

BELLS CORNER COMPLEX BUILDING 17 SWITCHGEAR REPLACEMENT

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLUSH MOUNTED SINGLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		CONTACTOR
	FLUSH MOUNTED DOUBLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		GROUND ROD
	SURFACE MOUNTED SINGLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		THERMOSTAT-21mm CONDUIT TO ACCESSIBLE CEILING SPACE
	SURFACE MOUNTED DOUBLE TUB PANEL. RATING AS NOTED ON SINGLE LINE/PANEL SCHEDULE.		JUNCTION BOX (SIZE SPECIFIED ON DRAWING)
	TRANSFORMER (SIZE NOTED ON DRAWING)		ELECTRIC UNIT HEATER
	DISCONNECT		ELECTRIC BASEBOARD HEATER. 'X' DENOTES TYPE. REFER TO BASEBOARD HEATER SCHEDULE.
	COMBINATION MANUAL STARTER WITH INTEGRAL DISCONNECT		GROUND BAR
	COMBINATION STARTER WITH INTEGRAL DISCONNECT		HAND DRYER HARD WIRED CONNECTION
	SINGLE PHASE DIRECT CONNECTION		METER
	THREE PHASE DIRECT CONNECTION		RELAY
	SINGLE PHASE DIRECT CONNECTION C/W DISCONNECT		VARIABLE FREQUENCY DRIVE (SUPPLIED BY OTHERS)
	THREE PHASE DIRECT CONNECTION C/W DISCONNECT		PULL BOX
	SINGLE PHASE MOTOR C/W DISCONNECT		GROUND BUS
	SINGLE PHASE MOTOR C/W RELAY		DENOTES RECEPTACLE TYPE. REFER TO RECEPTACLE SCHEDULE.
	SINGLE PHASE MOTOR C/W COMBINATION STARTER WITH INTEGRAL DISCONNECT		UTILITY METERING CABINET
	SINGLE PHASE MOTOR		
	THREE PHASE MOTOR		
	PUSH BUTTON		
	CLOCK WALL MOUNTED		
	CLOCK CEILING MOUNTED		
	DOOR BELL/CHIME		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
5 POWER 2 OF 2
E000 (00 00 00.10)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		CEILING MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		CEILING MOUNTED SIMPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R (T-SLOT)		CEILING MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R (T-SLOT)		FLOOR MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, DEDICATED CIRCUIT		FLOOR MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R, DEDICATED CIRCUIT		RACEWAY RECEPTACLE, TYPE AS SPECIFIED C/W QUANTITY OF DEVICES INDICATED
	WALL MOUNTED SPLIT SWITCH CONTROLLED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		SERVICE POLE, TYPE AS SPECIFIED C/W QUANTITY OF DEVICES INDICATED
	WALL MOUNTED DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		WALL MOUNTED COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.
	WALL MOUNTED ABOVE COUNTER DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		FLOOR OR CEILING MOUNTED (AS SHOWN) COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.
	WALL MOUNTED DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R		FLOOR POKE THROUGH COMBINATION COMMUNICATION / DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.
	WALL MOUNTED ABOVE COUNTER DUPLEX GROUND FAULT RECEPTACLE 120 VOLT, 20 AMP, CSA 5-20R		FLOOR MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.
	WALL MOUNTED QUADPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT
	WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT		WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 15 AMP, CSA 15-15R
	WALL MOUNTED ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT		SPECIAL RECEPTACLE, TYPE AND DETAILS AS NOTED ON DRAWING.
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 15 AMP, CSA 15-15R		WALL MOUNTED ABOVE COUNTER SIMPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.
	SPECIAL RECEPTACLE, TYPE AND DETAILS AS NOTED ON DRAWING.		WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 30 AMP, CSA 14-30R
	WALL MOUNTED ABOVE COUNTER SIMPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R. REFER TO CORRESPONDING DETAIL.		WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 30 AMP, CSA 14-30R
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 30 AMP, CSA 14-30R		WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 50 AMP, CSA 14-50R
	WALL MOUNTED SIMPLEX RECEPTACLE 250 VOLT, 50 AMP, CSA 14-50R		FEED POINT FOR COMMUNICATIONS CABLING. LETTER DENOTES FEED LOCATION: W= WALL, F= FLOOR, P= PAC POLE, WM = WIREMOLD

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
3 POWER 1 OF 2
E000 (00 00 00.09)

ELECTRICAL DRAWING LIST	
Drawing No.	Description
Standard Project	
E000	DRAWING LIST AND LEGEND
E001	ELECTRICAL DETAILS
E002	ELECTRICAL DETAILS
E200	EXISTING SWITCHGEAR SINGLE LINE CONFIG
E201	NEW SWITCHGEAR CONFIGURATION

1 DRAWING LIST
E000

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	POTENTIAL TRANSFORMER		KEY INTERLOCK SYSTEM - ONE KEY UNLESS OTHERWISE NOTED.
	ZERO SEQUENCE TRANSFORMER		KEY INTERLOCK SYSTEM - N LOCKS, N-1 KEYS UNLESS NOTED OTHERWISE
	UPS DIODE		ELECTRONIC INTERLOCK SYSTEM - N LOCKS
	VOLTAGE INDICATOR		MEDIUM VOLTAGE CABLE TERMINATION POINT WITH STRESS CONE
	DENOTES CONNECT LOAD APPLIED TO RESONATED APPARATUS.		ELECTRONIC TRANSFORMER TEMPERATURE RELAY
	AUTOMATIC POWER FACTOR CORRECTION, SIZE AS SHOWN. UNIT TO COME COMPLETE WITH TUNED INPUT FILTER.		POWER METER
	HIGH RESISTANCE GROUNDING RESISTOR MAXIMUM CONTINUOUS AMPS AS SHOWN.		DIGITAL TRIP UNIT WITH METERING FUNCTION
	RELAY FUNCTION NUMBER		SHUNT TRIP
			IP BASED GATEWAY FOR POWER MONITORING

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
6 SINGLE LINE DIAGRAM 2 OF 2
E000 (00 00 00.12)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ISOLATION TRANSFORMER - DELTA-WYE UNLESS OTHERWISE NOTED.		GROUND FAULT ALARM RELAY
	ISOLATION TRANSFORMER WITH ELECTROSTATIC SHIELD - DELTA-WYE UNLESS OTHERWISE NOTED.		IP BASED POWER QUALITY DIGITAL METER. PROVIDE 21mm CONDUIT TO NEAREST TELECOM ROOM.
	MOLDED CASE CIRCUIT BREAKER, SIZE AS SHOWN		EMERGENCY GENERATOR
	LOW VOLTAGE INSULATED CASE DRAW-OUT AIR CIRCUIT BREAKER, TRIP PLUG AND FRAME SIZE AS SHOWN		GROUND CONNECTION POINT
	DRAW-OUT VACUUM CIRCUIT BREAKER, TRIP PLUG AND FRAME SIZE AS SHOWN.		ELECTRONIC TRIP SETTING CONTROL (GROUND FAULT)
	FUSIBLE LOAD BREAK ISOLATION SWITCH, VOLTAGE, FUSE AND FRAME SIZE AS SHOWN.		GROUND LOOP
	FUSE		HIGH RESISTANCE GROUND FAULT SYSTEM
	INSULATED CASE CIRCUIT BREAKER		LIGHTNING SURGE ARRESTOR
	INTEGRAL BREAKER AND STARTER UNIT, BREAKER AND FRAME SIZE AS SHOWN		LOAD BANK
	INTEGRAL SWITCH AND FUSE UNIT, FUSE AND FRAME SIZE AS SHOWN		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT)
	LOAD BREAK ISOLATION SWITCH, VOLTAGE AND FRAME SIZE AS SHOWN.		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT, INSTANTANEOUS)
	AUTOMATIC TRANSFER SWITCH WITH BY-PASS		ELECTRONIC TRIP SETTING CONTROL (LONG, SHORT, INSTANTANEOUS, GROUND FAULT)
	AUTOMATIC TRANSFER SWITCH WITHOUT BY-PASS		METERING SOCKET
	FIRE PUMP AUTOMATIC TRANSFER SWITCH AND STARTER UNIT (BY OTHERS)		METERING CABINET
	MANUAL TRANSFER SWITCH OR DOUBLE THROW SWITCH		DIGITAL ELECTRONIC METER
	AMMETER		SURGE PROTECTION DEVICE
	AUTO-TRANSFORMER		15kV VOLTAGE TRANSFORMER
	BATTERY		
	CONTACTOR		
	CURRENT TRANSFORMER		
	CURRENT TRANSFORMER (Z.S. - DENOTES ZERO SEQUENCE)		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
4 SINGLE LINE DIAGRAM 1 OF 2
E000 (00 00 00.11)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DETAIL NUMBER		SECTION NUMBER
	DRAWING NUMBER		DRAWING NUMBER
	REVISION NUMBER		REVISION BUBBLE
	A AMPS		N NEW
	AD ACCESS DOOR		NC NORMALLY CLOSED
	AFCI ARC FAULT CIRCUIT INTERRUPTER		NO NORMALLY OPEN
	AFB ABOVE FINISHED FLOOR		NIC NOT IN CONTRACT
	CS CHARGING STATION		OL OBSTRUCTION LIGHT
	C CONDUIT		PL PATIENT LIFT
	CL CEILING MOUNTED		RH RANGE HOOD
	CV CONVENTIONAL STYLE DEVICE		RA RANGE
	COF COFFEE MACHINE		R EXISTING TO BE REMOVED
	D DEDICATED		RIO ROUGH IN ONLY
	DG DEDICATED GROUND		RIC ROUGH IN AND CONNECT
	DNC DEDICATED NEUTRAL + BOND		RR RATE OF RISE
	DW DISHWASHER		SP SUITE ALARM PANEL
	DR LAUNDRY DRYER		SC SEPARATE CIRCUIT
	E EXISTING TO REMAIN		SF SYSTEM FURNITURE
	ESP EXISTING IN RELOCATED POSITION		SSP SLAVE SUITE ALARM PANEL
	EP ELECTRICAL SUITE PANEL		TYP TYPICAL
	EM EMERGENCY CIRCUIT		UC UNDER CABINET MOUNTED
	F REFRIGERATOR		U UPS CIRCUIT
	FL FLOOR MOUNTED		V VOLTS
	FF FLOOR FEED		W WATTS
	GND GROUND		WA LAUNDRY WASHER
	GFI GROUND FAULT INTERRUPTER		WP WEATHERPROOF
	GFCI GROUND FAULT CIRCUIT INTERRUPTER		WF WALL FEED
	HMT HARMONIC MITIGATING TRANSFORMER		WAP WIRELESS ACCESS POINT
	HK HOUSE KEEPING		X EXPLOSION PROOF DEVICE + BACK BOX
	IG ISOLATED GROUND		ZSCT ZERO SEQUENCE CURRENT TRANSFORMER
	ICE ICE MACHINE		
	JB JUNCTION BOX		
	KW KILOWATTS		
	LV LOW VOLTAGE		
	MO MOTOR OPERATED		
	MDD MOTOR OPERATED DAMPER		
	MW MICROWAVE		

NOTE: NOT ALL SYMBOLS APPLY, REFER TO FLOOR PLANS AND DRAWINGS
2 GENERAL LEGEND AND ABBREVIATIONS
E000 (00 00 00.01)



Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

revisions	description	date
1	ISSUED FOR TENDER	2016-04-11

SWITCHGEAR UPGRADE, BELLS CORNER COMPLEX

1 HAANEL RD, NEPEAN, ONTARIO

DRAWING LIST AND LEGEND

Designed By	MM	Conçu par	
Date		(yyyy/mm/dd)	
Drawn By	MM	Dessiné par	
Date		(yyyy/mm/dd)	
Reviewed By	ML	Examiné par	
Date		(yyyy/mm/dd)	
Approved By	CORNEL SOCACI	Approuvé par	
Date		(yyyy/mm/dd)	
Tender		Submission	
Project Manager	CORNEL SOCACI	Administrateur de projets	
Project no.		No. du projet	
	R.080064.002		
Drawing no.	E000	No. du dessin	

