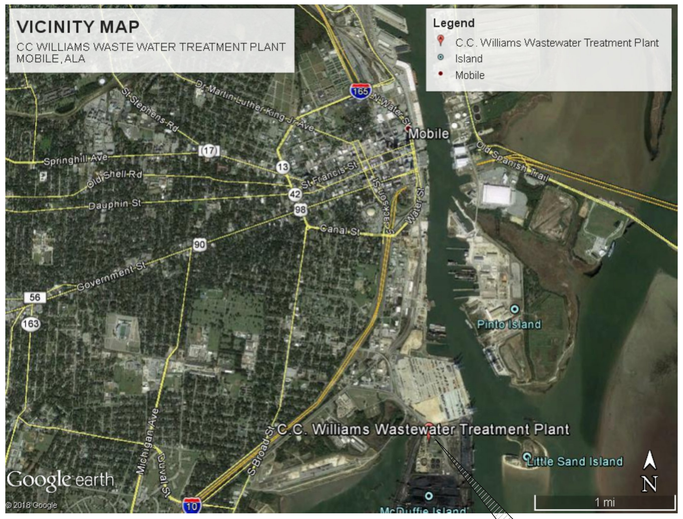
CC WILLIAMS WWTP
DEWATERING AND OTHER IMPROVEMENTS



PROJECT VICINITY MAP

CC WILLIAMS WWTP

MOBILE AREA WATER & SEWER SYSTEM

PREPARED FOR THE

MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, ALABAMA

DRAWINGS
VOLUME 4 OF 4

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JACOBS D3226100

CONFORMED MAY 2021

CONFORMED DOCUMENTS

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NO.	DATE	REVISION	BY	APVD
DSGN	D CARR	DR	K RINER	CHK
				P DORAN
				APVD
				D CARR

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
DRAWING INDEX
SHEET 1

CONFORMED DOCUMENTS

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VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
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DATE	MAY 2021
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SHEET NO	DWG NO	DESCRIPTION
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234	99-S-5012	STRUCTURAL STANDARD DETAILS
235	99-S-5013	STRUCTURAL STANDARD DETAILS
236	99-S-5014	STRUCTURAL STANDARD DETAILS
237	99-S-5015	STRUCTURAL STANDARD DETAILS
238	99-S-5016	STRUCTURAL STANDARD DETAILS
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265	99-TY-5001	SECURITY DETAILS
266	99-TY-5002	SECURITY DETAILS
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268	99-TY-5004	SECURITY DETAILS
269	99-TY-5005	SECURITY STANDARD DETAILS
270	99-TY-5006	SECURITY STANDARD DETAILS

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	D CARR		K RINER	P DORAN		D CARR

CONFORMED DOCUMENTS

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
DRAWING INDEX SHEET 2

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
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ABBREVIATIONS

A	AMMETER, AMPERES, AWNINGS
AB	ANCHOR BOLT, ABOVE
ABDN	ABANDON
AC	ACOUSTICAL, ACOUSTICAL CEILING
AC	ALTERNATING CURRENT
AC	ASPHALTIC CONCRETE
ACFL	ACCESS FLOORING
ACI	AMERICAN CONCRETE INSTITUTE
ACMU	ACOUSTICAL CONCRETE MASONRY UNIT, ACOUSTICAL CMU
ACP	ACOUSTICAL PANELS
ACST	ACOUSTICAL
ACT	ACOUSTICAL TILE
AD	AREA DRAIN
ADDL	ADDITIONAL
ADJ	ADJACENT
ADW	DRY WEATHER AVERAGE
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	ACOUSTICAL, ACOUSTICAL GLASS
AGGR	AGGREGATE
AHR	ANCHOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AJ	ADJUSTABLE
AL	ALUMINUM
ALTN/ALT	ALTERNATE
AM	AUTO-MANUAL
APPROX	APPROXIMATE
APVD	APPROVED
ARCH	ARCHITECTURAL
AR	ANALOG RELAY
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
@	AT
BAL	BALANCE
BETW	BETWEEN
BF	BLIND FLANGE, BOTTOM FACE
BFV	BUTTERFLY VALVE
BL	BASELINE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BLK	BLOCK
BM	BEAM, BENCHMARK
BO	BOTTOM OF
B.O.B.	BOTTOM OF BEAM
BLL	BOTTOM LOWER LAYER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BRKR	BREAKER
BSP	BLACK STEEL PIPE
BUL	BOTTOM UPPER LAYER
BV	BALL VALVE, BLOCK VENT
C	CONDUIT, CASEMENT
°C	DEGREE CELSIUS
C TO C	CENTER TO CENTER
CAB	CABINET
CB	CATCH BASIN, CIRCUIT BREAKER
CC	CONTROL CABLE
CCP	CENTRAL CONTROL PANEL
CCS	CENTRAL CONTROL SYSTEM
CDF	CONTROLLED DENSITY FILL
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHEM	CHEMICAL
CHKD	CHECKERED
CI	CAST IRON
CIP	CAST IRON PIPE, CAST IN PLACE
CIP	CULVERT INLET PROTECTION
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE
CLDI	CEMENT LINED DUCTILE IRON
CLSF	CONTROLLED LOW STRENGTH FILL
CLG	CEILING
CLR	CLEAR, CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CLEANOUT, CARBON MONOXIDE
COL	COLUMN, COLOR
CONC	CONCRETE
COND	CONDENSATE
CONDTN	CONDITIONED
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUED, CONTINUOUS, CONTINUATION
CONTR	CONTRACTOR
COORD	COORDINATE
COP	COPPER
CP-X	CONTROL PANEL NO. X
CPLG	COUPLING
CPRSR	COMPRESSOR
CPT	CONTROL POWER TRANSFORMER, CARPET
CPVC	CHLORINATED PVC
CR	CONTROL RELAY
CRS	COLD ROLLED STEEL
CRS	CONSTRUCTION ROAD STABILIZATION
CT	CURRENT TRANSFORMER
CTC	COMPUTER TERMINAL CABINET
CTR	CENTER
CTRD	CENTERED
CTSK	COUNTERSUNK
CU	CUBIC
CU FT	CUBIC FOOT
CU IN	CUBIC INCH
CUH	COPPER TUBING, HARD DRAWN
CV	CHECK VALVE
CY, CU YD	CUBIC YARD
D	DEEP, DRAIN
d	PENNY NAIL SIZE
DA	DUAL ACTION
DAS	DATA ACQUISITION SYSTEM
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DET	DETAIL
DF	DRINKING FOUNTAIN
DDI	DROP INLET
DH	DOUBLE HUNG
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL
DIP	DUCTILE IRON PIPE
DIR	DIRECTION
DISCH	DISCHARGE
DJ	DISMANTLING JOINT
DL	DEAD LOAD
DN	DOWN
DOL	DIRECT-ON-LINE
DP, DPNL	DISTRIBUTION PANEL
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
DWL	DOWEL
△	DELTA
E	EAST, EMPTY
EA	EACH, EXHAUST AIR
ECC	ECCENTRIC
EE	EMERGENCY EYEWASH
EF	EACH FACE, EXHAUST FAN
EFF	EFFICIENCY, EFFICIENT
EFL	EFFLUENT
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EL	ELEVATION
ELB	ELBOW
ELC	ELECTRICAL LOAD CENTER
ELEC	ELECTRIC, ELECTRICAL
ENGR	ENGINEER
EOP	EDGE OF PAVEMENT
ESC	EROSION AND SEDIMENT CONTROL
EP	EXPLOSION PROOF, EDGE OF PAVING
EQL	EQUAL
EQL SP	EQUALLY SPACED
EQPT	EQUIPMENT
ETM	ELAPSED TIME METER
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPANSION, EXPOSED
EXP AB	EXPANSION ANCHOR BOLT
EXP JT	EXPANSION JOINT
EXST, EXIST	EXISTING
EXT	EXTERIOR
°F	DEGREE FAHRENHEIT
F, FU	FUSE
F, FX	FIXED
FAP	FIRE ALARM PANEL
FC	FLEXIBLE CONDUIT
FCA	FLANGED COUPLING ADAPTER
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FD	FLOOR DRAIN
FDN	FOUNDATION
FDR	FEEDER
FEXT	FIRE EXTINGUISHER
FF	FINISHED FLOOR
FG	FINISH GRADE, FLOAT GLASS
FHY	FIRE HYDRANT
FIG	FIGURE
FL	FLOW LINE
FLG	FLANGE
FL	FLOOR
FLEX	FLEXIBLE
FLTR	FILTER
FLUOR	FLUORESCENT
FNSH	FINISH
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FP	FIELD PANEL
FPM	FEET PER MINUTE
FR	FORWARD REVERSE
FRCF	FIBER REINFORCED CONCRETE FILL
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT OR FEET
FTG	FOOTING
FU	FIXTURE UNIT
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
FWD	FORWARD
G, GND	GROUND
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GROOVED COUPLING
GCMU	GLAZED CONCRETE MASONRY UNITS
GFA	GROOVED FLANGE ADAPTER
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GL	GLASS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GLOBAL POSITION SYSTEM
GRTG	GRATING
GSB	GYPSUM SOFFIT BOARD
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GVL	GRAVEL
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
H	HIGH, HORN
H.A.S.	HEADED ANCHOR STUD
HC	HOLLOW CORE WOOD
HDNR	HARDENER
HDNS	HARDNESS
HDR	HEADER
HDW	HARDWARE
HGL	HYDRAULIC GRADE LINE
HK	HOOK
HGT	HEIGHT
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HK	HOOK
HM	HOLLOW METAL
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPT	HIGH POINT
HPU	HYDRAULIC POWER UNIT
HR	HOSE RACK, HANDRAIL
HV	HOSE VALVE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
IBO	INSTALLED BY OTHERS
IC	INTERRUPTING CAPACITY
ID	INDUCED DRAFT, INSIDE DIAMETER
IE	INVERT ELEVATION
I.F.	INSIDE FACE
IG	INSULATING, INSULATING GLASS
IN	INCH
INCAND	INCANDESCENT
INFL	INFLUENT
INJS	INJECTIONS
INST	INSTANTANEOUS
INSTM	INSTRUMENT, INSTRUMENTATION
INSUL	INSULATION
INVT	INVERT
IP	INLET PROTECTION, INSTRUMENTATION PANEL
IRRIG	IRRIGATION
ITG	INSULATED TEMPERED GLASS
ITX	ISOLATION TRANSFORMER
IU	INTAKE UNIT
IW	IRRIGATION WELL
JA	JALOUSIE, JAL-AWNING
JB	JUNCTION BOX
JAN	JANITOR
JCT	JUNCTION
JT	JOINT
K	KEY GROUP, KEY INTERLOCK
KIP	THOUSAND POUNDS
K-PL	KICKPLATE
kPa	KILOPASCAL
KSK	KITCHEN SINK
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATT
L	ANGLE, LENGTH
LA	LIGHTNING ARRESTER
LAB	LABORATORY
LAM	LAMINATE
LAT	LATITUDE
LB	POUND
LC	LIGHTING CONTACTOR
LD	COMBINATION LOUVER/DAMPER
LDG	LOADING DOCK
LEL	LOWER EXPLOSIVE LIMIT
LF	LINEAR FEET
LG	LONG
LH	LEFT HAND
LL	LIVE LOAD
LHR	LEFT HAND REVERSE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG	LONGITUDINAL
LOS	LOCK-OUT STOP PUSHBUTTON
LP	LIGHT POLE, LIGHTING PANEL, LOCAL PANEL
LPT	LOW POINT
LR	LATCHING RELAY
LR	LOCAL-REMOTE
LR	LONG RADIUS
LS	LABORATORY SINK
LT	LEFT
LTG, LTS	LIGHTS OR LIGHTING
LTX	LIGHTING TRANSFORMER
LWL	LOW WATER LEVEL
MA	MANUAL-AUTO
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MASONRY CLEARANCE
MC	MODULATE-CLOSE
MCC	MOTOR CONTROL CENTER
MCJ	MASONRY CONTROL JOINT
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MFD	MANUFACTURED
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE, MOUNTING HEIGHT
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MLO	MAIN LUGS ONLY
MMP	MECHANICAL MOUNTING PANEL
MO	MANUAL OPERABLE, MASONRY OPENING
MP	METAL PANEL
MPa	MEGAPASCAL
MPU	MULTIPURPOSE UNIT
MS	MANUFACTURER'S STANDARD
MSC	MANUFACTURER SUPPLIED CABLE
MSH	MOTOR SPACE HEATER
MSR	GROUPED MOTOR CONTROL
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MTS	MILL TYPE STEEL PIPE
MU	MULCHING
MV	MERCURY VAPOR
MWS	MAXIMUM WATER SURFACE
N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NA	NON-AUTOMATIC
NC	NORMALLY CLOSED
NEUT	NEUTRAL
NG	NATURAL GAS
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO., #	NUMBER
NOM	NOMINAL
NP	NON-PROTECTED
NPT	NATIONAL PIPE THREADS
NS	NON-SHRINK
NTS	NOT TO SCALE
O2	OXYGEN
O TO O	OUT TO OUT
OA	OVERALL, ODOROUS AIR
OC	ON CENTER
OC	OPEN-CLOSE (O)
OCA	OPEN-CLOSE-AUTO
OCR	OPEN-CLOSE-REMOTE
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
O.F.	OUTSIDE FACE
OL	OVERLOAD RELAY
OO	ON-OFF
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
OP	OPAQUE PANEL, OUTLET PROTECTION
OPER	OPERATOR
OPNG	OPENING
OPP	OPPOSITE
OSA	OUTSIDE AIR
OSC	OPEN-STOP-CLOSE
OSD	OPEN SITE DRAIN
OWSJ	OPEN WEB STEEL JOIST
OZ	OUNCE
P	PROJECTED
P	PILASTER, PIPE
PB	PUSHBUTTON SWITCH
PC	POINT OF CURVE, PHOTOCELL
PC	PRECAST CONCRETE PANEL
PCCP	PRECAST CONCRETE CYLINDER PIPE
PCV	PRESSURE CONTROL VALVE
PE	PLAIN END
PED	PEDESTAL, PEDESTRIAN
PEP	POLYETHYLENE PIPE
PEN.	PENETRATION
PFC	POUNDS PER CUBIC FOOT
pH	HYDROGEN ION CONCENTRATION
PH	PHASE
PI	POINT OF INTERSECTION
PJF	PREMOLDED JOINT FILLER
PL	PLATE (STEEL)
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER, PLASTIC
PLC	PROGRAMMABLE LOGIC CONTROLLER
PLYWD	PLYWOOD
PNL	PANEL
PP	POWER POLE
P-P	PUSH-PULL
PPL	POLYPROPYLENE LINED
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATION
PRES	PRESSURE
PRI	PRIMARY
PRM	PERMANENT REFERENCED MARKER
PROJ	PROJECTION
PROP	PROPERTY
PS	PLASTIC SHEET, POLYCARBONATE SHEET
PS	PAINT SYSTEM
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH, GAUGE
PT	POINT OF TANGENCY
PT	POTENTIAL TRANSFORMER
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QT	QUARRY TILE
R	RISER
R OR RAD	RADIUS
RA	RETURN AIR
RC	REINFORCED CONCRETE
RCIPC	REINFORCED CAST-IN-PLACE CONCRETE
RCP	REINFORCED CONCRETE PIPE
RCPT	RECEPTACLE

NOTES:

1. CONTACT ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.

GENERAL NOTE:

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NO.	DATE	REVISION	BY	APVD
DSGN	D CARR	DR K RINER CHK P DORAN	D CARR	APVD

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
ABBREVIATIONS
SHEET 1

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
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CONFORMED DOCUMENTS

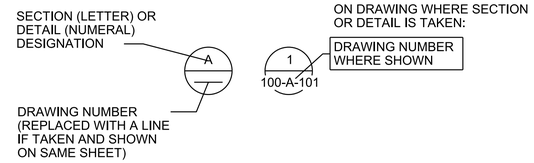
ABBREVIATIONS

RD	ROAD, ROOF DRAIN
RDCR	REDUCER
RECIR	RECIRCULATION
REF	REFER OR REFERENCE
REFR	REFRIGERATE, REFRIGERANT
REINF	REINFORCED, REINFORCING, REINFORCE
REQD	REQUIRED
RESIL	RESILIENT
RFS	ROLL-UP FIRE SHUTTER
RH	RIGHT HAND
RH	RODHOLE
RHR	RIGHT HAND REVERSE
RL	RAIN LEADER
RLD	RAIN LOAD
RM	ROOM
RO	ROUGH OPENING
ROL	RAISE-OFF-LOWER
RPM	REVOLUTIONS PER MINUTE
RR	RIPRAP
RS	RIGID STEEL
RST	REINFORCING STEEL
RT	RIGHT
RTN	RETURN
RUB	RUBBER
RUBC	RUBBER CUSHIONED FLOORING
RUBS	RUBBER ESD CONTROL FLOORING
R/W	RIGHT OF WAY
S	I-BEAM
S	SLOPE, SOUTH, SWITCH
SA	SUPPLY AIR
SATC	SUSPENDED ACOUSTICAL TILE CEILING
SB	SEDIMENT BASIN
SC	SHOWER CURTAIN, SOLID CORE WOOD
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SCC	SOLID CORE
SCFM	STANDARD CUBIC FEED PER MINUTE
SCHED	SCHEDULE
SCU	SPEED CONTROL UNIT
SDP	SUB-DISTRIBUTION PANEL
SDWK	SIDEWALK
SEC	SECONDARY
SECT	SECTION
SED	SEDIMENTATION
SEW	SEWAGE
SG	LAMINATED SAFETY GLASS, SAFETY
SGWB	SUSPENDED GYPSUM WALL BOARD
SH	SHEET
SHA	SURFACE HARDENING AGENT
SHS	SOLIDS HANDLING SYSTEM
SIM	SIMILAR
SK	SINK
SL	SNOW LOAD
SLR	SEALER
SMLS	SEAMLESS EPOXY
SOI	SPRAY- ON INSULATION
SOLN	SOLUTION
SP	SPACE OR SPACES, SPANDREL PANEL, STORMPROOF
SPEC, SPECS	SPECIFICATIONS
SPD	SUMP PUMP DISCHARGE
SPG	SPACING
SPLY	SUPPLY
SQ	SQUARE
SQ FT	SQUARE FOOT, FEET
SQ IN	SQUARE INCH
SR	SHORT RADIUS
SS	START-STOP
SST	STAINLESS STEEL
SSC	SUPERVISORY SET POINT CONTROL
ST	STORM DRAIN
ST	STRAIGHT
STA	STATUS, STATION
STD	STANDARD
STIF	STIFFENER
STIRR	STIRRUP
STL	STEEL
STRL	STRUCTURAL
STRUCT	STRUCTURE
SUBFL	SUBFLOOR
SUSP	SUSPENDED
SV	SOLENOID VALVE
SVIN	SHEET VINYL
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYMM	SYMMETRICAL
T	THERMOSTAT, TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TA	TRANSFER AIR
TAN	TANGENT
TB	TERMINAL BOARD
TBG	TUBING
TC	TIME TO CLOSE
TCAD	TIME CLOSE AFTER DE-ENERGIZATION
TCAE	TIME CLOSE AFTER ENERGIZATION
TDH	TOTAL DYNAMIC HEAD
TDR	TIME DELAY RELAY
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPORARY, TEMPERATURE
TF	TOP FACE
TFG	TEMPERED FLOAT GLASS
TG	TEMPERED
TH	TOP-HINGED
THD	THREAD
THK	THICKNESS
THRU	THROUGH
TJB	TERMINAL JUNCTION BOX
T.O.	TIME TO OPEN, TOP OF
TOAE	TIME OPEN AFTER ENERGIZATION
TOC	TOP OF CONCRETE
TOC	TOP OF CURB
TOD	TIME ON DELAY, TOP OF DUCT
TOF	TOP OF FOOTING
TOG	TOP OF GROUT, TOP OF GRATE
T.O.P.	TOP OF PARAPET
TOS	TOP OF SLAB
TOW	TOP OF WALL
TP	TURNING POINT
TPS	THERMAL PROTECTIVE SYSTEM
TR	TRANSOM, TRUSS
TRANS	TRANSFORMER, TRANSITION
TRANSV	TRANSVERSE
TRD	TREAD
TS	TEMPORARY SEEDING, TUBE STEEL
TSHT	THRESHOLD
TSS	TOTAL SUSPENSION SOLIDS
TST	TOP OF STEEL
TTC	TELEPHONE TERMINAL CABINET
TTD	TOILET TISSUE DISPENSER
TU-X	TREATMENT UNIT NO. X
TURB	TURBIDITY
TWP	TRANSLUCENT WALL PANEL
TX	TRANSFORMER
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIT SUBSTATION
UVR	UNDER VOLTAGE RELAY
V	VENT, VALVE
V	VOLTMETER, VOLTS
VB	VAPOR BARRIER (RETARDER)
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE
VEL	VELOCITY
VERT	VERTICAL
VHC	VOLATILE HYDROCARBONS
VIB	VIBRATION
VIF	VERIFY IN FIELD
VIN	VINYL
VINT, VT	VINYL TILE
VP	VERTICAL PIVOTED
VPS	VENEER PLASTER SYSTEM
VPC	POINT OF VERTICAL CURVATURE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
VS	VERTICAL SLIDE
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	WEST
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WEASTRIP	WEATHERSTRIP
WG	WIRE, WIRE GLASS
WH	WATTHOUR METER
WHD	WATTHOUR DEMAND METER
WP	WATERPROOF, WEATHERPROOF, WORKPOINT
WR	WASTE RECEPTACLE
WRB	WATER RESISTANT GWB
WS	WATER SURFACE, WATERSTOP, WELDED STEEL
WWF	WELDED WIRE FABRIC

NOTES:

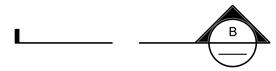
1. CONTACT ENGINEER FOR ABBREVIATIONS USED BUT NOT SHOWN ON THIS DRAWING.

SECTION / DETAIL DESIGNATIONS

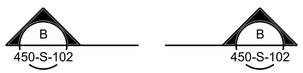


DRAWING TITLE
SCALE

ON DRAWING WHERE ONLY A TITLE IS REQUIRED WITH NO REFERENCE (eg: ELEVATIONS)



SECTION CALLOUT WHERE SECTION IS ON THE SAME SHEET AND CUT EXTENDS TO A FIXED LIMIT



SECTION CALLOUT WHERE SECTION IS ON ANOTHER SHEET AND CUT EXTENDS THROUGHOUT ENTIRE SHEET

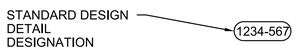
1 — GRID LINE INDICATOR

1 — KEYNOTE NUMBER

1 — REVISION / ADDENDA NUMBER

N — NORTH ARROW; CAN BE MODIFIED TO INCLUDE MAGNETIC NORTH ALONG WITH PROJECT NORTH

STANDARD DESIGN DETAIL DESIGNATION



NOTES:

1. ALL DESIGN DETAILS ARE TYPICAL AND MUST BE USED IF DESIGN DETAIL DESIGNATION IS NOT SHOWN
2. THE TERM STANDARD DETAIL, OR A FORM OF IT, IS SYNONYMOUS WITH DESIGN DETAIL. THE DESIGN DETAILS REPRESENT THE CHARACTER AND NATURE OF THE WORK REQUIRED THROUGHOUT THE PROJECT. ALL ASSOCIATED WORK SHALL BE IN ACCORDANCE WITH THE DESIGN DETAILS SHOWN WHETHER THE DETAILS ARE SPECIFICALLY REFERENCED OR NOT.

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SHEET 2

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NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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SURVEY NOTES

1. THE TOPOGRAPHIC AND BOUNDARY SURVEY SERVING AS THE BASE MAP WAS PREPARED BY McCRORY WILLIAMS INCORPORATED, SEPTEMBER 2019.
2. HORIZONTAL DATUM: NAD 83 ALABAMA WEST.
3. VERTICAL DATUM: NAVD 1988.
4. THE McCRORY WILLIAMS SURVEY USED CONTROL POINTS ARCS 4, ARCS 8, ACRS 11, AND ACRS 3804 (SEE PLANS) FOR VERTICAL AND HORIZONTAL CONTROL. CONTROL POINTS LOCATED WITHIN THE CONSTRUCTION AREA AND SHALL BE RE-ESTABLISHED. AT LEAST 3 NEW PERMANENT BENCHMARKS SHALL BE LOCATED ONSITE.
5. HORIZONTAL & VERTICAL CONTROL POINTS ARE ALUMINUM CAPPED 1/2" REBAR SET FLUSH WITH GROUND. SURVEY IS IN STATE PLANE ALABAMA WEST ZONE. ELEVATIONS ARE NAVD 88 DATUM DERIVED FROM GPS OBSERVATIONS UTILIZING CORS STATION AL 90.
6. MAINTAIN, RELOCATE, OR REPLACE EXISTING SURVEY MONUMENTS, CONTROL POINTS, AND STAKES WHICH ARE DISTURBED OR DESTROYED. PERFORM THE WORK TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENT(S) IN A TIMELY MANNER, AND AT THE CONTRACTOR'S EXPENSE.
7. EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
8. CONTRACTOR SHALL RELOCATE EXISTING SURVEY CONTROL POINT(S) AS REQUIRED TO PRODUCE THE SAME LEVEL OF ACCURACY AS THE ORIGINAL MONUMENTS.

CIVIL NOTES

1. COORDINATES AND DIMENSIONS SHOWN ARE TO THE OUTER EDGE OF STRUCTURE, POINT OF INTERSECTION, POINT OF TANGENT, OR AS INDICATED ON THE DRAWINGS.
2. ELEVATIONS GIVEN ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS AS SHOWN.
3. ADDITIONAL INFORMATION REGARDING EXISTING BURIED UTILITIES IS PROVIDED IN THE HISTORICAL DRAWINGS AS INCLUDED AS AN APPENDIX TO THE CONTRACT DRAWINGS. EXISTING UNDERGROUND UTILITIES OBTAINED FROM AS-BUILTS AND FROM FIELD SURVEY. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION PRIOR TO EXCAVATION. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
4. UNLESS OTHERWISE SHOWN ALL PIPING SHALL HAVE A MINIMUM OF 3 FEET COVER.
5. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
6. CONTRACTOR SHALL MINIMIZE ANY DISTURBANCE OF AREAS OUTSIDE OF THE INDICATED WORK AREA. ALL SUCH DISTURBANCES SHALL BE REPAIRED AT NO ADDITIONAL COST. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE OF EXISTING PARCEL.
7. THE CONTRACTOR SHALL REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, IRRIGATION LINES, CONDUIT, CABLES, ETC. AS A RESULT OF THE CONSTRUCTION ACTIVITIES.
8. NO DEBRIS OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ON-SITE. ALL SUCH MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
9. ALL REFERENCES TO ALABAMA DEPARTMENT OF TRANSPORTATION (ALDOT) SPECIFICATIONS REFER TO ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION, UNLESS OTHERWISE NOTED.
10. ALL SITE WORK, MATERIAL, AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE MOBILE AREA WATER AND SEWER SYSTEM (MAWSS) STANDARDS AND THE LATEST EDITION OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED. IN THE EVENT OF CONFLICTS OR OMISSIONS FROM THE CONSTRUCTION DOCUMENTS, MAWSS STANDARDS SHALL PREVAIL.
11. ALL DISTURBED AREAS NOT SCHEDULED FOR PAVEMENT SHALL BE SODDED. ALL AREAS WITH SLOPES GREATER THAN 1-IN-4 SHALL BE SODDED AND STAKED.
12. ALL OPERATIONS OF VALVING WITHIN ACTIVE TREATMENT PLANT COMPONENTS WILL BE BY PLANT STAFF ONLY. SUBMIT ALL VALVING OPERATION REQUESTS TO THE OWNER IN WRITING.
13. THE COST FOR DEWATERING AND EROSION CONTROL SHALL BE INCLUDED IN THE PRICE FOR ITEMS OF WORK IN THE BID SCHEDULE.
14. EXISTING CONDITIONS MAY VARY FROM THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ALONG EACH PIPE MAIN ROUTE PRIOR TO COMMENCING CONSTRUCTION OF THAT MAIN. IF THE PROPOSED MAIN IS FOUND TO BE IN CONFLICT WITH EXISTING UTILITIES, THE LINE AND GRADE OF THE PROPOSED MAINS SHALL BE ADJUSTED TO MINIMIZE THE CONFLICTS AT NO ADDITIONAL COST TO THE OWNER. SIGNIFICANT ROUTE MODIFICATIONS MUST BE APPROVED BY THE ENGINEER.
15. DEWATERING DURING EXCAVATION AND BACKFILLING OPERATIONS SHOULD BE ANTICIPATED. SHOULD CONTINUOUS DEWATERING BECOME NECESSARY, A WELL POINT SYSTEM MAY BE NECESSARY. CONTRACTOR IS RESPONSIBLE FOR PROCURING ALL PERMITS ASSOCIATED WITH DEWATERING DURING CONSTRUCTION.
16. ALL PROPOSED YARD PIPING SHALL CONNECT TO EXISTING WHERE INDICATED IN THE PLANS. UTILIZE SLEEVES AND FITTINGS AS NECESSARY.
17. ALL YARD PIPING EXCEPT GRAVITY SEWER SHALL HAVE RESTRAINED JOINTS.
18. BACKFILL ALL RESULTING EXCAVATIONS OR VOIDS TO THE PROPOSED GRADE WITH SELECT FILL MATERIAL COMPACTED AS SPECIFIED.
19. PROTECT ALL FEATURES, STRUCTURES, PIPING, AND CONDUIT NOT SCHEDULED TO BE REMOVED. REPAIR ANY DAMAGED FACILITIES TO THEIR PRE-EXISTING CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
20. ALL DISTURBED AREAS NOT STABILIZED WITH PAVEMENT SHALL BE SODDED PER ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
21. OBTAIN CAD FILE FROM THE ENGINEER FOR CONSTRUCTION LAYOUT OF YARD PIPING.

CITY OF MOBILE LAND DISTURBANCE PERMIT ADDITIONAL NOTES

1. CONTRACTOR SHALL CONTACT CITY ENGINEERING DEPARTMENT VIA E-MAIL AT LAND.DISTURBANCE@CITYOFMOBILE.ORG AT LEAST 24 HOURS PRIOR TO BEGINNING ANY WORK ON THIS SITE, TO SCHEDULE AN INITIAL ON-SITE BMP INSPECTION WITH THE APPROPRIATE CITY ENGINEERING INSPECTOR. FAILURE TO CONTACT THE CITY ENGINEERING DEPARTMENT PRIOR TO BEGINNING ANY WORK IS A VIOLATION OF THE STORM WATER MANAGEMENT AND FLOOD CONTROL ORDINANCE AND MAY INVOKE ENFORCEMENT ACTION IN THE FORM OF A MUNICIPAL OFFENSE TICKET.
2. THE LAND DISTURBANCE PERMIT EXPIRES UPON THE COMPLETION OF THE WORK OR NOT LATER THAN ONE (1) YEAR FROM THE DATE OF APPROVAL. (17-6.A)
3. THE CONTRACTOR SHALL SIZE, INSTALL, AND MAINTAIN ADEQUATE CONTROLS FOR THE SITE. REFER TO THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, LATEST EDITION.
4. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTION AND CONTINUED MAINTENANCE OF EROSION CONTROL ELEMENTS.
5. CURRENT ZONING OF THE SUBJECT PARCEL: I-2 HEAVY INDUSTRIAL.

CITY OF MOBILE STANDARD EROSION & SEDIMENTATION LAND CONSERVATION NOTES

1. NO DISTURBED AREA WILL BE DENUDED FOR MORE THAN 10 CALENDAR DAYS UNLESS UNDER ACTIVE CONSTRUCTION OR OTHERWISE AUTHORIZED BY THE CITY ENGINEER OR HIS AGENT. (NUMBER OF DAYS TO BE DETERMINED BY REVIEWER.)
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
3. ALL TEMPORARY EARTH BERMS DIVERSIONS AND SEDIMENT DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCK PILES.
4. DURING CONSTRUCTION ALL STORM SEWER INLETS WILL BE PROTECTED BY SEDIMENT TRAPS, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.

CITY OF MOBILE LAND CONSERVATION NOTES - SANITARY SEWERS

1. NO DISTURBED AREAS TO BE DENUDED FOR MORE THAN 10 DAYS UNLESS UNDER ACTIVE CONSTRUCTION.
2. TEMPORARY DIVERSIONS, SEEDED AND MULCHED OR STAKED STRAW BALE DIVERSIONS AND OTHER CONTROL MEASURES AS NECESSARY ARE TO BE PLACED AS INDICATED ON THE DRAWINGS PRIOR TO OR AS THE FIRST STEP IN EXCAVATION.
3. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL IS TO BE PLACED IN STREAMBEDS. ANY STOCKPILE MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 30 DAYS IS TO BE SEEDED FOR TEMPORARY VEGETATION AND MULCHED WITH STRAW MULCH. WHERE SPOIL IS PLACED ON DOWNHILL SIDE OF TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE MUST OUTLET IN A STABILIZED AREA OR SEDIMENT BASIN.

ROAD MAINTENANCE NOTES

1. DURING CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF YEEND STREET AND THE EXISTING SITE DRIVES TO MAINTAIN CONTINUOUS VEHICLE ACCESS TO THE EXISTING FACILITIES.
2. MAINTENANCE SHALL INCLUDE WEEKLY SWEEPING OF PAVEMENT, REPAIR OF POTHOLES AND DAMAGE.
3. THE CONTRACTOR SHALL UTILIZE THE AREA(S) AS INDICATED IN THE DRAWINGS FOR LAYFOWN, STORAGE, AND STAGING. THESE AREA(S) SHALL INCLUDE A CONSTRUCTION ENTRANCE AND SHALL BE TEMPORARILY FENCED WITH ACCESS CONTROLLED BY THE CONTRACTOR. THE CONTRACTOR SHALL RETURN THE AREA TO THE PRE-CONSTRUCTION CONDITION AS A CONDITION OF FINAL COMPLETION.

EROSION AND SEDIMENT CONTROL NOTES

1. OWNER WILL PROVIDE THE CONTRACTOR A TIER 1 LAND DISTURBANCE PERMIT. CONTRACTOR TO SUBMIT AND OBTAIN APPROVAL FOR THE CONSTRUCTION BEST MANAGEMENT PRACTICES PLAN (CBMPP) AND NOTICE OF INTENT (NOI) FOR A NPDES CONSTRUCTION GENERAL PERMIT. THE PROJECT SITE IS WITHIN AN ALABAMA PRIORITY WATERSHED AND THE CONTRACTOR SHALL COMPLY WITH THE ASSOCIATED SPECIAL REQUIREMENTS.
2. CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES IN ACCORDANCE WITH THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS. IF ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO PREVENT OFF SITE MIGRATION OF STORM WATER RUNOFF, THE CONTRACTOR SHALL INFORM THE CLIENT AND ENGINEER AND IMPLEMENT ADDITIONAL CONTROL MEASURES AS REQUIRED.
3. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 10 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
4. STRUCTURAL PRACTICES SHALL BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS AND STORM DRAINS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE TO THE DEGREE ATTAINABLE. SUCH PRACTICES MAY INCLUDE SILT FENCES, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, CHECK DAMS, AND STORM DRAIN INLET PROTECTION. STRUCTURAL PRACTICES SHOULD BE PLACED ON UPLAND SOILS TO THE DEGREE ATTAINABLE.
5. LOCAL, STATE AND MANUFACTURER'S METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO BROOMS, DUSTPANS, MAPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS. SPILLS WILL BE CLEANED UP IMMEDIATELY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES UNTIL PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAIN EVENT, AND SHALL BE IMMEDIATELY REPAIRED OR REPLACED IF FOUND TO BE DEFECTIVE.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MANAGE ANY REQUIRED DEWATERING EFFORTS AND DISCHARGES IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
8. EROSION CONTROL MEASURES DEPICTED IN THESE PLANS SHALL BE CONSIDERED A MINIMUM. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A COMPLETE EROSION CONTROL PLAN AS WELL AS A CONSTRUCTION BEST MANAGEMENT PRACTICES PLAN (CBMPP) AN ADEM NPDES PERMIT CONSISTENT WITH ALL APPLICABLE REQUIREMENTS. CONTRACTOR SHALL MAINTAIN THOSE BEST MANAGEMENT PRACTICES THROUGHOUT THE DURATION OF CONSTRUCTION.

CIVIL LEGEND

EXISTING TOPOGRAPHY AND OTHER AS-BUILT SITE FEATURES ARE SHOWN SCREENED. SEE TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY SURVEYOR.

- ⊗ 158.5 — SPOT ELEVATION
- 155 — CONTOUR LINE
- 3:1 — EMBANKMENT AND SLOPE
- DRAINAGEWAY OR DITCH
- CATCH BASIN OR INLET
- OR — SIGN
- MANHOLE
- POST OR GUARD POST
- GUY ANCHOR
- UTILITY POLE
- LIGHT POLE
- SURVEY CONTROL POINT OR BENCHMARK
- PROPERTY LINE
- CENTER LINE, BUILDING, ROAD, ETC.
- EASEMENT LINES
- FLOOD ZONE
- DECORATIVE FENCE/GATE (ADDITIVE ALTERNATE)
- DECORATIVE FENCE/GATE (BASE BID)
- SILT FENCE
- N 1000.00 / E 1000.00 — STRUCTURE, BUILDING OR FACILITY LOCATION POINT - COORDINATES
- B-1 — BORING LOCATION AND NUMBER
- DEMOLITION
- OR — STRUCTURE, BUILDING OR FACILITY
- GRAVEL SURFACING
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT/SIDEWALK
- RIPRAP

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			D CARR	K RINER	R MORRISON			J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
CIVIL LEGEND
SHEET 1

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CONFORMED DOCUMENTS

SEQUENCE OF CONSTRUCTION

1. CONTRACTOR SHALL PERFORM ALL DEMOLITION AND CONSTRUCTION AS INTEGRAL COMPONENTS OF A COORDINATED PHASED CONSTRUCTION PLAN.

2. THE PLAN SHALL PROTECT THE ABILITY OF THE PLANT TO CONTINUOUSLY MAINTAIN CURRENT TREATMENT LEVELS WITHOUT INTERRUPTION. MAINTAIN EXISTING PROCESS ACTIVITIES UNTIL NEW FACILITIES HAVE BEEN TESTED, STARTED UP AND ACCEPTED READY FOR OPERATION.

3. THE PLAN SHALL MINIMIZE DISRUPTION OF NON-PROCESS ACTIVITIES AND OPERATION OF THE PLANT.

4. CONTRACTOR SHALL DEVELOP AND SUBMIT FOR APPROVAL A "SEQUENCE OF CONSTRUCTION PLAN" WHICH INDICATED THE FOLLOWING:

   A. COMPLIANCE WITH THE REQUIREMENTS OF THESE NOTES (EXCEPT AS SPECIFICALLY APPROVED).

   B. EACH SIGNIFICANT PHASE OF CONSTRUCTION.

   C. THE STATUS OF EACH IMPACTED FACILITY DURING EACH RESPECTIVE PHASE.

   D. THE MILESTONES TO BE OBTAINED AS PREREQUISITES TO THE INITIATION OF THE NEXT PHASE (EG: THE OPERATIONAL TESTING OF THE NEW CHLORINATION FACILITIES BEFORE CHANGING THE CHLORINE SOLUTION SOURCE LOCATION.

5. INSTALLATION OF THE NEW DEWATERING STRUCTURE AND FACILITIES SHALL INCLUDE THE FOLLOWING ACTIONS GENERALLY IN THE FOLLOWING ORDER EXCEPT AS SPECIFICALLY APPROVED OTHERWISE:

   A. INSTALL EROSION CONTROL MEASURES IN THE AREA OF THE PROPOSED CONSTRUCTION AS REQUIRED TO PREVENT OFF-SITE SEDIMENTATION AND ON-SITE FACILITY DISRUPTION.

   B. INSTALL, TEST AND CONNECT ALL TEMPORARY AND PERMANENT UTILITIES AND PROCESS MAINS AS REQUIRED TO VACATE THE AREA OF THE PROPOSED DEWATERING FACILITY. (EXCLUDES NEW CONNECTIONS AND SERVICES TOTHE DEWATERING BUILDING). INCLUDE PROVISIONS FOR TEMPORARY SANITARY SERVICE TO THE BLOWER BUILDING, ADMINISTRATION BUILDING, AND MAINTENANCE BUILDING. INCLUDE THE MONOPOLE RELOCATION AND REPOWERING. INCLUDE RECONNECTION OF THE VIRGINIA STREET INFLUENCE FLOW METER.

   C. INSTALL, TEST AND ACTIVATE THE TEMPORARY OPERATIONAL CONTROL AND COMMUNICATIONS FACILITIES AND ACCESSORIES AS REQUIRED TO VACATE THE OPERATIONS BUILDING AND ALLOW THE REQUIRED DEMOLITION WHILE MAINTAINING PLANT CONTROL CAPABILITIES. INCLUDE RECONNECTION OF THE ADMINISTRATION BUILDING AND ALL TREATMENT COMPONENTS TO THE CONTROL AND COMMUNICATIONS SYSTEM.

   D. PERFORM THE REQUIRED DEMOLITIONS OF THE OPERATIONS BUILDING, AREA UTILITIES, AREA PROCESS MAINS AND OTHER COMPONENTS NORTH OF THE DECOMMISIONED PRIMARY CLARIFIER BASIN TO ALLOW THE PROPOSED CONSTRUCTION.

   E. PERFORM THE REQUIRED PRELOADING OF THE SITE FOR THE DEWATERING BUILDING AREA.

   F. PERFORM DEMOLITION AND BACKFILLING OF THE DECOMMISSIONED PRIMARY CLARIFIER BASIN AND ANY OTHER REMAINING COMPONENTS INDICATED FOR DEMOLITION IN THE AREA TO ALLOW THE PROPOSED CONSTRUCTION.

   G. CONSTRUCT NEW DEWATERING BUILDING COMPLETE AND OPERATIONAL IN ALL RESPECTS WITH THE EXCEPTION OF THE EXISTING BELT PRESS. INCLUDE THE INSTALLATION OF THE PLANT SEWER PUMP STATION #2, ALL ASSOCIATED SITE UTILITIES, SITE WORK AND PROCESS CONNECTIONS (VALVED OFF). PERFORM ALL BUILDING SYSTEM TESTING, STARTUP AND ACTIVATIONS AND OBTAIN CITY APPROVAL FOR BUILDING AND OCCUPANCY.

   H. PERFORM ALL OPERATIONAL TESTING, STARTUP AND ACTIVATIONS OF THE NEW PLANT CONTROL SYSTEM. ACTIVATE THE NEW SYSTEM WITH OWNER APPROVAL AND TURN OVER TO THE OWNER FOR OPERATION EXCLUSIVE OF THE NEW DEWATERING SYSTEM. CONNECT ALL TEMPORARY COMMUNICATIONS AND CONTROL SIGNALS TO THE NEW SYSTEM. TEST AND ACTIVATE. DISCONTINUE THE TEMPORARY CONTROL SYSTEM.

   I. MAKE ALL FINAL CONNECTIONS OF UTILITIES, PROCESS MAINS, AND COMMUNICATIONS TO THE NEW DEWATERING BUILDING. DISCONTINUE ANY TEMPORARY FACILITIES REMAINING IN THE AREA.

   J. PERFORM ALL OPERATIONAL TESTING, STARTUP AND ACTIVATIONS OF THE NEW DEWATERING SYSTEM EXCLUSIVE OF THE BELT PRESS TO BE RELOCATED. ACTIVATE THE NEW SYSTEM WITH OWNER APPROVAL AND TURN OVER TO THE OWNER FOR OPERATION.

   K. RELOCATE THE EXISTING BELT PRESS TO THE NEW DEWATERING BUILDING. INCLUDE ALL CONNECTIONS, TESTING AND STARTUP TO PRODUCE A FULLY OPERATIONAL SYSTEM. ACTIVATE THE NEW SYSTEM WITH OWNER APPROVAL AND TURN OVER TO THE OWNER FOR OPERATION.

6. IN ADVANCE OF THE NEED FOR THE TANKS WHICH ARE TO BE RELOCATED FROM THE WRIGHT SMITH WWTP, COORDINATE WITH THE OWNER FOR ACCESS TO THE TANKS AND PERFORM THE REQUIRED RELOCATIONS.

7. PERFORM ALL OTHER WORK CONCURRENTLY OR SEQUENTIALLY AS NECESSARY TO PROVIDE A COMPLETE PROJECT WITHOUT DISRUPTION OF THE PLANT PROCESS AND WITH MINIMAL DISRUPTION OF THE OPERATION ACTIVITIES OF THE PLANT.

8. PHASE ALL CONSTRUCTION TO PRECLUDE ACCEPTANCE OF FLOWS INTO THE NEW COMPONENTS UNTIL THE NEW FACILITIES ARE READY AND APPROVED TO ACCEPT FLOWS.

BYPASS PUMPING NOTES

1. ANY REQUIRED BYPASS PUMPING SHALL BE CAPABLE OF PUMPING 150% OF THE AVERAGE DAILY FLOWS OF THE MAIN TO BE INTERRUPTED AND SHALL HAVE ADDITIONAL EQUALLY SIZED PUMPS INSTALLED. CUT IN FITTINGS WILL BE ALLOWED ON PIPE DIAMETER SMALLER THAN 24" WHERE THE FLOW CAN BE INTERRUPTED TO ALLOW THE CONNECTION INSTALLATION.

2. LINE STOPS AND/OR BYPASS PUMPING AS REQUIRED FOR THE WORK SHALL BE INCLUSIVE OF ALL NECESSARY COMPONENTS, ACCESSORIES, AND ASSOCIATED WORK.

3. THRUST BLOCKING OR JOINT RESTRAINT AS REQUIRED TO PROVIDE A STABLE INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION. THRUST BLOCKING MAY BE LEFT IN PLACE PROVIDED IT DOES NOT INTERFERE WITH REQUIRED CONSTRUCTION.

4. THE BYPASS PUMPING SYSTEM PLAN MUST INCLUDE HYDRAULIC CALCULATIONS SIGNED AND SEALED BY AN ALABAMA REGISTERED PROFESSIONAL ENGINEER. CALCULATIONS SHALL ILLUSTRATE CAVITATION WILL NOT BE CAUSED WITHIN THE SYSTEM.

DEMOLITION NOTES

1. DEMOLITION SHOWN ON THE PLANS SHALL BE COMPLY WITH SPECIFICATIONS. OWNER SHALL HAVE THE FIRST RIGHT OF REFUSAL FOR ANY SALVAGABLE EQUIPMENT SHEDULED FOR REMOVAL. ALL UNDESIRED MATERIALS, PROJECT WASTE, AND DEMOLITION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LAWFUL MANNER AT NO COST TO THE OWNER.

2. THIS DRAWING REFLECTS THE DEMOLITION OF EXISTING COMPONENTS AND IS DERIVED IN PART FROM RECORD DRAWINGS. NO INFORMATION IS INDICATED NOR IMPLIED AS TO THE ACCURACY OF EXISTING SITE ELEMENTS.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CURRENT OPERATIONS AT EXISTING FACILITIES TO BE DEMOLISHED. CONTRACTOR MUST COORDINATE OPERATIONS SHIFT FROM EXISTING FACILITIES TO NEW FACILITIES WITH THE ENGINEER.

4. PRIOR TO DEMOLISHING EXISTING PIPING CONTRACTOR SHALL TEST TO DETERMINE IF LINE IS PRESSURIZED. IF PIPE IS FOUND TO BE PRESSURIZED. CONTRACTOR SHALL COORDINATE WITH OWNER TO DEPRESSURIZE LINES PRIOR TO DEMOLITION.

5. REMOVE COMPONENTS AS NOTED ALONG WITH ALL INTERCONNECTING PIPING AND CONDUITS.

6. PRIOR TO DEMOLISHING ANY TANK STRUCTURES, COMPLETELY DEWATER AND CLEAN THE STRUCTURE. ALL DEWATERING AND WASH WATER MUST BE DRAINED OR PUMPED TO THE PLANT SEWER FOR TREATMENT. NO WATER MAY BE DISCHARGED TO SURFACE WATERS OR COME INTO CONTACT WITH THE GROUND. GRIT AND OTHER DEBRIS SHALL NOT BE PUMPED INTO THE PLANT. ALL SOLIDS SHALL BE REMOVED FROM THE FACILITIES TO BE DEMOLISHED AND DISPOSED OF BY THE CONTRACTOR AS INCIDENTAL TO THE WORK.

7. CONTRACTOR SHALL REMOVE ALL WALLS, SLABS, ROOFS, EQUIPMENT, AND METALS AND ANY ASSOCIATED WALKWAYS, STEPS, PLATFORMS, AND CONCRETE PADS FOR ALL STRUCTURES, TANKAGE, AND BUILDINGS INDICATED TO BE DEMOLISHED UNLESS SPECIFIED OTHERWISE.

8. TANK REMOVAL SHALL INCLUDE THE FLOOR SLAB UNLESS OTHERWISE INDICATED. TIMBER PILES SUPPORTING THE OPERATIONS BUILDING SHALL BE REMOVED IN ACCORDANCE WITH NOTE 17. PILES SUPPORTING OTHER DEMOLISHED STRUCTURES SHALL BE REMOVED TO A DEPTH OF EIGHT FEET (8') BELOW EXISTING FINISHED GRADE OR TO THE EXTENT THEY INTERFERE WITH THE PROPOSED CONSTRUCTION, WHICHEVER IS DEEPER.

9. PIPING ASSOCIATED WITH DEMOLISHED STRUCTURES SHALL BE REMOVED OUT TO THE NEXT LIVE SECTION WHERE IT SHALL BE CUT AND CAPPED. PIPING BETWEEN TWO DEMOLISHED STRUCTURES SHALL BE COMPLETELY REMOVED.

10. DEMOLITION OF INDICATED COMPONENTS INCLUDES REMOVAL OF CONCRETE SUPPORT PADS.

11. DEMOLITION OF STRUCTURES AND BUILDINGS INDICATED TO BE DEMOLISHED SHALL INCLUDE ELECTRICAL COMPONENT DEMOLITION. ELECTRICAL WIRES ORIGINATING OR TERMINATING OUTSIDE THE AREA OF DEMOLITION SHALL BE REMOVED TO THE FIRST JUNCTION BOX OR CONNECTION POINT OUTSIDE THE DEMOLITION AREA. ASSOCIATED MCC COMPONENTS SHALL BE LOCKED OUT OF SERVICE. CONDUIT AND DUCT BANK SHALL BE REMOVED TO THE CLOSER OF TEN FEET (10') OUTSIDE THE DEMOLISHED STRUCTURE OR THE FIRST PULL BOX ENCOUNTERED. REMAINING DUCTS SHALL BE CAPPED AND ITS LOCATION INDICATED IN THE RECORD DRAWINGS.

12. CONTRACTOR SHALL PROVIDE SHORING, SHEETING, BRACING, OR OTHER MEANS AND METHODS NECESSARY TO PROTECT EXISTING LIGHT/UTILITY POLES, ELECTRICAL MANHOLES, STRUCTURES, AND OTHER MISCELLANEOUS FACILITIES DURING DEMOLITION ACTIVITIES.

13. IN AREAS WHERE DEMOLITION RESULTS IN A DEPRESSION BELOW ADJACENT GRADES, THE AREA SHALL BE BACKFILLED WITH CLEAN SELECT FILL, COMPACTED IN LIFTS, RE-GRADED TO PREVENT STORMWATER PONDING AND TO MATCH SURROUNDING CONDITIONS AND GRASSED.

14. UNLESS SPECIFICALLY INCLUDED WITHIN A BID ITEM, ALL DEMOLITION IS CONSIDERED INCIDENTAL TO THE WORK.

15. PIPES TO BE ABANDONED IN PLACE SHALL BE SECURED WITH A PUSH-ON RESTRAIN JOINT CAP UNLESS OTHERWISE NOTED.

16. ALL PAVEMENT CUTS SHALL BE SAWCUT.

17. BEFORE PRELOADING THE SITE, EXISTING TIMBER PILES SHALL BE REMOVED DOWN TO AN ELEVATION OF 5.0 WHERE BENEATH THE PRELOAD AREA AND WHERE BENEATH ANY UTILITY MAINS. WHERE BENEATH THE PUMP STATION, THEY SHALL BE REMOVED TO ELEVATION -10 OR FULLY EXTRACTED AT THE CONTRACTORS OPTION. THE OVEREXCAVATION REQUIRED TO EXPOSE THE TIMBER PILES AND REMOVE THE TOP WILL BE BACKFILLED WITH STRUCTURAL FILL MATERIAL FOLLOWING SPEC SECTION 31 23 23.

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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CONFORMED DOCUMENTS

DESIGN CRITERIA

1. APPLICABLE CODE: 2012, 2015, AND 2018 INTERNATIONAL BUILDING CODE (IBC), AS AMENDED BY THE STATE OF ALABAMA, MOBILE COUNTY, AND THE CITY OF MOBILE.

2. REFER TO THE DRAWINGS FOR ADDITIONAL AND SPECIFIC STRUCTURE LOADINGS AND REQUIREMENTS.

3. ALL LOADS SHOWN ARE SERVICE LEVEL (UNFACTORED) UNLESS SPECIFICALLY NOTED OTHERWISE.

4. DEAD LOADS:
   A. SELF WEIGHT:
   B. COLLATERAL LOAD:
      TYP UON — 25 PSF
      WHEN BRIDGE CRANE IS DIRECTLY BELOW STRUCTURE — 15 PSF
      CANOPIES — 0 PSF

5. COLLATERAL LOADS:
   WEIGHT OF ROOF MOUNTED EQUIPMENT IS IN ADDITION TO COLLATERAL LOADS. REDUCE COLLATERAL LOAD TO 0 PSF WHEN CONSIDERING LOAD COMBINATIONS THAT INCLUDE UPLIFT. COLLATERAL LOAD SHALL HAVE SAME LOAD FACTORS AS DEAD LOAD.

6. ROOF LIVE LOADS:
   TYPICAL UON — 20 PSF AND A CONCENTRATED LOAD OF 300 POUNDS. LOADS ARE NOT CONCURRENT
   CANOPIES (EXCLUDING WALKWAY CANOPY) — 20 PSF

   DEFLECTION CRITERIA FOR CONTRACTOR DESIGNED ROOF FRAMING MEMBERS:
   TYP UON
      TOTAL LOAD — L/ 240
      LIVE LOAD — L/ 360
   SPANS GREATER THAN 40 FEET
      TOTAL LOAD — L/ 360
      LIVE LOAD — L/ 480
   WHERE L IS THE MEMBER SPAN LENGTH

7. FLOOR LIVE LOADS:
   PROCESS AND ELECTRICAL ROOMS: — 300 PSF FOR SLABS AND BEAMS; 200 PSF FOR GIRDERS, COLUMNS AND FOUNDATIONS
   STORAGE AREAS AND SERVER ROOM — 150 PSF
   MECHANICAL/ HVAC ROOMS — 150 PSF OR EQUIPMENT WEIGHT PLUS 50 PSF WHICHEVER IS GREATER
   ADMINISTRATION AREAS — 100 PSF
   STAIRS, WALKWAYS, AND PLATFORMS UON — 100 PSF
   PLATFORMS AND EQUIPMENT ACCESS ONLY — 60 PSF
   VEHICULAR TRAFFIC — AASHTO HL-93
   DEWATERING AND CONTROL BUILDING
   SLAB AT ELEVATION 16.00 — 300 PSF FOR SLABS AND FORKLIFT WHICHEVER ONE IS GREATER

   DEFLECTION CRITERIA FOR CONTRACTOR DESIGNED FLOOR FRAMING MEMBERS:
   TYP UON
      TOTAL LOAD — L/ 240
      LIVE LOAD — L/ 360
   SPANS GREATER THAN 40 FEET
      TOTAL LOAD — L/ 360
      LIVE LOAD — L/ 480
   WHERE L IS THE MEMBER SPAN LENGTH

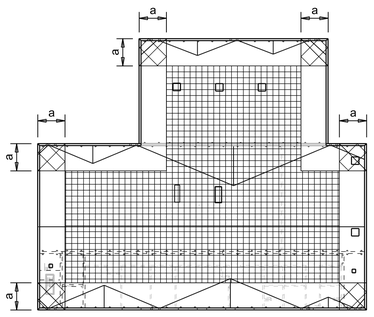
8. WIND LOADS: UON:
   ASCE 7 METHOD — = LOW-RISE MWFRS DIRECTIONAL PROCEDURE
   V_{ULT} — = 169 MPH UON
   V_{ASD} — = 131 MPH UON
   EXPOSURE CATEGORY — = D
   INTERNAL PRESSURE COEFFICIENT (GC_{PI}) — = +/- 0.55
   RISK CATEGORY — = III UON

   COMPONENT AND CLADDING WALL ELEMENTS (WINDOWS, DOORS, LOUVERS, SIDING):

   VALUES GIVEN IN TABLES BELOW ARE STRENGTH-LEVEL LOADS

   WALL PARAPET WIND LOAD (STRENGTH-LEVEL) — = +/- 314 PSF
   NET CANOPY WIND LOAD (STRENGTH-LEVEL) — = + 65 PSF DOWNWARD; = - 65 PSF UPLIFT

   WIND LOADS ON ROOF TOP EQUIPMENT (STRENGTH-LEVEL)
   HORIZONTAL WIND LOAD — = +/- 140 PSF
   VERTICAL WIND LOAD — = -111 UPLIFT



COMPONENTS AND CLADDING PRESSURES - ROOF UON			
Zone	Eff. Area (ft^2)	Pres (-ve) (psf)	Pres (+ve) (psf)
1	10	-170	65
1	20	-160	60
1	50	-145	60
1	100	-140	55
1	200	-130	55
1	500	-115	55
1	1000	-115	55
2	10	-210	65
2	20	-200	60
2	50	-185	60
2	100	-175	55
2	200	-160	55
2	500	-145	55
2	1000	-145	55
3	10	-280	65
3	20	-255	60
3	50	-225	60
3	100	-200	55
3	200	-175	55
3	500	-145	55
3	1000	-145	55

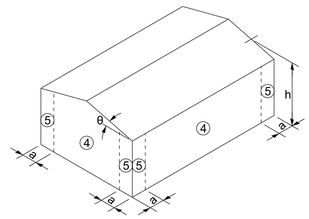
ROOF WIND ZONE LEGEND

ZONE 1 ZONE 2 ZONE 3

N

ROOF WIND ZONE PLAN

DESIGN CRITERIA - CONTINUED



COMPONENTS AND CLADDING PRESSURES - WALL UON			
Zone	Eff. Area (ft^2)	Pres (-ve) (psf)	Pres (+ve) (psf)
4	10	-113	107
4	20	-110	103
4	50	-105	99
4	100	-102	95
4	200	-98	92
4	500	-94	87
5	10	-133	107
5	20	-126	103
5	50	-117	99
5	100	-110	95
5	200	-103	92
5	500	-94	87

8. SEISMIC LOADS:

   MAPPED SPECTRAL RESPONSE ACCELERATIONS
      S_S = 0.102g
      S_1 = 0.058g
   DESIGN SPECTRAL RESPONSE ACCELERATIONS
      S_{DS} = 0.109g UON
      S_{D1} = 0.095g UON
   SITE CLASS = D
   RISK CATEGORY = III UON
   SEISMIC DESIGN CATEGORY = B UON
   IMPORTANCE FACTOR, Ie = 1.25 UON

   STRUCTURES HAVE BEEN ANALYZED USING THE EQUIVALENT LATERAL FORCE PROCEDURES OF ASCE 7.

9. LATERAL FORCE-RESISTING SYSTEMS
   FACILITY (20) DEWATERING AND CONTROL BUILDING
      ORDINARY PRECAST SHEARWALLS
      R = 3 C_s= 0.045 V = 0.045W
   FACILITY (50) CHLORINE AND SO_2 BUILDING
      INTERMEDIATE PRECAST SHEARWALLS
      R = 4 C_s= 0.034 V = 0.034W

10. SPECIAL LOADS: SEE PLANS FOR STRUCTURE SPECIFIC LOADS

11. HYDRAULIC LOADS: SEE PLANS FOR STRUCTURE SPECIFIC LOADS

12. SOIL DESIGN PARAMETERS:
    A. NET ALLOWABLE SOIL BEARING PRESSURES:
       TYP UON — 1000 PSF
       SMITH BIOSOLIDS HOLDING AND RECEIVING TANKS — 1,500 PSF
    B. MODULUS OF SUBGRADE REACTION — 125 PCI
    C. DESIGN GROUND WATER:
       - NORMAL HIGH - GROUND WATER ELEVATION 12.00 WITH SAFETY FACTOR OF 1.25
       - 100-YEAR FLOOD ELEVATION 12.00 WITH SAFETY FACTOR OF 1.10
    D. LATERAL EARTH PRESSURES:
       DRY CONDITION
       - ACTIVE — 40 PCF
       - AT-REST — 60 PCF
       - PASSIVE — 330 PCF
       SATURATED CONDITION
       - ACTIVE — 80 PCF
       - AT-REST — 90 PCF
       - PASSIVE — 210 PCF
    E. MODULUS OF SUBGRADE REACTION — 125 PCI

GENERAL INFORMATION

1. FOR ABBREVIATIONS NOT LISTED, SEE ASME Y14.38 “ABBREVIATIONS AND ACRONYMS: PUBLICATION AS DISTRIBUTED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME).

2. DESIGN DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS OCCURRING THROUGHOUT THE PROJECT, WHETHER OR NOT THEY ARE INDIVIDUALLY CALLED OUT.

3. VERIFY FINAL OPENING DIMENSIONS IN WALLS, SLABS, AND DECKS WITH OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION OF THESE ELEMENTS.

4. FOR NUMBER, TYPE, SIZE, ARRANGEMENT, AND/OR LOCATION OF EQUIPMENT PADS, SEE OTHER DISCIPLINE DRAWINGS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO PLACING SLABS, WALLS AND FOUNDATIONS. COORDINATE PIPING OPENINGS WITH OTHER DISCIPLINE DRAWINGS.

5. DO NOT CUT OR MODIFY STRUCTURAL MEMBERS FOR PIPES, DUCTS, ETC, UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.

6. VISITS TO THE JOB SITE BY THE ENGINEER TO OBSERVE THE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT ENGINEER IS GUARANTOR OF CONSTRUCTOR’S WORK, NOR RESPONSIBLE FOR THE COMPREHENSIVE OR SPECIAL INSPECTIONS, COORDINATION, SUPERVISION, OR SAFETY AT THE JOB SITE.

INSPECTION AND TESTING

1. SPECIAL INSPECTION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL SCHEDULE BOTH INSPECTIONS.

2. UNLESS OTHERWISE NOTED SPECIFIED CONCRETE AND MASONRY AND OTHER MATERIAL TESTING RELATED TO SPECIAL INSPECTION DURING CONSTRUCTION WILL BE OWNER FURNISHED.

3. SPECIFIED LABORATORY TEST MIXES AND SIMILAR TEST RESULTS TO VERIFY MATERIAL QUALITY AND CONFORMANCE TO SPECIFICATIONS, AND SUBMITTED FOR REVIEW PRIOR TO ACCEPTANCE FOR USE ON THE PROJECT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. SPECIAL INSPECTION, TESTING AND OBSERVATION (OWNER FURNISHED) IS REQUIRED IN ACCORDANCE WITH IBC SECTIONS 110 AND 1704 AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS. REFER TO DRAWINGS 01-G-0008 TO 01-G-0011.

FOUNDATIONS

1. REFER TO GEOTECHNICAL DATA REPORT BY GEOTECHNICAL ENGINEERING -TESTING DATED DECEMBER 4, 2019, AND GEOTECHNICAL REPORT ADDENDUM BY GEOTECHNICAL ENGINEERING - TESTING DATED JULY 10, 2020.

2. OVEREXCAVATE AND PRELOAD SOIL IN ACCORDANCE WITH GEOTECHNICAL REPORT ADDENDUM.

3. EXCAVATIONS SHALL BE SHORED TO PREVENT SUBSIDENCE AND DAMAGE TO ADJACENT EXISTING STRUCTURES, ROADS, UTILITIES, ETC.

4. FOUNDATION SLABS, SLABS AND WALL AND COLUMN FOUNDATIONS SPECIFICALLY NOTED TO BE ON FILL SHALL BEAR ON 6 INCHES OF COMPACTED GRANULAR FILL.

5. FOUNDATION BEARING SURFACES SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FORM WORK OR REINFORCING STEEL. THE OBSERVATION SHALL VERIFY IF THE ACTUAL EXPOSED SUBGRADE IS AS ANTICIPATED BY THE SITE SPECIFIC BORINGS.

FORMWORK, SHORING, AND BRACING

1. STRUCTURES SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED FOR STABILITY UNDER FINAL CONDITIONS ONLY. DESIGN SHOWN DOES NOT INCLUDE NECESSARY COMPONENTS OR EQUIPMENT FOR STABILITY OF THE STRUCTURES DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR WORK RELATING TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM THE WORK SHOWN.

2. TEMPORARY SHORING SHALL REMAIN IN PLACE UNTIL ELEVATED CONCRETE FLOOR OR SLABS HAVE REACHED 80 PERCENT OF THE 28 DAY COMPRESSIVE STRENGTH AS DETERMINED BY FIELD CYLINDER BREAKS.

3. “BURY”BARS OR “CARRIER”BARS ARE NOT ALLOWED FOR THE BOTTOM MATS OF REINFORCING IN ALL ELEVATED SLABS AND ARE NOT ALLOWED FOR THE TOP MATS OF REINFORCING IN ELEVATED SLABS LESS THAN 12 INCHES THICK.

CONCRETE REINFORCING

1. REINFORCING STEEL:
   TYPICAL: — ASTM A615, GRADE 60
   WELDED: — ASTM A706, GRADE 60 (WELDING IS ONLY PERMITTED WITH WRITTEN PERMISSION FROM ENGINEER)

2. FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CRSI MSP-1 “MANUAL OF STANDARD PRACTICE”AND ACI 301 “SPECIFICATIONS FOR STRUCTURAL CONCRETE”.

3. MINIMUM REINFORCING FOR CONCRETE WALLS AND SLABS SHALL BE AS FOLLOWS:

THICKNESS	REINF EACH WAY	LOCATION
6”	#4@12”	CENTERED
8”	#5@12”	CENTERED
10”	#4@12”	EACH FACE
12”	#5@12”	EACH FACE

   PROVIDE LARGER SIZES AND MORE REINFORCING IN SECTIONS OF CONCRETE WHERE REQUIRED BY THE DETAILS ON THE DRAWINGS OR BY THE SPECIFICATIONS.

4. CONCRETE COVER FOR REINFORCING, UNLESS SHOWN OTHERWISE, SHALL BE:
   WHEN CAST AGAINST EARTH: — 3”
   ALL OTHER: — 2”

5. 90 DEGREE BENDS, UNLESS OTHERWISE SHOWN, SHALL BE ACI 318 STANDARD HOOKS.

6. REINFORCING STEEL FOR FOOTINGS AND SLABS ON GRADE SHALL BE ADEQUATELY SUPPORTED ON BAR SUPPORTS WITH SPACERS TO KEEP REINFORCING ABOVE THE PREPARED GRADE. LIFTING REINFORCING OFF GRADE DURING CONCRETE PLACEMENT IS NOT PERMITTED.

7. PROVIDE STEEL REINFORCEMENT AROUND OPENINGS, SEE 0330-001 AND 0330-002.

8. PROVIDE STEEL REINFORCEMENT AT CORNERS AND INTERSECTIONS OF WALLS, SEE 0330-003.

9. REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:

CONCRETE DESIGN STRENGTH = 4,000 PSI MIN AT 28 DAYS[3] GRADE 60 REINFORCING STEEL										
BAR SIZE		#3	#4	#5	#6	#7	#8	#9	#10	#11
LAP SPLICE LENGTH										
SPACING = 3”	TOP BAR [2]	1’-4”	1’-8”	2’-1”	3’-0”	5’-2”	6’-8”	8’-6”	10’-10”	`13’-4”
	OTHER BAR	1’-4”	1’-4”	1’-8”	2’-4”	4’-0”	5’-2”	6’-7”	8’-4”	10’-3”
SPACING = 4”	TOP BAR [2]	1’-4”	1’-8”	2’-0”	2’-5”	3’-10”	5’-0”	6’-5”	8’-1”	10’-0”
	OTHER BAR	1’-4”	1’-4”	1’-7”	1’-10”	3’-0”	3’-11”	4’-11”	6’-3”	7’-8”
SPACING ≥ 6”	TOP BAR [2]	1’-4”	1’-8”	2’-0”	2’-5”	3’-6”	4’-0”	5’-0”	6’-2”	7’-5”
	OTHER BAR	1’-4”	1’-4”	1’-7”	1’-10”	2’-9”	3’-1”	3’-10”	4’-9”	5’-8”
EMBEDMENT LENGTH										
SPACING = 3”	TOP BAR [2]	1’-0”	1’-3”	1’-8”	2’-4”	4’-0”	5’-2”	6’-7”	8’-4”	10’-3”
	OTHER BAR	1’-0”	1’-0”	1’-3”	1’-10”	3’-1”	4’-0”	5’-1”	6’-5”	7’-11”
SPACING = 4”	TOP BAR [2]	1’-0”	1’-3”	1’-7”	1’-10”	3’-0”	3’-11”	4’-11”	6’-3”	7’-8”
	OTHER BAR	1’-0”	1’-0”	1’-3”	1’-5”	2’-4”	3’-0”	3’-10”	4’-10”	5’-11”
SPACING ≥ 6”	TOP BAR [2]	1’-0”	1’-3”	1’-7”	1’-10”	2’-9”	3’-1”	3’-10”	4’-9”	5’-8”
	OTHER BAR	1’-0”	1’-0”	1’-3”	1’-5”	2’-1”	2’-5”	3’-0”	3’-8”	4’-5”

1. LAP LENGTHS ARE BASED ON MINIMUM CONCRETE COVER OF 2”. LONGER LENGTHS ARE REQUIRED FOR CONCRETE COVER LESS THAN 2”.
2. TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.
3. WHERE 3000 PSI CONCRETE IS USED, INCREASE ABOVE LENGTHS BY 16 PERCENT. WHERE 3500 PSI CONCRETE IS USED, INCREASE ABOVE LENGTHS BY 7 PERCENT.

CAST IN PLACE CONCRETE

1. 28-DAY COMPRESSIVE STRENGTHS (TO MEET STRUCTURAL STRENGTH REQUIREMENTS):
   TYPICAL: — 4500 PSI

2. CONSTRUCTION JOINTS INDICATED ARE SUGGESTED LOCATIONS. CONTRACTOR MAY REVISE LOCATION OF JOINTS, SUBJECT TO SPECIFIED REQUIREMENTS. LAYOUT SHOWING ALL CONSTRUCTION JOINT LOCATIONS SHALL BE SUBMITTED FOR REVIEW BY ENGINEER.

3. ROUGHEN AND CLEAN CONSTRUCTION JOINTS IN WALLS AND SLABS AS SPECIFIED PRIOR TO PLACING ADJACENT CONCRETE.

4. COORDINATE PLACEMENT OF OPENINGS, PIPE PENETRATIONS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS AND INSERTS PRIOR TO PLACEMENT OF CONCRETE.

5. NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.

6. DO NOT PLACE CONDUIT PARALLEL TO BEAM OR COLUMN REINFORCEMENT UNLESS SPECIFICALLY INDICATED IN DRAWINGS.

7. PATCH FORM TIE HOLES IN ACCORDANCE WITH DETAILS 0310-051 AND/OR 0310-052.

NO.	DATE	REVISION	BY	APVD
DSGN	C.COHEN	DR	P KARABAN	CHK	M CHRZANOWSKI	APVD	M CHRZANOWSKI

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL

STRUCTURAL NOTES 1

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1”

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0006
SHEET	008 of 270

PRECAST PRESTRESSED CONCRETE MEMBERS

1. PRECAST PRESTRESSED CONCRETE MEMBERS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5000 PSI.
2. DESIGN PER PCI DESIGN HANDBOOK 8th EDITION, ACI 318 AND ACI 550.1.
3. FABRICATE, TRANSPORT AND ERECT PER PCI DESIGN HANDBOOK 7th EDITION, PCI ERECTOR'S MANUAL, ACI 304 AND ACI ITG-7.
4. DESIGN PRECAST PRESTRESSED CONCRETE MEMBERS TO SUPPORT THE SUPERIMPOSED LOADS PROVIDED ON PLANS, TO MEET REQUIREMENTS STATED UNDER "DESIGN CRITERIA", AND FOR LOADS RESULTING FROM TRANSPORTATION AND ERECTION.
5. SUBMIT CALCULATIONS AND DRAWINGS STAMPED BY AN ENGINEER LICENSED IN THE STATE OF ALABAMA FOR REVIEW PRIOR TO FABRICATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION AND PLACEMENT, INCLUDING PICK UP POINT INSERTS AND LOCATIONS, SPECIAL PICK UP REINFORCING, STRONGBACKING, LOCATION AND SPACING OF SHIMS AND SIMILAR ITEMS.
7. VERIFY GEOMETRY OF INSERTS AND OPENINGS AS REQUIRED PER ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
8. DESIGN AND PROVIDE PANEL CONNECTIONS AND BEARING PADS.
9. DESIGN SHALL ADHERE TO TOLERANCE REQUIREMENTS PER ACI ITG-7. CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO CONFORM WITH THESE TOLERANCES INCLUDING BUT NOT LIMITED TO THE ADJUSTMENT OF BEARING HEIGHTS.

PRECAST ARCHITECTURAL WALL PANELS

1. PRECAST ARCHITECTURAL WALL PANELS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5000 PSI.
2. DESIGN PER PCI DESIGN HANDBOOK 8th EDITION, ACI 318 AND ACI 550.1.
3. FABRICATE, TRANSPORT AND ERECT PER PCI DESIGN HANDBOOK 7th EDITION, ERECTOR'S MANUAL, ACI 304 AND ACI ITG-7.
4. DESIGN PRECAST ARCHITECTURAL WALL PANELS TO SUPPORT LOADS TRANSFERRED FROM WINDOWS, LOUVERS, AND DOORS AS WELL AS CANOPIES ASSUMING CANOPY LOADS NOTED IN DESIGN CRITERIA ON PREVIOUS DRAWING.
5. SUBMIT CALCULATIONS AND DRAWINGS STAMPED BY AN ENGINEER LICENSED IN THE STATE OF ALABAMA FOR REVIEW PRIOR TO FABRICATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PICK UP POINT INSERTS AND LOCATIONS, SPECIAL PICK UP REINFORCING, STRONGBACKING, LOCATION AND SPACING OF SHIMS AND SIMILAR ITEMS, AND ALL PICK UP AND PLACING OPERATIONS.
7. VERIFY GEOMETRY OF INSERTS AND OPENINGS AS REQUIRED PER ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
8. DESIGN AND PROVIDE PANEL CONNECTIONS AND BEARING PADS.
9. CHAMFER EDGES OF PANELS. PROVIDE EMBEDS, AND CAST GROOVES AS SHOWN ON ARCHITECTURAL DRAWINGS.
10. PANEL SURFACING SHALL BE AS SPECIFIED AND AS SHOWN ON ARCHITECTURAL DRAWINGS.
11. PROVIDE INSERTS AND EMBEDS AS SHOWN ON DRAWINGS.
12. VERIFY AND PROVIDE OPENINGS AS PER ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. VERIFY GEOMETRY WITH ARCHITECTURAL DRAWINGS.

CONCRETE UNIT MASONRY

1. MASONRY WALL TYPE: ORDINARY REINFORCED WALLS.
2. DESIGN COMPRESSIVE STRENGTH, f'm, OF THE FINISHED ASSEMBLY AND MATERIAL PROPERTIES SHALL BE PER THE TABLE BELOW.
3. MORTAR: ASTM C270, TYPE S, HYDRATED. DO NOT USE MASONRY CEMENT.
4. GROUT: ASTM C476 COARSE GROUT. USE OF WATER REDUCERS OR SUPERPLASTICIZERS IS NOT PERMITTED.
5. CONCRETE MASONRY UNITS: ASTM C90, LIGHT WEIGHT.
6.

DESIGN COMPRESSIVE STRENGTH f 'm (PSI)	UNIT STRENGTH (PSI)	GROUT STRENGTH (PSI) MIN / MAX	MORTAR PROPERTIES
2,000	2,800	2,000 / 3500	Type S

7. PLACE COURSES IN WALLS, COLUMNS, AND PILASTERS IN RUNNING BOND PATTERN.
8. PROVIDE MATCHING FOUNDATION DOWELS FOR ALL TYPICAL AND ADDITIONAL VERTICAL BARS.
9. PROVIDE VERTICAL BARS AND DOWELS WITH LAP LENGTHS AS SHOWN IN DETAIL 0422-004.
10. STAGGER ADJACENT LAP SPLICES BY 24 INCHES WHEN SEPARATED BY 3 INCHES OR LESS.
11. PROVIDE NUMBER OF FULL HEIGHT VERTICAL BARS AT EDGES OF OPENINGS AS SHOWN IN DETAIL 0422-004.
12. PROVIDE FULL HEIGHT VERTICAL BARS IN 3 CELLS AT WALL CORNERS AND INTERSECTIONS AS SHOWN IN DETAIL 0422-001.
13. PROVIDE HORIZONTAL CORNER AND INTERSECTION BARS WITH LAP LENGTHS AS SHOWN IN DETAIL 0422-001.
15. PROVIDE REINFORCED LINTELS ABOVE AND REINFORCED BOND BEAMS BELOW OPENINGS AS SHOWN IN DETAIL 0422-002.
16. PROVIDE FULL HEIGHT VERTICAL BARS WITH MATCHING DOWELS IN CELLS ADJACENT TO OPENINGS AS SHOWN IN DETAIL 0422-002.
17. GROUTING: PARTIALLY GROUT WALLS;
    - A. DO NOT SOLID GROUT WALLS UNLESS INDICATED ON THE DRAWINGS.
    - B. GROUT ONLY CELLS WITH REINFORCING WHERE REBAR IS SPACED AT 32 INCHES ON CENTER OR GREATER EACH WAY.
    - C. SOLID GROUT ALL CELLS IN CMU WALLS WHERE REBAR IS SPACED AT 24 INCHES ON CENTER OR LESS, EITHER WAY.
    - D. SOLID GROUT ALL PIERS, COLUMNS, HEADERS, AND BOND BEAMS.
    - E. SOLID GROUT ADDITIONAL MASONRY AREAS SPECIFICALLY INDICATED ON THE DRAWINGS.
    - F. FILL NON-GROUTED CELLS WITH INSULATION WHERE WALL TYPES SHOWN ON ARCHITECTURAL DRAWINGS REQUIRE INSULATED MASONRY CELLS.
18. MASONRY UNIT AND GROUT TESTING SHALL BE IN CONFORMANCE WITH IBC "UNIT STRENGTH METHOD". TESTING WILL BE OWNER FURNISHED AS INDICATED ON THE STATEMENT OF SPECIAL INSPECTIONS PLAN PROVIDED ON THE DRAWINGS. PRISM TEST METHOD MAY BE SUBMITTED AS AN ALTERNATIVE OR MAY BE REQUIRED BY OWNER'S REPRESENTATIVE TO VERIFY WORK.
20. DO NOT PLACE CONDUIT IN CELLS CONTAINING PARALLEL REINFORCEMENT.

WELDING

1. WELDS SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS):
   D1.1, STRUCTURAL WELDING CODE STEEL
   D1.2, STRUCTURAL WELDING CODE ALUMINUM
   D1.3, STRUCTURAL WELDING CODE SHEET STEEL
   D1.6, STRUCTURAL WELDING CODE STAINLESS STEEL
2. REPAIR WELDS FOUND DEFECTIVE IN ACCORDANCE WITH AWS D1.1 SECTION 5.26.
3. USE INTERMITTENT WELDS AT FIELD WELDS OF EMBED PLATES AND ANGLES TO AVOID SPALLING OR CRACKING OF THE EXISTING CONCRETE.
4. BUTT JOINT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) UNLESS INDICATED OTHERWISE.

METAL FABRICATIONS

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

W-SHAPES	A992
MISCELLANEOUS SHAPES INCLUDING ANGLES, CHANNELS, PLATES, ETC.	A36
HOLLOW STRUCTURAL SECTIONS (HSS)	A500, GRADE B
STEEL PIPE	A53, GRADE B
STAINLESS STEEL SHAPES	A276

2. ALUMINUM SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

STRUCTURAL SHAPES	B308
PLATES	B209

3. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, CURRENT EDITION, AND CURRENT OSHA STANDARDS.
4. FASTENERS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING ASTM STANDARDS EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

UNLESS SHOWN OTHERWISE	A325-N
DIRECT TENSION INDICATORS OR LOAD INDICATOR WASHERS	ASTM F959
TENSION CONTROL (TC) BOLTS	ASTM A325 AND ASTM F1852
ANCHOR BOLTS (AB)	
STAINLESS STEEL	F593, AISI TYPE 316, CONDITION CW
STEEL OR GALVANIZED STEEL	F1554, GR 36 / A153
MACHINE BOLTS (MB)	
STEEL	A307
STAINLESS STEEL	F593, AISI TYPE 316, CONDITION CW
GALVANIZED STEEL	A307 / A153
ALUMINUM	F468, ALLOY 2024-T4

5. ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.
6. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STRUCTURAL STEEL IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

DEFERRED SUBMITTALS

1. DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE PERMITTING AGENCY FOR ACCEPTANCE PRIOR TO INSTALLATION OF THAT PORTION OF THE WORK OR ARE REQUIRED TO BE SUBMITTED FOR REVIEW ONLY BY THE ENGINEER.
2. WHERE DEFERRED SUBMITTALS INCLUDE ADDITIONAL MATERIALS, INSTALLATION, ANCHORAGE, OR CERTIFICATION OF COMPONENTS THAT REQUIRE SPECIAL INSPECTION AND/OR STRUCTURAL OBSERVATION TO MEET CODE REQUIREMENTS, THE DEFERRED SUBMITTAL SHALL INCLUDE SPECIFIC LINE ITEMS TO BE ADDED TO THE APPROPRIATE TABLES IN THE PROJECT'S STATEMENT OF SPECIAL INSPECTIONS PLAN IF THEY ARE NOT ALREADY IDENTIFIED.
3. THE FOLLOWING IS A LIST OF DEFERRED SUBMITTALS PER IBC SECTION 107.3.4.1 OF 2015 IBC THAT ARE EXPECTED TO CONTAIN STRUCTURAL CALCULATIONS OR SAFETY RELATED SYSTEM INFORMATION FOR REVIEW TO MEET BUILDING PERMITTING REQUIREMENTS FOR DESIGNED SYSTEMS. PRIOR TO INSTALLATION OF THE INDICATED STRUCTURAL ELEMENT, EQUIPMENT, DISTRIBUTION SYSTEM, OR COMPONENT OR ITS ANCHORAGE, THE CONTRACTOR SHALL SUBMIT THE REQUIRED CALCULATIONS AND SUPPORTING DATA AND DRAWINGS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. ADDITIONALLY, ACCEPTANCE INDICATED ON THE ENGINEER'S COMMENT FORM, ALONG WITH THE COMPLETED, FINAL SUBMITTAL SHALL THEN BE SUBMITTED BY THE CONTRACTOR TO THE PERMITTING AGENCY AND APPROVED PRIOR TO INSTALLATION OF THESE ITEMS.
4. SEE DWG 01-G-0008 FOR DEFEREED SUBMITTAL SPECIAL INSPECTION REQUIRMENTS.

SPECIFICATION SECTION	CODE REQUIRED DEFERRED SUBMITTALS FOR REVIEW BY PERMITTING AGENCY
01 45 36	EQUIPMENT SEISMIC CERTIFICATION
01 88 15	ANCHORAGE AND BRACING
03 40 00	PRECAST CONCRETE
05 52 16	ALUMINUM RAILINGS
08 30 00	SPECIALTY DOORS
08 33 23	OVERHEAD COILING DOORS
08 41 13	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
13 34 50	PRE-ENGINEERED ALUMINUM CANOPY
40 05 15	PIPING SUPPORT SYSTEMS
41 22 13.23	OVERHEAD CRANES
41 22 23.19	MONORAIL HOISTS
OTHER	ANY EQUIPMENT OR COMPONENT IN WHICH A TECHNICAL SPECIFICATION REQUIRES SUBMITTAL OF EQUIPMENT OR ANCHORAGE SYSTEM CALCULATIONS

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		C.COHEN	P.KARABAN	M.CHRZANOWSKI	M.CHRZANOWSKI	APVD	

CONFORMED DOCUMENTS

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Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL

STRUCTURAL NOTES 2

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0007
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STATEMENT OF SPECIAL INSPECTIONS

GENERAL NOTES

1. THE STATEMENT OF SPECIAL INSPECTIONS PROVIDE PROJECT COMPLIANCE W/ THE PROVISIONS OF THE 2012 INTERNATIONAL BLDG CODE (IBC) CHAPTER 17 FOR SPECIAL INSPECTION, STRUCTURAL OBSERVATION, AND TESTING FOR WIND AND SEISMIC RESISTANCE AS APPLICABLE. EXCEPT WHERE OTHERWISE NOTED, THIS INSPECTION IS OWNER FURNISHED.
2. STANDARD SPECIAL INSPECTION REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS ARE CONTAINED IN TABLE 1.
3. STANDARD SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL COMPONENTS, REGARDLESS OF WIND OR SEISMIC DESIGN CATEGORIES, ARE CONTAINED IN TABLE 2. STANDARD TESTING REQUIREMENTS FOR STRUCTURAL COMPONENTS ARE CONTAINED IN TABLE 3.
4. PROJECT SPECIFIC REQUIREMENTS FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORIES C, D, E, OR F ARE CONTAINED IN TABLE 4. ADDITIONAL TESTING REQUIREMENTS FOR STRUCTURAL RESISTANCE ARE CONTAINED IN TABLE 6.
5. PROJECT SPECIFIC REQUIREMENTS FOR STRUCTURES SUBJECT TO BASIC WIND SPEEDS [(V asd)] IN EXCESS OF 110 MPH ARE CONTAINED IN TABLE 5.
6. FOR ADDITIONAL REQUIREMENTS, REFER TO SPECIFICATION SECTION 01 45 33, SPECIAL INSPECTION, OBSERVATION, AND TESTING. THESE INCLUDE:
   A. CONTRACTOR'S REQUIREMENTS TO PROVIDE ACCESS TO THE WORK FOR REQD INSPECTIONS, AND TO PROVIDE NOTICE OF REQD INSPECTIONS AND STRUCTURAL OBSERVATION.
   B. CONTRACTOR'S STATEMENT OF RESPONSIBILITY FOR WORK TO BE PERFORMED ON SYSTEMS DESIGNATED UNDER THE STATEMENT OF SPECIAL INSPECTIONS FOR WIND OR SEISMIC RESISTANCE.
   C. DEFINITIONS AND TERMINOLOGY USED IN THIS STATEMENT OF SPECIAL INSPECTIONS.

SPECIAL INSPECTION

1. SPECIAL INSPECTION WILL BE IN ACCORDANCE W/ IBC SECTIONS AND 1705 TOGETHER W/ LOCAL AND STATE AMENDMENTS. REFER TO THE FOLLOWING TABLES FOR 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. THE OWNER WILL SECURE AND PAY FOR THE SERVICES OF THE AGENCY TO PERFORM ALL SPECIAL INSPECTION AND ASSOCIATED TESTS. INSPECTORS FOR EACH SYSTEM AND MATERIAL WILL BE INTERNATIONAL CODE COUNCIL (ICC) CERTIFIED OR OTHERWISE APPROVED BY THE BLDG OFFICIAL. WHERE A STRUCTURE, SYSTEM OR COMPONENT REQUIRING SPECIAL INSPECTION IS DESIGNED BY A DELEGATED ENGINEER, THAT REGISTERED ENGINEER SHALL ACT AS THE SPECIAL INSPECTOR OR SHALL OTHERWISE PROVIDE FOR ALL SPECIAL INSPECTION SERVICES AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND REQD BY THE IBC. COST FOR DELEGATED DESIGN SPECIAL INSPECTIONS SERVICES SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE DELEGATED DESIGN CONTRACTOR'S COST FOR SERVICES.
3. THE SPECIAL INSPECTOR WILL OBSERVE THE INDICATED WORK FOR COMPLIANCE W/ 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, BLDG OFFICIAL, AND OWNER WITHIN ONE WEEK OF INSPECTION OR WITHIN ONE WEEK OF TEST COMPLETION. INSPECTIONS FOR WHICH REPORTING WILL BE REQD ARE NOTED IN THE FOLLOWING TABLES.
5. AT THE CONCLUSION OF CONSTRUCTION, A FINAL REPORT DOCUMENTING REQD SPECIAL INSPECTIONS AND CORRECTION OF PREVIOUSLY NOTED DISCREPANCIES WILL BE SUBMITTED.

GEOTECHNICAL OBSERVATION

1. FOUNDATION BEARING SURFACES SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL. ADDITIONAL SPECIAL INSPECTION REQUIREMENTS ARE LISTED IN TABLE 1.
2. GEOTECHNICAL TESTING REQUIREMENTS ARE LISTED IN TABLE 3.

STRUCTURAL OBSERVATION

1. STRUCTURAL OBSERVATION WILL BE IN ACCORDANCE W/ IBC SECTION 1704.5 TOGETHER W/ LOCAL AND STATE AMENDMENTS.
2. ONSITE STRUCTURAL OBSERVATION WILL BE PERFORMED FOR EACH IDENTIFIED SEISMIC FORCE- OR WIND FORCE-RESISTING SYSTEM, INCLUDING FOUNDATIONS AND CONNECTIONS. REFER TO THE DRAWINGS FOR THE BASIC SEISMIC AND WIND FORCE-RESISTING SYSTEMS FOR THE STRUCTURES INCLUDED IN THE WORK.
3. STRUCTURAL OBSERVATION WILL BE PERFORMED BY A REGISTERED PROJECT DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR ANY REQD SPECIAL INSPECTIONS OR INSPECTIONS BY THE BLDG OFFICIAL.
4. STRUCTURAL OBSERVATION REPORTS, NOTING ANY DEFICIENCIES IN OBSERVED CONSTRUCTION, WILL BE DELIVERED TO THE CONTRACTOR, BLDG OFFICIAL, AND OWNER FOLLOWING EACH OBSERVATION. THE CONTRACTOR WILL BE NOTIFIED ONSITE OR BY PHONE OR E-MAIL WITHIN 24 HOURS UPON FINDING DEFICIENCIES.
5. AT THE CONCLUSION OF CONSTRUCTION, A WRITTEN STATEMENT WILL BE PROVIDED TO VERIFY THAT THE STRUCTURAL OBSERVATION SITE VISITS WERE MADE AND WHETHER THERE REMAIN ANY STRUCTURAL DEFICIENCIES THAT HAVE NOT BEEN RESOLVED.
6. STRUCTURAL OBSERVATION WILL INCLUDE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM FOR EACH STRUCTURE CONTAINED IN THE WORK. THE CONTRACTOR SHALL SCHEDULE AND FACILITATE STRUCTURAL OBSERVATION, INCLUDING THE ELEMENTS DESCRIBED IN THE STRUCTURAL OBSERVATION TABLES.

SPECIAL INSPECTIONS FOR WIND RESISTANCE

1. SPECIAL INSPECTIONS REQUIREMENTS FOR WIND RESISTANCE IN ACCORDANCE W/ IBC SECTION 1705.10.
2. SPECIAL INSPECTIONS REQUIREMENTS FOR WIND RESISTANCE WILL BE IN ACCORDANCE W/ IBC SECTION 1705.10 TOGETHER W/ LOCAL AND STATE AMENDMENTS.
3. SPECIAL INSPECTIONS REQUIREMENTS SHALL APPLY TO THE FOLLOWING:
   A. WIND FORCE-RESISTING SYSTEMS IN STRUCTURES IN WIND EXPOSURE CATEGORY B, V asd IS 120 MILES PER HOUR OR GREATER.
   B. WIND FORCE-RESISTING SYSTEMS IN STRUCTURES IN WIND EXPOSURE CATEGORIES C OR D, WHERE V asd IS 110 MILES PER HOUR OR GREATER.
   REFER TO DRAWINGS FOR BASIC WIND SPEED AND WIND EXPOSURE CATEGORY.
4. WIND FORCE-RESISTING SYSTEMS TO RECEIVE SPECIAL INSPECTION FOR WIND RESISTANCE SHALL INCLUDE THE COMPONENTS LISTED IN TABLE 5.
5. MAIN SYSTEMS REQD TO BE COVERED UNDER PROJECT SPECIAL INSPECTION REQUIREMENTS INCLUDE THE FOLLOWING TOGETHER W/ THEIR CONNECTIONS. REFER TO SECTION 01 45 33, SPECIAL INSPECTION, OBSERVATION AND TESTING.
   A. FACILITY 20 - DEWATERING AND CONTROL BLDG
   B. FACILITY 50 CHLORINE AND SO2 BLDG

SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

1. SPECIAL INSPECTIONS REQUIREMENTS FOR SEISMIC RESISTANCE IN ACCORDANCE W/ IBC SECTION 1705.11 AND 1705.12.
2. SPECIAL INSPECTIONS REQUIREMENTS FOR SEISMIC RESISTANCE WILL BE IN ACCORDANCE W/ IBC SECTION 1705.11 AND 1705.12 TOGETHER W/ LOCAL AND STATE AMENDMENTS. REFER TO DRAWINGS FOR BASIC SEISMIC-FORCE-RESISTING SYSTEMS FOR EACH STRUCTURE AND DESIGNATED SEISMIC DESIGN CATEGORY.
3. SPECIAL INSPECTIONS REQUIREMENTS FOR SEISMIC RESISTANCE SHALL APPLY TO THE SYSTEMS AND COMPONENTS LISTED IN TABLE 4.
4. MAIN SYSTEMS REQD TO BE COVERED UNDER PROJECT SPECIAL INSPECTION REQUIREMENTS INCLUDE THE FOLLOWING TOGETHER W/ THEIR CONNECTIONS. REFER TO SECTION 01 45 33, SPECIAL INSPECTION, OBSERVATION AND TESTING.
   A. FACILITY 50 - CHLORINE AND SO 2 BUILDING: INTERMEDIATE PRECAST SHEARWALLS.

STRUCTURAL OBSERVATION TABLE

	SYSTEM FOR FACILITIES (20) DEWATERING BUILDING AND (50) CHLORINE AND SO_2 BUILDING	STAGE	ITEMS	COMMENTS
1.	FOUNDATION SLAB OF STRUCTURE	PRIOR TO FIRST CONCRETE PLACEMENT OF FIRST SECTION WHEN ITEMS CAN STILL BE REVISED	REINFORCING STEEL, CONCRETE AND MASONRY WALL DOWELS, WATERSTOPS, EMBEDS, AND SIMILAR ITEMS	NOTE 1
2.	CONCRETE WALLS OF STRUCTURE	PRIOR TO FIRST CONCRETE PLACEMENT OF FIRST SECTION WHEN ITEMS CAN STILL BE REVISED	REINFORCING STEEL, WALL DOWELS, WATERSTOPS, EMBEDS, AND SIMILAR ITEMS	NOTE 1
3.	WALL TO FOUNDATION CONNECTIONS PRIOR TO FORM CLOSURE	PRIOR TO FIRST CONCRETE PLACEMENT OF FIRST SECTION WHEN ITEMS CAN STILL BE REVISED		NOTE 1
4.	ELEVATED CONCRETE SLABS AND BEAMS PRIOR TO CONCRETE PLACEMENT	PRIOR TO FIRST CONCRETE PLACEMENT OF FIRST SECTION WHEN ITEMS CAN STILL BE REVISED	REINFORCING STEEL, WALL DOWELS, WATERSTOPS, EMBEDS, AND SIMILAR ITEMS	NOTE 1
5.	CONCRETE STRUCTURES	PRIOR TO FIRST CONCRETE PLACEMENT ON FIRST LIQUID HOLDING STRUCTURE WHEN ITEMS CAN STILL BE REVISED	REINFORCING STEEL, WALL DOWELS, WATERSTOPS, EMBEDS, AND SIMILAR ITEMS	NOTE 1
6.	CONCRETE STRUCTURES	AT COMPLETION OF PLACEMENT OF ALL CONCRETE COMPONENTS FOR THE FIRST LIQUID HOLDING STRUCTURE	CONCRETE TOLERANCES, FINISHING, LIQUID TIGHTNESS, AND SIMILAR ITEMS	NOTE 1
7.	MASONRY WALL BEAM, PIER, AND COLUMN REINFORCING STEEL	DURING THE INITIAL CONSTRUCTION OF THE FIRST MASONRY STRUCTURE WHEN ITEMS CAN STILL BE REVISED	REINFORCING STEEL, GROUTED CELLS, EMBEDS, COURSE PREPARATION AND SIMILAR ITEMS	NOTE 1
8.	SYSTEM CONNECTION EMBEDS	PRIOR TO GROUT OR CONCRETE PLACEMENT		NOTE 1
9.	CONCRETE WALL TO FLOOR AND ROOF CONNECTIONS	PRIOR TO FORM CLOSURE [OR CLADDING INSTALLATION] OR OTHER COVER		NOTE 1
10.	AT ADDITIONAL TIMES DURING CONSTRUCTION AT WHICH THE ENGINEER OF RECORD OR OWNER DEEM THE NEED FOR ADDITIONAL STRUCTURAL OBSERVATION			NOTE 1
11.	AT SUBSTANTIAL COMPLETION OF PRIMARY STRUCTURAL SYSTEM FOR DETERMINATION OF FINAL CONDITION OF STRUCTURE			NOTE 1

NOTES:
1. STRUCTURAL OBSERVER TO DISCUSS ITEMS AND SITE SPECIFIC CONDITIONS WITH SPECIAL INSPECTOR AND FIELD INSPECTION STAFF DURING OBSERVATION.

TABLE 1
REQUIRED NON-STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM OR MATERIAL	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
GEOTECHNICAL						
1. SOILS:						
A. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	1705.6, 1803.5.8, 1803.5.9, 1804.5	SECTION 31 23 13, SUBGRADE PREPARATION	X		PROFESSIONAL OBSERVATION BY GEOTECHNICAL ENGINEER	
B. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	1705.6	SECTION 31 23 16, EXCAVATION	X		PROFESSIONAL OBSERVATION BY GEOTECHNICAL ENGINEER	
C. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	1705.6	SECTION 31 23 23, FILL AND BACKFILL	X			SEE TABLE 3 FOR GRADATION TEST REQUIREMENTS
D.VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	1705.6, 1803.5.8	SECTION 31 23 23, FILL AND BACKFILL		X		SEE TABLE 3 FOR DENSITY TEST REQUIREMENTS
E. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	1705.6	SECTION 31 23 13, SUBGRADE PREPARATION	X		PROFESSIONAL OBSERVATION BY GEOTECHNICAL ENGINEER	SEE TABLE 3 FOR DENSITY TEST REQUIREMENTS

TABLE 1 - CONTINUED
REQUIRED NON-STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM OR MATERIAL	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
ARCHITECTURAL						
1. WATER-RESISTIVE BARRIER COATING WHEN APPLIED OVER SHEATHING SUBSTRATE	1705.15.1	ASTM E2570	X			
2. FIRE-RESISTANT PENETRATIONS AND JOINTS IN BUILDING						
A. PENETRATION FIRESTOPS	1705.16.1	ASTM E2174	X			
B. FIRE-RESISTANT JOINT SYSTEMS	1705.16.2	ASTM E2393	X			
BUILDING MECHANICAL						
1. INSTALLATION OF SMOKE CONTROL SYSTEMS:						
A. LEAKAGE TESTING AND RECORDING OF DEVICE LOCATIONS PRIOR TO CONCEALMENT	1705.17		X			
B. PRIOR TO OCCUPANCY AND AFTER SUFFICIENT COMPLETION, PRESSURE DIFFERENCE TESTING, FLOW MEASUREMENTS, AND DETECTION AND CONTROL VERIFICATION	1705.17		X			
GENERAL						
1. CONSTRUCTION MATERIALS AND SYSTEMS THAT ARE ALTERNATIVES TO MATERIALS AND SYSTEMS PRESCRIBED BY CODE	1705.1.1 ITEM 1		X			
2. UNUSUAL DESIGN APPLICATION OF CODE MATERIALS	1705.1.1 ITEM 2			X		
3. INSTALLATION OF MATERIALS THAT REQUIRE ADDITIONAL MANUFACTURER'S INSTRUCTIONS BEYOND CODE REQUIREMENTS	1703.4.2, 1705.1.1 ITEM 3	ICC-ES EVALUATION REPORTS		X		
STRUCTURAL						
SEE TABLE 2.						

NOTES:
1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING INSPECTED WORK.

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	R FORREST	P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI	M CHRZANOWSKI BY APVD

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25 WEST CEDAR STREET, SUITE 350
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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
STRUCTURAL
SPECIAL INSPECTION NOTES
SHEET 1

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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TABLE 2
REQUIRED STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
CONCRETE						
1. INSPECTION OF REINFORCING STEEL, INCLUDING PLACEMENT	1705.3, 1903.1	ACI 318: 3.5, 7.1-7.7	X			SEE TABLE 6 FOR REINFORCING STEEL TESTING
2. INSPECTION OF REINFORCING STEEL WELDING	1705.3, 1903.1	AWS D1.4 ACI 318: 3.5.2			SEE STEEL AND CONSTRUCTION OTHER THAN STEEL (IN THIS TABLE) FOR WELDING INSPECTION REQUIREMENTS	
3. INSPECTION OF ANCHORS CAST IN CONCRETE	1705.3, 1908.5, 1909.1	ACI 318: 8.1.3	X			
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	1705.3, 1909.1	ACI 318: 3.8.6, 8.1.3, ICC-ES EVALUATION REPORTS	X		PROVIDE CONTINUOUS SPECIAL INSPECTION WHERE REQUIRED BY ICC-ES REPORT	
5. VERIFYING USE OF REQUIRED DESIGN MIX	1705.3, 1904.2	ACI 318: Ch. 4, 5.2-5.4	X			
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	1705.3	ASTM C 172, ASTM C 31, ACI 318: 5.6, 5.8		X		SEE TABLE 3 FOR CONCRETE TEST REQUIREMENTS
7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	1705.3,	ACI 318: 5.9, 5.10		X		
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	1705.3	ACI 318: 5.11-5.13	X			
9. ERECTION OF PRECAST CONCRETE MEMBERS	1705.3	ACI 318: Ch. 16	X			
10. VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORING AND FORMS FROM BEAMS AND STRUCTURAL SLABS	1705.3	ACI 318: 6.2	X			
11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	1705.3	ACI 318: 6.1.1	X			
12. VERIFY PROPER INSTALLATION OF MECHANICAL REINFORCING SPLICES AND CONNECTIONS	1705.1.1 ITEM 3, 1705.3	ICC-ES EVALUATION REPORTS	X			
MASONRY LEVEL B						
1. FOR SELF-CONSOLIDATING GROUT: VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE.	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 1.5B.1.b.3	X			
2. VERIFICATION OF f_m PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY CODE	1705.4	ACI 530: Sec. 1 19.2 ACI 530.1: Art. 1.4B	X			
3. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 1.5	X			

TABLE 2 - CONTINUED
REQUIRED STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
4. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:						
A. PROPORTIONS OF SITE-PREPARED MORTAR	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 2.1, 2.6A	X			
B. CONSTRUCTION OF MORTAR JOINTS	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.3B	X			
C. LOCATION OF REINFORCEMENT AND CONNECTORS	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.4, 3.6A	X			
5. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:						
A. GROUT SPACE	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.2D, 3.2F	X			
B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS	1705.4	ACI 530: Sec. 1.16, 1.19.2 ACI 530.1: Art. 2.4, 3.4	X			
C. PLACEMENT OF REINFORCEMENT	1705.4	ACI 530: Sec. 1.16, 1.19.2 ACI 530.1: Art. 3.2E, 3.4, 3.6A	X			
D. PROPORTIONS OF SITE-PREPARED GROUT	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 2.6B, 2.4G.1.b	X			
E. CONSTRUCTION OF MORTAR JOINTS	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.3B	X			
6. VERIFY DURING CONSTRUCTION:						
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.3F	X			
B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	1705.4	ACI 530: Sec. 1.16.4.3, 1.17.1, 1.19.2	X			
C. WELDING OF REINFORCEMENT	1705.4	ACI 530: Sec. 1.19.2, 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b)		X	SEE STRUCTURAL STEEL (IN THIS TABLE) FOR WELDING INSPECTION REQUIREMENTS	
D. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMP. BELOW 40 DEGREES F) OR HOT WEATHER (TEMP. ABOVE 90 DEGREES F)	1705.4, 2104.3, 2104.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 1.8C, 1.8D	X			
E. PLACEMENT OF GROUT	1705.4	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 3.5, 3.6C		X		
7. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	1705.4, 2105.2.2, 2105.3	ACI 530: Sec. 1.19.2 ACI 530.1: Art. 1.4B.2	X			SEE TABLE 3 FOR UNIT STRENGTH TESTS FOR MASONRY
STEEL						
1. MATERIAL VERIFICATION OF STEEL:						
A. IDENTIFICATION MARKINGS TO CONFORM TO AISC 360	1705.2.1, 2203.1	Applicable ASTM Material Standards	X			
B. MANUFACTURER'S CERTIFIED TEST REPORTS	1705.2.1	AISC 360: Sec. N3.2, N5.2	X			

TABLE 2 - CONTINUED
REQUIRED STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
2. PRIOR TO BOLTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:						
A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	1705.2.1	AISC 360: Sec. N3.2, N5.2, N5.6 RCSC: Sec. 2.1, 9.1		X		
B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	1705.2.1	AISC 360: Sec. N3.2, N5.2, N5.6 Applicable ASTM Material Standards	X			
C. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	1705.2.1	AISC 360: Sec. N5.6 RCSC: Sec. 4	X			
D. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	1705.2.1	AISC 360: Sec. N5.6 RCSC: Sec. 3.2, 4	X			
E. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	1705.2.1	AISC 360: Sec. N5.6 RCSC: Sec. 7		X		
F. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	1705.2.1	AISC 360: Sec. N5.6 RCSC: Sec. 2.2	X			
3. VERIFY DURING BOLTING:						
A. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	1705.2.1	AISC 360: Sec. N5.6	X			
B. JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	1705.2.1	AISC 360: Sec. N5.6	X			
C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	1705.2.1	AISC 360: Sec. N5.6	X			
D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	1705.2.1	AISC 360: Sec. N5.6	X			SEE TABLE 3 FOR TESTING OF HIGH-STRENGTH BOLTING
4. PRIOR TO WELDING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:						
A. APPROVED WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE TO WELDERS AND WELDING INSPECTOR(S)	1705.2.1	AWS D1.1	X			
B. WELDER QUALIFICATIONS AND JOINT FIT-UP	1705.2	AWS D1.1	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
		R FORREST	P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI		M CHRZANOWSKI

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
STRUCTURAL
SPECIAL INSPECTION NOTES
SHEET 2

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
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TABLE 2 - CONTINUED
REQUIRED STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
5. VERIFY DURING WELDING:						
A. CONTROL AND HANDLING OF WELDING CONSUMABLES	1705.2.1	AWS D1.1	X			
B. ENVIRONMENTAL CONDITIONS	1705.2.1	AWS D1.1	X			
C. COMPLIANCE WITH WPS REQUIREMENTS	1705.2.1	AWS D1.1	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23 AND TABLE 3 FOR STRUCTURAL STEEL TEST REQUIREMENT
6. AFTER WELDING, VERIFY THE FOLLOWING:						
A. SIZE, LENGTH AND LOCATION OF WELDS	1705.2.1	AWS D1.1	X		NOTE 2	
B. WELDS MEET VISUAL ACCEPTANCE CRITERIA	1705.2.1	AWS D1.1	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23
C. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	1705.2.1	AWS D1.1	X			
D. NONDESTRUCTIVE WELDING INSPECTION	1705.2	AWS D1.1	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23
7. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:						
A. DETAILS SUCH AS BRACING AND STIFFENING	1705.2.1		X			
B. MEMBER LOCATIONS	1705.2.1		X			
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION	1705.2.1		X			
8. INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT:						
A. PLACEMENT AND INSTALLATION OF STEEL DECK	1705.2.1	AISC 360: Table N6.1		X		
B. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	1705.2.1	AWS D1.1	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23
CONSTRUCTION OTHER THAN STEEL						
1. INSPECTION OF WELDING, REINFORCING STEEL:						
A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706	1705.2.2, 1903.1	AWS D1.4 ACI 318: 3.5.2	X		NOTE 2	CONTRACTOR TO DETERMINE THE CARBON EQUIVALENT TO DEVELOP WPS REQUIREMENTS
B. SHEAR REINFORCEMENT	1705.2.2, 1903.1	AWS D1.4 ACI 318: 3.5.2		X		SEE TABLE 3 FOR TESTING OF WELDING REINFORCING STEEL
E. OTHER REINFORCING STEEL	1705.2.2, 1903.1	AWS D1.4 ACI 318: 3.5.2	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23

TABLE 2 - CONTINUED
REQUIRED STRUCTURAL SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

SYSTEM	2012 IBC CODE REFERENCE	REFERENCED STANDARD	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS	TESTING FOR SPECIAL INSPECTION
ALUMINUM						
1. MATERIAL VERIFICATION OF ALUMINUM:						
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	1705.1.1 ITEM 2		X			
B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS	1705.1.1 ITEM 2		X			
2. INSPECTION OF WELDING:						
A. NONDESTRUCTIVE INSPECTION	1705.1.1 ITEM 2	AWS D1.2	X		NOTE 2	ALSO SEE REQUIREMENTS OF SPEC. SECTION 05 05 23

NOTES:

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING INSPECTED WORK.

2. VISUAL INSPECTION IS THE RESPONSIBILITY OF THE CONTRACTOR'S WELDING INSPECTOR(S) AND IS NOT CONSIDERED SPECIAL INSPECTION. CONTRACTOR MUST PROVIDE A QUALIFIED WELDING INSPECTOR TO OVERSEE CONTRACTOR'S WELDING OPERATIONS, AS REQUIRED BY AWS D1.1, SECTIONS 6.1.2 & 6.6, SPEC. SECTION 05 05 23 AND REFERENCED WELDING CODES.

TABLE 3
TESTING FOR REQUIRED SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

MATERIAL	TYPE OR SCOPE	STANDARD	2012 IBC CODE REFERENCE	FREQUENCY	BY WHOM	COMMENTS
GEOTECHNICAL						
COMPACTED FILL	GRADATION	ASTM C117, C136	1705.6	SECTION 31 23 23, FILL AND BACKFILL	OWNER'S TESTING AGENCY	
COMPACTED FILL	COMPACTION	ASTM D698	1705.6	SECTION 31 23 23, FILL AND BACKFILL	OWNER'S TESTING AGENCY	
COMPACTED FILL	DENSITY	ASTM D1556 OR D6938	1705.6	SECTION 31 23 23, FILL AND BACKFILL	OWNER'S TESTING AGENCY	
PREPARED SUBGRADE	DENSITY	ASTM D698	1705.6	SECTION 31 23 13, SUBGRADE PREPARATION	OWNER'S TESTING AGENCY	
CONCRETE						
CONCRETE	STRENGTH	ASTM C39	1705.3	ONCE EACH DAY, BUT NOT LESS THAN ONE SAMPLE FOR EACH 150 CUBIC YARDS OR 5,000 SFT OF WALLS OR SLABS PLACED	OWNER'S TESTING AGENCY	
CONCRETE	SLUMP	ASTM C143, C94	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
CONCRETE	AIR CONTENT	ASTM C231, C94	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
CONCRETE	TEMPERATURE	ASTM C1064	1705.3	ONE SAMPLE PER STRENGTH TEST	OWNER'S TESTING AGENCY	
MASONRY						
CONCRETE MASONRY	UNIT STRENGTH	ASTM C140	2105.2.2.1.2	ONE SAMPLE SET (6 FULL SIZE UNITS) PER 5,000 SQ. FT. DURING CONSTRUCTION	OWNER'S TESTING AGENCY	
MASONRY	COMPRESSIVE STRENGTH OF GROUT	ASTM C1019	2105.2.2.1	THREE SAMPLES PRIOR TO CONSTRUCTION	OWNER'S TESTING AGENCY	

TABLE 3 - CONTINUED
TESTING FOR REQUIRED SPECIAL INSPECTION
REFER TO SPECIFICATION SECTION 01 45 33

MATERIAL	TYPE OR SCOPE	STANDARD	2012 IBC CODE REFERENCE	FREQUENCY	BY WHOM	COMMENTS
STEEL						
STEEL STUD WELDING	PRE-PRODUCTION TESTING	AWS D1.1 Sec. 7.7.1	1705.2	PRIOR TO CONSTRUCTION FOR EACH SIZE AND TYPE AND FIRST 2 STUDS EACH SHIFT	CONTRACTOR'S WELDING INSPECTOR	
HIGH-STRENGTH BOLTING	PRE-INSTALLATION VERIFICATION TESTING OF PRETENSIONED BOLTS	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, Sec. 7	1705.2	3 FASTENER ASSEMBLIES OF EACH COMBINATION OF DIAMETER, LENGTH, GRADE AND LOT	OWNER'S TESTING AGENCY	
STRUCTURAL STEEL	ULTRASONIC OR RADIOGRAPHIC NONDESTRUCTIVE TESTING	AWS D1.1	1705.2	SECTION 05 05 23, WELDING	OWNER'S TESTING AGENCY	PERFORM RT OR UT ON GROOVE WELDS
REINFORCING STEEL	MAGNETIC PARTICLE NONDESTRUCTIVE TESTING	AWS D1.4	1705.3, 1903.1	SECTION 05 05 23, WELDING	OWNER'S TESTING AGENCY	PERFORM ON FILLET WELDS AND PARTIAL JOINT PENETRATION WELDS

NO.	DATE	DSGN	DR	CHK	BY	APVD
		R FORREST	P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI	M CHRZANOWSKI
			REVISION			

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25 WEST CEDAR STREET, SUITE 350
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
STRUCTURAL
SPECIAL INSPECTION NOTES
SHEET 3

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

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DWG	01-G-0010
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TABLE 5
REQUIRED SPECIAL INSPECTION FOR WIND RESISTANCE FOR STRUCTURAL SYSTEMS
REFER TO SPECIFICATION SECTION 01 45 33

V_{ASD} for this Project is 131 mph, except for Facility (50) Chlorine and SO_2 Building which is 135 mph.
Wind Exposure is Category D.

SYSTEM	2012 IBC CODE REFERENCE	STANDARD OR CODE	PERIODIC OWNER FURNISHED SPECIAL INSPECTION (SEE NOTE 1)	CONTINUOUS OWNER FURNISHED SPECIAL INSPECTION	COMMENTS
ARCHITECTURAL					
ROOF CLADDING SYSTEM AND COMPONENTS	1705.10.3		X		NOTE 2
WALL CLADDING SYSTEM AND COMPONENTS	1705.10.3		X		NOTE 2

NOTES:

1. PERIODIC INSPECTION IS DEFINED AS INSPECTION BY THE SPECIAL INSPECTOR OF ALL MATERIALS AND SYSTEMS, IN SOME CASES PERFORMED DURING THEIR PLACEMENT AND IN ALL CASES PERFORMED UPON COMPLETION OF THEIR PLACEMENT. THE COMPLETION INSPECTION SHALL BE PERFORMED SO THAT WORK CAN BE CORRECTED PRIOR TO OTHER RELATED WORK PROCEEDING AND COVERING THE INSPECTED WORK.

2. SPECIAL INSPECTIONS FOR WIND RESISTANCE ARE REQUIRED FOR BUILDINGS AND STRUCTURES CONSTRUCTED IN WIND EXPOSURE CATEGORY B, WHERE THE 3-SECOND-GUST NOMINAL DESIGN WIND SPEED IS 120 MPH OR GREATER, OR IN WIND EXPOSURE CATEGORIES C OR D, WHERE V_{ASD} IS 110 MPH OR GREATER.

TABLE 6
TESTING FOR SEISMIC RESISTANCE
REFER TO SPECIFICATION SECTION 01 45 33

The Seismic Design Category (SDC) for this Project is B except for Facility (50) Chlorine and SO_2 Building which is SDC C.

MATERIAL	TYPE OR SCOPE	STANDARD	2012 IBC CODE REFERENCE	FREQUENCY	BY WHOM	COMMENTS
REINFORCING STEEL						
REINFORCING STEEL MATERIAL IF ASTM A615 REINFORCING STEEL IS TO BE WELDED	CHEMICAL TEST TO DETERMINE CARBON EQUIVALENT	AWS D1.4; ACI 318: Sec. 3.5.2	1705.12.1	EACH APPLICATION	CONTRACTOR'S WELDING INSPECTOR	
STEEL						
TEST IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341	NONDESTRUCTIVE TESTING	AISC 341 AWS D1.8	1705.12.2	CONTINUOUS	OWNER'S SPECIAL INSPECTOR	
RADIOSCOPIC (RT) OR ULTRASONIC (UT) NONDESTRUCTIVE TESTING OF GROOVE WELDS	NONDESTRUCTIVE TESTING	AISC 341 AWS D1.8	1705.12.2	CONTINUOUS	OWNER'S SPECIAL INSPECTOR	USE UT WHERE RT CANNOT BE PERFORMED. SEE SECTION 05 50 00 METAL FABRICATIONS, SECTION 05 05 23, WELDING
MAGNETIC PARTICLE (MT) OR LIQUID PENETRANT (PT) NONDESTRUCTIVE TESTING	NONDESTRUCTIVE TESTING	AISC 341 AWS D1.8	1705.12.2	CONTINUOUS	OWNER'S SPECIAL INSPECTOR	FILLET WELDS AND PARTIAL JOINT PENETRATION GROOVE WELDS.SEE SECTION 05 50 00 METAL FABRICATIONS, SECTION 05 05 23, WELDING
BASE METAL THICKER THAN 1.5 INCHES WHERE SUBJECT TO THROUGH-THICKNESS WELD SHRINKAGE STRAINS	ULTRASONIC TESTING	AWS D1.1; ASTM A435; ASTM A898 (LEVEL 1)	1705.12.2	CONTINUOUS	CONTRACTOR'S WELDING INSPECTOR	PERFORM PRIOR TO WELDING. SEE SECTION 05 50 00 METAL FABRICATIONS, SECTION 05 05 23, WELDING

NOTES:

1. TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE ARE REQUIRED FOR SEISMIC-FORCE-RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F,UNLESS OTHERWISE NOTED.
2. BASED ON ACTUAL TEST ON SHAKE TABLE, BY THREE-DIMENSIONAL SHOCK TESTS, BY AN ANALYTICAL METHOD USING DYNAMIC CHARACTARISTICS AND FORCES, BY THE USE OF EXPERIENCE DATA, OR BY MORE RIGOROUS ANALYSIS PROVIDING FOR EQUIVALENT SAFETY.

NO.	DATE	REVISION	BY	APVD
DSGN	R FORREST	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
STRUCTURAL
SPECIAL INSPECTION NOTES
SHEET 4

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0011
SHEET	013 of 270

GENERAL SHEET NOTE

THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

GOVERNING CODES

2012 INTERNATIONAL BUILDING CODE

2012 INTERNATIONAL PLUMBING CODE

2012 INTERNATIONAL MECHANICAL CODE

2012 INTERNATIONAL FUEL GAS CODE

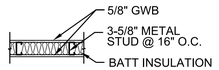
2012 INTERNATIONAL FIRE CODE

2014 NATIONAL ELECTRIC CODE, NFPA 70

INTERNATIONAL ENERGY CONSERVATION CODE (LATEST VERSION ADOPTED BY THE STATE OF AL)

WALL TYPES

A



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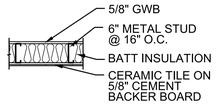

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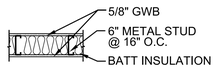

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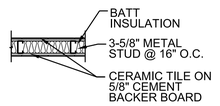

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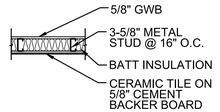

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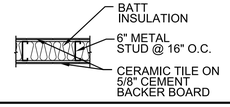

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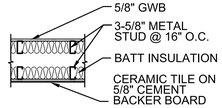

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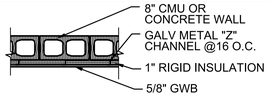
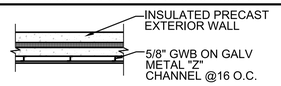


UL DESIGN: U904

TYPE K WALL ABOVE TO UNDERSIDE OF STRUCTURE

H



EXTEND WALL FINISH TO UNDERSIDE OF STRUCTURE

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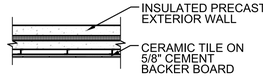

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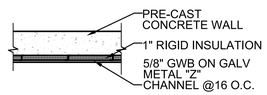
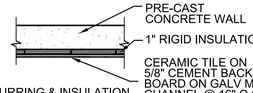


EXTEND FURRING, INSULATION & GWB TO UNDERSIDE OF STRUCTURE

H3



EXTEND FURRING & INSULATION TO UNDERSIDE OF STRUCTURE

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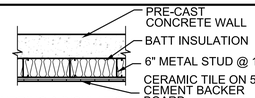

EXTEND FURRING & INSULATION TO UNDERSIDE OF STRUCTURE

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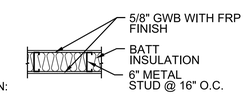


UL DESIGN: U419

GENERAL ARCHITECTURAL NOTES

1. PERFORM WORK IN ACCORDANCE WITH APPLICABLE CODES, RULES, AND REGULATIONS RECOGNIZED AND ADOPTED BY THE JURISDICTION HAVING AUTHORITY OVER THIS PROJECT
2. DO NOT SCALE DRAWINGS; WHERE DIMENSIONS BETWEEN SMALL SCALE AND DETAIL DRAWINGS DIFFER, DETAIL DIMENSIONS SHALL GOVERN. FIELD VERIFY DIMENSIONS AND NOTIFY ARCHITECT OF DISCREPANCIES
3. PERFORM WORK IN ACCORDANCE WITH THE ACCEPTED STANDARDS OF THE TRADES. INSTALL MANUFACTURED ITEMS IN STRICT ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS WITH PLUMBING, MECHANICAL AND ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE INSTALLATION
4. ITEMS AND CONDITIONS NOTED OR DETAILED ARE APPLICABLE AND BINDING TO SIMILAR CONDITIONS ON DRAWINGS; FOR CONDITIONS NOT NOTED OR DETAILED, CONTRACTOR SHALL PROVIDE MATERIALS OF EQUAL QUALITY AND PERFORMANCE TO OTHER SIMILAR CONDITIONS ON THE JOB
5. ITEMS SHOWN ON THE DRAWINGS, BUT NOT SPECIFIED, ARE TO BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE; SUCH ITEMS SHALL BE OF A QUALITY LEVEL CONSISTENT WITH THE GENERAL QUALITY LEVEL OF THE CONTRACT REQUIREMENTS
6. FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING THE WORK; SHOULD THE CONTRACTOR FIND, AFTER A VISIT TO THE SITE DURING CONSTRUCTION, DISCREPANCIES, OMISSIONS, AMBIGUITIES OR CONFLICTS IN OR AMONG THE DRAWINGS, OR BE IN DOUBT AS TO THEIR MEANING, HE/SHE SHOULD IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING
7. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK IN COORDINATION WITH THE WORK OF OTHER TRADES. EXAMINE DRAWINGS FOR ADDITIONAL REQUIREMENTS
8. WHERE THE WORDS "PATCH", "MATCH", "REPAIR", "REPLACE"AND THE LIKE ARE USED, SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT COLORS, TEXTURES, AND FINISHES OF DISTURBED AREAS SHALL MATCH IN ALL RESPECTS. "REPLACE" IS DEFINED AS REMOVE EXISTING AND INSTALL NEW, INCLUDING APPROPRIATE ELECTRICAL CONNECTIONS AND WITH MATCHING OR COMPATIBLE EQUIPMENT OR MATERIAL AS SHOWN, SPECIFIED, OR REQUIRED FOR COMPLETE INSTALLATION
9. PATCH HOLES LEFT BY THE REMOVAL OF CONDUITS AND EQUIPMENT IN WALLS, CEILINGS AND FLOORS, AND REPAIR OR REPLACE EXISTING ITEMS DAMAGED BY THE WORK IN THE AREA AFFECTED BY THE WORK WHETHER OR NOT SPECIFICALLY NOTED ON THE DRAWINGS TO BE REPAIRED. REFER TO SPECIFICATIONS FOR DETAILS AND REQUIREMENTS FOR REPAIR WORK.
10. PROVIDE REINFORCED WALLS AND BACKUP AS REQUIRED FOR WALL HUNG OR SUPPORTED ITEMS WHERE INDICATED FOR ITEMS PROVIDED BY THE GC OR OWNER
11. CONTRACTOR SHALL LAY OUT SPACE IN ITS ENTIRETY TO CHECK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS; NOTIFY ARCHITECT OF DISCREPANCIES
12. DIMENSIONS ARE TO FINISH FACE, UNLESS OTHERWISE NOTED
13. PARTITIONS ARE TO EXTEND TO THE UNDERSIDE OF THE DECK ABOVE UNLESS OTHERWISE NOTED
14. REFER TO PROCESS MECHANICAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR NOTES PERTAINING TO THEIR PARTICULAR TRADES, AND FIELD CHECK AGAINST CONFLICTS BETWEEN DRAWINGS

ARCHITECTURAL / STRUCTURAL MATERIAL SYMBOLS

SYMBOL	LEGEND	SYMBOL	LEGEND
	GRATING, SPAN DIRECTION INDICATED		RIGID INSULATION
	CHECKERED PLATE		BATT INSULATION
	GROUT, MORTAR		STEEL
	GRANULAR FILL		ALUMINUM
	EARTH OR FINISH GRADE		PLYWOOD
	CONCRETE		GYPSUM BOARD
	CMU		ACOUSTICAL CEILING TILE
	BRICK		WOOD, ROUGH CONTINUOUS
	FULL HEIGHT WALL		WOOD, ROUGH NON-CONTINUOUS
			WOOD, FINISHED

ARCHITECTURAL / STRUCTURAL LEGEND

SYMBOL	LEGEND	SYMBOL	LEGEND
A	GRID / COLUMN INDICATOR	CJ	CONTROL JOINT
ROOM NAME, XX-101, "XX" = FACILITY INDICATOR, ROOM NUMBER	ROOM IDENTIFIER	X" EJ	EXPANSION JOINT, X" = DIMENSION
XX-101A: DOOR LETTER, ROOM NUMBER	DOOR IDENTIFIER	POST	RAILINGS
"XX" = FACILITY INDICATOR: XX-W1	WINDOW IDENTIFIER		
"XX" = FACILITY INDICATOR: XX-R1	RELIGHT IDENTIFIER		RAILINGS
XX-L1	LOUVER IDENTIFIER	P-1	PRECAST PANEL IDENTIFIER
A	WALL TYPE INDICATOR	S-X	SLAB INDICATOR
S-1	SIGNAGE IDENTIFIER	X	COLUMN INDICATOR
X, XX-A-3101	EXTERIOR ELEVATION INDICATOR	W-X	WALL INDICATOR
		B-X	BEAM INDICATOR
QUANTITY AND DIRECTION OF POINTERS AS REQUIRED; A, B, C, D, E, 1, XX-A-3101	INTERIOR ELEVATION INDICATOR		DIRECTION OF SLOPE DOWN
		HINGE SIDE	HATCH SWING INDICATOR
1C, TITLE, SCALE, XX-A-2020	ON DRAWING WHERE INTERIOR ELEVATION IS SHOWN	ACTIVE, XX101A, INACTIVE	INDICATES PAIR OF DOORS (DOOR # ON ACTIVE)
⊗ 110.50	SPOT ELEVATION INDICATOR (IN FEET)		
LOCATION 110.50	ELEVATION DATUM (IN FEET)	F.EXT-X (IN CABINET), F.EXT-X (ON BRACKET)	FIRE EXTINGUISHER "X" = NUMBER IN SPECIFICATIONS
EL 110.50	ELEVATION INDICATION (IN FEET)		

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
ARCHITECTURAL LEGEND
SHEET 1

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN			D CARR	K RINER	T DODGE	A DOLSAK	

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0012A
SHEET	014 of 270

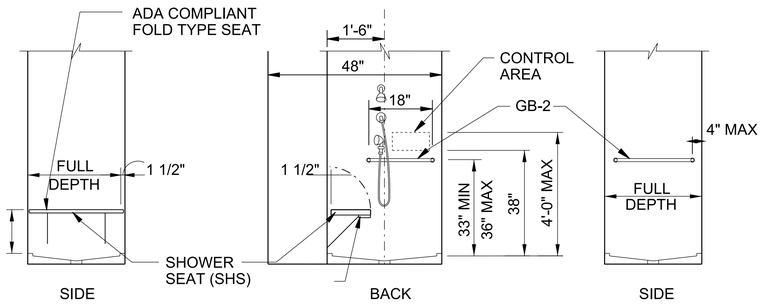
CONFORMED DOCUMENTS

GENERAL SHEET NOTE

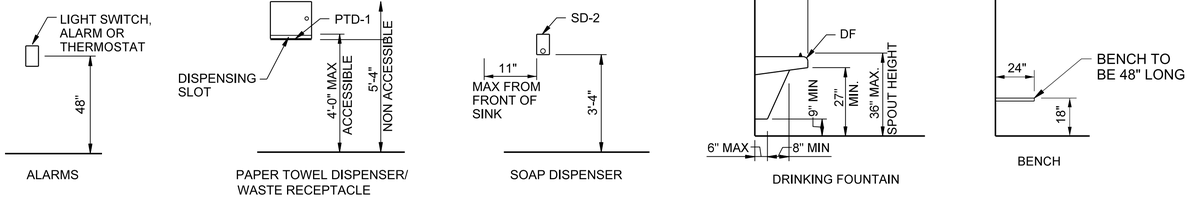
THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL OF THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

ACCESSIBLE MOUNTING HEIGHTS:

1. INSTALLATION OF TOILETS AND OTHER FIXTURES AND ITEMS SHALL MEET THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE CHAPTER 11 AND ICC A117.1.
2. GRAB BARS SHALL NOT ROTATE IN THEIR FITTINGS.
3. DOOR OPENING FORCE:
   EXTERIOR: 8.5 LBS
   INTERIOR: 5.0 LBS



SHOWER STALL



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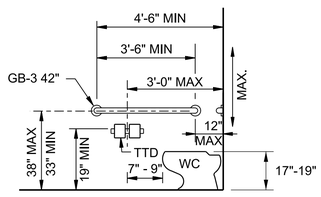
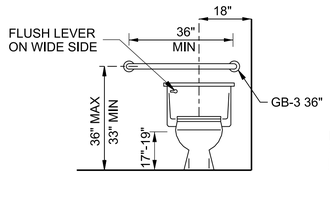
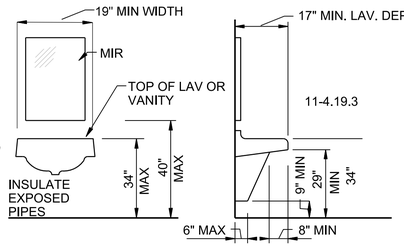
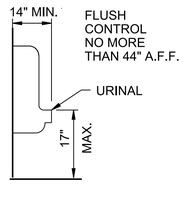


WATER CLOSETS





LAVATORIES & MIRRORS



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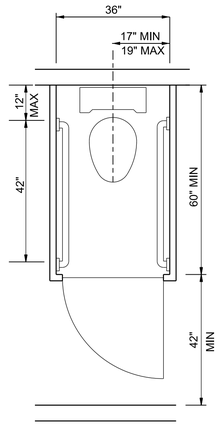
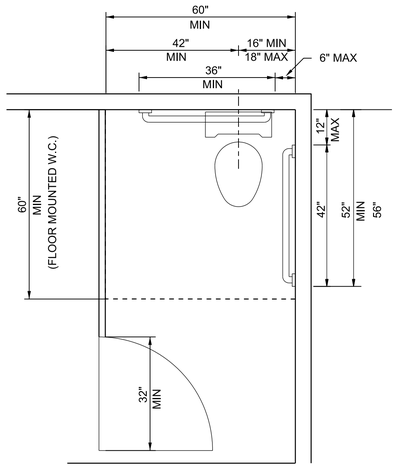


ACCESSIBLE WATER CLOSET



PARTITIONS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
ARCHITECTURE LEGEND
SHEET 2

NO.	REVISION	DATE	DSGN	DR	CHK	APVD	BY
			V ROMAN-CARDONA	BJ NARAMORE	T DODGE	APVD	A DOLSAK

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0012B
SHEET	015 of 270

GENERAL NOTES:

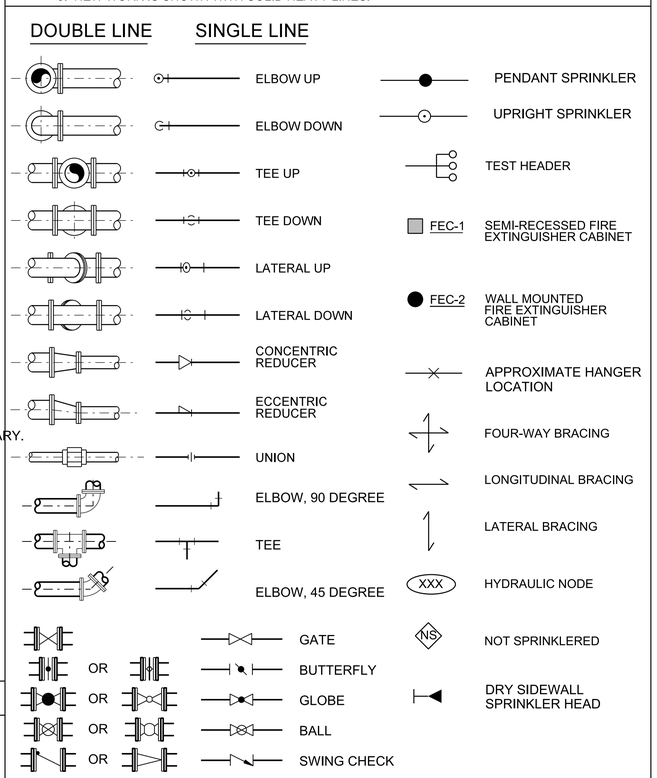
1. FIRE SUPPRESSION DRAWINGS SHOW A DIAGRAMMATIC SYSTEM TO INCORPORATE MAJOR ELEMENTS FOR THE CONDITIONAL APPROVAL PRIOR TO THE FINAL DESIGN AND SUBMISSION PROVIDED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE FINAL LAYOUT, DESIGN, CALCULATIONS. THE CONTRACTOR SHALL SUBMIT HIS DESIGN, CALCULATIONS AND PROPOSED EQUIPMENT TO THE OWNERS FOR APPROVAL.
2. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS.
3. SPRINKLER PIPING MUST BE SIZED USING HYDRAULIC CALCULATIONS. DENSITY AND AREA OF APPLICATION MUST BE PER FIRE PROTECTION REQUIREMENTS TABLE ON DRAWING FP131. SYSTEM VELOCITY MUST NOT EXCEED 20 FEET PER SECOND.
4. ADHERE TO AND OBTAIN PERMITS, LICENSES AND GOVERNMENT REQUIREMENTS.
5. FIRE STOP PENETRATIONS OF SMOKE/FIRE WALLS. FIRE STOPPING MUST BE OF A U.L. LISTED AND/OR FM APPROVED ASSEMBLY.
6. MEANS OF HANGING AND HANGER SPACING MUST BE PER NFPA 13, AND COORDINATED WITH BUILDING STRUCTURE.
7. CONTROL VALVES AND FLOW SWITCHES FOR THE FIRE SPRINKLER SYSTEM MUST BE ELECTRONICALLY SUPERVISED AND MONITORED BY AN APPROVED CENTRAL STATION. FLOW SWITCHES & TAMPER SWITCHES MUST BE FURNISHED AND INSTALLED BY DIV. 21. WIRING TO FIRE ALARM SYSTEM MUST BE TERMINATED AND TESTED BY DIV. 28.
8. CONTROL, DRAIN AND TEST CONNECTION VALVES MUST BE PROVIDED WITH PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGNS. THE SIGN MUST BE SECURED WITH CORROSION-RESISTANT WIRE, CHAIN, OR OTHER APPROVED MEANS.
9. DESIGN AND LAYOUT OF SPRINKLER SYSTEM IN ACCORDANCE WITH REQUIREMENTS OF SPECIFICATION. SUBMIT COMPLETE SHOP DRAWINGS, MATERIAL DATA, HYDRAULIC CALCULATIONS, AND FLOW TEST RESULTS TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING FABRICATION AND INSTALLATION.
10. MATERIALS MUST BE U.L. LISTED AND/OR FM APPROVED.
11. NO SPRINKLER PIPING WILL BE INSTALLED PASSING THROUGH ELECTRICAL ROOMS OR OVER ELECTRICAL PANELS/EQUIPMENT WHICH SERVES OTHER AREAS. EQUIPMENT, PIPING, DUCTWORK, MACHINERY, ETC THAT DOES NOT SERVE THE ELECTRICAL ROOM MUST NOT BE INSTALLED ABOVE, BELOW (I.E. IN OR UNDER SLAB) OR ENTER OR PASS THRU THIS SPACE. ONLY DEDICATED BRANCH SPRINKLER PIPING WILL BE ALLOWED WITHIN EACH OF THE SPACES INDICATED ABOVE OR SIDEWALL SPRINKLER HEADS MUST BE USED. COORDINATE THE LOCATION OF PIPING WITH ELECTRICAL EQUIPMENT AND OTHER TRADES AND ADJUST AS NECESSARY.
12. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES, VERIFY DIMENSIONS, CONDITIONS AND LAYOUT AT JOB SITE PRIOR TO FABRICATION OF MATERIAL AND PROVIDE ANY ADDITIONAL MATERIAL OR MODIFICATIONS TO FURNISH A COMPLETE AND OPERABLE SPRINKLER SYSTEM TO MEET THE REQUIRED CODES.
13. FURNISH PENDANT SPRINKLER HEADS ON RETURN BENDS IN ROOMS WITH CEILINGS.
14. MECHANICAL COUPLINGS, GASKETS AND FITTINGS MUST BE FROM THE SAME MANUFACTURER.
15. SPRINKLER HEADS 7 FOOT OR LESS ABOVE THE FLOOR MUST HAVE APPROVED HEADGUARDS.
16. CUTTING STRUCTURAL MEMBERS OR REINFORCING FOR PASSAGE OF PIPES OR FOR PIPE-HANGER FASTENINGS WILL NOT BE PERMITTED. PIPES THAT MUST PENETRATE MASONRY WALLS MUST BE CORE-DRILLED WITHOUT CUTTING REINFORCING.

CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS MUST APPLY:
*NFPA 10 - 2018 EDITION, STANDARD FOR PORTABLE FIRE EXTINGUISHER
*NFPA 13 - 2016 EDITION, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
*NFPA 20 - 2016 EDITION, STANDARD FOR THE INSTALLATION OF STAIONARY PUMPS FOR FIRE PROTECTION
*NFPA 24 - 2016 EDITION, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
*NFPA 25 - 2017 EDITION, STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS
*NFPA 72 - 2016 EDITION, NATIONAL FIRE ALARM AND SIGNALING CODE
*NFPA 101 - 2018 EDITION, LIFE SAFETY CODE
*NFPA 820 - 2012 EDITION, STANDARD FOR FIRE PROTECTION IN WASTE WATER TREATMENT & COLLECTION FACILITIES
*NFPA 2001 - 2012 EDITION, STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEM

FIRE PROTECTION SYMBOLS

1. SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE CONTRACT DOCUMENTS.
2. EXISTING TO REMAIN IS SHOWN WITH THIN LIGHT LINES.
3. NEW WORK IS SHOWN WITH SOLID HEAVY LINES.



ABBREVIATIONS

ACC	-	ACCESS	KV	-	KILOVOLT
ADJ	-	ADJUSTABLE	KW	-	KILOWATTS
AFF	-	ABOVE FINISHED FLOOR	KWH	-	KILOWATT HOURS
AHJ	-	NAVFAC MIDLANT C145 FIRE PROTECTION ENGINEERING DEPARTMENT	LBS	-	POUNDS
			LTG	-	LIGHTING
			MH	-	MANHOLE
ALT	-	ALTERNATE	MAX	-	MAXIMUM
APPROX	-	APPROXIMATE	MEZZ	-	MEZZANINE
ARCH	-	ARCHITECTURAL	MFR	-	MANUFACTURER
ASSY	-	ASSEMBLY	MIN	-	MINIMUM/MINUTE
BLDG	-	BUILDING	MJ	-	MECHANICAL JOINT
BOT	-	BOTTOM	MISC	-	MISCELLANEOUS
CFCI	-	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	MTD	-	MOUNTED
			MTG	-	MOUNTING
CL	-	CENTERLINE	NO	-	NUMBER
CLG	-	CEILING	NOM	-	NOMINAL
CMU	-	CONCRETE MASONRY UNIT	NPT	-	NATIONAL PIPE THREAD
CONN	-	CONNECTION/CONNECT	NTS	-	NOT TO SCALE
CONTR	-	CONTRACTOR	OC	-	ON CENTER
CORR	-	CORRIDOR	OD	-	OUTSIDE DIAMETER
DET	-	DETAIL	OFCI	-	OWNER FURNISHED CONTRACTOR INSTALLED
DIA	-	DIAMETER			
DIM	-	DIMENSION	OFOI	-	OWNER FURNISHED OWNER INSTALLED
DIV	-	DIVISION			
DN	-	DOWN	Ø	-	PHASE
DWG	-	DRAWING	PRESS	-	PRESSURE
EA	-	EACH	PIV	-	POST INDICATING VALVE
ELEV	-	ELEVATION	PRV	-	PRESSURE REDUCING VALVE
EQUIP	-	EQUIPMENT	PSI	-	POUNDS PER SQUARE INCH
ETR	-	EXISTING TO REMAIN	PSIG	-	POUNDS PER SQ INCH GAUGE
EXT	-	EXTERIOR	RAD	-	RADIUS
FDC	-	FIRE DEPARTMENT CONNECTION	REQD	-	REQUIRED
FH	-	FIRE HYDRANT	RPM	-	REVOLUTIONS PER MINUTE
FLG	-	FLANGE	SHT	-	SHEET
FLR	-	FLOOR	SPEC	-	SPECIFICATION
FPM	-	FEET PER MINUTE	SP	-	SPRINKLER
FT	-	FEET	SQ	-	SQUARE
FTG	-	FOOTING	TEMP	-	TEMPERATURE
GA	-	GAUGE	TOB	-	TOP OF BEAM
GAL	-	GALLON	TOD	-	TOP OF DECK
GALV	-	GALVANIZED	TOJ	-	TOP OF JOIST
GFCI	-	GOVERNMENT FURNISHED CONTRACTOR INSTALLED	TOS	-	TOP OF SLAB/TOP OF STEEL
			TYP	-	TYPICAL
GPM	-	GALLONS PER MINUTE	UNO	-	UNLESS NOTED OTHERWISE
HP	-	HORSEPOWER/HIGH POINT	VOL	-	VOLUME
HVLS	-	HIGH VOLUME LOW SPEED	W/	-	WITH
IN	-	INSIDE DIAMETER	W/O	-	WITHOUT
IAW	-	IN ACCORDANCE WITH	WWF	-	WELD WIRE FABRIC
IN	-	INCHES			

FIRE PROTECTION REQUIREMENTS

HAZARD / DESCRIPTION	LIGHT HAZARD (LH)	ORDINARY HAZARD (OH-1)	EXTRA HAZARD (EH-1)
APPLICATION AREA	OFFICES, REST ROOMS, LOBBY, CORRIDORS, LOCKER ROOMS, BREAK ROOM, TRAINING ROOM, CONTROL ROOM	STORAGE/SHOP, CHEMICAL STORAGE AREAS, SERVER ROOM	ELECTRICAL ROOM CHEMICAL STORAGE, FEED ROOM
DESIGN DENSITY	0.10 GPM/SF	0.20 GPM/SF	0.30 GPM/SF
DISCHARGE TIME	60 MIN	60 MIN	90 MIN
SPRINKLER TYPE	QUICK RESPONSE TYPE	QUICK RESPONSE TYPE	REGULAR RESPONSE TYPE
COVERAGE PER SPRINKLER	225 SF	130 SF	100 SF
HOSE STREAM	250 GPM	250 GPM	500 GPM
DESIGN AREA (NOTE 1, 2, 3 & 4)	1,500 SF	1,500 SF	3,000 SF (OR ENTIRE ROOM IF SEPARATED FROM REST OF BUILDING BY FIRE RATED CONSTRUCTION
SPRINKLER TEMP RATING	PER NFPA 13	PER NFPA 13	PER NFPA 13
MAXIMUM CEILING HEIGHT	30 FT	60 FT	30 FT
SPACE BETWEEN SPRINKLERS	15 FT MAX	13 FT MAX	12 FT MAX
FLOOR AREA THROUGH ONE RISER	52,000 SF/SYSTEM	52,000 SF/SYSTEM	40,000 SF/SYSTEM
K-FACTOR OF SPRINKLER NOZZLE	5.6	8.0	8.0
"C" FACTOR	120	120	120

NOTE: 1. DESIGN AREA SHALL BE INCREASED 30% WHEN THE CEILING/ROOF SLOPE IS GREATER THAN 1 IN 10 (10%).
2. EXTENDED COVERAGE SPRINKLERS NOT ALLOWED.
3. ALL AREAS TO BE MAINTAINED ABOVE 40°
4. TEMP IN BUILDING NOT TOEXCEED 100°

WATER SUPPLY DATA

	FLOW TEST
STATIC PRESSURE	66 PSI
RESIDUAL PRESSURE	56 PSI
FLOW @ RESIDUAL	1,450 GPM
FLOW @ 20 PSI	3,306 GPM
DATE OF TEST	MAY 12, 2020
TIME OF TEST	13:20
TEST PERFORMED BY: CH2M HILL	

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN			D CARR	K RINER	B PEABODY		B PEABODY

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
FIRE PROTECTION LEGEND

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0013
SHEET	016 of 270

CONFORMED DOCUMENTS

FIRE ALARM SYMBOLS

CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS SHALL APPLY:

NFPA 70 - NATIONAL ELECTRIC CODE (2014 EDITION)

NFPA 72 - NATIONAL FIRE ALARM CODE (2013 EDITION)

NFPA 101 - LIFE SAFETY CODE (2012 EDITION)

NFPA 2001 - STANDARD ON CLEAN AGENT FIRE EXTINGUISHER SYSTEM (2012 EDITION)

SYMBOLS DESCRIPTION

THIS IS A STANDARD LEGEND SHEET, SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPEAR ON THE PLAN DRAWING

F	FIRE ALARM MANUAL DOUBLE - ACTION PULL STATION
XXXX	FACP - FIRE ALARM CONTROL PANEL FAAP - FIRE ALARM ANNUNCIATOR PANEL FARP - RELEASING SYSTEM CONTROL PANEL FTR - FIRE ALARM TRANSCEIVER/ RECEIVER NAC - NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY LOC - LOCAL OPERATING CONSOLE FMCP - FIRE ALARM MASS NOTIFICATION CONTROL PANEL DACT -DIGITAL ALARM COMMUNICATOR TRANSMITTER (CELLULAR)
S P	SMOKE DETECTOR, X = DEVICE TYPE P - ADDRESSABLE PHOTO ELECTRIC
S P	DUCT SMOKE DETECTOR, ADDRESSABLE PHOTOELECTRIC
H F	HEAT DETECTOR F - FIXED TEMPERATURE
H R/F	HEAT DETECTOR R/F - COMBINATION FIXED TEMPERATURE AND RATE OF RISE
CO	CARBON MONOXIDE DETECTOR
CD C	WALL MOUNT FIRE ALARM HORN/STROBE COMBO DEVICE, CLEAR LENS. CD = NFPA 72 TABLE 18.5.4.3.1(a) CANDELA MINIMUM, IF GREATER THAN 15cd, TYP. WP = WEATHER PROOF W = SPEAKER WATTAGE IF GREATER THAN 0.5 C = CEILING MOUNTED
	STROBE DEVICE, CLEAR LENS
DH	FIRE RATED DOOR INTERFACE HOLD OPEN DEVICE
ISM	SLC ISOLATION MODULE
NC	NAC/ RELEASING CONTROL MODULE, SUPERVISED OUTPUT
CM	CONTROL MODULE, UNSUPERVISED RELAY CONTACT OUTPUT
IM	IDC SUPERVISING MODULE, DRY CONTACT SINGLE INPUT SUPERVISION
DM	IDC SUPERVISING MODULE, DRY CONTACT DUAL INPUT SUPERVISION
AM	ANALOG MODULE, 4-20ma SIGNAL INPUT
KH	KITCHEN HOOD SUPPRESSION SYSTEM
WF	WATER FLOW SWITCH
PS	PRESSURE SWITCH
VT	VALVE TAMPER SWITCH
PIV	POST INDICATOR VALVE TAMPER SWITCH
FS	FIRE/ SMOKE DAMPER
K	KNOX BOX, SUPERVISED, NORMALLY OPEN SWITCH
M	KEYED AND SUPERVISED SOLENOID DISCONNECT MAINTENANCE SWITCH
SS	SURGE SUPPRESSOR
R	INTERPOSING RELAY
S	CEILING MOUNTED SPEAKER
EOL	END OF LINE RESISTOR
SOV	SUPERVISED SOLENOID VALVE

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AFFF	AQUE FILM FORMING FOAM
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ASSD	ASPIRATION SMOKE DETECTOR (VESDA, ANALYZER)
AUX POWER SUPPLY	AUXILIARY POWER SUPPLY UNIT
BEAM DET	BEAM DETECTOR
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
DAMPER	FIRE DAMPER CONTROL MODULE
B.G.	BELOW GRADE
BLDG	BUILDING
C	CONDUIT
CLG	CEILING
CONT	CONTINUED
DN	DOWN
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EXHAUST FAN
EQ	EQUIPMENT
EMT	ELECTRICAL METALLIC TUBING
EXP	EXPLOSION - PROOF RATED
FAS	FIRE ALARM SYSTEM
FD	FIRE DOOR
FLR	FLOOR
FO	FIBER OPTIC
FZ	FIRE ZONE
G	GROUND CONDUCTOR
HEF	HIGH EXPANSION FOAM
HTR	HEATER
IDC	INITIATING DEVICE CIRCUIT (CONVENTIONAL)
IR	INFRARED
MNS	MASS NOTIFICATION SYSTEM
CM	METAL CLAD
NAC	NOTIFICATION APPLIANCE CIRCUIT (AUDIBLE OR VISUAL)
NTS	NOT TO SCALE
O.C.	ON CENTER
PA	PUBLIC ANNOUNCEMENT
PR	PAIR
PVC	POLYVINYL CHLORIDE CONDUIT
QTY	QUANTITY
RM	ROOM
SH	SHIELD OR SHIELDED
SLC	SIGNALING LINE CIRCUIT (ADDRESSABLE)
SPD	SURGE PROTECTIVE DEVICE
TW	TWISTED
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
VEWSD	VERY EARLY WARNING SMOKE DETECTOR
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF

GENERAL FIRE ALARM PLAN NOTES:

1. FOR FIRE ALARM SYSTEM LEGEND REFER TO THIS SHEET.
2. ALL STROBES WILL BE COORDINATED WITH PLANS STROBES WILL BE SYNCHRONIZED THROUGHOUT GIVEN FIRE ZONE AND IN LINE OF SITE.
3. SLC AND IDC CONDUCTORS WILL BE A MINIMUM OF #16 AWG. AUDIBLE NAC CONDUCTORS WILL BE A MINIMUM OF #16 AWG. VISUAL NAC CONDUCTORS WILL BE A MINIMUM OF #12 AWG. INCREASE CONDUCTOR GAUGE ACCORDING TO VOLTAGE DROP CALCULATIONS THAT MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.
4. SYSTEM CONDUCTORS WILL BE ROUTED IN CONDUIT OF MINIMUM 3/4" SIZE. JUNCTION BOXES, COVERPLATES, AND CONDUIT WILL BE RED IN COLOR.
5. COORDINATE LOCATION OF NOTIFICATION APPLIANCES WITH OTHER DEVICES (HVAC PROCESS MECHANICAL, ETC) BUT MAINTAIN ADEQUATE SPACE AND QUANTITY TO MEET NFPA 72 REQUIREMENTS.
6. SYSTEM LAYOUT SHOWS THE INTENT OF THE COVERAGE AND IS SHOWN IN SUGGESTED LOCATIONS. PROVIDE FINAL QUANTITY, LAYOUT AND COORDINATION FOR ADDITIONAL REQUIREMENTS SEE SPECIFICATIONS SECTION 28 31 00.
7. ROUGH- IN INSTALLATION OF CONDUITS AND BACK BOXES MAY BE BY ELECTRICAL CONTRACTOR WITH INSTALLATION AND TERMINATION OF CONDUCTORS AND DEVICES BY NICET CERTIFIED FIRE ALARM INSTALLERS.
8. PROVIDE FIELD VERIFICATION OF ALL EXISTING LOCATIONS AND CONDITIONS OF ITEMS RELATED TO THIS PROJECT PRIOR TO START OF CONSTRUCTION.
9. BECOME FAMILIAR WITH THE DETAILS OF WORK. VERIFY DIMENSIONS IN THE FIELD, AND ADVISE THE OWNER OF ANY DISCREPANCY BEFORE PERFORMING ANY WORK.
10. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR SECTIONS AND SPACE ELEVATIONS.

NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
		D CARR	K RINER	B PEABODY	APVD	B PEABODY	

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PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

Jacobs

GENERAL
FIRE ALARM LEGEND

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0014
SHEET	017 of 270

FILENAME: 01-G-0014_D3226100.dgn PLOT DATE: 5/27/2021

PLUMBING SYMBOLS

DOUBLE LINE	SINGLE LINE	
		EXISTING PIPE
		NEW PIPE
		CAP
		ELBOW, 90 DEGREE
		ELBOW, 45 DEGREE
		ELBOW UP
		ELBOW DOWN
		TEE
		TEE UP
		TEE DOWN
		LATERAL
		LATERAL UP
		LATERAL DOWN
		CROSS
		REDUCING BUSHING
		CONCENTRIC REDUCER
		ECCENTRIC REDUCER
		UNION
		WELDED JOINT
		GROOVED END JOINT
		FLANGED JOINT
		MECHANICAL JOINT & PROPRIETARY RESTRAINED JOINT
		BELL & SPIGOT JOINT (LEADED)
		HUB & SPIGOT JOINT (RUBBER GASKET)
		BALL JOINT
		ADAPTER SIDE GROOVED END ADAPTER FLANGE
		FLANGED COUPLING ADAPTER
		FLEXIBLE COUPLING
		CLEANOUT PLUG
		FLEXIBLE PIPE CONNECTION
		STRAINER
		PUMP
		TEMPERATURE GAUGE

PS	PRESSURE SWITCH
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	HOSE RACK (TYPE AS INDICATED)
SSH-1	COMBINATION SAFETY SHOWER & EYEWASH
SSH-2	COMBINATION SAFETY SHOWER & EYEWASH (FROST PROOF)
	HOSE VALVE
YCO-X	CLEANOUT Y = F - FLOOR CLEANOUT W - WALL CLEANOUT X = NO. IN SPECIFICATION
HD-XY	HUB DRAIN X = NO. IN SPECIFICATION Y = T WITH WITH DEEP SEAL TRAP Y = P WITH PRIMED TRAP
FD-XY	FLOOR DRAIN X = NO. IN SPECIFICATION Y = T WITH DEEP SEAL TRAP Y = P WITH PRIMED TRAP

PLUMBING EQUIPMENT IDENTIFICATION

IDENTIFICATION	EQUIPMENT NAME
AC	AIR COMPRESSOR
RCP	CIRCULATION PUMP
DT	DILUTION TANK
ET	EXPANSION TANK
ETP	ELECTRONIC TRAP PRIMER
EW	ELECTRIC WATER HEATER
GWH	NATURAL GAS WATER HEATER
HV	HOSE VALVE
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
ST	STORAGE TANK
VP	VACUUM PUMP
WHA	WATER HAMMER ARRESTOR

EXAMPLE CALLOUT: 30 - WH - 1

- 30 — FACILITY NUMBER OR UNIT PROCESS (OPTIONAL)
- WH — EQUIPMENT LEGEND
- 1 — NO. IN SPECIFICATIONS

VALVE SYMBOLS

SINGLE LINE	DOUBLE LINE	
GATE		
BUTTERFLY		OR
GLOBE		OR
BALL		OR
PLUG OR COCK		OR
SWING CHECK		OR
BALL CHECK		OR
HOSE VALVE		
PRESSURE RELIEF		
AIR AND/OR VACUUM RELEASE		
REGULATED SIDE		
PRESSURE CONTROL (INTERNAL PILOT)		
BALANCE VALVE (RHW,RTW)		
BACKFLOW PREVENTER		

PLUMBING GENERAL NOTES

1. THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE FIXTURES AND EQUIPMENT REQUIRED. SOME PIPING SHOWN ON THE FLOOR PLANS MAY BE SHOWN WITH AN OFFSET FOR CLARITY. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN, INSTALLATION AND DETAILED LAYOUT OF PLUMBING SYSTEMS INCLUDING REQUIRED ADDITIONAL OFFSETS, FITTINGS, VENTS, VALVES, ETC. THE DESIGN SHALL BE IN ACCORDANCE WITH THE PLUMBING DRAWINGS AND APPLICABLE CODES. ACTUAL CONDITIONS SHALL GOVERN OVER WRITTEN DIMENSIONS AND WRITTEN DIMENSIONS SHALL GOVERN OVER ACTUAL DRAWINGS REPRESENTATION.
2. THE INSTALLATION OF THE REQUIRED PLUMBING SYSTEMS SHALL MEET OR EXCEED ALL CODES HAVING JURISDICTION AND SHALL RELATE TO ALL AUTHORITIES HAVING JURISDICTION.
3. ALL BURIED AND CONCRETE ENCASED COPPER PIPING SHALL BE INSTALLED WITH A PROTECTIVE SLEEVE FOR ITS ENTIRE LENGTH. SLEEVE, SHALL BE FLEXIBLE POLYETHYLENE BAGGING. EXTEND SLEEVE, 2 INCHES ABOVE FINISHED FLOOR.
4. INSTALL TRAP PRIMER VALVE CONNECTION ON ALL FLOOR AND HUB DRAINS WITH "P" EXTENSION.
5. FURNISH AND INSTALL WATER HAMMER ARRESTORS ON W1 AND HW PIPING IN PROXIMITY TO PLUMBING FIXTURES OR QUICK CLOSING VALVES. INSTALL PER RECOMMENDATIONS OF THE PDI INSTITUTE. PROVIDE ACCESS PANELS AS REQUIRED.
6. PLUMBING VENTS THROUGH ROOF SHALL BE OFFSET AT ROOF TO PROVIDE MINIMUM DISTANCE OF 3'-0" FROM EXTERIOR WALL.
7. CLEANOUT TO GRADE FITTINGS, WHERE SANITARY DRAIN EXITS THE BUILDING, SHALL ALLOW FOR RODDING BOTH WAYS.
8. INSULATE ABOVE GRADE DRAINAGE PIPING THAT RECEIVES CONDENSATE FROM AIR CONDITIONING UNITS.
9. PROVIDE CLEANOUTS IN SANITARY WASTE PIPING AS SHOWN ON THE DRAWINGS. FURNISH AND INSTALL ADDITIONAL CLEANOUTS AS REQUIRED BY CODE.
10. PIPING ELEVATIONS SHOWN ARE APPROXIMATE, FIELD VERIFY PIPING ELEVATIONS WITH OTHER PIPING SYSTEMS PRIOR TO INSTALLATION.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES.
12. ALL PIPES PASSING THROUGH FIRE RATED WALLS SHALL BE INSTALLED TO MEET APPLICABLE UL SYSTEM REQUIREMENTS PERTAINING TO THE TYPE OF CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR WALLS WHICH ARE FIRE RATED. SEE DETAIL
13. ALL PIPE PENETRATIONS THROUGH FLOORS AND WALLS SHALL BE SLEEVED AND SEALED.
14. PROVIDE OFFSETS IN THE PIPING RUNS. IN ADDITION TO WHAT IS SHOWN ON THE DRAWINGS, WHERE REQUIRED TO CLEAR DUCT, STRUCTURE AND OTHER PIPING SYSTEMS.
15. THE CONTRACTOR SHALL COORDINATE THE PLUMBING WORK WITH MECHANICAL, HVAC, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL WORK.
16. THE FOLLOWING CODES AND STANDARDS SHALL APPLY:
    INTERNATIONAL BUILDING CODE, 2012.
    INTERNATIONAL MECHANICAL CODE, 2012.
    INTERNATIONAL PLUMBING CODE, 2012.
    NFPA 54 , 2012
17. FOR PIPING SCHEDULE SEE SPECIFICATION 40 27 00.
18. CONCRETE ENCASE ALL PIPING BELOW BUILDING SLABS. SEE STRUCTURAL DETAILS.
19. CUTTING STRUCTURAL MEMBERS OR REINFORCING FOR PASSAGE OF PIPES OR FOR PIPE -HANGER FASTENINGS WILL NOT BE PERMITTED. PIPES THAT MUST PENETRATE CONCRETE WALLS OR CONCRETE FLOORS SHALL BE PROVIDED WITH CAST-IN-PLACE PIPE SLEEVES. PIPES THAT MUST PENETRATE MASONRY WALLS SHALL BE CORE- DRILLED WITHOUT CUTTING REINFORCING AND PROVIDED WITH PIPE SLEEVES.

PIPING IDENTIFICATION

ARD	ACID RESISTANT DRAIN
ARV	ACID RESISTANT VENT
AVTR	ACID VENT THROUGH ROOF
D	SANITARY DRAIN
DI	DEIONIZED WATER
DR	PROCESS DRAIN
HW	HOT WATER - POTABLE
NG	NATURAL GAS
RHW	RETURN HOT WATER - POTABLE
RTW	RETURN TEPID WATER
TW	TEPID WATER
V	SANITARY DRAIN VENT
VTR	SANITARY DRAIN VENT THROUGH ROOF
W1	POTABLE WATER
W2	BACKFLOWED POTABLE WATER

PLUMBING FIXTURE IDENTIFICATION

LEGEND	FIXTURE
CS	CUP SINK
EE	EMERGENCY EYE WASH
EED	EMERGENCY EYE WASH DECK MOUNTED/WALL MOUNTED WITH DRENCH HOSE
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
HV	HOSE VALVE OR HYDRANT
IWH	TANKLESS WATER HEATER
LSK	LABRATORY SINK
LP	LABRATORY FAUCET OR COCK
SP	SUMP PUMP
SSH	SAFETY SHOWER\EYEWASH COMBINATION
TMV	THERMOSTATIC MIXING VALVE
WCO	WALL CLEAN OUT
YH	YARD HYDRANT

ABBREVIATIONS

AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
CL	CENTERLINE
CO	CLEANOUT
DCO	DOUBLE WAY CLEANOUT
DN	DOWN
EL	ELEVATION
ETP	ELECTRONIC TRAP PRIMER
EWH	ELECTRIC WATER HEATER
FD	FLOOR DRAIN
FF	FINISH FLOOR
GWH	NATURAL GAS WATER HEATER
HD	HUB DRAIN
HTI	HEAT TRACE AND INSULATE
HV	HOSE VALVE
IE	INVERT ELEVATION
OD	OUTSIDE DIAMETER
PTRV	PRESSURE/TEMPERATURE RELIEF VALVE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
SIM	SIMILAR
STL	STEEL
SST	STAINLESS STEEL
TV	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
WHA	WATER HAMMER ARRESTOR
YH	YARD HYDRANT

EXAMPLE CALLOUT: SSH - 1

- SSH — FIXTURE DESCRIPTION
- 1 — NO. IN SPECIFICATIONS

NO.	DATE	BY	APVD
DSGN	B RUSSAKIS	DR	B RUSSAKIS
		CHK	T PRICE
	REVISION		APVD
			A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
PLUMBING LEGEND

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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CONFORMED DOCUMENTS

PIPE AND FITTING SYMBOLS

DOUBLE LINE	SINGLE LINE	
		EXISTING PIPE
		NEW PIPE
		EXISTING PIPE TO BE ABANDONED IN PLACE
		EXISTING PIPE TO BE REMOVED
		WELDED JOINT
		GROOVED END JOINT
		FLANGED JOINT
		MECHANICAL JOINT & PROPRIETARY RESTRAINED JOINT
		BELL & SPIGOT JOINT (LEADED)
		HUB & SPIGOT JOINT (RUBBER GASKET)
		BALL JOINT
		ADAPTER SIDE GROOVED END ADAPTER FLANGE
		FLANGED COUPLING ADAPTER
		FLEXIBLE COUPLING
		METAL BELLOWS EXP JOINT
		ELASTOMER BELLOWS EXP JOINT
		ELBOW UP
		ELBOW DOWN
		TEE UP
		TEE DOWN
		LATERAL UP
		LATERAL DOWN
		CONCENTRIC (OR CNC) REDUCER
		ECCENTRIC (OR ECC) REDUCER
		REDUCING BUSHING
		UNION

DOUBLE LINE	SINGLE LINE	
		CAP
		ANCHOR
		ELBOW, 90 DEGREE
		CROSS
		TEE
		ELBOW, 45 DEGREE
		LATERAL

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 SPECIFICATION SECTION 40 27 00.
2. SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE GENERIC ONLY. REFER TO PIPING SPECIFICATIONS FOR SPECIFIC END CONNECTIONS FOR SINGLE LINE PIPE AND FITTINGS.
3. EXISTING PIPE AND EQUIPMENT ARE SHOWN LIGHT-LINED AND/OR SCREENED. NEW PIPING AND EQUIPMENT ARE SHOWN BOLD AND/OR HEAVY-LINED.

ACTUATOR SYMBOLS

- PNEUMATIC DIAPHRAGM
- PNEUMATIC CYLINDER
- ELECTRIC MOTOR
- HYDRAULIC
- HYDRAULIC WITH SOLENOID CONTROL
- SOLENOID

MISCELLANEOUS SYMBOLS

- FSH X — FLOWSWITCH (X = SIGNAL NO.)
- SAFETY SHOWER AND EYEWASH STATION
- XX-SSH-YY — WHERE XX = UNIT PROCESS NO., YY = ITEM NO.
- 1 — PHOTO DETAIL NUMBER
- 20-D-100 — DRAWING NUMBER WHERE PHOTO DETAIL IS REFERENCED/SHOWN
- DIRECTION OF VIEW

PROCESS PIPING DESIGNATION

EXAMPLE: 1" SH-SUC (3" DWCP)

1" SH-SUC (3" DWCP)

- SIZE OF DOUBLE WALL CONTAINMENT PIPE (DWCP LISTED IF DOUBLE WALL CONTAINMENT PIPING IS REQUIRED FOR PROCESS PIPING PER PIPING SCHEDULE OF SECTION 40 27 00)
- FLOW STREAM SUBDESCRIPTOR WHERE NOTED (SEE I&C LEGEND DRAWINGS 01-G-0021 AND 01-G-0022).
- FLOW STREAM IDENTIFICATION PRIMARY DESCRIPTOR (SEE I&C LEGEND DRAWING 01-G-0021 AND 01-G-0022).
- NOMINAL PIPE DIAMETER

VALVE SYMBOLS

SINGLE LINE	DOUBLE LINE	
		GATE
K		KNIFE GATE
		BUTTERFLY
		GLOBE
		BALL
		SEATING PORT
		ECCENTRIC PLUG
		PLUG OR COCK
		NEEDLE
		DIAPHRAGM
		PINCH
		SWING CHECK
		BALL CHECK
		HOSE VALVE (HV- X) OR (V-X) X = NO. IN SPECS
		MUD
		PRESSURE RELIEF
		AIR AND/OR VACUUM RELEASE
		REGULATED SIDE PRESSURE CONTROL (INTERNAL PILOT)
		REGULATED SIDE PRESSURE CONTROL (EXTERNAL PILOT)
		MULTI-PORT VALVE, ARROWS INDICATE FLOW PATTERN. SEATING PORTS ARE IMPLIED BY INDICATED FLOW PATTERN.
		TELESCOPING SCUM VALVE

MECHANICAL LEGEND AND NOTES

GENERIC PIPING NOTES

1. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
2. SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
3. LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. SUBCONTRACTOR SHALL DESIGN SUPPORTS AS SPECIFIED PER SECTION 40 05 15.
4. ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
5. ALL FLEXIBLE CONNECTORS AND COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED, UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
6. SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT.
7. ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED AND AS SHOWN ON THE DRAWINGS.
8. NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS IS ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
9. 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.
10. WHERE NOT IDENTIFIED BY A SPECIFIC TAG NUMBER IN THE DRAWINGS, CONTRACTOR SHALL ASSIGN A UNIQUE TAG NUMBER TO ALL VALVES THAT ARE NOT COMPONENTS OF A COMPONENT OR SYSTEM SUPPLIED AS A PACKAGE. TAG IDENTIFICATION SYSTEM SHALL EMULATE THOSE OF THE P&ID DRAWINGS.

VALVE DESIGNATIONS

MANUAL VALVES AND CHECK VALVES

8" V 500

- SIZE OF VALVE
- VALVE DESIGNATION
- VALVE TYPE, SEE SPECIFICATION SECTION 40 27 02

ACTUATED VALVES

M

FV 7-1-1

- VALVE FUNCTION
- ITEM NUMBER
- LOOP NUMBER
- UNIT PROCESS OR FACILITY NUMBER

NOTE:

SEE I&C LEGEND DRAWINGS (01-G-0021 AND 01-G-0022) FOR FURTHER DEFINITIONS AND ACTUATOR TYPES.

SELF-CONTAINED REGULATING VALVES

PRV-4-2-1

- UNIT PROCESS NUMBER. UNIQUE TAG NUMBER. SEE SELF CONTAINED REGULATING VALVE. SCHEDULE IN SPECIFICATION SECTION 40 27 02. SEE PROCESS AND INSTRUMENTATION DRAWINGS FOR NUMBERING SYSTEM.
- VALVE TYPE AND FUNCTION. SEE I&C LEGENDS (01-G-0021 AND 01-G-0022) FOR FURTHER DEFINITIONS.

NO.	DATE	DSGN	REVISION	CHK	APVD	BY	APVD
		D CARR	DR	K RINER	K WADDELL		K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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GENERAL
PROCESS MECHANICAL LEGEND

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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CONFORMED DOCUMENTS

HEATING, VENTILATING, AND AIR CONDITIONING SYMBOLS

SUPPLY GRILLE OR REGISTER (SG, SR)

EXHAUST, RETURN, OR TRANSFER GRILLE OR REGISTER (EG, ER, RG, RR, TG, TR)

4-WAY THROW 3-WAY THROW

2-WAY THROW 1-WAY THROW

CEILING DIFFUSERS (CD)

CEILING EXHAUST, RETURN AND TRANSFER GRILLES AND REGISTERS (EG, ER, RG, RR, TG, TR)

MITERED ELBOW WITH TURNING VANES

RADIUS ELBOW

F — FIRE DAMPER

FS — FIRE/SMOKE DAMPER

S — SMOKE DAMPER

BALANCING DAMPER

M1 — MOTORIZED DAMPER

BDD — BACKDRAFT DAMPER

ID — DUCT INSPECTION DOOR (HORIZONTAL OR VERTICAL)

R — INCLINED RISE (R) OR DROP (D) ARROW IN DIRECTION OF FLOW

45 DEG BRANCH CONNECTION WITH BALANCING DAMPER

12x10 8x8 — ECCENTRIC TRANSITION

12x10 6x6 — CONCENTRIC TRANSITION

FOT — TRANSITION, FOT = FLAT ON TOP, FOB = FLAT ON BOTTOM

FLEX DUCT AND SPIN-IN CONNECTION WITH INTEGRAL BALANCING DAMPER

AIR OUT OF OPENING

AIR INTO OPENING

COMBINATION DISCONNECT AND MOTOR STARTER

WP — WEATHER PROOF COMBINATION DISCONNECT AND MOTOR STARTER

VIBRATION ISOLATOR

(200) — AIR FLOW QUANTITY: 200 SCFM

PRESSURE AND TEMPERATURE TEST PLUG

POINT OF CONNECTION, RENOVATION

POINT OF REMOVAL, DEMOLITION

AD — CEILING ACCESS DOOR

UC — PROVIDE DOOR UNDERCUT

DOOR GRILLE

N — PHOTO NUMBER AND DIRECTION IDENTIFIER

FLEXIBLE CONNECTION (FC)

FLEXIBLE DUCTWORK (SINGLE LINE)

FLEXIBLE DUCTWORK (DOUBLE LINE)

24x16

1. RECTANGULAR DUCT
2. DIMENSIONS IN INCHES
3. FIRST DIMENSION VISIBLE SIDE

24/16

1. FLAT-OVAL DUCT
2. DIMENSIONS IN INCHES
3. FIRST DIMENSION VISIBLE SIDE

24Ø

1. ROUND DUCT
2. DIMENSIONS IN INCHES

24x16

1. INTERNAL INSULATION/SOUND ATTENUATION
2. AS SPECIFIED. DUCT DIMENSIONS SHOWN ARE NET INSIDE. TO INSIDE FACE OF LINER.
3. PROVIDE LINING WHERE SHOWN OR NOTED ON DWGS, AND AS DESCRIBED IN SPECIFICATIONS.

24x16

1. EXISTING DUCT/EQUIPMENT TO REMAIN

24x16

1. DEMOLITION - EXISTING DUCT/EQUIPMENT TO BE REMOVED

EXISTING EQUIPMENT, RELOCATED

X — INDICATES DUCT MOUNTED CONTROL DEVICE "X" SEE HVAC CONTROL SYMBOLS

SUPPLY OR INTAKE DUCT UP

SUPPLY OR INTAKE DUCT DOWN

RETURN DUCT UP

RETURN DUCT DOWN

EXHAUST DUCT UP

EXHAUST DUCT DOWN

EQUIPMENT NOMENCLATURE

MANUAL VALVES AND CHECK VALVES IDENTIFICATION

75 - V 400
- 75 — SIZE OF VALVE
- V — VALVE DESIGNATION
- 400 — VALVE TYPE, SEE SPECIFICATIONS

AIR OUTLET AND INLET IDENTIFICATION

SEE SCHEDULE ON DRAWINGS

EG1 (250)
- EG1 — SPECIFICATION DESCRIPTION
- (250) — AIRFLOW IN CFM

CONTROL VALVES IDENTIFICATION

M — ACTUATOR SYMBOL
- FLOW DIRECTION
- VALVE SYMBOL
- FLOW DIRECTION

HVAC EQUIPMENT TAG

85-UH-1
- 85 — SEQUENTIAL UNIT NUMBER
- UH — HVAC EQUIPMENT IDENTIFICATION
- 1 — BUILDING IDENTIFICATION NUMBER

VALVE SYMBOLS

GATE

BUTTERFLY

GLOBE

BALL

SEATING PORT

ECCENTRIC PLUG

PLUG OR COCK

NEEDLE

SWING CHECK

BALL CHECK

B — BALANCING FITTING

F, B — COMBINATION FLOWMETER AND BALANCING FITTING

F, B — COMBINATION FLOWMETER, BALANCING FITTING AND SHUT-OFF VALVE

S.O. — PRESSURE RELIEF

AIR VENT (AUTO)

AIR VENT (MANUAL)

REGULATED SIDE PRESSURE CONTROL

HVAC PIPING SYMBOLS

DOUBLE LINE	SINGLE LINE	
		EXISTING PIPE (SCREENED)
		NEW PIPE
		EXISTING PIPE TO BE ABANDONED
		EXISTING PIPE TO BE REMOVED
		WELDED JOINT
		GROOVED END JOINT
		FLANGED JOINT
		FLEXIBLE COUPLING
		GROOVED END ADAPTER FLANGE
		STEEL BELLOWS EXPANSION JOINT
		ELBOW UP
		ELBOW DOWN
		TEE UP
		TEE DOWN
		LATERAL UP
		CONCENTRIC REDUCER
		ECCENTRIC REDUCER
		UNION
		ANCHOR
		PIPE ALIGNMENT GUIDE
		FLEXIBLE (ELASTOMER) PIPE CONNECTION

PIPING FLOW STREAM IDENTIFICATION

LPS	STEAM, LOW PRESSURE
HPS	STEAM, HIGH PRESSURE
SC	STEAM, CONDENSATE
CHS	CHILLED WATER, SUPPLY
CHR	CHILLED WATER, RETURN
HHS	HEATING HOT WATER, SUPPLY
HHR	HEATING HOT WATER, RETURN
CD	HVAC CONDENSATE DRAIN
CWS	CONDENSER WATER, SUPPLY
CWR	CONDENSER WATER, RETURN
NG	NATURAL GAS

HVAC CONTROLS SYMBOLS

MCC	DIVISION 16 MOTOR CONTROL CENTER
MS	MOTOR STARTER
M	ELECTRIC MOTOR
FZ	LOW-LIMIT FREEZE THERMOSTAT
VFD AFD	VARIABLE/ADJUSTABLE FREQUENCY DRIVE
	HVAC CONTROL PANEL (HCP)
S	SWITCH
OS	OCCUPANCY SENSOR
M M	MOTOR CONTROL VALVE (2-WAY), (3-WAY)
T T	TEMPERATURE SENSOR OR THERMOSTAT
H H	HUMIDITY SENSOR OR HUMIDISTAT
h	ENTHALPY SENSOR
FS	LIQUID FLOW SWITCH
F	DUCT MOUNTED AIRFLOW MONITORING STATION
	ANALOG OUTPUT, INPUT: DATA POINT TO DDC
	DIGITAL OUTPUT, INPUT: DATA POINT TO DDC
CS	CURRENT SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR OR SWITCH
SP	STATIC PRESSURE SENSOR
SD	DUCT SMOKE DETECTOR
FI	AREA SMOKE DETECTOR
M	MOTORIZED DAMPER
R	RELAY
S	SOLENOID VALVE
FACP	DIVISION 16 FIRE ALARM CONTROL PANEL
PT	LIQUID LINE PRESSURE SENSOR AND SIGNAL TRANSMITTER
FIT	LIQUID FLOW INDICATING TRANSMITTER
FCV	FLOW CONTROL VALVE
	TURBINE LIQUID FLOW METER
	VENTURI FLOW METER
	POSITIVE, NEGATIVE, NEUTRAL ROOM PRESSURIZATION
FSC	FAN SPEED CONTROLLER
	ALARM LIGHT AND HORN STATION
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT

HVAC GENERAL NOTES

1. THIS IS A STANDARD LEGEND SHEET. SOME SYMBOLS OR ABBREVIATIONS ON THIS SHEET MAY NOT APPEAR ON THE PLANS.
2. FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS, SEE OTHER LEGENDS FOR PLUMBING, MECHANICAL, STRUCTURAL/ AND ARCHITECTURAL.

ABBREVIATIONS AND EQUIPMENT ID

ACCU	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
AS	CENTRIFUGAL AIR SEPARATOR
BD	BALANCING DAMPER
BDD	BACKDRAFT DAMPER (GRAVITY)
BO	BOILER
CC	COOLING COIL
CT	COOLING TOWER
CD	CEILING DIFFUSER
CF	CEILING FAN
CMF	CHEMICAL FEEDER
CRU	CONDENSATE RETURN UNIT
CSU	CEILING-MOUNTED AIR SUPPLY UNIT
CU	CONDENSING UNIT
DL	DRUM LOUVER DIFFUSER
EA	EXHAUST AIR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
ET	DIAPHRAGM EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
FC	FLEXIBLE CONNECTION, FAIL CLOSE
FCU	FAN-COIL UNIT
FD	FIRE DAMPER
FO	FAIL OPEN
FF	FINAL FILTER
FRP	FIBERGLASS REINFORCED PLASTIC
FSD	FIRE SMOKE DAMPER
FT	FINNED-TUBE BASEBOARD HEATER
FZ	FREEZE STAT
GUM	GLYCOL AUTO FEEDER
HC	HEATING COIL
HCP	HVAC CONTROL PANEL
HGR	HOT GLYCOL RETURN
HGS	HOT GLYCOL SUPPLY
HTP	HEAT TRANSFER PACKAGE
HVU	HEATING AND VENTILATING UNIT
HWP	HEATING WATER PUMP
HX	HEAT EXCHANGER
IRH	INFRARED HEATERS
JD	JET DIFFUSER
MAU	MAKEUP AIR UNIT
MB	MIXING BOX
MD	MOTORIZED DAMPER
ML	MOTORIZED LOUVER
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED-BLADE DAMPER (MANUAL)
OIT	OPERATOR INTERFACE TERMINAL
OS	OCCUPANCY SENSOR
OSA	OUTSIDE AIR
PA	PRESSURIZATION AIR
PCV	PRESSURE-CONTROL VALVE
PF	PREFILTER
PHC	PREHEAT COIL
PTAC	PACKAGED TERMINAL AC UNIT
PTS	PITOT-TUBE TESTING STATION
RA	RETURN AIR
RF	RETURN FAN
RG	RETURN GRILLE
RGH	RADIANT GAS-FIRED HEATING SYSTEM
RL	REFRIGERANT LIQUID PIPE
RR	RETURN REGISTER
RS	REFRIGERANT SUCTION PIPE
RV	ROOF VENTILATOR
SA	SOUND ATTENUATOR, SUPPLY AIR
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
TG	TRANSFER GRILLE
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME UNIT
WSHP	WATER SOURCE HEAT PUMP

NO.	DATE	REVISION	BY	APVD
DSGN	A VALIENTE	DR K RINER / CHK T PRICE	A VALIENTE	APVD

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
HVAC LEGEND

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
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CONFORMED DOCUMENTS

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
	DRAWOUT AIR CIRCUIT BREAKER, LOW VOLTAGE
400	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE, UNO
AS/AF or AT/AF	CIRCUIT BREAKER, STATIC TRIP UNIT, SENSOR AMP TRIP AND FRAME RATINGS SHOWN, 3 POLE, UNO
100/M	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, TRIP RATING SHOWN, 3 POLE, UNO
400 400	CIRCUIT BREAKER WITH CURRENT LIMITING FUSES, TRIP AND FUSE RATING INDICATED, 3 POLE, UNO
400 225	FUSED SWITCH, SWITCH AND FUSE CURRENT RATING INDICATED, 3 POLE, UNO
100	SWITCH, CURRENT RATING INDICATED, 3 POLE, UNO
60 (3)	FUSE, CURRENT RATING AND QUANTITY INDICATED
1	MAGNETIC STARTER WITH OVERLOAD, NEMA SIZE INDICATED, FVNR UNO
AFD	ELECTRONIC STARTER/SPEED CONTROL RVSS = REDUCED VOLTAGE SOFT STARTER AFD = AC ADJUSTABLE FREQUENCY DRIVE DC = DC ADJUSTABLE SPEED DRIVE RVAT = REDUCED VOLTAGE AUTO TRANSFORMER TYPE RVRT = REDUCED VOLTAGE REACTOR TYPE
	CABLE OR BUS CONNECTION POINT
K	KEY INTERLOCK
	SURGE ARRESTER (GAP TYPE)
10	CAPACITOR - KVAR INDICATED, 3 PHASE
3	AC MOTOR, SQUIRREL CAGE INDUCTION - HORSEPOWER INDICATED
G 500/625	GENERATOR, KW/KVA RATING SHOWN
VS V 0-600V	ANALOG METER WITH SWITCH - SCALE RANGE SHOWN V = VOLTAGE KW = KILOWATTS A = AMPERAGE KVAR = KILOVARS PF = POWER FACTOR
DPM	DIGITAL POWER METER (MULTIFUNCTION)
	UTILITY REVENUE METER
	GROUND
15 KVA 480-120/240V 1 PH	TRANSFORMER, SIZE, VOLTAGE RATINGS, AND PHASE INDICATED
	SHIELDED ISOLATION TRANSFORMER
480-120V (3)	POTENTIAL TRANSFORMER, VOLTAGE RATING AND QUANTITY INDICATED
100:5 (3)	CURRENT TRANSFORMER, RATIO(100:5) AND QUANTITY INDICATED (3)
	CONNECTION POINT TO EQUIPMENT SPECIFIED IN OTHER DIVISIONS, RACEWAY, CONDUCTOR AND CONNECTION IN THIS DIVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
	DRAWOUT POWER CIRCUIT BREAKER, MEDIUM VOLTAGE
	NON DRAWOUT FUSED SWITCH, MEDIUM VOLTAGE
	DRAWOUT FUSED SWITCH AND CONTACTOR, MEDIUM VOLTAGE
	DRAWOUT FUSED SWITCH AND VACUUM CONTACTOR, MEDIUM VOLTAGE
	DRAWOUT VACUUM CONTACTOR, MEDIUM VOLTAGE
	MEDIUM VOLTAGE CABLE STRESS CONE TYPE TERMINATION, OPEN TERMINATOR OR ELBOW
	SWITCH - LOAD BREAK, GROUP OPERATED, MEDIUM VOLTAGE
	SWITCH W/ARCING HORNS, MEDIUM VOLTAGE
	DISCONNECTING FUSE - SOLID MATERIAL, MEDIUM VOLTAGE
	SWITCH - HOOK STICK OPERATED, SINGLE POLE, MEDIUM VOLTAGE
	FUSE - EXPULSION, HOOK STICK OPERATED, SINGLE POLE, MEDIUM VOLTAGE
	GROUND SWITCH, GANG OPERATED
	TERMINAL BLOCK LUG
	DELTA CONNECTION
	WYE GROUNDED CONNECTION, SOLID GROUND
R or Z	WYE NEUTRAL GROUND RESISTOR OR IMPEDANCE CONNECTION
86	RELAY OR DEVICE, FUNCTION NUMBER AS INDICATED
50:5 (1)	CURRENT TRANSFORMER, ZERO SEQUENCE, RATIO AND QUANTITY INDICATED
800/1200:5 (3)	BUSHING CURRENT TRANSFORMER, MULTI-RATIO AND QUANTITY INDICATED
MO	MOTOR OPERATOR, BREAKER OR SWITCH
EUM	ENERGY MONITORING UNIT
MRP	MOTOR PROTECTION RELAY

NOTES:

1. THESE ARE STANDARD LEGEND SHEETS. SOME SYMBOLS AND ABBREVIATIONS MAY APPEAR ON THE LEGEND AND NOT ON THE DRAWINGS.
2. FOR ADDITIONAL ABBREVIATIONS OF OTHER DIVISIONS (HVAC, MECHANICAL, AND STRUCTURAL/ARCHITECTURAL) SEE OTHER LEGENDS.

CONTROL DIAGRAM

SYMBOL	DESCRIPTION
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY CLOSED
	PUSH BUTTON SWITCH, MAINTAINED CONTACTS WITH MECHANICAL INTERLOCK
	3 POSITION SELECTOR SWITCH MAINTAINED CONTACT
HAND OFF REMOTE	SELECTOR SWITCH - MAINTAINED CONTACT - CHART IDENTIFIES OPERATION WHEN NEEDED FOR CLARITY:
	TOGGLE SWITCH, ON-OFF TYPE
ON OFF	SELECTOR SWITCH, ON-OFF TYPE
	MUSHROOM HEAD PUSHBUTTON SWITCH
A	INDICATING LIGHT, PUSH-TO-TEST, LETTER INDICATES COLOR
A	INDICATING LIGHT - LETTER INDICATES COLOR A - AMBER G - GREEN S - STROBE B - BLUE R - RED C - CLEAR W - WHITE
ETM	ELAPSED TIME METER
M	MOTOR STARTER CONTACTOR COIL
CRX	CONTROL RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT
TDR X	TIME DELAY RELAY, X INDICATES NUMERICAL ORDER IN CIRCUIT
SV X	SOLENOID VALVE, X INDICATES NUMERICAL ORDER IN CIRCUIT
	CONTACT - NORMALLY OPEN
	CONTACT - NORMALLY CLOSED
	REMOTE DEVICE
	TIME DELAY RELAY CONTACT, NORMALLY OPEN, CLOSES WHEN ENERGIZED AND TIMED OUT
	TIME DELAY RELAY CONTACT, NORMALLY CLOSED, OPENS WHEN ENERGIZED AND TIMED OUT
	TIME DELAY RELAY CONTACT, CLOSES WHEN ENERGIZED, OPENS WHEN DE-ENERGIZED AND TIMED OUT
	TIME DELAY RELAY CONTACT, OPENS WHEN ENERGIZED, CLOSES WHEN DE-ENERGIZED AND TIMED OUT
	MOTOR SPACE HEATER
	TERMINAL BLOCK, REMOTE
	TERMINAL BLOCK, INTERNAL
	FUSED TERMINAL BLOCK
	FUSE, RATING INDICATED
CPT 120V	TRANSFORMER, CONTROL POWER
	THERMOCOUPLE
	CAPACITOR
+ −	BATTERY

POSITION				
CKT	HAND	OFF	REMOTE	X - CLOSED CONTACT O - OPEN CONTACT
1	X	O	O	
2	O	O	X	

CONTROL DIAGRAM

SYMBOL	DESCRIPTION
	LIMIT SWITCH, NORMALLY OPEN, CLOSES AT END OF TRAVEL
	LIMIT SWITCH, NORMALLY CLOSED, OPENS AT END OF TRAVEL
	TEMPERATURE SWITCH, OPENS ON TEMPERATURE RISE
	TEMPERATURE SWITCH, CLOSES ON TEMPERATURE RISE
	FLOAT SWITCH, NORMALLY OPEN, CLOSES ON DESCENDING LEVEL
	FLOAT SWITCH, NORMALLY OPEN, CLOSES ON RISING LEVEL
	PRESSURE SWITCH, NORMALLY CLOSED, OPENS ON RISING PRESSURE
	PRESSURE SWITCH, NORMALLY OPEN, CLOSES ON RISING PRESSURE
	FLOW SWITCH, CLOSES ON INCREASED FLOW
	FLOW SWITCH, OPENS ON INCREASED FLOW
NGR	NEUTRAL GROUND CURRENT LIMITING RESISTOR
RES	CALIBRATING RESISTOR
T GEN	TACHOMETER GENERATOR
GFS	GROUND FAULT SENSOR
	FLASHER
	SEALED CONTACT
	BUZZER
	POTENTIOMETER
	RESISTOR
	BLOWN FUSE INDICATOR
	COAXIAL CABLE
	MULTICONDUCTOR SHIELDED CABLE
	DUPLEX RECEPTACLE
L U	RELAY, WITH MECHANICAL LATCH
	FULLWAVE DIODE BRIDGE (AC TO DC)

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY		G MESSER	KB HORTON	APVD
					BY GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
ELECTRICAL LEGEND 1

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VERIFY SCALE
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CONFORMED DOCUMENTS

POWER SYSTEM PLAN

SYMBOL	DESCRIPTION
	CONNECTION POINT TO EQUIPMENT SPECIFIED. RACEWAY, CONDUCTOR,TERMINATION AND CONNECTION IN THIS DIVISION.
MCC-A	MAJOR ELECTRICAL COMPONENT OR DEVICE - NAME OR IDENTIFYING SYMBOL AS SHOWN.
	PANELBOARD - SURFACE MOUNTED
LPXXA	PANELBOARD LETTER OR NUMBER FACILITY NUMBER LP - LOW VOLTAGE PANEL DP - DISTRIBUTION PANEL
	PANELBOARD - FLUSH MOUNTED
	TERMINAL JUNCTION BOX
M	MOTOR, SQUIRREL CAGE INDUCTION
G	GENERATOR, VOLTAGE AND SIZE AS INDICATED.
LPXXA	HOME RUN - DESTINATION SHOWN
or G	EXPOSED CONDUIT AND CONDUCTORS*
or G	CONCEALED CONDUIT AND CONDUCTORS*

NOTE;
ALL UNMARKED CONDUIT RUNS CONSIST OF TWO NO. 12, ONE NO. 12 GROUND CONDUCTORS IN 3/4" CONDUIT. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF NO. 12 CONDUCTORS. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE.

G	CROSSHATCHES WITH BAR INDICATE NO.10 CONDUCTOR. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE.
[A1]	CONDUIT AND CONDUCTOR CALLOUT, SEE LEGEND.
	CONDUIT DOWN
	CONDUIT UP
	CONDUIT, STUBBED AND CAPPED
	CONDUIT TERMINATION AT CABLE TRAY
EX	EXISTING CONDUIT/ DUCT BANK
BD	BUS DUCT - SEE SPECIFICATIONS
CE	CONCRETE ENCASED CONDUIT
DB	DIRECT BURIED CONDUIT
FO	FIBER OPTIC CONDUIT
XXXX	CONCRETE ENCASED DUCT BANK WHERE XXXX IS THE DUCT BANK NAME. SEE CIRCUIT AND RACEWAY CODING DEFINITION
	CONCEALED CONDUIT ROUTING AREA
	CONDUIT ROUTING AREA
	CABLE TRAY
T	TRANSFORMER
J or HH	GENERAL CONTROL OR WIRING DEVICE. LETTER SYMBOLS OR ABBREVIATIONS INDICATE TYPE OF DEVICE
CS	CONTROL STATION, SEE CONTROL DIAGRAMS FOR CONTROL DEVICE(S) REQUIRED.
30	NONFUSED DISCONNECT SWITCH, CURRENT RATING INDICATED, 3 POLE
60/40	FUSED DISCONNECT SWITCH, CURRENT RATING INDICATED (60/40, 60=SWITCH RATING / 40=FUSE RATING) 3 POLE
2	COMBINATION CIRCUIT BREAKER AND MAGNETIC STARTER, NEMA SIZE INDICATED

POWER SYSTEM PLAN

SYMBOL	DESCRIPTION
100/40	BREAKER, SEPARATELY MOUNTED, CURRENT RATING INDICATED (100/40, 100 = FRAME SIZE; 40 = TRIP RATING) 3 POLE
C 2	CONTACTOR, MAGNETIC, NEMA SIZE INDICATED
L 30	LIGHTING CONTACTOR, CURRENT RATING INDICATED
2	STARTER, MAGNETIC NEMA SIZE INDICATED
XX 2	CONVENIENCE RECEPTACLE - DUPLEX UNLESS NOTED OTHERWISE WP - WEATHERPROOF C - CLOCK HANGER TL - TWIST LOCK CRE - CORROSION RESISTANT GFCI - GROUND FAULT CIRCUIT INTERRUPTER SUBSCRIPT NUMBER AT RECEPTACLE INDICATES CIRCUIT
	240V RECEPTACLE
	CONVENIENCE RECEPTACLE - QUADRUPLEX
	MULTI OUTLET ASSEMBLY
	DUPLEX CONVENIENCE RECEPTACLE - FLUSH IN FLOOR
	CONVENIENCE RECEPTACLE, PEDESTAL, DUPLEX SINGLE FACE UNLESS INDICATED OTHERWISE
L20R 20	RECEPTACLE, SPECIAL PURPOSE-NEMA CONFIGURATION AND AMPERAGE INDICATED
T	THERMOSTAT
	UTILITY REVENUE METERING FACILITY
EUH	ELECTRIC UNIT HEATER
AC	ELECTRIC AIR CONDITIONER (SELF CONTAINED UNIT)
	UTILITY POLE

LIGHTING SYSTEM PLAN

1 or 1	LUMINAIRE, SEE SCHEDULE
1	LUMINAIRE, SEE SCHEDULE
1 or	LUMINAIRE WITH INTERNAL BATTERY BACKUP, SEE SCHEDULE
1	STRIP LUMINAIRE, SEE SCHEDULE
4 or 4	LUMINAIRE AND POLE, SEE SCHEDULE
5 or 5	WALL MOUNTED LUMINAIRE, SEE SCHEDULE
1	FLOOD LIGHTS - AIM IN THE DIRECTION SHOWN
	STANDBY LIGHTING UNIT, SURFACE MOUNTED, SEE SCHEDULE
XX or	EXIT LIGHTS - FILLED SECTION INDICATES LIGHTED FACE, ARROW INDICATES EGRESS DIRECTIONAL INDICATORS, XX = FIXTURE NUMBER, SEE SCHEDULE
$a or 2a	SMALL LETTER SUBSCRIPT AT SWITCH AND LUMINAIRE INDICATES SWITCHING. SUBSCRIPT NUMBER AT LUMINAIRE INDICATES CIRCUIT
$3	WALL SWITCH: 2- DOUBLE POLE P- PILOT LIGHT 3- THREE WAY K- KEY OPERATED 4- FOUR WAY D- DIMMER WP- WEATHERPROOF CRE- CORROSION RESISTANT EX- EXPLOSIONPROOF L- MOMENTARY 3-WAY M- MOTOR RATED MS- MANUAL STARTER WITH OVERLOADS
OS	OCCUPANCY SENSOR
LC	LIGHTING CONTACTOR
MD	MOTION DETECTOR
PC	PHOTOCELL

ONE LINE PROTECTION RELAYING AND ELEMENTARY DIAGRAMS

SYMBOL	DESCRIPTION
51 or 52	DEVICE FUNCTION NUMBER INDICATED, SEE DEVICE TABLE
CS T	CONTROL SWITCH TRIP
CS C	CONTROL SWITCH CLOSE
43/CS	43-DEVICE FUNCTION NUMBER, SEE DEVICE TABLE
VS	VOLTMETER SWITCH
AS	AMMETER SWITCH
A	INDICATING LAMP-SWITCHBOARD TYPE INDICATING LAMP LENS COLORS INDICATED AS FOLLOWS: A - AMBER R - RED B - BLUE W - WHITE G - GREEN
V	VOLTMETER
A	AMMETER
W	WATTMETER
F	FREQUENCY METER
PF	POWER FACTOR METER
WH	WATT-HOUR METER
ETM	ELAPSED TIME METER
RPM	TACHOMETER
W XD	WATTS TRANSDUCER
PF XD	POWER FACTOR TRANSDUCER
TD	TIME DELAY
4	RELAY COIL, DEVICE FUNCTION NUMBER PER ANSI 37.2 - AMERICAN STANDARD MANUAL AND AUTOMATIC STATION CONTROL, SUPERVISORY AND ASSOCIATED TELEMETRY EQUIPMENT
7 8	NORMALLY OPEN CONTACT
3 4	NORMALLY CLOSED CONTACT
	REMOTE DEVICE
	TEST SWITCH CURRENT ELEMENT
	TEST SWITCH POTENTIAL ELEMENT
	NEUTRAL CONNECTION
	DIODE
	INSTRUMENTATION CABLE, SHIELDED
NGR	NEUTRAL GROUNDING RESISTOR
PST	PHASE SHIFTING TRANSFORMER

GROUND SYSTEM PLAN

	GROUND ROD
	GROUND ROD IN TEST WELL
G	GROUNDING CONDUCTOR, SIZE AS INDICATED
	PIGTAIL FOR CONNECTION TO EQUIPMENT CABINET OR FRAME
G	EQUIPMENT GROUND BUS
N	EQUIPMENT NEUTRAL BUS

SYMBOL	DESCRIPTION

FIRE ALARM SYSTEM PLAN AND RISER

F P	FIRE ALARM STATION, MANUAL
	FIRE ALARM SYSTEM, AUTOMATIC SMOKE DETECTOR
HD	FIRE ALARM SYSTEM, AUTOMATIC, HEAT DETECTOR
F	FIRE ALARM BELL
F	FIRE ALARM HORN
	FIRE ALARM HORN/STROBE LIGHT
	FIRE ALARM STROBE LIGHT
	AIR DUCT DETECTOR
FS	FIRE SPRINKLER FLOW SWITCH
TS	FIRE SPRINKLER TAMPER SWITCH
D	DOOR HOLDER

TELEPHONE SYSTEM PLAN AND RISER

TTC	TELEPHONE TERMINAL CABINET
	TELEPHONE RECEPTACLE FLOOR BOX
	TELEPHONE RECEPTACLE
T	TELEPHONE SYSTEM RACEWAY

COMPUTER SYSTEM (DATA) PLAN AND RISER

CTC	COMPUTER SYSTEM TERMINAL CABINET
	COMPUTER NETWORK CONNECTION
	COMPUTER NETWORK CONNECTION, FLUSH IN FLOOR
D	DATA SYSTEM RACEWAY

SECURITY SYSTEM PLAN AND RISER

CR	CARD KEY ACCESS
CS	CONTROL STATION
DS	DOOR SWITCH
EP	EGRESS PUSHBUTTON
	ELECTRONIC LOCK M = MAGENITIC S = STRIKE
	INTERCOM
	MONITOR
	MOTION SENSOR
	VIDEO CAMERA PTZ = PAN/TILT/ZOOM F = FIXED

NO.	DATE	DSGN
		DR
	REVISION	CHK
		APVD
	BY	APVD
	GT YARBERRY	G MESSER
		KB HORTON
		GT YARBERRY

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DEWATERING FACILITY & OTHER IMPROVEMENTS
C.C. WILLIAMS WWTP
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
ELECTRICAL LEGEND 2

NTS
VERIFY SCALE
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DWG	01-G-0019
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CONFORMED DOCUMENTS

GENERAL CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION

POWER CIRCUIT CALLOUTS

[P1]	[1/2"FLEX, 2#12,#12G]	[P31]	[1 1/4"C,3#6, 4#14,1#8G]
[P2]	[3/4"C,2#12,1#12G]	[P32]	[1 1/4"C,3#6, 5#14,1#8G]
[P3]	[3/4"C,3#12,1#12G]	[P33]	[1 1/4"C,3#4,1#8G]
[P4]	[3/4"C,4#12,1#12G]	[P34]	[1 1/4"C,3#4,3#14,1#8G]
[P5]	[3/4"C,5#12,1#12G]	[P35]	[1 1/4"C,3#4,5#14,1#8G]
[P6]	[3/4"C,6#12,1#12G]	[P36]	[1 1/4"C,3#3, 1#6G]
[P7]	[3/4"C,7#12,1#12G]	[P37]	[1 1/4"C,3#3, 3#14,1#6G]
[P8]	[3/4"C,8#12,1#12G]	[P38]	[1 1/4"C,3#2, 1#6G]
[P9]	[3/4"C,3#12,2#14,1#12G]	[P39]	[1 1/2"C,3#1, 1#6G]
[P10]	[3/4"C,3#12,3#14,1#12G]	[P40]	[2"C,3#1, 3#14,1#6G]
[P11]	[3/4"C,3#12,4#14,1#12G]	[P41]	[2"C,3#2/0, 1#4G]
[P12]	[3/4"C,3#12,5#14,1#12G]	[P42]	[2"C,3#3/0, 1#4G]
[P13]	[3/4"C,3#12,6#14,1#12G]	[P43]	[2"C,3#4/0, 1#3G]
[P14]	[1"C,3#12,7#14,1#12G]	[P44]	[2"C, 3#1/0, 1#4C]
[P15]	[3/4"C,2#10,1#10G]	[P45]	[1 1/2"C, 4#1, 1#6G]
[P16]	[3/4"C,3#10,1#10G]	[P50]	[4"C, 3-500kCMIL, 1#3G]
[P17]	[3/4"C,3#10,2#14,1#10G]	[P51]	[3/4"C, 2#12, 2#14, 1#12G]
[P18]	[3/4"C,3#10,3#14,1#10G]	[P52]	[2"C, 4#1/0, 1#6G]
[P19]	[3/4"C,3#10,4#14,1#10G]	[P53]	[4"C, 3-750KCM, 1-250KCM G]
[P20]	[1"C,3#10,5#14,1#10G]	[P54]	4EA [3"C, 3-350KCM, 1-3/0G]
[P21]	[1"C,2#8,1#10G]	[P55]	2 EA [2-1/2"C, 3-350KCM, 1#1G]
[P22]	[1"C,3#8,1#10G]	[P56]	[4"C, 3-750KCM, 1#4/0G]
[P23]	[1"C,3#8,2#14,1#10G]	[P57]	TBD
[P24]	[1"C,3#8,3#14,1#10G]	[P58]	[1"C, 4#10, 1#10G]
[P25]	[1"C,3#8,4#14,1#10G]	[P59]	[2 1/2"C, 4#4/0, 1#3G]
[P26]	[1"C,3#8,5#14,1#10G]	[P60]	[1 1/2"C, 2#1 ,1#8G]
[P27]	[1"C,2#6, 1#10G]	[P61]	[2"C, 3#4/0, 1#2G]
[P28]	[1"C,3#6, 1#8G]	[P62]	[2"C, 4#10, 21#14, 1#10G]
[P29]	[1"C,3#6, 2#14,1#8G]	[P63]	[3/4"C, 2#12, 2#14, 1#12G]
[P30]	[1 1/4"C,3#6, 3#14,1#8G]	[P64]	[1"C, 2#12, 8#14, 1#12G]

MULTICONDUCTOR POWER CABLE CIRCUIT CALLOUTS

[PC1]	[3/4"C,1 (3C#12,1#12G) TYPE 2]
[PC1A]	[3/4"C,1 (2C#12,1#12G) TYPE 2]
[PC2]	[3/4"C,1 (3C#10,1#10G) TYPE 2]
[PC2A]	[3/4"C,1 (2C#10,1#10G) TYPE 2]
[PC3]	[1"C,1 (3C#8,1#10G) TYPE 2]
[PC4]	[1 1/4"C, 1 (3/C#6, 1#8G) TYPE 2]
[PC5]	[1 1/2"C,1 (3/C#4, 1#6) TYPE 2]
[PC6]	[1 1/2"C, 1 (3/C#2, 1#6G) TYPE 2]
[PC7]	[2"C, 1 (3/C#1, 1#6G) TYPE 2]
[PC9]	[2"C, 1 (3/C#2/0, 1#6G) TYPE 2]
[PC10]	[2"C, 1 (3/C#3/0, 1#4G) TYPE 2]
[PV2]	[2 1/2"C, 1(3/C#2, #2G/S) TYPE 8]
[PV4]	[2"C, 1(3/C#4, #4G/S) TYPE 8]
[PV6]	[2"C, 1 (3/C#6, #6G/S) TYPE 8]
[PV8]	[1 1/2"C, 1(3/C#8, #8G/S) TYPE 8]
[PV10]	[1 1/4"C, 1(3/C#10, #10G/S) TYPE 8]
[PV12]	[1"C, 1(3/C#12, #12G/S) TYPE 8]

EMPTY CONDUIT

[EC-1]	[3/4"C,WITH PULL STRING]
[EC-2]	[1"C,WITH PULL STRING]
[EC-3]	[1 1/4"C,WITH PULL STRING]
[EC-4]	[1 1/2"C,WITH PULL STRING]
[EC-5]	[2"C,WITH PULL STRING]
[EC-6]	[3"C,WITH PULL STRING]
[EC-7]	[4"C,WITH PULL STRING]
[EC-8]	[5"C,WITH PULL STRING]

ANALOG CIRCUIT CALLOUTS

[A1]	[3/4"C,1 TYPE 3]
[A2]	[3/4"C,2 TYPE 3]
[A3]	[1"C,3 TYPE 3]
[A4]	[1 1/4"C,4 TYPE 3]
[A5]	[1 1/4"C,5 TYPE 3]
[A6]	[1 1/4"C,6 TYPE 3]
[A7]	[1 1/2"C,7 TYPE 3]
[A8]	[1 1/2"C,8 TYPE 3]
[A9]	[1 1/2"C,9 TYPE 3]
[A10]	[2"C,10 TYPE 3]
[A11]	[2"C,11 TYPE 3]
[A12]	[2"C,12 TYPE 3]
[A13]	[2"C,13 TYPE 3]
[A14]	[2"C,14 TYPE 3]
[A15]	[3/4"C,1 TYPE 4]
[A16]	[3/4"C,2 TYPE 4]
[A17]	[1"C,3 TYPE 4]
[A18]	[1 1/4"C,4 TYPE 4]
[A19]	[1 1/4"C,5 TYPE 4]
[A20]	[1 1/4"C,6 TYPE 4]
[A21]	[1 1/2"C,7 TYPE 4]
[A22]	[1 1/2"C,8 TYPE 4]
[A23]	[2"C,9 TYPE 4]
[A24]	[3/4"C,1-4 pr. TYPE 5]
[A25]	[1"C,2-4 pr. TYPE 5]
[A27]	[1"C 1-CAT6]
[A28]	[2"C, 2-COND # 16 SHIELDED TW PR, BELDEN 8719 1-3 COND # 16 SHIELDED TW TRIPLET, BELDEN 8618]

CONTROL CIRCUIT CALLOUTS

[C1]	[3/4"C,MSC]
[C2]	[3/4"C,2#14,1#14G]
[C3]	[3/4"C,3#14,1#14G]
[C4]	[3/4"C,4#14,1#14G]
[C5]	[3/4"C,5#14,1#14G]
[C6]	[3/4"C,6#14,1#14G]
[C7]	[3/4"C,7#14,1#14G]
[C8]	[3/4"C,8#14,1#14G]
[C9]	[3/4"C,9#14,1#14G]
[C10]	[3/4"C,10#14,1#14G]
[C11]	[3/4"C,11#14,1#14G]
[C12]	[3/4"C,12#14,1#14G]
[C13]	[3/4"C,13#14,1#14G]
[C14]	[1"C,14#14,1#14G]
[C15]	[1"C,15#14,1#14G]
[C16]	[1"C,16#14,1#14G]
[C17]	[1"C,17#14,1#14G]
[C18]	[1"C,18#14,1#14G]
[C19]	[1"C,19#14,1#14G]
[C20]	[1"C,20#14,1#14G]
[C21]	[1"C,21#14,1#14G]
[C22]	[1"C,22#14,1#14G]
[C23]	[1"C,23#14,1#14G]
[C24]	[1 1/4"C,24#14,1#14G]
[C25]	[1 1/4"C,25#14,1#14G]
[C26]	[1 1/2"C, 26#14, 1#14G]
[C40]	[2"C, 40#14, 1#14G]
[C52]	[2"C, 52#14, 1#14G]
[C66]	[2"C, 66#14, 1#14G]

MULTICONDUCTOR CONTROL CABLE CIRCUIT CALLOUTS

[CC3]	[3/4"C,1-3C TYPE 1]
[CC5]	[3/4"C,1-5C TYPE 1]
[CC7]	[3/4"C,1-7C TYPE 1]
[CC9]	[1"C,1-9C TYPE 1]
[CC12]	[1"C,1-12C TYPE 1]
[CC19]	[1 1/2"C, 1-19C TYPE 1]
[CC25]	[1 1/2"C,1-25C TYPE 1]
[CC37]	[2"C,1-37C TYPE 1]
[CCC1]	[1-7C #12 TYPE 1]

MV 15KV CONDUCTORS

[MV1]	[4"C, 3#4 (15KV), 1#2G]

NOTES:

1. FOR CABLE TYPES, SEE SPECIFICATIONS.
2. POWER CIRCUIT CALLOUTS ARE BASED ON THE AREA OF THE CONDUCTORS. CONTROL CIRCUIT CALLOUTS ARE BASED ON THE AREAS OF SCHEDULE 40 PVC CONDUIT AND TYPES XHHW & XHHW-2 INSULATION.
3. SIZING OF CONDUCTORS #1AWG AND SMALLER BASED ON AMPACITIES AT 60 DEGREES C, SIZING OF CONDUCTORS #1/0AWG AND LARGER BASED ON AMPACITIES AT 75 DEGREES C.
4. WHERE CIRCUITS ARE UNDERGROUND, DIRECT BURIED OR CONCRETE ENCASED, MINIMUM CONDUIT SIZE SHALL BE 1".
5. FOR METRIC CONDUIT SIZES USE THE FOLLOWING CONVERSION:
   1/2" = 16 mm 1/4" = 35 mm
   3/4" = 21 mm 1 1/2" = 41 mm
   1" = 27 mm 2" = 53 mm

LUMINAIRE SCHEDULE

TYPE	SYMBOL	BASIS OF DESIGN	CATALOG #	# OF LAMPS	VOLTS	MOUNTING
A		HUBBELL	LZ2SL-60-30	60W LED	120	PENDENT
B		HUBBELL	LXEM-4-40-ML-RP-ED-U-ELL14	42W LED	120	PENDENT
C		HUBBELL	LNC2-12-4K-070-3-U-BLT-PCU-E	29W LED	120	WALL
D		HUBBELL	LNC2-12-4K-070-3-U-BLT-PCU-E	150W LED	208	PENDENT
E		HUBBELL	DYN-12-I-C1D2-06L	6W LED	120	WALL
F		HUBBELL	ESL-4-40-ML-FP-W-ED-U-ELL14	40W LED	120	WALL
G		HUBBELL	LF4SQML-DM-120-LV-4SQML30L-40K-WH-EM-WT	23W LED	120	RECESSED
I		HUBBELL	SRP22-40-ML-G-ED-120-ELL14	30W LED	120	RECESSED
J		HUBBELL	SRP24-40-HL--G-ED-120-ELL14ST	45W LED	120	RECESSED
K		HUBBELL	LF6ML-CP-6LFML30L-40K-9-SP-IP65-WT	25W LED	120	RECESSED
L		LITHONIA	DSXF1 LED-P2-40K-MFL-MVOLT-THK-PEX-DBLXD	42W LED	120	SURFACE
M		HUBBELL	VWGL-1	11W LED	120	SURFACE
N		HUBBELL	SAME AS TYPE C WITHOUT PHOTOCELL LNC2-12-4K-070-3-U-BLT-E	29W LED	120	WALL
X		HUBBELL	SEWL-S-R-W-E	3W LED	120	WALL

INDICATES LIGHT FIXTURES WITH EMERGENCY BATTERY PACK.

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MOBILE, ALABAMA

GENERAL
ELECTRICAL
LEGEND 3

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON	
BY	APVD	GT YARBERRY			

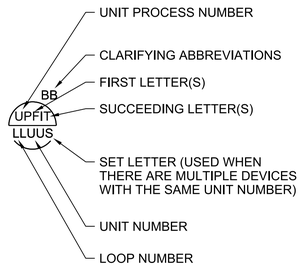
NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0020
SHEET	023 of 270

CONFORMED DOCUMENTS

INSTRUMENT IDENTIFICATION

EXAMPLE SYMBOLS



DIGITAL SYSTEM INTERFACES

- ▲ ANALOG INPUT
- ▼ ANALOG OUTPUT
- △ DISCRETE INPUT
- ▽ DISCRETE OUTPUT

INSTRUMENT IDENTIFICATION LETTERS TABLE

LETTER	FIRST-LETTER		SUCCEEDING-LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	READOUT OR PASSIVE FUNCTION	READOUT OR PASSIVE FUNCTION
A	ANALYSIS (+)		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE (*)	USER'S CHOICE (*)	USER'S CHOICE (*)
C	USER'S CHOICE (*)		CLOSED	CONTROL	
D	DENSITY (S.G.)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT, SENSOR		
F	FLOW RATE	RATIO (FRACTION)			
G	USER'S CHOICE (*)		GLASS, GAUGE VIEWING DEVICE	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION	MOMENTARY			MIDDLE, INTERMEDIATE
N	TORQUE		USER'S CHOICE (*)	USER'S CHOICE (*)	USER'S CHOICE (*)
O	USER'S CHOICE (*)		OPENED		
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RUN		RECORD OR PRINT		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTI VARIABLE		MULTI FUNCTION	MULTI FUNCTION	MULTI FUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL		
X	ALARM		UNCLASSIFIED (*)	UNCLASSIFIED (*)	UNCLASSIFIED (*)
Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION	Z AXIS		DRIVE, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

TABLE BASED ON THE INTERNATIONAL SOCIETY OF AUTOMATION (ISA) STANDARD.

(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

GENERAL INSTRUMENT OR FUNCTIONAL SYMBOLS

- FIELD MOUNTED
- REAR-OF-PANEL MOUNTED (OPERATOR INACCESSIBLE)
- PANEL MOUNTED (OPERATOR ACCESSIBLE)
- MCC MOUNTED
- COMPUTER FUNCTION
- PLC FUNCTION
- SHARED DISPLAY, SHARED CONTROL

TRANSDUCERS

A	ANALOG	I	CURRENT
D	DIGITAL	P	PNEUMATIC
E	VOLTAGE	PF	PULSE FREQUENCY
F	FREQUENCY	PD	PULSE DURATION
H	HYDRAULIC	R	RESISTANCE

EXAMPLE

CURRENT TO PNEUMATIC TRANSDUCER (BACK OF PANEL, IN A FLOW LOOP)

ACCESSORY DEVICES

A	ALARM
C	CONTROLLER
I	INDICATOR
R	RECORDER
S	SWITCH
T	TRANSMITTER
X	UNCLASSIFIED

EXAMPLE

TRANSMITTER AS AN ACCESSORY TO A FLOW ELEMENT

SPECIAL CASES

ON AND OFF EVENT LIGHTS

ON-OFF HAND SWITCH, MAINTAINED CONTACT SWITCH (CONTROLLED DEVICE WILL RESTART ON RETURN OF POWER AFTER POWER FAILURE).

STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

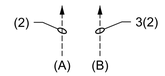
GENERAL NOTES

1. COMPONENTS AND PANELS SHOWN WITH A DIAMOND (◆) ARE TO BE PROVIDED UNDER SECTION 40 90 01, INSTRUMENTATION AND CONTROLS FOR PROCESS SYSTEMS.
2. COMPONENTS AND PANELS SHOWN WITH A SINGLE ASTERISK (*) ARE TO BE PROVIDED AS PART OF A PACKAGE SYSTEM.
3. COMPONENTS AND PANELS SHOWN WITH A DOUBLE ASTERISK (**) ARE TO BE PROVIDED UNDER DIVISION 26, ELECTRICAL.
4. THIS IS A STANDARD LEGEND. THEREFORE, NOT ALL OF THIS INFORMATION MAY BE USED ON THE PROJECT.

LINE LEGEND

- PRIMARY PROCESS (CLOSED CONDUIT, DASHED LINE INDICATES ALTERNATE FLOW STREAM)
- SECONDARY PROCESS
- BYPASS PROCESS
- PROCESS (OPEN CHANNEL)
- ANALOG SIGNAL (4 TO 20 mAdc, ETC.)
- DISCRETE (ON/OFF, ETC.)
- PNEUMATIC SIGNAL
- FILLED SYSTEM SIGNAL
- HYDRAULIC SYSTEM SIGNAL
- DATA LINK
- BUILDING OR FACILITY BOUNDARY
- PACKAGE SYSTEM EQUIPMENT
- TYPICAL BREAK
- P — POWER
- MSC — MANUFACTURER SUPPLIED CABLE
- FO — FIBER OPTIC
- E — ETHERNET (COPPER)
- HARDWIRED SINGALS
- C — ANTENNA CABLE

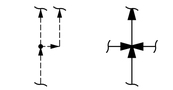
PARALLELING LINES



(A) TOTAL OF 2 SIGNALS

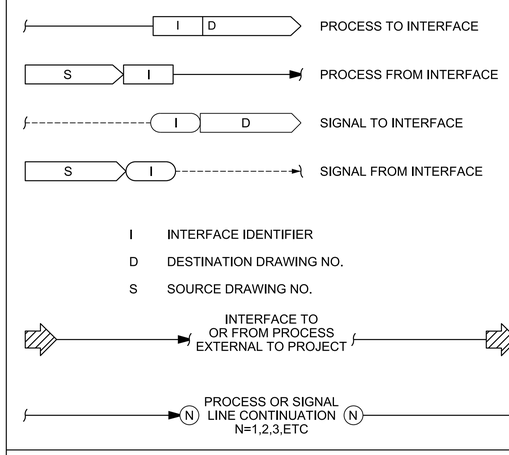
(B) 3 TYPICAL SETS OF 2 SIGNALS EACH. TOTAL OF 6 SIGNALS.

CONNECTING LINES



NON-CONNECTING LINES

INTERFACE SYMBOLS



- I INTERFACE IDENTIFIER
- D DESTINATION DRAWING NO.
- S SOURCE DRAWING NO.

INTERFACE TO OR FROM PROCESS EXTERNAL TO PROJECT

PROCESS OR SIGNAL LINE CONTINUATION N=1,2,3,ETC (N)

SELF CONTAINED VALVE & EQUIPMENT TAG NUMBERS

W-D-X-Y

W		UNIT PROCESS
D	ARV	AIR RELEASE VALVE
	CONV	CONVEYOR
	E	EJECTOR
	ECP	ENGINE CONTROL PANEL
	G	GATE
	GEN	ENGINE GENERATOR
	M	MECHANICAL EQUIPMENT
	P	PUMP
	SSH	SAFETY SHOWER
	SWGR	SWITCHGEAR
	T	TANK
X		LOOP NUMBER
Y		UNIT SYMBOL

ABBREVIATIONS & LETTER SYMBOLS

AC	ALTERNATING CURRENT
AFD	ADJUSTABLE FREQUENCY DRIVE
AM	AUTO-MANUAL
CAM	COMPUTER-AUTO-MANUAL
CCS	CENTRAL CONTROL SYSTEM
CL_2 etc.	CHLORINE (TYPICAL: USE STANDARD CHEMICAL ELEMENT ABBREVIATIONS)
CM	COMPUTER-MANUAL
COD	CHEMICAL OXYGEN DEMAND
COM	- COMMUNICATION MODULE
CP-X	CONTROL PANEL NO. X
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DCU	DISTRIBUTED CONTROL UNIT
DLR	DEVICE LEVEL RING
DO	DISSOLVED OXYGEN
ENS	ETHERNET SWITCH
FCl_2	FREE CHLORINE RESIDUAL
FOS	FAST-OFF-SLOW
FOSA	FAST-OFF-SLOW-AUTO
FOSR	FAST-OFF-SLOW-REMOTE
FP-W-X	FIELD PANEL NO. WX (W=UNIT PROCESS NUMBER X=PANEL NUMBER)
FR	FORWARD-REVERSE
FOT	FIBER OPTIC TRANSCEIVER
FWD	FORWARD
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
HMI	HUMAN MACHINE INTERFACE
I/O	INPUT/OUTPUT
ISR	INTRINSICALLY SAFE RELAY
LCP	LOCAL CONTROL PANEL
LEL	LOWER EXPLOSIVE LIMIT
LOS	LOCKOUT STOP
LR	LOCAL-REMOTE
MA	MANUAL-AUTO
MC	MODULATE-CLOSE
MCC-X	MOTOR CONTROL CENTER NO. X
MSC	MANUFACTURER SUPPLIED CABLE
OC	OPEN-CLOSE(D)
OCA	OPEN-CLOSE-AUTO
OCR	OPEN-CLOSE-REMOTE
OIU	OPERATOR INTERFACE UNIT
OO	ON-OFF
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
ORP	OXIDATION REDUCTION POTENTIAL
OSC	OPEN-STOP-CLOSE
PAC	PROGRAMMABLE AUTOMATION CONTROLLER
pH	HYDROGEN ION CONCENTRATION
PLC	PROGRAMMABLE LOGIC CONTROLLER
PP	PATCH PANEL
PROC	PROCESSOR MODULE
PS	POWER SUPPLY
REV	REVERSE
RIO	REMOTE I/O UNIT
RM	REDUNDANCY MODULE
RM-X	REMOTE MULTIPLEXING MODULE NO. X
RTU-X	REMOTE TELEMETRY UNIT NO. X
SA	SAMPLE
SF	SLOWER-FASTER
SS	START-STOP
SSC	SUPERVISORY SET POINT CONTROL
SSX	SURGE SUPPRESSION, TYPE X
TCl_2	TOTAL CHLORINE RESIDUAL
TOC	TOTAL ORGANIC CARBON
TOD	TOTAL OXYGEN DEMAND
TURB	TURBIDITY
UPS	UNINTERRUPTIBLE POWER SUPPLY
VCP	VENDOR CONTROL PANEL
VHC	VOLATILE HYDROCARBONS
VIB	VIBRATION
Δ	DIFFERENCE
Σ	SUM
×	MULTIPLY
÷	DIVIDE
F(X)	CHARACTERIZED
X^n	RAISED TO THE Nth POWER
$\sqrt{\ }$	SQUARE ROOT
AVG	AVERAGE
1:1	REPEAT OR BOOST
>	SELECT HIGHEST SIGNAL
<	SELECT LOWEST SIGNAL
±	BIAS
%	GAIN OR ATTENUATE

NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
		G GRAY	A PASTRANA	C.WILSON			G GRAY

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
INSTRUMENTATION AND CONTROLS LEGEND SHEET 1

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0021
SHEET	024 of 270

VALVE SYMBOLS

- GATE
- KNIFE GATE
- BUTTERFLY
- GLOBE
- BALL
- V — VEE-BALL
- PLUG
- SEAT PORT ECCENTRIC PLUG
- DIAPHRAGM
- PINCH
- NEEDLE
- SWING CHECK
- BALL CHECK
- BACKFLOW PREVENTER
- ROTARY
- TELESCOPE
- S — SAMPLE
- MUD
- PRESSURE RELIEF
- AIR AND/OR VACUUM RELEASE
- REGULATED SIDE PRESSURE CONTROL
- PRESSURE REGULATION (CLAY-TYPE)
- MULTI-PORT VALVE (GATE VALVE SHOWN. FOR OTHER VALVE TYPES, APPROPRIATE VALVE SYMBOL SHOWN.) SEAT PORTS ARE IMPLIED BY INDICATED FLOW PATTERN.
- ANGLE GATE

GATE SYMBOLS

- SLUICE
- BUTTERFLY
- FABRICATED SLIDE
- FLAP
- STOP LOG
- SHEAR

ACTUATOR SYMBOLS

- PNEUMATIC DIAPHRAGM SPRING-OPPOSED, SINGLE OR DOUBLE ACTING
- PNEUMATIC CYLINDER SINGLE OR DOUBLE ACTING ACTUATED BY ONE INPUT
- M — ELECTRIC MOTOR
- S — SOLENOID
- VALVE POSITIONER
- H — HYDRAULIC
- DIAPHRAGM, DIFFERENTIAL PRESSURE
- E/H — ELECTROHYDRAULIC
- MANUAL

NOTE:
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL, OR HYDRAULIC)

XX:
- FO FAIL OPEN
- FC FAIL CLOSED
- FLP FAIL TO LAST POSITION

PRIMARY ELEMENT SYMBOLS

- PARSHALL FLUME
- WEIR
- ORFICE PLATE
- FLOW TUBE
- PITOT-STATIC
- VORTEX METER
- ULTRASONIC FLOWMETER
- M — ELECTROMAGNETIC FLOWMETER
- PROPELLER OR TURBINE METER
- THERMAL FLOWMETER
- LEVEL (BUBBLER TUBE)
- LS — LEVEL (FLOAT)
- FI — ROTAMETER
- DE — DENSITY METER
- XX — GENERIC
- LE — LEVEL (ULTRASONIC)
- LE — LEVEL (RADAR)

MISCELLANEOUS SYMBOLS

- V — VENT TO ATMOSPHERE
- AIR GAP
- T — DRIP TRAP
- PIG INSERT POINT
- PIG CATCH POINT
- A — SELF CONTAINED AIR SUPPLY
- AP — AIR PURGE SET
- F — FLUSHING CONNECTION
- S — SEAL WATER SET
- WP — WATER PURGE SET
- FLEXIBLE CONNECTION
- AERATOR
- DIAPHRAGM SEAL
- ANNULAR DIAPHRAGM SEAL
- SS — COMPOSITE SAMPLER
- FLAME TRAP
- CALIBRATION COLUMN
- S — INLINE SILENCER
- BLIND FLANGE
- PIPE CAP
- STRAINER
- BASKET STRAINER
- FILTER
- PULSATION DAMPENER
- EXPANSION CHAMBER
- ISB — INTRINSIC SAFETY BARRIER
- FFLCPLLLX — PANEL CONTINUED ON SAME OR OTHER DRAWING; PANEL OUTLINE; PANEL NAME
- 120V — 120 VOLT, 60 HZ POWER
- 480V — 480 VOLT, 60 HZ POWER
- XX — AIR SET XX = SUPPLY PRESSURE IN PSIG.
- PLUG
- RECEPTACLE
- RUPTURE DISK (VACUUM)
- RUPTURE DISK (PRESSURE)
- TV — TV MONITOR
- TV — TV CAMERA
- A, B — AND — C — LOGIC ELEMENT: IF A AND NOT B THEN C
- A, B — OR — C — LOGIC ELEMENT: IF A OR B THEN C
- RADIO ANTENNA
- OR — I — INTERLOCK, SEE CONTROL DIAGRAMS
- VOICE COMMUNICATION POINT
- SKIMMING MECHANISM
- SCREW CONVEYOR
- MIXER
- ELECTRIC MOTOR
- REDUCER

PUMP AND COMPRESSOR SYMBOLS

- CENTRIFUGAL PUMP (DRY PIT) — XX
- CENTRIFUGAL WET PIT PUMP OR TURBINE PUMP — XX
- RECIPROCATING OR METERING PUMP (POSITIVE DISPLACEMENT) — XX
- DIAPHRAGM PUMP — XX
- GEAR PUMP OR BLOWER (POSITIVE DISPLACEMENT) — XX
- PROGRESSING CAVITY PUMP — XX
- COMPRESSOR (CENTRIFUGAL) — XX
- COMPRESSOR (PISTON) — XX
- BLOWER OR FAN (CENTRIFUGAL) — XX
- EJECTOR
- PISTON PUMP — XX
- SUBMERSIBLE SUMP PUMP — XX
- ROTARY PUMP
- VACUUM PUMP
- SCREW PUMP

XX:
- AS ADJUSTABLE SPEED
- CS CONSTANT SPEED

LINE SIZE AND MATERIAL IDENTIFICATION

(FOR REFERENCE ONLY. SEE SITE AND MECHANICAL DRAWINGS)

FOR — FLOW STREAM IDENTIFICATION

CISP	CAST IRON SOIL PIPE
CLDI	CEMENT LINED DUCTILE IRON
CLSTL	CEMENT LINED STEEL
CSTL	CARBON STEEL
CU	COPPER
FRP	FIBERGLASS REINFORCED PLASTIC
PVC	POLYVINYL CHLORIDE
SST	STAINLESS STEEL
STL	STEEL

FLOW STREAM IDENTIFICATION

BYP	BYPASS
CLG	CHLORINE GAS
CLS	CHLORINE SOLUTION
CW	COLD WATER
DM	DISCHARGE MAIN
DR	PROCESS DRAIN
DS	DIGESTED SLUDGE
DSC	DIGESTED SLUDGE CAKE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FTR	FILTRATE
HW	HOT WATER
NG	NATURAL GAS
OF	OVERFLOW DRAIN
PE	PLANT EFFLUENT
POLY	POLYMER
POS	POLYMER SOLUTION
RS	RAW SEWAGE
SA	SAMPLE
SR	SPILLAGE RETURN
SG	SEWAGE GAS
SOG	SULFUR DIOXIDE GAS
SOS	SULFUR DIOXIDE SOLUTION
SS	SANITARY SEWER
UW	UTILITY WATER
V	VENT
W1	NO. 1 (POTABLE) WATER
W2	NO. 2 (NON-POTABLE) WATER
WAS	WASTE ACTIVATED SLUDGE

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
	G GRAY		A PASTRANA	C.WILSON	APVD	G GRAY	

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GENERAL
INSTRUMENTATION AND CONTROLS
LEGEND
SHEET 2

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 — 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0022
SHEET	025 of 270

SECURITY GENERAL NOTES

1. DO NOT SCALE FROM DRAWINGS. THESE DRAWINGS ARE REPRESENTATIVE FOR THE FLOOR PLANS. FIELD VERIFY ALL REQUIRED DIMENSIONS PRIOR TO INSTALLATION.
2. ALL SECURITY EQUIPMENT SHALL BE APPROVED FOR INSTALLATION BY THE CITY REPRESENTATIVE.
3. EXACT LOCATION AND MOUNTING REQUIREMENTS FOR ALL SECURITY EQUIPMENT SHALL BE REVIEWED IN THE FIELD AND COORDINATED WITH THE CITY REPRESENTATIVE.
4. CONTRACTOR SHALL FIRE SEAL ALL CORES AND PENETRATIONS ASSOCIATED WITH THE SECURITY SCOPE OF THE WORK FOR THIS PROJECT. FIRE SEAL SHALL MEET OR EXCEED THE FIRE RATING OF THE MEDIA BEING PENETRATED.
5. ALL CONDUIT, RACEWAYS, PULLBOX AND ASSOCIATED HARDWARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DIVISION 26 SPECIFICATIONS.
6. UNLESS OTHERWISE NOTED ALL SECURITY RELATED ELECTRIC LOCK HARDWARE SHALL BE PROVIDED BY OTHERS.
7. REQUEST TO EXIT DEVICES DO NOT PRECLUDE EXITING FROM THE INTERIOR. ALL EXISTS ARE FREE EGRESS AND SHALL NOT REQUIRE THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT TO EXIT.
8. POWER AND COMMUNICATION WIRING SHALL BE PROVIDED IN SEPARATE CONDUITS AS SHOWN. MAINTAIN 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS WHEN PARALLEL RUNS EXCEED 10' IN LENGTH
9. CONTRACTOR TO PROVIDE ALL CABLING, CONNECTIONS AND DEVICES AS SHOWN ON THE DRAWINGS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
10. CONTRACTOR TO UNIQUELY TAG ALL ADDRESSABLE SECURITY SYSTEM COMMON WITH AN EQUIPMENT IDENTIFICATION TAG, PER THE SPECIFICATIONS AND EQUIPMENT NUMBERING SYSTEM NOMENCLATURE SHOWN ON THIS SHEET.

SECURITY WIRE AND CABLE - REFERENCE

(EXCERPT FROM SECTION 28 05 13)

CABLE TYPE A: SMARTWIRE MODEL 4461140 (LATEST VERSION), ONE 18 AWG FOUR CONDUCTOR NON-SHIELDED, ONE 22 AWG, SIX CONDUCTOR SHIELDED, ONE 22 AWG, FOUR CONDUCTOR NON-SHIELDED, AND ONE 22 AWG, TWO CONDUCTOR NON-SHIELDED, OR APPROVED EQUAL.

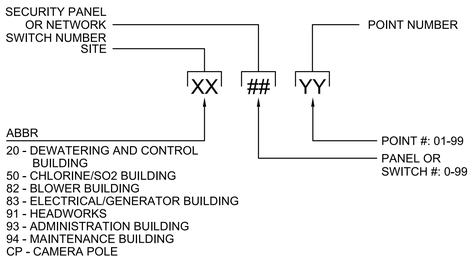
CABLE TYPE B: WEST PENN MODEL AQC3186 (LATEST VERSION), 18 AWG, SIX CONDUCTOR TWISTED, SHIELDED, WATERBLOCKED CONSTRUCTION OR APPROVED EQUAL.

CABLE TYPE D: WEST PENN MODEL 4246 (BLACK JACKET) (LATEST VERSION), 23 AWG, FOUR PAIR (CAT 6), OR APPROVED EQUAL.

CABLE TYPE E: WEST PENN MODEL M57622 (BLACK JACKET) (LATEST VERSION), 24 AWG, FOUR PAIR (CAT 6), WATERBLOCKED CONSTRUCTION OR APPROVED EQUAL.

CABLE TYPE K: WEST PENN MODEL AQC439 (LATEST VERSION), 22 AWG, FOUR PAIR, SHIELDED, WATERBLOCKED CONSTRUCTION, OR APPROVED EQUAL.

EQUIPMENT NUMBERING SYSTEM



ABBREVIATIONS

ACAMS	ACCESS CONTROL & ALARM MONITOR SYSTEM
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
BATT	BATTERY
CAM	CAMERA
C	CENTERLINE
Ç	CONDUIT
CDR	CARD READER
CO	CONDUIT ONLY
CTL	CONTROL
DS	DOOR STATUS CONTACT
(E)	EXISTING
EA.	EACH
ELC	ELECTRIFIED MORTISE LOCK
ELECT	ELECTRICAL
EPB	ELECTRICAL PULL BOX
EXST	EXISTING
FBO	FURNISHED BY OTHERS
FC	FLEX CONDUIT
FDU	FIBER OPTIC DISTRIBUTION UNIT
FO	FIBER OPTIC
FOC	FIBER OPTIC MEDIA CONVERTER
FOPP	FIBER OPTIC PATCH PANEL
GO	GATE OPERATOR
GRS	GALVANIZED RIGID STEEL
IC	INTERCOM
IFP	INTELLIGENT FIELD PROCESSOR
IN	INPUT
JB	JUNCTION BOX
KPD	KEYPAD
LMN	LATCH MONITOR
MIN	MINIMUM
ML	MAGNETIC LOCK
MP	MECHANICAL PANIC ALARM
MS	MOTION SENSOR
MTD	MOTION SENSOR
(N)	NEW
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OH	OPPOSITE HAND
OUT	OUTPUT
PoE	POWER-OVER-ETHERNET
PR	PAIR
PS	POWER SUPPLY
PTZ	PAN-TILT-ZOOM CAMERA
PVC	POLYVINYL CHLORIDE
RX	REQUEST-TO-EXIT
SIM	SIMILAR
SPB	SECURITY PULL BOX
TBD	TO BE DETERMINED
TMP	TAMPER SWITCH
TYP	TYPICAL
TX	TRANSMITTER
UON	UNLESS OTHERWISE NOTED

SECURITY LEGEND AND SYMBOLS

SYMBOL	DESCRIPTION
-	SHEET NOTE
-	DEVICE DETAIL CALL OUT
- / -	ENLARGED SECTION/DETAIL CALLOUT
-	DOOR NUMBER
———	CONDUIT SURFACE MOUNTED
- - - - - -	CONDUIT UNDERGROUND
- - - - - -∫	CONDUIT CONTINUATION
- - - - - -⊐	CONDUIT STUB
	SECURITY EQUIPMENT ENCLOSURE
JB	JUNCTION BOX SIZED PER NEC
EPB	ELECTRICAL PULLBOX
SPB	SECURITY PULLBOX
SPD	SURGE PROTECTION DEVICE
CB	CIRCUIT BREAKER
J	JUNCTION BOX SIZED PER DETAIL
AC	ACCESS CONTROLLER
CR	CARD READER
DS	DOOR STATUS CONTACT
EL	DOOR ELECTRO-MAGNETIC LOCK
ES	DOOR ELECTRO-STRIKE LOCK
MP	MECHANICAL PANIC
RX	REQUEST TO EXIT SWITCH
K	KEYPAD
T	TAMPER SWITCH
GO	GATE OPERATOR
IC	INTERCOM
L	LIMIT SWITCH
MS	MOTION SENSOR
ML	MAGNETIC LOCK
P	PEDESTAL
PTZ	PAN-TILT-ZOOM CAMERA
FIX	FIXED SECURITY CAMERA
FIX P	FIXED PROCESS CAMERA
●	CAMERA POLE

NO.	DATE	DSGN	REVISION	BY	CHK
		F ABUHIJLEH	DR A PASTRANA	APVD F GIST	APVD G YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

GENERAL
SECURITY LEGEND

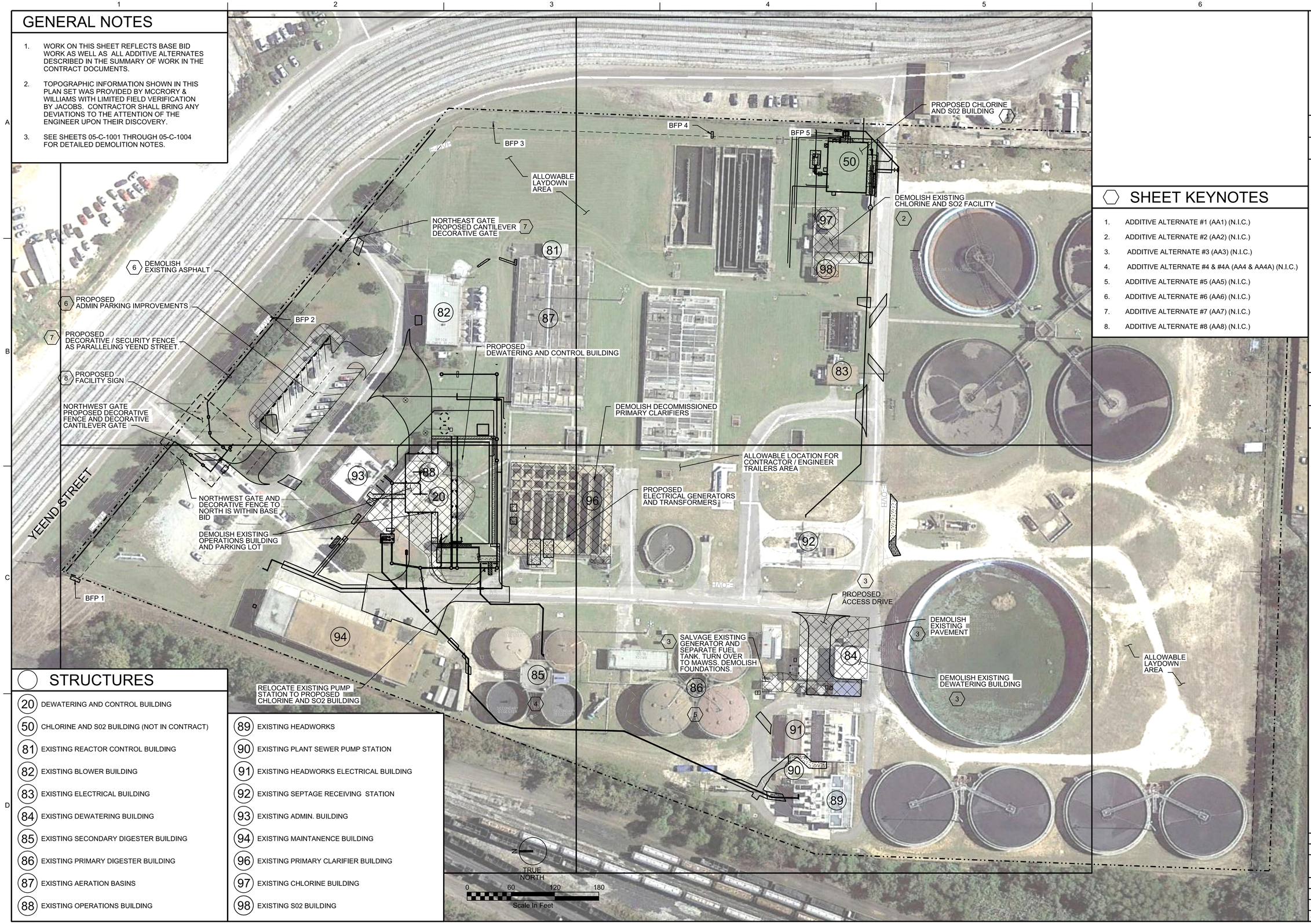
CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	01-G-0023
SHEET	026 of 270

GENERAL NOTES

1. WORK ON THIS SHEET REFLECTS BASE BID WORK AS WELL AS ALL ADDITIVE ALTERNATES DESCRIBED IN THE SUMMARY OF WORK IN THE CONTRACT DOCUMENTS.
2. TOPOGRAPHIC INFORMATION SHOWN IN THIS PLAN SET WAS PROVIDED BY MCCRORY & WILLIAMS WITH LIMITED FIELD VERIFICATION BY JACOBS. CONTRACTOR SHALL BRING ANY DEVIATIONS TO THE ATTENTION OF THE ENGINEER UPON THEIR DISCOVERY.
3. SEE SHEETS 05-C-1001 THROUGH 05-C-1004 FOR DETAILED DEMOLITION NOTES.



SHEET KEYNOTES

1. ADDITIVE ALTERNATE #1 (AA1) (N.I.C.)
2. ADDITIVE ALTERNATE #2 (AA2) (N.I.C.)
3. ADDITIVE ALTERNATE #3 (AA3) (N.I.C.)
4. ADDITIVE ALTERNATE #4 & #4A (AA4 & AA4A) (N.I.C.)
5. ADDITIVE ALTERNATE #5 (AA5) (N.I.C.)
6. ADDITIVE ALTERNATE #6 (AA6) (N.I.C.)
7. ADDITIVE ALTERNATE #7 (AA7) (N.I.C.)
8. ADDITIVE ALTERNATE #8 (AA8) (N.I.C.)

STRUCTURES

20	DEWATERING AND CONTROL BUILDING
50	CHLORINE AND S02 BUILDING (NOT IN CONTRACT)
81	EXISTING REACTOR CONTROL BUILDING
82	EXISTING BLOWER BUILDING
83	EXISTING ELECTRICAL BUILDING
84	EXISTING DEWATERING BUILDING
85	EXISTING SECONDARY DIGESTER BUILDING
86	EXISTING PRIMARY DIGESTER BUILDING
87	EXISTING AERATION BASINS
88	EXISTING OPERATIONS BUILDING
89	EXISTING HEADWORKS
90	EXISTING PLANT SEWER PUMP STATION
91	EXISTING HEADWORKS ELECTRICAL BUILDING
92	EXISTING SEPTAGE RECEIVING STATION
93	EXISTING ADMIN. BUILDING
94	EXISTING MAINTANENCE BUILDING
96	EXISTING PRIMARY CLARIFIER BUILDING
97	EXISTING CHLORINE BUILDING
98	EXISTING S02 BUILDING

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	D TERRY		B OGLE	R MORRISON			J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

CIVIL
OVERALL SITE PLAN

1" = 60'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-0001
SHEET	027 of 270

CONFORMED DOCUMENTS

05-C-1001

05-C-1002

05-C-1003

05-C-1004

25' BUILDING SETBACK

25' BUILDING SETBACK

INLET PROTECTION
3125-187

DEMOLISH EXISTING TREES, TYP.

PROPOSED HAY BALE CHECK DAM (TYP)
3125-171

RELOCATE EXISTING PUMP STATION TO PROPOSED CHLORINE AND SO2 BUILDING

PROPOSED SILT FENCE (TYP)
3125-165

INLET PROTECTION
3125-187

PROPOSED HAY BALE CHECK DAM (TYP)
3125-171

N
TRUE NORTH

0 60 120 180
Scale In Feet

GENERAL NOTES

1. INDICATED DEMOLITION INCLUDES BASE BID AND ALTERNATE BID ITEMS.
2. SEE SHEET 05-C-1001 THROUGH 05-C-1004 FOR DETAILED DEMOLITION NOTES.
3. PRIMARY CLARIFIER & GRIT CHAMBER: REMOVE ALL MECHANICAL EQUIPMENT AND ELECTRICAL COMPONENTS FROM THE BASIN. REMOVE ALL STRUCTURAL COMPONENTS INCLUDING THE SLAB. REMOVE INFLUENT PIPING BACK TO THE EXISTING HEADWORKS. REMOVE OTHER PIPING TO 10' OUTSIDE BASIN OR FIRST ENCOUNTERED VALVE. CUT AND CAP REMAINING PIPE. REMOVE DISCHARGE PIPING TO THE SPLITTER BOX PER DRAWINGS OF SPLITTER BOX MODIFICATIONS. INCLUDE EJECTOR PUMP STATION IN DEMOLITION. INCLUDE SLUDGE PUMPING BUILDING IN DEMOLITION, INCLUSIVE OF SLAB AND FOUNDATION.
4. TIMBER PILES SUPPORTING THE OPERATIONS BUILDING SHALL BE REMOVED IN ACCORDANCE WITH NOTE 17 OF DRAWING 01-G-005B.

STRUCTURES

20 DEWATERING AND CONTROL BUILDING
50 CHLORINE AND S02 BUILDING (NOT IN CONTRACT)
81 EXISTING REACTOR CONTROL BUILDING
82 EXISTING BLOWER BUILDING
83 EXISTING ELECTRICAL BUILDING
84 EXISTING DEWATERING BUILDING
85 EXISTING SECONDARY DIGESTER BUILDING
86 EXISTING PRIMARY DIGESTER BUILDING
87 EXISTING AERATION BASINS
88 EXISTING OPERATIONS BUILDING
89 EXISTING HEADWORKS
90 EXISTING PLANT SEWER PUMP STATION
91 EXISTING HEADWORKS ELECTRICAL BUILDING
92 EXISTING SEPTAGE RECEIVING STATION
93 EXISTING ADMIN. BUILDING
94 EXISTING MAINTANENCE BUILDING
96 EXISTING PRIMARY CLARIFIER BUILDING
97 EXISTING CHLORINE BUILDING
98 EXISTING S02 BUILDING

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

CONFORMED DOCUMENTS

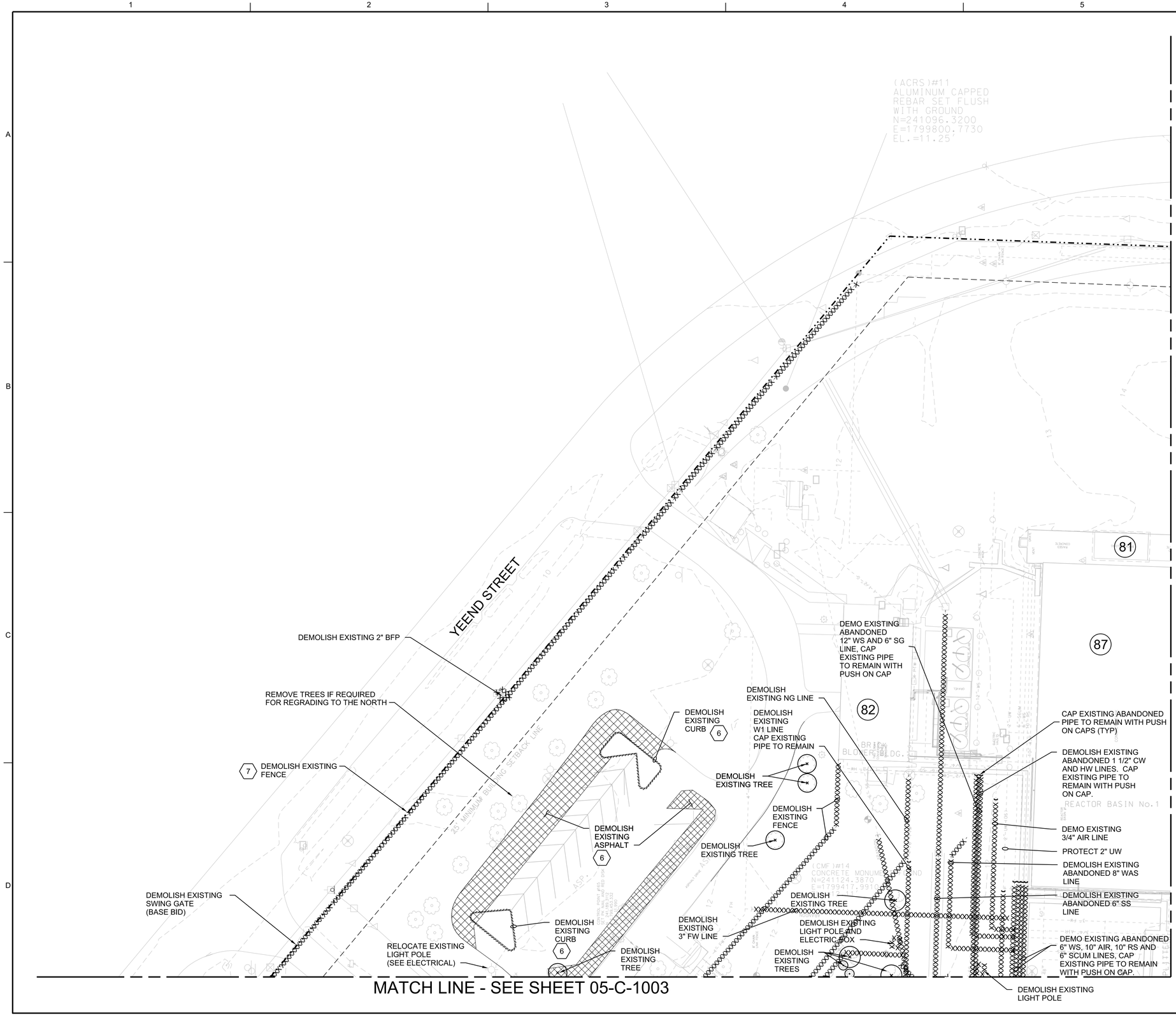
Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
OVERALL EROSION AND SEDIMENT CONTROL AND DEMOLITION PLAN

1" = 60'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1000
SHEET	028 of 270



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.
2. EROSION CONTROL MEASURES DEPICTED IN THESE PLANS SHALL BE CONSIDERED A MINIMUM. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A COMPLETE EROSION CONTROL PLAN AS WELL AS A CONSTRUCTION BEST MANAGEMENT PRACTICES PLAN (CBMPP) AND ADEM NPDES PERMIT CONSISTENT WITH ALL APPLICABLE REQUIREMENTS. CONTRACTOR SHALL MAINTAIN THOSE BEST MANAGEMENT PRACTICES THROUGHOUT THE DURATION OF CONSTRUCTION.

SHEET KEYNOTES

6. ADDITIVE ALTERNATE #6 (AA6) (NOT IN CONTRACT)
7. ADDITIVE ALTERNATE #7 (AA7) (NOT IN CONTRACT)

STRUCTURES

81 EXISTING REACTOR CONTROL BUILDING
82 EXISTING BLOWER BUILDING
87 EXISTING AERATION BASINS

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CONFORMED DOCUMENTS

Jacobs

CIVIL

DEMOLITION PLAN - 1

05-C-1001	05-C-1002
05-C-1003	05-C-1004

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

TRUE NORTH

0 30 60 90
Scale In Feet

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1001
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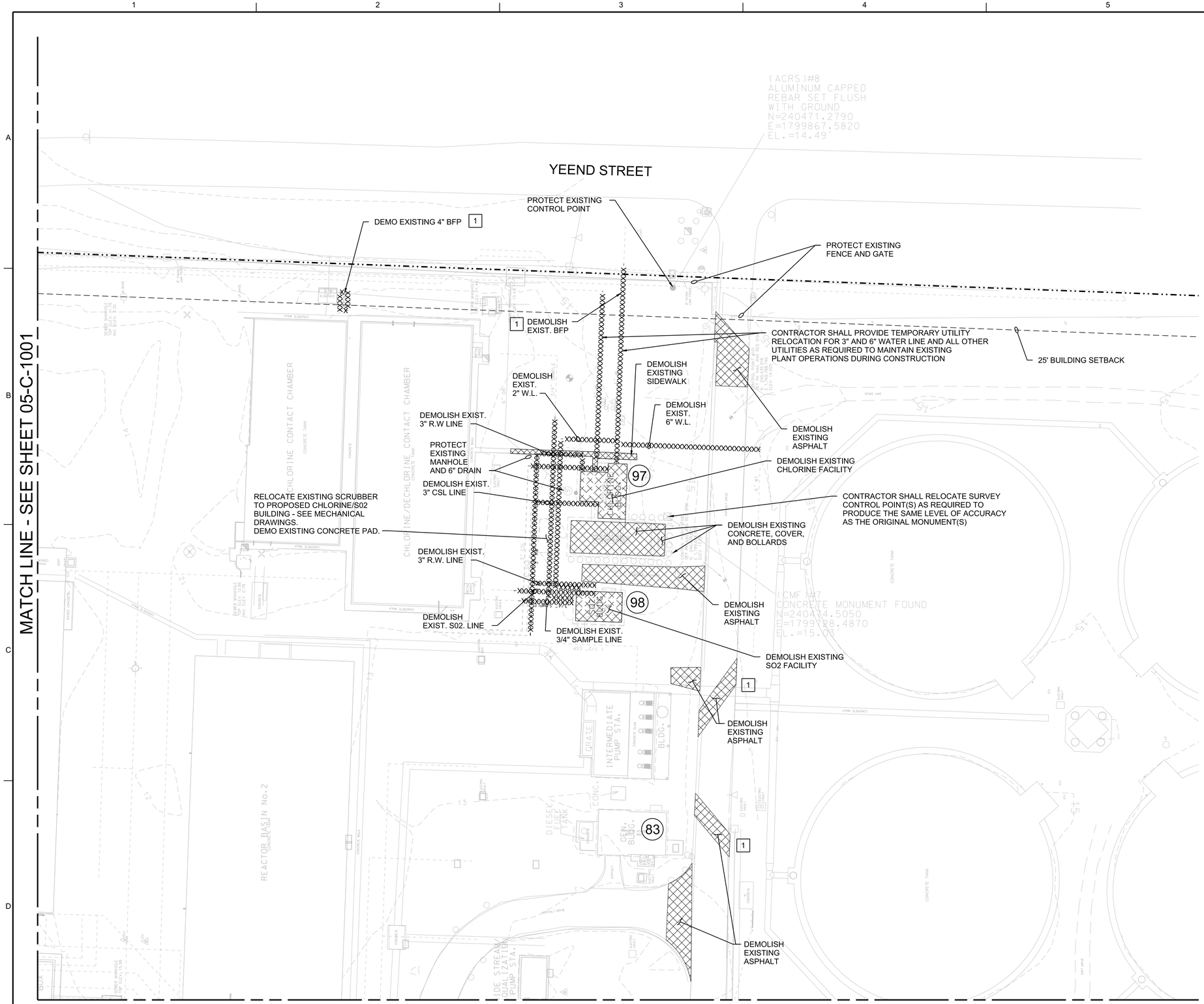


GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE #1 (AA1) UNLESS OTHERWISE NOTED.
2. ADDITIVE ALTERNATE #1 (AA1) IS NOT INCLUDED IN THIS CONTRACT.

SHEET KEYNOTES

1. INCLUDED WITHIN BASE BID

STRUCTURES

- 50 CHLORINE AND S02 BUILDING (NOT IN CONTRACT)
- 83 EXISTING ELECTRICAL BUILDING
- 97 EXISTING CHLORINE BUILDING
- 98 EXISTING S02 BUILDING

05-C-1001	05-C-1002
05-C-1003	05-C-1004

N
TRUE NORTH

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

CONFORMED DOCUMENTS

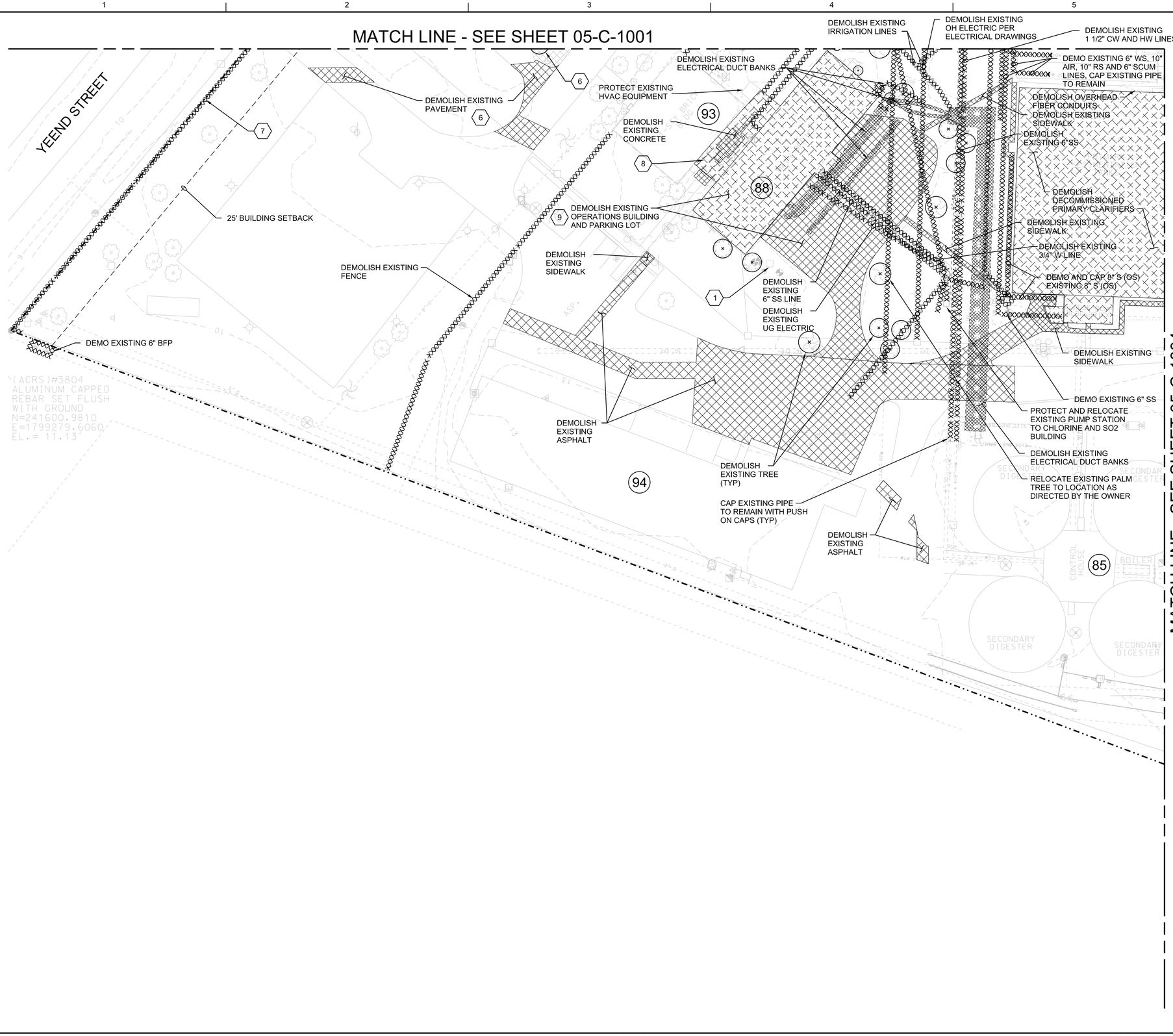
Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
DEMOLITION PLAN - 2

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1002
SHEET	030 of 270



GENERAL NOTES

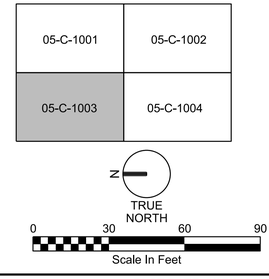
1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.
2. DECOMMISSIONED PRIMARY CLARIFIER DEMOLITION SHALL INCLUDE ENTIRE SOUTHEAST INFLUENT PIPE TO +/- 60' SOUTH OF STRUCTURE, SOUTHWEST INFLUENT PIPE TO 10' OUTSIDE STRUCTURE, AND FOUR EFFLUENT PIPES TO 10' OUTSIDE THE NEXT DOWNSTREAM JUNCTION BOX. INCLUDE THE SLUDGE PUMPING BUILDING, THE SLAB-MOUNTED BLOWERS, AND THE ELECTRICAL DUCT BANK ON THE EAST SIDE OF THE STRUCTURE.
3. OPERATIONS BUILDING DEMOLITION INCLUDES TEMPORARY RELOCATION OF CONTROL AND COMMUNICATIONS EQUIPMENT AS PER SPECIFICATIONS AND RELOCATION OF A SAMPLE COOLER.
4. OPERATIONS BUILDING DEMOLITION INCLUDES TEMPORARY RELOCATION OF A SAMPLE COOLER INTO THE MAINTENANCE BUILDING AND THEN ITS RELOCATION INTO THE DEWATERING BUILDING UPON ITS COMPLETION.
5. RECONFIGURE THE HVAC UNIT AT THE SOUTHEAST CORNER OF THE ADMINISTRATION BUILDING TO ROTATE IT 90 DEGREES COUNTERCLOCKWISE ABOUT THE DISCHARGE DUCT. INCLUDE A NEW CONCRETE PAD AND RECONNECTION OF THE DUCT AND ELECTRICAL / CONTROLS IN THE WORK.
6. IF ADDITIVE ALTERNATE 1 IS NOT TAKEN, THE PUMP STATION AS INDICATED FOR REMOVAL SHALL BE DELIVERED TO THE OWNER AT THEIR DIRECTED LOCATION ON SITE.

SHEET KEYNOTES

1. EXISTING MONOPOLE - RELOCATE TO LOCATION AS DIRECTED BY ENGINEER (SHOWN APPROXIMATLY ON DWG 05-C-2103).
6. ADDITIVE ALTERNATE #6(AA6) (NOT IN CONTRACT)
7. ADDITIVE ALTERNATE #7(AA7) (NOT IN CONTRACT)
8. DEMOLISH EXISTING COORIDOR WALLS, FOUNDATION, AND ROOF BETWEEN THE OPERATIONS AND ADMINISTRATION BUILDING COMPLETELY. INFILL HVAC OPENINGS AND ALL PENETRATIONS ON THE EXISTING ADMINISTRATION BUILDING WALLS TO MATCH THE WALLS ADJACENT TO THE DEMOLITION WORK. SEE DRAWING 20-A-3001 FOR NEW ALUMINUM CANOPY INSTALLATION INFORMATION.
9. TIMBER PILES SUPPORTING THE OPERATIONS BUILDING SHALL BE REMOVED IN ACCORDANCE WITH NOTE 17 OF DRAWING 01-G-005B.

STRUCTURES

85 EXISTING SECONDARY DIGESTER BUILDING
88 EXISTING OPERATIONS BUILDING
93 EXISTING ADMIN. BUILDING
94 EXISTING MAINTENANCE BUILDING



NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
DEMOLITION PLAN - 3

	1" = 30'
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING, 0 — 1"
DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1003
SHEET	031 of 270

MATCH LINE - SEE SHEET 05-C-1002

MATCH LINE - SEE SHEET 05-C-1003

DEMOLISH DECOMMISSIONED PRIMARY CLARIFIERS [1]

DEMOLISH EXISTING SIDEWALK [1]

PROTECT EXISTING TRANSFORMER

SALVAGE EXISTING GENERATOR AND SEPARATE FUEL TANK. TURN OVER TO MAWSS. DEMOLISH FOUNDATIONS.

DEMOLISH EXISTING ASPHALT PAVEMENT

DEMOLISH EXISTING DEWATERING BUILDING

DEMOLISH EXISTING ASPHALT PAVEMENT

RELOCATE EXISTING BELT PRESS TO PROPOSED DEWATERING BUILDING [1]

DEMOLISH EXISTING ASPHALT PAVEMENT

DEMOLISH EXISTING CONCRETE PAVEMENT

(ACRS)#4 ALUMINUM CAPPED REBAR SET FLUSH WITH GROUND N=240417.7490 E=1799194.2190 EL.=12.72'

GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE #3 (AA3) UNLESS OTHERWISE NOTED.
2. DEWATERING BUILDING DEMOLITION INCLUDES THE BUILDING, EQUIPMENT, INDICATED PAVING, GENERATOR, FUEL TANK, EXTERNAL PROCESS COMPONENTS, AND POWER SUPPLY CONNECTING AT THE POLE.
3. ABANDON IN PLACE THE POWER SUPPLY CONDUIT TO THE TRANSFORMER AND THE CONDUIT FROM THE GENERATOR TO THE BUILDING.
4. ADDITIVE ALTERNATE #3 (AA3) IS NOT INCLUDED IN THIS CONTRACT.

SHEET KEYNOTES

1. INCLUDED WITHIN BASE BID

STRUCTURES

- (84) EXISTING DEWATERING BUILDING
- (86) EXISTING PRIMARY DIGESTER BUILDING
- (89) EXISTING HEADWORKS
- (90) EXISTING PLANT SEWER PUMP STATION
- (91) EXISTING HEADWORKS ELECTRICAL BUILDING
- (92) EXISTING SEPTAGE RECEIVING STATION
- (96) EXISTING PRIMARY CLARIFIER BUILDING

05-C-1001	05-C-1002
05-C-1003	05-C-1004

N
TRUE NORTH

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

CIVIL
DEMOLITION PLAN - 4

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1004
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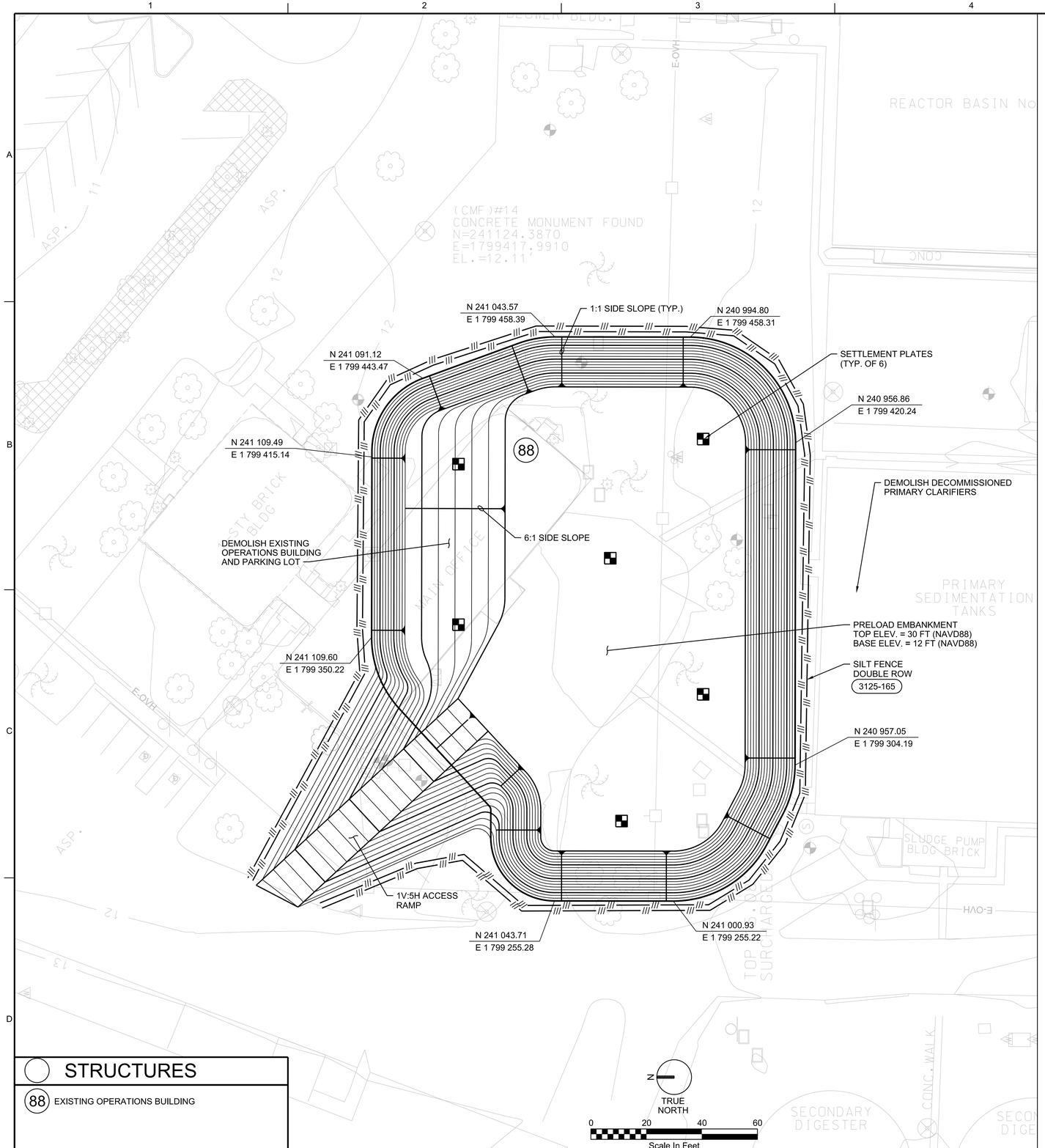
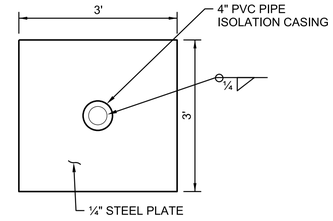


STRUCTURES

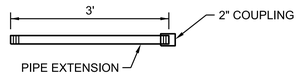
88 EXISTING OPERATIONS BUILDING

GENERAL NOTES

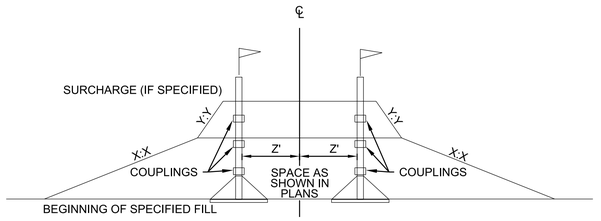
1. CONTRACTOR TO CONSTRUCT PRE-LOAD EMBANKMENT WITHIN THE LIMITS SHOWN AND IN ACCORDANCE WITH SPECIFICATION SECTION 31 15 00.
2. CONTRACTOR TO VERIFY ACCESS RAMP DOES NOT INTERFERE WITH EXISTING OVERHEAD ELECTRIC LINES PRIOR TO CONSTRUCTION. SUBMIT ALTERNATIVE LOCATION TO OWNER OR ENGINEER FOR APPROVAL.
3. APPROXIMATELY 1,100 CUBIC YARDS OF SELECT FILL MATERIAL IS STOCKPILED ON SITE AND IS AVAILABLE FOR USE BY CONTRACTOR.



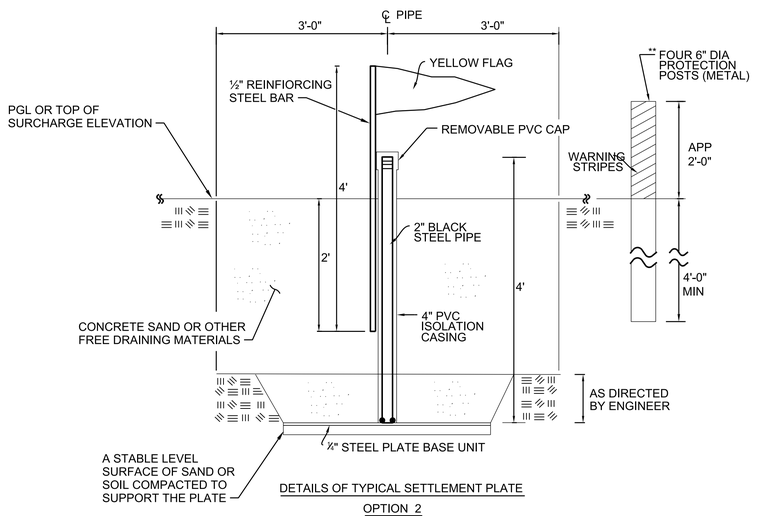
DETAILS OF STEEL PLATE BASE UNIT



DETAILS OF PIPE EXTENSION & COUPLING
NOTE: ALL EXTENSIONS & COUPLINGS TO BE 2" BLACK STEEL PIPE.



TYPICAL SETTLEMENT PLATES AT SPECIFIED DEPTHS & LOCATIONS IN AN EMBANKMENT



DETAILS OF TYPICAL SETTLEMENT PLATE
OPTION 2

NOTE:
1. EACH 2" BLACK STEEL PIPE USED WILL HAVE AN OUTER 4" PVC ISOLATION CASING.
2. CONCRETE SAND MEETING THE REQUIREMENTS GIVEN IN ALDOT SECTION 802 SHALL BE FURNISHED FOR FILL AROUND THE PIPE. OTHER FREE DRAINING MATERIALS MAY BE USED FOR THIS FILL IF APPROVED BY THE ENGINEER. THIS FILL SHALL BE PLACED BY HAND TO FILL THE AREA WITHIN 3 FEET OF THE SETTLEMENT PIPE ASSEMBLY AS THE SURROUNDING FILL IS BEING MECHANICAL TAMPER TO THE DENSITY APPROVED BY THE ENGINEER.

SETTLEMENT PLATE ASSEMBLY

NTS (SOURCE: ALDOT SPECIAL DRAWING NO. UBC-210-SP, INDEX 24001

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	J RAMOS	C CHILDRESS		C BASNETT			J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

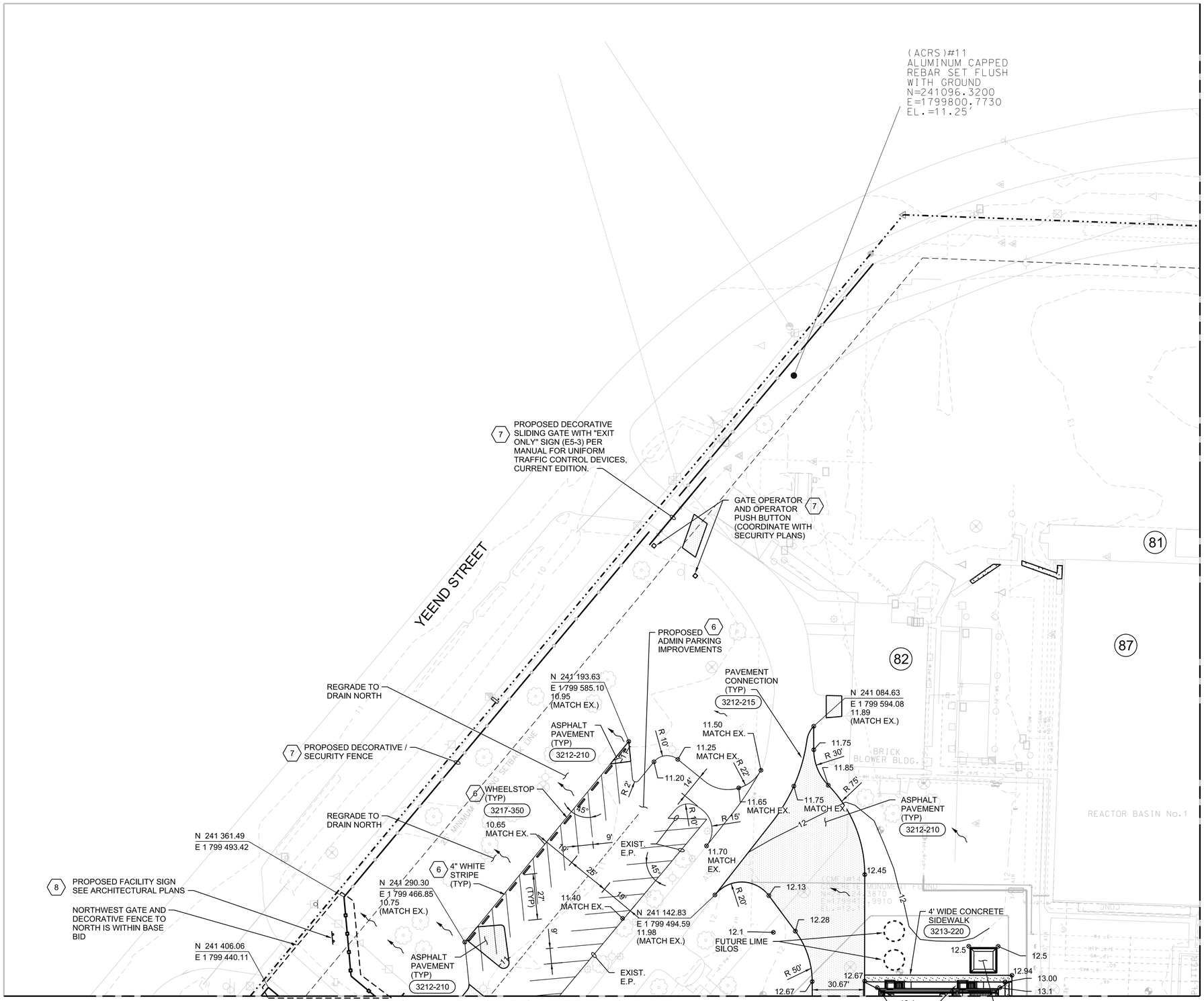
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
PRE-LOADING SITE PLAN

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-1101
SHEET	033 of 270



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN BASE BID UNLESS OTHERWISE NOTED.

SHEET KEYNOTES

6. ADDITIVE ALTERNATE #6 (AA6) (NOT IN CONTRACT)
7. ADDITIVE ALTERNATE #7 (AA7) (NOT IN CONTRACT)
8. ADDITIVE ALTERNATE #8 (AA8) (NOT IN CONTRACT)

STRUCTURES

81 EXISTING REACTOR CONTROL BUILDING

82 EXISTING BLOWER BUILDING

87 EXISTING AERATION BASINS

05-C-2101	05-C-2102	
05-C-2103	05-C-2104	

N
TRUE NORTH

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	D TERRY		B OGLE	R MORRISON			J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

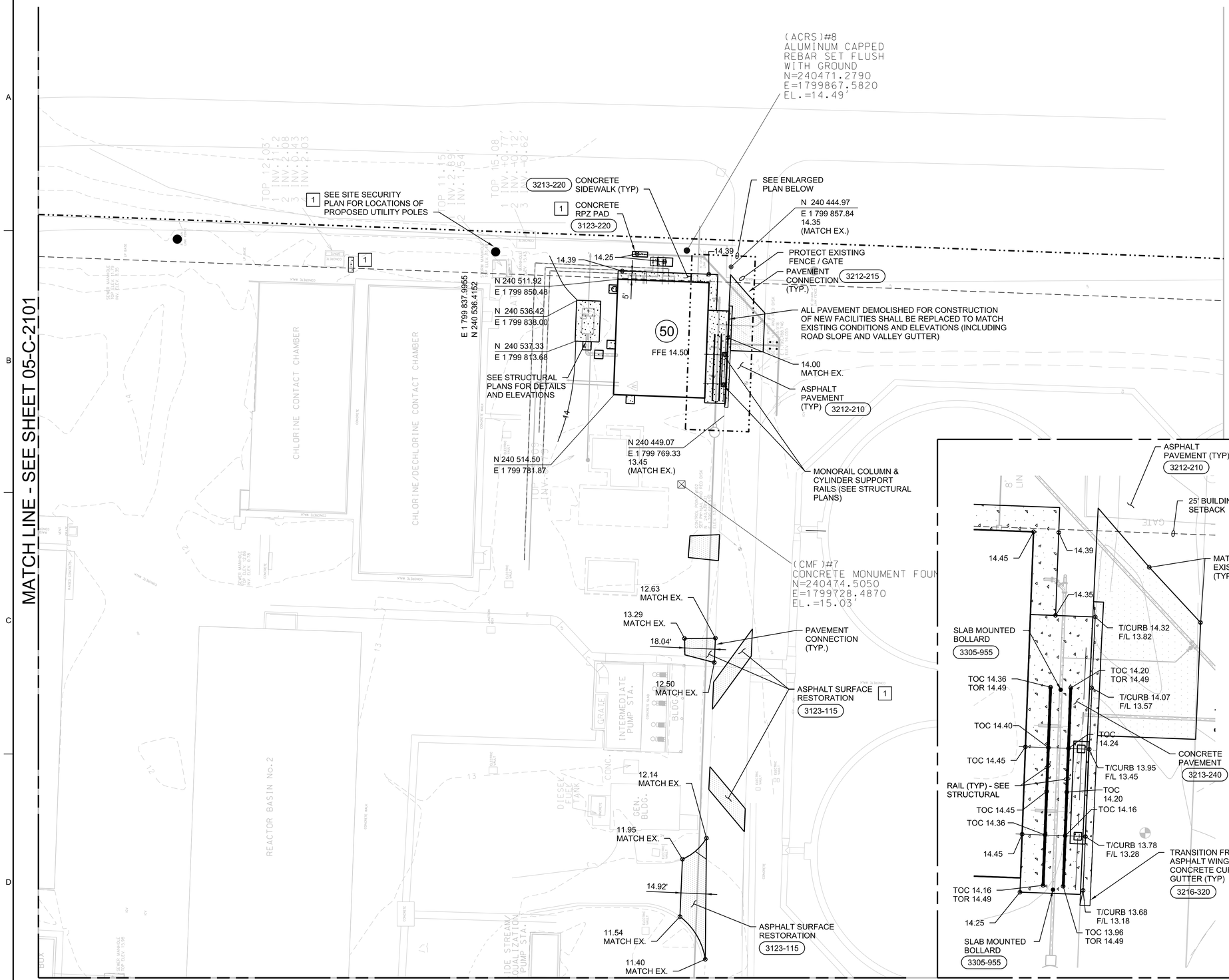
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

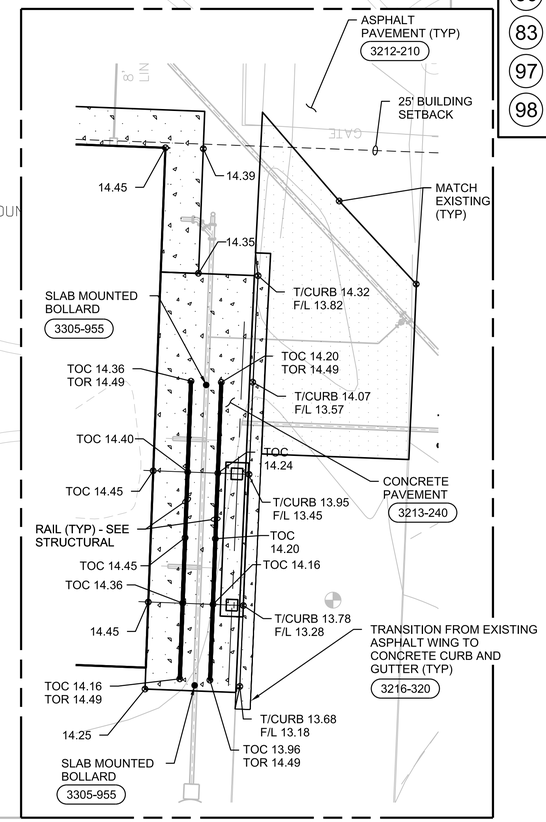
CIVIL
SITE, LAYOUT, GRADING, AND DRAINAGE PLAN 1

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-2101
SHEET	034 of 270





ENLARGED PLAN
1"=10'

GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE #1 (AA1) UNLESS OTHERWISE NOTED.
2. ADDITIVE ALTERNATE #1 (AA1) IS NOT INCLUDED IN THIS CONTRACT.

SHEET KEYNOTES

1. INCLUDED WITHIN BASE BID

STRUCTURES

- 50 CHLORINE AND S02 BUILDING
- 83 EXISTING ELECTRICAL BUILDING
- 97 EXISTING CHLORINE BUILDING
- 98 EXISTING S02 BUILDING

05-C-2101	05-C-2102
05-C-2103	05-C-2104

N
TRUE NORTH
0 30 60 90
Scale In Feet

NO.	DATE	REVISION	DSGN	DR	CHK	APVD
			D TERRY	B OGLE	R MORRISON	J RAMOS

BY APVD

CONFORMED DOCUMENTS

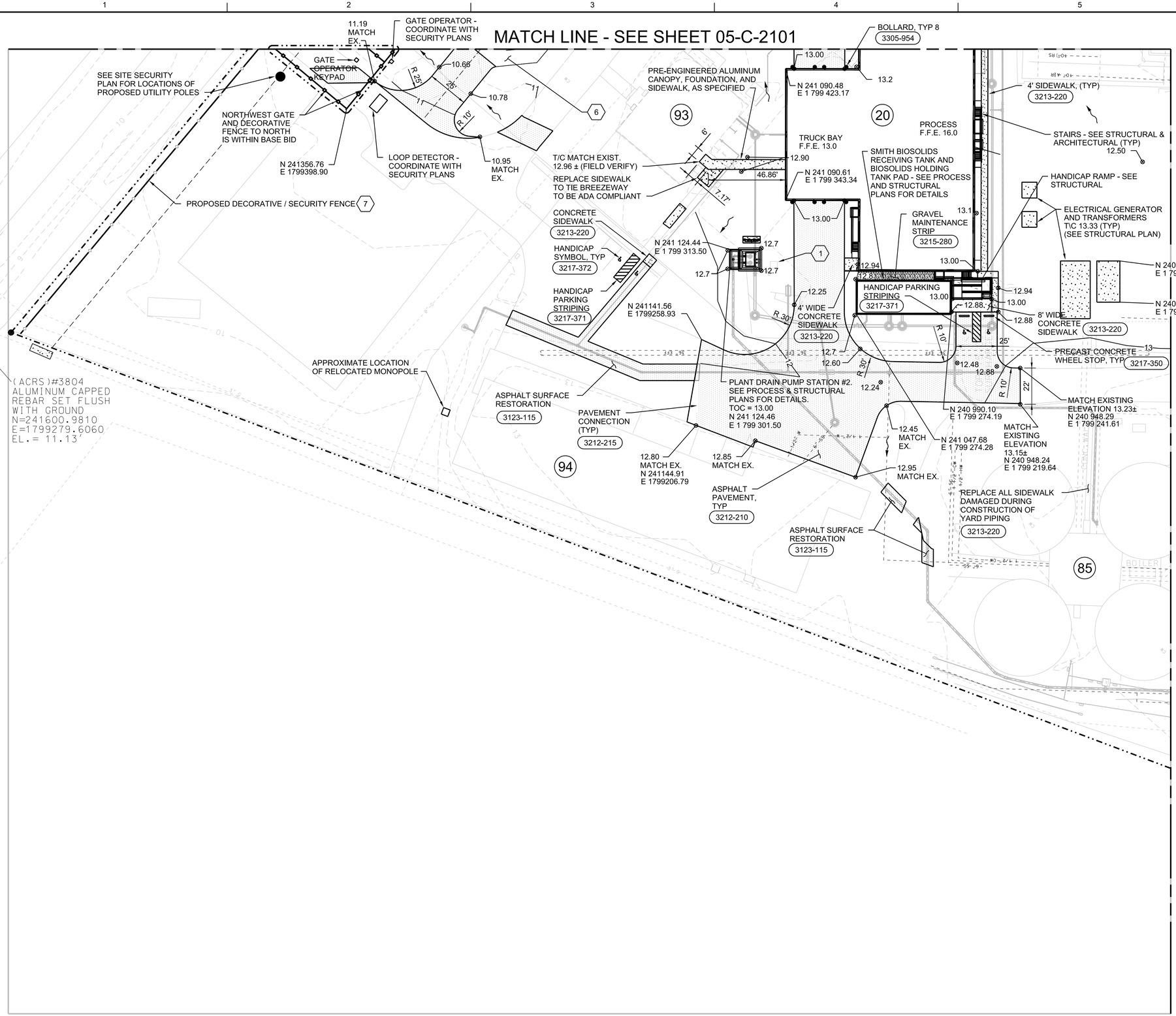
Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
SITE, LAYOUT, GRADING, AND DRAINAGE PLAN 2

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-2102
SHEET	035 of 270



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.
2. PROVIDE PRE-ENGINEERED ALUMINUM CANOPY, FOUNDATIONS, AND SIDEWALK PER SPEC SECTION 13 34 50 FOR ADA COMPLIANT ACCESS.

SHEET KEYNOTES

1. EXISTING MONOPOLE - RELOCATE TO LOCATION AS DIRECTED BY ENGINEER
6. ADDITIVE ALTERNATE #6 (AA6) (NOT IN CONTRACT)
7. ADDITIVE ALTERNATE #7 (AA7) (NOT IN CONTRACT)

STRUCTURES

20 DEWATERING AND CONTROL BUILDING
85 EXISTING SECONDARY DIGESTER BUILDING
93 EXISTING ADMIN. BUILDING
94 EXISTING MAINTENANCE BUILDING

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL

SITE, LAYOUT, GRADING AND DRAINAGE PLAN 3

CONFORMED DOCUMENTS

05-C-2101	05-C-2102
05-C-2103	05-C-2104

N
TRUE NORTH

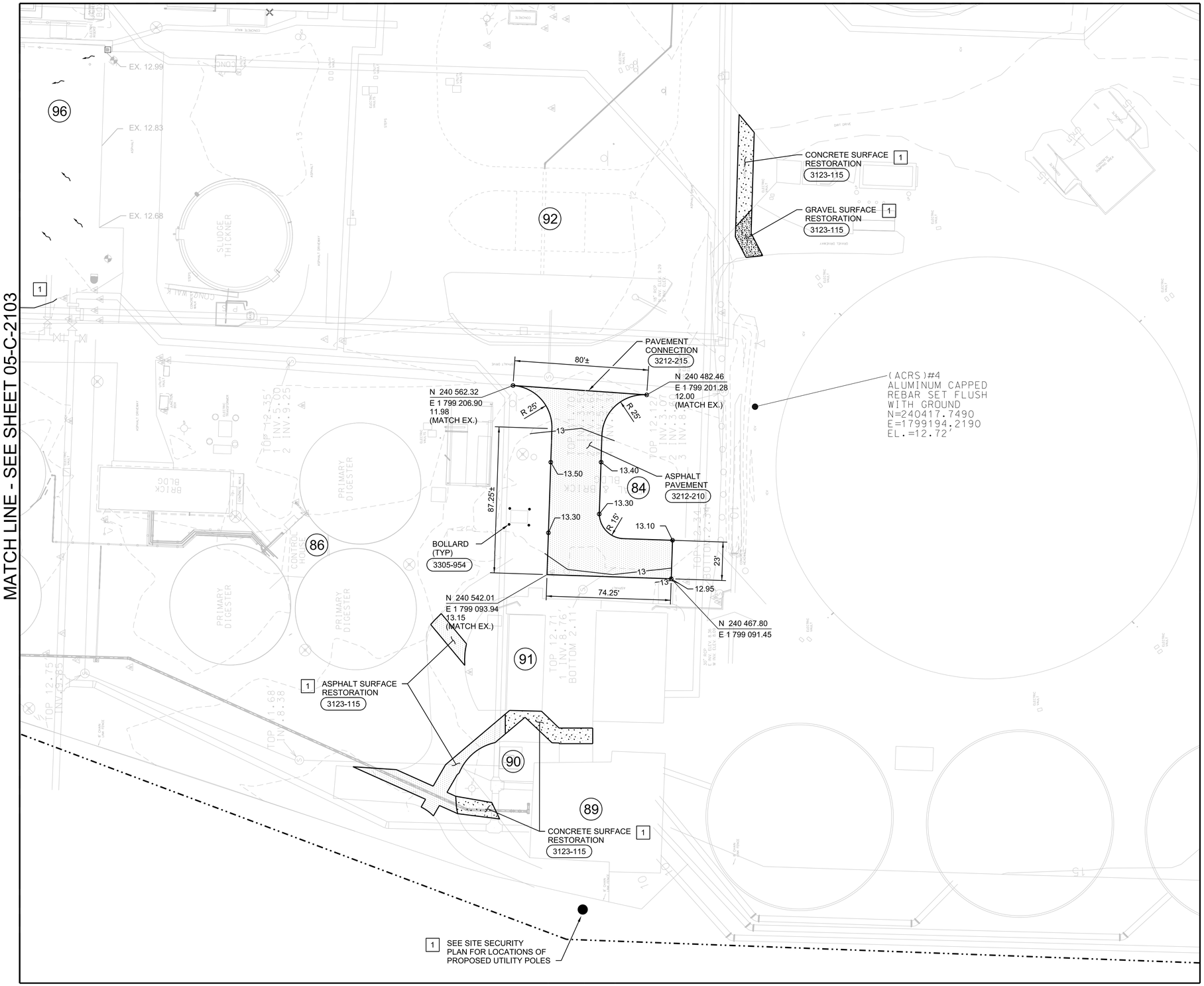
0 30 60 90
Scale In Feet

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-2103
SHEET	036 of 270

MATCH LINE - SEE SHEET 05-C-2102

MATCH LINE - SEE SHEET 05-C-2103



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE #3 (AA3) UNLESS OTHERWISE NOTED.
2. ADDITIVE ALTERNATE #3 (AA3) IS NOT INCLUDED IN THIS CONTRACT.

SHEET KEYNOTES

1. INCLUDED WITHIN BASE BID

STRUCTURES

84 EXISTING DEWATERING BUILDING
86 EXISTING PRIMARY DIGESTER BUILDING
89 EXISTING HEADWORKS
90 EXISTING PLANT SEWER PUMP STATION
91 EXISTING HEADWORKS ELECTRICAL BUILDING
92 EXISTING SEPTAGE RECEIVING STATION
96 EXISTING PRIMARY CLARIFIER BUILDING

05-C-2101	05-C-2102
05-C-2103	05-C-2104

N
TRUE NORTH
0 30 60 90
Scale In Feet

NO.	DATE	REVISION	BY	CHK	APVD
DSGN	D TERRY	DR B OGLE		R MORRISON	J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

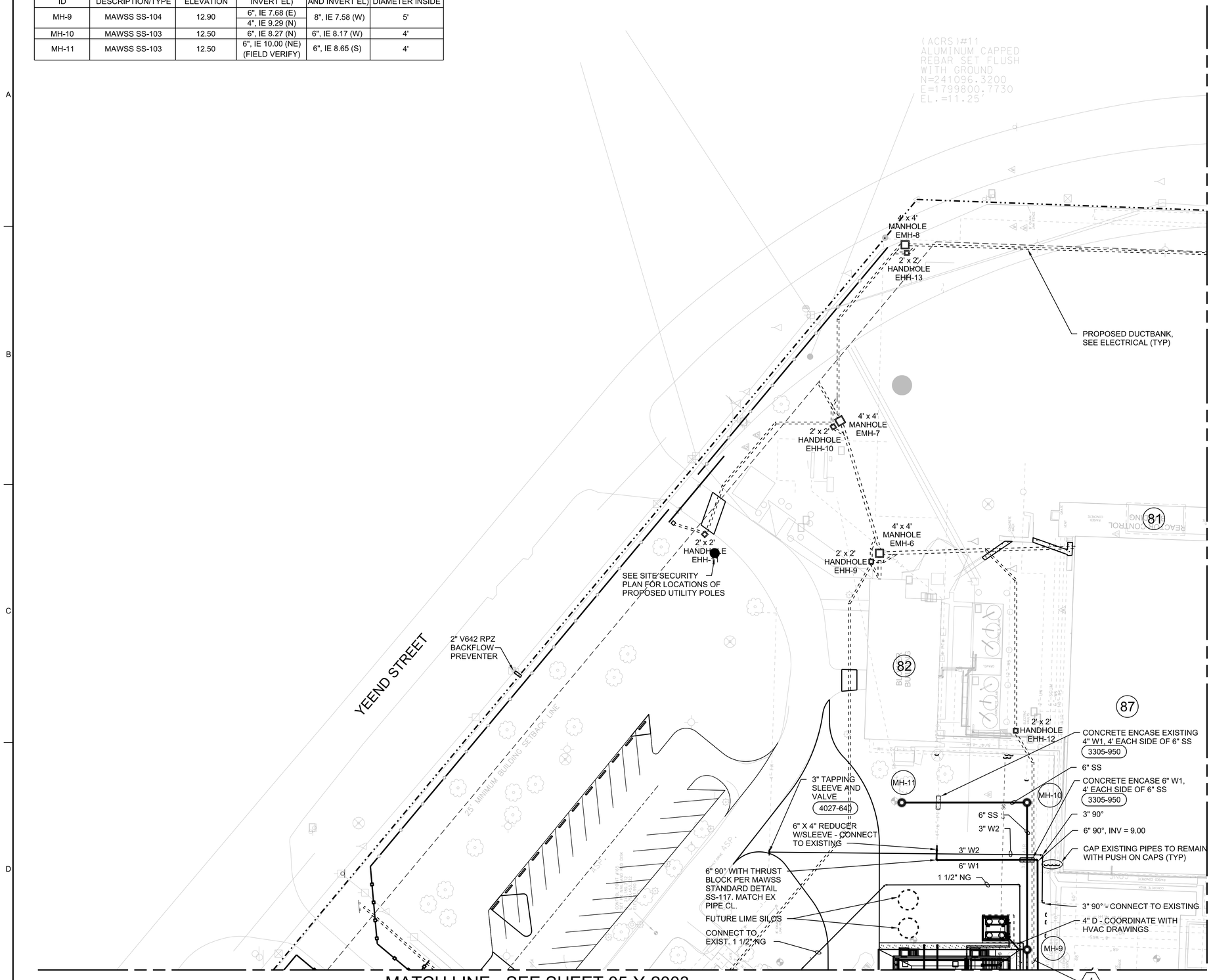
CIVIL
SITE, LAYOUT, GRADING, AND DRAINAGE PLAN 4

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-C-2104
SHEET	037 of 270

STRUCTURE ID	STRUCTURE DESCRIPTION/TYPE	TOP ELEVATION	PIPE IN (SIZE AND INVERT EL)	PIPE OUT (SIZE AND INVERT EL)	MANHOLE DIAMETER INSIDE
MH-9	MAWSS SS-104	12.90	6", IE 7.68 (E) 4", IE 9.29 (N)	8", IE 7.58 (W)	5'
MH-10	MAWSS SS-103	12.50	6", IE 8.27 (N)	6", IE 8.17 (W)	4'
MH-11	MAWSS SS-103	12.50	6", IE 10.00 (NE) (FIELD VERIFY)	6", IE 8.65 (S)	4'



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.

SHEET KEYNOTES

1. CONCRETE ENCASE POTABLE WATER PIPING WHERE 10 FT OF SEPARATION BETWEEN SANITARY SEWER AND SEWER AND POTABLE WATER PIPING CANNOT BE MAINTAINED.

STRUCTURES

81 EXISTING REACTOR CONTROL BUILDING

82 EXISTING BLOWER BUILDING

87 EXISTING AERATION BASINS

05-Y-2001	05-Y-2002
05-Y-2003	05-Y-2004

N
TRUE NORTH

0 30 60 90
Scale In Feet

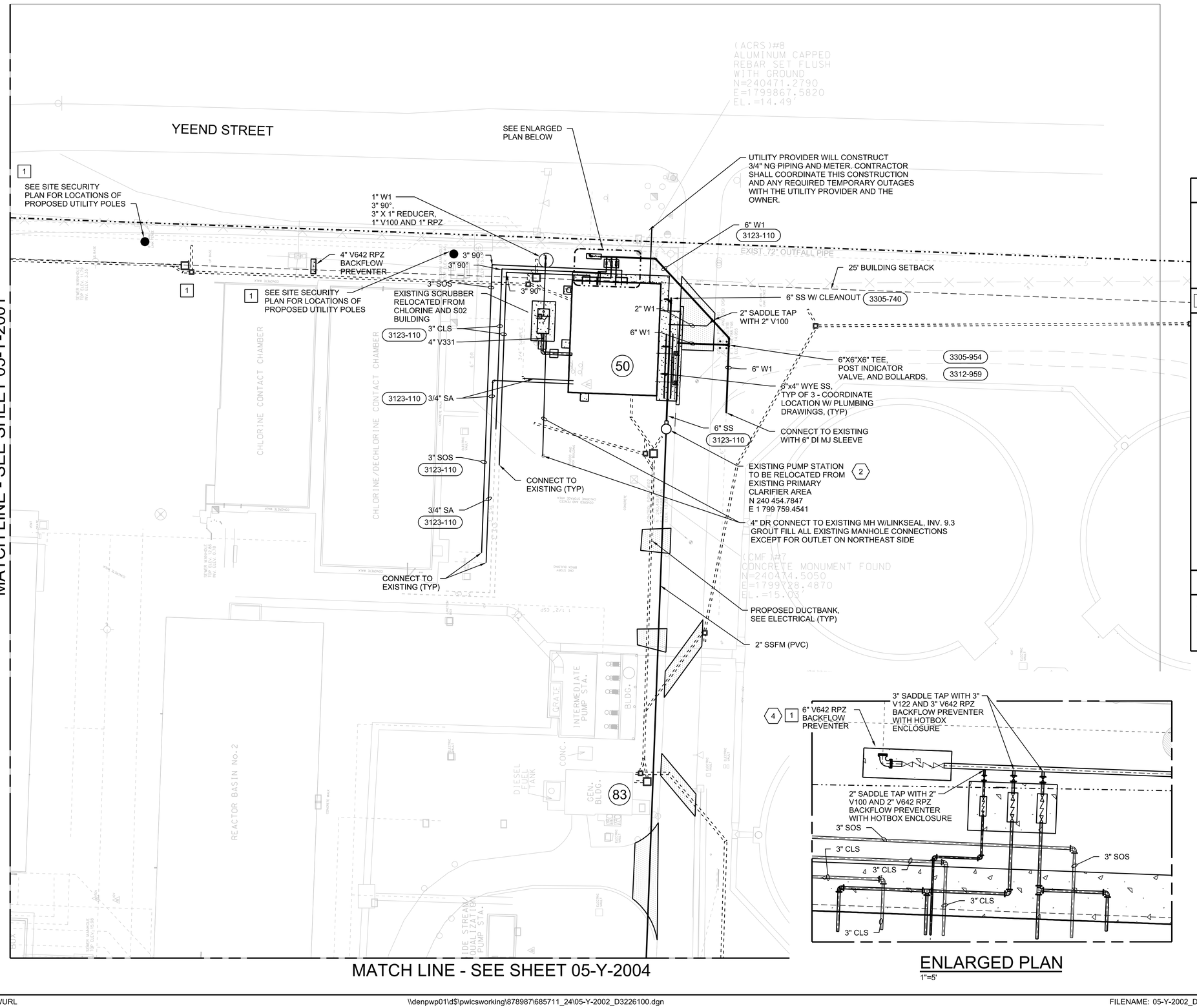
NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
YARD PIPING PLAN - 1

1" = 30'	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	05-Y-2001
SHEET	038 of 270



ENLARGED PLAN
1"=5'

GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE #1 (AA1) UNLESS OTHERWISE NOTED.
2. ADDITIVE ALTERNATE #1 (AA1) IS NOT INCLUDED IN THIS CONTRACT.

SHEET KEYNOTES

1. INCLUDED WITHIN BASE BID.
2. INSTALL SEWER PUMP STATION RELOCATED FROM PRIMARY CLARIFIER AREA. REFER TO SHOP DRAWING OF EXISTING STATION AS INCLUDED IN REFERENCE DOCUMENTS. INLET PIPING SHALL BE 6" DIAMETER HELD IN PLACE BY AN 8"x4" INLET FITTING TO MATCH EXISTING PENETRATION. ALL DISCHARGE PIPING AND FITTINGS SHALL BE 2" DIAMETER TO POINT OF CONNECTION AS SHOWN ON PLANS. CONTROL ELEVATIONS NOT SPECIFIED HEREIN SHALL MATCH EXISTING CONDITIONS:

   INVERT OF EXIST. 8" DIAMETER PENETRATION= 10.7
   FINIHSED GRADE EL= 14.5
   BASE AND COVER EL= 15.0

   PROTECT LIFT STATION WITH 4 BOLLARDS.
3. CONCRETE ENCASE POTABLE WATER PIPING WHERE 10 FT OF SEPARATION BETWEEN SANITARY SEWER AND SEWER AND POTABLE WATER PIPING CANNOT BE MAINTAINED.
4. UNDER BASE BID, BFP REPLACEMENT MAINTAINS THE EXISTING PIPING GEOMETRY. UNDER ADDITIVE ALTERNATE #1 (AA1), THE GEOMETRY IS REVISED AS INDICATED.

STRUCTURES

50 CHLORINE AND S02 BUILDING (NOT IN CONTRACT)

83 EXISTING ELECTRICAL BUILDING

05-Y-2001	05-Y-2002
05-Y-2003	05-Y-2004

N
TRUE NORTH

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE CHK	R MORRISON	APVD J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

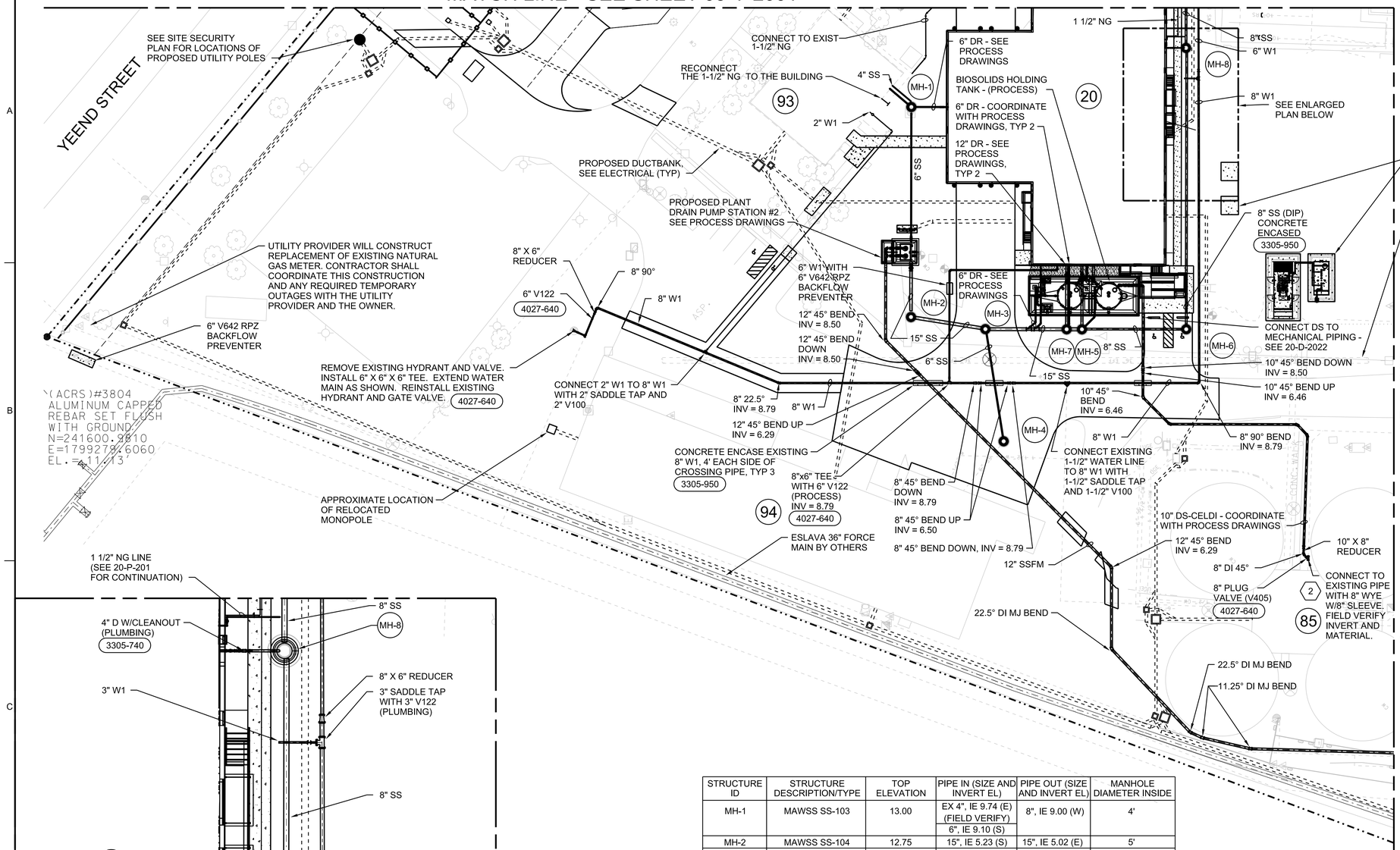
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

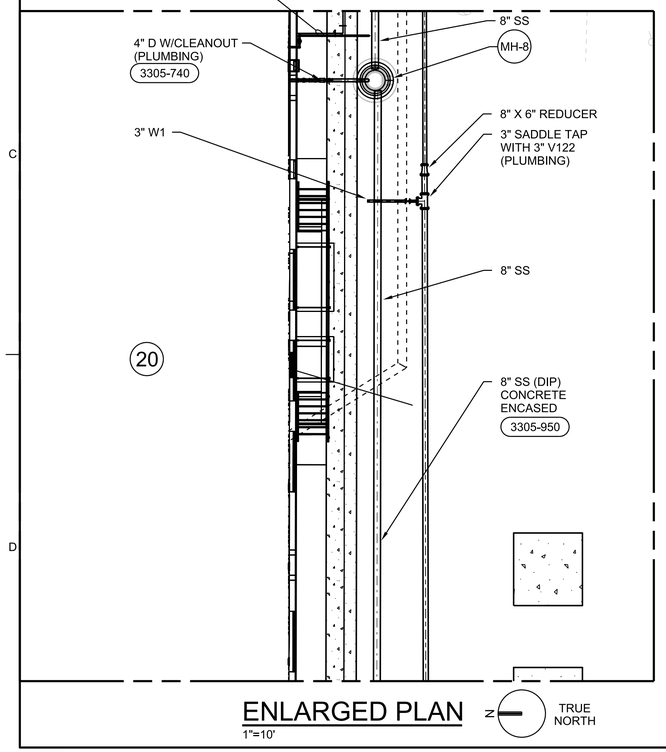
CIVIL
YARD PIPING PLAN - 2

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-Y-2002
SHEET	039 of 270

MATCH LINE - SEE SHEET 05-Y-2001





ENLARGED PLAN
1"=10'

STRUCTURE ID	STRUCTURE DESCRIPTION/TYPE	TOP ELEVATION	PIPE IN (SIZE AND INVERT EL)	PIPE OUT (SIZE AND INVERT EL)	MANHOLE DIAMETER INSIDE
MH-1	MAWSS SS-103	13.00	EX 4", IE 9.74 (E) (FIELD VERIFY) 6", IE 9.10 (S)	8", IE 9.00 (W)	4'
MH-2	MAWSS SS-104	12.75	15", IE 5.23 (S)	15", IE 5.02 (E)	5'
MH-3	MAWSS SS-104	12.31	15", IE 5.53 (S) 6", IE 8.00 (W)	15", IE 5.43 (N)	5'
MH-4	MAWSS SS-103	MATCH EX. 12.7±	6", IE 9.20 (NW) (FIELD VERIFY)	6", IE 8.50 (NE)	4'
MH-5	MAWSS SS-104	12.66	12", IE 5.98 (E) 8", IE 5.93 (S) 6", IE 9.53 (SE)	15", IE 5.83 (N)	5'
MH-6	MAWSS SS-103	12.84	8", IE 6.40 (E)	8", IE 6.30 (N)	4'
MH-7	MAWSS SS-104	12.66	6", IE 8.04 (SE) 15", IE 5.79 (S) 12", IE 5.98 (E)	15", IE 5.69 (N)	5'
MH-8	MAWSS SS-103	12.90	8", IE 7.33 (E) 4", IE 9.03 (N)	8", IE 7.23 (W)	4'

GENERAL NOTES

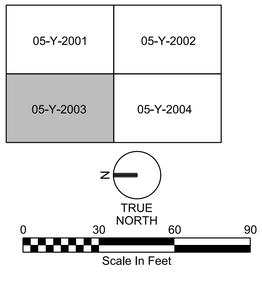
1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID.

SHEET KEYNOTES

1. CONCRETE ENCASE POTABLE WATER PIPING WHERE 10 FT OF SEPARATION BETWEEN SANITARY SEWER AND SEWER AND POTABLE WATER PIPING CANNOT BE MAINTAINED.
2. CONNECT TO EXISTING DIGESTED SLUDGE MAIN WITH CUT-IN 8" WYE W/SLEEVE. IN LEG, INCLUDE 8" V-405, A 45° BEND TO TURN PARRALEL AND AN 8" X 10" REDUCER

STRUCTURES

- 20 DEWATERING AND CONTROL BUILDING
- 85 EXISTING SECONDARY DIGESTER BUILDING
- 93 EXISTING ADMIN. BUILDING
- 94 EXISTING MAINTENANCE BUILDING



MATCH LINE - SEE SHEET 05-Y-2004

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

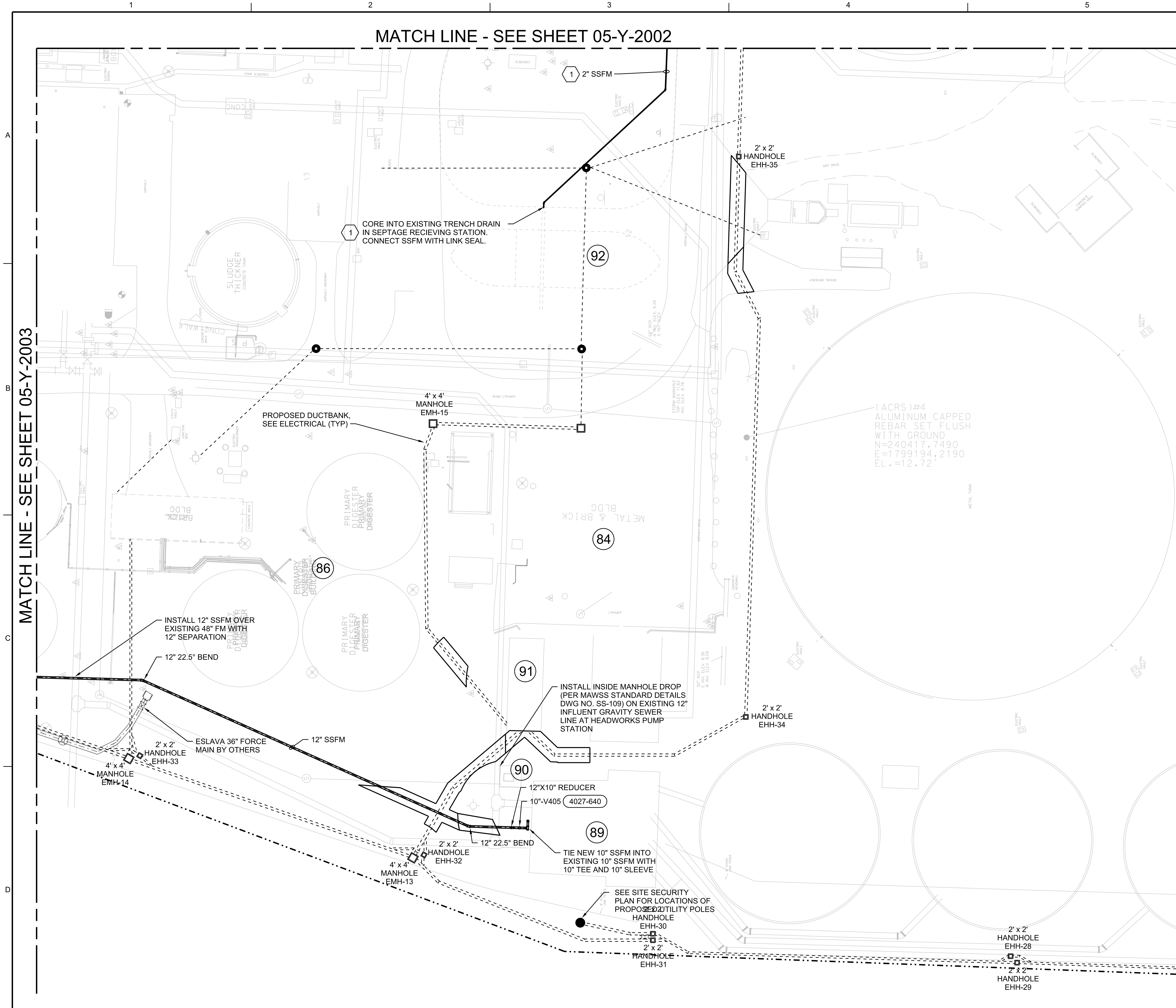
CIVIL
YARD PIPING PLAN - 3

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-Y-2003
SHEET	040 of 270

REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.

CONFORMED DOCUMENTS



GENERAL NOTES

1. ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.
2. ADDITIVE ALTERNATE #1 (AA1) IS NOT INCLUDED IN THIS CONTRACT.
3. FOR STRUCTURE 90 MODIFICATIONS, SEE THE RECORD DRAWINGS FROM THE BDI HEADWORKS PROJECT FOR THE CURRENT GEOMETRY. ADDITIONAL WALL PENETRATIONS ARE NOT REQUIRED. THE CONSTRUCTION SHALL OMIT THE 90-DEGREE BEND AT THE BOTTOM OF THE DROP AS REQUIRED BY THE REFERENCED DETAIL AND SHALL TERMINATE THE VERTICAL DROP AT 3' ABOVE THE STATION INVERT. BYPASS PUMPING WILL BE REQUIRED DURING THE WORK WITHIN THE PUMP STATION. BYPASS PUMPING SHALL HAVE A CAPACITY OF 1,000 GPM USING AT LEAST TWO PUMPS AND SHALL DRAW WATER FROM THE FIRST MANHOLE UPSTREAM OF THE PUMP STATION. THE OWNER WILL COORDINATE SUCH THAT THE MAIN ENTERING FROM THE NORTH WILL NOT HAVE FLOW FOR UP TO 12 CONTINUOUS HOURS.

SHEET KEYNOTES

1. ADDITIVE ALTERNATE #1 (AA1) (NOT IN CONTRACT)

STRUCTURES

- 84 EXISTING DEWATERING BUILDING
- 86 EXISTING PRIMARY DIGESTER BUILDING
- 89 EXISTING HEADWORKS
- 90 EXISTING PLANT SEWER PUMP STATION
- 91 EXISTING HEADWORKS ELECTRICAL BUILDING
- 92 EXISTING SEPTAGE RECEIVING STATION

05-Y-2001	05-Y-2002
05-Y-2003	05-Y-2004

TRUE NORTH

0 30 60 90
Scale In Feet

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
YARD PIPING PLAN - 4

NO.	DATE	REVISION	BY	APVD

DSGN D TERRY · DR B OGLE · CHK R MORRISON · APVD J RAMOS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	05-Y-2004
SHEET	041 of 270

CONFORMED DOCUMENTS

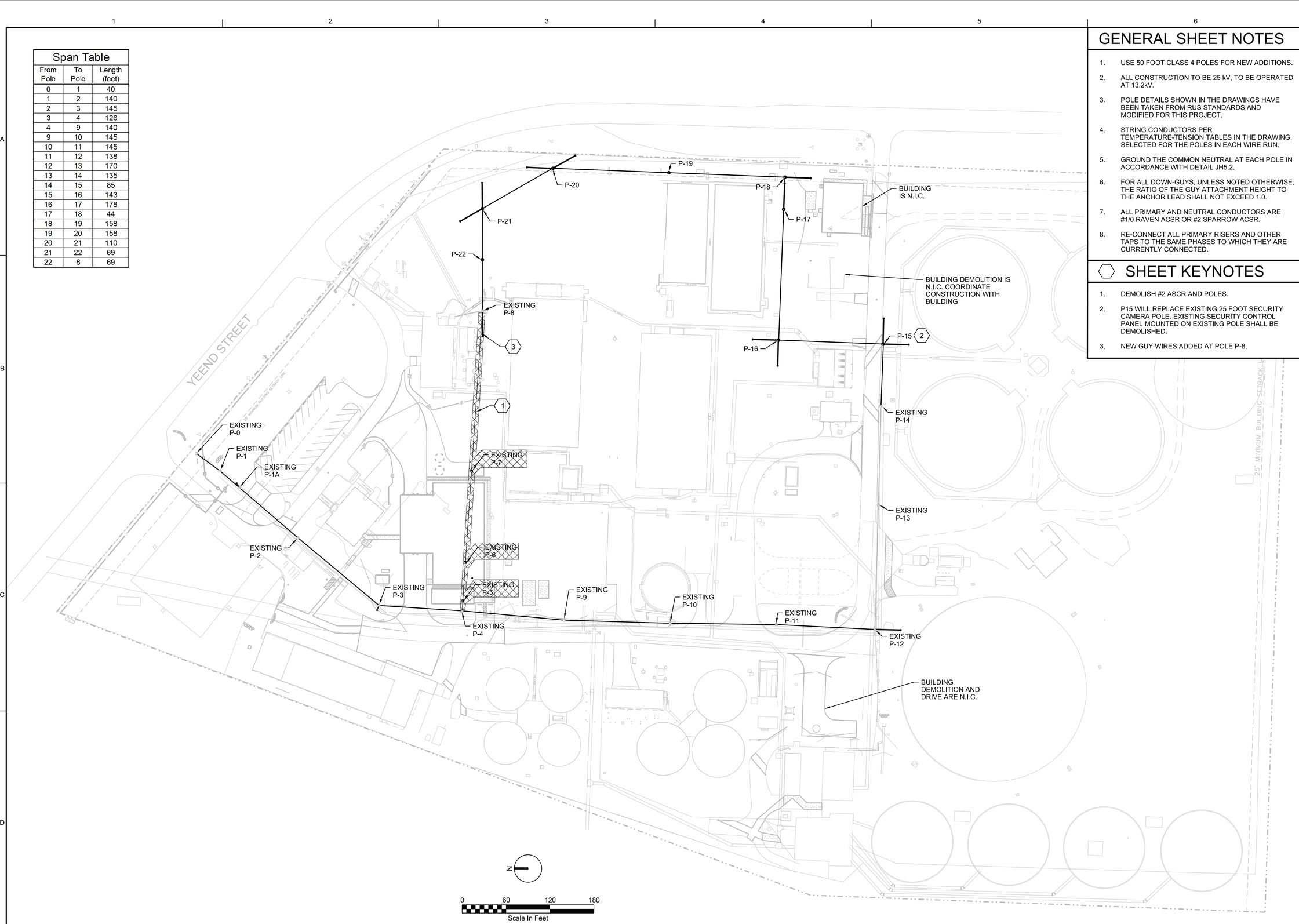
Span Table		
From Pole	To Pole	Length (feet)
0	1	40
1	2	140
2	3	145
3	4	126
4	9	140
9	10	145
10	11	145
11	12	138
12	13	170
13	14	135
14	15	85
15	16	143
16	17	178
17	18	44
18	19	158
19	20	158
20	21	110
21	22	69
22	8	69

GENERAL SHEET NOTES

1. USE 50 FOOT CLASS 4 POLES FOR NEW ADDITIONS.
2. ALL CONSTRUCTION TO BE 25 kV, TO BE OPERATED AT 13.2kV.
3. POLE DETAILS SHOWN IN THE DRAWINGS HAVE BEEN TAKEN FROM RUS STANDARDS AND MODIFIED FOR THIS PROJECT.
4. STRING CONDUCTORS PER TEMPERATURE-TENSION TABLES IN THE DRAWING, SELECTED FOR THE POLES IN EACH WIRE RUN.
5. GROUND THE COMMON NEUTRAL AT EACH POLE IN ACCORDANCE WITH DETAIL JH5.2.
6. FOR ALL DOWN-GUYS, UNLESS NOTED OTHERWISE, THE RATIO OF THE GUY ATTACHMENT HEIGHT TO THE ANCHOR LEAD SHALL NOT EXCEED 1.0.
7. ALL PRIMARY AND NEUTRAL CONDUCTORS ARE #1/0 RAVEN ACSR OR #2 SPARROW ACSR.
8. RE-CONNECT ALL PRIMARY RISERS AND OTHER TAPS TO THE SAME PHASES TO WHICH THEY ARE CURRENTLY CONNECTED.

SHEET KEYNOTES

1. DEMOLISH #2 ASCR AND POLES.
2. P15 WILL REPLACE EXISTING 25 FOOT SECURITY CAMERA POLE. EXISTING SECURITY CONTROL PANEL MOUNTED ON EXISTING POLE SHALL BE DEMOLISHED.
3. NEW GUY WIRES ADDED AT POLE P-8.



NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR	G MESSER	CHK	KB HORTON	APVD	GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
OVERALL SITE PLAN
EXISTING 13.2KV
OVERHEAD LINE MODIFICATIONS

REUSE OF DOCUMENTS:
CONFORMED DOCUMENTS

1" = 60'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2000
SHEET	042 of 270

06-E-2002
06-E-2002A

06-E-2003
06-E-2003A

06-E-2004

06-E-2005

GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.

SHEET KEYNOTES

1. MINI POWER ZONE FOR POWER TO SECURITY PANEL. COORDINATE LOCATION WITH OWNER.

PROPOSED CHLORINE AND SO2 BUILDING

BUILDING DEMOLITION IS N.I.C. COORDINATE CONSTRUCTION W/ BUILDING

1 06MPZ-2 4091-402BG

SECURITY POLE #05
CP-SC-SWP-08
FOPP-08

SECURITY POLE #4
CP-SC-SWP-07
FOPP-07

1 06MPZ-1 4091-402BG

SECURITY POLE #03
CP-SC-SWP-06
FOPP-06

PROPOSED DEWATERING AND CONTROL BUILDING

BUILDING DEMOLITION AND DRIVE ARE N.I.C

YEEND STREET

STRUCTURES

20 DEWATERING AND CONTROL BUILDING
50 CHLORINE AND S02 BUILDING
81 EXISTING REACTOR CONTROL BUILDING
82 EXISTING BLOWER BUILDING
83 EXISTING ELECTRICAL BUILDING
84 EXISTING DEWATERING BUILDING
85 EXISTING SECONDARY DIGESTER BUILDING
86 EXISTING PRIMARY DIGESTER BUILDING
87 EXISTING AERATION BASINS
88 EXISTING OPERATIONS BUILDING
89 EXISTING HEADWORKS
90 EXISTING PLANT SEWER PUMP STATION
91 EXISTING HEADWORKS ELECTRICAL BUILDING
92 EXISTING SEPTAGE RECEIVING STATION
93 EXISTING ADMIN. BUILDING
94 EXISTING MAINTANENCE BUILDING

N

0 60 120 180
Scale In Feet

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
OVERALL SITE PLAN

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD
				BY	APVD
				GT YARBERRY	

1" = 60'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2001
SHEET	043 of 270

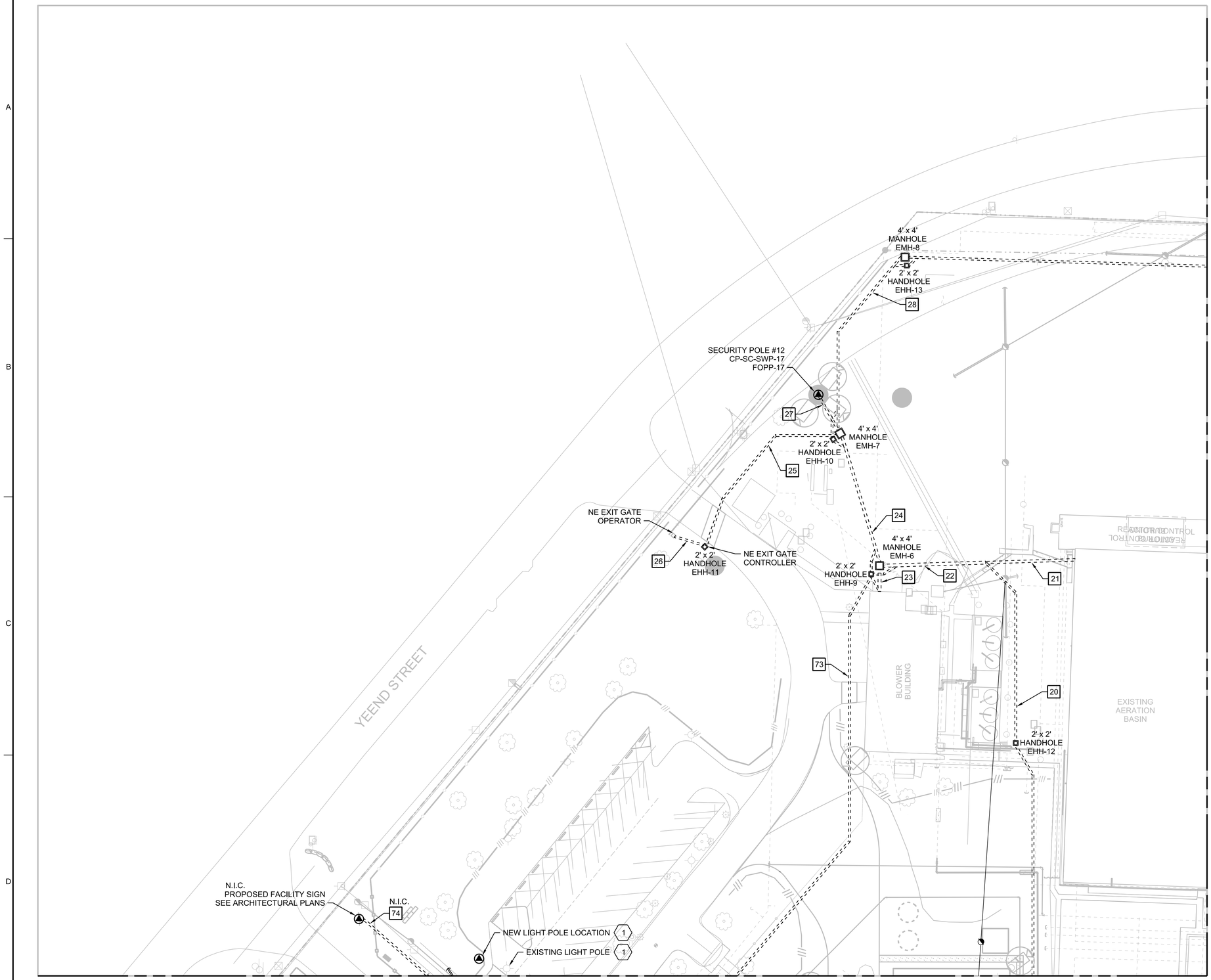
CONFORMED DOCUMENTS

GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.

SHEET KEYNOTES

1. RELOCATE EXISTING LIGHT POLE TO INDICATED LOCATION. CONTRACTOR SHALL INCLUDE ALL PROVISIONS FOR EXTENDING EXISTING CIRCUIT TO NEW LOCATION.



06-E-2002	06-E-2003
06-E-2004	06-E-2005

N

0 30 60 90

Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR	G MESSER	CHK	KB HORTON	APVD	GT YARBERRY

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CONFORMED DOCUMENTS

Jacobs
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PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL SITE PLAN

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

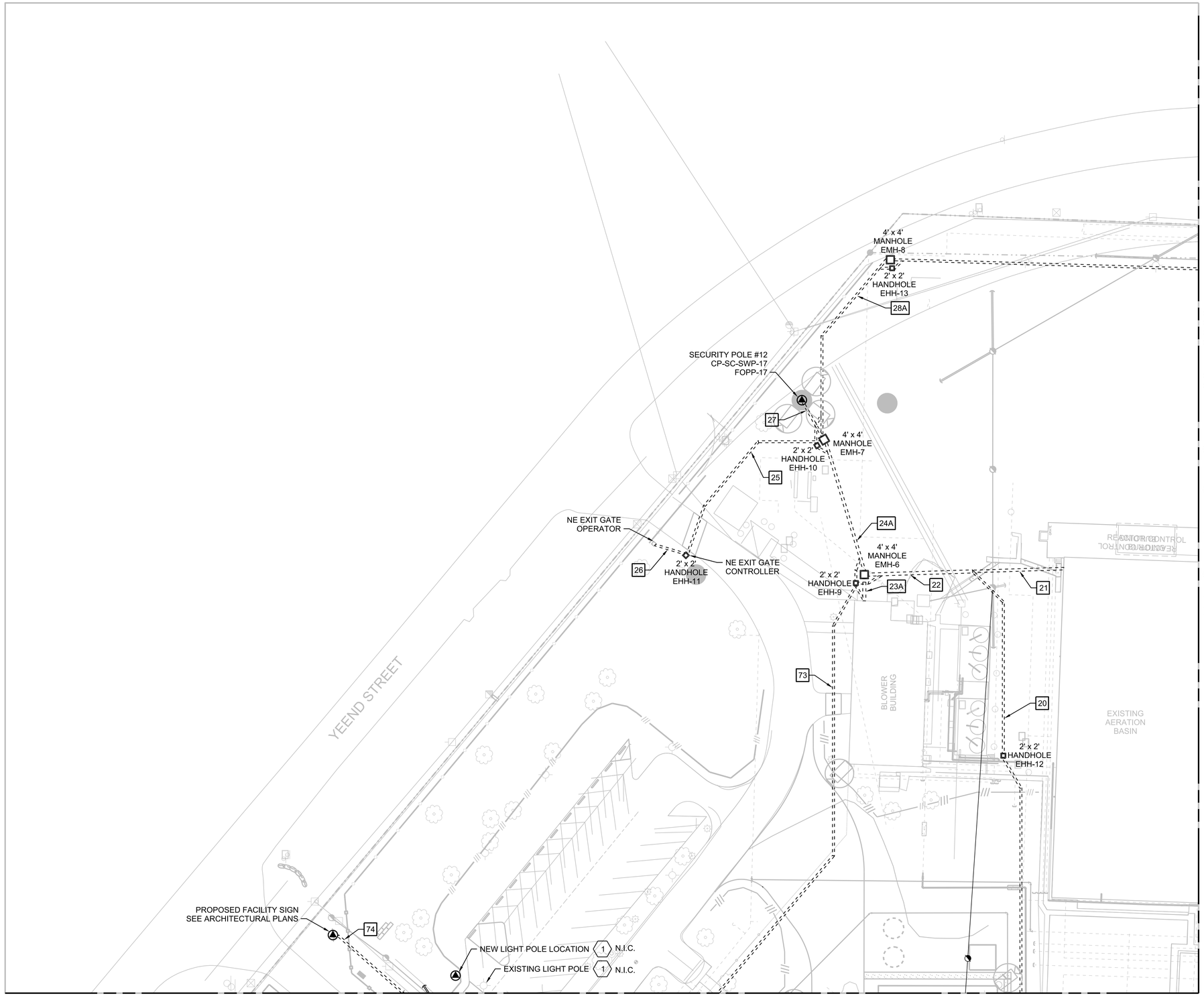
DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2002
SHEET	044 of 270

GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.
2. CONSTRUCTION OF A NEW CHLORINE AND SO2 BUILDING IS ADDITIVE ALTERNATE #1. IF NOT SELECTED, THE ALTERNATE DUCTBANK SECTIONS AND ROUTING SHOWN HERE SHALL BE USED.

SHEET KEYNOTES

1. RELOCATE EXISTING LIGHT POLE TO INDICATED LOCATION. CONTRACTOR SHALL INCLUDE ALL PROVISIONS FOR EXTENDING EXISTING CIRCUIT TO NEW LOCATION. N.I.C.



06-E-2002	06-E-2003
06-E-2004	06-E-2005

N

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL SITE PLAN - ALTERNATE

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

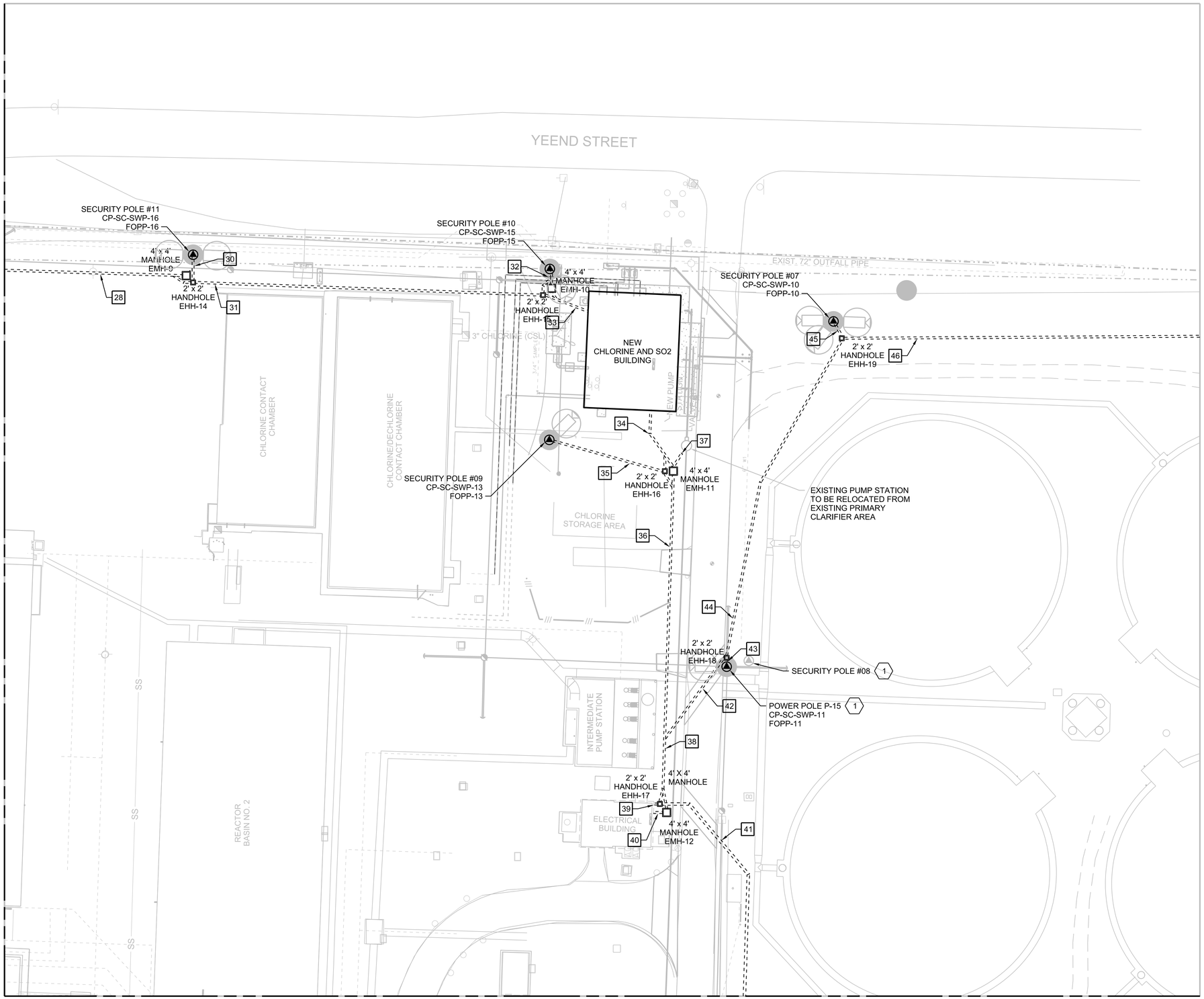
DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2002A
SHEET	045 of 270

GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.

SHEET KEYNOTES

1. RELOCATE EXISTING SECURITY EQUIPMENT FROM SECURITY POLE #08 TO POWER POLE P-15. SPLICE AND EXTEND CONDUCTORS FROM SECURITY POLE #08 TO SECURITY EQUIPMENT MOUNTED ON POWER POLE P-15. SEE 06-TY-2002 AND 06-TY-5001.



06-E-2002	06-E-2003
06-E-2004	06-E-2005

N

0 30 60 90

Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	G MESSER	CHK	KB HORTON
		DR		APVD
				GT YARBERRY

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL SITE PLAN

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2003
SHEET	046 of 270

GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.
2. CONSTRUCTION OF A NEW CHLORINE AND SO2 BUILDING IS ADDITIVE ALTERNATE #1. IF NOT SELECTED, THE ALTERNATE DUCTBANK SECTIONS AND ROUTING SHOWN HERE SHALL BE USED.

SHEET KEYNOTES

1. RELOCATE EXISTING SECURITY EQUIPMENT FROM SECURITY POLE #08 TO POWER POLE P-15. SPLICE AND EXTEND CONDUCTORS FROM SECURITY POLE #08 TO SECURITY EQUIPMENT MOUNTED ON POWER POLE P-15. SEE 06-TY-2002 AND 06-TY-5001.

MATCH LINE - SEE SHEET 06-E-2002

YEEND STREET

SECURITY POLE #11
CP-SC-SWP-16
FOPP-16

4' x 4'
MANHOLE
EMH-9

30A

28A

2' x 2'
HANDHOLE
EHH-14

2' x 2'
HANDHOLE
EHH-15

EXIST. 72" OUTFALL PIPE

SECURITY POLE #07
CP-SC-SWP-10
FOPP-10

45

2' x 2'
HANDHOLE
EHH-19

46

3" CHLORINE (CSL)

CHLORINE CONTACT CHAMBER

CHLORINE/DECHLORINE CONTACT CHAMBER

34A

2' x 2'
HANDHOLE
EHH-16

35A

SECURITY POLE #09
CP-SC-SWP-13
FOPP-13

EXISTING PUMP STATION TO BE RELOCATED FROM EXISTING PRIMARY CLARIFIER AREA

CHLORINE STORAGE AREA

36A

44

2' x 2'
HANDHOLE
EHH-18

43

SECURITY POLE #08 1

42

POWER POLE P-15 1
CP-SC-SWP-11
FOPP-11

INTERMEDIATE PUMP STATION

38A

2' x 2'
HANDHOLE
EHH-17

4' x 4'
MANHOLE

39A

ELECTRICAL BUILDING

4' x 4'
MANHOLE
EMH-12

41

REACTOR BASIN NO. 2

SS

MATCH LINE - SEE SHEET 06-E-2005

06-E-2002	06-E-2003
06-E-2004	06-E-2005

N

0 30 60 90

Scale In Feet

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

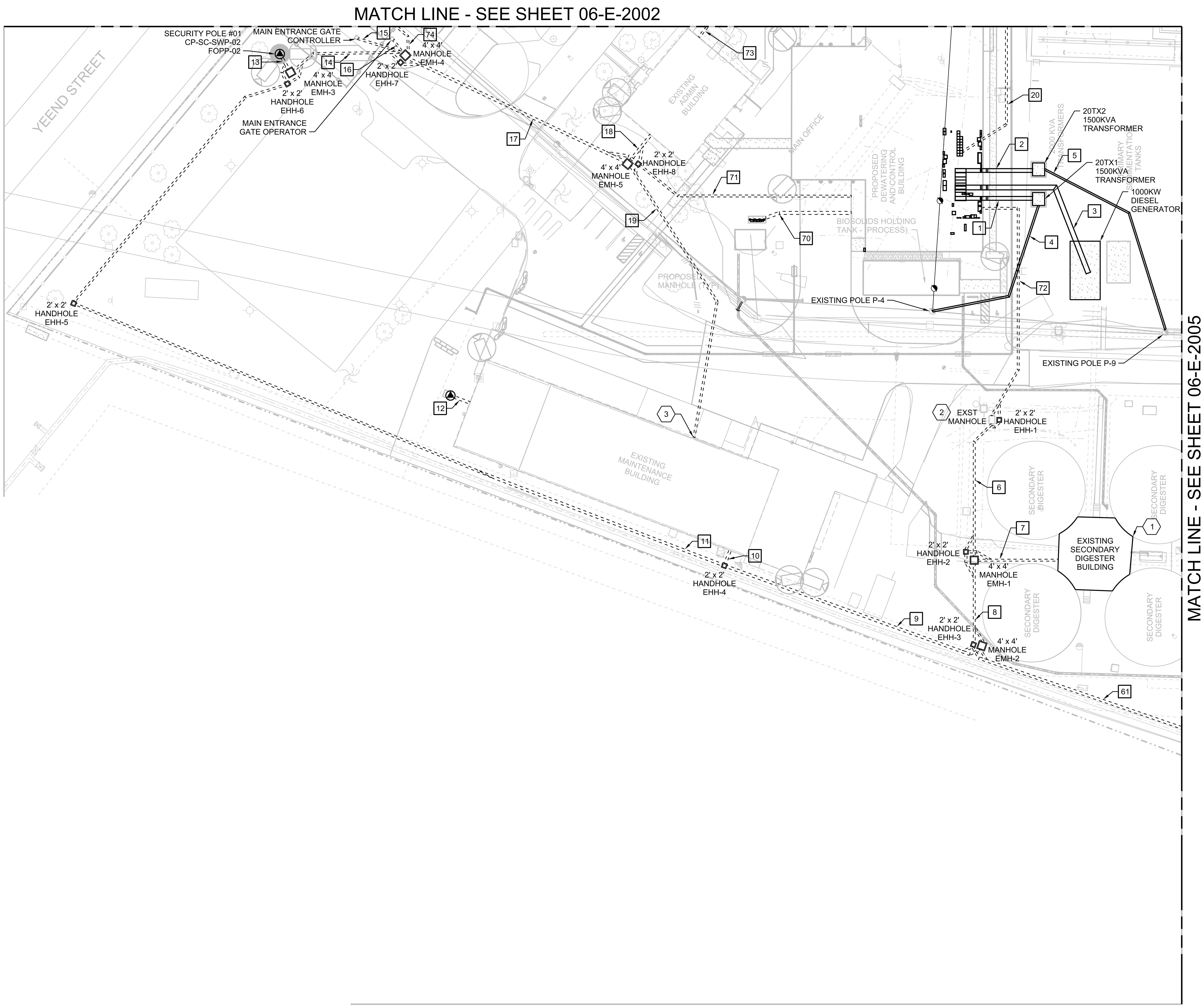
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL
SITE PLAN - ALTERNATE

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2003A
SHEET	047 of 270



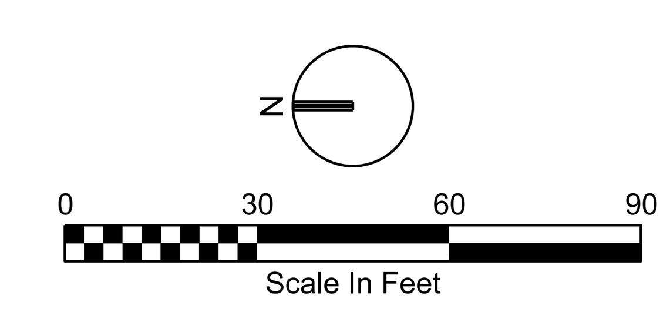
GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.

SHEET KEYNOTES

1. NEW CONTROL PANEL 85-CP-1 SHALL BE LOCATED INSIDE OF THE EXISTING FIBERGLASS HUT ON THE MAIN FLOOR. EXISTING DCU-3 SHALL BE REMOVED AND REPLACED. SEE SPECIFICATION 40_90_00 AND NETWORK DRAWING 08-N-7002 FOR DETAILS.
2. CONTRACTOR SHALL SPLICE NEW FEEDERS FOR THE MAINTENANCE BUILDING AND SECONDARY DIGESTER BUILDING MCC WITHIN EXISTING MANHOLE. SPLICES PROVIDED SHALL BE WATERTIGHT.
3. UTILIZE CRAWLSPACE TO ROUTE FIBER FROM DUCTBANK TERMINATION POINT TO EXISTING NETWORK RACK. SEE 94-E-2001.

06-E-2002	06-E-2003
06-E-2004	06-E-2005



NO.	DATE	REVISION	BY	APVD

DSGN GT YARBERRY | DR G MESSER | CHK KB HORTON | APVD GT YARBERRY

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL SITE PLAN

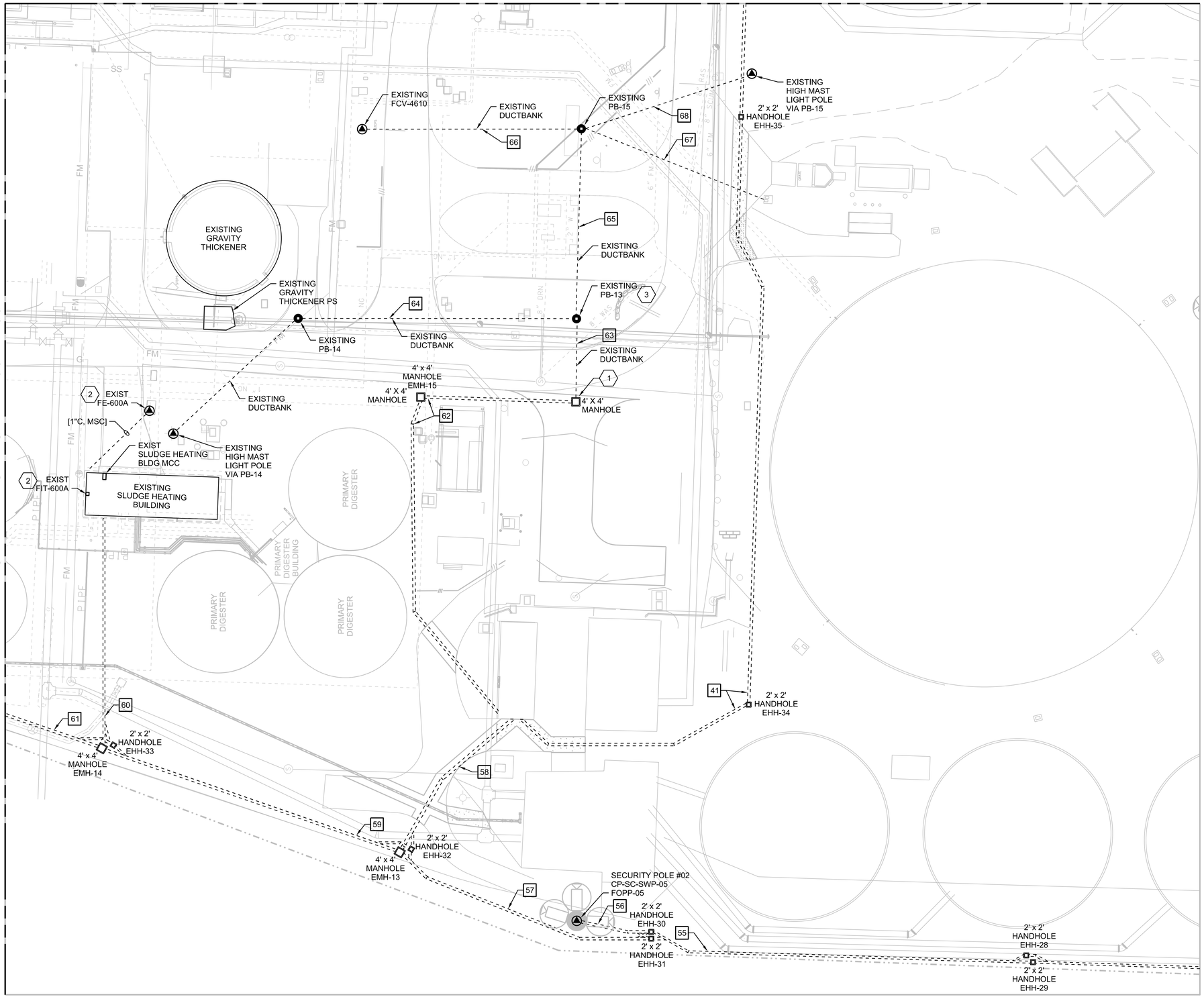
1" = 30'

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2004
SHEET	048 of 270

MATCH LINE - SEE SHEET 06-E-2003

MATCH LINE - SEE SHEET 06-E-2004



GENERAL NOTES

1. INDIVIDUAL DUCTBANK SECTIONS ARE INDICATED WITH NUMBERED SQUARE TAGS, REFER TO 06-E-6001 THROUGH 06-E-6004 FOR DUCTBANK SCHEDULES.

SHEET KEYNOTES

1. CONTRACTOR SHALL LOCATE NEW MANHOLE OVER EXISTING ELECTRICAL DUCTBANK. CONTRACTOR SHALL MODIFY EXISTING CONDUITS TO TERMINATE WITHIN NEW MANHOLE SHOWN. CONTRACTOR SHALL REMOVE EXISTING CONDUCTORS AND INSTALL NEW CONDUCTORS WITHIN EXISTING RACEWAY TO EXISTING LOADS.
2. CONTRACTOR SHALL RELOCATE EXISTING TRANSMITTER FROM THE EXISTING PRIMARY CLARIFIER ELECTRICAL BUILDING. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM EXISTING 20/120V PANELBOARD LOCATED WITHIN THE SLUDGE HEATING BUILDING TO THE RELOCATED TRANSMITTER. CONTRACTOR SHALL ALSO PROVIDE [1"C, TYPE 3] FROM TRANSMITTER TO CP-85-1. REFER TO DUCTBANK 60 FOR CONTINUATION.
3. CONTRACTOR SHALL SPLICE FEEDERS TO THE EXISTING PB-13. SPLICE SHALL BE WATER TIGHT.

06-E-2002	06-E-2003
06-E-2004	06-E-2005

N

0 30 60 90
Scale In Feet

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON		GT YARBERRY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

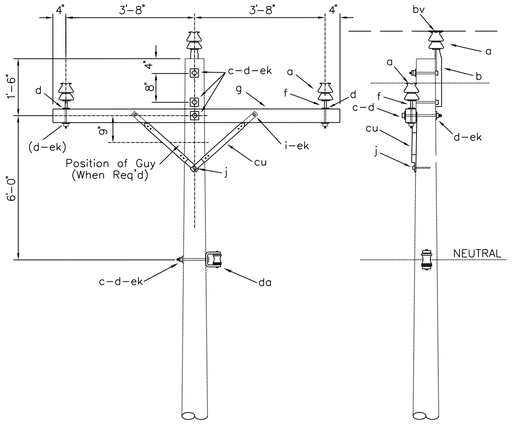
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
PARTIAL SITE PLAN

CONFORMED DOCUMENTS

1" = 30'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-2005
SHEET	049 of 270

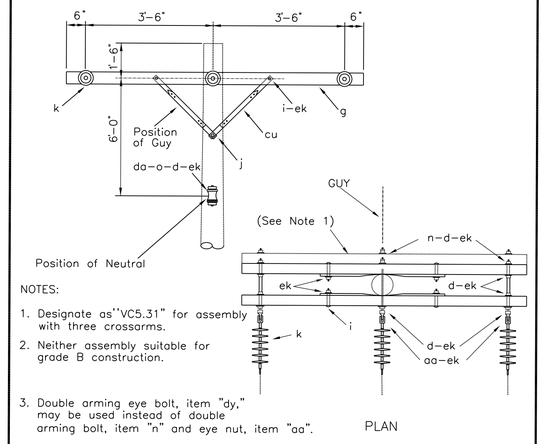


ITEM	QTY	MATERIAL
a	3	Insulator, pin type (24.9/14.4kV)
b	1	Pin, pole top, 20"
c	4	Bolt, machine, 5/8" x req'd length
d	7	Washer, square, 2 1/4"
f	2	Pin, crossarm, steel, 5/8" x 14"
g	1	Crossarm, 3 5/8" x 4 5/8" x 8' – 0"
i	2	Bolt, carriage, 3/8" x 4 1/2"
j	1	Screw, lag, 1/2" x 4"
bv	3	rods,armor, as required
cu	2	Brace, 28"
da	1	Bracket, insulated
ek	6	Locknuts

DESIGN PARAMETERS:
See TABLE I

SINGLE SUPPORT ON CROSSARM

DEC 1998	3 – PHASE PRIMARY 24.9/14.4 kV	JVC1.13
RUS		



NOTES:
1. Designate as "VC5.31" for assembly with three crossarms.
2. Neither assembly suitable for grade B construction.
3. Double arming eye bolt, item "dy," may be used instead of double arming bolt, item "n" and eye nut, item "aa".

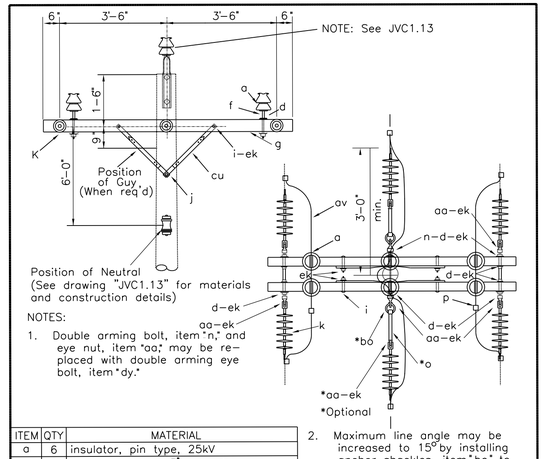
PLAN

ITEM	QTY	MATERIAL
d	1	Washer, square, 3" curved
d	10	Washer, square, 2 1/4"
g	2	Crossarm, 3 5/8" x 4 5/8" x 8'-0"
i	4	Bolt, carriage, 3/8" x 4 1/2"
j	2	Screw, lag, 1/2" x 4"
k	3	Insulator, suspension, 25KV
n	3	Bolt,double arming,5/8" x req'd length
o	1	Bolt, eye, 5/8" x req'd length
aa	3	Nut, eye, 5/8"
cu	4	Brace, 28" steel, heavy
da	1	Bracket, insulated
ek	18	Locknuts

DESIGN PARAMETERS:
ALLOWABLE LONGITUDINAL LOADING (lbs./conductor) =
VC5.21: 2,000 (#2 ACSR)
VC5.31: 3,000 (#2/0 ACSR)

SINGLE DEADEND ON CROSSARMS

DEC 1998	3 – PHASE PRIMARY 24.9/14.4 kV	JVC5.21 JVC5.31
RUS		



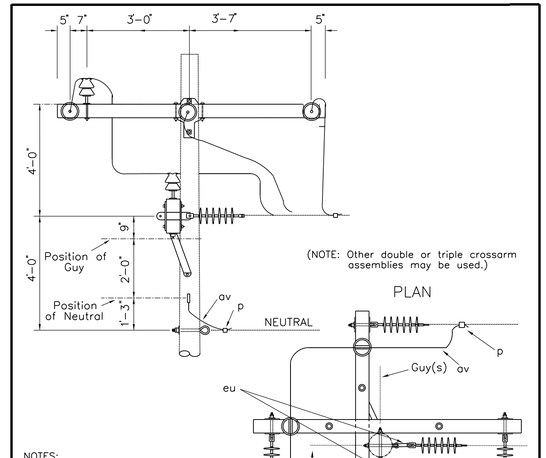
NOTES:
1. Double arming bolt, item "n," and eye nut, item "aa," may be re-placed with double arming eye bolt, item "dy."
2. Maximum line angle may be increased to 15° by installing anchor shackles, item "bo," to (horizontal) eye nuts and installing side guys as req'd.
3. Designate as VC6.31 for assembly with three crossarms.
4. Not suitable for Grade B construction.

ITEM	QTY	MATERIAL
a	6	insulator, pin type, 25kV
d	2	Washer, square, 3" curved
d	10	Washer, square, 2 1/4"
g	2	Crossarm, 3 5/8" x 4 5/8" x 8'-0"
i	4	Bolt, carriage, 3/8" x 4 1/2"
j	2	Screw, lag, 1/2" x 4"
k	6	Insulator, suspension, 25KV
n	4	Bolt,double arming,5/8" x req'd length
o	2	Bolt, eye, 5/8" x req'd length
p		Connectors, as req'd
aa	8	Nut, eye, 5/8"
av		Jumpers, as req'd
bo	2	Shackle, anchor
cu	4	Brace, 28," steel, heavy
ek	26	Locknuts

DESIGN PARAMETERS:
PERMITTED UNBALANCED LONGITUDINAL TENSION: (lbs./conductor)
VC6.21: 2,000 (#2 ACSR)
VC6.31: 3,000 (#2/0 ACSR)
MAXIMUM LINE ANGLE = 5°
(See Note 3)

DOUBLE DEADEND ON CROSSARMS

DEC 1998	3 – PHASE PRIMARY 24.9/14.4 kV	JVC6.21 JVC6.31
RUS		



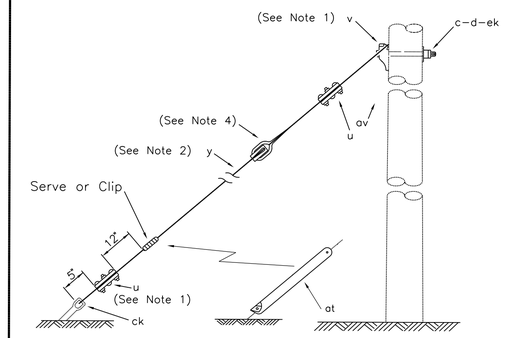
NOTES:
1. Refer to JVC5.21 for suspension insulators and associated hardware.
2. Modify jumpers and connections at each corner as necessary to maintain phasing on the line.

ITEM	QTY	MATERIAL
	2	Primary crossarm assembly
	2	Pin insulator – see JVC1.13
p		Connectors, as req'd
av		Jumpers, as req'd
eu	2	Link, extension, insulated, 12" min.

DESIGN PARAMETERS:
PERMITTED LONGITUDINAL LOAD EQUALS LESSER OF: 5,000 lbs./Conductor, or Manufacturer's specifications

SINGLE DEADENDS (BUCKARMS) GUIDE

DEC 1998	3 – PHASE PRIMARY 24.9/14.4 kV	JVC6.91G
RUS		



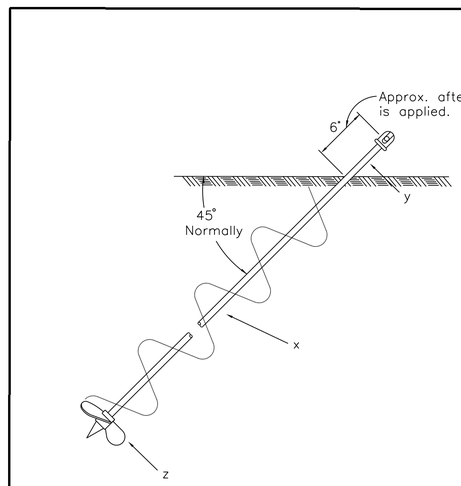
NOTES:
1. Other accepted and equivalent guy deadend (item "u") and attachment (item "v") material may be substituted for the ones shown.
2. Some types of guy attachments use 2 bolts and washer or lag screw (item "j"), change materials accordingly.
3. Specify guy wire size, type and required length.
4. Guy insulator, 8'–0" above ground.

ITEM	QTY	MATERIAL
c	1	Bolt, machine, 5/8" x req'd length
d	1	Washer, 3" square, curved
p		Connectors, guy bond and as req'd
u	2	Deadend for guy strand (See Note 1)
v	1	Guy attachment (See Note 1)
y		Guy wire, 7/16" EHS (See Note 3)
at	1	Guy marker
av		Jumpers, as req'd
ck	1	Clamp, anchor bonding
ek	1	Locknuts

DESIGN PARAMETERS:

SINGLE DOWN GUY (THROUGH BOLT TYPE)

APRIL 2005		JE1.1 (E1–2)
RUS		



NOTE: Designated maximum holding power rating assumes proper installation in class 6 soil.

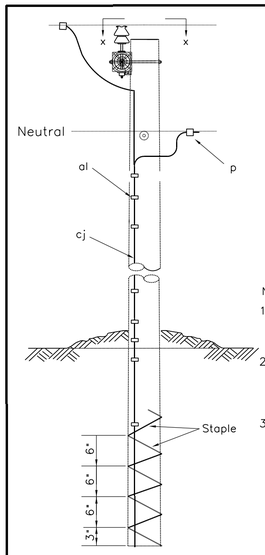
ASSEMBLY: F2

ITEM	MATERIAL	QTY	
x	Rod, extension, 7', Hubbell 12657	1	
y	Guy adapter, Hubbell C102–0023	1	
z	Anchor, Hubbell SS5–No.012642AE	1	

DESIGN PARAMETERS:

SCREW ANCHORS, (POWER INSTALLED)

APRIL 2005		JF2.6
RUS		



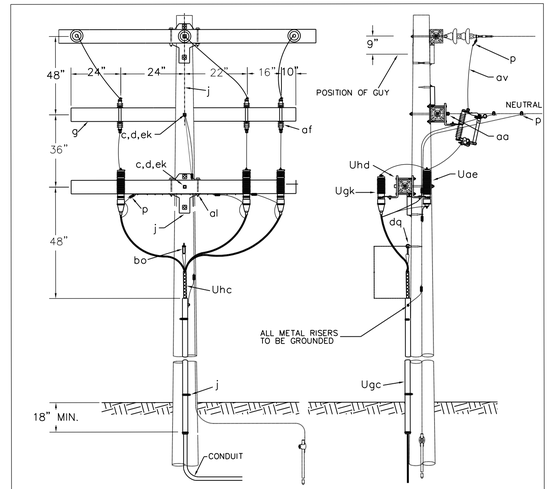
NOTES:
1. Ground wire to be located on same side as neutral conductor and in quadrant opposite climbing space or pole top pin.
2. Staples on ground wire shall be 2'–0" apart except for a distance of 8' above ground and 8' from top of pole where they shall be 6" apart.
3. Copper ground wire ("cj") to have a minimum conductivity of No. 4 Copper or equivalent.

ITEM	MATERIAL	ASSEMBLY: H2.2 QTY	H2.3 QTY
p	Connector, compression, as req'd		
al	Staples, ground wire, as req'd		
cj	Wire, pole ground, as req'd		

DESIGN PARAMETERS:
RUS SPECIFIES THAT THIS ASSEMBLY CAN NOT BE COUNTED AS A SYSTEM GROUNDING ELECTRODE REQUIRED BY THE NESC BUT RECOMMENDS ITS USE FOR OVERALL SYSTEM GROUNDING IMPROVEMENT.

GROUNDING IMPROVEMENT ASSEMBLY – WRAP–AROUND TYPE (FOR USE ON ALL POLES)

APRIL 2005		JH5.2 (M2–12A)
RUS		



ITEM	QTY.	MATERIAL
c	2	Bolt, machine, 5/8" x required length.
d	2	Washer, square 2 1/4".
g	2	Crossarm, 3 5/8" x 4 5/8" x 8'–0"
i	4	Bolt, carriage, 3/8" x 4 1/2"
j		Screw, lag 1/2" x 4" as required.
p		Connectors, as required.
aa	1	Eyenut, 5/8"
af	3	Cutout, 25kV
al		Staples, as required.
av		Jumpers, as required.
bo	1	Anchor, shackle.
cu	4	Brace, wood, 28"
dq	1	Eye screw, elliptical or drive hook.
ek	6	Locknuts, as required.
Uae	3*	Surge arrester, 12KV, 10.2 KV MCOV
Ugc	1	Cable riser shield. Length as required.
Ugk	3	Cable termination.
Uhc	3	Cable support.
Uhd	2	Crossarm mounting bracket.

NOTES:
1. TOTAL ARRESTER LEAD LENGTH MUST BE UNDER 3'.
2. NO BENDS PERMITTED WITHIN 6" OF CABLE TERMINAL BASE.
3. ALLOW MINIMUM CABLE SLACK OF 24" AT BOTTOM OF RISER.

THREE PHASE CABLE TERMINAL POLE WITH CUTOUTS AND CROSSARM MOUNTING ARRESTERS

	2000	JUC1

NO.	DATE	REVISION	BY	APVD
DSGN	J RABON	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

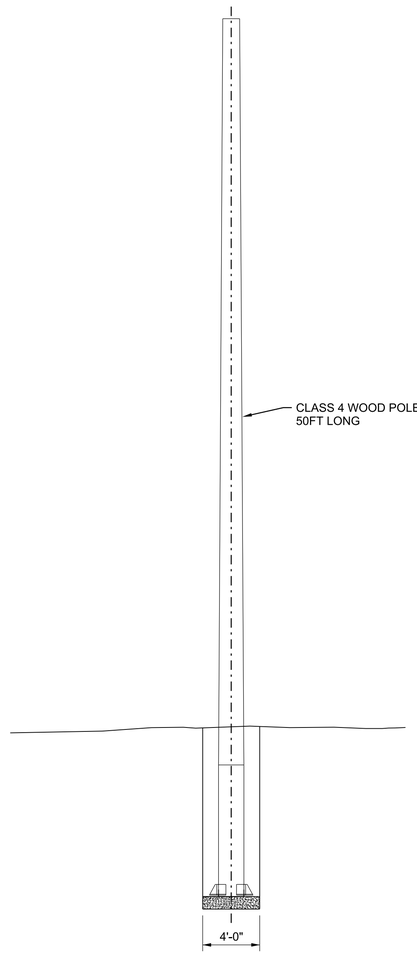
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
OVERHEAD LINE DETAILS

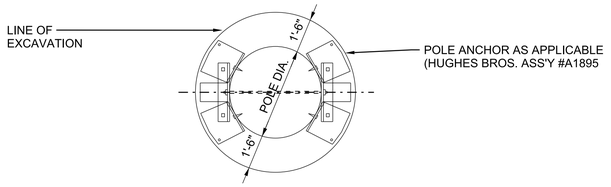
NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-5001
SHEET	050 of 270

CONFORMED DOCUMENTS

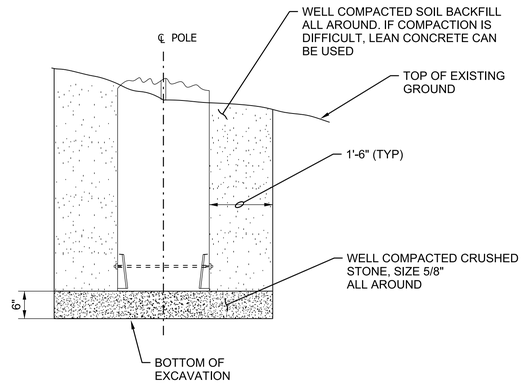


TYPICAL WOOD POLE
CLASS 4 (50 FT LONG)



PLAN
NTS

MINIMUM POLE SETTING DEPTHS (FT)			
POLE LENGTH	NORMAL SOIL (SEE NOTE)		SOLID ROCK
	LEVEL GROUND	SIDE HILL	
30'	5.5'	7.0'	5.0'
35'	5.5'	7.5'	5.0'
40'	6.0'	8.0'	6.5'
45'	6.5'	8.5'	6.5'
50'	7.0'	9.0'	6.0'
55'	7.5'	9.5'	6.0'
60'	8.0'	10.0'	6.5'
65'	8.5'	10.5'	7.0'
70'	9.0'	11.0'	7.0'
75'	9.5'	11.5'	7.0'
80'	10.0'	12.0'	7.5'



TYPICAL WOOD POLE EXCAVATION
NTS

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	J RABON	A PASTRANA	KB HORTON		

BY	APVD
GT YARBERRY	

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ELECTRICAL
OVERHEAD LINE DETAILS

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0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-5002
SHEET	051 of 270

POLES P-0 TO P-12

1/0 RAVEN, ACSR

DESIGN ITEM				UNITS	1/0 RAVEN, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.398
CROSS SECTIONAL AREA				SQ IN	0.0968
WEIGHT OF CONDUCTOR				LB/FT	0.146
WEIGHT OF CATENARY				LB/FT	0.146
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.201
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.347
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.558
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.704
BREAKING LOAD				LB	4,380
MAXIMUM SPAN / EQUIVALENT SPAN				FT	136
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	180
C2 (HOT)	120	0	0.000	LB	123
C3 (NESC LIGHT)	30	60	0.000	LB	494
C4 (ICE)	30	40	0.250	LB	557
C5 (COLD)	0	0	0.000	LB	421
C6 (HIGH WIND)	60	140	0.000	LB	1,216
CONDUCTOR SAGS ON 136 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	1.88
C2 (HOT)	120	0	0	FT	2.75
C3 (NESC LIGHT)	30	60	0.00	FT	1.82
C4 (ICE)	30	40	0.25	FT	1.92
C5 (COLD)	0	0	0.00	FT	0.80
C6 (HIGH WIND)	60	140	0	FT	3.18
MODULUS OF ELASTICITY				PSI	1.129E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					3.60
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	601	0.56
-10 °F	505	0.67
0 °F	421	0.80
10 °F	350	0.96
15 °F	321	1.05
20 °F	295	1.14
30 °F	253	1.33
32 °F	246	1.37
40 °F	222	1.52
50 °F	198	1.70
60 °F	180	1.88
70 °F	166	2.04
80 °F	154	2.19
90 °F	144	2.34
100 °F	136	2.48
110 °F	129	2.62
120 °F	123	2.75
165 °F	103	3.28

POLES P-21 TO P-8

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	69
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	140
C2 (HOT)	120	0	0.000	LB	53
C3 (NESC LIGHT)	30	60	0.000	LB	388
C4 (ICE)	30	40	0.250	LB	417
C5 (COLD)	0	0	0.000	LB	523
C6 (HIGH WIND)	60	140	0.000	LB	650
CONDUCTOR SAGS ON 69 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	0.39
C2 (HOT)	120	0	0	FT	1.03
C3 (NESC LIGHT)	30	60	0.00	FT	0.47
C4 (ICE)	30	40	0.25	FT	0.55
C5 (COLD)	0	0	0.00	FT	0.10
C6 (HIGH WIND)	60	140	0	FT	1.21
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					4.39
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	667	0.08
-10 °F	595	0.09
0 °F	523	0.10
10 °F	452	0.12
15 °F	416	0.13
20 °F	381	0.14
30 °F	312	0.17
32 °F	299	0.18
40 °F	246	0.22
50 °F	187	0.29
60 °F	140	0.39
70 °F	107	0.50
80 °F	87	0.62
90 °F	73	0.74
100 °F	64	0.84
110 °F	58	0.94
120 °F	53	1.03
165 °F	40	1.37

POLES P-17 TO P-18

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	44
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	15
C2 (HOT)	120	0	0.000	LB	14
C3 (NESC LIGHT)	30	60	0.000	LB	53
C4 (ICE)	30	40	0.250	LB	66
C5 (COLD)	0	0	0.000	LB	17
C6 (HIGH WIND)	60	140	0.000	LB	209
CONDUCTOR SAGS ON 44 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	1.47
C2 (HOT)	120	0	0	FT	1.62
C3 (NESC LIGHT)	30	60	0.00	FT	1.40
C4 (ICE)	30	40	0.25	FT	1.41
C5 (COLD)	0	0	0.00	FT	1.30
C6 (HIGH WIND)	60	140	0	FT	1.54
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					13.66
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	18	1.24
-10 °F	17	1.27
0 °F	17	1.30
10 °F	17	1.33
15 °F	16	1.35
20 °F	16	1.36
30 °F	16	1.39
32 °F	16	1.39
40 °F	16	1.42
50 °F	15	1.44
60 °F	15	1.47
70 °F	15	1.49
80 °F	14	1.52
90 °F	14	1.54
100 °F	14	1.57
110 °F	14	1.59
120 °F	14	1.62
165 °F	13	1.72

POLES P-20 TO P-21

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	110
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	140
C2 (HOT)	120	0	0.000	LB	74
C3 (NESC LIGHT)	30	60	0.000	LB	410
C4 (ICE)	30	40	0.250	LB	458
C5 (COLD)	0	0	0.000	LB	445
C6 (HIGH WIND)	60	140	0.000	LB	845
CONDUCTOR SAGS ON 110 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	0.98
C2 (HOT)	120	0	0	FT	1.85
C3 (NESC LIGHT)	30	60	0.00	FT	1.14
C4 (ICE)	30	40	0.25	FT	1.27
C5 (COLD)	0	0	0.00	FT	0.31
C6 (HIGH WIND)	60	140	0	FT	2.37
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					3.37
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	584	0.24
-10 °F	514	0.27
0 °F	445	0.31
10 °F	377	0.36
15 °F	345	0.40
20 °F	314	0.44
30 °F	256	0.54
32 °F	245	0.56
40 °F	206	0.67
50 °F	168	0.82
60 °F	140	0.98
70 °F	120	1.15
80 °F	106	1.30
90 °F	95	1.45
100 °F	86	1.59
110 °F	80	1.72
120 °F	74	1.85
165 °F	59	2.34

NO.	DATE	DSGN	DR	BY	APVD
		J RABON	A PASTRANA	KB HORTON	GT YARBERRY

REVISION

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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OVERHEAD LINE DETAILS

CONFORMED DOCUMENTS

NTS
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0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-5003
SHEET	052 of 270

POLE P-12 TO P-16

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	143
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	140
C2 (HOT)	120	0	0.000	LB	98
C3 (NESC LIGHT)	30	60	0.000	LB	423
C4 (ICE)	30	40	0.250	LB	484
C5 (COLD)	0	0	0.000	LB	365
C6 (HIGH WIND)	60	140	0.000	LB	975
CONDUCTOR SAGS ON 143 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	1.66
C2 (HOT)	120	0	0	FT	2.65
C3 (NESC LIGHT)	30	60	0.00	FT	1.87
C4 (ICE)	30	40	0.25	FT	2.04
C5 (COLD)	0	0	0.00	FT	0.64
C6 (HIGH WIND)	60	140	0	FT	3.47
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					2.92
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	494	0.47
-10 °F	428	0.54
0 °F	365	0.64
10 °F	307	0.76
15 °F	281	0.83
20 °F	257	0.91
30 °F	215	1.08
32 °F	208	1.12
40 °F	183	1.27
50 °F	158	1.47
60 °F	140	1.66
70 °F	126	1.85
80 °F	115	2.03
90 °F	106	2.19
100 °F	99	2.35
110 °F	93	2.51
120 °F	88	2.65
165 °F	72	3.24

POLE P-16 TO P-17

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	178
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	140
C2 (HOT)	120	0	0.000	LB	98
C3 (NESC LIGHT)	30	60	0.000	LB	435
C4 (ICE)	30	40	0.250	LB	505
C5 (COLD)	0	0	0.000	LB	285
C6 (HIGH WIND)	60	140	0.000	LB	1,092
CONDUCTOR SAGS ON 178 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	2.57
C2 (HOT)	120	0	0	FT	3.67
C3 (NESC LIGHT)	30	60	0.00	FT	2.82
C4 (ICE)	30	40	0.25	FT	3.03
C5 (COLD)	0	0	0.00	FT	1.26
C6 (HIGH WIND)	60	140	0	FT	4.80
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					2.61
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	388	0.93
-10 °F	333	1.08
0 °F	285	1.26
10 °F	245	1.47
15 °F	228	1.58
20 °F	213	1.69
30 °F	188	1.92
32 °F	183	1.96
40 °F	168	2.14
50 °F	152	2.36
60 °F	140	2.57
70 °F	130	2.78
80 °F	121	2.97
90 °F	114	3.15
100 °F	108	3.33
110 °F	103	3.50
120 °F	98	3.67
165 °F	83	4.34

POLE P-18 TO P-20

#2 SPARROW, ACSR

DESIGN ITEM				UNITS	#2 SPARROW, ACSR
MAKE UP OF CONDUCTOR					ACSR 6/1
MATERIAL					ACSR
DIAMETER				IN	0.316
CROSS SECTIONAL AREA				SQ IN	0.0608
WEIGHT OF CONDUCTOR				LB/FT	0.091
WEIGHT OF CATENARY				LB/FT	0.091
RADIAL THICKNESS OF ICE (1/4 ICE)				IN	0.250
WEIGHT OF ICE (1/4 ICE)				LB/FT	0.176
WEIGHT OF CATENARY WITH ICE (1/4 ICE)				LB/FT	0.267
RADIAL THICKNESS OF ICE (1/2 ICE)				IN	0.500
WEIGHT OF ICE (1/2 ICE)				LB/FT	0.507
WEIGHT OF CATENARY WITH ICE (1/2 ICE)				LB/FT	0.598
BREAKING LOAD				LB	2,850
MAXIMUM SPAN / EQUIVALENT SPAN				FT	158
TENSIONS AT LOADING CONDITIONS					
CONDITION	TEMP	WIND	ICE		
C1 (BASE)	60	0	0.000	LB	140
C2 (HOT)	120	0	0.000	LB	93
C3 (NESC LIGHT)	30	60	0.000	LB	429
C4 (ICE)	30	40	0.250	LB	493
C5 (COLD)	0	0	0.000	LB	329
C6 (HIGH WIND)	60	140	0.000	LB	1,027
CONDUCTOR SAGS ON 158 FT SPAN AT:					
	TEMP	WIND	ICE		
C1 (BASE)	60	0	0	FT	2.03
C2 (HOT)	120	0	0	FT	3.07
C3 (NESC LIGHT)	30	60	0.00	FT	2.25
C4 (ICE)	30	40	0.25	FT	2.44
C5 (COLD)	0	0	0.00	FT	0.86
C6 (HIGH WIND)	60	140	0	FT	4.02
MODULUS OF ELASTICITY				PSI	1.132E+07
COEFFICIENT OF EXPANSION				/°F	1.058E-05
MINIMUM FACTOR OF SAFETY					2.77
Design Temp				°F	60
Wind Factors					1.00
Density of Ice				#/FT^3	57

WIRE TENSIONS (CONDITION 1)		
TEMP	LOADED TENSION	SAG (FT)
-20 °F	449	0.63
-10 °F	387	0.73
0 °F	329	0.86
10 °F	278	1.02
15 °F	256	1.11
20 °F	236	1.21
30 °F	202	1.41
32 °F	196	1.45
40 °F	176	1.62
50 °F	155	1.83
60 °F	140	2.03
70 °F	128	2.22
80 °F	118	2.41
90 °F	110	2.58
100 °F	103	2.75
110 °F	97	2.91
120 °F	93	3.07
165 °F	77	3.69

POLE NO	STRING CONDUCTORS	NEW POLE	PRIMARY & NEUTRAL	SECONDARY	TRANSFORMER	GUYS JE1.1	ANCHOR JF2.6	OTHER
P-0								EXISTING UTILITY COMPANY POLE WITH BUCK ARM. DEADEND NEW PHASES AND NEUTRAL TO EXISTING INSULATORS.
P-1								EXISTING POLE WITH CUTOUTS AND PRIMARY METERING. REPLACE FUSES WITH 200E. DOUBLE-DEADEND NEW PHASES AND NEUTRAL TO EXISTING INSULATORS
P-1A						1	1	EXISTING POLE WITH 3 PHASE SWITCH. DOUBLE-DEADEND NEW PHASES AND NEUTRAL TO EXISTING INSULATORS. SLACK-SPAN FROM POLE P-1A TO POLE P-1 AND FROM POLE P-1 TO POLE P-0
P-2								EXISTING TANGENT POLE WITH CAPACITOR BANK.
P-3						1	1	EXISTING VERTICAL ANGLE POLE - INSTALL NEW ANCHOR 4 FEET OUTSIDE OF EXISTING. LEAVE EXISTING ANCHOR IN PLACE.
P-4								EXISTING POLE WITH BUCKARM FOR 3 PHASE TAP LINE. REMOVE TAP LINE. NEW RISER PER DETAIL JUC1, FUSE AT 80E.
P-0 THRU P-4	PRIMARY - 3 X #1/0 ACSR, NEUTRAL - 1 X #2 ACSR							CHECK EXISTING NEUTRAL - MAY ALREADY BE #2 ACSR
P-5								REMOVE POLE, ANCHOR, GUY AND ALL ATTACHMENTS
P-6								REMOVE POLE AND ALL ATTACHMENTS - REMOVE CAPACITOR BANK AND RELOCATE TO POLE P-13
P-7								REMOVE POLE AND ALL ATTACHMENTS
P-8			JVC5.21			1	1	REMOVE WIRE FROM WEST AND DEADEND NEW WIRE FROM EAST - REMOVE EXISTING ANCHOR AND GUY - RECONNECT EXISTING RISER
P-4 THRU P-8	REMOVE EXISTING PHASES AND NEUTRAL							
P-9								EXISTING TANGENT POLE. NEW RISER PER DETAIL JUC1, FUSE AT 80E.
P-10								EXISTING TANGENT POLE WITH EXISTING RISER.
P-11								EXISTING TANGENT POLE WITH EXISTING RISER.
P-12						1	1	EXISTING LINE & BUCK CORNER POLE. INSTALL 25 KV LINE CUTOUTS ON BUCK ARM. FUSE AT 150E. INSTALL NEW ANCHOR TO HOLD NEW #1/0 ACSR.
P-4 THRU P-12	PRIMARY - 3 X #1/0 ACSR, NEUTRAL - 1 X #2 ACSR							CHECK EXISTING NEUTRAL - MAY ALREADY BE #2 ACSR - REMOVE EXISTING #2 AWG ACSR PHASE CONDUCTORS
P-4 TO P-9 TO P-10								REMOVE EXISTING SECONDARY IF IDLE
P-13								EXISTING TANGENT POLE. RE-INSTALL CAPACITOR BANK REMOVED FROM POLE P-6.
P-14			JVC6.21					EXISTING DEADEND POLE - REMOVE EXISTING ANCHOR AND GUY
P-12 THRU P-14								EXISTING #2 AWG ACSR TO REMAIN.
P-15		1-50' - CL 4	JVC6.91G			2	2	REMOVE EXISTING POLE WITH CAMERA, ETC. - SEE KEYNOTE 2
P-16		1-50' - CL 4	JVC6.91G			2	2	
P-17		1-50' - CL 4	JVC5.21			1	1	SLACK-SPAN TO POLE P-18
P-18		1-50' - CL 4	JVC6.91G			1	1	SLACK-SPAN TO POLE P-17
P-19		1-50' - CL 4	JVC1.13					
P-20		1-50' - CL 4	JVC6.91G			2	2	
P-21		1-50' - CL 4	JVC6.91G			2	2	
P-22		1-50' - CL 4	JVC1.13					
P-14 THRU P-22 THRU P-8	PRIMARY - 3 X #2 ACSR, NEUTRAL - 1 X #2 ACSR							

NO.	DATE	DSGN
		J RABON
		DR
		A PASTRANA
	REVISION	CHK
		KB HORTON
		APVD
		GT YARBERRY
		BY APVD

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ELECTRICAL

OVERHEAD LINE DETAILS

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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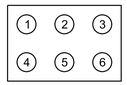
CONFORMED DOCUMENTS

NTS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-5004
SHEET	053 of 270



1 SECTION
NTS

1 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]

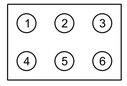
2 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]

3 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]

4 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]

5 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]

6 = [4"C, [P53] FROM 20TX1 TO 20LVSG-1 BUS A]



2 SECTION
NTS

1 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]

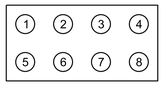
2 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]

3 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]

4 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]

5 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]

6 = [4"C, [P53] FROM 20TX2 TO 20LVSG-1 BUS C]



3 SECTION
NTS

1 = [4"C, [P56] FROM 1000KW GEN TO 20LVSG-1]

2 = [4"C, [P56] FROM 1000KW GEN TO 20LVSG-1]

3 = [4"C, [P56] FROM 1000KW GEN TO 20LVSG-1]

4 = [4"C, [P56] FROM 1000KW GEN TO 20LVSG-1]

5 = [1"C, [P36] FROM GEN 60A DISCONNECT TO 20MCC-2]

6 = [2"C, [P62] FROM GEN CONTROL PANEL TO 20LVSG-1]

7 = [2"C, [A28] FROM GEN CONTROL PANEL TO 20LVSG-1] (SST CONDUIT)

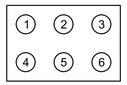
8 = [2"C, [SPARE]]

4 SECTION
NTS

1 = [4"C, [MV1] FROM EXST POLE P4 RISER TO 20TX1]

5 SECTION
NTS

1 = [4"C, [MV1] FROM EXST POLE P9 RISER TO 20TX2]



6 SECTION
NTS

1 = [2"C, [PV4] FROM 85-P-11-1 TO 85-AFD-11-1] (SST CONDUIT)

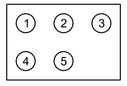
2 = [2"C, [PV4] FROM 85-P-11-2 TO 85-AFD-11-2] (SST CONDUIT)

3 = [2"C, [FIBER OPTIC] FROM 85-FOPP-1 TO 20-FOPP-1]

4 = [1"C, [C10] FROM 85-P-11-1, 2 TO 85-AFD-11-1, 2]

5 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST MAINTENANCE BLDG]

6 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST SEC. DIGESTER BLDG MCC]



7 SECTION
NTS

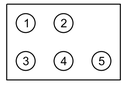
1 = [2"C, [FIBER OPTIC] FROM 91-FOPP-1 TO 85-FOPP-1]
[FIBER OPTIC] FROM 85-FOPP-1 TO 20-FOPP-1]

2 = [2"C, [PV4] FROM 85-P-11-1 TO 85-AFD-11-1] (SST CONDUIT)

3 = [2"C, [PV4] FROM 85-P-11-2 TO 85-AFD-11-2] (SST CONDUIT)

4 = [1"C, [C10] FROM 85-P-11-1, 2 TO 85-AFD-11-1, 2]

5 = [1"C, [A1] FROM FIT-600A TO 85-CP-1] (SST CONDUIT)



8 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 91-FOPP-1 TO 85-FOPP-1]

2 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST SEC. DIGESTER BLDG MCC]

3 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST MAINTENANCE BLDG]

4 = [1"C, [A1] FROM FIT-600A TO 85-CP-1] (SST CONDUIT)

5 = [2"C, [FIBER OPTIC] FROM EX FOPP TO 94-FOPP-1]

9 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-04 TO FOPP-03]

2 = [2"C, [FIBER OPTIC] FROM EX FOPP TO 94-FOPP-1]

10 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-04 TO FOPP-03]
[FIBER OPTIC] FROM FOPP-03 TO FOPP-02]

2 = [2"C, [FIBER OPTIC] FROM EX FOPP TO 94-FOPP-1]

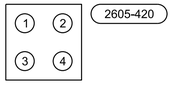
11 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-03 TO FOPP-02]

2 = [2"C, [SPARE]]

12 SECTION
NTS

1 = [1"C, [P16] FROM RELOCATED MONOPOLE TO EXIST PANELBOARD]



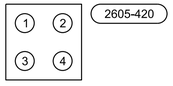
13 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-03 TO FOPP-02]
[FIBER OPTIC] FROM FOPP-02 TO FOPP-01]

2 = [1"C, [P15] FROM POLE #1 TO PANEL 'A']

3 = [2"C, [TYPE B] FROM MAIN ENTRANCE GATE OPERATOR TO CP-SC-SWP-02]
[TYPE K] FROM MAIN ENTRANCE GATE CONTROLLER TO CP-SC-SWP-02]

4 = [2"C, [SPARE]]



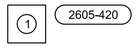
14 SECTION
NTS

1 = [1"C, [P15] FROM POLE #1 TO PANEL 'A']

2 = [2"C, [FIBER OPTIC] FROM FOPP-02 TO FOPP-01]

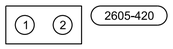
3 = [2"C, [TYPE B] FROM MAIN ENTRANCE GATE CONTROLLER TO CP-SC-SWP-02]
[TYPE K] FROM MAIN ENTRANCE GATE CONTROLLER TO CP-SC-SWP-02]

4 = [2"C, [SPARE]]



15 SECTION
NTS

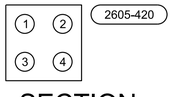
1 = [2"C, [TYPE K] FROM MAIN ENTRANCE GATE CONTROLLER TO CP-SC-SWP-02]



16 SECTION
NTS

1 = [1"C, [P16] FROM MAIN ENTRANCE GATE OPERATOR TO PANEL 'M']

2 = [2"C, [TYPE B] FROM MAIN ENTRANCE GATE OPERATOR TO CP-SC-SWP-02]



17 SECTION
NTS

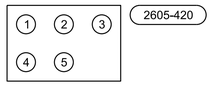
1 = [1"C, [P16] FROM MAIN ENTRANCE GATE OPERATOR TO PANEL 'M']

2 = [1"C, [P15] FROM POLE #1 TO PANEL 'A']

3 = [2"C, [FIBER OPTIC] FROM FOPP-02 TO FOPP-01]

4 = [1"C, [P15] FROM FACILITY SIGN TO PANEL 'A']

SPARE TO PANEL 'A'



18 SECTION
NTS

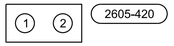
1 = [1"C, [P16] FROM MAIN ENTRANCE GATE OPERATOR TO PANEL 'M']

2 = [1"C, [P15] FROM POLE #1 TO PANEL 'A']

3 = [2"C, [FIBER OPTIC] FROM FOPP-02 TO FOPP-01]
[FIBER OPTIC] FROM EX FOPP TO 20-FOPP-3]
[FIBER OPTIC] FROM 94-FOPP-1 TO 82-FOPP-1]

4 = [2"C, [FIBER OPTIC] FROM 20-FOPP-02 TO FOPP-01]

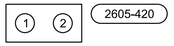
5 = [1"C, [P15] FROM FACILITY SIGN TO PANEL 'A']



19 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM MAINTENANCE BLDG NETWORK RACK
TO ADMIN BLDG NETWORK RACK]

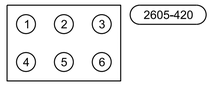
2 = [2"C, [FIBER OPTIC] FROM 94-FOPP-1 TO 82-FOPP-1]



20 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 20-FOPP-2 TO FOPP-18]

2 = [2"C, [FIBER OPTIC] FROM 20-FOPP-1 TO 82-FOPP-1]



21 SECTION
NTS

1 = [1 1/2"C, [C24] FROM TJB 'P9A' TO 82-CP-1]

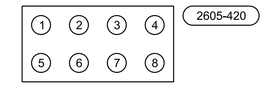
2 = [1"C, [C16] FROM TJB 'P9B' TO 82-CP-1]

3 = [1"C, [C10] FROM TJB '10A' AND TJB '10B' TO 82-CP-1]

4 = [2"C, [A14] FROM TJB '10C' TO 82-CP-1] (SST CONDUIT)

5 = [2"C, [SPARE]]

6 = [2"C, [SPARE]]



22 SECTION
NTS

1 = [1 1/2"C, [C24] FROM TJB 'P9A' TO 82-CP-1]

2 = [1"C, [C16] FROM TJB 'P9B' TO 82-CP-1]

3 = [1"C, [C10] FROM TJB '10A' AND TJB '10B' TO 82-CP-1]

4 = [2"C, [A14] FROM TJB '10C' TO 82-CP-1] (SST CONDUIT)

5 = [2"C, [FIBER OPTIC] FROM 20-FOPP-1 TO 82-FOPP-1]

6 = [2"C, [FIBER OPTIC] FROM FROM 20-FOPP-2 TO FOPP-18]

7 = [2"C, [SPARE]]

8 = [2"C, [SPARE]]

NO.	DATE	DR	REVISION	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

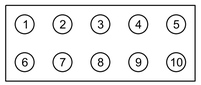
ELECTRICAL

DUCTBANK SCHEDULE

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-6001
SHEET	054 of 270



23 SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE TO PANEL 'P']

2 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

3 = [1"C, [P15] FROM POLE #12 TO PANEL 'P']

4 = [2"C, [FIBER OPTIC] FROM FOPP-18 TO FOPP-17]
[FIBER OPTIC] FROM FROM 20-FOPP-2 FOPP-18]

5 = [1 1/2"C, [C24] FROM TJB 'P9A' TO 82-CP-1]

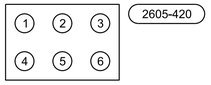
6 = [1"C, [C16] FROM TJB 'P9B' TO 82-CP-1]

7 = [1"C, [C10] FROM TJB '10A' AND TJB '10B' TO 82-CP-1]

8 = [2"C, [A14] FROM TJB '10C' TO 82-CP-1] (SST CONDUIT)

9 = [2"C, [FIBER OPTIC] FROM 20-FOPP-1 TO 82-FOPP-1]
[FIBER OPTIC] FROM 82-FOPP-1 TO 50-FOPP-1]

10 = [2"C, [FIBER OPTIC] FROM ADMIN BLDG SERVER RACK TO 82-FOPP-1]
[FIBER OPTIC] FROM 94-FOPP-1 TO 82-FOPP-1]



24 SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE TO PANEL 'P']

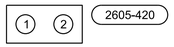
2 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

3 = [1"C, [P15] FROM POLE #12 TO PANEL 'P']

4 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-18]

5 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 50-FOPP-1]

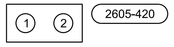
6 = [2"C, [SPARE]]



25 SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE OPERATOR TO PANEL 'P']

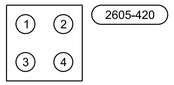
2 = [2"C, [TYPE B] FROM NE EXIT GATE OPERATOR TO CP-SC-SWP-17]
[TYPE K] FROM NE EXIT GATE CONTROLLER TO CP-SC-SWP-17]



26 SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE OPERATOR TO PANEL 'P']

2 = [2"C, [TYPE B] FROM NE EXIT GATE OPERATOR TO CP-SC-SWP-17]



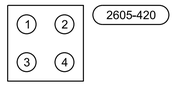
27 SECTION
NTS

1 = [1"C, [P15] FROM POLE #12 TO PANEL 'P']

2 = [2"C, [FIBER OPTIC] FROM FOPP-18 TO FOPP-17]
[FIBER OPTIC] FROM FOPP-17 TO FOPP-16]

3 = [2"C, [TYPE B] FROM NE EXIT GATE OPERATOR TO CP-SC-SWP-17]
[TYPE K] FROM NE EXIT GATE CONTROLLER TO CP-SC-SWP-17]

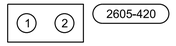
4 = [2"C, [SPARE]]



28 SECTION
NTS

1 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

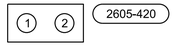
2 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-16]
[FIBER OPTIC] FROM 82-FOPP-1 TO 50-FOPP-1]



30 SECTION
NTS

1 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

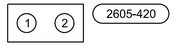
2 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-16]
[FIBER OPTIC] FROM FOPP-16 TO FOPP-15]



31 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-16 TO FOPP-15]
[FIBER OPTIC] FROM 82-FOPP-1 TO 50-FOPP-1]

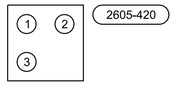
2 = [2"C, [SPARE]]



32 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-16 TO FOPP-15]
[FIBER OPTIC] FROM FOPP-15 TO FOPP-14]

2 = [2"C, [P15] FROM POLE #10 TO PANEL 50-LP-2]

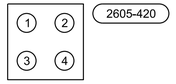


33 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 50-FOPP-1]

2 = [1"C, [P15] FROM POLE #10 TO PANEL 50-LP-2]

3 = [2"C, [FIBER OPTIC] FROM FOPP-15 TO FOPP-14]



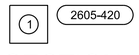
34 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 50-FOPP-1 TO 83-FOPP-1]

2 = [1"C, [P3] FROM RELOCATED SEWAGE PUMP STATION TO PANEL 50-PP-1]

3 = [4"C, [P50] FROM EXIST MSG 2 TO 50MCC-1]

4 = [2"C, [FIBER OPTIC] FROM FOPP-14 TO FOPP-13]



35 SECTION
NTS

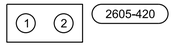
1 = [2"C, [FIBER OPTIC] FROM FOPP-14 TO FOPP-13]
[FIBER OPTIC] FROM FOPP-13 TO FOPP-12]

36 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 50-FOPP-1 TO 83-FOPP-1]

2 = [4"C, [P50] FROM EXIST MSG 2 TO 50MCC-1]

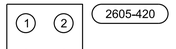
3 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]



37 SECTION
NTS

1 = [1"C, [P3] FROM RELOCATED SEWAGE PUMP STATION TO PANEL 50-PP-1]

2 = [2"C, [SPARE]]



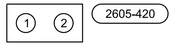
38 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 50-FOPP-1 TO 83-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]

3 = [2"C, [FIBER OPTIC] FROM FOPP-12 TO FOPP-11]

4 = [4"C, [P50] FROM EXIST MSG 2 TO 50MCC-1]



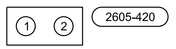
39 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 50-FOPP-1 TO 83-FOPP-1]
[FIBER OPTIC] FROM 83-FOPP-1 TO 91-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]
[FIBER OPTIC] FROM FOPP-12 TO FOPP-11]

40 SECTION
NTS

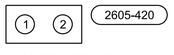
1 = [4"C, [P50] FROM EXIST MSG 2 TO 50MCC-1]



41 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 83-FOPP-1 TO 91-FOPP-1]

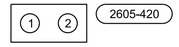
2 = [2"C, [SPARE]]



42 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-12 TO FOPP-11]

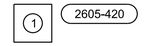
2 = [2"C, [SPARE]]



43 SECTION
NTS

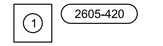
1 = [2"C, [FIBER OPTIC] FROM FOPP-12 TO FOPP-11]
[FIBER OPTIC] FROM FOPP-11 TO FOPP-10]

2 = [1"C, [P2] FROM SECURITY POLE #08 TO POWER POLE P-15]



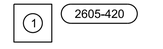
44 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-11 TO FOPP-10]



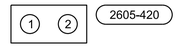
45 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-11 TO FOPP-10]
[FIBER OPTIC] FROM FOPP-10 TO FOPP-08]



46 SECTION
NTS

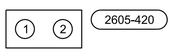
1 = [2"C, [FIBER OPTIC] FROM FOPP-10 TO FOPP-08]



47 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-10 TO FOPP-08]
[FIBER OPTIC] FROM FOPP-08 TO FOPP-07]

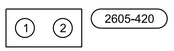
2 = [1"C, [P2] FROM CP-SC-SWP-08 TO 06MPZ-2]



48 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-08 TO FOPP-07]

2 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP1]



49 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-08 TO FOPP-07]

2 = [2"C, [SPARE]]

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	GT YARBERRY		G MESSER	KB HORTON			GT YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

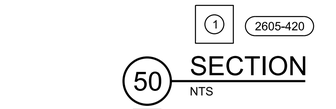
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DUCTBANK SCHEDULE

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-6002
SHEET	055 of 270



50 SECTION
NTS

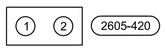
1 = [2"C, [FIBER OPTIC] FROM FOPP-08 TO FOPP-07]
[FIBER OPTIC] FROM FOPP-07 TO FOPP-06]

51 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-07 TO FOPP-06]

52 SECTION
NTS

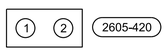
1 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP-1]



53 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-07 TO FOPP-06]

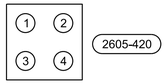
2 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP-1]



54 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-07 TO FOPP-06]
[FIBER OPTIC] FROM FOPP-06 TO FOPP-05]

2 = [1"C, [P2] FROM CP-SC-SWP-06 TO 06MPZ-1]



55 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-06 TO FOPP-05]

2 = [1"C, [P21] FROM 06MPZ-1 TO HW-PP-1]

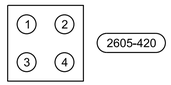
3 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP-1]

4 = [2"C, [SPARE]]

56 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-06 TO FOPP-05]
[FIBER OPTIC] FROM FOPP-05 TO FOPP-04]

2 = [1"C, [P15] FROM POLE #2 TO EXST HW-LV1]



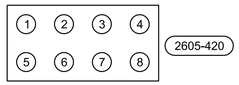
57 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-05 TO FOPP-04]

2 = [1"C, [P21] FROM 06MPZ-1 TO HW-PP-1]

3 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP-1]

4 = [1"C, [P15] FROM POLE #2 TO EXST HW-LV1]



58 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-05 TO FOPP-04]
[FIBER OPTIC] FROM FOPP-04 TO FOPP-03]

2 = [2"C, [FIBER OPTIC] FROM 91-CP-1 TO 85-CP-1]

3 = [2"C, [P43] FROM EXIST MCC-HW-1 TO EXIST SLUDGE HEATING BLDG MCC]

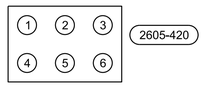
4 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST MAINTENANCE BLDG]

5 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST SEC. DIGESTER BLDG MCC]

6 = [1"C, [P21] FROM 06MPZ-1 TO HW-PP-1]

7 = [1"C, [P27] FROM 06MPZ-2 TO HW-PP-1]

8 = [1"C, [P15] FROM POLE #2 TO EXST HW-LV1]



59 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-04 TO FOPP-03]

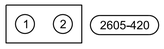
2 = [2"C, [FIBER OPTIC] FROM 91-FOPP-1 TO 85-FOPP-1]

3 = [2"C, [P43] FROM EXIST MCC-HW-1 TO EXIST SLUDGE HEATING BLDG MCC]

4 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST MAINTENANCE BLDG]

5 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST SEC. DIGESTER BLDG MCC]

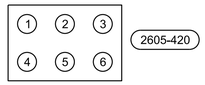
6 = [2"C, [SPARE]]



60 SECTION
NTS

1 = [2"C, [P43] FROM MCC-HW-1 TO EXIST SLUDGE HEATING BLDG MCC]

2 = [1"C, [A1] FROM FIT-600-A TO 85-CP-1] (SST CONDUIT)



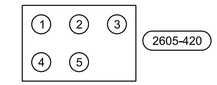
61 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-04 TO FOPP-03]
[FIBER OPTIC] FROM 91-FOPP-1 TO 85-FOPP-1]

2 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST MAINTENANCE BLDG]

3 = [2"C, [P43] FROM EXIST MCC-HW-2 TO EXIST SEC. DIGESTER BLDG MCC]

4 = [1"C, [A1] FROM FIT-600-A TO 85-CP-1] (SST CONDUIT)



62 SECTION
NTS

1 = [1"C, [P16] FROM FCV-4610 TO HW-PP1]

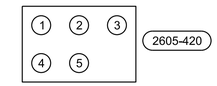
2 = [1"C, [C8] FROM FCV-4610 TO 91-CP-1]

3 = [1"C, [A2] FROM FCV-4610 TO 91-CP-1] (SST CONDUIT)

4 = [1"C, [P21] FROM EXIST HIGH MAST LIGHT VIA PB-14 AND PB-15 TO 91-LCT-1]

5 = [2"C, [P33] FROM EXIST SEPTAGE RECEIVING PANEL TO HW-PP1]

6 = [2"C, [SPARE]]



63 SECTION
NTS

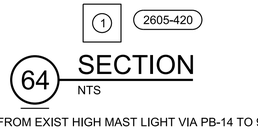
1 = [EXIST 1"C, [P16] FROM FCV-4610 TO HW-PP-1]

2 = [EXIST 1"C, [C8] FROM FCV-4610 TO 91-CP-1]

3 = [EXIST 1"C, [A2] FROM FCV-4610 TO 91-CP-1]

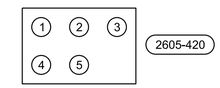
4 = [EXIST 1"C, [P21] FROM EXIST HIGH MAST LIGHT VIA PB-14 TO 91-LCT-1]

5 = [EXIST 2"C, [P33] FROM SEPTAGE RECEIVING PANEL TO HW-PP-1]



64 SECTION
NTS

1 = [1"C, [P21] FROM EXIST HIGH MAST LIGHT VIA PB-14 TO 91-LCT-1]



65 SECTION
NTS

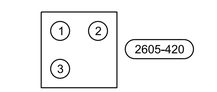
1 = [EXIST 1"C, [P16] FROM FCV-4610 TO HW-PP1]

2 = [EXIST 1"C, [C8] FROM FCV-4610 TO 91-CP-1]

3 = [EXIST 1"C, [A2] FROM FCV-4610 TO 91-CP-1]

4 = [EXIST 1"C, [P21] FROM EXIST HIGH MAST LIGHT VIA PB-15 TO 91-LCT-1]

5 = [EXIST 2"C, [P33] FROM EXIST SEPTAGE RECEIVING PANEL TO HW-PP1]



66 SECTION
NTS

1 = [EXIST 1"C, [P16] FROM FCV-4610 TO HW-PP1]

2 = [EXIST 1"C, [C8] FROM FCV-4610 TO 91-CP-1]

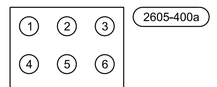
3 = [EXIST 1"C, [A2] FROM FCV-4610 TO 91-CP-1]

67 SECTION
NTS

1 = [EXIST 2"C, [P33] FROM EXIST SEPTAGE RECEIVING PANEL TO HW-PP1]

68 SECTION
NTS

1 = [EXIST 1"C, [P21] FROM EXIST HIGH MAST LIGHT VIA PB-15 TO 91-LCT-1]



70 SECTION
NTS

1 = [2"C, [PV4] FROM 20-P-70-2 TJB TO 20-AFD-70-2] (SST CONDUIT)

2 = [1"C, [A2] FROM 20-P-70-2 TJB TO 20-AFD-70-2] (SST CONDUIT)

3 = [1"C, [P2] FROM 20-LIT-71-1 TO 20LP-2]

4 = [1"C, [A1] FROM 20-LIT-71-1 TO 20-CP-1] (SST CONDUIT)

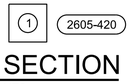
5 = [1"C, [C4] FROM 20-LCP-70-1 TO 20-AFD-70-1]

6 = [1"C, [C4] FROM 20-LCP-70-1 TO 20-AFD-70-2]

7 = [1"C, [C4] FROM FLOAT TJB TO 20-CP-1]

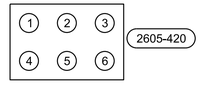
8 = [2"C, [PV4] FROM 20-P-70-1 TJB TO 20-AFD-70-1] (SST CONDUIT)

9 = [1"C, [A2] FROM 20-P-70-1 TJB TO 20-AFD-70-1] (SST CONDUIT)



71 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 20-FOPP-02 TO FOPP-01]



72 SECTION
NTS

1 = [2"C, [PV4] FROM 85-P-11-1 TO 85-AFD-11-1] (SST CONDUIT)

2 = [2"C, [PV4] FROM 85-P-11-2 TO 85-AFD-11-2] (SST CONDUIT)

3 = [2"C, [FIBER OPTIC] FROM 85-FOPP-1 TO 20-FOPP-1]

4 = [1"C, [C5] FROM 85-P-11-1 TO 85-AFD-11-1]

5 = [1"C, [C5] FROM 85-P-11-2 TO 85-AFD-11-2]

6 = [2"C, [SPARE]]

73 SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM ADMIN BLDG SERVER RACK TO 82-FOPP-1]
[FIBER OPTIC] FROM 94-FOPP-1 TO 82-FOPP-1]

74 SECTION
NTS

1 = [1"C, [P15] FROM FACILITY SIGN TO PANEL 'A']

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

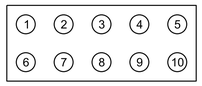
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DUCTBANK SCHEDULE

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-6003
SHEET	056 of 270



2605-420

23A SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE TO PANEL 'P']

2 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

3 = [1"C, [P15] FROM POLE #12 TO PANEL 'P']

4 = [2"C, [FIBER OPTIC] FROM FOPP-18 TO FOPP-17]
[FIBER OPTIC] FROM FROM 20-FOPP-2 FOPP-18]

5 = [1 1/2"C, [C24] FROM TJB 'P9A' TO 82-CP-1]

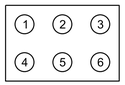
6 = [1"C, [C16] FROM TJB 'P9B' TO 82-CP-1]

7 = [1"C, [C10] FROM TJB '10A' AND TJB '10B' TO 82-CP-1]

8 = [2"C, [A14] FROM TJB '10C' TO 82-CP-1] (SST CONDUIT)

9 = [2"C, [FIBER OPTIC] FROM 20-FOPP-1 TO 82-FOPP-1]
[FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

10 = [2"C, [FIBER OPTIC] FROM ADMIN BLDG SERVER RACK TO 82-FOPP-1]



2605-420

24A SECTION
NTS

1 = [1"C, [P15] FROM NE EXIT GATE TO PANEL 'P']

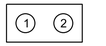
2 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

3 = [1"C, [P15] FROM POLE #12 TO PANEL 'P']

4 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-18]

5 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

6 = [2"C, [SPARE]]



2605-420

28A SECTION
NTS

1 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

2 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-16]
[FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

2605-420

30A SECTION
NTS

1 = [1"C, [P15] FROM POLE #11 TO PANEL 'P']

2 = [2"C, [FIBER OPTIC] FROM FOPP-17 TO FOPP-16]
[FIBER OPTIC] FROM FOPP-16 TO FOPP-13]

2605-420

34A SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-16 TO FOPP-13]

2605-420

35A SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM FOPP-16 TO FOPP-13]
[FIBER OPTIC] FROM FOPP-13 TO FOPP-12]

2605-420

36A SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]

2605-420

38A SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]

3 = [2"C, [FIBER OPTIC] FROM FOPP-12 TO FOPP-11]

2605-420

39A SECTION
NTS

1 = [2"C, [FIBER OPTIC] FROM 82-FOPP-1 TO 83-FOPP-1]
[FIBER OPTIC] FROM 83-FOPP-1 TO 91-FOPP-1]

2 = [2"C, [FIBER OPTIC] FROM FOPP-13 TO FOPP-12]
[FIBER OPTIC] FROM FOPP-12 TO FOPP-11]

PANEL: 06MPZ-1 | LOCATION: Rack Near Site Security Pole #03
SERVICE VOLTAGE: 120/240V | PHASE: 1 | WIRE: 3
TOTAL LOAD KVA: 0.5 | BUS SIZE: 50A | PRIMARY MAIN SIZE: 40A | TYPE: BREAKER
REMARKS: NEMA 3R Enclosure | NEUTRAL: | SECONDARY MAIN SIZE: 60A
MOUNTING: RACK

LOAD IN KVA A	LOAD IN KVA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B
0.5		CP-SC-SWP-06	20/1	1	2	20/1	SPARE		
		SPARE	20/1	3	4	20/1	SPARE		
		SPARE	20/1	5	6	20/1	SPARE		
		SPARE	20/1	7	8	20/1	SPARE		
		SPARE	20/1	9	10	20/1	SPARE		
		SPARE	20/1	11	12	20/1	SPARE		
0.5	0.0	TOTAL						0.0	0.0

PANEL: 06MPZ-2 | LOCATION: Rack Near Site Security Pole #05
SERVICE VOLTAGE: 120/240V | PHASE: 1 | WIRE: 3
TOTAL LOAD KVA: 0.5 | BUS SIZE: 50A | PRIMARY MAIN SIZE: 40A | TYPE: BREAKER
REMARKS: NEMA 3R Enclosure | NEUTRAL: | SECONDARY MAIN SIZE: 60A
MOUNTING: RACK

LOAD IN KVA A	LOAD IN KVA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B
0.5		CP-SC-SWP-08	20/1	1	2	20/1	SPARE		
		SPARE	20/1	3	4	20/1	SPARE		
		SPARE	20/1	5	6	20/1	SPARE		
		SPARE	20/1	7	8	20/1	SPARE		
		SPARE	20/1	9	10	20/1	SPARE		
		SPARE	20/1	11	12	20/1	SPARE		
0.5	0.0	TOTAL						0.0	0.0

NO.	DATE	DR	REVISION	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DUCTBANK SCHEDULE
PANEL SCHEDULES

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-E-6004
SHEET	057 of 270

GENERAL SHEET NOTES

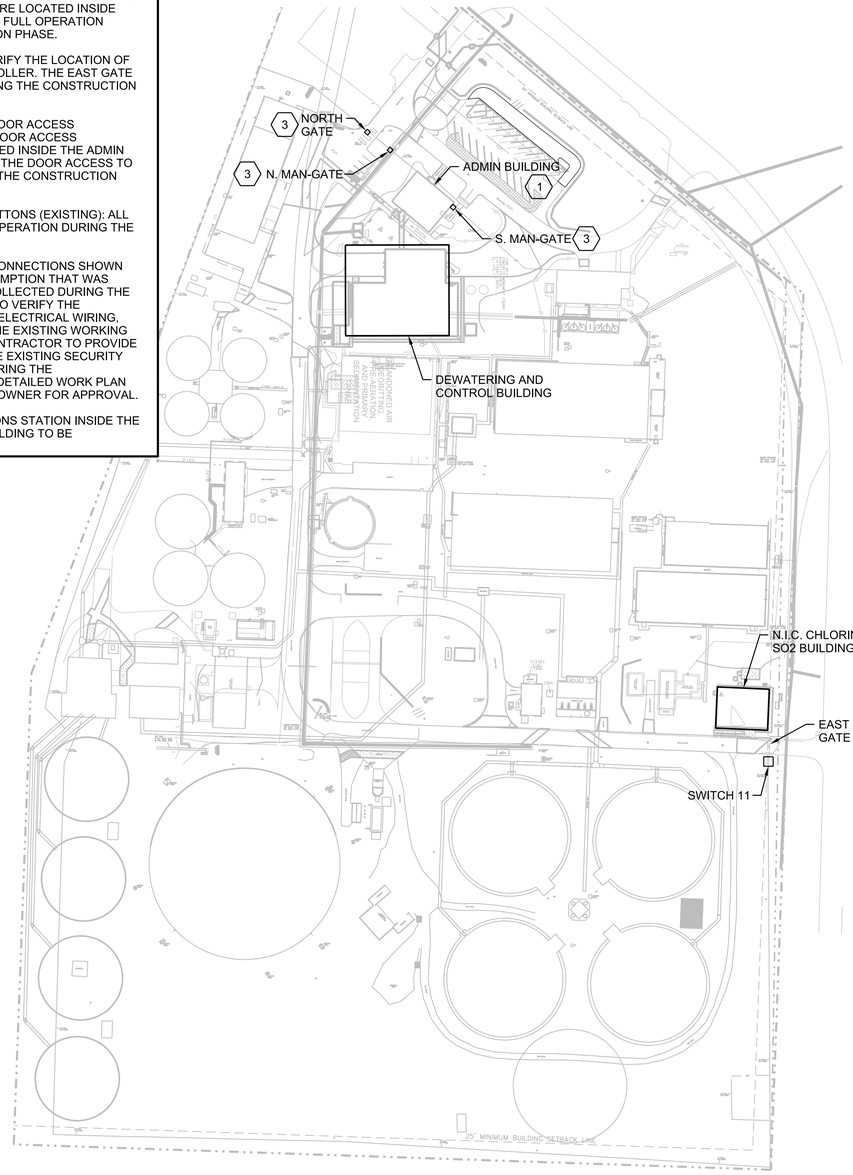
1. CONTRACTOR TO PROVIDE A WORK PLAN TO KEEP THE EXISTING SECURITY SYSTEM IN OPERATION DURING THE CONSTRUCTION PHASE. THE SECURITY SYSTEM CONTAINS THE FOLLOWING:

   - ACCESS CONTROL SYSTEM: TWO GATES (NORTH & EAST), TWO MAN-GATES (NORTH & SOUTH OF THE ADMIN BLDG), AND ONE ENTRY FRONT DOOR OF ADMIN BLDG.

   A DETAILED WORK PLAN TO BE SUBMITTED TO THE OWNER FOR APPROVAL.

SHEET KEYNOTES

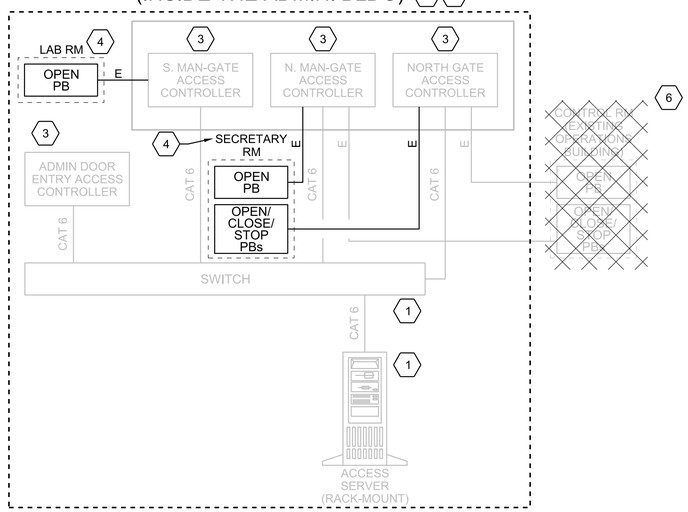
1. THE EXISTING ACCESS CONTROL SYSTEM AND ALL ASSOCIATED HARDWARE ARE LOCATED INSIDE THE ADMIN BLDG. PROVIDE FULL OPERATION DURING THE CONSTRUCTION PHASE.
2. EAST GATE (EXISTING): VERIFY THE LOCATION OF THE GATE ACCESS CONTROLLER. THE EAST GATE TO BE IN OPERATION DURING THE CONSTRUCTION PHASE.
3. GATES, MAN-GATES AND DOOR ACCESS (EXISTING): THE GATES & DOOR ACCESS CONTROLLERS ARE LOCATED INSIDE THE ADMIN BUILDING. THE GATES AND THE DOOR ACCESS TO BE IN OPERATION DURING THE CONSTRUCTION PHASE.
4. GATE CONTROLS PUSH BUTTONS (EXISTING): ALL PUSH BUTTONS TO BE IN OPERATION DURING THE CONSTRUCTION PHASE.
5. THE EXISTING NETWORK CONNECTIONS SHOWN ON THIS SHEET IS AN ASSUMPTION THAT WAS BASED ON THE PHOTOS COLLECTED DURING THE SITE VISIT. CONTRACTOR TO VERIFY THE NETWORK CONNECTIONS, ELECTRICAL WIRING, AND THE LOCATIONS OF THE EXISTING WORKING SECURITY EQUIPMENT. CONTRACTOR TO PROVIDE A WORK PLAN TO KEEP THE EXISTING SECURITY SYSTEM IN OPERATION DURING THE CONSTRUCTION PHASE. A DETAILED WORK PLAN TO BE SUBMITTED TO THE OWNER FOR APPROVAL.
6. THE EXISTING PUSH BUTTONS STATION INSIDE THE EXISTING OPERATIONS BUILDING TO BE DEMOLISHED.



TEMPORARY SECURITY SYSTEM - SITE PLAN
NTS

LEGEND & ABBREVIATIONS

CAT6	CATEGORY 6 NETWORK CABLE
FP	FIBER PATCH CABLE WITH ST CONNECTORS
MM	12 STRAND MULTIMODE FIBER OPTIC CABLE
E	ELECTRICAL WIRES
OR	EXISTING
FOPP	FIBER OPTIC PATCH PANEL



TEMPORARY SECURITY SYSTEM - NETWORK DIAGRAM
NTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

SECURITY

TEMPORARY SECURITY SYSTEM
SITE PLAN AND NETWORK DIAGRAM

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

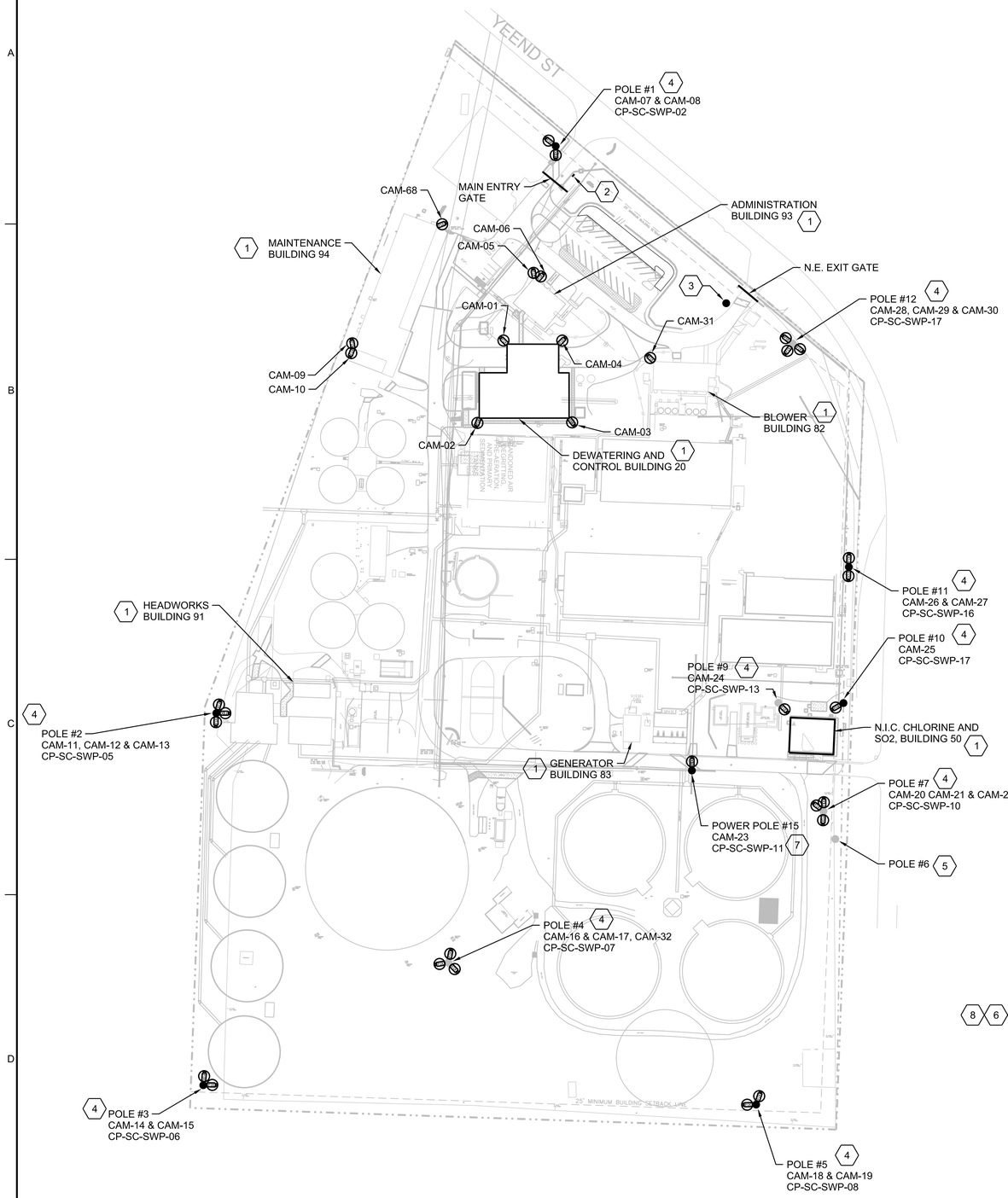
NO.	DATE	DSGN	DR	CHK	APVD
		F ABUHIJLEH	A PASTRANA	F GIST	G YARBERRY

REVISION BY

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-TY-2001
SHEET	058 of 270



GENERAL NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT AND FIELD DEVICES. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER. FOR SECURITY FIBER ROUTING AND PATHWAYS, REFER TO THE ELECTRICAL DRAWINGS.
3. EQUIPMENT, FIELD DEVICES CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.
4. MAWSS TO VERIFY AND CORRECT EXISTING DOOR FUNCTIONS TO ALLOW EMERGENCY EXITS AS APPROPRIATE PRIOR TO THE START OF THIS PROJECT.
5. DEMOLISH EXISTING SECURITY VIDEO SYSTEM AND ACCESS CONTROL SYSTEM (SERVERS, CAMERAS, ACCESS CONTROLLERS, SECURITY PANELS, SECURITY SWITCHES, WIRING, ETC.) AND RETURN TO OWNER.

SHEET KEYNOTES

1. INDOOR CAMERAS, ACCESS CONTROLS, AND SECURITY BOXES ARE CALLED-OUT IN THE BUILDING PLAN LAYOUTS. REFER TO THE FOLLOWING DRAWINGS:

   - DEWATERING & CONTROL BLDG: 20-TY-2001 & 20-TY-2002
   - CHLORINE & SO2 BLDG: 50-TY-2001, N.I.C.
   - ADMIN BLDG: 93-TY-2001
   - MAINTENANCE BLDG: 94-TY-2002
   - HEADWORKS BLDG: 91-TY-2001
   - GENERATOR BLDG: 83-TY-2001
   - BLOWER BLDG: 82-TY-2001.

2. REPLACE AND RELOCATE EXISTING ENTRY STANCHION WITH DUAL HEIGHT CARD READER STANCHION AT MAIN ENTRY GATE WITH (2) CARD READERS, (2) INTERCOM SUBSTATIONS AND (2) EXTERIOR, FIXED CAMERAS, MOUNTED ON CARD READER STANCHION, VIEWING DRIVER(S). PROVIDE STATUS CONTACT FOR GATE, AND GATE OPERATOR PERMISSIVE OUTPUT SIGNAL. DEVICES TO BE WIRED TO THE SECURITY SWITCH BOX CP-SC-SWP-02, MOUNTED TO POLE #1. FOR A TYPICAL RISER DIAGRAM. REFER TO DWG 99-TY-5003 DETAIL NO. 11.
3. PROVIDE STANCHION WITH SINGLE HEIGHT EASTERN EXIT GATE WITH (1) "PUSH-TO-EXIT" PUSH BUTTON. PROVIDE STATUS CONTACT FOR GATE AND GATE OPERATOR PERMISSIVE OUTPUT SIGNAL. DEVICES TO BE WIRED TO THE SECURITY SWITCH BOX CP-SC-SWP-17, MOUNTED TO POLE #12. FOR A TYPICAL RISER DIAGRAM. REFER TO DRAWING 99-TY-5003 DETAIL NO. 10.
4. CAMERA POLES: FOR CAMERA POLES DETAILS AND TYPICAL RISER DIAGRAM. REFER TO DRAWING 99-TY-5004.
5. POLE NO. 6 (EXIST): REMOVE THE CAMERA POLE NO. 6 AND DEMOLISH THE EXISTING TWO CAMERAS, INCLUDING THE ASSOCIATED HARDWARE AND CONTROL PANEL AND INSTALL THE NEW CAMERAS ON THE POLE NO. 7.
6. EXISTING CAMERA POLES: REPLACE THE EXISTING SECURITY EQUIPMENT SUCH AS SECURITY CONTROL PANELS, SECURITY SWITCHES, SECURITY CAMERAS, AND LIGHTS WITH THE NEW EQUIPMENT. REUSE THE SAME POWER CIRCUIT AND WIRES TO FEED POWER TO THE NEW SECURITY EQUIPMENT.
7. POLE NO. 8 (EXIST): DEMOLISH THE EXISTING CAMERA ON POLE NO. 8, INCLUDING THE ASSOCIATED HARDWARE AND CONTROL PANEL AND INSTALL THE NEW CAMERA AND SECURITY CONTROL PANEL ON THE NEW POWER POLE NO. 15.
8. THE SURVEILLANCE CAMERAS SHOULD BE INSTALLED AT THE HEIGHT OF 8-10 FEET ABOVE THE GROUND, MINIMUM. CONTRACTOR TO COORDINATE WITH THE OWNER ON THE APPROPRIATE INSTALLATION HEIGHT FOR THE SECURITY CAMERAS, ESPECIALLY FOR SECURITY CAMERAS ON POLE 2 AND POLE 3, WHICH REQUIRE INSTALLATION AT HIGHER POSITIONS TO VIEW THE ROOF/TOP OF THE HEADWORKS AND THE CLARIFIERS ALONG WITH THE PERIMETER FENCES.

8 6 4

CAMERA POLE SCHEDULE

	SECURITY						ELECTRICAL		
POLE #	STATUS	POLE HEIGHT	NEW POLE MODEL NO.	NUM. OF CAM.	SECURITY PANEL	FIBER PATCH PANEL	POWER FEED (120V)	NUM. OF LIGHTS	MOUNTING ARM
POLE NO. 01	NEW	15'	CA6-STB-15	2	CP-SC-SW-02	FOPP-02	PNL 'A', CKT #40	2	ACR2
POLE NO. 02	NEW	33'	CA6-STB-33H	3	CP-SC-SW-05	FOPP-05	PNL 'HW-LV1', CKT #34	0	N/A
POLE NO. 03	NEW	33'	CA6-STB-33H	2	CP-SC-SW-06	FOPP-06	PNL '06MPZ-1', CKT #1	0	N/A
POLE NO. 04	EXIST	25'	N/A	3	CP-SC-SW-07	FOPP-07	EXIST GEN BLDG	2	ACR2
POLE NO. 05	NEW	15'	CA6-STB-15	2	CP-SC-SW-08	FOPP-08	PNL '06MPZ-2', CKT #1	2	ACR2
POLE NO. 06 (REMOVED)	EXIST	25'	N/A	0	N/A	N/A	N/A	N/A	N/A
POLE NO. 07	EXIST	25'	N/A	3	CP-SC-SW-10	FOPP-10	EXIST GEN BLDG	3	ACR3
POWER POLE NO. 15	NEW	47'	N/A	1	CP-SC-SW-11	FOPP-11	EXIST GEN BLDG	1	ACR2
POLE NO. 09	EXIST	25'	N/A	1	CP-SC-SW-13	FOPP-13	EXIST GEN BLDG	1	ACR2
POLE NO. 10 (ADD ALT W/ CL BLDG.)	NEW	15'	CA6-STB-15	1	CP-SC-SW-15	FOPP-15	PNL 'I50LP-2', CKT #2	1	ACR2
POLE NO. 11	NEW	15'	CA6-STB-15	2	CP-SC-SW-16	FOPP-16	PNL 'P', CKT #14	2	ACR2
POLE NO. 12	EXIST	25'	N/A	3	CP-SC-SW-17	FOPP-17	PNL 'P', CKT #16	3	ACR3

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	F ABUHIJLEH	A PASTRANA		F GIST		G YARBERRY	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

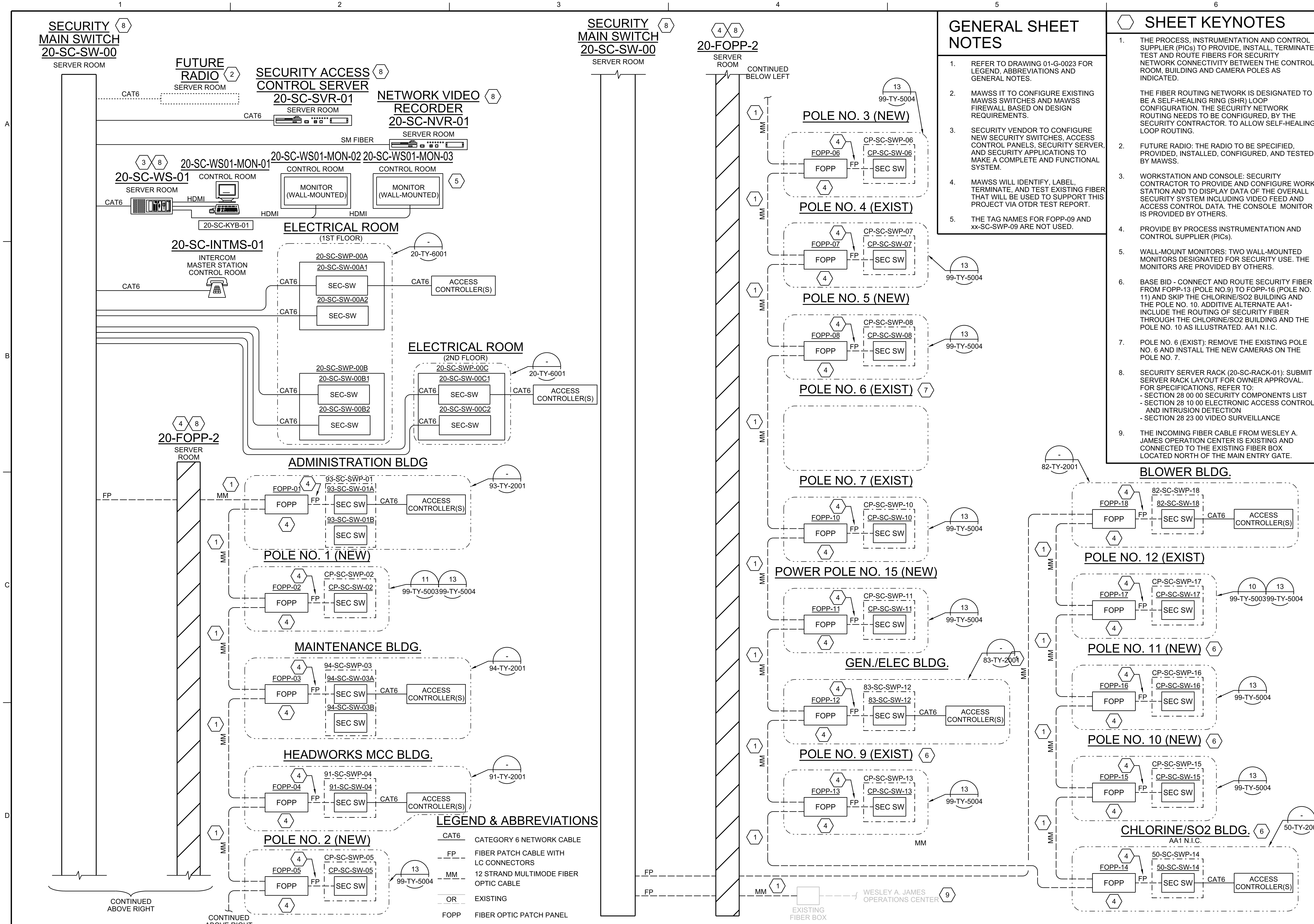
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
OVERALL
SITE SECURITY PLAN

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	06-TY-2002
SHEET	059 of 270



LEGEND & ABBREVIATIONS

CAT6	CATEGORY 6 NETWORK CABLE
FP	FIBER PATCH CABLE WITH LC CONNECTORS
MM	12 STRAND MULTIMODE FIBER OPTIC CABLE
OR	EXISTING
FOPP	FIBER OPTIC PATCH PANEL
SEC SW	SECURITY SWITCH

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. MAWSS IT TO CONFIGURE EXISTING MAWSS SWITCHES AND MAWSS FIREWALL BASED ON DESIGN REQUIREMENTS.
3. SECURITY VENDOR TO CONFIGURE NEW SECURITY SWITCHES, ACCESS CONTROL PANELS, SECURITY SERVER, AND SECURITY APPLICATIONS TO MAKE A COMPLETE AND FUNCTIONAL SYSTEM.
4. MAWSS WILL IDENTIFY, LABEL, TERMINATE, AND TEST EXISTING FIBER THAT WILL BE USED TO SUPPORT THIS PROJECT VIA OTDR TEST REPORT.
5. THE TAG NAMES FOR FOPP-09 AND xx-SC-SWP-09 ARE NOT USED.

SHEET KEYNOTES

1. THE PROCESS, INSTRUMENTATION AND CONTROL SUPPLIER (PICs) TO PROVIDE, INSTALL, TERMINATE, TEST AND ROUTE FIBERS FOR SECURITY NETWORK CONNECTIVITY BETWEEN THE CONTROL ROOM, BUILDING AND CAMERA POLES AS INDICATED.

   THE FIBER ROUTING NETWORK IS DESIGNATED TO BE A SELF-HEALING RING (SHR) LOOP CONFIGURATION. THE SECURITY NETWORK ROUTING NEEDS TO BE CONFIGURED, BY THE SECURITY CONTRACTOR. TO ALLOW SELF-HEALING LOOP ROUTING.
2. FUTURE RADIO: THE RADIO TO BE SPECIFIED, PROVIDED, INSTALLED, CONFIGURED, AND TESTED BY MAWSS.
3. WORKSTATION AND CONSOLE: SECURITY CONTRACTOR TO PROVIDE AND CONFIGURE WORK STATION AND TO DISPLAY DATA OF THE OVERALL SECURITY SYSTEM INCLUDING VIDEO FEED AND ACCESS CONTROL DATA. THE CONSOLE MONITOR IS PROVIDED BY OTHERS.
4. PROVIDE BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. WALL-MOUNT MONITORS: TWO WALL-MOUNTED MONITORS DESIGNATED FOR SECURITY USE. THE MONITORS ARE PROVIDED BY OTHERS.
6. BASE BID - CONNECT AND ROUTE SECURITY FIBER FROM FOPP-13 (POLE NO.9) TO FOPP-16 (POLE NO. 11) AND SKIP THE CHLORINE/SO2 BUILDING AND THE POLE NO. 10. ADDITIVE ALTERNATE AA1- INCLUDE THE ROUTING OF SECURITY FIBER THROUGH THE CHLORINE/SO2 BUILDING AND THE POLE NO. 10 AS ILLUSTRATED. AA1 N.I.C.
7. POLE NO. 6 (EXIST): REMOVE THE EXISTING POLE NO. 6 AND INSTALL THE NEW CAMERAS ON THE POLE NO. 7.
8. SECURITY SERVER RACK (20-SC-RACK-01): SUBMIT SERVER RACK LAYOUT FOR OWNER APPROVAL. FOR SPECIFICATIONS, REFER TO:
   - SECTION 28 00 00 SECURITY COMPONENTS LIST
   - SECTION 28 10 00 ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION
   - SECTION 28 23 00 VIDEO SURVEILLANCE
9. THE INCOMING FIBER CABLE FROM WESLEY A. JAMES OPERATION CENTER IS EXISTING AND CONNECTED TO THE EXISTING FIBER BOX LOCATED NORTH OF THE MAIN ENTRY GATE.

NO.	DATE	REVISION	BY	APVD

DSGN F ABUHIJLEH · DR A PASTRANA · CHK F GIST · APVD G YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
NETWORK DIAGRAM

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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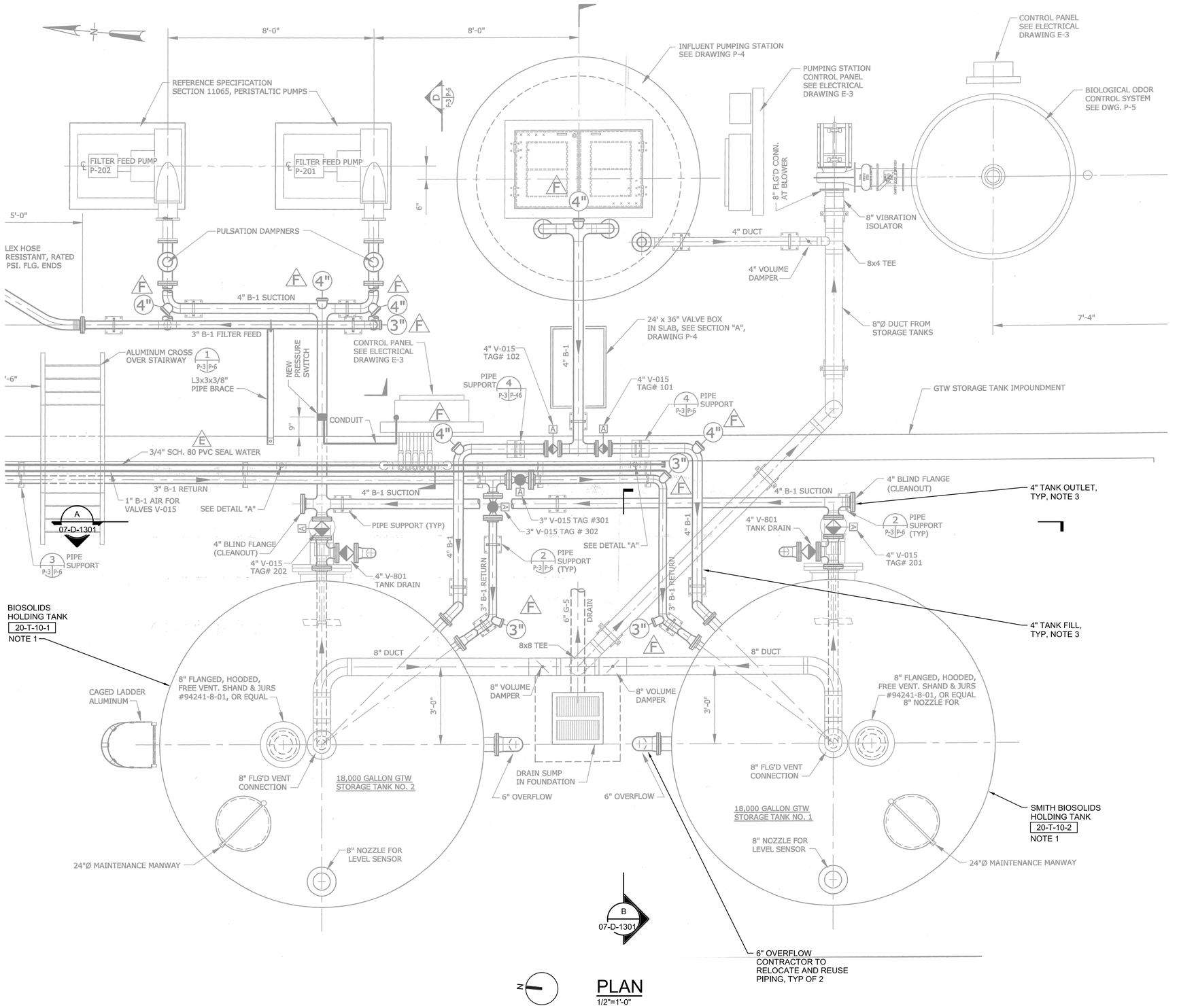
PROJ	D3226100
DWG	06-TY-5001
SHEET	060 of 270

CONFORMED DOCUMENTS

NOTES

1. DISMANTLE AND RELOCATE EXISTING 18,000 GALLON GTW STORAGE TANKS FROM THE WRIGHT SMITH JR. WWTP, LOCATED AT 1875 CONCEPTION STREET, MOBILE, AL., TO THE CC WILLIAMS WWTP TO SERVE AS THE BIOSOLIDS HOLDING TANK AND THE SMITH BIOSOLIDS RECEIVING TANK.
2. DISASSEMBLE ALL EXPOSED PIPING AND UNINSTALL ALL EQUIPMENT WITHIN THE CONTAINMENT BASIN. LEAVE ON SITE IN ORDERLY MANNER ALL MATERIALS NOT BEING REUSED AT THE C.C. WILLIAMS WWTP.
3. RETAIN FOR REUSE EXISTING 4" TANK FILL AND SUCTION PIPING TO RELOCATE ALONG WITH TANK. CONTRACTOR TO REUSE THIS 4" PIPING FOR THE SMITH RECEIVING STATION PUMP DISCHARGE PIPING. SUPPLEMENT WITH NEW PIPING AS NEEDED.
4. FOR AS-BUILT DRAWING SEE GREASE TRAP WASTE TREATMENT FACILITY WRIGHT SMITH, JR. WWTP - GTW INFLUENT PUMP STATION AND STORAGE TANKS PLAN - P3 JUNE 2009.
5. SUPPLEMENTAL PIPING SHALL BE AS DESIGNATED FOR DS PIPING EXCEPT NOZZLES AND BLIND FLANGES TO BE CONNECTED TO STAINLESS STEEL SHALL BE STAINLESS STEEL. DISSIMILAR METALS MAY ONLY BE MATED AT FLANGED JOINTS WITH GASKETS SEPARATING THE MATERIALS.



PLAN
1/2"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	K WADDELL	DR J WILCOX	CHK J HORTON	APVD K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL

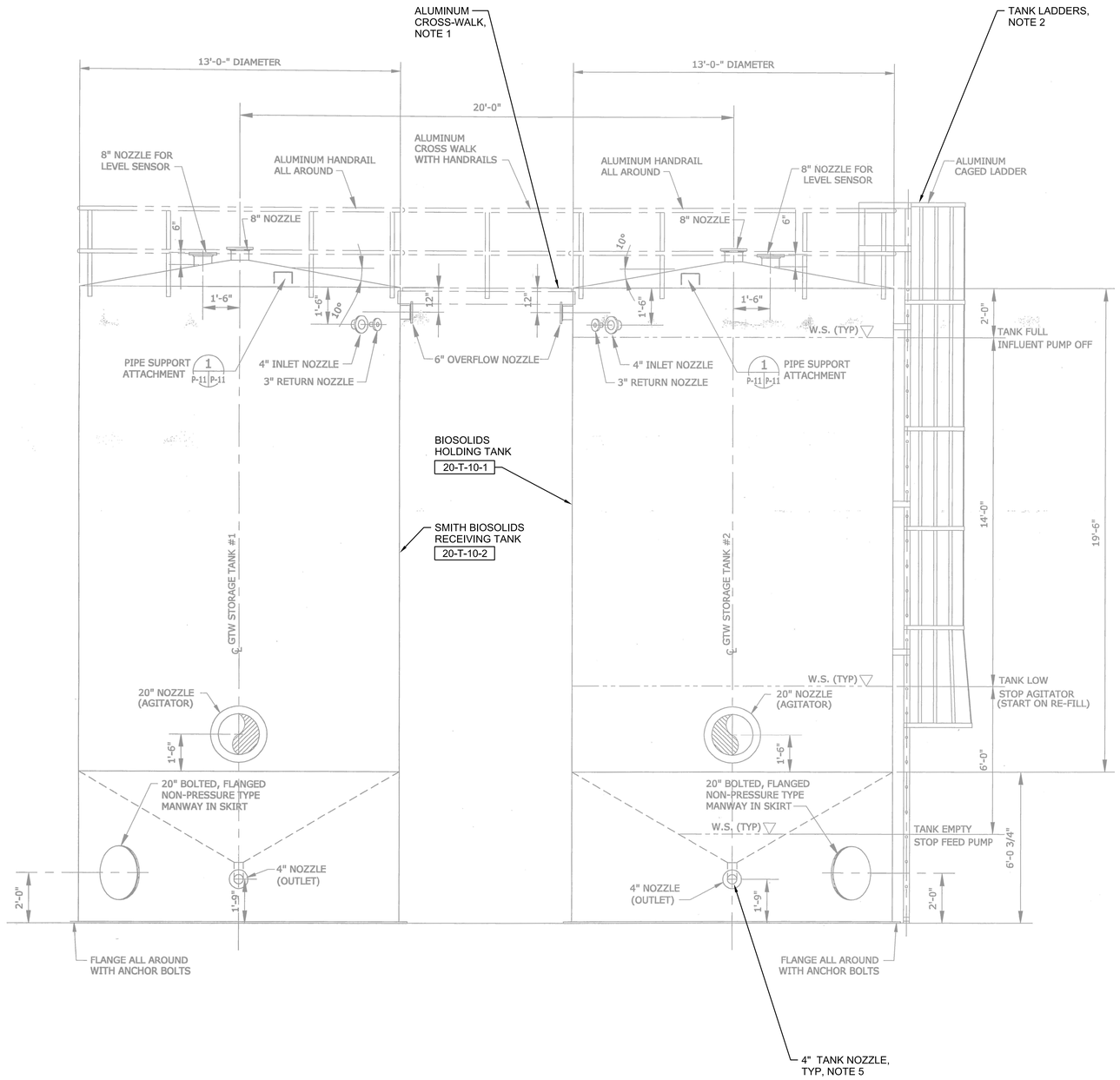
SMITH RECEIVING STATION DEMOLITION PLAN

CONFORMED DOCUMENTS

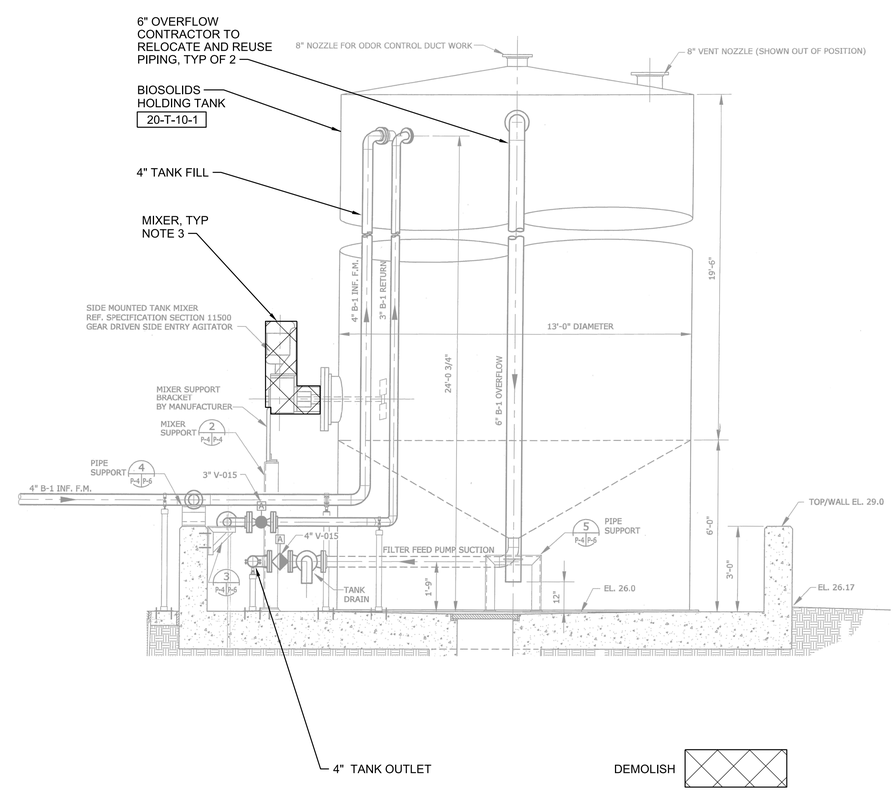
SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	07-D-1001
SHEET	061 of 270

NOTES

1. REUSE EXISTING ALUMINUM CROSS-WALK AND ALUMINUM CAGED LADDER.
2. SUPPLY AND INSTALL SAFETY DEVICES AND SELF-RETRACTING LIFELINES FOR BOTH TANK LADDERS IN COMPLIANCE WITH OSHA 29 CFR 1926.
3. REPLACE TANK AGITATORS PER SPECIFICATION SECTION 43 22 56.
4. FOR AS-BUILT DRAWING SEE GREASE TRAP WASTE TREATMENT FACILITY WRIGHT SMITH, JR. WWTP - GTW INFLUENT PUMP STATION AND STORAGE TANKS SECTIONS AND DETAILS - P4 & P-11 JUNE 2009.
5. REPLACE EXISTING 4" NOZZLE WITH A NEW 12" NOZZLE. CORE NEW HOLE THROUGH TANK SKIRT TO ALLOW FOR PIPE PENETRATION. SKIRT TO BE WELDED CLOSED AROUND NEW PIPE AND EXISTING PIPE PENETRATION OPENING TO BE SEALED CLOSED WITH NEW PIECE OF PAINTED STEEL TO MATCH EXISTING SKIRT. SEE STRUCTURAL DETAIL FOR NOZZLE COLLAR REINFORCING.
6. NEW FILL CONNECTION NOZZLES TO BE ADDED TO TANKS AS SHOWN ON DRAWING 20-D-3004 AND 20-D-9002. EXISTING NOZZLES NOT REUSED TO BE CAPPED WITH BLIND FLANGES.
7. EXISTING TANK SKIRTS TO BE PREPPED AND RECOATED. IN ACCORDANCE WITH SECTION 09 90 00, PAINTING AND COATING.



A SECTION
3/8"=1'-0"
07-D-1001



B SECTION
3/8"=1'-0"
07-D-1001

NO.	DESCRIPTION	DATE	BY	APVD
DSGN	REVISION	K WADDELL	K WADDELL	
DR		J WILCOX	J HORTON	APVD
CHK				

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

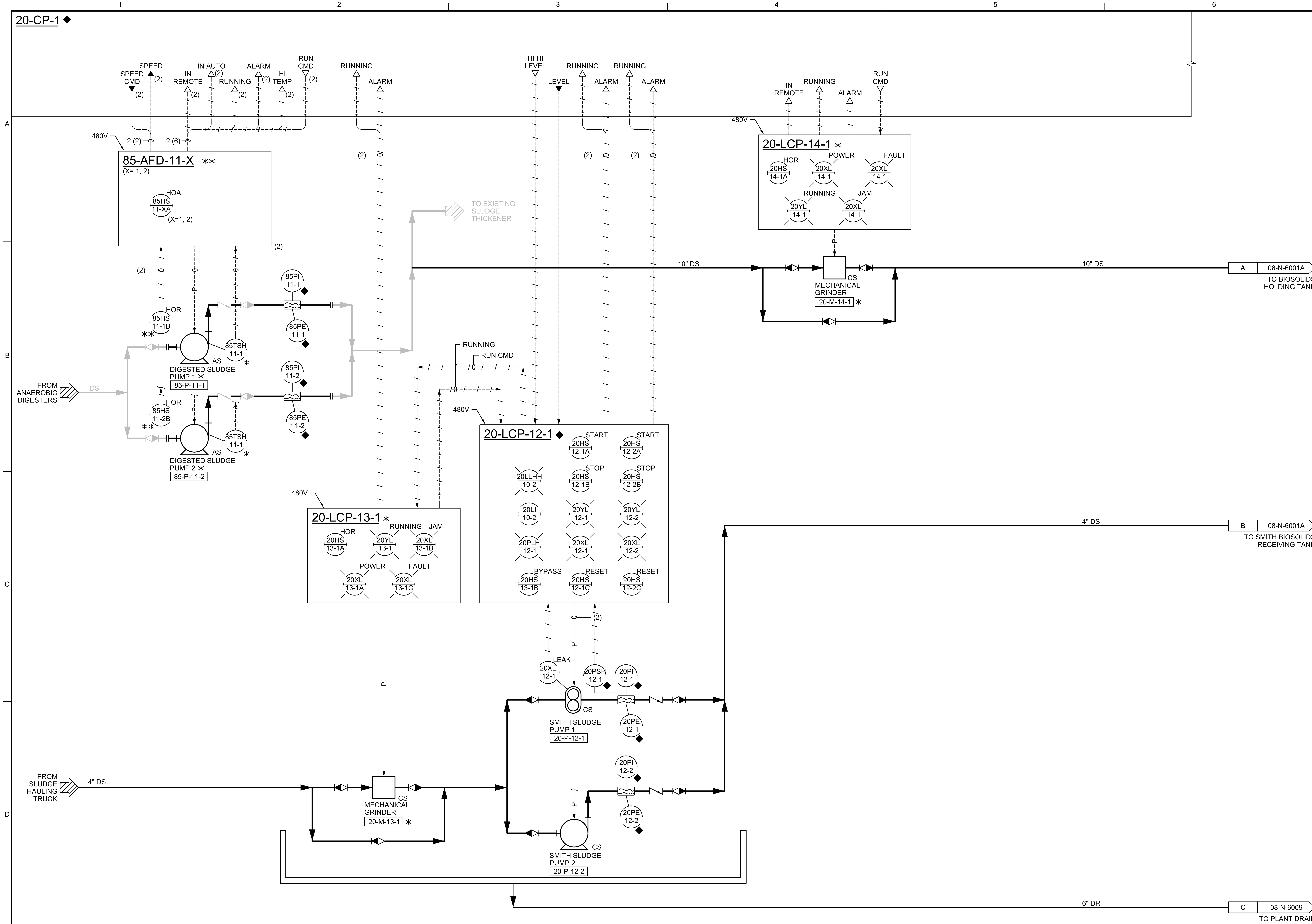
Jacobs

PROCESS MECHANICAL

SMITH RECEIVING STATION
DEMOLITION SECTIONS

CONFORMED DOCUMENTS

SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	07-D-1301
SHEET	062 of 270



25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

INSTRUMENTATION AND CONTROL

P&ID DEWATERING SLUDGE SYSTEM

NO.	DATE	REVISION	BY	APVD

DSGN G GRAY | DR A PASTRANA | CHK C WILSON | APVD G GRAY

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6001
SHEET	063 of 270

CONFORMED DOCUMENTS

20-CP-1 ◆

HI TEMP
RUN CMD (2)
ALARM (2)
RUNNING (2)
IN REMOTE (2)
LEVEL (2)

(2)
2 (5)
120V
SS4 ◆
20LIT 10-1 ◆
I @ MCC
P
MSC
HOR
20HS 10-1 **
20TSH 10-1 *
20LE 10-1 ◆
CS
MIXER NO. 1 * 20-M-10-1

08-N-6001 A
FROM DIGESTED SLUDGE PUMPS
10" DS

BIOSOLIDS HOLDING TANK 20-T-10-1 (3)

480V
20-VCP-20-1 * (2)
P
120V
20PI 20-1A *
20PSH 20-1A *
20FIT 20-1 *
MSC
M
20PIT 20-1 *
20PE 20-1A *
20PE 20-1 *
AS
SLUDGE FEED PUMP NO. 1 20-P-20-1A *
(1)
4" DS
A 08-N-6002
TO BELT FILTER PRESS 1

(4)
120V
SS4
I @ MCC
20LIT 10-2
MSC
P
HOR
20HS 10-2 **
20TSH 10-2 *
20LE 10-2
CS
MIXER NO. 2 * 20-M-10-2

08-N-6001 B
FROM SMITH SLUDGE PUMPS
4" DS

SMITH BIOSOLIDS RECEIVING TANK 20-T-10-2 (3)

20-VCP-20-2 (2)
20-PIT-20-2
20-PE-20-2
(1)
SLUDGE FEED PUMP NO. 2 20-P-20-2A
20-PI-20-2A
20-PSH-20-2A
20-PE-20-2A
20-FE-20-2
20-FIT-20-2
* (SIMILAR TO ABOVE)
4" DS
B 08-N-6002
TO BELT FILTER PRESS 2

20-VCP-20-3 (2)
20-PIT-20-3
20-PE-20-3
(1)
SLUDGE FEED PUMP NO. 3 20-P-20-3A
20-PI-20-3A
20-PSH-20-3A
20-PE-20-3A
20-FE-20-3
20-FIT-20-3
* (SIMILAR TO ABOVE)
4" DS
C 08-N-6003
TO BELT FILTER PRESS 3

20-VCP-20-4 (2)
20-PIT-20-4
20-PE-20-4
(1)
SLUDGE FEED PUMP NO. 4 20-P-20-4A
20-PI-20-4A
20-PSH-20-4A
20-PE-20-4A
20-FE-20-4
20-FIT-20-4
* (SIMILAR TO ABOVE)
4" DS
D 08-N-6003
TO BELT FILTER PRESS 4

6" DR
E 08-N-6009
TO PLANT DRAIN PUMP STATION

6" DR
F 08-N-6009
TO PLANT DRAIN PUMP STATION

SHEET KEYNOTES

1. ALL EQUIPMENT INSIDE BOUNDARY ARE PROVIDED BY BELT FILTER PRESS VENDOR UNLESS NOTED OTHERWISE.
2. CONTROL SIGNALS MANAGED VIA ETHERNET DATA NETWORK. SEE SPECIFICATIONS FOR I/O LIST.
3. EXISTING TANK, RELOCATED.

NO.	DATE	DR	CHK	APVD	BY	APVD
REVISION		A PASTRANA	C.WILSON			G GRAY
DSGN	G GRAY					

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

INSTRUMENTATION AND CONTROL

P&ID DEWATERING SLUDGE SYSTEM

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CONFORMED DOCUMENTS

NOT TO SCALE
VERIFY SCALE
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0 1"

DATE	MAY 2021
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DWG	08-N-6001A
SHEET	064 of 270

20-CP-1 ◆

2

ETHERNET

20-VCP-20-1 ∗

PAC | OIU

E-STOP
20HS 20-1B

E-STOP PULL CORD
20HS 20-1C

(3)

LOSS OF FLOW ALARM
RUNNING
RUN CMD
a 08-N-6006

SPEED CMD
b 08-N-6006

HIGH VOLTAGE TJB ∗

(4) (10) (4)

HYDRAULIC TENSIONING SYSTEM 1
20-M-20-1C

20PI 20-1C | 20PSL 20-1C

BELT DRIVE
20-M-20-1B

SLUDGE DISTRIBUTOR 1
20-T-20-1

W2

GRAVITY BELT
20-M-20-1A

08-N-6006 A
2" POS
FROM POLYMER SYSTEM

08-N-6001A A
4" DS
FROM BELT FILTER PRESS FEED PUMP 2

POLYMER INJECTION RING
20-M-21-1A

POLYMER MIXING VALVE
20-M-21-1B

20-ARV-22-1

4" DS

DSC
A 08-N-6004
TO CONVEYOR 1

20PSL 20-1B | 20PI 20-1B

DR

FTR

MSC

PRESSURE SECTION

1 1/2" W2

W2 4" W2 2" W2 4" x 2"

WASHWATER BOOSTER PUMP NO. 1
20-P-20-1B

20FV 20-1

LOW VOLTAGE TJB ∗

(10) (4)

BELT FILTER PRESS 1
20-M-20-1

12" FTR

12" DR
B 08-N-6009
TO DRAIN PUMP STATION

08-N-6006 B
2" POS
FROM POLYMER SYSTEM

08-N-6001A B
4" DS
FROM BELT FILTER PRESS FEED PUMP 3

20-ARV-22-2

POLYMER INJECTION RING
20-M-21-2A

POLYMER MIXING VALVE
20-M-21-2B

20-VCP-20-2

20-PI-20-2B
20-PSL-20-2B
20-FV-20-2

SLUDGE DISTRIBUTOR 2
20-T-20-2

GRAVITY BELT
20-M-20-2A

BELT DRIVE
20-M-20-2B

HYDRAULIC TENSIONING SYSTEM 2
20-M-20-2C

20-PI-20-2C
20-PSL-20-2C

DSC
C 08-N-6004
TO CONVEYOR 1

(3)
LOSS OF FLOW ALARM
RUNNING
RUN CMD
c 08-N-6006
SPEED CMD
d 08-N-6006

W2 4" W2

WASHWATER BOOSTER PUMP NO. 2
20-P-20-2B

BELT FILTER PRESS 2
20-M-20-2
(SAME AS ABOVE)

12" FTR

12" DR
D 08-N-6009
TO DRAIN PUMP STATION

SHEET KEYNOTES

1. ALL EQUIPMENT INSIDE BOUNDARY IS PROVIDED BY BELT FILTER PRESS VENDOR UNLESS OTHERWISE NOTED.
2. TO SCADA CORE SWITCH. SEE 08-N-7001 FOR CONNECTION INFORMATION. CONTROL SIGNALS MANAGED VIA ETHERNET DATA NETWORK. SEE SPECIFICATION FOR I/O LIST.
3. WHERE NOTED, ANALOG CABLES SHALL BE SHIELDED, 3-WIRE CIRCUITS.

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN			G GRAY	A PASTRANA	C WILSON		G GRAY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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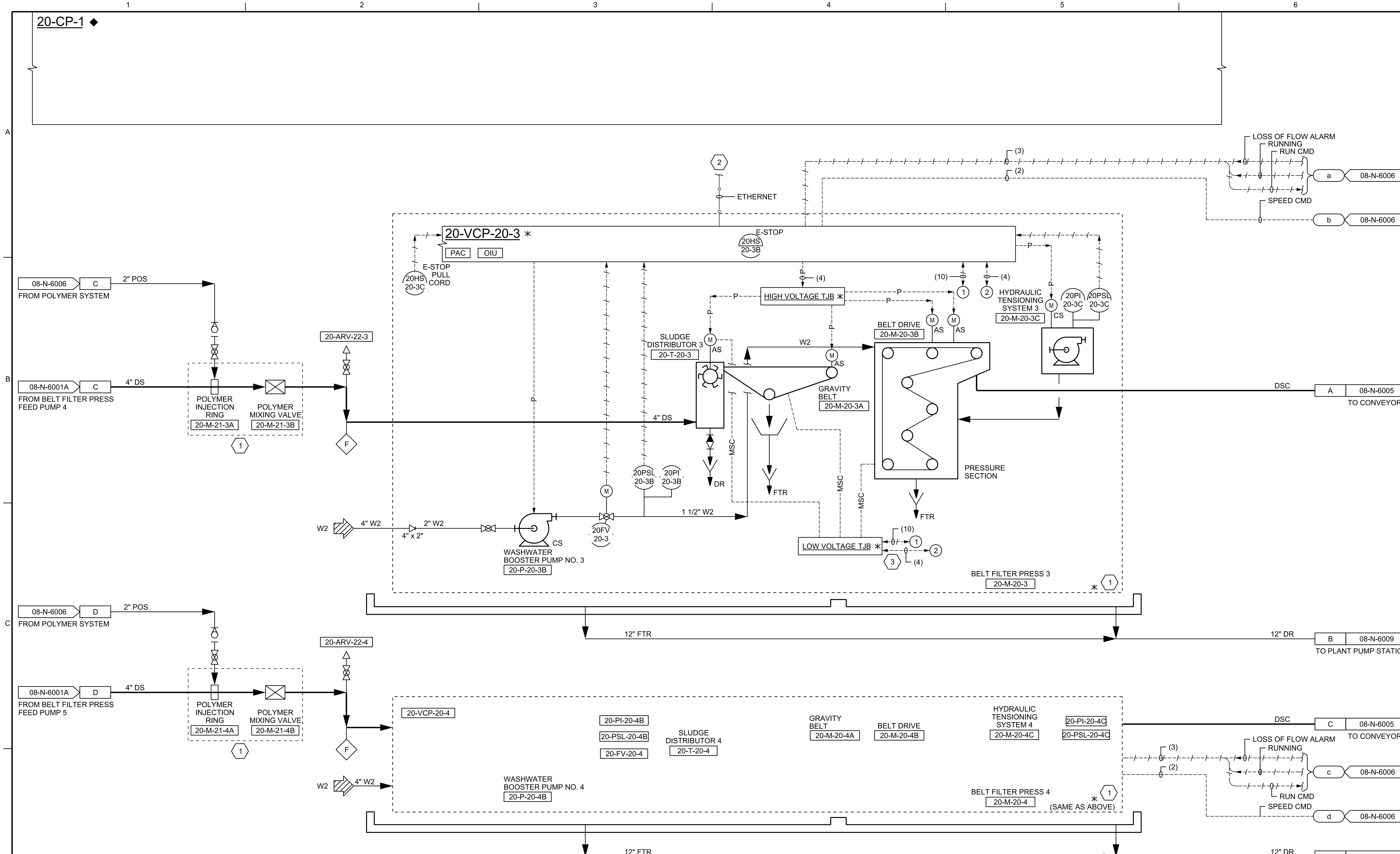
INSTRUMENTATION AND CONTROL

P&ID DEWATERING BELT FILTER PRESSES 1 & 2

CONFORMED DOCUMENTS

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6002
SHEET	065 of 270



SHEET KEYNOTES

1. ALL EQUIPMENT INSIDE BOUNDARY IS PROVIDED BY BELT FILTER PRESS VENDOR UNLESS OTHERWISE NOTED.
2. TO SCADA CORE SWITCH. SEE 08-N-7001 FOR CONNECTION INFORMATION. CONTROL SIGNALS MANAGED VIA ETHERNET DATA NETWORK. SEE SPECIFICATION FOR I/O LIST.
3. WHERE NOTED, ANALOG CABLES SHALL BE SHIELDED, 3-WIRE CIRCUITS.

NO.	DATE	REVISION	BY	APVD

DSGN G GRAY | DR A PASTRANA | CHK C WILSON | APVD G GRAY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

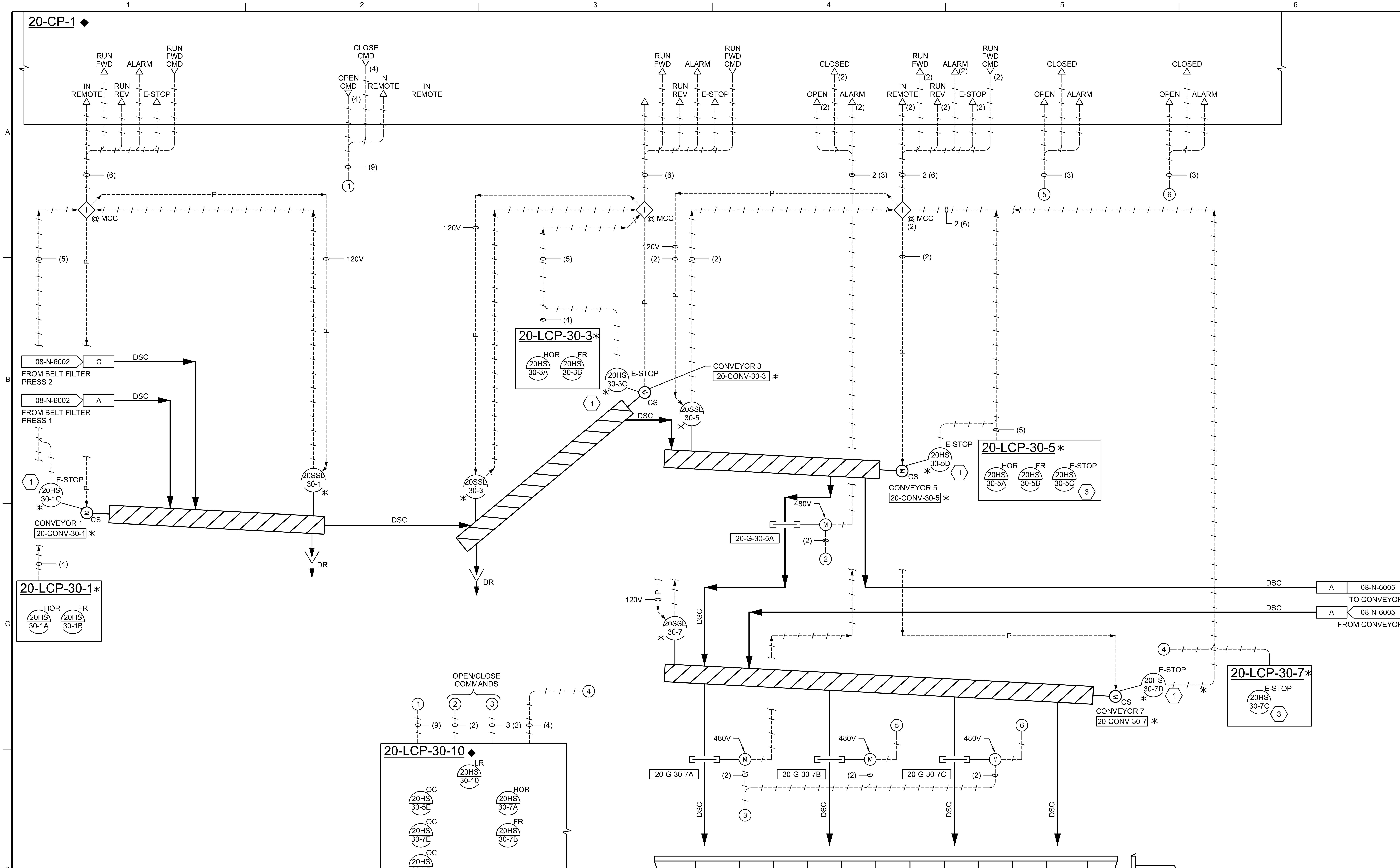
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
P&ID
DEWATERING
BELT FILTER PRESSES 3 & 4

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6003
SHEET	066 of 270

CONFORMED DOCUMENTS



SHEET KEYNOTES

1. E-STOP REPRESENTS EMERGENCY STOP PULL-CORD WHICH SURROUNDS THE CONVEYOR.
2. ACTUATOR CONTROL STATION SHALL BE MOUNTED REMOTELY AND PROVIDED BY ACTUATOR MANUFACTURER.
3. E-STOP REPRESENTS EMERGENCY STOP PUSHBUTTON WHICH SHALL BE MOUNTED REMOTELY AND OPERATOR ACCESSIBLE.

NO.	DATE	REVISION	BY	APVD
DSGN	DR	CHK	APVD	
G GRAY	A PASTRANA	C WILSON	G GRAY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

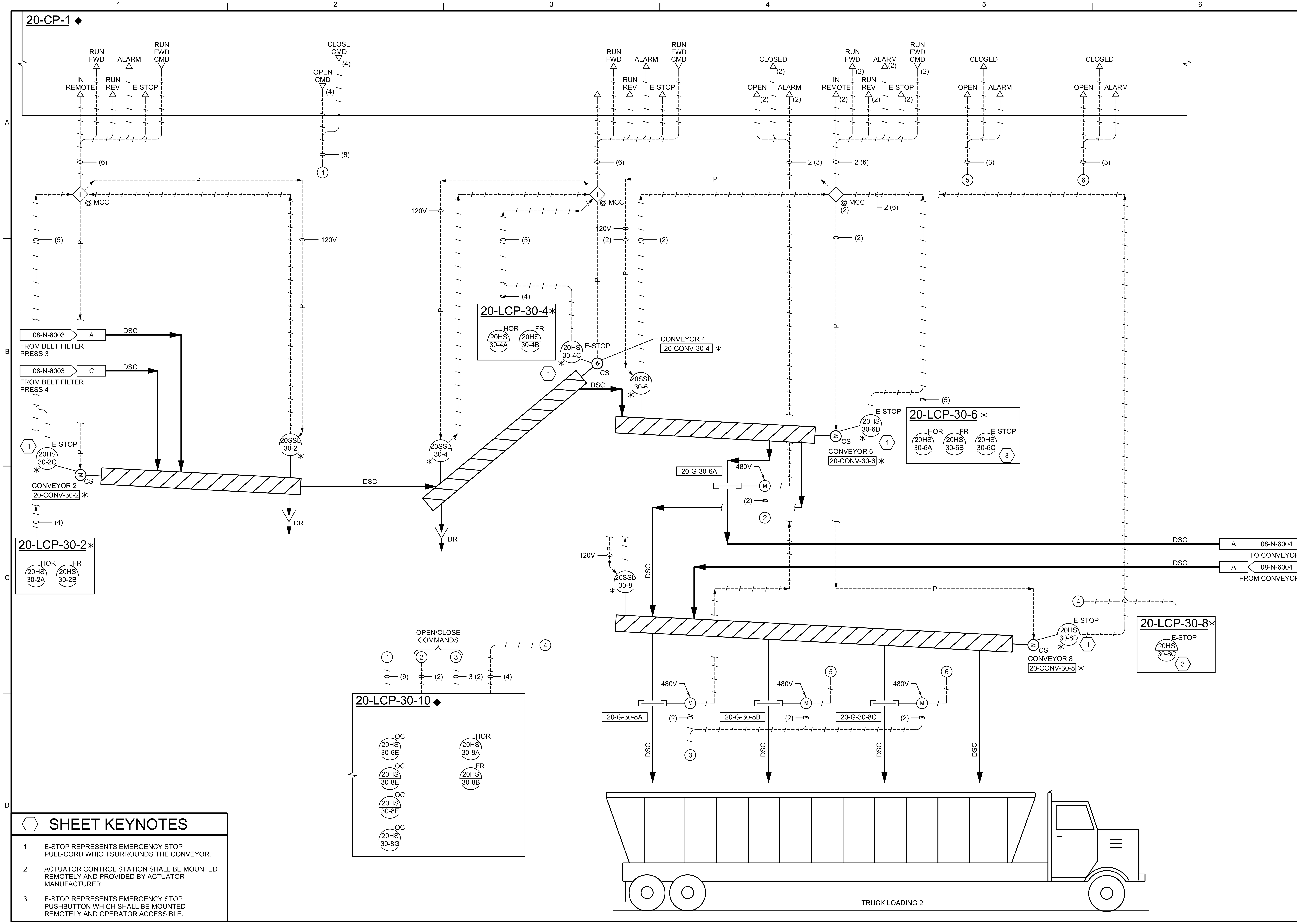
Jacobs

INSTRUMENTATION AND CONTROL
P&ID DEWATERING CONVEYORS 1, 3, 5 & 7

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6004
SHEET	067 of 270

CONFORMED DOCUMENTS



SHEET KEYNOTES

1. E-STOP REPRESENTS EMERGENCY STOP PULL-CORD WHICH SURROUNDS THE CONVEYOR.
2. ACTUATOR CONTROL STATION SHALL BE MOUNTED REMOTELY AND PROVIDED BY ACTUATOR MANUFACTURER.
3. E-STOP REPRESENTS EMERGENCY STOP PUSHBUTTON WHICH SHALL BE MOUNTED REMOTELY AND OPERATOR ACCESSIBLE.

NO.	DATE	REVISION	BY	APVD

DSGN G GRAY · DR A PASTRANA · CHK C WILSON · APVD G GRAY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
P&ID DEWATERING CONVEYORS 2, 4, 6 & 8

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6005
SHEET	068 of 270

CONFORMED DOCUMENTS

20-CP-1 ◆

FULL (2) | LEVEL (2) SS2 (2) | RUNNING IN REMOTE (2) | ALARM (2) | RUN CMD (2) | LEVEL (2)

VENTILATION SYSTEM FAILURE (3) | SUPERVISORY ALARM (3) | TROUBLE (3) | ON (4)

120V → 20-HCP-X ∗ (X= 01, 02, 03) (3)

120V → 20-FACP-1 ∗ FIRE ALARM PANEL

20FSH 50-X ∗ (4) (X=1, 2, 3, 4) — PW — (4) EYEWASH AND SAFETY SHOWER 20-SSH-50-X ∗ (X=1, 2, 3, 4)

120V → 20-LCP-49-1 ◆ TRUCK FILL PANEL — SS1 — SS2 (2)

20LAL 49-3

20LI 50-1 | 20LI 50-2 | 20LAB 49-3

FULL 20LAL 49-1 | FULL 20LAL 49-2 | SILENCE 20HS 49-1

I @ MCC — 2 (4) — 2 (2) — (2)

HOR 20HS 51-1 ∗∗ — P

POLY → POLYMER MIXING PUMP 1 20-P-51-1 — CS

120V → 20LIT 50-1 ◆ — MSC

20LE 50-1 ◆ — DR

POLYMER STORAGE TANK 1 20-T-50-1

POLYMER TRUCK FILL CONNECTION ← 3" POLY

HOR 20HS 51-2 ∗∗ — P

POLY → POLYMER MIXING PUMP 2 20-P-51-2 — CS

120V → 20LIT 50-2 — MSC

20LE 50-2 — DR

POLYMER STORAGE TANK 2 20-T-50-2

POLY → DR

08-N-6010 A → FROM POLYMER WATER BOOSTER SYSTEM — W2

LOSS OF FLOW ALARM: RUNNING, RUN CMD (3) → a 08-N-6002

SPEED CMD (2) → b 08-N-6002

POLYMER MAKEUP UNIT 1

120V → 20-VCP-52-1 ∗ — P

20PSL 52-1C ∗ | 20PI 52-1C ∗ | S | FC | 20FI 52-1B ∗

W2 → CALIBRATION COLUMN ∗ — P

20SV 52-1 ∗ | 20FSL 52-1 ∗

20PSH 52-1A ∗ | 20PI 52-1A ∗ | 20FI 52-1A ∗ | M CS | 20PI 52-1B ∗

M AS → POLYMER PUMP 1 20-P-52-1 ∗

NEAT POLYMER REACTOR 1 20-T-52-1 ∗

POS → A 08-N-6002 TO BELT FILTER PRESS NO. 1

(TYP OF 4)

POLYMER MAKEUP UNIT 2

20-VCP-52-2 ∗ | 20-FSL-52-2 ∗ | 20-SV-52-2 ∗

20-PI-52-2A ∗ | 20-PSH-52-2A ∗ | 20-PI-52-2C ∗ | 20-PSL-52-2C ∗ | 20-PI-52-2B ∗ | 20-FI-52-2A ∗ | 20-FI-52-2B ∗

POLYMER PUMP 2 20-P-52-2 ∗ — NEAT POLYMER REACTOR 2 20-T-52-2 ∗

(SIMILAR TO ABOVE)

LOSS OF FLOW ALARM: RUNNING, RUN CMD (3) → c 08-N-6002

SPEED CMD → d 08-N-6002

POS → B 08-N-6002 TO BELT FILTER PRESS NO. 2

POLYMER MAKEUP UNIT 3

20-VCP-52-3 ∗ | 20-FSL-52-3 ∗ | 20-SV-52-3 ∗

20-PI-52-3A ∗ | 20-PSH-52-3A ∗ | 20-PI-52-3C ∗ | 20-PSL-52-3C ∗ | 20-PI-52-3B ∗ | 20-FI-52-3A ∗ | 20-FI-52-3B ∗

POLYMER PUMP 3 20-P-52-3 ∗ — NEAT POLYMER REACTOR 3 20-T-52-3 ∗

(SIMILAR TO ABOVE)

LOSS OF FLOW ALARM: RUNNING, RUN CMD (3) → a 08-N-6003

SPEED CMD → b 08-N-6003

POS → C 08-N-6003 TO BELT FILTER PRESS NO. 3

POLYMER MAKEUP UNIT 4

20-VCP-52-4 ∗ | 20-FSL-52-4 ∗ | 20-SV-52-4 ∗

20-PI-52-4A ∗ | 20-PSH-52-4A ∗ | 20-PI-52-4C ∗ | 20-PSL-52-4C ∗ | 20-PI-52-4B ∗ | 20-FI-52-4A ∗ | 20-FI-52-4B ∗

POLYMER PUMP 4 20-P-52-4 ∗ — NEAT POLYMER REACTOR 4 20-T-52-4 ∗

(SIMILAR TO ABOVE)

LOSS OF FLOW ALARM: RUNNING, RUN CMD (3) → c 08-N-6003

SPEED CMD → d 08-N-6003

POS → D 08-N-6003 TO BELT FILTER PRESS NO. 4

NO.	DATE	REVISION	BY	APVD
DSGN	G GRAY	A PASTRANA	CHK	C.WILSON
DR	G GRAY			APVD
			BY	G GRAY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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Jacobs

INSTRUMENTATION AND CONTROL

P&ID
POLYMER ACTIVATION SYSTEM

CONFORMED DOCUMENTS

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	08-N-6006
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20-CP-1 ◆

HI-HI LEVEL
LO-LO LEVEL
(2)
1
LEVEL
ISR
ISR
SS2

BACKUP SPEED ACTIVE
BYPASS RUNNING
BYPASS ALARM
IN BYPASS
IN REMOTE
IN AUTO
RUNNING
ALARM
HI TEMP
LEAK ALARM
RUN CMD
SPEED
SPEED CMD
20KIC 70-2

(2) (13) (2) (13) (2)

480V

20-AFD-70-1 *
HOA
20HS 70-1A
20XR 70-1

20-AFD-70-2 *
HOA
20HS 70-2A
20XR 70-2

20-LCP-70-1 **
HOR
20HS 70-1B
HOR
20HS 70-2B

08-N-6001A C 6" DR
FROM SMITH TANK CONTAINMENT

08-N-6001A E 6" DR
FROM BIOSOLIDS HOLDING TANK

08-N-6002 B 12" DR
FROM BELT FILTER PRESS 1

08-N-6002 D 12" DR
FROM BELT FILTER PRESS 2

08-N-6003 B 12" DR
FROM BELT FILTER PRESS 3

08-N-6003 D 12" DR
FROM BELT FILTER PRESS 4

FROM SANITARY SEWER 10" DR

6" SSFM
V
V

120V
SS4
20LIT 71-1
20LSHH 71-1
20LSLL 71-1
20LE 71-1

MSC
MSC P
MSC P

10" SSFM
10" SSFM

20TSH 70-1
20XE 70-1
AS
PLANT DRAIN PUMP NO. 1
20-P-70-1 *

20TSH 70-2
20XE 70-2
AS
PLANT DRAIN PUMP NO. 2
20-P-70-2 *

TBD" DR

20PI 70-1
20PE 70-1
10" SSFM
10" x 12"
12" x 6"

20PI 70-2
20PE 70-2
10" SSFM
10" x 12"

20-ARV-71-1
12" SSFM
TO HEADWORKS INFLUENT BOX

SHEET KEYNOTES

1. PROVIDE INTRINSICALLY SAFE BARRIER IF REQUIRED FOR CODE COMPLIANCE.

NO.	DATE	DR	REVISION	CHK	APVD	BY
DSGN	G GRAY	A PASTRANA		C.WILSON	APVD	G GRAY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
P&ID
PLANT DRAIN PUMP STATION

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

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20-CP-1 ◆

RUNNING (2)
ALARM (2)
DISCHARGE PRESSURE
480V
2 (2)

20-VCP-53-1 *

HOA 20HS 53-1
20YL 53-1
20XL 53-1
HOA 20HS 53-2
20YL 53-2
20XL 53-2

(2)
P
MSC
MSC

4" W2
4" W2
AS
POLYMER WATER BOOSTER PUMP 1
20-P-53-1

20PIK 53-1 *
20PIK 53-2 *

P
4" W2
4" W2
4" W2
W2
4" W2
4" W2
AS
POLYMER WATER BOOSTER PUMP 2
20-P-53-2

20-T-53-1
DIAPHRAGM TANK

A 08-N-6006
TO POLYMER ACTIVATION SYSTEM

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	G GRAY	A PASTRANA		C WILSON		G GRAY

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
P&ID
POLYMER BOOSTER WATER SYSTEM

NOT TO SCALE
VERIFY SCALE
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0 1"

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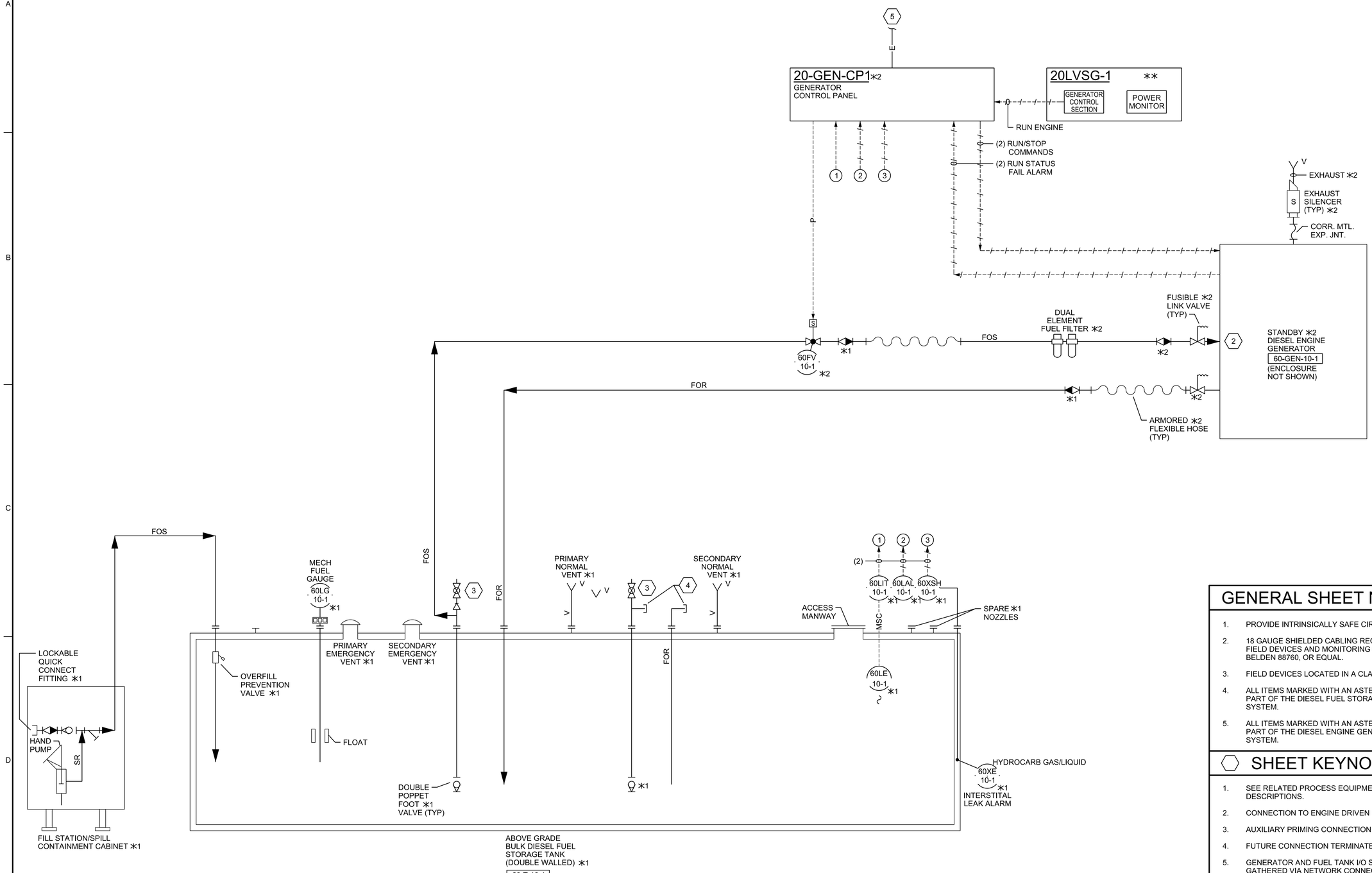
20-CP-1 ◆



GENERAL SHEET NOTES

1. PROVIDE INTRINSICALLY SAFE CIRCUITS.
2. 18 GAUGE SHIELDED CABLING REQURED BETWEEN FIELD DEVICES AND MONITORING CONSOLE, BELDEN 88760, OR EQUAL.
3. FIELD DEVICES LOCATED IN A CLASS 1, DIV 1 AREA.
4. ALL ITEMS MARKED WITH AN ASTERISK (✳1) ARE PART OF THE DIESEL FUEL STORAGE TANK SYSTEM.
5. ALL ITEMS MARKED WITH AN ASTERISK (✳2) ARE PART OF THE DIESEL ENGINE GENERATOR SYSTEM.

SHEET KEYNOTES

1. SEE RELATED PROCESS EQUIPMENT SPEC FOR I/O DESCRIPTIONS.
2. CONNECTION TO ENGINE DRIVEN FUEL PUMP.
3. AUXILIARY PRIMING CONNECTION.
4. FUTURE CONNECTION TERMINATE LINE AT CAP.
5. GENERATOR AND FUEL TANK I/O SIGNALS GATHERED VIA NETWORK CONNECTION. SEE SPECIFICATION SECTION 26 32 13.13.

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		H POSTROZNY	A PASTRANA	C.WILSON	G GRAY
BY					
APVD					

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL

P&ID
EMERGENCY STANDBY ENGINE GENERATOR SYSTEM

CONFORMED DOCUMENTS

NOT TO SCALE
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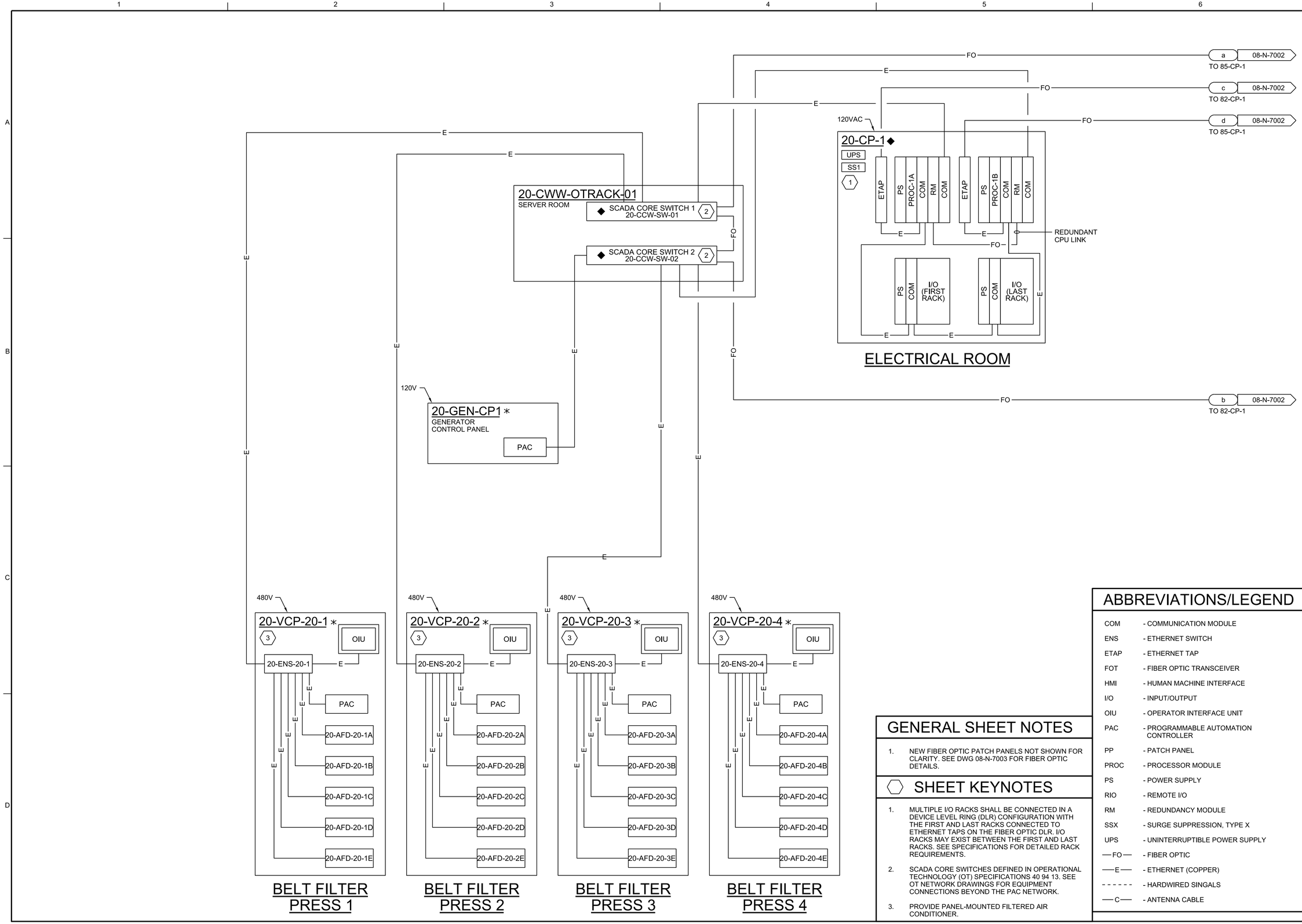

GENERAL SHEET NOTES

1. NEW FIBER OPTIC PATCH PANELS NOT SHOWN FOR CLARITY. SEE DWG 08-N-7003 FOR FIBER OPTIC DETAILS.

SHEET KEYNOTES

1. MULTIPLE I/O RACKS SHALL BE CONNECTED IN A DEVICE LEVEL RING (DLR) CONFIGURATION WITH THE FIRST AND LAST RACKS CONNECTED TO ETHERNET TAPS ON THE FIBER OPTIC DLR. I/O RACKS MAY EXIST BETWEEN THE FIRST AND LAST RACKS. SEE SPECIFICATIONS FOR DETAILED RACK REQUIREMENTS.
2. SCADA CORE SWITCHES DEFINED IN OPERATIONAL TECHNOLOGY (OT) SPECIFICATIONS 40 94 13. SEE OT NETWORK DRAWINGS FOR EQUIPMENT CONNECTIONS BEYOND THE PAC NETWORK.
3. PROVIDE PANEL-MOUNTED FILTERED AIR CONDITIONER.

ABBREVIATIONS/LEGEND

COM	- COMMUNICATION MODULE
ENS	- ETHERNET SWITCH
ETAP	- ETHERNET TAP
FOT	- FIBER OPTIC TRANSCEIVER
HMI	- HUMAN MACHINE INTERFACE
I/O	- INPUT/OUTPUT
OIU	- OPERATOR INTERFACE UNIT
PAC	- PROGRAMMABLE AUTOMATION CONTROLLER
PP	- PATCH PANEL
PROC	- PROCESSOR MODULE
PS	- POWER SUPPLY
RIO	- REMOTE I/O
RM	- REDUNDANCY MODULE
SSX	- SURGE SUPPRESSION, TYPE X
UPS	- UNINTERRUPTIBLE POWER SUPPLY
—FO—	- FIBER OPTIC
—E—	- ETHERNET (COPPER)
- - - - - -	- HARDWIRED SINGALS
—C—	- ANTENNA CABLE

NO.	DATE	DR	CHK	APVD	BY	REVISION
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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
NETWORK BLOCK DIAGRAM DEWATERING AND CONTROL BUILDING

NOT TO SCALE
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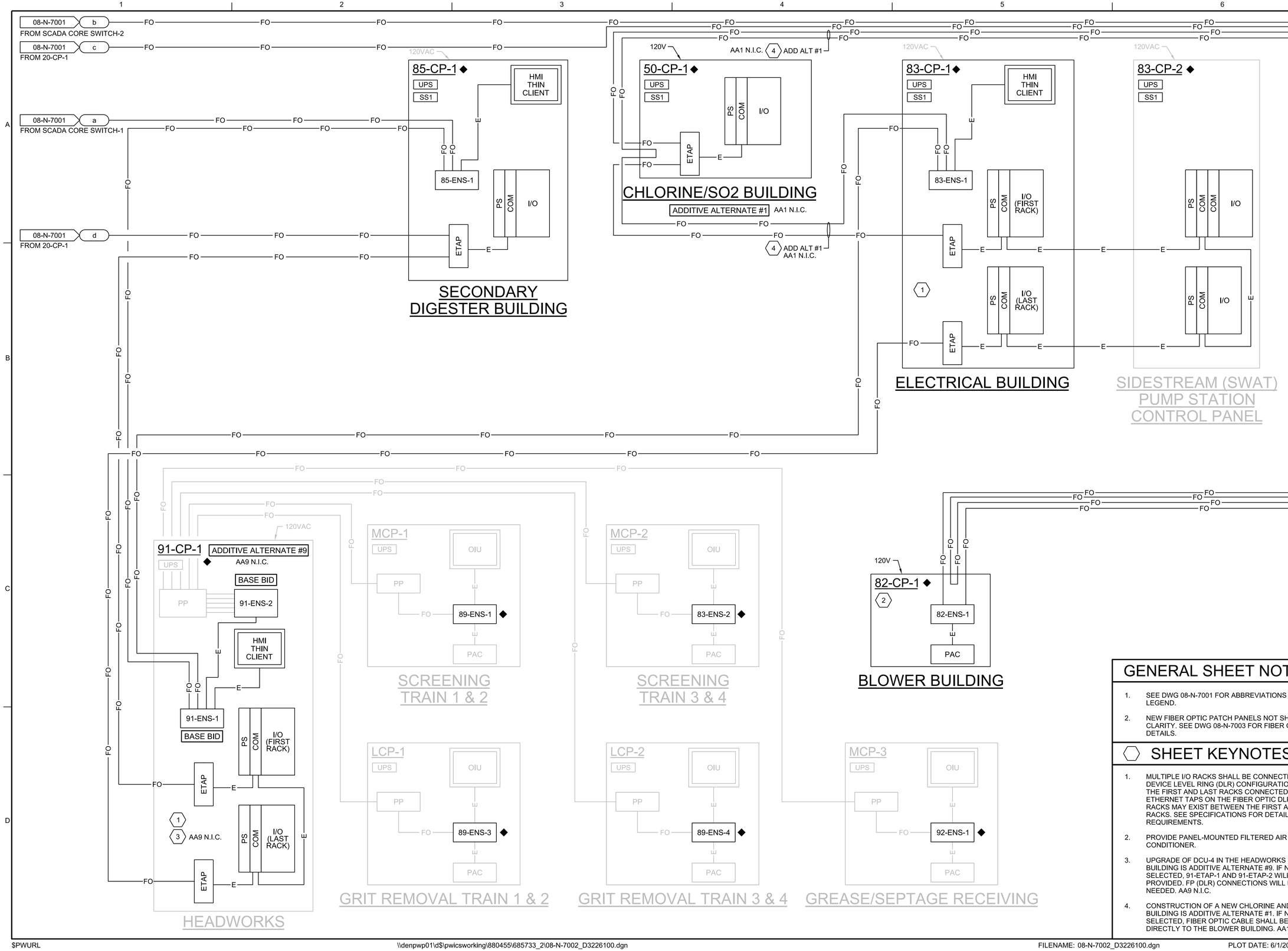
CONFORMED DOCUMENTS



GENERAL SHEET NOTES

1. SEE DWG 08-N-7001 FOR ABBREVIATIONS AND LEGEND.
2. NEW FIBER OPTIC PATCH PANELS NOT SHOWN FOR CLARITY. SEE DWG 08-N-7003 FOR FIBER OPTIC DETAILS.

SHEET KEYNOTES

1. MULTIPLE I/O RACKS SHALL BE CONNECTED IN A DEVICE LEVEL RING (DLR) CONFIGURATION WITH THE FIRST AND LAST RACKS CONNECTED TO ETHERNET TAPS ON THE FIBER OPTIC DLR. I/O RACKS MAY EXIST BETWEEN THE FIRST AND LAST RACKS. SEE SPECIFICATIONS FOR DETAILED RACK REQUIREMENTS.
2. PROVIDE PANEL-MOUNTED FILTERED AIR CONDITIONER.
3. UPGRADE OF DCU-4 IN THE HEADWORKS MCC BUILDING IS ADDITIVE ALTERNATE #9. IF NOT SELECTED, 91-ETAP-1 AND 91-ETAP-2 WILL NOT BE PROVIDED. FP (DLR) CONNECTIONS WILL NOT BE NEEDED. AA9 N.I.C.
4. CONSTRUCTION OF A NEW CHLORINE AND SO2 BUILDING IS ADDITIVE ALTERNATE #1. IF NOT SELECTED, FIBER OPTIC CABLE SHALL BE ROUTED DIRECTLY TO THE BLOWER BUILDING. AA1 N.I.C.

NO.	DSGN	DATE	REVISION	DR	CHK	BY	APVD
				G GRAY	A PASTRANA	C WILSON	G GRAY

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
NETWORK BLOCK DIAGRAM CC WILLIAMS PLANT PAC UPGRADES

CONFORMED DOCUMENTS

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
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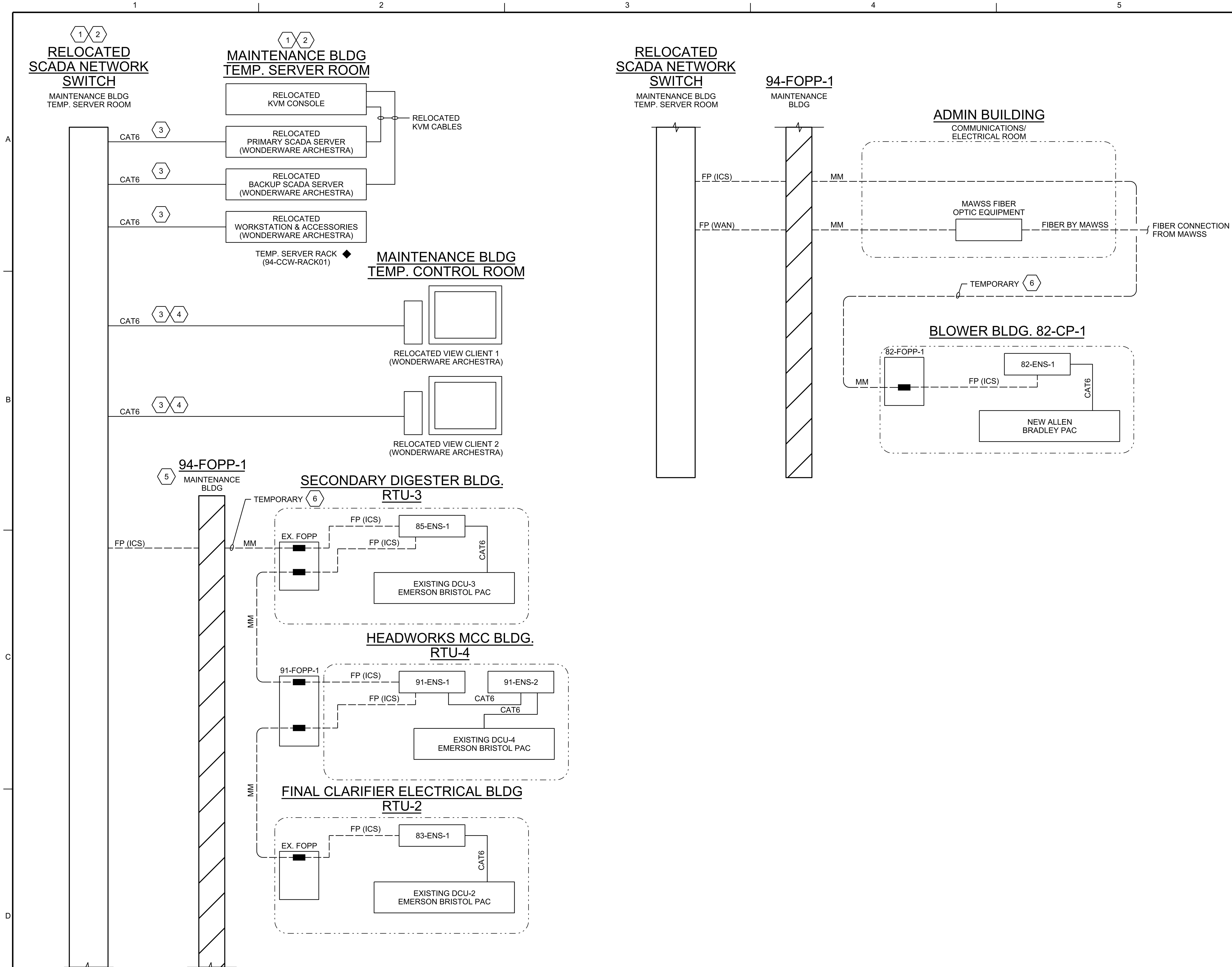

GENERAL SHEET NOTES

1. PICS SUPPLIER IS RESPONSIBLE FOR ALL FIBER OPTIC CABLE, TERMINATIONS, PATCH PANELS, PATCH CABLES, AND TESTING.
2. PICS SUPPLIER IS ALSO RESPONSIBLE FOR THE SECURITY FIBER OPTIC NETWORK. WHICH IS NOT SHOWN HERE. SEE SECURITY NETWORK DRAWINGS AND SPECIFICATIONS.
3. ALL COMPONENTS SHALL BE PROVIDED BY PICS SUPPLIER UNLESS DESIGNATED AS EXISTING, RELOCATED, OR LABELED AS "MAWSS".

SHEET KEYNOTES

1. EXISTING EQUIPMENT RELOCATED BY PICS SUPPLIER FORM EXISTING CONTROL BUILDING. INSTALL RELOCATED COMPONENTS IN NEW RACK IN TEMPORARY SERVER ROOM.
2. PICS SUPPLIER TO CONNECT EXISTING BUILDING POWER TO RELOCATED UPS UNITS. COMPUTERS AND NETWORKING EQUIPMENT SHALL BE CONNECTED TO RELOCATED UPS EQUIPMENT.
3. PICS SUPPLIER SHALL PROVIDE, INSTALL, AND TERMINATE CAT6 CABLING.
4. PICS SUPPLIER SHALL PROVIDE, INSTALL, AND TERMINATE CAT6 AND ANY OTHER NECESSARY CABLING BETWEEN SERVER RACK AND RELOCATED CONTROL ROOM EQUIPMENT. ROUTE CABLING IN BUILDING CRAWL SPACE.
5. PICS SUPPLIER SHALL PROVIDE AND INSTALL 94-FOPP-1. COORDINATE LOCATION WITH MAWSS.
6. FIBER OPTIC CABLE LABELED "TEMPORARY" MAY BE 6-STRAND MM CABLE.

LEGEND & ABBREVIATIONS

CAT6	CATEGORY 6 NETWORK CABLE
FP	FIBER PATCH CABLE
MM	12 STRAND MULTIMODE FIBER OPTIC CABLE
CNSW	CORE NETWORK SWITCH
DLR	DEVICE LEVEL RING
ENS	ETHERNET SWITCH
ETAP	ETHERNET/IP TAP
FOPP	FIBER OPTIC PATCH PANEL
ICS	INDUSTRIAL CONTROL SYSTEM
WAN	WIDE AREA NETWORK

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL
TEMPORARY CONTROL SYSTEM
FIBER OPTIC NETWORK DIAGRAM

NO.	DATE	REVISION	BY	APVD

DSGN G GRAY | DR A PASTRANA | CHK C WILSON | APVD G GRAY

VERIFY SCALE
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0 1"

DATE	MAY 2021
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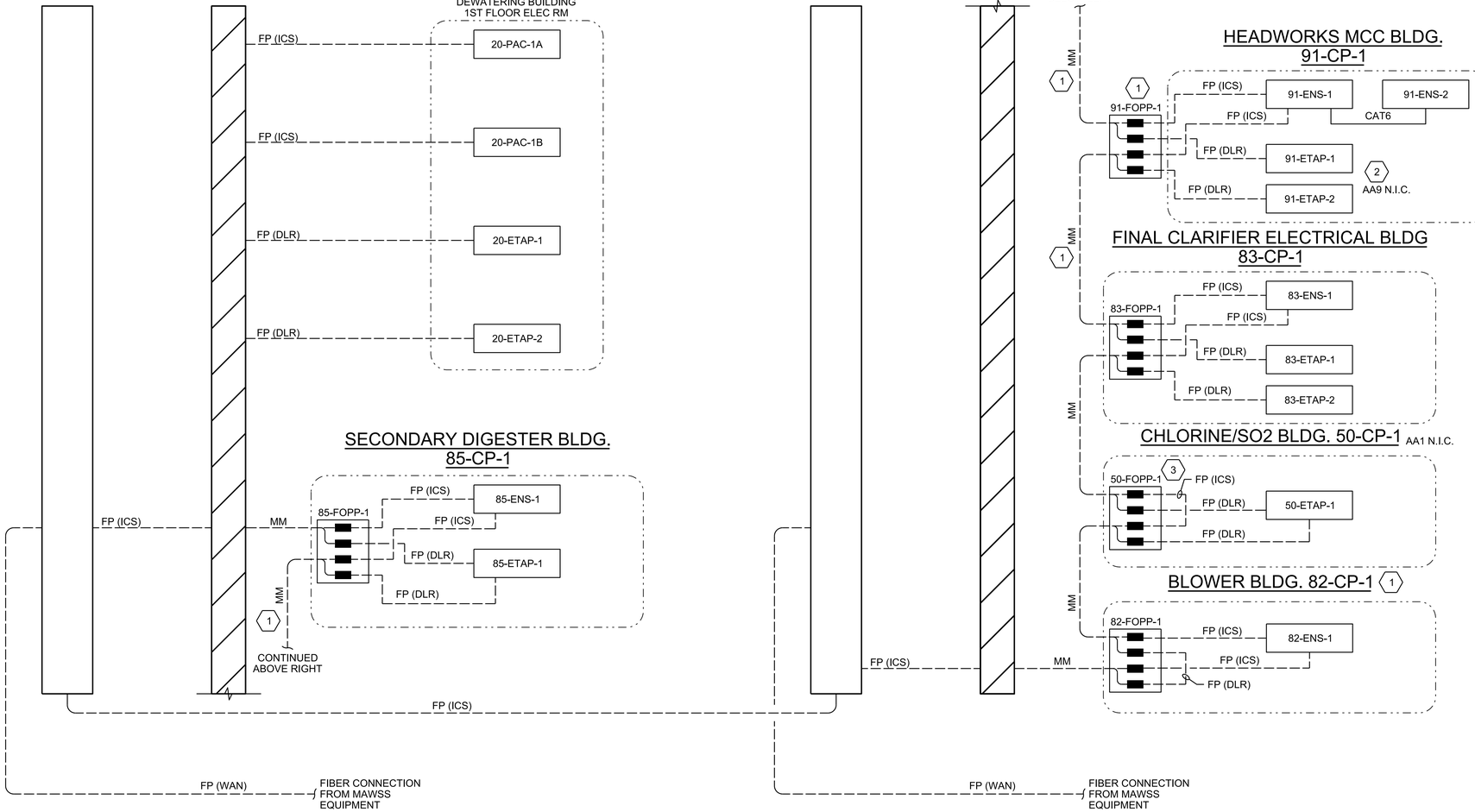
CONFORMED DOCUMENTS



GENERAL SHEET NOTES

1. PICS SUPPLIER IS RESPONSIBLE FOR ALL FIBER OPTIC CABLE, TERMINATIONS, PATCH PANELS, PATCH CABLES, AND TESTING.
2. THE 12-FIBER SCADA FIBER OPTIC CABLE CARRIES ONE FIBER PAIR FOR THE ICS NETWORK AND ONE FIBER PAIR FOR THE DLR NETWORK.
3. PICS SUPPLIER IS ALSO RESPONSIBLE FOR THE SECURITY FIBER OPTIC NETWORK. WHICH IS NOT SHOWN HERE. SEE SECURITY NETWORK DRAWINGS AND SPECIFICATIONS.

SHEET KEYNOTES

1. INSTALLED DURING TEMPORARY CONTROL NETWORK PHASE. RECONNECT FIBERS AS NECESSARY FOR FINAL CONTROL NETWORK FUNCTIONALITY.
2. UPGRADE OF DCU-4 IN THE HEADWORKS MCC BUILDING IS ADDITIVE ALTERNATE #9. IF NOT SELECTED, 91-ETAP-1 AND 91-ETAP-2 WILL NOT BE PROVIDED. FP (DLR) CONNECTIONS WILL NOT BE NEEDED. AA9 N.I.C.
3. CONSTRUCTION OF A NEW CHLORINE AND SO2 BUILDING IS ADDITIVE ALTERNATE #1. IF NOT SELECTED, FIBER OPTIC CABLE SHALL BE ROUTED DIRECTLY TO THE BLOWER BUILDING. AA1 N.I.C.

LEGEND & ABBREVIATIONS

CAT6	CATEGORY 6 NETWORK CABLE
FP	FIBER PATCH CABLE
MM	12 STRAND MULTIMODE FIBER OPTIC CABLE
CNSW	CORE NETWORK SWITCH
DLR	DEVICE LEVEL RING
ENS	ETHERNET SWITCH
ETAP	ETHERNET/IP TAP
FOPP	FIBER OPTIC PATCH PANEL
ICS	INDUSTRIAL CONTROL SYSTEM
WAN	WIDE AREA NETWORK

NO.	DATE	REVISION	BY	APVD
DSGN	G GRAY	DR A PASTRANA CHK C WILSON		G GRAY

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PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

INSTRUMENTATION AND CONTROL

FINAL CONTROL SYSTEM FIBER OPTIC NETWORK DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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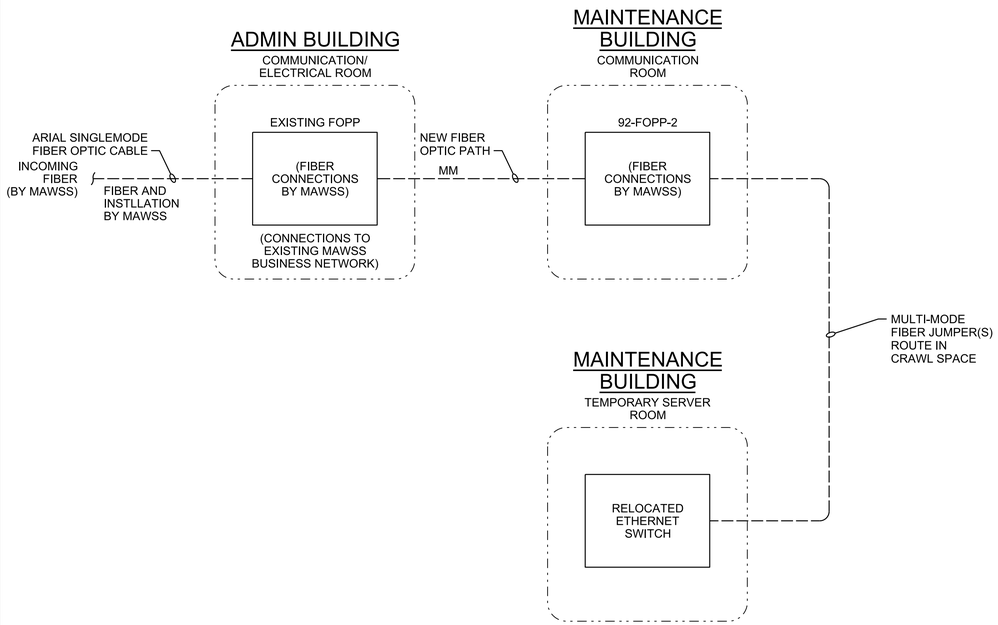
GENERAL SHEET NOTES

1. PICS SUPPLIER IS RESPONSIBLE FOR ALL FIBER OPTIC CABLE, TERMINATIONS, PATCH PANELS, PATCH CABLES, AND TESTING UNLESS OTHERWISE NOTED.
2. ALL COMPONENTS SHALL BE PROVIDED BY PICS SUPPLIER UNLESS DESIGNATED AS EXISTING, RELOCATED, OR LABELED AS "MAWSS".

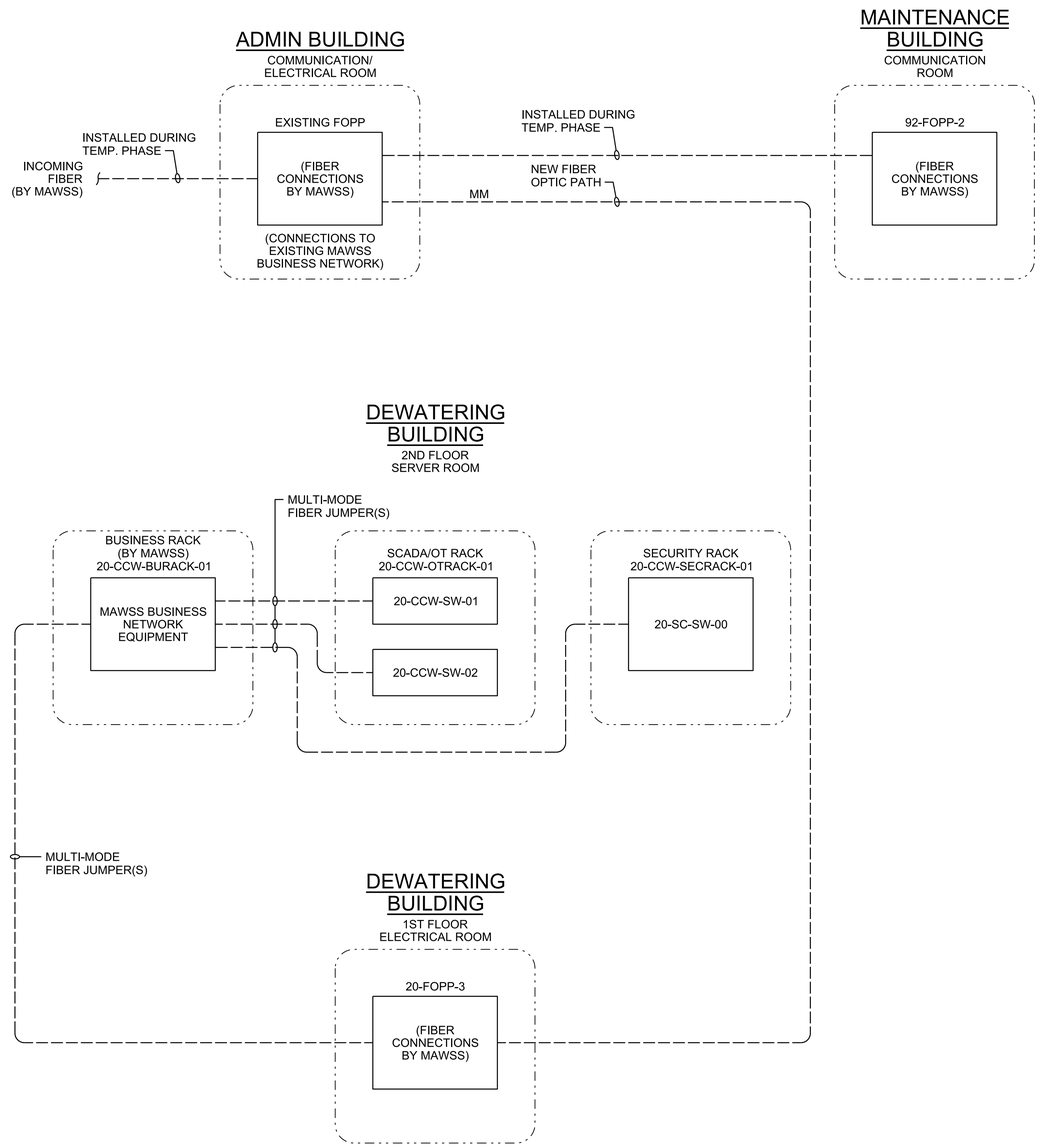
LEGEND & ABBREVIATIONS

_ MM _ 12 STRAND MULTIMODE FIBER OPTIC CABLE

FOPP FIBER OPTIC PATCH PANEL



MAWSS BUSINESS NETWORK FOR TEMPORARY CONTROL ROOM



MAWSS BUSINESS NETWORK FOR DEWATERING BUILDING CONTROL ROOM

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DSGN	G GRAY		A PASTRANA	C.WILSON			G GRAY

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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INSTRUMENTATION AND CONTROL

MAWSS BUSINESS FIBER OPTIC NETWORK DIAGRAM

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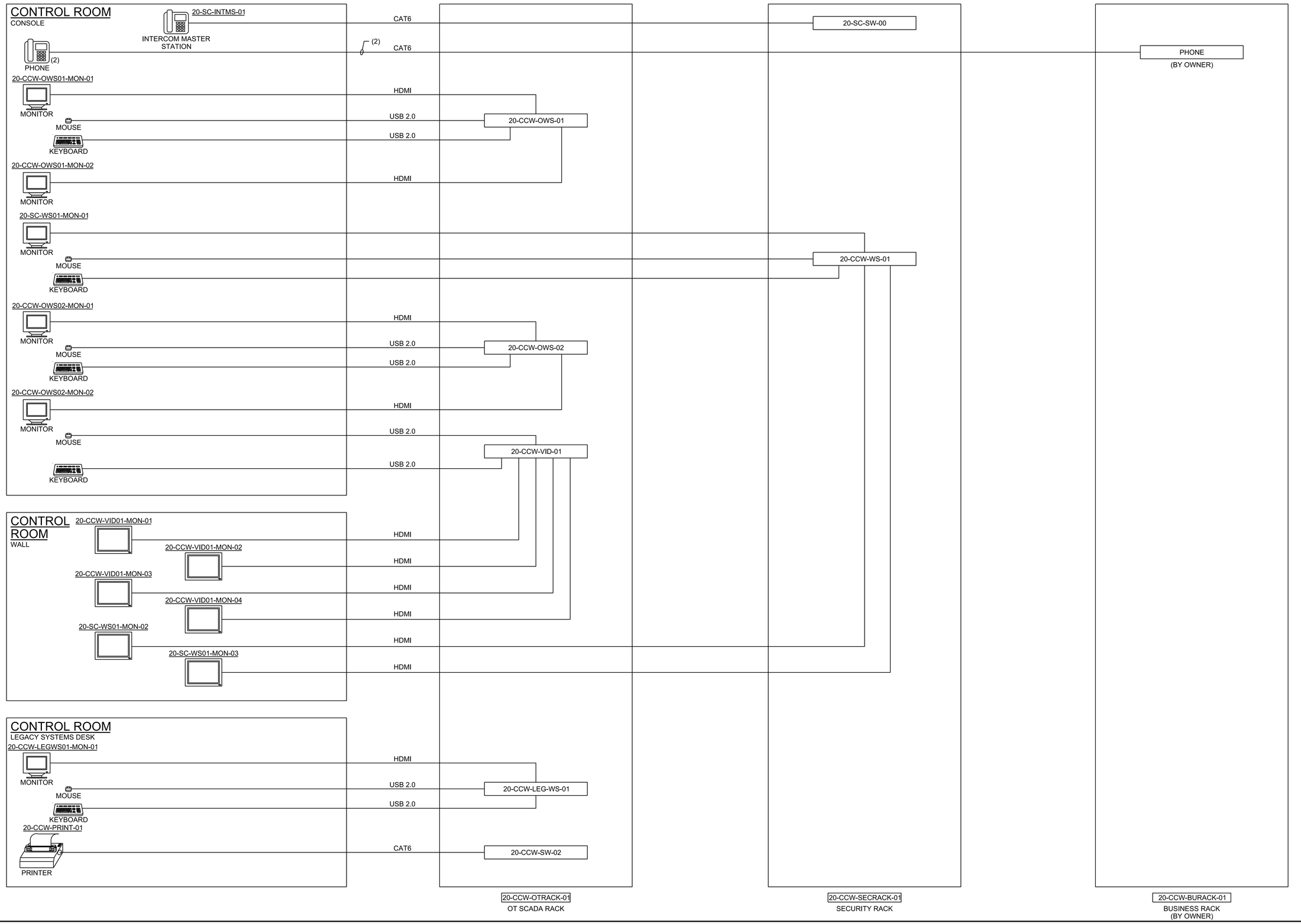

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

INSTRUMENTATION AND CONTROL

MAWSS
CONTROL ROOM

NTS	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
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GENERAL SHEET NOTES

1. FOR ADDITIONAL INFORMATION, SEE GENERAL STRUCTURAL NOTES.
2. FOR STANDARD DETAILS, SEE 99-S-SERIES DRAWINGS.
3. PRECAST CONCRETE CONNECTIONS BETWEEN PRECAST MEMBERS AND BETWEEN PRECAST MEMBERS AND FOUNDATION SHALL BE STAINLESS STEEL.
4. PRECAST PANEL GRAVITY LOAD CONNECTIONS DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER. COORDINATE CONNECTION ASSEMBLY REQUIREMENTS WITH PRECAST MANUFACTURER AND CONCRETE SUBCONTRACTOR.
5. PRECAST PANEL OUT-OF-PLANE LOAD CONNECTIONS DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER. COORDINATE CONNECTION ASSEMBLY REQUIREMENTS WITH PRECAST MANUFACTURER AND CONCRETE SUBCONTRACTOR.
6. PRECAST PANEL IN-PLANE LOAD CONNECTIONS DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER. COORDINATE CONNECTION ASSEMBLY REQUIREMENTS WITH PRECAST MANUFACTURER AND CONCRETE SUBCONTRACTOR.
7. PRECAST PANEL DIAPHRAGM LOADS AND CONNECTIONS DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER.

SHEET KEYNOTE

1. APPROXIMATE FOOTPRINT OF EXISTING OPERATIONS BUILDING. REMOVE EXISTING PILES THAT FALL WITHIN THE FOOTPRINT OF THE NEW CONSTRUCTION PLUS FIVE FEET BEYOND EXTERIOR EDGES OF PERIMETER FOUNDATIONS.

FOUNDATION PLAN

1/8"=1'-0"

NO.	DATE	DR	CHK	APVD	BY	REVISION
DSGN	G PETTY	P KARABAN	R FORREST	APVD	M CHRZANOWSKI	

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25 WEST CEDAR STREET, SUITE 350
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STRUCTURAL

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING FOUNDATION PLAN

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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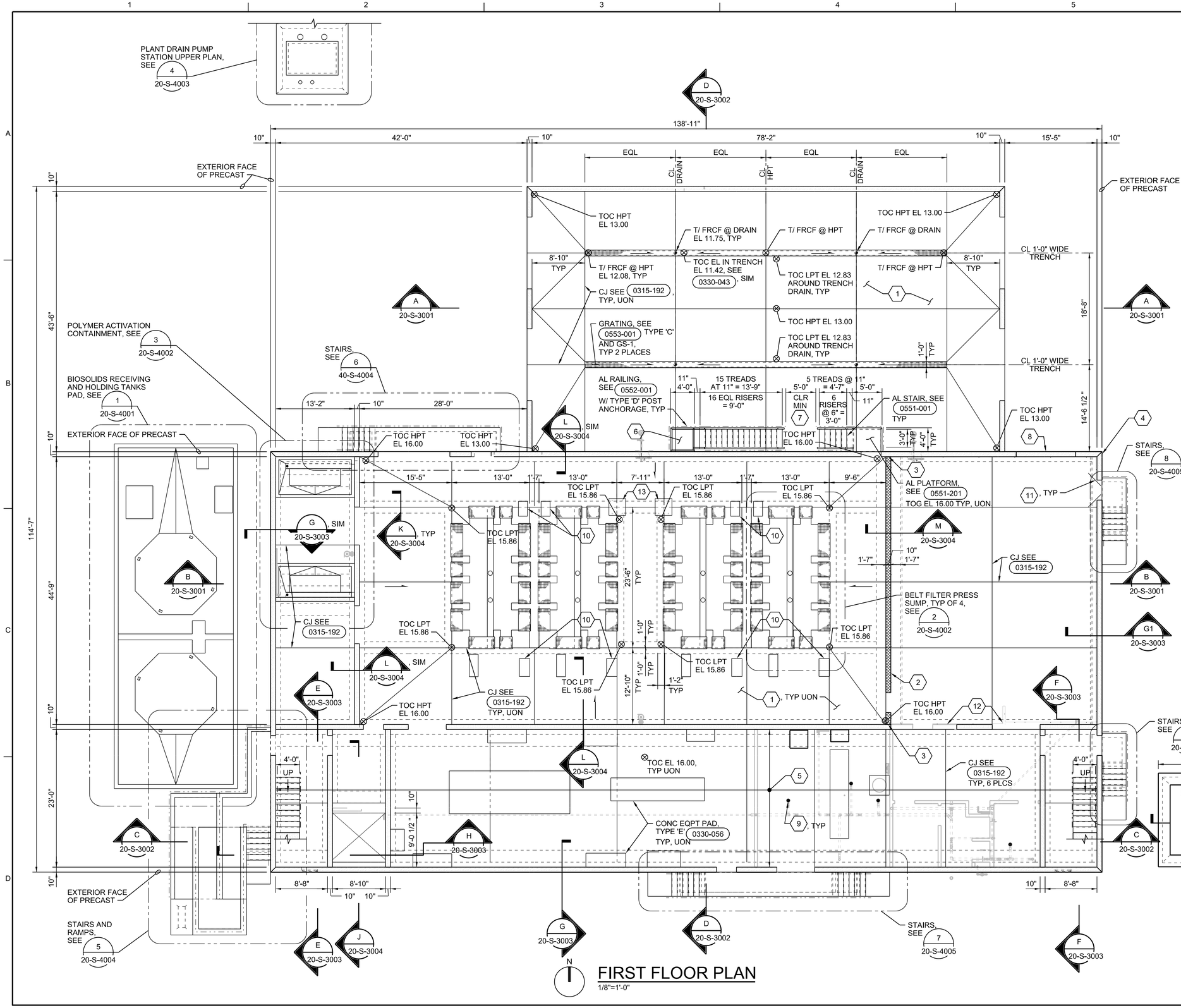

FIRST FLOOR PLAN

1/8"=1'-0"

GENERAL SHEET NOTES

1. FOR ADDITIONAL INFORMATION, SEE 20-S-2001.
2. SEE OTHER DISCIPLINE DRAWINGS FOR PENETRATION INFORMATION IN PRECAST WALL, NOT SHOWN.
3. ENCASE PROCESS PIPING UNDER SLABS AND FOUNDATIONS TO A POINT FIVE FEET BEYOND EXTERIOR EDGE PERIMETER FOUNDATIONS. SEE 0330-016 THROUGH 0330-018.
4. POUR STRIP CONTRACTOR'S OPTION. ALL PRECAST WALLS SHALL BE FASTENED TO SUPPORTING CONCRETE PRIOR TO SLAB PLACEMENT OVER CONNECTIONS.

SHEET KEYNOTES

1. SLAB CONSTRUCTION (UON):
   - 10" MIN SLAB ON GRADE
   - REINFORCED W/ #5@12" OC EW TOP AND BOTT.
   - OVER VAPOR RETARDER AND 6" LAYER OF COMPACTED GRANULAR FILL.
2. 10" CMU WITH #5@24" OC CENTERED. SEE 5/20-S-5002 TYPE 'A' FOR WALL INFO. WALL TO BE REMOVED DURING CLASS A CONVERSION.
3. CMU WALL CONNECTION TO PRECAST CONCRETE WALL, SEE 0422-011.
4. 10" PRECAST WALL BY PRECAST MANUFACTURER, TYP.
5. SLAB CONSTRUCTION:
   - 6" SLAB ON GRADE WITH #5@12" CANTERED EW
   - OVER VAPOR RETARDER AND 6" LAYER OF COMPACTED GRANULAR FILL.
6. AL PLATFORM W/ ANGLE POSTS. SEE DETAIL 0551-201, SIM. TOG EL 22.00. PLATFORM SHALL NOT BE ATTACHED TO PRECAST PANEL.
7. MINIMUM CLEARANCE BETWEEN GUARDRAILS/ HANDRAILS.
8. KNOCK-OUT PANEL IN PRECAST WALL BY PRECAST SUPPLIER FOR FUTURE OVERHEAD COILING DOOR. COORDINATE OPNG SIZE AND LOCATION WITH ARCH DWGS AND APPROVED DOOR SUBMITTAL. KNOCK-OUT PANEL TO BE REMOVED DURING CLASS A CONVERSION.
9. FLOOR DRAIN. SEE DET 0330-082.
10. CONC EQPT PAD. SEE DET 0330-056, TYPE 'A'.
11. PROVIDE #4x3'-0" LG RE-ENTRANT CORNER BAR AT ALL RE-ENTRANT CORNERS. LOCATE 2" CLR FROM TOP OF SLAB. BARS SHALL NOT CROSS SLAB JOINTS.
12. TEMPORARY STUD WALLS TO BE REMOVED DURING CLASS A CONVERSION. SEE ARCH DWGS FOR WALL INFO.
13. CONVEYOR SUPPORTS. COORDINATE SUPPORT LOCATIONS WITH BELT FILTER PRESS FOUNDATIONS AND SLAB JOINT LOCATIONS. SUPPORT ANCHORS SHALL MAINTAIN MINIMUM 6" EDGE DISTANCE FROM ALL JOINTS.

NO.	DATE	REVISION	CHK	DR
DSGN	G PETTY	P KARABAN	R FORREST	M CHRZANOWSKI
BY	APVD	APVD		

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PENSACOLA, FL 32502

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL

DEWATERING AND CONTROL BUILDING FIRST FLOOR PLAN

CONFORMED DOCUMENTS

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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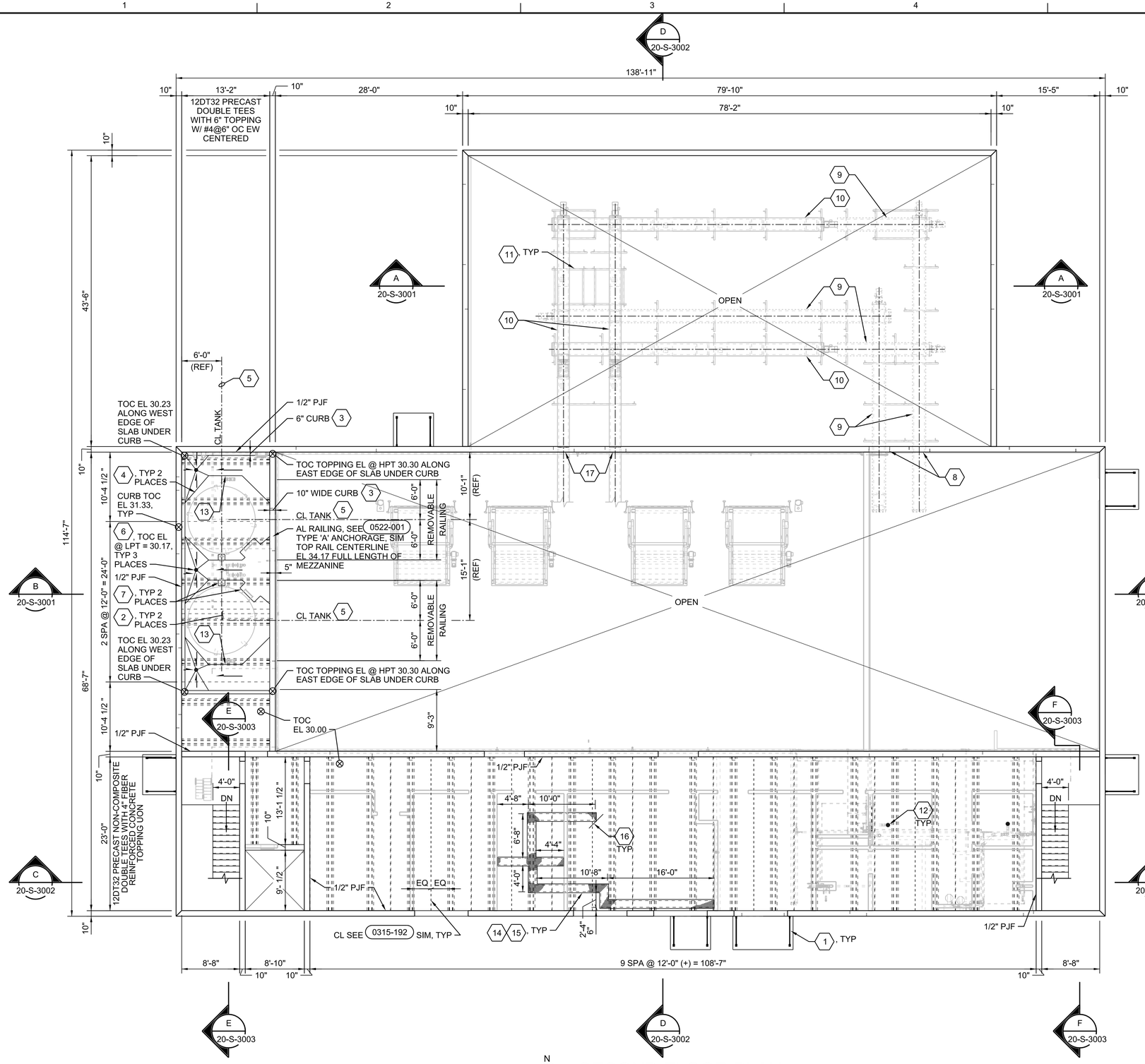

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SECOND FLOOR PLAN

1/8"=1'-0"

SHEET KEYNOTES

1. CANOPY SEE DETAIL 0559-053. PRECAST MFR TO PROVIDE PROVISION FOR CANOPY SUPPORTS IN PRECAST WALL AS SHOWN IN DETAIL. COORDINATE LOCATION WITH ARCH DWGS.
2. LOAD OF TANK PLUS 8" CONC TANK PAD EQUALS 550 PSF.
3. UON, 6" WIDE CONC CURB WITH 4" THERMOPLASTIC ELASTOMERIC RUBBER (TPER) WATERSTOP. SEE DET 0330-080. CURB TOC EL SEE PLAN THIS DWG.
4. POLYMER STORAGE TANK PAD. SEE DET 0330-056 TYPE "F" SIM AND DET 0330-058 SIM. PAD TOC EL 30.67. EXTEND EAST END OF TANK PAD TO CURB.
5. TANK CENTERLINE LOCATION FOR REFERENCE ONLY. SEE PROCESS DWGS TO VERIFY LOCATION PRIOR TO PLACEMENT OF TANK PAD. COORDINATE PAD SIZE WITH APPROVED TANK SUBMITTAL.
6. FLOOR DRAIN, SEE 0330-082. SEE PROCESS DWGS FOR DRAIN LOCATION AND COORDINATE FINAL LOCATION WITH DOUBLE TEES.
7. BLOCKOUTS IN TANK PAD FOR TANK DRAIN AND LADDER. COORDINATE BLOCKOUT SIZE, QUANTITY, AND LOCATION WITH APPROVED TANK SUBMITTAL. PROVIDE 3" CLEAR BETWEEN LADDER RAILS AND TANK PAD, AND 7" CLEAR BETWEEN CENTERLINE OF LADDER RUNGS AND TANK PAD. SLOPE TOP OF CONCRETE FLOOR IN BLOCKOUT FOR LADDER TO PREVENT ACCUMULATION OF LIQUID IN BLOCKOUT.
8. KNOCK-OUT PANEL IN PRECAST WALL BY PRECAST SUPPLIER FOR FUTURE CONVEYOR. COORDINATE OPNG SIZE AND LOCATION WITH ARCH AND PROCESS DWGS AND APPROVED CONVEYOR SUBMITTAL. KNOCK-OUT PANEL TO BE REMOVED DURING CLASS A CONVERSION.
9. FUTURE CONVEYORS. PROVIDE PROVISION IN THE STEM OF EACH DOUBLE TEE FOR ATTACHMENT OF FUTURE CONVEYOR SUPPORTS. SEE DWG 20-S-2004 FOR ADDITIONAL INFO.
10. CONVEYORS. COORDINATE FINAL LOCATION WITH APPROVED CONVEYOR SUBMITTAL AND PRECAST SUPPLIER. SEE DWG 20-S-2004 FOR ADDITIONAL INFO.
11. CONVEYOR SUPPORTS BY CONVEYOR MANUFACTURER PER SPEC 44 46 13.02. COORDINATE SUPPORT ATTACHMENT TO PRECAST WITH PRECAST SUPPLIER PRIOR TO FABRICATION OF PRECAST AND CONVEYOR SUPPORTS.
12. FLOOR DRAIN. SEE DET 0330-082.
13. EXTEND TANK PAD PAST PUMP IN ACCORDANCE WITH 0330-056, TYPE 'A'.
14. 12" WIDE TRENCH WITH AL FLAT PLATE TYPE 'A' COVER AND TYPE 'A' LIFTING EYE. TOP OF TRENCH EL = TOP FINISHED FLOOR. TRENCH DEPTH TO MATCH THICKNESS OF TOPPING SLAB. SEE DETAIL 0554-001 FOR COVER INFO. PROVIDE JOINTS IN PLATE AT JOINTS IN TOPPING SLAB AND AT PRECAST DOUBLE TEES JOINTS.
15. TRENCH DIMENSIONS FOR REFERENCE ONLY. COORDINATE FINAL LOCATION WITH ELECTRICAL DRAWINGS AND APPROVED EQUIPMENT.
16. PROVIDE #4x3'-0" LG RE-ENTRANT CORNER BAR AT ALL RE-ENTRANT CORNERS. LOCATE 2" CLR FROM TOP OF SLAB. BARS SHALL NOT CROSS SLAB JOINTS.
17. OPNG IN PRECAST PANEL FOR CONVEYOR. COORDINATE OPNG SIZE AND LOCATION WITH ARCH AND PROCESS DWGS AND APPROVED CONVEYOR SUBMITTAL.

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL

DEWATERING AND CONTROL BUILDING SECOND FLOOR PLAN

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

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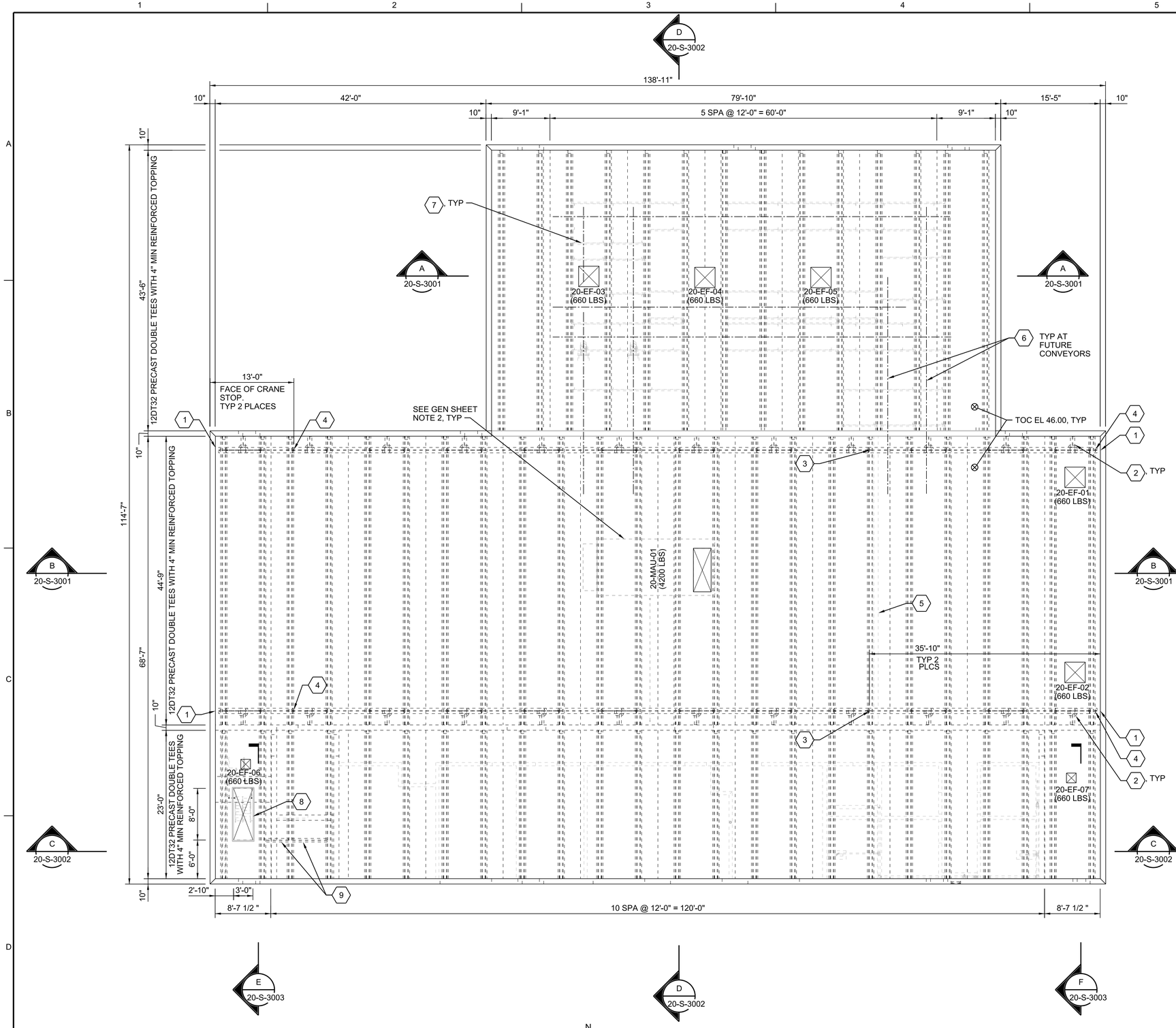

ROOF PLAN
1/8"=1'-0"

GENERAL SHEET NOTES

1. FOR ADDITIONAL INFORMATION SEE DWG 20-S-2001.
2. PRECAST ROOF MEMBER DESIGN LOADS:
   A. DEAD LOADS = SELF WEIGHT OF MEMBERS AND TOPPING +10PSF
   B. COLLATERAL DEAD LOAD = 15 PSF NOT INCLUDING CONCENTRATED LOADS GIVEN ELSEWHERE FOR CRANE, CONVEYORS, AND ROOF TOP EQPT
   C. LIVE LOAD = SEE 01-G-0006
   D. CRANE LOAD = 10-TON CRANE. SEE PLAN AND KEYNOTES 1 AND 2
   E. WIND LOADS = SEE 01-G-0006
   F. SEISMIC LOADS = SEE 01-G-0006
   G. ROOF TOP EQUIPMENT LOADS, SEE ROOF PLAN. CONTRACTOR SHALL COORDINATE LOADS AND OPENING SIZES WITH APPROVED EQUIPMENT SUBMITTALS, AND INCLUDE LOADING IN PRECAST DESIGN. SEE ARCHITECTURAL AND MECHANICAL FOR CURB AND FLASHING INFO.
   H. APPLY ROOFTOP EQUIPMENT WIND LOADS TO ROOFTOP EQUIPMENT FOR PRECAST ROOF MEMBER DESIGN. SEE 01-G-0006 FOR ADDITIONAL INFORMATION.
   I. RAIN LOADS = IN ACCORDANCE W/ ASCE 7-16
3. LOADS SHOWN ARE SERVICE LEVEL UON.
4. DOUBLE TEE WIDTHS AND DEPTHS ARE SCHEMATIC. PRECAST MANUFACTURER'S ENGINEER SHALL SIZE DOUBLE TEE MEMBERS TO MEET THE STRENGTH AND DEFLECTION REQUIREMENTS. MAINTAIN THE CLEAR HEIGHT RESULTING FROM THE 32" DEEP DOUBLE TEE MEMBERS.
5. CHORDS AND CHORD CONNECTIONS PER PRECAST MANUFACTURER'S ENGINEER. PROVIDE CONNECTIONS FOR PRECAST ELEMENTS FOR GRAVITY LOADS, IN-PLANE LOADS, AND OUT-OF-PLANE LOADS IN ACCORDANCE WITH PRECAST ENGINEERS' DESIGN AND DETAILS, INCLUDING CHORDS, DRAG STRUTS, COLLECTOR ELEMENTS, AS WELL AS CONNECTIONS THERE FOR DIAPHRAGMS AND SHEARWALLS.
6. SEE OTHER DISCIPLINES FOR PENETRATIONS IN PRECAST WALL NOT SHOWN.

SHEET KEYNOTES

1. CRANE RUNWAY GIRDER BRACE. SEE DET 1/ 20-S-5002. ATTACHED TO PRECAST WALL. PRECAST MFR SHALL INCLUDE LOADING LISTED IN DETAIL IN PRECAST DESIGN. LIMIT DOUBLE TEE DEFLECTION TO L/ 1000 FOR CRANE LOAD IN COMBINATION W/ OTHER GRAVITY LOADS (I.E., DEAD, COLLATERAL DEAD, LIVE, ROOF, RAIN, ETC).
2. W14x82 CRANE RUNWAY GIRDER AND SUPPORTING SUSPENSION SYSTEM SUPPORTED BY PRECAST DOUBLE TEES. SEE DET 2/ 20-S-5002 FOR SUSPENSION DET. PRECAST MFR SHALL INCLUDE LOADING LISTED IN DET IN PRECAST DESIGN. SEE CRANE SPEC 41 22 13.13 FOR END OF RUNWAY GIRDER CLEARANCE FROM PRECAST WALL.
3. PROVIDE TEMPORARY CRANE STOPS THIS LOCATION AND CRANE STOPS AT EACH END OF RUNWAY GIRDERS PER DET 0512-101. FACE OF TEMPORARY STOP TO BE 6" FROM WEST FACE OF TEMPORARY STUD WALL SHOWN BY KEYNOTE 5. COORDINATE FINAL STOP LOCATION WITH ARCH DWGS TO PROVIDE 6" CLR BETWEEN BRIDGE CRANE AND WEST FACE OF WALL. TEMPORARY STOPS TO BE RELOCATED TO EAST END OF RUNWAY GIRDER DURING CLASS A CONVERSION.
4. PROVIDE CRANE STOPS PER DET 0512-101.
5. TEMPORARY METAL STUD WALL. SEE ARCH DWGS FOR LOCATION.
6. FUTURE CONVEYORS. SUPPORT LOCATIONS SHOWN FOR REFERENCE ONLY. ACTUAL SUPPORT LOCATIONS TO BE DETERMINED BASED ON ACTUAL FUTURE CONVEYOR LOCATION. PROVIDE PROVISIONS IN THE STEM OF EACH DOUBLE TEE FOR ATTACHMENT OF FUTURE CONVEYOR SUPPORTS SIMILAR TO SUPPORT CONNECTIONS USED FOR NEW CONVEYORS. ASSUME 8'-0" MAX SUPPORT SPACING AND 4'-0" MAX SPACING FROM DOUBLE TEE ENDS FOR FUTURE SUPPORT.
   - DESIGN DOUBLE TEE STEMS FOR MIN SERVICE LEVEL CONVEYOR VERTICAL SUPPORT END REACTION = 6.0 KIPS (12 KIPS TOTAL VERTICAL REACTION FOR DOUBLE TEE STEMS W/ SUPPORT CONNECTIONS EACH SIDE) UNLESS GREATER LOAD REQUIRED PER CONVEYOR MFR. REACTION SHALL BE COMBINED WITH ALL OTHER VERTICAL AND HORIZONTAL LOADS SHOWN ON THE DWGS AND IN THE SPECIFICATIONS. SEE DWG 20-S-2003 FOR ADDITIONAL INFO.
7. CONVEYOR SUPPORTS BY CONVEYOR MFR PER SPEC 44 46 13.02. COORDINATE SUPPORT ATTACHMENT TO PRECAST WITH PRECAST SUPPLIER PRIOR TO FABRICATION OF PRECAST AND CONVEYOR SUPPORTS.
   - DESIGN DOUBLE TEE STEMS FOR MIN SERVICE LEVEL CONVEYOR VERTICAL SUPPORTED END REACTION = 6.0 KIPS (12 KIPS TOTAL VERTICAL REACTION FOR DOUBLE TEE STEMS W/ SUPPORT CONNECTIONS EACH SIDE). REACTION SHALL BE COMBINED W/ ALL OTHER VERTICAL AND HORIZONTAL LOADS SHOWN ON THE DWGS AND IN THE SPECIFICATIONS. SEE DWG 20-S-2003 FOR ADDITIONAL INFO.
8. ROOF ACCESS HATCH OPENING. SEE ARCH DWG FOR HATCH INFO. COORDINATE HATCH WEIGHT AND OPENING SIZE W/ APPROVED HATCH SUBMITTAL.
9. W8x28 ELEVATOR SAFETY BEAM W/, FRAMED BEAM CONNECTION EA END CONNECTED TO DOUBLE TEE STEMS. BEAM END CONNECTIONS DESIGNED FOR 7.5 KIPS (SERVICE LEVEL) VERTICAL LOAD. COORDINATE BEAM DESIGN AND LOCATION W/ PRECAST SUPPLIER AND APPROVED ELEVATOR SUBMITTAL.

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL

DEWATERING AND CONTROL BUILDING ROOF PLAN

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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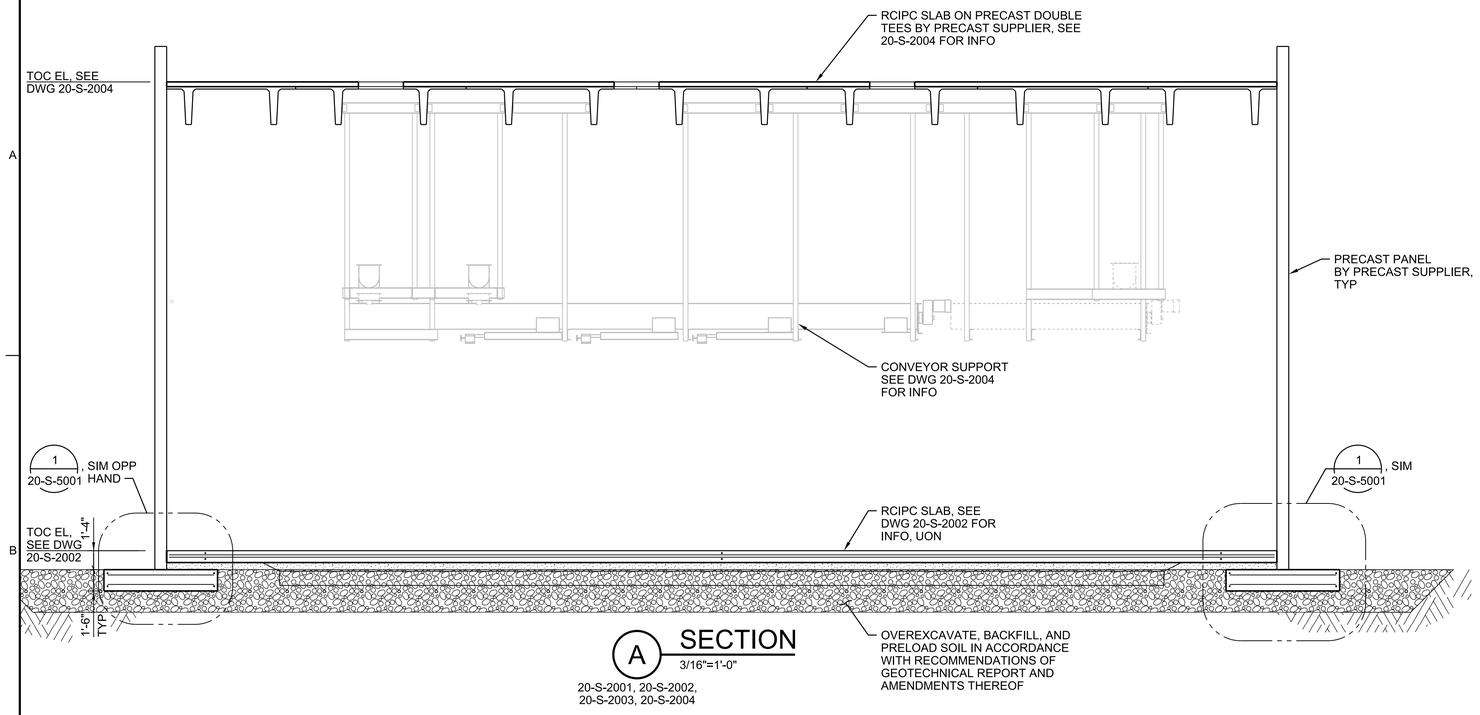
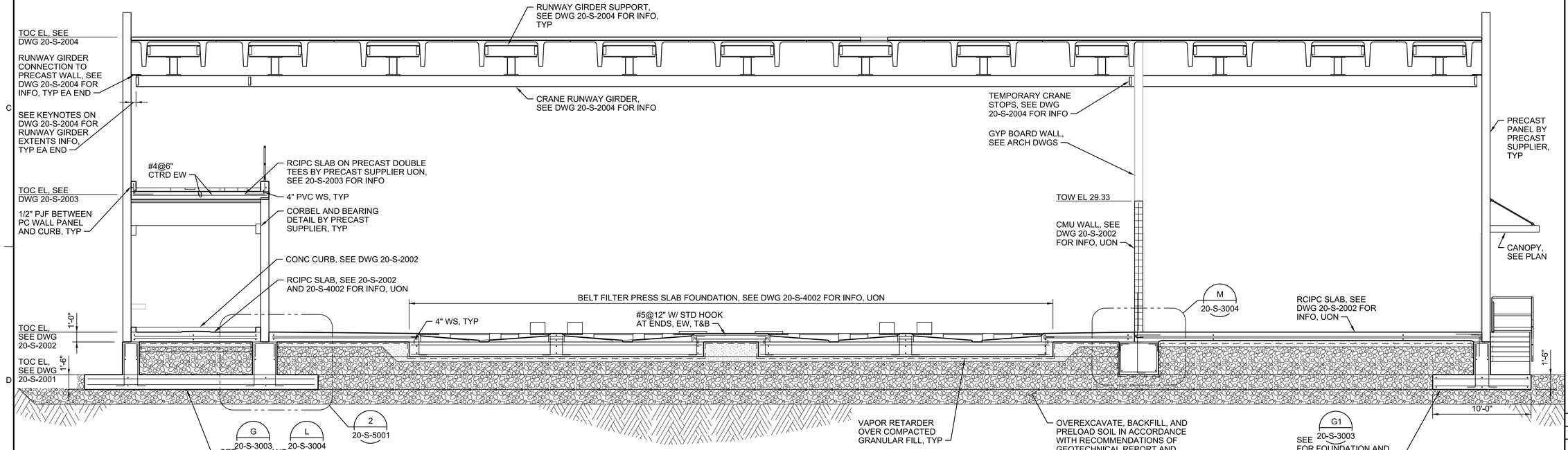
CONFORMED DOCUMENTS



A SECTION
3/16"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004



B SECTION
3/16"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004

NO.	DATE	DSGN	DR	CHK	APVD	BY
REVISION		G PETTY	P KARABAN	R FORREST	APVD	M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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STRUCTURAL
DEWATERING AND CONTROL BUILDING SECTION

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3/16"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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DWG	20-S-3001
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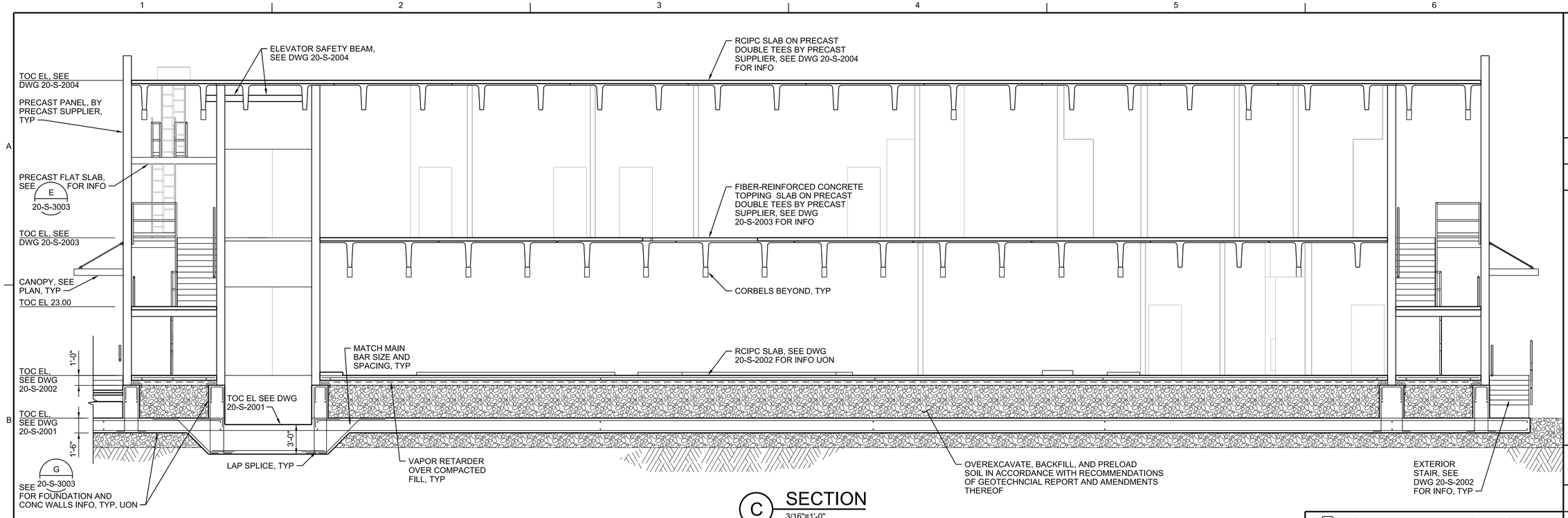
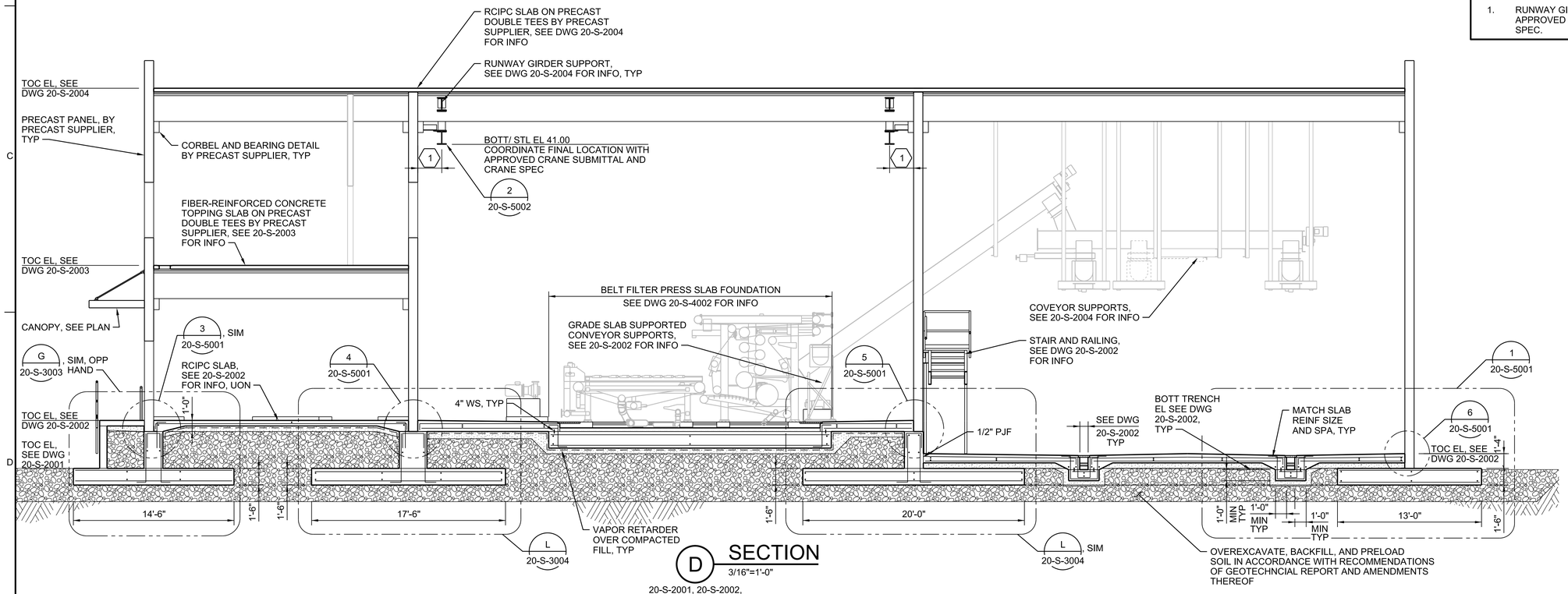


C SECTION
3/16"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004



D SECTION
3/16"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004 20-S-5002

SHEET KEYNOTES

1. RUNWAY GIRDER CENTERLINE, COORDINATE WITH APPROVED PRECAST SUBMITTALS AND CRANE SPEC.

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					M CHRZANOWSKI

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PENSACOLA, FL 32502

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STRUCTURAL
DEWATERING AND CONTROL BUILDING SECTIONS

3/16"=1'-0	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-S-3002
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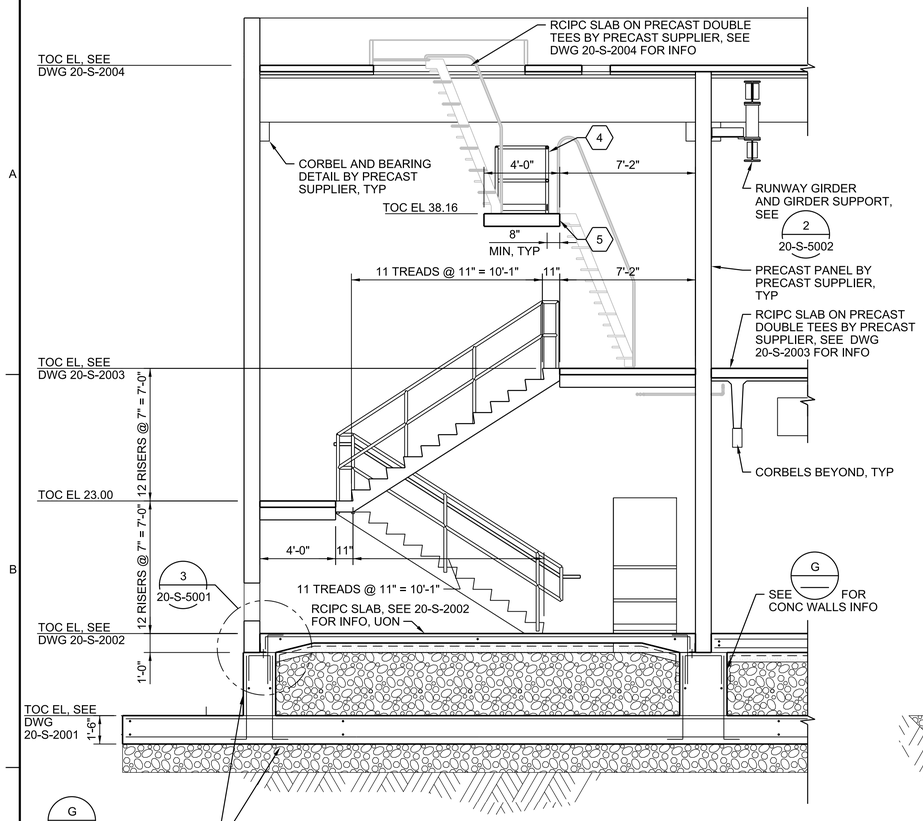
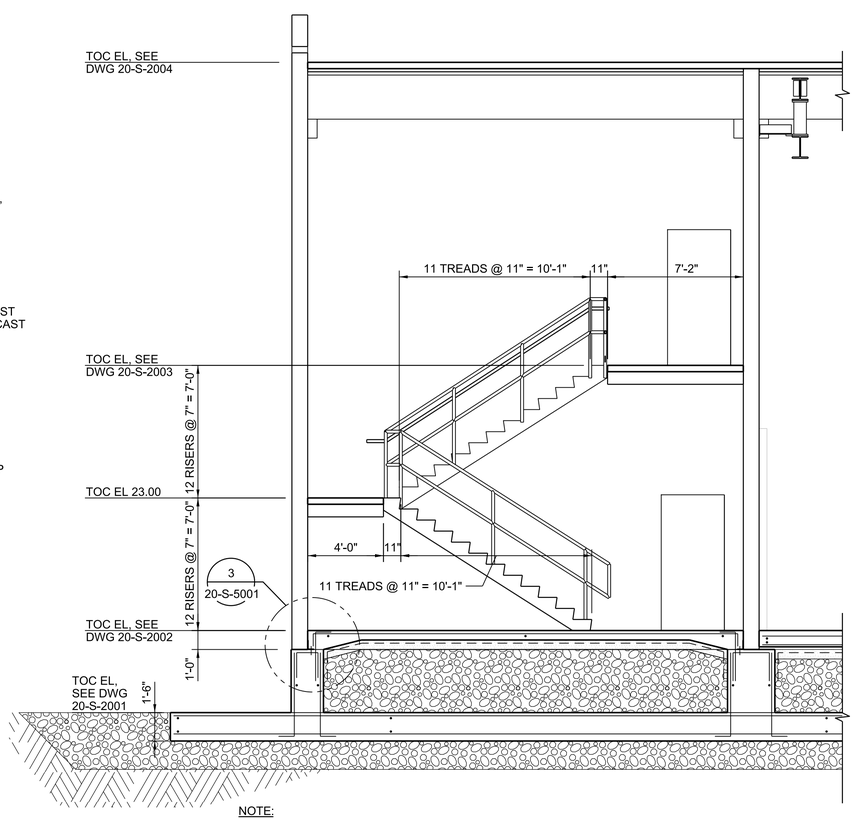
SHEET KEYNOTES

1. PRECAST PANEL CONNECTIONS ASSUMED TO TRANSFER GRAVITY, IN-PLANE SHEAR, AND OUT-OF-PLANE LOADS FROM PRECAST PANELS TO FOUNDATION. SEE KEYNOTE 3.
2. PROVIDE VERTICAL CONTROL JOINTS IN RCIPC WALL, SEE 0315-201.
3. CONNECTIONS DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER, AND PROVIDED BY PRECAST MANUFACTURER.
4. AL 2-RAIL GUARDRAIL SEE DETAIL 522-001. PROVIDE ANCHORAGE SIMILAR TO TYPE 'A' WITH 1/2" DIAMETER A36 THREADED ROD THRU-BOLTS ON 4" SPACING INSTEAD OF CONC ANCHORS ON 3-1/2" SPACING. PROVIDE 1/4"x3x0'-3" PLATE WASHER AND DOUBLE NUT BOLTS AT BOTTOM OF SLAB, TYP.
5. 6" PRECAST SOLID FLAT SLAB LANDING BY PRECAST SUPPLIER FOR ALTERNATING TREAD LADDER TO ROOF. LANDING DESIGN LIVE LOAD = 100 PSF. COORDINATE LADDER ATTACHMENT AND LOADS WITH APPROVED LADDER SUBMITTAL. PROVIDE 5/8" DIAMETER SLEEVES IN SLAB FOR GUARDRAIL ANCHORAGE.

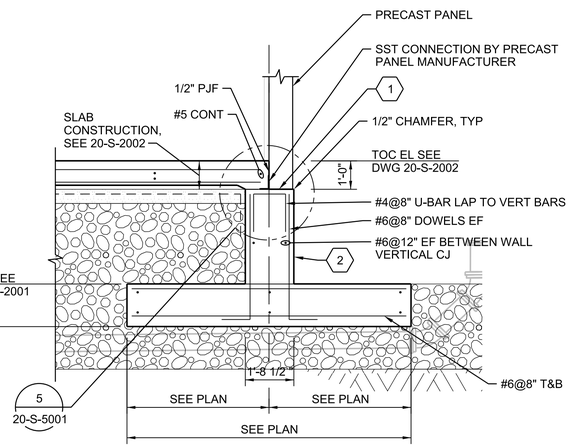


E SECTION
1/4"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004 20-S-3002

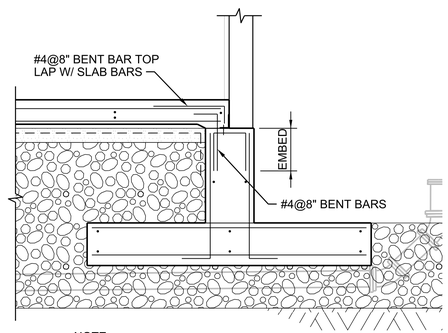


NOTE:
1. FOR ADDITIONAL INFO, SEE E .

F SECTION
1/4"=1'-0"
20-S-2001, 20-S-2002, 20-S-2003, 20-S-2004

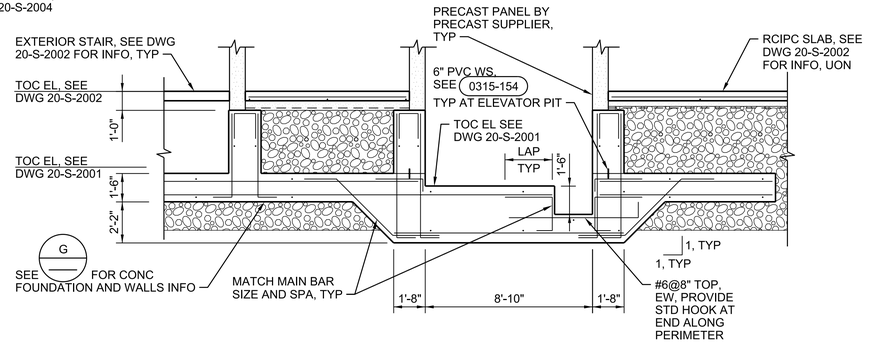


G SECTION
3/8"=1'-0"
20-S-2001, 20-S-2002, 20-S-3001, 20-S-3002 20-S-3003, 20-S-3004 20-S-4002



NOTE:
1. FOR ADDITIONAL INFO, SEE G .

G1 SECTION
3/8"=1'-0"
20-S-2001, 20-S-2002, 20-S-3001, 20-S-5001



H SECTION
1/4"=1'-0"
20-S-2001, 20-S-2002,

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MOBILE, ALABAMA

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STRUCTURAL
DEWATERING AND CONTROL BUILDING SECTIONS

3/16"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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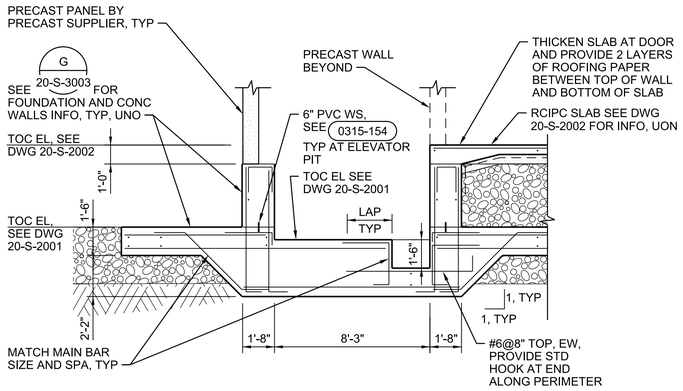
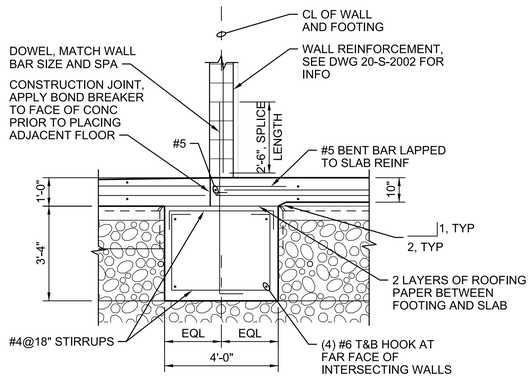
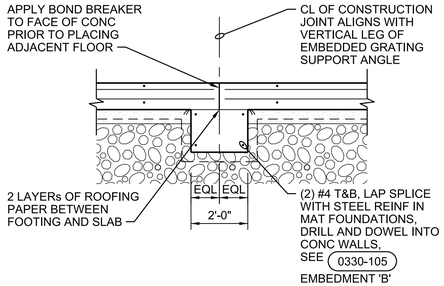


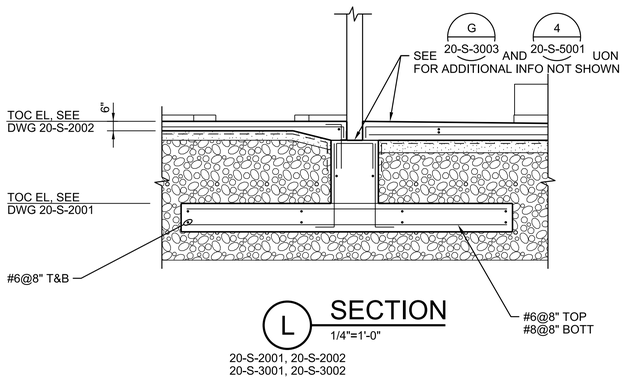
J SECTION
1/4"=1'-0"
20-S-2001, 20-S-2002



M SECTION
3/8"=1'-0"
20-S-2001, 20-S-2002
20-S-3001



K SECTION
3/8"=1'-0"
20-S-2002



L SECTION
1/4"=1'-0"
20-S-2001, 20-S-2002
20-S-3001, 20-S-3002

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STRUCTURAL

DEWATERING AND CONTROL BUILDING SECTION

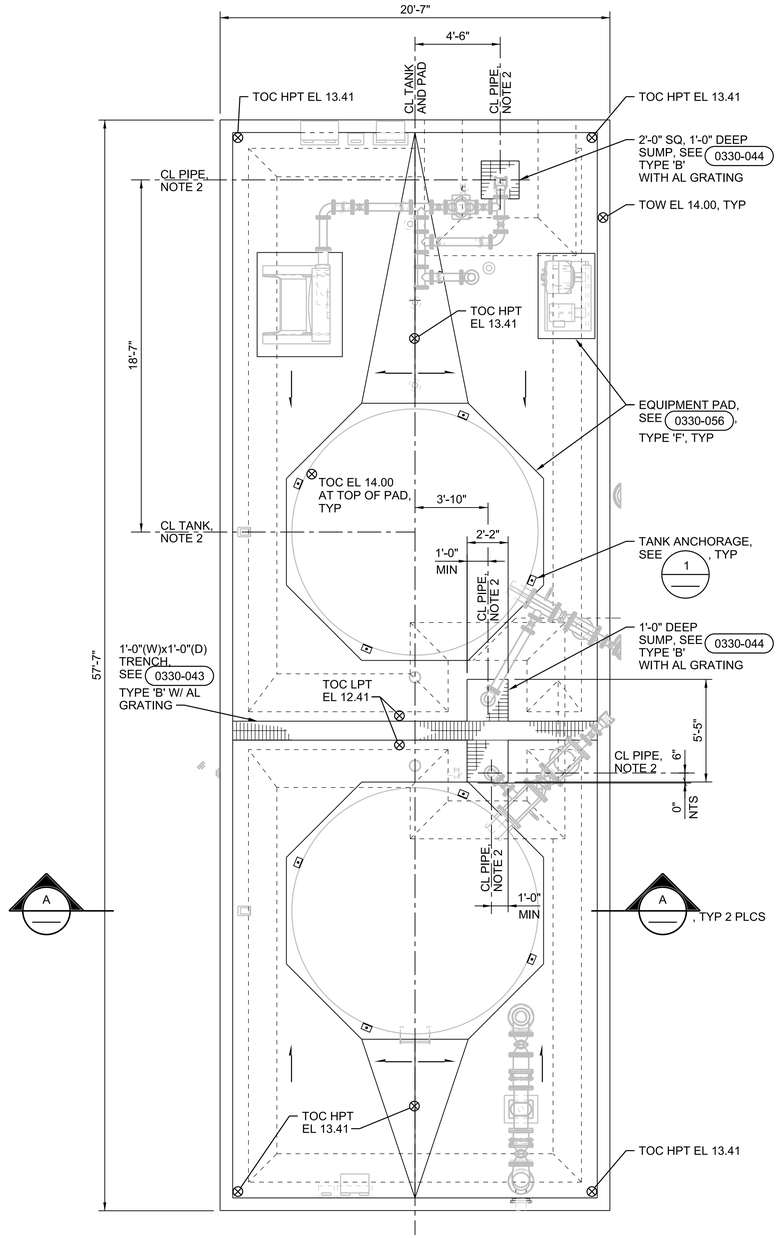
CONFORMED DOCUMENTS

1/4"=1'-0

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-S-3004
SHEET	086 of 270



NOTES:

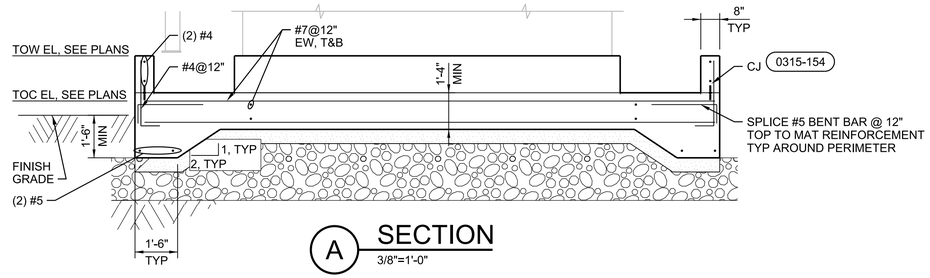
1. FOR REINFORCING AT NEW NOZZLES, SEE 2.
2. PIPING LOCATION FOR REFERENCE ONLY. SEE PROCESS DWGS TO VERIFY LOCATION PRIOR TO PLACEMENT OF SUMP.

N

1 BIOSOLIDS HOLDING AND RECEIVING TANK PAD

1/4"=1'-0"

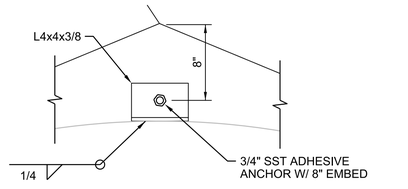
20-S-2002



A SECTION

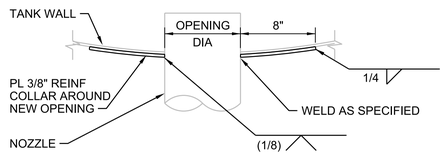
3/8"=1'-0"

20-S-2002



1 DETAIL

1 1/2"=1'-0"



NOTES:

1. SEE PROCESS FOR PENETRATION SIZE AND LOCATION.
2. ROLL REINFORCING PLATE TO MATCH TANK OD. REINFORCING PLATE SHALL BE FABRICATED FROM A SINGLE PIECE OF STEEL.
3. REINFORCING PLATE MATERIAL TYPE SHALL MATCH THE PORTION OF THE TANK ONTO WHICH IT IS WELDED.

2 DETAIL

1 1/2"=1'-0"

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
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MOBILE, ALABAMA

Jacobs

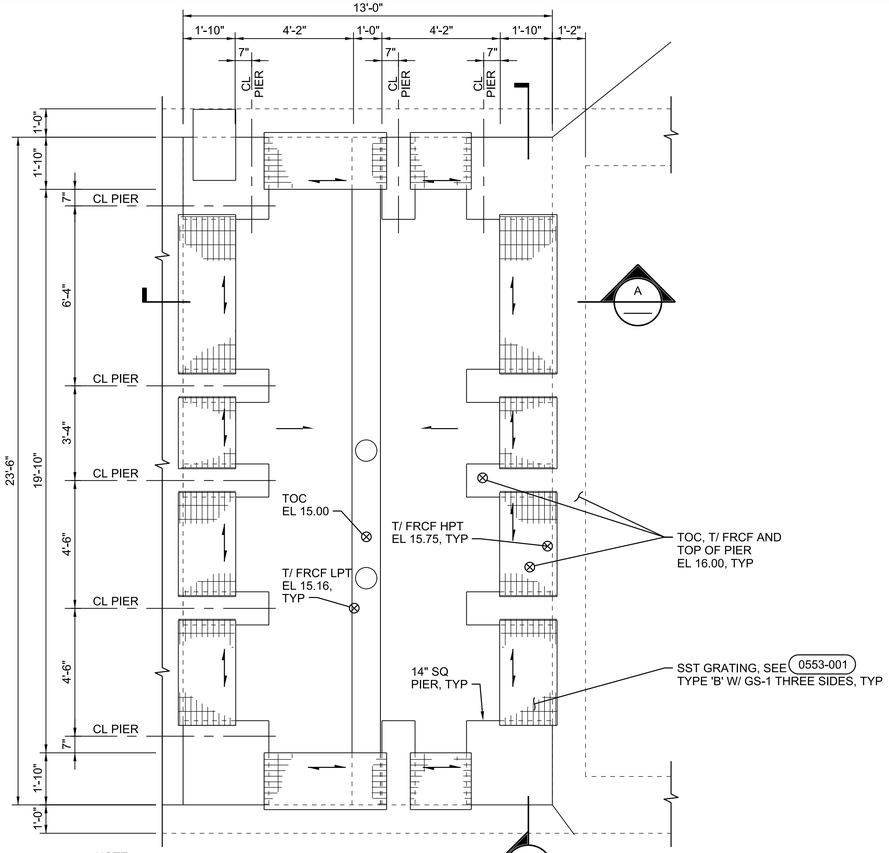
STRUCTURAL

DEWATERING AND CONTROL BUILDING PLAN, SECTION AND DETAILS

CONFORMED DOCUMENTS

SCALE AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-S-4001
SHEET	087 of 270



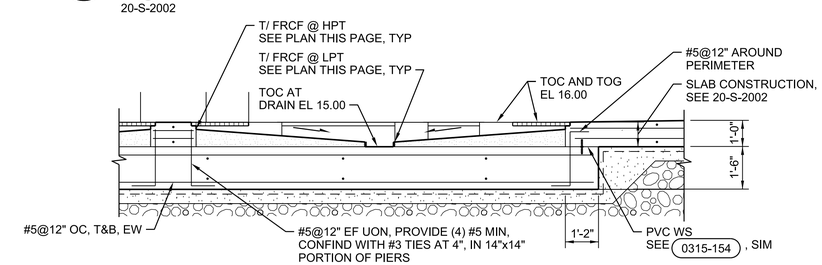
NOTE:

1. COORDINATE LOCATION OF PIERS W/ APPROVED EQUIPMENT SUBMITTAL.

2 BELT FILTER PRESS CONTAINMENT

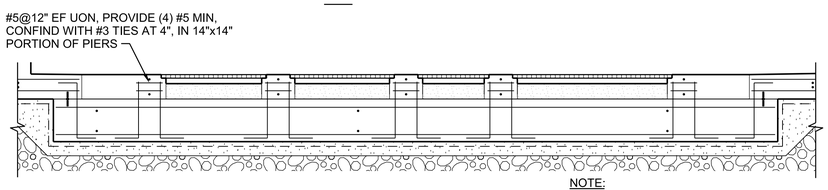
3/8"=1'-0"

20-S-2002



A SECTION

3/8"=1'-0"

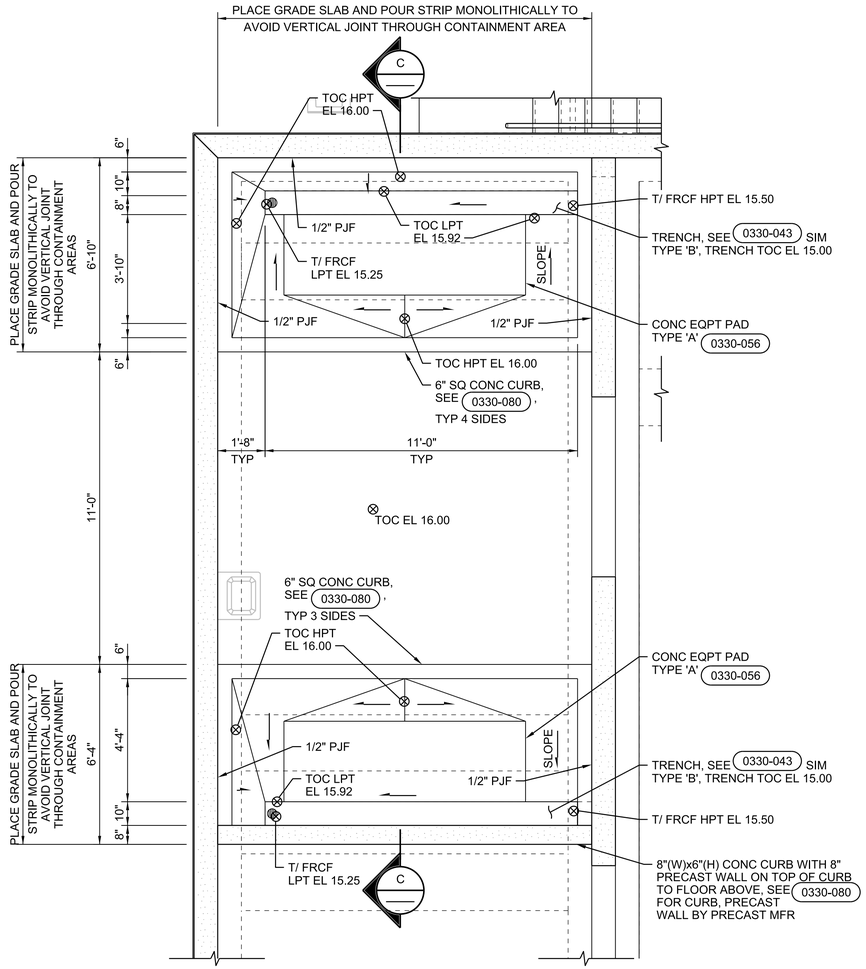


B SECTION

3/8"=1'-0"

NOTE:

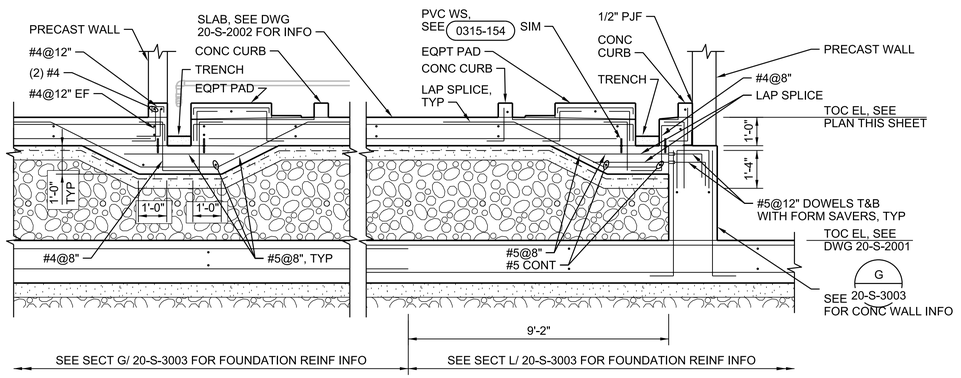
1. FOR ADDITIONAL INFORMATION, SEE A , UON.



3 POLYMER CONTAINMENT AREAS

3/8"=1'-0"

20-S-2002



C SECTION

3/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	G PETTY	DR P KARABAN	CHK R FORREST	APVD M CHRZANOWSKI

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL
DEWATERING AND CONTROL BUILDING PLANS AND SECTIONS

SCALE AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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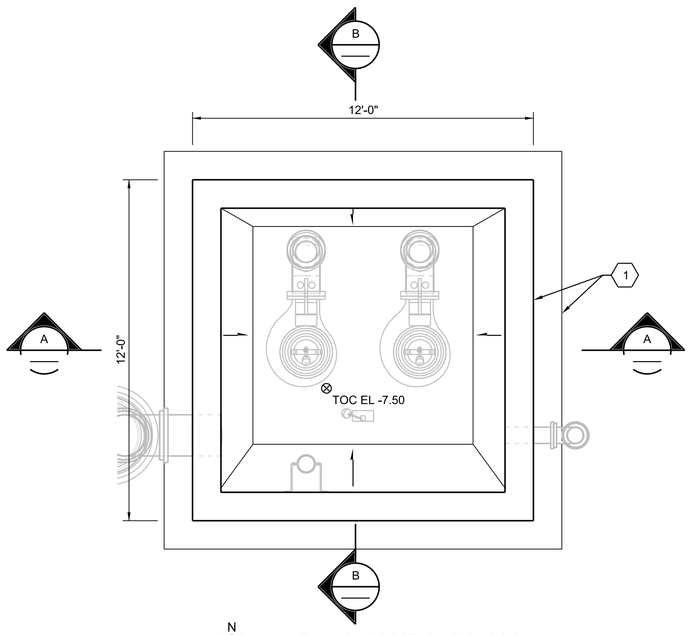
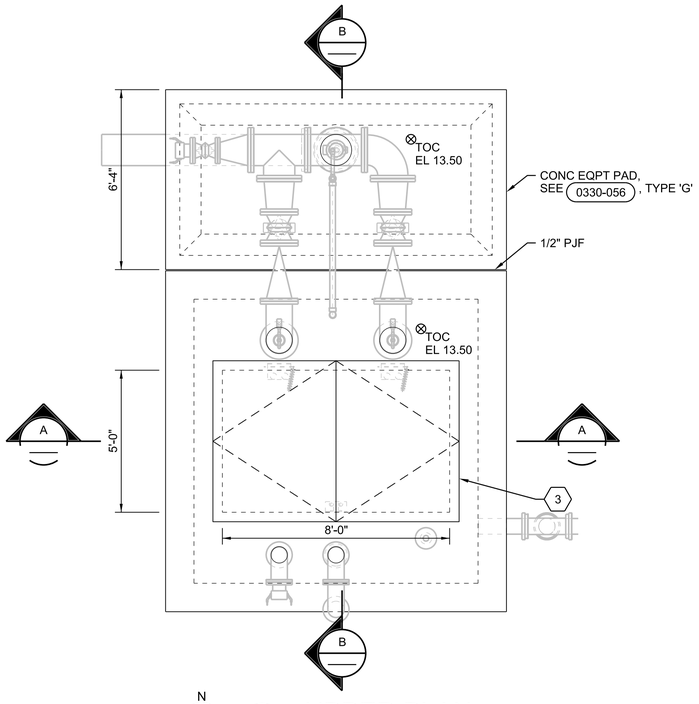


3 LOWER PLAN
3/8"=1'-0"
20-S-2001

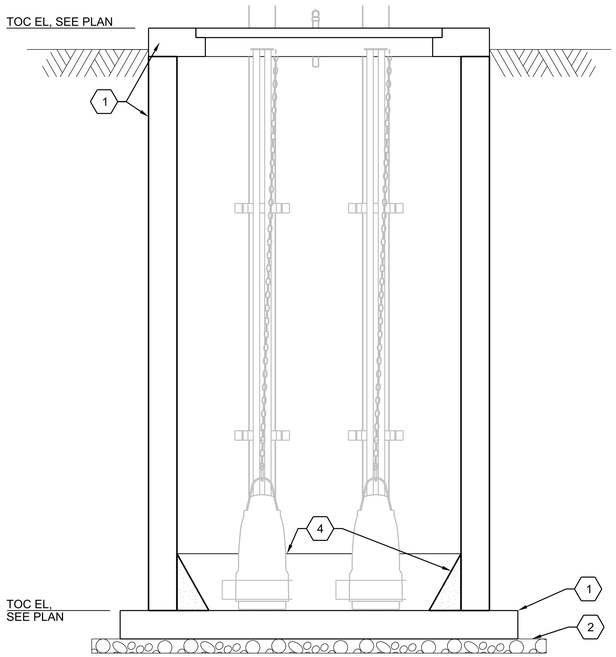


4 UPPER PLAN
3/8"=1'-0"
20-S-2002

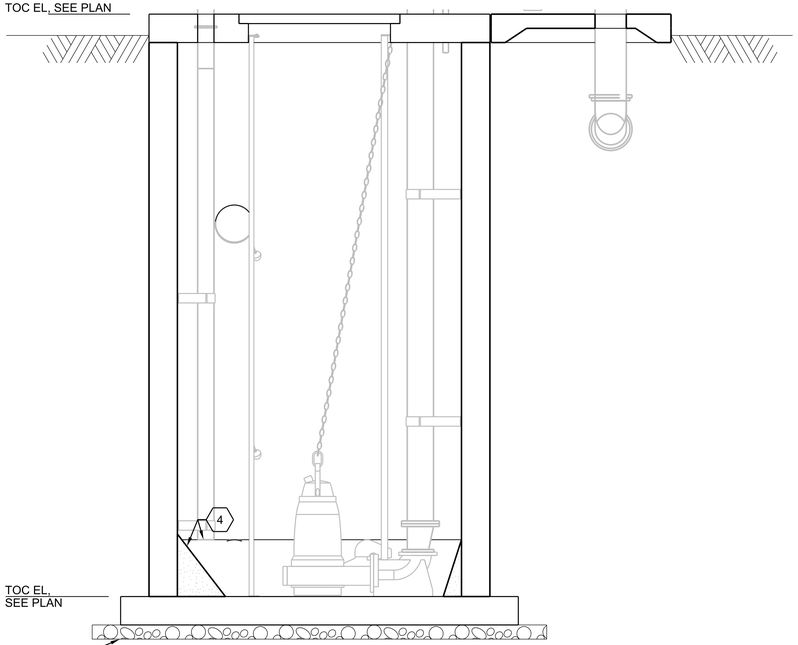
1. FOR ADDITIONAL INFORMATION SEE DESIGN CRITERIA IN STRUCTURAL GENERAL NOTES IN THE 01-G-SERIES DRAWINGS.
2. HATCHES SHALL HAVE HS-20 RATING.
3. DESIGN PUMP STATION VAULTS TO RESIST HYDROSTATIC UPLIFT AT GROUNDWATER EL 13.50 WITH SF = 1.10.
4. DESIGN VAULT TOP SLAB FOR VEHICULAR TRAFFIC AND TO RESIST 158 PSF (ULTIMATE) WIND UPLIFT.

SHEET KEYNOTES

1. NEW PRECAST CONCRETE PUMP STATION. DESIGNED AND DETAILED BY PRECAST MANUFACTURER'S ENGINEER. CONTRACTOR MAY USE CAISSON CONSTRUCTION METHOD PROVIDED PRECAST MANUFACTURER'S ENGINEER DESIGNS IT ACCORDINGLY.
2. 6" MINIMUM LAYER OF COMPACTED GRANULAR FILL.
3. ACCESS HATCH DIMENSIONS REFER TO CLEAR OPENING. VERIFY SIZE AND LOCATION WITH PUMP SUPPLIER PRIOR TO FABRICATION.
4. COORDINATE FRCF DIMENSIONS, SHAPE, AND LOCATION WITH PUMP MANUFACTURER. SEE 0330-078 SIM (3" MIN THICKNESS).



A SECTION
3/8"=1'-0"



B SECTION
3/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	G PETTY	DR P KARABAN	CHK R FORREST	APVD M CHRZANOWSKI

Jacobs
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL
DEWATERING AND CONTROL BUILDING PLANT DRAIN PUMP STATION PLANS AND SECTIONS

CONFORMED DOCUMENTS

3/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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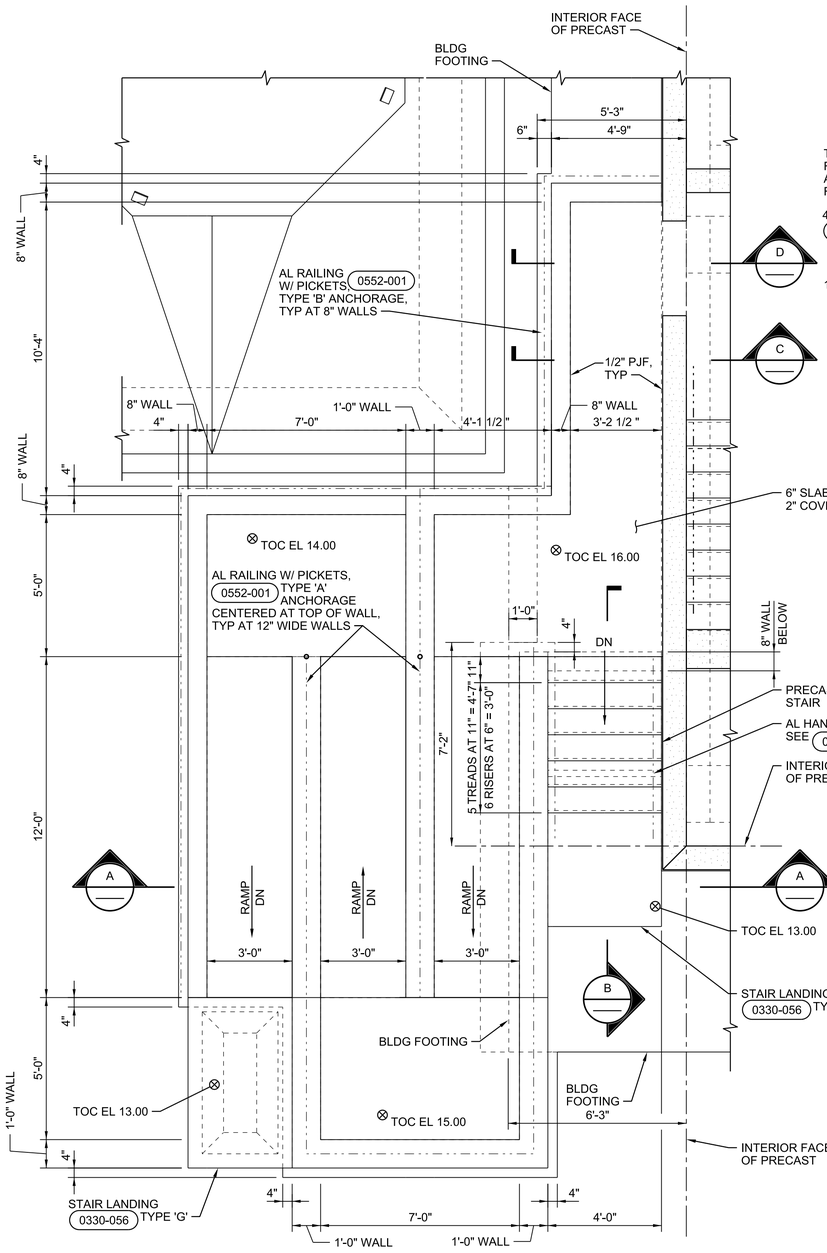
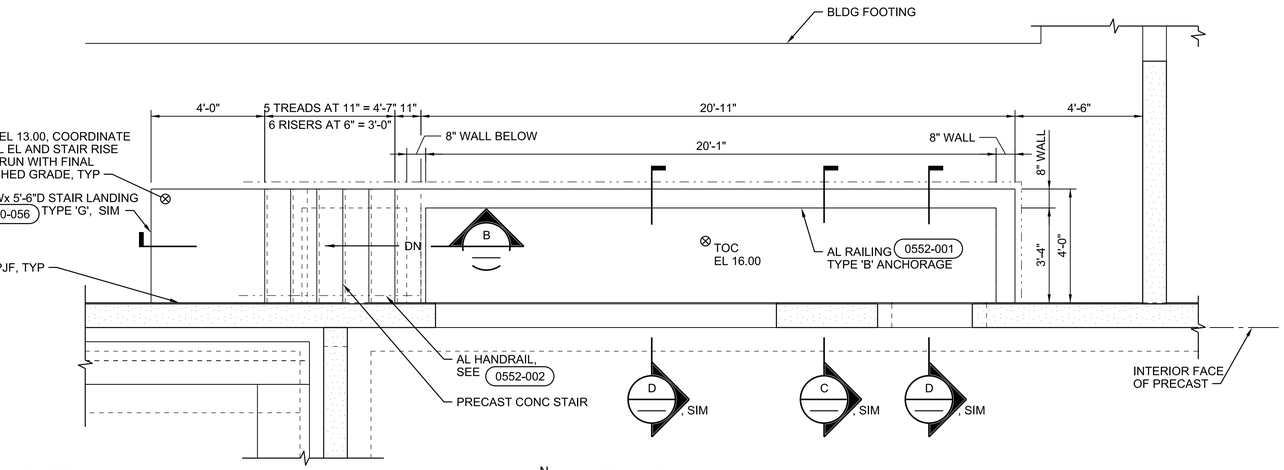


N

5 STAIR AND RAMPS PLAN

3/8"=1'-0"

20-S-2002

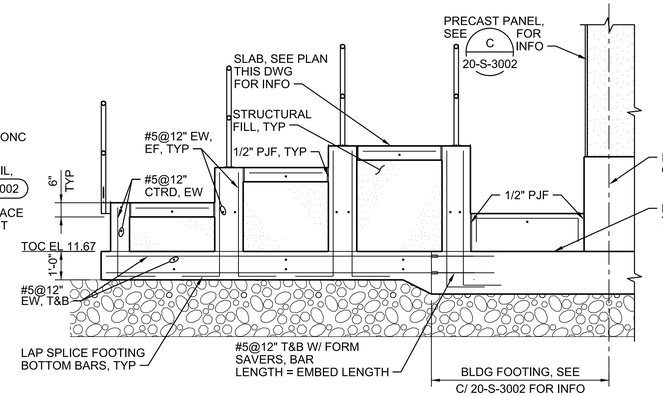


N

6 STAIR PLAN

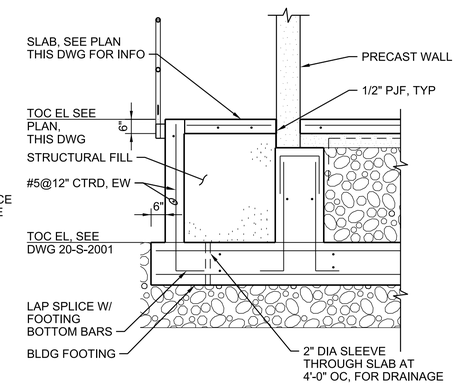
3/8"=1'-0"

20-S-2002



A SECTION

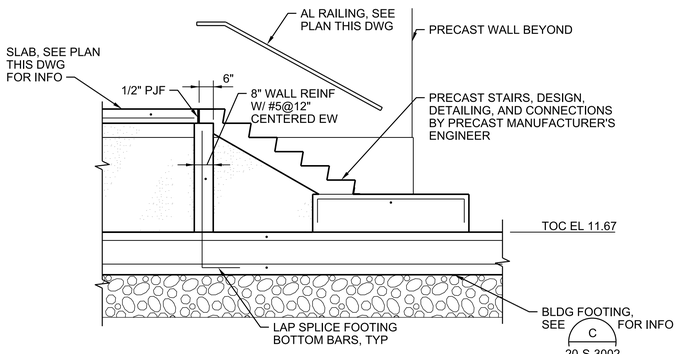
3/8"=1'-0"



C SECTION

3/8"=1'-0"

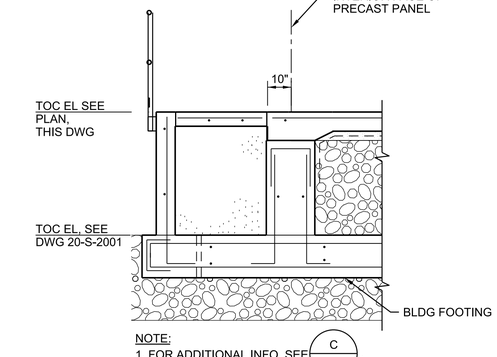
20-S-4005



B SECTION

3/8"=1'-0"

20-S-4005



D SECTION

3/8"=1'-0"

20-S-4005

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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DEWATERING FACILITY & OTHER IMPROVEMENTS

MOBILE AREA WATER & SEWER SYSTEM (MAWSS)

MOBILE, ALABAMA

NO.	DATE	REVISION	BY	APVD
DSGN	G PETTY	DR P KARABAN	CHK R FORREST	APVD M CHRZANOWSKI

Jacobs

STRUCTURAL

DEWATERING AND CONTROL BUILDING
PLANS AND SECTIONS

3/8"=1'-0

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

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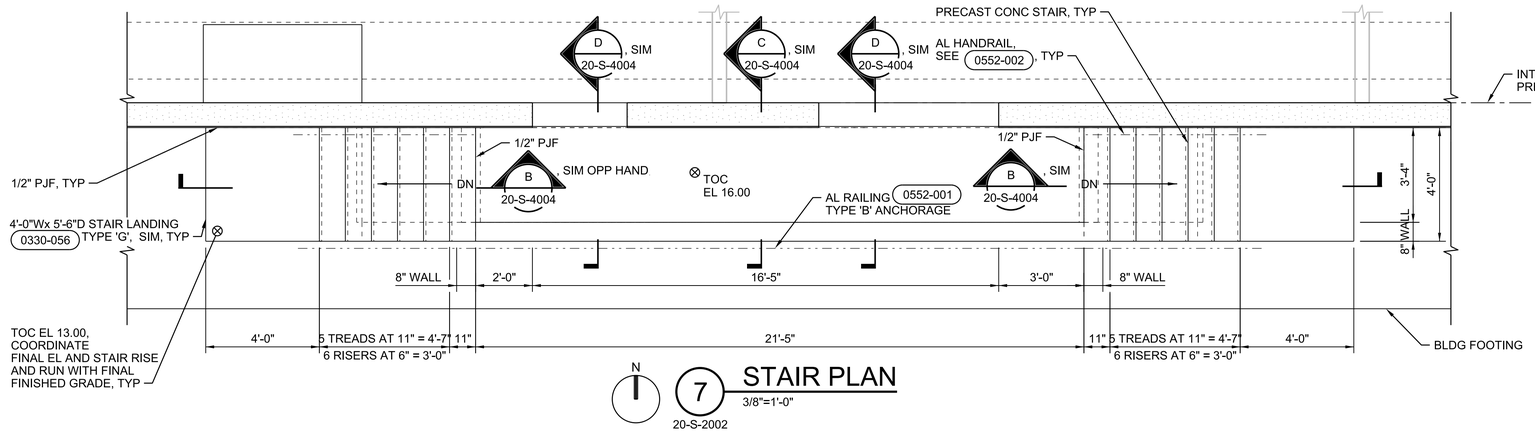
CONFORMED DOCUMENTS

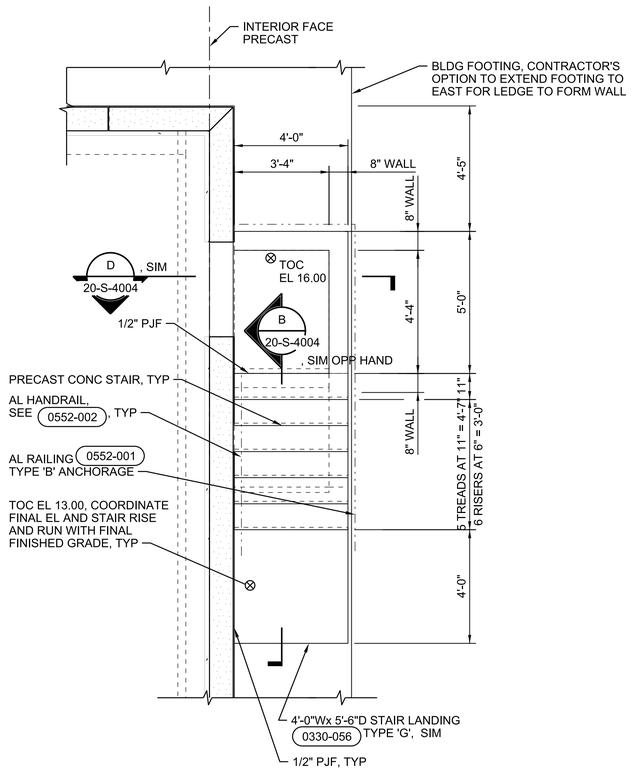


N

7 STAIR PLAN

3/8"=1'-0"

20-S-2002

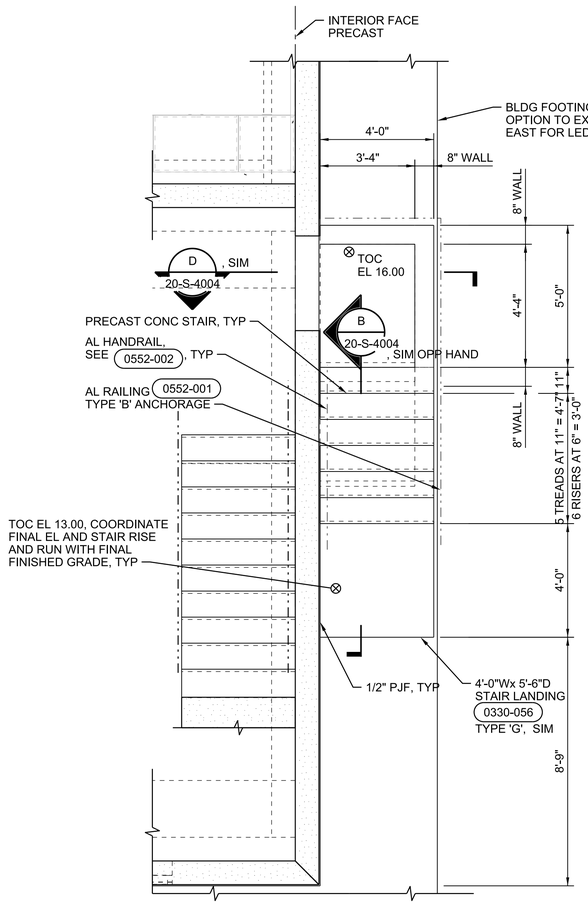


N

8 STAIR PLAN

3/8"=1'-0"

20-S-2002



N

9 STAIR PLAN

3/8"=1'-0"

20-S-2002

NO.	DATE	BY	APVD
DSGN	G PETTY	DR	P KARABAN
	REVISION	CHK	R FORREST
		APVD	M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

DEWATERING AND CONTROL BUILDING PLANS

CONFORMED DOCUMENTS

3/8"=1'-0

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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DWG	20-S-4005
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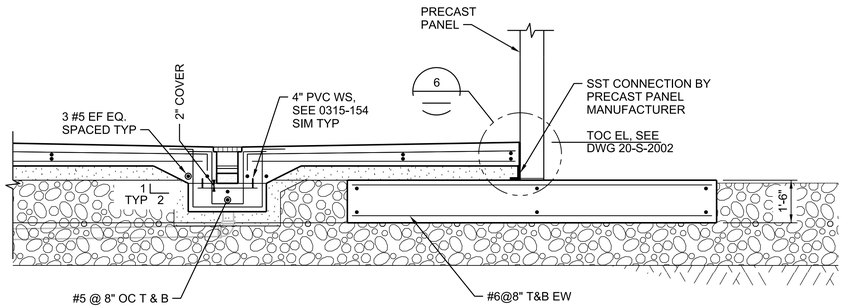
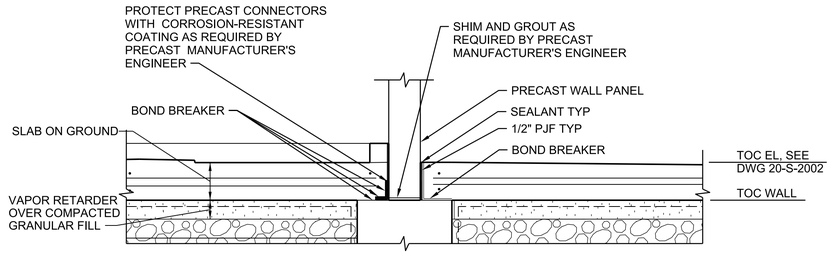


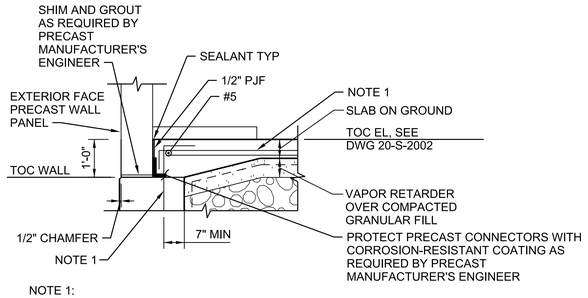
1 DETAIL
3/8"=1'-0"

20-S-3001, 20-S-3002



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

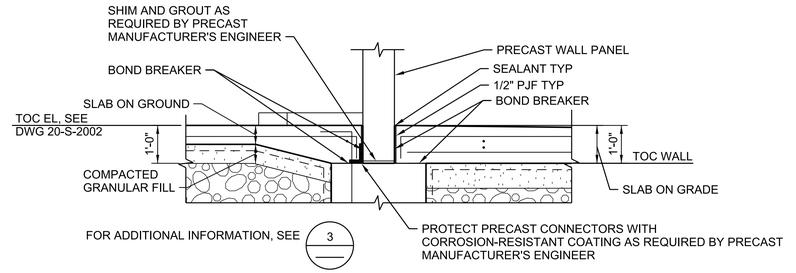
20-S-3001



NOTE 1:
- #4 @ 8" BENT BARS TOP LAP W/ SLAB BARS
- #4 @ 8" BENT DOWEL BAR OUT OF TOP OF WALL. COORDINATE DOWEL SPACING TO AVOID CONFLICT WITH WALL PANEL CONNECTORS. EXTEND DOWEL AN EMBED LENGTH INTO TOP OF WALL.

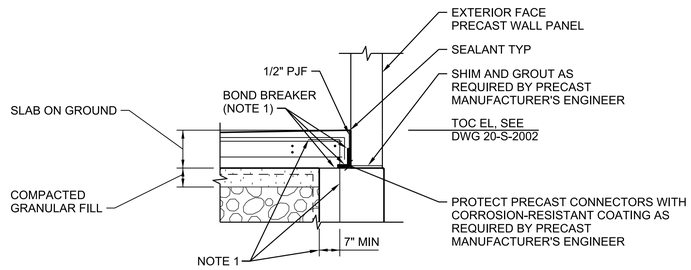
3 DETAIL
1-1/2"=1'-0"

20-S-3002, 20-S-3003



4 DETAIL
1-1/2"=1'-0"

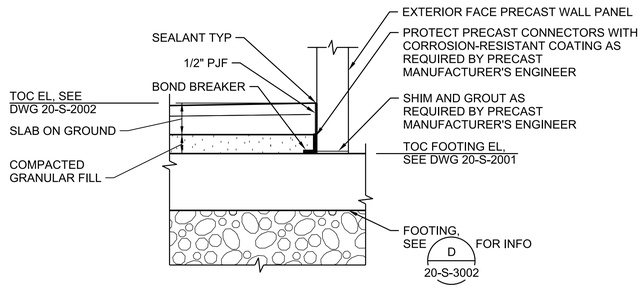
20-S-3002, 20-S-3004



NOTE 1:
- DELETE BOND BREAKER AT G1/20-S-3003.
- SEE G1/20-S-3003 FOR ADDITIONAL INFORMATION.

5 DETAIL
1-1/2"=1'-0"

20-S-3002, 20-S-3003



6 DETAIL
1-1/2"=1'-0"

20-S-3002

NO.	DATE	REVISION	DR	CHK	BY
DSGN	G PETTY	P KARABAN	R FORREST	APVD	M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL
DEWATERING AND CONTROL BUILDING DETAILS

CONFORMED DOCUMENTS

SCALE AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
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DWG	20-S-5001
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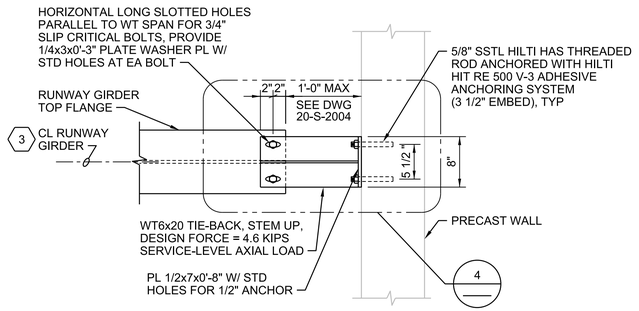
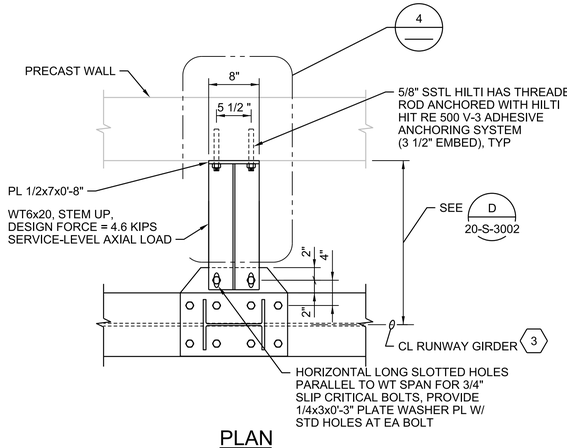


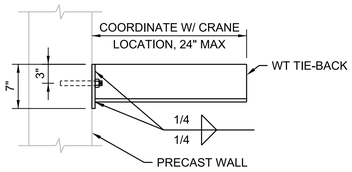
PLAN 1

1 DETAIL
1"=1'-0"
20-S-2004



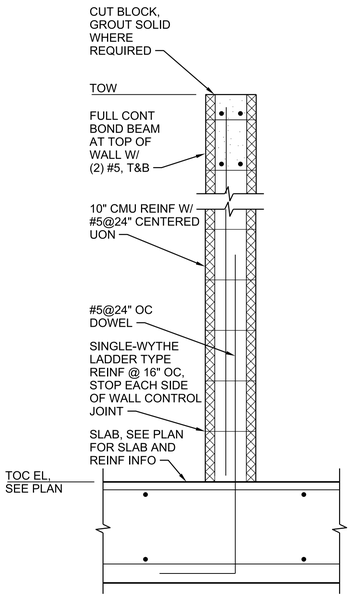
PLAN 1

3 DETAIL
1"=1'-0"



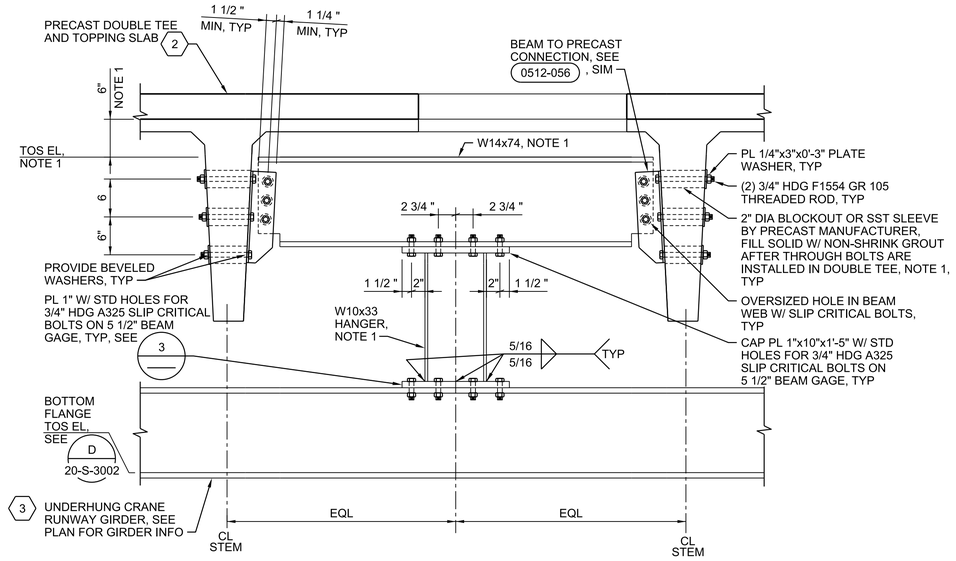
ELEVATION 1

4 DETAIL
1"=1'-0"



TYPE A

5 DETAIL
1"=1'-0"
20-S-2002



NOTES:

1. COORDINATE FINAL LENGTH/ LOCATION WITH PRECAST MANUFACTURER AND CRANE SPEC 41 22 13.13 PRIOR TO FABRICATION AND/ OR CONSTRUCTION.
2. SERVICE-LEVEL HANGER DESIGN D + MAXIMUM WHEEL LOAD = 25 KIPS. 30 KIPS WITH 1.25 IMPACT FACTOR.

ELEVATION
1, UON

2 DETAIL
1"=1'-0"
20-S-2004, 20-S-3002
20-S-3003

SHEET KEYNOTES

1. COMPONENTS OF CRANE RUNWAY BRACE ASSEMBLY SHALL BE 316L STAINLESS STEEL, EXCEPT SLIP-CRITICAL BOLTS SHALL BE A325 HOT-DIP GALVANIZED BOLTS. BLOCK PAINT/COATINGS AT SLIP-CRITICAL FASTENERS.
2. SEE 20-S-2004 FOR ROOF CONSTRUCTION.
3. PROVIDE COATING SYSTEM #4 PER SPECIFICATION 09 90 00 ON CARBON STEEL RUNWAY BEAM.

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	G PETTY		P KARABAN	R FORREST		M CHRZANOWSKI	

25 WEST CEDAR STREET, SUITE 350
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CONFORMED DOCUMENTS

Jacobs

STRUCTURAL

DEWATERING AND CONTROL BUILDING DETAILS

SCALE AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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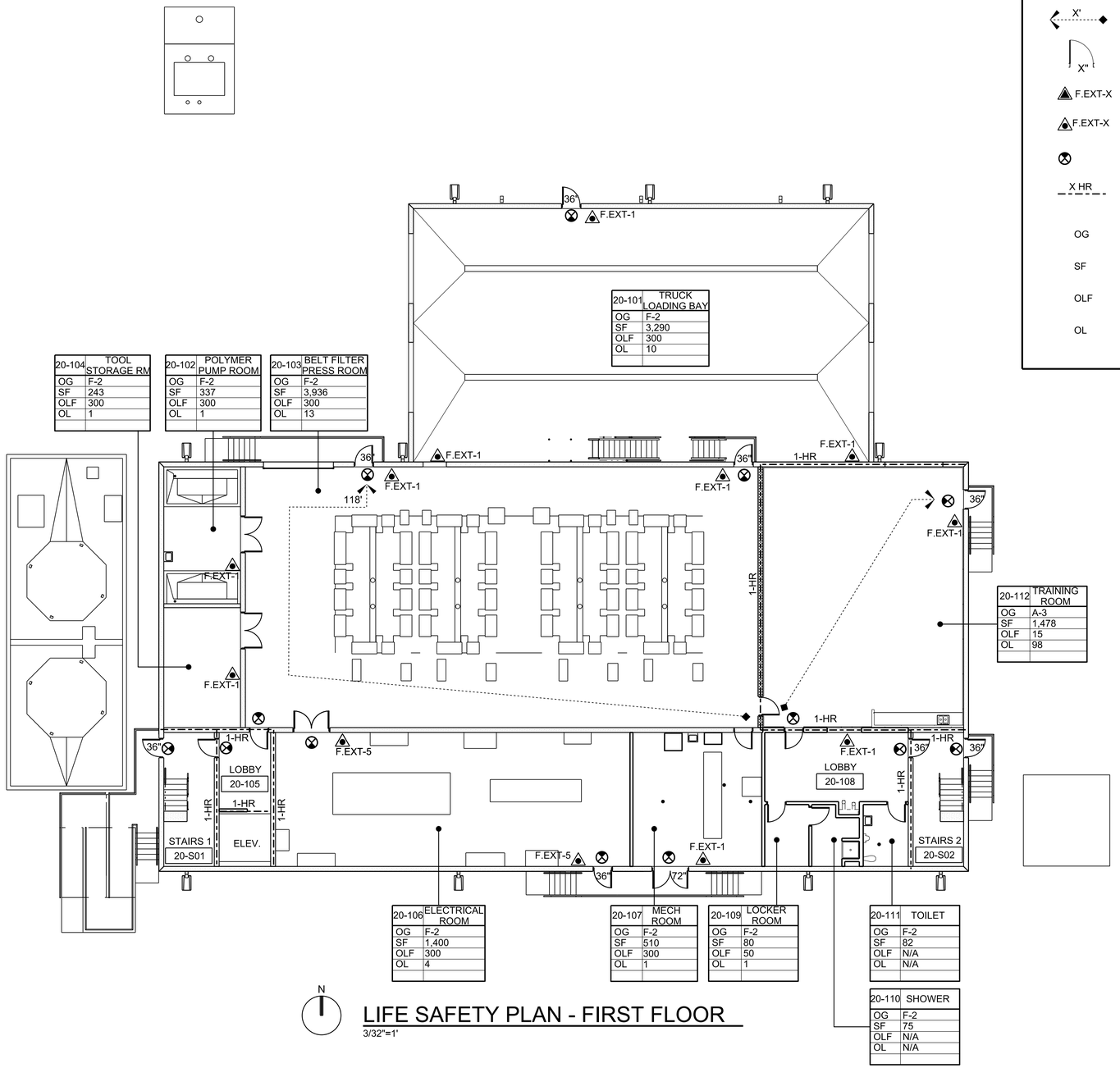

LIFE SAFETY PLAN - FIRST FLOOR

3/32"=1'

LIFE SAFETY LEGEND

X'	TRAVEL DISTANCE (X = TOTAL DISTANCE TO EXIT IN FEET)
X"	EGRESS WIDTH (IN INCHES)
F.EXT-X	FIRE EXTINGUISHER TYPE "X" W/ SEMI-RECESSED CABINET
F.EXT-X	FIRE EXTINGUISHER TYPE "X" W/ BRACKET
	EXIT LIGHT, ONE SIDED
X HR	WALL FIRE RATING
OG	OCCUPANCY GROUP
SF	SQUARE FOOT
OLF	OCCUPANT LOAD FACTOR
OL	OCCUPANT LOAD

CODE DATA

SEE APPLICABLE CODES ON GENERAL ARCHITECTURAL SHEET

BUILDING: DEWATERING AND CONTROL BUILDING

GENERAL INFORMATION

USE AND OCCUPANCY CLASSIFICATION (BASED ON SEPARATED OCCUPANCY) (508.4)	MIXED USE: FACTORY (F-2). ASSEMBLY (A-3) & BUSINESS (B)
CONSTRUCTION CLASSIFICATION (SECTION 602.2)	IIB

AREA AND HEIGHT LIMITATIONS

MAXIMUM ALLOWABLE AREA (TABLE 503)	1ST FLOOR	F-2 & A-3 SUM OF THE RATIOS <1
	2ND FLOOR	B: 23,000 SF
ALLOWABLE AREA INCREASE (506)		NOT APPLICABLE
ACTUAL AREA (SF)		
ACTUAL AREA PER FLOOR	FIRST FLOOR	13,300 SF (SECTION 506.4)
	SECOND FLOOR	3,430 SF
MAXIMUM ALLOWABLE STORIES (TABLE 503)		3
ACTUAL NUMBER OF STORIES		2 STORY
MAXIMUM ALLOWABLE HEIGHT (TABLE 503)		55 FT
ACTUAL BUILDING HEIGHT		35'-6"

OCCUPANCY / EGRESS INFORMATION

OCCUPANT LOAD	AS SHOWN ON LIFE SAFETY PLAN PER FLOOR
MEANS OF EGRESS WIDTH REQUIRED (1005)	0.3 / OCCUPANT FOR STAIRS 0.2 / OCCUPANT FOR OTHER
MINIMUM EGRESS WIDTH AT DOORS (1008.1.1)	32 IN
MINIMUM CORRIDOR WIDTH FOR OCCUPANCY (1018.2)	44 INCHES
MAXIMUM DEAD END CORRIDOR LENGTH (1018.4)	20 FEET
MIN NUMBER OF EXITS (TABLE 1021.1)	8 PROVIDED
ALLOWABLE COMMON PATH OF EGRESS TRAVEL (1014.3)	75 FT
MAXIMUM EXIT ACCESS TRAVEL DISTANCE (TABLE 1016.2)	(F-2) 300 FT (B) 200 FT

REQUIRED FIRE RESISTANT RATINGS

BUILDING ELEMENTS (TABLE 601)	
STRUCTURAL FRAME	NO RATING
EXTERIOR BEARING WALLS	NO RATING
INTERIOR BEARING WALLS	NO RATING
INTERIOR NON-BEARING WALLS	NO RATING
FLOOR CONSTRUCTION	NO RATING
ROOF CONSTRUCTION	NO RATING
SHAFT ENCLOSURE (713.4)	1 HR
STAIRWAY ENCLOSURE (1022.2)	1 HR
CORRIDOR (TABLE 1018.1)	NA
OCCUPANCY SEPARATION (TABLE 508.4)	1 HR FOR A-3/ F-2 2 HR FOR A-3/ B
INCIDENTAL USES (TABLE 508.2.5)	NA
EXTERIOR WALL FIRE RESISTANCE RATINGS BASED ON FIRE SEPARATION DISTANCE (TABLE 602)	NA

FIRE PROTECTION

AUTOMATIC FIRE SPRINKLERS NOT REQUIRED AND NOT PROVIDED.

FIRE EXTINGUISHERS REQUIRED AND PROVIDED.

FIRE ALARM PROVIDED.

PLUMBING FIXTURES (FPC 403.3.2)

TOILET FACILITIES PROVIDED

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA		T DODGE	A DOLSAK
DR	V ROMAN-CARDONA		CHK	

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING
LIFE SAFETY PLAN

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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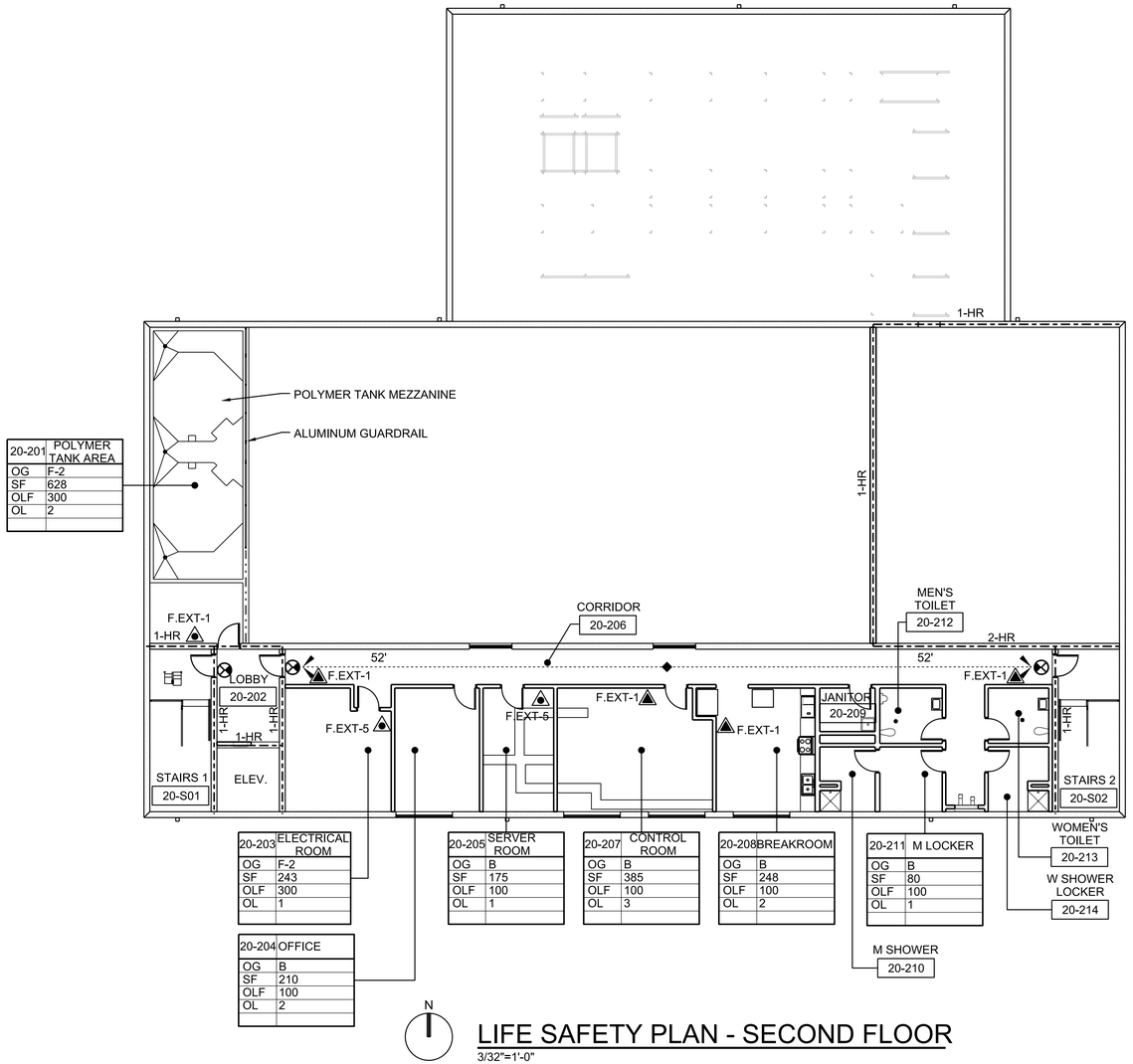


20-201	POLYMER TANK AREA
OG	F-2
SF	628
OLF	300
OL	2

20-203	ELECTRICAL ROOM
OG	F-2
SF	243
OLF	300
OL	1

20-204	OFFICE
OG	B
SF	210
OLF	100
OL	2

20-205	SERVER ROOM
OG	B
SF	175
OLF	100
OL	1

20-207	CONTROL ROOM
OG	B
SF	385
OLF	100
OL	3

20-208	BREAKROOM
OG	B
SF	248
OLF	100
OL	2

20-211	M LOCKER
OG	B
SF	80
OLF	100
OL	1

LIFE SAFETY PLAN - SECOND FLOOR

3/32"=1'-0"

GENERAL NOTES

1. FOR CODE DATA TABLE REFER TO SHEET 20-A-2001.
2. SECOND FLOOR PENETRATIONS/JOINTS BETWEEN OCCUPANCIES REQUIRE FIRE RATED FIRESTOP SYSTEMS PER SPEC SECTION 07 84 00.

LIFE SAFETY LEGEND

X'	TRAVEL DISTANCE (X = TOTAL DISTANCE TO EXIT IN FEET)
X"	EGRESS WIDTH (IN INCHES)
F.EXT-X	FIRE EXTINGUISHER TYPE "X" W/ SEMI-RECESSED CABINET
F.EXT-X	FIRE EXTINGUISHER TYPE "X" W/ BRACKET
	EXIT LIGHT, ONE SIDED
X HR	WALL FIRE RATING
OG	OCCUPANCY GROUP
SF	SQUARE FOOT
OLF	OCCUPANT LOAD FACTOR
OL	OCCUPANT LOAD

NO.	DATE	REVISION	BY	APVD

DSGN V ROMAN-CARDONA | DR V ROMAN-CARDONA | CHK T DODGE | APVD A DOLSAK

CONFORMED DOCUMENTS

Jacobs
ARCHITECTURAL
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING LIFE SAFETY PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

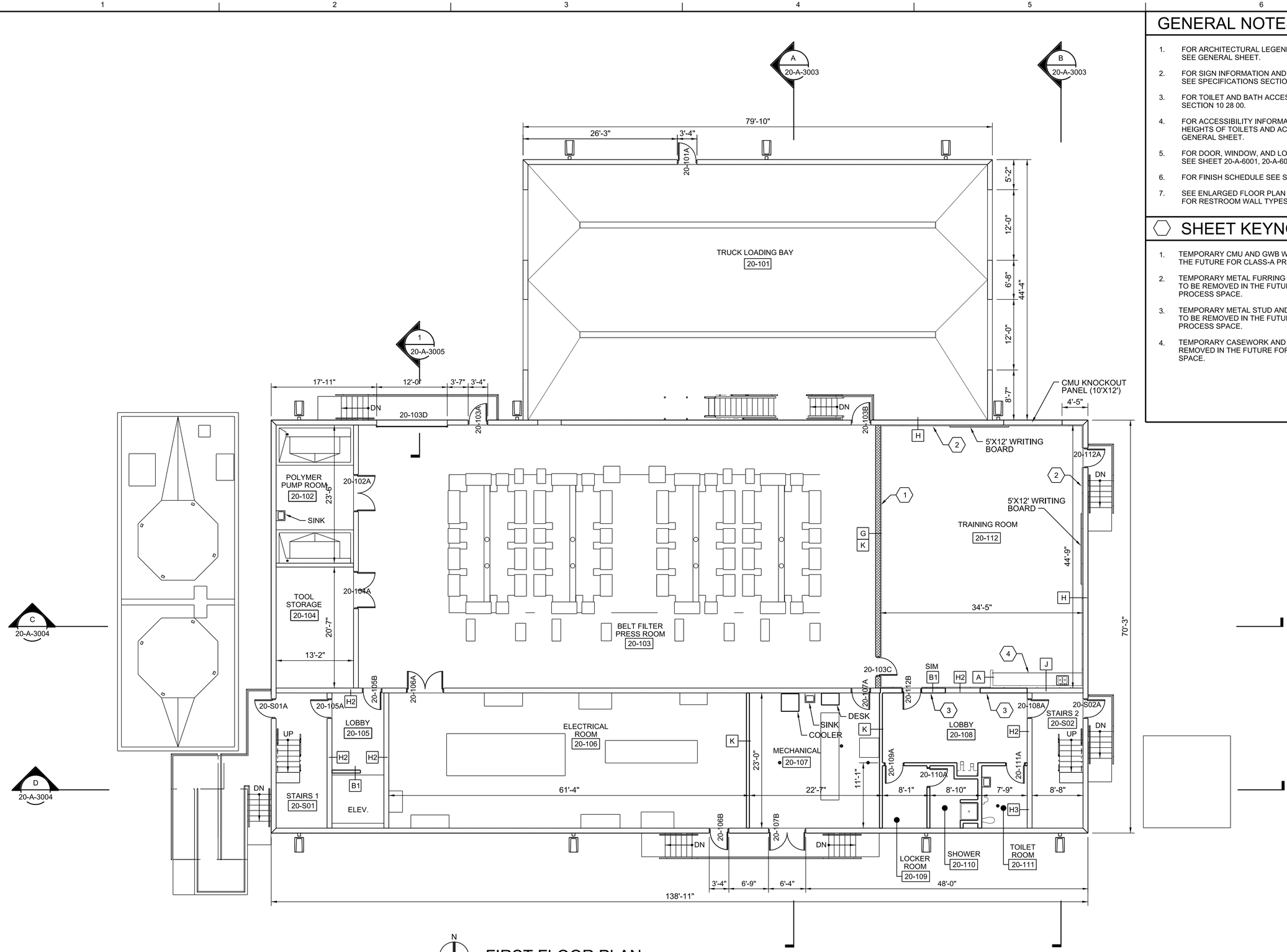
DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2002
SHEET	095 of 270

GENERAL NOTES

1. FOR ARCHITECTURAL LEGEND AND WALL TYPES SEE GENERAL SHEET.
2. FOR SIGN INFORMATION AND TYPE DESCRIPTIONS SEE SPECIFICATIONS SECTION 10 14 00.
3. FOR TOILET AND BATH ACCESSORIES SEE SPEC SECTION 10 28 00.
4. FOR ACCESSIBILITY INFORMATION AND MOUNTING HEIGHTS OF TOILETS AND ACCESSORIES SEE GENERAL SHEET.
5. FOR DOOR, WINDOW, AND LOUVER SCHEDULES SEE SHEET 20-A-6001, 20-A-6002 AND 20-A-6003.
6. FOR FINISH SCHEDULE SEE SHEET 20-A-6004.
7. SEE ENLARGED FLOOR PLAN ON SHEET 20-A-4002 FOR RESTROOM WALL TYPES.

SHEET KEYNOTES

1. TEMPORARY CMU AND GWB WALL TO BE REMOVED IN THE FUTURE FOR CLASS-A PROCESS SPACE.
2. TEMPORARY METAL FURRING AND GYPSUM BOARD TO BE REMOVED IN THE FUTURE FOR CLASS-A PROCESS SPACE.
3. TEMPORARY METAL STUD AND GYPSUM BOARD WALL TO BE REMOVED IN THE FUTURE FOR CLASS-A PROCESS SPACE.
4. TEMPORARY CASEWORK AND PLUMBING TO BE REMOVED IN THE FUTURE FOR CLASS-A PROCESS SPACE.



N

FIRST FLOOR PLAN

1/8" = 1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING FIRST FLOOR PLAN

NO.	REVISION	DR	CHK	APVD
DATE		BJ NARAMORE	T DODGE	APVD
DSGN		V ROMAN-CARDONA		BY APVD
				A DOLSAK

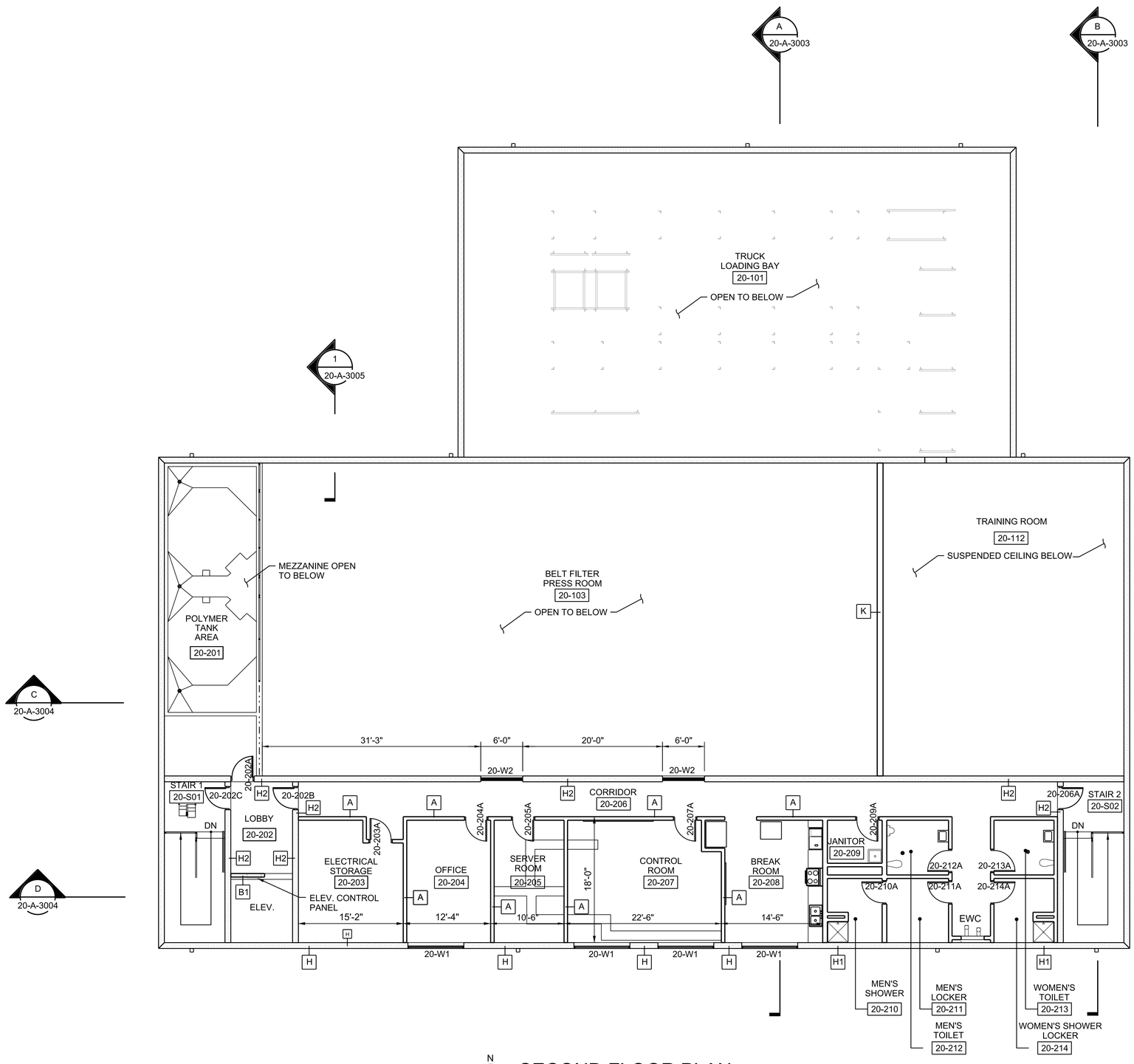
CONFORMED DOCUMENTS

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2003
SHEET	096 of 270

GENERAL NOTES

1. FOR ARCHITECTURAL LEGEND AND WALL TYPES SEE SHEET GENERAL SHEET.
2. FOR SIGN INFORMATION AND TYPE DESCRIPTIONS SEE SPECIFICATIONS SECTION 10 14 00.
3. FOR TOILET AND BATH ACCESSORIES SEE SPEC SECTION 10 28 00.
4. FOR ACCESSIBILITY INFORMATION AND MOUNTING HEIGHTS OF TOILETS AND ACCESSORIES SEE DRAWING 20-A-2004.
5. FOR DOOR, WINDOW, AND LOUVER SCHEDULES SEE SHEET 20-A-6001, 20-A-6002 AND 20-A-6003.
6. FOR FINISH SCHEDULE SEE SHEET 20-A-6004.
7. SEE ENLARGED FLOOR PLAN ON SHEET 20-A-4002 FOR RESTROOM WALL TYPES.



N

SECOND FLOOR PLAN

1/8" = 1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING
SECOND FLOOR

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

NO.	REVISION	DATE	DSGN	DR	CHK	APVD
			V ROMAN-CARDONA	BJ NARAMORE	T DODGE	A DOLSAK

CONFORMED DOCUMENTS

1/8"=1'-0"

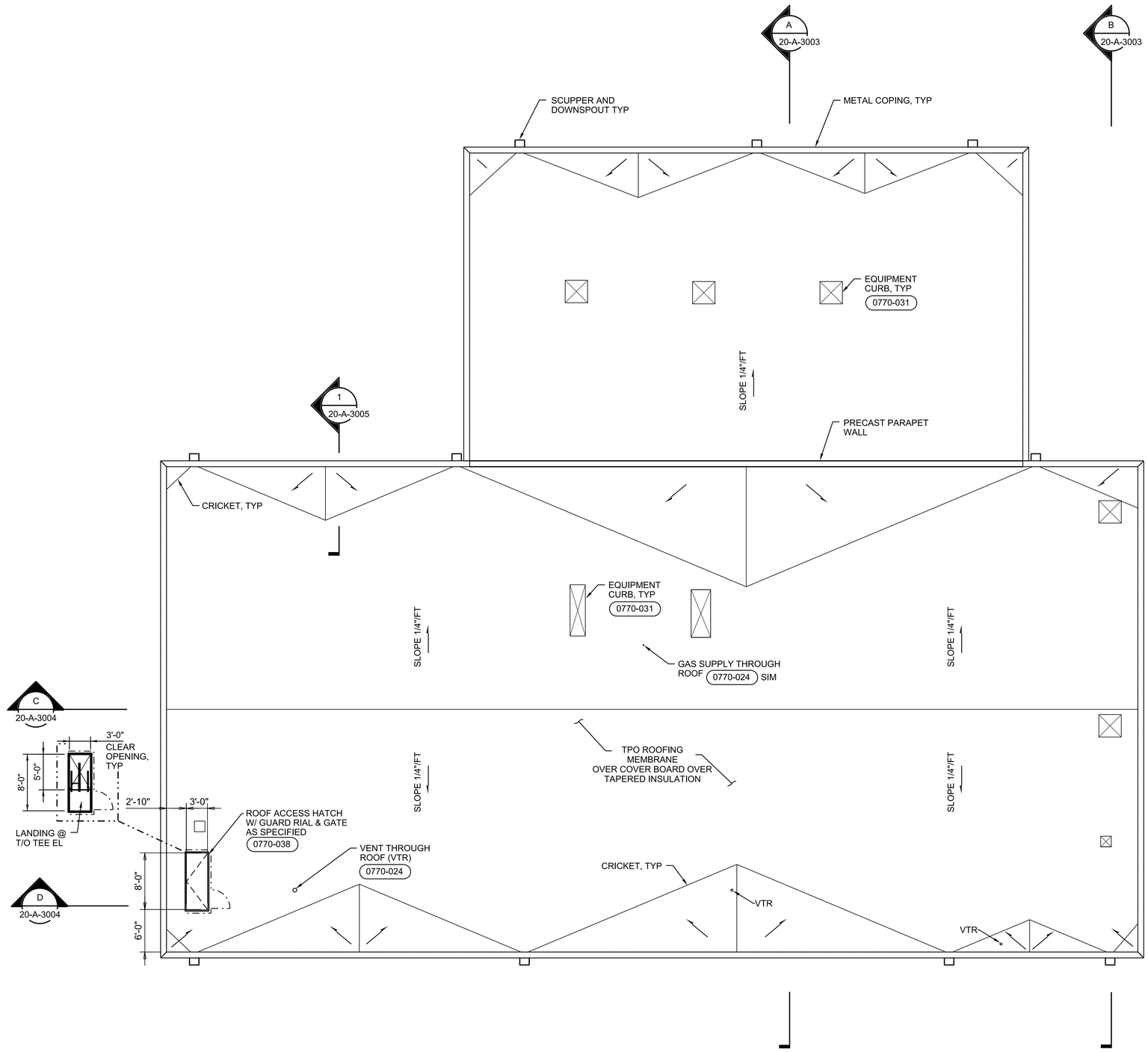
VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2004
SHEET	097 of 270

GENERAL NOTES

1. FOR HVAC SEE MECHANICAL DRAWINGS.
2. SEE STANDARD DETAIL FOR EQUIPMENT CURB DETAIL. (0770-031)
3. COORDINATE VENT PIPE LOCATION WITH PLUMBING. SEE DETAIL FOR PIPE PENETRATIONS. (0770-024)
4. INCLUDE IN THE WORK THE SUPPLY AND INSTALLATION OF 1,000 SF OF TPO WALWAY. LAYOUT TO BE AS DIRECTED BY OWNER.



N

ROOF PLAN

1/8" = 1'-0"

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	V ROMAN-CARDONA		BJ NARAMORE	T DODGE		A DOLSAK	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING ROOF PLAN

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2005
SHEET	098 of 270

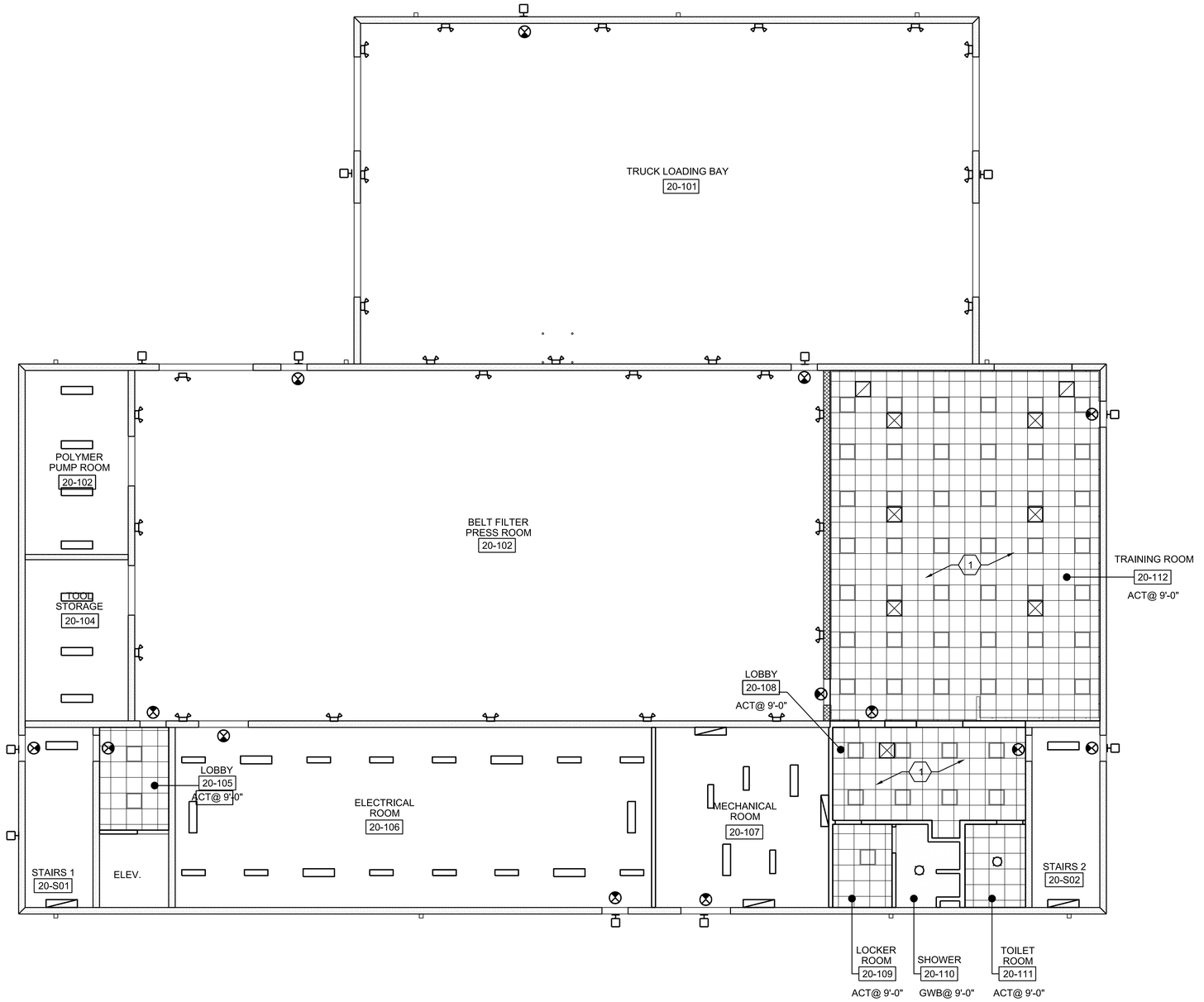
CONFORMED DOCUMENTS

GENERAL NOTES

1. SEE SHEET 20-E-2005 FOR ELECTRICAL LIGHTING PLAN.
2. SEE SHEET 20-M-2001 FOR HVAC PLAN.

SHEET KEYNOTES

1. TEMPORARY SUSPENDED CEILING SYSTEM AND HVAC TO BE REMOVED IN THE FUTURE FOR CLASS-A PROCESS SPACE.



LEGEND

- 2'x2' SUSPENDED TILE CEILING SYSTEM
- GYPSUM CEILING, PAINTED
- 2X2 LED LIGHT FIXTURE
- SURFACE MOUNTED LED LIGHT FIXTURE
- EMERGENCY LIGHT
- RECESSED CAN LIGHT FIXTURE
- PENDANT MOUNT LIGHT FIXTURE
- HVAC SUPPLY GRILLE
- HVAC RETURN GRILLE
- EXIT LIGHT, ONE SIDED
- WALL LIGHT FIXTURE (ABOVE DOOR)
- WALL MOUNTED LIGHT FIXTURE

N

FIRST FLOOR REFLECTED CEILING PLAN

1/8" = 1'-0"

NO.	DATE	REVISION	DSGN	DR	CHK	APVD
			V ROMAN-CARDONA	BJ NARAMORE	T DODGE	APVD

BY	APVD
	A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ARCHITECTURAL

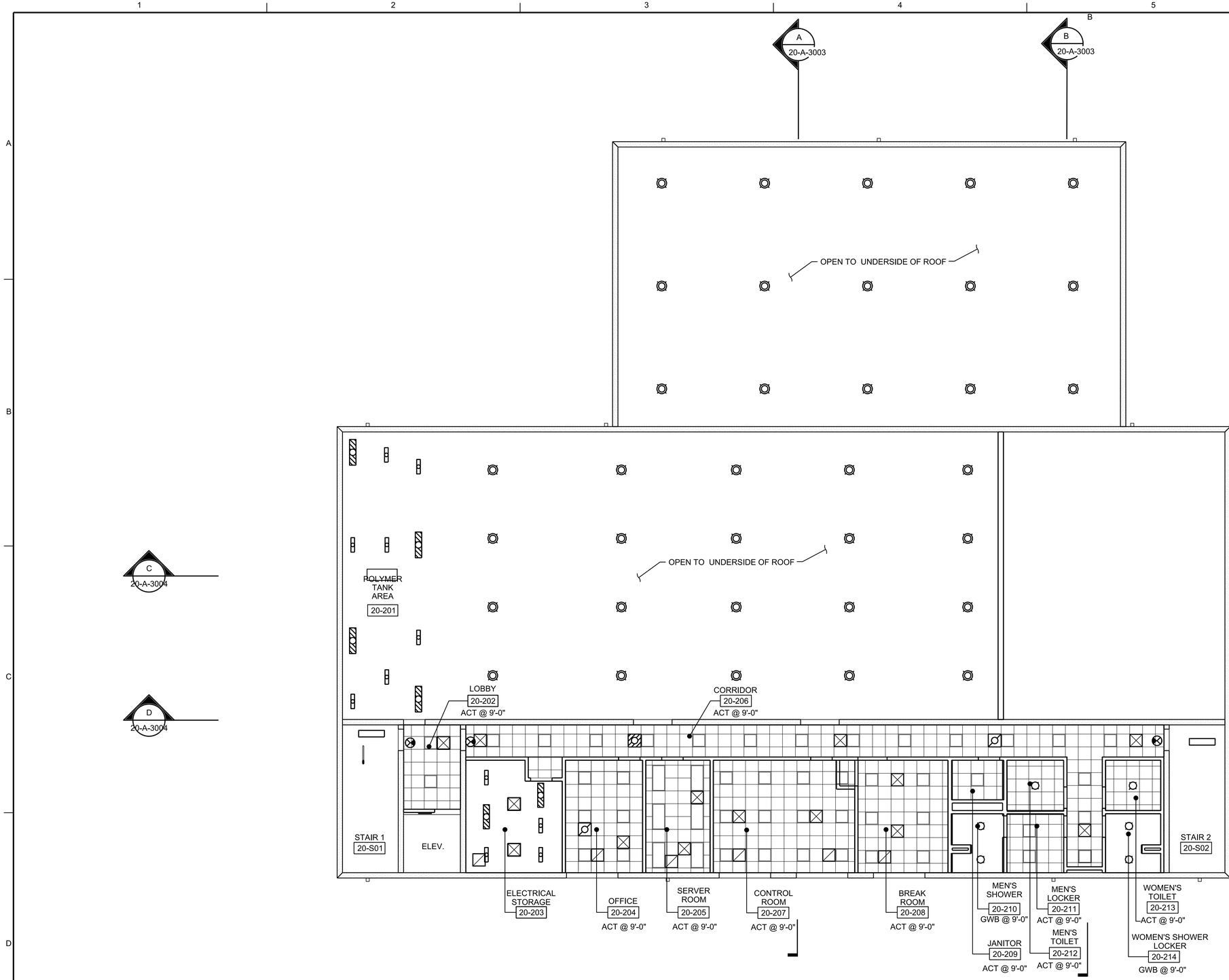
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING
FIRST FLOOR
REFLECTED CEILING PLAN

CONFORMED DOCUMENTS

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2006
SHEET	099 of 270



N

SECOND FLOOR REFLECTED CEILING PLAN

1/8" = 1'-0"

GENERAL NOTES

1. SEE SHEET 20-E-2006 FOR ELECTRICAL LIGHTING PLAN.
2. SEE SHEET 20-M-2002 FOR HVAC PLAN.
3. LOCATE ACCESS PANELS AT SPACES WITH GYPSUM CEILINGS, TYPICAL.

LEGEND

- 2'x2' SUSPENDED TILE CEILING SYSTEM
- GYPSUM CEILING, PAINTED
- 2X2 LED LIGHT FIXTURE
- 2X4 LED LIGHT FIXTURE
- SURFACE MOUNTED LED LIGHT FIXTURE
- EMERGENCY LIGHT
- RECESSED CAN LIGHT FIXTURE
- PENDANT MOUNT LIGHT FIXTURE
- HVAC SUPPLY GRILLE
- HVAC RETURN GRILLE
- EXIT LIGHT, ONE SIDED

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	V ROMAN-CARDONA		BJ NARAMORE	T DODGE		A DOLSAK	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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ARCHITECTURAL

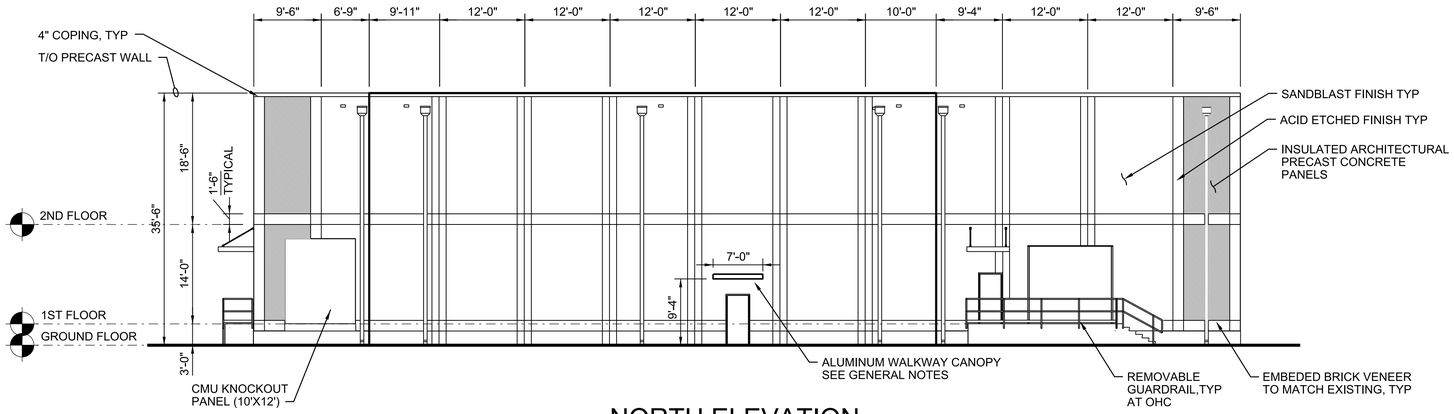
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING
SECOND FLOOR
REFLECTED CEILING PLAN

CONFORMED DOCUMENTS

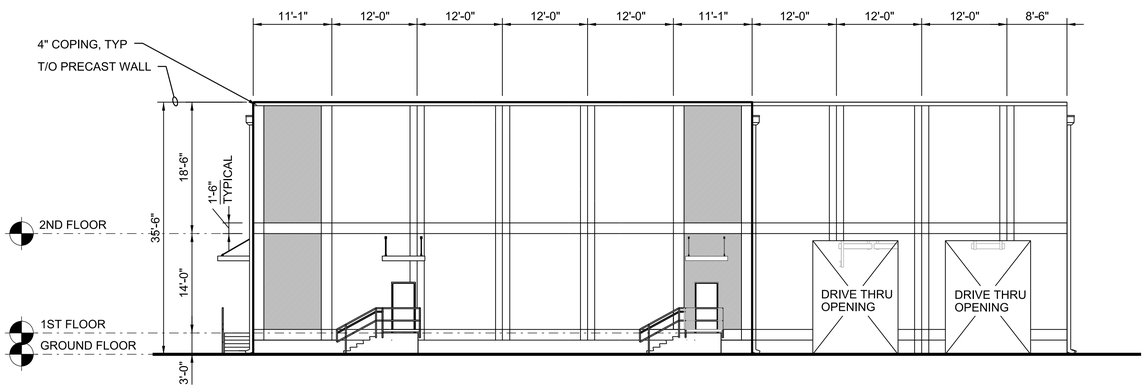
1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-2007
SHEET	100 of 270



NORTH ELEVATION

3/32" = 1'-0"



EAST ELEVATION

3/32" = 1'-0"

GENERAL NOTES

1. LOUVER OPENING LOCATIONS TO BE COORDINATED BY THE CONTRACTOR WITH THE HVAC DESIGN, ARCHITECTURAL ELEVATIONS AND THE PRECAST WALL PANEL MANUFACTURER TYP.
2. SEE SHEET 20-A-6001 FOR DOOR AND HARDWARE SCHEDULE.
3. SEE SPECIFICATIONS SECTION 03 40 00 FOR PRECAST CONCRETE WALL PANELS.
4. FOR PRECAST PANEL JOINT, REVEALS AND CORNER DETAILS SEE DETAILS CD1-001, RD1-001 AND PJ1-001 ON DRAWING 99-A-5005.
5. ALUMINUM SIDEWALK CANOPY TO EXTEND FROM THE EXISTING ADMINISTRATION BUILDING TO THE DEWATERING BUILDING TRUCKBAY DOOR AS SHOWN ON THE DRAWINGS.
6. ALUMINUM SIDEWALK CANOPY SHALL ATTACH TO THE EXISTING ADMINISTRATION BUILDING WALL AND THE DEWATERING BUILDING WALL TO PREVENT WATER PENETRATION BELOW THE CANOPY AND INTO THE WALLS OF BOTH BUILDINGS. SUBMIT CANOPY CONNECTION DETAILS FOR EACH BUILDING FOR REVIEW BY THE ENGINEER AND ARCHITECT OF RECORD FOR THIS PROJECT.
7. CONTRACTOR TO PROVIDE DESIGN FOR THE CONCRETE FOUNDATION REQUIRED FOR THE ALUMINUM SIDEWALK CANOPY AND THE CONCRETE SIDEWALK IN ACCORDANCE WITH THE ALUMINUM SIDEWALK MANUFACTURER TO MEET THE STRUCTURAL REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE AND STRUCTURAL CRITERIA SHOWN ON THE CONTRACT DOCUMENTS.

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	V ROMAN-CARDONA		BJ NARAMORE	T DODGE	APVD
				BY	APVD
				A DOLSAK	

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ARCHITECTURAL

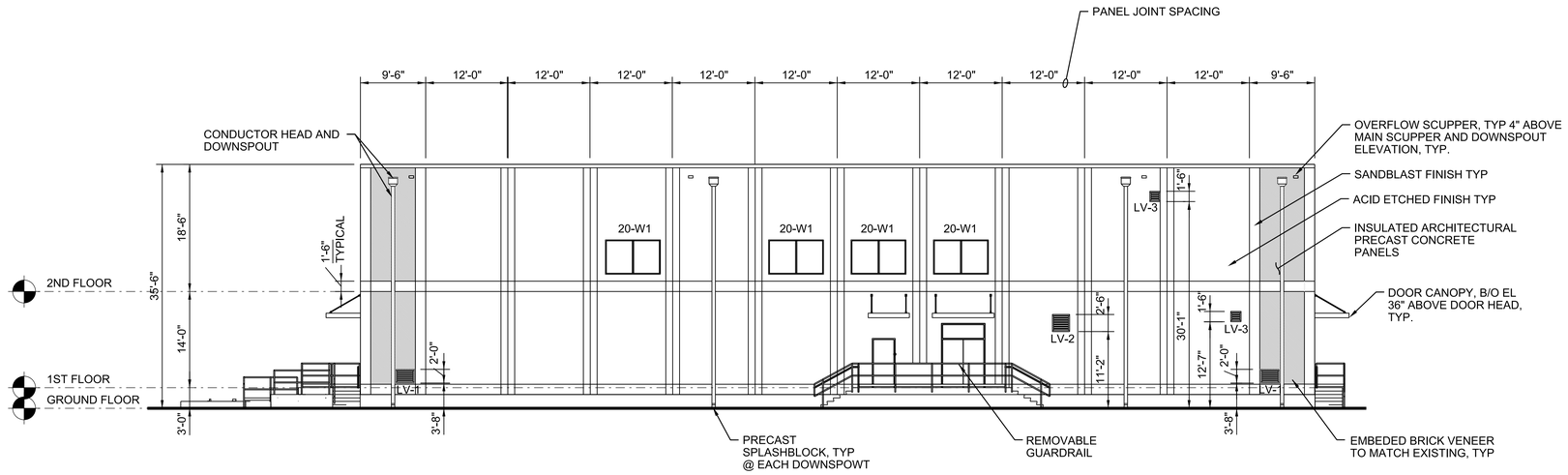
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING NORTH AND EAST ELEVATIONS

1/8"=1'-0	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-A-3001
SHEET	101 of 270

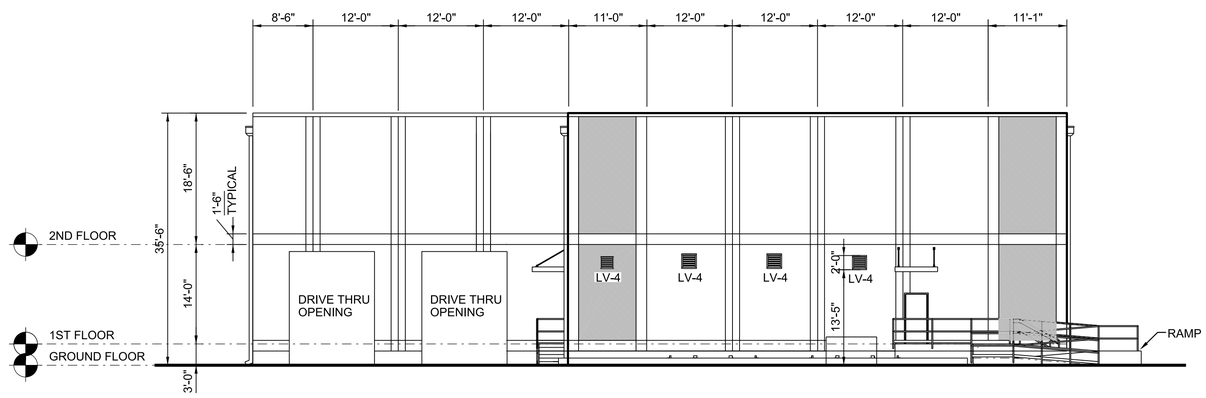
GENERAL NOTES

1. LOUVER OPENING LOCATIONS TO BE COORDINATED BY THE CONTRACTOR WITH THE HVAC DESIGN, ARCHITECTURAL ELEVATIONS AND THE PRECAST WALL PANEL MANUFACTURER TYP.
2. SEE SHEET 20-A-6001 FOR DOOR AND HARDWARE SCHEDULE.
3. SEE SPECIFICATIONS SECTION 03 40 00 FOR PRECAST CONCRETE WALL PANELS.
4. FOR PRECAST PANEL JOINT, REVEALS AND CORNER DETAILS SEE DETAILS CD1-001, RD1-001 AND PJ1-001 ON DRAWING 99-A-5005.



SOUTH ELEVATION

3/32"=1'-0"



WEST ELEVATION

3/32"=1'-0"

NO.	DATE	DSGN	DR	CHK	APVD
		V ROMAN-CARDONA	BJ NARAMORE	T DODGE	A DOLSAK

REVISION

BY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

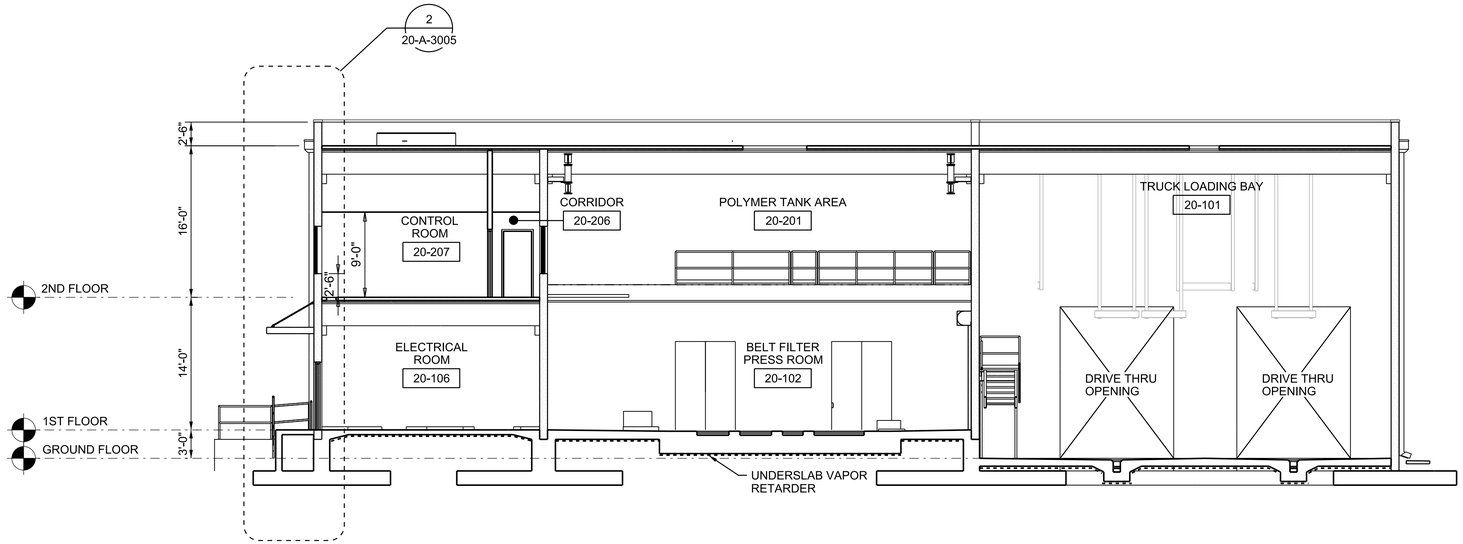
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING SOUTH AND WEST ELEVATIONS

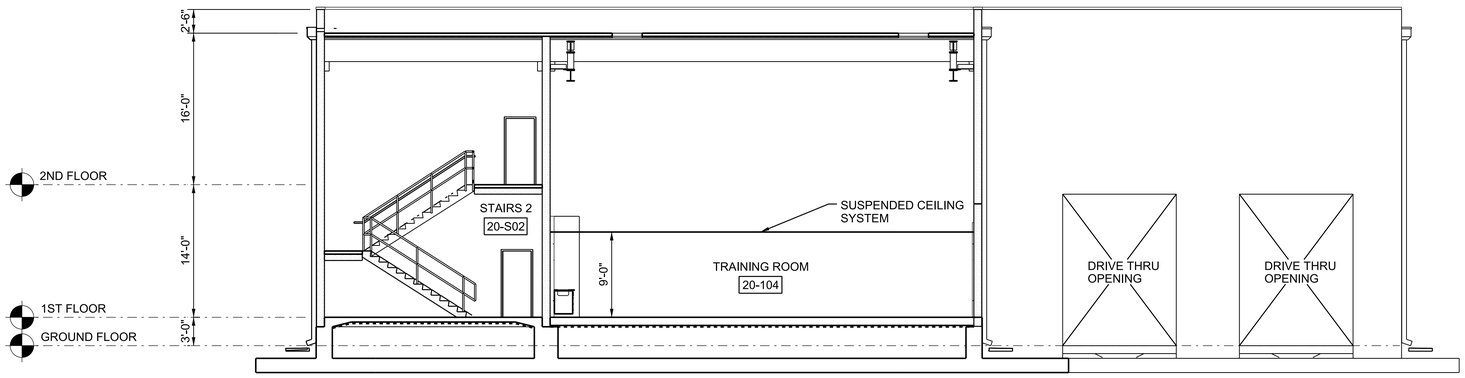
	1/8"=1'-0
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"
DATE	MAY 2021
PROJ	D3226100
DWG	20-A-3002
SHEET	102 of 270



A SECTION

1/8" = 1'-0"

20-A-2003
20-A-2004
20-A-2005
20-A-2006
20-A-2007



B SECTION

1/8" = 1'-0"

20-A-2003
20-A-2004
20-A-2005
20-A-2006
20-A-2007

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA	DR	BJ NARAMORE	CHK	T DODGE	APVD	A DOLSAK

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

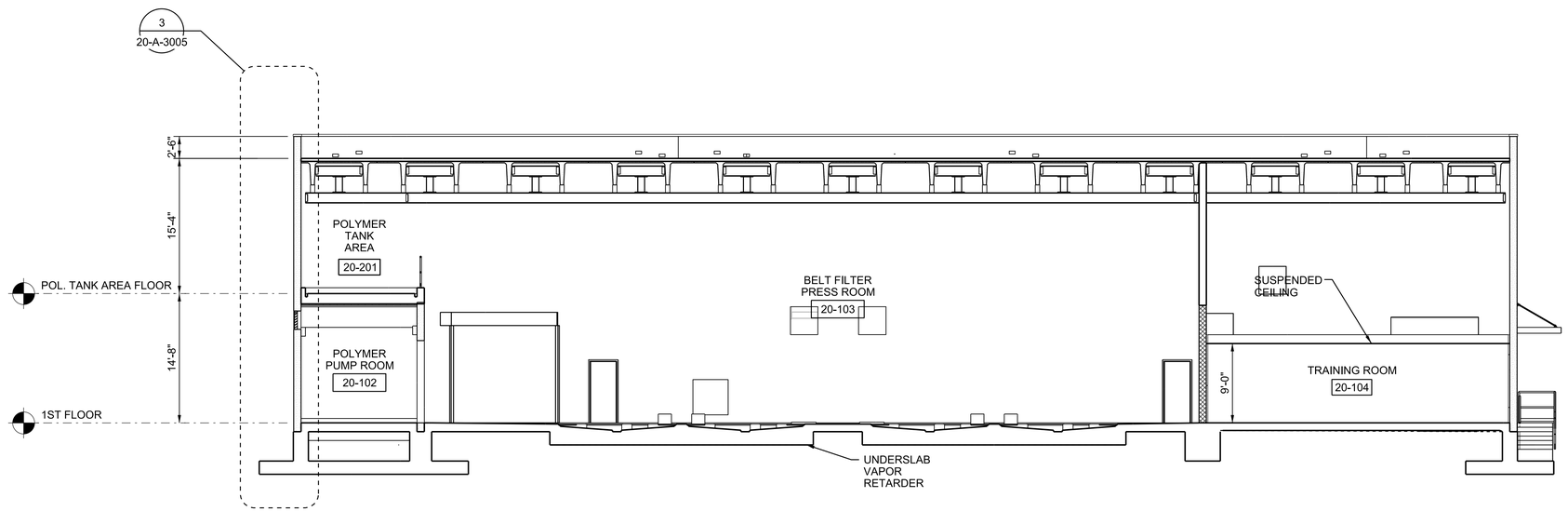
ARCHITECTURAL

DEWATERING AND CONTROL BUILDING SECTIONS

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

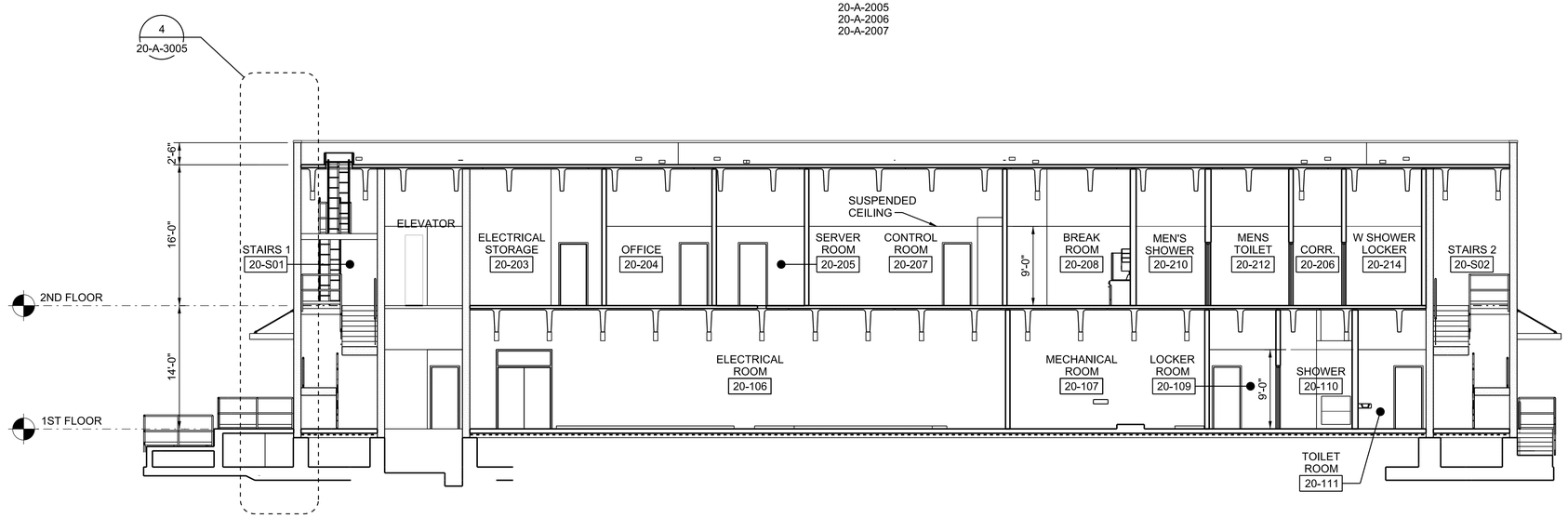
DATE	MAY 2021
PROJ	D3226100
DWG	20-A-3003
SHEET	103 of 270



C SECTION

1/8" = 1'-0"

20-A-2003
20-A-2004
20-A-2005
20-A-2006
20-A-2007



D SECTION

1/8" = 1'-0"

20-A-2003
20-A-2004
20-A-2005
20-A-2006
20-A-2007

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA	DR	BJ NARAMORE	CHK	T DODGE	APVD	A DOLSAK

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ARCHITECTURAL

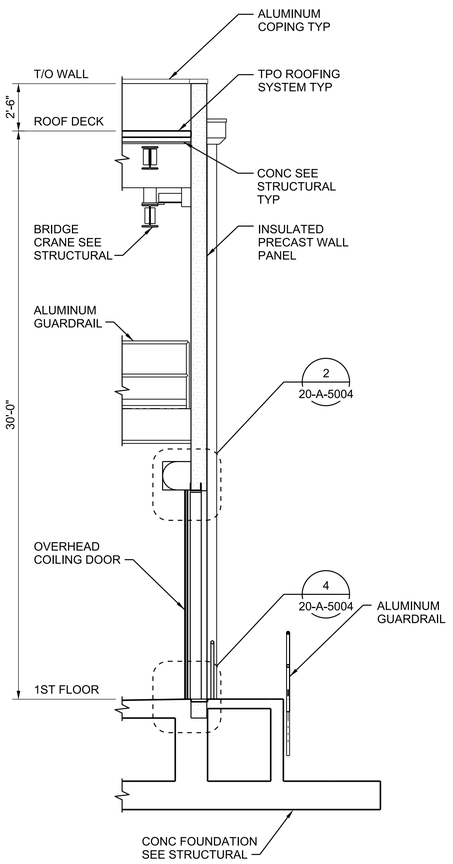
DEWATERING AND CONTROL BUILDING SECTION

1/8"=1'-0

VERIFY SCALE

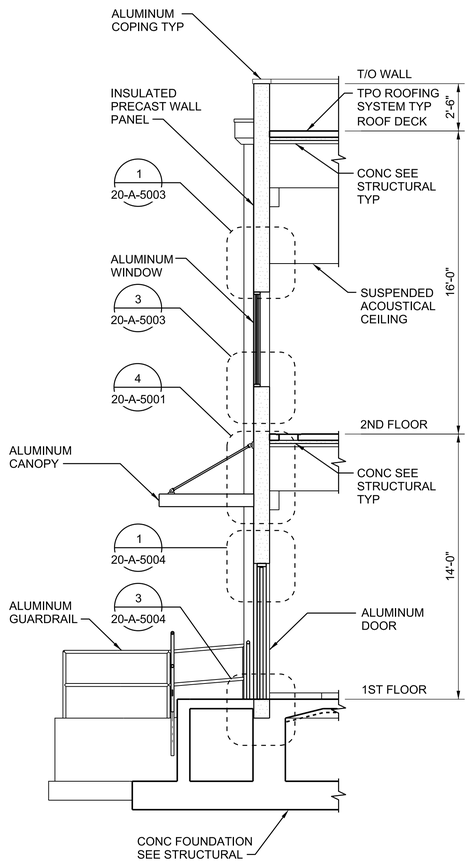
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-3004
SHEET	104 of 270



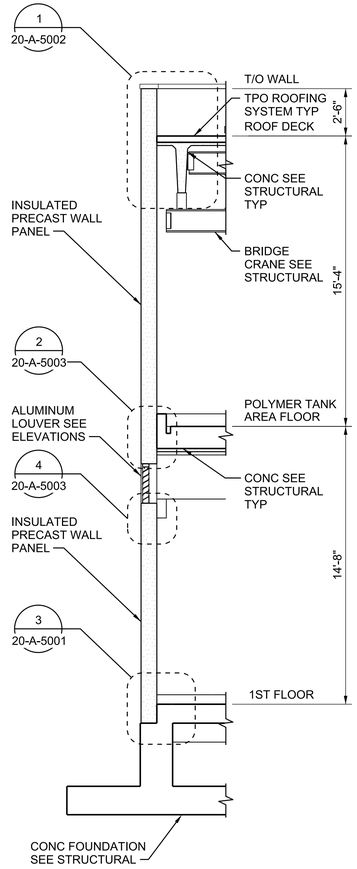
1 WALL SECTION

20-A-2003
20-A-2004
20-A-2005



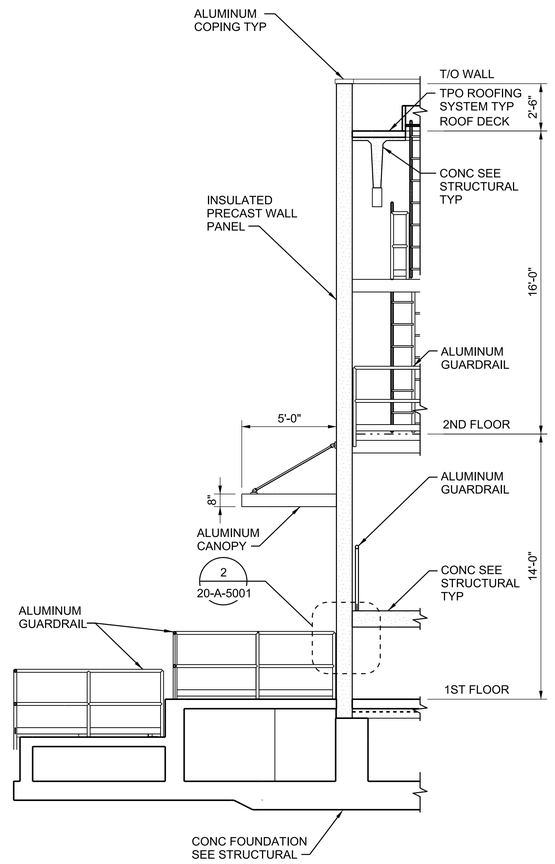
2 WALL SECTION

20-A-3003



3 WALL SECTION

20-A-3004



4 WALL SECTION

20-A-3004

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	V ROMAN-CARDONA		G OPIELKA		T DODGE		A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

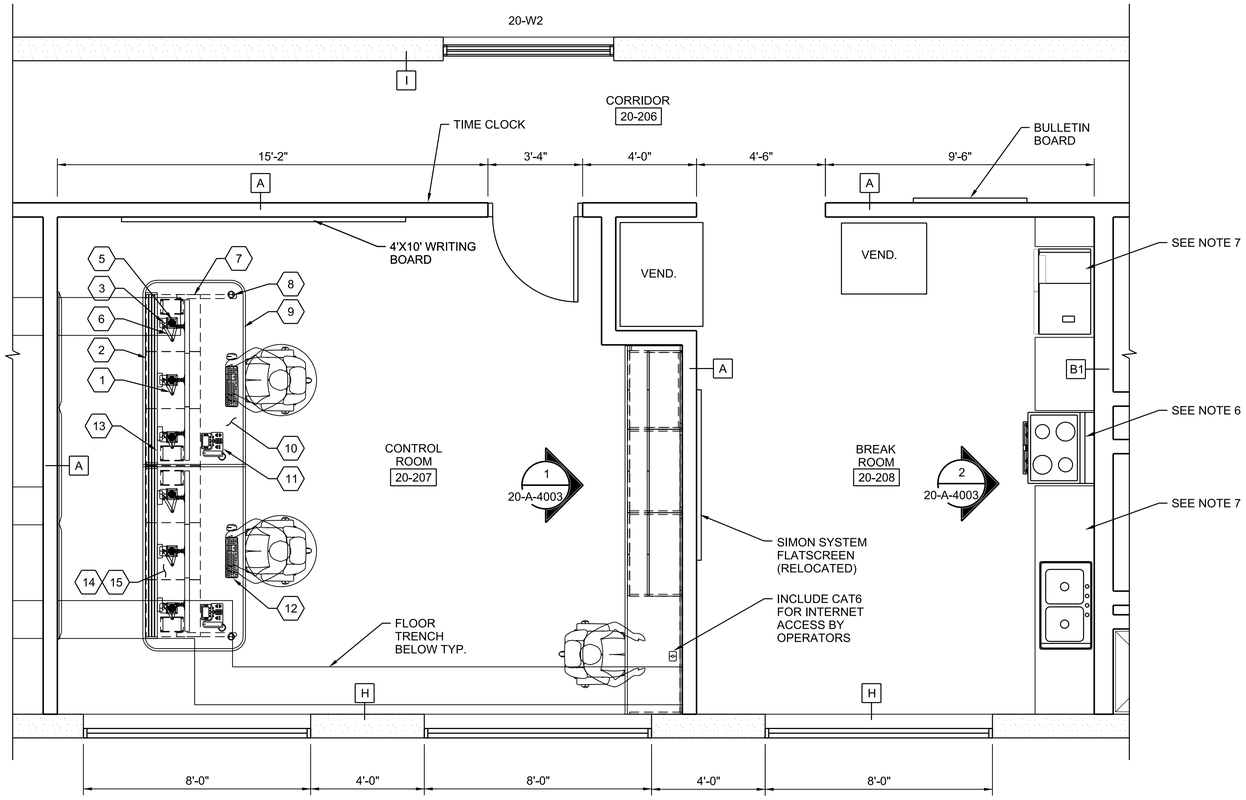
ARCHITECTURAL

DEWATERING AND CONTROL BUILDING WALL SECTIONS

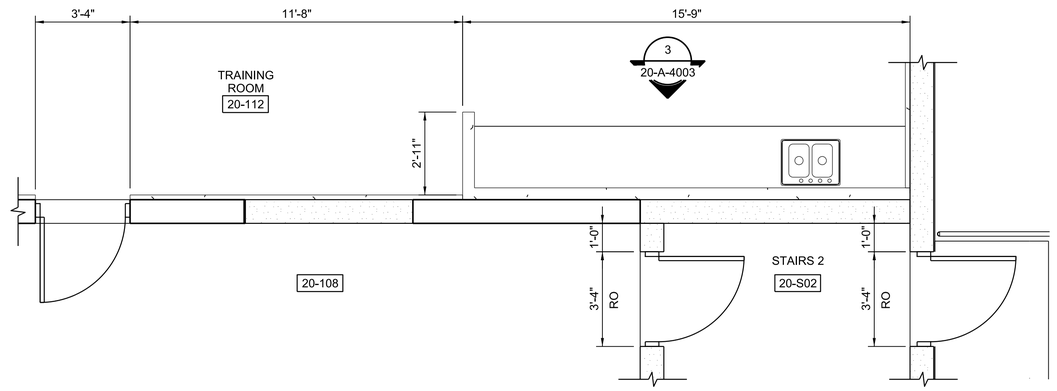
1/4"= 1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-3005
SHEET	105 of 270

CONFORMED DOCUMENTS



1 ENLARGED PLAN
3/8" = 1'
20-A-2004



2 ENLARGED PLAN
3/8" = 1'
20-A-2003

GENERAL NOTES

1. FOR ARCHITECTURAL LEGEND SEE GENERAL SHEET.
2. FOR DOOR, WINDOW, AND LOUVER SCHEDULES SEE SHEET 20-A-6001, 20-A-6002 AND 20-A-6003.
3. FOR FINISH SCHEDULE SEE SHEET 20-A-6004.
4. FOR WALL TYPES SEE SHEET 01-G-0012A.
5. CONTROL CONSOLE FURNISHED AND INSTALLED BY TRESCO OR EQUAL. SEE CONTROL CONSOLE NOTES FOR CONSOLE FEATURES. CONTRACTOR TO COORDINATE WITH CONSOLE MANUFACTURER TO PROVIDE A CONSOLE THAT ACCOMODATES ELECTRICAL, SECURITY AND INSTRUMENT AND CONTROL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER, ARCHITECT AND OWNER APPROVAL.
6. OVEN AND RANGE HOOD WILL BE PROVIDED BY OWNER FOR CONTRACTOR INSTALLATION
7. REFRIGERATOR AND MICROWAVE WILL BE PROVIDED BY OWNER FOR CONTRACTOR INSTALLATION.
8. OWNER MAY SUBSTITUTE A CABINET-HUNG MICROWAVE FOR RANGE HOOD.

CONTROL CONSOLE

ITEM	DESCRIPTION	QTY.
1.	SINGLE ARTICULATING MONITOR ARM WITH HEIGHT AND TILT ADJUSTMENT	3
2.	BACKWALL	-
3.	CABLE GROMMET	6
4.	ARTICULATING LED TASKLIGHT	2
5.	VENTILATION FAN	6
6.	DUAL ARTICULATING MONITOR ARM WITH HEIGHT AND TILT ADJUSTMENT	1
7.	SUPPORT LEG	2
8.	CONTROL PAD	2
9.	RUBBER EDGE	-
10.	WORKSURFACE	-
11.	SPACE FOR PHONE	2
12.	SPACE FOR KEYBOARD AND MOUSE	2
13.	CONVENIENCE OUTLET WITH DUAL USB CHARGING PORTS	2
14.	6-OUTLET POWER BAR WITH MOLDED PLUG END	2
15.	SLIDING EQUIPMENT TRAY	6

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA	DR	BJ NARAMORE	CHK	T DODGE	APVD	A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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ARCHITECTURAL
DEWATERING AND CONTROL BUILDING
ENLARGED PLANS

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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DWG	20-A-4001
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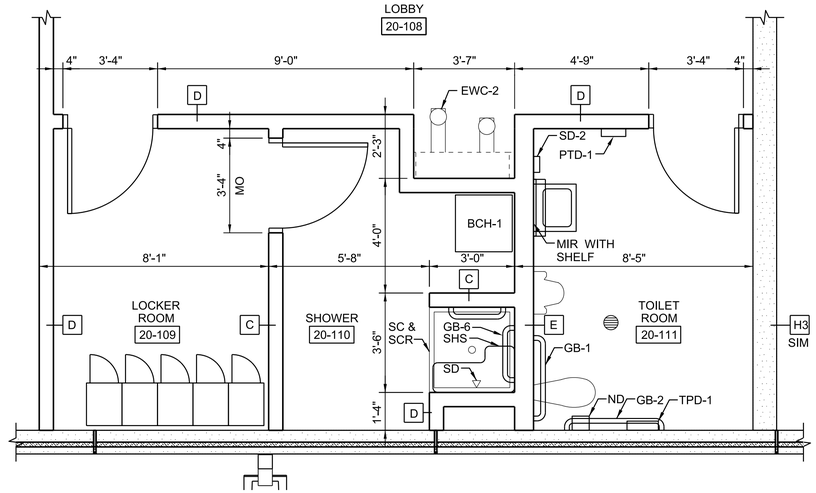

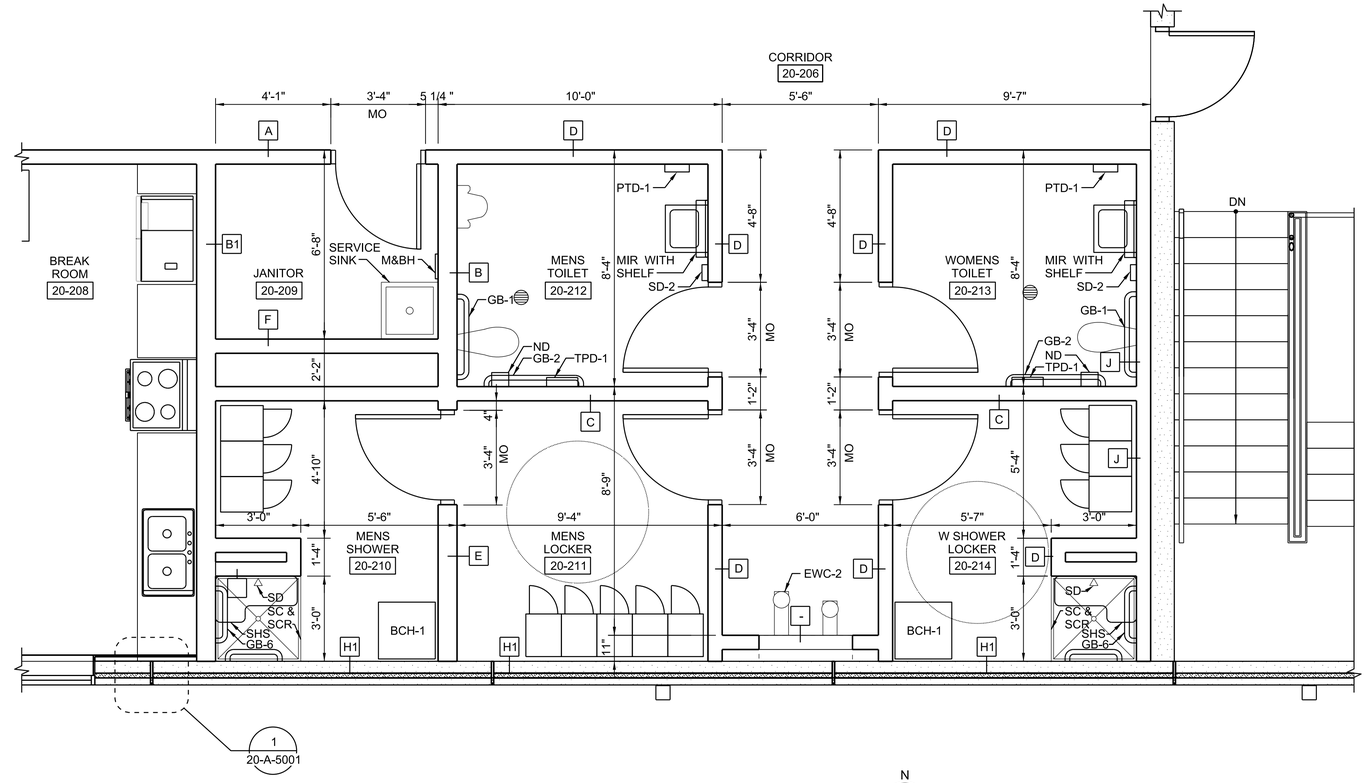

1
20-A-5001

1 ENLARGED FLOOR PLAN
3/8" = 1'
20-A-2003

2 ENLARGED FLOOR PLAN
3/8"=1'
20-A-2004

TOILET ACCESSORIES

SPECIFICATION SECTION 10 28 00

TPD-1	SURFACE MOUNTED DUAL ROLL TOILET PAPER DISPENSER
SD-2	WALL MOUNTED LIQUID SOAP DISPENSER
MIR	MIRROR, SIZE ON SPEC SECTION
PTD-1	RECESSED TOUCHLESS PAPER TOWEL DISPENSER AND RECEPTABLE
ND	SURFACE MOUNTED NAPKIN DISPOSAL
M&BH	MOP AND BROOM HOLDER (24")
GB-1	GRAB BARS (STRAIGHT) (36")
GB-2	GRAB BARS (STRAIGHT) (42")
GB-6	GRAB BARS (SHOWER, CORNER TYPE)
BCH-1	FOLD-UP DRESSING ROOM BENCH, PHENOLIC TOP. TOP COLOR: TBS
SD	RECESSED SOAP DISH
SHS	FOLD-UP SHOWER SEAT (L-SHAPED)
RH	ROBE HOOK
SC	SHOWER CURTAIN
SCR	SHOWER CURTAIN ROD

GENERAL NOTES

1. FOR ACCESSIBLE MOUNTING HEIGHTS AND CLEARANCES SEE GENERAL ARCHITECTURE SHEET.
2. INSTALLATION OF ACCESSIBLE TOILET AND BATH ACCESSORIES AND OTHER FIXTURES AND ITEMS SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND WHEN APPLICABLE, FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION. 2004 ED
3. GRAB BARS AND SHOWER SEATS ARE TO BE CONSTRUCTED AND INSTALLED TO MEET THE FOLLOWING STRUCTURAL STRENGTHS: 250 LB. BENDING MOMENT 250 LB. SHEAR STRESS SHEAR FORCE INDUCED ON FASTENER OR MOUNTING DEVICE FROM APPLICATION OF 250 LB. FORCE SHALL BE LESS THAN ALLOWABLE LATERAL LOAD OF FASTENER OR SUPPORT STRUCTURE. TENSILE FORCE INDUCED BY DIRECT TENSION FORCE OF 250 LB. PLUS MAXIMUM MOMENT FROM THE APPLICATION OF 250 LB. SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN FASTENER AND SUPPORTING STRUCTURE.
4. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
5. DOOR OPENING FORCE: EXTERIOR - 8.5 LBS; SLIDING OR FOLDING - 5 LB; INTERIOR HINGED - 5 LB
6. FOR INFORMATION REGARDING TOILET AND BATH ACCESSORIES, SEE SPECIFICATION 10 89 00.
7. SEE SHEET 20-A-4003 FOR WALL TILE DETAIL.

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CONFORMED DOCUMENTS

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DEWATERING AND CONTROL BUILDING SECOND FLOOR ENLARGED PLANS

VERIFY SCALE
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0 1"

DATE	MAY 2021
PROJ	D3226100
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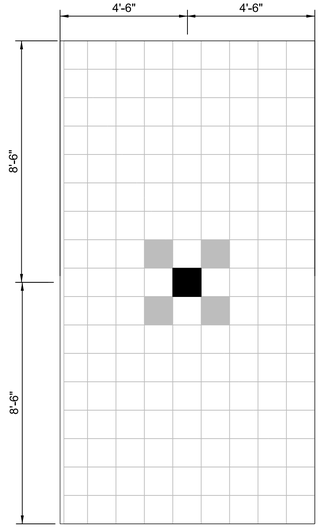
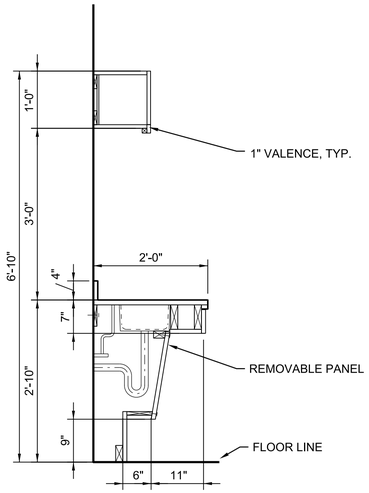
GENERAL NOTES

1. FOR ARCHITECTURAL LEGEND AND ADA REQUIREMENTS AND MOUNTING HEIGHTS, SEE 01-G SERIES DRAWINGS.
2. SEE SPECIFICATIONS SECTION 06 41 00 FOR ARCHITECTURAL MILLWORK
3. FOR TOILET ACCESSORIES SEE SPECIFICATION 10 28 00.
4. ALL CASEWORK, FLOORING AND WALL TILES TO MATCH PARK FORREST OFFICE COLORS.
5. FOR FINISH SCHEDULE SEE SHEET 20-A-6004.
6. ADD VCT PURINA PATTERN IN TRAINING ROOM 20-112, OFFICE 20-203, CONTROL ROOM 20-207 AND BREAKROOM 20-208. SPACE PATTERN AS DIRECTED BY OWNER.

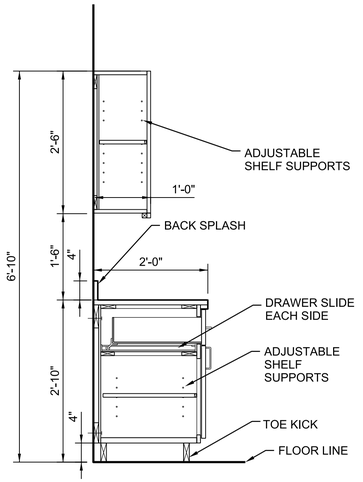


N

TYPICAL FLOORING PATTERN DETAIL
3/8"=1'-0"



A CASEWORK SECTION
3/4"=1'-0"



B CASEWORK SECTION
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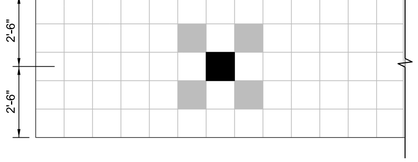

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SECOND FLOOR HALL FLOORING PATTERN DETAIL
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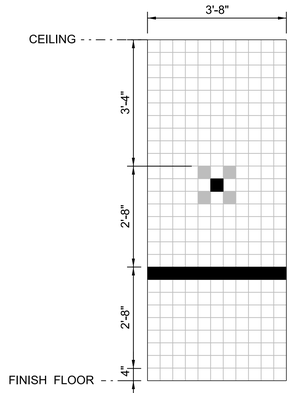
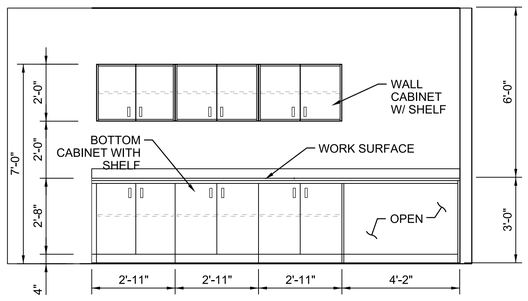
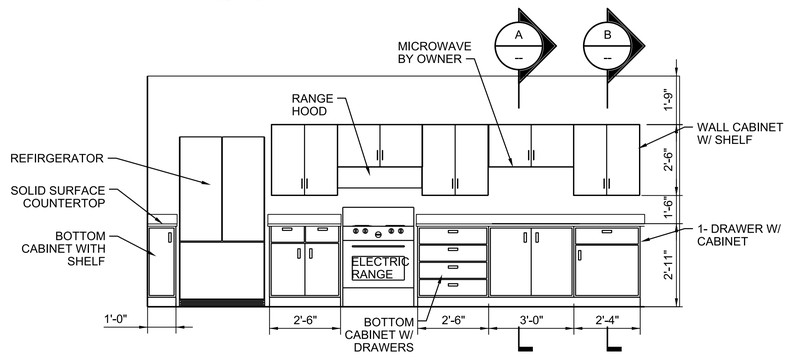


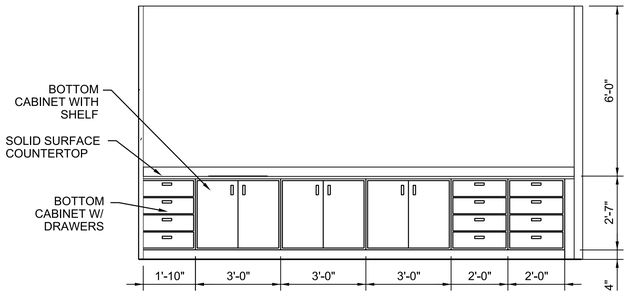
SHOWER, LOCKER AND RESTROOM - WALL TILE DETAIL
1/2"=1'-0"



1 INTERIOR ELEVATION - CONTROL ROOM
3/8"=1'-0"
20-A-4001



2 INTERIOR ELEVATION - BREAKROOM
3/8"=1'-0"
20-A-4001



3 INTERIOR ELEVATION - TRAINING ROOM
3/8"=1'-0"
20-A-4001

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DEWATERING AND CONTROL BUILDING
SECOND FLOOR
ENLARGED PLANS AND ELEVATIONS

NO.	DATE	DSGN	DR	CHK	APVD
		V ROMAN-CARDONA	BJ NARAMORE	T DODGE	APVD

REVISION

BY	APVD
A DOLSAK	

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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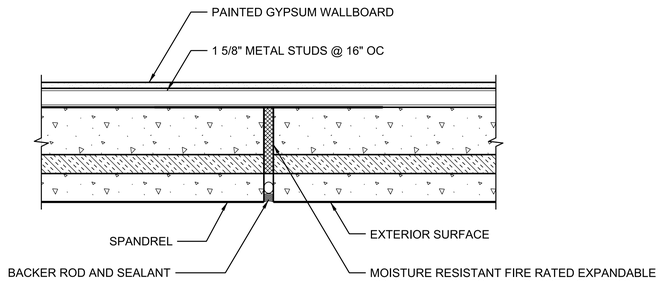

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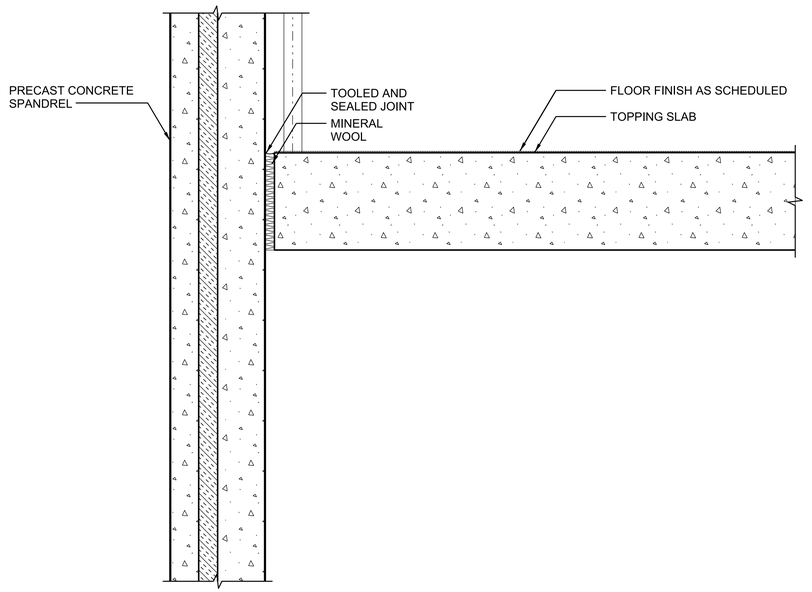
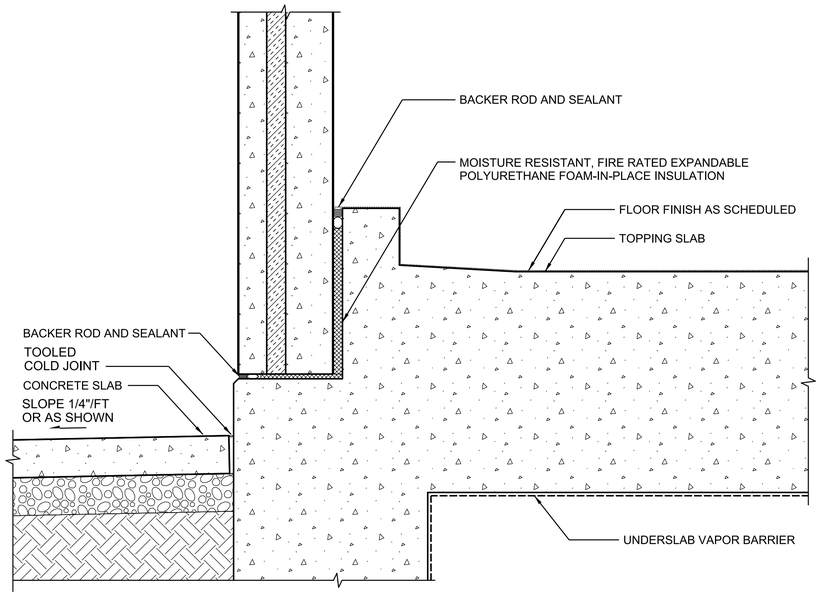


2 DETAIL
20-A-3005



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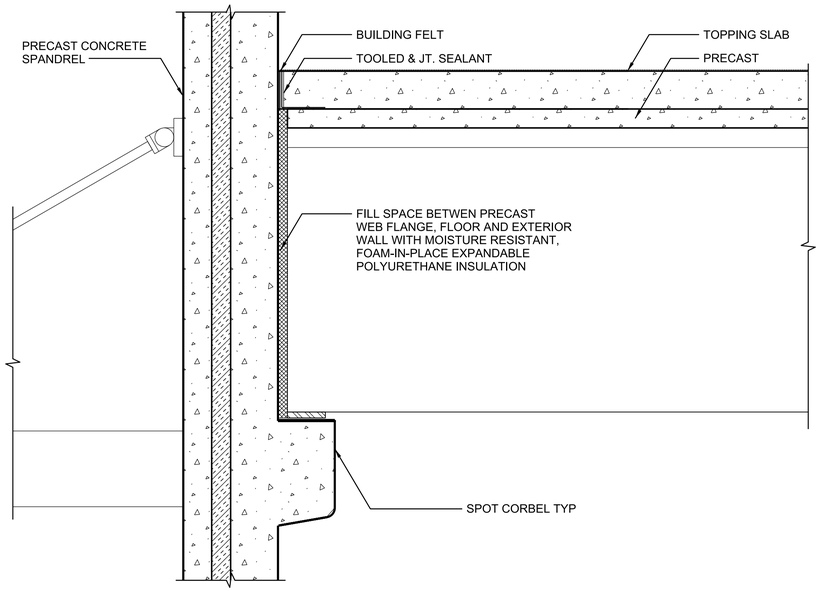
20-A-3005



4 DETAIL
20-A-3005

NO.	DATE	REVISION	BY	APVD
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DEWATERING AND CONTROL BUILDING DETAILS

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

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-5001
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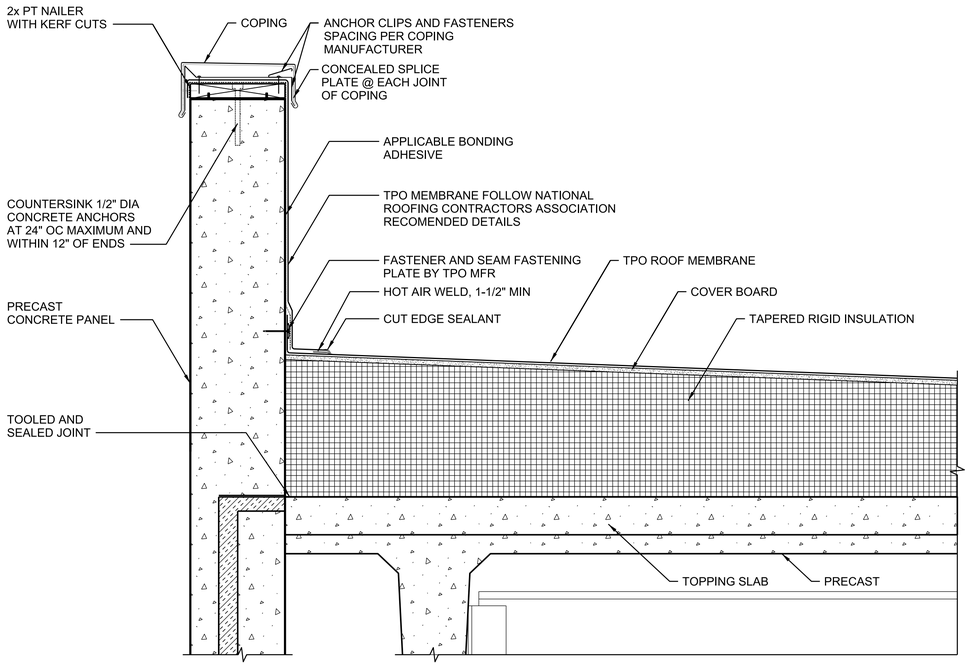

1 DETAIL
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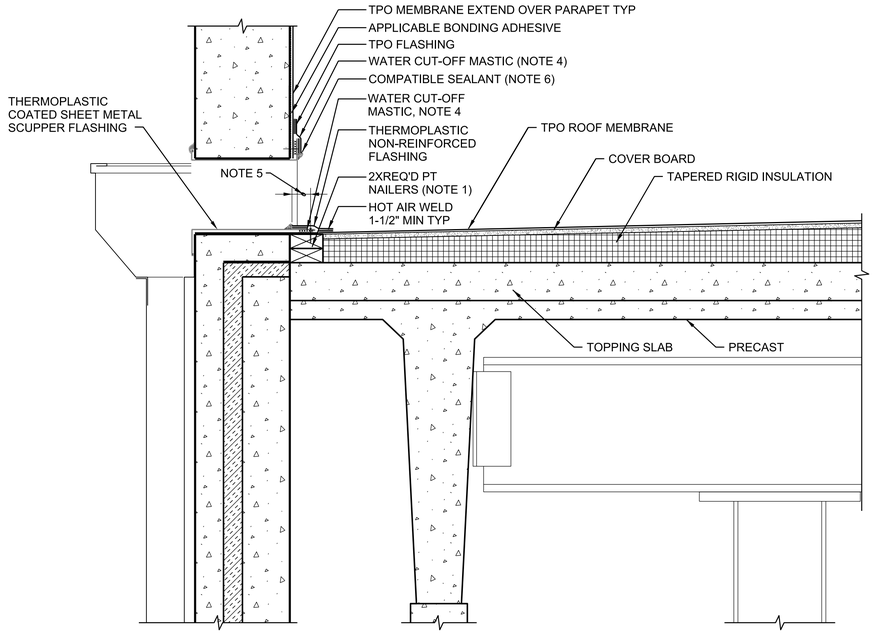

2 DETAIL
20-A-3005

SHEET KEYNOTES

1. WOOD NAILERS ARE INSTALLED ONLY AT SCUPPERS TO SECURE METAL SLEEVE AND MUST EXTEND PAST THE WIDTH OF METAL SLEEVE FLANGE.
2. INSTALL WALL FLASHING PRIOR TO SCUPPER INSTALLATION.
3. METAL SCUPPER BOX MUST HAVE CONTINUOUS FLANGES WITH ROUNDED CORNERS.
4. WATER CUT-OFF MASTIC UNDER SCUPPER FLANGE MUST BE UNDER CONSTANT COMPRESSION.
5. SCUPPER FLANGES MUST BE TOTALLY COVERED BY NON-REINFORCED FLASHING WITH MINIMUM 2" COVERAGE PAST NAIL HEAD.
6. SINGLE-PLY SEALANT IS REQUIRED AT FLASHING EDGES ON SCUPPER EDGE. TPO PRIMER MUST BE USED TO PREPARE SURFACES PRIOR TO THE APPLICATION OF SEALANT.

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
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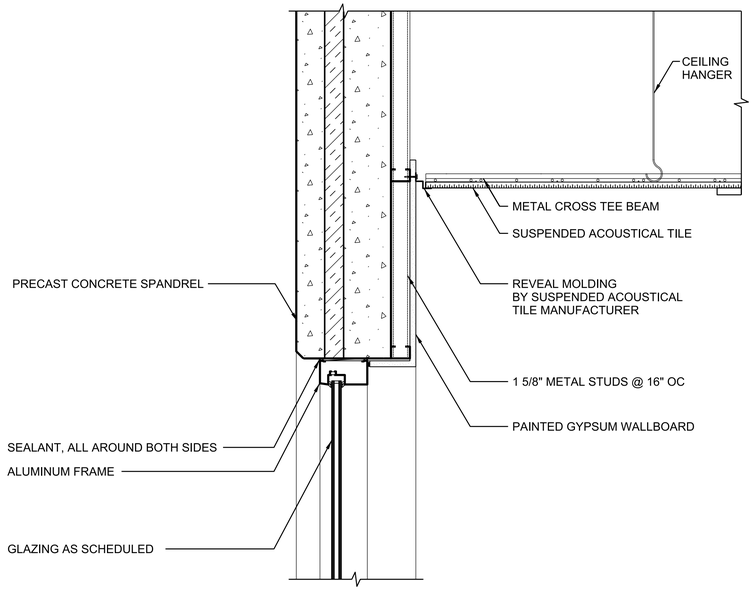

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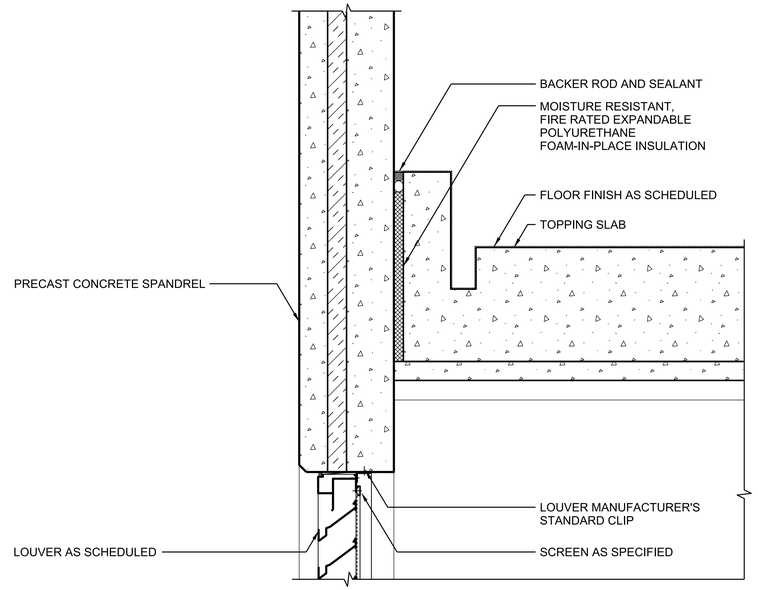

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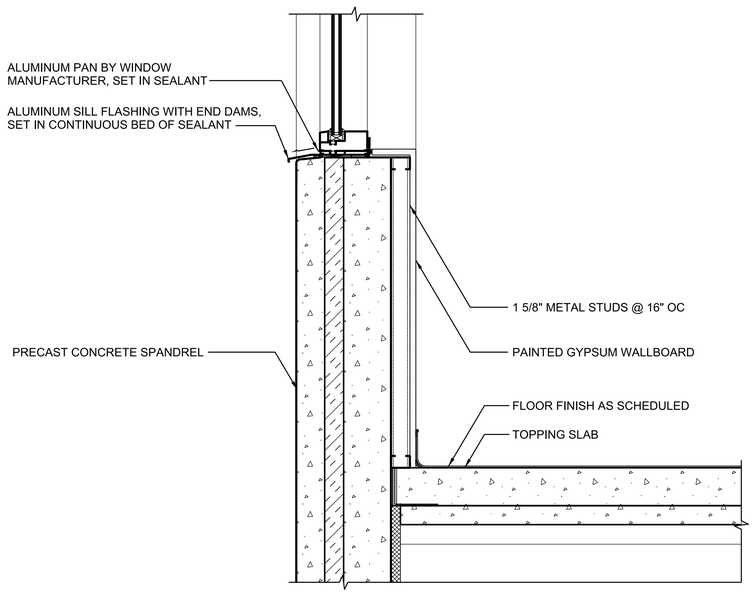

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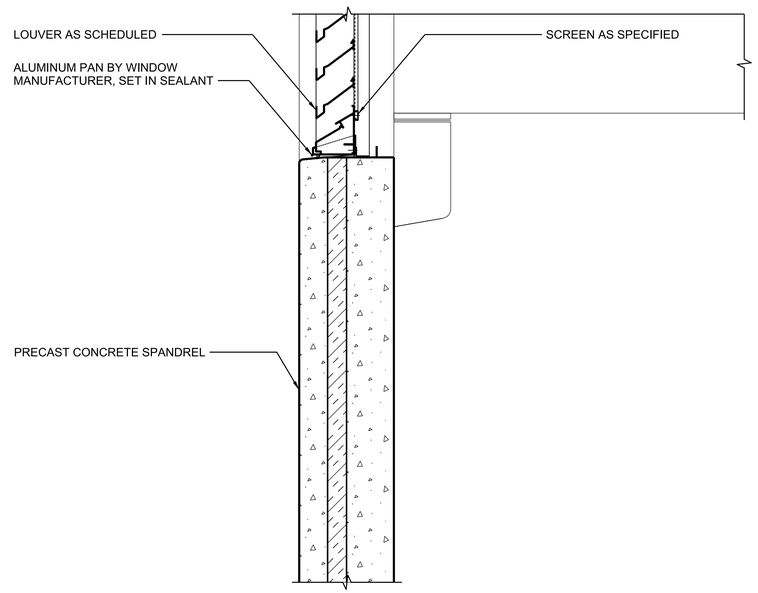

4 DETAIL
20-A-3005

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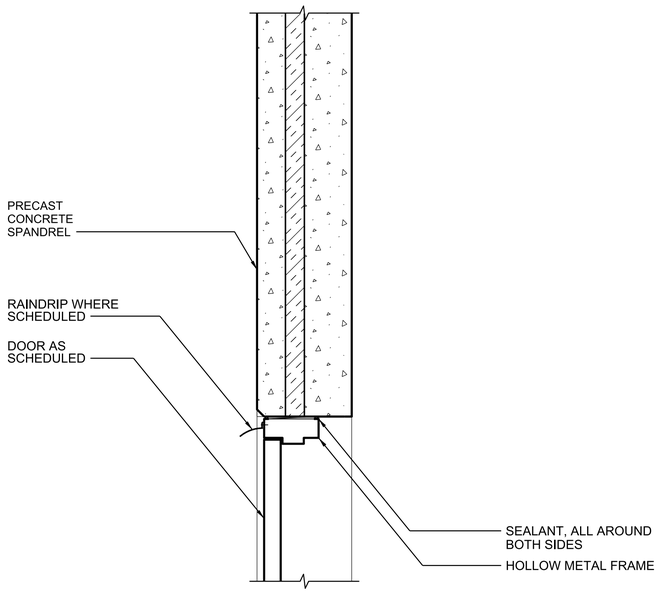

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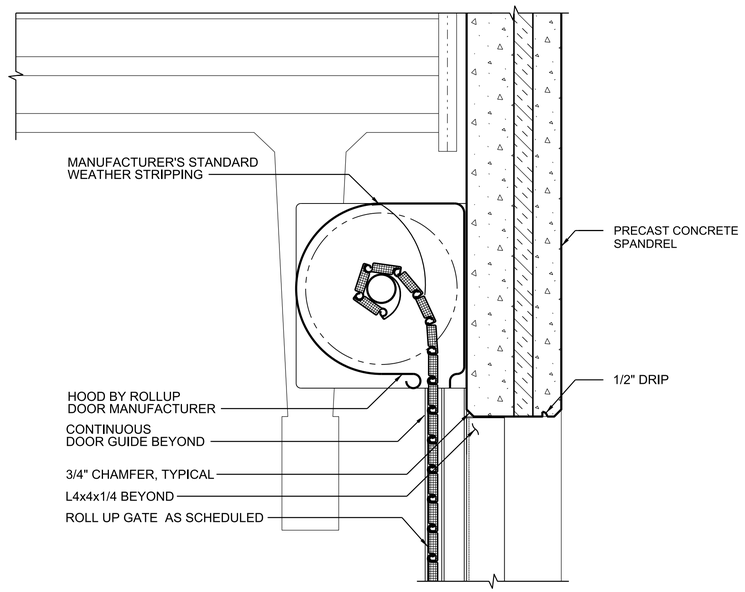

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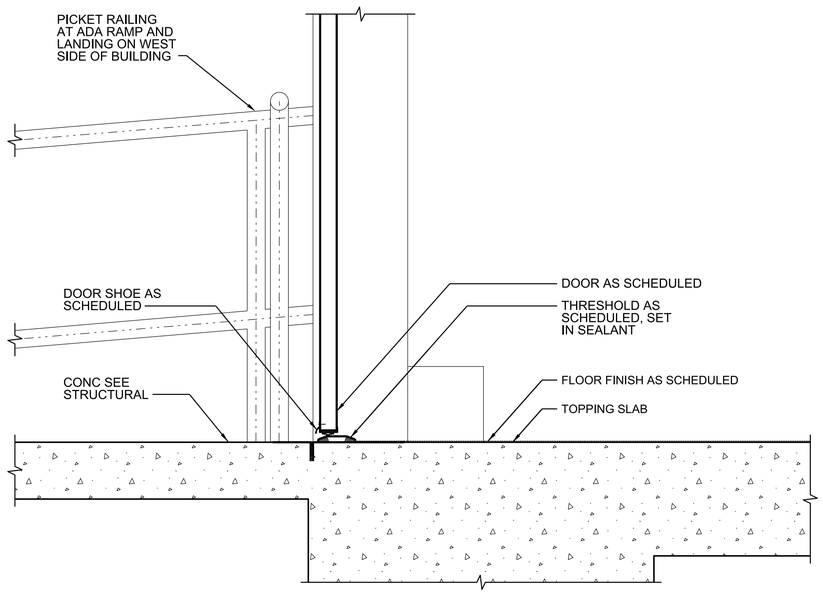

3 DETAIL
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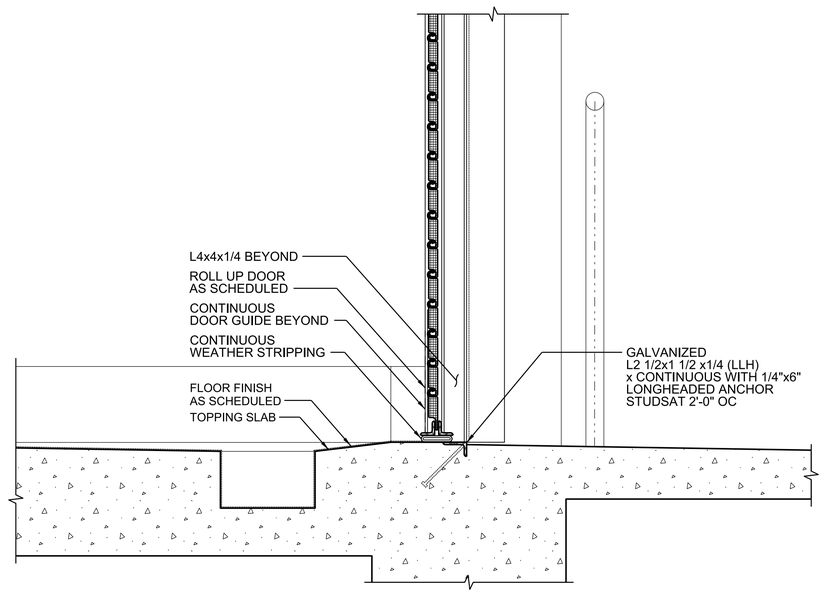

4 DETAIL
20-A-3005

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DEWATERING AND CONTROL BUILDING DETAILS

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DATE	MAY 2021
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DOOR, FRAMES AND HARDWARE SCHEDULE

ABBREVIATIONS:

AL	ALUMINUM	HM	HOLLOW METAL	SST	STAINLESS STEEL
A&G	ALUMINUM & GLASS	HS	HORIZONTAL SLIDING	STL	STEEL
AG	LAMINATED ACOUSTICAL GLASS	KEY	KEY GROUP	TSHD	THRESHOLD
AS	AS SELECTED	K-PL	KICK PLATE	TBS	TO BE SELECTED
CLSR	CLOSER	LIG	LAMINATED INSULATED GLASS	WD	WOOD
COL	COLOR	MATL	MATERIAL		
CONSTR	CONSTRUCTION	MAR	MARBLE SADDLE		
FCTY	FACTORY	MET	METAL		
FC-CT	TEMPERED GLASS	N/A	NOT APPLICABLE		
FNSH	FINISH	OHR	OVERHEAD COILING DOOR		
FRP	FIBERGLASS REINFORCED PLASTIC	P-P	PUSH PULL		
GS	GALVANIZED STEEL	PS	PAINT SYSTEM		
HG	HALF GLASS	SIM	SIMILAR		

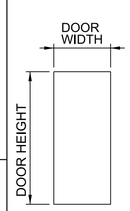
NOTES:

1. THIS SHEET IS FOR DOOR AND HARDWARE SCHEDULE AND DOOR AND FRAME TYPES.
2. FOR DOOR DETAILS, SEE STANDARD DETAILS.
3. SEE DOOR HARDWARE SPECIFICATION 08 71 00 FOR HARDWARE SETS.
4. NUMBERS IN "FNSH" COLUMN REFER TO PAINT SYSTEMS IN SPECIFICATION SECTION 09 90 00, PAINTING AND PROTECTIVE COATINGS
5. CODES IN "COL" COLUMN REFER TO THE COLOR LIST ON DRAWINGS.
6. FOR GLASS TYPES, SEE SPECIFICATION 08 80 00, GLAZING.
7. FOR ALUMINUM FRAMED STOREFRONT SYSTEMS SEE SECTION 08 41 13.
8. DESIGN WIND PRESSURES SHOWN IN COMPONENTS AND CLADDING WIND PRESSURE TABLE ON DRAWING 01-G-0006.
9. FOR SIGNAGE REQUIREMENTS AT EACH DOOR OPENING SEE SPECIFICATION SECTION 10 14 00.

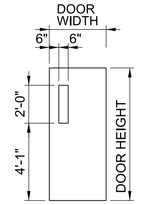
OPENING

NO	SIZE		DOOR					FRAME				DETAILS				HARDWARE SET	MISC/REMARKS
	WIDTH	HEIGHT	CONSTR	TYPE	GLASS	FINISH	COL	MATL	TYPE	FINISH	COL	HEAD	JAMB	SILL	MISC		
20-101A	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 7	--
20-102A	(2) 3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-2	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 6	--
20-103A	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 7	ELECTRIC STRIKE
20-103B	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 7	ELECTRIC STRIKE
20-103C	3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-003	0811-004	0871-002	--	SET # 9	--
20-103D	12'-0"	11'-0"	AL	OHC	--	FCTY	TBS	STL	F-4	FCTY	TBS	20-A-5004 DETAIL 4	20-A-5004 DETAIL 4	20-A-5004 DETAIL 4	--	SET # 10	MANUAL OPERATION
20-104A	(2) 3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-2	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 6	--
20-105A	3'-0"	7'-2"	FRP	NV	FR	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 8	60 MIN FIRE RATED
20-105B	3'-0"	7'-2"	FRP	NV	FR	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 8	60 MIN FIRE RATED
20-S01A	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 7	ELECTRIC STRIKE
20-106A	(2) 3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-2	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 6	--
20-106B	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 7	ELECTRIC STRIKE
20-107A	3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 8	--
20-107B	(2) 3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-2	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 6	--
20-108A	3'-0"	7'-2"	FRP	NV	FR	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 8	60 MIN FIRE RATED
20-109A	3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-022	0811-022	0871-002	--	SET # 9	--
20-110A	3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-022	0811-022	0871-002	--	SET # 9A	--
20-111A	3'-0"	7'-2"	FRP	FL	--	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-022	0811-022	0871-002	--	SET # 9A	--
20-112A	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 7	ELECTRIC STRIKE
20-112B	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-022	0811-022	0871-002	--	SET # 9	--
20-S02A	3'-0"	7'-2"	FRP	NV	LIG	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-001	--	SET # 7	ELECTRIC STRIKE

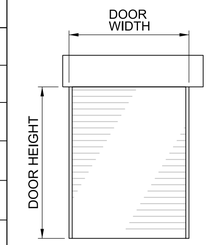
DOOR TYPES



FL
FLUSH PANEL

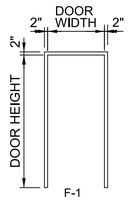


NV
NARROW VIEW

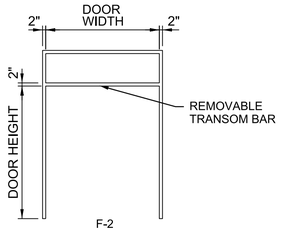


OHC
OVERHEAD COILING DOOR

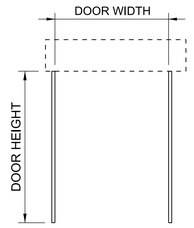
FRAME TYPES



F-1
SINGLE DOOR



F-2
DOUBLE DOOR
W/ REMOVABLE TRANSOM



F-4
OVERHEAD COILING DOOR

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
			V ROMAN-CARDONA	T DODGE		A DOLSAK	
DSGN	V ROMAN-CARDONA						

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING DOOR SCHEDULE

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CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-6001
SHEET	113 of 270

DOOR, FRAMES AND HARDWARE SCHEDULE

ABBREVIATIONS:

AL	ALUMINUM	HM	HOLLOW METAL	SST	STAINLESS STEEL
A&G	ALUMINUM & GLASS	HS	HORIZONTAL SLIDING	STL	STEEL
AG	LAMINATED ACOUSTICAL GLASS	KEY	KEY GROUP	TSHD	THRESHOLD
AS	AS SELECTED	K-PL	KICK PLATE	TBS	TO BE SELECTED
CLSR	CLOSER	LIG	LAMINATED INSULATED GLASS	WD	WOOD
COL	COLOR	MATL	MATERIAL		
CONSTR	CONSTRUCTION	MAR	MARBLE SADDLE		
FCTY	FACTORY	MET	METAL		
FC-CT	TEMPERED GLASS	N/A	NOT APPLICABLE		
FNSH	FINISH	OHR	OVERHEAD COILING DOOR		
FRP	FIBERGLASS REINFORCED PLASTIC	P-P	PUSH PULL		
GS	GALVANIZED STEEL	PS	PAINT SYSTEM		
HG	HALF GLASS	SIM	SIMILAR		

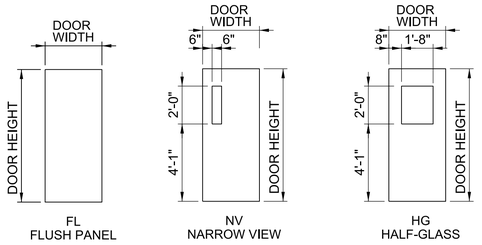
NOTES:

1. THIS SHEET IS FOR DOOR AND HARDWARE SCHEDULE AND DOOR AND FRAME TYPES.
2. FOR DOOR DETAILS, SEE STANDARD DETAILS.
3. SEE DOOR HARDWARE SPECIFICATION 08 71 00 FOR HARDWARE SETS.
4. NUMBERS IN "FNSH" COLUMN REFER TO PAINT SYSTEMS IN SPECIFICATION SECTION 09 90 00, PAINTING AND PROTECTIVE COATINGS
5. CODES IN "COL" COLUMN REFER TO THE COLOR LIST ON DRAWINGS.
6. FOR GLASS TYPES, SEE SPECIFICATION 08 80 00, GLAZING.
7. FOR ALUMINUM FRAMED STOREFRONT SYSTEMS SEE SECTION 08 41 13B.
8. DESIGN WIND PRESSURES SHOWN IN COMPONENTS AND CLADDING WIND PRESSURE TABLE ON DRAWING 01-G-0006.
9. FOR SIGNAGE REQUIREMENTS AT EACH DOOR OPENING SEE SPECIFICATION SECTION 10 14 00.

OPENING

NO	SIZE		DOOR					FRAME				DETAILS				HARDWARE SET	MISC/REMARKS
	WIDTH	HEIGHT	CONSTR	TYPE	GLASS	FINISH	COL	MATL	TYPE	FINISH	COL	HEAD	JAMB	SILL	MISC		
20-202A	3'-0"	7'-2"	FRP	FL	–	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 9	60 MIN FIRE RATED
20-202B	3'-0"	7'-2"	WD	NV	FR	FCTY	TBS	HM	F-1	PS-106	TBS	0811-001	0811-002	0871-002	--	SET # 4	60 MIN FIRE RATED
20-202C	3'-0"	7'-2"	FRP	FL	–	FCTY	TBS	FRP	F-1	FCTY	TBS	0811-001	0811-002	0871-002	--	SET # 8	60 MIN FIRE RATED
20-203A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 3	--
20-204A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 3	--
20-205A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 3	ELECTRIC STRIKE
20-206A	3'-0"	7'-2"	WD	FL	–		TBS	HM	F-1	PS-106	TBS	0811-001	0811-002	0871-002	--	SET # 4	60 MIN FIRE RATED
20-207A	3'-0"	7'-2"	WD	HG	SG	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 3	ELECTRIC STRIKE
20-209A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 3	--
20-210A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 1	--
20-211A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 2	--
20-212A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 1	
20-213A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 1	
20-214A	3'-0"	7'-2"	WD	FL	–	FCTY	TBS	HM	F-1	PS-106	TBS	0811-022	0811-022	0871-003	--	SET # 1	--

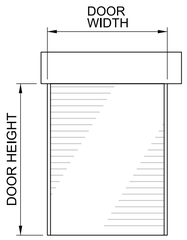
DOOR TYPES



FL
FLUSH PANEL

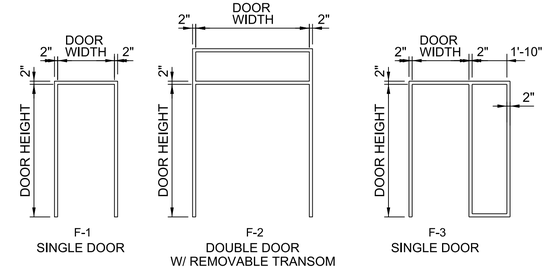
NV
NARROW VIEW

HG
HALF-GLASS



OHC
OVERHEAD COILING DOOR

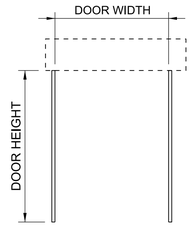
FRAME TYPES



F-1
SINGLE DOOR

F-2
DOUBLE DOOR
W/ REMOVABLE TRANSOM

F-3
SINGLE DOOR



F-4
OVERHEAD COILING DOOR

NO.	DATE	REVISION	DR	CHK	APVD	BY
V ROMAN-CARDONA DSGN		V ROMAN-CARDONA		T DODGE	APVD	A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ARCHITECTURAL

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING DOOR SCHEDULE

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-6002
SHEET	114 of 270

WINDOW AND LOUVER SCHEDULE

ABBREVIATIONS:

AL	ALUMINUM	HM	HOLLOW METAL	SST	STAINLESS STEEL
A&G	ALUMINUM & GLASS	HS	HORIZONTAL SLIDING	STL	STEEL
AG	LAMINATED ACOUSTICAL GLASS	KEY	KEY GROUP	TSHD	THRESHOLD
AS	AS SELECTED	K-PL	KICK PLATE	TBS	TO BE SELECTED
CLSR	CLOSER	LIG	LAMINATED INSULATED GLASS	WD	WOOD
COL	COLOR	MATL	MATERIAL		
CONSTR	CONSTRUCTION	MAR	MARBLE SADDLE		
FCTY	FACTORY	MET	METAL		
FC-CT	TEMPERED GLASS	N/A	NOT APPLICABLE		
FNSH	FINISH	OHR	OVERHEAD COILING DOOR		
FRP	FIBERGLASS REINFORCED PLASTIC	P-P	PUSH PULL		
GS	GALVANIZED STEEL	PS	PAINT SYSTEM		
HG	HALF GLASS	SIM	SIMILAR		

NOTES:

1. THIS SHEET IS FOR WINDOW AND LOUVER SCHEDULE AND WINDOW AND LOUVER TYPES.
2. FOR WINDOW AND LOUVER DETAILS, SEE DRAWING 20-A-5003 OR STANDARD DETAILS.
3. NUMBERS IN "FNSH" COLUMN REFER TO PAINT SYSTEMS IN SPECIFICATION SECTION 09 90 00, PAINTING AND PROTECTIVE COATINGS.
4. CODES IN "COL" COLUMN REFER TO THE COLOR LIST ON DRAWINGS.
5. FOR GLASS TYPES, SEE SPECIFICATION 08 80 00, GLAZING.
6. FOR ALUMINUM FRAMED STOREFRONT SYSTEMS SEE SECTION 08 41 13B.
7. DESIGN WIND PRESSURES SHOWN IN COMPONENTS AND CLADDING WIND PRESSURE TABLE ON DRAWING 01-G-0006.
8. FOR WINDOW AND LOUVER DETAILS SEE SHEET 20-A-5003.

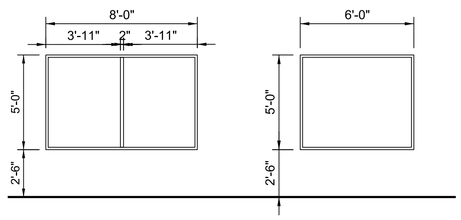
WINDOW SCHEDULE

WINDOW		FRAME							DETAILS				BLINDS			MISC/REMARKS
		SIZE														
NO	TYPE	WIDTH	HEIGHT	GLASS	COL	MATL	FINISH	COL	HEAD	JAMB	SILL	MISC.	YES/NO	MATL	COL	
20-W1	FIXED WINDOW	8'-0"	5'-0"	LIG	TBS	AL	FCTY	TBS	DETAIL 1 20-A-5003	DETAIL 1 20-A-5003	DETAIL 3 20-A-5003	--	--	--	--	--
20-W2	FIXED WINDOW	6'-0"	5'-0"	LIG	TBS	AL	FCTY	TBS	DETAIL 1 20-A-5003	DETAIL 1 20-A-5003	DETAIL 3 20-A-5003					

LOUVER SCHEDULE

LOUVER		FRAME AND BLADE									MISC/REMARKS
		SIZE					DETAILS				
NO	TYPE	WIDTH	HEIGHT	MATL	FINISH	COL	HEAD	JAMB	SILL	MISC.	
LV-1	FIXED	2'-8"	2'-0"	AL	FCTY	TBS	0890-001	0890-001	0890-001	--	--
LV-2	FIXED	2'-6"	2'-6"	AL	FCTY	TBS	0890-001	0890-001	0890-001	--	--
LV-3	FIXED	1'-6"	1'-6"	AL	FCTY	TBS	0890-001	0890-001	0890-001	--	--
LV-4	FIXED	2'-0"	2'-0"	AL	FCTY	TBS	0890-001	0890-001	0890-001	--	--

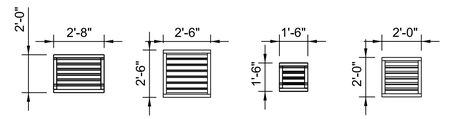
WINDOW TYPES



20-W1
FIXED WINDOW

20-W2
FIXED WINDOW

LOUVER TYPES



LV1
FIXED LOUVER

LV2
FIXED LOUVER

LV3
FIXED LOUVER

LV4
FIXED LOUVER

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
V ROMAN-CARDONA DSGN			BJ NARAMORE	T DODGE		A DOLSAK	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ARCHITECTURAL

DEWATERING AND CONTROL BUILDING
WINDOW AND LOUVER SCHEDULE

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CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-6003
SHEET	115 of 270

INTERIOR FINISH SCHEDULE

ROOM		FLOOR				BASE				NORTH WALL			SOUTH WALL			EAST WALL			WEST WALL			CEILING				MISCELLANEOUS				REMARKS
NO.	NAME	SUBFL	MATL	FINISH	COLOR	HGT	MATL	FINISH	COLOR	MATL	FINISH	COLOR	MATL	FINISH	COLOR	MATL	FINISH	COLOR	MATL	FINISH	COLOR	HGT	MATL	FINISH	COLOR	ITEM	MATL	FINISH	COLOR	
20-S01	STAIRS 1	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CONC	--	--	CONC	--	--	VARIES	EXP	--	--					-
20-S02	STAIRS 2	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CONC	--	--	CONC	--	--	VARIES	EXP	--	--					-
20-101	TRUCK LOADING BAY	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CONC	--	--	CONC	--	--	--	EXP	--	--					-
20-102	POLYMER PUMP ROOM	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CONC	--	--	CONC	--	--	--	EXP	--	--					-
20-103	BELT FILTER PRESS ROOM	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CMU, GWB/FRP	PS-117, FCTY	TBS	CONC	--	--	--	EXP	--	--					REFER TO WALL TYPES AND BUILDING SECTION FOR EAST WALL.
20-104	TOOL STORAGE	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	CONC	--	--	CONC	--	--	--	EXP	--	--					-
20-105	LOBBY	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-106	ELECTRICAL ROOM	CONC	FAF	FCTY	TBS	4"	FAF	FCTY	TBS	CONC	--	--	CONC	--	--	GWB/FRP	FCTY	TBS	CONC	--	--	--	EXP	--	--					-
20-107	MECHANICAL ROOM	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CONC	--	--	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	--	EXP	--	--					-
20-108	LOBBY	CONC	--	SLR	--	--	--	--	--	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	EXP	--	--					-
20-109	LOCKER ROOM	CONC	FAF	FCTY	TBS	4"	RUB	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	9'-0"	ACT	FCTY	WHITE					-
20-110	SHOWER ROOM	CONC	FAF	FCTY	TBS	4"	RUB	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	9'-0"	GWB	PS-115	WHITE	SHR.	CT/PT	FCTY	TBS	(PT) SHOWER FLOOR (CT) WALLS FULL HEIGHT TYP
20-111	TOILET ROOM	CONC	FAF	FCTY	TBS	4"	RUB	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	GWB/FRP	FCTY	TBS	9'-0"	ACT	FCTY	WHITE					-
20-112	TRAINING ROOM	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB, CONC	PS-115, --	TBS, --	GWB, CONC	PS-115, --	TBS, --	GWB, CONC	PS-115, --	TBS, --	GWB, CONC	PS-115, --	TBS, --	9'-0"	ACT	FCTY	WHITE					SEE SECOND FLOOR PLAN FOR ABOVE CEILING WALL TYPES . INSTALL VCT PURINA PATTERN AS DIRECTED BY OWNER.
																														-
																														-
20-201	POLYMER TANK AREA	CONC	--	SLR	--	--	--	--	--	CONC	--	--	CMU	PS-117	TBS	CMU	PS-117	TBS	CONC	--	--	--	EXP	--	--					-
20-202	LOBBY	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-203	ELECTRICAL STORAGE	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-204	OFFICE	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-205	SERVER ROOM	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-206	CORRIDOR	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-207	CONTROL ROOM	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					COVER TRENCH PLATES WITH VINYL SHEET FLOORING INSTALL VCT PURINA PATTERN AS DIRECTED BY OWNER.
20-208	BREAK ROOM	CONC	VCT	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					INSTALL VCT PURINA PATTERN AS DIRECTED BY OWNER.
20-209	JANITOR	CONC	FAF	FCTY	TBS	4"	RUB	FCTY	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	GWB	PS-115	TBS	9'-0"	ACT	FCTY	WHITE					-
20-210	MEN'S SHOWER	CONC	PT	FCTY	TBS	4"	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	9'-0"	GWB	PS-115	WHITE					-
20-211	MEN'S LOCKER	CONC	PT	FCTY	TBS	4"	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	9'-0"	ACT	FCTY	WHITE					-
20-212	MEN'S TOILET	CONC	PT	FCTY	TBS	4"	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	9'-0"	ACT	FCTY	WHITE					-
20-213	WOMEN'S RESTROOM	CONC	PT	FCTY	TBS	4"	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	9'-0"	ACT	FCTY	WHITE					-
20-214	WOMEN'S SHOWER & LOCKER	CONC	PT	FCTY	TBS	4"	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	CT	FCTY	TBS	9'-0"	GWB	PS-115	WHITE					-

ABBREVIATIONS:

AL	ALUMINUM	CT	CERAMIC TILE	GWB	GYPSUM BOARD	MET	METAL	SIM	SIMILAR
AS	AS SELECTED	CRC	CHEMICAL-RESISTANT COATINGS	GLZ	GLAZING	MS	MANUFACTURER'S STANDARD	SLR	SEALER
ATC	ACOUSTIC TILE CEILING	EPX	EPOXY	HC	HOLLOW CORE	PLWD	PLYWOOD	SOI	SPRAY-ON INSULATION
CER	CERAMIC TILE	EXIST	EXISTING	HGT	HEIGHT	PT	PORCELAIN TILE	SST	STAINLESS STEEL
CLR	CLEAR	EXP	EXPOSED STRUCTURE	HDNR	HARDENER	PTN	PARTITION	STL	STEEL
CMU	CONCRETE MASONRY UNITS	FAF	FLUIED-APPLIED FLOORING	IR	IMPACT RESISTANT	RESIL	RESILIENT	SUBFL	SUBFLOOR
COL	COLOR	FCTY	FACTORY	MATL	MATERIAL	RUB	RUBBER BASE	VCT	VINYL COMPOSITION TILE
CONSTR	CONSTRUCTION	FNSH	FINISH					WD	WOOD
CONC	CONCRETE	FRP	FIBERGLASS REINFORCED PLASTIC						

FINISH SCHEDULE NOTES:

NO. 1 NUMBERS IN "FINISH" COLUMN REFER TO PAINT SYSTEMS IN SPECIFICATION SECTION 09 90 00.
NO. 2 FINISH CLOSETS AND ALCOVES THE SAME AS THE SPACE INTO WHICH THEY OPEN.
NO. 3 FOR EXTERIOR FINISHES SEE EXTERIOR FINISH SCHEDULE AND ELEVATION DRAWINGS.
NO. 4 REFER TO SPECIFICATION SECTION 03 30 10 FOR CONCRETE FINISHES.
NO. 5 MANUFACTURERS LISTED IN THE COLOR LIST ARE FOR COLOR INFORMATION ONLY.
NO. 6 SUBMIT TOGETHER ALL MANUFACTURER'S COLOR SAMPLES IN ORDER TO MAKE AND APPROVE SELECTIONS AT ONE TIME.

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	V ROMAN-CARDONA		BJ NARAMORE	T DODGE	A DOLSAK

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ARCHITECTURAL
DEWATERING AND CONTROL BUILDING
FINISH SCHEDULE

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CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-A-6004
SHEET	116 of 270

GENERAL SHEET NOTES

1. REFER TO FIRE PROTECTION LEGEND FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOL LEGEND.
2. WHERE FM 200 SYSTEM IS INSTALLED, SEAL PENETRATIONS AND CLOSE DAMPERS PER NFPA 2001 TO ACHIEVE TOTAL FLOODING.
3. NO AUTOMATIC FIRE SPRINKLER SYSTEM REQUIRED PER IBC (REFER TO 20-A-2001)
4. PROVIDE FM 200 SYSTEMS IN ROOMS AS SHOWN. LOCATE PANELS AND CYLINDERS IN THE ROOM THEY PROTECT.

SHEET KEYNOTES

1. ROOM PROTECTED BY FM-200
2. FM-200 4 WAY NOZZLE.
3. FM-200 CYLINDERS
4. FM-200 CONTROL PANEL (FARP).
5. FM-200 MAINTENANCE BYPASS SWITCH.
6. PROVIDE WEATHERPROOF ILLUMINATED SIGN WITH EMERGENCY BATTERY BACKUP "DO NOT ENTER - GAS DISCHARGE" ON EXTERIOR ABOVE THE DOOR TO PROTECTED ROOM. SIGN IS TO BE VISIBLE AT ALL TIMES AND ACTIVATED UPON SYSTEM RELEASE.
7. PROVIDE ILLUMINATED SIGN WITH EMERGENCY BATTERY BACKUP "EVACUATE NOW - GAS DISCHARGE" AT THE INTERIOR EGRESS DOORS. SIGN TO BE VISIBLE AT ALL TIMES AND ACTIVATED UPON SYSTEM RELEASE.
8. SMOKE DETECTORS AND HEAT DETECTORS CROSS ZONED FOR RELEASE OF FM200 SYSTEM. CENTERED WITHIN EACH BEAM POCKET.
9. ABORT SWITCH TO STOP ACTIVATION OF FM-200 SYSTEM.
10. PROVIDE ILLUMINATED SIGN WITH EMERGENCY BATTERY BACKUP "DO NOT ENTER - GAS DISCHARGE" ON EXTERIOR ABOVE THE DOOR TO PROTECTED ROOM. SIGN IS TO BE VISIBLE AT ALL TIMES AND ACTIVATED BY A PRESSURE SWITCH ON THE SYSTEM DISCHARGE PIPING.
11. MANUAL RELEASE FOR FM200 SYSTEM.

TRUCK LOADING BAY 20-101
POLYMER PUMP ROOM 20-102
TOOL STORAGE 20-104
BELT FILTER PRESS ROOM 20-103
TRAINING ROOM 20-112
STAIRS 1 20-S01
LOBBY 20-105
ELEVATOR
ELECTRICAL ROOM 20-106
MECHANICAL 20-107
LOBBY 20-108
STAIRS 2 20-S02
LOCKER ROOM 20-109
SHOWER 20-110
TOILET ROOM 20-111
(TYP)
TYP

N

FIRST FLOOR PLAN
1/8"=1'-0"

0 8 16 24
1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	B IRMEN	DR B SHANNON	CHK B PEABODY	APVD B PEABODY

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

FIRE SUPPRESSION

DEWATERING AND CONTROL BUILDING FIRST FLOOR PLAN

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

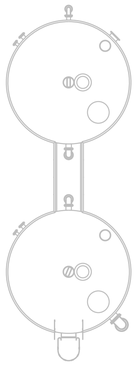
DATE	MAY 2021
PROJ	D3226100
DWG	20-F-2001
SHEET	117 of 270

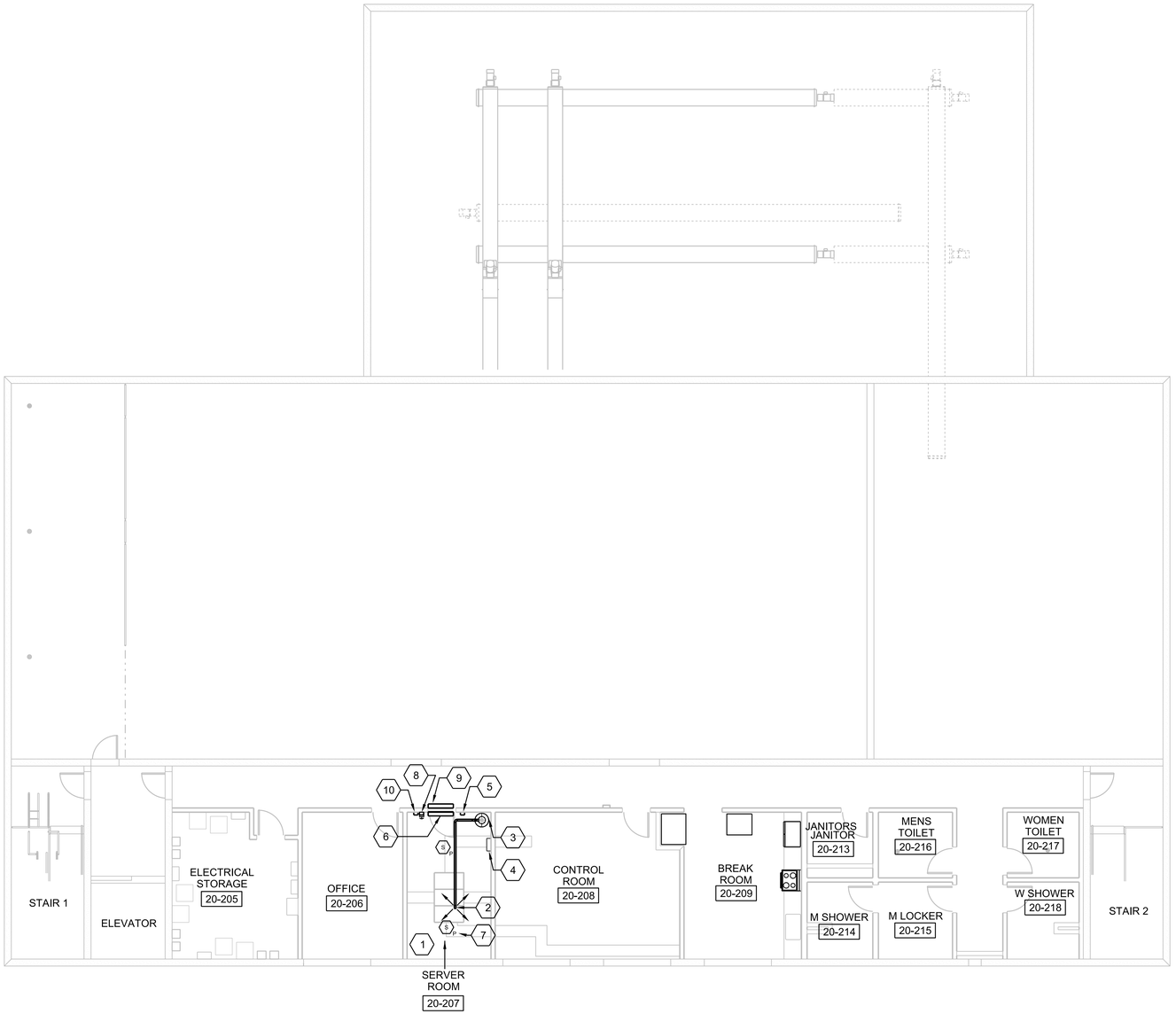
GENERAL SHEET NOTES

1. REFER TO FIRE PROTECTION LEGEND FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOL LEGEND.
2. WHERE FM 200 SYSTEM IS INSTALLED, SEAL PENETRATIONS AND CLOSE DAMPERS PER NFPA 2001 TO ACHIEVE TOTAL FLOODING.
3. NO AUTOMATIC FIRE SPRINKLER SYSTEM REQUIRED PER IBC (REFER TO 20-A-2001)
4. PROVIDE FM 200 SYSTEMS IN ROOMS AS SHOWN. LOCATE PANELS AND CYLINDERS IN THE ROOMS THEY PROTECT.

SHEET KEYNOTES

1. ROOM PROTECTED BY FM-200
2. FM-200 4 WAY NOZZEL.
3. FM-200 CYLINDER.
4. FM-200 CONTROL PANEL (FARP).
5. FM-200 MAINTENANCE BYPASS SWITCH.
6. PROVIDE ILLUMINATED SIGN WITH EMERGENCY BATTERY BACKUP "EVACUATE NOW - GAS DISCHARGE" AT THE INTERIOR EGRESS DOORS. SIGN TO BE VISIBLE AT ALL TIMES AND ACTIVATED BY A PRESSURE SWITCH ON THE SYSTEM DISCHARGE PIPING.
7. SMOKE DETECTORS FOR RELEASE OF FM200 SYSTEM.
8. ABORT SWITCH TO STOP ACTIVATION OF FM-200 SYSTEM.
9. PROVIDE ILLUMINATED SIGN WITH EMERGENCY BATTERYBACKUP "DO NOT ENTER - GAS DISCHARGE" ON EXTERIOR ABOVE THE DOOR TO PROTECTED ROOM. SIGN IS TO BE VISIBLE AT ALL TIMES AND ACTIVATED BY A PRESSURE SWITCH ON THE SYSTEM DISCHARGE PIPING.
10. MANUAL DISCHARGE OF THE FM-200 SYSTEM.





N

SECOND FLOOR PLAN

1/8"=1'-0"

0 8 16 24

1/8"=1'-0"

NO.	DATE	BY	REVISION	CHK	DR
DSGN	B IRMEN	APVD		B PEABODY	B SHANNON

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

FIRE SUPPRESSION

DEWATERING AND CONTROL BUILDING SECOND FLOOR PLAN

CONFORMED DOCUMENTS

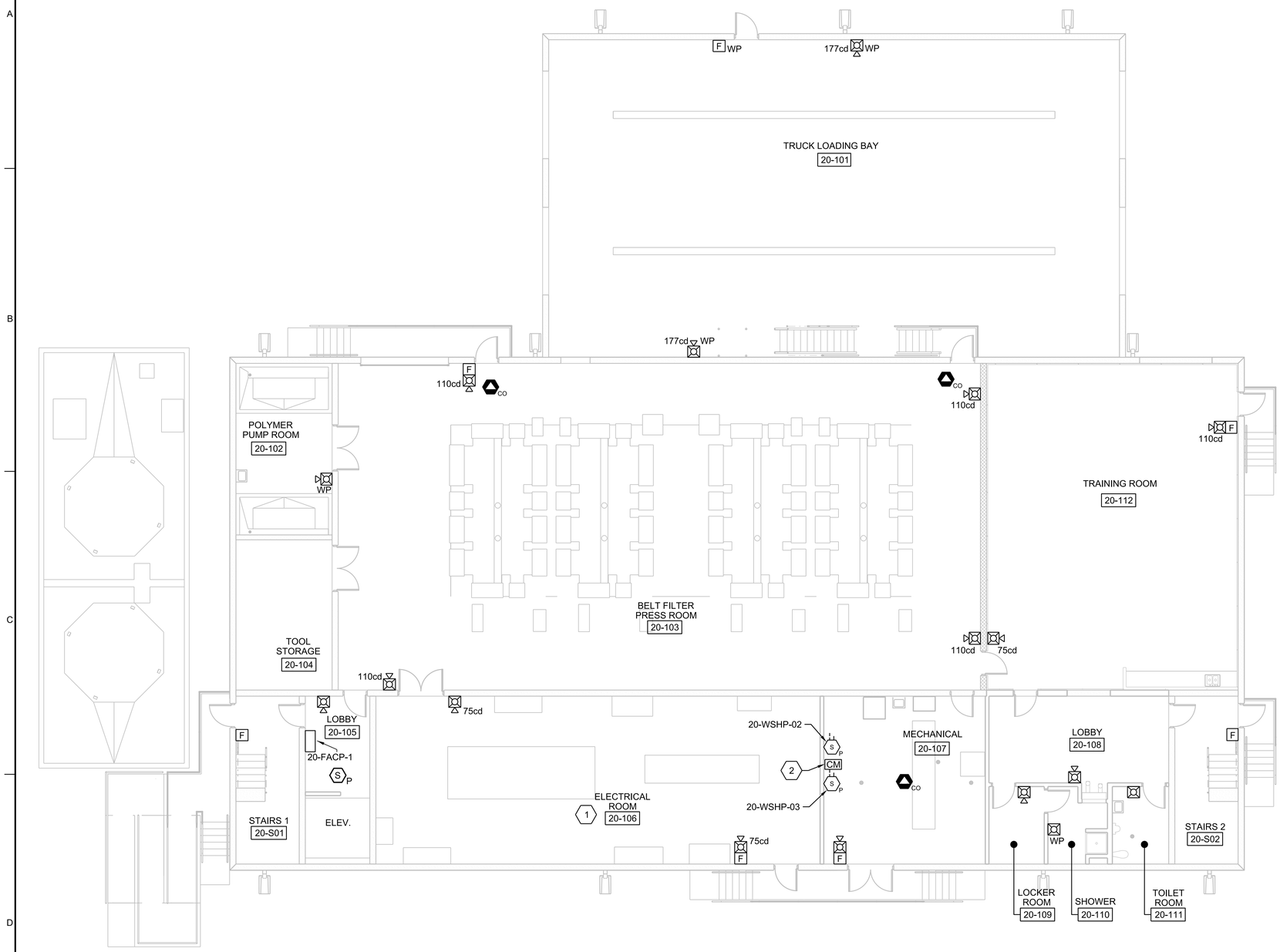
	1/8"=1'-0"
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"
DATE	MAY 2021
PROJ	D3226100
DWG	20-F-2002
SHEET	118 of 270

GENERAL SHEET NOTES

A. SEE SHEETS 01-G-0014 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.

SHEET KEYNOTES

1. AREA PROTECTED BY FM-200, REFER TO DRAWING 20-F-2001.
2. CONTROL MODULE ACTIVATION WILL CLOSE HVAC AIR DAMPER ON FM-200 ACTIVATION.



N

FIRST FLOOR PLAN

1/8"=1'-0"

0 8 16 24

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	J PEUSER	DR B ALEXANDER	CHK B PEABODY	APVD B PEABODY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

FIRE ALARM

DEWATERING AND CONTROL BUILDING FIRST FLOOR PLAN

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-FA-2001
SHEET	119 of 270

GENERAL SHEET NOTES

A. SEE SHEETS 01-G-0014 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.

SHEET KEYNOTES

1. AREA PROTECTED BY FM-200, REFER TO DRAWING 20-F-2001.
2. CONTROL MODULE ACTIVATION WILL CLOSE AIR DAMPER ON FM-200 ACTIVATION.

N

SECOND FLOOR PLAN

1/8"=1'-0"

0 8 16 24

1/8"=1'-0"

NO.	DATE	DR	CHK	APVD	BY	REVISION
DSGN	J PEUSER	B ALEXANDER	B PEABODY	APVD	B PEABODY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

FIRE ALARM

DEWATERING AND CONTROL BUILDING SECOND FLOOR PLAN

CONFORMED DOCUMENTS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

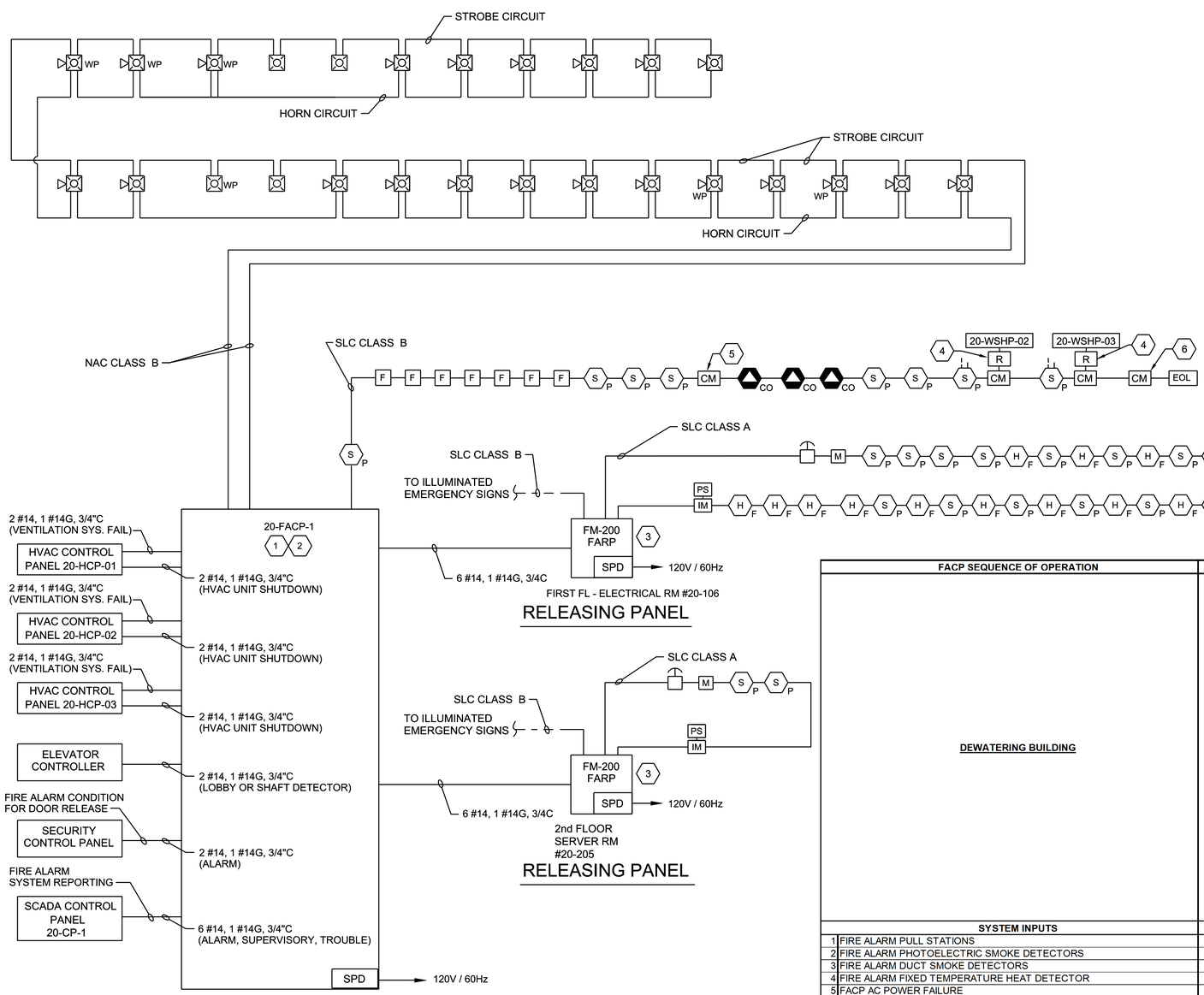
DATE	MAY 2021
PROJ	D3226100
DWG	20-FA-2002
SHEET	120 of 270

GENERAL SHEET NOTES

A. SEE FIRE ALARM LEGEND FOR SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES.

SHEET KEYNOTES

1. FIRE ALARM CONTROL PANEL (FACP)
2. THE FIRE ALARM AND DETECTION SYSTEM IS TO BE COMPLIANT WITH THE CURRENT EDITIONS OF NFPA 72.
3. REFER TO FIRE SUPPRESSION DRAWINGS FOR FM-200 SYSTEM.
4. RELAY MODULE FOR SHUTDOWN OF AHU TO BE LOCATED WITHIN 3 FEET OF POINT OF UNIT SHUTDOWN.
5. CONTROL MODULE FOR ACTIVATION OF AIR DAMPER SERVING ELECTRICAL ROOM 20-106
6. CONTROL MODULE FOR ACTIVATION OF AIR DAMPER SERVING SERVER ROOM 20-205



RISER DIAGRAM
NTS

FACP SEQUENCE OF OPERATION	FACU ANNUNCIATION							NOTIFICATION	AUXILIARY FUNCTIONS		REPORTING TO BUILDING SCADA SYSTEM						
DEWATERING BUILDING	ACTIVATE COMMON ALARM INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPV SIGNAL INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE COMMON TROUBLE SIGNAL INDICATOR	ACTIVATE AUDIBLE TROUBLE SIGNAL	TEXT DISPLAY OF DEVICE LOCATION AND DESCRIPTION	ACTIVATE FM-200 WARNING TEXT SIGNS	FM-200 RELEASE SOLENOID	CLOSE SMOKE DAMPER IN RATED WALL	SHUT DOWN HVAC UNIT	ALARM TO SECURITY CONTROL PANEL	REPORT GENERAL FIRE ALARM SIGNAL	REPORT GENERAL FIRE ALARM SUPERVISORY SIGNAL	REPORT GENERAL FIRE ALARM TROUBLE SIGNAL	REPORT RELEASING SYSTEM FIRE ALARM SIGNAL	REPORT RELEASING SYSTEM DE-ACTIVATED SUPERVISORY SIGNAL	REPORT RELEASING SYSTEM SUPERVISORY SIGNAL	REPORT RELEASING SYSTEM TROUBLE SIGNAL
SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1 FIRE ALARM PULL STATIONS	X	X					X					X	X						
2 FIRE ALARM PHOTOELECTRIC SMOKE DETECTORS	X	X					X					X	X						
3 FIRE ALARM DUCT SMOKE DETECTORS			X	X			X			X	X			X					
4 FIRE ALARM FIXED TEMPERATURE HEAT DETECTOR	X	X	X	X			X					X	X						
5 FACP AC POWER FAILURE					X	X	X								X				
6 FACP SYSTEM SILENCE			X	X			X							X					
7 FACP SYSTEM LOW BATTERY					X	X	X								X				
8 SIGNALING LINE CIRCUIT FAULT					X	X	X								X				
9 GROUND FAULT					X	X	X								X				
10 NOTIFICATION APPLIANCE CIRCUIT FAULT					X	X	X								X				
11 FM-200 ONE SMOKE DETECTOR STAGE 2 (ALERT)			X	X			X							X			X	X	
12 FM-200 ANY TWO SMOKE OR HEAT DETECTORS STAGE 3 (RELEASE)	X	X					X	X	X	X	X	X	X			X			
13 FM-200 MANUAL RELEASE CLEAN AGENT SYSTEM STAGE 3 (RELEASE)	X	X					X	X	X	X	X	X	X			X			
14 FM-200 MANUAL STATION ABORT SWITCH			X	X			X							X			X	X	
15 MAINTENANCE BYPASS KEY SWITCH					X	X	X								X				X
16 FM-200 PANEL OPEN FAULT					X	X	X								X				X
17 FM-200 PANEL SYSTEM TROUBLE					X	X	X								X				X
18 FM-200 PANEL BATTERY FAULT					X	X	X								X				X
19 FM-200 PANEL GROUND FAULT					X	X	X								X				X
20 FM-200 LOW PRESSURE SUPERVISORY SWITCH			X	X			X							X				X	
21 CARBON MONOXIDE DETECTORS			X	X			X							X					
22 VENTILATION SYSTEM FAILURE			X	X			X							X					
23 ELEVATOR LOBBY SMOKE DETECTORS	X	X					X					X	X						
24 ELEVATOR SHAFT SMOKE DETECTOR	X	X										X	X						

FUNCTIONAL MATRIX
NTS

NO.	DATE	DSGN
		J PEUSER
		DR
	REVISION	CHK
		B ALEXANDER
		APVD
		B PEABODY
		BY
		APVD
		B PEABODY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

FIRE ALARM
DEWATERING AND CONTROL BUILDING RISER DIAGRAM AND FUNCTIONAL MATRIX

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CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

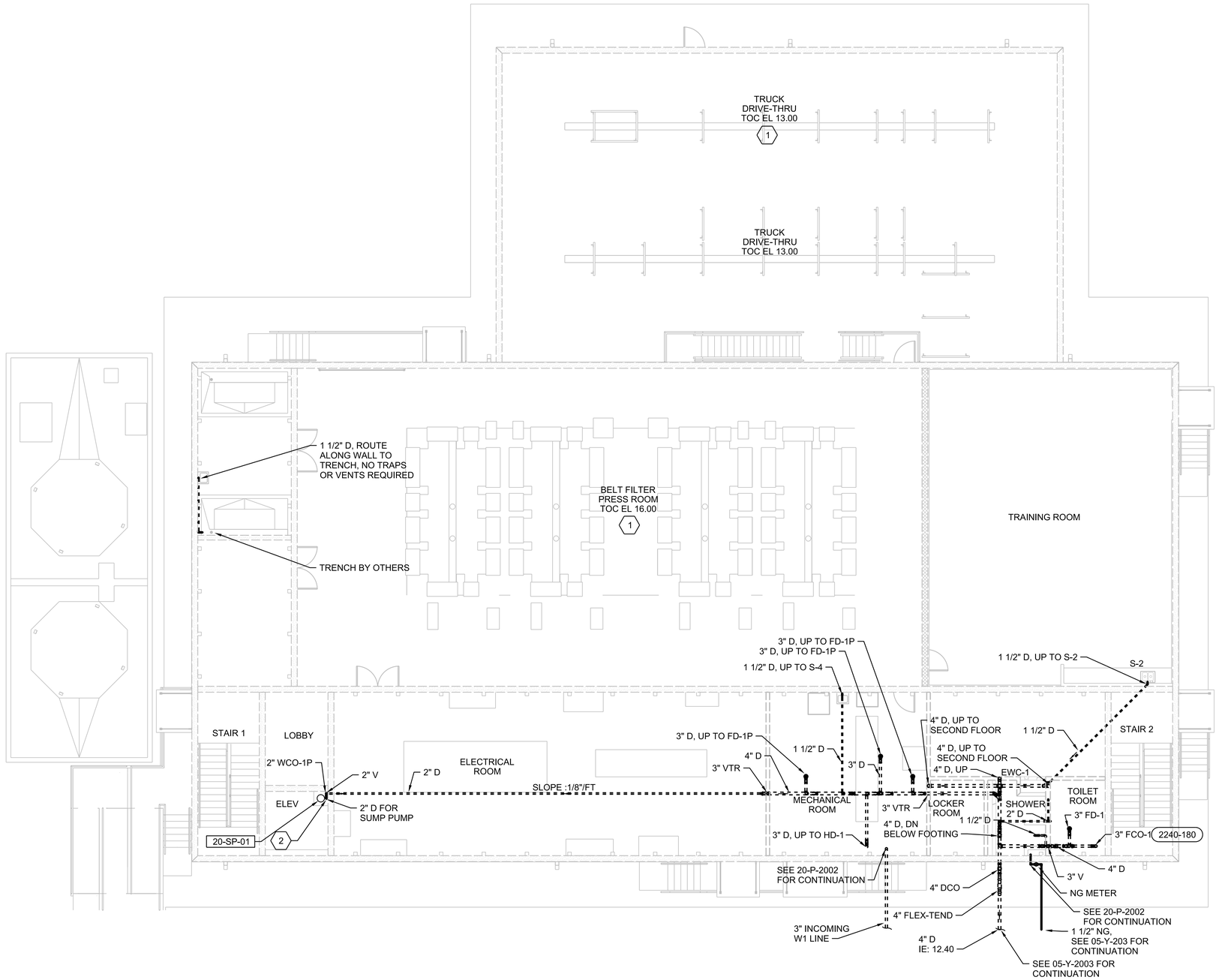
DATE	MAY 2021
PROJ	D3226100
DWG	20-FA-6001
SHEET	121 of 270

GENERAL SHEET NOTES

1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. SEE 50-P-6001 FOR EQUIPMENT SCHEDULES.
3. ALL DASHED LINES INDICATE UNDERSLAB PIPING.
4. SLOPE ALL DRAINS AT 1/4" SLOPE UNLESS NOTED OTHERWISE.
5. PROVIDE BARRIER TRAP SEAL CONFORMING TO ASSE 10/2 FOR ALL FLOOR DRAINS.
6. REFER TO SPEICIFICATIONS SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.

SHEET KEYNOTES

1. SEE PROCESS DRAWINGS FOR RELATED DRAINS.
2. INSTALL SUMP PUMP WITH UNION/COUPLING FOR PUMP REMOVAL. INSTALL CHECK VALVE IN DISCHARGE PIPE. MOUNT CONTROL PANEL ON WALL.



N

FOUNDATION PIPING PLAN

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	B RUSSAKIS	DR S HOSTETLER	CHK T PRICE	APVD A VALIENTE

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

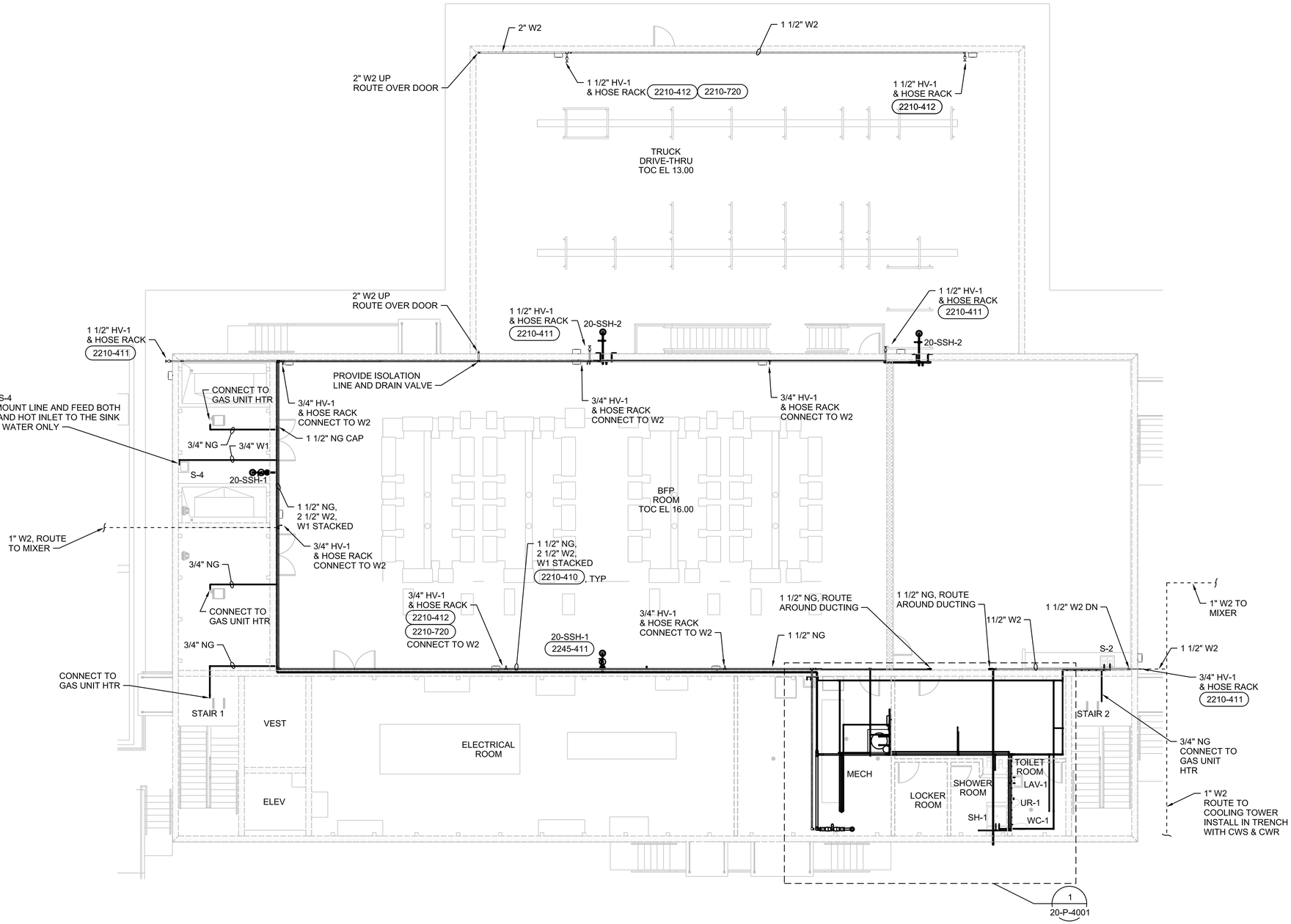
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
DEWATERING AND CONTROL BUILDING
FOUNDATION PIPING PLAN

	1/8"=1'-0"
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"
DATE	MAY 2021
PROJ	D3226100
DWG	20-P-2001
SHEET	122 of 270

GENERAL SHEET NOTES

1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. SEE 50-P-6001 FOR EQUIPMENT SCHEDULES.
3. REFER TO SPECIFICATION SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.



N

FIRST FLOOR PLAN - WATER

1/8"=1'-0"

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B RUSSAKIS	J PIGMAN	T PRICE	APVD	A VALIENTE	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
DEWATERING AND CONTROL BUILDING
FIRST FLOOR PLAN
WATER

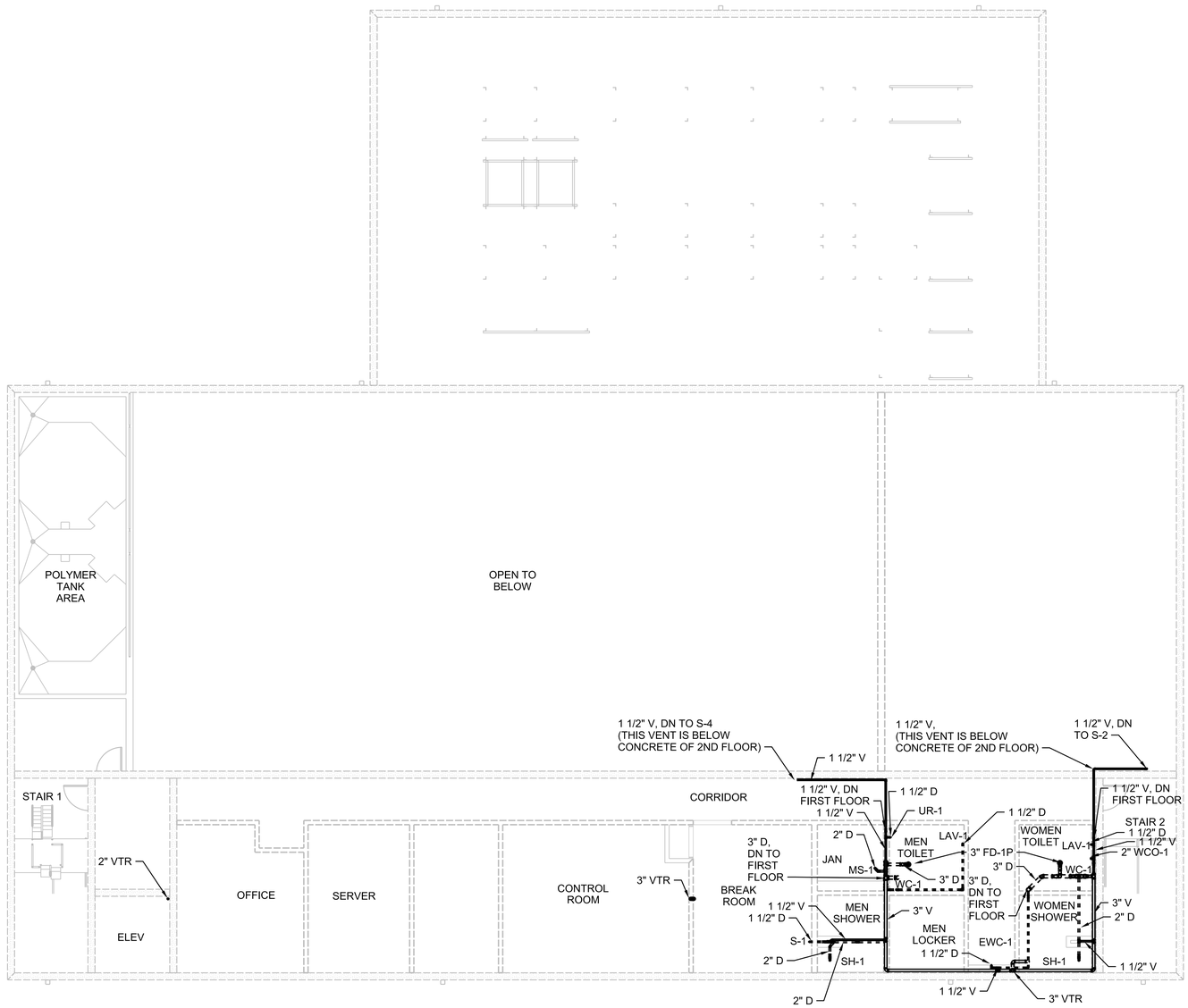
CONFORMED DOCUMENTS

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-P-2002
SHEET	123 of 270

GENERAL SHEET NOTES

1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. SEE 50-P-6001 FOR EQUIPMENT SCHEDULES.
3. REFER TO SPECIFICATION SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.
4. DASHED PIPE LINES INDICATE LINES BELOW 2ND FLOOR CONCRETE FLOOR. SOLID PIPE LINES INDICATE PIPES ABOVE SECOND FLOOR CONCRETE IN WALLS OR ABOVE CEILING AREA.



N

SECOND FLOOR PLAN - SANITARY WASTE

1/8"=1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

PLUMBING

DEWATERING AND CONTROL BUILDING
SECOND FLOOR
SANITARY WASTE

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

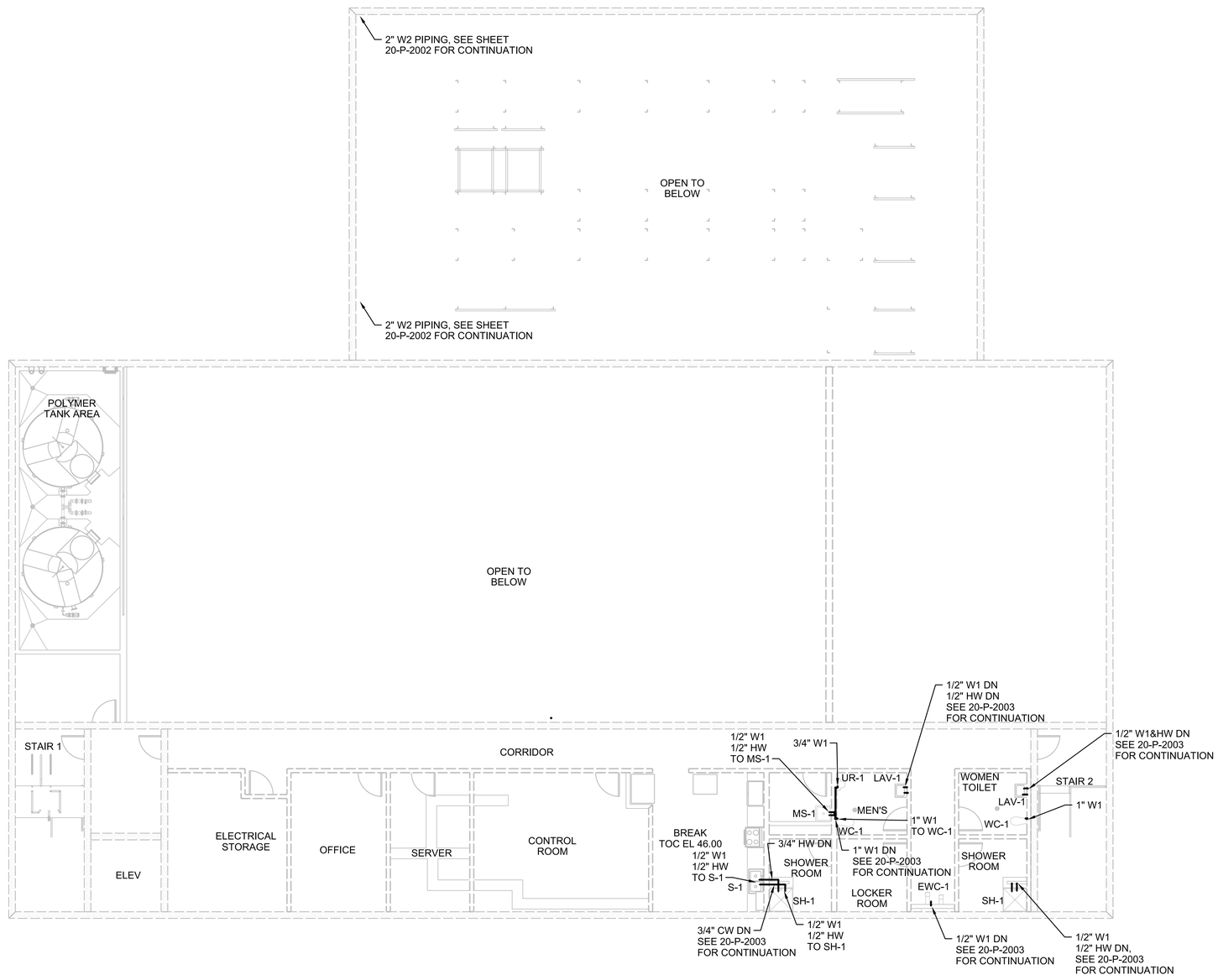
NO.	DATE	REVISION	BY	APVD
DSGN	B RUSSAKIS	DR	J PIGMAN	CHK	T PRICE	APVD	A VALIENTE

CONFORMED DOCUMENTS

1/8"=1'-0"	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-P-2003
SHEET	124 of 270

GENERAL SHEET NOTES

1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. SEE 50-P-6001 FOR EQUIPMENT SCHEDULES.
3. REFER TO SPECIFICATION SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.



N

SECOND FLOOR PLAN - WATER

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	B RUSSAKIS	DR J PIGMAN	CHK T PRICE	APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
DEWATERING AND CONTROL BUILDING
SECOND FLOOR PLAN
WATER

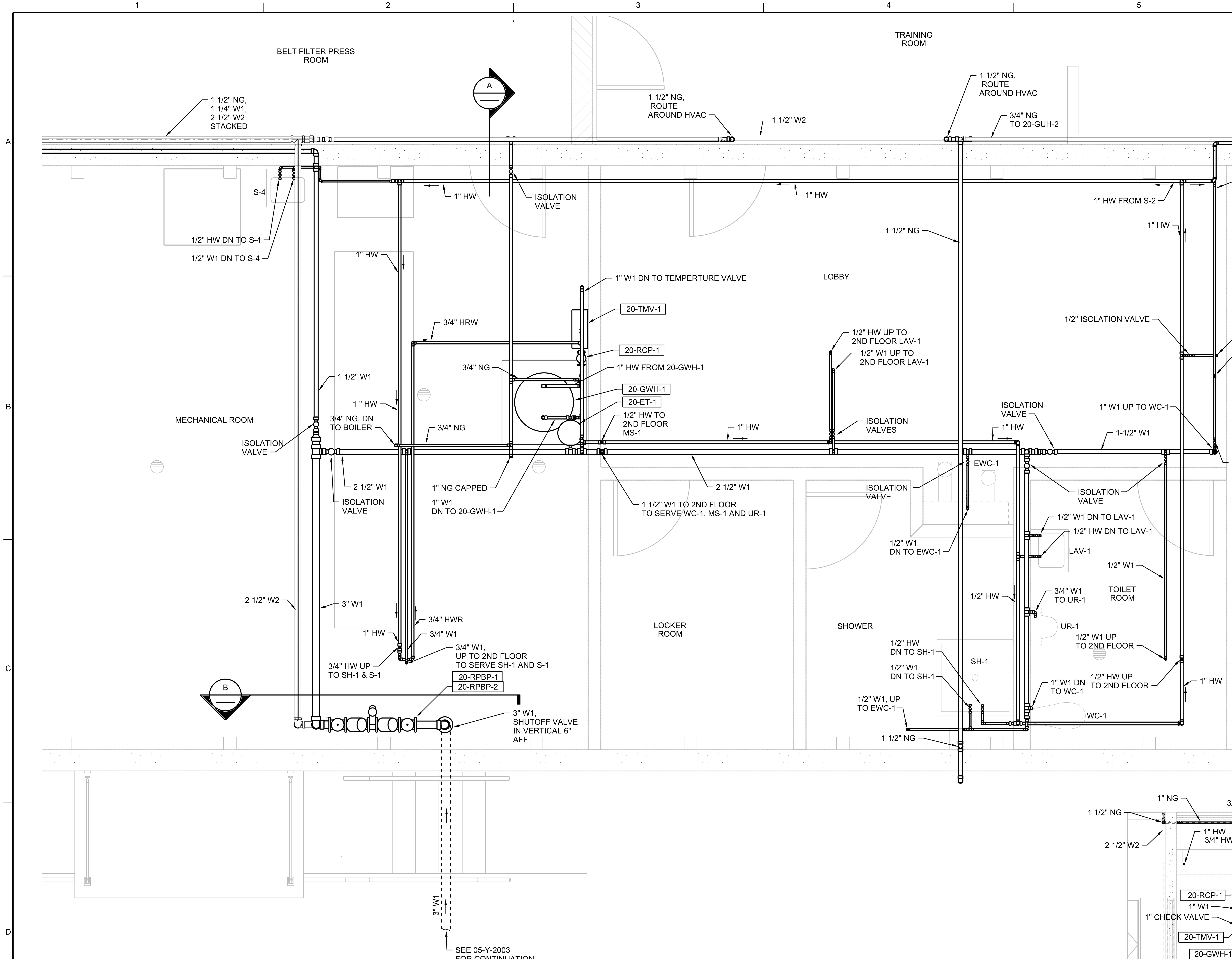
1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-P-2004
SHEET	125 of 270

CONFORMED DOCUMENTS

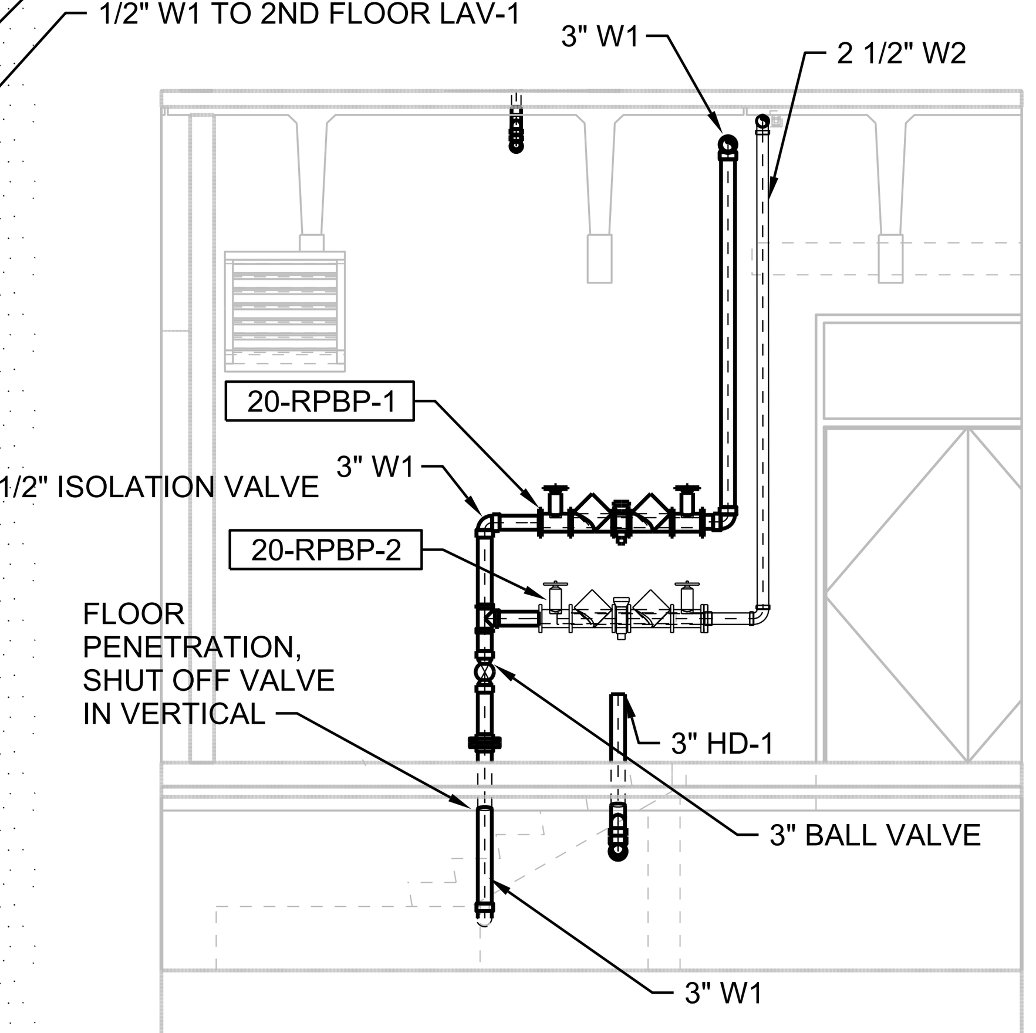
GENERAL SHEET NOTES

1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. SEE 50-P-6001 FOR EQUIPMENT SCHEDULES.
3. REFER TO SPECIFICATION SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.

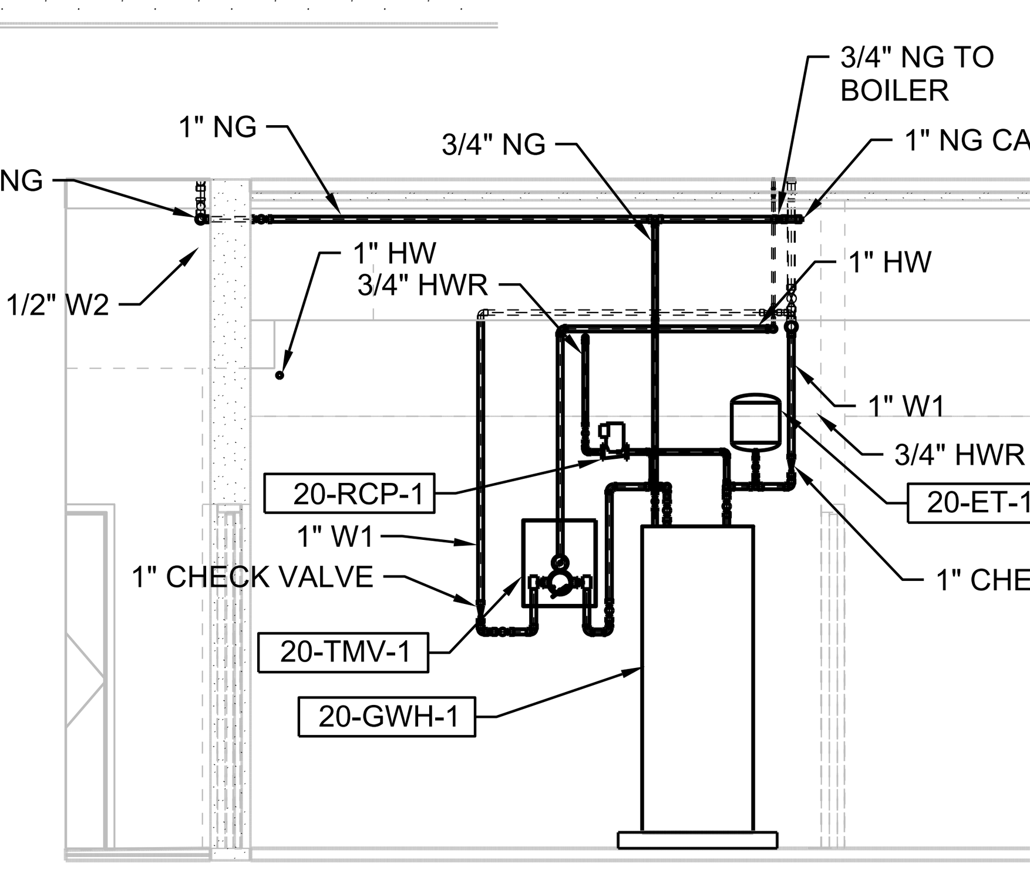


BELT FILTER PRESS ROOM
TRAINING ROOM
MECHANICAL ROOM
LOBBY
LOCKER ROOM
SHOWER
TOILET ROOM
1 1/2" NG, 1 1/4" W1, 2 1/2" W2 STACKED
1 1/2" NG, ROUTE AROUND HVAC
1 1/2" W2
3/4" NG TO 20-GUH-2
1" HW TO S-2 AND BACK (STACKED)
1/2" W1 TO S-2
1" HW FROM S-2
S-4
1/2" HW DN TO S-4
1/2" W1 DN TO S-4
1" HW
ISOLATION VALVE
1 1/2" NG
1" W1 DN TO TEMPERTURE VALVE
20-TMV-1
20-RCP-1
1" HW FROM 20-GWH-1
20-GWH-1
20-ET-1
1/2" HW TO 2ND FLOOR MS-1
3/4" HRW
3/4" NG
1 1/2" W1
3/4" NG, DN TO BOILER
1/2" HW UP TO 2ND FLOOR LAV-1
1/2" W1 UP TO 2ND FLOOR LAV-1
ISOLATION VALVES
1/2" ISOLATION VALVE
1/2" HW TO 2ND FLOOR LAV-1
1/2" W1 TO 2ND FLOOR LAV-1
1" W1 UP TO WC-1
1-1/2" W1
1/2" ISOLATION VALVE
2 1/2" W1
1" NG CAPPED
1" W1 DN TO 20-GWH-1
1 1/2" W1 TO 2ND FLOOR TO SERVE WC-1, MS-1 AND UR-1
EWC-1
1" W1 DN TO LAV-1
1/2" HW DN TO LAV-1
LAV-1
1/2" W1 DN TO EWC-1
1/2" W1
1/2" HW
3/4" W1 TO UR-1
UR-1
1/2" W1 UP TO 2ND FLOOR
SH-1
1/2" HW DN TO SH-1
1/2" W1 DN TO SH-1
1" W1 DN TO WC-1
1/2" HW UP TO 2ND FLOOR
1/2" W1, UP TO EWC-1
WC-1
2 1/2" W2
3" W1
3/4" HWR
3/4" W1
3/4" HW UP TO SH-1 & S-1
3/4" W1, UP TO 2ND FLOOR TO SERVE SH-1 AND S-1
20-RPBP-1
20-RPBP-2
3" W1, SHUTOFF VALVE IN VERTICAL 6" AFF
3" W1
SEE 05-Y-2003 FOR CONTINUATION
A
B
N

1 ENLARGED PLAN
1/8"=1'-0"
20-P-2003



B SECTION
1/4"=1'-0"



A SECTION
1/4"=1'-0"

NO.	DATE	REVISION	BY	APVD

DSGN	DR	CHK	APVD
B RUSSAKIS	J PIGMAN	T PRICE	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
DEWATERING AND CONTROL BUILDING ENLARGED PLAN AND SECTION

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-P-4001
SHEET	126 of 270

CONFORMED DOCUMENTS

PLUMBING FIXTURE CONNECTION SCHEDULE

TAG NO.	DESCRIPTION	WASTE (IN.) MIN.	VENT (IN.) MIN.	TRAP (IN.) MIN.	W1 (IN.) MIN.	HW (IN.) MIN.	W2 (IN.) MIN.	NOTES
CO-1	CLEANOUT, EXTERIOR	4	N/A	N/A	N/A	N/A	N/A	1
ETP-1	ELECTRIC TRAP PRIMER	N/A	N/A	N/A	3/4	N/A	N/A	1
EWC-1	ELEC WATER COOLER	1 1/2	1 1/2	1 1/2	1/2	N/A	N/A	1
EWC-2	ELEC WATER COOLER	1 1/2	1 1/2	1 1/2	1/2	N/A	N/A	1
FCO-1	FLOOR CLEANOUT, INTERIOR	4	N/A	N/A	N/A	N/A	N/A	1
FD-1P	FLOOR DRAIN	VARIES	VARIES	VARIES	N/A	N/A	N/A	0
HD-1P	HUB DRAIN	VARIES	VARIES	VARIES	N/A	N/A	N/A	1
HV-1	HOSE VALVE, INTERIOR	N/A	N/A	N/A	N/A	N/A	SEE PLANS	1
LAV-1	WALL HUNG TYPE	1 1/2	1 1/2	1 1/2	1/2	1/2	N/A	1,2,3
LAV-2	WALL HUNG TYPE	1 1/2	1 1/2	1 1/2	1/2	1/2	N/A	1,2,3
MS-1	MOP SINK	2	1 1/2	2	1/2	1/2	N/A	1,3
S-1	SINGLE BOWL SINK	1 1/2	1 1/2	2	1/2	1/2	N/A	1
S-2	DOUBLE BOWL SINK	1 1/2	1 1/2	2	1/2	1/2	N/A	1
S-3	STAINLESS STEEL SMALLER	1 1/2	1 1/2	2	1/2	1/2	N/A	1
S-4	FIBERGLASS LAUNDRY TUB	1 1/2	1 1/2	1 1/2	1/2	1/2	N/A	1
SK-1	SAMPLE SINK	1 1/2	1 1/2	2	1/2	1/2	N/A	1,3
SH-1	SHOWER	2	1 1/2	2	1/2	1/2	N/A	1,3
UR-1	URINAL	2	1 1/2	2	3/4	N/A	N/A	2
WC-1	WATER CLOSET	4	2	N/A	1"	N/A	N/A	1,2
WC-2	WATER CLOSET	4	2	N/A	1"	N/A	N/A	1
WCO-1	WALL CLEANOUT	4	N/A	N/A	N/A	N/A	N/A	1

NOTES:
1. SEE 22 40 00 FOR PLUMBING FIXTURE SPECIFICATIONS.
2. ADA ACCESSIBLE.
3. PROVIDE FIXTURE WITH A HOT WATER MIXING VALVE. SEE THERMOSTATIC MIXING VALVE SCHEDULE.

RECIRCULATION PUMP SCHEDULE

TAG NO.	GPM	FT. HEAD	FLUID	RPM	SUCTION SIZE	DISCHARGE SIZE	POWER	VOLTS/PHASE	AMPS	TYPE	MANUFACTURER	MODEL	NOTES
20-RCP-1	2	14	RHW	1440-3720	3/4"	3/4"	45 WATTS	115/1	1.1	ECM CIRCULATOR	TACO	006 E3	1

NOTES
1. PROVIDE WITH AQUASTAT AND SMART PLUG TO CONTROL THE OPERATION OF THE CIRCULATOR. COORDINATE THE TYPE AND SIZE OF INLET AND OUTLET CONNECTIONS. FURNISH PUMP WITH 6' CORD PLUG.
2. ADJUST SPEED AS REQUIRED TO MAINTAIN EVEN TEMPERATURES THRU THE HOT WATER LOOP.

EMERGENCY SHOWER / EYEWASH SCHEDULE

GENERAL DATA				PHYSICAL DATA				MISCELLANEOUS			
TAG NO.	LOCATION	TYPE	DESCRIPTION	OVERALL HEIGHT (IN)	OVERALL LENGTH (IN)	OVERALL WIDTH (IN)	WEIGHT (LBS)	MANUFACTURER	MODEL	FLOW ALARM MODEL	ELECTRICAL (V/PH/HZ)
20-SSH-1 & 2	DEWATERING BUILDING	COMBINATION SHOWER/EYEWASH	FREE STANDING (INDOOR)	90	36	12	47	HAWS	8330	9001 DPDT	120/1/60
20-SSH-3 & 4	DEWATERING BUILDING	COMBINATION SHOWER/EYEWASH	FREEZE PROOF THRU WALL	90	36	12	47	BRADLEY CORP	S19-310TW	S19-324	120/1/60

ELEVATOR SUMP PUMP SCHEDULE

TAG NO.	LOCATION	TYPE	DISCHARGE PIPE SIZE (IN)	GPM	HEAD (FT)	RPM	MOTOR					MANUFACTURER, MODEL	NOTES
							HP	VOLTS	PH	HZ	FLA/LRA		
20-SP-1	ELEVATOR PIT	SIMPLEX PACKAGED	1.5	30	12	3450	1/3	115	1	60.0	5.2/8	LIBERTY, ELV 250	1

NOTES:
1. PROVIDE COMPLETE PACKAGED SYSTEM WITH 25 FT CORD.

BACKFLOW PREVENTER SCHEDULE

GENERAL DATA					PHYSICAL DATA						GENERAL
TAG NO.	LOCATION	VALVE TYPE	SERVICE	SIZE (INCHES)	OVERALL HEIGHT (IN)	OVERALL LENGTH (IN)	OVERALL WIDTH (IN)	WEIGHT (LBS)	MAXIMUM PRESSURE DROP (PSI)	MANUFACTURER; MODEL	NOTES
20-RPBP-1	DEWATERING BUILDING	REDUCED PRESSURE ZONE ASSEMBLY	W1	2	8	22	6	30	14	WATTS; LF009M2QT	
20-RPBP-2	DEWATERING BUILDING	REDUCED PRESSURE ZONE ASSEMBLY	W2	2	8	22	6	30	14	WATTS; LF009M2QT	

WATER HAMMER ARRESTOR SCHEDULE

TAG NO.	LOCATION	PDI UNIT SIZE	MANUFACTURER	MODEL NO.	NOTES
20-WHA-1	RESTROOMS	A	ZURN	Z1700 SERIES #100	1
20-WHA-2	SAFETY SHOWER	C	ZURN	Z1700 SERIES #300	1

NOTES:
1. SIZE PER MANUFACTURERS REQUIREMENTS. UNITS SHALL BE PDI-WHA201 CERTIFIED.

THERMOSTATIC MIXING VALVE SCHEDULE

TAG NO.	LOCATION	SYSTEM	HOT WATER		COLD WATER		TEMPERED WATER		MIN. FLOW (GPM) (IN)	MAX ΔP (PSI)	MANUFACTURER; MODELS	NOTES
			TEMP °F	GPM	TEMP °F	GPM	TEMP °F	GPM				
20-TMV-1	DEWATERING BUILDING	HOT WATER	140	0.25 MIN	65	0.25 MIN	115	15 MAX	2	5 PSI @ 17 GPM	LEONARD; PNV-100-LF	1,2

NOTES:
1. PROVIDE VALVE WITH THE FOLLOWING FEATURES: ASSE 1070 CERTIFIED.
2. ELECTRONICALLY CONTROLLED VALVE. FURNISH WITH BACK-UP POWER SUPPLY, 6' FOOT CORD PLUG AND WALL CABINET

TANK TYPE WATER HEATER SCHEDULE

GENERAL DATA					FUEL GAS INFORMATION				WATER DATA				ELECTRICAL		PHYSICAL DIMENSIONS			MISCELLANEOUS DATA	
TAG NO.	FACILITY	LOCATION	SYSTEM SERVED	HEATING TYPE	GAS PRESSURE	GAS FLOW RATE	INPUT BTUH	EFFICIENCY	TANK CAPACITY (GAL)	RECOVERY (GPH)	INLET TEMP (°F)	OUTLET TEMP (°F)	AMPS	V/PH/HZ	OVERALL HEIGHT (IN)	OVERALL DIAMETER (IN)	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL NO.
20-GWH-1	DEWATERING BUILDING	MECH ROOM	DOMESTIC HOT WATER	NAT GAS	2.0 PSI	76 CFH	76,000	94%	50	115	65	140	5	120	69"	22"	650	STATE	SHE50-76NE

1. FURNISH WITH CORD PLUG FOR WALL PLUG
2. FURNISH WTH CONDENSATE NEUTRALIZING KIT.
3. FURNISH WITH CONCENTRIC FLUE ADAPTER SUITABLE FOR INSTALLATION INTO AN EXTERIOR WALL.
4. FURNISH WITH NATURAL GAS REGULATOR AS REQUIRE.

EXPANSION TANK SCHEDULE

TAG NO.	LOCATION	MIN. ACCEPTANCE VOLUME (GAL)	PRECHARGE PRESSURE (PSIG)	MAX PRESSURE (PSIG)	MIN PRESSURE (PSIG)	DESIGN PRESSURE (PSIG)	SIZE (DIA X HEIGHT)	TANK WEIGHT (LBS)	MANUFACTURER; MODEL	NOTES
20-ET-1	DEWATERING BUILDING	2.1	50	150	60	60	10" x 10"	25	AMTROL; ST-5C	1

NOTES:
1. ANCHOR TANK IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

ALL WORK OF THIS SHEET CONCERNING CHLORINE AND SO2 BUILDING IS INCLUDED IN ADDITIVE ALTERNATE #1 UNLESS OTHERWISE NOTED.

NO.	DATE	REVISION	BY	APVD

DSGN	DR	CHK	APVD
B RUSSAKIS	J PIGMAN	T PRICE	A VALIENTE

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
DEWATERING AND CONTROL BUILDING
SCHEDULES

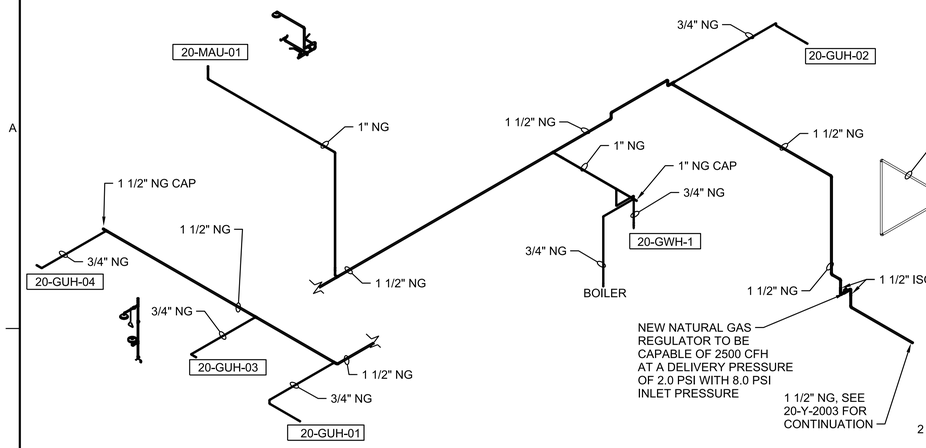
NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-P-6001
SHEET	127 of 270

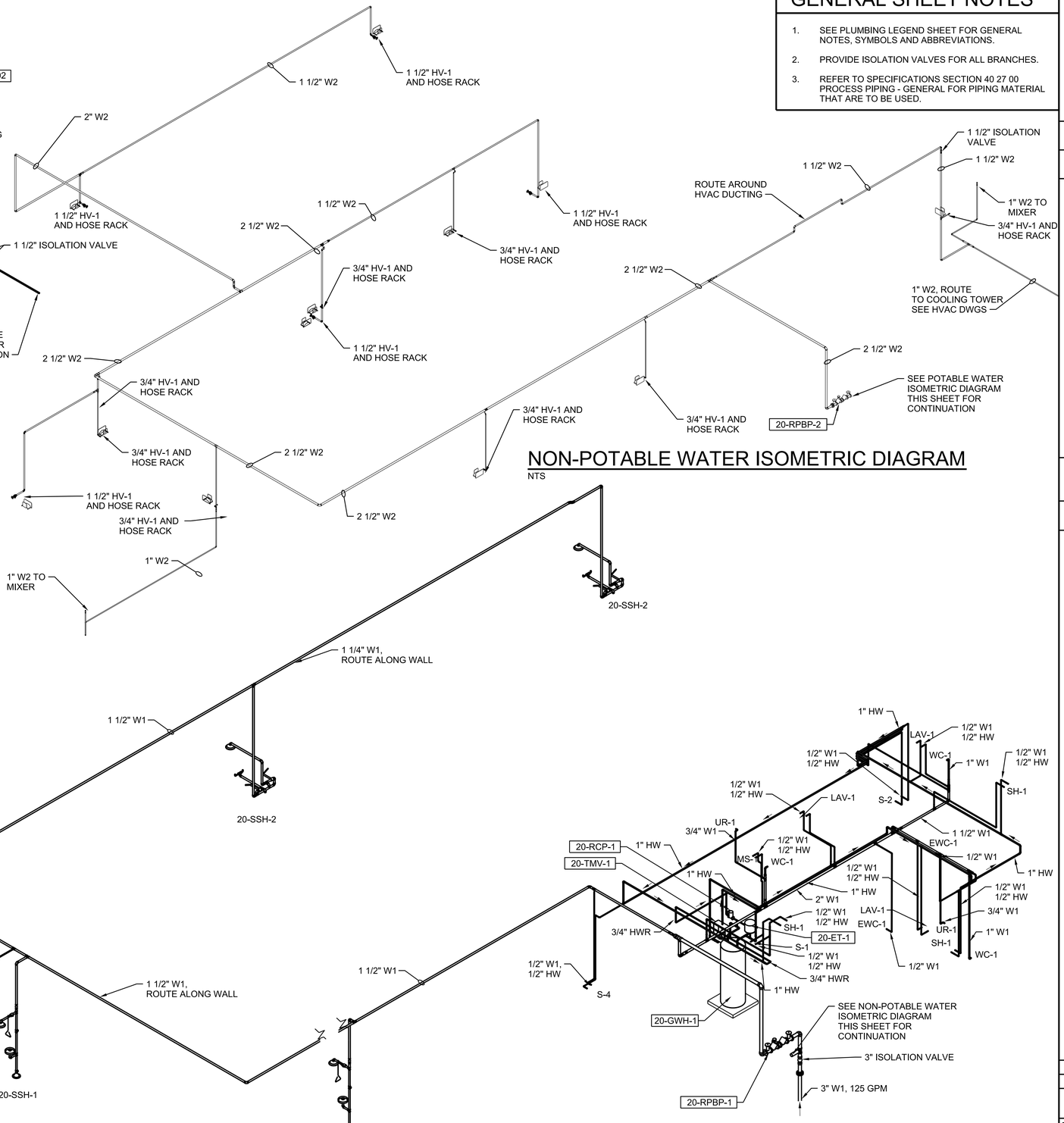
CONFORMED DOCUMENTS

GENERAL SHEET NOTES

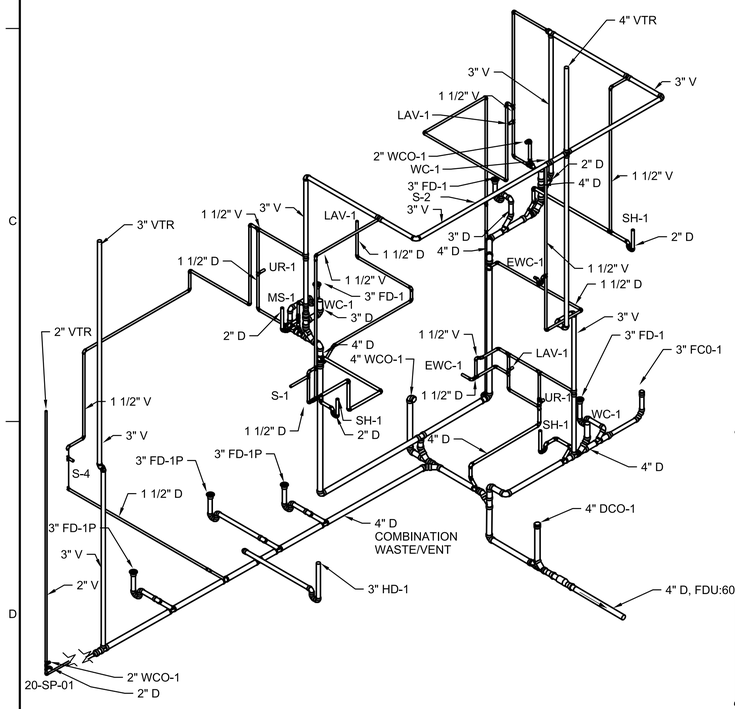
1. SEE PLUMBING LEGEND SHEET FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. PROVIDE ISOLATION VALVES FOR ALL BRANCHES.
3. REFER TO SPECIFICATIONS SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIAL THAT ARE TO BE USED.



NATURAL GAS ISOMETRIC DIAGRAM
NTS



NON-POTABLE WATER ISOMETRIC DIAGRAM
NTS



SANITARY ISOMETRIC DIAGRAM
NTS

POTABLE WATER ISOMETRIC DIAGRAM
NTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PLUMBING
DEWATERING AND CONTROL BUILDING ISOMETRIC DIAGRAMS

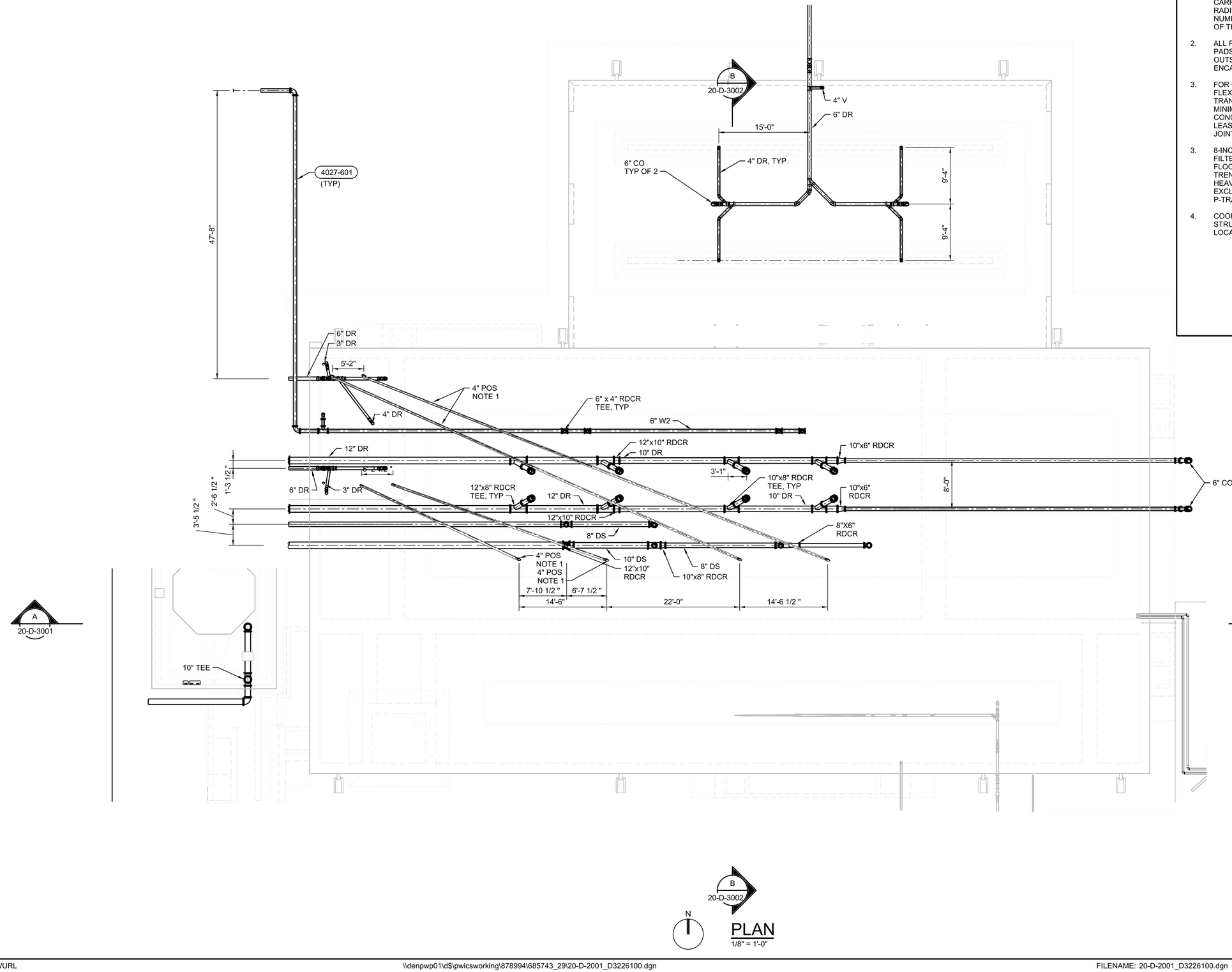
NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B RUSSAKIS	J PIGMAN	T PRICE	A VALIENTE		

1/4"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-P-9001
SHEET	128 of 270

GENERAL NOTES

1. 2" POS, NYLON TUBING INSIDE 4" PVC CASING. PVC CARRIER PIPE TO BE INSTALLED WITH LONG RADIUS BENDS AND ROUTE PIPES TO MINIMIZE NUMBER OF BENDS TO FACILITATE INSTALLATION OF THE NYLON TUBING.
2. ALL PIPING UNDERNEATH BUILDING AND TANK PADS AND EXTENDING A MINIMUM OF 5-FOOT OUTSIDE OF FOUNDATION IS TO BE CONCRETE ENCASED PER DETAILS 0330-016 AND 4027-601.
3. FOR CONCRETE ENCASED PVC PIPES. INSTALL FLEXIBLE TRANSITION PER DETAIL 4027-601. TRANSITION FROM PVC TO DUCTILE IRON A MINIMUM OF 5' PRIOR TO TRANSITION FROM CONCRETE ENCASED TO EXPOSED. INSTALL AT LEAST 20' OF DUCTILE IRON BEYOND SECOND PIPE JOINT BEFORE TRANSITION BACK TO PVC.
3. 8-INCH FLOOR DRAINS LOCATED WITHIN THE BELT FILTER PRESS SUMPS, AS WELL AS THE 4-INCH FLOOR DRAINS LOCATED IN THE TRUCK BAY TRENCH DRAINS. TO BE JAY R. SMITH MODEL 2290 HEAVY-DUTY FLOOR DRAINS. PER DETAIL 2213-102 EXCLUDING P-TRAPS. THE DRAINS ARE TO HAVE A P-TRAP AT THE FACE OF THE BUILDING.
4. COORDINATE UNDERSLAB UTILITIES WITH STRUCTURAL FOUNDATIONS. FOOTINGS AND PILE LOCATIONS TO AVOID CONFLICTS.



NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		K WDDELL	J WILCOX	J HORTON	APVD	K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL

DEWATERING AND CONTROL BUILDING UNDERSLAB PIPING

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-2001
SHEET	129 of 270

GENERAL NOTES

1. PIPE SUPPORTS TO BE SIZED AS REQUIRED BY CALCULATIONS.
2. RELOCATE THE EXISTING SKID MOUNTED BELT FILTER PRESS, LOCATED AT THE EXISTING DEWATERING BUILDING TO THE NEW DEWATERING BUILDING AND INSTALL AS BELT FILTER PRESS 1. THE ASSOCIATED CONTROL PANEL, SLUDGE FEED PUMP, WASHWATER PUMP, AND APPURTENANCES ARE TO BE NEW AND PROVIDE BY THE BFP MANUFACTURER AS SPECIFIED.

PLANT DRAIN PUMP STATION
1
20-D-4003

MH 2
MH 1
B
20-D-3002
15" DR
6" W2
MH 3
MECHANICAL GRINDER
20-M-13-1
20-LCP-12-1
20LIT 10-2
20-LCP-13-1
4" QUICK CONNECT
SMITH SLUDGE PUMP 2
20-P-12-2
20-LCP-49-1
3" QUICK CONNECT, TYP
3" POLY FILL, TYP
3" V331, TYP
20-LCP-30-1
20-LCP-30-3
20-LCP-30-4
20-LCP-30-10
20-LCP-30-5
20-LCP-30-6
20-LCP-30-7
20-LCP-30-8
20-LCP-30-2
SMITH SLUDGE PUMP 1
20-P-12-1
SMITH BIOSOLIDS RECEIVING TANK
20-T-10-2
MIXER NO. 2
20-M-10-2
12" DR
MH 7
15" DR
MH 5
6" DR
6" OF
12" DR
1" CO
8" V405
4" DR
SUMP
4" QUICK CONNECT
12" DS
12" V405
MIXER NO. 1
20-M-10-1
A
20-D-3001
10" V405, TYP OF 3
10" DS
15'-2"
4'-1/2"
BIOSOLIDS HOLDING TANK
20-T-10-1
20LIT 10-1
20-LCP-14-1
MECHANICAL GRINDER
20-M-14-1
MH 6
POLYMER MAKEUP UNIT 4
20-P-52-4
POLYMER MAKEUP UNIT 3
20-P-52-3
POLYMER WATER BOOSTER PUMPS
20-P-53-1 20-P-53-2
DIAPHRAGM TANK
20-T-53-1
POLYMER MAKEUP UNIT 2
20-P-52-2
POLYMER MAKEUP UNIT 1
20-P-52-1
CONVEYOR 1
20-CONV-30-1
CONVEYOR 3
20-CONV-30-3
CONVEYOR 4
20-CONV-30-4
CONVEYOR 2
20-CONV-30-2
5'-5" MIN
7'-9"
BELT FILTER PRESS 1
BELT FILTER PRESS 2
BELT FILTER PRESS 3
BELT FILTER PRESS 4
20-M-20-1
20-M-20-2
20-M-20-3
20-M-20-4
NOTE 2
20-VCP-1 (TYP)
8'-6" TYP
SLUDGE FEED PUMP NO. 2
20-P-20-2A
SLUDGE FEED PUMP NO. 4
20-P-20-4A
HYDRAULIC UNITS (TYP)
14'-7"
20'-11"
14'-7"
SLUDGE FEED PUMP NO. 1
20-P-20-1A
SLUDGE FEED PUMP NO. 3
20-P-20-3A
6" CO
A
20-D-3001
MH 8
MH 9
N
PLAN
1/8"=1'-0"
B
20-D-3002

NO.	DATE	DSGN	REVISION	CHK	APVD	BY	APVD
	K WADDELL	DR	J WILCOX	J HORTON		K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING FIRST FLOOR PLAN

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-2002
SHEET	130 of 270

GENERAL NOTES

1. PIPE SUPPORTS TO BE SIZED AS REQUIRED BY CALCULATIONS.
2. MOUNT CONTROL PANELS FACING NORTH.
3. TRAINING ROOM IS CONFIGURED SUCH THAT IT MAY BE REMOVED AND REPLACED WITH A CLASS A BIOSOLIDS PRODUCTION FACILITY.

PLANT DRAIN PUMP STATION
1
20-D-4003

TO ADMIN BUILDING

B
20-D-3002

6" W2

20-LCP-12-1

20LIT 10-2

20-LCP-13-1
NOTE 2

MECHANICAL GRINDER
20-M-13-1

4" QUICK CONNECT

SMITH SLUDGE PUMP 2
20-P-12-2

POLYMER MIXING PUMP 2
20-P-51-2

POLYMER STORAGE TANK 2
20-T-50-2

20-LCP-49-1

SMITH SLUDGE PUMP 1
20-P-12-1

SMITH BIOSOLIDS RECEIVING TANK
20-T-10-2

20LE 10-2

6" OF

20LE 10-1

A
20-D-3001

BIOSOLIDS HOLDING TANK
20-T-10-1

20LI 10-1

20-LCP-14-1

MECHANICAL GRINDER
20-M-14-1

10T BRIDGE CRANE

POLYMER STORAGE TANK 1
20-T-50-1

POLYMER MIXING PUMP 1
20-P-51-1

12'-6"

40'-4"

10'-3 1/2"

18'-8"

14'-6 1/2"

CONVEYOR 8
20-CONV-30-8

CONVEYOR 6
20-CONV-30-6

CONVEYOR 5
20-CONV-30-5

CONVEYOR 7
20-CONV-30-7

FUTURE CLASS A CONVEYORS

CONVEYOR 1
20-CONV-30-1

CONVEYOR 3
20-CONV-30-3

CONVEYOR 4
20-CONV-30-4

CONVEYOR 2
20-CONV-30-2

BELT FILTER PRESS 1
20-M-20-1

BELT FILTER PRESS 2
20-M-20-2

BELT FILTER PRESS 3
20-M-20-3

BELT FILTER PRESS 4
20-M-20-4

5'-5" MIN

7'-9"

FUTURE CLASS A CONVEYORS

SEE NOTE 3

20-VCP-1 (TYP)

HYDRAULIC UNIT (TYP)

SLUDGE FEED PUMP NO. 1
20-P-20-1A

SLUDGE FEED PUMP NO. 2
20-P-20-2A

SLUDGE FEED PUMP NO. 3
20-P-20-3A

SLUDGE FEED PUMP NO. 4
20-P-20-4A

A
20-D-3001

N

PLAN
1/8"=1'-0"

B
20-D-3002

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
				J WILCOX	J HORTON		K WADDELL

REVISION

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING
SECOND FLOOR PLAN

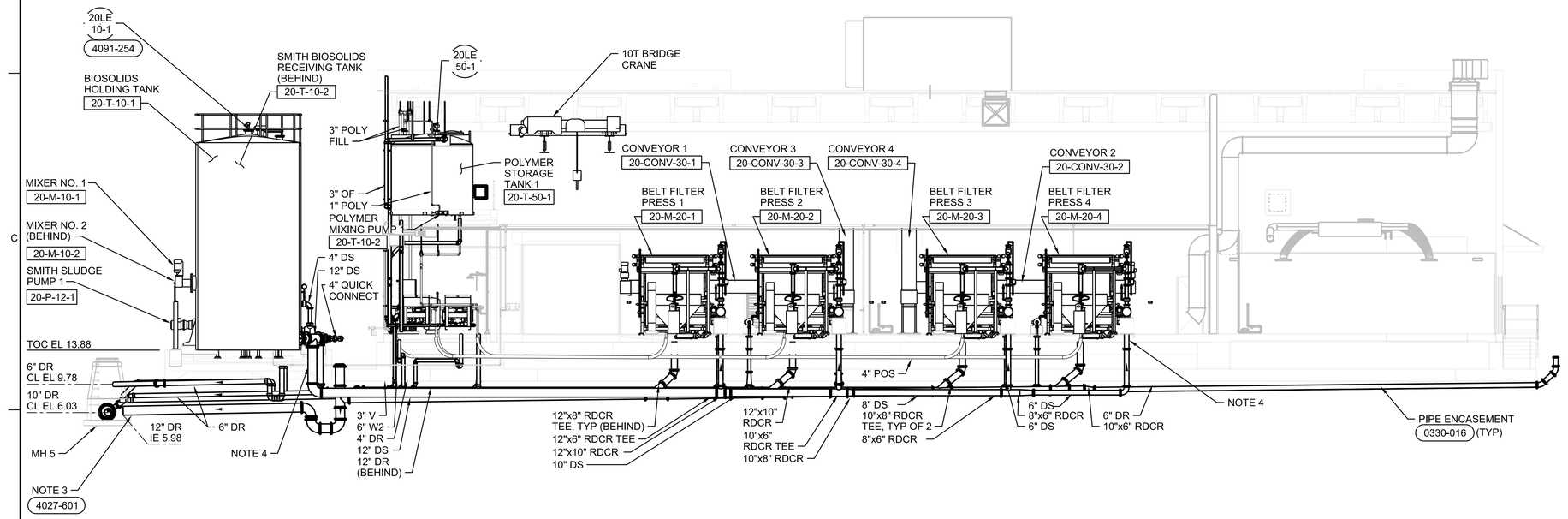
CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-2003
SHEET	131 of 270

GENERAL NOTES

1. THE TWO EXISTING TANKS LOCATED AT MAWSS' WRIGHT SMITH JR. WWTP ARE TO BE RELOCATED TO THE CC WILLIAMS WWTP AND USED FOR THE BIOSOLIDS AND SMITH BIOSOLIDS RECEIVING TANKS. SEE DRAWING 07-X-2001 AND 07-X-3001 FOR DETAILS.
2. THE RELOCATED STORAGE TANKS ARE TO BE INSTALLED IN THE SAME ARRANGEMENT TO ALLOW FOR THE EXISTING CATWALK TO BE REUSED. CONTRACTOR TO ADJUST AS NEEDED TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
3. PVC PIPING UNDERNEATH BUILDING AND TANK PADS AND EXTENDING A MINIMUM OF 5' OUTSIDE OF FOUNDATION IS TO BE CONCRETE ENCASED.
4. INSTALL A FLOOR PIPE SLEEVE FOR ALL FLOOR PIPE PENETRATIONS PER DETAIL 4027-620. FLOOR SLEEVES, LOCATED WITHIN THE BFP ROOM, TO BE INSTALLED FLUSH WITH TOP OF FINISHED FLOOR.
5. PROCESS DRAINS TO BE INSTALLED WITH A MINIMUM OF 1% SLOPE.



A SECTION
1/8"=1'-0"
20-D-2002

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
		K WADDELL	J WILCOX	J HORTON	J HORTON	K WADDELL	K WADDELL

REVISION

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS) CIP
MOBILE, ALABAMA

PROCESS MECHANICAL

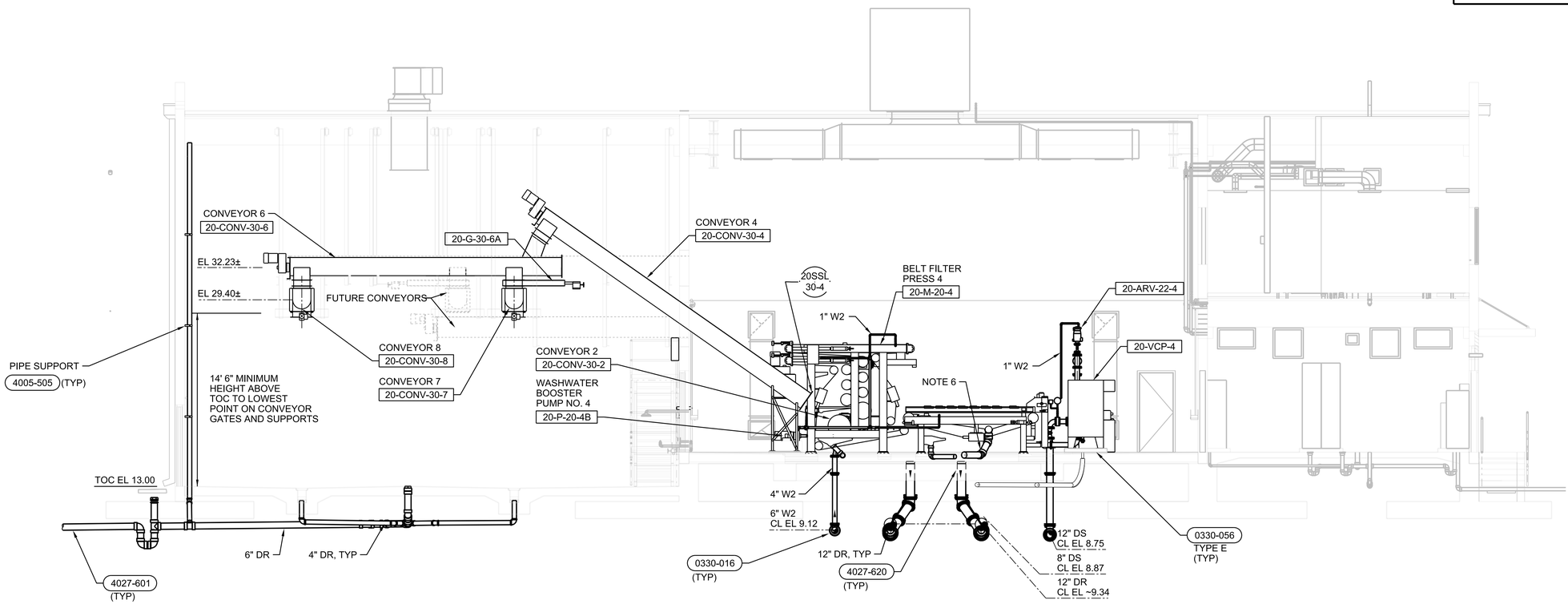
DEWATERING AND CONTROL BUILDING SECTION

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3001
SHEET	132 of 270

GENERAL NOTES

1. 4" POS PVC CASING PIPE TO BE INSTALLED WITH LONG RADIUS BENDS AND MINIMIZE NUMBER OF BENDS TO FACILITATE INSTALLATION OF THE NYLON TUBING.
2. WATERLINES < 4" DIA THAT ARE EXPOSED, CONCRETE ENCASED, OR BURIED BELOW CONCRETE SLABS SHALL BE 316 STAINLESS STEEL.
3. SUPPORTS FOR CAKE CONVEYORS SHALL BE DESIGNED AND SUPPLIED BY CONVEYOR MANUFACTURER. LOCATIONS SHOWN ARE REPRESENTATIVE. SUPPORTS SHALL MOUNT TO CONCRETE PAD IN BELT FILTER PRESS ROOM AND SHALL BE SUPPORTED BY HANGERS IN THE TRUCK BAY. HANGER STYLE SUPPORTS WILL NOT BE PERMITTED IN THE BELT PRESS ROOM TO ALLOW FULL TRAVEL OF THE BRIDGE CRANE.
4. COORDINATE HANGER SUPPORTS WITH CONVEYOR MANUFACTURER AND BUILDING PRECAST SUPPLIER.
5. THE 10 TON BRIDGE CRANE IS TO BE DESIGNED AND SUPPLIED BY THE CRANE MANUFACTURER. CRANE SHALL BE DESIGNED TO PROVIDE A MINIMUM HOOK HEIGHT NO LESS THAN 36' ELEVATION TO AVOID CONFLICT WITH THE CONVEYORS. REFER TO SPECIFICATION SECTION 41 22 13.13.
6. BFP FILTRATE DRAIN PIPING INSTALLED BY CONTRACTOR. SEE DWG 20-D-9001 FOR MORE DETAILS.



B SECTION
3/32"=1'-0"
20-D-2002

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		K WADDELL	J WILCOX	J HORTON	APVD	K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

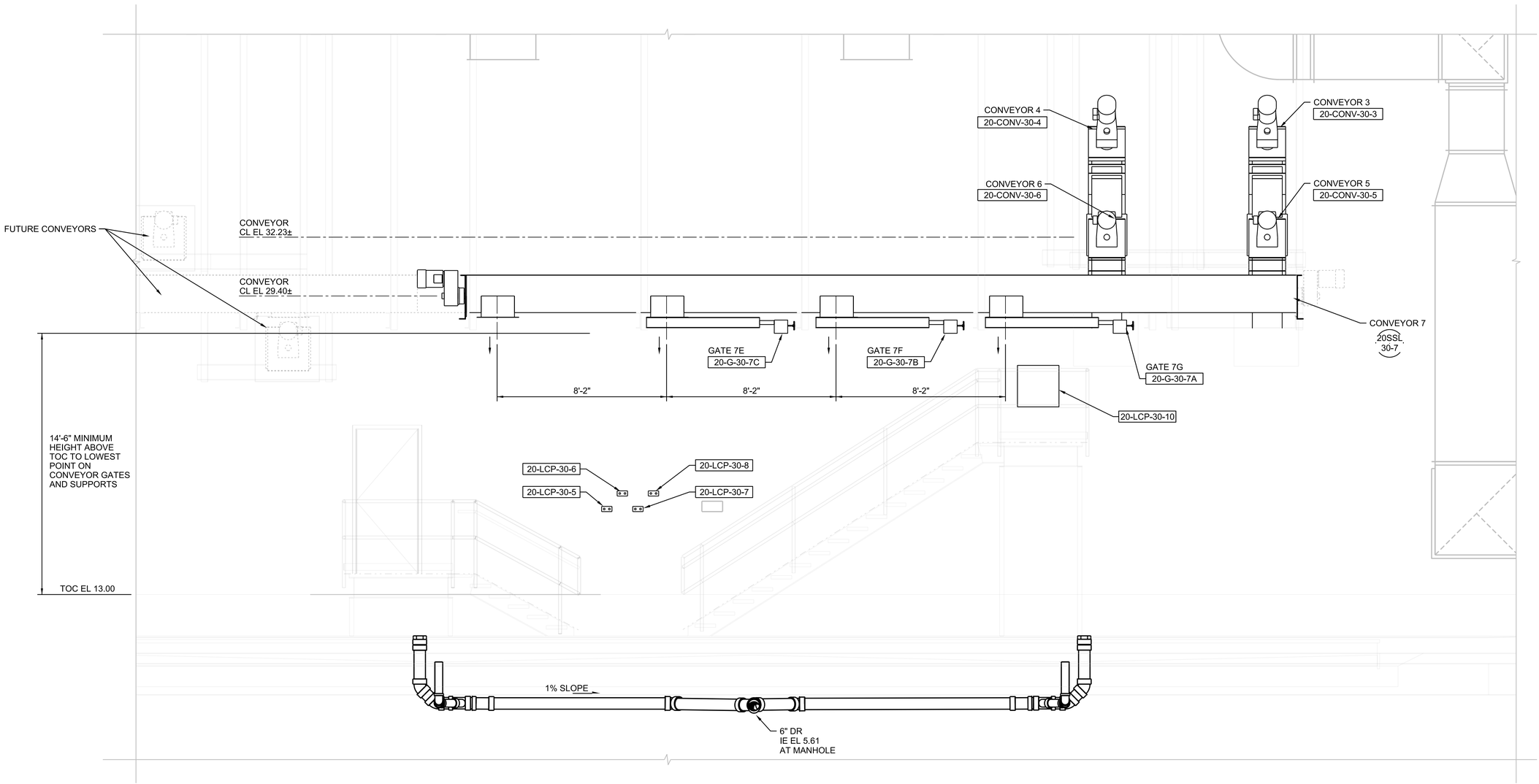
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING SECTION

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3002
SHEET	133 of 270



G SECTION

3/8" = 1'-0"

020-D-4001
020-D-4002

NO.	DATE	REVISION	BY	APVD

DSGN K WADDELL
DR L WALTER
CHK J HORTON
APVD K WADDELL

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL

DEWATERING AND CONTROL BUILDING DEWATERING SYSTEM SECTION

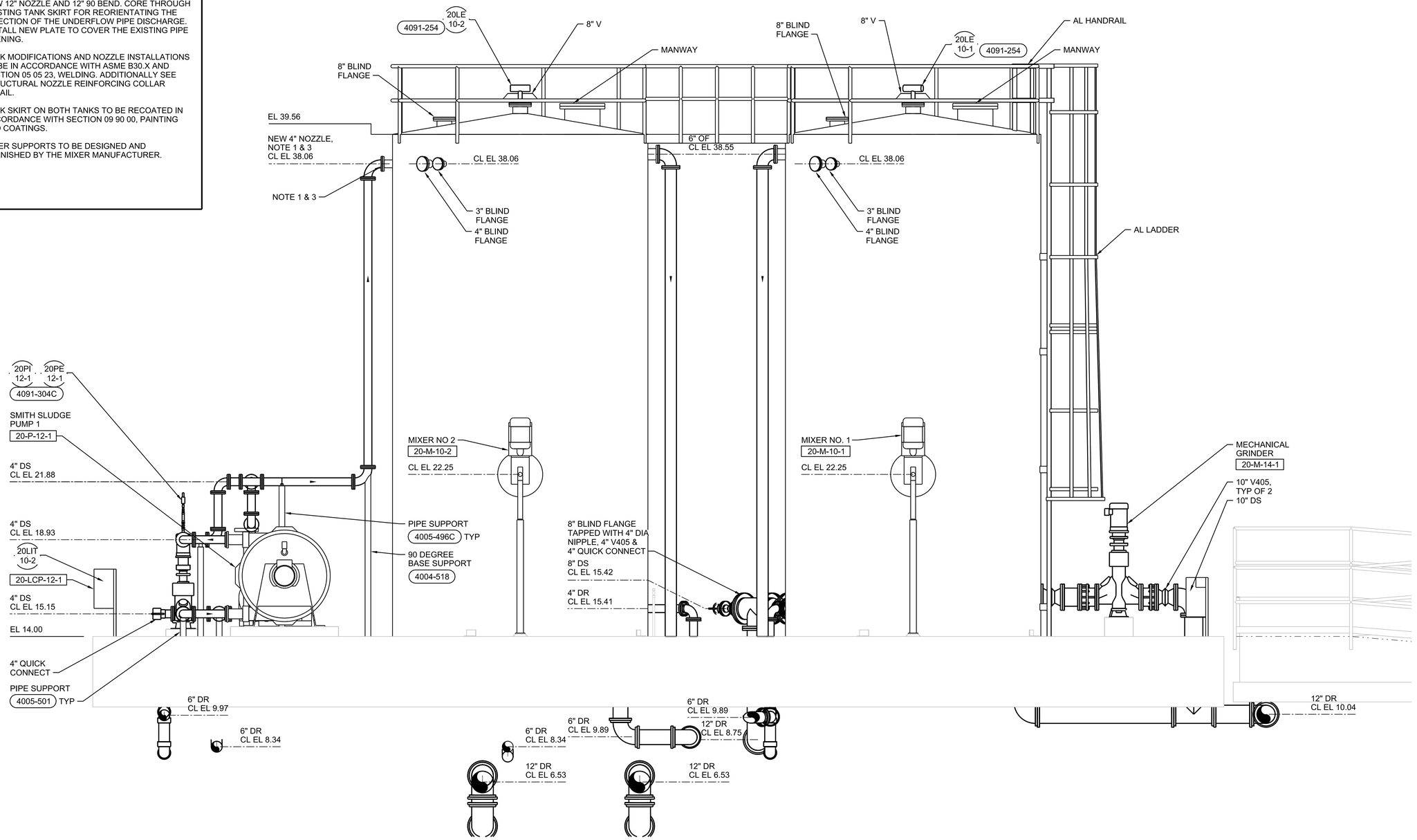
SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3003
SHEET	134 of 270

CONFORMED DOCUMENTS

GENERAL NOTES

1. INSTALL NEW 4" FILL NOZZLE.
2. REPLACE EXISTING 4" UNDERFLOW NOZZLE WITH A NEW 12" NOZZLE AND 12" 90 BEND. CORE THROUGH EXISTING TANK SKIRT FOR REORIENTATING THE DIRECTION OF THE UNDERFLOW PIPE DISCHARGE. INSTALL NEW PLATE TO COVER THE EXISTING PIPE OPENING.
3. TANK MODIFICATIONS AND NOZZLE INSTALLATIONS TO BE IN ACCORDANCE WITH ASME B30.X AND SECTION 05 05 23, WELDING. ADDITIONALLY SEE STRUCTURAL NOZZLE REINFORCING COLLAR DETAIL.
4. TANK SKIRT ON BOTH TANKS TO BE RECOATED IN ACCORDANCE WITH SECTION 09 90 00, PAINTING AND COATINGS.
5. MIXER SUPPORTS TO BE DESIGNED AND FURNISHED BY THE MIXER MANUFACTURER.



C SECTION
3/8"=1'-0"
020-D-2002

NO.	DATE	DR	CHK	APVD	BY	REVISION
DSGN	K WADDELL	J WILCOX	J HORTON	APVD	K WADDELL	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING STORAGE TANKS SECTION

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

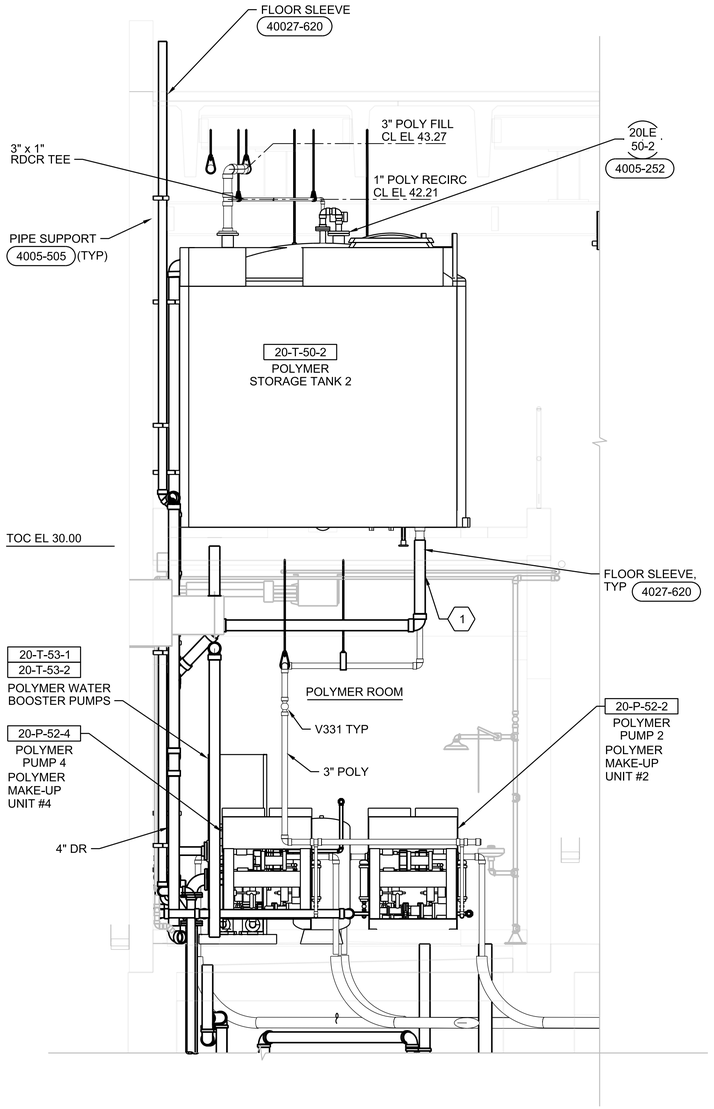
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3004
SHEET	135 of 270

SHEET KEYNOTES

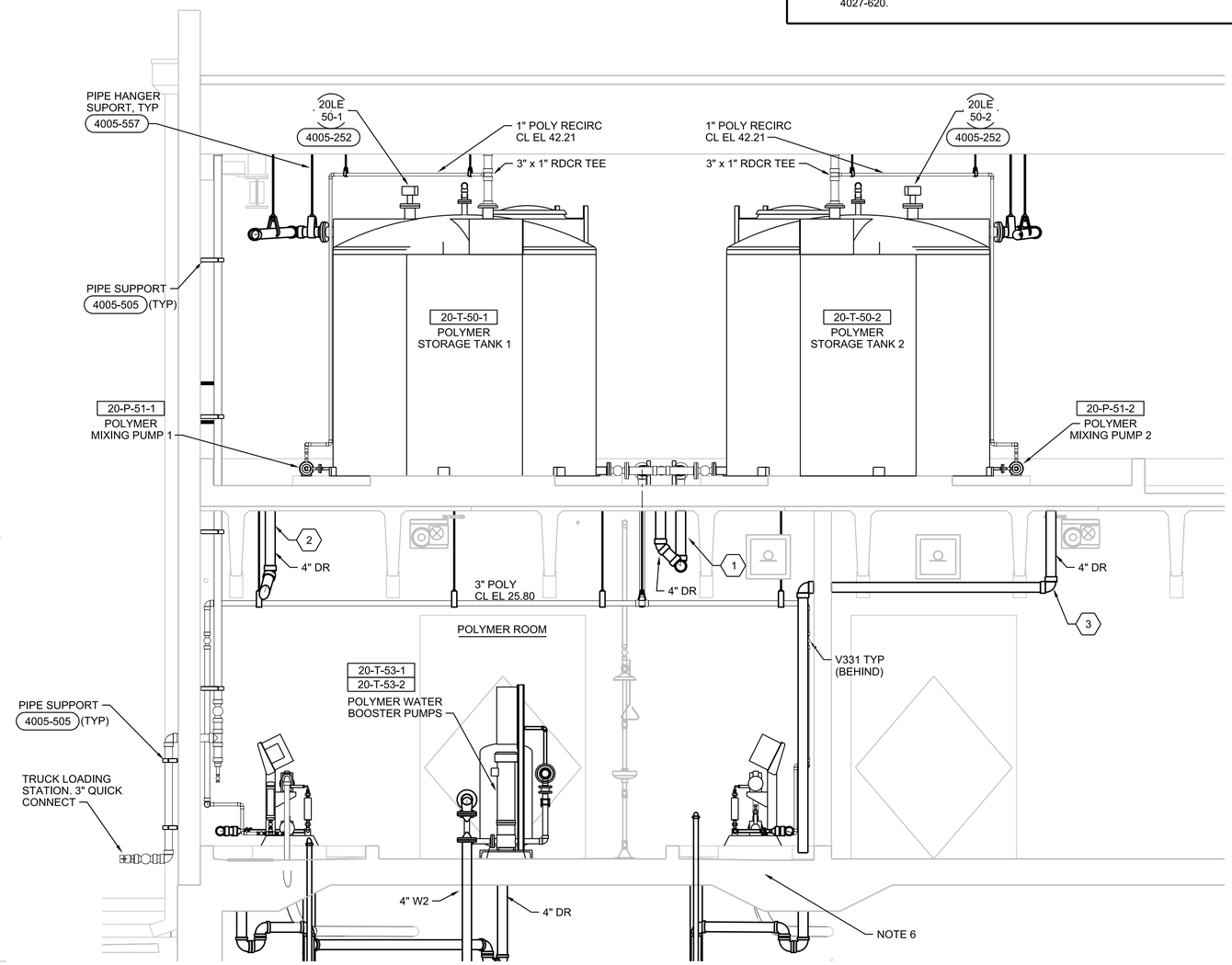
1. CONNECT THE 4" FLOOR DRAIN WITH THE 3" TANK DRAIN AND ROUTE DRAIN TO CONNECT WITH POLYMER STORAGE TANK 2 OVERFLOW DRAIN THAT DISCHARGES INTO CONTAINMENT AREA ON FIRST FLOOR.
2. CONNECT 4" FLOOR DRAIN WITH THE POLYMER STORAGE TANK 1 OVERFLOW DRAIN.
3. ROUTE 4" FLOOR DRAIN TO DISCHARGE INTO CONTAINMENT AREA ON FIRST FLOOR POLYMER ROOM.

GENERAL NOTES

1. 4" POS CARRIER PIPES ARE TO BE CHECKED AND CLEANED SUCH THAT THEY ARE FREE OF DEBRIS OR OBSTRUCTIONS THAT COULD DAMAGE NYLON TUBING DURING INSTALLATION.
2. INSTALL EMPTY 4" POS CARRIER PIPES FROM THE FUTURE POLYMER MAKE-UP UNITS #1 AND #6 TO CONNECT TO FUTURE BELT FILTER PRESSES #1 AND #6. RUN A PIPE PIG THROUGH CARRIER PIPES TO VERIFY THEY ARE CLEAR OF OBSTRUCTION AND CAP EACH END.
3. THE ANNULAR SPACE BETWEEN THE 4" POS CARRIER PIPE AND THE 2" NYLON TUBING IS TO BE SEALED AT THE TOP OF THE ENDS OF THE CARRIER PIPE TO PREVENT DEBRIS FROM FALLING INTO PIPE FOLLOWING INSTALLATION.
4. COORDINATE POLYMER MAKE-UP SKID PIPING ARRANGEMENT WITH SHOP DRAWINGS AND PROCESS PIPING PRIOR TO INSTALLING THE 4" POS CARRIER PIPE AS WELL AS W2 AND POS SUCTION CONNECTION POINTS.
5. PIPE SUPPORTS TO BE SIZED AS REQUIRED BY CALCULATIONS.
6. INSTALL A FLOOR PIPE SLEEVE FOR ALL FLOOR PIPE PENETRATIONS PER DETAIL 4027-620.



A SECTION
3/8" = 1'-0"
20-D-4001
20-D-4002



B SECTION
3/8" = 1'-0"
20-D-4001
20-D-4002

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		K WADDELL	L WALTER	J HORTON	APVD	K WADDELL	

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL

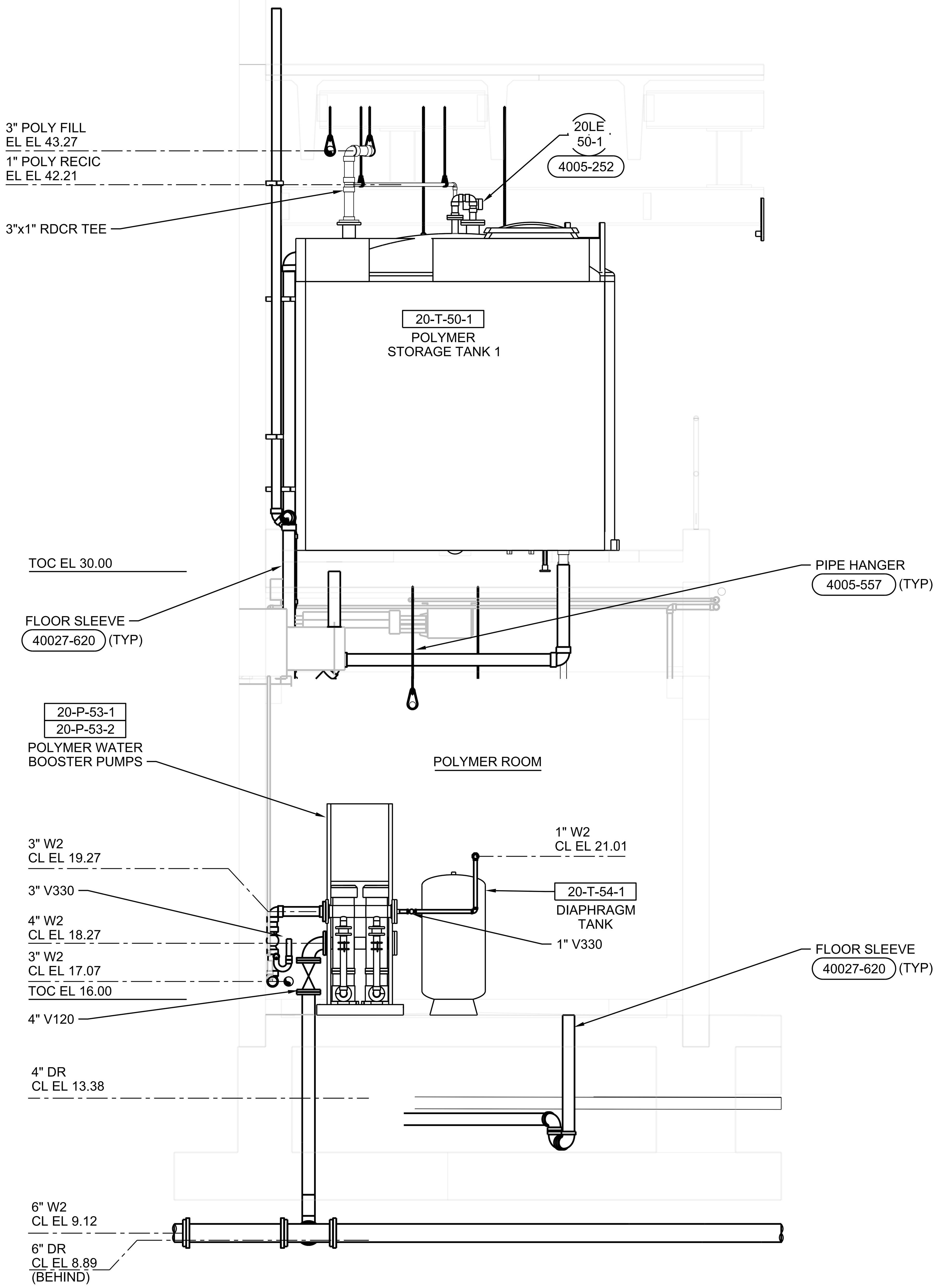
DEWATERING AND CONTROL BUILDING POLYMER SYSTEM SECTIONS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

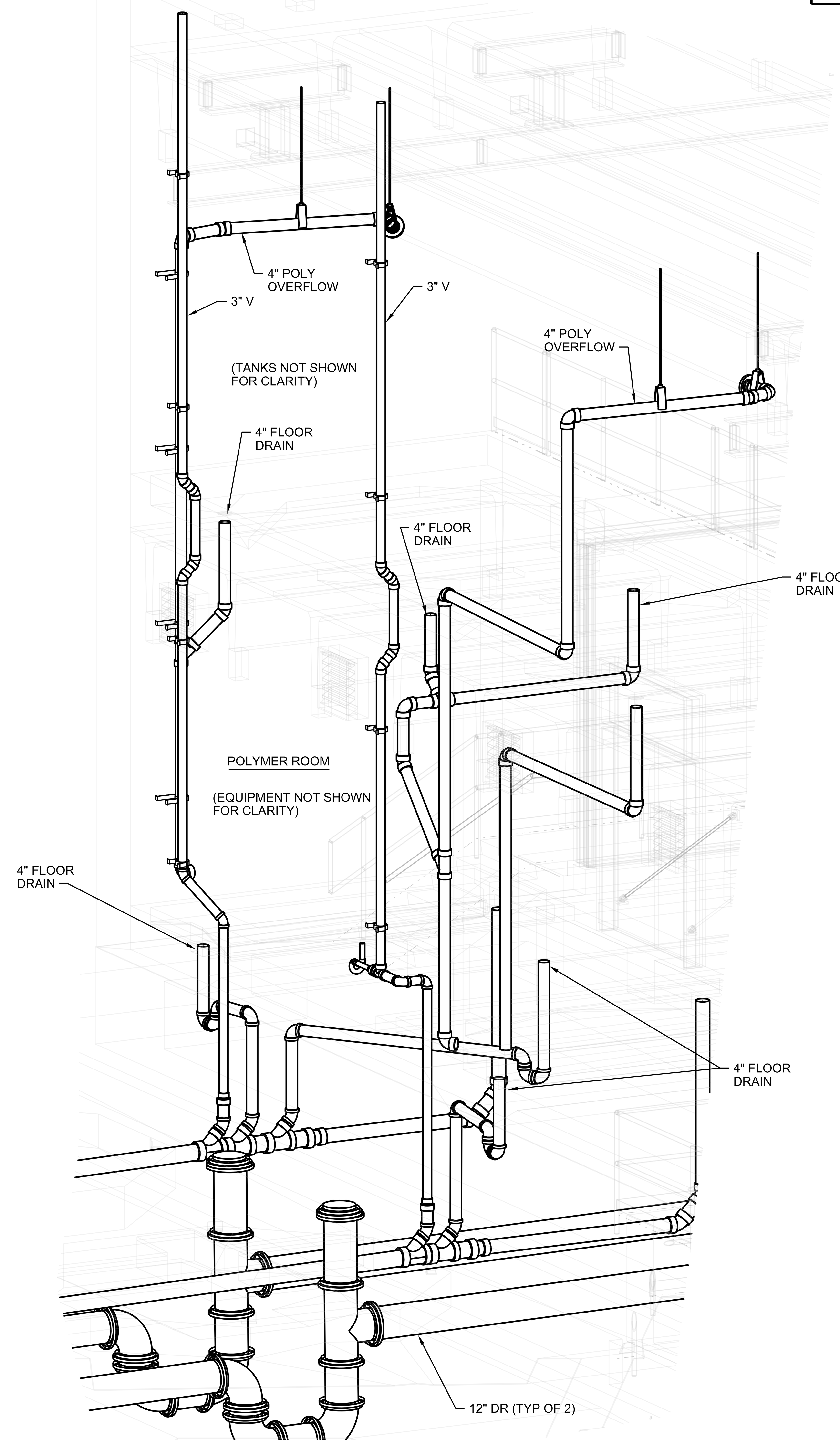
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3005
SHEET	136 of 270

GENERAL NOTES

1. POLYMER TANK ACCESS LADDER IS TO BE MOUNTED TO EXTERIOR SIDE OF TANK AND IS TO BE LIMITED IN HEIGHT SUCH THAT IT DOES NOT EXTEND ABOVE THE TOP OF THE TANK



C SECTION
3/8" = 1'-0"
20-D-4001
20-D-4002



POLYMER DRAIN PIPE ISOMETRIC
NTS

NO.	DATE	REVISION	BY	APVD

DSGN K WADDELL | DR | L WALTER CHK | J HORTON APVD | K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING
POLYMER SYSTEM
SECTIONS

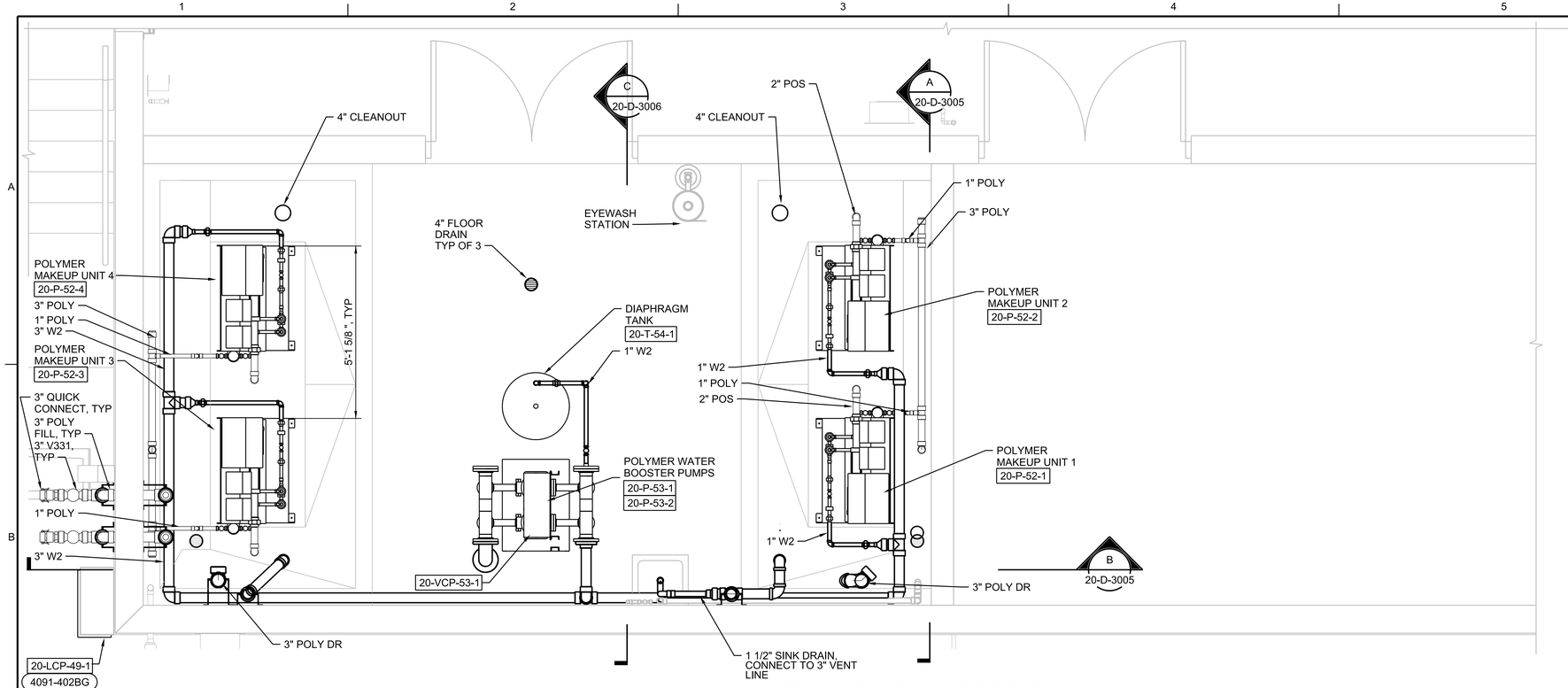
SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-D-3006
SHEET	137 of 270

CONFORMED DOCUMENTS

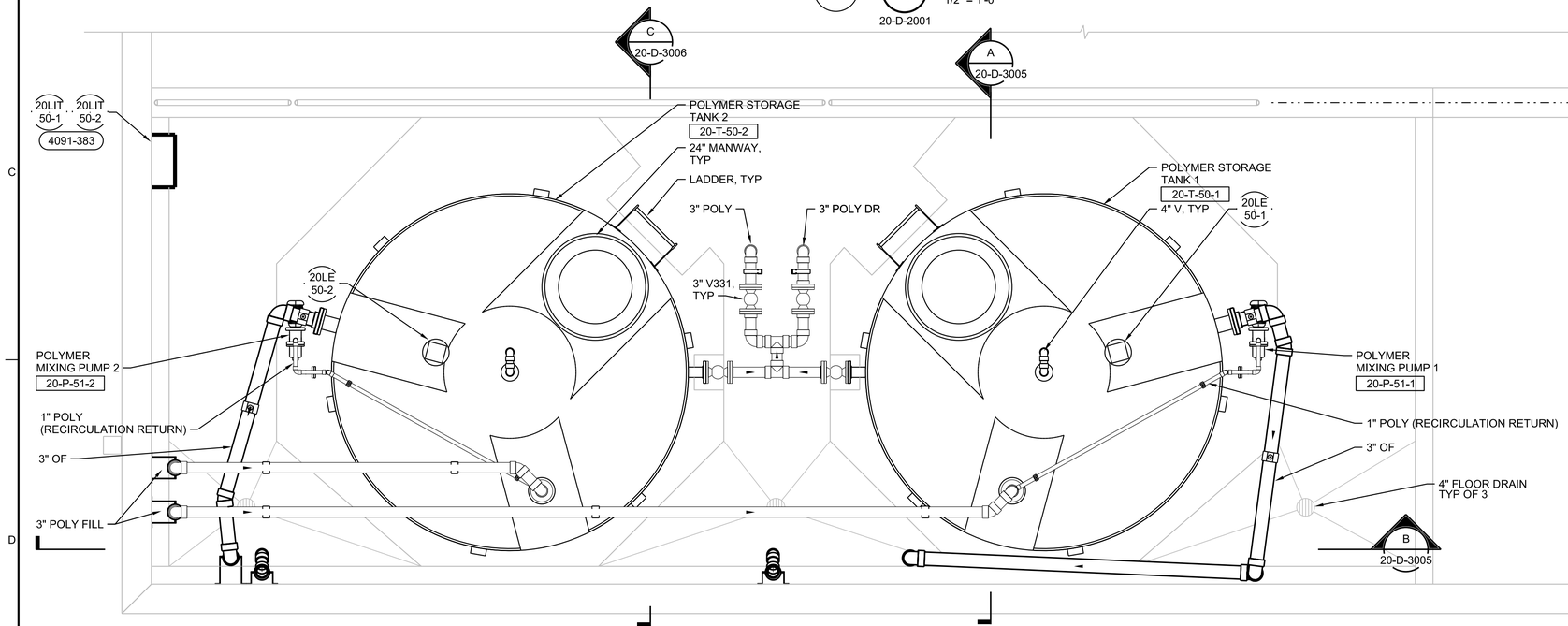
GENERAL NOTES

1. FLOOR DRAINS TO BE JAY R. SMITH MODEL 2210 OR EQUAL.



N

1 ENLARGED PLAN
1/2" = 1'-0"
20-D-2001



N

2 ENLARGED PLAN
1/2" = 1'-0"
20-D-2001

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	K WADDELL	L WALTER		J HORTON		K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL

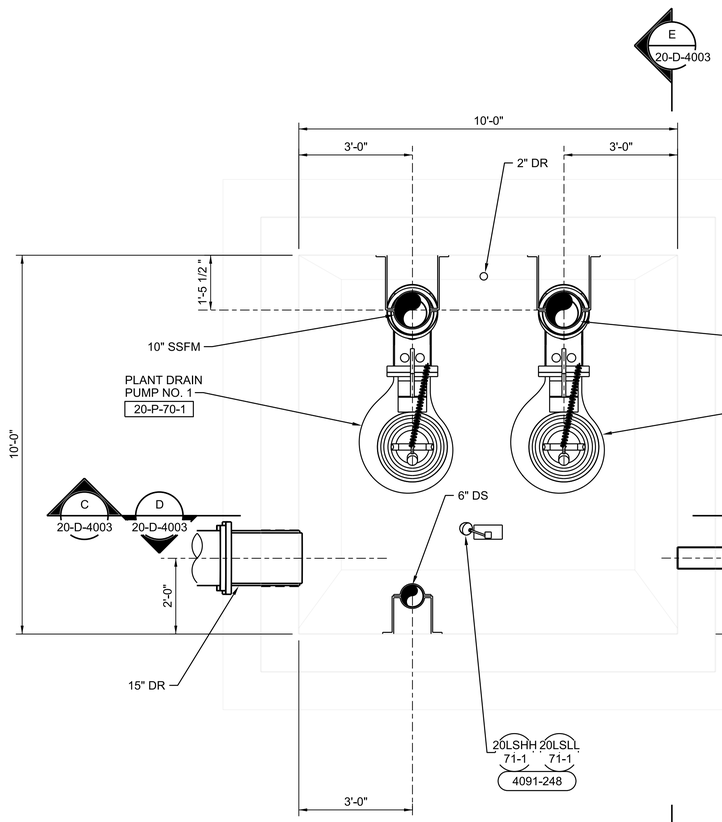
DEWATERING AND CONTROL BUILDING POLYMER SYSTEM ENLARGED PLAN

CONFORMED DOCUMENTS

SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-4001
SHEET	138 of 270

GENERAL NOTES

1. PUMP STATION SHALL BE IN ACCORDANCE WITH MAWSS STANDARD SPECIFICATIONS AND DETAILS UNLESS OTHERWISE NOTED.
2. EXTERIOR WALLS OF THE WET WELL SHALL RECEIVE TWO COATS OF BITUMASTIC PAINT.
3. ALL PIPING AND HARDWARE IN WET WELL SHALL BE 316L SST WITH ANSI 150# FLANGES, EXCEPT FOR DUCTILE IRON DISCHARGE ELBOWS.
4. HATCH SHALL BE HALLIDAY W2S WITH SAFETY GRATE, OR APPROVED EQUAL, AND SHALL BE SIZED TO ENABLE THE PUMPS TO EASILIY BE REMOVED FROM THE WET WELL WITHOUT DISASSEMBLY WITH A MINIMUM OF 4" CLEAR.

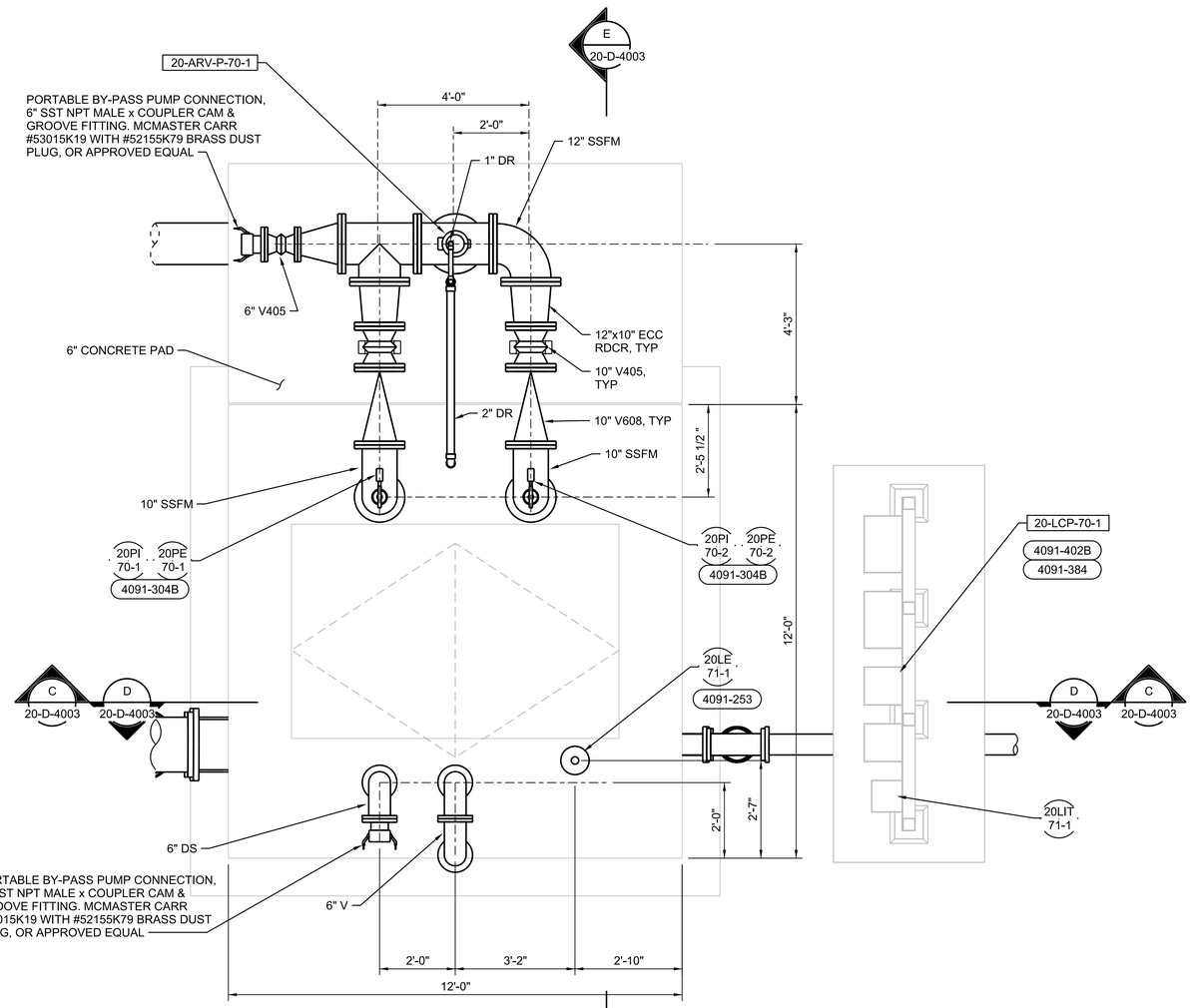


N

LOWER PLAN

1/2"=1'-0"

E 20-D-4003



N

1 20-D-2002

UPPER PLAN

1/2"=1'-0"

E 20-D-4003

NO.	DATE	DR	CHK	APVD	BY	REVISION
DSGN	K WADDELL	J WILCOX	J HORTON	APVD	K WADDELL	

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

PROCESS MECHANICAL

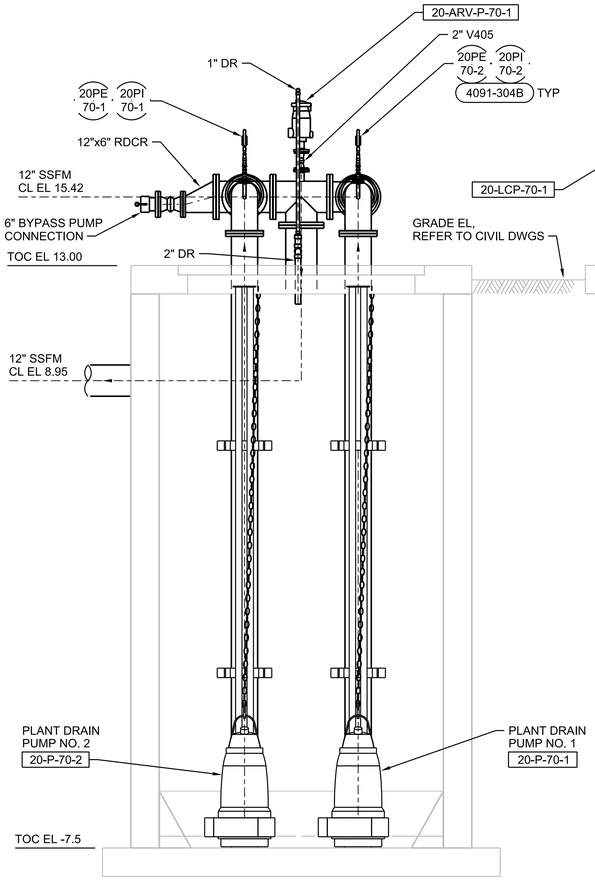
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING PLANT DRAIN PUMP STATION ENLARGED PLANS

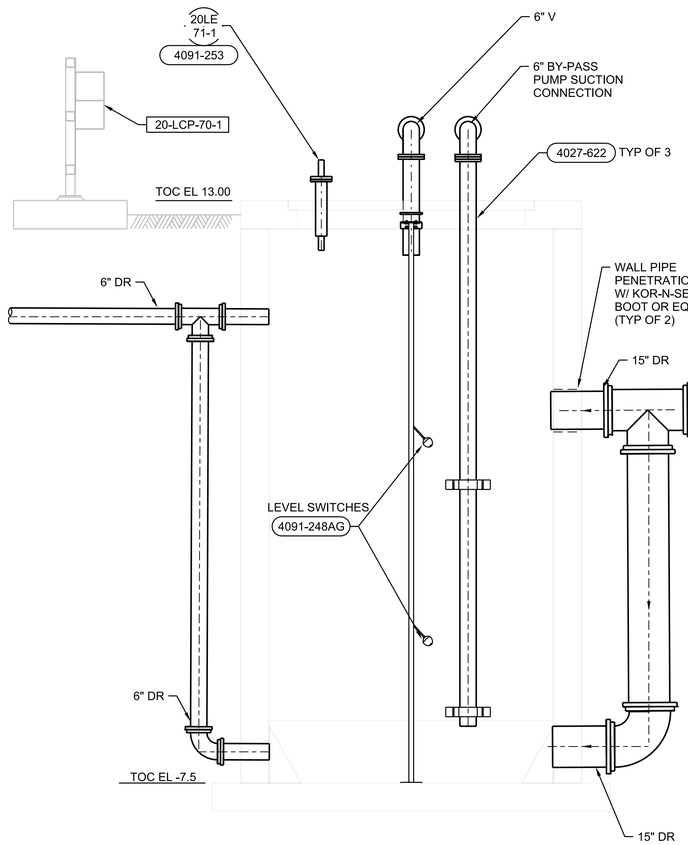
SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 — 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-4002
SHEET	139 of 270

GENERAL NOTES

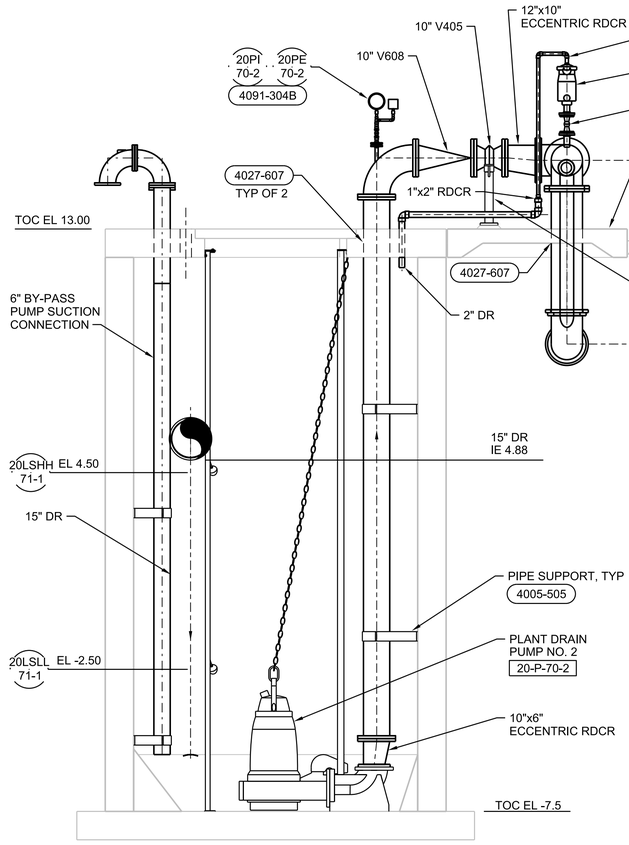
1. PIPE SUPPORTS TO BE SIZED AS REQUIRED BY CALCULATIONS.



C SECTION
3/8"=1'-0"
20-D-4002



D SECTION
3/8"=1'-0"
20-D-4002



E SECTION
3/8"=1'-0"
20-D-4002

NO.	DATE	DSGN	REVISION	CHK	APVD	BY	APVD
	K WADDELL	DR	J WILCOX	CHK	J HORTON	APVD	K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL

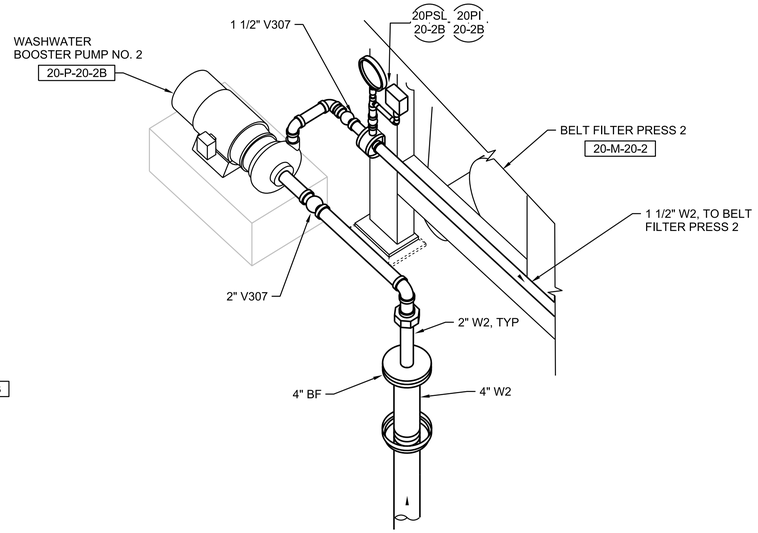
DEWATERING AND CONTROL BUILDING PLANT DRAIN PUMP STATION SECTIONS

CONFORMED DOCUMENTS

SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-4003
SHEET	140 of 270

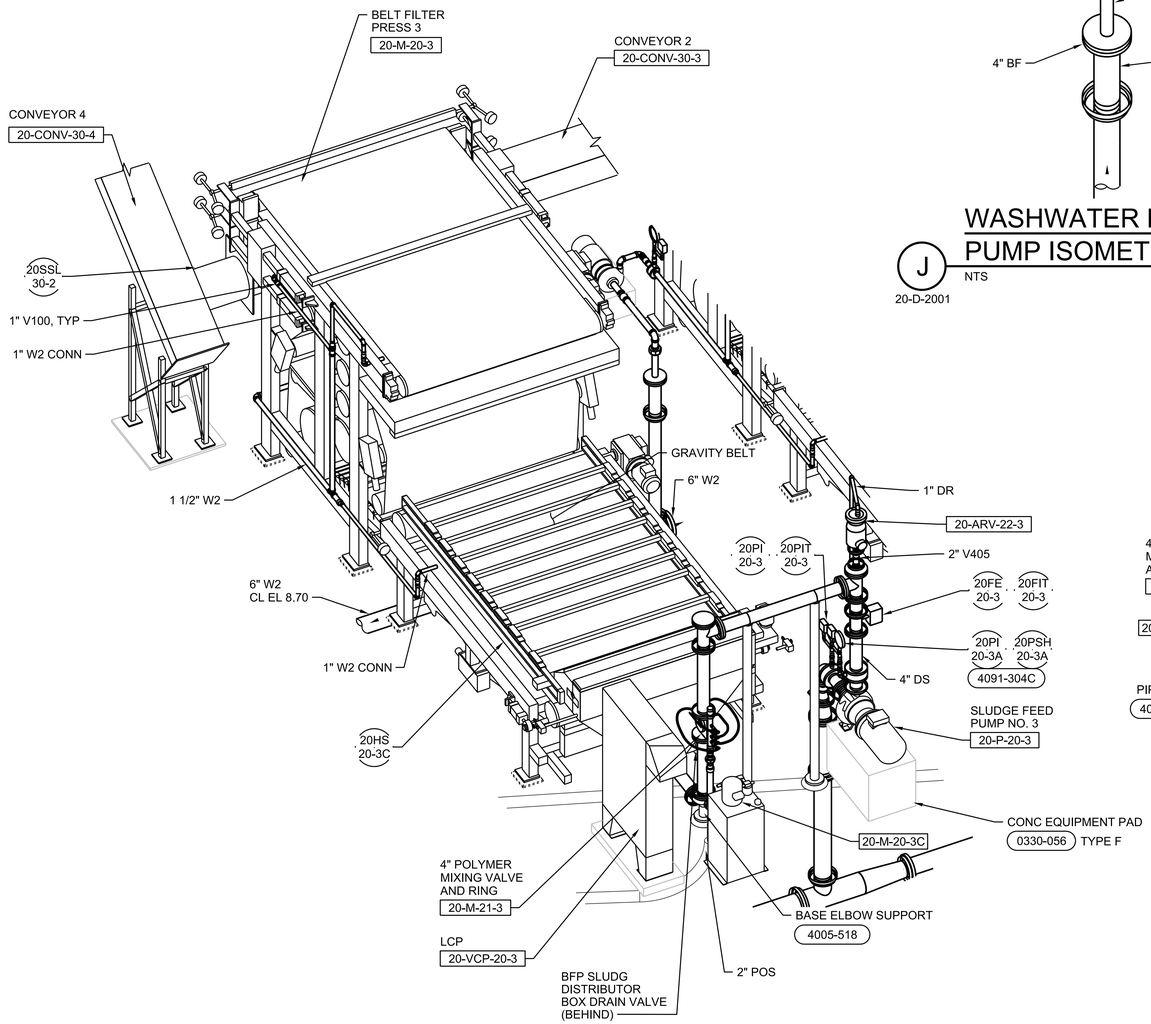
NOTE

1. COMBINE THE BELT FILTER PRESS DRAINAGE PIPING FROM THE PRESSURE SECTION INTO A COMMON 6" FILTRATE PIPE AND ROUTE PIPE TO DISCHARGE DIRECTLY INTO THE NORTHERN MOST 8" FLOOR DRAIN. EXTEND THE 6" FILTRATE PIPING FROM EACH OF THE GRAVITY SECTION DRAINS AND ROUTE THE PIPES TO DISCHARGE INTO THE SOUTHERN MOST 8" FLOOR DRAIN.
2. CONTRACTOR AND CONVEYOR MANUFACTURER TO COORDINATE CONVEYORS 1 AND 2 HEIGHTS AND INFLUENT CHUTE LOCATIONS WITH BELT FILTER PRESS MANUFACTURER.
3. ROUTE ARV DRAIN PIPING TO DISCHARGE INTO BFP SUMP.

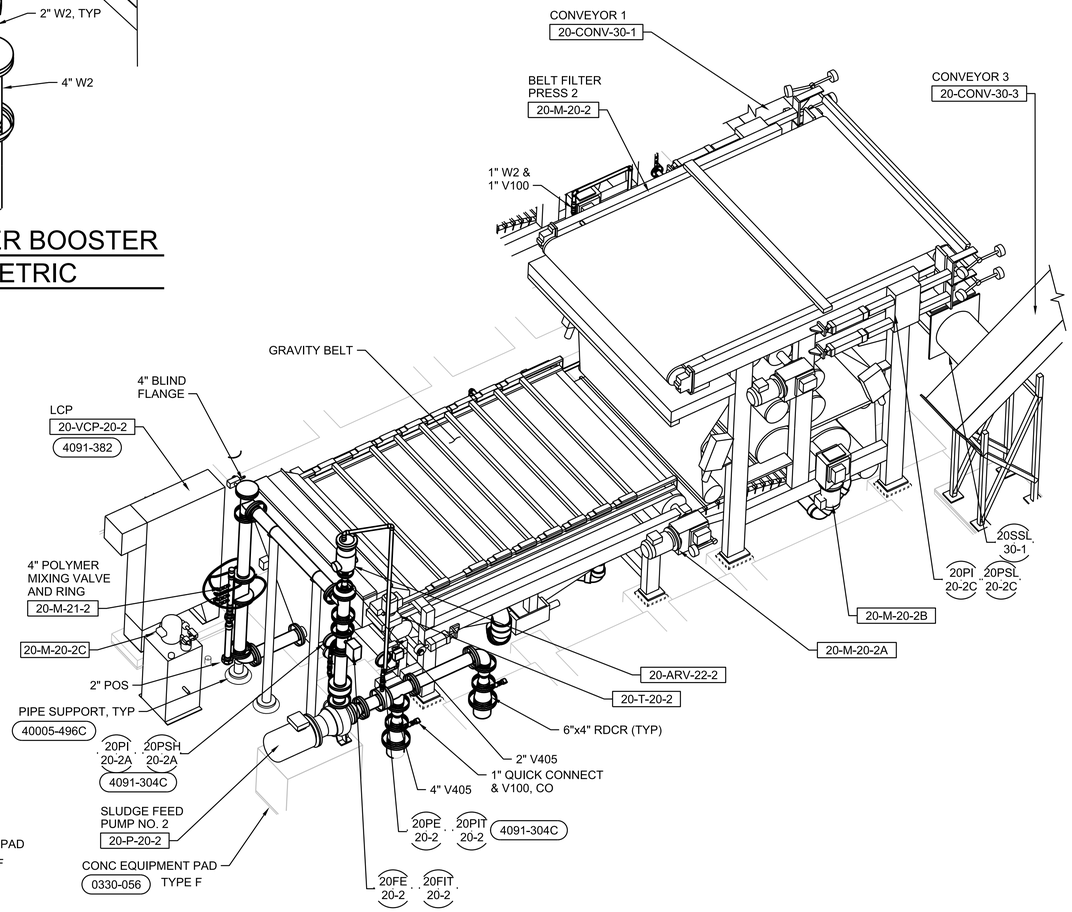


WASHWATER BOOSTER PUMP ISOMETRIC

J
NTS
20-D-2001



E
ISOMETRIC BELT PRESS 3
NTS
20-D-2001



F
ISOMETRIC BELT PRESS 2
NTS
20-D-2001

NO.	DATE	DSGN	DR	CHK	APVD
REVISION				J WILCOX	J HORTON
BY	APVD				
K WADDELL					

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

PROCESS MECHANICAL

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

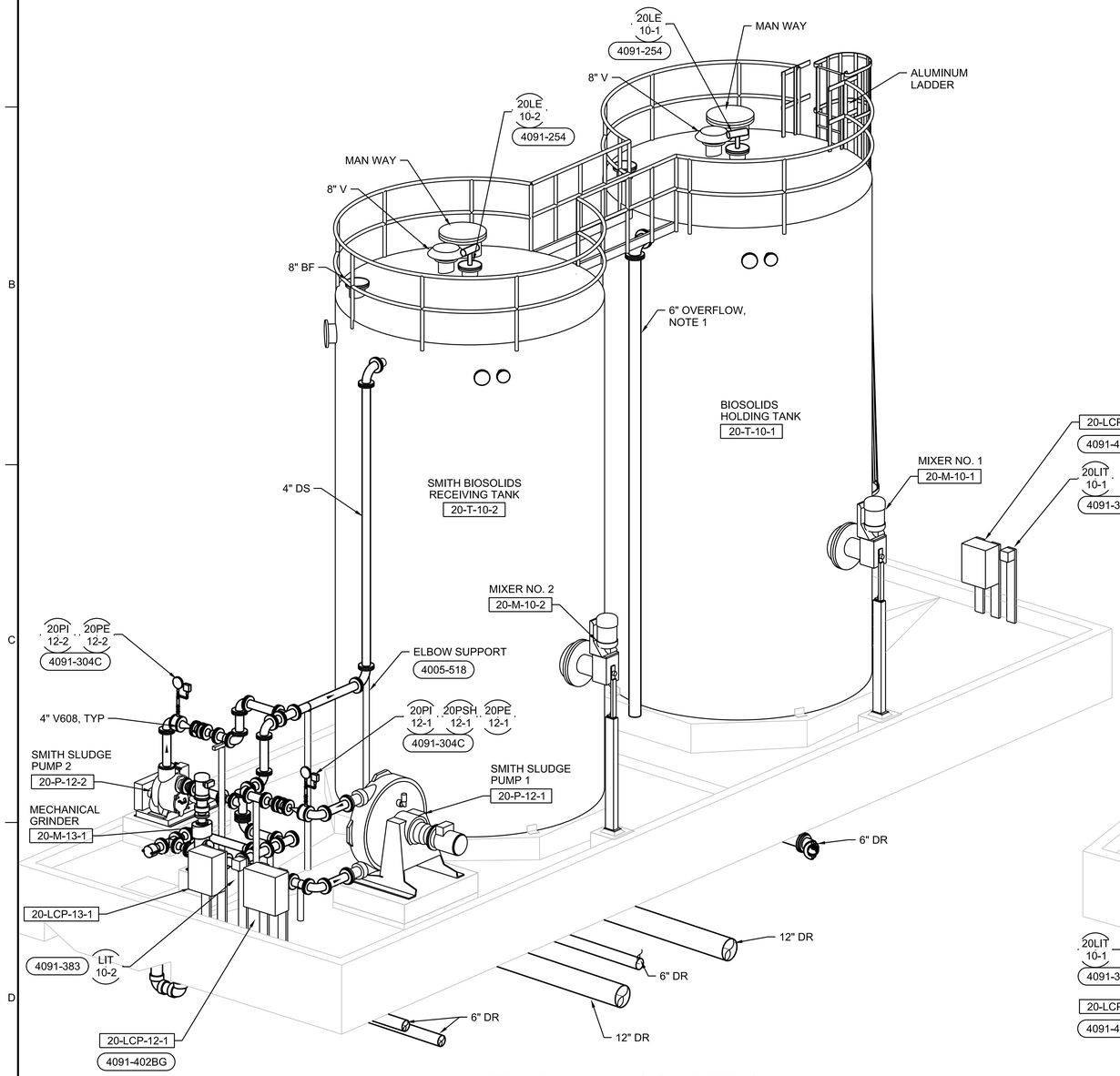
DEWATERING AND CONTROL BUILDING BELT PRESS ISOMETRICS

CONFORMED DOCUMENTS

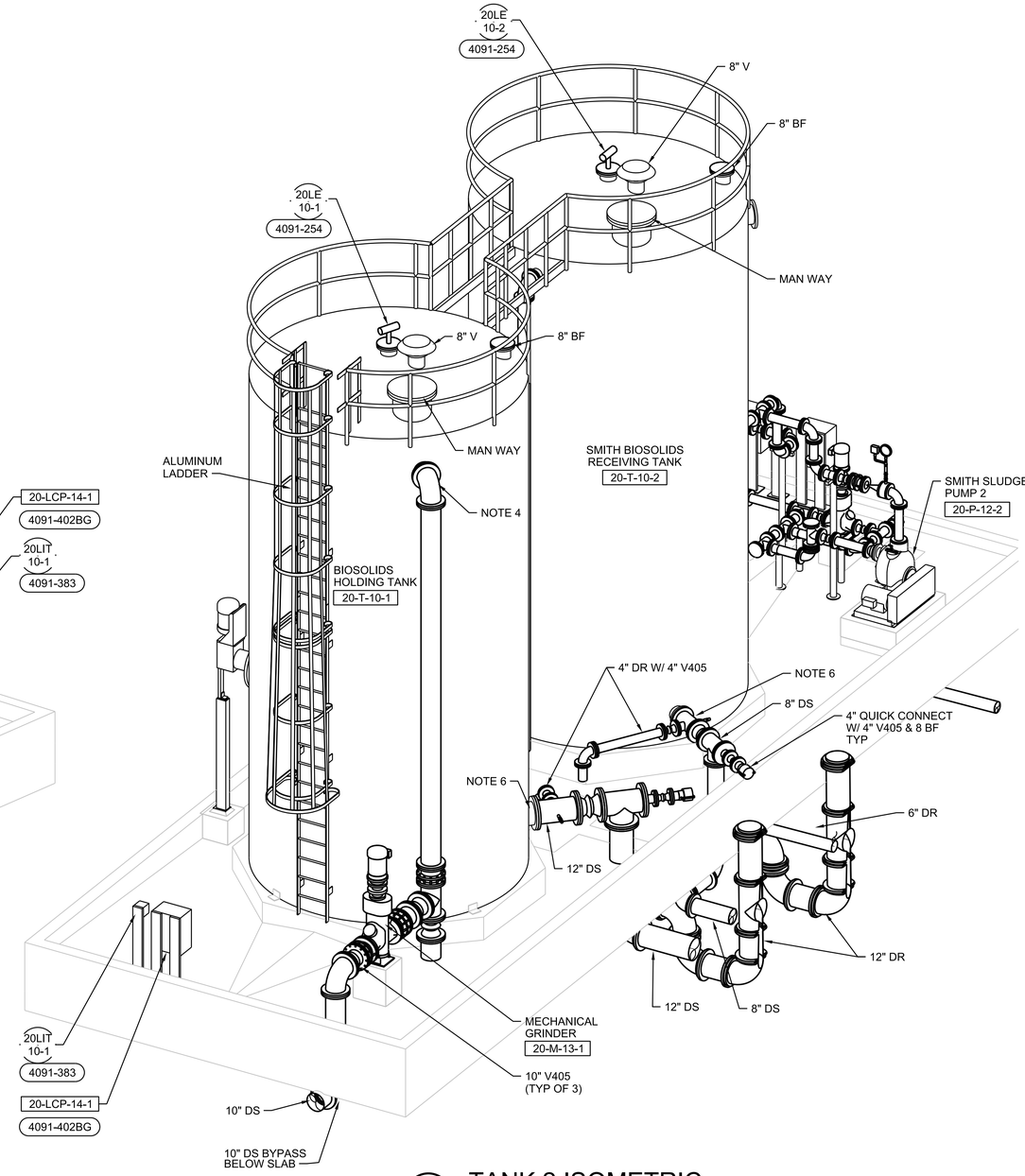
SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-9001
SHEET	141 of 270

GENERAL NOTES

1. RETAIN AND REUSE EXISTING 4" SST FILL AND OUTLET PIPING ASSOCIATED WITH THE GREASE FACILITY AT THE WRIGHT SMITH WWTP FOR USE AS THE SMITH SLUDGE PUMP SUCTION AND DISCHARGE PIPING. SUPPLEMENT WITH ADDITIONAL NEW PIPE AS NEEDED.
2. RETAIN AND REUSE EXISTING 6" SST OVERFLOW PIPE.
3. PIPE SUPPORTS TO BE SIZED AS REQUIRED BY CALCULATIONS.
4. INSTALL NEW 10" FILL NOZZLE; CL EL = 38.06'
5. TANK MODIFICATIONS AND NOZZLE INSTALLATIONS TO BE IN ACCORDANCE WITH ASME B30.X AND SECTION 05 50 23, WELDING. ADDITIONALLY SEE STRUCTURAL NOZZLE REINFORCING COLLAR DETAIL.
6. INSTALL A 12"x8" REDUCER WITHIN TANK SKIRT ON THE NEW 12" UNDERFLOW NOZZLE AND 90 BEND.
7. SUPPLEMENTAL PIPING SHALL BE AS DESIGNATED FOR DS PIPING EXCEPT NOZZLES AND BLIND FLANGES TO BE CONNECTED TO STAINLESS STEEL SHALL BE STAINLESS STEEL. DISSIMILAR METALS MAY ONLY BE MATED AT FLANGED JOINTS WITH GASKETS SEPARATING THE MATERIALS.



G TANK 1 ISOMETRIC
NTS
20-D-2001



H TANK 2 ISOMETRIC
NTS
20-D-2001

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
	K WADDELL	K WADDELL	J WILCOX	J HORTON	APVD	K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL
DEWATERING AND CONTROL BUILDING
BIOSOLIDS TANKS
ISOMETRICS

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

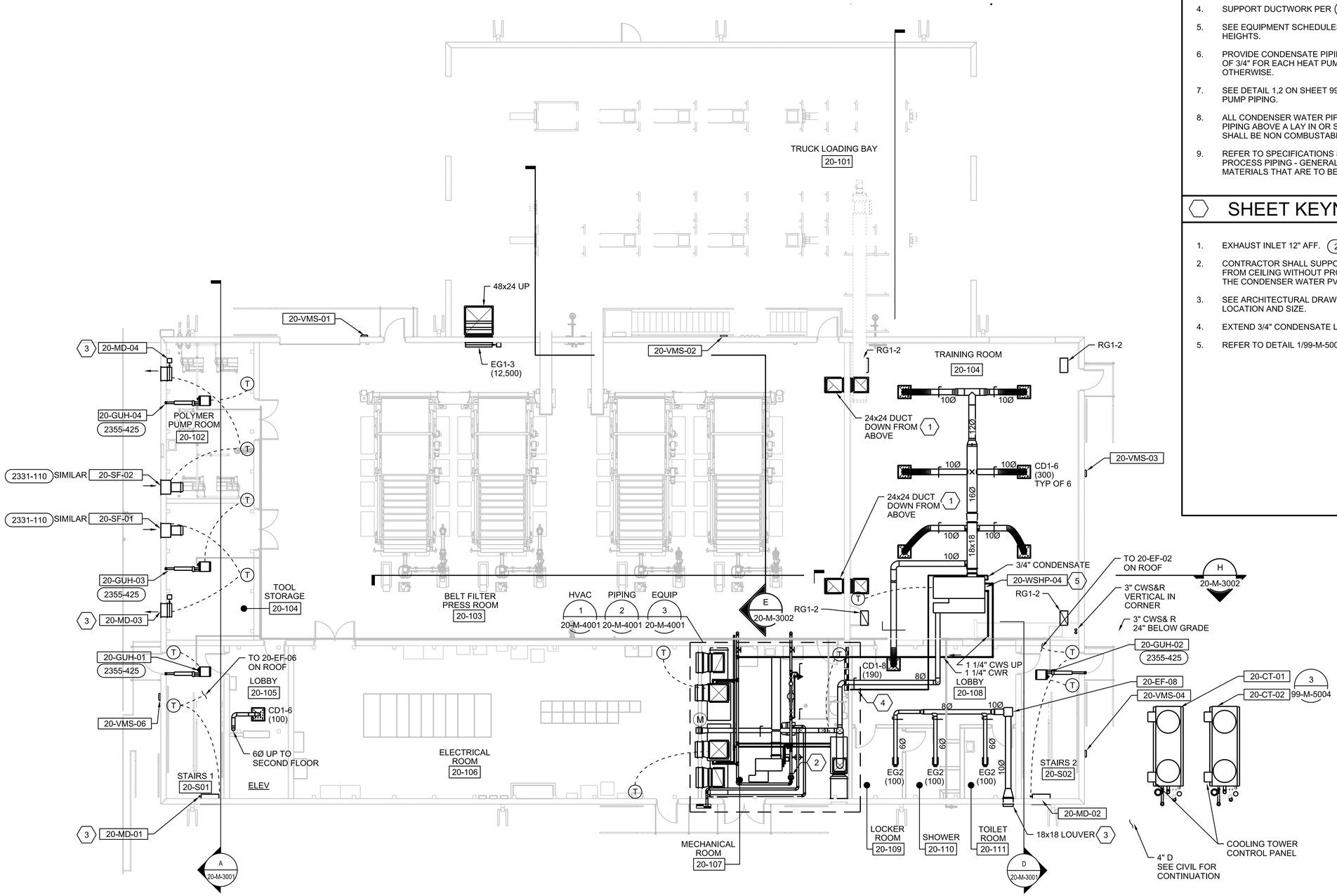
DATE	MAY 2021
PROJ	D3226100
DWG	20-D-9002
SHEET	142 of 270

GENERAL SHEET NOTES

1. RECOMMEND AIR VOLUME DAMPERS TO ENGINEER THAT NEED TO BE ADDED IN ORDER TO OBTAIN PROPER AIR CONTROL.
2. LOCATE SENSORS AND CONTROL PANELS 5 FEET FROM FINISHED FLOOR.
3. DO NOT ROUTE DUCTWORK DIRECTLY ABOVE ELECTRICAL EQUIPMENT.
4. SUPPORT DUCTWORK PER (2305-804)
5. SEE EQUIPMENT SCHEDULES FOR MOUNTING HEIGHTS.
6. PROVIDE CONDENSATE PIPING THAT IS A MINIMUM OF 3/4" FOR EACH HEAT PUMP UNLESS NOTED OTHERWISE.
7. SEE DETAIL 1,2 ON SHEET 99-M-5004 FOR HEAT PUMP PIPING.
8. ALL CONDENSER WATER PIPING AND CONDENSATE PIPING ABOVE A LAY IN OR SHEET ROCK CEILING SHALL BE NON COMBUSTABLE.
9. REFER TO SPECIFICATIONS SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.

SHEET KEYNOTES

1. EXHAUST INLET 12" AFF. (2337-805) (2305-803)
2. CONTRACTOR SHALL SUPPORT AIR SEPARATOR FROM CEILING WITHOUT PRODUCING STRAIN ON THE CONDENSER WATER PVC PIPING.
3. SEE ARCHITECTURAL DRAWINGS FOR LOUVER LOCATION AND SIZE.
4. EXTEND 3/4" CONDENSATE LINE TO FLOOR DRAIN
5. REFER TO DETAIL 1/99-M-5004



N

FIRST FLOOR PLAN

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	T PRICE	DR	S HOSTETLER	APVD
		CHK	A VALIENTE	A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

MECHANICAL

DEWATERING AND
CONTROL BUILDING
FIRST FLOOR PLAN

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-2001
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CONFORMED DOCUMENTS

VENTILATION REQUIREMENTS AND SCHEDULE

ROOM NAME	OCCUPANCY CATEGORY (ASHRAE 62.1-2016, TABLE 6.2.2.1)	OCCUPANCY CLASSIFICATION (ASHRAE 62.1-2019, TABLE 6-1)	PEOPLE OUTDOOR AIRFLOW Rp(CFM/person)	AREA OUTDOOR AIRFLOW Ra(CFM/SQF)	OCCUPANT DENSITY #/1000SQF	OCCUPANT LOAD Pz(PERSON) (NOTE 5)	OCCUPIED AREA Az(SQF)	AIR DISTRIBUTION Ez	REQUIRED OSA TOTAL (CFM)	ACTUAL PROVIDED OSA TOTAL (CFM)	EXHAUST AIR (CFM)	REMARKS
20-101 TRUCK LOADING BAY	GENERAL	REMARKS					3416					
20-102 BELT FILTER PRESS ROOM	GENERAL	REMARKS					4781					
20-103 LOBBY	GENERAL	CORRIDORS	0	0.06	0	1	106	1	6	50	0	
20-104 ELECTRICAL ROOM	GENERAL	COMPUTER - MISC	5	0.06	4	0	1405	1	84	200	0	
20-105 TRAINING ROOM	GENERAL	CONFERENCE/MEETING	5	0.06	0	30	1846	1	261	270	0	
20-106 MECHANICAL ROOM	GENERAL	REMARKS					505			200		
20-107 TOILET ROOM	OFFICE BUILDINGS	TOILETS - PRIVATE	0	0.00	0	1	82	1	0	0	50	8
20-108 SHOWER	OFFICE BUILDINGS	SHOWER ROOMS	0	0.00	0	1	72	1	0	0	50	8
20-109 LOCKER ROOM	GENERAL	LOCKER ROOMS	0	0.00	0	1	94	1	0	0	50	8
20-S01 STAIRS 1	GENERAL	CORRIDORS	5	0.06	0	0	200	1	12	0	0	1150
20-S02 STAIRS 2	GENERAL	CORRIDORS	5	0.06	0	0	200	1	12	0	0	1150
20-204 CORRIDOR	OFFICE BUILDINGS	CORRIDORS	0	0.06	0	0	691	1	41	50	0	
20-205 ELECTRICAL STORAGE	OFFICE BUILDINGS	OCC. STORAGE - DRY MATERIAL	5	0.06	2	0	255	1	15	50	0	
20-206 OFFICE	OFFICE BUILDINGS	OFFICE SPACE	5	0.06	5	1	217	1	18	75	0	
20-207 SERVER ROOM	OFFICE BUILDINGS	REMARKS					183			75		
20-208 CONTROL ROOM	OFFICE BUILDINGS	COMPUTER - MISC	5	0.06	4	3	403	1	39	75	0	
20-209 BREAK ROOM	OFFICE BUILDINGS	BREAKROOMS	5	0.12	50	3	254	1	45	75	0	
20-213 JANITOR	OFFICE BUILDINGS	JANITOR CLOSET	0	0.06	5	0	51	1	3	0	50	8
20-214 MENS SHOWER	GENERAL	SHOWER ROOMS	0	0.00	0	1	80	1	0	0	50	8
20-215 MENS LOCKER	N/A	LOCKER ROOMS	0	0	0	1	84	1	0	0	50	8
20-216 MENS TOILET	OFFICE BUILDINGS	TOILETS - PRIVATE	0	0.00	0	1	72	1	0	0	50	8
20-217 WOMENS TOILET	OFFICE BUILDINGS	TOILETS - PRIVATE	0	0.00	0	1	70	1	0	0	50	8
20-218 W SHOWER LOCKER	OFFICE BUILDINGS	LOCKER ROOMS	0	0	0	1	80	1	0	0	50	8
							15147					

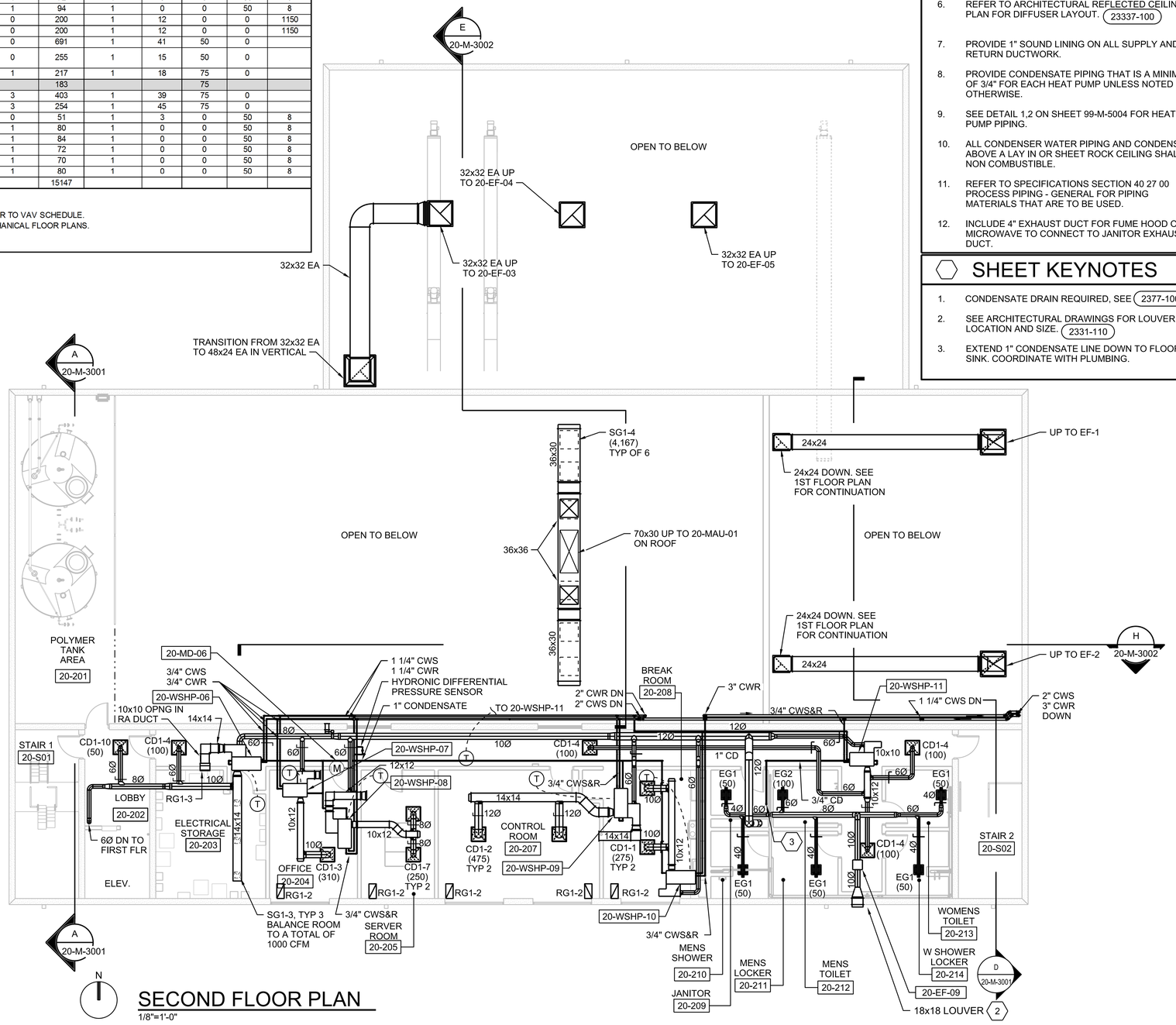
REMARKS
1. BASIS ASHRAE 62.1-2019, TABLE 6-1
2. AIR DISTRIBUTION EFFECTIVENESS Ez IS BASED ON MAXIMUM 85 DEGREE LEAVING AIR TEMPERATURE AT THE DIFFUSER. REFER TO VAV SCHEDULE.
3. TOTAL AIRFLOW TO EACH ROOM IS SUMMATION OF VAV PRIMARY AIR PLUS OUTSIDE AIR. REFER TO VAV SCHEDULE AND MECHANICAL FLOOR PLANS.
4. OCCUPANT LOAD IS BASED ON FURNITURE PLAN OR DEFAULT OCCUPANT DENSITY PER ASHRAE 62.1-2016, TABLE 6.2.2.1.
5. EXHAUST RATES CALCULATED USING ASHRAE 62.1. TABLE 6.2 at 50 CFM FOR INTERMITTENT EXHAUST.

GENERAL SHEET NOTES

1. RECOMMEND AIR VOLUME DAMPERS TO ENGINEER THAT NEED TO BE ADDED IN ORDER TO OBTAIN PROPER AIR CONTROL.
2. LOCATE SENSORS AND CONTROL PANELS 5 FEET FROM FINISHED FLOOR.
3. DO NOT ROUTE DUCTWORK DIRECTLY ABOVE ELECTRICAL EQUIPMENT.
4. SUPPORT DUCTWORK PER (2305-804)
5. SEE EQUIPMENT SCHEDULES FOR MOUNTING HEIGHTS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR DIFFUSER LAYOUT. (23337-100)
7. PROVIDE 1" SOUND LINING ON ALL SUPPLY AND RETURN DUCTWORK.
8. PROVIDE CONDENSATE PIPING THAT IS A MINIMUM OF 3/4" FOR EACH HEAT PUMP UNLESS NOTED OTHERWISE.
9. SEE DETAIL 1,2 ON SHEET 99-M-5004 FOR HEAT PUMP PIPING.
10. ALL CONDENSER WATER PIPING AND CONDENSATE ABOVE A LAY IN OR SHEET ROCK CEILING SHALL BE NON COMBUSTIBLE.
11. REFER TO SPECIFICATIONS SECTION 40 27 00 PROCESS PIPING - GENERAL FOR PIPING MATERIALS THAT ARE TO BE USED.
12. INCLUDE 4" EXHAUST DUCT FOR FUME HOOD OR MICROWAVE TO CONNECT TO JANITOR EXHAUST DUCT.

SHEET KEYNOTES

1. CONDENSATE DRAIN REQUIRED, SEE (2377-100)
2. SEE ARCHITECTURAL DRAWINGS FOR LOUVER LOCATION AND SIZE. (2331-110)
3. EXTEND 1" CONDENSATE LINE DOWN TO FLOOR SINK. COORDINATE WITH PLUMBING.



SECOND FLOOR PLAN
1/8"=1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL
DEWATERING AND CONTROL BUILDING SECOND FLOOR PLAN

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN		T PRICE	S HOSTETLER	A VALIENTE	A VALIENTE		A VALIENTE

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-2002
SHEET	144 of 270

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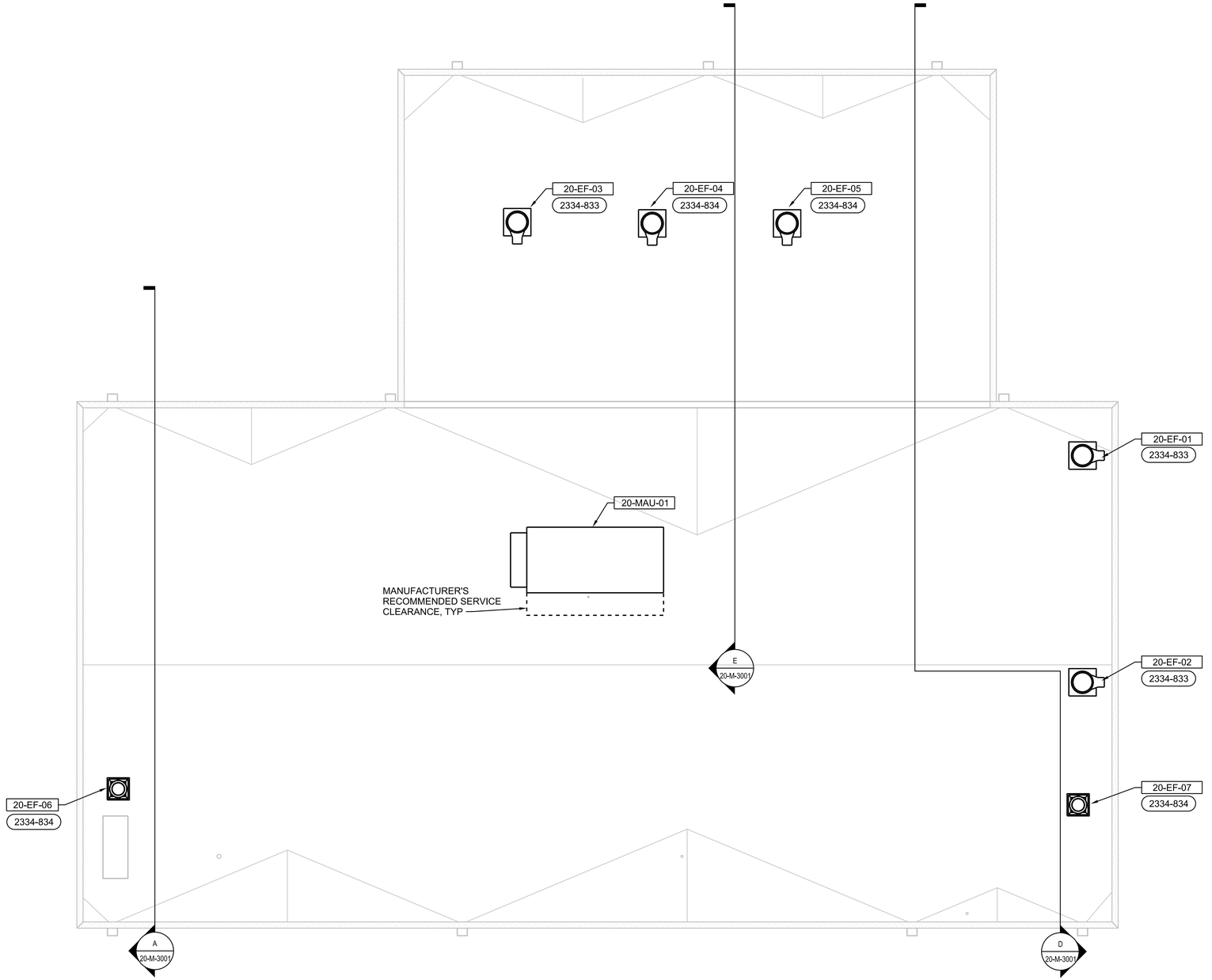
GENERAL SHEET NOTES

1. RECOMMEND AIR VOLUME DAMPERS TO ENGINEER THAT NEED TO BE ADDED IN ORDER TO OBTAIN PROPER AIR CONTROL.
2. LOCATE SENSORS AND CONTROL PANELS 5 FEET FROM FINISHED FLOOR.



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ROOF PLAN

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	T PRICE	DR S HOSTETLER	CHK A VALIENTE	APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

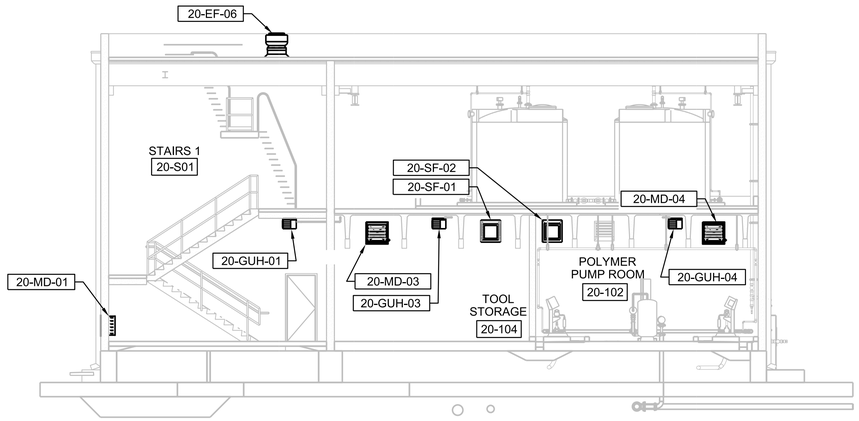
Jacobs

MECHANICAL
DEWATERING AND CONTROL BUILDING ROOF PLAN

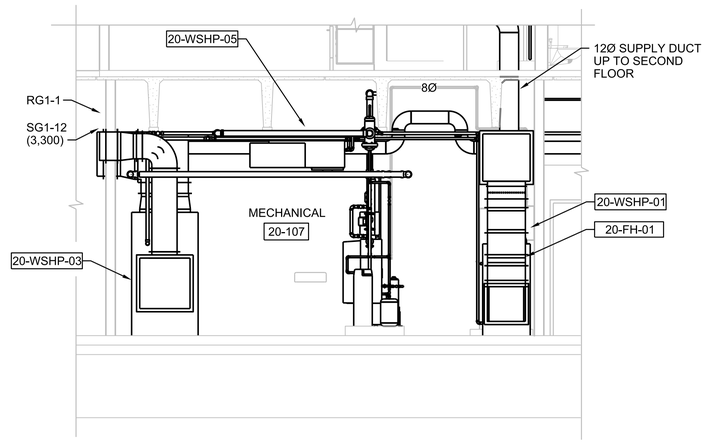
CONFORMED DOCUMENTS

1/8"=1'-0"
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

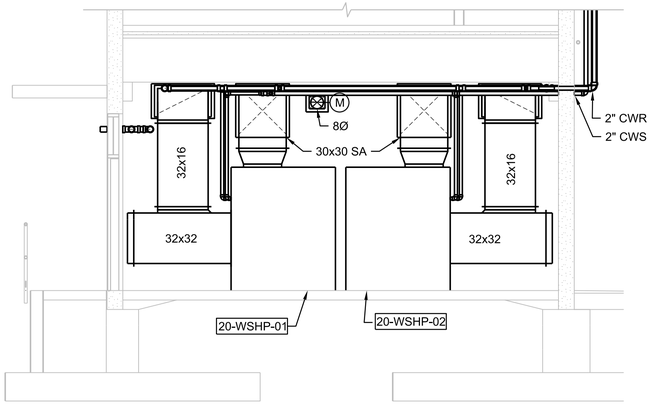
DATE	MAY 2021
PROJ	D3226100
DWG	20-M-2003
SHEET	145 of 270



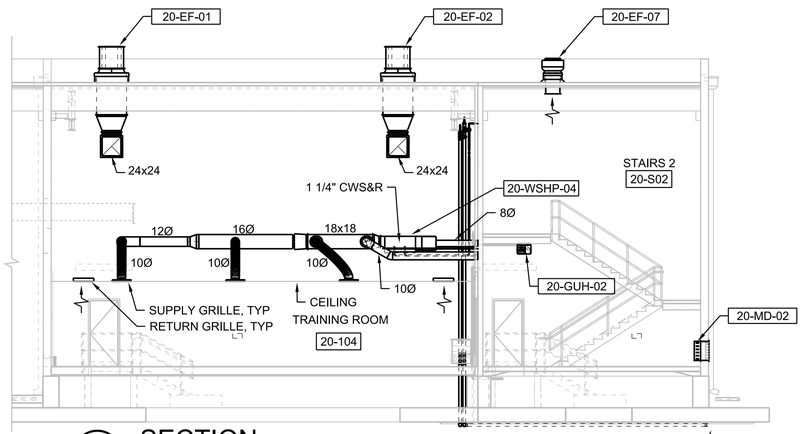
A SECTION
1/8"=1'-0"
20-M-2001
20-M-2002



B SECTION
1/4"=1'-0"
20-M-4001



C SECTION
1/4"=1'-0"
20-M-4001



D SECTION
1/8"=1'-0"
20-M-2001
20-M-2002

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		T PRICE	S HOSTETLER	A VALIENTE	APVD	A VALIENTE	

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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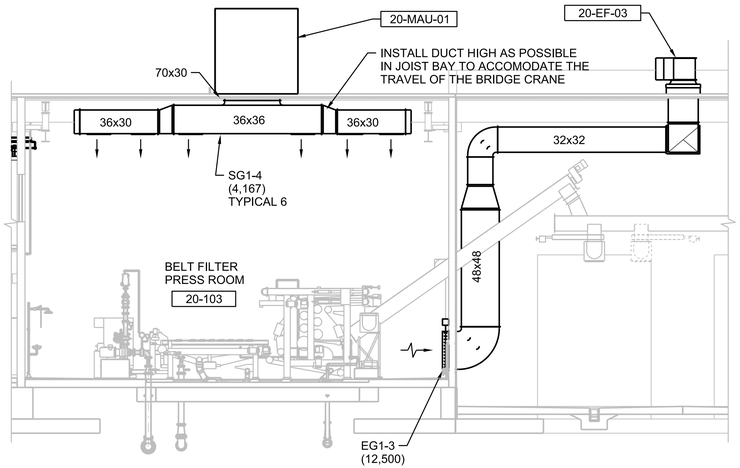
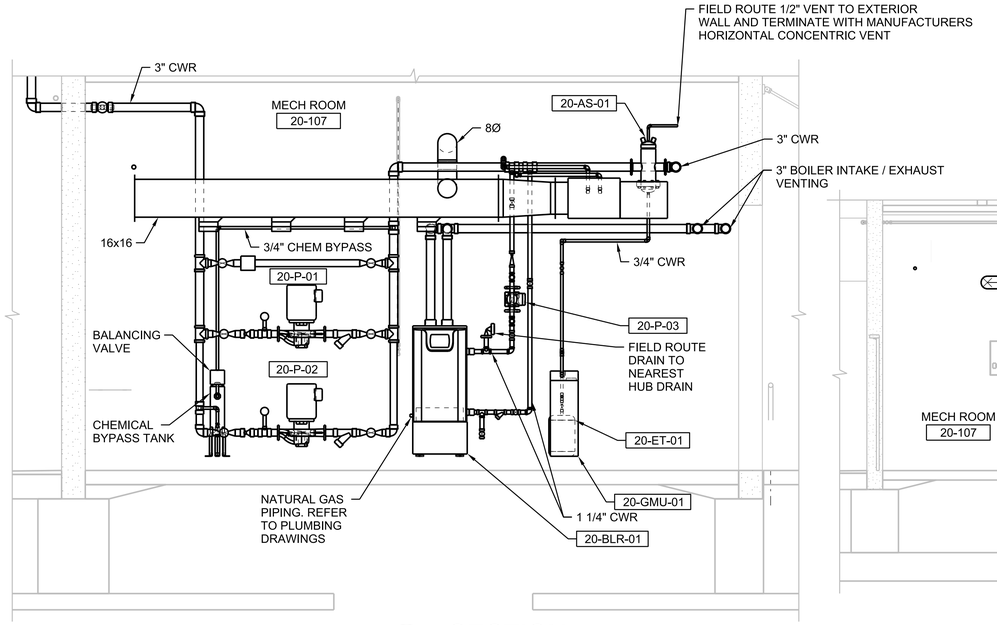
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL
DEWATERING AND CONTROL BUILDING SECTIONS

	1/8"=1'-0
	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"
DATE	MAY 2021
PROJ	D3226100
DWG	20-M-3001
SHEET	146 of 270



E SECTION
1/8"=1'-0"
20-M-2001
20-M-2002



F SECTION
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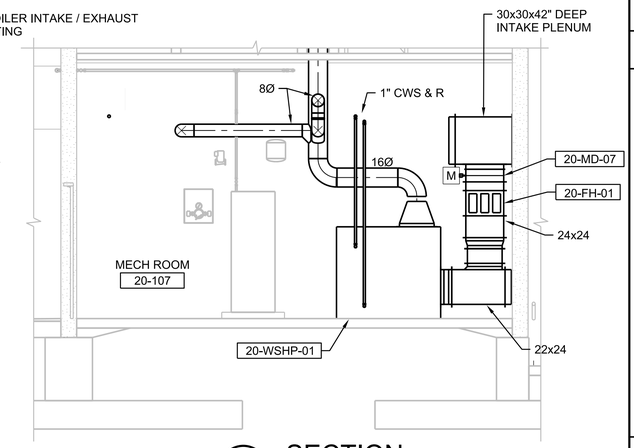
20-M-2001



G SECTION
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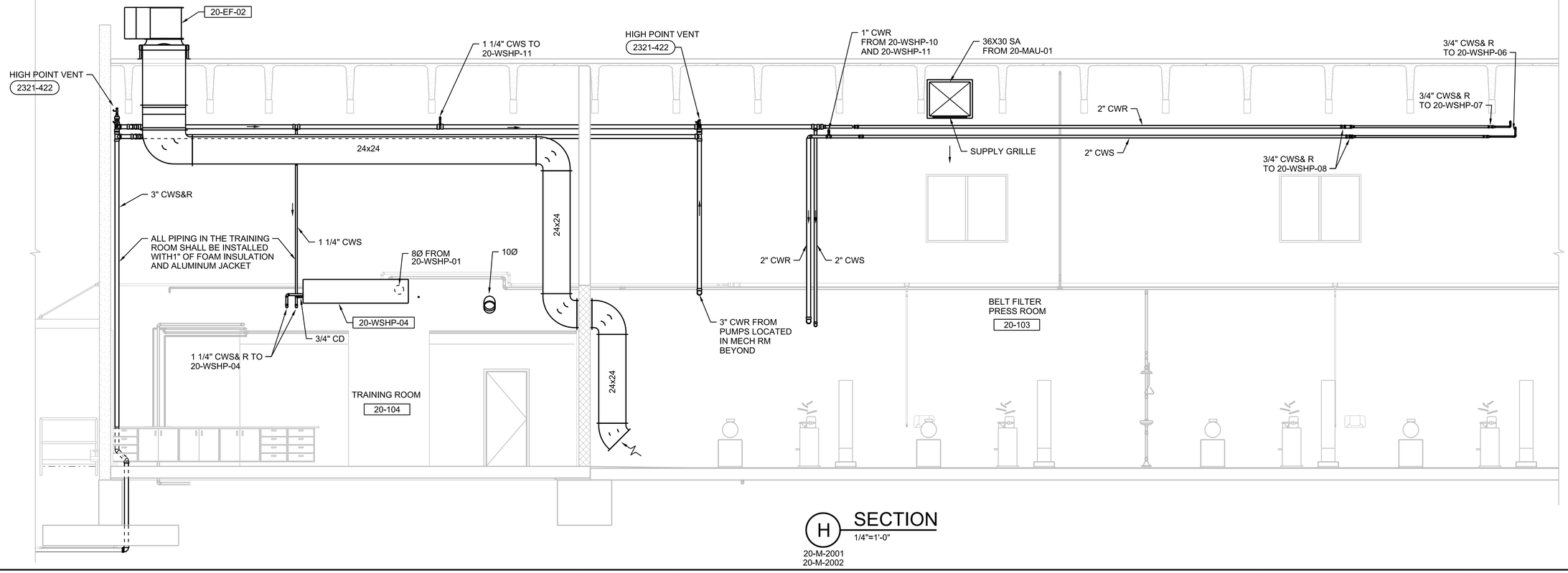
20-M-2001



H SECTION
1/4"=1'-0"
20-M-2001
20-M-2002

NO.	DATE	REVISION	BY	APVD
DSGN	T PRICE	DR	S HOSTETLER	CHK	A VALIENTE	APVD	A VALIENTE

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

MECHANICAL
DEWATERING AND
CONTROL BUILDING
SECTIONS

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-3002
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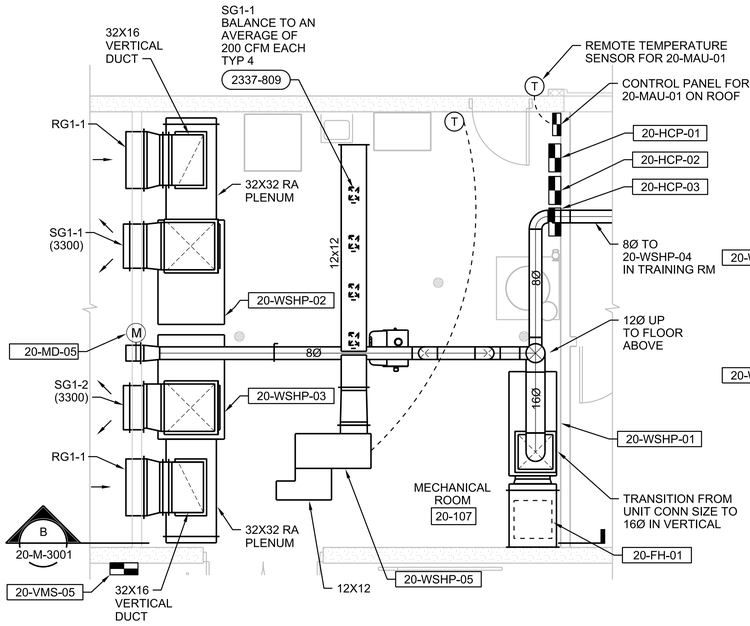
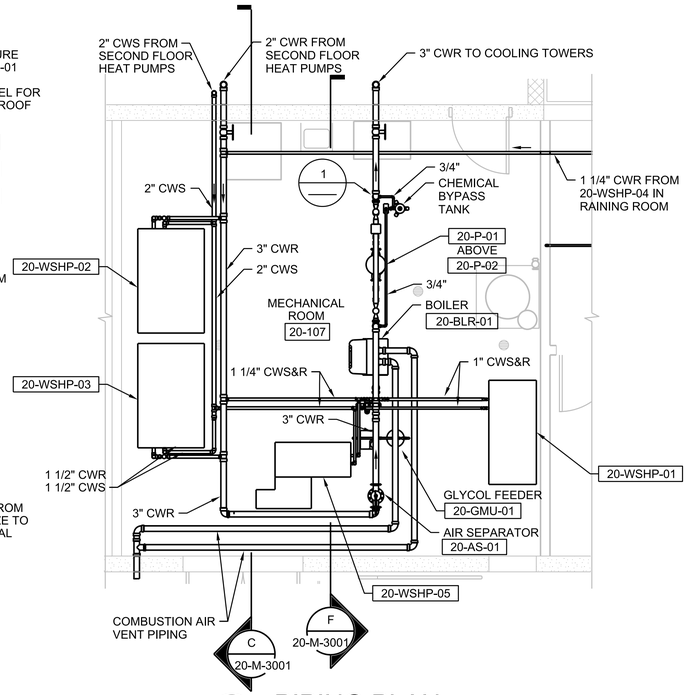
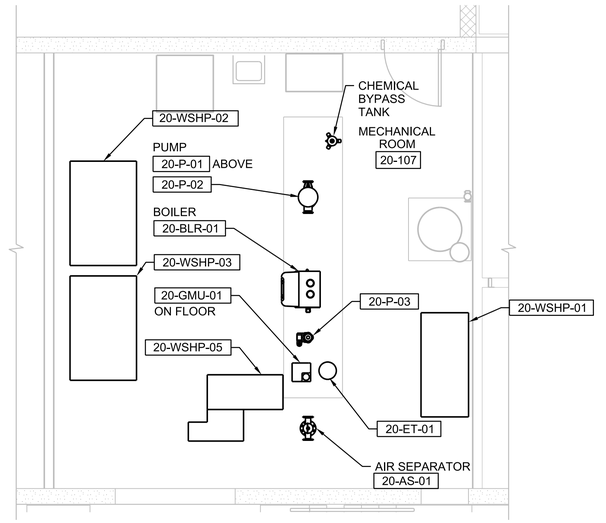


1 HVAC PLAN
1/4"=1'-0"
20-M-2001



2 PIPING PLAN
1/4"=1'-0"
20-M-2001



3 EQUIPMENT PLAN
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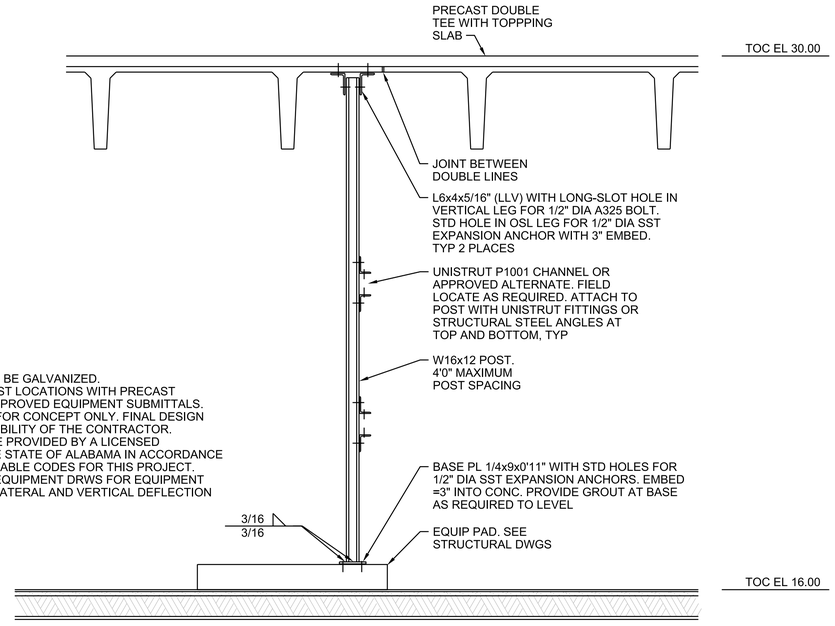
20-M-2001



NOTES:

1. ALL STEEL SHALL BE GALVANIZED.
2. COORDINATE POST LOCATIONS WITH PRECAST SUPPLER AND APPROVED EQUIPMENT SUBMITTALS.
3. DESIGN SHOWN FOR CONCEPT ONLY. FINAL DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN SHALL BE PROVIDED BY A LICENSED ENGINEER IN THE STATE OF ALABAMA IN ACCORDANCE WITH THE APPLICABLE CODES FOR THIS PROJECT.
4. SEE APPROVED EQUIPMENT DRWS FOR EQUIPMENT WEIGHTS. LIMIT LATERAL AND VERTICAL DEFLECTION TO 1/2".

1 STRUT SUPPORT SYSTEM (SECTION)
NTS

NO.	DATE	REVISION	BY	APVD
DSGN	T PRICE	DR S HOSTETLER	CHK A VALIENTE	APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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CONFORMED DOCUMENTS

Jacobs

MECHANICAL

DEWATERING AND
CONTROL BUILDING
ENLARGED PLANS

1/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-4001
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CONTROL FOR THE AIR CONDITIONING SYSTEMS SERVING THE DEWATERING BUILDING:

THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DELIVERY OF ALL HVAC ALARMS AND CONTROLS BETWEEN HVAC CONTROL PANELS AND SCADA WITH THE I&C CONTRACTOR. THE SYSTEMS WILL BE CONTROLLED VIA STANDALONE DDC CONTROLLERS AND SWITCHES IN HCP PANELS. ALL THE SETPOINTS SHALL BE ADJUSTABLE BY THE USER AT THE TEMPERATURE SENSORS, THERMOSTATS AND CONTROLLERS. WHEN 120 VAC POWER IS APPLIED TO CONTROL PANES, SUCH AS AFTER A POWER FAILURE, THE DDC CONTROLLER'S MICROPROCESSOR SHALL WAIT FOR 30 SECONDS BEFORE STARTING ANY UNIT ALLOWING ALL CONTROLLED DEVICES TO RETURN TO THEIR NORMAL STATE FOR STARTUP. AFTER THE TIME DELAY, THE DDC CONTROLLER SHALL SEND A NORMAL MODE SIGNAL TO ENABLE THE SYSTEMS.

VENTILATION UNIT 20-WSHP-01:

- WATER SOURCE HEAT PUMP 20-WSHP-01

GENERAL:

UNIT IS INTENDED TO CONTINUOUSLY PROVIDE DEHUMIDIFIED VENTILATION AIR TO ALL AREAS OF THE BUILDING. THE UNITS SHALL BE CONTROLLED VIA DDC, SWITCHES AND UNIT MOUNTED TEMPERATURE/ HUMIDITY SENSORS.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

AUTO: NORMAL OPERATION:

THE FAN SHALL RUN CONTINUOUSLY AND MAINTAIN A CONSTANT LEAVING AIR TEMPERATURE OF 72 DEGREES F(ADJ) DRY BULB AND 61 DEGREE WET BULB. THE UNIT SHALL CYCLE THE REVERSING VALVE, HEATING AND COOLING CONTROL VALVE, COMPRESSOR AND THE DX REHEAT COIL AS REQUIRED TO MAINTAIN A CONSTANT LEAVING AIR TEMPERATURE.

FAN RPM SHALL MODULATE UP AND DOWN (TO ACCOMMODATE FILTER LOADING) AS REQUIRED TO MAINTAIN A CONSTANT LEAVING AIR PRESSURE IN THE DUCTWORK.

AS A CLARIFICATION THERE IS NO CONDENSER WATER CONTROL VALVE ASSOCIATED WITH 20-WSHP-01.

ELECTRICAL ROOM:

- WATER SOURCE HEAT PUMP 20-WSHP-02 & 03

GENERAL:

BOTH UNITS ARE SIZED AT 75% OF THE TOTAL SENSIBLE CAPACITY FOR REDUNDANCY. THE UNITS SHALL BE CONTROLLED VIA DDC, SWITCHES AND SPACE TEMPERATURE/ HUMIDITY SENSORS. THE SYSTEMS SHALL BE PROGRAMMED TO OPERATE AS LEAD/ LAG ALTERNATING WEEKLY(ADJ) TO EQUALIZE RUN TIME.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

AUTO: NORMAL OPERATION:

COOLING MODE

THE FAN FOR THE LEAD UNIT SHALL RUN CONTINUOUSLY. WHEN THE SPACE TEMPERATURE IS OVER THE TEMPERATURE SETPOINT 77 DEGREES F(ADJ) THE LEAD UNIT CONDENSER WATER SOLENOID VALVE SHALL OPEN AND THE STAGES OF DX COOLING SHALL CYCLE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON FURTHER RISE OF THE SPACE TEMPERATURE SETPOINT 82 DEGREES F (ADJ). THE LAG UNIT SUPPLY FAN SHALL START, CONDENSER WATER ASSOCIATED SOLENOID VALVE SHALL OPEN AND THE STAGES OF DX COOLING SHALL CYCLE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. AS THE SPACE TEMPERATURE SETPOINT IS SATISFIED, THE LAG UNIT SUPPLY FAN SHALL STOP, ASSOCIATED SOLENOID VALVE SHALL CLOSE AND THE DX COOLING STAGES SHALL BE INHIBITED FROM OPERATING.

HEATING MODE

THE FAN FOR THE LEAD UNIT SHALL RUN CONTINUOUSLY. WHEN THE SPACE TEMPERATURE IS BELOW THE TEMPERATURE SETPOINT 55 DEGREES F(ADJ) THE LEAD UNIT CONDENSER WATER SOLENOID VALVE SHALL OPEN AND THE STAGES OF DX HEATING SHALL CYCLE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. UPON FURTHER DROP OF THE SPACE TEMPERATURE SETPOINT 50 DEGREES F (ADJ). THE LAG UNIT SUPPLY FAN SHALL START, CONDENSER WATER ASSOCIATED SOLENOID VALVE SHALL OPEN AND THE STAGES OF DX HEATING SHALL CYCLE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. AS THE SPACE TEMPERATURE SETPOINT IS SATISFIED, THE UNITS SUPPLY FAN SHALL STOP, ASSOCIATED SOLENOID VALVE SHALL CLOSE AND THE DX HEATING STAGES SHALL BE INHIBITED FROM OPERATING. IN ALL CASES THE LEAD UNIT SUPPLY FAN SHALL RUN CONTINUOUSLY.

DEHUMIDIFICATION MODE

UPON A CALL FOR DEHUMIDIFICATION, THE LEAD UNIT CONDENSER WATER ASSOCIATED SOLENOID VALVE SHALL OPEN. FAN AND COMPRESSOR SPEED SHALL MODULATE TO MAINTAIN THE ROOM HUMIDITY SETPOINT 55% (ADJ). UNITS SHALL UTILIZE DX REHEAT TO CONTROL LEAVING AIR TEMPERATURE.

HAND: THE SYSTEM SHALL ENERGIZE AND RUN CONTINUOUSLY.

OFF: THE SYSTEM SHALL REMAIN DE-ENERGIZED.

AFTER ANY OF THE WSHP ARE ENERGIZED 20-WSHP-01 SHALL RUN AND PROVIDE CONSTANT VENTILATION AIR.

OFFICE AREA:

- WATER SOURCE HEAT PUMP 20-WSHP-04 THRU 20-WSHP-09
- EXHAUST FAN 20-EF-08 AND 20-EF-09

GENERAL:

THE UNIT SHALL BE CONTROLLED VIA DDC, SWITCH AND SPACE TEMPERATURE SENSORS. 20-WSHP-01 SHALL PROVIDE VENTILATION AIR.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

AUTO: NORMAL OPERATION:

FANS SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS TO PROVIDE AIR CIRCULATION. ON A CALL FOR HEATING OR COOLING THE ASSOCIATED CONDENSER WATER VALVE SHALL OPEN AND THE REVERSING VALVE SHALL SWITCH AS APPROPRIATE AND THE COMPRESSOR SHALL BE ENABLED AND RUN AS REQUIRED TO SATISFY THE ROOM TEMPERATURE REQUIREMENTS. WHEN THE ROOM TEMPERATURE IS SATISFIED THE COMPRESSOR SHALL CYCLE OFF AND THE ASSOCIATED SOLENOID VALVE SHALL CLOSE.

HAND: THE SYSTEM SHALL ENERGIZE AND RUN CONTINUOUSLY.

OFF: THE SYSTEM SHALL REMAIN DE-ENERGIZED.

THE EXHAUST FAN 20-EF-08 AND 20-EF-09 SHALL BE INTERLOCKED WITH 20-WSHP-01 SO THE FAN IS ENERGIZED WHEN THE 20-WSHP-01 IS ENERGIZED.

CONDENSER WATER PUMPS:

- CONDENSER WATER PUMPS 20-P-01 & 20-P-02

GENERAL:

BOTH PUMPS ARE SIZED AT 100% OF THE TOTAL REQUIRED CAPACITY AND SHALL NOT WORK SIMULTANEOUSLY. ONE PUMP SHALL OPERATE ON DUTY AND ONE SHALL REMAIN STAND-BY ALTERNATING MONTHLY (ADJ). THE PUMPS SHALL BE CONTROLLED VIA STANDALONE DDC CONTROLLER LOCATED WITHIN PANEL 20-HCP-03. THE PUMP SHALL HAVE AN USER ADJUSTABLE DELAY ON STOP.

NORMAL OPERATION:

THE ON DUTY PUMP SHALL START UPON A SPACE CALL FOR COOLING OR HEATING, PRIOR TO THE WSHP BEING ENABLED AND SHALL STOP ONLY AFTER THE WSHP AND COOLING TOWER ARE DISABLED. THE DIFFERENTIAL PRESSURE ACROSS THE PUMP SHALL BE MONITORED AND THE HIGH-PRESSURE DIFFERENTIAL LIGHT SHALL LIT WHEN THE PRESSURE IS 120% (ADJ) OF THE DESIGN PRESSURE.

ON DUTY/ STAND-BY OPERATION:

20-P-01 SHALL BE THE FIRST ON DUTY PUMP AND 20-P-02 SHALL BE DESIGNATED AS THE STAND-BY PUMP. EVERY MONTH (ADJ) THE PUMPS SHALL ALTERNATE DESIGNATIONS.

IF A FAILURE OF THE ON DUTY PUMP OCCURS, THE STAND-BY PUMP SHALL START. FAIL ALARM LIGHT IN PANEL 20-HCP-03 SHALL BE LIT TO INDICATE THAT A FAULT OF THE PUMP HAS OCCURRED.

AFTER THE SYSTEM IN FAULT HAS BEEN REPAIRED IT SHALL BE RESET AND THE ALARM LIGHT SHALL TURN OFF.

COOLING TOWERS:

- COOLING TOWERS 20-CT-01 & 20-CT-02

GENERAL:

BOTH SYSTEMS ARE SIZED AT 75% OF THE TOTAL REQUIRED CAPACITY AND MAY WORK SIMULTANEOUSLY. ONE SYSTEM SHALL OPERATE ON DUTY AND ONE SHALL REMAIN STAND-BY ALTERNATING MONTHLY (ADJ). THE ON DUTY/ STAND-BY SCHEDULE, WATER TEMPERATURE AND INLET/ OUTLET SOLENOID VALVES ASSOCIATED TO THE COOLING TOWERS SHALL BE CONTROLLED VIA DDC CONTROLLER LOCATED WITHIN PANEL 20-HCP-03. THE ISOLATION SOLENOID VALVES ASSOCIATED WITH THE ON DUTY COOLING TOWER SHALL REMAIN OPENED DURING THE ON DUTY PERIOD SCHEDULED AND THE SOLENOID VALVE ASSOCIATED WITH THE STAND-BY COOLING TOWER SHALL REMAIN CLOSED DURING THE STAND-BY PERIOD SCHEDULED DURING NORMAL OPERATION.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

NORMAL OPERATION:

ON AN INITIAL CALL FOR COOLING THE SOLENOID VALVE SHALL OPEN AND THE SPRAY PUMP SHALL BE STARTED. THE COOLING TOWERS DAMPERS SHALL OPEN AND THE FAN SHALL START WHEN THE CONDENSER WATER PUMP IS ENABLED. THE COOLING TOWER FAN SPEED SHALL MODULATE TO MAINTAIN THE COLD-WATER TEMPERATURE SETPOINT BETWEEN 65 TO 85 DEGREES F. IF THE LEAVING WATER TEMPERATURE FALLS BELOW 70 DEGREES F THE FAN SHALL CYCLE OFF. IF THE LEAVING WATER TEMPERATURE FALLS BELOW 60 DEGREES F THE SPRAY PUMP SHALL CYCLE OFF. THE LEAD TOWER SHALL BE DISABLED WHEN ANY OF THE FOLLOWING OCCURS.

- ALL WSHP ARE DISABLED
- CONDENSER WATER PUMP IS DISABLED

ON DUTY/ STAND-BY OPERATION:

20-CT-01 SHALL BE THE FIRST ON DUTY UNIT AND 20-CT-02 SHALL BE DESIGNATED AS THE STAND-BY UNIT. EVERY MONTH(ADJ) THE UNITS SHALL ALTERNATE DESIGNATIONS. IF A FAILURE OF THE ON DUTY UNIT OCCURS, THE STAND-BY UNIT SHALL START TO MAINTAIN THE COLD-WATER TEMPERATURE SETPOINT. THE INLET/ OUTLET SOLENOID VALVES ASSOCIATED TO THE ON DUTY UNIT SHALL CLOSE AND THE INLET/ OUTLET SOLENOID VALVES ASSOCIATED TO THE STAND-BY UNIT SHALL OPEN. FAIL ALARM LIGHT IN PANEL 20-HCP-3 SHALL BE LIT TO INDICATE THAT A FAULT OF THE ON DUTY SYSTEM HAS OCCURRED.

AFTER THE SYSTEM IN FAULT HAS BEEN REPAIRED IT SHALL BE RESET AND THE ALARM LIGHT SHALL TURN OFF.

HIGH TEMPERATURE SYSTEM SHUT-DOWN

IF THE CONDENSER WATER SUPPLY TEMPERATURE RISES ABOVE 90 DEGREES F BOTH TOWERS SHALL BE ENABLED, SPRAY PUMPS STARTED AND FANS SHALL RUN. IF THE TEMPERATURE RISES ABOVE 110 DEGREES F, THE SYSTEM SHALL SHUT DOWN.

LOW TEMPERATURE (BOILER 20-BLR-01)

IF THE CONDENSER WATER SUPPLY TEMPERATURE FALLS BELOW 60 DEGREES F THE DISCHARGE DAMPERS ON THE COOLING TOWER SHALL BE CLOSED AND THE BOILER SHALL BE ENABLED TO MAINTAIN WATER ABOVE 65 DEGREES. LEAVING WATER TEMPERATURE FROM THE BOILER SHALL NOT BE ABOVE 100 DEGREES F.

CONDUCTIVITY MONITORING

AS PART OF THE COOLING TOWER CHEMICAL TREATMENT SYSTEM THE COOLING TOWER SHALL HAVE A CONDUCTIVITY MEASURING SENSOR, WHICH WILL BLEED WATER BASED ON THE CONDUCTIVITY OF THE WATER. COORDINATE THE CONDUCTIVITY OF THE BASIN WATER AND THE BLEED RATE WITH THE COOLING TOWER MANUFACTURE TO INSURE A TOWER THAT IS MAINTAINED SCALE FREE. CHEMICAL TREATMENT ADDITIVES SHALL BE INJECTED INTO THE BASIN AS REQUIRED TO CONTROL BACTERIA AND SCALE.

TRUCK DRIVE-THRU:

- EXHAUST FANS 20-EF-04 & 05

GENERAL:

THE EXHAUST FANS WILL BE CONTROLLED VIA SWITCHES IN PANEL 20-HCP-01. THE SYSTEM SHALL RUN CONTINUOUSLY WHEN THE FANS ARE ENABLED.

BFP ROOM:

- EXHAUST FANS 20-EF-01,02 & 03
- 100% HEATING ONLY MAKE-UP UNIT 20-MAU-01

GENERAL:

THE EXHAUST FANS AND MAKEUP UNIT WILL BE CONTROLLED VIA SWITCHES IN PANEL 20-HCP-01, DDC AND TEMPERATURE SENSORS. THE SYSTEM SHALL RUN CONTINUOUSLY FOR DECLASSIFICATION OF THE SPACE AND SHALL BE FITTED WITH FLOW SWITCHES AS SHOWN IN DRAWINGS FOR MONITORING THE VENTILATION SYSTEM.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

20-MAU-01
VENTILATION MODE:

ON: THE MAKE-UP UNIT SUPPLY FAN SHALL ENERGIZE AND RUN CONTINUOUSLY.
OFF: THE MAKE-UP UNIT SUPPLY FAN SHALL REMAIN DE-ENERGIZED.

HEATING MODE:

WHEN THE OUTSIDE TEMPERATURE FALLS BELOW 55 DEGREES F (ADJ) HEATING MODE SHALL BE ENABLE. THE MAKE-UP UNIT SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE GAS CONTROL VALVE SHALL MODULATE TO HOLD THE DISCHARGE TEMPERATURE AT 45 DEGREES F (ADJ). THE UNIT CONTROLLER SHALL RESET THE DISCHARGE TEMPERATURE AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT 50 DEGREES F (ADJ). AFTER THE OUTSIDE TEMPERATURE RISES ABOVE 55 DEGREES F (ADJ) THE HEATING MODE SHALL BE DISABLE AND VENTILATION MODE ENABLE.

20-EF-01,02 & 03

ON: THE FANS SHALL ENERGIZE AND RUN CONTINUOUSLY.
OFF: THE FANS SHALL REMAIN DE-ENERGIZED.

STAIR WELLS:

- EXHAUST FANS 20-EF-06 & 07
- GAS SPACE HEATERS 20-GUH-01 & 02

GENERAL:

THE UNIT SHALL BE CONTROLLED VIA SPACE THERMOSTAT.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

20-EF-06 & 07

UPON A RISE OF THE SPACE TEMPERATURE ABOVE THE TEMPERATURE SETPOINT 85 DEGREES F (ADJ) THE EXHAUST FAN SHALL ENERGIZE AND RUN CONTINUOUSLY. ASSOCIATED INTAKE MOTORIZED DAMPER SHALL OPEN. WHEN THE SPACE TEMPERATURE SETPOINT IS SATISFIED THE FAN SHALL DE-ENERGIZE AND ASSOCIATED DAMPER SHALL CLOSE.

20-GUH-01 & 02

WHEN THE SPACE TEMPERATURE IS BELOW THE TEMPERATURE SETPOINT 60 DEGREES F(ADJ) THE UNIT HEATER SHALL START. AS THE SPACE TEMPERATURE SETPOINT IS SATISFIED, THE UNIT HEATER SHALL BE DE-ENERGIZED.

POLYMER ROOM AND TOOL STORAGE ROOM:

- EXHAUST FANS 20-SF-01 & 02
- GAS SPACE HEATERS 20-GUH-03 & 04

GENERAL:

THE UNIT SHALL BE CONTROLLED VIA SPACE THERMOSTAT.

HOURS OF OPERATION

Continuous: 24 hours per day-7 days per week.

20-SF-01 & 02

UPON A RISE OF THE SPACE TEMPERATURE ABOVE THE TEMPERATURE SETPOINT 85 DEGREES F (ADJ) THE SUPPLY FAN SHALL ENERGIZE AND RUN CONTINUOUSLY. ASSOCIATED RELIEF MOTORIZED DAMPER SHALL OPEN. WHEN THE SPACE TEMPERATURE SETPOINT IS SATISFIED THE FAN SHALL DE-ENERGIZE AND ASSOCIATED DAMPER SHALL CLOSE.

20-GUH-03 & 04

WHEN THE SPACE TEMPERATURE IS BELOW THE TEMPERATURE SETPOINT 60 DEGREES F(ADJ) THE UNIT HEATER SHALL START. AS THE SPACE TEMPERATURE SETPOINT IS SATISFIED, THE UNIT HEATER SHALL BE DE-ENERGIZED.

VENTILATION MONITORING SYSTEM:

THE MONITORING VENTILATION SYSTEMS FOR CLASSIFIED SPACES SHALL BE FITTED WITH FLOW SWITCHES, STROBE LIGHTS AND VENTILATION MONITORING STATIONS AS SHOWN IN DRAWINGS. UPON FAILURE OF ANY OF THE SYSTEMS A SIGNAL FROM FLOW SWITCHES SHALL BE SENT TO PANEL 20-HCP-01 TO ACTIVATE THE VISUAL AND AUDIBLE ALARMS. AN ALARM SIGNAL SHALL BE SENT TO SCADA THROUGH PLC IN PANEL 20-CP-01

NO.	DATE	REVISION	DR	CHK	BY
DSGN	T PRICE		Y FITZGERALD	A VALIENTE	APVD
				APVD	A VALIENTE

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

MECHANICAL
DEWATERING AND CONTROL BUILDING
SEQUENCE OF OPERATION

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-5001
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CONTROL DAMPERS

SYMBOL			20-MD-01	20-MD-02	20-MD-03	20-MD-04	20-MD-05	20-MD-06	20-MD-07
SPECIFICATION TYPE			HIGH PERFORMANCE CONTROL DAMPER	HIGH PERFORMANCE CONTROL DAMPER	HIGH PERFORMANCE CONTROL DAMPER	HIGH PERFORMANCE CONTROL DAMPER	ROOM ISOLATION DAMPER	ROOM ISOLATION DAMPER	HIGH PERFORMANCE CONTROL DAMPER
SERVES			INTAKE	INTAKE	RELIEF	RELIEF	SUPPLY	SUPPLY	INTAKE
LOCATION			STAIR 20-SO1	STAIR 20-S02	TOOL ROOM	POLYMER ROOM	ELEC. ROOM	SERVER ROOM	MECH ROOM
CONSTRUCTION MATERIALS	AXLES		316 SST	316 SST	316 SST	316 SST	STEEL	PLATED STEEL	316 SST
	BLADE		ALUM	ALUM	ALUM	ALUM	STEEL	STEEL	ALUM
	FRAME		ALUM	ALUM	ALUM	ALUM	STEEL	STEEL	ALUM
	SEALS	JAMB	SILICONE	SILICONE	SILICONE	SILICONE	STAINLESS	NA	SILICONE
		BLADE	SILICONE	SILICONE	SILICONE	SILICONE	SILICONE	SILICONE	SILICONE
PERFORMANCE	MAX. TEMP	DEG. F.	200	200	200	200	450	450	200
	MAX. PRESSURE	IN W.G.	8	8	8	8	4	4	8
	MAX. VELOCITY	FPM	4000	4000	4000	4000	2000	4000	4000
	MAX LEAKAGE @ 1 IN W.G.	CFM/SF	3	3	3	3	8 CFM @ 4" WC	8 CFM @ 4" WC	3
	ACTUAL FLOW RATE	CFM	1150	1150	500	500	200	75	1200
	ACTUAL PRESSURE LOSS	WC	0.02	0.02	0.01	0.01	0.02	0.01	0.03
	ACTUAL FACE VELOCITY	FT/MIN	216	216	125	125	590	450	300
NOMINAL DIMENSIONS	LENGTH	INCHES	32	32	24	24	8	6" ROUND	24
	HEIGHT	INCHES	24	24	24	24	8	NA	24
ACTUATOR DATA	FAILS		OPEN	OPEN	OPEN	OPEN	CLOSED	CLOSED	CLOSED
	RANGE		2 POSITION	2 POSITION	2 POSITION	2 POSITION	2 POSITION	2 POSITION	2 POSITION
	TYPE		ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
	VOLTS OR PRESS.		120	120	120	120	120	120	120
MANUFACTURER	DAMPER		GREENHECK	GREENHECK	GREENHECK	GREENHECK	RUSKIN	RUSKIN	GREENHECK
	ACTUATOR		BELIMO	BELIMO	BELIMO	BELIMO	AS REQUIRED	AS REQUIRED	BELIMO
MODEL NO.	DAMPER		ICD-45	ICD-45	ICD-45	ICD-45	FSD37	FSDR60	ICD-45
APPLICABLE REMARKS			A,B,C	A,B,C	A,B,C	A,B,C	D	D	A,B,C

ABBREVIATIONS:

STL: GALVANIZED STEEL
ALUM: ALUMINUM
304 SST: STAINLESS STEEL, TYPE 304
316 SST: STAINLESS STEEL, TYPE 316
PVC: POLYVINYL CHLORIDE
EPDM: ETHYLENE PROPYLENE DIENE MONOMER

APPLICABLE REMARKS:

A: REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON MATERIALS AND PERFORMANCE.
B: FLANGED STYLE FRAME
C: PARALLEL BLADE ACTION
D. 1-1/2 HOUR FIRE SMOKE DAMPER. UL555 LISTED. DAMPER SHALL BE FURNISHED WITH A WALL SLEEVE. WALL IS NOT A FIRE RATED WALL. DAMPER IS FOR ROOM ISOLATION ONLY.

GAS UNIT HEATERS

SYMBOL				20-GUH-01 & 02	20-GUH-03	20-GUH-04
LOCATION				STAIRWELL	TOOL STORAGE	POLYMER ROOM
TYPE				GAS, PROPELLER FAN	GAS, PROPELLER FAN	GAS, PROPELLER FAN
AIR SIDE DATA	SUPPLY AIRFLOW	CFM		505	505	505
	THROW	FEET		25	25	25
	MOTOR	RPM		1550	1550	1550
		POWER	HP	1/15	1/15	1/15
		VOLT		115	115	115
		PH		1	1	1
	TEMPERATURE RISE	DEG F		44	44	44
GAS TRAIN DATA	FUEL TYPE			NG	NG	NG
	GAS INPUT		MBH	30	30	30
	GAS OUTPUT		MBH	24.6	24.6	24.6
	SUPPLY PRESSURE		PSI	2	2	2
UNIT ELECTRICAL DATA	MCA			3.75	3.75	3.75
	VOLT			115	115	115
	PH			1	1	1
MOUNTING HEIGHT	MAXIMUM	FEET		10	10	10
MAXIMUM DIMENSIONS	LENGTH		INCHES	18 1/2	18 1/2	18 1/2
	WIDTH		INCHES	26 4/5	26 4/5	26 4/5
	HEIGHT		INCHES	12 1/5	12 1/5	12 1/5
	WEIGHT		LBS	55	55	55
MANUFACTURER/MODEL				MODINE/HDS30	MODINE/HDS30	MODINE/HDS30
APPLICABLE REMARKS:				A THRU I	A THRU I	A THRU I

ABBREVIATIONS:
NG: NATURAL GAS
PG: PROPANE GAS
NG/PG: DUAL FUEL, NATURAL AND PROPANE GAS

REMARKS:
A: FURNISH WITH PRESSURE REGULATOR.
B: FURNISH WITH WALL MOUNTED THERMOSTAT
C: WALL MOUNTED BRACKET
D: DISCONNECT UNIT INSTALLED
E: TOTALLY ENCLOSED MOTOR
F: HORIZONTAL COMBUSTION INLET/VENT TERMINAL ASSEMBLY
F: VERTICAL LOUVERS
G: INLET RING
H: CONCENTRIC ADAPTER
I: SCREENED EXHAUST

HYDRONIC PUMPS

23 21 14

SYMBOL				20-P-01	20-P-02	20-P-03
SERVICE				CONDENSER WATER	CONDENSER WATER	BOILER PRIMARY WATER
TYPE				INLINE	INLINE	INLINE
PUMP DATA	CAPACITY		GPM	116	116	14
	HEAD		FT H_2O	60	85	7
	MAXIMUM POWER		BHP	3.07	3.07	0.03
	FLUID	TYPE		PG	PG	PG
		CONC.	%	20	20	20
	MIN. EFF.		%	58.2	58.2	-
	NPSH		FT	9.19	9.19	-
MOTOR DATA	RATED POWER		HP	5	5	1/16
	SPEED		RPM	1800	1800	1800
	VOLT			460	460	120
	PH			3	3	1
	ENCLOSURE			TEFC	TEFC	-
	INLET/OUTLET SIZE			2"/2"	2"/2"	3/4"/3/4"
	IMPELLER DIAMETER (APPROX			9.3"	9.3"	STANDARD
MAX WEIGHT	LBS			225	225	10
MANUFACTURER				BELL & GOSSETT	BELL & GOSSETT	TACO
MODEL NO.				2X2X9.5 e-80SC	2X2X9.5 e-80SC	0015e3
APPLICABLE REMARKS:				A THRU F	A THRU F	G

REMARKS:

A: INVERTER DUTY MOTOR, VFD PROVIDED BY DIVISION 26.
B: TEFC MOTOR ENCLOSURE.
C: STAINLESS STEEL FITTED.
D: SEAL METAL PARTS AND SPRING STAINLESS STEEL.
E: FLANGE SUPPORTS.
F: FURNISH WITH EPR/SIC/SIC SEALS RATED FOR 20% GLYCOL SERVICE.
G: PUMP PROVIDED BY BOILER MANUFACTURER. SEE BOILER SCHEDULE. PUMP SHALL BE ECM MOTOR.

BOILER SCHEDULE

DESIGNATION		20-BLR-01
GENERAL	INPUT MBH	155
	OUTPUT MBH	143
	WORKING PRESSURE PSI	80
	TYPE	CONDENSING
	MINIMUM EFFICIENCY (AFUE)	95%
GAST TRAIN	FUEL SOURCE	NAT GAS
	GAS INPUT CFH	155
	BURNER TURN DOWN	10:1
	SUPPLY PRESSURE	2.0 PSI
	GAS INLET DIAMETER	3/4"
	AIR INLET DIAMETER	3"
	EXHAUST DIAMETER	3"
FLOW RATE GPM		14
FLUID		20% PG
EWT DEG F		50
LWT DEG F		70
HEAD LOSS		1.7' H20
INLET/OUTLET SIZE		1 1/4"
MOCP AMPS		15
VOLTAGE		115
PHASE		1
WIDTH		18"
DEPTH		18"
HEIGHT		42"
WEIGHT		150 LBS
MANUFACTURER		WEIL-MCLAIN
MODEL		EVG 155
LOCATION		MECH ROOM

NOTES:
1. PROVIDE CONCENTRIC VENT/COMBUSTION AIR KIT FOR WALL PENETRATION.
2. FURNISH BOILER WITH A PRIMARY CIRCULATOR PUMP INTERLOCKED WITH THE OPERATION OF THE BOILER.
4. FURNISH WITH WALL MOUNTING KIT, AND 80 PSI RELIEF VALVE.
5. FURNISH WITH BACNET COMMUNICATION CARD.
6. FACTORY FURNIS WITH A CIRCULATION PUMP. PUMP SCHEDULED AS PUMP 20-P-03.

DUCTWORK

23 31 13

SYSTEM	SERVICE	SECTION	SMACNA DUCT CONSTRUCTION CRITERIA			APPLICABLE REMARKS
			PRESSURE CLASS (IN W.G.)	MATERIALS OF CONSTRUCTION	SEAL CLASS	
20-WSHP-01	SUPPLY AIR	AIR HANDLER TO DIFFUSER	2	ALUMINUM	A	A,C
	OUTDOOR AIR	ALL	-2	ALUMINUM	A	A,C
	RETURN AIR	ALL	-2	ALUMINUM	A	A,C
20-WSHP-02 & 03	SUPPLY AIR	AIR HANDLER TO DIFFUSER	2	ALUMINUM	A	A,C
	OUTDOOR AIR	ALL	-2	ALUMINUM	A	A,C
	RETURN AIR	ALL	-2	ALUMINUM	A	A,C
20-AC-01	SUPPLY AIR	UNIT TO DIFFUSER	2	ALUMINUM	A	A,C
20-APU-01	OUTDOOR AIR	ALL	-2	ALUMINUM	A	A,C
20-APU-02 & 03	SUPPLY AIR	ALL	2	ALUMINUM	A	A,C
	OUTDOOR AIR	ALL	-2	ALUMINUM	A	A,C
20-MAU-01	SUPPLY AIR	ALL	2	STAINLESS STEEL TYPE 316	A	A
	OUTDOOR AIR	ALL	-2	STAINLESS STEEL TYPE 316	A	A
20-MAU-02	SUPPLY AIR	ALL	2	STAINLESS STEEL TYPE 316	A	A
	OUTDOOR AIR	ALL	-2	STAINLESS STEEL TYPE 316	A	A
20-EF-01,03,08,10	EXHAUST AIR	ALL	-2	STAINLESS STEEL TYPE 316	A	A
20-EF-16	FROM GRILLE TO FAN	ALL	-2	ALUMINUM	A	A,C
	FROM FAN TO OUTSIDE	ALL	2	ALUMINUM	A	A,C
20-EF-17	FROM FAN TO OUTSIDE	ALL	2	ALUMINUM	A	A

REMARKS:
A: REFER SPECIFICATION SECTION 23 31 13 METAL DUCTS AND ACCESSORIES
B: REFER SPECIFICATION SECTION 23 31 16.16 FIBERGLASS REINFORCED PLASTIC DUCTWORK AND ACCESSORIES
C: INSULATED DUCTWORK

ALL WORK OF THIS SHEET CONCERNING CHLORINE AND SO2 BUILDING IS INCLUDED IN ADDITIVE ALTERNATE #1 UNLESS OTHERWISE NOTED.

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL
DEWATERING AND CONTROL BUILDING
SCHEDULES

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
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FANS

				20-EF-01 & 02	20-EF-03	20-EF-04 &05	20-EF-06	20-EF-07	20-EF-08	20-EF-09	20-SF-01	20-SF-02
SYMBOL				20-EF-01 & 02	20-EF-03	20-EF-04 &05	20-EF-06	20-EF-07	20-EF-08	20-EF-09	20-SF-01	20-SF-02
LOCATION				BFP ROOM	BFP ROOM	TRUCK LOADING BAY	STAIRS 1	STAIRS 2	1ST FLOOR RESTROOMS & LOCKERS	2ND FLOOR RESTROOMS & LOCKERS	TOOL STORAGE	POLYMER PUMP ROOM
TYPE				ROOF CENTRIFUGAL UPBLAST	ROOF CENTRIFUGAL UPBLAST	ROOF CENTRIFUGAL UPBLAST	ROOF CENTRIFUGAL UPBLAST	ROOF CENTRIFUGAL UPBLAST	INLINE SQUARE CENTRIFUGAL	INLINE SQUARE CENTRIFUGAL	WALL PROPELLER HEAVY DUTY	WALL PROPELLER HEAVY DUTY
FAN DATA	AIRFLOW	MAX	CFM	6,250	12,500	5,000	1,150	1,150	150	300	500	500
		@ SP	IN W.G.	0.5	0.75	0.5	0.25	0.25	0.75	0.75	0.25	0.25
		MIN	CFM	0	0	0	0	0	0	0	0	0
	SPEED	RPM		485	380	549	761	761	1546	1701	1048	1048
	DRIVE TYPE			BELT	BELT	BELT	BELT	BELT	DIRECT	DIRECT	DIRECT	DIRECT
	WHEEL	TYPE		BI	BI	BI	BI	BI	BI	BI	PROP	PROP
		MIN. DIA.	INCH	30	44.5	27	15	15	10	10	16	16
	MAXIMUM	BHP		0.95	2.83	0.8	0.11	0.11	0.05	0.1	0.07	0.07
SOUND DATA	SOUND POWER LEVEL dB (RE 10^{-12} W) @ MID OCTAVE BAND FREQUENCY (Hz)		63	76	83	75	72	72	59	61	77	77
			125	77	82	79	68	68	66	69	75	75
			250	73	77	69	60	60	66	65	71	71
			500	65	70	62	56	56	60	61	66	66
			1K	62	66	61	56	56	58	61	60	60
			2K	57	60	57	50	50	53	56	55	55
			4K	49	54	54	46	46	47	52	50	50
			8K	45	49	50	41	41	28	43	46	46
ELECTRICAL DATA	MOTOR		HP	1	3	1	1/3	1/3	1/8	1/8	1/6	1/6
			RPM	1725	1725	1725	1725	1725	1725	1725	1140	1140
			ENCL.	TEFC	TEFC	TEFC	TEFC	TEFC	OPEN-EC	OPEN-EC	TEFC	TEFC
	VOLT			460	460	460	460	460	120	120	120	120
	PH			3	3	3	3	3	1	1	3	3
MAXIMUM DIMENSIONS	LENGTH		INCHES	54 1/4	76 1/4	49 1/4	34 11/16	34 11/16	22	22	63	63
	WIDTH		INCHES	54 1/4	76 1/4	49 1/4	34 11/16	34 11/16	14	14	26	26
	HEIGHT		INCHES	50	57 3/16	41 1/6	30 1/4	30 1/4	14	14	26	26
	WEIGHT		LBS	230	385	215	105	105	105	105	400	400
MANUFACTURER				COOK	COOK	COOK	COOK	COOK	COOK	COOKI	COOK	COOK
MODEL NO.				300 ACRUB	445 ACRUB	270 ACRUB	150 ACRUB	150 ACRUB	100SQN17DL	100SQN17DM	AWD-SUPPLY 16A11DS	AWD-SUPPLY 16A11DS
APPLICABLE REMARKS:				A,B,F,G, O, S, T	A,B,F,G, O, S, T	A,B,F,G, O, S, T	A,B,F,G, O, S, T	A,B,F,G, O, S, T	A,B,F,G, M, O, R	A,B,F,G, M, O, R	B,F,G, O, T, U, V, W, X,Y	B,F,G, O, T, U, V, W, X,Y

ABBREVIATIOI FC: FORWARD CURVED BI: BACKWARD INCLINED AF: AIR FOIL PROP: PROPELLER

REMARKS:

A: MAGNETIC MOTOR STARTER, INSTALLED IN DIVISION 26 MOTOR CONTROL CENTER (MCC)
B: DISCONNECT: PROVIDED BY FAN MANUFACTURER
C. FURNISH WITH FACTORY ALUMINUM ROOF CURB. VERIFY HEIGHT WITH INSULATION THICKNESS.
D: EXTENDED 304 SST WALL BOX
E: 304 SST MOTOR SIDE GUARD
F: 316 SS HARDWARE
G: SPARK RESISTANT CONSTRUCTION, AMCA TYPE A OR B
H: FLANGED MOUNTED
I: FRP STACK CAP
J: FRP CURB BASE
K: FRP MOTOR COVER
L: BIRDSCREEN PVC COATED
M: VIBRATION HANGERS
N: STAINLESS STEEL FAN SHAFT
O: ALUMINUM CONSTRUCTION
P: LOW PROFILE WHITE GRILLE
Q: INTEGRAL BACKDRAFT DAMPER
R: SPEED CONTROLLER
S: 14 IN TALL ALUMINUM ROOF CURB W/ DAMPER TRAY & LINER
T: ALUMINUM BIRDSCREEN.
U: ALUMINUM CLASS 1A LOW LEAK MOTORIZED DAMPER FURNISHED WITH UNIT.
V: ALUMINUM WIRE GUARD
W: ALUMINUM WEATHER HOOD 45 DEG.
X: ALUMINUM FILTER HOUSING W/ 2 IN MERV 8 FILTERS.
Y. FURNIS WITH LINE VOLTAGE THERMOSTAT TO CONTROL FAN AND DAMPERS AS INDICATED IN DRAWINGS. THERMOSTAT EQUIVALENT TO A CHROMOLOX WCRT.

AIR SEPARATOR

SYMBOL			20-AS-01
SERVICE			CONDENSER WATER
CAPACITY		GPM	84
MAX PRESSURE DROP		FT	0.55
FLUID	TYPE		PG
	CONC.	%	20
DIMENSIONS	DIAMETER	INCHES	5
	HEIGHT	INCHES	23
	FLANGE TO FLANGE	INCHES	15 3/4
	MAXIMUM WEIGHT	LBS	125
MANUFACTURER			BELL & GOSSETT
MODEL			CRSN-2 1/2F
APPLICABLE REMARKS			A,B

REMARKS:
A: FURNISH WITH FLANGE INLET AND OUTLET CONNECTIONS
B: COALESCING REMOVAL SEPARATOR

GLYCOL MAKE UP UNIT SCHEDULE

DESIGNATION	20-GMU-01
TANK SIZE	19 GALLONS
TANK MATERIAL	PLASTIC
PUMP TYPE	DIAPHRAGM
FEEDER CONFIGURATION	BYPASS
FLUID	20% PG
MAX PRESSURE	25 PSIG
WEIGHT OPERATING (LBS)	15
ELECTRICAL VOLTS/PHASE/HZ	115 / 1 / 60
PUMPS	1 @ 0.7 GPM
SYSTEM	CONDENSER WATER
FOOTPRINT	12"X12"
HEIGHT	36"
MODEL	MF300
MANUFACTURER	AXIOM

NOTES:
1. PROVIDE WITH AN AUDIBLE LOW LEVEL ALARM.
2. UNIT SHALL BE SHIPPED FULLY ASSEMBLED.
3. PROVIDE WITH CORD AND PLUG

HYDRONIC EXPANSION TANKS

SYMBOL			20-ET-01
TYPE			DIAPHRAGM
SERVICE			CONDENSER WATER
MINIMUM TANK VOLUME		GAL	10
MINIMUM ACCEPTANCE VOLUME		GAL	2
AIR PRESSURE PRECHARGE		PSI	18
FLUID	TYPE		PG
	CONC.	%	20
DIMENSIONS	DIAMETER	INCHES	16
	HEIGHT	INCHES	21
	MAXIMUM WEIGHT	LBS	23
APPLICABLE REMARKS			A,B

REMARKS:
A: VERTICAL TANK
B: 0.5" NPT SYSTEM CONNECTION

ALL WORK OF THIS SHEET CONCERNING CHLORINE AND SO2 BUILDING IS INCLUDED IN ADDITIVE ALTERNATE #1 UNLESS OTHERWISE NOTED.

FILTER HOUSING SCHEDULE

DESIGNATION	20-FH-01
FLOW RATE PEAK (CFM)	1,200
AVERAGE FACE VELOCITY (FEET/MINUTE)	300
PRESSURE RATING	4" WC NEGATIVE
FILTER TYPE	DRAW-THRU
PRE-FILTER	2" MERV PLEATED FILTER
PRE FILTER RATING	30% @ 2 MICRON
NUMBER OF FILTERS	1
FILTER SIZE	24"x24"x2"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	0.15"/0.5"
MODEL	PRE-PLEAT LPD
MANUFACTURE	AAF - FLANDERS
CARBON-FILTER	12" ACTIVATED CARBON
QUANTITY OF CARBON	10.3 LBS MINIMUM
NUMBER OF FILTERS	1
FILTER SIZE	24"x24"x11.5"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	0.13/0.25
MODEL	VARISORB XL
MANUFACTURE	AAF - FLANDERS
FINAL-FILTER	22" MERV 13 BAG FILTER
FINAL FILTER RATING	60% @ 0.5 MICRON
NUMBER OF FILTERS	1
FILTER SIZE	24"x24"x22"
INITIAL/FINAL PRESSURE DROP (INCHES WC)	0.15"/0.5"
MODEL	DRYPAK NX
MANUFACTURE	AAF - FLANDERS
HOUSING HEIGHT	45"
HOUSING WIDTH	28"
HOUSING LENGTH	28"
WEIGHT	200 LBS
MANUFACTURER	AAF - FLANDERS

NOTES:
1. PROVIDE WITH DIFFERENTIAL PRESSURE INDICATION ACROSS EACH FILTER BANK.
2. HOUSING SHALL BE FULLY INSULATED AND STAINLESS STEEL 304 CONSTRUCTION.
3. AS A CLARIFICATION THE BAG FILTER WILL HANG OUT OF THE FILTER HOUSING AND INTO THE DUCTWORK BELOW.

MAKE-UP AIR UNITS

SYMBOL				20-MAU-01
TYPE				INDUSTRIAL
LOCATION				INDOOR
FAN MODULE	AIRFLOW	SUPPLY	CFM	25,000
		OSA	CFM	25,000
	STATIC PRESSURE	TOTAL	IN. WG.	3.76
		EXT.	IN. WG.	1
	MAX. POWER		BHP	5.31 EA
	FAN SPEED		RPM	1800
	WHEEL TYPE			BI
	DRIVE			DIRECT
	FAN MOTOR DATA	QTY		4
		H.P.		7.5 EA
		SPEED	RPM	1800
		VOLT		460
		PH		3
		MOTOR ENCL.		TEFC
GAS FIRED HEATER MODULE	FUEL SOURCE			NG
	GAS INPUT		MBH	1266
	HEAT OUTPUT		MBH	1013
	AIRFLOW		CFM	25,350
	EAT		DEG. F	28
	MAX LAT		DEG. F	75
	GAS SUPPLY PRESS		PSI	2
	BURNER	CONTROL TYPE		MODULATING
		IGNITION TYPE		ELECTRONIC
ELECTRICAL DATA	CONN			1
	MCA		A	48
	MOCP		A	50
			VOLT	460
			PH	3
DIMENSIONS	MAXIMUM PHYSICAL SIZE INCHES		L	180
			W	102
			H	92
	MAXIMUM WEIGHT		LBS	4500
MANUFACTURER				ANNEXAIR
MODEL NO.				MAU-I-25-HG
APPLICABLE REMARKS				A THRU L, N

ABBREVIATIONS:
NG: NATURAL GAS
PG: PROPANE GAS
NG / PG DUAL FUEL, NATURAL AND PROPANE GAS

REMARKS:
A: MOTOR CONTROL PER UNIT MANUFACTURER
B: DISCONNECT SWITCH PER UNIT MANUFACTURER
C: THERMO-COMPOSITE CONSTRUCTION
D: ONE VFD PER FAN BANK
E: MERV 8 PREFILTER
F: MERV 8 FINAL FILTER
G: MODULATING GAS VALVE
H: DISCHARGE AND OUTDOOR TEMP SENSOR

NO.	DATE	REVISION	BY	APVD

DSGN T PRICE DR Y FITZGERALD CHK A VALIENTE APVD A VALIENTE

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL
DEWATERING AND CONTROL BUILDING
SCHEDULES

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-6002
SHEET	151 of 270

CONFORMED DOCUMENTS

PACKAGED COOLING TOWERS (FLUID COOLERS)

23 65 00

SYMBOL	TYPE	SERVING	NOMINAL CAPACITY MBH	PERFORMANCE DATA: FLUID FLOW GPM	FLUID	EGT DEG. F	LGT DEG. F	EAT EAT DEG. F (WB)	MAXIMUM DRIFT LOSS PERCENT	MAXIMUM NOISE LEVEL dB(a) @ 5 FEET	MAXIMUM PRESS DRP PSI	FAN AND MOTOR DATA: AIRFLOW CFM	NO. FANS	# SPEEDS	MOTOR (EACH): HP	ENCLOSURE	VOLT	PH	SPRAY PUMP: GPM	HP	BASIN HEATER DATA: CAPACITY kW	MAXIMUM DIMENSIONS: PHYSICAL SIZE INCHES: L	W	H	WEIGHT LBS.	MANUF AND MODEL	APPLICABLE REMARKS
20-CT-01	INDUCED DRAFT, CROSS FLOW, CLOSED CIRCUIT	CONDENSER WATER	404.35	85	20% PG	95	85	79.8	0.001	87	3.7	25,170	2	VFD	3	TEFC	460	3	270	1.5	7	143 3/4	53 3/4	109 3/8	7850	EVAPCO/ ATWB 4-3F12-Z	A THRU P
20-CT-02	INDUCED DRAFT, CROSS FLOW, CLOSED CIRCUIT	CONDENSER WATER	404.35	85	20% PG	95	85	79.8	0.001	87	3.7	25,170	2	VFD	3	TEFC	460	3	270	1.5	7	143 3/4	53 3/4	109 3/8	7850	EVAPCO/ ATWB 4-3F12-Z	A THRU P

REMARKS:

A: TOWER FAN TO BE CONTROLLED BY AN ADJUSTABLE FREQUENCY DRIVE.
B: LOCAL DISCONNECT: FACTORY INSTALLED, NEMA TYPE 4X
C: FURNISH WITH INSULATED DISCHARGE DAMPER FOR COLD WEATHER.
D: 304 STAINLESS STEEL UPPER
E: 304 STAINLESS STEEL COLD WATER BASIN
F: VIBRATION SWITCH
G: INVERTER DUTY RATED, PREMIUM EFFICIENT MOTORS. INVERTER READY MOTOR SHALL NOT BE PERMITTED.
H: CROSSCOOL COIL
I: ALUMINUM LADDER
J: FAN MOTOR SPACE HEATERS
K: STAINLESS STEEL FAN SHAFT
L: PROVIDE BASIN HEATER WITH TEMPERATURE CONTROLLER.
M: MAKE-UP WATER FLOAT VALVE ASSEMBLY
N: COLD WATER PUMP PER MANUFACTURER. SET AT REQUIRED CAPACITY RECOMMENDED PER MANUFACTURER TO ACHIEVE OPTIMUM CAPACITY.
O: FACTORY INSTALLED SMART SHIELD WATER TREATMENT (MODEL: FMF-6) AND PANEL WITH FACTORY STARTUP AND 1 YEAR FACTORY WATER TREATMENT SERVICE PROGRAM
P: SINGLE POINT ELECTRICAL CONNECTION IN A NEMA 4X PANEL. PANEL SHALL INCLUDE A VFD FOR THE TOWER FAN, CONTACTORS FOR THE CIRCULATION PUMP, CONTROLS AND CONTACTORS FOR THE BASIN HEATERS, WIRED VIBRATION SWITCH AND ALL NECESSARY CONTROL ACCESSORS TO MAKE THE TOWER A COMPLETE PACKAGE.

NOTE: EACH COOLING TOWER IS SIZED AT APPROXIMATELY 75% OF THE FULL LOAD.

Please contact George @ Nelson & Company for details at (904) 807-9899

AIR OUTLETS AND INLETS

23 37 00

TAG	TYPE	DIMENSIONAL DATA: FACE W INCH	FACE L INCH	FACE DIA INCH	NECK W INCH	NECK L INCH	NECK DIA INCH	AIR DISTRIBUTION PATTERN	CONSTRUCTION: MATERIAL	FINISH	PERFORMANCE: MAX NOISE NC	AIRFLOW: MIN CFM	AIRFLOW: MAX CFM	MAX THROW @ 50 FPM FT	MAX TOTAL PRESSURE IN WG	ACCESSORIES: DAMPER	PLENUM	MANUFACTURER: MAKE	MODEL NO.	APPLICABLE REMARKS
CD1-1	PERFORATED FACE DIFFUSER	24	24	—	—	—	10	4-WAY	ALUM	WHITE	20		275	9	0.09	NO	NO	TITUS	PAS-AA	A,B,E
CD1-2	PERFORATED FACE DIFFUSER	24	24	—	—	—	12	4-WAY	ALUM	WHITE	30		475	11	0.08	NO	NO	TITUS	PAS-AA	A,B,E
CD1-3	PERFORATED FACE DIFFUSER	24	24	—	—	—	10	4-WAY	ALUM	WHITE	26	165	310	15	0.08	NO	NO	TITUS	PAS-AA	A,B,E
CD1-4	PERFORATED FACE DIFFUSER	24	24	—	—	—	8	2-WAY	ALUM	WHITE	15	0	100	10	0.08	NO	YES	TITUS	PAS-AA	A,B,E
CD1-5	NOT USED																			
CD1-6	PERFORATED FACE DIFFUSER	24	24	—	—	—	10	2-WAY	ALUM	WHITE	26	0	300	21	0.1	NO	YES	TITUS	PAS-AA	A,B,E
CD1-7	PERFORATED FACE DIFFUSER	24	24	—	—	—	10	2-WAY	ALUM	WHITE	21	0	250	13	0.08	NO	NO	TITUS	PAS-AA	A,B,E
CD1-8	PERFORATED FACE DIFFUSER	24	24	—	—	—	8	4-WAY	ALUM	WHITE	19	0	190	11	0.1	NO	YES	TITUS	PAS-AA	A,B,E
CD1-9	NOT USED																			
CD1-10	PERFORATED FACE DIFFUSER	24	24	—	—	—	6	2-WAY	ALUM	WHITE	10	0	50	5	0.02	NO	YES	TITUS	PAS-AA	A,B,E
SG1-1	SUPPLY GRILLE	10	8	—	8	6	—	2-WAY	ALUM	ALUM	28	0	200	28	0.1	YES	NO	TITUS	300RL-AL	A,C,D
SG1-2	SUPPLY GRILLE	34	22	—	32	20	—	2-WAY	ALUM	ALUM	45	0	3,300	49	0.2	NO	NO	TITUS	300RL-AL	A,C,D
SG1-3	SUPPLY GRILLE	12	12	—	10	10	—	2-WAY	ALUM	ALUM	45	170	333	27	0.08	NO	NO	TITUS	300RL-AL	A,C,D
SG1-4	SUPPLY GRILLE	32	32	—	30	30	—	2-WAY	ALUM	ALUM	35	2084	4,167	49	0.1	YES	NO	TITUS	300RL-AL	A.C.D
EG1	EXHAUST GRILLE	8	8	—	6	6	—	EXHAUST	ALUM	WHITE	19	0	50	—	0.075	NO	NO	TITUS	350FL-AA	A,D
EG2	EXHAUST GRILLE	8	6	—	6	4	—	EXHAUST	ALUM	WHITE	24	0	100	—	0.1	YES	NO	TITUS	350FL-AA	A,C,D
RG1-1	RETURN GRILLE	38	18	—	36	16	—	RETURN	ALUM	ALUM	40	0	3,300	—	0.2	YES	NO	TITUS	350FL-AA	A,C,D
RG1-2	RETURN GRILLE	24	12	—	22	10	—	RETURN	ALUM	ALUM	20	0	VAR	—	0.08	YES	NO	TITUS	350FL-AA	A,C,D

REMARKS:

A: REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
B: SQUARE TO ROUND TRANSITION BY OTHERS
C: 45 DEGREES THROW PATTERN
D: 3/4" BLADE SPACING
E: CONTRACTOR SHALL PROVIDE BALANCING DAMPER IN DUCT BRANCH
F: 2" BLADE SPACING
G: 22.5 DEGREES THROW PATTERN
H. 0 DEGREE PATTERN

ABBREVIATIONS:

ALUM: ALUMINUM
ANOD: ANODIZED
IN WG: INCHES WATER GAUGE
SST: STAINLESS STEEL
DWG: REFER DRAWINGS
N/A: NOT APPLICABLE

PACKAGED INDOOR WATER SOURCE HEAT PUMP UNITS

23 81 00

SYMBOL	LOCATION	FAN DATA: SUPPLY AIR CFM	OUTSIDE AIR CFM	COMPRESSOR DATA: NO.	STEPS	LOCKED ROTOR AMPS	DX COOLING DATA: TOTAL MBH	SENS. MBH	EAT DEG. F DB	EAT DEG. F WB	LAT DEG. F DB	LAT DEG. F WB	EWT DEG. F	DX HEATING DATA: TOTAL REQUIRED MBH	EAT DEG. F	EWT DEG. F	SOURCE FLUID DATA: HEAT ABSRPTN MBH	HEAT RJCTN MBH	FLUID TYPE	FLOW GPM	MAX. PD FT. H2O	FAN: RPM	ESP	UNIT ELECTRICAL DATA: #CONN.	VOLT	PH	MCA	MOCP	DIMENSIONS INCHES: L	W	H	MAX WEIGHT LBS	MANUFACTURER	MODEL	APPLICABLE NOTES
20-WSHP-01	AIR PRESSURIZATION UNIT	1,120	1,145	1	NOTE 1		84.0	46.5	94.0	77.0	70.0	59.0	85.0	107	30.0	60	90.6	111.0	20% PG	12	10		1.0"	1	460	3	16.0	25.0	42"	66"	78"	725.0	AAON	SB-006	A THRU D AND F THRU L
20-WSHP-02 & 03	ELECTRICAL ROOM	3,300	150 CFM EA	1	NOTE 1		122.0	94.0	76.0	63.0	50.0	49.0	85.0	10	70.0	60	124.2 EA	153.9 EA	20% PG	27 EA	10	1760	0.75"	1	460	3	26.0	40.0	42"	66"	78"	1100.0	AAON	SB-010	A THRU L
20-WSHP-04	TRAINING ROOM	1,990	270	2	1	38	49.0	40.0	77.0	64.0	54.0	50.0	85.0	25	70.0	60	68.0	83.0	20% PG	15	10	835	0.75"	1	460	3	14.7	20.0	85"	36"	21"	586.0	CLIMATEMASTER	TC-072	A THRU K
20-WSHP-05	MECHANICAL/COMMON	800	50	1	1	44	26.9	16.4	77.0	65.0	56.0	52.0	85.0	30	70.0	60	24.5	34.5	20% PG	6.25	10	MED	0.7"	1	460	3	6.9	15.0	48"	22"	17"	195.0	CLIMATEMASTER	TR-030	A THRU K
20-WSHP-06	ELECTRICAL/STORAGE/ CORRIDOR	1,300	150	1	1	44	36.6	36.6	79.0	60.0	55.0	45.0	85.0	5	70.0	60	32.0	47.5	20% PG	8.8	10	HIGH	0.4"	1	460	3	9.1	15.0	53"	22"	21"	230.0	CLIMATEMASTER	TR-042	A THRU D AND F THRU K
20-WSHP-07	OFFICE	310	75	1	1	32	10.6	6.7	77.0	62.0	57.0	51.0	85.0	2	70.0	60	10.5	13.7	20% PG	2.5	10	MED	0.5"	1	208	1	7.8	15.0	40"	22.5"	12"	121.0	CLIMATEMASTER	TR-012	A THRU K
20-WSHP-08	SERVER ROOM	500	75	1	1	33	16.8	12.5	79.0	62.0	56.0	50.0	85.0	2	70.0	60	15.4	21.4	20% PG	3.8	10	MED	0.5"	1	208	1	10.2	15.0	48"	22.5"	18"	170.0	CLIMATEMASTER	TR-018	A THRU K
20-WSHP-09	CONTROL ROOM	950	75	1	1	38	30.5	21.2	77.0	62.0	56.0	49.0	85.0	4	70.0	60	30.5	39.9	20% PG	7.5	10	LOW	0.5"	1	460	3	8.5	15.0	53"	22.5"	21"	215.0	CLIMATEMASTER	TR-036	A THRU K
20-WSHP-10	BREAK ROOM	550	75	1	1	33	16.6	12.0	77.0	62.0	55.0	48.0	85.0	3	70.0	60	15.1	21.2	20% PG	3.8	10	MED	0.6"	1	208	1	11.9	15.0	48"	22.5"	18"	168.0	CLIMATEMASTER	TR-018	A THRU K
20-WSHP-11	RESTROOMS/LOCKER/S HOWER/CORR	300	75	1	1	32	9.0	9.0	77.0	61.0	52.0	45.0	85.0	3	70.0	60	10.3	10.3	20% PG	2.5	10	MED	0.6"	1	208	1	5.6	15.0	40"	22.5"	12"	121.0	CLIMATEMASTER	TR-012	A THRU K

NOTES:

A: FURNISH WITH FACTORY THERMOSTAT AND HUMIDITY SENSOR.
B: MOTOR STARTER PROVIDED BY UNIT MANUFACTURER
C: DISCONNECT PER DIVISION 26 ELECTRICAL
D. FURNISH WITH A BACNET COMMUNICATION CARD
E: TWO WAY SOLENOID WATER VALVE BY UNIT MANUFACTURER
F: SCROLL COMPRESSOR
G: NOT USED
H: FURNISH WITH 18" UL HOSE KIT, ISOLATION BALL VALVES, INTEGRAL AUTOMATIC FLOW CONTROL VALVE WITH 4-50 PSID.
I: PRESSURE/TEMPERATURE PORTS
J: PROVIDE FACTORY DIP APPLIED BRONZ-GLOW'S HUSKY COIL CORROSION PROTECTING COAT FOR COIL AND ALL ASSOCIATED PIPING.
K. REFER TO DRAWING 20-M-7002 AND SPECIFICATIONS FOR MINIMUM POINTS TO CONTROL.
L. FURNISH WITH A FACTORY NON-FUSED DISCONNECT.

NOTES:
1. COMPRESSOR IS A DIGITAL SCROLL.
2. HEAT PUMPS WILL NOT HAVE A NEUTRAL LEG AVAILABLE FOR POWER.

Please contact George @ Nelson & Company for details at (904) 807-9899

ALL WORK OF THIS SHEET CONCERNING CHLORINE AND SO2 BUILDING IS INCLUDED IN ADDITIVE ALTERNATE #1 UNLESS OTHERWISE NOTED.

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		T PRICE	Y FITZGERALD	A VALIENTE	A VALIENTE	A VALIENTE	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL
DEWATERING AND CONTROL BUILDING
SCHEDULES

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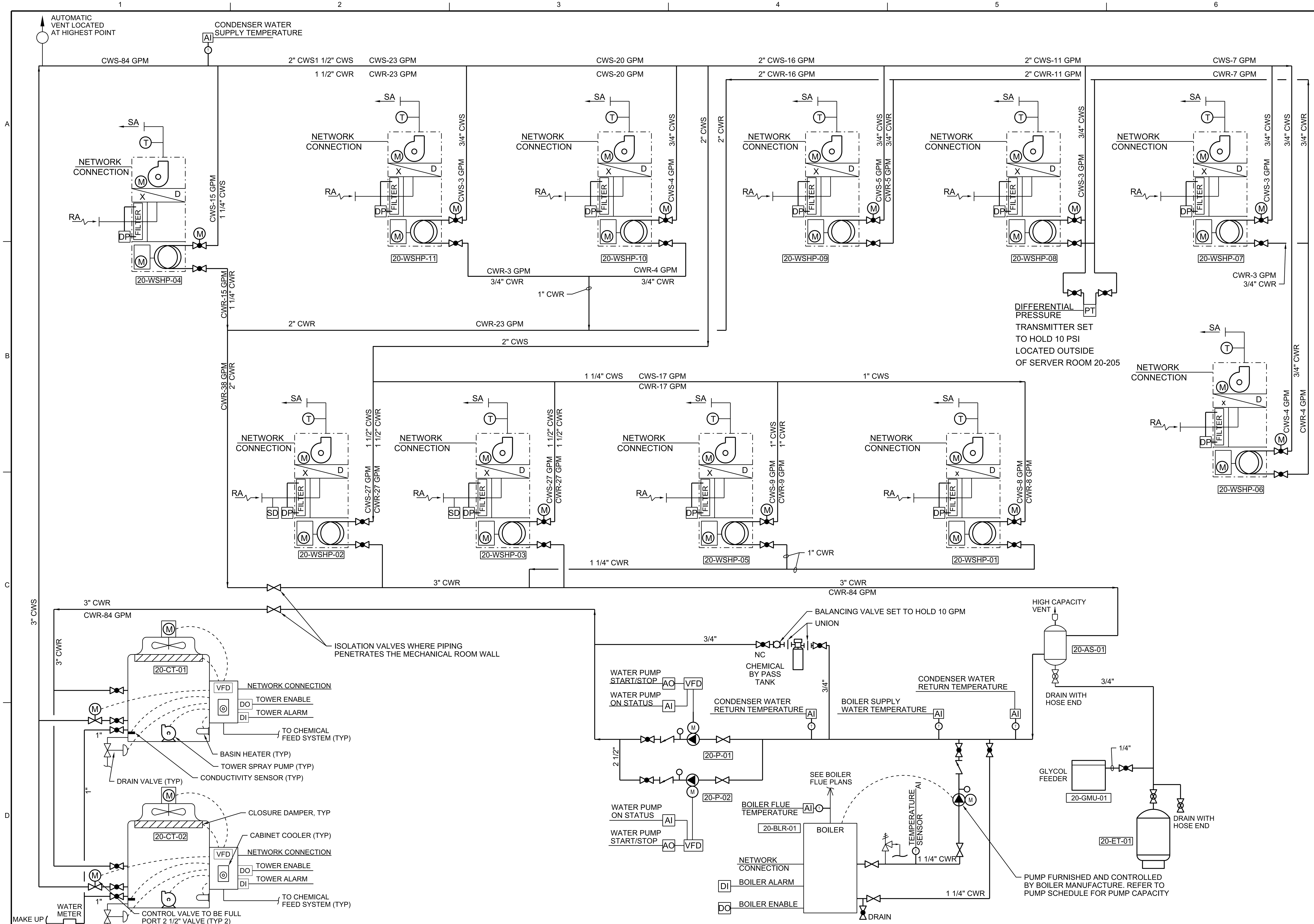
CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-6003
SHEET	152 of 270



1
2
3
4
5
6
A
B
C
D
AUTOMATIC VENT LOCATED AT HIGHEST POINT
CONDENSER WATER SUPPLY TEMPERATURE
CWS-84 GPM
2" CWS1 1/2" CWS
1 1/2" CWR
CWS-23 GPM
CWR-23 GPM
CWS-20 GPM
2" CWS-16 GPM
2" CWR-16 GPM
2" CWS-11 GPM
2" CWR-11 GPM
CWS-7 GPM
CWR-7 GPM
SA
RA
NETWORK CONNECTION
FILTER
DP
SD
PT
20-WSHP-04
20-WSHP-11
20-WSHP-10
20-WSHP-09
20-WSHP-08
20-WSHP-07
20-WSHP-06
20-WSHP-02
20-WSHP-03
20-WSHP-05
20-WSHP-01
CWS-15 GPM 1 1/4" CWS
CWR-15 GPM 1 1/4" CWR
CWS-3 GPM
3/4" CWS
CWS-4 GPM
CWS-5 GPM
CWR-5 GPM
3/4" CWR
2" CWS
2" CWR
CWR-3 GPM
3/4" CWR
CWR-4 GPM
1" CWR
CWR-23 GPM
DIFFERENTIAL PRESSURE TRANSMITTER SET TO HOLD 10 PSI LOCATED OUTSIDE OF SERVER ROOM 20-205
CWR-38 GPM 2" CWR
1 1/4" CWS
CWS-17 GPM
CWR-17 GPM
1" CWS
1 1/2" CWS
1 1/2" CWR
CWS-27 GPM
CWR-27 GPM
1" CWS
CWS-9 GPM
CWR-9 GPM
CWS-8 GPM
CWR-8 GPM
1 1/4" CWR
3" CWR
CWR-84 GPM
3" CWS
HIGH CAPACITY VENT
BALANCING VALVE SET TO HOLD 10 GPM
UNION
ISOLATION VALVES WHERE PIPING PENETRATES THE MECHANICAL ROOM WALL
3/4"
NC
CHEMICAL BY PASS TANK
20-AS-01
DRAIN WITH HOSE END
20-CT-01
20-CT-02
VFD
NETWORK CONNECTION
DO
TOWER ENABLE
DI
TOWER ALARM
TO CHEMICAL FEED SYSTEM (TYP)
BASIN HEATER (TYP)
TOWER SPRAY PUMP (TYP)
CONDUCTIVITY SENSOR (TYP)
DRAIN VALVE (TYP)
CLOSURE DAMPER, TYP
CABINET COOLER (TYP)
CONTROL VALVE TO BE FULL PORT 2 1/2" VALVE (TYP 2)
WATER METER
MAKE UP WATER
1"
WATER PUMP START/STOP
WATER PUMP ON STATUS
AO
AI
CONDENSER WATER RETURN TEMPERATURE
BOILER SUPPLY WATER TEMPERATURE
20-P-01
20-P-02
2 1/2"
SEE BOILER FLUE PLANS
BOILER FLUE TEMPERATURE
20-BLR-01
BOILER
TEMPERATURE SENSOR
NETWORK CONNECTION
BOILER ALARM
BOILER ENABLE
DRAIN
1 1/4" CWR
PUMP FURNISHED AND CONTROLLED BY BOILER MANUFACTURE. REFER TO PUMP SCHEDULE FOR PUMP CAPACITY
GLYCOL FEEDER
1/4"
20-GMU-01
20-ET-01

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL

DEWATERING AND CONTROL BUILDING GLYCOL HEATING LOOP PIPING SCHEMATIC

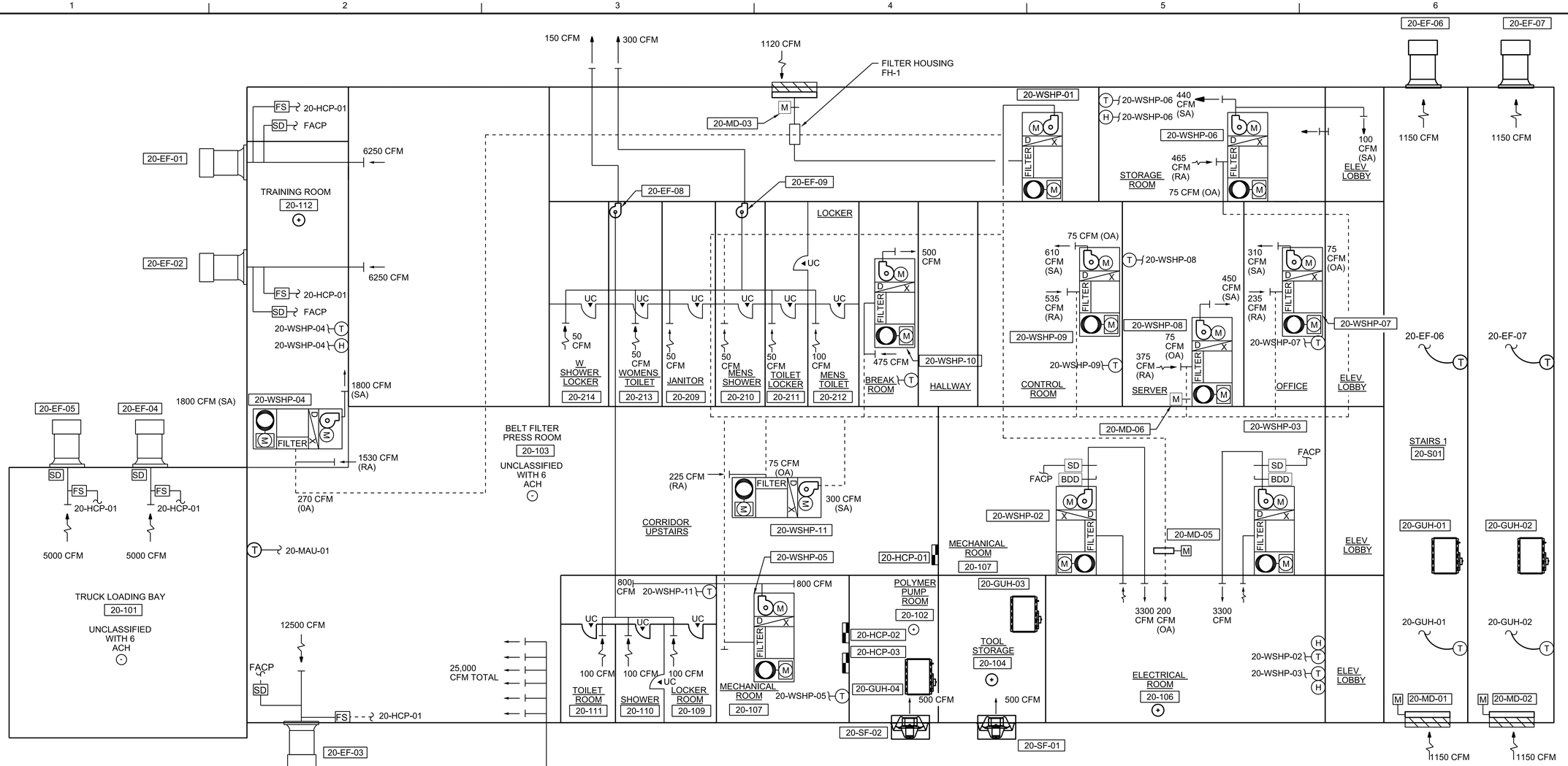
NO.	DATE	REVISION	BY	APVD

DSGN
DR T PRICE
CHK S HOSTETLER
APVD A VALIENTE
A VALIENTE

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

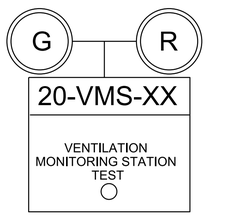
DATE	MAY 2021
PROJ	D3226100
DWG	20-M-7001
SHEET	153 of 270

CONFORMED DOCUMENTS

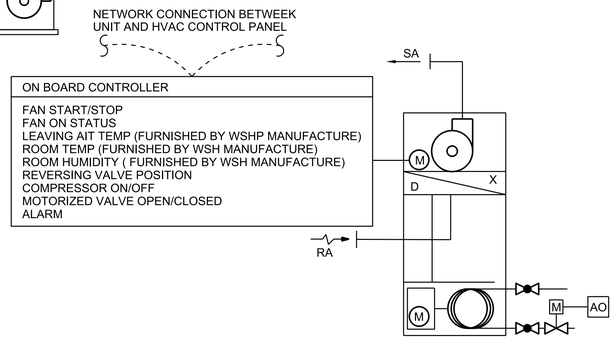


AIRFLOW AND CONTROL DIAGRAM

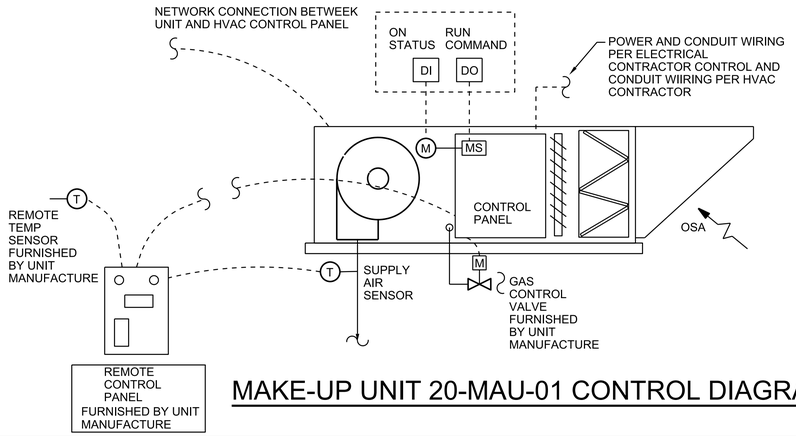
NTS



VENTILATION MONITORING STATION



WATER SOURCE HEAT PUMP 20-WSHP-01,THRU 11



MAKE-UP UNIT 20-MAU-01 CONTROL DIAGRAM

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

MECHANICAL

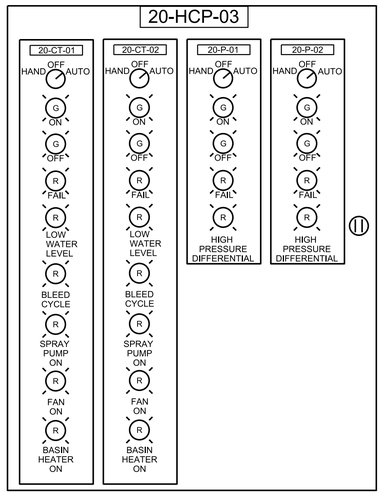
DEWATERING AND CONTROL BUILDING AIRFLOW AND CONTROL DIAGRAMS

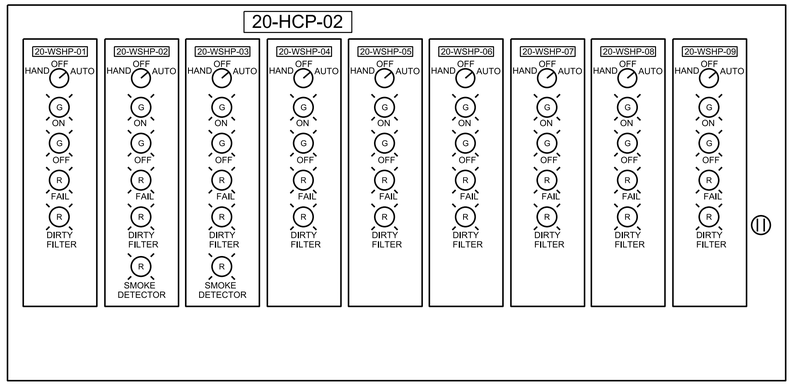
NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN		T PRICE	S HOSTETLER	A VALIENTE		A VALIENTE	

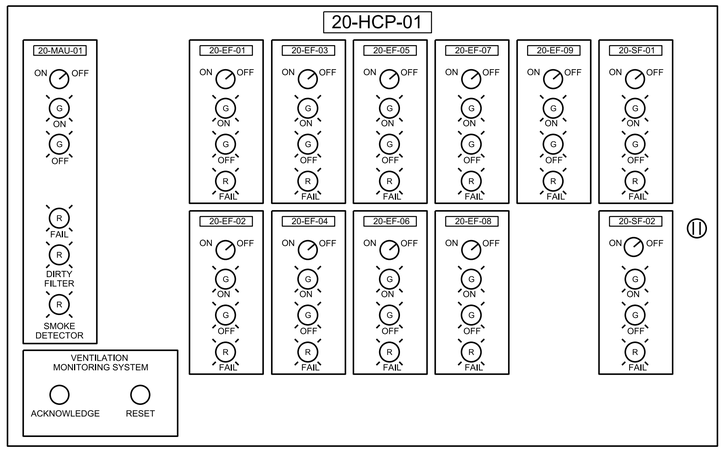
CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-7002
SHEET	154 of 270







CONTROL PANEL FACE DESIGN

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	T PRICE		S HOSTETLER	A VALIENTE	APVD	A VALIENTE

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

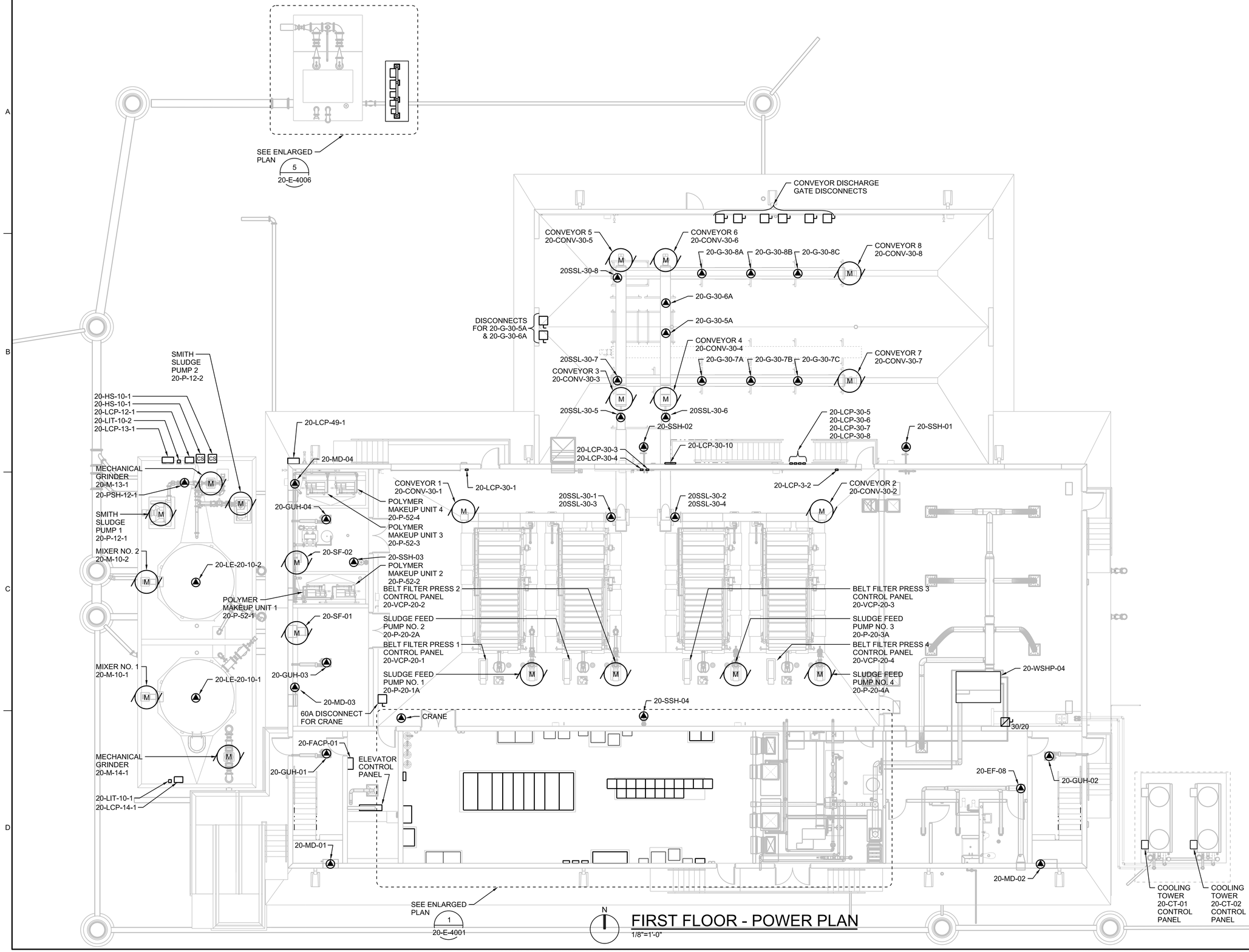
MECHANICAL

DEWATERING AND CONTROL BUILDING
CONTROL PANELS
FACE DESIGN

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-M-7003
SHEET	155 of 270



NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR AL PASTRANA	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ELECTRICAL

DEWATERING AND CONTROL BLDG
FIRST FLOOR
POWER PLAN

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

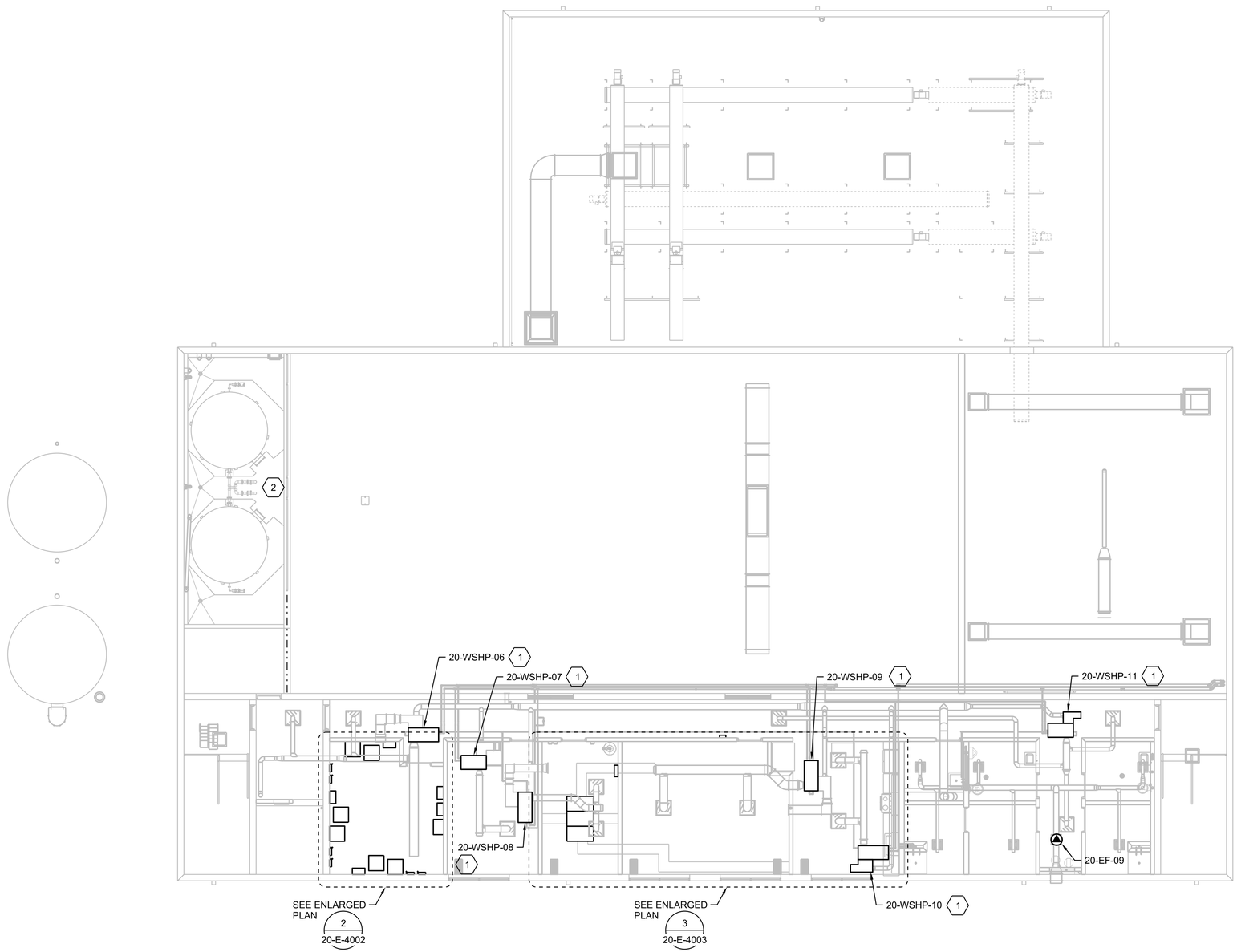
AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2001
SHEET	156 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL LOCATE DISCONNECT FOR EQUIPMENT ABOVE THE DROP CEILING BUT WITHIN SIGHT OF EQUIPMENT. REFER TO WIRING DIAGRAM FOR RATINGS REQUIRED.

2. FOR THE LOCATION OF THE POLYMER MIXING PUMPS (20-P-51-1 AND 20-P-51-2) AND THE LEVEL TRANSMITTERS 20LE/LIT-50-1, -2), REFER TO THE DRAWING 20-D-4001.



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SECOND FLOOR - POWER PLAN

1/8"=1'-0"

NO.	DATE	REVISION	DR	CHK	BY
DSGN	GT YARBERRY	AL PASTRANA	KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BLDG
SECOND FLOOR
POWER PLAN

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2002
SHEET	157 of 270

SHEET KEYNOTES

1. ALL RECEPTACLES SHOWN SHALL BE POWERED FROM PANELBOARD 20LP-2, CIRCUIT AS INDICATED. PROVIDE #12 CONDUCTORS WITH #12 GROUND WIRE IN 3/4"C FOR CIRCUITS LESS THAN 75 FEET LONG. PROVIDE #10 CONDUCTORS WITH #10 GROUND WIRE IN 3/4"C FOR CIRCUIT LENGTHS GREATER THAN 75 FEET. PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT.
2. RECEPTACLES SHOWN SHALL BE MOUNTED 4 FEET AFF TO POWER THE RECYCLE PUMP.
3. CONTRACTOR SHALL PROVIDE FLOOR-MOUNTED RECEPTACLES AS SHOWN. EACH RECEPTACLE SHALL ALSO INCLUDE A DATA JACK. CONTRACTOR SHALL PROVIDE [1"C, HDMI] FROM EACH DATA JACK TO THE WALL-MOUNTED TELEVISION SHOWN.
4. CONTRACTOR SHALL PROVIDE TWO (2) WALL-MOUNTED DATA JACKS, EACH WITH HDMI CONNECTIONS. CONTRACTOR SHALL PROVIDE [1"C, CAT-6] FROM THE WALL MOUNTED TV TO THE BUSINESS RACK IN THE SERVER ROOM.
5. RECEPTACLE SHOWN SHALL BE FED FROM PANEL 20LP1, CIRCUIT 34. RECEPTACLE SHALL BE USED TO POWER THE SUMP PUMP.
6. RECEPTACLE SHOWN SHALL BE FED FROM PANEL 20LP-1, CIRCUIT 35. RECEPTACLE SHALL BE USED FOR ELEVATOR MAINTENANCE.
7. CONTRACTOR SHALL PROVIDE TWO (2) 4-INCH SPARE CONDUITS FROM 20LVSG-1 BUS A TO APPROXIMATE LOCATION SHOWN. CONTRACTOR SHALL PROVIDE TWO (2) 4-INCH SPARE CONDUITS FROM 20LVSG-1 BUS C TO APPROXIMATE LOCATION SHOWN.
8. TOILET SHALL INCLUDE ONE RECEPTACLE BELOW THE SINK AND ONE RECEPTACLE ADJACENT TO THE SINK. THE RECEPTACLE BELOW THE SINK SHALL BE USED TO POWER THE TOUCH FAUCETS.

4/0 BAR COPPER GROUND WIRE (TYP)

GROUND ROD (TYP)

WALL-MOUNTED TELEVISION 4

FLOOR-MOUNTED RECEPTACLES 3

TO 1500 kVA XFMR 20TX1

TO 1500 kVA XFMR 20TX2

FIRST FLOOR - PLAN

1/8"=1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR AL PASTRANA	CHK KB HORTON	APVD GT YARBERRY

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

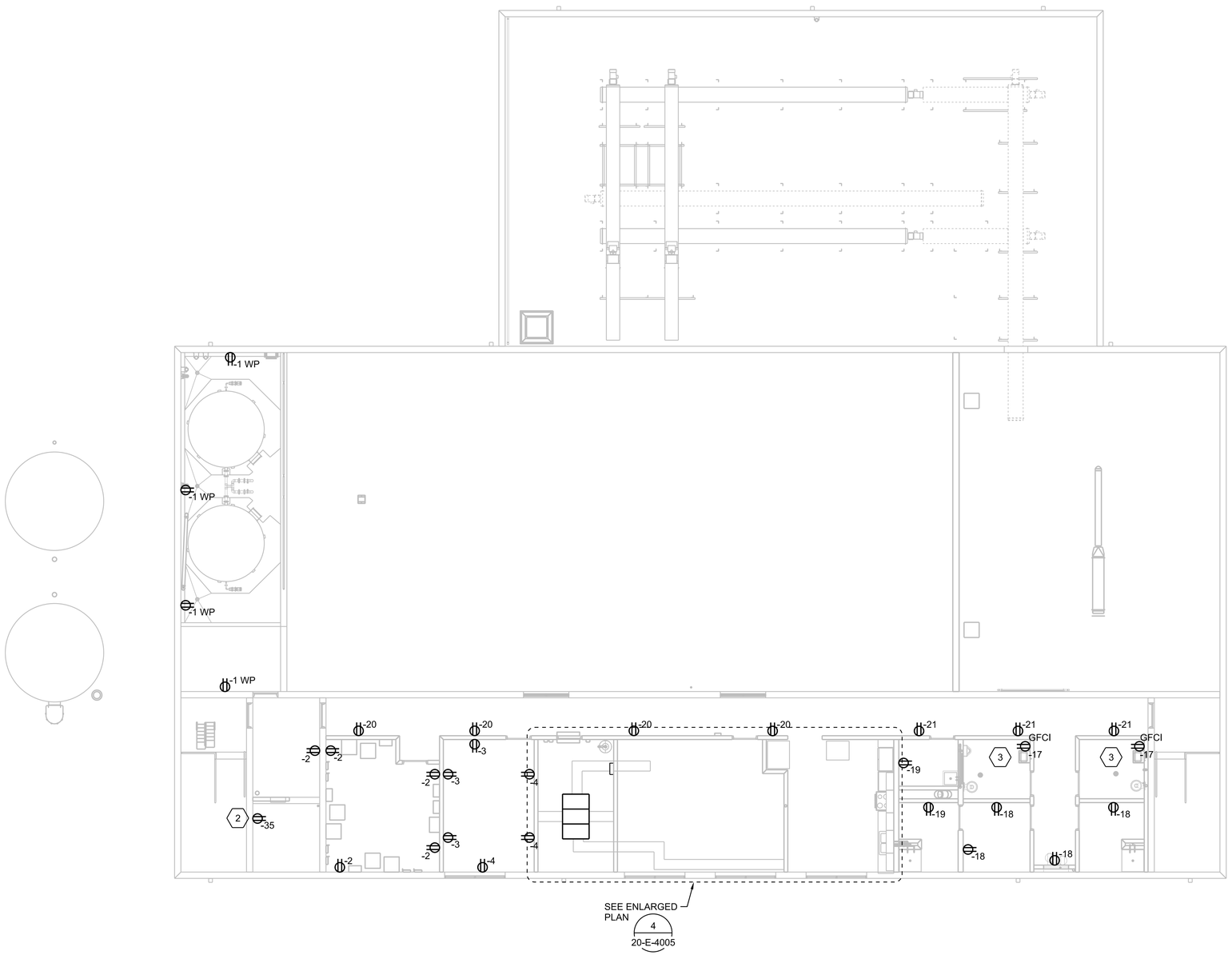
ELECTRICAL
DEWATERING AND CONTROL BLDG
FIRST FLOOR
RECEPTACLE AND GROUNDING PLAN

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2003
SHEET	158 of 270

GENERAL SHEET NOTES

1. ALL RECEPTACLES SHOWN SHALL BE POWERED FROM PANELBOARD 20LP-5, CIRCUIT AS INDICATED. PROVIDE #12 CONDUCTORS WITH #12 GROUND WIRE IN 3/4"C FOR CIRCUITS LESS THAN 75 FEET. PROVIDE #10 CONDUCTORS WITH #10 GROUND WIRE IN 3/4"C FOR CIRCUITS GREATER THAN 75 FEET. PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT.
2. RECEPTACLE SHOWN SHALL BE FED FROM PANEL 20LP-1, CIRCUIT AS INDICATED. RECEPTACLE SHALL BE USED FOR ELEVATOR MAINTENANCE.
3. TOILET SHALL INCLUDE ONE RECEPTACLE BELOW THE SINK AND ONE RECEPTACLE ADJACENT TO THE SINK. THE RECEPTACLE BELOW THE SINK SHALL BE USED TO POWER THE TOUCH FAUCETS



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SECOND FLOOR - PLAN

1/8"=1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ELECTRICAL

DEWATERING AND CONTROL BLDG
SECOND FLOOR
RECEPTACLE AND GROUNDING PLAN

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

NO.	DATE	DR	CHK	APVD
DSGN	GT YARBERRY	AL PASTRANA	KB HORTON	GT YARBERRY

REVISION BY APVD

CONFORMED DOCUMENTS

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2004
SHEET	159 of 270

GENERAL NOTES

1. LIGHTS SHOWN ON THIS DRAWING SHALL BE FED FROM PANEL BOARD 20LP-1, CIRCUITS AS INDICATED. CONTRACTOR SHALL PROVIDE 3/4"C, #12 CONDUCTORS WITH #12 GROUND WIRE. FOR CIRCUIT LENGHTS LESS THAN 75 FEET CONTRACTOR SHALL PROVIDE 3/4"C, #10 CONDUCTORS WITH #10 GROUND WIRE. FOR CIRCUIT LENGTHS GREATER THAN 75 FEET PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT.

SHEET KEYNOTES

1. LIGHT FIXTURE TYPE "A", MOUNTING HEIGHT 11'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
2. LIGHT FIXTURE TYPE "B", MOUNTING HEIGHT 11'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
3. LIGHT FIXTURE TYPE "C" WITH EMERGENCY BATTERY PACK MOUNTED ABOVE DOOR, MOUNTING HEIGHT OF OTHER TYPE "C" LIGHT FIXTURE SHALL MATCH WITH THE ONES ABOVE DOOR
4. EMERGENCY LIGHT FIXTURE TYPE "E", MOUNTING HEIGHT 7'-6" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
5. LIGHT FIXTURE TYPE "F",WALL MONTED, MOUNTING HEIGHT 8'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
6. LIGHT FIXTURE TYPE "K", MOUNTING HEIGHT 9'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
7. INSTALL LIGHT FIXTURE TYPE "X" ABOVE DOOR
8. STAIR 1 AND STAIR 2 LIGHT FIXTURE MOUNTING HEIGHT REFER TO DRAWING 20-E-3001 - ELECTRICAL DEWATERING AND CONTROL BUILDING SECTIONS
9. LIGHTING FIXTURE ARRANGEMENT REFER TO DRAWING 20-E-2006 DEWATERING AND CONTROL BLDG SECOND FLOOR LIGHTING PLAN

PHOTOCELL -31

TRUCK LOADING BAY 20-101
20-103D
POLYMER PUMP ROOM 20-102
BELT FILTER PRESS ROOM 20-103
TOOL STORAGE 20-104
LOBBY 20-105
ELECTRICAL ROOM 20-106
MECHANICAL 20-107
STAIRS 1 20-S01
ELEV.
STAIRS 2 20-S02
LOCKER ROOM 20-109
TOILET 20-110
CHLORINE

A 20-E-3001
B 20-E-3001

N

FIRST FLOOR LIGHTING PLAN

1/8" = 1'-0"

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR A PASTRANA	CHK KB HORTON	APVD GT YARBERRY

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
DEWATERING AND CONTROL BLDG
FIRST FLOOR
LIGHTING PLAN

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2005
SHEET	160 of 270

N

SECOND FLOOR LIGHTING PLAN

1/8" = 1'-0"

GENERAL NOTES

1. LIGHTS SHOWN ON THIS DRAWING SHALL BE FED FROM PANELBOARD 20LP-4, CIRCUITS AS INDICATED. CONTRACTOR SHALL PROVIDE 3/4"C, #12 CONDUCTORS WITH #12 GROUND WIRE. FOR CIRCUIT LENGTHS LESS THAN 75 FEET CONTRACTOR SHALL PROVIDE 3/4"C, #10 CONDUCTORS WITH #10 GROUND WIRE. FOR CIRCUIT LENGTHS GREATER THAN 75 FEET PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT.
2. STAIR LIGHT FIXTURES SHALL BE FED FROM PANELBOARD 20PL-1

SHEET KEYNOTES

1. LIGHT FIXTURE TYPE "A", MOUNTING HEIGHT 13'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
2. LIGHT FIXTURE TYPE "B", MOUNTING HEIGHT 13'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
3. LIGHT FIXTURE TYPE "D" IN TRUCK LOADING BAY, MOUNTING HEIGHT 30'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
4. LIGHT FIXTURE TYPE "D" IN BELT FILTER PRESS ROOM, MOUNTING HEIGHT 27'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
5. LIGHT FIXTURE TYPE "K", MOUNTING HEIGHT 9'-0" FROM FINISHED FLOOR, PROVIDE MOUNTING HARDWARE AS REQUIRED
6. INSTALL LIGHT FIXTURE TYPE "X" ABOVE DOOR
7. STAIR 1 AND STAIR 2 LIGHT FIXTURE MOUNTING HEIGHT REFER TO DRAWING 20-E-3001 - ELECTRICAL DEWATERING AND CONTROL BUILDING SECTIONS. LIGHTS IN STAIRWAY SHALL BE UNSWITCHED.
8. LIGHTING FIXTURE ARRANGEMENT REFER TO DRAWING 20-E-2005 DEWATERING AND CONTROL BLDG FIRST FLOOR LIGHTING PLAN

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY	A PASTRANA	KB HORTON	APVD	
				BY	APVD
				GT YARBERRY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS) CONTRACT 350
MOBILE, ALABAMA

ELECTRICAL

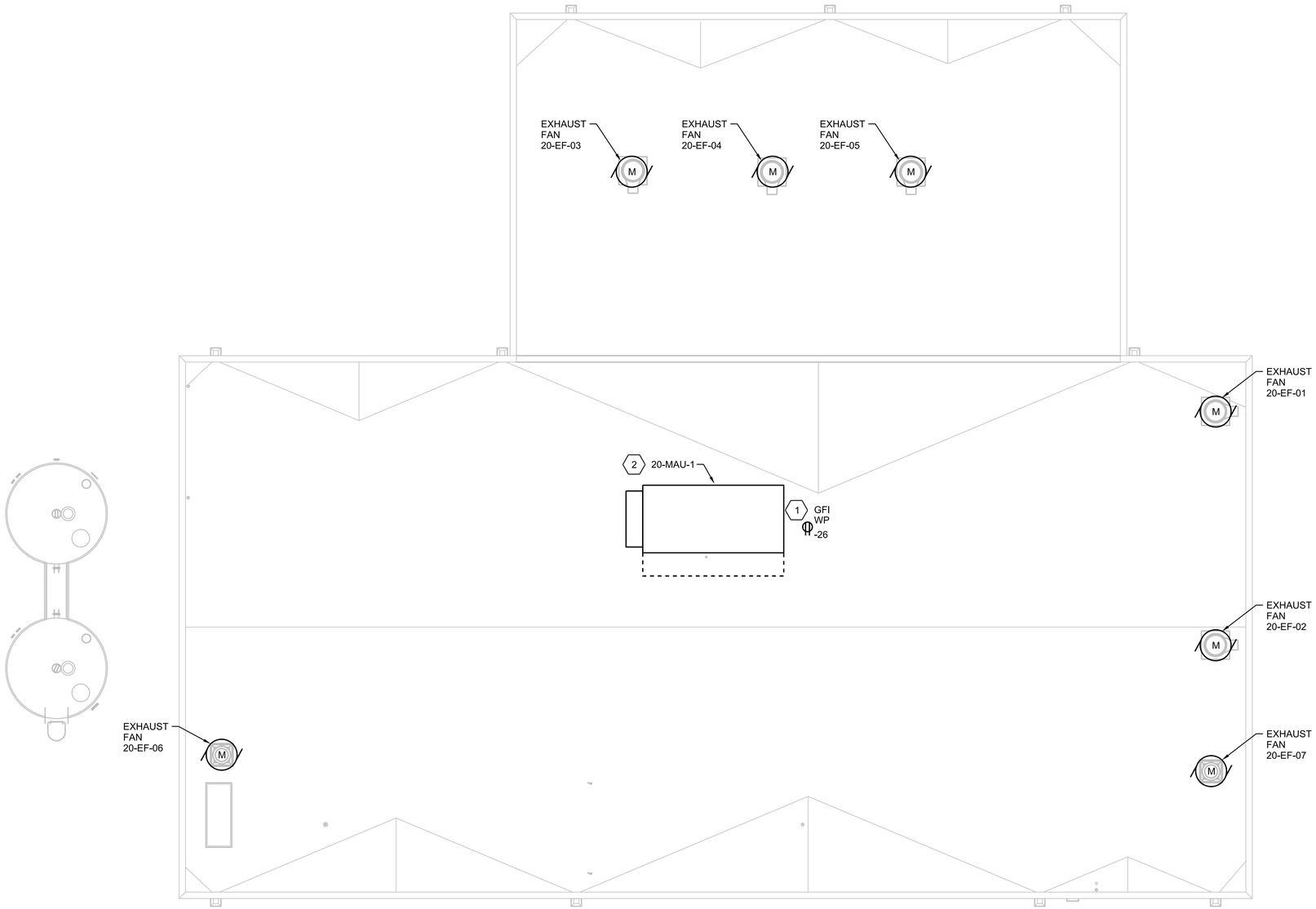
DEWATERING AND CONTROL BLDG
SECOND FLOOR
LIGHTING PLAN

CONFORMED DOCUMENTS

AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2006
SHEET	161 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL PROVIDE A RECEPTACLE AT APPROXIMATE LOCATION SHOWN. RECEPTACLE SHALL BE FED FROM PANELBOARD 20LP-5, CIRCUIT 26 WITH [3/4"C, 2#10, 1#10G]. CONTRACTOR SHALL PROVIDE A STANCHION TO SUPPORT RECEPTACLE.
2. 20-MAU-01 IS FED FROM PANEL 20PP-3. REFER TO PANEL SCHEDULES FOR ADDITIONAL RETAIL.



N

ROOF PLAN
1/8"=1'-0"

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	GT YARBERRY		A PASTRANA	KB HORTON	GT YARBERRY	APVD

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
DEWATERING AND CONTROL BUILDING
ROOF PLAN

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-2007
SHEET	162 of 270

REUSE OF DOCUMENTS:

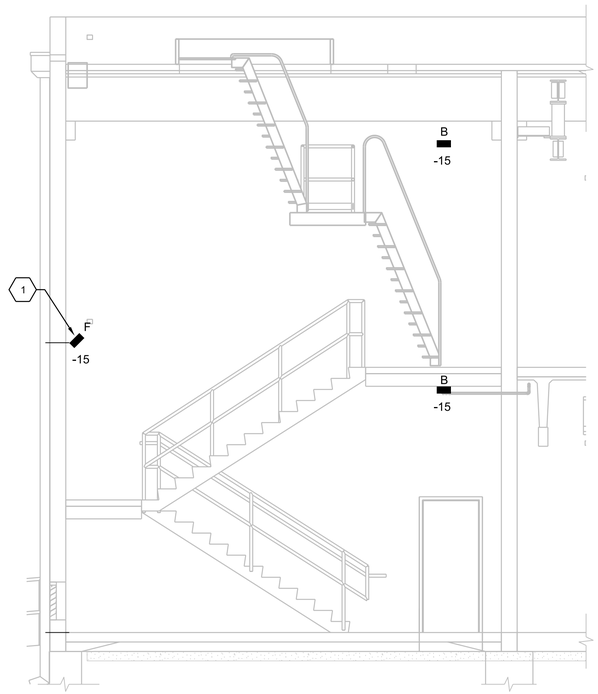
CONFORMED DOCUMENTS

GENERAL SHEET NOTES

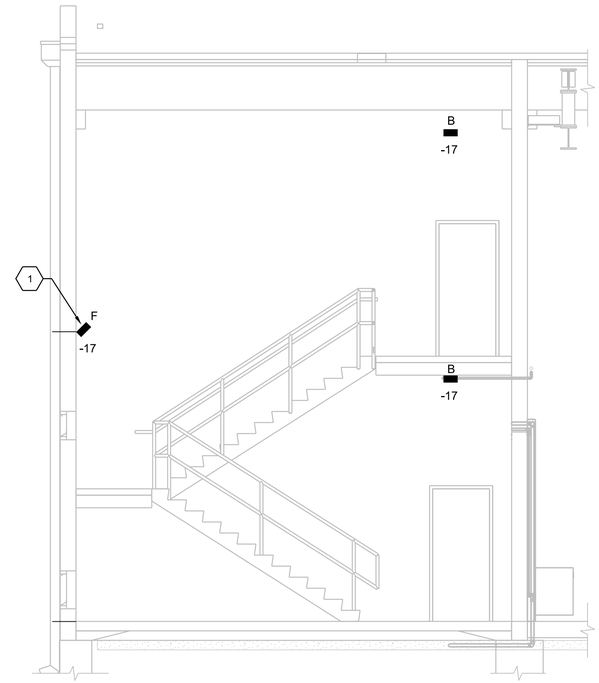
1. LIGHTS SHOWN ON THIS DRAWING SHALL BE FED FROM PANEL BOARD 20LP-1, CIRCUITS AS INDICATED. CONTRACTOR SHALL PROVIDE 3/4"C, #12 CONDUCTORS WITH #12 GROUND WIRE. PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT

SHEET KEYNOTES

1. WALL MOUNT LIGHT FIXTURE TYPE "F" AT THE HEIGHT SHOWN ON THE SECTION.



A SECTION
1/4"=1'-0"
20-E-2005
20-E-2006



B SECTION
1/4"=1'-0"
20-E-2005
20-E-2006

NO.	DSGN	DATE	REVISION	DR	CHK	APVD	BY	APVD
				I KHAN	KB HORTON		GT YARBERRY	

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

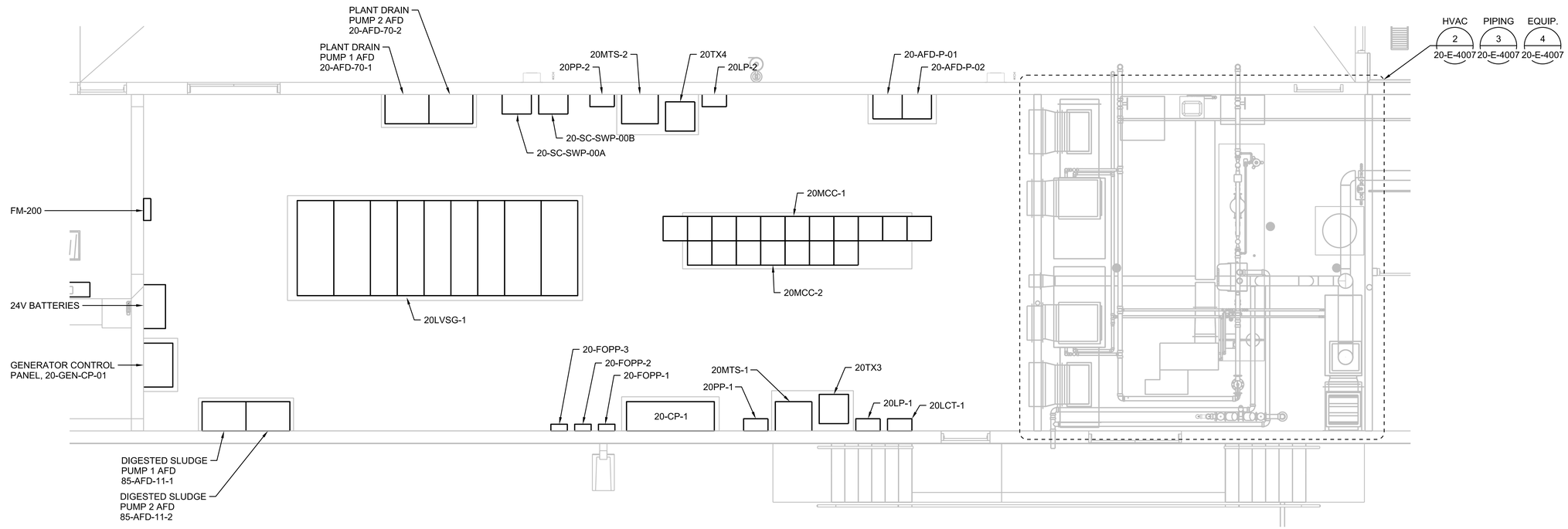
ELECTRICAL
DEWATERING AND CONTROL BUILDING
SECTIONS

3/8"=1'-0
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-3001
SHEET	163 of 270

GENERAL NOTE

1. MAINTAIN A MINIMUM DISTANCE OF 4 FEET BETWEEN 20MCC-1 AND 20LVSG-1.



1 ENLARGED FIRST FLOOR PLAN
1/4"=1'-0"
20-E-2001

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR A PASTRANA	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

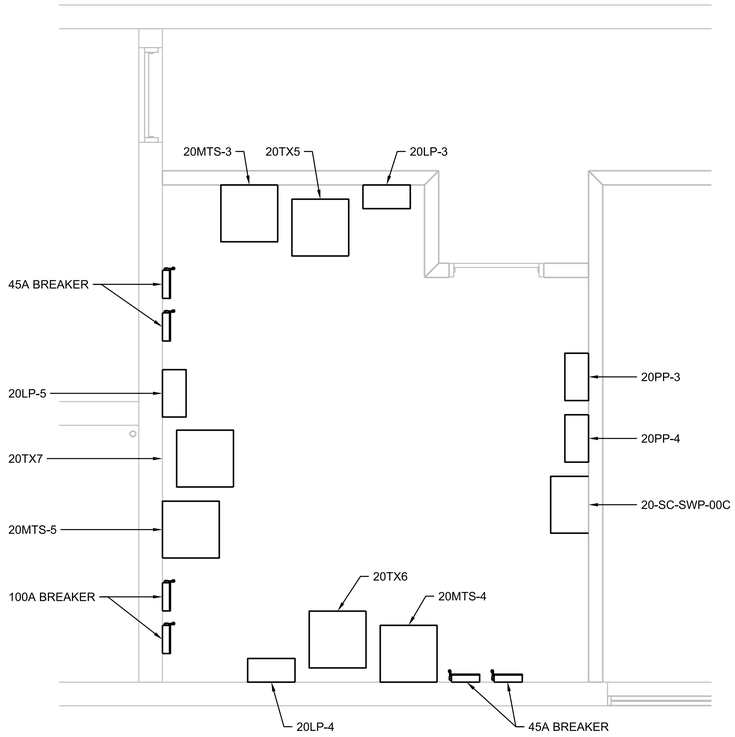
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING ENLARGED ELECTRICAL ROOM PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4001
SHEET	164 of 270



2 ENLARGED SECOND FLOOR PLAN

3/8"=1'-0"

20-E-2002

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR A PASTRANA	CHK KB HORTON	APVD GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING ENLARGED PLANS

CONFORMED DOCUMENTS

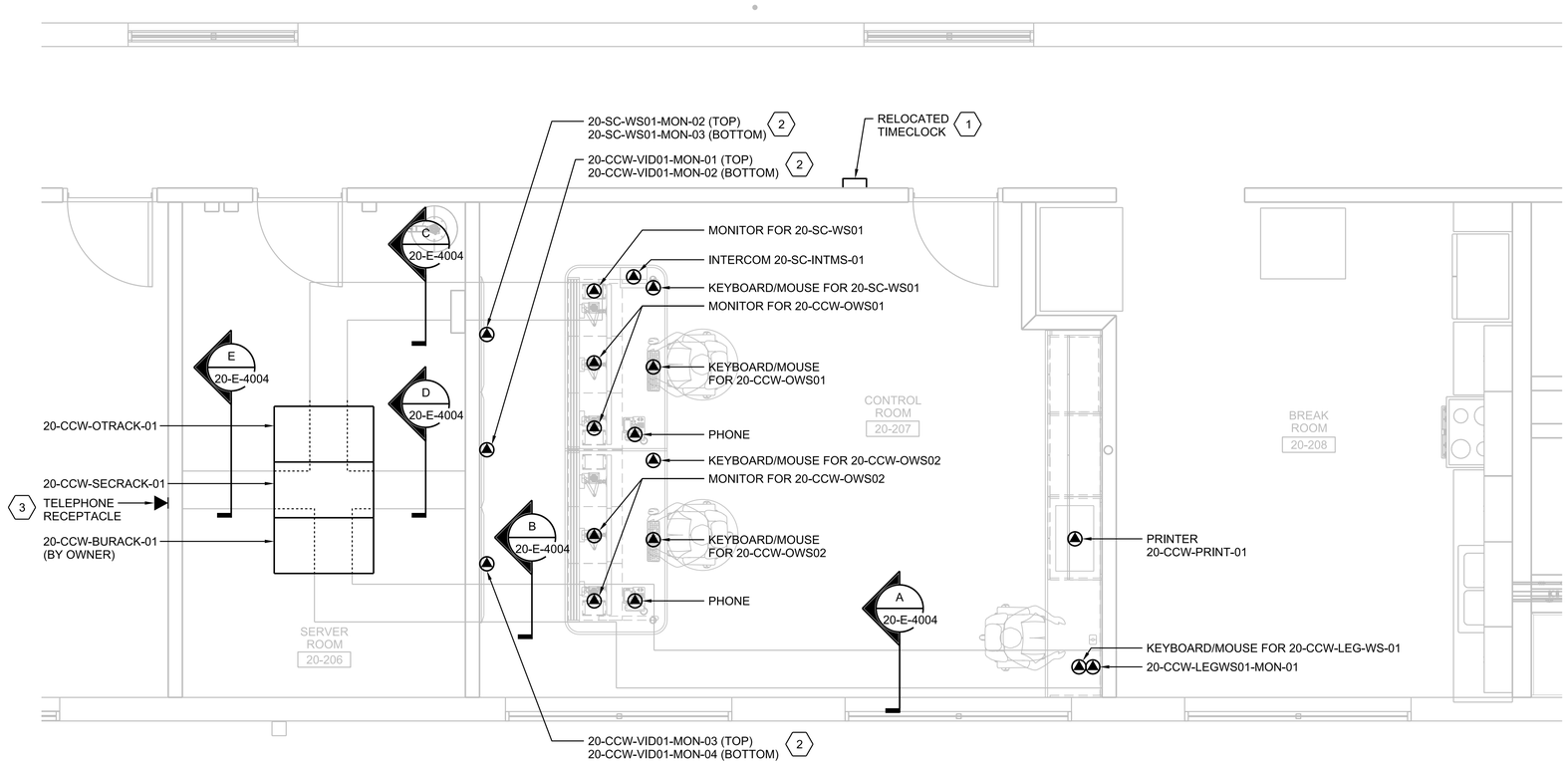
VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4002
SHEET	165 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL PROVIDE [1"C, CAT] FROM THE TIMECLOCK TO THE BUSINESS RACK. CONDUIT SHALL BE ROUTED TO THE WALL OF THE SERVER ROOM AND THEN THE CAT 6 CABLE SHALL CONTINUE THRU THE FLOOR TRENCH. CONTRACTOR SHALL RELOCATE EXISTING TIME CLOCK TO THE LOCATION SHOWN.
2. CONTRACTOR SHALL PROVIDE [1"C, HDMI] FROM EACH OF THE SIX MONITORS TO THE WALL OF THE SERVER ROOM. THE HDMI CABLES SHALL EXTEND THRU THE FLOOR TRENCH TO THE APPLICABLE RACK.
3. CONTRACTOR SHALL PROVIDE 1 - CAT 6 FROM TELEPHONE RECEPTACLE TO THE BUSINESS RACK CONDUCTOR SHALL BE ROUTED THRU FLOOR TRENCH.



3 ENLARGED SECOND FLOOR PLAN

3/8"=1'-0"

20-E-2002

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	GT YARBERRY	AL PASTRANA		KB HORTON		GT YARBERRY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING ENLARGED TRENCH PLANS

CONFORMED DOCUMENTS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4003
SHEET	166 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL ROUTE THE POWER FOR EACH RACK IN CONDUIT TO THE WALL OF THE SERVER ROOM. THE CONDUCTORS SHALL THEN EXTEND IN THE FLOOR TRENCH TO THE APPLICABLE RACK.

FLOOR TRENCH

1 - USB 2.0 FROM LEGACY WORKSTATION KEYBOARD TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM LEGACY WORKSTATION MOUSE TO 20-CCW-OTRACK-01
1 - HDMI FROM LEGACY WORKSTATION MONITOR TO 20-CCW-OTRACK-01
1 - CAT 6 FROM PRINTER TO 20-CCW-OTRACK-01
1 - CAT 6 FROM TELEVISION TO 20-CCW-BURACK-01
1 - CAT 6 FROM OPERATORS PC TO 20-CCW-BURACK-01

A SECTION
NTS
20-E-4003

FLOOR TRENCH

1 - USB 2.0 FROM LEGACY WORKSTATION KEYBOARD TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM LEGACY WORKSTATION MOUSE TO 20-CCW-OTRACK-01
1 - HDMI FROM LEGACY WORKSTATION MONITOR TO 20-CCW-OTRACK-01
1 - CAT6 FROM PHONE TO 20-CCW-BURACK-01
1 - USB 2.0 FROM 20-CCW-OWS02 MOUSE TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM 20-CCW-OWS02 KEYBOARD TO 20-CCW-OTRACK-01
1 - HDMI FROM 20-CCW-OWS02 MONITOR TO 20-CCW-OTRACK-01
1 - HDMI FROM 20-CCW-OWS02 MONITOR TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM 20-CCW-OWS02 MOUSE TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM 20-CCW-OWS02 KEYBOARD TO 20-CCW-OTRACK-01
1 - [PC-1A] FROM FLOOR RECEPTACLE TO 20LP-5
1 CAT 6 FROM PRINTER TO 20-CCW-OTRACK-01
1 - CAT 6 FROM TELEVISION TO 20-CCW-BURACK-01
1 - CAT 6 FROM OPERATORS PC TO 20-CCW-BURACK-01

B SECTION
NTS
20-E-4003

FLOOR TRENCH

1 - CAT6 FROM PHONE TO 20-CCW-BURACK-01
1 - USB 2.0 FROM 20-CCW-SCWS01 MOUSE TO 20-CCW-SRACK-01
1 - USB 2.0 FROM 20-CCW-SCWS01 KEYBOARD TO 20-CCW-SRACK-01
1 - HDMI FROM 20-CCW-SCWS01 MONITOR TO 20-CCW-SRACK-01
1 - USB 2.0 FROM 20-CCW-OWS01 MOUSE TO 20-CCW-OTRACK-01
1 - USB 2.0 FROM 20-CCW-OWS01 KEYBOARD TO 20-CCW-OTRACK-01
1 - HDMI FROM 20-CCW-OWS01 MONITOR TO 20-CCW-OTRACK-01
1 - HDMI FROM 20-CCW-OWS01 MONITOR TO 20-CCW-OTRACK-01
1 - [PC1A] FROM FLOOR RECEPACLE TO 20LP-5
1 - CAT 6 FROM INTERCOM MASTER STATION TO 20-CCW-SECRACK-01
1 - CAT 6 FROM RELOCATED TIMECLOCK TO 20-CCW-BURACK-01

C SECTION
NTS
20-E-4003

FLOOR TRENCH

1 - HDMI FROM 20-CCW-VID01MON-01 TO 20-CCW-RACK-01
1 - HDMI FROM 20-CCW-VID01MON-02 TO 20-CCW-RACK-01
1 - HDMI FROM 20-CCW-VID01MON-03 TO 20-CCW-RACK-01
1 - HDMI FROM 20-CCW-VID01MON-04 TO 20-CCW-RACK-01
1 - HDMI FROM 20-SCWS01MON-02 TO 20-CCW-SRACK-01
1 - HDMI FROM 20-SCWS01MON-03 TO 20-CCW-SRACK-01

D SECTION
NTS
20-E-4003

FLOOR TRENCH

1 - [PC1A] FROM FLOOR RECEPTACLE TO 20LP-5
1 - [PC1A] FROM FLOOR RECEPTACLE TO 20LP-5
1 - [PC2A] FROM 20-CCW-RACK-01 TO 20LP-3
1 - [PC2A] FROM 20-CCW-RACK-01 TO 20LP-4
1 - [PC2A] FROM 20-CCW-SRACK-01 TO 20LP-3
1 - [PC2A] FROM 20-CCW-SRACK-01 TO 20LP-4
1 - [PC2A] FROM 20-CCW-BURACK-01 TO 20LP-3
1 - [PC2A] FROM 20-CCW-BURACK-01 TO 20LP-4
(1)
1 - CAT 6 CABLE FROM OFFICE TELEPHONE RECEPT TO BUSINESS RACK

E SECTION
NTS
20-E-4003

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
				REVISION			
		GT YARBERRY	AL PASTRANA	KB HORTON	APVD	GT YARBERRY	

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

ELECTRICAL

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

DEWATERING AND CONTROL BUILDING SECOND FLOOR TRENCH SECTIONS

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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DWG	20-E-4004
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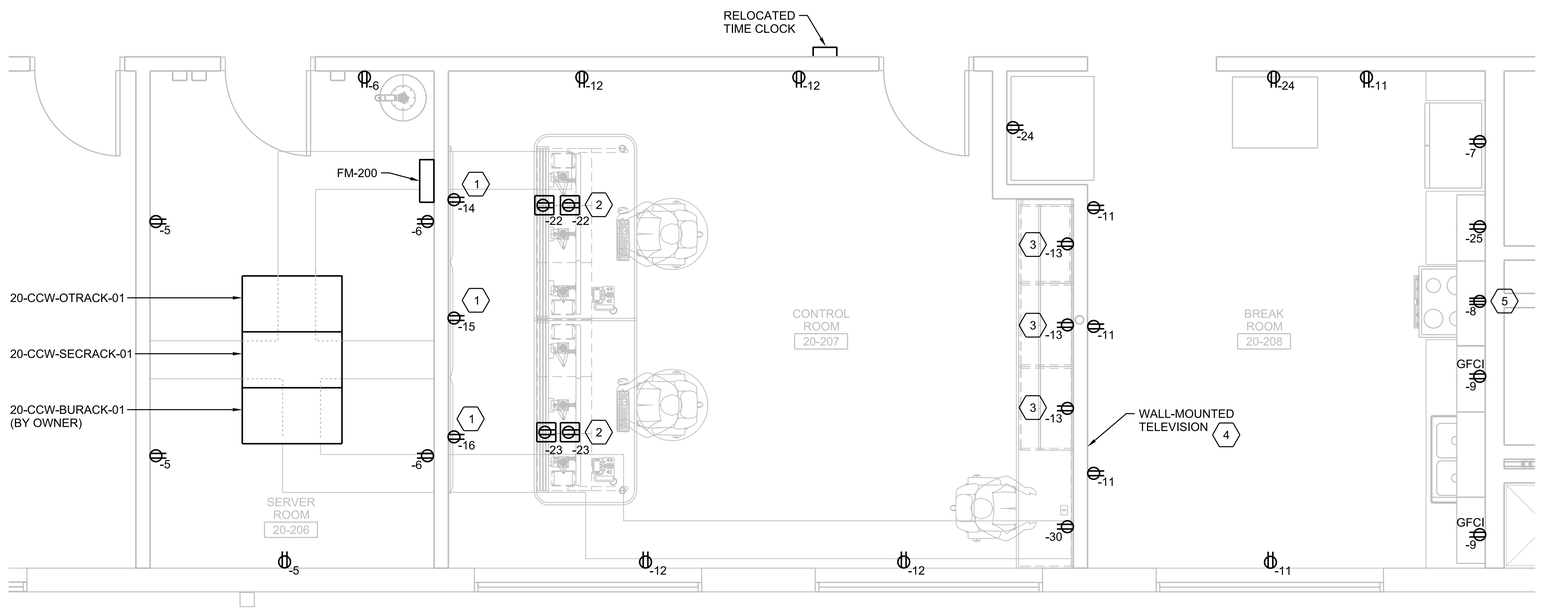


4 ENLARGED SECOND FLOOR PLAN
3/8"=1'-0"
20-E-2004

GENERAL SHEET NOTES

1. ALL RECEPTACLES SHOWN SHALL BE POWERED FROM PANELBOARD 20LP-5, CIRCUIT IT AS INDICATED. PROVIDE #12 CONDUCTORS WITH #12 GROUND WIRE IN 3/4"C FOR CIRCUITS LESS THAN 75 FEET. PROVIDE #10 CONDUCTORS WITH #10 GROUND WIRE IN 3/4"C FOR CIRCUITS GREATER THAN 75 FEET. PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT.

SHEET KEYNOTES

1. CONTRACTOR SHALL PROVIDE TWO (2) WALL-MOUNTED DUPLEX RECEPTACLES IN APPROXIMATE LOCATION SHOWN. RECEPTACLES SHALL BE USED TO POWER TWO (2) DIFFERENT MONITORS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING EXACT LOCATION TO INSTALL RECEPTACLES.
2. CONTRACTOR SHALL PROVIDE TWO (2) FLOOR-MOUNTED RECEPTACLES IN APPROXIMATE LOCATION SHOWN.
3. CONTRACTOR SHALL PROVIDE THREE (3) WALL-MOUNTED DUPLEX RECEPTACLES ABOVE THE LOWER CABINET. CONTRACTOR TO COORDINATE EXACT LOCATION.
4. CONTRACTOR SHALL PROVIDE A DATA JACK FOR A CAT-6 CABLE. THE CAT-6 CABLE SHALL BE ROUTED TO THE BUSINESS RACK IN THE SERVER ROOM VIA THE FLOOR TRENCH.
5. CONTRACTOR SHALL PROVIDE 50A, 240V RECEPTACLE FOR STOVE. CONTRACTOR SHALL PROVIDE [1"C, 2#6, 1#10G] FROM 20LP-5 TO RECEPTACLE. CONTRACTOR SHALL COORDINATE SPECIFIC PROVISIONS REQUIRED WITH THE ACTUAL STOVE TO BE INSTALLED.

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY	AL PASTRANA	KB HORTON	APVD	
				BY	GT YARBERRY

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

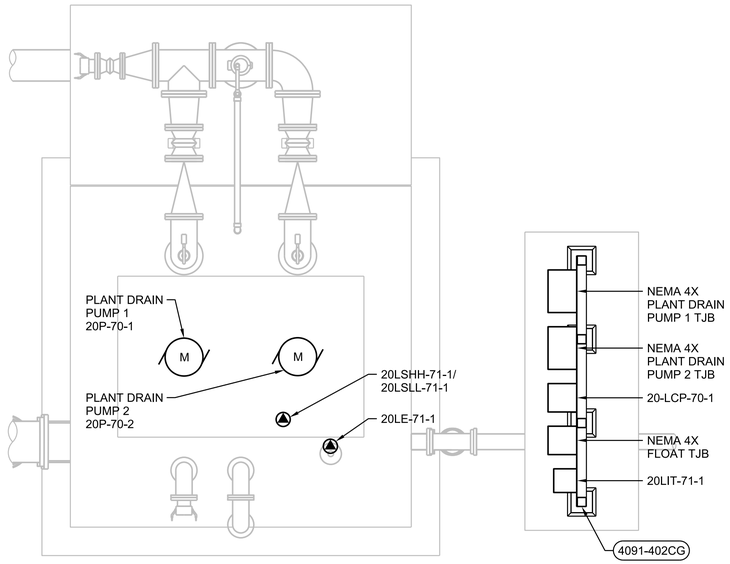
DEWATERING AND CONTROL BUILDING
ENLARGED PLANS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

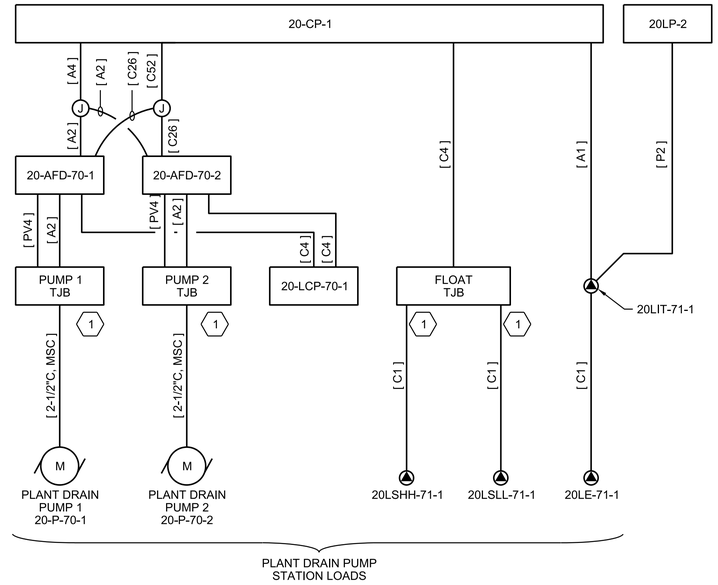
DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4005
SHEET	168 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL INSTALL MANUFACTURER SUPPLIED CABLES IN CONDUIT UP TO THE RACK. A MINIMUM OF AN 18-INCH AIR GAP SHALL BE PROVIDED AT THE BOTTOM OF THE RACK.



5 ENLARGED PLANT DRAIN PUMP STATION PLAN
NTS
20-E-2001



RISER DIAGRAM
NTS

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR AL PASTRANA	CHK KB HORTON	APVD GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

ELECTRICAL

DEWATERING AND CONTROL BUILDING
PLANT DRAIN PUMP STATION
ENLARGED PLAN AND RISER DIAGRAM

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

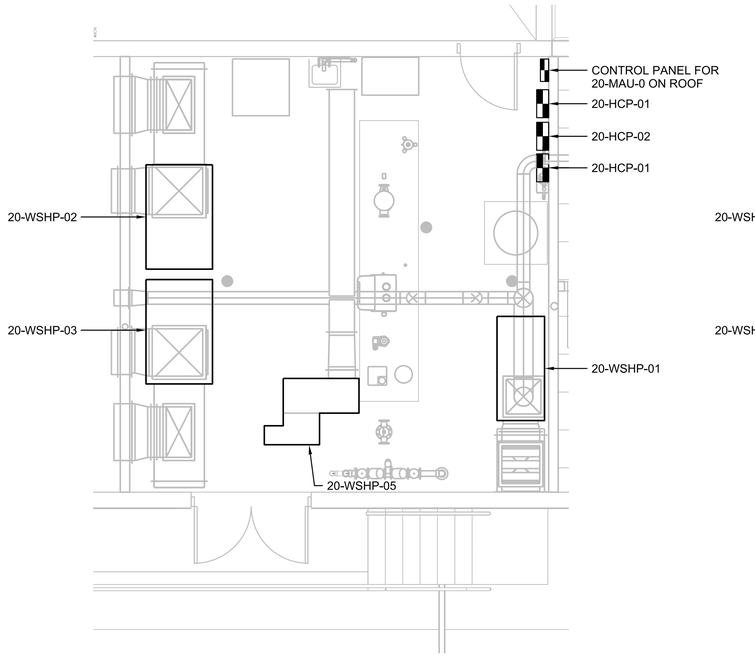
CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

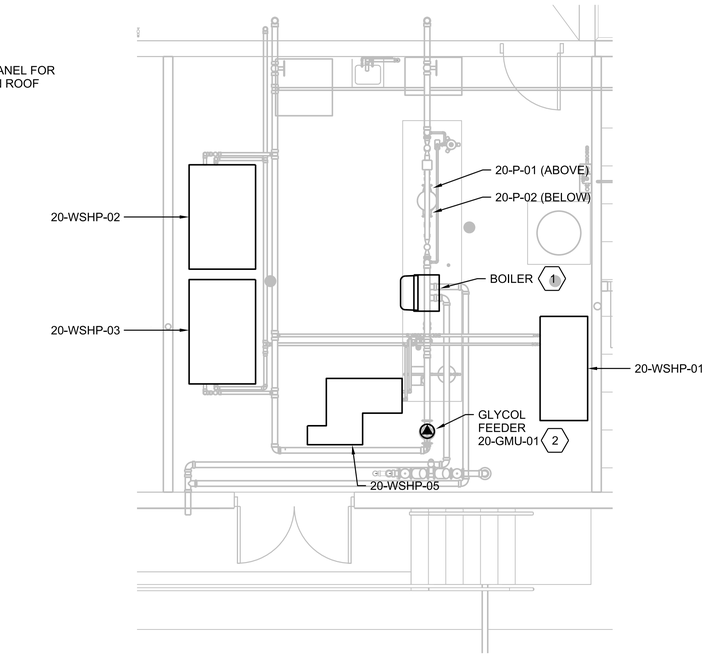
DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4006
SHEET	169 of 270

SHEET KEYNOTES

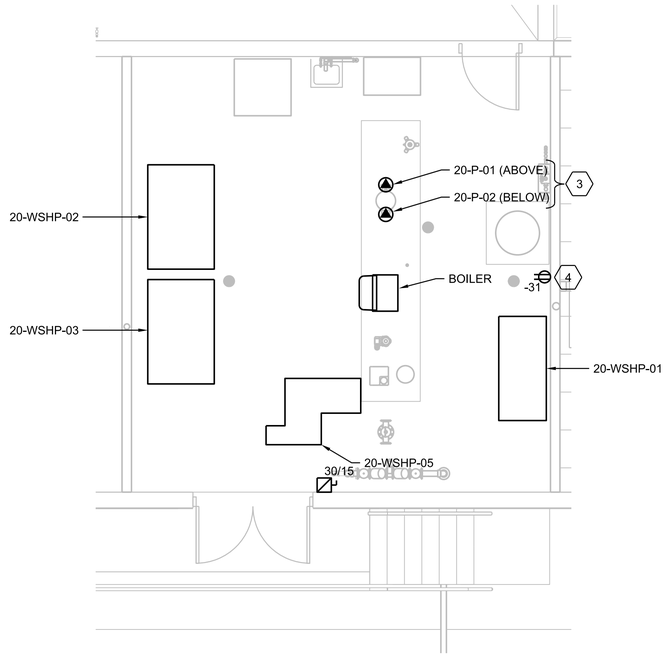
1. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM PANEL 20LP-1 TO POWER THE BOILER.
2. CONTRACTOR SHALL PROVIDE A DUPLEX RECEPTACLE TO POWER THE GLYCOL FEEDER. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM PANEL 20LP-1 TO POWER RECEPTACLE.
3. HYDRONIC PUMPS ARE POWERED FROM 20MCC-2. REFER TO DRAWING20-E-6002 FOR DETAIL.
4. CONTRACTOR SHALL MOUNT RECEPTACLE SHOWN ROUGHLY 4 FEET AFF. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM PANEL 20LP-2, CIRCUIT 31 TO RECEPTACLE SHOWN.



2 HVAC PLAN
1/4"=1'-0"
20-E-4001



3 PIPING PLAN
1/4"=1'-0"
20-E-4001



4 EQUIPMENT PLAN
1/4"=1'-0"
20-E-4001

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	GT YARBERRY		A PASTRANA	KB HORTON	APVD
				BY	APVD
				GT YARBERRY	

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING ENLARGED ELECTRICAL ROOM PLANS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-4007
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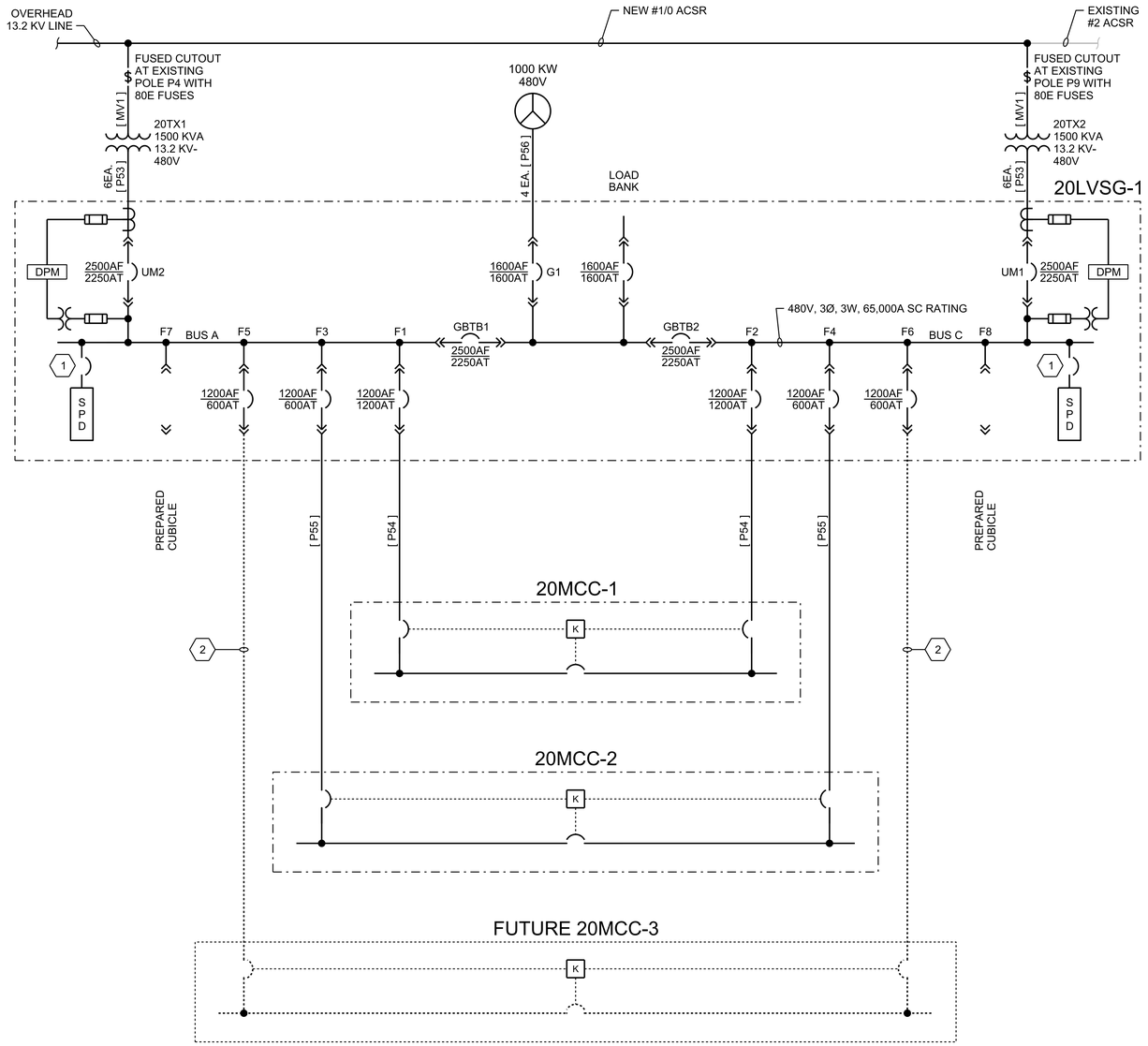


SHEET KEYNOTES

1. MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING CIRCUIT BREAKER FOR SPD.
2. CONTRACTOR SHALL PROVIDE TWO (2) 4-INCH SPARE CONDUITS FROM 20LVSG-1 BUS A AND BUS C TO THE TRAINING ROOM. REFER TO DRAWING 20-E-2003 FOR LOCATION.

ONE-LINE DIAGRAM

NTS

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

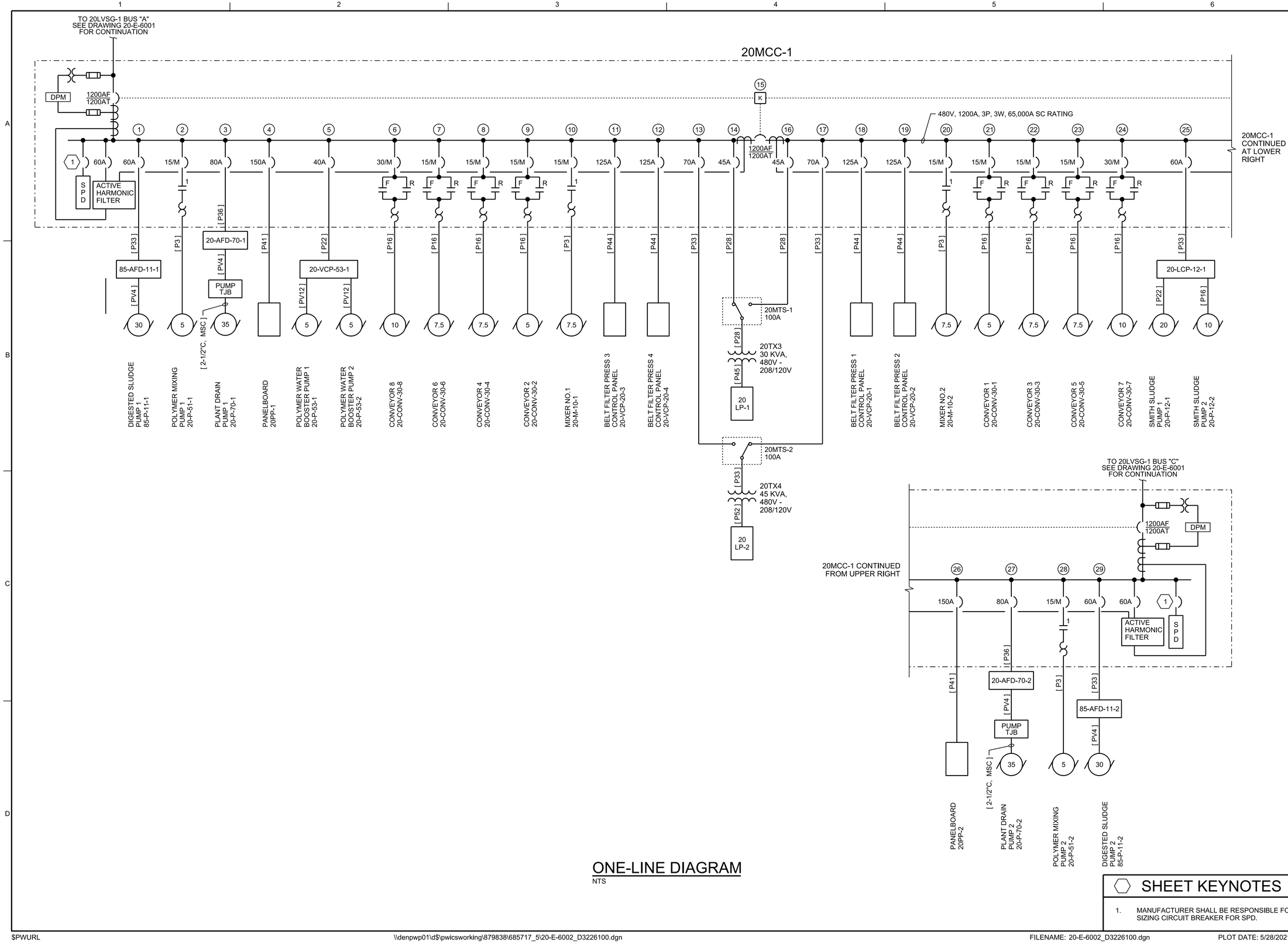
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING 20VSG-1 ONE-LINE DIAGRAM

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6001
SHEET	171 of 270



ONE-LINE DIAGRAM
NTS

SHEET KEYNOTES

1. MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING CIRCUIT BREAKER FOR SPD.

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

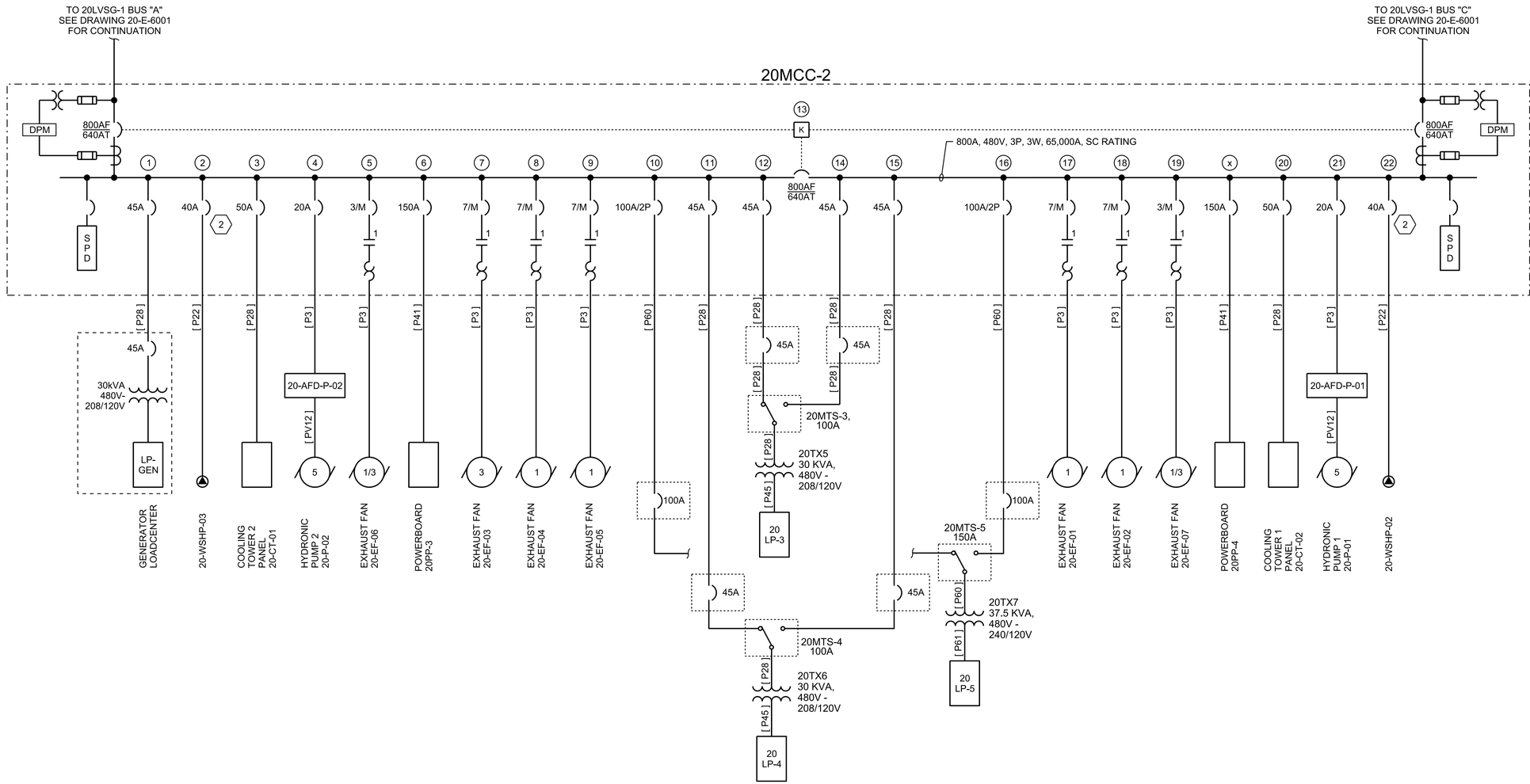
DEWATERING AND CONTROL BUILDING
20MCC-1 ONE-LINE DIAGRAM

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6002
SHEET	172 of 270



ONE-LINE DIAGRAM

SHEET KEYNOTES

1. MANUFACTURER SHALL BE RESPONSIBLE FOR SIZING CIRCUIT BREAKER FOR SPD.
2. BREAKER SHALL BE HACR RATED.

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON		GT YARBERRY	

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING
20MCC-2 ONE-LINE DIAGRAM

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6003
SHEET	173 of 270

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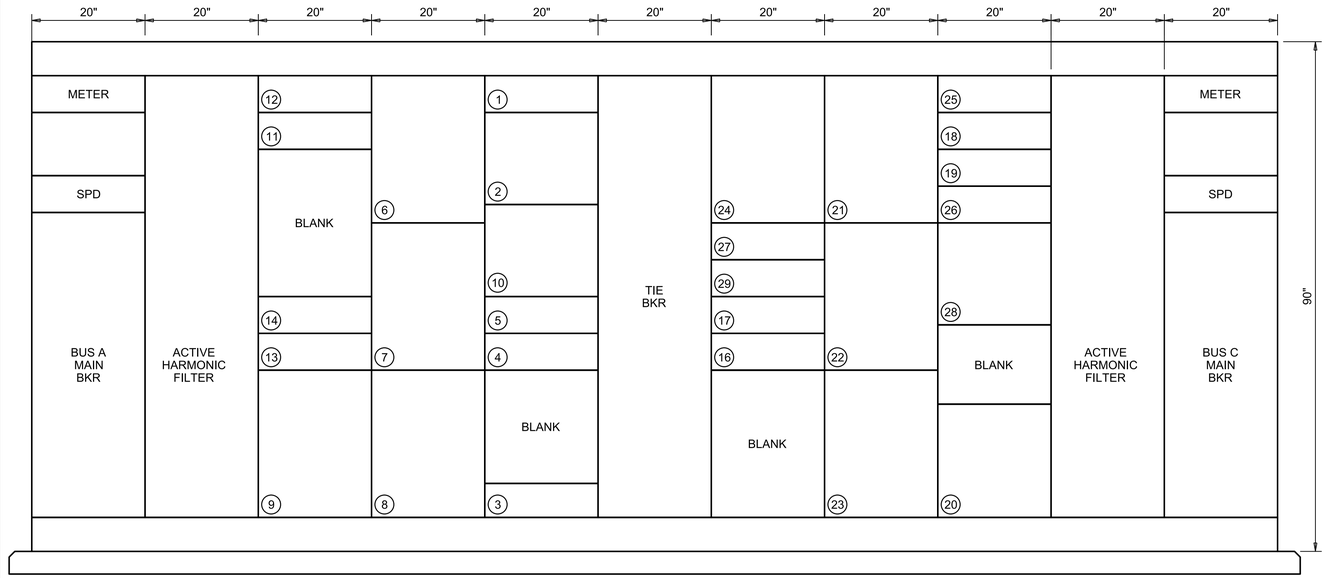
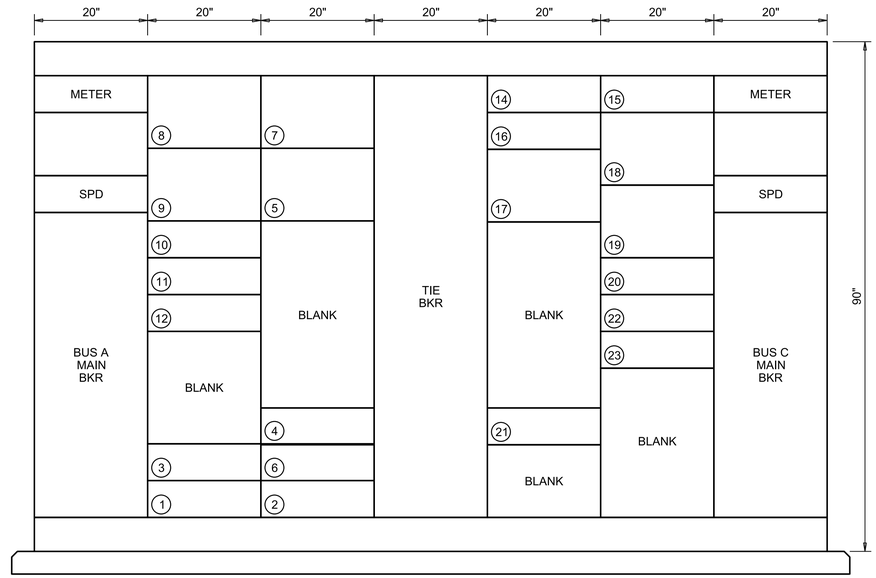


20MCC-1 FRONT ELEVATION
NTS



20MCC-2 FRONT ELEVATION
NTS

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		GT YARBERRY	G MESSER	KB HORTON	APVD	GT YARBERRY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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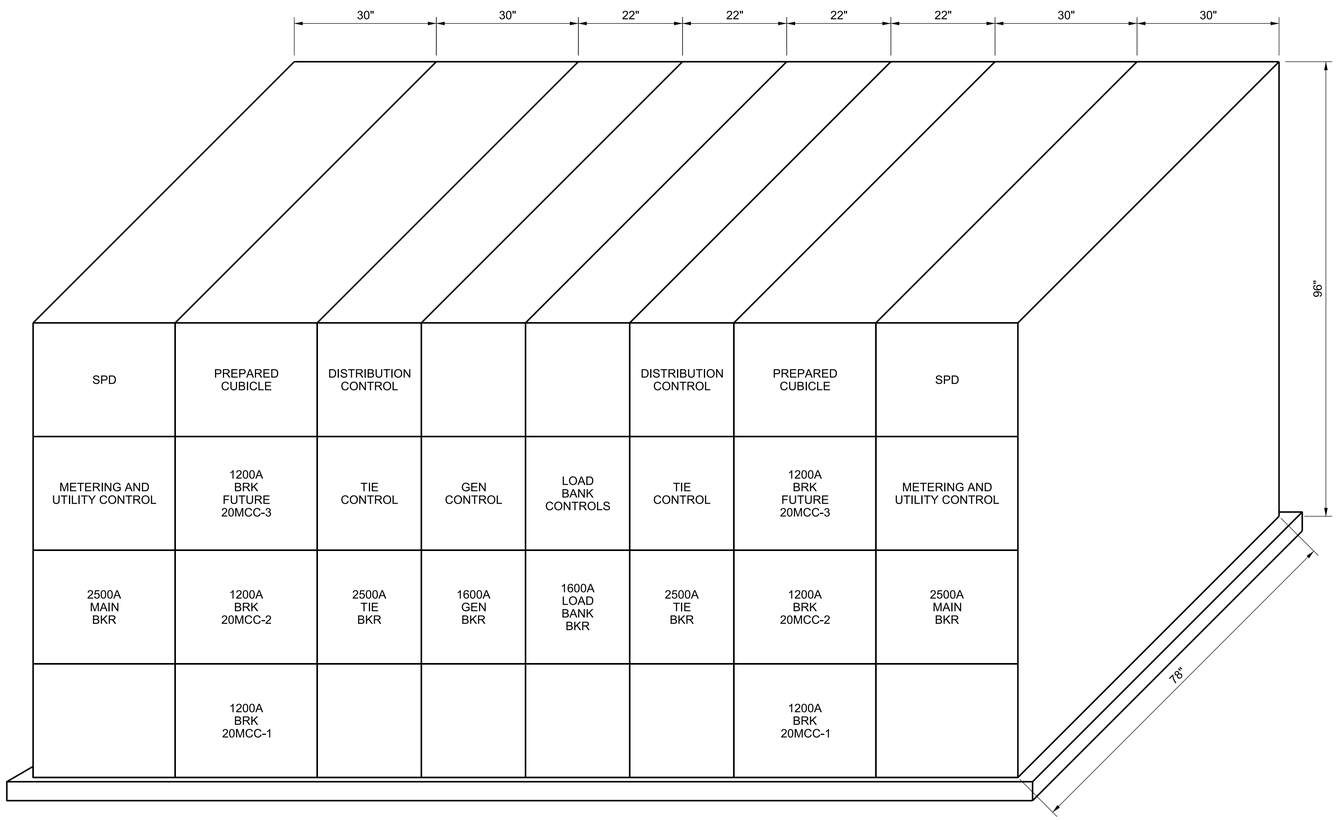
ELECTRICAL

DEWATERING AND CONTROL BUILDING
20MCC-1 AND 20MCC-2
FRONT ELEVATIONS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6004
SHEET	174 of 270

CONFORMED DOCUMENTS



20LVSG-1 FRONT ELEVATION

NTS

NO.	DATE	REVISION	DR	CHK	BY
DSGN	GT YARBERRY	G MESSER	KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING
20LVSG-1 FRONT ELEVATION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6005
SHEET	175 of 270

PANEL: Panel 20LP-1 | LOCATION: Dewatering and Control Building - First Floor Electrical Rm
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 4
TOTAL LOAD KVA: 13.5 | BUS SIZE: 100A | MAIN SIZE:100A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C
0.5			20LCP-49-1	20/1	1	2	30/1	20-VCP-52-1	2.8		
	2.8		20-VCP-52-2	30/1	3	4	20/1	SPARE			
		0.5	20-CP-01	20/1	5	6	20/1	20-GEN-CP-01			0.5
				20/1	7	8	20/1	First Floor Electrical Rm LTG	1.0		
	0.4		Mechanical Rm LTG	20/1	9	10	20/1	Locker Rm LTG		0.1	
		0.1	Shower LTG	20/1	11	12	20/1	Toilet Rm LTG			0.1
0.2			Hallway LTG	20/1	13	14	20/1	Training Rm LTG	1.0		
	0.1		Stairway 1 LTG	20/1	15	16	20/1	Lobby LTG		0.1	
		0.1	Stairway 2 LTG	20/1	17	18	20/1	Polymer Rm LTG			0.2
0.1			Tool Storage LTG	20/1	19	20	20/1	SPARE			
			SPARE	20/2	21	22	20/2	SPARE			
					23	24					
			SPARE	20/2	25	26	20/2	SPARE			
					27	28					
		0.1	BFP Rm Emergency Exit Lights	20/1	29	30	20/1	Truck Loading Bay Emergency LTG			0.1
0.3			Dewatering Bldg Exterior LTG	20/1	31	32	20/1	Boiler	0.4		
	0.5		Glycol Feeder	20/1	33	34	20/1	Elevator Sump Pump Recept		0.3	
		0.4	Elevator Recept	20/1	35	36	20/1	Elevator Hoisway Lights			0.4
0.4			20LCT-1	20/1	37	38	20/1	SPARE			
			SPARE	20/1	39	40	20/1	SPARE			
			SPARE	20/1	41	42	20/1	SPARE			
1.5	3.8	1.2	TOTAL						5.2	0.5	1.3

PANEL: Panel 20LP-2 | LOCATION: Dewatering and Control Building -First Floor Electrical Rm
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 4
TOTAL LOAD KVA: 30.3 | BUS SIZE: 150A | MAIN SIZE:150A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C
0.6			20LIT-10-1/20LIT-10-2	20/1	1	2	30/1	20-VCP-52-3	2.8		
	2.8		20-VCP-52-4	30/1	3	4	20/1	20-FACP-01		0.5	
		0.4	20LIT-71-1	20/1	5	6	20/1	20-SC-SWP-00A			0.5
0.5			20-SC-SWP-00B	20/1	7	8	20/1	20-GUH-02	0.3		
	0.3		20-SF-01	20/1	9	10	20/1	20-SF-02		0.3	
		0.4	First Floor FM-200 Panel	20/1	11	12	20/1	20-GUH-03			0.3
0.5			20-HCP-01	20/1	13	14	20/1	20-HCP-02	0.5		
	0.5		20-HCP-03	20/1	15	16	20/1	20-GUH-01		0.3	
		0.3	20-GUH-04	20/1	17	18	20/1	20-EF-08			0.3
			SPARE	20/1	19	20	20/1	Polymer Rm Recepts	0.6		
	1.0		Tool Storage Rm Recepts	20/1	21	22	20/1	Truck Loading Bay Recepts		1.0	
		1.0	Truck Loading Bay Recepts	20/1	23	24	20/1	Training Rm Recepts			1.0
1.0			Training Rm Recepts	20/1	25	26	20/1	Training Rm Recepts	0.8		
	1.0		Lobby Recepts	20/1	27	28	20/1	Toilet Rm Recepts		0.4	
		0.8	Shower/Locker Rm Recepts	20/1	29	30	20/1	Water Fountain Recept			0.2
0.3			Recycle Pump Recept	20/1	31	32	20/1	Cooler Recept	0.2		
	0.9		Mech Rm Recpts	20/1	33	34	20/1	Electrical Rm/Lobby Recepts		1.0	
		1.0	Electrical Rm Recepts	20/1	35	36	20/1	Belt Filter Press Rm Recepts			1.0
1.0			Belt Filter Press Rm Recepts	20/1	37	38	20/1	Belt Filter Press Rm Recepts	0.8		
	1.0		Exterior Recepts	20/1	39	40	20/1	Exterior Recepts		1.0	
		0.6	Exterior Recepts	20/1	41	42	20/1	Training Rm Recepts			0.6
3.9	7.5	4.5	TOTAL						6.0	4.5	3.9

PANEL: Panel 20LP-3 | LOCATION: Dewatering and Controls Building - Second Floor Elec Room
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 23.6 | BUS SIZE: 100A | MAIN SIZE:100A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C
			SPARE	15/2	1	2	15/2	20-WSHP-07	0.8		
					3	4				0.8	
		1.1	20-WSHP-08	15/2	5	6	15/2	20-WSHP-11			0.6
1.1						8			0.6		
	1.3		20-WSHP-10	15/2	9	10	30/2	20-CCW-OTRACK-01		2.5	
		1.3			11	12					2.5
0.6			20LIT-50-1/20LIT-50-2	20/1	13	14	30/2	20-CCW-SECRACK-01	2.5		
	0.4		Second Floor FM-200 Panel	20/1	15	16				2.5	
			SPARE	20/1	17	18	30/2	20-CCW-BURACK-01			2.5
			SPARE	20/1	19	20			2.5		
			SPARE	20/1	21	22	20/1	SPARE			
			SPARE	20/1	23	24	20/1	SPARE			
			SPARE	20/1	25	26	20/1	SPARE			
			SPARE	20/1	27	28	20/1	SPARE			
			SPARE	20/1	29	30	20/1	SPARE			
			SPARE	20/1	31	32	20/1	SPARE			
			SPARE	20/1	33	34	20/1	SPARE			
			SPARE	20/1	35	36	20/1	SPARE			
			SPARE	20/1	37	38	20/1	SPARE			
			SPARE	20/1	39	40	20/1	SPARE			
			SPARE	20/1	41	42	20/1	SPARE			
1.7	1.7	2.4	TOTAL						6.4	5.8	5.6

PANEL: Panel 20LP-4 | LOCATION: Dewatering and Controls Building - Second Floor Elec Room
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 24.3 | BUS SIZE: 100A | MAIN SIZE:100A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C
2.5			20-CCW-OTRACK-01	30/2	1	2	30/2	20-CCW-SECRACK-01	2.5		
	2.5				3	4				2.5	
		2.5	20-CCW-BURACK-01	30/2	5	6	20/1	Server Room Lights			0.3
2.5					7	8	20/1	SPARE			
	0.2		Janitor/Men's Shower Lights	20/1	9	10	20/1	Men's Toilet /Men's Locker		0.2	
		0.2	Women's Shower	20/1	11	12	20/1	Women's Toilet			0.2
0.6			Polymer Tank Area Lights	20/1	13	14	20/1	Elevator Lobby	0.2		
	0.5		Corridor Lights	20/1	15	16	20/1	Electrical Room Lights		0.4	
		0.3	Office Lights	20/1	17	18	20/1	Control Room Lights			0.3
0.3			Break Room Lights	20/1	19	20	20/1	SPARE			
	0.8		BFP Room Lights	20/2	21	22	20/2	Truck Drive Lights		0.6	
		0.8			23	24					0.6
0.8			BFP Lights	20/2	25	26	20/2	Truck Drive Lights	0.6		
	0.8				27	28				0.6	
			SPARE	20/1	29	30	20/1	SPARE			
			SPARE	20/1	31	32	20/1	SPARE			
			SPARE	20/1	33	34	20/1	SPARE			
			SPARE	20/1	35	36	20/1	SPARE			
			SPARE	20/1	37	38	20/1	SPARE			
			SPARE	20/1	39	40	20/1	SPARE			
			SPARE	20/1	41	42	20/1	SPARE			
6.7	4.8	3.8	TOTAL						3.3	4.3	1.4

PANEL: 20LP-5 | LOCATION: Dewatering and Control Building - Second Floor Electrical Room
SERVICE VOLTAGE: 120/240V | PHASE: 1 | WIRE: 3
TOTAL LOAD KVA: 20.7 | BUS SIZE: 225A | MAIN SIZE: 200A | TYPE: BREAKER
REMARKS: NEMA 1 | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B
0.8		Polymer Tank Area Recepts	20/1	1	2	20/1	Second Floor Elc Rm/Lobby Rece	1.0	
	0.6	Office 204 Recepts	20/1	3	4	20/1	Office 204 Recepts		0.6
0.6		Server Rm Recepts	20/1	5	6	20/1	Server Rm Recepts	0.6	
	0.5	Refrigerator Recept	20/1	7	8	50/2	Electric Range Recept		1.2
0.4		Break Rm Counter Recepts	20/1	9	10			1.2	
	1.0	Break Rm Recepts	20/1	11	12	20/1	Control Rm Recepts		1.0
0.6		Control Rm Recepts	20/1	13	14	20/1	Control Rm Monitor Recepts	0.6	
	0.6	Control Rm Monitor Recepts	20/1	15	16	20/1	Control Rm Monitor Recepts		0.6
0.4		Men's/Women' Toilet	20/1	17	18	20/1	Drinking Fountain/Locker Rm Rece	0.9	
	0.4	Men's Shower/Janitor Recepts	20/1	19	20	20/1	Corridor Recepts		0.8
0.6		Corridor Recepts	20/1	21	22	20/1	Control Rm Floor Recepts	0.6	
	0.6	Control Rm Floor Recepts	20/1	23	24	20/1	Break Rm Recepts		0.6
1.0		Microwave	20/1	25	26	20/1	Roof Recept	0.4	
	0.5	20-EF-09	20/1	27	28	20/1	Elevator Control Panel		0.5
0.5		20-SC-SWP-00C	20/1	29	30	20/1	Control Rm Recepts	0.5	
		SPARE	20/1	31	32	20/1	SPARE		0.5
		SPARE	20/1	33	34	20/1	SPARE		
		SPARE	20/1	35	36	20/1	SPARE		
		SPARE	20/1	37	38	20/1	SPARE		
		SPARE	20/1	39	40	20/1	SPARE		
		SPARE	20/1	41	42	20/1	SPARE		
4.9	4.2	TOTAL						5.8	5.8

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	GT YARBERRY		G MESSER	KB HORTON		GT YARBERRY

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C.C. WILLIAMS WWTP
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
DEWATERING AND CONTROL BUILDING PANEL SCHEDULES

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6006
SHEET	176 of 270

PANEL: Panel 20PP-1 | LOCATION: Dewatering and Controls Building - First Floor Elec Rm
SERVICE VOLTAGE: 480V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 32.8 | BUS SIZE: 150A | MAIN SIZE:150A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.		CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
1.0			20-LCP-13-1	20/3	1		2	20/3	20-LCP-14-1	1.7		
	1.0				3		4				1.7	
		1.0			5		6					1.7
1.9			20-WSHP-05	15/3	7		8	30/3	20-G-30-6A	0.5		
	1.9				9		10				0.5	
		1.9			11		12					0.5
0.5			20-G-30-8A	30/3	13		14	30/3	20-G-30-8B	0.5		
	0.5				15		16				0.5	
		0.5			17		18					0.5
0.5			20-G-30-8C	30/3	19		20	25/3	20-WSHP-01	4.3		
	0.5				21		22	⬡ 1			4.3	
		0.5			23		24					4.3
			SPARE	20/3	25		26	20/3	SPARE			
					27		28					
					29		30					
			SPARE	30/3	31		32	30/3	SPARE			
					33		34					
					35		36					
			SPARE	30/3	37		38	30/3	SPARE			
					39		40					
					41		42					
3.9	3.9	3.9	TOTAL							7.0	7.0	7.0

PANEL: Panel 20PP-2 | LOCATION: Dewatering and Controls Building - First Floor Elec Rm
SERVICE VOLTAGE: 480V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 42.6 | BUS SIZE: 150A | MAIN SIZE:150A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.		CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
0.5			20-G-30-5A	30/3	1		2	30/3	20-G-30-7A	0.5		
	0.5				3		4				0.5	
		0.5			5		6					0.5
0.5			20-G-30-7B	30/3	7		8	30/3	20-G-30-7C	0.5		
	0.5				9		10				0.5	
		0.5			11		12					0.5
4.0			20-WSHP-04	20/3	13		14	20/3	20-WSHP-05	1.9		
	4.0				15		16				1.9	
		4.0			17		18					1.9
			SPARE	20/3	19		20	40/3	Crane	6.3		
					21		22				6.3	
					23		24					6.3
			SPARE	20/3	25		26	20/3	SPARE			
					27		28					
					29		30					
			SPARE	30/3	31		32	30/3	SPARE			
					33		34					
					35		36					
			SPARE	30/3	37		38	30/3	SPARE			
					39		40					
					41		42					
5.0	5.0	5.0	TOTAL							9.2	9.2	9.2

PANEL: Panel 20PP-3 | LOCATION: Dewatering and Controls Building - Second Floor Elec Rm
SERVICE VOLTAGE: 480V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 47.4 | BUS SIZE: 150A | MAIN SIZE:150A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: N/A | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.		CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
11.0			20-MAU-01	50/3	1		2	15/3	20-WSHP-09	2.4		
	11.0			⬡ 1	3		4				2.4	
		11.0			5		6					2.4
2.4			20-WSHP-06	20/3	7		8	20/3	SPARE			
	2.4				9		10					
		2.4			11		12					
			SPARE	20/3	13		14	20/3	SPARE			
					15		16					
					17		18					
			SPARE	30/3	19		20	30/3	SPARE			
					21		22					
					23		24					
			SPARE	20/3	25		26	20/3	SPARE			
					27		28					
					29		30					
					31		32					
					33		34					
					35		36					
					37		38					
					39		40					
					41		42					
13.4	13.4	13.4	TOTAL							2.4	2.4	2.4

PANEL: Panel 20PP-4 | LOCATION: Dewatering and Controls Building - Second Floor Elec Rm
SERVICE VOLTAGE: 480V | PHASE: 3 | WIRE: 3
TOTAL LOAD KVA: 30.0 | BUS SIZE: 150A | MAIN SIZE:150A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: N/A | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.		CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
10.0			Elevator Control Panel	90/3	1		2	20/3	SPARE			
	10.0				3		4					
		10.0			5		6					
			SPARE	20/3	7		8	20/3	SPARE			
					9		10					
					11		12					
			SPARE	20/3	13		14	20/3	SPARE			
					15		16					
					17		18					
			SPARE	30/3	19		20	30/3	SPARE			
					21		22					
					23		24					
			SPARE	30/3	25		26	30/3	SPARE			
					27		28					
					29		30					
			SPACE		31		32		SPACE			
			SPACE		33		34		SPACE			
			SPACE		35		36		SPACE			
			SPACE		37		38		SPACE			
			SPACE		39		40		SPACE			
			SPACE		41		42		SPACE			
10.0	10.0	10.0	TOTAL							0.0	0.0	0.0

SHEET KEYNOTES

1. BREAKER SHALL BE HACR RATED.

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

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PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ELECTRICAL

DEWATERING AND CONTROL BUILDING PANEL SCHEDULES

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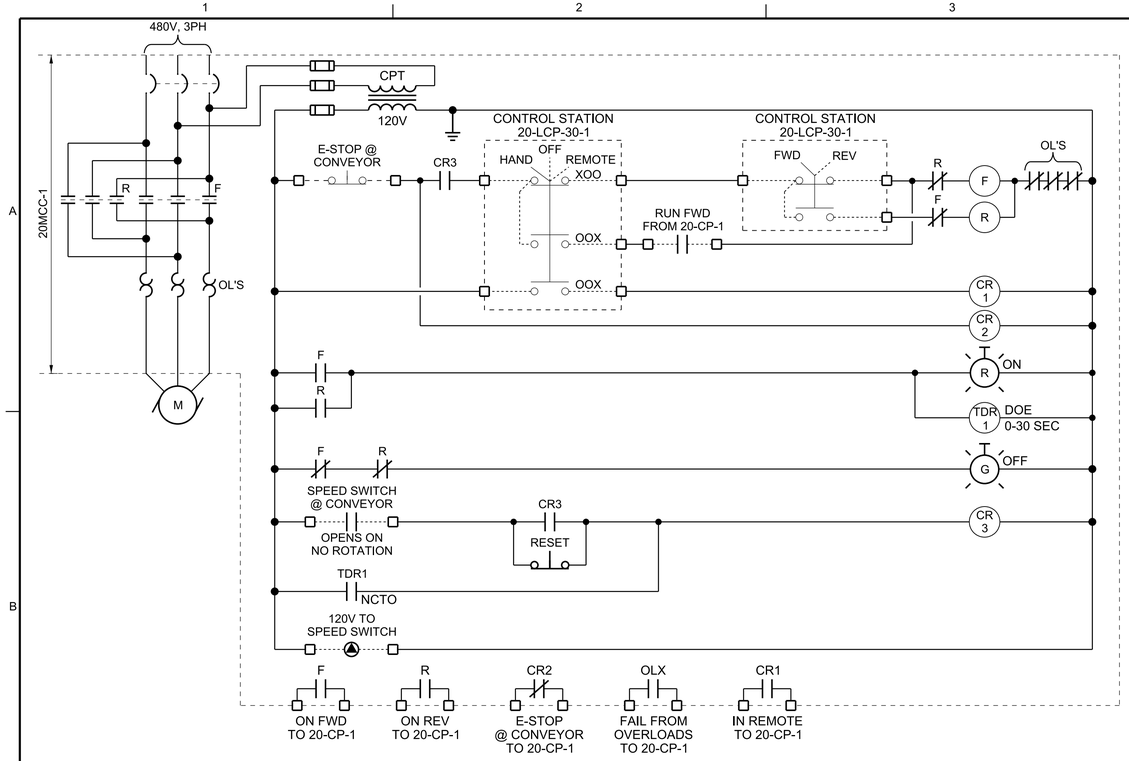
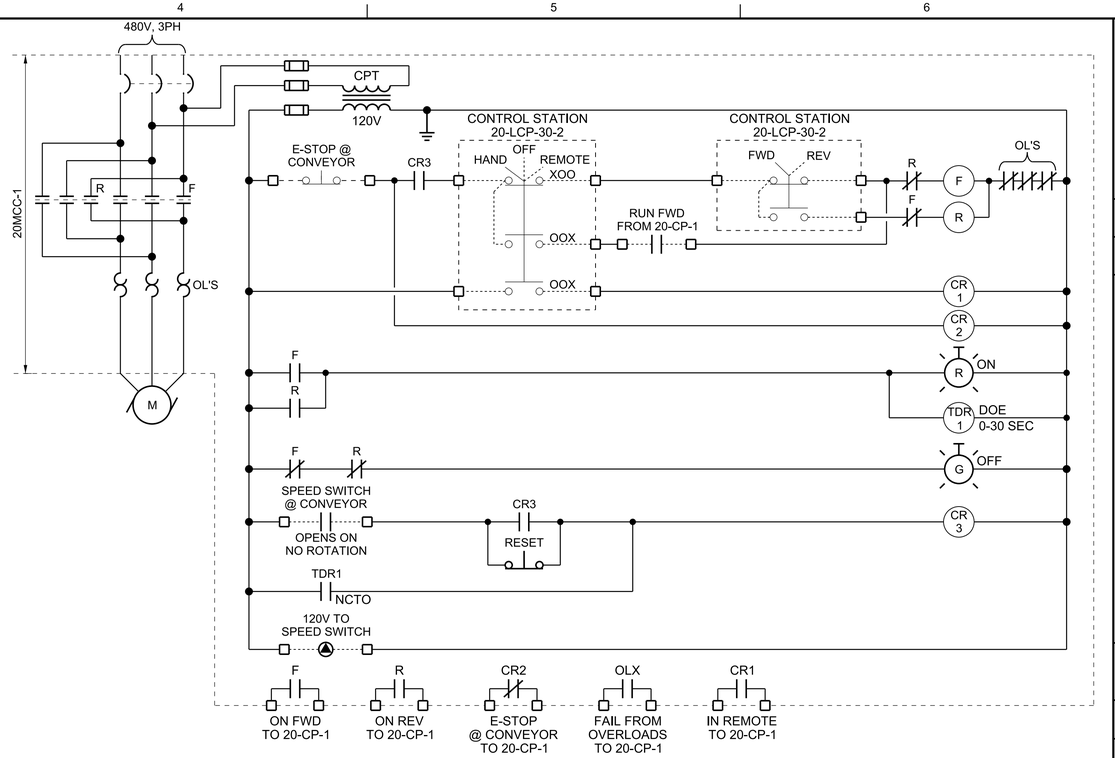
CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

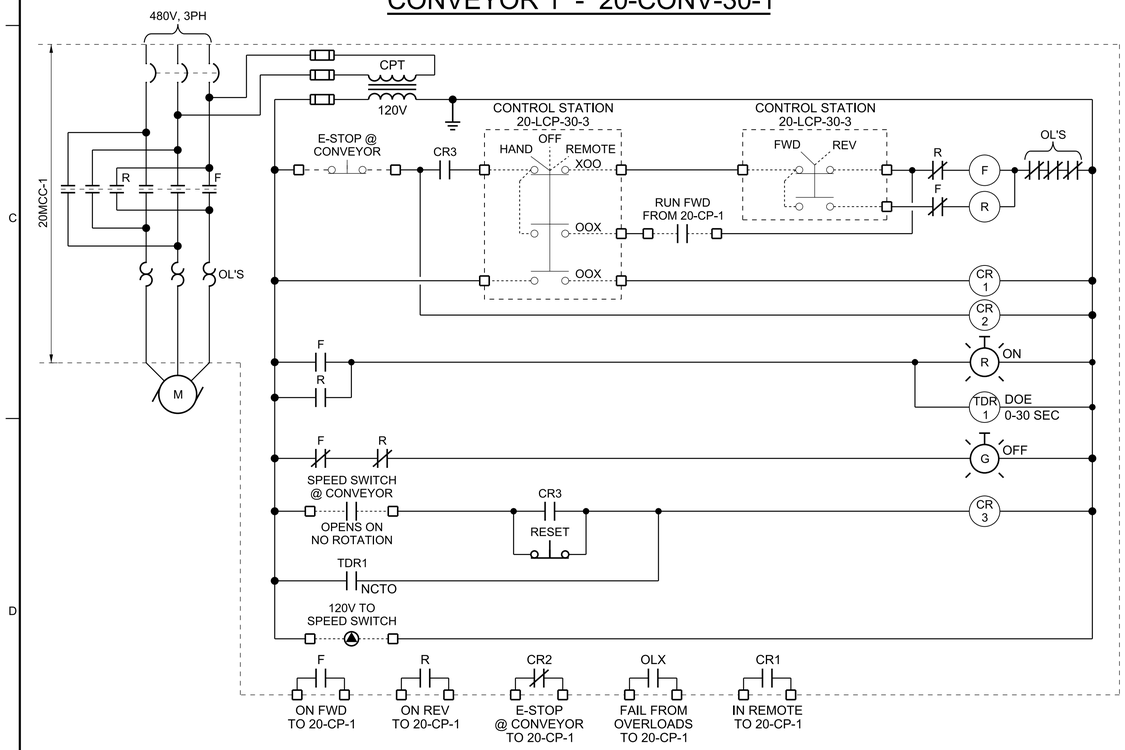
DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6007
SHEET	177 of 270



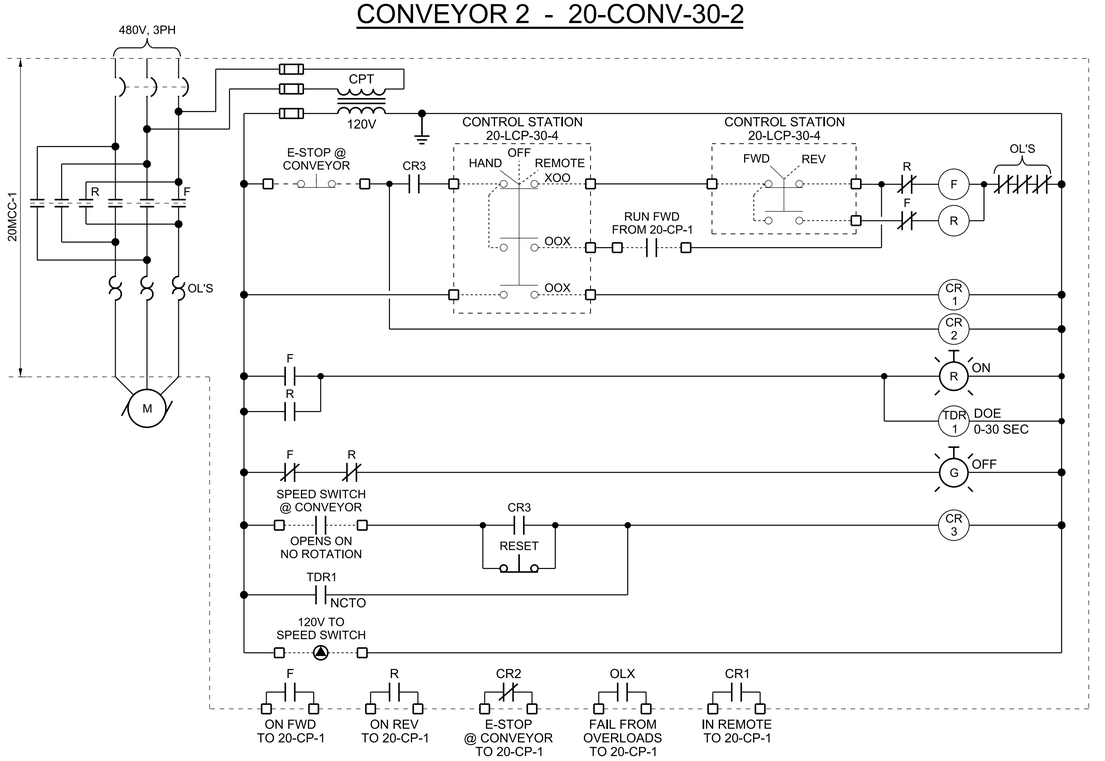
CONVEYOR 1 - 20-CONV-30-1



CONVEYOR 2 - 20-CONV-30-2



CONVEYOR 3 - 20-CONV-30-3



CONVEYOR 4 - 20-CONV-30-4

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON		GT YARBERRY	

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MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING CONTROL DIAGRAMS

CONFORMED DOCUMENTS

VERIFY SCALE
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0 1"

DATE	MAY 2021
PROJ	D3226100
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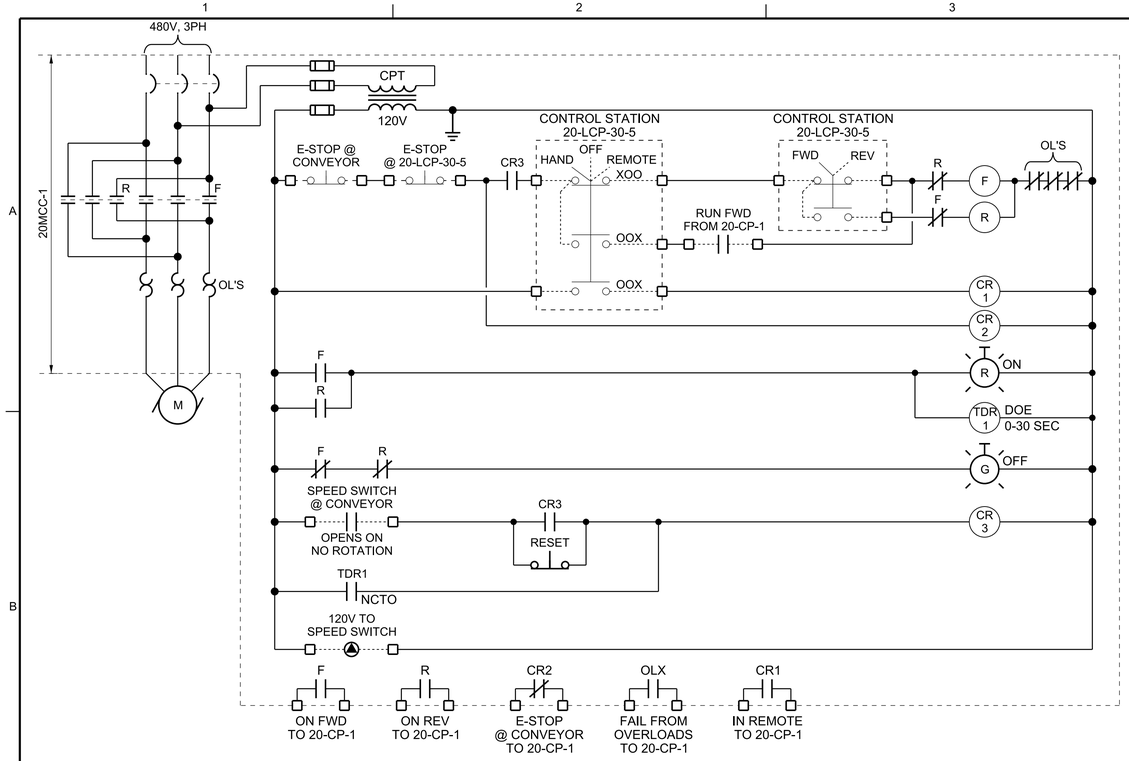
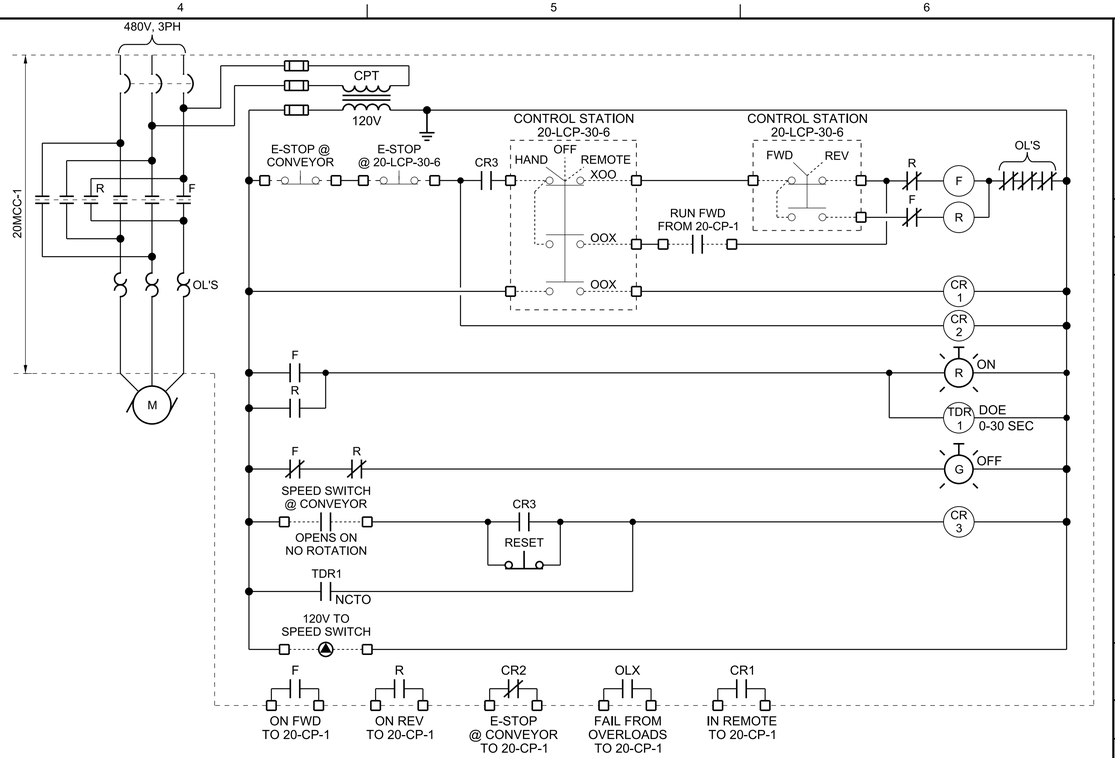
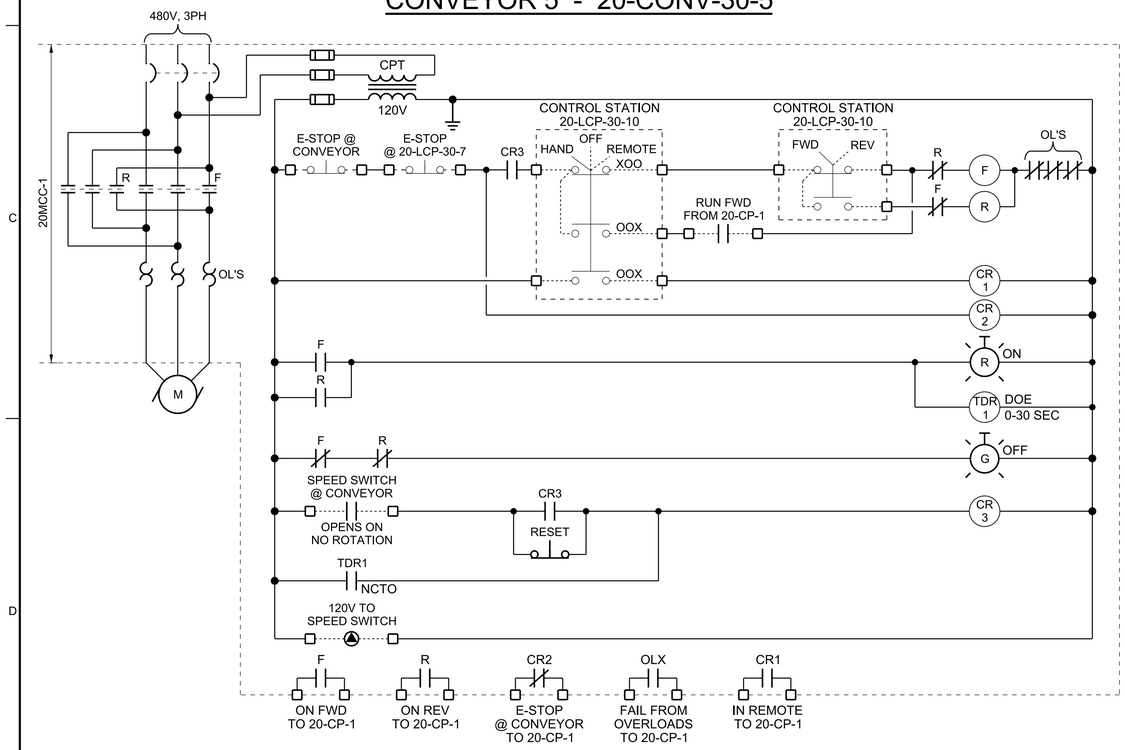


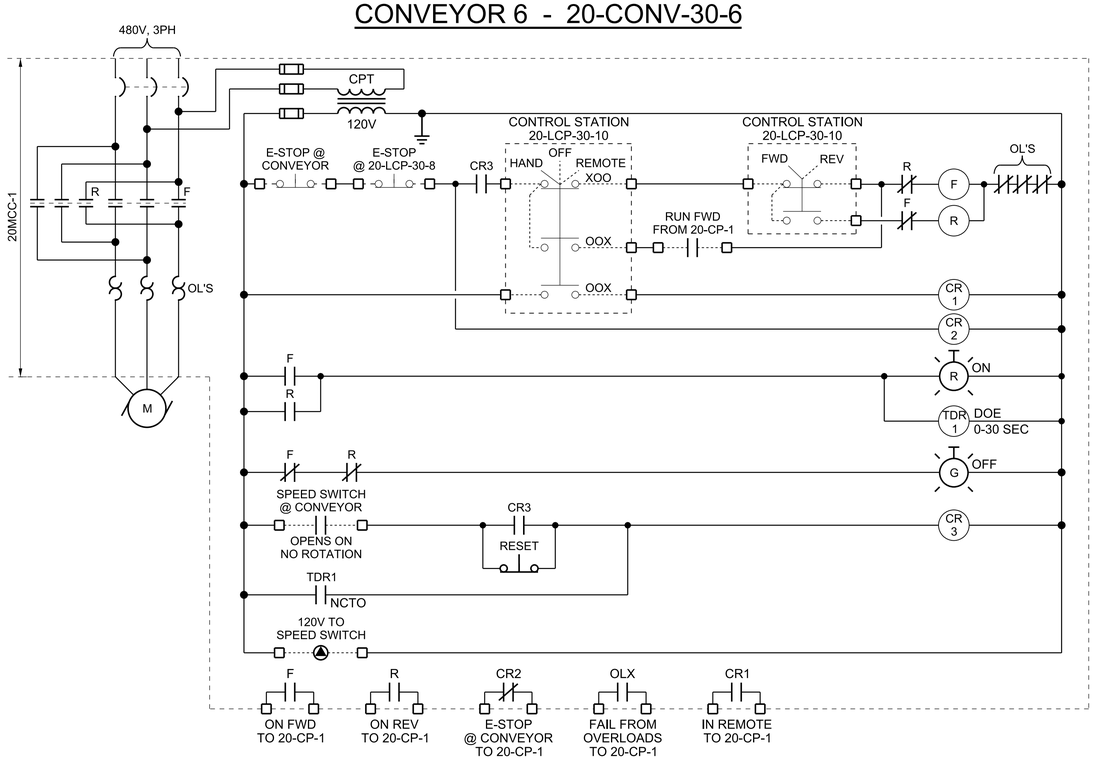
CONVEYOR 5 - 20-CONV-30-5



CONVEYOR 6 - 20-CONV-30-6



CONVEYOR 7 - 20-CONV-30-7



CONVEYOR 8 - 20-CONV-30-8

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ELECTRICAL

DEWATERING AND CONTROL BUILDING CONTROL DIAGRAMS

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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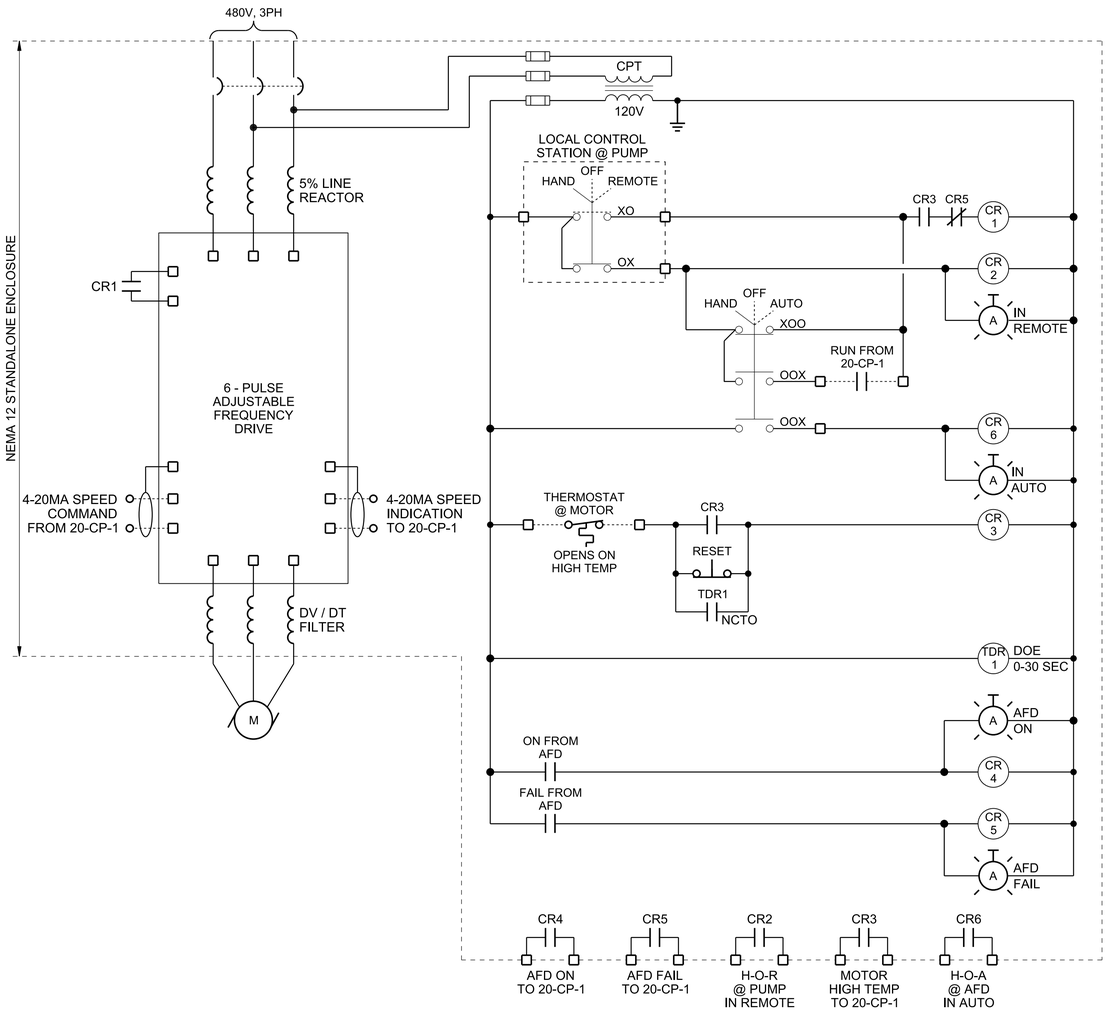
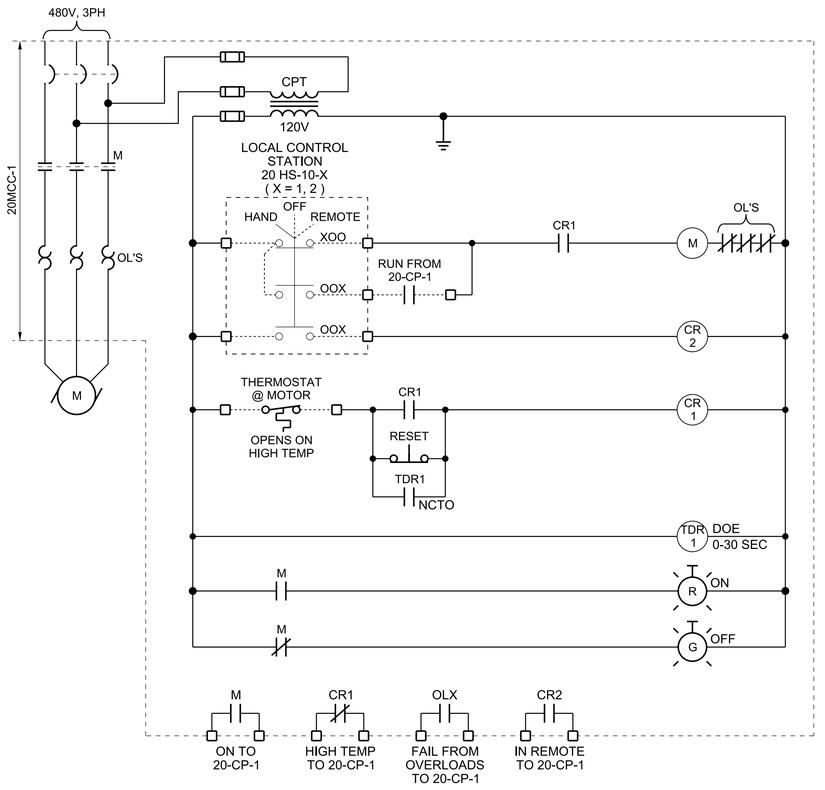
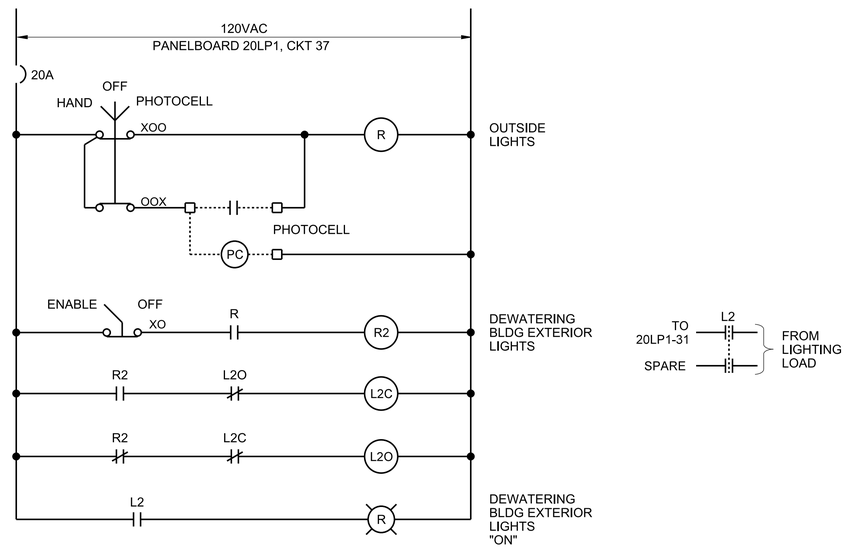


DIGESTED SLUDGE PUMP 1 85-AFD-11-1
DIGESTED SLUDGE PUMP 2 85-AFD-11-2



MIXER NO. 1 20-M-10-1
MIXER NO. 2 20-M-10-2



LIGHTING CONTACTOR 20-LCT-1 CONTROL DIAGRAMS

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER	KB HORTON	APVD	GT YARBERRY	

CONFORMED DOCUMENTS

Jacobs
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PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING CONTROL DIAGRAMS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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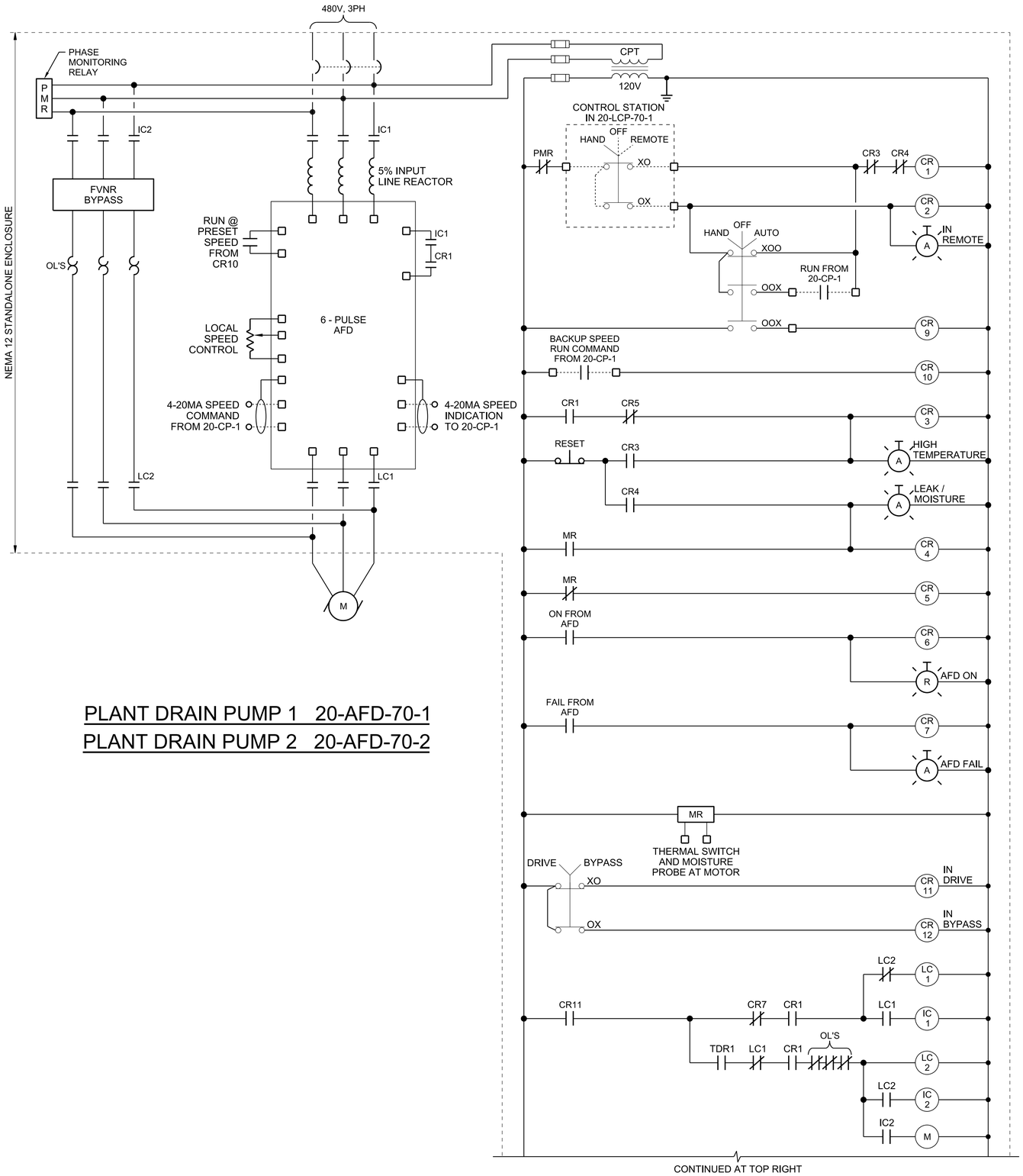

PLANT DRAIN PUMP 1 20-AFD-70-1

PLANT DRAIN PUMP 2 20-AFD-70-2

NO.	DATE	DR	REVISION	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING CONTROL DIAGRAMS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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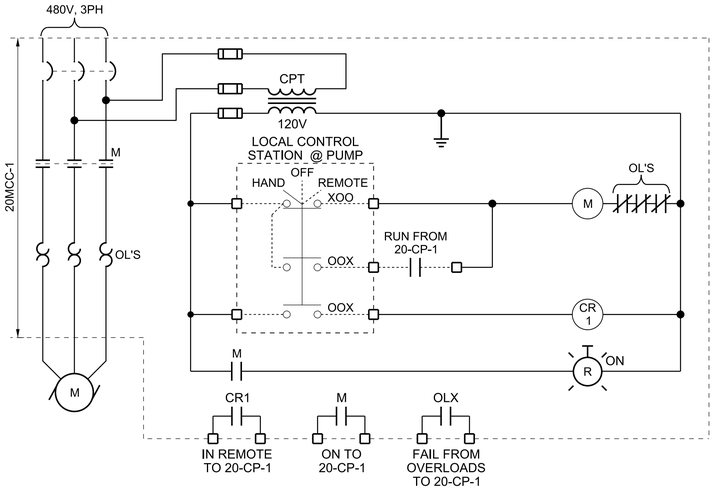
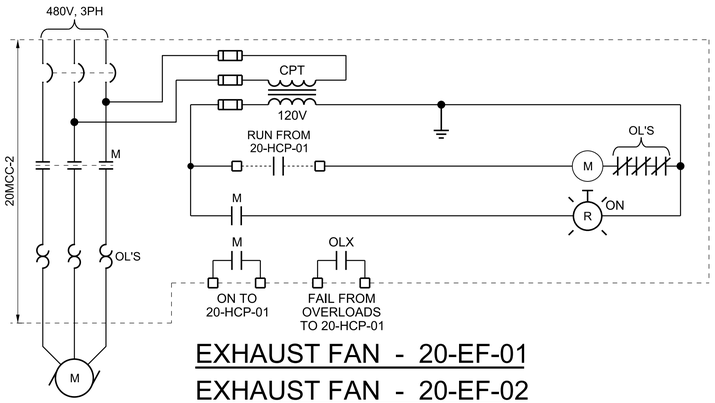


POLYMER MIXING PUMP 1 - 20-P-51-1

POLYMER MIXING PUMP 2 - 20-P-51-2



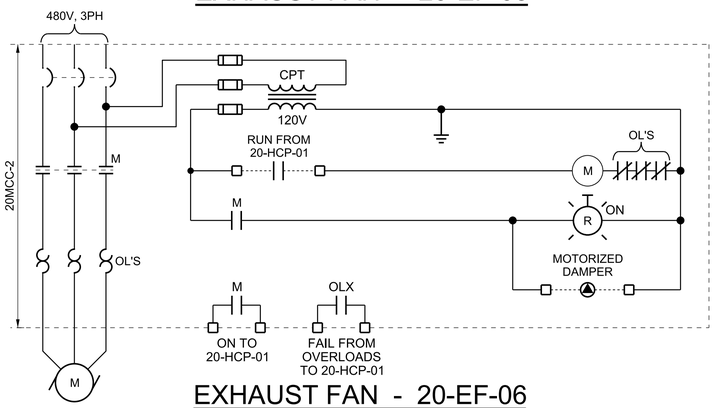
EXHAUST FAN - 20-EF-01

EXHAUST FAN - 20-EF-02

EXHAUST FAN - 20-EF-03

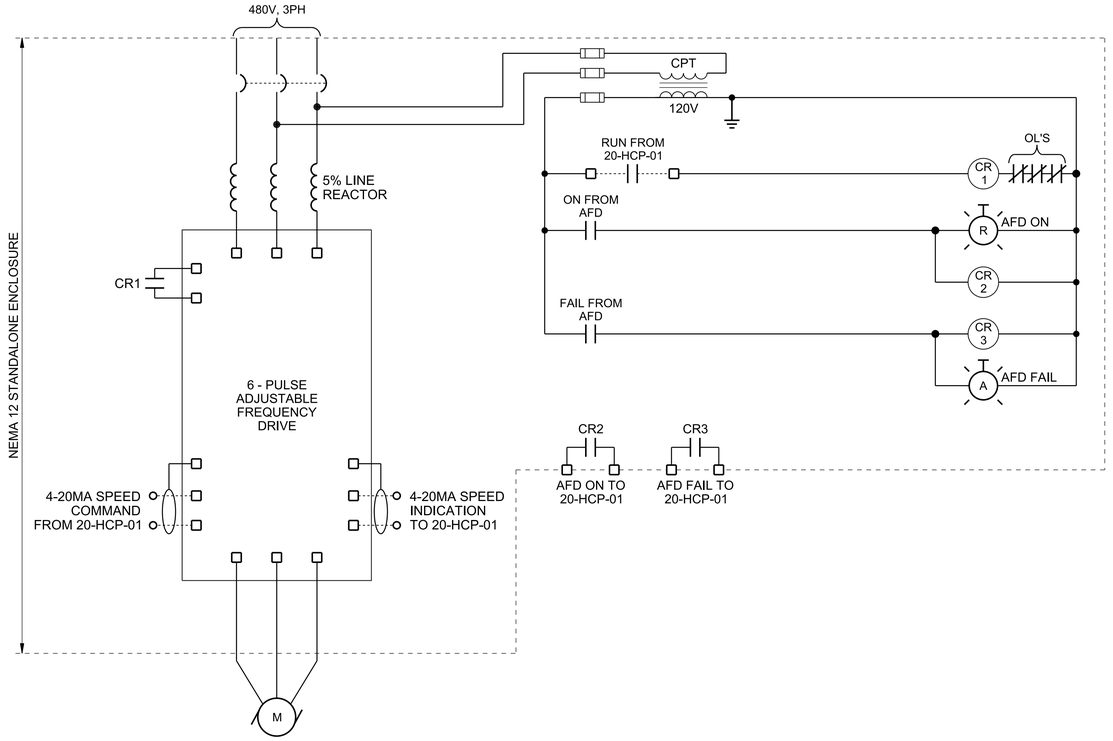
EXHAUST FAN - 20-EF-04

EXHAUST FAN - 20-EF-05



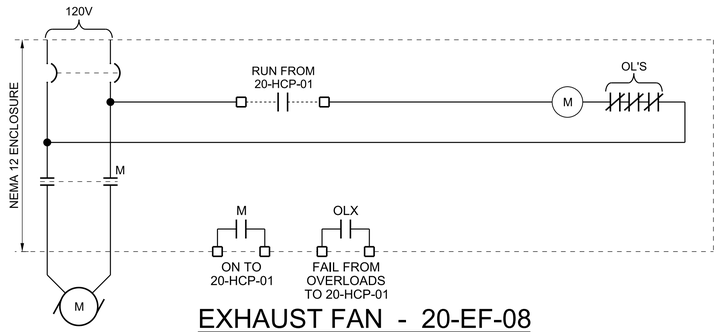
EXHAUST FAN - 20-EF-06

EXHAUST FAN - 20-EF-07



HYDRONIC PUMP 1 - 20-P-01

HYDRONIC PUMP 2 - 20-P-02



EXHAUST FAN - 20-EF-08

EXHAUST FAN - 20-EF-09

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING CONTROL DIAGRAMS

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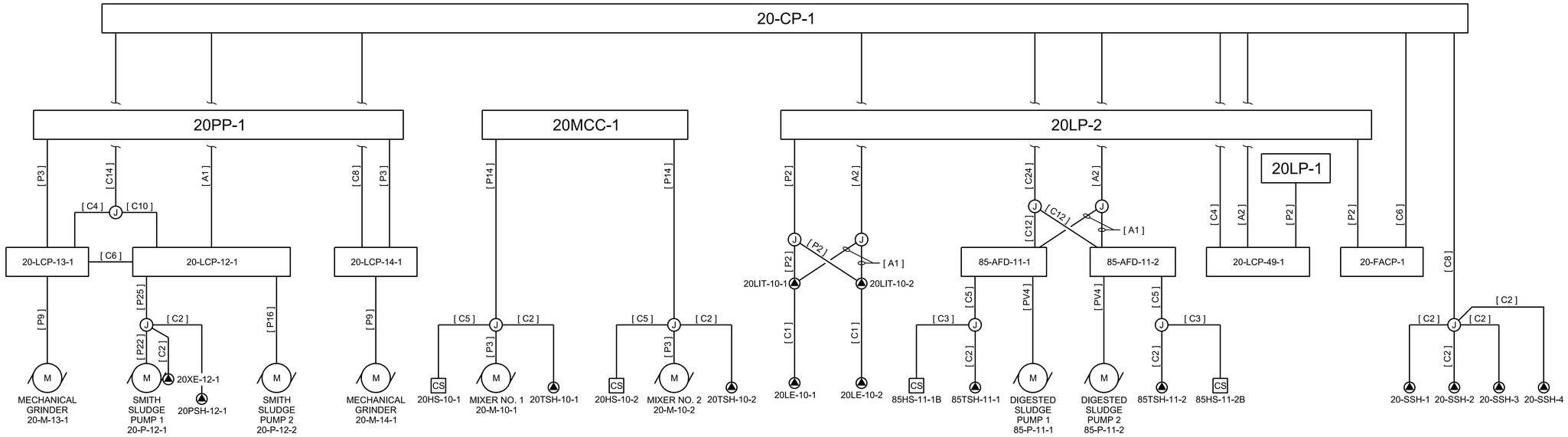

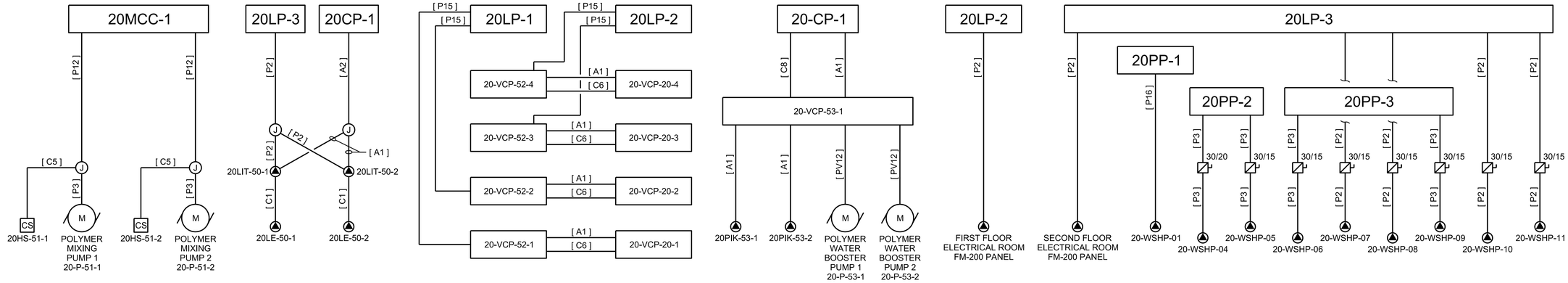

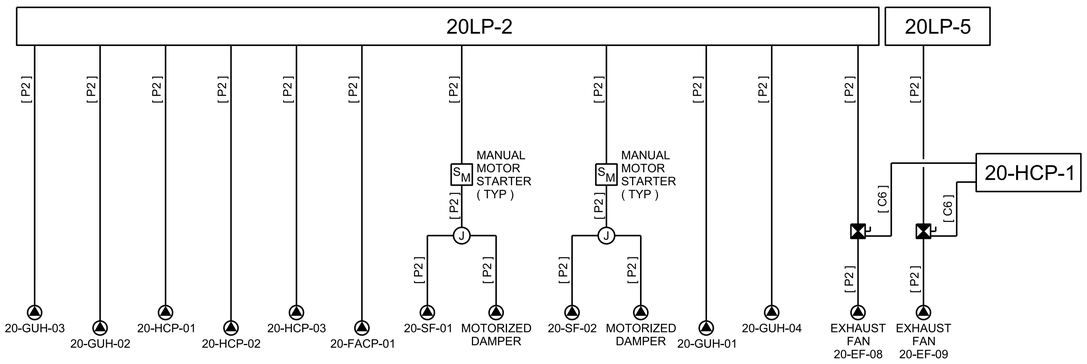

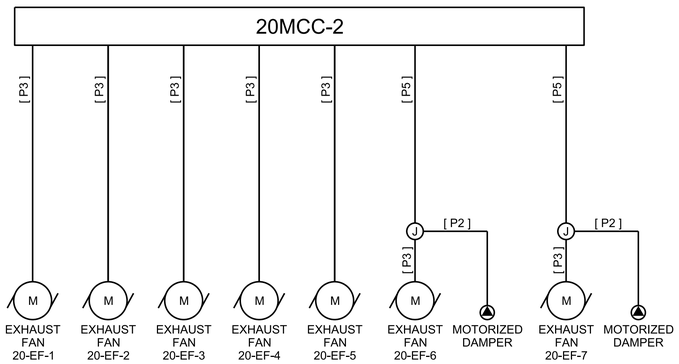

NO.	DATE	DR	REVISION	CHK	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON	GT YARBERRY	

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DEWATERING FACILITY & OTHER IMPROVEMENTS
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MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING WIRING DIAGRAMS

CONFORMED DOCUMENTS

VERIFY SCALE
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DATE	MAY 2021
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DWG	20-E-6014
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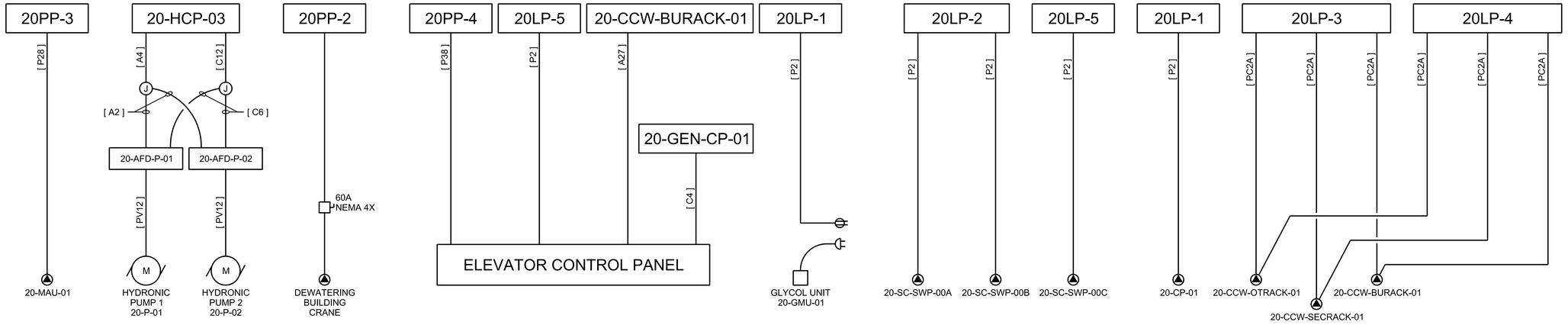
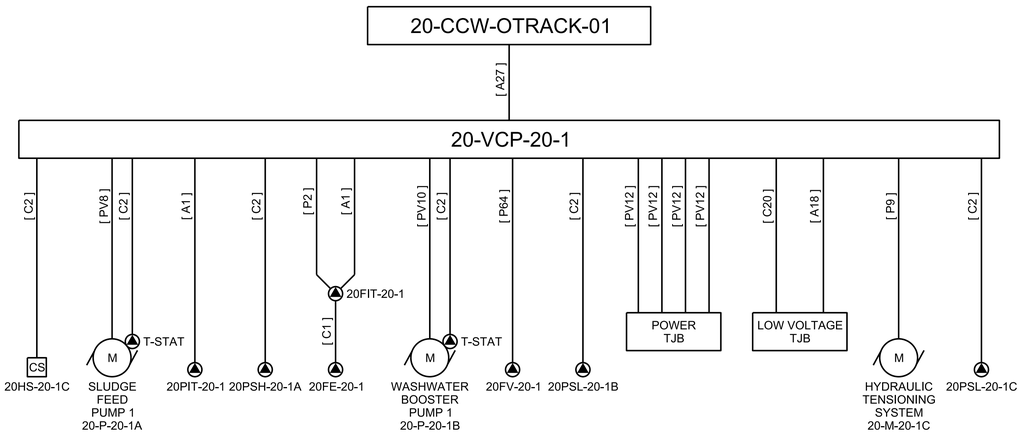
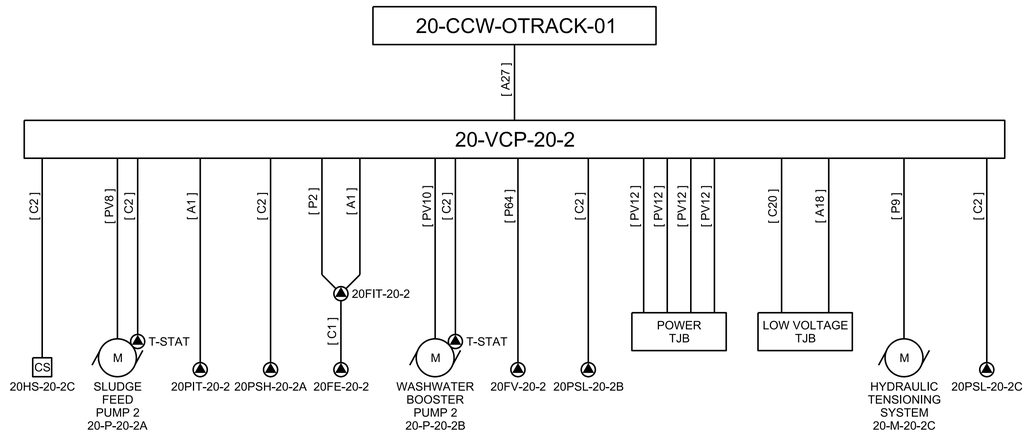
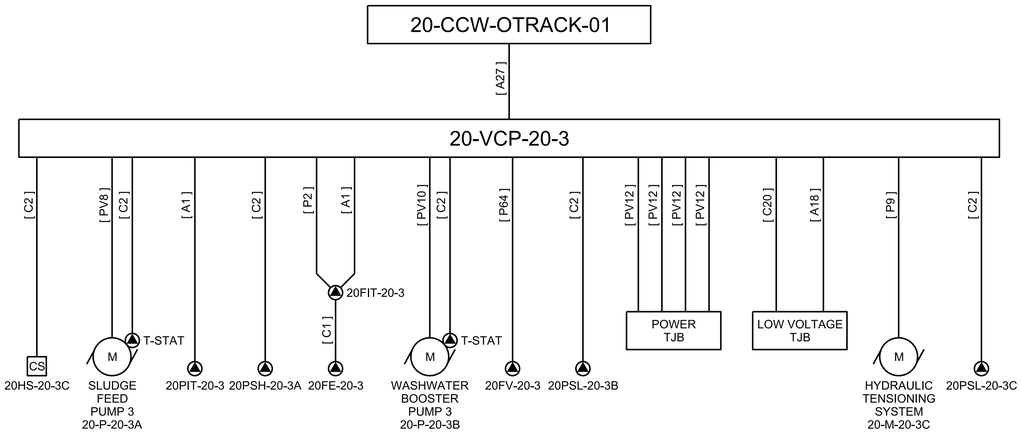




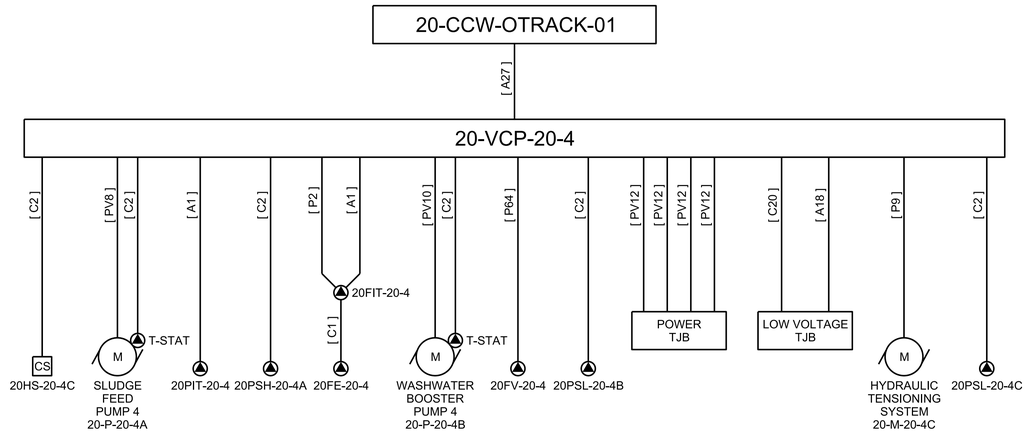
BFP 1 WIRING DIAGRAM



BFP 2 WIRING DIAGRAM



BFP 3 WIRING DIAGRAM



BFP 4 WIRING DIAGRAM

NO.	DATE	DR	REVISION	CHK	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
DEWATERING AND CONTROL BUILDING WIRING DIAGRAMS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
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DWG	20-E-6015
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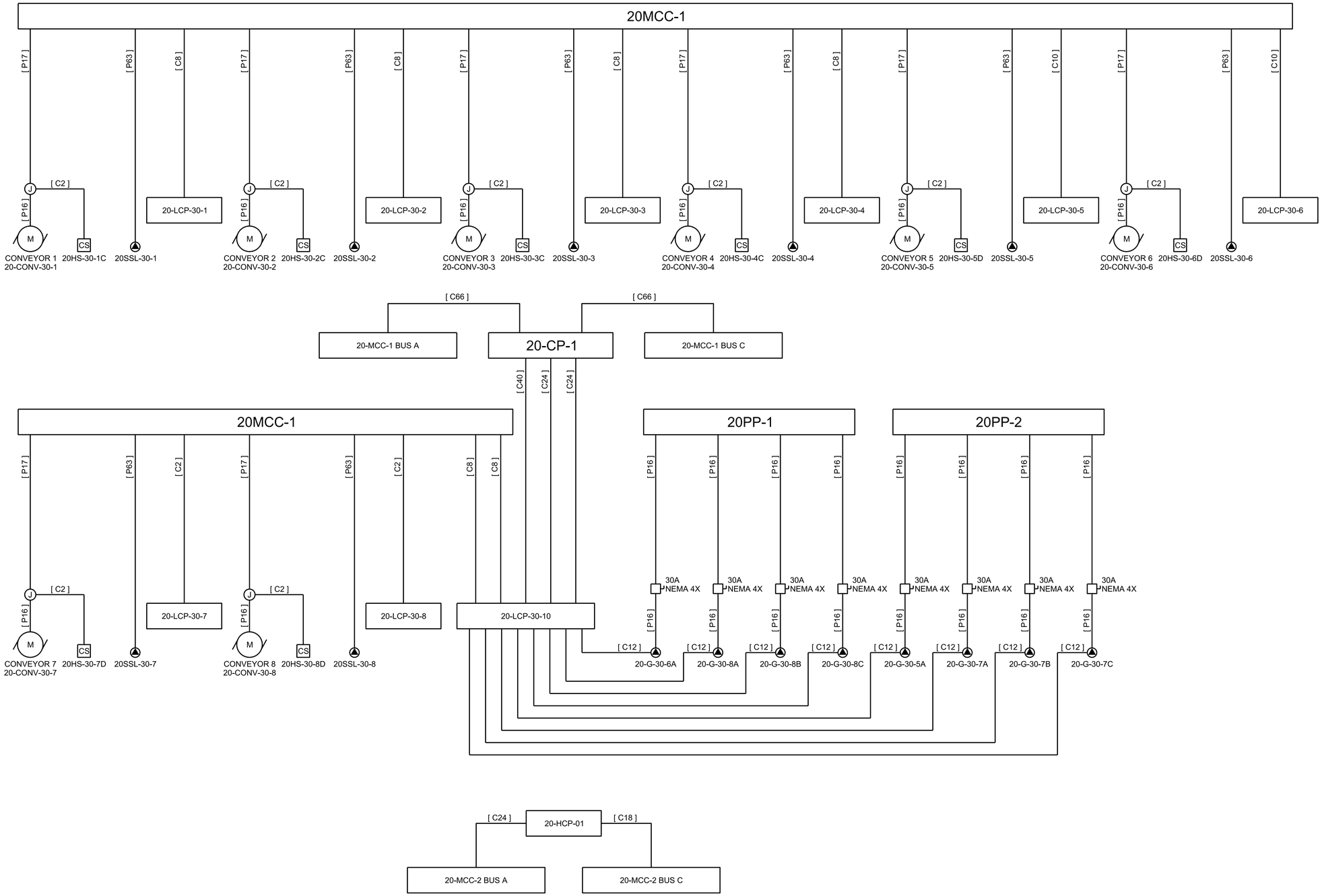

NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY	

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

DEWATERING AND CONTROL BUILDING WIRING DIAGRAMS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6016
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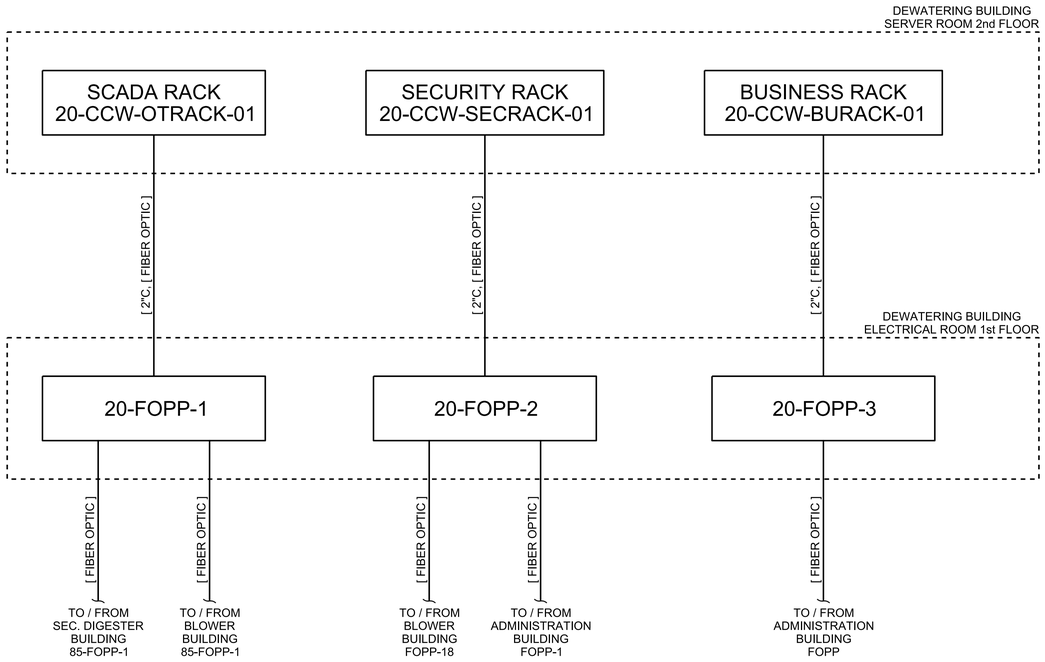

FIBER OPTIC RISER DIAGRAM

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	GT YARBERRY		G MESSER	KB HORTON	APVD	GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
DEWATERING AND CONTROL BUILDING
FIBER OPTIC RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-E-6017
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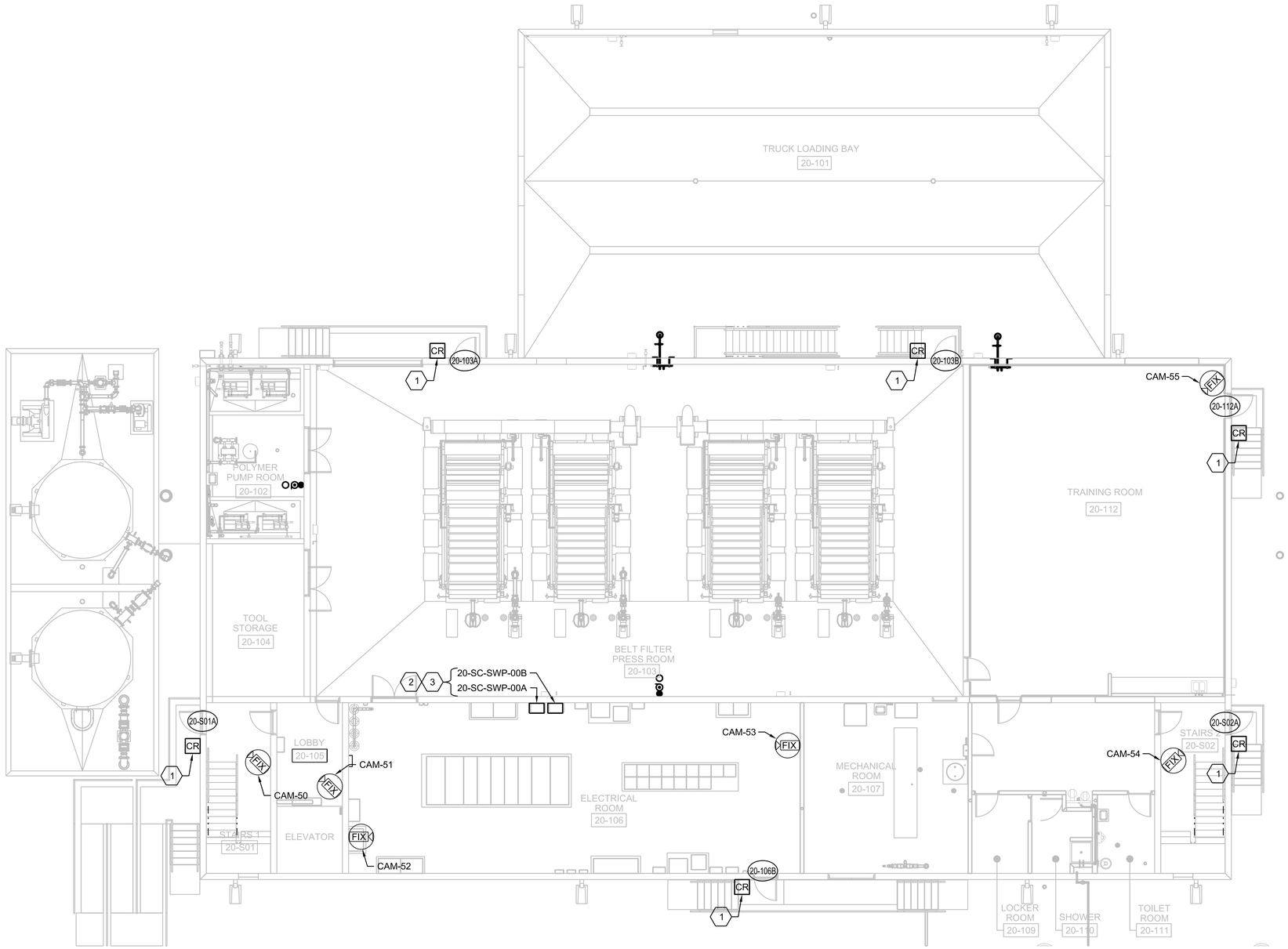
GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. PROVIDE CARD READER, CONTACT, REX AND ASSOCIATED LOCKING HARDWARE. CONTRACTOR TO VERIFY THE CARD READERS ARE COMPATIBLE WITH MAWSS CARDS AND TO PERFORM FIELD TESTING FOR THE CARDS.
2. PROVIDE WALL-MOUNTED ENCLOSURE, WITH SECURITY EQUIPMENT ON WALL OF ELECTRICAL ROOM.
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.



FIRST FLOOR PLAN

1/8"=1'-0"

	NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
REVISION			F ABUHIJLEH	A PASTRANA	F GIST		G YARBERRY	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

SECURITY
DEWATERING AND CONTROL BUILDING
FIRST FLOOR PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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PROJ	D3226100
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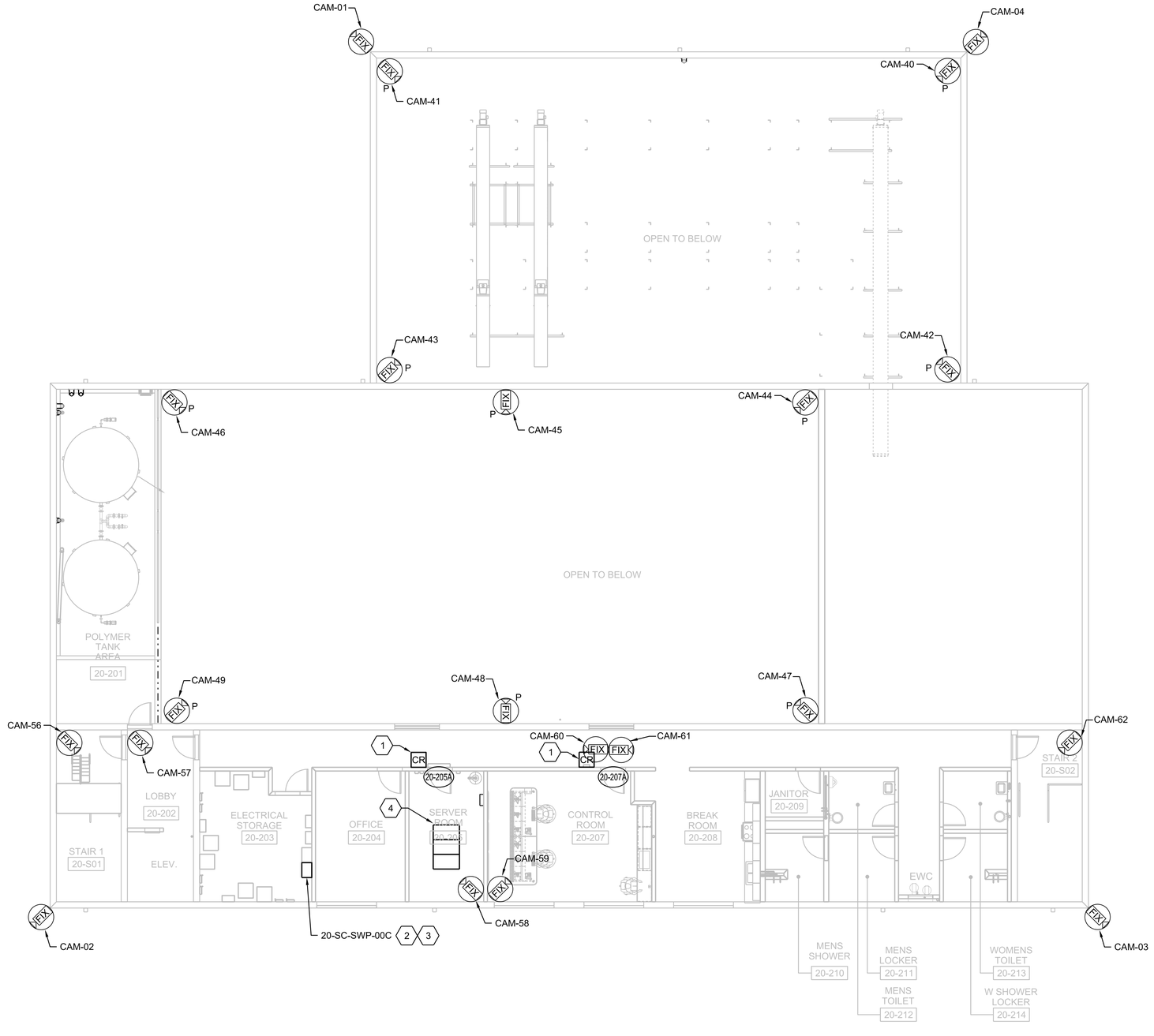
1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. PROVIDE CARD READER, CONTACT, REX AND ASSOCIATED LOCKING HARDWARE. CONTRACTOR TO VERIFY THE CARD READERS ARE COMPATIBLE WITH MAWSS CARDS AND TO PERFORM FIELD TESTING FOR THE CARDS.
2. PROVIDE WALL-MOUNTED ENCLOSURE, WITH SECURITY EQUIPMENT ON WALL OF ELECTRICAL ROOM.
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. SECURITY RACK PROVIDED BY OTHERS.



N

SECOND FLOOR PLAN

1/8"=1'-0"

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		F ABUHIJLEH	A PASTRANA	F GIST	APVD	G YARBERRY	

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
DEWATERING AND CONTROL BUILDING
SECOND FLOOR PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
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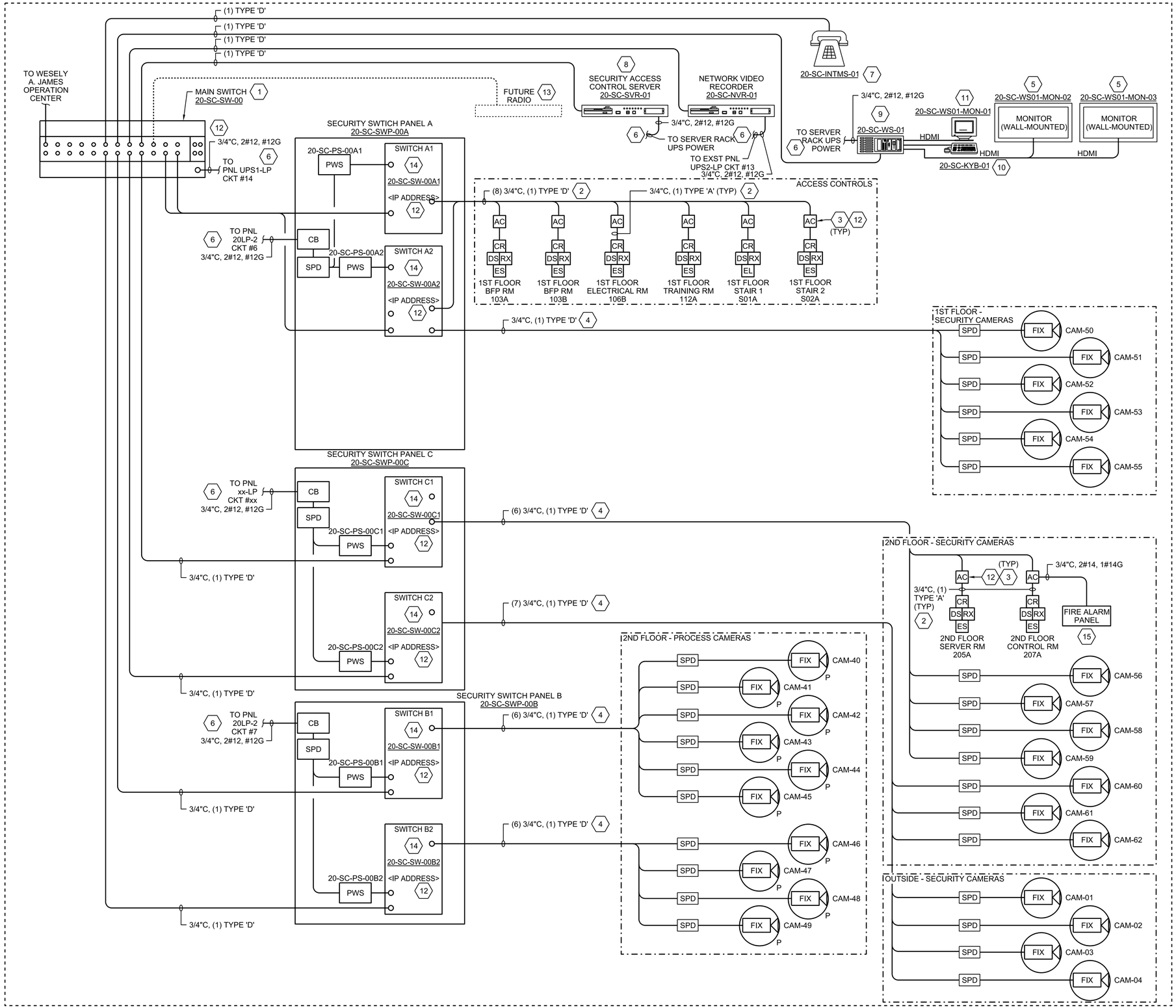

GENERAL SHEET NOTES

1. REFER TO DRAWING 001-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. MAIN SWITCH: PROVIDES NETWORK CONNECTIVITY AND DATA STORAGE FOR ACCESS CONTROL AND CCTV SYSTEMS. CONNECT TO EXISTING MAWSS NETWORK.
2. ACCESS CONTROL DOOR: PROVIDE RACEWAY, DEVICES, CABLING AND ELECTRIFIED DOOR HARDWARE FOR FULLY FUNCTIONAL ACCESS CONTROLLED DOOR.
3. ACCESS CONTROLLER : PROVIDE SINGLE-DOOR CONTROLLER KIT TO INCLUDE THE FOLLOWING:
   - INTRUSION DETECTOR
   - CARD READER
   - DOOR CONTROLLER
   - ELECTRICAL STRIKE LOCK
   - REQUEST-FOR-EXIT (REX)
4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
5. WALL-MOUNT MONITORS: TWO WALL-MOUNTED MONITORS DESIGNATED FOR SECURITY USE. THE MONITORS ARE PROVIDED BY OTHERS.
6. 120 VAC POWER.
7. INTERCOM MASTER: PROVIDE IP MASTER INTERCOM UNIT. THIS UNIT TO BE ABLE TO VIEW THE VEHICLE ENTRY NORTH GATE AND TO CONTROL (OPEN/CLOSE/STOP) THE GATE.
8. ACCESS CONTROL SERVER (RACK-MOUNTED)
9. SECURITY/VIDEO COMPUTER WORKSTATION (RACK-MOUNTED).
10. SECURITY KEYBOARD AND MOUSE (ON CONSOLE).
11. SECURITY CONSOLE-MOUNTED DISPLAY MONITOR PROVIDED BY OTHERS.
12. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
13. FUTURE RADIO TO BE SPECIFIED, PROVIDED, INSTALLED, CONFIGURED, AND TESTED BY MAWSS.
14. INDUSTRIAL ETHERNET SWITCH: TYPE 2, PROVIDES POE NETWORK CONNECTIVITY FOR ACCESS CONTROL AND VIDEO SYSTEM, CONNECT TO EXISTING MAWSS NETWORK.
15. FIRE ALARM CONTROL PANEL (FACP) PROVIDED BY OTHERS. THE FACP INCLUDES A NORMALLY CLOSED DRY CONTACT TO INTERFACE WITH THE SECURITY CONTROLLER. USE THE "INPUT 4" AND THE "COMMON" TERMINALS ON THE ACCESS CONTROLLER TO CONNECT WITH THE FACP DRY CONTACT. THE SECURITY SOFTWARE NEEDS TO BE CONFIGURED TO RELEASE ALL SECURITY ACCESS DOORS ON A FIRE CONDITION.

NO.	DATE	DSGN	REVISION	CHK	DR
		F ABUHIJLEH	A PASTRANA	F GIST	APVD
					BY APVD
					G YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
DEWATERING AND CONTROL BUILDING RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	20-TY-6001
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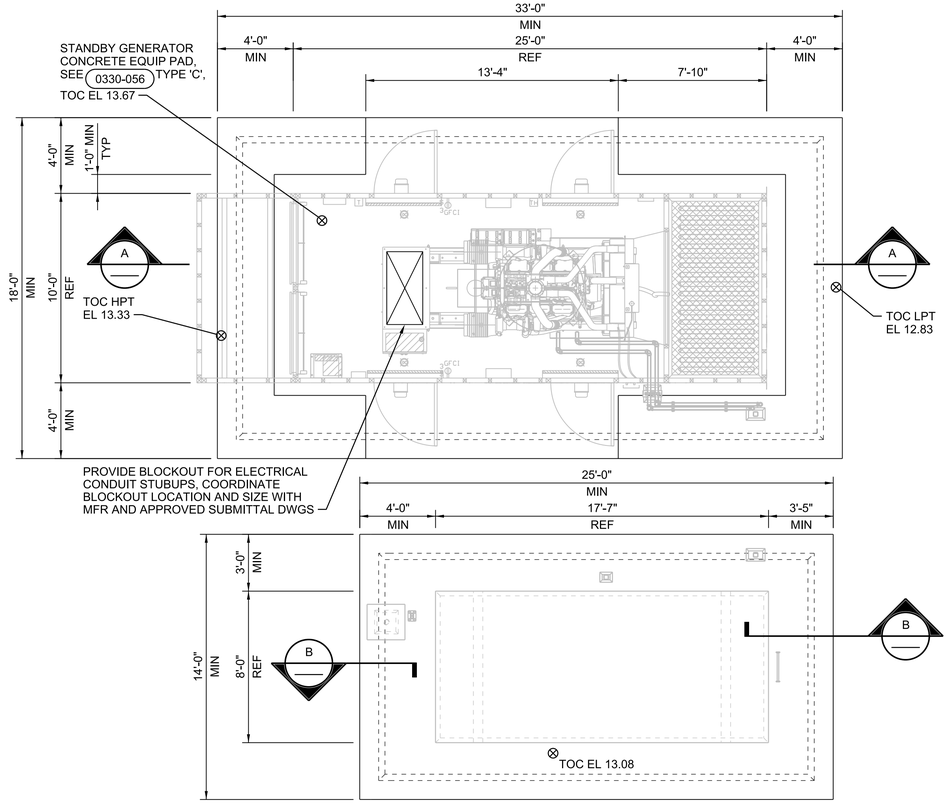
GENERAL SHEET NOTE

1. "REF" INDICATES PRELIMINARY EQUIPMENT DIMENSIONS. FINAL DIMENSIONS SHALL BE VERIFIED WITH APPROVED EQUIPMENT DWGS PRIOR TO DETAILING AND CONSTRUCTION.



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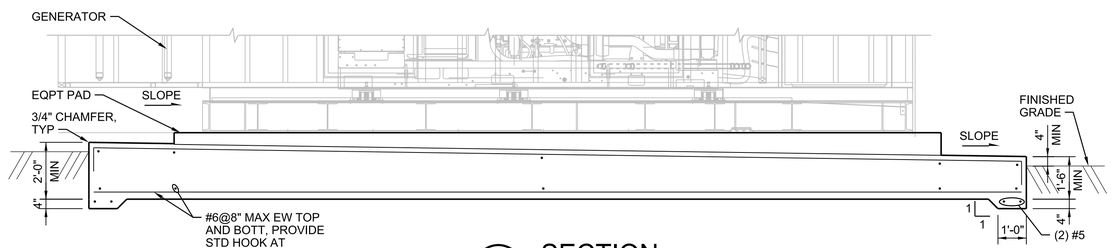
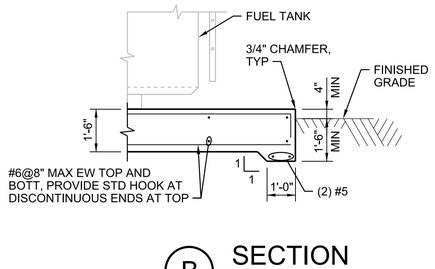
PLAN
1/4"=1'-0"



A SECTION
3/8"=1'-0"



B SECTION
3/8"=1'-0"

NO.	DATE	DR	CHK	APVD	BY	APVD
		R FORREST	P KARABAN	G PETTY	M CHRZANOWSKI	

REVISION

DSGN

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

EMERGENCY STANDBY ENGINE GENERATOR SYSTEM PLAN AND SECTIONS

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

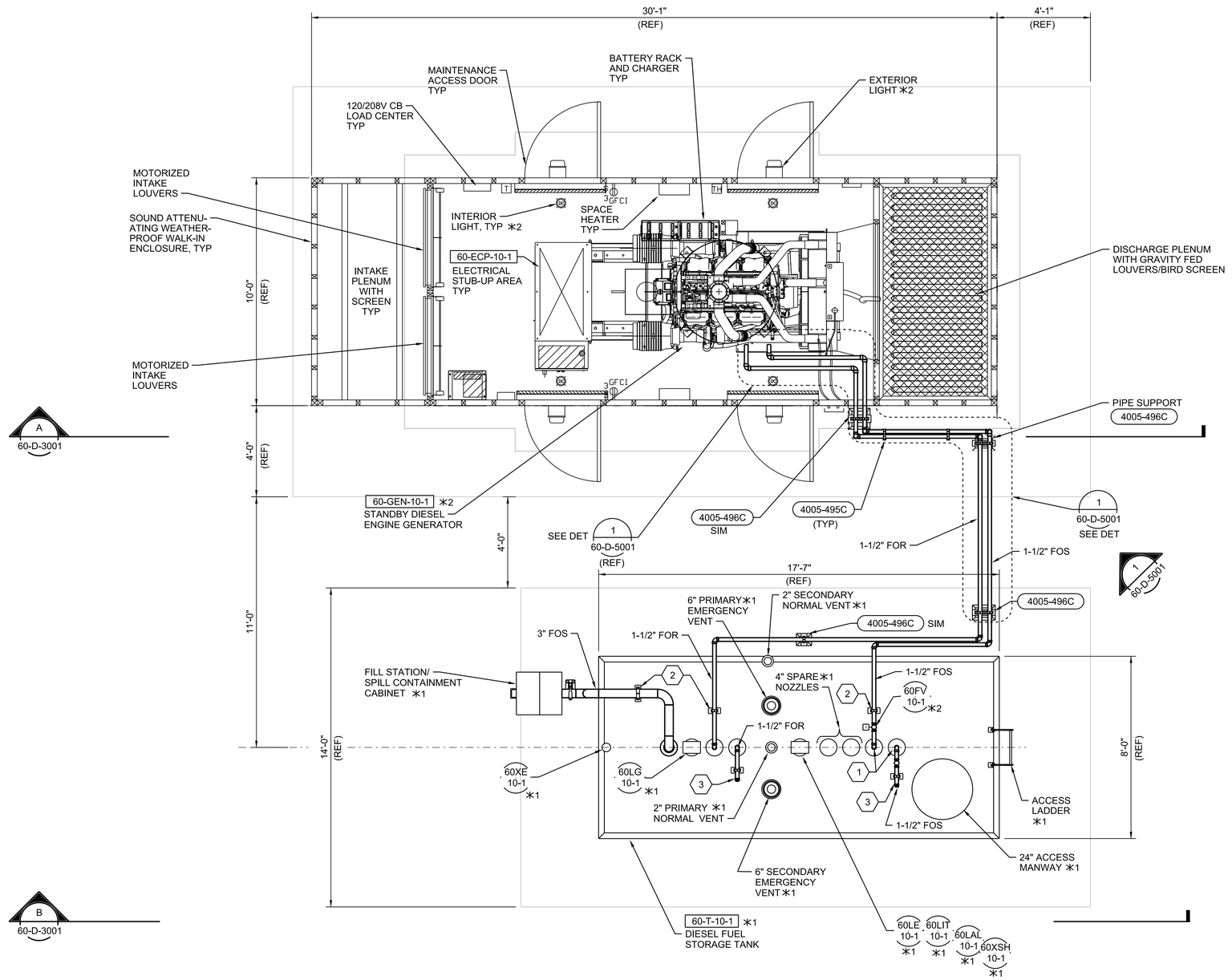
DATE	MAY 2021
PROJ	D3226100
DWG	60-S-2001
SHEET	190 of 270

GENERAL NOTES

1. ANCHOR TO CONCRETE SLAB PER EQUIPMENT/TANK MANUFACTURERS RECOMMENDATIONS. ANCHORING SYSTEMS PER SECTION 05 50 00 AND STRUCTURAL DESIGN CRITERIA OF DRAWING 01-S-0006.
2. DIESEL FUEL STORAGE TANK SYSTEM WITH ACCESORIES PER SECTION 43 40 05.
3. DIESEL ENGINE GENERATOR AND ACCESSORIES PER SECTION 26 32 13.13.
4. ALL ITEMS MARKED WITH AN ASTERISK (✳2) ARE PART OF THE DIESEL ENGINE GENERATOR SYSTEM.
5. ALL ITEMS MARKED WITH AN ASTERISK (✳1) ARE PART OF THE DIESEL FUEL STORAGE SYSTEM.

SHEET KEYNOTES

1. AUXILLARY PRIMING CONNECTION ON TOP VERTICAL LEG OF SUPPLY RISER: VERTICAL TEE FITTING WITH 1 1/2"x3/4" THREADED BUSHING, 3/4" SPOOL PIECE, 3/4" V-307, 3/4" SPOOL PIECE, AND TREADED CAP.
2. TOP OF TANK PIPE/CONDUIT SUPPORTS BY TANK MANUFACTURER. SUPPORTS SHALL BE HOT DIP GALVANIZED, POST FABRICATION.
3. PIPE TERMINATION: THREADED CAP ON SPOOL PIECE (FOR FUTURE CONNECTION).



N

PLAN
3/8"=1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL

EMERGENCY STANDBY ENGINE GENERATOR SYSTEM PLAN

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
			A BARTON	K WADDELL		K WADDELL	

DSGN H POSTROZNY

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
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SHEET	191 of 270

CONFORMED DOCUMENTS

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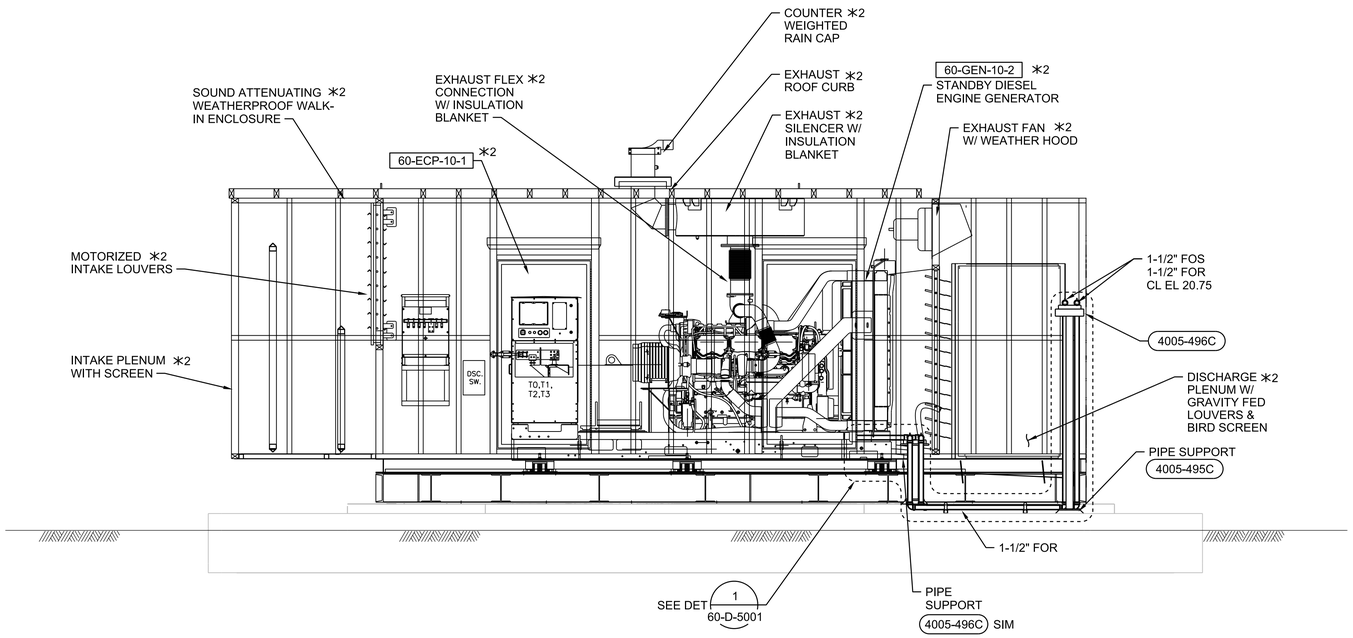
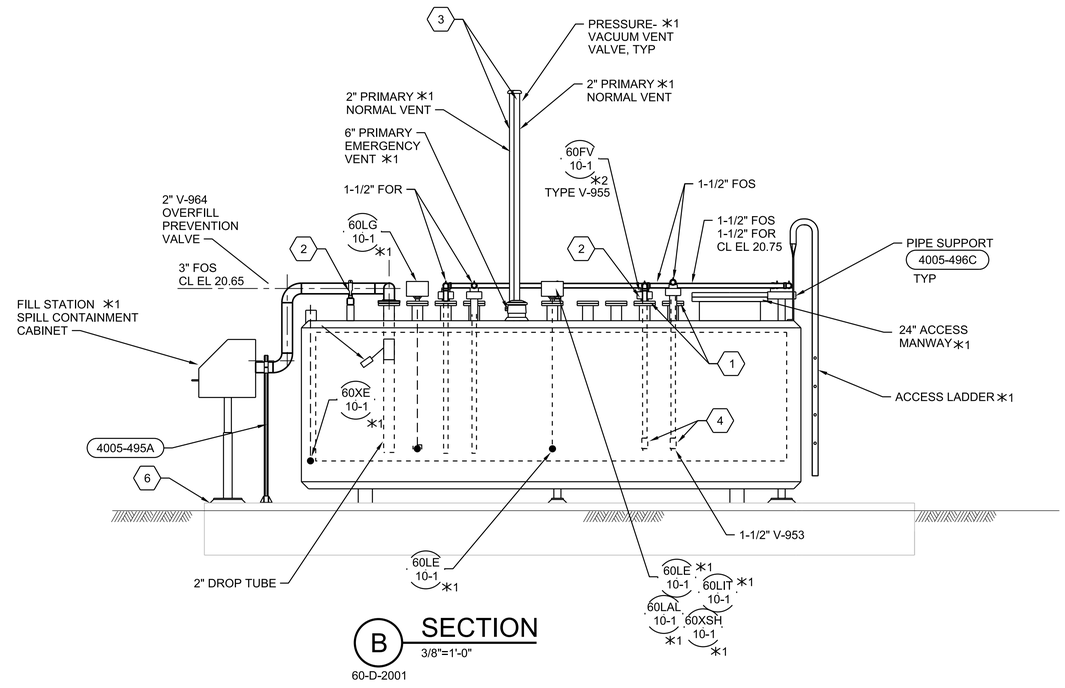


A SECTION
3/8"=1'-0"
60-D-2001



B SECTION
3/8"=1'-0"
60-D-2001

GENERAL NOTES

1. ALL ITEMS MARKED WITH AN ASTERISK (✳2) ARE PART OF THE DIESEL ENGINE GENERATOR SYSTEM.
2. ALL ITEMS MARKED WITH AN ASTERISK (✳1) ARE PART OF THE DIESEL FUEL STORAGE SYSTEM.

SHEET KEYNOTES

1. AUXILLARY PRIMING CONNECTION ON TOP VERTICAL LEG OF SUPPLY RISER: VERTICAL TEE FITTING WITH 1 1/2"X3/4" THREADED BUSHING, 3/4" SPOOL PIECE, 3/4" V-307, 3/4" SPOOL PIECE, AND TREADED CAP.
2. TOP OF TANK PIPE/CONDUIT SUPPORTS BY TANK MANUFACTURER. SUPPORTS SHALL BE HOT DIP GALVANIZED POST FABRICATION.
3. VENT MOUNTING 8'-0" ABOVE TOP OF TANK.
4. VALVE BOTTOM 2" ABOVE TANK INVERT.
5. PIPE TERMINATION: THREADED CAP ON SPOOL PIECE (FOR FUTURE CONNECTION).
6. ANCHOR TO CONCRETE SLAB PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS. ANCHORING SYSTEMS PER SECTION 05 50 00 AND STRUCTURAL DESIGN CRITERIA OF DRAWING 01-S-0006.

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		H POSTROZNY	A BARTON	K WADDELL	K WADDELL
BY	APVD				

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

PROCESS MECHANICAL

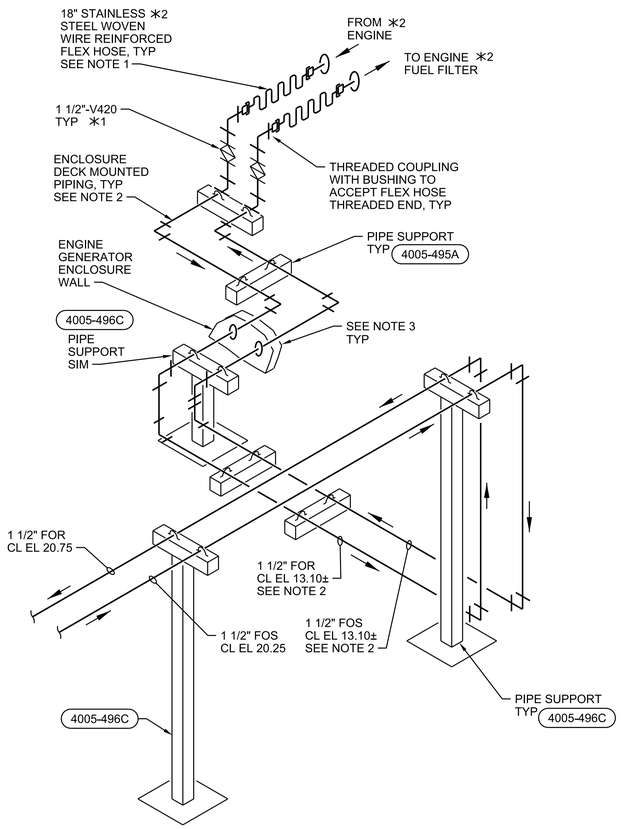
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

EMERGENCY STANDBY ENGINE GENERATOR SYSTEM SECTION VIEWS

SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 — 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	60-D-3001
SHEET	192 of 270

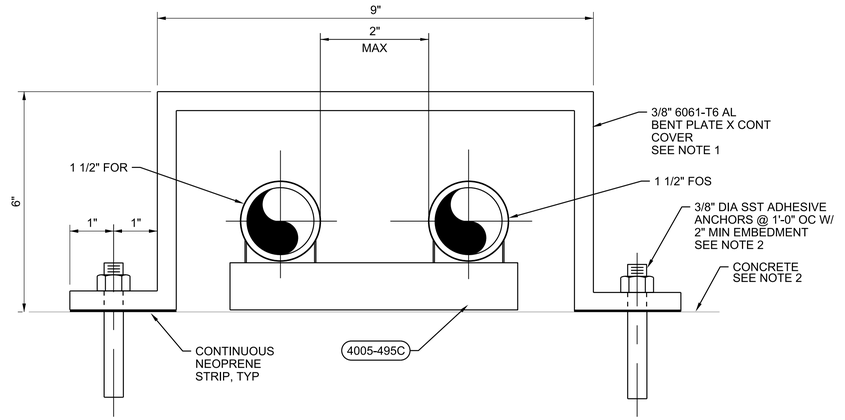
NOTES:

1. FLEX HOSE SIZE BY ENGINE GENERATOR MANUFACTURER.
2. INSTALL PROTECTIVE COVER PER DETAIL 2, FOR PORTIONS OF PIPING ON SLAB AND ENCLOSURE FLOOR SUBJECT TO FOOT TRAFFIC.
3. TYPE 304 SST ESCUTCHEONS, EACH FACE.



1 PIPING DETAIL - ISOMETRIC VIEW
NTS

60-D-2001
60-D-3001



NOTES:

1. COAT CHECKERPLATE WITH ALTERNATING YELLOW AND BLACK DIAGONAL HIGH VISABILITY STRIPING.
2. INSTALLATION ON CONCRETE SHOWN. FOR INSTALLATION INSIDE ENCLOSURE EMPLOY 3/8" MACHINE SCREWS FASTENED 8" OC TO ENCLOSURE DECK PLATE.

2 DETAIL - FLOOR MOUNTED PIPE PROTECTED COVER ENLARGED VIEW
NTS

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		H POSTROZNY	A BARTON	K WADDELL	K WADDELL	K WADDELL	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL
EMERGENCY STANDBY ENGINE GENERATOR SYSTEM DETAILS

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
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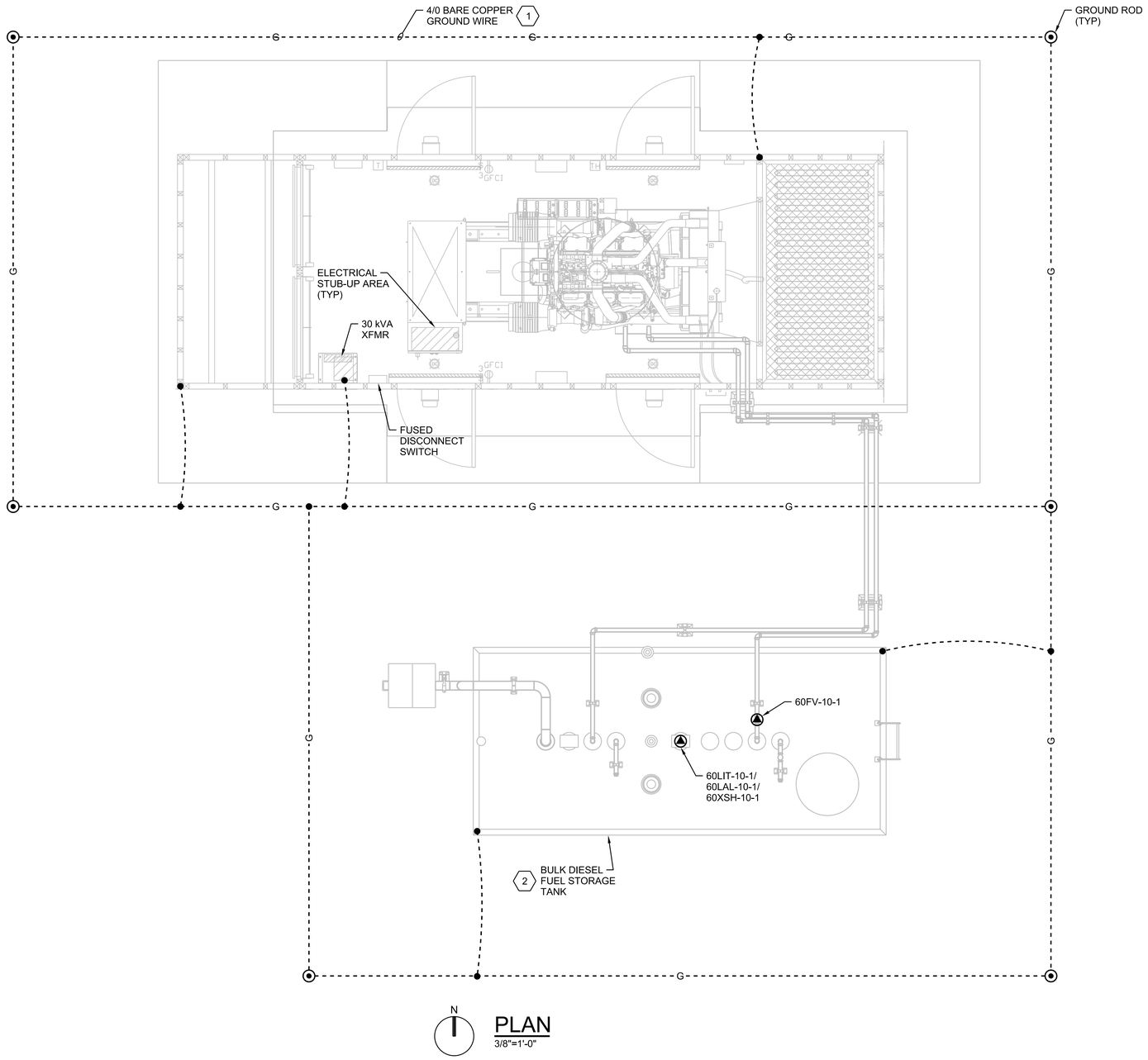
SHEET	193 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL BOND THE GROUND WIRE IN THE DUCTBANK TO THE DEWATERING BUILDING TO THE GROUND LOOP SURROUNDING THE GENERATOR.
2. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE GROUND LUG ON THE BULK FUEL TANK. THE BULK FUEL TANK SHALL BE BONDED TO THE SURROUND GROUND WIRE.



N

PLAN
3/8"=1'-0"

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	GT YARBERRY	A PASTRANA	KB HORTON	APVD	GT YARBERRY	

Jacobs

ELECTRICAL

EMERGENCY STANDBY ENGINE GENERATOR SYSTEM PLAN

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	60-E-2001
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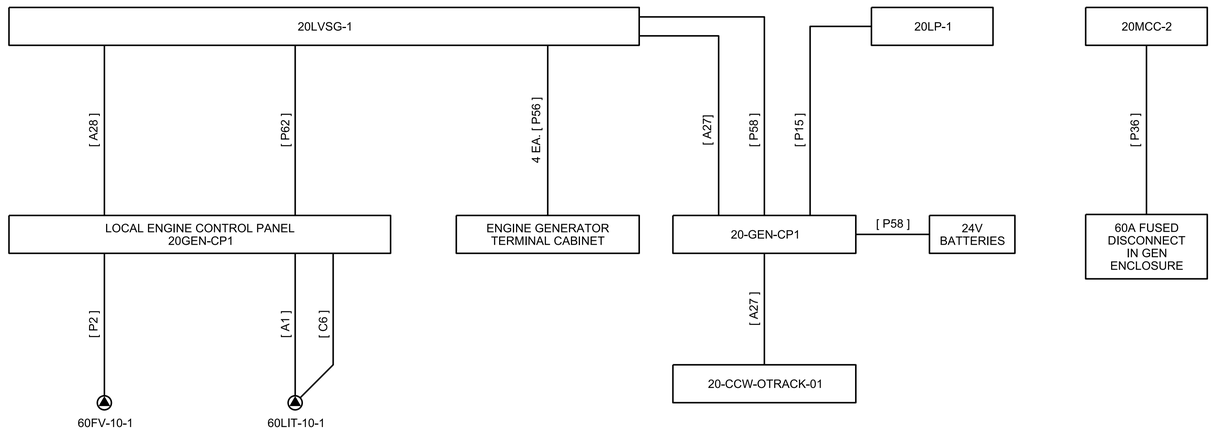


RISER DIAGRAM

NTS

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	GT YARBERRY		A PASTRANA	KB HORTON	GY YARBERRY	APVD

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

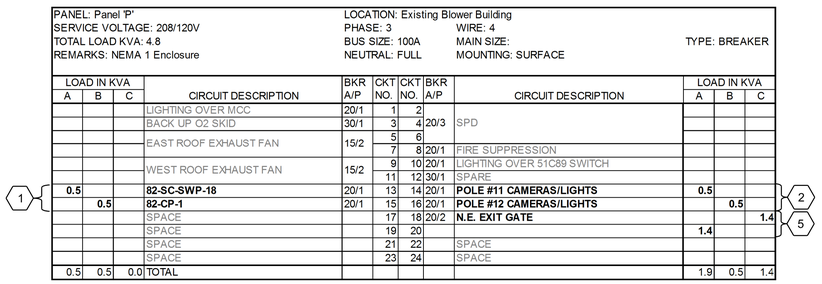
ELECTRICAL
EMERGENCY STANDBY GENERATOR
RISER DIAGRAMS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

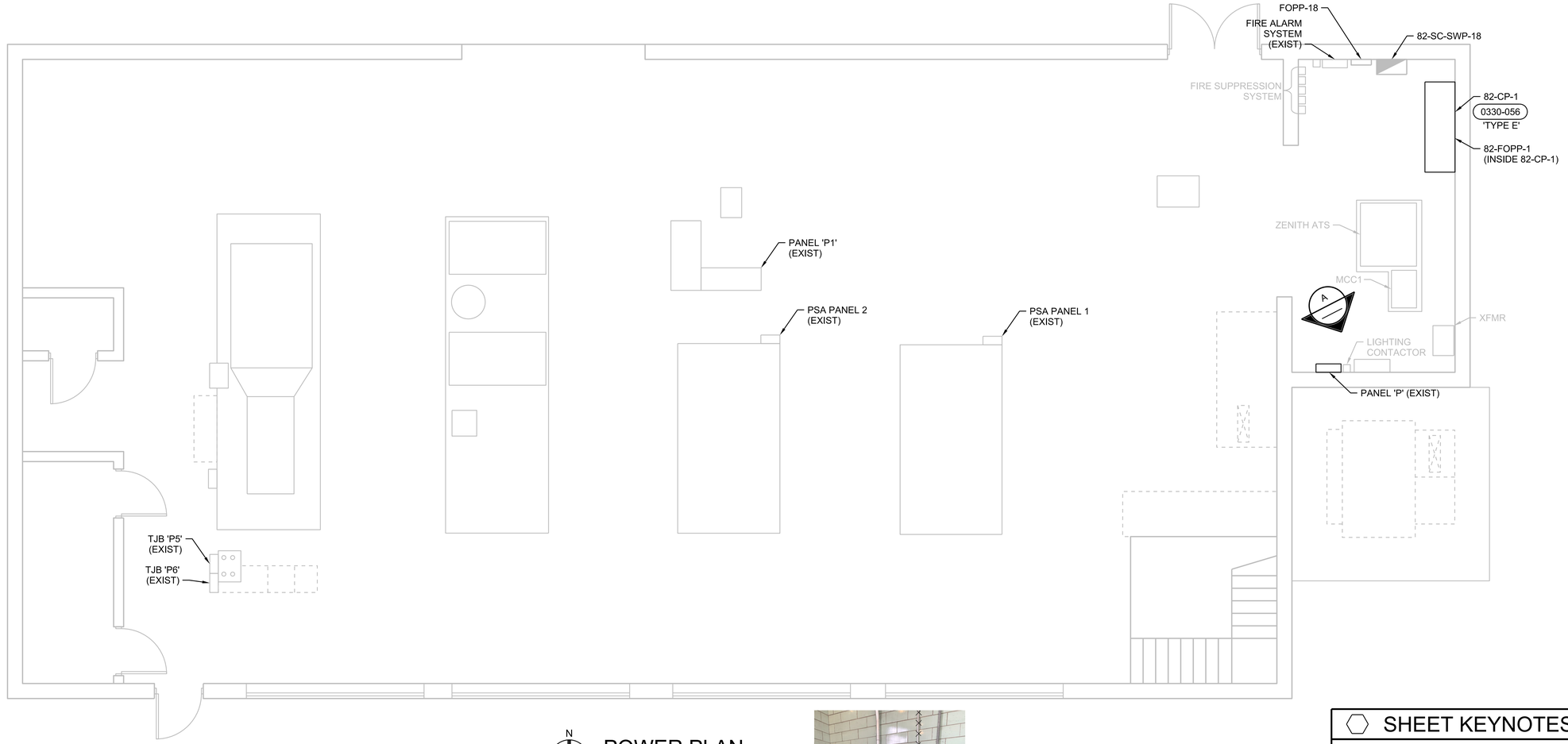
DATE	MAY 2021
PROJ	D3226100
DWG	60-E-6001
SHEET	195 of 270

PANEL: Panel 'P' | LOCATION: Existing Blower Building
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 4
TOTAL LOAD KVA: 4.8 | BUS SIZE: 100A | MAIN SIZE: | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
			LIGHTING OVER MCC	20/1	1	2					
			BACK UP O2 SKID	30/1	3	4	20/3	SPD			
			EAST ROOF EXHAUST FAN	15/2	5	6					
					7	8	20/1	FIRE SUPPRESSION			
			WEST ROOF EXHAUST FAN	15/2	9	10	20/1	LIGHTING OVER 51C89 SWITCH			
					11	12	30/1	SPARE			
0.5			**82-SC-SWP-18**	20/1	13	14	20/1	**POLE #11 CAMERAS/LIGHTS**	0.5		
	0.5		**82-CP-1**	20/1	15	16	20/1	**POLE #12 CAMERAS/LIGHTS**		0.5	
			SPACE		17	18	20/2	**N.E. EXIT GATE**			1.4
			SPACE		19	20			1.4		
			SPACE		21	22		SPACE			
			SPACE		23	24		SPACE			
0.5	0.5	0.0	TOTAL						1.9	0.5	1.4



RISER DIAGRAM



POWER PLAN
1/4" = 1' - 0"

A PHOTO
NTS

SHEET KEYNOTES

1. DISCONNECT LOAD FROM EXISTING BREAKER IN 208/120V PANEL BOARD 'P'. PROVIDE [3/4"C, 2#12, 1#12G] FROM BREAKER TO NEW LOAD.
2. PROVIDE [3/4"C, 2#10, 1#12G] FROM EXISTING SPARE BREAKER IN PANELBOARD 'P' TO NEW FEED.
3. DEMOLISH EXISTING SECURITY CONTROL PANEL.
4. NOT USED
5. INSTALL NEW 20A/2P BREAKER IN EXISTING PANELBOARD 'P'. PROVIDE [3/4"C, 2#10, 1#12G] FROM BREAKER TO LOAD.

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	G MESSER	DR	GT YARBERRY
		CHK	KB HORTON	APVD

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

EXISTING BLOWER BUILDING POWER PLAN AND PANEL SCHEDULE

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

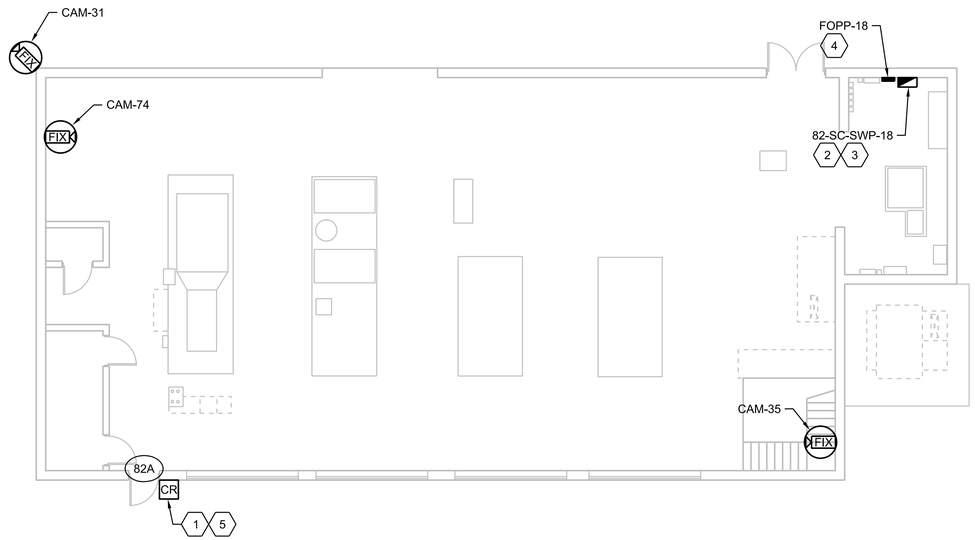
DATE	MAY 2021
PROJ	D3226100
DWG	82-E-2001
SHEET	196 of 270

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. PROVIDE CARD READER, CONTACT, REX AND ASSOCIATED LOCKING HARDWARE. CONTRACTOR TO VERIFY THE CARD READERS ARE COMPATIBLE WITH MAWSS CARDS AND TO PERFORM FIELD TESTING FOR THE CARDS.
2. DEMOLISH THE EXISTING CAMERAS, SECURITY CONTROL PANEL, SECURITY COMPONENTS, AND ALL ASSOCIATED HARDWARE, AND RETURN TO OWNER. PROVIDE NEW WALL-MOUNT ENCLOSURE WITH SECURITY EQUIPMENT AND CAMERAS.
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. PROVIDE BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. SECURITY CONTRACTOR TO PROVIDE DOOR ELECTRO-MAGNETIC LOCK.



N

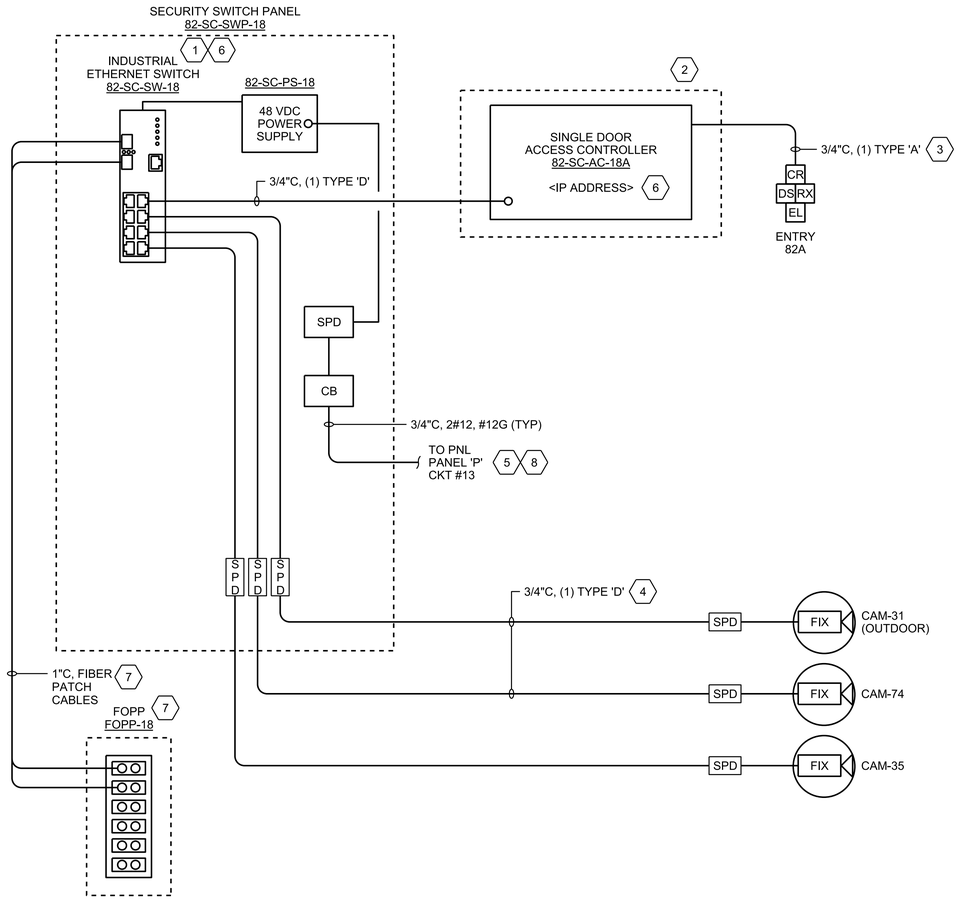
SECURITY PLAN
1/8"=1'-0"

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. INDUSTRIAL ETHERNET SWITCH: TYPE 2, PROVIDES POE NETWORK CONNECTIVITY FOR ACCESS CONTROL AND VIDEO SYSTEMS. CONNECT TO EXISTING MAWSS NETWORK.
2. ACCESS CONTROLLER: PROVIDES SINGLE DOOR ACCESS CONTROLLER KIT THAT INCLUDES INTRUSION DETECTION, CARD READER, ACCESS CONTROLLER WITH BOX, AND ELECTRONIC LOCK. PROVIDE REQUEST FOR EXIT (REX) SEPARATELY AS IT IS NOT INCLUDED IN THE KIT.
3. ACCESS CONTROL DOOR: PROVIDE RACEWAY, DEVICES, CABLING AND ELECTRIFIED DOOR HARDWARE FOR FULLY FUNCTIONAL ACCESS CONTROLLED DOOR.
4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
5. 120 VAC POWER.
6. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
7. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs)
8. USE THE SAME POWER FEED CIRCUIT TO POWER THE EXISTING CAMERA LIGHTS.



RISER DIAGRAM
NTS

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		F ABUHIJLEH	A PASTRANA	F GIST	APVD
BY	APVD				
G YARBERRY					

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

SECURITY
EXISTING BLOWER BUILDING SECURITY PLAN AND RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	82-TY-2001
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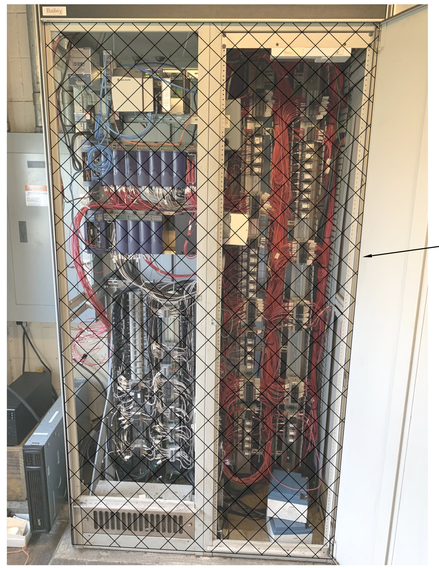
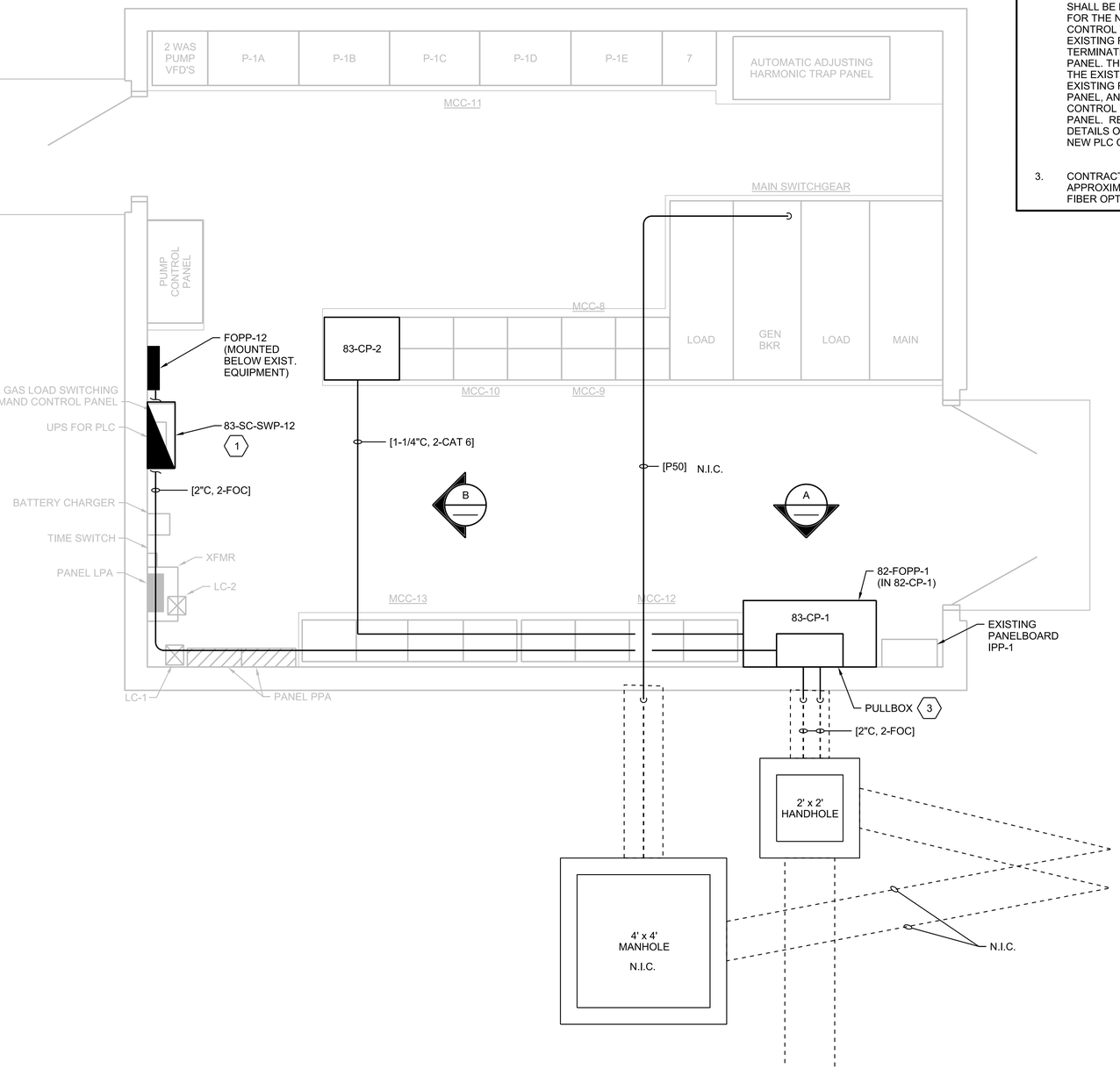


A PHOTO
NTS

B PHOTO
NTS



N
POWER PLAN
1/2" = 1' - 0"

SHEET KEYNOTES

1. CONTRACTOR SHALL DEMOLISH EXISTING SECURITY CONTROL PANEL. CONTRACTOR SHALL INSTALL NEW SECURITY CONTROL PANEL IN THE SAME LOCATION WHICH THE EXISTING SECURITY CONTROL PANEL IS CURRENTLY INSTALLED. THE EXISTING 120V POWER FEED USED FOR THE EXISTING SECURITY CONTROL PANEL SHALL BE REUSED AND REROUTED, AS REQUIRED, FOR THE NEW SECURITY CONTROL PANEL.
2. CONTRACTOR SHALL DEMOLISH EXISTING RACK AND INSTALL A NEW PLC CONTROL PANEL IN THE SAME LOCATION WHICH THE EXISTING RACK IS CURRENTLY INSTALLED. THE EXISTING 120V POWER FEED USED FOR THE EXISTING RACK SHALL BE REUSED AND REROUTED, AS REQUIRED, FOR THE NEW PLC CONTROL PANEL. ALL EXISTING CONTROL WIRES CURRENTLY ROUTED TO THE EXISTING RACK SHALL BE REUSED AND TERMINATED WITHIN THE NEW PLC CONTROL PANEL. THE CONTRACTOR SHALL DE-TERMINATE THE EXISTING CONTROL WIRES, REMOVE THE EXISTING RACK, INSTALL THE NEW PLC CONTROL PANEL, AND THEN REINSTALL THE EXISTING CONTROL WIRES WITHIN THE NEW PLC CONTROL PANEL. REFER TO THE I&C SPECIFICATIONS FOR DETAILS ON THE WORK REQUIRED TO INSTALL THE NEW PLC CONTROL PANEL.
3. CONTRACTOR SHALL PROVIDE A PULLBOX IN THE APPROXIMATE LOCATION SHOWN TO INSTALL THE FIBER OPTIC CABLES.

NO.	DATE	DR	REVISION	CHK	APVD	BY
DSGN	GT YARBERRY	G MESSER		KB HORTON	APVD	GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ELECTRICAL
EXISTING ELECTRICAL BUILDING POWER PLAN

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	83-E-2001
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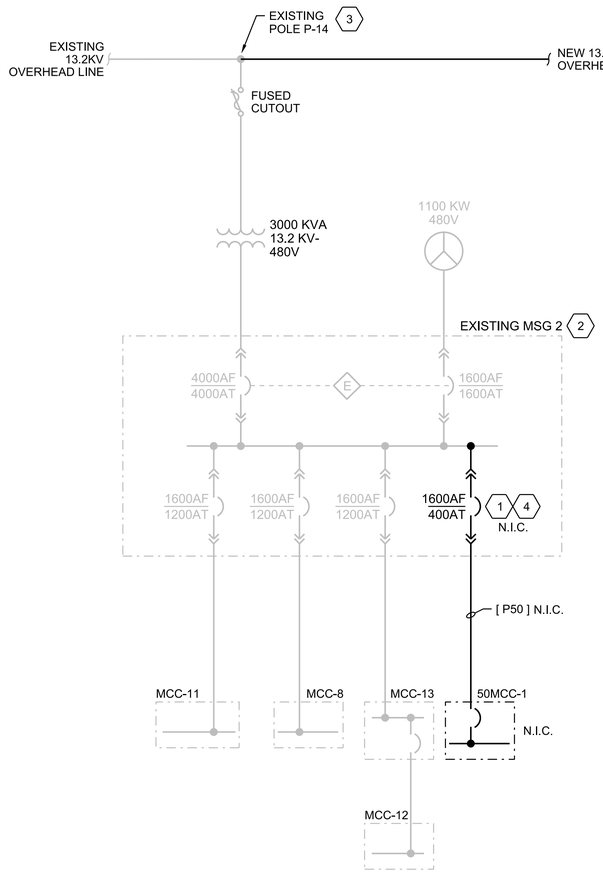
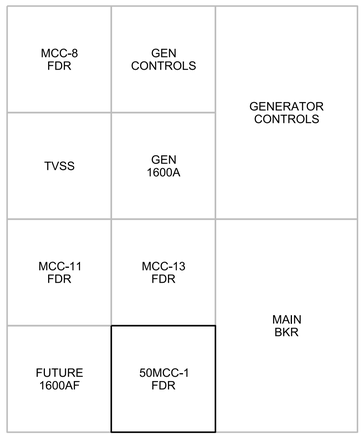




EXISTING SWITCHGEAR MSG 2 FRONT ELEVATION

NTS

SHEET KEYNOTES

1. EXISTING CUBICLE WAS DESIGNED FOR A 1600 AF BREAKER TO BE ADDED.
2. EXISTING SWITCHGEAR WAS MANUFACTURED BY EATON AND HAS THE FOLLOWING INFORMATION:
   a. 4000A, 480V, 3P, 3W
   b. SHORT CIRCUIT RATING = 65,000A
   c. SHOP ORDER NUMBER - 2847526
   d. G. O. NUMBER = HUM017521
   e. DATE OF MANUFACTURE = 8/95
3. REFER TO DRAWING 05-E-2000 FOR ADDITIONAL DETAILS FOR WORK ASSOCIATED WITH EXTENDING THE EXISTING 13.2KV OVERHEAD LINE.
4. ALL WORK ASSOCIATED WITH POWERING NEW 50MCC-1 IS INCLUDED AS PART OF ADDITIVE ALTERNATE #1 UNLESS OTHERWISE NOTED.

NO.	DATE	REVISION	DR	CHK	BY
DSGN	GT YARBERRY		G MESSER	KB HORTON	APVD
				APVD	GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

EXISTING ELECTRICAL BUILDING SWITCHGEAR MSG 2 ONE-LINE DIAGRAM AND FRONT ELEVATION

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

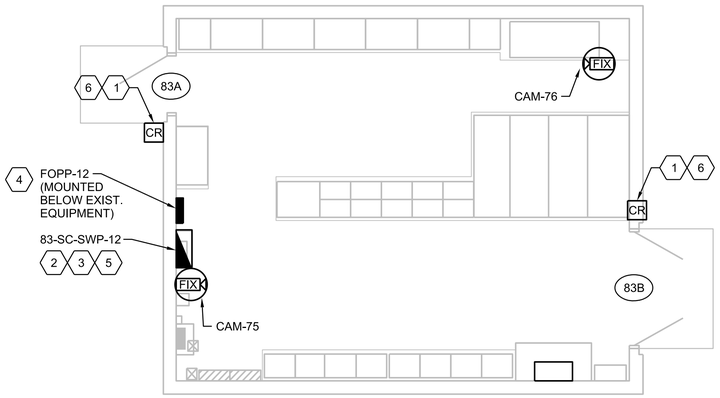
DATE	MAY 2021
PROJ	D3226100
DWG	83-E-6001
SHEET	199 of 270

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. PROVIDE CARD READER, CONTACT, REX AND ASSOCIATED LOCKING HARDWARE. CONTRACTOR TO VERIFY THE CARD READERS ARE COMPATIBLE WITH MAWSS CARDS AND TO PERFORM FIELD TESTING FOR THE CARDS.
2. DEMOLISH THE EXISTING CAMERAS, SECURITY CONTROL PANEL, SECURITY COMPONENTS, AND ALL ASSOCIATED HARDWARE, AND RETURN TO OWNER. PROVIDE NEW WALL-MOUNT ENCLOSURE WITH SECURITY EQUIPMENT AND CAMERAS.
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. MOUNT NEW SECURITY PANEL ON THE SAME LOCATION OF OLD SECURITY BOX. REPLACE THE EXISTING SECURITY BOX.
6. SECURITY CONTRACTOR TO PROVIDE DOOR ELECTRO-MAGNETIC LOCK.



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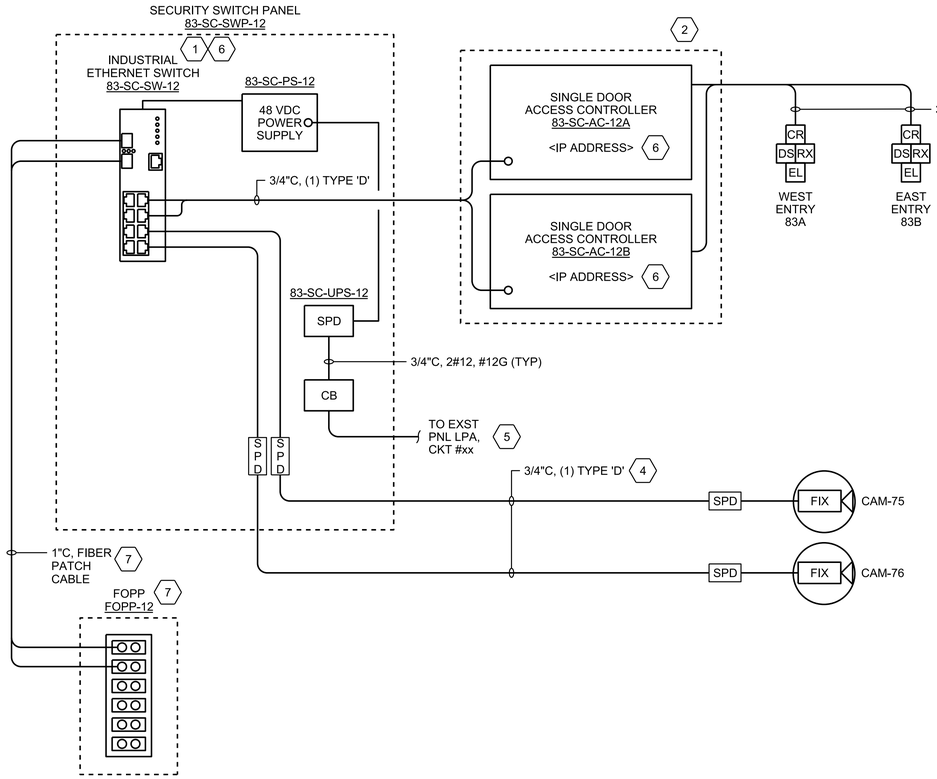
SECURITY PLAN
1/4"=1'-0"

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. INDUSTRIAL ETHERNET SWITCH: TYPE 2, PROVIDES POE NETWORK CONNECTIVITY FOR ACCESS CONTROL AND VIDEO SYSTEMS. CONNECT TO EXISTING MAWSS NETWORK.
2. ACCESS CONTROLLER: PROVIDES SINGLE DOOR ACCESS CONTROLLER KIT THAT INCLUDES INTRUSION DETECTION, CARD READER, ACCESS CONTROLLER WITH BOX, AND ELECTRONIC LOCK. PROVIDE REQUEST FOR EXIT (REX) SEPARATELY AS IT IS NOT INCLUDED IN THE KIT.
3. ACCESS CONTROL DOOR: PROVIDE RACEWAY, DEVICES, CABLING AND ELECTRIFIED DOOR HARDWARE FOR FULLY FUNCTIONAL ACCESS CONTROLLED DOOR.
4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
5. 120 VAC POWER.
6. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
7. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs)



RISER DIAGRAM
NTS

NO.	DATE	REVISION	DR	CHK	BY
DSGN	F ABUHIJLEH	A PASTRANA		F GIST	APVD
				APVD	G YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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Jacobs

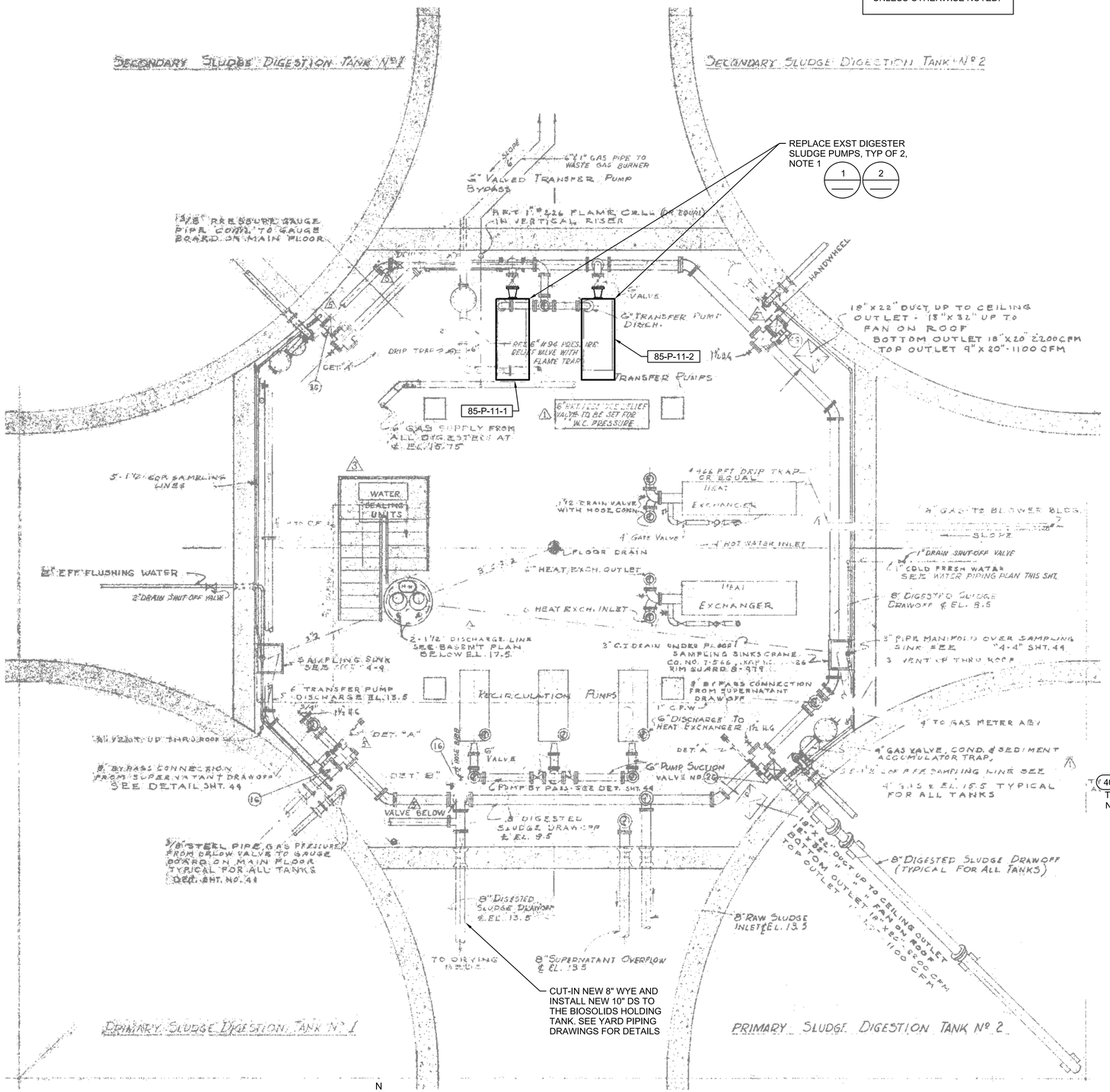
SECURITY
EXISTING ELECTRICAL BUILDING
SECURITY PLAN AND
RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	83-TY-2001
SHEET	200 of 270

ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED.

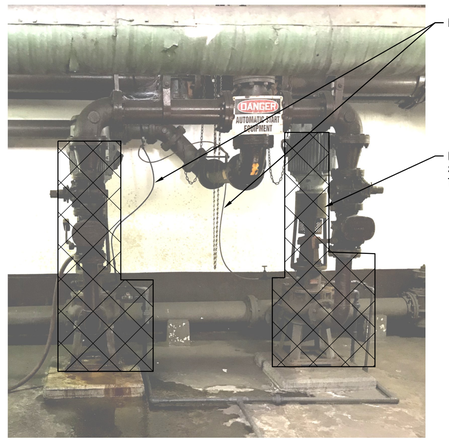


BASEMENT FLOOR PLAN

1/4"=1'-0"

GENERAL SHEET NOTES

1. REPLACE EXISTING DIGESTER SLUDGE PUMPS WITH LARGER CAPACITY PUMPS OF SIMILAR DESIGN. THE CONTRACTOR WILL BE RESPONSIBLE FOR MODIFYING SUCTION AND DISCHARGE PIPING TO ALLOW PUMP TO FIT AND PROVIDE A FULLY FUNCTIONAL SYSTEM.
2. FOR RECORD DRAWINGS ASSOCIATED WITH THIS FACILITY, SEE EXISTING MOBILE SEWAGE TREATMENT PLANT, SLUDGE DIGESTER TANKS PIPING AND EQUIPMENT DRAWINGS 771-K3 1956.
3. RECONNECT EXISTING PUMP SEAL WATER DRAIN PIPING, AND AIR VENT PIPE AT EACH PUMP. ADJUST AND ADD TO EXISTING PIPING AS NEEDED TO MAKE CONNECTIONS TO THE NEW LARGE PUMPS.
4. PROVIDE NEW PUMP DISCHARGE 90 DEGREE BENDS WITH A TAPPING BOSS. INSTALL A 1" TAP ON EACH 90 DEGREE BEND AND INSTALL A 1" SST NIPPLE, 1" SST BALL VALVE, AND 1" QUICK CONNECT.
5. INSTALL PRESSURE GAUGE BETWEEN THE EXISTING VALVE AND REDUCER. ADD A PIECE OF SPOOL PIPE BETWEEN THE NEW 90 BEND AND CHECK VALVE TO ACCOUNT FOR THE SPACE NECESSARY TO INSTALL THE PRESSURE GAUGE.
6. EXISTING PUMPS TO BE SALVAGED AND RETAINED ON SITE FOR OWNER.



NOTE 3

DEMOLISH EXST DIGESTER SLUDGE PUMP. TYP OF 2

DEMOLISH

1 DETAIL

NTS

4091-304C TYP NOTE 5 — PI/PE 11-2

NEW PUMP MOTOR, TYP OF 2

NOTE 4

REPLACE W/ NEW DIGESTER SLUDGE PUMP, TYP OF 2 AURORA MODEL 663, PER SPECIFICATION 44 42 56.12

NOTE 3

2 DETAIL

NTS

NO.	DATE	DR	CHK	REVISION	APVD	BY
DSGN	K WADDELL	J WILCOX	J HORTON		APVD	K WADDELL

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PROCESS MECHANICAL

EXISTING SECONDARY DIGESTER BUILDING PLAN AND ISOMETRIC

SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	85-D-2001
SHEET	201 of 270

CONFORMED DOCUMENTS

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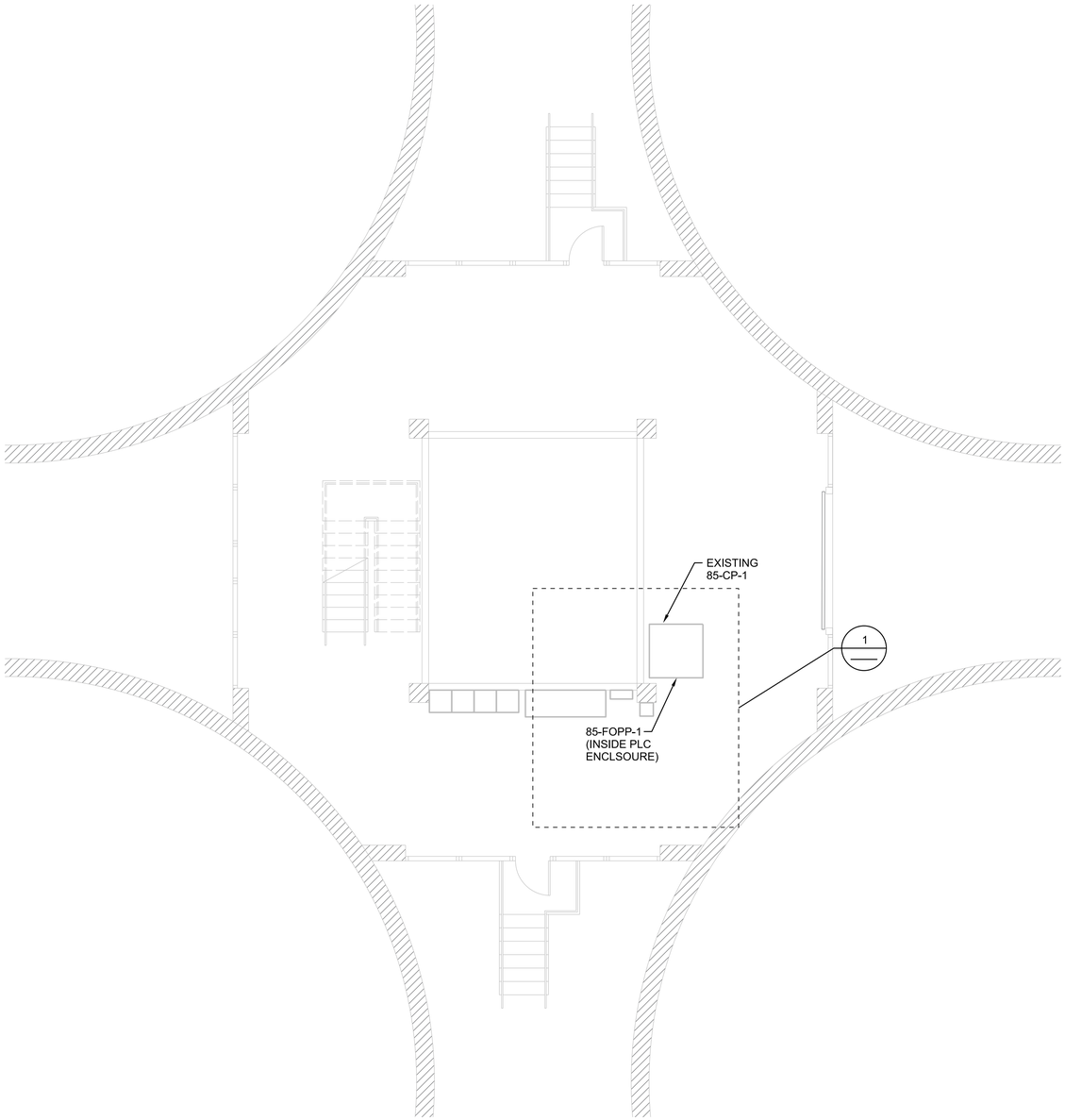

2 UPPER LEVEL POWER PLAN
1/2" = 1' - 0"

1 DETAIL
NTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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ELECTRICAL

EXISTING SECONDARY DIGESTER BUILDING UPPER LEVEL POWER PLAN

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

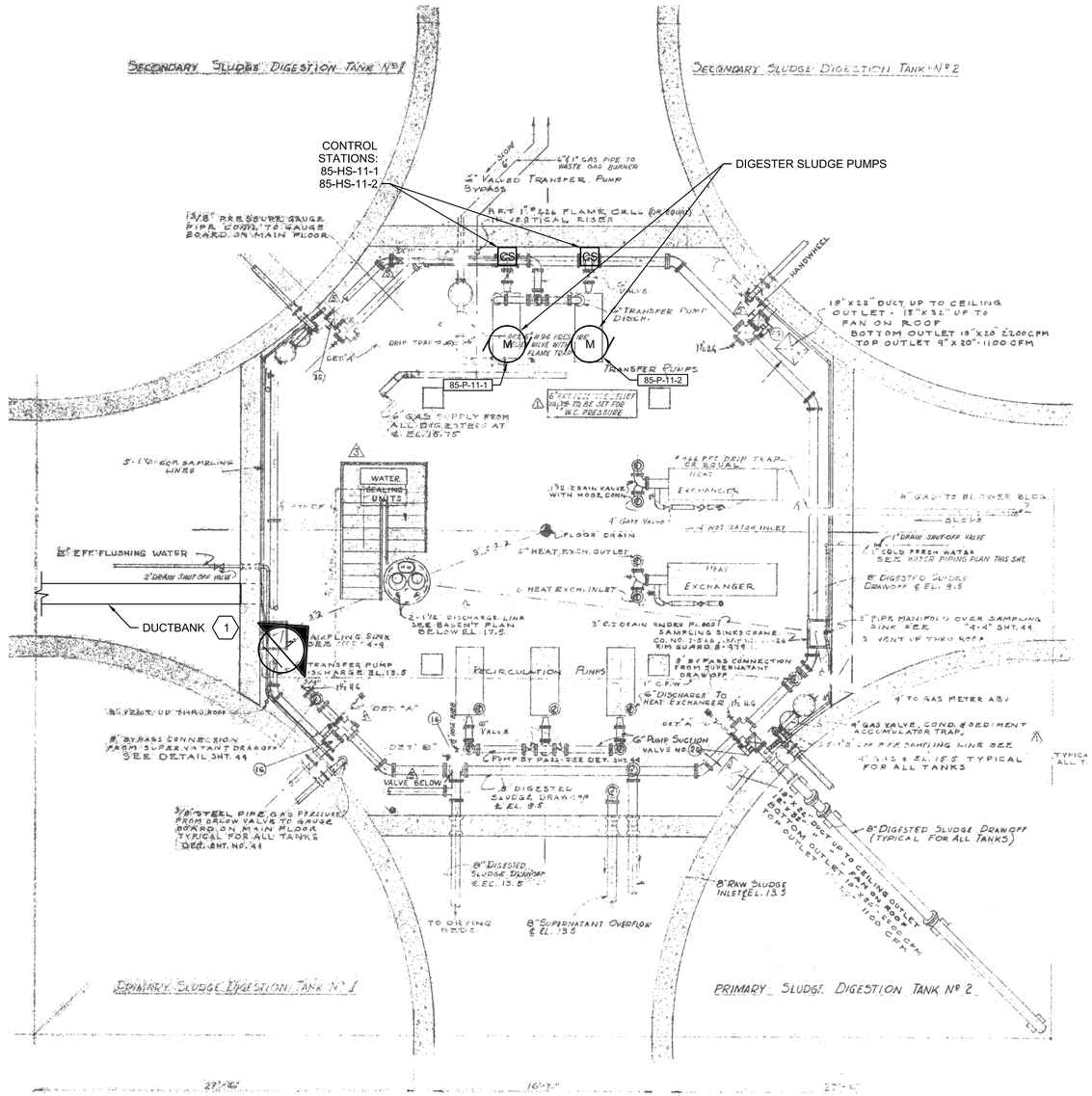
NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	GT YARBERRY		G MESSER	KB HORTON	APVD	GT YARBERRY	

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	85-E-2001
SHEET	202 of 270

ALL WORK ON THIS SHEET IS INCLUDED IN THE BASE BID UNLESS OTHERWISE NOTED



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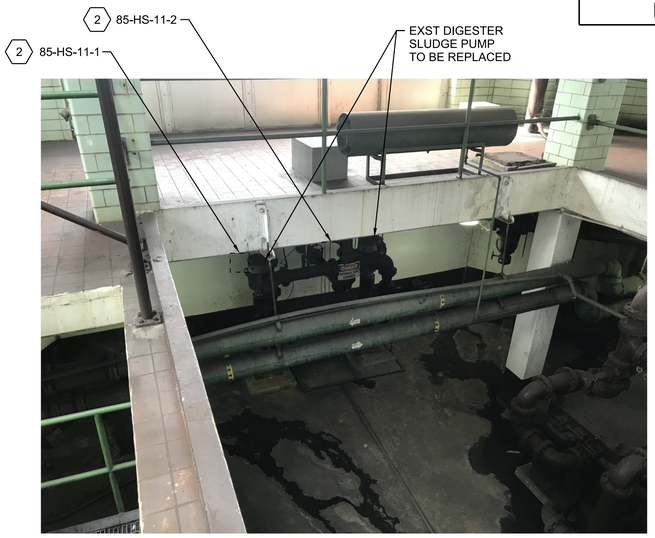
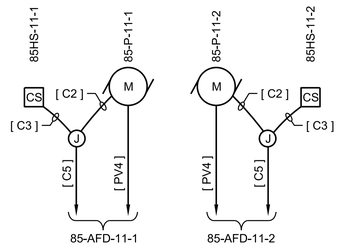
LOWER LEVEL POWER PLAN

1/2" = 1' - 0"



1 DETAIL
NTS



RISER DIAGRAM

SHEET KEYNOTES

1. ENTER BUILDING AT BASEMENT LEVEL. ROUTE CONDUCTORS TO EQUIPMENT ON GROUND FLOOR. SEE 85-E-2001.
2. LOCATE CONTROL STATION ON WALL, COORDINATE WITH OWNER.

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

CONFORMED DOCUMENTS

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PENSACOLA, FL 32502

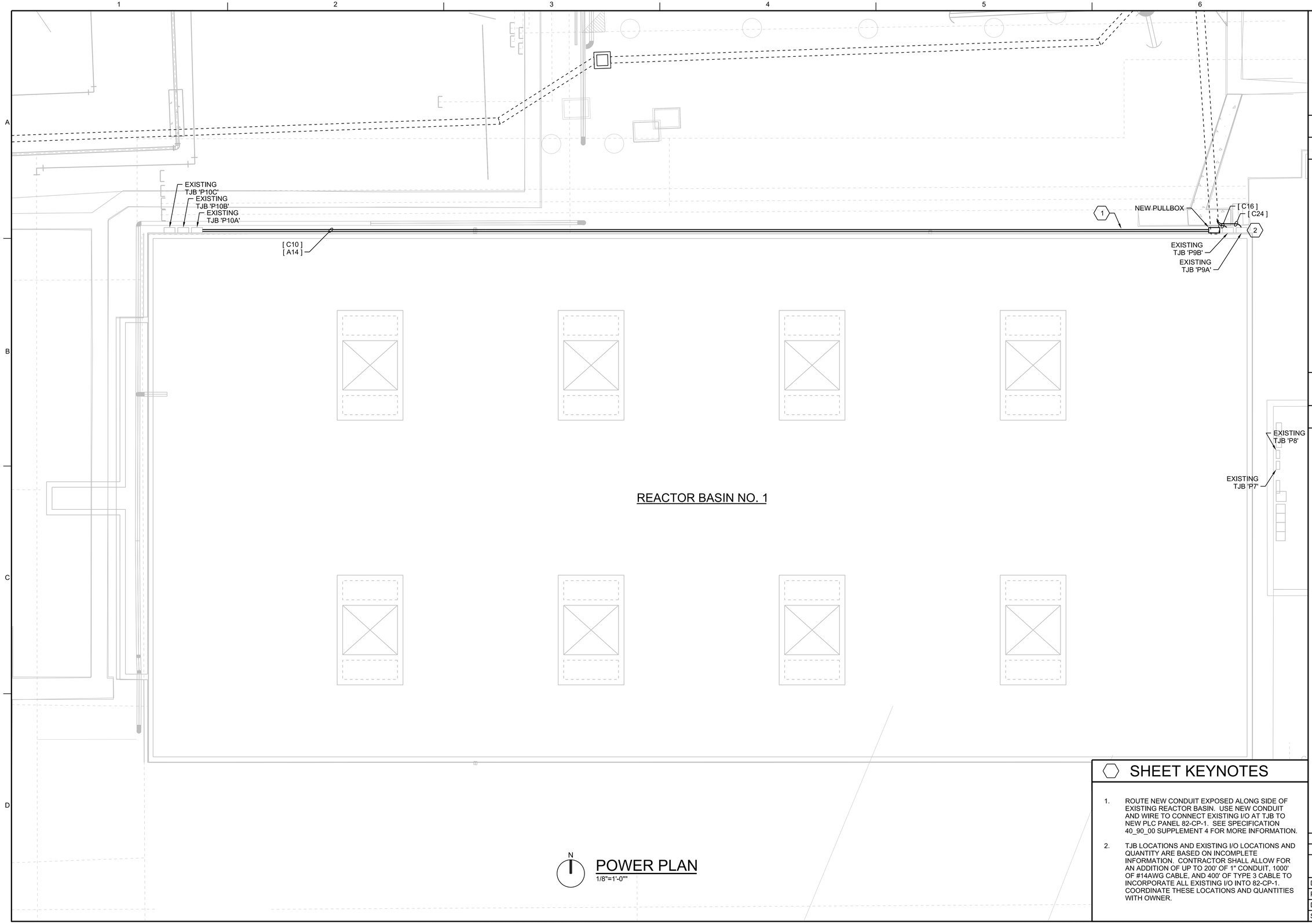
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

EXISTING SECONDARY DIGESTER BUILDING LOWER LEVEL POWER PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	85-E-2002
SHEET	203 of 270



SHEET KEYNOTES

1. ROUTE NEW CONDUIT EXPOSED ALONG SIDE OF EXISTING REACTOR BASIN. USE NEW CONDUIT AND WIRE TO CONNECT EXISTING I/O AT TJB TO NEW PLC PANEL 82-CP-1. SEE SPECIFICATION 40_90_00 SUPPLEMENT 4 FOR MORE INFORMATION.
2. TJB LOCATIONS AND EXISTING I/O LOCATIONS AND QUANTITY ARE BASED ON INCOMPLETE INFORMATION. CONTRACTOR SHALL ALLOW FOR AN ADDITION OF UP TO 200' OF 1" CONDUIT, 1000' OF #14AWG CABLE, AND 400' OF TYPE 3 CABLE TO INCORPORATE ALL EXISTING I/O INTO 82-CP-1. COORDINATE THESE LOCATIONS AND QUANTITIES WITH OWNER.

N

POWER PLAN

1/8"=1'-0""

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR	G MESSER	CHK	KB HORTON	APVD	GT YARBERRY

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
EXISTING AERATION BASIN POWER PLAN

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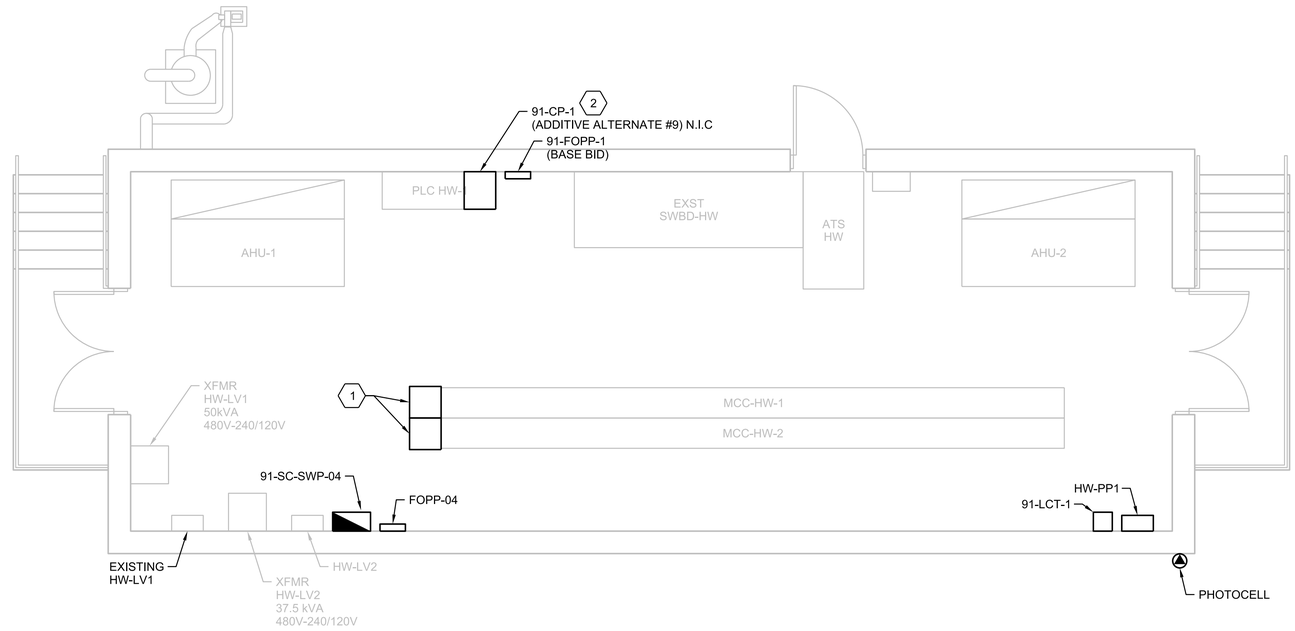
CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	87-E-2001
SHEET	204 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL ADD NEW VERTICAL SECTION TO EXISTING MCC-HW-1 AND MCC-HW-2. REFER TO ONE-LINE DIAGRAMS FOR CONTENTS. CONTRACTOR SHALL EXTEND EXISTING EQUIPMENT PAD TO SUPPORT EXTENSION OF EXISTING MCCS.
2. CONTRACTOR MAY REPLACE THE EXISTING PLC ENCLOSURE OR EXTEND THE EXISTING ENCLOSURE. REFER TO THE SPECIFICATIONS FOR WORK ASSOCIATED WITH ADDITIVE ALTERNATE #9.



N

POWER PLAN

1/4"=1'-0"

NO.	DATE	DSGN	DR	CHK	APVD	BY	APVD
REVISION		GT YARBERRY	A PASTRANA	KB HORTON			GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ELECTRICAL

EXISTING HEADWORKS
ELECTRICAL BUILDING
POWER PLAN

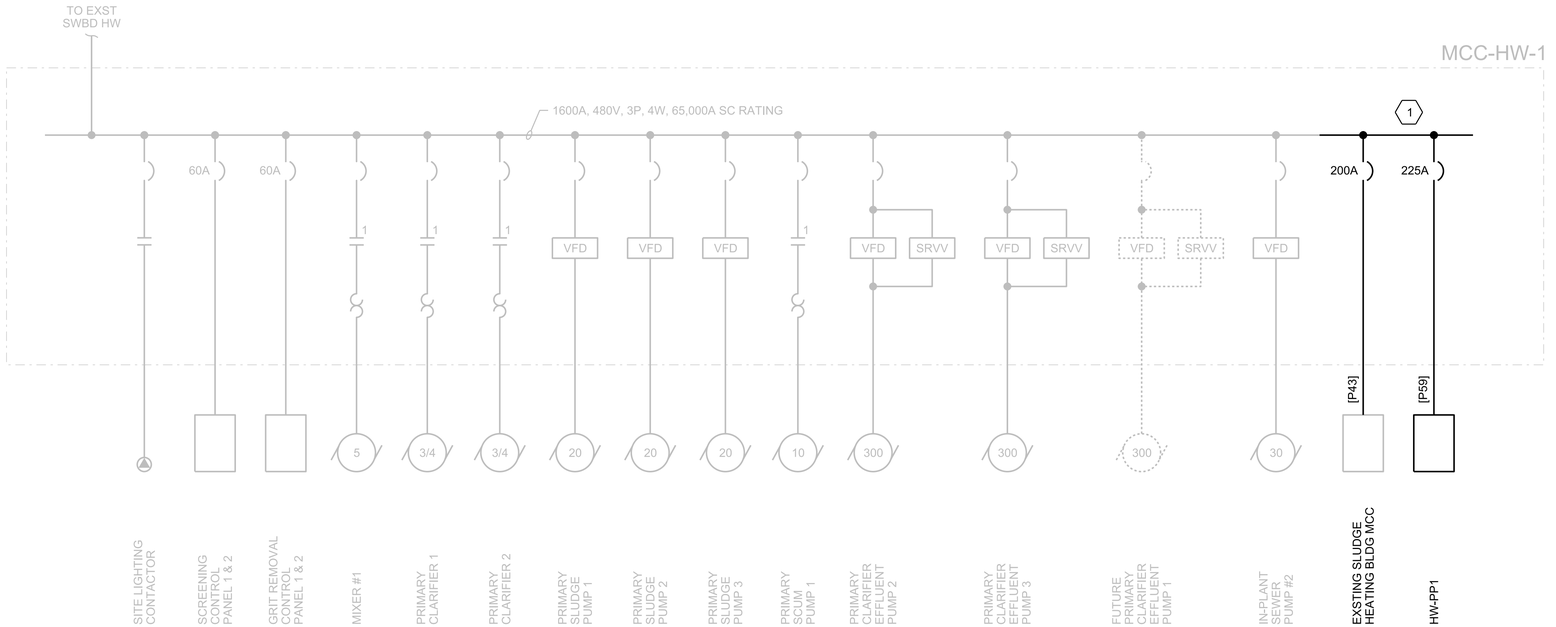
AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	91-E-2001
SHEET	205 of 270

CONFORMED DOCUMENTS

SHEET KEYNOTES

1. CONTRACTOR SHALL ADD A NEW VERTICAL SECTION TO EXISTING MCC. REFER TO DRAWING 91-E-2001 FOR DETAIL.



MCC-HW-1 ONE-LINE DIAGRAM

NTS

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		GT YARBERRY	AL PASTRANA	KB HORTON	APVD	GT YARBERRY	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

ELECTRICAL

EXISTING HEADWORKS
ELECTRICAL BUILDING
MCC-HW-1 ONE-LINE DIAGRAM

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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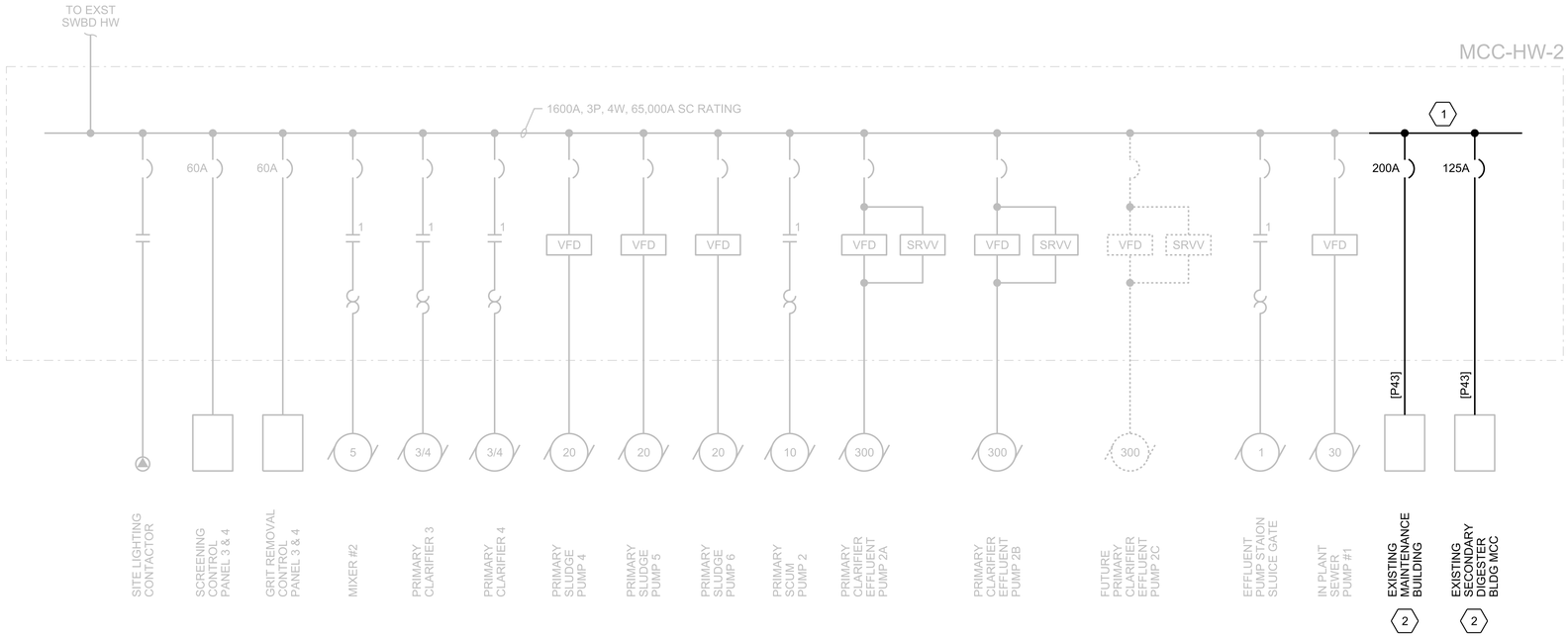
CONFORMED DOCUMENTS

NTS	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 — 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	91-E-6001
SHEET	206 of 270

SHEET KEYNOTES

1. CONTRACTOR SHALL ADD A NEW VERTICAL SECTION TO EXISTING MCC. REFER TO DRAWING 91-E-2001 FOR DETAIL.
2. CONTRACTOR SHALL ROUTE NEW FEEDERS TO EXISTING MANHOLE LOCATED TO THE NE OF THE EXISTING SECONDARY DIGESTER BUILDING. CONTRACTOR SHALL SPLICE NEW FEEDERS TO EXISTING FEEDERS. CURRENTLY INSTALLED WITHIN THE EXISTING MANHOLE. THE SPLICES PROVIDED SHALL BE WATERTIGHT. REFER TO DRAWING 06-E-2004 FOR LOCATION OF EXISTING MANHOLE.



MCC-HW-2 ONE-LINE DIAGRAM

NTS

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	GT YARBERRY	AL PASTRANA	KB HORTON	APVD	GT YARBERRY	

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

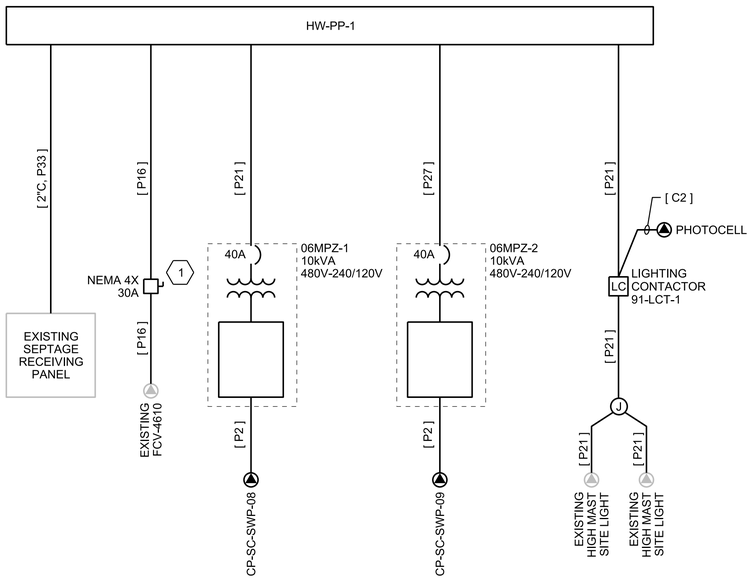
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

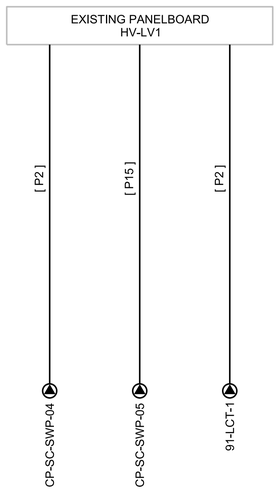
EXISTING HEADWORKS
ELECTRICAL BUILDING
MCC-HW-2 ONE-LINE DIAGRAM

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	91-E-6002
SHEET	207 of 270



RISER DIAGRAM
NTS



RISER DIAGRAM
NTS

SHEET KEYNOTES

1. CONTRACTOR SHALL PROVIDE A 30A, NEMA 4X DISCONNECT FOR THE EXISTING VALVE. WORK SHALL INCLUDE AN APPROPRIATE SUPPORT FOR MOUNTING THE NEW DISCONNECTS.

PANEL: HW-PP1 — LOCATION: Headworks Electrical Bldg
SERVICE VOLTAGE: 480/277V — PHASE: 3 — WIRE:4
TOTAL LOAD KVA: 43.0 — BUS SIZE: 225A — MAIN SIZE: 225A — TYPE: BKR
REMARKS: NEMA 12 Panelboard — NEUTRAL: FULL — MOUNTING: WALL

LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B	LOAD IN KVA C
9.0			Existing Septage Receiving Panel	60/3	1	2	30/3	FCV-4610	1.0		
	9.0				3	4				1.0	
		9.0			5	6					1.0
6.0			HIGH MAST SITE LIGHTS	40/2	7	8	30/2	06MPZ-1	0.3		
	6.0				9	10				0.3	
			Spare	30/2	11	12	30/2	06MPZ-2			0.3
					13	14			0.3		
			Spare	30/2	15	16	30/2	Spare			
					17	18					
			Spare	30/3	19	20	30/3	Spare			
					21	22					
					23	24					
			SPACE		25	26		SPACE			
			SPACE		27	28		SPACE			
			SPACE		29	30		SPACE			
			SPACE		31	32		SPACE			
			SPACE		33	34		SPACE			
			SPACE		35	36		SPACE			
			SPACE		37	38		SPACE			
			SPACE		39	40		SPACE			
			SPACE		41	42		SPACE			
15.0	15.0	9.0	TOTAL						1.5	1.3	1.3

PANEL: HW-LV1 — LOCATION: Headworks Electrical Bldg
SERVICE VOLTAGE: 120/240V — PHASE: 1 — WIRE: 3
TOTAL LOAD KVA: 1.4 — BUS SIZE: 300A — MAIN SIZE: 300 — TYPE: BREAKER
REMARKS: NEMA 12 Enclosure — NEUTRAL: FULL — MOUNTING: SURFACE

LOAD IN KVA A	LOAD IN KVA B	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	LOAD IN KVA B
		MCC Bldg Recept. South Wall	20/1	1	2	30/3	Vapex Odor		
		MCC Bldg Recept. North Wall	20/1	3	4				
		48" Val. Alarm Panel	20/1	5	6	30/2	Spare		
		Clarifier 1 Recept	20/1	7	8				
		Clarifier 2 Recept	20/1	9	10	20/1	Scum Pump 1 Control Panel		
		Clarifier 3 Recept	20/1	11	12	20/1	Scum Pump 2 Control Panel		
		Clarifier 4 Recept	20/1	13	14	20/1	Clarifier 1 Level Transmitter		
		Gen Enclosure Panel	70/2	15	16	20/1			
				17	18	20/1	Clarifier 3 Level Transmitter		
		Scum Box 2 Recept	20/1	19	20	20/1	Clarifier 4 Level Transmitter		
		Scum Box 1 Recept	20/1	21	22	20/1	Spare		
		Spare	20/1	23	24	20/1	1st Floor HW Recept N Wall		
		Spare	20/1	25	26	20/1	1st Floor HW Recept S Wall		
		Spare	20/1	27	28	20/1	1st Floor HW Lights		
		PCEPS Recept	20/1	29	30	20/1	Grit Pump & Odor Room Lights		
		Sludge Station 2 Recept	20/1	31	32	**20/1**	**91-SC-SWP-04**		0.5
		Spare	20/1	33	34	**20/1**	**Pole #2 Cameras and Lights**	0.5	
		Spare	20/1	35	36	**20/1**	**91-LCT-1**		0.4
		MCC Bldg Lights	20/1	37	38	20/1	Spare		
		Scum Box 2 Level Transmitter	20/1	39	40	30/2	Surge Protection		
		Spare	20/1	41	42		Surge Protection		
0.0	0.0	TOTAL						0.5	0.9

NO.	DATE	REVISION	DR	CHK	BY
DSGN	GT YARBERRY		A PASTRANA	KB HORTON	APVD
				APVD	GT YARBERRY

Jacobs
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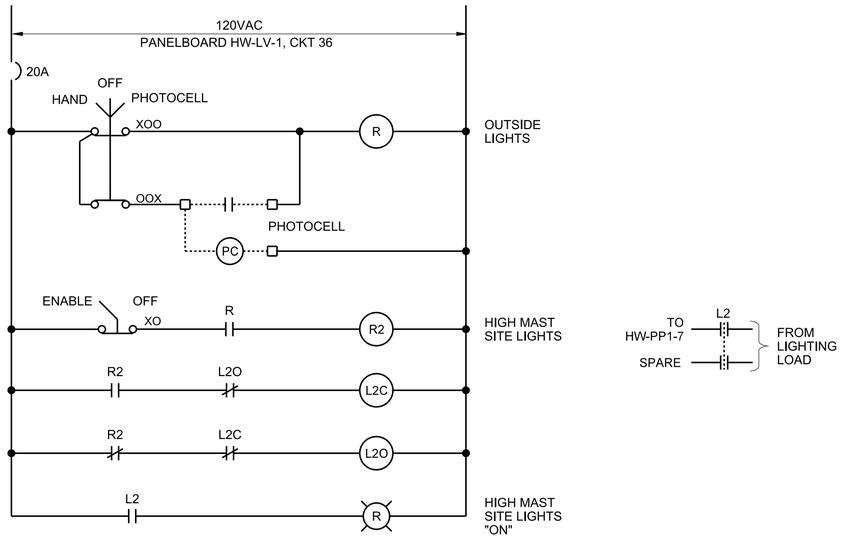
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
EXISTING HEADWORKS ELECTRICAL BUILDING - RISER DIAGRAMS AND PANEL SCHEDULES

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	91-E-6003
SHEET	208 of 270



LIGHTING CONTACTOR 91-LCT-1 CONTROL DIAGRAMS

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	GT YARBERRY		A PASTRANA	KB HORTON		GT YARBERRY	

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

ELECTRICAL

EXISTING HEADWORKS
ELECTRICAL BUILDING
91-LCT-1 LIGHTING CONTACTOR CONTROL DIAGRAM

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CONFORMED DOCUMENTS

NTS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

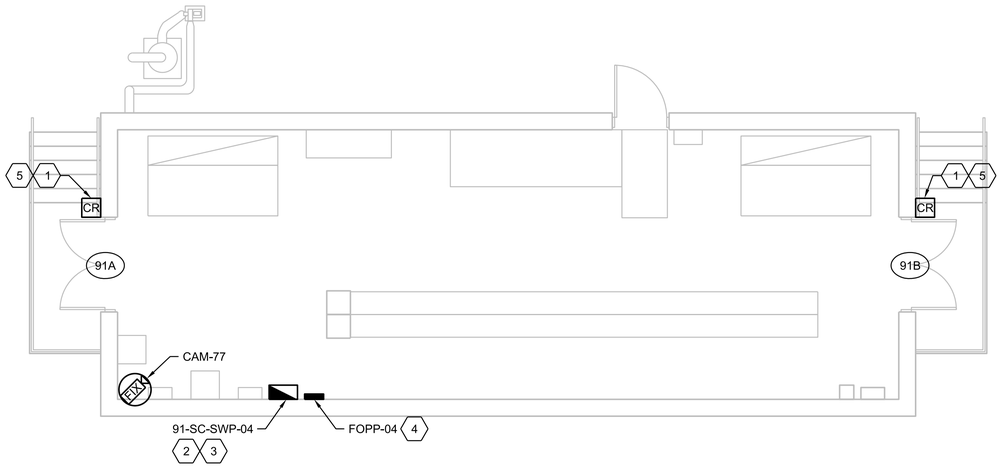
DATE	MAY 2021
PROJ	D3226100
DWG	91-E-6004
SHEET	209 of 270

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. PROVIDE CARD READER, CONTACT, REX AND ASSOCIATED LOCKING HARDWARE. CONTRACTOR TO VERIFY THE CARD READERS ARE COMPATIBLE WITH MAWSS CARDS AND TO PERFORM FIELD TESTING FOR THE CARDS.
2. DEMOLISH THE EXISTING CAMERAS, SECURITY CONTROL PANEL, SECURITY COMPONENTS, AND ALL ASSOCIATED HARDWARE, AND RETURN TO OWNER. PROVIDE NEW WALL-MOUNT ENCLOSURE WITH SECURITY EQUIPMENT AND CAMERAS.
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. SECURITY CONTRACTOR TO PROVIDE DOOR ELECTRO-MAGNETIC LOCK.



N

SECURITY PLAN
1/8"=1'-0"

GENERAL SHEET NOTES

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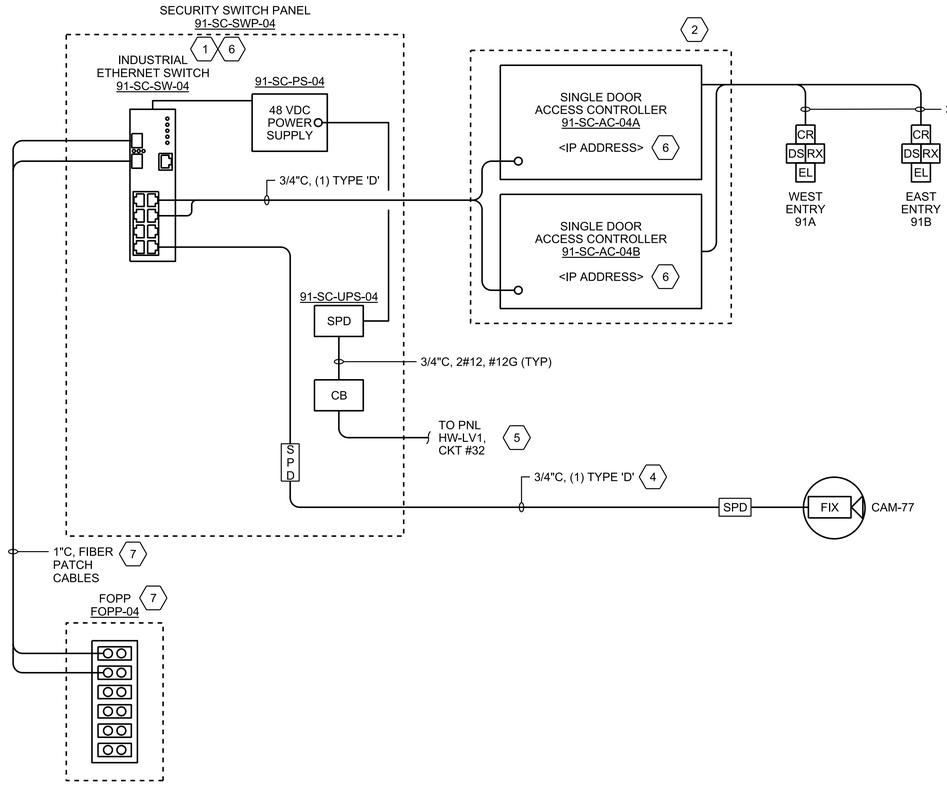
3. EQUIPMENT, FIELD DEVICES, CABLE AND CONDUITS SHALL BE LABELLED WITH APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.

SHEET KEYNOTES

1. INDUSTRIAL ETHERNET SWITCH: TYPE 2, PROVIDES POE NETWORK CONNECTIVITY FOR ACCESS CONTROL AND VIDEO SYSTEMS. CONNECT TO EXISTING MAWSS NETWORK.
2. ACCESS CONTROLLER: PROVIDES SINGLE DOOR ACCESS CONTROLLER KIT THAT INCLUDES INTRUSION DETECTION, CARD READER, ACCESS CONTROLLER WITH BOX, AND ELECTRONIC LOCK. PROVIDE REQUEST FOR EXIT (REX) SEPARATELY AS IT IS NOT INCLUDED IN THE KIT.
3. ACCESS CONTROL DOOR: PROVIDE RACEWAY, DEVICES, CABLING AND ELECTRIFIED DOOR HARDWARE FOR FULLY FUNCTIONAL ACCESS CONTROLLED DOOR.
4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
5. 120 VAC POWER.
6. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
7. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs)



RISER DIAGRAM
NTS

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK F GIST	APVD G YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

SECURITY

EXISTING HEADWORKS ELECTRICAL BUILDING PLAN AND RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	91-TY-2001
SHEET	210 of 270

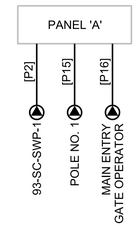
PANEL: Panel 'A' | LOCATION: Existing Admin Building
SERVICE VOLTAGE: 208/120V | PHASE: 3 | WIRE: 4
TOTAL LOAD KVA: ' 1.0 | BUS SIZE: 250A | MAIN SIZE: 250A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
			LTS. 113, 114, 117	20/1	1	2	20/1	LTS. 108, 109, 110, 111			
			LTS. 112, 115, 115A	20/1	3	4	20/1	LTS. 115			
			LTS. 100, 103, 105	20/1	5	6	20/1	LTS. 101			
			LTS. 102, 104	20/1	7	8	20/1	LTS. 106, 107			
			OUTSIDE LTS.	20/1	9	10	20/1	REC. COPIER & FAX			
			RECEPT. 101	20/1	11	12	20/1	REC. 102, 104			
			RECEPT. LAB	20/1	13	14	20/1	REC. 106, 107, 116			
			FUME HOOD	20/1	15	16	20/1	REC. 100, 103			
			REC. 113, 116, 117	20/1	17	18	20/1	REC. 114			
			REC. 114	20/1	19	20	20/1	REC. REF.			
			SPARE	20/1	21	22	20/1	REC. OUTSIDE.			
			RECEPT. 115	20/1	23	24	20/1	REC. 115			
			RECEPT. 115	20/1	25	26	20/1	REC. 115			
			RECEPT. 115	20/1	27	28	20/1	DUCT BLOWER			
			WATER BATH	20/1	29	30	20/1	CANOPY HOOD			
			FUME HOOD	20/1	31	32	20/1	REC. FOR INCUBATORS			
			RECIRC. PUMP	20/1	33	34	20/1	REC. FOR DE-IONIZER			
			WATER HEATER	20/1	35	36	20/1				
			OVEN	20/2	37	38	**20/1**	**93-SC-SWP-01**	0.5		
					39	40	**20/1**	**POLE NO. 1 AND FACILITY SIGN**		0.5	
			INCUBATOR, CONSTANT TEMP. RM.	20/1	41	42		**SPACE**			
0.0	0.0	0.0	TOTAL						0.5	0.5	0.0

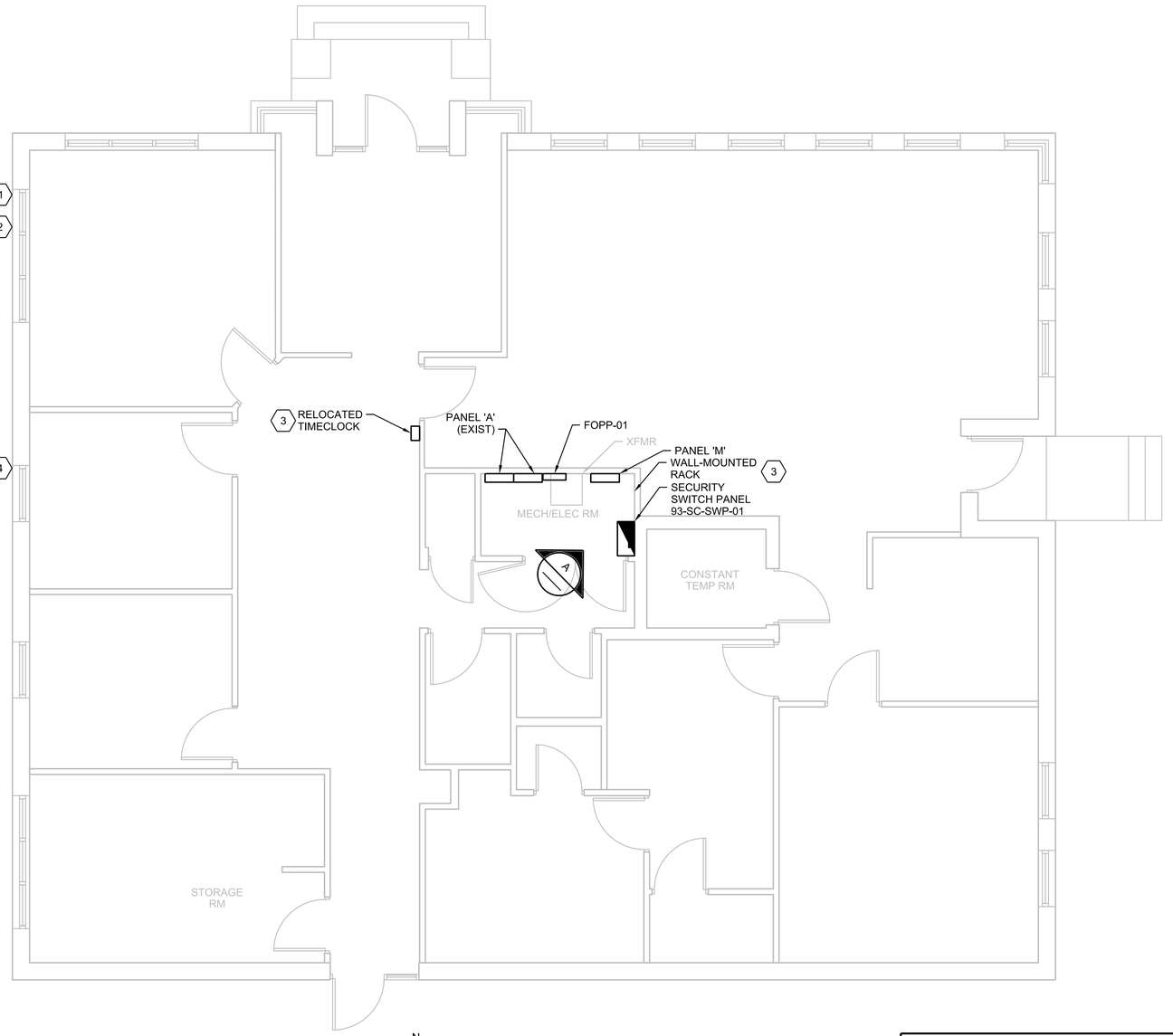
PANEL: Panel 'M' | LOCATION: Existing Admin Building
SERVICE VOLTAGE: 480/277V | PHASE: 3 | WIRE: 4
TOTAL LOAD KVA: ' 1.5 | BUS SIZE: 200A | MAIN SIZE: 200A | TYPE: BREAKER
REMARKS: NEMA 1 Enclosure | NEUTRAL: FULL | MOUNTING: SURFACE

LOAD IN KVA A	B	C	CIRCUIT DESCRIPTION	BKR A/P	CKT NO.	CKT NO.	BKR A/P	CIRCUIT DESCRIPTION	LOAD IN KVA A	B	C
			AC EAST	50/3	1	2	30/3	VACUUM PUMP			
					3	4					
					5	6					
			OFFICE AC	50/3	7	8	40/3	RTU-2			
					9	10					
					11	12					
			75KVA XFMR		13	14	30/3	NEW SCRUBBER FAN			
					15	16					
					17	18					
			AC UNIT - FAR EAST		19	20	**20/3**	**MAIN ENTRANCE GATE**	0.5		
					21	22				0.5	
					23	24					0.5
					25	26					
					27	28					
					29	30					
0.0	0.0	0.0	TOTAL						0.5	0.5	0.5

A PHOTO
NTS



RISER DIAGRAM



N

POWER PLAN
1/4" = 1' - 0"

SHEET KEYNOTES

1. DEMOLISH EXISTING 3-POLE BREAKER AT THIS LOCATION. INSTALL NEW BREAKER IN PANEL 'A', AND PROVIDE [3/4"C, 2#12, 1#12G] TO NEW LOAD.
2. DEMOLISH EXISTING 3-POLE BREAKER AT THIS LOCATION. INSTALL NEW BREAKER IN PANEL 'A', AND PROVIDE [3/4"C, 2#10, 1#12G] TO NEW LOAD.
3. CONTRACTOR SHALL PROVIDE [1"C, CAT 6] FROM RELOCATED TIME CLOCK TO EXISTING WALL-MOUNTED RACK LOCATED WITHIN THE MECH/ELEC ROOM.
4. INSTALL NEW BREAKER IN PANEL 'M', AND PROVIDE [3/4"C, 3#10, 1#10G] TO NEW LOAD.

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	G MESSER	CHK	KB HORTON
DR	GT YARBERRY		APVD	GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

REUSE OF DOCUMENTS:

CONFORMED DOCUMENTS

Jacobs

ELECTRICAL
EXISTING ADMINISTRATION BUILDING
POWER PLAN AND
PANEL SCHEDULE

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	93-E-2001
SHEET	211 of 270

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. THIS PLAN DEPICTS THE GENERAL LOCATION OF EQUIPMENT, FIELD DEVICES AND CABLE PATHWAYS. AVOID CONFLICTS WITH EXISTING EQUIPMENT AND COORDINATE FINAL MOUNTING LOCATIONS AND RACEWAY ROUTING WITH OWNER.
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SHEET KEYNOTES

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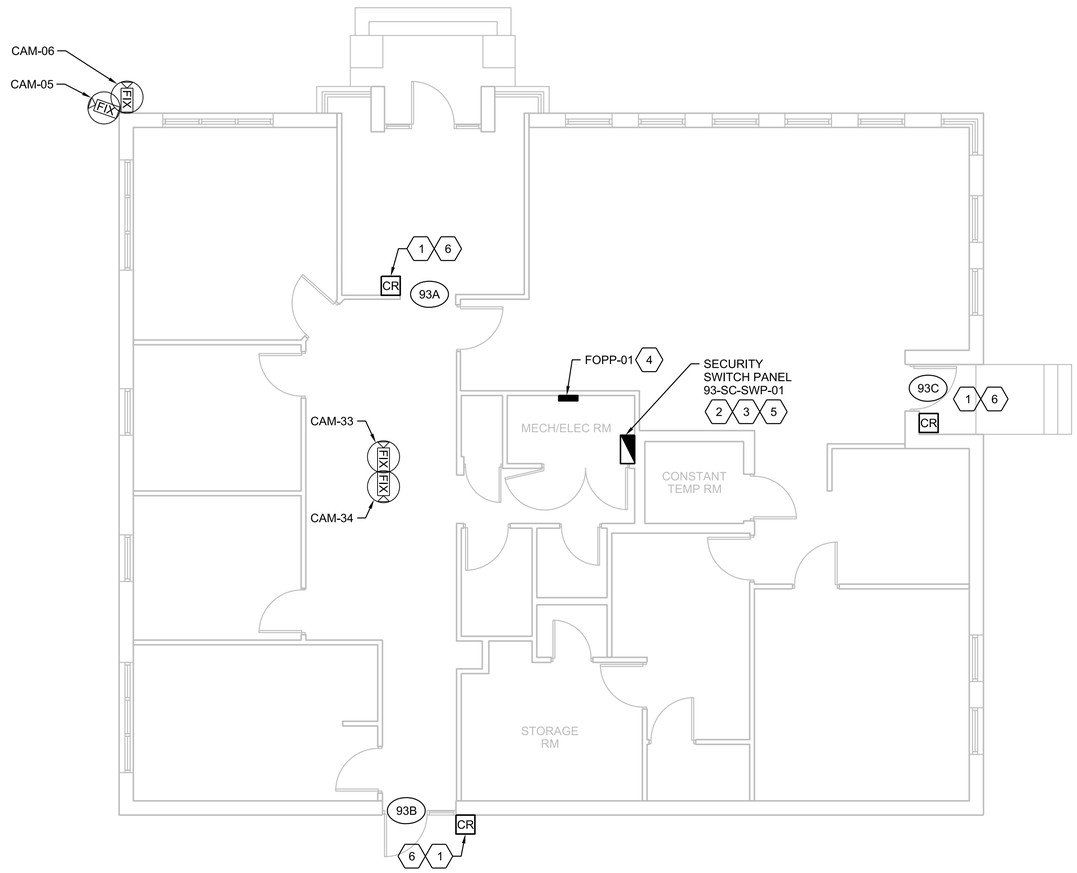
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. MOUNT THE SECURITY CONTROL PANEL 4-6 INCHES FROM THE FACE OF THE EXISTING WALL TO ENABLE THE EXISTING CABLES TO REMAIN "AS IS". SUPPORT THE NEW SECURITY PANEL WITH ONE PIECE OF UNISTRUT TO BE INSTALLED VERTICALLY ON EACH SIDE OF THE SECURITY PANEL (ONE ON LEFT SIDE AND ONE ON RIGHT SIDE) AND THEN TO INSTALL TWO ADDITIONAL PIECES OF UNISTRUT (ONE AT THE TOP OF THE PANEL AND ONE AT THE BOTTOM OF THE PANEL) MOUNTED HORIZONTALLY THAT ARE ATTACHED TO THE OTHER TWO PIECES OF UNITSRUT. RE-SIZE THE DEPTH OF THE SECURITY CONTROL PANEL AS NEEDED TO FIT PROPERLY THE LOCATION.
6. SECURITY CONTRACTOR TO PROVIDE DOOR ELECTRO-MAGNETIC LOCK.



SECURITY PLAN

3/16"=1'-0"

GENERAL SHEET NOTES

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4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
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6. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
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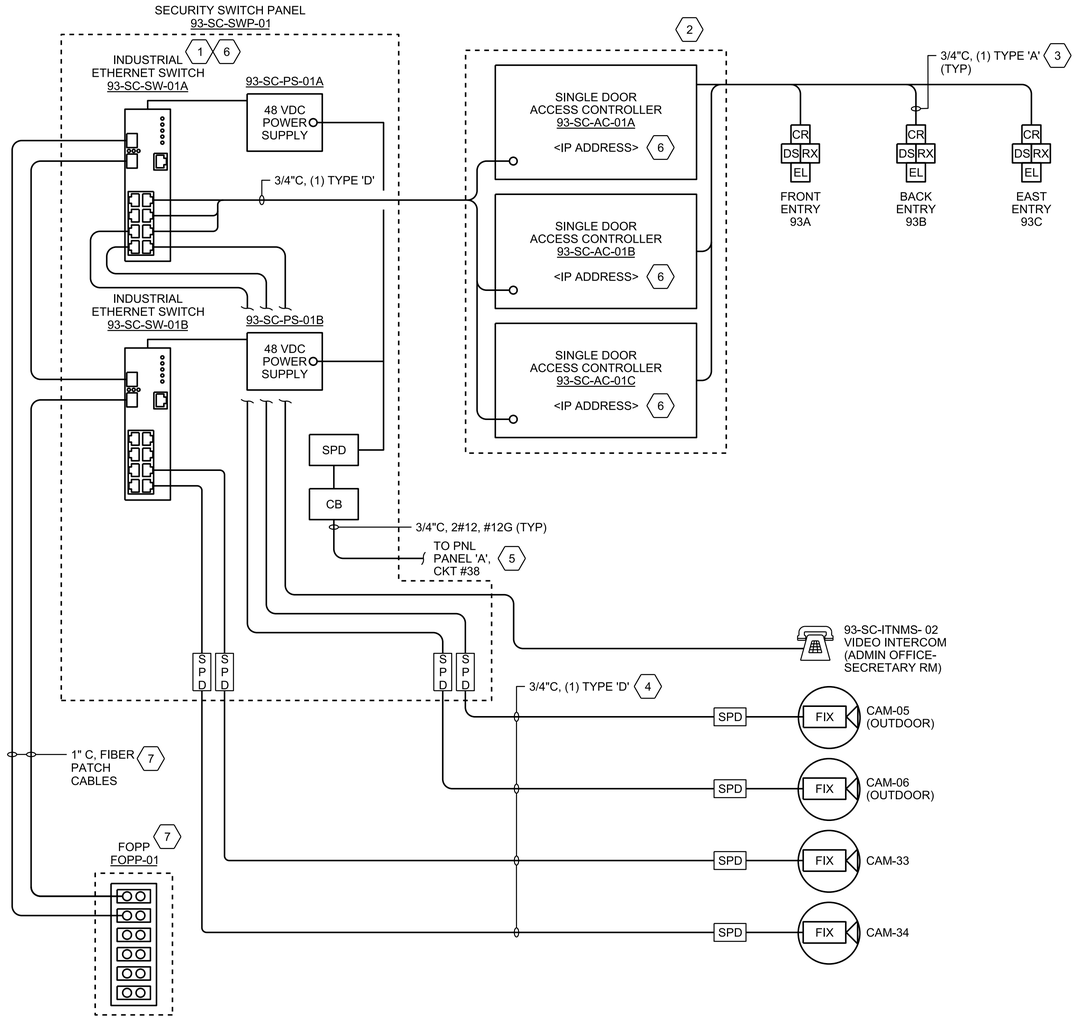


RISER DIAGRAM

NTS

NO.	DATE	DSGN	REVISION	CHK	APVD	BY
DR	F ABUHIJLEH	A PASTRANA		F GIST	APVD	G YARBERRY

CONFORMED DOCUMENTS

Jacobs

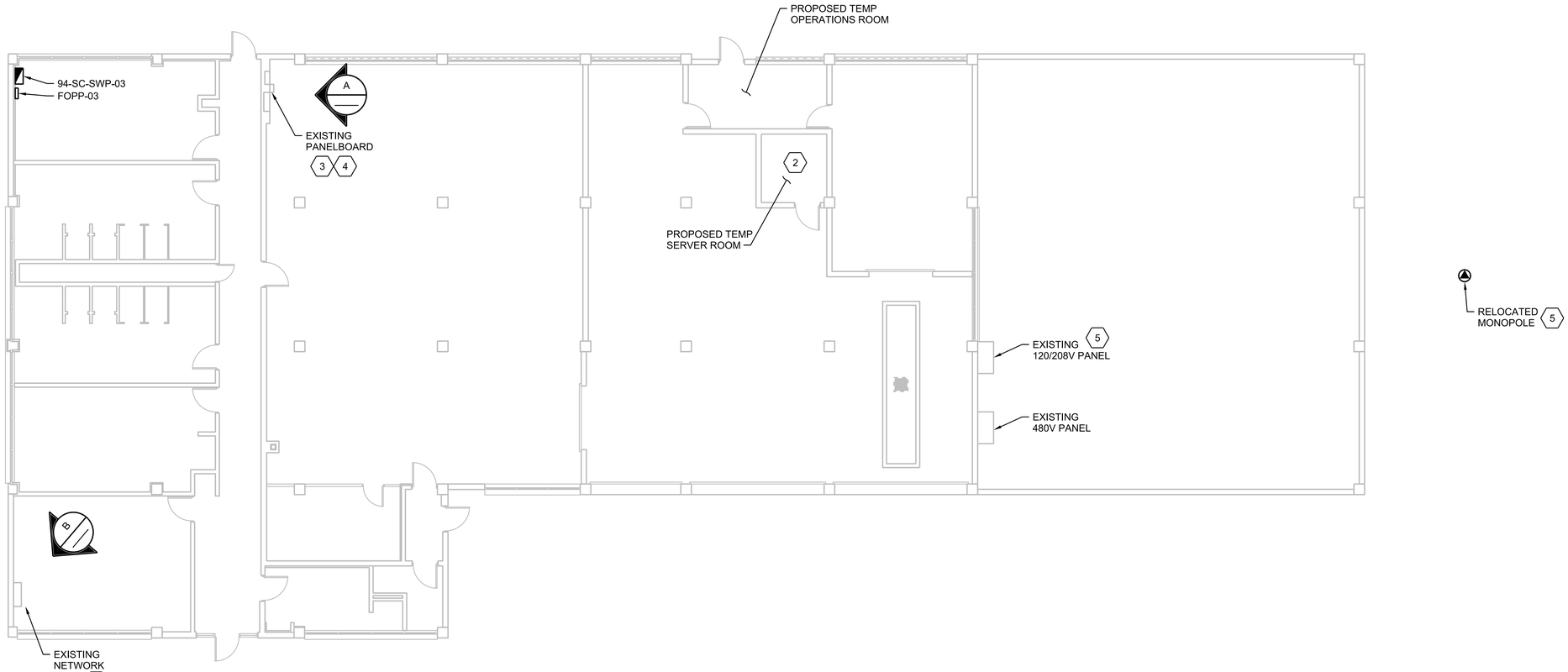
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
EXISTING ADMINISTRATION BUILDING
SECURITY PLAN AND
RISER DIAGRAM

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	93-TY-2001
SHEET	212 of 270



MAINTENANCE PLAN

1/8"=1'-0"

EXISTING PANELBOARD

A PHOTO

NTS

EXISTING NETWORK RACK

B PHOTO

NTS

SHEET KEYNOTES

1. CONTRACTOR SHALL PROVIDE A [1"C - CAT 6] CABLE FROM THE EXISTING NETWORK RACK TO THE RELOCATED RACK LOCATED WITHIN THE TEMPORARY SERVER ROOM.
2. CONTRACTOR SHALL RELOCATE EXISTING SERVER RACK AND CONTROL EQUIPMENT FROM THE EXISTING OPERATIONS BUILDING. ALL RELOCATED EQUIPMENT MUST BE OPERATIONAL BEFORE CONTRACTOR CAN DEMOLISH EXISTING OPERATIONS BUILDING. REFER TO THE SPECIFICATION FOR DETAILS.
3. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM EXISTING 240/120V PANELBOARD SHOWN TO NEW SECURITY PANEL.
4. CONTRACTOR SHALL PROVIDE AND INSTALL A 20A/1P BREAKER IN CIRCUIT 17 OF EXISTING PANELBOARD TO POWER THE NEW SECURITY PANEL.
5. CONTRACTOR SHALL PROVIDE [3/4"C, 2#12, 1#12G] FROM SPARE 20A/1P BREAKER TO POWER RELOCATED MONOPOLE. SEE DRAWING 06-E-2004 FOR LOCATION.

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	GT YARBERRY		A PASTRANA	KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL
MAINTENANCE BUILDING PLAN

S NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	94-E-2001
SHEET	213 of 270

GENERAL SHEET NOTES

1. REFER TO DRAWING 01-G-0023 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
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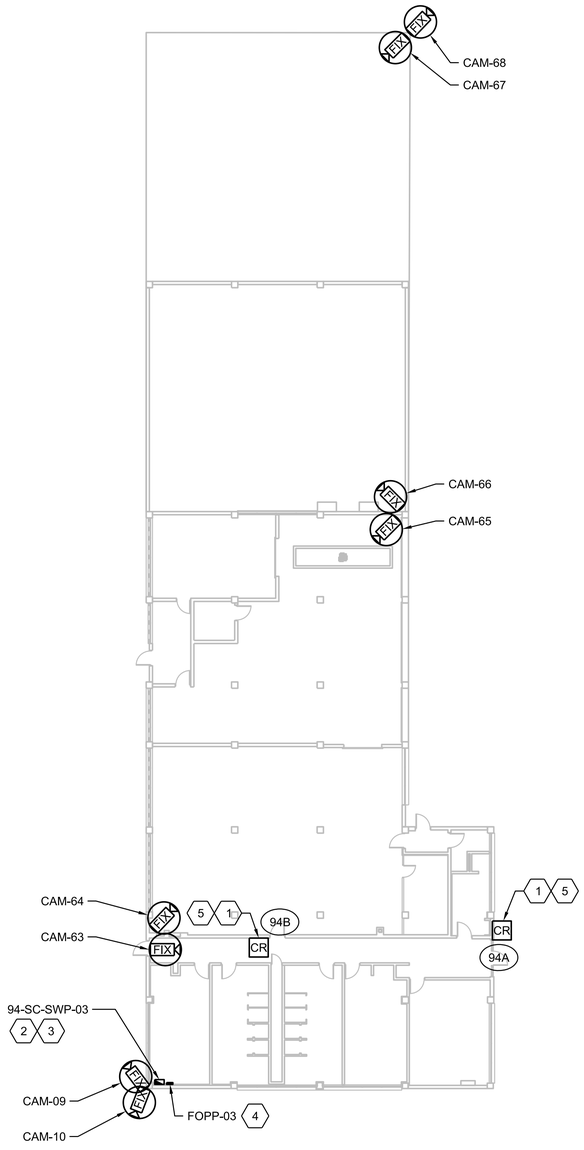
3. ELECTRICAL CIRCUIT RESERVED FOR SECURITY EQUIPMENT.
4. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
5. SECURITY CONTRACTOR TO PROVIDE DOOR ELECTRO-MAGNETIC LOCK.



SECURITY PLAN

1/16"=1'-0"

GENERAL SHEET NOTES

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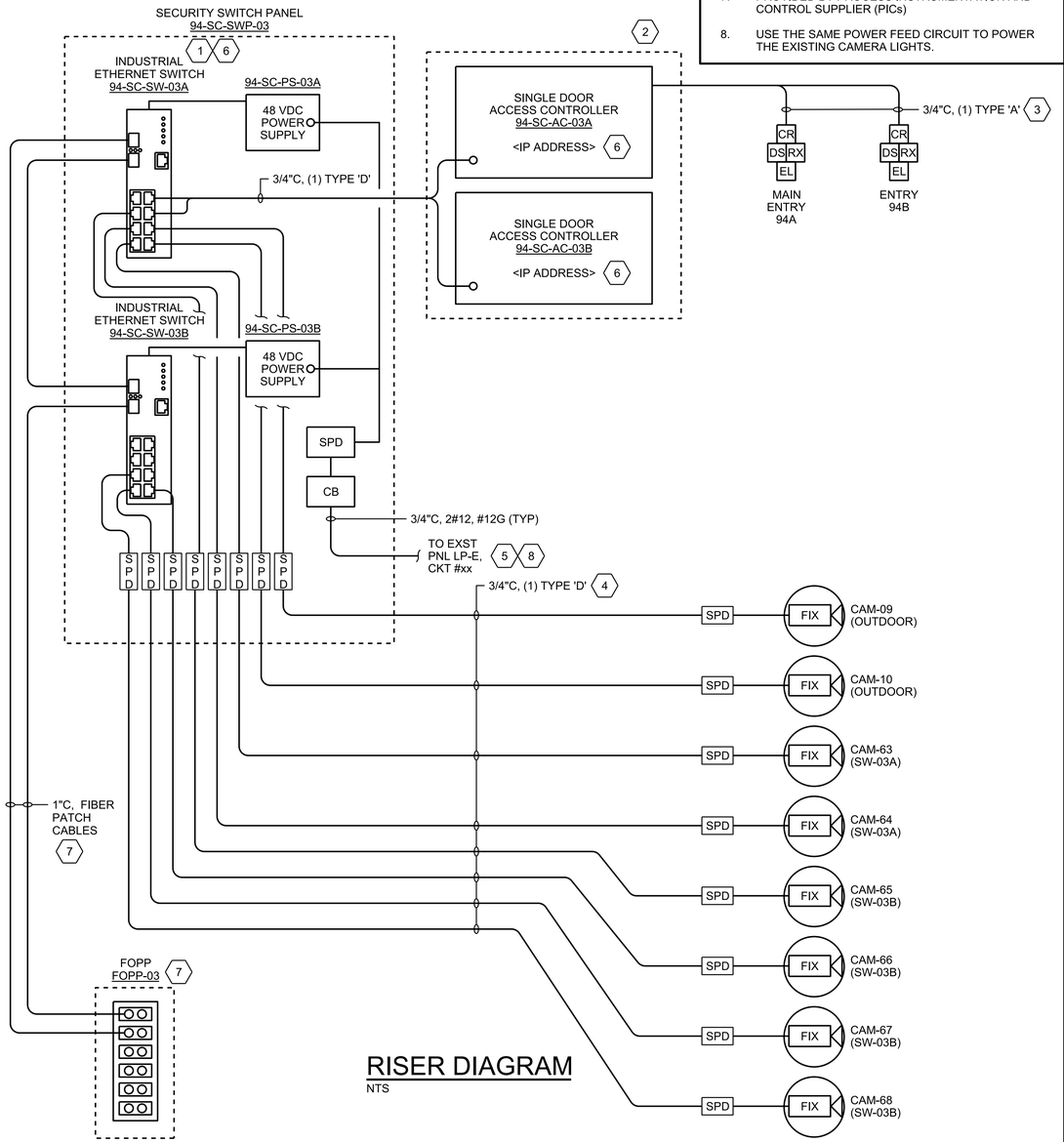
4. FIXED CAMERA: PROVIDE RACEWAY, CABLING CAMERA AND ASSOCIATED HARDWARE FOR A FULLY FUNCTIONAL CAMERA.
5. 120 VAC POWER.
6. IP ADDRESSES WILL BE ASSIGNED AND PROVIDED TO THE CONTRACTOR BY MAWSS IT.
7. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs)
8. USE THE SAME POWER FEED CIRCUIT TO POWER THE EXISTING CAMERA LIGHTS.



RISER DIAGRAM

NTS

NO.	DATE	DR	CHK	REVISION	BY	APVD
DSGN	F ABUHIJLEH	A PASTRANA	F GIST		G YARBERRY	APVD

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

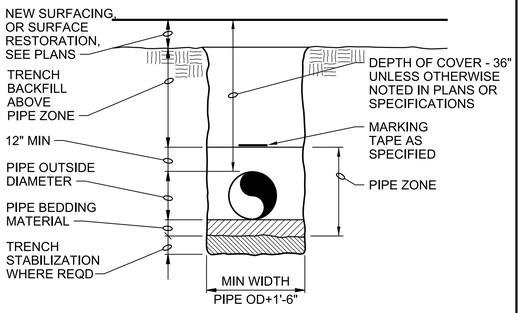
Jacobs

SECURITY
EXISTING MAINTENANCE BUILDING SECURITY PLAN AND RISER DIAGRAM

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

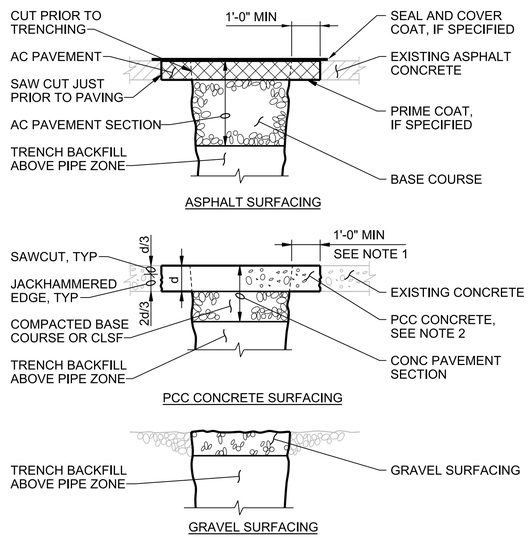
DATE	MAY 2021
PROJ	D3226100
DWG	94-TY-2001
SHEET	214 of 270



PIPE TRENCH

NTS

3123-110



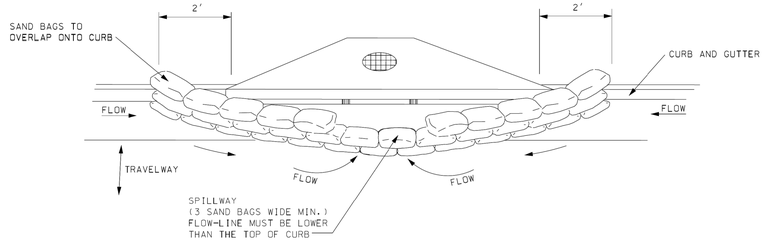
NOTES:

1. IF LOCATION OF TRENCH SAW CUT IS WITHIN 2 FEET OF AN EXISTING JOINT OR EDGE OF CONCRETE, REPLACE ENTIRE CONCRETE TO THE JOINT OR EDGE.
2. CONSTRUCT JOINTS ACROSS NEW CONCRETE TO MATCH EXISTING JOINT TYPES AND LOCATIONS.

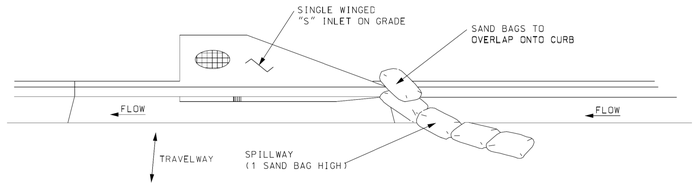
SURFACE RESTORATION

NTS

3123-115



TYPICAL (SAND BAG) PROTECTION FOR INLET IN SAG



TYPICAL (SAND BAG) PROTECTION FOR INLET ON GRADE

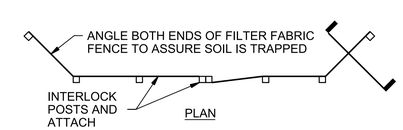
NOTES:

1. BAG HEIGHT AND NUMBER OF BAGS SHOULD BE BASED ON CURB HEIGHT AND USE OF TRAVELWAY.
2. REMOVE ACCUMULATED SEDIMENT AFTER EVERY RAINFALL EVENT. SWEEP SEDIMENT FROM HARD SURFACES AND DISPOSE OF AWAY FROM INLETS AND/OR WATER BODIES APPROPRIATELY .

TYPICAL PROTECTION FOR INLET ON GRADE

NTS

3125-187



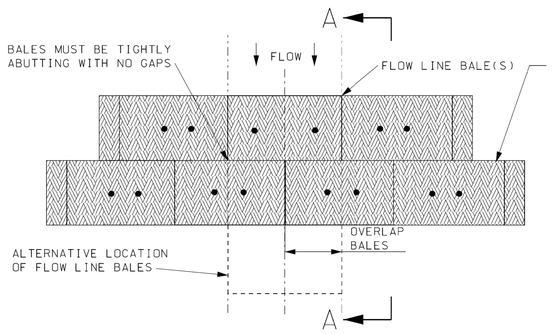
NOTES:

1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. WOOD OR STEEL FENCE POSTS.
3. STITCHED LOOPS TO BE INSTALLED DOWNHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.

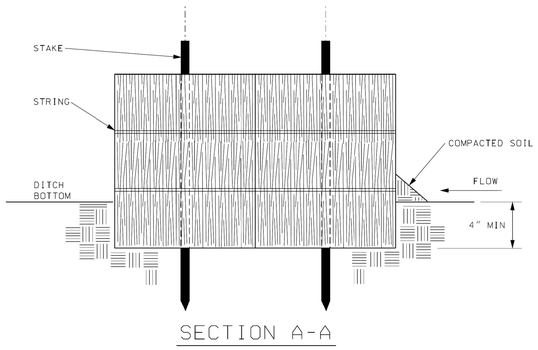
SILT FENCE

NTS

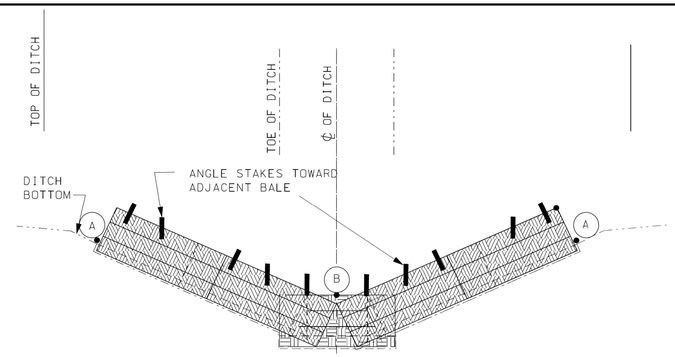
3125-165



PLAN VIEW
TRAPEZOIDAL DITCH



SECTION A-A



PROFILE VIEW
TRAPEZOIDAL DITCH

END POINTS (A) MUST BE HIGHER THAN FLOW LINE POINT (B)

NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. A MINIMUM OF TWO STAKES PER BALE IS REQUIRED. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
2. BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADAJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
4. SOIL IS COMPACTED ALONG THE BASE OF THE UPSTREAM FACE TO PREVENT PIPING.
5. MULTIPLE ADJACENT ROWS OF BALES ARE REQUIRED AS SHOWN.

HAY BALE CHECK DAM

NTS

3125-171

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	D TERRY	B OGLE		R MORRISON	J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

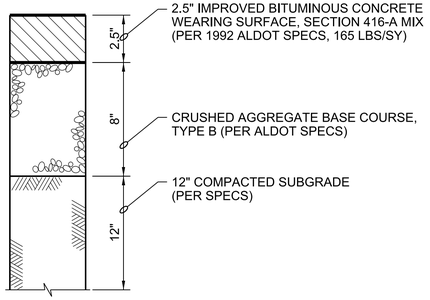
CIVIL
STANDARD DETAILS

REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.

CONFORMED DOCUMENTS

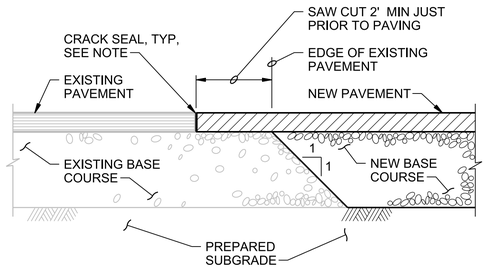
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-C-5001
SHEET	215 of 270



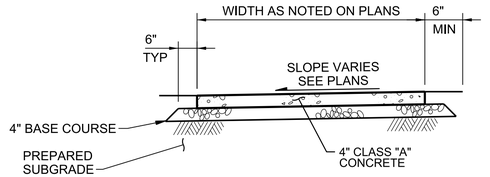
ASPHALT PAVEMENT
NTS

3212-210



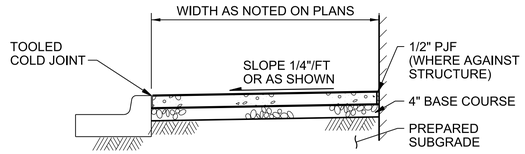
PAVEMENT CONNECTION
NTS

3212-215



NOTES:

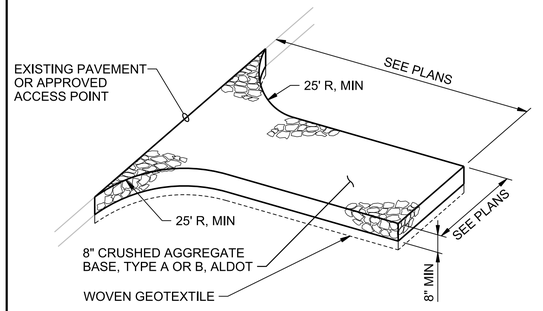
1. PROVIDE TRANSVERSE CONTRACTION JOINTS EVERY 5 FEET.
2. SLOPE VARIES - SEE PLAN.
3. WHERE SIDEWALK ABUTS BUILDINGS, SLOPE SIDEWALK MIN. 1% AWAY FROM BUILDINGS.



TYPICAL CURB SECTION

CONCRETE SIDEWALK
NTS

3213-220

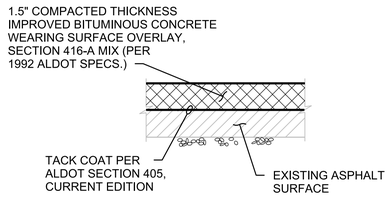


NOTES:

1. ADDITIONAL GRAVEL MAY HAVE TO BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE ENTRANCE.

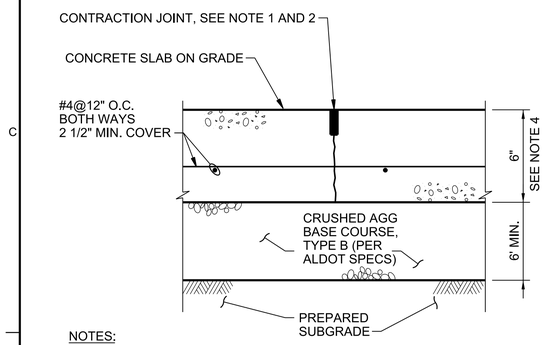
CONSTRUCTION ENTRANCE
NTS

3125-130



ASPHALT OVERLAY
NTS

3212-213

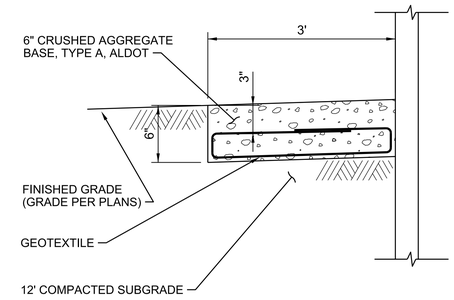


NOTES:

1. CONTRACTION JOINT SHALL BE MADE, CLEANED WITH COMPRESSED AIR, AND FILLED WITH SEALANT AS SPECIFIED.
2. CONCRETE JOINT SPACING: 10' x 10' OR AS SHOWN.
3. INSTALL 1/2" PREMOLDED JOINT FILLER FULL DEPTH WHERE CONCRETE PAVEMENT ABUTS CONCRETE CURB, BUILDING OR ANY RIGID STRUCTURE.
4. PROVIDE A 12" THICK BY 18" WIDE THICKENED EDGE AROUND PERIMETER OF SLAB. TRANSITION THICKENED EDGE TO NORMAL 6" THICKNESS IN 18".
5. PROVIDE PORTLAND CEMENT CONCRETE PAVEMENT TYPE AS SPECIFIED.

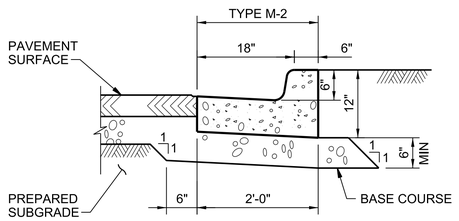
CONCRETE PAVEMENT
NTS

3213-240



GRAVEL MAINTENANCE STRIP
NTS

3215-280

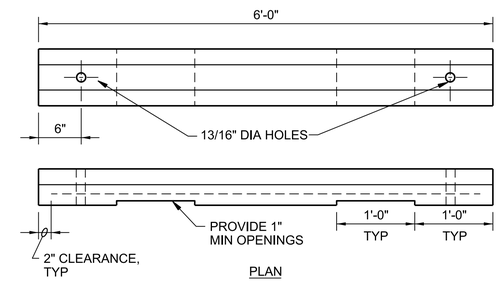


NOTES:

1. CURB AND GUTTER SHALL BE IN ACCORDANCE WITH ALDOT SPECS AND DETAILS, TYPE M-2.
2. WHEN USED ON THE HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT, UNLESS OTHERWISE DETAILED ON THE PLANS.

CURB AND GUTTER
NTS

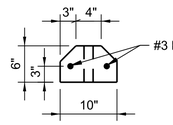
3216-320

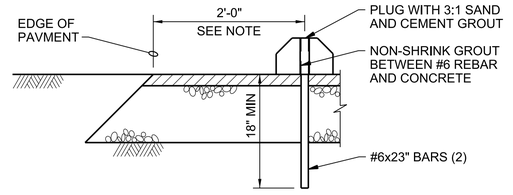


PLAN

NOTE:

WHEEL STOP SHALL BE CENTERED IN PARKING STALL.

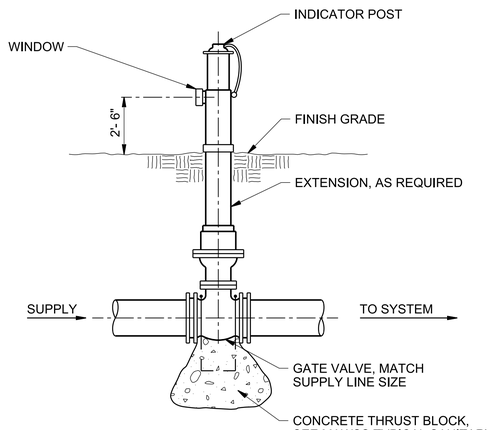




ATTACHMENT DETAIL

PRECAST CONCRETE WHEEL STOP
NTS

3217-350



NOTES:

WHERE POST INDICATOR VALVE CANNOT BE LOCATED OUT OF PAVED AREAS, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 GUARD POSTS AT EACH LOCATION, 3'-0" FROM POST INDICATOR, EQUALLY SPACED.

POST INDICATOR VALVE
NTS

3312-959

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR	B OGLE	CHK	R MORRISON	APVD	J RAMOS

Jacobs
25 WEST CEDAR STREET, SUITE 350
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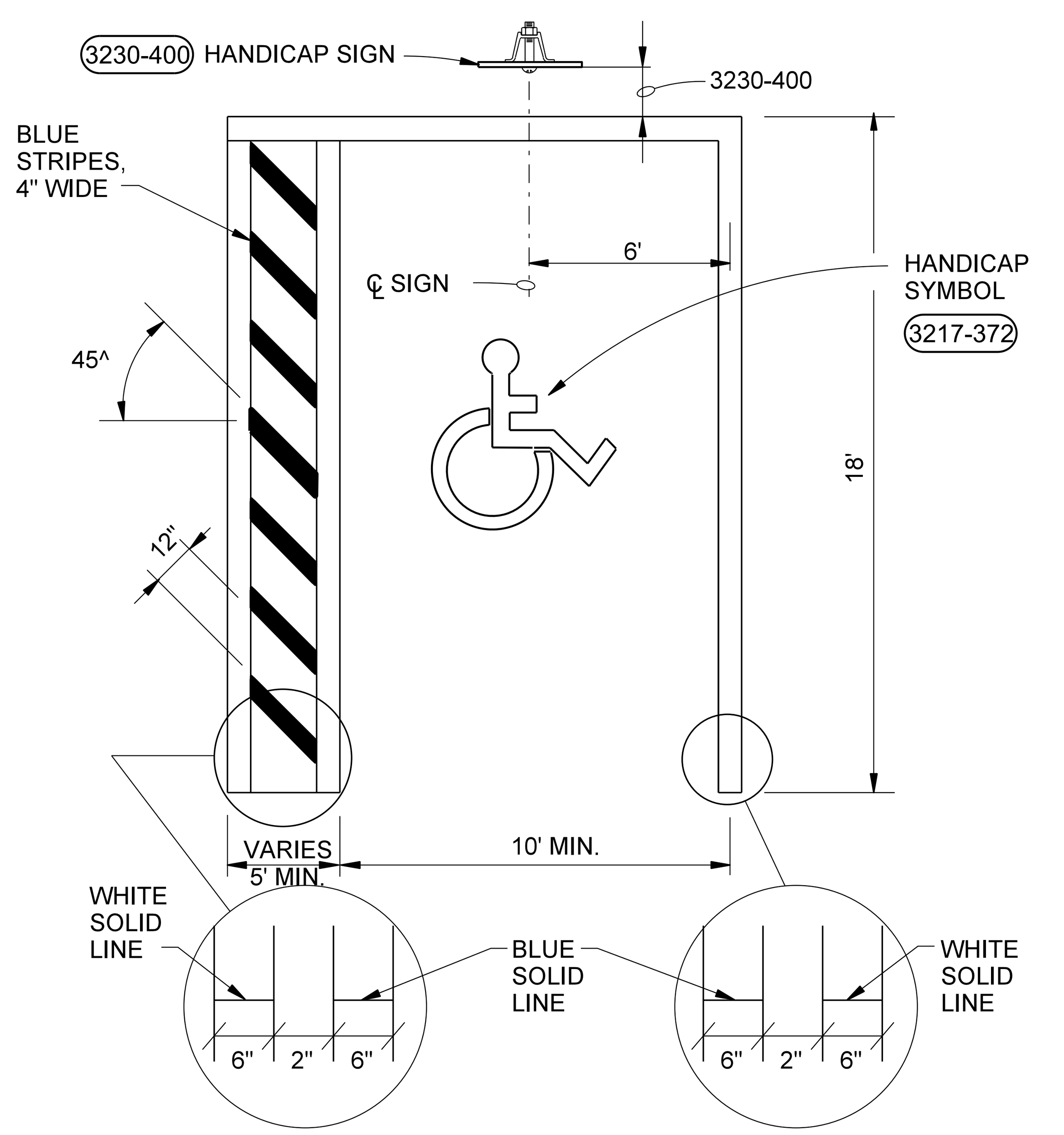
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
STANDARD DETAILS

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

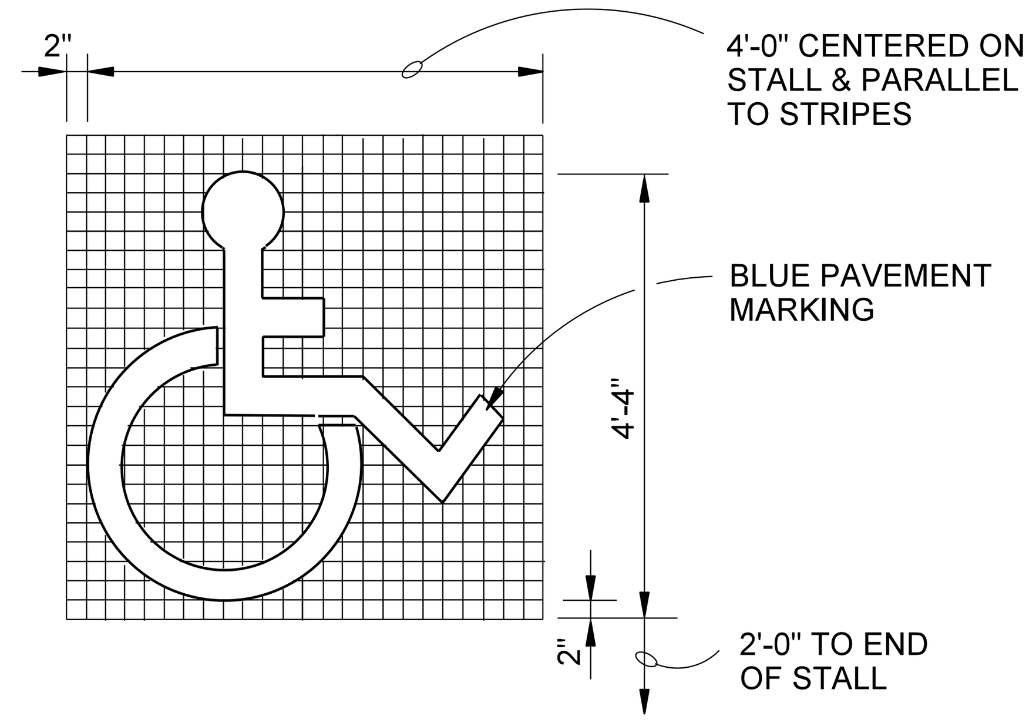
DATE	MAY 2021
PROJ	D3226100
DWG	99-C-5002
SHEET	216 of 270



HANDICAP PARKING STRIPING

NTS

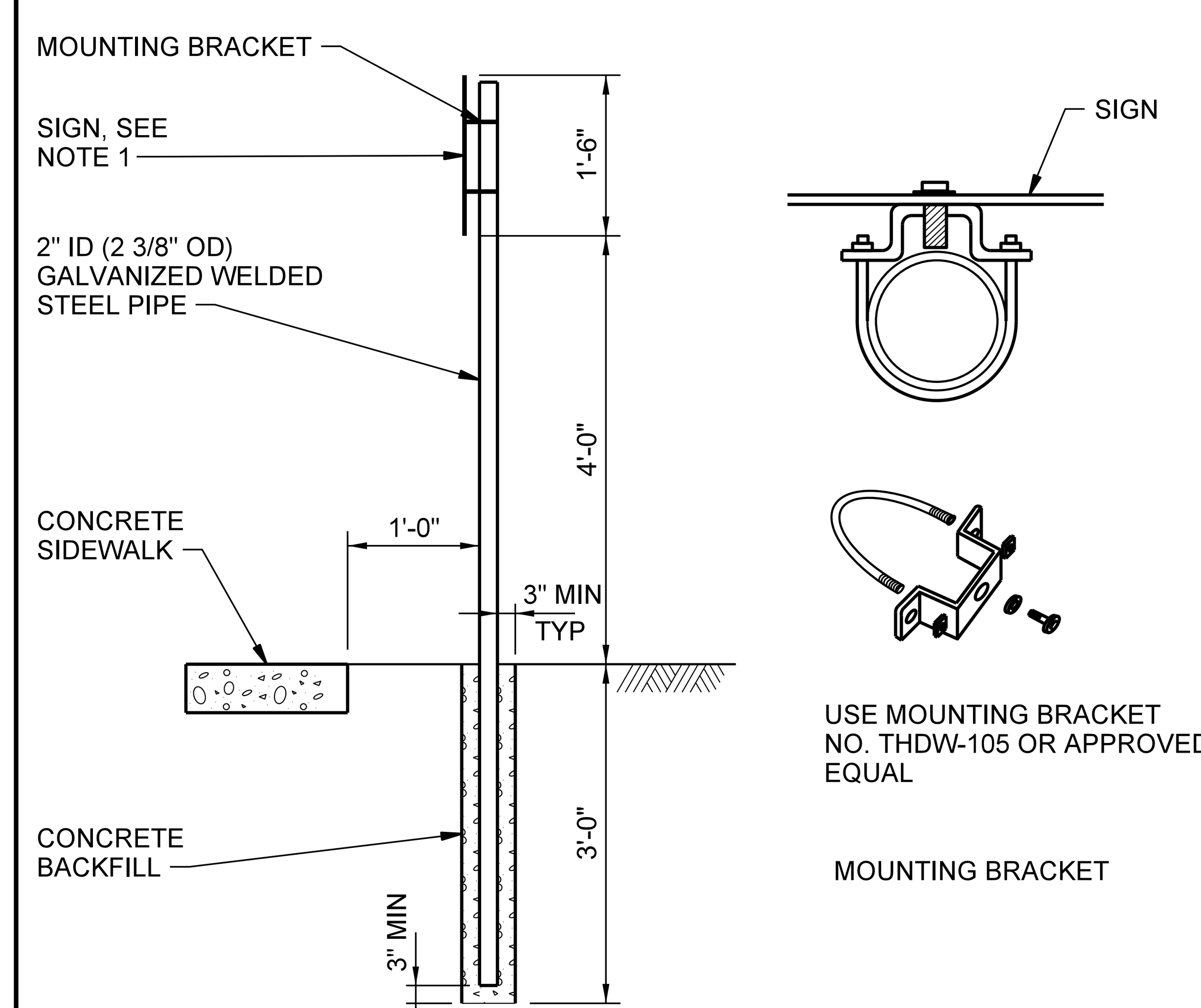
3217-371



HANDICAP SYMBOL

NTS

3217-372



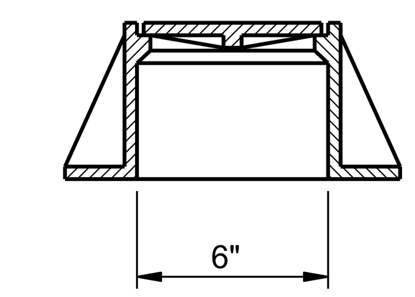
GENERAL NOTES:

1. SIGN WORDING LAYOUT AND MATERIAL TO BE PER LOCAL CITY AND/OR STATE CODE.
2. ALL HOLES TO BE 9/16" DIAMETER FOR 1/2" BOLTS.
3. ALL MATERIAL TO BE HOT-DIP GALVANIZED AFTER FABRICATION.

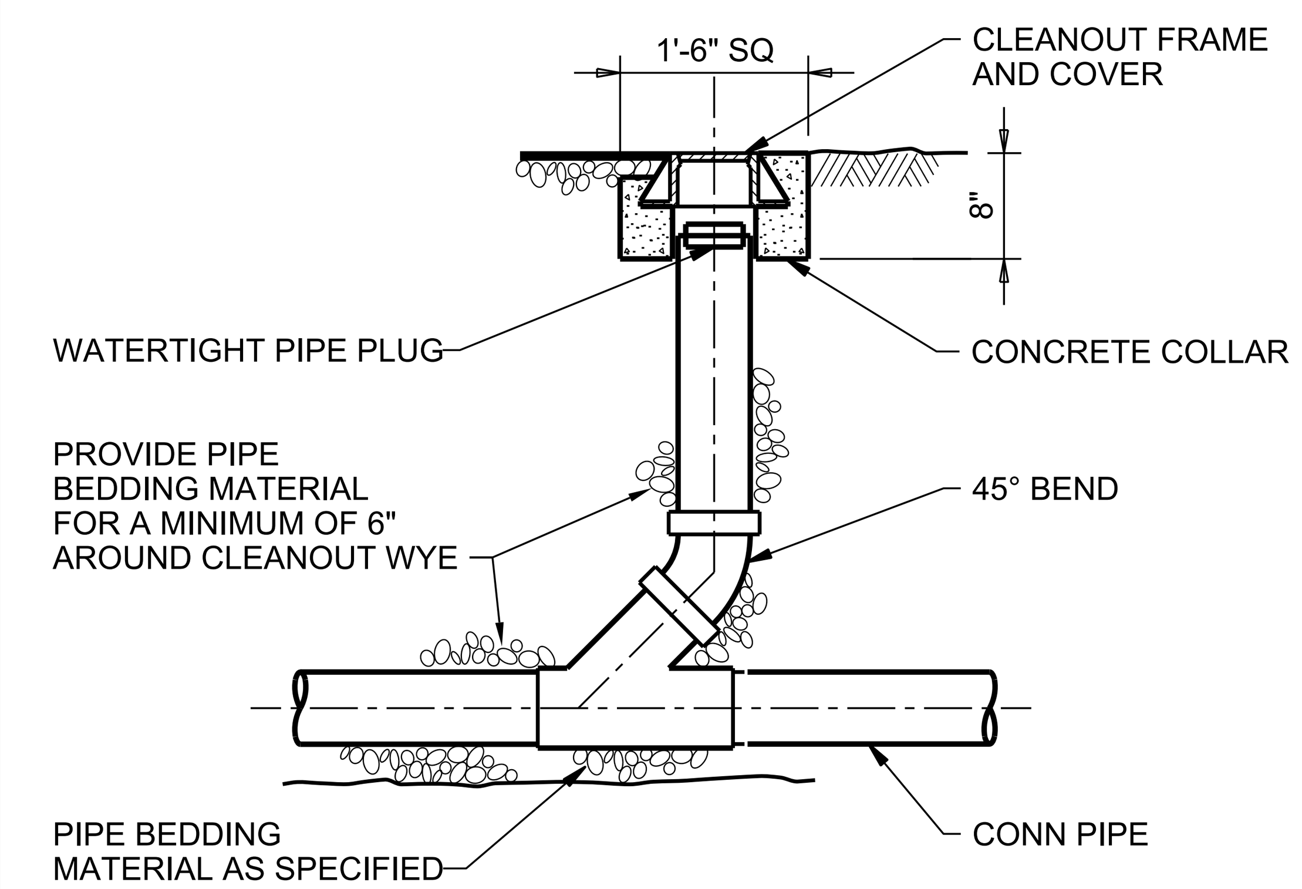
HANDICAP SIGN AND MOUNTING

NTS

3230-400



CLEANOUT FRAME AND COVER

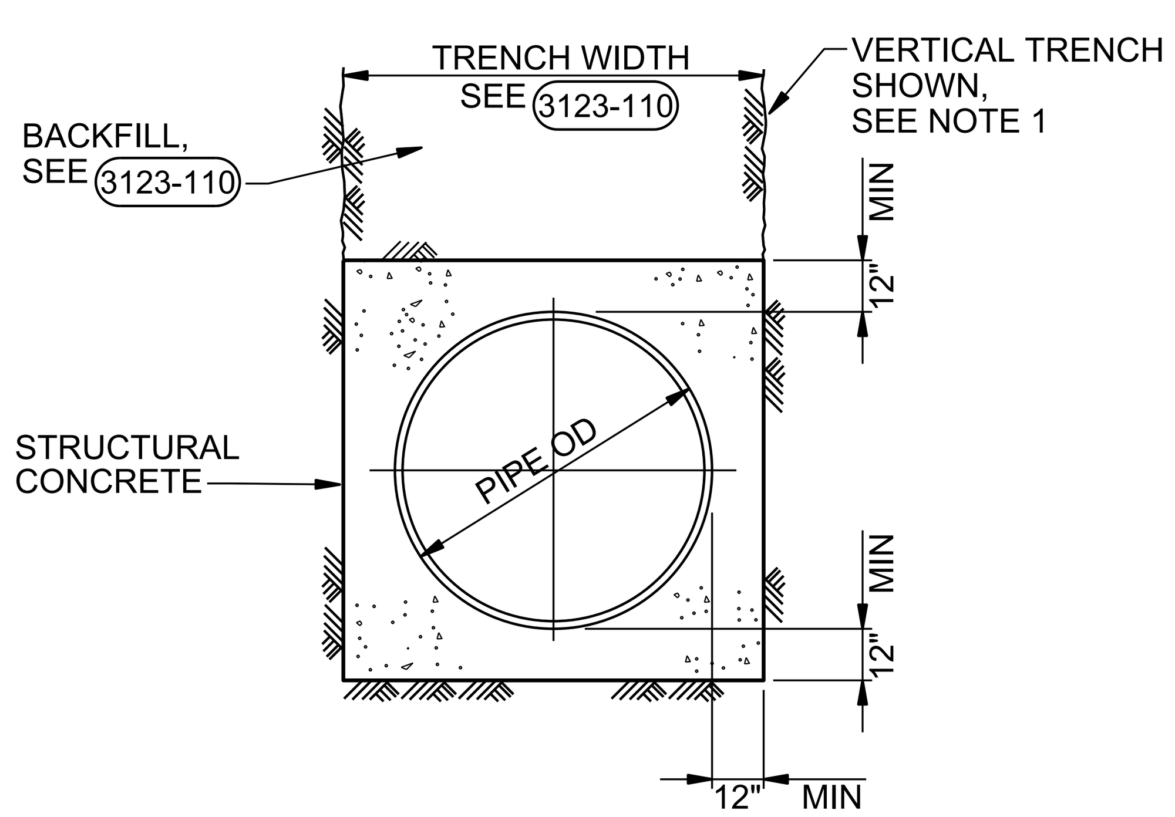


CLEANOUT

EXTERIOR CLEANOUT

NTS

3305-740



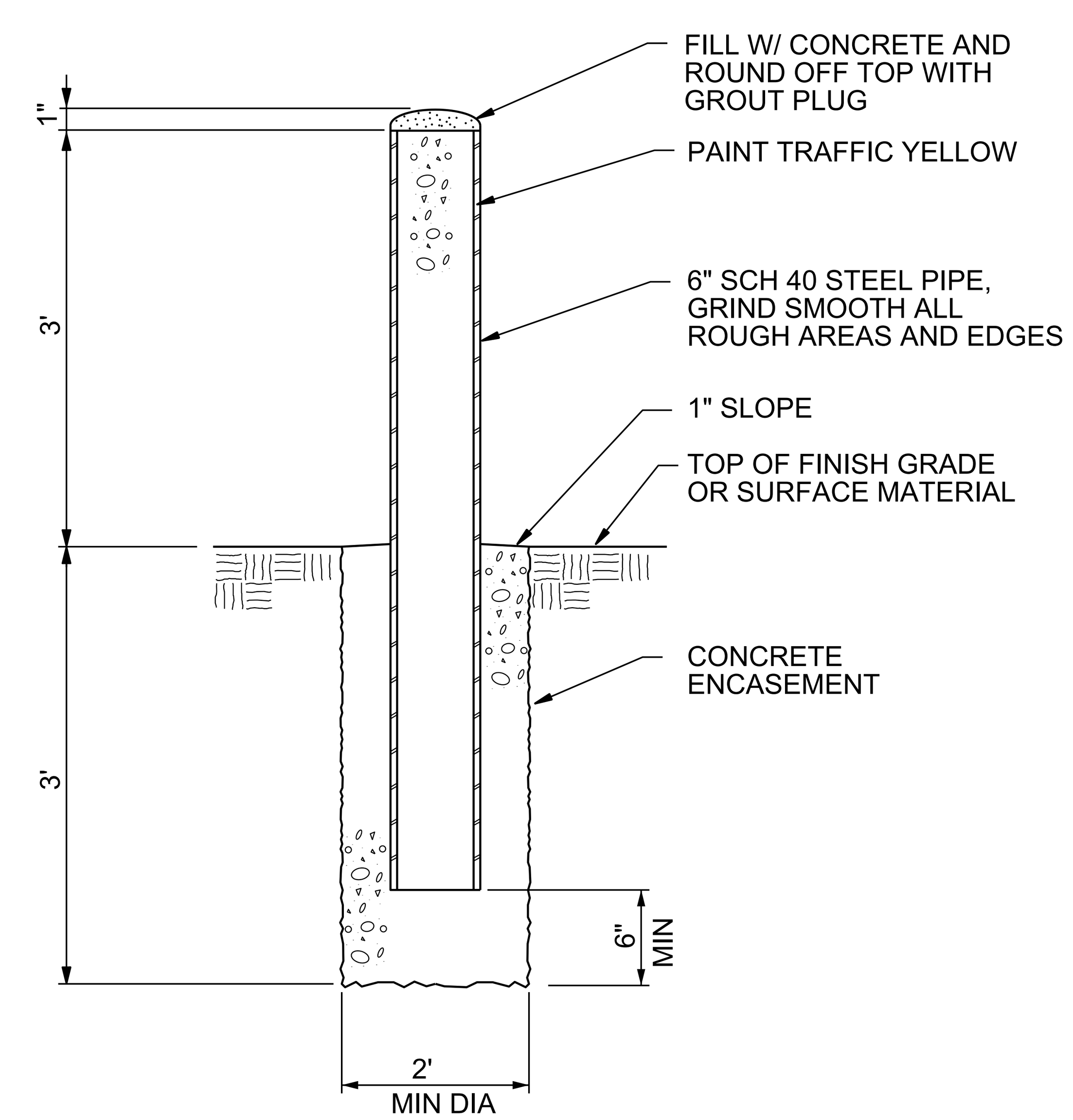
NOTES:

1. VERTICAL TRENCH WALLS SHOWN. CONTRACTOR SHALL SLOPE TRENCH WALLS OR SHORE EXCAVATIONS FOR CONSTRUCTION AND SAFETY IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS.
2. PEA GRAVEL BAGS, SANDBAGS, OR PRECAST SHAPED CONCRETE BLOCKS (12" MIN WIDTH) DESIGNED TO HANDLE THE INTENDED LOADS, MAY BE USED TO SUPPORT PIPE WHEN PLACING CONCRETE.

CONCRETE ENCASEMENT

NTS

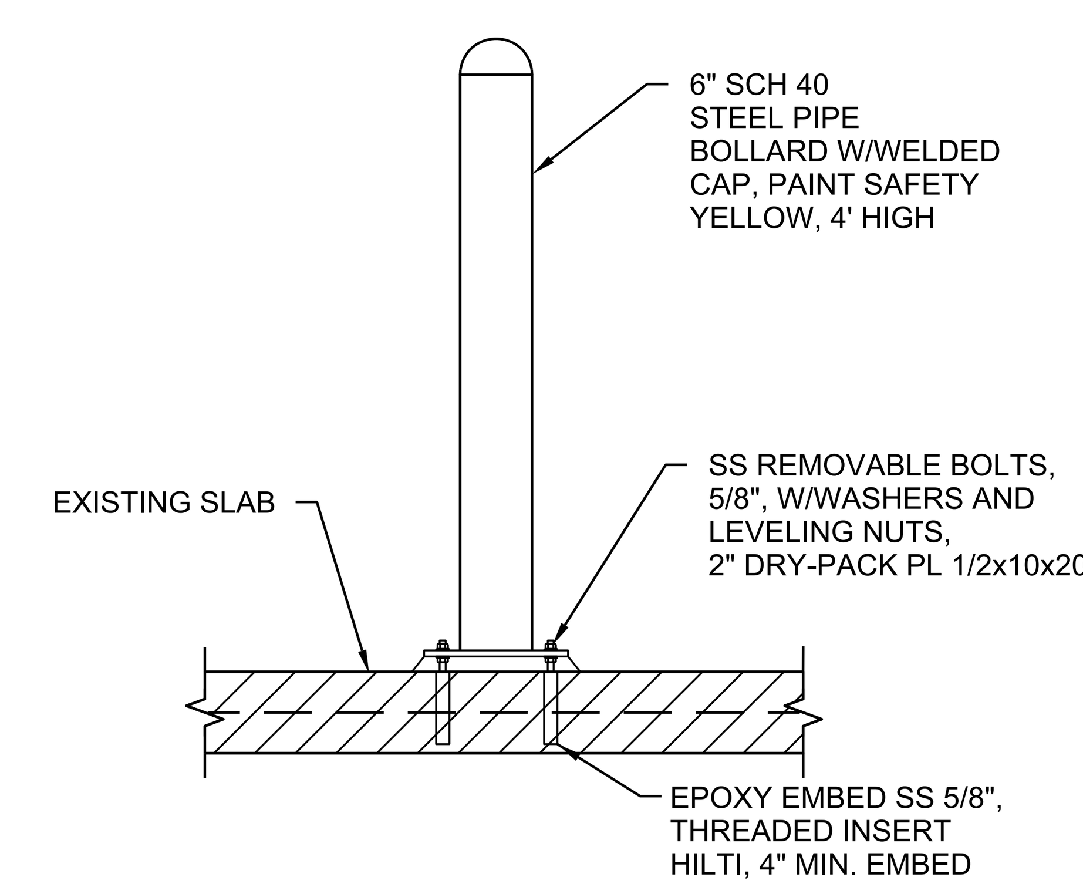
3305-950



BOLLARD

NTS

3305-954

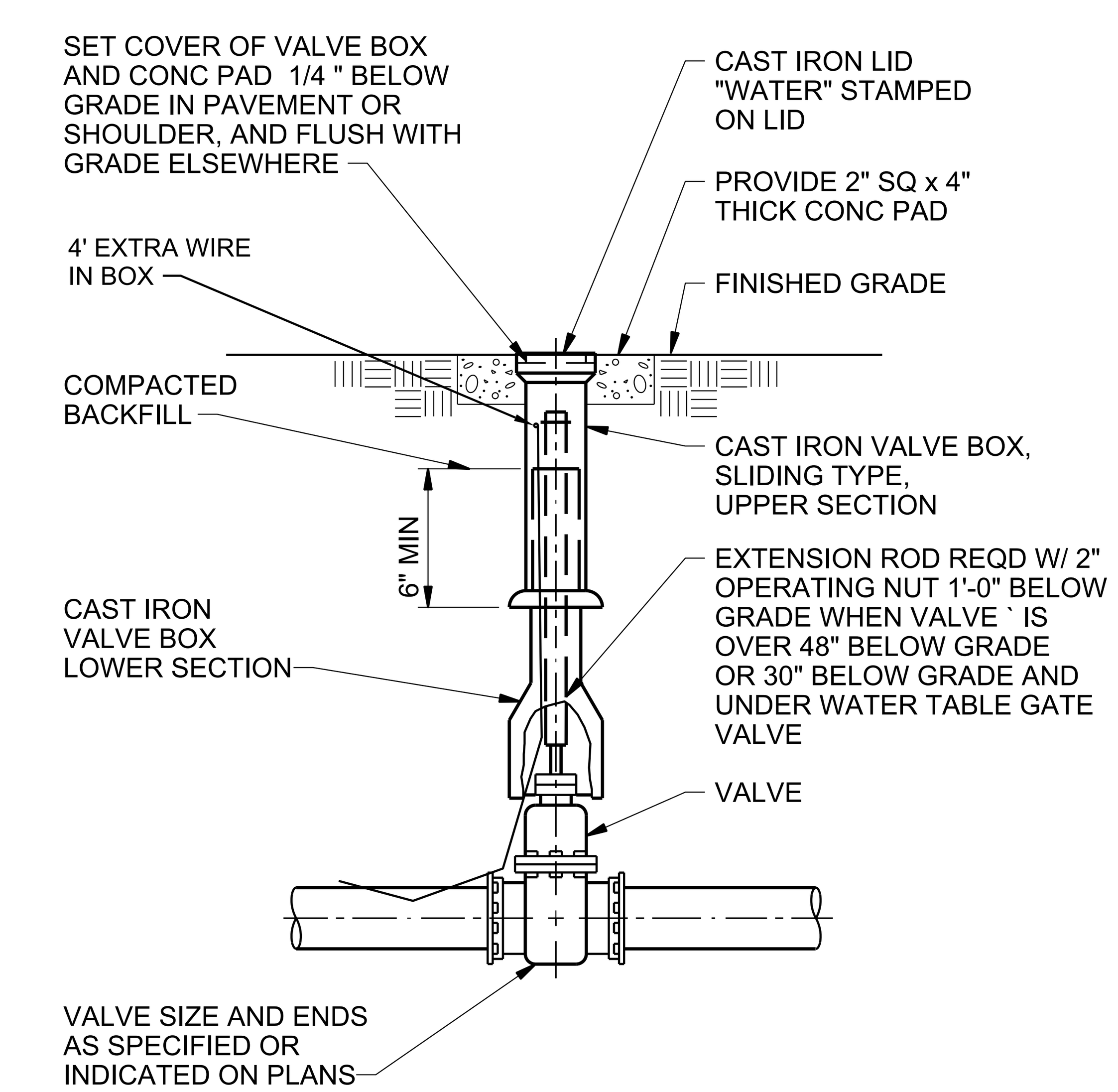


SLAB MOUNTED BOLLARD

BOLLARD

NTS

3305-955



BURIED VALVE BOX

NTS

4027-640

NO.	DATE	REVISION	BY	APVD

DSGN	DR	CHK	APVD
D TERRY	B OGLE	R MORRISON	J RAMOS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

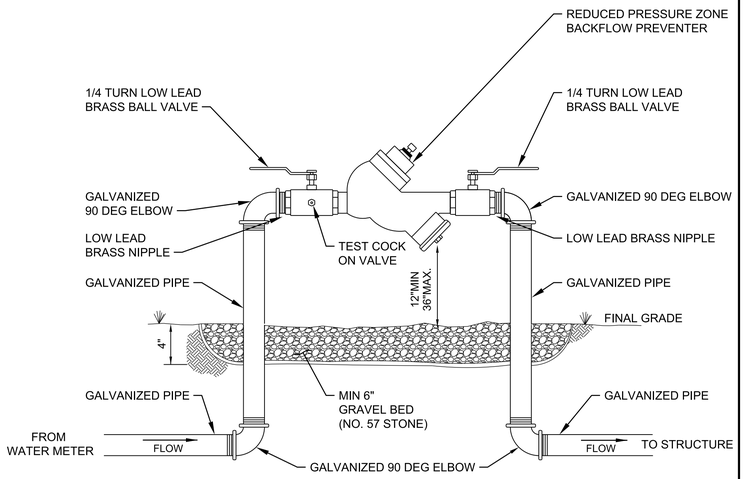
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

CIVIL
STANDARD DETAILS

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-C-5003
SHEET	217 of 270

CONFORMED DOCUMENTS



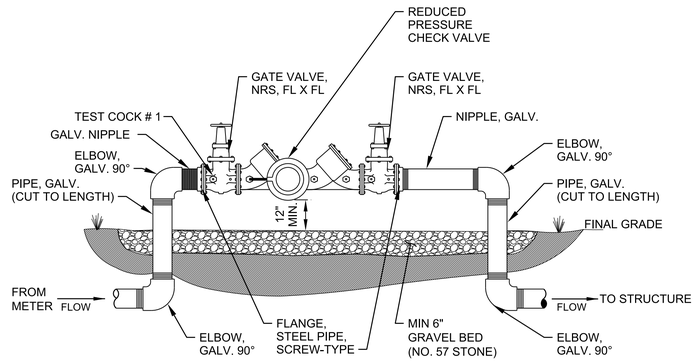
NOTES:

1. INSTALL AN INSULATED BOX OVER THE ASSEMBLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE BOX TO THE ENGINEER FOR APPROVAL.

BRASS BACKFLOW PREVENTER CONSTRUCTION SINGLE SERVICE 3/4" TO 2"

NTS

4027-010



NOTES:

1. INSTALL AN INSULATED BOX OVER THE ASSEMBLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE BOX TO THE ENGINEER FOR APPROVAL.

REDUCED PRESSURE BACKFLOW PREVENTER SINGLE SERVICE 3" TO 10"

NTS

4027-020

NO.	DATE	REVISION	BY	APVD
DSGN	D TERRY	DR B OGLE	CHK R MORRISON	APVD J RAMOS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

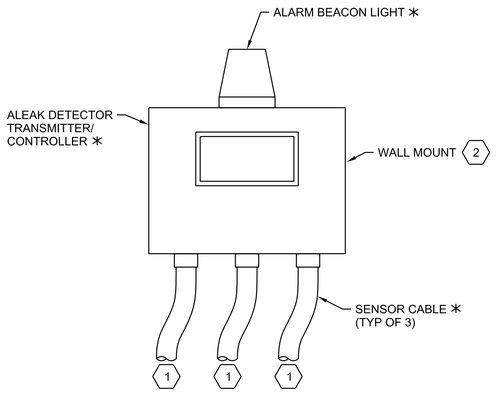
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

CIVIL
STANDARD DETAILS

AS SHOWN
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING,
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-C-5004
SHEET	218 of 270



NOTES:

1. COMPONENTS DESIGNATED BY AN ASTERISK (∗) ARE SUPPLIED BY INSTRUMENT INSTRUMENT MANUFACTURER.
2. LEAK DETECTOR TRANSMITTER/CONTROLLER SHALL NOT EXCEED 5'-0" HEIGH FREOM FINISHED FLOOR.

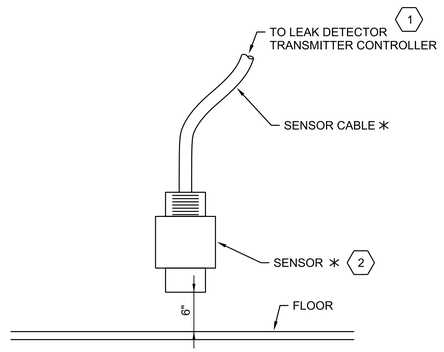
KEYED NOTES:

1. SEE DETAIL (4091-152AG) FOR SENSOR MOUNTING.
2. SEE DRAWING 50-D-2001 FOR LOCATIONS.

LEAK DETECTOR TRANSMITTER/CONTROLLER

NTS

(4091-149)



NOTES:

1. COMPONENTS DESIGNATED BY AN ASTERISK (∗) ARE SUPPLIED BY INSTRUMENT INSTRUMENT MANUFACTURER.
2. LOCATE SENSOR ADJACENT TO EXHAUST DUCTS.

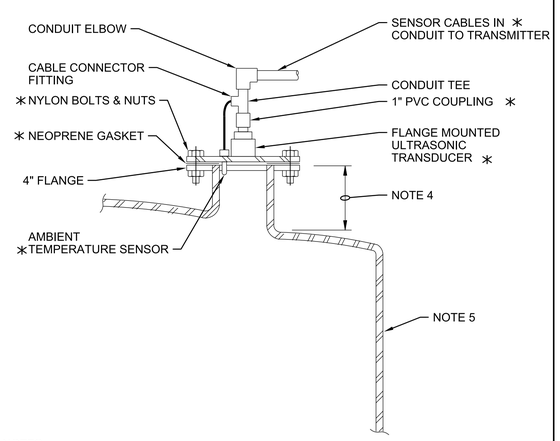
KEYED NOTES:

1. SEE DETAIL (4091-149) FOR TRANSMITTER.
2. SENSOR MOUNTING HARDWARE NOT SHOWN.

LEAK DETECTOR TRANSMITTER/CONTROLLER

NTS

(4091-152AG)



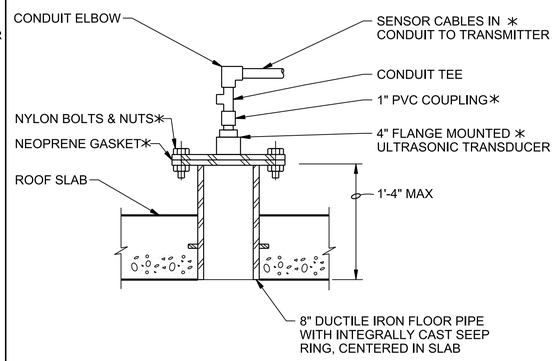
NOTES:

1. COMPONENTS DESIGNATED BY AN ASTERISK (∗) ARE SUPPLIED BY INSTRUMENT MANUFACTURER.
2. DO NOT FULLY TIGHTEN BOLTS WHICH MAY CAUSE ACOUSTIC RESONANCE THAT RESULTS IN INCREASED RING DOWN.
3. TRANSMITTER SHALL BE REMOTE MOUNT, SEE (4091-383) AND (4091-384)
4. MAXIMUM HEIGHT OF NOZZLE SHALL BE TWICE THE I.D. OF NOZZLE.
5. MOUNT SENSOR 24" MINIMUM FROM TANK WALL OR AS SPECIFIED BY MANUFACTURER'S INSTRUCTIONS.

ULTRASONIC LEVEL ELEMENT INSTALLATION - TANK

NTS

(4091-252)



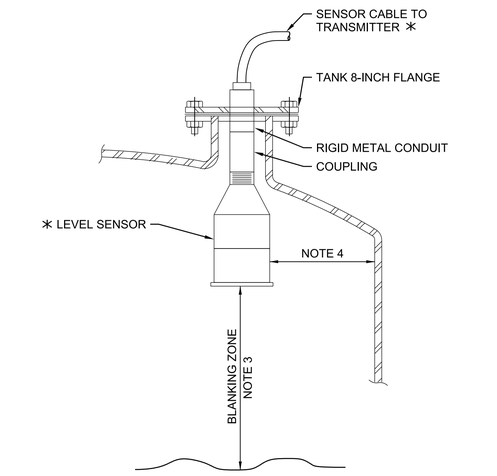
NOTES:

1. COMPONENTS DESIGNATED BY∗ ARE SUPPLIED BY INSTRUMENT MANUFACTURER.
2. COAT FLOOR PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.
3. MOUNT SENSOR 24" MINIMUM FROM WET WELL WALL AND OBSTRUCTIONS INSIDE WET WELL OR AS SPECIFIED BY MANUFACTURER'S INSTRUCTIONS
4. TRNAMSITTER SHALL BE REMOTE MOUNT TYPE, SEE (4091-383) AND (4091-384)

ULTRASONIC LEVEL ELEMENT INSTALLATION - CONCRETE ROOF

NTS

(4091-253)



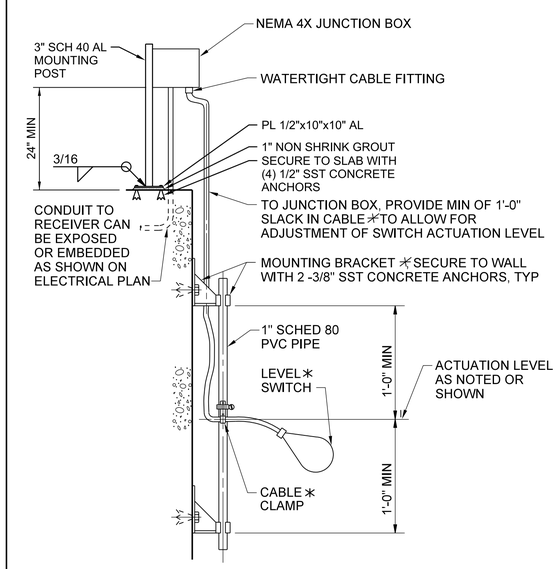
NOTES:

1. COMPONENTS DESIGNATED BY AN ASTERISK (∗) ARE SUPPLIED BY INSTRUMENT MANUFACTURER.
2. TRANSMITTER SHALL BE REMOTE MOUNT, SEE (4091-383) AND (4091-384)
3. BLANKING ZONE SHALL BE 12 INCHES MINIMUM BETWEEN HIGHEST WATER LEVEL AND BOTTOM OF LEVEL SENSOR OR AS SPECIFIED BY MANUFACTURER'S INSTRUCTIONS.
4. MOUNT SENSOR 24" MINIMUM FROM TANK WALL OR AS SPECIFIED BY MANUFACTURER'S INSTRUCTIONS.

LEVEL ELEMENT INSTALLATION - TANK

NTS

(4091-254)



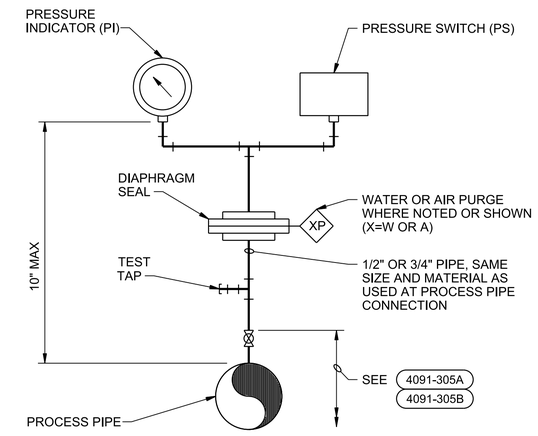
NOTES:

1. COMPONENTS DESIGNATED BY (∗) ARE SUPPLIED BY INSTRUMENT MANUFACTURER.

TYPICAL FLOAT TYPE LEVEL SWITCH WITH JUNCTION BOX INSTALLATION

NTS

(4091-248AG)



DIRECT MOUNTING WITH DIAPHRAGM SEAL

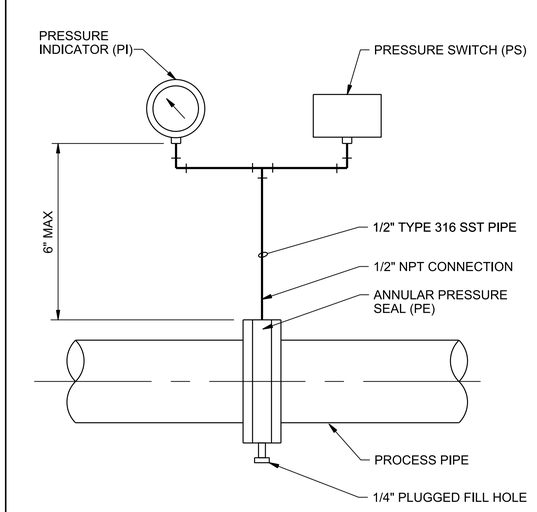
NOTES:

1. INDICATOR AND SWITCH INSTALLATION SHOWN. FOR SINGLE INSTRUMENT INSTALLATIONS, MOUNT DEVICE DIRECTLY ABOVE DIAPHRAGM SEAL.

PRESSURE SWITCH AND INDICATOR PRESSURE SWITCH & INDICATOR INSTALLATION

NTS

(4091-304B)



NOTES:

1. INDICATOR AND SWITCH INSTALLATION SHOWN. FOR SINGLE INSTRUMENT INSTALLATIONS, MOUNT DEVICE DIRECTLY TO SEAL.

PRESSURE SWITCH AND INDICATOR WITH ANNULAR SEAL INSTALLATION

NTS

(4091-304C)

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	R OSEGUEDA		A PASTRANA	C WILSON			G GRAY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

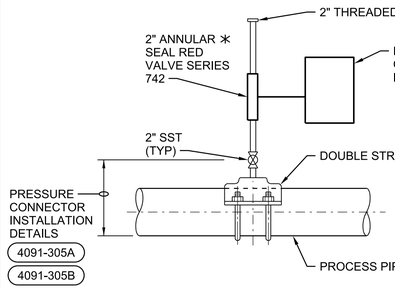
INSTRUMENTATION AND CONTROL

STANDARD DETAILS

CONFORMED DOCUMENTS

NOT TO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-N-5001
SHEET	219 of 270



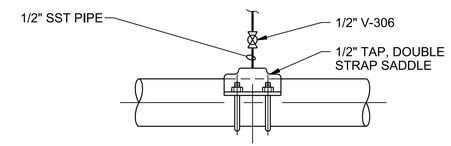
NOTES:

1. USE SADDLE ONLY ON CEMENT LINED STEEL PIPE, CAST IRON PIPE & DUCTILE IRON PIPE. USE THIS ONLY ON EIGHT INCH OR LARGER PIPE.
2. INSTALL PROCESS TAP HORIZONTALLY INTO THE SIDE OF THE PIPE.
3. ORIENT PRESSURE INDICATOR FOR OPERATOR CONVENIENCE.
4. COMPONENTS DESIGNATED BY AN ASTERISK (✳) ARE SUPPLIED BY INSTRUMENT MANUFACTURER.

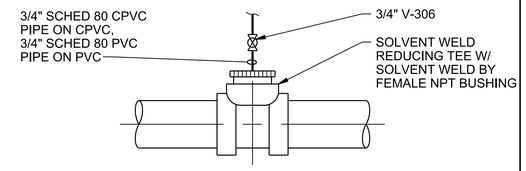
OFFLINE ANNULAR SEAL INSTALLATION

NTS

4091-304DG



CEMENT LINE STEEL PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE

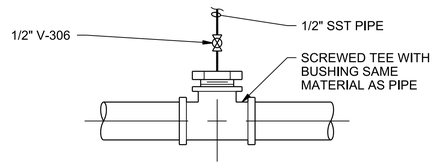


PVC AND CPVC PIPE

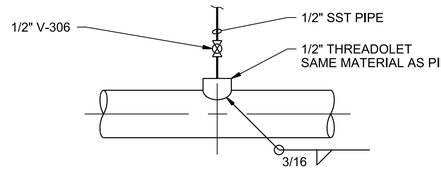
PRESSURE CONNECTION INSTALLATION

NTS

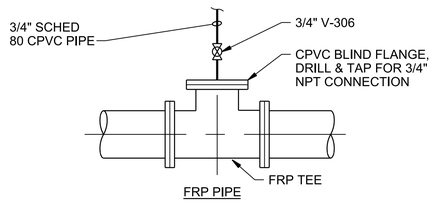
4091-305A



STEEL & SST PIPE 3 1/2" & SMALLER



STEEL & SST PIPE 4" & LARGER

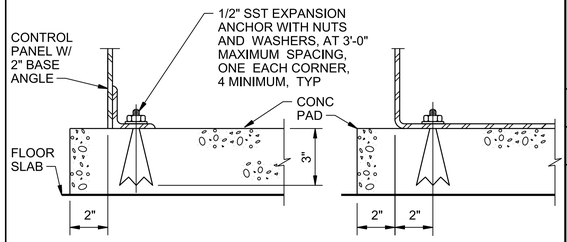


FRP PIPE

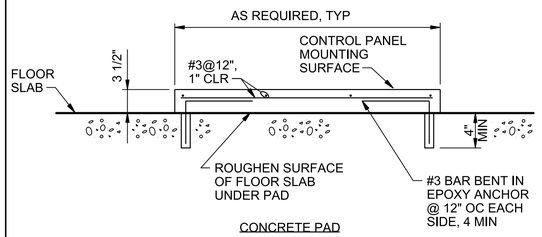
PRESSURE CONNECTION INSTALLATION

NTS

4091-305B



OPEN BOTTOM PANEL ENCLOSED BOTTOM PANEL

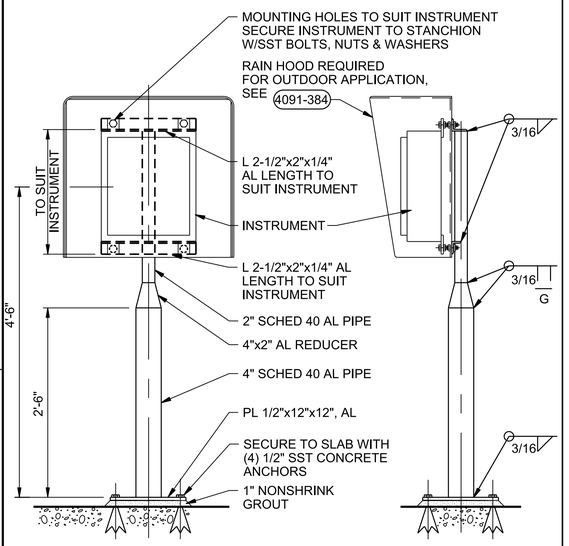


CONCRETE PAD

STANDARD FREESTANDING PANEL MOUNTING

NTS

4091-382



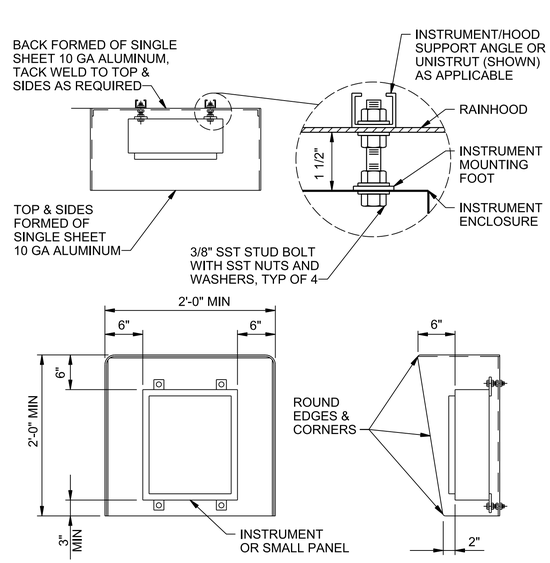
NOTES:

1. ROUND OFF ALL EXPOSED EDGES AND CORNERS.
2. PAINT ALUMINUM IN CONTACT WITH CONCRETE ACCORDING TO SPECIFICATIONS FOR PAINTING.

STANCHION SUPPORT FOR CASE MOUNTED INSTRUMENTS

NTS

4091-383



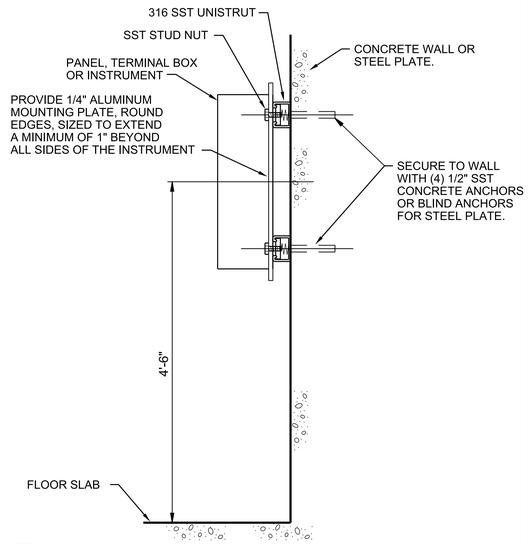
NOTES:

1. ALL EXPOSED EDGES TO BE GROUND SMOOTH AND BURR FREE.
2. MOUNT RAIN HOOD BETWEEN INSTRUMENT AND MOUNTING BRACKET. DRILL HOLES IN RAIN HOOD AS PER MOUNTING HOLES FOR INSTRUMENT, SEE 4091-383

RAIN HOOD INSTALLATION

NTS

4091-384



NOTES:

1. ALL INSTRUMENTS AND PANELS LOCATED OUTDOORS SHALL HAVE A SUN SHIELD, SEE 4091-384
2. REFER TO AREA CLASSIFICATION TABLES FOR ANCHOR MATERIAL REQUIREMENTS.

WALL MOUNTED PANEL TERMINAL BOX OR INSTRUMENTATION INSTALLATION

NTS

4091-388

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	R OSEGUEDA		A PASTRANA	C WILSON			G GRAY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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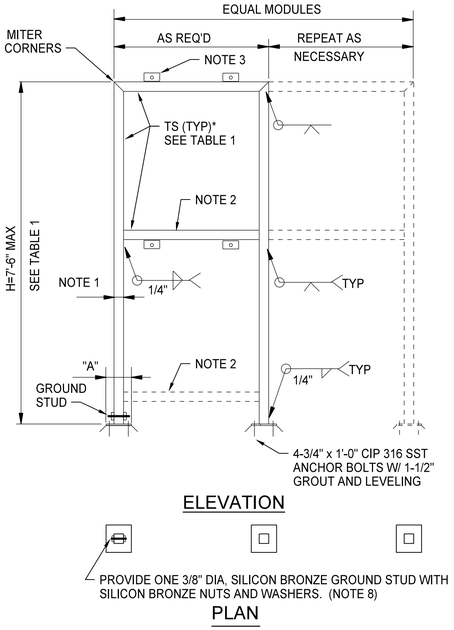
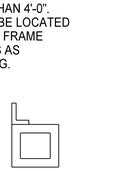


NOTES:

1. TOTAL WEIGHT OF PANEL(S) SHALL NOT EXCEED 750 LB IN EACH MODULE.
2. FOR PANELS WITH "H" GREATER THAN 4'-0". ONE HORIZONTAL MEMBER MUST BE LOCATED WITHIN THE MIDDLE THIRD OF THE FRAME HEIGHT. PROVIDE ADD'L MEMBERS AS NECESSARY FOR PANEL MOUNTING.
3. PROVIDE L 2 1/2"x 2 1/2"x 1/4"x 0'-3" WELD ALL AROUND TO TS: TYP AT EACH PANEL MOUNT.



4. GRIND ALL WELDS AND SHARP CORNERS SMOOTH.
5. THIS DETAIL APPLIES TO NON-FREE STANDING ELECTRICAL EQUIPMENT OVER 25 LB WHICH IS NOT MOUNTED ON A FREE STANDING FRAME OR IS NOT WALL MOUNTED.
6. PANEL OR INSTRUMENT FRONT FACES NORTH, UNLESS OTHERWISE NOTED.

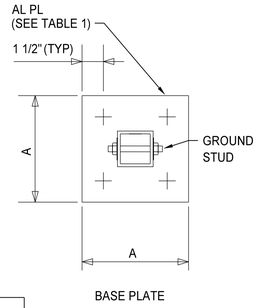


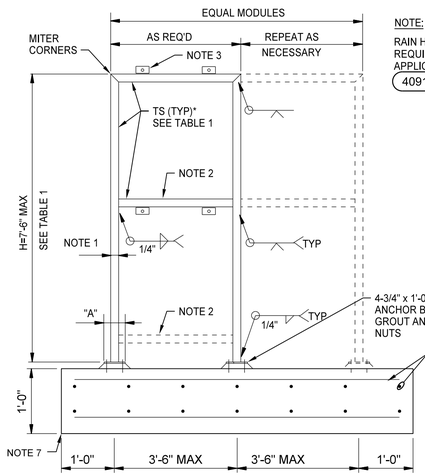
TABLE 1			
HEIGHT "H"	ALUMINUM FRAME TS (MIN SIZE)	BASE PLATE (IN) A	BASE PLATE (IN) t
5'-0" MAX.	TS 3 x 3 x.188	8	1/2
7'-6" MAX.	TS 4 x 4 x.188	9	5/8

7. FOR OUTDOOR APPLICATIONS, PROVIDE RAINHOOD/ SOLAR SHIELD AS PER DETAIL (4091-384)
8. PROVIDE #6 BARE COPPER GROUND WIRE FROM EACH PANEL AND INSTRUMENT MOUNTED ON RACK TO GROUND STUD. PROVIDE CONNECTION TO LOCAL GROUND ROD.

PANEL MOUNTING RACK

NTS

4091-402BG

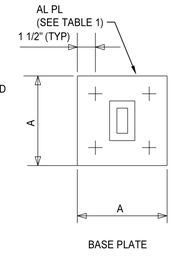


NOTE:

RAIN HOOD/SOLAR SHIELD REQUIRED FOR OUTDOOR APPLICATION. SEE DETAIL (4091-384).

NOTES:

1. TOTAL WEIGHT OF PANEL(S) SHALL NOT EXCEED 750 LB IN EACH MODULE.
2. FOR PANELS WITH "H" GREATER THAN 4'-0". ONE HORIZONTAL MEMBER MUST BE LOCATED WITHIN THE MIDDLE THIRD OF THE FRAME HEIGHT. PROVIDE ADD'L MEMBERS AS NECESSARY FOR PANEL MOUNTING.
3. PROVIDE L 2 1/2"x 2 1/2"x 1/4"x 0'-3" WELD ALL AROUND TO TS: TYP AT EACH PANEL MOUNT.



4. GRIND ALL WELDS AND SHARP CORNERS SMOOTH.
5. THIS DETAIL APPLIES TO NON-FREE STANDING ELECTRICAL EQUIPMENT OVER 25 LB WHICH IS NOT MOUNTED ON A FREE STANDING FRAME OR IS NOT WALL MOUNTED.
6. PANEL OR INSTRUMENT FRONT FACES NORTH, UNLESS OTHERWISE NOTED.
7. PROVIDE REINFORCED PAD SHOWN EXCEPT WHERE THE RACK CAN BE MOUNTED ON SUITABLE EXISTING PAD.

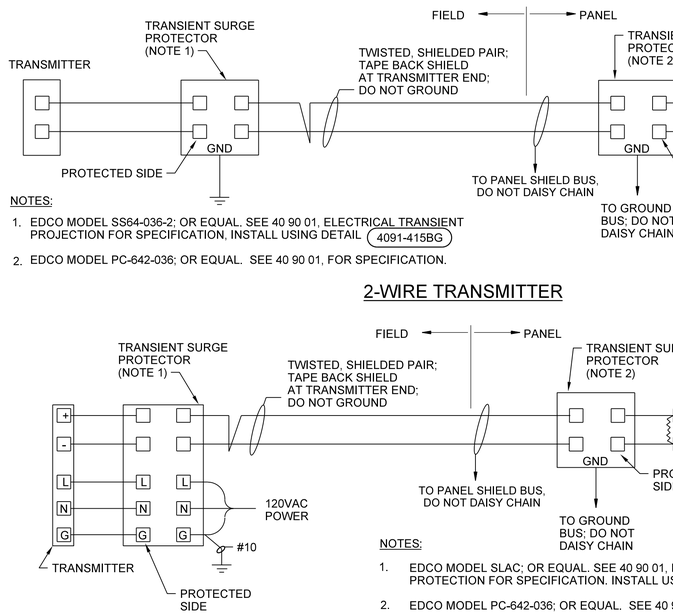
TABLE 1			
HEIGHT "H"	ALUMINUM FRAME TS (MIN SIZE)	BASE PLATE (IN) A	BASE PLATE (IN) t
5'-0" MAX.	TS 3 x 3 x.188	8	1/2
7'-6" MAX.	TS 4 x 4 x.188	9	5/8

8. PROVIDE #6 BARE COPPER GROUND WIRE FROM EACH PANEL AND INSTRUMENT MOUNTED ON RACK TO GROUND STUD. PROVIDE CONNECTION TO LOCAL GROUND ROD.

PANEL MOUNTING RACK WITH CONCRETE PAD

NTS

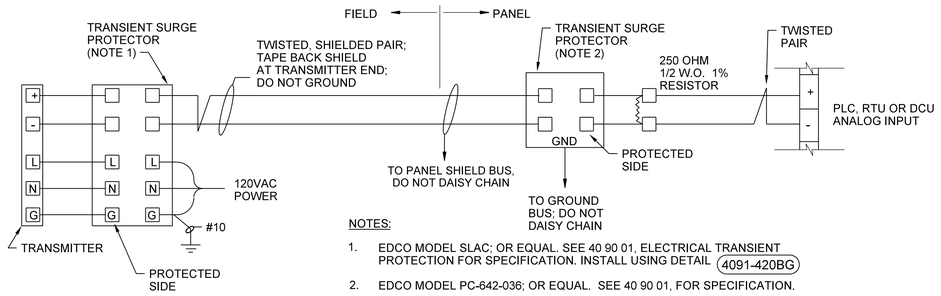
4091-402CG



NOTES:

1. EDCO MODEL SS64-036-2; OR EQUAL. SEE 40 90 01, ELECTRICAL TRANSIENT PROJECTION FOR SPECIFICATION, INSTALL USING DETAIL (4091-415BG)
2. EDCO MODEL PC-642-036; OR EQUAL. SEE 40 90 01, FOR SPECIFICATION.

2-WIRE TRANSMITTER



NOTES:

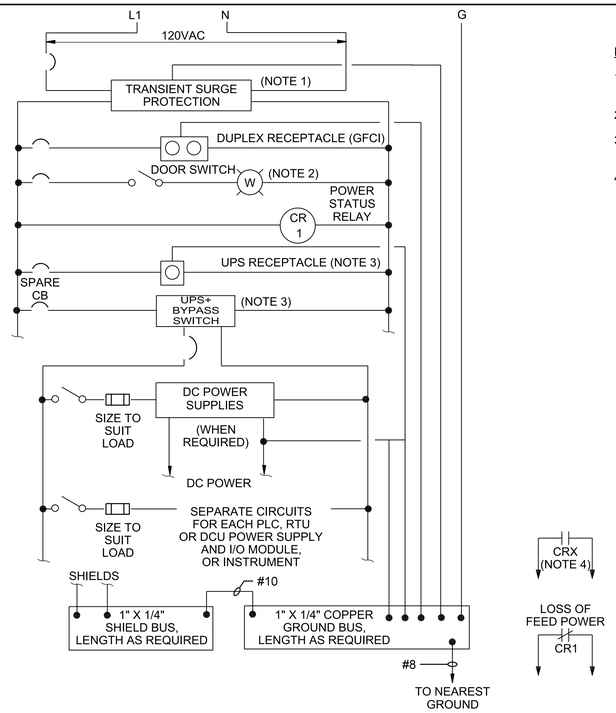
1. EDCO MODEL SLAC; OR EQUAL. SEE 40 90 01, ELECTRICAL TRANSIENT PROTECTION FOR SPECIFICATION. INSTALL USING DETAIL (4091-420BG)
2. EDCO MODEL PC-642-036; OR EQUAL. SEE 40 90 01, FOR SPECIFICATION.

4-WIRE TRANSMITTER

TYPICAL OUTDOOR TRANSMITTERS

NTS

4091405AG



NOTES:

1. IF LOAD EXCEEDS 15 AMPS PROVIDE ADDITIONAL PARRALLLEL CIRCUITS WITH TRANSIENT SURGE PROTECTION AS SHOWN.
2. PROVIDE APPROPRIATE LIGHTING PACKAGE FOR PANEL SIZE.
3. PROVIDE DEDICATED UPS SIMPLEX RECEPTACLE FOR UPS EQUIPMENT ONLY BYPASS SWITCH AND UPS.
4. PROVIDE THE FOLLOWING INPUTS TO THE CONTROL PANEL PLC:

   - UPS LOW BATTERY
   - UPS FAILURE
   - 24 VDC POWER SUPPLY FAILURE (TWO INPUTS)
     12 VDC POWER SUPPLY FAILURE
   - PANEL HIGH TEMPERATURE ALARM

PLC PANEL POWER DISTRIBUTION FOR PANELS WITH INTERNAL UPS

NTS

4091-406AG

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		R OSEGUEDA	A PASTRANA	C WILSON	G GRAY	APVD	

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
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MOBILE, ALABAMA

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DWG	99-N-5003
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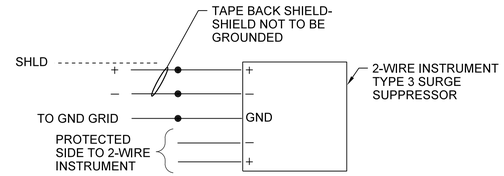
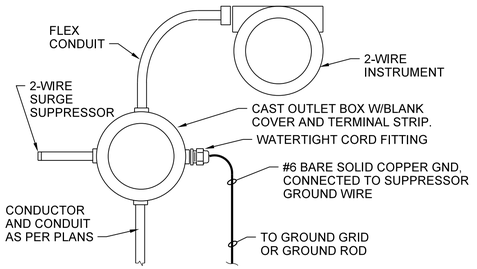


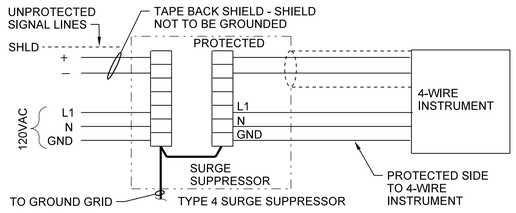
WIRING DIAGRAM



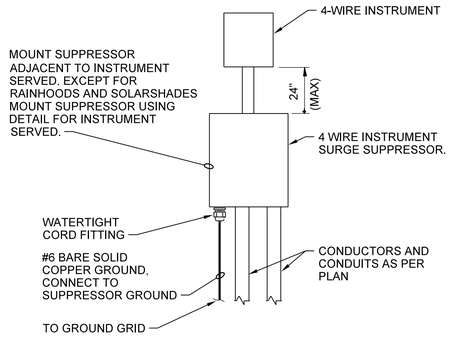
TYPE "3" SURGE SUPPRESSOR INSTALLATION 2-WIRE INSTRUMENT

NTS

4091-415BG



WIRING DIAGRAM



TYPE "4" SURGE SUPPRESSOR INSTALLATION 4-WIRE INSTRUMENT

NTS

4091-420BG

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	R OSEGUEDA		A PASTRANA	C WILSON			G GRAY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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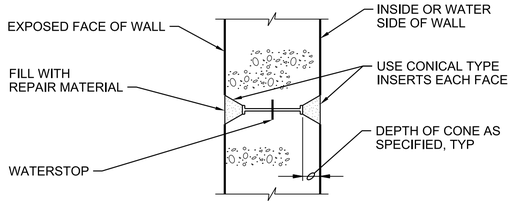
CONFORMED DOCUMENTS



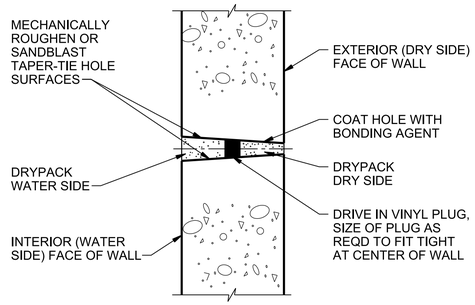
NOTE:

THE SPACING OF FORM TIES ON EXPOSED PORTIONS OF WALLS SHALL BE APPROXIMATELY EQUAL HORIZONTALLY AND VERTICALLY AND SHALL BE UNIFORM IN EACH DIRECTION.

FORM SNAP-TIE HOLE

NTS

0310-051



NOTE:

MINIMUM HOLE DIAMETER AT EXTERIOR FACE = 1". TAPER HOLE SO THAT MINIMUM HOLE DIAMETER AT INTERIOR FACE = 1 1/4"

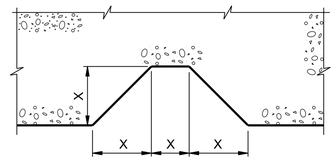
CONSTRUCTION STEPS:

1. SANDBLAST OR MECHANICALLY ROUGHEN WITH ELECTRIC EQUIPMENT.
2. DRIVE IN VINYL PLUG.
3. COAT HOLE ON DRY SIDE OF PLUG AND WHILE BONDING AGENT IS TACKY, DRYPACK.
4. COAT HOLE ON WATER SIDE OF PLUG AND WHILE BONDING AGENT IS TACKY, DRYPACK.
5. USE CATEGORY II, NON-SHRINK GROUT AS SPECIFIED.

ALTERNATE FORM TIE-THROUGH BOLT

NTS

0310-052



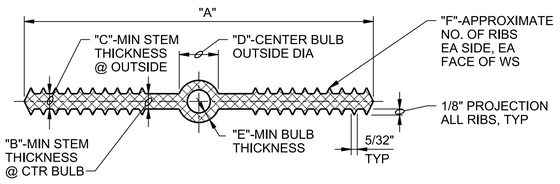
NOTE:

X = COORDINATE DIMENSION TO MATCH SIMILAR JOINTING IN THE PRECAST WALL PANELS.

RUSTICATION DETAIL

NTS

0310-071



SIZE	"A"	"B"	"C"	"D"	"E"	"F"
4"x3/16"	4"	3/16"	3/16"	3/4"	1/4"	4
6"x3/8"	6"	3/8"	3/8"	7/8"	1/4"	6
9"x3/8"	9"	3/8"	3/8"	1"	1/4"	8

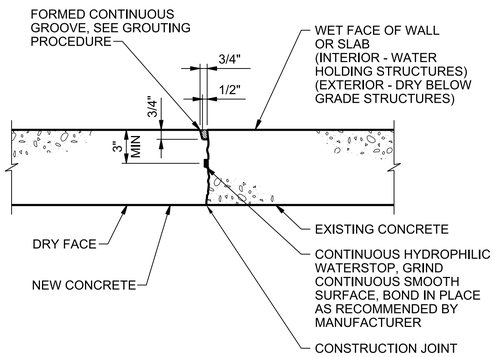
NOTES:

1. NON-ROUND CENTER BULBS SHALL HAVE A MINIMUM OUTSIDE DIMENSION OF 'D'.
2. SEE SPLICE DETAIL 0315-011
3. BULB TYPE WATERSTOP SHOWN IS REQUIRED FOR EXPANSION AND CONTROL JOINTS. SIMILAR WATERSTOPS WITHOUT CENTER BULB MAY BE SUBSTITUTED AT CONSTRUCTION JOINTS.
4. USE 6 INCH WATERSTOPS IN ALL CONSTRUCTION JOINTS UNLESS SPECIFICALLY SHOWN OTHERWISE.

PLASTIC WATERSTOP

NTS

0315-001



NOTE:

FOR USE IN NON-MOVING CONSTRUCTION JOINTS AND ONLY WHERE SPECIFICALLY INDICATED ON PLANS.

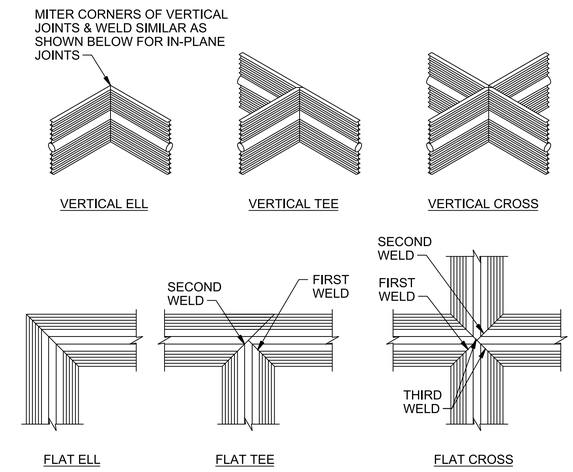
GROUTING PROCEDURE:

1. WAIT UNTIL NEW CONCRETE MINIMUM 28 DAYS OLD PRIOR TO GROUTING GROOVE.
2. ROUGHEN AND CLEAN SURFACES OF GROOVE WITH POWER WIRE BRUSH OR SANDBLASTING.
3. SATURATE AREA FOR 24 HOURS PRIOR TO GROUTING.
4. DRY PACK WITH TYPE II NON-SHRINK GROUT.
5. USE STEEL HAMMER AND STEEL TOOL TO DENSELY PACK GROUT INTO GROOVE.
6. WATER CURE GROUT FOR 4 DAYS MINIMUM.

HYDROPHILIC/ GROOVE WATERSTOP

NTS

0315-003



NOTE:

ALL WELDS SHALL BE PER WATERSTOP MANUFACTURER'S RECOMMENDATIONS.

WATERSTOP JOINTS

NTS

0315-011

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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MOBILE, ALABAMA

STRUCTURAL

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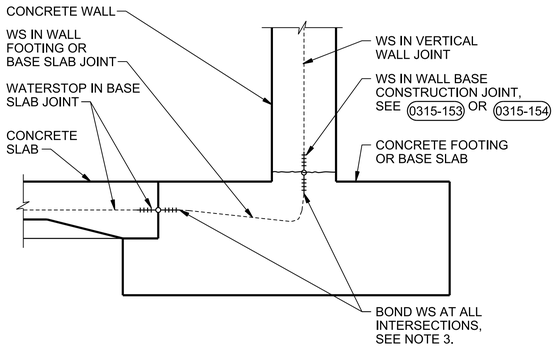


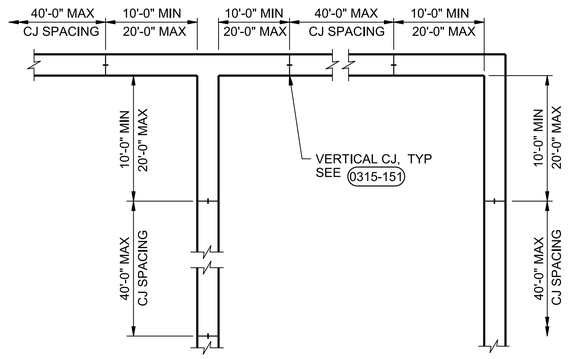
NOTES:

1. SUBMIT DETAILS OF SPLICING AND LOCATION.
2. BOND OR SPLICE ALL HORIZONTAL TRANSVERSE WATERSTOPS IN BASE SLAB JOINTS TO CONTINUOUS LONGITUDINAL WATERSTOP IN WALL BASE FOR COMPLETE SEAL.
3. BOND OR SPLICE ALL VERTICAL WATERSTOPS IN WALL JOINTS TO LONGITUDINAL WATERSTOP IN WALL BASE FOR COMPLETE SEAL, SEE 0315-011 FLAT CROSS JOINT.
4. FOR CONCRETE PLACEMENT SEQUENCE, SEE 0315-133
5. FOR PLASTIC WATERSTOP DETAILS, SEE 0315-001

WATERSTOP CONNECTION

NTS

0315-012



PLAN

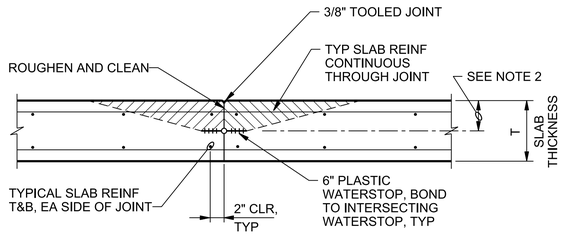
NOTES:

1. COORDINATE CONSTRUCTION JOINT LOCATIONS AND TIME BETWEEN CONCRETE POURS WITH SPECIFICATION 03 30 00.
2. LOCATE WALL CONSTRUCTION JOINTS AS SHOWN, UNLESS INDICATED OTHERWISE.

WALL CONSTRUCTION JOINT SPACING

NTS

0315-131



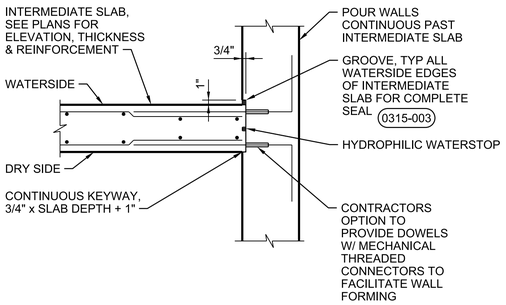
NOTE:

1. FOR CONCRETE PLACEMENT AROUND WATERSTOP, SEE 0315-133
2. WATERSTOP DEPTH = T/2 OR 6 1/2" MAXIMUM.

SLAB CONSTRUCTION JOINT

NTS

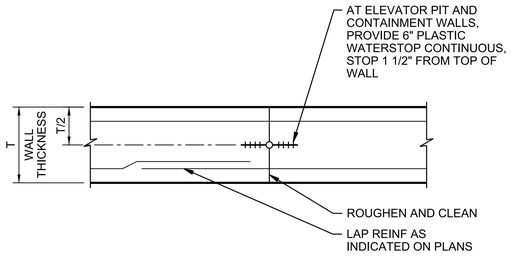
0315-142



SLAB CONSTRUCTION JOINT AT WALL

NTS

0315-143



PLAN

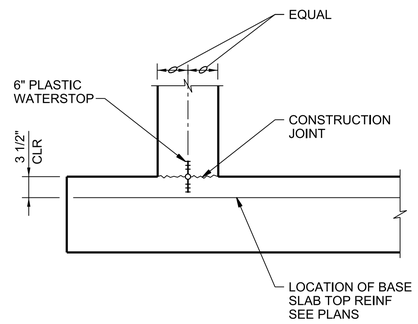
NOTES:

1. ALL REINFORCEMENT CONTINUOUS ACROSS JOINT.
2. FOR LOCATIONS, SEE 0315-131
3. FACILTIY (20) DEWATERING AND CONTROL BUILDING:
   - ALIGN CONSTRUCTION JOINTS IN PERIMETER KNEEWALL, WITH JOINT'S BETWEEN PRECAST WALL PANELS ABOVE THE KNEEWALL.
   - BELOW ELEVATION 16.00, PROVIDE VERTICAL REVEAL ALONG EXTERIOR SURFACE OF CONSTRUCTION JOINT, MIMICKING CONFIGURATION OF JOINT BETWEEN PRECAST WALL PANELS ABOVE THE KNEEWALL, SEE 0310-071 SIM.

WALL VERTICAL CONSTRUCTION JOINT

NTS

0315-151



NOTES:

1. FOR WALLS WITH SINGLE MAT OF REINFORCING LOCATE WATERSTOP ON LIQUID FACE, 1" CLEAR OF REINFORCEMENT.
2. SECURE WATERSTOP IN-PLACE AS SPECIFIED.

WALL BASE CONSTRUCTION JOINT

NTS

0315-154

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

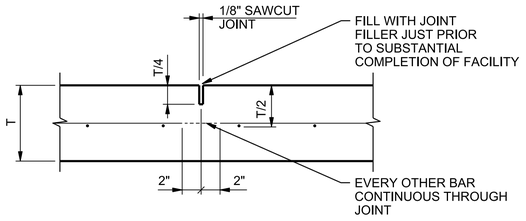
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

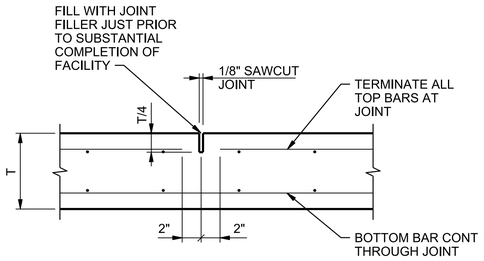
STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5002
SHEET	224 of 270



SINGLE REINFORCEMENT MAT



DOUBLE REINFORCEMENT MAT

NOTES:

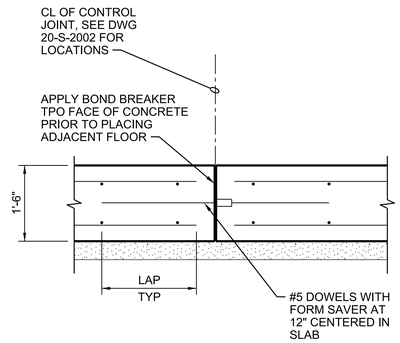
1. CONTRACTOR SHALL USE STRING LINE OR OTHER POSITIVE MEANS TO PLACE REINFORCEMENT AND LOCATE SAWCUT.

BUILDING SLAB ON GRADE SAWN CONTROL JOINT

NTS

DETAIL 1 OF 2

0315-192

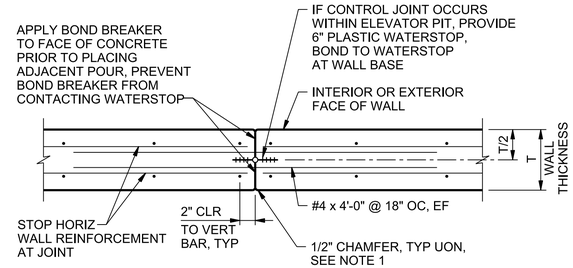


BUILDING SLAB ON GRADE FORMED CONTROL JOINT

NTS

DETAIL 1 OF 2

0315-192



PLAN

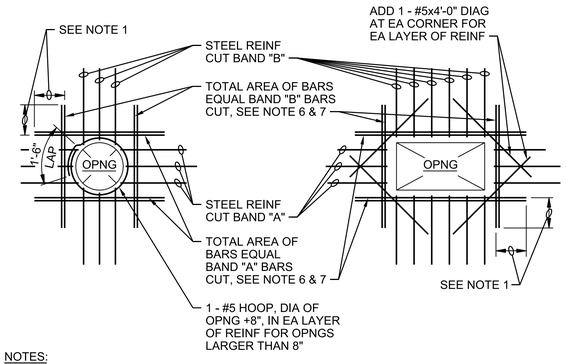
NOTE:

1. FACILITY (20) DEWATERING AND CONTROL BUILDING:
   - PROVIDE VERTICAL CONTROL JOINTS IN PERIMETER KNEEWALLS, BELOW ELEVATION 16.00.
   - SPACE CONTROL JOINTS TO MATCH JOINTS BETWEEN PRECAST WALL PANELS ABOVE THE KNEEWALL.
   - PROVIDE VERTICAL REVEAL ALONG EXTERIOR SURFACE OF CONTROL JOINT, MIMICKING CONFIGURATION OF JOINT BETWEEN PRECAST WALL PANELS ABOVE THE KNEEWALL, SEE (0310-071) SIM.

WALL VERTICAL CONTROL JOINT

NTS

0315-201



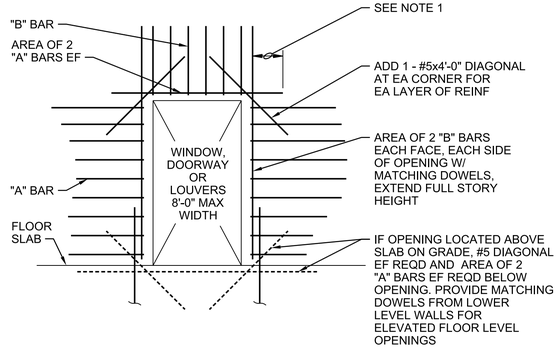
NOTES:

1. PROVIDE MINIMUM LAP, SEE GENERAL STRUCTURAL NOTES.
2. TYPICAL FOR ALL OPENINGS IN CONCRETE WALLS OF BELOW GRADE AND HYDRAULIC STRUCTURES AND ALL STRUCTURAL CONCRETE SLABS UNLESS INDICATED OTHERWISE ON PLANS.
3. DO NOT WELD REINFORCEMENT TO PIPE SLEEVES AND INSERTS.
4. PROVIDE A MINIMUM OF 2 "A" BARS AND 2 "B" BARS EACH SIDE OF OPENING (1 EACH FACE), INCLUDING DOWELS AND CORNER BARS, TYPICAL.
5. FOR OPENINGS LARGER THAN 8'-0", REINFORCE SAME AS FOR 8'-0" OPENINGS.
6. SPACE AT 3 BAR DIAMETERS (OR 3" MINIMUM) ON CENTER. LOCATE HALF OF TOTAL AREA ON EACH SIDE OF OPENING.
7. AT OPENINGS WITHIN 12" OF AN INTERSECTING WALL OR SLAB, PROVIDE ONLY THE EXTRA REINFORCEMENT WHICH WILL FIT, AT THE BAR SPACING IN NOTE 6.

OPENING REINFORCEMENT

NTS

0330-001



ELEVATION

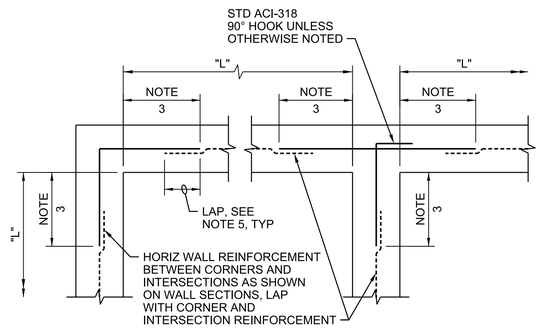
NOTES:

1. PROVIDE MINIMUM LAP, SEE GENERAL STRUCTURAL NOTES.
2. TYPICAL FOR ALL OPENINGS IN ABOVE GROUND BUILDING CONCRETE WALLS UNLESS INDICATED OTHERWISE ON PLANS.
3. DO NOT WELD REINFORCEMENT TO PIPE SLEEVES AND INSERTS.

OPENING REINFORCEMENT

NTS

0330-002



SINGLE REINFORCEMENT MAT

TYPICAL WALL CORNER & INTERSECTION REINFORCEMENT

NTS

DETAIL 1 OF 3

0330-003

NO.	DATE	DSGN
REVISION		DR
BY	APVD	
M CHRZANOWSKI	APVD	
M CHRZANOWSKI	CHK	
P KARABAN		

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

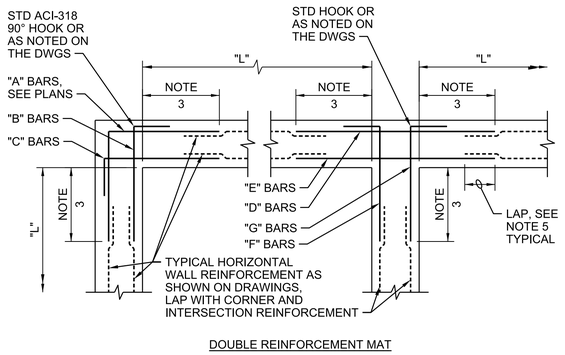
STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5003
SHEET	225 of 270

CONFORMED DOCUMENTS



DOUBLE REINFORCEMENT MAT

TYPICAL WALL CORNER & INTERSECTION REINFORCEMENT

NTS

DETAIL 2 OF 3

0330-003

NOTES:

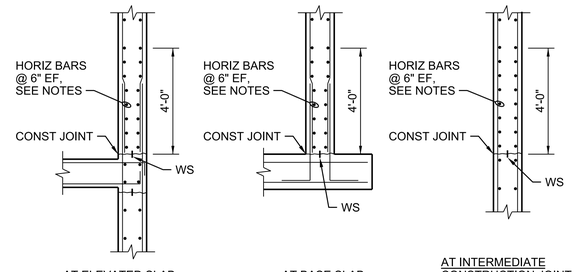
1. TYPICAL HORIZONTAL WALL CORNER AND INTERSECTION REINFORCEMENT LAYOUT IS SHOWN TO AVOID CONGESTION AND PERMIT PROPER PLACEMENT, FOR SIZE AND SPACING SEE PLANS. ALL HORIZONTAL REINFORCEMENT AT CORNERS AND INTERSECTIONS SHALL BE FABRICATED AND INSTALLED WITH SPLICES LOCATED WHERE SHOWN REGARDLESS OF BAR SIZE AND SPACING.
2. WHERE THE CORNER OR INTERSECTION REINFORCEMENT SIZE AND SPACING IS NOT SHOWN, NOTED OR TABULATED ON THE PLANS, THE SIZE AND SPACING SHALL BE THE SAME AS THE WALL HORIZONTAL REINFORCEMENT SHOWN ON THE WALL SECTIONS OR AS NOTED FOR THE REINFORCEMENT BETWEEN THE CORNERS OR INTERSECTIONS.
3. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 3" SHALL BE THE LESSER OF L/4, 10 FEET, OR 1.0 TIMES THE HEIGHT OF THE WALL, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN A LAP LENGTH.
4. L = LENGTH OF WALL PARALLEL TO THE BAR LENGTH IN QUESTION.
5. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 5" SHALL BE EQUAL TO ONE "LAP LENGTH" AS REQUIRED BY THE GENERAL STRUCTURAL NOTES. USE THE LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO REINFORCEMENT BARS BEING SPLICED.
6. UNLESS OTHERWISE NOTED, "B" AND "C" BARS ARE THE SAME SIZE AND SPACING AND "F" AND "G" BARS ARE THE SAME SIZE AND SPACING.

TYPICAL WALL CORNER & INTERSECTION REINFORCEMENT

NTS

DETAIL 3 OF 3

0330-003



NOTES:

1. PROVIDE HORIZONTAL BARS AT 6" SPACING EACH FACE IN THE FIRST 4'-0" ABOVE ALL HORIZONTAL WALL CONSTRUCTION JOINTS IN LIQUID CONTAINING AND BELOW-GRADE STRUCTURES. WHERE TYPICAL WALL HORIZONTAL BARS ARE AT 12" SPACING, PROVIDE ADDITIONAL BARS FOR 6" SPACING.
2. HORIZONTAL BAR SIZE FOR THE 4'-0" ZONE SHALL BE THE TYPICAL WALL HORIZONTAL BAR SIZE SHOWN ON THE DRAWINGS OR THE MINIMUM BAR SIZE IN THE TABLE BELOW, WHICHEVER IS GREATER.

WALL THICKNESS (INCHES)	MINIMUM BAR SIZE
10	#5
12, 14	#6
16, 18, 20	#7
≥22	#8

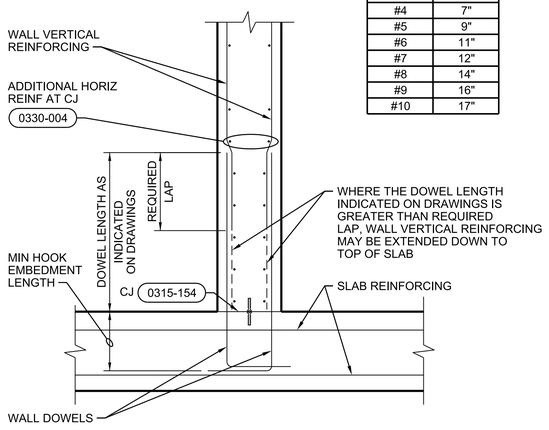
3. PROVIDE CORNER BARS AT 6" SPACING EACH FACE TO LAP WITH THE BARS SHOWN ABOVE, SEE (0330-003).

REINFORCEMENT AT HORIZONTAL CONSTRUCTION JOINT

NTS

0330-004

ACI MINIMUM HOOK EMBEDMENT LENGTH	
BAR SIZE	MIN EMBED
#4	7"
#5	9"
#6	11"
#7	12"
#8	14"
#9	16"
#10	17"



WALL SECTION

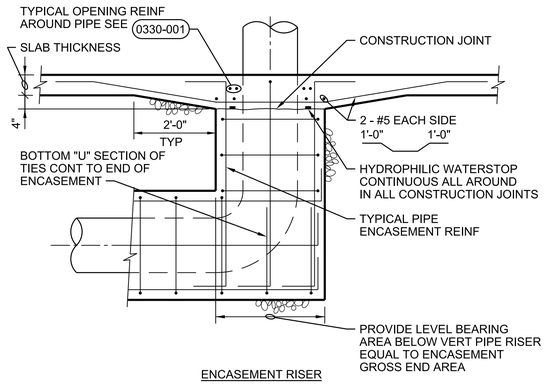
NOTE:

UNLESS NOTED OTHERWISE, ALL DOWEL HOOKS SHALL EXTEND TO AND BE TIED OFF TO BOTTOM MAT OF SLAB REINFORCING.

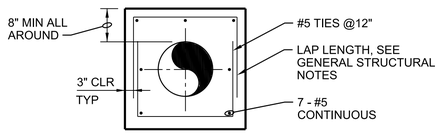
VERTICAL WALL REINFORCING / DOWEL PLACEMENT

NTS

0330-005



ENCASEMENT RISER



SECTION

NOTES:

1. SECTION APPLIES TO PIPES W/ DIAMETERS 18" AND SMALLER. FOR 20" DIAMETER PIPES AND LARGER, SEE (0330-017)
2. WHEN PIPE ENCASEMENT IS CLOSER THAN 4" TO SLAB ABOVE, TIE SLAB & ENCASEMENT TOGETHER. SEE (0330-018)

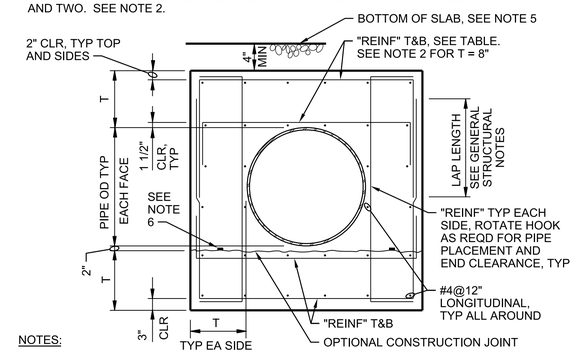
PIPE ENCASEMENT

NTS

0330-016

PIPE DIA (IN.)	H=10 FEET		H=20 FEET		H=30 FEET		H=40 FEET	
	T (in)	REINF	T (in)	REINF	T (in)	REINF	T (in)	REINF
20 THRU 30	8	#5@12"	10	#5@12"	10	#5@12"	10	#6@12"
36 THRU 42	10	#5@12"	10	#6@12"	10	#7@12"	10	#6@6"
48 THRU 54	10	#6@12"	10	#7@12"	10	#7@6"	12	#7@6"
UP TO 60	10	#6@12"	10	#6@6"	14	#7@6"	14	#7@6"

HEAVY DARK LINE INDICATES BREAK BETWEEN ONE LAYER OF REINFORCEMENT AND TWO. SEE NOTE 2.



NOTES:

1. THIS DETAIL APPLIES TO PIPE DIAMETER OF 20" AND LARGER. FOR SMALLER THAN 20", SEE DETAIL (0330-016).
2. FOR T=8" REINFORCEMENT SHALL BE ONE LAYER AND CENTERED IN SLABS OR WALLS. SIM (0330-016).
3. FOR ENCASEMENT AT PIPE RISER, SEE (0330-016).
4. "H" IS FILL HEIGHT OR WATER DEPTH OR COMBINATION ABOVE PIPE.
5. WHEN PIPE ENCASEMENT CLOSER THAN 4" TO SLAB ABOVE, TIE SLAB & ENCASEMENT TOGETHER. SEE (0330-018).
6. HYDROPHILIC WATERSTOP CONTINUOUS ALL AROUND IN ALL CONSTRUCTION JOINTS.

PIPE ENCASEMENT

NTS

0330-017

NO.	DATE	DSGN
		M COHEN
		DR
		P KARABAN
		CHK
	REVISION	M CHRZANOWSKI
		APVD
		M CHRZANOWSKI
		BY
		APVD

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

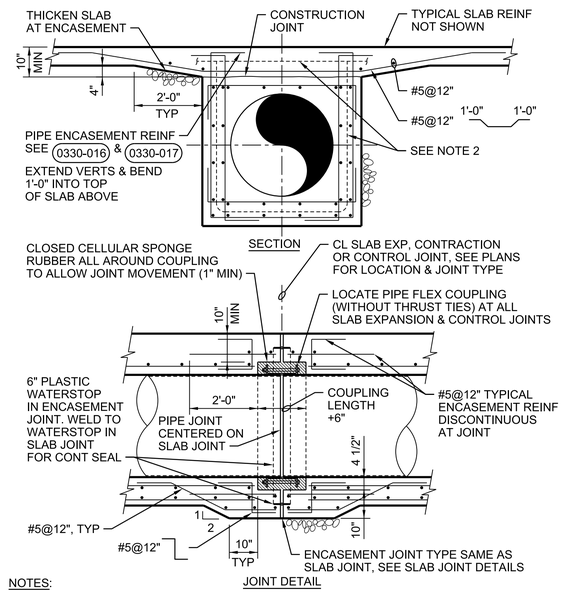
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5004
SHEET	226 of 270



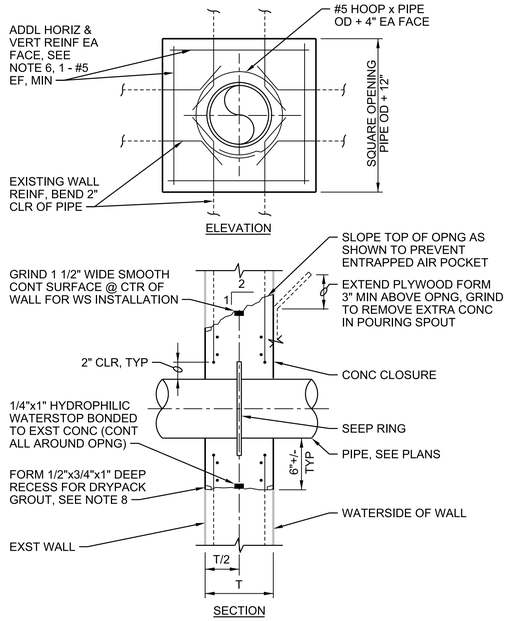
NOTES:

1. TIE PIPE ENCASEMENT TO SLAB AS SHOWN WHEN DISTANCE BETWEEN PIPE ENCASEMENT AND BOTTOM OF SLAB IS LESS THAN 4".
2. 6" PLASTIC WS IN ENCASEMENT JOINTS. WELD TO WS IN SLAB JOINTS.

PIPE ENCASEMENT AT SLAB

NTS

0330-018



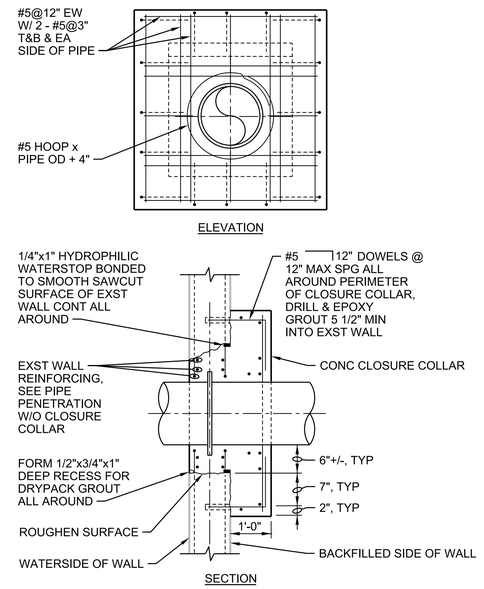
TYPE 'A' - WITHOUT CLOSURE COLLAR

DETAIL 1 OF 3

PIPE PENETRATION - EXISTING WALL

NTS

0330-022



TYPE 'B' - WITH CLOSURE COLLAR

DETAIL 2 OF 3

PIPE PENETRATION - EXISTING WALL

NTS

0330-022

NOTES:

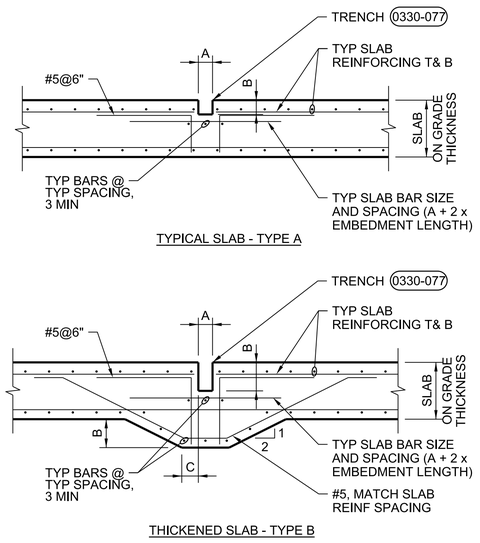
1. SAW-CUT 1-INCH DEEP x PIPE OD + 12" SQUARE SCORE LINE ON EACH FACE OF WALL. (VERIFY DEPTH OF CUT TO CLEAR REINFORCING.) (INCREASE HEIGHT AS NOTED AT TOP ON WATERSIDE FACE FOR POURING.)
2. CHIP TO REMOVE THE CONCRETE WITHIN THE SCORE LINE, WHILE PRESERVING THE EXISTING WALL REINFORCING.
3. CUT EXISTING REINFORCING AT CENTER OF OPENING AND BEND TO CLEAR PIPE.
4. GRIND 1 1/2" WIDE x CONT SMOOTH SURFACE ALL AROUND THE OPENING AT CENTER OF WALL. CLEAN SURFACES AND BOND CONTINUOUS HYDROPHILIC WATERSTOP IN PLACE.
5. INSTALL WALL PIPE. (COAT CONCRETE ENCASED PORTION OF PIPE WITH SPECIFIED COATING SYSTEM.)
6. INSTALL ADDITIONAL REINFORCING EACH FACE, EACH SIDE, ABOVE AND BELOW PIPE. HORIZONTAL REINFORCING TO HAVE COMBINED AREA EQUAL TO AREA OF HORIZONTAL REINFORCING CUT. VERTICAL REINFORCING TO HAVE COMBINED AREA EQUAL TO AREA OF VERTICAL REINFORCING CUT.
7. SOAK CONCRETE SURFACES AND WITHIN 15-MINUTES CAST CONCRETE CLOSURE. (CONCRETE CLOSURE MUST BE CAST BEFORE HYDROPHILIC WATERSTOP EXPANDS). FORM GROOVE ON ALL SIDES OF OPENING EXCEPT AT TOP ON THE POUR SIDE.
8. CLEAN SURFACES OF FORMED GROOVE WITH POWER WIRE BRUSH OR SANDBLASTING AND DRY-PACK WITH NON-SHRINK GROUT AFTER NEW CONCRETE MIN 28-DAYS OLD.

DETAIL 3 OF 3

PIPE PENETRATION - EXISTING WALL

NTS

0330-022



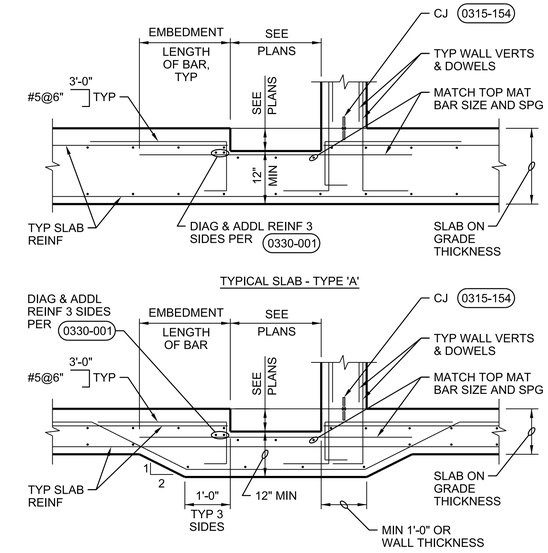
DIMENSIONS:

A = TRENCH WIDTH:	SEE PLANS
B = TRENCH DEPTH:	SEE PLANS
C = 6" WHEN:	A < 1'-0"
C = 1'-0" WHEN:	A ≥ 1'-0"

TRENCH REINFORCING

NTS

0330-043



NOTES:

1. REBAR LOCATION SHALL ACCOMMODATE GRATING CONNECTIONS WHERE REQUIRED. SEE DETAIL 0553-001

IN-SLAB SUMP REINFORCEMENT

NTS

0330-044

NO.	DATE	REVISION	CHK	DR	DSGN
			APVD	M CHRZANOWSKI	M COHEN
			BY	APVD	P KARABAN

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

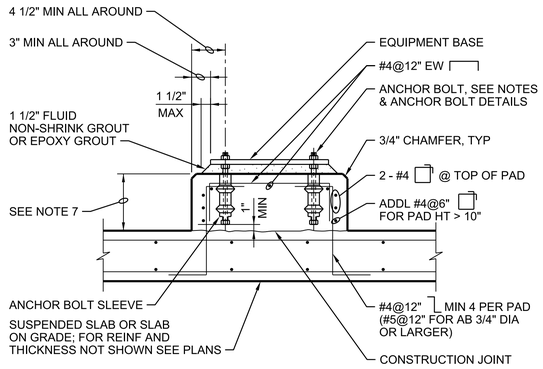
Jacobs

STRUCTURAL

STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5005
SHEET	227 of 270



TYPE 'A'

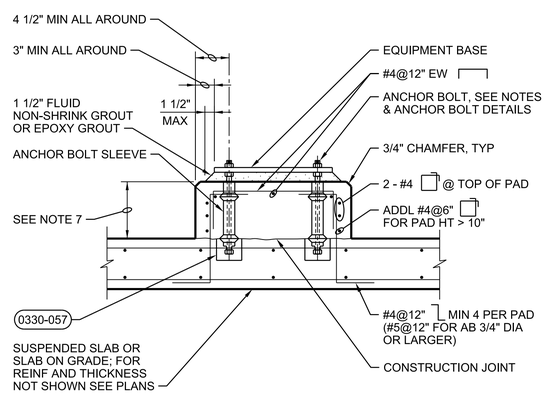
GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 1 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'A'

NTS

0330-056



TYPE 'B'

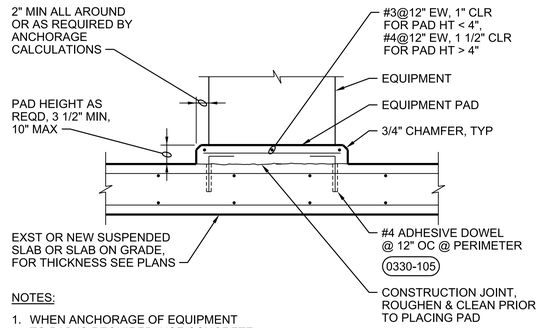
GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 2 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'B'

NTS

0330-056



NOTES:

1. WHEN ANCHORAGE OF EQUIPMENT TO PAD IS REQUIRED, USE CONCRETE ANCHORS SPECIFIED.
2. CONCRETE PADS FOR ELECTRICAL EQUIPMENT SHALL BE 3 1/2" HIGH, UNLESS NOTED OTHERWISE.

TYPE 'E'

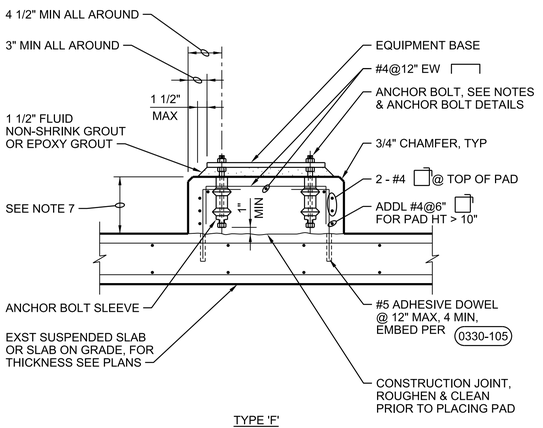
GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 3 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'E'

NTS

0330-056



TYPE 'F'

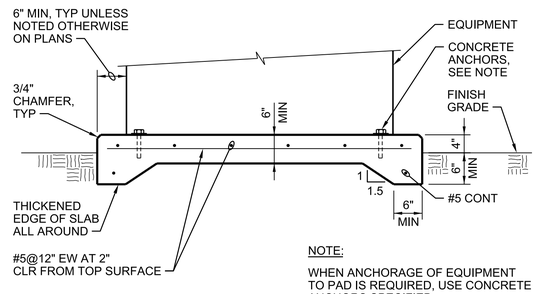
GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 4 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'F'

NTS

0330-056



NOTE:
WHEN ANCHORAGE OF EQUIPMENT TO PAD IS REQUIRED, USE CONCRETE ANCHORS SPECIFIED.

TYPE 'G'

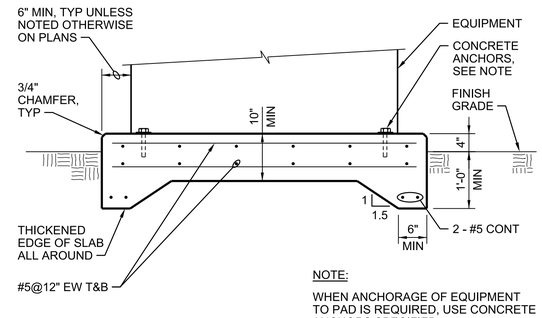
GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 5 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'G'

NTS

0330-056



NOTE:
WHEN ANCHORAGE OF EQUIPMENT TO PAD IS REQUIRED, USE CONCRETE ANCHORS SPECIFIED.

TYPE 'H'

GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 6 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'H'

NTS

0330-056

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

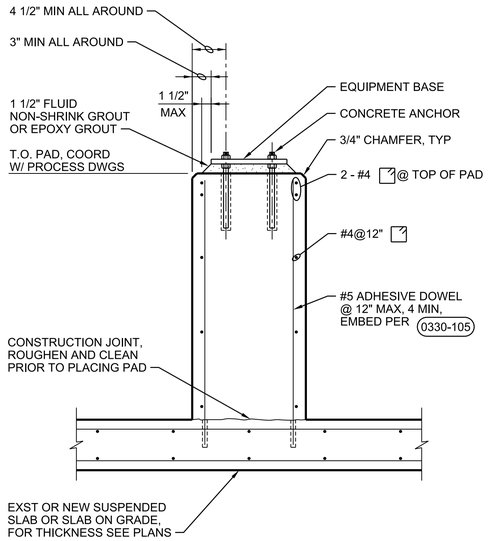
STRUCTURAL

STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5006
SHEET	228 of 270



TYPE 'J'

GENERAL NOTE:
FOR GENERAL NOTES SEE DETAIL 8 OF 8.

DETAIL 7 OF 8

CONCRETE EQUIPMENT PAD - TYPE 'J'

NTS

0330-056

NOTES:

1. PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE PLANS OR AS INDICATED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
2. THE SIZE, NUMBER, TYPE, LOCATION, AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER AND AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE OR OTHER ACCEPTABLE MEANS, MATCHING THE BASE PLATE, WHILE PAD IS BEING PLACED.
3. ANCHOR BOLT SLEEVES SHALL BE USED TO PROVIDE MINIMUM ANCHOR BOLT MOVEMENT OF 1/2" IN ALL HORIZONTAL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER.
4. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT AFTER BOLTS ARE ALIGNED. SEE 0330-057.
5. EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS INDICATED OTHERWISE.
6. WEDGES, SHIMS, OR LEVELING NUTS SHALL BE USED TO SUPPORT THE BASE WHILE THE GROUT IS PLACED. WEDGES OR SHIMS SHALL BE REMOVED AFTER GROUT IS SET AND PACK VOID WITH GROUT.
7. HEIGHT OF PADS SHALL BE MINIMUM REQUIRED FOR ANCHOR BOLT CLEARANCE TO KEEP ANCHOR BOLT ABOVE SUPPORTING SLAB (SEE TABLE BELOW). WHERE EQUIPMENT OR PIPING ELEVATION REQUIRE A PAD HEIGHT LESS THAN THE MINIMUM SHOWN, USE TYPE "B" EQUIPMENT PAD WITH BLOCKOUT.
8. TYPE "D" PAD SHALL BE USED ONLY WHERE SPECIFICALLY INDICATED. PLACE THE SURROUNDING FLOOR SLAB AFTER THE EQUIPMENT PAD.
9. AT CONTRACTOR'S OPTION, CONCRETE ANCHORS MAY BE USED IN LIEU OF CAST-IN-PLACE ANCHOR BOLTS FOR EQUIPMENT ANCHOR BOLTS LESS THAN 3/4" DIAMETER WHEN APPROVED BY THE EQUIPMENT MANUFACTURER AND APPROVED BY THE ENGINEER. ANCHORS SHALL BE INSTALLED WITH 4" MINIMUM EDGE DISTANCE IN EACH DIRECTION.

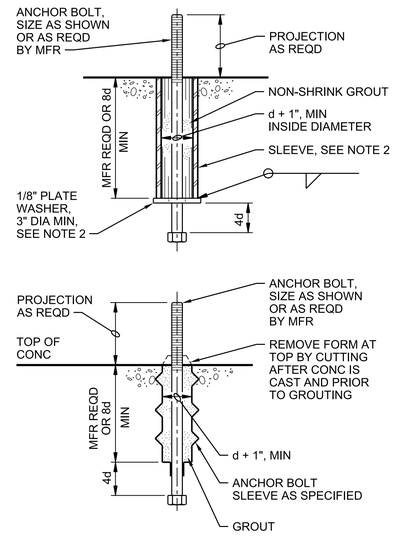
AB DIA (IN.)	1/2	5/8	3/4	7/8	1	1 1/4	1 3/8	1 1/2	1 3/4	2
MIN PAD HT (IN.)	7	8 1/2	10	11	12 1/2	15	16 1/2	18	21	24

DETAIL 8 OF 8

CONCRETE EQUIPMENT PAD - NOTES

NTS

0330-056



MACHINERY ANCHOR BOLT DETAIL

NOTES:

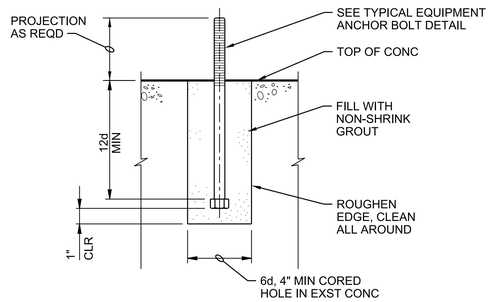
1. FOR CONCRETE EQUIPMENT PAD DETAILS AND NOTES NOT SHOWN SEE 0330-056
2. MATERIAL TO MATCH BOLT.

DETAIL 1 OF 2

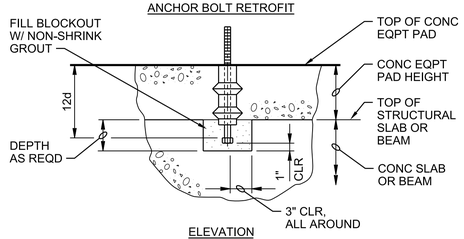
ANCHOR BOLT DETAILS

NTS

0330-057



ANCHOR BOLT RETROFIT



ELEVATION

ANCHOR BOLT BLOCKOUT

NOTES:

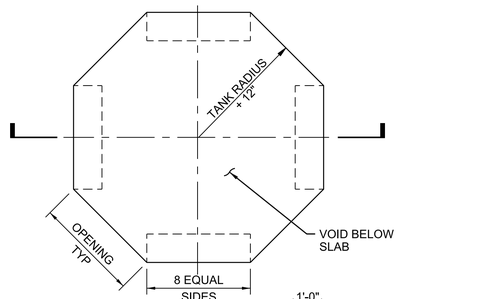
1. FOR CONCRETE EQUIPMENT PAD DETAILS AND NOTES NOT SHOWN SEE 0330-056
2. MATERIAL TO MATCH BOLT.

DETAIL 2 OF 2

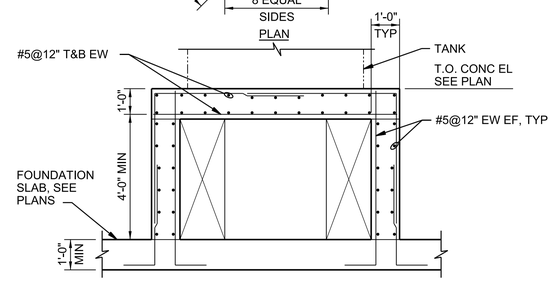
ANCHOR BOLT DETAILS

NTS

0330-057



PLAN



SECTION

NOTES:

1. FOR CONCRETE EQUIPMENT PAD NOTES SEE 0330-056
2. FOR ANCHOR BOLTS SEE 0330-057

TANK PAD

NTS

0330-058

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

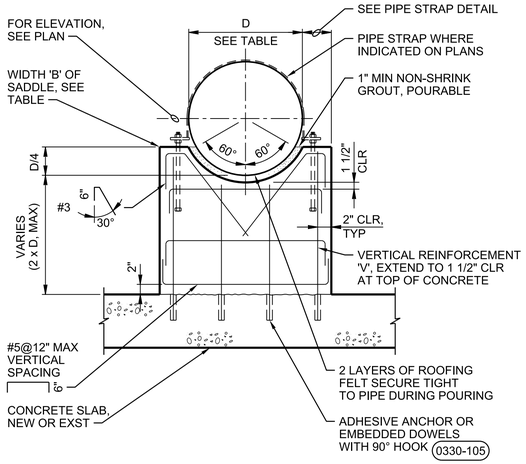
STRUCTURAL

STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5007
SHEET	229 of 270



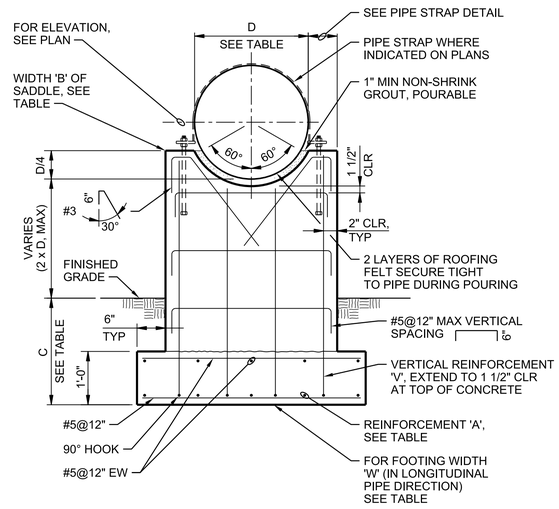
TYPE 'A' SADDLE

DETAIL 1 OF 4

PIPE SUPPORT - CONCRETE SADDLE

NTS

0330-061



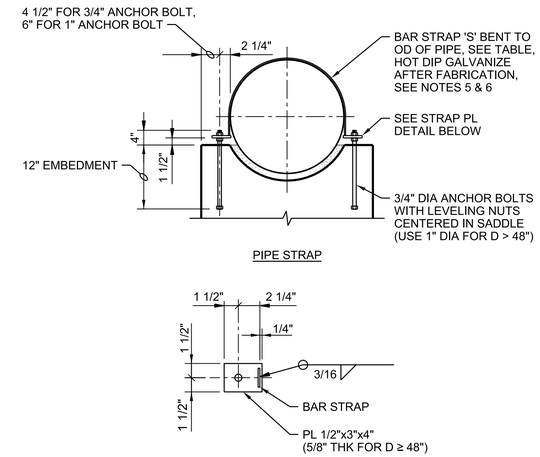
TYPE 'B' SADDLE

DETAIL 2 OF 4

PIPE SUPPORT - CONCRETE SADDLE

NTS

0330-061



PIPE STRAP

PLAN

PIPE STRAP PLATE

DETAIL 3 OF 4

PIPE SUPPORT - CONCRETE SADDLE

NTS

0330-061

PIPE SADDLE TABLE					
PIPE DIAMETER D	SADDLE WIDTH B	LAYERS OF REINFORCEMENT	VERTICAL REINFORCEMENT V	PIPE STRAP SIZE S	NO. OF STRAPS
D ≤ 12"	9"	1 (CTRD)	#5@12"	3/16"x2"	1
12" < D ≤ 24"	9"	1 (CTRD)	#5@12"	3/16"x2 1/2"	1
24" < D ≤ 36"	10"	2 (EF)	#5@12"	1/4"x2"	1
36" < D ≤ 48"	12"	2 (EF)	#5@12"	1/4"x3"	1
48" < D ≤ 60"	16"	2 (EF)	#6@12"	3/8"x3"	2
60" < D ≤ 72"	18"	2 (EF)	#6@12"	3/8"x3"	2

TYPE 'B' PIPE SADDLE FOOTING TABLE			
PIPE DIAMETER D	FOOTING WIDTH W	REINFORCEMENT A	FOOTING DEPTH C
D ≤ 12"	1'-6"	#5@12"	2'-0"
12" < D ≤ 24"	2'-0"	#5@12"	2'-0"
24" < D ≤ 36"	3'-0"	#5@12"	2'-0"
36" < D ≤ 48"	4'-0"	#5@12"	2'-0"
48" < D ≤ 60"	6'-0"	#5@6"	2'-0"
60" < D ≤ 72"	8'-0"	#5@6"	2'-0"

NOTES:

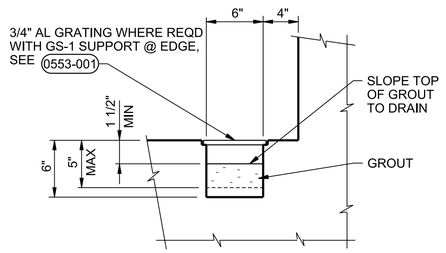
1. FOR 'B'=10" OR THICKER, USE 2 LAYERS OF REINFORCEMENT, TURN HORIZONTAL BARS 90° TO HOOK AROUND VERTICALS, 1 1/2" COVER.
2. FORM 3/4" BEVEL ON ALL EXPOSED CORNERS OF SUPPORT.
3. USE TYPE 'A' SADDLE IN ALL LOCATIONS WHERE A SLAB (NEW OR EXISTING) OCCURS. USE TYPE 'B' IN OTHER LOCATIONS.
4. FOR LOCATIONS WHERE PIPE STRAP IS REQUIRED, REFER TO DRAWINGS. UNLESS INDICATED OTHERWISE A STRAP IS NOT REQUIRED.
5. AT SUBMERGED CONDITIONS, STRAP SHALL BE STAINLESS STEEL.
6. PROVIDE 3/4" x (STRAP WIDTH PLUS 1" WIDE) NEOPRENE PAD BETWEEN STRAP AND PIPE.

DETAIL 4 OF 4

PIPE SUPPORT - CONCRETE SADDLE

NTS

0330-061



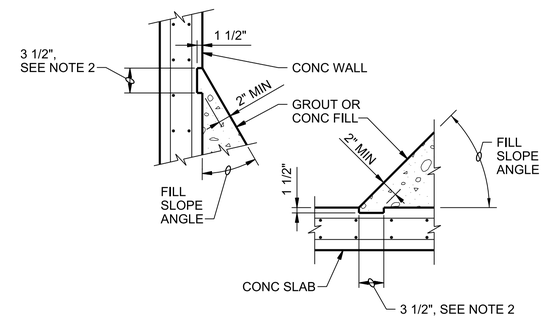
NOTES:

1. PROVIDE GRATING WHERE GUTTER CROSSES WALKWAY OR WORKING AREAS.
2. WHERE TRENCH IS ADJACENT TO WALL DO NOT PROVIDE GRATING UNLESS SPECIFICALLY SHOWN.

FORMED CONCRETE TRENCH

NTS

0330-077



NOTES:

1. PROVIDE KEY FOR ALL FILL WHERE FILL SLOPE ANGLE TO WALL OR SLAB IS LESS THAN 45 DEGREES.
2. LENGTHEN 3 1/2" BLOCKOUT AS REQUIRED TO MAINTAIN 2" MINIMUM THICKNESS OF GROUT OR CONCRETE FILL.

CONCRETE OR GROUT FILL KEY

NTS

0330-078

NO.	DATE	REVISION	DR	CHK	APVD
DSGN	M COHEN	P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI	BY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5008
SHEET	230 of 270

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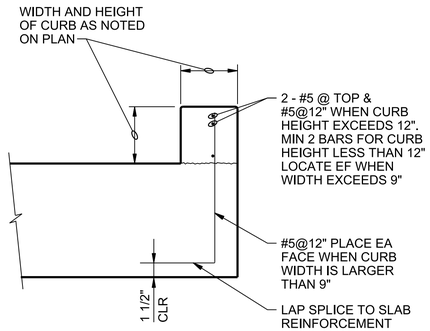
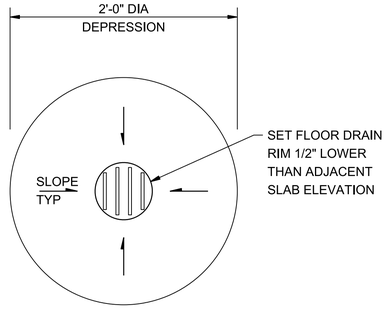


CONCRETE CURB

NTS

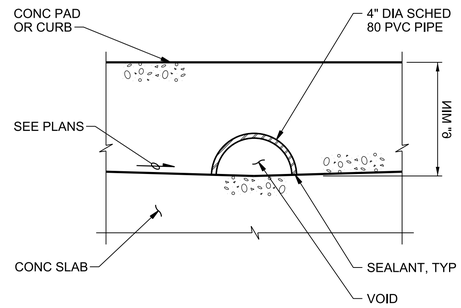
0330-080



FLOOR DRAIN

NTS

0330-082



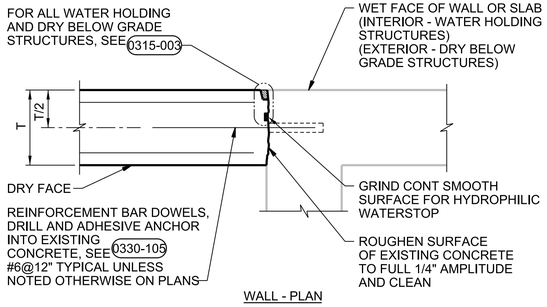
NOTE:

ANCHOR IN PLACE WITH SST STRAPPING AND ADHESIVE ANCHORS AS REQUIRED.

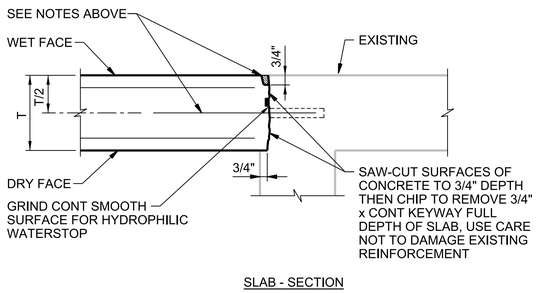
DRAINAGE BLOCKOUT

NTS

0330-083



WALL - PLAN

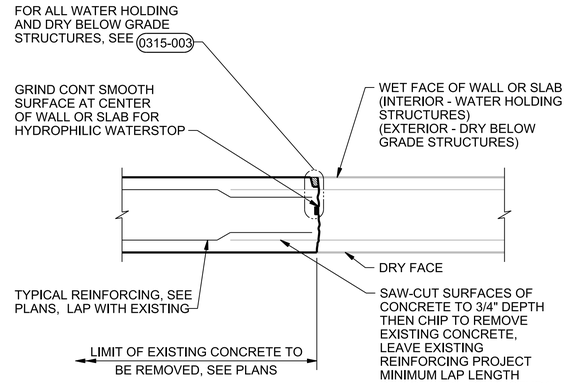


SLAB - SECTION

CONNECTION OF NEW CONCRETE TO EXISTING

NTS

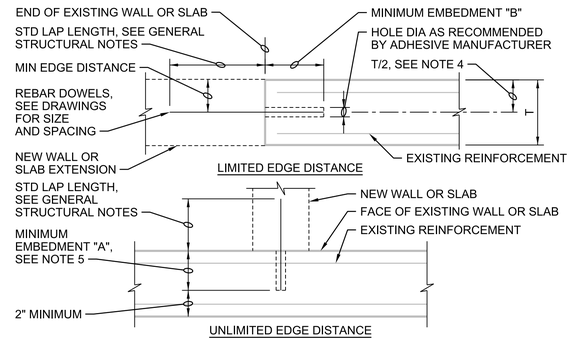
0330-101



CONNECTION OF NEW CONCRETE TO EXISTING

NTS

0330-102



LIMITED EDGE DISTANCE

UNLIMITED EDGE DISTANCE

DOWEL SIZE	MINIMUM EDGE DISTANCE	MINIMUM EMBEDMENT "A"	MINIMUM EMBEDMENT "B"
#3	2 1/2"	5"	8"
#4	3 1/2"	7"	11"
#5	4"	8"	13"
#6	5"	10 1/2"	16"
#7	6"	12 1/2"	20"
#8	7"	14"	22"
#9	7 1/2"	15"	24"

NOTES:

1. CONFORM TO REQUIREMENTS OF SPECIFICATION SECTION 03 63 00, CONCRETE DOWELING.
2. FOLLOW ADHESIVE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
3. USE MINIMUM EMBEDMENTS SHOWN, EXCEPT USE MANUFACTURER'S MINIMUM RECOMMENDED EMBEDMENT IF GREATER.
4. LOCATE DOWELS CENTERED IN WALL OR SLAB UNLESS OTHERWISE NOTED ON DRAWINGS. WHERE 2 ROWS OF DOWELS INDICATED, STAGGER SPACING & LOCATE ALTERNATING DOWELS AT MINIMUM EDGE DISTANCE FROM OPPOSITE FACES.
5. PROVIDE MINIMUM EMBEDMENT "A" SHOWN IN TABLE UNLESS SHORTER EMBEDMENT DEPTH IS CALLED OUT ON DRAWINGS.

ADHESIVE DOWEL

NTS

0330-105

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	M COHEN		P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI		M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

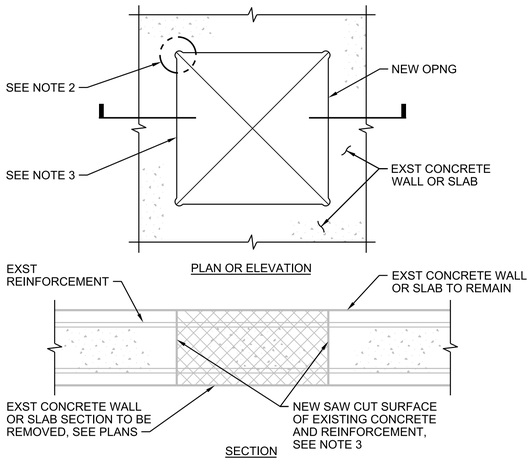
STRUCTURAL

STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5009
SHEET	231 of 270



NEW OPENING IN EXISTING WALL OR SLAB

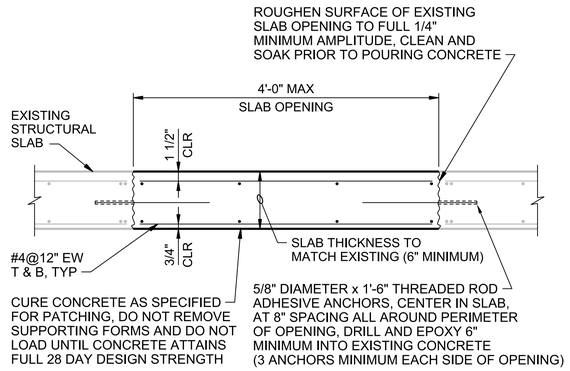
NOTES:

1. SUPPORT ADJACENT ELEVATED SLABS AND CUT SLAB SECTION UNTIL CUTTING OPERATION IS COMPLETE.
2. CORE DRILL CORNERS TO DIAMETER REQUIRED TO PREVENT OVER CUTTING OF REINFORCEMENT AND CONCRETE BEYOND OPENING.
3. PREPARE AND PROTECT EXPOSED STEEL REINFORCEMENT, SEE 0330-143

SURFACE TREATMENT OF NEW OPENINGS IN EXISTING CONCRETE

NTS

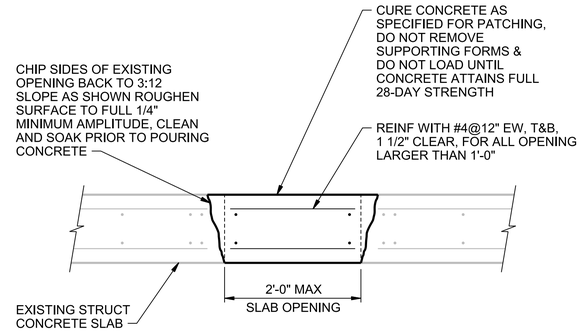
0330-106



EXISTING SLAB OPENING REPAIR

NTS

0330-141



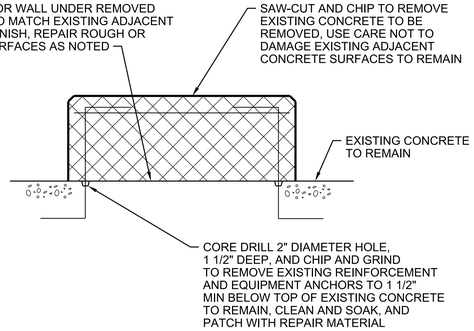
NOTE:

FOR REPAIR OF LARGER SLAB OPENINGS SEE 0330-141

EXISTING SLAB OPENING REPAIR

NTS

0330-142



NOTES:

1. REMOVE CONCRETE OUT TO SOUND CONCRETE.
2. IF CHIPPING INTO THE SURFACE OF THE EXISTING SLAB OR WALL TO REMAIN IS REQUIRED, MAKE EDGES PERPENDICULAR TO THE SURFACE. DO NOT FEATHER EDGES.
3. FILL DEFECTIVE AREA WITH AN APPROVED PREPACKAGED REPAIR MATERIAL TO MATCH APPEARANCE OF ADJACENT CONCRETE SURFACES.
4. USE APPROVED BONDING AGENT ON SURFACES TO BE PATCHED PRIOR TO PLACING REPAIR MATERIAL.
5. DEMONSTRATE METHODS FOR REPAIR USING ACTUAL MATERIALS, METHODS, AND CURING PROCEDURES REQUIRED BY MATERIAL MANUFACTURERS. CONSULT WITH BONDING AGENT MANUFACTURER AND REPAIR MATERIAL MANUFACTURER ON TECHNIQUES.

CONCRETE DEMOLITION

NTS

0330-143

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

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25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

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VERIFY SCALE
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SHEET	232 of 270

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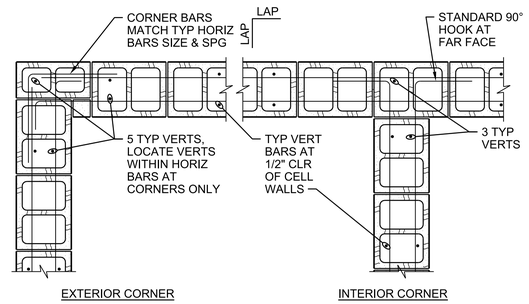
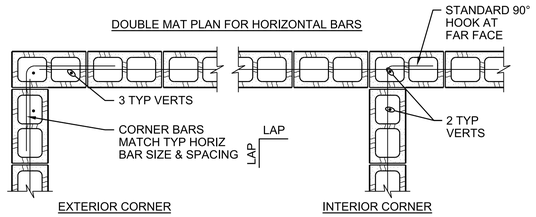


DOUBLE MAT PLAN FOR HORIZONTAL BARS



SINGLE MAT PLAN FOR HORIZONTAL BARS

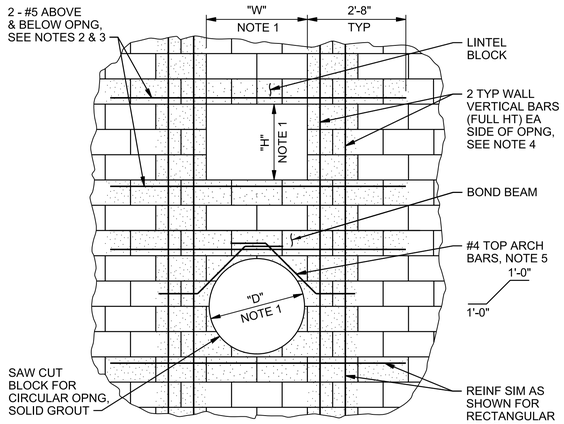
NOTES:

1. LAP=48 BAR DIAMETERS, BUT NOT LESS THAN 2'-0" FOR HORIZONTAL BARS UNLESS NOTED OTHERWISE.
2. AT OPENINGS, CONTROL JOINTS, OR CORNERS LESS THAN 6'-0" IN LENGTH, SEE DETAILS (0422-003), (0422-005) AND (0422-006).

REINFORCED MASONRY WALL CORNERS (SINGLE & DOUBLE MAT)

0422-001

NTS



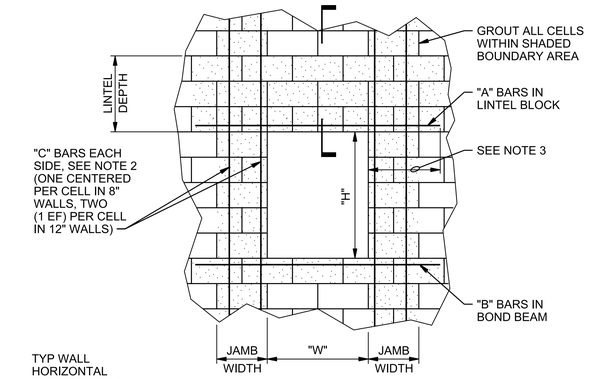
NOTES:

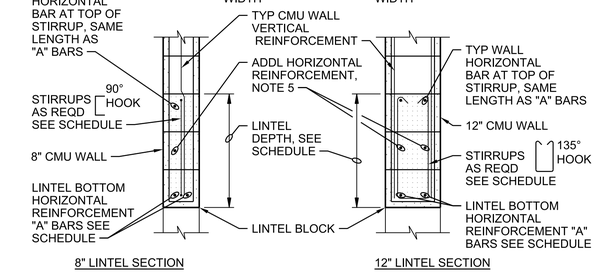
1. TYPICAL FOR ALL OPENINGS WITH (W, H, OR D) 2'-0" OR GREATER AND 4'-0" OR LESS, UNLESS NOTED OTHERWISE. SEE PLANS FOR LARGER OPENINGS.
2. AT ADJACENT OPENINGS WITH LESS THAN 8'-0" WALL BETWEEN, CONTINUE HORIZONTAL REINFORCEMENT TO 2'-8" BEYOND FURTHEST OPENING.
3. AT OPENINGS LOCATED WITHIN 2'-8" OF CORNER, CONTINUE HORIZONTAL REINFORCEMENT AROUND CORNER PER DETAIL (0422-001)
4. LOCATE VERTICAL BARS CENTERED IN 2 ADJACENT CELLS IN 8" WALLS, AND EACH FACE IN SINGLE GROUT CELL IN 12" WALLS. LAP 48 BAR DIAMETERS WITH MATCHING FOUNDATION DOWELS.
5. LOCATE #4 ARCH BARS CENTERED IN 8" WALLS, AND EACH FACE IN 12" WALLS.

CMU OPENING REINFORCEMENT

0422-002

NTS





8" LINTEL SECTION

12" LINTEL SECTION

DETAIL 1 OF 2

CMU OPENING REINFORCEMENT

0422-003

NTS

CMU OPENING REINFORCEMENT SCHEDULE						
8" WALLS						
W	LINTEL DEPTH	STIRRUP SIZE, SPG	"A" BARS	"B" BARS	"C" BARS	JAMB WIDTH
≤2'-8"	8"	-	1	1	1	8"
>2'-8"≤4'-0"	16"	-	2	1	1	8"
>4'-0"≤6'-0"	24"	#3@8"	2	1	2	16"
>6'-0"≤8'-0"	32"	#3@16"	2	2	3	24"
>8'-0"≤10'-0"	48"	#3@24"	2	2	3	24"
12" WALLS						
W	LINTEL DEPTH	STIRRUP SIZE, SPG	"A" BARS	"B" BARS	"C" BARS	JAMB WIDTH
≤2'-8"	8"	-	2	2	2	8"
>2'-8"≤4'-0"	16"	-	2	2	2	8"
>4'-0"≤6'-0"	24"	#3@8"	2	2	4	16"
>6'-0"≤8'-0"	32"	#3@16"	2	2	6	24"
>8'-0"≤10'-0"	48"	#3@24"	2	2	6	24"

NOTES:

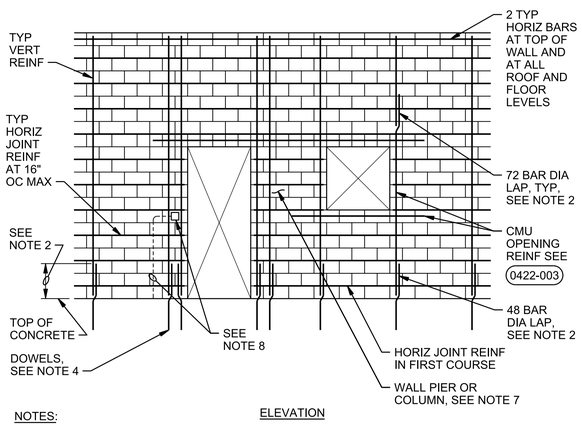
1. USE BAR QUANTITIES AND SIZES GIVEN IN LINTEL SCHEDULE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
2. EXTEND "C" BARS 48 BAR DIAMETERS, BUT NOT LESS THAN 2'-0" BEYOND TOP AND BOTTOM OF OPENING EXCEPT THAT WHEN "H" OR "W" EXCEEDS 2'-0", "C" BARS SHALL EXTEND FULL HEIGHT.
3. "A" AND "B" BAR SHALL BE #5 UON. "A" AND "B" BARS SHALL EXTEND 48 BAR DIAMETERS, BUT NOT LESS THAN 2'-0" EACH SIDE OF THE OPENINGS. WHERE THERE IS LESS THAN 8'-0" BETWEEN ADJACENT OPENINGS, EXTEND REINFORCEMENT CONTINUOUS TO 2'-8" BEYOND FURTHEST OPENING.
4. FOR BAR SIZES, MATCH TYPICAL WALL REINFORCEMENT AS SHOWN ON THE BUILDING WALL SECTIONS.
5. FOR LINTEL DEPTHS EQUAL TO OR GREATER THAN 48" PROVIDE ADDITIONAL LAYER OF HORIZONTAL REINFORCEMENT AT 12" FROM BOTTOM OF LINTEL. MATCH SIZE OF TYPICAL WALL HORIZONTAL REINFORCEMENT.

DETAIL 2 OF 2

CMU OPENING REINFORCEMENT

0422-003

NTS



ELEVATION

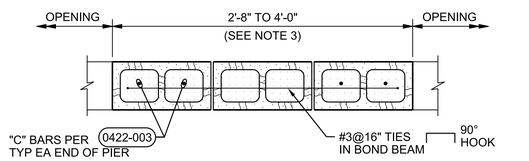
NOTES:

1. FOR TYPICAL WALL REINFORCEMENT, SEE WALL SECTIONS AND DETAILS FOR EACH FACILITY. FOR MINIMUM REINFORCEMENT REQUIREMENTS, SEE GENERAL STRUCTURAL NOTES.
2. LAP VERTICAL REINFORCEMENT WITH WALL DOWELS 48 BAR DIAMETERS (2'-0" MIN), LAP ALL OTHER VERTICAL BARS 72 BAR DIAMETERS.
3. HORIZONTAL JOINT REINFORCEMENT SPLICE = 1'-4".
4. PROVIDE DOWEL BARS IN FOUNDATION TO MATCH ALL VERTICAL REINFORCEMENT.
5. FOR ADDED REINFORCEMENT AT WALL INTERSECTIONS AND CORNERS, SEE (0422-001).
6. GROUT EACH SIDE OF OPENING AS NOTED IN TYPICAL OPENING REINFORCEMENT DETAIL (0422-003).
7. FOR HORIZONTAL REINFORCEMENT AT OPENINGS SEE PIER AND COLUMN DETAILS (0422-005) AND (0422-006).
8. DO NOT PLACE VERTICAL CONDUIT IN THE SAME CELL AS VERTICAL REINFORCEMENT.

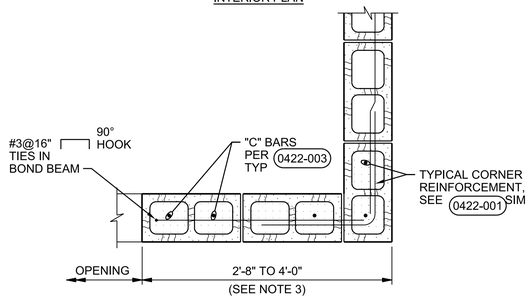
INTERMEDIATE REINFORCED MASONRY SHEAR WALL

0422-004

NTS



INTERIOR PLAN



CORNER PLAN

8" CMU WALL

NOTES:

1. SOLID GROUT PIERS FULL WALL HEIGHT.
2. WHERE PIERS ARE CENTERED BELOW BEAM BEARING, REDUCE TIE SPACING TO 8".
3. FOR 8" CMU WALL PIERS 2'-0" AND LESS, SEE WALL COLUMN DETAIL (0422-006)

CMU WALL PIER

0422-005

NTS

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

25 WEST CEDAR STREET, SUITE 350
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

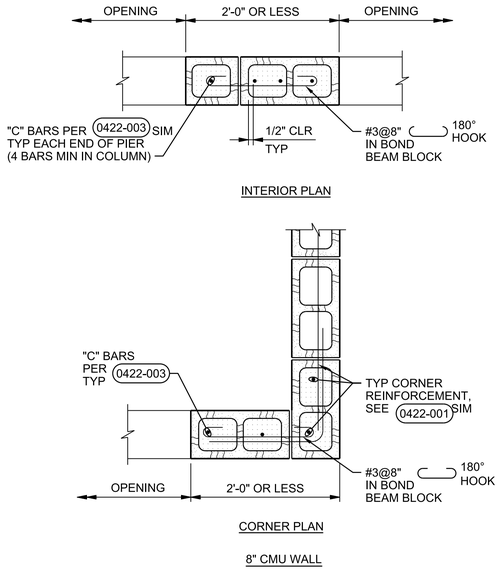
STRUCTURAL

STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5011
SHEET	233 of 270



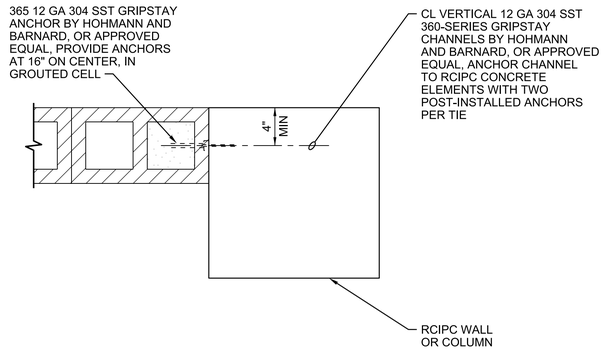
NOTE:

GROUT WALL COLUMNS FULL WALL HEIGHT.

CMU WALL COLUMN

NTS

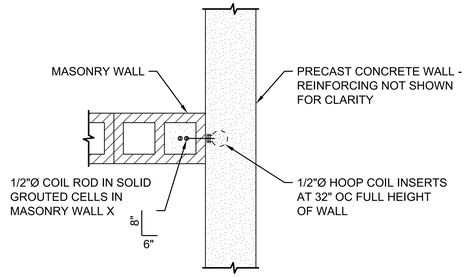
0422-006



PLAN - CMU WALL CONNECTION TO CAST-IN-PLACE CONCRETE WALL OR COLUMN

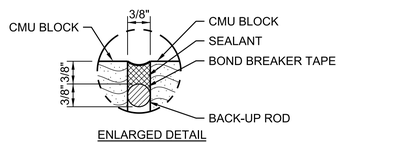
NTS

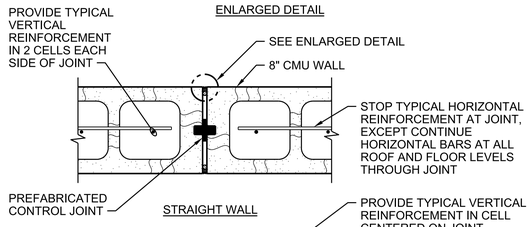
0422-010

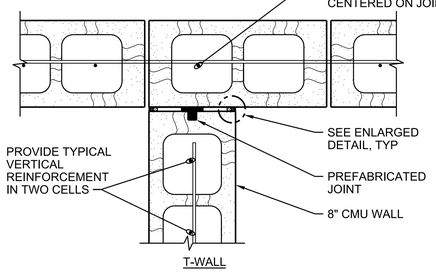


PLAN - MASONRY WALL CONNECTION AT PRECAST CONCRETE WALL

0422-011







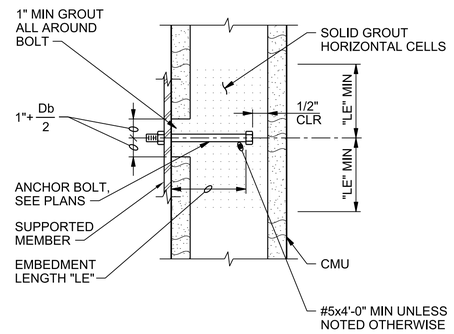
NOTE:

1. 12" CMU WALL WITH 2 LAYERS OF REINFORCEMENT IS SIMILAR.
2. FOR MASONRY CONTROL JOINT LOCATIONS SEE PLANS.

CMU CONTROL JOINT

NTS

0422-031



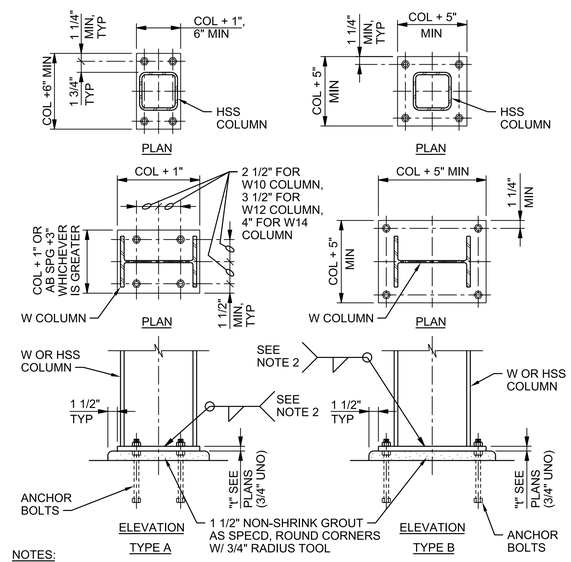
NOTE:

Db = DIAMETER OF BOLT

MASONRY ANCHOR BOLT

NTS

0422-046



NOTES:

1. UNLESS OTHERWISE NOTED, ANCHOR BOLTS SHALL BE 3/4" DIA x REQUIRED WITH LEVELING NUTS AND 1'-0" MINIMUM EMBED AND BASEPLATES SHALL BE CENTERED ON COLUMN.
2. WELD SIZE SHALL BE DETERMINED BY THE THICKEST MEMBER JOINED; MINIMUM WELD SIZE SHALL BE 3/16" FILLET FOR MATERIAL THICKNESSES UP TO AND INCLUDING 1/2", 1/4" FILLET FOR THICKNESSES OVER 1/2" TO 3/4", AND 5/16" FILLET FOR MATERIAL THICKNESSES OVER 3/4". ALL WELDS SHALL BE SINGLE-PASS WELDS.

COLUMN BASE - STEEL AND SST

NTS

0512-001

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		M COHEN	P KARABAN	M CHRZANOWSKI	M CHRZANOWSKI	M CHRZANOWSKI	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5012
SHEET	234 of 270

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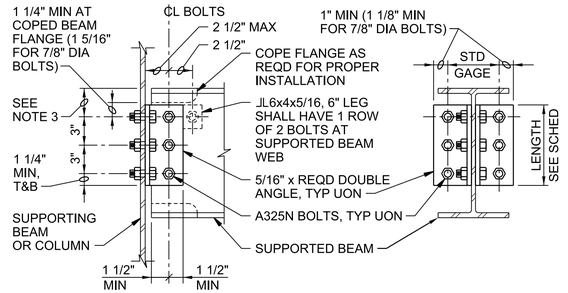


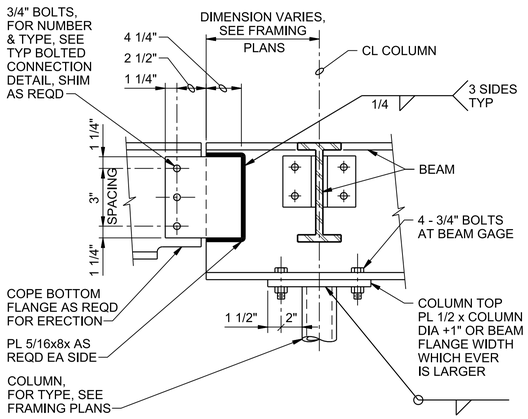
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	BOLT DIA, INCHES	DOUBLE ANGLE, LENGTH, INCHES	COMMENTS
36	10	7/8"	2'-6"	ANGLE THK = 3/8"
33	9	7/8"	2'-3"	ANGLE THK = 3/8"
30	8	7/8"	2'-0"	ANGLE THK = 3/8"
27	7	3/4"	1'-8 1/2"	-
24	6	3/4"	1'-5 1/2"	-
21	5	3/4"	1'-2 1/2"	-
16-18	4	3/4"	0'-11 1/2"	-
12-15	3	3/4"	0'-8 1/2"	-
8-10	2	3/4"	0'-5 1/2"	-
6	1	3/4"	0'-3"	JL 6"x4"x5/16"
4	1	3/4"	0'-2 1/2"	JL 6"x4"x5/16"

NOTES:
1. ALL BEAM FRAMING CONNECTIONS SHALL CONFORM TO THIS DETAIL UNLESS SPECIFICALLY NOTED OTHERWISE OR APPROVED IN WRITING BY THE ENGINEER.
2. PROVIDE ADDITIONAL 1 1/2" LENGTH TO DOUBLE ANGLE FOR STAGGERED BOLT CONNECTIONS WHEN REQUIRED OR USED.
3. DIMENSION SHALL BE 3" UNLESS OTHERWISE REQUIRED FOR PROPER FABRICATION.

TYPICAL BEAM CONNECTION - STEEL AND SST

NTS

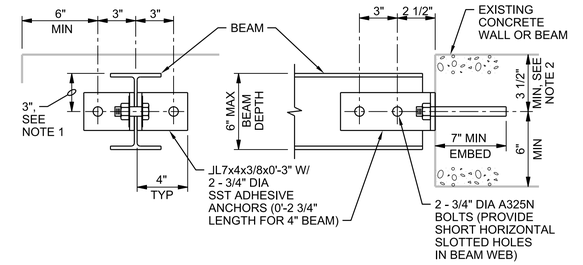
0512-020

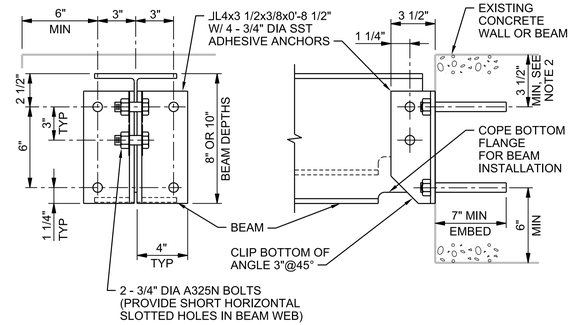


BEAM COLUMN CONNECTION - STEEL AND SST

NTS

0512-040



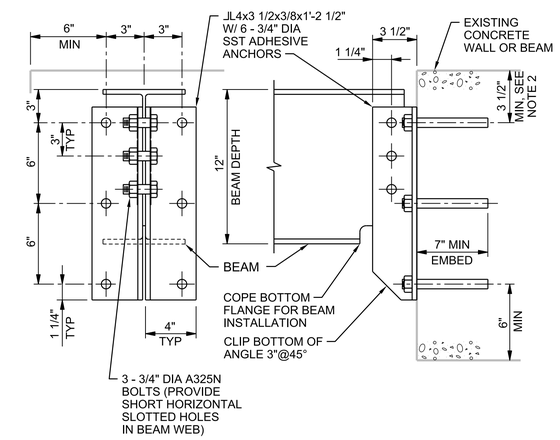


BEAM/ WALL CONNECTION - STEEL AND SST

DETAIL 1 OF 2

NTS

0512-056



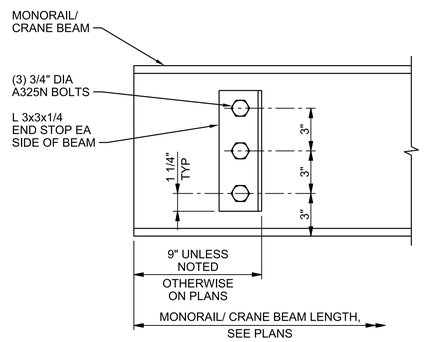
NOTES:
1. 3" DIMENSION TYPICAL EXCEPT 2 1/2" FOR 5" BEAMS AND 2" FOR 4" BEAMS.
2. DO NOT CUT EXISTING CONCRETE BEAM TOP REINFORCING DURING DRILL-IN ANCHOR INSTALLATION. FIELD LOCATE BEAM REINFORCING PRIOR TO FABRICATION WITH GROUND PENETRATING RADAR OR OTHER ACCEPTABLE MEANS. ADD LENGTH TO CLIP ANGLES AS REQUIRED TO LOWER ANCHORS TO CLEAR REINFORCING WHILE MAINTAINING SPACING AND EDGE DISTANCE AS SHOWN.
3. WHERE BOTH ENDS OF BEAM ARE ATTACHED TO A WALL, PROVIDE LONG HORIZONTALLY SLOTTED HOLES IN BEAM WEB AT ONE END. TIGHTEN NUTS SNUG TIGHT, BACK OFF 1/2 TURN, AND LOCK WITH DOUBLE NUT.

BEAM/ WALL CONNECTION - STEEL AND SST

DETAIL 2 OF 2

NTS

0512-056



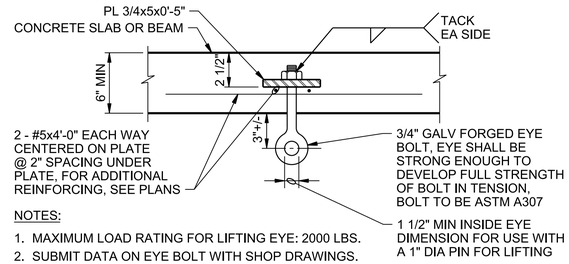
MONORAIL/ CRANE STOP

NOTE:
1. STOP DESIGN FORCE = 9 KIPS (SERVICE-LEVEL INCLUDES A SAFETY FACTOR OF 2). VERIFY DESIGN FORCE WITH STOP/ BUFFER FORCE INDICATED ON CERTIFIED DRAWINGS PRIOR TO FABRICATION.

MONORAIL AND CRANE DETAILS

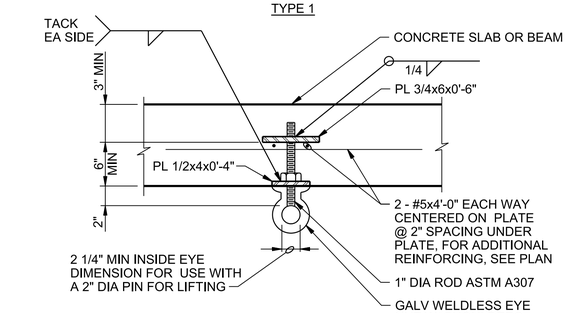
NTS

0512-101



NOTES:
1. MAXIMUM LOAD RATING FOR LIFTING EYE: 2000 LBS.
2. SUBMIT DATA ON EYE BOLT WITH SHOP DRAWINGS.

TYPE 1



NOTES:
1. MAXIMUM LOAD RATING FOR LIFTING EYE 4000 LBS.
2. SUBMIT DATA ON EYE BOLT WITH SHOP DRAWINGS.

TYPE 2

LIFTING EYE

NTS

0512-121

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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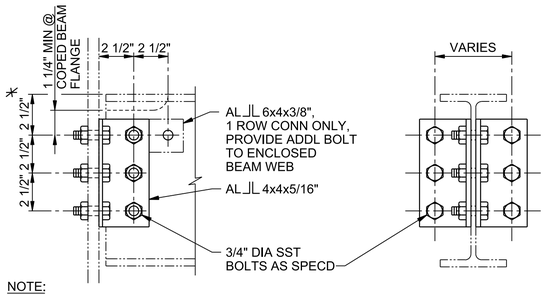
CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5013
SHEET	235 of 270

ALUMINUM		
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	LENGTH OF ANGLE
10	3	7 1/2"
7-8-9	2	5"
5-6	1	3"
4	1	2 3/4"

NOTES:
1. NUMBER OF ROWS IS EQUAL TO NUMBER OF BOLTS TO ENCLOSED WEB.
2. ALL FRAMING CONNECTIONS SHALL CONFORM TO SCHEDULE UNLESS DETAILED OTHERWISE ON FRAMING PLANS.

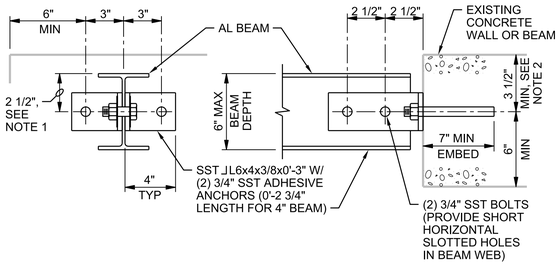


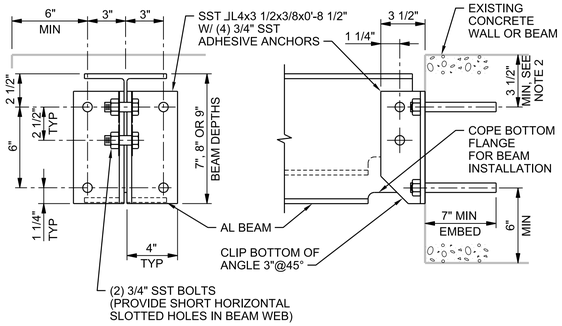
NOTE:
* 2 1/2" DIMENSION TYPICAL EXCEPT 2" FOR 4" BEAM.

TYPICAL BEAM CONNECTION - ALUMINUM

0514-020

NTS



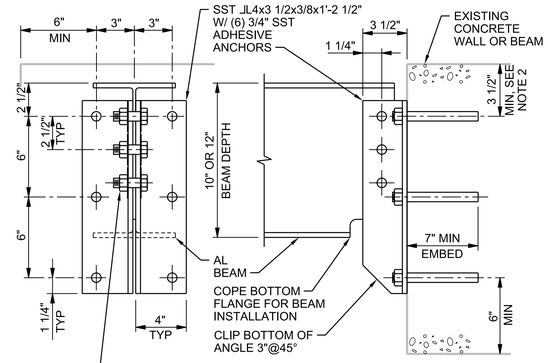


DETAIL 1 OF 2

BEAM/ WALL CONNECTION - ALUMINUM

0514-056

NTS



NOTES:
1. 2 1/2" DIMENSION TYPICAL EXCEPT 2" FOR 4" BEAMS.
2. DO NOT CUT EXISTING CONCRETE BEAM TOP REINFORCING DURING DRILL-IN ANCHOR INSTALLATION. FIELD LOCATE BEAM REINFORCING PRIOR TO FABRICATION WITH GROUND PENETRATING RADAR OR OTHER ACCEPTABLE MEANS. ADD LENGTH TO CLIP ANGLES AS REQUIRED TO LOWER ANCHORS TO CLEAR REINFORCING WHILE MAINTAINING SPACING AND EDGE DISTANCE AS SHOWN.
3. WHERE BOTH ENDS OF BEAM ARE ATTACHED TO A WALL, PROVIDE LONG HORIZONTALLY SLOTTED HOLES IN BEAM WEB AT ONE END. TIGHTEN NUTS SNUG TIGHT, BACK OFF 1/2 TURN, AND LOCK WITH DOUBLE NUT.
4. PROVIDE PROTECTION FOR DISSIMILAR MATERIALS PER SPECIFICATIONS.

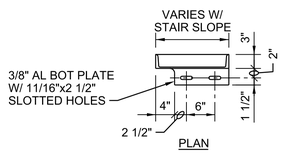
DETAIL 2 OF 2

BEAM/ WALL CONNECTION - ALUMINUM

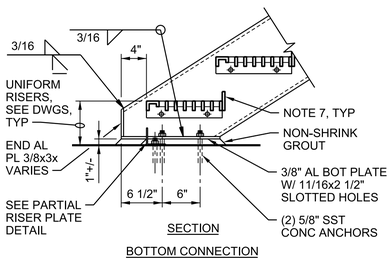
0514-056

NTS

NOTES:
1. PROVIDE PROTECTION FOR DISSIMILAR METALS AND FOR ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
2. AMERICAN STANDARD C12x7.41 ALUMINUM STRINGERS TYPICAL EXCEPT WHERE OTHERWISE NOTED ON PLANS.
3. STAIR RAILING NOT SHOWN.
4. STAIR MANUFACTURER TO COORDINATE BOLTED TREADS AND RAILING CONNECTIONS.
5. ALL FASTENERS SHALL BE STAINLESS STEEL.
6. FIELD VERIFY DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION.
7. FOR RISER PLATE SEE PARTIAL RISER PLATE DETAIL UNLESS NOTED OTHERWISE. CLEARANCE BETWEEN TOP OF RISER PLATE AND BOTTOM OF TREAD TO BE 3 3/4" MAXIMUM. FOR STAIRS WITH PICKET RAILING EXTEND RISER PLATE PER FULL RISER PLATE DETAIL.



PLAN



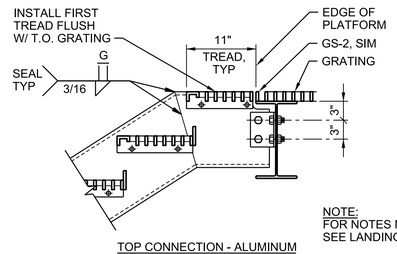
BOTTOM CONNECTION

DETAIL 1 OF 5

STAIR DETAILS - ALUMINUM

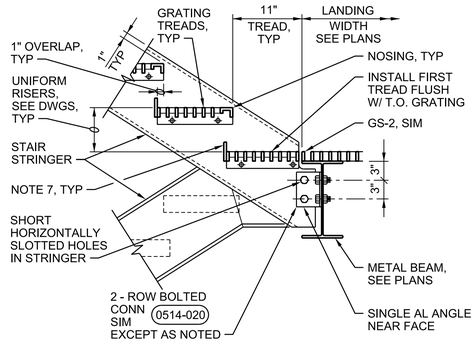
0551-001

NTS



NOTE:
FOR NOTES NOT SHOWN SEE LANDING CONNECTION.

TOP CONNECTION - ALUMINUM



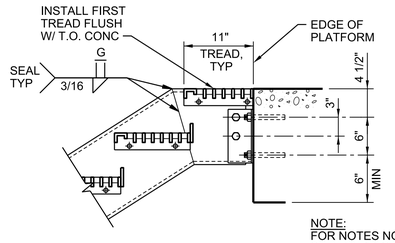
LANDING CONNECTION - ALUMINUM

DETAIL 2 OF 5

STAIR DETAILS - ALUMINUM

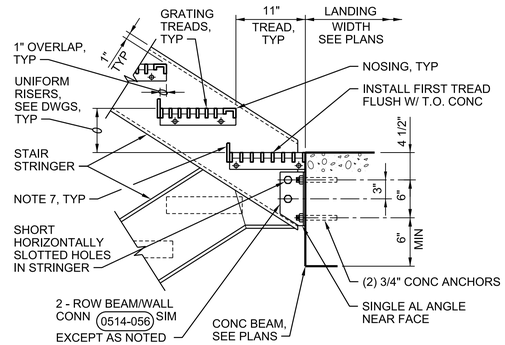
0551-001

NTS



NOTE:
FOR NOTES NOT SHOWN SEE LANDING CONNECTION.

TOP CONNECTION - CONCRETE



LANDING CONNECTION - CONCRETE

DETAIL 3 OF 5

STAIR DETAILS - ALUMINUM

0551-001

NTS

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5014
SHEET	236 of 270

CONFORMED DOCUMENTS

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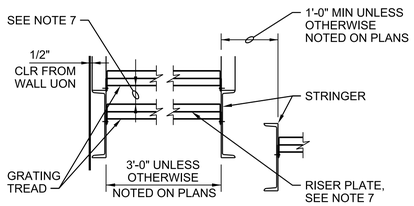
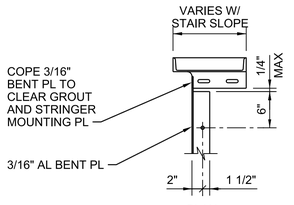
STAIRWAY WIDTH	TREAD BEARING BARS
	ALUMINUM TREAD
2'-3" OR LESS	1" x 3/16"
2'-9" OR LESS	1 1/4" x 3/16"
3'-3" OR LESS	1 1/2" x 3/16"
4'-7" OR LESS	1 3/4" x 3/16"



STAIR TREADS



PLAN

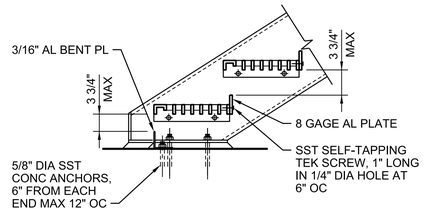
BOTTOM CLOSURE PLATE

DETAIL 4 OF 5

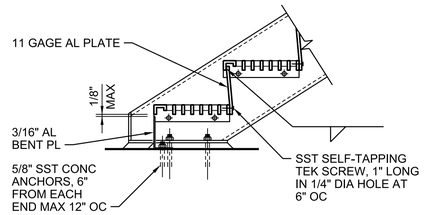
STAIR DETAILS - ALUMINUM

NTS

0551-001



PARTIAL RISER PLATE



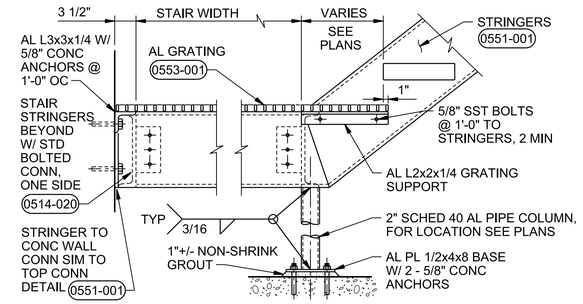
FULL RISER PLATE

DETAIL 5 OF 5

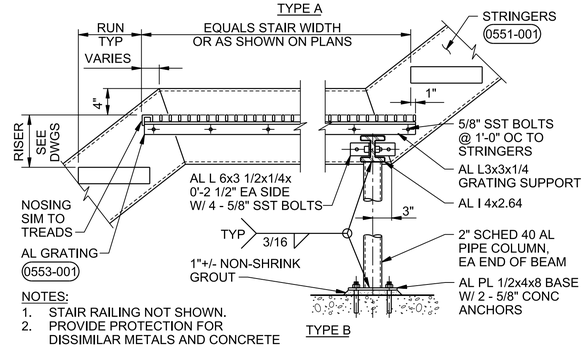
STAIR DETAILS - ALUMINUM

NTS

0551-001



TYPE A



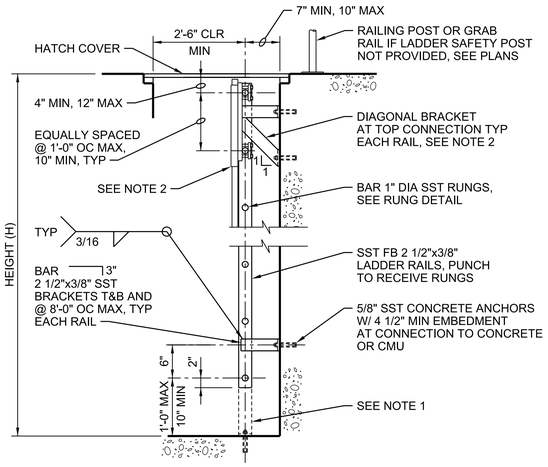
NOTES:
1. STAIR RAILING NOT SHOWN.
2. PROVIDE PROTECTION FOR DISSIMILAR METALS AND CONCRETE

TYPE B

STAIR LANDING WITH SUPPORTS - ALUMINUM

NTS

0551-002



NOTES:

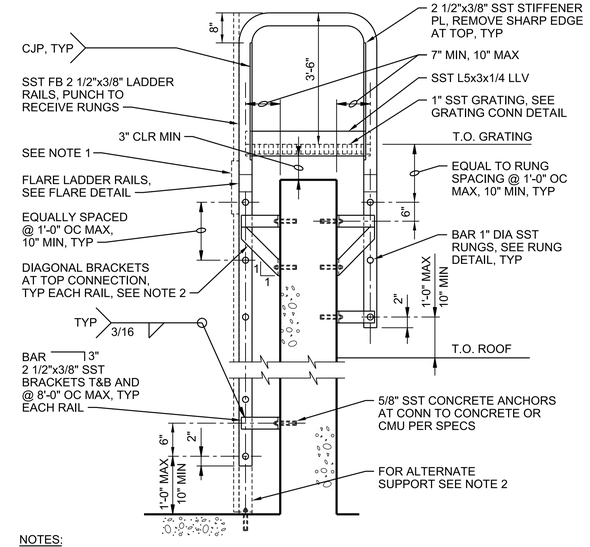
1. AT INTERIOR DRY AREAS, EXTEND RAILS AND BEND 3" AT FLOOR. SECURE WITH 5/8" SST CONCRETE ANCHORS. DIAGONAL BRACKET NOT REQUIRED IF BASE OF LADDER EXTENDS TO SLAB BELOW.
2. FOR H LESS THAN OR EQUAL TO 24'-0", PROVIDE LADDER SAFETY POST. FOR H GREATER THAN 24'-0", PROVIDE SAFETY CLIMB DEVICE WITH LADDER POST SAFETY EXTENSION.

DETAIL 1 OF 6

FLAT BAR LADDER UNDER COVER TYPE 'A' - SST

NTS

0551-141



NOTES:

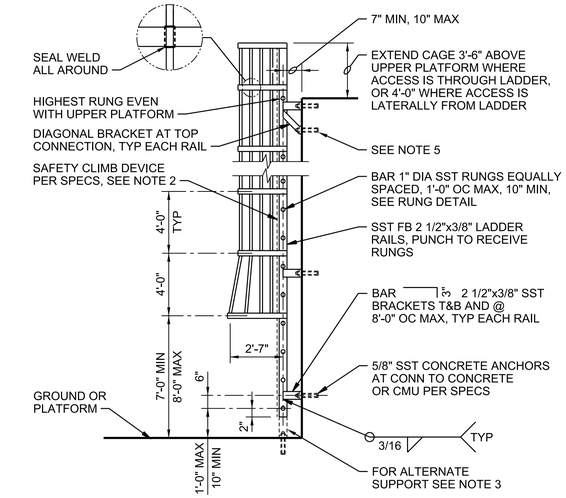
1. FOR H GREATER THAN 24'-0", PROVIDE SAFETY CLIMB DEVICE.
2. FOR INTERIOR, DRY AREAS, EXTEND RAILS AND BEND 3" AT FLOOR. SECURE WITH 5/8" CONCRETE ANCHORS. DIAGONAL BRACKET NOT REQUIRED IF ALTERNATE SUPPORT PROVIDED.

DETAIL 2 OF 6

FLAT BAR LADDER UP AND OVER TYPE 'C' - SST

NTS

0551-141



NOTES:

1. SUBMIT COORDINATED SHOP DRAWINGS.
2. PROVIDE SAFETY CLIMB DEVICE FOR LADDERS 24'-0" OR GREATER IF SHOWN ON PLANS.
3. FOR INTERIOR, DRY AREAS, EXTEND RAILS AND BEND 3" AT FLOOR. SECURE WITH 5/8" CONCRETE ANCHORS.
4. PROVIDE SEAL WELDS AT ALL CONTACT SURFACES WHERE STRUCTURAL WELDS ARE NOT REQUIRED OR SHOWN.
5. PROVIDE 3/4" DIA CONC ANCHORS WITH 5 1/2" MINIMUM EMBED AT DIAGONAL BRACKET WALL CONNECTIONS.
6. AT EXTERIOR LADDERS, PROVIDE LADDER CLIMB PREVENTION SHIELD.

DETAIL 3 OF 6

LADDER WITH SAFETY CAGE - SST

NTS

0551-141

NO.	DATE	REVISION	BY	APVD
DSGN	M COHEN	DR P KARABAN	CHK M CHRZANOWSKI	APVD M CHRZANOWSKI

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

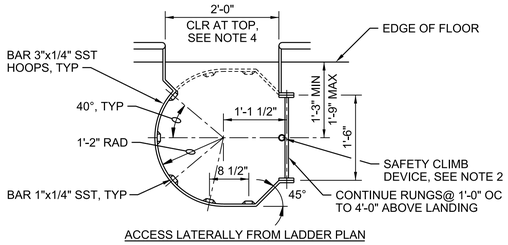
STRUCTURAL

STANDARD DETAILS

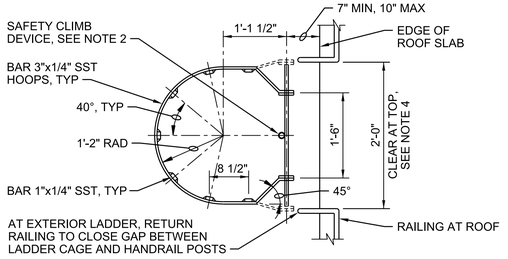
CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5015
SHEET	237 of 270



ACCESS LATERALLY FROM LADDER PLAN



ACCESS THROUGH LADDER PLAN

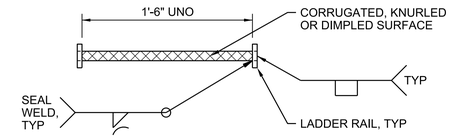
NOTES:
1. SUBMIT COORDINATED SHOP DRAWINGS.
2. PROVIDE SAFETY CLIMB DEVICE FOR LADDERS 24'-0" OR GREATER IF SHOWN ON PLANS.
3. PROVIDE SEAL WELDS AT ALL CONTACT SURFACES WHERE STRUCTURAL WELDS ARE NOT REQUIRED OR SHOWN.
4. WIDEN CAGE TO 2'-6" AT TOP TO ACCESS SAFETY CLIMB RAIL.

LADDER AND SAFETY CAGE DETAILS - SST

NTS

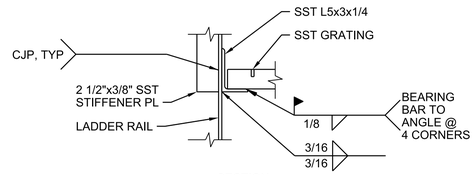
DETAIL 4 OF 6

0551-141



PLAN

RUNG DETAIL



SECTION

GRATING CONNECTION DETAIL

NOTE:

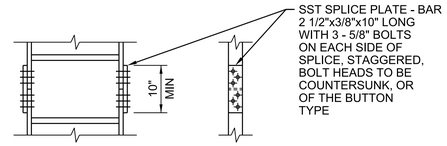
HOT DIP GALVANIZE STEEL AFTER FABRICATION, UNLESS NOTED OTHERWISE.

FLAT BAR LADDER DETAILS - SST

NTS

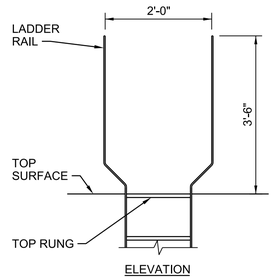
DETAIL 5 OF 6

0551-141



FRONT ELEVATION SIDE ELEVATION

RAIL SPLICE DETAIL



ELEVATION

FLARE DETAIL

NOTE:

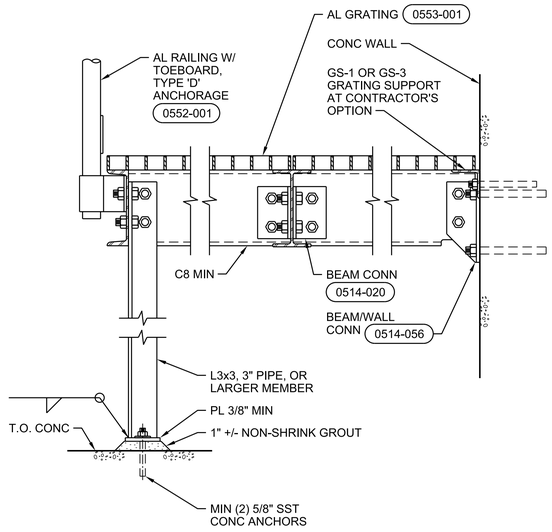
HOT DIP GALVANIZE STEEL AFTER FABRICATION, UNLESS NOTED OTHERWISE.

FLAT BAR LADDER DETAILS - SST

NTS

DETAIL 6 OF 6

0551-141



TYPICAL EQUIPMENT PLATFORM - ALUMINUM

NTS

DETAIL 1 OF 2

0551-201

EQUIPMENT PLATFORM NOTES:

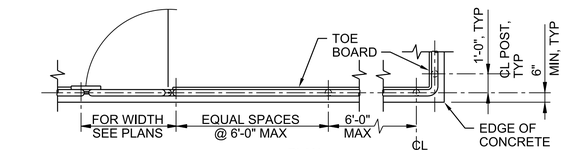
1. DESIGN LOADS:
   - A. LIVE LOADS: 100 PSF UNIFORM OR 1000 POUNDS CONCENTRATED ON 2'-6" SQUARE AREA
   - B. SEISMIC: SEE GENERAL STRUCTURAL NOTES, DRAWING __-_-__
2. LIMIT LIVE LOAD GRATING DEFLECTION TO 1/4 INCH. LIMIT LIVE LOAD BEAM DEFLECTION TO SPAN LENGTH OVER 480.
3. GRATING, FRAMING MEMBER SIZE AND CONNECTION TYPES IF INDICATED ON DRAWINGS ARE MINIMUM ACCEPTABLE SIZES. CONTRACTOR SHALL SUBMIT CALCULATIONS AND DRAWINGS FOR MEMBERS AND CONNECTIONS FOR BOTH VERTICAL AND LATERAL LOADS BASED ON FINAL EQUIPMENT SIZE AND LOCATION.
4. VERIFY ALL EQUIPMENT DIMENSIONS PRIOR TO FINAL DESIGN AND DETAILING OF PLATFORM SUPPORT SYSTEM. UNLESS REQUIRED OTHERWISE BY THE EQUIPMENT MANUFACTURER, MAINTAIN 1 1/2" CLEAR BETWEEN EDGE OF PLATFORM & EQUIPMENT.
5. PROVIDE DIAGONAL BRACING AS REQUIRED BY LATERAL CALCULATIONS.
6. ALL BOLTED CONNECTIONS SHALL BE 2- BOLT MINIMUM.

TYPICAL EQUIPMENT PLATFORM - ALUMINUM

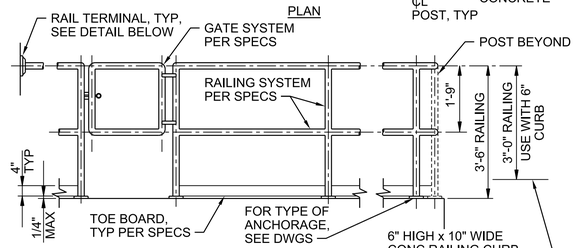
NTS

DETAIL 2 OF 2

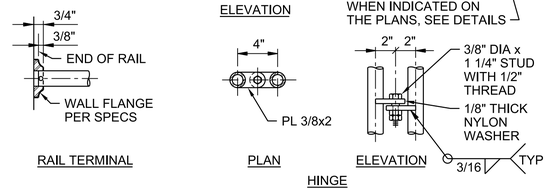
0551-201



PLAN



ELEVATION



RAIL TERMINAL PLAN ELEVATION

HINGE

NOTES:
1. FASTEN RAIL TO WALL FLANGE PER MANUFACTURER'S RECOMMENDATIONS.
2. WALL FLANGE TO BE MOUNTED TO WALL WITH (2) 3/8" DIA SST WEDGE ANCHORS.
3. AT CONTRACTOR'S OPTION FABRICATE HINGES OR PROVIDE OTHER HINGES PER SPECIFICATIONS. ANODIZE FINISH AFTER ALL WELDING PER SPECIFICATIONS.
4. AT RAMPS WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN RUNS, THE HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12 INCHES BEYOND THE TOP AND BOTTOM OF RAMP RUNS. THE EXTENSIONS OF THE HANDRAILS SHALL BE IN THE SAME DIRECTION OF THE RAMP RUNS.

RAILING - 2 RAIL - ALUMINUM

NTS

DETAIL 1 OF 8

0522-001

NO.	DATE	DSGN	REVISION	CHK	DR	BY	APVD
		M COHEN		M CHRZANOWSKI	P KARABAN	M CHRZANOWSKI	APVD

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5016
SHEET	238 of 270

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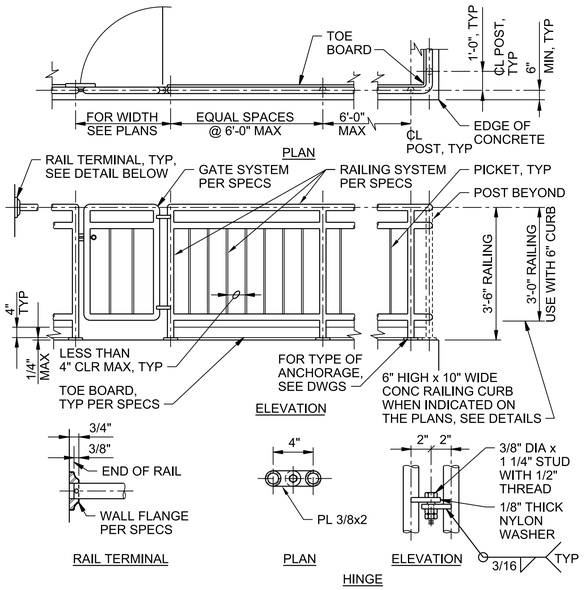


NOTES:

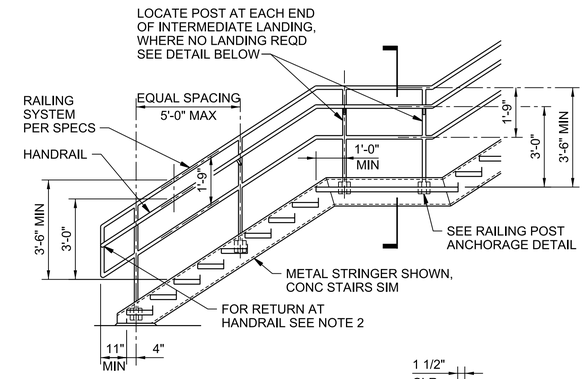
1. FASTEN RAIL TO WALL FLANGE PER MANUFACTURER'S RECOMMENDATIONS.
2. WALL FLANGE TO BE MOUNTED TO WALL WITH (2) 3/8" DIA SST WEDGE ANCHORS.
3. AT CONTRACTOR'S OPTION FABRICATE HINGES OR PROVIDE OTHER HINGES PER SPECIFICATIONS. ANODIZE FINISH AFTER ALL WELDING PER SPECIFICATIONS.
4. AT RAMPS WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN RUNS, THE HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12 INCHES BEYOND THE TOP AND BOTTOM OF RAMP RUNS. THE EXTENSIONS OF THE HANDRAILS SHALL BE IN THE SAME DIRECTION OF THE RAMP RUNS.

DETAIL 2 OF 8

RAILING - PICKET - ALUMINUM

NTS

0522-001



NOTES:

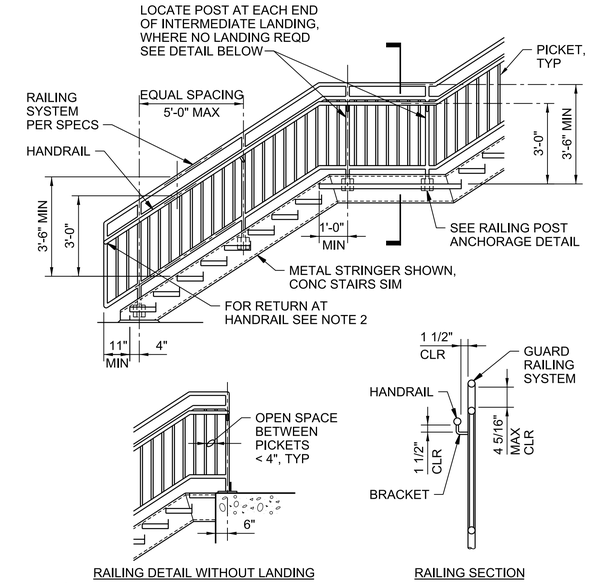
1. PROVIDE TOE BOARD AT LANDING WHERE REQUIRED.
2. RETURN ENDS OF HANDRAIL TO GUARD AT BOTH ENDS.

DETAIL 3 OF 8

RAILING - 2 RAIL STAIR - ALUMINUM (IBC)

NTS

0522-001



NOTES:

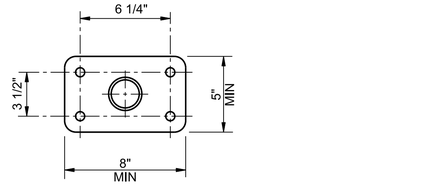
1. PROVIDE TOE BOARD AT LANDING WHERE REQUIRED.
2. RETURN ENDS OF HANDRAIL TO GUARD AT BOTH ENDS.

DETAIL 4 OF 8

RAILING - PICKET STAIR - ALUMINUM (IBC)

NTS

0522-001



NOTE:

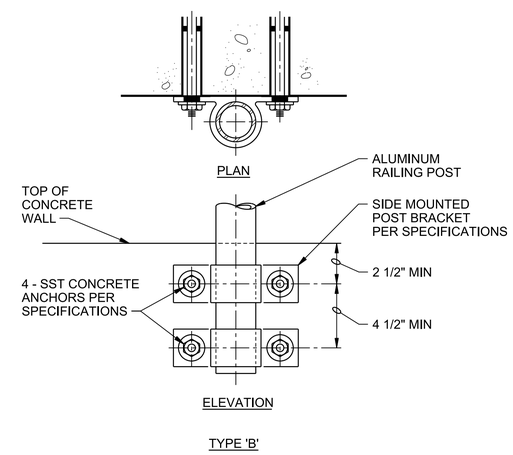
PROVIDE PROTECTION FOR DISSIMILAR METALS AND FOR ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATIONS.

DETAIL 5 OF 8

RAILING POST ANCHORAGE TYPE 'A' - ALUMINUM

NTS

0522-001



NOTES:

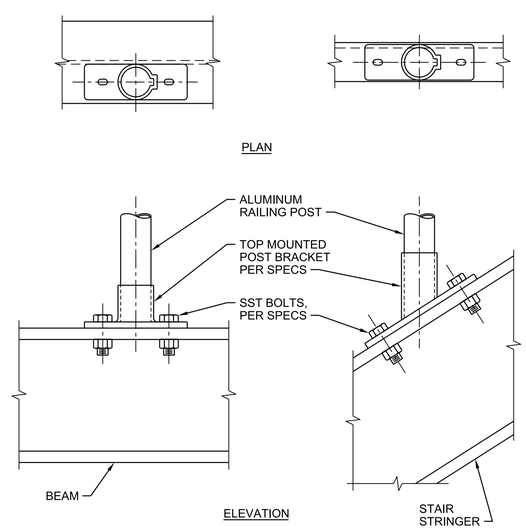
1. PROVIDE PROTECTION FOR DISSIMILAR METALS AND FOR ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
2. USE SIDE MOUNTED POST BRACKET AS A TEMPLATE FOR THE ANCHOR BOLTS.

DETAIL 6 OF 8

RAILING POST ANCHORAGE TYPE 'B' - ALUMINUM

NTS

0522-001



NOTE:

PROVIDE PROTECTION FOR DISSIMILAR METALS PER SPECIFICATIONS.

DETAIL 7 OF 8

RAILING POST ANCHORAGE TYPE 'C' - ALUMINUM

NTS

0522-001

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

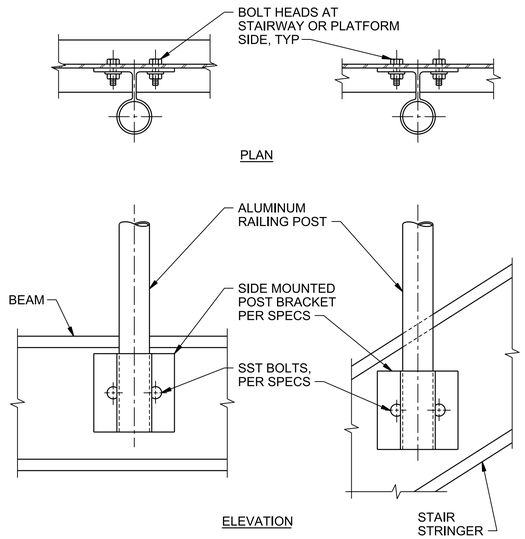
STANDARD DETAILS

NO.	DATE	REVISION	BY	APVD
DSGN	M.COHEN	DR	P.KARABAN	CHK	M.CHRZANOWSKI	APVD	M.CHRZANOWSKI	BY

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5017
SHEET	239 of 270



TYPE 'D'

NOTE:

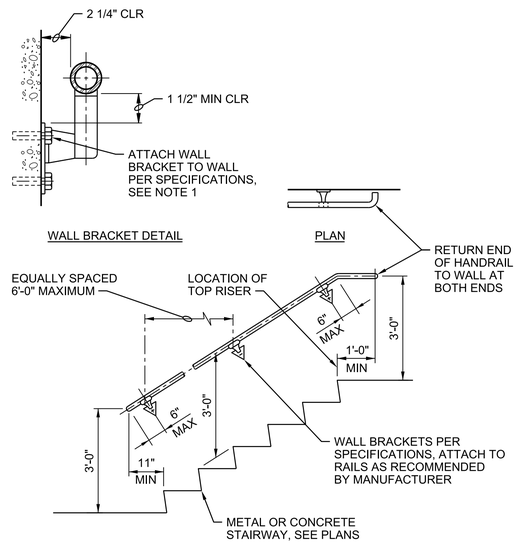
PROVIDE PROTECTION FOR DISSIMILAR METALS PER SPECIFICATIONS.

RAILING POST ANCHORAGE TYPE 'D' - ALUMINUM

NTS

DETAIL 8 OF 8

0522-001



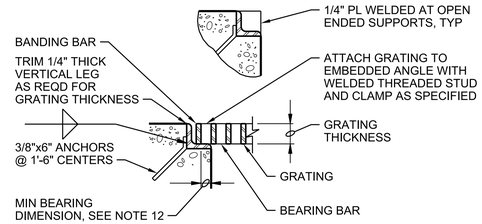
NOTE:

1. FOR ANCHORAGE TO WOOD OR METAL STUD FRAMING PROVIDE SOLID BLOCKING.
2. PROVIDE PROTECTION FOR DISSIMILAR METALS AND FOR ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATIONS.

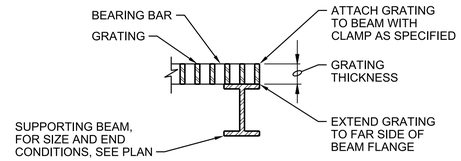
WALL HANDRAIL - ALUMINUM

NTS

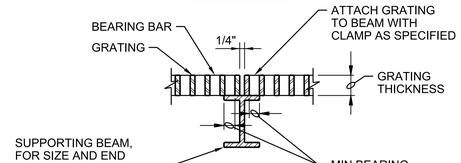
0552-002



GS-1



GS-2 - ONE SIDED



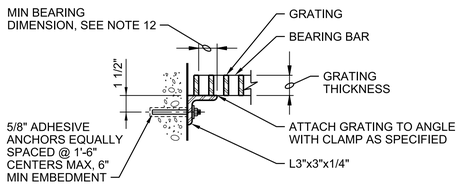
GS-2 - TWO SIDED

STANDARD GRATING

NTS

DETAIL 1 OF 4

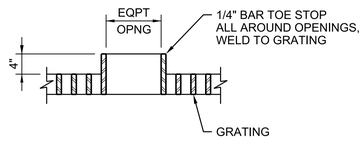
0553-001



NOTES:

1. USE GS-3 ONLY FOR LIGHT DUTY GRATING, TYPE 'A'.
2. INSTALL ANCHORS MAXIMUM 4" FROM EACH END.
3. WHEN ANCHOR IS WITHIN 4" OF A CONCRETE EDGE, UTILIZE MANUFACTURER'S LOW-TORQUE INSTALLATION PROCEDURES.

GS-3



EQUIPMENT OPENINGS

STANDARD GRATING

NTS

DETAIL 2 OF 4

0553-001

GENERAL NOTES:

1. GRATING SHALL BE LIGHT DUTY GRATING UNLESS OTHERWISE NOTED ON DRAWINGS.
2. GRATING SPAN IS INDICATED BY ◄──► , SEE PLAN.
3. INDIVIDUAL GRATING SECTIONS SHALL NOT EXCEED 3'-0" IN WIDTH OR WEIGH MORE THAN 150 POUNDS, UNLESS INDICATED OTHERWISE. FOR TYPES 'A' & 'B' GRATING. TYPE 'C' GRATING SHALL HAVE A MINIMUM WIDTH OF 2'-0" REGARDLESS OF WEIGHT.
4. SHOP DRAWINGS BASED ON FIELD DIMENSIONS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION.
5. MATERIAL FOR SUPPORTS OF STEEL AND ALUMINUM GRATING TO BE SAME AS GRATING, EXCEPT METAL SUPPORTS THAT ARE TO BE EMBEDDED IN CONCRETE SHALL BE TYPE 316 STAINLESS STEEL.
6. UNLESS NOTED OTHERWISE ON PLANS, GRATING THICKNESS SHALL BE AS TABULATED IN "GRATING THICKNESS TABLE" FOR APPLICABLE GRATING TYPE.
7. FOR SERRATED BEARING BARS, INCREASE GRATING THICKNESSES SHOWN IN TABLES BY 1/4".
8. BEARING BAR THICKNESS FOR GRATING TO BE 3/16" MINIMUM. SEE SPECIFICATIONS FOR SPACING OF BEARING AND CROSS BARS.
9. BAND ALL EDGES. MATCH DEPTH OF BEARING BAR.
10. TYPE OF MATERIAL USED SHALL BE AS SHOWN ON PLANS OR AS SPECIFIED. THIS STANDARD DETAIL INCLUDES 2 TYPES, ALTHOUGH BOTH MAY NOT BE INCLUDED IN PROJECT.
11. THE HORIZONTAL CLEARANCE BETWEEN THE GRATING AND GRATING SUPPORTS SHALL NOT BE LESS THAN 1/4" NOR GREATER THAN 1/2" AND AS SPECIFIED.
12. MINIMUM BEARING HORIZONTAL DIMENSION = 1" FOR GRATING DEPTH 2 1/4" OR LESS. MINIMUM BEARING HORIZONTAL DIMENSION = 2" FOR GRATING DEPTH GREATER THAN 2 1/4"

STANDARD GRATING

NTS

DETAIL 3 OF 4

0553-001

LIGHT DUTY GRATING
TYPE 'A'
(100 PSF)

GRATING THICKNESS TABLE		
MAXIMUM SPAN	STEEL	ALUMINUM
3'-6"	1"	1 1/4"
4'-0"	1"	1 1/2"
4'-6"	1"	1 3/4"
5'-0"	1 1/4"	1 3/4"
5'-6"	1 1/4"	2"
6'-0"	1 1/2"	2 1/4"
6'-6"	1 1/2"	2 1/4"
7'-0"	1 3/4"	2 1/2"

MEDIUM DUTY GRATING
TYPE 'B'
(500 PSF)

GRATING THICKNESS TABLE		
MAXIMUM SPAN	STEEL	ALUMINUM
< 2'-0"	1"	1"
2'-6"	1"	1 1/4"
3'-0"	1 1/4"	1 1/2"
3'-6"	1 1/4"	1 3/4"
4'-0"	1 1/2"	2"
4'-6"	1 3/4"	2 1/4"
5'-0"	1 3/4"	2 1/2"
5'-6"	2"	DO NOT USE ALUMINUM GRATING
6'-0"	2 1/4"	
6'-6"	2 1/2"	

HEAVY DUTY GRATING
TYPE 'C'
(H 20 WHEEL LOAD)

GRATING THICKNESS TABLE		
MAXIMUM SPAN	STEEL	ALUMINUM
1'-0"	2"x3/16"	DO NOT USE ALUMINUM GRATING
1'-8"	2 1/2"x1/4"	
2'-0"	2 1/2"x3/8" OR 3"x1/4"	
2'-6"	3"x3/8" OR 4"x1/4"	
3'-3"	3 1/2"x3/8"	
4'-0"	4"x3/8"	
5'-0"	4 1/2"x3/8"	

STANDARD GRATING

NTS

DETAIL 4 OF 4

0553-001

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	M COHEN		P KARABAN	M CHRZANOWSKI	APVD	M CHRZANOWSKI

CONFORMED DOCUMENTS

NO SCALE

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-S-5018
SHEET	240 of 270

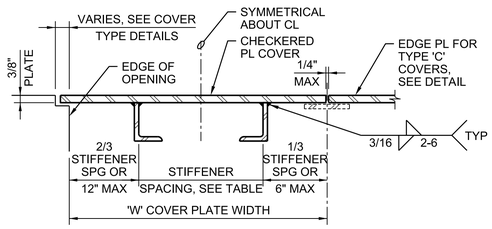


TABLE			
OPENING SPAN LENGTH 'L'	STIFFENER SIZE	MAX STIFFENER SPACING	MAX PLATE WIDTH 'W'
L<2'-6"	NONE	-	5'-0"
2'-6"<L<3'-6"	L2x1 1/2x1/4	1'-6"	4'-0"
3'-6"<L<4'-0"	L2 1/2x1 1/2x1/4	1'-6"	4'-0"
4'-0"<L<4'-6"	L2 1/2x1 1/2x1/4	1'-3"	4'-0"
4'-6"<L<5'-0"	L3x2x1/4	1'-6"	4'-0"
5'-0"<L<5'-6"	L3x2x1/4	1'-3"	3'-0"
5'-6"<L<6'-0"	L3 1/2x2 1/2x1/4	1'-6"	3'-0"
6'-0"<L<6'-6"	L3 1/2x2 1/2x1/4	1'-3"	2'-6"
6'-6"<L<7'-0"	L4x3x1/4	1'-3"	2'-6"
7'-0"<L<7'-6"	L4x3x1/4	1'-0"	2'-0"

NOTES:
1. STIFFENERS TO BE PLACED LONG LEG VERTICAL.
2. SPAN DIRECTION OF PLATE TO BE PARALLEL TO STIFFENERS, AND SHALL BE SHORT DIMENSION OF OPENING UNLESS NOTED OTHERWISE ON PLANS.
3. MAXIMUM ALLOWABLE UNIFORM DESIGN LOAD = 300psf.
4. MAXIMUM WEIGHT OF COVER PLATE TO BE 125 POUNDS.
5. COVER PLATES AND STIFFENERS ARE ALUMINUM PLATES AND ANGLES.
6. ALL COVER PLATES TO HAVE A MINIMUM OF TWO EYES AS SHOWN IN LIFTING EYE DETAILS.

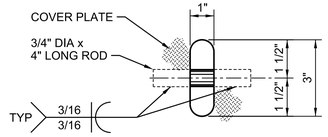
COVER STIFFENERS

DETAIL 1 OF 4

CHECKERED FLOOR PLATE - ALUMINUM

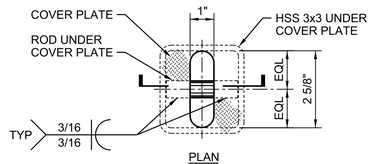
NTS

0554-001



NOTE:
THIS DETAIL IS APPLICABLE TO TYPES 'A' AND 'B' COVERS AND OTHER COVERS NOT INTENDED TO BE AIRTIGHT.

LIFTING EYE TYPE 'A'



NOTE:
THIS DETAIL IS APPLICABLE TO TYPE 'C' COVERS AND OTHER AIR TIGHT COVERS.

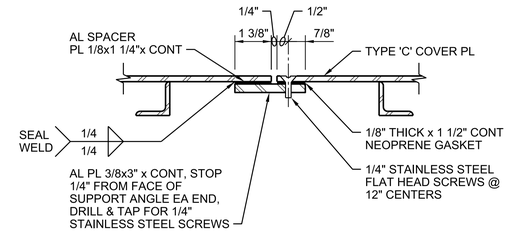
LIFTING EYE TYPE 'B'

DETAIL 2 OF 4

CHECKERED FLOOR PLATE - ALUMINUM

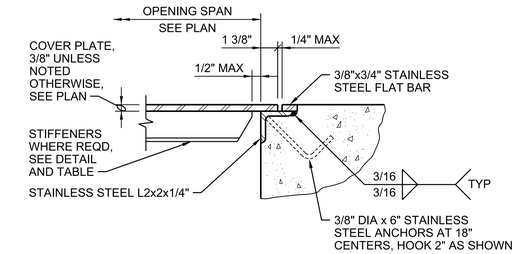
NTS

0554-001



NOTE:
THIS DETAIL IS APPLICABLE TO TYPE 'C' COVERS AND OTHER AIR TIGHT COVERS.

EDGE PLATE DETAIL



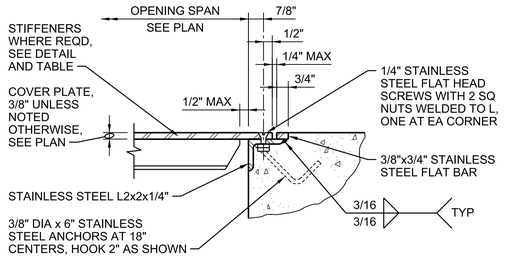
COVER TYPE 'A'

DETAIL 3 OF 4

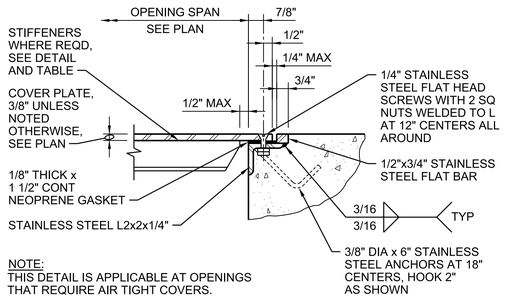
CHECKERED FLOOR PLATE - ALUMINUM

NTS

0554-001



COVER TYPE 'B'



NOTE:
THIS DETAIL IS APPLICABLE AT OPENINGS THAT REQUIRE AIR TIGHT COVERS.

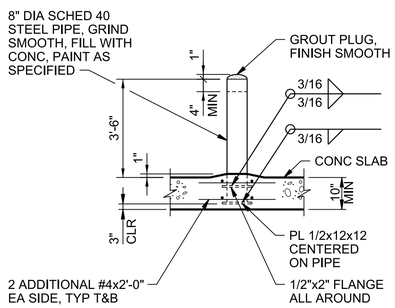
COVER TYPE 'C'

DETAIL 4 OF 4

CHECKERED FLOOR PLATE - ALUMINUM

NTS

0554-001

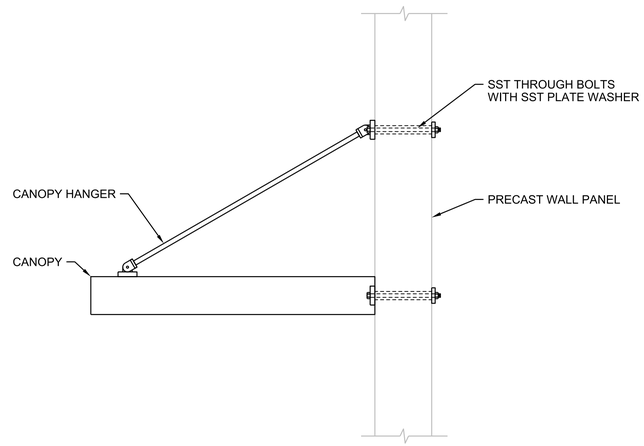


NOTES:
1. HOT DIPPED GALVANIZE AFTER FABRICATION.
2. FOR EXTERIOR GUARD POST, SEE (3305-954)

GUARD POST - INTERIOR

NTS

0559-026



NOTES:

1. CONNECTIONS SHALL BE DESIGNED BY CANOPY MFR'S ENGINEER.
2. PRECAST SUPPLIER SHALL PROVIDE SST SLEEVES AT THROUGH BOLTS SO THAT PRECAST PANELS DO NOT NEED TO BE DRILLED.
3. CONTRACTOR SHALL PROVIDE PRECASTER WITH APPROVED CANOPY SUBMITTALS INCLUDING SIGNED AND SEALED CALCULATIONS, SO PRECAST MFR'S ENGINEER CAN ACCOUNT FOR FORCES FROM CANOPY IN DESIGN OF PRECAST.

CANOPY

NTS

0559-053

NO.	DATE	REVISION	CHK	APVD	BY
DSGN	M COHEN	DR	P KARABAN	APVD	M CHRZANOWSKI

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

STRUCTURAL

STANDARD DETAILS

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
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SHEET	241 of 270

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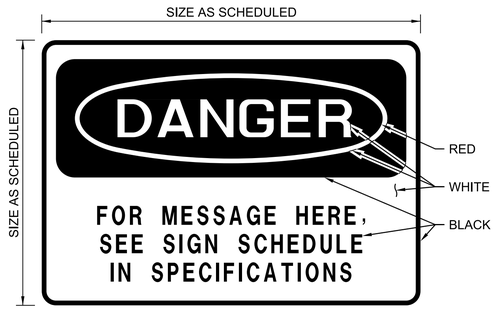
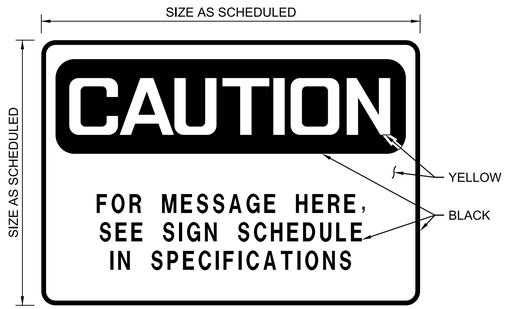


DANGER SIGN
NTS

1014-001

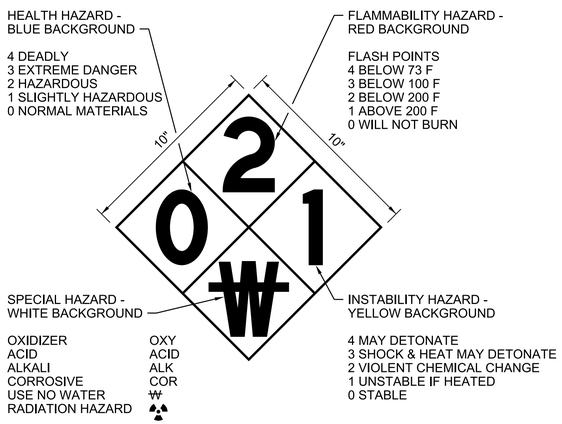


CAUTION SIGN
NTS

1014-002

WARNING SIGN
NTS

1014-003

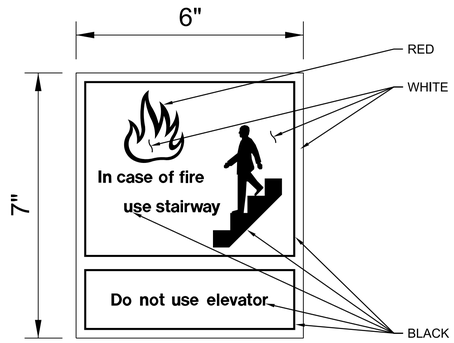


NOTES:

1. LETTER HEIGHT: 4"
   LETTER COLOR: BLACK
2. NUMBERS AND LETTERS ON ABOVE SIGNAL DETAIL ARE EXAMPLES ONLY. SEE SPECIFICATION 10 14 00 FOR REQUIREMENTS ON THIS PROJECT.

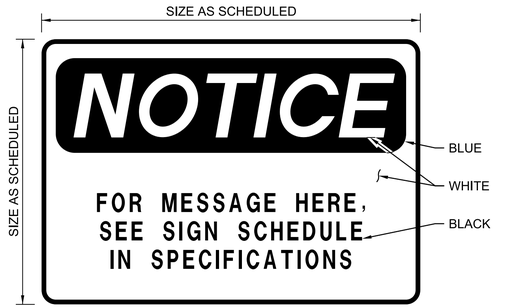
HAZARDOUS MATERIAL SIGNAL
NTS

1014-006



ELEVATOR WARNING SIGN
NTS

1014-007



NOTICE SIGN
NTS

1014-008

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA	DR	G OPIELKA	CHK	T DODGE	APVD	A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL
STANDARD DETAILS

CONFORMED DOCUMENTS

NO SCALE
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0 1"

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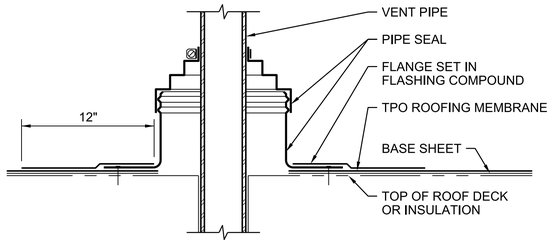
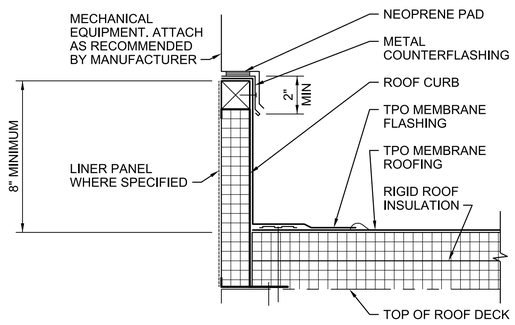


PIPE THROUGH ROOF

NTS

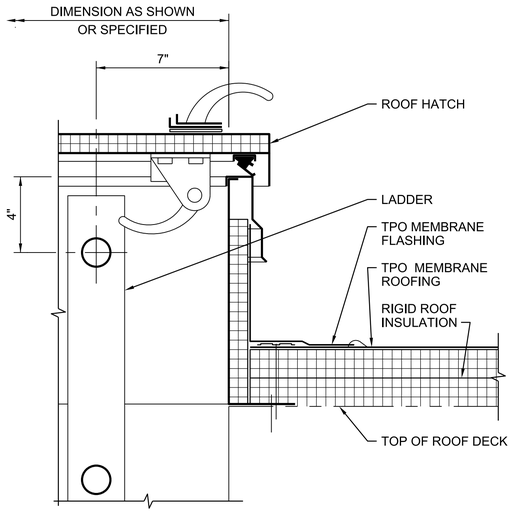
0770-024



MECHANICAL EQUIPMENT CURB

NTS

0770-031



ROOF HATCH

NTS

0770-038

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	V ROMAN-CARDONA		G OPIELKA	T DODGE		A DOLSAK	

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL
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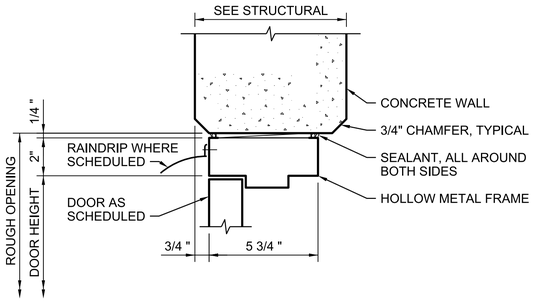
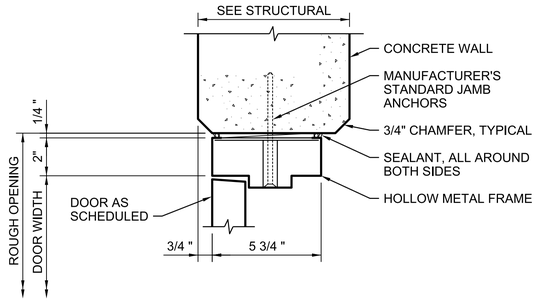
SHEET	243 of 270



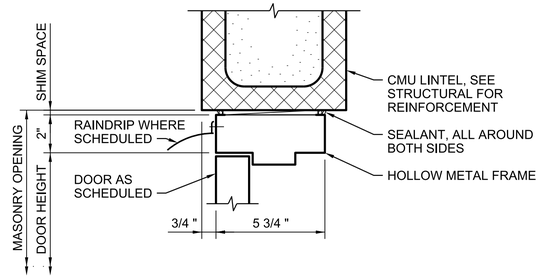
DOOR HEAD
NTS

0811-001



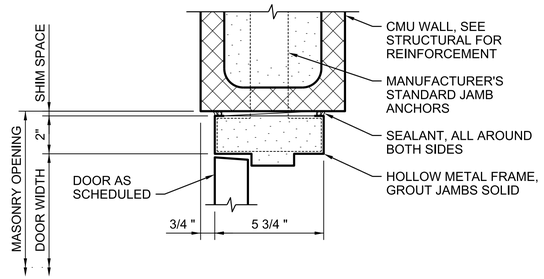
DOOR JAMB
NTS

0811-002



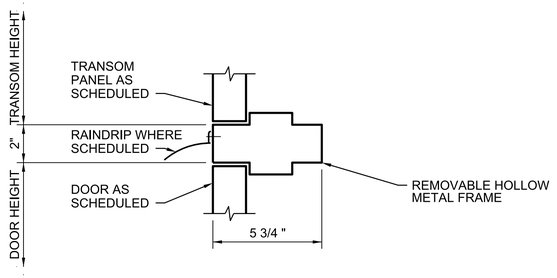
DOOR HEAD
NTS

0811-003



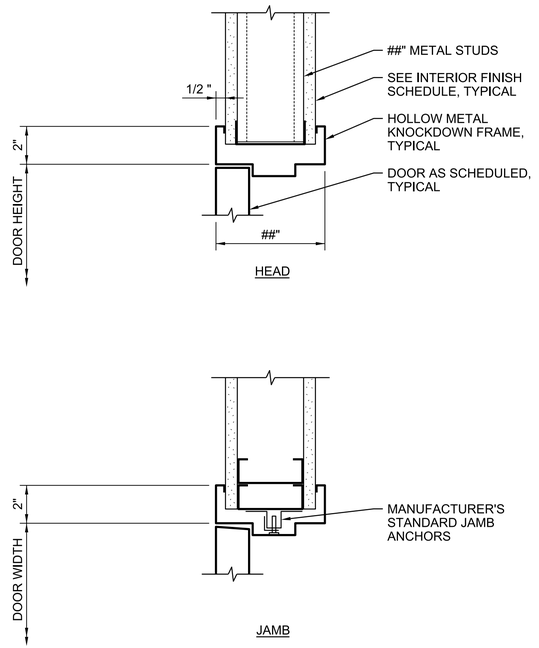
DOOR HEAD
NTS

0811-004



DOOR HEAD/ TRANSOM
NTS

0811-017



DOOR HEAD AND JAMB
NTS

0811-022

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

ARCHITECTURAL
STANDARD

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	V ROMAN-CARDONA		G OPIELKA	T DODGE	A DOLSAK	APVD

CONFORMED DOCUMENTS

NO SCALE
VERIFY SCALE
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DATE	MAY 2021
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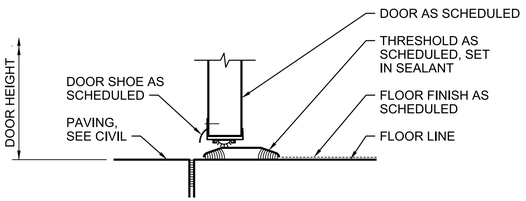
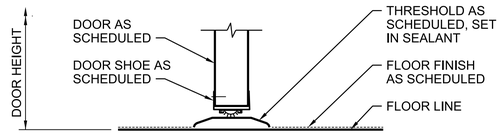
SHEET	244 of 270



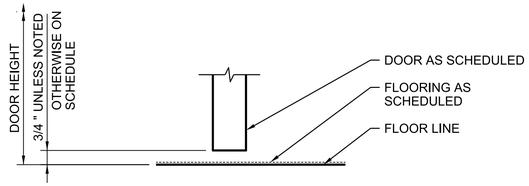
DOOR SILL
NTS

0871-001



DOOR SILL
NTS

0871-002



DOOR SILL
NTS

0871-003

NO.	DATE	REVISION	BY	APVD
DSGN	V ROMAN-CARDONA	DR	G OPIELKA	CHK	T DODGE	APVD	A DOLSAK

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

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DATE	MAY 2021
PROJ	D3226100
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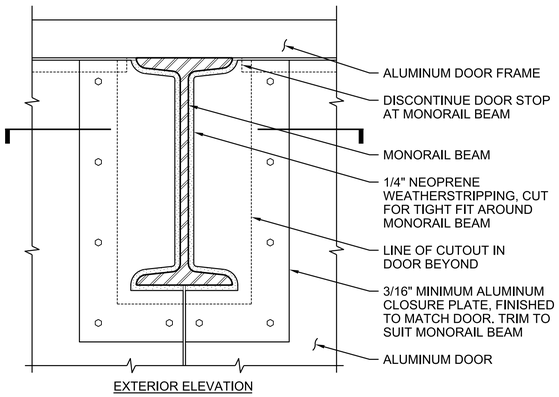
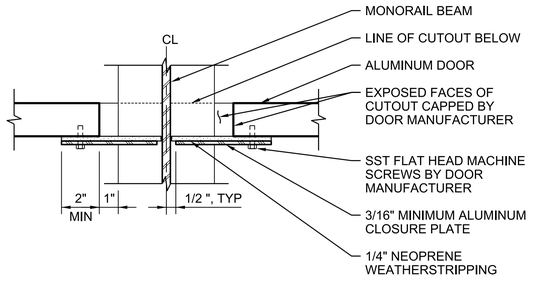


EXTERIOR ELEVATION

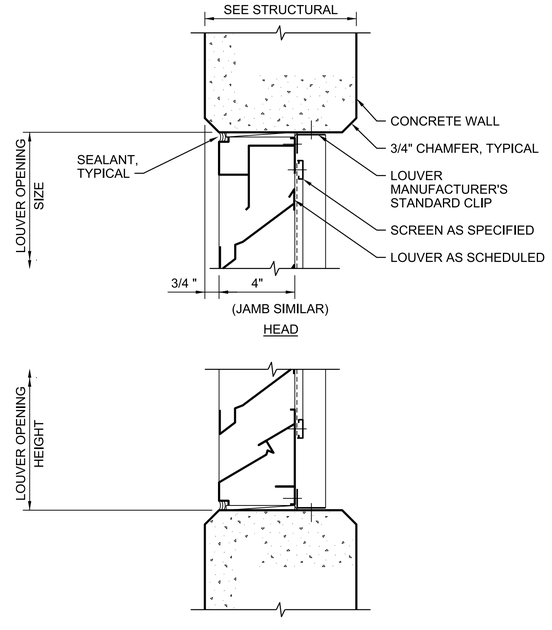


HORIZONTAL SECTION THROUGH MONORAIL BEAM

MONORAIL PENETRATION (CONTINUOUS FRAME)

NTS

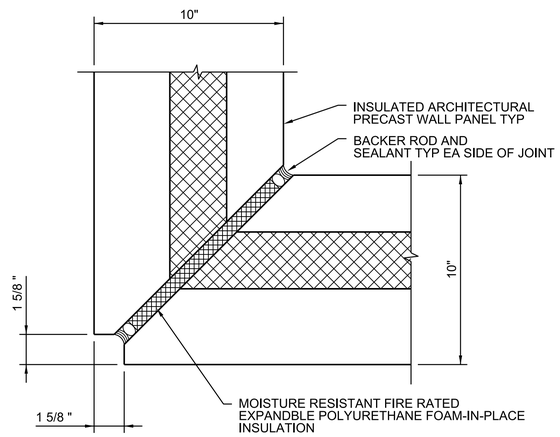
0811-069



LOUVER HEAD AND SILL

NTS

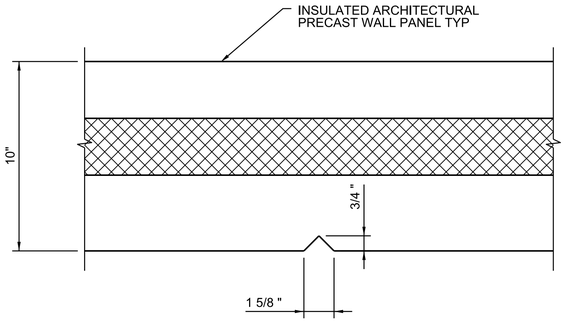
0890-001



TYP PRECAST WALL CORNER

NTS

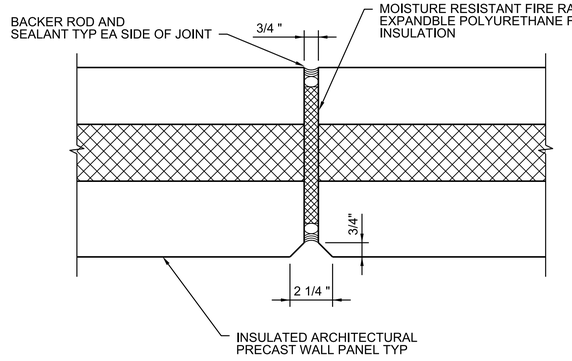
CD1-001



TYP PRECAST WALL REVEAL

NTS

RD1-001



PRECAST WALL PANEL JOINT

NTS

PJ1-001

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ARCHITECTURAL
STANDARD

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
				G OPIELKA	T DODGE		A DOLSAK

DSGN V ROMAN-CARDONA

NO SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
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DWG	99-A-5005
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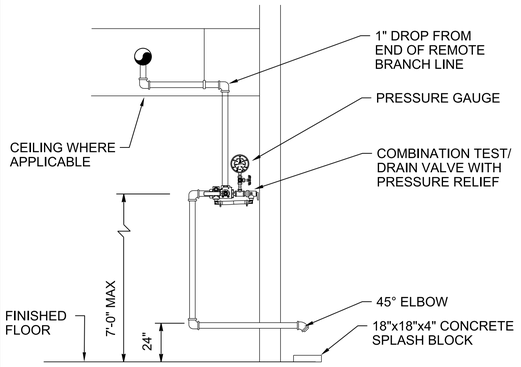
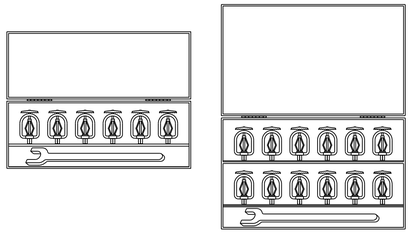
CONFORMED DOCUMENTS



INSPECTOR'S TEST/ DRAIN CONN (WET) B1

NTS



NOTES:

A. PROVIDE SPARE SPRINKLERS AND CABINETS IN ACCORDANCE WITH NFPA 13 (2013) 6.2.9.

B. THE REQUIRED NUMBER STIPULATED IN NFPA APPLIES TO EACH TYPE (STYLE AND RATING) IF FEWER THAN SIX OF A PARTICULAR TYPE, PROVIDE TWO SPARE SPRINKLERS.

C. MOUNT ON WALL NEAR FIRE SPRINKLER RISER AT 5'-0" ABOVE FINISHED FLOOR.

D. A LIST OF THE SPRINKLERS INSTALLED IN THE PROPERTY SHALL BE POSTED IN THE SPRINKLER CABINET AND SHALL MEET NFPA 13, 6.2.9.7.1 REQ.

SPARE SPRINKLER HEAD CABINET C2

NTS

HYDRAULIC SYSTEM

THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM

LOCATION

NO. OF SPRINKLERS

BASIS FOR DESIGN

1. DENSITY
2. DESIGNED AREA OF DISCHARGE

SYSTEM DEMAND

1. WATER FLOW RATE
2. RESIDUAL PRESSURE AT THE BASE OF THE RISER
3. STATIC PRESSURE
4. OCCUPANCY CLASSIFICATION
5. HOSE STREAM
6. CONTRACTORS NAME

SPRINKLER SYSTEM - GENERAL INFORMATION

FOR

High-piled storage	☐Yes	☐No	Date:
Rack storage:	☐Yes	☐No	Flow test Data:
Commodity class:			Static: psi
Max storage ht		ft	Resid: psi
Aisle width (min)		ft	Flow: gpm
Encapsulation	☐Yes	☐No	Pitot: psi
Solid shelving:	☐Yes	☐No	Date:
Flammable/ combustible liquids	☐Yes	☐No	Location:
Other storage:	☐Yes	☐No	Location of aux/low point drains:
Hazardous materials:	☐Yes	☐No	
Idle pallets:	☐Yes	☐No	
Antifreeze systems	☐Yes	☐No	
Location:			Original main drain test results:
Dry or aux systems	☐Yes	☐No	Static: psi
Location:			Residual: psi

Name of contractor or designer:

Address:

Phone:

NOTES:

A. SECURE SYSTEM SIGN TO ALARM VALVE WITH CHAIN. THE IDENTIFICATION SIGN SHALL BE IN ACCORDANCE WITH NFPA 13 (2013), PARAGRAPH 24.5.

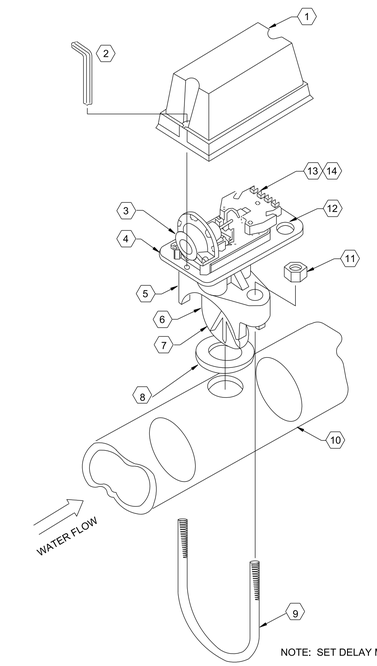
B. GENERAL INFORMATION SIGN SHALL ALSO BE PROVIDED PER NFPA, 13 PARAGRAPH 24.6 REQUIREMENTS AND SECURED TO THE FIRE RISER.

C. SIGNS SHALL BE RED WITH WHITE LETTERING.

D. SIGNS SHALL BE CONSTRUCTED OF CORROSION RESISTANT METAL.

SYSTEM IDENTIFICATION SIGNS C3

NTS

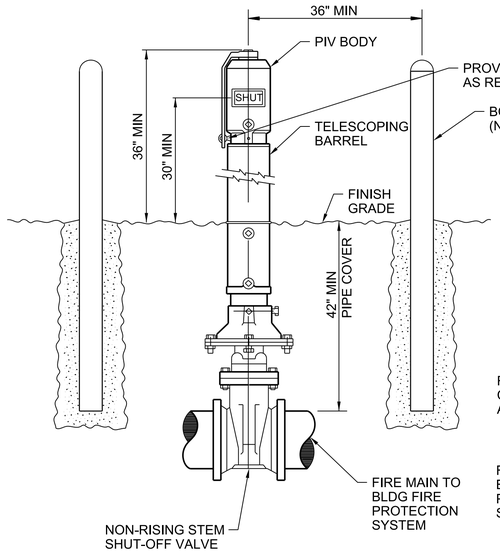


1. COVER
2. TAMPER PROOF WRENCH
3. DELAY MECHANISM
4. MOUNTING PLATE
5. PIPE SADDLE
6. PLASTIC VANE
7. ROLL PADDLE OPPOSITE OF FLOW ARROW WHILE INSERTING
8. SADDLE GASKET
9. U BOLT
10. PIPE
11. U BOLT NUT
12. 1/2" ELECTRICAL CONDUIT ENTRY
13. TERMINAL BLOCK
14. DEVICE PROVIDED BY DIVISION 21, WIRED AND PROGRAMMED BY DIVISION 28.

NOTE: SET DELAY MECHANISM FOR 10 SECONDS INITIAL DELAY. CONFIRM WITH AHJ.

TYPICAL VANE-TYPE WEATHERPROOF SWITCH E1

1 : 2

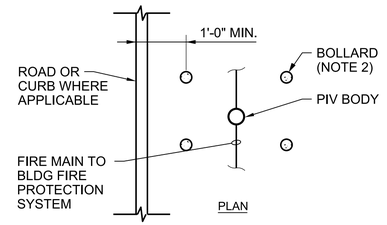


NOTE:

1. PROVIDE PADLOCK KEYED TO BASE STANDARDS AS REQUIRED.
2. SEE DETAIL A5/A-806A FOR EXTERIOR BOLLARD DESIGN.

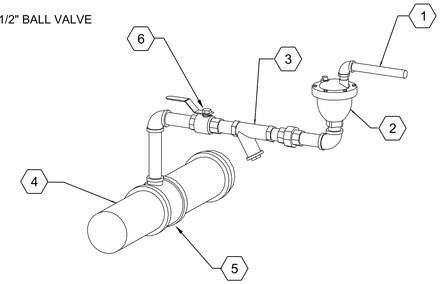
POST INDICATOR VALVE (PIV) A2

NTS



KEYNOTES

1. ROUTE DRAIN ABOVE CEILING AND THEN DOWN, CONCEALED IN WALL, TO EXTERIOR
2. AIR VENT
3. STRAINER
4. MAIN
5. THREADED MECH TEE
6. 1/2" BALL VALVE



AIR RELIEF VENT A4

SCALE: NOT TO SCALE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

FIRE SUPPRESSION
DETAILS

NO.	DATE	DSGN	DR	CHK	APVD
REVISION		B IRMEN	B SHANNON	B PEABODY	B PEABODY
BY	APVD				

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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PROJ	D3226100
DWG	99-F-5001
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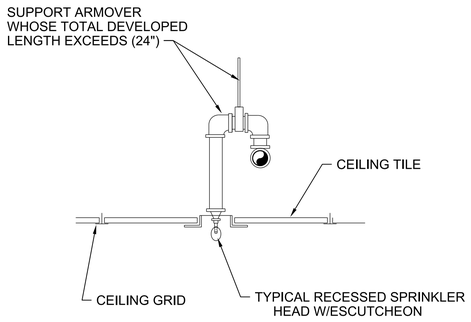
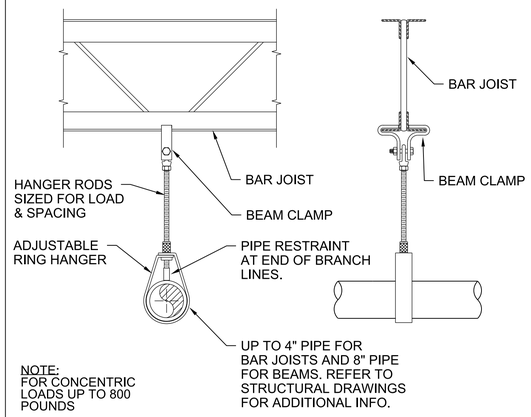


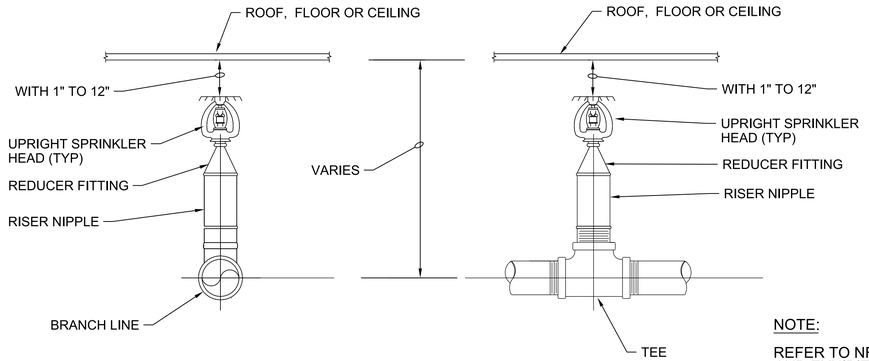
NOTE:
UTILIZE RETURN BEND TO CENTER PENDENT SPRINKLER IN ACOUSTICAL TILE AND TO ALIGN SPRINKLER SYMMETRICALLY IN SMOOTH CEILINGS.

RETURN BEND C1
NTS



NOTE:
FOR CONCENTRIC LOADS UP TO 800 POUNDS

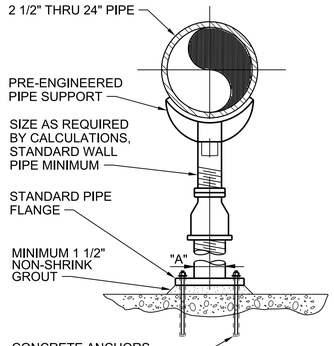
BAR JOIST OR BEAM HANGER C2
NTS



NOTE:

REFER TO NFPA 13, 8.6.4.1.2 (1) AND EXHIBIT 8.15 FOR ADDITIONAL REQUIREMENTS FOR OBSTRUCTED CONSTRUCTION.

UPRIGHT PENDANT SPRINKLER HEAD C3
NTS



DIMENSION TABLE	
PIPE SIZE	"A" MINIMUM NOMINAL PIPE SIZE
2-1/2"	2-1/2"
3"	2-1/2"
4"	3"
6"	3"
8"	3"
10"	3"
12"	3"
14"	4"
16"	4"
20"	6"
24"	6"

NOTE:
SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

B2 PIPE STANDS
SCALE: NOT TO SCALE

NOTE:
A. LOAD NOT TO EXCEED 400 POUNDS

PIPE HANGER WITH RING C1
NTS

NOTE:
A. LOAD NOT TO EXCEED 400 POUNDS
B. MAXIMUM HANGAR SPACING FOR STEEL PIPE SIZES 2" AND UP IS 15'-0".

PIPE HANGER WITH CLEVIS C2
NTS

NOTE:
NO PIPES LARGER THAN 4" SUPPORTED FROM PURLIN.

PIPE SUPPORT @ PURLIN A1
NTS

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B IRMEN	B SHANNON	B PEABODY	APVD	B PEABODY	

25 WEST CEDAR STREET, SUITE 350
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C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS (MAWSS)
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

FIRE SUPPRESSION
DETAILS

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NTS
VERIFY SCALE
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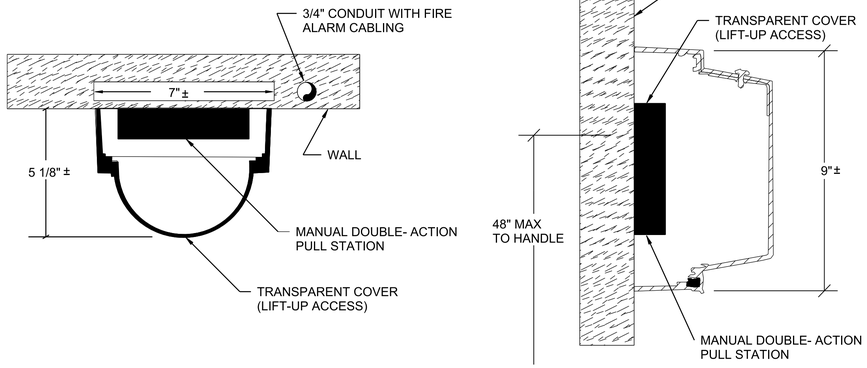
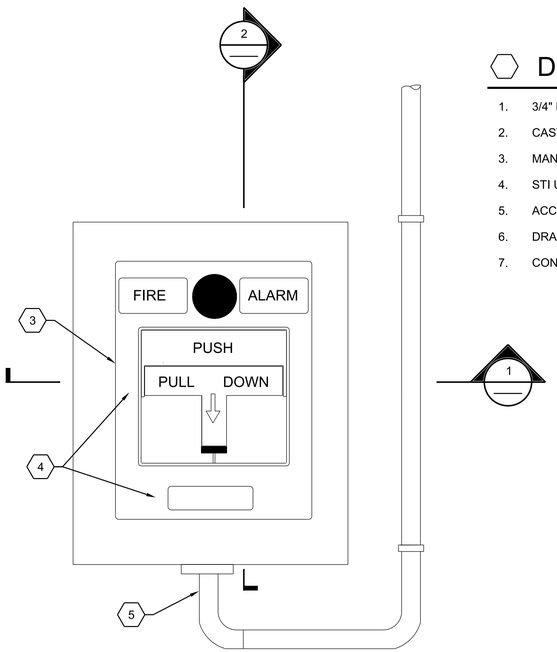


NOTE:
COVER REQUIRED ONLY IN WET OR CORROSIVE LOCATIONS.

1 **TOP VIEW**

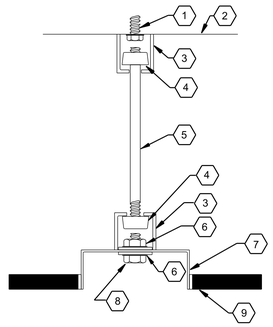
2 **SECTION VIEW**



DETAIL KEYNOTES

1. 3/4" EMT CONDUIT WITH FIRE ALARM CABLING
2. CAST BOX (5" H x 3 7/8" W x 2 3/16" D)
3. MANUAL DOUBLE ACTION PULL STATION (5" H x 3 3/4" W x 1" D)
4. STI UNIVERSAL COVER, ONLY REQUIRED IN WET OR CORROSIVE LOCATIONS
5. ACCESS FOR 3/4" THREADED CONNECTION LOCATED AT TOP AND BOTTOM
6. DRAIN VENT
7. CONDULET FITTING

1 FIRE ALARM PULL STATION WITH COVER
NTS



DETAIL KEYNOTES

1 EXPANSION BOLT OR C-CLAMP WITH RETAINER STRAP TO STRUCTURE
2 STRUCTURE
3 UNI-STRUT
4 UNI-STRUT FASTENER
5 1/2" ALL THREAD ROD (LENGTH AS REQ.)
6 WASHER
7 J- BOX
8 BOLT
9 FINISHED CEILING

2 CEILING MOUNTED FA J-BOX
NTS

NO.	DATE	DSGN	DR	REVISION	CHK	APVD	BY	APVD
		J PEUSER	B ALEXANDER		B PEABODY	B PEABODY		B PEABODY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

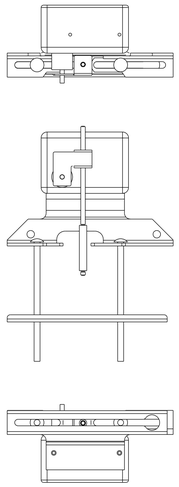
FIRE ALARM
DETAILS

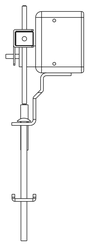
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

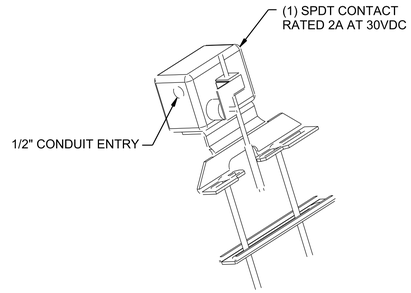
DATE	MAY 2021
PROJ	D3226100
DWG	99-FA-5001
SHEET	249 of 270

NEMA 250 TYPE 4X TAMPER SWITCH BASIS OF DESIGN:
POTTER OSYU.

NEMA 250 TYPE 7 TAMPER SWITCH, DEVICE PROVIDED BY DIVISION 21
WIRED AND PROGRAMMED BY DIVISION 28.

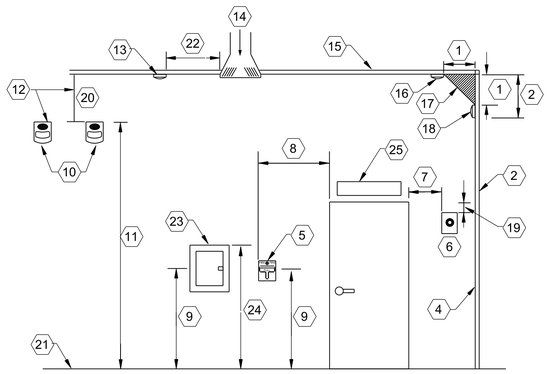






3 TYPICAL OS&Y VALVE SUPERVISION SWITCH

NTS



KEYNOTES

1. 4" MIN - MEASUREMENTS SHOWN ARE TO BE THE CLOSEST EDGE OF THE DETECTOR
2. DETECTOR 12" MAX FROM CEILING
3. SIDE WALL
4. FINISH WALL
5. DOUBLE ACTION MANUAL PULL STATION W/ COVER
6. MAGNETIC DOOR HOLDER
7. DOOR WIDTH MINUS 3"
8. MANUAL PULL STATION MAXIMUM SPACING 60" FROM OPENING
9. 48" MAX (ADA) NFPA 72, 2019 EDITION (SECTION 17.14.5)
10. SYNCHRONIZE MORE THAN TWO APPLIANCES (FIRE OR MASS NOTIFICATION) IN ANY FIELD OF VIEW NFPA 72 2019 EDITION (SECTION 18.5.5.4.2)
11. AUDIBLE 90" MIN NFPA 72, 2019 EDITION (SECTION 18.4.8.1)
12. VISUAL 96" MAX., 80" MIN NFPA 72, 2019 EDITION (SECTION 28.5.5.1)

    IN SLEEPING AREAS MOUNT AT 2032 mm TOP OF LENS OR
    <24" STROBE = 177cd
    >24" STROBE = 110cd
    NFPA 72, 2019 EDITION (SECTION 18.5.5.7)
13. CEILING MOUNTED SMOKE/HEAT/CO DETECTOR
14. AC SUPPLY DIFFUSER
15. CEILING
16. SMOKE DETECTOR ACCEPTED HERE
17. SMOKE DETECTOR NEVER HERE
18. TOP OF WALL MOUNTED SMOKE/ HEAT DETECTOR. THIS PLACEMENT ALLOWED ON THIS PROJECT.
19. MAGNETIC DOOR HOLDER 6" MINIMUM FROM TOP OF DOOR
20. HORN/ SPEAKER STROBE 6" MINIMUM FROM CEILING
21. FINISH FLOOR
22. DETECTOR 36" MINIMUM FROM DIFFUSER
23. LOCAL OPERATOR CONSOLE (LOC) FOR MASS NOTIFICATION FUNCTIONS
24. 72" AFF MAX.
25. TEXT MESSAGE SIGN

4 TYPICAL DEVICE MOUNTING HEIGHT

NTS

NO.	DATE	REVISION	BY	APVD
DSGN	J PEUSER	DR B ALEXANDER	CHK B PEABODY	APVD B PEABODY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

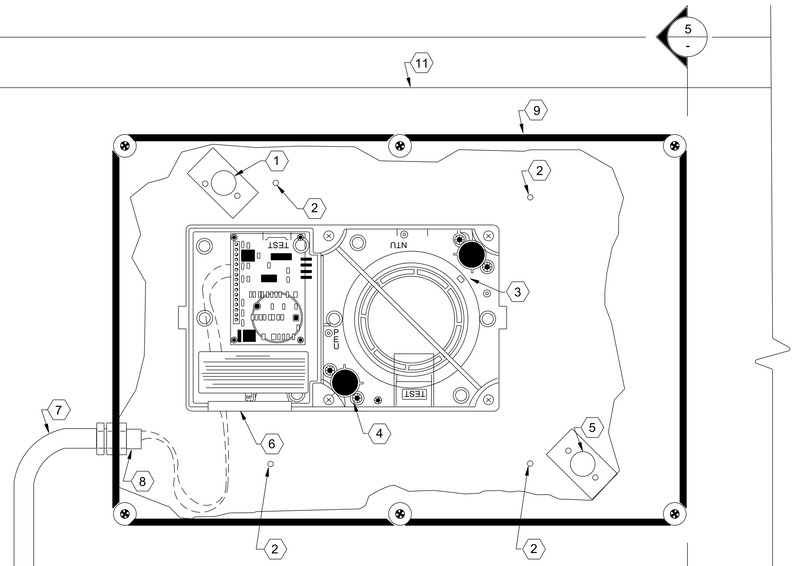
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

FIRE ALARM

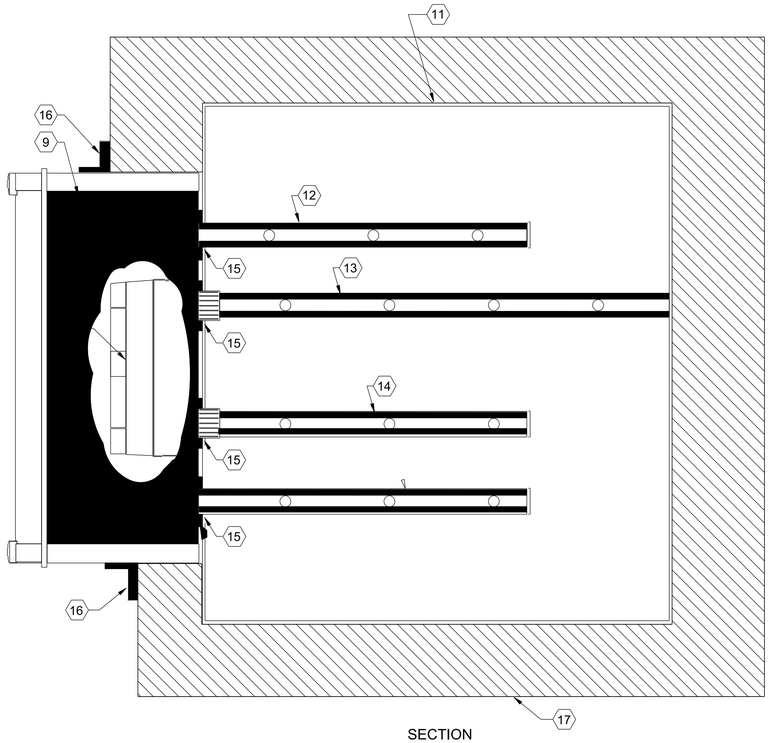
DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-FA-5002
SHEET	250 of 270



ELEVATION



SECTION

5 DUCT SMOKE DETECTOR
NTS

KEYNOTES

1. WEATHERPROOF HOUSING INTAKE TUBE LOCATION. (FOR WET LOCATION ONLY)
2. MOUNTNG HOLES, FOUR PLACES.
3. SENSOR HOUSING INTAKE TUBE LOCATION.
4. SENSOR HOUSING EXHAUST TUBE LOCATION
5. WEATHERPROOF HOUSING EXHAUST TUBE LOCATION.
6. WIRING ENTRANCE AREA.
7. USE FLEXIBLE CONDUIT WITH WEATHERPROOF FITTINGS.
8. SEAL CONDUIT ENTRANCE WITH 3M WEATHERBAN SEALANT #606 OR EQUAL (NOT SUPPLIED).
9. DUCT HOUSING. (WEATHERPROOF WHERE REQUIRED).
10. DUCT SENSOR HOUSING WITH SENSOR.
11. DUCT OUTLINE, SHOWN FOR REFERENCE.
12. ENCLOSURE AIR INTAKE TUBE. (WEATHERPROOF WHERE REQUIRED).
13. SENSOR HOUSING SAMPLING TUBE. DUCTS OVER 58CM THE SAMPLING PIPE SHALL EXTEND THRU DUCT FOR SUPPORT. SEAL AROUND PENETRATION.
14. SENSOR HOUSING EXHAUST TUBE.
15. GASKETS AT EACH HOUSING ENTRY POINT.
16. SEAL INSULATION AT DETECTOR.
17. DUCT INSULATION.

PRODUCT INFORMATION

FEATURES:

UL LISTED
MOUNTING: FLUSH
FINISH: CHROME OR STAINLESS STEEL

SPECIFICATIONS:

ALARM CURRENT: 2.8 Ma
DIMENSIONS OF BOX: 2" W x 3" H x 2" D

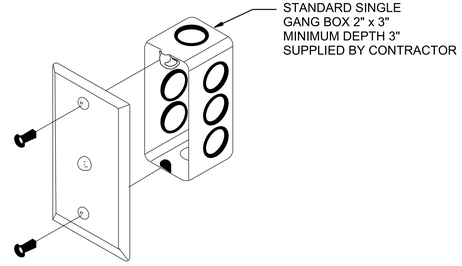
DESCRIPTION:

REMOTE GREEN ALARM LED STATUS INDICATOR ACTIVATED SWITCH MOUNTED ON A SINGLE GANG STAINLESS STEEL PLATE. THE LED WILL PULSE TO INDICATE NORMAL OPERATION OF THE DUCT DETECTOR AND WILL ENERGIZE CONTINUOUS WHEN IN ALARM OR IN TROUBLE. (THE EXACT STATUS OF THE SENSOR WILL BE DISPLAYED AT THE FIRE ALARM CONTROL PANEL).

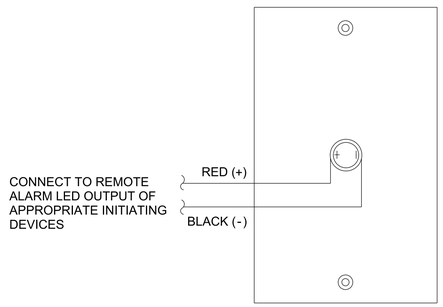
WIRING:

MINIMUM 18 AWG OR TO LOCAL CODE.
CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
REMOTE ALARM LED IS POLARIZED, OBSERVE COLOR CODED WIRING.

ONE INDICATOR MAY BE INSTALLED PER DETECTOR.



FLUSH MOUNTING



BACK VIEW

6 REMOTE ALARM KEY SWITCH
NTS

NO.	DATE	REVISION	DR	CHK	BY	APVD
DSGN	J PEUSER	B ALEXANDER		B PEABODY	APVD	B PEABODY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

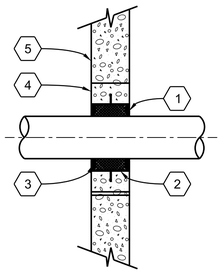
Jacobs

FIRE ALARM
DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-FA-5003
SHEET	251 of 270

CONFORMED DOCUMENTS



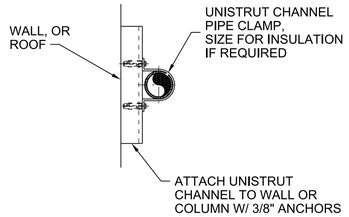
1. SEAL WATER TIGHT ALL AROUND WITH WATERPROOF NON SHRINKING MASTIC
2. PIPE SLEEVE
3. FIRE SAFING
4. CONCRETE FILL IN CMU WALL
5. CONCRETE OR CMU WALL

PIPE PENETRATION THRU WALL (TYP)

NTS

*MANUFACTURERES STANDARD FITTING

2210-101



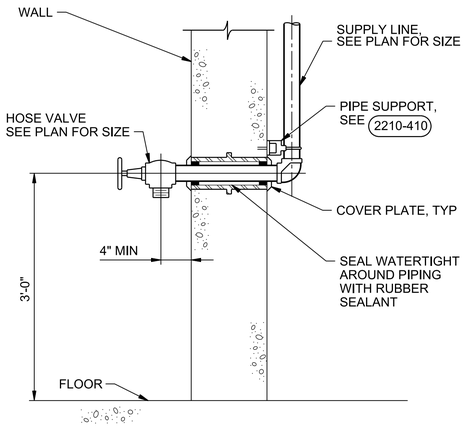
NOTES:

1. UNISTRUT AND ALL HARDWARE MUST BE CORROSION RESISTANT IN CHEMICAL AREAS.
2. PIPE HANGERS SHALL BE OVERSIZED AS REQUIRED TO ACCOMMODATE THICKNESS OF INSULATION SPECIFIED.
3. TIGHTEN CLAMP SNUG TO PIPE.

PIPE SUPPORT - WALL

NTS

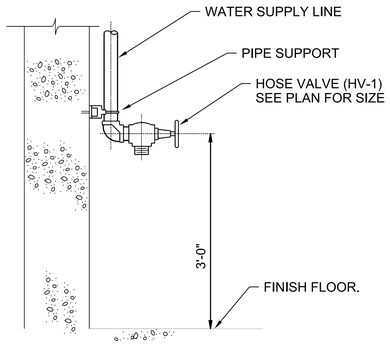
2210-410



EXTERIOR HOSE VALVE

NTS

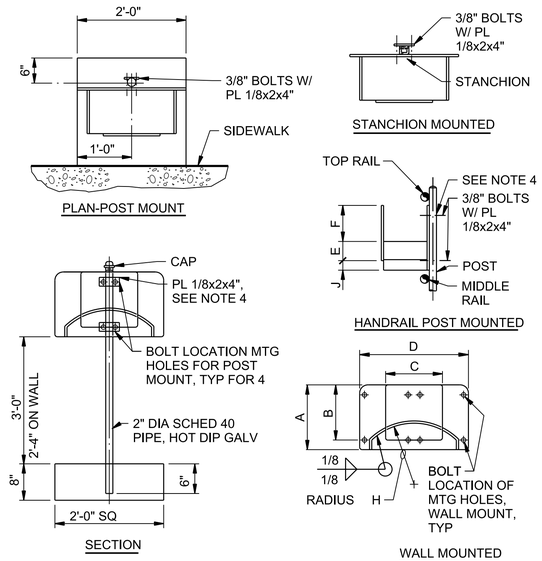
2210-411



HOSE VALVE (HV-1

NTS

2210-412



RACK TYPE	DIMENSION IN INCHES								
	A	B	C	D	E	F	G	H	J
TYPE A-3/4" & 1" HOSE	10-1/2	9	9	18	3	6	7-1/2	9-3/4	1-1/2
TYPE B-1 1/2" HOSE	14	12	12	24	4	8	10	13	2

NOTES:

1. INTERIOR UNITS SHALL BE FABRICATED FROM 1/8" A-36 STEEL PLATE AND ENTIRE UNIT SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. EXTERIOR UNITS SHALL BE FABRICATED FROM 3/16" 6061-T6 ALUMINUM ALLOY PLATE.
3. ATTACH TO CONCRETE WALL WITH (4) - 3/8" STAINLESS STEEL STUD TYPE WEDGE ANCHORS.
4. ATTACH TO VERTICAL HANDRAIL OR INDIVIDUAL POST WITH PLATES AND (4)- 3/8" STAINLESS STEEL BOLTS.
5. ATTACH TO STEEL COLUMN WITH (4)- 3/8" ROUND HEAD BOLTS, ONE IN EACH CORNER. INSERT DOUBLE SPACER NUTS BETWEEN COLUMN AND HOSE RACK.

HOSE BIBB (HV-X)

NTS

2210-720

NO.	DATE	REVISION	BY	APVD
DSGN	B RUSSAKIS	DR J PIGMAN	CHK T PRICE	APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

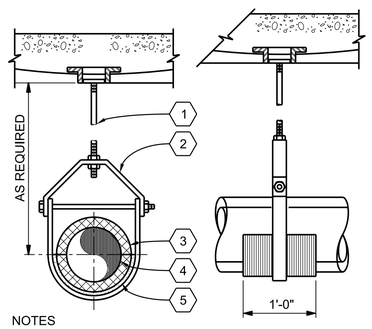
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

PLUMBING
STANDARD DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-P-5001
SHEET	252 of 270

CONFORMED DOCUMENTS



1. ROD SIZED FOR LOAD AND SPACING
2. CLEVIS PIPE HANGER
3. PIPE INSULATION AS SPECIFIED
4. PIPE SIZES 1/2"-10"
5. PROTECTIVE INSULATION SHIELD

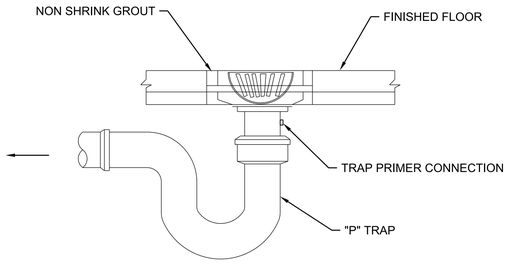
NOTES

A. PIPE HANGERS SHALL BE OVERSIZED AS REQUIRED TO ACCOMMODATE THICKNESS OF INSULATION SPECIFIED. HANGER SHALL NOT COME INTO CONTACT WITH THE INSULATION DIRECTLY, EITHER AT THE VERTICAL YOKE OR AT THE POINT OF SUPPORT. FOR REQUIREMENTS ON INSULATION SHIELD USED WITH PIPE HANGERS, SEE SPECIFICATIONS.

INSULATED PIPE HANGER

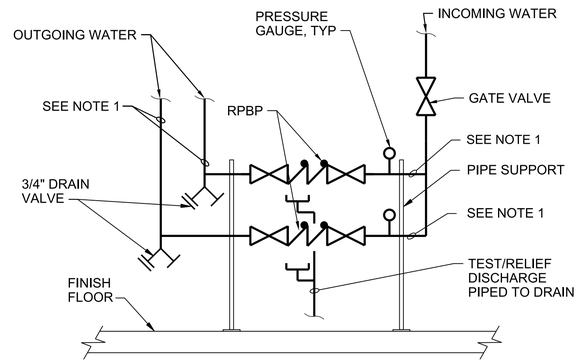
NTS

2210-450



FLOOR DRAIN

2213-102



NOTES

1. SEE PLANS FOR SIZES, ACTUAL PIPE LAYOUT MAY DIFFER.
2. PROVIDE DRAIN LINE AT EACH RPBP AIR GAP CONNECTION AND EXTENDED TO HUB DRAIN. SIZE TO MATCH RPBP.
3. SUPPORT AS REQUIRED. KEEP ARRANGEMENT CLOSE TO WALL AS WELL AS MAINTAINING CLEARANCE REQUIREMENTS.

RPBP STACKED

2230-100

NO.	DATE	DSGN	DR	CHK	APVD	BY	REVISION
		B RUSSAKIS	J PIGMAN	T PRICE	A VALIENTE		

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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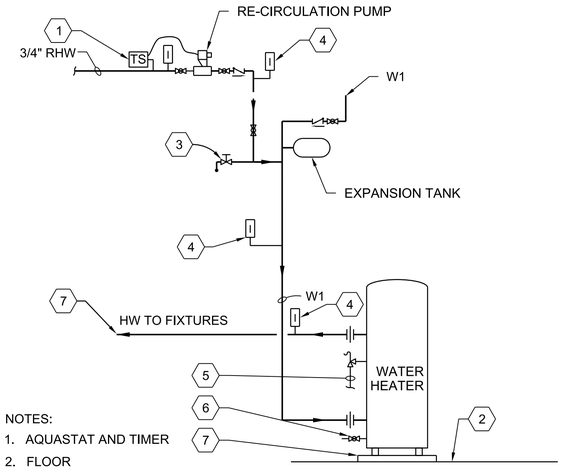
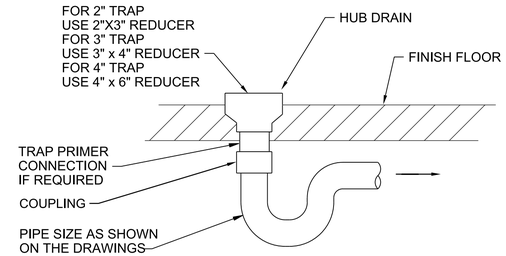


NOTES:
1. AQUASTAT AND TIMER
2. FLOOR
3. HOSE BIBB TO BLEED AIR
4. 1/2" LCD DISPLAY THERMOMETER.
5. PIPE PTRV TO HUB DRAIN
6. DRAIN VALVE
7. HOUSEKEEPING PAD AND DRAIN PAN
8. TO FIXTURES

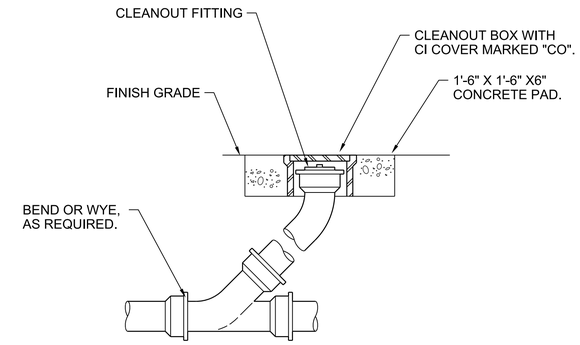
WATER HEATER - ELECTRIC
NTS

2230-190



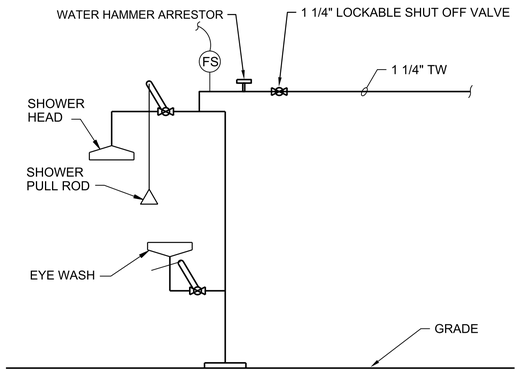
HUB DRAIN

2240-101



EXTERIOR CLEANOUT

2240-180



NOTES:
1. PROVIDE CORROSION RESISTANT TYPE IN CHEMICAL AREAS.
2. INSTALL IN ACCORDANCE WITH ISEA Z358.1.

EMERGENCY SHOWER/EYE WASH UNIT
NTS

2245-411

NO.	DATE	REVISION	BY	APVD
DSGN	B RUSSAKIS	DR	J PIGMAN	CHK	T PRICE	APVD	A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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CONFORMED DOCUMENTS

PLUMBING
STANDARD DETAILS

NTS
VERIFY SCALE
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0 1"

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DWG	99-P-5003
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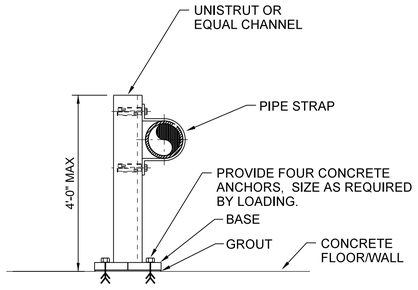
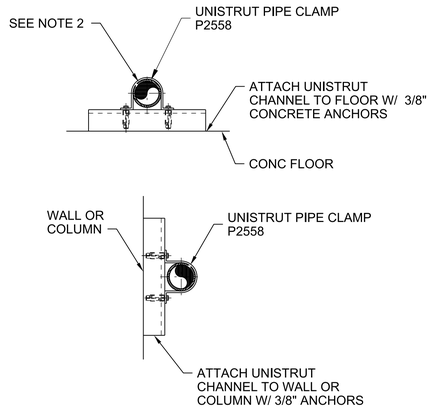


NOTES:

1. INCLUDE SAFETY CAP ON UNISTRUT. ADD GROUT BETWEEN BASEPLATE AND FLOOR SLAB.

PIPE SUPPORT
NTS

4005-495A

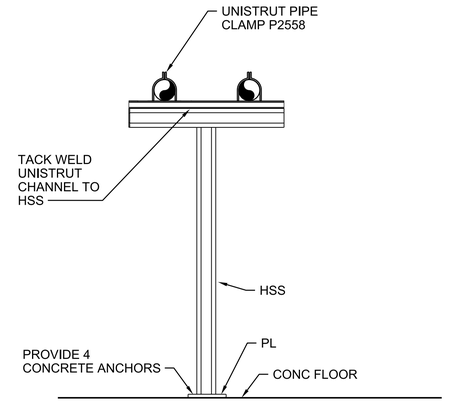


NOTES:

1. FOR MATERIALS OF CONSTRUCTION SEE SPECIFICATIONS SECTION 40 05 15.
2. FOR PVC PIPE USE UNISTRUT P2600 UNICUSHION INSTALLED BY THE MECHANICAL CONTRACTOR.
3. TIGHTEN CLAMP SNUG TO PIPE.

PIPE SUPPORT
NTS

4005-495C

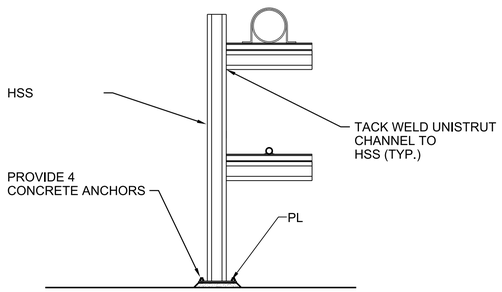


NOTES:

1. FOR MATERIALS OF CONSTRUCTION SEE SPECIFICATIONS SECTION 40 0515.
2. UNICUSHION SHALL BE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
4. TIGHTEN CLAMP SNUG TO PIPE.
5. SIZE SUPPORT MEMBERS, PLATES, ANCHORS, ETC AS REQUIRED BY LOADING CALCULATIONS.

ELEVATED SMALL DIAMETER PIPE SUPPORT
NTS

4005-496C

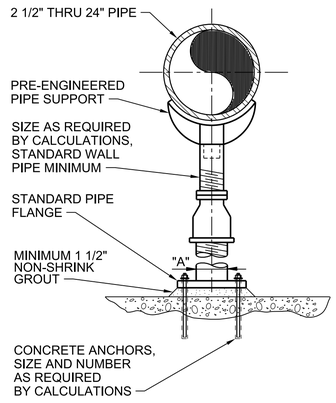


NOTES:

1. ALL STRUCTURAL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. SIZE SUPPORT MEMBERS, PLATES, ANCHORS, ETC AS REQUIRED BY LOADING CALCULATIONS.

PIPE SUPPORT
NTS

4005-496G

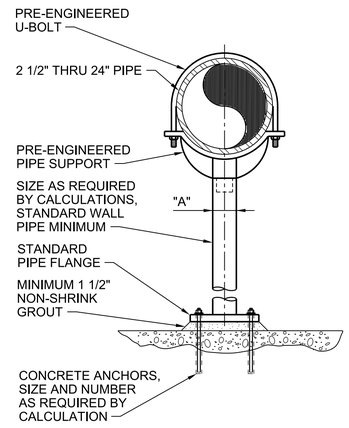


DIMENSION TABLE	
PIPE SIZE	"A" MINIMUM NOMINAL PIPE SIZE
2-1/2"	2-1/2"
3"	2-1/2"
4"	3"
6"	3"
8"	3"
10"	3"
12"	3"
14"	4"
16"	4"
20"	6"
24"	6"

NOTE:
SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

PIPE SUPPORT
SADDLE SUPPORT PEDESTAL TYPE - ADJUSTABLE
NTS

4005-500



DIMENSION TABLE	
PIPE SIZE	"A" MINIMUM NOMINAL PIPE SIZE
2-1/2"	2-1/2"
3"	2-1/2"
4"	3"
6"	3"
8"	3"
10"	3"
12"	3"
14"	3"
16"	3"
20"	4"
24"	4"

NOTE:
SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

PIPE SUPPORT
SADDLE SUPPORT PEDESTAL TYPE - NON-ADJUSTABLE
NTS

4005-501

NO.	DATE	REVISION	DR	CHK	APVD	BY
			A BARTON	K WADDELL	APVD	K WADDELL

DSGN: H POSTROZNY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL
STANDARD DETAILS

CONFORMED DOCUMENTS

SCALE
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

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PROJ	D3226100
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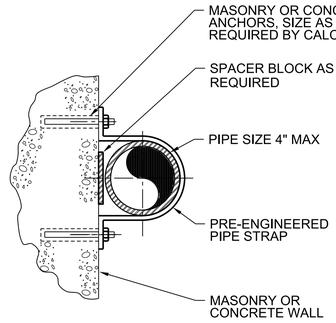
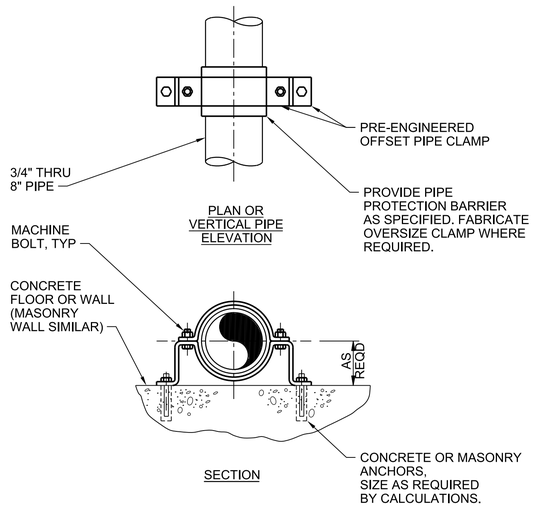


NOTES:

1. ONLY FOR VERTICAL PIPES.
2. NOT FOR USE ON CEILINGS OR BOTTOMS OF BEAMS.
3. PROVIDE PIPE PROTECTION BARRIER AS SPECIFIED. FABRICATE OVERSIZE STRAP WHERE REQUIRED.
4. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

PIPE SUPPORT - WALL MOUNT
NTS

4005-503

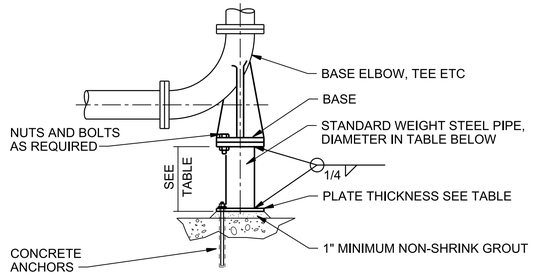


NOTES:

1. ONLY FOR VERTICAL OR FLOOR MOUNTED PIPES.
2. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

PIPE SUPPORT - WALL MOUNT
NTS

4005-505



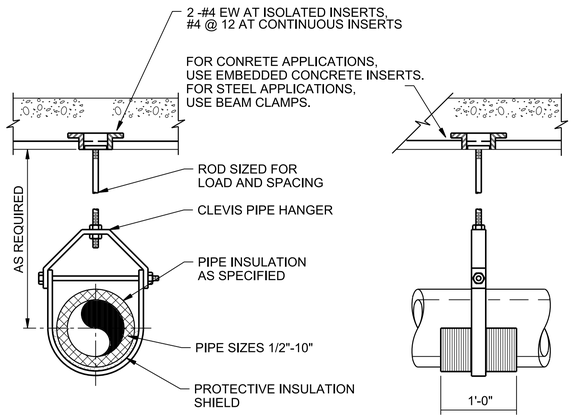
DIMENSION TABLE				
PIPE SIZE	SUPPORT DIAMETER	PLATE		ANCHOR BOLT DIAMETER
		DIAMETER	THICKNESS	
3"	1 1/2"	5"	3/8"	3/8"
4"	2"	6"	3/8"	3/8"
6"	3"	7"	3/8"	3/8"
8" and 10"	4"	9"	1/2"	1/2"
12" thru 16"	6"	11"	1/2"	1/2"
18" thru 24"	8"	13 1/2"	5/8"	5/8"
30"	10"	16"	5/8"	5/8"
36"	12"	19"	5/8"	5/8"
42"	16"	23 1/2"	3/4"	3/4"
48"	18"	25"	3/4"	3/4"
54"	20"	30"	3/4"	3/4" (USE 6)
60"	24"	32"	3/4"	3/4" (USE 6)

NOTES:

1. ALSO USE FOR SUPPORT OF HORIZONTALTEE OR CROSS.
2. MEMBER AND ANCHORS SIZES LISTED ARE MINIMUMS. SUBMIT FINAL DESIGN AND CALCULATIONS FOR SUPPORT AND ANCHORAGE AS SPECIFIED.

BASE BEND
NTS

4005-518



NOTES:

1. PIPE HANGERS SHALL BE OVERSIZED AS REQUIRED TO ACCOMMODATE THICKNESS OF INSULATION SPECIFIED. HANGER SHALL NOT COME INTO CONTACT WITH THE INSULATION DIRECTLY, EITHER AT THE VERTICAL YOKE OR AT THE POINT OF SUPPORT. FOR REQUIREMENTS ON INSULATION SHIELD USED WITH PIPE HANGERS, SEE SPECIFICATIONS.

PIPE HANGER
NTS

4005-557

NO.	DATE	REVISION	BY	APVD
DSGN	H POSTROZNY	DR	T LOOSE	CHK	K WADDELL	APVD	K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

PROCESS MECHANICAL
STANDARD DETAILS

CONFORMED DOCUMENTS

SCALE	
VERIFY SCALE	
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DATE	MAY 2021
PROJ	D3226100
DWG	99-D-5002
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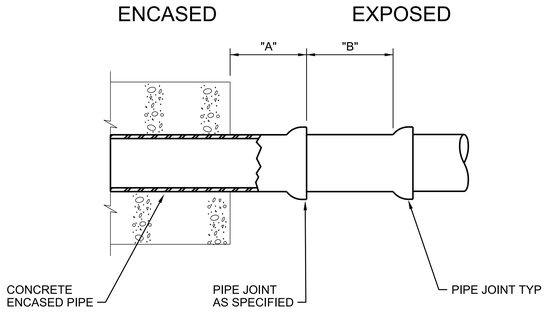


A = INSTALL JOINT FROM 12" TO 18" FROM THE FACE OF STRUCTURE.

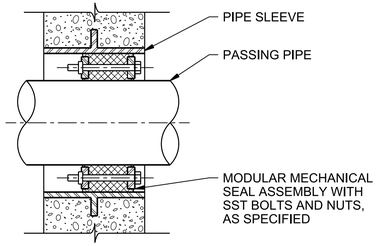
B = PIPE DIAMETERS 18" AND SMALLER: INSTALL SECOND JOINT WITHIN 30" OF THE FIRST JOINT.
PIPE DIAMETERS LARGER THAN 18": INSTALL SECOND JOINT WITHIN 1.5 PIPE DIAMETERS OF THE FIRST JOINT.

NOTES:

1. DO NOT ALLOW WALL PIPE OR THRUST COLLAR TO COME INTO CONTACT WITH REINFORCING STEEL.
2 COAT WALL PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

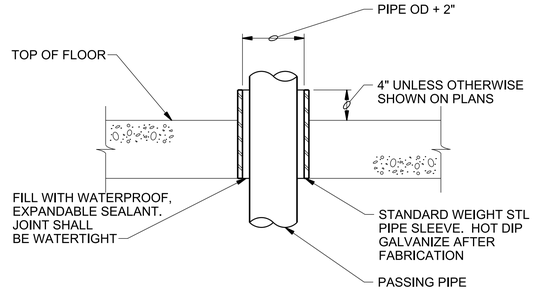
ENCASED DUCTILE IRON PIPE TRANSITION
NTS

4027-601



WALL PIPE PENETRATION SEAL
NTS

4027-607

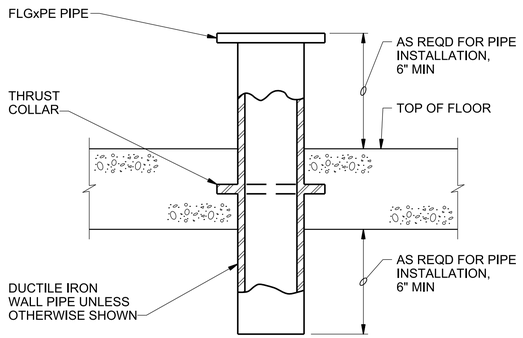


NOTES:

1. COAT FLOOR SLEEVE WITH SPECIFIED PAINT SYSTEM BEFORE CONCRETE PLACEMENT.

FLOOR SLEEVE
NTS

4027-620



NOTES:

1. COAT FLOOR PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

FLOOR PIPE
NTS

4027-622

NO.	DATE	REVISION	BY	APVD
DSGN	H POSTROZNY	DR	T LOOSE	CHK	K WADDELL	APVD	K WADDELL

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

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PROCESS MECHANICAL
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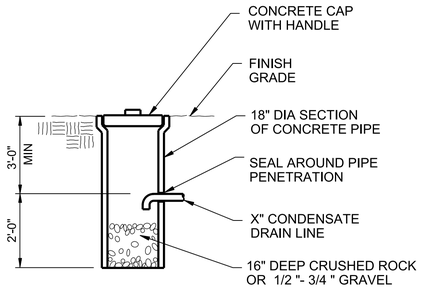
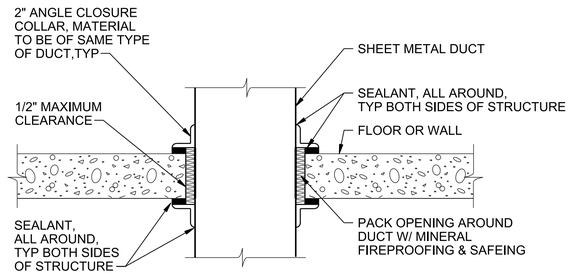
SHEET	257 of 270



DRAINAGE DRYWELL
NTS

2214-100

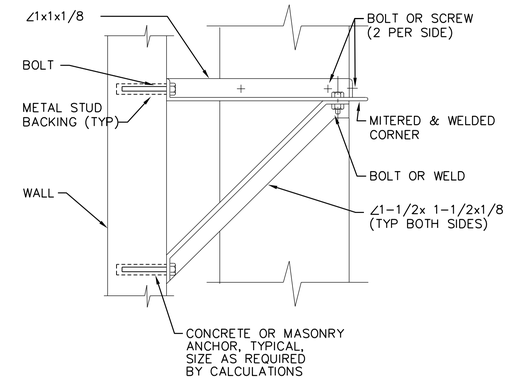


NOTES:

1. WALL PENETRATION SIMILAR.
2. 2" ANGLE CLOSURE COLLAR OF SAME MATERIAL AS DUCT.

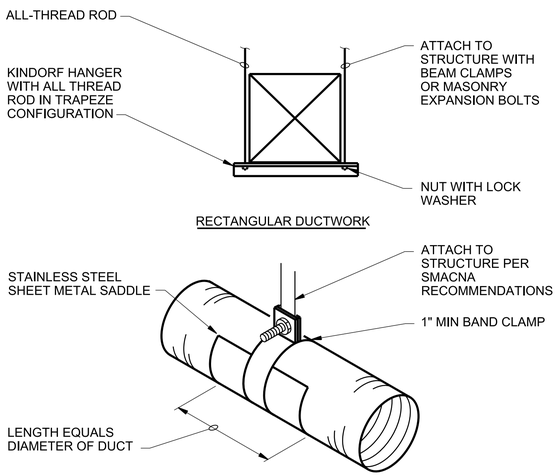
FLOOR PENETRATION - DRY AREA
NTS

2305-412



VERTICAL DUCTWORK SUPPORT
NTS

2305-803



RECTANGULAR DUCTWORK

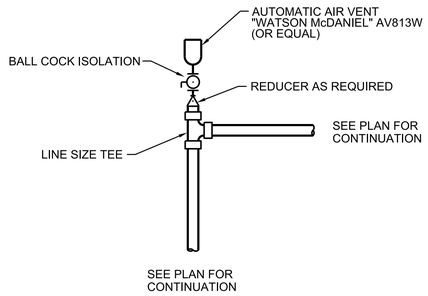
RIGID/FLEXIBLE ROUND DUCTWORK

NOTES:

1. DO NOT USE POWDER POWERED FASTENING SYSTEMS TO ATTACH SUPPORTS TO STRUCTURE.
2. SUPPORT SYSTEM MUST NOT DAMAGE DUCT, INSULATION, OR CAUSE DUCT SHAPE DEFORMATION.
3. HANGER SIZES SHALL BE IN ACCORDANCE WITH SMACNA, LATEST EDITION.

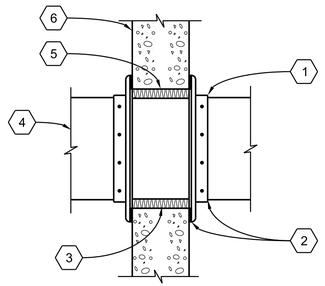
DUCTWORK SUPPORT
NTS

2305-804



HYDRONIC PIPING - HIGH POINT VENT
NTS

2321-422



1. 2" ANGLE CLOSURE COLLAR SAME MATERIAL AS DUCT
2. CAULK WITH WATERPROOF SILICONE RUBBER SEALANT, TYP
3. PACK OPENING AROUND DUCT WITH FIRE SAFEING
4. SHEET METAL DUCT
5. 1" MAX CLEARANCE
6. WALL

DUCT WALL PENETRATION
NTS

2331-101

NO.	DATE	REVISION	DR	CHK	APVD	BY
DSGN	T PRICE	Y FITZGERALD	A VALIENTE	A VALIENTE	APVD	A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

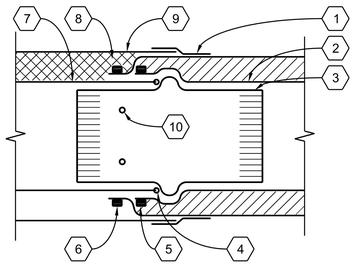
Jacobs

MECHANICAL
STANDARD DETAILS

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-M-5001
SHEET	258 of 270



1. FSK TAPE (4)
2. COUPLING WITH BEAD
3. FLEXIBLE DUCT
4. SEALANT (1)
5. DRAW BAND (2)
6. DRAW BAND (3)
7. RIGID ROUND DUCT
8. FLEXIBLE DUCT INSULATION
9. INSULATION JACKET (FSK)

10SCREW (1)

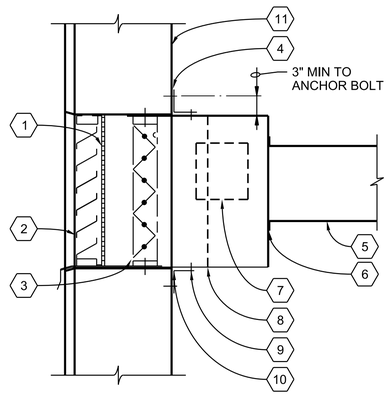
GENERAL NOTES

A. SECURE RIGID DUCT TO COUPLING WITH SHEET METAL SCREWS (3 MIN.). APPLY SEALANT AT JOINT.
B. PULL FLEXIBLE DUCT'S INNER LINER OVER COUPLING BEAD AND SECURE WITH SS DRAW BAND.
C. SECURE FLEXIBLE DUCT INSULATION AND OUTER JACKET WITH METAL OR PLASTIC DRAW BAND.
D. PULL RIGID DUCT INSULATION AND BUTT JOINT TO TERMINATION OF FLEXIBLE DUCT. APPLY 75MM WIDE FSK TAPE TO CREATE VAPOR BARRIER SEAM.

FLEXIBLE DUCT CONNECTION TO INSULATED RIGID DUCT (TYP)

NTS

2331-108

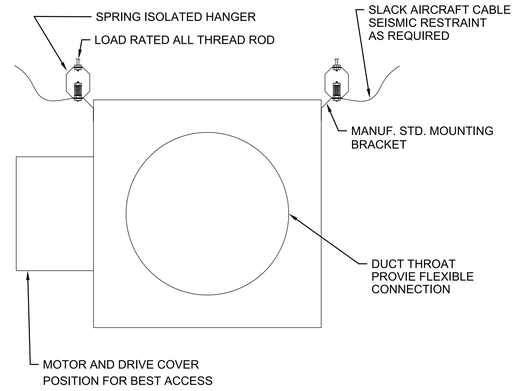


1. BIRDSCREEN
2. FIXED LOUVER. SEE ARCHITECTURAL DRAWINGS
3. OPTIONAL MOTORIZED DAMPER OR BACKDRAFT DAMPER. PROVIDE WHERE SHOWN ON DRAWINGS
4. SEAL WITH SEALANT
5. DUCT
6. SEAL PERIMETER WEATHER TIGHT
7. HINGED ACCESS DOOR WHERE REQUIRED
8. PLENUM FULL SIZE OF LOUVER, SLOPE BOTTOM TO DRAIN OUTSIDE
9. SHEET METAL SCREWS TYPICAL
10. ANGLE SUPPORT FRAME ON ALL FOUR SIDES OF PLENUM
11. WALL

LOUVER/PLENUM CONNECTION

NTS

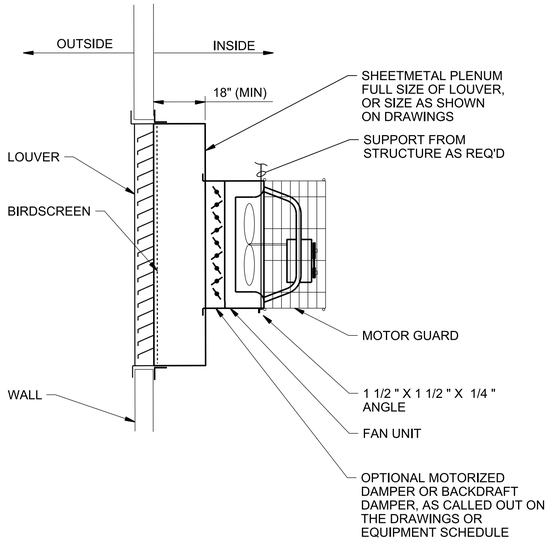
2331-110



INLINE FAN MOUNTING

NTS

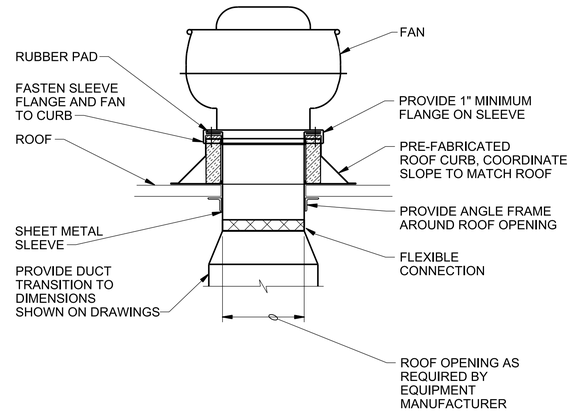
2334-100



WALL MOUNTED FAN

NTS

2334-832



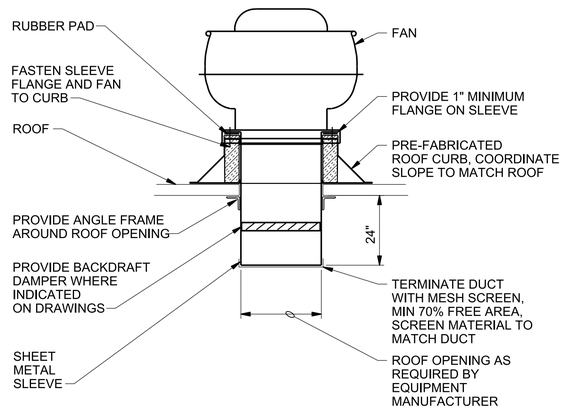
NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF CONSTRUCTION AND CURB FLASHING.
2. REFER TO STRUCTURAL DRAWINGS FOR ROOF OPENING DETAILS.

DUCTED ROOF MOUNTED FAN

NTS

2334-833



NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF CONSTRUCTION AND CURB FLASHING.
2. REFER TO STRUCTURAL DRAWINGS FOR ROOF OPENING DETAILS.

ROOF MOUNTED FAN

NTS

2334-834

NO.	DATE	REVISION	BY	APVD
DSGN	T PRICE	DR Y FITZGERALD	CHK A VALIENTE	APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

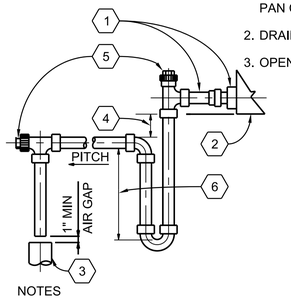
Jacobs

MECHANICAL
STANDARD DETAILS

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-M-5002
SHEET	259 of 270



1. DRAIN LINE SHALL BE AT LEAST THE SAME SIZE AS THE DRAIN. PAN CONNECTION
2. DRAIN PAN
3. OPEN DRAIN
4. 1" TO 4" FOR DRAW THRU UNITS ONLY.
5. CLEAN OUT.
6. 6" FOR DRAW THRU & 4" FOR BLOW THRU UNITS.

CONNECTED COOLING LOAD(TONS)	MIN* PIPE SIZE
5	3/4"
6-15	1"
16-25	1-1/2"

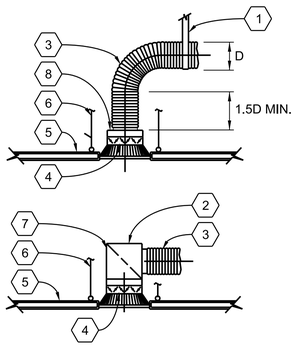
* NOT SMALLER THAN OUTLET SIZE

NOTES

A. MANUALLY PRIME TRAP BEFORE START UP.
B. SUPPORT DRAIN LINES TO PREVENT SAG.
C. ALLOW SUFFICIENT SPACE BELOW PAN FOR TRAP AND PITCH TO DRAIN.

CONDENSATE DRAIN TRAP (TYP)
NTS

2377-100

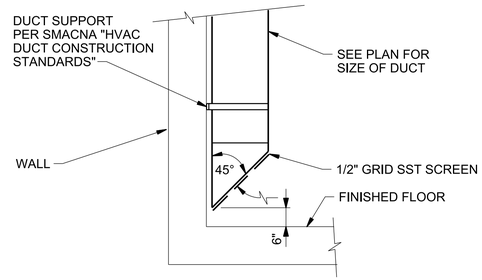


1. STRAP HANGER
2. INSULATE SAME AS DUCT WORK
3. FLEX SUPPLY DUCT
4. OPPOSED BLADE DAMPER (WHEN INDICATED ON PLAN)
5. CEILING
6. HANGER
7. PLENUM WITH TURNING VANES
8. ROUND NECK ADAPTOR

ALTERNATIVE - WHEN SPACE IS LIMITED

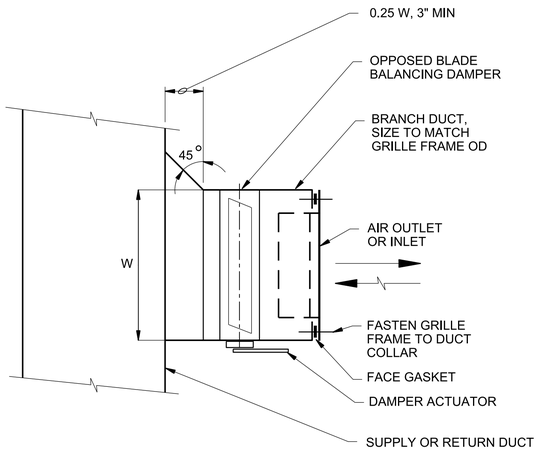
CEILING DIFFUSER TAKE-OFFS
NTS

2337-100



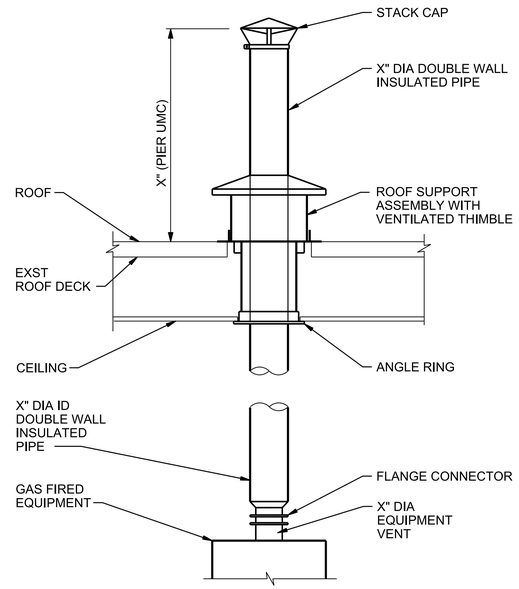
FLOOR EXHAUST DUCT
NTS

2337-805



DUCT MOUNTED AIR OUTLET OR INLET
NTS

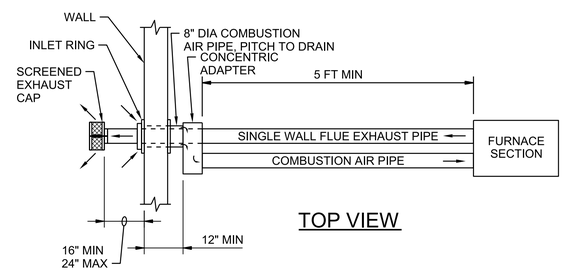
2337-809



EQUIPMENT GAS VENT PIPING
NTS

*MANUFACTURERES STANDARD FITTING

2355-424



TOP VIEW

NOTES:

1. SEAL JOINTS WITH 550°F TAPE OR EQUIVALENT
2. EXHAUST CAP MUST BE INSTALLED SO BAFFLES ARE POSITIONED ON HORIZONTAL AND VERTICAL CENTERLINES.
3. SLOPE PIPES TO DRAIN TO EXTERIOR

COMBUSTION AIR VENTING
NTS

2355-425

NO.	DATE	REVISION	BY	APVD
				A VALIENTE

DSGN T PRICE DR Y FITZGERALD CHK A VALIENTE APVD A VALIENTE

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

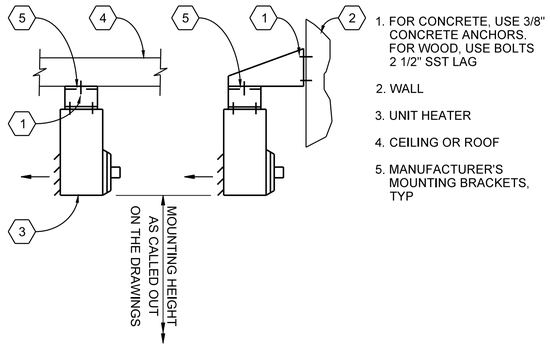
Jacobs

MECHANICAL
STANDARD DETAILS

CONFORMED DOCUMENTS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-M-5003
SHEET	260 of 270

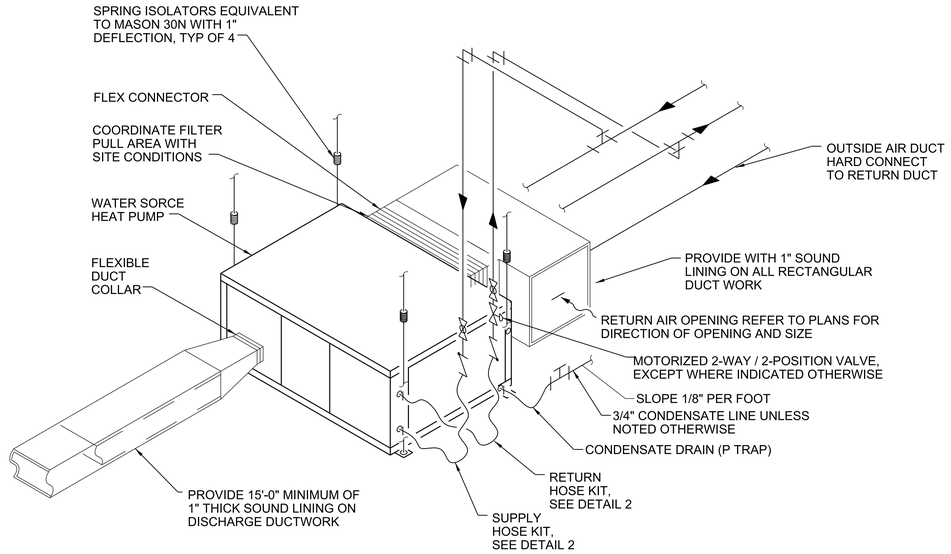


1. FOR CONCRETE, USE 3/8" CONCRETE ANCHORS. FOR WOOD, USE BOLTS 2 1/2" SST LAG
2. WALL
3. UNIT HEATER
4. CEILING OR ROOF
5. MANUFACTURER'S MOUNTING BRACKETS, TYP

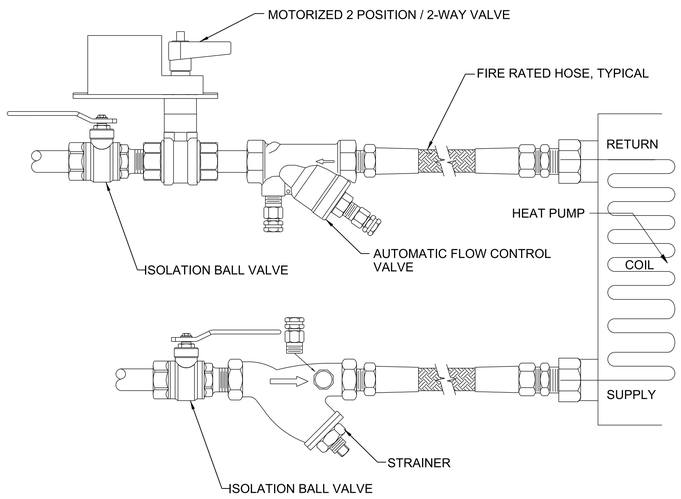
NOTE
A. USE THREADED HANGER RODS ONLY WHERE MANUFACTURER'S MOUNTING BRACKETS ARE NOT PRACTICAL.

UNIT HEATER MOUNTING
NTS

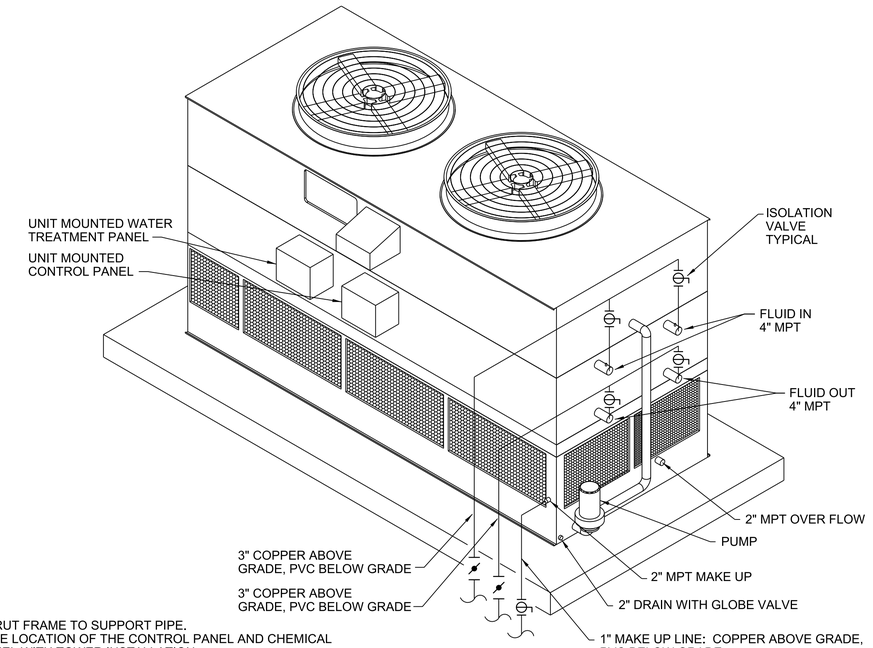
2381-101



1 HEAT PUMP DETAIL
NOT TO SCALE



2 HOSE KIT DETAIL
NOT TO SCALE
NOTE:
1. SIMILAR TO A GRISWALD HOSE KIT WITH A 4-57 PSID CARTRIDGE.



NOTES:
1. PROVIDE UNISTRUT FRAME TO SUPPORT PIPE.
2. COORDINATE THE LOCATION OF THE CONTROL PANEL AND CHEMICAL TREATMENT PANEL WITH TOWER INSTALLATION.

3 CLOSED CIRCUIT COOLING TOWER
NOT TO SCALE

NO.	DATE	REVISION	DR	CHK	APVD	BY	APVD
DSGN	T PRICE		Y FITZGERALD	A VALIENTE	A VALIENTE	A VALIENTE	A VALIENTE

CONFORMED DOCUMENTS

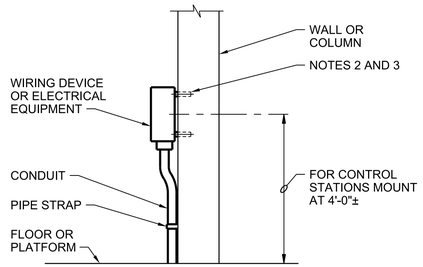
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

MECHANICAL
STANDARD DETAILS

NTS	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"	
DATE	MAY 2021
PROJ	D3226100
DWG	99-M-5004
SHEET	261 of 270



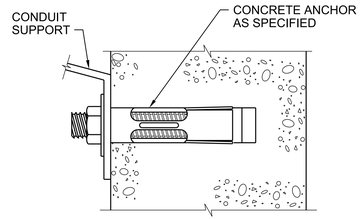
NOTES:

1. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. USE WASHER AND SPLIT-LOCK WASHERS UNDER ALL NUTS.
2. ON CONCRETE WALLS USE STAINLESS STEEL CONCRETE ANCHORS. MOUNT ENCLOSURE ON 1/2" SPACERS OF 1/2" SCHEDULE 80 PVC CONDUIT.
3. BOXES 6 INCHES SQUARE AND LESS SHALL BE SUPPORTED BY TWO ANCHORS. LARGER BOXES SHALL BE SUPPORTED BY AT LEAST FOUR.

DEVICE MOUNTING, WALL OR COLUMN

NTS

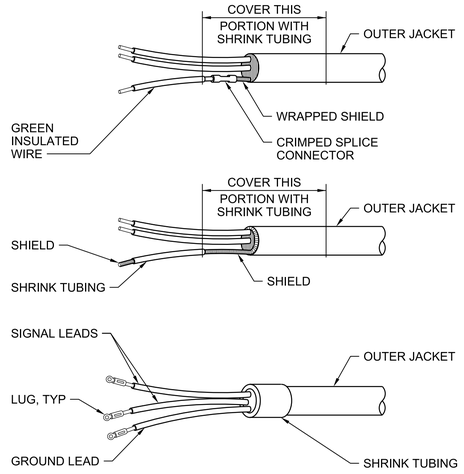
2605-002



CONCRETE ANCHOR INSTALLATION

NTS

2605-010



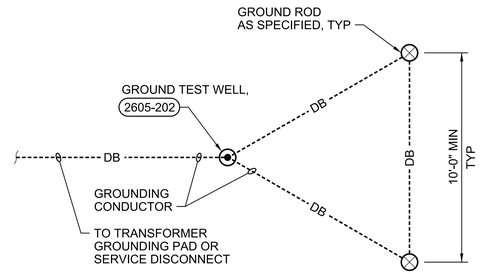
NOTES:

1. ALL SHIELDED INSTRUMENTATION CABLE SHALL BE TERMINATED IN ACCORDANCE WITH THIS DETAIL WHERE GROUNDING IS REQUIRED.

TERMINATION OF SHIELDED INSTRUMENTATION CABLE

NTS

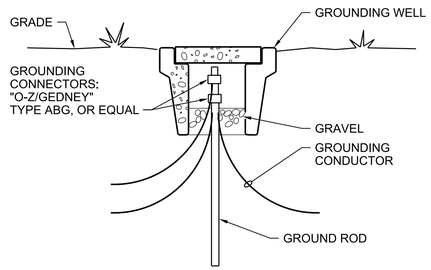
2605-100b



GROUND TRIANGLE

NTS

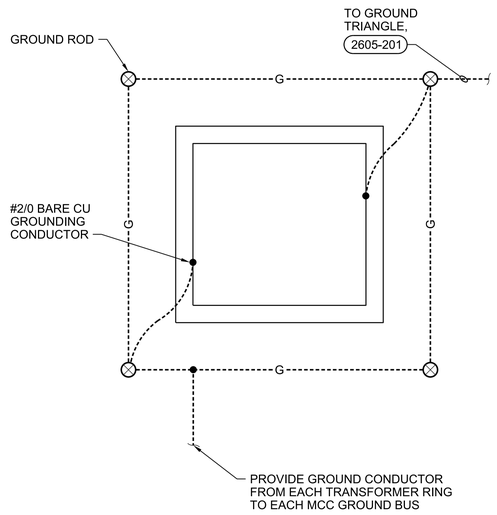
2605-201



GROUND TEST WELL

NTS

2605-202

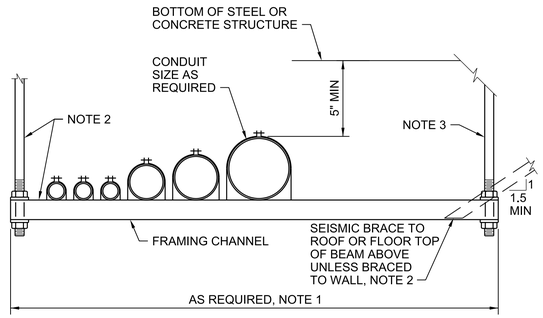


PLAN

PAD MOUNTED TRANSFORMER AND PAD MOUNTED SWITCH GROUNDING

NTS

2605-204



SINGLE RACK

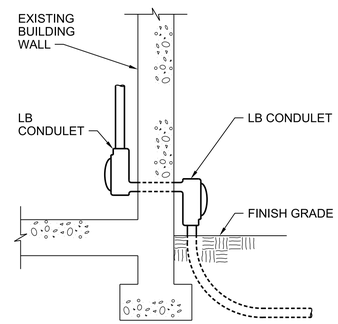
NOTES:

1. LENGTH VARIES WITH NUMBER OF CONDUITS TO BE SUPPORTED AND SPACING BETWEEN CONDUITS.
2. DETERMINE SPAN AND TYPE OF SUPPORTS, LOCATE SUPPORTS, AND SIZE SUPPORT RODS, CONNECTIONS AND BRACES PER MANUFACTURER'S RECOMMENDATIONS AND SEISMIC REQUIREMENTS.
3. AT STEEL STRUCTURE, USE MALLEABLE BEAM CLAMP. AT CONCRETE STRUCTURE, USE UNIVERSAL CONCRETE INSERT, FRAMING CHANNEL WITH #4 x 3'-0" BELOW. TYPE AND SIZE AS REQUIRED BY TOTAL LOADS.
4. USE STAINLESS STEEL HARDWARE IN WET AND/OR CORROSIVE AREAS.
5. SPACE CONDUIT SUFFICIENTLY TO ALLOW REMOVAL OF ONE CONDUIT WITHOUT DISTURBING ADJACENT CONDUITS.

CONDUIT RACKING SYSTEM

NTS

2605-300



NOTES:

1. INSTALL CONDUITS THROUGH EXISTING WALLS IN ACCORDANCE WITH THIS DETAIL IF NOT OTHERWISE INDICATED.
2. DRILL HOLE USING METHODS THAT LEAVE A SMOOTH OPENING. SEAL OPENING AROUND CONDUIT, INSIDE, AND OUTSIDE, WITH ONE PART POLYURETHANE IMMERSIBLE SEALANT.

CONDUIT ENTRANCE

NTS

2605-304

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR	G MESSER	CHK	KB HORTON	APVD	GT YARBERRY

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

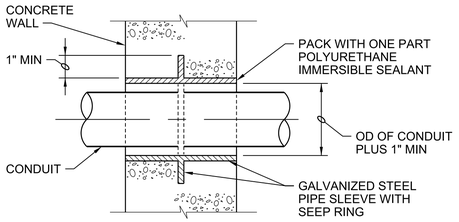
Jacobs

ELECTRICAL

STANDARD DETAILS

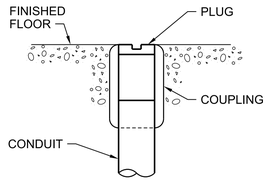
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-E-5001
SHEET	262 of 270



CONDUIT UNDERGROUND ENTRANCE
NTS

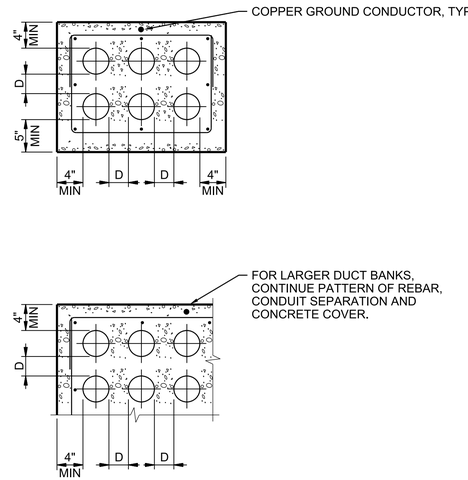
2605-307



NOTES:
CONDUITS WHICH ARE STUBBED UP IN A CONCRETE SLAB FOR FUTURE EXTENSION SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL.

FLUSH CONDUIT STUB
NTS

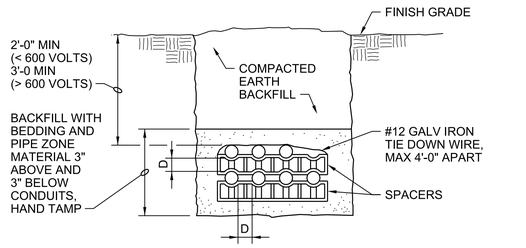
2605-309



NOTES:
1. PROVIDE 6" MINIMUM COMPACTED GRAVEL, 3/4" MINUS, UNDER ALL CONCRETE ENCASED DUCT RUNS.

DUCT BANK
NTS

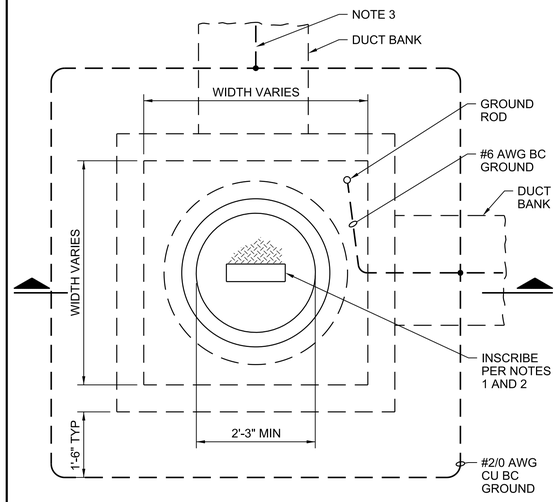
2605-400a



NOTES:
1. INSTALLATION OF DIRECT BURIAL DUCT BANKS WHICH INCLUDE THREE OR MORE CONDUITS OR DUCTS SHALL BE MADE IN ACCORDANCE WITH THIS DETAIL.

UNDERGROUND CONDUIT IN NON-PAVED AREAS
NTS

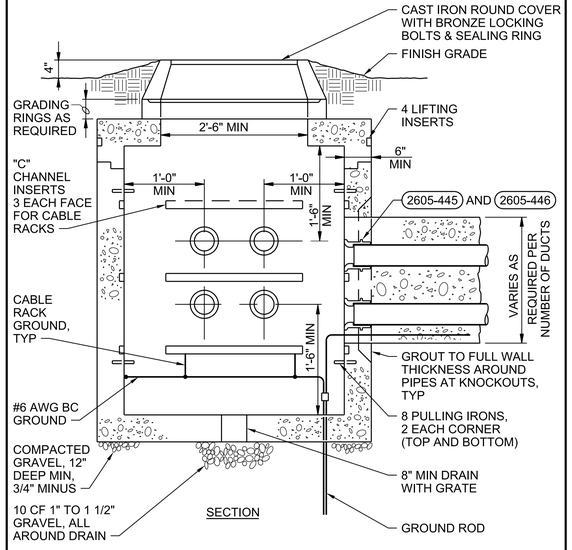
2605-420



NOTES:
1. INSCRIBE "ELECTRICAL HIGH VOLTAGE" IF ANY CIRCUIT IN MANHOLE IS ABOVE 600V.
2. INSCRIBE "ELECTRICAL LOW VOLTAGE" IF ALL CIRCUITS IN MANHOLE ARE 600V OR LESS
3. INSTALL #2/0 AWG BARE COPPER GROUND CENTERED ON TOP OF ALL DUCT RUNS.

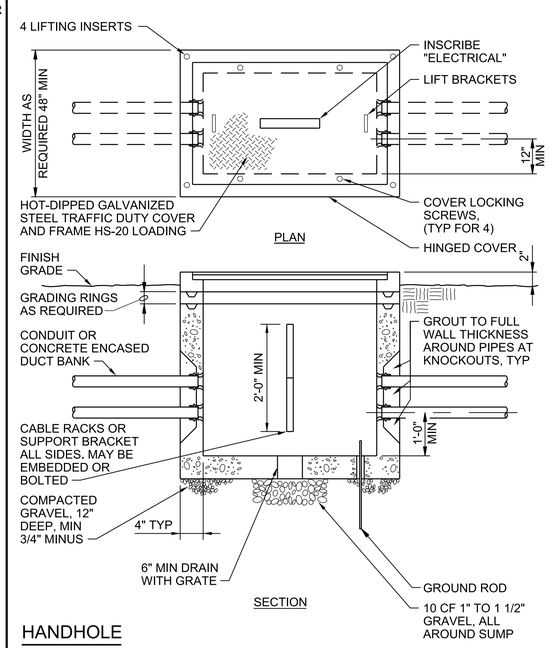
MANHOLE-WITH GROUNDING
NTS

2605-443a



MANHOLE-WITH GROUNDING
NTS

2605-443b



HANDHOLE
NTS

2605-444

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR	G MESSER	CHK	KB HORTON	APVD	GT YARBERRY

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

ELECTRICAL

STANDARD DETAILS

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-E-5002
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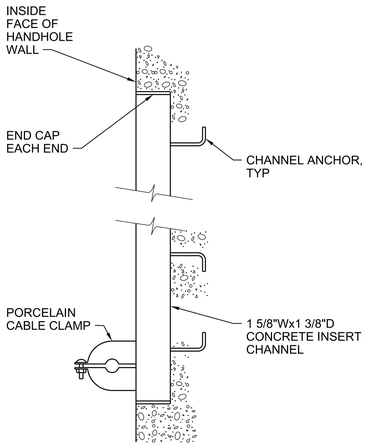
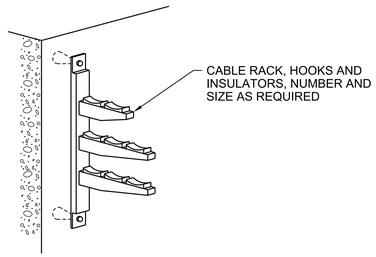


NOTES:
1. ALL COMPONENTS TO BE OF SAME MANUFACTURER.

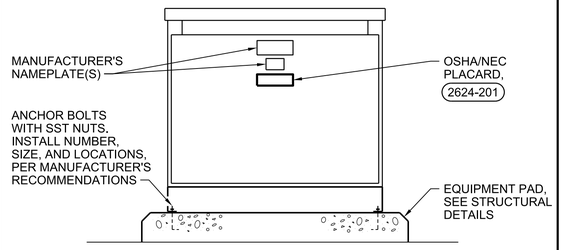
CABLE SUPPORT BRACKET
NTS

2605-447



CABLE RACK
NTS

2605-448



TRANSFORMER MOUNTING
NTS

2622-006

NO.	DATE	REVISION	BY	APVD
DSGN	GT YARBERRY	DR G MESSER	CHK KB HORTON	APVD GT YARBERRY

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

Jacobs

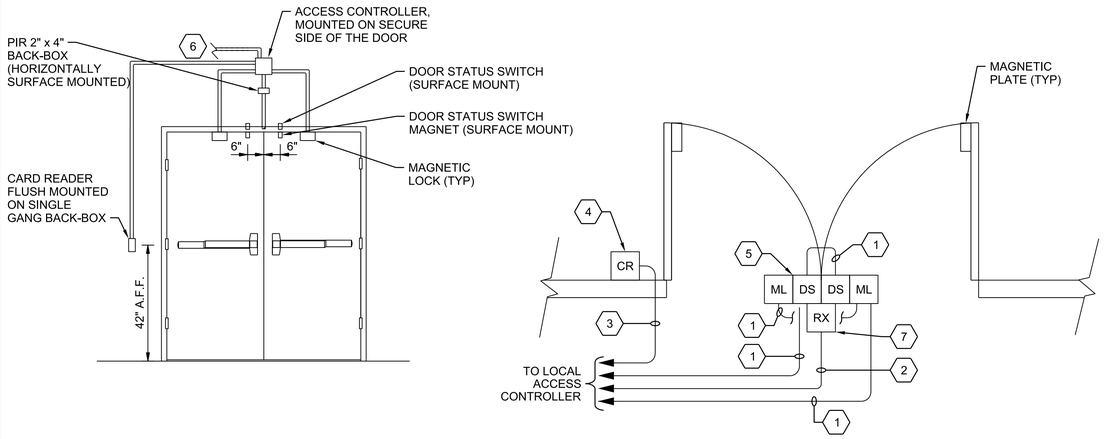
ELECTRICAL

STANDARD DETAILS

CONFORMED DOCUMENTS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-E-5003
SHEET	264 of 270



FUNCTIONALITY:

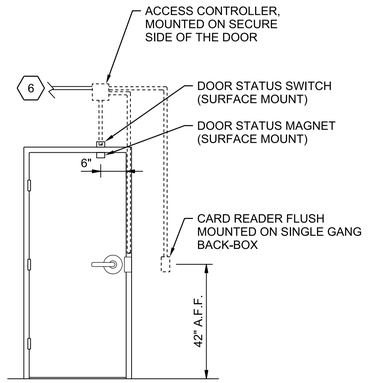
IN THE NORMAL STATE THE DOOR IS CLOSED, LOCKED ON THE OUTSIDE AND UNLOCKED ON THE INSIDE. NORMAL OPERATION IS BY CARD READER ON THE OUTSIDE AND BY MOTION DETECTOR ON THE INSIDE. THE MOTION DETECTOR WILL SHUNT AN ALARM AND ENABLE AUTHORIZED EXIT. IF THE DOOR IS OPENED WITHOUT THE OPERATION OF THE CARD READER OR MOTION DETECTOR, THE ALARM CONDITION IS MONITORED AT THE SECURITY TERMINAL.

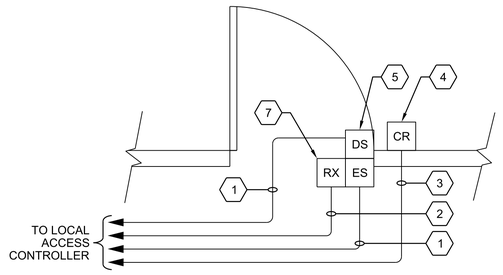
1 DOUBLE CARD IN DOOR W/ PANIC HARDWARE AND MAGLOCKS

NTS

2 NOT USED

NTS





FUNCTIONALITY:

IN THE NORMAL STATE THE DOOR IS CLOSED, LOCKED ON THE OUTSIDE AND UNLOCKED ON THE INSIDE. NORMAL OPERATION IS BY CARD READER ON THE OUTSIDE AND BY MOTION DETECTOR ON THE INSIDE. THE MOTION DETECTOR WILL SHUNT AN ALARM AND ENABLE AUTHORIZED EXIT. IF THE DOOR IS OPENED WITHOUT THE OPERATION OF THE CARD READER OR MOTION DETECTOR, THE ALARM CONDITION IS MONITORED AT THE SECURITY TERMINAL.

3 SINGLE CARD IN DOOR W/ MORTISE AND ELECTRIC STRIKE

NTS

GENERAL NOTES

1. SEE DRAWING 01-G-0023 FOR GENERAL NOTES, ABBREVIATIONS, LEGEND, AND SYMBOLS.
2. EQUIPMENT AND DEVICE LABELS: EQUIPMENT, PANELS, FIELD DEVICES, CABLES, AND CONDUITS SHALL BE LABELED WITH THE APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.
3. DOOR DETAILS ARE BASED ON A RIGHT HAND REVERSE OPERATION. DOORS MAY DIFFER ON FLOOR PLANS. REFERENCE FLOOR PLANS FOR ACTUAL HANDING AND SWING OF DOOR.
4. EQUIPMENT, INTERCONNECTION CABLES, AND WIRING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. SEE SPECIFICATION SECTION 08710 "DOOR HARDWARE" FOR STANDARD HARDWARE TYPES.

SHEET KEYNOTES

1. FURNISH AND INSTALL (1) 18 AWG 2 CONDUCTOR CABLE.
2. FURNISH AND INSTALL (1) 22 AWG 4 CONDUCTOR CABLE.
3. FURNISH AND INSTALL (1) 22 AWG 6 CONDUCTOR SHIELDED CABLE.
4. FURNISH AND INSTALL WALL MOUNT CARD READER.
5. FURNISH AND INSTALL SURFACE MOUNT DOOR CONTACT.
6. FIELD ROUTE 3/4 INCH CONDUIT TO SECURITY SWITCH PANEL.
7. FURNISH AND INSTALL REQUEST-TO-EXIT.

NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
		F ABUHIJLEH	A PASTRANA	F GIST		G YARBERRY	APVD

CONFORMED DOCUMENTS

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

Jacobs

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY

DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING, 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-TY-5001
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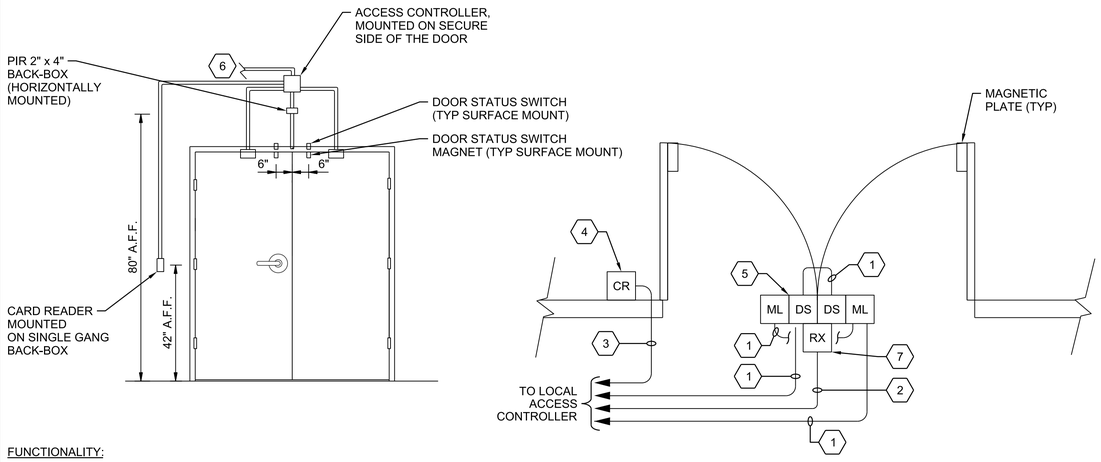


FUNCTIONALITY:

IN THE NORMAL STATE THE DOOR IS CLOSED, LOCKED ON THE OUTSIDE AND UNLOCKED ON THE INSIDE. NORMAL OPERATION IS BY CARD READER ON THE OUTSIDE AND BY MOTION DETECTOR ON THE INSIDE. THE MOTION DETECTOR WILL SHUNT AN ALARM AND ENABLE AUTHORIZED EXIT. IF THE DOOR IS OPENED WITHOUT THE OPERATION OF THE CARD READER OR MOTION DETECTOR, THE LOCAL SOUNDER WILL SOUND AND THE ALARM CONDITION IS MONITORED AT THE SECURITY TERMINAL.

4 DOUBLE CARD IN W/ MORTISE AND MAGLOCKS

NTS

5 NOT USED

NTS

GENERAL NOTES

1. SEE DRAWING 01-G-0023 FOR GENERAL NOTES, ABBREVIATIONS, LEGEND, AND SYMBOLS.
2. EQUIPMENT AND DEVICE LABELS: EQUIPMENT, PANELS, FIELD DEVICES, CABLES, AND CONDUITS SHALL BE LABELED WITH THE APPROPRIATE TAG NUMBERS AS SHOWN ON THE LEGEND, SPECIFICATIONS, AND DETAILS.
3. DOOR DETAILS ARE BASED ON A RIGHT HAND REVERSE OPERATION. DOORS MAY DIFFER ON FLOOR PLANS. REFERENCE FLOOR PLANS FOR ACTUAL HANDING AND SWING OF DOOR.
4. EQUIPMENT, INTERCONNECTION CABLES, AND WIRING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. SEE SPECIFICATION SECTION 08710 "DOOR HARDWARE" FOR STANDARD HARDWARE TYPES.

SHEET KEYNOTES

1. FURNISH AND INSTALL (1) 18 AWG 2 CONDUCTOR CABLE.
2. FURNISH AND INSTALL (1) 22 AWG 4 CONDUCTOR CABLE.
3. FURNISH AND INSTALL (1) 22 AWG 6 CONDUCTOR SHIELDED CABLE.
4. FURNISH AND INSTALL WALL MOUNT CARD READER.
5. FURNISH AND INSTALL RECESSED DOOR CONTACT.
6. FIELD ROUTE 3/4 INCH CONDUIT TO SECURITY SWITCH PANEL.
7. FURNISH AND INSTALL REQUEST-TO-EXIT.

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK F GIST	APVD G YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

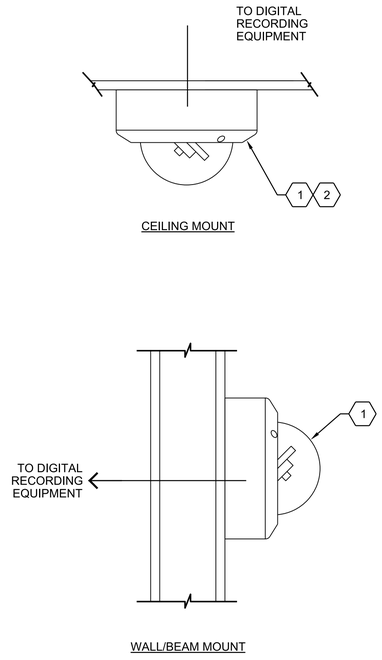
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY

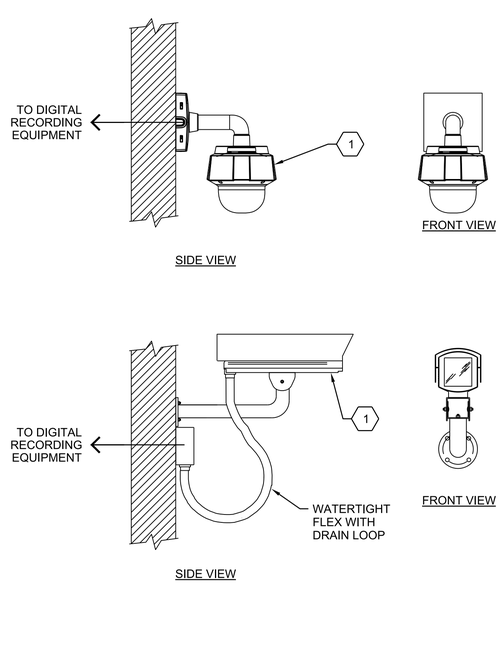
DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

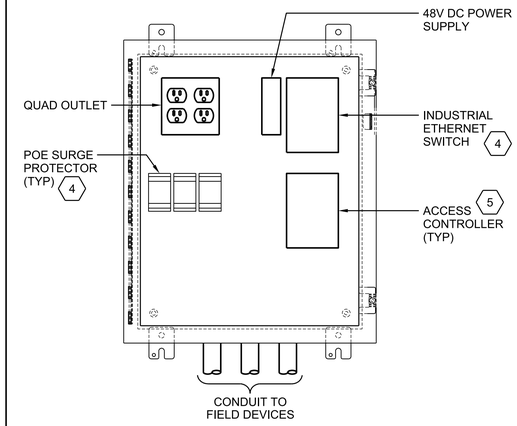
DATE	MAY 2021
PROJ	D3226100
DWG	99-TY-5002
SHEET	266 of 270



6 WALL/CEILING MOUNT CAMERA
NTS



7 WALL/POLE MOUNT FIXED CAMERA
NTS



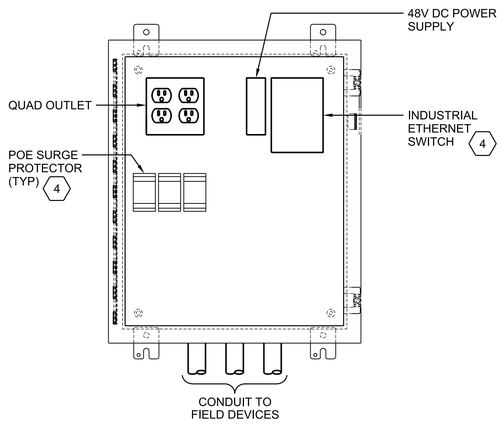
8 DATA CABINET - SECURITY SWITCH AND ACCESS CONTROLLER(S)
NTS

GENERAL NOTES

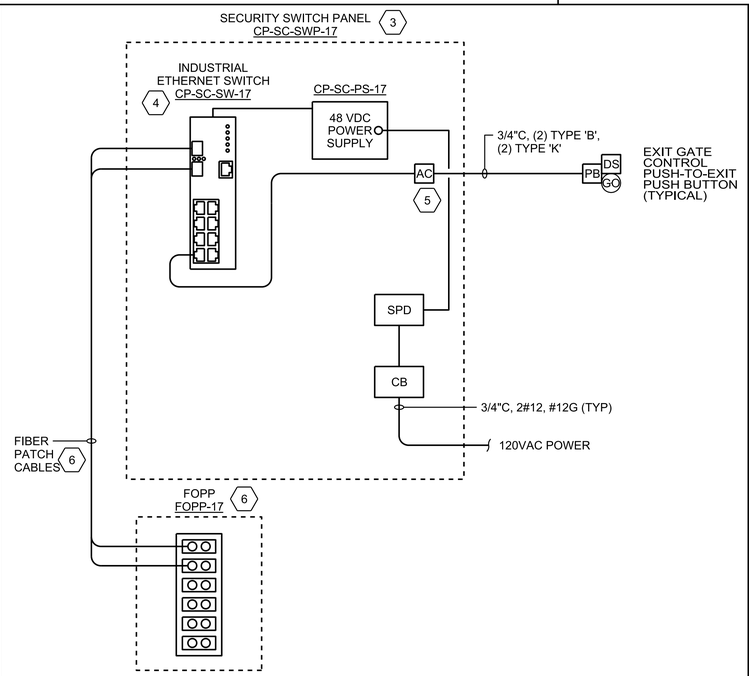
1. SEE DRAWING 01-G-0023 FOR GENERAL NOTES, ABBREVIATIONS, LEGEND, AND SYMBOLS.
2. EXTERIOR MOUNTED EQUIPMENT SHALL BE WATERPROOF. PENETRATIONS IN ENCLOSURES, MOUNTS AND CAMERA POLES SHOULD BE FROM THE BOTTOM OR SIDE, NOT THE TOP. SEAL PENETRATIONS.
3. COORDINATE INSTALLATION OF RACEWAYS, POWER, AND FIELD DEVICES WITH OTHER TRADES.
4. EQUIPMENT, INTERCONNECTION CABLES, AND WIRING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. OUTDOOR CAMERAS SHALL INCLUDE ENVIRONMENTAL HOUSINGS.

SHEET KEYNOTES

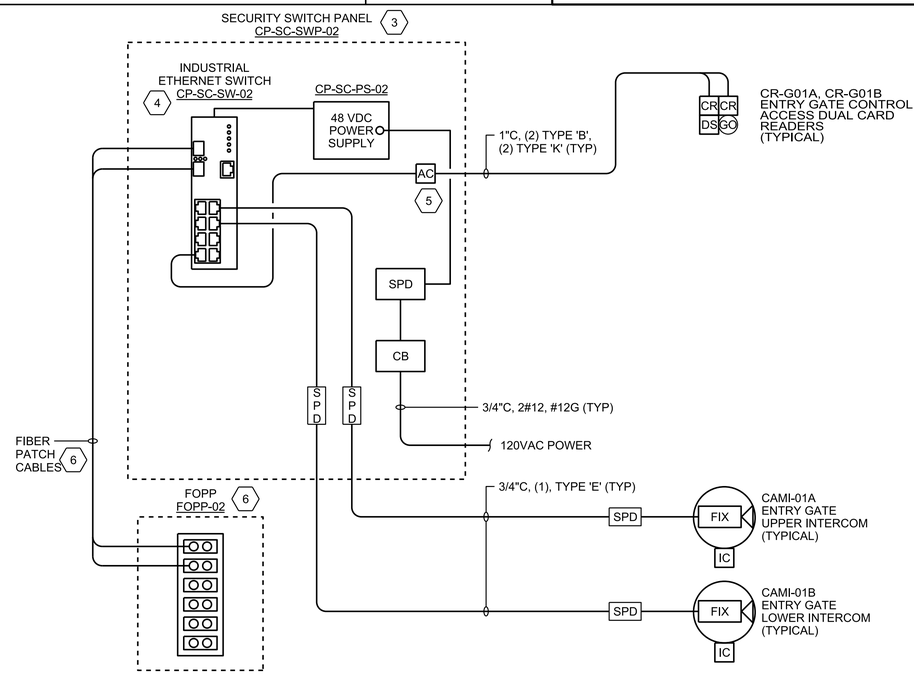
1. CAMERA TYPE PER DRAWINGS AND SPECIFICATIONS. LENS SIZE AS REQUIRED TO OBTAIN DESIRED VIEW. INCLUDE APPROPRIATE MOUNTING HARDWARE FOR THE LOCATION.
2. INCLUDE TILE BRIDGE AND ELECTRICAL BACKBOX FOR CAMERAS MOUNTED IN ACOUSTICAL TILE.
3. NEMA 4 JUNCTION BOX, SIZED TO ACCOMMODATE REQUIRED COMPONENTS.
4. REFER TO SPECIFICATION SECTION 28 23 00, VIDEO SURVEILLANCE FOR PART NUMBER.
5. REFER TO SPECIFICATION SECTION 28 10 00, ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION FOR PART NUMBER.
6. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).



9 DATA CABINET - SECURITY SWITCH
NTS



10 VEHICLE EXIT GATE ACCESS CONTROL WITH "PUSH TO EXIT" PUSHBUTTON - RISER DIAGRAM (TYPICAL)
NTS



11 VEHICLE ENTRY GATE ACCESS CONTROL WITH DUAL CARD READERS & VIDEO INTERCOMS - RISER DIAGRAM (TYPICAL)
NTS

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK F GIST	APVD G YARBERRY

CONFORMED DOCUMENTS

Jacobs

25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY

DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-TY-5003
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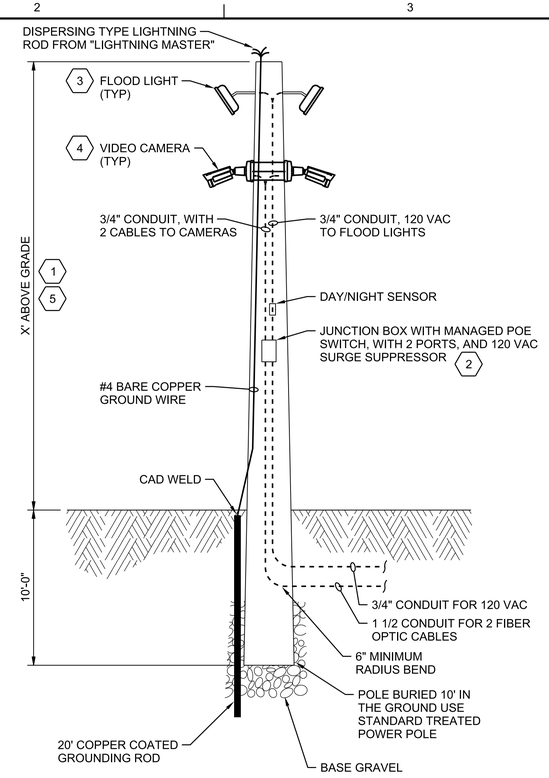
DETAIL NOTES:

1. DESIGN FOR NEW WOOD CAMERA POLES TO BE APPROPRIATELY WEATHER-TREATED TO MATCH CURRENT POLES AND TO ACCOMMODATE ENVIRONMENTAL CONDITIONS OF THE SITE. REFER TO CAMERA POLE SCHEDULE ON DWG 06-TY-2002. THE NEW CAMERA POLES SHALL BE RATED FOR THE SITE'S INDICATED WIND LOAD.
2. CAMERA JUNCTION BOX. MOUNTING HEIGHT NOT TO EXCEED 5 FEET FROM TOP OF JUNCTION BOX TO GRADE.
3. LIGHTS, MOUNTING ARMS, AND ALL ASSOCIATED HARDWARE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. LIGHTS TO BE MOUNTED ABOVE THE CAMERAS. FIELD DRILL POLE TO SUIT CROSS ARMS. FIXTURE SHALL BE DXF2 LED P3 40K WFR 120-THX-120-DDBXD AS MANUFACTURED BY LITHONIA. REFER TO CAMERA POLE SCHEDULE ON DWG 06-TY-2002.
4. CAMERA TO BE MOUNTED 3 FEET MINIMUM BELOW THE LIGHT.
5. CONTRACTOR AND SUBCONTRACTORS SHALL NOTIFY WILLIAMS PLANT SUPERVISION PERSONNEL BEFORE DIGGING FOR INSTALLATION OF CONDUIT OR POLES.



12 CAMERA POLE FOUNDATION
NTS

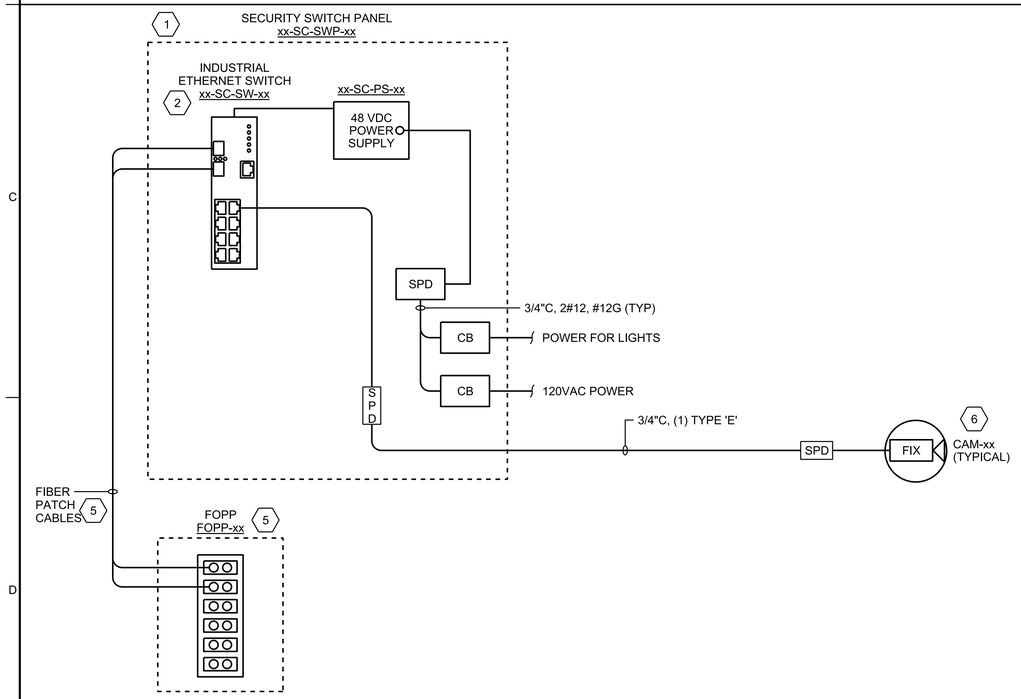
GENERAL NOTES

1. SEE DRAWING 01-G-0023 FOR GENERAL NOTES, ABBREVIATIONS, LEGEND, AND SYMBOLS.
2. EXTERIOR MOUNTED EQUIPMENT SHALL BE WATERPROOF. PENETRATIONS IN ENCLOSURES, MOUNTS AND CAMERA POLES SHOULD BE FROM THE BOTTOM OR SIDE, NOT THE TOP. SEAL PENETRATIONS.
3. COORDINATE INSTALLATION OF RACEWAYS, POWER, AND FIELD DEVICES WITH OTHER TRADES.
4. EQUIPMENT, INTERCONNECTION CABLES, AND WIRING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. OUTDOOR CAMERAS SHALL INCLUDE ENVIRONMENTAL HOUSINGS.

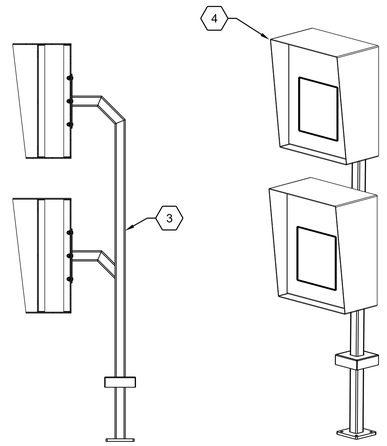
SHEET KEYNOTES

1. NEMA 4 JUNCTION BOX, SIZED TO ACCOMMODATE REQUIRED COMPONENTS.
2. REFER TO SPECIFICATION SECTION 28 23 00, VIDEO SURVEILLANCE FOR PART NUMBER.
3. DUAL HEIGHT CARD READER STANCHION.
4. CARD READER/PUSH TO EXIT HOOD.
5. PROVIDED BY PROCESS INSTRUMENTATION AND CONTROL SUPPLIER (PICs).
6. FOR CAMERA QUANTITIES MOUNTED ON EACH CAMERA POLE. REFER TO THE FOLLOWING SPECIFICATION AND DRAWINGS:

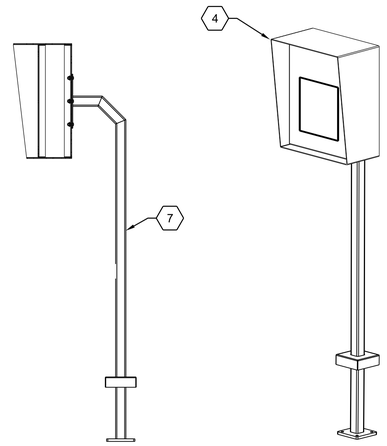
   - SECTION 28 00 00, SECURITY COMPONENTS LIST
   - DWG 06-TY-2002, OVERALL SITE SECURITY PLAN
7. SINGLE HEIGHT PUSH TO EXIT STANCHION.



13 CAMERA POLE SECURITY SWITCH CONTROL PANEL - RISER DIAGRAM (TYPICAL)
NTS



14 DUAL HEIGHT STANCHION
NTS



15 SINGLE HEIGHT STANCHION
NTS

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK F GIST	APVD G YARBERRY

CONFORMED DOCUMENTS

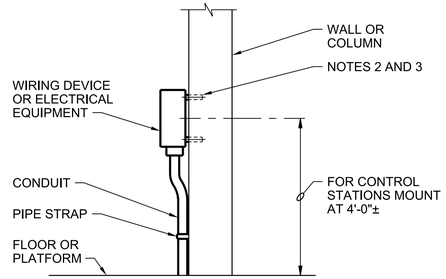
Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY
DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-TY-5004
SHEET	268 of 270



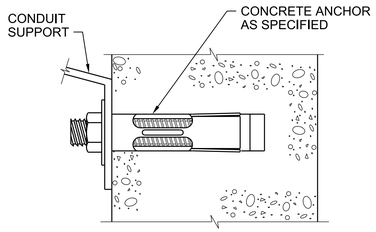
NOTES:

1. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. USE WASHER AND SPLIT-LOCK WASHERS UNDER ALL NUTS.
2. ON CONCRETE WALLS USE STAINLESS STEEL CONCRETE ANCHORS. MOUNT ENCLOSURE ON 1/2" SPACERS OF 1/2" SCHEDULE 80 PVC CONDUIT.
3. BOXES 6 INCHES SQUARE AND LESS SHALL BE SUPPORTED BY TWO ANCHORS. LARGER BOXES SHALL BE SUPPORTED BY AT LEAST FOUR.

WALL OR COLUMN MOUNTED DEVICE

NTS

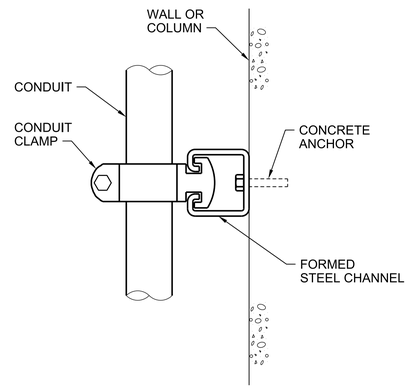
2605-002



CONCRETE ANCHOR INSTALLATION

NTS

2605-010



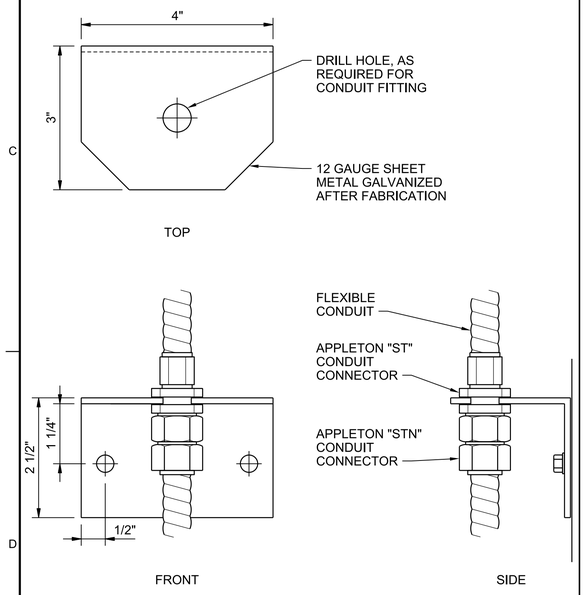
NOTE:

SUPPORT ALL EXPOSED CONDUITS ON FORMED STEEL CHANNELS.

CONDUIT SUPPORT ON STRUCTURE

NTS

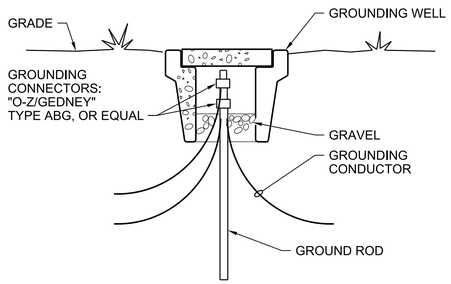
2605-017



FLEXIBLE CONDUIT SUPPORT

NTS

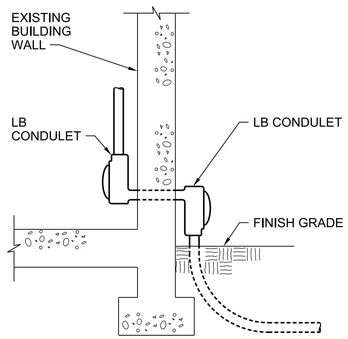
2605-018



GROUND TEST WELL

NTS

2605-202



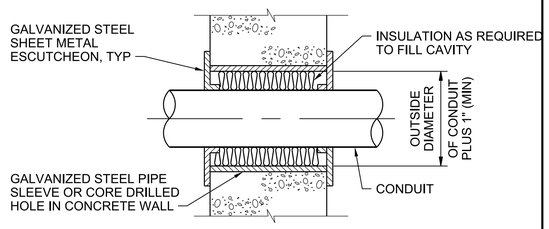
NOTES:

1. INSTALL CONDUITS THROUGH EXISTING WALLS IN ACCORDANCE WITH THIS DETAIL IF NOT OTHERWISE INDICATED.
2. DRILL HOLE USING METHODS THAT LEAVE A SMOOTH OPENING. SEAL OPENING AROUND CONDUIT, INSIDE, AND OUTSIDE, WITH ONE PART POLYURETHANE IMMERSIBLE SEALANT.

CONDUIT ENTRANCE

NTS

2605-304



NOTE:

CONDUITS WHICH INDIVIDUALLY PASS THRU AN INTERIOR WALL SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL. IF WALL IS A FIRE WALL, FILL CAVITY WITH FIRE STOP SEALANT SPECIFIED IN SECTION 07 84 00.

INTERIOR WALL PENETRATION

NTS

2605-306

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK F GIST	APVD G YARBERRY

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

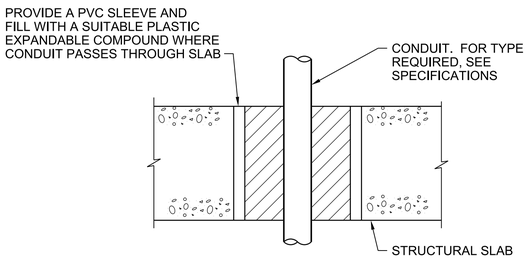
C.C. WILLIAMS WWTP
DEWATERING FACILITY & OTHER IMPROVEMENTS
MOBILE AREA WATER & SEWER SYSTEM (MAWSS)
MOBILE, ALABAMA

SECURITY

STANDARD DETAILS

NTS
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	MAY 2021
PROJ	D3226100
DWG	99-TY-5005
SHEET	269 of 270



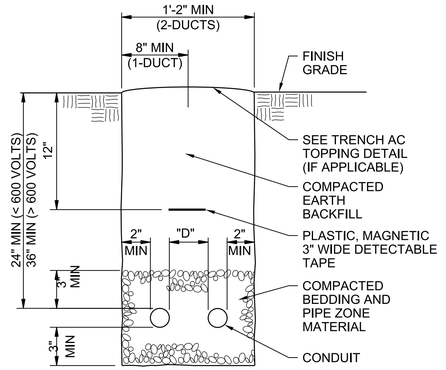
NOTE:

ALL CONDUITS THROUGH CONCRETE FLOOR SLABS AND EQUIPMENT PADS SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL.

SLAB PENETRATION

NTS

2605-310



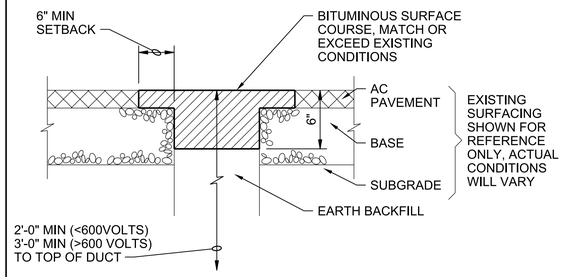
D = 3" MIN FOR 2" AND LARGER CONDUIT

D = 2" MIN FOR 1 1/2" AND SMALLER CONDUIT

TRENCH AND CONDUIT PLACEMENT

NTS

2605-423B



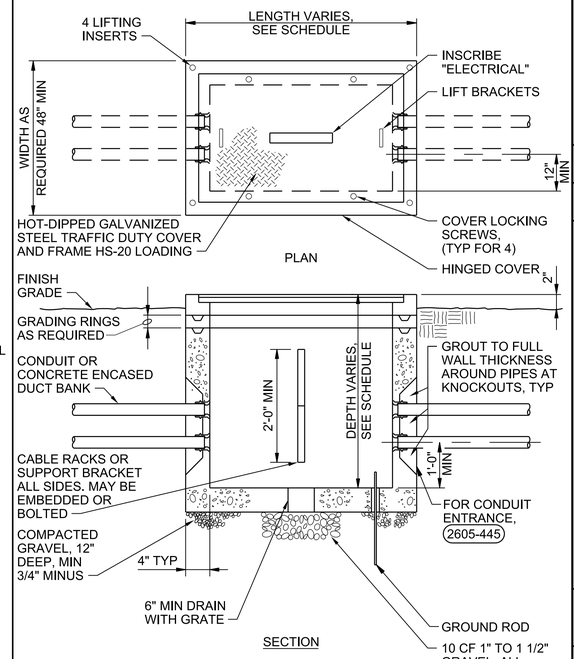
NOTE:

TYPICAL FOR EXISTING PAVEMENT AREAS THAT ARE USED BY VEHICLES.

TRAFFIC TRENCH AC TOPPING

NTS

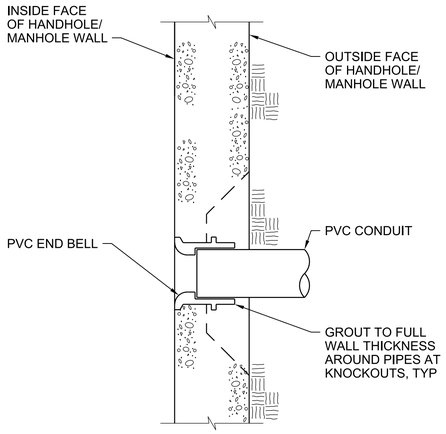
2605-424



HANDHOLE

NTS

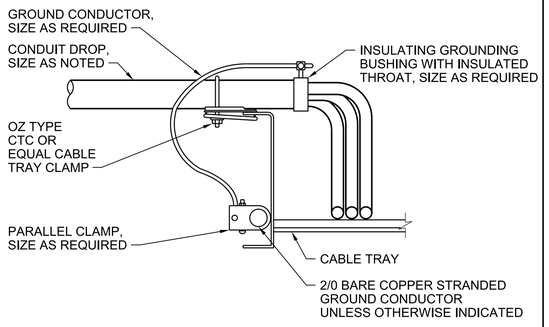
2605-444



CONDUIT HANDHOLE/MANHOLE ENTRANCE

NTS

2605-445



NOTE:

FASTENING HARDWARE IN TRAY SHALL BE ROUNDED AND HAVE NO SHARP CORNERS.

CONDUIT DROP INTO CABLE TRAY

NTS

2605-702

NO.	DATE	REVISION	BY	APVD
DSGN	F ABUHIJLEH	DR A PASTRANA	CHK	F GIST
			G YARBERRY	APVD

CONFORMED DOCUMENTS

Jacobs
25 WEST CEDAR STREET, SUITE 350
PENSACOLA, FL 32502

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