



Notes:

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*Trina Larsen*

15 March 2022

ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

PERMIT TO PRACTICE: LARSEN ENGINEERING INC  
PERMIT NUMBER P14921

RESPONSIBLE MEMBER: TRINA LARSEN, M66188  
DATE: 15 March 2022

Issues/Revisions		
No.	Description	By
1	ISSUED FOR REVIEW	2022/02/07 TL
2	ISSUED FOR TENDER	2022/02/10 TL
3	ISSUED FOR TENDER	2022/02/16 TL
4	ISSUED FOR DP	2022/02/23 TL
5	ISSUED FOR BP	2022/03/15 TL

Seal

Client



Project  
PARKS CANADA  
PALISADES MACHINE  
SHED

Scale	AS NOTED	Designed By	TL
Project No.	22-004	Drawn By	CMF
Date	2022/03/15	Checked By	TL

Drawing Title  
ELECTRICAL  
DEMOLITION PLAN

Drawing No.

E1

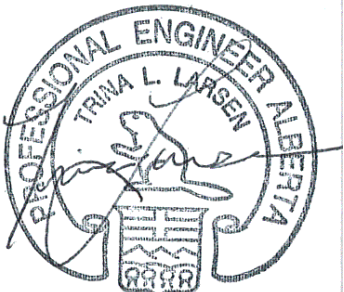
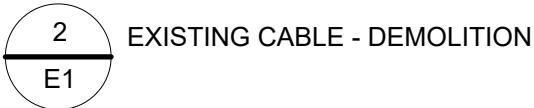
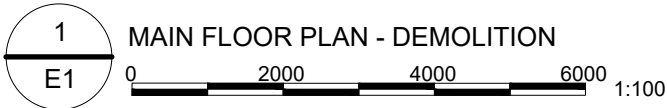
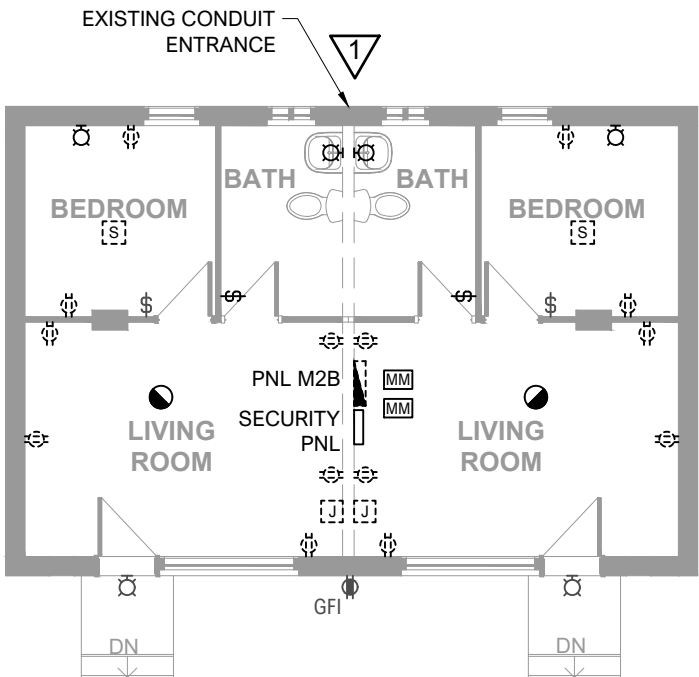
GENERAL NOTES

- A. ALL INTERIOR RECEPTACLES TO BE REPLACED WITH NEW TAMPER RESISTANT RECEPTACLES IN SAME LOCATIONS.
- B. ALL INTERIOR LIGHTS TO BE RE-LAMPED WITH NEW MEDIUM BASE A19 LED LAMPS, 11W, 3000K CCT (TWO LAMPS PER WALL MOUNTED LUMINAIRE).

KEY NOTES



1. EXISTING CONDUIT AND CABLE TO BE REMOVED BACK TO PANEL M2A. TRENCH TO BE USED FOR NEW CONDUIT.
2. REMOVE EXISTING UNUSED CABLE FROM BETWEEN THE WALLS, BACK TO THE SOURCE.



APEGA PERMIT NUMBER 14921  
Member Number M66188  
15 March 2022

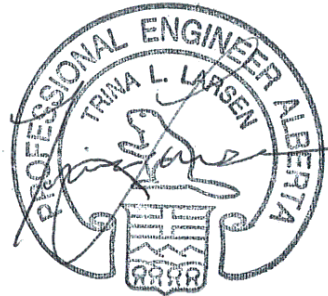
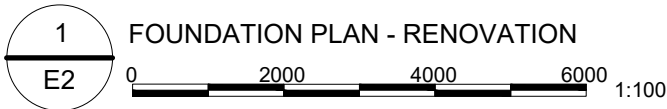
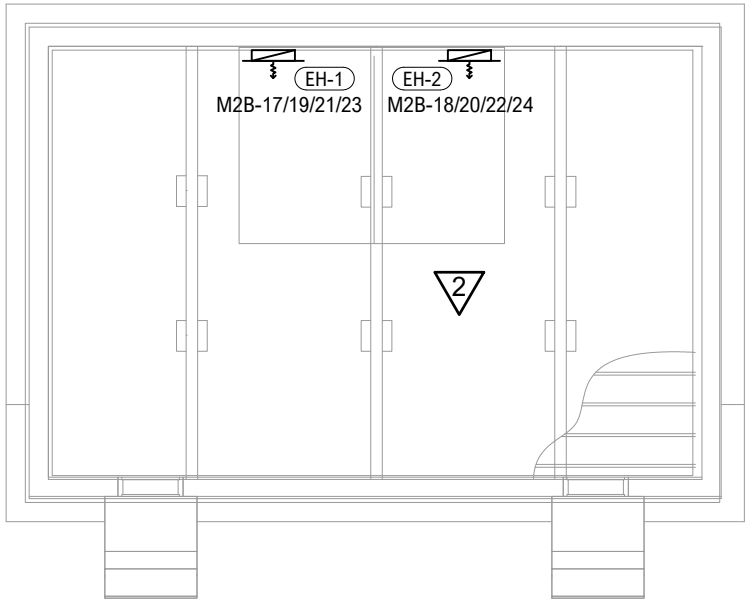


Branch Panel: PANEL M2B

Project: PALISADES MACHINE SHED	Project Number: 22-004	A.I.C. Rating: 10 kAIC
Location: NORTH SUITE	Volts: 120/240 Wye	Mains Type: -
Supply From: PANEL M2A	Phases: 1	Mains Rating: 100A
Mounting: SURFACE	Wires: 3	MCB Rating: 100A 2P

Notes:

CCT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CCT
1	SOUTH SUITE LIGHTING	15A	1P			1P	15A	SOUTH SUITE RECEPTACLES	2
3	SOUTH SUITE FURNACE	15A	1P			1P	15A	SOUTH SUITE FRIDGE RECEPTACLE	4
5	SOUTH SUITE MICROWAVE RECEPTACLE	20A	1P			1P	15A	HEAT TRACE	6
7	NORTH SUITE LIGHTING	15A	1P			1P	15A	NORTH SUITE RECEPTACLES	8
9	NORTH SUITE FURNACE	15A	1P			1P	15A	NORTH SUITE FRIDGE RECEPTACLE	10
11	NORTH SUITE MICROWAVE RECEPTACLE	20A	1P			1P	15A	SECURITY PANEL	12
13	SOUTH SUITE ABOVE-COUNTER RCPT	20A	1P			1P	15A	EXTERIOR GFCI RECEPTACLE	14
15	SOUTH SUITE WASHROOM GFCI RCPT	15A	1P			1P	20A	SPARE	16
17	NORTH SUITE ABOVE-COUNTER RCPT	20A	1P					SPACE	18
19	NORTH SUITE WASHROOM GFCI RCPT	15A	1P					SPACE	20
21	SPARE	20A	1P					SPACE	22
23	SPACE							SPACE	24
25									26
27	WATER HEATER TK-1-A (UPPER)	15A	2P			2P	15A	WATER HEATER TK-1-B (LOWER)	28
29									30
31									32
33	SOUTH SUITE ELECTRIC HEATER EH-1	15A	2P			2P	15A	NORTH SUITE ELECTRIC HEATER EH-2	34
35									36
37									38
39									40



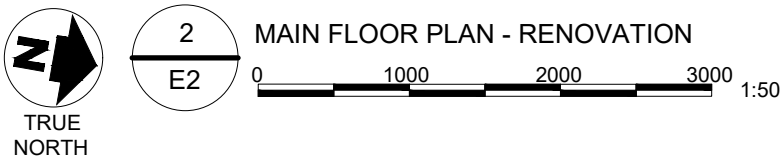
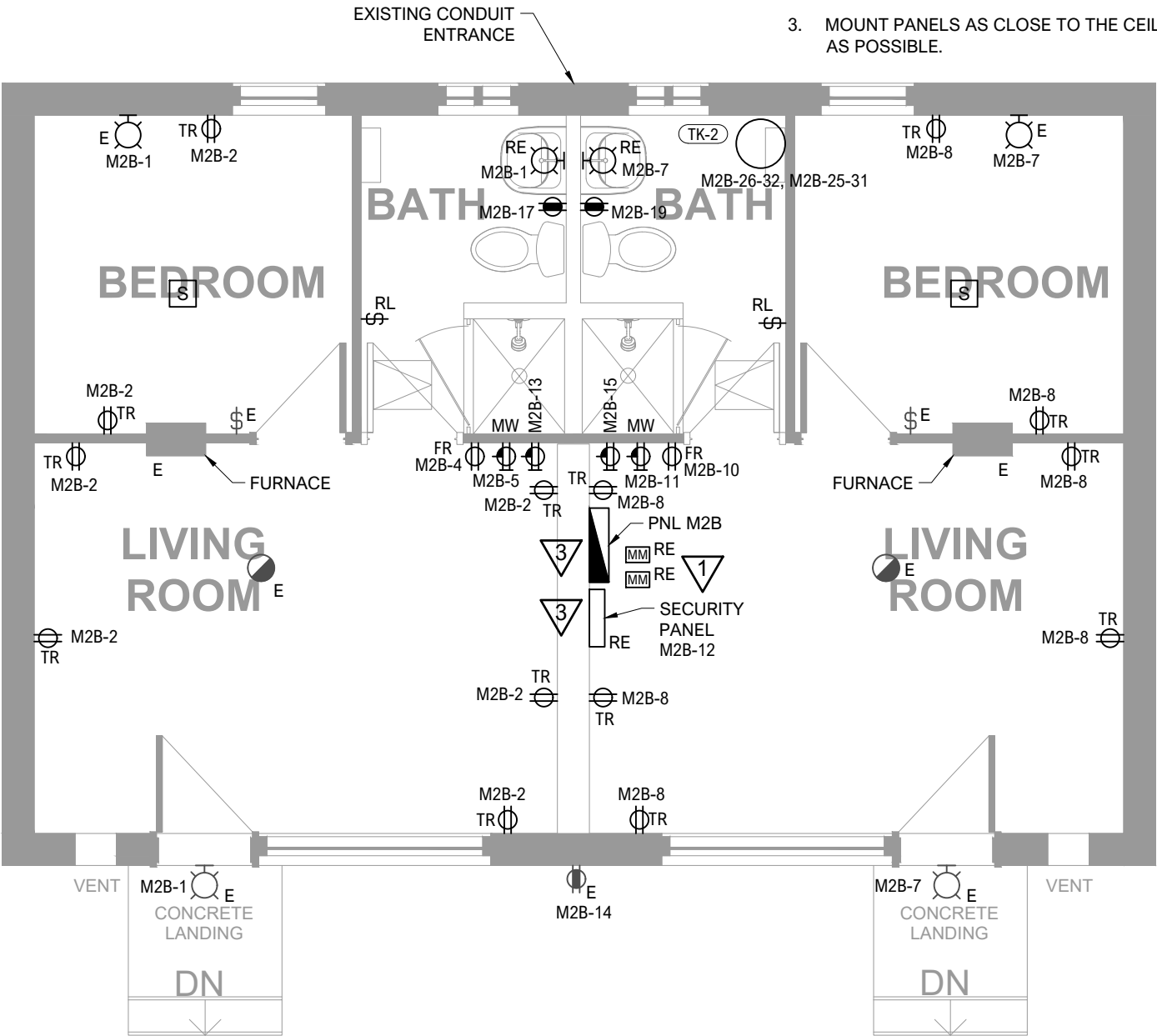
APEGA PERMIT NUMBER 14921  
Member Number M66188  
15 March 2022

GENERAL NOTES

- A. ALL INTERIOR RECEPTACLES TO BE REPLACED WITH NEW TAMPER RESISTANT RECEPTACLES IN SAME LOCATIONS.
- B. ALL INTERIOR LIGHTS TO BE RE-LAMPED WITH NEW MEDIUM BASE A19 LED LAMPS, 11W, 3000K CCT (TWO LAMPS PER WALL MOUNTED LUMINAIRE).

KEY NOTES

1. RECONNECT MONITORING MODULES AND SECURITY PANEL TO THE EXISTING MAIN SERVICES. CONFIRM OPERATION.
2. PROVIDE HEAT TRACE ON THE EXPOSED INCOMING WATER PIPES AND SANITARY PIPES TO PREVENT FREEZE-UP. REFER TO MECHANICAL FOR PIPE LOCATIONS (UP TO EIGHT (8) PIPES).
3. MOUNT PANELS AS CLOSE TO THE CEILING AS POSSIBLE.



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15 March 2022

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RESPONSIBLE MEMBER: TRINA LARSEN, M66188  
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5	ISSUED FOR BP	2022/03/15	TL

Seal

Client



Project  
PARKS CANADA  
PALISADES MACHINE  
SHED

Scale	AS NOTED	Designed By	TL
Project No.	22-004	Drawn By	CMF
Date	2022/03/15	Checked By	TL

Drawing Title  
ELECTRICAL  
RENOVATION PLANS

Drawing No.

E2

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ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

PERMIT TO PRACTICE - LARSEN ENGINEERING INC

PERMIT NUMBER P14921

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Seal

Client



Project  
PARKS CANADA  
PALISADES MACHINE  
SHED

Scale	AS NOTED	Designed By	TL
Project No.	22-004	Drawn By	CMF
Date	2022/03/15	Checked By	TL

Drawing Title  
SINGLE LINE DIAGRAM

Drawing No.

E3

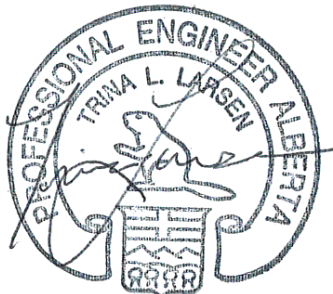
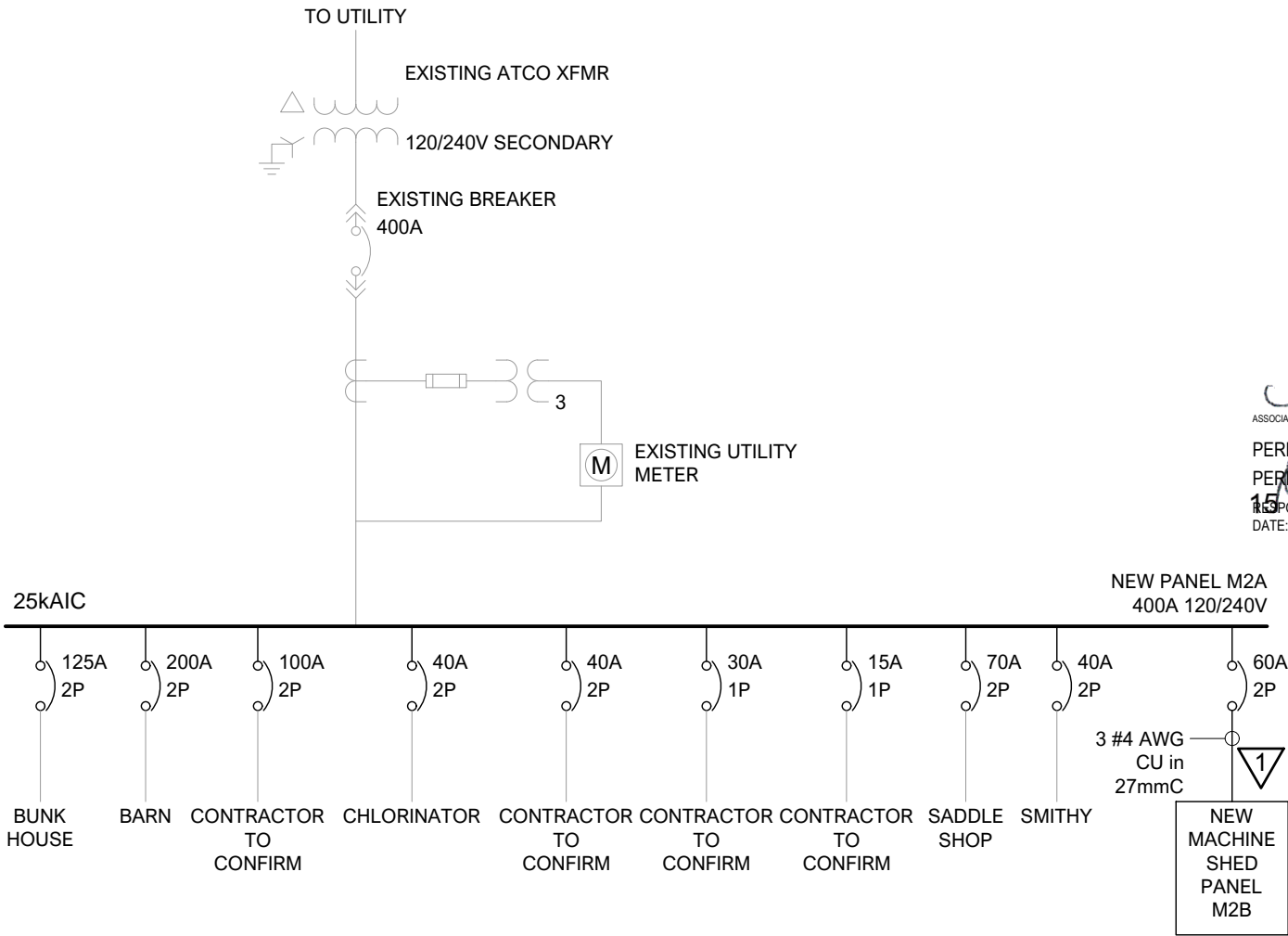
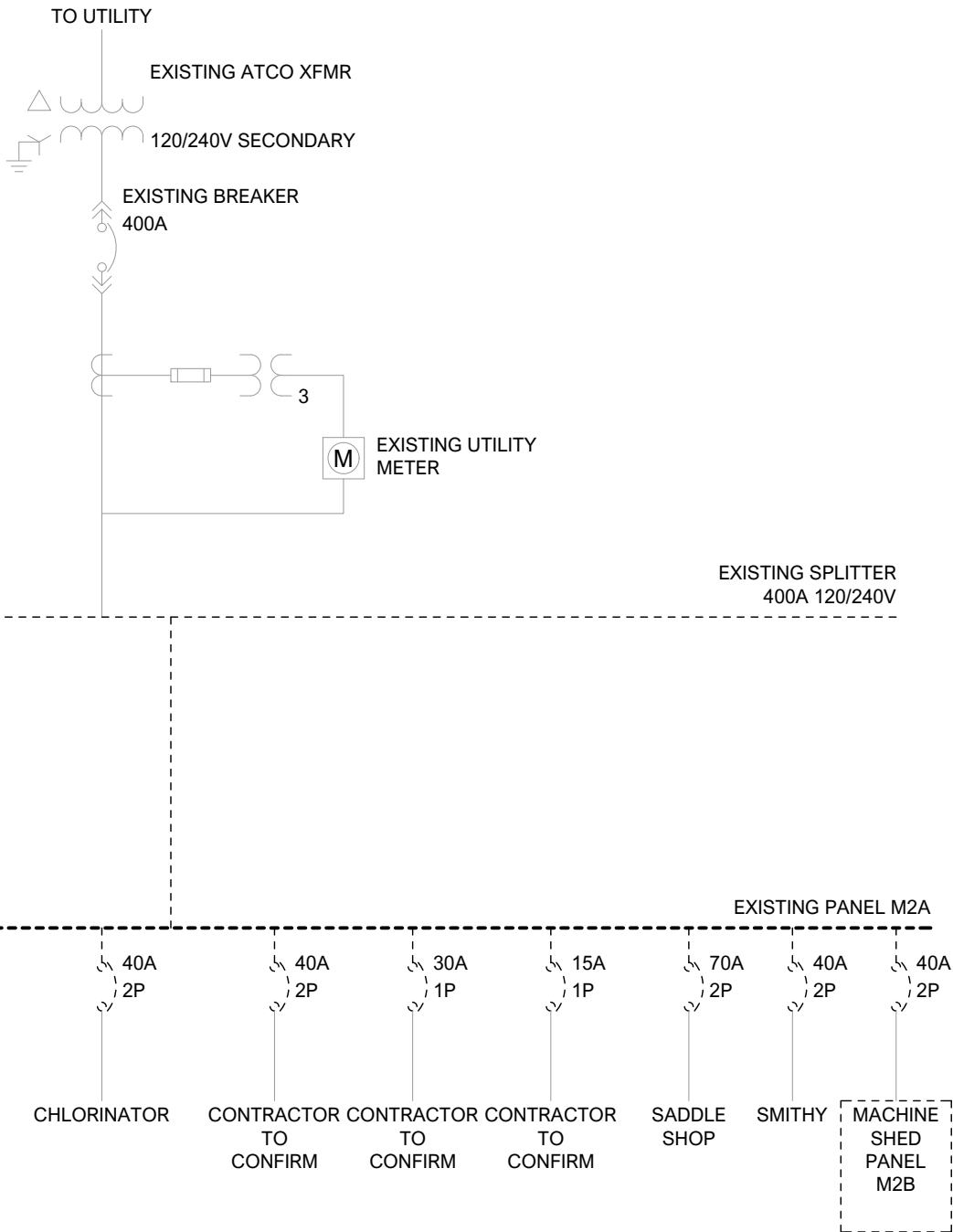
GENERAL NOTES

- A. EXISTING FEEDERS TO EACH BUILDING TO REMAIN, EXCEPT FOR THE MACHINE SHED FEEDER WHICH WILL BE REMOVED AND REPLACED.

KEY NOTES



1. CONTRACTOR TO CONFIRM THE SUITABILITY OF THE EXISTING CONDUIT, PRIOR TO REMOVAL. ALTERNATE PRICING TO RE-USE CONDUIT IS INCLUDED ON THE BID SHEET.



APEGA PERMIT NUMBER 14921  
Member Number M66188  
15 March 2022

1  
E3

SINGLE LINE DIAGRAM - EXISTING/DEMO

2  
E3


SINGLE LINE DIAGRAM - NEW

PLOTTED: 2022-03-15 15:13:56

MECHANICAL EQUIPMENT SCHEDULE																					
EQUIPMENT			RATING / LOAD					CONTROL PACKAGE WITH EQUIPMENT (YES/NO)	POWER SUPPLY				STARTER		CONTROL	LOCAL DISC		WIRE & CONDUIT			COMMENTS
TAG	DESCRIPTION	LOCATION	FLA	KW	HP	VOLTS	Ø		E/ N	SOURCE	BREAKER SIZE	CCT	TYPE	SUPPLIED BY		REQUIRED	SUPPLIED BY	WIRE SIZE	QTY	CONDUIT SIZE (mm)	
EH-1	ELECTRIC HEATER	CRAWLSPACE	10.7	1.9		240	1		N	PANEL M2B	15A - 2P		MAN	M		YES	E	#12 AWG	2	21	
EH-2	ELECTRIC HEATER	CRAWLSPACE	10.7	1.9		240	1		N	PANEL M2B	15A - 2P		MAN	M		YES	E	#12 AWG	2	21	
TK-1-A	ELECTRIC WATER HEATER	WASHROOM	12	3		240	1		N	PANEL M2B	15A - 2P		MAN	E		YES	E	#12 AWG	2	21	
TK-1-B	ELECTRIC WATER HEATER	WASHROOM	12	3		240	1		N	PANEL M2B	15A - 2P		MAN	E		YES	E	#12 AWG	2	21	
LEGEND												GENERAL NOTES									
E/N = EMERGENCY OR NORMAL POWER E = ELECTRICAL M = MECHANICAL STARTER TYPES: H-O-A = HAND-OFF-AUTO SWITCH INT = INTEGRAL TO UNIT MAG = MAGNETIC STARTER MAN = MANUAL STARTER VFD = VARIABLE FREQUENCY DRIVE						CONTROL DEVICES: BMS = BUILDING MANAGEMENT SYSTEM C = CONTINUOUS OPERATION CP = CONTROL POWER ET = LINE VOLTAGE THERMOSTAT FAP = FIRE ALARM PANEL KCP = KITCHEN CONTROL PANEL O = OTHER OC = OCCUPANCY SENSOR SW = WIRED SWITCH/STARTER T = THERMOSTAT TIM = TIMER TRA = REVERSE ACTING THERMOSTAT TS = TEMPERATURE SENSOR						1. CONFIRM FINAL MECHANICAL EQUIPMENT REQUIREMENTS WITH MECHANICAL CONTRACTOR'S SHOP DRAWINGS AND ADJUST CIRCUIT WIRING AND BREAKER RATING IF REQUIRED AT NO ADDITIONAL COST.  2. REFER TO MECHANICAL DRAWINGS FOR EQUIPMENT LOCATION.  3. PROVIDE GROUND WIRE IN ALL CONDUITS.  4. WIRE AND CONNECT CONTROL EQUIPMENT SUPPLIED BY MECHANICAL AS REQUIRED.  5. PROVIDE LINE VOLTAGE WIRING TO VFD AND BETWEEN VFD AND MECHANICAL UNIT, AND ALL LINE AND LOAD REACTORS. COORDINATE WITH MECHANICAL FOR EXACT REQUIREMENTS. WIRING TO BE DRIVE-RX RATED CABLES WITH A DEDICATED GROUND CONDUCTOR OF THE SAME SIZE AS THE PHASE CONDUCTORS.  6. LOCAL DISCONNECTS FOR MOTORS WITH VFDs TO BE LOCATED ON THE LINE SIDE OF THE VFD.  7. CIRCUIT NUMBERS SHOWN ARE FOR QUANTITY ONLY. USE THE SPACE AVAILABLE IN PANEL.  8. LOW VOLTAGE CONTROLS AND WIRING ARE BY MECHANICAL. LINE VOLTAGE CONTROLS ARE BY ELECTRICAL.  9. MOTOR STARTERS ARE SUPPLIED BY MECHANICAL WHERE REQUIRED.									




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15 March 2022

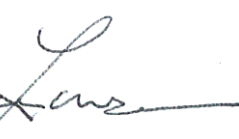


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Seal

Client



Parks Canada

Project

PARKS CANADA  
PALISADES MACHINE  
SHED

Scale	AS NOTED	Designed By	TL
Project No.	22-004	Drawn By	CMF
Date	2022/03/15	Checked By	TL

Drawing Title

MECHANICAL  
SCHEDULE

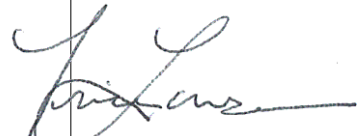
Drawing No.

E4

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Seal

Client



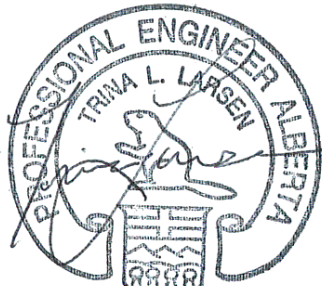
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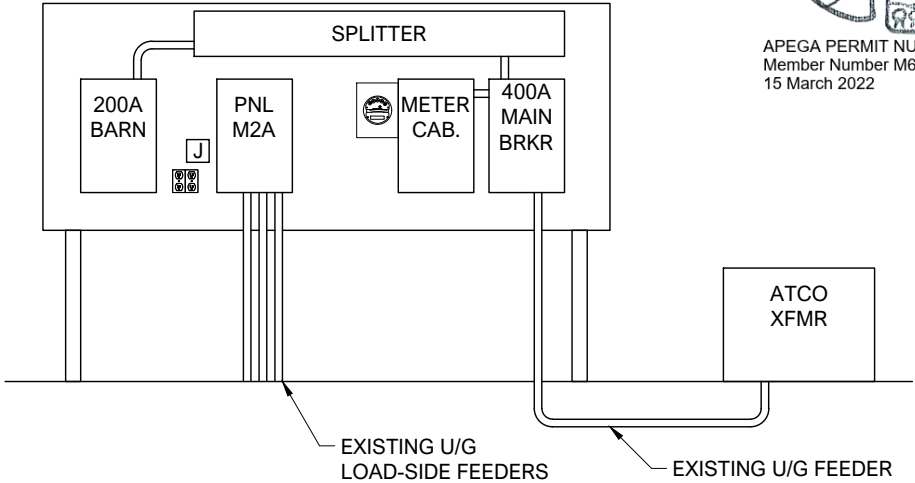
Drawing Title  
DETAILS

Drawing No.

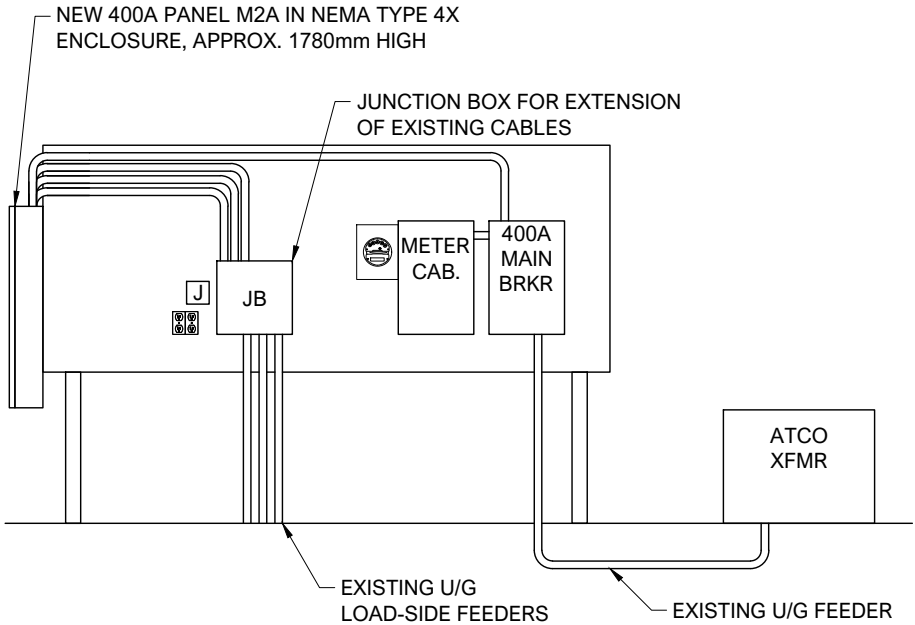
E5



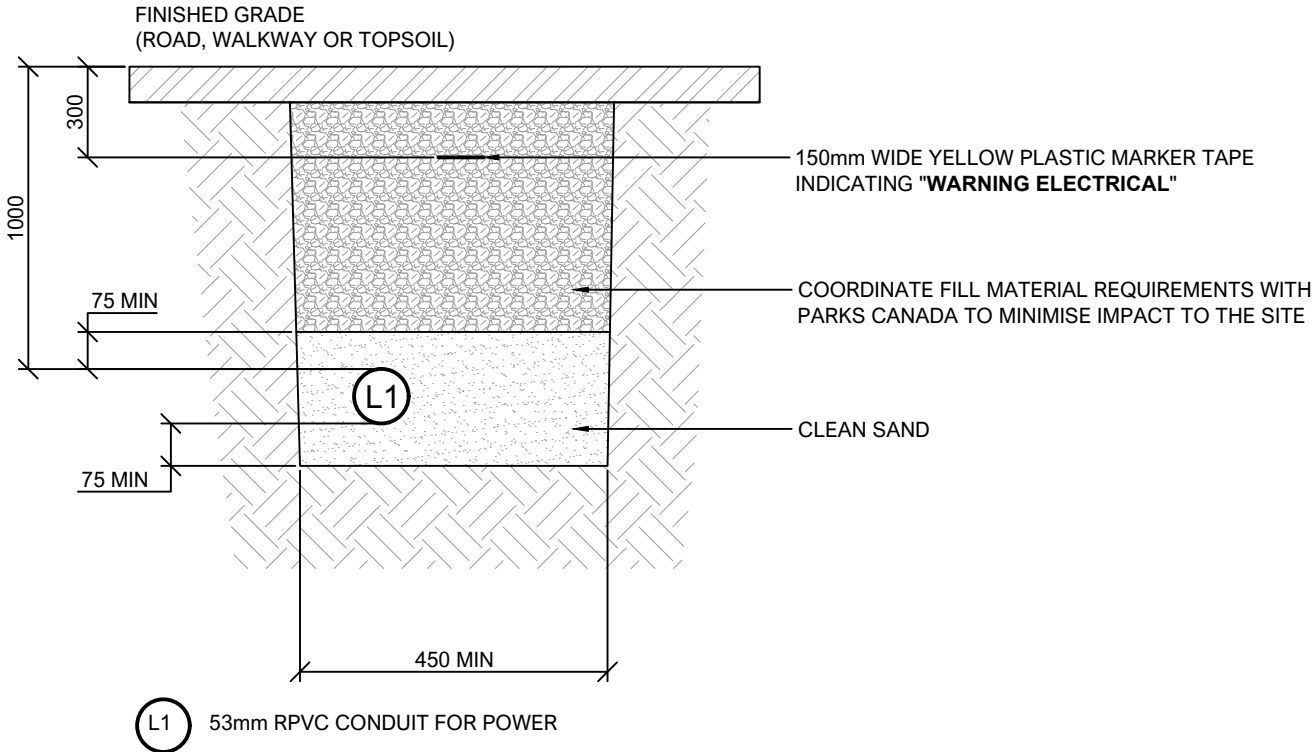
APEGA PERMIT NUMBER 14921  
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15 March 2022



2 METER CABINET ELEVATION - EXISTING



3 METER CABINET ELEVATION - NEW



NOTES

- PROVIDE POLYPROPYLENE PULL STRING IN ALL CONDUITS
- MAINTAIN MINIMUM 300mm (12") VERTICAL AND HORIZONTAL SEPARATION BETWEEN POWER CONDUIT AND ALL OTHER SERVICES AND CONDUIT
- FOR CROSS SECTIONS, POWER CONDUIT TO RUN UNDER OTHER SERVICES OR CONDUIT
- CONTRACTOR SHALL LAY OUT AND INSTALL CONDUIT SO IT RUNS STRAIGHT WITH NO GREATER THAN THREE 90-DEGREE BENDS IN EACH RUN
- CONDUIT RUNS SHALL NOT EXCEED 120m BETWEEN PULL POINTS
- RIGID PVC EXPANSION AND DEFLECTION JOINTS SHALL BE INSTALLED WHERE CONDUITS EXIT THE BASE INTO THE TRENCH TO ACCOMMODATE DIFFERENTIAL SETTLEMENTS.

1 UNDERGROUND CONDUIT TRENCHING DETAIL

