

POWER PLAN SYMBOLS	
[Symbol]	FLOOR MOUNTED JUNCTION BOX
[Symbol]	POWER PANELBOARD
[Symbol]	PANEL (TYPE AS INDICATED - SECURITY, LIGHTING RELAY, ETC.)
[Symbol]	SURFACE RACEWAY (TYPE AS INDICATED)
[Symbol]	PUSHBUTTON (TYPE AND WIRING AS INDICATED)
[Symbol]	GROUND BUS BAR
[Symbol]	ROOM REFERENCE GROUND BUS
[Symbol]	MOTOR
[Symbol]	MOTOR c/w DISCONNECT SWITCH
[Symbol]	COMBINATION DISCONNECT AND MAGNETIC MOTOR STARTER
[Symbol]	DISCONNECT SWITCH
[Symbol]	FUSED DISCONNECT SWITCH
[Symbol]	MAGNETIC MOTOR STARTER
[Symbol]	THERMOSTAT
[Symbol]	MANUAL MOTOR STARTER c/w PILOT LIGHT
[Symbol]	WP DUPLEX RECEPTACLE c/w INTEGRAL GFI PROTECTION
[Symbol]	CONDUIT UP
[Symbol]	CONDUIT DOWN
[Symbol]	WEATHER PROOF
[Symbol]	FIRE ALARM SMOKE DETECTOR, DUCT MOUNTED

SCHEMATIC SYMBOLS	
[Symbol]	LOW VOLTAGE CIRCUIT BREAKER
[Symbol]	FUSE
[Symbol]	PANELBOARD
[Symbol]	TRANSFORMER
[Symbol]	DISCONNECT SWITCH
[Symbol]	CURRENT TRANSFORMERS (# INDICATES NUMBER OF CTs IN GROUP)
[Symbol]	REVENUE METER

**GENERAL NOTES**

A. ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. REPORT ANY DISCREPANCY TO CONSULTANT DURING TENDER. OBTAIN CLARIFICATION AND INSTRUCTION IN FORM OF ADDENDA FROM CONSULTANT.

B. PATCH AND MAKE GOOD ALL DAMAGED CEILING/WALL/ROOF/FLOORING FOR NEW AND DEMOLITION WORK ON ELECTRICAL SYSTEM(S). ANY DAMAGED PORTION SHALL BE RESTORED TO ITS CONDITION PRIOR TO START OF WORK.

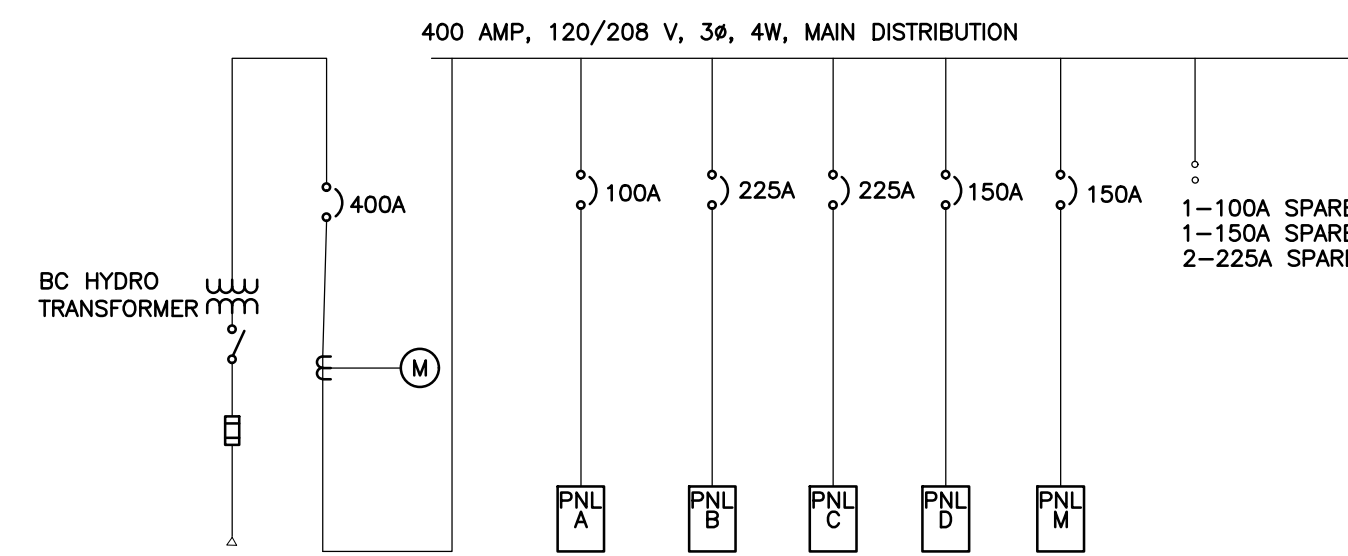
C. LOCATION OF EXISTING EQUIPMENT SHOWN ON THE DRAWINGS IS FOR INFORMATION ONLY. ELECTRICAL CONTRACTOR (EC) SHALL REVIEW AND CHECK AT SITE THE EXACT REQUIREMENTS PRIOR TO START OF WORK.

D. COORDINATE THE EXACT LOCATION OF ALL STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR, BMS CONTRACTOR, OR THE TRADE PROVIDING THE EQUIPMENT.

E. PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.

F. FADED AND LIGHT SYMBOLS AND LINES INDICATE EXISTING SHALL REMAIN AS IS UNLESS NOTED OTHERWISE.

ELECTRICAL DRAWING LIST		
NO.	DESCRIPTION	SCALE
E000	ELECTRICAL LEGEND AND DRAWING LIST	N.T.S.
E101	MAIN FLOOR PLAN - ELECTRICAL	1:100
E102	UPPER FLOOR PLAN - ELECTRICAL	1:100



NOTE: ALL ABOVE ARE EXISTING TO REMAIN.

1 ONE-LINE DIAGRAM-EXISTING  
E000 N.T.S.

**Mechanical Equipment List (Electrical Discipline)**

(List of Electrically Connected Mechanical Equipment)

LOCATION	TYPE OF EQUIPMENT	VOLTS	PH	Hz	INDIVIDUAL MOTOR		PACKAGE/ HEATER/ OTHER		PACKAGE/ GROUPED MOTOR FEEDER		STARTER										DISCONNECT					CONTROLS					ACCESSORIES										FIRE ALARM					SELECTION OF O/C PROTECTION, CONDUCTORS, AND RACEWAYS			
					HP	FLA	kW	MCA	MOP	GROUPING	TYPE	SIZE (NEMA)	SUPPLIED BY	INSTALLED BY	WIRE BY	WIRE BY	WIRE BY	WIRE BY	TYPE(S)	SUPPLIED BY	INSTALLED BY	WIRE BY	WIRE BY	BP	HO/HOA/SFOA/FROA	PLR	PLO	PLT	TRB	AUX	INTERFACE REQUIRED	AUTO ON	AUTO OFF	HOA SWITCH IN CACF (OR NEAR ANNUNCIATOR)	DUCT SMOKE DETECTOR	PWR SOURCE	POWER SOURCE NAME (MCC/MDC/CDP/PANEL)	BREAKER RATING (AMPS)	CONDUCTOR SIZE (COPPER)	CONDUIT SIZE									
Roof top	Individual Motor	115	1	60			14.4	20A	PCS2	ECM	M	M	M	M	M	M	M	M	M	M																	PANEL M	20A/1P	2#12 +GND	27mm									
Roof top	Individual Motor	115	1	60			22.6	30A	PCS2	ECM	M	M	M	M	M	M	M	M	M	M																PANEL M	30A/1P	2#10 +GND	27mm										
Roof top	Individual Motor	115	1	60			14.4	20A	PCS2	ECM	M	M	M	M	M	M	M	M	M	M																PANEL M	20A/1P	2#12 +GND	27mm										
Roof top	Individual Motor	115	1	60		4.4			15A	LOOSE	MRR	E	E	E	E	E	E	E	E	E																PANEL M	15A/1P	2#12 +GND	27mm										
Mechanical room	Individual Motor	115	1	60		5.8			15A	LOOSE	MRR	E	E	E	E	E	E	E	E	E																PANEL M	15A/1P	2#12 +GND	27mm										
Mechanical room	Individual Motor	115	1	60		5.8			15A	LOOSE	MRR	E	E	E	E	E	E	E	E	E																	PANEL M	15A/1P	2#12 +GND	27mm									

**Controls:**  
 BAS = Building Automation System (DDC)  
 CP = System Control Panel (e.g irrigation controller)  
 ES = End Switch  
 FA = Fire Alarm (Control Module)  
 FAFS = Fire Alarm (Wet Sprinkler) Flow Switch  
 FALS = Fire Alarm (Sprinkler Reservoir) Level Switch  
 FAPS = Fire Alarm (Dry Sprinkler) Pressure Switch  
 FATS = Fire Alarm (Sprinkler Valve) Tamper Switch  
 GS = Gas Sensor  
 H = Humidistat  
 I = Interlock  
 LS = Level Switch  
 TC = Time Clock  
 T = Thermostat  
 VS = Variable Speed Switch  
 WS = Wall Switch

**Starter Types:**  
 MAN = Manual (c/w O/L)  
 MRR = Motor Rated Relay (no O/L)  
 MAG = Magnetic (FVNR)  
 ECM = Electronically Commutated Motors  
 FVR = Magnetic, Full Voltage Reversing  
 RVYD = Reduced Voltage (wye-delta)  
 RVAT = Reduced Voltage (autotransformer)  
 RVPW = Reduced Voltage (part winding)  
 RVSS = Reduced Voltage (soft starter)  
 VSD = Variable Speed Drive

**Power Sources:**  
 N = Normal (non-emergency) Source  
 FP = Fire Pump Source  
 LS = Life Safety Source  
 NLS = Non-Life-Safety Source

**Starter Accessories:**  
 BP = VSD Bypass c/w integral starter  
 HO = On-off switch  
 HOA = Hand-off-auto switch  
 SFOA = Slow-fast-off-auto switch  
 FROA = Forward-reverse-off-auto switch  
 PLR = Run pilot light  
 PLO = Off pilot light  
 PLT = Trip pilot light  
 TRB = Trip reset pushbutton  
 AUX = Auxiliary 'run' contacts (# indicates number of form C contacts)

2 MECHANICAL EQUIPMENT SCHEDULE  
E000 N.T.S.

Revision/Reviser	Description/Description	Date/Date
0	ISSUED FOR TENDER	2020/05/27

Client/client

**CORRECTIONAL SERVICE CANADA**

Project title/Titre du projet  
**CHILLIWACK CORRECTIONAL CENTRE CHILLIWACK, BC**

**FLAT ROOF REPAIR AND HVAC REPLACEMENT**

Consultant Signature Box Only

Designed by/Concept par  
**AC**

Drawn by/Dessine par  
**AC**

PWGSC Project Manager/Administrateur de Projets: TPSCG

**KEN WENDT**

PWGSC, Regional Manager, Architectural and Engineering Services/ Gestionnaire régionale, Services d'architectural et de génie, TPSCG

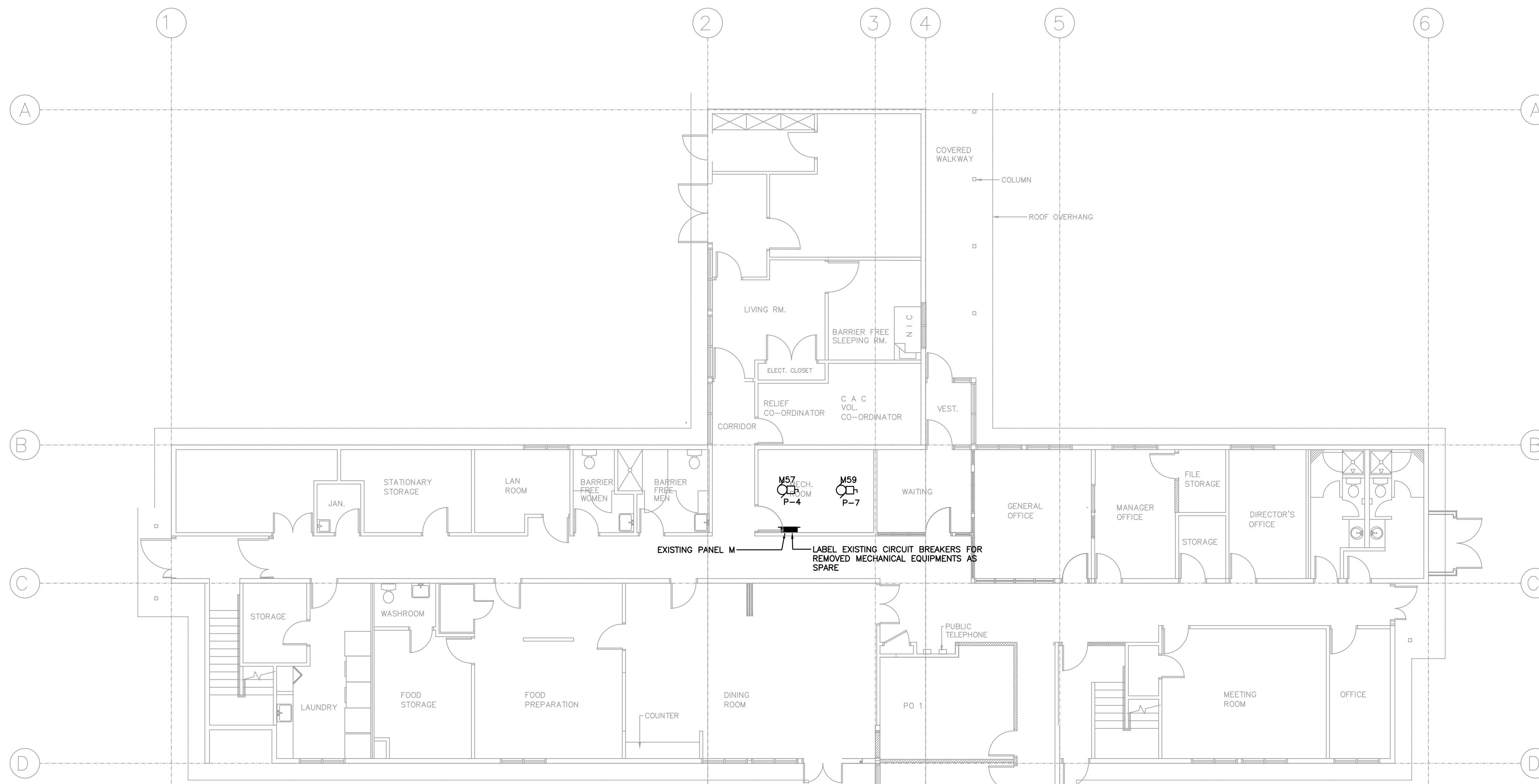
**PREETIPAL PAUL**

Drawing title/Titre du dessin

**ELECTRICAL SYMBOL LEGEND AND DRAWING LIST**

Project No./No. du projet	Sheet/Feuille	Revision no./Lo Révision no.
R.097948.001	E000	0





1 MAIN FLOOR PLAN - ELECTRICAL  
E101 1:100

**Existing Panel: M**

JOB NAME: \*\* VOLTAGE: \*\*  
 PANEL TYPE: \*\* PHASES: 3  
 LOCATION: \*\* WIRES: 4  
 FED FROM: \*\* BUS AMPS: \*\*  
 MAIN BRKR: \*\* BRACING: \*\*  
 MOUNTING: \*\*

Type	Details	Brkr.	CCT	A (W)	B (W)	C (W)	CCT	Brkr.	Details	Type	
EXISTING			31				32		EXISTING		
EXISTING			33				34		EXISTING		
EXISTING			35				36		EXISTING		
EXISTING			37				38		EXISTING		
EXISTING			39				40		SPACE		
EXISTING			41				42		SPACE		
EXISTING			43				44		EXISTING		
EXISTING			45				46		SPACE		
EXISTING			47				48		SPACE		
SPACE			49				50		EXISTING		
SPACE			51				52		EXISTING		
SPACE			53				54		EXISTING		
SPACE			55				56		EXISTING		
SPACE			57				58		EXISTING		
SPACE			59				60		EXISTING		
Total Connect Load: Phase A			0 W								
Total Connect Load: Phase B			0 W								
Total Connect Load: Phase C			0 W								
<b>GRAND TOTAL</b>			<b>0 W</b>								

2 PANEL SCHEDULE - EXISTING  
E101 NTS

**Existing Panel: M**

JOB NAME: \*\* VOLTAGE: \*\*  
 PANEL TYPE: \*\* PHASES: 3  
 LOCATION: \*\* WIRES: 4  
 FED FROM: \*\* BUS AMPS: \*\*  
 MAIN BRKR: \*\* BRACING: \*\*  
 MOUNTING: \*\*

Type	Details	Brkr.	CCT	A (W)	B (W)	C (W)	CCT	Brkr.	Details	Type	
EXISTING			31				32		EXISTING		
EXISTING			33				34		EXISTING		
EXISTING			35				36		EXISTING		
EXISTING			37				38		EXISTING		
EXISTING			39				40		ROOF RECEPTACLE		
EXISTING			41				42		SPACE		
EXISTING			43				44		EXISTING		
EXISTING			45				46		SPACE		
EXISTING			47				48		SPACE		
F-15	20A/1P	49	50				50		EXISTING		
F-16	30A/1P	51	52				52		EXISTING		
F-17	20A/1P	53	54				54		EXISTING		
F-9	15A/1P	55	56				56		EXISTING		
P-4	15A/1P	57	58				58		EXISTING		
P-7	15A/1P	59	60				60		EXISTING		
Total Connect Load: Phase A			0 W								
Total Connect Load: Phase B			0 W								
Total Connect Load: Phase C			0 W								
<b>GRAND TOTAL</b>			<b>0 W</b>								

3 PANEL SCHEDULE - NEW  
E101 NTS

Revision/Revisión	Description/Description	Date/Date
0	ISSUED FOR TENDER	2020/05/27

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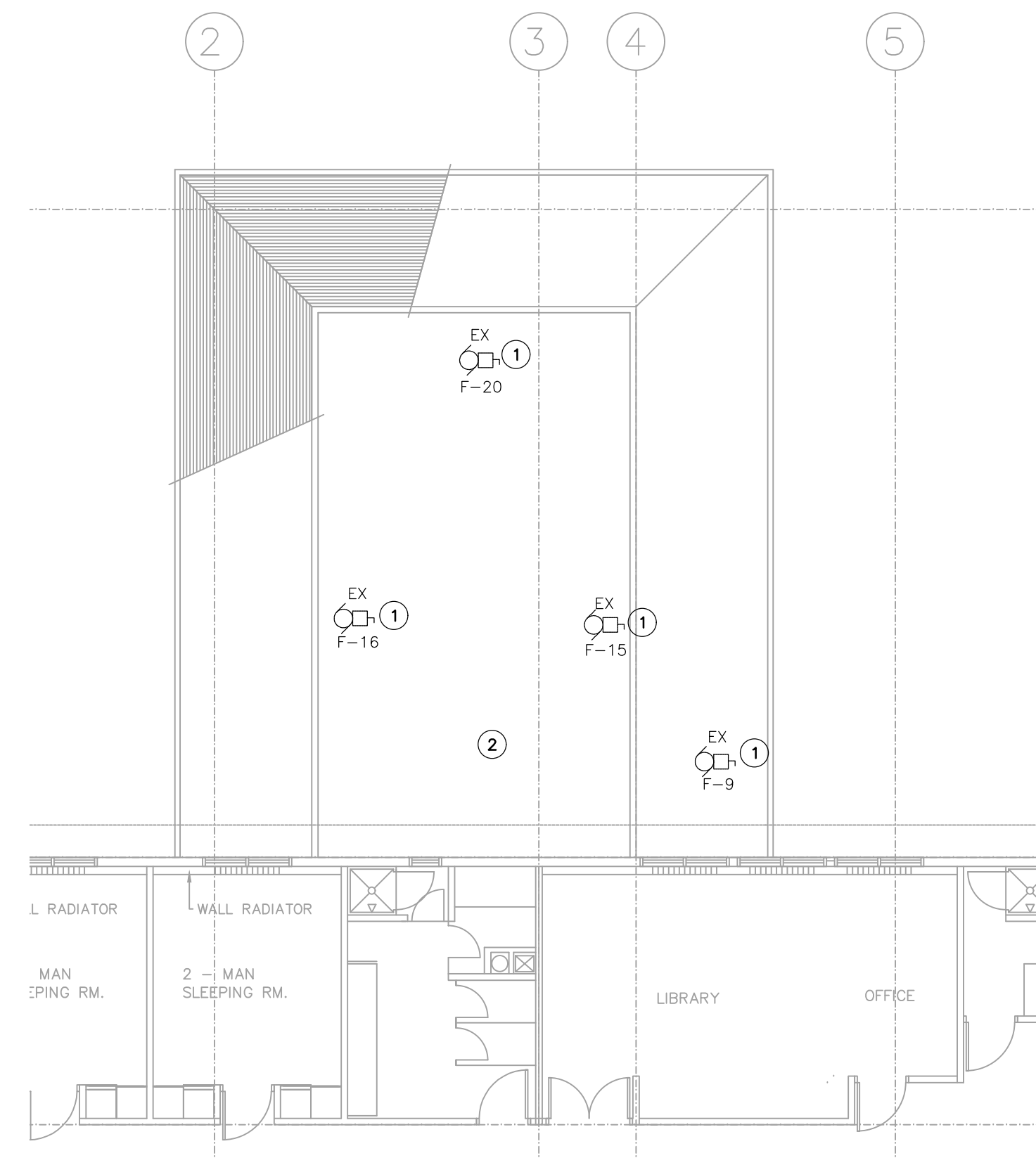
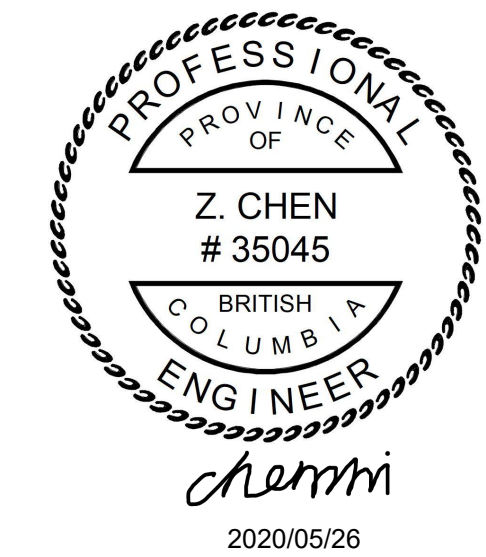
PWGSC Regional Manager, Architectural and Engineering Services/  
Gestionnaire régionale, Services d'architecture et de génie, TPSCG  
**PREETIPAL PAUL**

Drawing title/Titre du dessin

**MAIN FLOOR PLAN  
ELECTRICAL**

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
<b>R.097948.001</b>	<b>E101</b>	<b>0</b>
	2 OF 3	

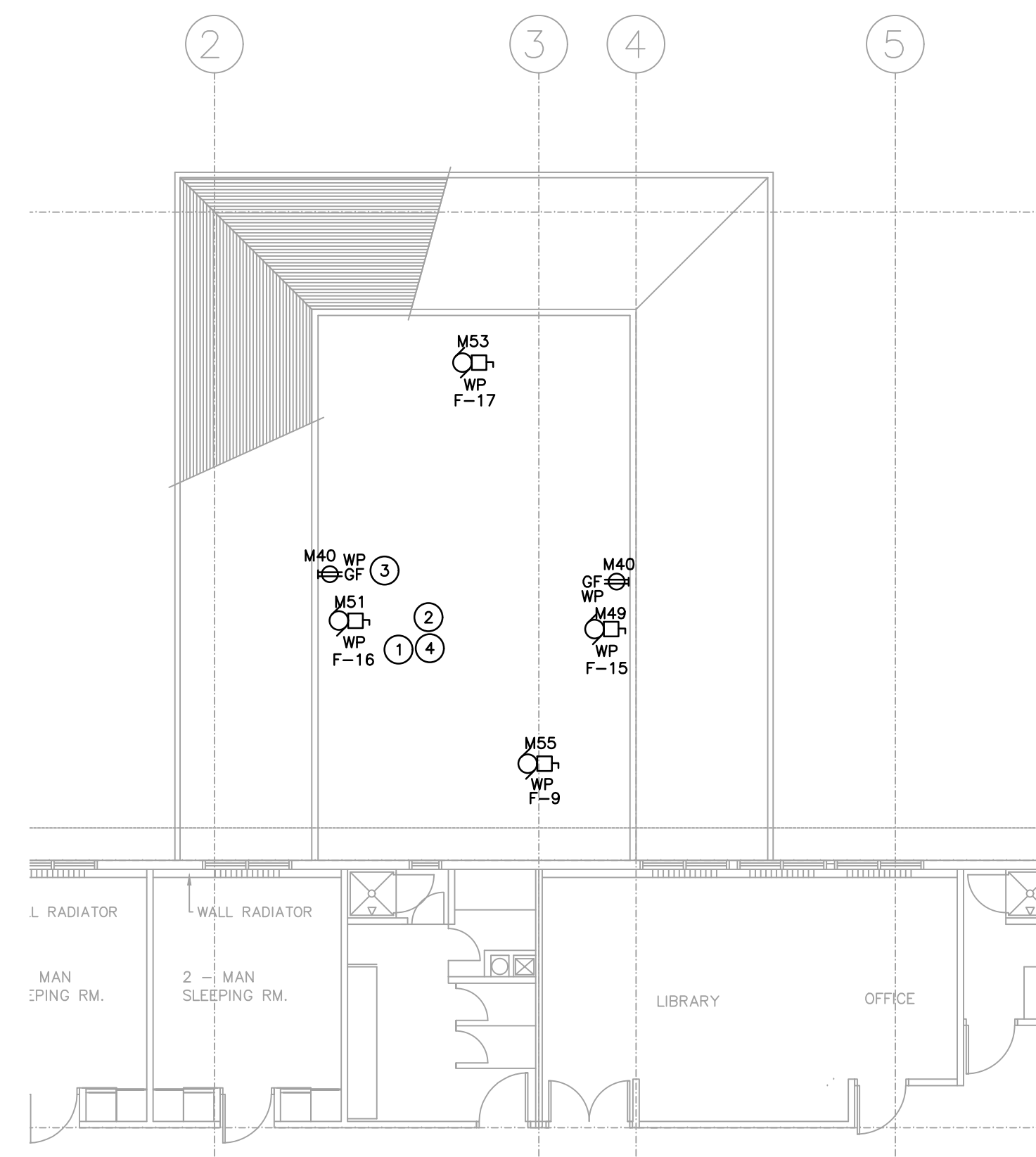




1 UPPER FLOOR PLAN - ELECTRICAL (DEMO)  
E102 1:100

**DEMOLITION NOTES:**

- EXISTING MECHANICAL EQUIPMENT ON ROOF TO BE REMOVED. REFER TO MECHANICAL DRAWINGS FOR DETAIL.
- CLEAN UP AND REMOVE ALL UNUSED WIRING, CONDUITS, JUNCTION BOXES, CABLES AND ASSOCIATED CONNECTIONS BACK TO SOURCE PANEL AND MAKE SAFE.



2 UPPER FLOOR PLAN - ELECTRICAL (NEW)  
E102 1:100

**KEY NOTES:**

- REFER TO PANEL M NEW SCHEDULE ON E-101 FOR NEW CIRCUITRY.
- PROVIDE NEW POWER CABLES THROUGH NEW GOOSENECK CONDUIT SLEEVES TO ROOF TOP UNITS. PATCH AND SEAL AS NECESSARY AND MAKE GOOD.
- POWER RECEPTACLES REQUIRED BY CEC RULE 2-314 FOR MAINTENANCE OF HEATING, VENTILATING, AIR-CONDITIONING AND OTHER SIMILAR EQUIPMENT LOCATED ON THE ROOFTOP, SHALL BE:
  - PROTECTED BY A GROUND FAULT CIRCUIT INTERRUPTER OF CLASS A TYPE.
  - SUPPLIED BY A SEPARATE 20A BRANCH CIRCUIT THAT DOES NOT SUPPLY ANY OTHER OUTLETS OR EQUIPMENT.
  - CSA CONFIGURATION 5-20R.
  - LOCATED WITHIN 7.5m OF ROOFTOP ELECTRICAL EQUIPMENT.
  - LOCATED NO LESS THAN 750mm ABOVE THE FINISHED ROOF.
  - PROTECTED FROM MECHANICAL DAMAGE.
- PROVIDE NEW NEMA 4X RATED DISCONNECT SWITCHES FOR OUTDOOR EQUIPMENTS.

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**UPPER FLOOR PLAN  
ELECTRICAL**

Project No./No. du projet	Sheet/Feuille	Revision no./ Lo. Révision no.
<b>R.097948.001</b>	<b>E102</b>	<b>0</b>

