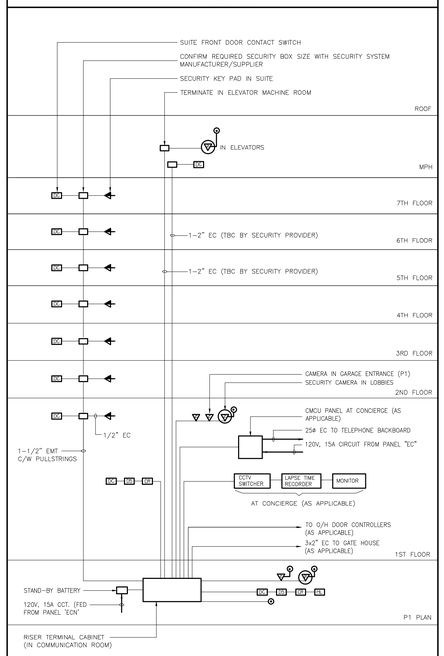
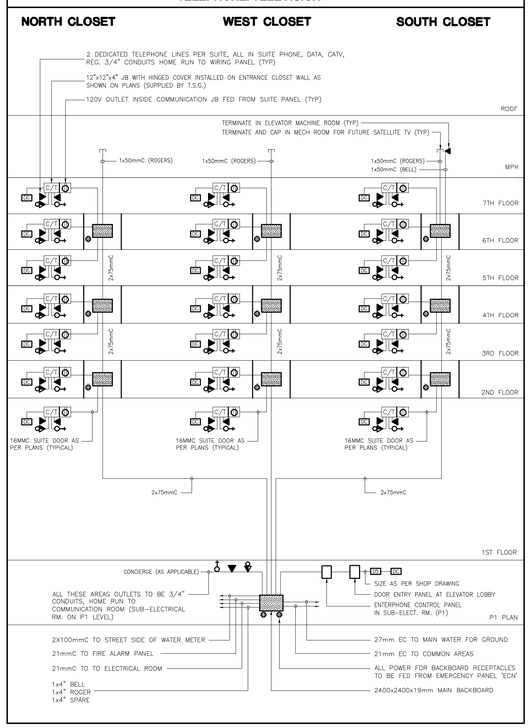
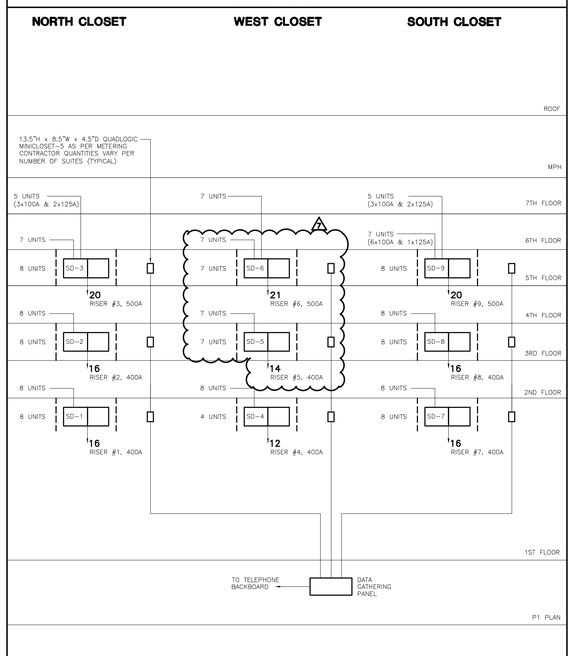
SUITES SECURITY



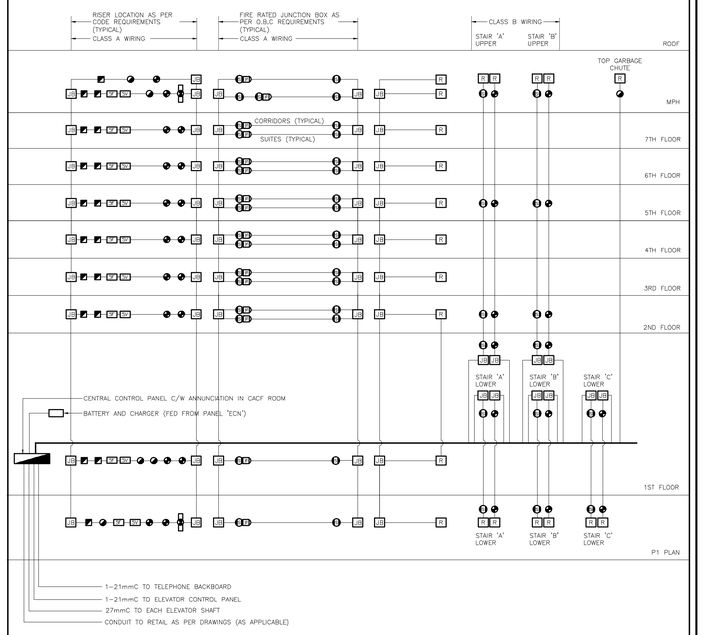
TELEPHONE/TELEVISION



SUITES POWER



FIRE ALARM RISER



SECURITY RISER NOTES

1. ALL CONDUIT RISERS AND BACKBOXES FOR SECURITY SYSTEM SHALL BE BY ELECTRICAL CONTRACTOR AND AS RECOMMENDED BY SYSTEM SUPPLIER.
2. SEE FLOOR PLANS FOR EXACT NUMBER OF OUTLETS.
3. ONE RISER PER LOCATION.
4. SUPPLY AND INSTALLATION OF DEVICES INCLUDING WIRING, BY SECURITY CONTRACTOR.
5. MAGLOCK PERMITS BY SECURITY CONTRACTOR.
6. COORDINATE SECURITY REQUIREMENTS FOR ELEVATOR CAMERA'S AND DEVICES PRIOR TO INSTALLATION.

TELEPHONE/TELEVISION RISER NOTES

1. ALL CONDUIT HOME RUNS FOR COMMUNICATION SYSTEM SHALL BE 2X27MMC. ALL CONDUITS WITHIN SUITES SHALL BE 21MMC UNLESS OTHERWISE NOTED.
2. SEE FLOOR PLANS FOR EXACT NUMBER OF OUTLETS.
3. WIRING BY COMMUNICATION CONTRACTOR.
4. ALL OUTLETS FOR COMMUNICATION SYSTEM SHALL BE 4" SQUARE.

SUITES POWER PANEL SCHEDULE

DESIGNATION	MAINS	BREAKERS AND FEEDERS
SD	500A, 3Ø, 4W OR 400A, 3Ø, 4W	100A 2P (3C #1 RW90 FEEDERPLEX NUAL-35mmC(1-1/4") (3C+B)) OR 125A 2P (3C #2/0 RW90 FEEDERPLEX NUAL-41mmC(1-1/2") (3C+B)) - AS MARKED ON PLAN

TOTAL UNIT COUNT- 151

NOTES

1. ALLOW FOR FIRE STOP/SMOKE SEAL AT ELECTRICAL CLOSET AND AT PANEL WITHIN SUITE.
2. SUITE'S PANELS ARE 100A UNLESS NOTED OTHERWISE
3. SEE METERING NOTES FOR MORE INFORMATION

METERING NOTES

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

1. 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.
6. ALL F/A SIGNAL WIRING SHALL BE WIRED TO CONFORM TO CLASS 'A' STANDARDS.
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 CIRCUIT IS FOR THE SUITES.
9. ALL FIRE ALARM RECALL FROM MANUAL DEVICES AND AUTOMATICALLY INITIATED DEVICES TO BE AS PER CODE AND TSSA REQUIREMENTS.
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.
12. ELECTRICAL SUPERVISION

    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 SUPPLY 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:
  - A STANDPIPE RISER
  - A SPRINKLER LINE, AND
  - 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.
3. ELEVATOR RECALL ADJACENT CENTRAL FACILITY.
4. ELEVATOR INTERCOM ADJACENT CENTRAL FACILITY.
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.
7. ALL AUDIBLE SIGNAL WIRING TO CONFORM TO CLASS 'A' SPECIFICATIONS.
8. IN SUITE WHERE APPLICABLE THE SPEAKERS SHALL BE CAPABLE TO BE SILENCED AS REQUIRED BY CODES OR THE EQUIPMENT SHALL BE IN ACCORDANCE WITH OBC 3.2.4.19(13).

ELECTRICALLY SUPERVISED VALVE SCHEDULE

SUPERVISED VALVE NO.	SYSTEM	LOCATION
S.V.#1	INCOMING FIRE MAIN ISOLATION	SPRINKLER ROOM
S.V.#2	INCOMING FIRE MAIN ISOLATION	SPRINKLER ROOM
S.V.#3	PRIVATE HYDRANT ISOLATION	SPRINKLER ROOM
S.V.#4	FIRE PUMP MAIN ISOLATION	SPRINKLER ROOM
S.V.#5	FIRE PUMP SUCTION	SPRINKLER ROOM
S.V.#6	FIRE PUMP DISCHARGE	SPRINKLER ROOM
S.V.#7	FIRE PUMP BY-PASS	SPRINKLER ROOM
S.V.#8	FIRE PUMP BY-PASS	SPRINKLER ROOM
S.V.#9	FIRE PUMP TEST HEADER	SPRINKLER ROOM
S.V.#10	WET SPRINKLER AND FSP COMBINATION MAIN	SPRINKLER ROOM
S.V.#11	DRY SPRINKLER SYSTEM HEADER	SPRINKLER ROOM
S.V.#12	DRY SPRINKLER SYSTEM P-1 NORTH	SPRINKLER ROOM
S.V.#13	DRY SPRINKLER SYSTEM P-1 CENTRE	SPRINKLER ROOM
S.V.#14	DRY SPRINKLER SYSTEM P-1 SOUTH	SPRINKLER ROOM
S.V.#21	FIRE STANDPIPE RISER-1	P1 LEVEL
S.V.#22	FIRE STANDPIPE RISER-2	P1 LEVEL
S.V.#23	FIRE STANDPIPE RISER-3	P1 LEVEL
S.V.#24	FIRE STANDPIPE RISER-4	P1 LEVEL
S.V.#25	FIRE STANDPIPE RISER-5	P1 LEVEL
S.V.#26	FHC IN PARKING	P1 LEVEL
S.V.#27	FHC IN PARKING	P1 LEVEL
S.V.#28	FHC IN PARKING	P1 LEVEL
S.V.#29	FHC IN PARKING	P1 LEVEL
S.V.#30	FHC IN PARKING	P1 LEVEL
S.V.#41	SPRINKLER SYSTEM ON GROUND FL. (SOUTH PART)	GROUND FLOOR
S.V.#42	SPRINKLER SYSTEM ON 2ND LEVEL (SOUTH PART)	2ND LEVEL
S.V.#43	SPRINKLER SYSTEM ON 3RD LEVEL (SOUTH PART)	3RD LEVEL
S.V.#44	SPRINKLER SYSTEM ON 4TH LEVEL (SOUTH PART)	4TH LEVEL
S.V.#45	SPRINKLER SYSTEM ON 5TH LEVEL (SOUTH PART)	5TH LEVEL
S.V.#46	SPRINKLER SYSTEM ON 6TH LEVEL (SOUTH PART)	6TH LEVEL
S.V.#47	SPRINKLER SYSTEM ON 7TH LEVEL (SOUTH PART)	7TH LEVELL
S.V.#51	SPRINKLER SYSTEM ON GROUND FL. (NORTH PART)	GROUND FLOOR
S.V.#52	SPRINKLER SYSTEM ON 2ND LEVEL (NORTH PART)	2ND LEVEL
S.V.#53	SPRINKLER SYSTEM ON 3RD LEVEL (NORTH PART)	3RD LEVEL
S.V.#54	SPRINKLER SYSTEM ON 4TH LEVEL (NORTH PART)	4TH LEVEL
S.V.#55	SPRINKLER SYSTEM ON 5TH LEVEL (NORTH PART)	5TH LEVEL
S.V.#56	SPRINKLER SYSTEM ON 6TH LEVEL (NORTH PART)	6TH LEVEL
S.V.#57	SPRINKLER SYSTEM ON 7TH LEVEL (NORTH PART)	7TH LEVELL
S.V.#58	SPRINKLER SYSTEM ON MECHANICAL PENTHOUSE	PENTHOUSE
S.V.#61	SPRINKLER RISER IN GARBAGE CHUTE	

FIRE ALARM SCHEDULE

ALARM 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
8	MECHANICAL ROOM - P1 LEVEL
9	GARBAGE ROOM - P1 LEVEL
10	GARBAGE LOADING AREA - P1 LEVEL
11	SPARE
12	1ST FLOOR
13-17	2ND FLOOR TO 7TH FLOOR
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 PART)
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 PART)
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
61	SPRINKLER RISER IN GARBAGE CHUTE FLOW ALARM
	SPARE 25%

TROUBLE 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 INCOMG 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 SPRINKLER 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 **
	SPARE 25%
	** NUMBER OF ZONES TO SUIT CODE REQUIREMENT

NO.	BY	DESCRIPTION	DATE
07	CM	REVISED AS PER SI E-5	2017-08-23
06	CM	ISSUED FOR CONSTRUCTION	2017-08-09
05	CM	PROGRESS FOR CONSTRUCTION	2017-07-18
04	CM	ISSUED FOR PERMIT	2016-12-28
03	CM	REVISED AS PER SI E-2	2016-10-04
02	CM	REVISED AS PER ESA COMMENTS AND FOR CLARIFICATION	2016-05-19
01	CM	ISSUED FOR TENDER	2016-03-15

REVISIONS

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Project North

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TITLE
POWER, COMMUNICATION, SECURITY AND FIRE ALARM RISER DIAGRAMS

PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
25 BAKER HILL BLVD.

ROYAL PINE HOMES
STOUFFVILLE, ONTARIO

DRAWN	CHECKED	SCALE
CM	MG	N.T.S.
DATE	PROJECT	DRAWING
SEPT. 2015	14-016	E-10
		OF 12