



**GENERAL PROJECT NOTES AND REQUIREMENTS**

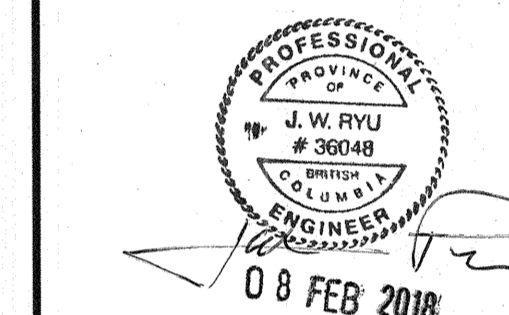
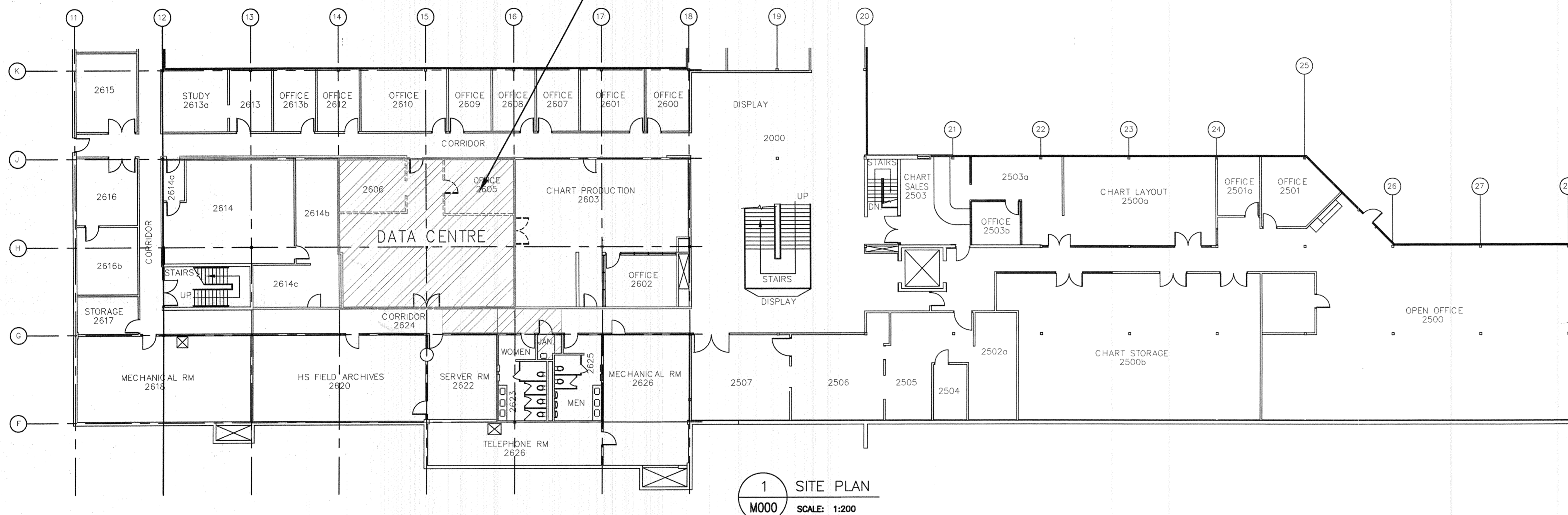
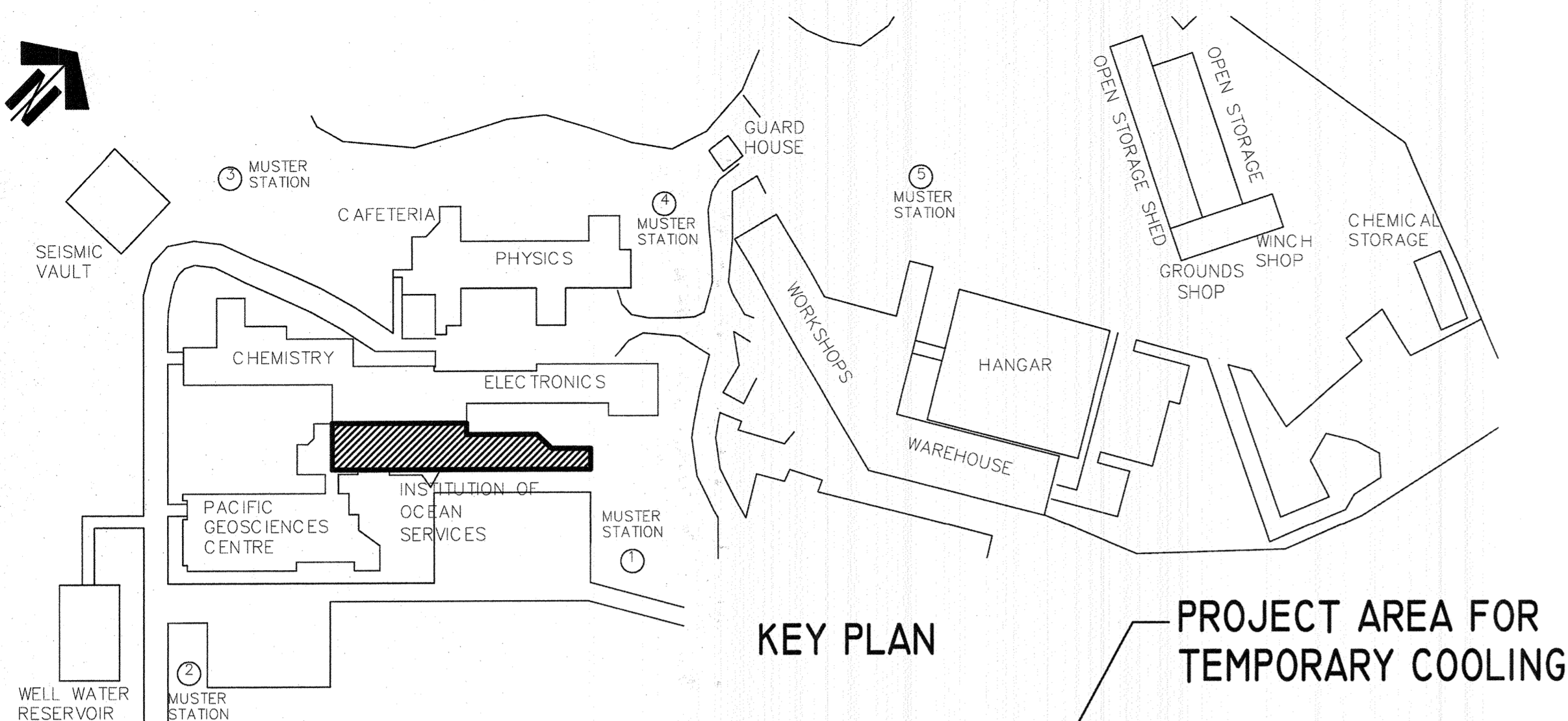
1. PROVIDE COMPLETE INSTALLATION OF TEMPORARY CRAC UNITS, CONDENSERS, REFRIGERANT AND CONDENSATE PIPING, CONTROLS, AND ALL NECESSARY APPURTENANCES.
2. PROVIDE COMPLETE SUPPORT, HANGERS, CABLES, AND ACCESSORIES AS NECESSARY. LOCATE PIPING UNDER RAISED FLOOR AND ABOVE CORRIDOR CEILING.
3. DOMESTIC WATER SUPPLY (32mm) AND RETURN (38mm) PIPING/HOSES SHALL BE CONNECTED TO THE EXISTING 50mm COPPER LINE IN THE JANITOR ROOM AT THE VICINITY. PROVIDE WITH SHUT-OFF VALVES AND CAMLOCK FITTINGS AS REQUIRED.
4. TEMPORARY PIPES/HOSES SHALL BE NEATLY RUN IN PARALLEL OR VIA MANIFOLDS, ALONG THE WALLS, UNDER THE RAISED FLOOR, AND/OR ABOVE THE CORRIDOR CEILING. PROVIDE ADEQUATE SUPPORTS, HANGERS, AND CABLES AS NECESSARY FOR A ROBUST INSTALLATION.
5. EMERGENCY SERVICES: THE TEMPORARY COOLING EQUIPMENT SUPPLIER SHALL BE AVAILABLE FOR CONTACT 24/7 DURING THE OPERATION OF THE UNITS. IN AN EMERGENCY REQUIRING IMMEDIATE ON-SITE WORK, THE CLIENT'S CONTROLS CONTRACTOR (ISLAND TEMPERATURE CONTROLS) SHALL ACT AS THE CONTRACTOR'S LOCAL SERVICE PROVIDER. ALL SUCH WORK WILL BE VIA THE CONTRACTOR'S DIRECTION.
6. PATCH AND MAKE GOOD ALL DAMAGE CAUSED BY MECHANICAL WORK.
7. ALL WORK UNDER THIS PROJECT, EVEN IF TEMPORARY IN NATURE, SHALL CONFORM TO THE MOST STRINGENT REQUIREMENTS OF ALL APPLICABLE LOCAL AND FEDERAL CODES, IN ADDITION TO THOSE SPECIFICALLY REQUIRED BY THESE DRAWINGS AND SPECIFICATIONS.

**MECHANICAL DRAWING LIST:**

NO.	NAME	DESCRIPTION	SCALE
1 of 2	M000	MECHANICAL LEGEND, NOTES AND SITE PLAN	AS NOTED
2 of 2	M001	TEMPORARY COOLING; DATA CENTRE LEVEL PARTIAL PLAN	1:50

**CIVIC ADDRESS**

9860 WEST SAANISH RD.  
SIDNEY, BC  
V8L 4B2



Rev.	Description/Description	Date/Date
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Client/client

**SHARED SERVICE CANADA**

Project title/Titre du projet  
**9860 WEST SAANISH ROAD  
SIDNEY BC**

**INSTITUTE OF OCEAN SCIENCES  
DATA CENTRE TEMPORARY COOLING**

Consultant Signature Only

Designed by/Concept par  
**JR / TA**

Drawn by/Dessiné par  
**JR / JW**

IPWSSC Project Manager/Administrateur de Projets IPWSSC  
**Patrick Truong**

Regional Manager, Architectural and Engineering Services  
gestionnaire régionale, Services d'architecture et de génie, IPWSSC  
**Fredrick Paul**

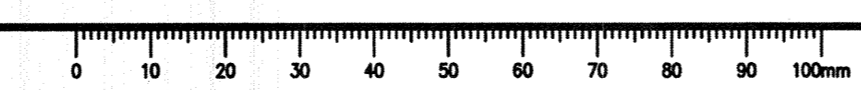
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**MECHANICAL LEGEND, NOTES AND SITE PLAN**

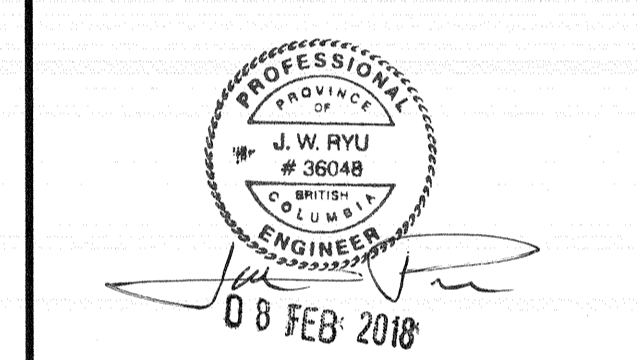
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<b>R.089467.001</b>	<b>M000</b> 1 of 2	<b>0</b>

**MECHANICAL LEGEND:**

<p><b>TAGS AND SYMBOLS</b></p> <p>AIR TERMINAL TAG SUPPLY S RETURN R EXHAUST E LOUVER L</p> <p>MECHANICAL EQUIPMENT TAG</p> <p>CONNECT TO EXISTING (CE) EXISTING TO REMAIN (ER) SPECIFIC KEY NOTE (K) SPECIFIC KEY NOTE (DEMOLITION) (D) DRAWING REVISION NO. (R)</p> <p>ACCESS PANEL (450X450) U.N.O. (A)</p> <p>FLOW DIRECTION - AIR FLOW DIRECTION - FLUID</p>	<p><b>QUANTITY</b></p> <p>TYPE FLOW (L/S) SIZE (MM)</p> <p>EXIST. (E) OR (R)</p> <p>DISCONNECT TO EXISTING (DCE)</p> <p>SECTION NO. ON SHEET NO. (3 M102)</p> <p>SECTION/DETAIL ON SHEET NO. (3 M102)</p> <p>SCALE: 1:50</p>	<p><b>HVAC DUCTING SYMBOLS</b></p> <p>SQUARE ELBOW WITH MULTI-BLADE TURNING VANES</p> <p>SUPPLY DUCT TOWARD, AWAY</p> <p>RETURN OR TRANSFER DUCT TOWARD, AWAY</p> <p>EXHAUST DUCT TOWARD, AWAY</p> <p>OUTDOOR AIR DUCT TOWARD, AWAY</p> <p>ROUND DUCT TOWARD, AWAY</p> <p>BRANCH TAKEOFF SQUARE-&gt;SQUARE</p> <p>BRANCH TAKEOFF SQUARE-&gt;ROUND</p> <p>BRANCH TAKEOFF ROUND-&gt;ROUND</p>	<p><b>HVAC</b></p> <table border="1"> <thead> <tr> <th></th> <th>NEW</th> <th>EXISTING</th> </tr> </thead> <tbody> <tr> <td>DUCTWORK RECTANGULAR</td> <td>300x400</td> <td>300x400</td> </tr> <tr> <td>DUCTWORK ROUND</td> <td>300#</td> <td>300#</td> </tr> <tr> <td>SINGLE LINE DUCTWORK</td> <td>300#</td> <td>300#</td> </tr> <tr> <td>CAPPED OFF DUCT</td> <td>CAP</td> <td>CAP</td> </tr> <tr> <td>FABRIC DUCT</td> <td></td> <td></td> </tr> <tr> <td>ACOUSTIC DUCT LINER</td> <td></td> <td></td> </tr> <tr> <td>BALANCING DAMPER</td> <td>OR</td> <td>OR</td> </tr> <tr> <td>BACKDRAFT DAMPER BDD = BACKDRAFT DAMPER BDD = "BALANCED" BACKDRAFT DAMPER</td> <td>OR BDD</td> <td>OR BDD</td> </tr> <tr> <td>FIRE DAMPER</td> <td>OR FD</td> <td>OR FD</td> </tr> <tr> <td>SUPPLY AIR GRILLE OR DIFFUSER</td> <td>OR</td> <td>OR</td> </tr> <tr> <td>RETURN AIR GRILLE</td> <td></td> <td></td> </tr> <tr> <td>EXHAUST AIR GRILLE</td> <td></td> <td></td> </tr> </tbody> </table>		NEW	EXISTING	DUCTWORK RECTANGULAR	300x400	300x400	DUCTWORK ROUND	300#	300#	SINGLE LINE DUCTWORK	300#	300#	CAPPED OFF DUCT	CAP	CAP	FABRIC DUCT			ACOUSTIC DUCT LINER			BALANCING DAMPER	OR	OR	BACKDRAFT DAMPER BDD = BACKDRAFT DAMPER BDD = "BALANCED" BACKDRAFT DAMPER	OR BDD	OR BDD	FIRE DAMPER	OR FD	OR FD	SUPPLY AIR GRILLE OR DIFFUSER	OR	OR	RETURN AIR GRILLE			EXHAUST AIR GRILLE		
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<p><b>HVAC CONTROLS SYMBOLS</b></p> <p>CONTROL WIRING</p> <p>THERMOSTAT (T)</p> <p>WALL MOUNTED SWITCH (S)</p> <p>WALL MOUNTED VARIABLE SPEED SWITCH (V)</p> <p>CARBON DIOXIDE SENSOR (CS)</p> <p>OCCUPANCY SENSOR (OS)</p> <p>SMOKE SENSOR (SS)</p> <p>MOTORIZED DAMPER C/W ACTUATOR (M)</p>	<p><b>DEMOLITION</b></p> <p>EXISTING EQUIPMENT, DUCTWORK AND PIPING TO BE REMOVED</p> <p>EXISTING THERMOSTAT, SENSOR, OR SWITCH TO BE REMOVED</p> <p>RELOCATE EXISTING EQUIPMENT (R)</p>	<p><b>PIPING AND VALVE AND SYMBOLS</b></p> <p>PUMP (P)</p> <p>ISOLATION VALVE (I)</p> <p>CHECK VALVE (C)</p> <p>REFRIGERANT SUCTION PIPING (RS)</p> <p>REFRIGERANT LIQUID PIPING (RL)</p> <p>CONDENSATE PIPING (COND)</p> <p>ROOF DRAIN (RD)</p> <p>ROOF DRAIN (ABOVE) (R)</p> <p>FLOOR OR FUNNEL FLOOR DRAIN (F)</p>																																								

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**SHARED SERVICE CANADA**

Project title/Titre du projet  
**9860 WEST SAANISH ROAD  
SIDNEY BC**

**INSTITUTE OF OCEAN SCIENCES  
DATA CENTRE TEMPORARY COOLING**

Consultant Signature Only

Designed by/Concept par  
**JR / TA**

Drawn by/Dessiné par  
**JR / JW**

PWGSC Project Manager/Administrateur de Projets TPSGC  
**Patrick Truong**

Regional Manager, Architectural and Engineering Services  
Gestionnaire régionale, Services d'architecture et de génie, TPSGC  
**Preedipal Paul**

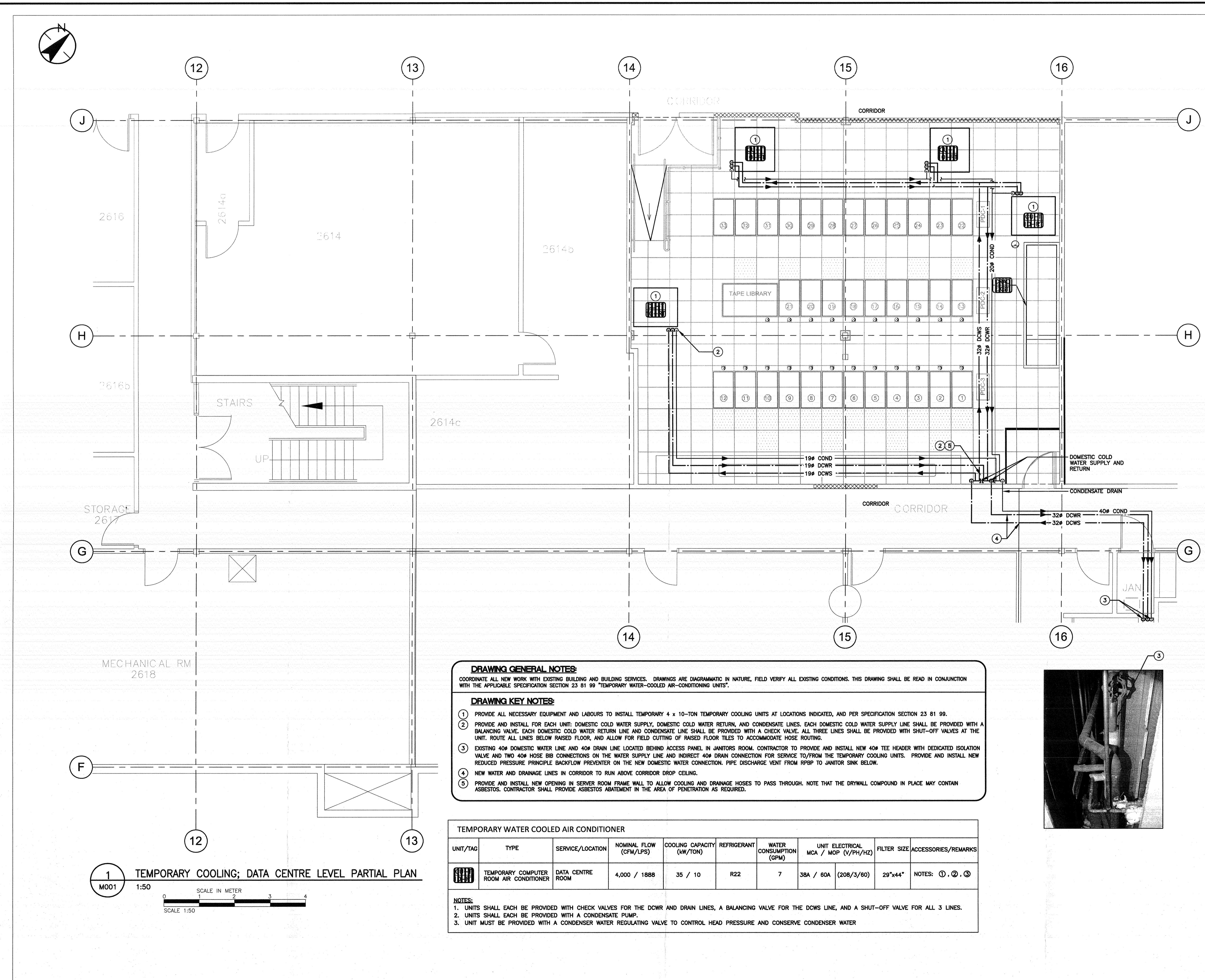
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TEMPORARY COOLING  
DATA CENTRE LEVEL PARTIAL PLAN

Project No./No. du projet  
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Sheet/Feuille  
**M001**

Revision no./La Révision no.  
**0**



**DRAWING GENERAL NOTES:**  
COORDINATE ALL NEW WORK WITH EXISTING BUILDING AND BUILDING SERVICES. DRAWINGS ARE DIAGRAMMATIC IN NATURE, FIELD VERIFY ALL EXISTING CONDITIONS. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE APPLICABLE SPECIFICATION SECTION 23 81 99 "TEMPORARY WATER-COOLED AIR-CONDITIONING UNITS".

**DRAWING KEY NOTES:**

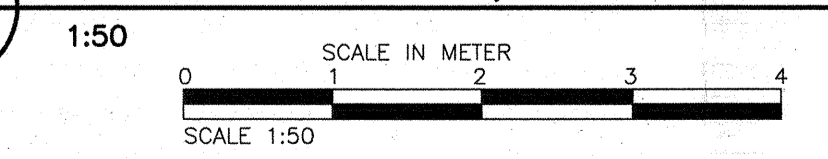
- PROVIDE ALL NECESSARY EQUIPMENT AND LABOURS TO INSTALL TEMPORARY 4 x 10-TON TEMPORARY COOLING UNITS AT LOCATIONS INDICATED, AND PER SPECIFICATION SECTION 23 81 99.
- PROVIDE AND INSTALL FOR EACH UNIT: DOMESTIC COLD WATER SUPPLY, DOMESTIC COLD WATER RETURN, AND CONDENSATE LINES. EACH DOMESTIC COLD WATER SUPPLY LINE SHALL BE PROVIDED WITH A BALANCING VALVE. EACH DOMESTIC COLD WATER RETURN LINE AND CONDENSATE LINE SHALL BE PROVIDED WITH A CHECK VALVE. ALL THREE LINES SHALL BE PROVIDED WITH SHUT-OFF VALVES AT THE UNIT. ROUTE ALL LINES BELOW RAISED FLOOR, AND ALLOW FOR FIELD CUTTING OF RAISED FLOOR TILES TO ACCOMMODATE HOSE ROUTING.
- EXISTING 40# DOMESTIC WATER LINE AND 40# DRAIN LINE LOCATED BEHIND ACCESS PANEL IN JANITORS ROOM. CONTRACTOR TO PROVIDE AND INSTALL NEW 40# TEE HEADER WITH DEDICATED ISOLATION VALVE AND TWO 40# HOSE BIB CONNECTIONS ON THE WATER SUPPLY LINE AND INDIRECT 40# DRAIN CONNECTION FOR SERVICE TO/FROM THE TEMPORARY COOLING UNITS. PROVIDE AND INSTALL NEW REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ON THE NEW DOMESTIC WATER CONNECTION. PIPE DISCHARGE VENT FROM RPPB TO JANITOR SINK BELOW.
- NEW WATER AND DRAINAGE LINES IN CORRIDOR TO RUN ABOVE CORRIDOR DROP CEILING.
- PROVIDE AND INSTALL NEW OPENING IN SERVER ROOM FRAME WALL TO ALLOW COOLING AND DRAINAGE HOSES TO PASS THROUGH. NOTE THAT THE DRYWALL COMPOUND IN PLACE MAY CONTAIN ASBESTOS. CONTRACTOR SHALL PROVIDE ASBESTOS ABATEMENT IN THE AREA OF PENETRATION AS REQUIRED.

TEMPORARY WATER COOLED AIR CONDITIONER									
UNIT/TAG	TYPE	SERVICE/LOCATION	NOMINAL FLOW (CFM/LPS)	COOLING CAPACITY (kW/TON)	REFRIGERANT	WATER CONSUMPTION (GPM)	UNIT ELECTRICAL MCA / MOP (V/PH/Hz)	FILTER SIZE	ACCESSORIES/REMARKS
	TEMPORARY COMPUTER ROOM AIR CONDITIONER	DATA CENTRE ROOM	4,000 / 1888	35 / 10	R22	7	38A / 60A (208/3/60)	29"x44"	NOTES: ①, ②, ③

**NOTES:**

- UNITS SHALL EACH BE PROVIDED WITH CHECK VALVES FOR THE DCWR AND DRAIN LINES, A BALANCING VALVE FOR THE DCWS LINE, AND A SHUT-OFF VALVE FOR ALL 3 LINES.
- UNITS SHALL EACH BE PROVIDED WITH A CONDENSATE PUMP.
- UNIT MUST BE PROVIDED WITH A CONDENSER WATER REGULATING VALVE TO CONTROL HEAD PRESSURE AND CONSERVE CONDENSER WATER

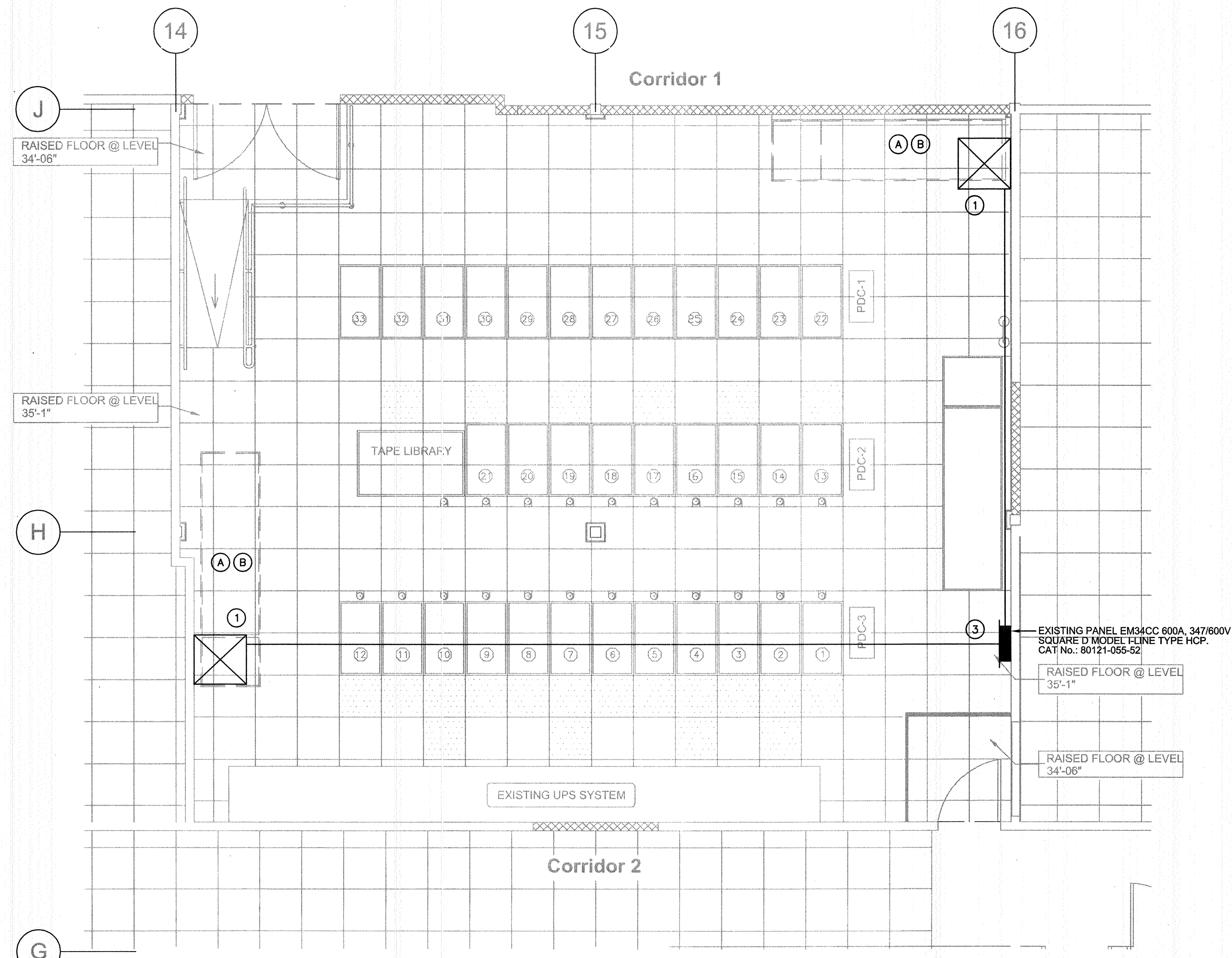
**1 M001 TEMPORARY COOLING; DATA CENTRE LEVEL PARTIAL PLAN**



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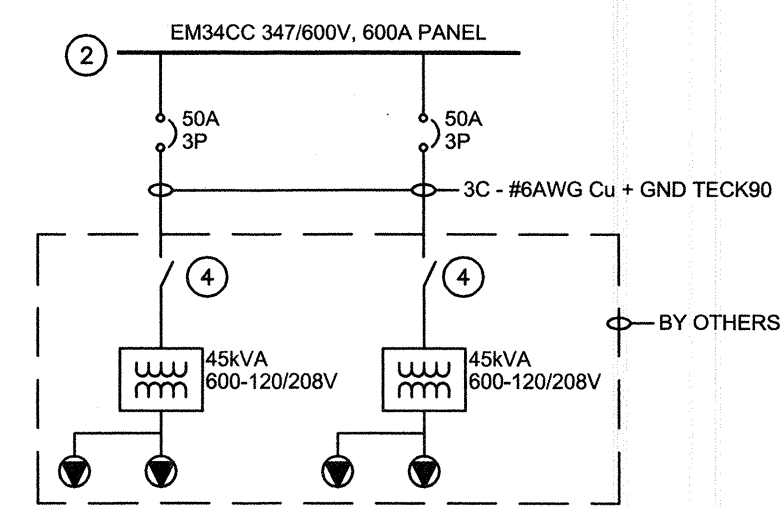


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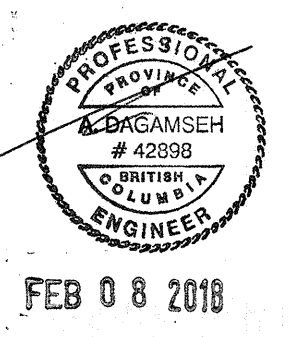
**1 DATA CENTRE ROOM LAYOUT**  
E100 1:50

- GENERAL NOTES:
- (A) EACH LOCATION OF UNITS AND TRANSFORMERS TO BE CONFIRMED ON SITE.
  - (B) CONTRACTOR TO PROVIDE TEMPORARY PLYWOOD PLATFORM 50mm ABOVE RAISED FLOOR TO TRANSFER WEIGHT OF TRANSFORMER TO CONCRETE SLAB-ON-GRADE.



**2 SINGLE LINE DIAGRAM**  
E100 NTS

- KEY NOTES:
- (1) TRANSFORMERS ARE PROVIDED BY COOLING UNITS SUPPLIER. ELECTRICAL CONTRACTOR TO PROVIDE BREAKERS, CABLES & TERMINATIONS FOR TRANSFORMER CONNECTIONS c/w TESTING. ALL SECONDARY SIDE WIRING WILL BE CARRIED BY OTHERS. COORDINATE THE EXACT LOCATIONS & TERMINATION ON SITE WITH OTHER TRADES.
  - (2) USE EXISTING SPARE SPACES IN THE CDP (PANEL EM34CC). PROVIDE MOLDED CASE CIRCUIT BREAKERS c/w INSTALLATION AND TERMINATION.
  - (3) POWER SHUT DOWNS FOR INSTALLATION OF NEW BREAKERS, TO OCCUR BETWEEN SATURDAY MARCH 24TH AT 9AM AND SUNDAY MARCH 25TH, 10PM. CONFIRM RUN TIME OF UPS ON SITE. PROVIDE 2 WEEKS NOTICE PRIOR TO SHUT DOWN. CONFIRM WITH IT DEPARTMENT ANY LOADS NOT CONNECTED TO THE UPS SYSTEM.  
  
IF THE PROPOSED TIME ABOVE IS NOT SUITABLE, PERFORM MULTIPLE SHUT DOWNS FOR STAGED INSTALLATION TO AVOID ANY POWER INTERRUPTION TO EXISTING RACKS. EACH INDIVIDUAL SHUT DOWN SHALL NOT EXCEED THE MAXIMUM RUN CAPACITY OF THE UPS SYSTEM.
  - (4) ALLOW FOR 10' SLACK IN THE SUPPLY CABLE FOR FUTURE RELOCATION. EXACT LOCATION OF TRANSFORMERS TO BE CONFIRMED ON SITE.



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DATA CENTRE TEMPORARY  
CONDITIONING**

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Designed by/Concept par  
**AD**

Drawn by/Dessine par  
**AG**

PWGSC Project Manager/Administrateur de Projets TPSPC  
**PATRICK TRUONG**

Regional Manager, Architectural and Engineering Services  
Gestionnaire régionale, Services d'architectural et de génie, TPSPC  
**PREETPAL PAUL**

Drawing title/Titre du dessin  
**POWER SUPPLY TO TEMPORARY  
COOLING SYSTEM**

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
<b>R.089467.001</b>	<b>E100</b> 1 of 1	<b>0</b>

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