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SITE INSTRUCTION

PROJECT: HAMPTON MANOR

PROJECT NO: 14-016

25 BAKER HILL BLVD STOUFFVILLE, ONTARIO

CONTRACT: Electrical

DATE December 18, 2017

SITE INSTRUCTION: E-16

THIS SITE INSTRUCTION IS NOT TO BE CONSTRUED AS A CHANGE IN THE CONTRACT PRICE, BUT IS ISSUED FOR CLARIFICATION ONLY. IF A CHANGE IN CONTRACT PRICE IS PERCEIVED, PROVIDE AN ITEMIZED BREAKDOWN OF ANY EXTRAS OR CREDITS WITHIN SEVEN (7) WORKING DAYS.

Purpose: As per Mechanical SI M-11.

1.0 Reference Drawing E-2A (P1 Level - 2A) Issued

1.1 Add:

Insulate and electrically trace for vertical storm pipes as shown. Fed from

panel 'EF'.

2.0 Reference Drawing E-11 (Single Line Diagram) Issued

2.1 Revise:

Storm sump pump 'P-9' to be 15HP (duplex) at 60/50A.

Note: The site instruction & drawings will be uploaded to FTP SITE

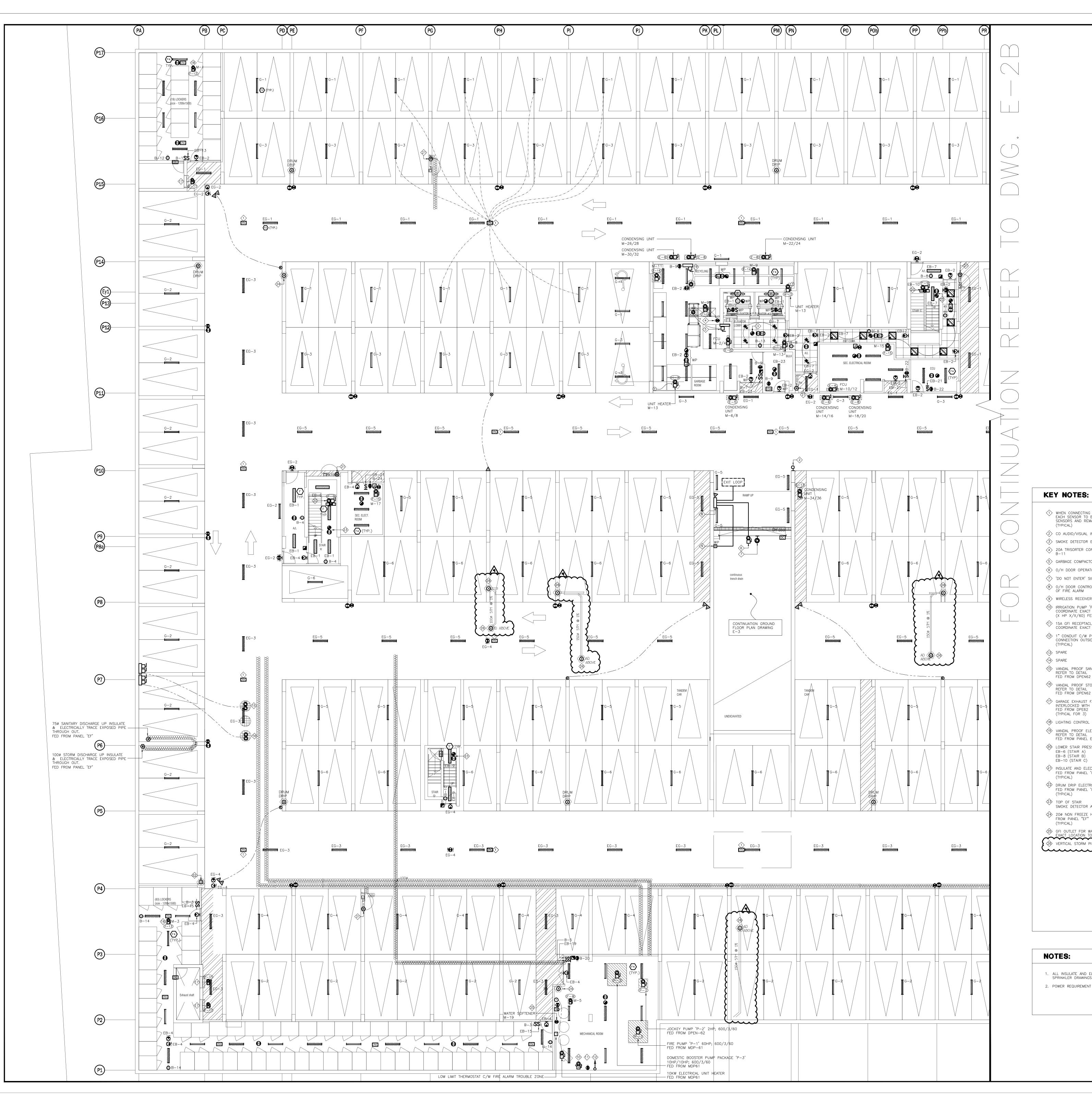
PREPARED BY: _ Chalellekswal

Chula Meksavanh Electrical Department Project #14-016 Hampton Manor

ISSUED TO ROYAL PINE HOMES,

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cc. GRAZIANI + CORAZZA ARCH. INC., Gino Colangelo, GColangelo@gc-architects.com DINEEN CONSTRUCTION CORP., Chuck Clark, cclark@dineen.com; Jeffrey Ellis, jellis@dineen.com; Ric Wight, rwight@dineen.com



KEY NOTES:

- WHEN CONNECTING GARAGE LIGHTS TO "OSC"

 EACH SENSOR TO BE AS A LIGHT BAY FOR NORMAL LIGHTS. EMERGENCY LIGHTS NOT CONNECTED TO SENSORS AND REMAIN ON AT ALL TIMES.
- (2) CO AUDIO/VISUAL INDICATOR
- 3 SMOKE DETECTOR ELEVATOR RECALL CO-ORDINATE WITH ELEVATOR CONTRACTOR 4> 20A TRISORTER CONTROL PANEL B-11
- 5 GARBAGE COMPACTOR TRISORT FED FROM DP24 6 O/H DOOR OPERATOR FED FROM DPEN21
- 7 'DO NOT ENTER' SIGNAGE INTERCONNECTED TO FIRE ALARM ECN-2
- 8 O/H DOOR CONTROL PANEL TO BE INTERCONNECTED TO FIRE ALARM SYSTEM TO OPEN UPON ACTIVATION OF FIRE ALARM
- 9 WIRELESS RECEIVER
- IRRIGATION PUMP 'P-X'
 COORDINATE EXACT LOCATION ON SITE WITH LANDSCAPE DESIGNER (X HP X/X/60) FED FROM XXX
- 15A GFI RECEPTACLE FOR THE IRRIGATION CONTROLLER COORDINATE EXACT LOCATION ON SITE WITH LANDSCAPE DESIGNER
- 1" CONDUIT C/W PULL STRING FROM THE IRRIGATION CONTROLLER TO THE WATER SUPPLY POINT OF CONNECTION OUTSIDE THE BUILDING. COORDINATE EXACT LOCATION ON SITE WITH LANDSCAPE DESIGNER (TYPICAL)
- 13 SPARE
- VANDAL PROOF SANITARY SUMP PIT C/W 'P-8' (DUPLEX) CONTROL PANEL C/W PADLOCKABLE WIRE CAGE.
 REFER TO DETAIL $\stackrel{ ext{(b)}}{ ext{(b)}}$ vandal proof storm sump pump c/w 'P-9' (duplex) control panel c/w padlockable wire cage. Refer to detail
- FED FROM DPEN62 (7) GARAGE EXHAUST FAN 'F-11' (5HP 600/3/60) PROVIDE VANDAL PROOF CONTROL EQUIPMENT TO BE INTERLOCKED WITH CO SYSTEM FED FROM DPE62
- (TYPICAL FOR 3) (18) LIGHTING CONTROL TO BE INTERLOCKED WITH THE OPERATION OF THE EXHAUST FAN (TYPICAL IN LOCKERS)
- VANDAL PROOF ELEVATOR SUMP PIT 'P-10' (SIMPLEX) CONTROL PANEL C/W PADLOCKABLE WIRE CAGE.
 REFER TO DETAIL
 FED FROM PANEL ECN-15 20 LOWER STAIR PRESSURIZATION FAN C/W DUCT SMOKE DETECTOR AND FIRE ALARM ZONE
- EB-10 (STAIR C)
- INSULATE AND ELECTRICALLY TRACE EXPOSED PIPING FED FROM PANEL 'EF' (TYPICAL)
- DRUM DRIP ELECTRICALLY TRACED & INSULATED FED FROM PANEL 'EF' (TYPICAL)
- TOP OF STAIR
 SMOKE DETECTOR AND SPEAKER C/W FIRE ALARM ZONE
- 200 NON FREEZE HOSE BIBB INSULATE & ELECTRICALLY TRACE EXPOSED PIPING THRU OUT TO BE FED FROM PANEL "EF"
- GFI OUTLET FOR WATER SOFTENER EXACT LOCATION TO BE CONFIRMED ON SITE 🏻 🍄 VERTICAL STORM PIPES. INSULATE & ELECTRICALLY TRACE. FED FROM PANEL "E

NOTES:

- ALL INSULATE AND ELECTRICALLY HEAT TRACING TO BE READ IN CONJUNCTION WITH MECHANICAL AND SPRINKLER DRAWINGS.
- 2. POWER REQUIREMENT FOR IRRIGATION PUMP 'P-X' TBC BY LANDSCAPE DESIGNER.

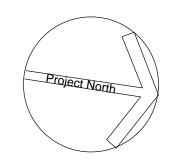
9	СМ	REVISED AS PER SI E-16	2017-12-18
3	СМ	REVISED AS PER SI E-14	2017-11-17
7	СМ	REVISED AS PER SI E-10	2017-09-12
ŝ	СМ	REVISED AS PER SI E-3	2017-08-11
5	СМ	ISSUED FOR CONSTRUCTION	2017-08-09
4	СМ	PROGRESS FOR CONSTRUCTION	2017-07-18
3	СМ	ISSUED FOR PERMIT	2016-12-28
2	СМ	REVISED AS PER ESA COMMENTS AND FOR CLARIFICATION	2016-05-19
1	СМ	ISSUED FOR TENDER	2016-03-15
ο.	BY	DESCRIPTION	DATE

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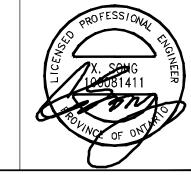
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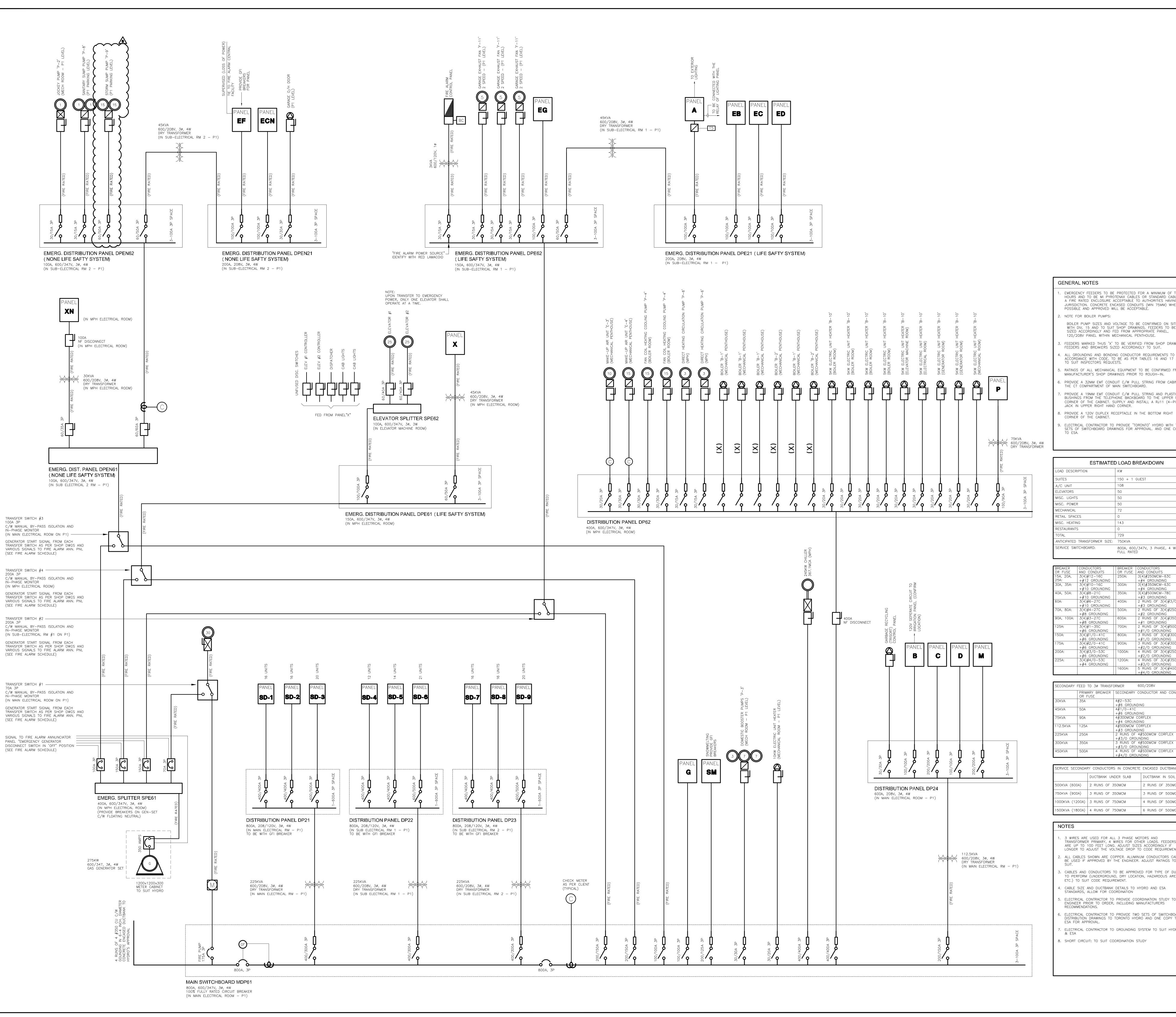
PARKING P1 LEVEL - A

ELECTRICAL

PROPOSED RESIDENTIAL DEVELOPMENT 25 BAKER HILL BLVD.

> ROYAL PINE HOMES STOUFFVILLE, ONTARIO

OTOGIT VIELE, CITATIO		
DRAWN	CHECKED	SCALE
CM	MG	1:100
DATE	PROJECT	DRAWING
SEPT. 2015	14 016	E-2
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		12



EMERGENCY FEEDERS TO BE PROTECTED FOR A MINIMUM OF TWO HOURS AND TO BE MI PYROTENAX CABLES OR STANDARD CABLES IN A FIRE RATED ENCLOSURE ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. CONCRETE ENCASED CONDUITS (MIN 75MM) WHERE POSSIBLE AND APPROVED WILL BE ACCEPTABLÈ.

BOILER PUMP SIZES AND VOLTAGE TO BE CONFIRMED ON SITE WITH DIV. 15 AND TO SUIT SHOP DRAWINGS. FEEDERS TO BE SIZED ACCORDINGLY AND FED FROM APPROPRIATE PANEL,

FEEDERS MARKED THUS 'X' TO BE VERIFIED FROM SHOP DRAWINGS. FEEDERS AND BREAKERS SIZED ACCORDINGLY TO SUIT.

ALL GROUNDING AND BONDING CONDUCTOR REQUIREMENTS TO BE IN ACCORDANCE WITH CODE, TO BE AS PER TABLES 16 AND 17 AND TO SUIT INSPECTORS REQUESTS. 5. RATINGS OF ALL MECHANICAL EQUIPMENT TO BE CONFIRMED FROM MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGH—IN.

6. PROVIDE A 32MM EMT CONDUIT C/W PULL STRING FROM CABINET TO THE CT COMPARTMENT OF MAIN SWITCHBOARD. PROVIDE A 19MM EMT CONDUIT C/W PULL STRING AND PLASTIC BUSHINGS FROM THE TELEPHONE BACKBOARD TO THE UPPER RIGHT CORNER OF THE CABINET. SUPPLY AND INSTALL A RJ11 (4-PIN)
JACK IN UPPER RIGHT HAND CORNER.

9. ELECTRICAL CONTRACTOR TO PROVIDE 'TORONTO' HYDRO WITH TWO SETS OF SWITCHBOARD DRAWINGS FOR APPROVAL. AND ONE COPY

ESTIMATED LOAD BREAKDOWN	
LOAD DESCRIPTION	KW
SUITES	150 + 1 GUEST
A/C UNIT	108
ELEVATORS	50
MISC. LIGHTS	50
MISC. POWER	50
MECHANICAL	72
RETAIL SPACES	0
MISC. HEATING	143
RESTAURANTS	0
TOTAL	729
ANTICIPATED TRANSFORMER SIZE:	750KVA
SERVICE SWITCHBOARD:	800A, 600/347V, 3 PHASE, 4 WIRE FULL RATED

BREAKER	CONDUCTORS	BREAKER	CONDUCTORS
OR FUSE	AND CONDUITS	OR FUSE	AND CONDUITS
5A, 20A,	3(4)#12-16C	250A:	3(4)#250MCM-63C
25A:	+#12 GROUNDING		+#4 GROUNDING
30A, 35A:	3(4)#10-16C	300A:	3(4)#350MCM-63C
	+#10 GROUNDING		+#4 GROUNDING
10A, 50A:	3(4)#8-21C	350A:	3(4)#500MCM-78C
	+#10 GROUNDING		+#3 GROUNDING
50A:	3(4)#6-27C	400A:	2 RUNS OF 3(4)#3/0-53C
	+#10 GROUNDING		+#3 GROUNDING
70A, 80A:	3(4)#4-27C	500A:	2 RUNS OF 3(4)#250MCM-63C
	+#8 GROUNDING		+#2 GROUNDING
90A, 100A:	3(4)#3-27C	600A:	2 RUNS OF 3(4)#350MCM-63C
	+#8 GROUNDING		+#1 GROUNDING
25A:	3(4)#1-35C	700A:	2 RUNS OF 3(4)#500MCM-78C
	+#6 GROUNDING		+#1/0 GROUNDING
50A:	3(4)#1/0-410	800A:	3 RUNS OF 3(4)#300MCM-63C
	+#6 GROUNDING		+#1/0 GROUNDING
75A:	3(4)#2/0-41C	900A:	3 RUNS OF 3(4)#300MCM-63C
	+#6 GROUNDING		+#2/0 GROUNDING
200A:	3(4)#3/0-53C	1000A:	4 RUNS OF 3(4)#250MCM-63C
	+#6 GROUNDING		+#2/0 GROUNDING
225A:	3(4)#4/0-53C	1200A:	4 RUNS OF 3(4)#350MCM-63C
	+#4 GROUNDING		+#3/0 GROUNDING
		1600A:	5 RUNS OF 3(4)#400MCM-78C
			+#4/0 GROUNDING

		I
	PRIMARY BREAKER OR FUSE	SECONDARY CONDUCTOR AND CONDUIT
30KVA	35A	4#2-53C
		+#6 GROUNDING
45KVA	50A	4#1/0-41C
		+#6 GROUNDING
75KVA	90A	4#300MCM CORFLEX
		+#4 GROUNDING
112.5KVA	125A	4#500MCM CORFLEX
		+#3 GROUNDING
225KVA	250A	2 RUNS OF 4#500MCM CORFLEX
		+#3/0 GROUNDING
300KVA	350A	3 RUNS OF 4#500MCM CORFLEX
		+#3/0 GROUNDING
450KVA	500A	4 RUNS OF 4#500MCM CORFLEX
		1 #4 /O CBOLINDING

SERVICE SECONDAR	RY CONDUCTORS IN CONCRETE	ENCASED DUCTBANK 600V
	DUCTBANK UNDER SLAB	DUCTBANK IN SOIL
500KVA (600A)	2 RUNS OF 350MCM	2 RUNS OF 350MCM
750KVA (900A)	3 RUNS OF 350MCM	3 RUNS OF 500MCM
1000KVA (1200A)	3 RUNS OF 750MCM	4 RUNS OF 500MCM
1500KVA (1800A)	4 RUNS OF 750MCM	6 RUNS OF 500MCM

. 3 WIRES ARE USED FOR ALL 3 PHASE MOTORS AND TRANSFORMER PRIMARY, 4 WIRES FOR OTHER LOADS. FEEDERS ARE UP TO 100 FEET LONG. ADJUST SIZES ACCORDINGLY IF LONGER TO ADJUST THE VOLTAGE DROP TO CODE REQUIREMENT. 2. ALL CABLES SHOWN ARE COPPER. ALUMINUM CONDUCTORS CAN BE USED IF APPROVED BY THE ENGINEER. ADJUST RATINGS TO

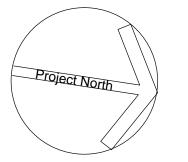
CABLES AND CONDUCTORS TO BE APPROVED FOR TYPE OF DUTY TO PERFORM (UNDERGROUND, DRY LOCATION, HAZARDOUS AREA, ETC.) TO SUIT CODE REQUIREMENT. 4. CABLE SIZE AND DUCTBANK DETAILS TO HYDRO AND ESA STANDARDS, ALLOW FOR COORDINATION 5. ELECTRICAL CONTRACTOR TO PROVIDE COORDINATION STUDY TO ENGINEER PRIOR TO ORDER, INCLUDING MANUFACTURERS

6. ELECTRICAL CONTRACTOR TO PROVIDE TWO SETS OF SWITCHBOARD DISTRIBUTION DRAWINGS TO TORONTO HYDRO AND ONE COPY TO ESA FOR APPROVAL. ELECTRICAL CONTRACTOR TO GROUNDING SYSTEM TO SUIT HYDRO 8. SHORT CIRCUIT: TO SUIT COORDINATION STUDY

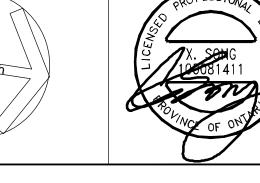
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	СМ	REVISED AS PER SI E-13	2017-10-18
	СМ	REVISED AS PER SI E-5	2017-08-23
ı	СМ	ISSUED FOR CONSTRUCTION	2017-08-09
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SINGLE LINE DIAGRAM **ELECTRICAL**

PROPOSED RESIDENTIAL DEVELOPMENT 25 BAKER HILL BLVD.

> ROYAL PINE HOMES STOUFFVILLE, ONTARIO

N.T.S. DRAWING PROJECT 14-016 SEPT. 2015