

3 TRENCH DETAIL

101 SCALE: 1 : 10

2 PORTABLE CLASSROOM - ELECTRICAL

101 SCALE: 1 : 25

RELOCATED ELECTRICAL PANEL 'PC1'									
Location: CORRIDOR					Mounting: RECESSED				
Rated Amp: 225					Mains Amp: -				
Voltage: 120/208					Phase: 3				
Load	Description	Breaker Amp	Breaker Pole	No.	Description	Load	Description	Watts	
R1	PORTABLE CLASSROOM 1	100	2	1	ELECTRIC HEATER	R1			
R1	PORTABLE CLASSROOM 3	100	2	5	ELECTRIC HEATER	R1			
R1	PORTABLE CLASSROOM 2	100	2	9	DOOR HOLDERS	R1			
R1	PORTABLE CLASSROOM 4	100	2	13					
R1	ELECTRIC HEATER	15	2	17					
R1	LIGHTS	15	1	21	NEW PORTABLE CLASSROOM	R2	20000		
R1	RECEPT CLES	15	1	23		TBR			
0	CONNECTED LOAD				CONNECTED LOAD	kW	20		
					TOTAL CONNECTED LOAD	kW	20		

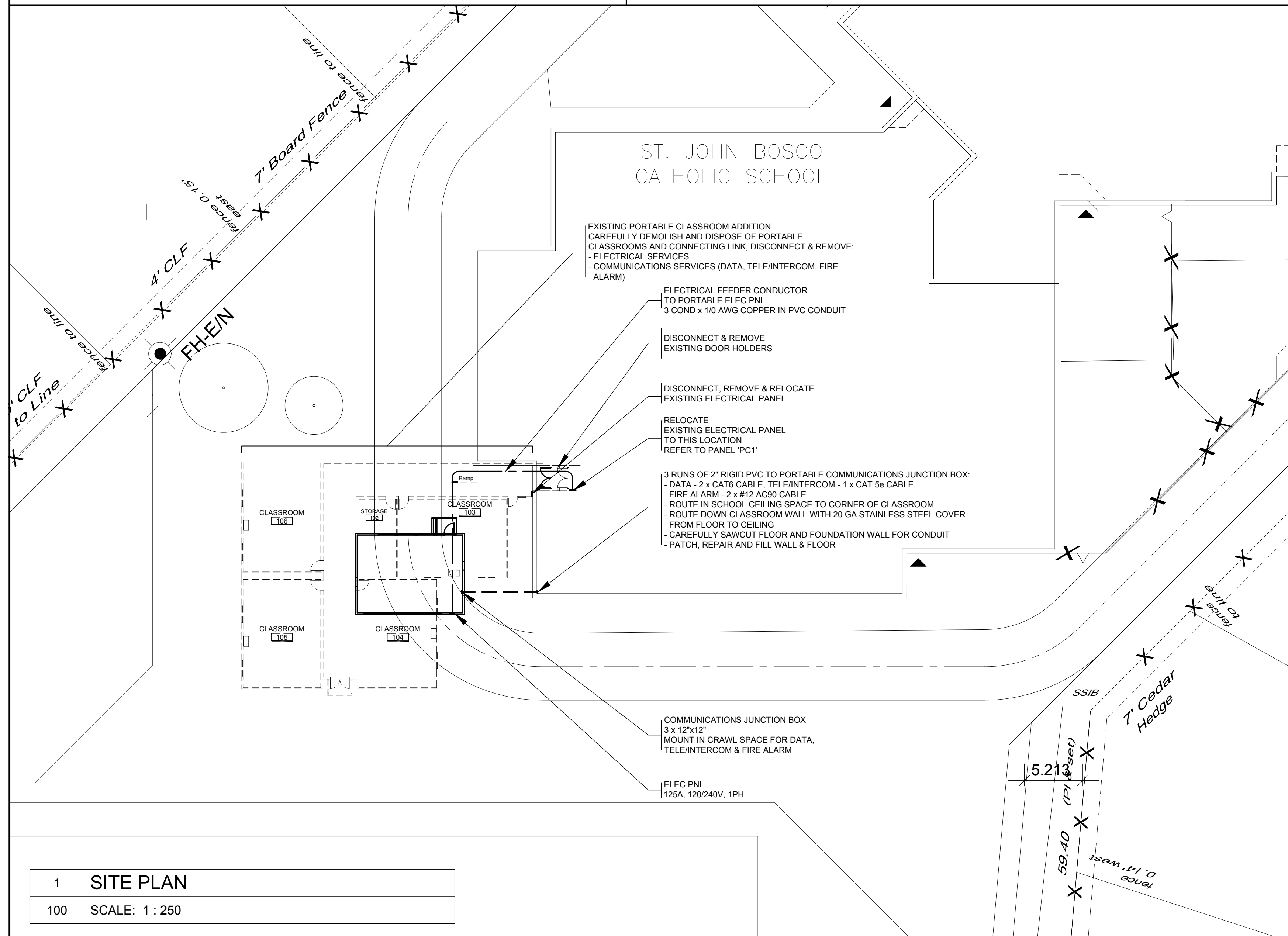
NOTES:

- DEVICE QUANTITIES ARE APPROXIMATE. DEVICES SHOWN ON FLOOR PLANS SHALL SUPERSEDE.
- PROVIDE NEW PANEL LABEL AND TYPED WRITTEN CIRCUITING LEGEND.
- EQUIPMENT SHALL BE SQUARE D.
- CONTRACTOR SHALL VERIFY AND CONFIRM ALL CIRCUITING, AND SHALL PROVIDE A NEW CIRCUITING LEGEND FOR APPROVAL BY OWNER AND ENGINEER, PRIOR TO PROCEEDING WITH WIRING OF PANEL. THIS CIRCUITING STUDY SHALL INCLUDE ALL EXISTING, ALTERED AND NEW CIRCUITS.

NOTATIONS:

- R1 DISCONNECT AND REMOVE CIRCUIT, WIRING, CONDUIT, BOXES AND FIXTURE DEVICE. MARK BREAKER AS SPARE.
- R2 PROVIDE NEW CIRCUIT BREAKER, WIRING, CONDUIT AND CONNECTION TO NEW PORTABLE CLASSROOM.
- TBD TO BE DETERMINED AND CONFIRMED WITH OTHER TRADES

- ELECTRICAL NOTES**
- ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS FOR THIS PROJECT.**
- 1 GENERAL:**
- CONFORM WITH APPLICABLE REQUIREMENTS OF THE MINISTRY OF LABOUR, AND THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
 - DO COMPLETE INSTALLATION IN ACCORDANCE WITH THE FOLLOWING:
 - 1. CANADIAN ELECTRICAL SAFETY CODE;
 - 2. ELECTRICAL SAFETY AUTHORITY.
 - SUBMIT TO ELECTRICAL SAFETY AUTHORITY NECESSARY NUMBER OF DRAWINGS AND SPECIFICATIONS FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
 - COORDINATE AND OBTAIN ELECTRICAL SERVICE LAYOUT FROM THE SUPPLY AUTHORITY.
 - PAY ALL ELECTRICAL PERMIT AND INSPECTION FEES.
 - GROUND COMPLETE SYSTEM IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE AND ELECTRICAL SAFETY AUTHORITY.
 - PROVIDE COPIES OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT.
 - FURNISH UNDER THIS CONTRACT, BIND INSTRUCTIONS IN 3-RING BINDERS. INCLUDE THE FOLLOWING:
 - 1. SCHEMATIC DIAGRAM OF ELECTRICAL SYSTEMS.
 - 2. CONTROL SHOP DRAWINGS AND OPERATING SEQUENCE INCLUDING WIRING OF COMPONENTS.
 - 3. WIRING DIAGRAM OF CONTROL PANELS.
 - 4. OPERATING INSTRUCTIONS, INCLUDING START-UP AND SHUT-DOWN PROCEDURE.
 - 5. MAINTENANCE INSTRUCTIONS INCLUDING PREVENTIVE MAINTENANCE INSTRUCTIONS FOR COMPONENTS OF THE EQUIPMENT.
 - 6. COMPLETE PARTS LIST OF ASSEMBLIES AND THEIR COMPONENT PARTS, SHOWING MANUFACTURER'S NAME, CATALOGUE NUMBER, AND NEAREST REPLACEMENT SOURCE.
 - 7. LIST OF RECOMMENDED SPARE PARTS AND QUANTITY OF EACH ITEM TO BE STOCKED.
 - 8. MANUFACTURERS' WARRANTIES AND GUARANTEES.
 - CLEAN ALL ELECTRICAL SYSTEMS AT PROJECT COMPLETION.
 - COMPLETE AS-BUILT DRAWINGS SHOWING ALL CHANGES AS WORK PROGRESSES.
- 2 CONTRACTOR QUALIFICATIONS:**
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE "TRADES QUALIFICATION AND APPRENTICESHIP ACT" AND REGULATIONS, BY PERSONS WHO HOLD THE FOLLOWING CERTIFICATES OF QUALIFICATION (AS APPLICABLE):
 - 1. ELECTRICAL: CONSTRUCTION & MAINTENANCE.
 - ALL FIRE ALARM SYSTEM WORK SHALL BE PERFORMED BY PERSONS WHO HOLD ELECTRICIAN QUALIFICATIONS (ABOVE), AND IN ADDITION, WHO HOLD THE FOLLOWING CURRENT REGISTRATION WITH THE CANADIAN FIRE ALARM ASSOCIATION (CFAA):
 - 1. FIRE ALARM TECHNICIAN.
- 3 EXISTING FACILITIES AND DEMOLITION:**
- LOCATE AND PROTECT ALL EXISTING EXTERIOR SITE SERVICES.
 - RETAIN AND PROTECT ALL EXISTING INTERIOR SERVICES AND BUILDING FABRIC. MAKE GOOD ANY AND ALL DAMAGE RESULTING FROM THIS WORK.
 - CONNECTIONS TO EXISTING SERVICES SHALL BE COORDINATED WITH THE OWNER.
 - EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO NORMAL USE OF THE EXISTING BUILDING.
- 4 FIXTURES AND EQUIPMENT:**
- PROVIDE SHOP DRAWINGS AND PRODUCT DATA FOR ALL ELECTRICAL FIXTURES AND EQUIPMENT FOR APPROVAL, PRIOR TO PROCUREMENT.
 - INSTALL ALL ELECTRICAL FIXTURES AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - EQUIPMENT AND MATERIAL TO BE CSA CERTIFIED. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CSA CERTIFIED, OBTAIN SPECIAL APPROVAL FROM ELECTRICAL SAFETY AUTHORITY.
- 5 CONDUITS:**
- RIGID PVC CONDUIT.
- 6 WIRES AND CABLE:**
- VOLTAGE DROP:
 - 1. FEEDER CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.
 - 2. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.
 - BUILDING WIRES IN CONDUIT SYSTEMS TO BE STRANDED COPPER CONDUCTORS FOR 10 AWG AND LARGER, MINIMUM SIZE 12 AWG, TYPE RWU90.
- 7 FIRE ALARM SYSTEM:**
- FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH CAN/ULC-5524, "INSTALLATION OF FIRE ALARM SYSTEMS".
 - FIRE ALARM SYSTEM SHALL BE VERIFIED IN ACCORDANCE WITH CAN/ULC-5537, "VERIFICATION OF FIRE ALARM SYSTEMS".
- 8 EARTHQUAKE LOAD:**
- ALL ELECTRICAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE EARTHQUAKE LOAD AND EFFECTS REQUIRED BY THE ONTARIO BUILDING CODE.
 - ELECTRICAL ELEMENTS AND COMPONENTS (FIXTURES, EQUIPMENT, CONDUIT, ETC.), AND THEIR CONNECTIONS TO THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SHAKING AND SEISMIC RESTRAINT MANUAL OR OTHER GUIDELINE REFERENCED IN THE ONTARIO BUILDING CODE.
- 9 EQUIPMENT SUPPORT:**
- ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING, LIGHTING, DEVICES, AND RELATED ITEMS SHALL BE SECURELY SUPPORTED, ATTACHED AND FASTENED TO BUILDING STRUCTURE.
 - HANGERS AND SUPPORTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MSS STANDARD SP-58, PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN, MANUFACTURE, SELECTION, APPLICATION, AND INSTALLATION.
- 10 COORDINATION:**
- INFORMATION INVOLVING ACCURATE DIMENSIONING OF THE BUILDING SHALL BE TAKEN FROM SITE BY CONTRACTOR.
 - DRAWINGS ARE IN DIAGRAMMATIC FORM, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT FOR EQUIPMENT. COORDINATE PHYSICAL LOCATION OF ALL EQUIPMENT WITH OTHER TRADES AND ALLOW FOR ANY ADDITIONAL CONDUIT, WIRING, FITTINGS, SUPPORTS, ETC., IN ORDER TO AVOID INTERFERENCE AND FACILITATE THE WORK.
 - CONTRACTOR TO MAKE ANY NECESSARY MODIFICATIONS OR ADDITIONS, WITHOUT CHARGE, TO ACCOMMODATE SITE CONDITIONS AND COORDINATION.
 - COORDINATE AND VERIFY ALL ELECTRICAL BRANCH CIRCUIT REQUIREMENTS FOR EQUIPMENT SUPPLIED BY OTHERS, PRIOR TO MATERIAL PROCUREMENT OR INSTALLATION.
- 11 START-UP, COMMISSIONING AND TRAINING:**
- START-UP AND COMMISSION THE FOLLOWING SYSTEMS:
 - 1. ELECTRICAL SERVICE EQUIPMENT;
 - 2. FIRE ALARM;
 - 3. COMMUNICATIONS - DATA, TELEPHONE/INTERCOM.
 - PERFORM SYSTEMATIC TESTS, PROCEDURES AND CHECKS ON SYSTEMS, AS FOLLOWS:
 - 1. TO VERIFY OPERATION IN ACCORDANCE WITH CONTRACT DOCUMENTS, DESIGN CRITERIA AND INTENT;
 - 2. AND MANUFACTURER'S REQUIREMENTS;
 - 3. TO ENSURE APPROPRIATE DOCUMENTATION IS PROVIDED;
 - 4. TO EFFECTIVELY TRAIN BUILDING OPERATIONAL STAFF.
 - SYSTEMS ARE TO BE OPERATED AT FULL CAPACITY, WITH CORRECTION OF ALL DEFICIENCIES AND ADJUSTMENTS TO MEET OPTIMUM PERFORMANCE.
 - PROVIDE WRITTEN REPORT AT END OF COMMISSIONING OUTLINING EQUIPMENT OPERATIONAL CONDITIONS AND PARAMETERS.



1 SITE PLAN

100 SCALE: 1 : 250

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No.	Date	Revision
1	2020-05-25	FOR PERMIT
0	2020-05-20	FOR REVIEW

Client:
CATHOLIC DISTRICT SCHOOL BOARD of EASTERN ONTARIO

Project:
ST. JOHN BOSCO CATHOLIC SCHOOL
Brockville, Ontario

Drawing:
PORTABLE CLASSRMS 2020
Electrical

Design:	M.MORRIS
Drawn:	A.M.
Date:	APR 2020
Project:	548C
Scale:	AS SHOWN

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