DIGITAL SIGNALS:

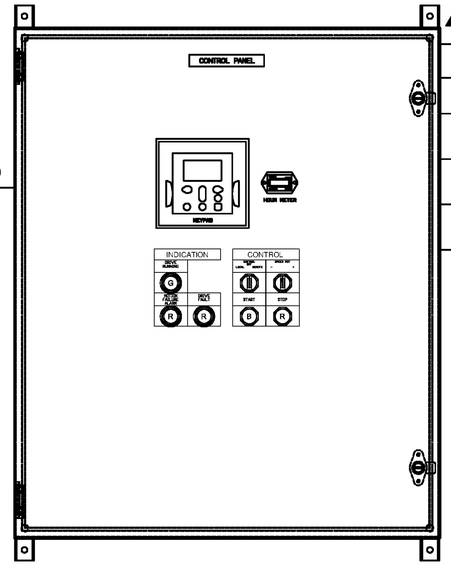
INPUT: DRIVE IN REMOTE
INPUT: MOTOR FAILURE ALARM
INPUT: DRIVE RUNNING
INPUT: DRIVE OFF
OUTPUT: DRIVE START CMD
OUTPUT: DRIVE STOP CMD

ANALOG SIGNALS:

INPUT: DRIVE SPEED FEEDBACK
OUTPUT: DRIVE SPEED SETPOINT CMD

PROVIDE REGISTER MAPPING FOR PROFIBUS NETWORK.

3/4"C(2 PROFIBUS CABLE)



1"C(4#10)
3/4"C(3#12)
3/4"C(2#14)
3/4"C(2#14)
3/4"C(2#14)
1"C(3#12, BELDEN 2KV VFD CABLE OR APPROVED EQUAL)

480VAC, 25A FROM MCC-B

HS — CONTACT — ESTOP CABLE SWITCH
YS — 120VAC — LOSS OF MOTION
HS — CONTACT — REMOTE ESTOP STATION
5 HP — 480VAC — FLOCCULATION DRIVE (VFD)

FLOCCULATION TANK CONTROL PANEL ENCLOSURE FRONT LAYOUT

PEP FL1 | PEP FL2

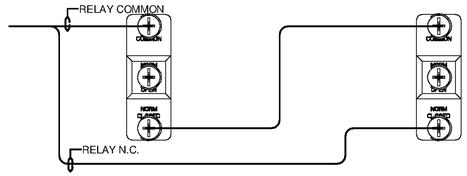
NEMA 4X TYPE 316 STANLESS STEEL (NOT TO SCALE)

PANEL WILL BE SUPPLIED WITH AC UNIT TO KEEP VFD'S COOL

PLANT CONTROL SYSTEM

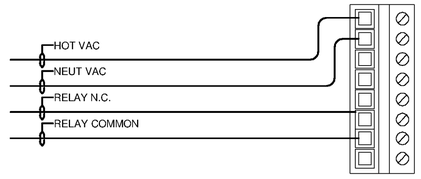
PRE-ENGINEERGED CONTROL PANEL

ACCESSORIES:
- SURGE SUPPRESSOR ON INCOMING POWER.
- DEEP HINGED WINDOW KIT COVERING DOOR ELEMENTS.
- TYPE 316 STAINLESS STEEL, WITH ACID WASH
- FIBER PATCH PANEL



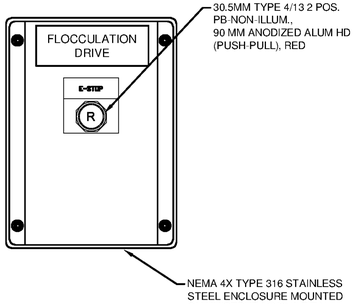
ESTOP CABLE SWITCH WIRING SCHEMATIC

NOT TO SCALE



LOSS OF MOTION SWITCH WIRING SCHEMATIC

NOT TO SCALE



REMOTE ESTOP STATION

SCALE: NA

GENERAL NOTES:
1. TYPICAL OF 2 PRE-ENGINEERED PANELS. PEP-FL1 AND ASSOCIATED EQUIPMENT IS SHOWN.
2. SEE SECTION 40 99 90 "PACKAGE CONTROL SYSTEMS" FOR PANEL REQUIREMENTS. OUTDOOR PANEL SHALL BE NEMA 4X TYPE 316 STAINLESS STEEL
3. SEE ELECTRICAL SPECIFICATIONS FOR CONDUIT AND WIRE REQUIREMENTS.
4. EQUIPMENT PLACEMENT SHOWN ON E-2401.
5. PANEL MANUFACTURER MUST DEMONSTRATE INTEGRATION TO SIEMENS S7-1500 PROCESS PRIOR TO COMMISSIONING.
6. ESTOP CABLE TO SURROUND DRIVE MECHANISM (APPROXIMATELY 125')

PROCESSOR NOTES:
1. PROVIDE COMMUNICATION CONVERTER TO CONNECT THE PEP-FL CONTROLLER TO THE PLANT SCADA SYSTEM. CONVERTER SHALL CONNECT TO THE PROFIBUS NETWORK WHICH IS CONNECTED TO WTP-LCP-1.

HMI NOTES:
1. MONITOR AND MANUAL START/STOP LOGIC TO BE PROGRAMMED IN WTP-LCP-1.
2. PEP SHALL INCLUDE MANUAL CONTROL OF EQUIPMENT, ALLOWING COMPLETE CONTROL OF NORMAL OPERATION FROM THE PEP WHILE WTP-LCP-1 IS OFFLINE. ANY ADDITIONAL CONTROLS OR INDICATION REQUIRED FOR MANUAL CONTROL SHALL BE INCLUDED IN THE BASE SCOPE OF WORK.

TETRA TECH
www.tetratech.com
101 QUALITY CIRCLE, SUITE 140
HUNTSVILLE, ALABAMA 35806
PHONE: (256) 424-4077 FAX: (256) 424-4097

BID SET

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 21938 TIMOTHY ANDREW CALZARETTA

MARK	DATE	DESCRIPTION	BY

HUNTSVILLE UTILITIES
SOUTHEAST WATER TREATMENT PLANT

FLOCCULATION TANK CONTROL PANEL

Project No.:	200-11740-10003
Designed By:	CSW
Drawn By:	TAC
Checked By:	WAP

I-2601

Copyright: Tetra Tech

Bar Measures 1 inch

10/17/2014 10:32:52 AM - P:\IER\11740\200-11740-10003\CAD\SHEETFILES\TREATMENT PLANT\WTP-I-2601 FLOC TANK CP.DWG - CALZARETTA, TIMOTHY