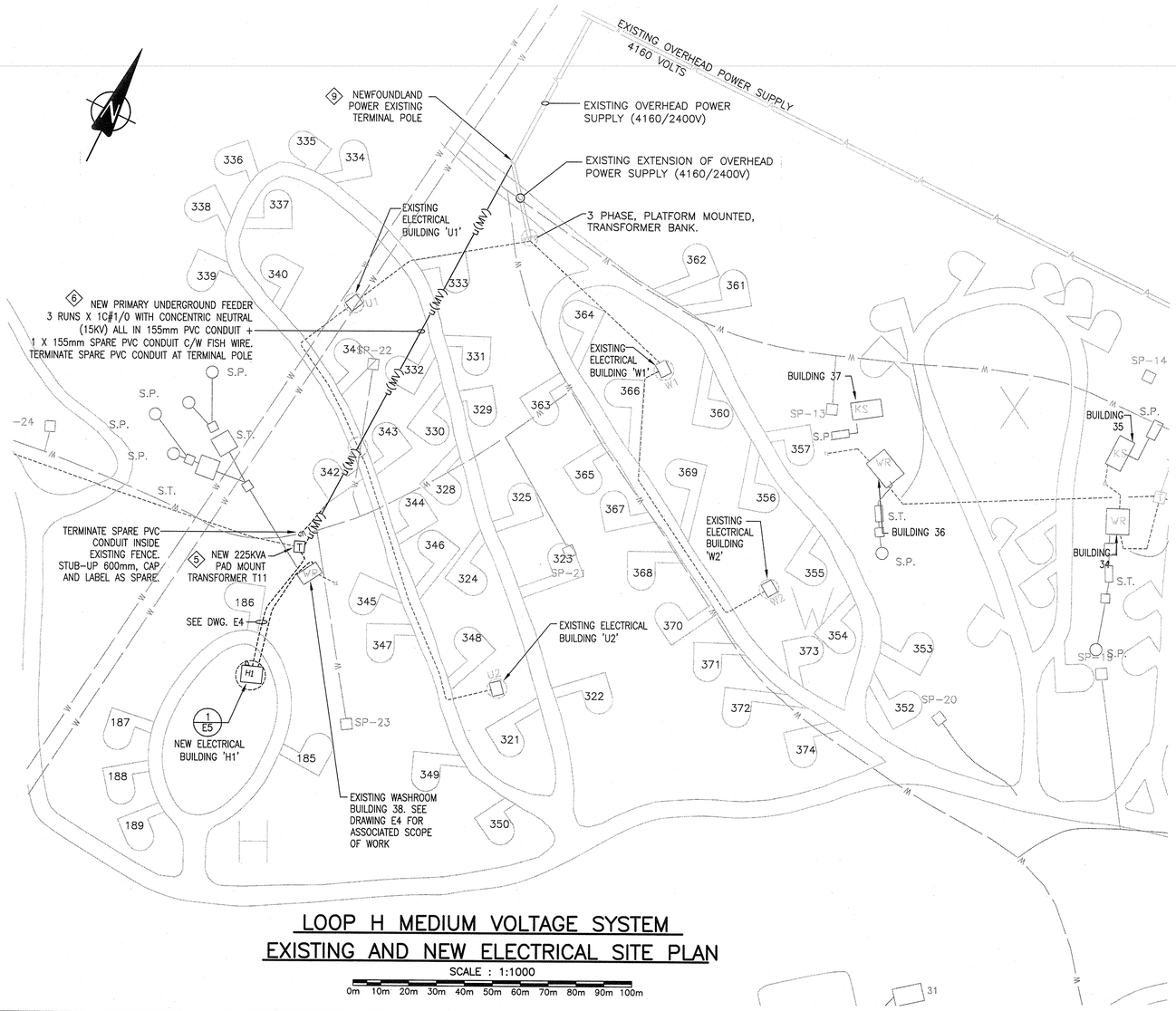
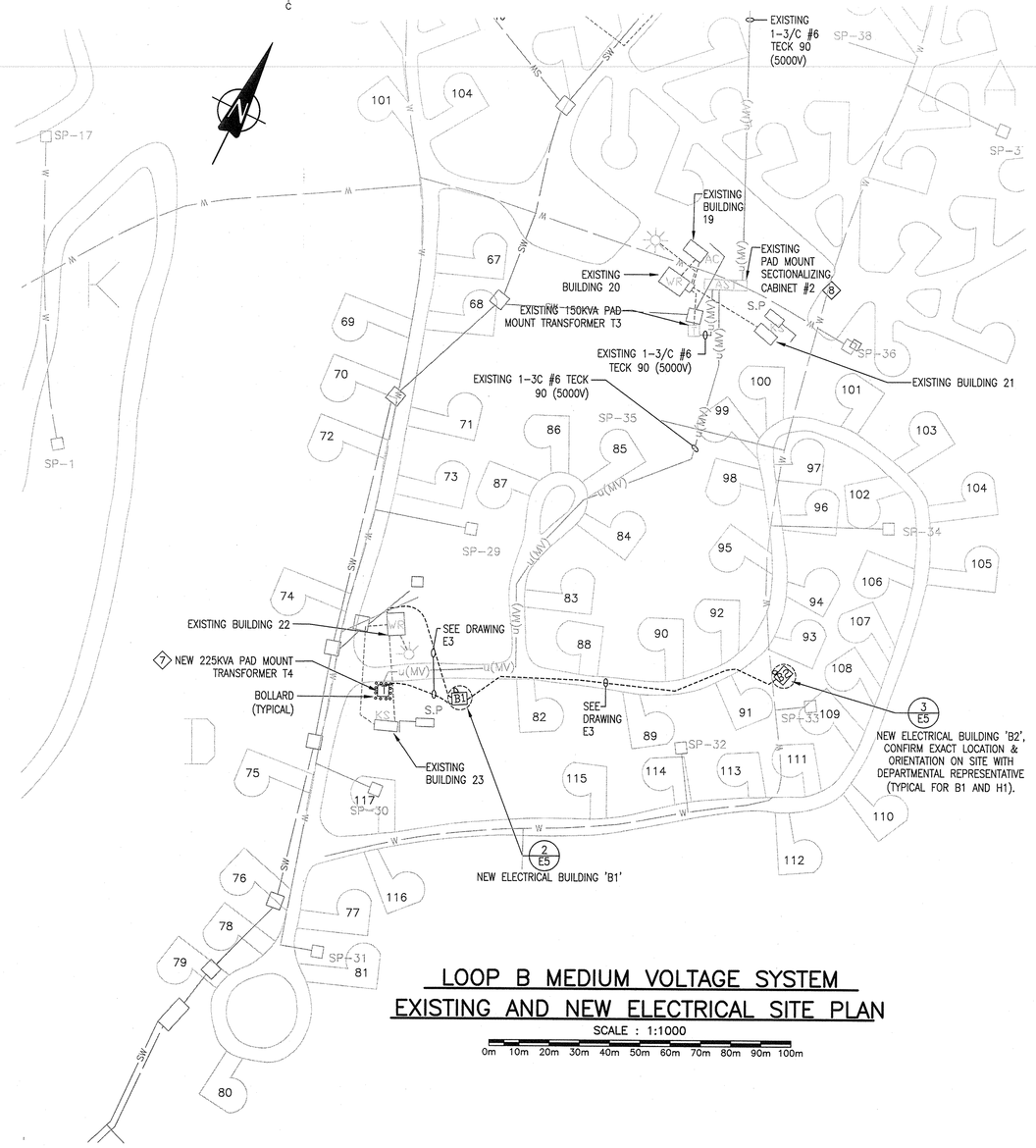


LOOP H MEDIUM VOLTAGE SYSTEM EXISTING AND NEW ELECTRICAL SITE PLAN

SCALE : 1:1000

0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m



LOOP B MEDIUM VOLTAGE SYSTEM EXISTING AND NEW ELECTRICAL SITE PLAN

SCALE : 1:1000

0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m

ELECTRICAL NOTES:

INDICATED BY THE (7) SYMBOL ON THE DRAWINGS. (I.E. (1) INDICATES NOTE 1)

NOTE 1: EXISTING TRANSFORMER T11 IS POLE MOUNT TYPE, INSTALLED IN A PAD MOUNT ENCLOSURE PROTECTED BY EXISTING CHAIN LINK FENCE (FENCE NOT SHOWN). REMOVE EXISTING TRANSFORMER C/W ENCLOSURE, CONCRETE PAD AND TRANSFORMER GROUNDING SYSTEM. EXISTING FENCE SHALL REMAIN, ALLOW FOR COST TO ENLARGE EXISTING FENCE TO ACCOMMODATE THE NEW PAD MOUNT TRANSFORMER AND ADJUST AS DESCRIBED BELOW.

NOTE 2: EXISTING WASHROOM 38 IS CURRENTLY FED FROM EXISTING TRANSFORMER T11. DISCONNECT CABLE AND CONDUIT; REMOVE RACEWAY UP TO 3M FROM THE WASHROOM, REMOVE RACEWAY UP TO 5M FROM EXISTING TRANSFORMER T11 AND ABANDON THE REST.

NOTE 3: THE INTENT IS TO REUSE EXISTING 5kV CABLE TO FEED NEW PADMOUNT TRANSFORMER. DISCONNECT EXISTING CABLE FROM EXISTING TRANSFORMER T4. PULL THE CABLE BACK ENOUGH DISTANCE TO ALLOW THE INSTALLATION OF THE NEW TRANSFORMER. CARE SHALL BE TAKEN TO NOT DAMAGE EXISTING CABLE, SPLICING WILL NOT BE ACCEPTED.

NOTE 4: EXISTING WASHROOM 22 IS CURRENTLY FED FROM EXISTING TRANSFORMER T4. DISCONNECT CABLE AND CONDUIT; REMOVE RACEWAY UP TO 3M FROM THE WASHROOM, REMOVE RACEWAY UP TO 5M FROM EXISTING TRANSFORMER T4 AND ABANDON THE REST.

NOTE 5: AT BOTH NEW PAD MOUNT TRANSFORMER AND EXISTING FENCE, THE FOLLOWING SHALL BE PROVIDED:

1. GROUNDING AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATIONS APPENDIX D "TRANSFORMER PAD PROTECTION AND GROUNDING DETAILS" FOR REQUIREMENTS. REFER TO DRAWING E3 DETAIL 1 FOR ADDITIONAL REQUIREMENTS.
2. CONCRETE PAD AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATION APPENDIX F "TRANSFORMER CONCRETE PAD DETAILS" FOR REQUIREMENTS.
3. EQUIPMENT INSTALLATION AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATION APPENDIX G "3 PHASE PAD MOUNT TRANSFORMER INSTALLATION DETAILS" FOR REQUIREMENTS.
4. THE INTENT IS TO UPGRADE AND ADJUST THE EXISTING FENCE. HOWEVER IF THIS CANNOT BE ACHIEVED, CONTRACTOR SHALL CARRY THE COST TO PROVIDE NEW FENCE. IN ANY CASE, FENCE SHALL MEET THE FOLLOWING REQUIREMENTS:
   - 1.8M HIGH TOPPED WITH MINIMUM THREE STRANDS OF BARBED WIRE, LOCATED MINIMUM 1.1M FROM THE NEW TRANSFORMER PAD WITH POST SET 1.2M IN CONCRETE.
   - DOUBLE GATE AT LEAST 2.5M WIDE CENTRED ON THE SAME SIDE AS THE NEW TRANSFORMER OPEN AND OUTWARDLY.
   - SPACING BETWEEN POSTS 3M MAXIMUM. ENSURE CHAIN LINK FABRIC IS SECURELY ATTACHED TO ALL POST.
   - GROUNDING AS PER FENCE GROUNDING DETAIL 1 ON DRAWING E3 AND NEWFOUNDLAND POWER REQUIREMENTS AS INDICATED IN APPENDIX E IN SPECIFICATION "THREE PHASE PAD MOUNT TRANSFORMER" AND APPENDIX D "TRANSFORMER PAD PROTECTION AND GROUNDING DETAILS".

NOTE 6: UNDERGROUND TRENCH DETAIL FOR PRIMARY 15KV FEEDER AND SPARE 129mm CONDUIT SHALL BE AS PER SPECIFICATION IN APPENDIX C "UNDERGROUND DISTRIBUTION 21.1, 21.2, 21.3, 21.5" AND "TRENCH DETAILS OF DIRECT BURIED TRUNK FEEDER CABLE".

NOTE 7: AT NEW PAD MOUNT TRANSFORMER, THE FOLLOWING SHALL BE PROVIDED:

- PROTECTION BOLLARDS AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATIONS IN APPENDIX D "TRANSFORMER PAD PROTECTION AND GROUNDING DETAILS" AND APPENDIX E "THREE PHASE PADMOUNT TRANSFORMERS" FOR REQUIREMENTS.
- GROUNDING AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATIONS IN APPENDIX D "TRANSFORMER PAD PROTECTION AND GROUNDING DETAILS" FOR REQUIREMENTS. REFER TO DRAWING E3 DETAIL 1 FOR ADDITIONAL REQUIREMENTS.
- CONCRETE PAD AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATION IN APPENDIX F "TRANSFORMER CONCRETE PAD DETAILS" FOR REQUIREMENTS.
- EQUIPMENT INSTALLATION AS PER NEWFOUNDLAND POWER REQUIREMENT. REFER TO SPECIFICATION IN APPENDIX G "3 PHASE PAD MOUNT TRANSFORMER INSTALLATION DETAILS" FOR REQUIREMENTS.

NOTE 8: PROVIDE THREE (3) NEW LOADBREAK ELBOW CONNECTORS TO CONNECT EXISTING CABLE TO EXISTING SECTIONALIZING SWITCH CABINET #2.

NOTE 9: AT EXISTING NEWFOUNDLAND POWER TERMINAL POLE, THE FOLLOWING SHALL BE PROVIDED:

- PRIMARY CABLE AND SPARE CONDUIT TRANSITION FROM UNDERGROUND TO OVERHEAD AT TERMINAL POLE SHALL BE AS SHOWN IN APPENDIX A IN SPECIFICATION "DUCT INSTALLATION DETAIL AT RISER POLE".
- PRIMARY CABLE TERMINATION SHALL BE AS SHOWN IN APPENDIX B IN SPECIFICATION "12.5 & 25KV THREE PHASE TERMINATION (SPLIT ON TERMINATOR)".
- EXACT LOCATION OF UNDERGROUND CABLE AND SPARE CONDUIT AT TERMINAL POLE SHALL BE COORDINATED WITH NEWFOUNDLAND POWER BEFORE STARTING ANY WORK TO ENSURE NEW CABLE DOES NOT MAKE ANY CONTACT OR CROSS OVER EXISTING CABLES.
- NEW CABLE AND SPARE CONDUIT SHALL BE ROUTED MINIMUM OF 2m AWAY FROM EXISTING TERMINAL POLE ANCHORS.

ELECTRICAL LEGEND

- ---------- INDICATES EXISTING UNDERGROUND LOW VOLTAGE FEEDER
- —u(MV)— INDICATES EXISTING UNDERGROUND MEDIUM VOLTAGE FEEDER
- ---------- INDICATES NEW UNDERGROUND LOW VOLTAGE FEEDER
- —u(MV)— INDICATES NEW UNDERGROUND MEDIUM VOLTAGE FEEDER
- — — — INDICATES EQUIPMENT OUTLINE
- —W— INDICATES EXISTING WATER LINES
- —SW— INDICATES EXISTING SEWER LINES
- LINE VOLTAGE WIRING AS PER SPECIFICATIONS.
- (2) LED FIXTURE, WALL MOUNTED. 2 INDICATES TYPE 2 ON LUMINAIRE SCHEDULE.
- LPA-2 / 3 LED FIXTURE ON CIRCUIT "2" FROM PANEL "LPA". 1 INDICATES TYPE 1 ON LUMINAIRE SCHEDULE. LPA-2 INDICATES PANEL LPA, CIRCUIT 2.
- $3 ON/OFF 3 WAY SWITCH FOR LIGHTING CONTROL
- $M MOTOR RATED SWITCH
- EMERGENCY LIGHTING UNIT REMOTE HEAD, WALL MOUNTED 2230mm A.F.F.
- DISCONNECT SWITCH OF DETAIL AS INDICATED ON THE DRAWINGS.
- CAMPSITE POWER PEDESTAL, OTENTIKS POWER SUPPLY OR EQUIPMENT AS INDICATED ON THE DRAWINGS.
- 347/600V AND 120/208V PANELS, SURFACE MOUNTED.
- CSA 5-20R DUPLEX U-GROUND RECEPTACLE
- CSA TT-30R RECEPTACLE
- EXHAUST FAN, AS INDICATED ON DRAWINGS.
- ELECTRIC BASEBOARD HEATER, AS INDICATED ON DRAWINGS.
- (T) EXHAUST FAN REVERSE ACTING THERMOSTAT
- (T)H ELECTRIC BASEBOARD HEATER THERMOSTAT
- GROUND BAR
- JB JUNCTION BOX
- SPD SURGE PROTECTION DEVICE
- DRY TYPE TRANSFORMER
- (K) INDICATES KIRK KEY INTERLOCK

DEFINITIONS:

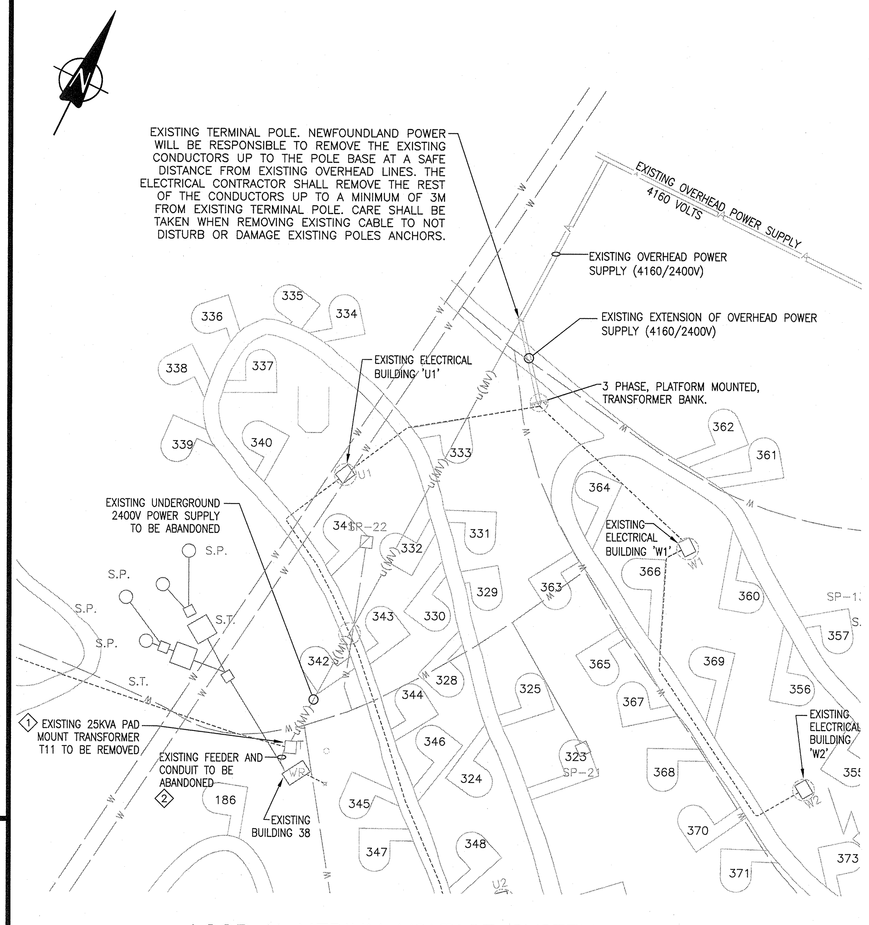
G.F.C.I. – INDICATES GROUND FAULT CIRCUIT INTERRUPTER.
W.P. – INDICATES WEATHER PROOF GASKETED COVER OR ENCLOSURE.
A.F.F. – ABOVE THE FINISHED FLOOR.
RM – DEVICE/LUMINAIRE TO BE REMOVED.
RL – DEVICE/LUMINAIRE HAS BEEN RELOCATED.
M – DEVICE/LUMINAIRE TO BE MOVED.
AC – INDICATES ACTIVITY CENTRE.
WR – INDICATES EXISTING WASHROOM.
KS – INDICATES EXISTING KITCHEN SHELTER.

LUMINAIRE SCHEDULE

TYPE 1: LED SURFACE AMBIENT LUMINAIRE, 120V, 90 CRI SUSPENDED @ 2.7m A.F.F., 4000 LUMENS @ 4000K, LED SUPPLIED WITH FIXTURE.
SPECIFIED UNIT(S):
CREE CAT. NO. LS4-44W-40K-10V
ALTERNATE UNIT(S):
METALUX CAT. NO. 4SLSTP4040D-120V

TYPE 2: OUTDOOR LED WALL MOUNT LUMINAIRE, CRI WALL MOUNTED @ 2.5m A.F.F., 120V, 70 CRI, TYPE 3 DISTRIBUTION, CUL APPROVED, 4100 LUMENS @ 4000K, LED SUPPLIED WITH FIXTURE.
SPECIFIED UNIT(S):
CREE CAT. NO. XSPW-A-03-F-C-U-T
ALTERNATE UNIT(S):
LUMARK CAT. NO. XTROR5A-N

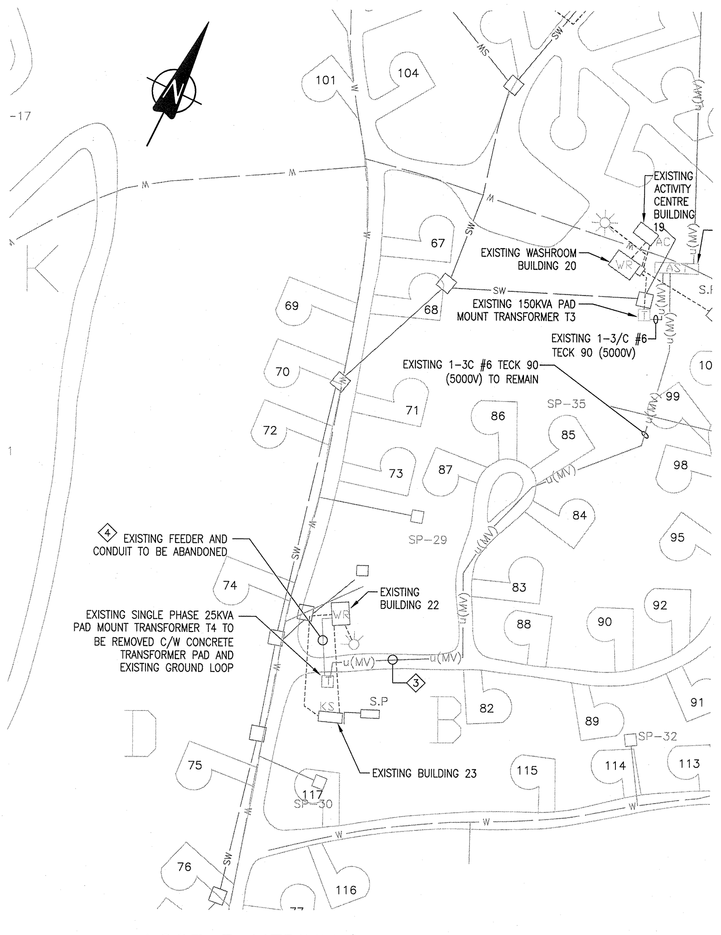
TYPE 3: LED WALL LUMINAIRE, DIE CAST ALUMINUM, MOUNTED ABOVE DOOR, 120V, 90 CRI, 805 LUMENS, cETL LISTED, 3000K, LED SUPPLIED WITH FIXTURE.
SPECIFIED UNIT(S):
WAC LIGHTING CAT. NO. WS-W2509-AL
ALTERNATE UNIT(S):
ZANEEN CAT. NO. LSW026-06-3000K



LOOP H MEDIUM VOLTAGE SYSTEM EXISTING AND DEMOLITION ELECTRICAL SITE PLAN

SCALE : 1:1000

0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m



LOOP B MEDIUM VOLTAGE SYSTEM EXISTING AND DEMOLITION ELECTRICAL SITE PLAN

SCALE : 1:1000

0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m

GENERAL NOTES:

NOTE 1: ELECTRICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL ELECTRICAL INSTALLATION WITH NEWFOUNDLAND POWER.

NOTE 2: EXISTING UNDERGROUND AND OVERHEAD SERVICES SHOWN ARE FOR INFORMATION ONLY AND DO NOT INCLUDE ALL INFORMATION. OTHER UNDERGROUND SERVICES EXIST AND ARE NOT SHOWN. ELECTRICAL CONTRACTOR SHALL CARRY OUT THE COST FOR SURVEYING AREA OF WORK TO DETERMINE ALL UNDERGROUND SERVICE EXACT LOCATIONS. PERFORM THE SURVEY BEFORE STARTING THE WORK AND SUBMIT A COPY TO THE DEPARTMENTAL REPRESENTATIVE.

NOTE 3: UPDATE AS-BUILT DRAWINGS AS REQUIRED.

NOTE 4: CAMPSITES, OTENTIKS, ROAD, BUILDING AND ELECTRICAL DISTRIBUTION EQUIPMENT DIMENSIONS AND LOCATIONS SHOWN ARE APPROXIMATE AND NOT EXACT.

NOTE: 5: INFORMATION SHOWN IS DIAGRAMMATICAL ONLY; DISTANCE, LAYOUT, LOCATION AND DIMENSIONS MAY VARY. THE FOLLOWING INFORMATION SHOULD BE CONFIRMED ON SITE:

- LAYOUTS, LOCATIONS, DISTANCES AND DIMENSIONS FOR AND NOT LIMITED TO: OTENTIKS, CAMPSITES, ELECTRICAL DISTRIBUTION EQUIPMENT, ROADS, BUILDINGS, OVERHEAD SERVICES, UNDERGROUND SERVICES, ETC.
- WOODED AREA WITHIN AREA OF WORK WHICH REQUIRES TO BE CLEARED. ANY PARK VEGETATION REMOVAL SHALL BE CONFIRMED WITH THE DEPARTMENTAL REPRESENTATIVE IN WRITING WITHOUT ANY EXCEPTION. CONTRACTOR SHALL CARRY THE COST TO CLEAR CONFIRMED AREA.
- COORDINATE WITH THE DEPARTMENTAL REPRESENTATIVE TO SCHEDULE A SITE VISIT.

NOTE 6: AFTER AWARD OF TENDER, THIS SUCCESSFUL CONTRACTOR SHALL SUBMIT COPIES OF ALL DRAWINGS TO THE VARIOUS INSPECTION AUTHORITIES, ALL FOR THEIR INFORMATION AND/OR APPROVAL. THIS SHALL BE DONE PRIOR TO COMMENCEMENT OF ANY WORK. THE DRAWINGS WILL BE PROVIDED BY THE DEPARTMENTAL REPRESENTATIVE AT NO COST TO THE CONTRACTOR.

NOTE 7: PROVIDE ALL REQUIRED CORE DRILLING.

NOTE 8: ALLOW FOR ALL REQUIRED TEMPORARY POWER AND TEMPORARY LIGHTING.

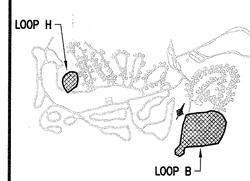
NOTE 9: WHEN NEW RACEWAY CROSSES EXISTING UNDERGROUND SERVICE, MINIMUM SEPARATION, CLEARANCE AND MECHANICAL PROTECTION SHALL BE AS PER NEWFOUNDLAND POWER REQUIREMENT (TYPICAL FOR ALL SERVICES).

NOTE 10: THE FOLLOWING MAY INCLUDE REQUIREMENTS ALREADY SPECIFIED IN ELECTRICAL SPECIFICATION. THE INTENT IS TO BRING ELECTRICAL CONTRACTOR ATTENTION TO SPECIAL REQUIREMENT UNDER THIS CONTRACT. IT SHALL BE READ IN CONJUNCTION WITH THE REST OF THE CONTRACT DOCUMENT:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE AND/OR LOCAL INSPECTION AUTHORITIES. THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY LAW, ORDINANCES, RULES AND REGULATIONS OF PUBLIC AUTHORITIES HAVING JURISDICTION OF THIS DISTRICT AND SHALL OBTAIN CERTIFICATES ON SUCH INSPECTIONS AND SUBMIT SAME AND PAY ALL CHARGES IN CONNECTION THEREWITH.
- WHERE CONTRACTOR IS UNSURE OF WORK TO BE PERFORMED, HE SHALL REQUEST DIRECTION FROM DEPARTMENTAL REPRESENTATIVE PRIOR TO PROCEEDING WITH WORK.
- WHENEVER IT IS PROPOSED TO MAKE A CHANGE OR CHANGES IN THE DESIGN, AGREEMENT OR TYPE OF EQUIPMENT CALLED FOR IN THIS SPECIFICATION, THE ELECTRICAL CONTRACTOR SHALL ESTIMATE THE COST OF SAME AND SUBMIT IN TRIPLICATE DETAILED ITEMIZED ESTIMATES OF THE COSTS OF ALL APPARATUS, MATERIALS AND LABOUR ENTERING INTO THE CHANGE OR SUBSTITUTION.
- THE GENERAL CONTRACTOR SHALL PERFORM ALL CUTTING, PATCHING AND PAINTING NECESSARY FOR PROPER INSTALLATION OF WORK AND SHALL REPAIR ANY DAMAGE DONE EMPLOYING ONLY THE SERVICES OF SKILLED WORKMEN. THE ELECTRICAL CONTRACTOR SHALL, UPON REQUEST, PROVIDE ALL SUCH NECESSARY DETAIL AND INFORMATION TO ACQUAINT THE GENERAL CONTRACTOR WITH THE SCOPE OF PARTICULARS OF CUTTINGS, PAINTING AND PATCHING RELEVANT TO HIS WORK.
- ON COMPLETION, ALL EQUIPMENT SHALL BE THOROUGHLY CLEANED; ALL WORK CHECKED OVER AND LEFT IN WORKING ORDER. ALL RUBBISH, UNUSED MATERIALS, ETC., SHALL BE REMOVED AND THE PREMISES LEFT CLEAN.
- CO-ORDINATE WORK WITH OTHER TRADES, PROVIDE BRANCH CIRCUITS FOR ALL MECHANICAL SYSTEMS AND OWNER SUPPLIED EQUIPMENT.
- NO WIRE, CABLE OR CONDUCTOR SMALLER THAN NO. 12 AWG SHALL BE USED ON ELECTRICAL SYSTEMS, UNLESS OTHERWISE INDICATED. CONDUCTORS NO. 8 AWG OR LARGER SHALL BE STRANDED. IN GENERAL, WHERE NO WIRE SIZE IS INDICATED ON THE PLANS, NO 12 AWG SHALL BE USED, HOWEVER ALL CONDUCTORS SHALL HAVE AMPACITY REQUIRED BY THE LATEST EDITION OF THE C.E.C. FOR LOAD SERVED. CONDUITS SHALL BE RUN PARALLEL TO BUILDING LINES IN A NEAT WORKMANSHIP MANNER. EQUIPMENT AND MATERIALS SHALL BE NEW AND CSA CERTIFIED MANUFACTURED TO STANDARD QUOTED BUT INCORPORATING ADDITIONAL SPECIFIED REQUIREMENTS. ALL BRANCH CIRCUIT CONDUCTORS REFERRED TO ABOVE APPLY TO COPPER CONDUCTORS.
- ALL EQUIPMENT AND EXPOSED NON-CURRENT CARRYING METAL, CONDUITS AND PARTS TO BE PERMANENTLY AND EFFECTIVELY GROUNDED TO MEET MINIMUM REQUIREMENTS OF THE CEC SECTION 10 AND AS INDICATED ON DRAWINGS AND FURTHER SPECIFIED. STANDARDS SET EITHER BY DRAWINGS OR SPECIFICATIONS WHICH ARE ABOVE THOSE COVERED BY THE C.E.C. SECTION 10 ARE NOT TO BE REDUCED UNDER ANY CIRCUMSTANCES. SUPPLY A SEPARATE GROUND CONTRACTOR IN ALL EMT.

Public Works and Government Services Canada / Travaux Publics et Services gouvernementaux Canada

KEYPLAN:



REGISTERED PROFESSIONAL ENGINEER
RAYMOND ROCKETT
DATE AUG.31/16
NEWFOUNDLAND & LABRADOR

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
THIS PERMIT ALLOWS
F.C. O'NEILL, SCRIVEN AND ASSOCIATES LIMITED
To practice Professional Engineering in Newfoundland and Labrador.
Permit No. as issued by APEGN, P0271
which is valid for the year 2016

revisions		date
4	REISSUED FOR TENDER	08/31/2016
3	ISSUED FOR TENDER	08/19/2016
2	ISSUED FOR 100% REVIEW	07/11/2016
1	ISSUED FOR 70% REVIEW	04/04/2016

project / projet

NEWMAN SOUND CAMPGROUND ELECTRICAL UPGRADES (PHASE 2)
TERRA NOVA PARK, NEWFOUNDLAND & LABRADOR

drawing / dessin

LEGEND, NOTES & ELECTRICAL SITE PLAN

designed	H.B.
date	MAR 2016
drawn	A.L.
date	MAR 2016
approved	R.G.R.
date	APR 2016
Tender	Soumission
PWGSC Project Manager	Administrateur de projets TPSGC

project number / no. du projet: R.078642.001

drawing no. / no. du dessin: E1

E-DRM/GDD-E: 539348

PWGSC A0 (2004)