

# THE CITY OF PELHAM, ALABAMA

## WWTP IMPROVEMENTS

### INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT

The PDF digital Contract Documents for this project consist of the Drawings and Specifications and are being released by the Engineer solely as a convenience to the Bidders. Actual hard copies of Contract Documents bearing a stamp and signature of a professional engineer shall be used for the purpose of providing a bid proposal for this project.

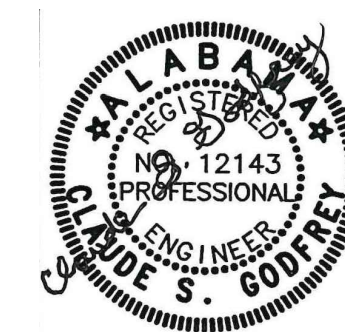
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SHEET NO.                      DRAWING TITLE:

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3. PROJECT NOTES
4. SITE PLAN
5. GRIT & GREASE DEMOLITION
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**FEBRUARY 2023**

**Municipal  
Consultants,  
Inc.** Birmingham, Alabama



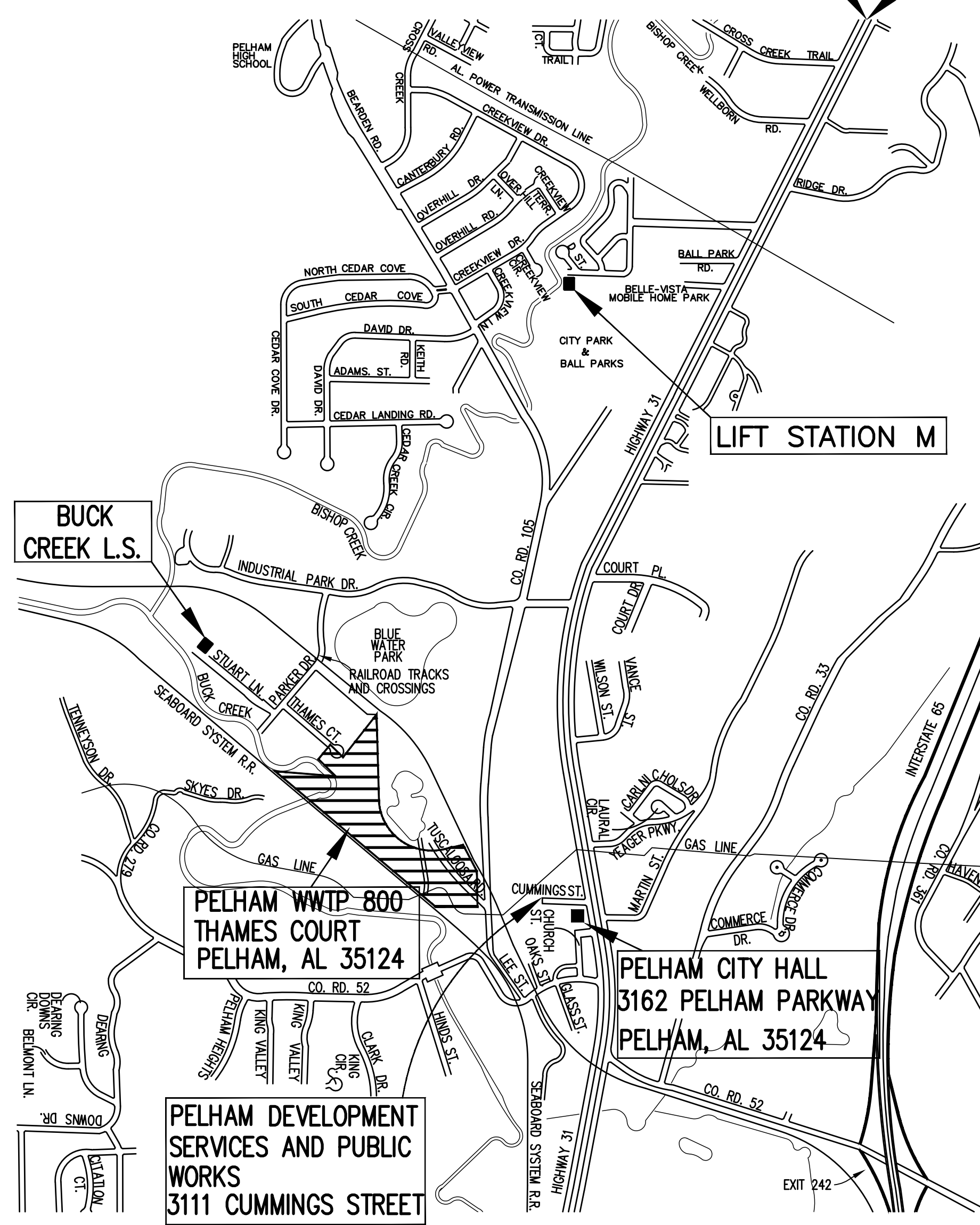
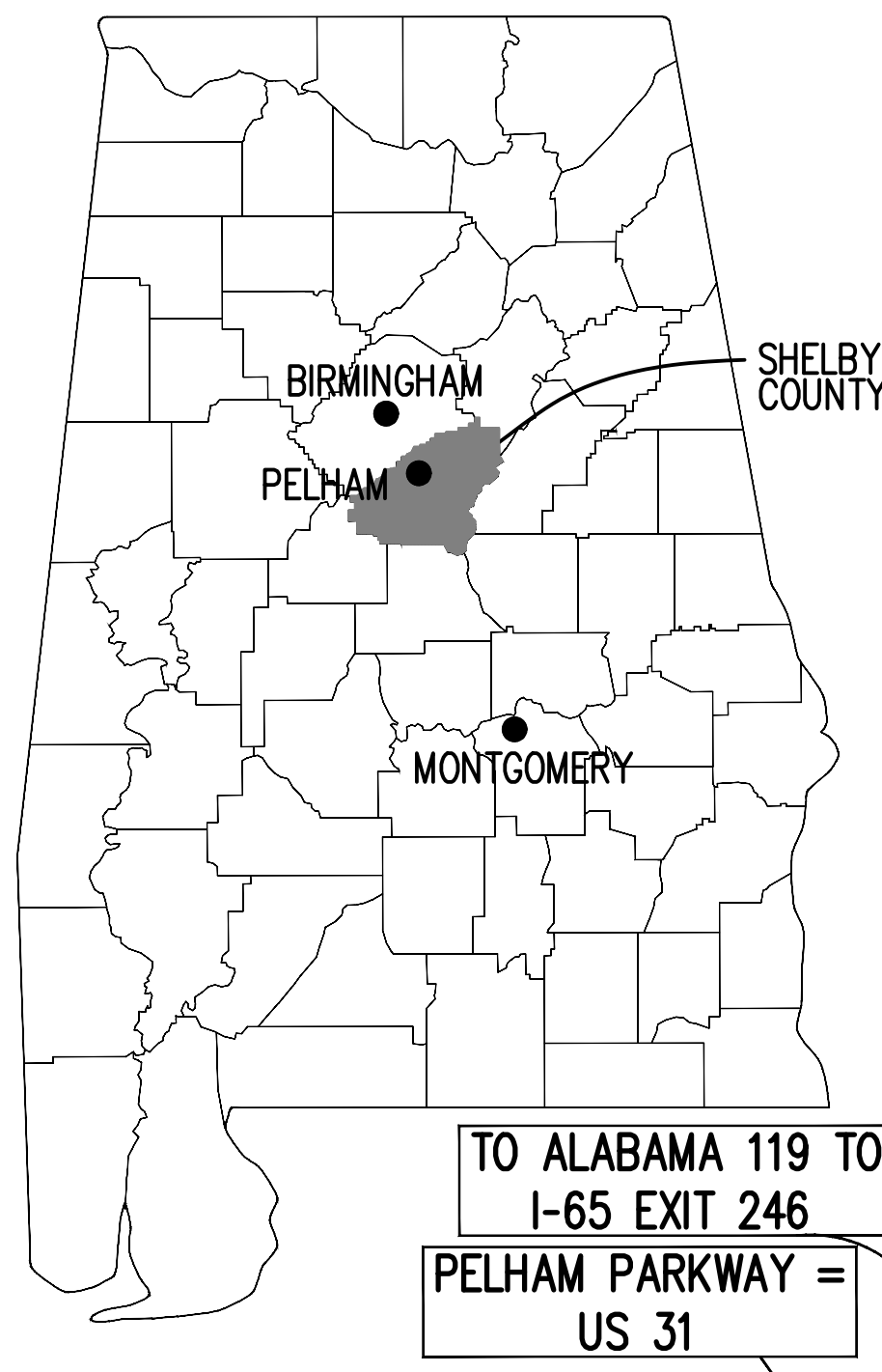
3-1-2023

**BID SET**



**PROJECT LOCATION MAP**

SCALE: 1" = N.T.S.



@	ADMIN	AT	ADMINISTRATION
AFF	ALUM	ADDD	ALABAMA DEPT. OF TRANSPORTATION
AL	ALUM	AFF	ABOVE FINISHED FLOOR
APPRDX	APPROXIMATE	AL	ALUMINUM
ASSY	ASSEMBLY	APPRDX	APPROXIMATE
AVG	AVERAGE	ASSY	ASSEMBLY
AVE	AVENUE	AVG	AVERAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION	AVE	AVENUE

BFV	BUTTERFLY VALVE
BLDG	BUILDING
BLK	BLOCK
BM	BENCHMARK
BDD	BIOCHEMICAL OXYGEN DEMAND
BOT, BTM	BOTTOM
BS	BOTH SIDES

CB	CATCH BASIN
CCP	CONCRETE CULVERT PIPE
CI	CAST IRON
CIP	CAST IRON PIPE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CL2, C	CHORDLINE
CL	CLASS
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CDNC	CONCRETE CONNECTION
CDNN	CONNECTION
CDNT	CONTINUOUS
CTSIF	CUT TO SUIT IN FIELD
CU YD	CUBIC YARD
CV	CHECK VALVE
CW	COLD WATER

D	DDOR
DIA	DIAMETER
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DIFF	DIFFUSER
DWN	DOWN
DWG	DRAWING

E	EAST, EXHAUSTER
EA	EACH
EF	EACH FACE
ELEC	ELECTRICAL
EL	ELEVATION
ED	EQUAL
EW	EACH WAY, EFFLUENT WATER
EX	EXISTING
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTINGUISHER

FCA	FLANGED COUPLING ADAPTER
FH	FIRE HYDRANT
FIG	FIGURE
FIN GR	FINISH GRADE
L	FLOW LINE
FLG	FLANGED
FM	FORCE MAIN
FPM	FEET PER MINUTE
FT	FOOT
FTG	FOOTING
GA	GAUGE, GAGE
GAL	GALLONS
GALV	GALVANIZED
GL	GAS LINE
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GR	GRADE
GV	GATE VALVE

H, HGT, HT	HEIGHT
HD	HOT DIPPED
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HW	HOT WATER
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
HZ	HERTZ
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INV	INVERT
JT	JOINT
KCF	THOUSAND CUBIC FEET

L	LOUVER
LAR	LENGTH AS REQUIRED
LB	LEFT
LIN	LINEAL, LINEAR
LG	LONG
LDC	LOCATION
LT	LEFT
LWL	LOW WATER LEVEL

MANUF	MANUFACTURER
MAX	MAXIMUM
MC	MOTOR CONTROL
MCC	MOTOR CONTROL CENTER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEDUS
MJ	MECHANICAL JOINT
ML	MIXED LIQUOR
MLSS	MIXED LIQUOR SUSPENDED SOLIDS

N	NORTH
NIC	NOT IN CONTRACT
NO, #	NUMBER
NDM	NORMAL
NDRM	NORMAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL

DC	ON CENTER
DD	OUTSIDE DIAMETER
DF	OUTSIDE FACE
DZ	DUNCE

PE	PLAIN END
PEJ	PIPE EXPANSION JOINT
PH	PHASE
PI	POINT OF INTERSECTION
PL	PLATE
PLS	PLATES
PM	PROCESS MAIN
PD	PUSH ON
PP	POWER POLE
PPD	POUNDS PER DAY
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PRDP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

RAS	RETURN ACTIVATED SLUDGE
R, RAD	RADIUS
RCN	REINFORCED CONCRETE PIPE
RED	REDUCER
REINF	REINFORCING
REQD	REQUIRED
RJ	RESTRAINED JOINT
ROW, R/W	RIGHT-OF-WAY
RT	RIGHT

S	SOUTH, SLUDGE
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SURVEY LINE
SP	STATIC PRESSURE
SPD	STANDARD PROCTOR DENSITY
SPECS	SPECIFICATIONS
SQ	SQUARE
SRT	SOLIDS RETENTION TIME
SS	SANITARY SEWER
ST	STREET, STORMWATER
STA	STATION
STD	STANDARD
ST STL, SS	STAINLESS STEEL SANITARY SEWER
SS	SANITARY SEWER
SVD	SIDE WATER DEPTH

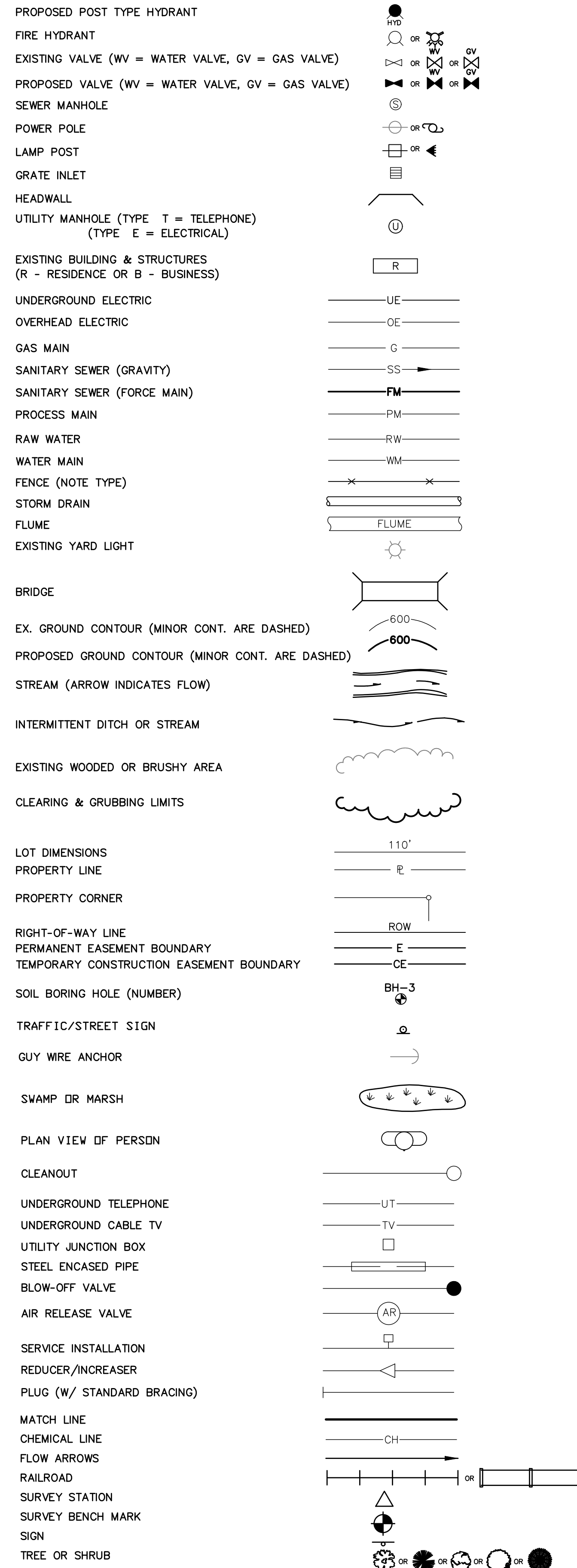
T&B	TOP AND BOTTOM
TBM	TEMPORARY BENCHMARK
TC	THRUST COLLAR
TEMP	TEMPORARY, TEMPERED
THK	THICKNESS
TL	TRANSFER LINE
TDC	TOP OF CURB
TDW	TOP OF WALL
TYP	TYPICAL
UH	UNIT HEATER
UND	UNLESS NOTED OTHERWISE

V	VALVE, VENTILATOR, VOLTS
VC	VITRIFIED CLAY
VERT	VERTICAL
VICT	VICTAULIC
VT	VENTILATOR

W	WEST, WIDTH, WINDOW, WATER
W/D	WITHOUT
WAS	WASTE ACTIVATED SLUDGE
WC	WATER COLLAR
WL	WATER LINE, WATER LEVEL
WS	WATERSTOP
WTM	WATER TRANSMISSION MAIN
WWF	WELDED WIRE FABRIC
WTP	WATER TREATMENT PLANT
WWTP	WASTEWATER TREATMENT PLANT
X	BY

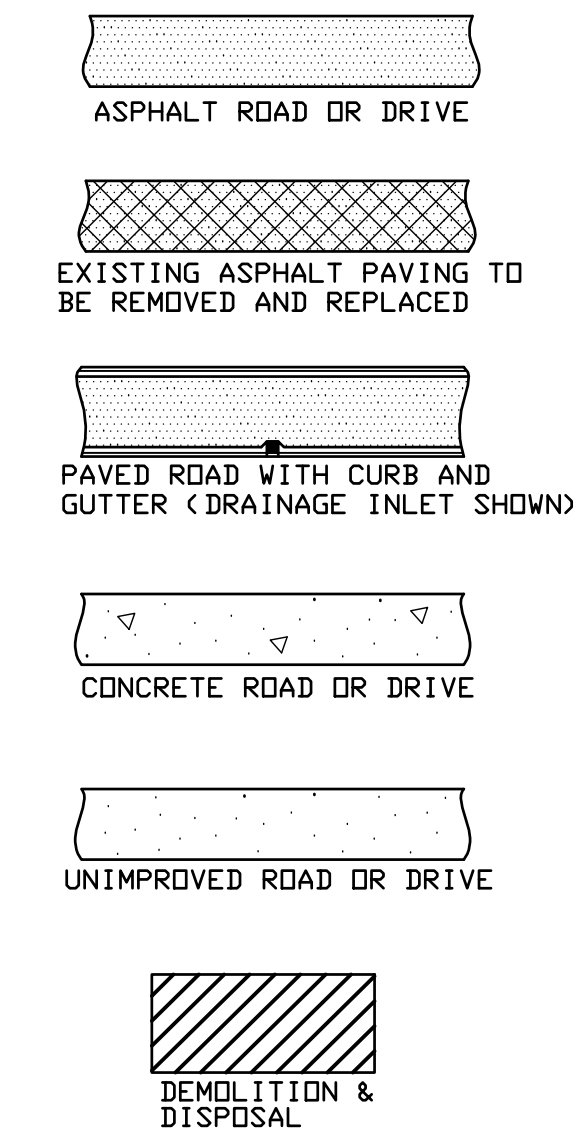
**SYMBOLS**

NOTE: UNLESS NOTED OTHERWISE.

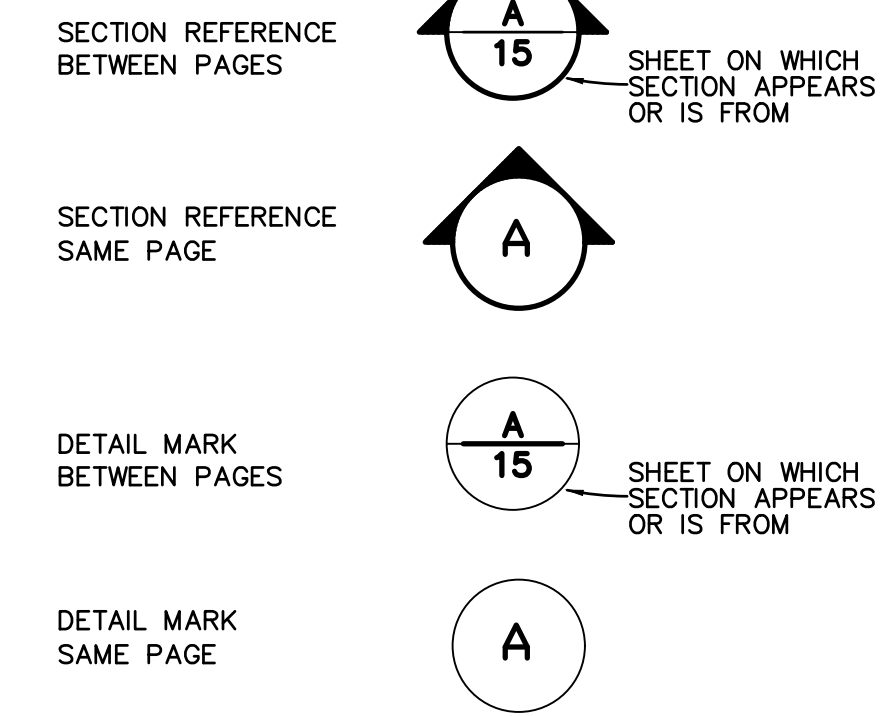


**SYMBOLS**

NOTE: UNLESS NOTED OTHERWISE.



**SECTION AND DETAIL MARKS**



NOTE: DETAILS ALSO REFERENCED BY NAME OR IDENTIFYING MARK SUCH AS 'TYPICAL DR' 'TYP'



BAR = 1"

Title  
**GENERAL NOTES, LEGEND AND LOCATION MAP**

Drawing  
Project No. 02-23  
Date AS SHOWN  
Scale 2  
Sheet

NOT VALID WITHOUT SIGNATURE



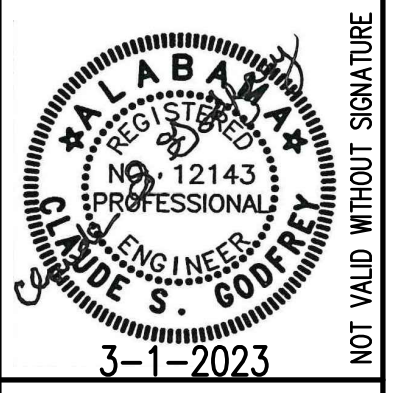
# GENERAL PROJECT NOTES:

1. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR SAFETY. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA STANDARDS AND RECOMMENDATIONS, ETC., APPLICABLE TO ALL WORK AND COMPONENTS ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL CONTINUOUSLY UTILIZE SAFETY PRACTICES THAT MAY BE NEEDED FOR THE FULL PROTECTION OF ALL PERSONS INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION PERSONNEL, THE OWNER'S PERSONNEL, INSPECTORS, AND THE GENERAL PUBLIC, ETC.
2. WASTEWATER TREATMENT PLANTS CONTAIN MANY DANGERS AND SAFETY HAZARDS. THESE INCLUDE, BUT ARE BY NO MEANS LIMITED TO, SUCH DANGERS AS CONFINED SPACES, DEADLY ATMOSPHERES WITH DANGEROUSLY LOW OXYGEN LEVELS, TOXIC AND EXPLOSIVE GASES, ETC., POTENTIALLY HAZARDOUS (POISONOUS) GASES AND CHEMICALS STORED AND USED ONSITE, SEWAGE AND SLUDGE WITH PATHOGENS (INFECTIOUS DISEASE HAZARDS), NON-POTABLE WATER SYSTEMS, ELECTRICAL HAZARDS, FALLING HAZARDS, DROWNING HAZARDS, UNANTICIPATED EQUIPMENT STARTING, AND TRENCH DANGERS, AMONG MANY OTHERS. NOTE THAT POWER IN A PANEL, AN ENCLOSURE, OR AT EQUIPMENT, ETC., MAY ORIGINATE FROM MULTIPLE, DIFFERENT AND INDEPENDENT SOURCES.
- THIS PLANT CONTAINS MOVING EQUIPMENT AND ROTATING EQUIPMENT. SUCH EQUIPMENT MAY BEGIN MOVING OR ROTATING SILENTLY AND MAY BEGIN OPERATION AUTOMATICALLY WITHOUT ANY WARNING. THE CONTRACTOR SHALL ALWAYS UTILIZE PROPER SAFETY PROCEDURES WHENEVER ANY WORK IS BEING PERFORMED NEAR PLANT EQUIPMENT AND WHENEVER ANY PERSONNEL ARE IN THE VICINITY OF PLANT EQUIPMENT. THESE SAME SAFETY PRECAUTIONS SHOULD BE UTILIZED REGARDLESS OF WHETHER THE EQUIPMENT IS OPERATING OR NOT AS THERE IS ALWAYS THE POTENTIAL FOR THE EQUIPMENT TO BEGIN OPERATION. THE CONTRACTOR SHALL HAVE A THOROUGH UNDERSTANDING OF ALL THE DANGERS AND HAZARDS ASSOCIATED WITH THIS TYPE OF WORK. THIS SHALL INCLUDE ALL ADDITIONAL POTENTIAL DANGERS NOT LISTED HEREIN. IT SHALL BE THE RESPONSIBILITY SOLELY OF THE CONTRACTOR TO FULLY EDUCATE HIMSELF AND ALL HIS PERSONNEL, SUBCONTRACTORS, SUPPLIERS, AND ALL OTHER VISITORS, ETC., REGARDING ALL THE POTENTIAL HAZARDS. THE CONTRACTOR SHALL FULLY UNDERSTAND ALL THE POSSIBLE HAZARDS AND SHALL CONTINUOUSLY FOLLOW APPROPRIATE SAFETY PROCEDURES AT ALL TIMES. THE CONTRACTOR SHALL INSURE THAT ALL HIS PERSONNEL AND ALL SUBCONTRACTOR PERSONNEL, SUPPLIERS, ETC., FOLLOW ALL APPROPRIATE SAFETY PRECAUTIONS AT ALL TIMES, CONTINUOUSLY COMPLY WITH ALL OSHA REGULATIONS AND REQUIREMENTS, ETC. AND ALWAYS FOLLOW GOOD, EFFECTIVE SAFETY PRACTICES.
- THE CONTRACTOR SHALL BE AWARE THAT THIS IS AN OPERATING FACILITY AND THAT PLANT PERSONNEL MUST MAKE THEIR ROUNDS AND WORK THROUGH ALL AREAS AND BUILDINGS IN THE PLANT AT ANY TIME DURING THE DAY OR NIGHT. AS SUCH, THE CONTRACTOR MUST CAREFULLY PLAN HIS ACTIVITIES AND ALWAYS PROVIDE ADEQUATE SAFETY BARRIERS AND OTHER MEASURES AS DESIRABLE, ETC., TO CONTINUOUSLY PROTECT PLANT PERSONNEL AND VISITORS, AS WELL AS HIS OWN PERSONNEL.
- IT IS IMPOSSIBLE TO LIST ALL POTENTIAL DANGERS THAT A CONTRACTOR MAY INCUR DURING THE CONSTRUCTION OF A PROJECT. IT IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR TO IDENTIFY ALL POTENTIAL DANGERS AND TO ALWAYS TAKE ALL APPROPRIATE SAFETY MEASURES. SAFETY IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER HAVE ANY DUTY TO REVIEW THE SAFETY PRACTICES OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES FOR SAFETY, INCLUDING BUT BY NO MEANS LIMITED TO, GUARDRAILS, BARRIERS, LIGHTING, AND SIGNS, ETC., AS DESIRABLE FOR THE PROTECTION OF THE PLANT VISITORS AND PERSONNEL WHO MUST OPERATE AND MAINTAIN THE PLANT THROUGHOUT THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM HIS WORK AND MAINTAIN CLEAN AND CLEAR PASSAGES IN A MANNER TO ELIMINATE TRIPPING HAZARDS AND OTHER SAFETY HAZARDS DURING CONSTRUCTION TO THE GREATEST EXTENT POSSIBLE.
4. WWTPS HAVE MANY HAZARDS FROM WHICH THE GENERAL PUBLIC MUST BE PROTECTED. THE CONTRACTOR SHALL PERFORM AND COORDINATE HIS WORK TO MAINTAIN THE WWTP SECURITY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, MAINTAINING SECURE FENCING AROUND THE ENTIRE SITE AT ALL TIMES. TEMPORARY FENCING THAT MAINTAINS PLANT SECURITY SHALL BE PROVIDED IF THE EXISTING FENCE IS REMOVED. THE CONTRACTOR SHALL TAKE MEASURES AS APPLICABLE TO MAINTAIN A SECURE SITE AT ALL TIMES, WHETHER OR NOT WORK IS ONGOING. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURELY CLOSING THE PLANT ENTRANCE GATE WHEN HE LEAVES THE SITE AT THE END OF HIS WORKING DAY.
5. THE EXISTING CONDUIT AND ELECTRICAL LINE LOCATIONS AND DEPTHS ARE NOT KNOWN AND GENERALLY ARE NOT SHOWN. SOME PULLBOXES ARE SHOWN. IN SOME CASES, THE ASSUMED ROUTING OF WIRING, CONDUITS, OR DUCT BANKS ENTERING OR LEAVING THE PULL BOXES MAY BE SHOWN. THE CONTRACTOR SHALL CONDUCT HIS WORK CAREFULLY AND COORDINATE WITH THE WWTP STAFF. HOWEVER, THE STAFF DOES NOT KNOW THE EXACT LOCATION OR DEPTH OF THESE LINES. THE CONTRACTOR SHALL COORDINATE HIS EXCAVATION ACTIVITY IN THE VICINITY OF SUSPECTED OR POSSIBLE ELECTRICAL FACILITIES WITH THE WWTP SUPERINTENDENT. PERFORM EXPLORATORY EXCAVATION CAREFULLY AND IN A TIMELY MANNER SO THAT THE PRESENCE, LOCATION, AND DEPTH OF BURIED ELECTRICAL LINES AND DUCT BANKS AND OTHER BURIED UTILITIES CAN BE DETERMINED IN A TIMELY MANNER SO AS TO NOT DELAY CONSTRUCTION. THE DUCTBANK LOCATIONS SHOWN ARE APPROXIMATE AND GENERAL IN NATURE.
6. MUCH INFORMATION IN THESE DRAWINGS ARE BASED ON DRAWINGS PREPARED FOR THE CONSTRUCTION OF THE ORIGINAL PLANT AND MULTIPLE MODIFICATION PROJECTS. MUCH OF THIS INFORMATION HAS NOT BEEN OR CANNOT BE VERIFIED.
7. THE CONTRACTOR SHOULD ANTICIPATE THAT EXISTING VALVES AND GATES OR OTHER FLOW CONTROL STRUCTURES OR DEVICES WILL LEAK. SOME SLIDE GATES MAY BE INOPERABLE OR DIFFICULT TO OPERATE.
8. THIS PROJECT REQUIRES WORK IN AND CONNECTIONS TO AN EXISTING, OPERATING TREATMENT PLANT. AS SUCH, THE CONTRACTOR SHOULD ANTICIPATE THE PROBLEMS ASSOCIATED WITH SUCH WORK, INCLUDING BUT NOT LIMITED TO, COORDINATION OF ALL WORK WITH THE OWNER (THROUGH THE ENGINEER) INCLUDING MAKING TIE-INS, ELECTRICAL TIE-INS AND MODIFICATIONS, AND ALL OTHER INTERRUPTIONS DURING SUITABLE PERIODS, THOROUGHLY PLANNING WORK ACTIVITIES TO MINIMIZE INTERRUPTIONS OF NORMAL OPERATIONS, MAINTAINING PLANT SAFETY AT ALL TIMES FOR THE PLANT OPERATIONS AND MAINTENANCE STAFF, AND LEAKING GATES AND VALVES, ETC. SOME ACTIVITIES MAY BE BEST PERFORMED DURING THE EARLY MORNING HOURS OF DRY WEATHER IF THE OWNER ALLOWS WORK TO BE PERFORMED DURING NORMAL QUIET HOURS. THE OWNER SHALL HAVE THE AUTHORITY TO MAKE THE FINAL DECISION AS TO WHETHER OR NOT TIE-INS AND INTERRUPTIONS CAN BE ALLOWED AT THE TIME REQUESTED BY THE CONTRACTOR.
9. ALL WORK ACTIVITIES (INCLUDING ELECTRICAL) THAT AFFECT PLANT OPERATIONS MUST BE CAREFULLY SEQUENCED WITH THE EXISTING PLANT OPERATIONS. THESE SHALL BE CAREFULLY PLANNED AND COORDINATED WELL IN ADVANCE WITH BOTH THE OWNER AND THE ENGINEER TO RESULT IN A MINIMUM OF INTERFERENCE WITH THE EXISTING OPERATIONS. THE CONTRACTOR SHALL SUBMIT A STEP-BY-STEP DETAILED, WRITTEN SEQUENCE FOR EACH SUCH OPERATION. THE CONTRACTOR SHALL PERFORM AS MUCH PRELIMINARY OR ASSEMBLY WORK AS POSSIBLE PRIOR TO INITIATING OPERATIONS REQUIRING SEQUENCING OR INTERRUPTIONS, ETC.. THE CONTRACTOR SHALL ALWAYS HAVE STANDBY EQUIPMENT ON SITE SUCH THAT THE LOSS OF INDIVIDUAL EQUIPMENT WILL NOT PREVENT THE COMPLETION OF SUCH CONNECTIONS, ETC, IN A TIMELY MANNER IN ACCORDANCE WITH THE ALLOWED DURATION OF INTERRUPTION. THE CONTRACTOR SHALL HAVE SPARE MATERIALS ON SITE TO ALLOW FOR POTENTIAL PROBLEMS, & UNKNOWNNS, ETC.
10. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL FINES AND COSTS, ETC., DUE TO BYPASSING OR INADEQUATE TREATMENT, OR PERMIT VIOLATIONS, ETC., THAT ARE DUE TO THE CONTRACTOR'S OPERATIONS. NOTE THAT RUNOFF, DISCHARGES, OR OVERFLOWS FROM THE PROJECT SITE ENTER A SMALL, ENVIRONMENTALLY SENSITIVE STREAM THAT FLOWS THROUGH A PUBLIC PARK.
11. ONCE TIE-INS OR OTHER ACTIVITIES INTERRUPT NORMAL PLANT OPERATION, WORK EXPEDITIOUSLY TO COMPLETE THE WORK AND RETURN THE PLANT TO NORMAL OPERATIONS AS SOON AS POSSIBLE.
12. BLASTING IS NOT ALLOWED ON THIS PROJECT. ALL ROCK MUST BE REMOVED BY A MEANS SUCH THAT THERE IS NO RISK OF DAMAGE TO PIPING, TANKS, STRUCTURES, AND EQUIPMENT, ETC.
13. WHERE EXISTING PAVING OR CONCRETE MUST BE CUT TO INSTALL NEW PIPING, ELECTRICAL, OR OTHER FACILITIES, SAWCUT THE EXISTING IN NEAT, STRAIGHT LINES. BACKFILL WITH PUGMIX COMPACTED IN LIFTS. CONTINUOUSLY MAINTAIN THE BACKFILL FLUSH WITH THE ADJOINING SURFACES UNTIL PAVED OR CONCRETED. RE-SAWCUT IN STRAIGHT LINE IMMEDIATELY PRIOR TO PATCHING. PATCHING SHALL BE SMOOTH AND FLUSH WITH ADJOINING PAVEMENT. GENERALLY, REPAVING OR CONCRETE REPLACEMENT SHOULD BE PERFORMED NO LATER THAN 2 TO 3 WEEKS.
14. PRIOR TO PLACING ANY TANKS, STRUCTURES, PIPING, OR EQUIPMENT, ETC., INTO SERVICE, CLEAN OUT ALL TRASH AND DEBRIS AND CHECK OUT ALL EQUIPMENT, GATES, AND ALL APPURTENANCES TO THE MAXIMUM EXTENT POSSIBLE. TAKE OTHER ACTIONS AS APPROPRIATE TO MINIMIZE THE POTENTIAL FOR PROBLEMS.
15. ALL ANCHOR BOLTS, WEDGE ANCHORS, EPOXY ANCHORS, ETC. AND APPURTENANCES ON THE PROJECT SHALL BE STAINLESS STEEL.
16. KEEP THE ELECTRICAL POWER TO ALL NEW EQUIPMENT SHUTOFF AND PADLOCKED OFF (WITH THE CONTRACTOR'S LOCK) UNTIL IT HAS BEEN STARTED UP, TESTED, AND TURNED OVER TO THE OWNER FOR NORMAL OPERATION.
17. AFTER THE STARTUP OF ANY PLANT COMPONENTS, PREVENT ANY CONSTRUCTION RELATED ACTIVITY OR DEBRIS FROM GETTING INTO THE FLOWSTREAM AND DAMAGING EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE OWNER DUE TO SUCH PROBLEMS.
18. WHEN AN ITEM OF WORK (INCLUDING BUT NOT LIMITED TO DEMOLITION) RESULTS IN OR REQUIRES REMOVING WATER FROM EXISTING STRUCTURES OR EXISTING PIPING, SUCH WATER SHALL NOT BE PUMPED TO, OR ALLOWED TO DRAIN TO, A DRAINAGE DITCH OR STREAM. INSTEAD, SUCH WATER SHALL BE PUMPED INTO ONE OF THE OXIDATION DITCHES. PERFORM WORK IN A MANNER SUCH THAT DIRT OR MUD IS NOT PUMPED INTO THE OXIDATION DITCHES.
19. SEE SCHEDULE REQUIREMENTS IN SPECIFICATION FOR INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT.

Z:\PROJECTS\SOUTHWEST WATER\NORTH SHELBY FILTERS\FILTER IMPROVEMENTS\3-(PROJECT NOTES)\3-6-2023\9:18:26 AM

**Municipal Consultants, Inc.**  
 200 Century Park South, Suite 212  
 Birmingham, Alabama 35226  
 (205) 822-0387

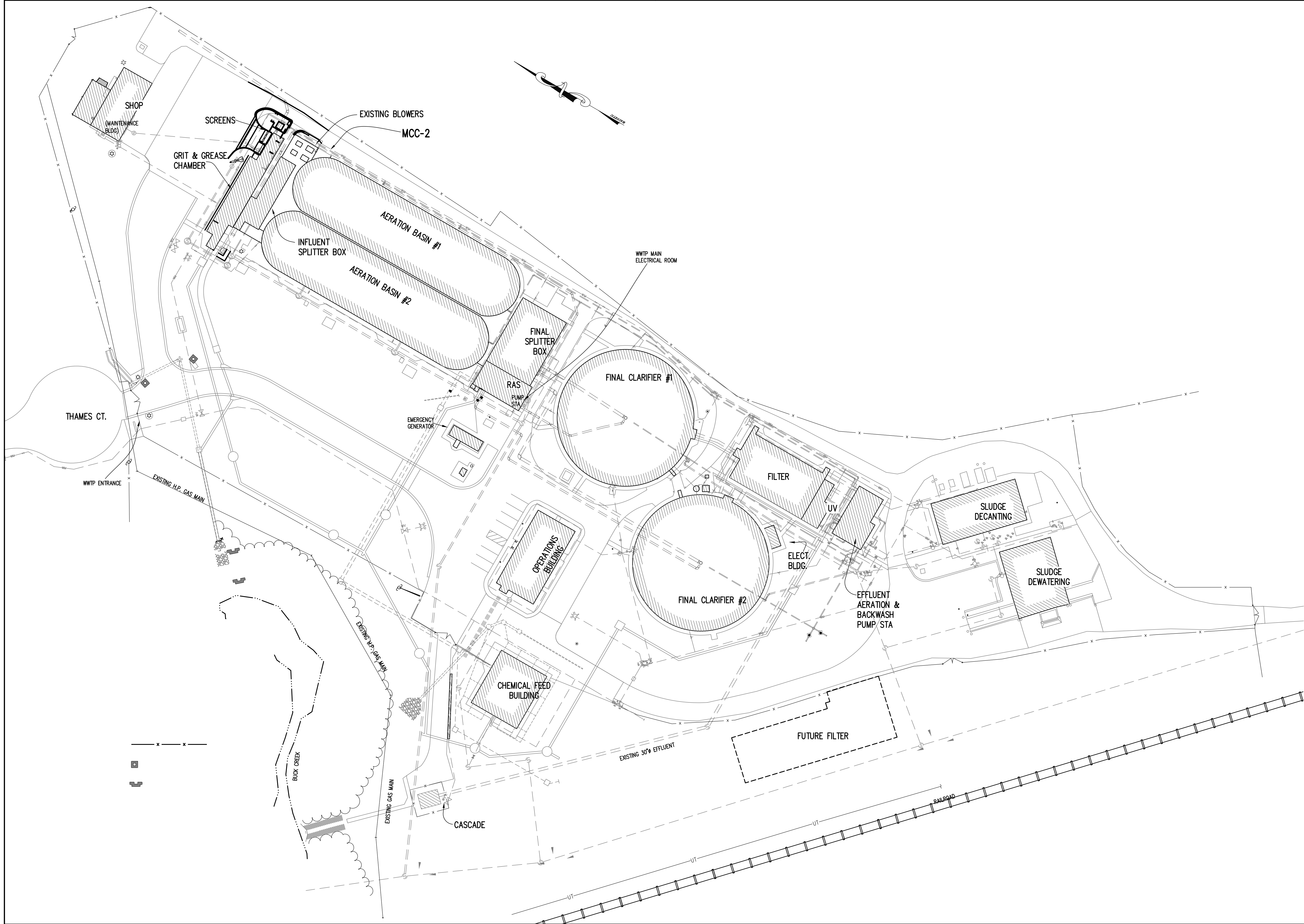
**CITY OF PELHAM, ALABAMA**  
 WWTP IMPROVEMENT  
 INSTALLATION OF GRIT AND  
 GREASE REMOVAL EQUIPMENT  
 2023



BAR = 1"

Title		PROJECT NOTES		BID SET	
Drawing	Project No.	Date	Scale	Sheet	
	02-23	02-23	N.T.S.	3	

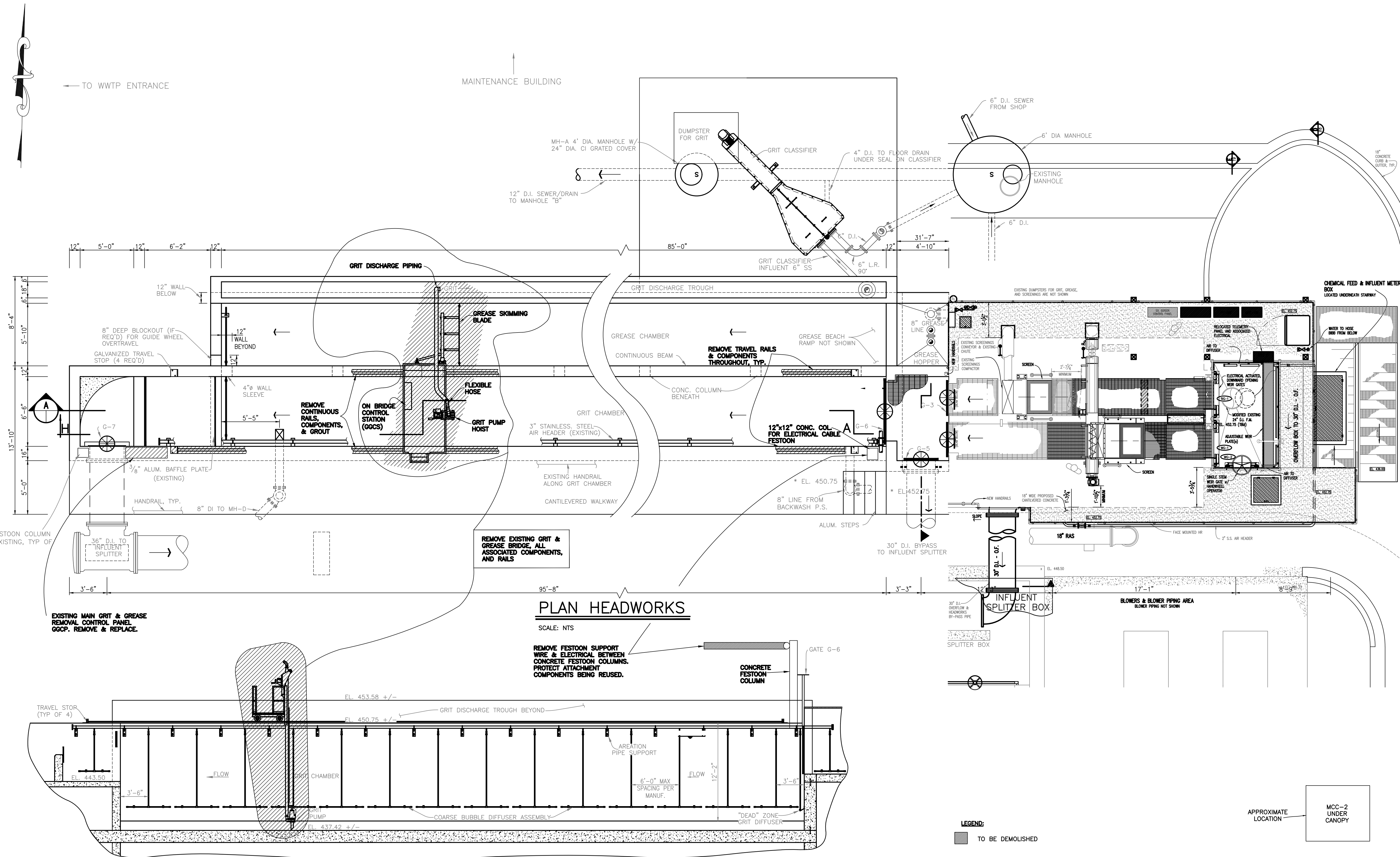




<p><b>Municipal Consultants, Inc.</b>          200 Cahaba Park South, Suite 212          Birmingham, Alabama 35226          (205) 822-0877</p>	
<p><b>CITY OF PELHAM, ALABAMA</b>          WWTP IMPROVEMENT          INSTALLATION OF GRIT AND          GREASE REMOVAL EQUIPMENT          2023</p>	
<p>BAR = 1"</p>	
<p>NOT VALID WITHOUT SIGNATURE</p>	
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<p>Project No.: <b>02-23</b></p>	
<p>Date: <b>AS SHOWN</b></p>	
<p>Scale: <b>4</b></p>	
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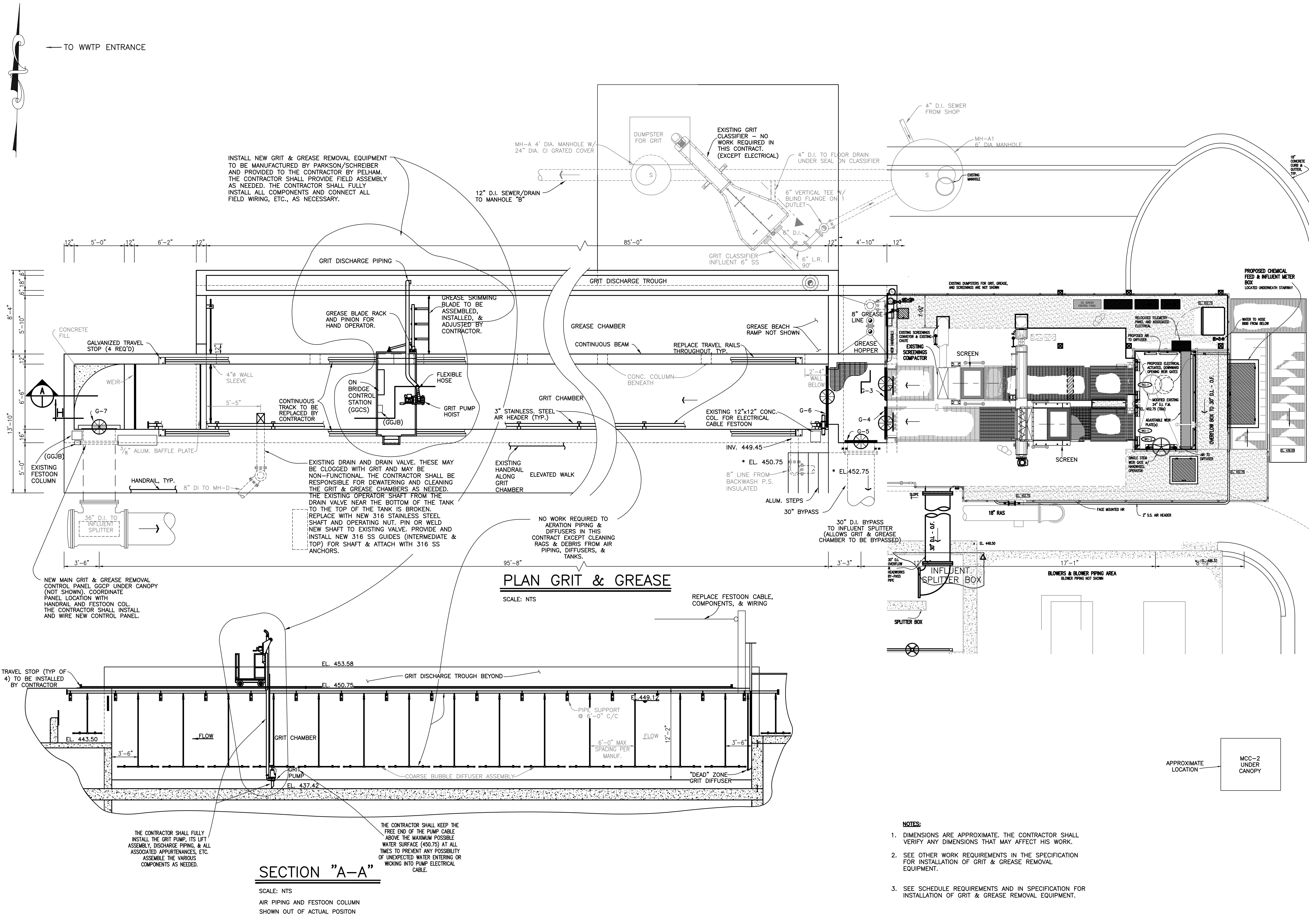


**SCHEMATIC A-A**  
SCALE: NTS  
AIR PIPING AND FESTOON COLUMN SHOWN OUT OF ACTUAL POSITION

<p><b>Municipal Consultants, Inc.</b> 200 Cahoon Park South, Suite 212 Birmingham, Alabama 35208 (205) 827-0387</p>	
<p><b>CITY OF PELHAM, ALABAMA</b> WWTP IMPROVEMENTS INSTALLATION OF GRIT &amp; GREASE REMOVAL EQUIPMENT</p>	
<p>2023</p>	
<p>NOT VALID WITHOUT SIGNATURE</p>	
<p>BAR = 1"</p>	
<p>Title</p> <p><b>GRIT AND GREASE DEMOLITION</b></p>	<p>BID SET</p>
<p>Drawing</p> <p>Project No.</p> <p>Date</p> <p>Scale</p> <p>Sheet</p>	<p>5</p>



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**PLAN GRIT & GREASE**

SCALE: NTS

**SECTION "A-A"**

SCALE: NTS  
AIR PIPING AND FESTOON COLUMN SHOWN OUT OF ACTUAL POSITION

**Municipal Consultants, Inc.**  
200 Cahaba Park South, Suite 212  
Birmingham, Alabama 35208  
(205) 822-0387

**CITY OF PELHAM, ALABAMA**  
WWTP IMPROVEMENTS  
INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT

Professional Engineer  
No. 12143  
Charles S. Godfrey  
3-1-2023  
NOT VALID WITHOUT SIGNATURE

BAR = 1"

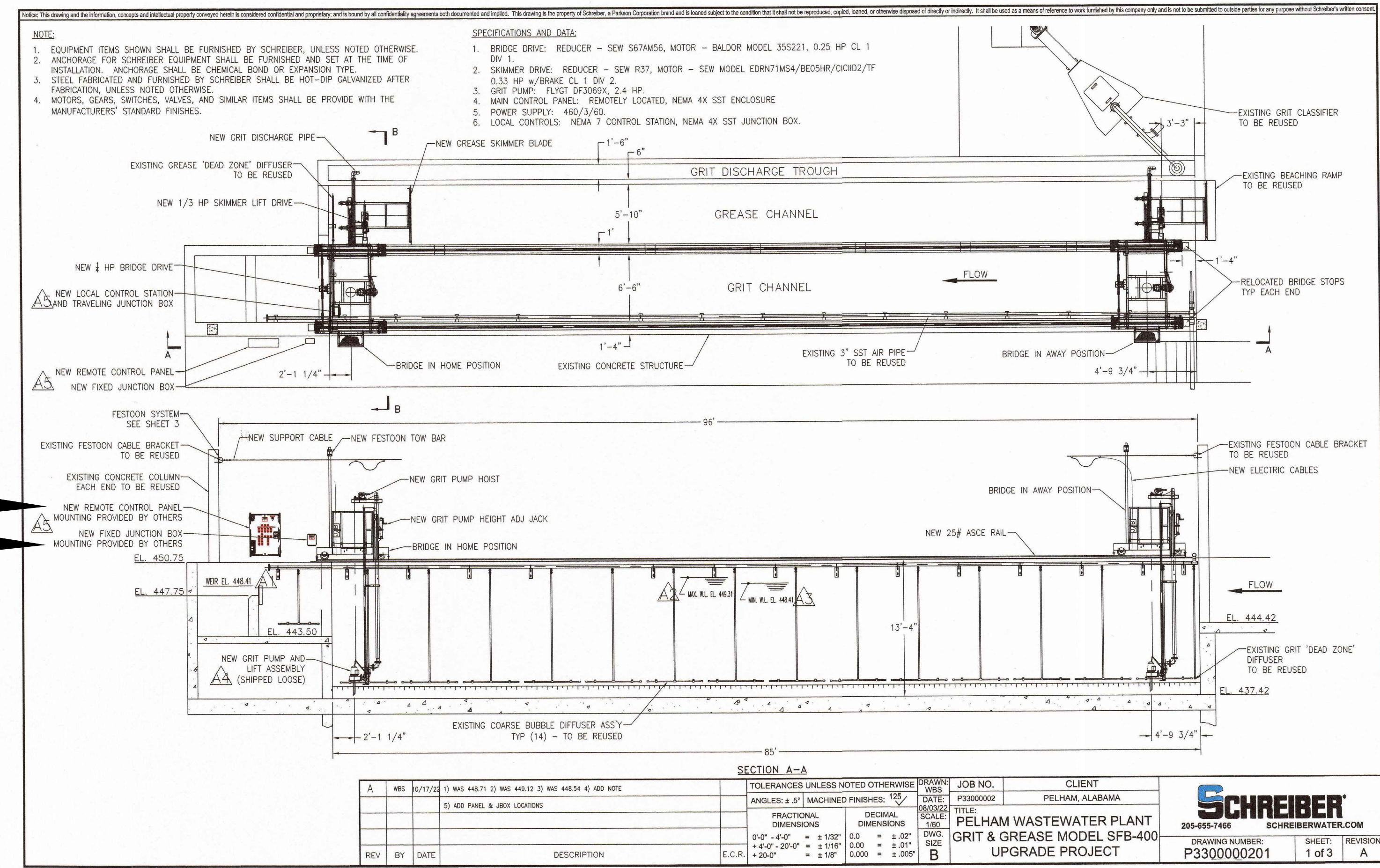
Drawing Title	GRIT AND GREASE INSTALLATION		
Project No.	02-2023		
Date	AS SHOWN		
Scale	6		
Sheet	BID SET		

2023

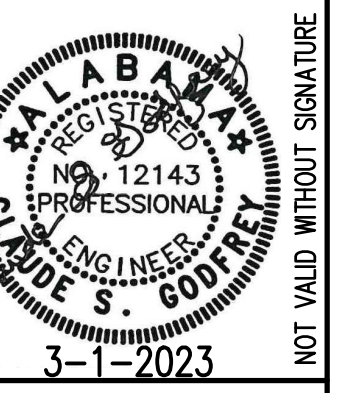
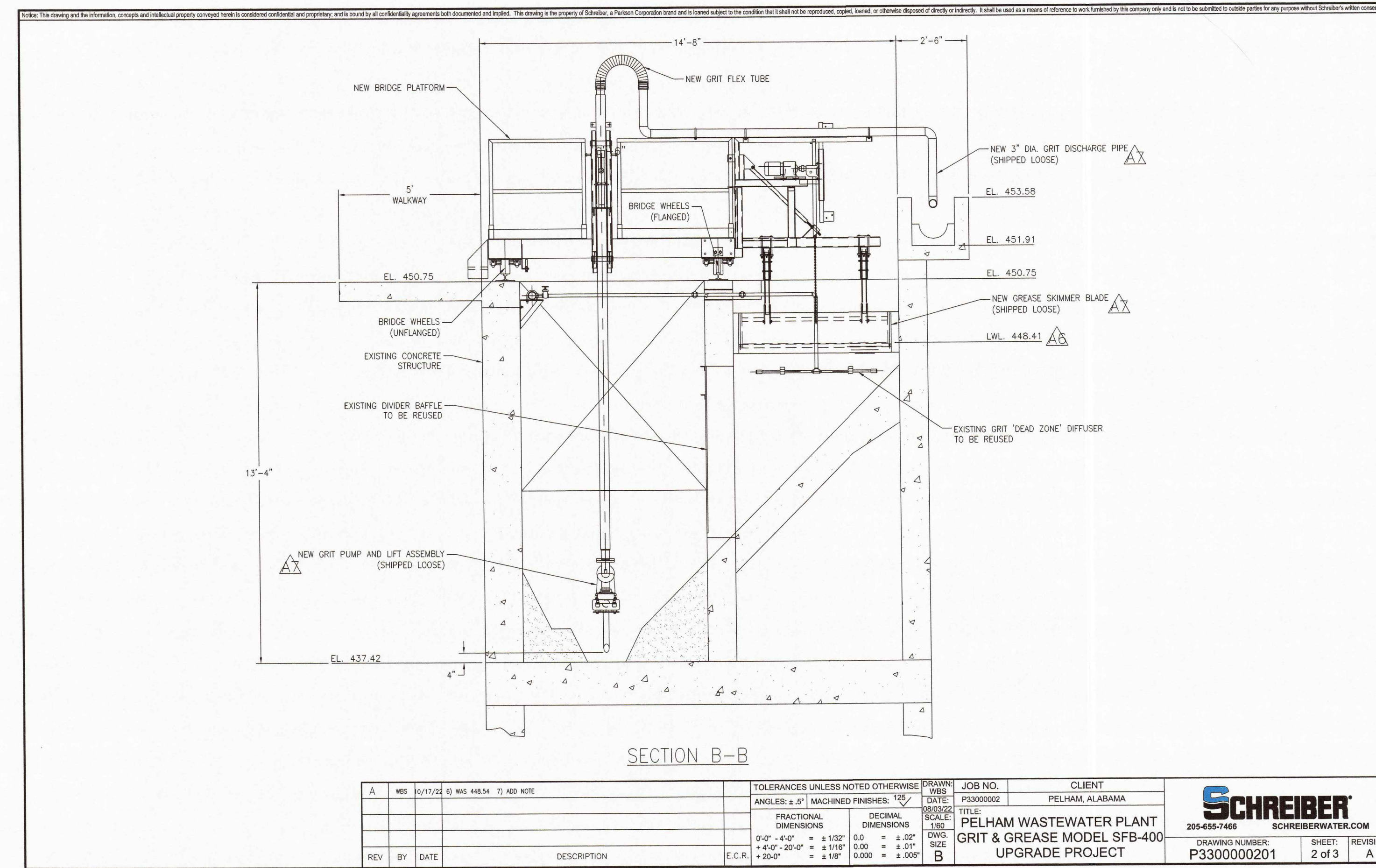


THESE DRAWINGS HAVE BEEN EXCERPTED FROM THE APPROVED SUBMITTAL PREPARED BY SCHREIBER (I.E. PARKSON/SCHREIBER) FOR THE EQUIPMENT IT IS PROVIDING FOR THIS PROJECT. ALTHOUGH NOT ALL DETAILS ARE SHOWN, THE DRAWINGS ARE INCLUDED IN THE CONTRACT DRAWINGS TO HELP THE BIDDERS UNDERSTAND THE SCOPE OF WORK.

ACTUAL MOUNTING LOCATIONS AND HEIGHTS TO BE COORDINATED WITH OWNER & ENGINEER DURING CONSTRUCTION.



INSTALL NEW GGCP IN PLACE OF EXISTING PANEL. INSTALL NEW FIXED FESTOON JUNCTION BOX APPROXIMATELY 4' ABOVE FLOOR.



BAR = 1"

Title: SCHREIBER SUBMITTAL PLAN & SECTIONS  
 BID SET

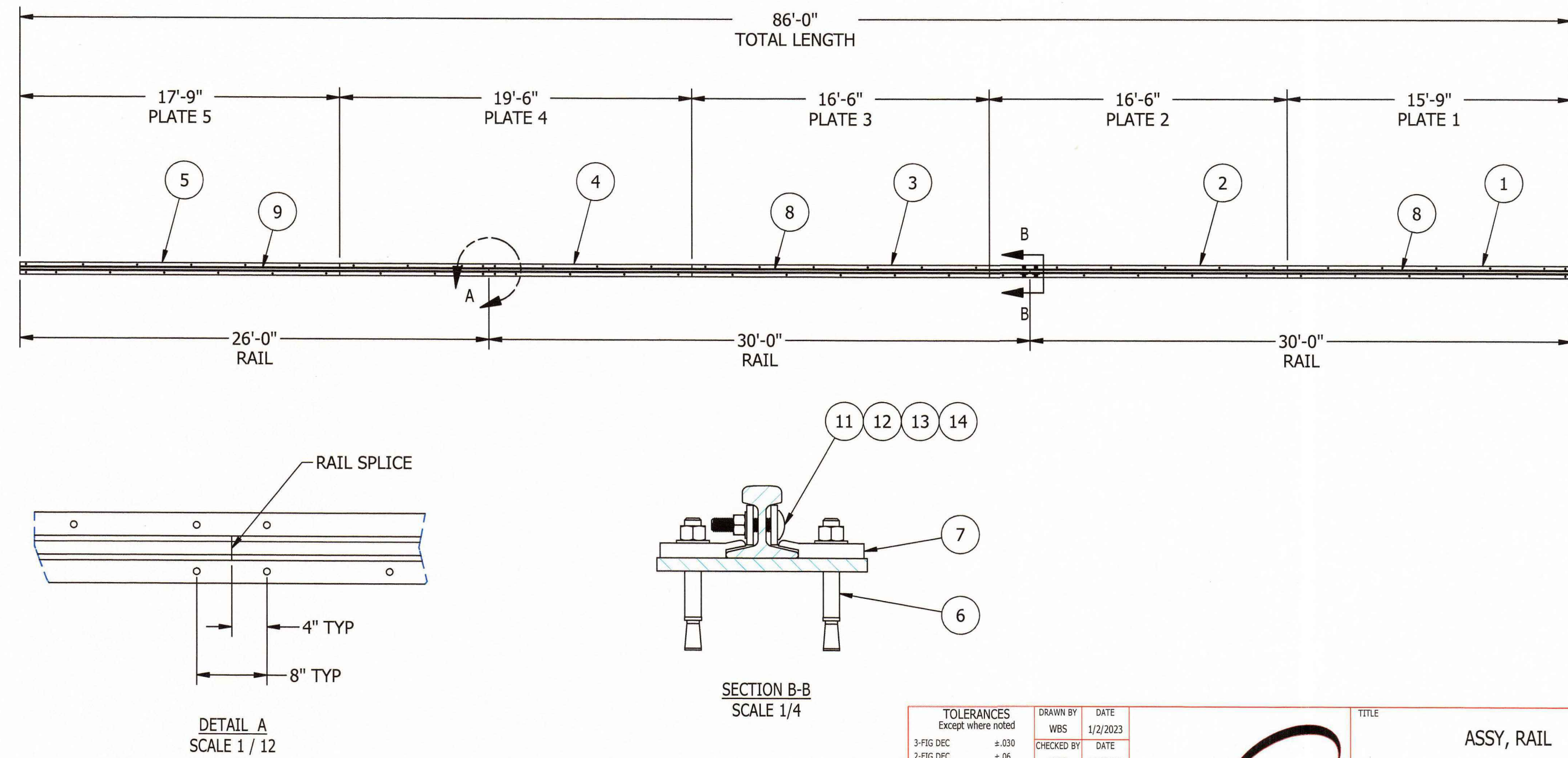
Drawing Project No. 02-2023  
 Date N.T.S.  
 Scale 7  
 Sheet



THIS DRAWING HAS BEEN EXCERPTED FROM THE APPROVED SUBMITTAL PREPARED BY SCHREIBER (I.E. PARKSON/SCHREIBER) FOR THE EQUIPMENT IT IS PROVIDING FOR THIS PROJECT. ALTHOUGH NOT ALL DETAILS ARE SHOWN, THIS DRAWING IS INCLUDED IN THE CONTRACT DRAWINGS TO HELP THE BIDDERS UNDERSTAND THE SCOPE OF WORK.

**NOTES:**

1. ITEM 10, RAIL END STOP, NOT SHOWN. ITEM 10 TO BE LOCATED DURING INSTALLATION OF THE SYSTEM.



REV	DESCRIPTION	BY	DATE	ECO	CHK
REVISION SCHEDULE					

TOLERANCES Except where noted		DRAWN BY	DATE	TITLE
3-FRIG DEC	±.030	WBS	1/2/2023	ASSY, RAIL
2-FRIG DEC	±.06	CHECKED BY	DATE	
ANGULAR	±1/2°	WBS	1/2/2023	
MAX EDGE RAD	.13	SCALE	1/8"=1'-0"	
WELD SIZE	1/8	WEIGHT	1915 lbs/mess	
MACHINED SURFACES NOT TO EXCEED	250	ER:	SIZE	
		P3300002	B	

THIS DRAWING WAS PREPARED BY PARKSON/SCHREIBER TO INDICATE SOME OF THE WORK REQUIRED TO INSTALL THE RAILS AND ASSOCIATED COMPONENTS FOR THE TRAVELING GRIT BRIDGE. THIS DRAWING IS BEING PROVIDED TO THE BIDDERS TO ASSIST THEM IN UNDERSTANDING PART OF THE GENERAL SCOPE OF THE WORK THE CONTRACTOR WILL HAVE TO PERFORM.

NOTE THE FOLLOWING:

ALL DETAILS ARE NOT SHOWN.

THIS DRAWING SHOWS ONLY ONE RAIL. AS SHOWN BY OTHER DRAWINGS, THERE ARE TWO SETS OF RAILS, ONE ON EACH SIDE OF THE GRIT CHAMBER.

THE RAILS MUST BE INSTALLED PARALLEL TO EACH OTHER AND IN THE CORRECT LOCATION FOR THE TRAVELING GRIT BRIDGE. THE RAILS MUST BE AT THE SAME ELEVATION.

THE RAILS THEMSELVES (ITEM 9 IN THE PARKSON/SCHREIBER DRAWING) SHALL BE CLIPPED (ITEM 7 IN THE PARKSON/SCHREIBER DRAWING) TO GALVANIZED STEEL PLATES (ITEMS 1 THROUGH 5 IN THE PLAN VIEW OF THE PARKSON/SCHREIBER DRAWING) THAT EXTEND THE FULL LENGTH OF EACH RAIL. THE PLATES SHALL BE SUPPORTED BY A BED OF NONSHRINK GROUT (NOT SHOWN IN THE DRAWING) PROVIDED BY THE CONTRACTOR AND INSTALLED IN ACCORDANCE WITH THE GROUT MANUFACTURER'S RECOMMENDATIONS.

SPLICE PLATE ASSEMBLIES (ITEMS 11 THROUGH 14 IN THE PARKSON/SCHREIBER DRAWING) SHALL BE INSTALLED WHERE INDICATED.

THIS DRAWING INDICATES THAT THE PLATE ANCHOR BOLTS (ITEM 6 IN THE PARKSON/SCHREIBER DRAWING, AND TO BE PROVIDED BY PARKSON/SCHREIBER) ARE EXPANSION ANCHORS. THESE ANCHORS BOLTS MAY BE ADHESIVE ANCHORS. THE CONTRACTOR SHALL INSTALL WHICHEVER ANCHOR TYPE IS PROVIDED IN ACCORDANCE WITH THE ANCHOR BOLT MANUFACTURER'S RECOMMENDATIONS.

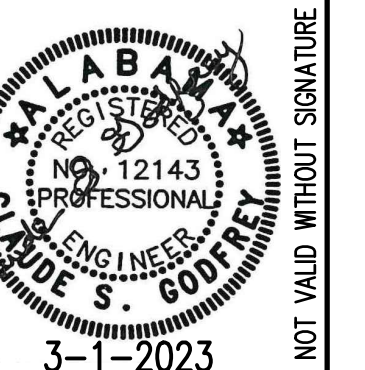
THIS DRAWING SHOULD BE CONSIDERED PRELIMINARY AND THE FINAL ASSEMBLY SHALL BE IN ACCORDANCE WITH INSTRUCTIONS FROM PARKSON/SCHREIBER. FOUR RAIL END STOPS (NOT SHOWN) SHALL BE INSTALLED BY THE CONTRACTOR.

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**CITY OF PELHAM, ALABAMA**

**WWTTP IMPROVEMENTS  
INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT**

2023



BAR = 1"

Drawing Project No.	Title	
	SCHREIBER SUBMITTAL RAIL ASSEMBLY	BID SET
Date	02-2023	
Scale	N.T.S.	
Sheet	8	

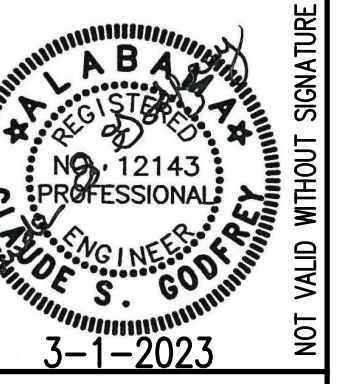


GENERAL ELECTRICAL, CONTROL, INSTRUMENTATION & SCADA REQUIREMENTS – NOTE: WHERE THESE NOTES CONFLICT WITH PLAN OR SPECIFICATION REQUIREMENTS, THE MOST STRINGENT SHALL GOVERN.

1. SAFETY, INCLUDING BUT BY NO MEANS LIMITED TO COORDINATION WITH OTHERS FOR CIRCUITS OR EQUIPMENT THAT IS LIVE OR MAY BECOME LIVE, IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. THE OWNER OR THE ENGINEER ARE NOT RESPONSIBLE FOR SAFETY.
2. ALL ELECTRICAL EQUIPMENT PROVIDED AND INSTALLED FOR THIS PROJECT SHALL MEET THE REQUIREMENTS OF UNDERWRITERS LABORATORIES STANDARDS FOR SAFETY OR OTHER EQUIVALENT NATIONALLY RECOGNIZED STANDARDS (E.G. ANS) FOR THE SPECIFIC PRODUCT.
3. CONTRACTOR SHALL COORDINATE ALL COMPONENTS IN A TIMELY MANNER.
4. CONTRACTOR SHALL PROVIDE ALL MEANS, METHODS, AND MISCELLANEOUS APPURTENANCES, ETC., AS REQUIRED TO PERFORM AND PROPERLY COMPLETE THE WORK.
5. ALL MATERIALS AND WORK SHALL BE IN FULL COMPLIANCE WITH THE NEC AND WITH ALL LOCAL CODES AND AUTHORITIES HAVING JURISDICTION OVER THE WORK.
6. GROUND HANDRAIL TO GROUNDING GRID.
7. THE CONTRACTOR SHALL COORDINATE THE WIRING REQUIREMENTS, CONTROLS, AND RELAYS, ETC. WITH SUBMITTALS AND WITH EQUIPMENT ACTUALLY PROVIDED. MAKE ADJUSTMENTS TO WIRING SCHEDULES AS NECESSARY. NO ADDITIONAL TIME OR COMPENSATION SHALL BE GRANTED FOR SUCH COORDINATION AND ADJUSTMENTS.
8. ALL EXPOSED AND/OR VISIBLE CONDUIT, FITTINGS, WIREWAYS, GUTTERS, APPURTENANCES, ETC. SHALL BE ALUMINUM OR SS. SIZE CONDUIT AS REQUIRED EXCEPT 3/4" MINIMUM.
9. ALL HANGERS, UNISTRUT, CABLE TRAYS (WHERE AND IF SHOWN ON DRAWINGS), BRACKETS, ATTACHMENTS, CLAMPS, SCREWS, BOLTS, ANCHOR BOLTS, NUTS, WASHERS, HARDWARE, AND APPURTENANCES, ETC., USED SHALL BE STAINLESS STEEL OR ALUMINUM.
10. AT EXISTING FACILITIES, PERFORM ALL ELECTRICAL WORK IN A SEQUENCE AND MANNER THAT MINIMIZES DISTURBANCE TO PLANT OPERATIONS. SEE OTHER SEQUENCE NOTES IN OTHER PARTS OF THE PLANS AND CONTRACT DOCUMENTS. CAREFULLY PLAN AND SCHEDULE ALL WORK REQUIRED. ALL SHUTDOWNS OR INTERRUPTIONS SHALL HAVE PRIOR APPROVAL FROM THE OWNER.
11. THE CIRCUITS LISTED IN THE CIRCUIT SCHEDULES REPRESENT ONE METHOD OF ACHIEVING THE REQUIRED PERFORMANCE FOR THE EQUIPMENT SPECIFIED. IF, DUE TO THE EQUIPMENT PROVIDED, MORE OR DIFFERENT CIRCUITS ARE REQUIRED THAN SHOWN, THE CONTRACTOR SHALL PROVIDE THOSE CIRCUITS AT NO ADDITIONAL COST OR TIME TO THE OWNER.
12. THE CONTRACTOR SHALL PROVIDE SS JUNCTION BOXES WHERE REQUIRED.
13. MOUNT ALL ELECTRICAL EQUIPMENT, BRACKETS, AND STANDS, ETC. SUCH THAT SHARP EDGES OR CORNERS DO NOT POSE A POTENTIAL HAZARD TO PERSONNEL. GRIND AND SMOOTH EDGES AND CORNERS WHERE DESIRABLE OR REQUIRED.
14. THESE PLANS DO NOT SHOW ALL THE APPURTENANCES, DETAILS, AND MATERIALS, ETC. REQUIRED TO PROPERLY PERFORM THE WORK. THE CONTRACTOR SHALL PROVIDE ALL APPURTENANCES, DETAILS, AND MATERIALS, ETC. REQUIRED AT NO EXTRA TIME OR COST.
15. THESE PLANS DO NOT, IN GENERAL, SHOW EXACT LOCATIONS OR CONFIGURATIONS OF CONDUIT ROUTING AND METHODS, INCLUDING THE METHOD OF ACCESSING STRUCTURES. THE CONTRACTOR SHALL PROPOSE TO THE ENGINEER AND OWNER HIS REQUESTED ROUTING (FOR BOTH NEW AND EXISTING STRUCTURES) FOR THEIR APPROVAL OR DENIAL OF APPROVAL. ROUTING WILL HAVE TO BE ADJUSTED IN THE FIELD TO AVOID EXISTING PIPING, STRUCTURES, AND EQUIPMENT CONFLICTS, ETC.
16. CAREFULLY EXAMINE GENERAL CONDITIONS, OTHER SPECIFICATION SECTIONS, AND OTHER DRAWINGS (IN ADDITION TO ELECTRICAL) IN ORDER TO BE FULLY ACQUAINTED WITH THEIR EFFECT ON ELECTRICAL WORK.
17. DO ALL WORK IN COMPLIANCE WITH ALL APPLICABLE CODES, LAWS, AND ORDINANCES, THE NATIONAL ELECTRICAL CODE AND THE REGULATIONS OF THE LOCAL UTILITY COMPANIES. OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES OF INSPECTIONS AND APPROVAL, AND THE LIKE.
18. COOPERATE AND COORDINATE WITH OTHER TRADES AND CONTRACTORS AT JOB SITES. PERFORM WORK IN SUCH MANNER AND AT SUCH TIMES AS NOT TO DELAY OR CONFLICT WITH WORK OF OTHER TRADES. COMPLETE ALL WORK AS SOON AS STRUCTURE AND INSTALLATIONS OF EQUIPMENT AND THE OVERALL SEQUENCE WILL PERMIT.
19. THE CONTRACTOR SHALL INSPECT ALL SITES WHERE WORK IS NEEDED TO DETERMINE DIMENSIONS AND ALL CONDITIONS AFFECTING ELECTRICAL WORK. FAILURE TO DO SO SHALL IN NO WAY RELIEVE CONTRACTOR OF HIS RESPONSIBILITY UNDER CONTRACT.
20. THE ELECTRICAL SUBCONTRACTOR, HIS KEY MANAGEMENT, ONSITE SUPERINTENDENT, AND OPERATING PERSONNEL ONSITE, HIS KEY PERSONNEL IN THE OFFICE AND ONSITE, AND HIS STAFF SHALL BE WELL-EXPERIENCED IN PERFORMING QUALITY WORK OF SIMILAR OR GREATER COMPLEXITY ON PROJECTS OF SIMILAR OR GREATER MAGNITUDE AND DIFFICULTY AT WATER AND WASTEWATER PLANTS. THE SUB CONTRACTOR'S EXPERIENCE SHALL BE SATISFACTORY TO THE OWNER.
21. COORDINATE ALL WORK WITH INSTRUMENTATION & SCADA, ETC.
22. NO CONDUIT OR ELECTRICAL FACILITY OR APPURTENANCE SHALL BE INSTALLED IN A MANNER THAT CREATES A POTENTIAL TRIPPING HAZARD OR AN OBSTRUCTION TO PASSAGE OR HEADROOM, ETC.
23. ALL SMALL PANELS, INCLUDING BUT NOT LIMITED TO, INSTRUMENTATION AND SCADA, SHALL HAVE A #4 BARE COPPER GROUND EXTENDED DIRECTLY TO GROUNDING GRID, UNLESS THE PANEL/INSTRUMENT MANUFACTURER RECOMMENDS AN INDEPENDENT GROUND.
24. ALL DETAILS, APPURTENANCES, CONNECTIONS, COMPONENTS AND WIRING, ETC. ARE NOT SHOWN. PROVIDE ALL COMPONENTS AND DEVICES, ETC., AS REQUIRED FOR A COMPLETE AND PROPERLY OPERATIONAL SYSTEM. PROVIDE THOROUGH AND TIMELY COORDINATION.
25. THE CONTRACTOR SHALL COORDINATE EQUIPMENT ACTUALLY PROVIDED WITH OTHER REQUIREMENTS, COMPONENTS, AND SUBMITTALS, ETC., AND MAKE ADJUSTMENTS AS NECESSARY.
26. PROVIDE DANGER LABELS ON ALL PANELS OR BOXES OR MCC'S. ETC., WHERE POWER IS FED FROM ONE THAN ONE SOURCE OR WHERE TURNING OFF THE MAIN BREAKER OR SWITCH DOES NOT AUTOMATICALLY KILL ALL POWER INSIDE THE PANEL.
27. NOTE THAT ALL ELECTRICAL REQUIREMENTS ARE NOT SHOWN IN ANY ONE LOCATION OF THE PLANS OR SPECIFICATIONS. IT IS NECESSARY TO HAVE AN UNDERSTANDING OF THE ENTIRE PLANS AND SPECIFICATIONS IN ORDER TO KNOW ALL THE PROJECT REQUIREMENTS. CIRCUITS THAT EXTEND FROM ONE LOCATION TO ANOTHER LOCATION ARE TYPICALLY LISTED ONLY AT ONE LOCATION.
28. PROVIDE REMOVABLE SEALANT (UNLESS PERMANENT SEALANT CALLED FOR) AT ALL CONDUIT ENTRY POINTS INTO PANELS & BOXES, ETC. TYPICAL.
29. PROVIDE APPROPRIATE WARNING LABELS ON ALL TYPES OF ENCLOSURES THAT CONTAIN DEVICES (SUCH AS CAPACITORS) THAT MAY CONTAIN ENERGY OR PRESENT A SHOCK HAZARD EVEN AFTER THE MAIN POWER SUPPLY IS DISCONNECTED. THIS ALSO APPLIES TO SITUATIONS WHERE AN ENCLOSURE IS FED FROM A POWER SOURCE SEPARATE FROM THE MAIN POWER SUPPLY.
30. CONDUITS & WIRING ENTER THE BOTTOMS OF ENCLOSURES & PANELS, ETC., SO THAT RAINWATER CANNOT ENTER AT THE WIRING & CONDUIT. INSTALL CONDUITS IN A MANNER TO KEEP WATER FROM ENTERING THE CONDUIT.
31. INSTALL CABLE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. DO NOT EXCEED MINIMUM RECOMMENDED BEND RADIUS, INCLUDING DURING INSTALLATION AND PULLING.
32. KEEP FREE ENDS OF CABLE TIGHTLY CLOSED TO PREVENT THE ENTRANCE OF ANY MOISTURE DURING STORAGE AND AT ALL TIMES WHEN CABLE IS NOT BEING PULLED OFF A REEL, ETC.
33. THE CONTRACTOR SHALL ADJUST ALL EQUIPMENT, CONTROLS, RELAYS, APPURTENANCES, TIMERS, FLOATS, SETPOINTS, AND ALARMS, ETC., PRIOR TO STARTUP SUCH THAT THEY PROPERLY SERVE THEIR INTENDED PURPOSE AND DO NOT RESULT IN NUISANCE TRIPS OR ALARMS. COORDINATE WITH EQUIPMENT MANUFACTURERS AND PROVIDERS, ENGINEER, AND OWNER. ADJUST AS NECESSARY AFTER STARTUP. PROPERLY ADJUST ALL TIMER RELAYS, ETC., TO PREVENT SIMULTANEOUS RESTART AFTER POWER OUTAGES OR TRANSFERS, ETC., AND TO PROTECT EQUIPMENT.
34. THE LOCATIONS SHOWN ON THE DRAWINGS FOR PANELS, STARTERS, DISCONNECTS, AND ALL OTHER ELECTRICAL EQUIPMENT ARE CONCEPTUAL. TYPICAL FOR ALL EQUIPMENT: ACTUAL EQUIPMENT LAYOUT, SIZE, AND EQUIPMENT CONTROL PANEL LOCATION WILL VARY FROM THAT INDICATED. STUB UP ALL CONDUITS PER FINAL APPROVED SUBMITTAL DRAWINGS. THE CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS FOR ALL EQUIPMENT. THE FINAL LOCATION SHALL BE BASED ON THE DIMENSIONS AND LOCATION OF THE ACTUAL EQUIPMENT FURNISHED AND SHALL PROVIDE THE CLEARANCES REQUIRED BY THE CODE, ETC. ALL GEAR AND PANELS, ETC., MUST FIT IN THE SPACE INDICATED ON THE DRAWINGS AND IN THE SPACE AVAILABLE.
35. THE CONTRACTOR SHALL USE HIS OWN PADLOCKS TO LOCK OUT ALL BREAKERS AND EQUIPMENT, ETC., WHICH IS NOT SUPPOSED TO BE POWERED OR OPERATED. THE CONTRACTOR SHALL TAKE THE MEASURES NECESSARY TO PREVENT THE OPERATION OF ANY EQUIPMENT (BY THE OWNER OR OTHERS) WHEN IT IS NOT INTENDED TO BE OPERATED. THIS REQUIREMENT APPLIES DURING ALL PHASES OF THE WORK, INCLUDING BUT NOT LIMITED TO, STORAGE, INSTALLATION, TESTING, STARTUP, EARLY PHASES OF OPERATION, TROUBLESHOOTING, REPAIRS, AND MODIFICATIONS, ETC. APPROVAL OF THE MANUFACTURER SHALL BE OBTAINED PRIOR TO MAKING GEAR HOT.
36. ALL ELECTRICAL PANELS SHALL BE STORED INDOORS IN A BUILDING OR WAREHOUSE. PANELS INCLUDE METAL CLAD GEAR, SWITCHGEAR, SWITCHBOARDS, MCC'S, STARTERS, CONTROL PANELS, INSTRUMENT PANELS, AND ALL OTHER SIMILAR ELECTRICAL PANELS. THE INDOOR AREA SHALL BE HEATED (60° MINIMUM) DURING COOLER PERIODS OF THE YEAR. ALL STORED AND INSTALLED PANELS SHALL BE HEATED AT ALL TIMES BY AN INTERNAL CONDENSATION HEATER OR BY TEMPORARY LIGHT BULBS (MINIMUM 1 – 60 WATT PER SECTION) TO PREVENT CONDENSATION. EQUIPMENT SHALL NOT BE PAID FOR IF NOT PROPERLY STORED IN ACCORDANCE WITH THESE AND ANY ADDITIONAL REQUIREMENTS IMPOSED BY THE MANUFACTURER. IF EQUIPMENT HAS ALREADY BEEN PAID FOR AS STORED OR INSTALLED MATERIALS BUT IS NOT PROPERLY HEATED OR OTHERWISE PROTECTED FROM DUST, WATER, HUMIDITY, AND WEATHER, ETC., THE COST OR PARTIAL COST OF IT MAY BE DEDUCTED FROM SUBSEQUENT PAYMENT REQUESTS. ARRANGE STORED PANELS TO ALLOW FOR EASE OF ENGINEER VERIFICATION (ON REGULAR BASIS) THAT PANEL HEATERS OR LIGHT BULBS ARE IN OPERATION.
37. WHEN WORKING ON EXISTING OR NEW FACILITIES, BE AWARE THAT PANELS, ETC., ARE OFTEN SUPPLIED FROM MORE THAN ONE POWER SUPPLY. THEREFORE, TURNING OFF THE MAIN DISCONNECT MAY NOT KILL ALL POWER. TAKE APPROPRIATE PRECAUTION.

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**CITY OF PELHAM, ALABAMA**  
 WWTP IMPROVEMENTS  
 INSTALLATION OF GRIT AND  
 GREASE REMOVAL EQUIPMENT  
 2023

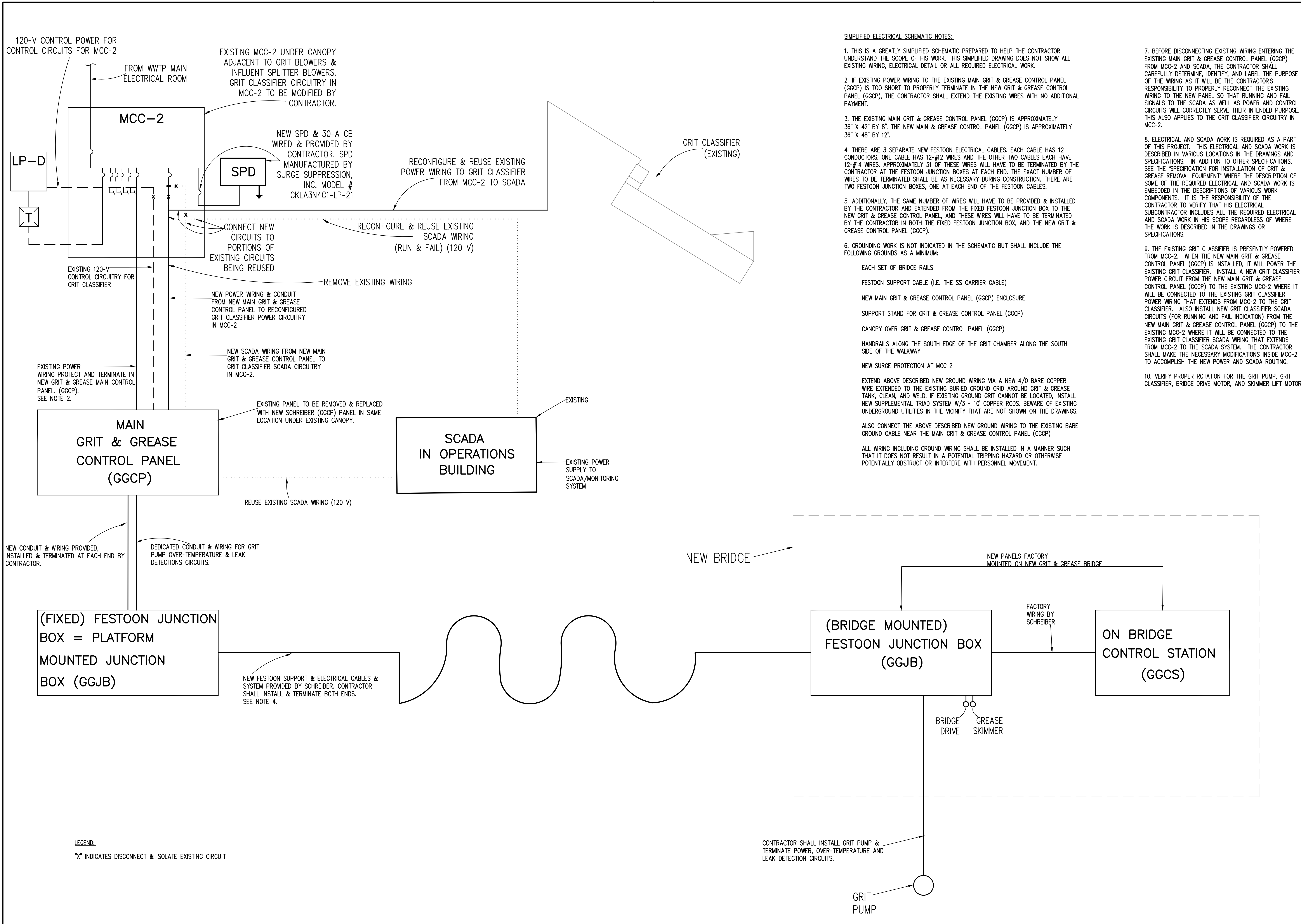


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Title		GENERAL ELECTRIC NOTES		BID SET	
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**SIMPLIFIED ELECTRICAL SCHEMATIC NOTES:**

- THIS IS A GREATLY SIMPLIFIED SCHEMATIC PREPARED TO HELP THE CONTRACTOR UNDERSTAND THE SCOPE OF HIS WORK. THIS SIMPLIFIED DRAWING DOES NOT SHOW ALL EXISTING WIRING, ELECTRICAL DETAIL OR ALL REQUIRED ELECTRICAL WORK.
- IF EXISTING POWER WIRING TO THE EXISTING MAIN GRIT & GREASE CONTROL PANEL (GGCP) IS TOO SHORT TO PROPERLY TERMINATE IN THE NEW GRIT & GREASE CONTROL PANEL (GGCP), THE CONTRACTOR SHALL EXTEND THE EXISTING WIRES WITH NO ADDITIONAL PAYMENT.
- THE EXISTING MAIN GRIT & GREASE CONTROL PANEL (GGCP) IS APPROXIMATELY 36" X 42" BY 8". THE NEW MAIN & GREASE CONTROL PANEL (GGCP) IS APPROXIMATELY 36" X 48" BY 12".
- THERE ARE 3 SEPARATE NEW FESTOON ELECTRICAL CABLES. EACH CABLE HAS 12 CONDUCTORS. ONE CABLE HAS 12-#12 WIRES AND THE OTHER TWO CABLES EACH HAVE 12-#14 WIRES. APPROXIMATELY 30 OF THESE WIRES WILL HAVE TO BE TERMINATED BY THE CONTRACTOR AT THE FESTOON JUNCTION BOXES AT EACH END. THE EXACT NUMBER OF WIRES TO BE TERMINATED SHALL BE AS NECESSARY DURING CONSTRUCTION. THERE ARE TWO FESTOON JUNCTION BOXES, ONE AT EACH END OF THE FESTOON CABLES.
- ADDITIONALLY, THE SAME NUMBER OF WIRES WILL HAVE TO BE PROVIDED & INSTALLED BY THE CONTRACTOR AND EXTENDED FROM THE FIXED FESTOON JUNCTION BOX TO THE NEW GRIT & GREASE CONTROL PANEL, AND THESE WIRES WILL HAVE TO BE TERMINATED BY THE CONTRACTOR IN BOTH THE FIXED FESTOON JUNCTION BOX, AND THE NEW GRIT & GREASE CONTROL PANEL (GGCP).
- GROUNDING WORK IS NOT INDICATED IN THE SCHEMATIC BUT SHALL INCLUDE THE FOLLOWING GROUNDS AS A MINIMUM:
  - EACH SET OF BRIDGE RAILS
  - FESTOON SUPPORT CABLE (I.E. THE SS CARRIER CABLE)
  - NEW MAIN GRIT & GREASE CONTROL PANEL (GGCP) ENCLOSURE
  - SUPPORT STAND FOR GRIT & GREASE CONTROL PANEL (GGCP)
  - CANOPY OVER GRIT & GREASE CONTROL PANEL (GGCP)
  - HANDRAILS ALONG THE SOUTH EDGE OF THE GRIT CHAMBER ALONG THE SOUTH SIDE OF THE WALKWAY.
  - NEW SURGE PROTECTION AT MCC-2
- EXTEND ABOVE DESCRIBED NEW GROUND WIRING VIA A NEW 4/0 BARE COPPER WIRE EXTENDED TO THE EXISTING BURIED GROUND GRID AROUND GRIT & GREASE TANK, CLEAN, AND WELD. IF EXISTING GROUND GRIT CANNOT BE LOCATED, INSTALL NEW SUPPLEMENTAL TRIAD SYSTEM W/3 - 10' COPPER RODS. BEWARE OF EXISTING UNDERGROUND UTILITIES IN THE VICINITY THAT ARE NOT SHOWN ON THE DRAWINGS.
- ALSO CONNECT THE ABOVE DESCRIBED NEW GROUND WIRING TO THE EXISTING BARE GROUND CABLE NEAR THE MAIN GRIT & GREASE CONTROL PANEL (GGCP)
- ALL WIRING INCLUDING GROUND WIRING SHALL BE INSTALLED IN A MANNER SUCH THAT IT DOES NOT RESULT IN A POTENTIAL TRIPPING HAZARD OR OTHERWISE POTENTIALLY OBSTRUCT OR INTERFERE WITH PERSONNEL MOVEMENT.
- BEFORE DISCONNECTING EXISTING WIRING ENTERING THE EXISTING MAIN GRIT & GREASE CONTROL PANEL (GGCP) FROM MCC-2 AND SCADA, THE CONTRACTOR SHALL CAREFULLY DETERMINE, IDENTIFY, AND LABEL THE PURPOSE OF THE WIRING AS IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY RECONNECT THE EXISTING WIRING TO THE NEW PANEL SO THAT RUNNING AND FAIL SIGNALS TO THE SCADA AS WELL AS POWER AND CONTROL CIRCUITS WILL CORRECTLY SERVE THEIR INTENDED PURPOSE. THIS ALSO APPLIES TO THE GRIT CLASSIFIER CIRCUITRY IN MCC-2.
- ELECTRICAL AND SCADA WORK IS REQUIRED AS A PART OF THIS PROJECT. THIS ELECTRICAL AND SCADA WORK IS DESCRIBED IN VARIOUS LOCATIONS IN THE DRAWINGS AND SPECIFICATIONS. IN ADDITION TO OTHER SPECIFICATIONS, SEE THE 'SPECIFICATION FOR INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT' WHERE THE DESCRIPTION OF SOME OF THE REQUIRED ELECTRICAL AND SCADA WORK IS EMBEDDED IN THE DESCRIPTIONS OF VARIOUS WORK COMPONENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT HIS ELECTRICAL SUBCONTRACTOR INCLUDES ALL THE REQUIRED ELECTRICAL AND SCADA WORK IN HIS SCOPE REGARDLESS OF WHERE THE WORK IS DESCRIBED IN THE DRAWINGS OR SPECIFICATIONS.
- THE EXISTING GRIT CLASSIFIER IS PRESENTLY POWERED FROM MCC-2. WHEN THE NEW MAIN GRIT & GREASE CONTROL PANEL (GGCP) IS INSTALLED, IT WILL POWER THE EXISTING GRIT CLASSIFIER. INSTALL A NEW GRIT CLASSIFIER POWER CIRCUIT FROM THE NEW MAIN GRIT & GREASE CONTROL PANEL (GGCP) TO THE EXISTING MCC-2 WHERE IT WILL BE CONNECTED TO THE EXISTING GRIT CLASSIFIER POWER WIRING THAT EXTENDS FROM MCC-2 TO THE GRIT CLASSIFIER. ALSO INSTALL NEW GRIT CLASSIFIER SCADA CIRCUITS (FOR RUNNING AND FAIL INDICATION) FROM THE NEW MAIN GRIT & GREASE CONTROL PANEL (GGCP) TO THE EXISTING MCC-2 WHERE IT WILL BE CONNECTED TO THE EXISTING GRIT CLASSIFIER SCADA WIRING THAT EXTENDS FROM MCC-2 TO THE SCADA SYSTEM. THE CONTRACTOR SHALL MAKE THE NECESSARY MODIFICATIONS INSIDE MCC-2 TO ACCOMPLISH THE NEW POWER AND SCADA ROUTING.
- VERIFY PROPER ROTATION FOR THE GRIT PUMP, GRIT CLASSIFIER, BRIDGE DRIVE MOTOR, AND SKIMMER LIFT MOTOR.

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**CITY OF PELHAM, ALABAMA**  
 WWTP IMPROVEMENT  
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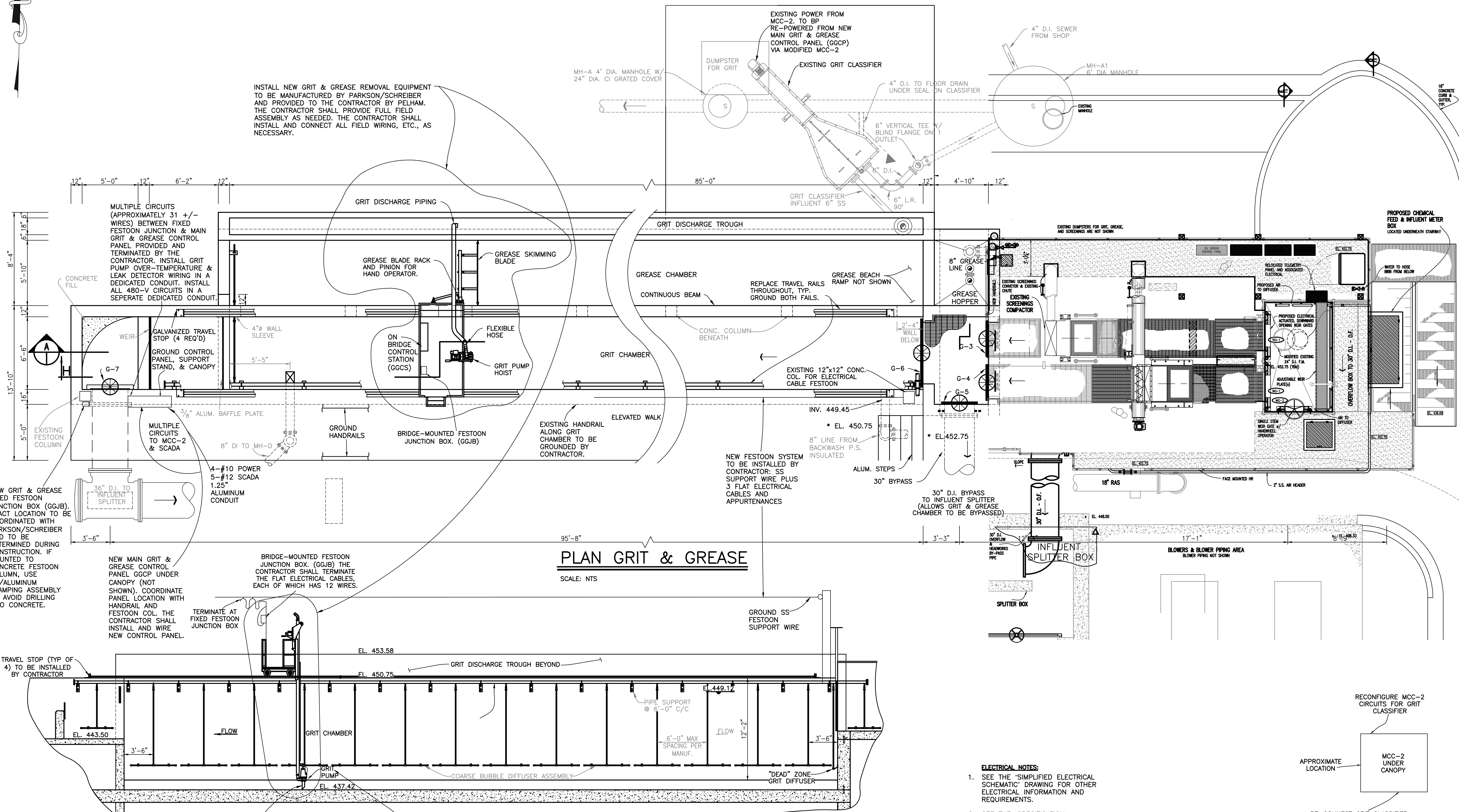
**Professional Engineer Seal:**  
 State of Alabama  
 No. 12143  
 Professional Engineer  
 Charles S. Godfrey  
 3-1-2023  
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Drawing Project No.	Title	
	SIMPLIFIED ELECTRICAL SCHEMATIC	BID SET
Date	2-2023	
Scale	AS SHOWN	
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**PLAN GRIT & GREASE**

SCALE: NTS

INSTALL NEW GRIT & GREASE REMOVAL EQUIPMENT TO BE MANUFACTURED BY PARKSON/SCHREIBER AND PROVIDED TO THE CONTRACTOR BY PELHAM. THE CONTRACTOR SHALL PROVIDE FULL FIELD ASSEMBLY AS NEEDED. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL FIELD WIRING, ETC., AS NECESSARY.

MULTIPLE CIRCUITS (APPROXIMATELY 31 +/- WIRES) BETWEEN FIXED FESTOON JUNCTION BOX & MAIN GRIT & GREASE CONTROL PANEL PROVIDED AND TERMINATED BY THE CONTRACTOR. INSTALL GRIT PUMP OVER-TEMPERATURE & LEAK DETECTOR WIRING IN A DEDICATED CONDUIT. INSTALL ALL 480-V CIRCUITS IN A SEPARATE DEDICATED CONDUIT.

NEW MAIN GRIT & GREASE CONTROL PANEL GGCP UNDER CANOPY (NOT SHOWN). COORDINATE PANEL LOCATION WITH HANDRAIL AND FESTOON COL. THE CONTRACTOR SHALL INSTALL AND WIRE NEW CONTROL PANEL.

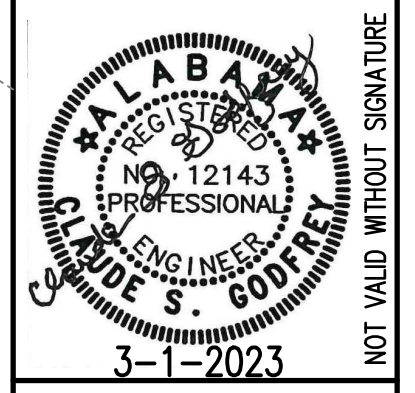
**SECTION "A-A"**

SCALE: NTS  
AIR PIPING AND FESTOON COLUMN SHOWN OUT OF ACTUAL POSITION

CONTRACTOR SHALL INSTALL PUMP AND TERMINATE POWER, OVER-TEMPERATURE, AND LEAK DETECTION WIRING FOR GRIT PUMP.

THE CONTRACTOR SHALL KEEP THE FREE END OF THE PUMP CABLE ABOVE THE MAXIMUM POSSIBLE WATER SURFACE (450.75) AT ALL TIMES TO PREVENT ANY POSSIBILITY OF UNEXPECTED WATER ENTERING OR WICKING INTO PUMP ELECTRICAL CABLE.

- ELECTRICAL NOTES:**
- SEE THE "SIMPLIFIED ELECTRICAL SCHEMATIC" DRAWING FOR OTHER ELECTRICAL INFORMATION AND REQUIREMENTS.
  - SEE THE "SPECIFICATION FOR INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT" WHERE THE DESCRIPTION OF SOME OF THE REQUIRED ELECTRICAL AND SCADA WORK IS EMBEDDED IN THE DESCRIPTIONS OF VARIOUS WORK COMPONENTS.
  - SEE THE "GENERAL ELECTRICAL NOTE SHEET" FOR GENERAL ELECTRICAL, CONTROL, & SCADA REQUIREMENTS NOTES.



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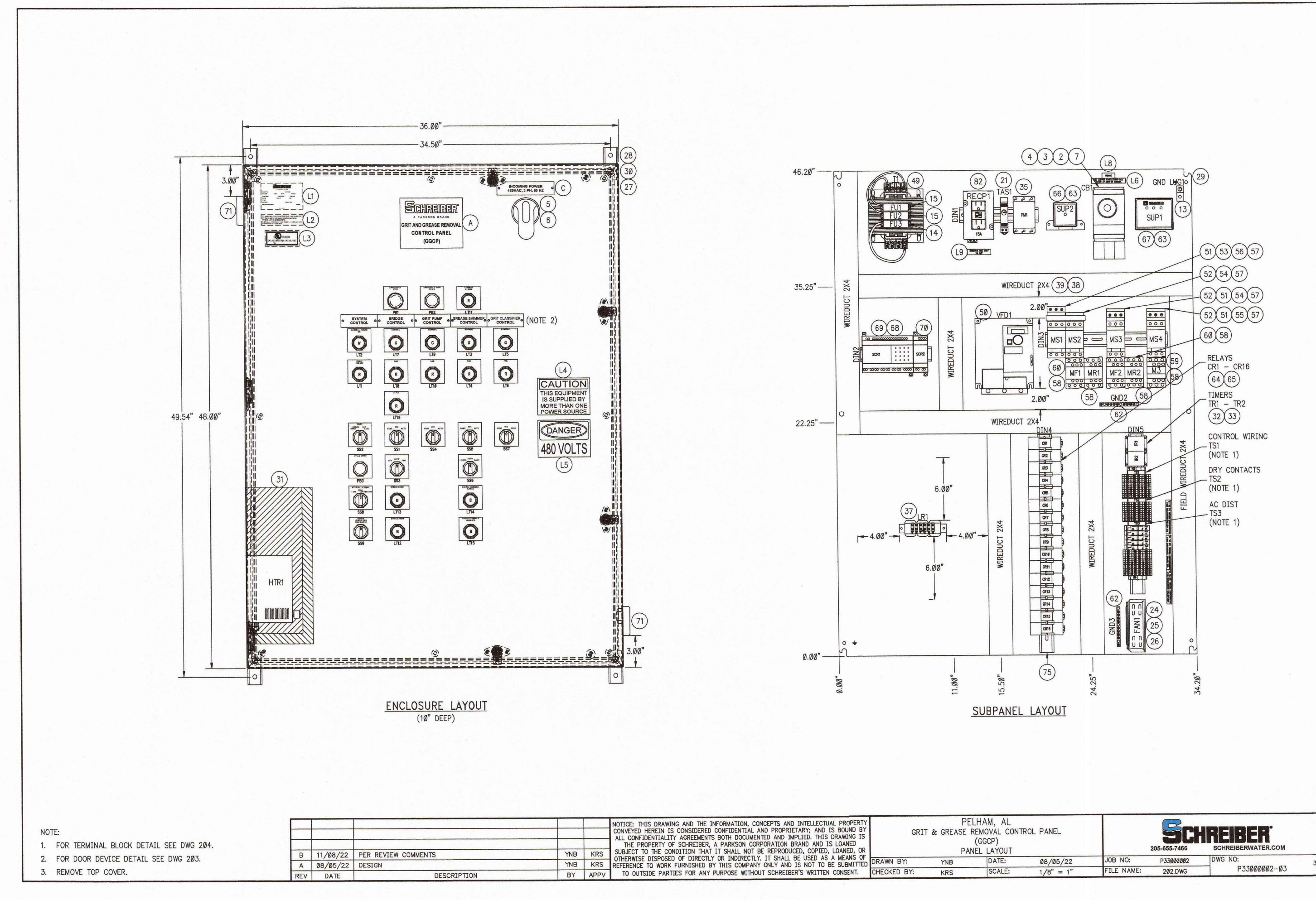
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Drawing	Project No.	02-2023	AS SHOWN
Date	Scale	AS SHOWN	11
Sheet	BID SET		

2023

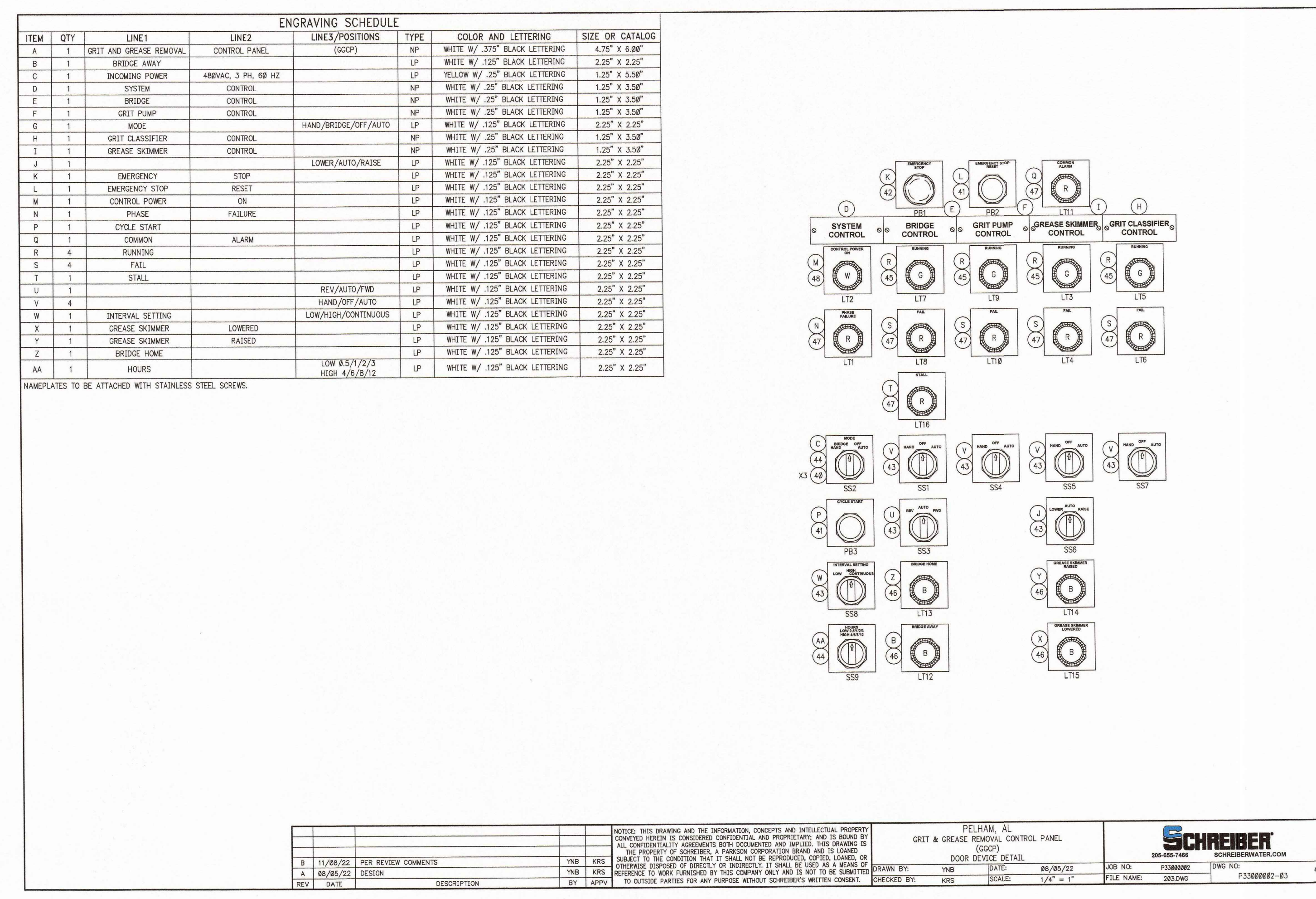
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THESE DRAWINGS HAVE BEEN EXCERPTED FROM THE APPROVED SUBMITTAL PREPARED BY SCHREIBER (I.E. PARKSON/SCHREIBER) FOR THE EQUIPMENT IT IS PROVIDING FOR THIS PROJECT. ALTHOUGH NOT ALL DETAILS ARE SHOWN, THE DRAWINGS ARE INCLUDED IN THE CONTRACT DRAWINGS TO HELP THE BIDDERS UNDERSTAND THE SCOPE OF WORK.



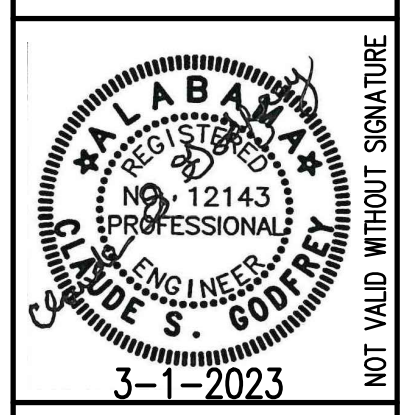
ALTHOUGH THIS DRAWING SHOWS A PANEL DEPTH OF 10", MORE CURRENT CORRESPONDENCE INDICATES A DEPTH OF 12".



NOTE:  
THE WIRING FROM THIS GGCP TO THE BRIDGE SHALL BE TERMINATED BY THE CONTRACTOR IN THE FIXED FESTOON JUNCTION BOX (GGJB). THE FIXED END OF THE FESTOON CABLES SHALL ALSO BE TERMINATED BY THE CONTRACTOR IN THE FIXED FESTOON JUNCTION BOX (GGJB). THE BRIDGE END OF THE FESTOON CABLES SHALL BE TERMINATED BY THE CONTRACTOR IN THE BRIDGE MOUNTED FESTOON JUNCTION BOX (GGJB). SEE THE SCHREIBER SUBMITTAL INTERCONNECTION DIAGRAM FOR NUMBER OF WIRES TO BE INSTALLED & TERMINATED.

**Municipal Consultants, Inc.**  
200 Cahaba Park South, Suite 212  
Birmingham, Alabama 35208  
(205) 827-0387

**CITY OF PELHAM, ALABAMA**  
WWTIP IMPROVEMENTS  
INSTALLATION OF GRIT & GREASE REMOVAL EQUIPMENT  
2023

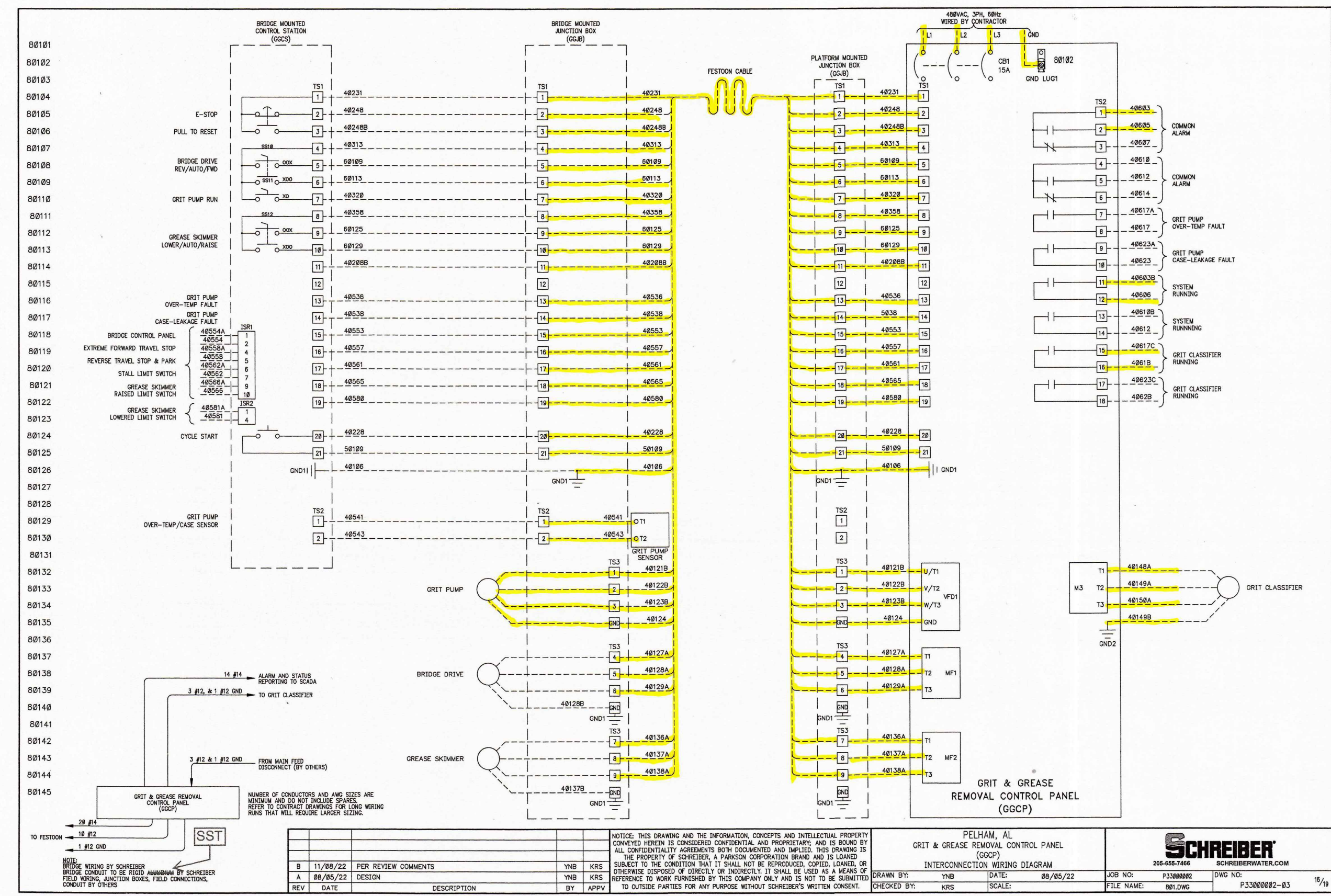


Title		SUBMITTAL	
SCHREIBER		GRIT & GREASE	
CONTROL PANEL (GGCP)		BID SET	
Project No.	02-2023	Date	N.T.S.
Scale		Sheet	12

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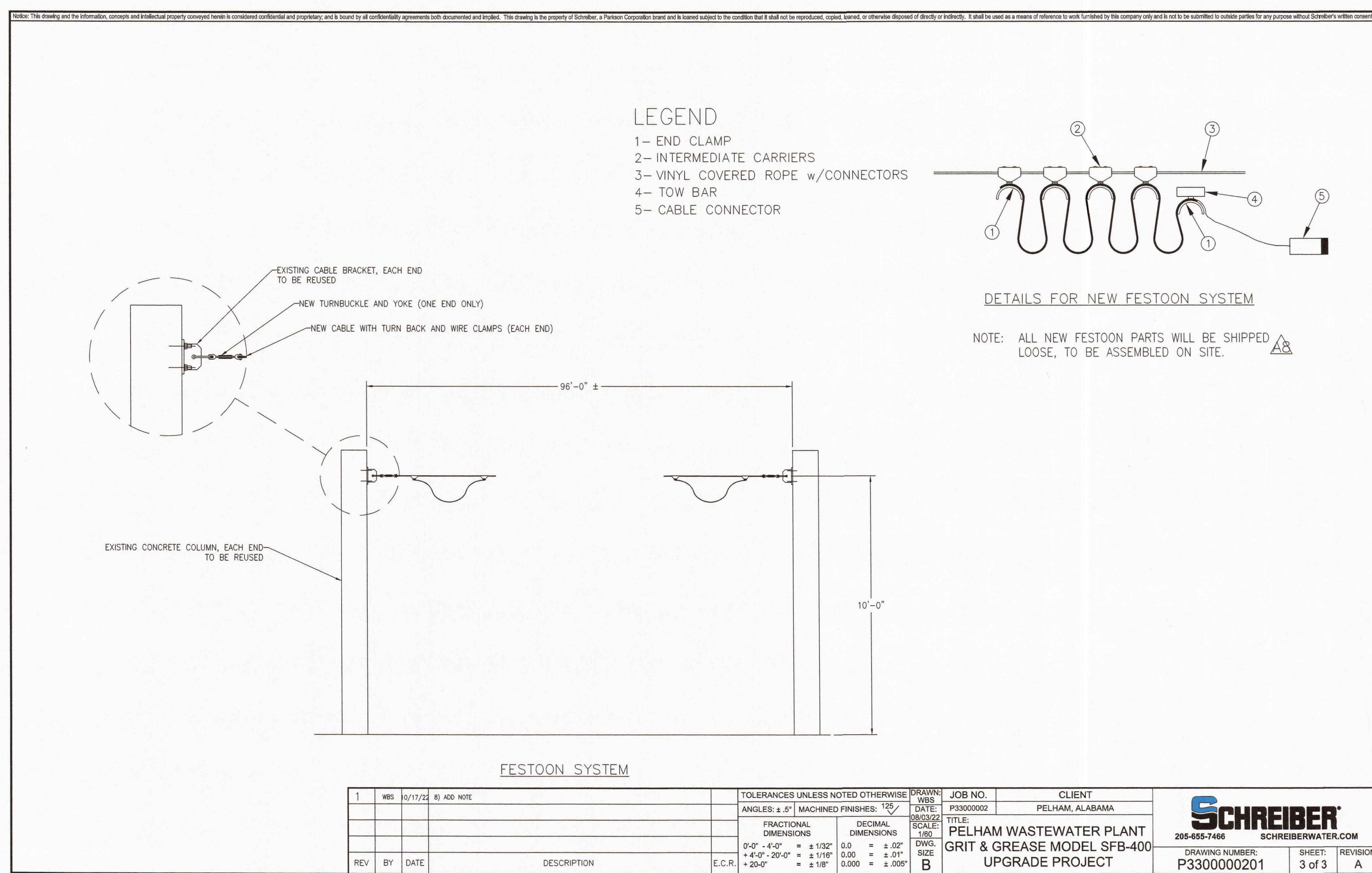


THIS DRAWING IS FOR INFORMATIONAL PURPOSES DURING BIDDING. THE CONTRACTOR SHALL INSTALL & TERMINATE WIRING IN ACCORDANCE WITH THE AS-BUILT DRAWINGS TO BE PREPARED BY PARKSON/SCHREIBER.



THE YELLOW HIGHLIGHT INDICATES WIRING TO BE INSTALLED AND TERMINATED BY THE CONTRACTOR. THE YELLOW HIGHLIGHTING IS NOT PART OF THE SUBMITTAL. THE YELLOW HIGHLIGHT WAS ADDED TO ASSIST THE CONTRACTOR BY INDICATING (IN GENERAL TERMS) SOME OF THE FIELD WIRING THAT MUST BE INSTALLED AND TERMINATED BY THE CONTRACTOR.

NOTE RE: ITEM 3 FESTOON SUPPORT CABLE: THIS CABLE WILL NOT BE VINYL COVERED ROPE BUT WILL BE PROVIDED AS STAINLESS STEEL WIRE WITHOUT THE PLASTIC COATING.



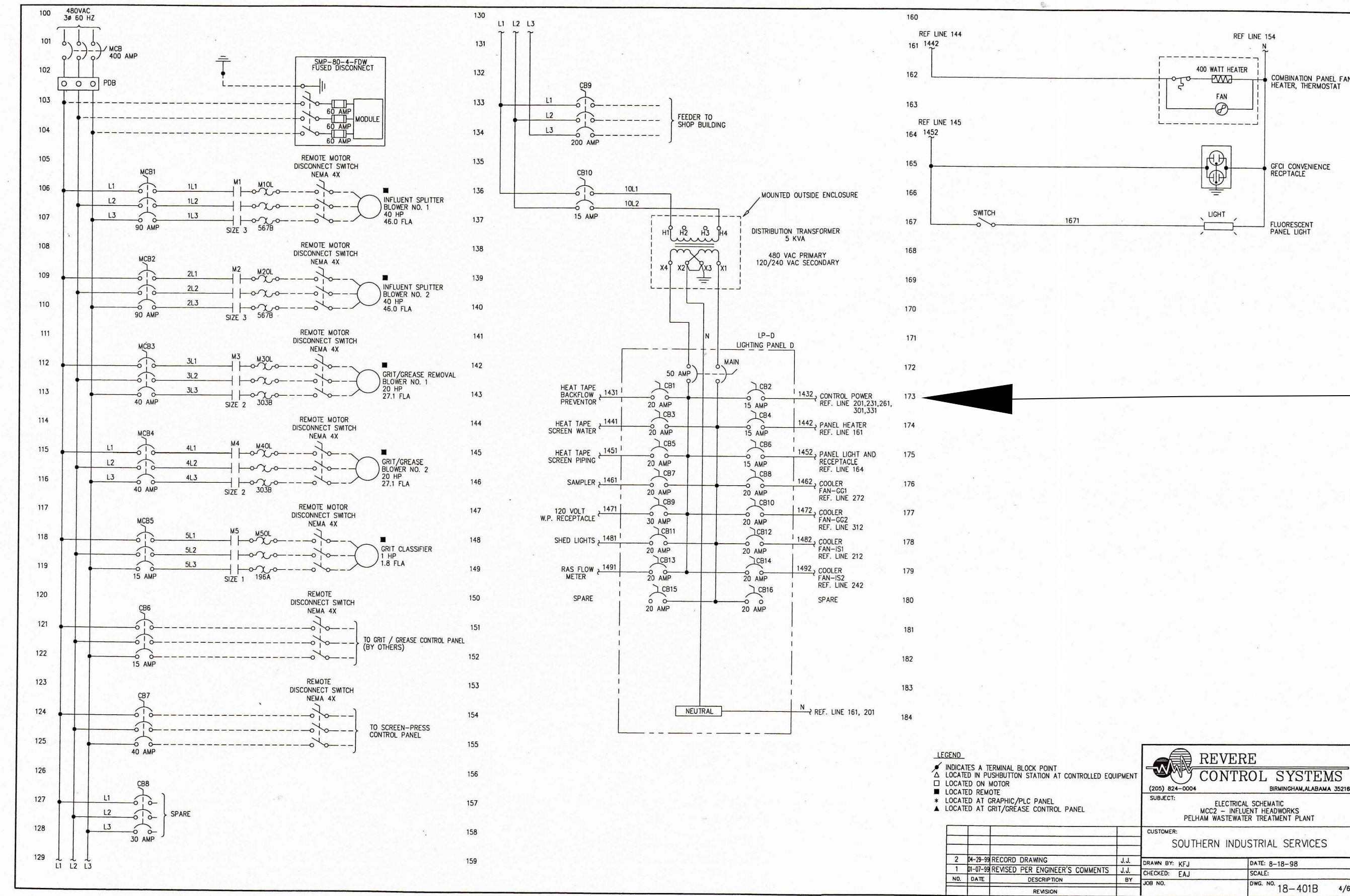
THESE DRAWINGS HAVE BEEN EXCERPTED FROM THE APPROVED SUBMITTAL PREPARED BY SCHREIBER (I.E. PARKSON/SCHREIBER) FOR THE EQUIPMENT IT IS PROVIDING FOR THIS PROJECT. ALTHOUGH NOT ALL DETAILS ARE SHOWN, THE DRAWINGS ARE INCLUDED IN THE CONTRACT DRAWINGS TO HELP THE BIDDERS UNDERSTAND THE SCOPE OF WORK.

Drawing	Title	
	SCHREIBER SUBMITTAL INTERCONNECTION DIAGRAM & FESTOON SYSTEM	
Project No.	02-2023	N.T.S.
Date	02-2023	
Scale	13	
Sheet	13	

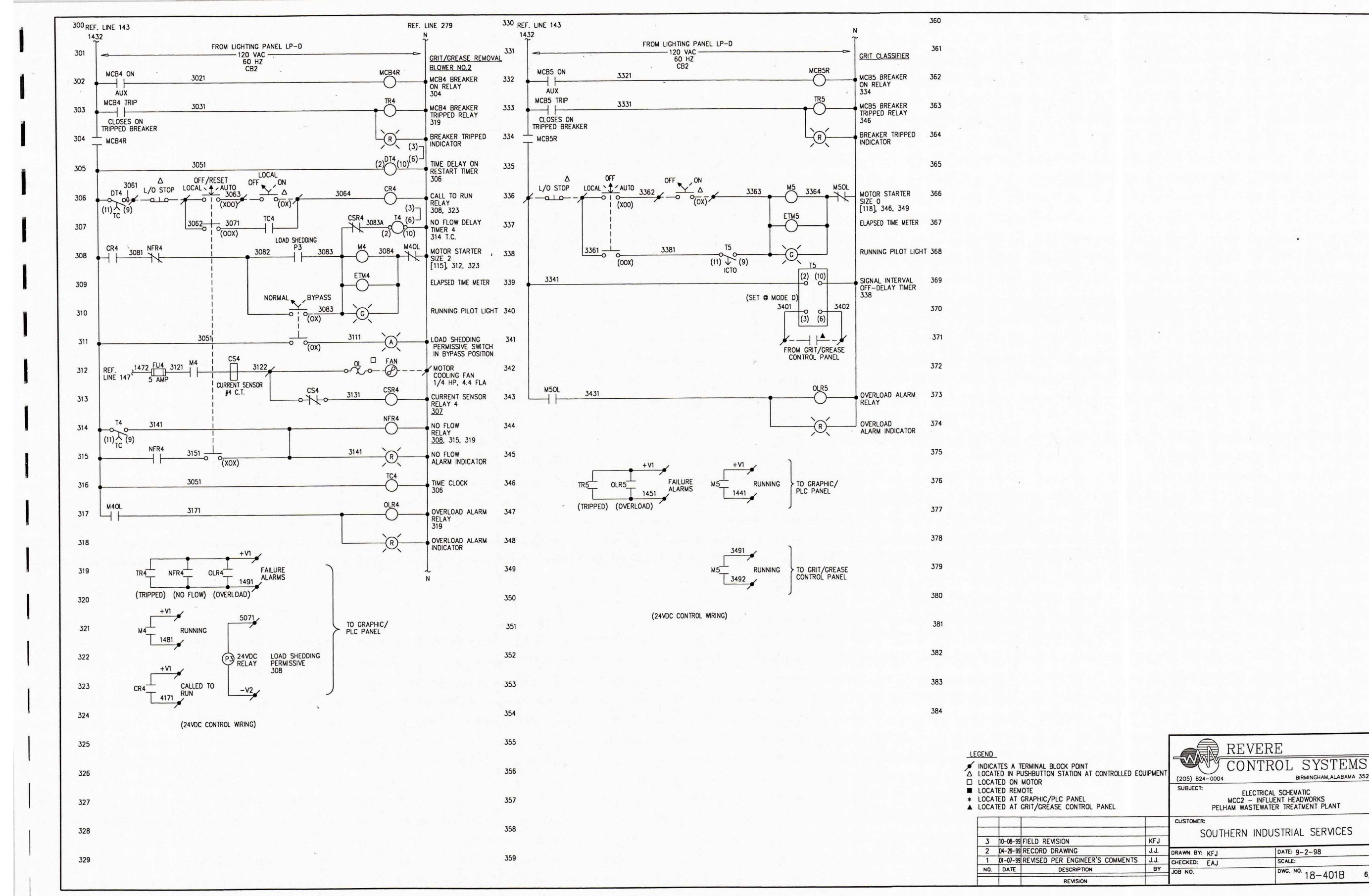
Job No.	Client
P3300002	PELHAM, ALABAMA
Project	Pelham Wastewater Plant
Drawn By	DATE
DATE	DATE
DESCRIPTION	DESCRIPTION
DATE	DESCRIPTION



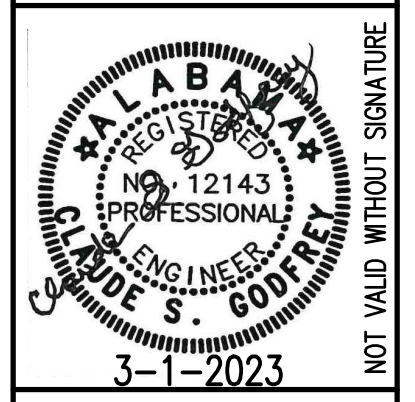
THESE DRAWINGS WERE PREPARED BY REVERE CONTROL SYSTEMS TO INDICATE SOME (BUT BY NO MEANS ALL) OF THE WIRING INSIDE EXISTING MCC-2 WHEN IT WAS MANUFACTURED IN 1999. THESE DRAWINGS ARE BEING PROVIDED TO THE BIDDERS TO ASSIST THEM IN UNDERSTANDING PART OF THE CIRCUITRY THAT THE CONTRACTOR WILL HAVE TO MODIFY IN MCC-2. THE CONTRACTOR SHALL BE AWARE THAT SOME OF THE WIRING MAY HAVE BEEN CHANGED EITHER DURING THE INITIAL INSTALLATION OR DURING LATER CHANGES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CIRCUITRY AS IT ACTUALLY CURRENTLY EXISTS AND FOR MAKING THE REQUIRED MODIFICATIONS.



CONTROL POWER FOR MCC-2 CIRCUITS (INCLUDING GRIT CLASSIFIER)



EXISTING CONTROL CIRCUITRY IN MCC-2 FOR GRIT CLASSIFIER.



NOT VALID WITHOUT SIGNATURE

3-1-2023

BAR = 1"

Drawing	Title		
	REVERE SUBMITTAL		
	MCC-2 DRAWINGS (PARTIAL)		
	N.T.S.		
	14		
Project No.	02-2023		
Date	N.T.S.		
Scale	N.T.S.		
Sheet	14		