



**To:** Baird Sampson Neuert  
 317 Adelaide Street West,  
 Suite 1002, Toronto, ON,  
 Canada, M5V 1P9  
**Fax/Email:** amacecek@bsnarchitects.com  
**Attention:** Andrea Macecek  
**From:** Maheshwari Patel  
**No.:** E01  
**Date:** December 17, 2024  
**Project:** UTM-PEB  
**Project No.:** 2023-0059

This Addendum shall be attached to the drawings and specifications and shall form an integral part of the Contract Documents. The contents of this Addendum shall be brought to the attention of all concerned.

**1. Reference Drawing: E101 – Electrical Site Lighting Plan (Drawing Re-Issued)**

- 1.1. Added a Pole description for 'LP1' and 'LP2' type light fixture to Luminaire Schedule.

**2. Reference Drawing: E201 – Lighting Layout (Drawing Re-Issued)**

- 2.1. Revised two (2) 'LD2' type light fixture from emergency light to normal light at Men's (106) & Women's Washroom (108).
- 2.2. Added one (1) 'LS1a' type light fixture at vanity in Universal Washroom 105.
- 2.3. Revised the light fixtures to be 'LS1b' in lieu of 'LS2' at Lab 111, Forensic Garage 110, AV Garage 122 & Flex Garage 124.
- 2.4. Deleted one (1) occupancy sensor in Forensic Garage 110 and relocated the other sensor as shown.
- 2.5. Revised the location of occupancy sensors in AV Garage 122 & Flex Garage 124 as shown.

**3. Reference Drawing: E301 – Power & Systems Layout – Ground Floor (Drawing Re-Issued)**

- 3.1. Deleted electrical provisions for illuminated signage at the entrance. The key associated with the signage is revised to 'Not Used'.
- 3.2. Revised the location of the pull box for conduit for future PV installation from East exterior wall to West wall as shown.

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- 3.3. Added one (1) data drop to Credenza rack in Multipurpose Space 125.
- 3.4. Added one (1) ceiling mounted data drop in Multipurpose Space 125.
- 3.5. Revised the location of Crobe Panel 'PP-2B1' and contactor as shown in Multipurpose Space 125. Panel to be surface mount.
- 3.6. Added one (1) data drop, one (1) 5-20R duplex receptacle as shown in Flex Office 123.
- 3.7. Revised the location of Flex Panel 'PP-2F1' and contactor as shown in Flex Office 123. Panel to be surface mount.
- 3.8. Added one (1) data drop, one (1) 5-20R duplex receptacle as shown in AV Grad. Office 121.
- 3.9. Revised the location of AV Grad Panel 'PP-2G1' and contactor as shown in AV Grad. Office 121. Panel to be recessed mount.
- 3.10. Revised the location of Flex Space Panel 'PP-2D1' and contactor as shown in Forensic Teaching Classroom 102. Panel to be recessed mount.
- 3.11. Added one (1) data drop, six (6) 5-20R duplex receptacles as shown Forensic Teaching Classroom 102.
- 3.12. Added one (1) 120V direct power connection for motorizes blinds in Forensic Teaching Classroom 102.
- 3.13. Revised the location of EPO, Horn/Strobe, CO detector and GFI Receptacle from South wall to North-West wall as shown in Forensic Garage 110.
- 3.14. The GFI receptacles on the South wall to be weather proof in Forensic Garage 110.

**4. Reference Drawing: E500 – Electrical Single Line Diagram (Drawing Re-Issued)**

- 4.1. Revised the Single Line diagram as shown. Deleted four (4) contactors and EPO to be in Series as shown.
- 4.2. Revised the note for PV Pull Box as shown.

**5. Reference Drawing: E502 – AV Requirements (Drawing Re-Issued)**

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5.1. Revised the AV Coordination Matrix as shown for the network drops.

**6. Reference Drawing: E701 – Mechanical Schedule (Drawing Re-Issued)**

6.1. Revised the Mechanical Schedule as shown for the Baseboard Heater.

**7. Reference Drawing: E702 – Lighting & Floor Box Schedule (Drawing Re-Issued)**

7.1. Revised the 'LS1' fixture manufacture & Catalogue number.

7.2. Added 'LS1b' type fixture same as 'LS1' with wet location approved in lieu of 'LS2' type.

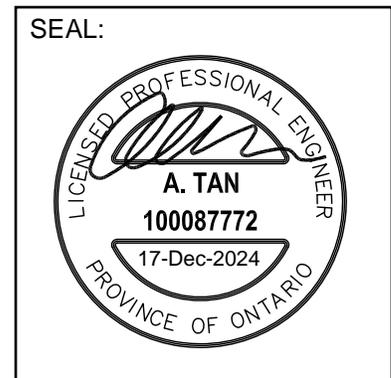
**8. Reference Drawing: E801 – Lighting Controls Details (Drawing Re-Issued)**

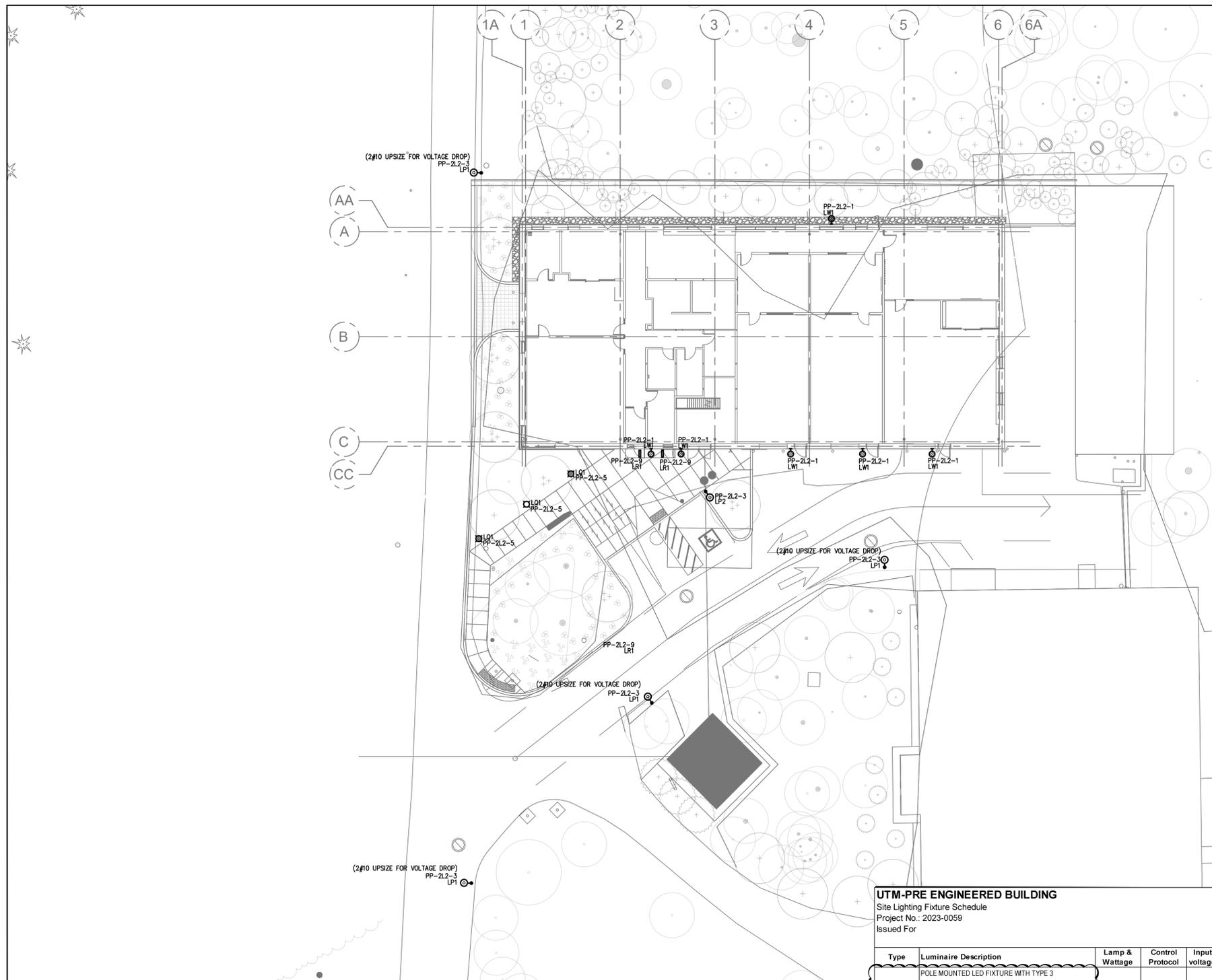
8.1. Deleted Lighting controls for Exterior Digital Signage at the entrance.

**9. Panel Schedule (Re-Issued)**

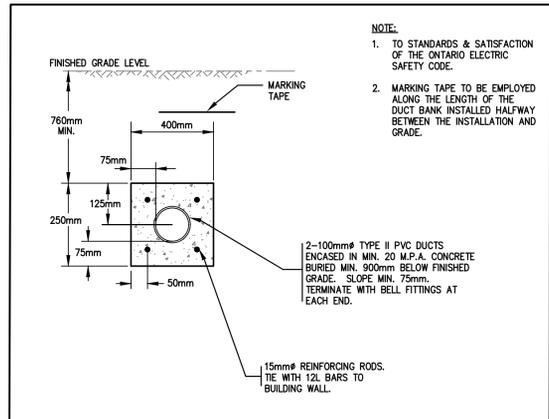
9.1. All Panel Schedule re-issued for information.

End of Addendum

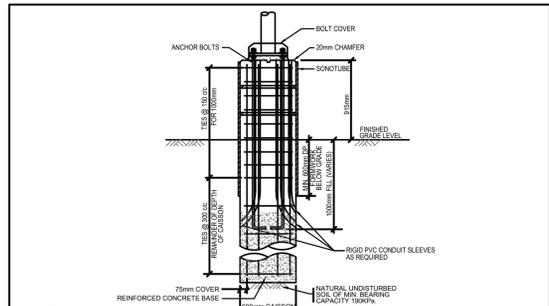




**NOTES:**  
 1. ALL SITE LIGHTS TO BE CONTINUED BY SITE LIGHT CONTROLS. REFER TO 6/E-802 FOR DETAILS.



**1 DUCTBANK FOR FEEDERS TO SITE LIGHT POLES**  
 SCALE: NTS



**NOTES:**  
 1. POLE BASE DETAIL TO BE REVIEWED BY STRUCTURAL ENGINEER PRIOR TO APPROVAL.  
 2. POLE BASE DESIGN SHALL MATCH EXISTING IN DIMENSIONS, FINISHES AND STRUCTURE.  
 3. ALL CAISSON EXCAVATIONS MUST BE INSPECTED AND APPROVED BY QUALIFIED SOIL ENGINEER PRIOR TO POURING.  
 4. CONCRETE SHALL ATTAIN A STRENGTH OF 35MPa AT 28 DAYS. TO BE REVIEWED BY A STRUCTURAL ENGINEER.  
 5. USE AIR ENTRAINED CONCRETE MAX. SLUMP 100mm (6% AIR).  
 6. RE-BARS SHALL BE DEFORMED GRADE 400MPa.  
 7. ALL WORK SHALL CONFORM TO THE RELEVANT SECTIONS OF LATEST EDITION OF THE ONTARIO BUILDING CODE AND CSA STANDARD.  
 8. CAISSON MUST BE POURED MONOLITHICALLY AND WITHOUT JOINTS.  
 9. PROVIDE CAISSON LINERS IF REQUIRED DURING EXCAVATING.  
 10. POLE BASE TO CONFORM TO LUMINAIRE/POLE MANUFACTURER'S RECOMMENDATIONS.

**2 TYPICAL LIGHT/SECURITY POLE BASE**  
 SCALE: NTS

**UTM-PRE ENGINEERED BUILDING**  
 Site Lighting Fixture Schedule  
 Project No.: 2023-0059  
 Issued For

Type	Luminaire Description	Lamp & Wattage	Control Protocol	Input voltage	Finish	Mounting	Location	Manufacturer & Catalogue #	Notes
LP1	POLE MOUNTED LED FIXTURE WITH TYPE 3 DISTRIBUTION, CORROSION RESISTANT, DIE-CAST ALUMINUM HOUSING. TO BE MOUNTED AT 5500mm. POLE TO BE VALMONT SINGLE PATAGONIA ARM WITH 0.35M ARM REACH. POLE TO BE ROUND TAPERED GALVANIZED STEEL & 6" DIA. POLE HEIGHT TO BE 15' FINISH TO BE POWDER COATED BLACK.	35W, 4748LMNS, 3000K, 80CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	POLE	SITE LIGHTING	BEACON: VIPER AREA/SITE VP-1-160L-35-3K-3-INV POLE: VALMONT PATAGONIA SINGLE ARM POLE OR APPROVED EQUAL	FIXTURES SHALL BE IP65 RATED AND DARK SKY COMPLIANT.
LP2	ASYMMETRIC WIDE BEAM POLE MOUNTED LED FIXTURE WITH TYPE 2 DISTRIBUTION. FIXTURE IS AN ONE-PIECE, THICK WALLED ALUMINUM EXTRUSION WITH CAST ALUMINUM SUPPORT POLE BASE. POLE HEIGHT IS 4500MM.	23W, 2352LMNS, 3000K, 80CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	POLE	SITE LIGHTING	BEGA: LIGHT BUILDING ELEMENT 88977+K3 OR APPROVED EQUAL	FIXTURES SHALL BE IP65 RATED AND DARK SKY COMPLIANT.
LQ1	LED BOLLARD MOUNTED ON PLANTER, CONSTRUCTED WITH MARINE GRADE ALUMINUM.	14.5W, 13.61LMNS, 3000K, 80CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	BOLLARD	SITE LIGHTING	BEGA: BOLLARD 99058 OR APPROVED EQUAL	FIXTURES SHALL BE IP65 RATED AND DARK SKY COMPLIANT.
LW1	ARCHITECTURAL, LOW PROFILE WALL MOUNTED OUTDOOR LIGHT WITH BUILT-IN NICKEL CADMIUM BATTERY FOR EMERGENCY LIGHTING. PROVIDE PHOTO-SENSOR AND PIR MOTION DETECTOR OPTION. PROVIDE LIGHT SUITABLE FOR -25 TO 50 DEGREES CELSIUS WITH OPTIONAL HEATER OPTION.	3.4W, 160LMNS (AC), 600LMNS (EMS), 3000K, LED		120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	WALL MOUNTED	SITE LIGHTING	HUBBELL COMPASS: CUSO BK-H OR APPROVED EQUAL	FIXTURES SHALL BE IP65 RATED AND DARK SKY COMPLIANT.
LR1	ARCHITECTURAL, EXTRUDED ALUMINUM NOMINALLY 2' L X 2' W RECESSED LINEAR FIXTURE.	7.2WFT., 750LMNS/FT., 3000K, 90CRI, LEED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	RECESSED	SITE LIGHTING	AXIS LIGHTING: EXTEND 2 EX2R-750-90-30-SO-2-X-120-DPX-X OR APPROVED EQUAL	FIXTURES SHALL BE IP65 RATED

**3 ELECTRICAL SITE LIGHTING PLAN**  
 SCALE: 1:200



No.	ISSUANCE	DATE
1	ISSUED FOR SD	2023-08-04
2	ISSUED FOR SD COSTING	2023-12-01
3	ISSUED FOR SD	2023-12-21
4	ISSUED FOR DESIGN DEVELOPMENT	2024-03-01
5	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
6	ISSUED FOR PERMIT	2024-09-06
7	ISSUED FOR ESA	2024-10-21
8	ISSUED FOR 100% CD	2024-11-05
9	ISSUED FOR TENDER	2024-11-15
10	ISSUED FOR ADD-E01	2024-12-17

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 UNIVERSITY OF TORONTO MISSISSAUGA

PROJECT  
 PRE-ENGINEERED BUILDING

3359 MISSISSAUGA ROAD

TITLE  
 ELECTRICAL SITE LIGHTING PLAN

**THE HIDIGROUP**  
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PROJECT NO.: 2023-0059	
DRAWN BY: MP	
CHECKED BY: AT	

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND DOCUMENTS.
2. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR FINAL DEVICE LOCATIONS. COORDINATE ALL LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATIONS.
3. REFER TO TYPICAL LIGHTING CONTROL DETAIL FOR ADDITIONAL INFORMATION.



No.	ISSUANCE	DATE
1	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
2	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
3	ISSUED FOR PERMIT	2024-09-06
4	ISSUED FOR ESA	2024-10-21
5	ISSUED FOR 100% CD	2024-11-05
6	ISSUED FOR TENDER	2024-11-15
7	ISSUED FOR ADD-E01	2024-12-17

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PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
LIGHTING LAYOUT

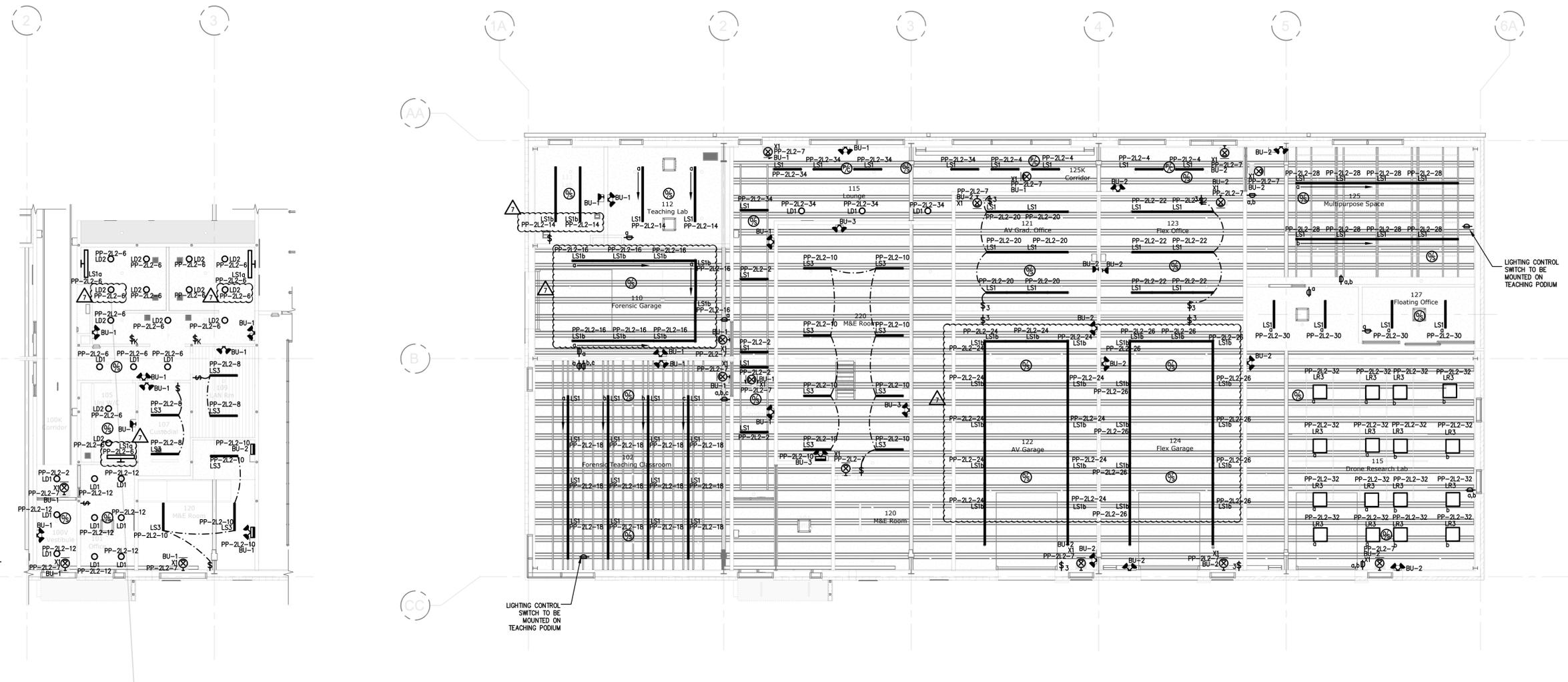
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DATE: FEB 2024	
PROJECT NO.: 2023-0059	
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E201

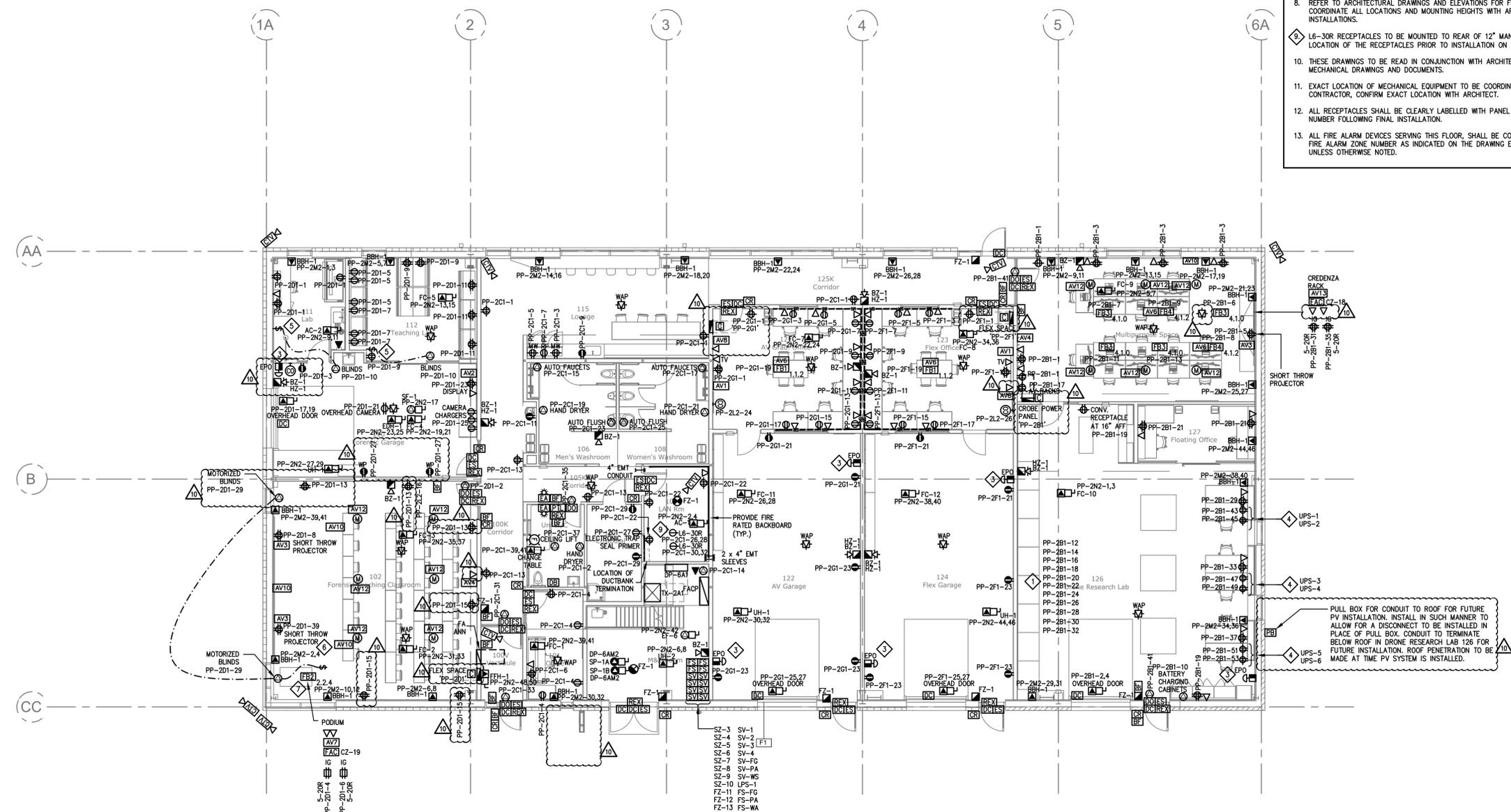


1 LIGHTING PLAN – ENTRY AND SERVICE CORE  
E-201 1:100

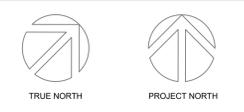
2 LIGHTING PLAN  
E-201 1:100

LIGHTING CONTROL SWITCH TO BE MOUNTED ON TEACHING PODIUM

LIGHTING CONTROL SWITCH TO BE MOUNTED ON TEACHING PODIUM



- ### KEY NOTES
1. PROVIDE ROUGH-INS AS LISTED FOLLOWING FOR VARIOUS EQUIPMENTS. FINAL LOCATION AND MOUNTING HEIGHTS TO BE COORDINATED WITH ARCHITECT.
    - 1.1. TEN (10) 5-15R DUPLEX RECEPTACLES WITH DATA CONNECTIONS TO LAPTOPS.
    - 1.2. TWO (2) 5-20R DUPLEX RECEPTACLES.
    - 1.3. TEN (10) 5-15R DUPLEX RECEPTACLES.
  2. PROVIDE SEPARATE BACKBOXES AND FACEPLATES FOR POWER AND LOW VOLTAGE DEVICES.
  3. PROVIDE PROTECTIVE PLASTIC COVER FOR EPO. PROVIDE RED LAMACOD INDICATING "EMERGENCY POWER OFF" EPO BUTTONS TO BE ENCLOSED IN A CLEAR LIFT COVER.
  4. PROVIDE 1800W, LINE INTERACTIVE STANDALONE UPS FOR EACH COMPUTER WORKSTATION (QTY 6). 10MINUTES RUNTIME. UPS SHALL BE APC SMART UPS SERIES SMT2200C. PROVIDE RAISED STAND UNDER UPS SO THAT IT IS NOT SITTING DIRECTLY ON FLOOR. UPS ARE TAGGED UPS 1 TO 6.
  5. PROVIDE 2 POSITION MOMENTARY UP & DOWN SWITCH FOR MOTORIZED BLINDS WITH 3#12 WIRE FOR BLINDS CONTROL.
  6. NOT USED
  7. COORDINATE THE FINAL LOCATION OF THE FLOOR BOX WITH AV CONSULTANT PRIOR TO INSTALLATION ON SITE.
  8. REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR FINAL DEVICE LOCATIONS. COORDINATE ALL LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO INSTALLATIONS.
  9. L6-30R RECEPTACLES TO BE MOUNTED TO REAR OF 12" MANAGER. COORDINATE THE FINAL LOCATION OF THE RECEPTACLES PRIOR TO INSTALLATION ON SITE.
  10. THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND DOCUMENTS.
  11. EXACT LOCATION OF MECHANICAL EQUIPMENT TO BE COORDINATED WITH MECHANICAL CONTRACTOR, CONFIRM EXACT LOCATION WITH ARCHITECT.
  12. ALL RECEPTACLES SHALL BE CLEARLY LABELLED WITH PANEL DESIGNATION AND CIRCUIT NUMBER FOLLOWING FINAL INSTALLATION.
  13. ALL FIRE ALARM DEVICES SERVING THIS FLOOR, SHALL BE CONNECTED TO THE RESPECTIVE FIRE ALARM ZONE NUMBER AS INDICATED ON THE DRAWING E703 - FIRE ALARM SCHEDULE, UNLESS OTHERWISE NOTED.



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5	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
6	ISSUED FOR PERMIT	2024-09-06
7	ISSUED FOR ESA	2024-10-21
8	ISSUED FOR 100% CD	2024-11-05
9	ISSUED FOR TENDER	2024-11-15
10	ISSUED FOR ADD-E01	2024-12-17

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PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
POWER & SYSTEMS LAYOUT - GROUND FLOOR

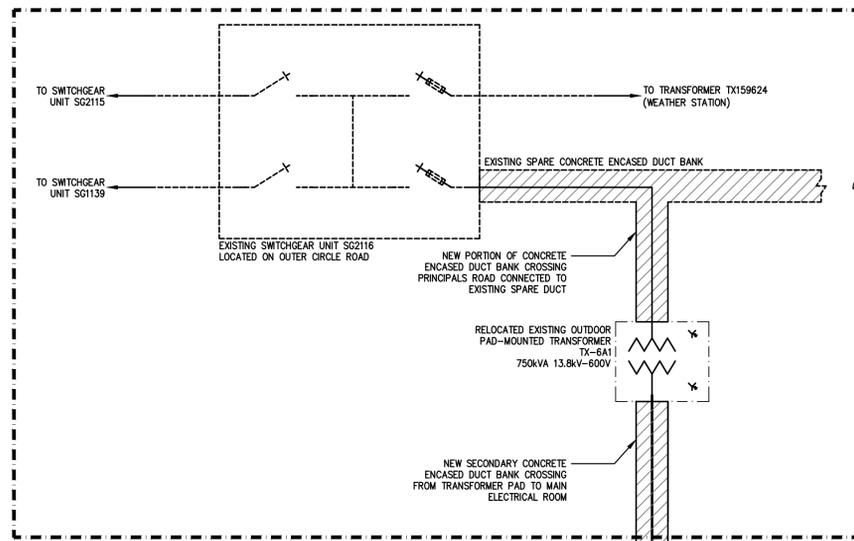
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SCALE: 1:100	SHEET NO.:
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DRAWN BY: MP	
CHECKED BY: AT	

**E301**



DIV. 26 CONTRACTOR TO RETAIN ALECTRA TO COMPLETE SCOPE OF WORK. DIVISION OF MATERIAL SUPPLY, INSTALL AND TERMINATIONS SHALL BE AS PER UTM SERVICE AGREEMENT WITH ALECTRA

ALECTRA CONTACT:  
ROB ELLIOTT  
416-529-0391  
ROB.ELLIOTT@ALECTRAPOWERSERVICES.COM

### KEY NOTES

- 1 THIS BUILDING IS SUB-FED FROM THE CENTRAL UTILITIES PLANT, THEREFORE A HYDRO BULK METER IS NOT EQUIPPED IN THIS BUILDING.
- 2 PROVIDE A DIGITAL CHECK METER WHICH CAN RECORD THE PEAK LOAD OBSERVED IN KW AND KVA FROM ITS LAST RESET. PROVIDE SCHNEIDER ELECTRIC PM5563 METER. THIS METER SHALL BE INTEGRATED INTO THE CAMPUS PME SYSTEM.

### RESPONSIBILITY MATRIX

SCOPE	SUPPLY	INSTALL
PRIMARY CABLES	ALECTRA	ALECTRA
SECONDARY CABLES	DIV.26	DIV.26
TERMINATIONS	-	ALECTRA
TRANSFORMER	ALECTRA	ALECTRA
TRANSFORMER PAD	ALECTRA	ALECTRA

### NOTES:

1. RETAIN THE SERVICES OF ALECTRA TO PERFORM THE SCOPE OF WORK IDENTIFIED ABOVE AS PART OF THIS CONTRACT

### NOTES

1. ALL FLOOR MOUNTED ELECTRICAL ROOM EQUIPMENT SHALL BE MOUNTED ON A 100MM CONCRETE PAD. THIS CONTRACTOR SHALL PROVIDE THE PADS TO MEET THE REQUIREMENTS OF THE STRUCTURAL DIVISION.
2. ALL MAIN ELECTRICAL ROOM EQUIPMENT IS TO BE SPRINKLERPROOF DESIGNED WITH DRIP SHIELDS.
3. ELECTRICAL SERVICE GROUND MUST CONFORM TO OESC SECTION 36 AND TABLE 51.
4. ALL LIFE SAFETY ELECTRICAL DISTRIBUTION CABLES ARE TO BE 2 HOUR FIRE RATED CABLES (MI) OR ENCLOSED IN A 2 HOUR FIRE RATED ENCLOSURE. CONCRETE ENCASEMENT TO BE 76MM MINIMUM ON ALL SIDES.
5. ALL TRANSFORMERS LOCATED IN MAIN ELECTRICAL ROOM OR MECHANICAL PENTHOUSE ARE TO BE MOUNTED ON NEOPRENE "NSN" PADS WITH 13MM STATIC DEFLECTION. NEOPRENE MOUNTING PADS ARE TO SUPPORT CORE AND COIL FROM DIRECT CONTACT WITH CONCRETE BASE.

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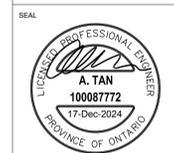


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PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
ELECTRICAL SINGLE LINE DIAGRAM

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SCALE: N.T.S.  
DATE: FEB 2024  
PROJECT NO: 2023-0059  
DRAWN BY: MP  
CHECKED BY: AT

SHEET NO:  
**E500**

2 PARALLEL RUNS OF 4#3/0AWG + G EACH IN 53mmC

MAIN BREAKER 400A-3P

20A/3P

DMS

SPD

125A/3P

3#1 (CU) + G IN 41mmC

TRANSFORMER "TX-2A1"

112.5kVA, 600V-120/208V

2 PARALLEL RUNS OF 4#3/0AWG + G EACH IN 63mmC

MAIN DISTRIBUTION PANEL "DP-6A1"

600A, 347/600V, 3#1, 4#1, 35 kAIC

15A/3P

3#12AWG (CU) + G IN 21mmC

200A/3P

4#3/0AWG (CU) + G IN 63mmC

MECHANICAL DISTRIBUTION PANEL "DP-6AMZ"

225A, 347/600V, 3#1, 4#1, 35 kAIC

15A/3P

3#12AWG (CU) + G IN 21mmC

100A/3P

3#3AWG (CU) + G IN 35mmC

MUA-1

0.93 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

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DL:91.9 kW

DL:3.3 kW

DL:8 kW

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DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

DL:3.3 kW

DL:8 kW

DL:8 kW

DL:4.8 kW

DL:9.6 kW

DL:8.5 kW

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DL:36.6 kW

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DL:91.9 kW

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DL:9.6 kW

DL:8.5 kW

DL:13.1 kW

DL:36.6 kW

DL:94.6 kW

DL:2.7 kW

DL:91.9 kW

SCOPE ITEM	AUDIOVISUAL CONTRACTOR (A.V.C.)	ELECTRICAL CONTRACTOR (E.C.)	GENERAL CONTRACTOR (G.C.)	COMMUNICATIONS CONTRACTOR (C.C.)
AV SYSTEMS CONDUIT, BACKBOXES AND CABLE TRAYS	-	PROVIDE PULL-READY SYSTEM INCLUDING ALL CONDUIT, BACKBOXES AND CABLE TRAYS. ALL CONDUITS TO BE COMPLETE WITH PULLSTRING.	-	-
AV WALLBOX CONNECTOR PLATES, CUSTOM OR STANDARD	PROVIDE. FINISH PER ARCHITECT'S INSTRUCTIONS	-	-	-
AV FLOORBOXES	MODIFY PLATES TO SUIT FLOORBOX AND INSTALL	PROVIDE FLOORBOX; COORDINATE BOX TYPE WITH AV CONSULTANT; SUPPLY SAMPLE IF REQUESTED, SUPPLY BLANK PLATES TO AV CONTRACTOR	-	-
AV SYSTEMS CABLE (LOW VOLTAGE, INCLUDING NETWORK CABLING WITH PATCH CABLES FOR AV SYSTEMS)	PROVIDE	-	-	-
AC OUTLETS FOR DISPLAYS, PROJECTORS, AV EQUIPMENT, FLOORBOXES, ETC	-	PROVIDE	-	-
DIRECT POWER CONNECTIONS FOR AV SYSTEMS RACKS	PROVIDE DISTRIBUTION WITHIN RACK	PROVIDE POWER CIRCUITS AS REQUIRED AT LOCATIONS NOTED ON DRAWINGS. COORDINATE LOCATIONS WITH AV CONTRACTOR. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR EACH CIRCUIT.	-	-
LAN DROPS FOR OWNER NETWORK	SPECIFY LOCATIONS AND COORDINATE WITH G.C.	-	-	PROVIDE. REFER TO COORDINATION MATRIX FOR LOCATIONS AND QUANTITIES
PATCH CABLING TO CLIENT NETWORK FOR AV DEVICES	INSTALL	-	-	SUPPLY
MILLWORK FURNITURE (TABLES, RACK ENCLOSURES, LECTERNS AND CREDENZAS)	FIT-UP MILLWORK WITH AV DEVICES. COORDINATE WITH DESIGNERS, G.C., E.C. AND FURNITURE/MILLWORK MANUFACTURER	PROVIDE POWER AND LAN CONNECTIVITY SHOWN ON DRAWINGS AND INSTALL ROUGH-INS AS REQUIRED	PROVIDE AND COORDINATE CUTOUTS, WIRING AND DEVICE PLACEMENTS	-
DISPLAY AND PROJECTOR MOUNTING	SUPPLY AND INSTALL STANDARD OR CUSTOM BRACKETS AS REQUIRED	-	PROVIDE BLOCKING AND MISCELLANEOUS METALS AS REQUIRED	-
CEILING MOUNTED LOUDSPEAKER BACKBOXES INTO DRYWALL CEILINGS	PROVIDE	PROVIDE CONDUIT TO SPEAKER BACKBOXES. COORDINATE WITH AV CONTRACTOR ON SITE	PROVIDE CEILING SPEAKER CUTOUTS	-
CEILING MOUNTED LOUDSPEAKERS INTO TILE CEILINGS	PROVIDE	-	PROVIDE CEILING SPEAKER CUTOUTS	-
AV SYSTEMS ELECTRONICS, HARDWARE, RACKS (PERMANENT AND PORTABLE)	PROVIDE; REUSE OWNER SUPPLIED EQUIPMENT AS NOTED IN TENDER DOCUMENTS	-	-	-
AV CONTROL SYSTEM PAGE DESIGN AND TESTING	PROVIDE; WRITE ALL PROGRAMMING CODE; DESIGN AND IMPLEMENT	-	-	-
LOW VOLTAGE RELAY CONTROLLERS (LVC) FOR MOTORIZED PROJECTION SCREENS AND LIFTS	SUPPLY LVC TO E.C.; PROVIDE LOW VOLTAGE CONTROL CABLE	PROVIDE HIGH VOLTAGE CABLE, TERMINATIONS AND LABOR AS REQUIRED	PROVIDE ACCESS HATCH AS REQUIRED FOR BACKBOX ACCESS	-
INTELLIGENT LIGHTING AND BLIND/SHADE SYSTEMS	CONNECT AV CONTROL SYSTEM TO RS-232 PROTOCOL CONVERTER. COORDINATE INSTALLATION LOCATION WITH E.C.	PROVIDE LIGHTING/BLIND SYSTEM TO RS-232 PROTOCOL CONVERTER. COORDINATE INSTALLATION LOCATION WITH A.V.C.	PROVIDE BLINDS SYSTEM AND SHADE MOTOR GROUP CONTROLLERS.	-
CEILING RECESSED PROJECTION SCREENS	PROVIDE	PROVIDE HIGH VOLTAGE CABLE TO LVC	PROVIDE CUTOUT. FINISH CEILING AFTER INSTALLATION.	-
FIRE ALARM CONNECTION	PROVIDE MUTE FUNCTIONALITY ON ALL SOUND SYSTEMS. TO BE TRIGGERED ON ACTIVATION OF FIRE ALARM.	PROVIDE FACP DRY CONTACT RELAY CONNECTION TO AV CONTRACTOR	-	-
REMOVAL OF EXISTING INSTALLED AUDIOVISUAL EQUIPMENT NOT PLANNED FOR REUSE	COORDINATE. IF AV CONTRACTOR IS NOT ONBOARD, COORDINATE WITH AV CONSULTANT.	-	PROVIDE REMOVAL AND DISPOSAL	-

- NOTES:  
1) THE SCOPE OF WORK OF THE TRADES AS IT RELATES TO AUDIO VISUAL SYSTEMS IS DESCRIBED IN THE TABLE ABOVE. THE TERM "PROVIDE" MEANS "SUPPLY, INSTALL, TERMINATE, TEST AND COMMISSION"  
2) PROVIDE ALL SCOPE INDICATED UNDER ELECTRICAL CONTRACTOR (EC) COLUMN. REFER TO AV DRAWINGS PREPARED BY SMITH AND ANDERSEN WHICH FORMS PART OF THIS CONTRACT

01 DIVISION OF RESPONSIBILITY  
E502 SCALE: NTS

AUDIOVISUAL				ELECTRICAL										COMMUNICATION	MECHANICAL	GENERAL
DEVICE DETAILS				REQUIREMENTS										RECEPTACLES	HEAT LOAD	NOTES
SYMBOL NAME	SYMBOL	ID	MOUNTING HEIGHT (TO CENTRE LINE)	FLOOR BOX MODEL	MUDRING BOX	AV BACKBOX/MUDRING SIZE	BACKBOX/MUDRING MOUNTING HEIGHT	VOLTAGE [V]	CURRENT [A]	UNIT POWER [W]	GROUND TYPE	TYPE	QUANTITY	LAN DROPS FOR OWNER NETWORK	UNIT HEAT [BTU]	
65" WALL MOUNT FLAT PANEL DISPLAY		FPD1	1625mm (64") AFF		AV1	(1)2 GANG AV MUDRING + CONDUIT	1830mm (72") AFF	120	2	240	NORMAL	5-15R	(1)QUAD	(2)NETWORK DROPS	818.88	
32" WALL MOUNT FLAT PANEL DISPLAY		FPD2	1625mm (64") AFF		AV2	(1)2 GANG AV MUDRING + CONDUIT	1830mm (72") AFF	120	1	120	NORMAL	5-15R	(1)QUAD	(2)NETWORK DROPS	409.44	
SHORT THROW PROJECTOR		PROJ	2685mm (108") AFF		AV3	(1)2 GANG AV MUDRING + CONDUIT	2685mm (108") AFF	120	4	480	NORMAL	5-15R	(1)QUAD	-	1637.76	
WALL MOUNT PTZ CAMERA		CAM1	2135mm (84") AFF		AV4	(1)2 GANG AV MUDRING + CONDUIT	2135mm (84") AFF	-	-	-	-	-	-	(1)NETWORK DROPS	-	
CEILING MOUNT PTZ CAMERA		CAM2	AT FINISHED CEILING		AV5	-	-	-	-	-	-	-	-	-	-	
FLOORBOX TABLE MONUMENT		FB1	AT FINISHED FLOOR		AV6	(1)2 GANG OPENING AT FLOORBOX + CONDUIT	AT FINISHED FLOOR	120	1	120	NORMAL	5-15R	(1)DUPEX	(2)NETWORK DROPS	409.44	
PODIUM		FB2	AT FINISHED FLOOR		AV7	(1)4 GANG OPENING AT FLOORBOX + CONDUIT	AT FINISHED FLOOR	120	20.00	2400	ISOLATED	5-20R	(2)DUPEX	(4)NETWORK DROPS	5118	
WALL MOUNT BUTTON CONTROL PANEL		BP	AT SWITCH HEIGHT		AV8	(1)1 GANG AV MUDRING + CONDUIT	AT SWITCH HEIGHT	-	-	-	-	-	-	(1)NETWORK DROPS	-	
WIRELESS MIC ANTENNA		ANT1	AT FINISHED CEILING		AV9	(1)1 GANG AV BACKBOX + CONDUIT	AT FINISHED CEILING	-	-	-	-	-	-	-	-	
WIRELESS ASSISTIVE LISTENING SYSTEM ANTENNA		ALS	2135mm (84") AFF		AV10	(1)1 GANG AV BACKBOX + CONDUIT	2135mm (84") AFF	-	-	-	-	-	-	-	-	
CEILING MICROPHONE		MIC1	AT FINISHED CEILING		AV11	-	-	-	-	-	-	-	-	(1)NETWORK DROPS	-	
PENDANT SPEAKERS		S1	AT FINISHED CEILING		AV12	(1)1 GANG AV BACKBOX + CONDUIT	AT FINISHED CEILING	-	-	-	-	-	-	-	-	
CREDENZA RACK		RACK1	AT RECEPTACLE HEIGHT		AV13	(1)PULL BOX SIZED TO CONDUIT REQUIREMENTS + CONDUIT	AT RECEPTACLE HEIGHT	120	20.00	2400	ISOLATED	5-20R	(2)QUAD	(4)NETWORK DROPS	5118	

- NOTES:  
1) THIS CONTRACTOR TO PROVIDE RECESSED (FLUSH MOUNTED) FLOOR BOX LEGRAND, RFB SERIES SUITABLE FOR SLAB ON GRADE APPLICATION. BOX SIZE TO ACCOMMODATE # OF OPENINGS, OUTLETS AND NETWORK DROPS INDICATED ABOVE.

02 AV COORDINATION MATRIX  
E502 SCALE: NTS

RESPONSIBILITY MATRIX						
SYSTEM WORK	ACCESS CONTROL	BIOMETRIC SYSTEM	GUESTROOM ACCESS	VIDEO MANAGEMENT	INTERCOM	DOOR HARDWARE
ROUGH-IN & CONDUIT	ELEC	ELEC	ELEC	ELEC	ELEC	ELEC/DOOR
CABLING & TERMINATION	SEC	SEC/CBL	CBL	CBL	SEC/CBL	DOOR/SEC
FIELD DEVICE INSTALLATION & TERMINATION	SEC	SEC	SEC	SEC	SEC	DOOR/SEC
PROGRAMMING	SEC	SEC	SEC	SEC	SEC	N/A
COMMISSIONING & TESTING	SEC	SEC	SEC	SEC	SEC	DOOR/SEC

ELEC = ELECTRICAL CONTRACTOR (DIV. 26)  
CBL = STRUCTURED CABLING CONTRACTOR (DIV. 27)  
SEC = SECURITY CONTRACTOR (DIV. 28)  
DOOR = DOOR HARDWARE CONTRACTOR (DIV. 8)

NOTES:  
1. PROVIDE ALL CONDUIT BACKBOX AND PULLSTRING AS SHOWN ON THE SECURITY DRAWINGS PREPARED BY THE HDI GROUP, WHICH FORMS PART OF THIS CONTRACT.

03 SECURITY RESPONSIBILITY MATRIX  
E502 SCALE: NTS

No.	ISSUANCE	DATE
1	ISSUED FOR 100% CD	2024-11-05
2	ISSUED FOR TENDER	2024-11-15
3	ISSUED FOR ADD-E01	2024-12-17

DISCLAIMER:  
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UNIVERSITY OF TORONTO MISSISSAUGA

PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
AV REQUIREMENTS

THEHIDIGROUP  
155 Gordon Baker Road, Suite 200  
Toronto, ON M2H 3N5 Canada  
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SCALE: N.T.S. SHEET NO.:  
DATE: FEB 2024  
PROJECT NO: 2023-0059  
DRAWN BY: MP  
CHECKED BY: AT  
E502

MECHANICAL EQUIPMENT & MOTOR STARTER SCHEDULE																						
EQUIPMENT			MOTOR								STARTER						POWER				REMARKS	
TAG	DESCRIPTION	LOCATION	KW	HP	VOLTS	PH	FLA (A)	MCA (A)	MOP (A)	FED FROM	TYPE	HAND-OFF-AUTO SELECTOR SWITCH	RUNNING PILOT LIGHT GREEN	OFF PILOT LIGHT RED	N.O.	N.C.	F.A. START UP	F.A. SHUT DOWN	BREAKER SIZE	WIRE SIZE		LIFE SAFETY
FC-1	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	OFFICE 109			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-2	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	FORENSIC TEACHING CLASSROOM 104			208	1	-	1.4	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-3	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	FORENSIC TEACHING CLASSROOM 104			208	1	-	1.4	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-4	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	FORENSIC GARAGE 105			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-5	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	TEACHING LAB 108			208	1	-	1.4	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-6	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	LOUNGE 103			208	1	-	1.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-7	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	AV. GRAD OFFICE 110			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-8	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	FLEX OFFICE 112			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-9	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	MULTIPURPOSE SPACE 114			208	1	-	1.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-10	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	DRONE RESEARCH LAB 115			208	1	-	1.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-11	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	AV GARAGE 111			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FC-12	VARIABLE REFRIGERANT FLOW (INDOOR UNITS)	FLEX GARAGE 113			208	1	-	0.8	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
CU-1	VARIABLE REFRIGERANT FLOW (OUTDOOR UNITS)				208	3			34.1	35	PP-2N2								35A-3P	3# 10 AWG (CU) IN 21mmC		
CU-2	VARIABLE REFRIGERANT FLOW (OUTDOOR UNITS)				208	3			34.1	35	PP-2N2								35A-3P	3# 10 AWG (CU) IN 21mmC		
BS-1	BRANCH SELECTOR BOX				208	1		0.6	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
BS-2	BRANCH SELECTOR BOX				208	1		0.6	15	PP-2N2									15A-2P	2# 12 AWG (CU) IN 21mmC		
FFH-1	WALL FORCE FLOW HEATER		2	-	208	1				15	PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
BBH-1	BASEBOARD HEATER (SEPARATE PRICE)		1.5	-	208	1				15	PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
EDH-1	DUCT HEATER		12		208	1				80	PP-2N2								80A-2P	2# 8 AWG (CU) IN 21mmC		
UH-1	ELECTRIC UNIT HEATER			1/30	208	1				15	PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
UH-2	ELECTRIC UNIT HEATER			1/30	208	1				15	PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
SF-1	SUPPLY FAN			0.5	120	1				15	PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
MUA-1	MAKE-UP (VENTILATION) AIR UNIT				575	3	76.8	95.7			DP-6AM2								100A-3P	3#3 AWG (CU) IN 35mmC		
EF-1	ROOF MOUNTED EXHAUST FAN			1/4	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
EF-2	ROOF MOUNTED EXHAUST FAN			1/4	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
EF-3	ROOF MOUNTED EXHAUST FAN			1/5	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
EF-4	LABORATORY EXHAUST FAN			3/4	575	3					DP-6AM2								15A-3P	3# 12 AWG (CU) IN 21mmC		
EF-5	ROOF MOUNTED EXHAUST FAN			1/5	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
EF-6	IN-LINE CENTRIFUGAL		0.39	-	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
P-1	DOMESTIC HOT WATER RECIRCULATION PUMP	M&E ROOM 201		1/4	120	1					PP-2N2								15A-1P	2# 12 AWG (CU) IN 21mmC		
SP-1 A&B	WEEPING TILE SUMP PIT	M&E ROOM 121	2		575	3					DP-6AM2								15A-3P	3# 12 AWG (CU) IN 21mmC		
AC-1		120 LAN ROOM			208	1			20		PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
AC-2		107 LAB			208	1		12.3			PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
CU-3					208	1		14.23	20		PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
CU-4					208	1		12.3	20		PP-2N2								15A-2P	2# 12 AWG (CU) IN 21mmC		
DHW-1	DOMESTIC HOT WATER HEATER	M&E ROOM 201			208	3	34	42.5	85		PP-2N2								45A-3P	3# 8 AWG (CU) IN 21mmC		
DHW-2	DOMESTIC HOT WATER HEATER	M&E ROOM 201			208	3	34	42.5	85		PP-2N2								45A-3P	3# 8 AWG (CU) IN 21mmC		



No.	ISSUANCE	DATE
1	ISSUED FOR DESIGN DEVELOPMENT	2024-03-01
2	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
3	ISSUED FOR PERMIT	2024-09-06
4	ISSUED FOR ESA	2024-10-21
5	ISSUED FOR 100% CD	2024-11-05
6	ISSUED FOR TENDER	2024-11-15
7	ISSUED FOR ADD-E01	2024-12-17

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PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
MECHANICAL SCHEDULE

**THEHIDIGROUP**  
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DATE: FEB 2024  
PROJECT NO: 2023-0059  
DRAWN BY: MP  
CHECKED BY: AT

**UTM-PRE ENGINEERED BUILDING**

Lighting Fixture Schedule  
Project No.: 2023-0059  
Issued For



Type	Luminaire Description	Lamp & Wattage	Control Protocol	Input voltage	Finish	Mounting	Location	Manufacturer & Catalogue #	Notes
LD1	NOMINAL 3" DIA. RECESSED ADJUSTABLE DOWNLIGHT.	8W, 800LMNS, 3500K, 90CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	RECESSED	VESTIBULE & CORRIDOR	ACULUX: INITIA INIT3 INIT3 A-08LM-35K-90CIR-X-EZ1-120-X OR APPROVED EQUAL	
LD2	NOMINAL 3" DIA. RECESSED DOWNLIGHT.	8W, 800LMNS, 3500K, 90CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	RECESSED	WASHROOMS	ACULUX: INITIA INIT3 INIT3 D-08LM-35K-90CIR-X-EZ1-120-X OR APPROVED EQUAL	
LR3	2'X2' LED FLAT PANEL	45W, 4800LMNS, 4000K, 80CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	SUSPENDED	DRONE REASERCH LAB	LITHONIA LIGHTING: EPANL LED EPANL-2X2-4800LM-80CRI-40K-MIN10-ZT OR APPROVED EQUAL	
LS1	DIRECT LED LINEAR FIXTURE	9.7WFT, 1075LMNS/FT, 4000K, 90CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	SUSPENDED	CLASSROOMS, CORRIDOR, LOUNGE & MULTIPURPOSE SPACE	A LIGHT: ACL5 ACL5-X-IT-LH-40-90CRI-U-HE-X-X-D OR APPROVED EQUAL	PROVIDE CONTINUOUS RUN AND THE EXACT LENGTH IS DIFFERENT FOR ALL THE ROOMS. CONTRACTOR TO VERIFY EXACT LENGTH FOR EACH RUN PRIOR TO ORDERING
LS1a	4FT LENGTH DIRECT LED LINEAR TYPE	4.8WFT, 443LMNS/FT, 3500K, 90CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	SURFACE WALL	WASHROOM	A LIGHT: ACL2ST - EACL2ST-4-DLS-35-90CRI-U-DL-R-x-D OR APPROVED EQUAL	
LS1b	DIRECT LED LINEAR FIXTURE. PLEASE PROVIDE WET LOCATION OPTION.	9.7WFT, 1075LMNS/FT, 4000K, 90CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	SUSPENDED /SURFACE	GARAGES, LAB & TEACHING LAB	A LIGHT: ACL5 ACL5-X-IT-LH-40-90CRI-U-HE-X-X-D OR APPROVED EQUAL	PROVIDE CONTINUOUS RUN AND THE EXACT LENGTH IS DIFFERENT FOR ALL THE ROOMS. CONTRACTOR TO VERIFY EXACT LENGTH FOR EACH RUN PRIOR TO ORDERING
LS3	4FT LENGTH SURFACE MOUNT LED STRIP LUMINARE	35.2W, 4000LMNS, 4000K, 80CRI, LED	0-10V	120V	ARCHITECT TO SELECT FROM STANDARD FINISHES	SUSPENDED /SURFACE	SERVICE ROOMS	LITHONIA LIGHTING: CSS CSS-L48-4000LM-MVOLT-40K-80CRI OR APPROVED EQUAL	
BU W/ REMOTE HEADS	DOUBLE REMOTE HEAD	5W LED	NON-DIM	24V	N/A	WALL/CEILING	VARIOUS	BELLUCE CANADA: NOVA SERIES CAT# SR-2-24V-5WLED OR APPROVED EQUAL	
X1	BATTERY UNIT WITH REMOTE DOUBLE HEADS	96W LED	NON-DIM	120V	N/A	WALL/CEILING	VARIOUS	BELLUCE CANADA: NOVA SERIES CAT# NV-24-X-2SR-X-120V OR APPROVED EQUAL	30 MIN RUNTIME UNDER FULL LOAD WITH 20% SPARE CAPACITY
	DIE-CAST ALUMINUM PICTOGRAM EDGE-LIT EXIT SIGN	3.5W LED	NON-DIM	120V	N/A	WALL/CEILING	Exit Signs	AIM LIGHT - RPEL SERIES	UTM STANDARD

01 LIGHTING SCHEDULE  
E702 NTS

FLOOR BOX SCHEDULE					
Floor Box Type	No Gangs	Gang Use	Size	Location	Manufacturer & Accessories Product #
FB1	4	1-Power, 1-Data, 2-AV	17-3/4" length x 11-15/16" width x 2-1/2" height	AV Grad. Office, Flex Office	Legrand Wiremold CAT #RFBA4R25OG (1) RFBADCEC20TR - 20A Receptacle (3) RFBADCEC - For Comms & AV Device
FB2	10	2-Power, 2-Data, 4-AV	15-7/8" length x 10-5/8" width x 5-1/2" height	Forensic Teaching Classroom	Legrand Wiremold RFBA10R55OG (1) RFBA10-2G - 2 Gang Adapter Plate (2) RFBADCEC20TR - 20A Receptacle (6) RFBADCEC - For Comms & AV Device
FB3	6	4-Power, 1-Data	16-1/4" length x 10-3/8" width x 3" height	Multipurpose Space	Legrand Wiremold RFBA6R30OG (4) RFBADCEC20TR - 20A Receptacle (1) RFBADCEC - For Comms Device
FB4	10	4-Power, 1-Data, 2-AV	15-7/8" length x 10-5/8" width x 5-1/2" height	Multipurpose Space	Legrand Wiremold RFBA10R55OG (2) RFBA10-2G - 2 Gang Adapter Plate (4) RFBADCEC20TR - 20A Receptacle (3) RFBADCEC - For Comms & AV Device

NOTES:  
1. THIS CONTRACTOR TO PROVIDE RECESSED (FLUSH MOUNTED) FLOOR BOX LEGRAND. RFB SERIES SUITABLE FOR SLAB ON GRADE APPLICATION AS INDICATED ABOVE. BOX SIZE TO ACCOMODATE # OF OPENINGS, OUTLETS AND NETWORK DROPS INDICATED ABOVE.  
2. COVER FINISHES TO BE SELECTED AT THE TIME OF SHOP DRAWINGS REVIEW BY ARCHITECT.

02 FLOOR BOX SCHEDULE  
E702 NTS

No.	ISSUANCE	DATE
1	ISSUED FOR DESIGN DEVELOPMENT	2024-03-01
2	ISSUED FOR DESIGN DEVELOPMENT	2024-03-21
3	ISSUED FOR PERMIT	2024-09-06
4	ISSUED FOR ESA	2024-10-21
5	ISSUED FOR TENDER	2024-11-05
6	ISSUED FOR 100% CD	2024-11-05
7	ISSUED FOR TENDER	2024-11-15
8	ISSUED FOR ADD-E01	2024-12-17

**DISCLAIMER:**  
**NOT FOR CONSTRUCTION**



CLIENT  
UNIVERSITY OF TORONTO MISSISSAUGA

PROJECT  
PRE-ENGINEERED BUILDING  
3359 MISSISSAUGA ROAD

TITLE  
LIGHTING & FLOOR BOX SCHEDULE

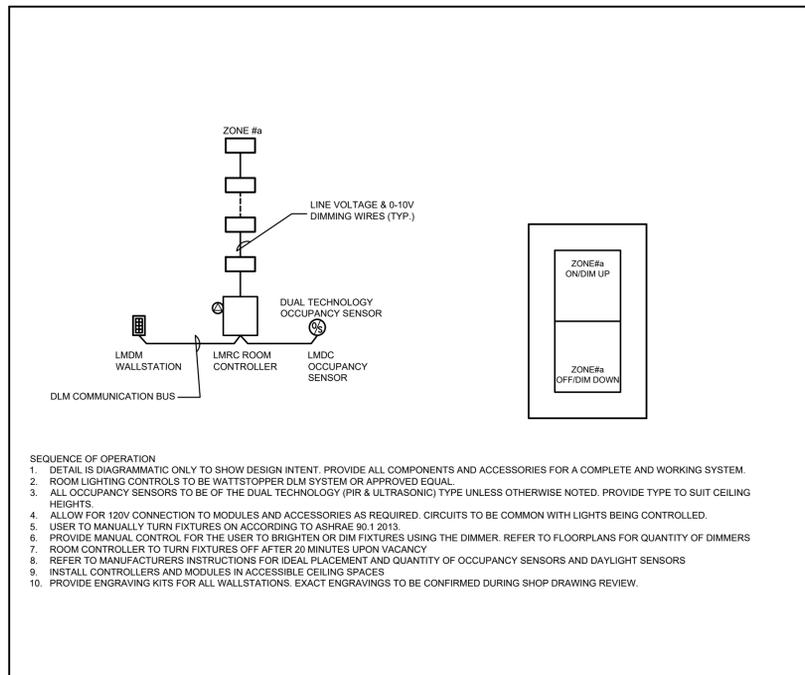


SEAL

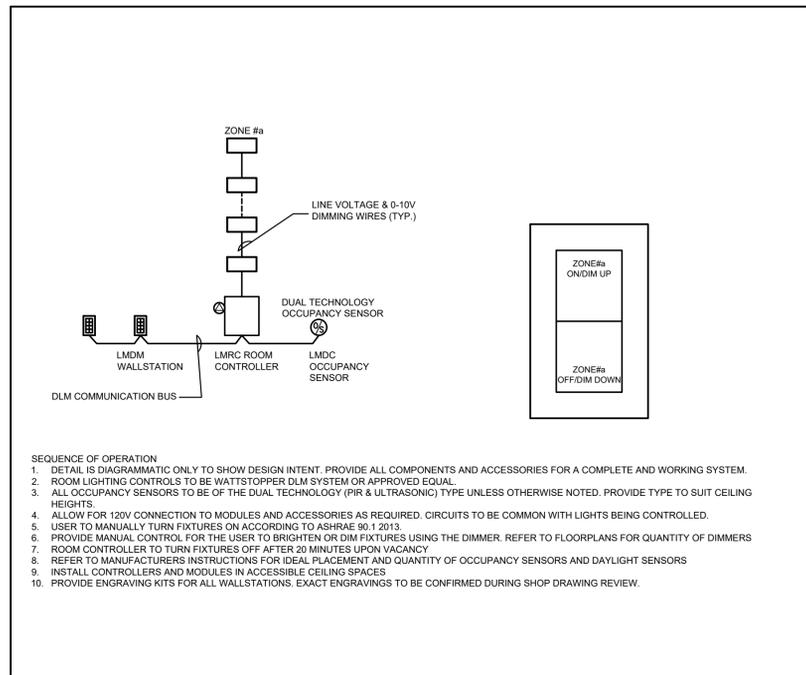
REPRODUCTION OR DISTRIBUTION FOR PURPOSES OTHER THAN AUTHORIZED BY BSN ARCHITECTS IS FORBIDDEN. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO BSN ARCHITECTS. DO NOT SCALE THIS DRAWING.

SCALE :	SHEET NO :
N.T.S.	
DATE : FEB 2024	
PROJECT NO : 2023-0059	
DRAWN BY : MP	
CHECKED BY : AT	

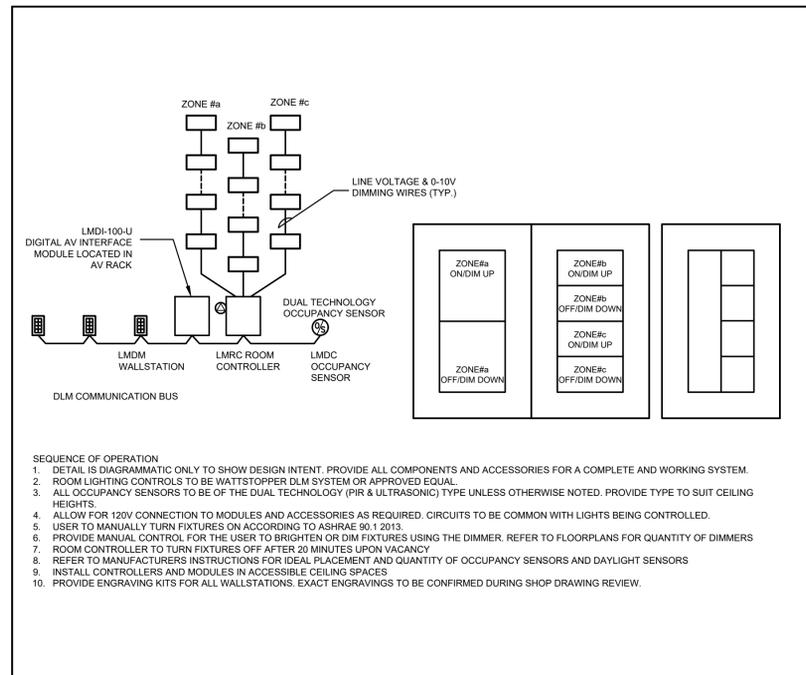
E702



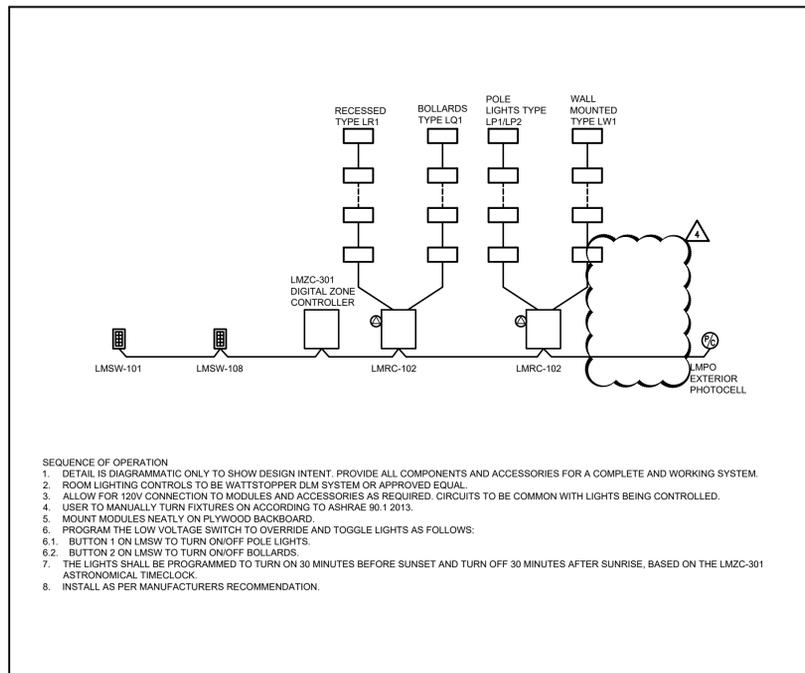
3 TEACHING LAB & FLOATING OFFICE  
E-801 NTS



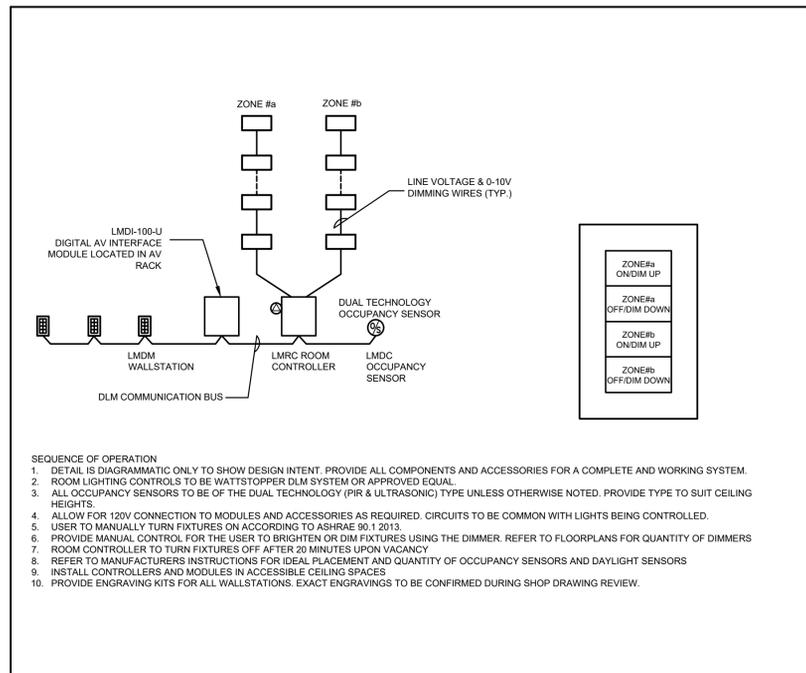
2 FORENSIC GARAGE  
E-801 NTS



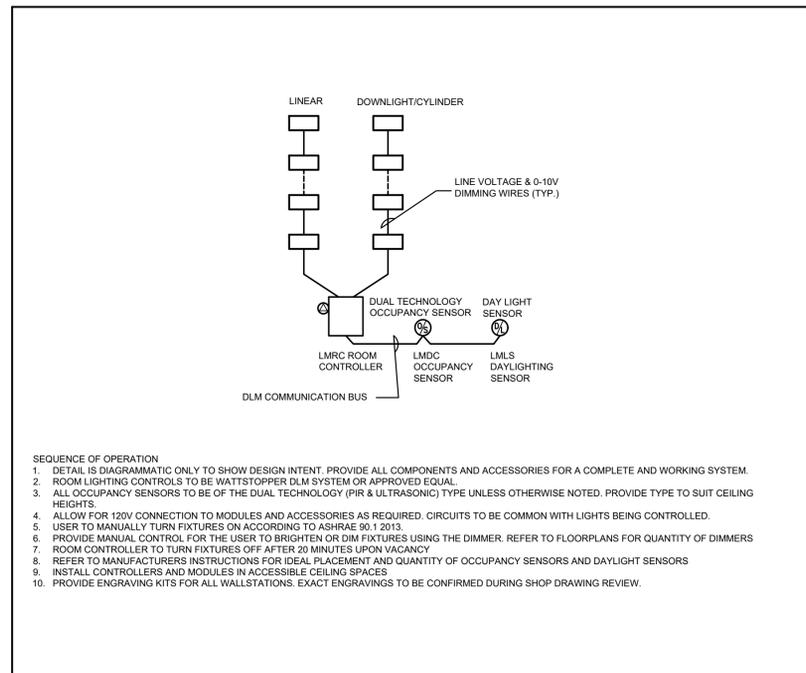
1 FORENSIC TEACHING CLASSROOM  
E-801 NTS



6 SITE LIGHT CONTROLLER  
E-801 NTS



5 MULTIPURPOSE SPACE & DRONE CROBE LAB  
E-801 NTS



4 CORRIDOR, LOUNGE & VESTIBULE  
E-801 NTS

No.	ISSUANCE	DATE
1	ISSUED FOR ESA	2024-10-21
2	ISSUED FOR 100% CD	2024-11-05
3	ISSUED FOR TENDER	2024-11-15
4	ISSUED FOR ADD-E01	2024-12-17

**DISCLAIMER:**  
**NOT FOR CONSTRUCTION**



CLIENT  
**UNIVERSITY OF TORONTO MISSISSAUGA**

PROJECT  
**PRE-ENGINEERED BUILDING**

3359 MISSISSAUGA ROAD

TITLE  
**LIGHTING CONTROL DETAILS**

**THEHIDIGROUP**  
155 Gordon Baker Road, Suite 200  
Toronto, ON M2H 3N5 Canada  
T. 416 364 2100 | HIDI.com

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SCALE : N.T.S.	SHEET NO :
DATE : FEB 2024	
PROJECT NO : 2023-0059	
DRAWN BY : MP	
CHECKED BY : AT	

**E801**



PROJECT NAME: UTM 3359 MISSISSAUGA RD  
 PROJECT NUMBER: 2023-0059  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2B1**  
 PAGE: 1 of 2  
 LOCATION: MULTI-PUROSE SPACE

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1			
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR	
						A	B	C					
20A-1P	S	MULTI-PURPOSE SPACE WEST RECEPTACLES	750	1				2	200	DRONE RESEARCH LAB OVERHEAD DOOR	S	15A-2P	
15A-1P	S	MULTI-PURPOSE SPACE NORTH RECEPTACLES	750	3				4	200				
15A-1P	S	MULTI-PURPOSE SPACE EAST RECEPTACLES	500	5				6	250	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #5	S	15A-1P	
15A-1P	S	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #1	250	7				8	250	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #6	S	15A-1P	
15A-1P	S	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #2	250	9				10	800	BATTERY CHARGING CABINETS	S	15A-1P	
15A-1P	S	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #3	250	11				12	250	RCPT-LAPTOPS	S	15A-1P	
15A-1P	S	MULTI-PURPOSE SPACE FLOOR MOUNTED RECEPTACLE #4	250	13				14	250	RCPT-LAPTOPS	S	15A-1P	
				15				16	250	RCPT-LAPTOPS	S	15A-1P	
20A-1P	S	MULTI-PURPOSE SPACE AV RACKS	300	17				18	250	RCPT-LAPTOPS	S	15A-1P	
20A-1P	S	CONV RECEPTACLE	250	19				20	250	RCPT-LAPTOPS	S	15A-1P	
15A-1P	S	FLOATING OFFICE RECEPTACLES	500	21				22	250	RCPT-DRONE LAB-20A	S	20A-1P	
				23				24	250	RCPT-DRONE LAB-20A	S	20A-1P	
				25				26	250	RCPT-DRONE LAB-15A	S	15A-1P	
				27				28	250	RCPT-DRONE LAB-15A	S	15A-1P	
15A-1P	S	WORKSTATION RECEPTACLE #1	250	29				30	250	RCPT-DRONE LAB-15A	S	15A-1P	
20A-1P		QUAD RECEPTACLE FOR AV RACK	250	31				32	250	RCPT-DRONE LAB-15A	S	15A-1P	
15A-1P	S	WORKSTATION RECEPTACLE #2	250	33				34	250	RCPT-DRONE LAB-15A	S	15A-1P	
20A-1P		QUAD RECEPTACLE FOR AV RACK	250	35				36	250	RCPT-DRONE LAB-15A	S	15A-1P	
15A-1P	S	WORKSTATION RECEPTACLE #3	250	37				38		SPARE	S	15A-1P	
				39				40		SPARE	S	15A-1P	
15A-1P	S	DRONE RESEARCH LAB ADO	1200	41				42		SPARE	S	15A-1P	

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker **100 A** CSA Enclosure Rating: Type 3R  
 Feed-through/Double Lugs Tub Type: Single  
 Isolated Ground Bus Mounting: Flush  
 Integral SPD Total Circuits: 60

Demand "A" **5103 W**  
 Demand "B" **5313 W**  
 Demand "C" **5663 W**

**TOTAL DEMAND AMPS 49.6 A**  
**TOTAL CONNECTED LOAD 23.0 kW**  
**TOTAL DEMAND LOAD 16.1 kW**

**NOTES:** PANEL TO BE SPRINKLER PROOF & C/W LOCKABLE DOOR.





PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2C1**  
 PAGE: 1 of 1  
 LOCATION: M&E ROOM 201

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
20A-1P	S	LOUNGE + CORRIDOR 102B RECEPTACLES	750	1				2	800	UNI W/C HAND DRYER	S	20A-1P
20A-1P	S	MICROWAVE #1	1000	3				4	1000	OFFICE RECEPTACLES	S	20A-1P
20A-1P	S	MICROWAVE #2	1000	5				6	500	OFFICE QUAD RECEPTACLE	S	15A-1P
20A-1P	S	FRIDGE	300	7				8	150	ILLUMINATED SIGNAGE	S	15A-1P
15A-1P	S	KITCHEN GFI RECEPTACLE	250	9				10	1000	M&E ROOM RECEPTACLES	S	15A-1P
15A-1P	S	CORRIDOR GFI - WATER STATION	250	11				12	750	M&E ROOM RECEPTACLES	S	15A-1P
20A-1P	S	CORRIDOR 102A RECEPTACLES	750	13				14	150	FIRE ALARM PANEL	S(L)	15A-1P
15A-1P	S	AUTO FAUCETS #1	10	15				16	50	ROOF RECEPTACLE #1	S	20A-1P
15A-1P	S	AUTO FAUCETS #2	10	17				18	50	ROOF RECEPTACLE #2	S	20A-1P
20A-1P	S	HAND DRYER #1	800	19				20	100	EPO CONTACTORS	S	15A-1P
20A-1P	S	HAND DRYER #2	800	21				22	750	LAN ROOM CONV. RECEPTACLE	S	20A-1P
15A-1P	S	AUTO FLUSH #1	10	23				24				
15A-1P	S	AUTO FLUSH #2	10	25				26	250	L6-30R LAN ROOM RECEPTACLE	S(L)	30A-2P
15A-1P	S	ELECTRONIC SEAL PRIMER	10	27				28				
15A-1P	S	CUSTODIAL GFI RECEPTACLES	500	29				30	250	L6-30R LAN ROOM RECEPTACLE	S(L)	30A-2P
15A-1P	S	VESTIBULE ADO #1	800	31				32				
15A-1P	S	VESTIBULE ADO #2	800	33				34				
15A-1P	S	UNI W/C ADO	800	35				36				
15A-1P	S	CEILING LIFT		37				38		SPARE	S	15A-1P
15A-2P	S	CHANGE TABLE	250	39				40		SPARE	S	15A-1P
				41				42		SPARE	S	15A-1P

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**

<input type="checkbox"/> Main Breaker	N/A	CSA Enclosure Rating: Type 3R
<input type="checkbox"/> Feed-through/Double Lugs		Tub Type: Single
<input type="checkbox"/> Isolated Ground Bus		Mounting: Surface
<input type="checkbox"/> Integral SPD		Total Circuits: 42

Demand "A"	3402 W
Demand "B"	4144 W
Demand "C"	2884 W

<b>TOTAL DEMAND AMPS</b>	<b>32.2 A</b>
<b>TOTAL CONNECTED LOAD</b>	<b>14.9 kW</b>
<b>TOTAL DEMAND LOAD</b>	<b>10.4 kW</b>

**NOTES:** 1) PANEL TO BE SPRINKLER PROOF C/W LOCKABLE DOOR. 2) PAINT BREAKER FOR FIRE ALARM PANEL IN RED. PROVIDE LOCK ON DEVICE.



PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2D1**  
 PAGE: 1 of 1  
 LOCATION: FORENSIC GARAGE

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-1P	S	LAB RECEPTACLES	500	1				2	800	ADO	S	15A-1P
15A-1P	S	LAB GFI RECEPTACLE	250	3				4	250	QUAD RECEPTACLE FOR AV RACK	S	20A-1P
15A-1P	S	TEACHING LAB DUPLEX RECEPTACLES	750	5				6	250	QUAD RECEPTACLE FOR AV RACK	S	15A-1P
15A-1P	S	TEACHING LAB DUPLEX RECEPTACLES	750	7				8	250		S	15A-1P
20A-1P	S	TEACHING LAB QUAD RECEPTACLES	750	9				10	100	MOTORIZED BLINDS	S	15A-1P
15A-1P	S	TEACHING LAB QUAD RECEPTACLES (EAST)	750	11				12				
15A-1P	S	FORENSIC TEACHING CLASSROOM RECEPTACLES	750	13				14				
15A-1P	S	FORENSIC TEACHING CLASSROOM RECEPTACLES	750	15				16				
15A-2P	S	FORENSIC GARAGE OVERHEAD DOOR	200	17				18				
			200	19				20				
15A-1P	S	FORENSIC GARAGE OVERHEAD CAMERA	50	21				22				
15A-1P	S	FORENSIC GARAGE DISPLAY	400	23				24				
15A-1P	S	CAMERA CHARGERS (X3)	450	25				26				
15A-1P	S	FORENSIC GARAGE GFI RECEPTACLES	500	27				28				
15A-1P	S	FORENSIC TEACHING CLASSROOM MOTORIZED BLINDS	400	29				30				
				31				32				
				33				34				
				35				36				
				37				38		SPARE	S	15A-1P
15A-1P	S	FORENSIC TEACHING CLASSROOM QUAD RECEPTACLE	250	39				40		SPARE	S	15A-1P
				41				42		SPARE	S	15A-1P

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker **100 A** CSA Enclosure Rating: Type 1  
 Feed-through/Double Lugs Tub Type: Single  
 Isolated Ground Bus Mounting: Flush  
 Integral SPD Total Circuits: 42

Demand "A" **2590 W**  
 Demand "B" **2030 W**  
 Demand "C" **1925 W**

**TOTAL DEMAND AMPS 20.2 A**  
**TOTAL CONNECTED LOAD 9.4 kW**  
**TOTAL DEMAND LOAD 6.5 kW**

**NOTES:** PANEL TO BE SPRINKLER PROOF C/W LOCKABLE DOORS.



PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2F1**  
 PAGE: 1 of 1  
 LOCATION: FLEX GARAGE

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-1P	S	FLEX OFFICE TV RECEPTACLE	250	1				2				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #1	250	3				4				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #2	250	5				6				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #3	250	7				8				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #4	250	9				10				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #5	250	11				12				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #6	250	13				14				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #7	250	15				16				
15A-1P	S	FLEX OFFICE STATION RECEPTACLE #8	250	17				18				
15A-1P	S	FLEX OFFICE FLOOR MOUNTED RECEPTACLE	250	19				20				
15A-1P	S	FLEX GARAGE GFI RECEPTACLES	500	21				22				
15A-1P	S	FLEX GARAGE GFI RECEPTACLES	750	23				24				
15A-2P	S	FLEX GARAGE OVERHEAD DOOR	500	25				26				
			500	27				28				
				29				30				
				31				32				
				33				34				
				35				36				
				37				38	SPARE		S	15A-1P
				39				40	SPARE		S	15A-1P
				41				42	SPARE		S	15A-1P

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker **100 A** CSA Enclosure Rating: Type 3R  
 Feed-through/Double Lugs Tub Type: Single  
 Isolated Ground Bus Mounting: Flush  
 Integral SPD Total Circuits: 42

Demand "A" **1050 W**  
 Demand "B" **1225 W**  
 Demand "C" **1050 W**

**TOTAL DEMAND AMPS 10.3 A**  
**TOTAL CONNECTED LOAD 4.8 kW**  
**TOTAL DEMAND LOAD 3.3 kW**

**NOTES:** PROVIDE SPRINKLER PROOF PANEL C/W LOCKABLE DOOR.



PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2G1**  
 PAGE: 1 of 1  
 LOCATION: AV GARAGE

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
				A B C								
15A-1P	S	AV GRAD OFFICE TV RECEPTACLE	250	1	●			2				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #1	250	3	●	●		4				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #2	250	5			●	6				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #3	250	7	●			8				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #4	250	9	●	●		10				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #5	250	11			●	12				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #6	250	13	●			14				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #7	250	15	●	●		16				
15A-1P	S	AV GRAD OFFICE WORKSTATION RECEPTACLE #8	250	17			●	18				
15A-1P	S	AV GRAD OFFICE FLOOR MOUNTED RECEPTACLE	250	19	●			20				
15A-1P	S	AV GARAGE GFI RECEPTACLES	500	21	●			22				
15A-1P	S	AV GARAGE GFI RECEPTACLES	750	23			●	24				
15A-2P	S	AV GARAGE OVERHEAD DOOR	500	25	●			26				
			500	27	●			28				
				29	●			30				
				31	●			32				
				33	●			34				
				35	●			36				
				37	●			38	SPARE		S	15A-1P
				39	●			40	SPARE		S	15A-1P
				41	●			42	SPARE		S	15A-1P

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker **100 A** CSA Enclosure Rating: Type 1  
 Feed-through/Double Lugs Tub Type: Single  
 Isolated Ground Bus Mounting: Flush  
 Integral SPD Total Circuits: 42

Demand "A" **1050 W**  
 Demand "B" **1225 W**  
 Demand "C" **1050 W**

**TOTAL DEMAND AMPS 10.3 A**  
**TOTAL CONNECTED LOAD 4.8 kW**  
**TOTAL DEMAND LOAD 3.3 kW**

**NOTES:**



PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2L2**  
 PAGE: 1 of 1  
 LOCATION: M&E ROOM 201

Panel Mains:		100 A	SC Rating:	As per Spec	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-1P	S	LW1	25	1				2	330	CORRIDOR 102A LIGHTING	S	15A-1P
15A-1P	S	LP1 AND LP2	200	3				4	320	CORRIDOR 102B LIGHTING	S	15A-1P
15A-1P	S	LQ1	40	5				6	190	WASHROOMS LIGHTING	S	15A-1P
15A-1P	S(L)	GROUND FLOOR EXIT SIGNS	50	7				8	145	CUSTODIAL AND LAN ROOM	S	15A-1P
15A-1P	S	LR1	15	9				10	800	M&E ROOM LIGHTING AND BU-1,2 AND 3	S	15A-1P
				11				12	70	VESTIBULE 101 AND OFFICE 109 LIGHTING	S	15A-1P
				13				14	400	LAB 107 AND TEACHING LAB 108 LIGHTING	S	15A-1P
				15				16	550	FORENSIC GARAGE LIGHTING	S	15A-1P
				17				18	950	FORENSIC TEACHING CLASSROOM LIGHTING	S	15A-1P
				19				20	200	AV GRAD OFFICE LIGHTING	S	15A-1P
				21				22	200	FLEX OFFICE LIGHTING	S	15A-1P
				23				24	600	AV GARAGE LIGHTING	S	15A-1P
				25				26	600	FLEX GARAGE LIGHTING	S	15A-1P
				27				28	950	MULTIPURPOSE SPACE LIGHTING	S	15A-1P
				29				30	320	FLOATING OFFICE LIGHTING	S	15A-1P
				31				32	720	DRONE RESEARCH LAB LIGHTING	S	15A-1P
				33				34	450	LOUNGE LIGHTING	S	15A-1P
				35				36				
15A-1P	S	SPARE		37				38				
15A-1P	S	SPARE		39				40				
15A-1P	S	SPARE		41				42				

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker      N/A      CSA Enclosure Rating: Type 3R  
 Feed-through/Double Lugs      Tub Type: Single  
 Isolated Ground Bus      Mounting: Flush  
 Integral SPD      Total Circuits: 42

Demand "A"      2470 W  
 Demand "B"      3485 W  
 Demand "C"      2170 W

**TOTAL DEMAND AMPS**      25.1 A  
**TOTAL CONNECTED LOAD**      8.1 kW  
**TOTAL DEMAND LOAD**      8.1 kW

**NOTES:** PANEL SHALL BE SPRINKLER PROOF, AND COMPLETE WITH LOCKABLE DOOR.



PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2M2**  
 PAGE: 1 of 2  
 LOCATION: M&E ROOM 201

Panel Mains:		100 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-2P	S	BBH-1 (LAB 107)	624	1				2	624	BBH-1 (FORENSIC TEACHING CLASSROOM)	S	15A-2P
			624	3				4	624			
15A-2P	S	BBH-1 (TEACHING LAB 108)	624	5				6	624	BBH-1 (FORENSIC TEACHING CLASSROOM)	S	15A-2P
			624	7				8	624			
15A-2P	S	BBH-1 (MULTI-PURPOSE SPACE)	624	9				10	624	BBH-1 (FORENSIC TEACHING CLASSROOM)	S	15A-2P
			624	11				12	624			
15A-2P	S	BBH-1 (MULTI-PURPOSE SPACE)	624	13				14	624	BBH-1 (LOUNGE)	S	15A-2P
			624	15				16	624			
15A-2P	S	BBH-1 (MULTI-PURPOSE SPACE)	624	17				18	624	BBH-1 (LOUNGE)	S	15A-2P
			624	19				20	624			
15A-2P	S	BBH-1 (MULTI-PURPOSE SPACE)	624	21				22	624	BBH-1 (CORRIDOR)	S	15A-2P
			624	23				24	624			
15A-2P	S	BBH-1 (MULTI-PURPOSE SPACE)	624	25				26	624	BBH-1 (CORRIDOR)	S	15A-2P
			624	27				28	624			
15A-2P	S	BBH-1 (DRONE RESEARCH LAB)	624	29				30	624	BBH-1 (OFFICE)	S	15A-2P
			624	31				32	624			
				33				34	624	BBH-1 (DRONE RESEARCH LAB)	S	15A-2P
				35				36	624			
				37				38	624	BBH-1 (DRONE RESEARCH LAB)	S	15A-2P
15A-2P	S	BBH-1 (FORENSIC TEACHING CLASSROOM)	624	39				40	624			
			624	41				42				

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**

<input checked="" type="checkbox"/> Main Breaker	<b>SIZE?</b>	CSA Enclosure Rating: Type 1
<input type="checkbox"/> Feed-through/Double Lugs		Tub Type: Single
<input type="checkbox"/> Isolated Ground Bus		Mounting: Flush
<input type="checkbox"/> Integral SPD		Total Circuits: 84

Demand "A"	4368 W
Demand "B"	4368 W
Demand "C"	3744 W

<b>TOTAL DEMAND AMPS</b>	<b>38.5 A</b>
<b>TOTAL CONNECTED LOAD</b>	<b>25.0 kW</b>
<b>TOTAL DEMAND LOAD</b>	<b>12.5 kW</b>

**NOTES:**





PROJECT NAME: **UTM 3359 MISSISSAUGA RD**  
 PROJECT NUMBER: **2023-0059**  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2N2**  
 PAGE: 1 of 2  
 LOCATION: M&E ROOM 201

Panel Mains:		225 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-2P	S	FC-10	150	1	●			2		AC-1	S	15A-2P
			150	3	●			4				
15A-2P	S	FC-9	150	5		●		6	624	UH-2	S	15A-2P
			150	7	●			8	624			
15A-2P	S	AC-2		9		●		10	800	BAS	S	15A-1P
				11		●		12				
15A-2P	S	FC-5	150	13	●			14				
			150	15	●			16				
15A-1P	S	SF-1	600	17		●		18				
15A-2P	S	FC-4	100	19	●			20				
			100	21	●			22	85	FC-7		
80A-2P	S	EDH-1	6000	23		●		24	85		S	15A-2P
			6000	25	●			26	85	FC-11		
15A-2P	S	UH-1	600	27	●			28	85		S	15A-2P
			600	29	●			30	210	UH-1 (AV GARAGE)		
15A-2P	S	FC-2	150	31	●			32	210		S	15A-2P
			150	33	●			34	85	FC-8		
15A-2P	S	FC-3	150	35		●		36	85		S	15A-2P
			150	37	●			38	85	FC-12		
15A-2P	S	FC-1	150	39	●			40	85		S	15A-2P
			150	41	●			42	400	EF-6		

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**  
 Main Breaker N/A  
 Feed-through/Double Lugs  
 Isolated Ground Bus  
 Integral SPD  
 CSA Enclosure Rating: Type 3R  
 Tub Type: Single  
 Mounting: Surface  
 Total Circuits: 84

Demand "A" 12822 W  
 Demand "B" 10418 W  
 Demand "C" 13774 W

**TOTAL DEMAND AMPS** 114.2 A  
**TOTAL CONNECTED LOAD** 74.0 kW  
**TOTAL DEMAND LOAD** 37.0 kW

**NOTES:** PANEL TO BE SPRINKLER PROOF AND C/W LOCKABLE DOOR.



PROJECT NAME: UTM 3359 MISSISSAUGA RD  
 PROJECT NUMBER: 2023-0059  
 DATE: November 29, 2024  
 ENGINEER/DESIGNER Dwayne DeSouza

**PANEL: PP-2N2**  
 PAGE: 2 of 2  
 LOCATION: M&E ROOM 201

Panel Mains:		225 A	SC Rating:	25 KAIC	Voltage:	120 / 208	Ph/Wire:	3φ /4W	Fed from:	DP-2A1		
BRKR	*	DESCRIPTION	C [W]	cct	PHASE			cct	C [W]	DESCRIPTION	*	BRKR
						A	B	C				
15A-2P	S	FC-6	190	43	●			44	210	UH-1 (FLEX GARAGE)	S	15A-2P
			190	45	●			46	210			
15A-2P	S	BS-1	70	47		●		48	624	FFH-1	S	15A-2P
			70	49	●			50	624			
15A-2P	S	BS-2	70	51		●		52	530	EF-3	S	15A-1P
			70	53	●			54	4100			
45A-3P	S	DHWH-1	4100	55	●			56	4100	DHWH-2	S	45A-3P
			4100	57	●			58	4100			
			4100	59	●			60	530			
				61	●			62	696	EF-1	S	15A-1P
15A-1P	S	P-1	700	63	●			64	696	EF-2	S	15A-1P
				65	●			66	1200	CU-3	S	15A-2P
				67	●			68	1200			
				69	●			70	1200	CU-4	S	15A-2P
				71	●			72	1200			
				73	●			74	3300	CU-1	S	35A-3P
				75	●			76	3300			
				77	●			78	3300			
15A-1P	S	SPARE		79	●			80	3300	CU-2	S	35A-3P
15A-1P	S	SPARE		81	●			82	3300			
15A-1P	S	SPARE		83	●			84	3300			

**LEGEND:**  
 S : Standard Breaker  
 G : Ground Fault Circuit Interrupt  
 3G : 30mA Ground Fault Circuit Interrupt  
 A : Arc Fault Circuit Interrupt  
 (L) : Lock-on Device

**OPTIONS:**

<input type="checkbox"/> Main Breaker:	<b>hidi</b>	CSA Enclosure Rating: Type 3R
<input type="checkbox"/> Feed-through/Double Lugs		Tub Type: Single
<input type="checkbox"/> Isolated Ground Bus		Mounting: Surface
<input type="checkbox"/> Integral SPD		Total Circuits: 84

Demand "A"	12822 W
Demand "B"	10418 W
Demand "C"	13774 W

<b>TOTAL DEMAND AMPS</b>	<b>114.2 A</b>
<b>TOTAL CONNECTED LOAD</b>	<b>74.0 kW</b>
<b>TOTAL DEMAND LOAD</b>	<b>37.0 kW</b>

**NOTES:** PANEL TO BE SPRINKLER PROOF AND C/W LOCKABLE DOOR.