ELECTRICAL SPECIFICATION

1. Scope of Work – The Contract shall include the furnishing of labour, new material, equipment and services necessary and reasonably implied and incidental to the complete installation of the electrical Work shown on the plans and specifications. Supply and install all devices required for the complete approved system, operating to the complete satisfaction of the Contract Administrator.

2. Laws, Rules, Ordinances and Inspections – The entire electrical installation shall comply with the latest edition of the Canadian Electrical Code and with all provincial and municipal laws; rules and ordinances. Prepare and submit to the proper authorities all necessary permits and pay all permit fees.

3. Electrical Work shall be completed in conformance with, and subject to, all cautionary notes available to the reader including those available on the websites of the manufacturers and consultants.

4. Drawings – The Electrical Subcontractor shall carefully examine all drawings relating to the Work, to be certain that the Work under this contract can be carried out and, prior to the submission of his tender, report at once to the Contract Administrator any defect, discrepancy, omission or interference affecting the Work of this section or the guarantee of same.

5. Responsibility – Be responsible for any damage caused the City or their Subcontractors by improperly carrying out this contract.

6. Identification – Install designatory lettering on all electrical equipment.

7. Guarantee – The Electrical Subcontractor shall guarantee the satisfactory operation of all Work and apparatus included and installed under this section for a period of twelve(12) calendar months after the final acceptance of the complete building.

8. Existing Work – The Electrical Subcontractor shall take into account items which he/she is responsible for due to the changes and alterations to the existing building and allow for such items that may occur in his/her bid opportunity price.

9. Minimum wire size #12 AWG all wiring to be copper.

10. Unless otherwise instructed in writing, conceal all wiring.

11. Provide code conforming fire alarm system extension. Provide a verification inspection report for all new devices/wiring.

WORK IN EXISTING AREA

A. Refer to electrical, architectural, and mechanical drawings for work involved in existing building.

B. Examine the site and local conditions affecting the Work to establish all information necessary for the installation. No extra compensation will be allowed due to failure to make this examination.

C. Install, wire and connect all new mechanical equipment as shown or noted on the drawing as specified.

D. Rewire , alter, modify, divert and extend existing wiring as herein specified and as may be required to provide a complete, approved, and fully operative installation to the satisfaction of the Contract Administrator.

E. In all areas where existing walls, ceilings, etc. are required to be cut into or removed, or other similar construction or alterations are required, existing wiring in the areas required to remain in use for any reason, this subcontractor shall reroute, alter, and/or divert all such wiring in these areas in an approved manner, concealed in the building structure where required in such a manner that the original electrical capacity or characteristics of the existing wiring is maintained to the complete satisfaction of the Contract Administrator.

F. Conduits and boxes shall be installed exposed (surface mounted) only in areas specified.

G. Cutting and patching necessary for conduit Work, etc., shall be as specified in another section of this Contract. Routes of conduits, etc. shall be coordinated with the owner and Contract Administrator in order to keep such cutting and patching to a minimum. All existing wiring that is required to remain in use and required to be diverted and extended to appropriate existing panelboards, etc., shall be installed in conformance with this specification.

H. Existing branch circuit wiring within the areas of the renovations which are substandard or do not meet normal requirements, shall be noted and the City advised. All existing circuits which are required to be reconnected shall be free from interconnection (cross connected circuits, i.e. accidentally connected to the conductors of another circuit) and shall conform to the installation tests described elsewhere in this section of the specification. The responsibility for existing wiring which is not required to be altered in any way is beyond the area of this Contract and is not included in this scope of work unless such wiring is specifically affected due to Work carried out in this Contract.

J. Existing branch circuit wiring and outlets, etc. for any electrical systems no longer required to remain in use shall be removed, or if this is not possible, rendered permanently inaccessible and completely disconnected from the electrical distribution system. Existing branch circuit wiring which unnecessarily extends into the construction area shall be terminated (deadened) in an approved manner.

K. Disconnect and remove all existing lighting fixtures as specified and noted on drawings. All fixtures shall be neatly stored on the premises at the location as directed by the City. Once the new ceiling is complete, the Electrical Subcontractor shall clean and reinstall fixtures to the location specified. Provide all mounting hardware as required.

L. Scheduling Work in existing building shall be as arranged with the City to minimize disruption to City's operations during normal working hours. Any shutdowns or interruptions to systems or operation shall be at times acceptable to and approved by the City and architects.

M. The City shall remove items such as special equipment, devices, cables, etc., in areas to be renovated prior to commencement of electrical Work. Electrical Subcontractor shall remove/terminate any branch circuit wiring, etc., no longer required which supplied the above equipment.

N. Disconnect and remove existing ceiling mounted electrical devices for the construction of new ceiling. Once new ceiling is complete, reinstall and reconnect to original locations and circuits.

MOTOR SCHEDULE

NO.	DESCRIPTION	LOCATION	VOLTAGE	HP/W/MCA	C.B.	COND.	STARTER	NOTES
EF–1	EXHAUST FAN	CANTEEN	120V–1PH	1/3 HP	20A–1P	#12	–	1
MUA–1	MAKE UP AIR	ROOM 116	120V–1PH	1/3 HP	20A–1P	#12	PACKAGED	1
HWT–1	HOT WATER TANK	ROOM 116	120V–1PH	FRAC.	15A–1P	#12	–	1

SPECIFIC NOTES
1. WIRE AND CONNECT AS REQUIRED. REFER TO MECHANICAL.

GENERAL NOTES
A. MANUAL STARTERS TO BE C/W OVERCURRENT PROTECTION.
B. ALL DISCONNECT SWITCHES TO BE SUPPLIED BY ELECTRICAL SUBCONTRACTOR.
C. ELECTRICAL SUBCONTRACTOR TO PROVIDE CIRCUIT BREAKERS AND WIRING ACCORDING TO THE FINAL NAMEPLATES OF ALL THE MECHANICAL EQUIPMENT.
D. ALL LOW VOLTAGE CONTROL WIRING BY MECHANICAL SUBCONTRACTOR.
E. ALL LINE VOLTAGE CONTROL WIRING BY ELECTRICAL SUBCONTRACTOR – REFER TO MECHANICAL SECTION. CO–ORDINATE EXACT REQUIREMENTS WITH MECHANICAL SUBCONTRACTOR.

SPECIFIC ELECTRICAL NOTES

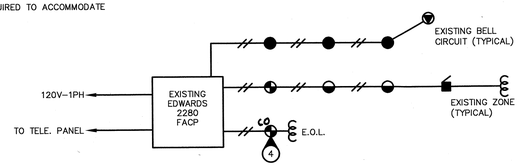
1. WIRE AND CONNECT NEW EXHAUST FAN AS REQUIRED. UTILIZE EXISTING WIRING AND CIRCUIT BREAKER FROM DEMOLISHED EXHAUST FAN IF POSSIBLE. REPLACE EXISTING CIRCUIT BREAKER IF REQUIRED.
2. WIRE AND CONNECT NEW MUA AS REQUIRED. UTILIZE EXISTING WIRING AND CIRCUIT BREAKER FROM DEMOLISHED FURNACE IF POSSIBLE. REPLACE EXISTING CIRCUIT BREAKER IF REQUIRED.
3. WIRE AND CONNECT NEW HWT AS REQUIRED. PROVIDE POWER FROM NEAREST AVAILABLE 120V CIRCUIT.
4. PROVIDE A NEW FIRE ALARM SYSTEM CO DETECTOR. EXPAND EXISTING FIRE ALARM SYSTEM AS REQUIRED TO ACCOMMODATE. CO ALARM IS TO TO INITIATE A SUPERVISORY SIGNAL.

GENERAL ELECTRICAL NOTES

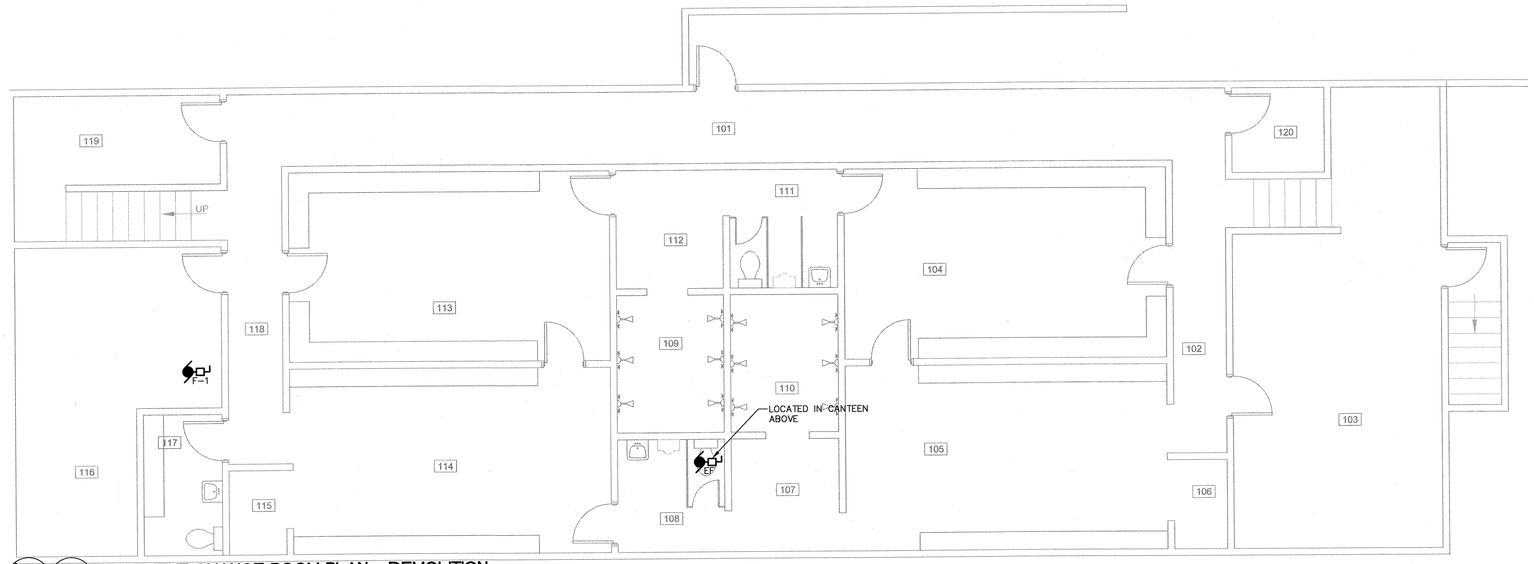
1. DISCONNECT AND REMOVE ALL LUMINAIRES THAT INTERFERE WITH CEILING AND/OR MECHANICAL WORK. STORE IN A SAFE LOCATION.ONCE WORK IS COMPLETE CLEAN AND RELAMP LUMINAIRES. REINSTALL AND RECONNECT.
2. UTILIZE TANDEM BREAKERS IF REQUIRED TO ACCOMMODATE NEW CIRCUITS.

SYMBOL SCHEDULE

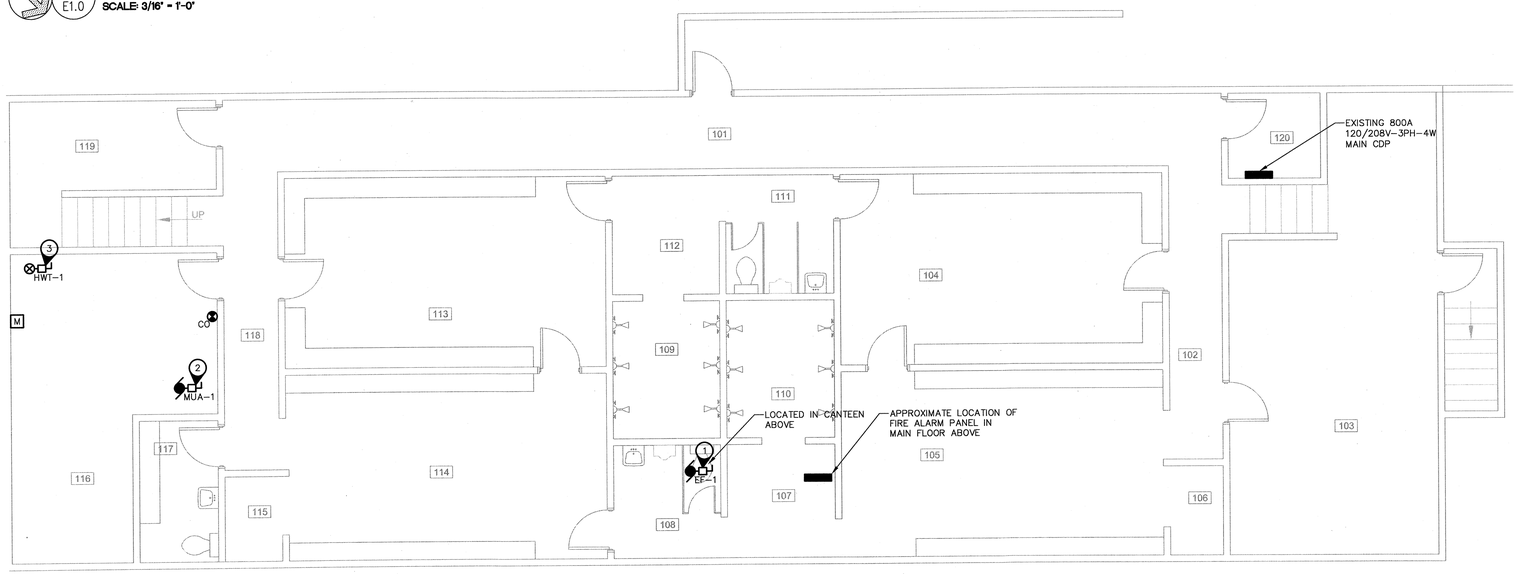
- Junction box.
- Motor. Refer to mechanical for exact location.
- Disconnect switch to suit application. By Electrical Subcontractor.
- M — Motorized damper control wiring by mechanical contractor, 120V power supply by Electrical Subcontractor.
- CO — Fire alarm carbon monoxide detector c/w sounder base.



FIRE ALARM RISER DIAGRAM
N.T.S



1 E1.0 **BASEMENT CHANGE ROOM PLAN – DEMOLITION**
SCALE: 3/16" = 1'-0"



2 E1.0 **BASEMENT CHANGE ROOM PLAN – RENOVATION**
SCALE: 3/16" = 1'-0"

No.	REVISION	BY	DATE
1.	ISSUED FOR CONSTRUCTION	VJT	2016.07.14

THIS DRAWING MUST NOT BE SCALED

CONSULTANT

NOVA 3 ENGINEERING LTD.
CONSULTING ENGINEERS
201–120 FORT STREET TEL.: (204) 943–6142
WINNIPEG, MANITOBA R3C 1C7 FAX.: (204) 942–1276
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CONSULTANT

PROVINCE OF MANITOBA — V. J. THIELMANN — 2016.07.14 — REGISTERED ENGINEER

APEGM
Certificate of Authorization
Nova 3 Engineering Ltd.
No. 962 Date: 2016.07.14

LOCATION

ST. VITAL ARENA
580 ST. ANNE'S RD
WINNIPEG, MANITOBA

DRAWING

CHANGE ROOMS H.V.A.C. UPGRADE – ELECTRICAL DEMOLITION AND RENOVATION PLANS

DESIGNED BY	APPROVED BY
JB	VJT
DRAWN BY	
JB	
DATE	SCALE
2016/07/14	AS NOTED
PROJECT	DWG No.
36–083e	E1.0