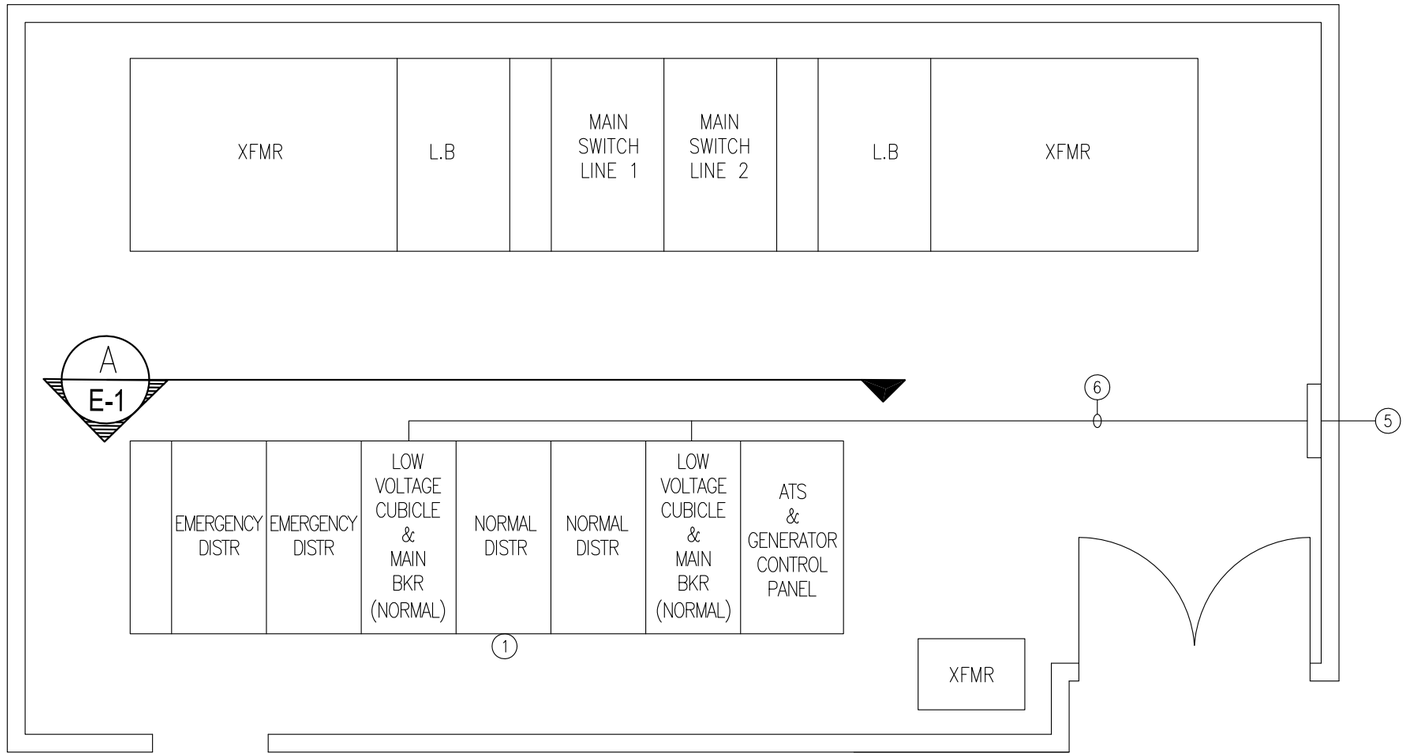
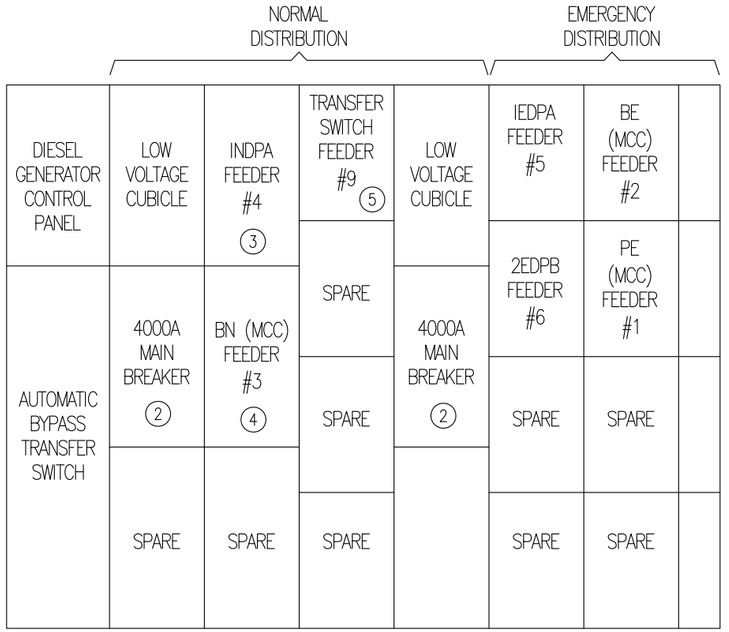


MAIN ELECTRICAL ROOM LAYOUT

NTS

1
E-1



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ELEVATION

KEYNOTES:

1. EXISTING FEDERAL PIONEER (FRE) SWITCHGEAR UNIT, 4000A, 120/208V, 3ø, 4W RATED.
2. EXISTING FEDERAL PIONEER (FPE) BREAKER 4000A FRAME C/W A 3000A TRIP RELAY AND KIRK KEY INTERLOCK, UNIT TO BE REPLACED WITH A NEW BREAKER.
3. EXISTING FEDERAL PIONEER (FPE) BREAKER 2000A FRAME C/W A 2000A TRIP RELAY, UNIT TO BE REPLACED WITH A NEW BREAKER.
4. EXISTING FEDERAL PIONEER (FPE) BREAKER 1600A FRAME C/W A 800A TRIP RELAY, UNIT TO BE REPLACED WITH A NEW BREAKER.
5. EXISTING FEDERAL PIONEER (FPE) BREAKER 1600A FRAME C/W A 1200A TRIP RELAY, UNIT TO BE REPLACED WITH A NEW BREAKER.
5. REMOTE OPERATION STATION C/W (10) NEW ILLUMINATED PUSHBUTTONS, (2) PER BREAKER FOR REMOTE CONTROL OF NEW ELECTRICALLY OPERATED BREAKERS, (1) RED PUSHBUTTON TO OPEN BREAKER AND (1) GREEN PUSHBUTTON TO CLOSE BREAKER. INSTALL A LAMACOID LABEL ABOVE EACH ILLUMINATED PUSHBUTTONS TO INDICATE BREAKER BEING OPERATED AND FUNCTION.
6. RUN NEW WIRING AND 53mmC (2") EMT CONDUIT FROM REMOTE OPERATION STATION TO EACH MAIN BREAKER SECTION FOR INTERNAL CONNECTIONS AS REQUIRED FOR REMOTE OPERATION. PROVIDE SUPPORT SYSTEM THROUGHOUT ENTIRE RUN AS REQUIRED.

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PEGNL Newfoundland and Labrador
PERMIT HOLDER
This Permit Allows
ROWSELL APPLEBY NEWTON ENGINEERING INC.
To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APEGN P0255 which is valid for the year 2018

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SUB CONSULTANT

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DRAWN	JWF
DESIGNED	VJ
CHECKED	VJ
APPROVED	VJ
SCALE	NTS
PROJECT No.	18–007

No.	Description	By	yy/mm/dd
A	ISSUED FOR CLIENT REVIEW	VJ	18/02/21

PRIME / ELECTRICAL CONSULTANTS
R|A|N
ROWSELL APPLEBY NEWTON ENGINEERING INC
1 Centennial Street Suite 101 Mount Pearl, NL T 709.754.9135

CLIENT
Western Health

PROJECT TITLE
Dr. Charles L. LeGrow Health Centre Electrical Renovations
PORT AUX BASQUES NL

DRAWING TITLE
MAIN ELECTRICAL ROOM REVISED LAYOUTS

DRAWING No.
E-1
SHEET No.
1 of 3

GENERAL

1. THIS SECTION COVERS ITEMS COMMON TO SECTION OF DIVISION 26. THIS SECTION SUPPLEMENTS REQUIREMENTS OF DIVISION 1.
2. QUALIFIED TRADES PEOPLE SHALL BE USED FOR ALL DISCIPLINES OF THE ELECTRICAL WORK REQUIRED FOR THIS PROJECT.
3. GENERAL REQUIREMENTS, INSTRUCTIONS TO BIDDERS AND ANY ADDENDA HERE TO FORM PART OF THE CONTRACT DOCUMENTS AND SHALL BE READ IN CONJUNCTION WITH THEM. WORK TO INCLUDE THE FURNISHING OF ALL LABOR AND MATERIALS UNLESS SPECIFIED OTHERWISE TO COMPLETE AND PUT INTO OPERATING CONDITION ALL ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.
4. RESPONSIBILITY AS TO WHICH TRADE PROVIDES REQUIRED ARTICLES OR MATERIALS RESTS WITH THE GENERAL CONTRACT TRADE. EXTRAS WILL NOT BE CONSIDERED BASED ON GROUNDS OF DIFFERENCE OF INTERPRETATION OF SPECIFICATIONS AS TO WHICH TRADE INVOLVED SHALL PROVIDE CERTAIN SPECIALTIES OR MATERIALS.

DRAWINGS AND SPECIFICATIONS

1. DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE TO BE BINDING AS IF CALLED FOR BY BOTH.
2. SHOULD ANY DISCREPANCY APPEAR BETWEEN DRAWINGS AND SPECIFICATIONS WHICH LEAVES ELECTRICAL TRADE IN DOUBT AS TO TRUE INTENT AND MEANING, OBTAIN RULING FROM ENGINEER BEFORE SUBMITTING TENDER. IF THIS IS NOT DONE, IT WILL BE ASSUMED THAT THE MOST EXPENSIVE ALTERNATIVE HAS BEEN ALLOWED FOR.

EXAMINATION OF OTHER DRAWINGS

1. THE CONTRACTOR IS TO EXAMINE CAREFULLY STRUCTURAL, ARCHITECTURAL AND MECHANICAL DRAWINGS AND WORK OF OTHER TRADES AND SATISFY HIMSELF THAT THE WORK UNDER THIS CONTRACT CAN BE SATISFACTORILY CARRIED OUT WITHOUT CHANGES TO THE BUILDING AS SHOWN ON THE PLANS. SHOULD ANY DIFFICULTY ARISE SHOWING CONFLICT WITH, OR REQUIRING ADDITIONAL WORK BEYOND THE WORK OF THESE DRAWINGS, BRING THIS MATTER TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING TENDER.

SETTING OUT OF THE WORK

1. ELECTRICAL TRADE TO BE RESPONSIBLE FOR CORRECTING ALL WORK COMPLETED CONTRARY TO INTENT OF DRAWINGS AND SPECIFICATIONS AND BEAR ALL COST FOR SAME. WHERE INTENT OF DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, OBTAIN CLARIFICATION BEFORE PROCEEDING WITH WORK.
2. ELECTRICAL TRADE TO GIVE WORK HIS PERSONAL SUPERVISION, LAY OUT HIS OWN WORK, DO ALL NECESSARY LEVELING AND MEASURING OR EMPLOY A COMPETENT ENGINEER TO DO SO. FIGURES, FULL SIZE AND DETAIL DRAWINGS TO TAKE PRECEDENCE OVER SCALE MEASUREMENTS.
3. WHERE ANY EQUIPMENT SUPPLIED BY ELECTRICAL TRADE MUST BE BUILT IN WITH WORK OF OTHER CONTRACTORS, THIS CONTRACTOR TO BE RESPONSIBLE FOR SUPPLYING OF EQUIPMENT TO BE BUILT IN OR MEASUREMENTS TO ALLOW NECESSARY OPENINGS TO BE LEFT SO AS NOT TO HOLD UP WORK.
4. ELECTRICAL TRADE TO BE RESPONSIBLE FOR ANY DAMAGE CAUSD OWNER OR ANY OTHER TRADE BY IMPOPER LOCATION OR CARRYING OUT OF HIS WORK.
5. ELECTRICAL TRADE, IN SETTING OUT OF HIS WORK, TO MAKE REFERENCE TO ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS. CONSULT WITH ALL TRADES IN SETTING OUT LOCATIONS FOR CONDUIT RUNS, LIGHTING FIXTURES, PANEL ASSEMBLIES, ETC. SO THAT CONFLICTS ARE AVOIDED AND SYMMETRICAL SPACING IS MAINTAINED.
6. WHERE RECEPTACLES ARE MOUNTED ABOVE COUNTERS, BENCHES, SPLASH BACKS, ETC. LOCATION AND MOUNTING HEIGHTS TO BE COORDINATED WITH THE BUILT-IN UNITS. REFER TO ARCHITECTURAL DETAILS. WHERE RECEPTACLES OCCUR IN OUTSIDE WALLS WHERE HEATING UNITS OCCUR, RECEPTACLE HEIGHT TO BE ADJUSTED TO COORDINATE WITH HEATING UNITS.
7. RECEPTACLES AND OTHER ELECTRICAL BOXES MOUNTED IN COMMON WALLS SHALL BE OFFSET BY A MINIMUM OF 150mm.
8. SWITCH MOUNTING TO BE COORDINATED WITH ARCHITECTURAL DETAILS AND TO BE ADJUSTED, IF REQUIRED, TO COORDINATE WITH PANELING, DADOS, MASONRY COURSE LINES, ETC.
9. WHERE OUTLETS OCCUR IN EXTERIOR WALLS, ELECTRICAL TRADE TO ENSURE THAT THERE IS INSULATION BEHIND THE OUTLET BOXES TO PREVENT CONDENSATION THROUGH THE BOXES.

EXAMINATION OF THE SITE

1. PRIOR TO SUBMITTING TENDER, ELECTRICAL TRADE TO CAREFULLY EXAMINE THE SITE AND ASCERTAIN ALL CONDITIONS WHICH MAY AFFECT THIS TRADE. NO EXTRAS WILL BE ALLOWED FOR WORK RESULTING FROM CONDITIONS THAT WOULD HAVE BEEN EVIDENT UPON A THOROUGH EXAMINATION OF THE SITE.

CODES, STANDARDS AND PERMITS

1. DO COMPLETE INSTALLATION IN ACCORDANCE WITH LATEST EDITION OF CSA C22.1 AND REGULATIONS OF ELECTRICAL INSPECTION AUTHORITY.
2. DO OVERHEAD AND UNDERGROUND SYSTEMS IN ACCORDANCE WITH CSA C22.3 NO. 1-M1979.
3. ABBREVATIONS FOR ELECTRICAL TERMS: TO CSA Z85-1983.
4. ELECTRICAL TRADE TO OBTAIN ALL PERMITS REQUIRED AND AFTER COMPLETION OF THE WORK FURNISH TO THE ENGINEER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTION DEPARTMENT.

CARE, OPERATION AND START-UP

1. INSTRUCT OPERATING PERSONNEL IN THE OPERATION, CARE AND MAINTENANCE OF EQUIPMENT.
2. ARRANGE AND PAY FOR SERVICES OF MANUFACTURER'S FACTORY SERVICE ENGINEER TO SUPERVISE START-UP OF INSTALLATION, CHECK, ADJUST, BALANCE AND CALIBRATE COMPONENTS.
3. PROVIDE THESE SERVICES FOR SUCH PERIOD, AND FOR AS MANY VISITS AS NECESSARY TO PUT EQUIPMENT IN OPERATION, AND ENSURE THAT OPERATING PERSONNEL ARE CONVERSANT WITH ALL ASPECTS OF ITS CARE AND OPERATION.

VOLTAGE RATINGS

1. OPERATING VOLTAGES: TO CAN3-C235-83.
2. MOTORS, CONTROL AND DISTRIBUTION DEVICES AND EQUIPMENT TO OPERATE SATISFACTORILY AT 60 HZ WITHIN NORMAL OPERATING LIMITS ESTABLISHED BY ABOVE STANDARD. EQUIPMENT TO OPERATE IN EXTREME OPERATING CONDITIONS ESTABLISHED IN ABOVE STANDARD WITHOUT DAMAGE TO EQUIPMENT.

PERMITS, FEES AND INSPECTION

1. SUBMIT TO ELECTRICAL INSPECTION DEPARTMENT AND SUPPLY AUTHORITY NECESSARY NUMBER OF DRAWINGS AND SPECIFICATIONS FOR EXAMINATION AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
2. PAY ASSOCIATED FEES.
3. CONTRACTOR SHALL PROVIDE DRAWINGS AND SPECIFICATIONS REQUIRED BY ELECTRICAL INSPECTION DEPARTMENT AND SUPPLY AUTHORITY AT NO COST.
4. NOTIFY ENGINEER OF CHANGES REQUIRED BY ELECTRICAL INSPECTION DEPARTMENT PRIOR TO MAKING CHANGES. FURNISH CERTIFICATES OF ACCEPTANCE FROM AUTHORITIES HAVING JURISDICTION ON COMPLETION OF WORK TO ENGINEER.
5. FURNISH CERTIFICATES OF ACCEPTANCE FROM AUTHORITIES HAVING JURISDICTION ON COMPLETION OF WORK TO ENGINEER.

EXAMINATION OF SITE AND DRAWINGS

1. VISIT SITE BEFORE TENDER CLOSES TO DETERMINE DETAILS OF EXISTING CONDITIONS. NO EXTRA WILL BE ALLOWED FOR ITEMS WHICH WOULD HAVE BEEN PICKED UP BY SITE INSPECITON.

MATERIALS AND EQUIPMENT

1. EQUIPMENT AND MATERIAL TO BE NEW AND CSA CERTIFIED. WHERE THERE IS NO ALTERNATIVE TO SUPPLYING EQUIPMENT WHICH IS NOT CSA CERTIFIED, OBTAIN SPECIAL APPROVAL FROM ELECTRICAL INSPECTION DEPARTMENT.
2. FACTORY ASSEMBLE CONTROL PANELS AND COMPONENT ASSEMBLIES.
3. UNIFORMITY OF MANUFACTURER TO BE MAINTAINED FOR ANY PARTICULAR ITEM THROUGHOUT.

ELECTRIC MOTORS, EQUIPMENT AND CONTROLS

1. UNLESS OTHERWISE SPECIFIED, ELECTRICAL TRADE TO SUPPLY AND INSTALL ALL CONDUIT AND WIRE, FITTINGS AND CONNECTIONS FOR ALL MECHANICAL MORE THAN 50V. 50V AND LESS BY CONTROLS CONTRACTOR. MOTOR PROTECTION SWITCHES COMPLETE WITH OVERLOAD RELAYS ETC. TO BE SUPPLIED AND INSTALLED BY ELECTRICAL TRADE. ELECTRICAL TRADE TO CONFIRM MECHANICAL TRADE SIZE, CHARACTERISTICS AND LOCATIONS OF ALL MECHANICAL EQUIPMENT BEFORE INSTALLATION OF CONDUIT ETC.

FINISHES

1. ALL ELECTRICAL FITTINGS, SUPPORTS, HANGER RODS, PULL BOXES, CHANNEL FRAMES, CONDUIT RACKS, OUTLET BOXES, BRACKETS, CLAMPS, ETC. TO HAVE GALVANIZED FINISH OR PAINT FINISH OVER CORROSION-RESISTANT PRIMER.
2. ALL PANELS TO BE FACTORY FINISHED WITH SPRAY-ON AIR DRY ENAMEL. ALL ENAMEL TO BE APPLIED OVER CORROSION-RESISTANT PRIMER. MATTE OR FLAT TYPE FINISH PAINT WILL NOT BE ACCEPTED. ALL PANELS OR SIMILAR FACTORY FINISH UNITS THAT ARE SCRATCHED OR MARKED DURING INSTALLATION TO BE TOUCHED UP WITH MATCHING SPRAY-ON AIR DRY LACQUER AND IF REQUIRED TO PROVIDE SATISFACTORY JOB TO BE COMPLETELY REFINISHED.
3. ALL 347/600V AND 120/208V PANEL BOARDS, PULL BOXES, ETC. TO BE FINISHED IN GREY ENAMEL.

ACCESS DOORS

1. ELECTRICAL TRADE TO SUPPLY AND INSTALL ACCESS DOORS REQUIRED FOR PROPER SERVICING OF ALL ELECTRICAL WORK. ACCESS PANEL TO BE OF NOT LESS THAN 14 GAUGE STEEL, PRIME COAT FINISHED AND PAINTED ON THE JOB TO MATCH THE WALL OR CEILING FINISH.
2. NUMBER OF ACCESS DOORS TO BE KEPT TO AN ABSOLUTE MINIMUM AND TO BE USED ONLY WITH THE PERMISSION OF THE ENGINEER.

EQUIPMENT IDENTIFICATION

1. IDENTIFY ELECTRICAL EQUIPMENT WITH NAMEPLATES AND LABELS AS FOLLOWS:
2. NAMEPLATES:
   .1 LAMICOID 3MM THICK PLASTIC ENGRAVING SHEET, BLACK FACE, WHITE CORE, MECHANICALLY ATTACHED WITH SELF TAPPING SCREWS

NAMEPLATE SIZES	
SIZE 1 10 X 50MM	1 LINE 3MM HIGH LETTERS
SIZE 2 12 X 70MM	1 LINE 5MM HIGH LETTERS
SIZE3 12 X 70MM	2 LINES 3MM HIGH LETTERS
SIZE 4 20 X 90MM	1 LINE 8MM HIGH LETTERS
SIZE 5 20 X 90MM	2 LINES 5MM HIGH LETTERS
SIZE 6 25 X 100MM	1 LINE 12MM HIGH LETTERS
SIZE 7 25 X 100MM	2 LINES 6MM HIGH LETTERS

3. LABELS
   .1 EMBOSSED PLASTIC LABELS WITH 6MM HIGH LETTERS UNLESS SPECIFIED OTHERWISE.
4. WORDING ON NAMPLATES AND LABELS TO BE APPROVED BY ENGINEER PRIOR TO MANUFACTURE.
5. ALLOW FOR AVERAGE OF TWENTY-FIVE (25) LETTERS PER NAMEPLATE AND LABEL.
6. IDENTIFICATION TO BE ENGLISH.
7. NAMEPLATES FOR TERMINAL CABINETS AND JUNCTION BOXES TO INDICATE SYSTEM AND/OR VOLTAGE CHARACTERISTICS.
8. DISCONNECTS, STARTERS AND CONTACTORS: INDICATE EQUIPMENT BEING CONTROLLED AND VOLTAGE.
9. TERMINAL CABINETS AND PULL BOXES: INDICATE SYSTEM AND VOLTAGE.

WIRING IDENTIFICATION

1. IDENTIFY PHASE CONDUCTOR WIRING WITH PERMANENT COLORED PLASTIC TAPES ON BOTH ENDS.
2. IDENTIFY BRANCH CIRCUIT WIRING WITH PERMANENT NUMBERED TAPES AT BOTH ENDS.
3. MAINTAIN PHASE SEQUENCE AND COLOR CODING THROUGHOUT.
4. USE COLOR CODED WIRES IN COMMUNICATION CABLES, MATCHED THROUGHOUT SYSTEM.

CONDUIT AND CABLE IDENTIFICATION

1. COLOR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES.
2. CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUIT OR CABLE ENTERS WALL, CEILING, OR FLOORS, AND AT 15 M INTERVALS.
3. COLORS: 25MM WIDE PRIME COLOR AND 20MM WIDE AUXILIARY COLOR.

PRIME	AUXILIARY
UP TO 250 V	YELLOW
UP TO 600 V	YELLOW GREEN
TELEPHONE	GREEN
OTHER COMM SYSTEMS	GREEN BLUE

WIRING TERMINATIONS

1. LUGS, TERMINALS, SCREWS USED FOR TERMINATION OF WIRING TO BE SUITABLE FOR EITHER COPPER OR ALUMINUM CONDUCTORS.

MANUFACTURERS AND CSA LABELS

1. VISIBLE AND LEGIBLE AFTER EQUIPMENT IS INSTALLED.

WARNING SIGNS

1. AS SPECIFIED AND TO MEET REQUIREMENTS OF ELECTRICAL INSPECTION DEPARTMENT AND ENGINEER.
2. PORCELAIN ENAMEL OR 1MM THICK PLASTIC SIGNS, MINIMUM SIZE 175 X 250MM.

SINGLE LINE ELECTRICAL DRAWINGS

1. PROVIDE SINGLE LINE ELECTRICAL DIAGRAMS IN GLAZED FRAMES AS FOLLOWS:
   .1 ELECTRICAL DISTRIBUTION SYSTEM: LOCATE IN ELECTRICAL ROOM
2. DRAWINGS: 600 X 600MM MINIMUM SIZE.

LOCATION OF OUTLETS

1. LOCATE OUTLETS IN ACCORDANCE WITH GENERAL REQUIREMENTS.
2. DO NOT INSTALL OUTLETS BACK-TO-BACK IN WALL; ALLOW MINIMUM 150MM HORIZONTAL CLEARANCE BETWEEN BOXES.
3. CHANGE LOCATION OF OUTLETS AT NO EXTRA COST OR CREDIT, PROVIDING DISTANCE DOES NOT EXCEED 3000MM, AND INFORMATION IS GIVEN BEFORE INSTALLATION.
4. LOCATE LIGHT SWITCHES ON LATCH SIDE OF DOORS.
5. ELECTRICAL TRADE TO REFER TO ARCHITECTURAL ROOM ELEVATIONS FOR POSITIONS AND MOUNTING HEIGHTS OF ALL OUTLETS, SWITCHES, TELEPHONE, DATA OUTLETS, ETC. POSITIONS SHOWN ON ARCHITECTURAL PLANS TO TAKE PRECEDENCE OVER POSITIONS OR MOUNTING HEIGHTS SHOWN ON ELECTRICAL PLANS.

MOUNTING HEIGHTS

1. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO CENTERLINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED OTHERWISE.
2. IF MOUNTING HEIGHT OF EQUIPMENT IS NOT SPECIFIED OR INDICATED VERIFY BEFORE PROCEEDING WITH INSTALLATION.
3. INSTALL ELECTRICAL EQUIPMENT AT FOLLOWING HEIGHTS UNLESS INDICATED OTHERWISE.
   .1 LOCAL SWITCHES; 1200MM
   .2 WALL RECEPTACLES:
      .01 GENERAL: 460MM.
      .02 ABOVE TOP OF COUNTERS OR COUNTER SPLASH BACKS: 150MM.
      .03 IN MECHANICAL AND ELECTRICAL ROOMS: 1050MM
   .3 PANELBOARDS: AS REQUIRED BY CODE OR 1600MM.
   .4 TELECOMMUNICATIONS OUTLETS: 460MM.
   .5 EMERGENCY LIGHTING UNIT: 2100MM.
   .6 EXIT SIGNS: DIRECTLY ABOVE DOOR.
   .7 REMOTE EMERGENCY LIGHTING HEADS: 2100MM.
   .8 THERMOSTAT: 1400MM.

CONDUIT AND CABLE INSTALLATION

1. INSTALL CONDUIT AND SLEEVES PRIOR TO POURING OF CONCRETE SLEEVES THROUGH CONCRETE: PLASTIC SIZED FOR FREE PASSAGE ON CONDUIT, AND PROTRUDING 50MM. WHERE CONDUITS PASS BETWEEN AREAS OF DIFFERENT AMBIENT TEMPERATURE, SEAL WITH APPROVED SEALANT. PROVIDE FITTINGS AS REQUIRED.

FIELD QUALITY CONTROL

1. CONDUCT THE FOLLOWING TESTS:
   .1 POWER DISTRIBUTION SYSTEM INCLUDING PHASING, VOLTAGE, GROUNDING AND LOAD BALANCING.
   .2 CIRCUITS ORIGINATING FROM BRANCH DISTRIBUTION PANELS.
   .3 LIGHTING AND ITS CONTROL.
   .4 MOTORS AND ASSOCIATED CONTROL EQUIPMENT INCLUDING SEQUENCED OPERATION OF SYSTEMS WHERE APPLICABLE.
   .5 COMMUNICATIONS SYSTEMS:
      .01 DATA SYSTEMS
      .02 TELEPHONE SYSTEM
      .03 CCTV SYSTEM
   .6 EXIT AND EMERGENCY LIGHTING.
   .7 HEATING CONTROLS
2. FURNISH MANUFACTURER'S CERTIFICATE OR LETTER CONFIRMING THAT THE INSTALLATION AS IT PERTAINS TO EACH SYSTEM, HAS BEEN INSTALLED TO MANUFACTURER'S INSTRUCTIONS.
3. INSULATION RESISTANCE TESTING.
   .1 MEGGER CIRCUITS, FEEDERS AND EQUIPMENT UP TO 350 V WITH A 500 V INSTRUMENT.
   .2 MEGGER 350-600 V CIRCUITS, FEEDERS AND EQUIPMENT WITH A 1000 V INSTRUMENT.
   .3 CHECK RESISTANCE TO GROUND BEFORE ENERGIZING.
   .4 CARRY OUT TESTS IN PRESENCE OF ENGINEER.
   .5 PROVIDE INSTRUMENTS, METERS, EQUIPMENT AND PERSONNEL REQUIRED TO CONDUCT TESTS DURING AND AT CONCLUSION OF PROJECT.
   .6 SUBMIT TEST RESULTS FOR ENGINEER'S REVIEW.

CO-ORDINATION OF PROTECTIVE DEVICES

1. ENSURE CIRCUIT PROTECTIVE DEVICES SUCH AS OVERCURRENT TRIPS, RELAYS AND FUSES ARE INSTALLED TO REQUIRED VALUES AND SETTINGS.

COORDINATION

1. COORDINATE WORK WITH WORK OF OTHER DIVISIONS TO AVOID CONFLICT.
2. LOCATE DISTRIBUTION SYSTEMS, EQUIPMENT, AND MATERIALS TO PROVIDE MINIMUM INTERFERENCE AND MAXIMUM USABLE SPACE.
3. WHERE INTERFERENCE OCCURS, OWNER MUST APPROVE RELOCATION OF EQUIPMENT AND MATERIALS REGARDLESS OF INSTALLATION ORDER.
4. NOTWITHSTANDING THE REVIEW OF SHOP DRAWINGS, THIS DIVISION MAY BE REQUIRED TO RELOCATE ELECTRICAL EQUIPMENT WHICH INTERFERES WITH THE EQUIPMENT OF OTHER TRADES, DUE TO LACK OF CO-ORDINATION BY THIS DIVISION. THE COST OF THIS RELOCATION SHALL BE THE RESPONSIBILITY OF THIS DIVISION. THE OWNER SHALL DECIDE THE EXTENT OF RELOCATION REQUIRED.

CUTTING AND PATCHING

1. INFORM ALL OTHER DIVISIONS IN TIME, CONCERNING REQUIRED OPENINGS. CUTTING AND PATCHING FOR ELECTRICAL WORK SHALL BE PROVIDED BY THIS DIVISION. OBTAIN WRITTEN APPROVAL OF STRUCTURAL ENGINEER BEFORE DRILLING ANY BEAMS OR FLOORS.

CLEANING

1. DO FINAL CLEANING IN ACCORDANCE WITH ARCHITECTURAL DIVISION REQUIREMENTS.

PROTECTION

1. PROTECT EXPOSED LIVE EQUIPMENT DURING CONSTRUCTION FOR PERSONNEL SAFETY.
2. SHIELD AND MARK ALL LIVE PARTS "LIVE 120 VOLTS", OR WITH APPROPRIATE VOLTAGE IN ENGLISH. SIGNS TO MEET REQUIREMENTS OF INSPECTION DEPARTMENT & ENGINEER.
3. ARRANGE FOR INSTALLATION OF TEMPORARY DOORS FOR ROOMS CONTAINING ELECTRICAL DISTRIBUTION EQUIPMENT. KEEP THESE DOORS LOCKED EXCEPT WHEN UNDER DIRECT SUPERVISION OF ELECTRICIAN.

RECORD DRAWINGS

1. OBTAIN AND PAY FOR THREE (3) SET OF WHITE PRINTS. AS THE JOB PROGRESSES, MARK THESE PRINTS TO ACCURATELY INDICATE INSTALLED WORK. HAVE THE WHITE PRINTS AVAILABLE FOR INSPECTION AT THE SITE AT ALL TIMES AND PRESENT FOR SCRUNITY AT EACH JOB MEETING.
2. SHOW ON THE RECORD DRAWINGS THE INSTALLED INVERTS OF ALL SERVICES ENTERING AND LEAVING THE BUILDING AND THE PROPERTY. DIMENSION UNDERGROUND SERVICES AT KEY POINTS OF EVERY RUN IN RELATION TO THE STRUCTURE AND BUILDING.
3. INDICATE EXACT LOCATION OF ALL SERVICES LEFT FOR FUTURE WORK SHOW AND DIMENSION ALL WORK EMBEDDED IN THE STRUCTURE.

SAFETY

1. ENSURE THAT ALL PERSONNEL ABIDE BY SAFETY PRACTICES IN PLACE ON THIS WORK SITE AND BY REGULATIONS MANDATED BY OCCUPANCY, HEALTH AND SAFETY.
2. ENSURE PERSONNEL DO NOT WORK ON ENERGIZED EQUIPMENT. ENSURE THE POWER SUPPLY TO ALL EQUIPMENT TO BE WORKED ON IS DE-ENERGIZED AND THE SOURCE DEVICE IS TURNED OFF, LOCKED OUT AND TAGGED.

INSPECITON OF WORK

1. THE OWNER'S REPRESENTATIVE WILL MAKE PERIODIC VISITS TO THE OF WORK SITE DURING CONSTRUCTION TO ASCERTAIN REASONABLE CONFORMITY TO PLANS AND SPECIFICATIONS BUT WILL NOT EXECUTE QUALITY CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF HIS WORK IN CONFORMITY WITH THE CONSTRUCTION DOCUMENTS AND WITH THE REQUIREMENTS OF THE INSPECTION AUTHORITY.

SCHEDULING OF WORK

1. WORK SHALL BE SCHEDULED IN PHASES AS PER OTHER DIVISIONS OF THE ARCHITECTURAL SPECIFICATIONS.
2. BECOME FAMILIAR WITH THE PHASING REQUIREMENTS FOR THE WORK AND COMPLY WITH THESE CONDITIONS.
3. NO ADDITIONAL MONIES WILL BE PAID FOR CONTRACTORS REQUIREMENT TO COMPLY WITH WORK PHASING CONDITIONS.

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This Permit Allows
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To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APEGN P0255 which is valid for the year 2018

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DESIGNED	VJ
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APPROVED	VJ
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PRIME / ELECTRICAL CONSULTANTS

R|A|N
ROWSELL APPLEBY NEWTON ENGINEERING INC
1 Centennial Street Suite 101 Mount Pearl, NL T 709.754.9135

CLIENT

Western Health

PROJECT TITLE

Dr. Charles L. LeGrow Health Centre Electrical Renovations

PORT AUX BASQUES NL

DRAWING TITLE

ELECTRICAL SPECIFICATIONS SHEET #1

DRAWING No.

E-2

SHEET No. 2 of 3

SHOP DRAWINGS

1. PRIOR TO ORDERING OF ANY MATERIAL OR EQUIPMENT, PROVIDE SHOP DRAWINGS AND/OR DESCRIPTIVE DATA FOR REVIEW WITH THE NAME OF THE PROJECT ON EACH BROCHURE OR CATALOGUE PAGE.
2. SUBMIT TWO (2) COPIES OF ELECTRICAL SHOP DRAWINGS FOR REVIEW BY THE ENGINEERS. THIS REVIEW SHALL NOT RELIEVE THE CONTRACTOR OR SUPPLIER OF RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. SUBMIT SHOP DRAWINGS FOR:

   A) PANEL BOARDS.

TESTS

1. ALL EQUIPMENT PROVIDED UNDER THIS SECTION SHALL BE TESTED TO ENSURE THAT IT IS FUNCTIONING PROPERLY. PROVIDE A SIGNED STATEMENT CERTIFYING THAT ALL EQUIPMENT IS FUNCTIONING PROPERLY, AND THAT THE WORK SPECIFIED AND/OR REQUIRED HAS BEEN COMPLETED.
2. TESTS REQUIRED BY LOCAL AUTHORITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WHEN THE WORK IS COMPLETED, IT SHALL BE TESTED IN ITS ENTIRETY, AND SHALL BE IN GOOD WORKING ORDER BEFORE THE OWNER'S CERTIFICATE OF ACCEPTANCE SHALL BE ISSUED.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE SUPPLY OF SUFFICIENT POWER ON A TEMPORARY BASIS TO ALLOW TESTING OF ALL EQUIPMENT AND SYSTEMS. THESE WILL BE TESTED IN THE PRESENCE OF THE ENGINEER.
4. FURNISH MANUFACTURER'S CERTIFICATE OR LETTER CONFIRMING THAT ENTIRE INSTALLATION AS IT PERTAINS TO EACH SYSTEM HAS BEEN INSTALLED TO MANUFACTURER'S INSTRUCTIONS.
5. BEFORE ENERGIZING ANY PORTION OF ELECTRICAL SYSTEM, PERFORM MEGGER TESTS ON ALL FEEDERS AND BRANCH CIRCUITS. RESULTS OF SUCH TESTS TO CONFORM TO REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE AND BE TO SATISFACTION OF AUTHORIZED INSPECTION AGENCY AND THE ENGINEER.
6. UPON COMPLETION AND IMMEDIATELY PRIOR TO FINAL INSPECTION AND TAKEOVER, CHECK LOAD BALANCE ON ALL FEEDERS AND AT DISTRIBUTION CENTERS, PANELS, ETC. TESTS TO BE CARRIED OUT BY TURNING ON ALL POSSIBLE LOADS AND CHECKING LOAD BALANCE. IF LOAD UNBALANCE EXCEEDS 15% RECONNECT CIRCUITS TO BALANCE LOAD.

GUARANTEE

1. SYSTEM SHALL BE COMPLETE, TESTED AND READY FOR USE WITH ALL EQUIPMENT OPERATING SATISFACTORILY AND ALL FIXTURES LAMPED.
2. PROVIDE A CERTIFICATE OF GUARANTEE OF WORKMANSHIP, MATERIALS AND EQUIPMENT FOR ONE (1) YEAR AFTER ACCEPTANCE BY THE ENGINEER. THIS DOES NOT SUPERCEDE WARRANTIES ON SPECIFIC ITEMS OF EQUIPMENT WHICH MAY BE FOR LONGER PERIODS, AND MANUFACTURER'S WARRANTIES SHALL BEGIN ON THE DATE OF THIS ACCEPTANCE NOT WHEN THE PRODUCT WAS SHIPPED OR INSTALLED.

MAINTENANCE MANUALS

1. PROVIDE TWO (2) COPIES OF MAINTENANCE/SERVICE MANUALS FOR ALL ELECTRICAL COMPONENTS SUPPLIED UNDER THIS CONTRACT. INCORPORATE ALL DATA INTO 3 RING BINDERS C/W INDEX & TABS. INCLUDE INSTALLATION & MAINTENANCE MANUALS BY ALL EQUIPMENT SUPPLIERS AS WELL AS APPROVED SHOP DRAWINGS.

FIRE RATING OF PENETRATIONS

1. MAINTAIN FIRE RATINGS AND SMOKE SEALS AROUND CONDUITS PASSING THROUGH FLOORS AND CEILINGS.
2. USE 3M BRAND, OR EQUAL FIRE BARRIER PRODUCTS AT EACH PENETRATION.
3. STANDARD OF ACCEPTANCE FOR FIRE BARRIER PRODUCTS SHALL BE 3M #CP25 FIRE BARRIER CAULK, #303 PUTTY, #FS195 WRAP AND #CS195 SHEET.

STANDARD OF ACCEPTANCE

1. THE ITEMS NAMED MEET IN ALL RESPECT PERFORMANCE QUALITY AND WORKMANSHIP AND ARE ACCEPTABLE TO THE OWNER WITHOUT QUALIFICATION.
2. EQUIPMENT PROPOSED SHALL MEET THE SAME STANDARDS OF PERFORMANCE, QUALITY AND WORKMANSHIP.

MATERIAL SPECIFIED

1. MANUFACTURER'S NAME WITH CLAUSE "OR APPROVED EQUAL". THE TENDER PRICE SHALL BE BASED ON THE NAMED MATERIAL WHERE SUBSTITUTIONS ARE TO BE PROPOSED FOR MATERIALS BEARING THE CLAUSE "OR APPROVED EQUAL", APPROVAL OF THE SUBSTITUTE ITEM MUST BE OBTAINED FROM THE ENGINEER AT LEAST SEVEN DAYS PRIOR TO THE CLOSING DATE OF THE TENDER. THE PROPOSED SUBSTITUTION SHALL SHOW PRODUCT NAME AND COMPLETE SPECIFICATION AND BE EQUAL TO, OR BETTER THAN THE NAMED ITEM. NO INCREASE IN THE TENDER PRICE SHALL BE MADE FOR SUCH A SUBSTITUTION SHOULD IT BE ACCEPTED. ACCEPTED EQUALS WILL BE LISTED IN AN ADDENDUM FIVE DAYS PRIOR TO THE TRADE CLOSING DATE.
2. WHERE ADDITIONAL MANUFACTURERS ARE NAMED UNDER ARTICLES ENTITLED "APPROVED MANUFACTURERS" THE CHOICE OF WHICH THE MANUFACTURER NAMED IN REFERENCE TO A PARTICULAR ARTICLE IS TO BE USED, SHALL BE THE CONTRACTORS.
3. WHERE APPROVALS ARE GRANTED FOR THE USE OF OTHER EQUIPMENT ANY AND ALL CHANGES OR ADDITIONS REQUIRED FOR THE INSTALLATION OR OPERATION OF THE APPROVED EQUIPMENT WILL BE MADE BY THE CONTRACTOR AT HIS OWN EXPENSE AND NO CLAIMS WILL BE APPROVED FOR ANY SUCH CHANGES, NOTWITHSTANDING APPROVAL OF SHOP DRAWINGS. EQUIPMENT THAT IS ACCEPTED AND INSTALLED AND THEN DOES NOT PERFORM AS REPRESENTED BY ORIGINAL SUBMITTED DATA SHALL BE REPLACED BY THE CONTRACTOR WITH EQUIPMENT AS SPECIFIED, AT NO CHARGE TO THE OWNER.

WIRING DEVICES

1. PROVIDE DEVICES, BOXES AND COVER PLATES AS INDICATED.
2. COVER PLATES TO BE THERMOPLASTIC.
3. DUPLEX RECEPTACLES TO BE SPECIFICATION GRADE, IVORY IN COLOR, RED COLOR FOR EMERGENCY.
4. TOGGLE SWITCHES TO BE SPECIFICATION GRADE.
5. DIMMER SWITCHES AS PER DRAWINGS.
6. GROUND FAULT INTERRUPT RECEPTACLES TO BE CLASS "A" WITH TEST BUTTON AND RESET.
7. OTHER DEVICES AS DESCRIBED.

WIRING METHOD

1. ALL BUILDING WIRE TO BE COPPER, 600V, RW90 XPLE, UNLESS SPECIFIED OTHERWISE. ALL WIRING TO BE RUN IN CONDUIT, OR BX CABLE DROPS TO LIGHTING FIXTURES AS PER THE CANADIAN ELECTRICAL CODE.
2. ALUMINUM WIRING NOT ALLOWED.
3. INSTALL DEDICATED TW COPPER WIRE IN ALL CONDUITS FOR BONDING.
4. UTILIZE CONCRETE OR MASONRY BOXES AS APPROPRIATE.
5. WIRING & CONDUIT TO BE CONCEALED AT ALL TIMES UNLESS OTHERWISE NOTED.
6. MINIMUM CONDUIT SIZE: 21MM.

HANGERS, INSERTS, SLEEVES AND SUPPORTS FOR ELECTRICAL SYSTEMS

1. PROVIDE AND INSTALL INSERTS, HANGERS, ANCHORS AND SUPPORTS REQUIRED FOR WORK TO BE INSTALLED UNDER THIS SECTION INCLUDING FREE STANDING SUPPORTS REQUIRED FOR THOSE ITEMS REMOTELY MOUNTED FROM BUILDING STRUCTURE.
2. DO NOT FASTEN SUPPORTS TO PIPING, DUCTWORK, MECHANICAL EQUIPMENT, CABLE TRAY OR CONDUIT. DO NOT FASTEN TO SUSPENDED CEILING GRID SYSTEM.
3. IN MECHANICAL AND ELECTRICAL ROOMS, INSTALL FREE STANDING ELECTRICAL EQUIPMENT ON 100mm CONCRETE PAD.

WIRE AND CABLE

1. CONDUCTORS SHALL BE INSTALLED, SIZED AS SHOWN ON THE DRAWINGS WITH NO CONDUCTOR BEING LESS THAN NO. 12 AWG GAUGE, EXCEPT WHERE OTHERWISE SPECIFIED. USE RW90 CONDUCTORS UNLESS OTHERWISE NOTED AND TYPE TW FOR GROUND.
2. CONDUCTORS NO. 10 AND SMALLER MAY BE SOLID, WHILE NO. 8 AND LARGER SHALL BE STRANDED.
3. JOINTS OF CONDUCTORS UP TO NO. 10 GAUGE SHALL BE MADE WITH APPROVED TYPE CONNECTORS STANDARD OF ACCEPTANCE MARRETTE #733, 735, 739.
4. CONDUCTORS CARRYING DIFFERENT POTENTIALS SHALL NOT BE RUN IN THE SAME CONDUIT OR BOXES EXCEPT AS PROVIDED FOR IN THE CODE.
5. WHERE THERE IS A NEUTRAL, IT SHALL BE CONTINUOUS AND SHALL BE IDENTIFIED THROUGHT ITS LENGTH.
6. DROPS DOWN TO NEW DEVICES IN STEEL STUD WALLS TO BE AC90 BX CABLE.
7. CONDUIT TO BE ELECTRIC METALLIC TUBING (EMT). UTILITZE RIGID GALVANIZED STEEL CONDUIT FOR ALL EXPOSED RUNS BELOW 2 METERS OF FLOOR WHERE IN JUDGEMENT BY ELECTRICAL INSPECTION AUTHORITY IS SUBJECT TO MECHANICAL DAMAGE.
8. SURFACE MOUNTED CONDUITS TO BE INSTALLED PARALLEL TO STRUCTURAL LINES AND WHERE BENDS OCCUR IN PARALLEL RUNS, THEY SHALL BE CONCENTRIC.
9. DO NOT INSTALL CONDUITS ON THE SURFACE OF, OR WITHIN 100mm, OF THE UNDERSIDE OF ROOF DECKS.
10. CONDUITS TO BE INSTALLED FREE FROM DENTS AND BRUISES AND HAVE ENDS PLUGGED TO PREVENT ENTRANCE OF DIRT OR MOISTURE.
11. ALL CONDUITS EXCEPT WHERE OTHERWISE NOTED TO BE SIZED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE.
12. FLEXIBLE CONDUIT CONNECTIONS TO MOTORS, CONTROLS, ETC. TO BE FLEXIBLE PLASTIC JACKETED, WATER TIGHT OR APPROVED EQUAL. FLEXIBLE CONDUIT CONNECTIONS ARE REQUIRED TO ALL MOTORS FROM STUB-UPS OF JUNCTION BOXES.

PULL BOXES & SPECIAL BOXES

1. PULL BOXES AND SPECIAL BOXES FOR PARTICULAR AREAS AND ITEMS OF EQUIPMENT SHALL BE SUPPLIED AS SHOWN OR AS REQUIRED FOR PROPER CONDUCTOR INSTALLATION, AND AS REQUIRED BY THE MANUFACTURER AND SUPPLIERS OR PARTICULAR ITEMS OF EQUIPMENT.
2. BOXES AND COVERS SHALL BE FORMED OF NO. 12 GAUGE GALVANIZED SHEET STEEL AND SHALL PAINTED AS DESCRIBED ELSEWHERE COVERS SHALL BE SUITABLE FOR THE LOCATION AND SHALL BE GASKETTED IN DAMP LOCATIONS.

OUTLET AND JUNCTION BOXES

1. EACH LIGHT FIXTURE, SWITCH, RECEPTACLE, DATA/TELEPHONE OUTLET, ETC., SHALL BE PROVIDED WITH AN OUTLET BOX, UNLESS OTHERWSIE SPECIFIED OR SHOWN ON THE DRAWINGS.
2. JUNCTION BOXES SHALL BE INSTALLED WHEREVER NECESSARY FOR THE PROPER PULLING IN OF WIRES SO AS TO BE ACCESSIBLE.
3. BOXES FOR RECESSED INSTALLATION IN ALL TYPES OF CONSTRUCTION SHALL HAVE APPROPRIATE COVERS, PLASTER RINGS, OR EXTENSION RINGS WHERE REQUIRED.
4. BOXES FOR ALL EXPOSED AND OUTSIDE INSTALLATION AND IN MOIST AREAS SHALL BE OF A TYPE APPROVED FOR THE APPLICATION. THERE SHALL BE A SEALING GASKET BETWEEN COVER AND CASE.
5. ALL BOXES SHALL BE SECURED AND SUPPORTED INDEPENDENTLY OF THE CONDUITS.
6. ELECTRO-GALVANIZED BLANK COVER PLATES SHALL BE INSTALLED ON BOXES WHICH ARE NOT SUPPLIED WITH FINISHED COVER PLATES.
7. SIZE BOXES IN ACCORDANCE WITH CEC.
8. BOXES SHALL BE HOT DIP GALVANIZED, CONFORMING TO CSA REQUIREMENTS.
9. BOXES FOR CEILING, NO. 54151 BOX, OTHERWISE NO. 52171 OR NO. 72171 BOX AS PER CODE REQUIREMENTS.
10. BOXES FOR INDOOR SURFACE MOUNTED EQUIPMENT, USE 100mm SQUARE TAYLOR 52151 OR 52171 WITH TAYLOR OR T&B SERIES 8300 COVERS.
11. ALL OUTLET BOXES TO BE FLUSH MOUNTED EXCEPT AS SPECIFIED.
12. NO SECTIONAL OR HANDY BOXES ALLOWED.

DISCONNECT SWITCHES

1. FUSIBLE AND NON-FUSIBLE DISCONNECT SWITCH IN CSA ENCLOSURE 1 UNLESS OTHERWISE NOTED. NEMA 4X STAINLESS STEEL SWITCHES FOR EXTERIOR APPLICATION. PAD LOCKABLE IN OFF POSITION. MECHANICALLY INTERLOCKED HANDLE, FUSED WITH HRC CLASS J FUSES WHERE INDICATED ON DRAWINGS. INDUSTRIAL GRADE SWITCHES REQUIRED.
2. STANDARD OF ACCEPTANCE: CUTLER HAMMER, ACCEPTABLE ALTERNATES: SIEMENS, SQUARE D.

MOTOR STARTERS

1. MAGNETIC MOTOR STARTERS TO BE QUICK MAKE QUICK BREAK WITH THERMAL OVERLOAD. NEMA 1 ENCLOSURES UNLESS OTHERWISE NOTED. ALL MAGNETIC STARTERS SHALL HAVE CONTROL TRANSFORMER, PILOT LIGHTS, H.O.A. SWITCHES AND TWO AUXILLIARY CONTACTS AS REQUIRED. COMBINATION MAGNETIC STARTERS ARE TO BE C/W CIRCUIT BREAKER TYPE DISCONNECT SWITCH.
2. FURNISH DISCONNECTS FOR ALL MOTORS AS REQUIRED BY THE CANADIAN ELECTRICAL CODE, TYPE AS INDICATED ABOVE.

PANELBOARDS

1. VOLTAGE, AMPERAGE, PHASE AND INTERRUPTING CAPACITY AS PER DRAWINGS. NUMBER OF CIRCUITS AS PER DRAWINGS.
2. RESIDENTIAL GRADE PANELS UNACCEPTABLE.
3. ALUMINUM BUS WITH NEUTRAL.
4. MAINS SUITABLE FOR BOLT-ON BREAKERS.
5. TRIM WITH CONCEALED FRONT BOLTS, HINGES AND FLAT STYLE DOOR. TWO KEYS.
6. TRIM AND DOOR - BAKED GREY ENAMEL, OF ONE MANUFACTURER.
7. NAMEPLATE, LAMIDCOID LABEL SCREWED TO DOOR, INDICATING PANEL DESIGNATION, VOLTAGE, AMPERAGE AND PHASE.
8. TYPE WRITTEN, REMOVABLE, CIRCUIT DIRECTORY. DIRECTORY TO INDICATE TYPE OF LOAD AND ASSOCIATED ROOM LOAD.
9. STANDARD OF ACCEPTANCE: CUTLER HAMMER POWERLINE

   .1 ACCEPTABLE ALTERNATES: SIEMENS, SQUARE D.

BREAKERS

1. MOLDED CASE - BOLT-ON.
2. THERMAL AND MAGNETIC TRIPPING.
3. PROVIDE LOCK-ON DEVICES FOR 15% OF 15 TO 30 A BREAKERS.

GROUNDING/ BONDING

1. PROVIDE COMPLETE PERMANENT, CONTINUOUS GROUNDING SYSTEM AS REQUIRED BY THE CANADIAN ELECTRICAL CODE AND THE ELECTRICAL INSPECTION DEPARTMENT INCLUDING, CONDUCTORS, CONNECTORS, ACCESSORIES. RUN GROUND WIRE IN ALL CONDUIT SYSTEMS.
2. PROVIDE CONNECTORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. PROTECT EXPOSED GROUNDING CONDUCTORS FROM MECHANICAL INJURY.
4. USE MECHANICAL CONNECTORS FOR GROUNDING CONNECTIONS TO EQUIPMENT PROVIDED WITH LUGS.
5. SOLDERED JOINTS NOT PERMITTED.
6. PROVIDE BONDING WIRE FOR FLEXIBLE CONDUIT, CONNECTED AT BOTH ENDS TO GROUNDING BUSHING, SOLDERLESS LUG, CLAMP OR CUP WASHER AND SCREW.
7. MAKE GROUNDING CONNECTIONS IN RADIAL CONFIGURATION ONLY, WITH CONNECTIONS TERMINATING AT SINGLE GROUNDING POINT STREET SIDE OF WATER PIPE. AVOID LOOP CONNECTIONS.

PERMIT

PROVINCE OF NEWFOUNDLAND AND LABRADOR
PEGNL Newfoundland and Labrador
PERMIT HOLDER
This Permit Allows
ROWSELL APPLEBY NEWTON ENGINEERING INC.
To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APEGN P0255 which is valid for the year 2018

STAMP

SUB CONSULTANT

SUB CONSULTANT

DRAWN	JWF
DESIGNED	VJ
CHECKED	VJ
APPROVED	VJ
SCALE	NTS
PROJECT No.	18-007

No.	Description	By	yy/mm/dd
A	ISSUED FOR CLIENT REVIEW	VJ	18/02/21

PRIME / ELECTRICAL CONSULTANTS

R|A|N
ROWSELL APPLEBY NEWTON ENGINEERING INC
1 Centennial Street Suite 101 Mount Pearl, NL
T 709.754.9135

CLIENT

Western Health

PROJECT TITLE

Dr. Charles L. LeGrow Health Centre Electrical Renovations

PORT AUX BASQUES NL

DRAWING TITLE

ELECTRICAL SPECIFICATIONS SHEET #2

DRAWING No.

E-3

SHEET No.

3 of 3