

ELECTRIC HEATER SCHEDULE							
TYPE	DESCRIPTION	MOUNTING	CONTROL	MANUFACTURER/MODEL NO.	WATTAGE	VOLTAGE	REMARKS
EBB-2.5	ELECTRIC BASEBOARD HEATER	SURFACE	REMOTE T-STAT	OUELLET OFM2508	2500	208	C/W WHITE FINISH. PROVIDE REQUIRED RELAYS AND CONNECTIONS SUCH THAT UNITS SHUT DOWN UPON COOLING SIGNAL FROM LOCAL COOLING MECH EQUIPMENT.

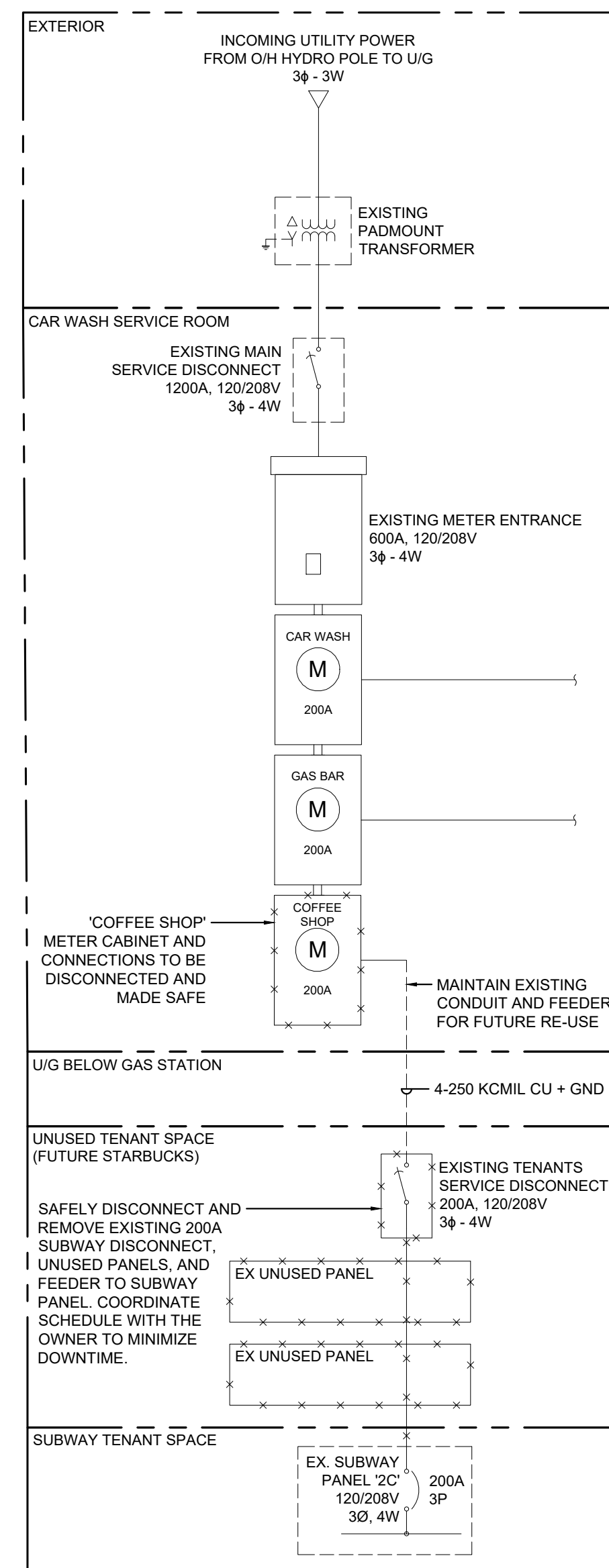
NOTES:
NOTE 1: INTERCONNECT THERMOSTAT WITH HEATING/COOLING SYSTEM TO TURN OFF HEATER WHEN COOLING SYSTEM IS ON.

DRAWING NOTES (INDICATED WITH HEXAGONS):

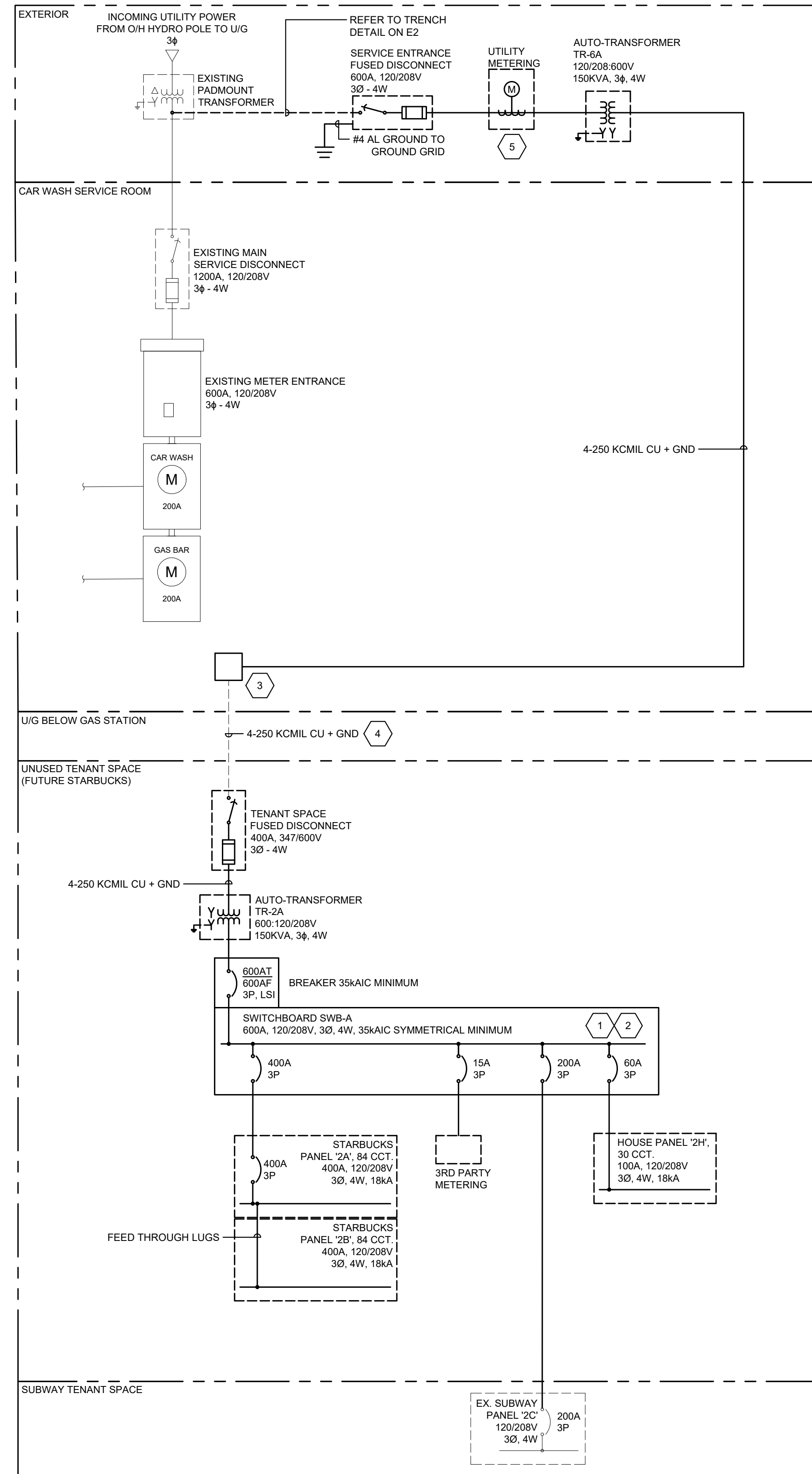
- PROVIDE 3RD PARTY METERING APPURTENANCES AT SWITCHBOARD SWB-A FOR EACH TENANT.
- PROVIDE 4" CONCRETE HOUSE KEEPING PAD FOR SWITCHBOARD SWB-A. MAINTAIN 1.0m CLEARANCE IN FRONT OF SWB AS PER OESC REQUIREMENTS.
- PROVIDE COMPRESSION LUGS IN JUNCTION BOX FOR PROPER CONNECTION BETWEEN NEW CABLES AND EXISTING.
- UTILIZE EXISTING 4-WIRE 250KCMIL CABLE FOR THE NEW CONNECTION BETWEEN TR-6A AND TR-2A.
- PROVIDE 4'X4' METER CABINET WITH BACKPLATE, RECEPTACLE AND COMMUNICATION LINE TO HYDRO REQUIREMENT FOR UTILITY METERING.

GENERAL NOTES:

- PROVIDE SYSTEM GROUND TO THE MINIMUM REQUIREMENT OF O.E.S.C. SECTIONS 10-100 TO 10-118 WHERE APPLICABLE. ALL GROUNDING AND BONDING METHOD SHALL COMPLY WITH THE LATEST EDITION OF O.E.S.C. SECTION 10.
- ALL CONDUCTORS ARE COPPER UNLESS OTHERWISE NOTED.
- ALL DISTRIBUTION EQUIPMENT SHALL BE COMPLETE WITH SPRINKLER PROOF ENCLOSURES AND DRIPSHIELDS.
- FEEDER SIZES SHOWN ARE BASED ON CIRCUIT AMPACITY AND VOLTAGE DROP CALCULATIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE VOLTAGE DROP CALCULATIONS TO ELECTRICAL CONSULTANT TO REVIEW FOR ANY PROPOSED CHANGES IN FEEDER SIZING.
- ALL BRANCH CIRCUIT CONDUCTORS FOR HOUSE LOADS SHALL BE SIZED AS PER TABLE D3 AND ASSOCIATED CLAUSES OF THE OESC TO ACCOUNT FOR VOLTAGE DROP.
- SIZE PROTECTIVE DEVICES AND FEEDERS OF ALL MOTOR/MECHANICAL EQUIPMENT IN ACCORDANCE TO FINAL NAMEPLATE RATING OF EQUIPMENT. COORDINATE WITH SHOP DRAWINGS FOR EXACT REQUIREMENT AND PROVIDE AT NO ADDITIONAL COST READ ELECTRICAL DRAWINGS IN CONJUNCTION WITH MECHANICAL DRAWINGS AND PROVIDE INTERLOCKING, RELAYS ETC FOR MECHANICAL EQUIPMENT AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.



EXISTING ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NTS



NEW ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NTS

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE																	
LABEL	DESCRIPTION	LOCATION	VOLT	PH	HP	WATTS	FLA	ISO. SW.	P	POWER WIRING	CTRL BY ELEC	SOURCE PNL	DISC AMP	FUSE	BRK	P	REMARKS
UH-101	UNIT HEATER	STARBUCKS	208	1	-	6800	-	60	1	2-#8 CU + GND IN 3/4" C	RAT	2A	-	-	50	1	-
EF-101	EXHAUST FAN	MECH ROOM	120	1	1/60	-	-	15	1	2-#12 CU + GND IN 3/4" C	RAT	2H	-	-	15	1	-
EBB-2.5	ELECTRIC BASEBOARD HEATER	MECH ROOM	208	1	-	2500	-	30	1	2-#12 CU + GND IN 3/4" C	RAT	2H	-	-	20	1	-

ABBREVIATIONS:
CONT - CONTACTOR, SIZE AS INDICATED
COMB - COMBINATION DISCONNECT & STARTER
FVNR - FULL VOLTAGE NON REVERSING STARTER
HOA - HAND OFF AUTO SWITCH C/W ON PILOT LIGHT
MAN - MANUAL MOTOR SWITCH C/W PILOT LIGHT

OS - OCCUPANCY SENSOR
RAT - REVERSE ACTING THERMOSTAT RELAY
RBP - REMOTE PUSH BUTTON OFF
SW - LIGHT SWITCH
TC - 7 DAY PROGRAMMABLE TIMECLOCK
TS - TIMER SWITCH
WP - WEATHER PROOF

NOTES:
1. INSTALL ALL WIRING IN CONDUIT WITH SHORT LENGTH LIQUID TIGHT FLEX TO MOTOR OR VIBRATING EQUIPMENT.
2. WIRE THROUGH TC OR RAT SUPPLIED BY MECHANICAL/CONTROLS CONTRACTOR
3. SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH MECHANICAL TRADE.

EMERGENCY LIGHTING SCHEDULE							
UNIT	MANUFACTURER	DESCRIPTION	MODEL No.	WATTAGE	VOLTAGE	# OF HEADS	TIME
⚡	STANPRO	EMERGENCY EXIT SIGN AND INTEGRAL BATTERY PACK WITH EMERGENCY LIGHTING HEADS	PRMS12-12L	72W/5W	120V/12V	(2) 2.5W	30
⚡	STANPRO	EMERGENCY BATTERY PACK WITH EMERGENCY LIGHTING HEADS	SLA12-160	160W/6W	120V/12V	(2) 3W	30

TYPE E: STRIP LIGHT FIXTURES SCHEDULE				
FIXTURE TAG	DESCRIPTION AND MODEL SERIES	INPUT	LIGHT SOURCE	MOUNTING
AA	48" LIGHT INDUSTRIAL COMPACT LED LINEAR STRIP FIXTURE C/W FROSTED ACRYLIC LENS. DAY-BRITE (SIGNIFY): FLUXSTREAM FSS SERIES	120V 54.1W	LED 7000L 4000K 80CRI	CEILING SUSPENDED @ 15'-3" A.F.F.
AB	48" LIGHT INDUSTRIAL COMPACT LED LINEAR STRIP FIXTURE C/W FROSTED ACRYLIC LENS. DAY-BRITE (SIGNIFY): FLUXSTREAM FSS SERIES	120V 54.1W	LED 7000L 4000K 80CRI	CEILING MOUNTED @ SURFACE
BA	DARK SKY APPROVED EXTERIOR LED WALL MOUNTED FIXTURE C/W PHOTOCELL CONTROL. GARDCCO: PUREFORM SERIES	120V 21W	LED 2377L 3000K 80CRI T4	WALL MOUNTED @ 12'-0" A.F.F.G

NOTES:
• PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.
• COORDINATE WITH ARCHITECTURAL CEILING PLAN TO CONFIRM CEILING MATERIAL AND MOUNTING TYPE.

ELECTRICAL LINE TYPE LEGEND	
SYMBOL	DESCRIPTION
---X---	DEMOLITION
---	EXISTING
---	NEW
~	CIRCUIT WIRE
---	BELOW GRADE OR SLAB RACEWAY OR FEEDER ROUTE AS NOTED

ELECTRICAL TAG/NAME LEGEND	
SYMBOL	DESCRIPTION
EBB	EMERGENCY BATTERY UNIT # 1,2...
WP	WEATHERPROOF
EX	EXISTING TO REMAIN
REM	REMOVE EXISTING
REL	RELOCATE EXISTING
ER	EXISTING AS RELOCATED
N	NEW FIXTURE OR DEVICE / EQUIPMENT

RECEPTACLE LEGEND	
SYMBOL	DESCRIPTION
Ⓢ	DUPLEX RECEPTACLE
WP	WEATHER PROOF

COMMUNICATION LEGEND	
SYMBOL	DESCRIPTION
▼	TELEPHONE OUTLET
▼	TELEPHONE/DATA OUTLET
▽	DATA OUTLET

EQUIPMENT AND CONNECTION LEGEND	
SYMBOL	DESCRIPTION
⊞	ELECTRICAL PANEL
⊞	TRANSFORMER
⊞	ENCLOSED BREAKER
⊞	DISCONNECT
⊞	CONNECTION TO MOTOR OR MOTORIZED PIECE OF EQUIPMENT
⊞	DIRECT CONNECTION
⊞	EMPTY BOX
⊞	JUNCTION BOX
⊞	PULL BOX
⊞	TIME CLOCK
⊞	ELECTRICAL THERMOSTAT
⊞	PUSH BUTTON
⊞	ELECTRIC HEATER

LIGHTING LEGEND	
SYMBOL	DESCRIPTION
▬	STRIP LIGHT FIXTURE
Ⓢ	POLE LIGHT
Ⓢ	WALL MOUNT LIGHT FIXTURE
Ⓢ	SWITCH 1-GANG, 2-GANG, 3-GANG
Ⓢ	OCCUPANCY SENSOR SWITCH
Ⓢ	OCCUPANCY SENSOR DIMMER SWITCH
3	DENOTES 3-WAY SWITCHING
a.b.c.	LIGHTING CONTROL ZONE

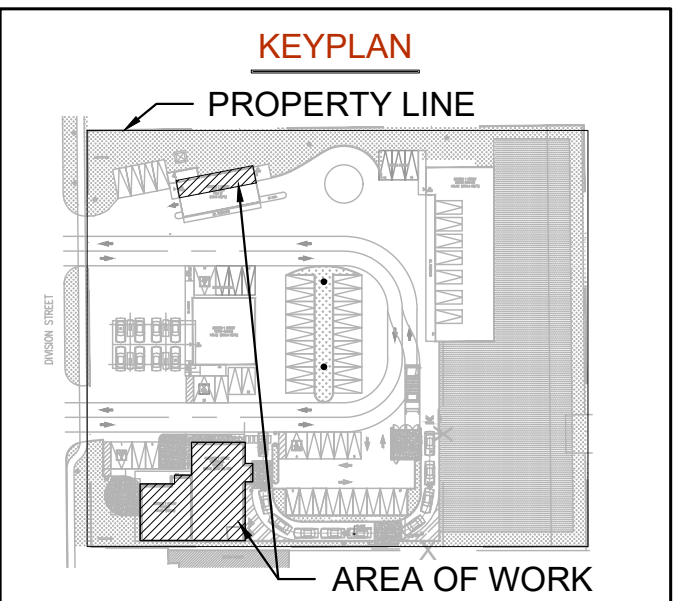
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REVISIONS		
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00	90% COORDINATION	24.06.26
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NORTH

L. T. A. NGUYEN
100183976
24.11.07
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

DESIGN	DL	DRAWN	DL
CHECKED	LN	REVIEWED	LN

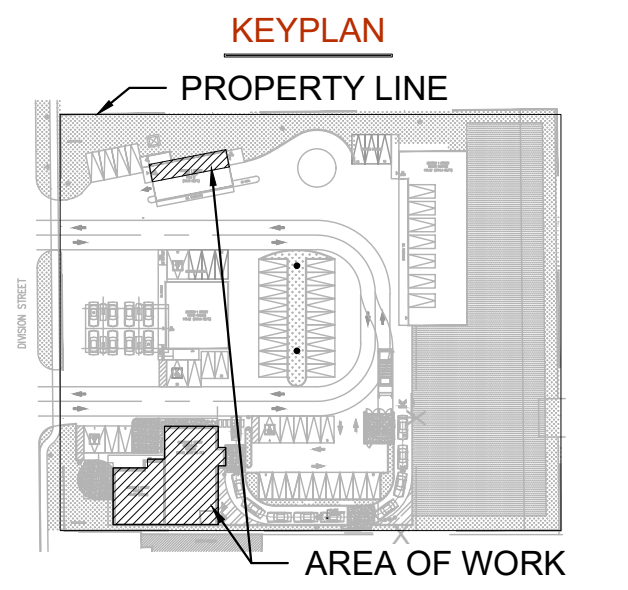
PROJECT
STARBUCKS COBOURG

ADDRESS
1030 DIVISION STREET,
COBOURG, ON

PROJECT NO.
CE-5924

DRAWING TITLE
ELECTRICAL LEGENDS,
SCHEDULES & SINGLE LINE
DIAGRAMS

DRAWING NUMBER

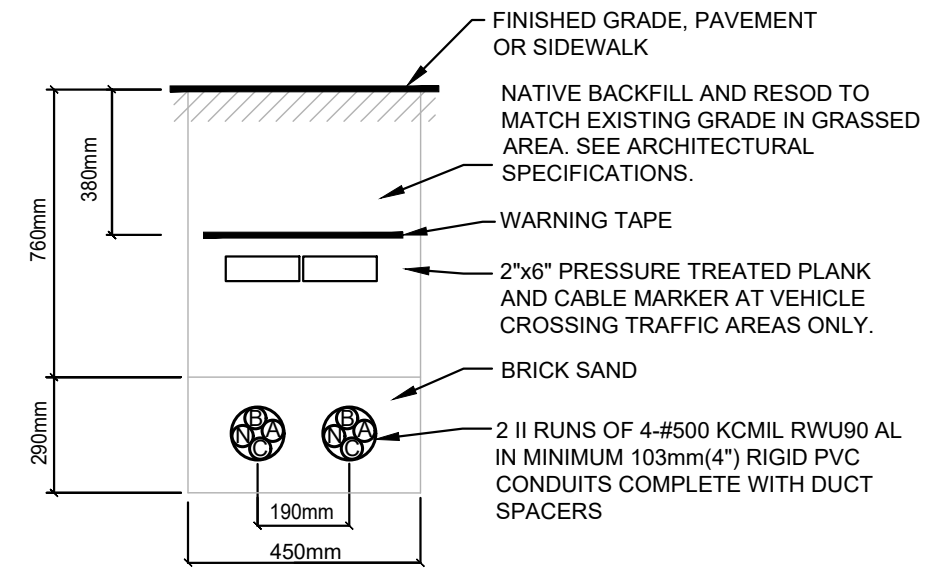
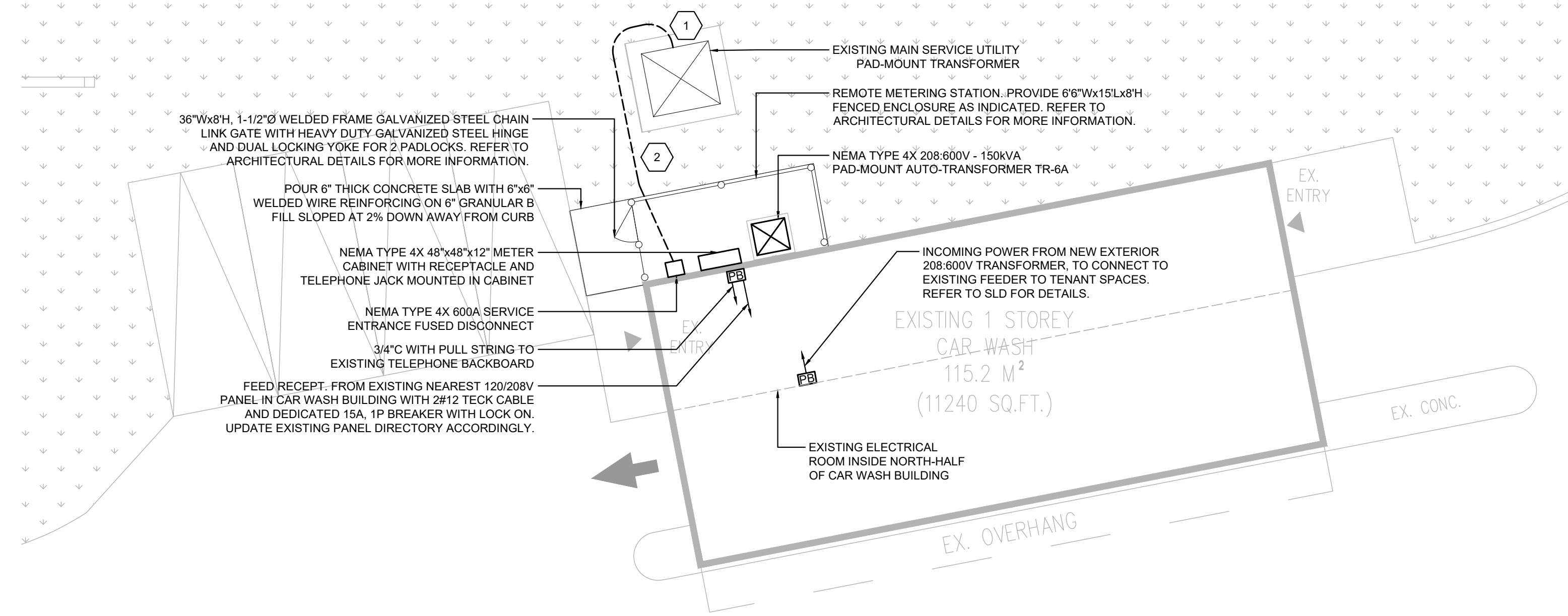


DRAWING NOTES (INDICATED WITH HEXAGONS):

- 1 COORDINATE WITH LAKEFRONT UTILITIES FOR TRANSFORMER SECONDARY SPADE-EXTENSION CONNECTIONS AND PROVIDE ACCORDINGLY. SUBMIT SPADE-EXTENSION SHOP DRAWINGS FOR UTILITIES REVIEW. INSTALLATION OF CONTRACTOR SUPPLIED SPADE-EXTENSION TO BE INSTALLED BY LAKEFRONT UTILITIES.
- 2 PROVIDE X-RAY SCAN OF EXISTING UNDERGROUND SERVICES PRIOR TO TRENCHING OF THE NEW UNDERGROUND SERVICE TO AVOID DAMAGES TO EXISTING UNDERGROUND SERVICES. ADJUST LOCATION OF NEW UNDERGROUND SERVICE AS NEEDED.
- 3 MAKE ALL PROVISIONS TO RELOCATE EXISTING LIGHT STANDARD. EXTEND EXISTING WIRING, AND CONDUIT CONNECTION FOR A FULLY OPERATIONAL SYSTEM.

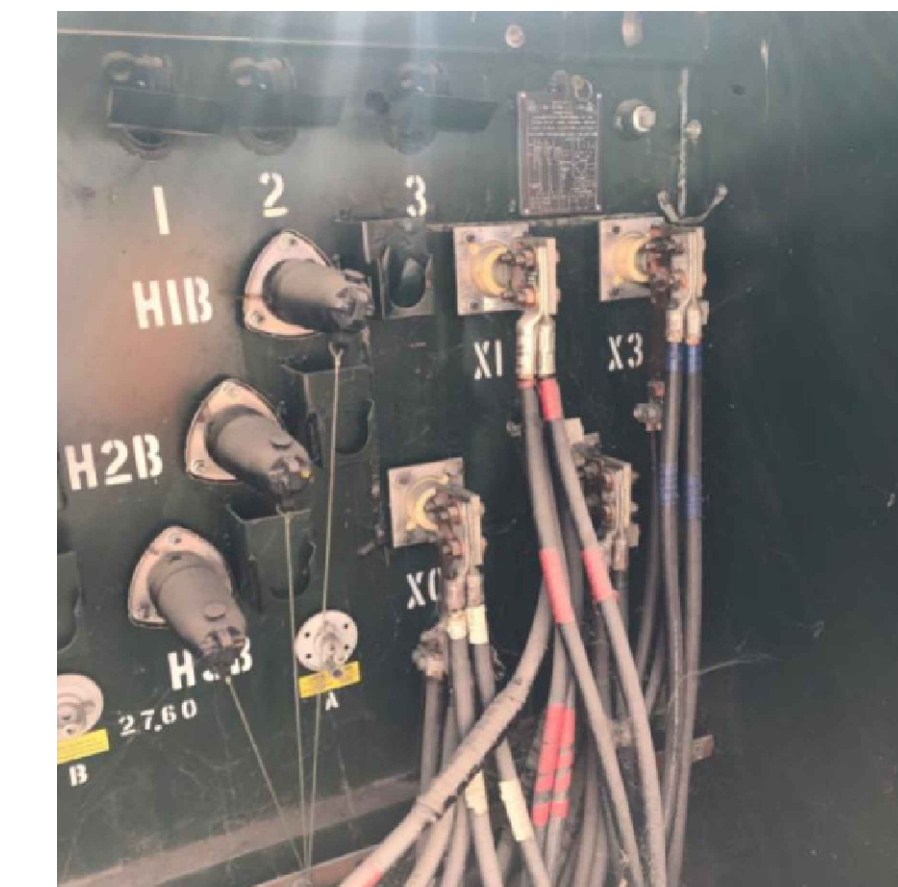
GENERAL NOTES:

- PROVIDE PULLSTRINGS IN ALL EMPTY CONDUITS. STAKE AND CAP AT BOTH ENDS. PROVIDE LABEL.
- COORDINATE EXACT LOCATIONS OF EXTERIOR OWNER SUPPLIED EQUIPMENT PRIOR TO INSTALLATION OF CONDUITS.
- PROVIDE 2"x6" PRESSURE TREATED WOODEN PLANKS OVER THE ENTIRE LENGTH OF UNDERGROUND CONDUITS IN VEHICULAR AREAS. PROVIDE PROPER PULL STRINGS IN ALL EMPTY CONDUITS. STAKE AND CAP OFF CONDUIT ENDS AND LABEL FOR FUTURE CONNECTIONS OF STARBUCKS' SITE EQUIPMENT REQUIRING POWER.

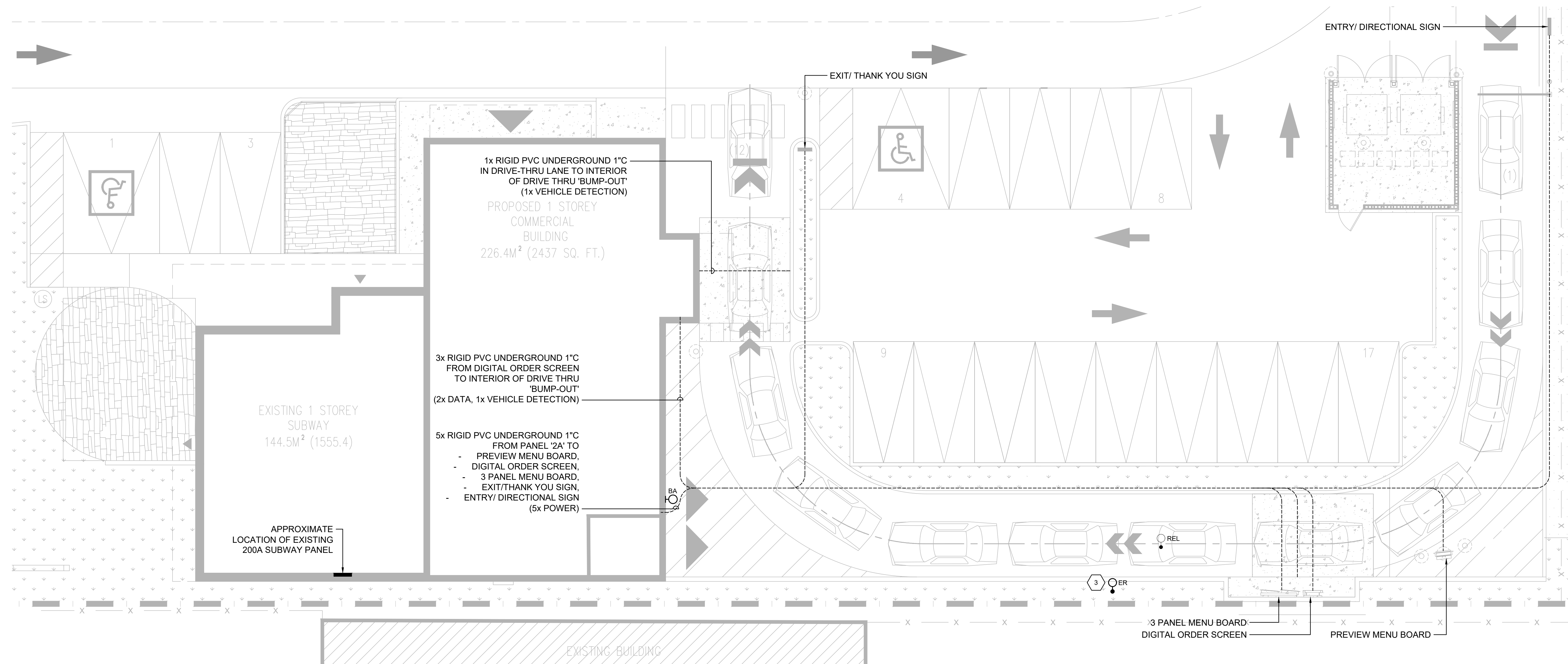


NOTES: INSTALL AS PER OESC DIAGRAM D11 DETAIL 2 AND TABLE D11B

DETAIL #1 - SECONDARY FEEDER TRENCH DETAIL
SCALE: NTS



DETAIL #2 - EXISTING SECONDARY SPADE AT UTILITY PADMOUNT TRANSFORMER
SCALE: NTS



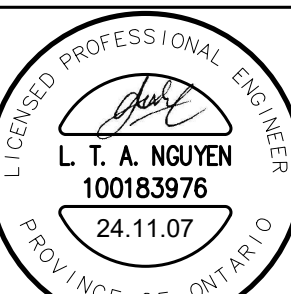
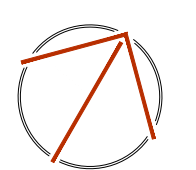
ELECTRICAL SITE PLAN

SCALE: 1/8" = 1'-0"

REVISIONS

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00	90% COORDINATION	24.06.26
01	100% COORDINATION	24.10.15
02	PERMIT	24.11.07

NORTH



DESIGN	DL	DRAWN	DL
CHECKED	LN	REVIEWED	LN

PROJECT

STARBUCKS COBOURG

ADDRESS

1030 DIVISION STREET, COBOURG, ON

PROJECT NO.

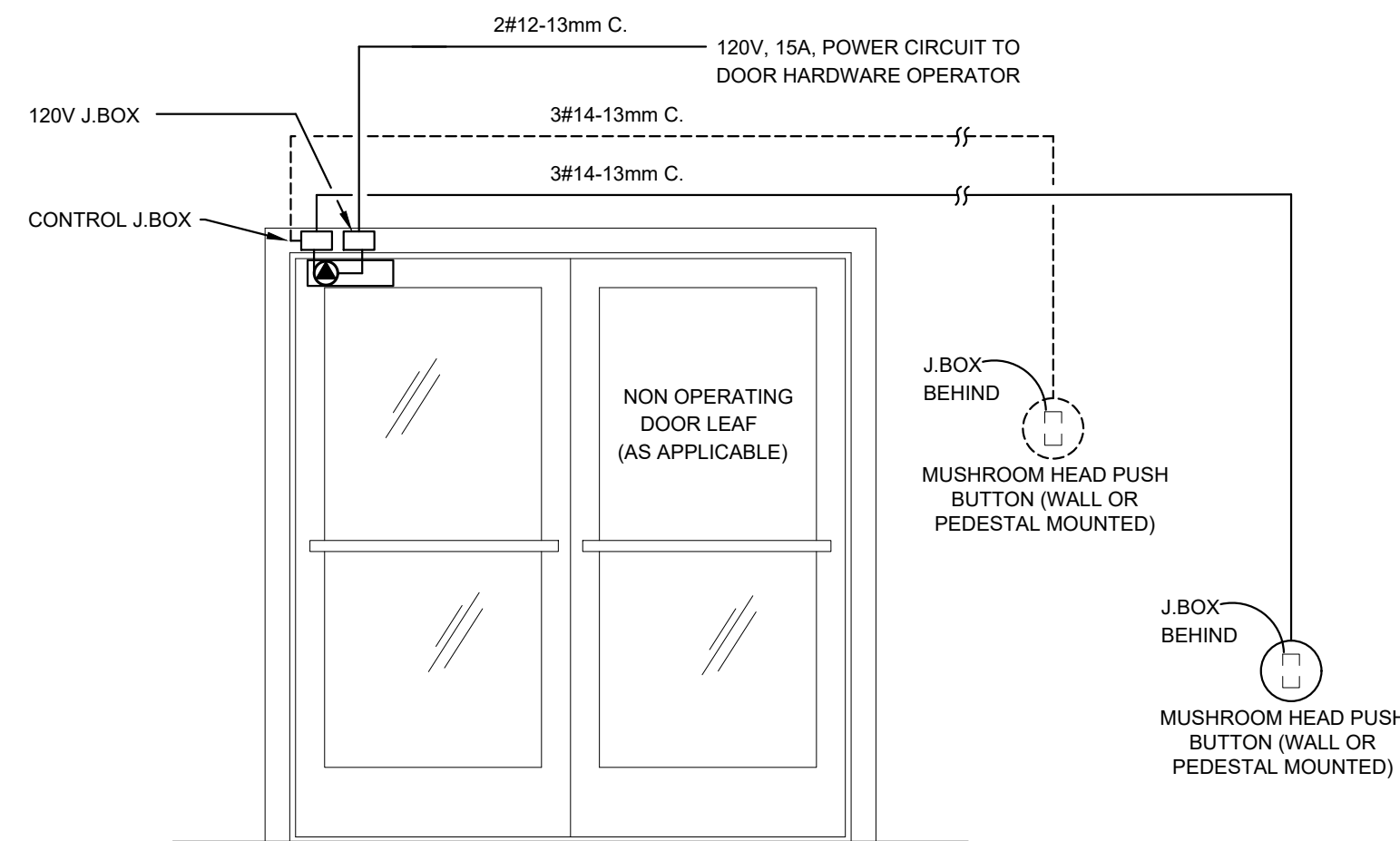
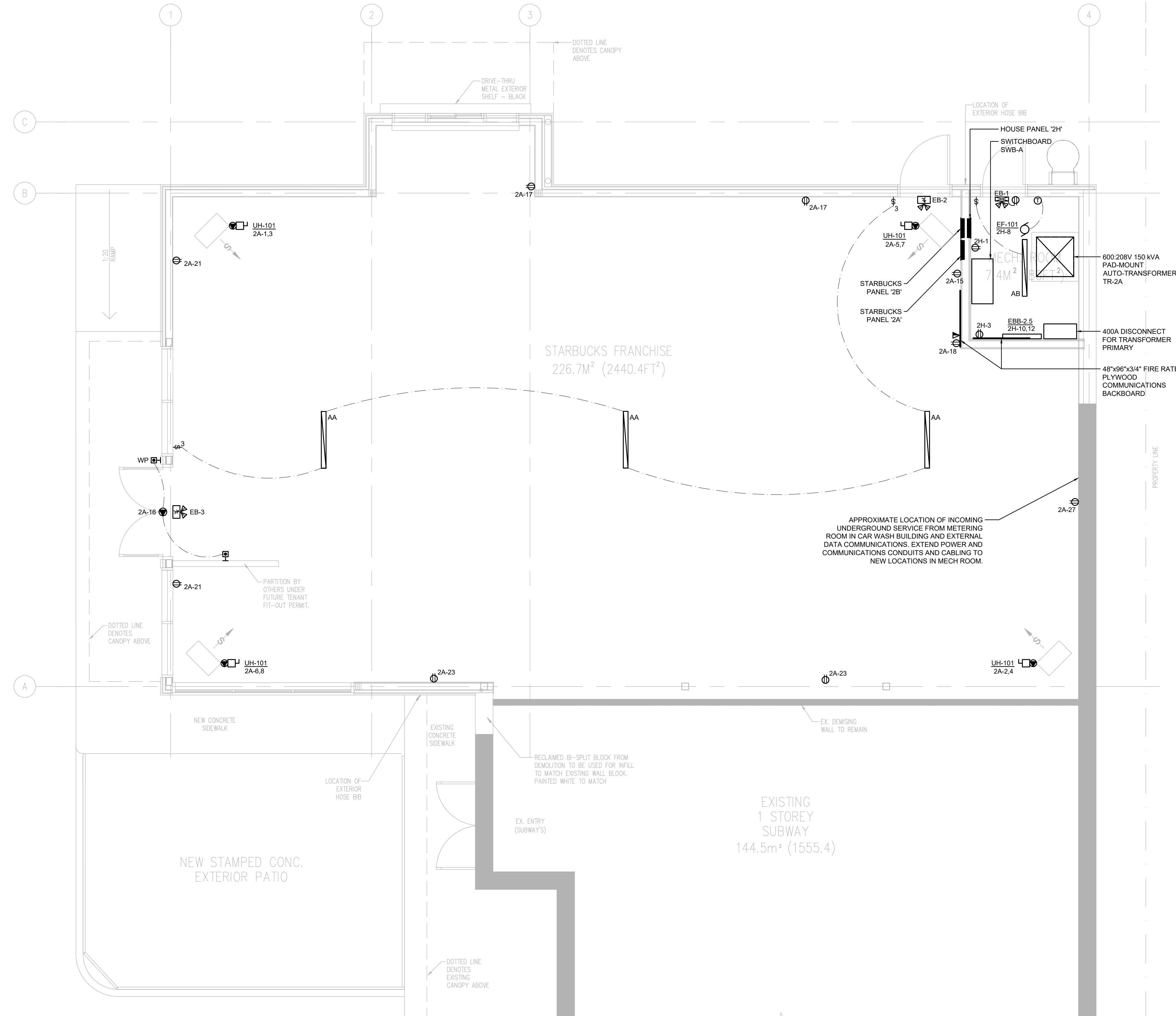
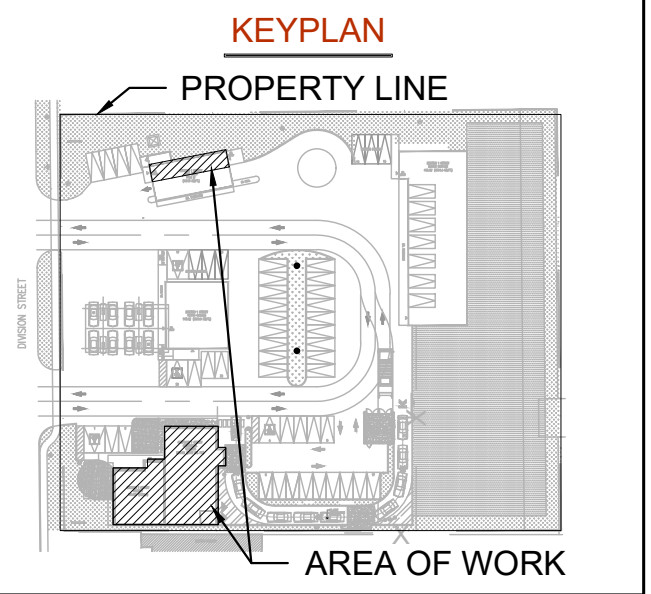
CE-5924

DRAWING TITLE

ELECTRICAL SITE PLAN & DETAILS

DRAWING NUMBER

E2 OF 5



1. PUSH BUTTON, MUSHROOM HEAD, AND OPERATOR BY HARDWARE INSTALLER. INSTALLATION BY HARDWARE INSTALLER.
2. CO-ORDINATE WITH HARDWARE SUPPLIER FOR TYPE OF JUNCTION BOX TO BE INSTALLED BEHIND MUSHROOM PUSH BUTTON.
3. POWER SUPPLY, CONTROL WIRING AND TERMINATIONS BY DIV. 16.
4. OPERATORS SHALL BE INSTALLED PER REQUIREMENTS OF OBC 3.9.3.3 (17) - WITH OPERATOR BUTTON INSTALLED 1000 - 1100 MM AFF ON CENTER, AND NOT LESS THAN 600 MM BEYOND THE DOOR SWING WHEN DOOR OPENS TOWARDS THE CONTROL.

DETAIL #1 - BARRIER FREE DOOR OPENER DETAIL
SCALE: NTS

DRAWING NOTES (INDICATED WITH HEXAGONS):

1. SPARE

ELECTRICAL LAYOUT

SCALE: 1/4" = 1'-0"

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02	PERMIT	24.11.07



DESIGN	DL	DRAWN	DL
CHECKED	LN	REVIEWED	LN

PROJECT

STARBUCKS
COBOURG

ADDRESS

1030 DIVISION STREET,
COBOURG, ON

PROJECT NO.

CE-5924

DRAWING TITLE

ELECTRICAL FLOOR PLANS
& DETAILS

DRAWING NUMBER

E3 OF 5

ELECTRICAL GENERAL REQUIREMENTS

GENERAL CONDITIONS:

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE...
2. BEFORE TENDERING, EXAMINE THE SITE AND ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES...
3. ALL ELECTRICAL WORK SHALL COMPLY WITH CSA ELECTRICAL BULLETIN APPLICABLE AT TENDER DATE...
4. PROVIDE ALL GROUNDING AND BONDING TO GROUND REQUIRED, REGARDLESS IF NOT SHOWN ON THE DRAWINGS...
5. PROVIDE ALL NEW MATERIALS HAVING CSA, CUL, WARNOCK HERSEY OR OTHER APPROVAL AGENCY LABEL AND LISTING...
6. ARRANGE AND PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED FOR THE WORK OF THIS TRADE...
7. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS TRADE...
8. PROVIDE ALL SLEEVES, INSERTS AND HANGERS REQUIRED FOR THE ELECTRICAL WORK...
9. PROVIDE ACCESS PANELS AS FOLLOWS: SHEET STEEL CONSTRUCTION WITH FACTORY APPLIED PRIME COAT OF PAINT...
10. TOUCH-UP ALL SHOP PAINTED EQUIPMENT DAMAGED IN TRANSIT OR DURING INSTALLATION TO MATCH ORIGINAL SHOP FINISH...
11. AVOID ACCUMULATION OF DEBRIS AS THE WORK PROGRESSES...
12. CO-ORDINATE THE WORK OF THIS TRADE WITH ALL OTHER TRADES ON THE JOB...
13. IN AREAS WHERE SPACE IS LIMITED AND MULTIPLE TRADES ARE INSTALLING SERVICES...
14. PRIOR TO THE FINAL INSPECTION, CLEAN ALL ELECTRICAL EQUIPMENT...
15. UPON COMPLETION OF THE WORK, PROVIDE THE FINAL UNCONDITIONAL CERTIFICATE OF ACCEPTANCE...
16. PROVIDE A ONE YEAR GUARANTEE ON ALL MATERIALS, AND LABOUR FROM THE DATE OF ACCEPTANCE...
17. ON MULTI-PHASE FEEDERS AND PANELS, ADJUST THE PHASE LOADING SO AS NOT TO EXCEED A PHASE IMBALANCE OF 10%...
18. SUBMIT SHOP DRAWINGS IN ELECTRONIC PDF FORMAT FOR THE FOLLOWING EQUIPMENT...
19. ALL ELECTRICAL EQUIPMENT SHALL BE MOUNTED PLUMBED TRUE...
20. DEVICE BOXES SHOWN BACK TO BACK SHALL BE OFFSET A MINIMUM OF 305mm...
21. AS-BUILT DRAWINGS:
21.1. MAINTAIN AN ACCURATE RECORD OF DEVIATIONS AND CHANGES FROM CONTRACT DRAWINGS...
21.2. FORMAT FILES TO MATCH EXACTLY THE LAYERING SYSTEM AND SYMBOLOLOGY OF THE CONSULTANT...
21.3. THE AS-BUILT DRAWINGS SHALL HAVE A VALUE OF \$5,000 UNLESS THE ELECTRICAL CONTRACT VALUE IS LESS THAN \$100,000...
21.4. THIS PROJECT UTILIZED THE FOLLOWING DIGITAL FORMAT(S): AUTOCAD/PDF.
22. OPERATION AND MAINTENANCE INSTRUCTION MANUALS:
22.1. PROVIDE PDF COPIES OF COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT...
22.2. MANUALS SHALL INCLUDE THE FOLLOWING INFORMATION:
22.2.1. CONTACT INFORMATION OF CONSULTANTS AND CONTRACTORS.
22.2.2. COMPLETE SET OF FINAL PROJECT SHOP DRAWINGS.
22.2.3. EMERGENCY LIGHTING TEST FORM AND LETTER.
22.2.4. ESA LETTER OF COMPLIANCE.
22.2.5. CERTIFICATE OF SUBSTANTIAL COMPLETION.
22.2.6. MANUFACTURER'S INSTALLATION INSTRUCTIONS.
22.2.7. MANUFACTURER'S MAINTENANCE INSTRUCTIONS.
22.2.8. MANUFACTURER'S WARRANTIES AND GUARANTEES.
22.2.9. COPIES OF ALL TEST DATA AND VERIFICATION CERTIFICATES.
23. WHERE THE WORD PROVIDE IS USED IN THESE SPECIFICATIONS OR ON THE DRAWINGS...
24. CHANGES IN THE WORK
24.1. CHANGES TO THE CONTRACT REQUIRING ADDITIONS TO OR DELETIONS FROM THE WORK...

ELECTRICAL PROJECT COMPLIANCE

- 25.1. PROVIDE THE FOLLOWING DOCUMENTS TO THE CONSULTANT TO ISSUE THE LETTER OF GENERAL REVIEW:
25.1.1. ESA INSPECTION REPORT
25.1.2. A SIGNED VERIFICATION LETTER FROM THE ELECTRICAL CONTRACTOR CONFIRMING THE FOLLOWING:
- LIGHTING AND LIGHTING CONTROLS OPERATIONAL.
- EXIT SIGNS AND EMERGENCY LIGHTINGS VERIFIED AS OPERATING PROPERLY FOR THE DURATION OF 30 MINUTES UNDER EMERGENCY POWER.
- BARRIER FREE DOOR OPERATORS ARE TESTED AND VERIFIED OPERATIONAL.
CONDUCTORS & RACEWAYS:
1. USE RW90 COPPER CONDUCTORS CSA APPROVED FOR THE APPLICATION...
2. DESIGN IS BASED ON COPPER CONDUCTORS EXCEPT WHERE SHOWN ON THE DRAWINGS...
3. TERMINATE ALUMINUM FEEDER CONDUCTORS WITH PRESSURE CONNECTORS...
4. ALL CONDUCTORS ARE TO BE INSTALLED IN RACEWAYS AS DESCRIBED BELOW:
4.1. PVC CONDUIT: IN CONCRETE SLAB, UNDERGROUND BURIED, BELOW SLAB ON GRADE...
4.2. EMT RACEWAYS: INTERIOR SURFACE RACEWAYS, BRANCH CIRCUIT WIRING FROM PANELS...
4.3. ARMOURD CABLE (BX): IN METAL STUD PARTITION WALLS, BRANCH CIRCUIT WIRING FROM PANELS...
4.4. IN WOOD STUD CONSTRUCTION: NMD-7 COPPER CONDUCTORS ARE PERMITTED FOR BRANCH CIRCUIT WIRING...
4.5. SURFACE METAL RACEWAYS (SMR): FOR EXISTING CONSTRUCTION WHERE EXISTING WALLS AND FINISHES ARE TO REMAIN.
4.6. OBTAIN PERMISSION FROM THE CONSULTANT PRIOR TO INSTALLATION...
5. MINIMUM RACEWAY SIZE FOR EXTERIOR U/G BURIED APPLICATION IS 3/4" (19MM). MINIMUM BURIED DEPTH IS 36" (900MM) BELOW FINISHED GRADE.
6. ALL CONDUIT AND WIRING IS TO BE CONCEALED IN ALL FINISHED AREAS.

DEVICES:

- 1. SWITCHES:
1.1. SPECIFICATION GRADE RATED 15 AMP, 125 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
1.2. SPEC GRADE, RATED 20 AMP, 125 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
1.3. MANUFACTURERS: SMITH AND STONE, HARVEY HUBBEL, LEVITON, PASS AND SEYMOUR, LUTRON.
2. RECEPTACLES:
2.1. SPEC GRADE, DUPLEX, RATED 15 AMP, 125 VAC, EEMAC 5-15R CONFIGURATION, U-GROUND.
2.2. GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 15 AMP, 125 VAC, EEMAC 5-15R FIG. TRIP RATED FOR 4-6 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS.
2.3. SPEC GRADE, DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R CONFIGURATION, U-GROUND.
2.4. GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R FIG. TRIP RATED FOR 4-6 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS.
2.5. EXTERIOR GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 15 AMP, 125 VAC, EEMAC 5-15R FIG. TRIP RATED FOR 4-6 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS, NEMA 3R WEATHERPROOF C/W WHILE IN USE COVER PLATE, HUBBELL RW57300 OR APPROVED EQUAL.
3. COVER PLATES:
3.1. SMOOTHLINE BAKELITE, COLOUR TO MATCH SWITCHES AND RECEPTACLES.
3.2. BRUSHED STAINLESS STEEL, NUMBER 430, IN OFFICES AND KITCHENS.
4. COLOUR OF DEVICES: WHITE
5. TIME CLOCK: CHARACTERISTICS AS SPECIFIED ON THE DRAWINGS.
6. PHOTO CELL: CHARACTERISTICS AS SPECIFIED ON THE DRAWINGS.
6.1. MANUFACTURERS: TORK, PRECISION, INTERMATIC, AMF PARAGON.
7. ALL DEVICES OF THE SAME TYPE, SIZE AND RATING ARE TO BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT.
8. MOUNTING HEIGHTS - BARRIER FREE DESIGN (OBC LATEST)
8.1. PULL STATIONS AND THERMOSTATS SHALL BE MOUNTED AT 1200MM ABOVE THE FINISHED FLOOR.
8.2. ALL OTHER CONTROLS (INCLUDING ELECTRICAL SWITCHES, INTERCOM SWITCHES, ETC.) SHALL BE MOUNTED NOT LESS THAN 900MM AND NOT MORE THAN 1100MM ABOVE THE FINISHED FLOOR.

SERVICE AND DISTRIBUTION:

- 1. CONSULT WITH THE LOCAL P.U.C. OR HYDRO ELECTRIC COMMISSION REGARDING ELECTRICAL SERVICES TO THE MODIFIED EXISTING BUILDING...
2. THE LOCAL P.U.C. OR HYDRO ELECTRIC COMMISSION WILL PROVIDE PRIMARY SERVICE, TRANSFORMER, TRANSFORMER GROUNDING AND METERING...
3. PROVIDE AND INSTALL THE SECONDARY CONDUCTORS FROM THE TRANSFORMER VAULT TO THE MAIN SERVICE DISCONNECT.
4. PROVIDE CIRCUIT BREAKER PANELS OF THE TYPE, WITH AMPERE CAPACITY, NUMBER OF POLES, BRANCH BREAKER CAPACITY, ETC., AS SPECIFIED IN PANEL SCHEDULE. MOUNTING TO BE AS INDICATED.
5. FUSES SHALL BE BUSS OR APPROVED EQUAL, OF THE CLASS, TYPE AND AMPERE RATING AS SHOWN ON THE DRAWINGS.
6. PROVIDE MECHANICALLY FASTENED LABEL FOR ALL DISCONNECT SWITCHES, STARTERS, AND PANELS TO CLEARLY INDICATE EQUIPMENT CONTROLLED OR AREA SERVED...
7. ALL BUSBARS TO BE TIN PLATED COPPER. PROVIDE COPPER GROUND BUS IN EACH PANELBOARD.
8. PROVIDE A TYPEWRITTEN DIRECTORY CARD ON THE INSIDE OF THE PANEL DOOR...
9. ALL BRANCH BREAKERS SHALL BE THERMAL-MAGNETIC TRIP INDICATED, AMBIENT TEMPERATURE COMPENSATED AND BOLTED TO THE BUS BAR.
10. ALL SURFACE MOUNTED EQUIPMENT SHALL BE MOUNTED ON 19 MM (3/4"), FIRE RATED, PLYWOOD BACKBOARD.
11. ACCEPTABLE MANUFACTURERS FOR DISTRIBUTION EQUIPMENT INCLUDE: EATON-OUTLER HAMMER, SCHNEIDER CANADA, GENERAL ELECTRIC AND SIEMENS.

EMERGENCY LIGHTING:

- 1. PROVIDE A COMPLETE EMERGENCY LIGHTING SYSTEM CAPABLE OF XX MINUTES OF CONTINUOUS OPERATION IN A POWER FAILURE AS SHOWN ON THE DRAWINGS.
2. EMERGENCY BATTERY UNITS:
2.1. ALL EMERGENCY BATTERY UNITS TO BE CSA C22.2-141 APPROVED AND COMPLY WITH OBC 3.2.7.3 AND CAN/CSA C860-07.
2.2. ALL UNITS TO BE COMPLETE WITH LONG LIFE, SEALED LEAD ACID BATTERIES, BATTERY CHARGER, HIGH CHARGE INDICATOR, TEST BUTTON, A.C. "ON" INDICATOR, 120 VAC CORD SET, MOUNTING BRACKETS AND AUTOMATIC TRANSFER TO EMERGENCY POWER SUPPLY ON NORMAL POWER FAILURE. D.C. VOLTAGE TO BE AS INDICATED ON THE DRAWINGS. MINIMUM BATTERY CAPACITY TO BE 125% OF THE TOTAL CONNECTED D.C. LOAD.
2.3. MANUFACTURERS: EMERGI-LITE, LUMACELL, STANPRO, DUAL-LITE, BELUCE, AIMLITE.
3. COMBINATION EMERGENCY BATTERY UNIT/EXIT FIXTURE: SEALED LEAD ACID MEDIUM LIFE BATTERIES, BATTERY CHARGER, TRANSFER SWITCH, EXTRUDED ALUMINUM HOUSING, SINGLE OR DOUBLE FACE AS REQUIRED AND 2 MICRO TYPE, LED HEADS, BATTERY RATED 18 WATT HOURS MINIMUM. REFER TO EMERGENCY LIGHTING SCHEDULE.
4. EMERGENCY LIGHTING HEADS: TO BE OF THE SAME MANUFACTURER AS THE EMERGENCY BATTERY UNITS. REFER TO EMERGENCY LIGHTING SCHEDULE.
5. MOUNT BATTERY UNITS AND LIGHTING HEADS AS HIGH AS POSSIBLE TO THE FINISHED CEILING, UNLESS SPECIFIED OTHERWISE, SO AS NOT TO OBSTRUCT THE HEAD MOVEMENT.
6. SIZE CONDUCTORS FOR A MAXIMUM VOLTAGE DROP OF 5% AT THE LAST CONNECTION POINTS FROM THE UNIT.
7. PROVIDE LETTER OF VERIFICATION OF EMERGENCY LIGHTING SYSTEM TO ENGINEER ON COMPLETION OF WORK. PROVIDE CERTIFICATION OF INSTALLATION TO ENGINEERED DRAWINGS AND ONTARIO BUILDING CODE.
EXIT SIGNS:
1. PROVIDE EXIT SIGNS AND WIRE FROM THE MAIN SERVICE PANEL FROM A SEPARATE CIRCUIT BREAKER USING A SEPARATE RACEWAY SYSTEM USED FOR NO OTHER PURPOSE. PROVIDE LOCK-ON DEVICE ON CIRCUIT BREAKER.
2. CONNECT THE EMERGENCY SOCKET TO THE NEAREST EMERGENCY LIGHTING BATTERY UNIT.
3. EXIT FIXTURES TO CONSIST OF GREEN PICTOGRAM AND WHITE GRAPHIC SYMBOL MEETING THE VISIBILITY AND DIMENSION SPECIFICATIONS AS PER ONTARIO BUILDING CODE 2012, SECTION 3.4.5.1. DC OPERATING VOLTAGE TO MATCH EMERGENCY BATTERY VOLTAGE.
4. ACCEPTABLE MANUFACTURERS INCLUDE: DUALLITE, EMERGI-LITE, LUMACELL, LITHONIA, BELUCE, AIMLITE, STANPRO.

RENOVATIONS ON EXISTING BUILDING:

- 1. RENOVATIONS SHALL BE MADE ON THE EXISTING BUILDING AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. REMOVE ALL EXISTING LUMINARIES, OUTLET BOXES, SWITCHES, RECEPTACLES, ETC. AS INDICATED ON DRAWINGS...
2. NEW CONDUCTORS SHALL BE INSTALLED TO THE NEAREST OUTLET AS REQUIRED FOR EQUIPMENT THAT IS RELOCATED...
3. PROVIDE ALL CONDUCTORS REQUIRED TO RECONNECT EXISTING CIRCUITS WHERE REQUIRED THAT MAY BE DISRUPTED DUE TO RENOVATIONS...
4. PROVIDE NEW BREAKERS WHERE REQUIRED IN EXISTING PANELS TO PICK-UP ADDITIONAL CIRCUITS INDICATED ON THE DRAWINGS.
5. ALL EXISTING LUMINARIES THAT ARE RELOCATED SHALL BE REMOVED, CHECKED, SERVICED, CLEANED, AND RE-LAMPED PRIOR TO RE-INSTALLATION...
6. COORDINATE WITH MECHANICAL DRAWINGS AND SAFELY DISCONNECT AND REMOVE ALL MOTOR/MECHANICAL EQUIPMENT BEING DEMOLISHED...

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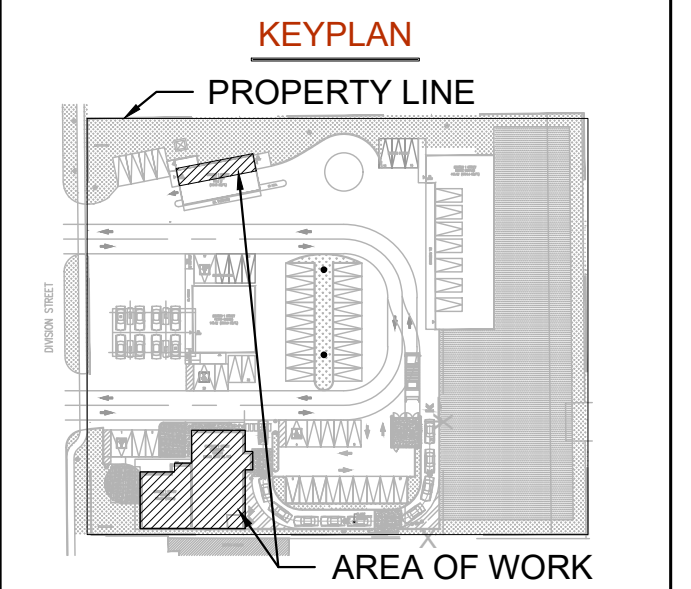


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NORTH arrow and a circular stamp for L. T. A. NGUYEN, LICENSED PROFESSIONAL ENGINEER, 100183976, 24.11.07, PROVINCE OF ONTARIO.

Table with 4 columns: DESIGN, DL, DRAWN, DL. Checked/Reviewed status for LN.

PROJECT STARBUCKS COBOURG

ADDRESS 1030 DIVISION STREET, COBOURG, ON

PROJECT NO. CE-5924

DRAWING TITLE ELECTRICAL SPECIFICATIONS

DRAWING NUMBER E5 OF 5