

- SPECIFICATION**
- GENERAL CONDITIONS
 - 1.1. ALL WORK SHALL BE IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE, CURRENT EDITION, BASED UPON THE CANADIAN ELECTRICAL CODE, PART 1, CSA STANDARD C22.1, AND ALL BULLETINS TO DATE.
 2. SCOPE OF WORK
 - 2.1. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOUR TO PROVIDE A COMPLETE OPERATING INSTALLATION AS SHOWN ON THE DRAWINGS.
 - 2.2. THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO, SUPPLY AND INSTALLATION OF THE FOLLOWING ITEMS: power distribution.
 - 2.2.1. LIGHTING
 - 2.2.2. EMERGENCY LIGHTING AND EXIT SIGNS
 - 2.2.3. FEEDERS AND OTHER CURRENT PROTECTION FOR MECHANICAL EQUIPMENT.
 - 2.2.4. MOTOR STARTERS FOR MECHANICAL EQUIPMENT.
 - 2.2.7. EMPTY RACEWAY SYSTEM FOR TELEPHONE AND CABLE TV SYSTEMS
 - 2.2.8. FIRE ALARM SYSTEM
 3. GENERAL CONDITIONS SHALL BE CSA APPROVED, NEW AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
 4. IDENTIFICATION
 - 4.1. WIRES TO BE COLORED AS FOLLOWS:
 - 120V AC NEUTRAL WHITE
 - 120V DC BLUE
 - 120V AC LINE BLACK
 - 120V AC LINE BLACK
 - 4.2. PROVIDE IAWCID LABELS FOR NEW OR REVISED BREAKER PANELS, SPLITTERS AND DISCONNECTS.
 - 4.3. PROVIDE TYPED CIRCUIT LISTING FOR NEW OR REVISED BREAKER PANELS.
 - EXAMINATION OF SITES
 - 5.1. EXAMINATION OF SITES: THIS CONTRACTOR SHALL VISIT THE SITE TO DETERMINE ALL EXISTING CONDITIONS.
 - 5.2. ALLOW FOR ALL COSTS ASSOCIATED WITH COMPLETING THE WORK OF DIVISION 16 IN ACCORDANCE WITH THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE.
 - 5.3. NO STIMULANCE FOR EXTRA PAYMENTS TO THE CONTRACTOR WILL BE MADE BY THE OWNER FOR FAILING TO VISIT AND EXAMINE SITE CONDITIONS.
 - INSURANCE
 - 6.1. THE CONTRACTOR SHALL MAINTAIN SUCH INSURANCE AS WILL FULLY PROTECT BOTH THE OWNER AND THE CONTRACTOR FROM LIABILITY AS WELL AS THE WORKMAN'S COMPENSATION ACT, AS9. ALL INSURANCE IS TO BE MAINTAINED THROUGHOUT THE TERM OF THE CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.
 - MAINTAIN A SEPARATE SET OF WHITE PRINTS ON THE SITE AND NOTE ALL CHANGES AND DEVIATIONS TO BE FORWARDED TO THE ARCHITECT AT THE COMPLETION OF THIS CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.

8. REVISIONS AND CORRECTIONS
 - 8.1. ADDITIONAL WORK NOTED ON THE CONTRACT PRICE SHALL NOT BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE ARCHITECT. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.
 9. CLEAN UP
 - 9.1. BE RESPONSIBLE TO KEEP THE AREA CLEAN AT ALL TIMES AND TO PERIODICALLY REMOVE ALL DEBRIS, CUTTING AND PACKAGING MATERIALS AND PACKAGING REQUIRED FOR THE WORK OF THIS DIVISION SHALL BE CARRIED OUT BY THIS DIVISION. NO CHASSIS BLOCK WORK WILL BE ALLOWED. CUTTING AND DRILLING SHALL BE PERFORMED IN A MANNER SO AS TO CAUSE LITTLE DAMAGE. BE RESPONSIBLE AND PAY FOR ANY DAMAGE TO THE BUILDING INCURRED BY WORK OF THIS DIVISION.
 11. COORDINATION
 - 11.1. BE RESPONSIBLE TO COORDINATE THE INSTALLATION OF EQUIPMENT CONDUIT WORK, LIGHTING FIXTURES, ETC. WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE PRIOR TO THE ACTUAL INSTALLATION.
 12. RESPONSIBILITY
 - 12.1. BE RESPONSIBLE FOR ELECTRICAL WORK UNTIL THE COMPLETION AND FINAL ACCEPTANCE FOR REPAYING ANY FINANCIAL OBLIGATIONS INCURRED, ON SITE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 13. WIRING MATERIALS AND METHODS
 - 13.1. USE MATERIALS AND METHODS APPROVED BY ONTARIO ELECTRICAL CODE FOR USE IN NON-COMBUSTIBLE CONDITIONS.
 - 13.2. ALL BUILDING WIRE SHALL BE COPPER TYPE RW90-XLPE WHERE APPROPRIATE EXCEPT WHERE OTHERWISE NOTED.
 - 13.3. USE MINIMUM OF #12 AWG FOR BRANCH CIRCUIT WIRING.
 - 13.4. APPROVED CABLE TRAYS (C/T) WITH INTERLOCKING RINGS ARE PERMITTED TO BE USED IN CONJUNCTION WITH C/W COPPER BONDING STRIP, 19 TO BE USED IN CONCRETE WALL AND CEILING CHANNELS.
 14. SHOP DRAWINGS AND PRODUCT DATA
 - 14.1. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
 - 14.2. INDICATE MATERIALS METHODS OF CONSTRUCTION AND ATTACHMENT OR ANCHORAGE, NECESSARY FOR COMPLETION OF THIS DIVISION.
 - 14.3. ADJUSTMENTS MADE ON SHOP DRAWINGS BY OWNER OR ENGINEER ARE NOT INTENDED TO CHANGE CONTRACT PRICE.
 - 14.4. MAKE CHANGES IN SHOP DRAWINGS AS OWNER OR ENGINEER MAY REQUIRE. PROVIDE EXISTING EMERGENCY LIGHTING, EXIT SIGNS, MAIN SERVICE BOARD, MOTOR STARTERS, FIRE ALARM EQUIPMENT AND POWER DISTRIBUTION EQUIPMENT.
 - 14.6. PROVIDE 2 MAINTENANCE MANUALS COMPLETE WITH WARRANTY CERTIFICATE OF INSPECTION BY ESN, FIRE ALARM VERIFICATION REPORT, AND COPY OF ALL PRODUCT LITERATURE AND MAINTENANCE INFORMATION.
- PERMITS, FEES AND INSPECTION
 - 15.1. SUBMIT TO ELECTRICAL SAFETY AUTHORITY NECESSARY NUMBER OF DRAWINGS AND SPECIFICATIONS FOR EXAMINATION AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
 - 15.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY SUCH INSPECTIONS.
 - 15.3. OWNER WILL PROVIDE DRAWINGS AND SPECIFICATIONS REQUIRED BY ELECTRICAL SAFETY AUTHORITY AT NO COST.
 - 15.4. NOTIFY ENGINEER OF CHANGES REQUIRED BY ELECTRICAL SAFETY AUTHORITY AND AUTHORITIES HAVING JURISDICTION OF COMPLETION OF WORK TO ENGINEER.
- WARRANTY
 - 16.1. WORK IS COMPLETED, ONE YEAR WRITTEN WARRANTY FOR ONE YEAR COVERING WORKMANSHIP OR MATERIALS. REPAIR OR REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY DEFECTS DUE TO WORKMANSHIP OR MATERIALS WHICH IN THE OWNER'S OPINION, ARE NOT DUE TO MISUSE OR NEGLIGENCE.
- CONDUITS AND RECELVES
 - 17.1. RIGID GALVANIZED STEEL CONDUIT TO BE USED WHERE SUBJECT TO MECHANICAL DAMAGE.
 - 17.2. ELECTRICAL METALLIC TUBING (EMT) WITH COUPLINGS TO BE USED EXCEPT WHERE EMBEDDED IN CONCRETE OR 17.3. RIGID PVC CONDUIT WHERE EMBEDDED IN CONCRETE OR BELOW GRADE.
 - 17.4. FLEXIBLE ALUMINUM CONDUIT WITH WEATHERPROOF COVERING TO BE USED WHERE SUBJECT TO VIBRATION OR 17.5. CONDUITS IN FINISHED AREA SHALL BE MINIMUM 1/2".
- INSTALLATION OF OUTLETS
 - 18.1. THE DRAWINGS SHOW APPROXIMATE LOCATION OF OUTLETS. EXACT LOCATION SHALL BE COORDINATED ON THE SITE WITH OTHER TRADES, ARCHITECTURAL DRAWINGS, ETC. OUTLETS INCORRECTLY LOCATED SHALL BE RELOCATED AS REQUIRED AT THE CONTRACTOR'S EXPENSE. UNLESS OTHERWISE NOTED ON THE DRAWING LOCATE OUTLETS AS FOLLOWS:
 - 18.1.1. RECEPTACLES, TELEPHONE AND ALARM OUTLETS (127) 305mm ABOVE FINISHED FLOOR.
 - 18.1.2. OUTLETS IN MECHANICAL, ELECTRICAL AND TELEPHONE ROOMS (48) 1220mm ABOVE FLOOR.
 - 18.1.3. OUTLETS OVER COUNTER (457) 1143mm ABOVE FLOOR OR CO-ORDINATION.
 - 18.1.4. RECEPTACLES, TELEPHONE AND ALARM OUTLETS (127) 305mm ABOVE FINISHED FLOOR.
 - 18.2. RECEPTACLES SHALL BE ENT UNLESS OTHERWISE NOTED.
 - 18.3. SUPPORT OUTLET BOXES, JUNCTION BOXES, CONDUIT AND THE LIKE.
- RECEPTACLES
 - 19.1. NOBY DUTCH RECEPTACLES CSA TYPE 5-15K, 129V, 20A, T-SLOT, U GROUND.
 - 19.2. ALL RECEPTACLES SHALL BE SURFACE MOUNTED USE CAST BOX.
 - 19.3. INSTALL RECEPTACLES WITH GROUND POSITION UP.
 - 19.4. IF RECEPTACLE IS SURFACE MOUNTED USE CAST BOX.
- MECHANICAL EQUIPMENT
 - 20.1. PROVIDE ALL CONDUIT WIRING, SPLITTERS, OUTLET BOXES AND DISCONNECT SWITCHES AS SHOWN. ALL MOTORS, STARTERS AND CONTROL WIRING PROVIDED UNDER DIVISION 15 UNLESS OTHERWISE NOTED. INSTALL ALL STARTERS 20.2. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL MOTOR CONNECTION FOR PROPER PHASE ROTATION, WHERE APPLICABLE.
- SWITCHES
 - 21.1. 200V SINGLE POLE SWITCHES
 - 21.2. 200V POLE SWITCHES
 - 21.3. WORK COVER PLATES.
 - 21.4. IF SWITCH IS SURFACE MOUNTED USE CAST BOX.
- EQUIPMENT FOR EMERGENCY LIGHTING
 - 22.1. EQUIPMENT FOR EMERGENCY LIGHTING
 - 22.2. OUTPUT VOLTAGE: 120V AC
 - 22.3. OUTPUT VOLTAGE: 120V AC
 - 22.4. OPERATIONS TIME: 30 MINUTES MINIMUM
 - 22.5. THIS CONTRACTOR SHALL PROVIDE AND/OR COORDINATE THE SIZE, TYPE AND LOCATION OF THE INCOMING SPACE
 - 22.6. PROVIDE CEILING RIGID PVC CONDUIT FROM OUTLET BOX TO ACCESSIBLE CEILING
- TELEPHONE CABLE TELECOMPUTER RACEWAY SYSTEM (E/C)
 - 23.1. THIS CONTRACTOR SHALL PROVIDE AND/OR COORDINATE THE SIZE, TYPE AND LOCATION OF THE INCOMING SPACE
 - 23.2. PROVIDE CEILING RIGID PVC CONDUIT FROM OUTLET BOX TO ACCESSIBLE CEILING
 - 23.3. A MAXIMUM OF 2 LONG RADIUS 90 DEGREE BENDS SHALL BE PROVIDED BETWEEN PULL BOXES.
 - 23.4. RACEWAYS (OTHER THAN INCOMING) SHALL BE ENT.
 - 23.5. A WIRE SHALL BE PULLED AND LEFT IN EACH CONDUIT RUN TO FACILITATE THE FUTURE PULLING OF WIRES.
 - 23.6. PROVIDE MESSAGE BUSES AND ASSOCIATED COVER PLATES AS REQUIRED FOR THE ABOVE SYSTEMS.
 - 23.7. PROVIDE MESSAGE BUSES AND ASSOCIATED COVER PLATES AS REQUIRED FOR THE ABOVE SYSTEMS.

GENERAL PURPOSE LIGHTING SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
OA	8\"/>		

ELECTRIC HEATING EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	QUANTITY OR APPROVED	PART NUMBER
	80W COMPACT FLUORESCENT LIGHT, U-TUBE OR EQUAL			06P4006
	60W COMPACT FLUORESCENT LIGHT, U-TUBE OR EQUAL			C/W OACP-1
	120V C/W LAMP			OACP-1-BAR

19.4 F RECEPTACLE IS SURFACE MOUNTED USE CAST BOX.

NOT TO BE USED FOR CONSTRUCTION UNLESS SHOWN BY THE ENGINEER.

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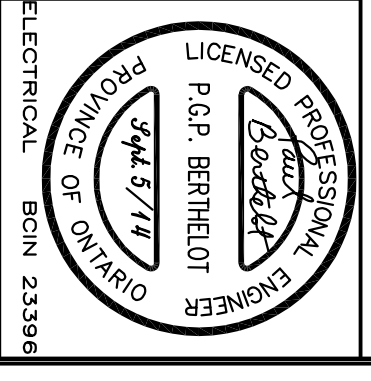
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LEGEND	
☐ E	EXISTING LIGHTING FIXTURES
☐	TOGGLE SWITCH
EXIT	EXIT SIGN
⚡	EXISTING EMERGENCY LIGHTS
⚡	EXISTING EMERGENCY LIGHTS BATTERY PACK
R	EXISTING TO BE RELOCATED
E	EXISTING TO REMAIN
X	EXISTING TO BE REMOVED

NOTES:
 1. DISCONNECT DEVICES SCHEDULED FOR REMOVAL OR RELOCATION. REMOVE EXISTING WIRING AND CONDUIT BACK TO SOURCE, WHERE PRACTICAL, AND MAKE SAFE.
 2. RELOCATE DEVICES AS SHOWN ON DRAWINGS. COORDINATE EXACT LOCATIONS WITH ARCHITECT. EXTEND OR SHORTEN EXISTING WIRING AS NECESSARY TO RE-INSTATE SYSTEMS.

NO	DESCRIPTION	DATE	BY
0	ISSUED FOR PERMIT & TENDER	14/09/05	PBB
REVISIONS			

Kirkland Engineering Ltd BCIN: 28857



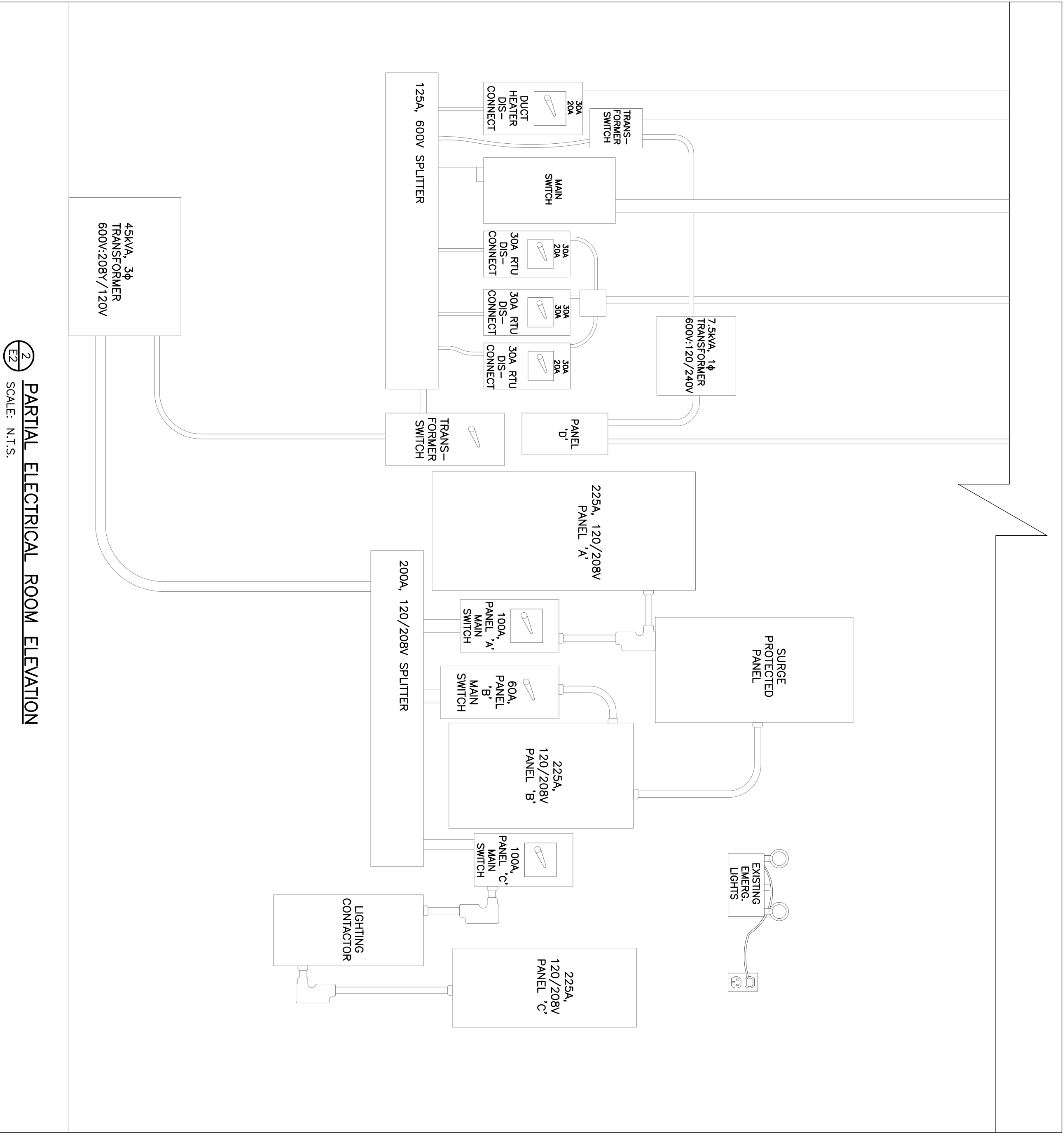
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PROJECT
 DOLLARAMA
 MAPLERIDGE PLAZA
 LANDLORD SERVICES
 1840 Lansdowne Street West
 Units 2, 3, & 4
 Peterborough, Ontario

TITLE
 POWER DEMOLITION PLAN

DESIGN	TMS	SCALE AS NOTED
DRAWN	TMS	DWG NO.
CHECKED	PBB	
APPROVED	PBB	
PROJECT	5435	



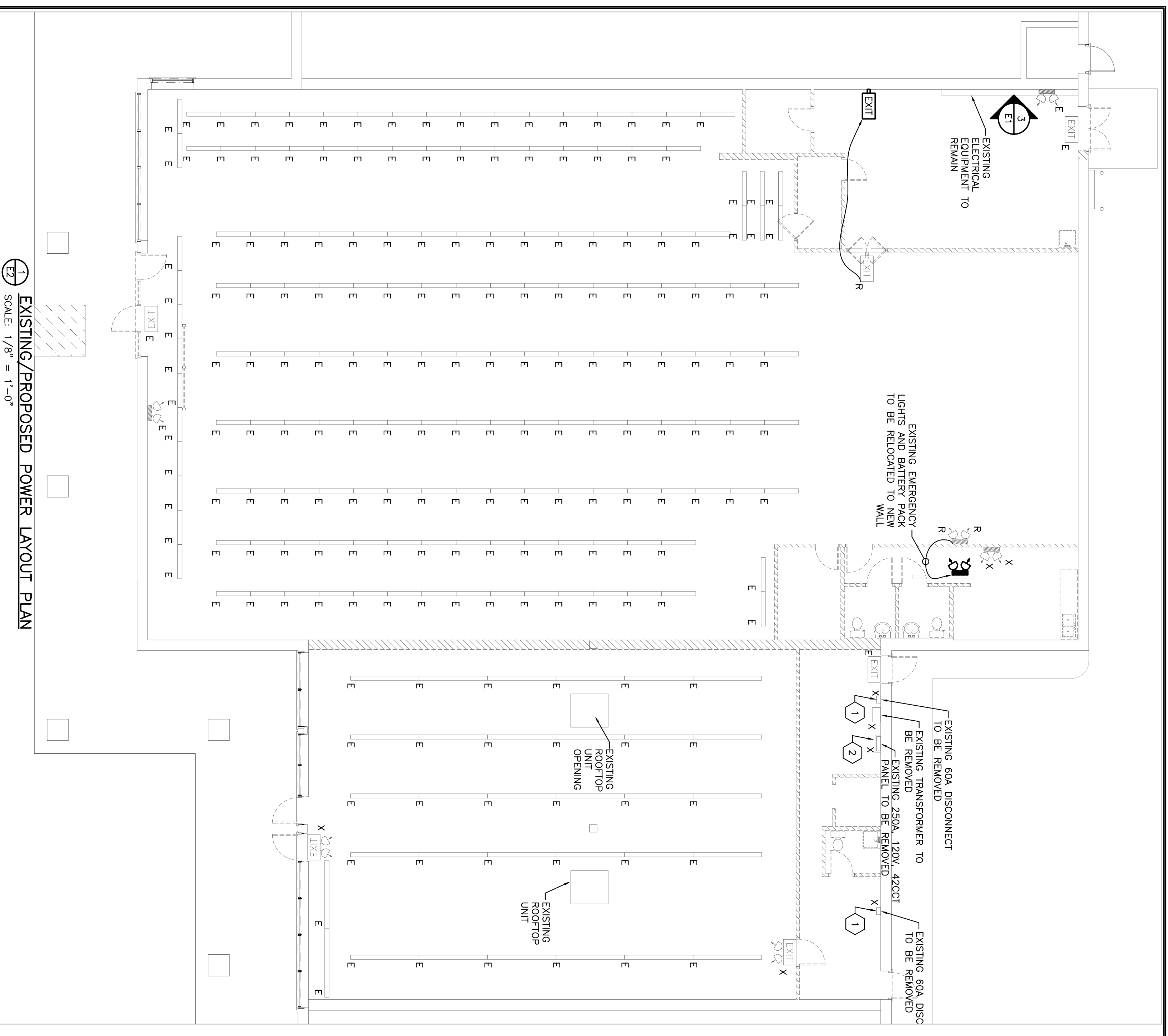
PARTIAL ELECTRICAL ROOM ELEVATION
 SCALE: N.T.S.

EXISTING FORMER DOLLARSTORE PANEL 'X'
 120/208V, 3 PHASE, 4 WIRE, 250A BUS, 42 CIRCUIT, SIEMENS TYPE S1

DESCRIPTION	LOAD	BKR	CCT	2	3	4	5	6	CCT	BKR	LOAD	DESCRIPTION
LIGHTS	X	15A	1						2	X	X	ROOFTOP HEATING UNIT
LIGHTS	X	15A	3						4	X	X	
LIGHTS	X	15A	5						6	X	X	
EXIT LIGHTS	X	15A	7						8	X	X	PLUGS
STORAGE ROOM LIGHTS	X	15A	9						10	X	X	PLUGS
HOT WATER TANK	X	20A	11						12	X	X	PLUGS
	X	15A	13						14	X	X	STORAGE RM PLUGS & WIR
REAR FAN	X	15A	17						16	X	X	
	X	19							18	X	X	
	X	21							20	X	X	
	X	23							22	X	X	
	X	25							24	X	X	
	X	27							26	X	X	
	X	29							28	X	X	
	X	31							30	X	X	
	X	33							32	X	X	
	X	35							34	X	X	
	X	37							36	X	X	
	X	39							38	X	X	
	X	41							40	X	X	
	X								42	X	X	

EQUIPMENT TO BE MOVED FROM THIS PANEL TO PANEL 'A'. CONTRACTOR TO EXTEND ALL EXISTING LIGHTING CIRCUITS, AND SUPPLY AND INSTALL NEW BREAKERS IN PANEL 'A'.
 EQUIPMENT TO BE MOVED FROM THIS PANEL TO PANEL 'C'. CONTRACTOR TO EXTEND ALL EXISTING LIGHTING CIRCUITS, AND SUPPLY AND INSTALL NEW BREAKERS IN PANEL 'C'.
 LIGHTING CIRCUITS TO BE MOVED FROM THIS PANEL TO PANEL 'C'. CONTRACTOR TO EXTEND ALL EXISTING LIGHTING CIRCUITS, AND SUPPLY AND INSTALL NEW BREAKERS IN PANEL 'C'.

NOTES:
 1. PANEL 'X' IS A COMMANDER TYPE PANELBOARD, CAT NO. NB1242-4L, 120/208V, 225A, 3φ, 4W, WITH 10 SPACES
 2. PANEL 'C' IS AN I-T-E TYPE PANELBOARD, CAT. NO. NL49424L, 240V MAX, 225A, 3φ, 4W, WITH 10 SPACES



EXISTING/PROPOSED POWER LAYOUT PLAN
 SCALE: 1/8" = 1'-0"

NOTES:
 1. DISCONNECTION/REMOVAL OF EXISTING DISCONNECT SWITCHES:
 -DISCONNECT AT METER CENTRE (SOURCE);
 -REMOVE DISCONNECT SWITCH;
 -PROVIDE JUNCTION BOX IN CEILING SPACE;
 -REMOVE CONDUIT TO NEW JUNCTION BOX;
 -REMOVE CONDUIT TO OLD JUNCTION BOX;
 -REMOVE JUNCTION BOX FROM CEILING SPACE;
 -REMOVE JUNCTION BOX FOR FUTURE USE
 2. CONTRACTOR SHALL INSTALL SPLICE BOX IN CEILING SPACE FOR CONNECTION OF EXISTING CIRCUITS FROM EXISTING DOLLAR STORE PANEL TO PANELS 'X' AND 'C'