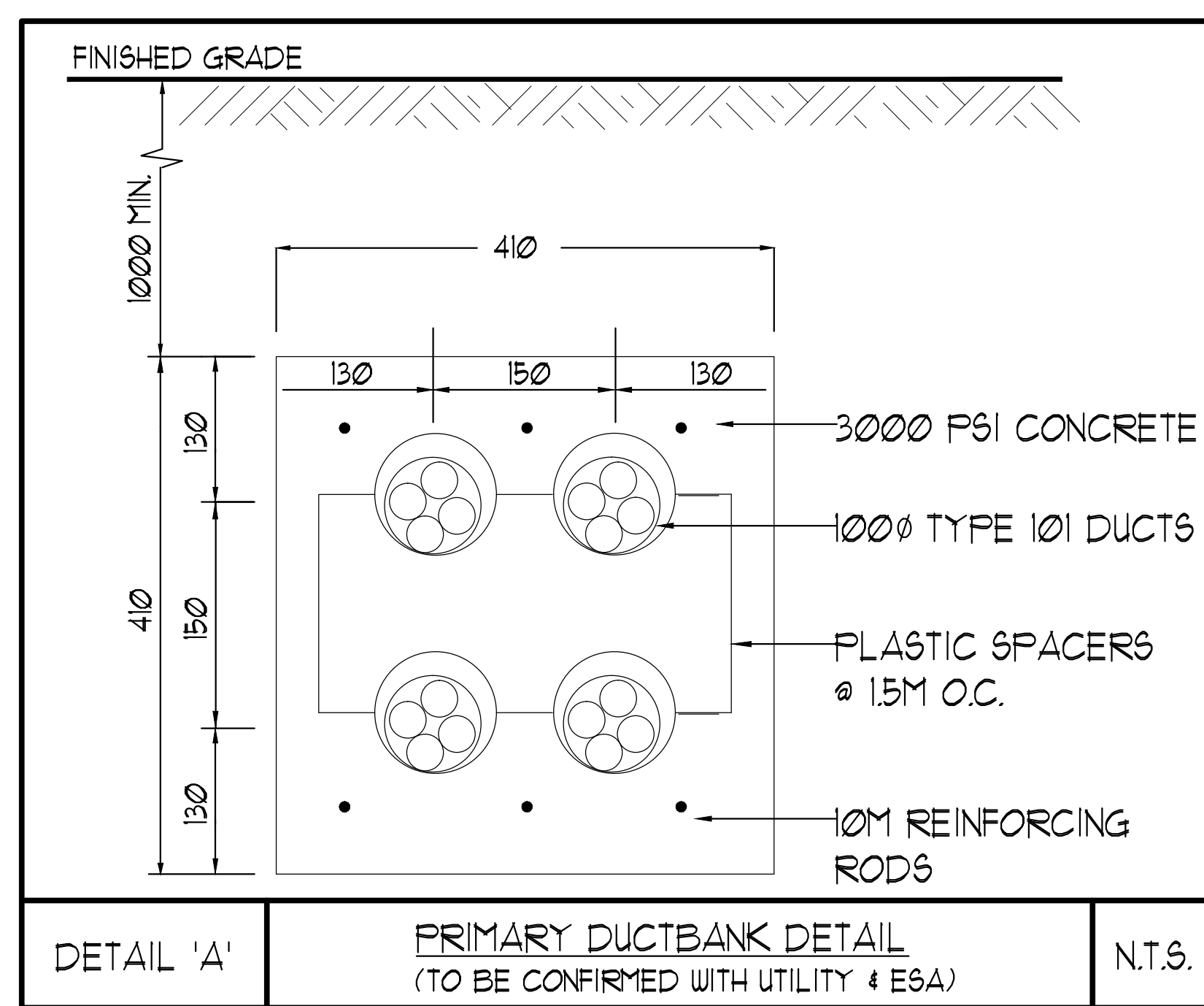
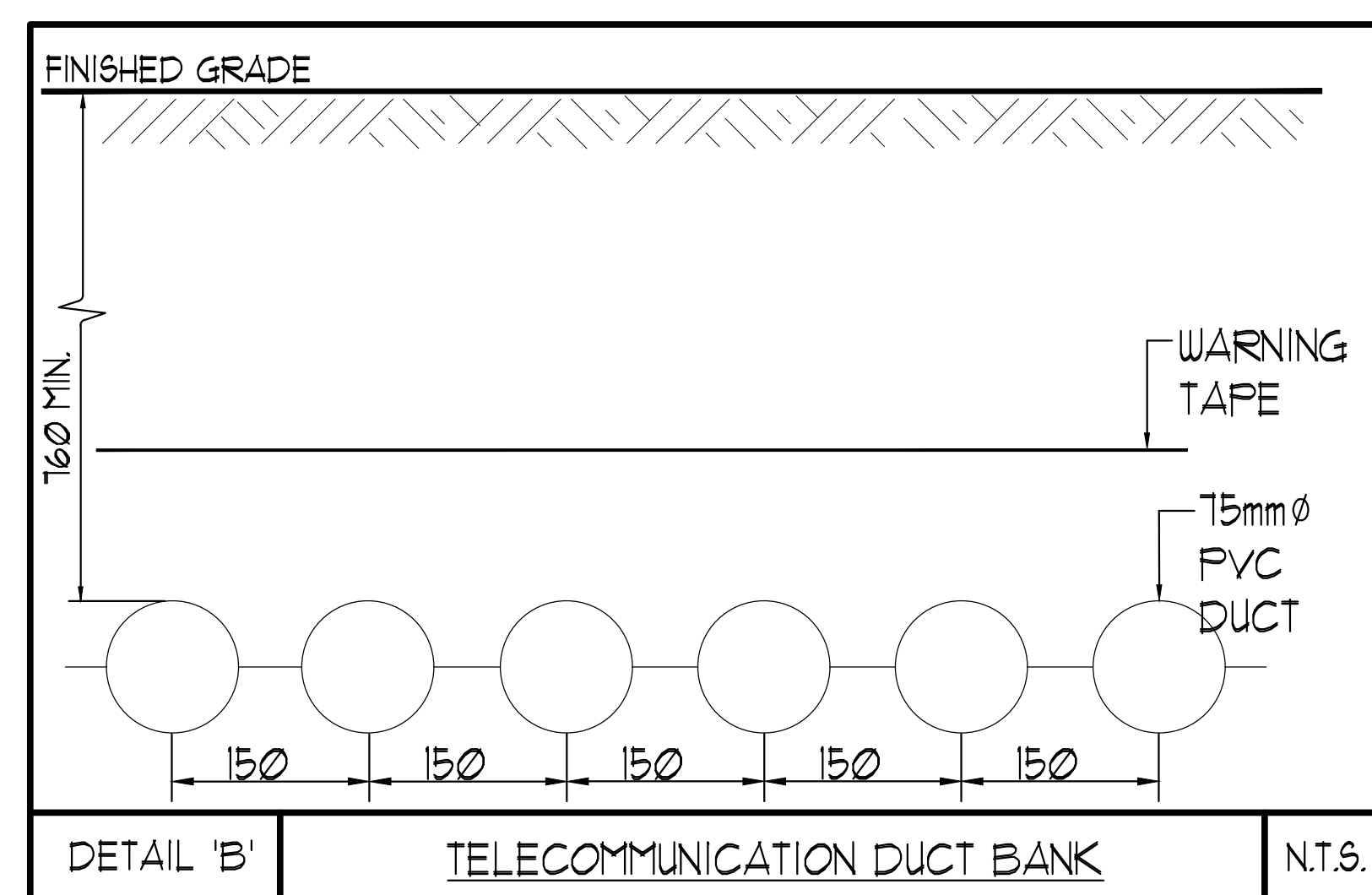


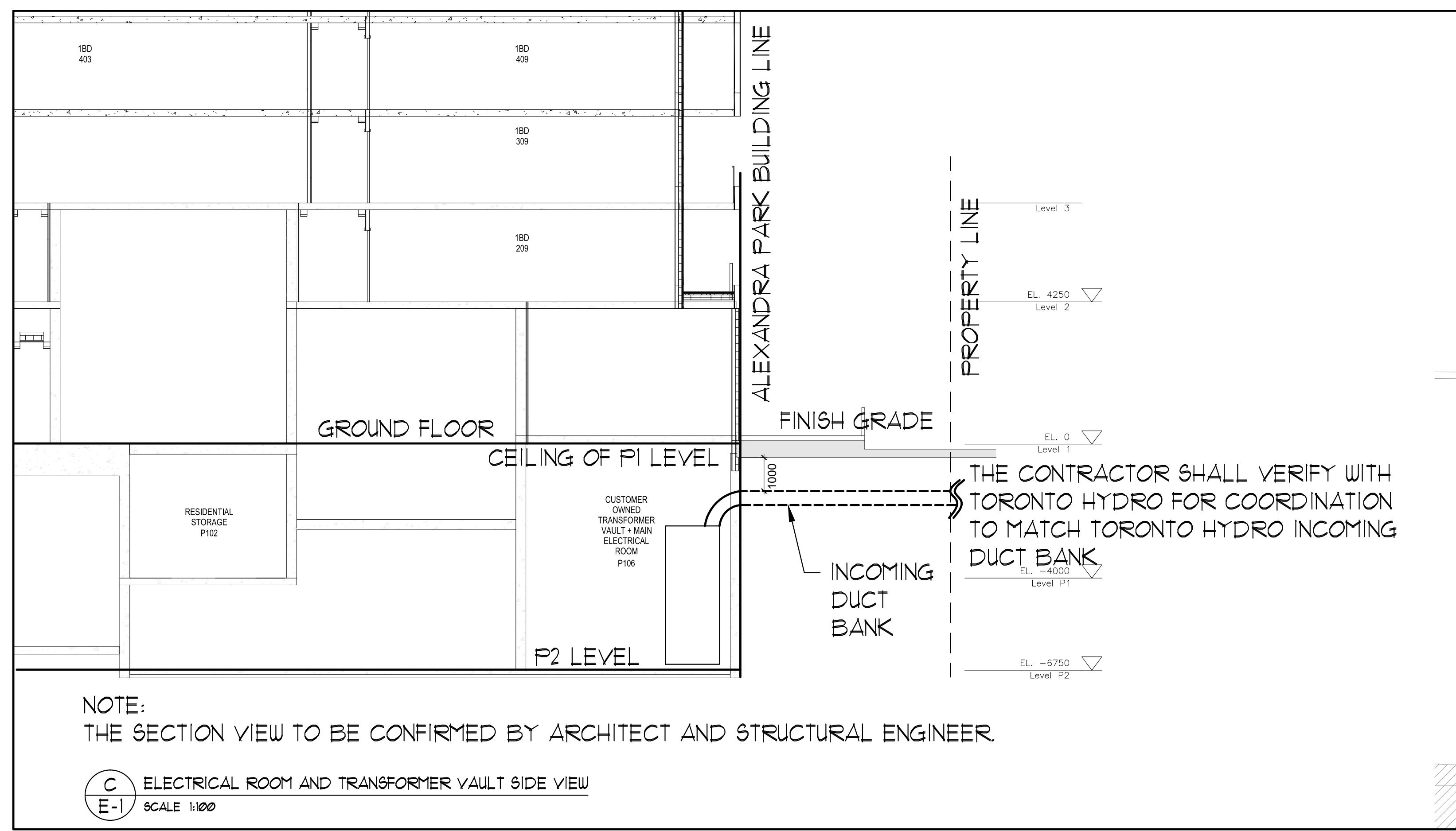
SITE PLAN



DETAIL 'A' PRIMARY DUCTBANK DETAIL (TO BE CONFIRMED WITH UTILITY & ESA) N.T.S.



DETAIL 'B' TELECOMMUNICATION DUCT BANK N.T.S.



NOTE: THE SECTION VIEW TO BE CONFIRMED BY ARCHITECT AND STRUCTURAL ENGINEER.

SECTION C ELECTRICAL ROOM AND TRANSFORMER VAULT SIDE VIEW E-1 SCALE 1/8" = 1'-0"

ACOUSTIC NOTES:

- THE POWER TRANSFORMER LOCATED IN THE CUSTOMER OWNED SUBSTATION SHOULD BE SELECTED FOR LOW NOISE. TRANSFORMER CORES SHOULD BE INTERNALLY ISOLATED WITH SPRINGS OR NEOPRENE IN-SHEAR MOUNT, ISOLATED 150MM HOUSE KEEPING POURED ON 50MM THICK UNDERLAY (1 LAYER OF ISO-SP HD OR 2 LAYERS OF DURACOUSTIC) SHOULD BE INCLUDED BELOW THE UNIT. SHALL BE INSTALLED BELOW THE TRANSFORMER AND ASSOCIATED SWITCHGEAR, AND THE SPRINGS OR MOUNTS SHOULD BE SELECTED FOR A MINIMUM OF 6MM DEFLECTION UNDER THE WEIGHT OF THE CORE.
- THE INCOMING DUCT BANK MUST BE WELL ISOLATED AT ANY POINTS OF SUSPENSION FROM UNDERSIDE OF THE GROUND FLOOR SLAB OR ANY SHEAR WALLS, USING RUBBER COMPRESSION MOUNTS IN SERIES WITH THE RODS SUPPORTING THE UNISTRUT ASSEMBLIES TO WHICH THE CABLES OR CONDUITS ARE ATTACHED, OR RUBBER PADS OR SLEEVES IN CLAMPS. THIS ISOLATION LAYER SHALL BE INCLUDED BELOW THE HOUSE KEEPING PAD FOR THE SWITCHGEAR.
- ALL CONDUITS OR CABLES THAT ARE SUSPENDED FROM THE GROUND FLOOR SLAB ABOVE SHOULD BE VIBRATION ISOLATED AT ANY POINT OF SUSPENSION FROM THE STRUCTURE USING RUBBER COMPRESSION MOUNTS IN SERIES WITH THE RODS SUPPORTING THE UNISTRUT ASSEMBLIES TO WHICH THE CABLES OR CONDUITS ARE ATTACHED, IN A MANNER SIMILAR TO THAT DESCRIBED ABOVE. CONDUITS OR CABLES FOR THESE TRANSFORMERS SHOULD NOT BE BURIED IN THE GROUND FLOOR SLAB, BUT SURFACE MOUNTED TO FACILITATE ISOLATION FROM THE BUILDING STRUCTURE, TO PREVENT BRIDGING OF THE ISOLATION PADS THROUGH CONDUIT CONNECTION.
- SHALL TO MEDIUM TRANSFORMERS (30kVA, 45kVA TO 75kVA) LOCATED IN P1 AND ON THE BOILER ROOM AT 9TH FLOOR (HUNG TRANSFORMERS) PADS LOCATED BETWEEN THE CASING AND THE UNISTRUT, OR CAN BE INCLUDED IN THE RODS). ALL TRANSFORMERS ARE TO BE ISOLATED ON DOUBLE-LAYER RUBBER PADS (25mm THICK, 50 DIAMETER MAXIMUM).
- THE GENERATOR SHALL BE LOCATED ON A 100MM THICK HOUSEKEEPING CONCRETE PAD ABOVE THE FLOATING FLOOR. THE GENERATOR SUPPORTED FROM THIS HOUSEKEEPING PAD WITH SPRING ISOLATORS HAVING A NORMAL 25mm STATIC DEFLECTION, WITH RIBBED RUBBER PADS UNDER THE SPRING BASE. THE FLOATING FLOOR ITSELF SHOULD CONSIST OF A 100MM THICK CONCRETE SLAB, WITH BATT INSULATION IN THE CAVITY BELOW AND ISOLATION PADS THAT ARE MINIMUM 50MM THICK, SIZED AND SPACED TO ACHIEVE A FUNDAMENTAL FREQUENCY OF 15Hz OR LESS.
- BACK TO BACK ELECTRICAL OUTLETS ARE TO BE AVOIDED IN SUITE DEMISING WALLS. THEY SHOULD BE STAGGERED BY A MINIMUM OF 1' (300MM) (IN CONCRETE WALLS) OR 1 STUD SPACE (IN DRYWALL), TO PREVENT REDUCING THE SOUND INSULATION PERFORMANCE OF THOSE WALLS. THIS ALSO APPLIES TO COMMUNICATIONS OUTLETS AND FIRE ALARM SUPPRESSION SWITCHES, IF THESE ARE TO BE INCLUDED IN THIS DEVELOPMENT.

KEY NOTES:

- ELECTRICAL CONTRACTOR TO PROVIDE CONCRETE ENCASED DUCT BANKS AND TO VERIFY ON SITE EXACT LOCATION AND DEPTH OF HV CABLES FOR MATCH-UP WITH HV DUCTS AT PROPERTY LINE. INSTALLATION OF HV CABLES AND TERMINATION ARE DONE BY TORONTO HYDRO.
- ELECTRICAL CONTRACTOR SHALL PROVIDE 6-3" DUCTS FOR TELECOMMUNICATION SERVICES FROM THE BUILDING UP TO PROPERTY LINE. INSTALLATION OF DUCTS AND TERMINATION UP TO THE PROPERTY LINE ARE DONE BY THE ELECTRICAL CONTRACTOR. TELECOMMUNICATION SERVICE PROVIDERS ARE RESPONSIBLE FOR DUCTS AND CABLING BEYOND PROPERTY LINE. DUCTS SHALL CONTINUE AS SLEEVES AS THEY PENETRATE THE GARAGE WALL.
- DIV. 16 CONTRACTOR SHALL PAINT RED WARNING SIGNS FOR HIGH VOLTAGE DUCT BANK IN ACCORDANCE WITH LATEST TORONTO HYDRO STANDARDS.
- ALL UNDERGROUND INSTALLATION OF ELECTRICAL DUCTS/CONDUITS SHALL COMPLY WITH THE LATEST ESA CODE RULE 12-012 (BULLETIN 12-2-15) WHICH SPECIFIES "CONTINUOUS RED PLASTIC MARKER TAPES WITH BLACK LETTERS IDENTIFYING THE POWER LINE UNDERGROUND INSTALLATION."
 - PLACED APPROXIMATELY HALF WAY BETWEEN THE INSTALLATION AND GRADE LEVEL,
 - INSTALLED COVERING THE WIDTH OF THE INSTALLATION, AND
 - WHERE MULTIPLE MARKER TAPES ARE REQUIRED TO COVER THE WIDTH OF THE INSTALLATION MARKER TAPES SHALL BE PLACED A MAXIMUM OF 600mm APART.
- RUN 1" CONDUIT TO GENERATOR CONTROL PANEL AND CACF ROOM FROM INCOMING GAS STATION CONTROL VALVE.
- ELECTRICAL CONTRACTOR SHALL KEEP MINIMUM CLEARANCE OF 600mm HORIZONTAL AND 300mm VERTICAL BETWEEN SERVICES GAS LINE AND HYDRO DUCT BANK.

- COMMUNICATION CONDUIT REQUIREMENTS:
 - PLACE 2" FULL BOX ON BUILDING WALL WHERE ENTRANCE SUB DUCT ENTERS BUILDING SO DUCT CAN BE SEALED AFTER ENTRANCE CABLE IS PLACED TO PREVENT WATER AND GASES SEEPING INTO BUILDING.
 - CONDUIT TERMINATION AT THE PROPERTY LINE TO BE MARKED WITH A 2"x4" STAKED INTO THE GROUND APPROXIMATELY 3' HIGH MARKED "BELL".
 - INSIDE THE BUILDING CONDUIT MUST BE EMT (FIRE RATED ELECTRICAL METALLIC TUBING) 29mm (35") OR 100mm (4") INSIDE DIAMETER TO ENSURE THE SUCCESSFUL PLACEMENT AND TO AVOID DAMAGING THE CABLE DURING THE PULGING OPERATION, 1" METERS FULL BOXES ARE REQUIRED AT 90 DEGREE BENDS WITHIN THE BUILDING.
 - CONDUIT LENGTHS OVER 30m HAVE A FULL ROPE.
 - ALL CONDUITS TO BE FREE AND CLEAR OF OBSTRUCTIONS AS A BLOCKAGE AT THE TIME OF CABLE PLACEMENT WILL RESULT IN A DELAY OF SERVICE UNTIL THE PATH HAS BEEN CLEARED AT THE OWNER'S EXPENSE.
 - 4"x8"x3/4" FIRE RETARDANT FLYWOOD BACKBOARD FASTENED TO WALL IN AN AREA ACCESSIBLE WITHOUT THE USE OF A LADDER WHERE IT IS POSSIBLE FOR A TECHNICIAN TO WORK WITHOUT BLOCKING A PASSAGEWAY AND WHERE THE EQUIPMENT MOUNTED WILL NOT BE DAMAGED BY DOORS OR ANY MOVING OBJECTS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF TELECOMMUNICATION DUCT BANK WITH BELL/ROGERS.
- REFER TO LANDSCAPE DRAWINGS FOR DETAILED LAYOUT, LANDSCAPE LIGHTS SHALL BE CONTROLLED BY A TIMER/CONTROLLER LOCATED NEAR ELP-E1 AND CONNECT TO ELP-E2.
- PROVIDE 1" CONDUIT C/W FULL STRING FROM IRRIGATION CONTROL PANEL TO IRRIGATION CONTROL POINT. FOR QUANTITY AND LOCATIONS OF IRRIGATION POINTS REFER TO IRRIGATION DRAWINGS.
- RESERVED.
- RESERVED.
- FOR CIRCUITING REFER TO TABLE *.
- W2 LIGHT FIXTURES FOR GRADE SUITES TO BE CONNECTED TO SUITE ELECTRICAL PANEL. MOUNTING HEIGHT FOR W2 IS CENTERED 2350mm AFF. REFER TO ARCHITECTURAL/LANDSCAPE DRAWINGS FOR MOUNTING HEIGHT AND EXACT LOCATION OF LIGHT FIXTURE.
- MOUNTING HEIGHT FOR W2 IS CENTERED 2350mm AFF. REFER TO ARCHITECTURAL/LANDSCAPE DRAWINGS FOR MOUNTING HEIGHT AND EXACT LOCATION OF LIGHT FIXTURE.

ALEXANDRA PARK (#1313) ELECTRICAL DRAWING LIST

NO.	DESCRIPTION	SCALE	ISSUED FOR PERMIT MAY 30, 2014	RE-ISSUED FOR PERMIT JULY 01, 2014	RE-ISSUED FOR PERMIT SEPTEMBER 2, 2014	RE-ISSUED FOR TENDER SEPTEMBER 23, 2014	RE-ISSUED FOR TENDER OCTOBER 10, 2014	ISSUED FOR PTA #1 JANUARY 20, 2015	ISSUED FOR PTA #1 FEBRUARY 19, 2015
E-1	SITE PLAN	1:200	✓	✓	✓	✓	✓	✓	✓
E-2	F-2 FLOOR PLAN - ELECTRICAL LAYOUT	1:200	✓	✓	✓	✓	✓	✓	✓
E-3	F-1 FLOOR PLAN - ELECTRICAL LAYOUT	1:200	✓	✓	✓	✓	✓	✓	✓
E-4	G/F SOUTH FLOOR PLAN - POWER LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-5	G/F NORTH FLOOR PLAN - POWER LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-6	G/F SOUTH FLOOR PLAN - LIGHTING LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-7	G/F NORTH FLOOR PLAN - LIGHTING LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-8	2/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-9	2/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-10	3/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-11	3/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-12	4/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-13	4/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-14	5/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-15	5/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-16	6/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-17	6/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-18	7/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-19	7/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-20	8/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-21	8/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-22	9/F SOUTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-23	9/F NORTH FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-24	10/F FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-25	11/F FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-26	12/F FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-27	13/F FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-28	14/F FLOOR PLAN - ELECTRICAL LAYOUT	1:50	✓	✓	✓	✓	✓	✓	✓
E-29	ROOF FLOOR PLAN - ELECTRICAL LAYOUT	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-30	SINGLE LINE DIAGRAM	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-31	SUITE DISTRIBUTION PANEL, TELECOMMUNICATIONS & SECURITY RISER DIAGRAMS	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-32	FIRE ALARM RISER DIAGRAM	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-33	FIRE ALARM SCHEDULES AND DETAILS	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-34	ELECTRICAL PANEL SCHEDULES & LIGHTING SCHEDULES	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-35	ELECTRICAL DETAILS	N.T.S.	✓	✓	✓	✓	✓	✓	✓
E-36	SYSTEM WATER RISER DIAGRAM	N.T.S.	✓	✓	✓	✓	✓	✓	✓

SNOWMELTING - RAMP - ASPHALTIC CONCRETE			
QTY	CAT #	DESCRIPTION	QUANTITY
6	HYPROTANAX SUBS	HDPE JACKETED COPPER SHEATHED MI HEATING CABLE (R)	6 EACH
6	HYPROTANAX DISTTRER#4	JUNCTION BOX (3 ENTRY)	6 EACH
1	DIGITRACE S#PFG3	SNOW MELTING AND DE-ICING POWER DISTRIBUTION AND CONTROL PANEL 600V	1 EACH
1	ETI GIT-1	OVERHEAD SNOW SENSOR	1 EACH
0	ETI S#T-6E	PAVEMENT MOUNTED SENSOR - (OPTIONAL REPLACEMENT FOR OVERHEAD SENSOR FOR BETTER SENSING)	0 EACH
2	SPCS	SNOW MELT CAUTION SIGN	2 EACH
5	HYPROTANAX S#PACER#ALV	GALVANIZED PREPUNCHED STRAPPING (REQUIRED FOR TWO-HOUR CONCRETE AND FOR ALL ASPHALT INSTALLATIONS)	5 ROLL

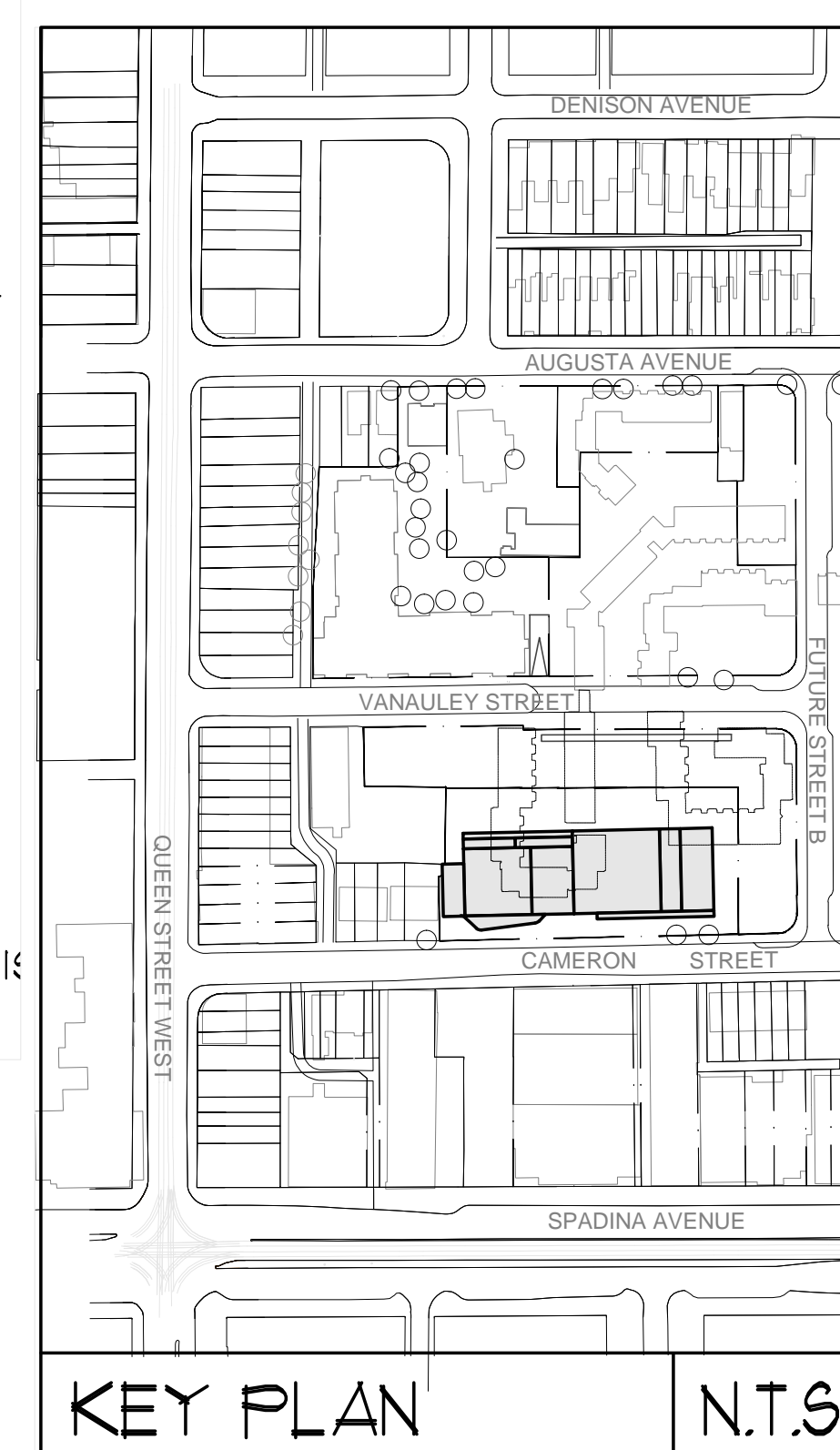
- NOTES:
- THE SYSTEM SHALL BE PENTAIR 600V, 3Ø, 54kW.
 - THE INSTALLATION SHALL COMPLY WITH PENTAIR'S MANUFACTURER'S RECOMMENDATION.
 - CONTRACTOR TO VERIFY MATERIAL LIST IS SUITABLE FOR THE ACTUAL SITE MEASUREMENTS AND CONDITIONS.

- THE CABLES RUNNING TO AND FROM HV TRANSFORMER IN DUCT BANKS SHALL BE EXTERNALLY RUBBER LINED BY CONTRACTOR TO PREVENT VIBRATION TRANSMISSION TO GROUND FLOOR SLAB. (FOR CUSTOM OWNED TRANSFORMERS - SOME CASES ONLY.)
- THE CABLES RUNNING TO AND FROM THE HV TRANSFORMER IN DUCT BANKS SHALL BE EXTERNALLY RUBBER LINED BY CONTRACTOR TO PREVENT VIBRATION TRANSMISSION TO GROUND FLOOR SLAB. (FOR CUSTOM OWNED TRANSFORMERS - SOME CASES ONLY.)

TRENCH DRAIN - TO BE EMBEDDED IN CONCRETE - 208V, 1FH			
QTY	EA	DESCRIPTION	REMARKS
1	EA	B/61E4820/150/3300/208/15/425A/1/N/2	FOR TRENCH DRAIN 350MM X 2280MM. ECOPLA - ENGINEERED JACKETED COPPER HEATING UNIT DESIGN A - 46', 3800W, 208V, 1Ø, 15' COLD LEAD MADE TO ORDER - FREIGHT EXTRA

- MOUNTING HEIGHT FOR S1 LIGHT FIXTURE IS 3250mm AFF. REFER TO ARCHITECTURAL/LANDSCAPE DRAWINGS FOR MOUNTING HEIGHT AND EXACT LOCATION OF LIGHT FIXTURE.
- TRUCK WARNING SYSTEM DESIGN REQUIREMENTS SHALL BE CONFIRMED BY SUPPLIER. THIS LAYOUT FOR INFORMATION ONLY.

ELECTRICAL LEGEND	
LIGHTING	
☐	FLUORESCENT LIGHT FIXTURE, TYPE AS INDICATED
☐	LIGHT OR LIGHT CONNECTED TO EMERGENCY POWER
☐	CEILING MOUNTED WALL MOUNTED LIGHT FIXTURE, INCORPORATED LETTERING TYPE
☐	POLE MOUNTED LIGHT FIXTURE
☐	CAPPED CEILING LIGHT OUTLET
☐	TRACK LIGHT
☐	STRIP LIGHT
☐	UNDER CABINET FLUORESCENT LIGHT FIXTURE
☐	CEILING MOUNTED WALL MOUNTED EXIT SIGN
☐	RECESSED EMERGENCY LIGHT REPEATER HEAD
☐	EMERGENCY BATTERY PACK
☐	OCCUPANCY SENSOR POWER PADS
☐	SINGLE/THREE POLE SINGLE/THREE THROU TOOL SWITCH RESPECTIVELY
☐	13"X4"X4" DENOTES 3-WAY 4-WAY FLOT LIGHT, DIMMER SWITCHED LIGHT RESPECTIVELY
☐	MASTER LIGHTING SHUT-OFF SWITCH
☐	SENSOR WALL SWITCH FIR. SELF POWERED
☐	OCCUPANCY SENSOR CEILING MOUNTED
POWER	
☐	REGULAR DUPLEX RECEPTACLE
☐	DUPLEX RECEPTACLE GROUND FAULT INTERRUPT
☐	3-POLE 4-WIRE DUPLEX RECEPTACLE
☐	SWITCH RECEPTACLE TYPE AND CONFIGURATION AS SPECIFIED FOR DRIVER
☐	CONNECTION FOR OVERCROOP
☐	3-POLE 4-WIRE SWITCH
☐	CEILING MOUNTED DEVICES
☐	FLOOR MOUNTED DEVICES
☐	DISCONNECT SWITCH NON-FUSED
☐	DISCONNECT SWITCH FUSED
☐	OPERATION STARTER
☐	FRACTIONAL MOTORIAN DIRECT CONNECTION
☐	DIRECT CONNECTION SINGLE PHASE
☐	DIRECT CONNECTION THREE PHASE
☐	HEAT TRACE
☐	ELECTRICAL HEATER
☐	ELECTRICAL PANEL / SECURITY PANEL
TELECOMMUNICATION	
☐	TV CABLE OUTLET
☐	TELEPHONE OUTLET
☐	INTERCOM / CABLE (MULTI-PORT) OUTLET
☐	DATA OUTLET
☐	DATA/TELEPHONE OUTLET
☐	SUITE TELEPHONE BOX OR RECEPTACLE
☐	WI-FI LOCATION
☐	VIDEO INTERCOM
☐	RADIO RECEIVER
SECURITY	
☐	INTERCOM / ENTERPHONE
☐	INTERCOM WITH CAMERA
☐	PANIC BUTTON / PANIC INTERCOM STATION
☐	CARD READER
☐	AUTOMATIC RELEASE CARD ACCESS/RADIO RECEIVER
☐	ELECTRIC STRIKE
☐	MAGLOCK
☐	DOOR CONTACT / WINDOW CONTACT
☐	GLASS BREAK DETECTOR
☐	AUTOMATIC DOOR OPERATOR
☐	MOTION DETECTOR
☐	PUSH BUTTON
☐	SECURITY CAMERA
LIFE SAFETY	
☐	FIRE ALARM SMOKE DETECTOR
☐	SMOKE ALARM
☐	FIRE ALARM DUCT TYPE SMOKE DETECTOR
☐	FIRE ALARM HEAT DETECTOR
☐	FIXED TEMP. 68 °C DEGREE HEAT DETECTOR
☐	MOISTURE PROOF HEAT DETECTOR
☐	CO ALARM
☐	COMBINATION SMOKE & CO ALARM
☐	CO SENSOR / NO SENSOR
☐	FIREFIGHTER'S HANDSET
☐	FIRE ALARM MANUAL PULL STATION
☐	FIRE ALARM SPEAKER/WALL MTD.
☐	FIRE ALARM SPEAKER/CILING MTD.
☐	FIRE ALARM SPEAKER/STROBE WALL MTD.
☐	FIRE ALARM SPEAKER/STROBE CEILING MTD.
☐	FIRE ALARM ANNUNCIATOR PANEL
☐	FIRE ALARM CONTROL PANEL



NOVA TRENDS

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Email: info@novatrend.com

PROJECT TITLE: ALEXANDRA PARK
38 CAMERON STREET, BLOCK II
TORONTO, ONTARIO

DATE: FEB, 13
DRAWN BY: S.O.
CHECKED BY: S.T.
SCALE: 1:200
PROJECT NUMBER: 1313
DRAWING NUMBER: E-1