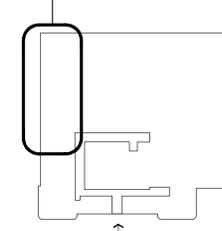


PROJECT NORTH TRUE NORTH

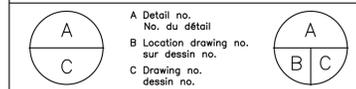
AREA OF WORK



- GENERAL NOTES:
1. NEW AUTOCLAVE SUPPLIED BY NRC.
  2. CONTRACTOR TO VERIFY ALL DIMENSIONS & CONDITIONS ON SITE AND IMMEDIATELY NOTIFY NRC REPRESENTATIVE OF ALL DISCREPANCIES.
  3. ALL TRADES TO COORDINATE WORK ON SITE TO AVOID CONFLICTS AND/OR INTERFERENCES.
  4. ALL WORK REQUIRING THE SHUTDOWN OF ANY BUILDING SYSTEM IS TO BE COORDINATED WITH NRC REPRESENTATIVE.
  5. BE RESPONSIBLE TO ANY DAMAGE TO EXISTING SERVICES RESULTING FROM YOUR WORK.

No.	Date	Revision	By:
0	NOV. 2013	ISSUED FOR REVIEW	ZM

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



project projet

**BUILDING M-04 ROOM 121  
 AUTOCLAVE REPLACEMENT**

**MONTREAL ROAD CAMPUS**

drawing dessin

**MECHANICAL  
 DEMOLITION, NEW INSTALLATION  
 AND MOVING ROUTE PLANS**

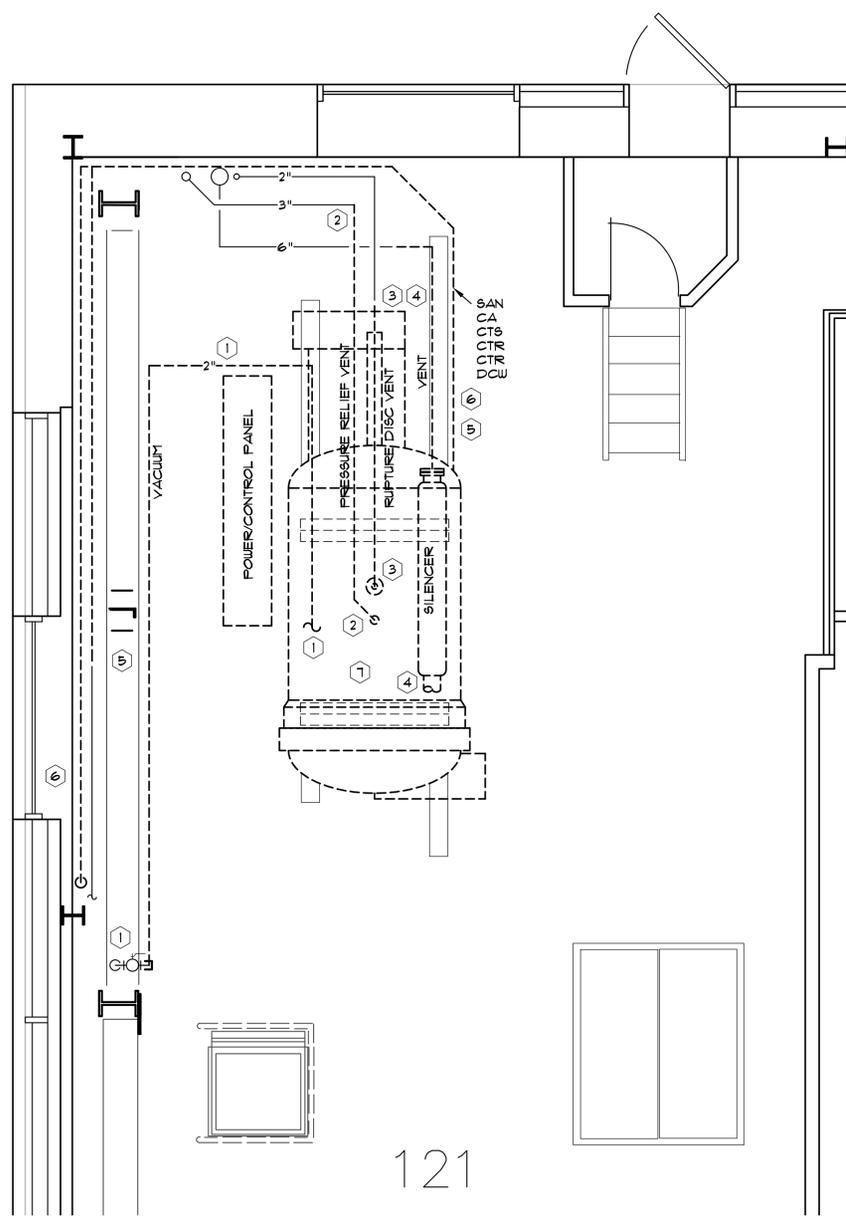
designed **Z. M.** congru date **11/2013** date

drawn **Z. M.** dessiné scale **AS NOTED** échelle

checked **I.A.F.** vérifié sheet **M01 of/de M01** feuille

approved **B.V.** approuvé W.O.no. **A1-000083-01-02** D.T.no.

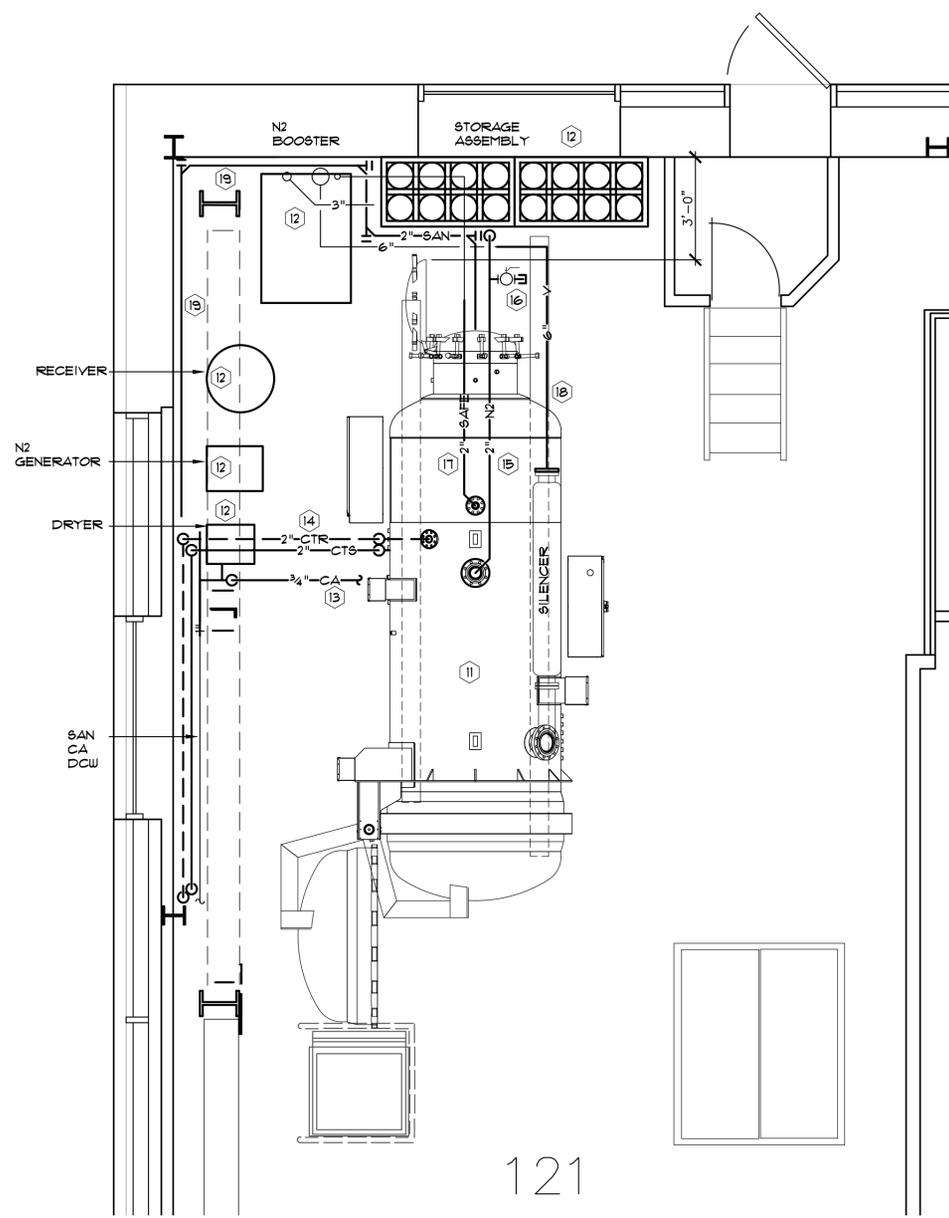
dwg.no. **3865-M01** dessin no.



**1 DEMOLITION PLAN**  
 M-01 3/8"=1'-0"

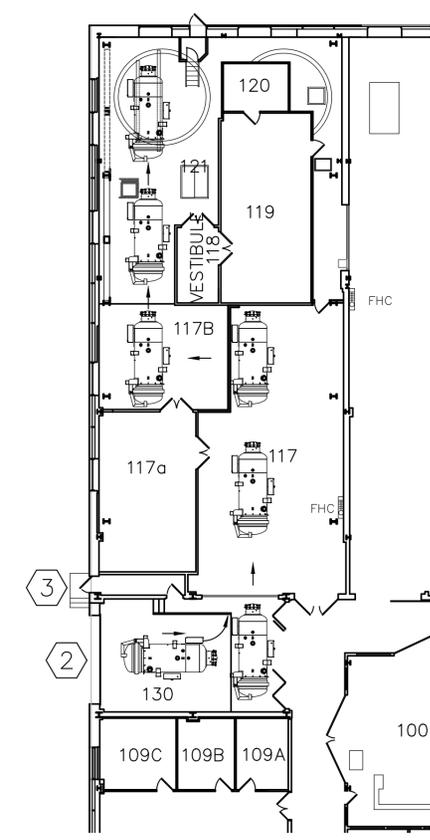
**MECHANICAL NOTES:**

1. DISCONNECT AND REMOVE EXISTING VACUUM PIPE AS SHOWN. PROVIDE A NEW BALL VALVE AND CAP AS INDICATED.
2. DISCONNECT AND REMOVE EXISTING SAFETY RELIEF PIPE AS SHOWN, CAP FOR FUTURE CONNECTION.
3. DISCONNECT AND REMOVE EXISTING RAPTURE DISC PIPE AS SHOWN, CAP FOR FUTURE CONNECTION.
4. DISCONNECT AND REMOVE EXISTING VENT PIPE AS SHOWN, CAP FOR FUTURE CONNECTION.
5. DISCONNECT DOMESTIC COLD WATER, DRAINAGE, AND COMPRESSED AIR PIPING FROM EXISTING AUTOCLAVE. REMOVE ALL PIPING BACK TO INDICATED LOCATION. CAP DRAINAGE AND COMPRESSED AIR PIPING FOR FUTURE CONNECTION. PROVIDE A BALL VALVE ON DOMESTIC COLD WATER PIPE AND CAP.
6. DISCONNECT EXISTING COOLING TOWER WATER PIPING ALL THE WAY BACK TO THE 2" SHUT-OFF VALVE IN THE PIT BELOW. CAP FOR FUTURE CONNECTION.
7. AFTER DISCONNECT ALL ELECTRICAL AND UTILITY CONNECTIONS FROM EXISTING AUTOCLAVE, REMOVE AUTOCLAVE FROM SUPPORT BEAM. CAREFULLY MOVE AUTOCLAVE OUT OF THE BUILDING AND SAFELY DISPOSE OF, CUT CONTROL PANEL AND/OR POWER PANEL OFF IF NECESSARY. REFER TO DETAIL 3 FOR MOVING ROUTE.
8. N/A
9. N/A
10. N/A

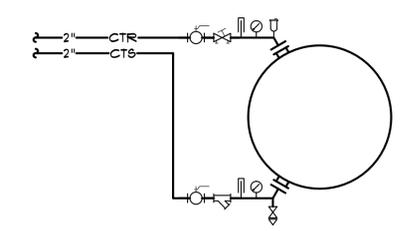


**2 NEW INSTALLATION PLAN**  
 M-01 3/8"=1'-0"

11. UPON DELIVERY OF NEW AUTOCLAVE, MOVE NEW AUTOCLAVE FROM SHIPPING AND RECEIVING DOCK TO LOCATION SHOWN FOLLOWING THE SAME ROUTE INDICATED IN DETAIL 3. MOUNT IT ON THE EXISTING SUPPORT BEAM. USE BOLTS TO FASTEN IT DOWN ON THE BEAM. NEW AUTOCLAVE AND BOLTS SUPPLIED BY NRC.
12. PROVIDE A COMPLETE NITROGEN GENERATION AND HIGH PRESSURE STORAGE SYSTEM AS SHOWN. EACH COMPONENT SHOULD HAVE A SPACE OF MINIMUM 12" IN BETWEEN FOR SERVICE. REFER TO SPECS FOR DETAILS. IT IS CONTRACTOR'S RESPONSIBILITY TO PROVIDE DESIGN, REGISTER WITH TSSA, AND ARRANGE INSPECTION FOR HIGH PRESSURE NITROGEN PIPES. CONNECT ALL NECESSARY SAFETY RELIEF VALVE TO EXISTING 3" PIPE. PROVIDE DRAINAGE PIPING TO NEAREST HUB DRAIN NEAR NORTH WALL.
13. PROVIDE COMPRESSED AIR PIPING TO NITROGEN GENERATION SYSTEM (DRYER) AND NEW AUTOCLAVE AS SHOWN. CONNECT TO EXISTING 1" COMPRESSED AIR LINE. PROVIDE ISOLATION VALVE ON EACH BRANCH.
14. PROVIDE COOLING TOWER WATER PIPES TO NEW AUTOCLAVE. CONNECT TO EXISTING 2" VALVES IN THE PIT BELOW. ALL HORIZONTAL PIPES CROSSING THE WORKING SPACE BETWEEN WALL AND AUTOCLAVE SHOULD BE HIGHER THAN THE TOP OF NEW AUTOCLAVE. REFER TO DETAIL 4 FOR DETAILS.
15. PROVIDE NITROGEN PIPE TO NEW AUTOCLAVE FROM NITROGEN GENERATION SYSTEM HIGH PRESSURE STORAGE ASSEMBLY.
16. PROVIDE A 3/4" TAKE-OFF ON THE NEW NITROGEN PIPE C/W VALVE. CAP FOR FUTURE CONNECTION.
17. PROVIDE NEW 2" SAFETY RELIEF PIPING FROM THE PRESSURE RELIEF VALVE OF THE NEW AUTOCLAVE. CONNECT TO EXISTING 2" STEEL PIPE.
18. PROVIDE NEW 6" VENT PIPE FROM THE SILENCER OF THE NEW AUTOCLAVE. CONNECT TO EXISTING 6" STEEL PIPE.
19. PROVIDE NEW 2" DRAINAGE PIPE FROM THE BOTTOM OF THE NEW AUTOCLAVE. CONNECT TO EXISTING DRAINAGE PIPE.



**3 MOVING ROUTE**  
 M-01 N. T. S.



**4 TOWER WATER CONNECTION**  
 M-01 N. T. S.

**LEGEND**

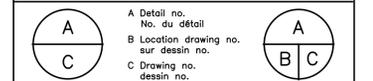
- EXISTING
- NEW
- DEMOLITION
- CA COMPRESSED AIR
- N2 NITROGEN
- SAFE SAFETY RELIEF
- V VENT
- CTS COOLING TOWER SUPPLY
- CTR COOLING TOWER RETURN
- SAN DRAINAGE
- BALL VALVE
- CIRCUIT BALANCING VALVE
- STRAINER
- AUTOMATIC AIR VENT
- DRAIN VALVE
- PRESSURE GAUGE
- THERMOMETER

**GENERAL NOTES**

- A READ THIS DRAWING IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
- B CONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO DEMOLITION OR CONSTRUCTION AND REPORT ANY ERRORS OR OMISSIONS TO NRC DEPARTMENTAL REPRESENTATIVE.
- C CONTRACTORS MUST VISIT THE SITE & FULLY FAMILIARIZE THEMSELVES WITH THE SCOPE OF THE WORK.
- D PREVENT THE SPREAD OF DUST & DEBRIS BEYOND THE WORK AREA AND CLEAN ALL SURFACES AT COMPLETION.
- E MAKE GOOD ALL SURFACES AFFECTED BY THIS WORK.
- F COORDINATE ALL SHUTDOWNS WITH THE NRC DEPARTMENTAL REPRESENTATIVE.
- G FILL ALL HOLES, PATCH & PAINT ALL SURFACES IN CONTRACT AREA. COLOUR SCHEME TO MATCH EXISTING.
- H REMOVE MEANS REMOVE AND DISPOSE OF OFF SITE UNLESS OTHERWISE NOTED.
- I PROVIDE LABELS TO NEW DEVICES TO INDICATE POWER SOURCE. UPDATE PANEL SCHEDULES AFTER JOB COMPLETION.
- J REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR FINAL PLACEMENT OF LIGHT FIXTURES.
- K ALL WIRE TO BE IN EMT UNLESS OTHERWISE NOTED.

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No.	Date	Revision	By: Par:
Date Printed NOV. 2013		Date imprimée	

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



project **BUILDING M-4 ROOM 121** project  
**AUTOClave REPLACEMENT**

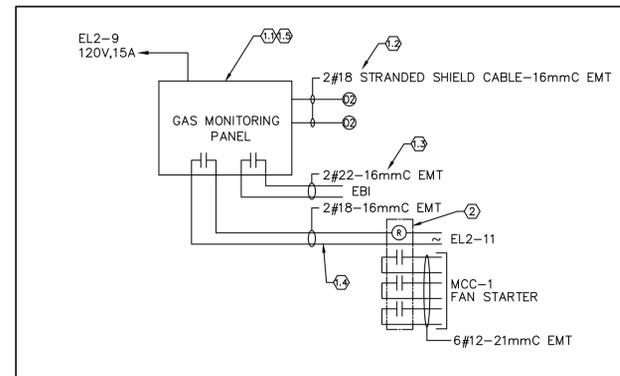
drawing **MONTREAL ROAD CAMPUS** dessin  
**ELECTRICAL LAYOUT**

designed	C.Y.C	conçu	date	NOV/2013	date
drawn	C.Y.C	dessiné	scale	AS NOTED	échelle
checked	K.X.L	vérifié	sheet	E01 of/de 1	feuille
approved	B.V	approuvé	W.O.no.	A1-000083-01-02	D.T.no.

dwg.no. **3865-E01** dessin no.

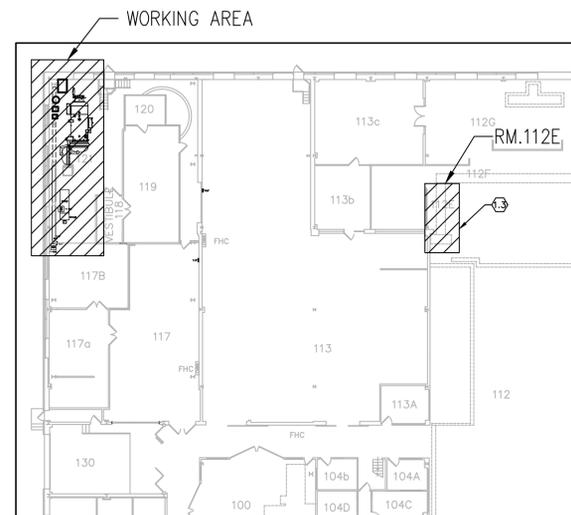
**DRAWING NOTES**

- PROVIDE GAS MONITORING SYSTEM AND MAKE ALL CONNECTIONS.
  - PROVIDE GAS MONITORING PANEL AND MOUNT AT HEIGHT AS SHOWN. GAS MONITORING PANEL TO HAVE INTEGRAL AUDIBLE ALARM, RED FLASHING LIGHT, TWO CHANNEL CAPACITY, TWO RELAY OUTPUT. STANDARD OF ACCEPTANCE: ARMSTRONG AMC-1A22-TT-DD + AMC-FB-01. CONNECT GAS MONITORING PANEL POWER SUPPLY TO EMERGENCY PANEL AS SHOWN. REUSE EXISTING 15A BREAKER IN PANEL AND MAKE ALL FINAL CONNECTIONS.
  - PROVIDE OXYGEN SENSORS AND MOUNT AT HEIGHT AS SHOWN. PROVIDE WIRING AND CONDUITS TO GAS MONITORING PANEL AS SHOWN. OXYGEN SENSOR TO HAVE 0-25% RANGE, 4-20mA SIGNAL OUTPUT, BETTER THAN 0.1% OXYGEN RESOLUTION, 90% RESPONSE TIME IN LESS THAN 20 SECONDS. STANDARD OF ACCEPTANCE: ARMSTRONG AMC-VT111D-70AD.
  - PROVIDE WIRING AND CONDUITS TO EBI SYSTEM CONTROLLER IN ROOM 112E TO INFORM EBI SYSTEM THAT OXYGEN LEVEL IN ROOM 117A DROPPED BELOW THE SETTING POINT. LEAVE ENOUGH WIRE AT END FOR TERMINATION BY OTHERS.
  - PROVIDE WIRING AND CONDUITS TO CONTROL RELAY. MAKE ALL FINAL CONNECTIONS TO ENSURE THE FAN GETS STARTED ONCE THE OXYGEN LEVEL DROPS BELOW THE SETTING POINT. REFER TO DETAIL #2 FOR ADDITIONAL INFORMATION.
  - PROVIDE PROGRAMMING, COMMISSIONING AND TRAINING SESSION UPON JOB COMPLETION.
- PROVIDE MOTOR CONTROL RELAY C/W MOUNTING BOX AND CONNECT TO CIRCUIT AS SHOWN. MAKE CONNECTION TO FAN STARTER IN MCC#1. REFER TO DETAIL #2 FOR ADDITIONAL INFORMATION. RELAY COIL RATED AT 120V, CONTACTS RATED AT 600V, 7.5HP. STANDARD OF ACCEPTANCE: ALLEN-BRADLEY 300-B08930D.
- EXISTING AUTOCLAVE TO BE REMOVED. DIV.26 TO DISCONNECT EXISTING POWER SUPPLY. RETAIN CABLE ON SITE FOR RECONNECTION TO NEW AUTOCLAVE AT THE SAME LOCATION.
- NEW AUTOCLAVE TO BE SUPPLIED AND INSTALLED BY OTHERS. DIV.26 TO EXTEND/MODIFY EXISTING WIRING AND CONDUITS TO NEW AUTOCLAVE AND MAKE ALL FINAL CONNECTIONS. EXISTING TWO-SPEED COMBINATION STARTER IN MCC#1 TO REMAIN. CHANGE FUSES TO 150A TO SUIT NEW INSTALLATION.
- PROVIDE RECEPTACLE FOR DRYER AND NITROGEN GENERATOR. SURFACE MOUNT RECEPTACLES ON WALL AND CONNECT TO CIRCUITS AS SHOWN. CONFIRM EXACT LOCATION ON SITE AND COORDINATE WORK WITH FINAL EQUIPMENT LAYOUT.
- BOOSTER COMPRESSOR, C/W STARTER, IS SUPPLIED BY OTHERS. DIV.26 TO INSTALL STARTER AND CONNECT TO EXISTING 15A SPARE BREAKER IN PANEL 'PD5' AS SHOWN. CONFIRM EXACT LOCATION ON SITE AND COORDINATE WORK WITH DIV.23.



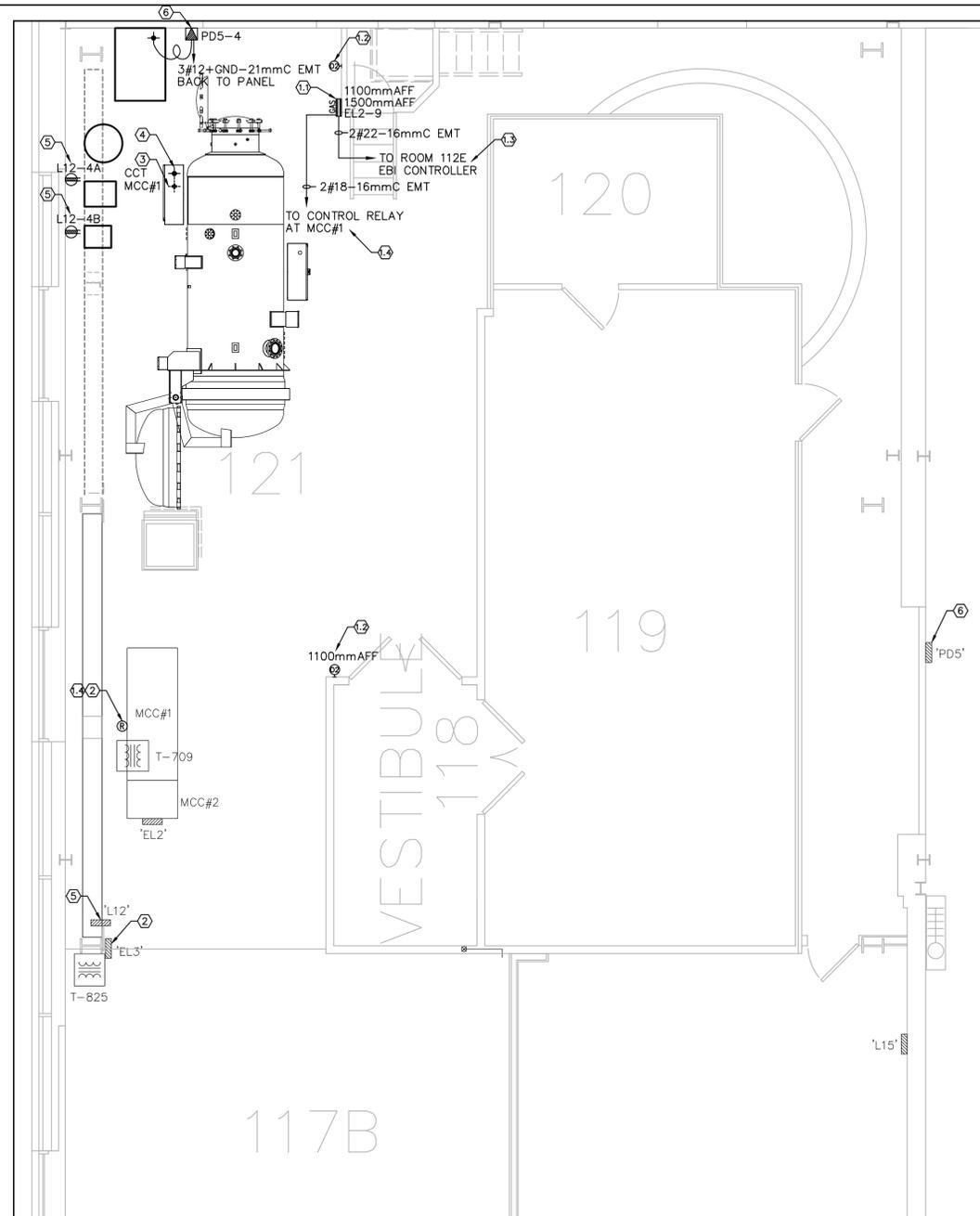
**2** GAS MONITORING PANEL DIAGRAM

E01 SCALE: N.T.S



**3** PARTIAL KEY PLAN

E01 SCALE: 1:300



**1** ELECTRICAL LAYOUT

E01 SCALE: 1:50