

PARTIAL B.I.O. SITE MAP  
N.T.S.

# **ELECTRICAL DRAWING NOTES:**

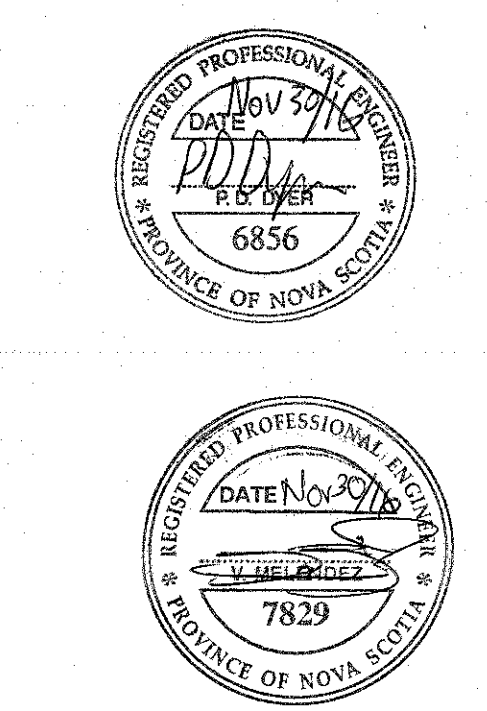
- BELOW IS FOR THE PURPOSE OF PROVIDING POWER TO THE NEW PUMPS P-1 AND P-2 SUPPLY AND INSTALL 2-30A FUSIBLE DISCONNECT SWITCHES IN EXISTING SPACES OF MCC VS2 AND TO MATCH OR BE COMPATIBLE WITH SIEMENS MCC STYLE 890S91740001 AND TO BE FUSED WITH AT 20A TIME DELAY FUSE TO MATCH EXISTING. SUPPLY AND INSTALL 2 FEEDS (ONE PER PUMP) VIA THE VFD'S TO CONSIST OF 3#12+1#12 GROUND IN A 16mm (1/2") EMT CONDUIT.
- TERMINATE FEED TO EACH PUMP WITH LIQUID TIGHT FLEX, COORDINATE ALL WORK AND INSTALLATION WITH PUMP AND VFD INSTALLERS.

# **MECHANICAL LEGEND:**

- CHWS NEW CHILLED WATER SUPPLY
- CHWR NEW CHILLED WATER RETURN

# **ELECTRICAL GENERAL NOTES**

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND/OR LOCAL INSPECTION AUTHORITIES. THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY LAWS, ORDINANCES, RULES AND REGULATIONS OF PUBLIC AUTHORITIES HAVING JURISDICTION OF THIS DISTRICT AND SHALL OBTAIN CERTIFICATES ON SUCH INSPECTIONS AND SUBMIT SAME AND PAY ALL CHARGES IN CONNECTION THEREWITH.
- NO OMISSIONS IN THE DRAWINGS ARE INTENDED AND THE ELECTRICAL CONTRACTOR SHALL GIVE DUE CONSIDERATION TO THIS MATTER WHEN EXAMINING THE SITE.
- WHERE CONTRACTOR IS UNSURE OF WORK TO BE PERFORMED, HE SHALL REQUEST DIRECTION FROM DESIGNER PRIOR TO PROCEEDING WITH WORK.
- WHENEVER IT IS PROPOSED TO MAKE A CHANGE OR CHANGES IN THE DESIGN, AGREEMENT OR TYPE OF EQUIPMENT CALLED FOR IN THIS SPECIFICATION, THE ELECTRICAL CONTRACTOR SHALL ESTIMATE THE COST OF SAME AND SUBMIT IN TRIPLICATE DETAILED ITEMIZED ESTIMATES OF THE COSTS OF ALL APPARATUS, MATERIALS AND LABOUR ENTERING INTO THE CHANGE OR SUBSTITUTION.
- THE GENERAL CONTRACTOR SHALL PERFORM ALL CUTTING, PATCHING AND PAINTING NECESSARY FOR PROPER INSTALLATION OF WORK AND SHALL REPAIR ANY DAMAGE DONE EMPLOYING ONLY THE SERVICES OF SKILLED WORKMEN. THE ELECTRICAL CONTRACTOR SHALL, UPON REQUEST, PROVIDE ALL SUCH NECESSARY DETAIL AND INFORMATION TO ACQUAINT THE GENERAL CONTRACTOR WITH THE SCOPE OF PARTICULARS OF CUTTINGS, PAINTING AND PATCHING RELEVANT TO HIS WORK.
- THE DEPARTMENT REPRESENTATIVE RESERVES THE RIGHT TO USE ANY PIECE OF ELECTRICAL EQUIPMENT, DEVICE OR MATERIAL INSTALLED UNDER THIS CONTRACT FOR SUCH REASONABLE LENGTHS OF TIME AND AT SUCH TIMES AS HE MAY REQUIRE TO MAKE A COMPLETE AND THOROUGH TEST OF SAME BEFORE THE FINAL COMPLETION AND ACCEPTANCE OF THE WORK.
- SUCH TESTS SHALL NOT BE CONSTRUED AS EVIDENCE OF ACCEPTANCE OF ANY PART OF THIS CONTRACT. IT IS AGREED AND UNDERSTOOD THAT NO CLAIM FOR DAMAGE WILL BE MADE FOR ANY INJURY OR BREAKAGE TO ANY PART OF THE ABOVE DUE TO THE AFOREMENTIONED TESTS WHERE CAUSED BY WEAKNESS OR INACCURACY OF PARTS OR BY DEFECTIVE MATERIALS OR WORKMANSHIP OF ANY KIND WHATSOEVER.
- ON COMPLETION, ALL EQUIPMENT SHALL BE THOROUGHLY CLEANED. ALL WORK CHECKED OVER AND LEFT IN WORKING ORDER. ALL RUBBISH, UNUSED MATERIALS ETC., SHALL BE REMOVED AND THE PREMISES LEFT CLEAN.
- ALL SWITCHES, STARTERS, PUSHBUTTONS, PANELS, ETC. SHALL HAVE LAMACOID PLATES MOUNTED ON OR ADJACENT FOR IDENTIFICATION. UPDATED SCHEDULES SHALL BE TYPED AND MOUNTED ON THE BACK OF EACH DOOR FOR PANELS. SCHEDULES SHALL SHOW WHICH OUTLETS ARE ON EACH CIRCUIT.
- MAINTAIN CIRCUIT CONTINUITY TO EXISTING EQUIPMENT WHERE DISRUPTED BY RENOVATIONS. RELOCATE EXISTING FIRE ALARM STATIONS, EMERGENCY & EXIT LIGHTS, WIRING DEVICES, ETC. WHERE REQUIRED TO SUIT NEW CONSTRUCTION.
- CO-ORDINATE WORK WITH OTHER TRADES, PROVIDE BRANCH CIRCUITS FOR ALL MECHANICAL SYSTEMS AND OWNER SUPPLIED EQUIPMENT.
- NO WIRE, CABLE OR CONDUCTOR SMALLER THAN NO. 12 AWG SHALL BE USED ON POWER SYSTEMS, UNLESS OTHERWISE INDICATED. CONDUCTORS NO. 8 AWG OR LARGER SHALL BE STRANDED. IN GENERAL, WHERE NO WIRE SIZE IS INDICATED ON THE PLANS, NO. 12 AWG SHALL BE USED. HOWEVER, ALL CONDUCTORS SHALL HAVE AMPACITY REQUIRED BY THE LATEST EDITION OF THE C.E.C. FOR LOAD SERVED.
- JOINTS REQUIRED IN CONNECTING ALL WIRING UP TO AND INCLUDING #10 ARE TO BE MADE USING TWIST-ON TYPE CONNECTORS MARRETTE #31, #33 OR #35 AS REQUIRED. JOINTS FOR ALL OTHER WIRING SHALL BE MADE USING T & B COLOUR KEYED COMPRESSION TYPE CONNECTORS 54,000 SERIES AND T & B COMPRESSION TOOLS. A FIRST LAYER OF TAPE SHALL BE COMPOUND TYPE FOLLOWED BY A LAYER OF SCOTCH #33 VINYL PLASTIC TAPE.
- CONDUITS SHALL BE RUN PARALLEL TO BUILDING LINES IN A NEAT WORKMANLIKE MANNER. EQUIPMENT AND MATERIALS SHALL BE NEW AND CSA CERTIFIED MANUFACTURED TO STANDARD QUOTED BUT INCORPORATING ADDITIONAL SPECIFIED REQUIREMENTS.
- ALL BRANCH CIRCUIT CONDUCTORS REFERRED TO ABOVE APPLY TO COPPER CONDUCTORS.
- ALL EQUIPMENT AND EXPOSED NON-CURRENT CARRYING METAL, CONDUITS AND PARTS TO BE PERMANENTLY AND EFFECTIVELY GROUND TO MEET MINIMUM REQUIREMENTS OF THE C.E.C. SECTION '10', AND AS INDICATED ON DRAWINGS AND FURTHER SPECIFIED. STANDARDS SET EITHER BY DRAWINGS OR SPECIFICATIONS WHICH ARE ABOVE THOSE COVERED BY THE C.E.C. SECTION '10' ARE NOT TO BE REDUCED UNDER ANY CIRCUMSTANCES.
- SUPPLY A SEPARATE GROUND CONDUCTOR IN ALL EMT.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE GUIDELINES SET BY EIA/TIA AND CAN/CSA STANDARDS.



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revisions		date
project		project

**BIO MURRAY BLDG  
CHILLED WATER  
UPGRADE  
DARTMOUTH  
NOVA SCOTIA**

**VAN STEENBURGH  
BOILER ROOM  
CHILLED WATER LINES**

designed F.A.M.	congru
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date 2016-08	
approved	approved
date	
Tender	Submission
PWSC Project Manager	Administrateur de projets TPSC
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