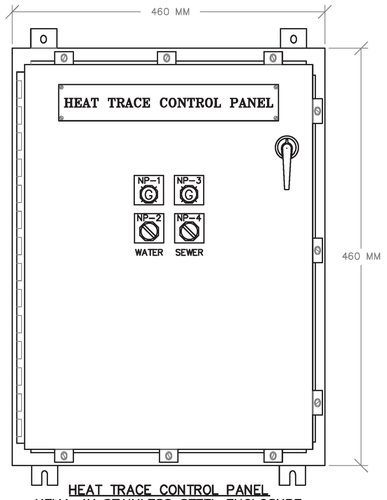


HEAT TRACE CONTROL PANEL
NEMA 4X STAINLESS STEEL ENCLOSURE

PLC PANEL NAMEPLATE SCHEDULE:

NP-1/3 HEAT TRACE 'ON'

NP-2/4 HEAT TRACE 'H-O-A' SWITCH (PUSH TO TEST TYPE)

TYPICAL CONTROL PANEL SYMBOLS:

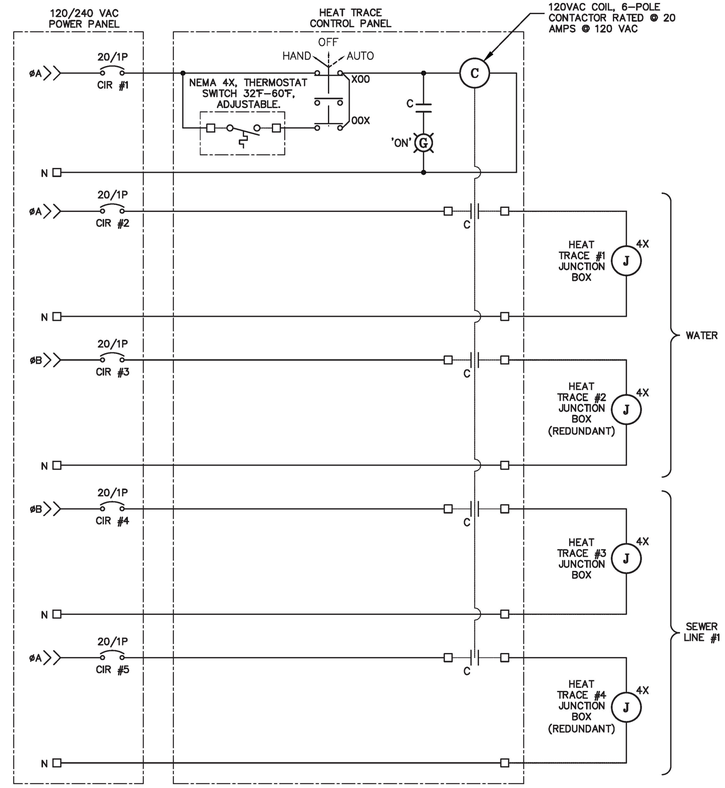
(R) INDICATING LIGHTS PUSH TO TEST TYPE
A: AMBER R: RED
B: BLUE W: WHITE
G: GREEN Y: YELLOW

HEAT TRACE CONTROL PANEL ELEVATION (2/E2)

SCALE: NONE

PROJECT GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (N.E.C.) LATEST EDITION.
2. COORDINATE ALL ELECTRICAL EQUIPMENT LOCATIONS AND MECHANICAL APPURTENANCES WITHIN THE EXISTING CONDITIONS TO PROVIDE ADEQUATE WORKING AND ACCESS PER N.E.C. REQUIREMENTS.
3. WHERE EXISTING ELECTRICAL DEVICES AND PROCESS DEVICES ARE INDICATE THOSE LOCATIONS ARE APPROXIMATE AND NOT ALL ELECTRICAL DEVICES MAY BE INDICATE. (FIELD VERIFY ALL ELECTRICAL ITEMS WHERE POSSIBLE.)
4. CONDUITS, RACEWAYS AND CABLES SHALL BE PROPERLY AND SECURELY ATTACHED TO BUILDING STRUCTURAL COMPONENTS AS REQUIRED BY N.E.C. ALL FASTENERS AND HARDWARE SHALL BE APPROVED FOR THE INSTALLATION AND THE CONDITIONS ENCOUNTERED.
5. EACH JUNCTION IN ANY OF THE WIRING SYSTEMS SHALL BE MADE IN AN APPROVED JUNCTION BOX. SUCH BOX SHALL BE SUITABLE FOR THE SIZE AND NUMBER OF CONDUCTORS AND DEVICES TO BE INSTALLED, AS WELL AS THE CONDITION ENCOUNTERED. ALL SPLICES SHALL BE MADE WITH APPROVED, MECHANICAL CONNECTORS.
6. CONTRACTOR SHALL VERIFY ALL STRUCTURAL, PROCESS AND MECHANICAL CONDITIONS PRIOR TO ROUGH-IN FOR ELECTRICAL WIRING AND EQUIPMENT.
7. ALL ELECTRICAL WORK SHALL BE CAREFULLY COORDINATED WITH THE ON-SITE CONDITIONS. WHERE CUTTING, DRILLING OR ALTERATION TO THE WORK OF OTHERS IS NECESSARY FOR THE PROPER INSTALLATION OF ELECTRICAL EQUIPMENT, SUCH WORK SHALL BE PLANNED IN ADVANCE AND SHALL BE CAREFULLY DONE. ANY DAMAGE TO THE BUILDINGS OR EQUIPMENT SHALL BE REPAIRED BY PROPERLY TRAINED PERSONNEL TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
8. DURING ROUGH-IN AND FINISHED STAGES OF CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND KEEP CLEAN ALL ELECTRICAL EQUIPMENT, PANELS, FIXTURES AND DEVICES AS WELL AS ALL EXISTING EQUIPMENT AND RELATED WORK AREAS.
9. THE CONTRACTOR SHALL PROVIDE ALL INFORMATION ABOUT EQUIPMENT WHICH HE/SHE IS FURNISHING TO THE ENGINEER/OWNER FOR REVIEW PURPOSES. THE CONTRACTOR SHALL PROVIDE ALL INSTALLATION DETAILS AND SUPPORT COMPONENTS SO THAT THESE MAY BE BUILT INTO THE CONSTRUCTION IN A TIMELY MANNER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE FINAL LOCATIONS OF INSTRUMENTATION, CONTROL AND POWER CONNECTION DETAILS SO THAT THE ASSOCIATED ELECTRICAL WORK WILL BE PROPERLY COORDINATED AND INSTALLED.
11. EQUIPMENT LAYOUT AND EXACT LAYOUT OF NEW ELECTRICAL EQUIPMENT AND INSTRUMENTATION SHALL BE COORDINATED WITH PROCESS AND MECHANICAL EQUIPMENT.
12. DRAWINGS SHOW A LAYOUT OF ELECTRICAL/INSTRUMENTATION SYSTEMS AND EQUIPMENT DIAGRAMMATICALLY. EXACT LOCATION OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE DETERMINED BY FIELD CONDITIONS AND DIRECTION BY ENGINEER AND OWNER. BY SUBMITTING A BID, CONTRACTOR WARRANTS THAT HE HAS VISITED THE SITE WHERE WORK IS TO BE PERFORMED, AND HAS EXAMINED THE EXISTING CONDITIONS AND EXTENT OF LABOR AND MATERIALS TO BE PROVIDED. COORDINATION WITH ALL TRADES, UTILITIES, ETC. SHALL BE PROVIDED. THE ENGINEER SHOULD BE NOTIFIED OF ANY DISCREPANCIES, OMISSIONS, CONFLICTS OR INTERFERENCES WHICH OCCUR BETWEEN VARIOUS DRAWINGS AND SPECIFICATIONS. IF SUCH NOTIFICATION IS NOT RECEIVED, THE INSTALLING CONTRACTOR(S) SHALL BE RESPONSIBLE FOR THEIR INTERPRETATIONS.
13. ALL COST FOR PROVIDING AND INSTALLING HEAT TRACE SYSTEMS FOR WATER MAIN AND SEWER MAIN ON THE BRIDGE WILL BE INCLUDED UNDER CONTRACT ITEM 900.645 SPECIAL PROVISION (WATER MAIN ON BRIDGE) AND (SEWER MAIN ON BRIDGE), RESPECTIVELY.



HEAT TRACE CONTROL PANEL WIRING DIAGRAM (1/E2)

SCALE: NONE

FOR CONSTRUCTION

smr Engineering, PC
Electrical, Instrumentation & Control Systems Design
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Merrimack, NH 03054
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REGISTERED PROFESSIONAL ENGINEER

REVISIONS

BY	COMMENTS	DATE

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TH 2, FAS 105
BRIDGE #32

WIRING DIAGRAMS AND DETAILS

READSBORO, VERMONT

READSBORO BRF 0105(3)
WIRING DIAGRAM AND DETAILS

SHEET __ OF __

Project #	416006
Project Mgr.	NRJ
Design by	JWC
Drawn by	JWC
Reviewed by	SMR
Approved by	SMR
Date	MAY 2011
Scale	

E2

SHEET 2 OF 4

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