CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM

ISSUED FOR BID

VOLUME 3 OF 4

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CHAIR

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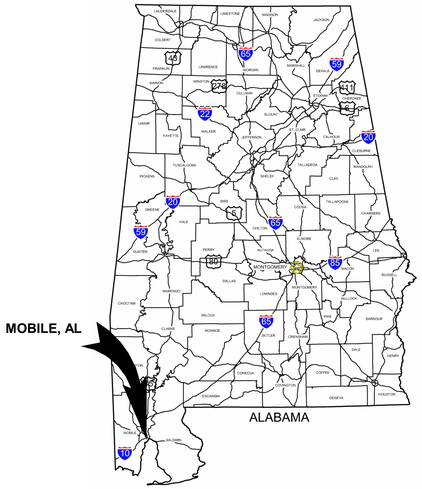
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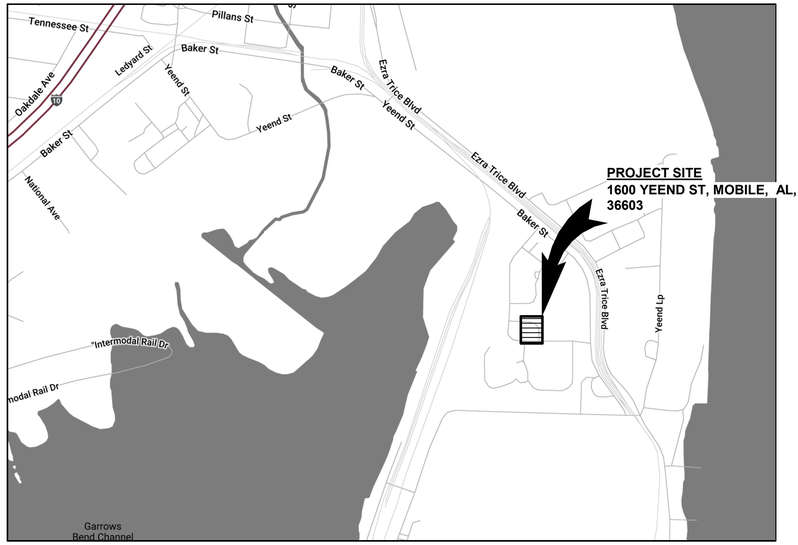
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MR. RAYMOND L. BELL JR.
COMMISSIONER

MR. VINCENT ROBINSON
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AREA MAP
NO SCALE



VICINITY MAP
NO SCALE

GARVER PROJECT NO. 2402007

AUGUST 2026

GARVER

5125 Research Dr NW
Huntsville, AL 35805
(256) 534-5512

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 34439 PROFESSIONAL ENGINEER LINDSAY I TUCKER

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

COVER SHEET

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: MJS
DRAWN BY: SJB
CHECKED BY: LIT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G001

SHEET NUMBER 01

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:04:27 PM

01 - GENERAL

SHEET NO.	DWG. NO.	DESCRIPTION
01	01-G001	COVER SHEET
02	01-G002	INDEX OF DRAWINGS
03	01-G003	GENERAL CONVENTIONS AND ABBREVIATIONS
04	01-G004	CIVIL NOTES AND LEGEND 1
05	01-G005	CIVIL NOTES AND LEGEND 2
06	01-G006	PROCESS & INSTRUMENTATION DIAGRAM NOTES, LEGENDS, AND ABBREVIATIONS
07	01-G007	STRUCTURAL LEGEND AND NOTES
08	01-G008	SPECIAL INSPECTIONS
09	01-G009	PROCESS MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS
10	01-G010	ELECTRICAL SYMBOLS AND LEGEND
11	01-G011	ELECTRICAL NOTES AND ABBREVIATIONS

05 - SITE CIVIL

SHEET NO.	DWG. NO.	DESCRIPTION
12	05-C101	EXISTING SITE PLAN
13	05-X101	PROPOSED DEMOLITION PLAN
14	05-C102	PROPOSED SITE PLAN
15	05-C202	PROPOSED GRADING, PAVING, AND DRAINAGE PLAN
16	05-C301	EXISTING YARD PIPING PLAN
17	05-X301	PROPOSED YARD PIPING DEMOLTION PLAN
18	05-C302	PROPOSED YARD PIPING PLAN
19	05-C303	YARD PIPING PROFILE
20	05-C501	CIVIL DETAILS
21	05-S501	YARD PIPE SUPPORT DETAILS
22	05-E101	ELECTRICAL SITE PLAN - OVERVIEW

08 - P&ID

SHEET NO.	DWG. NO.	DESCRIPTION
23	08-I101	ODOR CONTROL SYSTEM P&ID
24	08-I102	CARBON POLISHING P&ID
25	08-I201	HEADWORKS P&ID

10 - ODOR CONTROL

SHEET NO.	DWG. NO.	DESCRIPTION
26	10-S101	ODOR CONTROL PLAN
27	10-S102	LOWER AND INTERMEDIATE PIPE BRIDGE PLANS
28	10-S103	UPPER PIPE BRIDGE AND VERTICAL PIPE SUPPORT PLANS
29	10-S301	ODOR CONTROL SECTIONS 1
30	10-S302	ODOR CONTROL SECTIONS 2
31	10-S303	ODOR CONTROL SECTIONS 3
32	10-S304	ODOR CONTROL SECTIONS 4
33	10-S501	ODOR CONTROL DETAILS 1
34	10-S502	ODOR CONTROL DETAILS 2
35	10-S503	ODOR CONTROL DETAILS 3
36	10-S504	ODOR CONTROL DETAILS 4
37	10-S505	ODOR CONTROL DETAILS 5
38	10-S506	ODOR CONTROL DETAILS 6
39	10-S507	ODOR CONTROL DETAILS 7
40	10-S508	ODOR CONTROL DETAILS 8
41	10-S509	ODOR CONTROL DETAILS 9
42	10-S601	ODOR CONTROL AUGER CAST PILE SCHEDULE
43	10-P101	ODOR CONTROL FLOOR PLAN
44	10-P102	BACKFLOW PREVENTER VAULT PLAN AND SECTION
45	10-P301	ODOR CONTROL SECTION 1
46	10-P302	ODOR CONTROL SECTION 2
47	10-P303	ODOR CONTROL SECTION 3
48	10-P501	ODOR CONTROL DETAIL
49	10-P901	ODOR CONTROL ISOMETRICS
50	10-M601	ODOR CONTROL DAMPER SCHEDULES
51	10-E101	ODOR CONTROL ELECTRICAL PLAN
52	10-E601	ODOR CONTROL INTERCONNECT DIAGRAM

20 - HEADWORKS

SHEET NO.	DWG. NO.	DESCRIPTION
53	20-X101	HEADWORKS LOWER DEMOLITION PLAN
54	20-X102	HEADWORKS INTERMEDIATE DEMOLITION PLAN
55	20-X103	HEADWORKS UPPER DEMOLITION PLAN
56	20-S101	HEADWORKS LOWER PLAN
57	20-S102	HEADWORKS UPPER PLAN
58	20-S103	HEADWORKS PIPE BRIDGE PLANS
59	20-S301	HEADWORKS SECTIONS 1
60	20-S302	HEADWORKS SECTIONS 2
61	20-S303	HEADWORKS SECTIONS 3
62	20-S401	HEADWORKS ENLARGED PLANS 1
63	20-S402	HEADWORKS ENLARGED PLANS 2
64	20-S403	HEADWORKS ENLARGED SECTIONS 1
65	20-S404	HEADWORKS ENLARGED SECTIONS 2
66	20-S501	HEADWORKS REPAIR NOTES
67	20-S502	HEADWORKS PIPE SUPPORTS DETAILS 1
68	20-S503	HEADWORKS PIPE SUPPORTS DETAILS 2
69	20-S504	HEADWORKS PIPE SUPPORTS DETAILS 3
70	20-S505	HEADWORKS PIPE SUPPORTS DETAILS 4
71	20-S506	HEADWORKS PIPE SUPPORTS DETAILS 5
72	20-S507	HEADWORKS PIPE SUPPORTS DETAILS 6
73	20-P101	HEADWORKS LOWER FLOOR PLAN
74	20-P102	HEADWORKS UPPER FLOOR PLAN
75	20-P301	HEADWORKS SECTION 1
76	20-P302	HEADWORKS SECTIONS 2
77	20-P303	HEADWORKS SECTIONS 3
78	20-P901	HEADWORKS ISOMETRICS
79	20-M101	HEADWORKS FLOOR PLAN
80	20-M601	HEADWORKS DAMPER SCHEDULES
81	20-M602	HEADWORKS SCHEMATICS
82	20-E101	HEADWORKS POWER PLAN
83	20-E601	HEADWORKS INTERCONNECT DIAGRAM

25 - PRIMARY CLARIFIER

SHEET NO.	DWG. NO.	DESCRIPTION
84	25-S501	PRIMARY CLARIFIER REPAIR NOTES

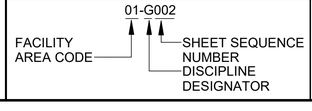
30 - PRIMARY EFFLUENT PUMP STATION

SHEET NO.	DWG. NO.	DESCRIPTION
85	30-S101	PRIMARY EFFLUENT PUMP STATION PLANS
86	30-S301	PRIMARY EFFLUENT PUMP STATION SECTIONS 1
87	30-S302	PRIMARY EFFLUENT PUMP STATION SECTION 2
88	30-S501	PRIMARY EFFLUENT PUMP STATION DETAILS 1
89	30-S502	PRIMARY EFFLUENT PUMP STATION DETAILS 2

90 - ELECTRICAL

SHEET NO.	DWG. NO.	DESCRIPTION
90	90-E101	PARTIAL ONE-LINE DIAGRAM
91	90-E701	RIO CONTROL PANEL SCHEMATIC
92	90-E801	20RIO1 IO LIST
93	90-T101	SCADA ARCHITECTURE DIAGRAM

DRAWING NUMBER EXAMPLE



DISCIPLINE DESIGNATORS

G - GENERAL	A - ARCHITECTURAL
C - CIVIL	S - STRUCTURAL
I - INSTRUMENTATION & CONTROL	P - PROCESS MECHANICAL
X - DEMOLITION	M - BUILDING MECHANICAL & PLUMBING
F - FIRE PROTECTION	E - ELECTRICAL
L - LIFE SAFETY	T - TELECOMMUNICATIONS

SHEET TYPE DESIGNATOR

CIVIL DISCIPLINE	OTHER DISCIPLINES	ALL DISCIPLINES	
100 - SITE PLANS	100 - PLAN VIEWS	400 - LARGE SCALE VIEWS	700 - USER DEFINED
200 - GRADING & PAVING	200 - ELEVATIONS	500 - DETAILS	800 - USER DEFINED
300 - PIPING & PROFILES	300 - SECTIONS	600 - DIAGRAM OR SCHED	900 - ISOMETRICS

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REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

INDEX OF DRAWINGS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: MJS
DRAWN BY: SJB
CHECKED BY: LIT

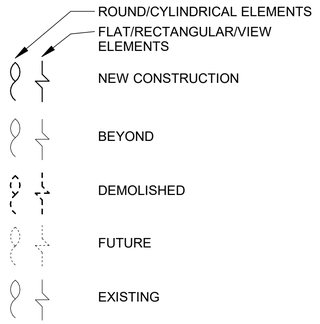
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DRAWING NUMBER
01-G002

SHEET NUMBER 02

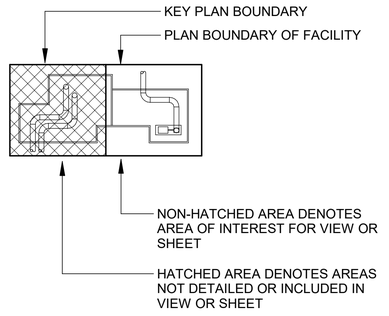
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

CONTINUATION SYMBOLS

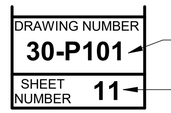


KEY PLAN LEGEND

KEY PLANS MAY OR MAY NOT CONTAIN EQUIPMENT, PIPING OR OTHER MODELED ELEMENTS. FOR REPRESENTATION PURPOSES ONLY.



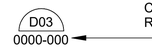
VIEW REFERENCE & TITLE SYMBOLS



SHEET NUMBERS ARE DENOTED BY FACILITY NUMBER-SHEET NUMBER

EXAMPLE: 30-P101
FACILITY #30
SHEET #P101

SHEET NUMBER # OF TOTAL INDEX COUNT.

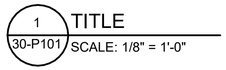


CALLOUT DENOTES A STANDARD DETAIL REFERENCE.

EXAMPLE: D03/0000-000
SPECIFICATION DIVISION: 03
SPECIFICATION SECTION: 0000
DETAIL REFERENCE: 000

REFER TO 1 / 01-P101

CALLOUT DENOTES A VIEW REFERENCE ABOUT A MATCHLINE



TITLE DENOTES A PLAN VIEW LAYOUT. (PLAN VIEW IS #1 ON SHEET 30-P101)



TITLE DENOTES AN ELEVATION, SECTION, OR SPECIFIC DETAIL VIEW LAYOUT. (SECTION VIEW #1 IS BACK REFERENCING SHEET 30-P101.)



TITLE DENOTES A DETAIL VIEW LAYOUT THAT IS NOT TO SCALE. (DETAIL VIEW #1)



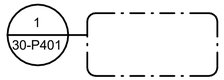
TITLE DENOTES A ISOMETRIC VIEW LAYOUT THAT IS NOT TO SCALE. (DETAIL VIEW #1)



CALLOUT DENOTES AN ELEVATION REFERENCE. (ELEVATION VIEW #1 ON 30-P201)



CALLOUT DENOTES A CUT SECTION REFERENCE. (SECTION VIEW #1 ON 30-P301)



CALLOUT DENOTES AN ENLARGED AREA REFERENCE. (ENLARGED VIEW #1 ON 30-P401)

GENERAL DRAWING SYMBOLS



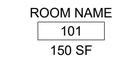
REVISION CLOUD AND NUMBER SHOWN ON PLANS

POINT OF CONNECTION - NEW TO EXISTING

DEMO TO POINT



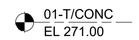
KEYED NOTE REFERENCE



SYMBOL INDICATES A ROOM / AREA DESIGNATION, WITH ROOM NUMBER AND SQUARE FOOTAGE



SYMBOL INDICATES A STRUCTURAL GRIDLINE OR DATUM



SYMBOL INDICATES A LEVEL DATUM IN A SECTION OR ELEVATION

LINE INDICATES A PROJECT MATCHLINE

CENTERLINE

PHASE GRAPHICS

EXISTING ELEMENTS

NEW ELEMENTS

EXISTING ELEMENTS TO BE REMOVED/DEMOLISHED

FUTURE CONSTRUCTION NEW ELEMENT

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUX	AUXILIARY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BKR	BREAKER
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
COGEN	COMBINED HEAT AND POWER GENERATION
COL	COLUMN
CONT	CONTINUOUS
DIA	DIAMETER
EA	EXHAUST AIR, EXPANSION ANCHOR, EACH
EL., ELEV	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
FA	FIRE ALARM
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE
FLR	FLOOR
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FEET, FOOT
GA	GAUGE, GAGE
GALV	GALVANIZED
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRND	GROUND
H, HT	HEIGHT
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HORSEPOWER, HEAT PUMP
HYD	HYDRANT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
LBS, #	POUNDS
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
N/A	NOT AVAILABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OH	OVERHEAD
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
PD	PROCESS DRAIN
PIV	POST INDICATOR VALVE
PNL	PANEL
PRV	PRESSURE RELIEF VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINYL CHLORIDE
RE:	REFERENCE, REFER
REINF	REINFORCEMENT
REQD	REQUIRED
RM	ROOM
SEC	SECTION
SF	SQUARE FEET
SHT	SHEET
SPEC	SPECIFICATIONS
SQ	SQUARE
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
SURF	SURFACE
SUSP	SUSPEND, SUSPENDED
T&B	TOP AND BOTTOM
THRU	THROUGH
T/	TOP OF
(TYP)	TYPICAL
U/F	UNDER FLOOR
U/G	UNDER GROUND
U/S	UNDER SLAB
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
V	VOLT, VALVE
VA	VOLT-AMPERE
VERT	VERTICAL
W	WATT, WIRE, WIDTH, WINDOW, WATER
W/	WITH
W/O	WITHOUT
WS	WATERSTOP
WT	WATERTIGHT, WEIGHT
XMFR	TRANSFORMER

GENERAL SHEET NOTE

ALL GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL DRAWINGS IN THIS SET UNLESS OTHERWISE NOTED PER DISCIPLINE. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

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REGISTRATION NO.
ECA500



REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

GENERAL CONVENTIONS AND ABBREVIATIONS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: MJS
DRAWN BY: SJB
CHECKED BY: LIT

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
01-G003

SHEET NUMBER 03

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

GENERAL CIVIL NOTES

1. SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR SAFETY, MEANS, OR METHODS OF THE CONTRACTOR.
2. CONTACT STATE 811 - KNOW WHAT'S BELOW - CALL BEFORE YOU DIG. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL APPROPRIATE AGENCIES BEFORE WORK COMMENCES TO VERIFY THE TYPE, LOCATION, PROTECTION REQUIREMENTS, DEPTH OF ALL EXISTING UTILITIES, DRAINAGE FACILITIES, AND OTHER OBSTRUCTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIRING AND/OR REPLACING ANY SUCH ITEMS DAMAGED DURING CONSTRUCTION.
3. CAUTION: UNDERGROUND UTILITIES SHOWN ARE TAKEN FROM EXISTING RECORDS AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL CONTACT ALL UTILITY OWNERS AND CONFIRM LOCATIONS OF UTILITIES AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL ACCURATELY LOCATE AND UNCOVER ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. WHERE CROSSING OF EXISTING UTILITIES OCCUR, MEET THE STATE OF ALABAMA REQUIREMENTS FOR SEPARATION BETWEEN WATER AND WASTEWATER PIPES.
4. SEWER AND WATER SERVICE SHALL BE MAINTAINED DURING ENTIRE CONSTRUCTION PERIOD OR TEMPORARY FACILITIES PROVIDED.
5. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING ACTIVITIES AND ASSOCIATED PERMITS REQUIRED FOR ALL EXCAVATIONS REQUIRED TO COMPLETE THE PROJECT. REFER TO SECTION 31.23.19 IN THE SPECIFICATIONS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE DRAINAGE AND COMPLIANCE WITH ALL GOVERNMENTAL STORMWATER REGULATIONS AND PERMITS (SWPPP) AS REQUIRED. CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (NOI) TO APPROPRIATE STATE BODY PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PERMITS REQUIRED FOR WORK WITHIN STREAMS.
7. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE TRAFFIC CONTROL AND SIGNAGE FOR THE DURATION OF PROJECT AS REQUIRED BY THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES -PART VI , AND/OR ALL OTHER APPLICABLE GUIDELINES OF ALDOT, COUNTY, CITY OR ANY OTHER AUTHORITIES HAVING JURISDICTION OVER THE PROJECT AREAS. ALL ROAD CLOSURE MUST BE APPROVED BY THE JURISDICTION AUTHORITY PRIOR TO ANY PUBLIC ROAD CLOSURES.
8. CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW TO RESIDENCES AND BUSINESSES WITH MINIMUM DISRUPTION OF ACCESS.
9. REFER TO SPECIFICATION 31.23.16 FOR EXCAVATION BACKFILL. REFER TO SPECIFICATION 31.23.23.16 FOR TRENCH BACKFILL.
10. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PAVING AND GRADING NOTES

1. ALL PAVING MATERIALS AND CONSTRUCTION SHALL MEET THE ALDOT STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. ANY PAVEMENT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
3. ANY DISTURBED AREAS NOT SPECIFICALLY DESIGNATED TO BE GRADED SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AND SHALL BE GRADED TO DRAIN AS APPROVED BY THE ENGINEER.
4. FINAL PAVEMENT SURFACES SHALL NOT BE PLACED UNTIL ALL MAJOR CONSTRUCTION ACTIVITIES HAVE CONCLUDED.
5. ANY CHANGES TO FINAL GRADE ELEVATIONS AS SHOWN ON THE PLANS SHALL BE APPROVED BY THE ENGINEER.
6. ALL ASPHALT AND CONCRETE PAVING REMOVED AND REPLACED SHALL BE NEAT FULL DEPTH SAW CUT.
7. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH SPECIFICATIONS AND CONTRACTOR IS RESPONSIBLE FOR ENSURING REVEGETATION IS ESTABLISHED.
8. CONTRACTOR SHALL ENSURE THE SITE DRAINS THROUGHOUT CONSTRUCTION. NO PONDING WATER SHALL BE ALLOWED.

YARD PIPING NOTES

1. MINIMUM COVER OVER PIPING SHALL BE 3'-0", MEASURED FROM FINISHED GRADE EXCEPT UNDER PAVEMENT, THE MINIMUM COVER OVER PIPING SHALL BE 4'-0".
2. IN GENERAL LAY PIPE TO UNIFORM GRADES BETWEEN THE ELEVATIONS SHOWN, UNLESS OTHERWISE APPROVED. IF EXISTING CONDITIONS PROHIBIT UNIFORM GRADES BETWEEN THE ELEVATIONS SHOWN, FIELD ADJUSTMENTS SHALL BE APPROVED BY ENGINEER.
3. ALL JOINTS SHALL BE WATERTIGHT AND TESTED PER SPECIFICATIONS.
4. CONTRACTOR SHALL LOCATE AND UNCOVER ALL CONNECTIONS TO EXISTING LINES, AND ANY POSSIBLE CONFLICTS WITH PROPOSED FACILITIES AND VERIFY LOCATION, ELEVATION, PIPE MATERIAL, AND PIPE O.D. PRIOR TO ANY CONSTRUCTION. DEVIATIONS THAT WARRANT CHANGES SHALL BE BROUGHT TO ATTENTION OF ENGINEER IMMEDIATELY. CRITICAL LOCATES IDENTIFIED ON THE PLANS SHALL BE SUBMITTED 14 DAYS AHEAD OF CONSTRUCTION.
5. CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING BURIED PIPING AND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGED UNDERGROUND FACILITIES AT THEIR OWN EXPENSE.
6. ANY PIPING SHOWN OR REQUIRED THAT IS NOT SPECIFICALLY DETAILED SHALL BE INSTALLED AS SHOWN OR REFERENCED WITH ALL FITTINGS AND VALVES AS REQUIRED TO PROVIDE A FUNCTIONAL PIPELINE. DEVIATIONS FROM THE PLAN SET SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND, IF APPROVED, RECORDED ON THE RECORD DRAWINGS.
7. ALL BURIED VALVES SHALL BE INSTALLED WITH VALVE BOX AS SPECIFIED.
8. ALL PIPELINE SHUTDOWNS SHALL BE COORDINATED WITH THE OWNER. A WRITTEN WORK PLAN SHALL BE PREPARED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AND OWNER A MINIMUM OF 24 HOURS PRIOR TO ANY SHUTDOWNS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF DEMOLISHED PIPE INCLUDING FITTINGS AND VALVES, MANHOLES, AND ANY EXCESS MATERIALS RESULTING FROM THE WORK. ANY SALVAGE ITEMS MUST BE COORDINATED WITH OWNER.
10. WHERE BYPASS PUMPING IS REQUIRED DURING THE PROJECT, PUMPING SHALL BE HELD TO A MINIMUM. ROUND-THE-CLOCK BYPASS PUMPING IS NOT ALLOWED WITHOUT WRITTEN CONSENT FROM OWNER. AT END OF EACH DAYLIGHT CONSTRUCTION PERIOD, EXISTING WATER WILL BE TEMPORARILY ROUTED TO NEW OR EXISTING PIPES WITH FITTINGS, PIPE, HOSE, OR OTHER APPURTENANCES AS REQUIRED AND DITCH LINES SHALL BE BACKFILLED TO EXISTING GRADE. COST OF THIS WORK SHALL BE INCLUDED IN PIPE INSTALLATION UNLESS LISTED AS A SEPARATE BID ITEM.
11. CONTRACTOR SHALL PREVENT STORMWATER AND DEBRIS FROM ENTERING PIPES AND MANHOLES AT ALL TIMES. ALL PIPES AND MANHOLES SHALL BE SECURELY PLUGGED AT THE END OF EACH DAY.
12. AS-BUILT DRAWINGS SHALL BE MAINTAINED IN ACCORDANCE WITH SPECIFICATIONS. CONTRACTOR SHALL RECORD AND PROVIDE HORIZONTAL AND VERTICAL LOCATION INFORMATION FOR PIPING, VALVES, AND FITTINGS WHERE INSTALLATION VARIES FROM CONSTRUCTION DRAWINGS.
13. ALL STREETS AND DRIVEWAYS SHALL BE OPEN CUT UNLESS NOTED OTHERWISE. CONTRACTOR MAY REQUEST HORIZONTAL DIRECTIONAL DRILLING ON A CASE-BY-CASE BASIS.

ABBREVIATIONS

ABBREV	DESCRIPTION
ABDN	ABANDON
AC	ACRE
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
ASPH	ASPHALT
ASSY	ASSEMBLY
BC	BACK OF CURB
BLDG	BUILDING
BLK	BLOCK
BM	BENCHMARK
B, BOT	BOTTOM
BOP	BEGINNING OF PAVEMENT
BTW	BEGIN TOP OF WALL
BVCS	BEGINNING OF VERTICAL CURVE STATION
C	CONDUIT
CI	CAST IRON
CJ	CONSTRUCTION JOINT
CL	CENTERLINE, CLASS
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CP	CONTROL POINT
CPB	CHEMICAL PULL BOX
CSL	CHEMICAL SAMPLE LINE, CHLORINE SOLUTION
DA	DRAINAGE AREA
DB	DUCT BANK
DI	DUCTILE IRON
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
EA	EACH
EOC	EDGE OF CONCRETE
EFF	EFFLUENT
EOG	EDGE OF GRAVEL
EG	EXISTING GRADE
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
EPB	ELECTRICAL PULL BOX
ESMT	EASEMENT
ETW	END TOP OF WALL
EVCS	END OF VERTICAL CURVE STATION
EQ	EQUAL
EW	EACH WAY
EXIST.	EXISTING
EXP	EXPANSION
FCJ	FLOOR CONSTRUCTION JOINT
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FG	FINISHED GRADE
FL	FLOWLINE
FLG	FLANGED
FRP	FIBERGLASS REINFORCED PIPE
FT	FEET, FOOT
FTG	FOOTING
G	GUTTER
GL	GAS LINE
GR	GRADE
GV	GATE VALVE
HDWL	HEADWALL
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HWY	HIGHWAY
ID	INSIDE DIAMETER
IN	INCHES
INF	INFLUENT
INV	INVERT
JT	JOINT
LEN	LENGTH
LF	LINEAR FEET
LFG	LEFT FINISHED GRADE
LG	LONG
LIN	LINEAL, LINEAR
LOC	LOCATION
LT	LEFT
MANUF	MANUFACTURER
MAX	MAXIMUM
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NE	NORTHEAST
NG	NATURAL GAS
NW	NORTHWEST
NIC	NOT IN CONTRACT
NO,#	NUMBER
NOI	NOTICE OF INTENT
NTS	NOT TO SCALE
NWSL	NORMAL WATER SURFACE LEVEL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OVF	OVERFLOW
PC	POINT OF CURVE
PD	PROCESS DRAIN
PDMH	PROCESS DRAIN MANHOLE
PE	PLAIN END
PI	POINT OF INTERSECTION
PL, PLS	PLATE, PLACES
PO	PUSH ON
PP	POWER POLE
PPB	POWER PULL BOX
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT, POINT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R, RAD	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RED	REDUCER
REINF	REINFORCEMENT
REQD	REQUIRED
RFG	RIGHT FINISHED GRADE
RJ	RESTRAINED JOINT
ROW, R/W	RIGHT-OF-WAY
RP	RADIUS POINT
RS	RESILIENT SEAT
RT	RIGHT
S	SOUTH, SLUDGE
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SE	SOUTHEAST
SECT	SECTION
SF	SQUARE FEET, SILT FENCE
SHT	SHEET
SL	SAMPLE LINE
SPC	STANDARD PROCTOR DENSITY
SPEC	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER
SSL	SANITARY SEWER SERVICE LINE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SURV LOC	SURVEY LOCATED
SW	SIDEWALK, SOUTHWEST
T&B	TOP AND BOTTOM
TBM	TEMPORARY BENCHMARK
TOC	TOP OF CURB
TEMP	TEMPORARY, TEMPERED
THK	THICKNESS
TOS	TOP OF SIDEWALK/SLAB
TS&V	TAPPING SLEEVE & VALVE
TOW	TOP OF WALL
TYP	TYPICAL
UNK	UNKNOWN
UNO	UNLESS NOTED OTHERWISE
V	VOLT, VALVE
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
VT	VENTILATOR
W	WIDTH, WATER
W/	WITH
W/O	WITHOUT
WL	WATER LINE
WSL	WATER SERVICE LINE
WS	WATERSTOP
WTM	WATER TRANSMISSION MAIN
WWF	WELDED WIRE FABRIC
X	BY

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REGISTRATION NO.
ECA500

LICENSED No. 56665 PROFESSIONAL ENGINEER KIRK JOHNSON

Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

CIVIL NOTES AND LEGEND 1

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G004

SHEET NUMBER 04

File: C:\Users\MDGuthrie\DC\ACCDocs\Garver Engineers\W10-2402007 - MAWSS CC Williams Odor Control System\Project Files\Garver\Civil\MAWSSCC-01-G004-G005-GN.dwg Last Save: 6/25/2026 12:42 PM Last saved by: OGarcia
Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:19 AM Plotter used: None

LINETYPES

LINETYPE	DESCRIPTION
C	COMMUNICATION
CATV	CABLE TV
	EASEMENT LINE
X	FENCE
F	FIRE LINE
FP	FLOODPLAIN
FW	FLOODWAY
	FLOWLINE
FM	FORCE MAIN
G	GAS LINE
	GUARDRAIL/MASONRY FENCE
	HANDRAIL
LOC	LIMITS OF CONSTRUCTION
LOD	LIMITS OF DISTURBANCE
NG	NATURAL GAS
OHE	OVERHEAD ELECTRIC
E	OVERHEAD ELECTRICAL TRANSMISSION
PD	PROCESS DRAIN
PL	PROPERTY LINE
R/W	RIGHT-OF-WAY
SS	SANITARY SEWER
SSL	SEWER SERVICE LINE
SD	STORM DRAIN
SF	SILT FENCE
TOB	TOP OF BANK
TOS	TOE OF SLOPE
	TREE LINE
UGTV	UNDERGROUND CABLE TV
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UGT(FO)	UNDERGROUND FIBER OPTIC TELEPHONE
	WATER EDGE
W	WATER LINE
WSL	WATER SERVICE LINE
W1	POTABLE WATER
W2	NON-POTABLE WATER
(A)	INDICATES ABANDONED LINE
12"	12" INDICATES SIZE OF LINE
	EXISTING ELECTRICAL DUCT BANK
	EXISTING PIPE TO BE ABANDONED
	EXISTING PIPE TO BE DEMOLISHED
1300	EXISTING CONTOURS
1300	PROPOSED CONTOURS
	PROPOSED ELECTRICAL DUCT BANK
	FUTURE BUILDINGS / PIPING

CIVIL LEGEND

SYMBOL	DESCRIPTION
	AREA INLET
	BENCHMARK/GEOTECHNICAL BORE
	BOLLARD
	CATCH BASIN/JUNCTION BOX
CO	CLEANOUT
	CONCRETE HEADWALL
101	CONTROL POINT
	CURB INLET SEDIMENT FILTER
	DOUBLE COMBINATION INLET
EB	ELECTRIC BOX/PULL BOX
EDM	ELECTRIC DUCT MARKER
EHH	ELECTRIC HANDHOLE
EMH	ELECTRIC MANHOLE
EM	ELECTRIC METER
	EXTENDED THROAT CURB INLET
FOC	FIBER OPTIC BOX
FOC	FIBER OPTIC CABLE RISER/PEDESTAL
FOMH	FIBER OPTIC MANHOLE
	FIRE HYDRANT
	FLAGPOLE
	FLARED END SECTION (FES)
GM	GAS METER
	GAS REGULATOR
	GRATED INLET
	GUY WIRE ANCHOR
ICV	IRRIGATION CONTROL VALVE
LIFT STA	LIFT STATION
	LIGHT POLE
MH	MANHOLE
	MAILBOX
MW	MONITORING WELL
PD	PROCESS DRAIN MANHOLE
	PROPERTY PIN
PULL BOX	PULL BOX
PUMP STATION	PUMP STATION
RAILROAD SWITCH BOX	RAILROAD SWITCH BOX
	RIPRAP
R/W	RIGHT-OF-WAY MARKER
	ROCK DITCH CHECK
SS	SANITARY SEWER MANHOLE
	SATELLITE DISH

CIVIL LEGEND (CONT'D)

SYMBOL	DESCRIPTION
SEPTIC TANK	SEPTIC TANK
	SIGN
	SLOPE DIRECTION INDICATOR
	SPRINKLER HEAD
	STANDARD CURB INLET
SD	STORM DRAIN MANHOLE
	SUMP INLET SEDIMENT FILTER
	SURVEY CONTROL POINT
TELE	TELEPHONE JUNCTION BOX
TELE MH	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
CABLE	TELEVISION PEDESTAL
TRAFFIC CONTROL BOX	TRAFFIC CONTROL BOX
TRANSFORMER	TRANSFORMER
	UTILITY POLE
	VALVE
VC	VALVE COVER
	VENT
WM	WATER METER
WELL	WELL
	WINDSOCK
	YARD HYDRANT/SPIGOT
	SHRUB/BUSH
	DEMOLISH TREE
0"-6" DIA	TREE
0"- 6" DIA	EVERGREEN TREE
	DEMOLISH
	PROPOSED HEAVY DUTY ASPHALT
	EXISTING ASPHALT
	PROPOSED ASPHALT/ PAVEMENT REPAIR
	EXISTING CONCRETE PAVEMENT/SIDEWALK
	PROPOSED CONCRETE PAVEMENT
	PROPOSED HEAVY DUTY CONCRETE PAVEMENT
	EXISTING GRAVEL ROAD OR DRIVE
	PROPOSED GRAVEL ROAD OR DRIVE
	PROPOSED SIDEWALK
	STAGING AREA

CIVIL LEGEND NOTES:

1. GRAYSCALE LINETYPES AND SYMBOLS INDICATE EXISTING ITEMS. BOLD LINETYPES AND SYMBOLS INDICATE PROPOSED ITEMS.
2. SEE PROCESS AND INSTRUMENTATION DIAGRAM NOTES, LEGENDS, AND ABBREVIATIONS SHEET FOR VALVE SYMBOLS.
3. SEE PROCESS MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS SHEET FOR FLOW STREAM IDENTIFIERS.
4. SEE BUILDING MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS SHEET FOR PLAN PIPE SYMBOLS.
5. ADDITIONAL PROCESS LINES MAY BE DENOTED BY A LINETYPE WITH THE FLOW STREAM IDENTIFIER.
6. LINES OF 12 INCH DIAMETER OR GREATER ARE SHOWN AT NOMINAL DIAMETER. LINES LESS THAN 12 INCH DIAMETER ARE SHOWN AS A SINGLE LINE.
7. NUMBERS INCLUDED WITH FACILITY NAMES IN DRAWINGS ARE FACILITY NUMBERS AND REFER TO THE NUMBERED FACILITY WITHIN THE PLAN SET.

GENERAL IDENTIFICATION

LABEL	DESCRIPTION
R01 / 05-C201	ROAD PROFILE NUMBER 1 / DRAWING NUMBER
S01 / 05-C201	STORM DRAIN PROFILE NUMBER 1 / DRAWING NUMBER
P01 / 05-C301	PROCESS LINE PROFILE NUMBER 1 / DRAWING NUMBER
W01 / 05-C301	WATER LINE PROFILE NUMBER 1 / DRAWING NUMBER
U01 / 05-C301	UTILITY PROFILE NUMBER 1 / DRAWING NUMBER
G01 / 05-C301	GAS LINE PROFILE NUMBER 1 / DRAWING NUMBER
C01 / 05-C301	CHEMICAL LINE PROFILE NUMBER 1 / DRAWING NUMBER
E01 / 05-E201	ELECTRICAL DUCT BANK PROFILE NUMBER 1 / DRAWING NUMBER
1 / 05-C501	DETAIL NUMBER / DRAWING NUMBER
D33 / 3923-003	DIVISION NUMBER / DETAIL NUMBER

1-01
- APPURTENANCE SEQUENCE NUMBER
- PROFILE NUMBER 1

CPB-C01-01
- PULL BOX SEQUENCE NUMBER
- CHEMICAL LINE PROFILE NUMBER 1
- CHEMICAL PULL BOX

P01-01
- APPURTENANCE SEQUENCE NUMBER
- PROCESS LINE PROFILE NUMBER 1

S01-01
- APPURTENANCE SEQUENCE NUMBER
- STORM DRAIN LINE PROFILE NUMBER 1

SDMH-S01-01
- STRUCTURE SEQUENCE NUMBER
- STORM DRAIN LINE PROFILE NUMBER 1
- STORM DRAIN MANHOLE STRUCTURE

SSMH-U01-01
- STRUCTURE SEQUENCE NUMBER
- UTILITY PROFILE NUMBER 1
- SANITARY SEWER MANHOLE STRUCTURE

U01-01
- APPURTENANCE SEQUENCE NUMBER
- UTILITY LINE PROFILE NUMBER 1

APPURTENANCE SYMBOLS

PROFILE	DESCRIPTION
	AIR RELEASE VALVE
	BALL VALVE
	BLOW-OFF VALVE
	BUTTERFLY VALVE
	CLEANOUT/WATER METER
	FIRE HYDRANT ASSEMBLY
	GATE VALVE
	PLUG VALVE

GENERAL CONVENTIONS

SYMBOL	DESCRIPTION
1 / 05-C501	CALLOUT DENOTES A CIVIL DETAIL REFERENCE (THIS EXAMPLE IS DETAIL 1 ON DRAWING NUMBER 05-C501)
D33 / 3923-003	CALLOUT DENOTES A STANDARD DETAIL REFERENCE
1	CALLOUT DENOTES A KEYNOTE REFERENCE
1	COORDINATE CALLOUT
FG - 1300.00	SPOT ELEVATION (SEE ABBREVIATIONS FOR SPOT ELEVATION DESIGNATIONS)
CAUTION! EXIST. XXX	CAUTION CALLOUT
1	CLOUDED REGION INDICATES A REVISED AREA
1 / 05-C501 TITLE SCALE: NONE	TITLE DENOTES A CIVIL DETAIL (THIS EXAMPLE IS DETAIL 1 ON DRAWING NUMBER 05-C501)
1 / 05-C305 | 05-C310 TITLE SCALE: NONE	TITLE DENOTES A CIVIL PROFILE AND PLAN VIEW LAYOUT (THIS EXAMPLE IS PROFILE NUMBER 1 ON DRAWING NUMBER 05-C310 WHICH HAS A BACK REFERENCE TO THE PLAN VIEW LAYOUT ON DRAWING NUMBER 05-C305)
1 / 05-C205 | 05-C210	CALLOUT DENOTES A CUT SECTION TYPICAL REFERENCE (THIS EXAMPLE OCCURS ON DRAWING NUMBER 05-C205 REFERENCING SECTION NUMBER 1 ON DRAWING NUMBER 05-C210)
N	SYMBOL INDICATES NORTH DIRECTION
0 10' 20' 40' 60' (IN FEET)	SYMBOL INDICATES A GRAPHICAL BAR SCALE

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REGISTRATION NO. ECA500

LICENSED PROFESSIONAL ENGINEER No. 56665 STATE OF ALABAMA KIRK JOHNSON

Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

CIVIL NOTES AND LEGEND 2

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER 01-G005

SHEET NUMBER 05

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:19 AM Plotter used: None

EQUIPMENT

SYMBOL	DESCRIPTION
M	ELECTRIC MOTOR
V	VARIABLE SPEED DRIVE
RV SS	REDUCED VOLTAGE SOFT STARTER
FV NR	FULL VOLTAGE NON-REVERSING STARTER
FV R	FULL VOLTAGE REVERSING STARTER
CAS	SUBMERSIBLE PUMP CONTROL AND STATUS MODULE
OIT	OPERATOR INTERFACE TERMINAL
GDT	GRAPHIC DISPLAY TERMINAL (VFD)
G	ELECTRIC GENERATOR
	HYDRAULIC MOTOR
	AIR MOTOR
	SHAFT
	COUPLING
	DYNAMIC PUMP
	SCREW PUMP OR CONVEYOR
	DYNAMIC COMPRESSOR
	POSITIVE DISPLACEMENT PUMP
	POSITIVE DISPLACEMENT COMPRESSOR
	EDUCTOR/EJECTOR
	HEATER, GENERAL
	HEATER W/FAN (INDUCED DRAFT)
	HEATER W/FAN (FORCED DRAFT)
	HEAT EXCHANGER, GENERAL
	HYDRAULIC CYLINDER
	AIR CYLINDER
	MIXER

SIGNAL CONDITIONERS

SYMBOL	DESCRIPTION
A/D	ANALOG TO DIGITAL
D/A	DIGITAL TO ANALOG
I/P	CURRENT TO PRESSURE
P/I	PRESSURE TO CURRENT
F/I	FREQUENCY TO CURRENT
I/I	CURRENT BOOST/ REPEATER
Σ	SUM
Δ	DIFFERENCE
√	SQUARE ROOT
F(X)	CHARACTERIZATION
∫	INTEGRATION

ACCESSORIES AND APPURTENANCES

SYMBOL	DESCRIPTION
	UNION
	PLUG
	BLIND FLANGE
	HOSE CONNECTION
	SPRAY NOZZLE/DIFFUSER
	DRAIN
	FLEXIBLE CONNECTION, GENERAL
	FLEXIBLE HOSE
	QUICK CONNECTOR
1"	THREADED TAP
	FILTER
	'Y' TYPE STRAINER
	STRAINER
	EXPANSION JOINT
FCO	FLOOR CLEANOUT
P	GAUGE P = PRESSURE V = VACUUM T = TEMPERATURE DP = PRESSURE DIFFERENTIAL
	SILENCER

DAMPER ACTUATOR SYMBOLS

SYMBOL	DESCRIPTION
M	MOTORIZED DAMPER
	MANUAL DAMPER

VALVES

SYMBOL	DESCRIPTION
	CHECK VALVE
	GATE VALVE
	BUTTERFLY VALVE
	BALL CHECK
	BALL VALVE
	PLUG VALVE
	NEEDLE VALVE
	ROTARY VALVE
	KNIFE GATE VALVE
	MUD VALVE
	PINCH VALVE
	THREE-WAY VALVE
	FOUR-WAY VALVE
	GLOBE VALVE
	CHARACTERIZED OR VEE-BALL VALVE
	STOP CHECK VALVE
	DIAPHRAGM VALVE (SELF CONTAINED)
	AIR RELIEF
	PRESSURE CONTROL
	BACK PRESSURE REGULATOR
	PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	PRESSURE/VACUUM RELIEF VALVE
	STOP GATE
	SLIDE GATE
	HOSE VALVE (HV-X) OR (V-X) X = NO. IN SPECS
S	SAMPLE
	TELESCOPING VALVE
F	FLAME ARRESTOR

VALVE OPERATORS

SYMBOL	DESCRIPTION
	HAND OPERATOR
	HAND OPERATOR (LONG)
	CHAIN OPERATOR
F	FLOAT OPERATOR
	AIR DIAPHRAGM OPERATOR
	POSITIONER
S	SOLENOID OPERATOR
	CYLINDER OPERATOR
	PRESSURE BALANCED DIAPHRAGM OPERATOR
M	MOTOR OPERATOR
D	DIGITAL OPERATOR
E/H	ELECTRO-HYDRAULIC OPERATOR
	FAIL ARROWS INDICATE OPEN PORTS
	LIMIT SWITCH
M	MOTOR OPERATOR WITH INTEGRAL CONTROL DEVICES

DIGITAL SYSTEM INTERFACES

SYMBOL	DESCRIPTION
▲	ANALOG INPUT
▼	ANALOG OUTPUT
△	DISCRETE INPUT
▽	DISCRETE OUTPUT

INSTRUMENTS OR FUNCTIONS

SYMBOL	DESCRIPTION
	HMI SCREEN DISPLAY ELEMENT
	PANEL MOUNTED DEVICE
	FIELD DEVICE

INSTRUMENT PRIMARY ELEMENTS

SYMBOL	DESCRIPTION
	THREADED TAP
	THERMOWELL
	WEIR
	SIGHT FLOW INDICATOR
	ROTAMETER
	CALIBRATION COLUMN
	FLOW ORIFICE
	FLOW ORIFICE IN QUICK CHANGE FITTING
	SINGLE PORT PITOT
	AVERAGING PITOT STATION
	VENTURI TUBE
	FLUME
	POSITIVE DISPLACEMENT FLOWMETER
MASS	MASS FLOWMETER
	SONIC FLOWMETER
M	MAGNETIC FLOWMETER
M	INSERTION MAGNETIC FLOWMETER
	PH ELECTRODE ASSEMBLY
P	SUBMERSIBLE PRESSURE SENSOR
	ULTRASONIC LEVEL TRANSMITTER
R	RADAR LEVEL TRANSMITTER
	CONDUCTIVITY LEVEL PROBE
	FLOAT SWITCH
	TURBINE ELEMENT
	VORTEX SENSOR
	TARGET ELEMENT
	WATER HAMMER ARRESTER

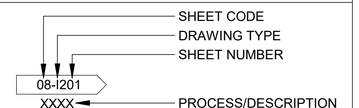
AUX INSTRUMENTS OR FUNCTIONS

SYMBOL	DESCRIPTION
	TEST POINT, TERMINAL BLOCK WITH SLIDING LINK AND MINI-BANANA SOCKETS
P	PURGE OR FLUSHING DEVICE
I	INTERLOCK LOGIC WITH REFERENCE
	ANNULAR SEAL
	DIAPHRAGM SEAL
R	RESET FOR LATCH TYPE OPERATOR
+ - / PS	LOOP POWER SUPPLY

GENERAL IDENTIFICATION

SYMBOL	DESCRIPTION
20LP1	EQUIPMENT TAG

SHEET INTERFACE



NON-SHEET INTERFACE



EQUIPMENT LINE TYPES

LINE	DESCRIPTION
	PROPOSED OR NEW EQUIPMENT
	EXISTING EQUIPMENT
	FUTURE CONSTRUCTION NEW ELEMENT

PIPING LINE TYPES

LINE	DESCRIPTION
	PROCESS LINE - PRIMARY
	PROCESS LINE - SECONDARY
	PROCESS LINE - EXISTING
	PACKAGE BOUNDARY
	AREA/BUILDING BOUNDARY
	SHOWN ELSEWHERE
// // //	AIR

PIPING, MISCELLANEOUS

SYMBOL	DESCRIPTION
	SLOPE ARROW, ARROW DIRECTION DOWN
	OUTSIDE GRADE LEVEL
ST	LINE HEAT TRACED AND INSULATED ST = STEAM TRACED ET = ELECTRIC TRACED

INSTRUMENT LINE TYPES

LINE	DESCRIPTION
	PROCESS CONNECTION
	UNDEFINED SIGNAL
// // //	PNEUMATIC SIGNAL
	ELECTRIC SIGNAL
L L L	HYDRAULIC SIGNAL
X X X	CAPILLARY OR FILLED TUBE
	ELECTROMAGNETIC OR SONIC SIGNAL (GUIDED)
	ELECTROMAGNETIC OR SONIC SIGNAL (UNGUIDED)
	INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)
	MECHANICAL LINK

MEANING OF FUNCTIONAL INSTRUMENT IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER CHOICE	USER CHOICE	USER CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO(FRACTION)			
G	GAUGING(DIMENSIONAL)		GLASS		
H	HAND(MANUALLY INITIATED)				HIGH
I	CURRENT(ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME-SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT(PILOT)		LOW
M	MOTION	MOMENTARY			MIDDLE OR INTERMEDIATE
N	USER CHOICE		USER CHOICE	USER CHOICE	USER CHOICE
O	USER CHOICE		ORIFICE(RESTRICTION)		
P	PRESSURE OR VACUUM		POINT(TEST POINT)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIATION		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNC.	MULTIFUNCTION
V	VIBRATION OR MECHANICAL ANALYSIS			VALVE, DAMPER, OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

EQUIPMENT AND INSTRUMENTATION TAGGING

AABCCCDEX

CODE	DESCRIPTION	RANGE	COMMENT
AA	FACILITY NUMBER	01 - 99	FACILITY LOCATION OR EQUIPMENT
B	UNIT PROCESS NUMBER	1 - 9	OPTIONAL IDENTIFIER USED TO DIFFERENTIATE MULTIPLE UNIT PROCESSES WITHIN A SINGLE FACILITY
CCC	EQUIPMENT ABBREVIATION / INSTRUMENT IDENTIFICATION	A - ZZZ	ONE TO THREE LETER ABBREVIATION
D	TRAIN OR BRANCH NUMBER	0 - 9	0 USED FOR EQUIPMENT COMMON TO AN ENTIRE UNIT PROCESS 1-9 USED FOR EACH TRAIN/BRANCH WITHIN UNIT PROCESS
EE	SEQUENTIAL NUMBER IDENTIFIER	01 - 99	OPTIONAL IDENTIFIER IF NEEDED WHEN MULTIPLE EQUIPMENT WITHIN SAME TRAIN/BRANCH
X	ALPHABETIC IDENTIFIER	A - Z	OPTIONAL IDENTIFIER WHEN NEEDED FOR FURTHER DIFFERENTIATION

INSTRUMENT POWER SUPPLY

120 PSIG IA - POWER SUPPLY, TYPE AND LEVEL SHOWN, ABBREVIATIONS AS FOLLOWS:
AS - AIR SUPPLY
IA - INSTRUMENT AIR
PA - PLANT AIR
ES - ELECTRIC SUPPLY
GS - GAS SUPPLY

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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROCESS & INSTRUMENTATION DIAGRAM NOTES, LEGENDS, AND ABBREVIATIONS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JCW
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G006

SHEET NUMBER 06

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

GENERAL NOTES:

1. GENERAL NOTES SHALL APPLY TO THE ENTIRE PROJECT UNLESS NOTED OTHERWISE ON SPECIFIC STRUCTURAL DRAWINGS, STANDARD DETAILS, OR IN THE SPECIFICATIONS.

2. ADOPTED BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE (IBC) W/ STATE AND LOCAL AMENDMENTS.

3. PROJECT RISK CATEGORY---------- III

4. DESIGN LIVE LOADS
   - ROOF WITHOUT REDUCTION---------- 20 PSF
   - FLOORS:
   - CORRIDORS---------- 100 PSF
   - STAIRS/PLATFORMS---------- 100 PSF
   - HEADWORKS---------- 100 PSF
   - ODOR CONTROL SLAB---------- 250 PSF
   - AREAS WITH UNRESTRICTED VEHICULAR ACCESS------ AASHTO HS-20

5. WIND LOAD PARAMETERS ---------- ASCE 7-16
   - BASIC WIND SPEED---------- 179 MPH (RISK CATEGORY IV)
     - EXPOSURE CATEGORY---------- C
     - GCPI +/- 0.18 (ENCLOSED BUILDINGS)

6. SEISMIC DESIGN PARAMETERS ---------- ASCE 7-16
   - IMPORTANCE FACTOR, I_e---------- 1.25
   - SITE CLASS---------- E
     - SEISMIC SPECTRAL ACCELERATIONS
     - S_S ---------- 0.093 G
     - S_1 ---------- 0.060 G
     - SEISMIC DESIGN CATEGORY---------- C
     - DESIGN SPECTRAL ACCELERATIONS
     - S_{DS} ---------- 0.149 G
     - S_{D1} ---------- 0.167 G
     - ADDITIONAL CRITERIA---------- SEE FACILITY PLANS
     -

7. RAIN LOAD PARAMETERS ---------- 2021 IBC
   - 15 MIN RAIN INTENSITY ---------- 9.90 IN/HR

8. SNOW LOADS PARAMETERS ---------- ASCE 7-16
   - GROUND SNOW LOAD, P_g ---------- 0 PSF
   -

9. FLOOD DESIGN PARAMETERS ---------- ASCE 24-14
   - FLOOD DESIGN CLASS ---------- 3
   - ELEVATION OF LOWEST FLOOR ---------- N/A
   -

10. FROST DEPTH ---------- 12 IN

11. THE STRUCTURE SHOULD NOT BE CONSIDERED TO BE STABLE DURING CONSTRUCTION UNTIL ALL ELEMENTS ARE IN PLACE AND CONNECTED. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING ALL TEMPORARY CONSTRUCTION BRACING, AS REQUIRED.

12. CONSTRUCTION METHODS, PROCEDURES, AND SEQUENCES ARE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL TAKE THE ALL NECESSARY MEANS TO MAINTAIN AND PROTECT THE STRUCTURAL INTEGRITY OF ALL CONSTRUCTION, NEW AND EXISTING, AT ALL STAGES.

13. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO ANY PERTINENT WORK. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE NOTED ON THE SHOP DRAWINGS.

14. COORDINATE WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, STRUCTURAL, AND ELECTRICAL DRAWINGS, AND VERIFY THE LOCATIONS AND SIZES OF THE CHASES, OPENING, INSERTS, SLEEVES, FINISHES, CONDUITS, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS.

15. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE DRAWINGS AND EXISTING CONDITIONS TO DETERMINE WHERE OPENINGS ARE REQUIRED IN WALLS AND SLABS.

16. STANDARD DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SIMILAR SITUATIONS THROUGHOUT THE PROJECT UNLESS NOTED OTHERWISE ON SPECIFIC STRUCTURAL DRAWINGS.

17. ALL REFERENCED CODES AND STANDARDS SHALL BE THE EDITION INDICATED IN CHAPTER 35 OF THE BUILDING CODE ADOPTED BY THE AHJ (SEE NOTE 2) UNO.

STRUCTURAL ALUMINUM NOTES

1. UNLESS OTHERWISE SPECIFIED, ALUMINUM PLATE AND SHEET: ASTM 209, ALLOY 5052-H32; ALUMINUM EXTRUSIONS: ASTM B 221, ALLOY 6061-T6/6005A-T61; ALUMINUM-ALLOY ROLLED TREAD PLATE: ASTM B 632, ALLOY 6061-T6.

2. UNLESS OTHERWISE STATED, PROVIDE TYPE 316 STAINLESS STEEL FASTENERS FOR FASTENING ALUMINUM.

3. COAT CONCEALED SURFACES OF ALUMINUM THAT WILL COME INTO CONTACT WITH GROUT, CONCRETE, MASONRY, WOOD, OR DISSIMILAR METALS WITH A HEAVY COAT OF BITUMINOUS PAINT.

4. WELDING SHALL CONFORM TO AWS D1.2, "STRUCTURAL WELDING CODE - ALUMINUM".

5. ALL ANCHOR RODS FOR STRUCTURAL ALUMINUM FRAMING SHALL BE TYPE 316 UNO.

6. PROVIDE MINIMUM 3/8" THICK CLOSURE PLATES AT TNEDS OF ALL HOLLOW STRUCTURAL STEEL SECTIONS UNLESS SPECIFICALLY DETAILED WITH A CAP OR BASE PLATE. CLOSURE PLATS SHALL MATCH THE INSIDE DIMENSION OF THE HOLLOW SECTION AND BE WELDED ALL AROUND WITH A GROOVE WELD.

METAL GRATINGS, PLATES, AND FLOOR PLATE NOTES:

1. SEE DRAWINGS FOR MATERIAL DESIGNATION OF ALL GRATING, CHECKER PLATE, PLANK, AND HATCHES.

2. ALL CHECKERED PLATE AND PLANKS INCLUDING ALL SUPPORT MEMBERS, REINFORCING RIBS STIFFENERS, EDGE MEMBERS, EDGE SUPPORTS, CORNER AND/OR INTERSECTION SUPPORTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE WORK AND PROVIDED BY THE MANUFACTURER. SUCH DESIGN FOR PLANK AND/OR CHECKERED PLATE COVERING, INCLUDING ALL SUPPORTS AND INTEGRAL MEMBERS SHALL BE FOR THE ACTUAL DEAD LOAD AND A UNIFORM LIVE LOAD AS INDICATED IN PROJECT SPECIFICATIONS OR THE UNIFORM LIVE LOAD OF THE ADJACENT FLOOR, WHICHEVER LOADS PRODUCES THE GREATER EFFECT, WITH TOTAL LOAD DEFLECTION LIMITED AS INDICATED IN PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT THE DESIGN OF THE PLANK AND/OR CHECKERED PLATE, INCLUDING ALL SUPPORTS AND INTEGRAL MEMBERS COMPLETE WITH DETAILS AND CALCULATIONS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF THE PLANK AND/OR CHECKERED PLATE.

3. ALL ENDS AND OPENINGS SHALL BE BANDED.

4. SEE D05/5300-901 FOR TYPICAL SUPPORT AND ATTACHMENT OF ALUMINUM GRATING.

5. THE WEIGHT OF A GRATING, PLANK, OR CHECKERED PLATE SECTION SHALL NOT EXCEED 150 LBS.

6. ALUMINUM SURFACES IN CONTACT WITH CONCRETE GROUT OR DISSIMILAR METALS WILL BE PROTECTED WITH A COAT OF BITUMINOUS PAINT, MYLAR ISOLATES OR OTHER APPROVED MATERIAL.

7. SEE SPECIFICATION SECTION 05 53 00 FOR ADDITIONAL REQUIREMENTS AND LOADING CRITERIA.

EARTH WORK NOTES:

1. SITE PREPARATION SHALL INCLUDE REMOVAL OF ALL SURFICIAL VEGETATION, ROOT SYSTEMS, UTILITIES, AND EXISTING UNDERGROUND STRUCTURES FROM PLANNED FOUNDATION AREAS.

2. STRIPPING DEPTH SHALL BE DETERMINED BY FIELD OBSERVATION BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER, WITH PARTICULAR ATTENTION TO OLD DRAINAGE AREAS, PLOW DEPTHS, UNEVEN TOPOGRAPHY, AND EXCESSIVELY WET SOILS.

3. EXPOSED SUBGRADE SHALL BE PROOF ROLLED TO DETECT SOFT SPOTS OR PUMPING OF SUBGRADE AREAS. ANY DEFECTIVE AREAS SHALL BE CORRECTED AND MADE STABLE BEFORE CONSTRUCTION PROCEEDS.

4. PROOF ROLLING SHALL BE PERFORMED USING A HEAVY PNEUMATIC TIRED ROLLER, LOADED DUMP TRUCK, OR SIMILAR EQUIPMENT WEIGHING AT LEAST 25 TONS, UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER.

5. ALL EXPOSED FOUNDATION BEARING SURFACES, INCLUDING THE MODIFIED SUBGRADE SOILS, SHALL BE PROTECTED BY A 4-INCH-THICK SEAL SLAB OF LEAN CONCRETE IF THE BEARING SURFACE WILL REMAIN EXPOSED FOR MORE THAN 72 HOURS PRIOR TO PLACING OF CONCRETE.

6. EXCAVATION AT THIS SITE MAY ENCOUNTER GROUND WATER. DEWATERING OF EXCAVATION AND PROPER DRAINAGE OF THE EXCAVATION TO AVOID PONDING ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

7. SEE CIVIL NOTES AND LEGEND FOR OTHER EARTHWORK REQUIREMENTS.

DELEGATED STRUCTURAL DESIGN ITEMS:

1. PIPE AND TUBE RAILINGS.

2. METAL FLOOR PLATES.

3. FIBER REINFORCED PLASTIC (FRP) FIXTURES.

4. LADDERS.

5. RAMMED AGGREGATE PIERS (RAP)

6. PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS OR STANDARD DETAILS.

FOUNDATION NOTES:

1. SEE FACILITY PLANS FOR FOUNDATION SYSTEMS.

2. FLOOR SLAB CONSTRUCTION JOINTS (CJ) SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.

3. ALL CONCRETE CORNERS SHALL BE CHAMFERED 3/4" ON THE EXTERIOR EXPOSED CORNER.

4. COMPACTED GRANULAR FILL OR BASE COURSE ROCK SHALL BE PLACED AS INDICATED AND SPECIFIED.

5. ALL PIPING BENEATH SLABS SHALL BE CONCRETE ENCASED.

6. SEE FACILITY PLANS FOR SUBGRADE MODIFICATIONS.

GENERAL CONCRETE NOTES:

1. STRUCTURAL CONCRETE SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 5,000 PSI AT FACILITY 20 (HEADWORKS), AND 4,500 PSI AT ALL OTHER LOCATIONS, UNO. SEE SPECIFICATION SECTION 03 30 00 FOR MIX DESIGNS.

2. HOLD SLUMP TO 3 TO 4 INCHES IN ALL FLOOR SLABS.

3. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3/4".

4. NON-PRESTRESSED CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM A 615 GRADE 60.

5. REINFORCEMENT LAP SPLICES SHALL CONFORM TO D03/3000-100C.

6. CONCRETE COVER OVER REINFORCEMENT SHALL CONFORM TO THE MINIMUM REQUIRED BY D03/3000-101, UNO.

7. REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI SP-66.

8. NO REINFORCING BAR SHALL BE WELDED OR FIELD BENT IN ANY MANNER, UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.

9. DOWEL EMBEDMENT SHALL BE THE FULL DEVELOPMENT LENGTH OF THE BAR. IF NOT OTHERWISE SPECIFIED, DOWEL SIZE AND SPACING SHALL BE THE SAME AS MAIN REINFORCING.

10. MECHANICAL EQUIPMENT PADS ON FLOOR SLABS SHALL BE 6" THICK AND REINFORCED WITH #4 @ 12" EW, UNO.

11. WATERSTOP PIPE SLEEVES REQUIRED ON ALL WATERTIGHT WALLS AND FLOORS.

12. TREMIES REQUIRED ON ALL PLACEMENTS DEEPER THAN 5 FEET.

13. ALL WATERSTOPS TO BE RIBBED PVC, UNLESS NOTED OTHERWISE AS STRIP-TYPE . REFER TO DETAIL D03/3000-206 AND D03/3000-102B FOR WATERSTOP DETAILS.

14. WHEN WATERSTOP IS PLACED HORIZONTALLY IN SLABS, THE CONTRACTOR SHALL TEMPORARILY TIE UP OR CLAMP UP THE WATERSTOP UNTIL THE CONCRETE IS PLACED TO SLIGHTLY ABOVE THE DEPTH OF THE WATERSTOP.

15. VERTICAL WATERSTOP SHALL BE FULLY EMBEDDED IN SLAB POUR AND WELDED TO ALL ADJACENT WATERSTOP.

16. PROVIDE A MINIMUM OF SEVEN (7) DAYS CURE TIME BETWEEN ADJACENT POURS

17. CONTRACTOR SHALL SUBMIT TO ENGINEER FOR APPROVAL A SCHEDULE AND SEQUENCE OF CONCRETE PLACEMENT. SEQUENCE SHALL INCLUDE CURE TIME BETWEEN ADJACENT PLACEMENTS.

18. WALKWAYS AND SIDEWALKS SHALL BE PLACED WITH A SLIGHT SLOPE TO FREELY DRAIN WITH NO LOW SPOTS. ALL SLOPES SHALL COMPLY WITH ADA REQUIREMENTS.

19. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON THE SHOP DRAWINGS FOR REVIEW. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN WALLS AND BEAMS, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

20. POST INSTALLED ANCHORS SHALL NOT BE SUBSTITUTED FOR CAST IN ANCHORS UNLESS APPROVED BY ENGINEER.

21. USE MANUFACTURER'S CERTIFIED DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT ANCHORAGE AND DETAILS. VERIFY EQUIPMENT SIZE AND WEIGHTS WITH ENGINEER PRIOR TO CONSTRUCTION OF ANY AND ALL EQUIPMENT PADS.

GENERAL SHEET NOTE

ALL GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL DRAWINGS IN THIS SET UNLESS OTHERWISE NOTED PER DISCIPLINE. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

ABBREVIATIONS

AFC	ABOVE FINISH CEILING
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL/ARCHITECTURE
BFF	BELOW FINISH FLOOR
BM	BEAM
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CLG	CEILING
COL	COLUMN
DEMO	DEMOLISH/DEMOLITION
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ES	EACH SIDE
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR
FD	FLOOR DRAIN
FND	FOUNDATION FOOTING
FS	FAR SIDE
HT	HEIGHT
IJ	ISOLATION JOINT
INT	INTERIOR
KIP	1,000 POUNDS
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSL	LONG SLOT
MCJ	MASONRY CONTROL JOINT
MECH	MECHANICAL
NS	NEAR SIDE
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OPP	OPPOSITE HAND
OVS	OVERSIZED
PCF	POUNDS PER CUBIC FOOT
PFJ	PRE-FORMED JOINT
PJP	PARTIAL JOINT PENETRATION
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REF	REFERENCE
REINF	REINFORCEMENT
REV	REVISION
SIM	SIMILAR
SPEC	SPECIFICATIONS
SS	STAINLESS STEEL
SSL	SHORT SLOT
STL	STEEL
T&B	TOP AND BOTTOM
T/	TOP OF
T/BEAM	TOP OF BEAM
T/COLUMN	TOP OF COLUMN
T/CONC	TOP OF CONCRETE
T/FTG	TOP OF FOOTING
T/FND	TOP OF FOUNDATION
T/GRAT	TOP OF GRATING
T/JOIST	TOP OF JOIST
T/PAD	TOP OF PAD
T/PARAPET	TOP OF PARAPET
T/SLAB	TOP OF SLAB
T/STL	TOP OF STEEL
T/WALKWAY	TOP OF WALKWAY
T/WALL	TOP OF WALL
T/WEIR	TOP OF WEIR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCJ	VERTICAL CONSTRUCTION JOINT
VIF	VERIFY IN FIELD

STRUCTURAL ANNOTATIONS

℄	CENTERLINE
℉	FLANGE
ℊ	GRIDLINE
ℙ	PLATE
%	PERCENT
°	DEGREES
±	PLUS/MINUS
	WATERSTOP
	DIRECTION OF DECK SPAN / GRATING
	SLAB TRANSITION - RAMP
	SLAB TRANSITION - STEP

PHASE GRAPHICS

- EXISTING ELEMENTS
- NEW ELEMENTS
- EXISTING ELEMENTS TO BE REMOVED/DEMOLISHED
- FUTURE CONSTRUCTION NEW ELEMENT

GENERAL DRAWING SYMBOLS

- 1 — REVISION CLOUD AND NUMBER SHOWN ON PLANS
- POINT OF CONNECTION - NEW TO EXISTING
- DEMO TO POINT
- 1 — KEYED NOTE REFERENCE
- ROOM NAME / 101 / 150 SF — SYMBOL INDICATES A ROOM / AREA DESIGNATION, WITH ROOM NUMBER AND SQUARE FOOTAGE
- A — SYMBOL INDICATES A STRUCTURAL GRIDLINE OR DATUM
- 01-T/CONC / EL 271.00 — SYMBOL INDICATES A LEVEL DATUM IN A SECTION OR ELEVATION
- D00 / 0000-000 — CALLOUT DENOTES A STANDARD DETAIL REFERENCE.
  EXAMPLE: D03/0000-000
  SPECIFICATION DIVISION: 03
  SPECIFICATION SECTION: 0000
  DETAIL REFERENCE: 000
- REFER TO 1 / 01-S101 — CALLOUT DENOTES A VIEW REFERENCE ABOUT A MATCHLINE

STRUCTURAL TAGS

COMPOSITE BEAM TAG

W14X22 c = 3/4" (10)
- BEAM SHAPE
- BEAM SIZE
- CAMBER
- NUMBER OF STUDS

PIER TAG

PP / EL. 271.00
- PIER TYPE
- TOP OF PIER ELEVATION (FROM SURVEY POINT)

SPOT ELEVATION TAG

PLAN VIEW: TOC / EL 271.00
- SPOT ELEVATION ABBREVIATION/DESIGNATION
- ELEVATION OF TAGGED ELEMENT (FROM SURVEY POINT)

SECTION VIEW: TOC / EL 271.00
- SPOT ELEVATION ABBREVIATION/DESIGNATION
- ELEVATION OF TAGGED ELEMENT (FROM SURVEY POINT)

STRUCTURAL FRAMING TAG

AL C12X11.8
- FRAMING MATERIAL
- FRAMING SHAPE
- WEIGHT PER LENGTH (LB/FT)
- FRAMING NOMINAL HEIGHT

STRUCTURAL COLUMN TAG

HSS14X14X3/4
- COLUMN TYPE/SHAPE
- COLUMN WIDTH
- WALL THICKNESS
- COLUMN HEIGHT

STRUCTURAL REBAR TAG

#X @ DIM" EF
- REBAR SIZE
- SPACING DIMENSION/DISTANCE
- DESCRIPTION OF DIRECTION, FACE, OR ORIENTATION

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM — MAWSS — MOBILE AREA WATER & SEWER SYSTEM — MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

STRUCTURAL LEGEND & NOTES

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G007

SHEET NUMBER 07

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

SPECIAL INSPECTION

1. SPECIAL INSPECTION WILL BE IN ACCORDANCE WITH IBC SECTIONS 1704 TOGETHER WITH LOCAL AND STATE AMENDMENTS. REFER TO THE FOLLOWING TABLES PER PROJECT SPECIFIC INSPECTION TYPES AND FREQUENCIES.
2. SPECIAL INSPECTIONS WILL BE PROVIDED BY A CERTIFIED OR QUALIFIED INSPECTOR AND ASSOCIATED TESTING WILL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY. INSPECTORS FOR EACH SYSTEM AND MATERIAL WILL BE INTERNATIONAL CODE COUNCIL (ICC) CERTIFIED OR OTHERWISE APPROVED BY BUILDING OFFICIAL.
3. THE SPECIAL INSPECTOR WILL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS AND SUBMIT RECORDS OF INSPECTION. ALL DISCREPANCIES WILL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
4. SPECIAL INSPECTION AND ASSOCIATED TESTING REPORTS WILL BE SUBMITTED TO THE ENGINEER, CONTRACTOR, BUILDING OFFICIAL, AND OWNER WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION.
5. AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTIONS OF PREVIOUSLY NOTED DISCREPANCIES WILL BE SUBMITTED.
6. INSPECTIONS TO BE PERFORMED ON THIS PROJECT ARE MARKED WITH AN "X" IN THE "APPLICABLE TO PROJECT" ROW/COLUMN OF EACH TABLE. INSPECTIONS WHICH ARE NOT A PART OF THE SCOPE OF THIS PROJECT ARE MARKED "NA".

IBC
REQUIRED SPECIAL INSPECTIONS AND TEST OF CONCRETE CONSTRUCTION

APPLICABLE TO PROJECT	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REF.
X	1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1, 26.6.3	
	2. REINFORCING BAR WELDING:				
N/A	A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	-	X	AWS D1.4, ACI 318: 26.13.1.4	
N/A	B. INSPECT WELDING OF REINFORCEMENT FOR SPECIAL MOMENT FRAMES, BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS AND COUPLING BEAMS.	X	-	AWS D1.4, ACI 318: 26.13.3	
N/A	C. INSPECT WELDED REINFORCEMENT SPLICES.	X	-		
N/A	D. INSPECT WELDING OF PRIMARY TENSION REINFORCEMENT IN CORBELS.	X	-		
N/A	E. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	-	X	AWS D1.4, ACI 318: 26.13.3	
N/A	F. INSPECT ALL OTHER WELDS.	-	X	AWS D1.4, ACI 318: 26.13.3	
X	3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	
	4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
X	A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	
X	B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.	-	X	ACI 318: 17.8.2	
X	5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2
X	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C31, ASTM C172, ACI 318: 26.5, 26.12	
X	7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	
X	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3 - 26.5.5	
	9. INSPECT PRESTRESSED CONCRETE FOR:				
N/A	A. APPLICATION OF PRESTRESSING FORCES.	X	-	ACI 318: 26.10	
N/A	B. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-		
N/A	10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: 26.9	
	11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:			ACI 318: 26.13.1.3	
N/A	A. INSTALLATION OF EMBEDDED PARTS.	X	-	ACI 550.5	
N/A	B. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS.	X	-		
N/A	C. COMPLETION OF CONNECTIONS IN THE FIELD.	X	-		
N/A	12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5.	-	X	ACI 318: 26.13.1.3	
N/A	13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	ACI 318: 26.11.2	
X	14. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2 (B)	

IBC
DEEP FOUNDATION ELEMENTS

APPLICABLE TO PROJECT	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
X	1. INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE ACCURATE RECORDS FOR EACH ELEMENT.	X	-
X	2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	-
X	3. FOR CONCRETE ELEMENTS, PERFORM TESTS AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.	IN ACCORDANCE WITH SECTION 1705.3	

IBC
REQUIRED SPECIAL INSPECTIONS AND TEST OF SOILS

APPLICABLE TO PROJECT	TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
X	1. VERIFY MATERIALS BELOW *SHALLOW FOUNDATIONS* ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	x
X	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	x
X	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	x
X	4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
X	5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	x

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

SPECIAL INSPECTIONS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G008

SHEET NUMBER 08

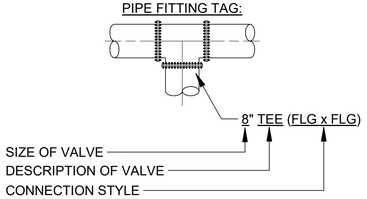
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ABBREVIATIONS

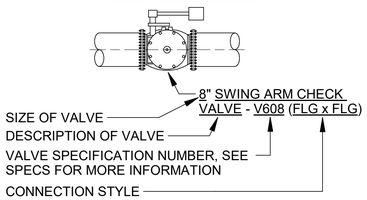
AFC	ABOVE FINISH CEILING
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHJ	AUTHORITY HAVING JURISDICTION
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL/ARCHITECTURE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BFF	BELOW FINISH FLOOR
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS/HOUR
CAP	CAPACITY
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONN	CONNECTION
CONT	CONTINUATION
COTG	CLEAN OUT TO GRADE
CP	CIRCULATING PUMP
CPVC	CHLORINATED POLYVINYL CHLORIDE
CU	CONDENSING UNIT
CV	CONSTANT VOLUME
CW	COLD WATER
DB	DRY BULB
DCOTG	DOUBLE CLEANOUT TO GRADE
DDC	DIRECT DIGITAL CONTROLS
DEG(°)	DEGREES
DEMO	DEMOLISH/DEMOLITION
DIA	DIAMETER
DN	DOWN
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
ECC	ECCENTRIC
EL.	ELEVATION
ELEC	ELECTRICAL
EQ	EQUIVALENT
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
EXP	EXPANSION
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FOB	FLAT ON BOTTOM
FPM	FEET PER MINUTE
GAL	GALLON
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HT	HEIGHT
HW	HOT WATER
HWL	HIGH WATER LEVEL
HWR	HOT WATER RETURN
ID	INSIDE DIAMETER
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LRA	LOCKED ROTOR AMPS
LWL	LOW WATER LEVEL
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTUH
MCA	MAXIMUM CURRENT AMPERAGE
MDL	MODEL
MECH	MECHANICAL
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT AMPERAGE
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OS&Y	OUTSIDE STEM & YOKE
PD	PRESSURE DROP
PRESS	PRESSURE
PRV	PRESSURE RELEASE VALVE
PSI	POUNDS PER SQUARE INCH
REF	REFERENCE
REQD	REQUIRED
REV	REVISION
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SF	SQUARE FEET
SP	STATIC PRESSURE
SPEC	SPECIFICATIONS
TDH	TOTAL DYNAMIC HEAD
TH	TOTAL HEAD
TMV	THERMOSTATIC MIXING VALVE
T/	TOP OF
TSP	TOTAL STATIC PRESSURE
(TYP)	TYPICAL
VAC	VACUUM
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
WC	WATER COLUMN
WPD	WATER PRESSURE DROP
WSE	WATER SURFACE ELEVATION

PIPE FITTING AND VALVE TAGS & ANNOTATIONS

PIPE FITTING TAG:



PIPE ACCESSORY TAG:



GENERAL PIPING NOTES

1. ALL PROCESS PIPING SYSTEMS SHALL BE INSTALLED AS PER SPECIFICATIONS AND GOVERNING CODES.
2. DRAWINGS ARE REPRESENTATIVE OF EQUIPMENT AND PIPE CONNECTION REQUIREMENTS. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING TYPE, OR COMPONENT REQUIRED FOR PLANT OR FACILITY OPERATION. CONTRACTOR IS FULLY RESPONSIBLE TO ENSURE PLANT OPERATION.
3. CONTRACTOR SHALL NOT SCALE DRAWINGS. INFORMATION AND COMPONENTS SHOWN ON P&ID'S BUT NOT SHOWN ON PLANS OR VICE-VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
4. REFER TO RESPECTIVE DISCIPLINES FOR ALL OTHER DESIGN CRITERIA. COORDAINTION BETWEEN DISCIPLINES IS THE SOLE RESPONSIBILTY OF THE CONTRACTOR.
5. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS. REFER TO CIVIL DRAWINGS FOR SPECIFIC ELEVATIONS.
6. LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. FINAL SUPPORT REQUIREMENTS SHALL BE DETERMINED IN THE FIELD AND REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION. MAXIMUM SPACING SHALL BE AS SPECIFIED.
7. LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN ARE ONLY APPROXIMATE. FINAL SUPPORT REQUIREMENTS SHALL BE DETERMINED IN THE FIELD AND REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION. REFER TO SPECIFICAITONS FOR SPACING REQUIREMENTS.
8. ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES OR PENETRATION SEALS SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL. REFER TO DRAWINGS AND SPECIFICATIONS AS TO TYPE AND REQUIREMENTS FOR EACH.
9. NUMBER AND LOCATION OF UNIONS SHOWN ON PLANS IS ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
10. WHERE A GROOVED END COUPLING IS SHOWN, IT SHALL BE THE RIGID JOINT TYPE, UNLESS OTHERWISE SPECIFIED. WHERE A FLANGED COUPLING ADAPTER IS SHOWN, A STANDARD FLANGE SHALL BE JOINED TO THE COUPLING ADAPTER.

SPECIAL INSTALLATION NOTE

INSTALLATION DETAILS FOR DIVISION 26 ELECTRICAL ARE NOT SHOWN ON MECHANICAL DRAWINGS FOR CLARITY. REFER TO DIVISION 26 INSTRUMENT SPECIFICATIONS, INSTRUMENT LIST, AND DESIGN DETAILS. COORDINATE MATERIAL AND INSTALLATION REQUIREMENTS.

PROCESS SHEET NOTE

ALL GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO PROCESS DRAWINGS IN THIS SET. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

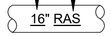
GENERAL DRAWING SYMBOLS

- REVISION CLOUD AND NUMBER SHOWN ON PLANS
- POINT OF CONNECTION - NEW TO EXISTING
- DEMO TO POINT
- KEYNOTE REFERENCE
- ROOM NAME / 101 / 150 SF — SYMBOL INDICATES A ROOM / AREA DESIGNATION, WITH ROOM NUMBER AND SQUARE FOOTAGE
- A — SYMBOL INDICATES A STRUCTURAL GRIDLINE OR DATUM
- 01-T/CONC / EL 271.00 — SYMBOL INDICATES A LEVEL DATUM IN A SECTION OR ELEVATION
- D00 / 0000-000 — CALLOUT DENOTES A STANDARD DETAIL REFERENCE. EXAMPLE: D03/0000-000 SPECIFICATION DIVISION: 03 SPECIFICATION SECTION: 0000 DETAIL REFERENCE: 000
- REFER TO 1 / 01-M101 — CALLOUT DENOTES A VIEW REFERENCE ABOUT A MATCHLINE
- ℄ — CENTERLINE
- MAX WSE / EL. 270.00 — MAXIMUM WATER SURFACE ELEVATION LEVEL DATUM

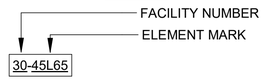
PROCESS PIPING TAGS & ANNOTATIONS

- PIPE CONTINUATION, SEE RELATED VIEW(S) FOR CONTINUATION OR INFORMATION

PIPE TAG



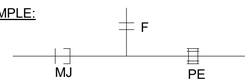
PI&D TAG



PIPE FITTING AND END PATTERNS

B	BELL	PE	PLAIN END
FLG	FLANGE	S	SPIGOT
GE	GROOVED END	SOC	SOCKET
MJ	MECHANICAL JOINT	THD	THREADED
		WLD	WELDED

EXAMPLE:



PIPING INSULATION & LININGS

- PIPING INSULATION
- DOUBLE WALL PIPE

ACTUATOR SYMBOLS

- PNEUMATIC DIAPHRAGM SPRING-OPPOSED, SINGLE OR DOUBLE ACTING
- PNEUMATIC CYLINDER SINGLE OR DOUBLE ACTING ACTUATED BY ONE INPUT
- (M) ELECTRIC MOTOR
- (H) HYDRAULIC
- MANUAL
- [S] SOLENOID

FLUID FLOW & CONTROL SYMBOLS

PLAN VIEW / SECTION VIEW

- BALL
- BALL CHECK
- BUTTERFLY
- DIAPHRAGM
- GATE
- GLOBE
- KNIFE GATE
- PINCH
- PLUG
- ROTARY
- SWING CHECK
- V-PORT
- MUD
- TELESCOPING
- SLIDE GATE WITH HAND CRANK
- SLIDE GATE WITHOUT HAND CRANK

SYMBOLS ARE FOR DIAGRAMATIC PURPOSES. REFER TO TAG, P&ID DATA OR SPEC FOR MORE INFORMATION.

HYDRAULIC PROFILE ANNOTATIONS

CAPACITY TAG:

300.00	BUILDOUT CAPACITY
290.00	INITIAL WTP CAPACITY
280.00	STARTUP FLOWS

FACILITY STAGE WSE ELEVATION TAGS:

275.00	PEAK WATER SURFACE ELEVATION
272.45	WATER SURFACE ELEVATION

ELEVATION & INVERT TAGS:

- HWL 271.00 — ELEVATION AT VARIOUS WATER LEVEL NOTATION (**HWL** - HIGH WATER LEVEL; **LWL** - LOW WATER LEVEL)
- 01-T/CONC / EL 271.00 — SPOT ELEVATION AT DATUM
- EL. 290.00 — ELEVATION AT POINT
- DATUM POINT ELEVATION
- MAX/HIGH WATER SURFACE ELEVATION LEVEL DATUM
- LOW WATER SURFACE ELEVATION LEVEL DATUM

PIPE SYMBOLS

- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- LATERAL/WYE UP
- LATERAL/WYE DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- CAP / BLIND FLANGE
- ELBOW, 90 DEGREE
- CROSS
- TEE
- ELBOW, 45 DEGREE
- LATERAL/WYE
- FLEXIBLE CONNECTION
- DISMANTLING JOINT

PIPE PHASE GRAPHICS

- EXISTING PIPE
- NEW PIPE
- EXISTING PIPE TO BE ABANDONED
- EXISTING PIPE TO BE REMOVED
- FUTURE CONSTRUCTION NEW PIPE

- WELDED JOINT
- GROOVED END JOINT
- FLANGED JOINT
- MECHANICAL JOINT
- UNION
- SOCKET & JOINT
- BELL & SPIGOT
- FLANGED COUPLING ADAPTER
- WELD NECK
- FLEXIBLE COUPLING
- FLEXIBLE COUPLING WITH THRUST TIES
- STEEL BELLOWS EXP. JOINT
- ELASTOMER BELLOWS EXP. JOINT

NOTES:

1. ONLY FLANGED END CONNECTIONS ARE SHOWN HERE FOR DOUBLE LINE FITTINGS; FITTINGS WITH OTHER END PATTERNS ARE SHOWN SIMILARLY ON THE CONSTRUCTION DRAWINGS. ALSO SEE PIPING SPECIFICATIONS.
2. SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE PLANS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT.

FLOW STREAM IDENTIFIERS

ABBREV	DESCRIPTION
ALPO	AIR LOW PRESSURE, ODOROUS
PD	PLANT/PROCESS DRAIN
V	VENT
W1	POTABLE WATER
W2	NON-POTABLE WATER

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROCESS MECHANICAL NOTES, LEGENDS, AND ABBREVIATIONS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: SJB
CHECKED BY: RDT

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G009

SHEET NUMBER 09

RevIt File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

CONTROL SCHEMATIC SYMBOLS

TRANSFORMER, RATINGS AS SHOWN

SPD — SURGE PROTECTION DEVICE

N E — TRANSFER SWITCH
ATS - AUTOMATIC TRANSFER SWITCH
MTS - MANUAL TRANSFER SWITCH

G — GENERATOR

PM — POWER METER

PM — PHASE MONITOR

600AF/3P, LSIG 400AT — CIRCUIT BREAKER, RATINGS AS NOTED.

L	LONG TIME
S	SHORT TIME
I	INSTANTANEOUS
G	GROUND

V — VARIABLE FREQUENCY DRIVE (VFD)

RV SS — REDUCED VOLTAGE SOFT-START

OR — DISCONNECT

OR F — FUSED DISCONNECT

M — MOTOR
40 HP — HORSEPOWER AS NOTED

DRAW OUT CONSTRUCTION

1 OR FV NR — FULL VOLTAGE NON-REVERSING MOTOR STARTER. SIZE AS NOTED.
OL

1 OR FV R — FULL VOLTAGE REVERSING MOTOR STARTER. SIZE AS NOTED.
OL

K — KEY INTERLOCK

GROUND

INDUCTOR/LINE REACTOR

2 — CAPACITOR
KVAR AS NOTED

MEDIUM VOLTAGE CIRCUIT BREAKER

CURRENT TRANSFORMER

VOLTAGE TRANSFORMER

WIRING WITHIN PANEL

WIRING TO FIELD DEVICE

ELECTRICALLY CONNECTED

OR — NOT ELECTRICALLY CONNECTED

ELECTRICAL CONNECTION

TERMINAL BLOCK LOCAL

TERMINAL BLOCK EXTERNAL

CIRCUIT BREAKER SINGLE POLE

CIRCUIT BREAKER THREE POLE

10A — FUSE, AMPERE RATING AS NOTED

1A — FUSED TERMINAL BLOCK, AMPERE RATING AS NOTED

GROUND

HS (MOMENTARY) PB NC

HS (MOMENTARY) PB NO

HS (MAINTAINED) PB WITH RED MUSHROOM HEAD OPERATOR

XOO / OOX — HS THREE POSITION
X = CLOSED
O = OPEN

HS TWO POSITION

M — MOTOR

OVERLOAD ELECTRONIC

OVERLOAD ELECTRONIC THREE POLE

OVERLOAD THERMAL

OVERLOAD THERMAL THREE POLE

POTENTIOMETER

ETM — ELAPSED TIME METER

HEATER

VFD LINE REACTOR

A — PILOT LIGHT - COLOR AS INDICATED
- A - AMBER
- G - GREEN
- R - RED
- B - BLUE
- W - WHITE

PTT — PTT - PUSH-TO-TEST

SOLENOID

CR — RELAY COIL
CR - CONTROL RELAY
M - MOTOR STARTER COIL

RELAY CONTACT NC

RELAY CONTACT NO

TD — TIME DELAY RELAY COIL

NO TIME DELAY CLOSE WHEN ENERGIZED

NC TIME DELAY OPEN WHEN ENERGIZED

NO TIME DELAY OPEN WHEN DE-ENERGIZED

NC TIME DELAY CLOSE WHEN DE-ENERGIZED

SWITCH - THREE POLE

SWITCH - LIMIT NORMALLY OPEN (NO)

SWITCH - LIMIT NORMALLY OPEN HELD CLOSED (NOHC)

SWITCH - LIMIT NORMALLY CLOSED (NC)

SWITCH - LIMIT NORMALLY CLOSED HELD OPEN (NCHO)

A	B
	PRESSURE
	LEVEL
	TEMPERATURE
	FLOW

A — NORMALLY OPEN, CLOSES ON RISING "B"

A — NORMALLY CLOSED, OPENS ON RISING "B"

A — HELD CLOSED, OPENS ON DROPPING "B"

A — HELD OPEN, CLOSES ON DROPPING "B"

RECEPTACLE SYMBOLS

WP / GFCI — 20 AMP DUPLEX RECEPTACLE, MTD. 18" AFF TO BOTTOM, UNLESS NOTED OTHERWISE, WITH #12 GROUND WIRE.
- "GFCI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER.
- "WP" INDICATES HEAVY-DUTY, WEATHERPROOF WHILE-IN-USE ENCLOSURE AND COVER.

BOX INDICATES FLOOR OUTLET WITH RECESSED CAST JUNCTION BOX

DUPLEX FLOOR/CEILING RECEPTACLE

ELECTRICAL TAGS

CONDUIT WIRE TAG

2(3#14+#14G+4#14SPARE) 1"C

DENOTES TWO (2) SETS OF;
- THREE (3) NO. 14 AWG CONDUCTORS
- ONE (1) NO. 14 AWG GROUND CONDUCTOR
- FOUR (4) NO. 14 AWG SPARE CONDUCTORS.
- 1"C - ONE INCH CONDUIT

CONDUIT RUN TAG

XXXX-Y## —
XXXX = PANEL/EQUIPMENT IDENTIFIER
Y = CONDUIT FUNCTION
P = (480VAC POWER)
L = (240/120VAC POWER)
C = (CONTROL/DISCRETE)
S = (SIGNAL/ANALOG)
N = (COMMUNICATION)
= SEQUENTIAL CIRCUIT NUMBER

CONDUIT HOME RUN TAG

CONDUIT TAG — HOME RUN TO PANEL IN DEDICATED CONDUIT, RECEPTACLES AND EQUIPMENT SHALL HAVE DEDICATED GREEN GROUND WIRE.

PULL BOX TAG

XXYPBZZA —
XX = FACILITY NUMBER
Y = ELECTRICAL/CONTROLS
P (480VAC/POWER)
E (240/120VAC/CONTROL)
S (SIGNAL)
H (MEDIUM VOLTAGE)
N (FIBER)
ZZ = SEQUENTIAL NUMBER
A = DUCT BANK PROFILE LETTER

SITE PLAN SYMBOLS

DUCT BANK - NEW CONSTRUCTION

DUCT BANK - EXISTING

DUCT BANK - FUTURE

OHE — OVERHEAD ELECTRICAL LINES

A — ELECTRICAL SITE PLAN FACILITY LIST - (LETTER CHARACTERS)

1 — ELECTRICAL SITE PLAN EQUIPMENT LIST - (NUMERIC CHARACTERS)

UTILITY POLE

UTILITY POLE WITH MOUNTED TRANSFORMERS

PAD MOUNTED TRANSFORMER ON CONCRETE PAD

PULL BOX WITH CONCRETE CURTAIN

GENERAL ELECTRICAL LINE STYLES

EQUIPMENT PACKAGE

GROUND

ABOVE GRADE ELECTRICAL

BELOW GRADE ELECTRICAL

LIGHTNING PROTECTION CONDUCTORS

WIRE CONTINUATION

SECURITY SYMBOLS

SURVEILLANCE CAMERA

XX — SECURITY & ACCESS:
- DS = DOOR SWITCH
- KP = KEY PAD
- MD = MOTION DETECTOR
- ML = MAGNETIC LOCK
- OC = OCCUPANCY SENSOR
- PC = PHOTO CELL
- WS = WINDOW SWITCH

DATA & COMMUNICATION SYMBOLS

PHONE OUTLET

DATA OUTLET

DATA AND TELEPHONE DUAL OUTLET

TELEVISION OUTLET

LIGHTING SWITCH SYMBOLS

$ — SWITCH, SINGLE POLE

$3 — SWITCH, THREE WAY

$4 — SWITCH, FOUR WAY

$D — SWITCH, DIMMER

ELECTRICAL EQUIPMENT SYMBOLS

ELECTRICAL PANEL OR EQUIPMENT CABINET, SURFACE MOUNTED, 5'-6" TO TOP OF ENCLOSURE

ELECTRICAL PANEL OR EQUIPMENT CABINET, RECESSED MOUNTED, 5'-6" TO TOP OF ENCLOSURE

J J — JUNCTION BOX

SAFETY NON-FUSED DISCONNECT SWITCH

F — SAFETY FUSED DISCONNECT SWITCH

CONDUIT & CABLE TRAY SYMBOLS

CABLE TRAY BEND

CABLE TRAY JUNCTION / TEE

CABLE TRAY RISE / DROP

CABLE TRAY CROSS FITTING

CABLE TRAY TRANSITION / REDUCER

CONDUIT JUNCTION BOX / TEE / TAKEOFF

CONDUIT BEND

CONDUIT JUNCTION BOX / RISE / DROP

CABLE TRAY RISE / DROP

PHASE GRAPHICS

EXISTING ELEMENTS

NEW ELEMENTS

EXISTING ELEMENTS TO BE REMOVED/DEMOLISHED

FUTURE CONSTRUCTION NEW ELEMENT

GENERAL ELECTRICAL SYMBOLS

1 — REVISION CLOUD AND NUMBER SHOWN ON PLANS

POINT OF CONNECTION - NEW TO EXISTING

DEMO TO POINT

1 — KEYNOTE REFERENCE

ROOM NAME / 101 / 150 SF — SYMBOL INDICATES A ROOM / AREA DESIGNATION, WITH ROOM NUMBER AND SQUARE FOOTAGE

A — SYMBOL INDICATES A STRUCTURAL GRIDLINE OR DATUM

01-T/CONC / EL 271.00 — SYMBOL INDICATES A LEVEL DATUM IN A SECTION OR ELEVATION

REFER TO 1 / 01-E101 — CALLOUT DENOTES A VIEW REFERENCE ABOUT A MATCHLINE

CENTERLINE

D00 / 0000-000 — CALLOUT DENOTES A STANDARD DETAIL REFERENCE.
EXAMPLE: D03/0000-000
SPECIFICATION DIVISION: 00
SPECIFICATION SECTION: 0000
DETAIL REFERENCE: 000

DUCT-BANK SECTION CUT
SECTION "#"
DUCT BANK TAG "A"
BRANCH "1" OF DUCT BANK "A"
#A1 / 90-E601 — SHEET REFERENCE

GROUNDING & LIGHTNING PROTECTION

GROUND ROD AND TEST WELL

GROUND ROD

LIGHTNING AIR TERMINAL

LIGHT FIXTURE ANNOTATIONS

#1 — TYP LIGHT FIXTURE

#1E — LIGHT FIXTURE WITH EMERGENCY BATTERY PACK, DENOTED WITH "E"

LIGHTING FIXTURE SYMBOLS

#2 — RECESSED LIGHT

#3E — EMERGENCY EXIT SIGN WITH LIGHTS

#3E — EMERGENCY EXIT SIGN WITH DIRECTION

#4 — POLE MOUNTED LIGHT - SINGLE FIXTURE

#5 — POLE MOUNTED LIGHT - TWO FIXTURES

#6 — WALL MOUNTED EXTERIOR LIGHT

ELECTRICAL SHEET NOTE

ALL SYMBOLS ON THIS SHEET ARE TO BE APPLIED TO ALL ELECTRICALL DRAWINGS IN THIS SET. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MAWSS — MOBILE AREA WATER AND SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ELECTRICAL SYMBOL LEGEND

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER **01-G010**

SHEET NUMBER 10

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

GENERAL NOTES

1. THESE NOTATIONS ARE INTENDED TO BE GENERAL IN NATURE. THEY MAY OR MAY NOT APPLY TO SOME OR ALL OF THE PLAN SHEETS AND SPECIFICATIONS.

2. CONDUIT RUNS INDICATED ON THE PLAN SHEETS ARE INTENDED TO BE SCHEMATIC ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ROUTING ALL CONDUIT RUNS AND SHALL COORDINATE ANY DEVIATION FROM ROUTING AS INDICATED HEREIN WITH THE ENGINEER. ALL CONDUIT SHALL BE INSTALLED IN SUCH A MANNER AS TO PREVENT CONFLICTS WITH EQUIPMENT. EXPOSED CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO BEAMS OR STRUCTURAL CONDITIONS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD ROUTING ALL CONDUITS NOT INDICATED ON THE PLAN SHEETS. THIS INCLUDES CIRCUITS FOR LIGHTING, RECEPTACLES AND OTHER MISCELLANEOUS EQUIPMENT CIRCUITS.

4. ALL CONDUITS SHALL BE ROUTED AND SUPPORTED IN SUCH A MANNER AS TO NOT COMPROMISE THE STRUCTURAL INTEGRITY OF WALLS, FLOORS, CEILINGS, AND ROOFS. WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE ADDITIONAL STRUCTURAL SUPPORTING MEMBERS FOR THE INSTALLATION AND SHALL COORDINATE SUCH MEMBERS WITH ENGINEER.

5. ALL SURFACE MOUNTED PANELS AND PANELBOARDS ON THE INTERIOR OF EXTERIOR WALLS OR IN OTHER LOCATIONS CONSIDERED DAMP OR WET SHALL BE MOUNTED SO AS TO MAINTAIN A 1/4" MINIMUM AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.

6. PULLBOXES, IF SHOWN ON THE PLANS, ARE SCHEMATIC IN NATURE. THE CONTRACTOR SHALL PROVIDE ADDITIONAL PULLBOXES WHERE REQUIRED TO MAKE A WORKABLE INSTALLATION.

7. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS WHETHER OR NOT THEY ARE REFERENCED ON THE DRAWINGS.

8. ALL CONDUIT RUNS PASSING THROUGH EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION AND DEFLECTION TYPE FITTINGS. FOR LOCATIONS OF EXPANSION JOINTS, REFER TO THE STRUCTURAL DRAWINGS.

9. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS REPRESENT SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. IF EQUIPMENT SUPPLIED BY THE MANUFACTURER HAS A LARGER LOAD THAN THE VALUE SHOWN OR INDICATED, THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT MAY BE ENLARGED AS REQUIRED TO ACCOMMODATE THE HIGHER LOADING. HOWEVER, THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS.

10. ALL MOTOR STARTER CONTROL POWER TRANSFORMERS SHALL BE SIZED TO PROVIDE SUFFICIENT VOLT-AMPERE CAPACITY FOR OPERATING ALL LOCAL AND REMOTE ELECTRICAL DEVICES ASSOCIATED WITH CONTROL OF THE MOTOR IN ADDITION TO THE STARTER COIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL LOADING REQUIREMENTS FOR CONTROL POWER TRANSFORMERS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPERLY SIZED STARTER OVERLOADS FOR ALL EQUIPMENT INSTALLED.

12. MOTOR CONTROL CENTERS AND ALL FREE STANDING PANELS SHALL BE SET ON CONCRETE HOUSEKEEPING PADS.

13. IN GENERAL, SEPARATE POWER, CONTROL AND SIGNAL WIRING. PROVIDE SEPARATE CONDUIT, PULL AND JUNCTION BOXES. PROVIDE SUITABLE CABLE BARRIER WITHIN PULL OR JUNCTION BOXES WHERE SEPARATION OF WIRING IS NOT SHOWN ON THE DRAWINGS. CONTROL AND SIGNAL CONDUCTORS OF LIKE VOLTAGES MAY BE COMBINED INTO A SINGLE CONDUIT, AS LONG AS NEC CONDUIT FILL REQUIREMENTS ARE MET.

14. UNLESS OTHERWISE NOTED ALL CONDUIT TO BE ROUTED EXPOSED. ALL EXPOSED CONDUIT AND PORTIONS OF THE CONDUIT SYSTEM SHALL BE SURFACE MOUNTED. SEE SPECIFICATIONS FOR CONDUIT, BOXES, SUPPORTS, HANGER, UNISTRUT AND OTHER PORTIONS OR THE CONDUIT SYSTEM MATERIAL REQUIREMENTS.

15. VERIFY LOCATION OF ALL EQUIPMENT PRIOR TO INSTALLATION.

16. PROVIDE SEPARATE CONDUITS FOR 480VAC POWER CIRCUITS. SIGNAL AND CONTROL CONDUCTORS OF LIKE VOLTAGES MAY BE COMBINED IN A SINGLE CONDUIT WHERE COMPLIANT WITH NEC CONDUIT FILL REQUIREMENTS.

17. CONTRACTOR TO SUBMIT CONDUIT ROUTING PLANS TO ENGINEER PRIOR TO CONSTRUCTION.
18. IN AREAS WHERE THERE ARE OVERHEAD BRIDGE CRANES, HOISTS, DOORS OR OTHER SIMILAR ITEMS, NO CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO CONFLICT WITH PROPER OPERATION OF SUCH EQUIPMENT.

19. CONTRACTOR SHALL FURNISH AND INSTALL ITEMS AS NECESSARY FOR COMPLETE AND FUNCTIONAL SYSTEMS. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND OTHER SECTIONS OF THE PLANS FOR ITEMS AS MAY BE REQUIRED AND SHALL PROVIDE CONDUIT, WIRING AND TERMINATIONS FOR ALL ITEMS AS REQUIRED.

20. CONTRACTOR SHALL REFER TO OTHER PLAN SHEETS FOR LOCATIONS OF FIREWALLS. ALL CONDUIT PENETRATIONS IN THESE WALLS SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO NOT REDUCE THE RATING OF THE FIREWALL THROUGH THE USE OF BOXES, SEALANTS AND OTHER ACCESSORIES AS MAY BE REQUIRED.

21. CONTRACTOR SHALL REFER TO MECHANICAL PLAN SHEETS AND SPECIFICATIONS FOR ITEMS RELATED TO THE MECHANICAL SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ITEMS AS NECESSARY FOR COMPLETE AND OPERABLE MECHANICAL HEREIN INCLUDING, BUT NOT LIMITED TO; CONTROL POWER TRANSFORMERS, STARTERS, THERMOSTATS, CONTROL STATIONS, AND OTHER ELECTRICAL ITEMS AS RELATED TO THE INSTALLATION OF THE MECHANICAL SYSTEMS.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DISCONNECTS FOR ALL MECHANICAL MOTORS UNLESS THE EQUIPMENT IS FURNISHED WITH AN INTEGRAL DISCONNECT FROM THE MANUFACTURER. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CONDUIT, WIRING AND TERMINATIONS FOR ALL COMPONENTS AS MAY BE NECESSARY FOR THE MECHANICAL SYSTEMS.

23. ALL RECEPTACLES IN OUTDOOR AND ANTICIPATED WET AREAS SHALL BE GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLES WITH HEAVY-DUTY WEATHERPROOF COVERS.

24. EQUIPMENT LOCKOUTS SHALL BE IN STRICT ACCORDANCE WITH OWNER'S REQUIREMENTS.

25. ALL CONDUITS SHALL HAVE A GROUNDING CONDUCTOR, SIZED PER NEC.

26. ALL LIGHTING FIXTURES INSTALLED IN INSULATED LOCATIONS SHALL BE RATED FOR SUCH INSTALLATION REGARDLESS OF THE FIXTURE SCHEDULE DESIGNATION.

27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF NEW SERVICE INSTALLATIONS WITH OWNER, ENGINEER AND SERVICE UTILITY. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS AS REQUIRED BY SERVICE UTILITY FOR NEW SERVICE CONNECTIONS.

28. UNLESS NOTED OTHERWISE, ALL CONTROL PANELS SHALL BE FABRICATED SUCH THAT ALL OPERATORS AND INDICATING DEVICES INDICATED ON THE SCHEMATICS BE LOCATED ON THE FRONT DOOR OR COVER OF THE PANEL. OPERATING AND INDICATING DEVICES SHALL BE VISIBLE AND OPERABLE WITHOUT HAVING TO OPEN THE CONTROL PANEL UNLESS OTHERWISE IDENTIFIED ON THE DRAWING.

ABBREVIATIONS

A, AMP	AMPERES	MTD	MOUNTED
AC	ALTERNATING CURRENT	MV	MEDIUM VOLTAGE
AF	AMP FRAME	N	COMMUNICATION CIRCUIT
AFF	ABOVE FINISHED FLOOR	NC	NORMALLY CLOSED
AIC	AMPS INTERRUPTING CAPACITY	NCHC	NORMALLY CLOSED HELD OPEN
AM	AMP-METER	NCTC	NORMALLY CLOSED TIMED CLOSED
ARMS	ARC REDUCTION MAINTENANCE SWITCH	NCTO	NORMALLY CLOSED TIMED OPEN
AT	AMP TRIP	NEC	NATIONAL ELECTRICAL CODE
ATS	AUTOMATIC TRANSFER SWITCH	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AWG	AMERICAN WIRE GAUGE		
BFI	BLOWN FUSE INDICATOR	NEUT	NEUTRAL
C	CONDUIT, CONTROL/DISCRETE CIRCUIT	NFDS	NON-FUSED DISCONNECT SWITCH
CAS	CONTROL AND STATUS RELAY	NO	NORMALLY OPEN
CB	CIRCUIT BREAKER	NOHC	NORMALLY OPEN HELD CLOSED
CCTV	CLOSED CIRCUIT TELEVISION	NOTC	NORMALLY OPEN TIMED CLOSED
COM	COMMON	NOTO	NORMALLY OPEN TIMED OPEN
CP	CONTROL PANEL	OHE	OVERHEAD ELECTRIC
CPT	CONTROL POWER TRANSFORMER	OIT	OPERATOR INTERFACE TERMINAL
CR	CONTROL RELAY	OL	OVERLOAD
CRI	COLOR RENDERING INDEX	OOR	ON-OFF-REMOTE
CT	CURRENT TRANSFORMER	P	480VAC POWER CIRCUIT, POLE
DB	DECIBEL	PP	POWER PANEL
DC	DIRECT CURRENT	PB	PUSH BUTTON OR PULLBOX
DISC	DISCONNECT	PCC	POINT OF COMMON COUPLING
DP	DISTRIBUTION PANEL	PEC	PHOTO ELECTRIC CELL
DWG	DRAWING	PF	POWER FACTOR
EF	EXHAUST FAN	PFCC	POWER FACTOR CORRECTION CAPACITOR
EG	EQUIPMENT GROUND	PH	PHASE
EMT	ELECTRICAL METALLIC TUBING	PL	PILOT LIGHT
ENCL	ENCLOSURE	PM	PHASE MONITOR
ETM	ELAPSED TIME METER	PTT	PUSH-TO-TEST
FACP	FIRE ALARM CONTROL PANEL	RECPT	RECEPTACLE
FDS	FUSED DISCONNECT SWITCH	RVAT	REDUCED VOLTAGE AUTO-TRANSFORMER
FLA	FULL LOAD AMPERES	RVSS	REDUCED VOLTAGE SOFT STARTER
FOC, FO	FIBER OPTIC CABLE	S	SECOND, SIGNAL/ANALOG CIRCUIT
FRP	FIBERGLASS REINFORCED POLYESTER	SCCR	SHORT CIRCUIT CURRENT RATING
FS	FLOAT SWITCH	SS	STAINLESS STEEL
FVNR	FULL VOLTAGE NON-REVERSING STARTER	SA	SURGE ARRESTER
FVR	FULL VOLTAGE REVERSING STARTER	SDBC	SOFT DRAWN BARE COPPER
G, GEN	GENERATOR	SE	SERVICE ENTRANCE
GDT	GRAPHIC DISPLAY TERMINAL	SPD	SURGE PROTECTION DEVICE
G, GND	GROUND	SSOL	SOLID STATE OVERLOAD RELAY
GRS	GALVANIZED RIGID STEEL	STP	SHIELDED TWISTED PAIR
HH	HANDHOLE	SV	SOLENOID VALVE
HID	HIGH INTENSITY DISCHARGE	SW	SWITCH
HMI	HUMAN MACHINE INTERFACE	SWB, SWBD	SWITCHBOARD
HOR	HAND-OFF-REMOTE		
HR	HOUR	SWGR	SWITCHGEAR
HS	HAND SWITCH	T, XFMR	TRANSFORMER
HV	HIGH VOLTAGE	TC	TIME CLOCK
HZ	HERTZ	TD	TIME DELAY
IG	ISOLATED GROUND	TEL	TELEPHONE
JB	JUNCTION BOX	THD	TOTAL HARMONIC DISTORTION
KAIC	KILOAMP INTERRUPTING CAPACITY	TM	THERMAL MAGNETIC TRIP
KVAR	KILOVOLT-AMPERE, REACTIVE	UG	UNDERGROUND
KWH	KILOWATT-HOUR	UGE	UNDERGROUND ELECTRIC
L	240/208/120VAC CIRCUIT	UH	UNIT HEATER
LA	LIGHTNING ARRESTER	UL	UNDERWRITERS LABORATORIES, INC
LCP	LOCAL CONTROL PANEL	UTP	UNSHIELDED TWISTED PAIR
LLF	LIGHT LOSS FACTOR	V	VOLTS
LOR	LOCAL-OFF-REMOTE	VAC	VOLTAGE ALTERNATING CURRENT
LP	LIGHTING PANEL	VFD, V	VARIABLE FREQUENCY DRIVE
LRA	LOCKED ROTOR AMPERES	VM	VOLT-METER
LV	LOW VOLTAGE	W	WIRE
MCA	MINIMUM CIRCUIT AMPACITY	WH	WEATHER HEAD
MCB	MAIN CIRCUIT BREAKER	WM	WATT METER
MCC	MOTOR CONTROL CENTER	WP	WEATHERPROOF
MCP	MOTOR CIRCUIT PROTECTOR	1P	SINGLE POLE
MH	MANHOLE	1PH	SINGLE PHASE
MLO	MAIN LUG ONLY	3P	THREE POLE
MOCP	MAXIMUM OVER CURRENT PROTECTION	3PH	THREE PHASE
MS	MOTOR STARTER		

29. DUCT BANKS INDICATED AND THE BELOW GRADE CONDUIT ROUTING AS SHOWN IS DIAGRAMMATIC IN NATURE AND SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL REVIEW PLAN SHEETS RELATED TO INDIVIDUAL STRUCTURES AND VERIFY CONDUITS THAT MAY BE REQUIRED. THE CONTRACTOR SHALL VERIFY NUMBER OF CONDUITS AS INDICATED IN THE DUCT BANK PRIOR TO INSTALLATION WITH THE ENGINEER. PROVIDE AT A MINIMUM ONE SPARE CONDUIT EQUAL IN SIZE TO THE LARGEST CONDUIT IN USE, IN EACH DUCT BANK. FOR EACH SET OF FOUR USED CONDUITS IN EACH DUCT BANK PROVIDE A SPARE CONDUIT EQUAL TO THE LARGEST CONDUIT IN USE: (1-4 CONDUITS, 1 SPARE; 5-8 CONDUITS, 2 SPARE; AND SO ON).

30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HEAT TRACING FOR ALL EXPOSED WATER LINES TO BE INSTALLED UNDER THIS PROJECT. THE CONTRACTOR SHALL REVIEW OTHER SECTIONS OF THE PLANS AND SPECS AND PROVIDE SUITABLE HEAT TRACING COMPONENTS AS MAY BE REQUIRED, WHETHER INDICATED ON THE ELECTRICAL PLAN SHEETS OR NOT.

31. VERIFY LOCATION OF ALL LIGHTING FIXTURES WITH OWNER AND ENGINEER PRIOR TO INSTALLATION. COORDINATE LIGHT FIXTURE LOCATIONS AND MOUNTING HEIGHTS WITH HVAC DUCTS AND OVERHEAD CONDUIT RUNS. USE RIGID CONDUIT WHEN SUSPENDING LIGHT FIXTURES TO PREVENT SWAYING.

32. USE CRIMPED OR BOLTED CONNECTIONS FOR ALL BONDING CONNECTIONS BETWEEN CONDUCTORS AND BUILDING SYSTEM COMPONENTS. USE EXOTHERMIC WELDED CONNECTIONS FOR ALL UNDERGROUND PORTIONS OF THE GROUNDING SYSTEM WITH THE EXCEPTION OF GROUND ROD TEST WELLS.

33. MINIMUM LIGHTNING PROTECTION ITEMS WHERE SHOWN. FINAL LIGHTNING PROTECTION SYSTEM SHALL BE DEVELOPED AND SUBMITTED BY MASTER INSTALLER/DESIGNER CERTIFIED BY UL OR LPI AS REQUIRED IN SPECIFICATION SECTION 26 41 13.

34. SEE DEMOLITION SPECIFICATION 02 41 00 FOR ALL EQUIPMENT, CONDUIT, AND CONDUCTOR SALVAGE AND DISPOSAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ELECTRICAL NOTES AND ABBREVIATIONS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

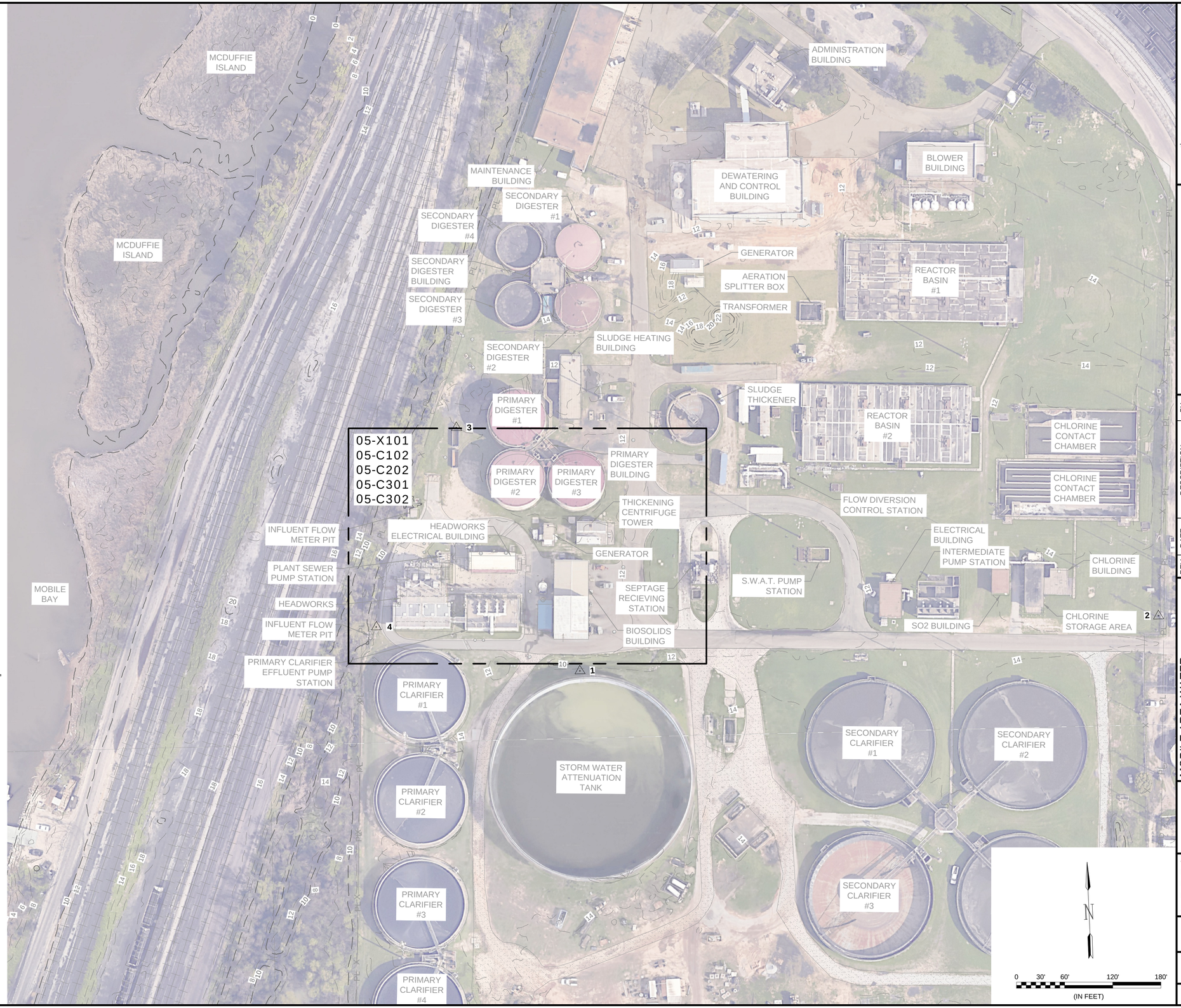
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
01-G011

SHEET NUMBER 11

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_01_GENERAL.rvt
Plot Date: 8/7/2026 12:13:13 PM

SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	240419.87	1799144.64	13.08	ACRS #11
2	240471.28	1799867.58	14.49	ACRS #2
3	240726.99	1798997.88	11.90	NAIL SET #12
4	240480.83	1798892.16	12.37	NAIL SET #12



SURVEY NOTES:

1. F.E.M.A. FLOOD INSURANCE RATE MAP NO. 01097C0566 L, COMMUNITY NO. 015007, DATED JUNE 5, 2020 INDICATES THAT THIS PROPERTY IS LOCATED IN "ZONE AE", (EL 12) SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. (BASE FLOOD ELEVATIONS DETERMINED.)
2. PROPERTY OWNER ACCORDING TO MOBILE COUNTY REVENUE LISTED AS: BOARD OF WATER & SEWER PROPERTY ADDRESS: 1600 YEEND ST, MOBILE AL 36603-2010
3. EFFORT WAS MADE TO LOCATED UNDERGROUND UTILITIES BASED ON ALABAMA 811 LOCATED REQUEST NUMBER 260200668 AND EVIDENCE READILY VISIBLE ON THE SURFACE. NO WARRANTY IS GIVEN THAT ALL UTILITIES ARE SHOWN.
4. UTILITY LINES SHOWN ARE BASED ON PAINT MARKS LOCATED AT TIME OF SURVEY.
5. STATE PLANE COORDINATES ARE BASED ON ALABAMA WEST ZONE 0102 NAD 83 2011. GRID TO GROUND SCALE FACTOR 0.99996619.
6. ELEVATIONS ARE BASED ON NAVD 88 AND COMPUTED FROM GEOID 18.
7. THIS REVISED SURVEY WAS BASED ON FIELD WORK COMPLETED ON 02/03/26. REVISED SURVEY WAS RECEIVED BY GARVER ON 02/05/26.
8. SURVEY PERFORMED BY MCCROY & WILLIAMS INC.

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REGISTRATION NO. ECA500

LICENSED No. 56665 PROFESSIONAL ENGINEER KIRK JOHNSON

Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

EXISTING SITE PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
05-C101

SHEET NUMBER 12

File: C:\Users\MDGuthrie\DCVACCDocs\Garver Engineers\W10-2402007 - MAWSS CC Williams Odor Control System\Project Files\Garver\Civil\MAWSSCC-05-C101-SI.dwg Last Save: 7/9/2026 4:14 PM Last saved by: MDGuthrie
Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:19 AM Plotter used: None



1 / 05-X101 — EXISTING VEGETATION
SCALE: NONE

A DEMOLITION KEYNOTES

SITE LAYOUT COORDINATES

NOTES:

1. ALL SITE LAYOUT COORDINATES ARE EXTERIOR WALL CORNERS UNLESS OTHERWISE NOTED.

DEMOLITION KEYNOTES:

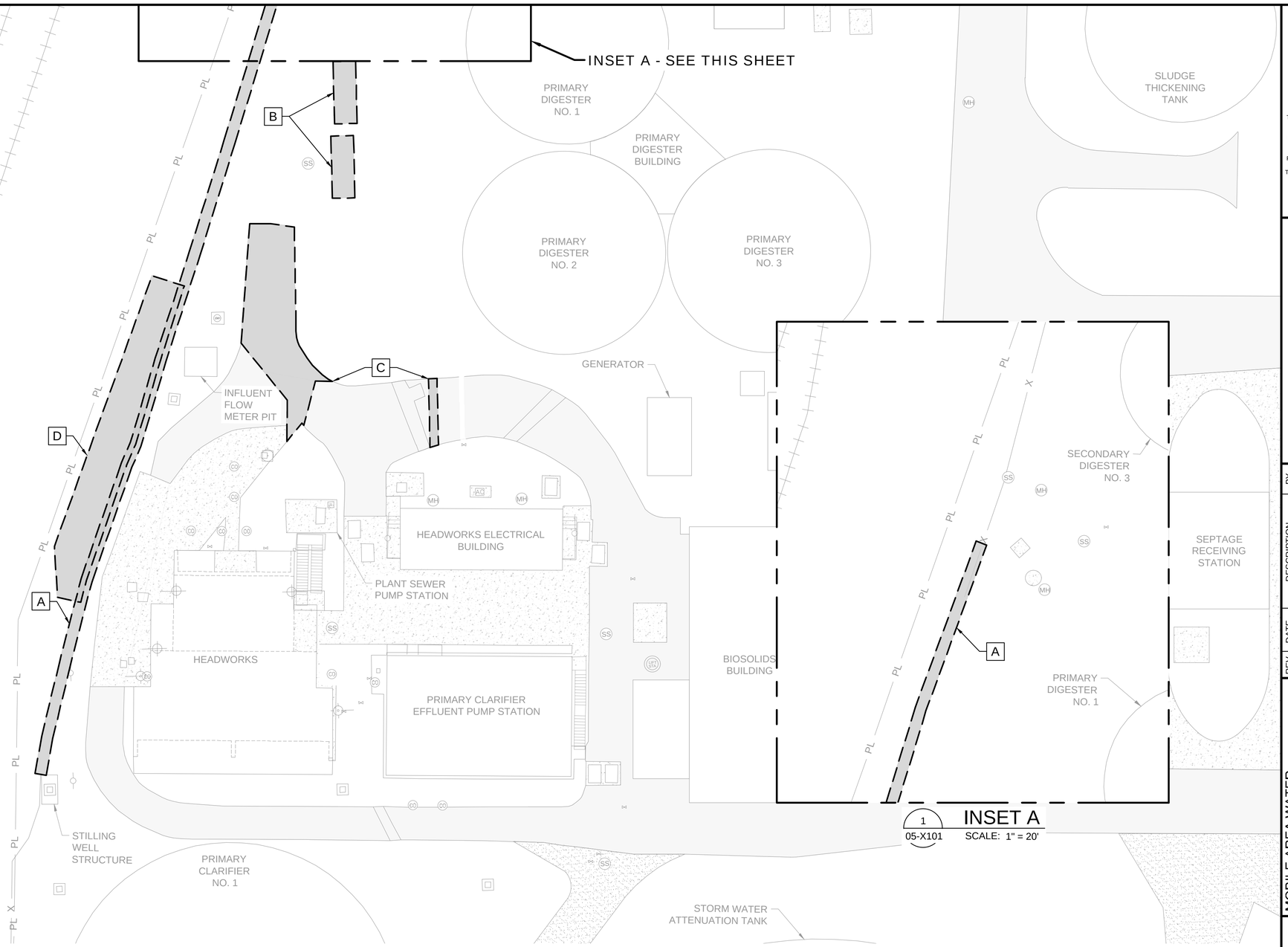
A. DEMOLISH APPROXIMATELY 362 LF OF FENCE. CONTRACTOR TO CONFIRM THE EXTENTS OF DEMOLITION.

B. CONTRACTOR TO COORDINATE WITH MAWSS TO REMOVE AND RELOCATE THE DUMPSTERS AS DIRECTED.

C. CONTRACTOR TO REMOVE ASPHALT PAVING AND REPLACE IN KIND, AS NEEDED FOR CONSTRUCTION OF THE PIPE SUPPORTS, RELOCATION OF THE 12" SANITARY SEWER LINE, AND INSTALLATION OF THE 3" PIPE DRAIN.

DEMOLITION KEYNOTES:

D. CONTRACTOR TO CLEAR AND GRUB TREES, OVERHEAD FOLIAGE, AND BRUSH THAT IS WITHIN 10' OF THE AERIAL PIPE AND ITS SUPPORTS. 1 / 05-X101



1 / 05-X101 — INSET A
SCALE: 1" = 20'

N

0 10' 20' 40' 60'
(IN FEET)

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REGISTRATION NO.
ECA500

LICENSED PROFESSIONAL ENGINEER No. 56665 MARK JOHNSON

Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROPOSED DEMOLITION PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

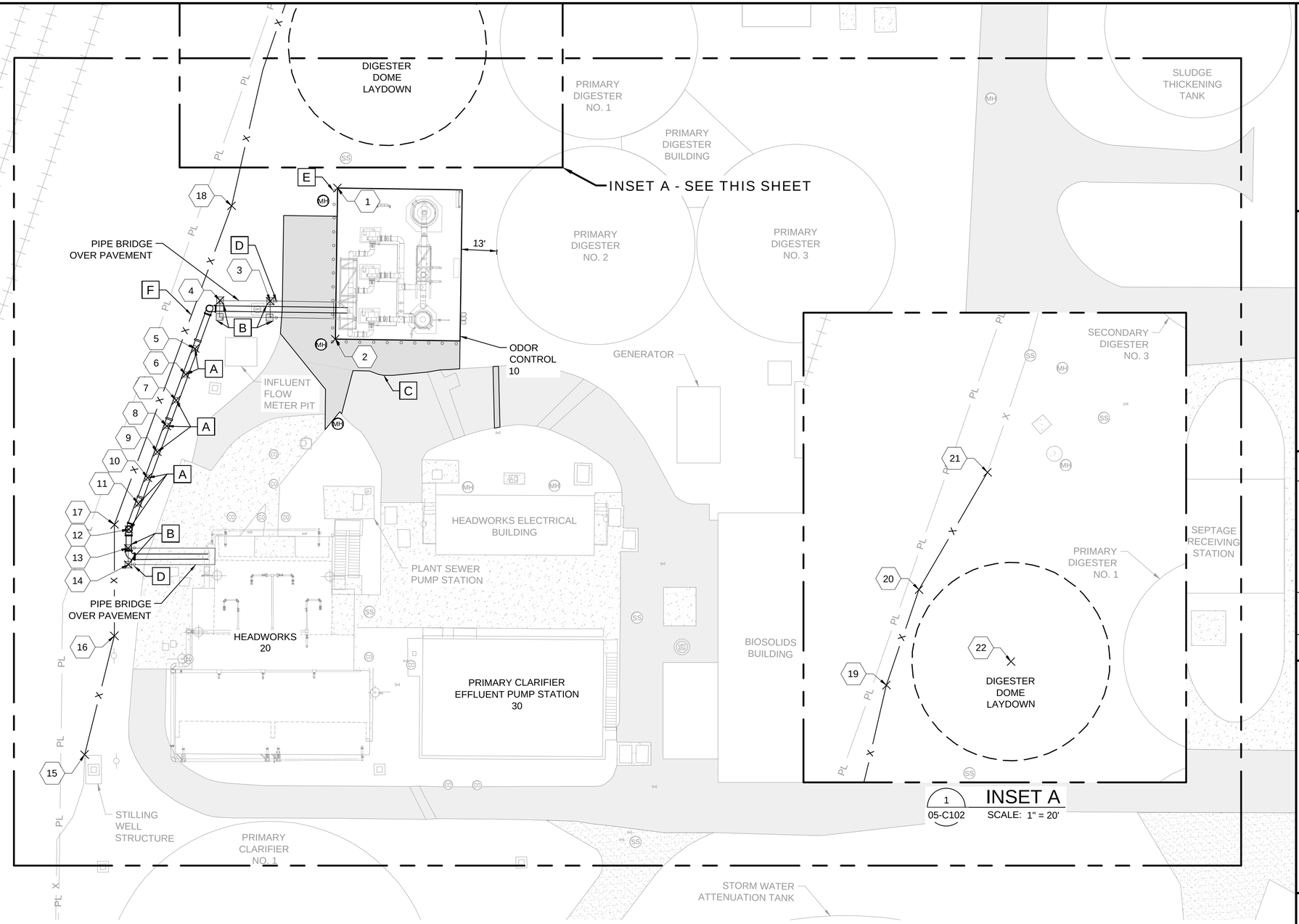
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DRAWING NUMBER
05-X101

SHEET NUMBER 13

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:19 AM Plotter used: None

SITE LAYOUT COORDINATES			
POINT #	DESCRIPTION	NORTHING	EASTING
1	NW CORNER OF ODOR CONTROL (10)	240679.42	1798979.63
2	SW CORNER OF ODOR CONTROL (10)	240624.46	1798977.53
3	CENTER OF PIPE SUPPORT	240638.88	1798954.22
4	CENTER OF PIPE SUPPORT	240639.55	1798936.00
5	CENTER OF PIPE SUPPORT	240622.23	1798926.48
6	CENTER OF PIPE SUPPORT	240612.92	1798922.81
7	CENTER OF PIPE SUPPORT	240603.62	1798919.15
8	CENTER OF PIPE SUPPORT	240594.31	1798915.49
9	CENTER OF PIPE SUPPORT	240585.01	1798911.83
10	CENTER OF PIPE SUPPORT	240575.70	1798908.16
11	CENTER OF PIPE SUPPORT	240566.39	1798904.51
12	CENTER OF PIPE SUPPORT	240557.09	1798900.84
13	CENTER OF PIPE SUPPORT	240550.30	1798900.48
14	CENTER OF PIPE SUPPORT	240544.30	1798900.33
15	END OF FENCE / TIE TO EXISTING	240475.60	1798882.83
16	FENCE CORNER	240518.53	1798894.67
17	FENCE CORNER	240558.98	1798895.63
18	FENCE CORNER	240673.83	1798940.97
19	FENCE CORNER	240722.92	1798953.50
20	FENCE CORNER	240757.32	1798966.17
21	END OF FENCE / TIE TO EXISTING	240799.33	1798992.14
22	CENTER OF DOME LAYDOWN AREA	240730.40	1798999.02



A SITE LAYOUT KEYNOTES

SITE LAYOUT COORDINATES

NOTES:

1. ALL SITE LAYOUT COORDINATES ARE EXTERIOR WALL CORNERS UNLESS OTHERWISE NOTED.
2. PIPE SUPPORT LOCATIONS BETWEEN FACILITIES SHALL BE AS SHOWN ON THIS SHEET. THE DESIGN OF FITTINGS, JOINTS, AND PIPE SEGMENTS SHALL ASSUME THAT PIPE SUPPORTS DO NOT PROVIDED ANY FLEXIONAL OR TORSIONAL RESTRAINT TO THE PIPE. FOR SUPPORT DETAILS, SEE SHEETS 05-S501.
3. FENCE AND FENCE SUPPORTS TO BE INSTALLED OUTSIDE OF AND NOT IN CONFLICT WITH THE PIPE BRIDGE SUPPORTS.

SITE LAYOUT KEYNOTES:

A. CONSTRUCT STANDALONE YARD PIPE SUPPORT. SEE DETAIL 1 / 05-S501 .

B. CONSTRUCT FOUNDATION FOR PIPE SUPPORT BRIDGE FRAMING. SEE SHEETS 10-S102 AND 20-S103.

C. CONSTRUCT NEW ASPHALT PAVEMENT. SEE DETAIL D32 / 1216-001 .

D. INSTALL TWO (2) BOLLARDS. SEE DETAIL D32 / 0000-009 .

E. INSTALL TWENTY ONE (21) BOLLARDS SPACED 5 LF APART. SEE DETAIL D32 / 0000-009 .

SITE LAYOUT KEYNOTES:

F. INSTALL APPROX. 345 LF OF FENCING. NEW FENCING TO MATCH HEIGHT AND SECURITY FEATURES OF EXISTING FENCE. TEMPORARY SECURITY FENCING TO BE PROVIDED BY CONTRACTOR PRIOR TO NEW FENCING INSTALLATION AFTER THE EXISTING FENCE HAS BEEN DEMOLISHED. SEE DETAIL D32 / 3113-009 .

N

0 10' 20' 40' 60'
(IN FEET)

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REGISTRATION NO. ECA500

LICENSED PROFESSIONAL ENGINEER No. 56665 STATE OF ALABAMA KIRK JOHNSON

Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROPOSED SITE PLAN

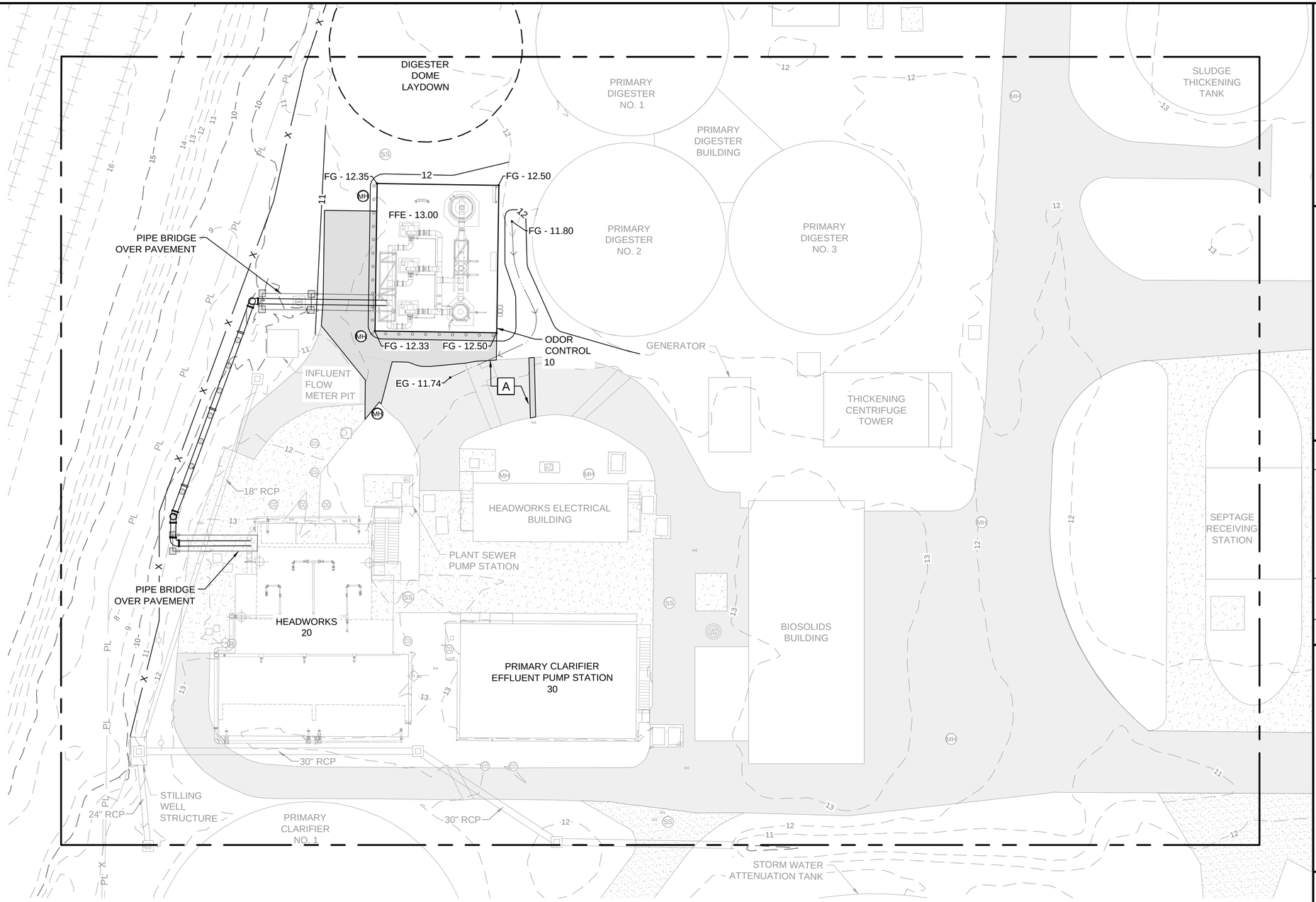
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DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

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DRAWING NUMBER 05-C102

SHEET NUMBER 14

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:19 AM Plotter used: None



A SITE LAYOUT KEYNOTES

SITE LAYOUT COORDINATES

SITE LAYOUT KEYNOTES:

A. CONTRACTOR TO REPLACE PAVEMENT AS NEEDED. PAVEMENT TO ABUT ODOR CONTROL PAD ON WEST AND SOUTH SIDES OF PAD. SEE DETAIL D32 / 1216-001 .

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LICENSED PROFESSIONAL ENGINEER No. 56665 KIRK JOHNSON

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REV	DATE	DESCRIPTION	BY

MAWSS

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROPOSED GRADING, PAVING, AND DRAINAGE PLAN

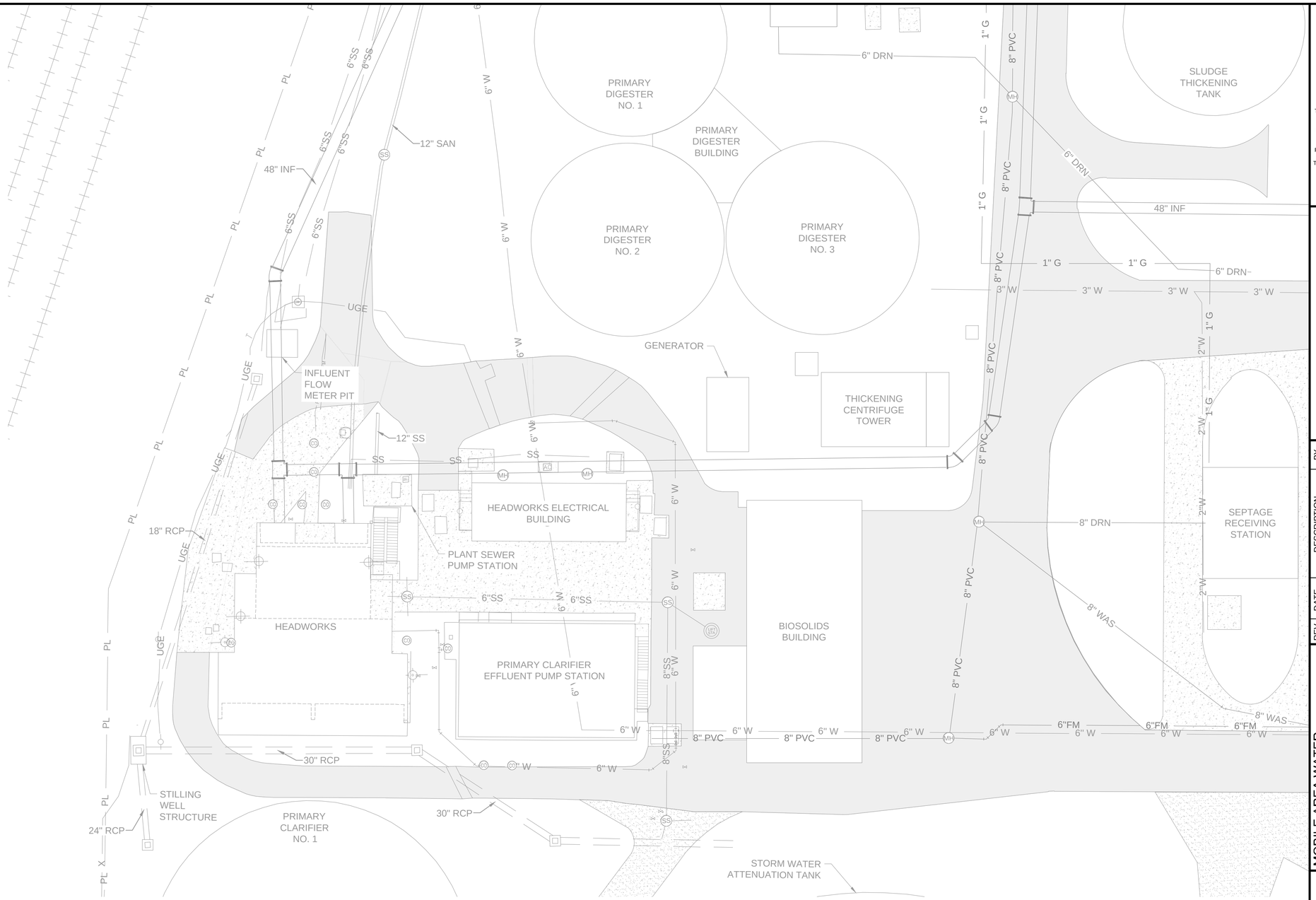
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DRAWING NUMBER
05-C202

SHEET NUMBER 15

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:20 AM Plotter used: None



A PIPING KEYNOTES

PIPING LAYOUT COORDINATES

NOTES:

1. EXISTING PIPING IS SHOWN BASED ON AVAILABLE RECORD DRAWINGS AND INFORMATION PROVIDED TO THE ENGINEER. CONTRACTOR SHALL REVIEW EXISTING RECORD DRAWINGS AND FIELD VERIFY LOCATIONS AND DEPTHS OF ALL PERTINENT LINES PRIOR TO CONSTRUCTION.
2. PIPING ELEVATIONS ARE FOR CONTRACTOR'S BENEFIT. CONTRACTOR SHALL VERIFY ELEVATIONS IN FIELD.
3. FOR ELECTRICAL DUCT BANK INFORMATION SEE ELECTRICAL DRAWINGS.

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

EXISTING YARD PIPING PLAN

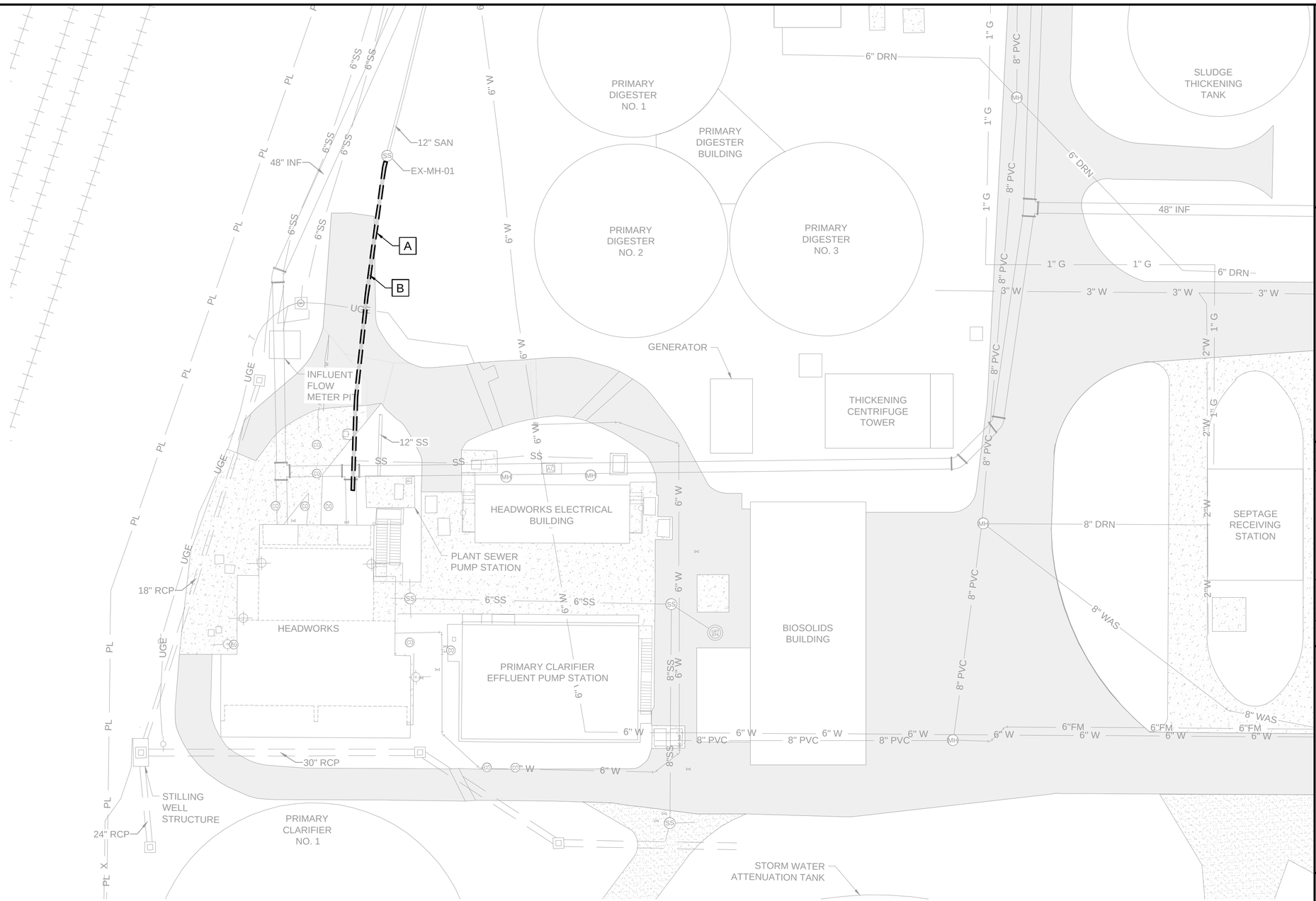
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DRAWING NUMBER 05-C301

SHEET NUMBER 16

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:20 AM Plotter used: None



A DEMOLITION KEYNOTES

PIPING LAYOUT COORDINATES

NOTES:

1. EXISTING PIPING IS SHOWN BASED ON AVAILABLE RECORD DRAWINGS AND INFORMATION PROVIDED TO THE ENGINEER. CONTRACTOR SHALL REVIEW EXISTING RECORD DRAWINGS AND FIELD VERIFY LOCATIONS AND DEPTHS OF ALL PERTINENT LINES PRIOR TO CONSTRUCTION.
2. PIPING ELEVATIONS ARE FOR CONTRACTORS BENEFIT. CONTRACTOR SHALL VERIFY ELEVATIONS IN FIELD.

DEMOLITION KEYNOTES:

A. DEMOLISH APPROXIMATELY 123 LF OF 12" SANITARY SEWER LINE, AS SHOWN.

B. CONTRACTOR TO PROVIDE BYPASS PUMPING FOR THE 12" SANITARY SEWER LINE DURING DEMOLITION OF THE EXISTING 12" PIPE AND CONSTRUCTION OF THE NEW 12" SANITARY SEWER PIPE SHOWN ON SHEET 05-C302. CONTRACTOR TO ASSESS DOWNSTREAM CAPACITY OF DISCHARGE LOCATION AND DEVELOP A BYPASS PUMPING PLAN TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL. CONTRACTOR SHALL MAINTAIN ACCESS THROUGHOUT FACILITY TO PLANT PERSONNEL. IN THE EVENT ACCESS MUST BE RESTRICTED IN CERTAIN AREAS FOR A GIVEN TIME PERIOD, CONTRACTOR MUST OBTAIN PRIOR WRITTEN AUTHORIZATION FROM OWNER.

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LICENSED PROFESSIONAL ENGINEER No. 56665 KIRK JOHNSON

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROPOSED YARD PIPING DEMOLITION PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

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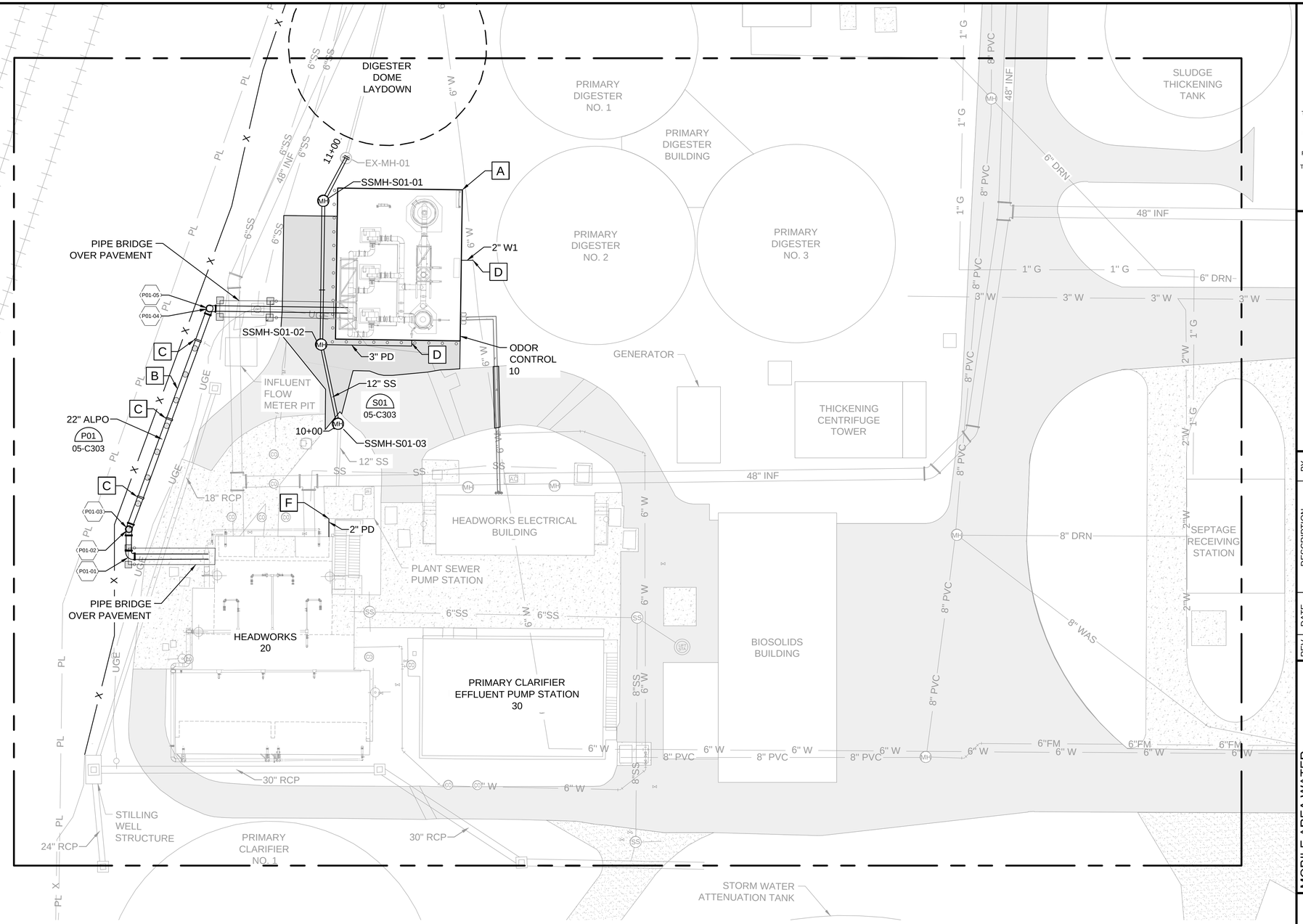
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SHEET NUMBER 17

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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:20 AM Plotter used: None

YARD PIPING COORDINATES				
POINT #	NORTHING	EASTING	CENTERLINE ELEVATION	DESCRIPTION
P01-01	240546.98	1798900.62	33.00	22" 90° BEND
P01-02	240557.26	1798900.85	33.00	22" 90° VERT. BEND
P01-03	240557.09	1798900.84	14.50	22" 90° VERT. AND ROTATED BEND
P01-04	240636.66	1798932.12	14.50	22" 90° VERT. BEND
P01-05	240636.66	1798932.12	31.00	22" 90° VERT. AND ROTATED BEND

STRUCTURE TABLE				
NAME	STATION	DESCRIPTION	NORTHING	EASTING
SSMH-S01-01	10+82.35	4' MANHOLE	240674.80	1798974.37
SSMH-S01-02	10+30.12	4' MANHOLE	240622.61	1798972.40
SSMH-S01-03	10+00.00	4' MANHOLE	240592.99	1798977.91



A PIPING KEYNOTES

PIPING LAYOUT COORDINATES

NOTES:

1. EXISTING PIPING IS SHOWN BASED ON AVAILABLE RECORD DRAWINGS AND INFORMATION PROVIDED TO THE ENGINEER. CONTRACTOR SHALL REVIEW EXISTING RECORD DRAWINGS AND FIELD VERIFY LOCATIONS AND DEPTHS OF ALL PERTINENT LINES PRIOR TO CONSTRUCTION.
2. PIPING ELEVATIONS ARE FOR CONTRACTOR'S BENEFIT. CONTRACTOR SHALL VERIFY ELEVATIONS IN FIELD.
3. FOR ELECTRICAL DUCT BANK INFORMATION SEE ELECTRICAL DRAWINGS.
4. CONTRACTOR SHALL FIELD VERIFY LOCATION OF STRUCTURES AND UTILITIES.

PIPING KEYNOTES:

A. CONTRACTOR TO FIELD LOCATE THE EXISTING 6" WATER PIPE 5 LF TO THE NORTH AND THE SOUTH OF SITE LAYOUT POINT 4 ON SHEET 05-C102. CONTRACTOR TO ENCASE IN CONCRETE ANY WATER PIPE FOUND TO BE UNDER THE ODOR CONTROL PAD FOOTPRINT PRIOR TO CONSTRUCTION.

B. ALPO LINE TO CONNECT TO ODOR CONTROL STRUCTURE ABOVE GROUND, AS SHOWN ON PROFILE.

C. ALPO LINE TO HAVE FLANGES IN THE LOCATIONS SHOWN IN THE PLAN. A FLANGE WILL BE INSTALLED A MINIMUM 10 LF FROM EACH 20" VERTICAL 90 DEGREE BEND, AND A THIRD FLANGE WILL BE INSTALLED 40 LF FROM THE 20" 90 DEGREE BENDS. NO FLANGES ARE TO BE INSTALLED AT THE LOCATION OF A PIPE SUPPORT.

PIPING KEYNOTES:

D. CONNECT TO EXISTING 6" W PIPE W/ 6"X2" TAPPING SADDLE AND VALVE.

E. CONTRACTOR TO HORIZONTALLY PLACE BOLLARDS IN SUCH A MANNER TO AVOID CONFLICT WITH 3" PD.

F. CONTRACTOR TO INSTALL 2" PD WITH PENETRATION SEAL. SEE DETAIL D40 / 2400-001.

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REGISTRATION NO. ECA500

LICENSED PROFESSIONAL ENGINEER No. 56665 KIRK JOHNSON
Digitally Signed 08/07/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PROPOSED YARD PIPING PLAN

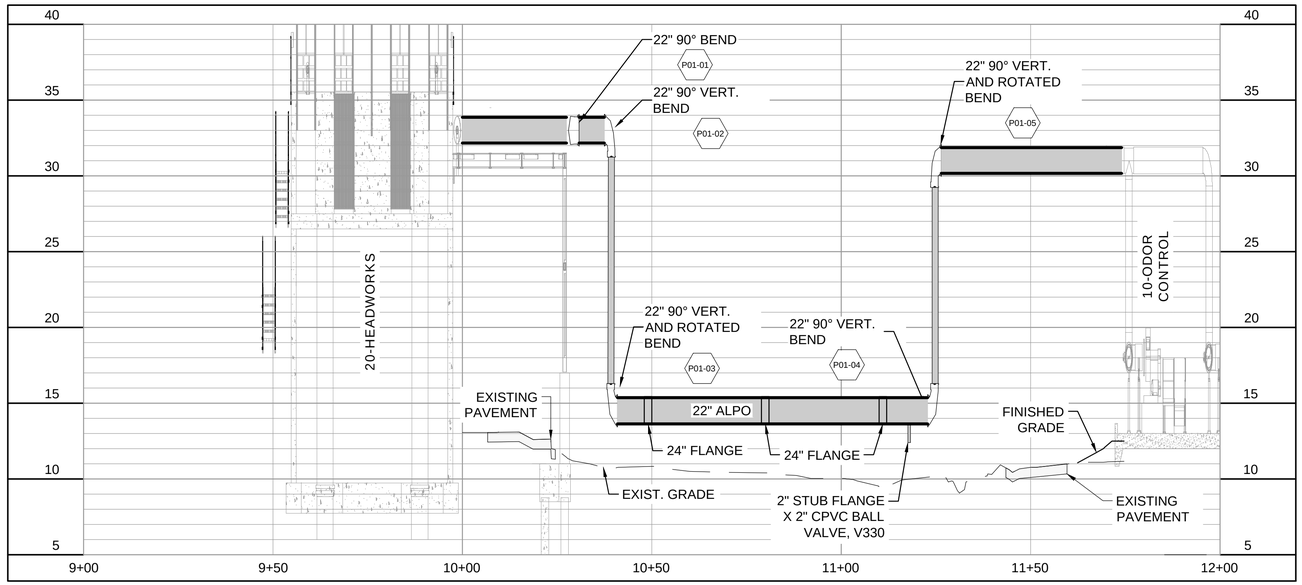
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

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DRAWING NUMBER 05-C302

SHEET NUMBER 18

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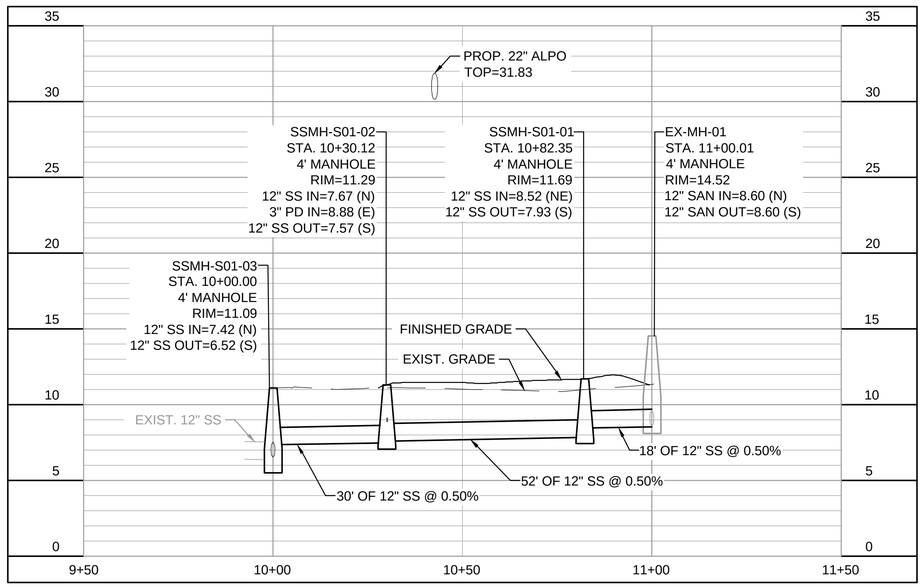


P01

05-C302 | 05-C303

22" ALPO

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



S01

05-C302 | 05-C303

12" SS

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

NOTES:

1. PIPING ELEVATIONS ARE FOR CONTRACTOR'S BENEFIT. CONTRACTOR SHALL VERIFY ELEVATIONS IN FIELD.

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ECA500

LICENSED PROFESSIONAL ENGINEER No. 56665 STATE OF ALABAMA KIRK JOHNSON

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

YARD PIPING PROFILES

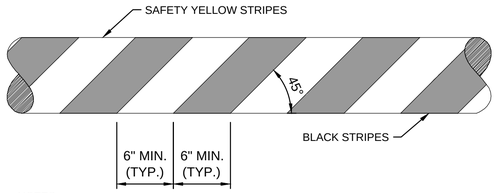
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DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MGD
CHECKED BY: MJS

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DRAWING NUMBER
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SHEET NUMBER 19

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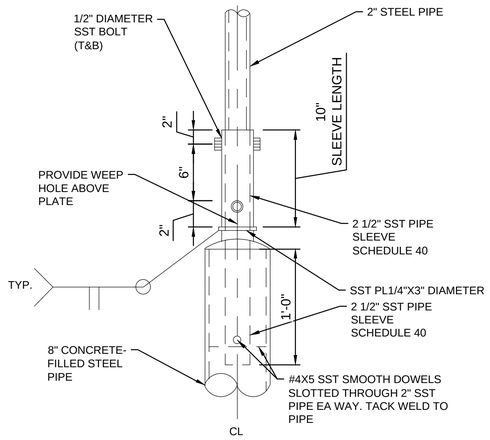
NOTES:

1. PAINT PIPE PER SECTION 090\ 96 00
2. SUBMIT COLOR OPTIONS TO OWNER FOR SELECTION.

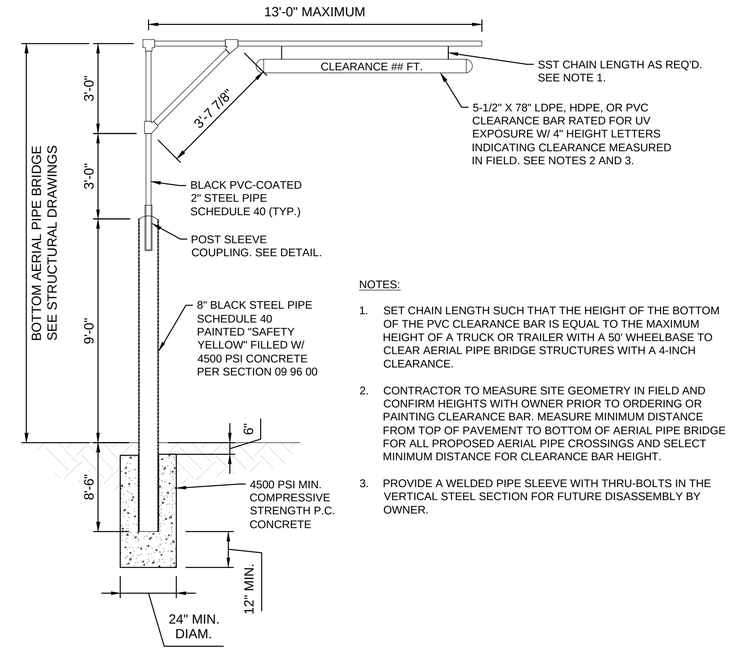
1
05-C102 | 05-C501

ROAD CROSSING AERIAL PIPE COATING DETAIL

SCALE: NONE



POST SLEEVE COUPLING



NOTES:

1. SET CHAIN LENGTH SUCH THAT THE HEIGHT OF THE BOTTOM OF THE PVC CLEARANCE BAR IS EQUAL TO THE MAXIMUM HEIGHT OF A TRUCK OR TRAILER WITH A 50' WHEELBASE TO CLEAR AERIAL PIPE BRIDGE STRUCTURES WITH A 4-INCH CLEARANCE.
2. CONTRACTOR TO MEASURE SITE GEOMETRY IN FIELD AND CONFIRM HEIGHTS WITH OWNER PRIOR TO ORDERING OR PAINTING CLEARANCE BAR. MEASURE MINIMUM DISTANCE FROM TOP OF PAVEMENT TO BOTTOM OF AERIAL PIPE BRIDGE FOR ALL PROPOSED AERIAL PIPE CROSSINGS AND SELECT MINIMUM DISTANCE FOR CLEARANCE BAR HEIGHT.
3. PROVIDE A WELDED PIPE SLEEVE WITH THRU-BOLTS IN THE VERTICAL STEEL SECTION FOR FUTURE DISASSEMBLY BY OWNER.

2
05-C101 | 05-C501

FREE-STANDING CLEARANCE BAR

SCALE: NONE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

CIVIL DETAILS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: TGL
DRAWN BY: MDG
CHECKED BY: MJS

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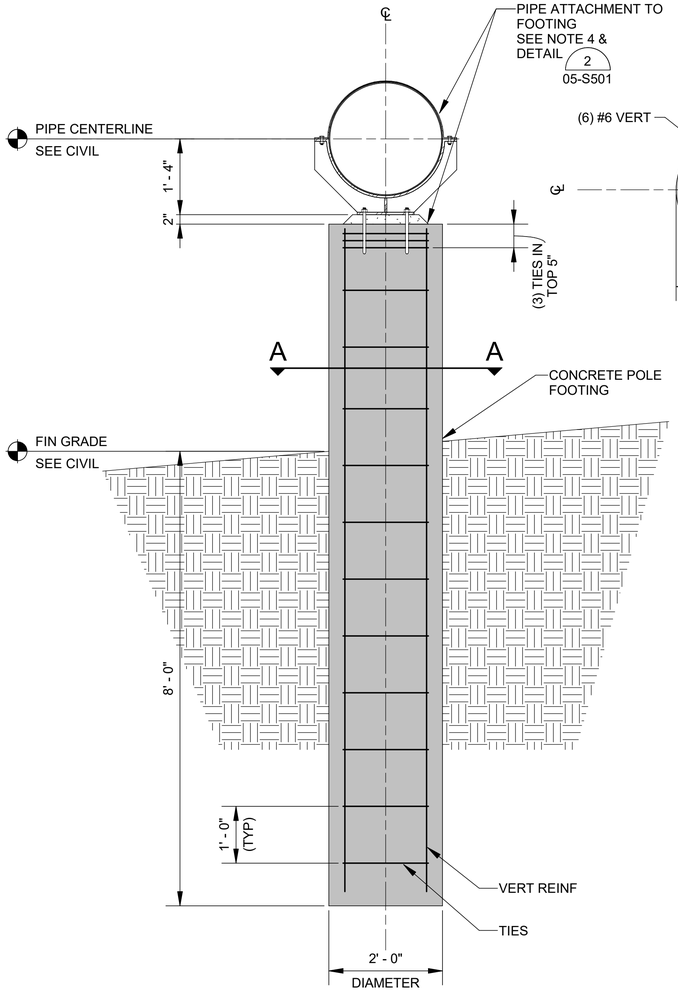
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05-C501

SHEET NUMBER 20

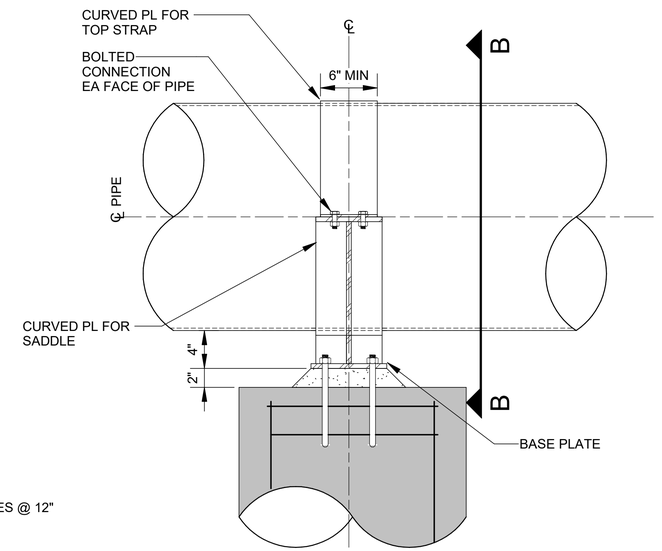
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Last plotted by: Guthrie, Misty D. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 8/7/2026 11:20 AM Plotter used: None

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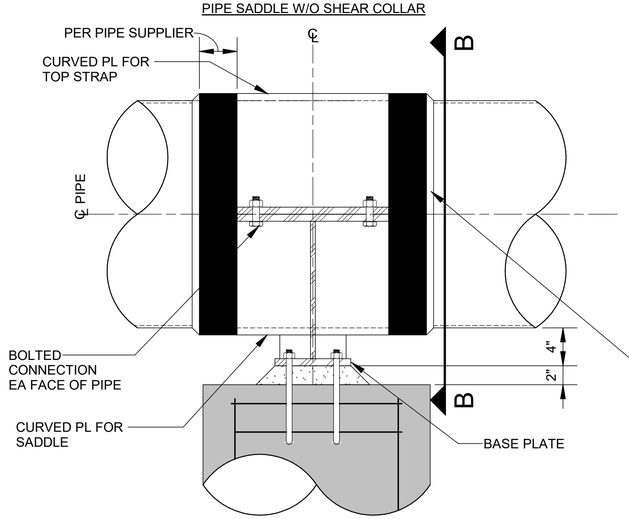
1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM UNO.
3. ALL BOLTS SHALL BE 3/4" ⌀ TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, UNO.



1 YARD PIPE SUPPORT DETAIL
SCALE: 3/4" = 1'-0"

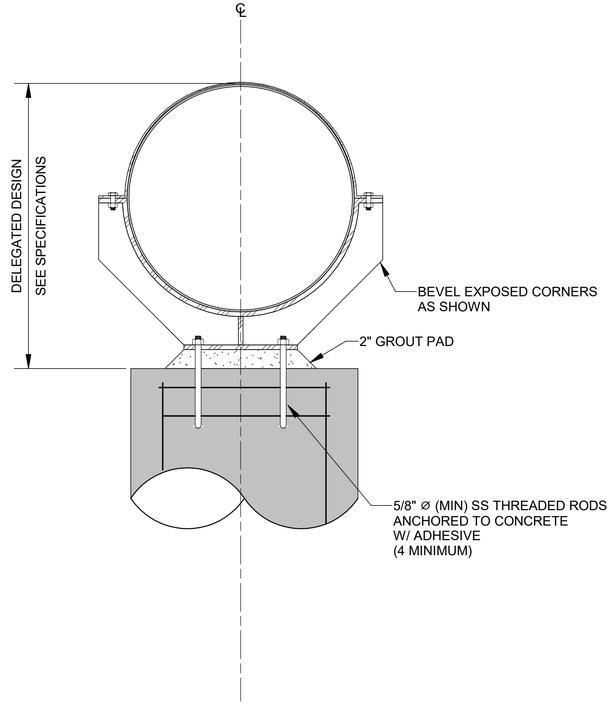


PIPE SADDLE W/O SHEAR COLLAR



PIPE SADDLE W/ SHEAR COLLAR

2 YARD PIPE SADDLE DETAIL
SCALE: 1 1/2" = 1'-0"



SECTION B-B

DESIGN OF SHEAR COLLAR FOR LONGITUDINAL RESTRAINT SHALL BE THE RESPONSIBILITY OF FRP PIPE SUPPLIER.

ENGINEER RESPONSIBLE FOR DELEGATED PIPE ATTACHMENTS TO SUPPORTING STRUCTURE SHALL COORDINATE LONGITUDINAL RESTRAINT LOCATIONS AND ATTACHMENT DESIGN WITH FRP PIPE SUPPLIER.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

YARD PIPE SUPPORT DETAILS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
05-S501

SHEET NUMBER 21

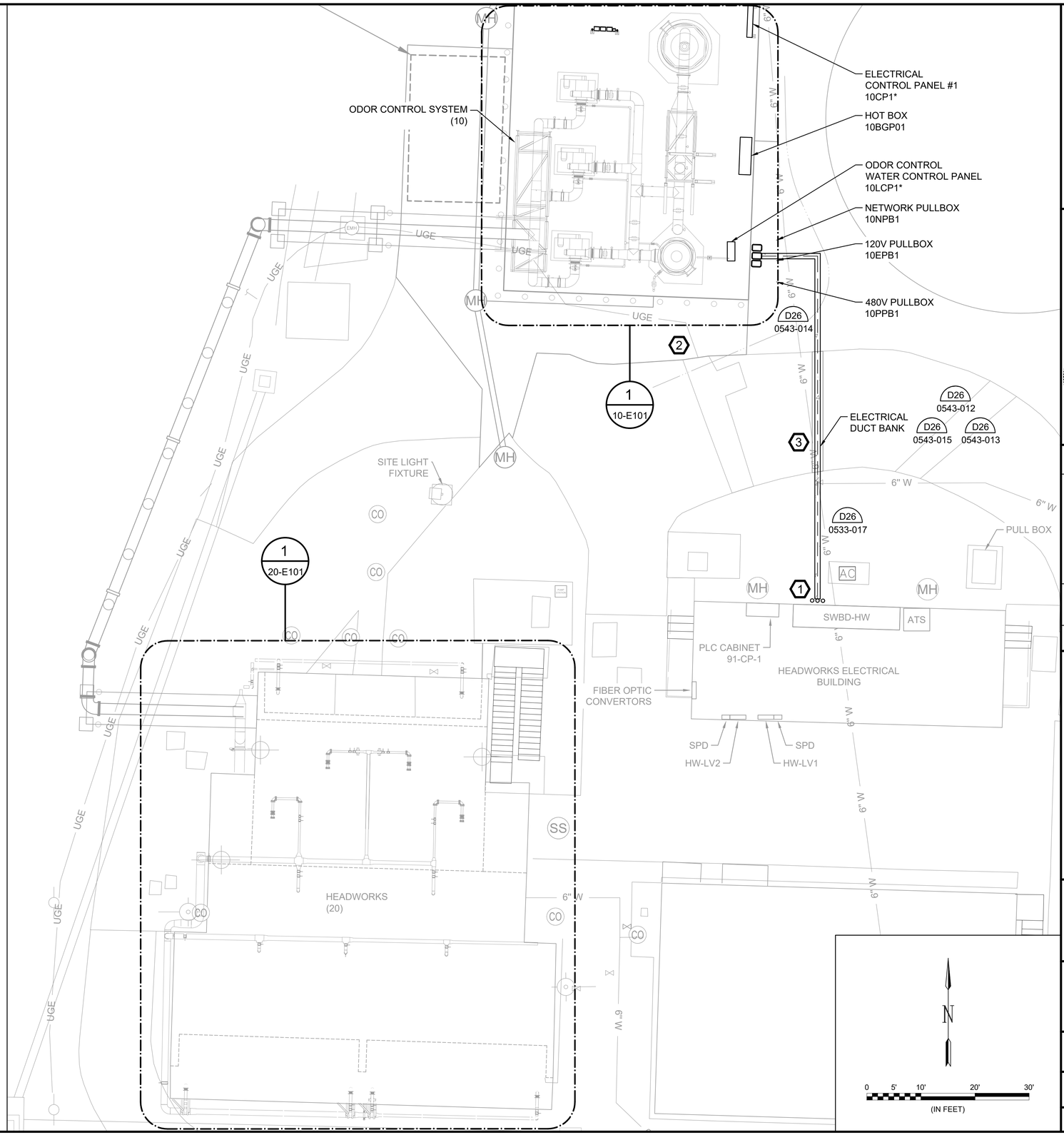
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:23 PM

KEYNOTE

1	ROUTE NEW CONDUITS FROM HEADWORKS ELECTRICAL BUILDING DOWN OUTSIDE WALL ADJACENT TO EXISTING CONDUITS AND TRANSITION TO UNDERGROUND DUCT BANK USING PVC-COATED RIGID ALUMINUM CONDUIT ELBOWS. REFER TO ELECTRICAL DRAWINGS FOR REQUIRED CONDUITS AND CONDUCTORS TO ODOR CONTROL FACILITY.
2	CONTRACTOR TO DETERMINE DEPTH AND REROUTE AROUND ODOR CONTROL SYSTEM TO EMH AS NECESSARY.
3	CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES, INCLUDING WATER LINES, WITH THE APPROPRIATE UTILITY OWNER PRIOR TO CONSTRUCTION. ELECTRICAL DUCTBANK ROUTING SHALL BE ADJUSTED AS REQUIRED TO AVOID ANY CONFLICTS, INTERFERENCES, OR REQUIRED DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AND SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

NOTES:

1. DUCT BANKS SHOWN, INDICATE CONCEPTUAL ROUTING FOR ANTICIPATED ELECTRICAL DUCTS. COORDINATE THE INSTALLATION AND LOCATIONS OF NEW DUCT BANKS WITH OWNER AND ENGINEER PRIOR TO CONSTRUCTION. REFER TO CIVIL DRAWING FOR ADDITIONAL DUCT BANK INFORMATION
2. PROVIDE PULLBOXES AS REQUIRED FOR A WORKABLE INSTALLATION.
3. THE CONTRACTOR SHALL REFER TO ELECTRICAL DETAIL SHEETS FOR PULL BOX TYPE AND INSTALLATION DETAILS. ALL PULL BOXES SHALL BE APPROPRIATELY SIZED BY THE CONTRACTOR AS REQUIRED BY THE NUMBER OF CONDUITS IN THE DUCT BANK FOR A WORKABLE INSTALLATION WITH MINIMUM SIZES AS INDICATED WITHIN THE DETAILS.
4. NUMEROUS UNDERGROUND UTILITIES EXIST THROUGHOUT THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL EXISTING UTILITIES PRIOR TO WORK AND ADJUST DUCT BANK LOCATIONS AS REQUIRED.
5. NEW FACILITIES/EQUIPMENT ARE SHOWN AS DARK/BOLD. EXISTING FACILITIES/EQUIPMENT ARE SHOWN AS LIGHT/FADED.
6. PROVIDE SEPARATE PULLBOXES FOR CONDUCTORS OF SIMILAR POWER TYPES (MEDIUM VOLTAGE, 480V, 120V, AND 24V), WHETHER OR NOT SHOWN ON THE DRAWINGS. PROVIDE SEPARATE CONDUITS FOR POWER CIRCUITS. SIGNAL AND CONTROL CONDUCTORS OF LIKE VOLTAGES MAY BE COMBINED IN A SINGLE CONDUIT.



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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ELECTRICAL SITE PLAN

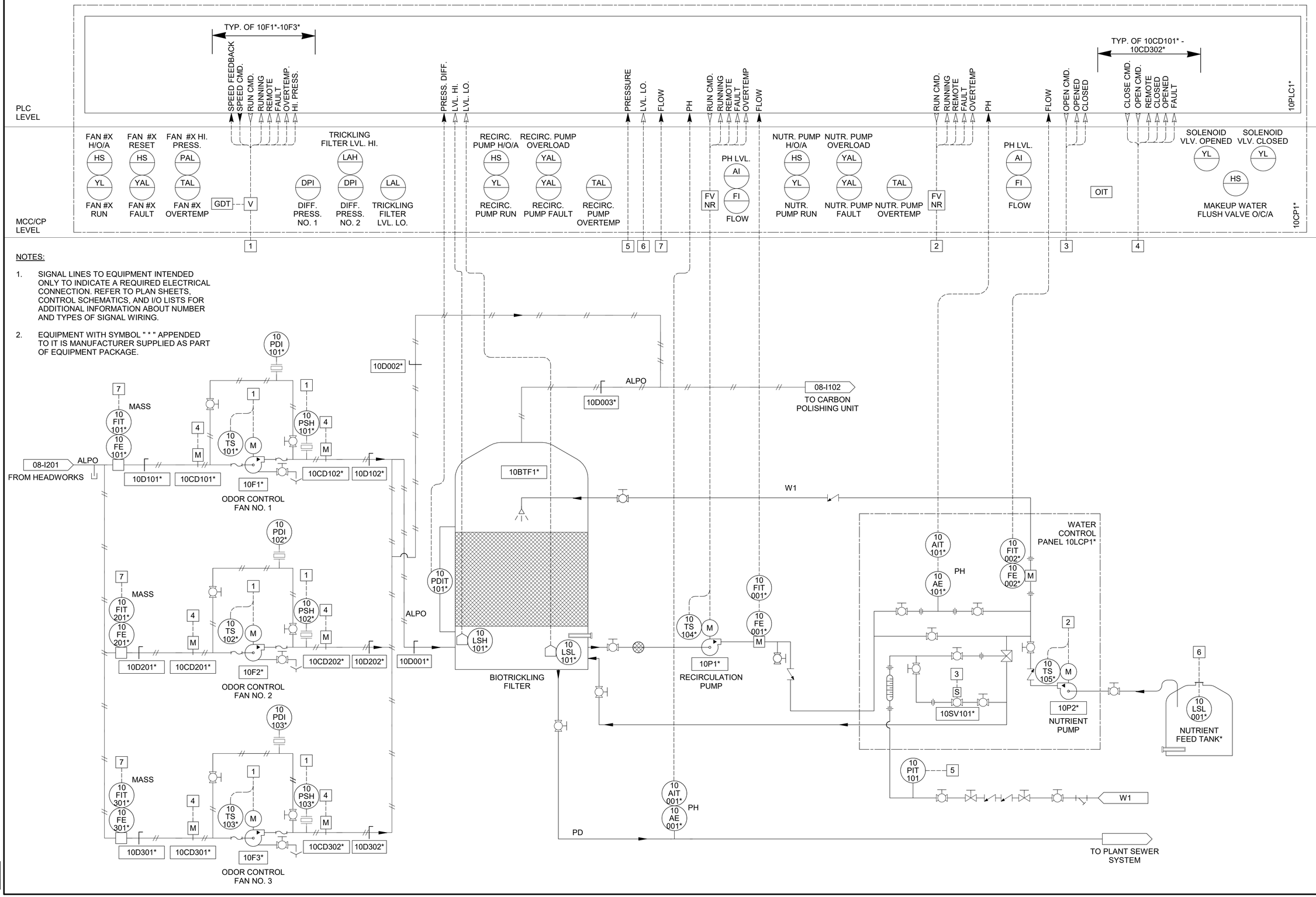
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: NDM
DRAWN BY: NDM
CHECKED BY: JCW

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
05-E101

SHEET NUMBER 22

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Last plotted by: Pena, Ruben A. Plot Style: AECmono.ctb Plot Scale: 1:2.5849 Plot Date: 7/28/2026 2:17 PM Plotter used: None



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ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL SYSTEM P&ID

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

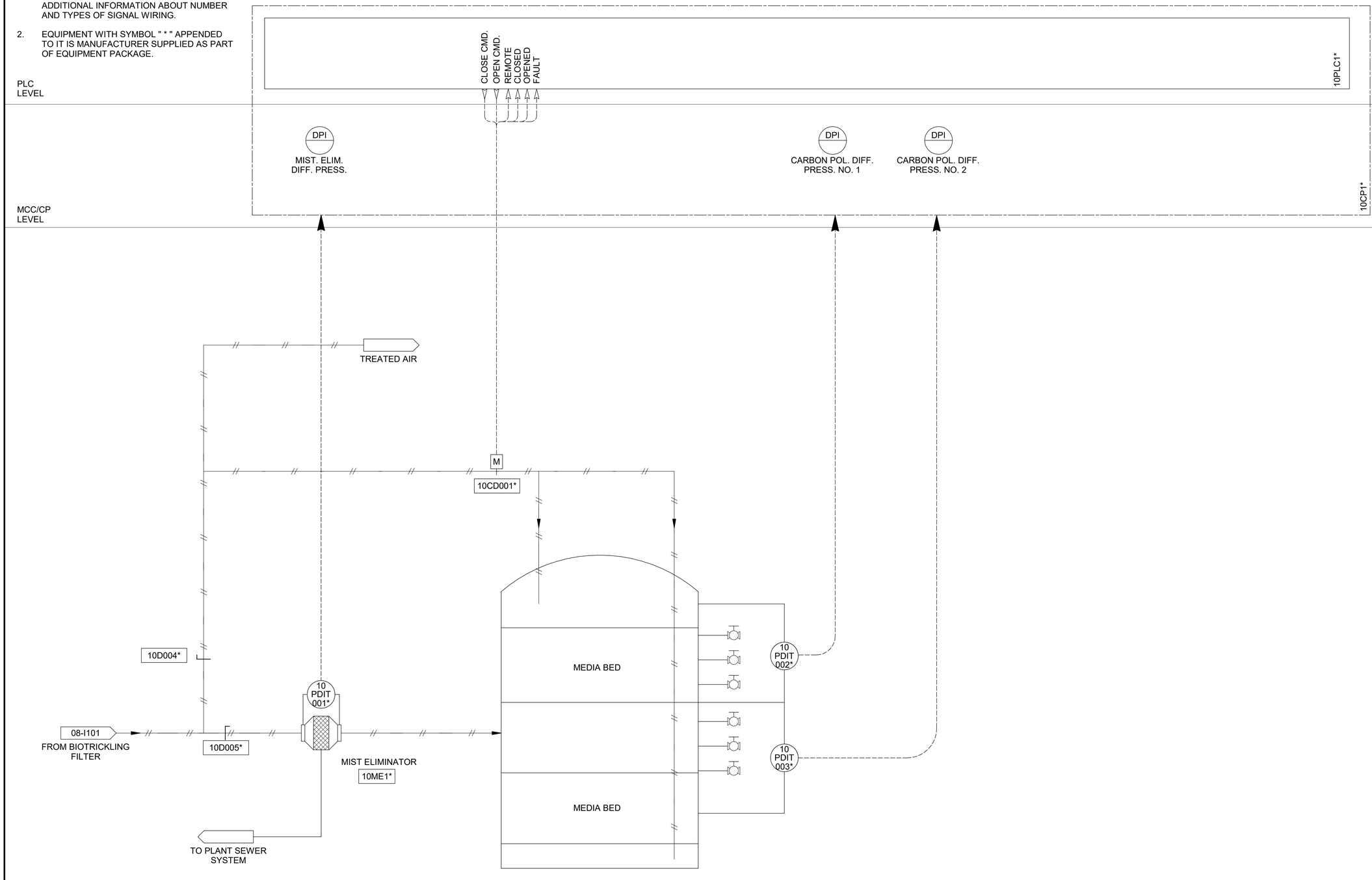
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08-I101

SHEET NUMBER 23

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 2:21:20 PM

NOTES:

1. SIGNAL LINES TO EQUIPMENT INTENDED ONLY TO INDICATE A REQUIRED ELECTRICAL CONNECTION. REFER TO PLAN SHEETS, CONTROL SCHEMATICS, AND I/O LISTS FOR ADDITIONAL INFORMATION ABOUT NUMBER AND TYPES OF SIGNAL WIRING.
2. EQUIPMENT WITH SYMBOL " * " APPENDED TO IT IS MANUFACTURER SUPPLIED AS PART OF EQUIPMENT PACKAGE.



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ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

CARBON POLISHING P&ID

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
08-I102

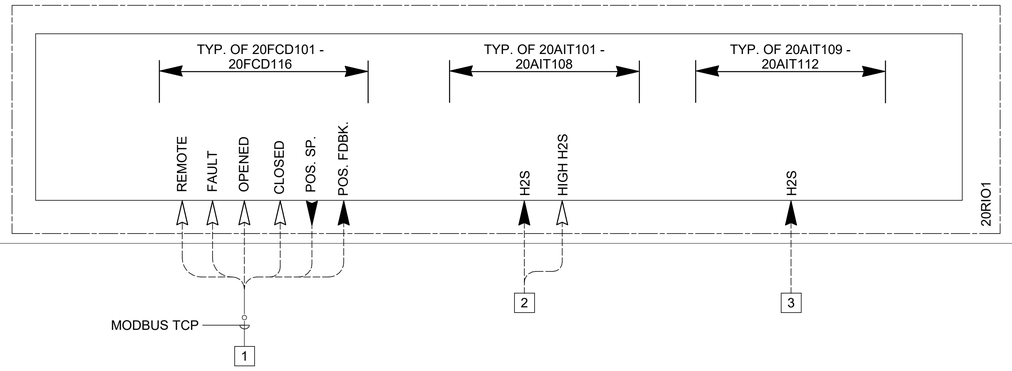
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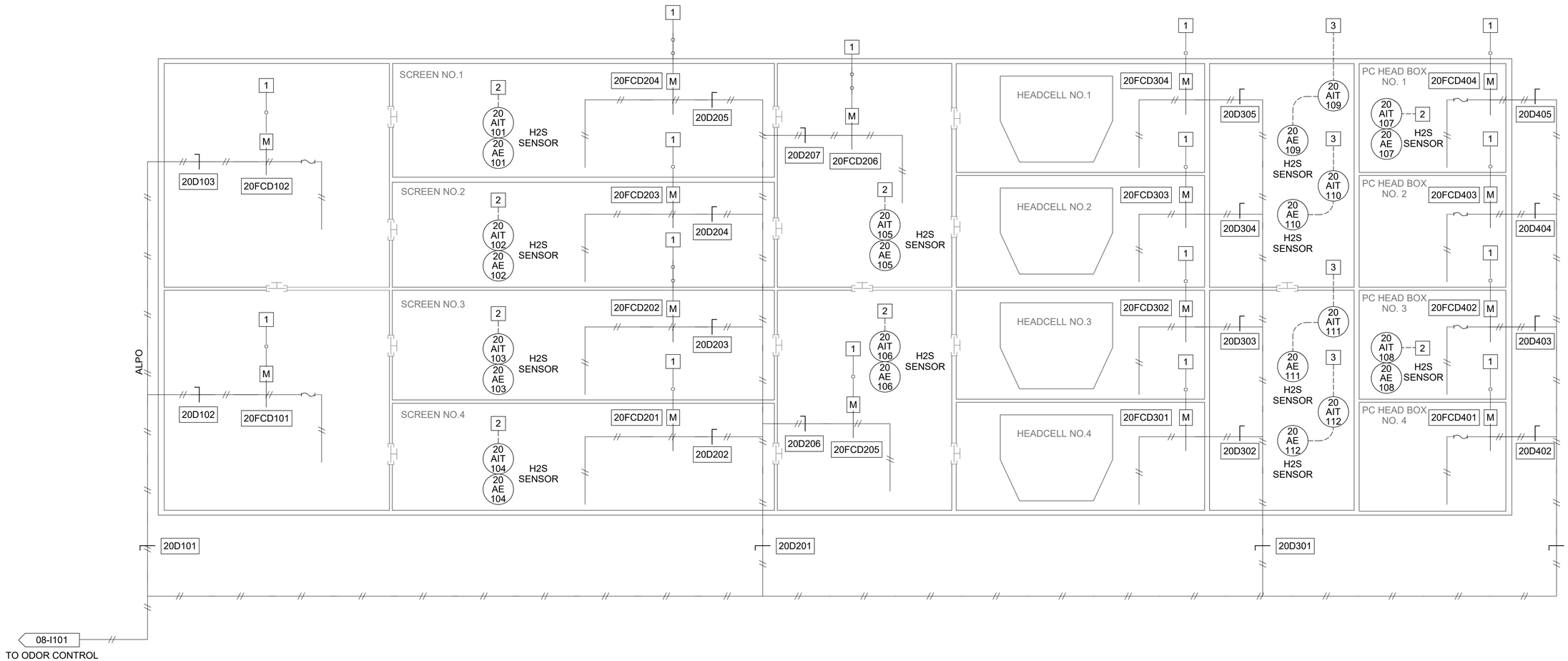
NOTES:

1. SIGNAL LINES TO EQUIPMENT INTENDED ONLY TO INDICATE A REQUIRED ELECTRICAL CONNECTION. REFER TO PLAN SHEETS, CONTROL SCHEMATICS, AND I/O LISTS FOR ADDITIONAL INFORMATION ABOUT NUMBER AND TYPES OF SIGNAL WIRING.

PLC LEVEL



MCC/CP LEVEL



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ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS P&ID

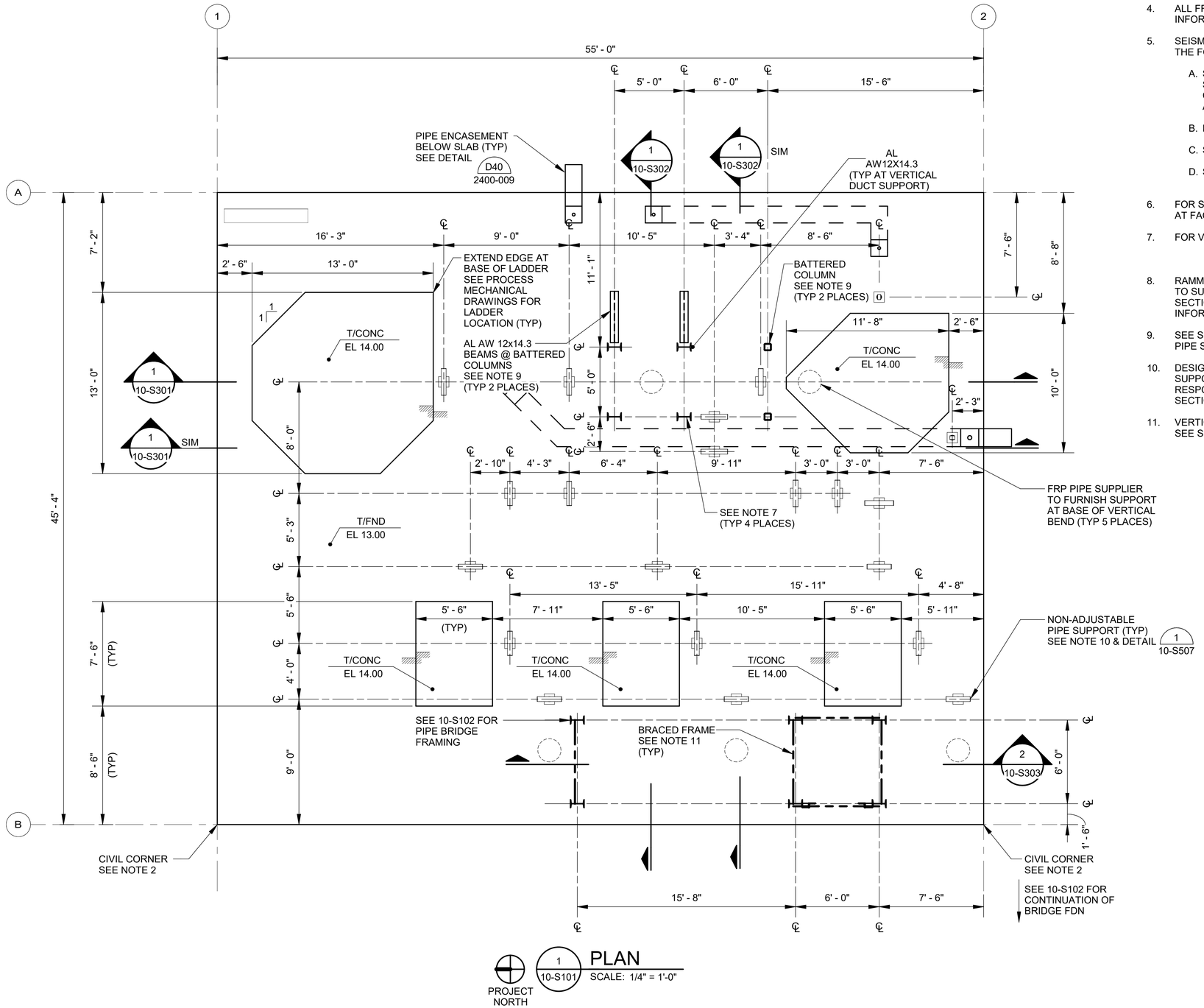
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

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DRAWING NUMBER
08-I201

SHEET NUMBER 25

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 2:21:21 PM



NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR FACILITY SITE COORDINATES AND GRADING, SEE CIVIL DRAWINGS.
3. COORDINATE SLAB OPENINGS WITH OTHER DISCIPLINE DRAWINGS
4. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
5. SEISMIC ANALYSIS OF VERTICAL PIPE SUPPORT HAS BEEN PERFORMED PER THE FOLLOWING:
   A. SEISMIC FORCE RESISTING SYSTEM: STANDALONE ALUMINUM STRUCTURE ANALYZED WITHOUT RESPONSE MODIFICATION COEFFICIENT, R, USING EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7-16.
   B. RESPONSE MODIFICATION FACTOR, R=1.0
   C. SEISMIC RESPONSE COEFFICIENT, CS=0.186
   D. SEISMIC BASE SHEAR, V=1K
6. FOR STRUCTURAL DESIGN CRITERIA APPLICABLE TO SUPPORTED EQUIPMENT AT FACILITY 10 SEE DIVISION 44 SPECIFICATIONS.
7. FOR VERTICAL PIPE SUPPORT COLUMN BASE PLATE, SEE DETAIL 3 10-S504
8. RAMMED AGGREGATE PIERS (RAP) SHALL BE USED TO PREPARE SUBGRADE TO SUPPORT MAT FOUNDATION. SEE SHEET 10-S301 AND SPECIFICATION SECTION 31 66 13 - AGGREGATE PIER GROUND IMPROVEMENT FOR ADDITIONAL INFORMATION.
9. SEE SHEET 10-S103 AND SECTIONS FOR BATTERED COLUMNS AT VERTICAL PIPE SUPPORT.
10. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
11. VERTICAL BRACED FRAMES ARE INDICATED AS — — — — SEE SECTIONS FOR BRACING CONFIGURATIONS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL PLAN

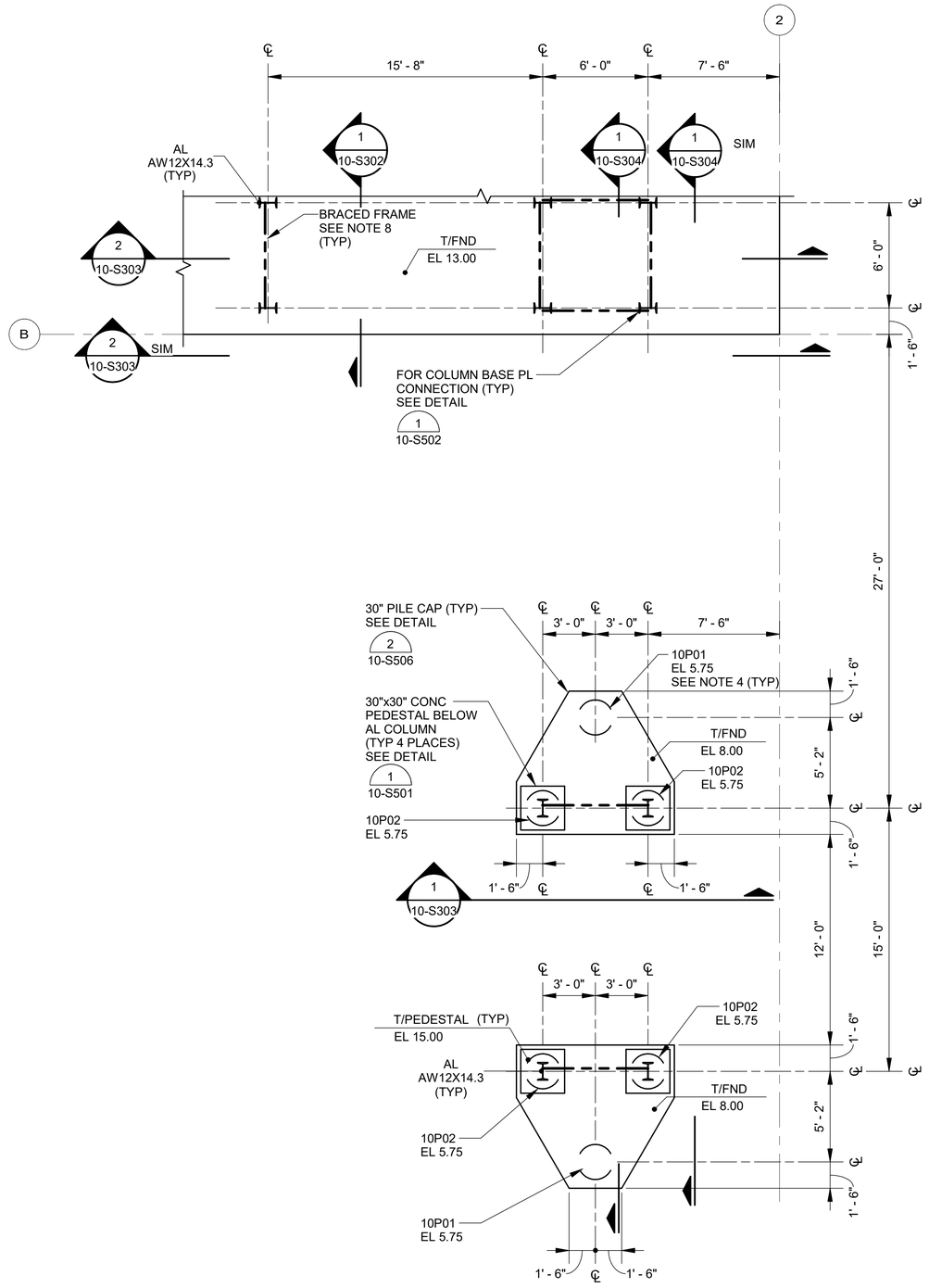
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
10-S101

SHEET NUMBER 26

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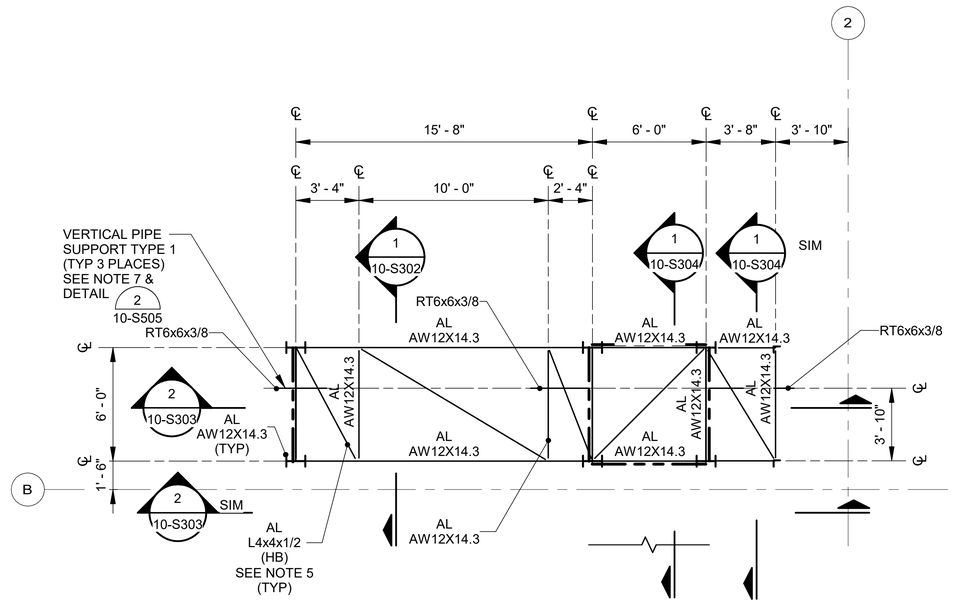
PROJECT NORTH

1 / 10-S102 LOWER PIPE BRIDGE PLAN

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPING BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. AUGER CAST PILES ARE NOTED ON PLAN AS 10PXX. FOR PILE INFORMATION SEE SCHEDULE 1 / 10-S601
5. TOP OF ALUMINUM FRAMING IN INTERMEDIATE PLAN AT 24.50 UNO.
6. SEISMIC ANALYSIS OF VERTICAL DUCT SUPPORT HAS BEEN PERFORMED PER THE FOLLOWING:
   A. SEISMIC FORCE RESISTING SYSTEM: STANDALONE ALUMINUM STRUCTURE ANALYZED WITHOUT RESPONSE MODIFICATION COEFFICIENT, R, USING EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7-16.
   B. RESPONSE MODIFICATION FACTOR, R=1.0
   C. SEISMIC RESPONSE COEFFICIENT, CS=0.186
   D. SEISMIC BASE SHEAR, V=5K
7. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
8. VERTICAL BRACED FRAMES ARE INDICATED AS — — — SEE SECTIONS FOR BRACING CONFIGURATIONS.



PROJECT NORTH

2 / 10-S102 INTERMEDIATE PIPE BRIDGE PLAN

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

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

LOWER AND INTERMEDIATE PIPE BRIDGE PLANS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

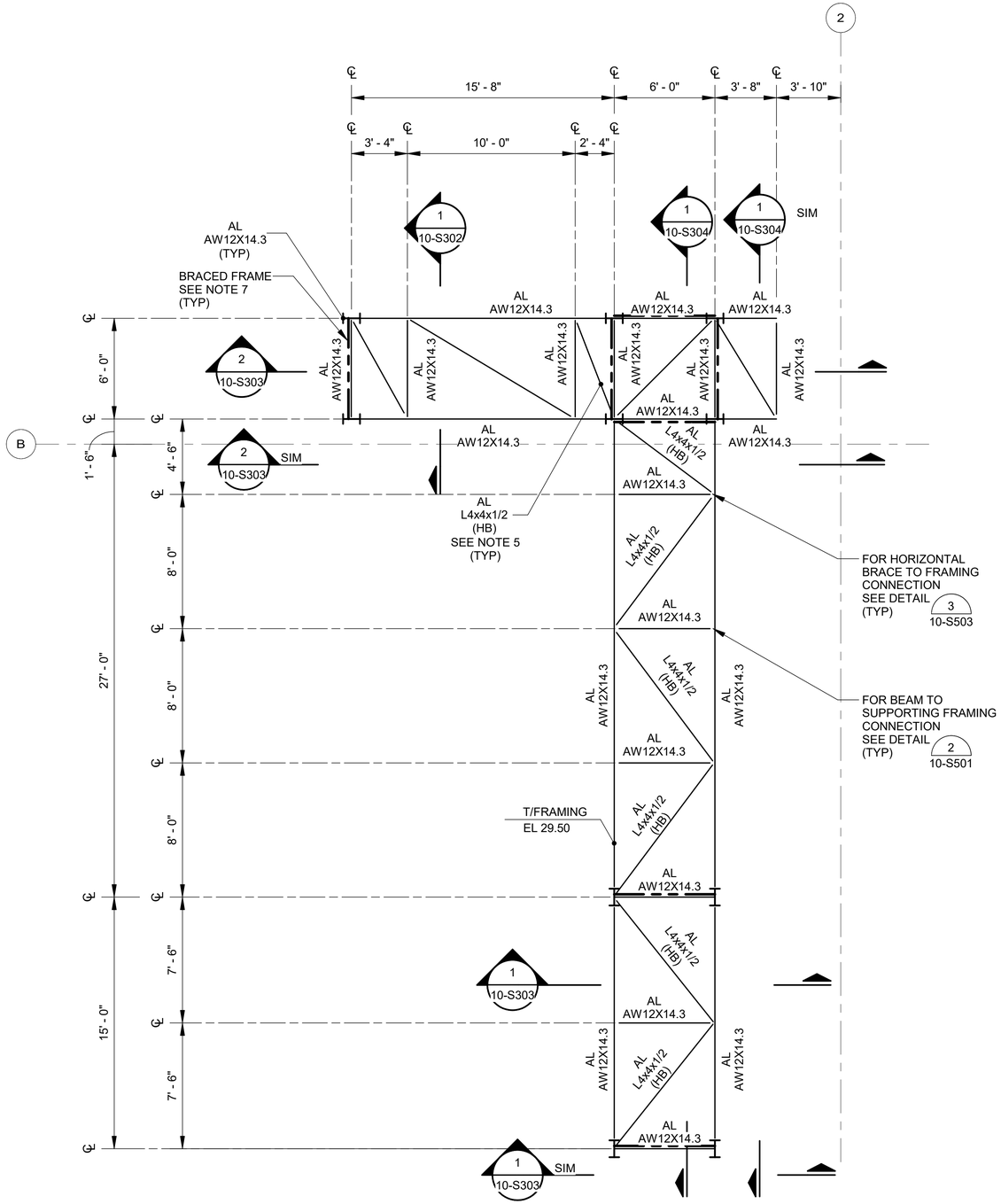
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SHEET NUMBER 27

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:37 PM

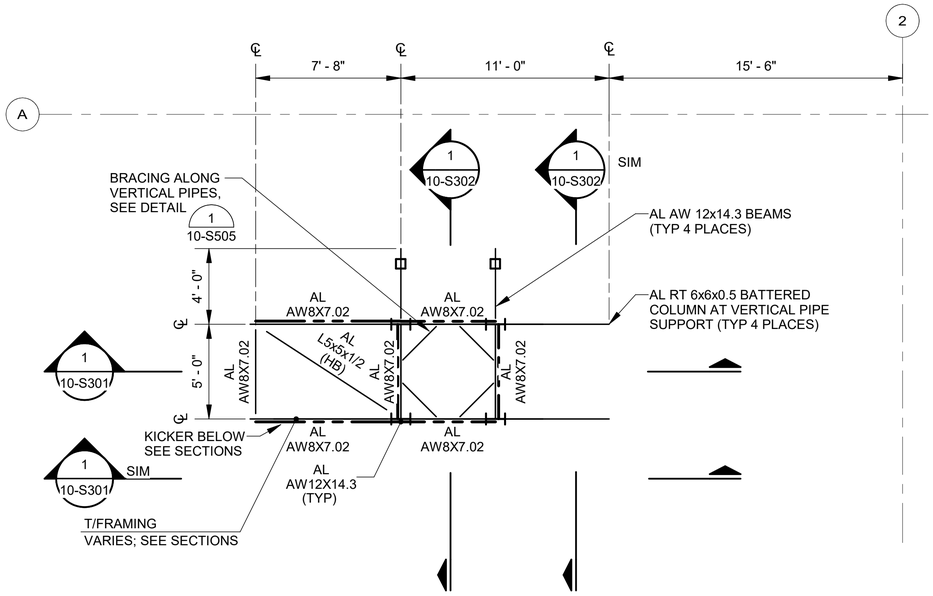
NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPING BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. SEE SECTIONS FOR BATTERED COLUMNS AT VERTICAL PIPE SUPPORT.
5. (HB) DENOTES HORIZONTAL BRACE. TOP OF BRACE ELEVATION SHALL BE 3 1/2" BELOW ADJACENT BEAM FRAMING.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
7. VERTICAL BRACED FRAMES ARE INDICATED AS — — — SEE SECTIONS FOR BRACING CONFIGURATIONS.



1 10-S103 UPPER PIPE BRIDGE PLAN
SCALE: 1/4" = 1'-0"

PROJECT NORTH



2 10-S103 UPPER VERTICAL PIPE SUPPORT PLAN
SCALE: 1/4" = 1'-0"

PROJECT NORTH

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

UPPER PIPE BRIDGE AND VERTICAL PIPE SUPPORT PLANS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

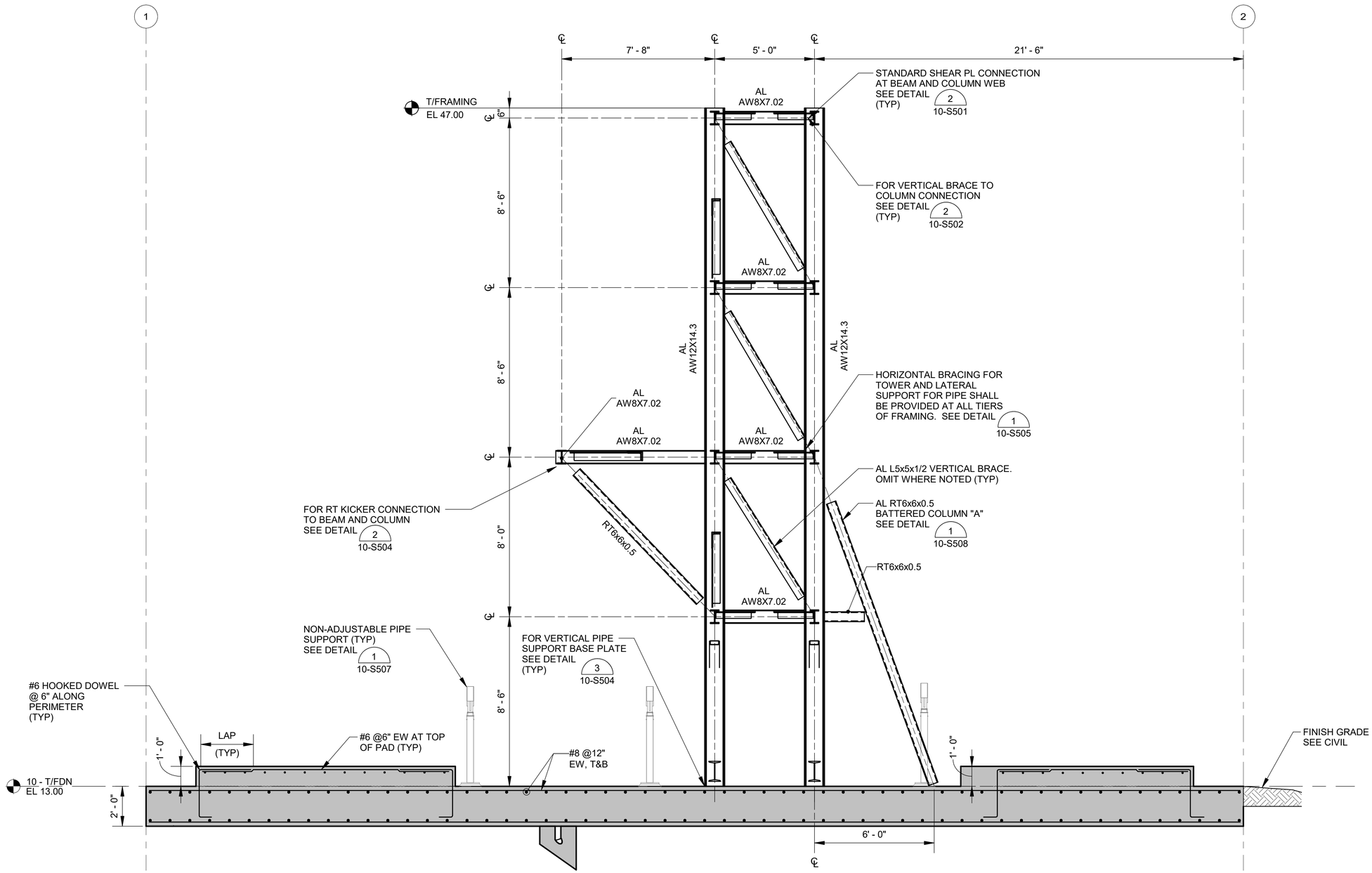
DRAWING NUMBER
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SHEET NUMBER 28

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
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NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. DESIGN OF RAMMED AGGREGATE PIER (RAP) SYSTEM, INCLUDING THE LAYOUT, DEPTH, AND SIZE, SHALL BE THE RESPONSIBILITY OF THE RAP SYSTEM SUPPLIER. RAP SYSTEM SHALL COMPLY WITH SPECIFICATION SECTION 31 66 13-AGGREGATE PIER GROUND IMPROVEMENT, AND THE FOLLOWING DESIGN CRITERIA:
   - FOUNDATION BEARING PRESSURE (SERVICE): 1100PSF
   - FOUNDATION BEARING PRESSURE BASED ON A SUBGRADE MODULUS OF 150 PCI



1 10-S101 SECTION
SCALE: 3/8" = 1'-0"

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL SECTIONS 1

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

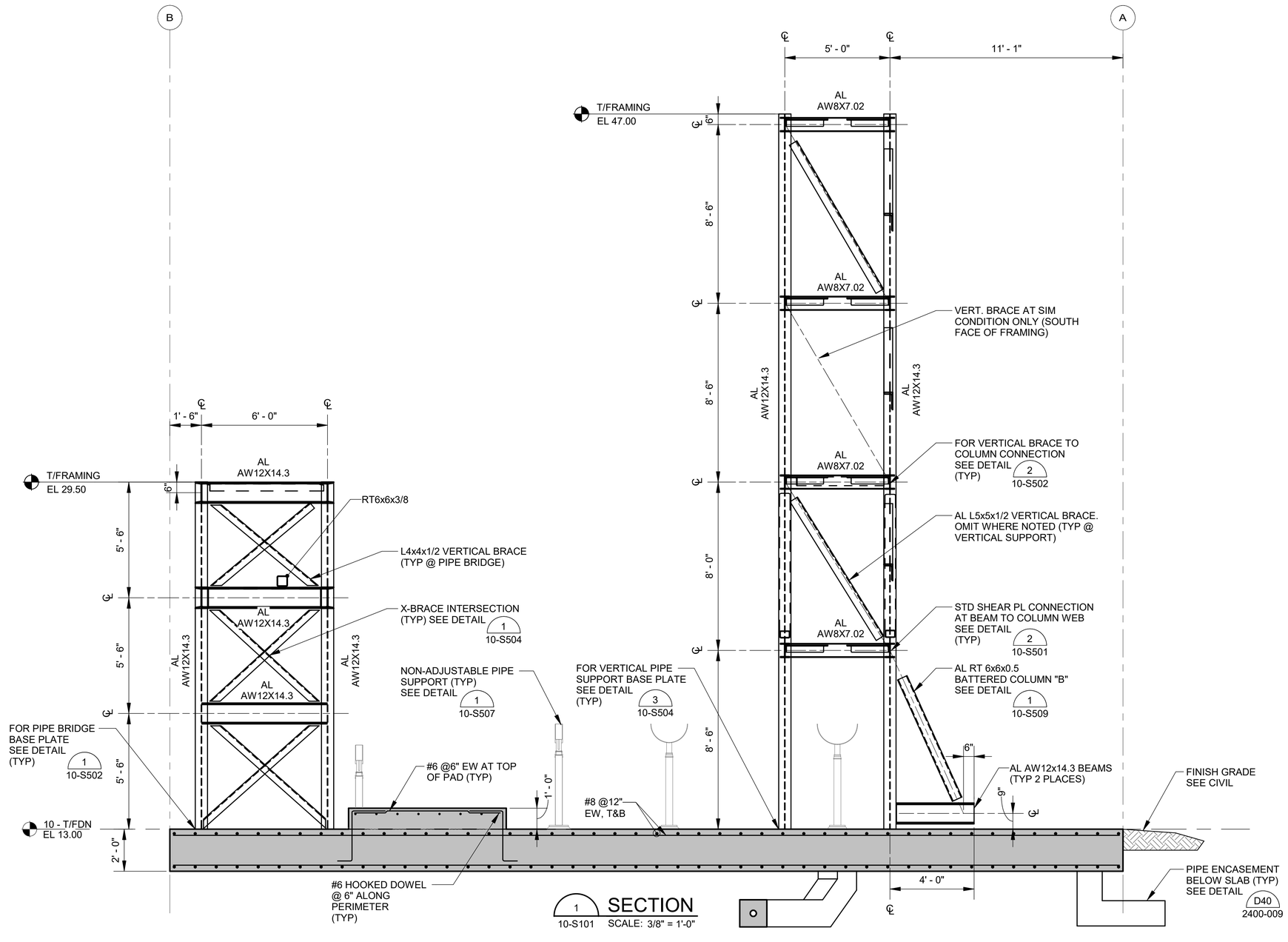
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10-S301

SHEET NUMBER 29

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:38 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. SEE SHEET 10-S301 FOR RAMMED AGGREGATE PIER (RAP) SYSTEM NOTES.



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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL SECTIONS 2

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

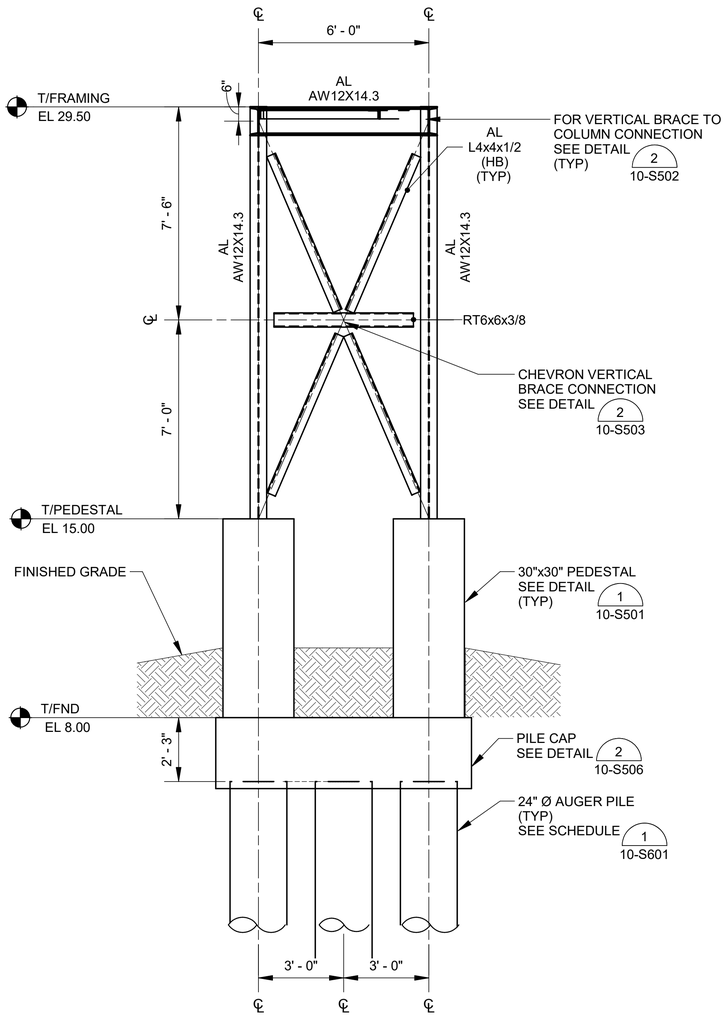
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SHEET NUMBER 30

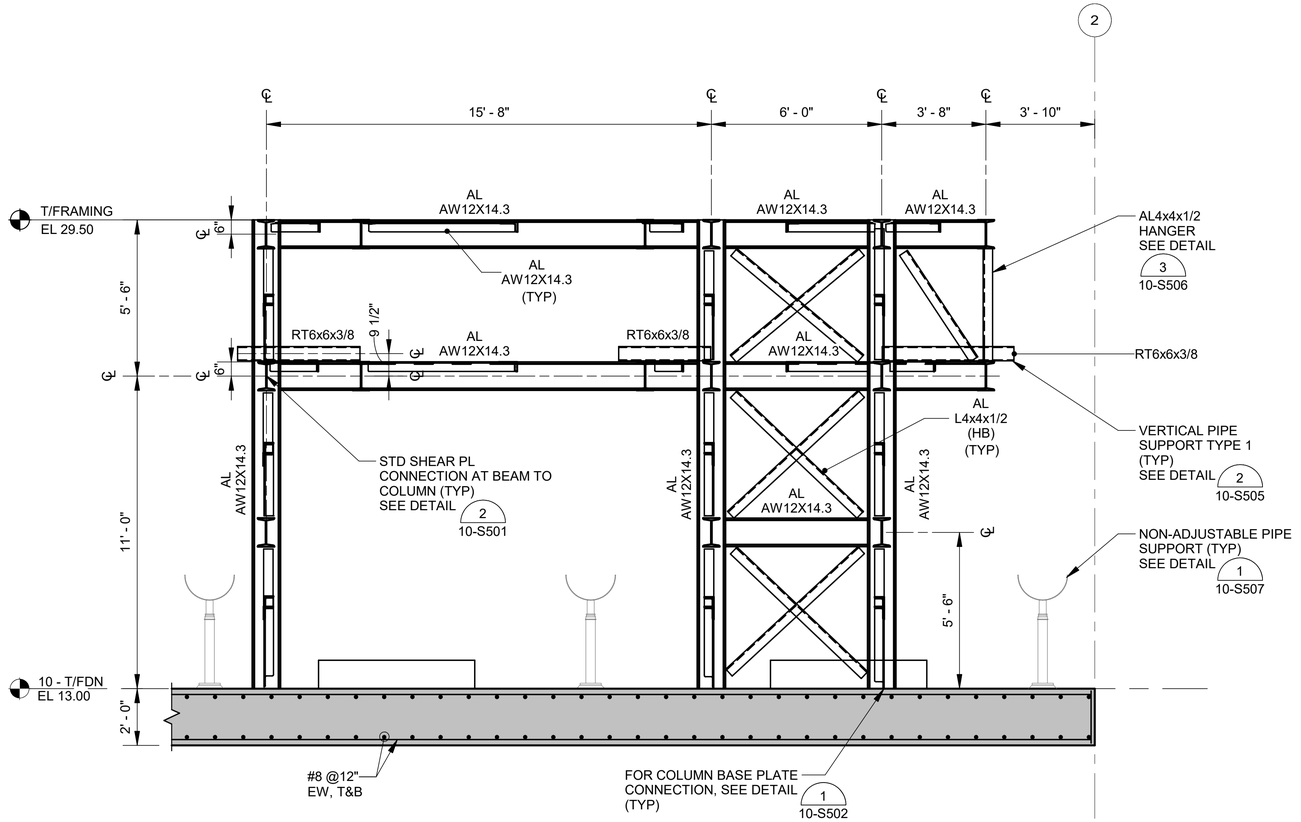
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:38 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPING BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. SEE SPECIFICATIONS FOR FRP PIPE INFORMATION.



1 10-S102 SECTION SCALE: 3/8" = 1'-0"



2 10-S101 SECTION SCALE: 3/8" = 1'-0"

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL SECTIONS 3

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

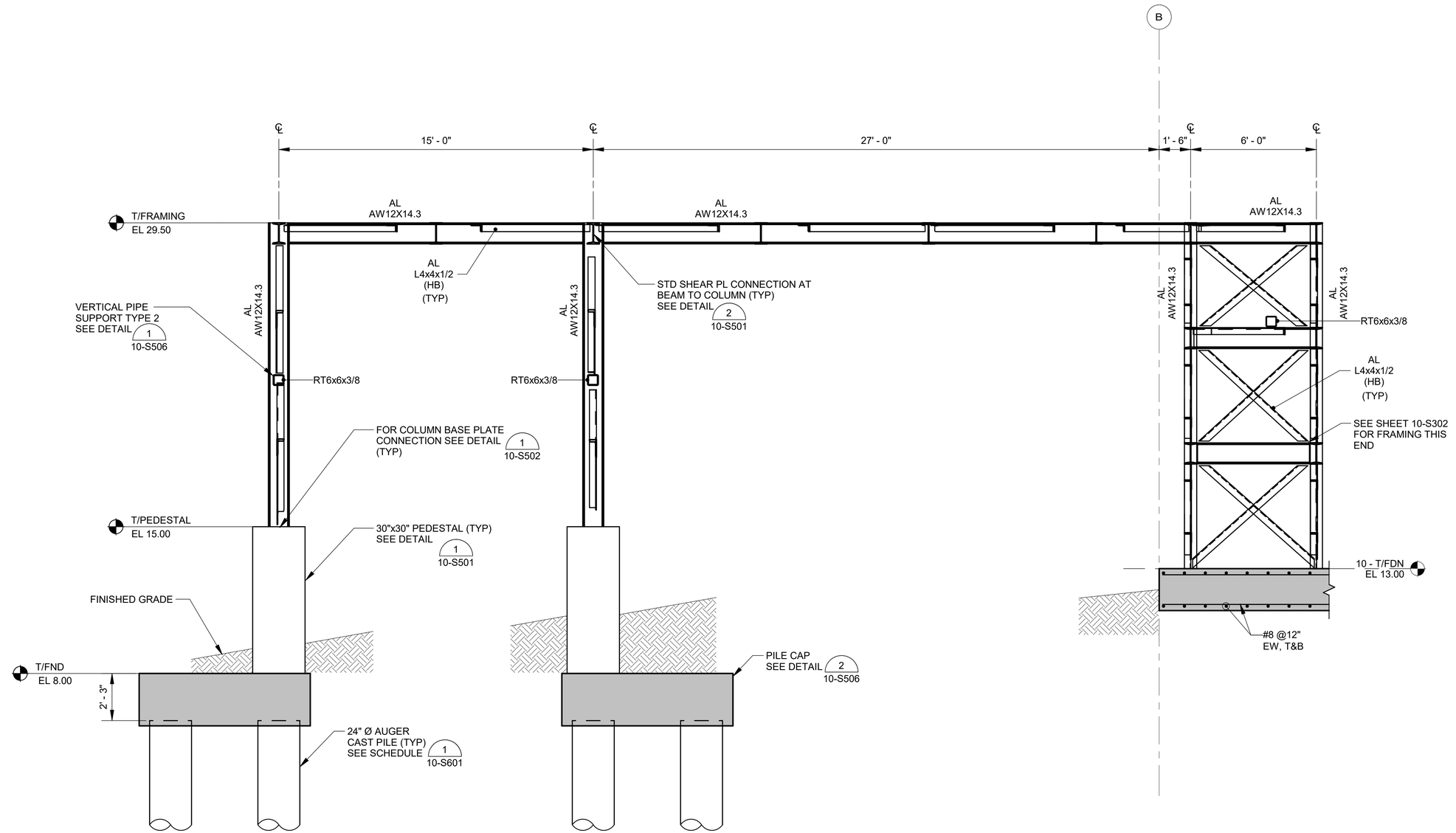
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SHEET NUMBER 31

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Plot Date: 8/7/2026 1:40:39 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPING BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. SEE SPECIFICATIONS FOR FRP PIPE INFORMATION.



1 SECTION
10-S102 SCALE: 3/8" = 1'-0"

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL
SECTIONS 4

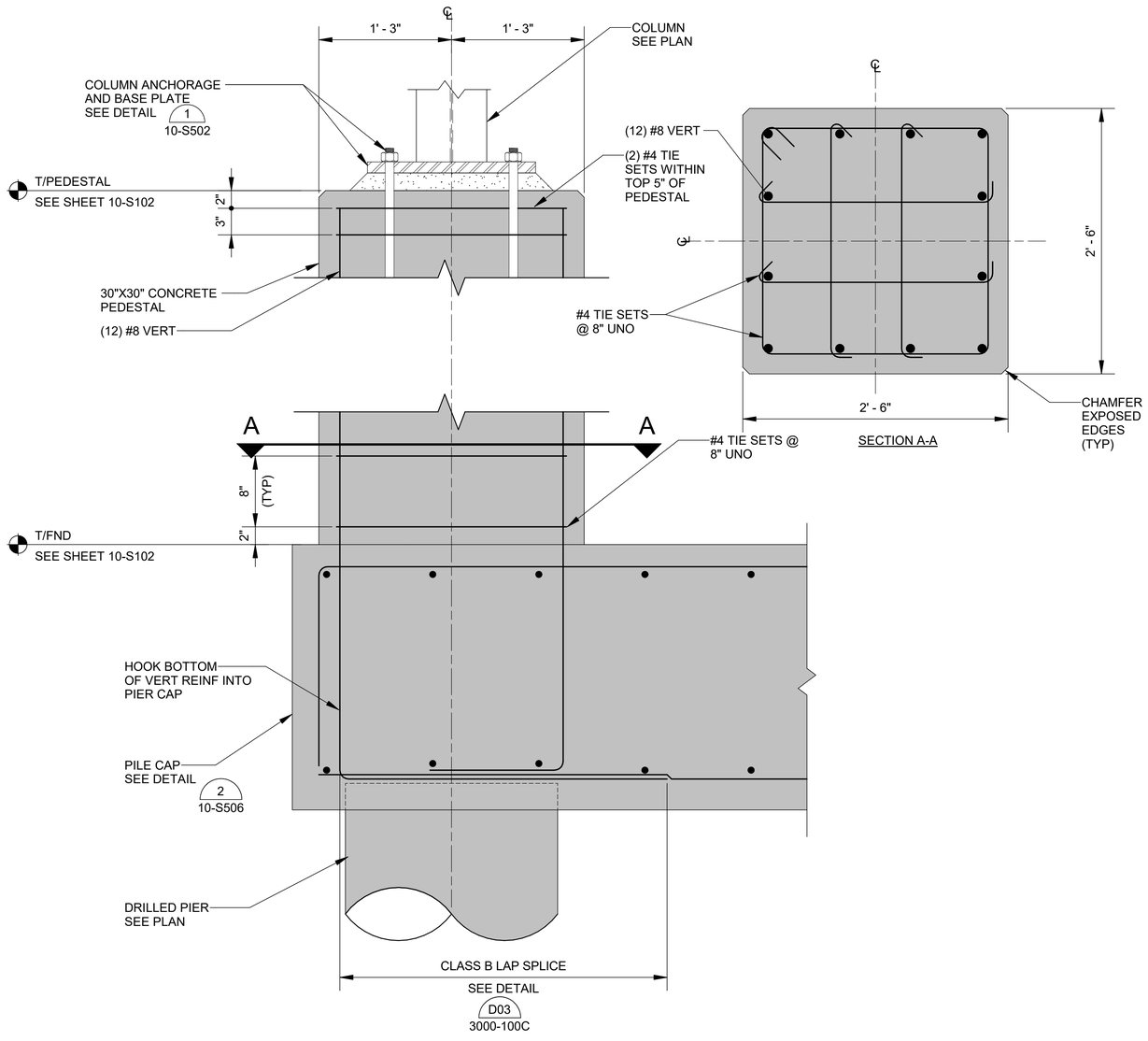
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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0 1"
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DRAWING NUMBER
10-S304

SHEET NUMBER 32

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:39 PM

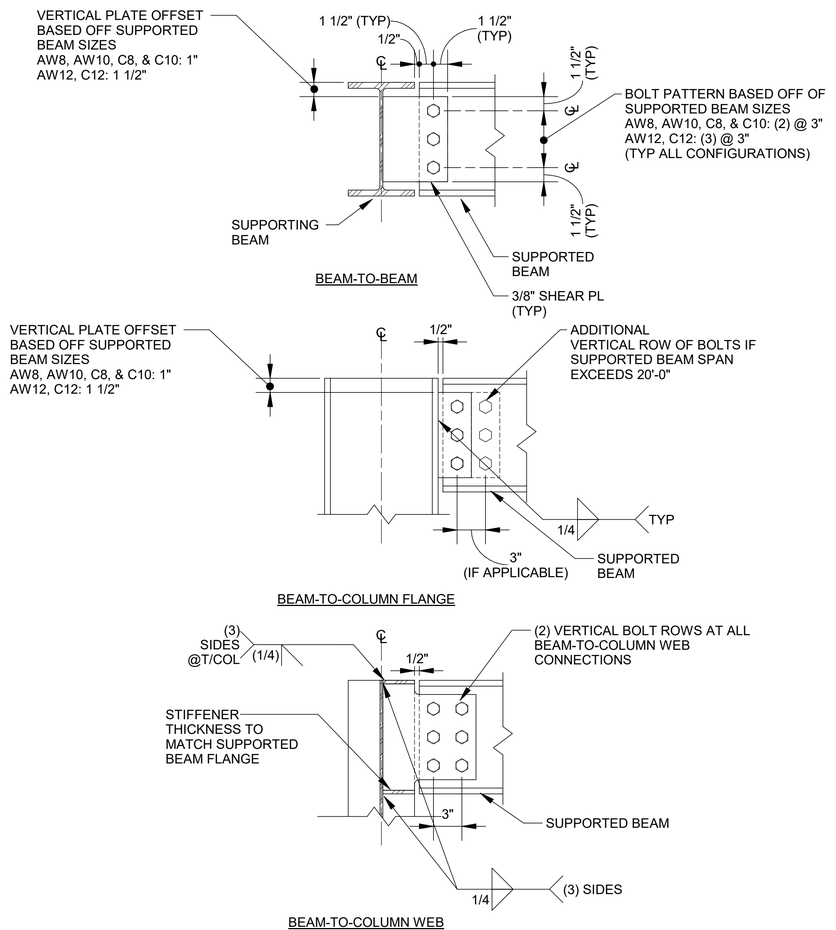


1 CONCRETE PEDESTAL DETAIL

SCALE: NOT TO SCALE

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.



2 STD SHEAR PLATE DETAIL

SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 1

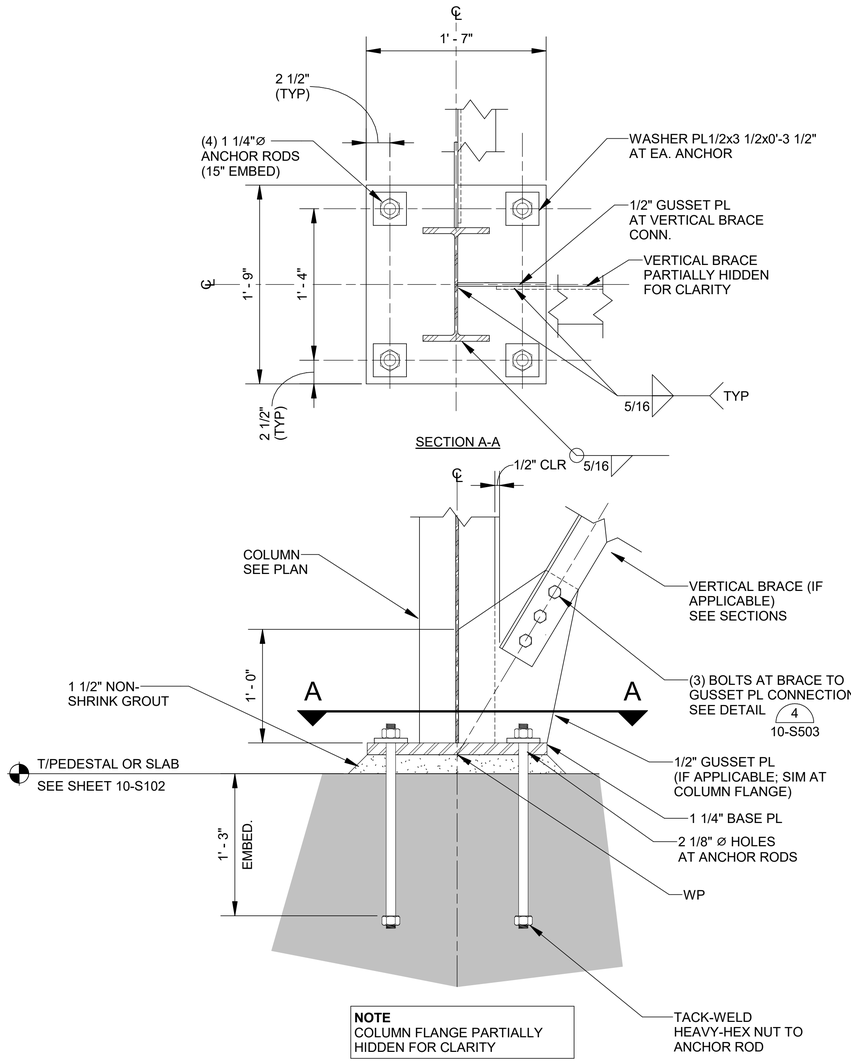
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
10-S501

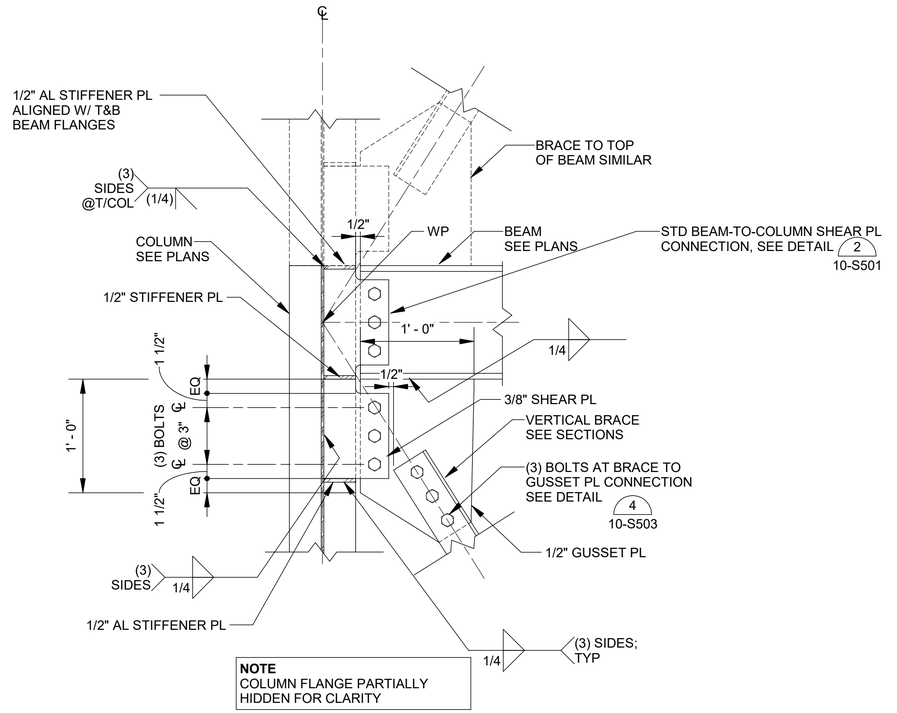
SHEET NUMBER 33

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:40 PM



1 PIPE BRIDGE BASE PLATE DETAIL

SCALE: NOT TO SCALE



2 VERTICAL BRACE TO COLUMN DETAIL

SCALE: NOT TO SCALE

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" Ø AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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ECA500

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Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 2

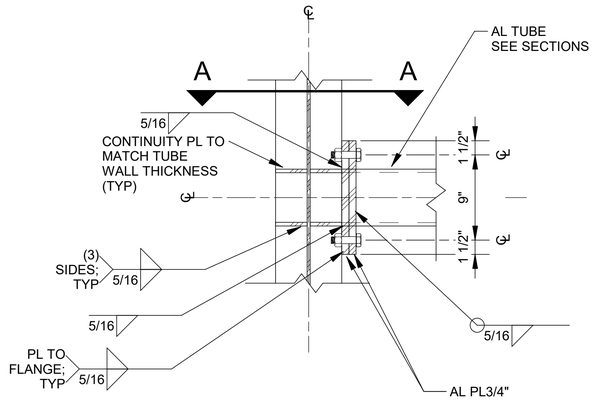
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

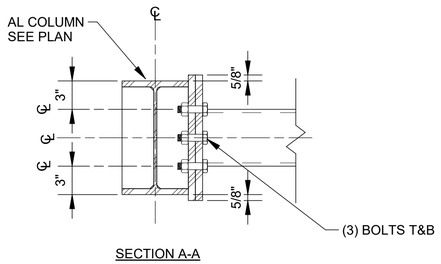
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
10-S502

SHEET NUMBER 34

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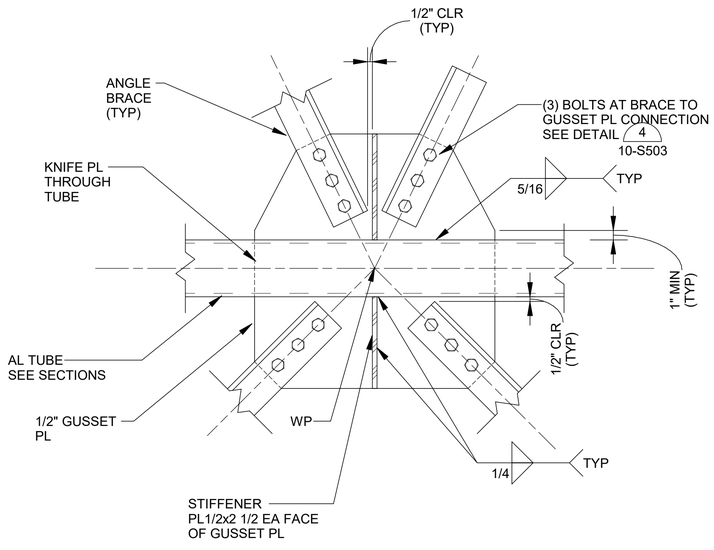




SECTION A-A

1 TUBE TO COLUMN END PL DETAIL

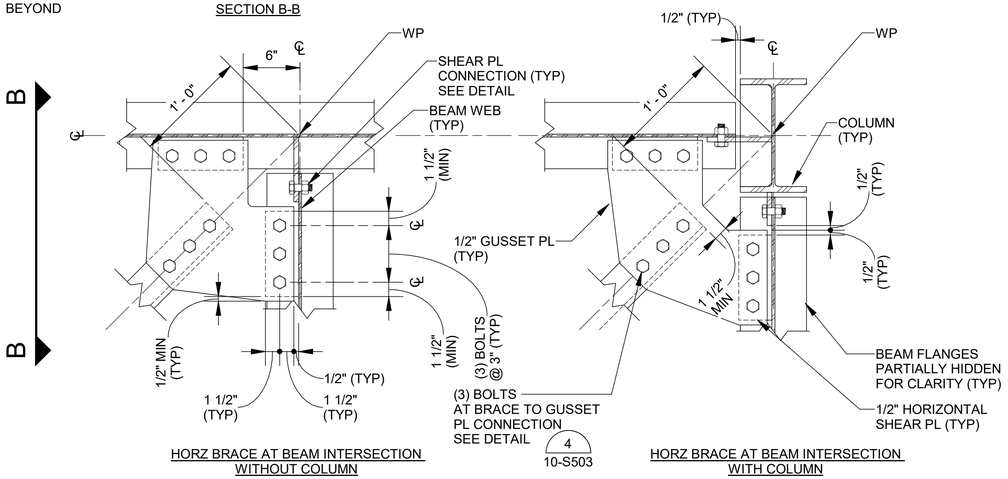
SCALE: NOT TO SCALE



2 CHEVRON BRACE DETAIL

SCALE: NOT TO SCALE

SECTION B-B

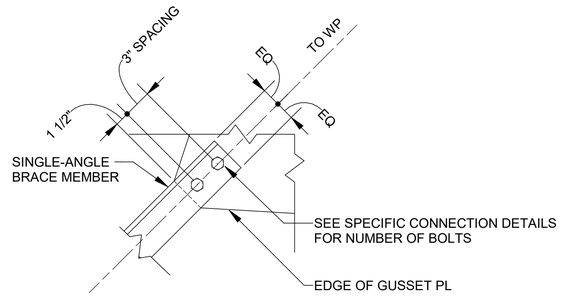


HORZ BRACE AT BEAM INTERSECTION WITHOUT COLUMN

HORZ BRACE AT BEAM INTERSECTION WITH COLUMN

3 HORIZONTAL BRACE TO BEAM DETAIL

SCALE: NOT TO SCALE



4 BRACE-TO-GUSSET CONN. DETAIL

SCALE: NOT TO SCALE

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ∅ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 3

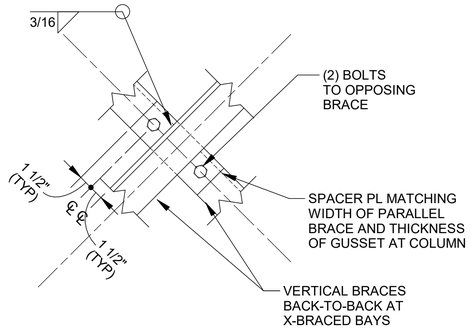
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
10-S503

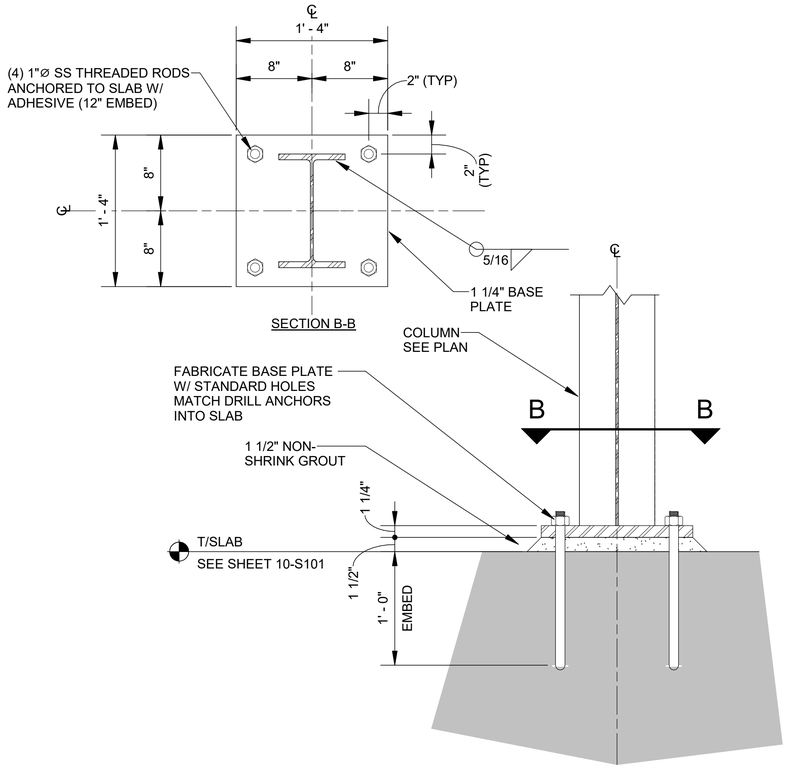
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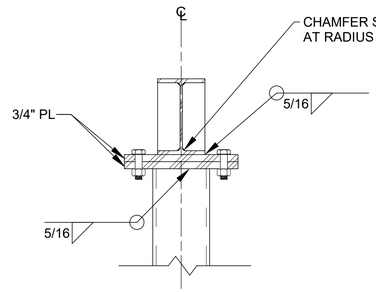
1 X-BRACE DETAIL

SCALE: NOT TO SCALE



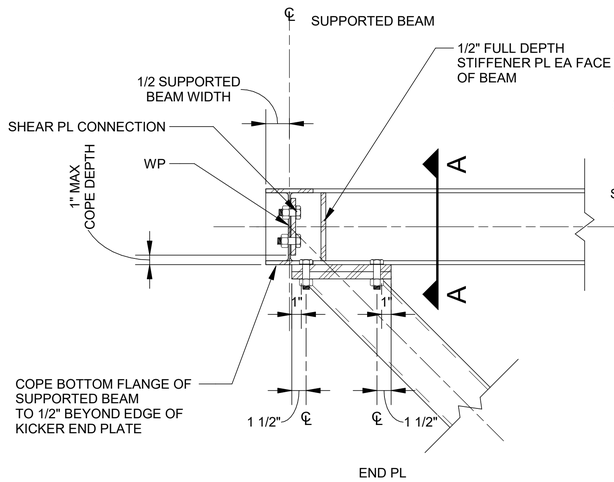
3 VERTICAL PIPE SUPPORT COLUMN BASE PLATE DETAIL

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



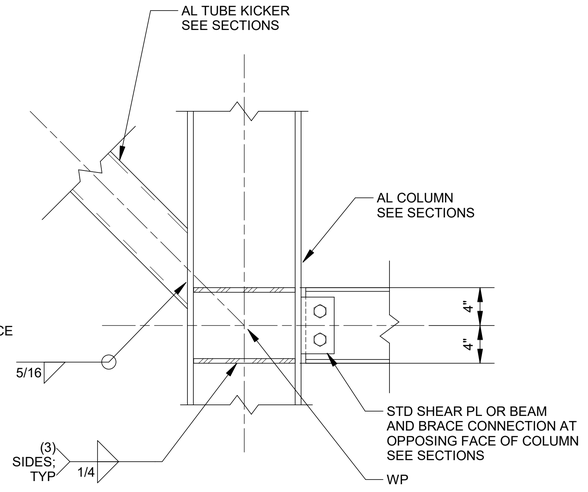
FRAMING AND CONNECTIONS BEYOND NOT SHOWN FOR CLARITY

SECTION A-A



KNEE BRACE TO BEAM

SEE CONNECTION TO COLUMN FOR INFORMATION NOT SHOWN



KNEE BRACE TO COLUMN

2 TUBE KNEE BRACE DETAIL

SCALE: NOT TO SCALE

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ø AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO. ECA500

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Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 4

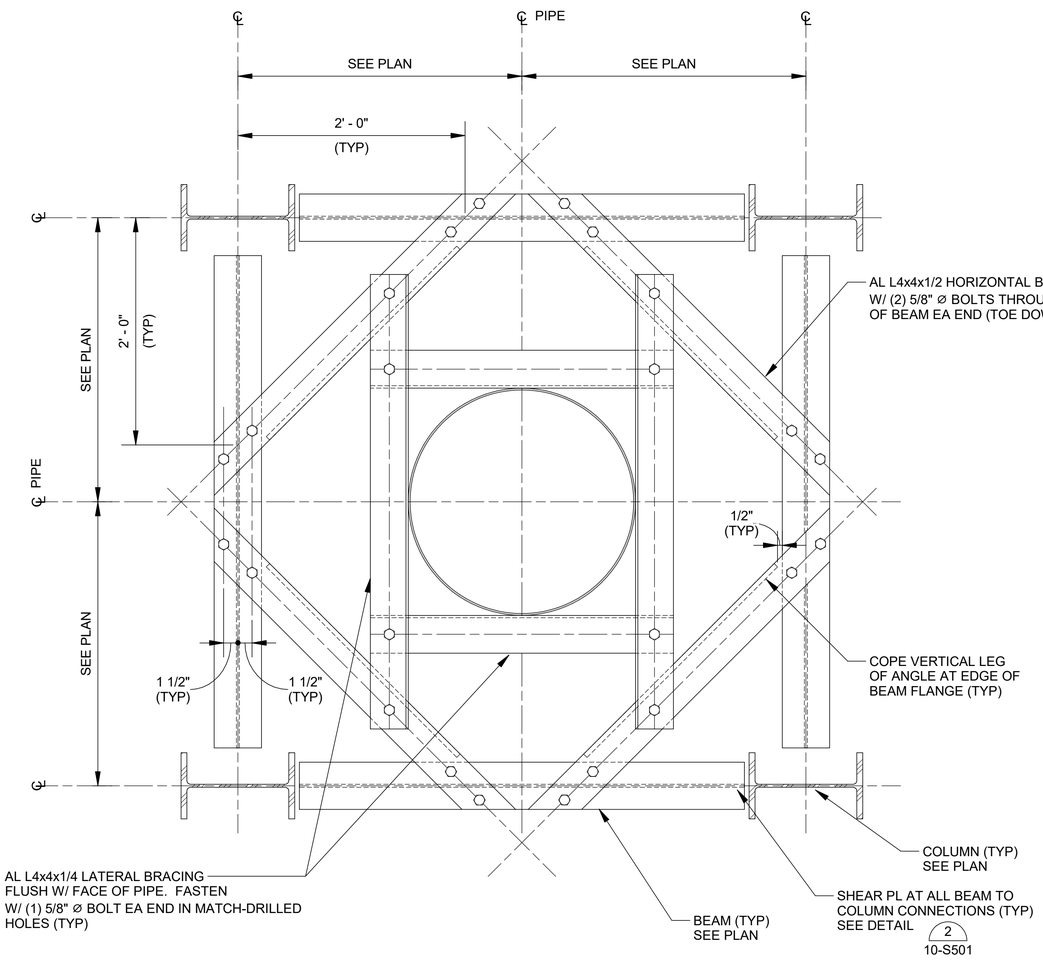
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DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
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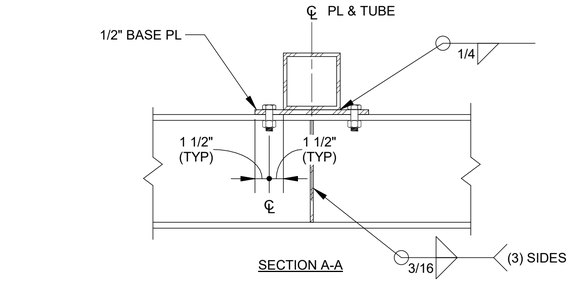
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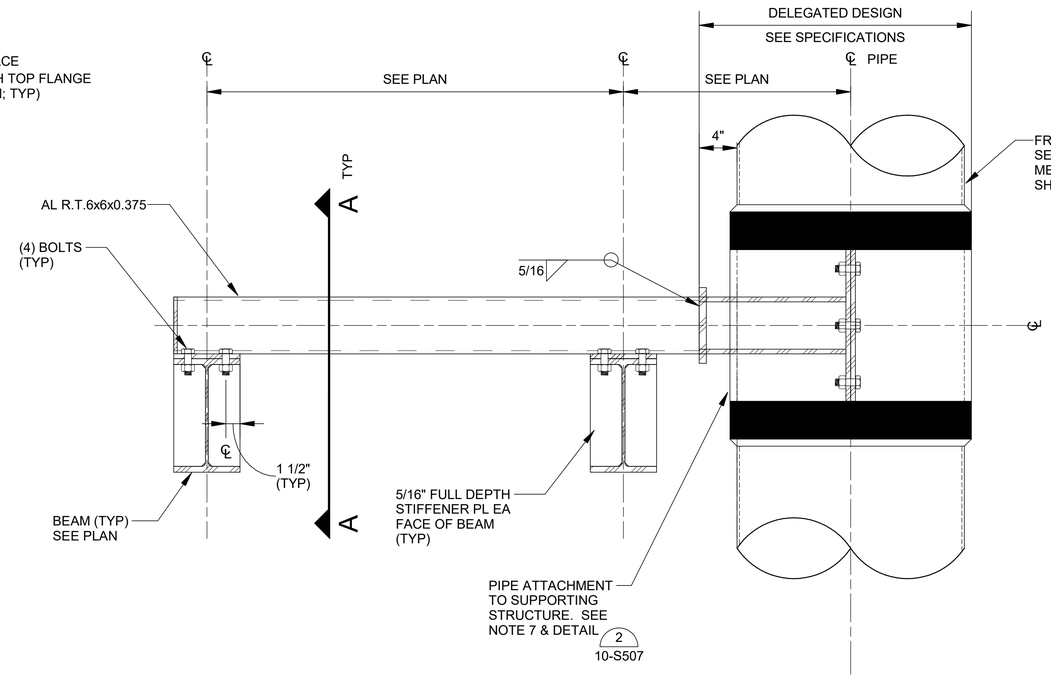


1 PIPE SUPPORT LATERAL BRACING DETAIL

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



SECTION A-A



2 VERTICAL PIPE SUPPORT TYPE 1 DETAIL

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

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 5

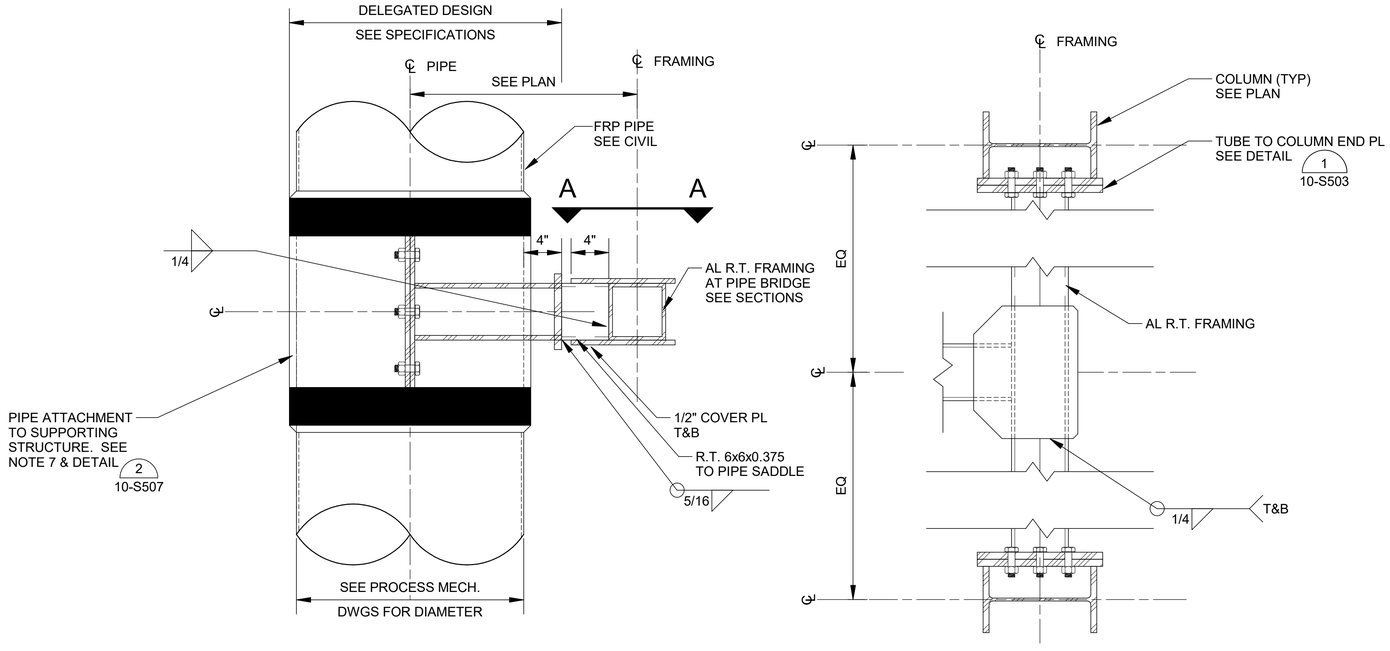
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DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
10-S505

SHEET NUMBER 37

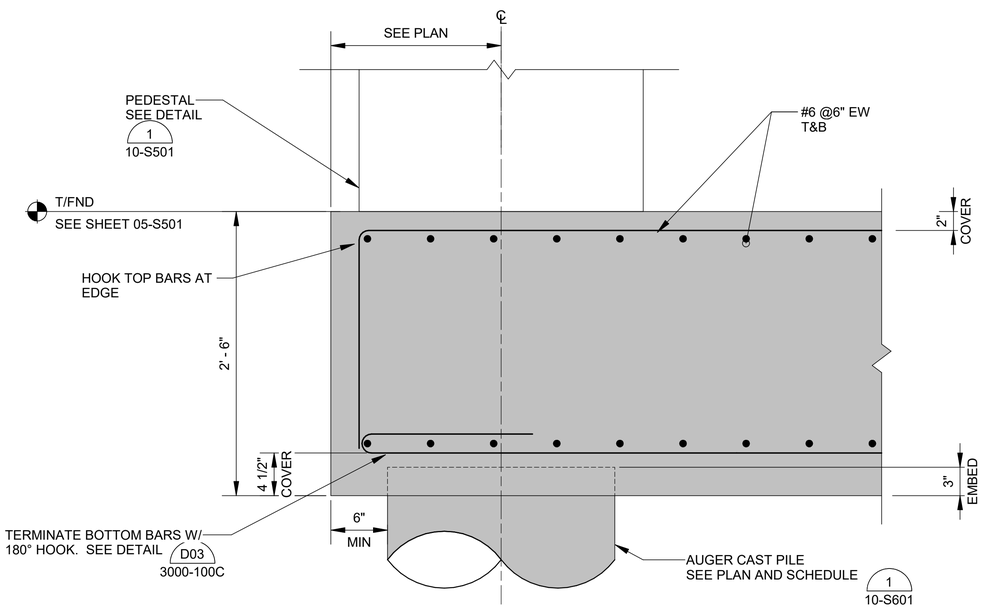
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Plot Date: 8/7/2026 1:40:41 PM



SECTION A-A

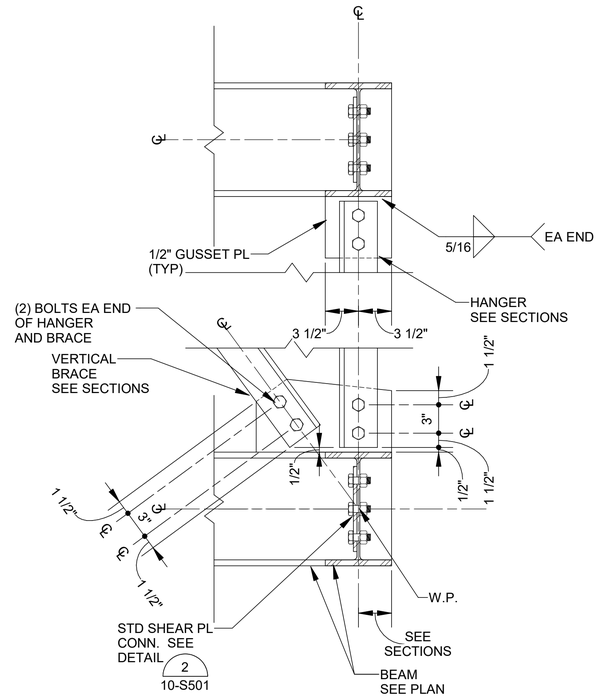
1 VERTICAL PIPE SUPPORT TYPE 2 DETAIL

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



2 PILE CAP DETAIL

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



3 HANGER CONNECTION DETAIL

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

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
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5. BOLTS SHALL BE 3/4" ∅ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 6

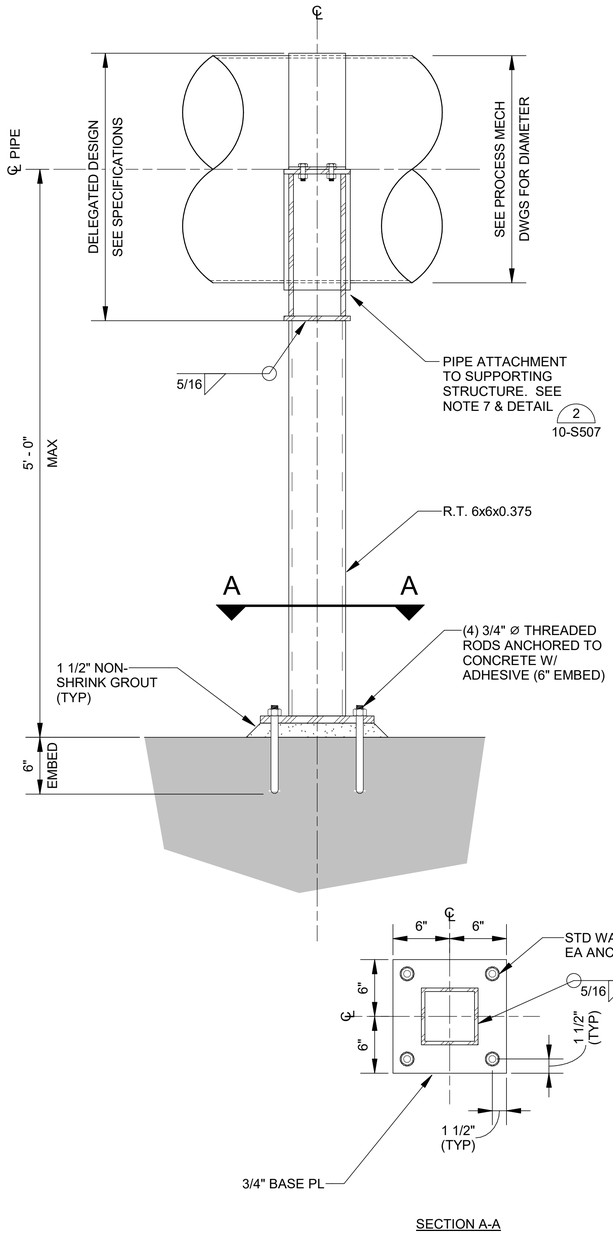
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
10-S506

SHEET NUMBER 38

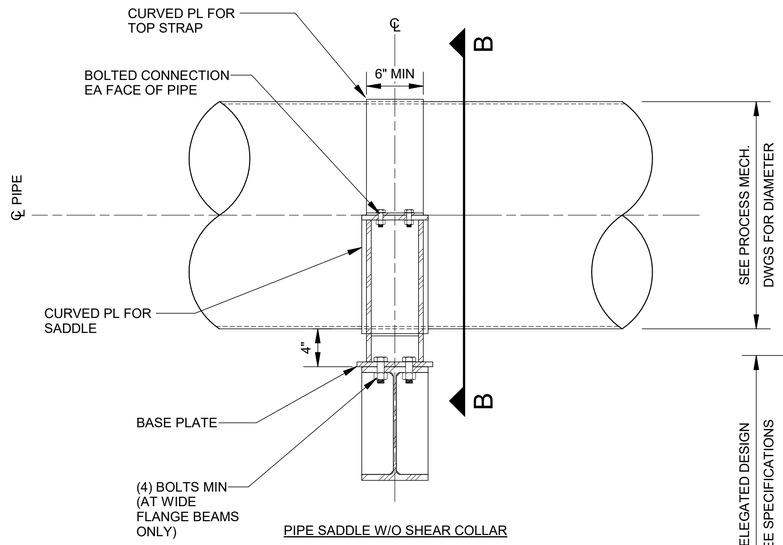
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:42 PM



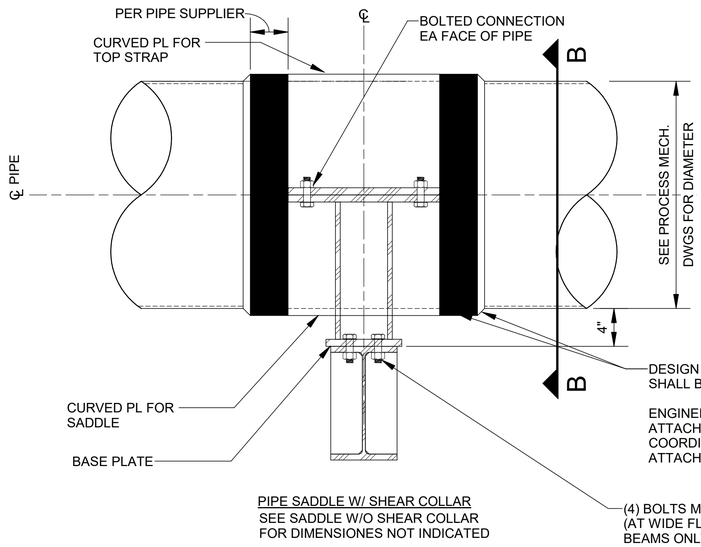
SECTION A-A

1 NON-ADJUSTABLE PIPE SUPPORT DETAIL

SCALE: NOT TO SCALE



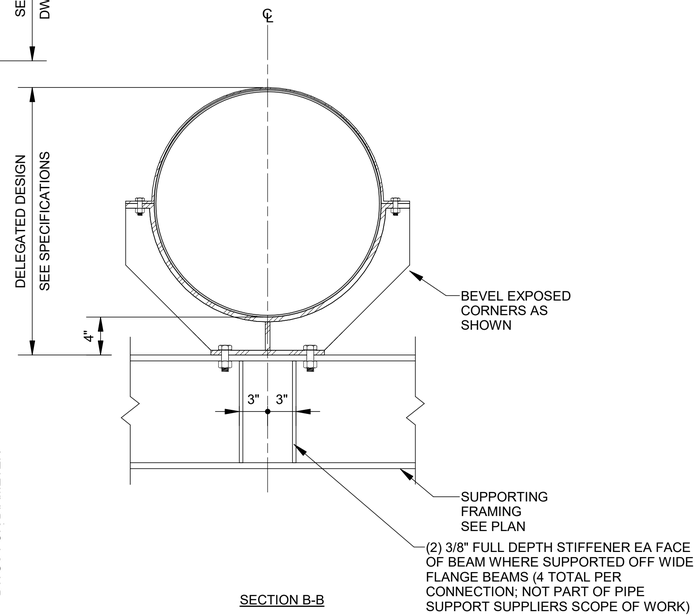
PIPE SADDLE W/O SHEAR COLLAR



PIPE SADDLE W/ SHEAR COLLAR
SEE SADDLE W/O SHEAR COLLAR
FOR DIMENSIONES NOT INDICATED

2 PIPE SADDLE DETAIL

SCALE: NOT TO SCALE



SECTION B-B

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 7

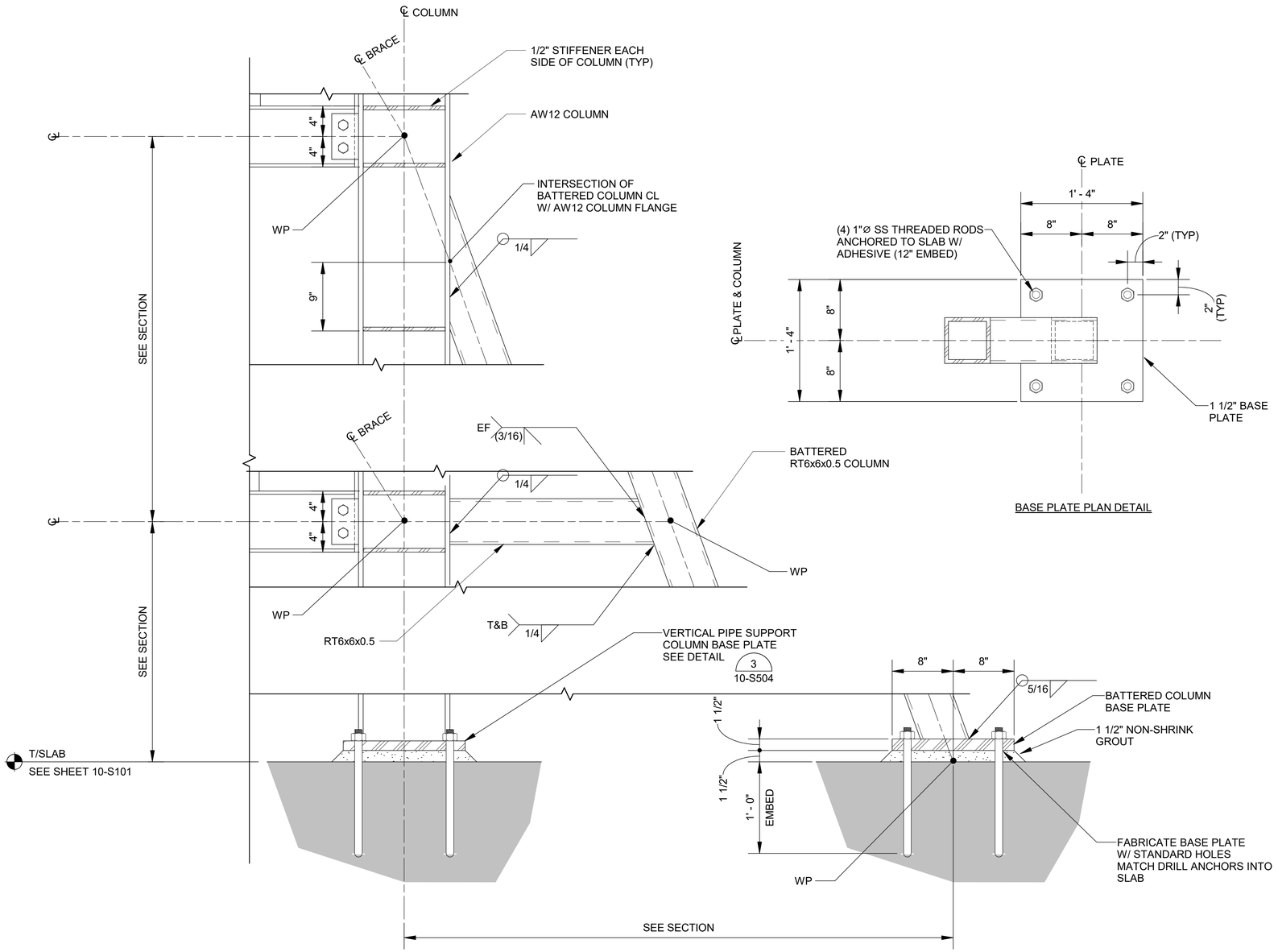
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
10-S507

SHEET NUMBER 39

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:42 PM



BASE PLATE PLAN DETAIL

1 BATTERED COLUMN A DETAIL

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

NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
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REGISTRATION NO.
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ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 8

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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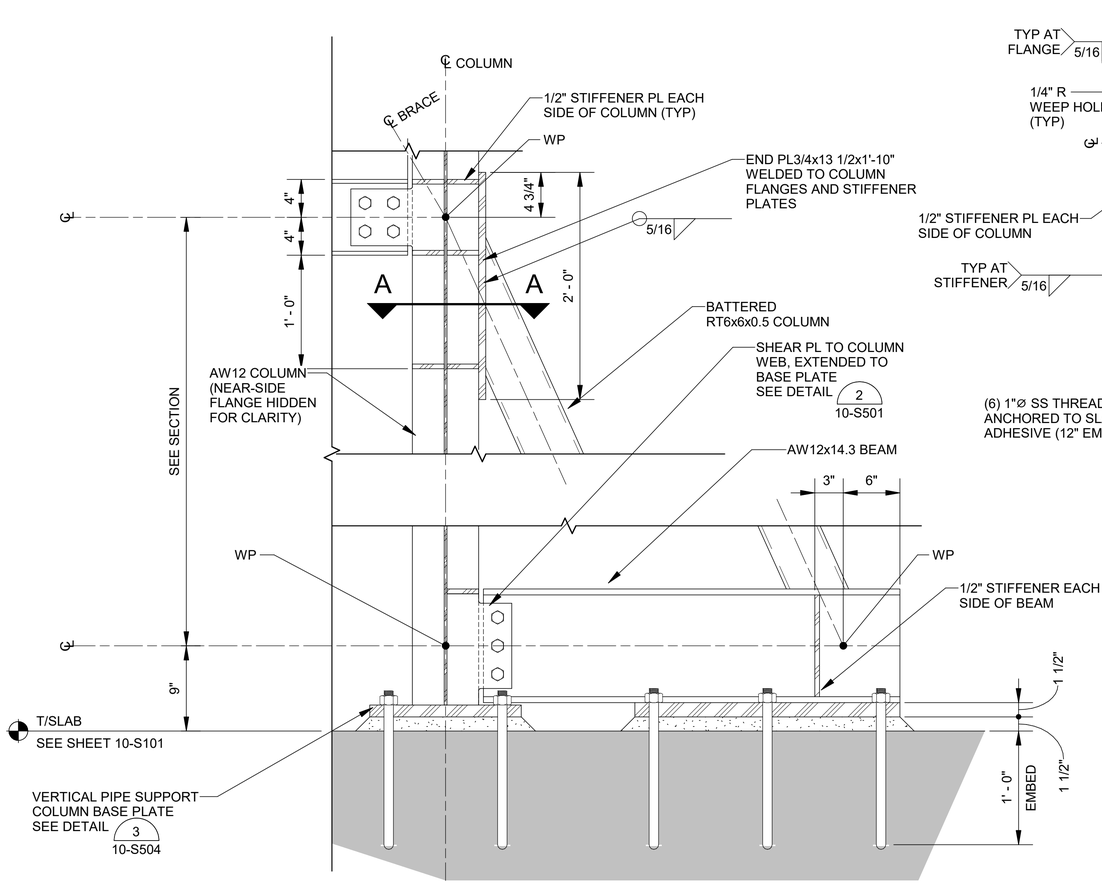
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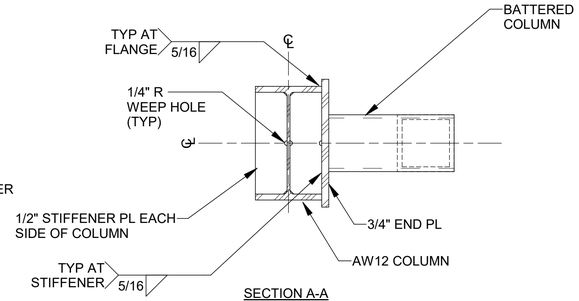
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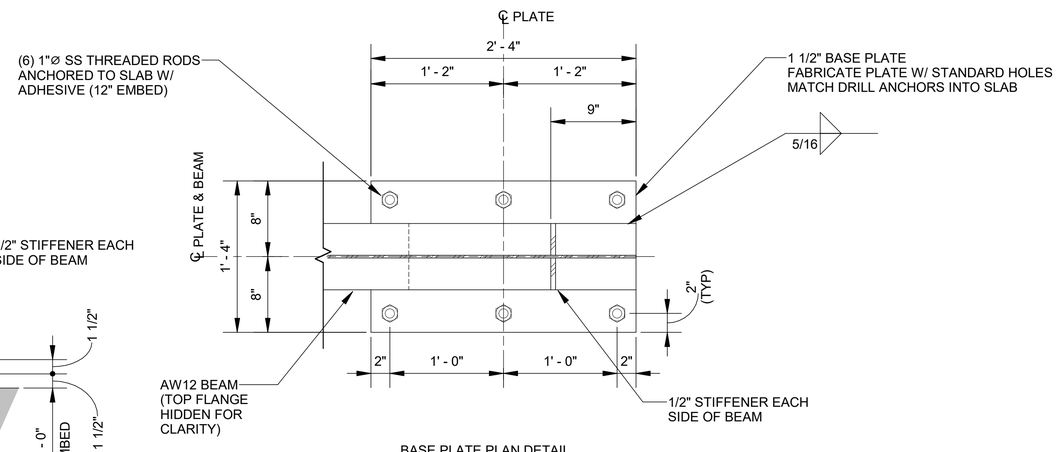
NOTES:

1. SEE GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL BE ALUMINUM U.N.O.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
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SECTION A-A



BASE PLATE PLAN DETAIL

1 BATTERED COLUMN B DETAIL

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

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS 9

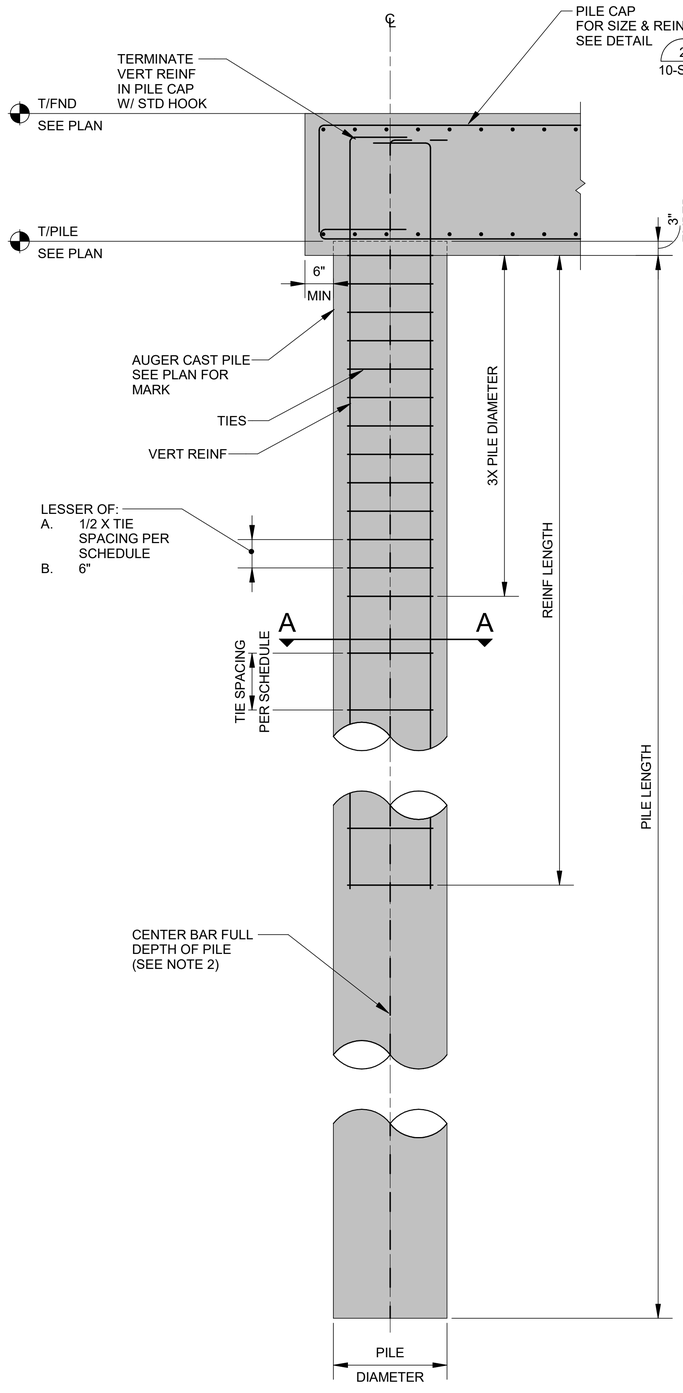
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DATE: AUG. 2026
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CHECKED BY: MJS

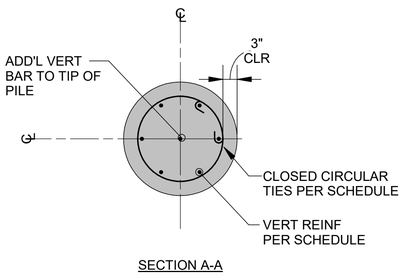
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DRAWING NUMBER **10-S509**

SHEET NUMBER 41

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Plot Date: 8/7/2026 1:40:43 PM





SECTION A-A

AUGER CAST PILE SCHEDULE

MARK	PILE DIAMETER (IN)	PILE LENGTH (FT)	REINF LENGTH (FT)	REQUIRED PILE CAPACITY (K)[1]			VERT REINF	TIE SIZE	TIE SPACING (IN)	NOTES
				COMPRESSION[4]	TENSION[4]	SHEAR				
10P01	24	34	17	15K	10K	5K	(6) #6	#3	12	
10P02	24	40	31	40K	20K	10K	(10) #6	#3	12	

NOTES:

1. FOR ADDITIONAL AUGER CAST PILE MATERIAL, INSTALLATION, AND TESTING REQUIREMENTS, SEE SPECIFICATION SECTION 31 63 16. PILE CAPACITIES SHOWN ARE BASED ON ALLOWABLE STRESS DESIGN (ASD) LOAD COMBINATIONS FOR SERVICE LOADING CONDITIONS. PILE TESTING LOADS SHALL BE DETERMINED BY THE PILE SUPPLIER AND IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND THE REQUIREMENTS OF THE IBC.
2. ADDITIONAL FULL-LENGTH CENTER BAR SHALL MATCH THE DIAMETER OF VERTICAL REINFORCEMENT AND BE DOWELED INTO PILE CAP W/ STANDARD 90 DEGREE HOOK.
3. SPECIFIED 28-DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 5,000 PSI.
4. COMPRESSION AND TENSION PIER CAPACITIES REPORTED ABOVE DO NOT INCLUDE THE SELF-WEIGHT OF PILE.

1 AUGER CAST PILE DETAIL AND SCHEDULE

SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL
AUGER CAST PILE
SCHEDULE

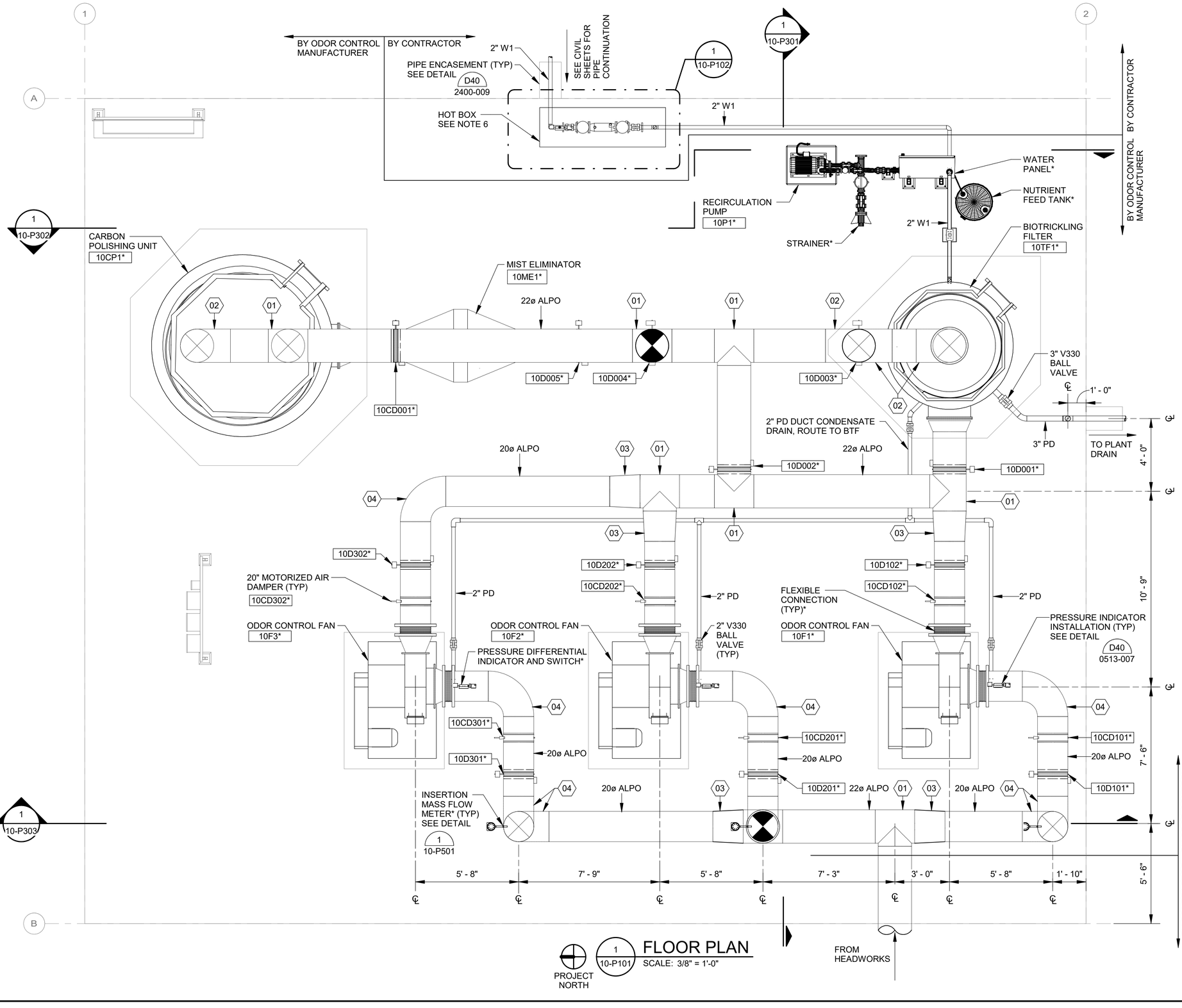
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
10-S601

SHEET NUMBER 42

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:43 PM



KEYNOTES

01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)
03	22" x 20" REDUCER (WLD x WLD)
04	20" 90° BEND (WLD x WLD)

NOTES:

1. ODOR CONTROL FANS, BIO-TRICKLING FILTER, NUTRIENT FEED TANK, WATER PANEL, RECIRCULATION PUMP, MOTORIZED AIR DAMPERS, MIST ELIMINATOR, CARBON ADSORBER AND ASSOCIATED EQUIPMENT SHALL BE FURNISHED BY ODOR CONTROL MANUFACTURER. SEE SPECIFICATION 44 11 29 BIO-TRICKLING FILTER ODOR CONTROL SYSTEM AND SPECIFICATION 44 61 16 CARBON ADSORBER ODOR CONTROL SYSTEM.
2. CONTRACTOR SHALL FIELD ROUTE SMALL DIAMETER PIPING PER MANUFACTURER'S INSTRUCTIONS WITH ENGINEER'S APPROVAL.
3. MIST ELIMINATOR TO BE LOCATED EXTERIOR TO BIOTRICKLING FILTER AND CARBON ADSORBER VESSELS AND UPSTREAM OF CARBON ADSORBER.
4. WATER PANEL LOCATION AND ASSOCIATED PIPING CONFIGURATIONS VARY BY MANUFACTURER; FIELD ROUTE PROCESS PIPING AND ELECTRICAL CONDUIT PER EQUIPMENT MANUFACTURER'S RECOMMENDATION.
5. INSULATE, HEAT TRACE, AND ALUMINUM JACKET ALL EXPOSED WATER LINES AND ALL EXPOSED DRAIN LINES THAT NORMALLY HAVE STANDING WATER, INCLUDING ALL PRESSURE LINES, 4-INCH DIAMETER AND SMALLER, NUTRIENT FEED LINES, ACCESSORIES, INCLUDING ALL VALVES AND APPURTENANCES IN AFFECTED PIPES. SEE SPECIFICATIONS 40 41 13 HEAT TRACING AND 40 42 00 PROCESS INSULATION.
6. HOT BOX SHALL BE 26" x 83" x 45" TO ACCOMMODATE EQUIPMENT. HOT BOX SHALL BE HUBBELL POWER SYSTEM HB3NS SERIES, 1500W, 120V, 1 PH OR APPROVED EQUAL.
7. BIO-TRICKLING FILTER AND CARBON ADSORBER SHALL BE EQUIPPED WITH HANDRAIL, LADDERS, AND SAFETY RAIL FALL PROTECTION.
8. WATER PANEL, NUTRIENT FEED TANK, STRAINER, RECIRCULATION PUMP, AND HOT BOX TO BE PLACED OUTSIDE OF THE ELECTRICALLY CLASSIFIED ENVELOPE.
9. FOR VERTICAL RUNS OF PIPES PARALLEL TO TANK SIDE WALLS, CONFORMING WITH SECTION 44 11 29 WITH ODOR CONTROL MANUFACTURER.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL FLOOR PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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DRAWING NUMBER
10-P101

SHEET NUMBER 43

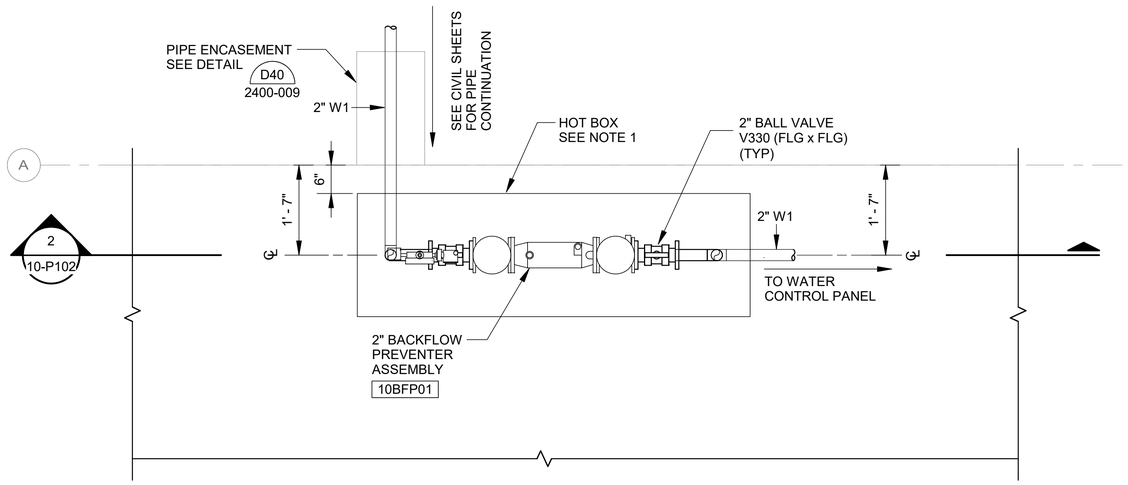
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:30 PM

NOTE:

1. HOT BOX SHALL BE 26" x 83" x 45" TO ACCOMMODATE EQUIPMENT. HOT BOX SHALL BE HUBBELL POWER SYSTEM HB3NS SERIES, 1500W, 120V, 1 PH OR APPROVED EQUAL.

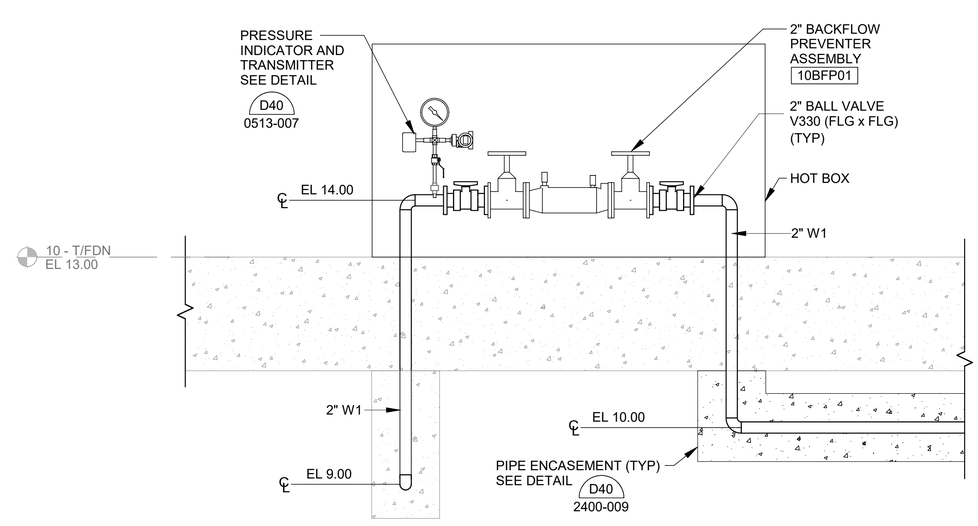
PLUMBING FIXTURE

MARK	BASIS OF DESIGN			NOTES / ACCESSORIES
	MANUFACTURER	MODEL	DESCRIPTION	
10BFP01	WATTS	LF007	2" DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER	SOCKET FIT VALVE ASSEMBLY, MAXIMUM WORKING PRESSURE OF 175 PSI, TEMPERATURE RANGE OF 33 TO 180 DEGREES FAHRENHEIT



PROJECT NORTH

1 / 10-P102 BACKFLOW PREVENTER PLAN
SCALE: 3/4" = 1'-0"



2 / 10-P102 SECTION
SCALE: 3/4" = 1'-0"

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

BACKFLOW PREVENTER PLAN AND SECTION

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

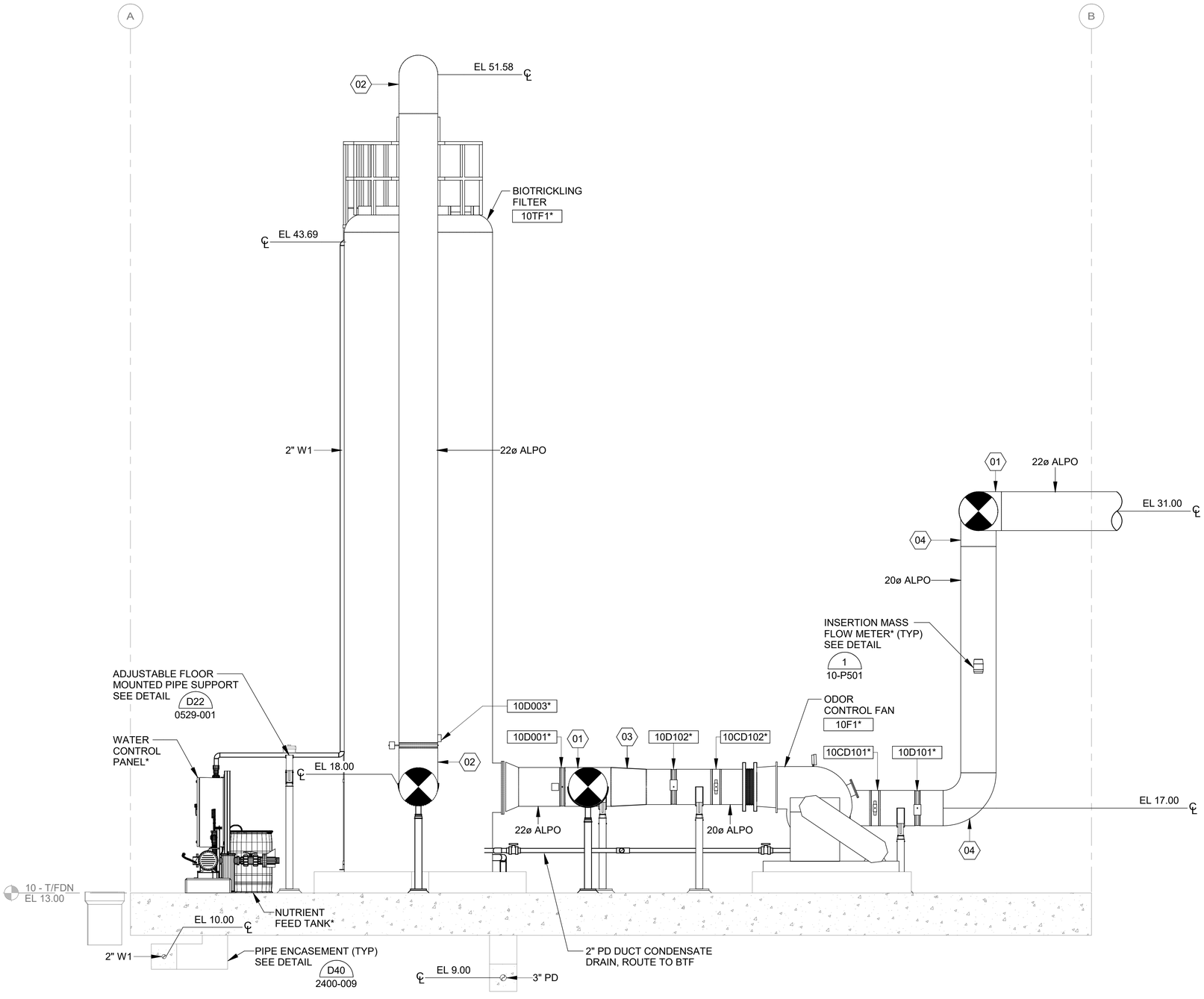
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DRAWING NUMBER
10-P102

SHEET NUMBER 44

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:30 PM

KEYNOTES	
01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)
03	22" x 20" REDUCER (WLD x WLD)
04	20" 90° BEND (WLD x WLD)



1 SECTION
10-P101 SCALE: 3/8" = 1'-0"

NOTES:

1. ODOR CONTROL FAN, BIO-TRICKLING FILTER, NUTRIENT FEED TANK, WATER PANEL, RECIRCULATION PUMP, MOTORIZED AIR DAMPERS, MIST ELIMINATOR, CARBON POLISHING UNIT AND ASSOCIATED EQUIPMENT SHALL BE FURNISHED BY ODOR CONTROL MANUFACTURER. SEE SPECIFICATION 44 11 29 BIO-TRICKLING FILTER ODOR CONTROL SYSTEM.
2. CONTRACTOR SHALL FIELD ROUTE SMALL DIAMETER PIPING PER MANUFACTURER'S INSTRUCTIONS WITH ENGINEER'S APPROVAL.
3. WATER PANEL LOCATION AND ASSOCIATED PIPING CONFIGURATIONS VARY BY MANUFACTURER; FIELD ROUTE PROCESS PIPING AND ELECTRICAL CONDUIT PER EQUIPMENT MANUFACTURER'S RECOMMENDATION.
4. INSULATE, HEAT TRACE, AND ALUMINUM JACKET ALL EXPOSED WATER LINES AND ALL EXPOSED DRAIN LINES THAT NORMALLY HAVE STANDING WATER, INCLUDING ALL PRESSURE LINES, 4-INCH DIAMETER AND SMALLER, NUTRIENT FEED LINES, ACCESSORIES, INCLUDING ALL VALVES AND APPURTENANCES IN AFFECTED PIPES. SEE SPECIFICATIONS 40 41 13 HEAT TRACING AND 40 42 00 PROCESS MECHANICAL INSULATION.
5. BIO-TRICKLING FILTER AND CARBON ADSORBER SHALL BE EQUIPPED WITH HANDRAIL, LADDERS, SAFETY RAIL FALL PROTECTION. AND EXTENDABLE SAFETY LADDER POST.
6. WATER PANEL, NUTRIENT FEED TANK, STRAINER, RECIRCULATION PUMP, AND HOT BOX TO BE PLACES OUTSIDE OF THE ELECTRICALLY CLASSIFIED ENVELOPE.
7. FOR VERTICAL RUNS OF PIPE PARALLEL TO TANK SIDE WALLS, CONTRACTOR SHALL COORDINATE SUPPORTS CONFORMING WITH SECTION 44 11 29 WITH ODOR CONTROL MANUFACTURER.

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ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TAYLOR

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL SECTION 1

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
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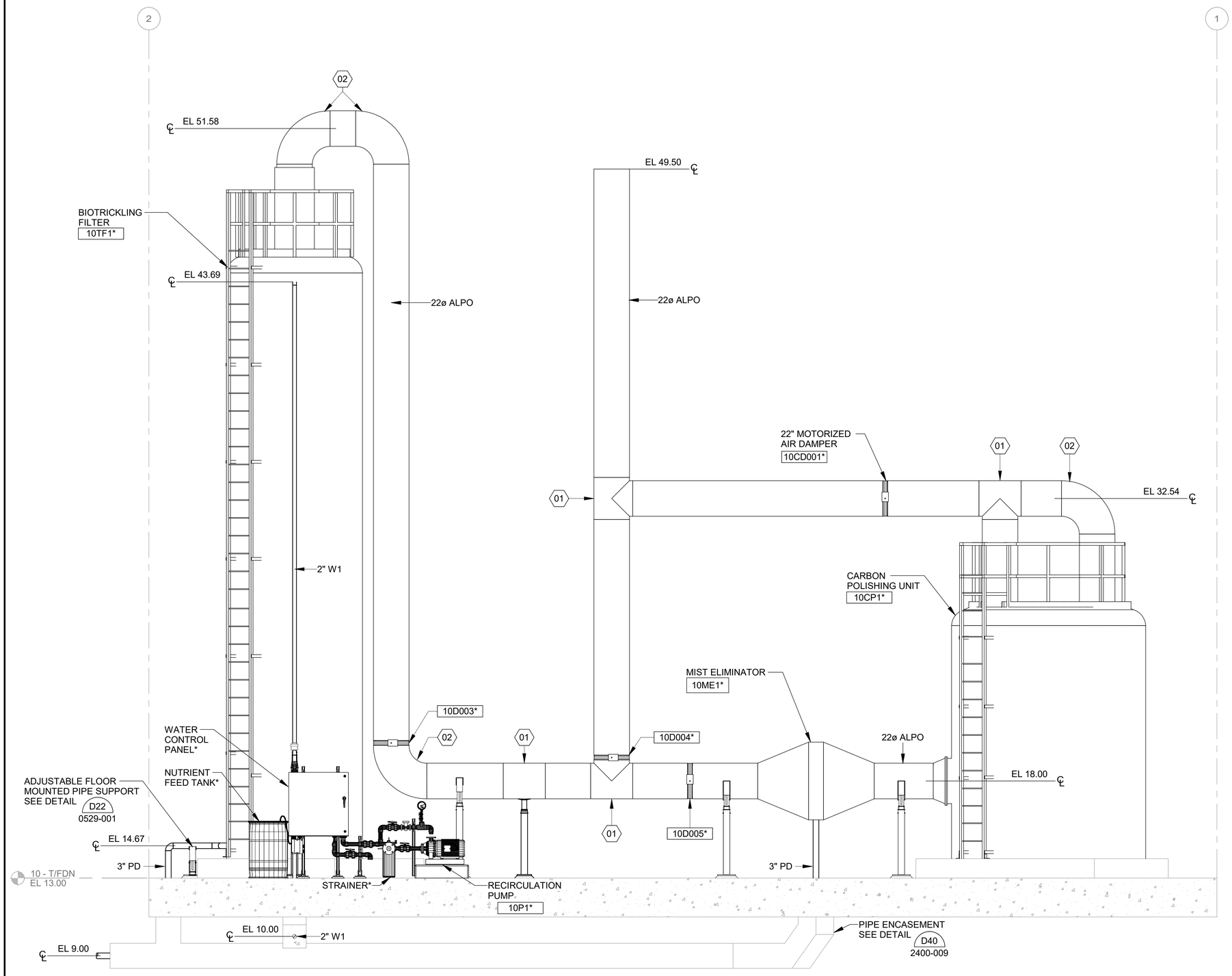
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DRAWING NUMBER
10-P301

SHEET NUMBER 45

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:31 PM

KEYNOTES	
01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)



1 10-P101 SECTION
SCALE: 3/8" = 1'-0"

NOTES:

1. ODOR CONTROL FAN, BIO-TRICKLING FILTER, NUTRIENT FEED TANK, WATER PANEL, RECIRCULATION PUMP, MOTORIZED AIR DAMPERS, MIST ELIMINATOR, CARBON POLISHING UNIT AND ASSOCIATED EQUIPMENT SHALL BE FURNISHED BY ODOR CONTROL MANUFACTURER. SEE SPECIFICATION 44 11 29 BIO-TRICKLING FILTER ODOR CONTROL SYSTEM.
2. CONTRACTOR SHALL FIELD ROUTE SMALL DIAMETER PIPING PER MANUFACTURER'S INSTRUCTIONS WITH ENGINEER'S APPROVAL.
3. FOR VERTICAL RUNS OF PIPE PARALLEL TO TANK SIDE WALLS, CONTRACTOR SHALL COORDINATE SUPPORTS CONFORMING WITH SECTION 44 11 29 WITH ODOR CONTROL MANUFACTURER.
4. MIST ELIMINATOR TO BE LOCATED EXTERIOR TO BIOTRICKLING FILTER AND CARBON ADSORBER VESSELS AND UPSTREAM OF CARBON ADSORBER.
5. ORIENT MANUAL WHEEL ACTUATOR ON VALVES SUCH THAT WHEELS ARE ACCESSIBLE FROM THE SIDE OF THE DUCT. CHAINWHEEL TO HAVE COATING PROTECTION TO RESIST CORROSION.
6. BIO-TRICKLING FILTER AND CARBON ADSORBER SHALL BE EQUIPPED WITH HANDRAIL, LADDERS, SAFETY RAIL FALL PROTECTION, AND EXTENDABLE SAFETY LADDER POST.
7. WATER PANEL, NUTRIENT FEED TANK, STRAINER, RECIRCULATION PUMP, AND HOT BOX TO BE PLACED OUTSIDE OF THE ELECTRICALLY CLASSIFIED ENVELOPE.

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ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL
SECTION 2

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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DRAWING NUMBER
10-P302

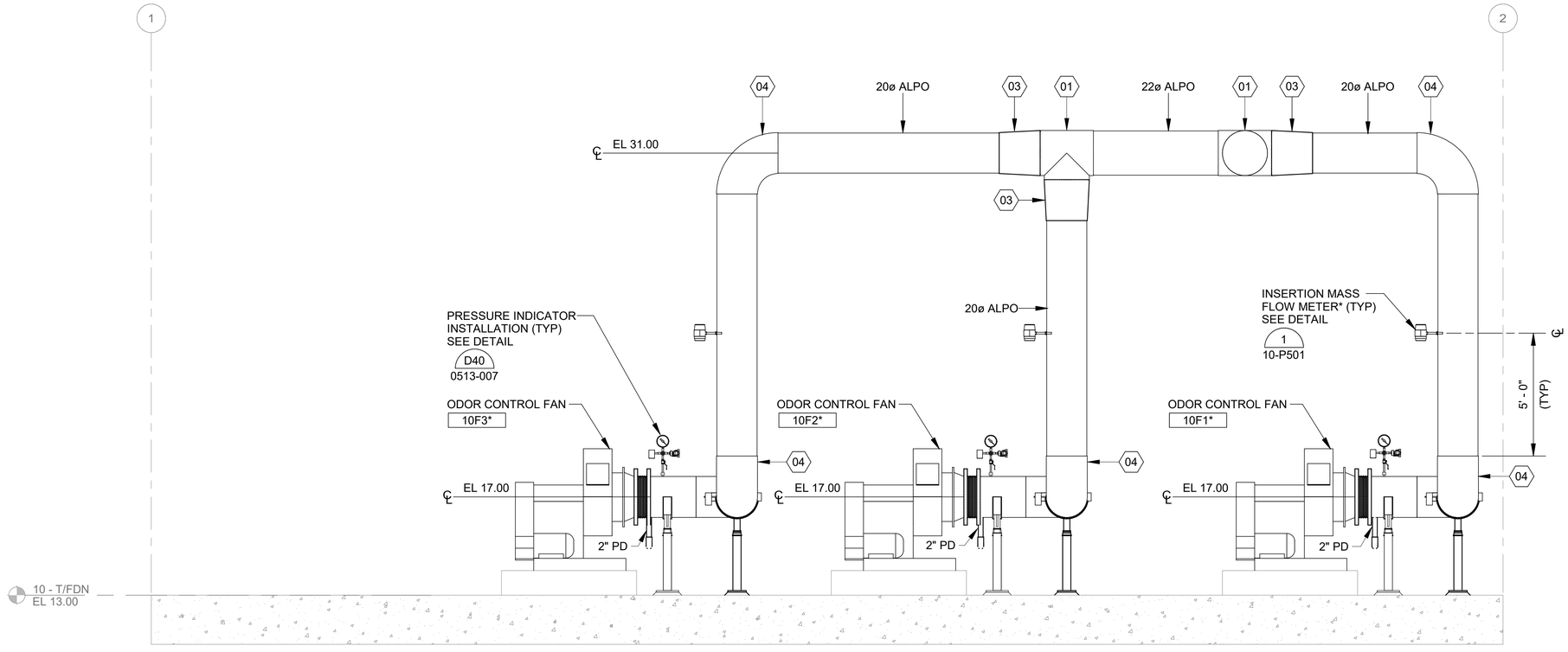
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Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:31 PM

KEYNOTES	
01	22" TEE (WLD x WLD x WLD)
03	22" x 20" REDUCER (WLD x WLD)
04	20" 90° BEND (WLD x WLD)

NOTES:

1. ODOR CONTROL FANS, BIO-TRICKLING FILTER, NUTRIENT FEED TANK, WATER PANEL, RECIRCULATION PUMP, MOTORIZED AIR DAMPERS, MIST ELIMINATOR, CARBON ADSORBER AND ASSOCIATED EQUIPMENT SHALL BE FURNISHED BY ODOR CONTROL MANUFACTURER. SEE SPECIFICATION 44 11 29 BIO-TRICKLING FILTER ODOR CONTROL SYSTEM.
2. CONTRACTOR SHALL FIELD ROUTE SMALL DIAMETER PIPING PER MANUFACTURER'S INSTRUCTIONS WITH ENGINEER'S APPROVAL.



1 SECTION
10-P101 SCALE: 3/8" = 1'-0"

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL
SECTION 3

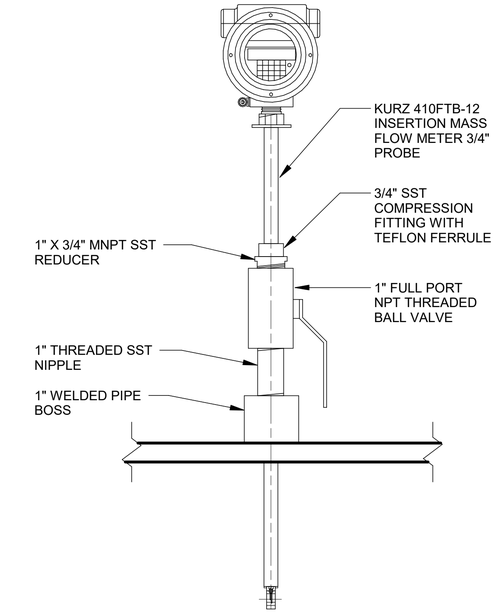
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DATE: AUG. 2026
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DRAWN BY: EG
CHECKED BY: RDT

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DRAWING NUMBER
10-P303

SHEET NUMBER 47

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1 INSERTION MASS FLOW METER DETAIL

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DETAILS

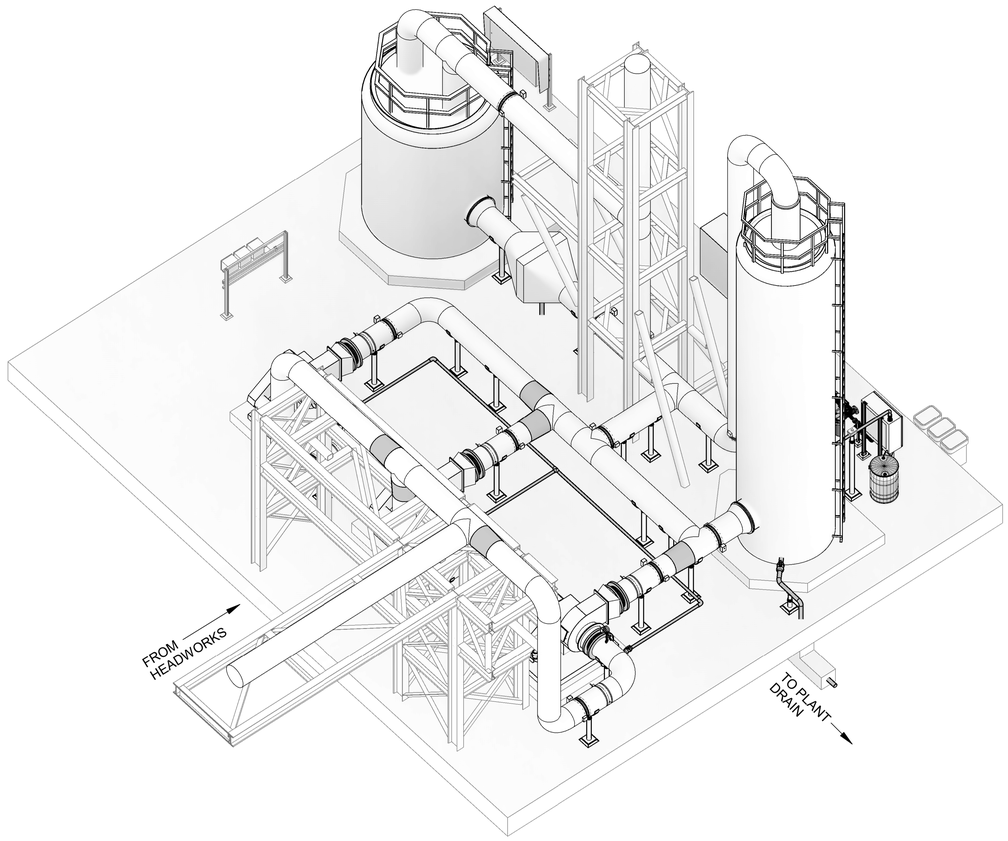
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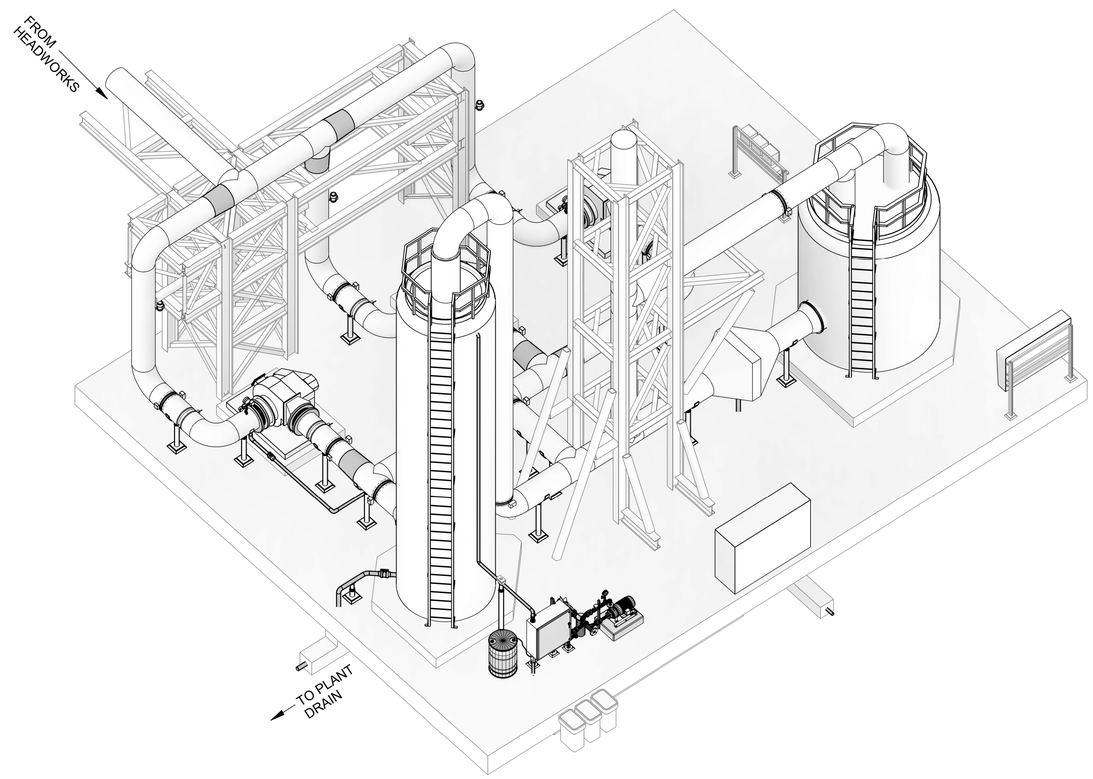
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SHEET NUMBER 48

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 1:40:32 PM



1 ISOMETRIC
10-P901 SCALE: NOT TO SCALE



2 ISOMETRIC
10-P901 SCALE: NOT TO SCALE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL ISOMETRICS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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DRAWING NUMBER
10-P901

SHEET NUMBER 49

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Plot Date: 8/7/2026 1:40:37 PM

CONTROL DAMPER SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	DESCRIPTION	DIAMETER	FRAME DEPTH (IN)	AXLE DIAMETER (IN)	BLADE THICKNESS (GAUGE)	ACCESSORIES	NOTES
10CD001*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	22	14	1/2	12	1, 2, 3	1, 2
10CD101*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2
10CD102*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2
10CD201*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2
10CD202*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2
10CD301*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2
10CD302*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MOTORIZED DAMPER	20	14	1/2	12	1, 2, 3	1, 2

ACCESSORIES:
1. FAIL LAST POSITION ACTUATOR, BELIMO GM120.2C OR APPROVED EQUAL
2. EXPLOSION-PROOF ACTUATOR ENCLOSURE, BELIMO ZS-260 OR APPROVED EQUAL
3. SILICONE RUBBER BLADE SEALS

NOTES:
1. DAMPER BLADES, AXLES, AND APPURTENANCES SHALL BE STAINLESS STEEL CONSTRUCTION.
2. DAMPERS AT FACILITY 10 SHALL BE FURNISHED BY ODOR CONTROL VENDOR AND INSTALLED BY CONTRACTOR, AS INDICATED BY EQUIPMENT TAGS ENDING WITH ASTERISK (*)

MANUAL DAMPER SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	DESCRIPTION	DIAMETER	FRAME DEPTH (IN)	AXLE DIAMETER (IN)	BLADE THICKNESS (GAUGE)	ACCESSORIES	NOTES
10D001*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	22	14	1/2	12	1, 2	1, 2, 3, 4
10D002*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	22	14	1/2	12	1, 2	1, 2, 3, 4
10D003*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	22	14	1/2	12	1, 2	1, 2, 3, 4
10D004*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	22	14	1/2	12	1, 2	1, 2, 3, 4
10D005*	ODOR CONTROL BLOWERS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	22	14	1/2	12	1, 2	1, 2, 3, 4
10D101*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4
10D102*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4
10D201*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4
10D202*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4
10D301*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4
10D302*	ODOR CONTROL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	24	14	1/2	12	1, 2	1, 2, 3, 4

ACCESSORIES:
1. MANUAL HAND-WHEEL OPERATOR
2. SILICONE RUBBER BLADE SEALS

NOTES:
1. DAMPER BLADES, AXLES, AND APPURTENANCES SHALL BE STAINLESS STEEL CONSTRUCTION.
2. DAMPERS AT FACILITY 10 SHALL BE FURNISHED BY ODOR CONTROL VENDOR AND INSTALLED BY CONTRACTOR, AS INDICATED BY EQUIPMENT TAGS ENDING WITH ASTERISK (*)
3. MANUAL OPERATORS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS
4. MANUAL DAMPERS SHALL BE USED TO ISOLATE EQUIPMENT FOR MAINTENANCE AND/OR REPLACEMENT

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 55261 PROFESSIONAL ENGINEER JACK W. DORMIER

Digitally Signed: 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL DAMPER SCHEDULES

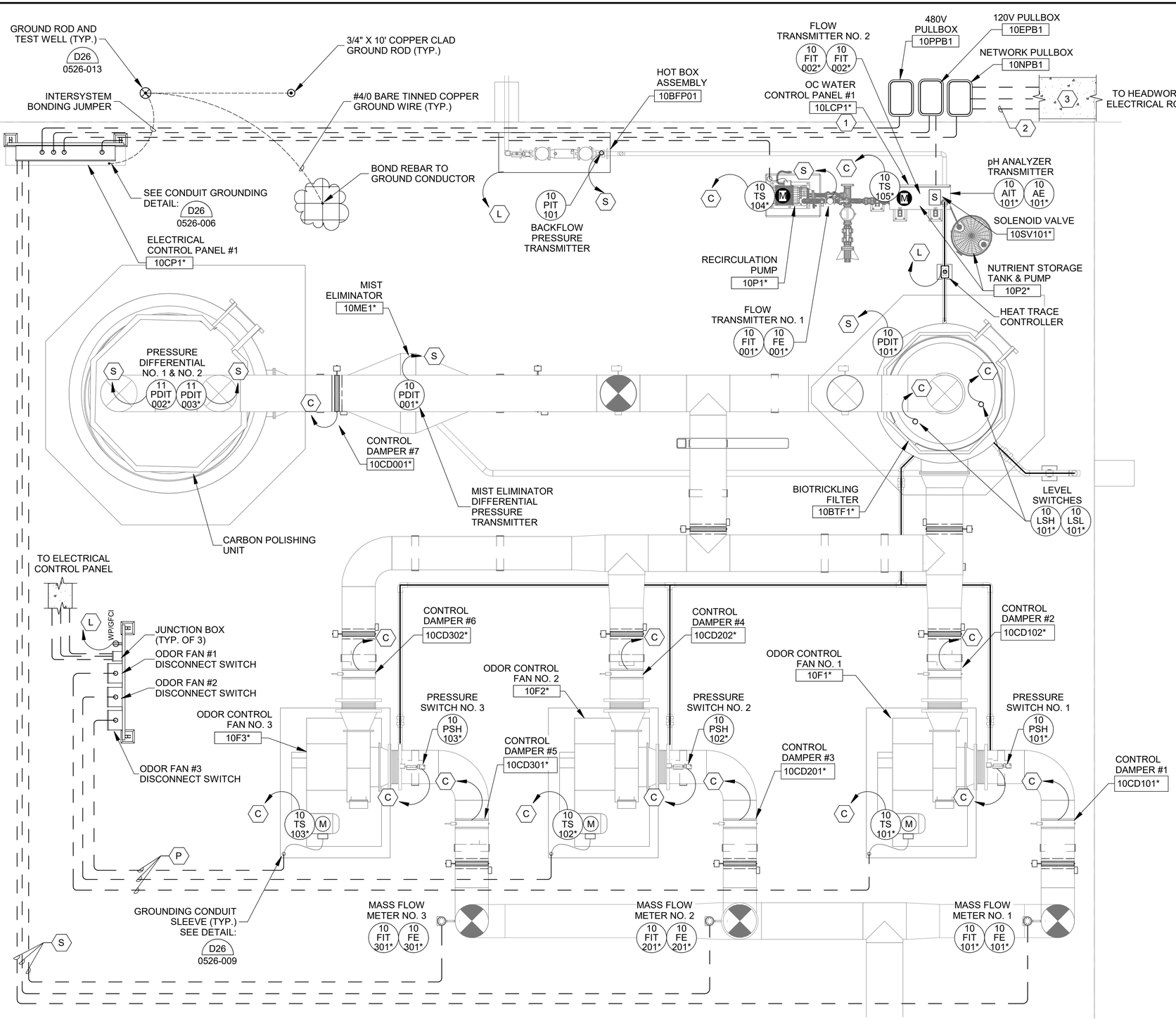
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DATE: AUG. 2026
DESIGNED BY: HML
DRAWN BY: EG
CHECKED BY: JWD

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DRAWING NUMBER
10-M601

SHEET NUMBER 50

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Plot Date: 8/7/2026 1:40:23 PM



PROJECT NORTH

1 / 10-E101 ELECTRICAL PLAN

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

KEYNOTES	
1	ODOR CONTROL LAYOUT AND EQUIPMENT SHOWN AS EXPECTED. MAKE ALL CONNECTIONS FROM ODOR CONTROL PANELS TO SUPPLIED ODOR CONTROL EQUIPMENT ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2	2" C FOR FIBER OPTIC CABLE.
3	PROVIDE (3) 2" SPARE CONDUITS FROM ODOR CONTROL SYSTEM PULL BOXES TO ELECTRICAL HEADWORKS BUILDING FOR FUTURE USE.

CIRCUIT LEGEND	
C	FOR CONTROL CONDUIT AND CONDUCTORS TO PLC CONTROL PANEL 10CP1* SEE INTERCONNECT DIAGRAM ON DRAWING 10-E601.
P	FOR 480VAC CONDUIT AND CONDUCTORS SEE ONE-LINE DIAGRAM ON DRAWING 90-E101.
S	FOR SIGNAL CONDUIT AND CONDUCTORS TO PLC CONTROL PANEL 10CP1* SEE INTERCONNECT DIAGRAM ON DRAWING 10-E601.
L	SEE "HW-LV1" ONE-LINE DIAGRAM ON DRAWING 90-E101 FOR 240/120VAC CONDUIT AND CONDUCTORS.

NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, WIRING, TERMINATIONS, DISCONNECTS, CONTROL RELAYS, CONTROL ENCLOSURES AND OTHER ITEMS AS NECESSARY FOR A FUNCTIONAL ODOR CONTROL SYSTEM. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND OTHER SECTIONS OF THE PLANS FOR ITEMS AS MAY BE REQUIRED.
2. SOME CONDUIT RUNS OMITTED FOR CLARITY. COORDINATE ALL CONDUIT ROUTING OF SUPPLIED EQUIPMENT WITH ENGINEER PRIOR TO INSTALLATION. CONDUIT ROUTING AS SHOWN IS DIAGRAMMATIC IN NATURE AND SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING NUMBER OF REQUIRED CONDUITS AND PLACEMENT OF THESE CONDUITS.
3. SIGNAL AND CONTROL CONDUCTORS OF LIKE VOLTAGES MAY BE COMBINED IN A SINGLE CONDUIT. MULTI-CONDUCTOR CONTROL AND SIGNAL CABLE MAY BE SUBSTITUTED FOR INDIVIDUAL CONDUCTORS.
4. ALL LOCATIONS WITHIN 3' OF ODOR CONTROL EQUIPMENT, INCLUDING BUT NOT LIMITED TO FANS, DAMPERS, PRESSURIZED DUCT WORKS, TANKS, VALVES, VESSELS AND OTHER EQUIPMENT, SHALL BE CONSIDERED A CLASS 1, DIVISION 2 HAZARDOUS LOCATION ACCORDING TO NFPA 820.
5. CONTRACTOR SHALL STRICTLY ADHERE TO THE REQUIREMENTS IN NFPA 70, ARTICLE 500, HAZARDOUS (CLASSIFIED) LOCATIONS FOR ALL AREA REFERENCED IN THE NOTES ABOVE. THIS INCLUDES PROVIDING APPROPRIATE SEAL FITTINGS ON CONDUITS CABLES, ALONG WITH PROVIDING EXPLOSION PROOF EQUIPMENT, RATED FOR THE CLASSIFICATION REFERENCED ABOVE, WITHIN THE HAZARDOUS AREA IF LOCATED IN THE HAZARDOUS AREA.
6. SEE ONE-LINE DIAGRAMS FOR 480VAC CONDUIT AND CONDUCTORS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM — MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL ELECTRICAL PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: NDM
DRAWN BY: NDM
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER **10-E101**

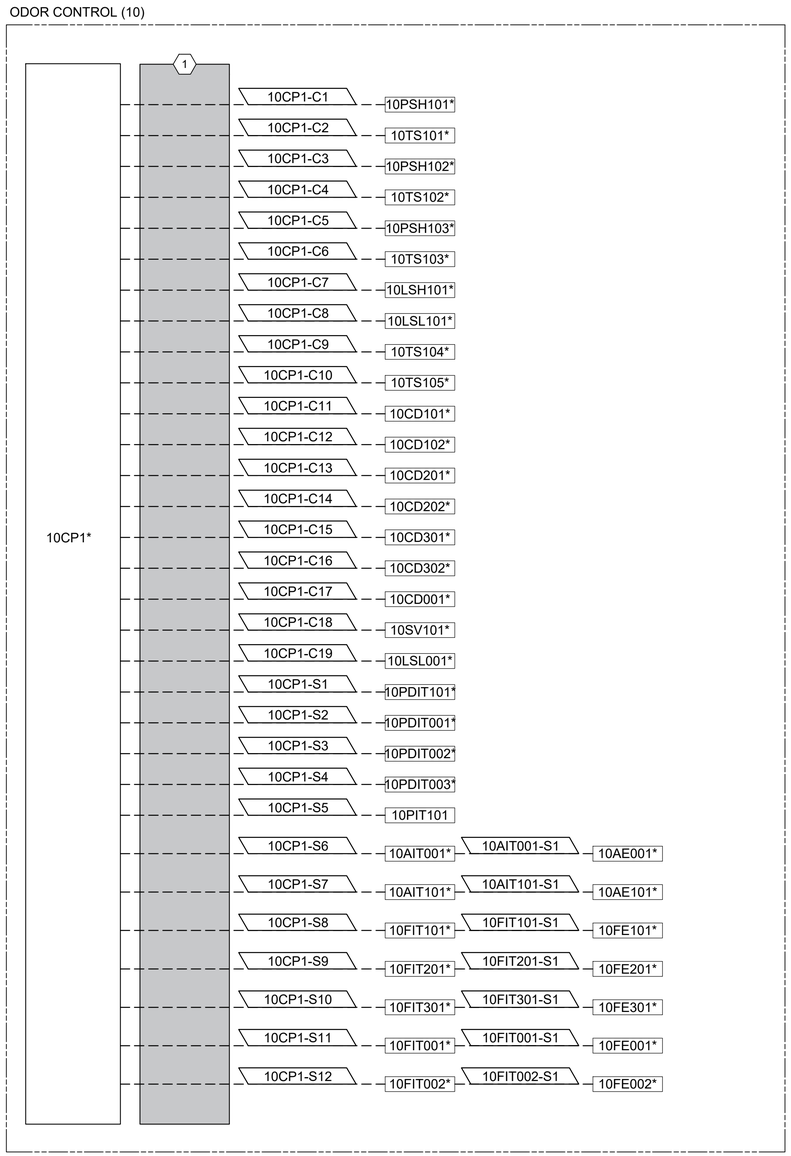
SHEET NUMBER 51

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_10_ODOR_CONTROL.rvt
Plot Date: 8/7/2026 2:21:27 PM

ELECTRICAL EQUIPMENT	
TAG	**DESCRIPTION**
10CP1*	OC CONTROL PANEL
10CD101*	CONTROL DAMPER NO. 1
10CD102*	CONTROL DAMPER NO. 2
10CD201*	CONTROL DAMPER NO. 3
10CD202*	CONTROL DAMPER NO. 4
10CD301*	CONTROL DAMPER NO. 5
10CD302*	CONTROL DAMPER NO. 6
10CD001*	CONTROL DAMPER NO. 7
10PSH101*	ODOR CONTROL FAN NO. 1 HIGH PRESSURE SWITCH
10PSH102*	ODOR CONTROL FAN NO. 2 HIGH PRESSURE SWITCH
10PSH103*	ODOR CONTROL FAN NO. 3 HIGH PRESSURE SWITCH
10TS101*	ODOR CONTROL FAN NO. 1 TEMPERATURE SWITCH
10TS102*	ODOR CONTROL FAN NO. 2 TEMPERATURE SWITCH
10TS103*	ODOR CONTROL FAN NO. 3 TEMPERATURE SWITCH
10TS104*	RECIRCULATION PUMP TEMPERATURE SWITCH
10TS105*	NUTRIENT FEED PUMP TEMPERATURE SWITCH
10PDIT101*	BTF DIFFERENT PRESSURE TRANSMITTER
10LSH101*	BTF HIGH LEVEL SWITCH
10LSL101*	BTF LOW LEVEL SWITCH
10LSL001*	NUTRIENT FEED TANK LOW LEVEL SWITCH
10FIT101*	ODOR CONTROL FAN NO. 1 FLOW TRANSMITTER
10FE101*	ODOR CONTROL FAN NO. 1 FLOW ELEMENT
10FIT201*	ODOR CONTROL FAN NO. 2 FLOW TRANSMITTER
10FE201*	ODOR CONTROL FAN NO. 2 FLOW ELEMENT
10FIT301*	ODOR CONTROL FAN NO. 3 FLOW TRANSMITTER
10FE301*	ODOR CONTROL FAN NO. 3 FLOW ELEMENT
10FIT001*	RECIRCULATION PUMP FLOW TRANSMITTER
10FE001*	RECIRCULATION PUMP FLOW ELEMENT
10FIT002*	WATER CONTROL PANEL FLOW TRANSMITTER
10FE002*	WATER CONTROL PANEL FLOW ELEMENT
10AIT001*	PD PH ANALYZER TRANSMITTER
10AE001*	PH ANALYZER ELEMENT
10AIT101*	PH ANALYZER TRANSMITTER
10AE101*	PH ANALYZER ELEMENT
10SV101*	SOLENOID VALVE
10PIT101	W1 PRESSURE TRANSMITTER
10PDIT001*	MIST ELIMINATOR DIFFERENTIAL PRESSURE TRANSMITTER
10PDIT002*	MEDIA BED DIFFERENTIAL PRESSURE TRANSMITTER NO. 1
10PDIT003*	MEDIA BED DIFFERENTIAL PRESSURE TRANSMITTER NO. 2

FACILITY 10

CONDUIT #	CONDUCTORS	TYPE	FROM EQUIPMENT	TO EQUIPMENT
10CP1-C1	4-#14+#14G	CONTROL	10CP1*	10PSH101*
10CP1-C2	4-#14+#14G	CONTROL	10CP1*	10TS101*
10CP1-C3	4-#14+#14G	CONTROL	10CP1*	10PSH102*
10CP1-C4	4-#14+#14G	CONTROL	10CP1*	10TS102*
10CP1-C5	4-#14+#14G	CONTROL	10CP1*	10PSH103*
10CP1-C6	4-#14+#14G	CONTROL	10CP1*	10TS103*
10CP1-C7	4-#14+#14G	CONTROL	10CP1*	10LSH101*
10CP1-C8	4-#14+#14G	CONTROL	10CP1*	10LSL101*
10CP1-C9	4-#14+#14G	CONTROL	10CP1*	10TS104*
10CP1-C10	4-#14+#14G	CONTROL	10CP1*	10TS105*
10CP1-C11	16-#14+#14G	CONTROL	10CP1*	10CD101*
10CP1-C12	16-#14+#14G	CONTROL	10CP1*	10CD102*
10CP1-C13	16-#14+#14G	CONTROL	10CP1*	10CD201*
10CP1-C14	16-#14+#14G	CONTROL	10CP1*	10CD202*
10CP1-C15	16-#14+#14G	CONTROL	10CP1*	10CD301*
10CP1-C16	16-#14+#14G	CONTROL	10CP1*	10CD302*
10CP1-C17	16-#14+#14G	CONTROL	10CP1*	10CD001*
10CP1-C18	6-#14+#14G	CONTROL	10CP1*	10SV101*
10CP1-C19	4-#14+#14G	CONTROL	10CP1*	10LSL001*
10CP1-S1	2-PAIR #16 STP	SIGNAL	10CP1*	10PDIT101*
10CP1-S2	2-PAIR #16 STP	SIGNAL	10CP1*	10PDIT001*
10CP1-S3	2-PAIR #16 STP	SIGNAL	10CP1*	10PDIT002*
10CP1-S4	2-PAIR #16 STP	SIGNAL	10CP1*	10PDIT003*
10CP1-S5	2-PAIR #16 STP	SIGNAL	10CP1*	10PIT101
10CP1-S6	2-PAIR #16 STP	SIGNAL	10CP1*	10AIT001*
10CP1-S7	2-PAIR #16 STP	SIGNAL	10CP1*	10AIT101*
10CP1-S8	2-PAIR #16 STP	SIGNAL	10CP1*	10FIT101*
10CP1-S9	2-PAIR #16 STP	SIGNAL	10CP1*	10FIT201*
10CP1-S10	2-PAIR #16 STP	SIGNAL	10CP1*	10FIT301*
10CP1-S11	2-PAIR #16 STP	SIGNAL	10CP1*	10FIT001*
10CP1-S12	2-PAIR #16 STP	SIGNAL	10CP1*	10FIT002*
10AIT001-S1	MANUF. SUPPLIED	SIGNAL	10AIT001*	10AE001*
10AIT101-S1	MANUF. SUPPLIED	SIGNAL	10AIT101*	10AE101*
10FIT101-S1	MANUF. SUPPLIED	SIGNAL	10FIT101*	10FE101*
10FIT201-S1	MANUF. SUPPLIED	SIGNAL	10FIT201*	10FE201*
10FIT301-S1	MANUF. SUPPLIED	SIGNAL	10FIT301*	10FE301*
10FIT001-S1	MANUF. SUPPLIED	SIGNAL	10FIT001*	10FE001*
10FIT002-S1	MANUF. SUPPLIED	SIGNAL	10FIT002*	10FE002*



KEYNOTES

1	CONTRACTOR MAY COMBINE CONTROL AND SIGNAL CONDUCTORS OF LIKE VOLTAGES INTO A SINGLE CONDUIT. CONDUITS SHALL BE SIZED TO MEET NEC CONDUCTOR FILL REQUIREMENTS PLUS AN ADDITIONAL 25% EXTRA FILL SPACE. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR EXPOSED APPLICATIONS AND 1" FOR BELOW GRADE. CONTRACTOR TO PROVIDE JUNCTION BOXES AS NEEDED.

NOTES:

1. INTERCONNECT DIAGRAMS ONLY SHOW 120VAC POWER, NETWORK, CONTROL, AND SIGNAL CONNECTIONS BETWEEN EQUIPMENT. INTERCONNECT DIAGRAMS DO NOT SHOW ALL JUNCTION BOXES, EXACT RACEWAY ROUTING, OR COMBINED CONDUCTOR ROUTING.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

ODOR CONTROL INTERCONNECT DIAGRAM

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

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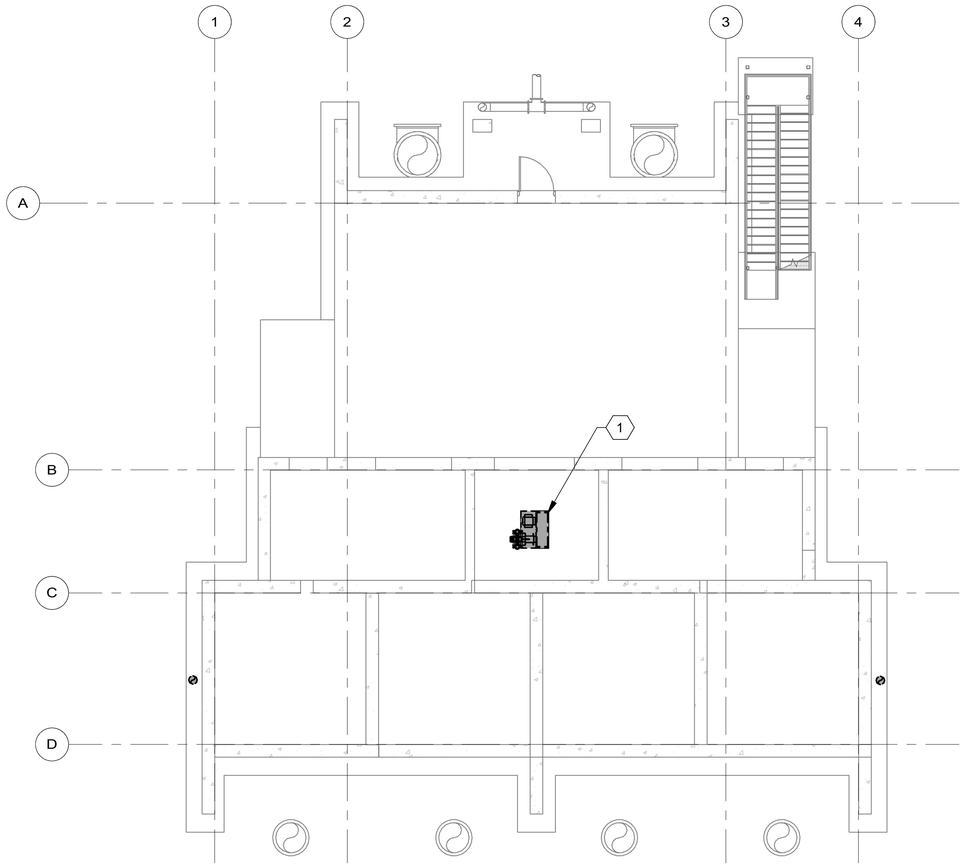
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10-E601

SHEET NUMBER 52

DEMOLITION KEYNOTES	
1.	DEMOLISH VAPEX SYSTEM AND ASSOCIATED PIPING, APPURTENANCES, AND ELECTRICAL EQUIPMENT.

NOTES:

1. SEE SPECIFICATION 02 41 00 - DEMOLITION FOR ADDITIONAL REQUIREMENTS NOT LISTED ON DRAWINGS.
2. ELEVATIONS AND DIMENSIONS PROVIDED ARE BASED ON RECORD DRAWINGS AND ARE PROVIDED FOR THE CONTRACTORS REFERENCE. CONTRACTOR SHALL CONFIRM ALL ELEVATIONS PRIOR TO BEGINNING WORK, AND OWNER AND ENGINEER SHALL NOT HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL ELEVATIONS.
3. DEMOLITION SHEETS, DRAWINGS, AND NOTES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR THE PRE-MEASURING OF EQUIPMENT AND EXISTING OPENINGS PRIOR TO REMOVAL.
4. VAPEX TO DECOMMISSION AND REMOVE EXISTING VAPEX UNIT AND PROVIDE TO MAWSS. VAPEX SHALL BE RESPONSIBLE FOR REPLACEMENT OF UNIT IF ANY COMPONENT IS DESTROYED OR BROKEN DURING DECOMMISSIONING. CONTRACTOR TO DEMOLISH PIPING, APPURTENANCES, AND ELECTRICAL EQUIPMENT ASSOCIATED WITH VAPEX SYSTEM.



PROJECT NORTH

1 / 20-X101 LOWER DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2 VAPEX SYSTEM DEMOLITION
SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS LOWER DEMOLITION PLAN

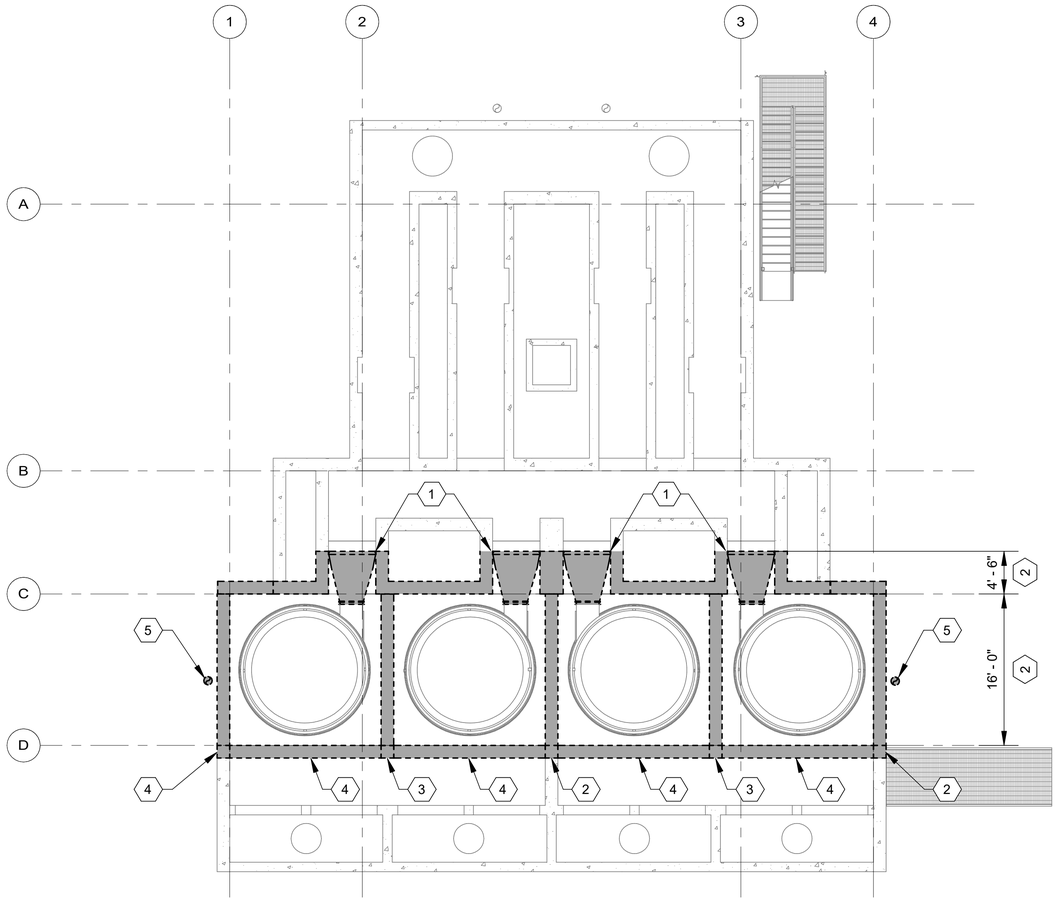
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: SJB
CHECKED BY: JNM

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DRAWING NUMBER
20-X101

SHEET NUMBER 53

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:46:31 PM



PROJECT NORTH

1 / 20-X102 INTERMEDIATE DEMOLITION PLAN

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

DEMOLITION KEYNOTES	
1.	DEMOLISH CORRODED GRIT HEADCELL INLET CHUTE.
2.	PARTIALLY DEMOLISH CONC WALL FROM TOP OF CONCRETE EL TO EL=29.75'. (4'-0" MINIMUM DEMOLITION HEIGHT)
3.	PARTIALLY DEMOLISH CONC WALL FROM TOP OF CONCRETE EL TO EL=28.75'. (5'-0" MINIMUM DEMOLITION HEIGHT)
4.	PARTIALLY DEMOLISH CONC WEIR FROM TOP OF WEIR EL TO EL=28.75'. (1'-11 1/4" MINIMUM DEMOLITION HEIGHT)
5.	DEMOLISH VAPEX SYSTEM AND ASSOCIATED PIPING, APPURTENANCES, AND ELECTRICAL EQUIPMENT.

NOTES:

1. SEE SPECIFICATION 02 41 00 - DEMOLITION FOR ADDITIONAL REQUIREMENTS NOT LISTED ON DRAWINGS.
2. ELEVATIONS AND DIMENSIONS PROVIDED ARE BASED ON RECORD DRAWINGS AND ARE PROVIDED FOR THE CONTRACTORS REFERENCE. CONTRACTOR SHALL CONFIRM ALL ELEVATIONS PRIOR TO BEGINNING WORK, AND OWNER AND ENGINEER SHALL NOT HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL ELEVATIONS.
3. DEMOLITION SHEETS, DRAWINGS, AND NOTES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR THE PRE-MEASURING OF EQUIPMENT AND EXISTING OPENINGS PRIOR TO REMOVAL.
4. CONTRACTOR TO REMOVE AND STORE GRIT HEADCELL UNIT. HEADCELL TO BE REINSTALLED WITH NEW INLET CHUTE AFTER CONCRETE WALLS ARE REBUILT. SEE SPECIFICATIONS FOR ADDITIONAL STORAGE REQUIREMENTS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS INTERMEDIATE DEMOLITION PLAN

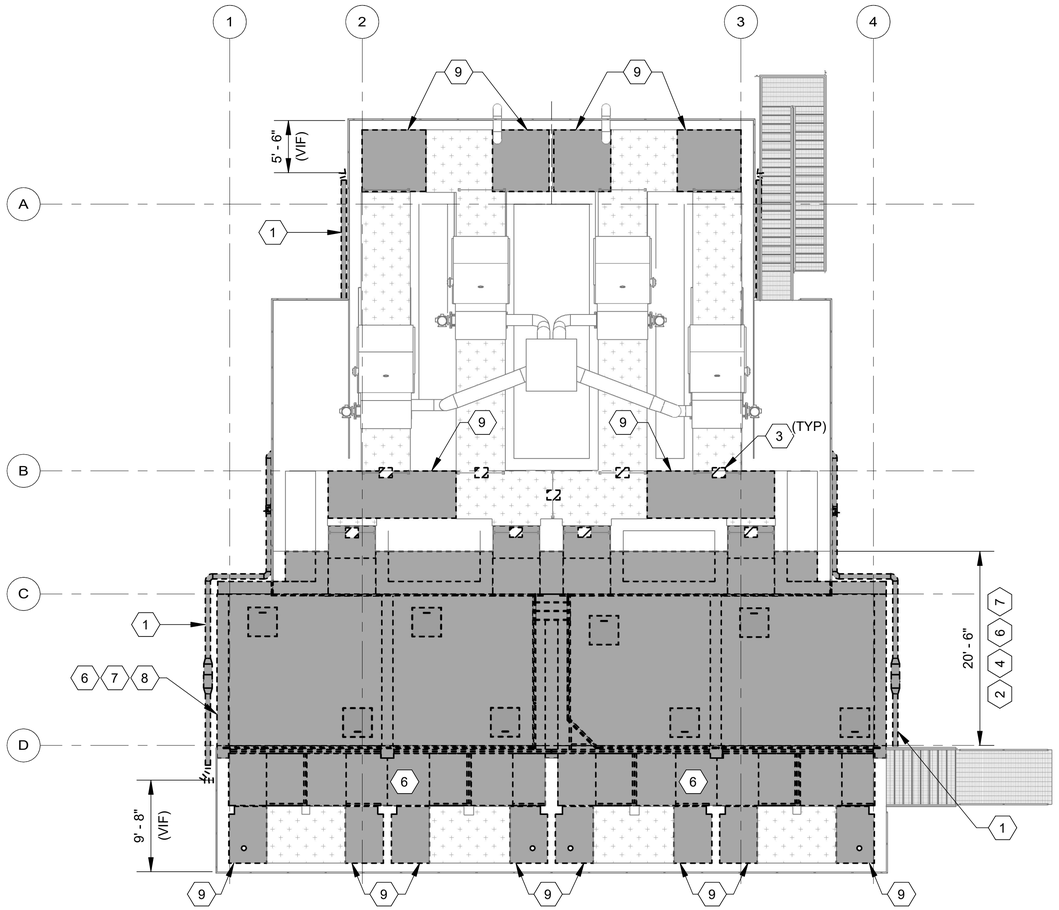
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: SJB
CHECKED BY: JNM

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DRAWING NUMBER **20-X102**

SHEET NUMBER 54

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Plot Date: 8/7/2026 1:44:58 PM



1 / 20-X103 UPPER DEMOLITION PLAN

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

DEMOLITION KEYNOTES

1.	DEMOLISH VAPEX SYSTEM AND ASSOCIATED PIPING, APPURTENANCES, AND ELECTRICAL EQUIPMENT.
2.	PARTIALLY DEMOLISH CONC WALL FROM TOP OF CONCRETE EL TO EL=29.75'. (4'-0" MINIMUM DEMOLITION HEIGHT)
3.	DEMOLISH EXISTING SLIDE GATE ACTUATOR. (TYP OF 14)
4.	REMOVE AND STORE EXISTING FIBER REINFORCED PLASTIC (FRP) AND THEIR SUPPORT FRAMING FOR PARTIAL CONCRETE WALL DEMOLITION AND REPLACEMENT. ANCHOR/ REINSTALL TO REPLACED WALL PER ORIGINAL DETAILING.
5.	SHORE EXISTING ELEVATED WALKWAY DURING PARTIAL CONCRETE WALL DEMOLITION AND REPLACEMENT. RECONNECT TO REPLACED WALL PER ORIGINAL DETAILING.
6.	REMOVE AND STORE EXISTING DIAMOND PLATE COVERS AND THEIR SUPPORT FRAMING FOR PARTIAL CONCRETE WALL DEMOLITION AND REPLACEMENT. ANCHOR/ REINSTALL TO REPLACED WALL PER ORIGINAL DETAILING.
7.	PARTIALLY REMOVE AND STORE EXISTING ALUMINUM GUARDRAIL SYSTEM FOR PARTIAL CONCRETE WALL DEMOLITION AND REPLACEMENT. ANCHOR/ REINSTALL TO REPLACED WALL PER ORIGINAL DETAILING.
8.	PARTIALLY DEMOLISH CONCRETE WALLS FROM TOP OF CONCRETE EL TO EL=28.75'. (5'-0" MINIMUM DEMOLITION HEIGHT)
9.	REMOVE DIAMOND PLATE HATCH.

NOTES:

1. SEE SPECIFICATION 02 41 00 - DEMOLITION FOR ADDITIONAL REQUIREMENTS NOT LISTED ON DRAWINGS.
2. ELEVATIONS AND DIMENSIONS PROVIDED ARE BASED ON RECORD DRAWINGS AND ARE PROVIDED FOR THE CONTRACTORS REFERENCE. CONTRACTOR SHALL CONFIRM ALL ELEVATIONS PRIOR TO BEGINNING WORK, AND OWNER AND ENGINEER SHALL NOT HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL ELEVATIONS.
3. DEMOLITION SHEETS, DRAWINGS, AND NOTES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIANCES BETWEEN DRAWING AND ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR THE PRE-MEASURING OF EQUIPMENT AND EXISTING OPENINGS PRIOR TO REMOVAL.
4. VAPEX TO DECOMMISSION AND REMOVE EXISTING VAPEX UNIT AND PROVIDE TO MAWSS. VAPEX SHALL BE RESPONSIBLE FOR REPLACEMENT OF UNIT IF ANY COMPONENT IS DESTROYED OR BROKEN DURING DECOMMISSIONING. CONTRACTOR TO DEMOLISH PIPING, APPURTENANCES, AND ELECTRICAL EQUIPMENT ASSOCIATED WITH VAPEX SYSTEM.



2 SLIDE GATE ACTUATOR DEMOLITION

SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS UPPER DEMOLITION PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: SJB
CHECKED BY: JNM

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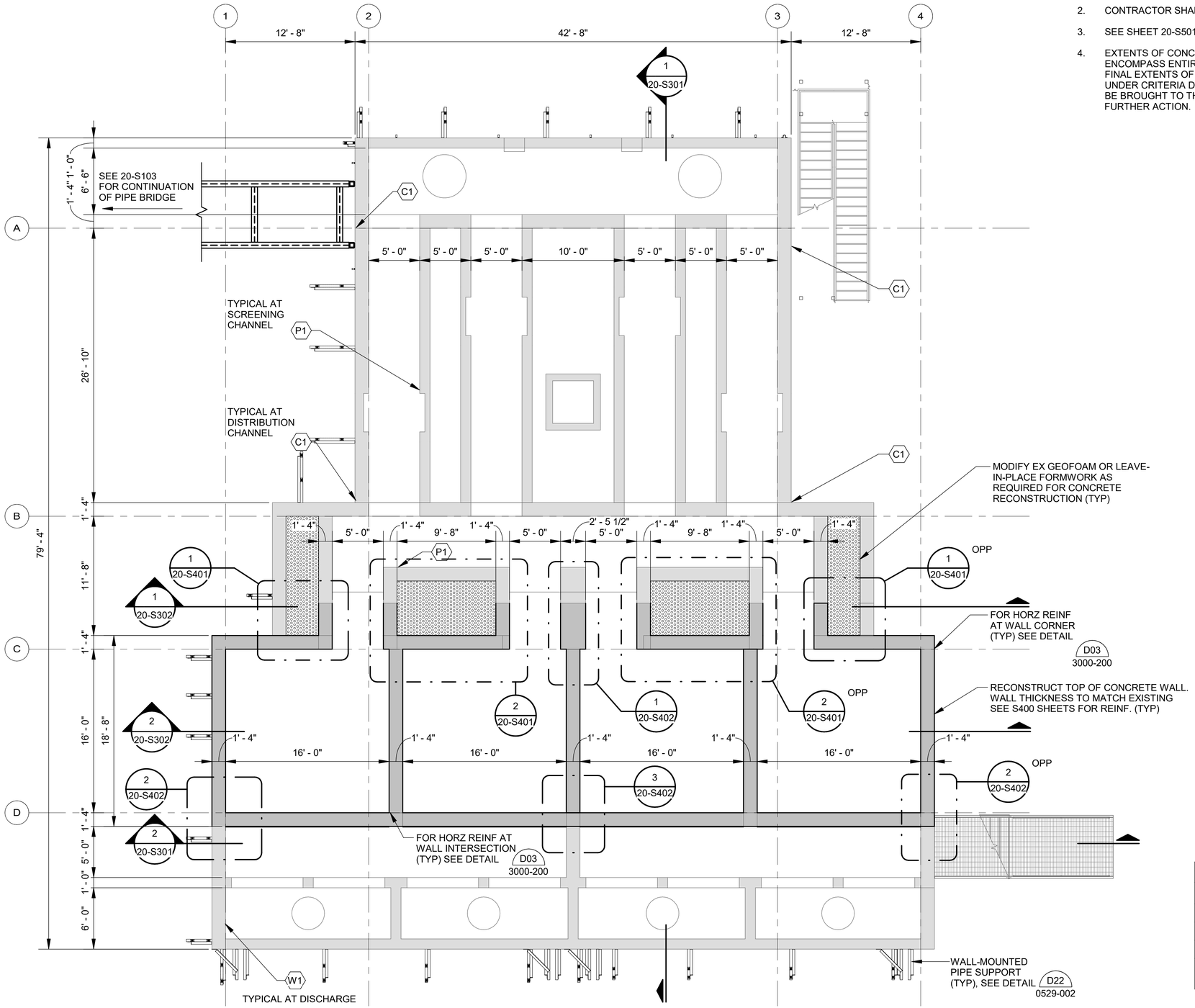
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Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:46:32 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS SHOWN.
3. SEE SHEET 20-S501 FOR REPAIR PROCEDURES OF ALL CONDITIONS NOTED, U.N.O. ON PLAN.
4. EXTENTS OF CONCRETE CONDITIONS INDICATED ARE APPROXIMATE, AND MAY NOT ENCOMPASS ENTIRETY OF ELEMENTS TO BE REPAIRED. CONTRACTOR TO FIELD-VERIFY FINAL EXTENTS OF WORK REQUIRED. ADDITIONAL INSTANCES OF CONDITIONS FALLING UNDER CRITERIA DESCRIBED ON SHEET 20-S501 OBSERVED DURING REPAIR WORK SHALL BE BROUGHT TO THE ATTENTION OF THE EOR AND MAWSS FOR EVALUATION PRIOR TO ANY FURTHER ACTION.



PROJECT NORTH

1 20-S101 **LOWER PLAN**

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

KEYNOTES

MARK	DESCRIPTION
C1	VERTICAL LEVEL 4 CRACK
W1	FULL-HEIGHT LEVEL 4 WEAR ALONG WALL
P1	DEGRADED COATING

SEE SHEETS 20-S501 FOR REPAIRS TO ADDRESS THE ABOVE-NOTED CONDITIONS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS LOWER PLAN

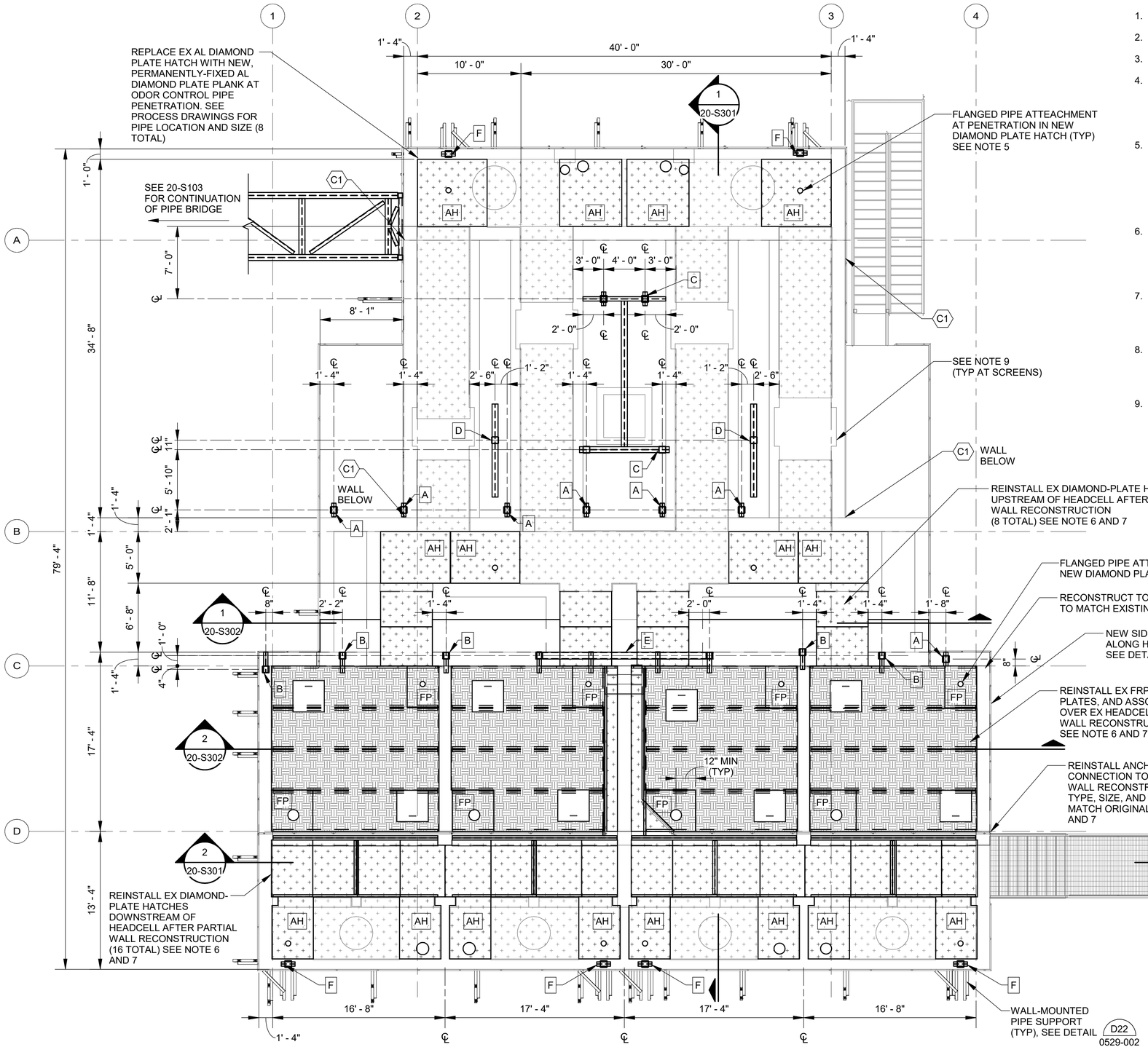
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER **20-S101**

SHEET NUMBER 56

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Plot Date: 8/7/2026 1:44:51 PM



PROJECT NORTH

1 20-S102 **UPPER PLAN**

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS SHOWN.
3. SEE SHEET 20-S501 FOR REPAIR PROCEDURES OF ALL CONDITIONS NOTED, UNO ON PLAN.
4. EXTENTS OF CONCRETE CONDITIONS INDICATED ARE APPROXIMATE, AND MAY NOT ENCOMPASS ENTIRETY OF ELEMENTS TO BE REPAIRED. CONTRACTOR TO FIELD-VERIFY FINAL EXTENTS OF WORK REQUIRED. ADDITIONAL INSTANCES OF CONDITIONS FALLING UNDER CRITERIA DESCRIBED ON SHEET 20-S501 OBSERVED DURING REPAIR WORK SHALL BE BROUGHT TO THE ATTENTION OF THE EOR AND MAWSS FOR EVALUATION.
5. DESIGN OF NEW AL DIAMOND PLATE HATCHES AND FRP PLANK AT PIPE PENETRATIONS AND ASSOCIATED CONNECTIONS TO SUPPORTING STRUCTURE SHALL BE THE RESPONSIBILITY OF THEIR RESPECTIVE SUPPLIERS. AL DIAMOND PLATE HATCHES AND FRP PLANK ARE DENOTED AS AH AND FP RESPECTIVELY. HATCHES AND PLANK SHALL BE MANUFACTURED TO SUPPORT FRP PIPE PER SCHEMATIC DETAIL 2 20-S507
6. ANCHORAGE OF EXISTING FRAMING AND FABRICATIONS TO CONCRETE STRUCTURE COULD NOT BE DETERMINED FROM NON-DESTRUCTIVE FIELD OBSERVATION. ANCHORAGE OF ELEMENTS TO BE REMOVED AND REINSTALLED FOR PARTIAL WALL AND SLAB RECONSTRUCTION SHALL BE DOCUMENTED AND REPLACED IN-KIND DURING REINSTALLATION.
7. CONFIGURATIONS OF EX FRP AND AL PLANKS, HATCHES, AND ASSOCIATED SUPPORTS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY AND SHALL BE MEASURED AND DOCUMENTED IN FIELD FOR IMPACTED DELEGATED DESIGN ITEMS AND PROPER REINSTALLATION. ALL EXISTING PENETRATIONS SHALL BE INCORPORATED INTO DESIGN OF REPLACEMENTS UNO.
8. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
9. CONTRACTOR TO CONFIRM FINAL WIDTH OF CHANNEL WITH NEW COATING APPLIED IS WITHIN TOLERANCE SET BY SCREEN MANUFACTURER PRIOR TO APPLICATION. IF THE COATING REDUCES THE CLEAR WIDTH TO LESS THAN ACCEPTABLE BY MANUFACTURER, CONTRACTOR SHALL LOCALLY REMOVE CONCRETE SUBSTRATE AT SCREENS TO ATTAIN PROPER CLEARANCE. THICKNESS OF REMOVED SUBSTRATE SHALL NOT EXCEED THE COMBINED THICKNESS OF APPLIED COATING AND SURFACE MORTAR REPAIR. COATING THICKNESS SHALL MEET PRODUCT MANUFACTURER'S INSTRUCTIONS.

PIPE SUPPORT SCHEDULE

MARK	DESCRIPTION	DETAIL REFERENCE
A	SINGLE POST	1/20-S502
B	CANTILEVERED SUPPORT	2/20-S502
C	RIGID FRAME	3/20-S502
D	RIGID FRAME	4/20-S502
E	RIGID FRAME	1/20-S503
F	BEAM	4/20-S504

NOTE:
CONTRACTOR TO COORDINATE PIPE SUPPORT LOCATIONS WITH MECHANICAL AND PROCESS MECHANICAL DRAWINGS AND EXISTING SITE CONDITIONS.

KEYNOTES

MARK	DESCRIPTION
C1	VERTICAL LEVEL 4 CRACK
W1	FULL-HEIGHT LEVEL 4 WEAR ALONG WALL

SEE SHEETS 20-S501 FOR REPAIRS TO ADDRESS THE ABOVE-NOTED CONDITIONS.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS UPPER PLAN

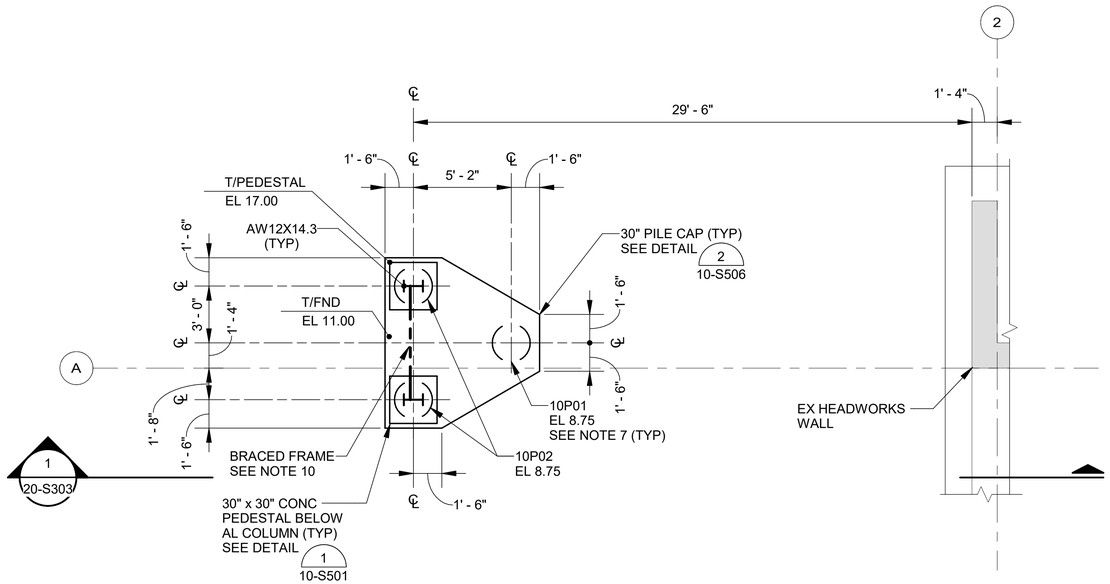
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DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER **20-S102**

SHEET NUMBER 57

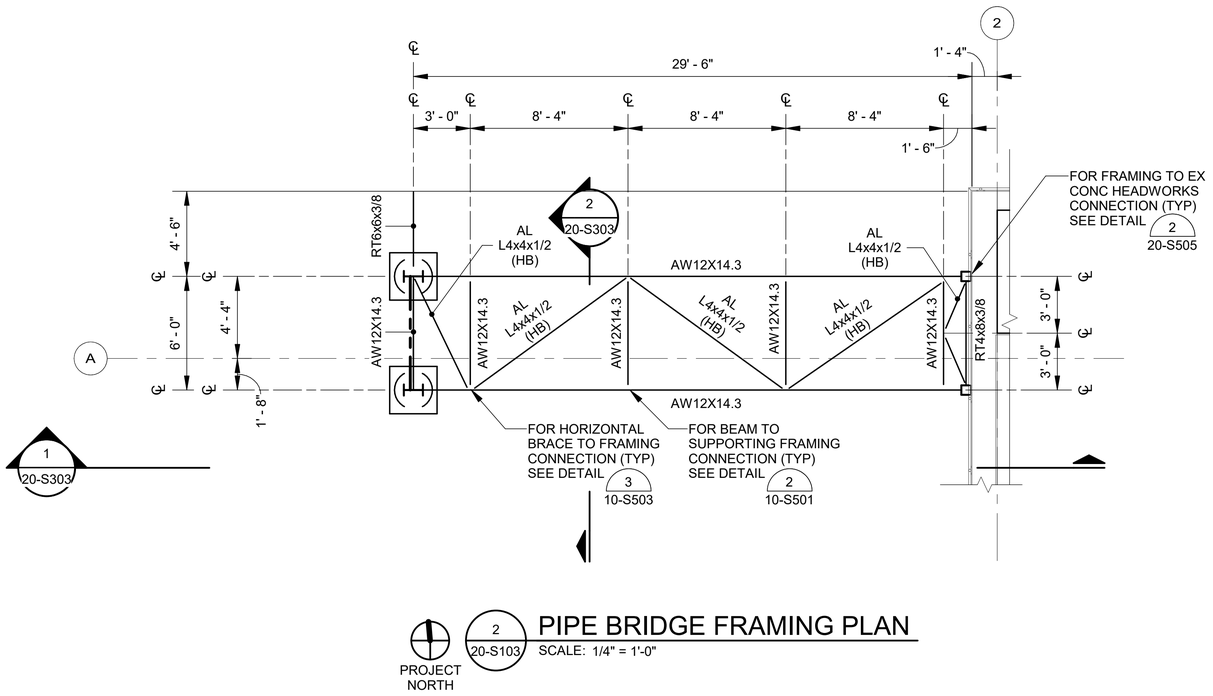
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PROJECT NORTH

1 / 20-S103 PIPE BRIDGE FDN PLAN

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



PROJECT NORTH

2 / 20-S103 PIPE BRIDGE FRAMING PLAN

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPE BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. TOP OF ALUMINUM FRAMING AT EL 31.50 UNO.
5. (HB) DENOTES HORIZONTAL BRACE. TOP OF BRACE ELEVATION SHALL BE 3 1/2" BELOW ADJACENT BEAM FRAMING.
6. FOR AL COLUMN BASE PLATE CONNECTION SEE DETAIL 1 / 10-S502
7. AUGER CAST PILES ARE NOTED ON PLANS AS 10PXX. FOR PILE INFORMATION SEE SCHEDULE 1 / 10-S601
8. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES AND PIPE SUPPORTS NOT EXPLICITLY DETAILED IN DRAWINGS SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
9. SEISMIC ANALYSIS OF PIPE BRIDGE HAS BEEN PERFORMED PER THE FOLLOWING:
   A. SEISMIC FORCE RESISTING SYSTEM: STANDALONE ALUMINUM STRUCTURE ANALYZED WITHOUT RESPONSE MODIFICATION COEFFICIENT, R, USING EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7-16.
   B. RESPONSE MODIFICATION FACTOR, R=1.0
   C. SEISMIC RESPONSE COEFFICIENT, CS=0.186
   D. SEISMIC BASE SHEAR, V=3K
10. VERTICAL BRACED FRAMES ARE INDICATED AS — — — — SEE SECTIONS FOR BRACING CONFIGURATIONS.

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REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE BRIDGE PLANS

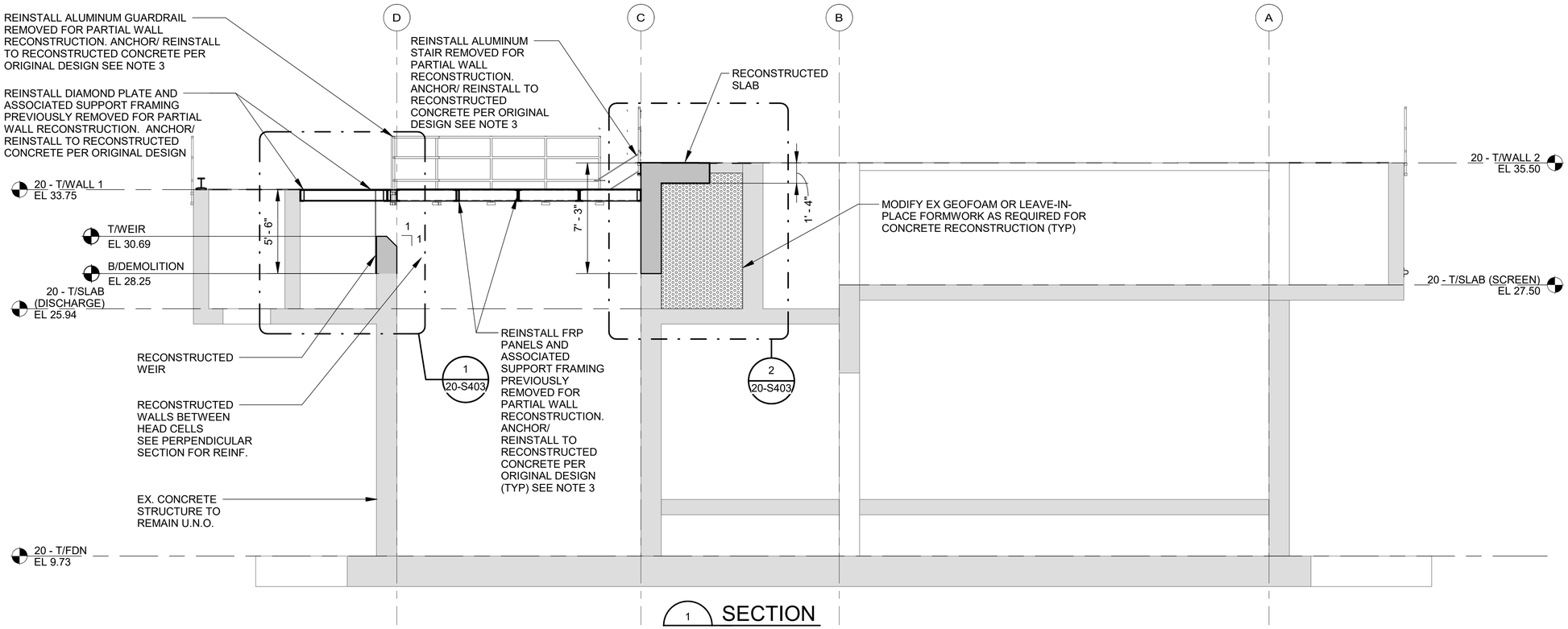
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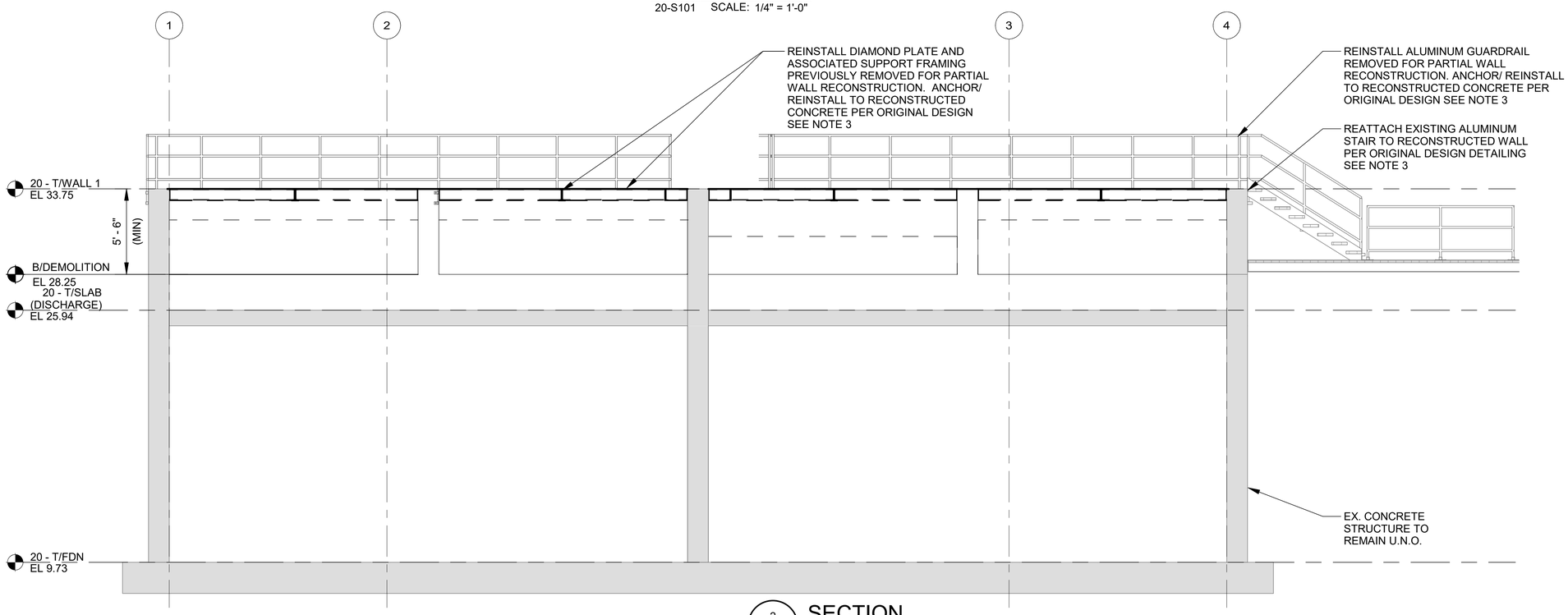
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SHEET NUMBER 58

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
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1 SECTION
20-S101 SCALE: 1/4" = 1'-0"



2 SECTION
20-S101 SCALE: 1/4" = 1'-0"

NOTES:

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2. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS SHOWN.
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No. 28656
PROFESSIONAL
ENGINEER
JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTIONS 1

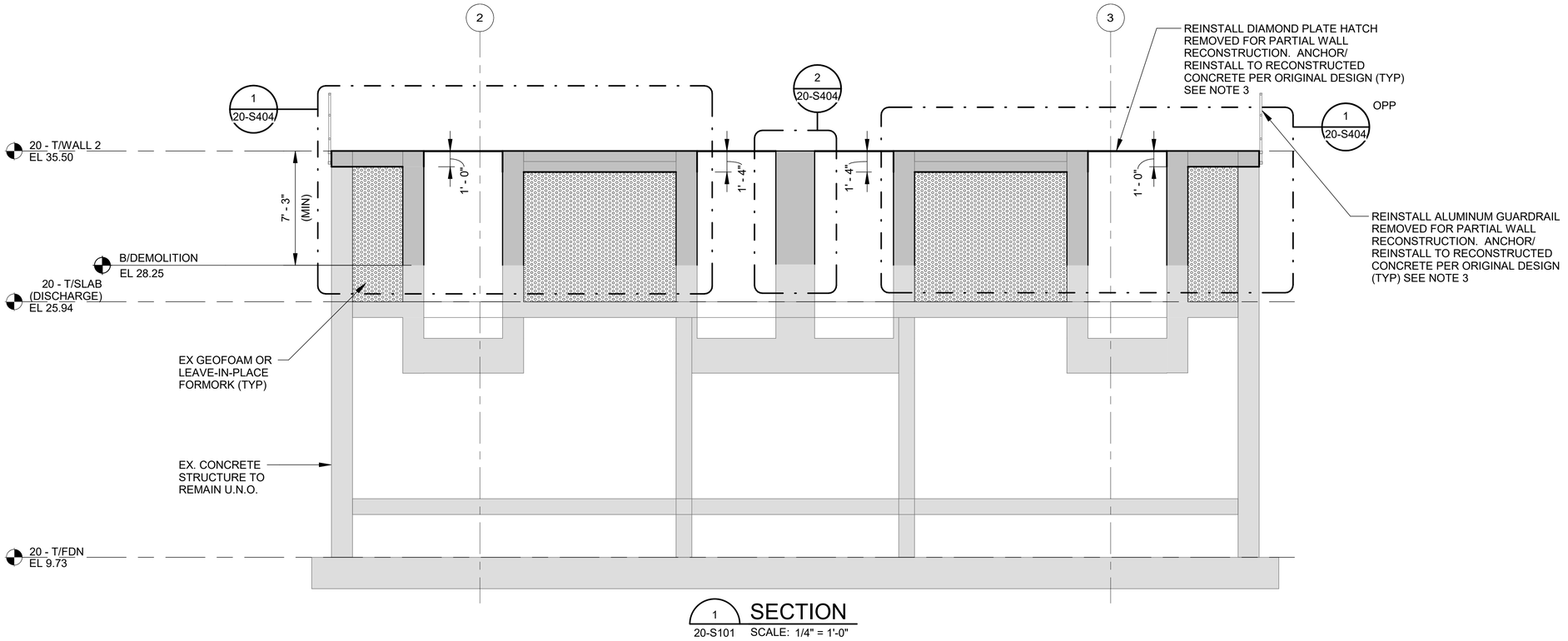
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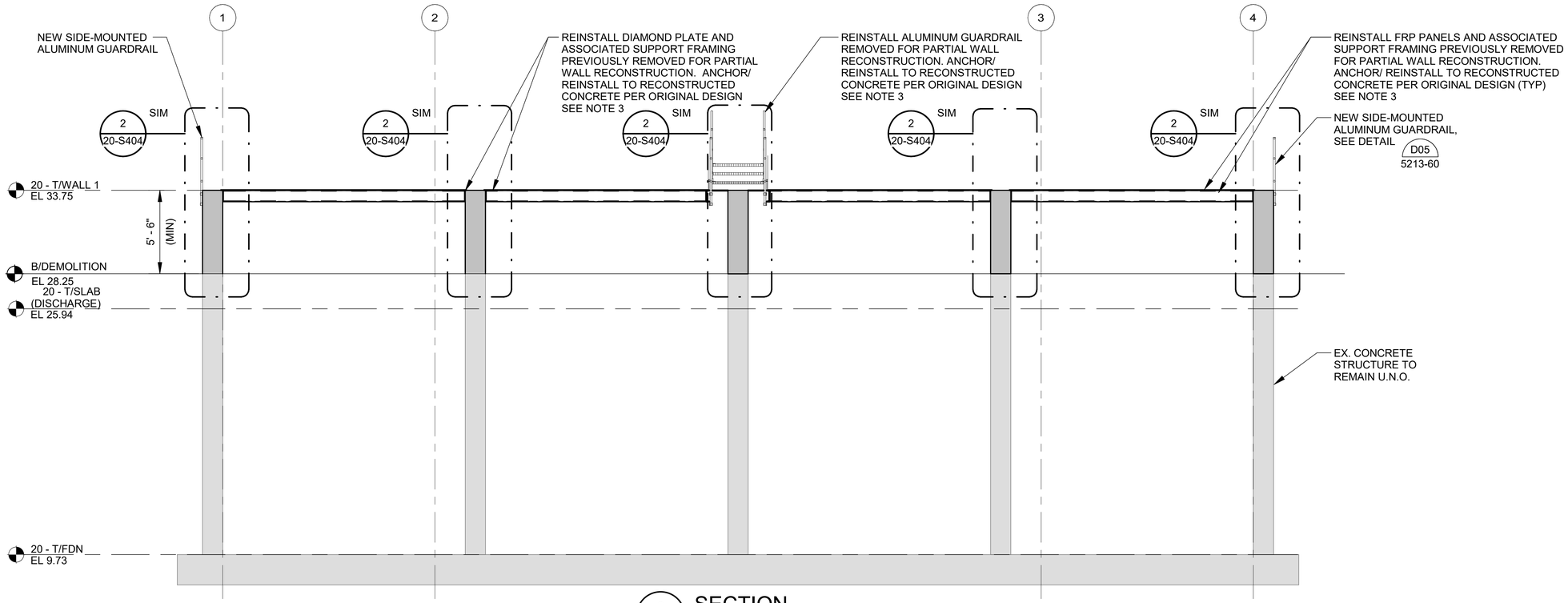
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1 SECTION
20-S101 SCALE: 1/4" = 1'-0"



2 SECTION
20-S101 SCALE: 1/4" = 1'-0"

NOTES:

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTIONS 2

JOB NO.: 2402007
DATE: AUG. 2026
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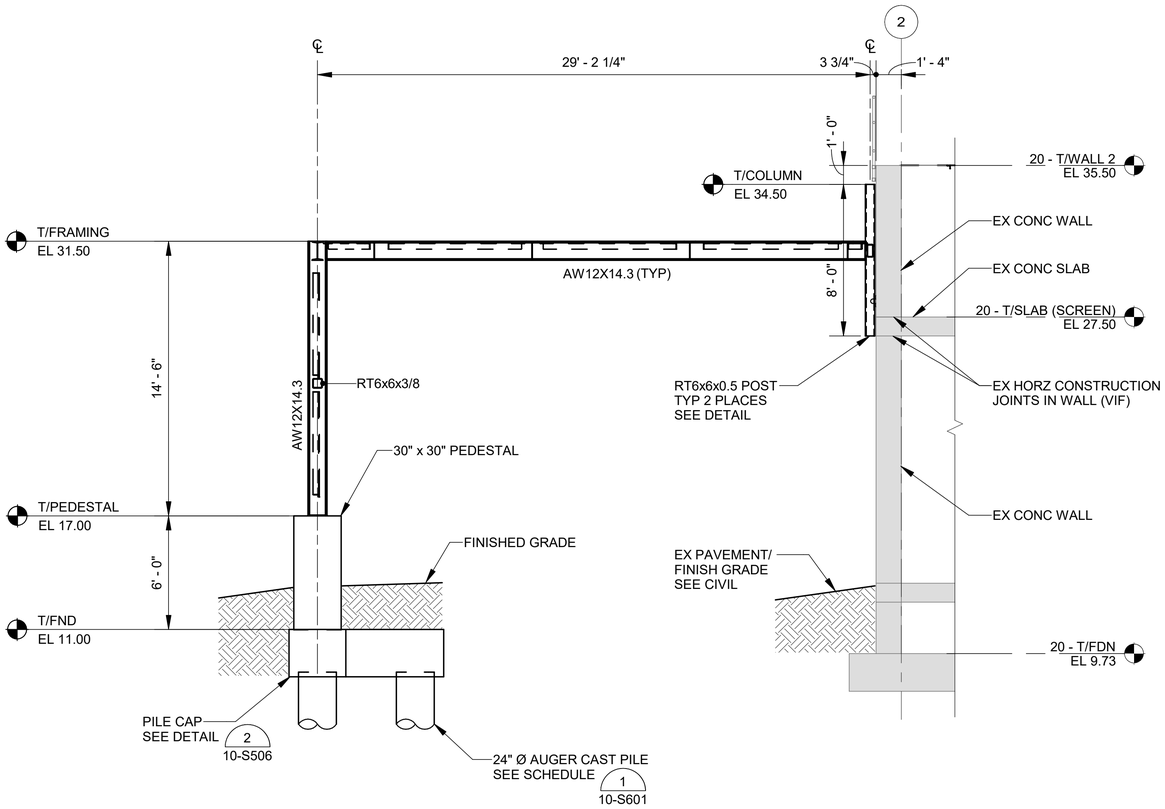
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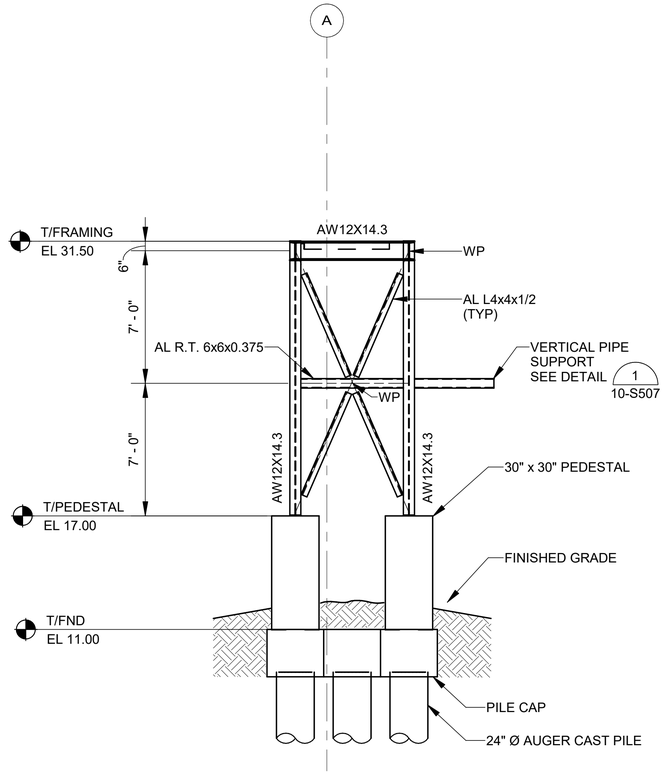
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NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPE BRIDGE COORDINATES, ORIENTATIONS, AND FINISHED GRADES AT FOUNDATION, SEE PROPOSED GRADING AND YARD PIPING PLANS.
3. ALL FRAMING SHALL BE ALUMINUM. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
4. SEE SPECIFICATIONS FOR FRP PIPE INFORMATION.



1 SECTION
20-S103 SCALE: 1/4" = 1'-0"



2 SECTION
20-S103 SCALE: 1/4" = 1'-0"

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MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTIONS 3

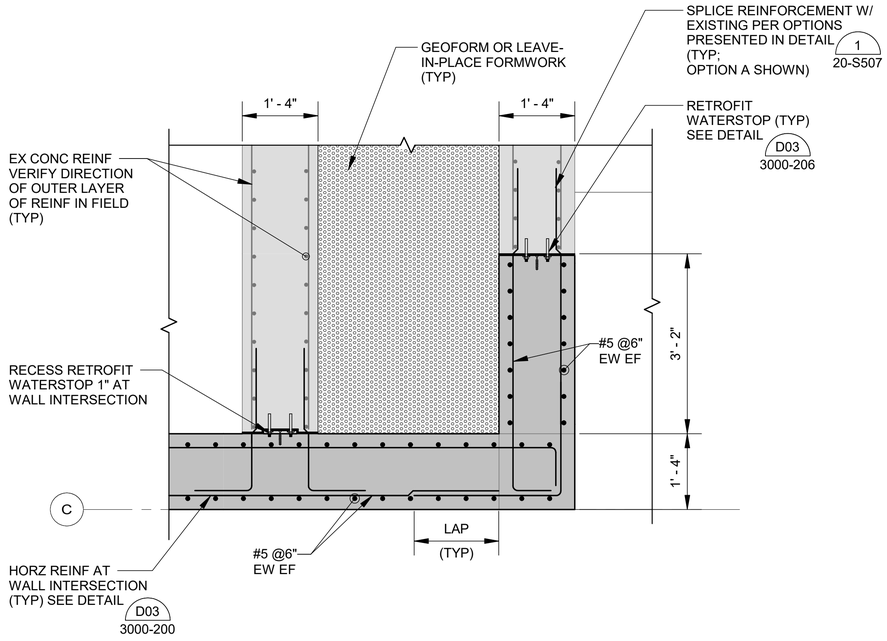
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DATE: AUG. 2026
DESIGNED BY: JNM
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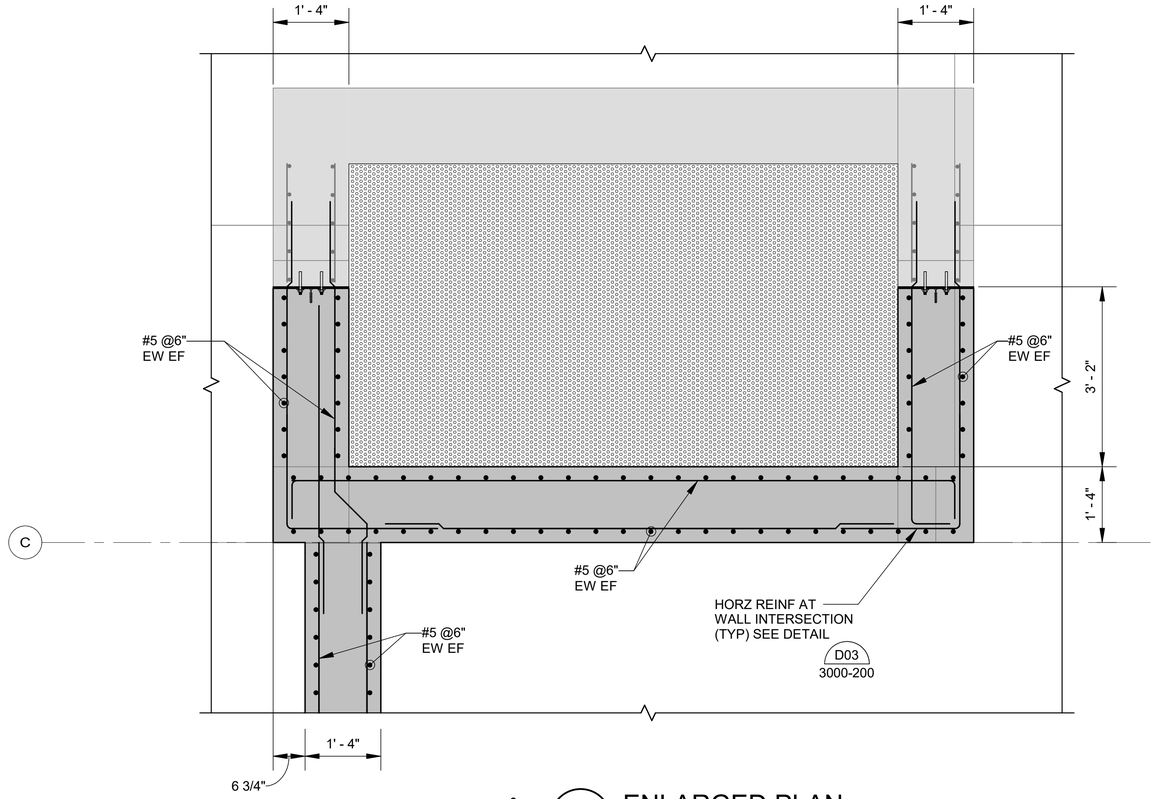
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Plot Date: 8/7/2026 1:44:53 PM



PROJECT NORTH

1 / 20-S101 ENLARGED PLAN

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



PROJECT NORTH

2 / 20-S101 ENLARGED PLAN

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

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS
ENLARGED PLANS 1

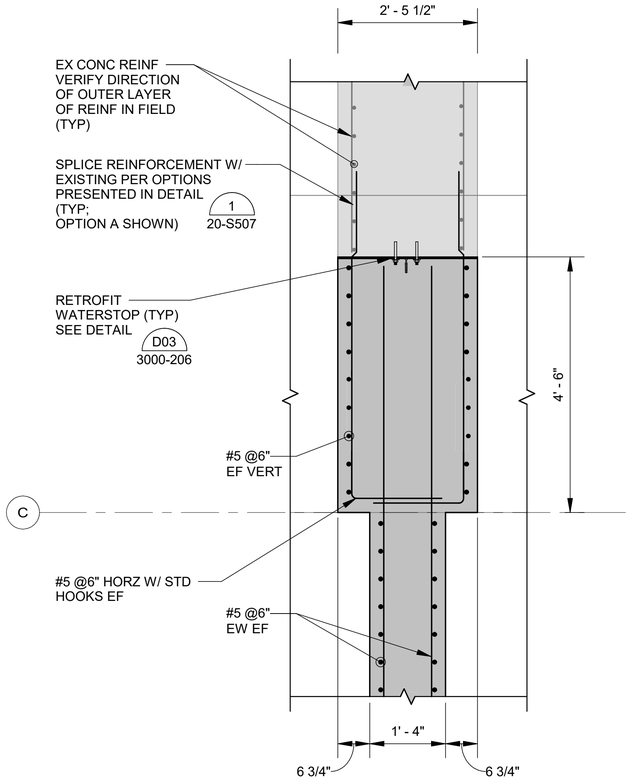
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SHEET NUMBER 62

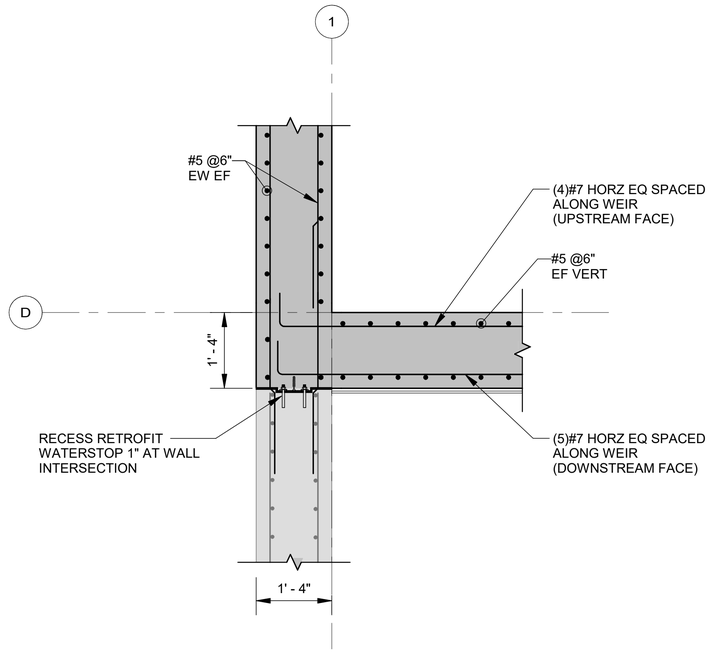
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1 20-S101 ENLARGED PLAN

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

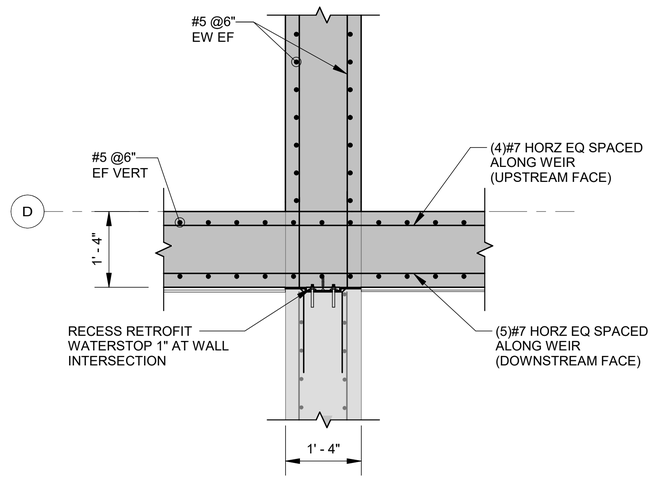
PROJECT NORTH



2 20-S101 ENLARGED PLAN

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

PROJECT NORTH



3 20-S101 ENLARGED PLAN

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

PROJECT NORTH

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS
ENLARGED PLANS 2

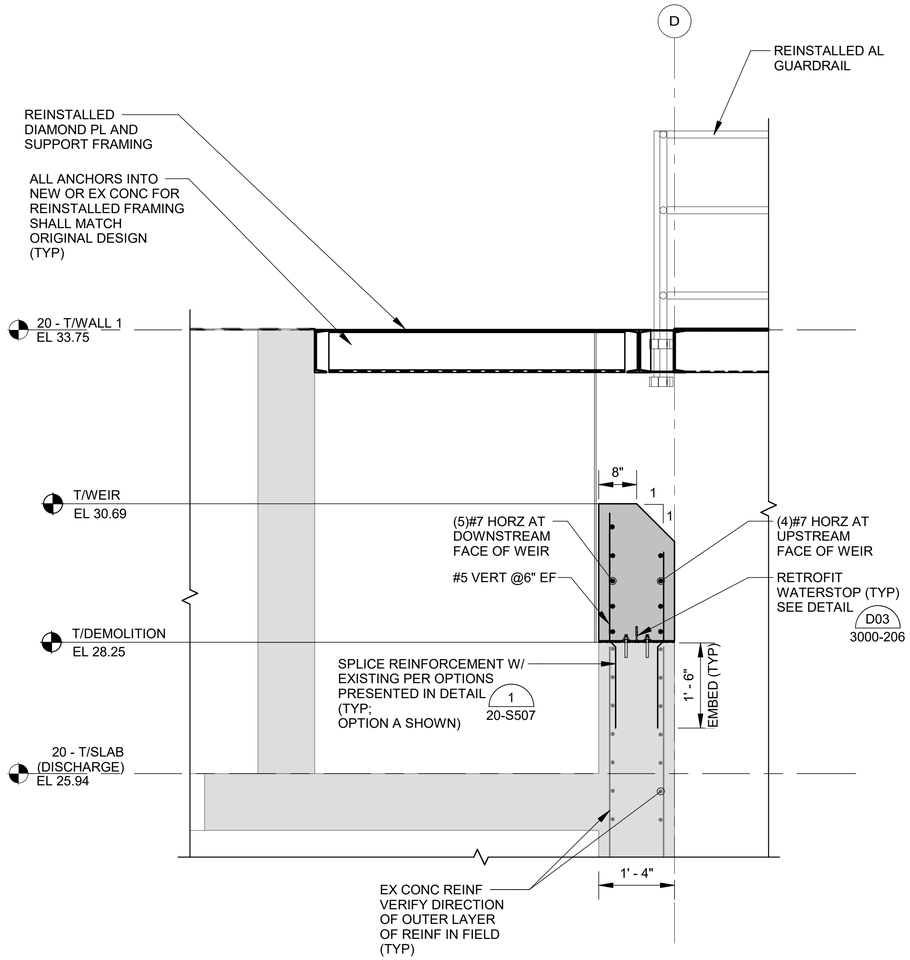
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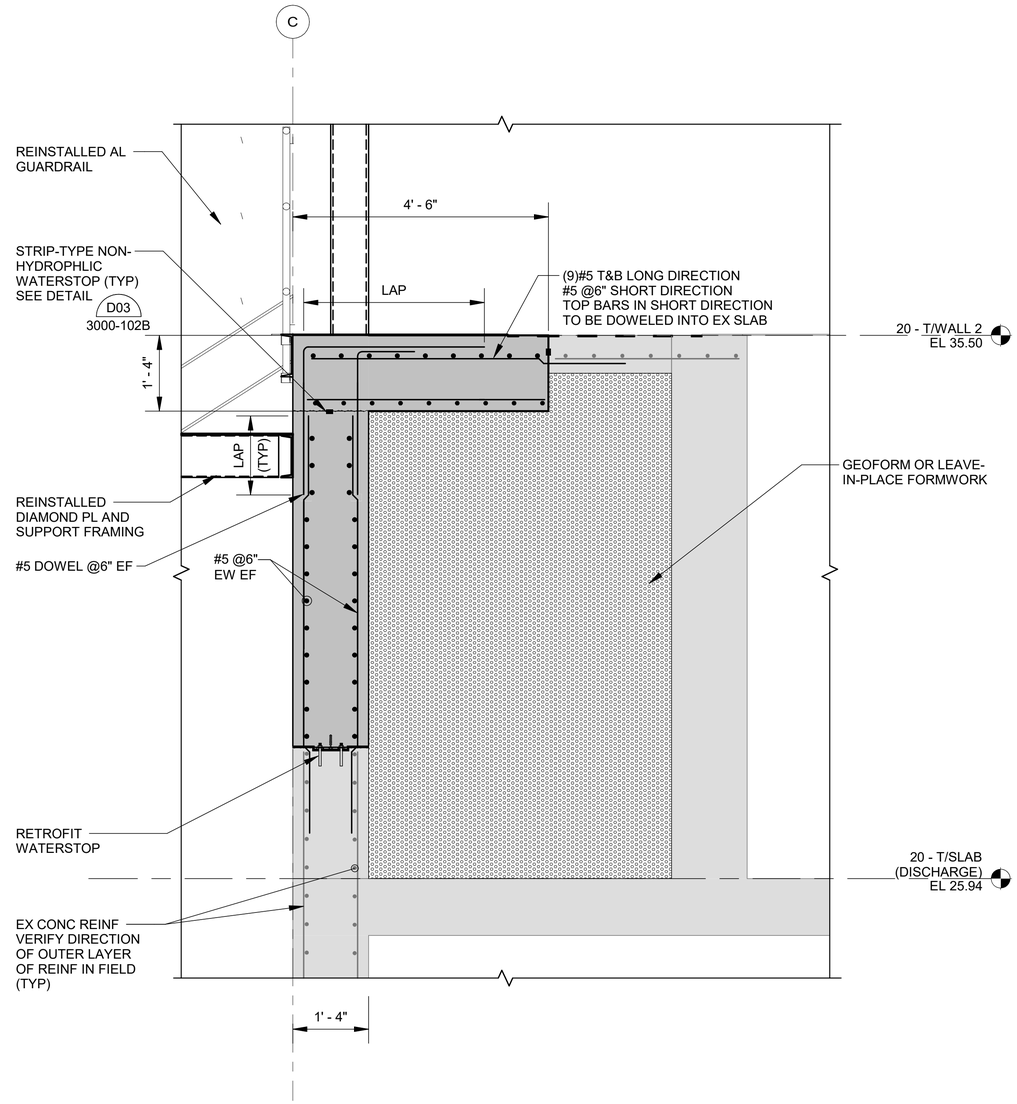
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Plot Date: 8/7/2026 1:44:54 PM



1 ENLARGED SECTION
20-S301 SCALE: 3/4" = 1'-0"



2 ENLARGED SECTION
20-S301 SCALE: 3/4" = 1'-0"

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

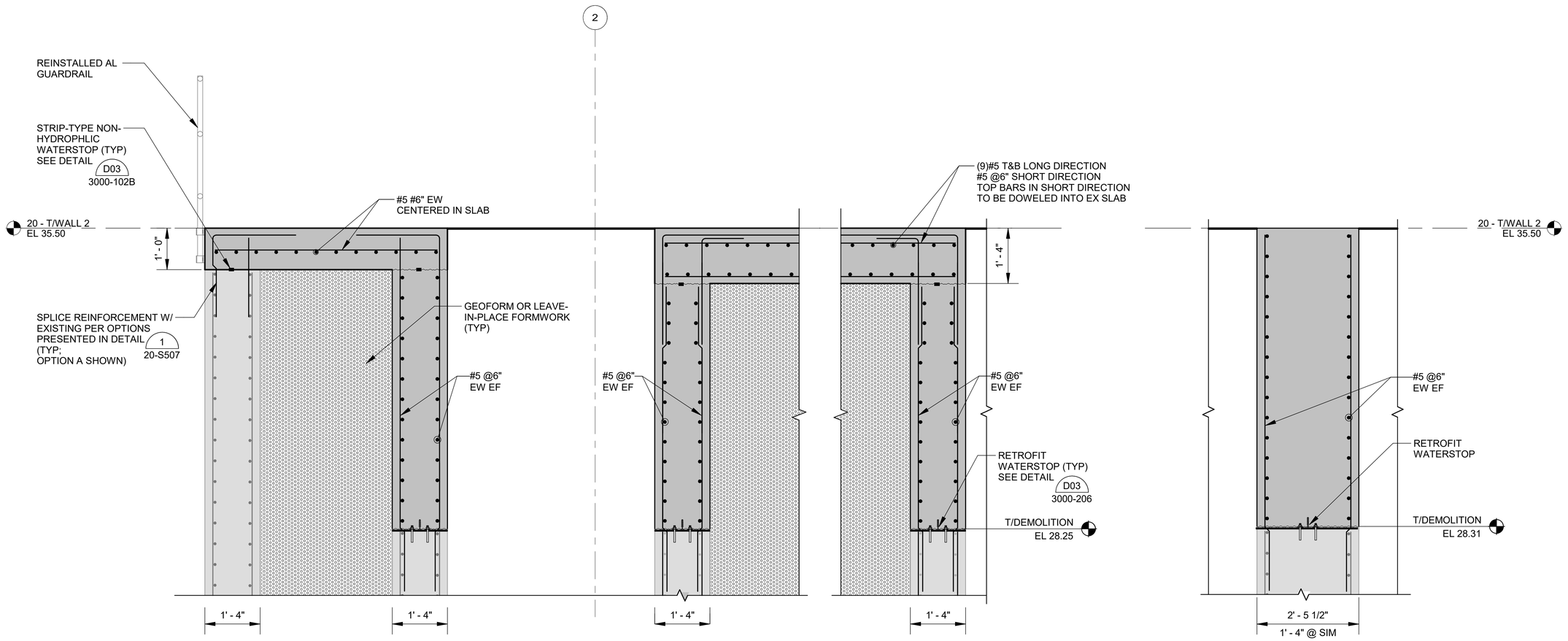
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JOB NO.: 2402007
DATE: AUG. 2026
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DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
20-S403

SHEET NUMBER 64



1 20-S302 ENLARGED SECTION
SCALE: 3/4" = 1'-0"

2 20-S302 ENLARGED SECTION
SCALE: 3/4" = 1'-0"

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS ENLARGED SECTIONS 2

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DATE: AUG. 2026
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CHECKED BY: MJS

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20-S404

SHEET NUMBER 65

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REPAIR NOTES

SEE PROJECT SPECIFICATIONS FOR REPAIR PRODUCT ACCEPTANCE CRITIREA

CRACK REPAIRS

REFERENCE SPECIFICATION SECTION: 03 64 00

CONCRETE CRACKING-LEVEL 3

CRITERIA: 0.01"-0.03" WIDTH SURFACE CRACK (NOT PICTURED).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. TAKE AN ABRASIVE WIRE BRUSH AND BRUSH THE LENGTH OF THE CRACK TO REMOVE ANY LOOSE MATERIAL AND TO OPEN THE CRACK SLIGHTLY (IT MAY BE NECESSARY TO CHIP AWAY AT THE EDGES OF THE CRACK TO GET A SURFACE FOR THE SEALANT TO ADHERE TO).

REPAIR: APPLY CONCRETE COATING MATERIAL TO THE SURFACE OF CONCRETE, ENCOMPASSING THE AREA WITH CRACKING. ANY ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE SEALANT BONDS PROPERLY WITH THE EXISTING CONCRETE.

COATING PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY RESIN ADHESIVE.

CONCRETE CRACKING-LEVEL 4

CRITERIA: 0.03" MINIMUM WIDTH SURFACE CRACK OF LIMITED LENGTH OR WIDELY SPACED (SEE FIGURE A).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. CONCRETE IN VICINITY OF CRACK SHALL BE BLAST-CLEANED TO SSPC-SP13 TO CREATE AN OPEN-TEXTURED SURFACE FREE OF LAITANCE SUITABLE FOR BONDING. ANY EXPOSED STEEL SURFACE SHALL ALSO BE BLAST CLEANED. AFTER CLEANING, USE OIL-FREE COMPRESSED AIR TO BLOW INTO THE VOIDS AND REMOVE ANY REMAINING DUST OR LOOSE MATERIAL FROM WITHIN THE CRACKS.

REPAIR: SET PRESSURE INJECTION PORTS AND SEAL PORTS AND CRACKS WITH EPOXY PASTE ADHESIVE. ONCE CURED PER MANUFACTURER'S SPECIFICATIONS, INJECT EPOXY RESIN INTO EACH CRACK WITH MANUFACTURER-APPROVED PRESSURE INJECTION METHOD. ANY ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE SEALANT BONDS PROPERLY WITH THE EXISTING CONCRETE. FOLLOWING INJECTION, PORTS SHALL BE REMOVED AND EXCESS PRE-INJECTION SEALANT SHALL BE GROUND FLUSH TO FACE OF WALL.

PRE-INJECTION SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY PASTE ADHESIVE.
EPOXY RESIN: 2-COMPONENT, 100% SOLIDS EPOXY RESIN.

CONCRETE CRACKING-LEVEL 5

CRITERIA: 0.03" MINIMUM WIDTH SURFACE CRACK OF SIGNIFICANT LENGTH OR CLOSELY SPACED (SEE FIGURE B).

SURFACE PREPARATION: SEE "CONCRETE CRACKING-LEVEL 4 PROCEDURES.

REPAIR: INJECT EPOXY RESIN PER THE REPAIR METHODS DETAILED FOR "CONCRETE CRACKING-LEVEL 4. FOLLOWING RESIN INJECTION, COAT THE SURFACE OF CRACKED AREA WITH SEALANT PER THE REPAIR METHODS DETAILED FOR "CONCRETE CRACKING-LEVEL 3.

PRE-INJECTION SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY PASTE ADHESIVE.
EPOXY RESIN: 2-COMPONENT, 100% SOLIDS EPOXY RESIN.
SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY RESIN ADHESIVE.

COATING REPAIRS

REFERENCE SPECIFICATION SECTION: 09 96 00

COATING DETERIORATION

CRITERIA: STRIP EX COATING FROM CONCRETE SURFACE, WHERE PRESENT. ALL INTERIOR FACES OF NEW AND EXISTING CONCRETE WALLS COATING, EVEN AFTER CLEANING OF SURFACE

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL LOOSE COATING, CONCRETE, DIRT, OIL, GREASE, LAITANCE, CURING COMPOUNDS, IMPREGNATIONS, WAXES, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM THE REPAIR AREA. INSPECT EXPOSED CONCRETE SURFACE TO IDENTIFY OTHER CONDITIONS NEEDING REPAIR PER THIS SHEET. AFTER THESE CONDITIONS ARE ADDRESSED, CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13. ALL OTHER SURFACE PREPARATION REQUIREMENTS SET BY THE MANUFACTURER OF THE COATING PRODUCT USED SHALL BE FOLLOWED.

REPAIR: RECOAT PREPARED CONCRETE SURFACE WITH SPRAY-APPLIED PROTECTIVE LINER.

PROTECTIVE LINER PRODUCT: 100% EPOXY

WEAR & SPALLING REPAIRS

REFERENCE SPECIFICATION SECTION: 03 01 00

CONCRETE WEAR-LEVEL 4

CRITERIA: EXPOSED LARGE AGGREGATE WITH RUST STAINING (NOT PICTURED).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM REPAIR AREA. THE REPAIR DEPTH SHOULD BE NO LESS THAN 3/8". AN AGGREGATE SURFACE PROFILE OF ± 1/8" SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURER-APPROVED METHODS. CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13, REMOVING ANY LOOSE OR UNSOUND AGGREGATE. THE SUBSTRATE MUST BE IN A SATURATED SURFACE DRY (SSD) CONDITION. IT IS RECOMMENDED THAT A PULL-OFF TEST BE PERFORMED TO CONFIRM EFFECTIVENESS OF SURFACE PREPARATION. CONSULT PRODUCT MANUFACTURER FOR RECOMMENDED PULL-OFF TEST METHODOLOGIES.

REPAIR: USE PUMP-SPRAY EQUIPMENT TO APPLY SPRAY-ON REPLACEMENT MORTAR TO THE PROPERLY PREPARED SURFACE. FOLLOWING APPLICATION OF MORTAR, APPLY PROTECTIVE COATING PRODUCT. ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE NEW COATING SYSTEM BONDS PROPERLY WITH THE EXISTING CONCRETE.

ALTERNATIVE MORTAR REPLACEMENT: IN LIEU OF SPRAY-ON APPLICATION, REPLACEMENT MORTAR CAN BE TROWELED FROM A SMALL MORTAR MIXER IN LIFTS NOT EXCEEDING THE MANUFACTURER'S RECOMMENDATION.

REPLACEMENT MORTAR PRODUCT: 1-COMPONENT, CEMENTITIOUS, FIBER REINFORCED HIGH STRENGTH SHRINKAGE-COMPENSATED MORTAR.
PROTECTIVE COATING PRODUCT: SEE "COATING REPAIRS" THIS SHEET.

CONCRETE WEAR-LEVEL 5

CRITERIA: EXPOSED REINFORCEMENT (NOT PICTURED).

CONCRETE SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, LAITANCE, CURING COMPOUNDS, IMPREGNATIONS, WAXES, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM REPAIR AREA. THE REPAIR DEPTH SHOULD BE NO LESS THAN 3/8". AN AGGREGATE SURFACE PROFILE OF ±1/8" SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURER-APPROVED METHODS. CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13, REMOVING ANY LOOSE OR UNSOUND AGGREGATE. THE SUBSTRATE MUST BE IN A SATURATED SURFACE DRY (SSD) CONDITION. IT IS RECOMMENDED THAT A PULL-OFF TEST BE PERFORMED TO CONFIRM EFFECTIVENESS OF SURFACE PREPARATION. CONSULT PRODUCT MANUFACTURER FOR RECOMMENDED PULL-OFF TEST METHODOLOGIES.

STEEL SURFACE PREPARATION: WHERE STEEL REINFORCEMENT IS EXPOSED, IT MUST BE CLEANED THOROUGHLY BY BLAST-CLEANING WITH WATER IN ACCORDANCE WITH SSPC-SP5 TO REMOVE RUST AND ANY LOOSE AGGREGATE.

REPAIR: APPLY EPOXY BONDING ADHESIVE TO BOTH THE EXPOSED REINFORCEMENT AND SURROUNDING CONCRETE TO RECEIVE REPLACEMENT MORTAR. FOLLOWING THE APPLICATION OF BONDING ADHESIVE, FOLLOW THE PROCEDURES OF "CONCRETE WEAR-LEVEL 4" TO COMPLETE REPAIR. REPAIR MORTAR SHALL BE PLACED SUCH THAT 2" COVER IS PROVIDED OVER EXPOSED REINFORCEMENT. ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE NEW COATING SYSTEM BONDS PROPERLY WITH THE EXISTING CONCRETE.

EPOXY ADHESIVE PRODUCT: PER REPLACEMENT MORTAR MANUFACTURER'S RECOMMENDATIONS.
REPLACEMENT MORTAR PRODUCT: 1-COMPONENT, CEMENTITIOUS, FIBER REINFORCED HIGH STRENGTH SHRINKAGE-COMPENSATED MORTAR.
PROTECTIVE COATING PRODUCT: SEE "COATING REPAIRS" THIS SHEET.

SPALLED CONCRETE

CRITERIA: DEPRESSION IN WALL WHERE A VOLUME OF CONCRETE IS MISSING (NOT PICTURED).

SURFACE PREPARATION: TAP CONCRETE ADJACENT TO THE AFFECTED AREA WITH A HAMMER TO EVALUATE IF DELAMINATION IS PRESENT IN THE REGION OF SPALLED CONCRETE. IF DELAMINATION IS PRESENT, USE CONCRETE SAW TO CREATE CLEAN EDGES TO THE APPROXIMATE DEPTH OF DELAMINATED AREA. FOLLOWING THE REMOVAL OF ALL LOOSE OR DELAMINATED CONCRETE IN THE REPAIR AREA, FOLLOW BOTH THE "CONCRETE SURFACE PREPARATION" AND "STEEL SURFACE PREPARATION" PROCEDURES DETAILED FOR "CONCRETE WEAR- LEVEL 5".

REPAIR: USE REPAIR METHODS DETAILED FOR "CONCRETE WEAR-LEVEL 4" AND "CONCRETE WEAR-LEVEL 5" AS REQUIRED BY RESULTING EXPOSURE OF COARSE AGGREGATE AND/OR REINFORCEMENT.



FIGURE A



FIGURE B

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS REPAIR NOTES

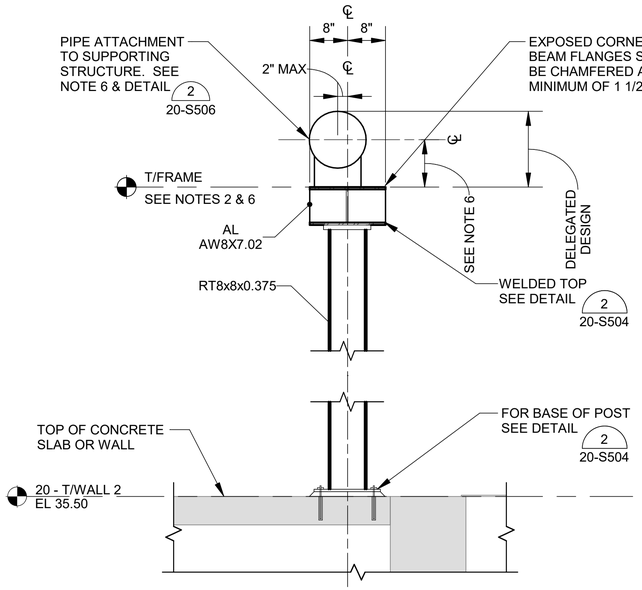
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DATE: AUG. 2026
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DRAWN BY: SJB
CHECKED BY: MJS

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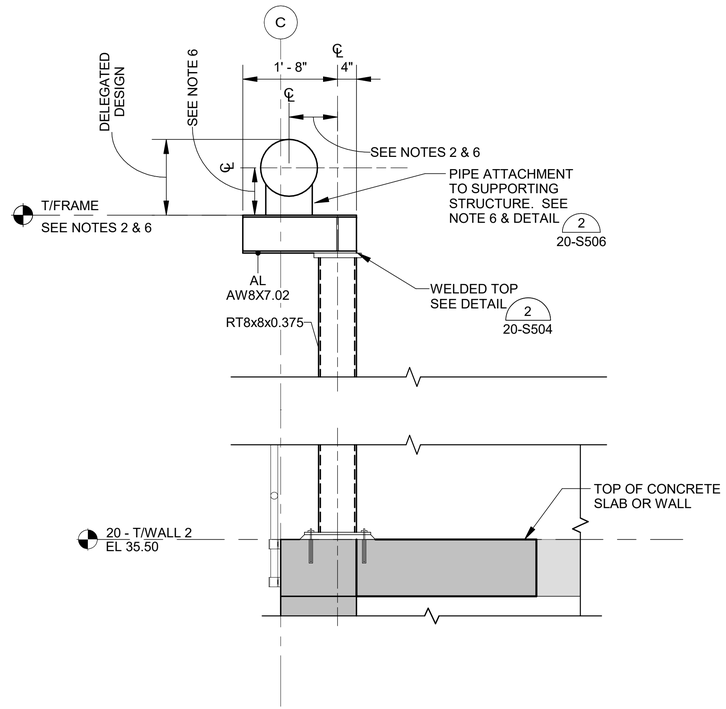
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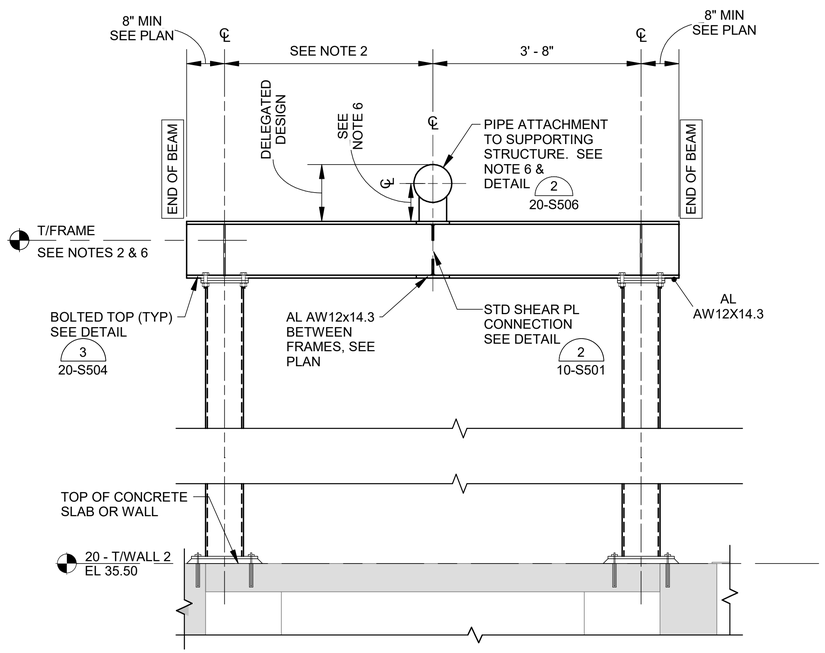
1 PIPE SUPPORT-FRAME A DETAIL

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



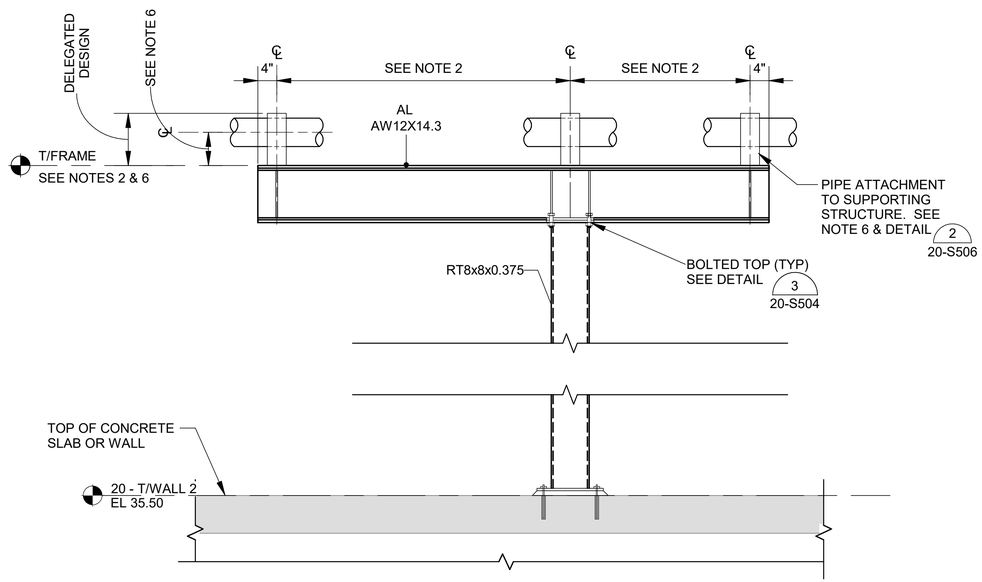
2 PIPE SUPPORT-FRAME B DETAIL

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



3 PIPE SUPPORT-FRAME C DETAIL

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



4 PIPE SUPPORT-FRAME D DETAIL

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. FOR PIPE SUPPORT LOCATIONS, ORIENTATIONS, AND ELEVATIONS COORDINATE W/ PROCESS MECHANICAL PLANS.
3. ALL FRAMING AND PLATES SHALL BE ALUMINUM UNO.
4. ALL FASTENERS SHALL BE STAINLESS STEEL UNO.
5. SEE SPECIFICATIONS FOR FRP PIPE INFORMATION.
6. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.
7. SEISMIC ANALYSIS HAS BEEN PERFORMED PER THE FOLLOWING:

   SEISMIC FORCE RESISTING SYSTEM: SUPPORTS FOR DUCTWORK CONSTRUCTED OF LOW-DEFORMABILITY MATERIALS IN ACCORDANCE W/ ASCE 7-16 CHAPTER 13

   COMPONENT RESPONSE MODIFICATION FACTOR, R_p=3.00

   COMPONENT AMPLIFICATION FACTOR, a_p=2.50

   COMPONENT IMPORTANCE FACTOR, I_p=1.50

   SEISMIC DESIGN FORCE, F_p=0.149xWEIGHT OF COMPONENTS

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ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 1

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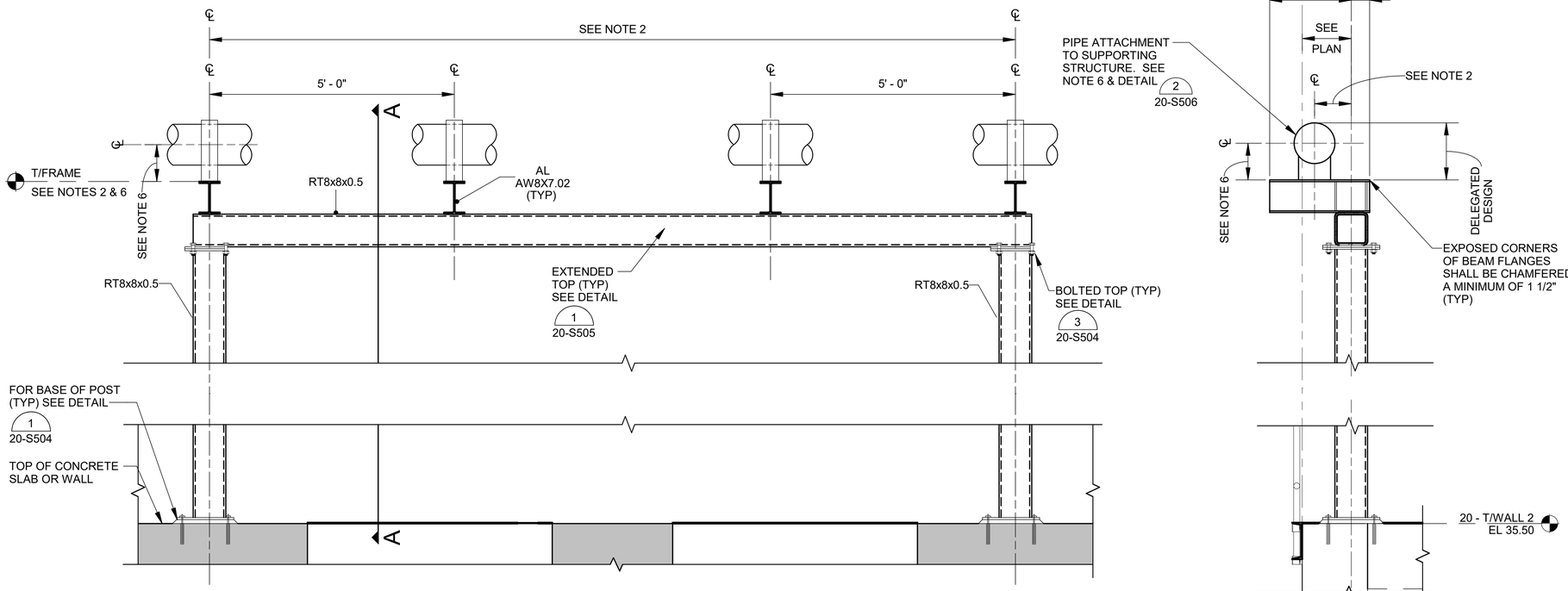
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NOTES:

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SECTION A-A

1 PIPE SUPPORT-FRAME E DETAIL

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

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 2

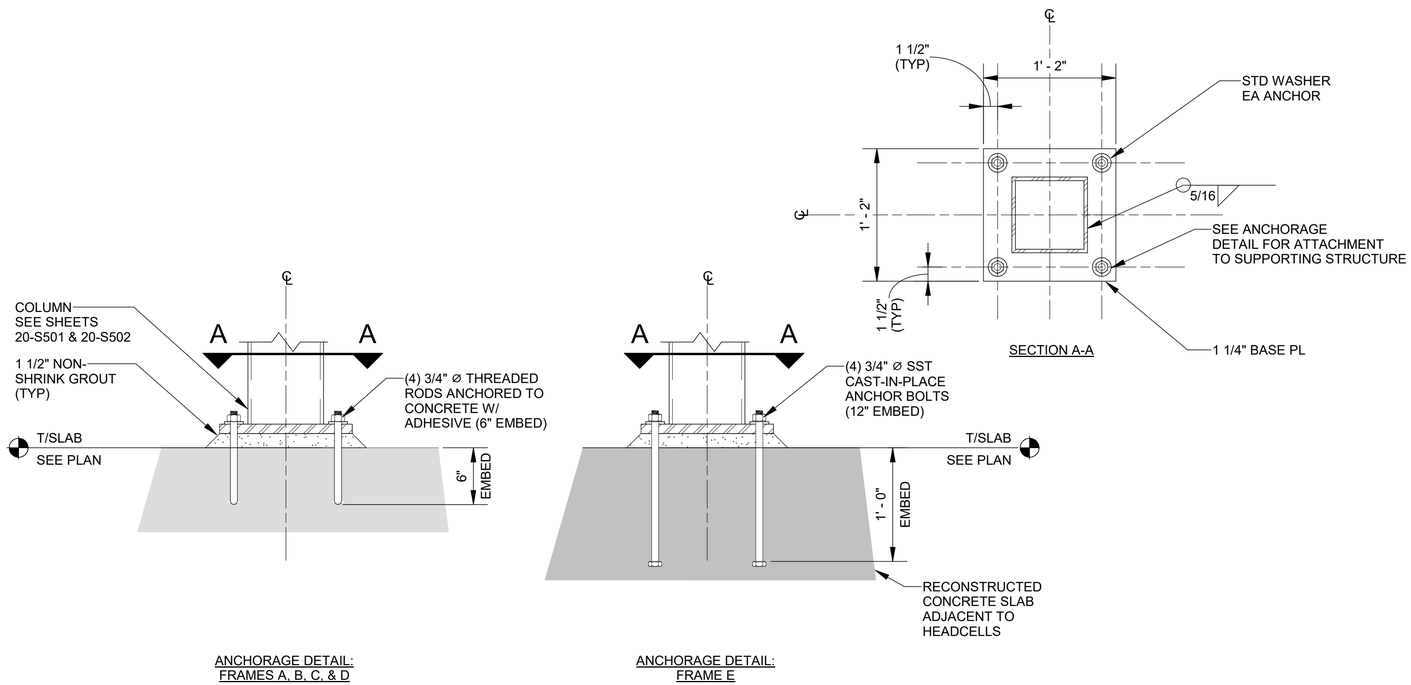
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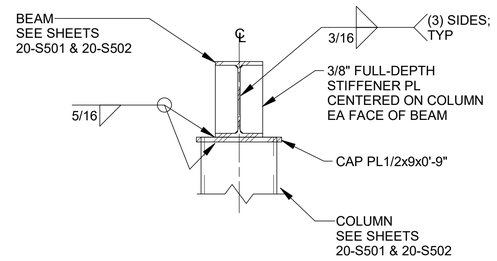


1 PIPE SUPPORT BASE DETAIL

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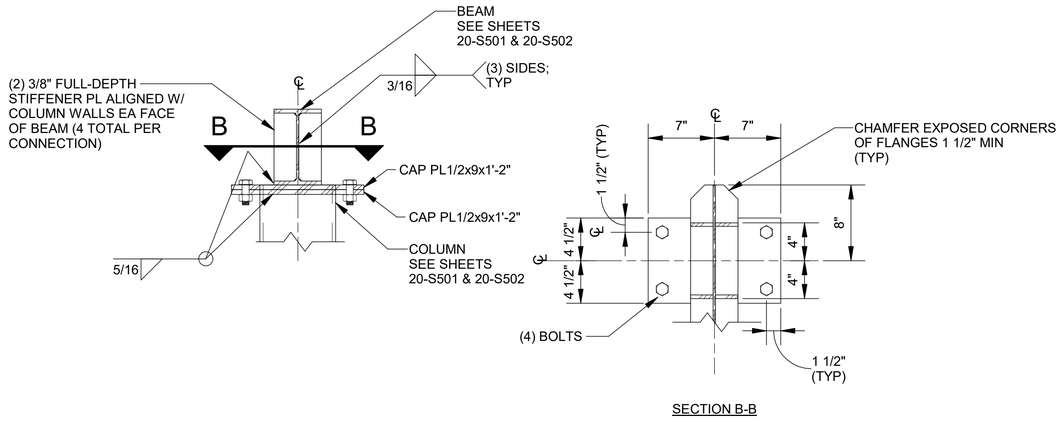
NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING AND PLATES SHALL BE ALUMINUM UNO.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION UNO.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
7. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.



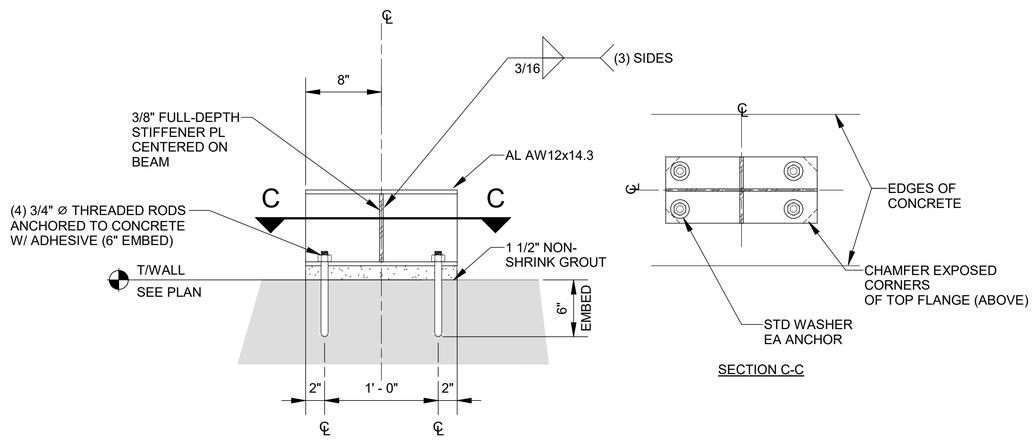
2 PIPE SUPPORT-WELDED TOP DETAIL

SCALE: NOT TO SCALE



3 PIPE SUPPORT-BOLTED TOP DETAIL

SCALE: NOT TO SCALE



4 PIPE SUPPORT TYPE F DETAIL

SCALE: NOT TO SCALE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS
REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 3

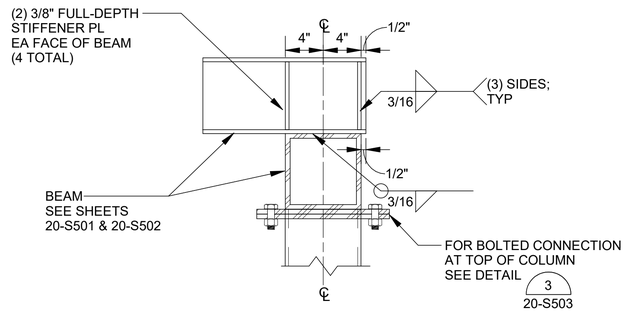
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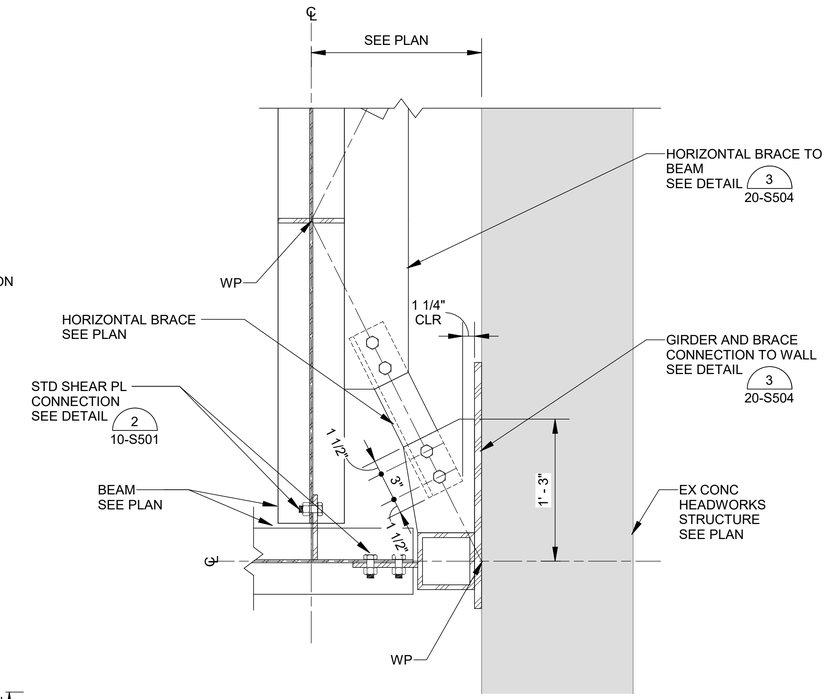
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1 PIPE SUPPORT-EXTENDED TOP DETAIL

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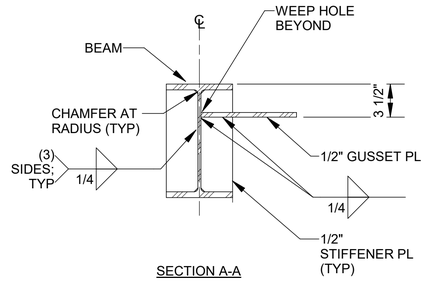


2 PIPE BRIDGE AT HEADWORKS PLAN DETAIL

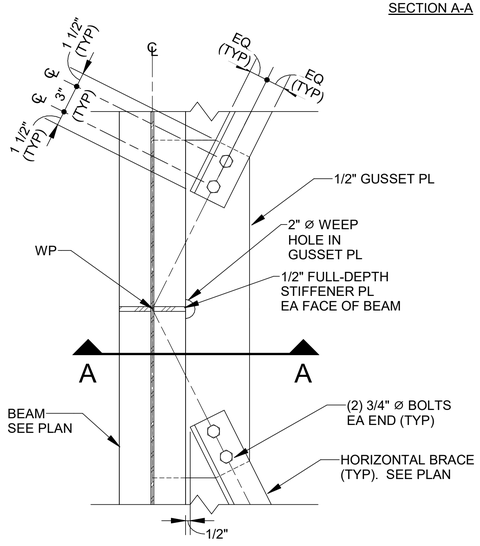
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NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING AND PLATES SHALL BE ALUMINUM UNO.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION UNO.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
7. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

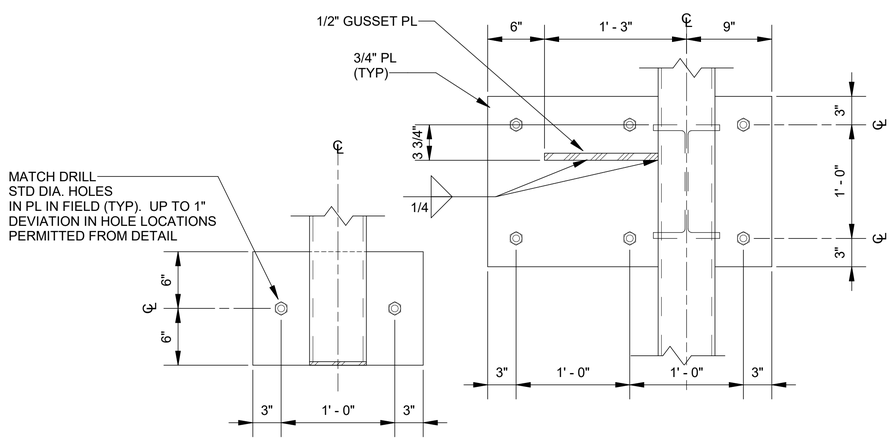


SECTION A-A

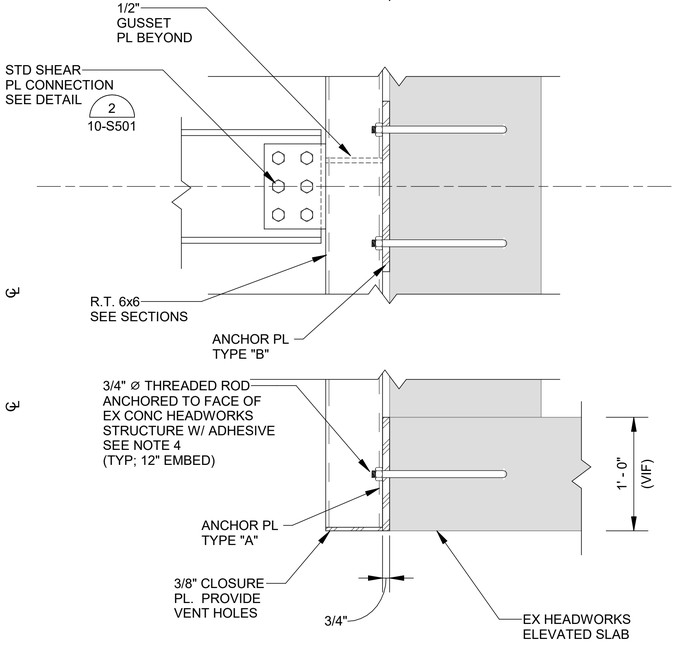


3 HORIZONTAL BRACE TO BEAM DETAIL

SCALE: NOT TO SCALE



ANCHOR PL TYPE "A"
DETAIL AT BOTTOM OF POST SHOWN
PLATE AT TOP SIMILAR



ANCHOR PL TYPE "B"
PLAN SOUTH CONNECTION SHOWN
MIRROR AT PLAN NORTH CONNECTION TO WALL

SECTION

4 GIRDER AND BRACE TO WALL DETAIL

SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 4

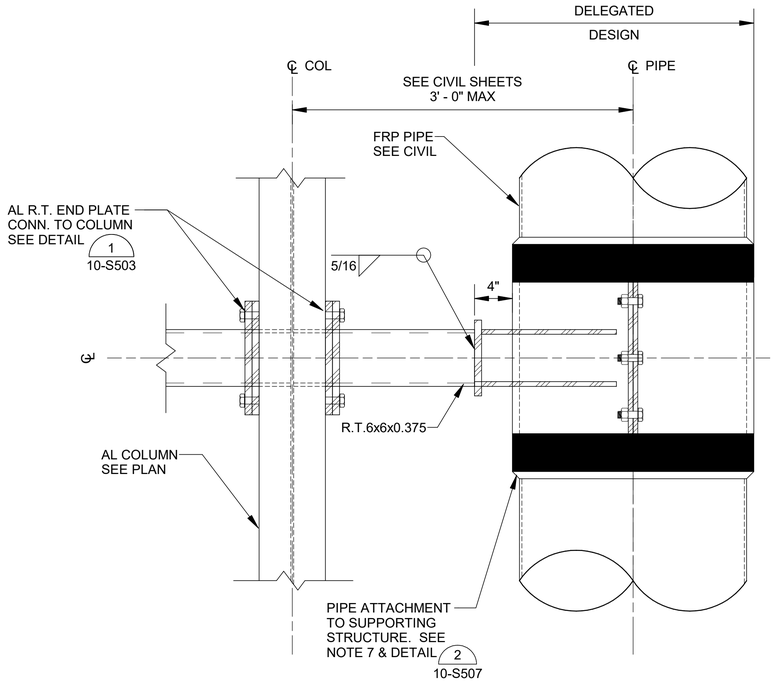
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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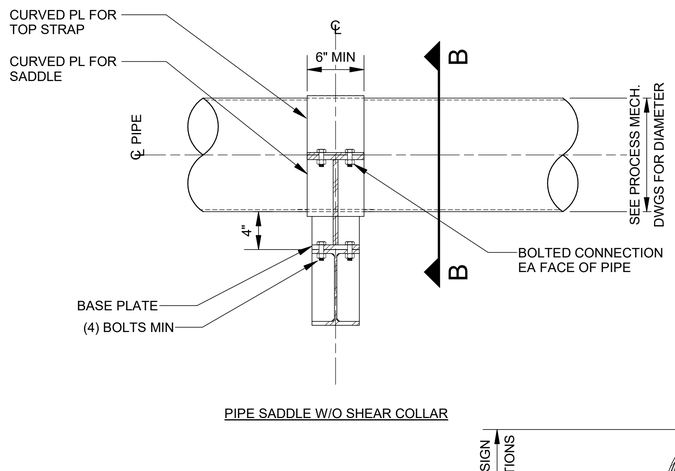
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Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
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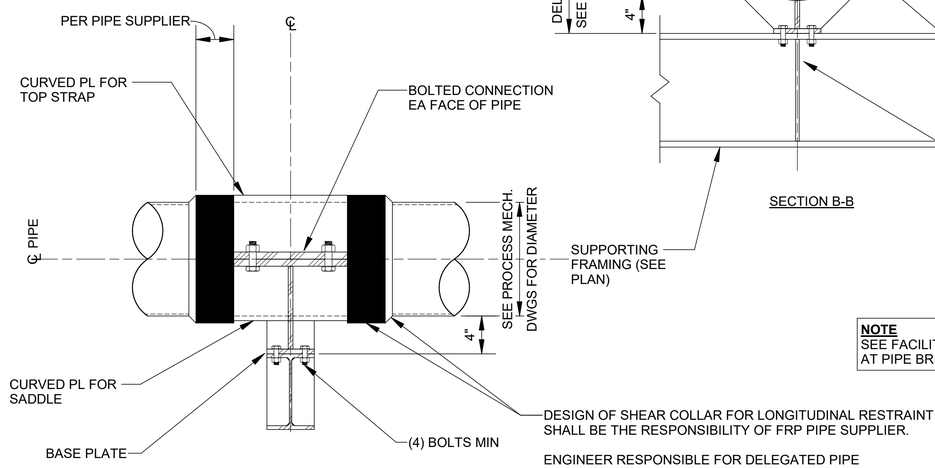


1 VERTICAL PIPE SUPPORT DETAIL

SCALE: NOT TO SCALE

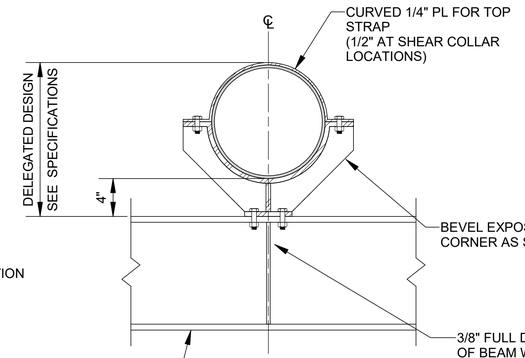


PIPE SADDLE W/O SHEAR COLLAR



PIPE SADDLE W/ SHEAR COLLAR

SEE SADDLE W/O SHEAR COLLAR
FOR DIMENSIONES NOT INDICATED



SECTION B-B

NOTE
SEE FACILITY 10 DRAWINGS FOR SADDLES AT PIPE BRIDGE

DESIGN OF SHEAR COLLAR FOR LONGITUDINAL RESTRAINT SHALL BE THE RESPONSIBILITY OF FRP PIPE SUPPLIER.

ENGINEER RESPONSIBLE FOR DELEGATED PIPE ATTACHMENTS TO SUPPORTING STRUCTURE SHALL COORDINATE LONGITUDINAL RESTRAINT LOCATIONS AND ATTACHMENT DESIGN WITH FRP PIPE SUPPLIER.

2 PIPE SADDLE DETAIL (HEADWORKS ONLY)

SCALE: NOT TO SCALE

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING AND PLATES SHALL BE ALUMINUM UNO.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION UNO.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
7. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 5

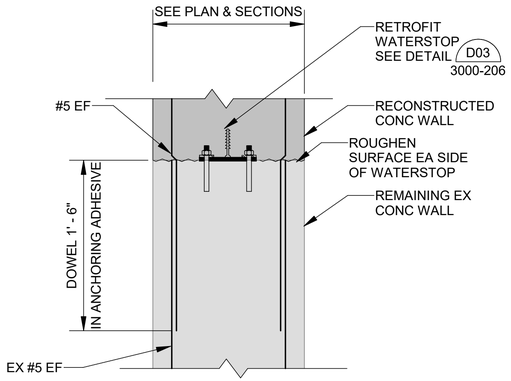
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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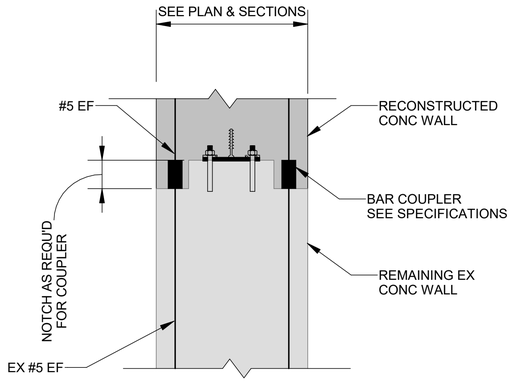
DRAWING NUMBER
20-S506

SHEET NUMBER 71

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:44:57 PM



OPTION A:
LAP SPLICE W/ EXISTING IN ADHESIVE



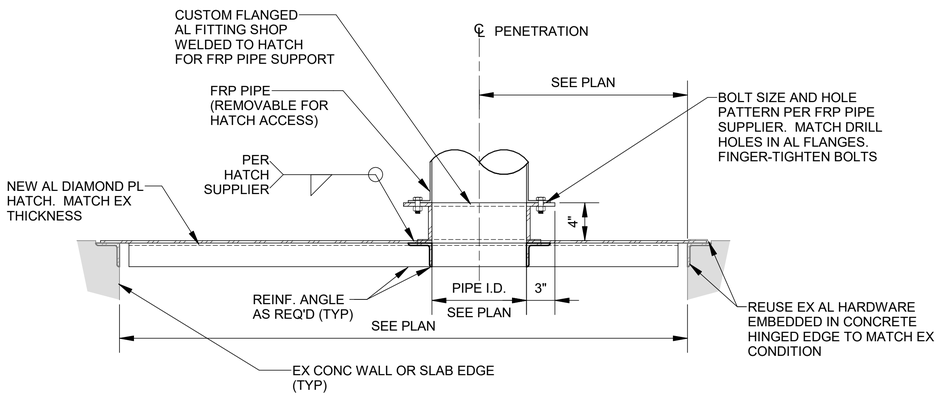
OPTION B:
BAR COUPLER

CONCRETE JOINT AT EXISTING STRUCTURE NOTES

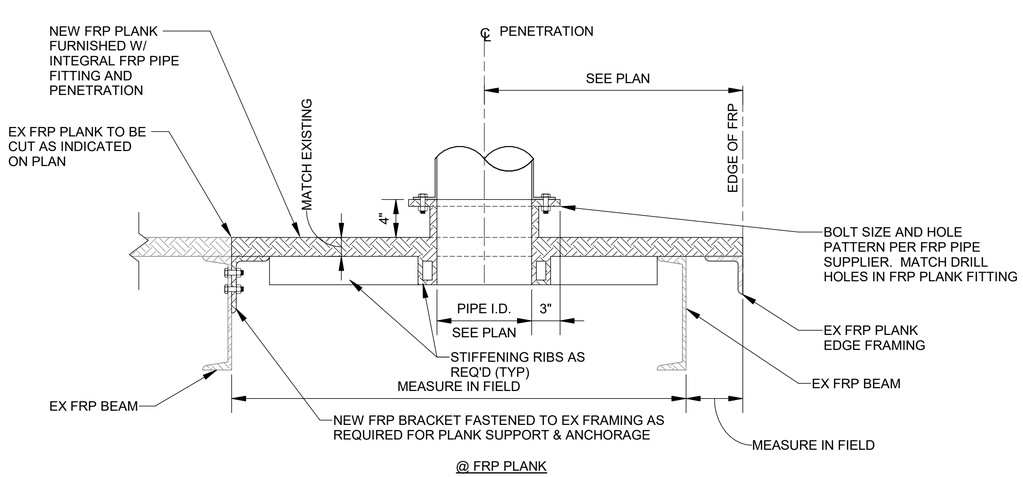
1. CONTRACTOR TO FIELD VERIFY ALL EX CONDITIONS SHOWN.
2. REINFORCEMENT LOCATION SHOWN IS APPROXIMATE AND SHALL BE MEASURED IN FIELD.
3. CONTRACTOR MAY ELECT TO USE EITHER OPTION A OR OPTION B AT JOINTS CREATED BY PARTIAL WALL & SLAB RECONSTRUCTION.
4. DETAIL A ASSUMES EX #5 BAR BEING LAPPED. EX BAR SIZE TO BE VERIFIED IN FIELD, W/ DISCREPANCIES REPORTED TO EOR PRIOR TO FURTHER ACTION.
5. CARE SHALL BE TAKEN DURING PARTIAL WALL & SLAB DEMOLITION AND PREPARATION OF CONCRETE SURFACE TO NOT CUT, ABRADE, OR OTHERWISE DAMAGE EX STEEL REINFORCING BARS TO BE LAPPED OR COUPLED W/ NEW REINFORCEMENT.
6. SEE PROJECT SPECIFICATIONS FOR REQUIRED SUBMITTALS PERTAINING TO THIS WORK.

1 CONCRETE JOINT AT EXISTING

SCALE: NOT TO SCALE



@ ALUMINUM HATCH



@ FRP PLANK

2 PIPE PENETRATION AT HATCH/ PLANK DETAIL

SCALE: NOT TO SCALE

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING AND PLATES SHALL BE ALUMINUM UNO.
3. ALL BOLTS & ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION UNO.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ∅ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
7. DESIGN OF PIPE ATTACHMENTS TO SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PIPE SUPPORT SUPPLIER. SEE SPECIFICATION SECTION 40 05 07 FOR ADDITIONAL DESIGN REQUIREMENTS.

HATCH & PLANK NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. AL HATCH AND FRP PLANK ARE BOTH DELEGATED DESIGN ITEMS. BOTH SHALL BE DESIGNED AND FURNISHED W/ PIPE PENETRATIONS, INTEGRAL FITTINGS FOR FRP PIPE ATTACHMENT, AND STIFFENING ELEMENTS AS REQUIRED BY THEIR RESPECTIVE DELEGATED DESIGN ENGINEER'S ANALYSIS.
3. LOCATIONS OF EX PIPE PENETRATIONS SHALL BE DOCUMENTED IN FIELD AND INCORPORATED INTO THE DESIGN, WHERE APPLICABLE. SEE MECHANICAL AND PROCESS MECHANICAL PLANS FOR PENETRATIONS OF NEW FRP PIPE. FITTING FOR FRP PIPE ATTACHMENT REQUIRED FOR NEW FRP PIPING ONLY.
4. EVALUATION OF EXISTING FRP FRAMING AND CONNECTIONS TO SUPPORT MODIFIED FRP PLANK AND NEW CONNECTION HARDWARE SHALL BE THE RESPONSIBILITY OF THE DELEGATED DESIGN ENGINEER PROVIDING DESIGN FOR THE MODIFIED FRP PLANK.
5. SEE GENERAL NOTES AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION, INCLUDING LOAD AND DEFLECTION CRITERIA.
   SEE SECTION 05 50 00 FOR ALUMINUM HATCH
   SEE SECTION 06 80 17 FOR FRP PLANK
6. LOADS APPLIED TO PLANK AT FITTING ARE AS FOLLOWS (UNFACTORED):
   DEAD LOAD=300LB
   VERTICAL WIND LOAD=±330LB (1.0XULTIMATE WIND)
   HORIZONTAL WIND LOAD=330 LB APPLIED AT TOP OF FITTING IN ANY DIRECTION (1.0XULTIMATE WIND)

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS PIPE SUPPORTS DETAILS 6

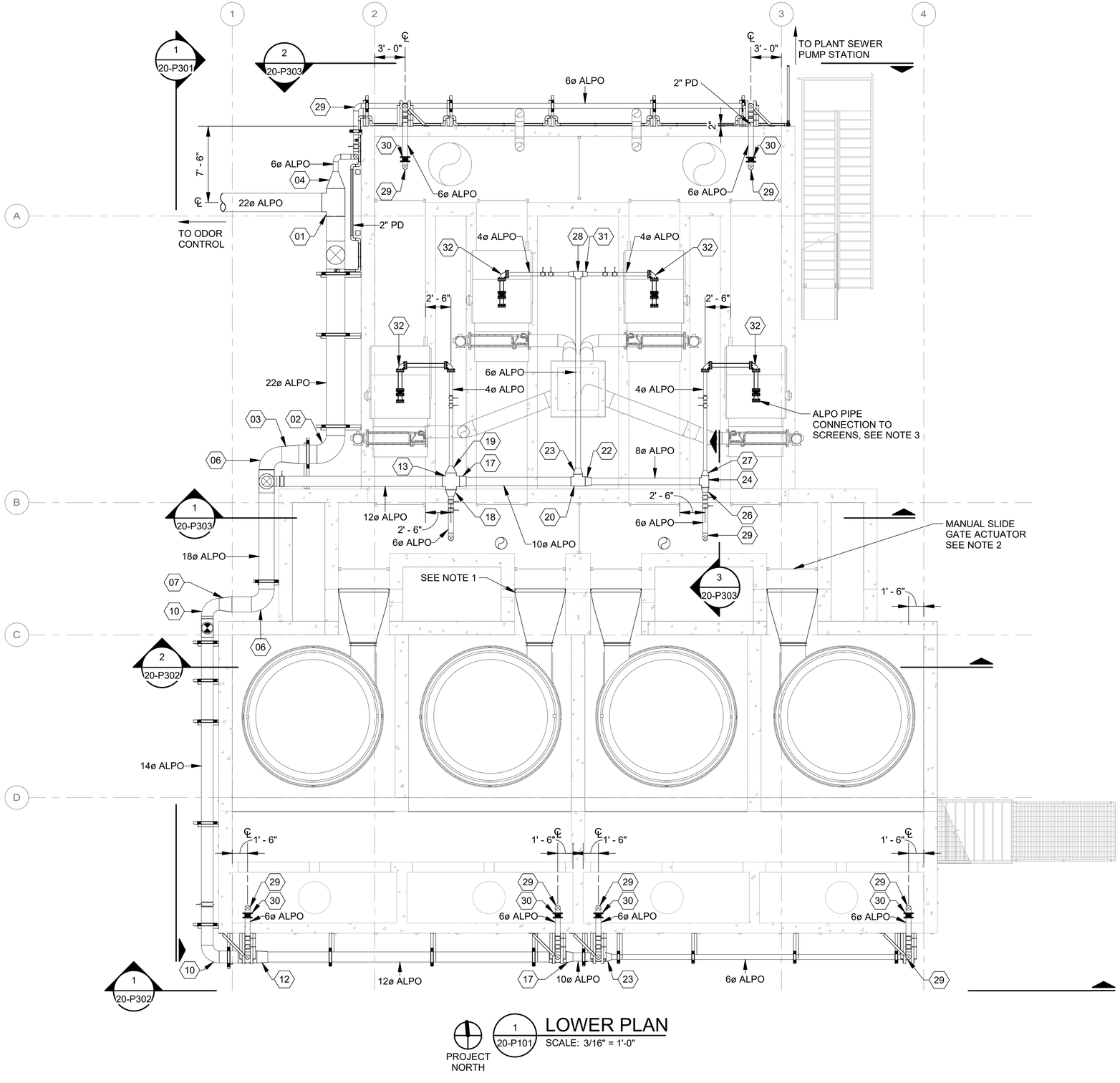
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

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DRAWING NUMBER
20-S507

SHEET NUMBER 72

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:44:57 PM



KEYNOTES

01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)
03	22" x 18" REDUCER (WLD x WLD)
04	22" x 6" REDUCER (WLD x WLD)
05	18" x 18" x 12" TEE (WLD x WLD x WLD)
06	18" 90° BEND (WLD x WLD)
07	18" x 14" REDUCER (WLD x WLD)
08	14" x 14" x 12" TEE (WLD x WLD x WLD)
09	14" x 14" x 6" TEE (WLD x WLD x WLD)
10	14" 90° BEND (WLD x WLD)
12	14" x 12" REDUCER (WLD x WLD)
13	12" CROSS (WLD x WLD x WLD x WLD)
14	12" x 12" x 6" TEE (WLD x WLD x WLD)
15	12" 90° BEND (WLD x WLD)
17	12" x 10" REDUCER (WLD x WLD)
18	12" x 6" REDUCER (WLD x WLD)
19	12" x 4" REDUCER (WLD x WLD)
20	10" TEE (WLD x WLD x WLD)
21	10" x 10" x 6" TEE (WLD x WLD x WLD)
22	10" x 8" REDUCER (WLD x WLD)
23	10" x 6" REDUCER (WLD x WLD)
24	8" TEE (WLD x WLD x WLD)
26	8" x 6" REDUCER (WLD x WLD)
27	8" x 4" REDUCER (WLD x WLD)
28	6" TEE (WLD x WLD x WLD)
29	6" 90° BEND (WLD x WLD)
30	6" FLEXIBLE COUPLING (FLG x FLG)
31	6" x 4" REDUCER (WLD x WLD)
32	4" 90° BEND (FLG x FLG)
33	4" FLEXIBLE COUPLING (FLG x FLG)

NOTES:

1. INSTALL 316 SST GRIT HEADCELL INLET CHUTE (TYP OF 4).
2. INSTALL MANUAL SLIDE GATE ACTUATORS (TYP OF 14). CONTRACTOR TO MATCH ELEVATION AND ORIENTATION OF EXISTING ACTUATORS.
3. CONTRACTOR TO SUPPLY PIPE ATTACHMENT TO SCREEN AND COORDINATE WITH MANUFACTURER. CONTRACTOR TO CUT, WELD, AND INSTALL PROPOSED PIPE.
4. MANUAL DAMPER CHAINS IN WALKWAYS TO BE TIED BACK TO NEARBY PIPE SUPPORT OR HANDRAIL TO BE OUT OF WAY AND MAINTAIN WITHIN REACH. CHAIN GUIDES AND CHAINS SHALL BE 316 STAINLESS STEEL.
5. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND RE-INSTALLING SCREENS FOR HEADWORKS CONCRETE AND COATING REHABILITATION AND REPAIR.
6. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO SCREEN MANUFACTURER TOLERANCES. COATING THICKNESS SHALL NOT BE LESS THAN SPECIFIED TO MEET SCREEN MANUFACTURER TOLERANCE.
7. INSULATE HEAT TRACE, AND ALUMINUM JACKET ALL EXPOSED DRAIN LINES THAT NORMALLY HAVE STANDING WATER, INCLUDING VALVES AND APPURTENANCES. SEE SPECIFICATIONS 40 41 13 HEAT TRACING AND 40 42 00 PROCESS MECHANICAL INSULATION.

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS LOWER FLOOR PLAN

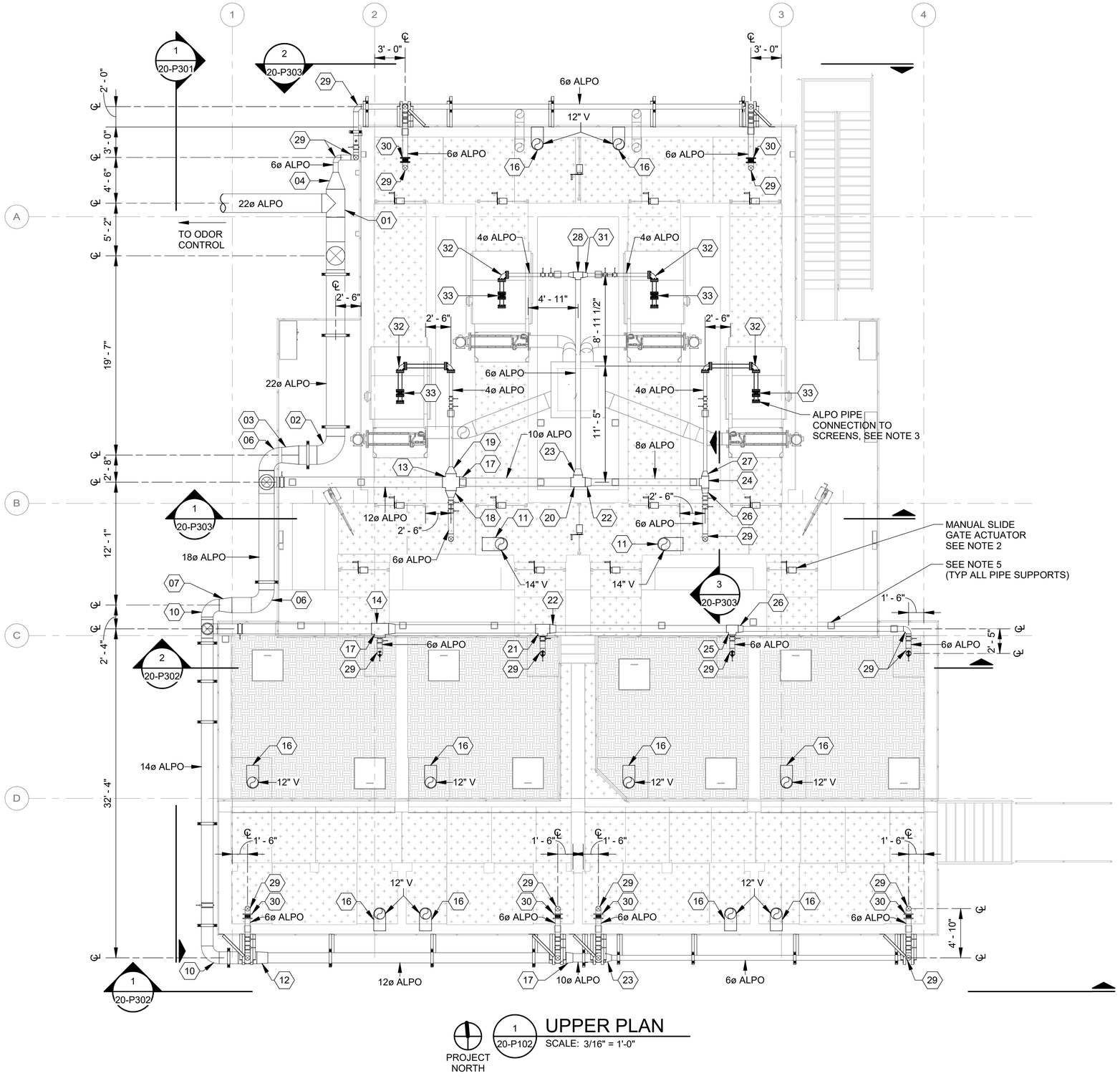
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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DRAWING NUMBER
20-P101

SHEET NUMBER 73

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:44:17 PM



PROJECT NORTH

1 / 20-P102 UPPER PLAN
SCALE: 3/16" = 1'-0"

KEYNOTES

01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)
03	22" x 18" REDUCER (WLD x WLD)
04	22" x 6" REDUCER (WLD x WLD)
05	18" x 18" x 12" TEE (WLD x WLD x WLD)
06	18" 90° BEND (WLD x WLD)
07	18" x 14" REDUCER (WLD x WLD)
08	14" x 14" x 12" TEE (WLD x WLD x WLD)
09	14" x 14" x 6" TEE (WLD x WLD x WLD)
10	14" 90° BEND (WLD x WLD)
11	14" 90° BEND (SOC x SOC)
12	14" x 12" REDUCER (WLD x WLD)
13	12" CROSS (WLD x WLD x WLD x WLD)
14	12" x 12" x 6" TEE (WLD x WLD x WLD)
15	12" 90° BEND (WLD x WLD)
16	12" 90° BEND (SOC x SOC)
17	12" x 10" REDUCER (WLD x WLD)
18	12" x 6" REDUCER (WLD x WLD)
19	12" x 4" REDUCER (WLD x WLD)
20	10" TEE (WLD x WLD x WLD)
21	10" x 10" x 6" TEE (WLD x WLD x WLD)
22	10" x 8" REDUCER (WLD x WLD)
23	10" x 6" REDUCER (WLD x WLD)
24	8" TEE (WLD x WLD x WLD)
25	8" x 8" x 6" TEE (WLD x WLD x WLD)
26	8" x 6" REDUCER (WLD x WLD)
27	8" x 4" REDUCER (WLD x WLD)
28	6" TEE (WLD x WLD x WLD)
29	6" 90° BEND (WLD x WLD)
30	6" FLEXIBLE COUPLING (FLG x FLG)
31	6" x 4" REDUCER (WLD x WLD)
32	4" 90° BEND (FLG x FLG)
33	4" FLEXIBLE COUPLING (FLG x FLG)

NOTES:

1. INSTALL MANUAL SLIDE GATE ACTUATORS (TYP OF 14). CONTRACTOR TO MATCH ELEVATION AND ORIENTATION OF EXISTING ACTUATORS.
2. CONTRACTOR TO SUPPLY PIPE ATTACHMENT TO SCREEN AND COORDINATE WITH MANUFACTURER. CONTRACTOR TO CUT, WELD, AND INSTALL PROPOSED PIPE. MANUFACTURER TO PROVIDE SCREEN COVER WITH FLANGED STUBOUT FOR PROPOSED PIPE CONNECTION.
3. MANUAL DAMPER CHAINS IN WALKWAYS TO BE TIED BACK TO NEARBY PIPE SUPPORT OR HANDRAIL TO BE OUT OF WAY AND MAINTAIN WITHIN REACH. CHAIN GUIDES AND CHAINS SHALL BE 316 STAINLESS STEEL.
4. SEE STRUCTURAL SHEETS FOR SUPPORT OF ALL FRP PIPE. CONTRACTOR TO COORDINATE PIPE SUPPORT LOCATIONS WITH PIPE LAYOUT SHOWN AND EXISTING SITE CONDITIONS.
5. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND RE-INSTALLING SCREENS FOR HEADWORKS CONCRETE AND COATING REHABILITATION AND REPAIR.
6. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO SCREEN MANUFACTURER TOLERANCES. COATING THICKNESS SHALL NOT BE LESS THAN SPECIFIED TO MEET SCREEN MANUFACTURER TOLERANCE.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE
Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS UPPER FLOOR PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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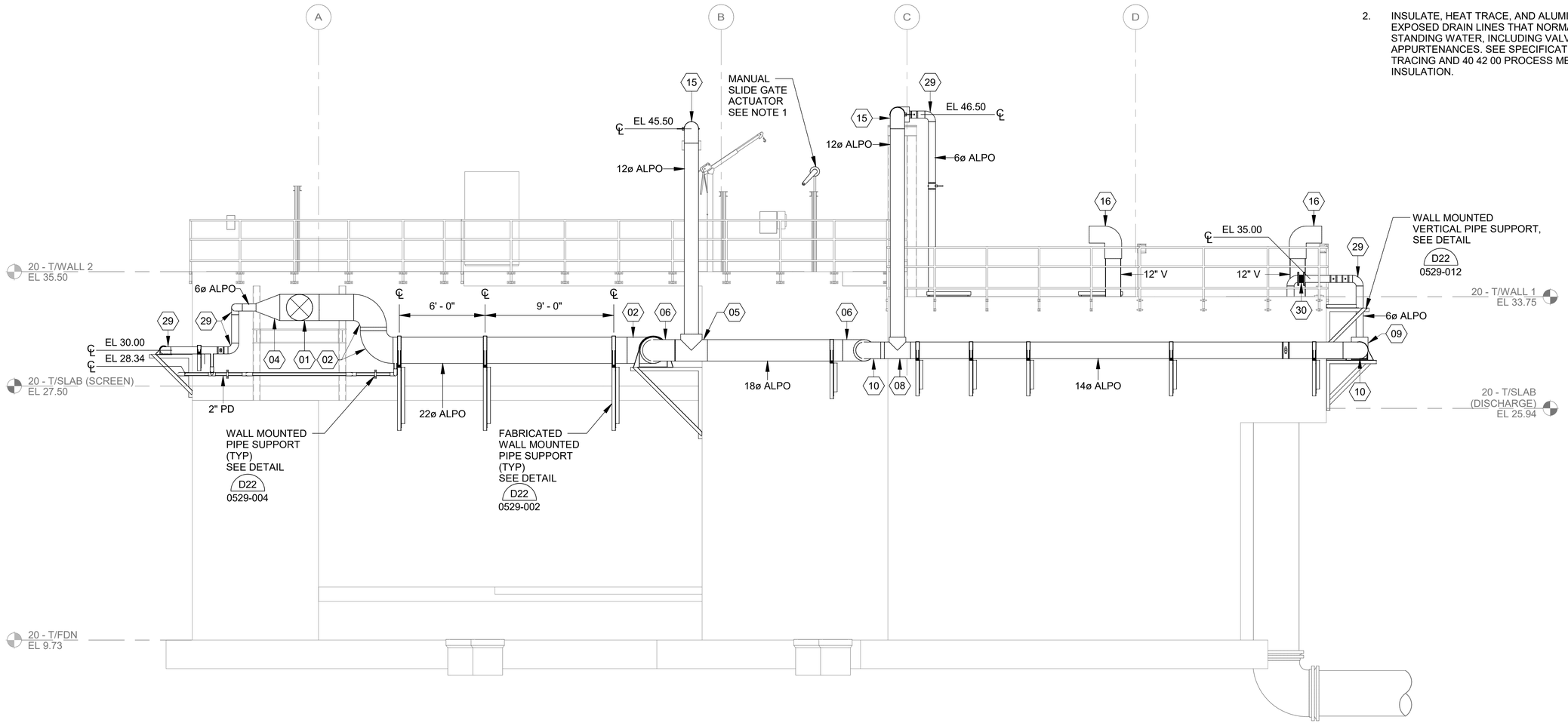
SHEET NUMBER 74

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:44:20 PM

KEYNOTES	
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02	22" 90° BEND (WLD x WLD)
03	22" x 18" REDUCER (WLD x WLD)
04	22" x 6" REDUCER (WLD x WLD)
05	18" x 18" x 12" TEE (WLD x WLD x WLD)
06	18" 90° BEND (WLD x WLD)
07	18" x 14" REDUCER (WLD x WLD)
08	14" x 14" x 12" TEE (WLD x WLD x WLD)
09	14" x 14" x 6" TEE (WLD x WLD x WLD)
10	14" 90° BEND (WLD x WLD)
12	14" x 12" REDUCER (WLD x WLD)
14	12" x 12" x 6" TEE (WLD x WLD x WLD)
15	12" 90° BEND (WLD x WLD)
16	12" 90° BEND (SOC x SOC)
29	6" 90° BEND (WLD x WLD)
30	6" FLEXIBLE COUPLING (FLG x FLG)

NOTES:

1. INSTALL MANUAL SLIDE GATE ACTUATORS (TYP OF 14).
2. INSULATE, HEAT TRACE, AND ALUMINUM JACKET ALL EXPOSED DRAIN LINES THAT NORMALLY HAVE STANDING WATER, INCLUDING VALVES AND APPURTENANCES. SEE SPECIFICATIONS 40 41 13 HEAT TRACING AND 40 42 00 PROCESS MECHANICAL INSULATION.



1 SECTION
20-P101 SCALE: 1/4" = 1'-0"

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTION 1

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

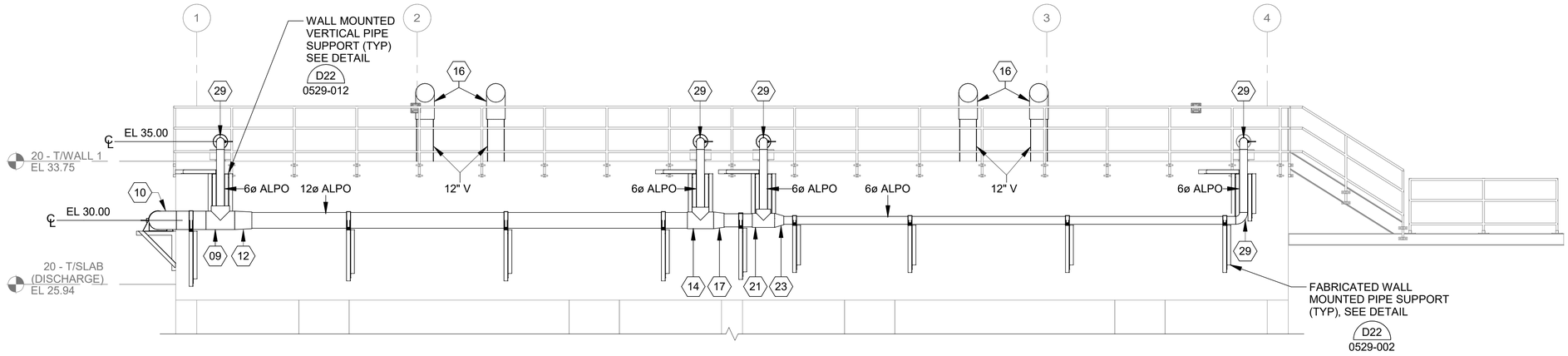
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DRAWING NUMBER
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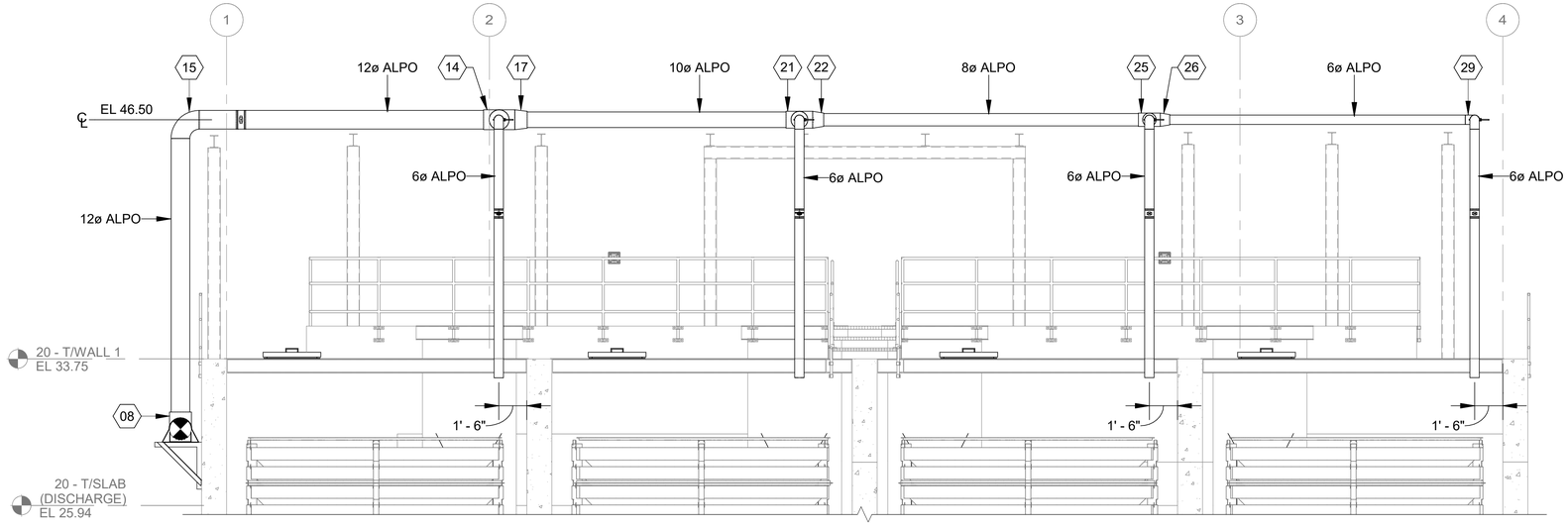
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Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 1:44:21 PM

KEYNOTES	
08	14" x 14" x 12" TEE (WLD x WLD x WLD)
09	14" x 14" x 6" TEE (WLD x WLD x WLD)
10	14" 90° BEND (WLD x WLD)
12	14" x 12" REDUCER (WLD x WLD)
14	12" x 12" x 6" TEE (WLD x WLD x WLD)
15	12" 90° BEND (WLD x WLD)
16	12" 90° BEND (SOC x SOC)
17	12" x 10" REDUCER (WLD x WLD)
21	10" x 10" x 6" TEE (WLD x WLD x WLD)
22	10" x 8" REDUCER (WLD x WLD)
23	10" x 6" REDUCER (WLD x WLD)
25	8" x 8" x 6" TEE (WLD x WLD x WLD)
26	8" x 6" REDUCER (WLD x WLD)
29	6" 90° BEND (WLD x WLD)
30	6" FLEXIBLE COUPLING (FLG x FLG)



1 SECTION
20-P101 SCALE: 1/4" = 1'-0"



2 SECTION
20-P101 SCALE: 1/4" = 1'-0"

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTIONS 2

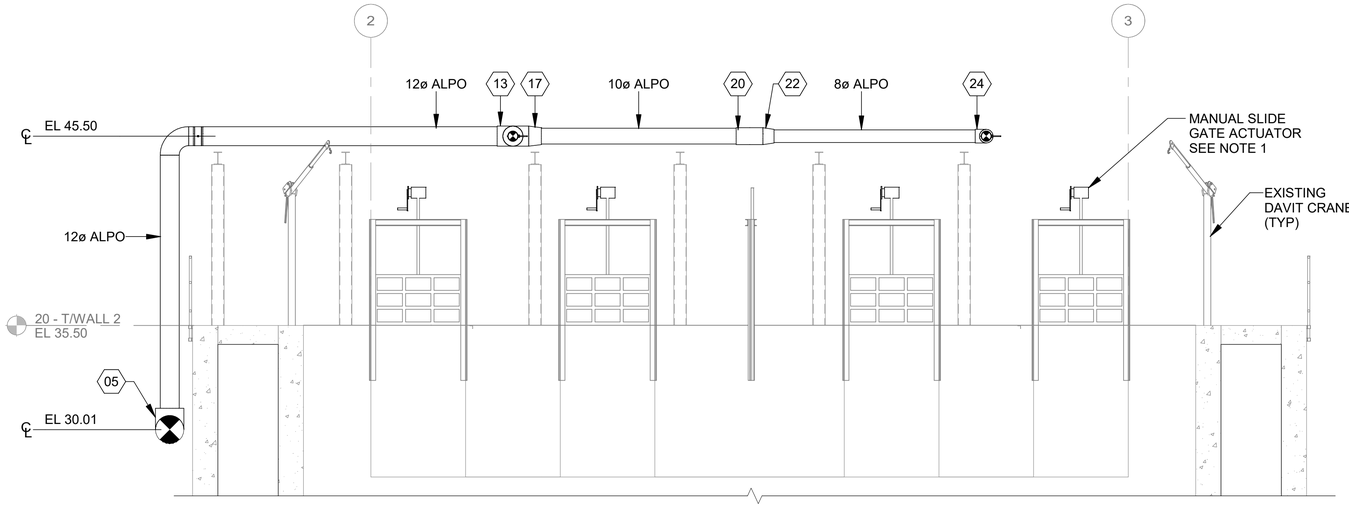
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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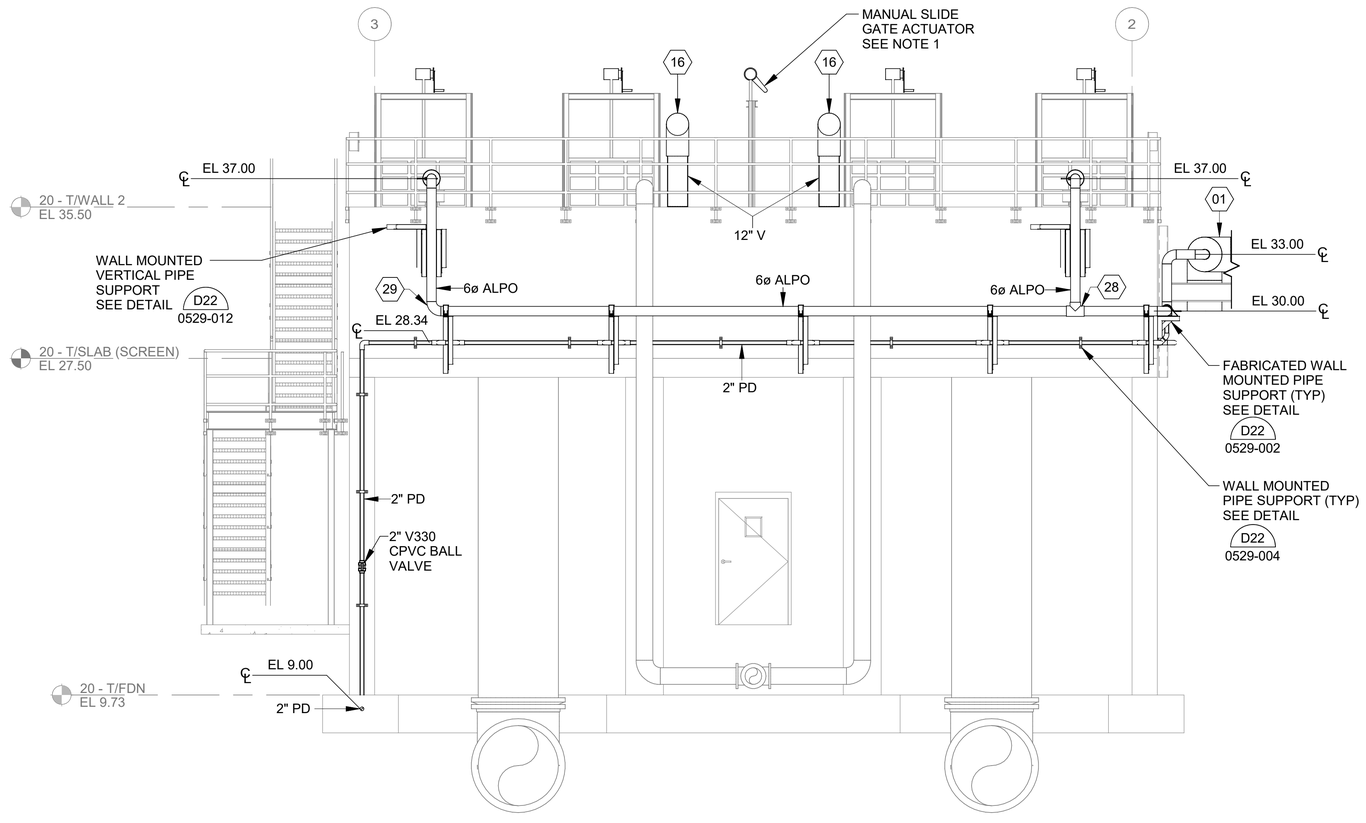
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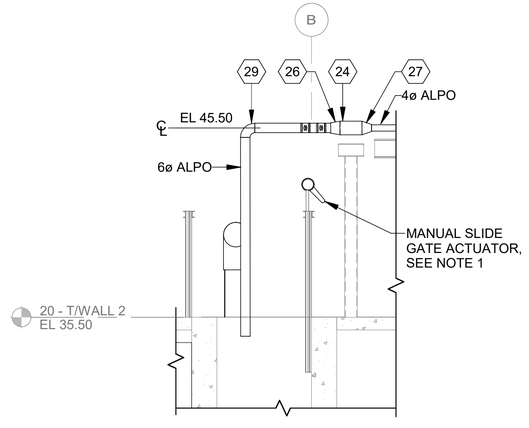
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Plot Date: 8/7/2026 1:44:22 PM



1 SECTION
20-P101 SCALE: 1/4" = 1'-0"



2 SECTION
20-P101 SCALE: 1/4" = 1'-0"



3 SECTION
20-P101 SCALE: 1/4" = 1'-0"

KEYNOTES

01	22" TEE (WLD x WLD x WLD)
02	22" 90° BEND (WLD x WLD)
04	22" x 6" REDUCER (WLD x WLD)
05	18" x 18" x 12" TEE (WLD x WLD x WLD)
11	14" 90° BEND (SOC x SOC)
13	12" CROSS (WLD x WLD x WLD x WLD)
15	12" 90° BEND (WLD x WLD)
16	12" 90° BEND (SOC x SOC)
17	12" x 10" REDUCER (WLD x WLD)
18	12" x 6" REDUCER (WLD x WLD)
19	12" x 4" REDUCER (WLD x WLD)
20	10" TEE (WLD x WLD x WLD)
22	10" x 8" REDUCER (WLD x WLD)
23	10" x 6" REDUCER (WLD x WLD)
24	8" TEE (WLD x WLD x WLD)
26	8" x 6" REDUCER (WLD x WLD)
27	8" x 4" REDUCER (WLD x WLD)
28	6" TEE (WLD x WLD x WLD)
29	6" 90° BEND (WLD x WLD)
30	6" FLEXIBLE COUPLING (FLG x FLG)

NOTES:

1. INSTALL MANUAL SLIDE GATE ACTUATORS (TYP OF 14).
2. INSULATE, HEAT TRACE, AND ALUMINUM JACKET ALL EXPOSED DRAIN LINES THAT NORMALLY HAVE STANDING WATER, INCLUDING VALVES AND APPURTENANCES. SEE SPECIFICATIONS 40 41 13 HEAT TRACING AND 40 42 00 PROCESS MECHANICAL INSULATION.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 51795 PROFESSIONAL ENGINEER RUSSELL D. TATE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MAWSS MOBILE AREA WATER & SEWER SYSTEM

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SECTIONS 3

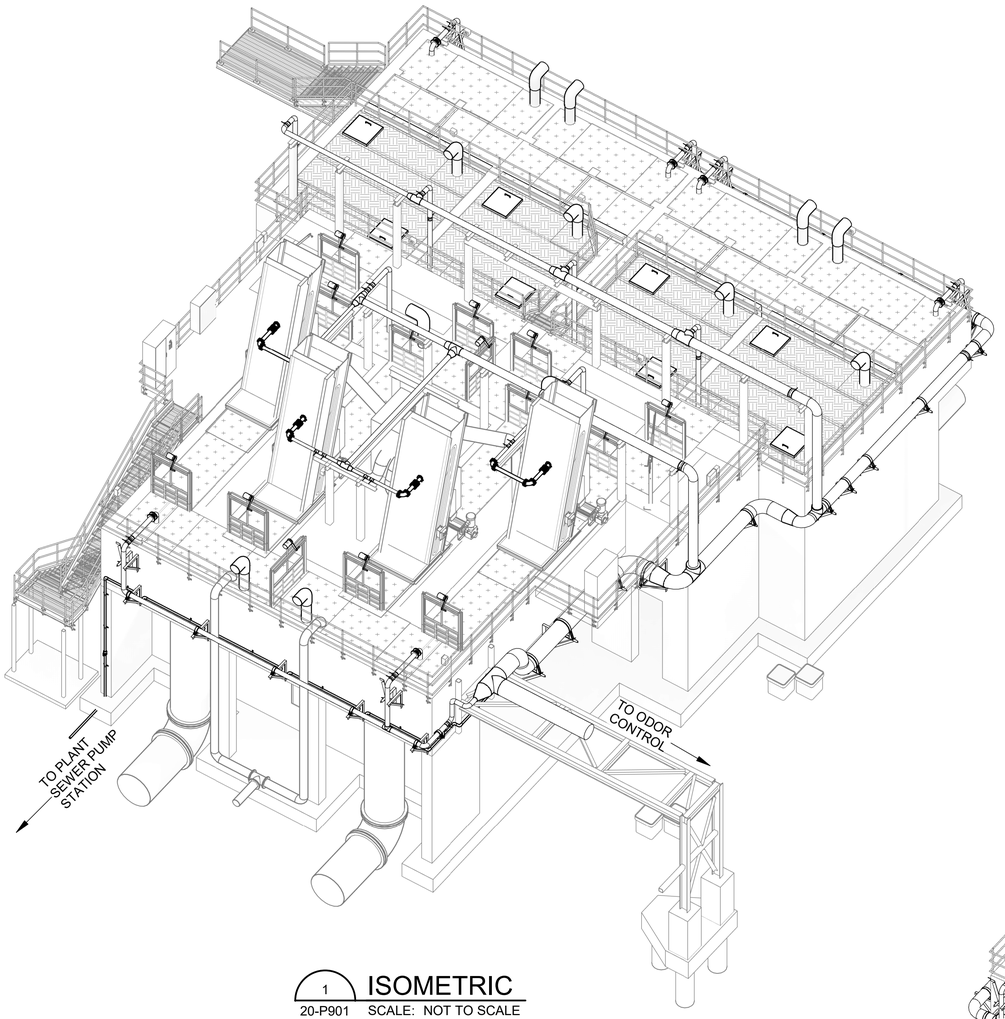
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: CCL
DRAWN BY: EG
CHECKED BY: RDT

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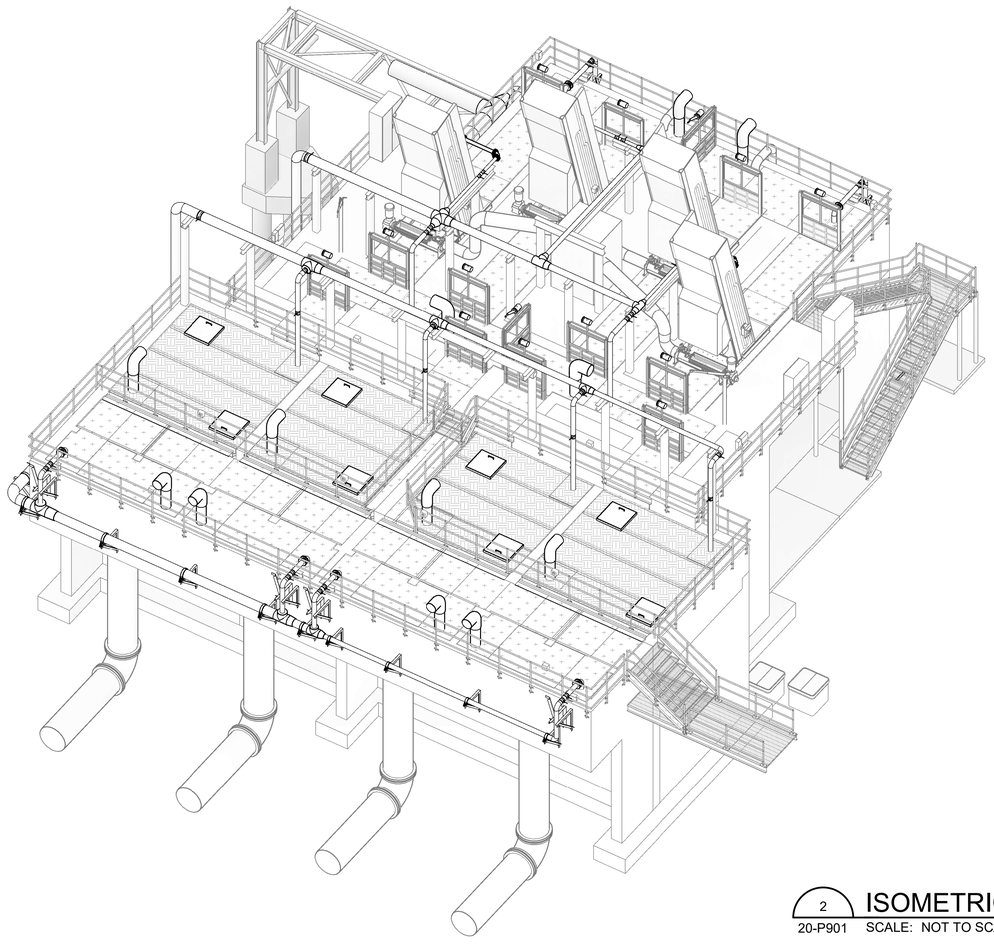
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SHEET NUMBER 77

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1 ISOMETRIC
20-P901 SCALE: NOT TO SCALE



2 ISOMETRIC
20-P901 SCALE: NOT TO SCALE

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS ISOMETRICS

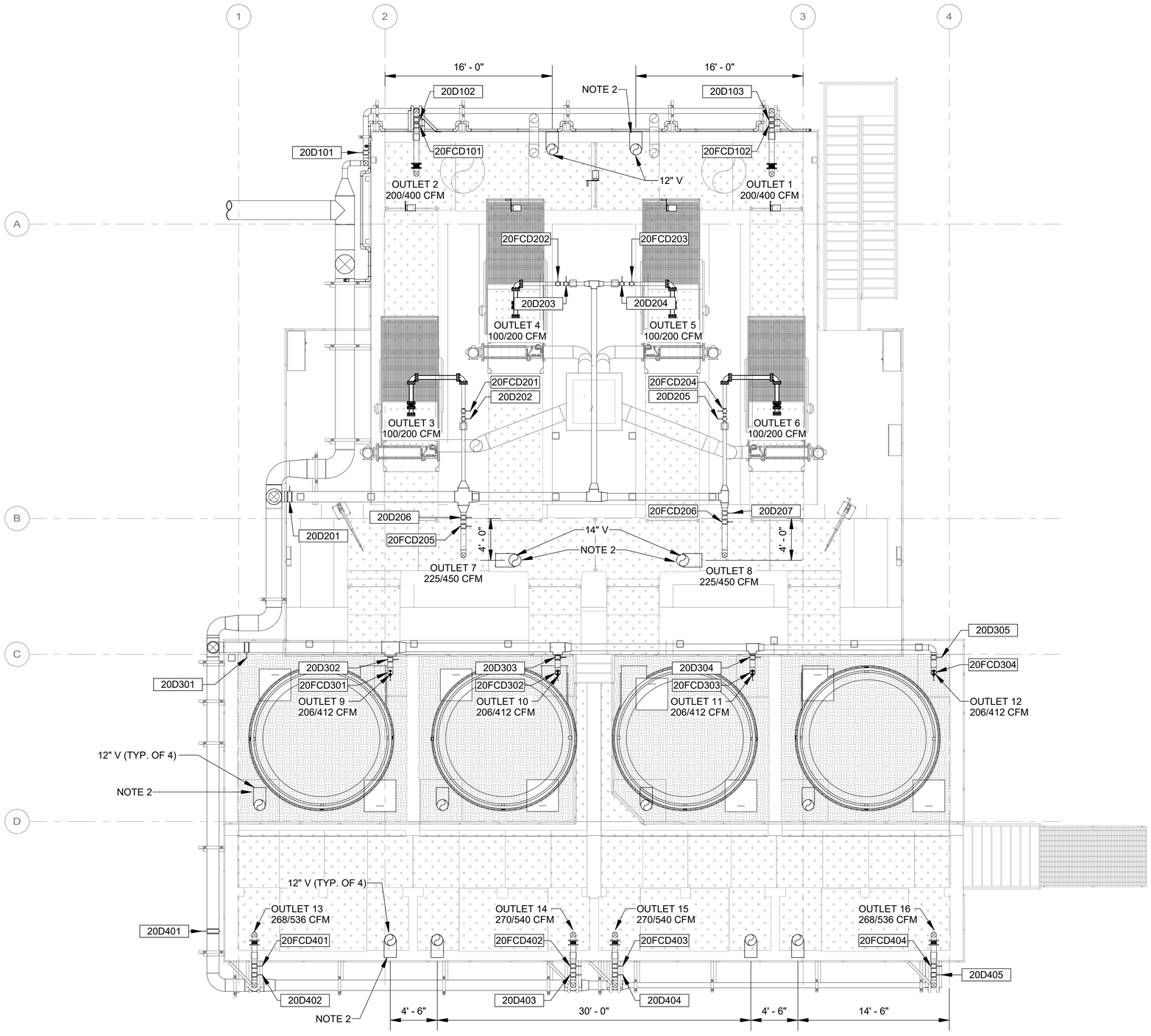
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20-P901

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PROJECT NORTH

1 / 20-M101 UPPER PLAN

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

NOTES:

1. EACH AIRFLOW CORRESPONDS TO A DESIGN AIR CHANGES PER HOUR (ACH)
   A. 15 ACH (3150 CFM) / 30 ACH (6300 CFM)
2. ALL GOOSENECK PVC VENT INTAKES SHALL BE FURNISHED WITH STAINLESS STEEL BIRDSCREEN COVERING OPEN END.
3. CONTRACTOR SHALL SUBMIT GOOSENECK VENT MATERIALS AND FABRICATION DRAWINGS FOR ENGINEER'S AND OWNER'S APPROVAL.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 55261 PROFESSIONAL ENGINEER JACK W. DORMIER

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS FLOOR PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: HML
DRAWN BY: SJB
CHECKED BY: JWD

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DRAWING NUMBER
20-M101

SHEET NUMBER 79

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
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CONTROL DAMPER SCHEDULE

MARK	AREA SERVED	BASIC DESIGN			SIZE (IN)	FRAME DEPTH (IN)	AXLE DIAMETER (IN)	BLADE THICKNESS (GAUGE)	ACCESSORIES	NOTES
		MANUFACTURER	MODEL	DESCRIPTION						
20FCD101	INFLUENT CHANNELS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD102	INFLUENT CHANNELS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD201	SCREEN HEADSPACE	GREENHECK	HCDR-150	MOTORIZED DAMPER	4	14	1/2	12	ALL	ALL
20FCD202	SCREEN HEADSPACE	GREENHECK	HCDR-150	MOTORIZED DAMPER	4	14	1/2	12	ALL	ALL
20FCD203	SCREEN HEADSPACE	GREENHECK	HCDR-150	MOTORIZED DAMPER	4	14	1/2	12	ALL	ALL
20FCD204	SCREEN HEADSPACE	GREENHECK	HCDR-150	MOTORIZED DAMPER	4	14	1/2	12	ALL	ALL
20FCD205	HEADCELL INFLUENT CHANNEL	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD206	HEADCELL INFLUENT CHANNEL	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD301	HEADCELLS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD302	HEADCELLS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD303	HEADCELLS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD304	HEADCELLS	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD401	DISCHARGE BOX	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD402	DISCHARGE BOX	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD403	DISCHARGE BOX	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL
20FCD404	DISCHARGE BOX	GREENHECK	HCDR-150	MOTORIZED DAMPER	6	14	1/2	12	ALL	ALL

ACCESSORIES:
1. 24VDC FULLY MODULATING ACTUATOR, BELIMO AMB24-IP OR APPROVED EQUAL
2. SILICONE RUBBER BLADE SEALS
3. EXPLOSION PROOF ACTUATOR ENCLOSURE, BELIMO ZS-260 OR APPROVED EQUAL

NOTES:
1. DAMPER BLADES, AXLES, AND APPURTENANCES SHALL BE STAINLESS STEEL CONSTRUCTION.
2. USE TESTING AND BALANCING DATA TO MODULATE DAMPER TO ACHIEVE PROPER AIRFLOW.

MANUAL DAMPER SCHEDULE

MARK	AREA SERVED	BASIC DESIGN			SIZE (IN)	FRAME DEPTH (IN)	AXLE DIAMETER (IN)	BLADE THICKNESS (GAUGE)	ACCESSORIES	NOTES
		MANUFACTURER	MODEL	DESCRIPTION						
20D101	INFLUENT CHANNELS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D102	INFLUENT CHANNELS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D103	INFLUENT CHANNELS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D201	SCREENS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	12	14	1/2	12	ALL	ALL
20D202	SCREEN HEADSPACE	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	4	14	1/2	12	ALL	ALL
20D203	SCREEN HEADSPACE	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	4	14	1/2	12	ALL	ALL
20D204	SCREEN HEADSPACE	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	4	14	1/2	12	ALL	ALL
20D205	SCREEN HEADSPACE	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	4	14	1/2	12	ALL	ALL
20D206	HEADCELL INFLUENT CHANNEL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D207	HEADCELL INFLUENT CHANNEL	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D301	HEADCELLS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	12	14	1/2	12	ALL	ALL
20D302	HEADCELLS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D303	HEADCELLS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D304	HEADCELLS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D305	HEADCELLS	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D401	DISCHARGE BOX	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	14	14	1/2	12	ALL	ALL
20D402	DISCHARGE BOX	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D403	DISCHARGE BOX	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D404	DISCHARGE BOX	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL
20D405	DISCHARGE BOX	GREENHECK	HCDR-150	MANUAL ISOLATION DAMPER	6	14	1/2	12	ALL	ALL

ACCESSORIES:
1. MANUAL HAND-WHEEL OPERATOR
2. SILICONE RUBBER BLADE SEALS

NOTES:
1. DAMPER BLADES, AXLES, AND APPURTENANCES SHALL BE STAINLESS STEEL CONSTRUCTION.
2. MANUAL OPERATORS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
3. MANUAL DAMPERS SHALL BE USED TO ISOLATE EQUIPMENT FOR MAINTENANCE AND/OR REPLACEMENT.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 55261 PROFESSIONAL ENGINEER JACK W. DORMINEY

Digitally Signed: 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS
DAMPER SCHEDULES

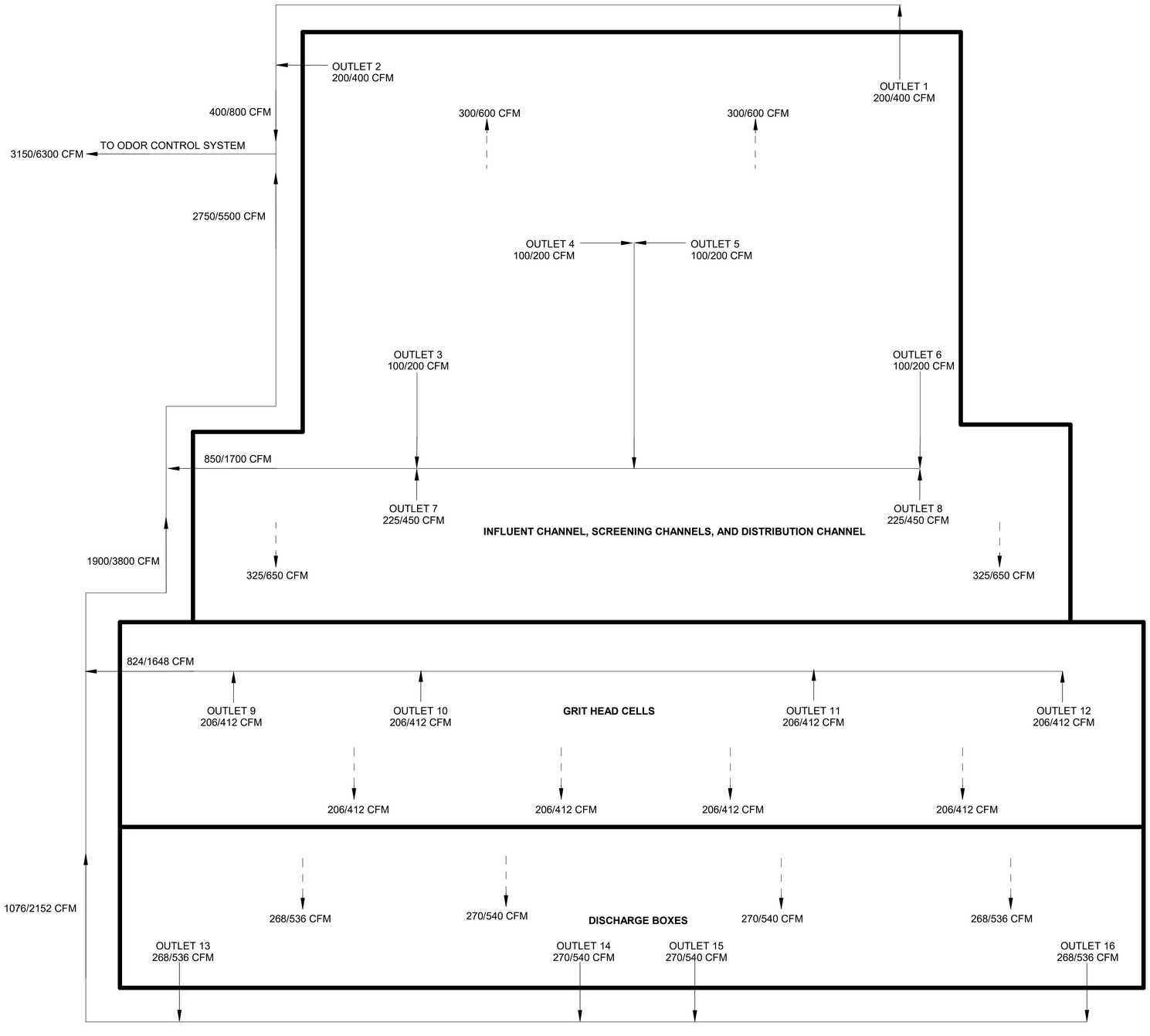
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DRAWING NUMBER
20-M601

SHEET NUMBER 80

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Plot Date: 8/7/2026 1:44:13 PM



1 / 20-M602 AIRFLOW SCHEMATICS

SCALE: NOT TO SCALE

NOTES:

1. ALL NUMBER INDICATE CUBIC FEET PER MINUTE.
2. EACH AIRFLOW CORRESPONDS TO A DESIGN AIR CHANGES PER HOUR (ACH)
   A. 15 ACH / 30 ACH.
3. DASHED LINES INDICATE INTAKE AIRFLOW THROUGH PVC GOOSENECK VENTS.
4. SOLID LINES INDICATE FOUL AIR EXHAUST AIRFLOW TRAVELING THROUGH ODOR CONTROL PIPING.

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS SCHEMATICS

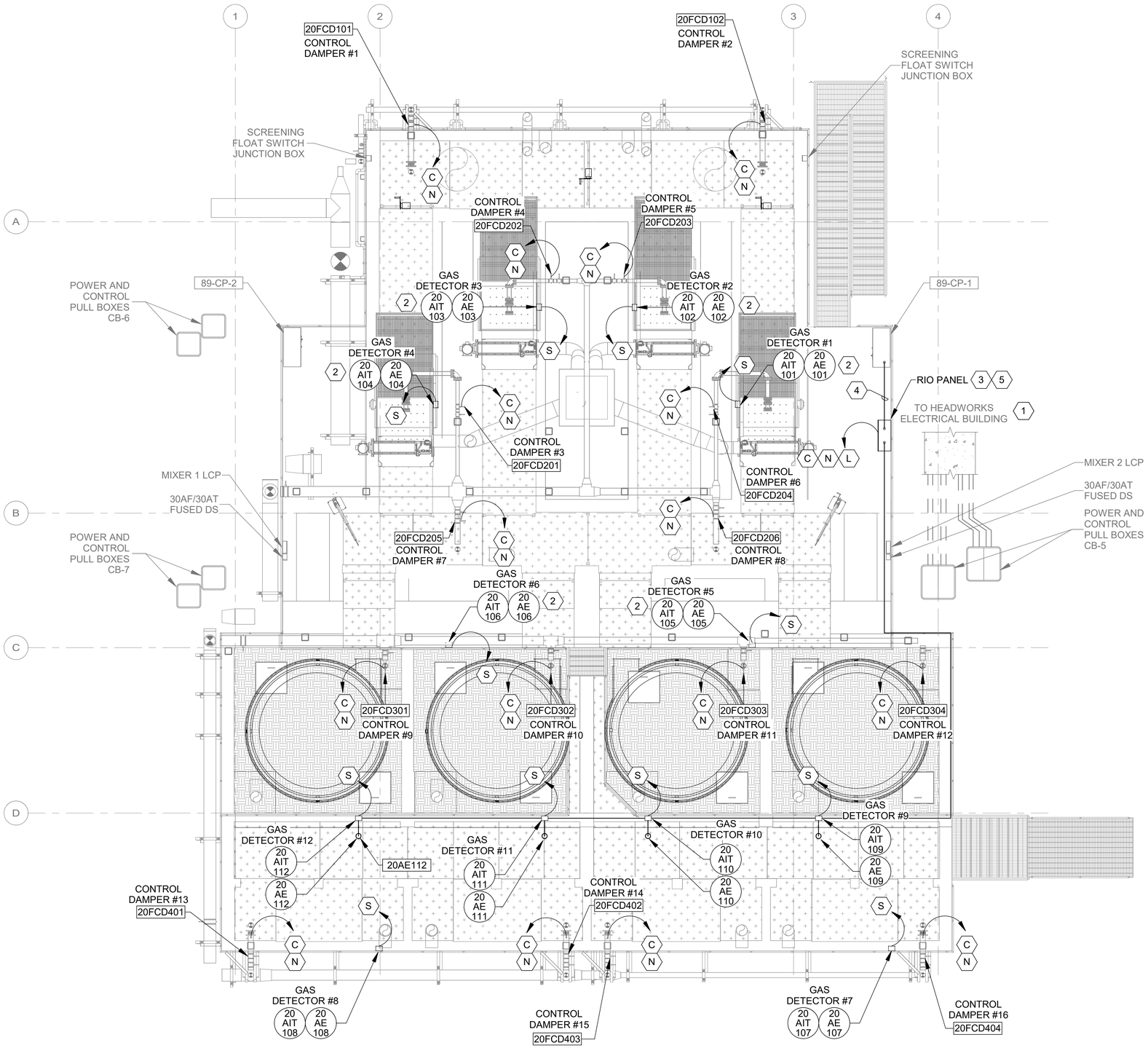
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DATE: AUG. 2026
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20-M602

SHEET NUMBER 81

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Plot Date: 8/7/2026 1:44:13 PM



1 20-E101 **POWER PLAN**

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

KEYNOTE	
1	SEE SITE PLAN 05-E101 FOR HEADWORKS ELECTRICAL BUILDING LOCATIONS.
2	CONTRACTOR SHALL FURNISH, INSTALL, AND MOUNT NEW CONTROL FIXED H2S GAS DETECTORS ON INFLUENT SCREENING EQUIPMENT. TRANSMITTERS SHALL BE LOCATED TO AVOID PROXIMITY TO EQUIPMENT ACCESS OPENINGS, INSPECTION HATCHES, AND MAINTENANCE AREAS. FINAL MOUNTING LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION TO ENSURE ACCESSIBILITY, SAFETY, AND PROPER OPERATION.
3	CONTRACTOR SHALL PROVIDE NEW 120V CONNECTION FROM PANEL HW-LV1 VIA PULLBOX CB-7 TO SERVE NEW RIO PANEL 20RIO1. UTILIZE EXISTING 1" C SPARE FROM THE HEADWORKS ELECTRICAL BUILDING TO THE HEADWORKS AREA AS INDICATED ON RECORD DRAWINGS. CONTRACTOR SHALL FIELD VERIFY CONDUIT AVAILABILITY, ROUTING, AND CONDITION PRIOR TO BEGINNING WORK.
4	CONTRACTOR SHALL PROVIDE ETHERNET CONNECTION BETWEEN SCREENS CONTROL PANEL 89-CP-1 AND RIO PANEL 20RIO1. CONTRACTOR SHALL FURNISH AND INSTALL ALL ETHERNET CONNECTIONS, TERMINATIONS, AND ASSOCIATED HARDWARE REQUIRED FOR A COMPLETE AND OPERATIONAL COMMUNICATION LINK.

CIRCUIT LEGEND	
C	FOR CONTROL CONDUIT AND CONDUCTORS TO RIO CONTROL PANEL 20RIO1 SEE INTERCONNECT DIAGRAM ON DRAWING 20-E601.
L	SEE "HW-LV1" ONE-LINE DIAGRAM ON DRAWING 90-E101 FOR 240/120VAC CONDUIT AND CONDUCTORS.
N	FOR COMMUNICATION CONDUIT AND CONDUCTORS FROM CONTROL DAMPERS TO RIO PANEL 20RIO1 SEE INTERCONNECTION DIAGRAM ON DRAWING 20-E601.
S	FOR SIGNAL CONDUIT AND CONDUCTORS TO RIO PANEL 20RIO1 SEE INTERCONNECT DIAGRAM ON DRAWING 20-E601.

NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, WIRING, TERMINATIONS, DISCONNECTS, CONTROL RELAYS, CONTROL ENCLOSURES AND OTHER ITEMS AS NECESSARY FOR COMPLETE HVAC AND ELECTRICAL BUILDING SYSTEMS. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND OTHER SECTIONS OF THE PLANS FOR ITEMS AS MAY BE REQUIRED.
2. CONDUIT ROUTING AS SHOWN IS DIAGRAMMATIC IN NATURE AND SHOWN FOR REFERENCE ONLY. SOME CONDUIT RUNS OMITTED FOR CLARITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING NUMBER OF REQUIRED CONDUITS AND PLACEMENT OF THESE CONDUITS. THE CONTRACTOR SHALL DEVELOP AND SUBMIT A CONDUIT ROUTING PLAN FOR REVIEW PRIOR TO INSTALLATION.
3. SIGNAL AND CONTROL CONDUCTORS OF LIKE VOLTAGES MAY BE COMBINED IN A SINGLE CONDUIT. MULTI-CONDUCTOR CONTROL AND SIGNAL CABLES MAY BE SUBSTITUTED FOR INDIVIDUAL CONDUCTORS.
4. VERIFY LOCATIONS OF ALL EQUIPMENT PRIOR TO INSTALLATION.
5. 20AE/AIT101 THROUGH 20AE/AIT108 TO BE 0-50PPM FIXED H2S GAS DETECTORS WITH DISPLAY AND ELECTROCHEMICAL CELL. SEE SPECIFICATION SECTION 40 76 20.
6. 20AE108 THROUGH 20AE111 TO BE HACH GS2440EX OR EQUAL MOUNTED ABOVE HIGH WATER LEVEL IN HEAD CELLS UNDER COVER PLATES. 20AIT109 THROUGH 20AIT112 TO BE HACH CAx440EX OR EQUAL, 4-20mA LOOP-POWERED FROM 20RIO1 (BATTERIES SHALL NOT BE USED). CONTRACTOR TO MODIFY HEAD CELL COVER PLATES AND PROVIDE ALL CABLING, MOUNTING HARDWARE AND ACCESSORIES. SEE SPECIFICATION SECTION 40 76 20.
7. ENCLOSED CHANNELS SHALL BE CONSIDERED CLASS 1, DIV. 1 HAZARDOUS LOCATION. AREA WITHIN 10'-0" ENVELOPE AROUND EQUIPMENT AND OPEN CHANNEL SHALL BE CONSIDERED CLASS 1, DIV. 2 HAZARDOUS LOCATION.

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REGISTRATION NO. ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS POWER PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: NDM
DRAWN BY: NDM
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
20-E101

SHEET NUMBER 82

Revit Files: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_20_HEADWORKS.rvt
Plot Date: 8/7/2026 2:23:59 PM

ELECTRICAL EQUIPMENT	
TAG	**DESCRIPTION**
20RIO1	HEADWORKS RIO PANEL
SCR-CP	EXISTING SCREEN 3&4 CONTROL PANEL
20FCD101	FLOW CONTROL DAMPER NO. 1
20FCD102	FLOW CONTROL DAMPER NO. 2
20FCD201	FLOW CONTROL DAMPER NO. 3
20FCD202	FLOW CONTROL DAMPER NO. 4
20FCD203	FLOW CONTROL DAMPER NO. 5
20FCD204	FLOW CONTROL DAMPER NO. 6
20FCD205	FLOW CONTROL DAMPER NO. 7
20FCD206	FLOW CONTROL DAMPER NO. 8
20FCD301	FLOW CONTROL DAMPER NO. 9
20FCD302	FLOW CONTROL DAMPER NO. 10
20FCD303	FLOW CONTROL DAMPER NO. 11
20FCD304	FLOW CONTROL DAMPER NO. 12
20FCD401	FLOW CONTROL DAMPER NO. 13
20FCD402	FLOW CONTROL DAMPER NO. 14
20FCD403	FLOW CONTROL DAMPER NO. 15
20FCD404	FLOW CONTROL DAMPER NO. 16
20AIT101	H2S TRANSMITTER NO. 1
20AIT102	H2S TRANSMITTER NO. 2
20AIT103	H2S TRANSMITTER NO. 3
20AIT104	H2S TRANSMITTER NO. 4
20AIT105	H2S TRANSMITTER NO. 5
20AIT106	H2S TRANSMITTER NO. 6
20AIT107	H2S TRANSMITTER NO. 7
20AIT108	H2S TRANSMITTER NO. 8
20AIT109	H2S TRANSMITTER NO. 9
20AIT110	H2S TRANSMITTER NO. 10
20AIT111	H2S TRANSMITTER NO. 11
20AIT112	H2S TRANSMITTER NO. 12
20AE109	H2S SENSOR NO. 9
20AE110	H2S SENSOR NO. 10
20AE111	H2S SENSOR NO. 11
20AE112	H2S SENSOR NO. 12

FACILITY 20				
CONDUIT #	**CONDUCTORS**	**TYPE**	**FROM EQUIPMENT**	**TO EQUIPMENT**
20RIO1-C1	2-#14+2#14G	24VDC	20RIO1	20FCD101
20RIO1-C2	2-#14+2#14G	24VDC	20RIO1	20FCD102
20RIO1-C3	2-#14+2#14G	24VDC	20RIO1	20FCD201
20RIO1-C4	2-#14+2#14G	24VDC	20RIO1	20FCD202
20RIO1-C5	2-#14+2#14G	24VDC	20RIO1	20FCD203
20RIO1-C6	2-#14+2#14G	24VDC	20RIO1	20FCD204
20RIO1-C7	2-#14+2#14G	24VDC	20RIO1	20FCD205
20RIO1-C8	2-#14+2#14G	24VDC	20RIO1	20FCD206
20RIO1-C9	2-#14+2#14G	24VDC	20RIO1	20FCD301
20RIO1-C10	2-#14+2#14G	24VDC	20RIO1	20FCD302
20RIO1-C11	2-#14+2#14G	24VDC	20RIO1	20FCD303
20RIO1-C12	2-#14+2#14G	24VDC	20RIO1	20FCD304
20RIO1-C13	2-#14+2#14G	24VDC	20RIO1	20FCD401
20RIO1-C14	2-#14+2#14G	24VDC	20RIO1	20FCD402
20RIO1-C15	2-#14+2#14G	24VDC	20RIO1	20FCD403
20RIO1-C16	2-#14+2#14G	24VDC	20RIO1	20FCD404
20RIO1-C17	4-#14+#14G	CONTROL	20RIO1	20AIT101
20RIO1-C18	4-#14+#14G	CONTROL	20RIO1	20AIT102
20RIO1-C19	4-#14+#14G	CONTROL	20RIO1	20AIT103
20RIO1-C20	4-#14+#14G	CONTROL	20RIO1	20AIT104
20RIO1-C21	4-#14+#14G	CONTROL	20RIO1	20AIT105
20RIO1-C22	4-#14+#14G	CONTROL	20RIO1	20AIT106
20RIO1-C23	4-#14+#14G	CONTROL	20RIO1	20AIT107
20RIO1-C24	4-#14+#14G	CONTROL	20RIO1	20AIT108
20RIO1-S1	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT101
20RIO1-S2	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT102
20RIO1-S3	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT103
20RIO1-S4	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT104
20RIO1-S5	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT105
20RIO1-S6	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT106
20RIO1-S7	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT107
20RIO1-S8	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT108
20RIO1-S9	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT109
20RIO1-S10	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT110
20RIO1-S11	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT111
20RIO1-S12	2-PAIR #16 STP	SIGNAL	20RIO1	20AIT112
20AIT109-S1	MANUF. SUPPLIED	SIGNAL	20AIT109	20AE109
20AIT110-S1	MANUF. SUPPLIED	SIGNAL	20AIT110	20AE110
20AIT111-S1	MANUF. SUPPLIED	SIGNAL	20AIT111	20AE111
20AIT112-S1	MANUF. SUPPLIED	SIGNAL	20AIT112	20AE112
20RIO1-N1	CAT-6	NETWORK	20RIO1	20FCD101
20RIO1-N2	CAT-6	NETWORK	20RIO1	20FCD102
20RIO1-N3	CAT-6	NETWORK	20RIO1	20FCD201
20RIO1-N4	CAT-6	NETWORK	20RIO1	20FCD202
20RIO1-N5	CAT-6	NETWORK	20RIO1	20FCD203
20RIO1-N6	CAT-6	NETWORK	20RIO1	20FCD204
20RIO1-N7	CAT-6	NETWORK	20RIO1	20FCD205
20RIO1-N8	CAT-6	NETWORK	20RIO1	20FCD206
20RIO1-N9	CAT-6	NETWORK	20RIO1	20FCD301
20RIO1-N10	CAT-6	NETWORK	20RIO1	20FCD302
20RIO1-N11	CAT-6	NETWORK	20RIO1	20FCD303
20RIO1-N12	CAT-6	NETWORK	20RIO1	20FCD304
20RIO1-N13	CAT-6	NETWORK	20RIO1	20FCD401
20RIO1-N14	CAT-6	NETWORK	20RIO1	20FCD402
20RIO1-N15	CAT-6	NETWORK	20RIO1	20FCD403
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20RIO1-N17	CAT-6	NETWORK	20RIO1	89-CP-1

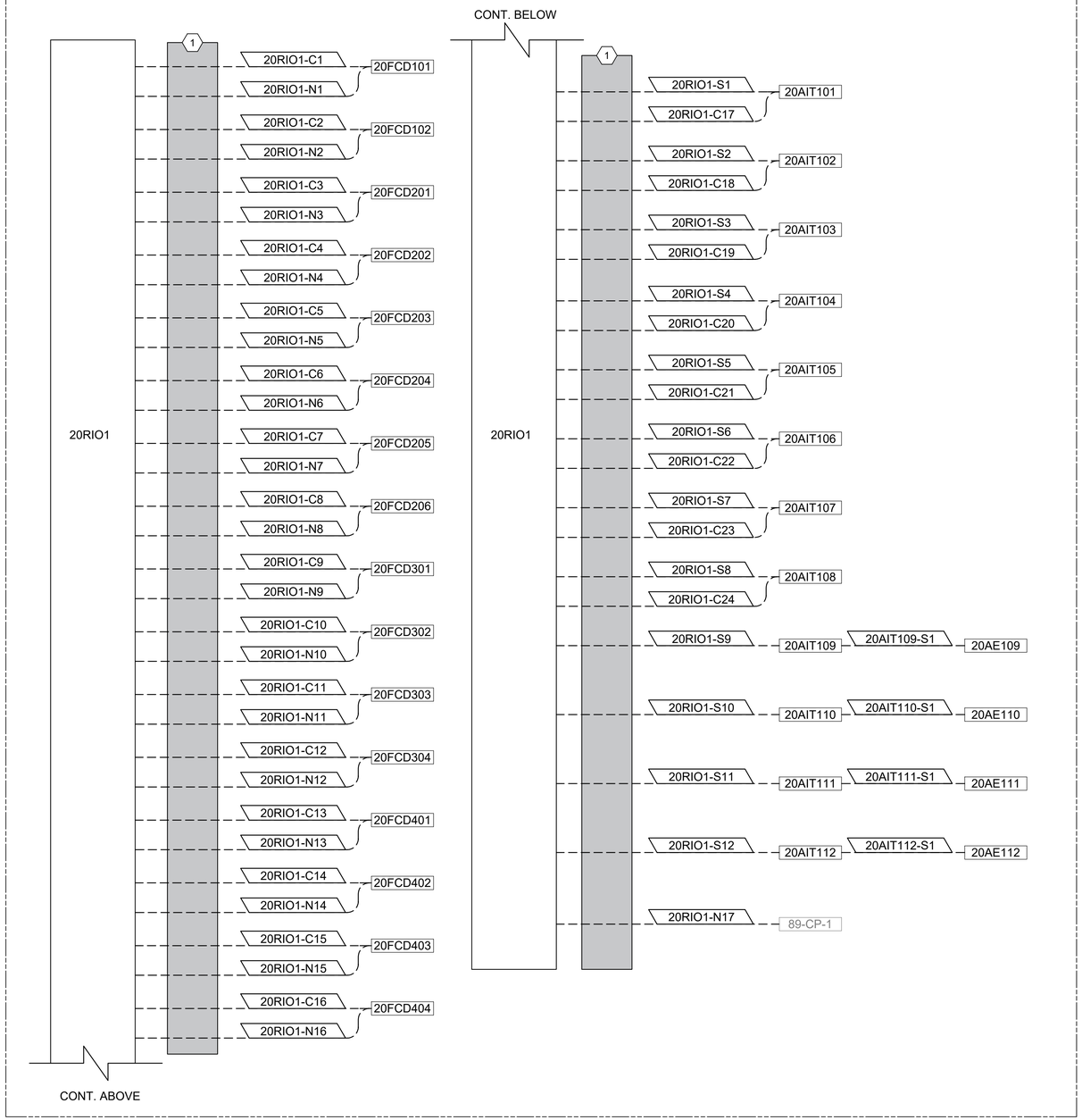
NOTES:

1. INTERCONNECT DIAGRAMS ONLY SHOW 120VAC POWER, NETWORK, CONTROL, AND SIGNAL CONNECTIONS BETWEEN EQUIPMENT. INTERCONNECT DIAGRAMS DO NOT SHOW ALL JUNCTION BOXES, EXACT RACEWAY ROUTING, OR COMBINED CONDUCTOR ROUTING.

KEYNOTES

1	CONTRACTOR MAY COMBINE CONTROL AND SIGNAL CONDUCTORS OF LIKE VOLTAGES INTO A SINGLE CONDUIT. CONDUITS SHALL BE SIZED TO MEET NEC CONDUCTOR FILL REQUIREMENTS PLUS AN ADDITIONAL 25% EXTRA FILL SPACE. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR EXPOSED APPLICATIONS AND 1" FOR BELOW GRADE. CONTRACTOR TO PROVIDE JUNCTION BOXES AS NEEDED.

HEADWORKS (20)



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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

HEADWORKS INTERCONNECT PLAN

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
20-E601

SHEET NUMBER 83

REPAIR NOTES

SEE PROJECT SPECIFICATIONS FOR REPAIR PRODUCT ACCEPTANCE CRITIREA

CRACK REPAIRS

REFERENCE SPECIFICATION SECTION: 03 64 00
EXTENTS: CONTRACTOR TO CARRY COST IN BASE BID FOR 50 LF OF LEVEL 5 CRACKING.

CONCRETE CRACKING-LEVEL 3

CRITERIA: 0.01"-0.03" WIDTH SURFACE CRACK (NOT PICTURED).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. TAKE AN ABRASIVE WIRE BRUSH AND BRUSH THE LENGTH OF THE CRACK TO REMOVE ANY LOOSE MATERIAL AND TO OPEN THE CRACK SLIGHTLY (IT MAY BE NECESSARY TO CHIP AWAY AT THE EDGES OF THE CRACK TO GET A SURFACE FOR THE SEALANT TO ADHERE TO).

REPAIR: APPLY CONCRETE COATING MATERIAL TO THE SURFACE OF CONCRETE, ENCOMPASSING THE AREA WITH CRACKING. ANY ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE SEALANT BONDS PROPERLY WITH THE EXISTING CONCRETE.

COATING PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY RESIN ADHESIVE.

CONCRETE CRACKING-LEVEL 4

CRITERIA: 0.03" MINIMUM WIDTH SURFACE CRACK OF LIMITED LENGTH OR WIDELY SPACED (NOT PICTURED).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. CONCRETE IN VICINITY OF CRACK SHALL BE BLAST-CLEANED TO SSPC-SP13 TO CREATE AN OPEN-TEXTURED SURFACE FREE OF LAITANCE SUITABLE FOR BONDING. ANY EXPOSED STEEL SURFACE SHALL ALSO BE BLAST CLEANED. AFTER CLEANING, USE OIL-FREE COMPRESSED AIR TO BLOW INTO THE VOIDS AND REMOVE ANY REMAINING DUST OR LOOSE MATERIAL FROM WITHIN THE CRACKS.

REPAIR: SET PRESSURE INJECTION PORTS AND SEAL PORTS AND CRACKS WITH EPOXY PASTE ADHESIVE. ONCE CURED PER MANUFACTURER'S SPECIFICATIONS, INJECT EPOXY RESIN INTO EACH CRACK WITH MANUFACTURER-APPROVED PRESSURE INJECTION METHOD. ANY ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE SEALANT BONDS PROPERLY WITH THE EXISTING CONCRETE. FOLLOWING INJECTION, PORTS SHALL BE REMOVED AND EXCESS PRE-INJECTION SEALANT SHALL BE GROUND FLUSH TO FACE OF WALL.

PRE-INJECTION SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY PASTE ADHESIVE.
EPOXY RESIN: 2-COMPONENT, 100% SOLIDS EPOXY RESIN.

CONCRETE CRACKING-LEVEL 5

CRITERIA: 0.03" MINIMUM WIDTH SURFACE CRACK OF SIGNIFICANT LENGTH OR CLOSELY SPACED (NOT PICTURED).

SURFACE PREPARATION: SEE "CONCRETE CRACKING-LEVEL 4 PROCEDURES.

REPAIR: INJECT EPOXY RESIN PER THE REPAIR METHODS DETAILED FOR "CONCRETE CRACKING-LEVEL 4. FOLLOWING RESIN INJECTION, COAT THE SURFACE OF CRACKED AREA WITH SEALANT PER THE REPAIR METHODS DETAILED FOR "CONCRETE CRACKING-LEVEL 3.

PRE-INJECTION SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY PASTE ADHESIVE.
EPOXY RESIN: 2-COMPONENT, 100% SOLIDS EPOXY RESIN.
SEALANT PRODUCT: 2-COMPONENT, 100% SOLIDS EPOXY RESIN ADHESIVE.

CONCRETE COATING REPAIRS

REFERENCE SPECIFICATION: 09 96 00
EXTENTS: CONTRACTOR TO CARRY COST IN BASE BID FOR RE-LINING ALL FOUR DISCHARGE WELLS (4'-0"X4'-0", INTERIOR DIMENSIONS, EACH) ASSOCIATED WITH THE PRIMARY CLARIFIERS. COATING TO INCLUDE THE TOP 10'-0" OF ALL INTERIOR WALLS AND EXTEND 3" ALONG TOP OF WALL.

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL LOOSE LINER, CONCRETE, DIRT, OIL, GREASE, LAITANCE, CURING COMPOUNDS, IMPREGNATIONS, WAXES, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM THE REPAIR AREA. INSPECT EXPOSED CONCRETE SURFACE TO IDENTIFY OTHER CONDITIONS NEEDING REPAIR PER THIS SHEET. AFTER THESE CONDITIONS ARE ADDRESSED, CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13. ALL OTHER SURFACE PREPARATION REQUIREMENTS SET BY THE MANUFACTURER OF THE COATING PRODUCT USED SHALL BE FOLLOWED.

REPAIR: RECOAT PREPARED CONCRETE SURFACE WITH SPRAY-APPLIED PROTECTIVE LINER.

PROTECTIVE LINER PRODUCT: 100% EPOXY

WEAR & SPALLING REPAIRS

REFERENCE SPECIFICATION SECTION: 03 01 00
EXTENTS: CONTRACTOR TO CARRY COST IN BASE BD FOR 200 SF OF CONCRETE WEAR-LEVEL 4 REPAIR.

CONCRETE WEAR-LEVEL 4

CRITERIA: EXPOSED LARGE AGGREGATE WITH RUST STAINING (NOT PICTURED).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM REPAIR AREA. THE REPAIR DEPTH SHOULD BE NO LESS THAN 3/8". AN AGGREGATE SURFACE PROFILE OF ± 1/8" SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURER-APPROVED METHODS. CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13, REMOVING ANY LOOSE OR UNSOUND AGGREGATE. THE SUBSTRATE MUST BE IN A SATURATED SURFACE DRY (SSD) CONDITION. IT IS RECOMMENDED THAT A PULL-OFF TEST BE PERFORMED TO CONFIRM EFFECTIVENESS OF SURFACE PREPARATION. CONSULT PRODUCT MANUFACTURER FOR RECOMMENDED PULL-OFF TEST METHODOLOGIES.

REPAIR: USE PUMP-SPRAY EQUIPMENT TO APPLY SPRAY-ON REPLACEMENT MORTAR TO THE PROPERLY PREPARED SURFACE. FOLLOWING APPLICATION OF MORTAR, APPLY PROTECTIVE COATING PRODUCT. ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE NEW COATING SYSTEM BONDS PROPERLY WITH THE EXISTING CONCRETE.

ALTERNATIVE MORTAR REPLACEMENT: IN LIEU OF SPRAY-ON APPLICATION, REPLACEMENT MORTAR CAN BE TROWELED FROM A SMALL MORTAR MIXER IN LIFTS NOT EXCEEDING THE MANUFACTURER'S RECOMMENDATION.

REPLACEMENT MORTAR PRODUCT: SIKACEM-226 CI OR EQUIVALENT APPROVED BY EOR.
PROTECTIVE COATING PRODUCT: SEE "COATING REPAIRS" THIS SHEET.

CONCRETE WEAR-LEVEL 5

CRITERIA: EXPOSED REINFORCEMENT (NOT PICTURED).

CONCRETE SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, LAITANCE, CURING COMPOUNDS, IMPREGNATIONS, WAXES, AND OTHER BOND-INHIBITING MATERIALS SHALL BE REMOVED FROM REPAIR AREA. THE REPAIR DEPTH SHOULD BE NO LESS THAN 3/8". AN AGGREGATE SURFACE PROFILE OF ±1/8" SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURER-APPROVED METHODS. CONCRETE SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP13, REMOVING ANY LOOSE OR UNSOUND AGGREGATE. THE SUBSTRATE MUST BE IN A SATURATED SURFACE DRY (SSD) CONDITION. IT IS RECOMMENDED THAT A PULL-OFF TEST BE PERFORMED TO CONFIRM EFFECTIVENESS OF SURFACE PREPARATION. CONSULT PRODUCT MANUFACTURER FOR RECOMMENDED PULL-OFF TEST METHODOLOGIES.

STEEL SURFACE PREPARATION: WHERE STEEL REINFORCEMENT IS EXPOSED, IT MUST BE CLEANED THOROUGHLY BY BLAST-CLEANING WITH WATER IN ACCORDANCE WITH SSPC-SP5 TO REMOVE RUST AND ANY LOOSE AGGREGATE.

REPAIR: APPLY EPOXY BONDING ADHESIVE TO BOTH THE EXPOSED REINFORCEMENT AND SURROUNDING CONCRETE TO RECEIVE REPLACEMENT MORTAR. FOLLOWING THE APPLICATION OF BONDING ADHESIVE, FOLLOW THE PROCEDURES OF "CONCRETE WEAR-LEVEL 4" TO COMPLETE REPAIR. REPAIR MORTAR SHALL BE PLACED SUCH THAT 2" COVER IS PROVIDED OVER EXPOSED REINFORCEMENT. ADDITIONAL MANUFACTURER REQUIREMENTS SHOULD BE FOLLOWED TO ENSURE THE NEW COATING SYSTEM BONDS PROPERLY WITH THE EXISTING CONCRETE.

EPOXY ADHESIVE PRODUCT: PER REPLACEMENT MORTAR MANUFACTURER'S RECOMMENDATIONS.
REPLACEMENT MORTAR PRODUCT: 1-COMPONENT, CEMENTITIOUS, FIBER REINFORCED HIGH STRENGTH SHRINKAGE-COMPENSATED MORTAR.
PROTECTIVE COATING PRODUCT: SEE "COATING REPAIRS" THIS SHEET.

SPALLED CONCRETE

CRITERIA: DEPRESSION IN WALL WHERE A VOLUME OF CONCRETE IS MISSING (NOT PICTURED).

SURFACE PREPARATION: TAP CONCRETE ADJACENT TO THE AFFECTED AREA WITH A HAMMER TO EVALUATE IF DELAMINATION IS PRESENT IN THE REGION OF SPALLED CONCRETE. IF DELAMINATION IS PRESENT, USE CONCRETE SAW TO CREATE CLEAN EDGES TO THE APPROXIMATE DEPTH OF DELAMINATED AREA. FOLLOWING THE REMOVAL OF ALL LOOSE OR DELAMINATED CONCRETE IN THE REPAIR AREA, FOLLOW BOTH THE "CONCRETE SURFACE PREPARATION" AND "STEEL SURFACE PREPARATION" PROCEDURES DETAILED FOR "CONCRETE WEAR- LEVEL 5".

REPAIR: USE REPAIR METHODS DETAILED FOR "CONCRETE WEAR-LEVEL 4" AND "CONCRETE WEAR-LEVEL 5" AS REQUIRED BY RESULTING EXPOSURE OF COARSE AGGREGATE AND/OR REINFORCEMENT.

STEEL COATING REPAIRS

REFERENCE SPECIFICATION: 09 96 00
EXTENTS: CONTRACTOR TO CARRY COST IN BASE BID FOR COATING ALL FOUR PRIMARY CLARIFIER CENTER COLUMNS (3'-6" Ø x 20'-0" HEIGHT, EACH).

SURFACE PREPARATION: ALL SURFACES SHALL BE CONDITIONED TO BE CLEAN AND FREE OF CONTAMINANTS AND STANDING WATER. ALL LOOSE COATING, CONCRETE, DIRT, OIL, GREASE, LAITANCE, LOOSE RUST, AND OTHER FOREIGN MATERIAL SHALL BE REMOVED FROM THE REPAIR AREA. INSPECT EXPOSED CONCRETE SURFACE TO IDENTIFY OTHER CONDITIONS NEEDING REPAIR. ANY ADDITIONAL RESTORATION NEEDS SHALL BE BROUGHT TO THE ATTENTION OF THE EOR FOR EVALUATION. AFTER THESE CONDITIONS ARE ADDRESSED, STEEL SURFACE SHALL BE BLAST-CLEANED TO SSPC-SP10. ALL OTHER SURFACE PREPARATION REQUIREMENTS SET BY THE MANUFACTURER OF THE COATING PRODUCT USED SHALL BE FOLLOWED.

REPAIR: RECOAT PREPARED STEEL SURFACE WITH SPRAY-APPLIED PROTECTIVE LINER.

PROTECTIVE COATING PRODUCT: DURAPLATE 235 OR APPROVED EQUAL

DEMO NOTES

DEMOLISH LADDER RUNGS INSIDE EACH PRIMARY CLARIFIER DISCHARGE WELL. SEE FIGURE A.



FIGURE A

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PRIMARY CLARIFIER REPAIR NOTES

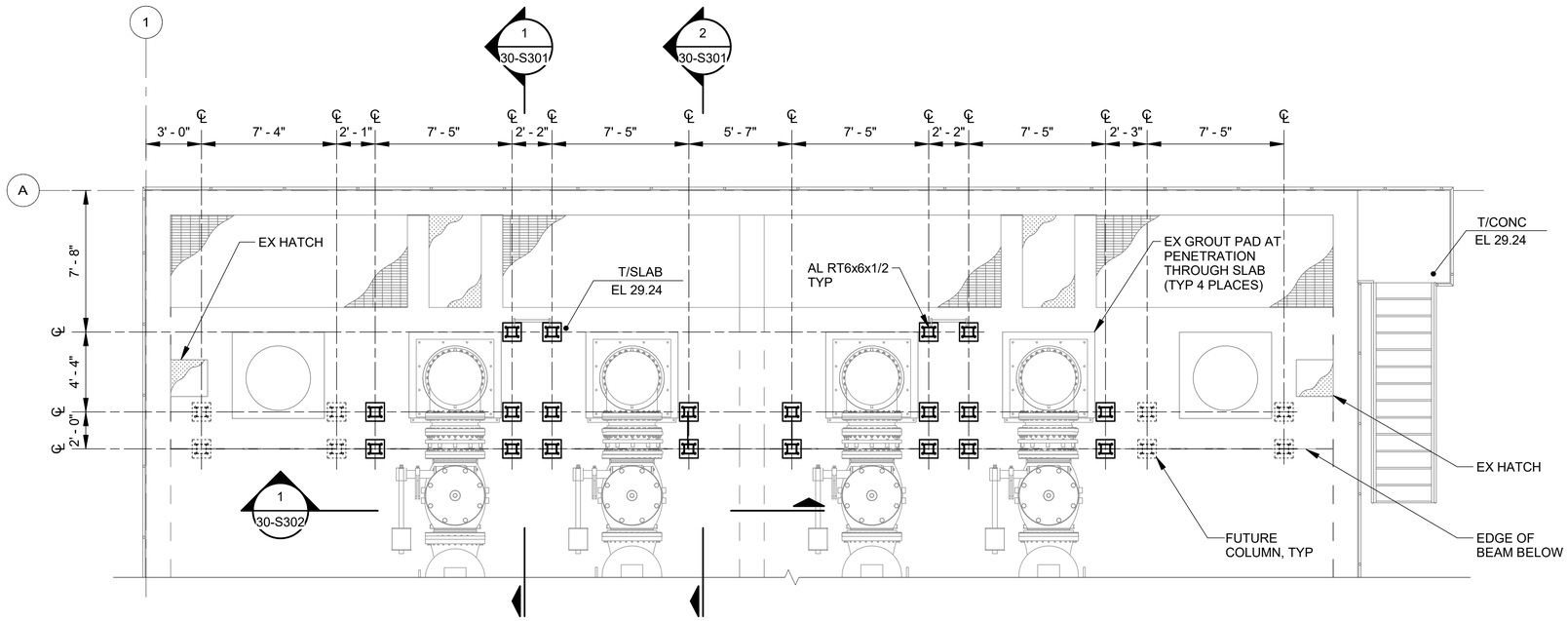
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
25-S501

SHEET NUMBER 84

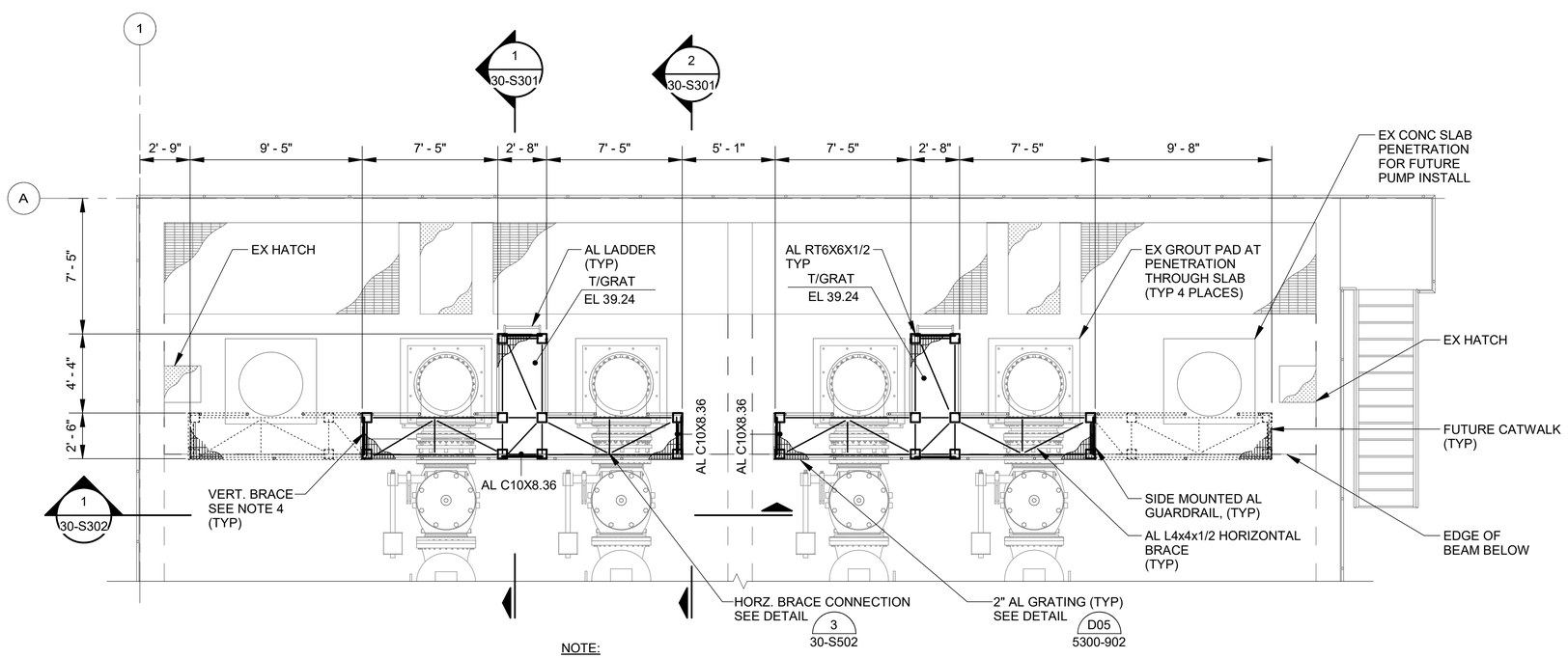
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Plot Date: 8/7/2026 1:44:58 PM



PROJECT NORTH

1 / 30-S101 PUMP ACCESS PLATFORMS LOWER PLAN

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



NOTE:

DIMENSIONS ARE REPRESENTATIVE OF THE EDGE OF GRATING

PROJECT NORTH

2 / 30-S101 PUMP ACCESS PLATFORMS UPPER PLAN

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS.
3. ALL FRAMING SHALL BE ALUMINUM U.N.O.
4. VERTICAL BRACED FRAMES ARE INDICATED AS — — — — SEE SECTIONS FOR BRACING CONFIGURATIONS.
5. SEISMIC ANALYSIS HAS BEEN PERFORMED PER THE FOLLOWING:
   A. SEISMIC FORCE RESISTING SYSTEM: STANDALONE ALUMINUM STRUCTURE ANALYZED WITHOUT RESPONSE MODIFICATION COEFFICIENT, R, USING EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7-16.
   B. RESPONSE MODIFICATION FACTOR, R=1.00.
   C. SEISMIC REPONSE COEFFICIENT, C_S=0.186.
   D. SEISMIC BASE SHEAR, V=1K.



CONTRACTOR TO RE-ROUTE CONDUIT AS REQUIRED TO ALLOW FOR FRAMING

3 FIGURE 1

SCALE: NOT TO SCALE

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REGISTRATION NO. ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PRIMARY EFFLUENT PUMP STATION PLANS

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

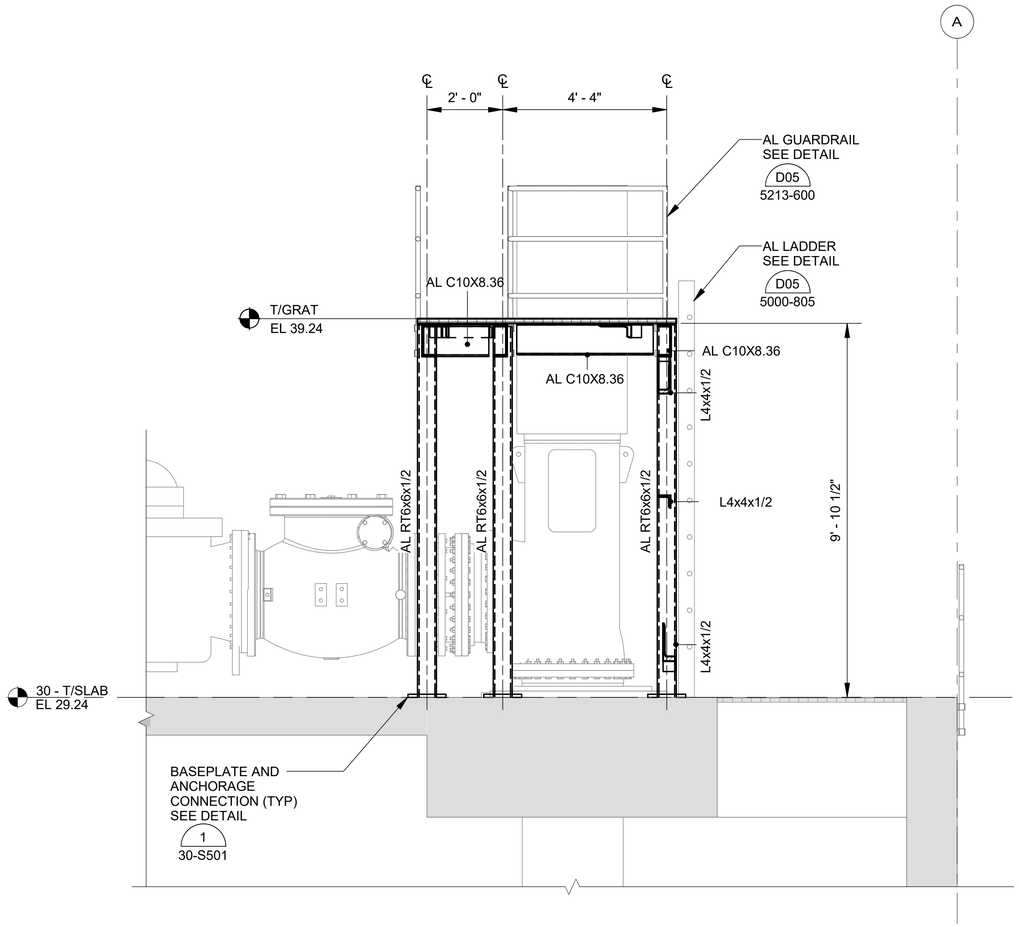
DRAWING NUMBER
30-S101

SHEET NUMBER 85

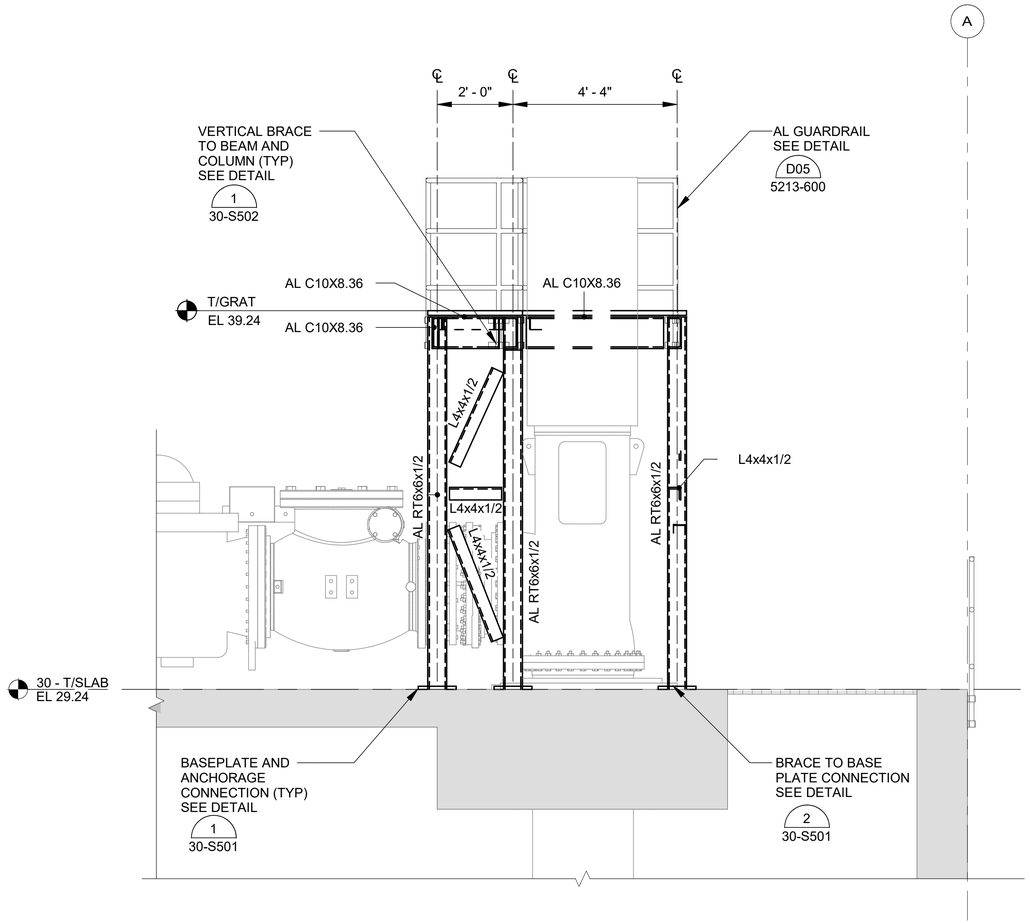
Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_30_PCEPS.rvt
Plot Date: 8/7/2026 1:49:48 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING SHALL BE ALUMINUM U.N.O. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.



1 30-S101 SECTION
SCALE: 1/2" = 1'-0"



2 30-S101 SECTION
SCALE: 1/2" = 1'-0"

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ECA500

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PRIMARY EFFLUENT PUMP STATION SECTIONS 1

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

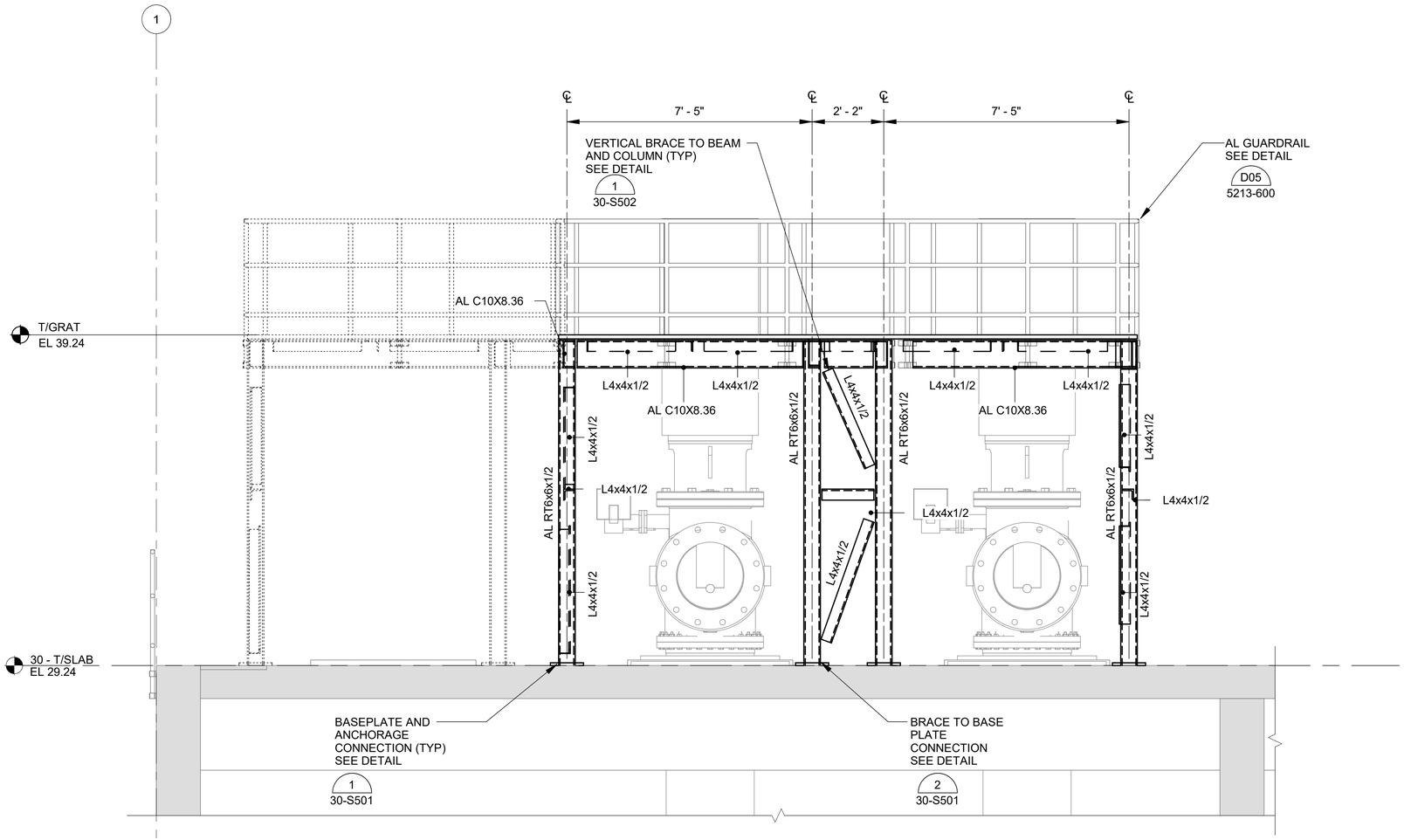
DRAWING NUMBER
30-S301

SHEET NUMBER 86

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_30_PCEPS.rvt
Plot Date: 8/7/2026 1:49:49 PM

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING SHALL BE ALUMINUM U.N.O. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.



1 SECTION
30-S101 SCALE: 1/2" = 1'-0"

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ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PRIMARY EFFLUENT PUMP STATION SECTION 2

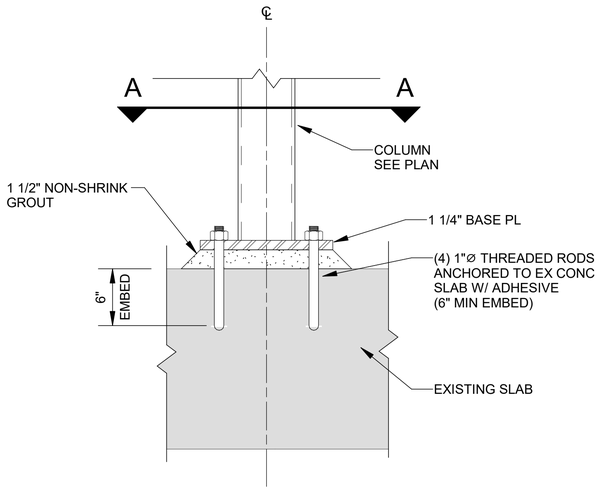
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

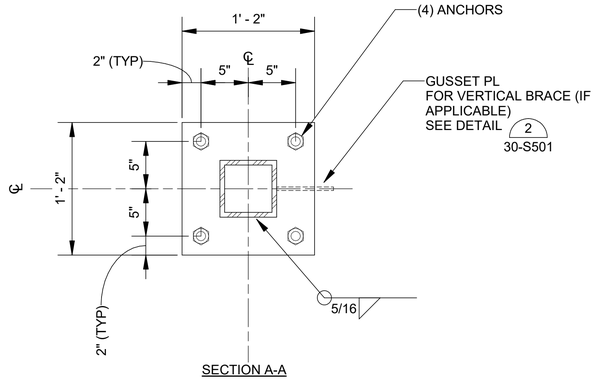
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
30-S302

SHEET NUMBER 87

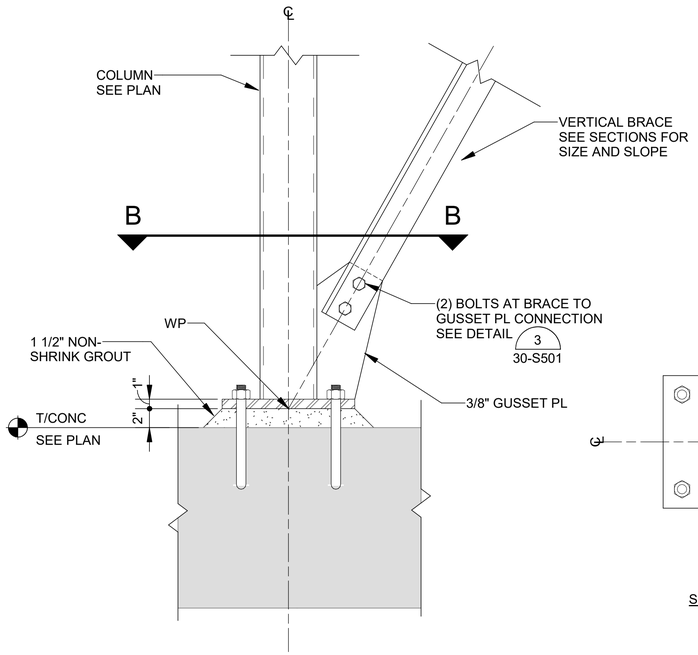
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Plot Date: 8/7/2026 1:49:50 PM

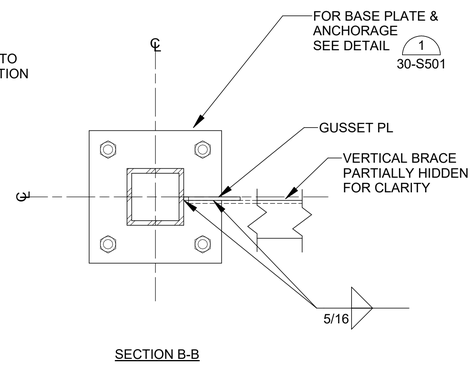




1 BASEPLATE AND ANCHORAGE DETAIL

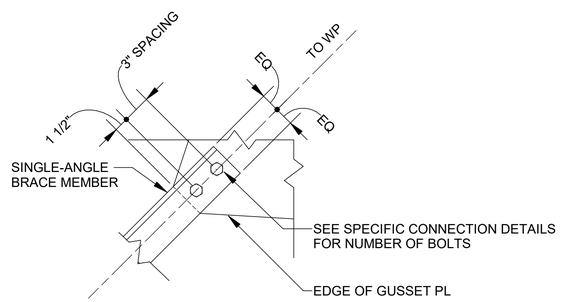
SCALE: 1 1/2" = 1'-0"





2 BRACE-TO-BASEPLATE CONNECTION

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



3 BRACE TO GUSSET CONNECTION DETAIL

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

NOTES:

1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL ALUMINUM, U.N.O.
3. ALL BOLTS AND ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS
REHABILITATION AND ODOR CONTROL

PRIMARY EFFLUENT PUMP STATION DETAILS 1

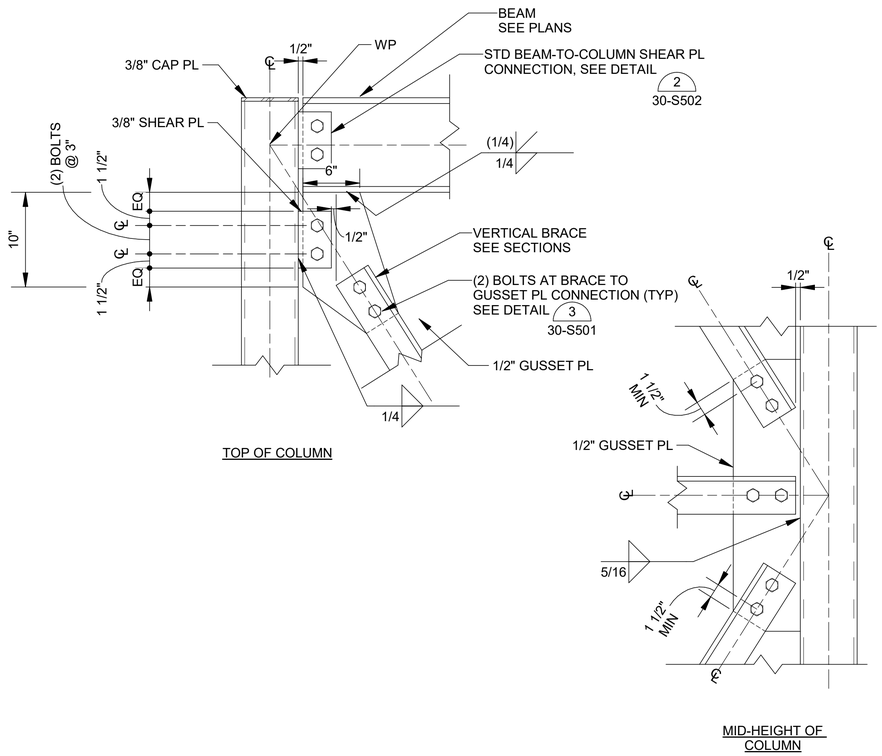
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
30-S501

SHEET NUMBER 88

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_30_PCEPS.rvt
Plot Date: 8/7/2026 1:49:50 PM

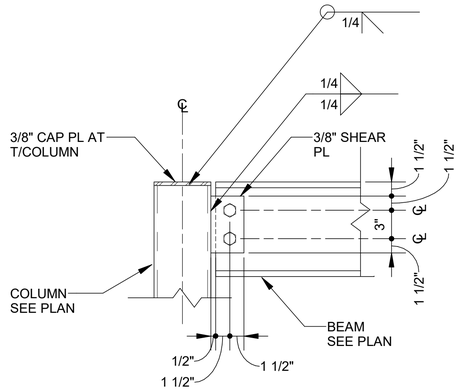


TOP OF COLUMN

MID-HEIGHT OF COLUMN

1 VERT BRACE TO BEAM AND COLUMN CONN DETAIL

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

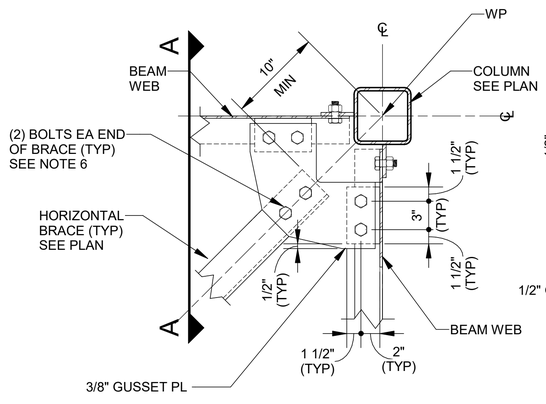


2 STD SHEAR PLATE CONN. DETAIL

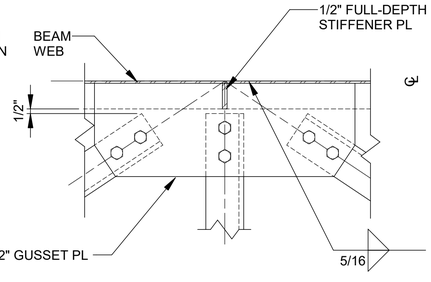
SCALE: 1 1/2" = 1'-0"

NOTES:

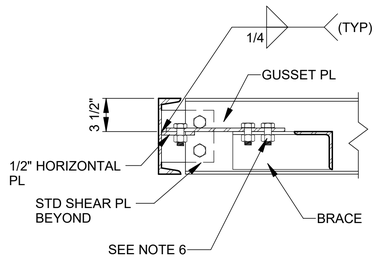
1. FOR GENERAL NOTES, SEE GENERAL DRAWINGS.
2. ALL FRAMING MEMBERS AND PLATES SHALL ALUMINUM, U.N.O.
3. ALL BOLTS AND ANCHORS SHALL BE TYPE 316 STAINLESS STEEL AND BROUGHT TO A SNUG-TIGHT CONDITION, U.N.O.
4. LOCATIONS OF POST-INSTALLED ANCHORS SHALL BE CONFIRMED TO NOT FOUL CONCRETE REINFORCING BARS PRIOR TO INSTALLATION. RESULTING FIELD MODIFICATION OF CONNECTING HARDWARE IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY EOR. SEE SPECIFICATION SECTION 05 05 19 - POST-INSTALLED ANCHORS FOR ADDITIONAL POST-INSTALLED ANCHOR REQUIREMENTS.
5. BOLTS SHALL BE 3/4" ⌀ AND CONNECTIONS SHALL UTILIZE STANDARD BOLT HOLES, U.N.O.
6. FOR CONNECTION OF VERTICAL AND HORIZONTAL BRACE MEMBERS TO GUSSET PLATES, SEE DETAIL 3 / 30-S501



AT BEAM-TO-COLUMN



AT BEAM



SECTION A-A

3 HORIZ BRACE CONN. DETAILS

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

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REGISTRATION NO.
ECA500

ALABAMA LICENSED No. 28656 PROFESSIONAL ENGINEER JACOB N. MONTGOMERY

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PRIMARY EFFLUENT PUMP STATION DETAILS 2

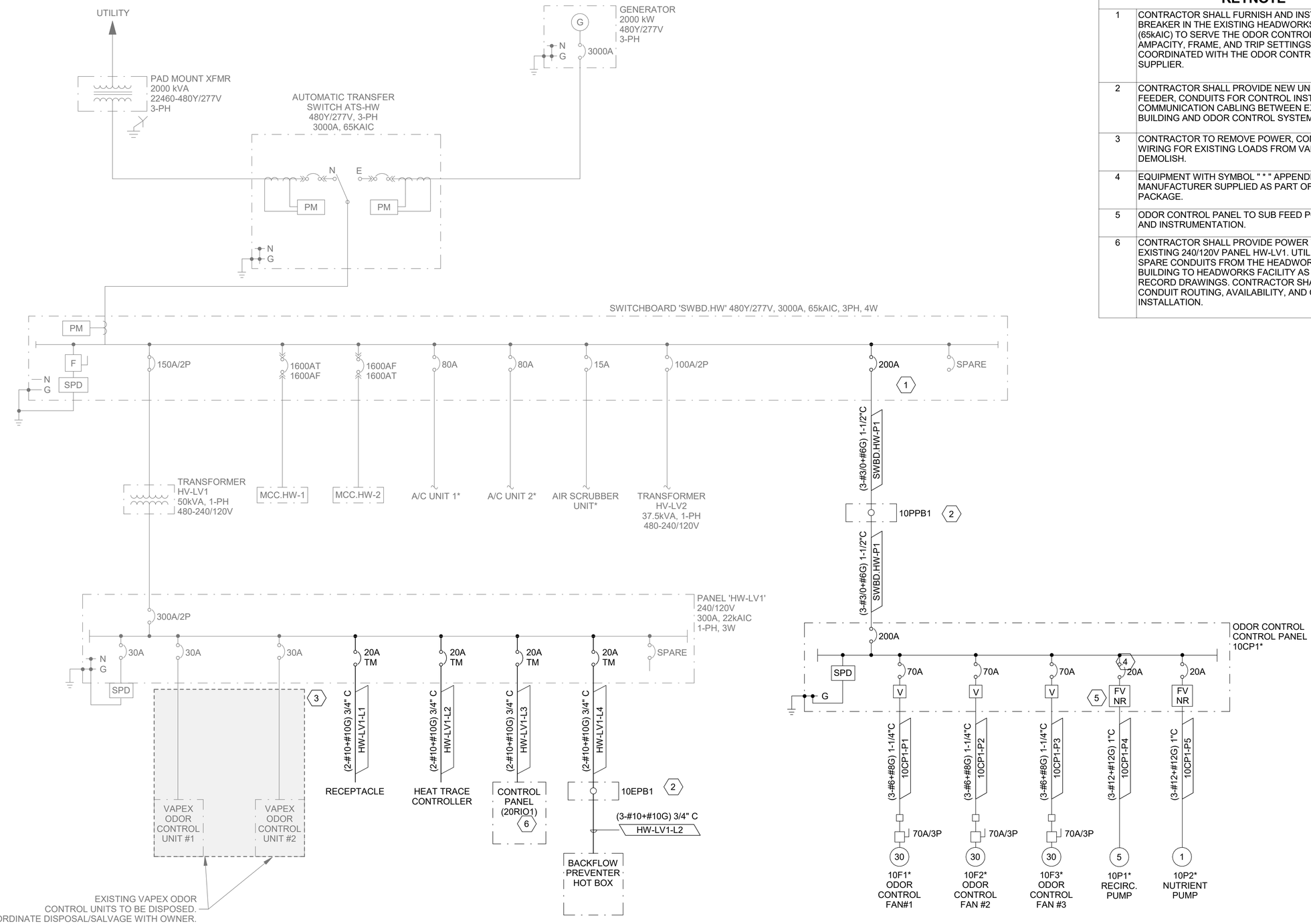
JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: JNM
DRAWN BY: SJB
CHECKED BY: MJS

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER
30-S502

SHEET NUMBER 89

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_30_PCEPS.rvt
Plot Date: 8/7/2026 1:49:51 PM



KEYNOTE

1	CONTRACTOR SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER IN THE EXISTING HEADWORKS SWITCHBOARD (65kAIC) TO SERVE THE ODOR CONTROL SYSTEM. BREAKER AMPACITY, FRAME, AND TRIP SETTINGS SHALL BE COORDINATED WITH THE ODOR CONTROL SYSTEM SUPPLIER.
2	CONTRACTOR SHALL PROVIDE NEW UNDERGROUND POWER FEEDER, CONDUITS FOR CONTROL INSTRUMENTATION, AND COMMUNICATION CABLING BETWEEN EXISTING ELECTRICAL BUILDING AND ODOR CONTROL SYSTEM CONTROL PANEL.
3	CONTRACTOR TO REMOVE POWER, CONTROL, AND SIGNAL WIRING FOR EXISTING LOADS FROM VAPEX UNITS AND DEMOLISH.
4	EQUIPMENT WITH SYMBOL " * " APPENDED TO IT IS MANUFACTURER SUPPLIED AS PART OF EQUIPMENT PACKAGE.
5	ODOR CONTROL PANEL TO SUB FEED POWER FOR DAMPERS AND INSTRUMENTATION.
6	CONTRACTOR SHALL PROVIDE POWER TO 20RIO1 FROM EXISTING 240/120V PANEL HW-LV1. UTILIZE EXISTING 1"C SPARE CONDUITS FROM THE HEADWORKS ELECTRICAL BUILDING TO HEADWORKS FACILITY AS INDICATED ON RECORD DRAWINGS. CONTRACTOR SHALL FIELD VERIFY CONDUIT ROUTING, AVAILABILITY, AND CONDITION PRIOR TO INSTALLATION.

1 / 90-E101 PARTIAL ONE-LINE DIAGRAM
SCALE: NOT TO SCALE

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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

PARTIAL ONE-LINE DIAGRAM

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: NDM
DRAWN BY: NDM
CHECKED BY: JCW

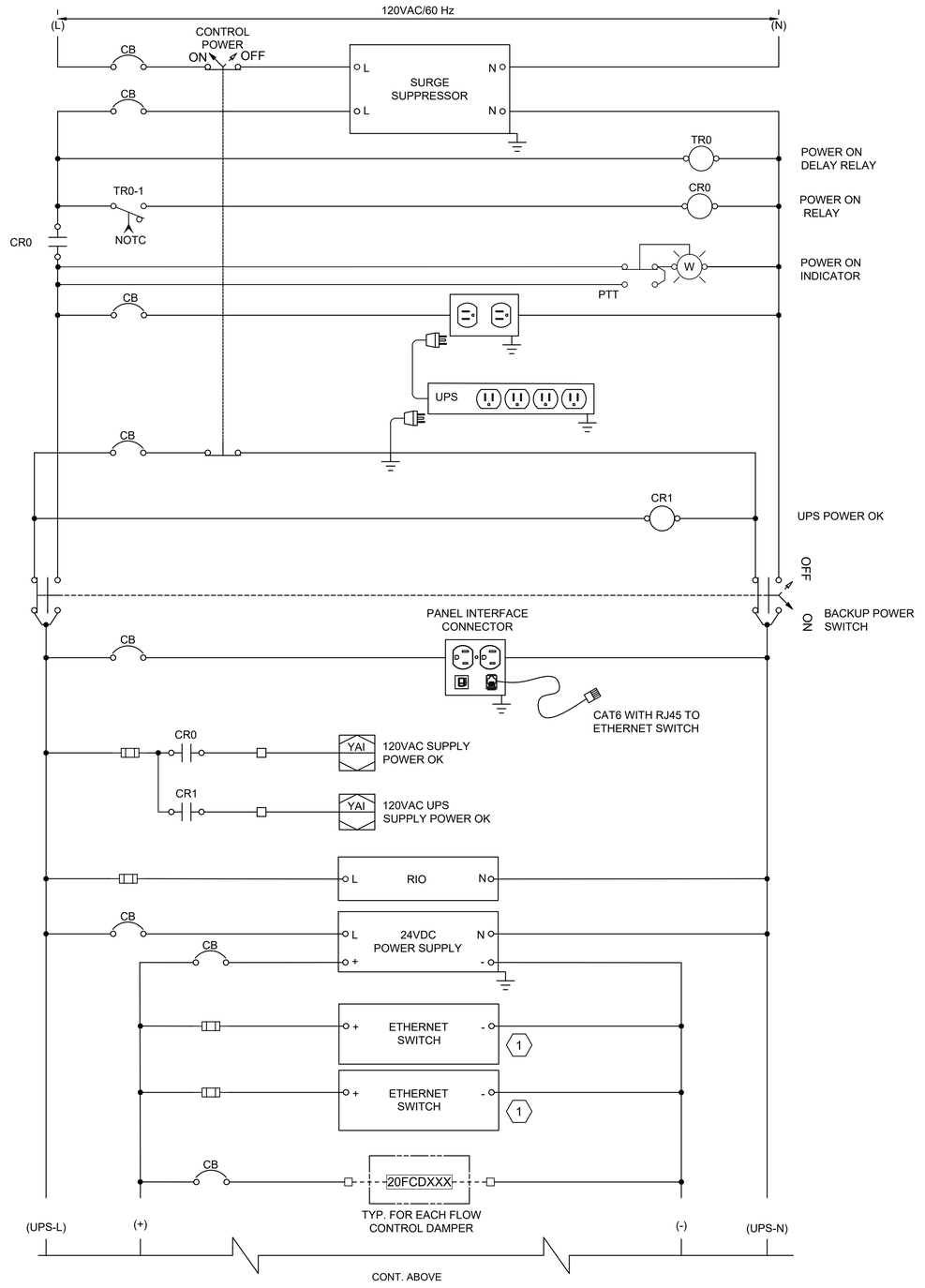
BAR IS ONE INCH ON ORIGINAL DRAWING
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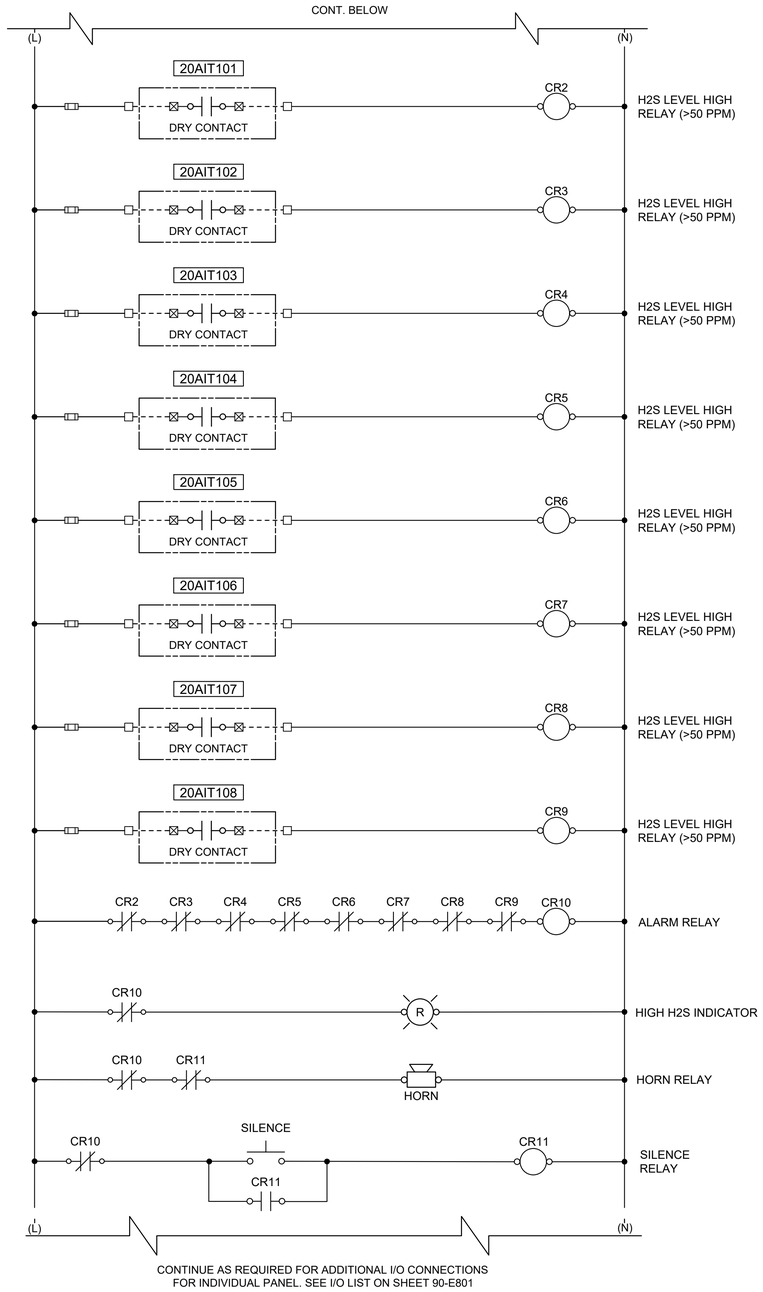
DRAWING NUMBER
90-E101

SHEET NUMBER 90

Revit File: Autodesk Docs://W10-2402007 - MAWSS CC Williams Odor Control System/2402007_90_ELECTRICAL.rvt
Plot Date: 8/7/2026 2:25:36 PM

20RIO1 NEMA 4X





KEYNOTES

1	SEE SCADA ARCHITECTURE FOR ETHERNET CONNECTIONS.

NOTES:

1. PROVIDE A DETAILED SCHEMATIC OF THE RIO CONTROL PANEL AND ALL CONNECTED EQUIPMENT WHICH SHALL INCLUDE COMPONENT LABELS, EQUIPMENT LABELS, WIRE NUMBERS, TERMINAL NUMBERS, ETC. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND WIRING CONFIGURATION OF ALL EXISTING EQUIPMENT. ALL TERMINATIONS OF WIRES SHALL BE MADE ON TERMINAL BLOCKS.
2. THE FINISHED PANEL ASSEMBLY SHALL MEET UL-508 REQUIREMENTS.
3. GENERAL PANEL SCHEMATIC SHOWN. FURNISH AND INSTALL TERMINALS AND NECESSARY PARTS NOT LISTED AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
4. MAKE ALL FINAL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
5. PROVIDE FUSED TERMINAL, BLOCK, FUSE, AND INTERPOSING RELAY FOR EACH AVAILABLE RIO DIGITAL OUTPUT CHANNEL (INCLUDING SPARES).
6. ALL CONNECTIONS TO EXTERNAL DEVICES SHALL BE THROUGH THE USE OF FUSED TERMINAL BLOCKS OR CB.

1 90-E701 RIO CONTROL PANEL SCHEMATIC

SCALE: NONE

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REGISTRATION NO. ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

RIO CONTROL PANEL SCHEMATIC

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWING NUMBER
90-E701

SHEET NUMBER 91

TYPE	UNITS	DESCRIPTION	SOURCE / DESTINATION
AI	*	FLOW CONTROL DAMPER NO. 01 POSITION FEEDBACK	20FCD101
AI	*	FLOW CONTROL DAMPER NO. 02 POSITION FEEDBACK	20FCD102
AI	*	FLOW CONTROL DAMPER NO. 03 POSITION FEEDBACK	20FCD201
AI	*	FLOW CONTROL DAMPER NO. 04 POSITION FEEDBACK	20FCD202
AI	*	FLOW CONTROL DAMPER NO. 05 POSITION FEEDBACK	20FCD203
AI	*	FLOW CONTROL DAMPER NO. 06 POSITION FEEDBACK	20FCD204
AI	*	FLOW CONTROL DAMPER NO. 07 POSITION FEEDBACK	20FCD205
AI	*	FLOW CONTROL DAMPER NO. 08 POSITION FEEDBACK	20FCD206
AI	*	FLOW CONTROL DAMPER NO. 09 POSITION FEEDBACK	20FCD301
AI	*	FLOW CONTROL DAMPER NO. 10 POSITION FEEDBACK	20FCD302
AI	*	FLOW CONTROL DAMPER NO. 11 POSITION FEEDBACK	20FCD303
AI	*	FLOW CONTROL DAMPER NO. 12 POSITION FEEDBACK	20FCD304
AI	*	FLOW CONTROL DAMPER NO. 13 POSITION FEEDBACK	20FCD401
AI	*	FLOW CONTROL DAMPER NO. 14 POSITION FEEDBACK	20FCD402
AI	*	FLOW CONTROL DAMPER NO. 15 POSITION FEEDBACK	20FCD403
AI	*	FLOW CONTROL DAMPER NO. 16 POSITION FEEDBACK	20FCD404
AI	4-20 mA	SCREEN NO. 1 H2S ANALYZER (0-50 PPM)	20AIT101
AI	4-20 mA	SCREEN NO. 2 H2S ANALYZER (0-50 PPM)	20AIT102
AI	4-20 mA	SCREEN NO. 3 H2S ANALYZER (0-50 PPM)	20AIT103
AI	4-20 mA	SCREEN NO. 4 H2S ANALYZER (0-50 PPM)	20AIT104
AI	4-20 mA	H2S ANALYZER (0-50 PPM)	20AIT105
AI	4-20 mA	H2S ANALYZER (0-50 PPM)	20AIT106
AI	4-20 mA	H2S ANALYZER (0-50 PPM)	20AIT107
AI	4-20 mA	H2S ANALYZER (0-50 PPM)	20AIT108
AI	4-20 mA	H2S ANALYZER (0-1000 PPM)	20AIT109
AI	4-20 mA	H2S ANALYZER (0-1000 PPM)	20AIT110
AI	4-20 mA	H2S ANALYZER (0-1000 PPM)	20AIT111
AI	4-20 mA	H2S ANALYZER (0-1000 PPM)	20AIT112
AO	*	FLOW CONTROL DAMPER NO. 01 POSITION SETPOINT	20FCD101
AO	*	FLOW CONTROL DAMPER NO. 02 POSITION SETPOINT	20FCD102
AO	*	FLOW CONTROL DAMPER NO. 03 POSITION SETPOINT	20FCD201
AO	*	FLOW CONTROL DAMPER NO. 04 POSITION SETPOINT	20FCD202
AO	*	FLOW CONTROL DAMPER NO. 05 POSITION SETPOINT	20FCD203
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AO	*	FLOW CONTROL DAMPER NO. 07 POSITION SETPOINT	20FCD205
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AO	*	FLOW CONTROL DAMPER NO. 10 POSITION SETPOINT	20FCD302
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DI	*	FLOW CONTROL DAMPER NO. 01 CLOSED	20FCD101
DI	*	FLOW CONTROL DAMPER NO. 01 REMOTE	20FCD101
DI	*	FLOW CONTROL DAMPER NO. 01 FAULT	20FCD101
DI	*	FLOW CONTROL DAMPER NO. 02 OPENED	20FCD102
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DI	*	FLOW CONTROL DAMPER NO. 03 CLOSED	20FCD201
DI	*	FLOW CONTROL DAMPER NO. 03 REMOTE	20FCD201
DI	*	FLOW CONTROL DAMPER NO. 03 FAULT	20FCD201
DI	*	FLOW CONTROL DAMPER NO. 04 OPENED	20FCD202
DI	*	FLOW CONTROL DAMPER NO. 04 CLOSED	20FCD202
DI	*	FLOW CONTROL DAMPER NO. 04 REMOTE	20FCD202
DI	*	FLOW CONTROL DAMPER NO. 04 FAULT	20FCD202
DI	*	FLOW CONTROL DAMPER NO. 05 OPENED	20FCD203
DI	*	FLOW CONTROL DAMPER NO. 05 CLOSED	20FCD203
DI	*	FLOW CONTROL DAMPER NO. 05 REMOTE	20FCD203
DI	*	FLOW CONTROL DAMPER NO. 05 FAULT	20FCD203
DI	*	FLOW CONTROL DAMPER NO. 06 OPENED	20FCD204
DI	*	FLOW CONTROL DAMPER NO. 06 CLOSED	20FCD204
DI	*	FLOW CONTROL DAMPER NO. 06 REMOTE	20FCD204
DI	*	FLOW CONTROL DAMPER NO. 06 FAULT	20FCD204
DI	*	FLOW CONTROL DAMPER NO. 07 OPENED	20FCD205
DI	*	FLOW CONTROL DAMPER NO. 07 CLOSED	20FCD205
DI	*	FLOW CONTROL DAMPER NO. 07 REMOTE	20FCD205
DI	*	FLOW CONTROL DAMPER NO. 07 FAULT	20FCD205
DI	*	FLOW CONTROL DAMPER NO. 08 OPENED	20FCD206
DI	*	FLOW CONTROL DAMPER NO. 08 CLOSED	20FCD206
DI	*	FLOW CONTROL DAMPER NO. 08 REMOTE	20FCD206
DI	*	FLOW CONTROL DAMPER NO. 08 FAULT	20FCD206
DI	*	FLOW CONTROL DAMPER NO. 09 OPENED	20FCD301
DI	*	FLOW CONTROL DAMPER NO. 09 CLOSED	20FCD301
DI	*	FLOW CONTROL DAMPER NO. 09 REMOTE	20FCD301
DI	*	FLOW CONTROL DAMPER NO. 09 FAULT	20FCD301
DI	*	FLOW CONTROL DAMPER NO. 10 OPENED	20FCD302
DI	*	FLOW CONTROL DAMPER NO. 10 CLOSED	20FCD302
DI	*	FLOW CONTROL DAMPER NO. 10 REMOTE	20FCD302
DI	*	FLOW CONTROL DAMPER NO. 10 FAULT	20FCD302
DI	*	FLOW CONTROL DAMPER NO. 11 OPENED	20FCD303
DI	*	FLOW CONTROL DAMPER NO. 11 CLOSED	20FCD303
DI	*	FLOW CONTROL DAMPER NO. 11 REMOTE	20FCD303
DI	*	FLOW CONTROL DAMPER NO. 11 FAULT	20FCD303
DI	*	FLOW CONTROL DAMPER NO. 12 OPENED	20FCD304
DI	*	FLOW CONTROL DAMPER NO. 12 CLOSED	20FCD304
DI	*	FLOW CONTROL DAMPER NO. 12 REMOTE	20FCD304
DI	*	FLOW CONTROL DAMPER NO. 12 FAULT	20FCD304
DI	*	FLOW CONTROL DAMPER NO. 13 OPENED	20FCD401
DI	*	FLOW CONTROL DAMPER NO. 13 CLOSED	20FCD401
DI	*	FLOW CONTROL DAMPER NO. 13 REMOTE	20FCD401
DI	*	FLOW CONTROL DAMPER NO. 13 FAULT	20FCD401
DI	*	FLOW CONTROL DAMPER NO. 14 OPENED	20FCD402
DI	*	FLOW CONTROL DAMPER NO. 14 CLOSED	20FCD402
DI	*	FLOW CONTROL DAMPER NO. 14 REMOTE	20FCD402
DI	*	FLOW CONTROL DAMPER NO. 14 FAULT	20FCD402
DI	*	FLOW CONTROL DAMPER NO. 15 OPENED	20FCD403
DI	*	FLOW CONTROL DAMPER NO. 15 CLOSED	20FCD403
DI	*	FLOW CONTROL DAMPER NO. 15 REMOTE	20FCD403
DI	*	FLOW CONTROL DAMPER NO. 15 FAULT	20FCD403
DI	*	FLOW CONTROL DAMPER NO. 16 OPENED	20FCD404
DI	*	FLOW CONTROL DAMPER NO. 16 CLOSED	20FCD404
DI	*	FLOW CONTROL DAMPER NO. 16 REMOTE	20FCD404
DI	*	FLOW CONTROL DAMPER NO. 16 FAULT	20FCD404
DI	120VAC	SCREEN NO. 1 H2S HIGH ALARM	20AIT101
DI	120VAC	SCREEN NO. 2 H2S HIGH ALARM	20AIT102
DI	120VAC	SCREEN NO. 3 H2S HIGH ALARM	20AIT103
DI	120VAC	SCREEN NO. 4 H2S HIGH ALARM	20AIT104
DI	120VAC	H2S HIGH ALARM	20AIT105
DI	120VAC	H2S HIGH ALARM	20AIT106
DI	120VAC	H2S HIGH ALARM	20AIT107
DI	120VAC	H2S HIGH ALARM	20AIT108
DI	120VAC	120VAC SUPPLY POWER OK	20RIO1
DI	120VAC	120VAC UPS SUPPLY POWER OK	20RIO1

NOTES:

1. SIGNALS DENOTED WITH "*" ARE VIA MODBUS TCP TO/FROM PLC AND ARE NOT HARD-WIRED.

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REGISTRATION NO.
ECA500

ALABAMA LICENSED NO. 38232 PROFESSIONAL ENGINEER JONATHAN C. WHITE

Digitally Signed 08/10/2026

REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

20RIO1 IO LIST

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWING NUMBER
90-E801

SHEET NUMBER 92

LEGEND:

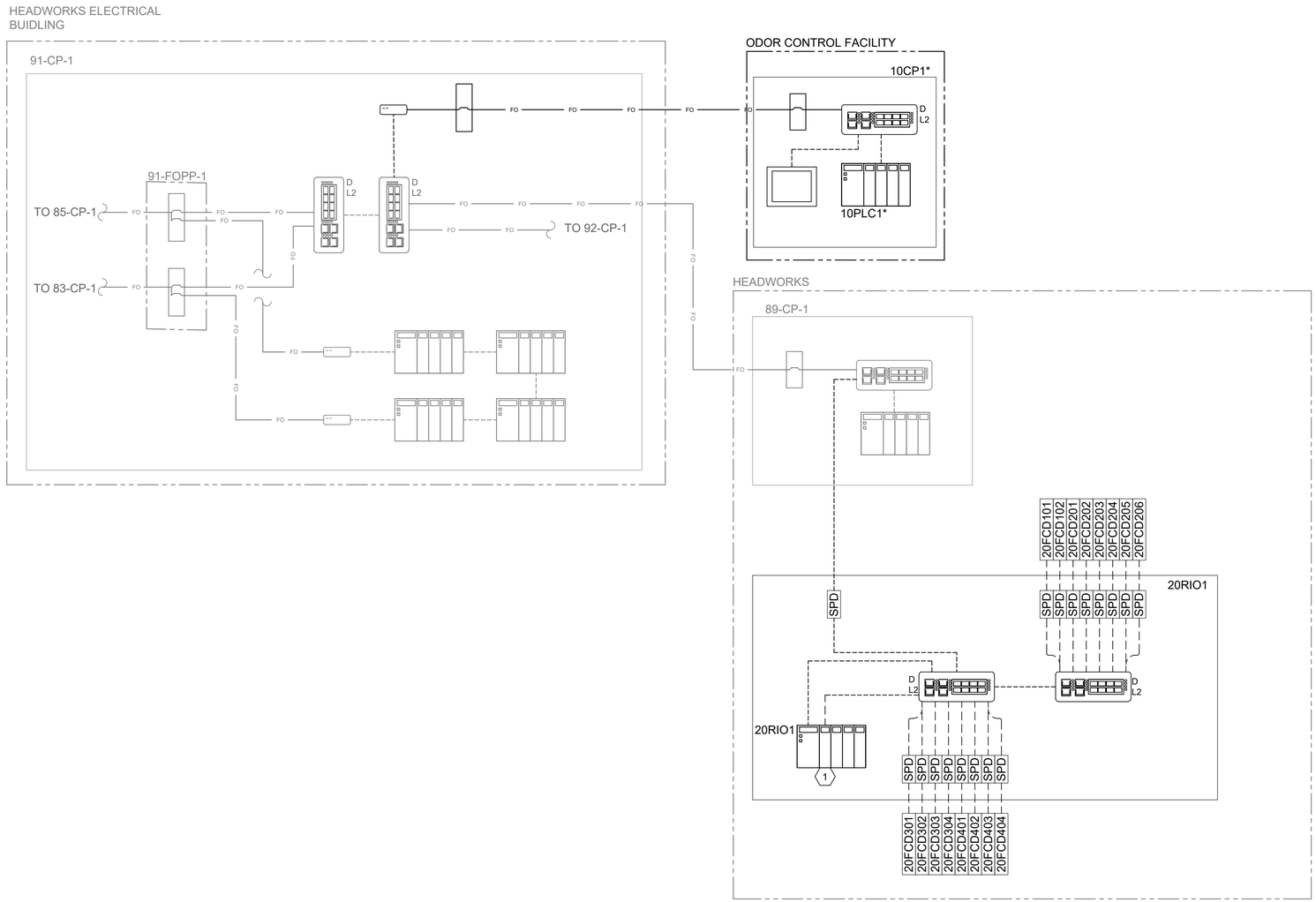
- ETHERNET - COPPER
- ETHERNET - FIBER OPTIC
- COAX. CABLE
- COMM. LINK.
- WIRELESS MODEM
  T: C - CELLULAR
  RF/U - RF UNLICENSED
  RF/L - RF LICENSED
- ROUTER
- FIREWALL
- ETHERNET SWITCH
- OIT
- MOBILE DEVICE
- SERVER
- CAMERA
- WIRELESS ACCESS POINT
- CLIENT WORKSTATION
- PROGRAMMABLE LOGIC CONTROLLER
- FIBER PATCH PANEL
- MEDIA CONVERTER
- SPD — LOW VOLTAGE SURGE PROTECTION MODULE

NOTES:

1. NEW EQUIPMENT/CONNECTIONS ARE SHOWN AS DARK/BOLD. EXISTING EQUIPMENT/CONNECTIONS ARE SHOWN AS LIGHT/FADED.
2. CONTRACTOR TO VERIFY SCADA NETWORK AND COORDINATE REQUIREMENTS WITH CONTROL SYSTEM SPECIALIST AND OWNER PRIOR TO CONSTRUCTION

KEYNOTES

1	MODBUS TCP/IP NETWORK INTERFACE MODULE SHALL BE INSTALLED IN AN AVAILABLE SLOT IN THE RIO CHASSIS. MODULE SHALL CONNECT DIRECTLY TO PROPOSED ETHERNET SWITCH.



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REGISTRATION NO.
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REV	DATE	DESCRIPTION	BY

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

SCADA ARCHITECTURE DIAGRAM

JOB NO.: 2402007
DATE: AUG. 2026
DESIGNED BY: RAP
DRAWN BY: RAP
CHECKED BY: JCW

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90-T101

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