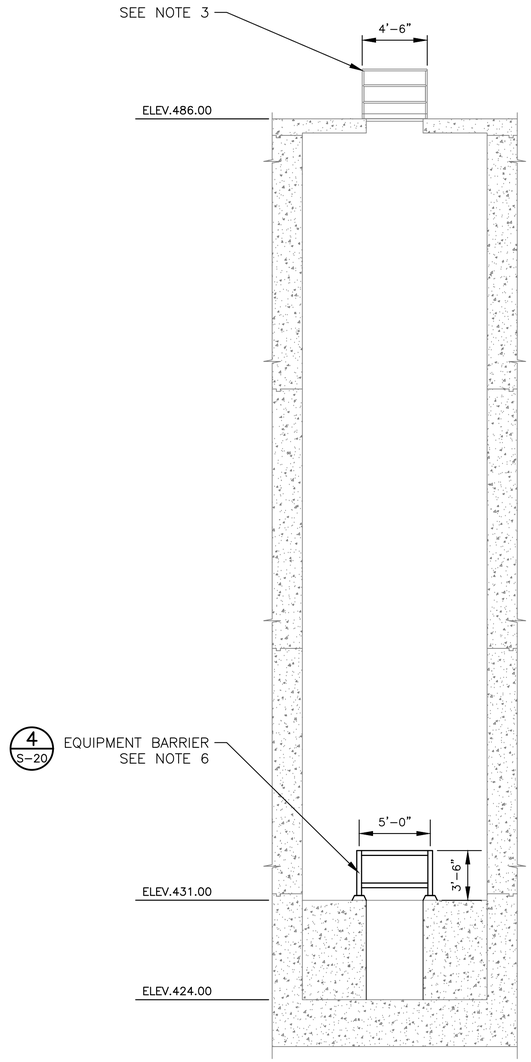
STATE OF TEXAS · SHELBY G. ECKOLS · 41485 · REGISTERED PROFESSIONAL ENGINEER · 3/11/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

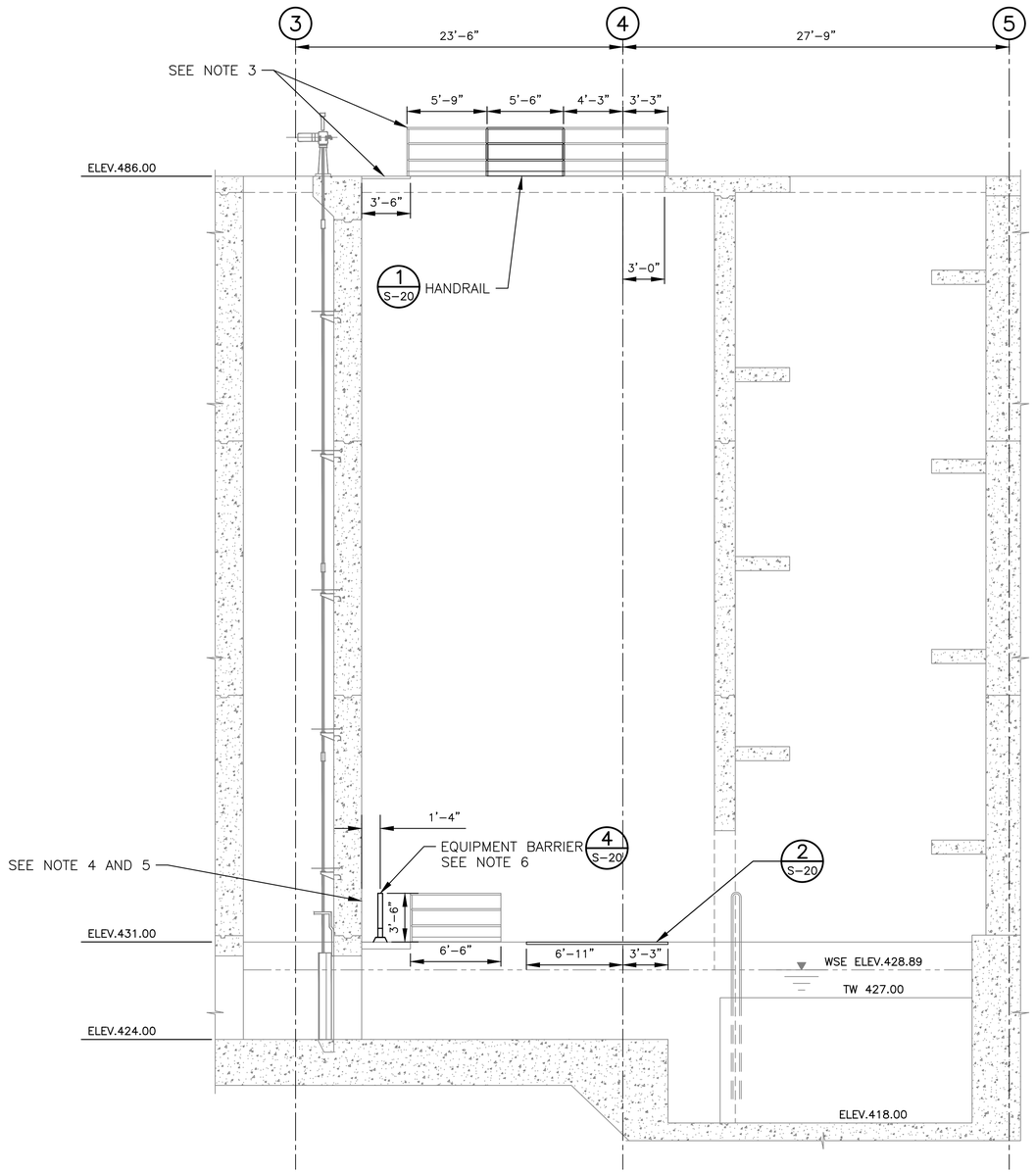
PROJECT No. 60677349
DRAWING No. S-10
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\S-10.DWG BY: GADHIAT DATE: 3/8/2023 8:26 AM



BACK VIEW – LOWER CHANNEL MECHANICAL SCREEN (A / S–10)

SCALE: 3/16" = 1'–0"



SIDE VIEW – LOWER CHANNEL MECHANICAL SCREEN (B / S–10)

SCALE: 3/16" = 1'–0"

NOTES:

1. DRAWING INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITY. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN IN THIS DRAWING. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY PROPOSED WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.
2. DIMENSION SHOWN ON THIS DRAWING ARE APPROXIMATE AND BASED ON RECORD DRAWINGS AND FIELD MEASUREMENTS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS. SEE REFERENCE DRAWINGS.
3. CONTRACTOR SHALL RESTORE ALL TEMPORARILY REMOVED GRATING AND HANDRAILS TO THEIR ORIGINAL CONDITION WHEN INSTALLATION OF EQUIPMENT AND APPURTENANCES AS PART OF THIS BID PACKAGE IS COMPLETE.
4. INSTALL HANDRAIL AROUND THE CHANNEL AS SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF HANDRAIL WITH FIELD CONDITIONS AND THE CONFIGURATION OF EXISTING HANDRAIL AND PROPOSED MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS. PROPOSED HANDRAIL SHALL MATCH EXISTING HANDRAIL.
5. INSTALL GRATING PLATFORM AT EL 431.00 SPANNING THE CHANNEL. CONTRACTOR SHALL VERIFY DIMENSIONS OF GRATING PLATFORM WITH FIELD CONDITIONS AND CONFIGURATION OF MECHANICAL SCREEN PRIOR TO PROCURING MATERIALS.
6. INSTALL FLOOR–MOUNTED DOUBLE CHANNEL SUPPORT BARRIER FRAME. COORDINATE FRAME HEIGHT WITH CONFIGURATION OF MECHANICAL SCREEN TO ENSURE THAT THE SCREEN DOES NOT CONTACT THE LEVEL SENSOR WHILE THE SCREEN IS RAISED AROUND THE PIVOT MOUNT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LOWER WET WELL
PROPOSED STRUCTURAL SECTIONS

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS · SHELBY G. ECKOLS · 41485 · REGISTERED PROFESSIONAL ENGINEER · 3/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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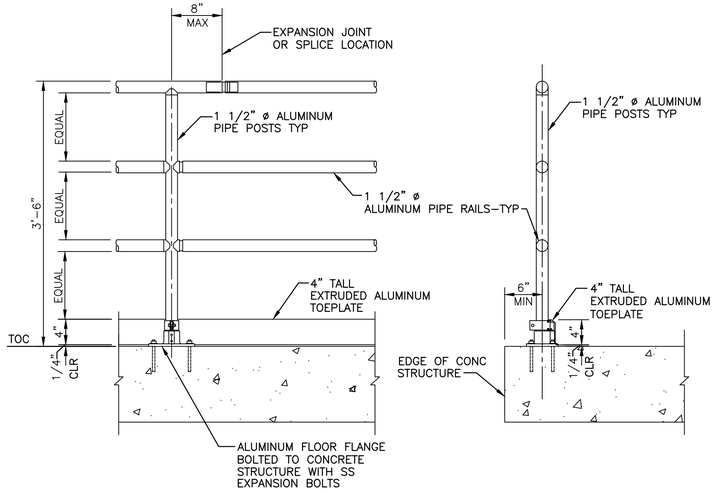
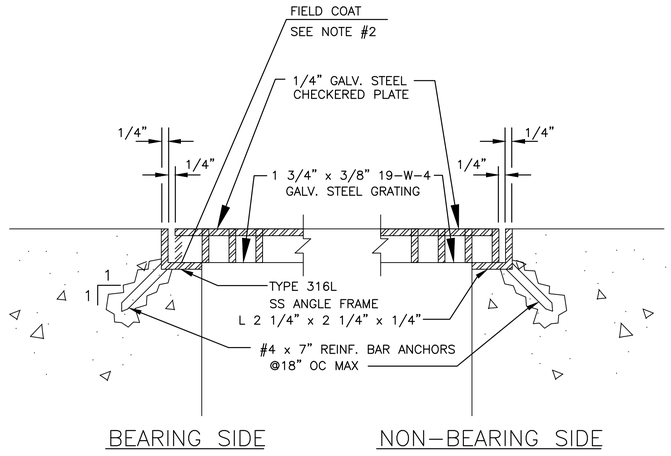
DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. S-11
CHECKED: CW	
APPROVED: SGE	SHEET No.
SCALE: AS NOTED	OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\S-11.DWG BY: GADHIAT DATE: 3/8/2023 8:41 AM



TYPICAL CONCRETE FLOOR MOUNTED ALUMINUM HANDRAIL DETAILS (1)

SCALE: NTS

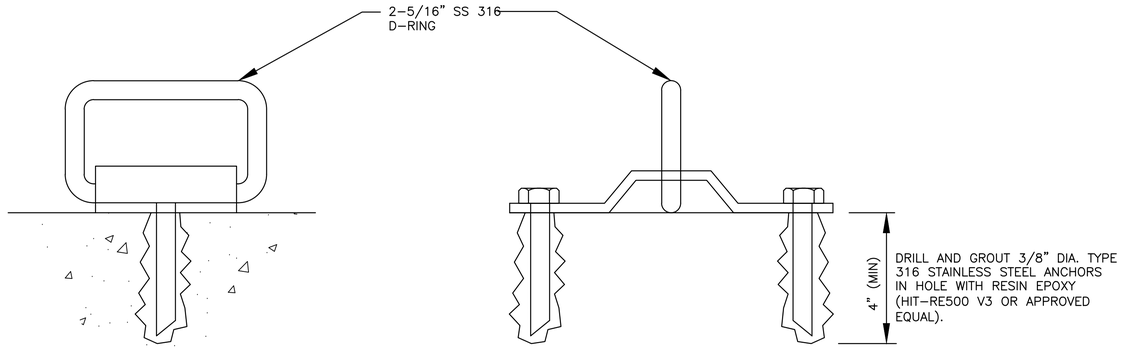


NOTES:

1. SAW CUT EXISTING CONCRETE DECK TO THE DEPTHS SHOWN FOR INSTALLATION OF EMBEDDED ANGLE FRAME.
2. DRILL AND EMBED REINFORCING BAR ANCHORS WITH RESIN EPOXY (HIT-RE500 V3 OR APPROVED EQUAL).
3. 1/8" ø MAX NAIL HOLES MAY BE PUNCHED IN ∠'s @ 18" OC.
4. FIELD COAT BEARING SURFACE OF GRATING SUPPORT WITH A BITUMINOUS MASTIC (SSPC-PAINT 12) PER MFRS SPECIFICATIONS.
5. SECURELY FASTEN GRATING AND TREAD PLATE IN ACCORDANCE WITH MFRS RECOMMENDATIONS.
6. MITER AND WELD EMBED ANGLES AT CORNERS.

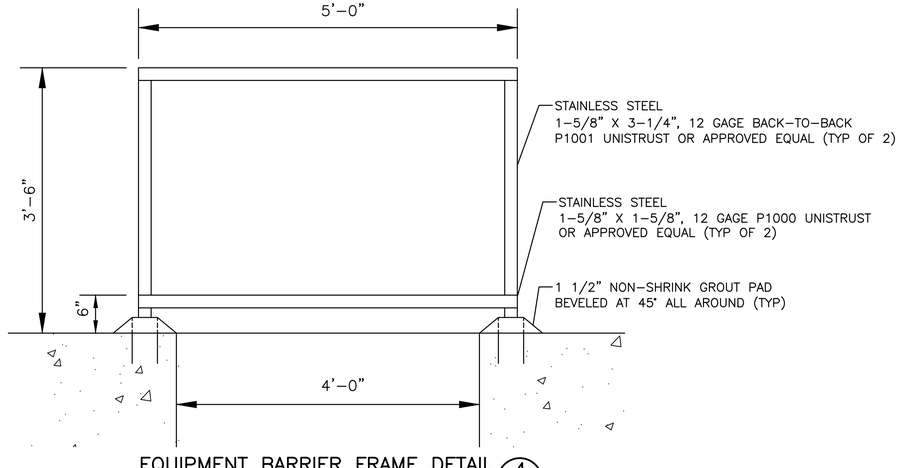
GRATING SUPPORT DETAIL (2)

NTS



TIE-DOWN RING DETAIL (3)

NTS



EQUIPMENT BARRIER FRAME DETAIL (4)

NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

STRUCTURAL TYPICAL DETAILS

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
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TBPE REG. NO. F-3580

STATE OF TEXAS · SHELBY G. ECKOLS · 41485 · REGISTERED PROFESSIONAL ENGINEER · 3/11/2023

VERIFY SCALES
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DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. S-20
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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ELECTRICAL DRAWING SYMBOLS

LP-1,3 — HOMERUN TO PANEL. CIRCUIT NUMBERS INDICATED. SHORT HASH MARKS INDICATE PHASE WIRES; LONG HASH MARK INDICATES NEUTRAL WIRE; ⌐ MARK INDICATES EQUIPMENT GROUND WIRE; Ø INDICATES ISOLATED GROUND WIRE; S INDICATES SWITCHED WIRE. NUMBER OF ARROWHEADS CORRESPONDS TO NUMBER OF CIRCUITS.

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

MSP-001-P1 — HOMERUN TO PANEL/EQUIPMENT/PULLBOX/DISTRIBUTION EQUIPMENT/ETC., CONDUIT/WIRE TAG AS INDICATED ("MSP-001-P1" SHOWN). REFER TO CONDUIT/WIRE SCHEDULE FOR ADDITIONAL INFORMATION.

GROUND ELECTRODE

GROUND WIRE

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

CONDUIT RUN EXPOSED

CONDUIT TURNING DOWN

CONDUIT TURNING UP

FLEXIBLE CONDUIT

CONDUIT CAPPED FOR FUTURE USE

CONDUIT SEALING FITTING

CONDUIT RUN OR ITEM DEMOLISHED

OR — CONDUIT BODY

J OR (J) — JUNCTION BOX

PB OR (PB) — PULL BOX

DISCONNECT SWITCH (NONFUSED)

DISCONNECT SWITCH COMBINATION MOTOR STARTER

DISCONNECT SWITCH ENCLOSED CIRCUIT BREAKER

(3) — ELECTRIC MOTOR – HORSEPOWER AS INDICATED (3HP SHOWN)

PHOTOCELL

LIGHTING/AUXILIARY POWER PANEL-SURFACE MOUNTED

LIGHTING/AUXILIARY POWER PANEL-FLUSH MOUNTED

DISTRIBUTION POWER PANEL-SURFACE MOUNTED

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

TYPICAL UNDERGROUND DUCT BANK PLAN VIEW

ELECTRICAL DRAWING SYMBOLS

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

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

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

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

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

+44, 2 — SPECIAL OUTLET AS NOTED

SINGLE POLE SWITCH

3 — 3-WAY SWITCH

4 — 4-WAY SWITCH

M — MOTOR RATED MANUAL CONTROLLER SWITCH

DATA/COMMUNICATION OUTLET

+54" — TELEPHONE/VOICE OUTLET MOUNTING HEIGHT AS INDICATED (54" SHOWN)

DATA/COMMUNICATION OUTLET

HE — HEATING ELEMENT

LV — MOTOR LOW VOLTAGE TERMINATION BOX

S — SOLENOID VALVE

FB — VISIBLE FLASHING ALARM BEACON

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

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

B, 6 — POLE MOUNTED LIGHTING FIXTURE. "B" INDICATES TYPE, "6" INDICATES CIRCUIT NUMBER.

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

Y, +96 — WALL MOUNTED EMERGENCY LIGHTING FIXTURE. "Y" INDICATES TYPE. MOUNTING HEIGHT AS INDICATED (+96" SHOWN).

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

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

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

ELECTRICAL DRAWING SYMBOLS

(AE) — ANALYZER ELEMENT

(AIT) — ANALYZER INDICATING TRANSMITTER

(LE) — LEVEL ELEMENT

(LIT) — LEVEL INDICATING TRANSMITTER

(LS) — LEVEL SWITCH

(FE) — FLOW ELEMENT

(FIT) — FLOW INDICATING TRANSMITTER

(FS) — FLOW SWITCH

(PE) — PRESSURE ELEMENT

(PIT) — PRESSURE INDICATING TRANSMITTER

(PS) — PRESSURE SWITCH

(TE) — TEMPERATURE ELEMENT

(TIT) — TEMPERATURE INDICATING TRANSMITTER

(T) — THERMOSTAT

(ZS) — POSITION SWITCH

ELECTRICAL ONE-LINE DRAWING SYMBOLS

30kVA, 3Ø, SHIELDED ULTRA-ISOLATION TRANSFORMER "OP-XFMR-CPP1", Δ480V, Y480/277V — SHIELDED ULTRA-ISOLATION TRANSFORMER. (30KVA, 3Ø, 480V DELTA:480/277V WYE TURN RATIO, TAGGED "OP-XFMR-CPP1" SHOWN)

55°/65° OA/FA — OPTIONAL ADDITIONAL TEXT. DEGREES C TEMPERATURE RISE ABOVE AMBIENT (55°/65° SHOWN), TRANSFORMER COOLING (OA/FA SHOWN).

5000kVA, 3Ø, "SUB2-XFMR-02B", Δ12470V, Y480/277V — POWER TRANSFORMER (5000KVA, 3Ø, 12470V DELTA:12470V WYE:480/277V TURN RATIO, TAGGED "SUB2-XFMR-02B" SHOWN)

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

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

"CT-SWGR100-1", 2000-1000/5, 3, DR — BAR TYPE DUAL-RATIO "DR" PHASE CURRENT TRANSFORMER (CT), RATIO AS INDICATED. NUMBER AT LOWER RIGHT INDICATES QUANTITY REQUIRED (2000:5 OR 1000:5 TURN RATIO, QUANTITY 3, TAGGED "CT-SWGR100-1" SHOWN)

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

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

ELECTRICAL ONE-LINE DRAWING SYMBOLS

DRAW OUT DISCONNECTS

FUSE (DRAWOUT)

MICROPROCESSOR BASED PROTECTIVE RELAY FUNCTION SEE PROTECTIVE RELAY ABBREVIATIONS

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

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

"VCB-105", 3P-1200A, 52, 500MVA — DRAWOUT MEDIUM VOLTAGE VACUUM CIRCUIT BREAKER (3P-1200A, 500MVA, TAGGED "VCB-105" SHOWN)

LOAD-BREAK SWITCH "LBS-XFMR3B" 3P-1200A — LOAD BREAK SWITCH (3P-1200A, TAGGED "LBS-XFMR3B" SHOWN)

LOAD-BREAK SWITCH "LBS-XFMR3B" 3P-1200A, M — MOTOR OPERATED LOAD BREAK SWITCH (3P-1200A, TAGGED "LBS-XFMR3B" SHOWN)

DENOTES MECHANICAL INTERLOCK

S.C. — SURGE CAPACITOR

L.A. — LIGHTNING ARRESTOR

DENOTES MULTI-FUNCTION CONTROL SYSTEM INTERLOCK

CL, MOTR106 — MULTI-FUNCTION CONTROL SYSTEM INTERLOCK FOR EQUIPMENT (TAGGED "MOTR106").

CONNECTION TO EQUIPMENT GROUND BUS (EARTH GROUND)

G OR LV — GENERATOR

1A — TYPICAL CONNECTION TO DISTRIBUTION EQUIPMENT BUS "1A" DENOTES DISTRIBUTION EQUIPMENT SECTION NUMBER. REFER TO APPLICABLE DISTRIBUTION EQUIPMENT ELEVATION DRAWING.

LUGS — INCOMING POWER CONNECTION TO DISTRIBUTION EQUIPMENT MAIN BUS.

INCOMING SERVICE/SIGNAL, AS APPLICABLE

(3) — MOTOR HORSEPOWER AS INDICATED (3HP SHOWN)

(kWH) — WATT-HOUR METER

(ETM) — ELAPSED TIME METER

(RTD) — MOTOR WINDING TEMPERATURE (RTD)

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

ELECTRICAL SYMBOLS LEGEND
(SHEET 1 OF 3)

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS — K. A. HARUTUNIAN — 59181 — LICENSED PROFESSIONAL ENGINEER — 5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

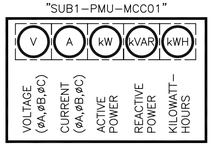
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-01
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	

ELECTRICAL ONE-LINE DRAWING SYMBOLS

"P1"
208/120V
3ø, 4W
225A BUS
225 MCB
42 POLE
10,000 A.I.C.

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

"SUB1-PMU-MCC01"



SOLID STATE POWER MONITORING UNIT (TAGGED "SUB1-PMU-MCC01" SHOWN)

DEL-PDP02A-F1

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

LV

MOTOR LOW VOLTAGE TERMINATION BOX

HV

MOTOR HIGH VOLTAGE TERMINATION BOX

V.O.

VALVE OPERATOR TERMINATION BOX

"STB-MCC01"
STB

TAP CHANGING/SHORTING TERMINAL BLOCK (TAGGED "STB-MCC01")

PMU
"PMU-SWBD01"

POWER MONITORING UNIT (TAGGED "PMU-SWBD01")

PP
"PP-DSP1"

COPPER PATCH PANEL (TAGGED PP-DSP1")

SPD
"SPD-MT1"

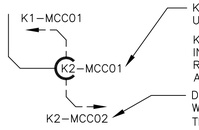
SURGE PROTECTIVE DEVICE (SPD) (TAGGED "SPD-MT1" SHOWN)

AHU-1
83.28A

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

R

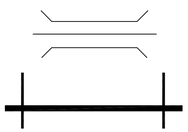
PILOT LIGHT R=RED, G=GREEN, W=WHITE, A=AMBER, Y=YELLOW, O=ORANGE (RED SHOWN)



KEY INTERLOCK TAG. TAG IS UNIQUE PER KEY INTERLOCK.

KEY REQUIRED TO UNLOCK INTERLOCK. KEY CAN BE REMOVED FROM INTERLOCK ONLY AFTER INTERLOCK IS LOCKED.

DENOTES OTHER KEY INTERLOCKS WHICH ARE INTERLOCKED WITH THIS KEY INTERLOCK. (KEY INTERLOCK TAGGED K2-MCC01 IS INTERLOCKED WITH KEY INTERLOCKS TAGGED K1-MCC01 AND K2-MCC02)

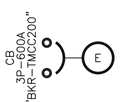


METAL ENCLOSED OVERHEAD BUS

REMOVABLE BUS LINK

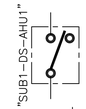
"CAP-PAB4-1"
200kVAR

4160 VOLT THREE PHASE CAPACITOR BANK WITH RATING AS INDICATED (200 kVAR, TAGGED "CAP-PAB4-1" SHOWN)

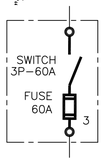


ELECTRICALLY ACTUATED CIRCUIT BREAKER (3 POLE, 600A, TAGGED "BKR-TMCC200" SHOWN)

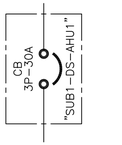
ELECTRICAL ONE-LINE DRAWING SYMBOLS



NON-FUSED TYPE DISCONNECT SWITCH. (TAGGED "SUB1-DS-AHU1" SHOWN)

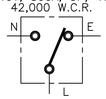


FUSIBLE SWITCH (3P-60A SHOWN)



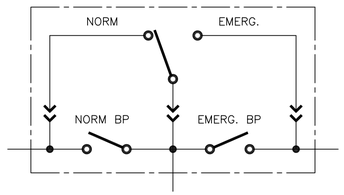
ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH. (RATED 3 PHASE, 30 AMPERE, TAGGED "SUB1-DS-AHU1" SHOWN)

AUTOMATIC TRANSFER SWITCH
"SUB1-ATS-01"
240V, 800A, 3P, 4W
42,000 W.C.R.

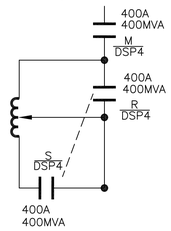


AUTOMATIC TRANSFER SWITCH. (3 PHASE, 4 WIRE, 800 AMPERE, 240 VOLT, 42,000 WITHSTAND CURRENT RATING, TAGGED "SUB1-ATS-001" SHOWN)

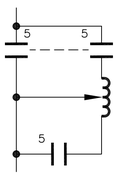
AUTOMATIC TRANSFER AND BYPASS ISOLATION SWITCH
"SUB1-ATS-01"
3P-600A
3ø, 3W, 480V
42,000 W.C.R.



AUTOMATIC TRANSFER SWITCH AND ISOLATION BYPASS SWITCH (3 PHASE, 3 WIRE, 600 AMPERE, 480 VOLT, 42,000 WITHSTAND CURRENT RATING, TAGGED "SUB1-ATS-01"



4160 VOLT, NON-REVERSING, 400 AMPERE REDUCED VOLTAGE AUTO-TRANSFORMER STARTER (SHOWN WITH CONTACTORS TAGGED "S/DSP4", "R/DSP4", AND "M/DSP4", WITH EACH CONTACTOR RATED 400A, 400MVA)

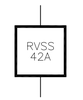


480 VOLT, COMBINATION TYPE, NON-REVERSING NEMA SIZE 5, REDUCED VOLTAGE AUTO-TRANSFORMER STARTER

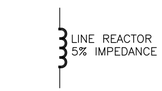
VFD
42A

VARIABLE FREQUENCY DRIVE RATED 42A

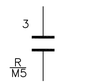
ELECTRICAL ONE-LINE DRAWING SYMBOLS



REDUCED-VOLTAGE SOFT STARTER RATED 42A



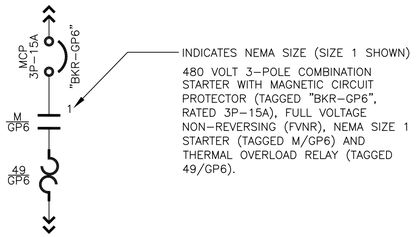
VARIABLE FREQUENCY DRIVE LINE REACTOR RATED AT 5% IMPEDANCE



SIZE 3 MOTOR STARTER (TAGGED R/M5)

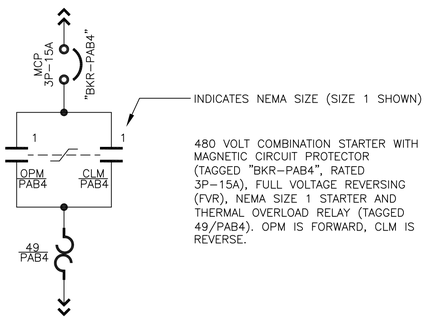
NON-REVERSING, 400 AMPERE, 400MVA INTERRUPT RATING FULL VOLTAGE STARTER (TAGGED R/M5)

OVERLOAD RELAY (TAGGED 49/GP6)



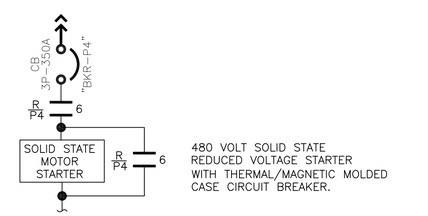
INDICATES NEMA SIZE (SIZE 1 SHOWN)

480 VOLT 3-POLE COMBINATION STARTER WITH MAGNETIC CIRCUIT PROTECTOR (TAGGED "BKR-GP6", RATED 3P-15A), FULL VOLTAGE NON-REVERSING (FVNR), NEMA SIZE 1 STARTER (TAGGED M/GP6) AND THERMAL OVERLOAD RELAY (TAGGED 49/GP6).



INDICATES NEMA SIZE (SIZE 1 SHOWN)

480 VOLT COMBINATION STARTER WITH MAGNETIC CIRCUIT PROTECTOR (TAGGED "BKR-PAB4", RATED 3P-15A), FULL VOLTAGE REVERSING (FVR), NEMA SIZE 1 STARTER AND THERMAL OVERLOAD RELAY (TAGGED 49/PAB4). OPM IS FORWARD, CLM IS REVERSE.



480 VOLT SOLID STATE REDUCED VOLTAGE STARTER WITH THERMAL/MAGNETIC MOLDED CASE CIRCUIT BREAKER.

PROTECTIVE RELAY ABBREVIATIONS

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

PROTECTIVE RELAY ABBREVIATIONS

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

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

ELECTRICAL SYMBOLS LEGEND
(SHEET 2 OF 3)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-02
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	

WIRING SCHEMATIC SYMBOLS

ZS / BFV1 (X) — POSITION SWITCH (N.O.) (TAGGED "ZS/BFV1") NUMBER IN PARENTHESIS INDICATES DEVICE CONTACT NUMBER IN ORDER OF APPEARANCE.

ZS / BFV1 — POSITION SWITCH (N.C.) (TAGGED "ZS/BFV1")

NSH / PAB1 — TORQUE SWITCH (N.O.) (TAGGED "NSH/PAB1")

NSH / PAB1 — TORQUE SWITCH (N.C.) (TAGGED "NSH/PAB1")

TSH / PAB1 — TEMPERATURE SWITCH (NORMALLY OPEN; CLOSES ON RISING TEMPERATURE; OPENS ON FALLING TEMPERATURE) (TAGGED "TSH/PAB1")

TSH / PAB1 — TEMPERATURE SWITCH (NORMALLY CLOSED; OPENS ON RISING TEMPERATURE; CLOSES ON FALLING TEMPERATURE) (TAGGED "TSH/PAB1")

MOTOR SPACE HEATER — MOTOR SPACE HEATER

SX / PAB1 — CONTROL RELAY NORMALLY OPEN CONTACTS (TAGGED "SX/PAB1")

SX / PAB1 — CONTROL RELAY NORMALLY CLOSED CONTACTS (TAGGED "SX/PAB1")

MECHANICALLY INTERLOCKED RELAY CONTACTS

SX / PAB1 — CONTROL RELAY COIL (TAGGED "SX/PAB1")

T.O.E. PFT / MCC1A 0–60 SEC — TIMING DELAY RELAY, TIMES OUT AFTER ENERGIZATION (TAGGED "PFT/MCC1A")

TT TT T.O.D. PFT / MCC1A TT TT 0–60 SEC — TIMING DELAY RELAY, TIMES OUT AFTER DE–ENERGIZATION (TAGGED "PFT/MCC1A")

PFT / MCC1A — TIMING DELAY RELAY CONTACTS (N.O., T.O.E.) (TAGGED "PFT/MCC1A")

PFT / MCC1A — TIMING DELAY RELAY CONTACT (N.C., T.O.E.) (TAGGED "PFT/MCC1A")

PFT / MCC1A — TIMING DELAY RELAY CONTACT (N.O., T.O.D.) (TAGGED "PFT/MCC1A")

WIRING SCHEMATIC SYMBOLS

PFT / MCC1A — TIMING DELAY RELAY CONTACT (N.C., T.O.D.) (TAGGED "PFT/MCC1A")

CLOSED — PLC DISCRETE (RELAY CONTACT) OUTPUT (NORMALLY CLOSED)

OPEN — PLC DISCRETE (RELAY CONTACT) OUTPUT (NORMALLY OPEN)

MOMENTARY PUSH–BUTTON NORMALLY OPEN CONTACTS

MOMENTARY PUSH–BUTTON NORMALLY CLOSED CONTACTS

MUSHROOM HEAD PUSH TO OPEN, PULL TO CLOSE MAINTAINED ACTION PUSH–BUTTON

LSL / PAB1 — LEVEL SWITCH (N.O.) CLOSES ON ABNORMAL LEVEL (TAGGED "LSL/PAB1")

LSL / PAB1 — LEVEL SWITCH (N.C.) OPENS ON ABNORMAL LEVEL (TAGGED "LSL/PAB1")

PSL / PAB1 — PRESSURE SWITCH (N.O.) CLOSES ON ABNORMAL PRESSURE (TAGGED "PSL/PAB1")

PSL / PAB1 — PRESSURE SWITCH (N.C.) CLOSES ON ABNORMAL PRESSURE (TAGGED "PSL/PAB1")

FSL / PAB1 — FLOW SWITCH (N.O.) CLOSES ON FLOW (TAGGED "FSL/PAB1")

M / SHPAB1 — ELECTRIC MOTOR (TAGGED "M/SHPAB1")

CB — THERMAL/MAGNETIC CIRCUIT BREAKER

MCP — MAGNETIC CIRCUIT PROTECTOR (MOTOR CIRCUIT PROTECTOR)

OVERLOAD RELAY (TAGGED "49/BFV1")

49 / BFV1

MCP "BKR–BFV1" — 3–POLE CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR AS APPLICABLE (TAGGED "BKR–BFV1")

"LBS–BFV1" — 3–POLE DISCONNECT SWITCH (TAGGED "LBS–BFV1")

WIRING SCHEMATIC SYMBOLS

49 / BFV1 — OVERLOAD RELAY CONTACTS (TAGGED "49/BFV1")

GEAR LIMIT SWITCH (N.O.)

GEAR LIMIT SWITCH (N.C.)

CONNECTION TO EQUIPMENT GROUND BUS (EARTH GROUND)

IG — CONNECTION TO ISOLATION GROUND BUS

CONNECTION TO EQUIPMENT CHASSIS (CHASSIS GROUND)

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

AUDIBLE ALARM HORN

PC — PHOTOCELL

POWER FACTOR CORRECTION CAPACITOR ("TAGGED PFCC–PAB1")

POWER FACTOR CORRECTION CAPACITOR "PFCC–PAB1"

POTENTIAL TRANSFORMER (PT)

"CT–PAB1–G" — GROUND CURRENT TRANSFORMER (CT) (TAGGED "CT–PAB1–G")

"CT–PAB1–1–A" — PHASE CURRENT TRANSFORMER (CT) (TAGGED "CT–PAB1–1–A")

MOTOR STARTER CONTACTS

ETM — ELAPSED TIME METER

FUSE

WIRING SCHEMATIC SYMBOLS

FUSED TERMINAL BLOCK

DRAW OUT DISCONNECTS

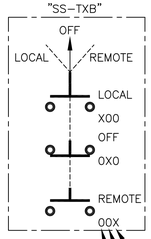
TYPICAL CONTROL LOGIC WIRE JUMPER USED FOR JUMPERS LOCATED ENTIRELY INSIDE OF THE DISTRIBUTION EQUIPMENT. USE ONLY IN THE DISTRIBUTION EQUIPMENT WHERE SPECIFICALLY SHOWN ON THE CONTROL SCHEMATIC CONTRACT DRAWINGS. ALL OTHER WIRING SHALL BE TERMINATED TO TERMINAL BLOCKS. ALSO REFER TO THE CONTRACT DRAWINGS/SPECIFICATIONS FOR ADDITIONAL INFORMATION. THIS SYMBOL ONLY APPEARS ON A PORTION OF THE CONTROL SCHEMATIC CONTRACT DRAWINGS, AND ON NO OTHER CONTRACT DRAWING.

INDICATES WIRE JUMPER

TYPICAL BLADE TERMINAL BLOCK JUMPER CONFIGURATION FOR A TERMINAL ON A TERMINAL STRIP. THIS CONFIGURATION APPLIES FOR ALL TERMINAL SYMBOLS.

SYMBOL VARIES WITH TERMINAL BLOCK LOCATION

"SS–TXB"



THREE POSITION (MAINTAINED ACTION SHOWN) "LOCAL–OFF–REMOTE" SELECTOR SWITCH WITH MULTIPLE CONTACTS (THREE SHOWN) MECHANICALLY LINKED TO A SINGLE OPERATOR MECHANISM. A CONTACT DEVELOPMENT LEGEND FOR EACH CONTACT IS SHOWN IMMEDIATELY ADJACENT TO THE CONTACT. EACH CHARACTER IN THE CONTACT DEVELOPMENT LEGEND REPRESENTS THE STATUS OF ITS ASSOCIATED CONTACT FOR THE CORRESPONDING POSITION OF THE SELECTOR SWITCH. IN THE EXAMPLE SHOWN, THE LEFTMOST CHARACTER IN THE CONTACT DEVELOPMENT CORRESPONDS TO THE "LOCAL" POSITION, THE CENTER CHARACTER CORRESPONDS TO THE "OFF" POSITION, AND THE RIGHTMOST CHARACTER CORRESPONDS TO THE "REMOTE" POSITION. AN "X" INDICATES THAT THE CONTACT IS CLOSED AND A "0" INDICATES THAT THE CONTACT IS OPEN WHEN THE SELECTOR SWITCH IS IN THE CORRESPONDING POSITION. (TAGGED "SS–TXB")

INDICATES CONTACT IS CLOSED WHEN SELECTOR SWITCH IS IN THE "REMOTE" POSITION

INDICATES CONTACT IS OPEN WHEN SELECTOR SWITCH IS IN THE "OFF" POSITION

INDICATES CONTACT IS OPEN WHEN SELECTOR SWITCH IS IN THE "LOCAL" POSITION

WIRING SCHEMATIC SYMBOLS

480V / 120V — CONTROL POWER TRANSFORMER (CPT)

MOTOR — ELECTRIC MOTOR

MAINT OPEN REMOTE X0 — TWO POSITION, "MAINTENANCE OPEN–REMOTE" SELECTOR SWITCH WITH SPRING RETURN TO THE "REMOTE" POSITION FROM THE "MAINTENANCE OPEN" POSITION. SELECTOR SWITCH HAS MAINTAINED ACTION CONTACTS FOR THE "REMOTE" POSITION AND MOMENTARY CONTACTS FOR THE "MAINTENANCE OPEN" POSITION. SELECTOR SWITCH HAS MULTIPLE CONTACTS (ONLY ONE SHOWN HERE) MECHANICALLY LINKED TO A SINGLE OPERATOR MECHANISM. A CONTACT DEVELOPMENT LEGEND FOR EACH CONTACT IS SHOWN IMMEDIATELY ADJACENT TO THE CONTACT. EACH CHARACTER IN THE CONTACT DEVELOPMENT LEGEND REPRESENTS THE STATUS OF ITS ASSOCIATED CONTACT FOR THE CORRESPONDING POSITION OF THE SELECTOR SWITCH. IN THE EXAMPLE SHOWN, THE LEFTMOST CHARACTER IN THE CONTACT DEVELOPMENT CORRESPONDS TO THE "MAINTENANCE OPEN" POSITION AND THE RIGHTMOST CHARACTER CORRESPONDS TO THE "REMOTE" POSITION. AN "X" INDICATES THAT THE CONTACT IS CLOSED AND A "0" INDICATES THAT THE CONTACT IS OPEN WHEN THE SELECTOR SWITCH IS IN THE CORRESPONDING POSITION.

INDICATES CONTACT IS OPEN WHEN SELECTOR SWITCH IS IN THE "REMOTE" POSITION

INDICATES CONTACT IS CLOSED WHEN SELECTOR SWITCH IS IN THE "MAINTENANCE OPEN" POSITION

"STB–CT404–2C" — SHORTING TERMINAL BLOCK (STB) (TAGGED "STB–CT404–2C")

GROUND SCREW NOT INSTALLED

GROUND SCREW INSTALLED

MAN / AUTO — 2 POSITION MAINTAINED ACTION SELECTOR SWITCH "MAN", "AUTO"

ON / OFF — 2 POSITION "ON–OFF" SELECTOR SWITCH WITH SPRING RETURN TO CENTER FROM EITHER POSITION. "ON" AND "OFF" POSITIONS ARE NORMALLY OPEN.

TAG REPLACEMENT SCHEDULE

EQUIPMENT DESCRIPTION	0X=	JMPX=	XXX=
JET MIXING PUMP NO. 1 DISCHARGE PRESSURE	01	JMP1	111
JET MIXING PUMP NO. 2 DISCHARGE PRESSURE	02	JMP2	121
JET MIXING PUMP NO. 3 DISCHARGE PRESSURE	03	JMP3	131

FIRST ROW CONTAINS TAGS FOR EQUIPMENT SHOWN IN TYPICAL DRAWING

SUBSEQUENT ROWS CONTAIN CORRESPONDING TAGS FOR OTHER EQUIPMENT

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

ELECTRICAL SYMBOLS LEGEND
(SHEET 3 OF 3)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS — K. A. HARUTUNIAN 59181 LICENSED PROFESSIONAL ENGINEER — 5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-03
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	

GENERAL NOTES:

1. ALL EQUIPMENT SHOWN ON DEMOLITION DRAWINGS IS EXISTING.

2. CROSS–HATCHED LINEWORK SHOWN ON THE DEMOLITION DRAWINGS DENOTES EQUIPMENT TO BE DEMOLISHED UNLESS OTHERWISE NOTED. ALL DEMOLITION ACTIVITIES SHALL BE FULLY COORDINATED WITH MECHANICAL/STRUCTURAL/CIVIL/ETC. AND SHALL SUPPORT THE OPERATIONAL REQUIREMENTS OF THE FACILITY DURING ALL PHASES OF CONSTRUCTION. ALL DEMOLISHED ITEMS SHALL REMAIN THE PROPERTY OF THE OWNER. RELOCATE ALL DEMOLISHED ITEMS TO LOCATION(S) SPECIFIED BY OWNER AT NO ADDITIONAL COST TO THE OWNER. THE OWNER HAS THE RIGHT OF FIRST REFUSAL ON ANY EQUIPMENT TO BE DEMOLISHED.

3. EQUIPMENT/CONDUIT TAGS/NAMES HAVE BEEN ARBITRARILY ASSIGNED TO AID IN THE DRAWINGS. SOME EXISTING TAGS/NAMES HAVE BEEN USED WHERE POSSIBLE. CONTRACTOR SHALL MAKE EXTENSIVE VERIFICATION OF EXISTING EQUIPMENT PRIOR TO COMMENCING FULL SCALE DEMOLITION/RENOVATION ACTIVITIES.

4. VERIFY LOCATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION OF FACILITIES PROPOSED IN THIS CONTRACT. TAKE CARE TO AVOID DAMAGE TO EXISTING FACILITIES. REPAIR ANY FACILITY DAMAGED IN THE COURSE OF CONSTRUCTION OF ANY PART OF THIS CONTRACT TO ITS ORIGINAL OPERATING CONDITION IMMEDIATELY, WITH REPAIR CREWS WORKING 24 HOURS PER DAY UNTIL THE DAMAGE IS REPAIRED. (NO SEPARATE PAY).

5. THE CONTRACTOR SHALL BE AWARE THAT WHEN ANY EXISTING EQUIPMENT IS DISCONNECTED, REMOVED, RELOCATED OR OTHERWISE MODIFIED, THE POSSIBILITY MAY EXIST FOR SUCH ACTION TO LEAD TO INTERRUPTION OF OPERATION OF THE TREATMENT PLANT IF EXTREME CARE, VERIFICATION, AND VALIDATION IS NOT CAREFULLY EXERCISED PRIOR TO COMMENCEMENT OF SUCH ACTIVITY. THE CONTRACTOR SHALL KNOW THAT ANY INTERRUPTION TO THE CONTINUITY OF TREATMENT PLANT OPERATION AT ITS RATED CAPACITY IS UNACCEPTABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT. HOWEVER, SHOULD ANY INTERRUPTION TO THE TREATMENT PLANT OPERATION OCCUR FOR ANY UNFORESEEN REASON, WHETHER TOTALLY ACCIDENTAL OR DUE TO IMPROPER FIELD INVESTIGATION AND IMPROPER PLANNING PRIOR TO COMMENCEMENT OF THE ELECTRICAL/INSTRUMENTATION DEMOLITION EFFORT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND START UP THE INTERRUPTED EQUIPMENT WITHIN A CERTAIN TIME PERIOD AS DETERMINED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE CONTINUOUS, 24–HOUR, LABOR, EQUIPMENT, MATERIAL, AND ACCESSORIES UNTIL SUCH TIME THAT ANY EFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED, AT NO ADDITIONAL COST TO THE OWNER AND TO THE OWNER'S SATISFACTION.

6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE APPLICABLE CONDUIT/WIRING TO EXISTING EQUIPMENT WHETHER SHOWN HERE OR NOT. THE CONTRACTOR SHALL EXERCISE EVERY PRECAUTION TO ELIMINATE HAZARDS IN DISCONNECTING ANY DEVICE FROM AN ELECTRICAL CIRCUIT. THE CONTRACTOR MUST TAKE GREAT CARE FOR THERE ARE NO AVAILABLE AS BUILT RECORDS ACCURATELY AND COMPLETELY IDENTIFYING THE EXISTING ROUTING OF ALL DUCTBANK/CONDUIT BETWEEN THE VARIOUS EXISTING EQUIPMENT AND THEIR COORDINATION WITH THE EXISTING ELECTRICAL SYSTEM. THEREFORE THE CONTRACTOR IS TO EXERCISE EXTREME CARE, VERIFY THE ROUTING OF EXISTING DUCTBANK/CONDUIT PRIOR TO FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING THE DISCOVERY VERIFICATION OF THE EXISTING FIELD CONDITIONS, SHOULD ADJUSTMENTS BECOME A NECESSITY TO THE EXISTING OR PROPOSED SYSTEM (AS APPLICABLE), THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

7. THE INTENT IS TO KEEP THE EXISTING FACILITIES OPERATIONAL AT ALL TIMES. COORDINATE WITH THE OWNER FOR SCHEDULING OF EQUIPMENT/POWER/INSTRUMENTATION AND CONTROL/PROCESS/ETC. OUTAGES REQUIRED PRIOR TO COMMENCING DEMOLITION/MODIFICATION ACTIVITIES.

8. SHOULD PROBLEMS OCCUR UPON THE ACTIVATION OF POWER, CORRECTION SHALL BE MADE PROMPTLY AT NO EXPENSE TO THE OWNER.

9. ALL ELECTRICAL SWITCHING, DE–ENERGIZATION OF LOADS, ENERGIZATION OF LOADS, ETC., SHALL BE PERFORMED IN THE PRESENCE OF, AND WITH THE CONSENT OF, THE OWNER.

10. NOT ALL REQUIREMENTS ASSOCIATED WITH THE INSTALLATION OF THE PROPOSED ELECTRICAL SYSTEM ARE SHOWN ON THE DEMOLITION DRAWINGS. REFER TO OTHER PROPOSED CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

11. THE OWNER'S EXISTING EQUIPMENT IS IN WORKING CONDITION. SHOULD THE EXISTING EQUIPMENT, ITS ASSOCIATED INTERCONNECT CONDUIT/WIRE, ETC., AS APPLICABLE, BE DAMAGED OR BECOME OTHERWISE UNUSABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND FURNISH AND INSTALL ALL NECESSARY WIRING/HARDWARE/ETC., TO MATCH EXISTING AND MAKE ALL FINAL CONNECTIONS SUCH THAT ALL AFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

12. PROPOSED ITEMS SHOWN ON THE PROPOSED/RENOVATION/MODIFICATION DRAWINGS ARE SHOWN IN DARK LINEWORK. EXISTING AND FUTURE ITEMS ARE SHOWN IN LIGHT LINEWORK, UNLESS NOTED OTHERWISE.

13. THE ACTUAL REQUIRED SIZE OF CONDUIT ENTRANCE AREAS TO BE DETERMINED BY THE MANUFACTURER. THE LOCATION AND SIZE OF THE CONDUIT ENTRANCE AREAS FOR THE SWITCHBOARDS, POWER DISTRIBUTION PANELS, LIGHTING PANELS, TRANSFORMER, ETC., AS APPLICABLE, SHALL BE COORDINATED WITH THE EXISTING AND PROPOSED PLANS. REFER TO THE APPLICABLE CIVIL/STRUCTURAL/ MECHANICAL/ELECTRICAL, ETC. DRAWINGS.

14. LOCATIONS AND SIZES OF ELECTRICAL EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS AND ALL POINTS OF CONNECTION PRIOR TO INSTALLATION OF PROPOSED COMPONENTS.

15. NOT ALL ELECTRICAL/MECHANICAL/STRUCTURAL/CIVIL/ETC. COMPONENTS ARE SHOWN ON EACH DRAWING. REFER TO THE CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR MANY OF THE GENERAL LOCATIONS, QUANTITY, AND TYPES OF PROPOSED EQUIPMENT, INSTRUMENTS, ETC., TO BE INSTALLED. IN ADDITION, REFER TO THE APPLICABLE ELECTRICAL DRAWINGS AND MAKE ALL FINAL CONNECTIONS.

16. UPON COMPLETION OF RENOVATION ACTIVITIES, COVER AND SEAL ALL UNUSED CONDUIT/WIRE PENETRATIONS ON EXISTING REMAINING PULLBOXES. IF EXISTING PULLBOX IS UNTAGGED, CONTRACTOR SHALL TAG EXISTING PULLBOX PER SPECIFICATIONS.

17. CONTRACTOR SHALL SIZE ALL PULL/JUNCTION BOXES PER, AND IN ACCORDANCE WITH, THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.).

GENERAL NOTES (CONTINUED):

18. CONTRACTOR SHALL COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE WITH EXISTING AND PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ELECTRICAL SYSTEMS/COMPONENTS/EQUIPMENT/UTILITIES, ETC.

19. EXACT LOCATIONS OF MECHANICAL/STRUCTURAL/CIVIL COMPONENTS ARE NOT SHOWN ON THE ELECTRICAL, INSTRUMENTATION, OR CONTROL SYSTEM DRAWINGS. REFER TO MECHANICAL/STRUCTURAL/CIVIL DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL/STRUCTURAL/CIVIL ITEMS.

20. EXTREME CARE MUST BE TAKEN FOR THE INSTALLATION OF THE ELECTRICAL DUCT BANKS SINCE THERE ARE NO AVAILABLE AS BUILT RECORDS OF PROFILES IDENTIFYING THE LOCATION AND INVERT ELEVATIONS OF EXISTING UNDERGROUND ELECTRICAL SYSTEM (CONDUITS, DUCT BANK, GROUNDING NETWORK, ETC.) AND UNDERGROUND MECHANICAL PIPING. ROUTING OF NEW DUCT BANK SHOWN IS BASED ON SCHEMATIC KNOWLEDGE OF THE SIZE OF MECHANICAL PIPING AND THEIR APPROXIMATE SIZE AND/OR LOCATION. NO DATA IS AVAILABLE PERTAINING TO EXISTING UNDERGROUND ELECTRICAL DUCT BANK SYSTEM AND ITS COORDINATION WITH THE UNDERGROUND MECHANICAL SYSTEM. THEREFORE THE CONTRACTOR IS TO EXERCISE EXTREME CARE, VERIFY LOCATION/ROUTING/ELEVATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING FULL SCALE INSTALLATION PROCESS OF THE PROPOSED DUCT BANK SYSTEM. FOLLOWING THE DISCOVERY VERIFICATION OF EXISTING UNDERGROUND UTILITIES, SHOULD ADJUSTMENT/MODIFICATIONS BECOME A NECESSITY TO EITHER THE EXISTING OR PROPOSED SYSTEM (AS APPLICABLE), THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNER'S ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

21. CONDUIT SYSTEM CORRIDORS SHOWN REPRESENT MINIMUM SPACE REQUIRED AS PER THE APPLICABLE CONDUIT/WIRE SCHEDULES AND PANELBOARD SCHEDULES. SHOULD ADDITIONAL CONDUIT/WIRE NOT SHOWN ON THE CONDUIT/WIRE SCHEDULES AND/OR PANELBOARD SCHEDULES BE ROUTED IN THE CONDUIT SYSTEM CORRIDORS (E.G. INTERCONNECTS FOR HVAC, SECURITY, TELEPHONE, FIRE ALARM, ETC.), THE CONTRACTOR SHALL DETERMINE AND MAKE ANY NECESSARY ADJUSTMENTS TO THE CONDUIT CORRIDOR SIZE/ROUTING, AS WELL AS ANY ASSOCIATED PULLBOX SIZE ADJUSTMENTS, AND ANY ASSOCIATED CONDUIT SUPPORT/RACKING ADJUSTMENTS. CONTRACTOR SHALL FURNISH AND INSTALL ALL OF THE NECESSARY MATERIALS/PULLBOXES/HARDWARE/ETC., TO FACILITATE ANY SUCH ADJUSTMENTS, AND FULLY COORDINATE ANY SUCH ADJUSTMENTS WITH ALL MECHANICAL/HVAC/STRUCTURAL/ETC., UTILITIES/EQUIPMENT/WALL PENETRATIONS/CEILING PENETRATIONS/ETC., AS APPLICABLE, AND MAKE ALL FINAL CONNECTIONS, TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

22. THE MAJORITY OF THE CONDUIT/WIRE ROUTES SHOWN ON THE DRAWINGS ARE SHOWN PARTIALLY (WITH "HOMERUNS"). ADDITIONALLY, CERTAIN SPECIFIC CONDUIT/WIRE/PULLBOX/ETC., LOCATION/ROUTING REQUIREMENTS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION/ROUTING FOR, FURNISH, AND INSTALL THE ENTIRE LENGTH OF THE PROPOSED CONDUIT/WIRE, REQUIRED INTERMEDIATE PULLBOXES, RELATED FITTINGS, AND ALL REQUIRED MOUNTING HARDWARE AND MAKE ALL FINAL CONNECTIONS. THE CONTRACTOR SHALL SIZE ALL NECESSARY REQUIRED PULLBOXES TO FACILITATE THE PROPOSED CONDUIT/WIRE INSTALLATION. ALSO REFER TO THE APPLICABLE CONDUIT/WIRE SCHEDULE, ONE–LINE DIAGRAMS, FLOOR PLAN DRAWINGS, ETC., TO AIDE IN THE LOCATION/ROUTING OF THE PROPOSED CONDUIT/WIRE/PULLBOXES/MOUTING HARDWARE/ETC. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE PROPOSED ELECTRICAL EQUIPMENT WITH THE INSTALLATION OF THE PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES, AND THE EXISTING CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES.

23. CERTAIN SPECIFIC CONDUIT/WIRE/PULLBOX/ETC. LOCATION AND ROUTING REQUIREMENTS ARE SHOWN ON THE DRAWINGS. A PORTION OF THE CONDUIT/WIRE ROUTES SHOWN ON THE DRAWINGS ARE SHOWN PARTIALLY (I.E. "HOMERUNS"). THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION/ROUTING OF THESE HOMERUNS, AND FURNISH AND INSTALL THE ENTIRE LENGTH OF THE PROPOSED CONDUIT/WIRE. THE CONTRACTOR SHALL SIZE/FURNISH/INSTALL ANY REQUIRED PULLBOXES, FITTINGS, MOUNTING HARDWARE, ETC., TO FACILITATE THE PROPOSED CONDUIT/WIRE INSTALLATION AND MAKE ALL FINAL CONNECTIONS. REFER TO APPLICABLE CONDUIT/WIRE SCHEDULES, ONE–LINE DIAGRAMS, FLOOR PLAN DRAWINGS, ETC., AS WELL AS THE THE EXISTING/PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ETC., AND UTILITIES TO COORDINATE THE LOCATION/ROUTING OF THE PROPOSED ELECTRICAL EQUIPMENT.

24. CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE, PULLBOXES, AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL PROPOSED VENDOR EQUIPMENT PACKAGED SYSTEM SUB–COMPONENTS WITH THEIR RESPECTIVE PROPOSED CONTROL PANEL/ELECTRICAL EQUIPMENT/ETC., AS APPLICABLE. FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL/ELECTRICAL EQUIPMENT/ETC., AS APPLICABLE, INSTALL THE CONTROL PANEL/ELECTRICAL EQUIPMENT/ ETC., AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES (CONTINUED):

25. EXISTING INFORMATION SHOWN ON THIS DRAWING WAS PRIMARILY OBTAINED FROM THE FOLLOWING PROJECT:

    A. "WALLER CREEK TUNNEL PROJECT: INLET FACILITY AT WATERLOO PARK"; C.O.A PROJECT NO. 6521.003; 2011.
    B. "WALLER CREEK INLET DAM BYPASS"; C.O.A PROJECT NO. 10878.002; 2019.
    C. "WALLER CREEK INLET FACILITY CATENARY SCREEN PILOT"; C.O.A PROJECT NO. 10878.003; 2021.

26. ALL WORK WHICH MAY DISTURB LEAD CONTAINING COATINGS IS TO BE CONDUCTED IN ACCORDANCE WITH REQUIREMENTS OF 25 TAC, SECTION 295, ARTICLE 9029, 29 CFR 1910.1025, 29 CFR 1926.62 AND 40 CFR PART 745, SUBPART E AND SUBPART L. ALSO, IF WORK TO CREATE OPENINGS IN CMU BLOCK WALLS RESULTS IN THE DISCOVERY OF ANY GRANULAR FILL MATERIALS SUCH AS VERMICULITE, STOP ALL WORK, ISOLATE THE WORK AREA AND NOTIFY THE OWNER TO EVALUATE AND REMEDIATE THE DISTURBED MATERIALS BEFORE PROCEEDING.

27. WHERE TYPICAL DRAWINGS ARE SHOWN, THE ACTUAL TAG FOR EACH EQUIPMENT WILL DIFFER FROM THAT SHOWN ON THE TYPICAL DRAWINGS. REFER TO THE APPLICABLE TAG REPLACEMENT SCHEDULES TO DERIVE THE CORRESPONDING TAGS FOR EACH EQUIPMENT. THE EQUIPMENT TAG REPLACEMENT SCHEDULE SHALL BE CROSS–REFERENCED WITH THE TYPICAL CONTROL SCHEMATIC/ INSTRUMENT LOOP/ETC. DRAWINGS IN ORDER TO ASSIGN THE PROPER REQUIRED TAGS TO ALL OF THE SPECIFIC DEVICES FOR EACH EQUIPMENT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TAGS FOR EACH EQUIPMENT AS SHOWN. FOR EQUIPMENT TAGS THAT MAY BE SHOWN ON THE TYPICAL SCHEMATIC BUT NOT IDENTIFIED IN THE TAG REPLACEMENT SCHEDULE, REFER TO THE DETAILED ONE–LINE DIAGRAMS, ASSOCIATED TYPICAL WIRING SCHEMATIC DETAILS, PLC I/O SCHEDULE, AND OTHER CONTRACT DOCUMENTS.

28. FIELD VERIFY ALL POINTS OF CONNECTION PRIOR TO COMMENCING MODIFICATION ACTIVITIES. THE CONTRACTOR SHALL USE CAUTION DURING THE DEMOLITION ACTIVITIES AND CAREFULLY IDENTIFY AND RECORD ALL EXISTING WIRES, WIRE NUMBERS, TERMINAL BLOCKS, AND ASSOCIATED DEVICE TERMINAL CONNECTIONS PRIOR TO COMMENCING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL USE THIS INFORMATION DURING THE RENOVATION ACTIVITIES TO RECONNECT EXISTING EQUIPMENT THAT IS SCHEDULED FOR REUSE.

29. THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZES SHOWN REPRESENT THE MINIMUM REQUIRED SIZES AND ARE APPROXIMATE. CONTRACTOR TO DETERMINE EXACT AS–BUILT SIZE REQUIRED FOR THE MAIN CONTROL PANEL/FIELD CONTROLS STATION TO MEET THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) WITHOUT ANY ADDITIONAL COST TO THE OWNER (SHOULD THE FINAL SIZE BE LARGER THAN THE MINIMUM SIZE REQUIRED BY THIS DRAWING). ADDITIONALLY, THE CONTRACTOR IS TO CAREFULLY REVIEW THE ELECTRICAL/CONTROL FLOOR PLAN DRAWING AND MAKE ANY ADJUSTMENTS/EQUIPMENT REARRANGEMENTS NECESSARY TO MEET NATIONAL ELECTRICAL CODE REQUIREMENTS AND ANY OTHER SAFETY CODES ADOPTED BY THE OWNER SHOULD THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZE BE ANY GREATER/LARGER THAN THE MINIMUM SIZE REQUIRED BY THE PLANS. CONDUIT/WIRING, ETC. ADJUSTMENT CAUSED BY ANY EQUIPMENT REARRANGEMENT, ETC. SHALL ALSO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

30. TYPICAL DRAWINGS ARE PRESENTED FOR MULTIPLE EQUIPMENT. THESE TYPICAL DRAWINGS INCLUDE, BUT ARE NOT LIMITED TO:

    A. CONTROL WIRING SCHEMATICS
    B. POWER WIRING SCHEMATICS
    C. EQUIPMENT TAGGING REPLACEMENT TABLES
    D. FIELD CONTROL STATION FRONT ELEVATIONS, ETC.

31. ALTHOUGH TYPICAL WIRING SCHEMATICS ARE PRESENTED FOR EQUIPMENT, THE CONTRACTOR SHALL GENERATE SPECIFIC EQUIPMENT WIRING SCHEMATICS (I.E., INDIVIDUAL WIRING SCHEMATICS DEDICATED FOR EACH SPECIFIC EQUIPMENT) BASED UPON THE TYPICAL WIRING SCHEMATICS AND THE EQUIPMENT TAGS APPLICABLE TO THE TYPICAL WIRING SCHEMATICS AS SHOWN ON THE TYPICAL WIRING SCHEMATICS. THE CONTRACTOR GENERATED SPECIFIC EQUIPMENT WIRING SCHEMATICS SHALL FOLLOW THE SAME OVERALL PRESENTATION FORMAT AS THE TYPICAL EQUIPMENT WIRING SCHEMATICS PRESENTED HEREIN. THE SPECIFIC EQUIPMENT WIRING SCHEMATICS, COMPLETE WITH ALL SPECIFIC EQUIPMENT/DEVICE TAGS (AS MINIMUM, ALSO REFER TO THE SPECIFICATIONS), SHALL BE GENERATED BY THE CONTRACTOR AND INCLUDED WITH THE PROJECT SUBMITTALS (I.E., PRIOR TO EQUIPMENT PURCHASE) AND THE "AS–BUILT" DRAWINGS. ANY CONTRACTOR GENERATED WIRING SCHEMATICS SHOWN AS APPLICABLE TO MULTIPLE EQUIPMENT SHALL NOT BE ACCEPTED. THIS APPLIES TO ALL OTHER TYPES DRAWINGS, I.E., SCHEMATICS, FRONT ELEVATIONS, DETAILS, ETC., AS PRESENTED IN THIS PROJECT.

32. THE MAIN CONTROL PANEL/FIELD CONTROL STATION FRONT ELEVATION DRAWINGS ARE INTENDED, IN PART, AS AN OVERALL CONCEPTUAL LAYOUT OF THE INTERIOR/EXTERIOR (AS APPLICABLE) OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION AND REPRESENTS THE OVERALL LAYOUT PATTERN OF MAJOR DEVICES AND TERMINATION OF DEVICES IN RELATION TO THE PROPOSED PROCESS/MECHANICAL SYSTEM. DO NOT INFER EXACT COMPONENT QUANTITIES AND LOCATIONS FROM THESE FRONT ELEVATION DRAWINGS. THE FRONT ELEVATION DRAWINGS ARE NOT INCLUSIVE OF ALL REQUIREMENTS AND DOES NOT DEPICT ALL COMPONENTS OR REQUIREMENTS OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION. COORDINATE ALL CONTROL DEVICES, CONTROL RELAYS, ETC., REQUIREMENTS WITH THE APPLICABLE EQUIPMENT WIRING SCHEMATICS. ALSO REFER TO THE WIRING SCHEMATICS DRAWINGS AND TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. PLEASE NOTE THAT THE EQUIPMENT AS IDENTIFIED ON EACH MAIN CONTROL PANEL/FIELD CONTROLS STATION FRONT ELEVATION DRAWING ARE TYPICAL FOR THE ENTIRE DRAWING UNLESS NOTED OTHERWISE. NUMBER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN THE APPLICABLE EQUIPMENT SCHEDULE.

GENERAL NOTES (CONTINUED):

33. THE INSTRUMENTS SHALL BE TAGGED INCLUSIVE OF THE AREA CODE. REFER TO THE INSTRUMENT LIST FOR THE COMPLETE INSTRUMENT TAGS AND TAG THE INSTRUMENTS ACCORDINGLY.

34. REFER TO PLC I/O WIRING SCHEDULE FOR INTERFACE POINTS TO THE DISTRIBUTED CONTROL SYSTEM THAT ARE SHOWN ON THE CONTROL WIRING SCHEDULE BUT NOT IDENTIFIED ON TAG REPLACEMENT SCHEDULE.

35. CONTINUOUS OPERATION OF OWNER'S FACILITIES IS OF CRITICAL IMPORTANCE. THE CONTRACTOR SHALL:

    A. SCHEDULE AND CONDUCT ACTIVITIES TO ENABLE EXISTING FACILITIES TO OPERATE CONTINUOUSLY, UNLESS OTHERWISE SPECIFIED.

    B. CONDUCT WORK OUTSIDE NORMAL WORKING HOURS AS MAY BE NECESSARY TO MEET PROJECT SCHEDULE AND AVOID UNDESIRABLE CONDITIONS.

    C. NOTHING IN THESE DOCUMENTS SHALL RESTRICT THE OWNER FROM PARTIAL UTILIZATION OF ANY COMPLETED PART OF THE WORK, NOR SHALL THE RIGHT OF THE OWNER TO OPERATE FACILITIES BE RESTRAINED IN ANY WAY, EXCEPT WHERE SHUTDOWN OF SPECIFIC FACILITIES FOR CONSTRUCTION HAS BEEN AGREED UPON BY THE OWNER.

    D. OWNER'S EQUIPMENT, INCLUDING GATES, VALVES, AND MOTORS SHALL NOT BE OPERATED WITHOUT THE APPROVAL OF THE OWNER. THE OWNER MAY ELECT TO HAVE AN AUTHORIZED OWNER'S REPRESENTATIVE OPERATE OWNER'S EQUIPMENT OR TO WITNESS OPERATION.

    E. SHOULD A POWER OUTAGE TO A FACILITY BE REQUIRED, THE CONTRACTOR SHALL REQUEST SUCH AN OUTAGE IN WRITING NO LESS THAN NINETY–SIX (96) HOURS IN ADVANCE. CONTRACTOR'S WRITTEN REQUEST SHALL IDENTIFY THE DESIRED DATE, TIME, DURATION, AND PURPOSE OF THE REQUESTED DAY UNLESS HE/SHE OBTAINS A WRITTEN APPROVAL FROM THE OWNER AUTHORIZING THE OUTAGE. THE OWNER RESERVES THE RIGHT TO MODIFY OR REJECT ANY REQUEST SUCH AN OUTAGE. MODIFICATION OR REJECTION OF THE CONTRACTORS REQUEST BE THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE. UNLESS OTHERWISE NOTED, THE DURATION OF THE OUTAGE SHALL BE LIMITED TO FOUR (4) HOURS OR LESS. THE OWNER RESERVES THE RIGHT TO LIMIT THE DURATION OF THE OUTAGE TO LESS THAN 4 HOURS. MODIFICATION OF THE OUTAGE DURATION BY THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE.

36. DURING DEMOLITION/RENOVATION ACTIVITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION OF ALL LEAD PAINT PRIOR TO REMOVAL OF LEAD PAINTED PIPING/EQUIPMENT. CONTRACTOR SHALL FOLLOW ALL OSHA REQUIREMENTS FOR REMEDIATION OF LEAD PAINT. SEE DIVISION 1 SPECIFICATIONS FOR REMEDIATION DETAILS. SEE SECTION 01010 AND RELATED ATTACHMENTS FOR AREAS CONTAINING LEAD PAINT.

37. CONTRACTOR SHALL FIELD VERIFY ALL INTERCONNECT WIRING CONNECTING TO THE EXISTING PROGRAMMABLE LOGIC CONTROLLER INPUT/OUTPUT MODULES LOCATED WITHIN EXISTING CONTROL PANEL ENCLOSURES PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES.

38. THE CONTRACTOR IS REMINDED THAT ALTHOUGH THESE ATTACHMENTS ARE PRESENTED IN THE CONTRACT SPECIFICATIONS, THEY SHALL BE CONTINUALLY MAINTAINED, I.E. "BLUE–LINED" AS DESCRIBED IN SECTION 01300, BY THE CONTRACTOR ALONG WITH THE OTHER CONTRACT DOCUMENTS AS RECORD DRAWINGS THROUGHOUT THE ENTIRE PROJECT DURATION AND SUBMITTED AS PART OF THE "AS–BUILT" DRAWINGS. ALSO REFER TO THE SPECIFICATIONS.

39. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING CONDUITS. CONDUIT WITH WIRING AND POSSIBLE PIPING MAY EXIST IN AREAS OF THE FLOOR TO BE CORE DRILLED. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL AVAILABLE DOCUMENTATION, RECORD DRAWINGS, ETC. FOR ADDITIONAL CONFIRMATION. ADDITIONALLY, THE CONTRACTOR, AT HIS/HER OWN EXPENSE, MAY UTILIZE ANY METHOD/MEANS NECESSARY FOR EXACT FIELD VERIFICATION TO IDENTIFY LOCATION AND FUNCTION OF ANY CONDUIT/WIRING THAT MAY POTENTIALLY BE EMBEDDED/BURIED IN THE CONCRETE WALLS/FLOORS OF THE AREA IN WHICH CORE DRILLING IS SCHEDULED TO TAKE PLACE. SUCH EFFORT IS STRICTLY THE CONTRACTOR'S PREROGATIVE AND WHEN EXECUTED SHALL NOT BE CONSIDERED AS ADDED SERVICES BY THE CONTRACTOR NOR SHALL THESE SERVICES BE COMPENSATED BY THE OWNER, E.G., SUCH SERVICES WILL BE PROVIDED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FOLLOWING THE RESULTS OF THE ACTUAL FIELD VERIFICATION MEANS/METHODS UTILIZED BY THE CONTRACTOR, SHOULD ADJUSTMENT/MODIFICATION OF THE CORE DRILLING BECOME A NECESSITY, THEN THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR THE EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

40. SEAL ALL DEMOLISHED CONDUIT/WIRE PENETRATIONS THROUGH STRUCTURE, THAT ARE NOT REUSED DURING RENOVATION ACTIVITIES, WITH 50 YEAR NON–SHRINK WATER TIGHT GROUT (GROUT FLUSH WITH STRUCTURAL FLOOR/WALL SLAB). ALSO REFER TO THE ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION AND MAKE ALL FINAL CONNECTIONS.

41. ANY MODIFICATION TO THE ROADWAY/CURBING/SIDEWALK/FENCE/ LANDSCAPING/ GRASSES/ ETC., WHETHER SHOWN ON THE DRAWINGS OR NOT, SHALL BE REPAIRED TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

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

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

GENERAL NOTES

AECOM
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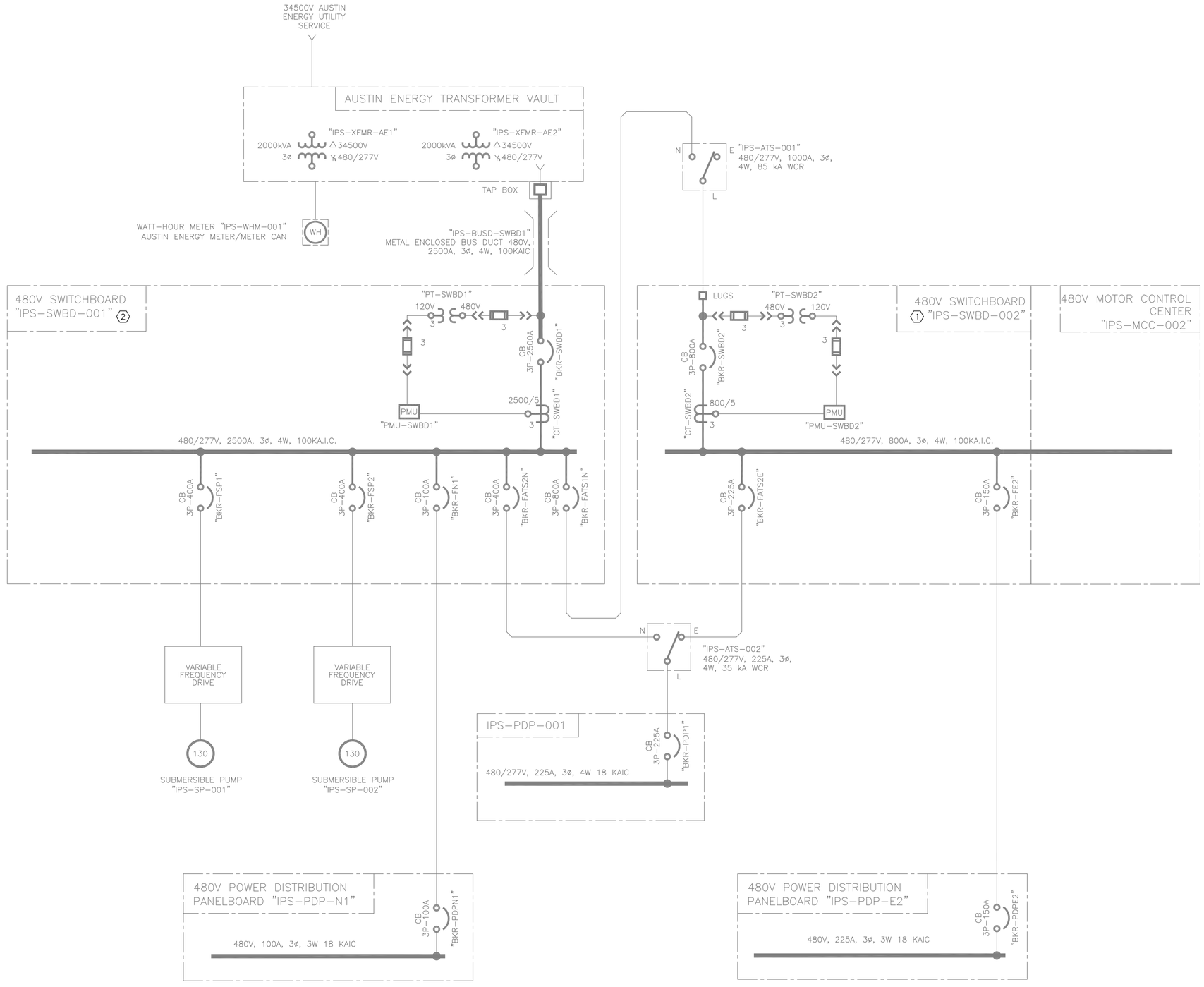
STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-04
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



KEY NOTES:

1. EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-003", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014.
2. EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-001", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014.

GENERAL NOTES:

1. THE OVERALL ELECTRICAL DISTRIBUTION SYSTEM ONELINE DIAGRAM IS SHOWN FOR REFERENCE PURPOSES ONLY. REFER TO DRAWING NO. [E-07] FOR INFORMATION REGARDING RENOVATION ACTIVITIES.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

OVERALL ONE-LINE DIAGRAM
RENOVATION

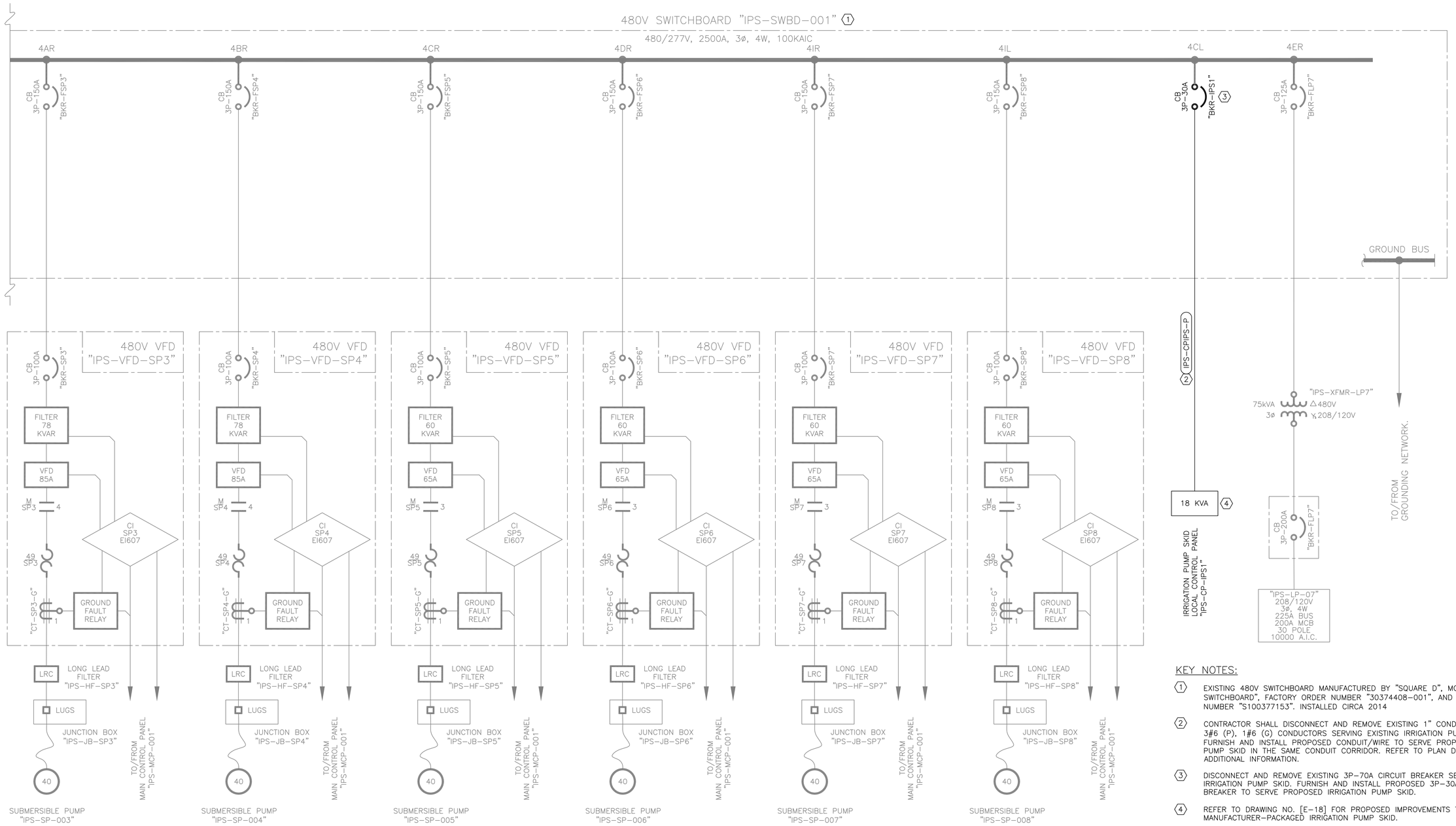
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

K. A. HARUTUNIAN 59181 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 5/17/2023

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-05
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	



KEY NOTES:

1. EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-001", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014
2. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 1" CONDUIT CONTAINING 3#6 (P), 1#6 (G) CONDUCTORS SERVING EXISTING IRRIGATION PUMP SKID. FURNISH AND INSTALL PROPOSED CONDUIT/WIRE TO SERVE PROPOSED IRRIGATION PUMP SKID IN THE SAME CONDUIT CORRIDOR. REFER TO PLAN DRAWING FOR ADDITIONAL INFORMATION.
3. DISCONNECT AND REMOVE EXISTING 3P-70A CIRCUIT BREAKER SERVING EXISTING IRRIGATION PUMP SKID. FURNISH AND INSTALL PROPOSED 3P-30A CIRCUIT BREAKER TO SERVE PROPOSED IRRIGATION PUMP SKID.
4. REFER TO DRAWING NO. [E-18] FOR PROPOSED IMPROVEMENTS TO EXISTING MANUFACTURER-PACKAGED IRRIGATION PUMP SKID.

HARUTUNIAN ENGINEERING INCORPORATED
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ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

480V SWITCHBOARD "IPS-SWBD-001"
PARTIAL ONE-LINE DIAGRAM
RENOVATION

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
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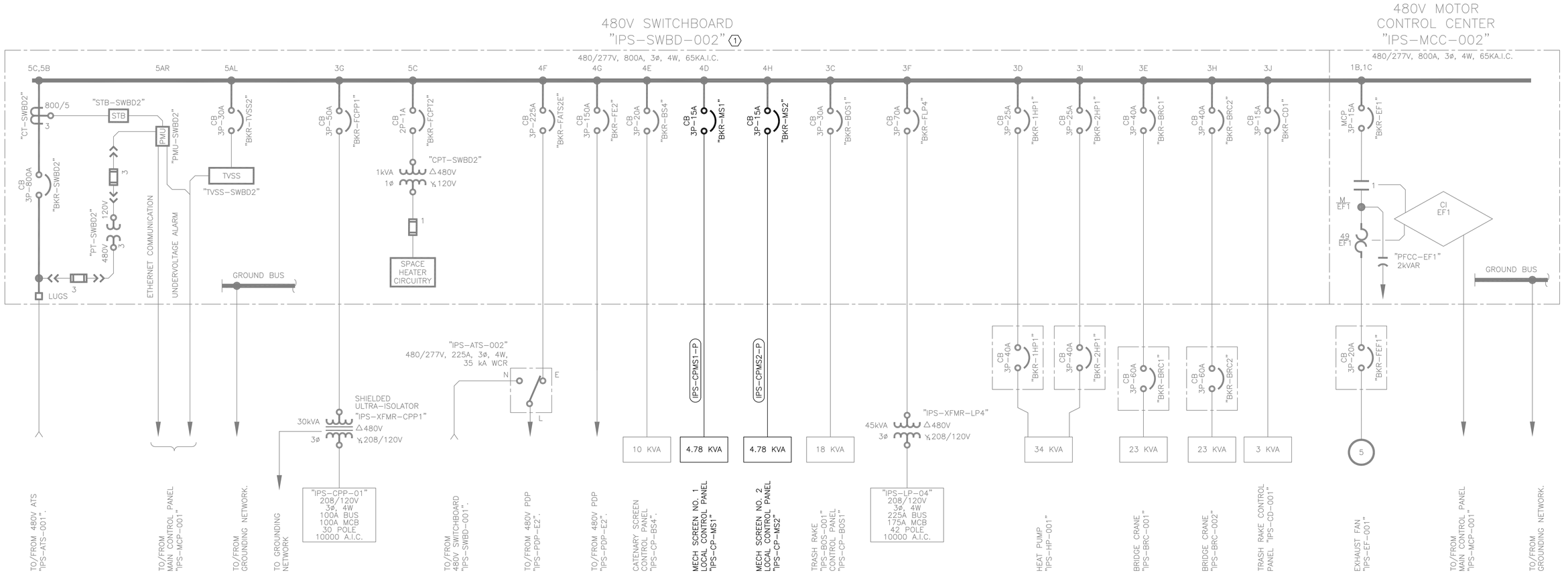
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-06
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	



KEY NOTES:

(1) EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-003", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014

HARUTUNIAN ENGINEERING INCORPORATED
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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

480V SWITCHBOARD "IPS-SWBD-002"
ONE-LINE DIAGRAM
RENOVATION

AECOM TECHNICAL SERVICES INC.
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AUSTIN, TEXAS 78729
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STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
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0 1"
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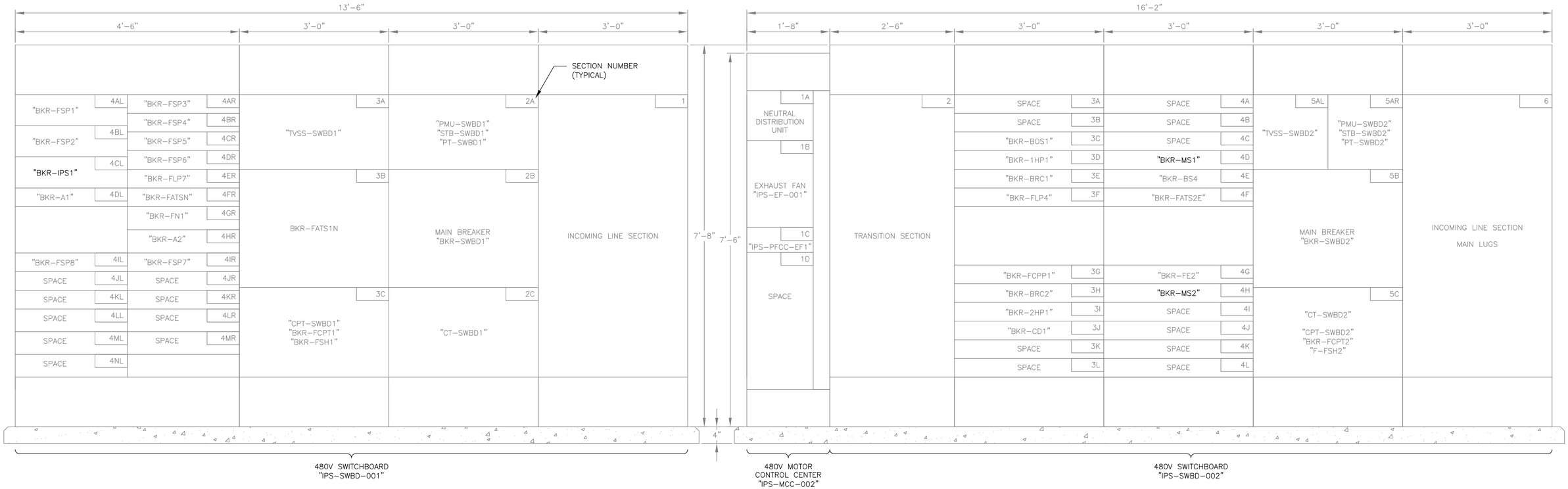
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-07
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. OF
DATE: MARCH 2023	



480V "IPS–SWBD–001"
FRONT ELEVATION
SCALE: NTS

480V "IPS–SWBD–002" AND "IPS–MCC–002"
FRONT ELEVATION
SCALE: NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

EQUIPMENT FRONT ELEVATIONS
RENOVATION

AECOM TECHNICAL SERVICES INC.
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STATE OF TEXAS
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LICENSED
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5/17/2023

VERIFY SCALES
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0 1"
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DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-08
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

CIRCUIT BREAKER PANEL SCHEDULE–"IPS–LP–02" ⟨1⟩⟨2⟩

VOLTS: 120/208 AMPS: 225A BUS MAIN: 175A PHASE/WIRE: 3ø, 4W

CONDUIT/WIRE DESCRIPTION	CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE	CONDUIT/WIRE DESCRIPTION
	20 1P	1	SPARE	325 / ---			EAST STAIR LOWER ROOM LIGHTING BENEATH STAIRS	2	20 1P	3/4" – 2#10(P), 1#10(G)
	20 1P	3	SPARE		180 / ---		EAST STAIR LOWER ROOM CONVENIENCE RECEPTACLE BENEATH STAIRS	4	20 1P	3/4" – 2#10(P), 1#10(G)
	20 1P	5	SPARE			80 / ---	WET WELL, LOWER NETTING EGRESS LIGHTING	6	20 1P	1" – 4#8(P), 1#10(G)
	20 1P	7	SPARE	972 / ---			WET WELL, LOWER NETTING LIGHTING	8	20 1P	INCLUDED IN CONDUIT WITH CIRCUIT NO. 6
1" – 3#8(P), 1#8(G)	30 3P	9	COMBINATION CONTACTOR DISTRIBUTION PANEL "IPS–CCDP–001"		372 / 2325		SUPPLY FAN "IPS–SF–001"	10	20 1P	1" – 2#6(P), 1#10(G)
		11				320 / 2325	INLET FACILITY WORKING AREA EGRESS LIGHTING	12	20 1P	3/4" – 2#8(P), 1#10(G)
		13		540 / 1860			INLET FACILITY WORKING AREA RECEPTACLES ON EAST WALL	14	20 1P	3/4" – 2#10(P), 1#10(G)
1" – 3#8(P), 1#8(G)	30 3P	15	COMBINATION CONTACTOR DISTRIBUTION PANEL "IPS–CCDP–002"		540 / 2325		INLET FACILITY WORKING AREA RECEPTACLES ON SOUTH WALL	16	20 1P	3/4" – 2#8(P), 1#10(G)
		17				180 / 2325	INLET FACILITY WORKING AREA RECEPTACLES ON SOUTHEAST COLUMN	18	20 1P	3/4" – 2#8(P), 1#10(G)
		19		360 / 1395			INLET FACILITY WORKING AREA RECEPTACLES ON NORHTWEST WALL	20	20 1P	1" – 2#6(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	21	CONTROL POWER TO CONTROL CONTACTOR PANEL "IPS–CCDP–001"		360 / 100		INLET FACILITY WORKING AREA RECEPTACLES ON NORTHEAST WALL	22	20 1P	3/4" – 2#8(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	23	CONTROL POWER TO CONTROL CONTACTOR PANEL "IPS–CCDP–002"			--- / 100	INLET FACILITY WORKING AREA RECEPTACLES ON NORTHWEST COLUMN	24	20 1P	1" – 2#6(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	25	AIR BUBBLER CONTROL PANEL "IPS–CP–LIT0102"	50 / ---			IRRIGATION CONTROLLER "IPS–CP–IRGCE"	26	20 1P	1" – 2#10(P), 1#10(G)
3/4" – 4#10(P), 2#10(G)	20 1P	27	LOWER CHANNEL MECH SCREEN RECEPTACLE		1200 / 180		GAS HEATER "IPS–GH–001"	28	20 1P	3/4" – 2#8(P), 1#10(G)
INCLUDED IN CONDUIT WITH CIRCUIT NO. 27	20 1P	29	UPPER CHANNEL MECH SCREEN RECEPTACLE			1200 / 180	GAS HEATER "IPS–GH–002"	30	20 1P	3/4" – 2#8(P), 1#10(G)
	20 1P	31	SPARE	--- / ---			SPARE	32	100 3P	
	20 1P	33	SPARE		--- / ---			34		
	20 1P	35	SPARE			--- / ---		36		
	20 1P	37	SPARE	--- / ---			SPARE	38	20 1P	
	20 1P	39	SPARE		--- / ---		SPARE	40	20 1P	
	20 1P	41	SPARE			--- / ---	SPARE	42	20 1P	
TOTAL CONNECTED VOLT AMPS (VA)				5502	7582	6710				

CONDUIT/WIRE SCHEDULE

CONDUIT TAG	SIZE	CABLE/WIRE DESCRIPTION
IPS–AIT304A–IP	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–AIT304B–IP	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–AIT304C–IP	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–AIT304D–IP	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–AIT304–IP1	2"	8 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),4 #12 (G)
IPS–AIT304–IP2	1–1/2"	6 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),3 #12 (G)
IPS–AIT304–IP3	1–1/4"	4 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),2 #12 (G)
IPS–CPGDS–P	3/4"	2 #10 (P),1 #10 (G)
IPS–CPIPS–C	1–1/4"	12 #12 (C),4 #12 (SP),1 #12 (G)
IPS–CPIPS–I	3/4"	1 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–CPIPS–P	3/4"	3 #8 (P),1 #10 (G)
IPS–CPMS1–C	1–1/4"	16 #12 (C),4 #12 (SP),1 #12 (G)
IPS–CPMS1–P	3/4"	3 #10 (P),1 #10 (G)
IPS–CPMS2–C	1–1/4"	16 #12 (C),4 #12 (SP),1 #12 (G)
IPS–CPMS2–P	3/4"	3 #10 (P),1 #10 (G)
IPS–GDS–I	1–1/4"	4 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–GDS–P	3/4"	4 #10 (P),2 #10 (G)
IPS–IRP1/2–PC	1–1/4"	2 #12 (P),10 #12 (C),4 #12 (SP),1 #12 (G)
IPS–IRP1–P	3/4"	3 #10 (P),1 #10 (G)
IPS–IRP2–P	3/4"	3 #10 (P),1 #10 (G)
IPS–LE/TE–I	3/4"	2 EXISTING VENDOR CABLES (I)
IPS–MS1–C1	1"	6 #12 (C),3 #12 (G)
IPS–MS1–C2	1"	6 #12 (C),2 #12 (G)
IPS–MS1–I	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),2 #12 (P),1 #12 (G)
IPS–MS1LE1–I	3/4"	1 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–MS1LE2–I	3/4"	1 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–MS1LE–I	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),2 #12 (G)
IPS–MS1LSH1–C	3/4"	2 #12 (C),1 #12 (G)
IPS–MS1LSH2–C1	3/4"	4 #12 (C),1 #12 (G)
IPS–MS1LSH2–C2	3/4"	2 #12 (C),1 #12 (G)
IPS–MS1–P	3/4"	3 #10 (P),1 #10 (G)
IPS–MS1ZS–C	3/4"	4 #12 (C),2 #12 (G)
IPS–MS2–C1	2"	26 #12 (C),6 #12 (SP),6 #12 (G)
IPS–MS2–C2	1–1/4"	12 #12 (C),5 #12 (G)
IPS–MS2–C3	1"	8 #12 (C),4 #12 (G)
IPS–MS2–C4	3/4"	4 #12 (C),2 #12 (G)
IPS–MS2FCS–C	1–1/4"	14 #12 (C),6 #12 (SP),1 #12 (G)
IPS–MS2–I	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),2 #12 (P),1 #12 (G)
IPS–MS2LE1–I	3/4"	1 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–MS2LE2–I	3/4"	1 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS–MS2LE–I	1"	2 #16 2–CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),2 #12 (G)
IPS–MS2LSH1–C	3/4"	2 #12 (C),1 #12 (G)
IPS–MS2LSH2–C1	3/4"	4 #12 (C),1 #12 (G)
IPS–MS2LSH2–C2	3/4"	2 #12 (C),1 #12 (G)
IPS–MS2–P	3/4"	3 #10 (P),1 #10 (G)
IPS–MS2ZS–C	3/4"	4 #12 (C),2 #12 (G)
IPS–YALH2–C	3/4"	2 #12 (C),1 #12 (G)
IPS–YALH–C	1"	8 #12 (C),1 #12 (G)
IPS–YALH–P	3/4"	2 #10 (P),1 #10 (G)

KEY NOTES:

⟨1⟩ PANEL "IPS–LP–02" IS A TYPE NQ PANELBOARD MANUFACTURED BY SQUARE D AND INSTALLED CIRCA 2012.

⟨2⟩ UPON COMPLETION OF RENOVATION ACTIVITIES, FURNISH AND INSTALL UPDATED TYPED PANEL SCHEDULE TO REFLECT MODIFICATIONS RESULTING FROM DEMOLITION/RENOVATION ACTIVITY AND/OR INVESTIGATION/VERIFICATION ACTIVITY.

HARUTUNIAN ENGINEERING INCORPORATED
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ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

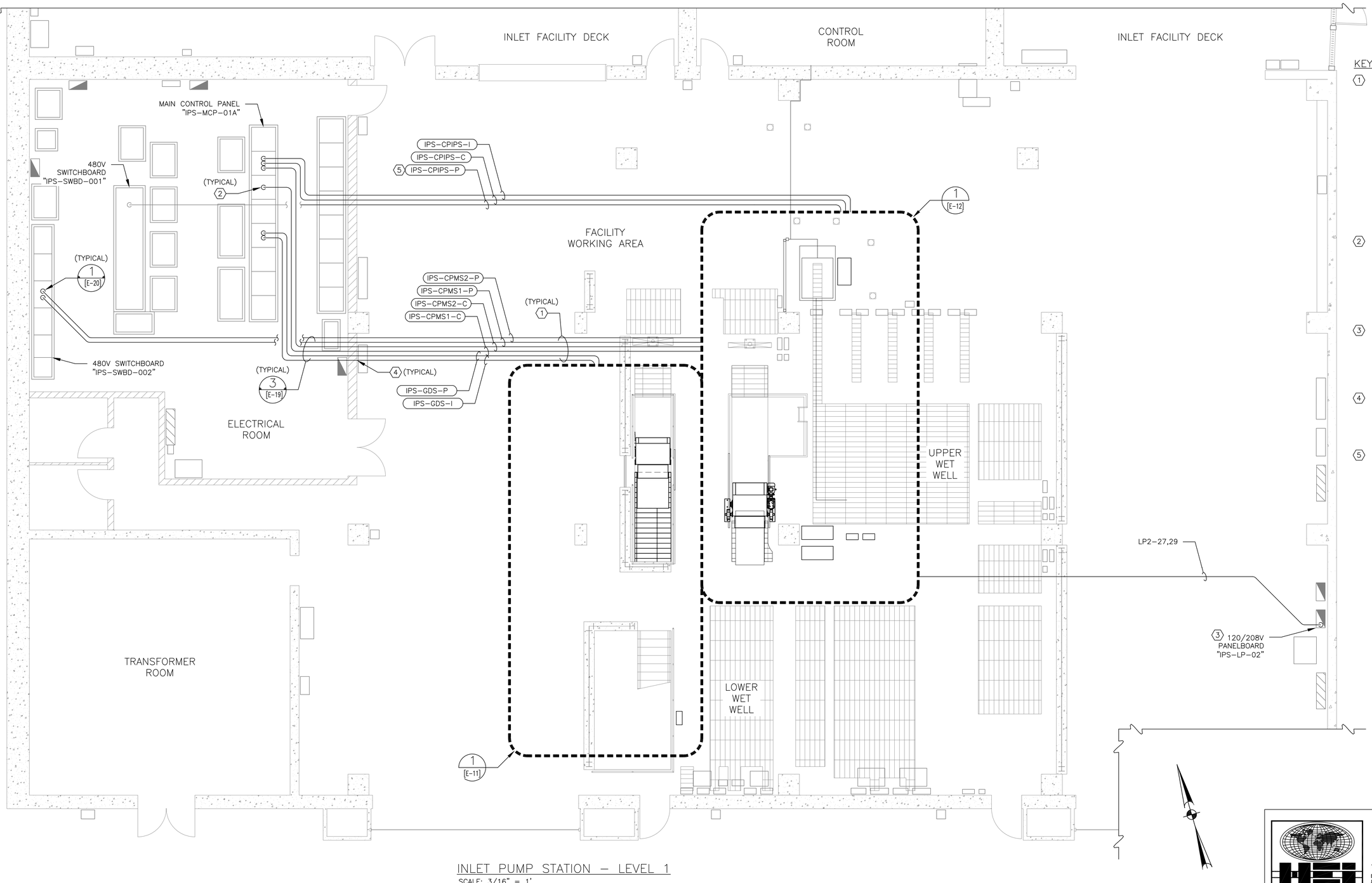
WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007
PANEL SCHEDULE & CONDUIT/WIRE SCHEDULE
RENOVATION

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS · K. A. HARUTUNIAN · 59181 · LICENSED PROFESSIONAL ENGINEER · 5/17/23

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-09
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	



INLET PUMP STATION – LEVEL 1
SCALE: 3/16" = 1'

KEY NOTES:

1. ELEVATION AND CONFIGURATION OF CONDUIT CORRIDORS WILL VARY TO AVOID CONFLICTS AND TO FACILITATE CONNECTION TO EQUIPMENT. FIELD VERIFY LOCATION OF PROPOSED STRUCTURES, PIPES, CONDUIT, EQUIPMENT, ETC. BEFORE BEGINNING INSTALLATION AND ADJUST INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO OWNER. COORDINATE WITH PROCESS/MECHANICAL TO OPTIMIZE WORKING CLEARANCES AND TO AVOID INTERFERENCE BETWEEN SYSTEM COMPONENTS.
2. FIELD VERIFY EXACT CONDUIT ENTRANCE LOCATIONS TO ALL EQUIPMENT BEFORE COMMENCING CONDUIT INSTALLATION. ADJUST CONDUIT ENTRANCE AND ROUTING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. TYPICAL FOR ALL CONDUIT/WIRE TERMINATIONS.
3. FOR THE SAKE OF CLARITY, NOT ALL CONDUIT/WIRE TERMINATING AT 120/208V PANELBOARD "LP2" IS SHOWN. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
4. PROPOSED CONDUIT/WIRE PENETRATES STRUCTURAL WALL. CORE DRILL AND SEAL ANNULAR SPACE AROUND CONDUIT PENETRATION PER DETAIL 6/[E-19].
5. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 1"C CONTAINING 3#6 (P), 1#6 (G) CONDUCTORS SERVING EXISTING IRRIGATION PUMP SKID. FURNISH AND INSTALL PROPOSED CONDUIT/WIRE TO SERVE PROPOSED IRRIGATION PUMP SKID IN THE SAME CONDUIT CORRIDOR.

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WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET PUMP STATION - LEVEL 1
POWER AND I&C PLAN - RENOVATION

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STATE OF TEXAS
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5/17/2023

VERIFY SCALES
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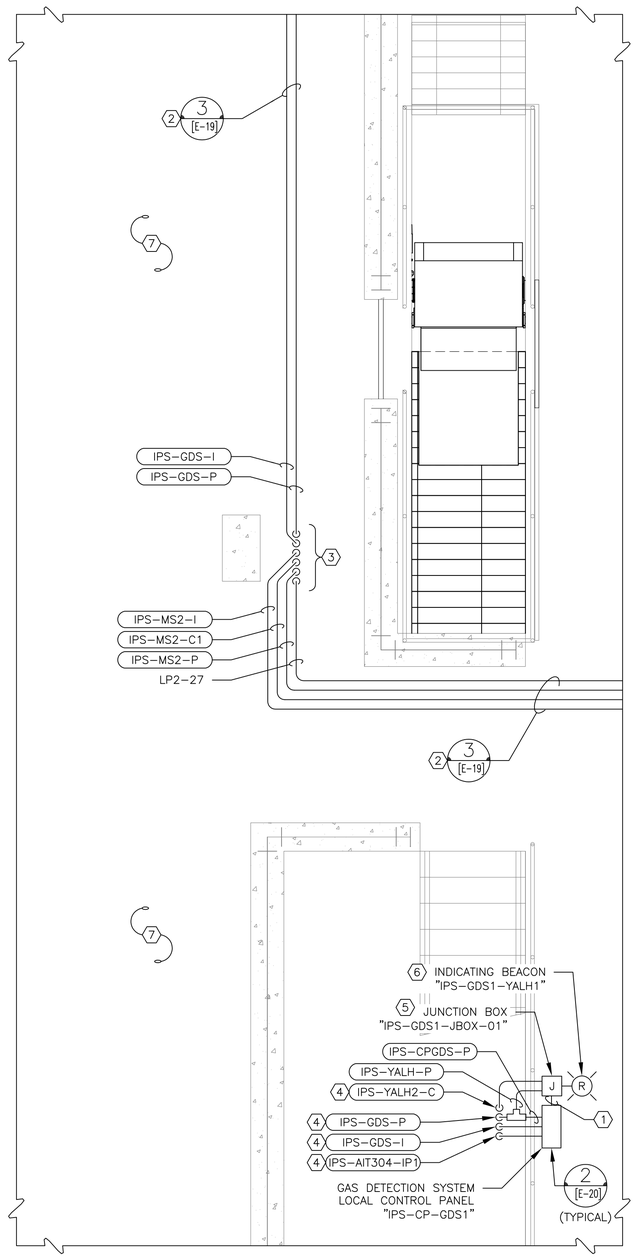
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-10
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	



INLET PUMP STATION – LEVEL 1
LOWER CHANNEL ACCESS SHAFT 1 [E-10]
SCALE: 3/8" = 1'

KEY NOTES:

1. CONDUIT TAGGED "IPS-YALH-C".
2. ELEVATION AND CONFIGURATION OF CONDUIT CORRIDORS WILL VARY TO AVOID CONFLICTS AND TO FACILITATE CONNECTION TO EQUIPMENT. FIELD VERIFY LOCATION OF PROPOSED AND EXISTING STRUCTURES, PIPES, CONDUIT, EQUIPMENT, ETC. BEFORE INSTALLATION AND ADJUST INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO OWNER. COORDINATE WITH OWNER AND PROCESS/MECHANICAL TO OPTIMIZE WORKING CLEARANCES AND TO AVOID INTERFERENCE BETWEEN SYSTEM COMPONENTS. TYPICAL FOR ALL CONDUIT/WIRE CORRIDORS.
3. PROPOSED CONDUIT CORRIDOR PENETRATES FLOOR IN ROUTE TO/FROM SUBLEVEL 2 OF THE INLET PUMP STATION. REFER TO DRAWING NO. [E-13] FOR CONTINUATION. COORDINATE SLAB PENETRATION SIZE AND LOCATION WITH STRUCTURAL. CONTRACTOR SHALL COORDINATE WITH STRUCTURAL TO ENSURE ANNULAR SPACE AROUND CONDUIT PENETRATIONS ARE SEALED.
4. PROPOSED CONDUIT/WIRE CONTINUES TO/FROM LOWER LEVEL. REFER TO DRAWING NO. [E-13] FOR CONTINUATION.
5. FURNISH AND INSTALL I&C JUNCTION BOX PER DETAIL 4/[I-08]. PROPOSED JUNCTION BOX SHALL CONTAIN TERMINAL BLOCK NECESSARY TO INTERFACE GAS DETECTION SYSTEM LOCAL CONTROL PANEL ALARM CONTACTS, INDICATING BEACONS, AND POWER SOURCE. REFER TO FIELD INTERFACE WIRING SCHEMATIC AND CONTROL WIRING SCHEMATIC ON DRAWING NO. [E-17] FOR ADDITIONAL INFORMATION.
6. FURNISH AND INSTALL FLASHING INDICATING BEACON MOUNTED ON TOP OF I&C JUNCTION BOX "IPS-GDS1-JBOX-01". FLASHING LIGHT BEACONS OR ROTATING BEACONS SHALL BE WEATHERPROOF, U. L. LISTED. THE BEACON SHALL BE FURNISHED WITH AN INTEGRAL FLASHING UNIT RATED FOR USE WITH AN LED LAMP, A RED POLYCARBONATE LENS, AND BE FURNISHED COMPLETE WITH THE LED LAMP. THE UNIT SHALL BE RATED FOR AN OPERATING VOLTAGE OF 120VAC. BEACONS SHALL BE AS MANUFACTURED BY EDWARDS SIGNALING AND SECURITY SYSTEMS (GENERAL ELECTRIC), ADAPTABEACON SERIES, MODEL NUMBER 51XBRFR120A, OR APPROVED EQUAL. THE WIRING FOR THE HORN OF THE UNIT SHALL BE DISCONNECTED TO DISALLOW OPERATION OF THE HORN. PROVIDE WALL MOUNT BRACKET, CATALOG NO. WBR FOR EACH BEACON. PROVIDE PROTECTIVE LENS GUARD, CATALOG NO. 92-GRD FOR EACH BEACON.
7. PLEASE NOTE, THE FACILITY WORKING AREA ON LEVEL 1 OF THE INLET PUMP STATION CONTAINS TWO (2) EXISTING BRIDGE CRANES THAT TRAVEL EAST-WEST ACROSS THE PROCESS FLOOR. CONTRACTOR SHALL COORDINATE PROPOSED RACEWAY SYSTEM ROUTE PRIOR TO RENOVATION ACTIVITIES TO ENSURE THAT THE PROPOSED RACEWAY SYSTEM WILL NOT CONFLICT WITH OPERATION OF THE EXISTING TRAVELING BRIDGE CRANES.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET PUMP STATION - LEVEL 1
ENLARGED POWER AND I&C PLANS
RENOVATION (SHEET 1 OF 2)

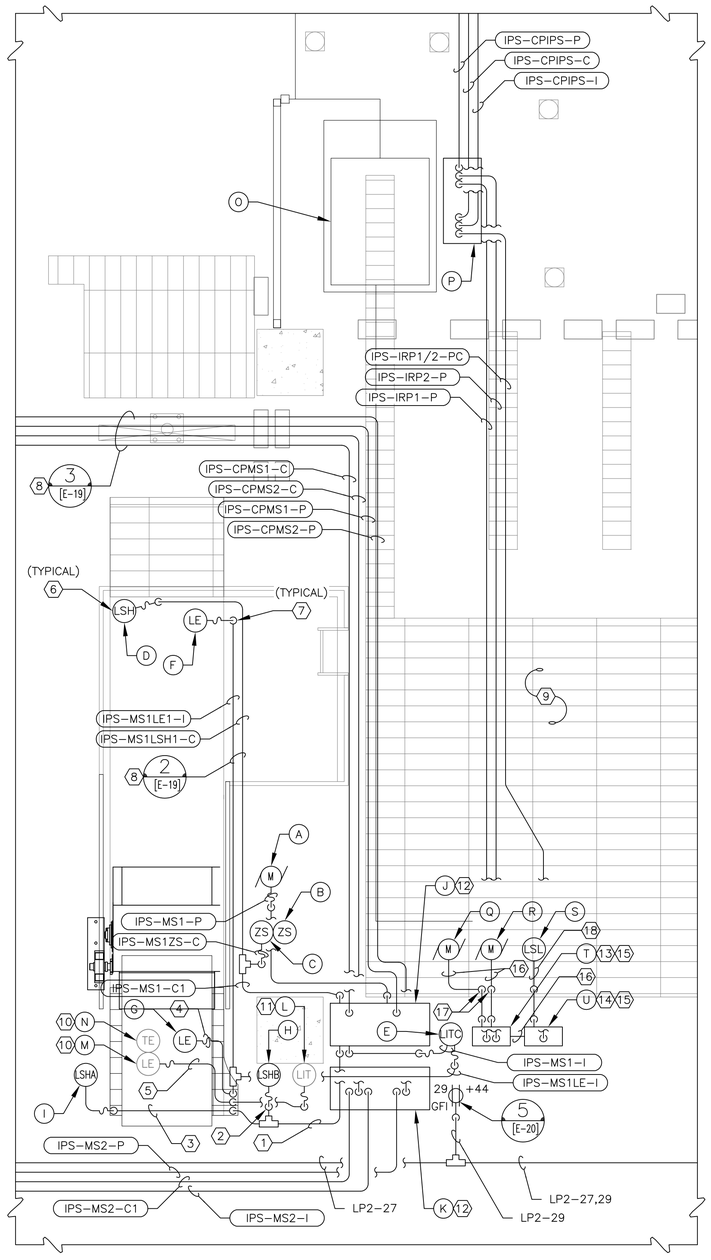
AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-11
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No.
DATE: MARCH 2023	OF

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754



INLET PUMP STATION – LEVEL 1
RECIRCULATION (UPPER) CHANNEL 1 [E-10]
SCALE: 3/8" = 1'

KEY NOTES (CONTINUED):

16 MANUFACTURER PROVIDED SUBMERSIBLE CABLE CONTAINS BOTH POWER AND CONTROL CONDUCTORS IN THE SAME JACKETED CABLE. ROUTE CABLE FROM SUBMERSIBLE PUMP TO POWER TERMINAL JUNCTION BOX "IPS-JBOX-IRP1/2-P". STRIP CABLE SHEATH AND SEPARATE POWER AND CONTROL CONDUCTORS. POWER CONDUCTORS SHALL BE SPLICED TO INDIVIDUAL CONDUCTORS ROUTED FROM MANUFACTURER-PACKAGED IRRIGATION PUMP SKID USING MULTI-CABLE CONNECTOR BLOCKS. CONTROL WIRES SHALL CONTINUE FROM POWER TERMINAL JUNCTION BOX, IN CONDUIT, TO SUBMERSIBLE IRRIGATION PUMP LOCAL CONTROL PANEL "IPS-LCP-IRP1/2". CONTROL WIRES SHALL TERMINATE TO PROPOSED SUBMERSIBLE PUMP PROTECTION RELAY LOCATED ON THE INTERIOR BACKPANEL OF THE PROPOSED LOCAL CONTROL PANEL. CONTRACTOR SHALL COORDINATE CABLE LENGTH WITH THE PUMP MANUFACTURER TO PROVIDE SUFFICIENT LENGTH FOR INTERCONNECTION. PLEASE NOTE, CONTROL WIRES ARE TO BE INSTALLED WITHOUT ANY SPLICES BETWEEN SUBMERSIBLE PUMP AND THE ASSOCIATED PROTECTION RELAY.

17 MANUFACTURUR-PROVIDED CABLE SHALL BE ROUTED IN CONDUIT. CONDUIT BEGINS/ENDS AT THIS LOCATION AND TRANSITIONS FROM/TO EXPOSED CABLE. SUSPEND MANUFACTURER PROVIDED SUBMERSIBLE CABLE FROM MESH GRIP SIMILAR TO DETAIL 1/[I-08]. TYPICAL FOR ALL SUBMERSIBLE CABLES ENTERING THE WET WELL. PLEASE NOTE, ALL PUMP CABLES SHALL REMAIN THE SAME LENGTH. COIL SLACK CABLE FOR PUMPS AT END OF CONDUIT IN THE WET WELL AND SECURE TO CONDUIT AND CONDUIT SUPPORTS WITH STAINLESS STEEL CABLE TIES.

18 SUBMERSIBLE CABLE FURNISHED BY LEVEL SWITCH MANUFACTURER. LEVEL SWITCH CONDUCTORS SHALL BE SPLICED TO INDIVIDUAL CONDUCTORS ROUTED FROM MANUFACTURER-PACKAGED IRRIGATION PUMP SKID USING TERMINAL BLOCKS. CONTRACTOR SHALL COORDINATE CABLE LENGTH WITH THE LEVEL SWITCH MANUFACTURER TO PROVIDE SUFFICIENT LENGTH FOR INTERCONNECTION.

EQUIPMENT IDENTIFICATION SCHEDULE

MARK	DESCRIPTION
A	MECHANICAL SCREEN NO. 1 MOTOR ASSEMBLY
B	HIGH TORQUE LIMIT SWITCH "IPS-MS1-ZS-01"
C	END OF TRAVEL/PARK LIMIT SWITCH "IPS-MS1-ZS-02"
D	UPSTREAM HIGH LEVEL SWITCH "IPS-MS1-LSH-01"
E	LEVEL INDICATING TRANSMITTER/CONTROLLER "IPS-MS1-LITC-01"
F	UPSTREAM LEVEL ELEMENT "IPS-MS1-LE-01"
G	DOWNSTREAM LEVEL ELEMENT "IPS-MS1-LE-02"
H	DEBRIS LEVEL SWITCH RECEIVER "IPS-MS1-LSH-02(R)"
I	DEBRIS LEVEL SWITCH TRANSMITTER "IPS-MS1-LSH-02(T)"
J	MECHANICAL SCREEN NO. 1 LOCAL CONTROL PANEL "IPS-CP-MS1" 13
K	MECHANICAL SCREEN NO. 2 LOCAL CONTROL PANEL "IPS-CP-MS2" 13
L	RECIRCULATION CHANNEL LEVEL INDICATING TRANSMITTER "IPS-LIT-0202" 12
M	RECIRCULATION CHANNEL LEVEL ELEMENT "IPS-LE-0202" 11
N	RECIRCULATION CHANNEL TEMPERATURE ELEMENT "IPS-TE-0202" 11
O	IRRIGATION PUMP SKID "IPS-IPS-01"
P	IRRIGATION PUMP SKID LOCAL CONTROL PANEL "IPS-CP-IPS1"
Q	SUBMERSIBLE IRRIGATION PUMP "IPS-IRP-001"
R	SUBMERSIBLE IRRIGATION PUMP "IPS-IRP-002"
S	UPPER WET WELL LEVEL SWITCH "IPS-LSL-0505"
T	POWER TERMINAL JUNCTION BOX "IPS-JBOX-IRP1/2-P"
U	SUBMERSIBLE IRRIGATION PUMP LOCAL CONTROL PANEL "IPS-LCP-IRP1/2"

NOTE:
CROSS-REFERENCE ITEMS SHOWN ON THE PLAN DRAWING WITH THE DESCRIPTIONS SHOWN IN THE "EQUIPMENT IDENTIFICATION TABLE" SHOWN ON THIS DRAWING.

KEY NOTES:

1 CONDUIT TAGGED "IPS-MS1-C2".

2 CONDUIT TAGGED "IPS-MS1LSH2-C1".

3 CONDUIT TAGGED "IPS-MS1LSH2-C2".

4 CONDUIT TAGGED "IPS-MS1LE2-I".

5 CONDUIT TAGGED "IPS-LE/TE-I".

6 LOCATION OF PROCESS/MECHANICAL COMPONENTS ARE APPROXIMATE. COORDINATE WITH PROCESS/MECHANICAL/STRUCTURAL FOR PLACEMENT OF PROPOSED INSTRUMENTS AND EQUIPMENT.

7 CONDUIT/WIRE TURN UPS/DOWNS SHOWN AWAY FROM EQUIPMENT FOR CLARITY. PROPOSED CONDUIT/WIRE TURN UPS/DOWNS TO CONNECT TO TOP OR BOTTOM OF EQUIPMENT AS APPLICABLE.

8 ELEVATION AND CONFIGURATION OF CONDUIT CORRIDORS WILL VARY TO AVOID CONFLICTS AND TO FACILITATE CONNECTION TO EQUIPMENT. FIELD VERIFY LOCATION OF PROPOSED AND EXISTING STRUCTURES, PIPES, CONDUIT, EQUIPMENT, ETC. BEFORE INSTALLATION AND ADJUST INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO OWNER. COORDINATE WITH OWNER AND PROCESS/MECHANICAL TO OPTIMIZE WORKING CLEARANCES AND TO AVOID INTERFERENCE BETWEEN SYSTEM COMPONENTS. TYPICAL FOR ALL CONDUIT/WIRE CORRIDORS.

9 PLEASE NOTE, THE FACILITY WORKING AREA ON LEVEL 1 OF THE INLET PUMP STATION CONTAINS TWO (2) EXISTING BRIDGE CRANES THAT TRAVEL EAST-WEST ACROSS THE PROCESS FLOOR. CONTRACTOR SHALL COORDINATE PROPOSED RACEWAY SYSTEM ROUTE PRIOR TO RENOVATION ACTIVITIES TO ENSURE THAT THE PROPOSED RACEWAY SYSTEM WILL NOT CONFLICT WITH OPERATION OF THE EXISTING TRAVELING BRIDGE CRANES.

10 CURRENT LOCATION OF EXISTING ULTRASONIC LEVEL AND TEMPERATURE ELEMENTS CONFLICT WITH THE PROPOSED BAR SCREEN IN THE UPPER LEVEL RECIRCULATION CHANNEL. CONTRACTOR SHALL DISCONNECT AND REMOVE ULTRASONIC LEVEL AND TEMPERATURE ELEMENTS AND ASSOCIATED CABLE. EXERCISE CAUTION DURING REMOVAL TO PREVENT DAMAGE TO INSTRUMENT ELEMENTS AND ASSOCIATED CABLE. REINSTALL INSTRUMENT ELEMENTS SIMILAR TO DETAIL 2/[I-08] AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.

11 CURRENT LOCATION OF EXISTING ULTRASONIC LEVEL INDICATING TRANSMITTER CONFLICTS WITH THE PROPOSED DEBRIS BIN LEVEL SENSOR. CONTRACTOR SHALL RELOCATE EXISTING LEVEL INDICATING TRANSMITTER TO PROPOSED LOCATION (ON THE SAME STRUCTURAL COLUMN). MOUNT INDICATING TRANSMITTER SIMILAR TO DETAIL 3/[I-08] AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.

12 CONTRACTOR SHALL MOUNT PROPOSED MANUFACTURER-PACKAGED MECHANICAL SCREEN CONTROL PANELS ON EITHER SIDE OF A COMMON EQUIPMENT SUPPORT RACK SIMILAR TO DETAIL 2/[E-20]. COORDINATE FINAL SIZE AND LOCATION OF PROPOSED CONTROL PANEL WITH PROCESS/MECHANICAL AND PACKAGED SYSTEM MANUFACTURER. CONTRACTOR SHALL FIELD VERIFY INTERIOR BUILDING SPACE AND LOCATION OF POTENTIAL OBSTRUCTIONS TO ENSURE THAT ALL REQUIRED AND RECOMMENDED CLEARANCES ARE MET.

13 FURNISH AND INSTALL POWER TERMINAL JUNCTION BOX MINIMALLY SIZED 16" WIDE X 24" HIGH X 8" DEEP. CONTRACTOR SHALL SIZE ALL JUNCTION/PULL BOXES PER, AND IN ACCORDANCE WITH, THE NATIONAL ELECTRICAL CODE (N.E.C.).

14 FURNISH AND INSTALL SUBMERSIBLE IRRIGATION PUMP LOCAL CONTROL PANEL MINIMALLY SIZED 16" WIDE X 24" HIGH X 8" DEEP. THE LOCAL CONTROL PANEL SHALL BE PROVIDED BY THE IRRIGATION PUMP SKID MANUFACTURER AND SHALL INCLUDE TWO (2) SUBMERSIBLE PUMP TEMPERATURE AND MOISTURE PROTECTION RELAYS, AS WELL AS ALL TERMINAL BLOCK, CIRCUIT BREAKERS, WIREWAY, ETC. NECESSARY TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION.

15 FURNISH AND INSTALL PROPOSED POWER TERMINAL JUNCTION BOX AND SUBMERSIBLE IRRIGATION PUMP LOCAL CONTROL PANEL ON A COMMON ENCLOSURE SUPPORT RACK SIMILAR TO DETAIL 2/[E-20]. PROPOSED CONDUIT/PULLBOX SUPPORT STRUCTURE IS NOT SHOWN HERE FOR CLARITY.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET PUMP STATION - LEVEL 1
ENLARGED POWER AND I&C PLANS
RENOVATION (SHEET 2 OF 2)

AECOM
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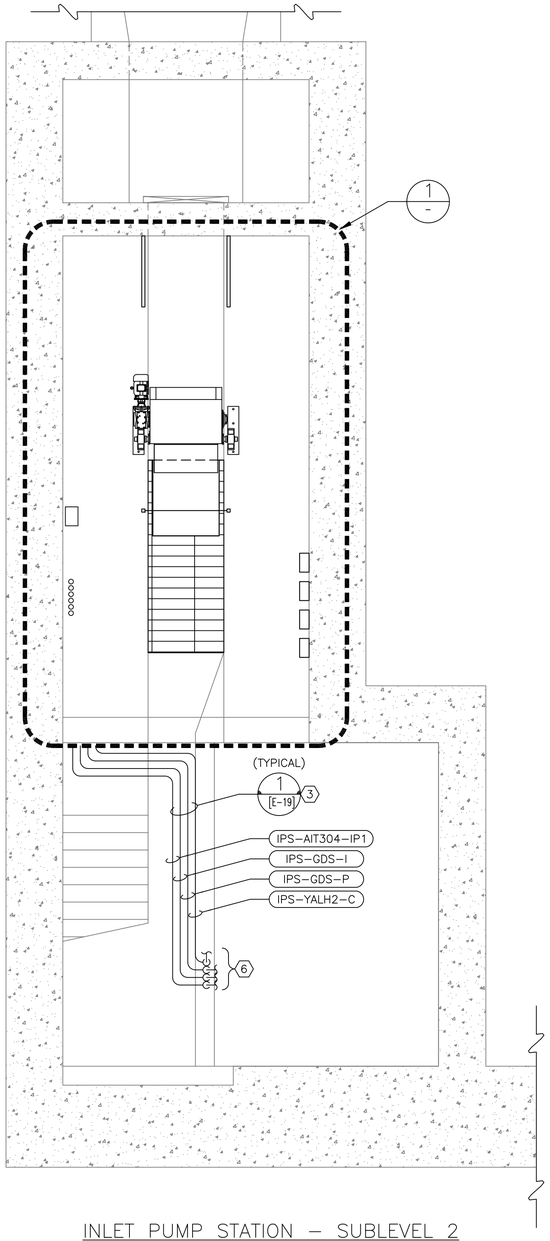
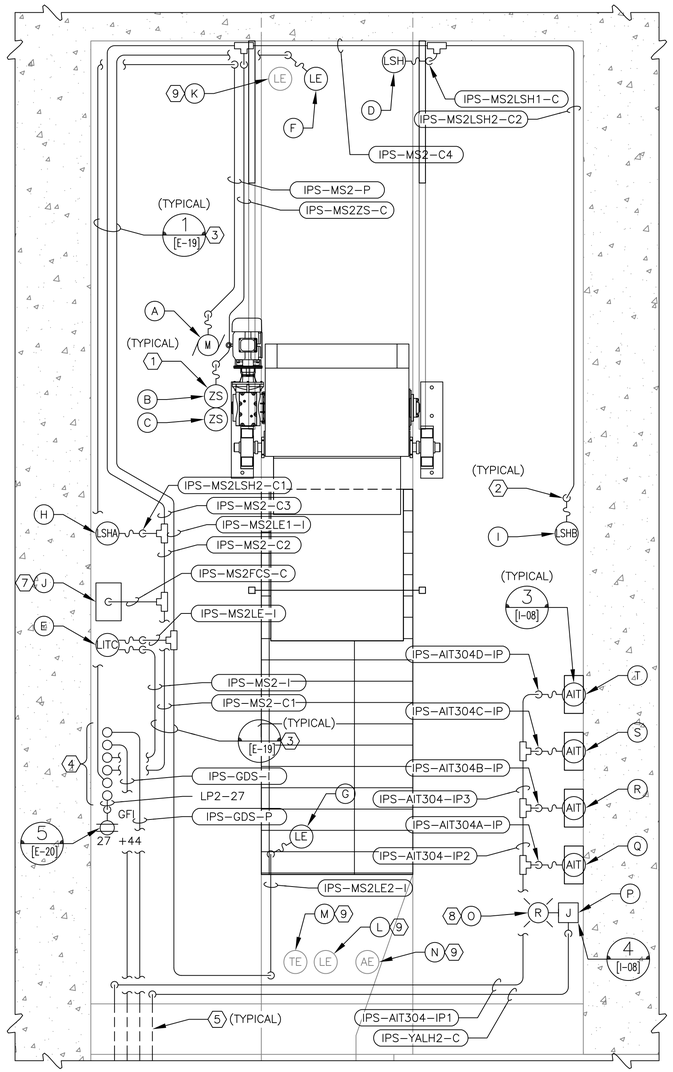
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-12
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



INLET PUMP STATION – SUBLEVEL 2
SCALE: 1/4" = 1'



INLET PUMP STATION – SUBLEVEL 2
LOWER CHANNEL
SCALE: 1/2" = 1'

EQUIPMENT IDENTIFICATION SCHEDULE	
MARK	DESCRIPTION
A	MECHANICAL SCREEN NO. 2 MOTOR ASSEMBLY
B	HIGH TORQUE LIMIT SWITCH "IPS-MS2-ZS-01"
C	END OF TRAVEL/PARK LIMIT SWITCH "IPS-MS2-ZS-02"
D	UPSTREAM HIGH LEVEL SWITCH "IPS-MS2-LSH-01"
E	LEVEL INDICATING TRANSMITTER/CONTROLLER "IPS-MS2-LITC-01"
F	UPSTREAM LEVEL ELEMENT "IPS-MS2-LE-01"
G	DOWNSTREAM LEVEL ELEMENT "IPS-MS2-LE-02"
H	DEBRIS LEVEL SWITCH RECEIVER "IPS-MS2-LSH-02(R)"
I	DEBRIS LEVEL SWITCH TRANSMITTER "IPS-MS2-LSH-02(T)"
J	FIELD CONTROL STATION "IPS-MS2-FCS-01" (7)
K	DEBRIS TUNNEL INLET CHANNEL LEVEL ELEMENT "IPS-LE-0301" (9)
L	LOWER CHANNEL LEVEL ELEMENT "IPS-LE-0302" (9)
M	LOWER CHANNEL TEMPERATURE ELEMENT "IPS-TE-0302" (9)
N	LOWER CHANNEL D.O. ELEMENT "IPS-AE-0303" (9)
O	INDICATING BEACON "IPS-GDS1-YALH2" (8)
P	JUNCTION BOX "IPS-GDS1-JBOX-02"
Q	OXYGEN ANALYZER INDICATING TRANSMITTER "IPS-AIT-0304A"
R	HYDROGEN SULFIDE ANALYZER INDICATING TRANSMITTER "IPS-AIT-0304B"
S	CARBON MONOXIDE ANALYZER INDICATING TRANSMITTER "IPS-AIT-0304C"
T	METHANE ANALYZER INDICATING TRANSMITTER "IPS-AIT-0304D"

NOTE:
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KEY NOTES:

(1) LOCATION OF PROCESS/MECHANICAL COMPONENTS ARE APPROXIMATE. COORDINATE WITH PROCESS/MECHANICAL/STRUCTURAL FOR PLACEMENT OF PROPOSED INSTRUMENTS AND EQUIPMENT.

(2) CONDUIT/WIRE TURN UPS/DOWNS SHOWN AWAY FROM EQUIPMENT FOR CLARITY. PROPOSED CONDUIT/WIRE TURN UPS/DOWNS TO CONNECT TO TOP OR BOTTOM OF EQUIPMENT AS APPLICABLE.

(3) ELEVATION AND CONFIGURATION OF CONDUIT CORRIDORS WILL VARY TO AVOID CONFLICTS AND TO FACILITATE CONNECTION TO EQUIPMENT. FIELD VERIFY LOCATION OF PROPOSED AND EXISTING STRUCTURES, PIPES, CONDUIT, EQUIPMENT, ETC. BEFORE INSTALLATION AND ADJUST INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO OWNER. COORDINATE WITH OWNER AND PROCESS/MECHANICAL TO OPTIMIZE WORKING CLEARANCES AND TO AVOID INTERFERENCE BETWEEN SYSTEM COMPONENTS. TYPICAL FOR ALL CONDUIT/WIRE CORRIDORS.

(4) PROPOSED CONDUIT CORRIDOR PENETRATES FLOOR IN ROUTE TO/FROM LEVEL 1 OF THE INLET PUMP STATION. REFER TO DRAWING NO. [E-11] FOR CONTINUATION. COORDINATE SLAB PENETRATION SIZE AND LOCATION WITH STRUCTURAL. CONTRACTOR SHALL COORDINATE WITH STRUCTURAL TO ENSURE ANNULAR SPACE AROUND CONDUIT PENETRATIONS ARE SEALED.

(5) PROPOSED CONDUIT/WIRE PENETRATES STRUCTURAL WALL. CORE DRILL AND SEAL ANNULAR SPACE AROUND CONDUIT PENETRATION PER DETAIL 6/[E-19].

(6) PROPOSED CONDUIT/WIRE CONTINUES TO/FROM UPPER LEVEL. REFER TO DRAWING NO. [E-11] FOR CONTINUATION.

(7) FIELD CONTROL STATION SHALL BE FURNISHED BY THE MECHANICAL SCREEN PACKAGED-SYSTEM MANUFACTURER. MOUNT FIELD CONTROL STATION PER DETAIL 5/[E-19]. REFER TO DRAWING NO. [E-16] FOR ADDITIONAL INFORMATION.

(8) FURNISH AND INSTALL FLASHING INDICATING BEACON MOUNTED ON TOP OF I&C JUNCTION BOX "IPS-GDS1-JBOX-02". FLASHING LIGHT BEACONS OR ROTATING BEACONS SHALL BE WEATHERPROOF, U. L. LISTED. THE BEACON SHALL BE FURNISHED WITH AN INTEGRAL FLASHING UNIT RATED FOR USE WITH AN LED LAMP, A RED POLYCARBONATE LENS, AND BE FURNISHED COMPLETE WITH THE LED LAMP. THE UNIT SHALL BE RATED FOR AN OPERATING VOLTAGE OF 120VAC. BEACONS SHALL BE AS MANUFACTURED BY EDWARDS SIGNALING AND SECURITY SYSTEMS (GENERAL ELECTRIC), ADAPTABEACON SERIES, MODEL NUMBER 51XBRFR120A, OR APPROVED EQUAL. THE WIRING FOR THE HORN OF THE UNIT SHALL BE DISCONNECTED TO DISALLOW OPERATION OF THE HORN. PROVIDE WALL MOUNT BRACKET, CATALOG NO. WBR FOR EACH BEACON. PROVIDE PROTECTIVE LENS GUARD, CATALOG NO. 92-GRD FOR EACH BEACON.

(9) THE EXISTING INSTRUMENT/EQUIPMENT SHALL REMAIN AND NOT BE INCLUDED WITHIN DEMOLITION OR RENOVATION ACTIVITIES. THE EXISTING EQUIPMENT IS SHOWN FOR CLARITY PURPOSES ONLY. CONTRACTOR SHALL EXERCISE CAUTION WHEN COMMENCING DEMOLITION OR RENOVATION ACTIVITIES TO PREVENT DAMAGE TO THE EXISTING EQUIPMENT. IF THE EXISTING EQUIPMENT IS DAMAGED, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY HARDWARE, EQUIPMENT, CONDUIT, WIRE, ETC. TO MATCH THE EXISTING EQUIPMENT TO ENSURE A FULLY FUNCTIONAL AND OPERATIONAL SYSTEM TO THE SATISFACTION OF THE OWNER.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INLET PUMP STATION - SUBLEVEL 2
POWER AND I&C PLANS - RENOVATION

AECOM
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AUSTIN, TEXAS 78729
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STATE OF TEXAS
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6/7/2023

VERIFY SCALES
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0 1"
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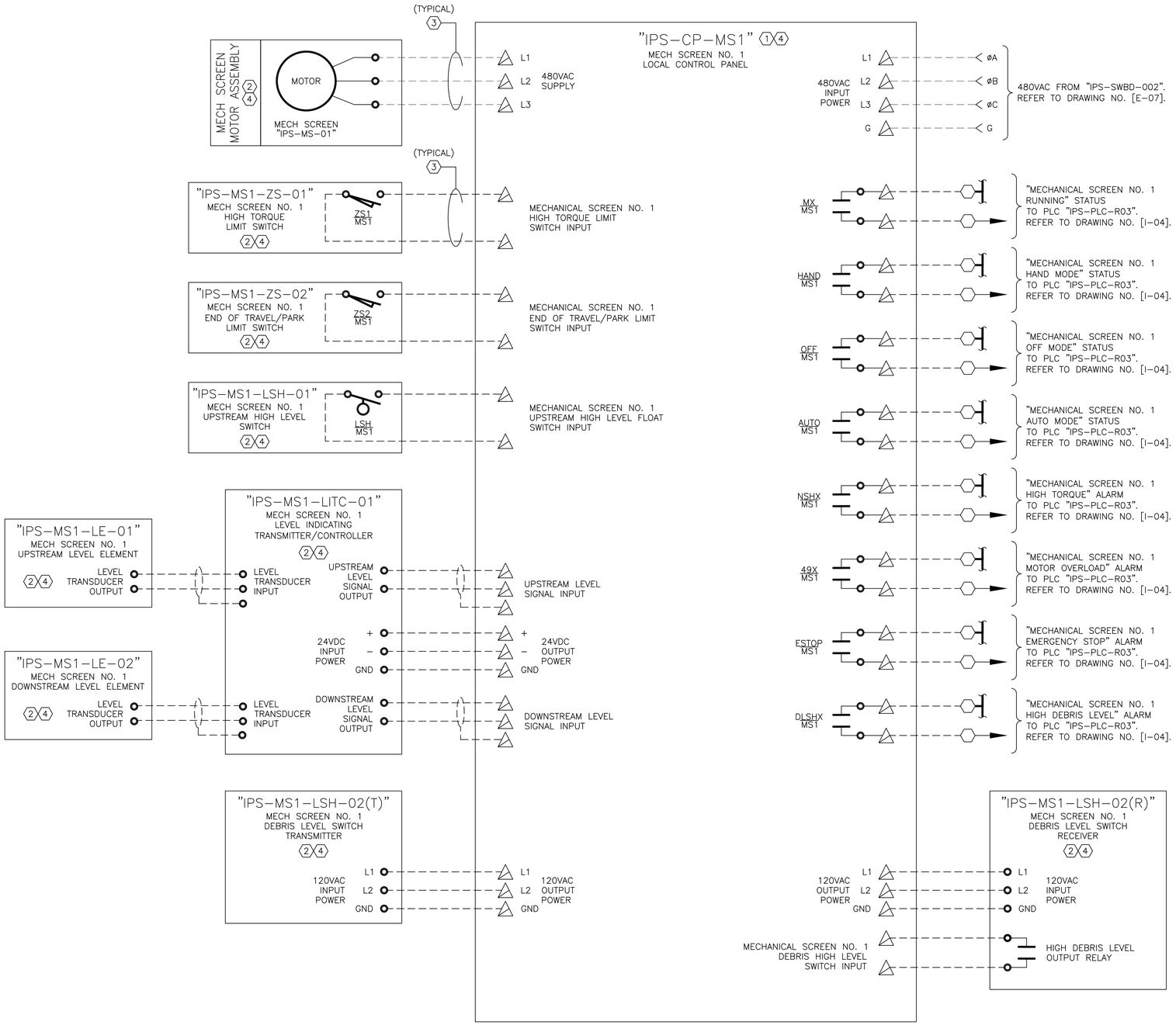
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-13
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
2. AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE ACTUAL EQUIPMENT/DEVICE QUANTITY MAY VARY. VERIFY QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
3. THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
4. FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

UPPER CHANNEL MECH SCREEN NO. 1
MANUFACTURER-PACKAGED CONTROL PANEL
INTERFACE WIRING SCHEMATIC - PROPOSED

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DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-14
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
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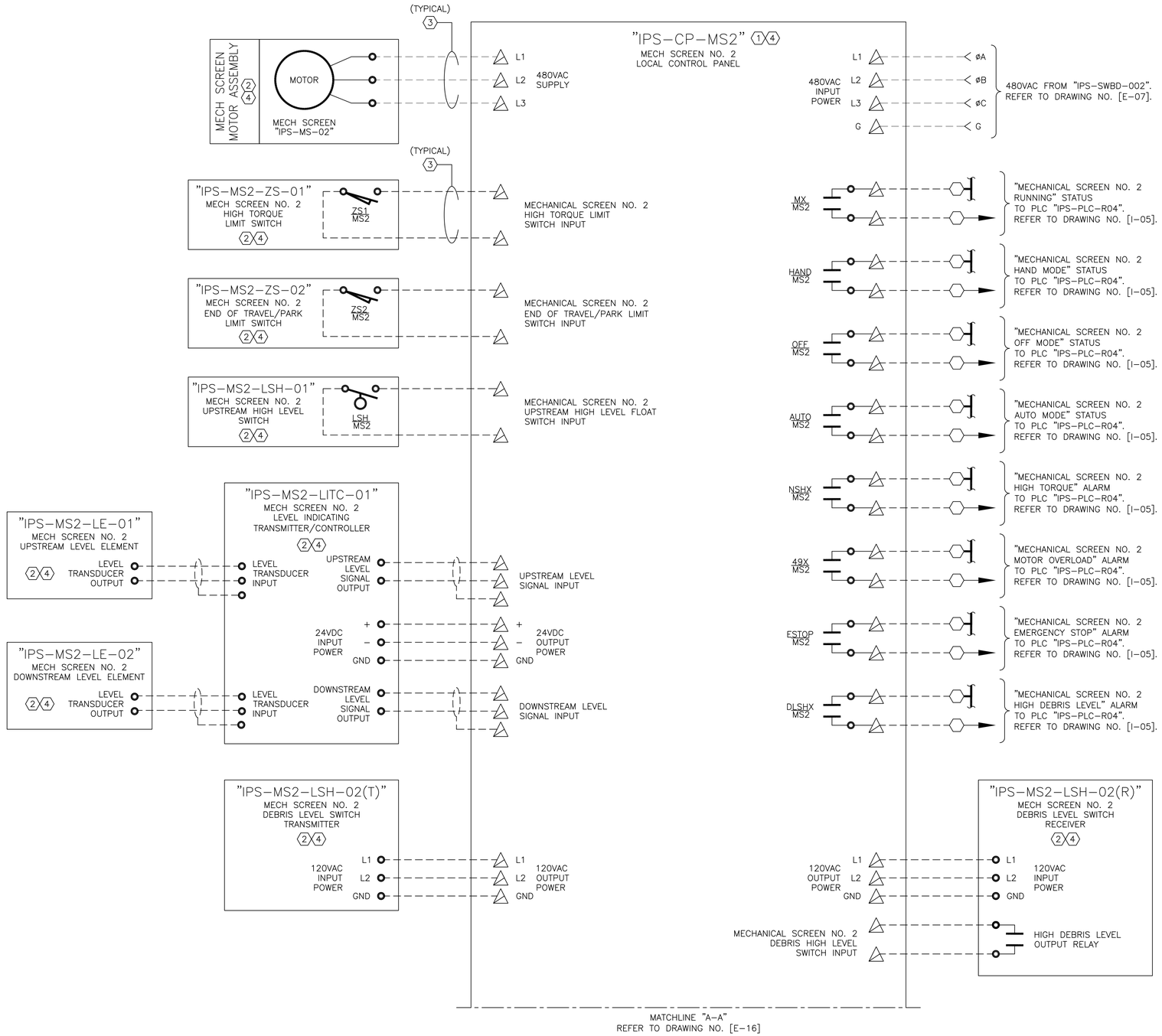

KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
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3. THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
4. FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

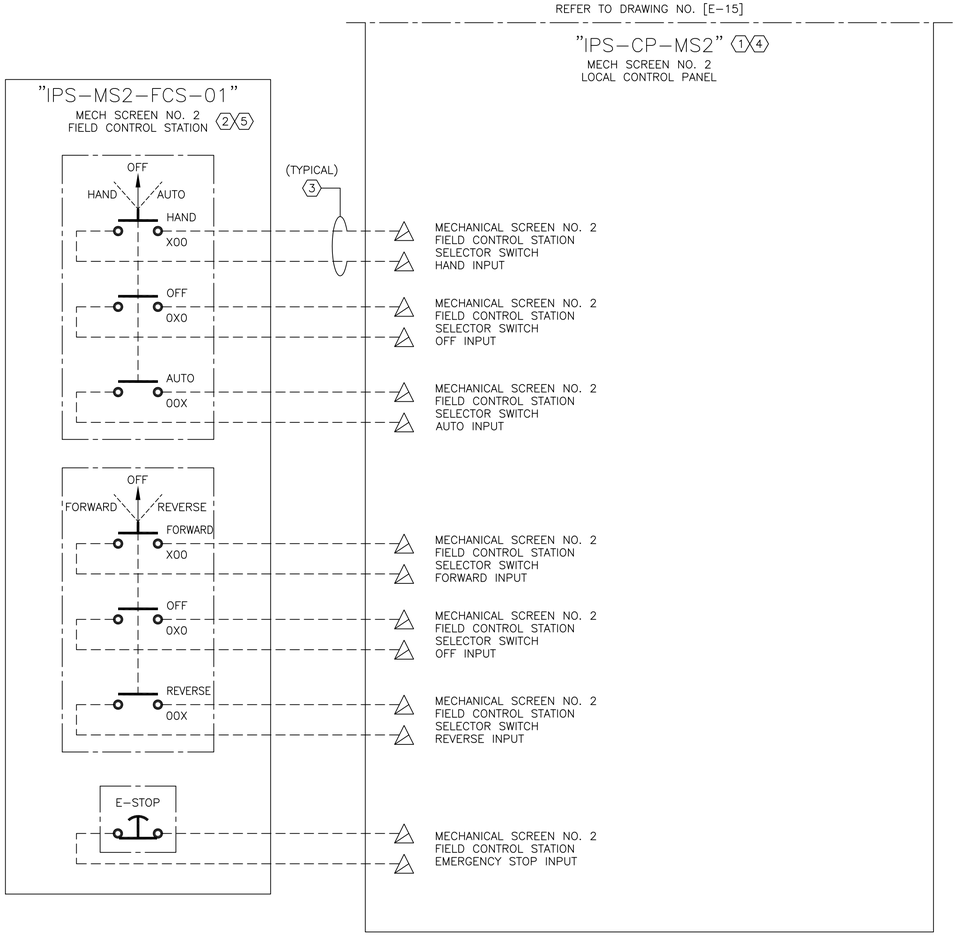
LOWER CHANNEL MECH SCREEN NO. 2
MANUFACTURER-PACKAGED CONTROL PANEL
INTERFACE WIRING SCHEMATIC - PROPOSED (1 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-15
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB–COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
2. AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE ACTUAL EQUIPMENT/DEVICE QUANTITY MAY VARY. VERIFY QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
3. THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
4. FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. FIELD CONTROL STATION SHALL BE FURNISHED BY THE EQUIPMENT MANUFACTURER. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT/WIRE REQUIRED TO INTERCONNECT PROPOSED FIELD CONTROL STATION WITH MANUFACTURER–PROVIDED MECHANICAL SCREEN CONTROL PANEL. MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. COORDINATE FIELD CONTROL STATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO RENOVATION ACTIVITIES.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

LOWER CHANNEL MECH SCREEN NO. 2
MANUFACTURER-PACKAGED CONTROL PANEL
INTERFACE WIRING SCHEMATIC - PROPOSED (2 OF 2)

AECOM
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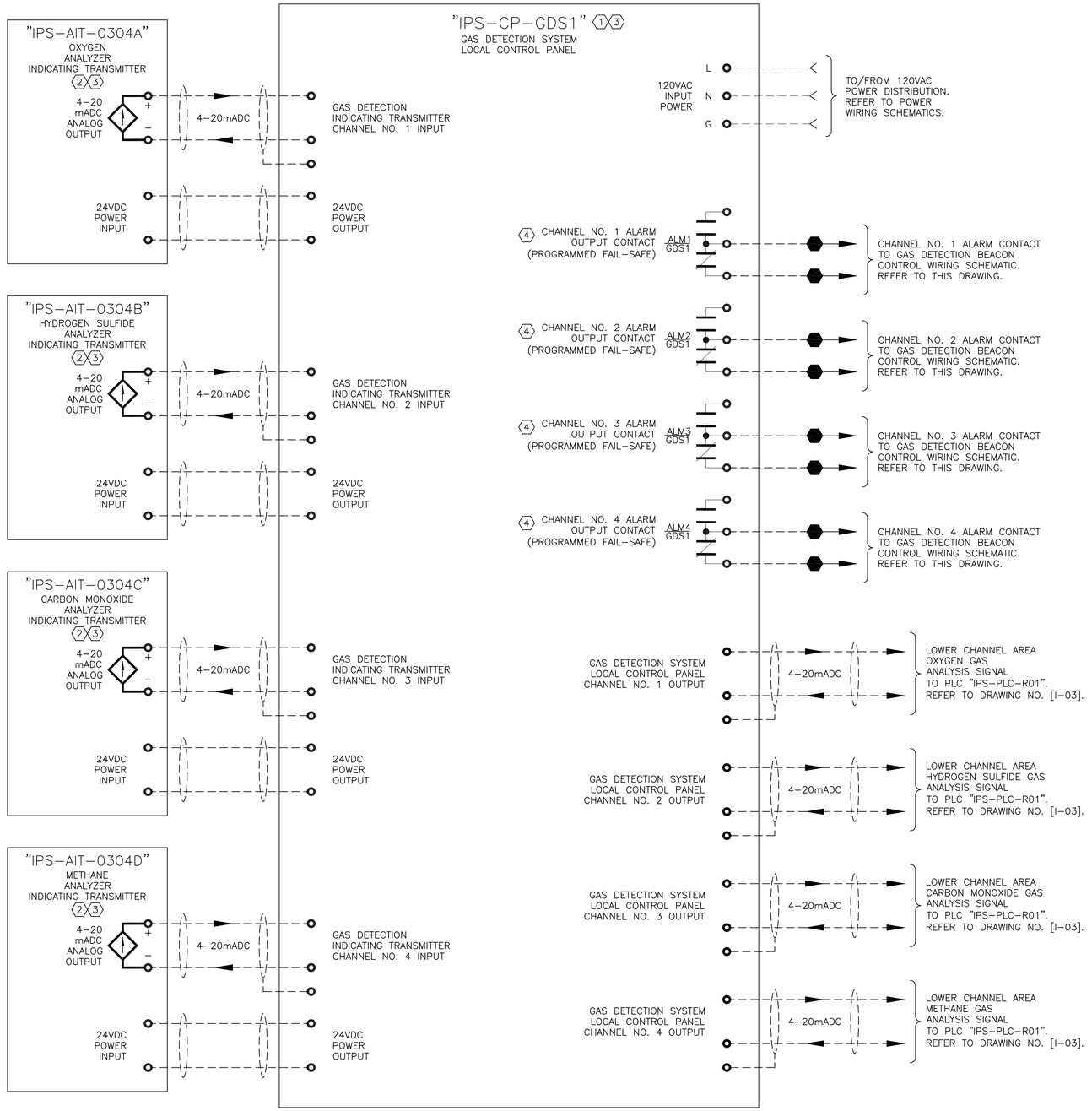
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

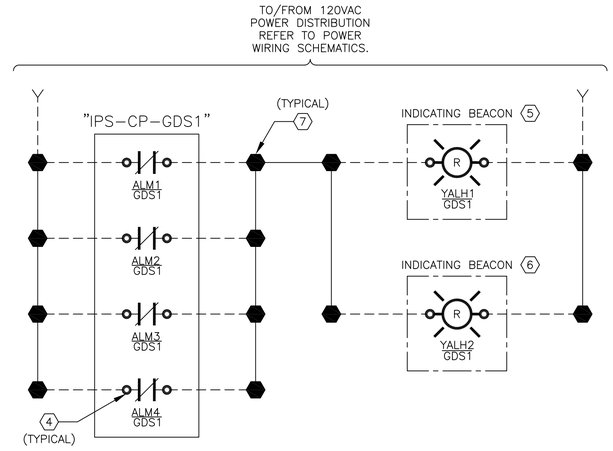
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-16
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754



LOWER CHANNEL AREA GAS DETECTION SYSTEM BEACON – FIELD INTERFACE WIRING SCHEMATIC

SCALE: NTS



LOWER CHANNEL AREA GAS DETECTION SYSTEM BEACON – CONTROL WIRING SCHEMATIC

SCALE: NTS

KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
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3. FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. PROGRAMMABLE RELAY CONTACT IS INTEGRAL TO GAS DETECTION SYSTEM LOCAL CONTROL PANEL "IPS-GDS-LCP-01". CONTACT SHALL BE CONFIGURED AS NORMALLY CLOSED (SHELF STATE), HELD OPEN (FAIL-SAFE). THE CONTACT SHALL CLOSE ON GAS DETECTION ALARM OR IN THE EVENT OF POWER LOSS. CONTACT IS OPEN OTHERWISE. CONTACT SHALL RETURN TO THE OPEN STATE AFTER GAS DETECTION SYSTEM LOCAL CONTROL PANEL HAS BEEN RESET.
5. PROPOSED INDICATING BEACON SHALL BE INSTALLED ADJACENT TO THE GAS DETECTION SYSTEM LOCAL CONTROL PANEL ON LEVEL 1 OF THE INLET PUMP STATION. REFER TO PLAN DRAWING [E-11] FOR ADDITIONAL INFORMATION.
6. PROPOSED INDICATING BEACON SHALL BE INSTALLED ON THE LOWER LEVEL OF THE INLET PUMP STATION. REFER TO PLAN DRAWING [E-13] FOR ADDITIONAL INFORMATION.
7. TERMINAL BLOCK LOCATED WITHIN JUNCTION BOX "IPS-GDS1-JBOX-01". JUNCTION BOX MOUNTED ADJACENT TO GAS DETECTION SYSTEM LOCAL CONTROL PANEL. REFER TO PLAN DRAWINGS FOR ADDITIONAL INFORMATION.

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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

GAS DETECTION SYSTEM
WIRING SCHEMATICS - PROPOSED

AECOM
AECOM TECHNICAL SERVICES INC.
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TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
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0 1"
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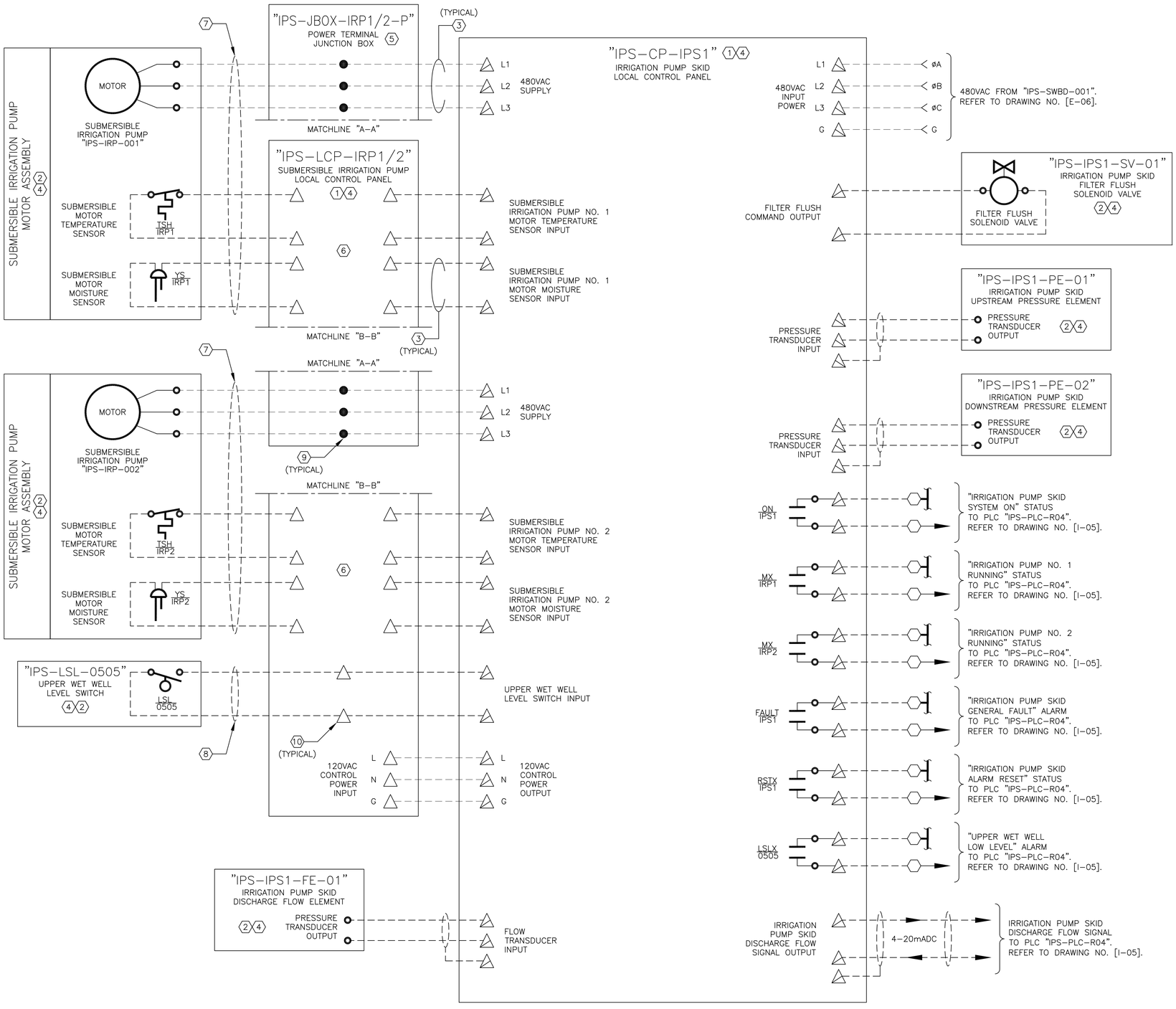
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-17
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	
DATE: MARCH 2023	OF



KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
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5. FURNISH AND INSTALL POWER TERMINAL JUNCTION BOX MINIMALLY SIZED 16" WIDE X 24" HIGH X 8" DEEP. CONTRACTOR SHALL SIZE ALL JUNCTION/PULL BOXES PER, AND IN ACCORDANCE WITH, THE NATIONAL ELECTRICAL CODE (N.E.C.).
6. LOCAL CONTROL PANEL "IPS-LCP-IRP1/2" SHALL INCLUDE TWO (2) SUBMERSIBLE PUMP TEMPERATURE AND MOISTURE PROTECTION RELAYS, AS WELL AS ALL TERMINAL BLOCK, CIRCUIT BREAKERS, WIREWAY, ETC. NECESSARY TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION. REFER TO DRAWING NO. [E-12] FOR ADDITIONAL INFORMATION.
7. MANUFACTURER PROVIDED SUBMERSIBLE CABLE CONTAINS BOTH POWER AND CONTROL CONDUCTORS IN THE SAME JACKETED CABLE. ROUTE CABLE FROM SUBMERSIBLE PUMP TO POWER TERMINAL JUNCTION BOX "IPS-JBOX-IRP1/2-P". STRIP CABLE SHEATH AND SEPARATE POWER AND CONTROL CONDUCTORS. POWER CONDUCTORS SHALL BE SPLICED TO INDIVIDUAL CONDUCTORS ROUTED FROM MANUFACTURER-PACKAGED IRRIGATION PUMP SKID USING MULTI-CABLE CONNECTOR BLOCKS. CONTROL WIRES SHALL CONTINUE FROM POWER TERMINAL JUNCTION BOX, IN CONDUIT, TO SUBMERSIBLE IRRIGATION PUMP LOCAL CONTROL PANEL "IPS-LCP-IRP1/2". CONTROL WIRES SHALL TERMINATE TO PROPOSED SUBMERSIBLE PUMP PROTECTION RELAY LOCATED ON THE INTERIOR BACKPANEL OF THE PROPOSED LOCAL CONTROL PANEL. CONTRACTOR SHALL COORDINATE CABLE LENGTH WITH THE PUMP MANUFACTURER TO PROVIDE SUFFICIENT LENGTH FOR INTERCONNECTION. PLEASE NOTE, CONTROL WIRES ARE TO BE INSTALLED WITHOUT ANY SPLICES BETWEEN SUBMERSIBLE PUMP AND THE ASSOCIATED PROTECTION RELAY.
8. SUBMERSIBLE CABLE FURNISHED BY LEVEL SWITCH MANUFACTURER. LEVEL SWITCH CONDUCTORS SHALL BE SPLICED TO INDIVIDUAL CONDUCTORS ROUTED FROM MANUFACTURER-PACKAGED IRRIGATION PUMP SKID USING TERMINAL BLOCKS. CONTRACTOR SHALL COORDINATE CABLE LENGTH WITH THE LEVEL SWITCH MANUFACTURER TO PROVIDE SUFFICIENT LENGTH FOR INTERCONNECTION.
9. SYMBOL DENOTES MULTI-CABLE CONNECTOR BLOCK.
10. SYMBOL DENOTES FIELD-MOUNTED TERMINAL BLOCK.

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

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

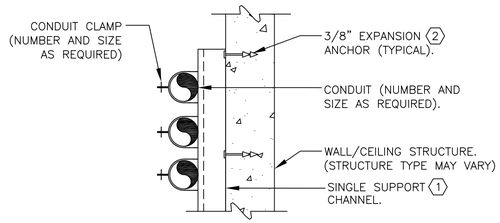
IRRIGATION PUMP SKID MANUFACTURER-PACKAGED CONTROL PANEL INTERFACE WIRING SCHEMATIC - PROPOSED

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS K. A. HARUTUNIAN 59181 LICENSED PROFESSIONAL ENGINEER 5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-18
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No.
DATE: MARCH 2023	OF



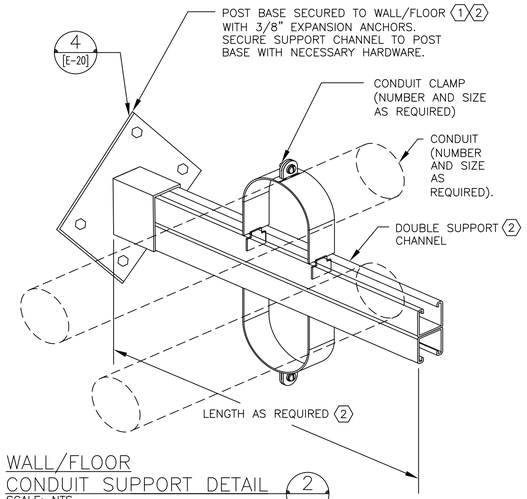
WALL/CEILING/FLOOR CONDUIT SUPPORT DETAIL 1

SCALE: NTS

DETAIL NOTES:

⟨1⟩ SINGLE SUPPORT CHANNEL. THE LENGTH OF CHANNEL SHALL BE AS REQUIRED.

⟨2⟩ THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.



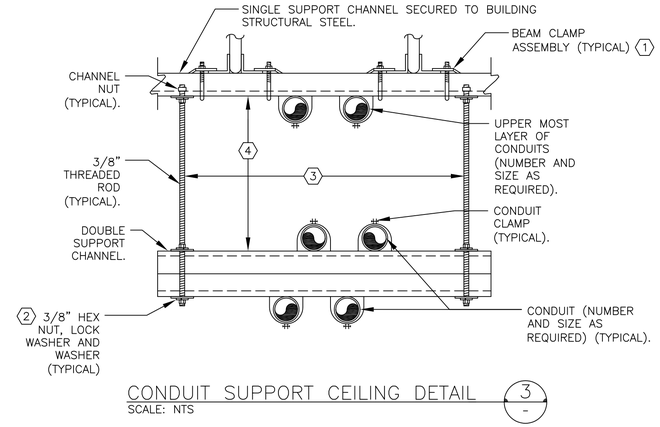
WALL/FLOOR CONDUIT SUPPORT DETAIL 2

SCALE: NTS

DETAIL NOTES:

⟨1⟩ THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.

⟨2⟩ COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT, AS NECESSARY, AT EACH LOCATION IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.



CONDUIT SUPPORT CEILING DETAIL 3

SCALE: NTS

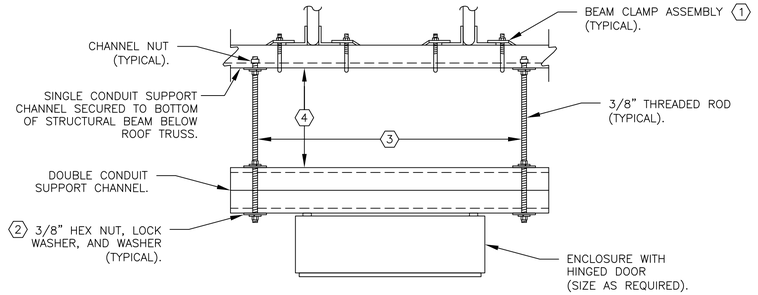
DETAIL NOTES:

⟨1⟩ THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.

⟨2⟩ COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT, AS NECESSARY, AT EACH LOCATION IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.

⟨3⟩ MAINTAIN MAXIMUM DISTANCE BETWEEN ADJACENT THREADED SUPPORT RODS OF 4'-0".

⟨4⟩ COORDINATE SUPPORT ROD LENGTH (AND CORRESPONDING CONDUIT/WIRE SUPPORT/RACK ELEVATION) WITH PLANS. SUPPORT ROD LENGTH MAY VARY.



CEILING MOUNTED ENCLOSURE INSTALLATION DETAIL 4

SCALE: NTS

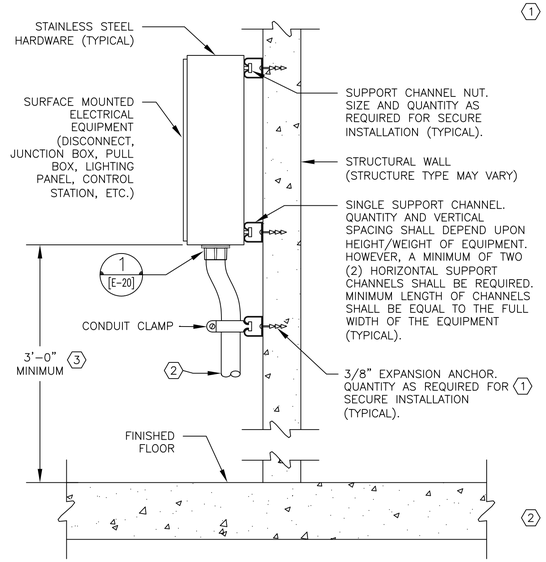
DETAIL NOTES:

⟨1⟩ THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL/ARCHITECTURAL/METAL BUILDING SYSTEM MANUFACTURER AS APPLICABLE.

⟨2⟩ COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT AS NECESSARY AT EACH LOCATION, IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.

⟨3⟩ MAINTAIN MAXIMUM DISTANCE BETWEEN ADJACENT THREADED SUPPORT RODS OF 4'-0".

⟨4⟩ COORDINATE SUPPORT ROD LENGTH (AND CORRESPONDING CONDUIT/WIRE SUPPORT/RACK ELEVATION) WITH PLANS. SUPPORT ROD LENGTH MAY VARY.



SIDE ELEVATION SURFACE/WALL MOUNTED ELECTRICAL EQUIPMENT INSTALLATION DETAIL 5

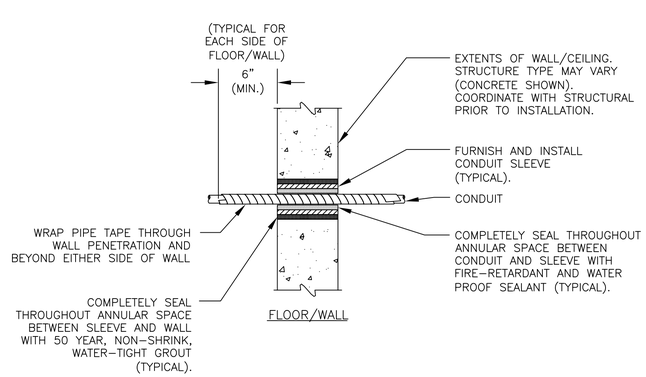
SCALE: NTS

DETAIL NOTES:

⟨1⟩ THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.

⟨2⟩ CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.

⟨3⟩ PROVIDE A 3'-0" MINIMUM HEIGHT UNLESS INDICATED OTHERWISE. REFER TO PLAN DRAWINGS FOR ADDITIONAL INFORMATION.



FLOOR/WALL CONDUIT PENETRATION DETAIL 6

SCALE: NTS

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

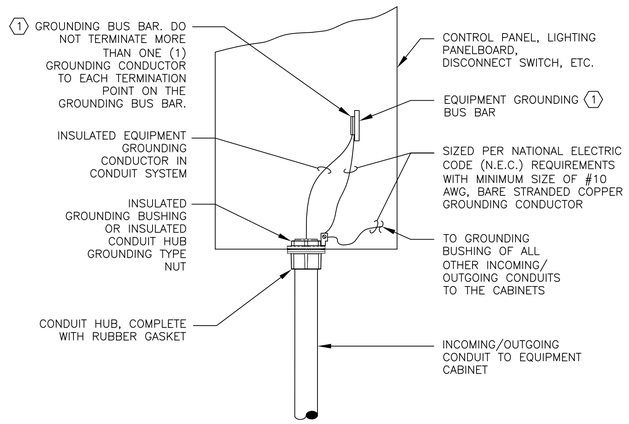
TYPICAL ELECTRICAL DETAILS
(SHEET 1 OF 2)

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-19
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	

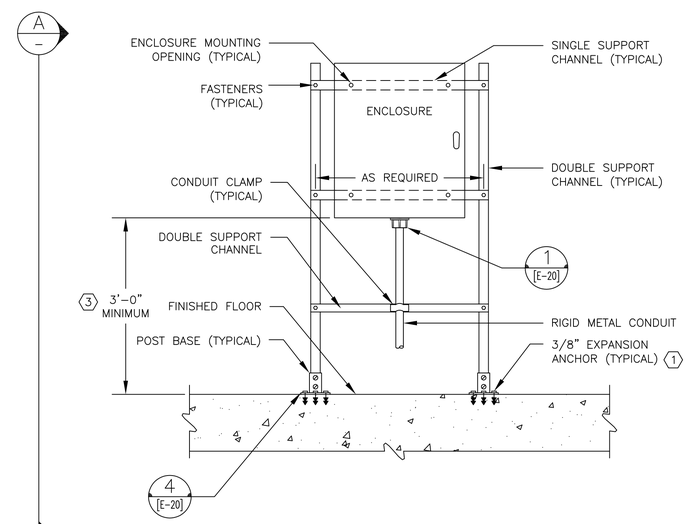


CONDUIT/ENTRANCE TO WALL/RACK MOUNTED EQUIPMENT DETAIL 1/-

SCALE: NTS

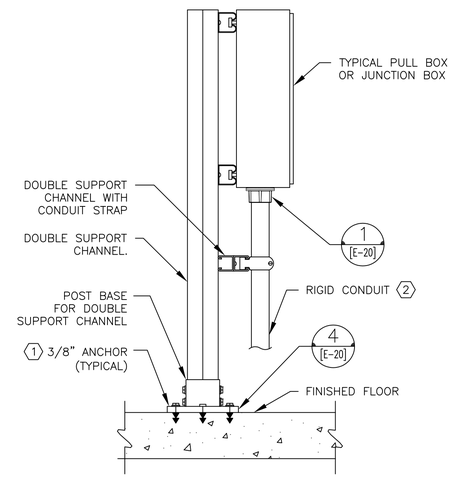
DETAIL NOTES:

1. GROUND BUS BAR LOCATION SHOWN FOR ILLUSTRATION ONLY AND MAY NOT NECESSARILY BE LOCATED IN EXACT LOCATION SHOWN. CONTRACTOR SHALL FURNISH AND INSTALL SUFFICIENT LENGTH OF ALL GROUNDING CONDUCTORS TO ROUTE THROUGH DESIGNATED WIRING AREAS OF EQUIPMENT TO/FROM ACTUAL LOCATION OF EQUIPMENT GROUND BUS BAR.



TYPICAL FRONT ELEVATION FOR ENCLOSURE RACK DETAIL 2/-

SCALE: NTS

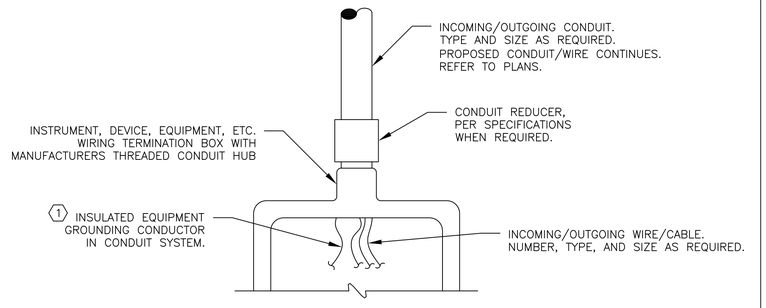


ELECTRICAL EQUIPMENT SUPPORT SIDE VIEW SECTION A/-

SCALE: NTS

DETAIL NOTES:

1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.
2. CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.
3. PROVIDE A 3'-0" MINIMUM HEIGHT UNLESS INDICATED OTHERWISE.

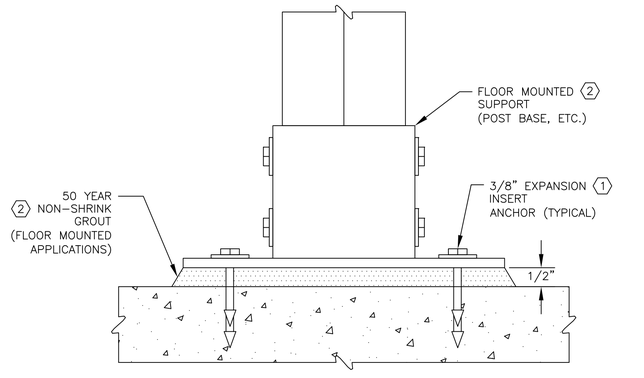


CONDUIT REDUCER INSTALLATION DETAIL 3/-

SCALE: NTS

DETAIL NOTES:

1. BOND CONDUIT SYSTEM INSULATED GROUNDING CONDUCTOR TO WIRING TERMINATION BOX BY MEANS OF GROUND BUS BAR/TERMINATION BLOCK/LUG FURNISHED IN WIRING TERMINATION BOX.

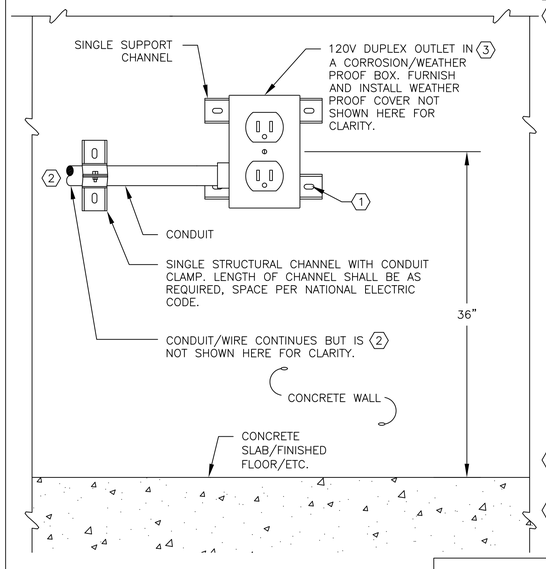


TYPICAL POST BASE FLOOR INSTALLATION DETAIL 4/-

SCALE: NTS

DETAIL NOTES:

1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.
2. AT LOCATIONS WHERE POST BASES OR OTHER SUPPORTS ARE MOUNTED TO FINISHED FLOOR, INSTALL 50 YEAR NON-SHRINK GROUT BETWEEN BASE PLATE AND FINISHED FLOOR. BEVEL EDGE ON ALL SIDES. TYPICAL FOR ALL FLOOR MOUNTED POST BASES AND OTHER FLOOR MOUNTED SUPPORTS ON PROJECT.



SURFACE/WALL MOUNTED WEATHERPROOF RECEPTACLE DETAIL 5/-

SCALE: NTS

DETAIL NOTES:

1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL, ARCHITECTURAL, AND/OR METAL BUILDING SYSTEM MANUFACTURER, AS APPLICABLE, PRIOR TO INSTALLATION.
2. PROPOSED CONDUIT/WIRE CONTINUES. REFER TO FLOOR PLAN DRAWINGS FOR CONTINUATION.
3. WHEN REQUIRED, FURNISH AND INSTALL RAIN-TIGHT WHILE-IN-USE TYPE COVER PLATE IN LIEU OF DIE CAST TYPE COVER PLATE SHOWN.

HARUTUNIAN ENGINEERING INCORPORATED

TEXAS FIRM REGISTRATION NUMBER F-2408

ENGINEERING AND ENVIRONMENTAL CONSULTANTS
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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

TYPICAL ELECTRICAL DETAILS (SHEET 2 OF 2)

AECOM TECHNICAL SERVICES INC.
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AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
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LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. E-20
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No.
DATE: MARCH 2023	OF

WIRING AND TERMINAL DEVICE LEGEND

DEVICE WIRING TERMINAL

WIRE JUMPER CONNECTION

TERMINAL BLOCK LOCATED IN MAIN CONTROL PANEL "IPS–MCP–01A", "IPS–MCP–01B", OR "IPS–MCP–002", AS APPLICABLE. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN MAIN CONTROL PANEL "IPS–MCP–01A", "IPS–MCP–01B", OR "IPS–MCP–002", AS APPLICABLE.

TERMINAL BLOCK LOCATED IN TERMINAL JUNCTION BOX OR CONTROL PANEL, AS APPLICABLE. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN THE TERMINAL JUNCTION BOX OR LOCAL CONTROL PANEL, AS APPLICABLE.

TERMINAL BLOCK LOCATED IN ELECTRICAL DISTRIBUTION EQUIPMENT (I.E. SWITCHBOARD, MOTOR CONTROL CENTER, ETC.). ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN ELECTRICAL DISTRIBUTION EQUIPMENT, AS APPLICABLE.

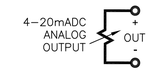
TERMINAL BLOCK LOCATED IN VARIABLE FREQUENCY DRIVE. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN A VARIABLE FREQUENCY DRIVE, AS APPLICABLE.

TERMINAL BLOCK LOCATED IN FIELD DEVICE, AS APPLICABLE. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN THE SAME DEVICE.

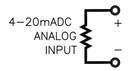
TERMINAL BLOCK LOCATED IN PACKAGED CONTROL SYSTEM EQUIPMENT. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN THE PACKAGED CONTROL SYSTEM EQUIPMENT.

WIRING BETWEEN PANELS OR WIRING TO A FIELD MOUNTED DEVICE.

INSTRUMENT LOOP WIRING SCHEMATICS SYMBOLS



LOOP POWERED ANALOG OUTPUT



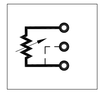
ANALOG INPUT

POWERED ANALOG OUTPUT

POWERED ANALOG INPUT

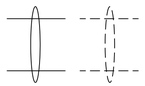
INSTRUMENT LOOP VOLTAGE SOURCE

INSTRUMENT LOOP WIRING SCHEMATICS SYMBOLS

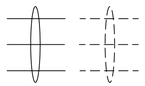


RESISTANCE TEMPERATURE DETECTOR (RTD)

INSTRUMENT RELAY CONTACT
SPDT (FORM C) CONTACT



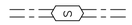
2–CONDUCTOR SHIELDED CABLE



3–CONDUCTOR SHIELDED CABLE

CONTROL SYSTEM ARCHITECTURE LEGEND

CABLE LEGEND



MODE CONDITIONING PATCH CORD

MODBUS CABLE

MODBUS PLUS CABLE

MODBUS PLUS RUGGEDIZED
TAP WITH TERMINATOR

MODBUS PLUS TAP

REMOTE I/O CABLE

REMOTE I/O TAP WITH TERMINATOR

REMOTE I/O TAP

COPPER ETHERNET CABLE

FIBER OPTIC PATCH CORD CABLE

TELEPHONE WIRING (CABLE)

LOOSE TUBE FIBER OPTIC CABLE

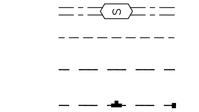
MODULE/PORT (TYPICAL)
SCADA SYSTEM DATA RECEPTACLE/OUTLET
(THREE MODULES/PORTS SHOWN)

MONITOR
WORKSTATION COMPUTER
(ALTHOUGH NOT SHOWN, THE KEYBOARD
AND MOUSE ARE ALSO REQUIRED)
COMPUTER

WORKSTATION
COMPUTER

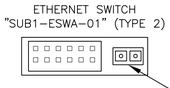
OPERATOR INTERFACE UNIT
"SUB1–OIU–01" (TYPE 2)

OPERATOR INTERFACE UNIT
(TYPE 2 SHOWN)



MEDIA CONVERTER

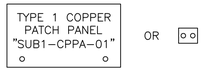
CONTROL SYSTEM ARCHITECTURE LEGEND



ETHERNET SWITCH WITH ONE (1)
SMALL FORM–FACTOR PLUGGABLE (SFP)
UPLINK MODULE SHOWN INSTALLED IN
ETHERNET SWITCH SFP SLOT. SYMBOL
NOT INTENDED TO SHOW ALL PORTS.
(TYPE 2 ETHERNET SWITCH SHOWN)

SFP MODULE

FIBER OPTIC PATCH PANEL FOR TERMINATION OF
FIBER OPTIC CABLE. SYMBOL NOT INTENDED TO
SHOW ALL PORTS. (TYPE 4 SHOWN)

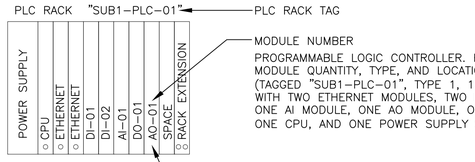


COPPER PATCH PANEL FOR TERMINATION OF
COPPER ETHERNET CABLE. SYMBOL NOT INTENDED
TO SHOW ALL PORTS. (TYPE 1 SHOWN)

GBIC MODULE (GIGABIT INTERFACE CONVERTER)

SFP MODULE (SMALL FORM FACTOR PLUGGABLE
TRANSCEIVER)

SFP MODULE (SMALL FORM FACTOR PLUGGABLE
TRANSCEIVER) – MULTIMODE FIBER ONLY



PLC RACK TAG

MODULE NUMBER

PROGRAMMABLE LOGIC CONTROLLER. RACK SIZE,
MODULE QUANTITY, TYPE, AND LOCATION MAY VARY.
(TAGGED "SUB1–PLC–01", TYPE 1, 12 SLOT RACK,
WITH TWO ETHERNET MODULES, TWO DI MODULES,
ONE AI MODULE, ONE AO MODULE, ONE SPACE,
ONE CPU, AND ONE POWER SUPPLY SHOWN.)

MODULE TYPE (SEE ABBREVIATIONS)

PLC ABBREVIATIONS & LETTER SYMBOLS

SYMBOL	DESCRIPTION
AI	ANALOG INPUT PLC MODULE
AO	ANALOG OUTPUT PLC MODULE
CNTR	COUNTER
CPU	CENTRAL PROCESSING UNIT
DI	DISCRETE INPUT MODULE
DO	DISCRETE OUTPUT MODULE
ETHERNET	ETHERNET NETWORK INTERFACE MODULE
HOT STANDBY	HOT STANDBY MODULE
MB+	MODBUS PLUS NETWORK MODULE
MEB	MODBUS / ETHERNET BRIDGE MODULE
NOE	NETWORK OPTION ETHERNET MODULE
POWER SUPPLY	POWER SUPPLY
RIO DROP	REMOTE I/O DROP MODULE
RIO HEAD	REMOTE I/O HEAD MODULE
SPACE	UNOCCUPIED SPACE (FOR FUTURE USE)

GENERAL NOTES FOR ALL INSTRUMENTATION AND CONTROL SYSTEM DRAWINGS

THE GENERAL NOTES SHOWN ON THE ELECTRICAL GENERAL NOTES DRAWING ALSO APPLY TO ALL OF THE INSTRUMENTATION AND CONTROL SYSTEM DRAWINGS.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INSTRUMENTATION & CONTROLS
SYMBOLS LEGEND

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
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STATE OF TEXAS
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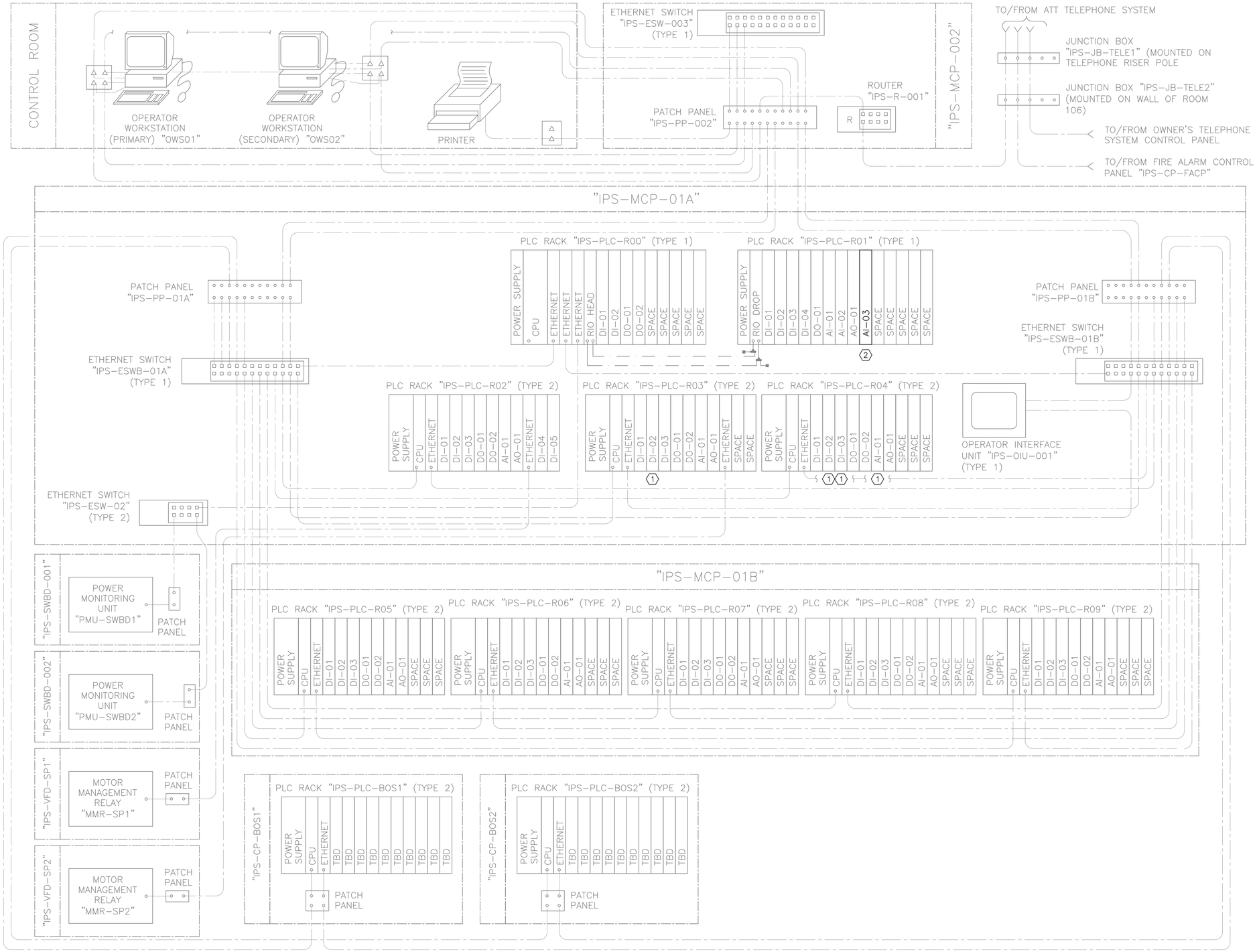
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-01
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. OF
DATE: MARCH 2023	



KEY NOTES:

1. TERMINATE PROPOSED CABLE/WIRE TO EXISTING I/O CARDS. REFER TO DRAWING NOS. [I-04] AND [I-05] FOR ADDITIONAL INFORMATION.
2. FURNISH AND INSTALL PROPOSED I/O CARDS AND MAKE ALL FINAL TERMINATIONS. REFER TO DRAWING NO. [I-03] FOR ADDITIONAL INFORMATION.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PLC NETWORK ARCHITECTURE RENOVATION

AECOM TECHNICAL SERVICES INC.
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STATE OF TEXAS
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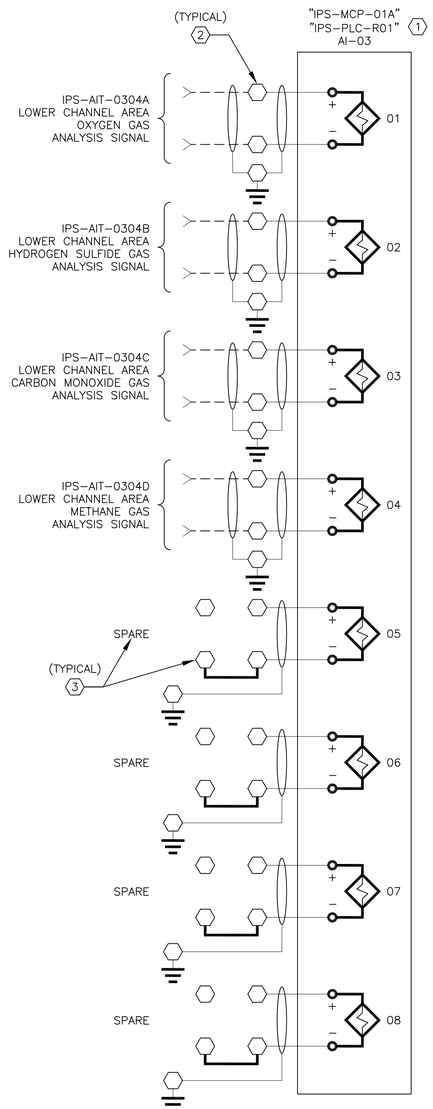
8/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-02
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. OF
DATE: MARCH 2023	



TYPE 2 PLC
ANALOG INPUT MODULE
WIRING SCHEMATIC

SCALE: NTS

KEY NOTES:

1. REFER TO DRAWING NO. [I-02] FOR ADDITIONAL INFORMATION REGARDING PLC RACK CONFIGURATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING PLC TYPE.
2. FURNISH AND INSTALL TERMINAL BLOCK, TERMINAL BLOCK TAGS, BARRIERS, END ANCHORS, ETC. AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION AND SO THAT PROPOSED EQUIPMENT SHALL HAVE ITS CONTROL WIRING TERMINAL BLOCK/STRIP SEGREGATED AND ISOLATED FROM TERMINAL BLOCK/STRIP OF ANY OTHER EQUIPMENT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. CONTRACTOR SHALL WIRE ALL SPARE POINTS TO TERMINAL BLOCKS AS SHOWN.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

"IPS-PLC-R01"
PLC I/O WIRING SCHEMATIC
PROPOSED

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHANT HARUTUNIAN
87735
LICENSED
PROFESSIONAL ENGINEER
3/17/2023

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

VERIFY SCALES
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0 1"
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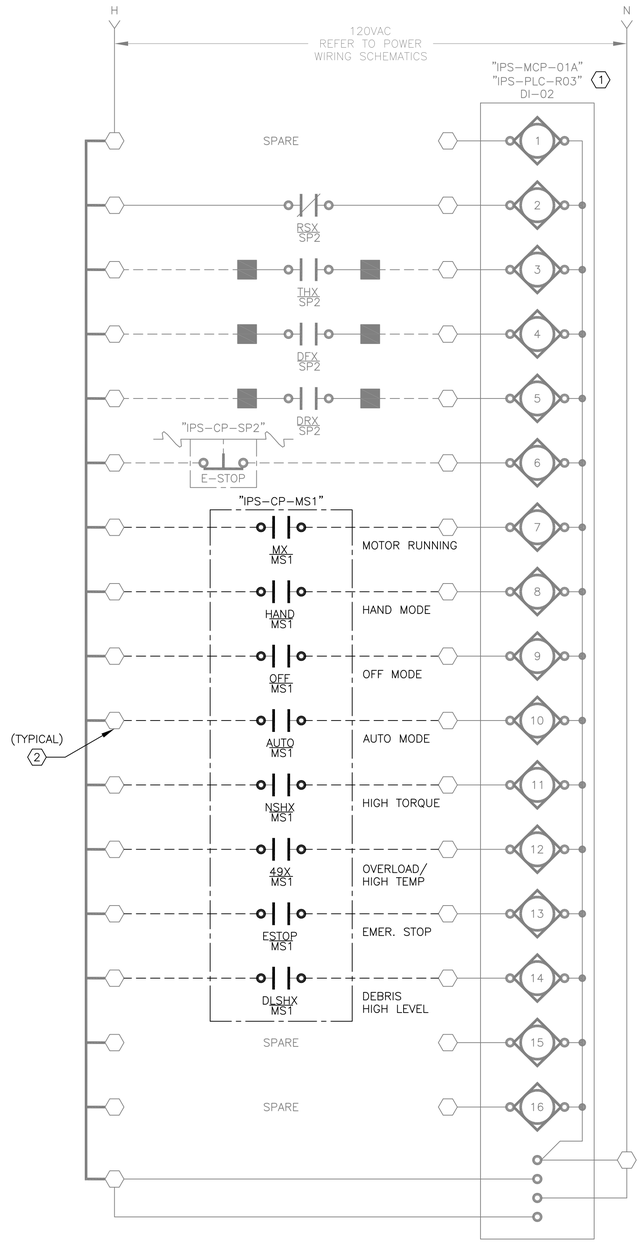
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-03
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



TYPE 1 PLC
DISCRETE INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS

KEY NOTES:

1. REFER TO DRAWING NO. [I-02] FOR ADDITIONAL INFORMATION REGARDING PLC RACK CONFIGURATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING PLC TYPE.
2. TERMINATE PROPOSED WIRING TO EXISTING TERMINAL BLOCKS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

"IPS-PLC-R03"
PLC I/O WIRING SCHEMATIC
RENOVATION

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
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STATE OF TEXAS
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PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
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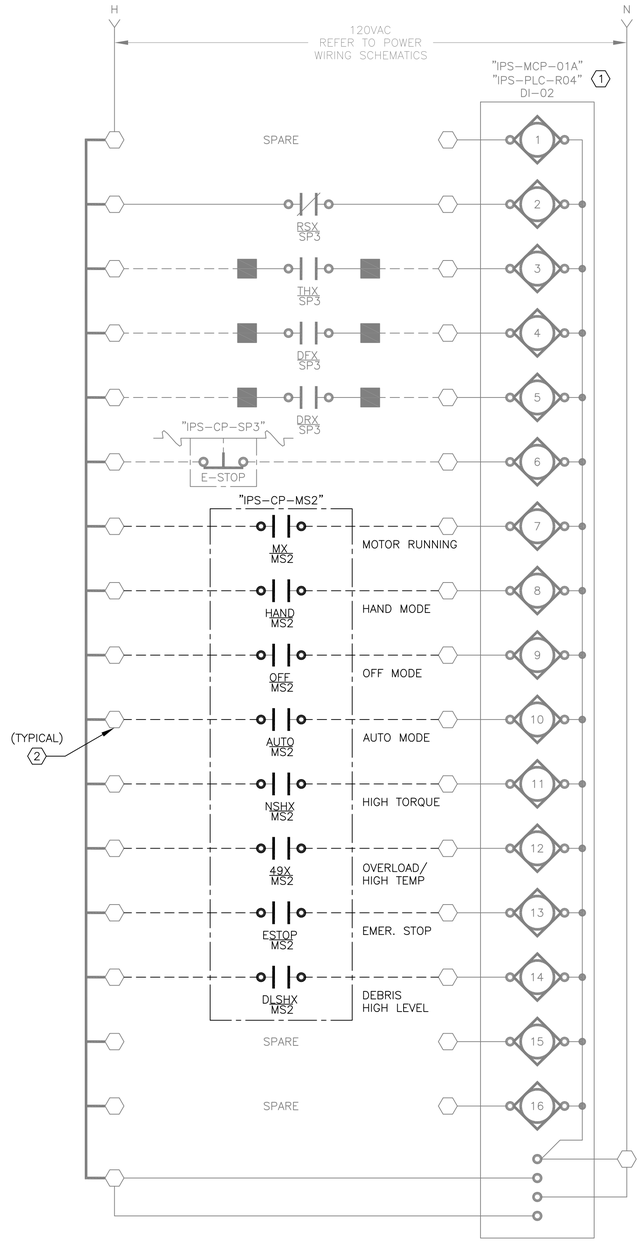
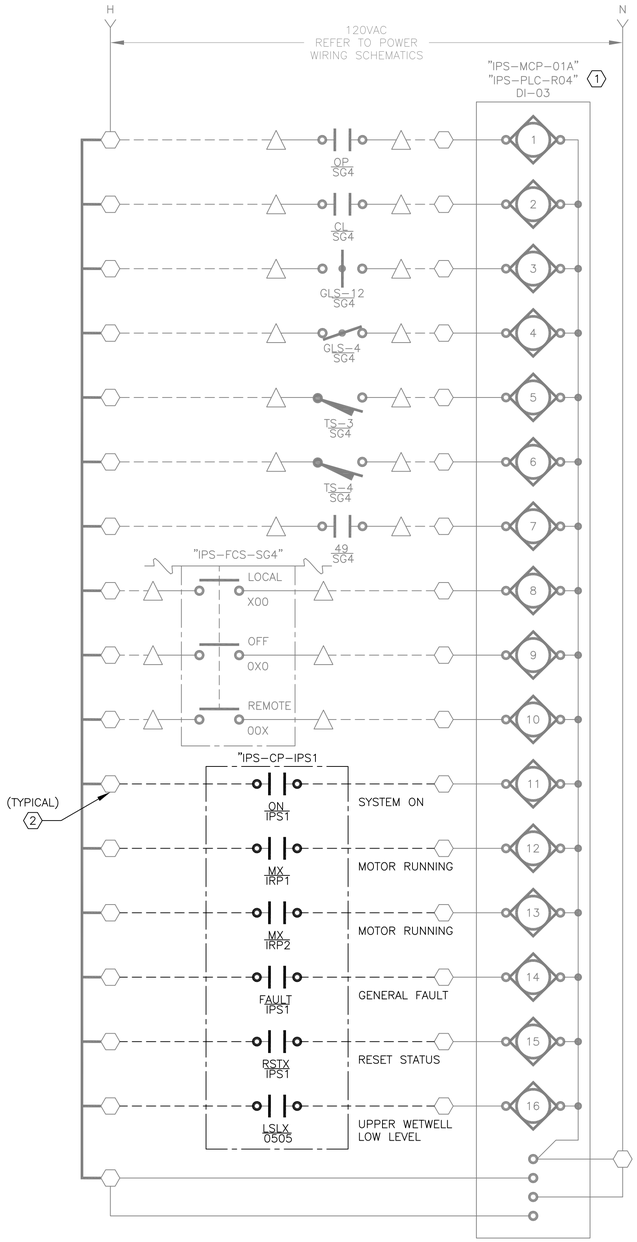
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-04
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. OF
DATE: MARCH 2023	

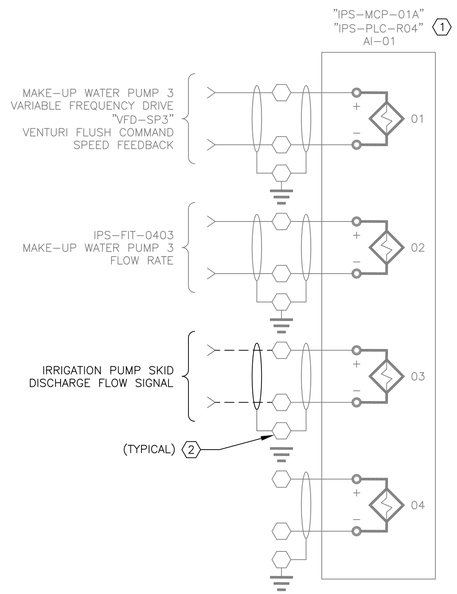
HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754



TYPE 1 PLC
DISCRETE INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS



TYPE 1 PLC
DISCRETE INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS



TYPE 1 PLC
ANALOG INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS

KEY NOTES:

1. REFER TO DRAWING NO. [I-02] FOR ADDITIONAL INFORMATION REGARDING PLC RACK CONFIGURATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING PLC TYPE.
2. TERMINATE PROPOSED WIRING TO EXISTING TERMINAL BLOCKS.

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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

"IPS-PLC-R04"
PLC I/O WIRING SCHEMATIC
RENOVATION

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHANT HARUTUNIAN
87735
LICENSED
PROFESSIONAL ENGINEER
5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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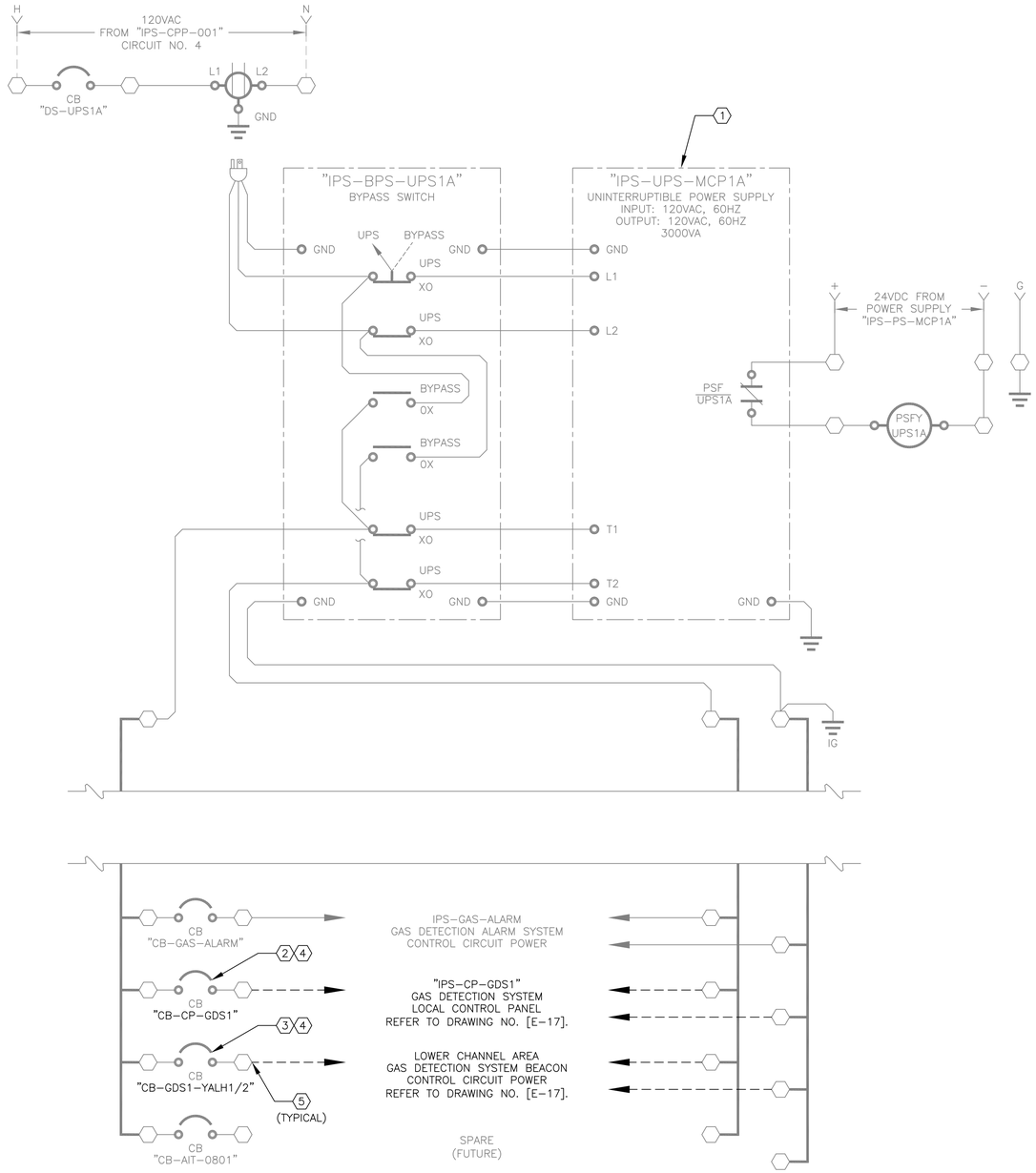
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-05
CHECKED: HEI	
APPROVED: HEI	SHEET No.
SCALE: AS SHOWN	OF
DATE: MARCH 2023	



KEY NOTES:

1. EXISTING UNINTERRUPTIBLE POWER SUPPLY "IPS-UPS-MCP1A" IS LOCATED IN SECTION 2 OF MAIN CONTROL PANEL "IPS-MCP-01A".
2. EXISTING CIRCUIT BREAKER TAGGED "CB-AIT-0304".
3. EXISTING CIRCUIT BREAKER TAGGED "CB-AIT-0203".
4. CONTRACTOR SHALL FIELD VERIFY THE RATING OF THE EXISTING CIRCUIT BREAKER. SHOULD ITS RATING BE INSUFFICIENT TO PROVIDE PROTECTION FOR THE PROPOSED EQUIPMENT/CONTROL CIRCUIT, CONTRACTOR SHALL REPLACE THE CIRCUIT BREAKER AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL FURNISH AND INSTALL PHENOLIC NAME PLATE PER SPECIFICATIONS.
5. TERMINATE FIELD WIRING ON EXISTING TERMINAL BLOCKS.

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WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

MAIN CONTROL PANEL "IPS-MCP-01A"
POWER WIRING SCHEMATICS
RENOVATION

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
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TBPE REG. NO. F-3580

K. A. HARUTUNIAN
59181
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
5/17/2023

VERIFY SCALES
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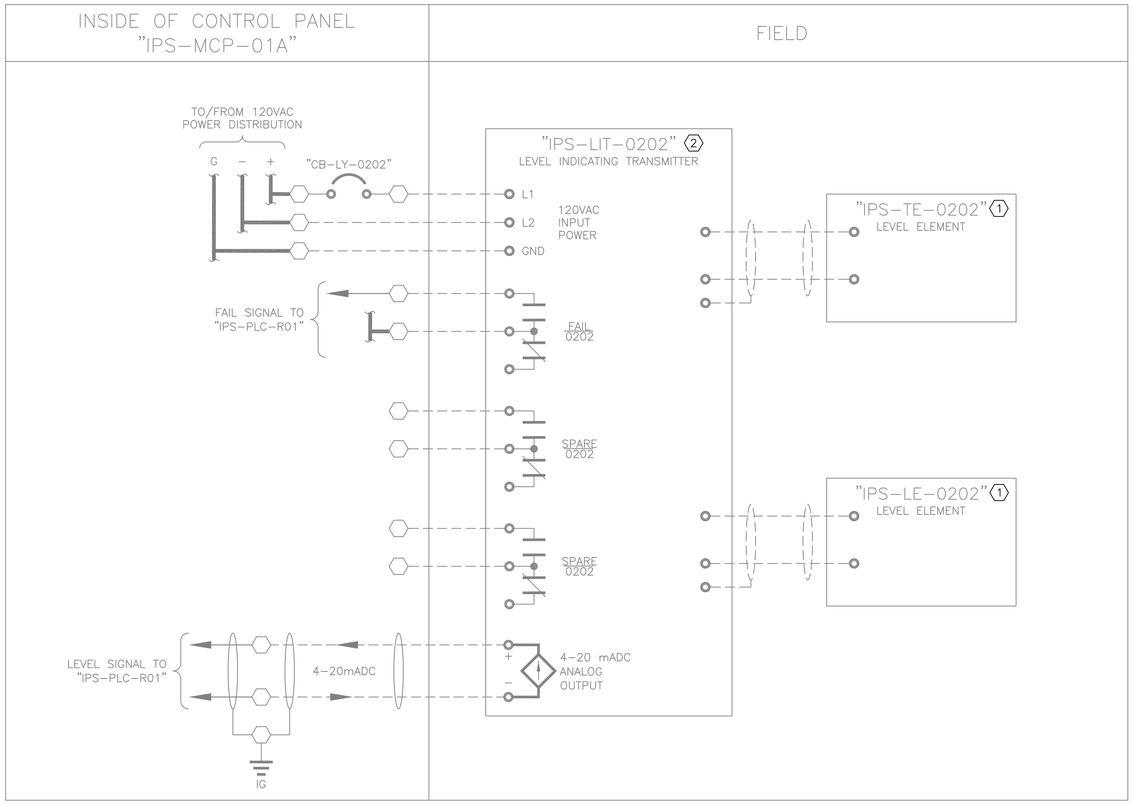
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-06
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No.
DATE: MARCH 2023	OF



RECIRCULATION CHANNEL LEVEL INDICATING TRANSMITTER
INSTRUMENT WIRING SCHEMATIC

SCALE: NTS

KEY NOTES:

1. CURRENT LOCATION OF EXISTING ULTRASONIC LEVEL AND TEMPERATURE ELEMENTS CONFLICT WITH THE PROPOSED BAR SCREEN IN THE UPPER LEVEL RECIRCULATION CHANNEL. CONTRACTOR SHALL DISCONNECT AND REMOVE ULTRASONIC LEVEL AND TEMPERATURE ELEMENTS AND ASSOCIATED CABLE. EXERCISE CAUTION DURING REMOVAL TO PREVENT DAMAGE TO INSTRUMENT ELEMENTS AND ASSOCIATED CABLE. REINSTALL INSTRUMENT ELEMENTS SIMILAR TO DETAIL X\[1-08] IN PROPOSED LOCATION SHOWN ON PLAN DRAWINGS AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.
2. CURRENT LOCATION OF EXISTING ULTRASONIC LEVEL INDICATING TRANSMITTER CONFLICTS WITH THE PROPOSED DEBRIS BIN LEVEL SENSOR. CONTRACTOR SHALL RELOCATE EXISTING LEVEL INDICATING TRANSMITTER TO PROPOSED LOCATION (ON THE SAME STRUCTURAL COLUMN) AS SHOWN ON PLAN DRAWINGS AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

INSTRUMENT WIRING SCHEMATICS
RENOVATION

AECOM TECHNICAL SERVICES INC.
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STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
6/7/2023

VERIFY SCALES
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0 1"
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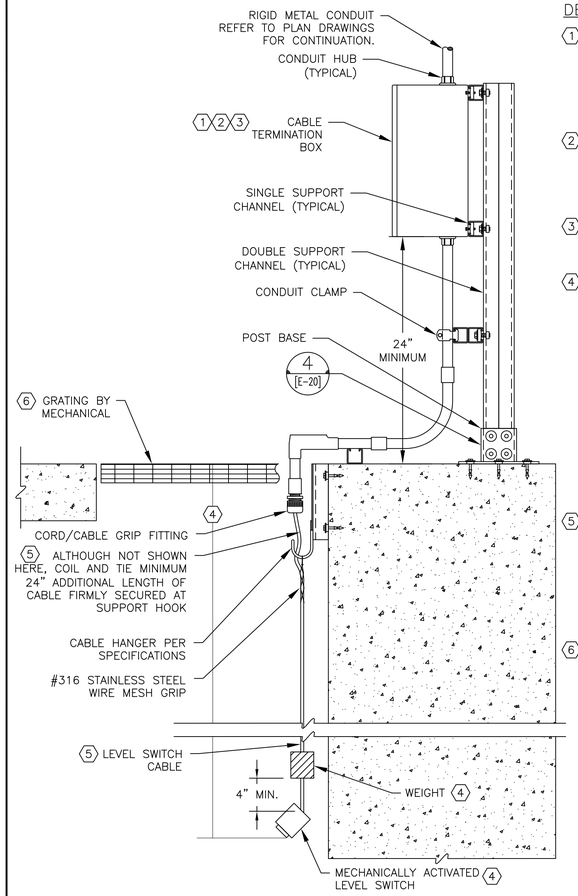
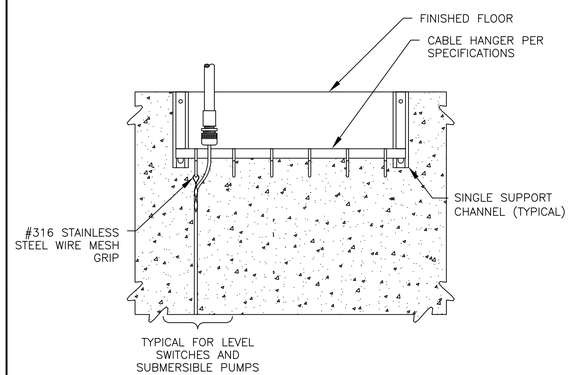
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-07
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. OF
DATE: MARCH 2023	

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

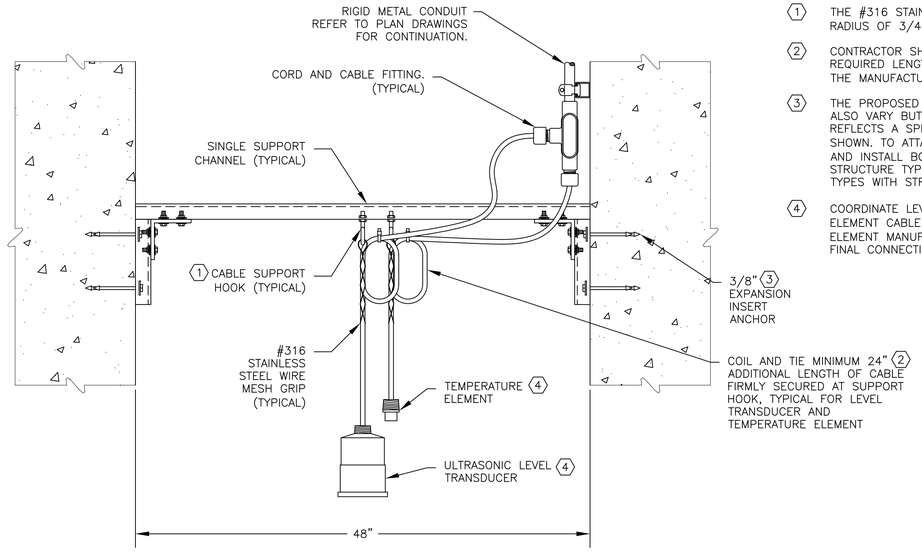


DETAIL NOTES:

1. ALL PROPOSED CABLE/WIRE ASSOCIATED WITH SUBMERSIBLE EQUIPMENT SHALL TERMINATE AT MULTI-CABLE CONNECTOR BLOCKS MOUNTED TO THE BACK PANEL INSIDE THE CABLE TERMINATION BOX.
2. ALLOW 48" (MINIMUM) OF EXTRA CABLE AT THIS LOCATION. COORDINATE LENGTH OF CABLE WITH EQUIPMENT MANUFACTURER AS TO ENSURE ADEQUATE LENGTH OF PROPOSED CABLE/WIRES.
3. REFER TO PLANS FOR SPECIFIC TERMINATION BOX SIZE AND MOUNTING ARRANGEMENT.
4. COORDINATE LEVEL ELEMENT ELEVATION WITH OWNER AND MECHANICAL. WEIGHT, STAINLESS STEEL WIRE MESH LENGTH, AND MOUNTING HARDWARE WITH LEVEL MANUFACTURER. FURNISH AND INSTALL LEVEL WITH MOVABLE WEIGHT FOR LEVEL ADJUSTMENT. FURNISH AND INSTALL ALL WEIGHT ATTACHMENT STAINLESS STEEL HARDWARE AND MAKE ALL FINAL CONNECTIONS. FURNISH AND INSTALL ALL CABLE/LEVEL STAINLESS STEEL ATTACHMENT HARDWARE AND MAKE ALL FINAL CONNECTIONS. ALL NECESSARY MOUNTING HARDWARE IS NOT SHOWN HERE FOR CLARITY.
5. COORDINATE CABLE LENGTH WITH THE CONTRACT DOCUMENTS AND PROVIDE THE REQUIRED LENGTH FOR THE APPLICATION. CONTRACTOR TO INSTALL AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.
6. CUT NOTCH IN GRATING TO ALLOW GRATING TO BE OPENED WITHOUT INTERFERING WITH CONDUIT PENETRATING THE GRATING. ALSO REFER TO STRUCTURAL/MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.



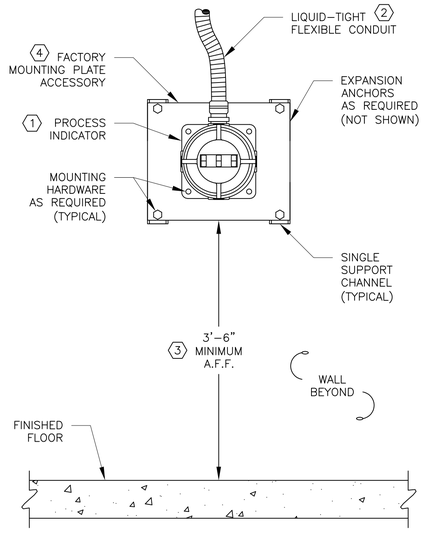
SUBMERSIBLE CABLE HANGER
TYPICAL INSTALLATION DETAIL 1
SCALE: NTS



DETAIL NOTES:

1. THE #316 STAINLESS STEEL SUPPORT HOOK BOLT SIZE SHALL BE MINIMALLY SIZED 1/4 INCH, WITH A MINIMUM HOOK RADIUS OF 3/4 INCH.
2. CONTRACTOR SHALL COORDINATE VENDOR FURNISHED CABLE LENGTH WITH THE CONTRACT DOCUMENTS AND PROVIDE THE REQUIRED LENGTH FOR INTERCONNECTION TO TRANSMITTER. CONTRACTOR TO INSTALL AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S WIRING DIAGRAMS AND RECOMMENDATIONS.
3. THE PROPOSED STRUCTURE TYPE CONNECTING TO THE PROPOSED EQUIPMENT MAY VARY. THE EQUIPMENT ANCHOR TYPE MAY ALSO VARY BUT SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH THE EQUIPMENT IS ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR THE STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EPOXY INSERT ANCHOR. TO ATTACH EQUIPMENT TO A CONCRETE MASONRY UNIT (CMU) WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. CLOSELY AND CAREFULLY COORDINATE STRUCTURE TYPES WITH STRUCTURAL.
4. COORDINATE LEVEL/TEMPERATURE ELEMENT ELEVATION WITH OWNER AND MECHANICAL. COORDINATE LEVEL/TEMPERATURE ELEMENT CABLE LENGTH, STAINLESS STEEL WIRE MESH LENGTH, AND MOUNTING HARDWARE WITH LEVEL/TEMPERATURE ELEMENT MANUFACTURER. FURNISH AND INSTALL ALL CABLE/LEVEL STAINLESS STEEL ATTACHMENT HARDWARE AND MAKE ALL FINAL CONNECTIONS. ALL NECESSARY MOUNTING HARDWARE IS NOT SHOWN HERE FOR CLARITY.

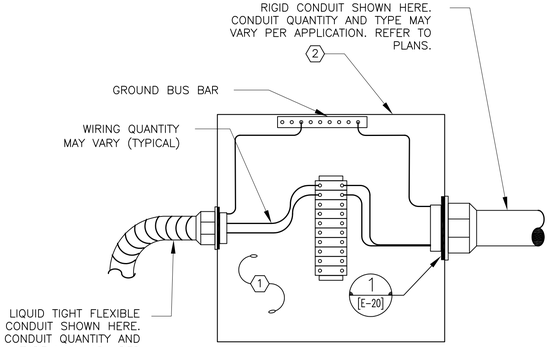
TYPE II TEMPERATURE ELEMENT/ ULTRASONIC
LEVEL TRANSDUCER ASSEMBLY INSTALLATION DETAIL 2
SCALE: NTS



DETAIL NOTES:

1. FURNISH AND INSTALL PROPOSED INDICATOR AT THE APPROXIMATE LOCATION SHOWN ON THE FLOOR PLANS. COORDINATE WITH PROCESS/MECHANICAL AND OWNER FOR EXACT ORIENTATION AND MOUNTING HEIGHT FOR OPTIMAL VISIBILITY. OUTDOOR INSTALLATIONS SHALL FACE NORTH OR EAST WHERE PRACTICAL AND SHALL BE EQUIPPED WITH SUNSHIELD (NOT SHOWN).
2. PROPOSED CONDUIT/WIRE MAY ENTER INSTRUMENT HOUSING FROM ANY OF THE FOUR ENTRY POINTS. ROUTING/SUPPORT OF CONDUIT IS NOT SHOWN. REFER TO FLOOR PLANS FOR CONTINUATION AND ADDITIONAL INFORMATION AND SUPPORT PROPOSED CONDUIT/WIRE PER APPLICABLE DETAILS AND SPECIFICATIONS
3. MOUNTING HEIGHT VARIES DEPENDING ON LOCATION AND OTHER SYSTEMS IN THE VICINITY. COORDINATE EACH INSTALLATION ACCORDINGLY AND ADJUST TO PROVIDE OPTIMAL VISIBILITY OF DISPLAY DURING ROUTINE OPERATIONAL ACTIVITY AT NO ADDITIONAL COST TO THE OWNER.
4. FURNISH AND INSTALL PROPOSED #316 STAINLESS STEEL, FACTORY MOUNTING PLATE/KIT COMPATIBLE WITH SPECIFIED INDICATOR. IF TWO OR MORE INSTRUMENTS ARE GROUPED, FABRICATE CUSTOM MOUNTING PLATE SIZED ACCORDINGLY. FOR INSTALLATIONS WITH SUNSHIELD, INDICATOR SHALL BE MOUNTED DIRECTLY TO SUNSHIELD WITHOUT THE NEED FOR SEPARATE MOUNTING PLATE.

PROCESS INDICATOR WALL MOUNTING DETAIL 3
SCALE: NTS



JUNCTION BOX INSTALLATION DETAIL 4
SCALE: NTS

DETAIL NOTES:

1. FURNISH AND INSTALL TERMINAL BLOCKS, INTERNAL WIRING, INTERNAL TAGGING, GROUNDING AND ALL OTHER INTERNAL ASPECTS PER SPECIFICATION SECTION 17200. NUMBER OF TERMINAL BLOCKS MAY VARY PER APPLICATION. REQUIRED NUMBER OF TERMINAL BLOCKS IS NOT SHOWN HERE.
2. FURNISH AND INSTALL JUNCTION BOX ENCLOSURE PER SPECIFICATION SECTION 16250. NOT ALL BOX REQUIREMENTS ARE SHOWN HERE. MINIMUM SIZE BOX SHALL BE 12" X 8" X 6" OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS. CONTRACTOR SHALL SIZE ENCLOSURE PER, AND IN ACCORDANCE WITH, THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.).

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

TYPICAL INSTRUMENTATION & CONTROLS DETAILS

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
LICENSED
PROFESSIONAL ENGINEER
6/7/23

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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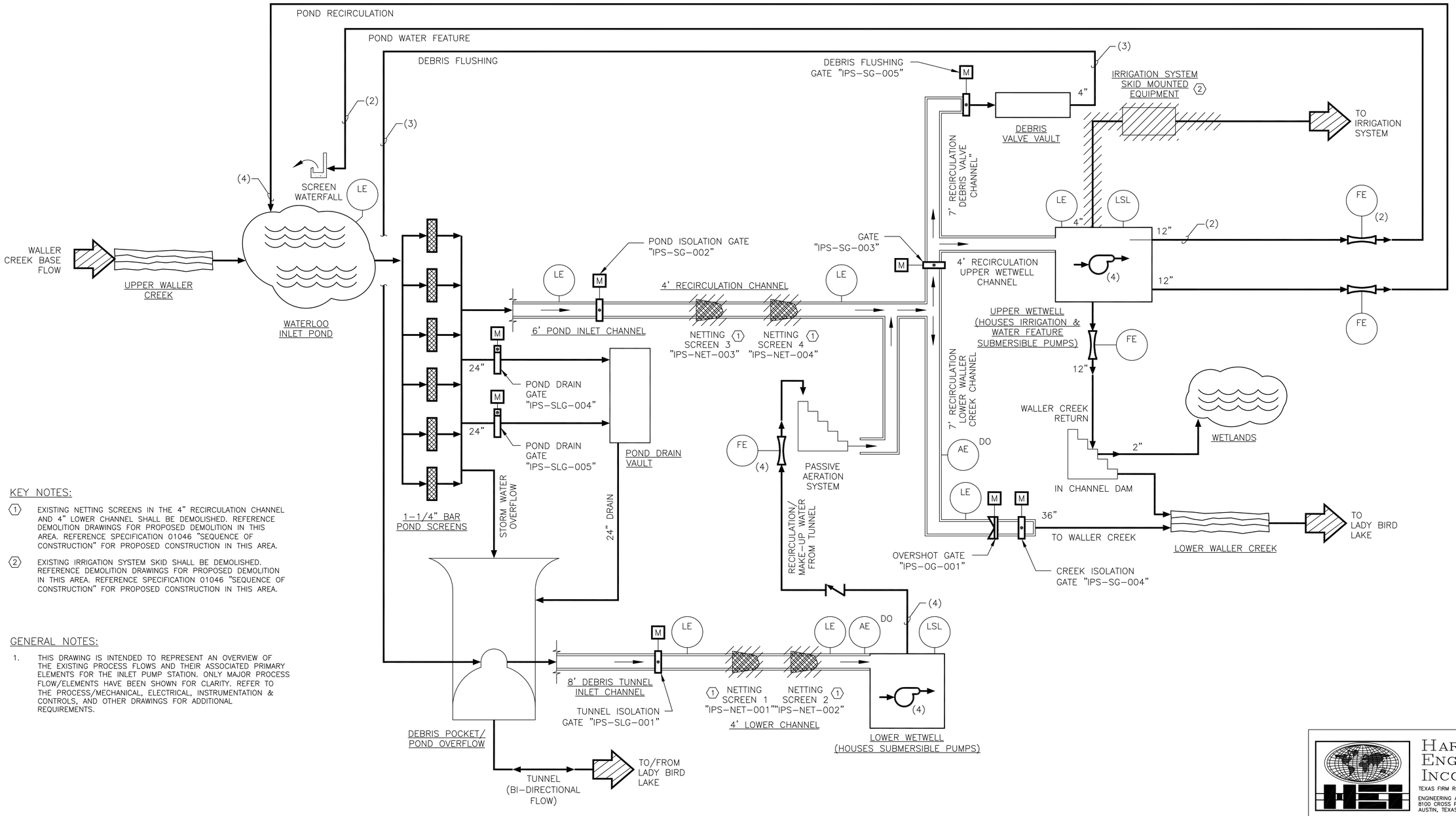
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. I-08
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



KEY NOTES:

(1) EXISTING NETTING SCREENS IN THE 4" RECIRCULATION CHANNEL AND 4" LOWER CHANNEL SHALL BE DEMOLISHED. REFERENCE DEMOLITION DRAWINGS FOR PROPOSED DEMOLITION IN THIS AREA. REFERENCE SPECIFICATION 01046 "SEQUENCE OF CONSTRUCTION" FOR PROPOSED CONSTRUCTION IN THIS AREA.

(2) EXISTING IRRIGATION SYSTEM SKID SHALL BE DEMOLISHED. REFERENCE DEMOLITION DRAWINGS FOR PROPOSED DEMOLITION IN THIS AREA. REFERENCE SPECIFICATION 01046 "SEQUENCE OF CONSTRUCTION" FOR PROPOSED CONSTRUCTION IN THIS AREA.

GENERAL NOTES:

1. THIS DRAWING IS INTENDED TO REPRESENT AN OVERVIEW OF THE EXISTING PROCESS FLOWS AND THEIR ASSOCIATED PRIMARY ELEMENTS FOR THE INLET PUMP STATION. ONLY MAJOR PROCESS FLOW/ELEMENTS HAVE BEEN SHOWN FOR CLARITY. REFER TO THE PROCESS/MECHANICAL, ELECTRICAL, INSTRUMENTATION & CONTROLS, AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS.

HARUTUNIAN ENGINEERING INCORPORATED
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ENGINEERING AND ENVIRONMENTAL CONSULTANTS
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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

EXISTING PROCESS FLOW DIAGRAM

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
ANNE H. HARUTUNIAN
115716
LICENSED
PROFESSIONAL ENGINEER
10/30/2024

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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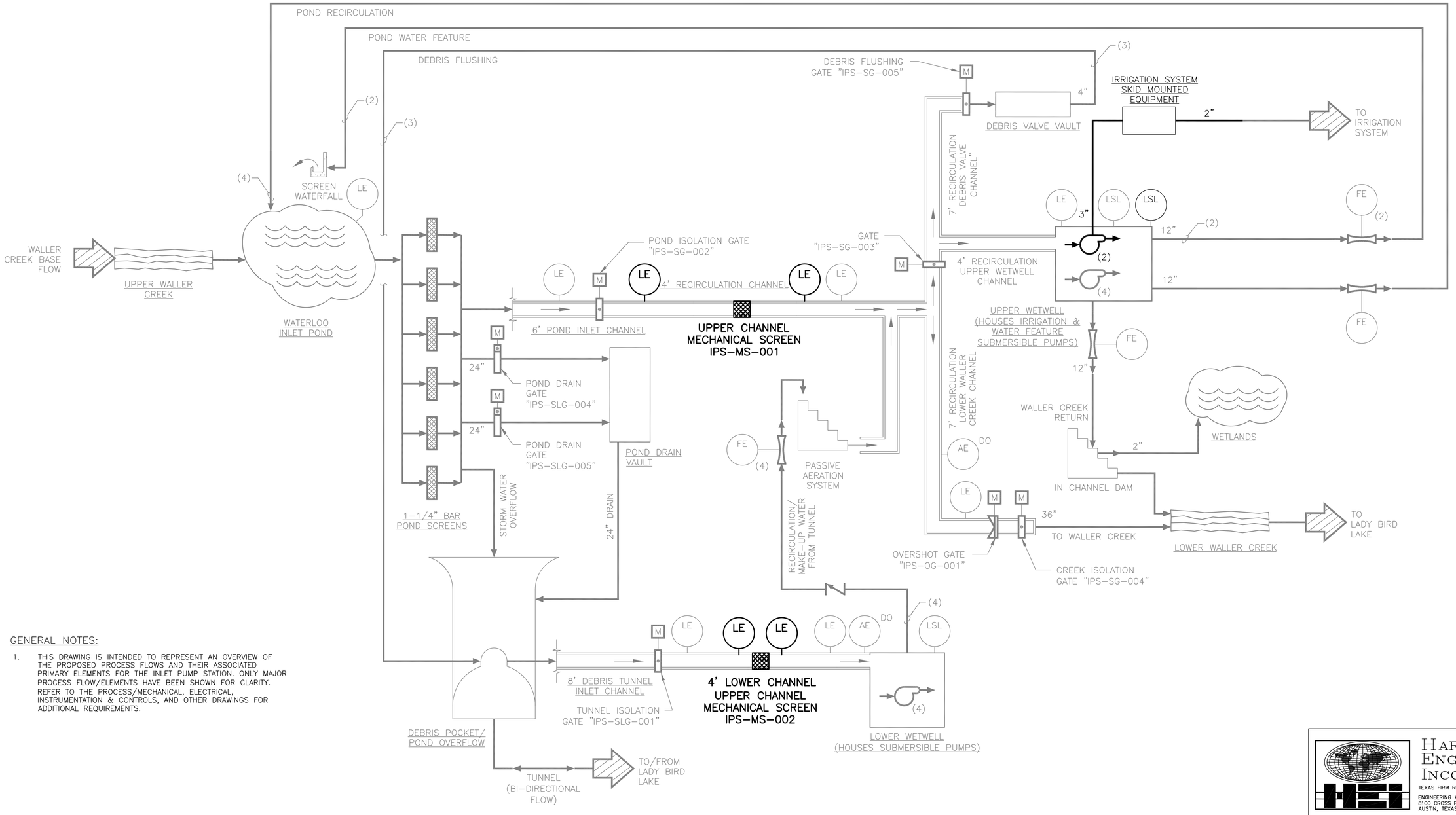
DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. P-01
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



GENERAL NOTES:

1. THIS DRAWING IS INTENDED TO REPRESENT AN OVERVIEW OF THE PROPOSED PROCESS FLOWS AND THEIR ASSOCIATED PRIMARY ELEMENTS FOR THE INLET PUMP STATION. ONLY MAJOR PROCESS FLOW/ELEMENTS HAVE BEEN SHOWN FOR CLARITY. REFER TO THE PROCESS/MECHANICAL, ELECTRICAL, INSTRUMENTATION & CONTROLS, AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

PROPOSED PROCESS FLOW DIAGRAM

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STATE OF TEXAS
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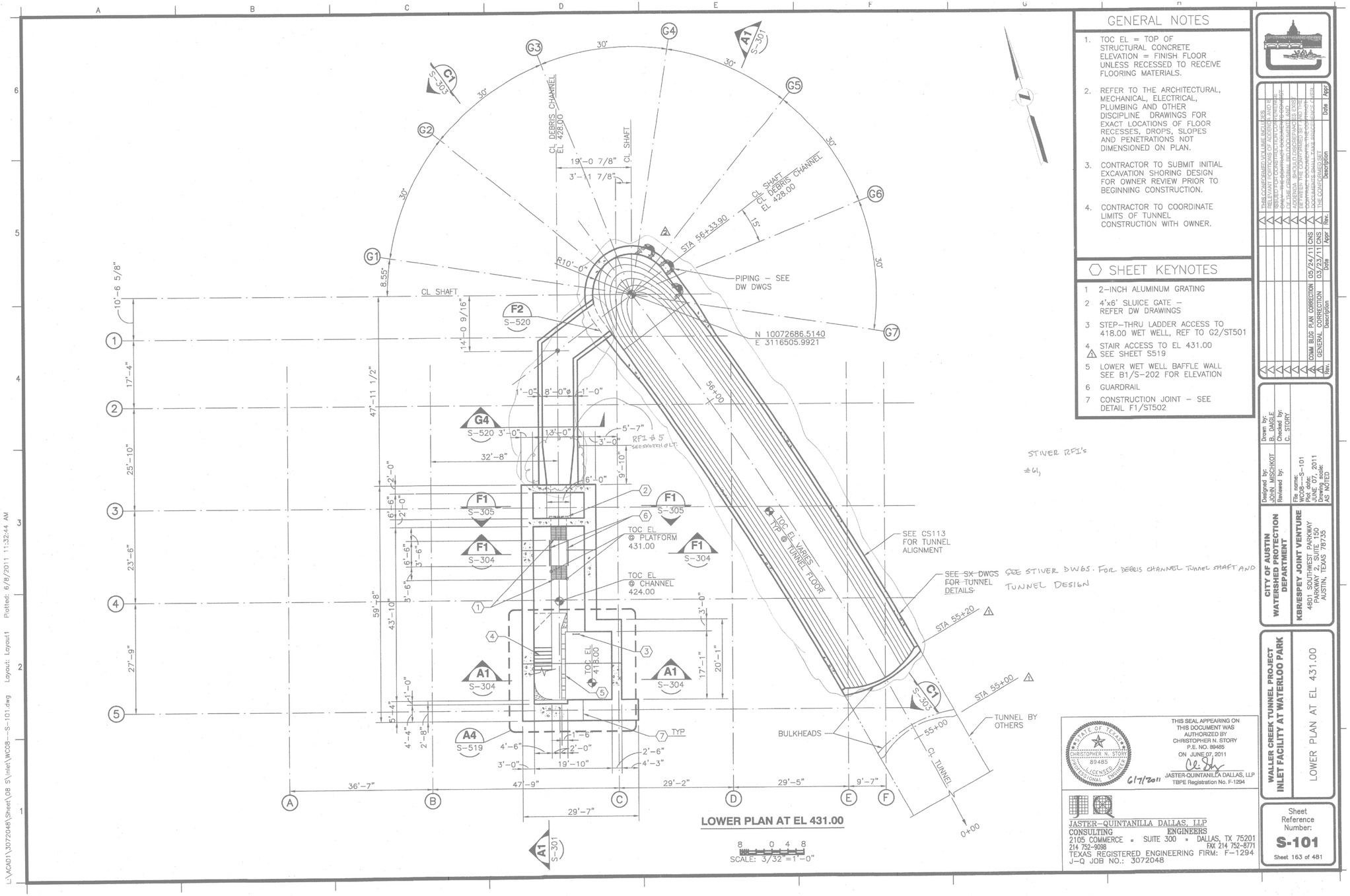
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60677349
DRAWN: HEI	DRAWING No. P-02
CHECKED: HEI	
APPROVED: HEI	SHEET No. OF
SCALE: AS SHOWN	
DATE: MARCH 2023	



GENERAL NOTES

1. TOC EL = TOP OF STRUCTURAL CONCRETE ELEVATION = FINISH FLOOR UNLESS RECESSED TO RECEIVE FLOORING MATERIALS.
2. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER DISCIPLINE DRAWINGS FOR EXACT LOCATIONS OF FLOOR RECESSES, DROPS, SLOPES AND PENETRATIONS NOT DIMENSIONED ON PLAN.
3. CONTRACTOR TO SUBMIT INITIAL EXCAVATION SHORING DESIGN FOR OWNER REVIEW PRIOR TO BEGINNING CONSTRUCTION.
4. CONTRACTOR TO COORDINATE LIMITS OF TUNNEL CONSTRUCTION WITH OWNER.

SHEET KEYNOTES

1. 2–INCH ALUMINUM GRATING
2. 4'x6' SLUICE GATE – REFER DW DRAWINGS
3. STEP–THRU LADDER ACCESS TO 418.00 WET WELL, REF TO G2/ST501
4. STAIR ACCESS TO EL 431.00 ⚠ SEE SHEET S519
5. LOWER WET WELL BAFFLE WALL SEE B1/S–202 FOR ELEVATION
6. GUARDRAIL
7. CONSTRUCTION JOINT – SEE DETAIL F1/ST502

STIVER RFI's #6)

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

THIS CONFORMED VOLUME INCLUDES ALL REVISIONS ISSUED PRIOR TO THE DATE OF THE CONFORMED SET. ADDITIONAL REVISIONS MAY BE ISSUED DURING CONSTRUCTION. ALL THE CONTRACT DOCUMENTS SHALL BE REVIEWED AND COORDINATED BY THE CONTRACTOR BEFORE CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DISCREPANCIES BETWEEN THE CONFORMED SET AND THE CONSTRUCTION DOCUMENTS.

Rev.	Description	Date	Appr
1	GENERAL CORRECTION	03/23/11	CNS
2	COMM BLDG PLAN CORRECTION	05/24/11	CNS
3	ADDITIONAL MANHOLE DETAILS	06/07/11	CNS
4	CONFORMED SET	06/07/11	CNS

Designed by: JOHN MISCHKOT
Drawn by: B. DAGLE
Reviewed by:
Checked by: C. STORY

File name: WC08---S--101
Plot date: Jun 07, 2011
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

LOWER PLAN AT EL 431.00

Sheet Reference Number: **S-101**
Sheet 163 of 481

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294
6/7/2011

JASTER–QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE ▪ SUITE 300 ▪ DALLAS, TX 75201
214 752–9098 FAX 214 752–8771
TEXAS REGISTERED ENGINEERING FIRM: F–1294
J–Q JOB NO.: 3072048

L:\ACAD1\3072048\Sheet\08 S\Inlet\WC08---S--101.dwg Layout: Layout1 Plotted: 6/8/2011 11:32:44 AM

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
LOWER PLAN AT EL 431.00

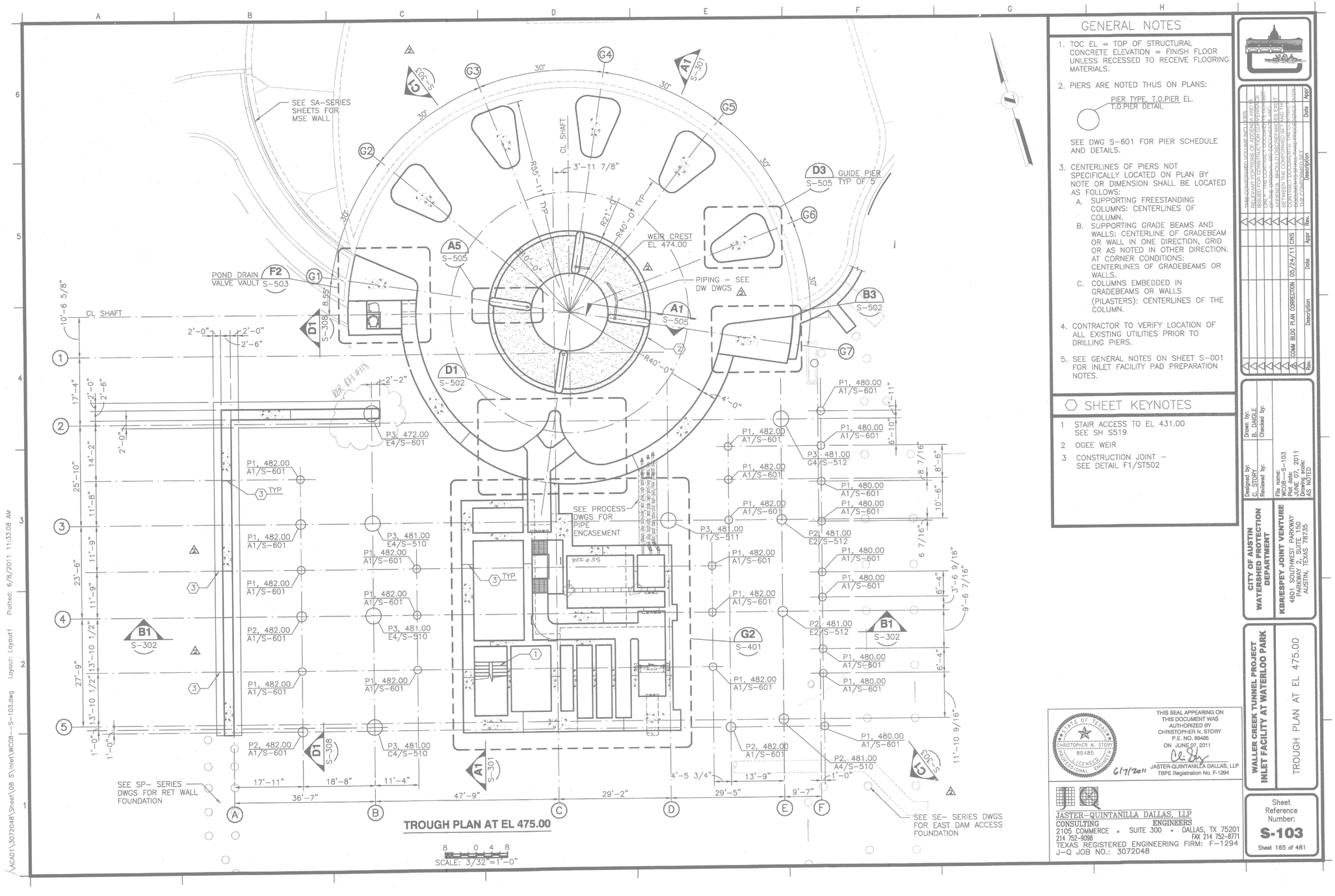
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

JONATHAN I. CHEN 146282 LICENSED PROFESSIONAL ENGINEER 5/17/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-01
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\T-01.DWG BY: GADHIAT DATE: 1/30/2023 11:15 AM



GENERAL NOTES

1. TOC EL = TOP OF STRUCTURAL CONCRETE ELEVATION = FINISH FLOOR UNLESS RECESSED TO RECEIVE FLOORING MATERIALS.
2. PIERS ARE NOTED THUS ON PLANS:

   PIER TYPE, T.O.PIER EL.
   T.O.PIER DETAIL

   SEE DWG S-601 FOR PIER SCHEDULE AND DETAILS.
3. CENTERLINES OF PIERS NOT SPECIFICALLY LOCATED ON PLAN BY NOTE OR DIMENSION SHALL BE LOCATED AS FOLLOWS:
   - A. SUPPORTING FREESTANDING COLUMNS: CENTERLINES OF COLUMN.
   - B. SUPPORTING GRADE BEAMS AND WALLS: CENTERLINE OF GRADEBEAM OR WALL IN ONE DIRECTION, GRID OR AS NOTED IN OTHER DIRECTION. AT CORNER CONDITIONS: CENTERLINES OF GRADEBEAMS OR WALLS.
   - C. COLUMNS EMBEDDED IN GRADEBEAMS OR WALLS (PILASTERS): CENTERLINES OF THE COLUMN.
4. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO DRILLING PIERS.
5. SEE GENERAL NOTES ON SHEET S-001 FOR INLET FACILITY PAD PREPARATION NOTES.

SHEET KEYNOTES

1 STAIR ACCESS TO EL 431.00 SEE SH S519

2 OGEE WEIR

3 CONSTRUCTION JOINT -- SEE DETAIL F1/ST502

Rev.	Description	Date	Appr
	95% CONFORMED VOLUME I AND II		
	95% CONFORMED VOLUME III		
	ISSUED FOR CONSTRUCTION CONFERENCE		
	ONLY - THE CONTRACT DOCUMENTS SHALL		
	BE USED FOR CONSTRUCTION. ADDENDA		
	SHOULD DISCREPANCIES EXIST		
	BETWEEN THE CONFORMED SET AND THE		
	CONTRACT DOCUMENTS, THE CONTRACT		
	DOCUMENTS SHALL PREVAIL.		
	THIS CONFORMED SHEET		
Rev.	Description	Date	Appr
	DCWM BLDG PLAN CORRECTION	05/24/11	CNS

Designed by: C. STORY
Drawn by: B. DAGLE
Reviewed by:
Checked by:

File name: WC08--S--103
Plot date: JUNE 7, 2011
Plot scale: 1:1
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH PLAN AT EL 475.00

Sheet Reference Number:
S-103
Sheet 165 of 481

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294
6/7/2011

JASTER-QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE • SUITE 300 • DALLAS, TX 75201
214 752-9098 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH PLAN AT EL 475.00

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
6/7/2011

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

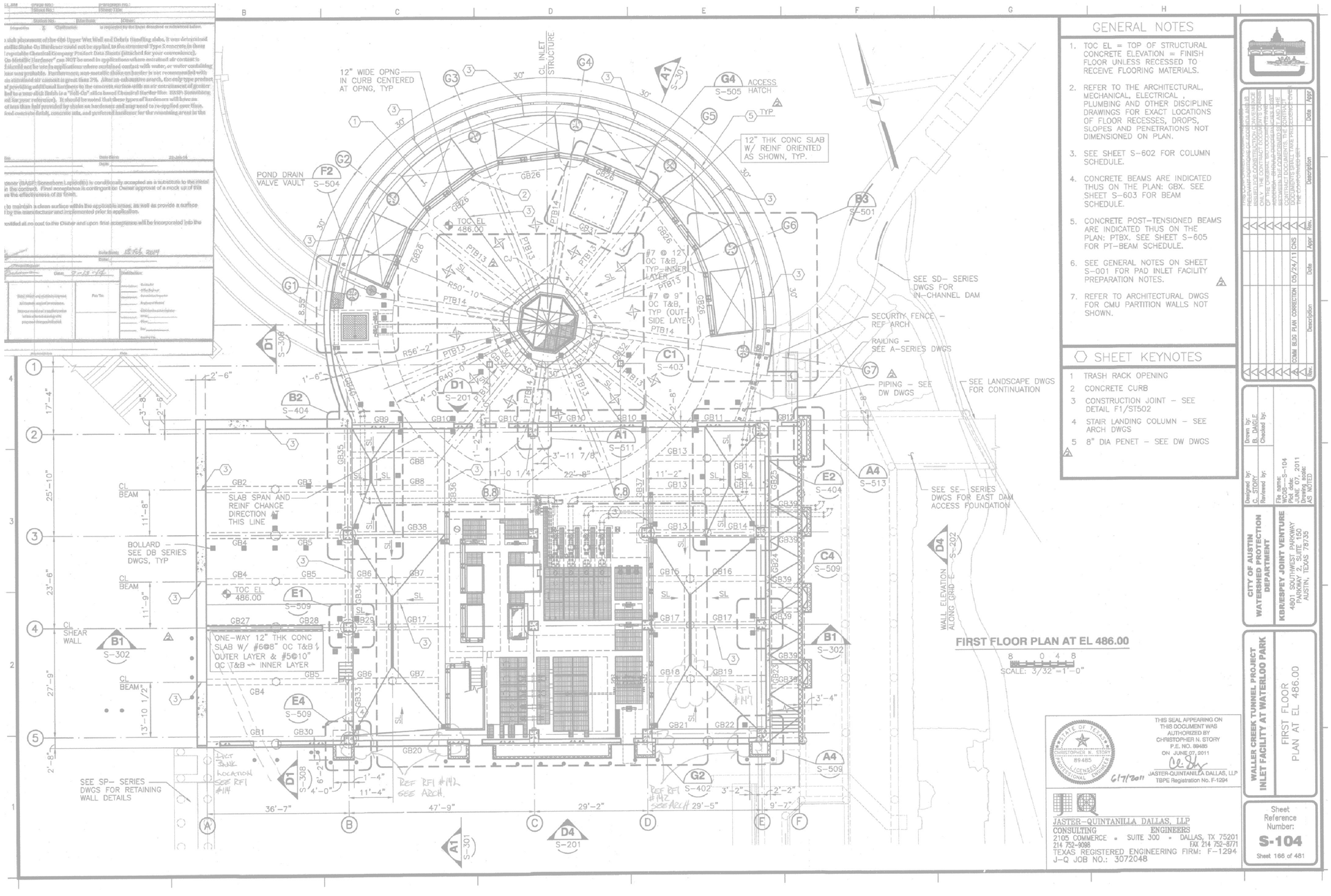
DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-02
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\T-02.DWG BY: GADHIAT DATE: 1/30/2023 11:16 AM

J:\ACAD1\3072048\Sheet\08 S\inlet\WC08---S-103.dwg Layout: Layout1 Plotted: 6/8/2011 11:33:08 AM

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.



FIRST FLOOR PLAN AT EL 486.00

SCALE: 3/32"=1'-0"

GENERAL NOTES

1. TOC EL = TOP OF STRUCTURAL CONCRETE ELEVATION = FINISH FLOOR UNLESS RECESSED TO RECEIVE FLOORING MATERIALS.
2. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER DISCIPLINE DRAWINGS FOR EXACT LOCATIONS OF FLOOR RECESSES, DROPS, SLOPES AND PENETRATIONS NOT DIMENSIONED ON PLAN.
3. SEE SHEET S-602 FOR COLUMN SCHEDULE.
4. CONCRETE BEAMS ARE INDICATED THUS ON THE PLAN: GBX. SEE SHEET S-603 FOR BEAM SCHEDULE.
5. CONCRETE POST-TENSIONED BEAMS ARE INDICATED THUS ON THE PLAN: PTBX. SEE SHEET S-605 FOR PT-BEAM SCHEDULE.
6. SEE GENERAL NOTES ON SHEET S-001 FOR PAD INLET FACILITY PREPARATION NOTES.
7. REFER TO ARCHITECTURAL DWGS FOR CMU PARTITION WALLS NOT SHOWN.

SHEET KEYNOTES

1. TRASH RACK OPENING
2. CONCRETE CURB
3. CONSTRUCTION JOINT - SEE DETAIL F1/ST502
4. STAIR LANDING COLUMN - SEE ARCH DWGS
5. 8" DIA PENET - SEE DW DWGS

Description	Date	Appr
PRELIMINARY DESIGN SUBMITTAL		
FINAL DESIGN SUBMITTAL		
INSERT FOR CONSTRUCTION		
ONLY THE CONTRACT DOCUMENTS		
SHOWN. SHOULD CONFLICTS		
BETWEEN THE CONTRACT		
DOCUMENTS SPECIFY THE		
THE CONFLICTS SHALL		
COMM. BLDG. PLAN CORRECTION	05/24/11	CNS

Designed by: C. STORY
Drawn by: B. DAGLE
Reviewed by:
Checked by:

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY PARKWAY 2, SUITE 150 AUSTIN, TEXAS 78735

File name: WCID-S-104
Plot date: JUNE 07, 2011
Drawing scale: AS NOTED

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

FIRST FLOOR PLAN AT EL 486.00

Sheet Reference Number: S-104
Sheet 166 of 481

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011

JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294

6/7/2011

JASTER-QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE • SUITE 300 • DALLAS, TX 75201
214 752-9098 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
FIRST FLOOR PLAN AT EL 486.00

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
5/31/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-03
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

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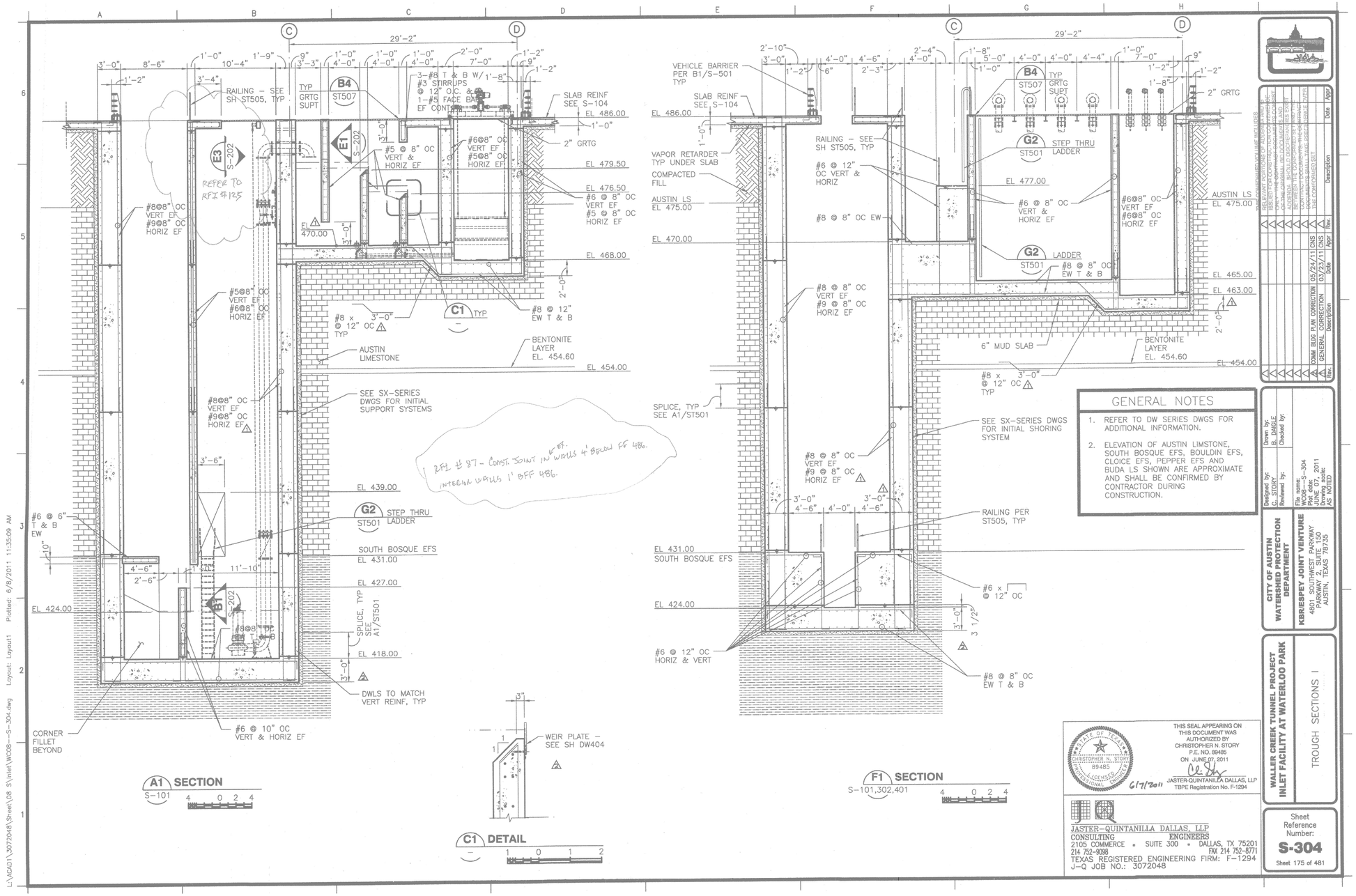


NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

GENERAL NOTES

1. REFER TO DW SERIES DWGS FOR ADDITIONAL INFORMATION.
2. ELEVATION OF AUSTIN LIMSTONE, SOUTH BOSQUE EFS, BOULDIN EFS, CLOICE EFS, PEPPER EFS AND BUDA LS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED BY CONTRACTOR DURING CONSTRUCTION.

Rev.	Description	Date	Appr.
	GENERAL CORRECTION	03/23/11	CNS
	COMM BLDG PLAN CORRECTION	05/24/11	CNS

RELEVANT PORTIONS OF ALIGNED AND REVISED PLANS AND PROFILES SHALL BE INCLUDED IN THE CONFORMED SET OF CONSTRUCTION DOCUMENTS. ALSO, ANY DISCREPANCIES BETWEEN THE DOCUMENTS SHALL BE CLARIFIED AND CORRECTED IN THE CONFORMED SET

Designed by: C. STORY
Reviewed by:
Drawn by: B. DAIGLE
Checked by:
File name: WC08---S-304
Plot date: June 07, 2011
Drawing scale: AS NOTED

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY BUILDING 2, SUITE 150 AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH SECTIONS I

Sheet Reference Number: **S-304**
Sheet 175 of 481

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294
6/7/2011

JASTER-QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE • SUITE 300 • DALLAS, TX 75201
214 752-9088 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH SECTIONS I

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED PROFESSIONAL ENGINEER
5/7/2023

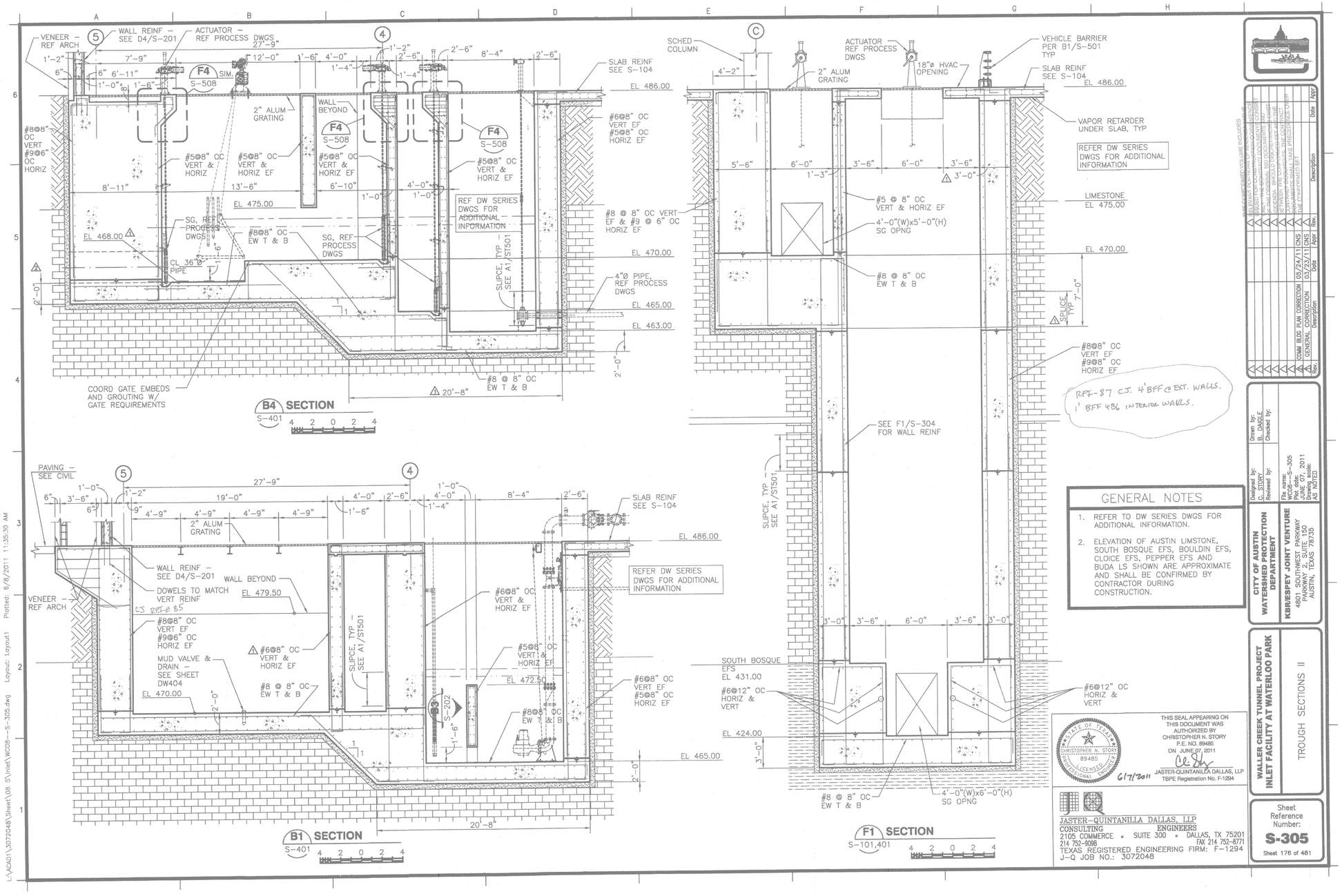
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-04
CHECKED: CW	
APPROVED: SGE	SHEET No.
SCALE: AS NOTED	OF
DATE: MARCH 2023	

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\IT-04.DWG BY: GADHIAT DATE: 1/30/2023 11:17 AM

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.



GENERAL NOTES

1. REFER TO DW SERIES DWGS FOR ADDITIONAL INFORMATION.
2. ELEVATION OF AUSTIN LIMSTONE, SOUTH BOSQUE EFS, BOULDIN EFS, CLOICE EFS, PEPPER EFS AND BUDA LS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED BY CONTRACTOR DURING CONSTRUCTION.

Rev.	Description	Date	Appr.
	THESE CONSTRUCTION DRAWINGS INCLUDE ELEVATION DATUM CHANGE BASED ON CONSTRUCTION CONTRACT DOCUMENTS CONSIST OF ONE DRAWING SET AND ONE SPECIFICATION BOOK. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER THE DRAWINGS.		
	FOR CONSTRUCTION		
1	COMM BLDG PLAN CORRECTION	05/24/11	CNS
2	GENERAL CORRECTION	03/23/11	CNS

Designed by: C. STORY
Drawn by: B. DAGLE
Reviewed by:
Checked by:

File name: WC08---S-305
Plot date: June 07, 2011
Plot scale: 1:1
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY I, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH SECTIONS II

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
STATE OF TEXAS · CHRISTOPHER N. STORY · 89485 · LICENSED PROFESSIONAL ENGINEER
6/7/2011
JASTER-QUINTANILLA DALLAS, LLP
TBPE Registration No. F-1294

JASTER-QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE • SUITE 300 • DALLAS, TX 75201
214 752-9098 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

Sheet Reference Number:
S-305
Sheet 176 of 481

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH SECTIONS II

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS · JONATHAN I. CHEN · 146282 · LICENSED PROFESSIONAL ENGINEER · 3/7/2023

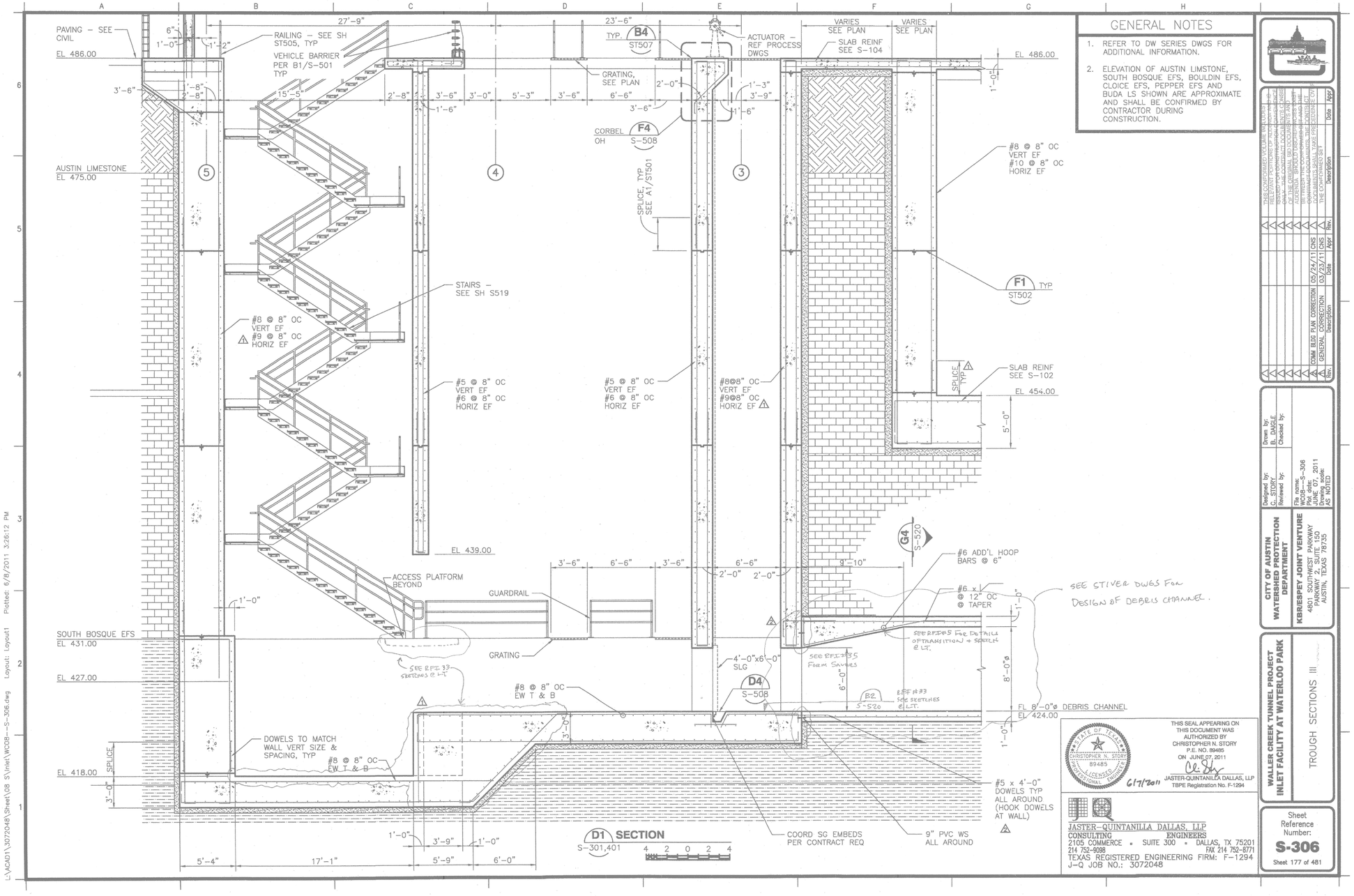
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	JC
DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. T-05
SHEET No. OF

L:\DCS\PROJECTS\WTR\60677349_WALLER_CREEK_WET_WELL_SCR\900_CAD_GIS\910_CAD\SHEETS\T-05.DWG BY: GADHIAT DATE: 1/30/2023 11:17 AM

L:\ACAD\3072048\Sheet\08 S\Inlet\WC08---S-305.dwg Layout: Layout1 Plotted: 6/8/2011 11:35:30 AM



GENERAL NOTES

1. REFER TO DW SERIES DWGS FOR ADDITIONAL INFORMATION.
2. ELEVATION OF AUSTIN LIMSTONE, SOUTH BOSQUE EFS, BOULDIN EFS, CLOICE EFS, PEPPER EFS AND BUDA LS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED BY CONTRACTOR DURING CONSTRUCTION.

NOTES:

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Rev.	Description	Date	Appr.
	THIS COMPORMED VOLUME INCLUDES RELEVANT PORTIONS OF ADDENDUM NO. ONE - THE CONTRACT DOCUMENTS CONSIST OF THE CONTRACT AGREEMENT AND ALL DOCUMENTS LISTED THEREIN BETWEEN THE CONFORMED SET AND THE CONTRACT DOCUMENTS, THE CONTRACTS SHALL TAKE PRECEDENCE		
	THE CONFORMED SET		
GENERAL	CORRECTION	03/23/11	CNS
COMM BLDG PLAN	CORRECTION	05/24/11	CNS

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
BUILDING 2, SUITE 140
AUSTIN, TEXAS 78735

Designed by: C. STORY
Drawn by: B. DARGLE
Reviewed by:
Checked by:
File name: WCDB---S-306
PDN date: JANUARY 7, 2011
Drawing scale: AS NOTED

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH SECTIONS III

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294

STATE OF TEXAS · CHRISTOPHER N. STORY · 89485 · LICENSED PROFESSIONAL ENGINEER · 6/7/2011

JASTER-QUINTANILLA DALLAS, LLP
CONSULTING ENGINEERS
2105 COMMERCE • SUITE 300 • DALLAS, TX 75201
214 752-9098 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

Sheet Reference Number: **S-306**
Sheet 177 of 481

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH SECTIONS III

AECOM
AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS · JONATHAN I. CHEN · 146282 · LICENSED PROFESSIONAL ENGINEER · 3/7/2023

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-06
CHECKED: CW	
APPROVED: SGE	SHEET No. OF
SCALE: AS NOTED	
DATE: MARCH 2023	

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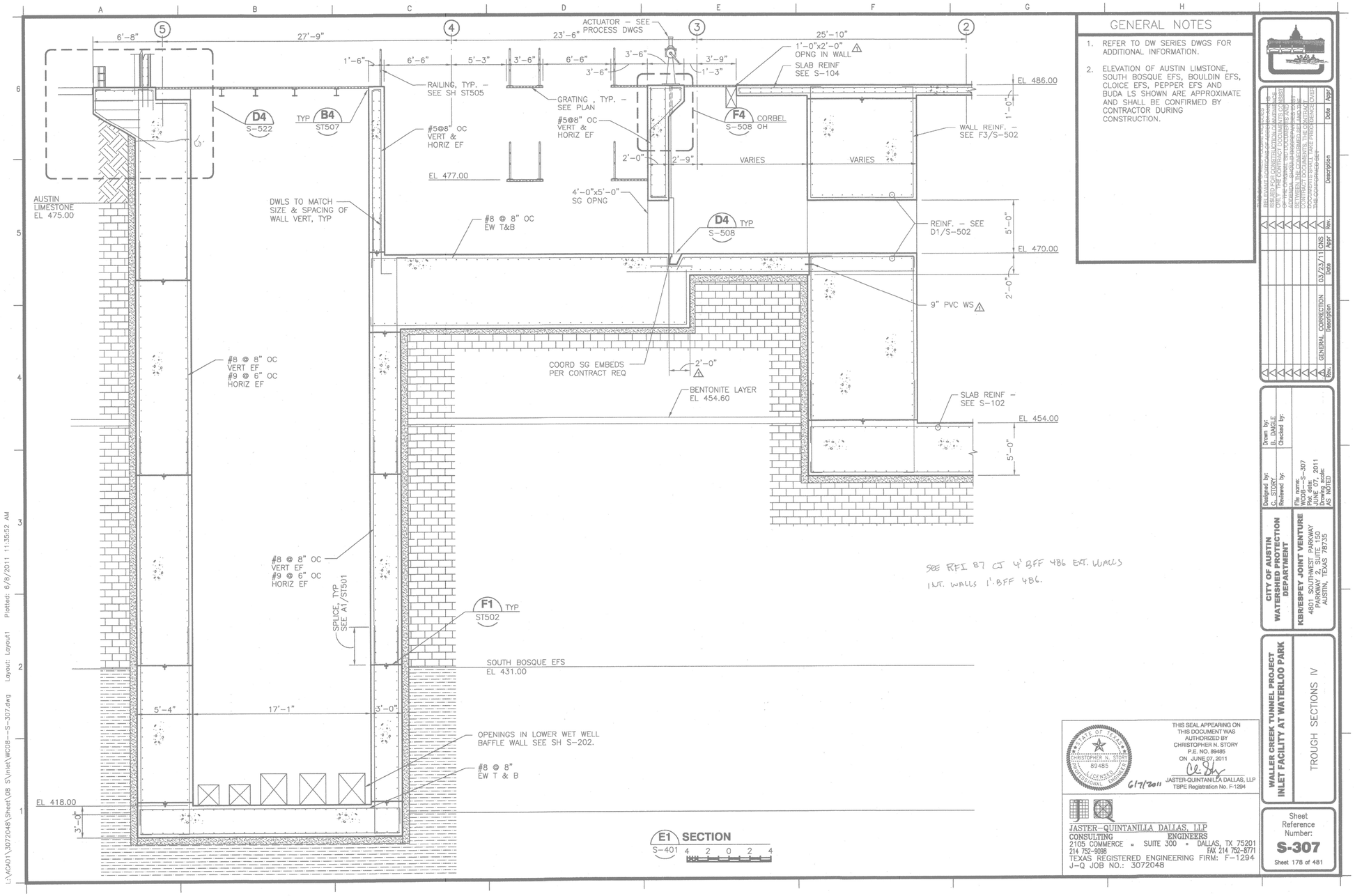

GENERAL NOTES

1. REFER TO DW SERIES DWGS FOR ADDITIONAL INFORMATION.
2. ELEVATION OF AUSTIN LIMSTONE, SOUTH BOSQUE EFS, BOULDIN EFS, CLOICE EFS, PEPPER EFS AND BUDA LS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED BY CONTRACTOR DURING CONSTRUCTION.

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

Rev.	Description	Date	Appr.
	GENERAL CORRECTION	03/23/11	CNS

Drawn by: B. DAGLE
Checked by:
Designed by: C. STORY
Reviewed by:
File name: WC08—S—307
Plotted: JUNE 07, 2011
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
FRONT TOWER, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH SECTIONS IV

Sheet Reference Number: **S-307**
Sheet 178 of 481

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER N. STORY P.E. NO. 89485 ON JUNE 07, 2011
JASTER-QUINTANILLA DALLAS, LLP TBPE Registration No. F-1294
6/7/2011

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214 752-9098 FAX 214 752-8771
TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH SECTIONS IV

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
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TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
146282
LICENSED
PROFESSIONAL ENGINEER
3/17/2023

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DRAWN: AW	DRAWING No. T-07
CHECKED: CW	SHEET No. OF
APPROVED: SGE	
SCALE: AS NOTED	
DATE: MARCH 2023	

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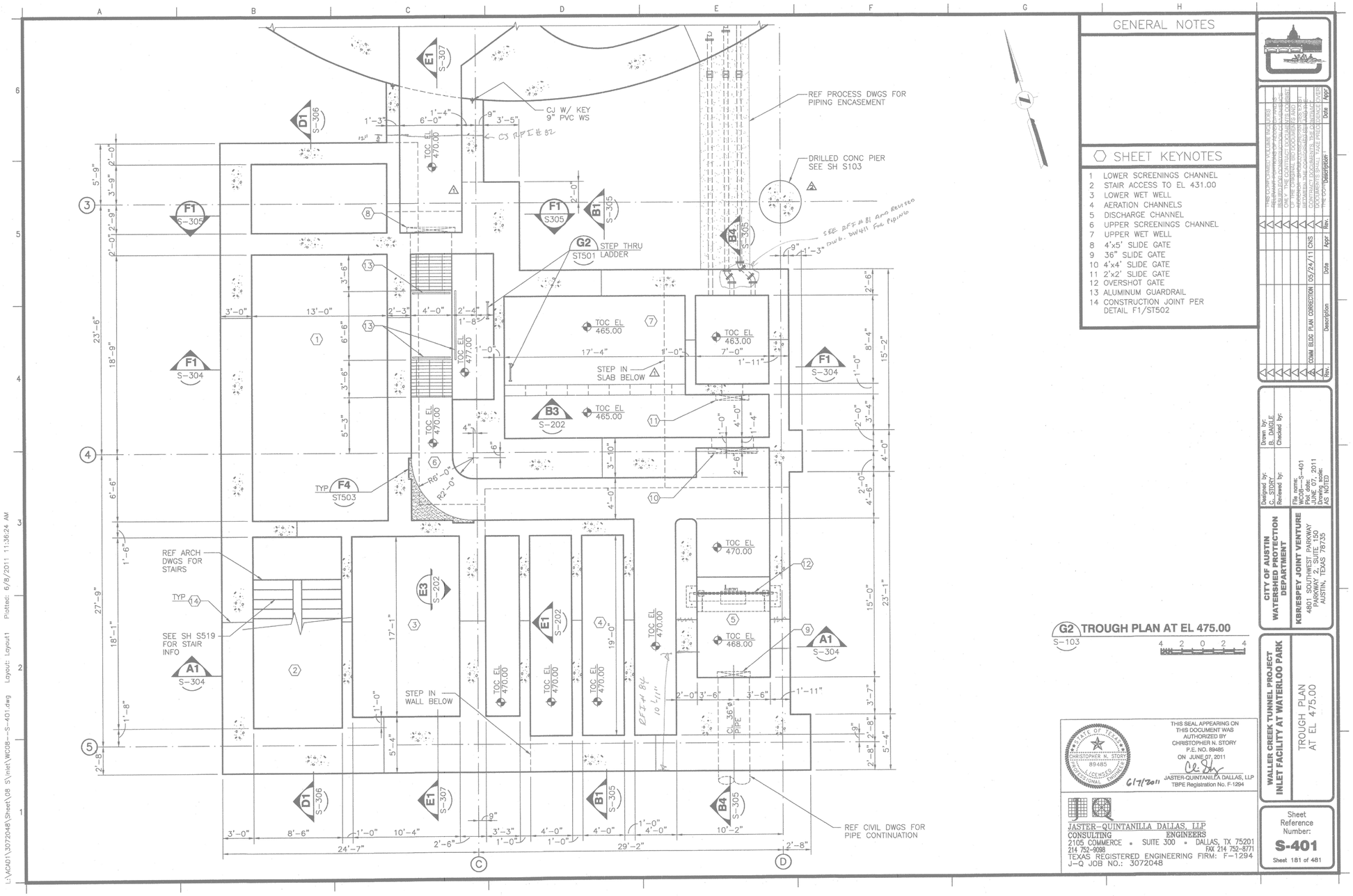

G2 TROUGH PLAN AT EL 475.00
S-103

4 2 0 2 4

GENERAL NOTES

SHEET KEYNOTES

1 LOWER SCREENINGS CHANNEL
2 STAIR ACCESS TO EL 431.00
3 LOWER WET WELL
4 AERATION CHANNELS
5 DISCHARGE CHANNEL
6 UPPER SCREENINGS CHANNEL
7 UPPER WET WELL
8 4'x5' SLIDE GATE
9 36" SLIDE GATE
10 4'x4' SLIDE GATE
11 2'x2' SLIDE GATE
12 OVERSHOT GATE
13 ALUMINUM GUARDRAIL
14 CONSTRUCTION JOINT PER DETAIL F1/ST502

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

Rev.	Description	Date	Appr.
1	COMM. BLDG. PLAN CORRECTION	05/24/11	CNS
2	THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.		

Designed by: G. STORY
Drawn by: B. DAGLE
Reviewed by:
Checked by:

File name: WC08---S--401
Date plotted: JUNE 07, 2011
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CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
BUILDING 2, SUITE 100
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH PLAN AT EL 475.00

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STATE OF TEXAS — CHRISTOPHER N. STORY — 89485 — LICENSED PROFESSIONAL ENGINEER

6/7/2011

JASTER-QUINTANILLA DALLAS, LLP
TBPE Registration No. F-1294

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TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

Sheet Reference Number: **S-401**
Sheet 181 of 481

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK TUNNEL INLET FACILITY WET WELL
MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH PLAN AT EL 475.00

AECOM TECHNICAL SERVICES INC.
13640 BRIARWICK DRIVE, SUITE 200
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS — JONATHAN I. CHEN — 146282 — LICENSED PROFESSIONAL ENGINEER — 6/7/2011

VERIFY SCALES
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0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

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DRAWN:	AW
CHECKED:	CW
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	MARCH 2023

PROJECT No. 60677349
DRAWING No. T-08
SHEET No. OF

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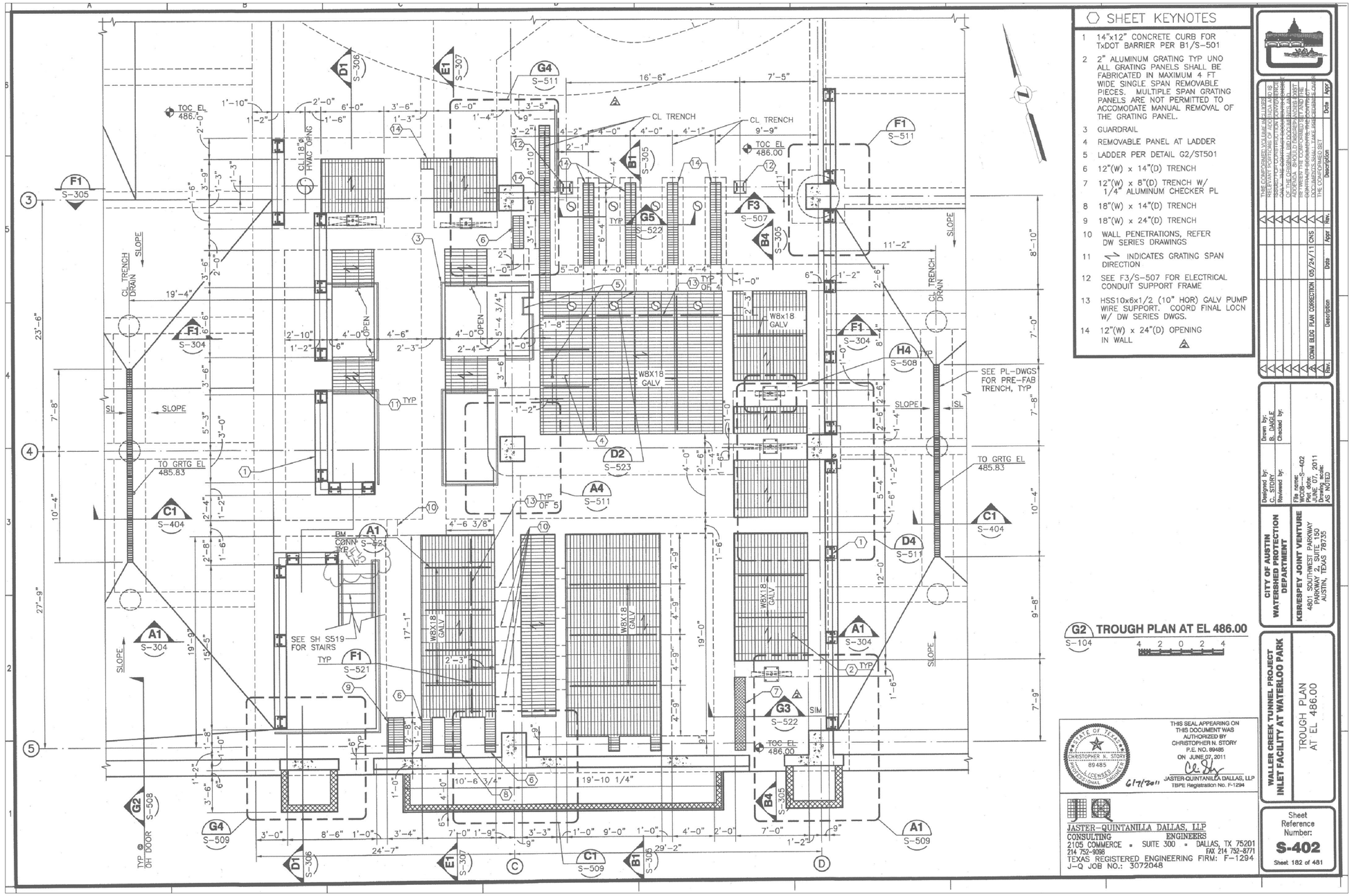

SHEET KEYNOTES

1. 14"x12" CONCRETE CURB FOR TxDOT BARRIER PER B1/S-501
2. 2" ALUMINUM GRATING TYP UNO ALL GRATING PANELS SHALL BE FABRICATED IN MAXIMUM 4 FT WIDE SINGLE SPAN REMOVABLE PIECES. MULTIPLE SPAN GRATING PANELS ARE NOT PERMITTED TO ACCOMODATE MANUAL REMOVAL OF THE GRATING PANEL.
3. GUARDRAIL
4. REMOVABLE PANEL AT LADDER
5. LADDER PER DETAIL G2/ST501
6. 12"(W) x 14"(D) TRENCH
7. 12"(W) x 8"(D) TRENCH W/ 1/4" ALUMINUM CHECKER PL
8. 18"(W) x 14"(D) TRENCH
9. 18"(W) x 24"(D) TRENCH
10. WALL PENETRATIONS, REFER DW SERIES DRAWINGS
11. INDICATES GRATING SPAN DIRECTION
12. SEE F3/S-507 FOR ELECTRICAL CONDUIT SUPPORT FRAME
13. HSS10x6x1/2 (10" HOR) GALV PUMP WIRE SUPPORT. COORD FINAL LOCN W/ DW SERIES DWGS.
14. 12"(W) x 24"(D) OPENING IN WALL

G2 TROUGH PLAN AT EL 486.00
S-104
4 2 0 2 4

NOTES:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THE WORK PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO REFER TO CONSTRUCTION CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO COORDINATION WITH FACILITY OPERATIONS.

Rev.	Description	Date	Appr.
A	COMM BLDG PLAN CORRECTION	05/24/11	CNS
	THE CONFORMED SET		

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Designed by: C. STORY
Drawn by: B. DAGLE
Reviewed by:
Checked by:

File name: WCDR-S-402
Plot date: 05 JULY 2011
Drawing scale: AS NOTED

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
BUILDING TWO, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

TROUGH PLAN AT EL 486.00

Sheet Reference Number:
S-402
Sheet 182 of 481

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6/7/2011

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TEXAS REGISTERED ENGINEERING FIRM: F-1294
J-Q JOB NO.: 3072048

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK TUNNEL INLET FACILITY WET WELL MECHANICAL SCREENING SYSTEM
CIP PROJECT No. 10878.007

REFERENCE DRAWING
TROUGH PLAN AT EL 486.00

AECOM TECHNICAL SERVICES INC.
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AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
JONATHAN I. CHEN
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7/7/2011

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DESIGNED: JC	PROJECT No. 60677349
DRAWN: AW	DRAWING No. T-09
CHECKED: CW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. OF
DATE: MARCH 2023	

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