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SITE INSTRUCTION

PROJECT: HAMPTON MANOR

PROJECT NO: 14-016

25 BAKER HILL BLVD

STOUFFVILLE, ONTARIO

CONTRACT: Electrical

DATE

August 23, 2017

SITE INSTRUCTION: E-5

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: Clarifications.

- 1.0 Reference Drawing E-10 (Power, Communication, Security and Fire Alarm Riser Diagrams) Issued
 - 1.1 Clarify:

7 units from the 4^{th} and 3^{rd} floors going into SD-5 instead of 9 suites; 14

units in total going into SD-5.

1.2 Clarify:

7 units from 5th floor going into SD-6 instead of 9 suites; 21 units in total

going into SD-6.

1.3 Clarify:

151 suites count in total.

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

14 units in SD-5 and 21 units in SD-6 at DP22.

2.2 Revise:

125/200A breaker feeding snow melting panel SM instead of 100/100A

2.3 Clarify:

Transfer switch #2 and #4 to be 200A.

- 3.0 Reference Drawing E-12 (Panel Schedules) Issued
 - 3.1 Clarify:

Panel SM to be 600Y/347V.

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

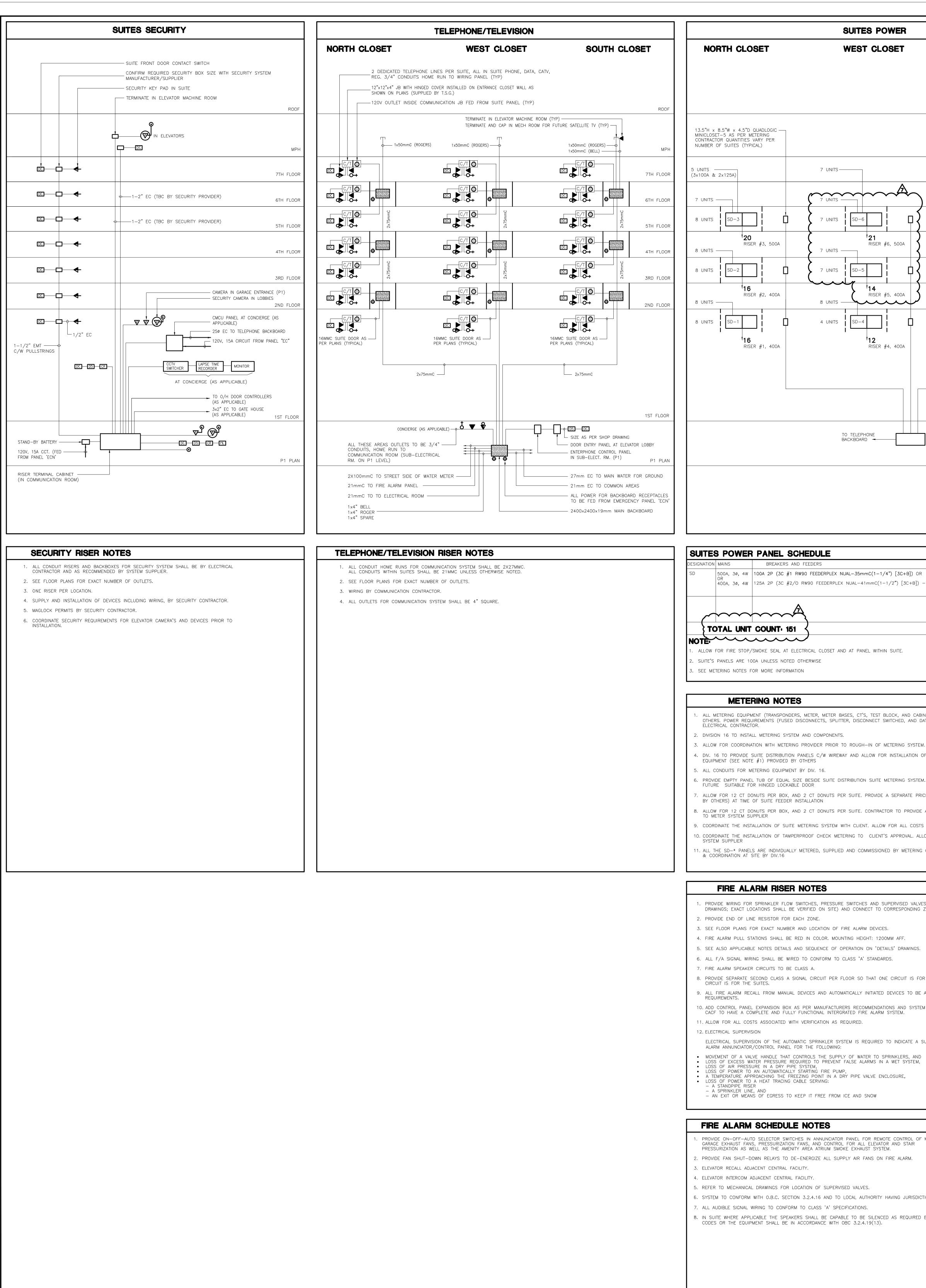
PREPARED BY: Chulalleksaural

Chula Meksavanh Electrical Department

ISSUED TO ROYAL PINE HOMES,

Cinzia Caruso, Cinzia@royalpinehomes.com; Vince Staffieri, vince@royalpinehomes.com FOR DISTRIBUTION TO ALL AFFECTED PARTIES.

cc. GRAZIANI + CORAZZA ARCH. INC., Gino Colangelo, GColangelo@gc-architects.com REXCON CONSTRUCTION, Lenny Simonelli, rexcon.construxtion@gmail.com



	SUITES POWER		
NORTH CLOSET	WEST CLOSET	SOUTH CLOSE	T
13.5"H x 8.5"W x 4.5"D QUADLOGIC —			ROC
MINICLOSET - 5 AS PER METERING CONTRACTOR QUANTITIES VARY PER NUMBER OF SUITES (TYPICAL)			MF
5 UNITS (3x100A & 2x125A)	7 UNITS	5 UNITS — (3x100A & 2x125A)	7TH FLOC
7 UNITS —	7 UNITS	7 UNITS ————————————————————————————————————	6TH FLOC
8 UNITS SD-3 D	7 UNITS SD-6	8 UNITS SD-9 20	5TH FLOO
8 UNITS SD-2 SD-2	RISER #6, 500A 7 UNITS 7 UNITS SD-5	RISER #9, 5 8 UNITS SD-8	4TH FLOC
16 RISER #2, 400A	14 RISER #5, 400A	16 RISER #8, 4	3RD FLOC
8 UNITS SD-1 D	4 UNITS SD-4	8 UNITS SD-7	2ND FLOC
16 RISER #1, 400A	12 RISER #4, 400A	16 RISER #7, 4	.00A
	TO TELEPHONE BACKBOARD	DATA GATHERING PANEL	
			P1 PLA

DESIGNATI	TON MAINS	BREAKERS AND FEEDERS	
SD	500A, 3ø, 4W OR	100A 2P (3C #1 RW90 FEEDERPLEX NUAL-35mmC(1-1/4") [3C+B]) OR	
	400A, 3ø, 4W	125A 2P (3C #2/O RW90 FEEDERPLEX NUAL-41mmC(1-1/2") [3C+B]) - AS MARKED ON PLAN	
		Δ	
	~~~		
<u></u>	TOTAL UNIT	COUNT: 151	
NOTE	<b>A A</b>	COUNT: 151	
NOTE	,,,,,,	COUNT: 151  /SMOKE SEAL AT ELECTRICAL CLOSET AND AT PANEL WITHIN SUITE.	
NOTE	)W FOR FIRE STOP/		

1.	ALL METERING EQUIPMENT (TRANSPONDERS, METER, METER BASES, CT'S, TEST BLOCK, AND CABINETS) ARE TO BE SUPPLIED BY OTHERS. POWER REQUIREMENTS (FUSED DISCONNECTS, SPLITTER, DISCONNECT SWITCHED, AND DATA CABLING TO BE SUPPLIED BY ELECTRICAL CONTRACTOR.
2.	DIVISION 16 TO INSTALL METERING SYSTEM AND COMPONENTS.
3.	ALLOW FOR COORDINATION WITH METERING PROVIDER PRIOR TO ROUGH—IN OF METERING SYSTEM.
4.	DIV. 16 TO PROVIDE SUITE DISTRIBUTION PANELS C/W WIREWAY AND ALLOW FOR INSTALLATION OF ASSOCIATED METERING EQUIPMENT (SEE NOTE #1) PROVIDED BY OTHERS
5.	ALL CONDUITS FOR METERING EQUIPMENT BY DIV. 16.
6.	PROVIDE EMPTY PANEL TUB OF EQUAL SIZE BESIDE SUITE DISTRIBUTION SUITE METERING SYSTEM. EMPTY PANEL TO BE PANEL FOR FUTURE SUITABLE FOR HINGED LOCKABLE DOOR
7.	ALLOW FOR 12 CT DONUTS PER BOX, AND 2 CT DONUTS PER SUITE. PROVIDE A SEPARATE PRICE TO INSTALL DONUTS (SUPPLIED BY OTHERS) AT TIME OF SUITE FEEDER INSTALLATION
8.	ALLOW FOR 12 CT DONUTS PER BOX, AND 2 CT DONUTS PER SUITE. CONTRACTOR TO PROVIDE AND INSTALL EMPTY METER BOX(S) TO METER SYSTEM SUPPLIER
9.	COORDINATE THE INSTALLATION OF SUITE METERING SYSTEM WITH CLIENT. ALLOW FOR ALL COSTS ASSOCIATED WITH COORDINATION
10.	COORDINATE THE INSTALLATION OF TAMPERPROOF CHECK METERING TO CLIENT'S APPROVAL, ALLOW FOR COORDINATION WITH SYSTEM SUPPLIER
11.	ALL THE SD—* PANELS ARE INDIVIDUALLY METERED, SUPPLIED AND COMMISSIONED BY METERING CONTRACTOR. PANEL INSTALLATION & COORDINATION AT SITE BY DIV.16

## FIRE ALARM RISER NOTES

- PROVIDE WIRING FOR SPRINKLER FLOW SWITCHES, PRESSURE SWITCHES AND SUPERVISED VALVES (NOT SHOWN ON ELECTRICAL DRAWINGS; EXACT LOCATIONS SHALL BE VERIFIED ON SITE) AND CONNECT TO CORRESPONDING ZONE OF FIRE ALARM SYSTEM.
- 2. PROVIDE END OF LINE RESISTOR FOR EACH ZONE.
- 3. SEE FLOOR PLANS FOR EXACT NUMBER AND LOCATION OF FIRE ALARM DEVICES. 4. FIRE ALARM PULL STATIONS SHALL BE RED IN COLOR. MOUNTING HEIGHT: 1200MM AFF.
- 5. SEE ALSO APPLICABLE NOTES DETAILS AND SEQUENCE OF OPERATION ON 'DETAILS' DRAWINGS.
- 7. FIRE ALARM SPEAKER CIRCUITS TO BE CLASS A.
- 8. PROVIDE SEPARATE SECOND CLASS A SIGNAL CIRCUIT PER FLOOR SO THAT ONE CIRCUIT IS FOR THE CORRIDORS AND ONE
- 9. ALL FIRE ALARM RECALL FROM MANUAL DEVICES AND AUTOMATICALLY INITIATED DEVICES TO BE AS PER CODE AND TSSA
- 10. ADD CONTROL PANEL EXPANSION BOX AS PER MANUFACTURERS RECOMMENDATIONS AND SYSTEM REQUIREMENTS WITHIN PHASE 1 CACF TO HAVE A COMPLETE AND FULLY FUNCTIONAL INTERGRATED FIRE ALARM SYSTEM.
- 11. ALLOW FOR ALL COSTS ASSOCIATED WITH VERIFICATION AS REQUIRED.
- ELECTRICAL SUPERVISION OF THE AUTOMATIC SPRINKLER SYSTEM IS REQUIRED TO INDICATE A SUPERVISORY SIGNAL ON THE FIRE ALARM ANNUNCIATOR/CONTROL PANEL FOR THE FOLLOWING:
- MOVEMENT OF A VALVE HANDLE THAT CONTROLS THE SOPPLE OF WATER TO SPRINKLERS, AND
  LOSS OF EXCESS WATER PRESSURE REQUIRED TO PREVENT FALSE ALARMS IN A WET SYSTEM,
  LOSS OF AIR PRESSURE IN A DRY PIPE SYSTEM,
  LOSS OF POWER TO AN AUTOMATICALLY STARTING FIRE PUMP,
- A TEMPERATURE APPROACHING THE FREEZING POINT IN A DRY PIPE VALVE ENCLOSURE,
  LOSS OF POWER TO A HEAT TRACING CABLE SERVING:
- AN EXIT OR MEANS OF EGRESS TO KEEP IT FREE FROM ICE AND SNOW

## FIRE ALARM SCHEDULE NOTES

- 1. PROVIDE ON-OFF-AUTO SELECTOR SWITCHES IN ANNUNCIATOR PANEL FOR REMOTE CONTROL OF MUA'S, GARAGE EXHAUST FANS, PRESSURIZATION FANS, AND CONTROL FOR ALL ELEVATOR AND STAIR PRESSURIZATION AS WELL AS THE AMENITY AREA ATRIUM SMOKE EXHAUST SYSTEM.
- 2. PROVIDE FAN SHUT-DOWN RELAYS TO DE-ENERGIZE ALL SUPPLY AIR FANS ON FIRE ALARM.
- 5. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF SUPERVISED VALVES.
- 6. SYSTEM TO CONFORM WITH O.B.C. SECTION 3.2.4.16 AND TO LOCAL AUTHORITY HAVING JURISDICTION.
- 8. IN SUITE WHERE APPLICABLE THE SPEAKERS SHALL BE CAPABLE TO BE SILENCED AS REQUIRED BY

	S.V.#27	FHC IN PARKING
	S.V.#28	FHC IN PARKING
	S.V.#29	FHC IN PARKING
	(S.V.#30)	FHC IN PARKING
	S.V.#41	SPRINKLER SYSTEM ON GROUND FL. (SOUTH PART)
	(S.V.#42)	SPRINKLER SYSTEM ON 2ND LEVEL (SOUTH PART)
	S.V.#43	SPRINKLER SYSTEM ON 3RD LEVEL (SOUTH PART)
	S.V.#44	SPRINKLER SYSTEM ON 4TH LEVEL (SOUTH PART)
	S.V.#45	SPRINKLER SYSTEM ON 5TH LEVEL (SOUTH PART)
	S.V.#46	SPRINKLER SYSTEM ON 6TH LEVEL (SOUTH PART)
	S.V.#47	SPRINKLER SYSTEM ON 7TH LEVEL (SOUTH PART)
	S.V.#51	SPRINKLER SYSTEM ON GROUND FL. (NORTH PART)
	S.V.#52	SPRINKLER SYSTEM ON 2ND LEVEL (NORTH PART)
1	S.V.#53	SPRINKLER SYSTEM ON 3RD LEVEL (NORTH PART)
	S.V.#54	SPRINKLER SYSTEM ON 4TH LEVEL (NORTH PART)
	S.V.#55	SPRINKLER SYSTEM ON 5TH LEVEL (NORTH PART)
	S.V.#56	SPRINKLER SYSTEM ON 6TH LEVEL (NORTH PART)
	S.V.#57	SPRINKLER SYSTEM ON 7TH LEVEL (NORTH PART)
	S.V.#58	SPRINKLER SYSTEM ON MECHANICAL PENTHOUSE

SPRINKLER RISER IN GARBAGE CHUTE

S.V.#1 INCOMING FIRE MAIN ISOLATION

S.V.#2 INCOMING FIRE MAIN ISOLATION

S.V.#3 PRIVATE HYDRANT ISOLATION

S.V.#4 FIRE PUMP MAIN ISOLATION

S.V.#5 FIRE PUMP SUCTION

S.V.#6 FIRE PUMP DISCHARGE

S.V.#7 FIRE PUMP BY-PASS

S.V.#8 FIRE PUMP BY-PASS

S.V.#10 WET SPRINKLER AND I

S.V.#9 FIRE PUMP TEST HEADER

WET SPRINKLER AND FSP

S.V.#11 DRY SPRINKLER SYSTEM HEADER

S.V.#12) DRY SPRINKLER SYSTEM P-1 NORTH

S.V.#13) DRY SPRINKLER SYSTEM P-1 CENTRE

S.V.#14 DRY SPRINKLER SYSTEM P-1 SOUTH

FIRE STANDPIPE RISER-1

S.V.#22 FIRE STANDPIPE RISER-2

S.V.#23) | FIRE STANDPIPE RISER-3

S.V.#24) FIRE STANDPIPE RISER-4

S.V.#25 FIRE STANDPIPE RISER-5

S.V.#26 FHC IN PARKING

SPRINKLER ROOM

P1 LEVEL

GROUND FLOOR

2ND LEVEL

3RD LEVEL

4TH LEVEL

5TH LEVEL

6TH LEVEL

7TH LEVELL

GROUND FLOOR

2ND LEVEL

3RD LEVEL

4TH LEVEL

5TH LEVEL

6TH LEVEL

7TH LEVELL

PENTHOUSE

RISER LOCATION AS PER CODE REQUIREMENTS  (TYPICAL) CLASS A WIRING	FIRE RATED JUNCTION BOX AS  ———————————————————————————————————	CLASS B WIRING ——  STAIR 'A' STAIR 'B'  UPPER UPPER	ROOF	
			GARBAGE CHUTE R MPH	
JB Z SF SV + JB J	CORRIDORS (TYPICAL)  B S D JB JB  SUITES (TYPICAL)	R	7TH FLOOR	
JB Z SF SV DB J	B SP S JB JB	R	6TH FLOOR	
JB P SF SV DB U	B SP JB JB	R 6 0	5TH FLOOR	
JB Z SF SV + JB J	B SP B JB	R	4TH FLOOR	
JB Z SF SV + JB J	B SP S JB JB	R	3RD FLOOR	
JB P SF SV + JB J	B SP S JB JB	R 8 0	2ND FLOOR	
CENTRAL CONTROL PANEL C/W ANNUNCIA BATTERY AND CHARGER (FED FROM PANE		S		
JB P SF SV Q Q Q JB J		R	1ST FLOOR	
	B S JB JB	R RR RR RR STAIR 'A' STAIR 'B' STAIR 'C LOWER LOWER		
— 1–21mmC TO TELEPHONE BACKBOARD  — 1–21mmC TO ELEVATOR CONTROL PANEL — 27mmC TO EACH ELEVATOR SHAFT — CONDUIT TO RETAIL AS PER DRAWINGS (AS APPLICABLE)				
ELECTRICALLY SUPERVISED VALV	VE SCHEDULE	FIRE ALARM SCHEDULE		
SUPERVISED SYSTEM SYSTEM	LOCATION	ALARM ZONES		

FIRE ALARM RISER

ALAR	M ZONES
CCT #	DESCRIPTION
1	PARKING GARAGE — P1 (1 ZONE PER LEVEL)
2	ELEVATOR LOBBY — P1 (1 ZONE PER LEVEL)
3	SPARE
4	MAIN ELECTRICAL ROOM — P1 LEVEL
5	SUB-ELECTRICAL ROOM #1 - P1 LEVEL
6	SUB-ELECTRICAL ROOM #2 - P1 LEVEL
7	COMMUNICATION ROOM - P1 LEVEL
7	MECHANICAL ROOM — P1 LEVEL
8	GARBAGE ROOM — P1 LEVEL
9	GARBAGE LOADING AREA — P1 LEVEL
10	SPARF
	1ST FLOOR
11	2ND FLOOR TO 7TH FLOOR
12-17	
18	MECHANICAL PENTHOUSE
19	GENERATOR ROOM
20	PENTHOUSE ELECTRICAL ROOM
21	ELEVATOR MACHINE ROOM
22	ELEVATOR SHAFT
23	FRESH AIR UNIT DUCT DETECTOR MECH PENTHOUSE
24	STAIR 'A' UPPER STAIR
25	STAIR 'A' TOP OF UPPER STAIR
26	STAIR 'A' LOWER STAIR
27	STAIR 'A' TOP OF LOWER STAIR
28	STAIR 'B' UPPER STAIR
29	STAIR 'B' TOP OF UPPER STAIR
30	STAIR 'B' LOWER STAIR
31	STAIR 'B' TOP OF LOWER STAIR
32	STAIR 'C' TOP OF STAIR
33	MAIN SPRINKLER FLOW ALARM
34	PARKING GARAGE LEVEL-1 SPRINKLER FLOW ALARM
35	GROUND FLOOR SOFFIT AREA SPRINKLER FLOW ALARM
36	PARKING GARAGE LEVEL-1 LOADING AREA FLOW ALARM
37	WET SPRINKLER LINE TO GROUND FLOOR AMENITY FLOW ALARM
38	WET SPRINKLER LINE TO GARBAGE ROOM FLOW ALARM
39	WET SPRINKLER LINE TO GROUND FLOOR COMMON FLOW ALARM
40	WET SPRINKLER LINE TO SECOND FLOOR COMMON FLOW ALARM
41	SPRINKLER SYSTEM ON GROUND FL. FLOW ALARM (SOUTH PAF
42	SPRINKLER SYSTEM ON 2ND LEVEL FLOW ALARM (SOUTH PART
43	SPRINKLER SYSTEM ON 3RD LEVEL FLOW ALARM (SOUTH PART
44	SPRINKLER SYSTEM ON 4TH LEVEL FLOW ALARM (SOUTH PART
45	SPRINKLER SYSTEM ON 5TH LEVEL FLOW ALARM (SOUTH PART
46	SPRINKLER SYSTEM ON 6TH LEVEL FLOW ALARM (SOUTH PART
47	SPRINKLER SYSTEM ON 7TH LEVEL FLOW ALARM (SOUTH PART
48	SPARE
49	SPARE
50	SPARE
51	SPRINKLER SYSTEM ON GROUND FL. FLOW ALARM (NORTH PAR
52	SPRINKLER SYSTEM ON 2ND LEVEL FLOW ALARM (NORTH PART
53	SPRINKLER SYSTEM ON 3RD LEVEL FLOW ALARM (NORTH PART
54	SPRINKLER SYSTEM ON 4TH LEVEL FLOW ALARM (NORTH PART
55	SPRINKLER SYSTEM ON 5TH LEVEL FLOW ALARM (NORTH PART
56	SPRINKLER SYSTEM ON 6TH LEVEL FLOW ALARM (NORTH PART
57	SPRINKLER SYSTEM ON 7TH LEVEL FLOW ALARM (NORTH PART
58	SPRINKLER SYSTEM ON MECHANICAL PENTHOUSE
59	SPARE
60	SPARE SPRINKLER RISER IN GARBAGE CHUTE FLOW ALARM
	I SPRINKLER RISER IN CARRAGE CHILLE FLAW ALARM

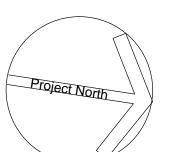
	SI AILE 2376		
TROU	BLE ZONES		
CCT #	DESCRIPTION		
1	MAIN INCOMING SPRINKLER LINE LOSS OF PRESSURE - 1		
2	MAIN INCOMING SPRINKLER LINE LOSS OF PRESSURE - 2		
3	FIRE PUMP EMERGENCY DISCONNECT 'OFF'		
4	FIRE ALARM SYSTEM TROUBLE		
5	FIRE PUMP-LOSS OF POWER		
6	FIRE PUMP RUNNING		
7	FIRE PUMP PHASE REVERSAL INDICATOR		
8	GEN-SET-COMMON TROUBLE		
9	GENERATOR BREAKER "OFF"		
10	GENERATOR RUNNING		
11	LOSS OF PRESSURE OF INCOIMG GAS LINE FOR GENSET		
12	LOSS OF PRESSURE OF GAS LINE TO GENSET		
13	FIRE LINES TRACING POWER LOSS		
14	COMPRESSOR LOSS OF POWER		
15	COMPRESSOR LOSS OF AIR		
16-17	DRY SPKINKLER LOSS OF AIR PRESSURE IN P1 PARKING LEVEL		
18	JOCKEY PUMP LOSS OF POWER		
19	TRANSFER SWITCH #1D NOT IN 'AUTO'		
20	TRANSFER SWITCH #2D NOT IN "AUTO"		
21	TRANSFER SWITCH #3D NOT IN "AUTO"		
22	TRANSFER SWITCH #4D NOT IN "AUTO"		
23	EMERGENCY DISCONNECT #1D 'OFF'		
24	EMERGENCY DISCONNECT #2D 'OFF'		
25	EMERGENCY DISCONNECT #3D 'OFF'		
26	EMERGENCY DISCONNECT #4D 'OFF'		
27	LOW TEMP. T-STAT IN MECHANICAL ROOM - P1 LEVEL		
28	HIGH CO LEVEL DETECTION IN MECHANICAL PENTHOUSE		
29	HIGH CO LEVEL DETECTION IN PARKING GARAGE		
30	PIPE TRACING LOSS OF POWER **		
31	SNOW MELTING LOSS OF POWER **		
	1		

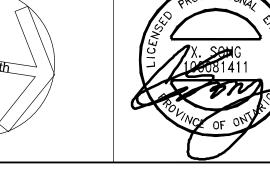
** NUMBER OF ZONES TO SUIT CODE REQUIREMENT

SPARE 25%

7	СМ	REVISED AS PER SI E-5	2017-08-23
6	СМ	ISSUED FOR CONSTRUCTION	2017-08-09
5	СМ	PROGRESS FOR CONSTRUCTION	2017-07-18
4	СМ	ISSUED FOR PERMIT	2016-12-28
3	СМ	REVISED AS PER SI E-2	2016-10-04
2	СМ	REVISED AS PER ESA COMMENTS AND FOR CLARIFICATION	2016-05-19
1	СМ	ISSUED FOR TENDER	2016-03-15
٥.	BY	DESCRIPTION	DATE
		REVISIONS	

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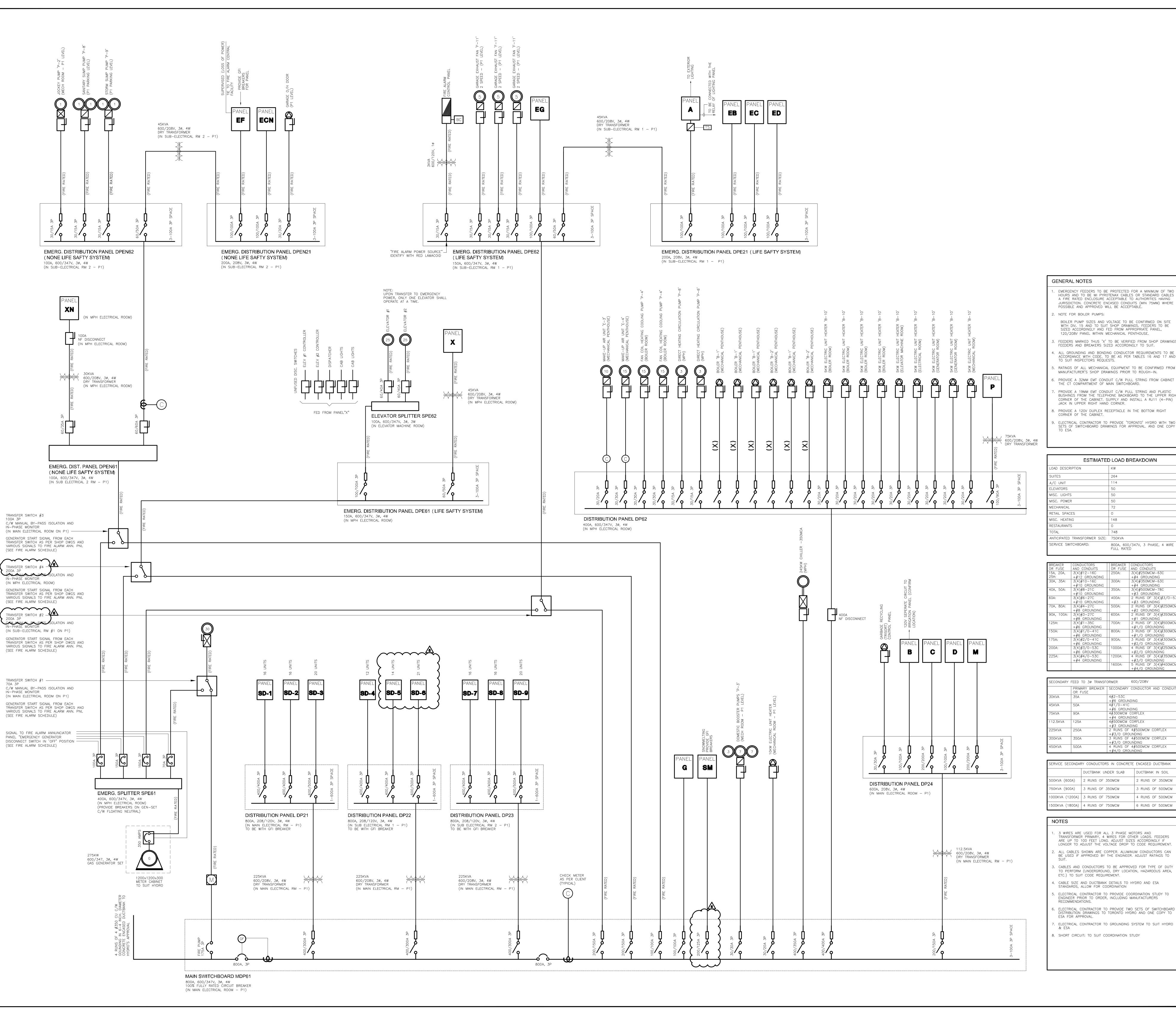
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POWER, COMMUNICATION, SECURITY AND FIRE ALARM RISER DIAGRAMS PROJECT

PROPOSED RESIDENTIAL DEVELOPMENT 25 BAKER HILL BLVD.

> ROYAL PINE HOMES STOUFFVILLE, ONTARIO

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



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,
- 120/208V PANEL WITHIN MECHANICAL PENTHOUSE. 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. 8. PROVIDE A 120V DUPLEX RECEPTACLE IN THE BOTTOM RIGHT CORNER OF THE CABINET.
- 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	264	
A/C UNIT	114	
ELEVATORS	50	
MISC. LIGHTS	50	
MISC. POWER	50	
MECHANICAL	72	
RETAIL SPACES	0	
MISC. HEATING	148	
RESTAURANTS	0	
TOTAL	748	
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)#1/0-41C	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

		,
	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
		+#4/0 GROUNDING

SERVICE SECONDARY CONDUCTORS IN CONCRETE ENCASED DUCTBANK		
	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.

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

СМ	REVISED AS PER SI E-5	2017-08-2
СМ	ISSUED FOR CONSTRUCTION	2017-08-0

CM PROGRESS FOR CONSTRUCTION

REVISED AS PER ESA COMMENTS AND

DESCRIPTION

CM ISSUED FOR PERMIT

M FOR CLARIFICATION

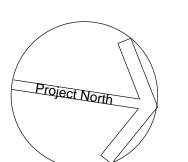
CM ISSUED FOR TENDER

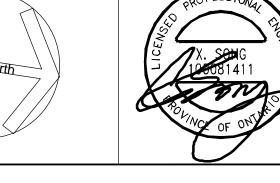
**REVISIONS** This drawing, is an instrument of service, is provided by and is the property of United Engineering Inc. The contractor must verify and accept responsibility for all dimensions and

2017-07-18

2016-03-15

conditions on site and must notify United Engineering Inc. of any discrepancy before United Engineering Inc. is not responsible for the accuracy of Architectural, structural, interior design, etc. on this drawing. Refer to the appropriate trade drawings before proceeding with any work. Installation must conform to all applicable codes and requirements of the authorities having jurisdiction. This drawing is not to be scaled, all symbols are graphic representations only.







Toronto, Ontario, M3J 1M6 Tel: (416) 398 1999, Fax: (416) 398 1933

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

PANEL B	SERVIC MAIN ( MAINS:	CCT. BR	K:	208Y, - 225		', 3ø, ²	1W	NOTES:
IDENTIT (	MOUNT			SURF				LOCATION:
LOAD DESCRIPTION	WATTS	BRK	(	CIRCUI	ΓS	BRK	WATTS	LOAD DESCRIPTION
LIGHTING - LOCKERS (P1)		15A	1 •	+	2	15A		RECEPTACLES — LOBBY ELEVATORS
LIGHTING - LOCKERS (P1)		15A	3 •	╁┼	4	15A		RECEPTACLES — STAIR A (P1)
LIGHTING — MECH. RM. (P1)		15A	5	++	6	15A		RECEPTACLES — STAIR B (P1)
LGT. – GARBAGE/REC/BUCK (P1)		15A	7 .	++	8	15A		RECEPTACLES — STAIR C (P1)
REC - GARBAGE/RECY/BUCK (P1)		15A	9 .	╂┿	10	15A		RECEPTACLES — STAIR D (P1)
TRISORT - GARBAGE (P1)		20A	11	₩	12	15A		SPARE
RECEPT. — ELEVATOR LOBBY (P1)		15A	13	₩	14	15A		RECEPT. — LOCKERS (P1)
SPARE		15A	15	╁┿╌	16	15A		RECEPT. — LOCKERS (P1)
		15A	17	₩	18	15A		RECEPTACLE — MAIN ELECT. (P3)
		15A	19	╁┼	20	15A		RECEPTACLE - MECH. RM. #1 (P1)
		15A	21	₩	22	15A		REC SUB-ELECT. 1/COMM. (P1)
		15A	23	₩	24	15A		RECEPTACLE – SUB-ELECT. 2 (P1)
		15A	25	╁┼	26	15A		SPARE
		15A	27	╁┿╌	28	15A		
•		15A	29	₩	30	15A		•
SPACE			31	╁┼	32			SPACE
			33	╂╋	34			
			35	+	36			
			37	++	38			
			39	++	40			
			41	+	42			

PANEL EB IDENTIF: EB	MAIN ( MAINS: MOUNT	CCT. BR	K:	_	, 5 AI	MPS	/, 3Ø, ²	+W	***	)TES: * LOCK ON BRI CATION:	EAKER		
LOAD DESCRIPTION	WATTS	BRK	(	CIRC	UITS	5	BRK	WATTS		LOAD DE	SCRIPTIO	N	
LIGHTING — LOBBY ELEVATORS		15A	1 •	+	干	2	15A		EXI	IT SIGNS — (	P1) ***		
LIGHTING — STAIR A (P1)		15A	3 •	╁╅	+	4	15A		EXI	IT SIGNS — (	P1) ***		
LIGHTING - STAIR B (P1)		15A	5 •	+	+	6	15A		LO	WER STAIR PR	ESS FAN	'F-9'	SA
LIGHTING - STAIR C (P1)		15A	7 •	╁┤	+	8	15A		LO	WER STAIR PR	ESS FAN	'F-9'	SE
LIGHTING - STAIR D (P1)		15A	9 .	╁╅	+	10	15A		LO	WER STAIR PR	ESS FAN	'F-9'	SC
SPARE		15A	11 •	₩	┿	12	15A		SP.	ARE			
LIGHTING - LOCKERS (P1)		15A	13 ·	╁┤	+	14	15A						
LIGHTING - LOCKERS (P1)		15A	15 ·	╂╋	+	16	15A						
LIGHTING - MAIN ELECT. (P1)		15A	17 •	₩	┿	18	15A						
LIGHTING - MECH. RM. (P1)		15A	19	╁┤	+	20	15A						
LGT SUB-ELEC./COMM. (P1)		15A	21 •	╫	+	22	15A						
LGT. – GARBAGE/REC/BUCK (P1)		15A	23 •	₩	┿	24	15A						
SPARE		15A	25 •	╁┤	+	26	15A						
		15A	27 •	╁╅	+	28							
		15A	29	₩	┿	30							
SPACE			31 •	╁┤	+	32			SP.	ACE			
			33 •	╀╅	+	34							
			35 ·	╀┤	┿	36							
			37 •	╂┤	+	38							
			39 •	╀┥	+	40							
			41 •	┦┤	+	42							

PANEL SUITE (TYPICAL)	SERVIC MAIN C MAINS:	E: :CT. BRI	<:	_		208V,	1ø, 3W	l	NOTES:		
IDENTIF. • • • • • • • • • • • • • • • • • • •	MOUNT	ING:				SED			LOCATION:		
LOAD DESCRIPTION	WATTS	BRK		CIRC	CUIT	S	BRK	WATTS	LOAD DESCRIPTION		
LTG., RECEP. & SMOKE ALARM	1000	15A	1	$\dashv$	+	2	15A**	1000	KITCHEN GFI		
LIGHTING & RECEPTACLES	1000	15A	3	$\dashv$	╁	4	2P		SPLIT RECEPTACLE **		
LIGHTING & RECEPTACLES	1000	15A	5	$\dashv$	╁	- 6	15A	1000	SPLIT RECEPTACLE		
LIGHTING & RECEPTACLES	1000	15A	7	$\dashv$	╁	8	2P				
LIGHTING & RECEPTACLES	1000	15A	9	$\dashv$	╁	10	50A	6000	RANGE		
EXTERIOR REC. GFI AS REQUIRED	500	15A	11	$\dashv$	┿	12	2P		(3 #6)		
GFI RECEPTACLE	1000	15A	13	$\dashv$	╁	14	15A	800	FRIDGE		
FAN COIL UNIT *	1000	15A*	15	$\dashv$	┿	16	30A	3000	DRYER		
FAN COIL UNIT **	1000	15A**	17	$\dashv$	╁	18	2P				
AUTO FLUSH TOILET *		15A	19	$\dashv$	┿	20	15A	1000	WASHER		
SPARE		15A	21	$\dashv$	┿	22	15A	1000	DISHWASHER		
SEPARATE RECEPTACLE **	500	15A	23	$\dashv$	╁	24	15A**		BATHRM. HEATER (TOP FLOOR)**		
COMBO MICROWAVE HOOD/FAN **		15A**	25	$\dashv$	+	26	15A**	1000	MICROWAVE		
DRYER EXHAUST FAN		15A	27	$\dashv$	╁	28	15A**	1000	SPLIT RECEPTACLE		
WINDOW A/C UNIT **	1000	15A	29	$\dashv$	+	30	2P				
SPARE		15A	31	$\dashv$	+	32			SPACE		
		15A	33	$\dashv$	╁	34					
		15A	35	$\dashv$	+	<del>-</del> 36					
		15A	37	$\dashv$	+	38					
		15A	39	$\dashv$	╁	40					
		15A	41	₩	+	42					

* CONFIRM ELEC REQUIREMENTS WITH UNITS SHOP DWGS (FOR EACH DIFFERENT SUITE/UNIT)

** WHERE APPLICABLE AND REQUIRED. REFER TO UNIT'S LAYOUTS. ELSE PROVIDE SPARES

- PANELS C/W "PLUG-IN" OR BOLT-ON BREAKERS

- PANELS SHALL BE SUITABLE FOR THE USE OF DOUBLE BREAKERS WHICH SHALL BE USED SHOULD THE ACTUAL PROPORTION OF REQUIRED CIRCUITS/EMPTY SPACE EXCEED CODE REQUIREMENTS.

- PROVIDE FIRE STOPPING IN CONDUIT AT PANEL AND IN ELECTRICAL CLOSET IN ACCORDANCE TO CODE

PANEL ALUTE	SERVIC MAIN C	E: :CT. BRI	<:	120/ -	208\	٧,	1ø, 3W		NOTES:
IDENTIF: SUITE (TYPICAL)	MAINS: MOUNT			100 . RECE		_			LOCATION:
LOAD DESCRIPTION	WATTS	BRK		CIRCUI	TS		BRK	WATTS	LOAD DESCRIPTION
LTG., RECEP. & SMOKE ALARM	1000	15A	1		2	2	15A**	1000	KITCHEN GFI
LIGHTING & RECEPTACLES	1000	15A	3	╁	<del> </del> 4	1	2P		SPLIT RECEPTACLE *
LIGHTING & RECEPTACLES	1000	15A	5	++	- 6	3	15A	1000	SPLIT RECEPTACLE
LIGHTING & RECEPTACLES	1000	15A	7	$\vdash$	ع 🕂	3	2P		
LIGHTING & RECEPTACLES	1000	15A	9	++	11	0	50A	6000	RANGE
EXTERIOR REC. GFI AS REQUIRED	500	15A	11	$\vdash$	1:	2	2P		(3 #6)
GFI RECEPTACLE	1000	15A	13	++	1.	4	15A	800	FRIDGE
FAN COIL UNIT *	1000	15A*	15	$\vdash$	1	6	30A	3000	DRYER
FAN COIL UNIT **	1000	15A**	17	++	11	8	2P		
AUTO FLUSH TOILET *		15A	19	$\vdash$	21	0	15A	1000	WASHER
SPARE		15A	21		2	2	15A	1000	DISHWASHER
SEPARATE RECEPTACLE **	500	15A	23	$\vdash$	2	4	15A**		BATHRM. HEATER (TOP FLOOR)*
COMBO MICROWAVE HOOD/FAN **		15A**	25		2	6	15A**	1000	MICROWAVE
DRYER EXHAUST FAN		15A	27	╁	2	8	15A**	1000	SPLIT RECEPTACLE
WINDOW A/C UNIT **	1000	15A	29	$\square$	31	0	2P		

* CONFIRM ELEC REQUIREMENTS WITH UNITS SHOP DWGS (FOR EACH DIFFERENT SUITE/UNIT)

** WHERE APPLICABLE AND REQUIRED. REFER TO UNIT'S LAYOUTS. ELSE PROVIDE SPARES

- PANELS C/W "PLUG-IN" OR BOLT-ON BREAKERS

- PANELS SHALL BE SUITABLE FOR THE USE OF DOUBLE BREAKERS WHICH SHALL BE USED SHOULD THE ACTUAL PROPORTION OF REQUIRED CIRCUITS/EMPTY SPACE EXCEED CODE REQUIREMENTS.

- PROVIDE FIRE STOPPING IN CONDUIT AT PANEL AND IN ELECTRICAL CLOSET IN ACCORDANCE TO CODE

								<u>_</u>				
		E:		208Y/	′120\	/, 3ø, 4	4W	NOTES:				
PANEL IDENTIF: <b>C</b>	MAIN ( MAINS: MOUNT		'K:	– 225 A Surfa				LOCATION:  LOAD DESCRIPTION				
LOAD DESCRIPTION	WATTS	BRK		CIRCUIT	S	BRK	WATTS					
RECEPTACLES - AMENITY (1ST)		15A	1	+	2	15A		RECEPTACLES - STAIR C (1ST)				
RECEPTACLES - AMENITY (1ST)		15A	3		4	15A		RECEPTACLES - CORRIDOR (1ST)				
RECEPTACLES - AMENITY (1ST)		15A	5	+++	6	15A		RECEPTACLES - CORRIDOR (1ST)				
RECEPTACLES - AMENITY (1ST)		15A	7		8	15A		RECEPTACLES - ENTRANCE (1ST)				
TV RECEPTACLES-AMENITY (1ST)		15A	9	111	10	15A		RECEPTACLES - LOBBY (1ST)				
FIREPLACE - AMENITY (1ST)		15A	11	1 1 4	12	15A		RECEPTACLES - LOBBY (1ST)				
FLOOR REC AMENITY (1ST)		15A	13	+++	14	15A		FIREPLACE REC LOBBY (1ST)				
FL EQUIP REC - AMENITY (1ST)		15A	15	111	16	15A		RECEPTACLE - CACF ROOM (1ST)				
FL EQUIP REC - AMENITY (1ST)		15A	17	1111	18	15A		CONCIERGE FL REC - (1ST)				
SPARE		15A	19	+ + +	20	15A		CONCIERGE FL REC - (1ST)				
ELECTRICAL RM - AMENITY (1ST)		15A	21		22	15A		REC - M OFFICE/MAIL (1ST)				
EXT. BBQ REC - AMENITY (1ST)		15A	23	111	24	15A		RECEPTACLES - M OFFICE (1ST)				
EXT. BBQ REC - AMENITY (1ST)		15A	25		26	15A		GFI RECEPTACLES - WC (1ST)				
EXTERIOR REC AMENITY (1ST)		15A	27		28	15A		GFI RECEPTACLES - WC (1ST)				
EXTERIOR REC AMENITY (1ST)		15A	29	1114	30	15A		SPARE				
GFI RECEPTACLE-DOG SPA (1ST)		15A	31		32	15A		FRIDGE - AMENITY (1ST)				
GFI RECEPTACLE-DOG SPA (1ST)		15A	33		34	15A		COUNTER REC - AMENITY (1ST)				
LIGHTING - LOBBY (1ST)		15A	35	111	36	2P						
LIGHTING - LOBBY (1ST)		15A	37		38	15A		COUNTER REC — AMENITY (1ST)				
LIGHTING - AMENITY (1ST)		15A	39		40	/2P						
LIGHTING - AMENITY (1ST)		15A	41	111	42	15A		DISHWASHER — AMENITY (1ST)				
LIGHTING - AMENITY (1ST)		15A	43	1 I I I	44	15A		COOKTOP - AMENITY (1ST)				
SPARE		15A	45		46	15A		MICRO/HOOD FAN - AMENITY				
		15A	47	111	48	15A		STOVE - AMENITY (1ST)				
		15A	49	$\downarrow \downarrow \downarrow \downarrow$	50	15A		DOOR HOLD OPEN DEVICE				
		15A	51		52	15A		DOOR HOLD OPEN DEVICE				
		15A	53	111	54	15A		DOOR HOLD OPEN DEVICE				
		15A	55		56	15A		SPARE				
		15A	57		58	15A						
		15A	59		60	15A						
SPACE			61		62	= * * *		SPACE				
			63		64							
			65		66							
			67		68							
			69		70							
			71		72							
<u> </u>			' '		′ ∠			<b>.</b>				

PANEL EC		E: CCT. BR		-	·	120V MPS	′, 3ø, ⊿	4 W	***	OTTON		
	MOUNT			SUF					LOCATION:			
LOAD DESCRIPTION	WATTS	BRK		CIRC	UIT:	S	BRK	WATTS		LOAD DESCRIPTION		
LIGHTING - STAIR C (1ST FL.)		15A	1 •	H	+	2	15A		EXI	IT SIGNS STAIR C (1ST) ***		
LIGHTING - DOG SPA (1ST FL.)		15A	3 •	╁╅	+	4	15A		EXI	T SIGNS - LOBBY (1ST) ***		
LIGHTING - LOBBY (1ST FL.)		15A	5 .	+	╅	6	15A		EXI	T SIGNS - AMENITY (1ST) ***		
LIGHTING - LOBBY (1ST FL.)		15A	7 •	╁┤	+	8	15A		SP	ARE		
LIGHTING - LOBBY (1ST FL.)		15A	9 •	╁╅	+	10	15A					
IGHTING - AMENITY (1ST FL.)		15A	11.	₩	╅	12	15A					
LIGHTING - CORRIDOR (1ST FL)		15A	13	╁┤	+	14	15A					
LIGHTING - CORRIDOR (1ST FL)		15A	15	╫	+	16	15A					
LIGHTING - CORRIDOR (1ST FL)		15A	17	+	┿	18	15A					
SPARE		15A	19	╁┤	+	20	15A					
		15A	21	╁╁	+	22	15A					
		15A	23	₩	┿	24	15A					
		15A	25	╁┤	+	26	15A					
		15A	27	╁╁	+	28	15A					
		15A	29	₩	+	30	15A					
SPACE			31 ·	₩	+	32			SP	ACE		
			33 •	╀	4	34						
			35 •	₩	4	36						
			37 •	₩	4	38						
			39	╁	4	40						
			41	$oldsymbol{\sqcup}$	4	42						

PANEL IDENTIF: ECN	SERVIC MAIN C MAINS: MOUNT	CT. BR	K:	208Y/ - 225 A SURFA	MPS	/, 3ø, <i>4</i>	1 W	NOTES: LOCATION:		
LOAD DESCRIPTION	WATTS	BRK		CIRCUIT:	S	BRK	WATTS	LOAD DESCRIPTION		
CO CONTROL PANEL		15A	1	+++	2	15A		'DO NOT ENTER' SIGN (P1)		
ENTERPHONE CONTROL PANEL		15A	3	╫╅╂	4	15A		AUTO DOOR OPENER ENTR.(1ST)		
SECURITY RISER CONTROL PANEL		15A	5	+++	6	15A		AUTO DOOR OPENER (GND WC)		
TEL./TV RECEPTACLES		15A	7	+++	8	15A		SPARE		
TEL./TV RECEPTACLES		15A	9	HHH	10	15A				
ENTERPHONE PANEL—MAIN ENTR.		15A	11	H + H	12	15A				
MASTER OPERATING SWITCH FOR F/A		15A	13	+++	14	15A				
ELEVATOR SUMP PUMP P-10 (P1)		15A	15	H+H	16	15A				
SPARE		15A	17	╫╫	18	15A				
		15A	19	+++	20	15A				
		15A	21	╫╅╂	22	15A				
		15A	23	╫╫	24	15A				
SPACE			25	╅╂╂	26			SPACE		
			27	HHH	28					
			29	╫╫	30					
			31	╫╫	32					
			33	╁╅┽	34					
			35	╁╁╁	36					
			37	╁╁┼	38					
			39	╁╅╂	40					
			41		42					

PANEL Identif: <b>D</b>	SERVIC MAIN ( MAINS: MOUNT	CCT. BR	RK:	208Y/ - 225 A SURFA	AMPS	/, 3ø, _'	1W	NOTES: LOCATION:		
LOAD DESCRIPTION	WATTS	BRK		CIRCUIT	S	BRK	WATTS	L(	AD DESCI	RIPTION
STAIR A RECEPTACLES (2ND-7TH)		15A	1 •	+	2	15A		CORRIDO	RECEPT.	(2ND-7TH
STAIR B RECEPTACLES (2ND-7TH)		15A	3 •	╁┼┤	4	15A		CORRIDO	RECEPT.	(2ND-7TH
SPARE		15A	5 .	+++	6	15A		CORRIDO	RECEPT.	(2ND-7TH
RECEPTACLES - GUESS RM (1ST)	)	15A	7 ·	++	8	15A		CORRIDO	R RECEPT.	(2ND-7TH
RECEPTACLES - GUESS RM (1ST)	)	15A	9 ·	╂┼	10	15A		CORRIDO	RECEPT.	(2ND-7TH
DISHWASHER - GUESS RM (1ST)		15A	11 -	₩	12	15A		CORRIDO	RECEPT.	(2ND-7TH
COUNTER REC - GUESS RM (1ST	)	15A	13	₩	14	15A		CORRIDO	RECEPT.	(2ND-7TH
COUNTER REC - GUESS RM (1ST	)	15A	15	₩	16	15A		CORRIDO	RECEPT.	(2ND-7TH
WC GFI REC GUESS RM (1ST)		15A	17	₩	18	15A		CORRIDO	RECEPT.	(2ND-7TH
WC EX. FAN - GUESS RM (1ST)		15A	19	₩	20	15A		CORRIDO	RECEPT.	(2ND-7TH
FAN COIL - GUESS RM (1ST)		15A	21	₩	22	15A		CORRIDO	RECEPT.	(2ND-7TH
RECEPTACLE LOCKERS (2ND-7TH)		15A	23	₩	24	15A		CORRIDO	RECEPT.	(2ND-7TH
CONDENSATE NEUTRIALIZATION KIT		15A	25	╁┼┤	26	15A		LIGHTING	- LOCKE	R (2ND-7T
RECEPTACLE LOCKERS (2ND-7TH)		15A	27	₩	28	15A		LIGHTING	- LOCKE	R (2ND-7T
CONDENSATE NEUTRIALIZATION KIT		15A	29	₩	30	15A		SPARE		
SPACE			31	₩	32	15A				
			33 •	₩	34	15A				
			35	₩	36	15A				
			37	₩	38	15A				
			39 ·	╁┼┤	40	15A				
			41	+	42	15A				

LOAD DESCRIPTION	LOAD DESCRIPTION	WATTS	BRK	CIRCUITS	s	BRK	WATTS	
RIDOR RECEPT. (2ND-7TH)	LIGHTING - GARAGE (P1)		15A	1	2	15A		LIGHTIN
RIDOR RECEPT. (2ND-7TH)	LIGHTING - GARAGE (P1)		15A	3	4	15A		LIGHTIN
RIDOR RECEPT. (2ND-7TH)	LIGHTING - GARAGE (P1)		15A	5	6	15A		LIGHTIN
RIDOR RECEPT. (2ND-7TH)	SPARE		15A	7	8	15A		SPARE
RIDOR RECEPT. (2ND-7TH)			15A	9	10	15A		
RIDOR RECEPT. (2ND-7TH)			15A	11	12	15A		
RIDOR RECEPT. (2ND-7TH)			15A	13	14	15A		
RIDOR RECEPT. (2ND-7TH)			15A	15	16	15A		
RIDOR RECEPT. (2ND-7TH)			15A	17	18	15A		
RIDOR RECEPT. (2ND-7TH)			15A	19	20	15A		
RIDOR RECEPT. (2ND-7TH)			15A	21	22	15A		
RIDOR RECEPT. (2ND-7TH)	<b>\</b>		15A	23	24	15A		
ING — LOCKER (2ND-7TH)	SPACE			25	26			SPACE
ING - LOCKER (2ND-7TH)				27	28			
E				29	30			
				31	32			
				33	34			
				35	36			
				37	38			
				39	40			
	<b>\</b>			41	42			

PANEL IDENTIF: <b>ED</b>	SERVIC MAIN ( MAINS: MOUNT	CCT. BR	K:	208Y/ - 225 AI SURFA	MPS	′, 3ø, [∠]	1W	NOTES:  LOCATION:		
LOAD DESCRIPTION	WATTS	BRK	(	CIRCUITS	5	BRK	WATTS	LOAD DESCRIPTION		
LIGHTING - STAIR A (1ST-3RD)		15A	1	+++	2	15A		EXIT SIGNS STAIR A (1ST-7TH) **		
LIGHTING - STAIR A (4TH-PH)		15A	3 •	╁╅┼	4	15A		EXIT SIGNS STAIR B (1ST-7TH) *		
LIGHTING - STAIR B (1ST-3RD)		15A	5	╁┼┼	6	15A		EXIT SIGNS CORRIDOR (1ST-7TH)		
LIGHTING - STAIR B (4TH-PH)		15A	7	+++	8	15A		EXIT SIGNS CORRIDOR (1ST-7TH)		
LIGHTING - GARBAGE CHUTE		15A	9	╁┼	10	15A		EXIT SIGNS CORRIDOR (1ST-7TH)		
SPARE		15A	11	╁┼┼	12	15A		LIGHTING - CORRIDOR (2ND-3RD)		
LIGHTING - GUESS RM. (1ST)		15A	13	╁┼┼	14	15A		LIGHTING - CORRIDOR (2ND-3RD)		
LIGHTING - LOCKER (2ND-7TH)		15A	15	+++	16	15A		LIGHTING - CORRIDOR (2ND-3RD)		
LIGHTING - LOCKER (2ND-7TH)		15A	17	╁┼┼	18	15A		LIGHTING - CORRIDOR (4TH-5TH)		
SPARE		15A	19	╁┼┼	20	15A		LIGHTING — CORRIDOR (4TH-5TH)		
		15A	21	+++	22	15A		LIGHTING — CORRIDOR (4TH-5TH)		
		15A	23	╂╂╂	24	15A		LIGHTING — CORRIDOR (6TH-7TH)		
		15A	25	+++	26	15A		LIGHTING — CORRIDOR (6TH-7TH)		
		15A	27	╁┼	28	15A		LIGHTING — CORRIDOR (6TH-7TH)		
		15A	29	+++	30			SPACE		
		15A	31	+++	32					
		15A	33	+++	34					
		15A	35	╂┼┼	36					
		15A	37	+++	38					
		15A	39	╂╂┼	40					
		15A	41		42					

PANEL Identif: <b>EF</b>		SERVICE: 208Y/120V, MAIN CCT. BRK: —							NOTES:			
IDENTIF: <b>FF</b>	MAINS: MOUNT	MAINS: MOUNTING:				PS <u>-</u>			LOCATION:			
LOAD DESCRIPTION	WATTS	BRK		CIRCI	UITS		BRK WATTS 15A	WATTS	LOAD DESCRIPTION			
HEAT TRACING AS REQUIRED		15A	1 ·	+	+	2		HEAT TR	ACING AS REQUIRED			
		15A	3 -	╂╂	+	4	15A					
		15A	5	$\mathbf{H}$	+	6	15A					
		15A	7	++	+	8	15A					
		15A	9	╫	1	0	15A					
		15A	11	++	<b>-</b>	2	15A					
		15A	13	++	<b>-</b>	4	15A					
		15A	15	╁╅	1	6	15A					
		15A	17	H	<b>-</b>	8	15A					
		15A	19	++	<del></del>	20	15A					
		15A	21	╁╅	<del></del>	22	15A					
		15A	23	H	<b>-</b> 2	24	15A					
		15A	25	++	<del></del>	26	15A					
		15A	27	╫	<b>—</b> 2	8.	15A					
		15A	29	H	<b>-</b>	50	15A					
		15A	31	++	<b>-</b>	52	15A					
		15A	33	╁╁	<b>-</b>	54	15A					
		15A	35	H	<b>-</b>	6	15A					
		15A	37	╁┤	<b>-</b>	88	15A					
		15A	39	╁╅		10	15A					
		15A	41		<b>—</b>	12	15A					

PANEL SM Identif: SM	SERVICE MAIN ( MAIN ( MOUNT	CCT, BR	RK: -	AMPS	/, 3ø, <i>i</i>	4W	NOTES: RAMP AND WALKWAY LOCATION:		
LOAD DESCRIPTION	( WATTS	BRK	CIRCU	TS	BRK	WATTS	LO	AD DESCRIPTION	
SNOW MELT AS REQUIRED		15A		2	15A		SNOW MEI	T AS REQUIRED	
		15A	3	4	15A				
		15A	5	6	15A				
		15A	7	8	15A				
		15A	9	10	15A				
		15A	11	12	15A				
		15A	13	14	15A				
		15A	15	16	15A				
		15A	17	18	15A				
		15A	19	20	15A				
		15A	21	22	15A				
		15A	23	24	15A				
		15A	25	26	15A				
		15A	27	28	15A				
		15A	29	30	15A				
		15A	31	32	15A				
		15A	33	34	15A				
		15A	35	36	15A				
		15A	37	38	15A				
		15A	39	40	15A				
		15A	41	42	15A				

PANEL Identif: <b>G</b>	MAIN ( MAINS:	MAIN CCT. BRK:				V, 3ø,	4W	NOTES: LOCATION:	
LOAD DESCRIPTION	WATTS				ITS	BRK	WATTS	LOAD DESCRIPTION	
LIGHTING - GARAGE (P1)		15A	1	H	2	15A		LIGHTING — GARAGE (P1)	
LIGHTING - GARAGE (P1)		15A	3	₩	4	15A		LIGHTING - GARAGE (P1)	
LIGHTING - GARAGE (P1)		15A	5	₩	6	15A		LIGHTING - GARAGE (P1)	
SPARE		15A	7	₩	8	15A		SPARE	
		15A	9	₩	10	15A			
		15A	11	H	12	15A			
		15A	13	₩	14	15A			
		15A	15	╁	16	15A			
		15A	17	${f H}$	18	15A			
		15A	19	₩	20	15A			
		15A	21	₩	22	15A			
•		15A	23	H	24	15A		•	
SPACE			25	₩	26			SPACE	
			27	₩	28				
			29	H	30				
			31	₩	32				
			33	₩	34				
			35	$oldsymbol{+}$	36				
			37	₩	38				
			39	₩	40				
•			41	$oldsymbol{\sqcup}$	42			<b>1</b> ↓	

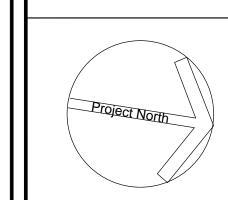
PANEL Identif: <b>EG</b>		CCT. BR	225	0/347V, 5 AMPS RFACE	3ø, 4\	N	NOTES: *** LOCK ON BREAKER LOCATION:		
LOAD DESCRIPTION	WATTS	BRK	CIRC	UITS	BRK	WATTS	LOAD DESCR	PTION	
LIGHTING — GARAGE (P1)		15A	1	2	15A		EXIT SIGNS *** - (	SARAGE (P1)	
LIGHTING — GARAGE (P1)		15A	3	4	15A		EXIT SIGNS *** - (	GARAGE (P1)	
LIGHTING — GARAGE (P1)		15A	5	6	15A		SPARE		
SPARE		15A	7	8	15A				
		15A	9	10	15A				
		15A	11	12	15A				
		15A	13	14	15A				
		15A	15	16	15A				
		15A	17	18	15A				
		15A	19	20	15A				
		15A	21	22	15A				
•		15A	23	24	15A		<b>V</b>		
SPACE			25	26			SPACE		
			27	28					
			29	30					
			31	32					
			33	34					
			35	36					
			37	38					
			39	40					
			41	42					

PANEL MIDENTIF:	SERVIC MAIN ( MAINS:	208Y/120V, 3Ø, 4W - 225 AMPS SURFACE					NOTES:		
	MOUNT						LOCATION:		
LOAD DESCRIPTION	WATTS	BRK		CIRC	:UIT	S	BRK	WATTS	LOAD DESCRIPTION
EX. FANS F-12 (LOCKERS) - P1		15A	1	H	H	2	15A		SPLIT SYSTEM E-5 (GARB.)-P1
EX. FAN F-13 (LOCKER) - P1		15A	3	H	Н	4	2P		
EX. FAN F-8 (MECH RM) - P1		15A	5	H	H	6	11A		SPLIT SYSTEM E-5 (GARB.)-P1
EX. FAN F-17 (ELEC RM) - P1		15A	7	${\sf H}$	H	8	2P		
EX. FANS F-14 (BUCK/RECYCLE)		15A	9	Н	Н	10	15A		SPLIT SYSTEM E-6 (GARB.)-P1
EX. FAN F-16 (GARBAGE) - P1		15A	11	Н	$\dashv$	12	2P		
HEATERS H-2/H-3 (GARB/LOBBY)		15A	13	Н	H	14	11A		SPLIT SYSTEM E-6 (GARB.)-P1
EX. FAN F-15 (SUB ELECT RM 1)		15A	15	Н	Н	16	2P		
EX. FAN F-15 (SUB ELECT RM 2)		15A	17	Н	H	18	15A		SPLIT SYSTEM E-8 (GARB.)-P1
REC-WATER SOFTENER P1 MECH		15A	19	H	H	20	2P		
SPARE		15A	21	H	Н	22	11A		SPLIT SYSTEM E-8 (GARB.)-P1
BASEBOARD HEATER H-5		15A	23	Н	H	24	2P		
BASEBOARD HEATER H-6		15A	25	H	H	26	15A		SPLIT SYSTEM E-8 (GARB.)-P1
HEATERS H-2 (VEST./MAIL) 1ST		15A	27	Н	Н	28	2P		
FANS F-2 CACF/MAIL/STOR/MNGT		15A	29	H	H	30	11A		SPLIT SYSTEM E-8 (GARB.)-P1
FAN COIL - 1ST STORAGE		15A	31	H	Н	32	2P		
FAN COIL - 1ST MANAGEMENT		15A	33	Н	Н	34	15A		SPLIT SYSTEM E-11 (ENTRANCE
EX. FAN F-2 (WC/DOG SPA)-1ST		15A	35	H	$\dashv$	36	2P		P1
EX. FANS F-18/19/20/23-1ST		15A	37	H	H	38	15A		SPLIT SYSTEM E-8 (CACF)
FAN COIL (AMENITY) - 1ST		15A	39	Н	Н	40	2P		1ST
FAN COIL (AMENITY) - 1ST		15A	41	Н	$\dashv$	42	15A		SPLIT SYSTEM E-8 (STORAGE)
FAN COIL (AMENITY) - 1ST		15A	43	H	H	44	2P		1ST
FAN COIL (AMENITY) - 1ST		15A	45		Н	46	15A		SPLIT SYSTEM E-8 (WC)
HEATERS H-2 (STAIR C)		15A	47	Н	H	48	2P		1ST
HEATERS H-2 (STAIR B)		15A	49	H	Н	50	15A		SPLIT SYSTEM E-8 (AMENITY) -
HEATERS H-2 (STAIR A)		15A	51	H	$oldsymbol{+}$	52	2P		1ST
EX. FAN F-22 - 2ND		15A	53	H	$\dashv$	54	15A		SPLIT SYSTEM E-8 (AMENITY) -
SPARE		15A	55	₩	$oldsymbol{ec{ec{H}}}$	56	2P		1ST
		15A	57	H	ert	58			SPACE
		15A	59	${\mathbb H}$	dash	60			
		15A	61	igoplus	$oldsymbol{ec{ec{ec{ec{ec{ec{ec{ec{ec{ec$	62			
		15A	63	H	ert	64			
		15A	65	Н	dash	66			
		15A	67	H	$oxed{+}$	68			
		15A	69	Ш	Ш	70			

PANEL P	SERVIC MAIN ( MAINS: MOUNT	_	, AMPS	/, 3ø, <i>4</i>	4W	NOTES: LOCATION:			
LOAD DESCRIPTION	WATTS	BRK		CIRCUI	TS	BRK	WATTS	LOAD DESCRIPTION	
RECEPTACLE - ELEVATOR		15A	1	++-	2	30		WIINDOW WASHING REC MPH	
REC MPH ELEVATOR CONTROL		15A	3	╂╋	<b>H</b> 4	2P			
RECEPT, - MPH MECH, RM.		15A	5	╁┼	6	20A		RECEPTACLES - PEDESTAL MT	
RECEPT MPH GENERATOR RM.		15A	7	╁┼	8	30		WIINDOW WASHING REC MP	
RECEPTACLE - MPH ELEC RM		15A	9	╁┼	10	2P			
RECEPTACLES - MPH BOILER RM		15A	11	╁┼	12	30		WIINDOW WASHING REC MP	
LIGHTING - MPH MECH/BOILER		15A	13	╁┼	14	2P			
RECEPTACLES - PEDESTAL MTD.		20A	15	╁┼	16	30		WIINDOW WASHING REC MP	
DOMESTIC CIRCULATION PUMP P-7		15A	17	++	18	2P			
EXHAUST FAN F-8		15A	19	╁┼	20	30		WIINDOW WASHING REC MP	
EXHAUST FAN F-6		15A	21	╫	22	2P			
EXHAUST FANS F-10		15A	23	╁	24	15A		SPARE	
SPARE		15A	25	╁┼	26	15A			
		15A	27	╫	28	15A			
		15A	29	++	30	15A			
SPACE			31	╁┼	32			SPACE	
			33	╁┼	34				
			35	+	36				
			37	╁┼	38				
			39	╁┼	40				
			41	+	42				

PANEL X	SERVIC MAIN ( MAINS: MOUNT	K:	_	5 A	MPS	′, 3ø, <i>₄</i>	NOTES: LOCATION:			
LOAD DESCRIPTION	WATTS	BRK		CIRC	UIT	S	BRK	WATTS		LOAD DESCRIPTION
LIGHTING ELEVATOR — 7TH FL		15A	1	1 2		15A		EXIT SIGNS-MPH ELEVATOR/MPH		
LGT. ELEVATOR MACH RM - MPH		15A	3	╂	+	4	15A		EXTERNAL LIGHTING — MPH	
LIGHTING GENERATOR RM. — MPH		15A	5	$\mathbb{H}$	ᅪ	6	15A		SPA	ARE
LIGHTING ELECTRICAL RM MPH		15A	7	+	+	8	15A			
LIGHTING - MPH MECH/BOILER		15A	9	+	+	10	15A			
SPARE		15A	11	$\mathbf{H}$	+	12	15A			
		15A	13		4	14	15A			
		15A	15	╂	4	16	15A			
		15A	17		4	18	15A			
		15A	19		4	20	15A			
		15A	21	1	4	22	15A			
		15A	23		4	24	15A			
SPACE			25	+	4	26			SPA	ACE
			27	1	4	28				
			29	Н	4	30				
			31	1	4	32				
			33	╁	4	34				
			35		4	36				
			37		4	38				
			39	╽	4	40				
			41		4	42				

ANEL XN Dentif: XN	SERVIC MAIN ( MAINS: MOUNT	CCT. BR	K:	_	AMPS	V, 3ø, ·	4W	NOTES: LOCATION:		
LOAD DESCRIPTION	WATTS	BRK	(	CIRCU	ITS	BRK	WATTS	LOAD DESCRIPTION		
MERGENCY BATTERY		15A	1 -	$\blacksquare$	2	15A		EMERGENCY GAS SHUT OFF VALVE		
SENERATOR BLOCK HEATER		20A	3 .	╁┼	4	15A		BOILER CONTROL		
		2P	5	₩	<b>4</b> 6	15A		BOILER CONTROL		
ENERATOR BATTERY CHARGER		15A	7 .	₩	<b>4</b> 8	15A		BOILER CONTROL		
MOTORIZED DAMPER-GENER. RM.		15A	9 .	┿	<b>4</b> 10	15A		BOILER CONTROL		
MOTORIZED DAMPER-GENER, RM.		15A	11	₩	12	15A		BOILER CONTROL		
MOTORIZED DAMPER — ELEC MPH		15A	13	₩	14	15A		BOILER CONTROL		
MOTORIZED DAMPER		15A	15	╁┼	16	15A		SPLIT SYSTEM E-10 BLOWER AND COIL (MPH)		
PARE		15A	17	₩	<b></b> 18	2P				
		15A	19	₩	<b>1</b> 20	15A		SPLIT SYSTEM E-10 CONDENSING UNIT (MPH)		
		15A	21	╁┼	<b>4</b> 22	2P				
		15A	23	₩	24	15A		HEAT TRACING		
		15A	25	╁┼	<b>1</b> 26	15A		SPARE		
		15A	27	┿	28	15A				
		15A	29	₩	30	15A				
SPACE			31	╁┼	32			SPACE		
			33	╁╁	<b>4</b> 34					
			35	₩	36					
			37 -	╁┼	<b>4</b> 38					
			39	╁╁	40					
			41	$+\!\!+\!\!\!+$	42					



07 CM ISSUED FOR AS PER SI E-5

06 CM ISSUED FOR AS PER SI E-3

05 CM ISSUED FOR CONSTRUCTION

04 CM PROGRESS FOR CONSTRUCTION

02 CM REVISED AS PER ESA COMMENTS AND FOR CLARIFICATION

DESCRIPTION

**REVISIONS** 

This drawing, is an instrument of service, is provided by and is the property of United

conditions on site and must notify United Engineering Inc. of any discrepancy before

Engineering Inc. The contractor must verify and accept responsibility for all dimensions and

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conform to all applicable codes and requirements of the authorities having jurisdiction.

This drawing is not to be scaled, all symbols are graphic representations only.

Refer to the appropriate trade drawings before proceeding with any work. Installation must

03 CM ISSUED FOR PERMIT

01 CM ISSUED FOR TENDER



2017-08-09

2016-03-15



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PANEL SCHEDULES **ELECTRICAL** 

PROPOSED RESIDENTIAL DEVELOPMENT 25 BAKER HILL BLVD.

> ROYAL PINE HOMES STOUFFVILLE, ONTARIO

DRAWN	CHECKED	SCALE
СМ	MG	N.T.S.
DATE	PROJECT	DRAWING
SFPT. 2015	14-016	E-1
JLI 1. ZUIJ	14-016	OF -