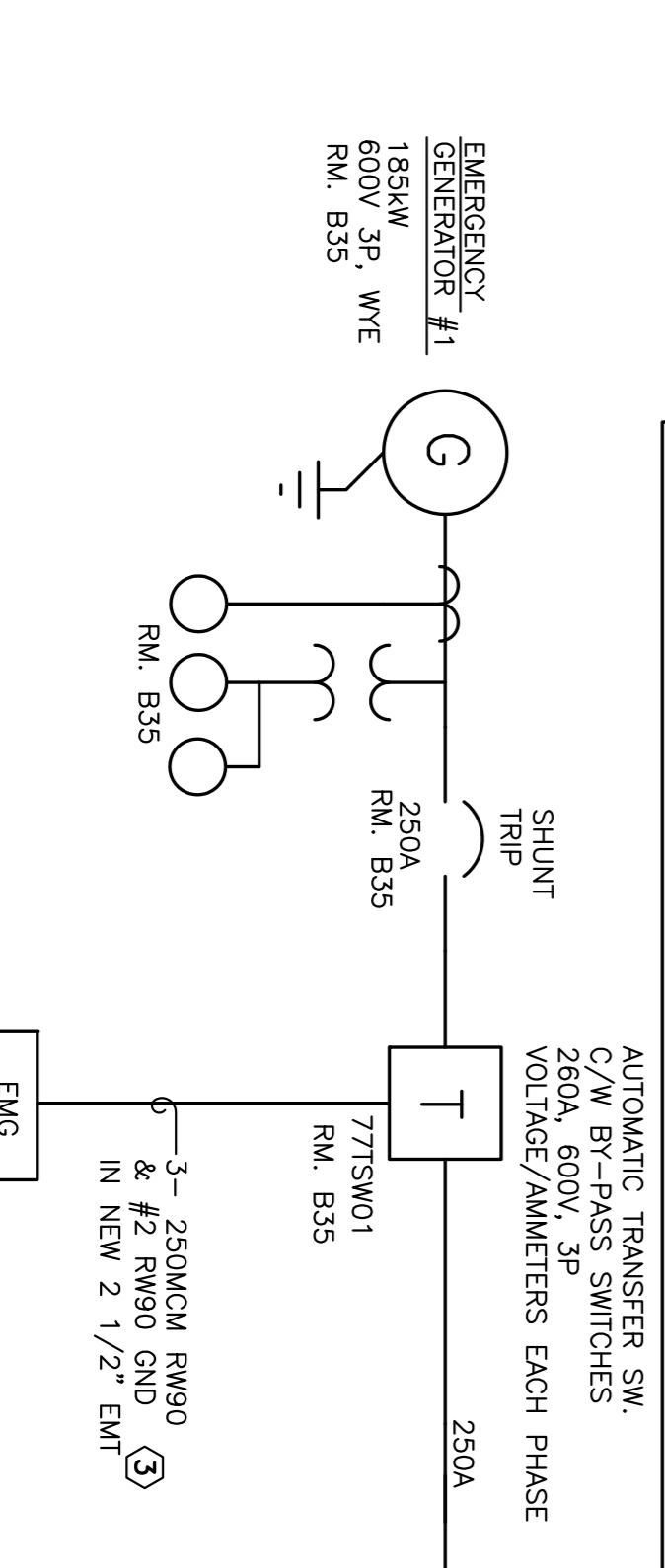
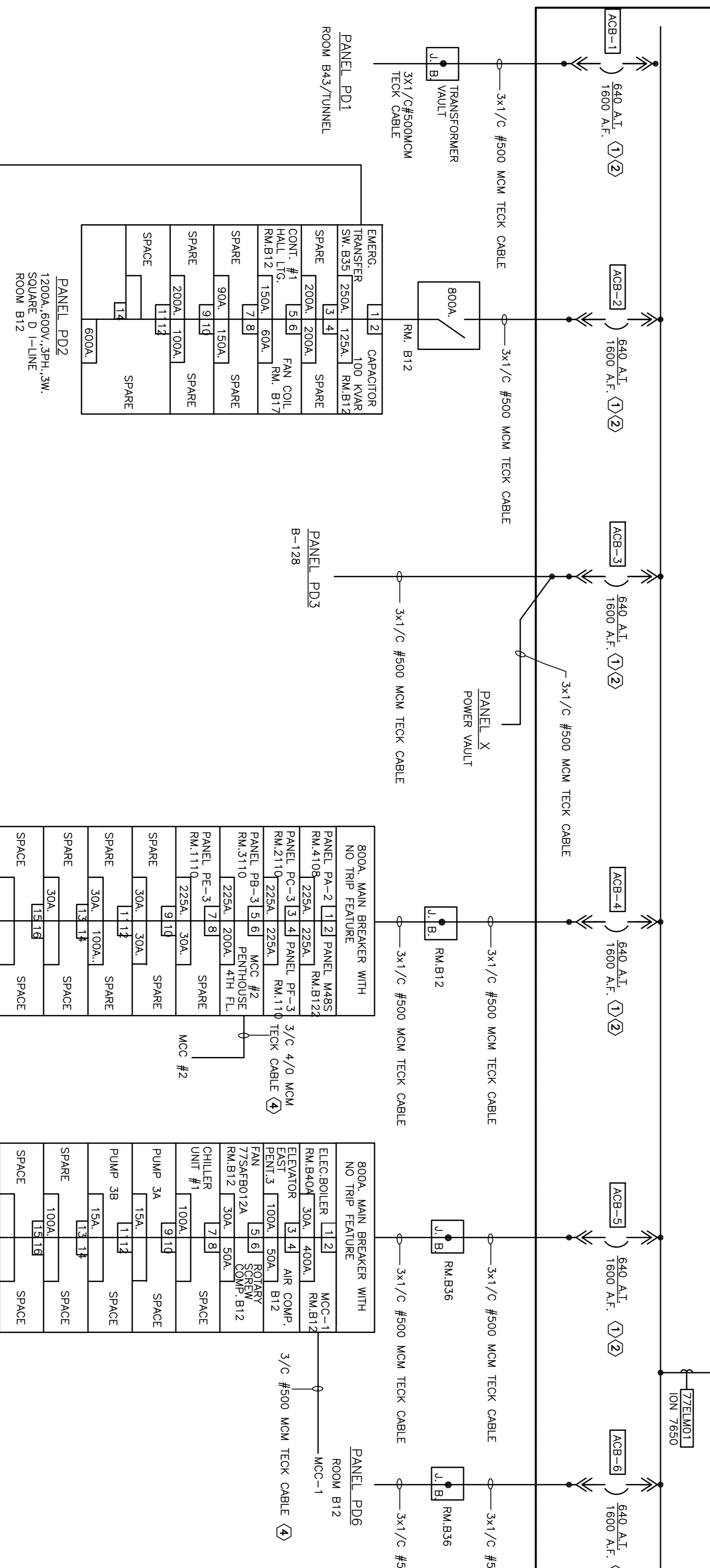
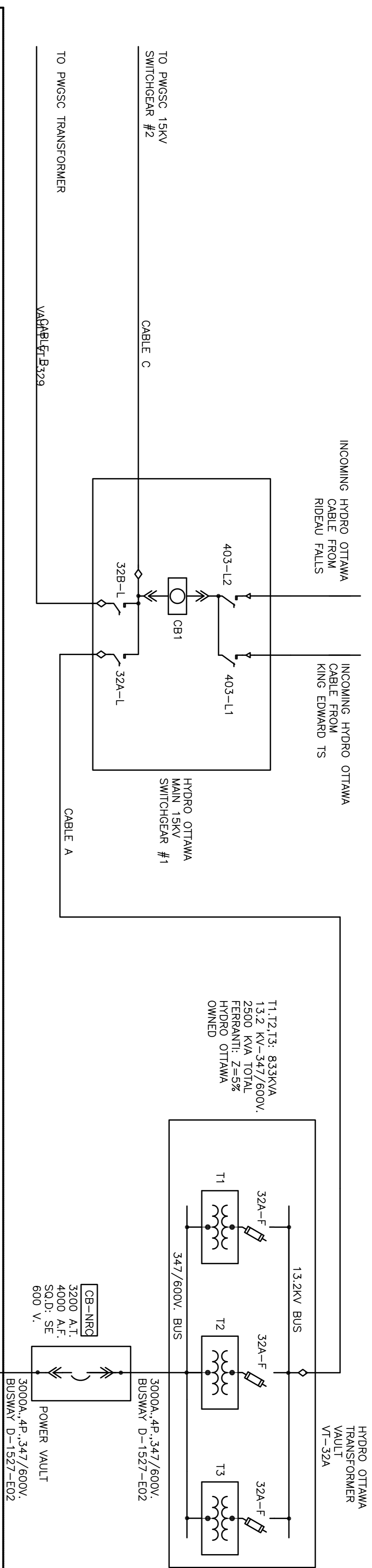


**GENERAL NOTES**

1. EXISTING AIR POWER BREAKER TO BE REMOVED
  2. PROVIDE NEW SQ D NW DRAWOUT BREAKER - 600V RATED, 1600A FRAME, IN=640A, IC@600V, 85KA L3 UNIT, MOBILE, 32E WIRING MODULES NETWORK THROUGH DEDICATED ETHERNET CATEGORIES TO P.I.C. PROVIDE MODBUS ID AND REGISTER LIST FOR EACH BREAKER. PROVIDE ONE ETHERNET PORT TO BE ACCESSIBLE FROM SWITCHBOARD EXTERIOR SURFACE. - RENAISSANCE WIRING CONNECTION EXCEPT TO NOTE 3.
  3. DISCONNECT AND REMOVE EXISTING WIRING FROM CAPACITOR BACK TO SWITCHBOARD.
  4. EXISTING WIRING TO BE RE-ROUTED TO NEW EQUIPMENT AS PER E02
  5. DISCONNECT EXISTING WIRE.
- A CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- B PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- C MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- D COORDINATE ALL SHUTDOWNS WITH THE NRC DEPARTMENTAL REPRESENTATIVE.
- E FILL ALL HOLES, PATCH & PAINT ALL SURFACES IN CONTRACT AREA. COLOUR SCHEME TO MATCH EXISTING.
- F REMOVE MEANS REMOVE AND DISPOSE OF OFF SITE UNLESS OTHERWISE NOTED.
- G PROVIDE LABELS TO NEW DEVICES TO INDICATE POWER SOURCE. UPDATE PANEL SCHEDULES AFTER JOB COMPLETION.
- H ALL WIRE TO BE IN EMT UNLESS OTHERWISE NOTED.
- I OUTAGE IS ONLY SCHEDULED DURING WEEKEND OR AFTER HOUR, UNLESS OTHERWISE SPECIFIED BY NRC REPRESENTATIVE
- J WEEKEND OUTAGE MUST BE CARRIED AFTER HOUR OUTAGE MUST BE CARRIED BETWEEN SAME DAY 1800 AND NEXT DAY 0300
- K ALL LOADS TO BE RESUMED AT THE END OF OUTAGE
- L CONTRACTOR TO VERIFY INTEGRITY OF EXISTING RACEWAY BEFORE PULLING CABLE/WIRE.

**DRAWING NOTES**

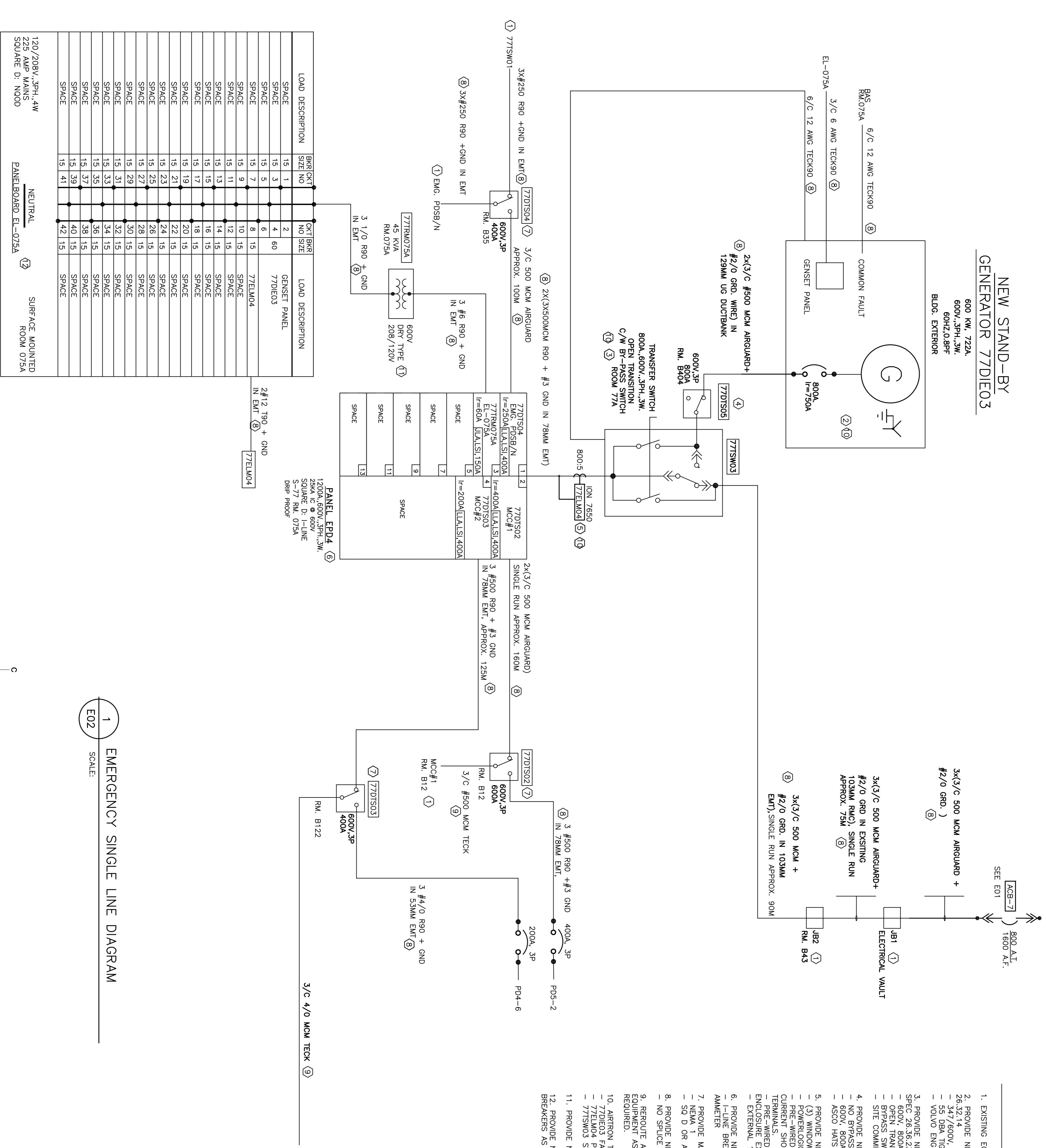


**1 EXISTING SINGLE LINE DIAGRAM**  
 SCALE: E01

designed	conçu	date	date
KXL	KXL	SEPT/2015	
drawn	dessiné	scale	échelle
KXL	KXL	AS NOTED	
checked	vérifié	sheet	feuille
KXL	KXL	E01	E04
approved	approuvé	W.O.no.	D.T.no.
DL	DL	A1-006950-07-01	
ding.no.			dessin no.
5088-E01			

**NEW STAND-BY  
GENERATOR 77DIE03**

600 KW, 722A  
600V, 3PH, 3W  
60HZ, 0.8PF  
BLDG. EXTERIOR



**1**  
**EMERGENCY SINGLE LINE DIAGRAM**  
SCALE: E02

**DRAWING NOTES**

- EXISTING EQUIPMENT TO REMAIN.
- PROVIDE NEW STAND-BY OUTDOOR GENSET. SPEC 26.32.14  
347/600V, 3P, 600KW/750KVA, WYE  
55 DBA TIGHT-FIT SOUND PROOF ENCLOSURE  
VOLVO ENGINE IS NOT ACCEPTABLE
- PROVIDE NEW ASCO AUTOMATIC TRANSFER SWITCH, SPEC: 26.36.25.02  
600V, 800A, 3-POLE  
- OPEN TRANSITION  
- BYPASS SWITCH  
- SITE COMMISSIONED BY ASCO REP
- PROVIDE NEW NON-AUTOMATIC TRANSFER SWITCH  
- NO BYPASS, NEMA 1  
- 600V, 800A, 3P  
- ASCO HATS
- PROVIDE NEW DIGITAL METER SYSTEM  
- (3) WINDOW TYPE 800'S DIS IN 77TSW03  
- POWERLOGIC 7650 WITH ETHERNET PORT  
- POWERLOGIC STANDALONE METER ENCLOSURE WITH CURRENT SPLITTING BLOCKS, 120V FUSE/BKR AND TERMINALS  
- PRE-WIRED ETHERNET PORT ACCESSIBLE FROM ENCLOSURE EXTERIOR  
- EXTERNAL 120V CONTROL POWER
- PROVIDE NEW SQ D 1-LINE PANELBOARD  
- I-LINE BREAKER WITH LSI ELECTRONIC TRIP UNIT + AMMETER
- PROVIDE MANUAL DOUBLE THROW SWITCH  
- NEMA 1  
- SQ D OR ABB
- PROVIDE NEW WIRING AND CONNECTION AS SHOWN.  
- NO SPLICE ALLOWED FOR PARALLEL RUN
- REROUTE AND CONNECT EXISTING WIRING TO NEW EQUIPMENT AS SHOWN, PROVIDE NEW WIRING AS REQUIRED.
- AIRTRON TO PROVIDE NEW DDC POINTS  
- 77DIE03 FAILURE ALARM  
- 77ELM04 PULSE OUTPUT  
- 77TSW03 STATUS
- PROVIDE NEW HAMMOND DRY TYPE TRANSFORMER.
- PROVIDE NEW DO D NOOD PANEL WITH BOLT-ON BREAKERS AS SHOWN.

**MRCC - CNRC**

National Research Council Canada  
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Division des services administratifs et gestion de l'immobilier

Consul national Canada  
de recherches  
Division des services administratifs et gestion de l'immobilier

**GENERAL NOTES**

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- CONTRACTOR TO VERIFY INTEGRITY OF EXISTING RACEWAY BEFORE PULLING CABLE/WIRE.

designed	KXL	conçu	date	SEP/2015
drawn	KXL	dessiné	échelle	AS NOTED
checked	KXL	vérifié	signature	E02
approved	DL	approuvé	N.O. no.	A1-006950-07-01

5088-E02



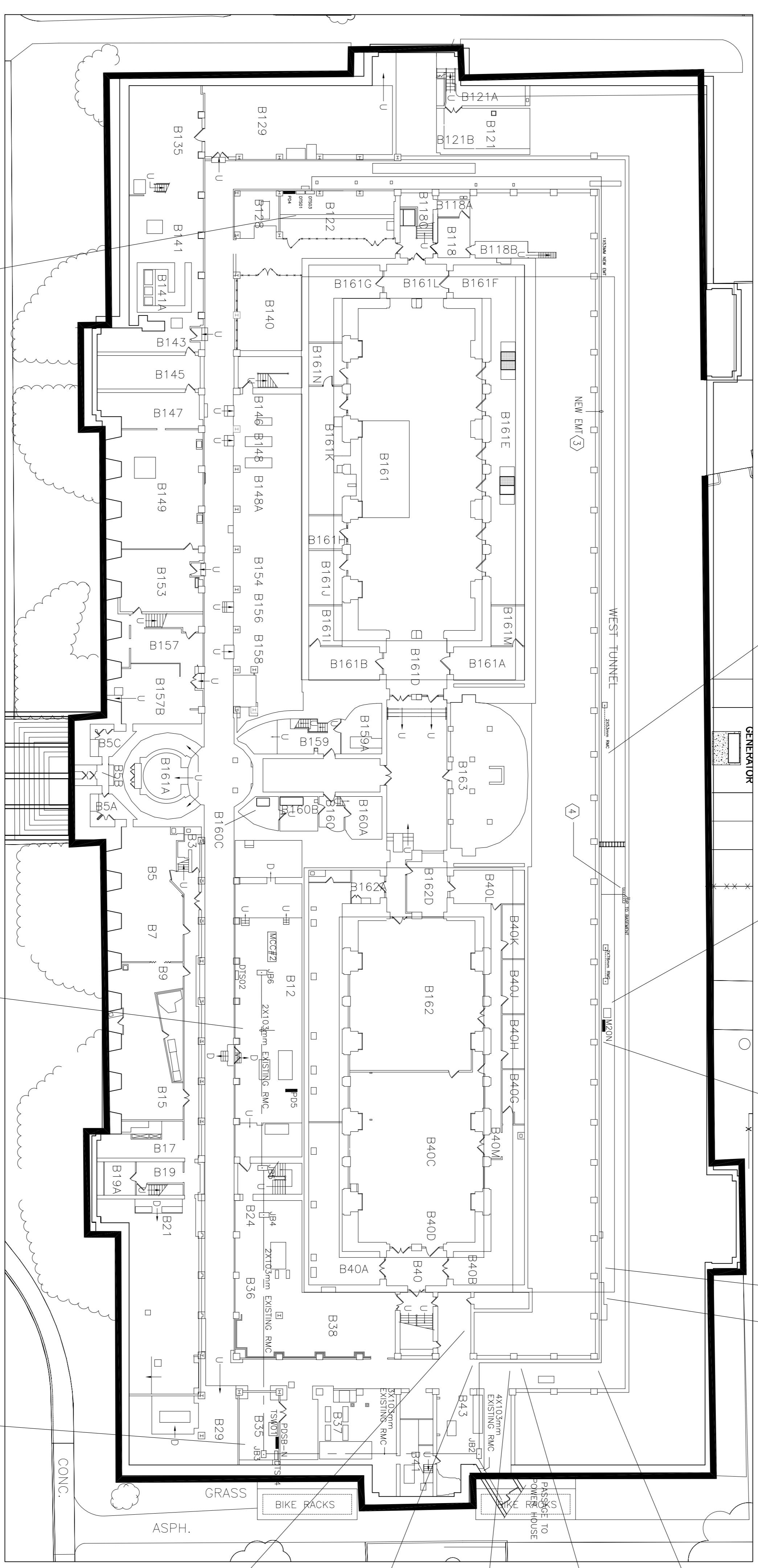
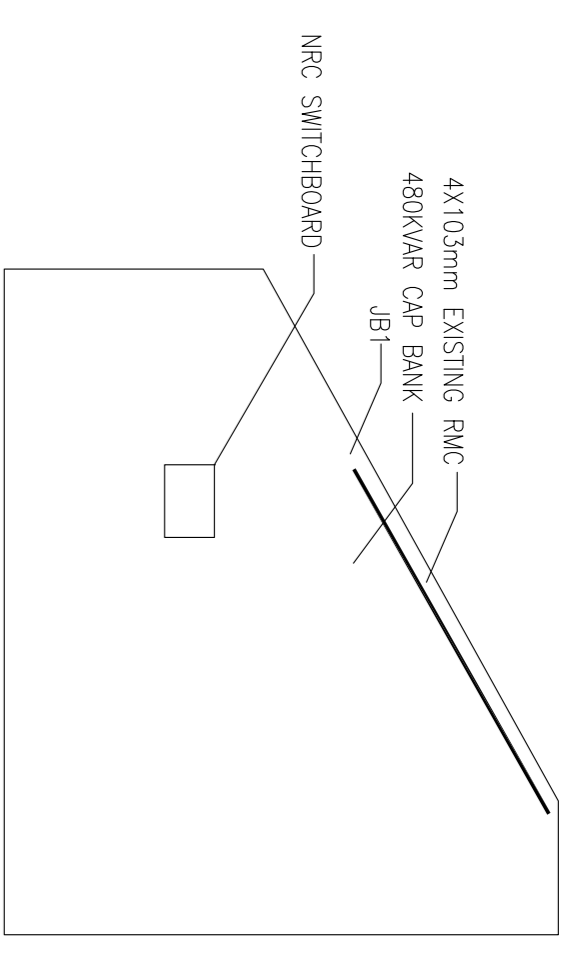


**DRAWING NOTES**

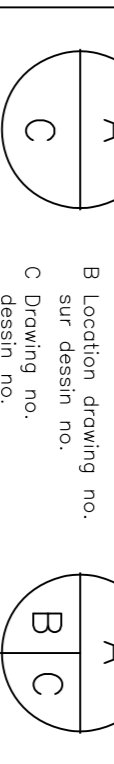
NOTES

1. REMOVE WHOLE RUN OF EXISTING SPARE RIGID CONDUIT AND JUNCTION BOX. SNAPSHOTS ARE PROVIDED AT VARIOUS LOCATION, MARKED IN DASHED LINE.
2. PROVIDE NEW EQUIPMENT AS PER E02. UNSTRUCT SUPPORT
3. PROVIDE NEW EMT.
4. PROVIDE FULL ENCLOSED GALVANIZED STEEL COVER FOR CABLE RISER.
5. CABLE TO BE SUPPORTED OFF WALL WHERE ENCOUNTER EXISTING CONDUITS/DEVICES, CARRY SEISMIC CERTIFICATE.

**6 HYDRO VAULT LAYOUT**  
SCALE: 1:100

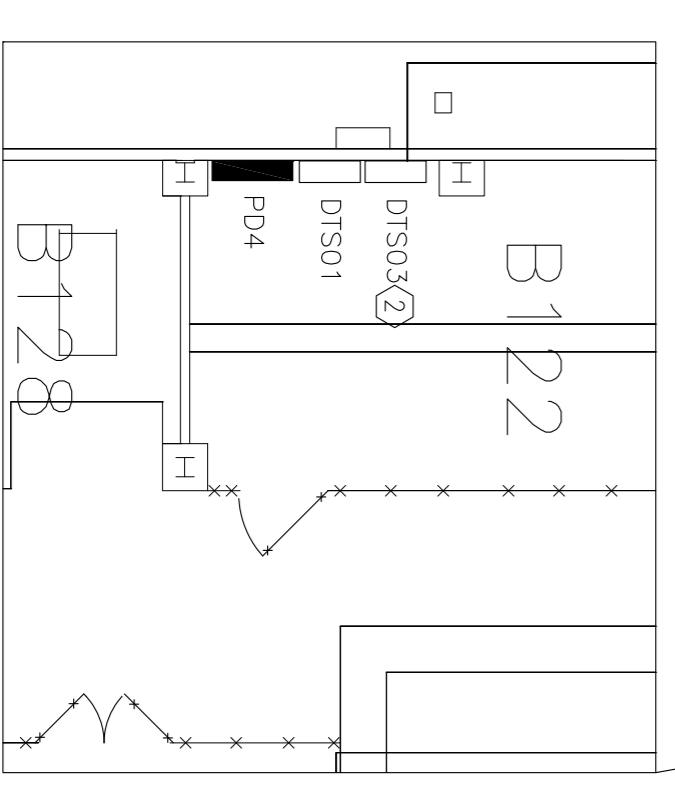


**LEGEND**

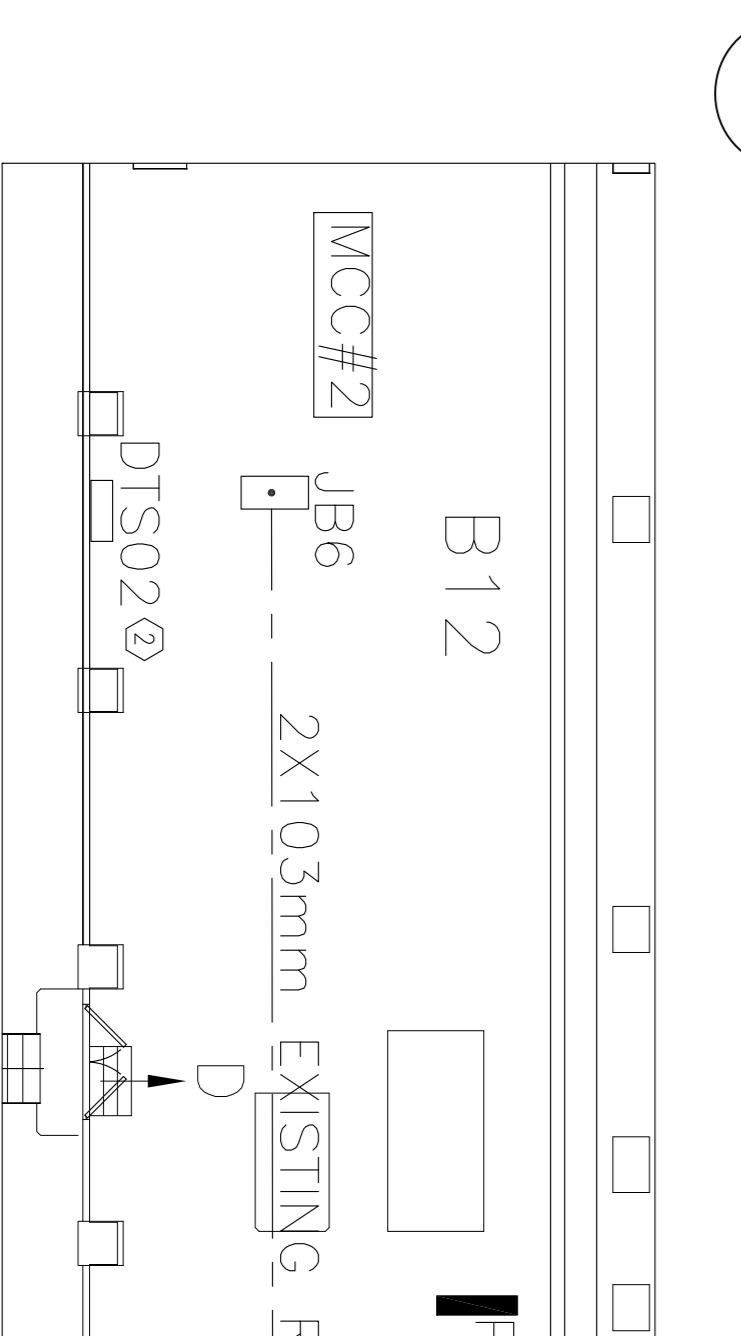


Verify all dimensions and site conditions and be responsible for same  
 Vérifier toutes les dimensions et l'état des lieux et en assumer la responsabilité

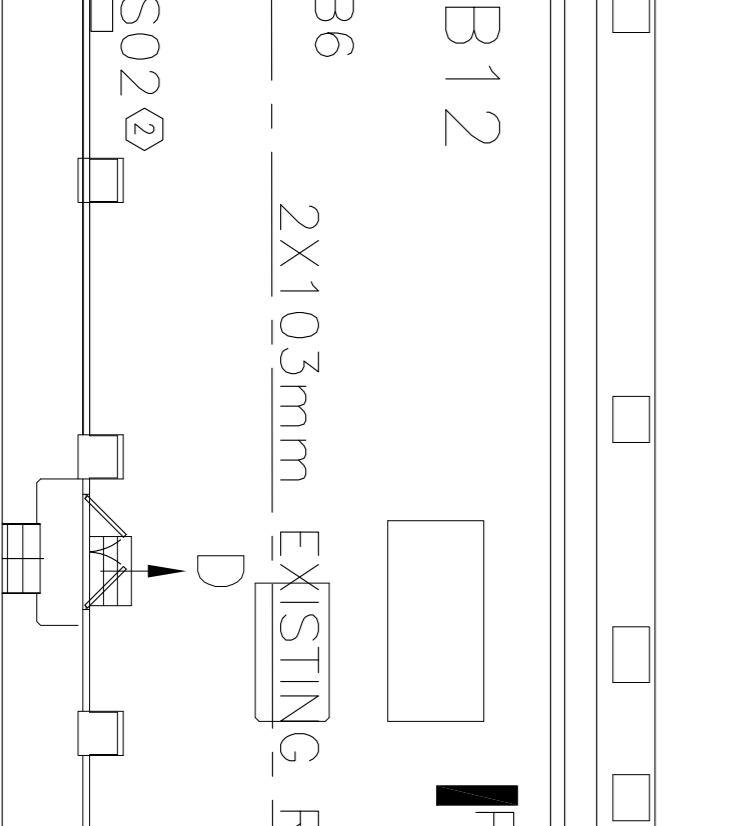
**2 RM. B122 FLOOR PLAN**  
SCALE: 1:100



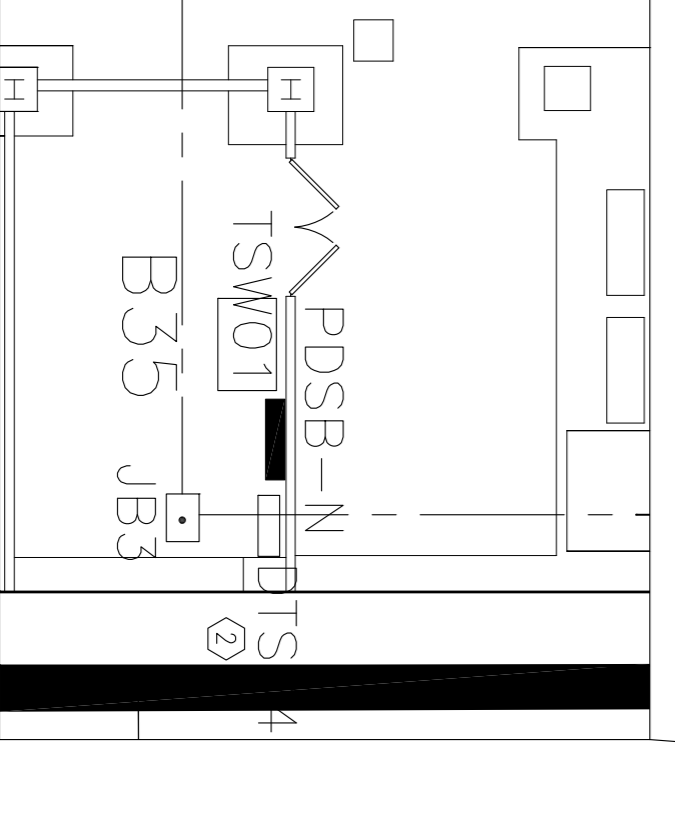
**1 SUB BASEMENT FLOOR PLAN**  
SCALE: 1:250



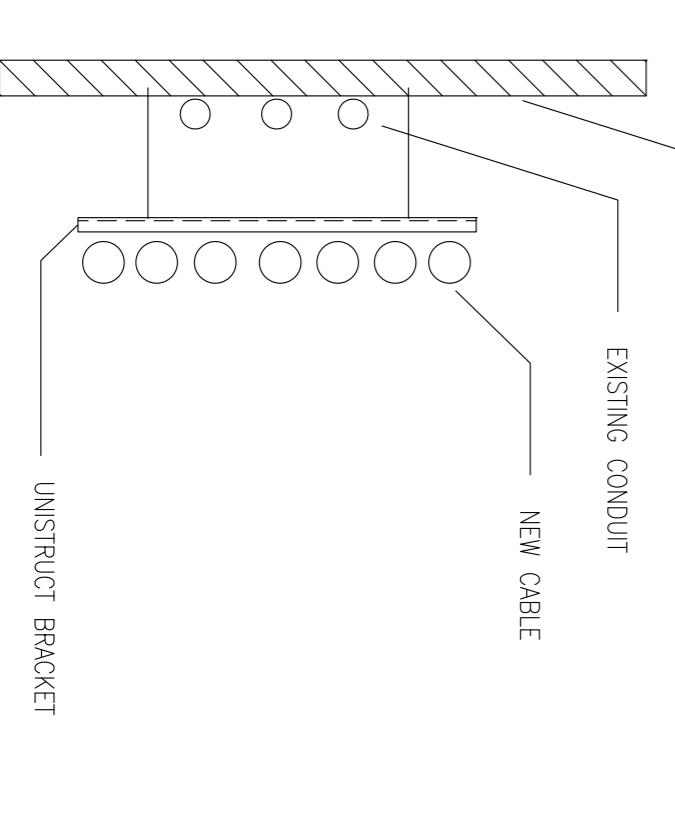
**3 RM. B12 FLOOR PLAN**  
SCALE: 1:100



**4 RM. B35 FLOOR PLAN**  
SCALE: 1:100



**5 CABLE WALL SUPPORT**  
SCALE: 1:100



**NRC - CNRC**

National Research Council Canada  
 de recherches Canada

Administrative Services  
 Administrative Services  
 Services administratifs et gestion des ressources

Division des services  
 Division des services  
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project	S77 OUTDOOR GENERATOR	
project	SUSSEX ROAD CAMPUS	
drawing	SUB BASEMENT PLAN	
designed	KXL	conçu date
drawn	KXL	dessiné
checked	KXL	vérifié
approved	DL	approuvé
diag.no.	5088-E04	dessin no.