





BUILDING KEY PLAN

LEGEND

REV	Description	Date
02	REISSUED FOR TENDER	28-NOV-2014
01	ISSUED FOR TENDER	20-FEB-2014

**VRM**  
VANDERWESTEN RUTHERFORD MANTECON INC.  
CONSULTING STRUCTURAL/MECHANICAL/ELECTRICAL ENGINEERS  
LONDON - HAMILTON - WINDSOR - OTTAWA  
1130 MORRISON DRIVE, SUITE 280, OTTAWA, ON K2H 9N6  
PHONE: (613) 663-2100 - FAX: (519) 852-5058 - www.vrmeng.com  
VRM13-110



project ENVIRONMENT CANADA  
LAB 159 AND 165  
RENOVATIONS  
ENVIRONMENT CANADA  
335 River Rd  
Ottawa ON, K1V 1C7

drawing ENVIRONMENT CANADA  
ELECTRICAL KEY PLAN,  
MECHANICAL  
EQUIPMENT AND  
PANEL SCHEDULE

Designed By	Conçu par
Date	13.06.26 (yyyy/mm/dd)
Drawn By	JM Dessiné par
Date	13.06.26 (yyyy/mm/dd)
Reviewed By	S.B. Examiné par
Date	(yyyy/mm/dd)
Approved By	Approuvé par
Date	(yyyy/mm/dd)
Tender	Soumission
Project Manager	Administrateur de projets
EC PMDI Proj no.	Consultant Proj no.
	13-110
Drawing no.	No. du dessin

E-101

**PANEL 249** XXX AMP 208/120V 3Ø 4W RECESSED  
\*\*\*\* TYPE \*\*\*AMP MAIN BRKR

WATTS FOR	P	AMP	CCT	CCT	AMP	P	FOR	WATTS
* REC LAB 159	1	*	1	2	*	1	SPARE	*
* REC LAB 159	1	*	3	4	30	2	REC ROOM 159 UPS UNIT	*
* REC LAB 159	1	*	5	6				*
* REC LAB 159	1	*	7	8	*	1	SPARE	*
* REC LAB 159	1	*	9	10	30	2	REC ROOM 159 UPS UNIT	*
* REC LAB 159	1	*	11	12				*
* REC LAB 159	1	*	13	14	30	2	REC ROOM 159 UPS UNIT	*
* REC LAB 159	1	*	15	16				*
* SPARE	1	*	17	18	*	1	REC ROOM 159	*
* SPACE	*	*	19	20	*	1	REC ROOM 159	*
* UNKNWN	1	*	21	22	*	1	REC ROOM 159	*
* REC LAB 159	1	*	23	24	*	1	REC ROOM 159	*
* SPARE BX LAB 159	1	*	25	26	*	1	UNKNWN	*
* SPARE BX LAB 159	1	*	27	28	*	1	UNKNWN	*
* SPARE BX LAB 159	1	*	29	30	*	1	UNKNWN	*
* UNKNWN	1	*	31	32				*
350 FAN COIL RM 159	2	15	33	34			SPACE	
SPACE			35	36				
			37	38				
			39	40				
			41	42				

**PANEL 228** XXX AMP 208/120V 3Ø 4W RECESSED  
\*\*\*\* TYPE \*\*\*AMP MAIN BRKR

WATTS FOR	P	AMP	CCT	CCT	AMP	P	FOR	WATTS
* REC(3) ROOM 178	1	15	1	2	15	1	REC(4) ROOM 178	*
* SPACE	*	*	3	4	15	1	REC(3) RM 178-A	*
* UNKNWN	1	15	5	6	15	1	REC(1) ROOM 178A	*
* REC(3) ROOM 178B	1	15	7	8	15	1	REC(1) ROOM 178A	*
* SPARE	1	15	9	10	15	1	SPARE	*
* SPACE	1	15	11	12	15	1	UNKNWN	*
* SPACE	*	*	13	14	15	1	REC(1) ROOM 178A	*
* UNKNWN	1	20	15	16	15	1	REC(2) ROOM 178A	*
200 BC-CONTROLLER	2	15	17	18	15	1	SPARE	*
* SPACE	*	*	19	20	40	1	UNKNWN	*
* SPACE	*	*	21	22	*	*	SPACE	*
* SPACE	*	*	23	24	15	1	REC(3) ROOM 178	*
350 FAN COIL RM 165	2	15	25	26				
200 COOL CONTROLS	1	15	27	28				
SPACE			29	30				
			31	32				
			33	34	15	3	PUMP 2A	1040
			35	36				
			37	38				
			39	40	15	3	PUMP 2B	1040
			41	42				

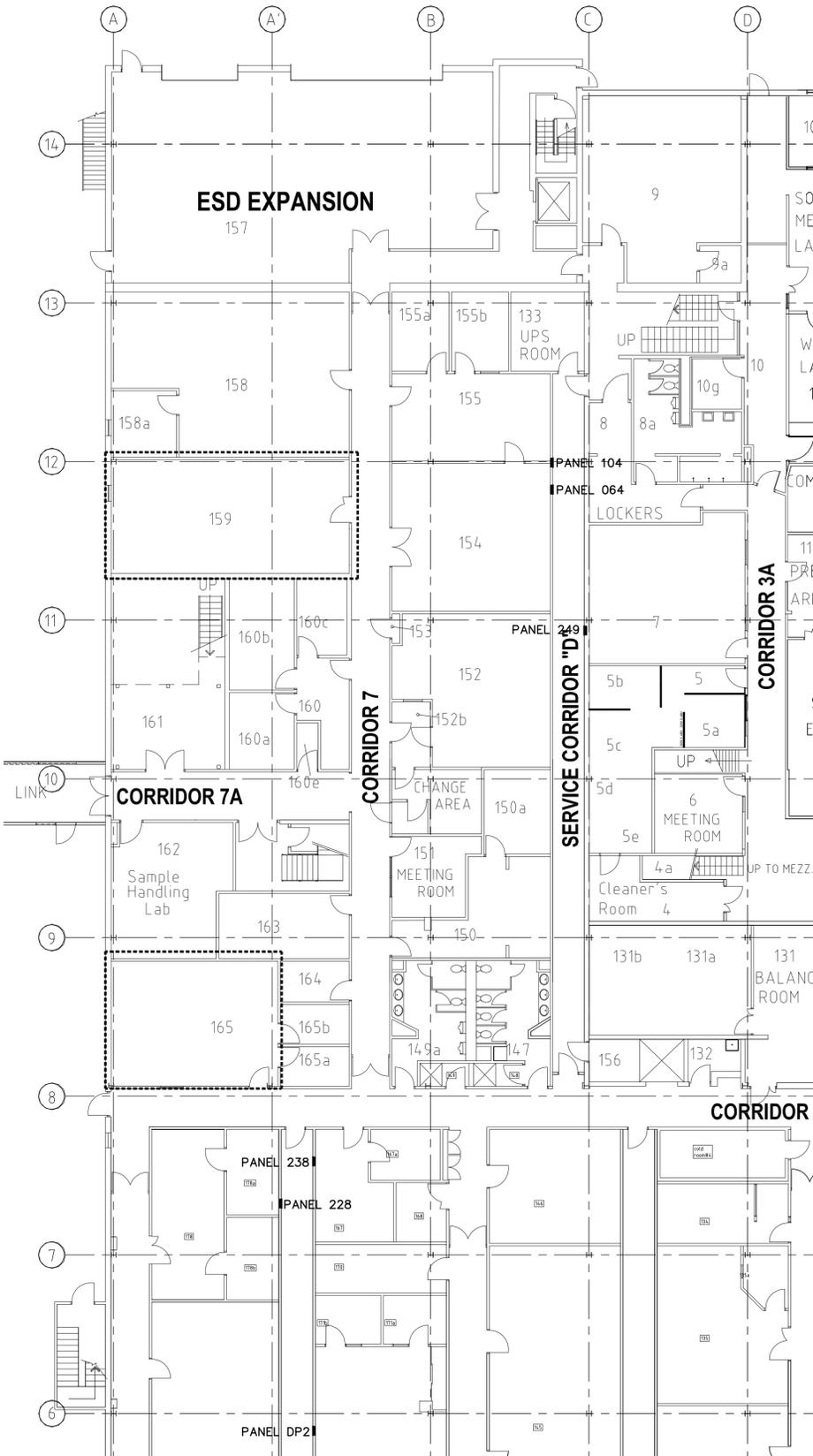
**PANEL DP2** 225 AMP 347/600V 3Ø 4W RECESSED  
\*\*\*\* TYPE \*\*\*AMP MAIN BRKR

WATTS FOR	P	AMP	CCT	CCT	AMP	P	FOR	WATTS
* AHU 3 CIRCULATING PUMP	3	15	1	2	15	3	FLUID COOLER	3000
			3	4				
			5	6				
			7	8				
* AHU 3 RETURN FAN	3	15	9	10	15	3	HSU-1 CONDENSING UNIT	8000
			11	12				
* AHU 3 AIR SUPPLY FAN	3	30	13	14	15	3	HSU-1 CONDENSING UNIT	8000
			15	16				
			17	18				
* AHU 5 RETURN FAN	3	15	19	20	*	3	SPARE	*
			21	22				
			23	24				
* AHU 5 CIRCULATING PUMP	3	15	25	26	*	3	AHU 5	*
			27	28				
			29	30				

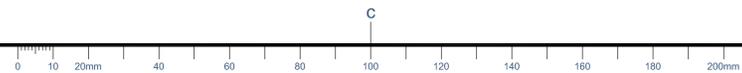
**MECHANICAL EQUIPMENT SCHEDULE**

No.	Item	Equipment		Controls			Responsibility		
		Characteristics	Location	Type	Location	Manufact. Reference	Supplied by Div.	Installed By Div.	Wired & Connected by Div.
1	HEAT SOURCE UNIT HSU-1	MCA	1 @ 11 1 @ 9	Disconnect	At Unit	See Spec	16	16	16
		Voltage	575	Variable Speed Drive	In Unit		15	15	16
		Phases	3	Other Controls	At Unit		15	15	15
		Freq.	60						
		KW	0.138	Service Switch	At unit	See Spec	16	16	16
2	BRANCH CONTROLLERS BC-1	Voltage	208	Other Controls	See Dvgs.		15	15	15
		Phases	1						
		Freq.	60						
Division 16 shall provide 12" conduit complete with pullwire from Condensing Unit HSU-1 to BC-1 to fan coil units (daily chain) for controls connection by Division 15.									
3	FAN COIL UNITS	MCA	1 @ 3.41 1 @ 3.33	Starter	In Unit		15	15	16
		Voltage	208	Disconnect	At unit		15	15	16
		Phases	1	Thermostat	See Dvgs.		15	15	16
		Freq.	60	Other Controls	See Dvgs.		15	15	15
Division 16 shall provide outlet box & run 1/2" conduit complete with pullwire from box to unit for thermostat controls.									
4	PUMP P-1	KW	0.81	Disconnect	At unit	See Spec	16	16	16
		Voltage	230	Starter	See Dvgs.		15	15	16
		Phases	3	Other Controls	See Dvgs.		15	15	15
		Freq.	60						
5	PUMP P-2A	KW	1.04	Disconnect	At unit	See Spec	16	16	16
		Voltage	230	Starter	See Dvgs.		15	15	16
		Phases	3	Other Controls	See Dvgs.		15	15	15
		Freq.	60						
5	PUMP P-2B	KW	1.04	Disconnect	At unit	See Spec	16	16	16
		Voltage	230	Starter	See Dvgs.		15	15	16
		Phases	3	Other Controls	See Dvgs.		15	15	15
		Freq.	60						
6	FLUID COOLER FCL-1	MCA	6.10	Disconnect (WP)	At unit	See Spec	16	16	16
		Voltage	575	Starter			15	15	16
		Phases	3	Other Controls	See Dvgs.		15	15	15
		Freq.	60						
7	GLYCOL FILL STATION (AXIOM MODEL SF100)	MCA	0.70	Disconnect	Plug		15	15	16
		Voltage	120						
		Phases	1						
		Freq.	60						

DIVISION 15: REFERS TO MECHANICAL  
DIVISION 16: REFERS TO ELECTRICAL

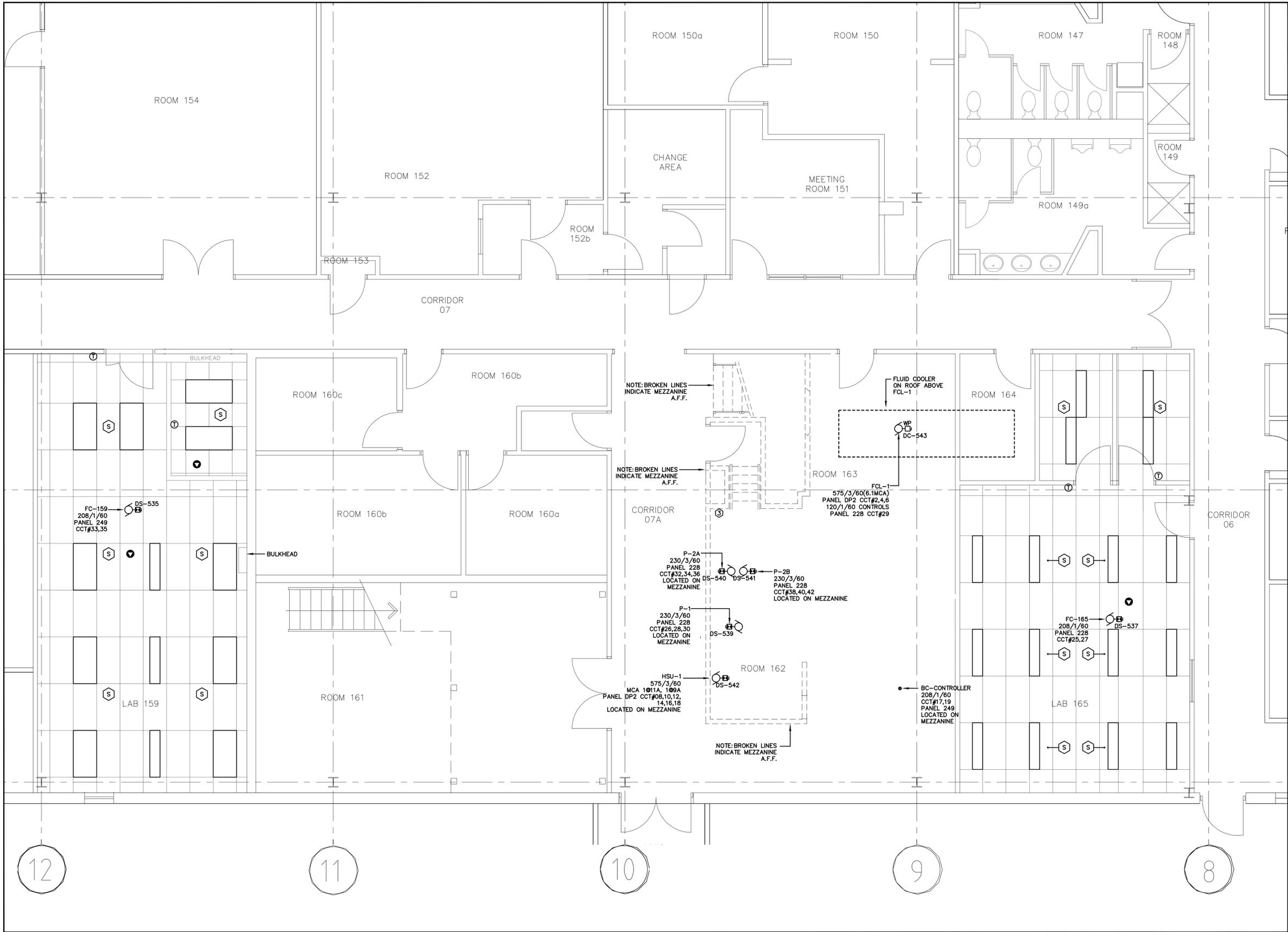


01 KEYPLAN  
SCALE: 1:150

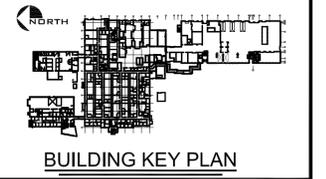


**ELECTRICAL SPECIFICATIONS**

- CONTRACTOR SHALL REMOVE AND REINSTALL ALL CEILING ELECTRICAL DEVICES AND LIGHTING IN ROOMS 155,159 AND CORRIDOR 7 TO PERMIT MECHANICAL WORKS ABOVE CEILING.
- CONTRACTOR TO CONFIRM EXACT LOCATION OF ELECTRICAL PANELS. REFER TO E-101.
- CONTRACTOR TO PROVIDE 120V, 15A RECEPTACLE FOR GLYCOL MIXING TANK.



SCALE: 1:50



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A	A detail no.	A
C	no. du detail	B
	B location drawing no.	C
	sur dessin no.	
	C drawing no.	
	dessin no.	

project ENVIRONMENT CANADA  
 ENVIRONMENT CANADA  
 335 River Rd  
 Ottawa ON, K1V 1C7

**ELECTRICAL DEMO AND NEW POWER/SYSTEMS LEVEL 1 FLOOR PLAN**

Designed By	Conçu par
Date	13.06.26 (yyyy/mm/dd)
Drawn By	JM Dessiné par
Date	13.06.26 (yyyy/mm/dd)
Reviewed By	S.B. Examiné par
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E-200