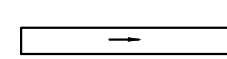
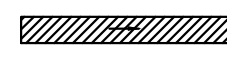
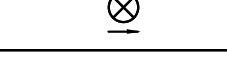
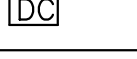
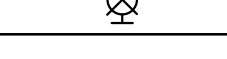
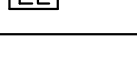
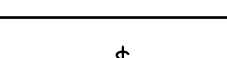
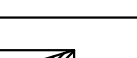
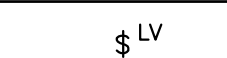
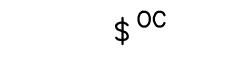
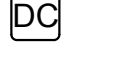
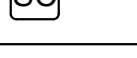
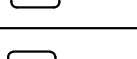
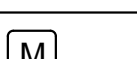
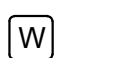
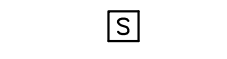
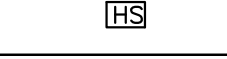
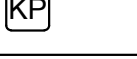
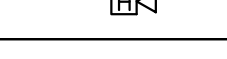
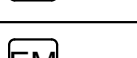
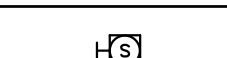
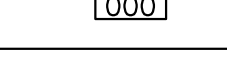
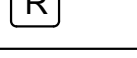
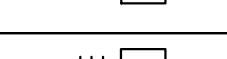
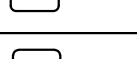
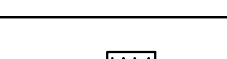
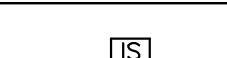
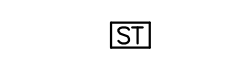
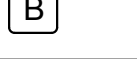
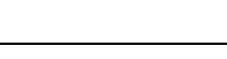
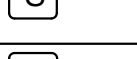
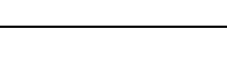
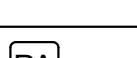
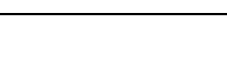
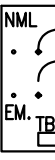
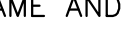
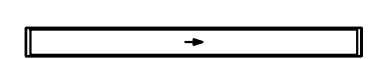
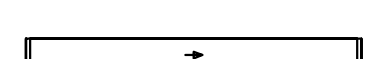
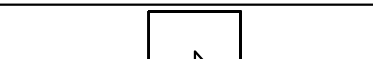
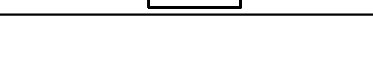
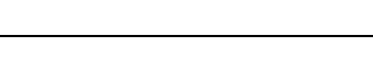
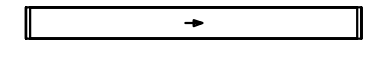
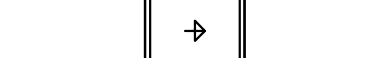
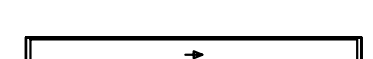
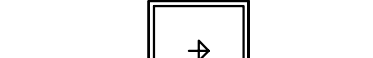
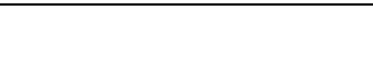


DRAWING LIST	
DRAWING NUMBER	DESCRIPTION
E-S1	ELECTRICAL SITE PLAN
GENERAL	
E-000	LEGEND
E-010	ELECTRICAL DISTRIBUTION BELOW GRADE
E-011	ELECTRICAL DISTRIBUTION BELOW GRADE TEST FACILITY
REFLECTED CEILING PLAN (R.C.P)	
E-101	GROUND FLOOR
E-102	SECOND & THIRD FLOOR
E-103	FOURTH FLOOR & PENTHOUSE
E-104	TEST FACILITY
ELECTRICAL DISTRUBTION	
E-201A	GROUND FLOOR: ELECRICAL DISTRIBUTION
E-201B	GROUND FLR: COMMS. SECURITY & A/V
E-202	SECOND FLOOR
E-203	THIRD FLOOR
E-204	FORTH FLOOR
E-205	PENTHOUSE
E-206	TEST FACILITY
RISERS, DIAGRAMS AND DETAILS	
E-301	SINGLE LINE DIAGRAM
E-302	PANEL SCHEDULES
E-303	PANEL SCHEDULES & MSCL
E-304	ELECTRICAL - TYPICAL DETAILS
E-305	SECURE DOOR - TYPICAL DETAILS
E-306	FIRE ALARM RISER

ELECTRICAL LEGEND					
REFLECTED CEILING PLAN		ELECTRICAL DISTRIBUTION		COMMUNICATIONS	
	LED LIGHT FIXTURE, TYPE AS INDICATED. REFER TO LIGHTING SCHEDULE FOR DETAILS.		WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		SECURITY CARD READER
	EMERGENCY LIGHTING FIXTURE INDICATED WITH HATCHING		ABOVE COUNTER DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		SECURITY ELECTRIC STRIKE
	EXIT LIGHT CEILING MOUNTED C/W FACES AND ARROWS AS INDICATED		WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		DOOR CONTACT
	EXIT LIGHT WALL MOUNTED C/W FACES AND ARROWS AS INDICATED		WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, 2 POLE, SPLIT CIRCUIT		ELECTRIC LOCK
	SINGLE POLE LINE VOLTAGE LIGHT SWITCH		WALL MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R, DEDICATED CIRCUIT		OCCUPIED WHEN LIT
	LIGHTING CONTROL TIMER SWITCH - LEVITON LTB60-1LZ		CEILING MOUNTED DUPLEX RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		COMMUNICATION PANEL
	LOW VOLTAGE LIGHTING CONTROL SWITCH - CRESTRON C2N-CB		QUAD RECEPTACLE 120 VOLT, 15 AMP, CSA 5-15R		PROX CARD READER
	LIGHTING CONTROL SWITCH - OCC AND VACANCY - LEVITON OSS-MT		WALL MOUNTED SPECIALTY RECEPTACLE, VOLTS AND AMPS AS INDICATED IN RECEPTACLE SCHEDULE		LONG RANGE WIEGAND READER
FIRE ALARM SYSTEMS			VOICE/DATA OUTLET		DOOR CONTACT, DOUBLE
			FLOOR MOUNTED OUTLET 2 DUPLEX CSA 5-15R		DOOR CONTACT, SINGLE
	MANUAL PULL STATION		FLOOR BOX C/W CSA 5-15R AND OPENING FOR USE BY COMMUNICATION CONTRACTOR		DOOR CONTACT, HEAVY DUTY
	SMOKE DETECTOR		FLOOR BOX C/W 2 CSA 5-15R AND OPENING FOR USE BY COMMUNICATION CONTRACTOR		UTILITY CONTACT
	HEAT DETECTOR		PANEL-SURFACE MOUNT		MOTION DETECTOR
	SMOKE DETECTOR DUCT MOUNTED		PANEL-FLUSH MOUNT		WATER DETECTOR
	EMERGENCY EVACUATION SWITCH		DIRECT CONNECTION TO EQUIPMENT AS NOTED		HI/LO TEMPERATURE DETECTOR
	FIREMAN'S HANDSET		COMBINATION DISCONNECT/STARTER		SECURITY KEYPAD
	HORN SINGLE		DISCONNECT SWITCH		SECURITY CAMERA, FIXED
	COMBINATION HORN/STOBE LIGHT		FUSED DISCONNECT SWITCH		ELECTRIC DOOR STRIKE
	EMERGENCY EVACUATION SPEAKER-CEILING MOUNTED		TRANSFORMER		ELECTROMAGNET
	EMERGENCY EVACUATION SPEAKER - WALL MOUNTED		CONNECTION TO SINGLE PHASE MOTOR		EMERGENCY PULL STATION
	FLOW SWITCH		CONNECTION TO THREE PHASE MOTOR		EXIT BUTTON
	SUPERVISED VALVE		MANUAL STARTER		HANDICAPPED BUTTON
	FAN AUTOMATIC SHUTDOWN		CONTACTOR		REX (REQUEST TO EXIT) DEVICE
	FRESH AIR DAMPER CONTROL		TV OUTLET WALL MOUNTED		LOCKDOWN BUTTON
	SMOKE DAMPER CONTROL		CABLE TRAY REFER TO SPECIFICATION LETTER DENOTES FOR TYPE		PANIC BAR
	INTERFACE ANALOG MODULE		JUNCTION BOX, 3 1/2" BOX WITH COVER PLATE		STROBE
	ISOLATION MODULE		BUILDING AUTOMATED SYSTEM CONNECTION POINT		FIRE INTERFACE
	STAND ALONE STROBE		PULL BOX		HORN (DOOR FORCED OPEN OR OPEN TOO LONG)
	END OF LINE RESISTOR		SPLITTER		BELL
			BREAKER		SOUNDER
			AUTOMATIC TRANSFER SWITCH (ATS)		MOTOR INTERFACE
					PANIC BUTTON
			GENERATOR		ONE CEILING MOUNT BACKBOX C/W ONE 3/4" CONDUIT STUBBED INTO CEILING SPACE C/W TWO CONNECTORS WITH NYLON BUSHINGS AND PULL STRINGS FOR USE BY COMMUNICATIONS CONTRACTOR. ONE CONDUIT PER BOX.
NOTE: NOT ALL SYMBOLS APPLY. CONTRACTOR TO REFER TO FLOOR PLANS. SECURITY DRAWINGS ARE TO BE READ IN CONJUNCTION WITH COMMUNICATION PLANS AND ARCHITECT'S; DOOR, FRAME AND HARDWARE SCHEDULE.					

INTERIOR LIGHTING SCHEDULE				
SYMBOL	LABEL	DESCRIPTION	WATTAGE	LUMENS
	A	BBDLED-B3-MF-1000-80-30-SO	38.8	3823
	C	LBIL-4-40LW-EU COLUMBIA	34.7	3161
	D	LRO4-35ML-EDU COLUMBIA	52.5	5039
	E	CUS33569 TMS	6	775
	F	SCD-B4-500-35-0_5-4-NK-W-UNV-D-1 AXIS	19.9	2000
	G	BRVLED-B3-MF-300-80-40-SO L SHAPE 6' and 2' AXIS	9.46	1143
	H	LBSLEDA10L30K9_WH SHOWERLITE PRESCOLITE	16.37	1032
	K	VN4-LS2-W_40K STANPRO	54	6001
	L	FN-LS3-W_35K STANPRO INDUSTRIAL	149.05	17787
	M	699-581-613-40-X-20 LETO 20 SENSO	32.2	2426
	N	PH-STR9-300-15W-BL-10-23_10_1	13.92	285
	M1	699-581-613-40-X-07 LETO 20 SENSO	20	876
	O4	SCD-B4-500-35-F-4-NK-W-UNV-D-1 AXIS 4FT	13	1203
	O8	SCD-B4-500-35-F-4-NK-W-UNV-D-1 AXIS 8FT	N.A.	N.A.

ELECTRICAL GENERAL NOTES:

- ALL ELECTRICAL EQUIPMENT SHOWN IN THICK SOLID LINES IS NEW TO BE PROVIDED UNDER THIS CONTRACT, TOGETHER WITH ALL ASSOCIATED CONDUITS AND WIRING, TO PROVIDE COMPLETE WORKING SYSTEM.
- ALL CONDUITS AND WIRING PASSING THROUGH FLOOR AND FIRE RATED WALLS TO BE FIRE STOP USING 3M FIRE RETARDANT MASTIC SEALANT NO EQUIVALENT.
- ALL WIRING TO BE R/RW90, MINIMUM SIZE #12AWG COPPER, IN EMT CONDUIT UNLESS OTHERWISE NOTED.
- ALL ELECTRICAL CIRCUITS ARE SHOWN FOR GROUPING PURPOSES ONLY.
- REGROUP CIRCUITS AS REQUIRED.
- COORDINATE ALL WORK WITH ARCHITECTURAL AND MECHANICAL CONTRACTORS.
- ALL EQUIPMENT, ACCESSORIES, SIZES, LOCATIONS AND DETAILS OF INSTALLATIONS TO BE CONFIRMED ON SITE.
- SEISMIC RESTRAINT SYSTEM (SRS) - PROVIDE DESIGN, SUPPLY AND INSTALLATION OF COMPLETE SRS FOR ALL SYSTEMS; EQUIPMENT SPECIFIED FOR INSTALLATION ON THIS PROJECT AS PER ONTARIO BUILDING CODE LATEST EDITION. THIS INCLUDES ELECTRICAL LIGHT FIXTURES, TRANSFORMERS, MCC'S, UPS, DIESEL GENERATORS, FIRE PROTECTION, CONDUIT, COMMUNICATIONS, ELECTRICAL EQUIPMENT AND SYSTEMS, BOTH VIBRATION ISOLATED AND STATICALLY SUPPORTED.

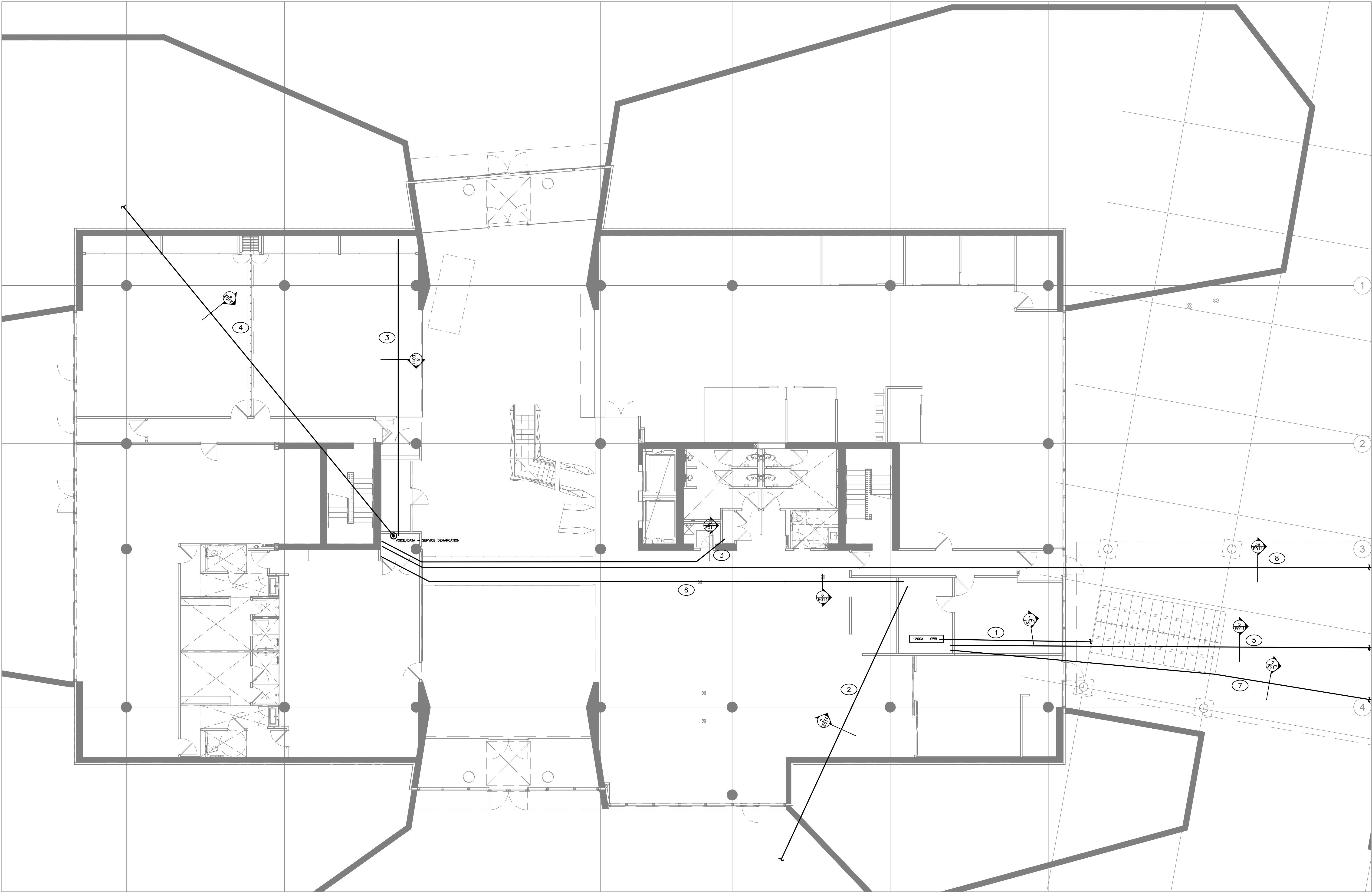
JRP ENGINEERING
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1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR BUILDING PERMIT	AUG 5 2016
No	DESCRIPTION	DATE
REVISIONS		
client: TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4		
project: TOMLINSON NEW BUILDING CITIGATE, OTTAWA		
drawing title: ELECTRICAL LEGEND		
scale:	AS SHOWN	drawn by: M.G
designed by:	M.G	reviewed by: J.R.P.
approved by:	J.R.P.	date: APR 2016
project no.:	100-16L	drawing no.: E-000
revision:	0	



1 ELECTRICAL DISTRIBUTION – BELOW GRADE
E010 SCALE 1:100

- GENERAL NOTES:
- 1 ALL ELECTRICAL SHOWN IN THICK SOLID LINES IS TO BE PROVIDED UNDER THIS CONTRACT C/W WITH ALL ASSOCIATED CONDUITS, SADDLES, HARDWARE, EXCAVATION, CONCRETE FORMING, FILL, PULL STRINGS ETC.
 - 2 COORDINATE ALL WORK AND UNDER SLAB INTERFERENCES WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL CONTRACTORS.

- DRAWING NOTES:
- 1 PROVIDE SECONDARY DUCT BANK FROM PAD MOUNT TRANSFORMER TO METERING SIDE OF NEW SWITCH BOARD AS PER TYPICAL DETAIL 1/E011.
 - 2 PROVIDE DIRECT BURIED CONDUIT(S) FROM MAIN ELECTRICAL ROOM TO EXTERIOR OF BUILDING FOR FUTURE CONNECTION TO EXTERIOR LIGHTING CABLE TRENCH AND ELECTRICAL VEHICLE CONNECTION POINTS AS PER TYPICAL DETAIL 2/E011.
 - 3 PROVIDE DIRECT BURIED CONDUIT(S) FROM ELEC/IT CLOSET TO LOCATIONS WITHIN BUILDING AS SHOWN AS PER TYPICAL DETAIL 3A/E011.
 - 4 PROVIDE DIRECT BURIED CONDUITS FROM COMMUNICATION SERVICE PROVIDER TO DEMARCATION POINT WITHIN BUILDING AS PER TYPICAL DETAIL 4/E011.
 - 5 PROVIDE DUCT BANK FROM MAIN ELECTRICAL ROOM TO STANDBY GENERATOR AS PER TYPICAL DETAIL 5/E011.
 - 6 PROVIDE DIRECT BURIED CONDUIT FROM MAIN ELECTRICAL ROOM TO ECEC/IT CLOSET IN SMALL POD AS PER TYPICAL DETAIL 6/E011.
 - 7 PROVIDE DUCT BANK FROM MAIN ELECTRICAL ROOM TO TEST FACILITY AS PER TYPICAL DETAIL 7/E011.
 - 8 PROVIDE DUCT BANK FROM ELEC/IT CLOSET TO IT STORAGE ROOM IN TEST FACILITY AS PER TYPICAL DETAIL 3B/E011.

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1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR BUILDING PERMIT	AUG 5 2016
No	DESCRIPTION	DATE

REVISIONS

client:

TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

project:

TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:

ELECTRICAL DISTRIBUTION
BELOW GRADE

scale:	AS SHOWN	drawn by:	M.G.
designed by:	M.G.	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:
100-16L

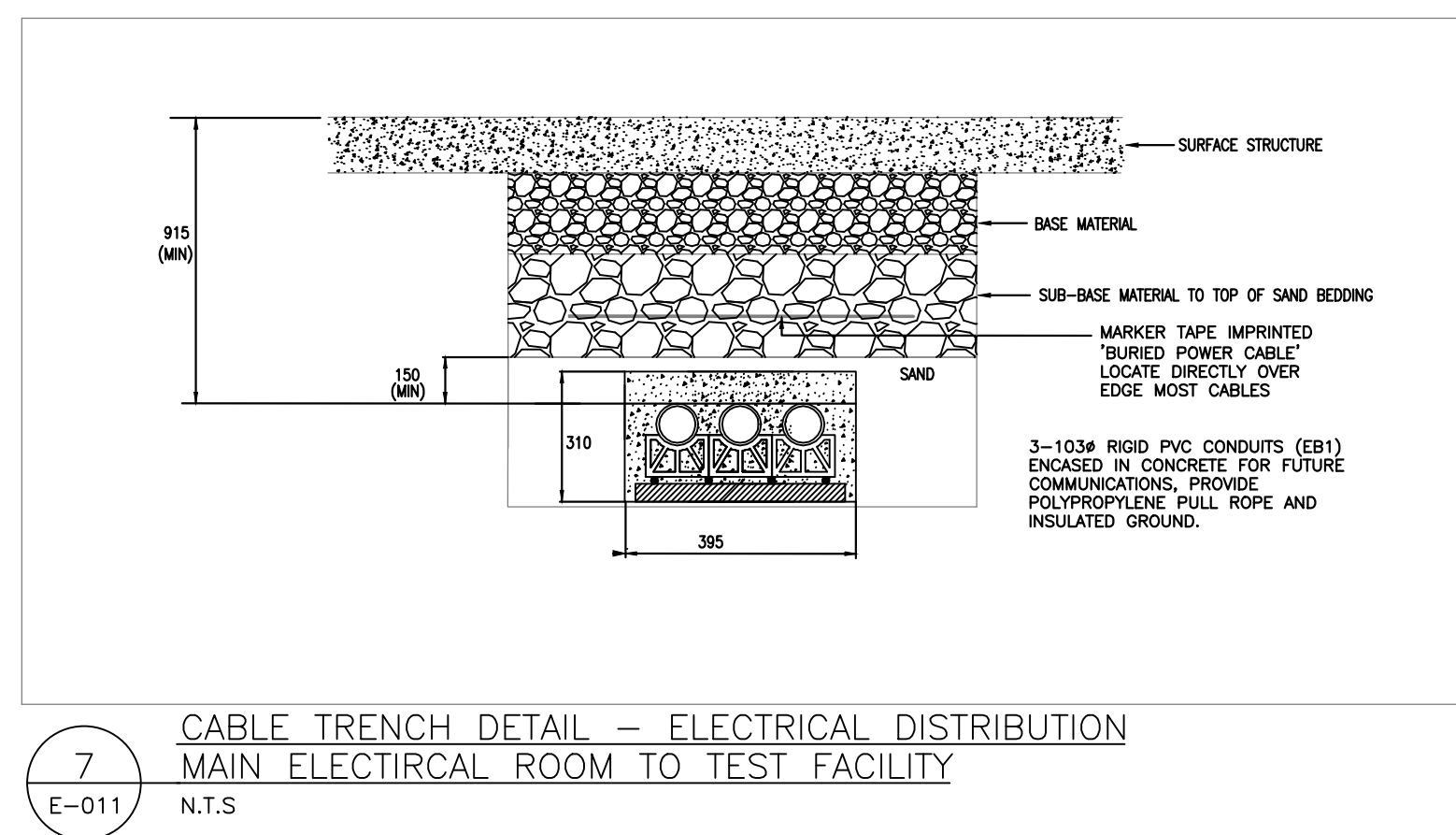
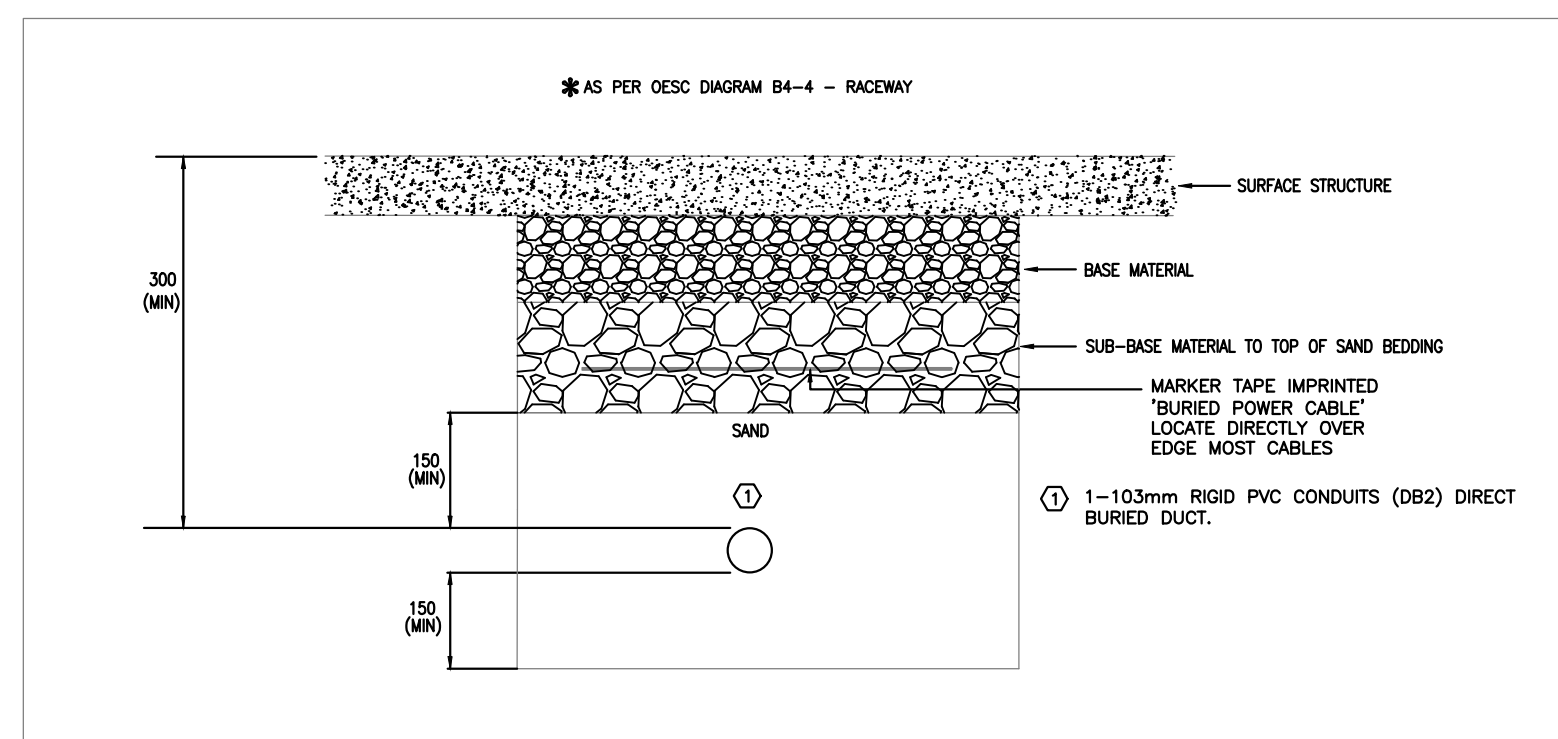
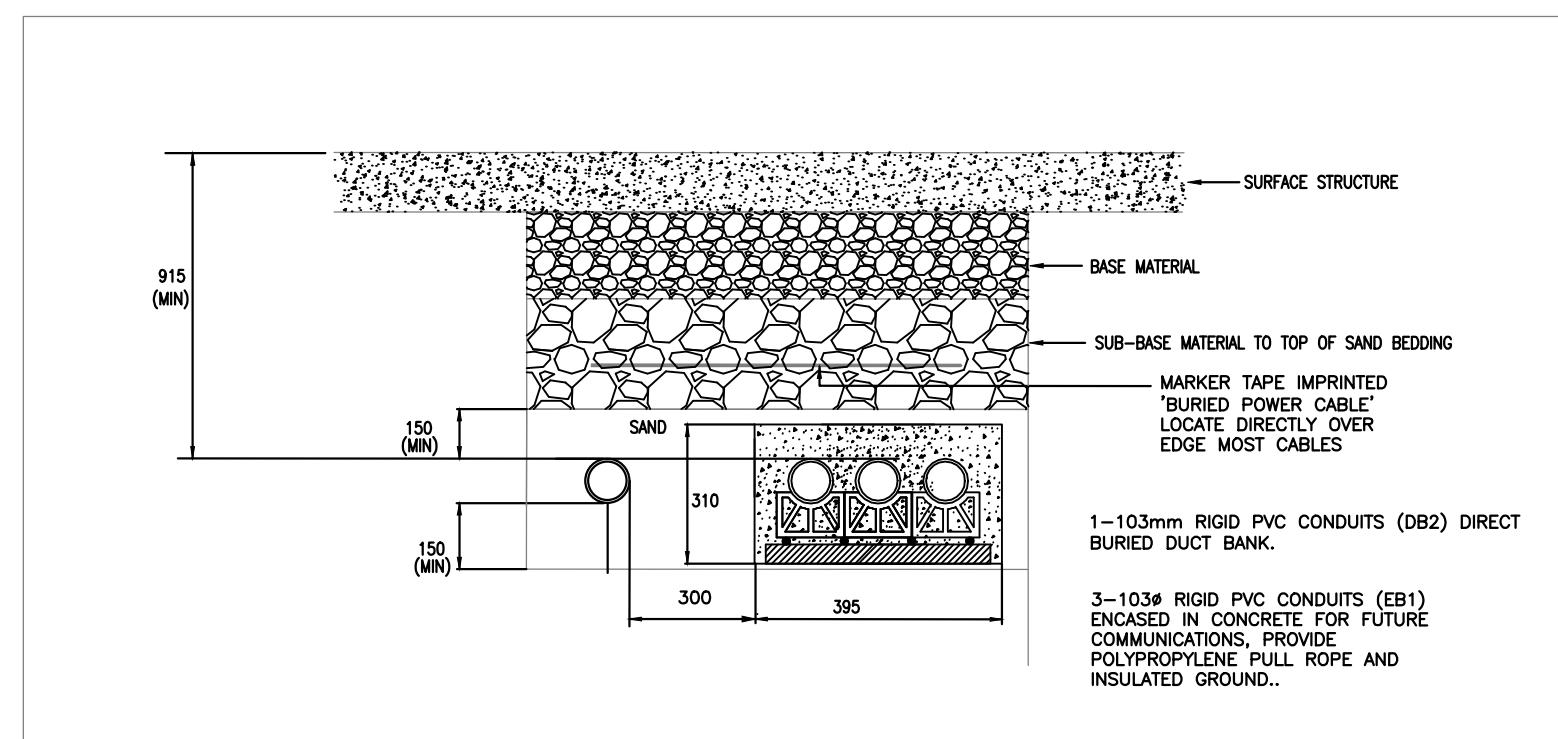
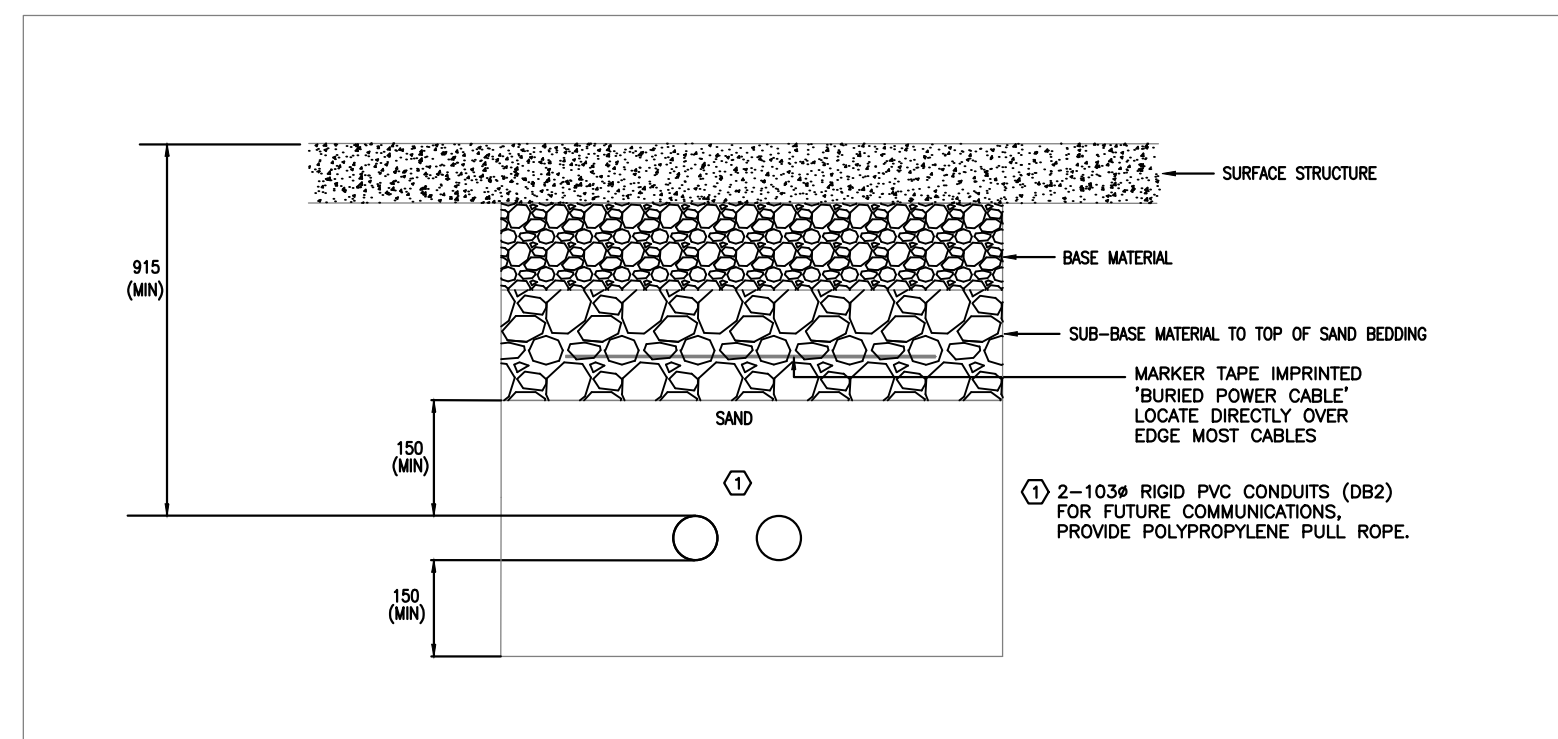
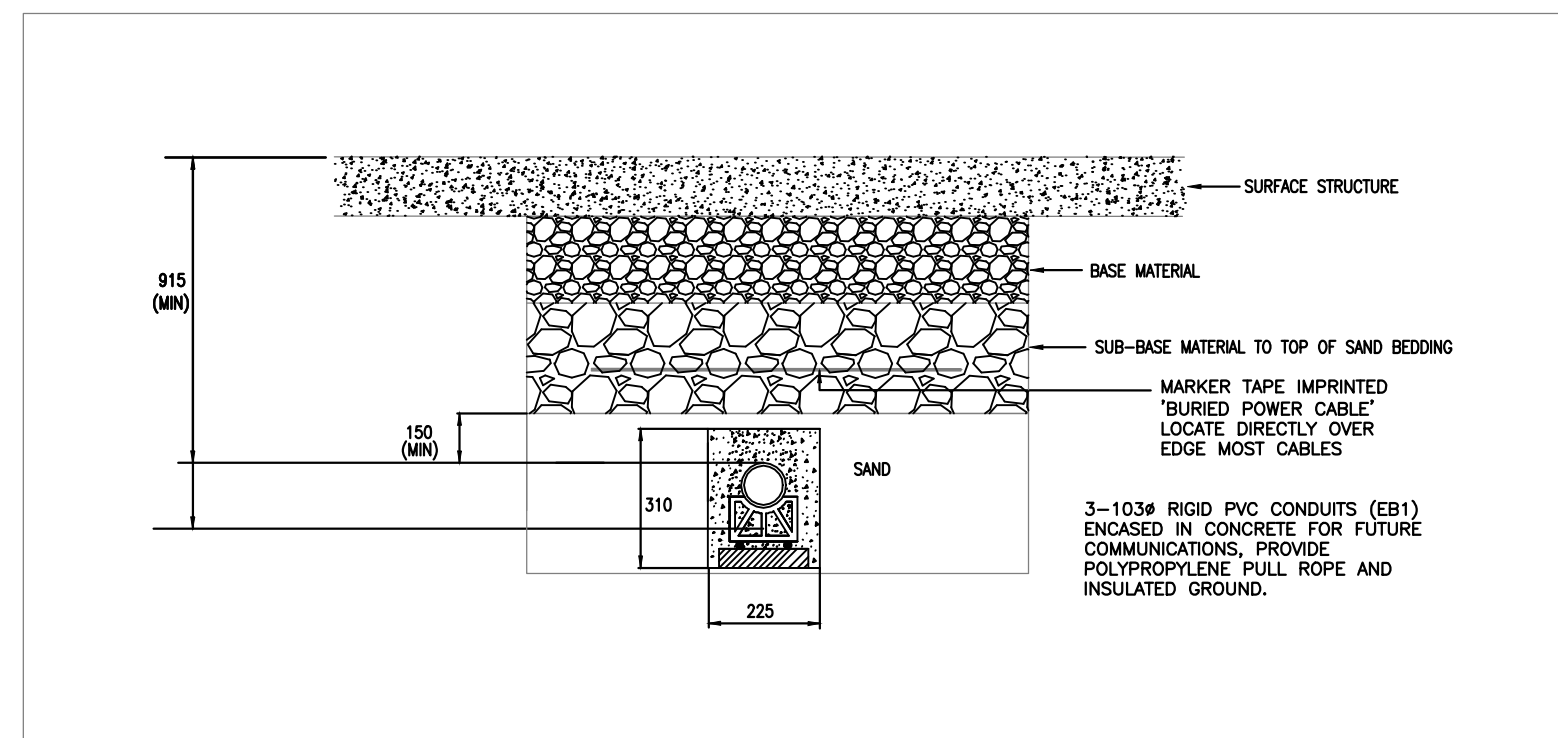
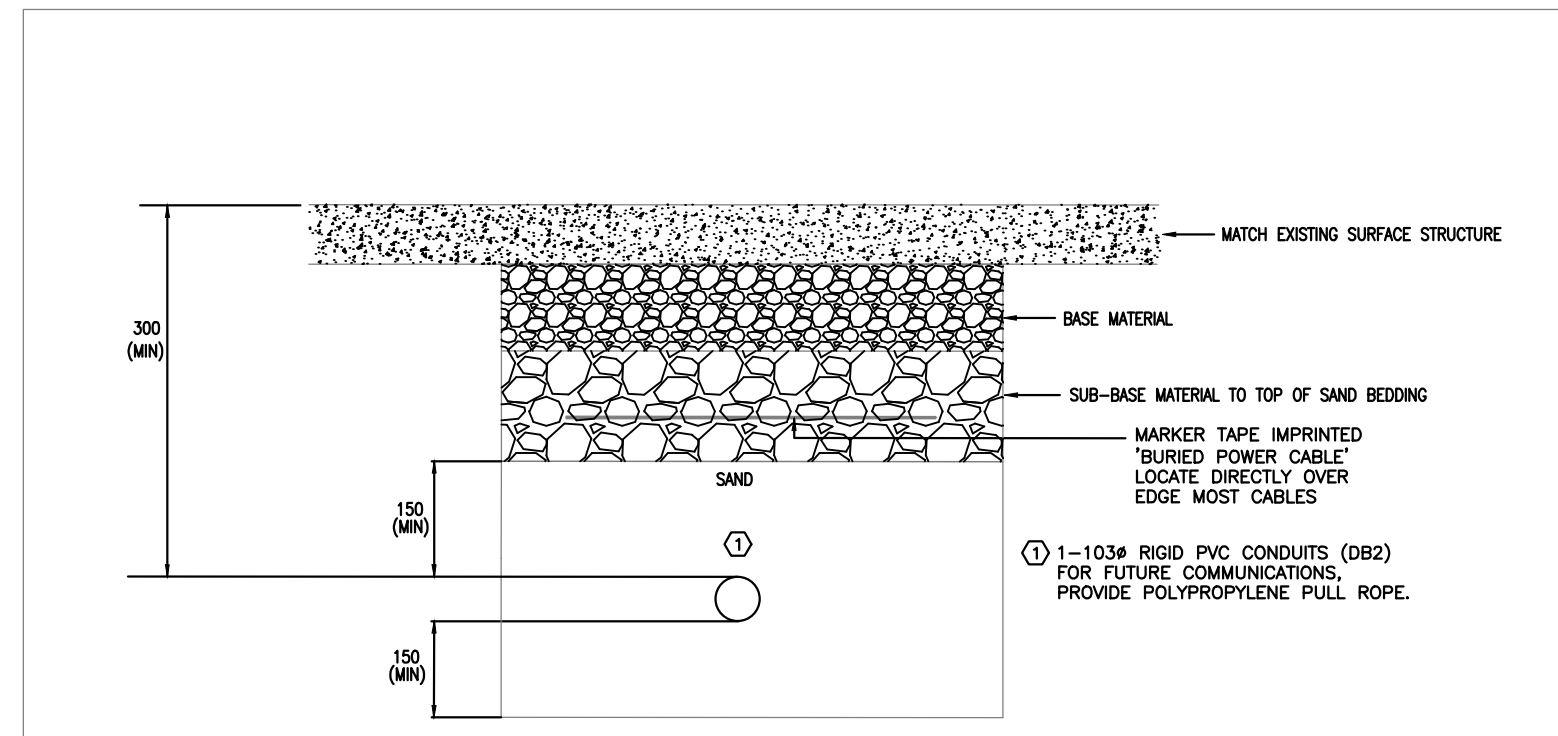
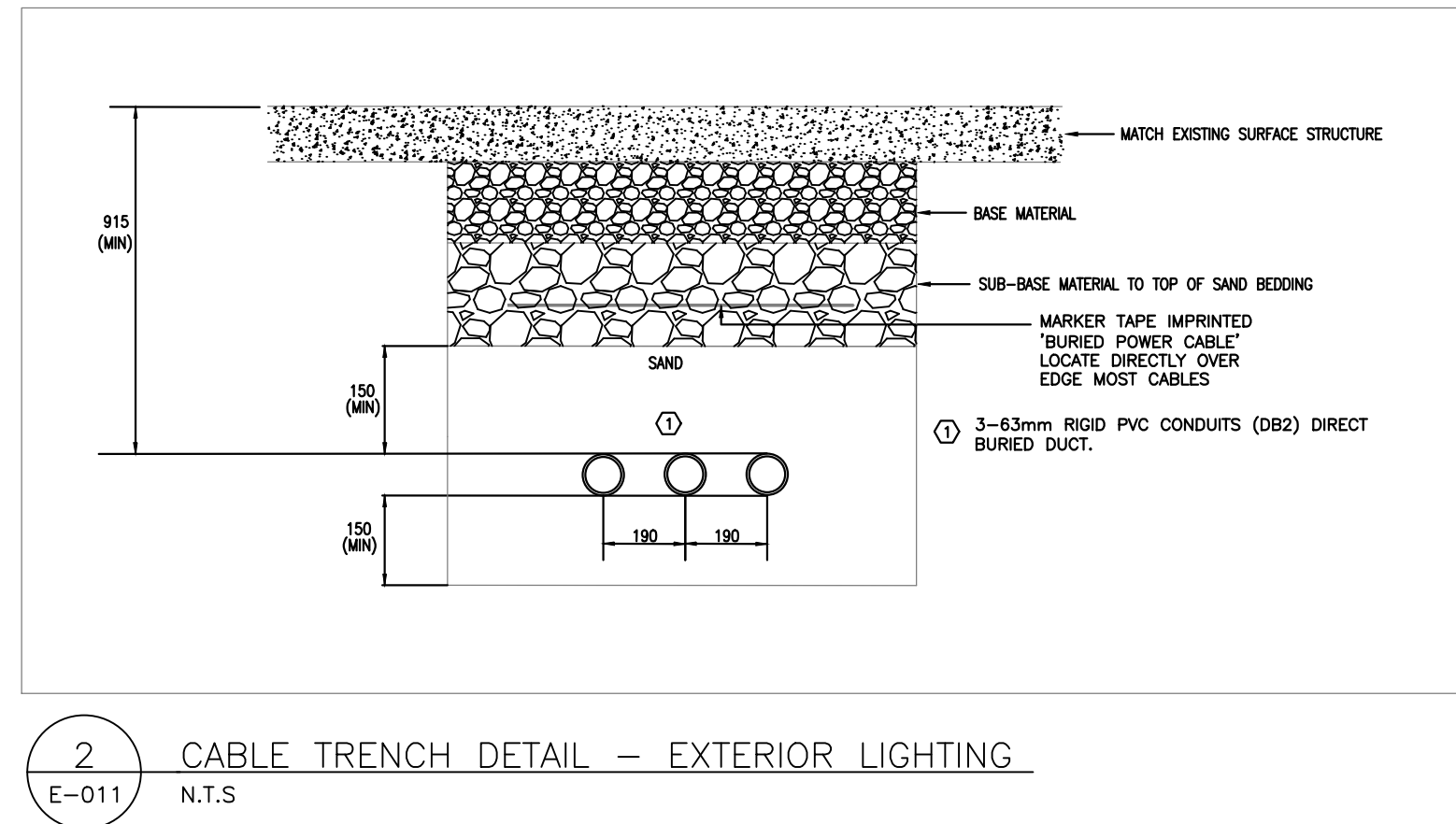
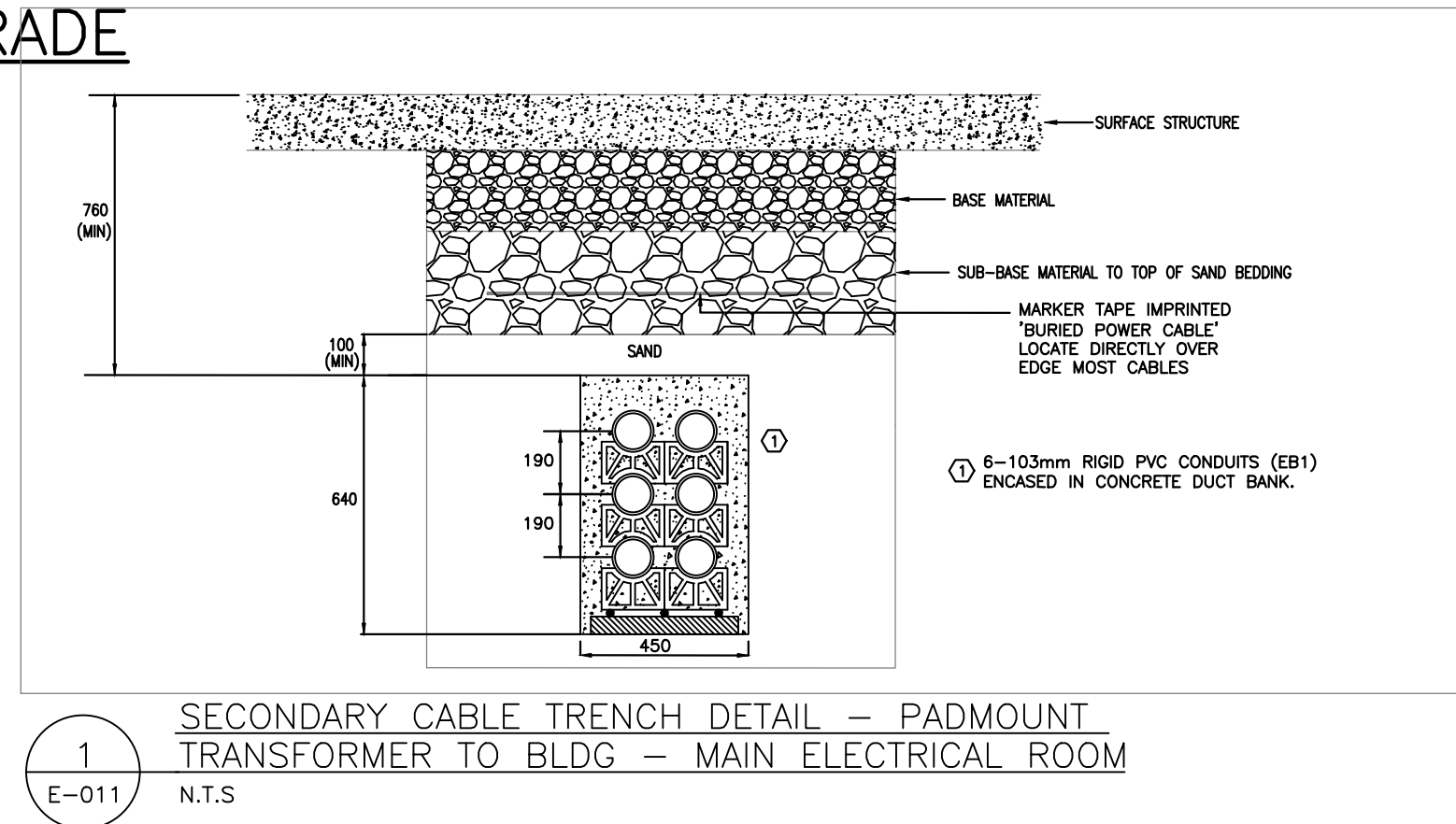
revision:
0

drawing no.:
E-010



1
E011

ELECTRICAL DISTRIBUTION — BELOW GRADE
SCALE 1:100



DRAWING NOTES:

- 1 PROVIDE DUCT BANK FROM MAIN ELECTRICAL ROOM TO STANDBY GENERATOR AS PER TYPICAL DETAIL 5/E011.
- 2 PROVIDE DUCT BANK FROM MAIN ELECTRICAL ROOM TO TEST FACILITY AS PER TYPICAL DETAIL 7/E011.
- 3 PROVIDE DUCT BANK FROM ELEC/IT CLOSET TO IT STORAGE ROOM IN TEST FACILITY AS PER TYPICAL DETAIL 3B/E011.

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No	DESCRIPTION	DATE
1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR BUILDING PERMIT	AUG 5 2016

REVISIONS	

client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
----------	--

drawing title:	ELECTRICAL DISTRIBUTION BELOW GRADE TEST FACILITY
----------------	--

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no:	100-16L	drawing no:	E-011
revision:	0		



- DRAWING NOTES:**
- ◇ PROVIDE SIDE LIT LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED. ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
 - ◇ LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
 - ◇ PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - ◇ FIRE ALARM PANEL, REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
 - ◇ PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - ◇ LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
 - ◇ LOW VOLTAGE LIGHTING CONTROL PANEL, TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.

1
E101

GROUND FLOOR – R.C.P
SCALE 1:100

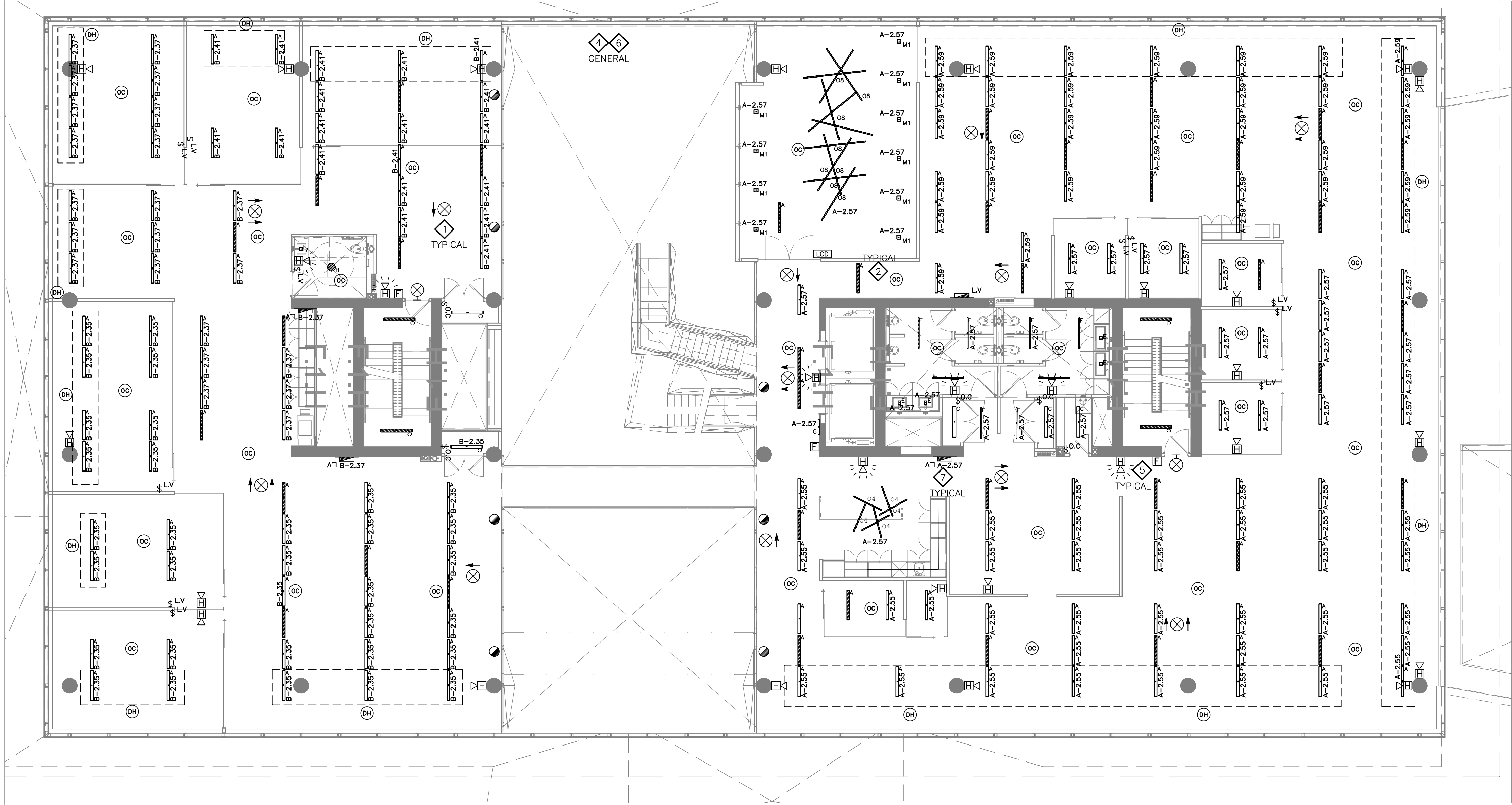
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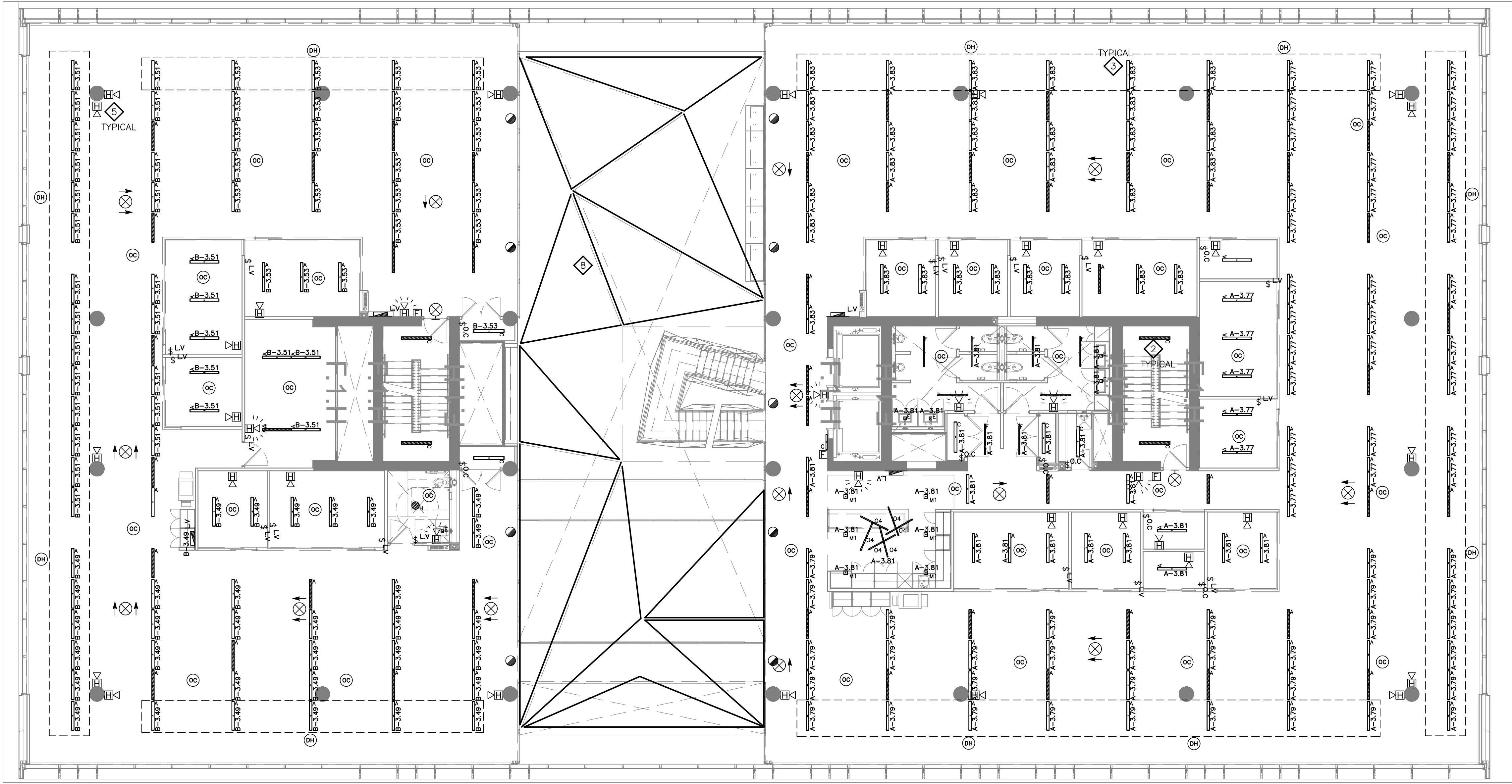
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1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016
No	DESCRIPTION	DATE
REVISIONS		
client:	TOMLINSON 5597 POWER RD OTTAWA, ON K1G 3N4	
project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA	
drawing title:	R.C.P GROUND FLOOR	
scale:	AS SHOWN	drawn by: M.G
designed by:	M.G	reviewed by: J.R.P.
approved by:	J.R.P.	date: APR 2016
project no.:	100-16L	drawing no.: E-101
revision:	0	



1 SECOND FLOOR – R.C.P.
E102 SCALE 1:100

- DRAWING NOTES:
- 1 PROVIDE SIDE LIT LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED, ALL ASSOCIATED HARDWARE, EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
 - 2 LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
 - 3 PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 4 ATRIUM LIGHTING TO BE TIED INTO EMERGENCY LIGHTING CIRCUITS AND REMAIN UNSWITCHED AT ALL TIMES.
 - 5 PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 6 LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
 - 7 LOW VOLTAGE LIGHTING CONTROL PANEL. TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.
 - 8 PROVIDE CUSTOM SUSPENDED LIGHT FIXTURE WITH PRE-BUILT ILLUMINATED CORNERS AND CONTINUOUS RUNS OF LIGHTING CREATING THE LOOK OF A SINGLE FIXTURE. COORDINATE SUSPENSION WITH ACOUSTIC PANELS MANUFACTURER/CONTRACTOR. FIXTURES TO BE SELF SUPPORTING.



2 THIRD FLOOR – R.C.P.
E102 SCALE 1:100

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No	DESCRIPTION	DATE
1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016

REVISIONS

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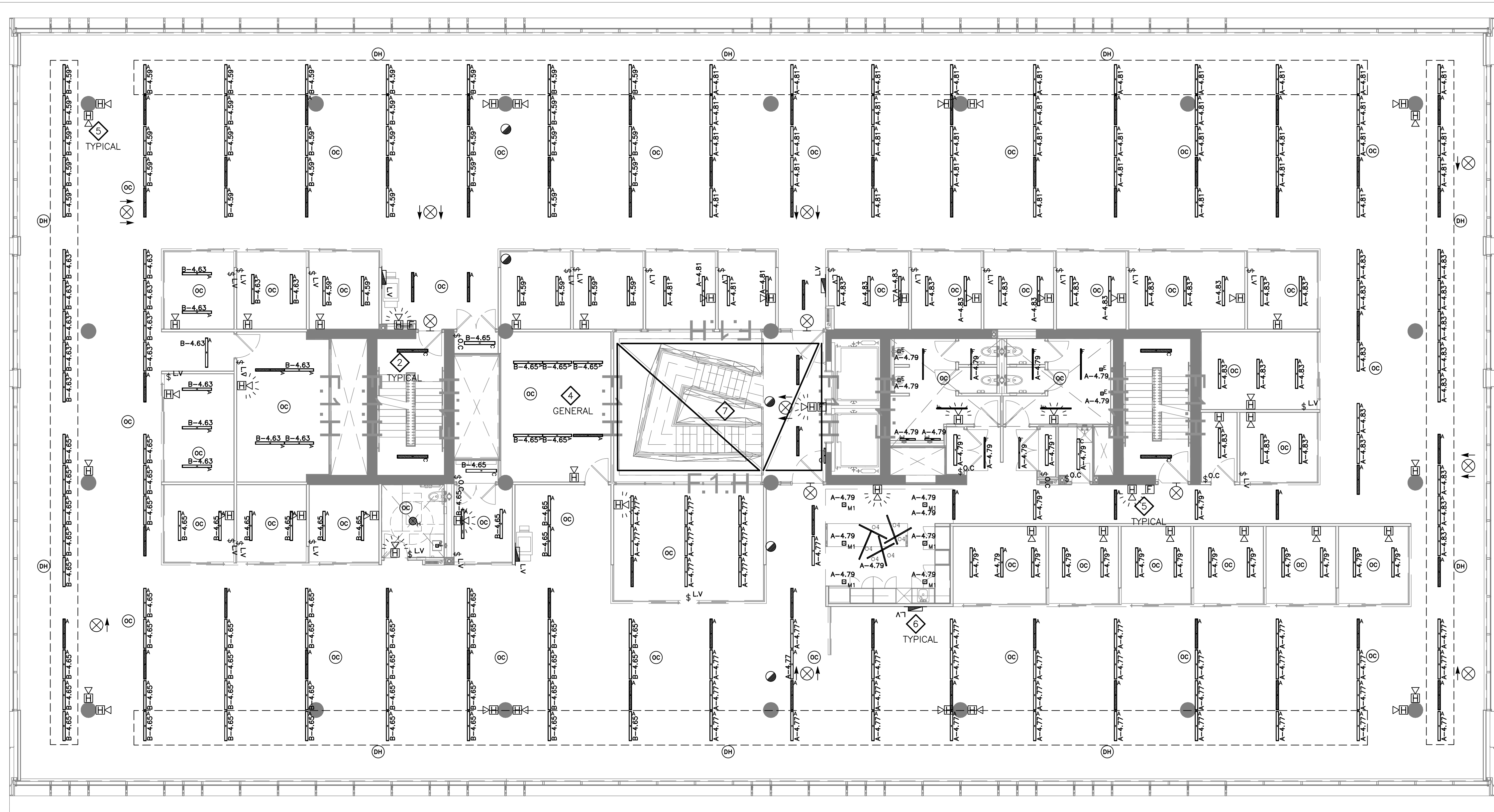
client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
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drawing title:	R.C.P. SECOND & THIRD FLOOR
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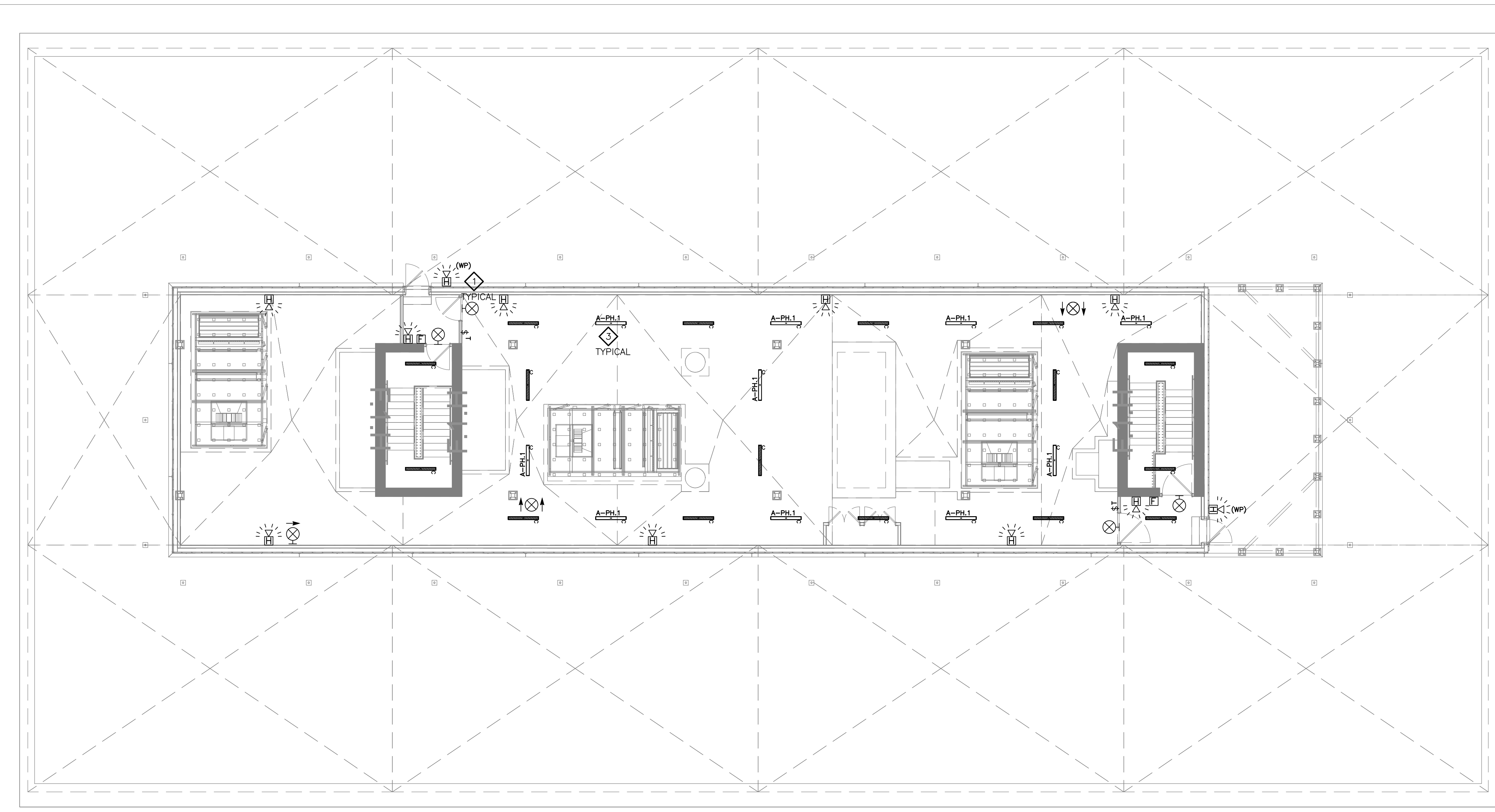
scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-102
revision:	0		



1
E103

FOURTH FLOOR – R.C.P.
SCALE 1:100



2
E103

PENTHOUSE – R.C.P.
SCALE 1:100

- DRAWING NOTES:**
- ◇ PROVIDE LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED. ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
 - ◇ LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
 - ◇ PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - ◇ LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.
 - ◇ PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - ◇ LOW VOLTAGE LIGHTING CONTROL PANEL. TO BE MOUNTED AS HIGH AS POSSIBLE. LOCATION TO BE DETERMINED ONSITE.
 - ◇ PROVIDE CUSTOM SUSPENDED LIGHT FIXTURE WITH PRE-BUILT ILLUMINATED CORNERS AND CONTINUOUS RUNS OF LIGHTING CREATING THE LOOK OF A SINGLE FIXTURE. COORDINATE SUSPENSION WITH ACOUSTIC PANELS MANUFACTURER/CONTRACTOR. FIXTURES TO BE SELF SUPPORTING.

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1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016
No	DESCRIPTION	DATE

REVISIONS

client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4	
project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA	
drawing title:	R.C.P FOURTH FLOOR & PENTHOUSE	
scale:	AS SHOWN	drawn by: M.G
designed by:	M.G	reviewed by: J.R.P.
approved by:	J.R.P.	date: APR 2016
project no.:	100-16L	drawing no.: E-103
revision:	0	



1 TEST FACILITY — R.C.P.
E104 SCALE 1:100

- DRAWING NOTES:**
- 1 PROVIDE LED EXIT SIGN C/W DIRECTIONAL ARROWS AS INDICATED. ALL ASSOCIATED HARDWARE. EXIT SIGN TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT.
 - 2 LIGHT FIXTURE TO BE TIED INTO EMERGENCY LIGHTING CIRCUIT AND REMAIN UNSWITCHED AT ALL TIMES.
 - 3 PROVIDE LIGHTING FIXTURE, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 4 FIRE ALARM PANEL, REFER TO RISER DIAGRAM FOR FURTHER DETAILS.
 - 5 PROVIDE FIRE ALARM DEVICE AS INDICATED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 6 LIGHTING TO BE CONTROLLED BY BAS BUILDING AUTOMATION SYSTEM.

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0	ISSUED FOR REVIEW	JUNE 15 2016
No	DESCRIPTION	DATE

REVISIONS

client:

TOMLINSON
5587 POWER RD
OTTAWA, ON
K1G 3N4

project:

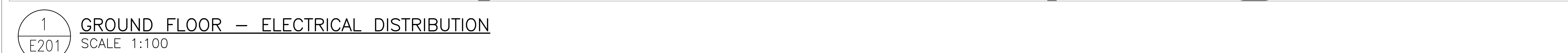
TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:

R.C.P
TEST FACILITY

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L	drawing no.: E-104
revision: 0	



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BEVERAGE BLENDER =

- 1 BEVERAGE BLENDER – PROVIDE NEW SPLIT DUPLEX RECEPTACLE (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 2 ICE-MAKER DISPENSER – PROVIDE NEW DUPLEX RECEPTACLE (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 3 CITRUS JUICER (1), UNDERCOUNTER FRIDGES (2) AND FREEZER (1) – PROVIDE (4) NEW DUPLEX RECEPTACLE (5–20R), ONE RECEPTACLE IS MOUNTED ABOVE COUNTER FOR THE CITRUS JUICER C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 4 ESPRESSO MACHINE NO.1 – PROVIDE (1) NEW SINGLE, 2 POLE, 3 WIRE RECEPTACLE (6–30R), RECEPTACLE IS MOUNTED ABOVE COUNTER FOR C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 5 ESPRESSO MACHINE NO.2 – PROVIDE (1) NEW SINGLE, 2 POLE, 3 WIRE RECEPTACLE (6–30R), RECEPTACLE IS MOUNTED ABOVE COUNTER FOR C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 6 DISHWASHER – PROVIDE NEW DUPLEX RECEPTACLE (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 7 MICROWAVE OVENS (3) – PROVIDE (3) NEW DUPLEX RECEPTACLES (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. INSTALL STACKED ONE ABOVE THE OTHER TO SUIT MILLWORK DESIGN.
- 8 BUFFET/CAFFETERIA HOT COLD COMBO – PROVIDE (4) NEW SINGLE, 2 POLE, 3 WIRE RECEPTACLE (6–30R), RECEPTACLES. BOXES TO BE FLUSH MOUNTED IN SLAB C/W ALL CONDUIT, WIRING, SLAB BOXES AND ASSOCIATED HARDWARE.
- 9 DISPLAY FRIDGES – PROVIDE (2) NEW DUPLEX RECEPTACLES (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.

10. DOMESTIC REFRIGERATOR – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
11. RICE COOKER – PROVIDE (1) NEW DUPLEX RECEPTACLE (5–20R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
12. DROP-IN COOLER – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
13. EXHAUST HOOD, FIRE SUPPRESSION SYSTEM – PROVIDE DIRECT CONNECTIONS TO EXHAUST HOOD 120V, 15A CIRCUITS TO FEED (2) LOCATIONS AT THE HOOD, (1) CONNECTION TO THE FIRE SUPPRESSION SYSTEM. PROVIDE DISCONNECTING MEANS, (1) COMMON JB FOR CCTs 39/41/43 RELAYS AS REQUIRED AND INTEGRATION TO FIRE ALARM SYSTEM AS REQUIRED C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. SUBMIT FINAL CONNECTION/FIRE ALARM INTEGRATION TO ENGINEER FOR APPROVAL PRIOR TO FINAL INSTALLATION.
14. OVEN STEAMER – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
15. REACH IN REFRIGERATOR – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
16. UNDER COUNTER REFRIGERATORS – PROVIDE (2) NEW DUPLEX RECEPTACLE (5–15R). RECEPTACLE COVERS SUITABLE FOR FLOOR MOUNTING IN KITCHEN ENVIRONMENT, CASKETED, WATE. BOXES TO BE FLUSH MOUNTED IN SLAB C/W ALL CONDUIT, WIRING, SLAB BOXES, KITCHEN AND ASSOCIATED HARDWARE.
17. REACH IN REFRIGERATOR – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
18. REACH IN FREEZER – PROVIDE (1) NEW DUPLEX RECEPTACLES (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.

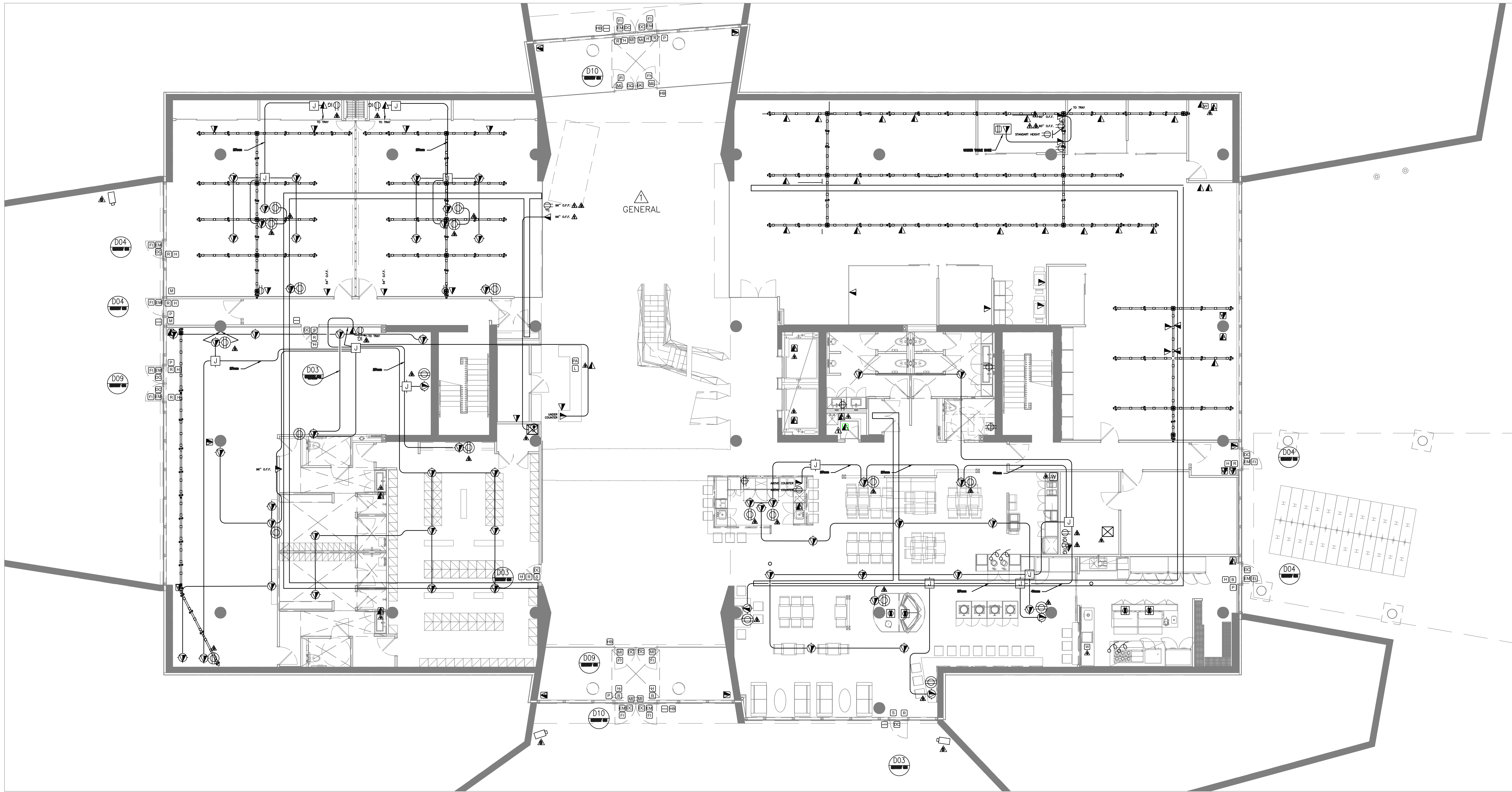
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|----|---|
| 19 | WAREWASHER — PROVIDE (1) NEW SINGLE, 2 POLE, 3 WIRE RECEPTACLE (6-40R), RECEPTACLE. C/W ALL CONDUIT, WIRING, SLAB BOXES AND ASSOCIATED. |
| 20 | PROVIDE DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. |
| 21 | PROVIDE DEDICATED DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. |
| 22 | PROVIDE GFCI DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. |
| 23 | PROVIDE DEDICATED DUPLEX RECEPTACLE (5-20R) FOR NEW PRINTER C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. |
| 24 | PROVIDE WALKER DUCT SYSTEM AS PER DETAILS/STANDARDS. REFER TYPICAL DETAILS FOR FURTHER INFORMATION. |
| 25 | UNUSED |
| 26 | PROVIDE SIX (6) CONTROLS TRANSFORMER FOR ADDITIONAL VAV BOXES (LOW VOLTAGE WIRING BY OTHERS) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. MOUNT TO UNDERSIDE OF SLAB. LOCATIONS NOT SHOWN. |
| 27 | PROVIDE DISTRIBUTION PANEL, REFER TO SLD AND PANEL SCHEDULE FOR FURTHER DETAILS. |
| 28 | PROVIDE SECURE DOOR AS PER SECURE DOOR TYPICAL DETAIL. |
| 29 | PROVIDE ELECTRICAL DISTRIBUTION AS PER SLD, C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. |
| 30 | 30KVA TRANSFORMER TO SUSPENDED FROM BUILDING STRUCTURE. STRUCTURAL AND SEISMIC SUPPORT SHALL BE DESIGNED BY STRUCTURAL ENGINEER AND SUPPLIED BY GENERAL CONTRACTOR. MOUNT TRANSFORMER AS HIGH AS POSSIBLE. |
| 31 | PROVIDE WIRING ALL ASSOCIATED CONDUIT AND WIRING ASSOCIATED WITH FINAL CONNECTIONS REQUIRED TO SERVICE DUCTLESS SPLIT SYSTEM UNITS TYPICAL TO ALL FLOORS (ELECTRICAL/IT CLOSETS) MAIN FEEDER DIRECT TO EVAPORATOR COIL IN IT CLOSET, THEN FEEDER UP TO CONDENSER LOCATED ON THE ROOF. COORDINATE EXACT WIRING REQUIREMENTS WITH FINAL UNIT SELECTION. |

- 32 PROVIDE 1/2" O.V. CIRCUIT c/w ALL ASSOCIATED CONDUIT, WIRING, FASTENERS AND HARDWARE TO ENTRANCE HEATERS. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS. CIRCUIT INDICATION: B-1.43. TYPICAL OF 4.
- 33 PROVIDE WIRING DIRECTLY TO DUPLEX PUMP CONTROL PANEL. COORDINATE EXACT DETAILS WITH MECHANICAL CONTRACTOR AND MANUFACTURERS' INSTALLATION DRAWINGS. PROVIDE ALL ASSOCIATED CONDUIT AND WIRING REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 34 THE ELECTRICAL CONTRACTOR SHALL PROVIDE OPTIONS FOR AUTOMATIC CONTROL OF RECEPTACLE LOADS ON EACH FLOOR. THE CONTRACTOR MAY USE A RELAY/CONTRACTOR WITH RECEPTACLE CIRCUITS RUN THROUGH IT c/w AUTOMATIC TIME CLOCK, OTHER OPTIONS MAY BE USED SUCH AS AUTOMATICALLY CONTROLLED RECEPTACLES.
- AUTOMATIC RECEPTACLE CONTROL
SECTION 130.5(D):
- CONTROLLED RECEPTACLES THAT AUTOMATICALLY SHUT-OFF ARE REQUIRED IN PRIVATE OFFICES, OPEN OFFICES, LOBBIES, COPY ROOMS, KITCHENETTES, AND CONFERENCE ROOMS.
- AT LEAST ONE CONTROLLED RECEPTACLE MUST BE WITHIN 6 FEET OF AN UNCONTROLLED RECEPTACLE; THIS CAN BE ACCOMPLISHED BY SWITCHING ONE OF THE TWO OUTLETS IN EACH RECEPTACLE.
- CONTROLLED RECEPTACLES NEED TO BE MARKED TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLE
- ALLOW FOR ALL ASSOCIATED CONDUIT, WIRE HARDWARE, FASTENERS, FITTINGS, RELAYS, WIRELESS DEVICES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. TYPICAL NOTE, 4 FLOORS.
- 35 PROVIDE WALKER DUCT SYSTEM AS INDICATED IN TYPICAL WALKER DUCT DETAILS PROVIDED IN DETAIL 3/E304.

AT LEAST ONE CONTROLLED RECEPTACLE MUST BE WITHIN 6 FEET OF AN UNCONTROLLED RECEPTACLE; THIS CAN BE ACCOMPLISHED BY SWITCHING ONE OF THE TWO OUTLETS IN EACH RECEPTACLE

ALLOW FOR ALL ASSOCIATED CONDUIT, WIRE
HARDWARE, FASTENERS, FITTINGS, RELAYS, WIRELESS
DEVICES REQUIRED FOR A COMPLETE AND
OPERATIONAL SYSTEM. TYPICAL NOTE, 4 FLOORS.

- 35 PROVIDE WALKER DUCT SYSTEM AS INDICATED IN TYPICAL WALKER DUCT DETAILS PROVIDED IN DETAIL 3/E304.



1
E201A

GROUND FLOOR — COMMS. LAYOUT
SCALE 1:100

COMMUNICATION NOTES:

△ ELECTRICAL DRAWINGS TO BE READ IN CONJUNCTION
WITH SECURITY, IT AND A/V DRAWINGS.

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No	DESCRIPTION	DATE
1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

REVISIONS

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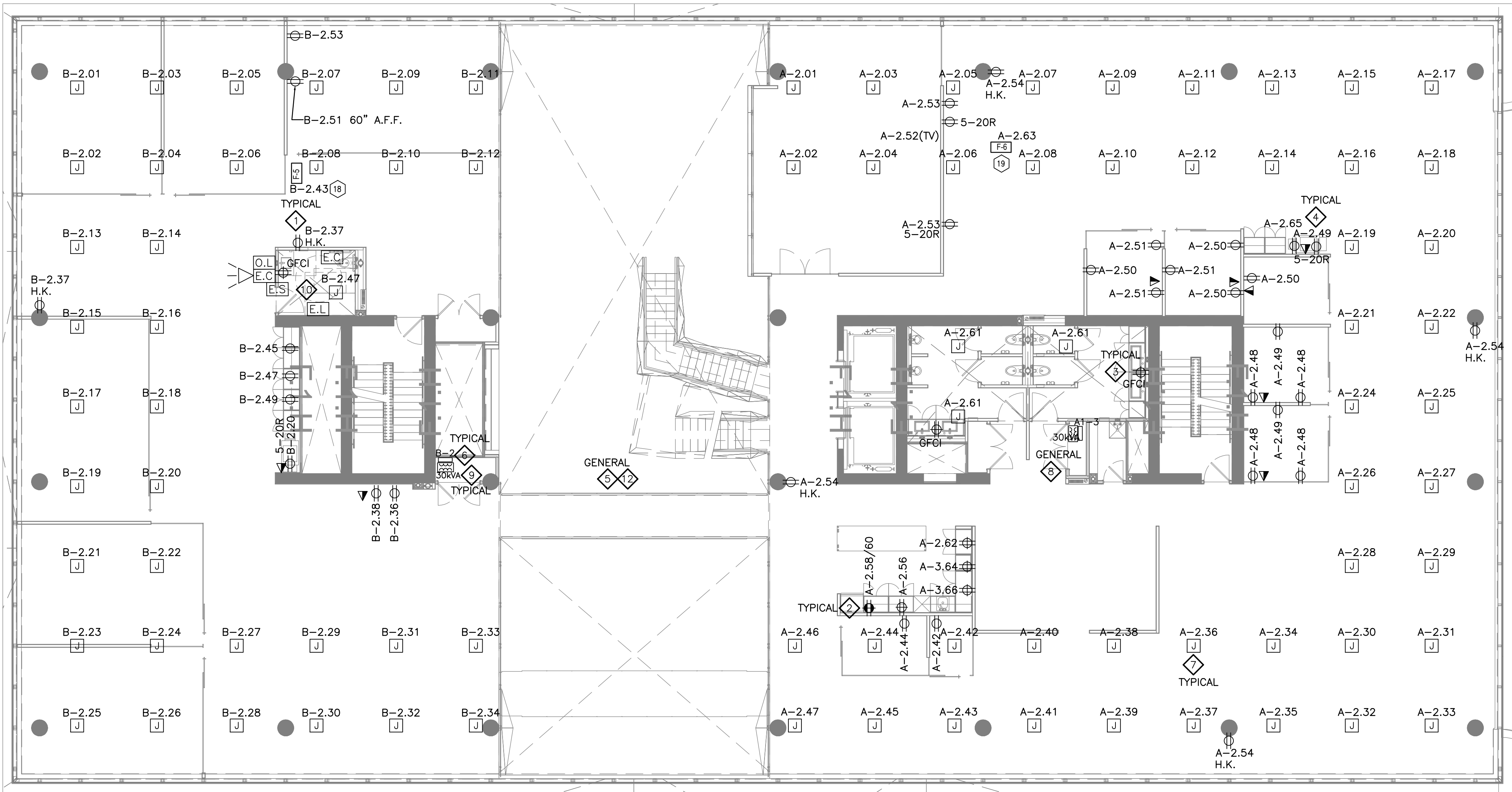
client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
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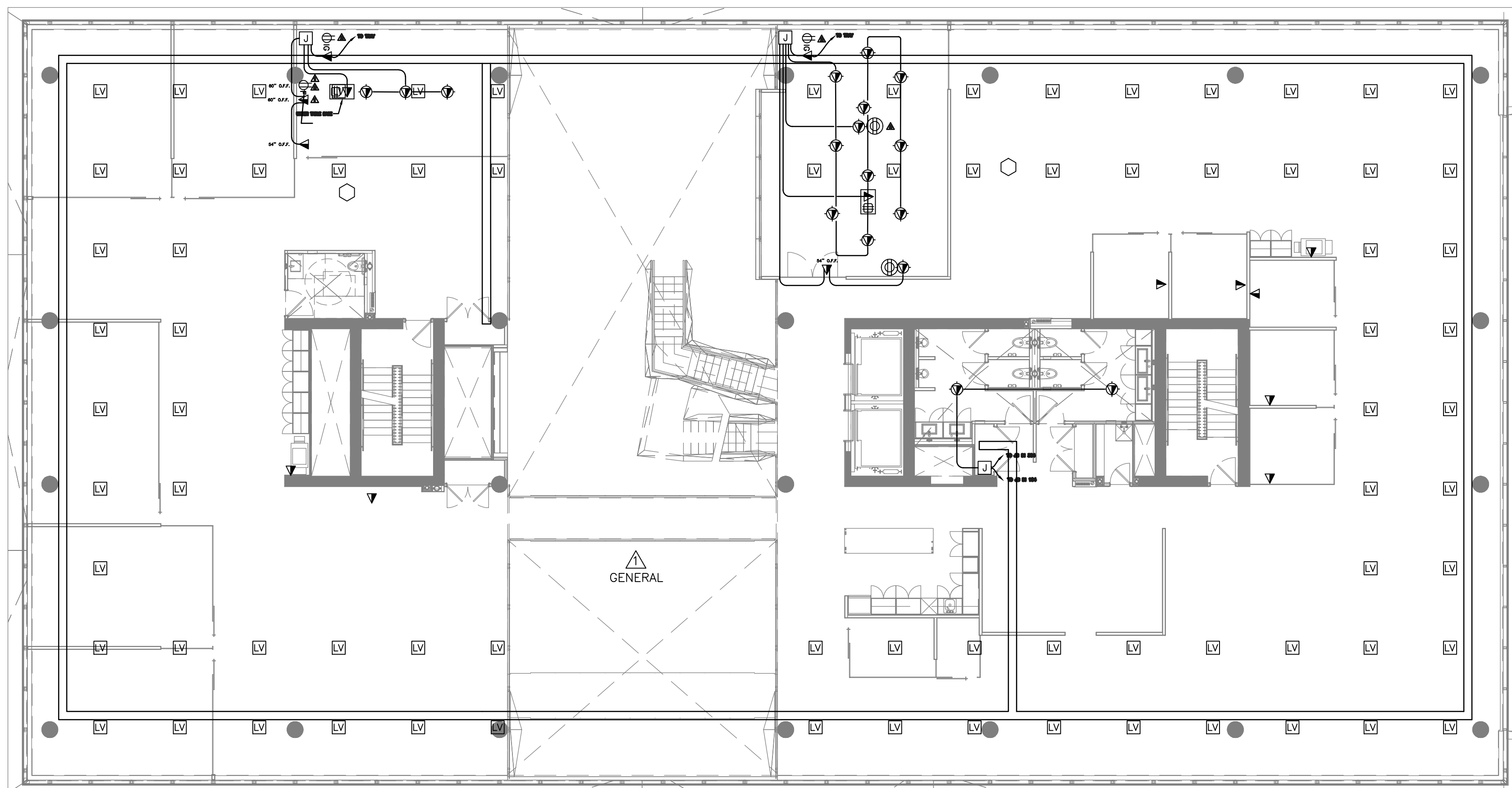
drawing title:	ELECTRICAL COMMS. SECURITY & A/V GROUND FLOOR
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scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-201B
revision:	0		



1 SECOND FLOOR — ELECTRICAL DISTRIBUTION
E202 SCALE 1:100



2 SECOND FLOOR — COMMS. SECURITY & A/V LAYOUT
E202 SCALE 1:125

DRAWING NOTES:

- 1 PROVIDE DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 2 PROVIDE DEDICATED/SPLIT DUPLEX RECEPTACLE AS INDICATED (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 3 PROVIDE GFCI DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 4 PROVIDE DEDICATED DUPLEX RECEPTACLE (5-20R) FOR NEW PRINTER C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 5 PROVIDE SIX (6) CONTROLS TRANSFORMER FOR ADDITIONAL VAV BOXES (LOW VOLTAGE WIRING BY OTHERS) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. MOUNT TO UNDERSIDE OF SLAB. LOCATIONS NOT SHOWN.
- 6 PROVIDE DISTRIBUTION PANEL, REFER TO SLD AND PANEL SCHEDULE FOR FURTHER DETAILS.
- 7 PROVIDE CEILING MOUNTED, (SLAB MOUNTED BOX) C/W ALL CIRCUIT(S), CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 8 PROVIDE ELECTRICAL DISTRIBUTION AS PER SLD, C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 9 30KVA TRANSFORMER TO SUSPENDED FROM BUILDING STRUCTURE. STRUCTURAL AND SEISMIC SUPPORT SHALL BE DESIGNED BY STRUCTURAL ENGINEER AND SUPPLIED BY GENERAL CONTRACTOR. MOUNT TRANSFORMER AS HIGH AS POSSIBLE.
- 10 PROVIDE AND INSTALL EMERGENCY CALL SYSTEM C/W AUDIBLE AND VISIBLE SIGNAL, PUSH BUTTONS, PULL STRING, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE TO MAKE FULLY OPERATIONAL SYSTEM. REFER TO UNIVERSAL WASHROOM TYPICAL DETAIL. INSTALL AS PER OBC 3.8.3.12.(2). SIGNAGE BY OTHERS.
- 11 PROVIDE WIRING ALL ASSOCIATED CONDUIT AND WIRING ASSOCIATED WITH FINAL CONNECTIONS REQUIRED TO SERVICE DUCTLESS SPLIT SYSTEM UNITS TYPICAL TO ALL FLOORS (ELECTRICAL/IT CLOSETS) MAIN FEEDER DIRECT TO EVAPORATOR COIL IN IT CLOSET, THEN FEEDER UP TO CONDENSER LOCATED ON THE ROOF. COORDINATE EXACT WIRING REQUIREMENTS WITH FINAL UNIT SELECTION.
- 12 THE ELECTRICAL CONTRACTOR SHALL PROVIDE OPTIONS FOR AUTOMATIC CONTROL OF RECEPTACLE LOADS ON EACH FLOOR. THE CONTRACTOR MAY USE A RELAY/CONTACTOR WITH RECEPTACLE CIRCUITS RUN THROUGH IT C/W AUTOMATIC TIME CLOCK, OTHER OPTIONS MAY BE USED SUCH AS AUTOMATICALLY CONTROLLED RECEPTACLES.

AUTOMATIC RECEPTACLE CONTROL
SECTION 130.5(D):

CONTROLLED RECEPTACLES THAT AUTOMATICALLY SHUT-OFF ARE REQUIRED IN PRIVATE OFFICES, OPEN OFFICES, LOBBIES, COPY ROOMS, KITCHENETTES, AND CONFERENCE ROOMS.

AT LEAST ONE CONTROLLED RECEPTACLE MUST BE WITHIN 6 FEET OF AN UNCONTROLLED RECEPTACLE; THIS CAN BE ACCOMPLISHED BY SWITCHING ONE OF THE TWO OUTLETS IN EACH RECEPTACLE

CONTROLLED RECEPTACLES NEED TO BE MARKED TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLE

ALLOW FOR ALL ASSOCIATED CONDUIT, WIRE HARDWARE, FASTENERS, FITTINGS, RELAYS, WIRELESS DEVICES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. TYPICAL NOTE, 4 FLOORS.

COMMUNICATION NOTES:

- ⚠ ELECTRICAL DRAWINGS TO BE READ IN CONJUNCTION WITH SECURITY, IT AND A/V DRAWINGS.

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No	DESCRIPTION	DATE
1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

REVISIONS

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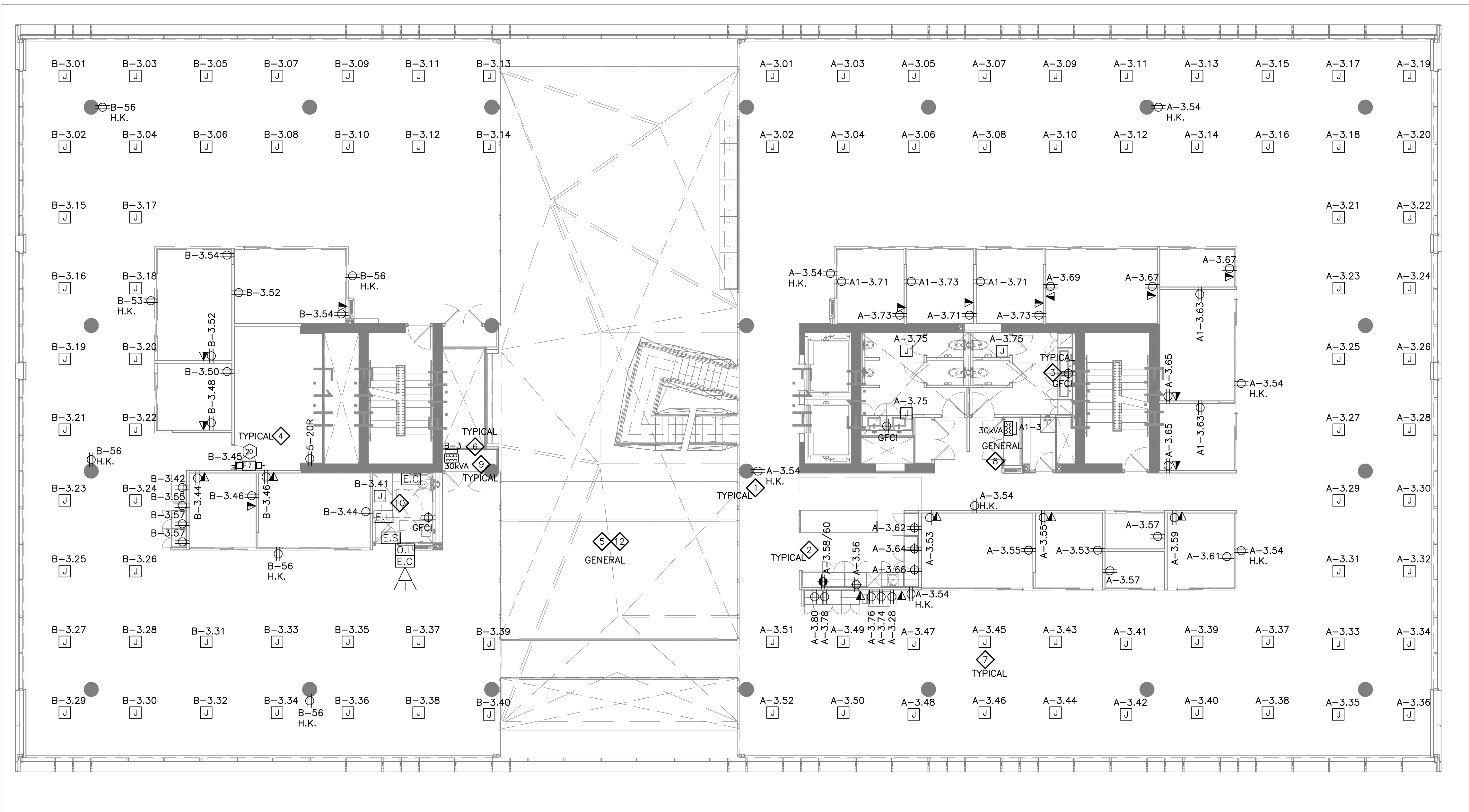
client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
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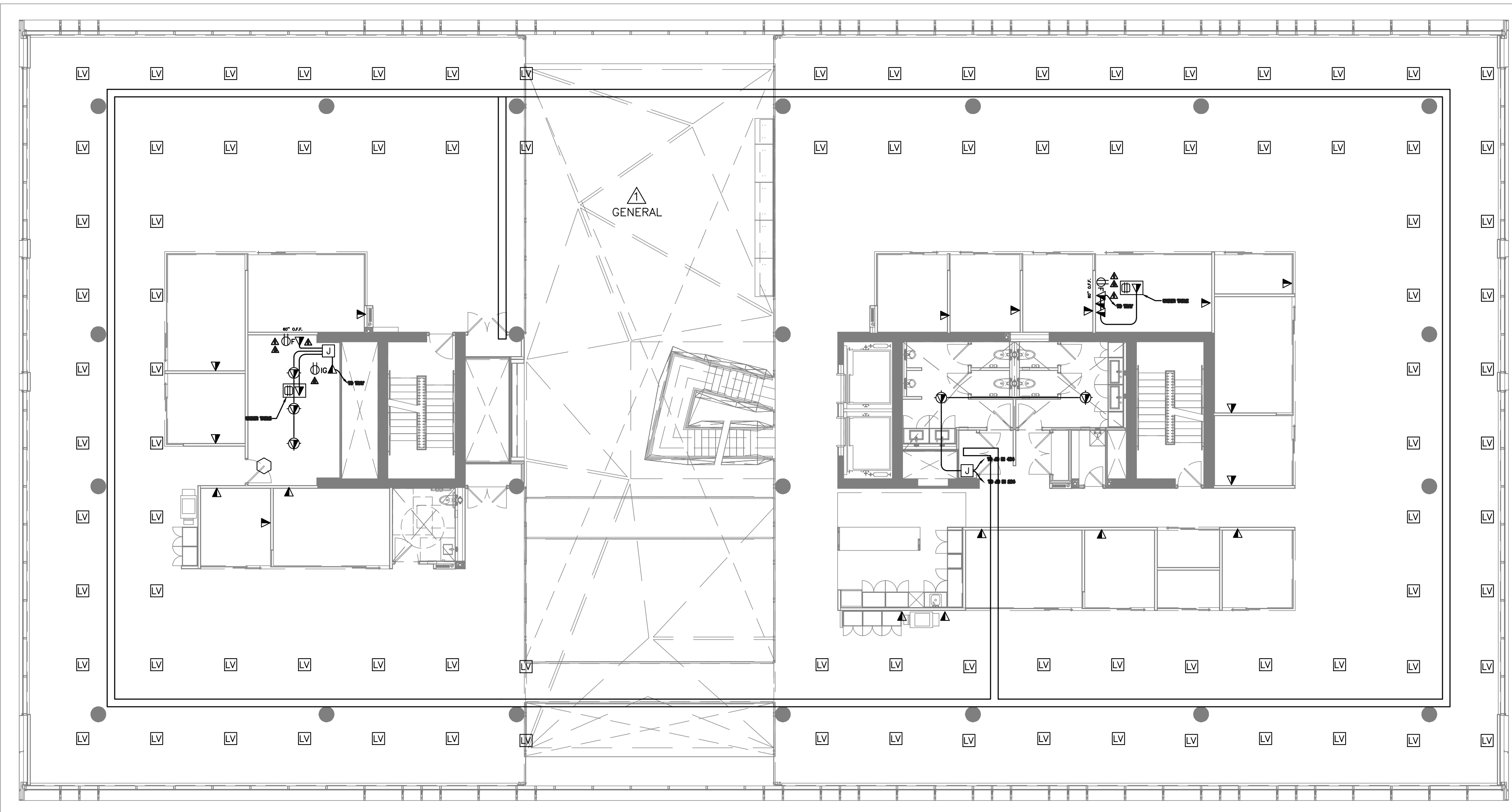
drawing title:	ELECTRICAL DISTRIBUTION, SECURITY & A/V SECOND FLOOR
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scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-202
revision:	0		



1 3RD FLOOR – ELECTRICAL DISTRIBUTION
E203 SCALE 1:100



2 3RD FLOOR – COMMS. SECURITY & A/V LAYOUT
E203 SCALE 1:125

- DRAWING NOTES:**
- 1 PROVIDE DUPLEX RECEPTACLE (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 2 PROVIDE DEDICATED DUPLEX RECEPTACLE (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 3 PROVIDE GFCI DUPLEX RECEPTACLE (5–15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 4 PROVIDE DEDICATED DUPLEX RECEPTACLE (5–20R) FOR NEW PRINTER C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 5 PROVIDE SIX (6) CONTROLS TRANSFORMER FOR ADDITIONAL VAV BOXES (LOW VOLTAGE WIRING BY OTHERS) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. MOUNT TO UNDERSIDE OF SLAB. LOCATIONS NOT SHOWN.
 - 6 PROVIDE DISTRIBUTION PANEL, REFER TO SLD AND PANEL SCHEDULE FOR FURTHER DETAILS.
 - 7 PROVIDE CEILING MOUNTED, (SLAB MOUNTED BOX) C/W ALL CIRCUIT(S), CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 8 PROVIDE ELECTRICAL DISTRIBUTION AS PER SLD, C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 9 30KVA TRANSFORMER TO SUSPENDED FROM BUILDING STRUCTURE. STRUCTURAL AND SEISMIC SUPPORT SHALL BE DESIGNED BY STRUCTURAL ENGINEER AND SUPPLIED BY GENERAL CONTRACTOR. MOUNT TRANSFORMER AS HIGH AS POSSIBLE.
 - 10 PROVIDE AND INSTALL EMERGENCY CALL SYSTEM C/W AUDIBLE AND VISIBLE SIGNAL, PUSH BUTTONS, PULL STRING, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE TO MAKE FULLY OPERATIONAL SYSTEM. REFER TO UNIVERSAL WASHROOM TYPICAL DETAIL. INSTALL AS PER OBC 3.8.3.12.(2). SIGNAGE BY OTHERS.
 - 11 PROVIDE WIRING ALL ASSOCIATED CONDUIT AND WIRING ASSOCIATED WITH FINAL CONNECTIONS REQUIRED TO SERVICE DUCTLESS SPLIT SYSTEM UNITS TYPICAL TO ALL FLOORS (ELECTRICAL/IT CLOSETS) MAIN FEEDER DIRECT TO EVAPORATOR COIL IN IT CLOSET, THEN FEEDER UP TO CONDENSER LOCATED ON THE ROOF. COORDINATE EXACT WIRING REQUIREMENTS WITH FINAL UNIT SELECTION.
 - 12 THE ELECTRICAL CONTRACTOR SHALL PROVIDE OPTIONS FOR AUTOMATIC CONTROL OF RECEPTACLE LOADS ON EACH FLOOR. THE CONTRACTOR MAY USE A RELAY/CONTACTOR WITH RECEPTACLE CIRCUITS RUN THROUGH IT C/W AUTOMATIC TIME CLOCK. OTHER OPTIONS MAY BE USED SUCH AS AUTOMATICALLY CONTROLLED RECEPTACLES.

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SECTION 130.5(D):**

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CONTROLLED RECEPTACLES NEED TO BE MARKED TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLE

ALLOW FOR ALL ASSOCIATED CONDUIT, WIRE HARDWARE, FASTENERS, FITTINGS, RELAYS, WIRELESS DEVICES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. TYPICAL NOTE, 4 FLOORS.

COMMUNICATION NOTES:

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1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

No	DESCRIPTION	DATE
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REVISIONS

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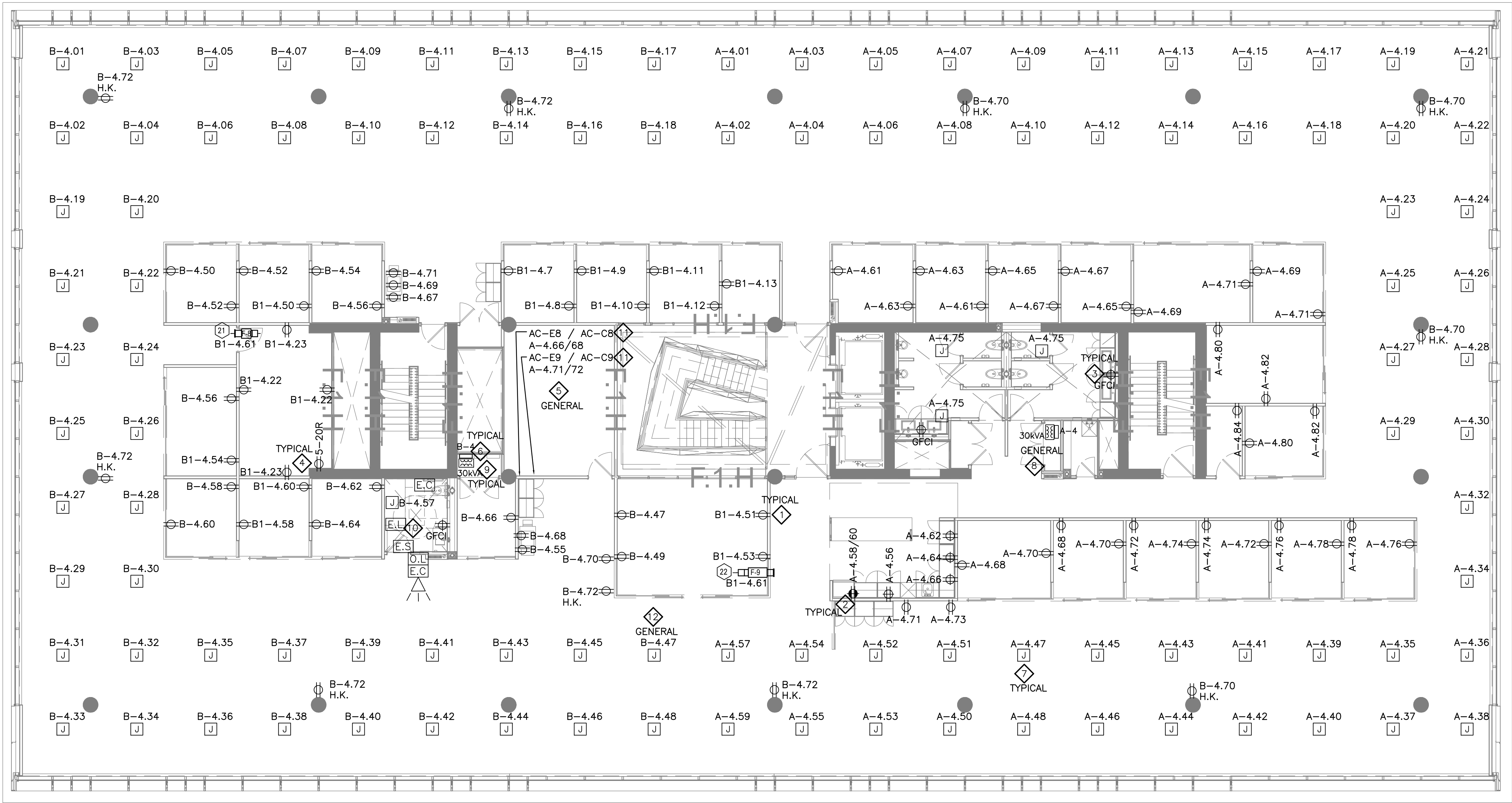
client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
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drawing title:	ELECTRICAL DISTRIBUTION COMMS. SECURITY & A/V THIRD FLOOR
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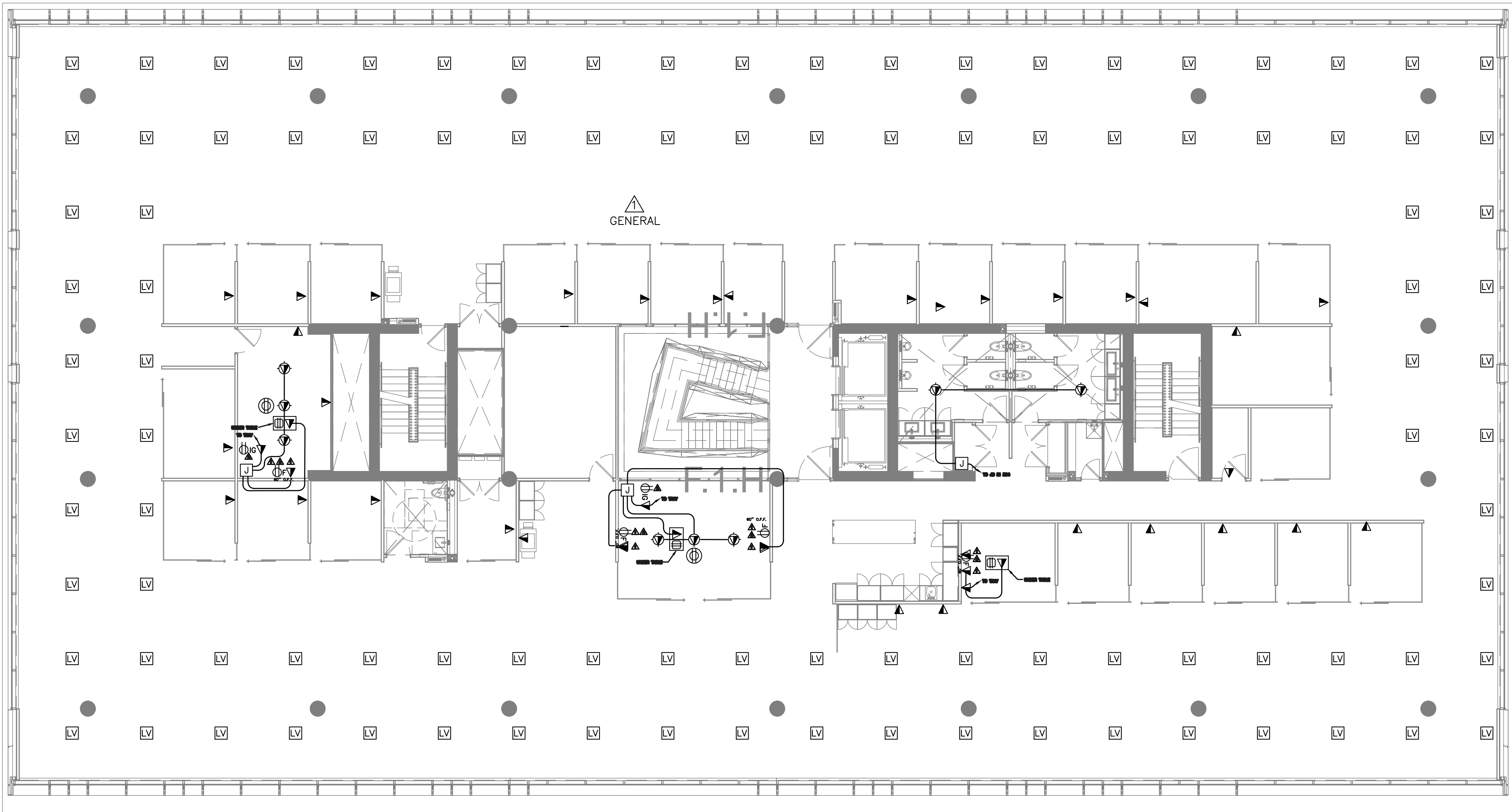
scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-203
revision:	0		



1
E204

FOURTH FLOOR — ELECTRICAL DISTRIBUTION
SCALE 1:100



2
E204

FOURTH FLOOR — COMMS. SECURITY & A/V LAYOUT
SCALE 1:125

- DRAWING NOTES:**
- PROVIDE DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - PROVIDE DEDICATED DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - PROVIDE GFCI DUPLEX RECEPTACLE (5-15R) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - PROVIDE DEDICATED DUPLEX RECEPTACLE (5-20R) FOR NEW PRINTER C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - PROVIDE SIX (6) CONTROLS TRANSFORMER FOR ADDITIONAL VAV BOXES (LOW VOLTAGE WIRING BY OTHERS) C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE. MOUNT TO UNDERSIDE OF SLAB. LOCATIONS NOT SHOWN.
 - PROVIDE DISTRIBUTION PANEL, REFER TO SLD AND PANEL SCHEDULE FOR FURTHER DETAILS.
 - PROVIDE CEILING MOUNTED, (SLAB MOUNTED BOX) C/W ALL CIRCUIT(S), CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - PROVIDE ELECTRICAL DISTRIBUTION AS PER SLD, C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
 - 30KVA TRANSFORMER TO SUSPENDED FROM BUILDING STRUCTURE. STRUCTURAL AND SEISMIC SUPPORT SHALL BE DESIGNED BY STRUCTURAL ENGINEER AND SUPPLIED BY GENERAL CONTRACTOR. MOUNT TRANSFORMER AS HIGH AS POSSIBLE.
 - PROVIDE AND INSTALL EMERGENCY CALL SYSTEM C/W AUDIBLE AND VISIBLE SIGNAL, PUSH BUTTONS, PULL STRING, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE TO MAKE FULLY OPERATIONAL SYSTEM. REFER TO UNIVERSAL WASHROOM TYPICAL DETAIL. INSTALL AS PER OBC 3.8.3.12.(2). SIGNAGE BY OTHERS.
 - PROVIDE WIRING ALL ASSOCIATED CONDUIT AND WIRING ASSOCIATED WITH FINAL CONNECTIONS REQUIRED TO SERVICE DUCTLESS SPLIT SYSTEM UNITS TYPICAL TO ALL FLOORS (ELECTRICAL/IT CLOSETS) MAIN FEEDER DIRECT TO EVAPORATOR COIL IN IT CLOSET, THEN FEEDER UP TO CONDENSER LOCATED ON THE ROOF. COORDINATE EXACT WIRING REQUIREMENTS WITH FINAL UNIT SELECTION.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE OPTIONS FOR AUTOMATIC CONTROL OF RECEPTACLE LOADS ON EACH FLOOR. THE CONTRACTOR MAY USE A RELAY/CONTACTOR WITH RECEPTACLE CIRCUITS RUN THROUGH IT c/w AUTOMATIC TIME CLOCK, OTHER OPTIONS MAY BE USED SUCH AS AUTOMATICALLY CONTROLLED RECEPTACLES.

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ALLOW FOR ALL ASSOCIATED CONDUIT, WIRE HARDWARE, FASTENERS, FITTINGS, RELAYS, WIRELESS DEVICES REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. TYPICAL NOTE, 4 FLOORS.

COMMUNICATION NOTES:

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No	DESCRIPTION	DATE
1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

REVISIONS

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client:	TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
----------	--

drawing title:	ELECTRICAL DISTRIBUTION, COMMS, SECURITY & A/V FOURTH FLOOR
----------------	--

scale:	AS SHOWN	drawn by:	M.G.
designed by:	M.G.	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-204
revision:	0		

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- 1 PROVIDE CDP PANEL, REFER TO SLD AND PANEL SCHEDULE FOR FURTHER DETAILS.
- 2 PROVIDE ELECTRICAL DISTRIBUTION AS PER SLD, C/W ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 3 PROVIDE ELECTRICAL CONNECTIONS TO ALL MECHANICAL EQUIPMENT, C/W REQUIRED DISCONNECTS, COMBINATION STARTERS, ALL CONDUIT, WIRING AND ASSOCIATED HARDWARE.
- 4 WIRING ON SECONDARY SIDE OF 600V MOTORS ON VFD TO HAVE AN INSULATION RATING OF NO LESS THAN 1000V.

1 PENTHOUSE — ELECTRICAL DISTRIBUTION
E205 SCALE 1:100

1	ISSUED FOR BUILDING PRICING	AUGUST 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 2016
No	DESCRIPTION	DATE

REVISIONS

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client

TOMLINSON
5597 POWER RD
OTTAWA, ON
K1G 3N4

proje-

TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title

ELECTRICAL
DISTRIBUTION
PENTHOUSE

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L	drawing no.: E-205
revision: 0	

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- | PANEL NAME: "COP-11" LOCATION: TEST FACILITY | | 400A, 600V, 3ø, 3W | |
|--|-------------|--------------------|---------------------|
| DESCRIPTION | BRK
SIZE | BRK
SIZE | DESCRIPTION |
| 75KVA DISTRIBUTION TRANSFORMER | 100 | 100 | DUST COLLECTOR FT-1 |
| TEST FACILITY AHU-T1 | 150 | 200 | SPARE |
| TEST FACILITY AHU-T2 | 150 | 150 | SPARE |
| SPACE | | | SPACE |
| SPACE | | | SPACE |

2
E206

TEST FACILITY — 600V CDP-T1 SCHEDULE
SCALE 1:100

PANEL NAME: 7A-7T LOCATION: TEST FACILITY		225A, 120/208V, 3ø, 4ø	
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
LAB - BALANCE	15 1	2 20	MICROWAVE OVEN - PANASONIC-NR-77955F9
FORCED AIR OVER - QUINCY LABS	20 3	4 20	MICROWAVE OVEN - PANASONIC-JE1555G4201
FORCED AIR OVER - SHEL LAB	20 5	4 20	SEIVE SHAWM - RS-TAP RS-29
	20 7	4 20	SEIVE SHAWM - OLSON TS-1
FORCED AIR OVER - BARNSTEAD THERMOLITE LC-18	20 8	10 15	SEIVE SHAWM - OLSON TS-1
	20 11	12 15	SEIVE SHAWM - OLSON SFA
LAB OVER - QUINCY LABS, 100C	15 13	14 15	CHRYSLER COMPACTOR - TRUCKER 4144
PREHEATER - WOODS, CIRCULATION FAN IN FREEZER	15 15	15 15	CHRYSLER COMPACTOR - PNEU. ATTACH
TEST FACILITY RECEPTACLE GEN. PUMP	20 17	18 15	MECHANICAL MIXER - SPAR- S200
TEST FACILITY RECEPTACLE GEN. PUMP	20 19	20 15	HOT PLATE - BARNSTEAD/OWENS- HP141925
TEST FACILITY RECEPTACLE GEN. PUMP	20 21	22 15	WARRSALL COMPRESSION MACHINE - HAMBOLDT- I-1322
TEST FACILITY RECEPTACLE GEN. PUMP	20 23	24 15	WATER BATH - HAMBOLDT- I-1300
TEST FACILITY RECEPTACLE GEN. PUMP	20 25	26 15	WATER BATH - HAMBOLDT- I-1304
TEST FACILITY RECEPTACLE GEN. PUMP	20 27	28 15	SPARE
TEST FACILITY RECEPTACLE GEN. PUMP	15 29	30 20	
TEST FACILITY RECEPTACLE GEN. PUMP	15 31	32 15	CENTRIFUGE EXTRACTOR - PLODOW- M207
TEST FACILITY RECEPTACLE GEN. PUMP	15 33	34 15	HIGH SPEED CENTRIFUGER - SMM
TEST FACILITY RECEPTACLE GEN. PUMP	15 35	36 15	SOLVENT RECYCLER - SPEE-DESTILL
EXHAUST HEATER	15 37	38 15	EXHAUST OVEN - TROULEY- 4155
HEAT TRACE	30 39	40 20	
	20 41	42 15	WATER BATH HEATER - EDO-JACOB TS-250
EXHAUST FAN FT-2	15 43	44 15	VACUUM PUMP - HYTRAC 1-71105
EXHAUST FAN FT-3	15 45	46 15	LOGICAL RESIDUAL PRESSURE
HEAT TRACE	40 47	48 15	NDA Loser Job Rolling Mill - Genec Inc. WR0010-0
	15 49	50 15	Partly Weather - Zip
LIGHTING	15 51	52 15	
LIGHTING	15 53	54 15	
LIGHTING	15 55	56 15	
LIGHTING	15 57	58 15	
LIGHTING	15 59	60 15	
LIGHTING	15 61	62 15	
LIGHTING	15 63	64 15	
LIGHTING	15 65	66 15	

3
E206

TEST FACILITY – 120/208V A-TF SCHEDULE
SCALE 1:100

REVISIONS

client:

TOMLINSON

5597 POWER RD
OTTAWA, ON
K1G 3N4

project:

TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:

ELECTRICAL
DISTRIBUTION
TEST FACILITY

project no.: 100-16L	drawing no.: E-206
revision: 0	

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DRAWING NOTES:

1 PROVIDE STANDBY POWER SYSTEM PACKAGED GENSET UNIT AND INSTALL ON CONCRETE PAD C/W UNDERGROUND DUCT BANK AS PER DETAILS PROVIDED. CONFIRM EXACT LOCATION WITH DRAWINGS E10/E11. COORDINATE FINAL PAD INSTALLATION AND SLEEVE LOCATIONS WITH GENERAL CONTRACTOR

2 PROVIDE NEW GENERATOR EMERGENCY POWER PANEL 600VOLT, 400AMP 3-PHASE, 4 WIRE C/W FEEDER FROM GENSET LOCATION TO BUILDING AS INDICATED ON THE SINGLE LINE.

3 PROVIDE NEW GENERATOR START SIGNALS TO GENSET LOCATION AS INDICATED.

4 PROVIDE GENERATOR STATUS SIGNALS / CONNECTION TO FIRE ALARM. REFER TO FIRE ALARM RISER DIAGRAM. USE RELAY INPUT MODULES AND 105 DEGREE RATED FIRE ALARM CABLE.

5 PROVIDE A 600V, 200 AMP, 3PH, 3-WIRE AUTOMATIC TRANSFER SWITCH (ATS#2) C/W BY PASS SWITCH. PROVIDE WIRING AS INDICATED AND THE FOLLOWING DISTRIBUTION EQUIPMENT TO PICK UP NON-ESSENTIAL EMERGENCY LOAD RISER:

- 1 - 600V, 200 AMP 3PH, 3-WIRE.
- 2 - 600V, 200 AMP DS. SW.
- 3 - 60 AMP FDS. SW. c/w 40AMP FUSES
- 4 - 30KVA DRY TYPE TRANSFORMER AS INDICATED.
- 5 - 120/208VOLT 200AMP 42 CCT BRANCH CIRCUIT PANEL.

6 PROVIDE A 600V, 400 AMP, 3PH, 3-WIRE AUTOMATIC TRANSFER SWITCH (ATS#3) C/W BY PASS SWITCH. PROVIDE WIRING AS INDICATED AND THE FOLLOWING DISTRIBUTION EQUIPMENT TO PICK UP ESSENTIAL EMERGENCY LOAD RISER:

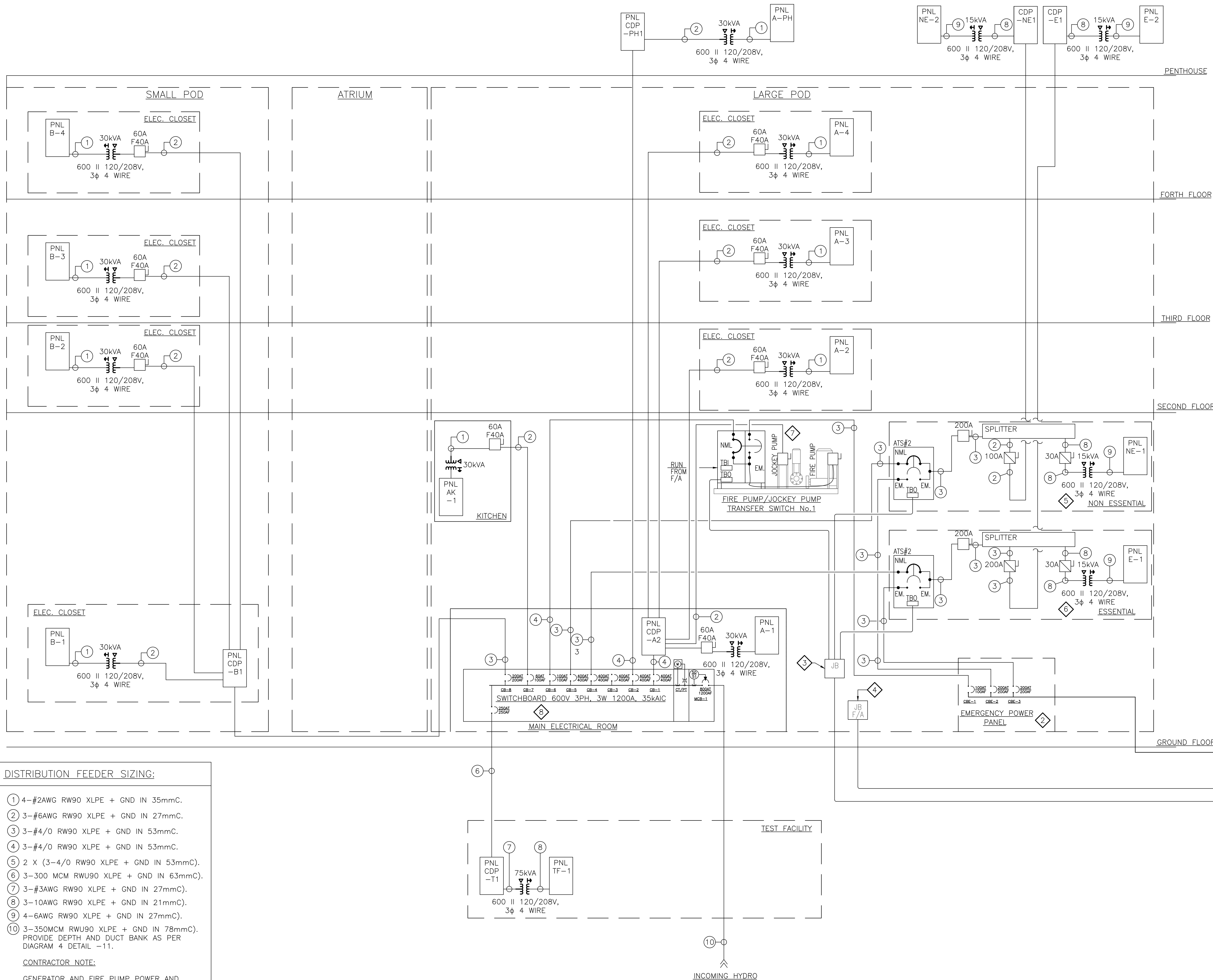
- 1 - 600V, 200 AMP 3PH, 3-WIRE.
- 2 - 600V, 200 AMP DS. SW.
- 3 - 60 AMP FDS. SW. c/w 40AMP FUSES
- 4 - 30KVA DRY TYPE TRANSFORMER AS INDICATED.
- 5 - 120/208VOLT 200AMP 42 CCT BRANCH CIRCUIT PANEL.

7 PROVIDE WIRING AS INDICATED TO PACKAGED FIRE PUMP AND JOCKEY. POWER AND FIRE ALARM INTERFACE AS INDICATED.

8 PROVIDE NEW MAIN SWITCHBOARD AS INDICATED. COORDINATE SWITCHBOARD SELECTION WITH ROOM DIMENSIONS. SELECTED MANUFACTURE SHALL PROVIDE A COORDINATION STUDY c/w ARC FLASH STAMPED AND APPROVED BY A LICENSED PROFESSIONAL ENGINEERING.

GENERAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS WITH THE GENERAL CONTRACTOR AND STRICTLY ADHERE TO THE CONSTRUCTION SCHEDULE. CAREFULLY COORDINATE ALL CONNECTIONS/WIRING OF MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A PROPER WORKING SYSTEM THAT ADHERES TO ALL THE LATEST CODES OUTLINED IN THE LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE 26TH EDITION/2015.
3. CAREFULLY COORDINATE DELIVERY AND INSTALLATION OF ALL ELECTRICAL EQUIPMENT, STORE, INSTALL, AND FULL COMMISSIONING OF EQUIPMENT TO ADHERE TO THE CONSTRUCTION SCHEDULE.
4. INTERRUPTING CAPACITY OF MAIN SWITCHBOARD AND GENERATOR EQUIPMENT, TRANSFER SWITCHES MAIN EMERGENCY BOARD TO BE 35KAIC, ALL BRANCH CIRCUIT PANELS, DISCONNECTS ARE TO BE RATED 22KAIC INTERRUPTING CAPACITY.



PANEL NAME: "A-1" LOCATION: LARGE POD ELEC. CLOSET 2ND FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
WORSTATION JB	15 35	36 15	WORSTATION JB
WORSTATION JB	15 37	38 15	WORSTATION JB
WORSTATION JB	15 39	40 15	WORSTATION JB
WORSTATION JB	15 41	42 15	WORSTATION JB
WORSTATION JB	15 43	44 15	WORSTATION JB
WORSTATION JB	15 45	46 15	WORSTATION JB
WORSTATION JB	15 47	48 15	HAS OFFICE RECEPTACLES
HAS OFFICE RECEPTACLES	15 49	50 15	OFFICE RECEPTACLES
OFFICE RECEPTACLES	15 51	52 15	LARGE MEETING ROOM TV RECEPTACLE
MEETING ROOM RECEPTACLES	15 53	54 20	HOUSE KEEPING RECEPTACLES
LIGHTING	15 55	56 15	KITCHENETTE RECEPTACLE (FRIDGE)
LIGHTING	15 57	58 20	KITCHENETTE RECEPTACLE (SPUT)
EXHAUST FANS F-1	15 59	60 20	
WASHROOM AUTOMATIC FLUSH DEVICES	15 61	62 15	KITCHENETTE RECEPTACLE
LIGHTING	15 63	64 15	KITCHENETTE RECEPTACLE
GENERAL PURPOSE RECEPTACLE	20 65	66 20	GENERAL PURPOSE RECEPTACLES
GENERAL PURPOSE RECEPTACLE	20 67	68 20	SPARE
GENERAL PURPOSE RECEPTACLE	20 69	70 20	SPARE
GENERAL PURPOSE RECEPTACLE	20 71	72 20	SPARE

PANEL NAME: "A-1" LOCATION: KITCHEN 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
BEVERAGE BLENDERS	20 1	2 15	SPARE
DISHWASHER	20 3	4 15	UNDERCOUNTER REFRIGERATORS (2)
UNDERCOUNTER FRIGDES AND FREEZER	20 5	6 15	SPARE
ESPRESSO MACHINE NO.1	20 7	8 15	SPARE
ESPRESSO MACHINE NO.2	20 9	10 40	WARMWASHER
	20 11	12 20	
	20 13	14 15	
	20 15	16 15	
	20 17	18 15	
	20 19	20 15	
	20 21	22 15	
	20 23	24 15	
	20 25	26 15	
	20 27	28 15	
	20 29	30 15	
	20 31	32 15	
	20 33	34 15	
	20 35	36 20	
	20 37	38 20	
	20 39	40 20	
	20 41	42 15	
	20 43	44 15	
	20 45	46 15	
	20 47	48 15	
	20 49	50 15	
	20 51	52 15	
	20 53	54 15	
	20 55	56 20	
	20 57	58 15	
	20 59	60 15	
	20 61	62 15	
	20 63	64 15	
	20 65	66 15	

PANEL NAME: "B-1" LOCATION: LARGE POD ELEC. CLOSET 2ND FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
SPARE	15 35	36 20	EXECUTIVE ASSISTANT OFFICE RECEPTACLE
SPARE	15 37	38 20	EXECUTIVE ASSISTANT OFFICE RECEPTACLE
SPARE	20 39	40 20	PRINTER
SPARE	20 41	42 20	GENERAL PURPOSE RECEPTACLE
GROUND FLOOR ENTRANCE HEATERS (EH-1,2,3)	15 43	44 20	GENERAL PURPOSE RECEPTACLE
EXHAUST FAN F2	15 45	46 20	GENERAL PURPOSE RECEPTACLE
WASHROOM AUTOMATIC FLUSH DEVICES	15 47	48 15	GENERAL PURPOSE RECEPTACLE
LIGHTING	15 49	50 15	
LIGHTING	15 51	52 15	
LIGHTING	15 53	54 15	
LIGHTING	15 55	56 15	
GENERAL PURPOSE RECEPTACLES	20 57	58 15	
GENERAL PURPOSE RECEPTACLES	20 59	60 15	
GENERAL PURPOSE RECEPTACLES	20 61	62 15	
GENERAL PURPOSE RECEPTACLES	20 63	64 15	
GENERAL PURPOSE RECEPTACLES	20 65	66 15	

PANEL NAME: "A-2" LOCATION: LARGE POD ELEC. CLOSET 2ND FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
WORSTATION JB	15 35	36 15	WORSTATION JB
WORSTATION JB	15 37	38 15	WORSTATION JB
WORSTATION JB	15 39	40 15	WORSTATION JB
WORSTATION JB	15 41	42 15	WORSTATION JB
WORSTATION JB	15 43	44 15	WORSTATION JB
WORSTATION JB	15 45	46 15	WORSTATION JB
WORSTATION JB	15 47	48 15	HAS OFFICE RECEPTACLES
HAS OFFICE RECEPTACLES	15 49	50 15	OFFICE RECEPTACLES
OFFICE RECEPTACLES	15 51	52 15	LARGE MEETING ROOM TV RECEPTACLE
MEETING ROOM RECEPTACLES	15 53	54 20	HOUSE KEEPING RECEPTACLES
LIGHTING	15 55	56 15	KITCHENETTE RECEPTACLE (FRIDGE)
LIGHTING	15 57	58 20	KITCHENETTE RECEPTACLE (SPUT)
EXHAUST FANS F-1	15 59	60 20	
WASHROOM AUTOMATIC FLUSH DEVICES	15 61	62 15	KITCHENETTE RECEPTACLE
EXHAUST FAN MEETING ROOM F-6	15 63	64 15	KITCHENETTE RECEPTACLE
EQUIPMENT AREA	15 65	66 15	KITCHENETTE RECEPTACLE

PANEL NAME: "A-PH" LOCATION: MECHANICAL PENTHOUSE 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
LIGHTING	15 1	2 20	SPARE
LIGHTING	15 3	4 20	SPARE
BURNER HEAT PUMP P-10	20 5	6 20	HEATING BOILER NO.1 B-3
BOILER HEAT PUMP P-11	20 7	8 20	HEATING BOILER NO.1 B-4
VENTILATION EXH. FANS	15 9	10 20	HUMIDIFIER H-1 (AHU-1)
ENTRANCE HEATERS	15 11	12 15	HUMIDIFIER H-2 (AHU-3)
	15 13	14 15	
	15 15	16 15	
	15 17	18 15	
	15 19	20 15	
	15 21	22 15	
	15 23	24 15	
	15 25	26 15	
	15 27	28 15	
	15 29	30 15	

PANEL NAME: "B-2" LOCATION: SMALL POD ELEC. CLOSET 2ND FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
LIGHTING	15 35	36 20	EXECUTIVE ASSISTANT OFFICE RECEPTACLE
LIGHTING	15 37	38 20	EXECUTIVE ASSISTANT OFFICE RECEPTACLE
WASHROOM AUTOMATIC FLUSH DEVICES	15 39	40 20	PRINTER
LIGHTING	15 41	42 15	
EXHAUST FAN MEETING ROOM F-5	15 43	44 15	
GENERAL PURPOSE RECEPTACLES	20 45	46 15	
GENERAL PURPOSE RECEPTACLES	20 47	48 15	
GENERAL PURPOSE RECEPTACLES	20 49	50 15	
GENERAL PURPOSE RECEPTACLES	20 51	52 15	
GENERAL PURPOSE RECEPTACLES	20 53	54 15	
	20 55	56 15	
	20 57	58 15	
	20 59	60 15	
	15 61	62 15	
	15 63	64 15	
	15 65	66 15	

PANEL NAME: "A-3" LOCATION: LARGE POD ELEC. CLOSET 3RD FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
WORSTATION JB	15 35	36 15	WORSTATION JB
WORSTATION JB	15 37	38 15	WORSTATION JB
WORSTATION JB	15 39	40 15	WORSTATION JB
WORSTATION JB	15 41	42 15	WORSTATION JB
WORSTATION JB	15 43	44 15	WORSTATION JB
WORSTATION JB	15 45	46 15	WORSTATION JB
WORSTATION JB	15 47	48 15	WORSTATION JB
WORSTATION JB	15 49	50 15	WORSTATION JB
OFFICE RECEPTACLES	15 51	52 15	LARGE MEETING ROOM TV RECEPTACLE
OFFICE RECEPTACLES	15 53	54 20	HOUSE KEEPING RECEPTACLES
OFFICE RECEPTACLES	15 55	56 15	KITCHENETTE RECEPTACLE (FRIDGE)
PHONE BOOTH RECEPTACLES	15 57	58 20	KITCHENETTE RECEPTACLE (SPUT)
OFFICE RECEPTACLES	15 59	60 20	
OFFICE RECEPTACLES	15 61	62 15	KITCHENETTE RECEPTACLE
OFFICE RECEPTACLES	15 63	64 15	KITCHENETTE RECEPTACLE
OFFICE RECEPTACLES	15 65	66 40	AC-EB / AC-DB SPLIT SYSTEM AC UNIT
OFFICE RECEPTACLES	15 67	68 15	SPARE
OFFICE RECEPTACLES	15 69	70 40	AC-EB / AC-DB SPLIT SYSTEM AC UNIT
OFFICE RECEPTACLES	15 71	72 20	
OFFICE RECEPTACLES	20 73	74 20	
WASHROOM AUTOMATIC FLUSH DEVICES	15 75	76 20	EQUIPMENT AREA
LIGHTING	15 77	78 20	EQUIPMENT AREA
LIGHTING	15 79	80 20	EQUIPMENT AREA
LIGHTING	15 81	82 15	
LIGHTING	15 83	84 15	

PANEL NAME: "B-3" LOCATION: SMALL POD ELEC. CLOSET 3RD FL. 225A, 120/208V, 3ø, 4W			
DESCRIPTION	BRK SIZE	BRK SIZE	DESCRIPTION
WORSTATION JB	15 1	2 15	WORSTATION JB
WORSTATION JB	15 3	4 15	WORSTATION JB
WORSTATION JB	15 5	6 15	WORSTATION JB
WORSTATION JB	15 7	8 15	WORSTATION JB
WORSTATION JB	15 9	10 15	WORSTATION JB
WORSTATION JB	15 11	12 15	WORSTATION JB
WORSTATION JB	15 13	14 15	WORSTATION JB
WORSTATION JB	15 15	16 15	WORSTATION JB
WORSTATION JB	15 17	18 15	WORSTATION JB
WORSTATION JB	15 19	20 15	WORSTATION JB
WORSTATION JB	15 21	22 15	WORSTATION JB
WORSTATION JB	15 23	24 15	WORSTATION JB
WORSTATION JB	15 25	26 15	WORSTATION JB
WORSTATION JB	15 27	28 15	WORSTATION JB
WORSTATION JB	15 29	30 15	WORSTATION JB
WORSTATION JB	15 31	32 15	WORSTATION JB
WORSTATION JB	15 33	34 15	WORSTATION JB
WORSTATION JB	15 35	36 20	WORSTATION JB
WORSTATION JB	15 37	38 20	WORSTATION JB
WORSTATION JB	15 39	40 20	WORSTATION JB
WASHROOM AUTOMATIC FLUSH DEVICES	15 41	42 15	PRINTER
SPARE	15 43	44 15	OFFICE RECEPTACLES
EXHAUST F-7	15 45	46 15	OFFICE RECEPTACLES
WASHROOM AUTOMATIC FLUSH DEVICES	15 47	48 15	OFFICE RECEPTACLES
LIGHTING	15 49	50 15	OFFICE RECEPTACLES
LIGHTING	15 51	52 15	OFFICE RECEPTACLES
LIGHTING	15 53	54 15	OFFICE RECEPTACLES
EQUIPMENT AREA	15 55	56 20	HOUSE KEEPING RECEPTACLES
EQUIPMENT AREA	15 57	58 15	
EQUIPMENT AREA	15 59	60 15	
	15 61	62 15	
	15 63	64 15	
	15 65	66 15	

PANEL NAME: "COP-PH1" LOCATION: MECHANICAL PENTHOUSE 400A, 600V, 3ø, 3W				
DESCRIPTION	BRK SIZE		BRK SIZE	DESCRIPTION
SLAB HEATING (P-6)	1/5	1 3 5	2 4 6	SPARE
SLAB HEATING (P-7)	1/5	7 9 11	8 10 12	SPARE
SPARE	1/5	13 15 17	14 16 18	SPARE
ATRIUM EXHAUST FAN (F-1)	1/5	19 21 23	20 22 24	CHILLER 150 TON (CH-1)
ATRIUM EXHAUST FAN (F-2)	1/5	25 27 29	26 28 30	C/M GLYCOL TO TEST FACILITY (P-2A)
C/M GLYCOL TO CH-1/ANNU (P-1A)	1/5	31 33 35	32 34 36	C/M GLYCOL TO TEST FACILITY (P-3A)
C/M GLYCOL TO CH-1/ANNU (P-1B)	1/5	37 39 41	38 40 42	SPACE
SPACE	1/5	43 45 47	44 46 48	SPACE

PANEL NAME: "YDP-E1" LOCATION: MECHANICAL PENTHOUSE 400A, 600V, 3A, 3W					
DESCRIPTION	BK SIZE			BK SIZE	DESCRIPTION
SMALL POD AIR HANDLER (AHJ-1)	1/4S	1	2	1/8	EWAC SUPPLY FAN SF-1
		3	4		
		5	6		
LARGE POD AIR HANDLER (AHJ-3)	1/4S	7	8	1/8	EWAC SUPPLY FAN SF-2
		9	10		
		11	12		
ELEVATOR	1/4S	13	14	1/8	EWAC SUPPLY FAN SF-3
		15	16		
		17	18		
	1/4S	19	20	1/8	EWAC SUPPLY FAN SF-4
		21	22		
		23	24		
	1/4S	25	26		SPACE
		27	28		
		29	30		
	1/4S	31	32		SPACE
		33	34		
		35	36		
	1/4S	37	38		SPACE
		39	40		
		41	42		
	1/4S	43	44		SPACE
		45	46		
		47	48		

FAMILY NAME: "CSP-NET" LOCATION: MECHANICAL PENTHOUSE 400A, 600V, 3A, 3W					
DESCRIPTION	BKX SIZE			BKX SIZE	DESCRIPTION
ATRLM (HW-2)	1/8"	1 3 5	2 4 6	1/8"	RETURN AIR HANDLER (RM-1)
HW/CLYCOL TO HXS AND WWS (P-3A)	1/8"	7 9 11	8 10 12	3/8"	RETURN AIR HANDLER (RM-2)
HW/CLYCOL TO HXS AND WWS (P-3B)	1/8"	13 15 17	14 16 18	1/8"	RETURN AIR HANDLER (RM-3)
HW/CLYCOL TO AHUS (P-4A)	1/8"	19 21 23	20 22 24		SPACE
HW/CLYCOL TO AHUS (P-4B)	1/8"	25 27 29	26 28 30		SPACE
HW/CLYCOL TO TEST FACILITY (P-5A)	1/8"	31 33 35	32 34 36		SPACE
HW/CLYCOL TO TEST FACILITY (P-5B)	1/8"	37 39 41	38 40 42		SPACE
		43 45 47	44 46 48		SPACE

[illegible]

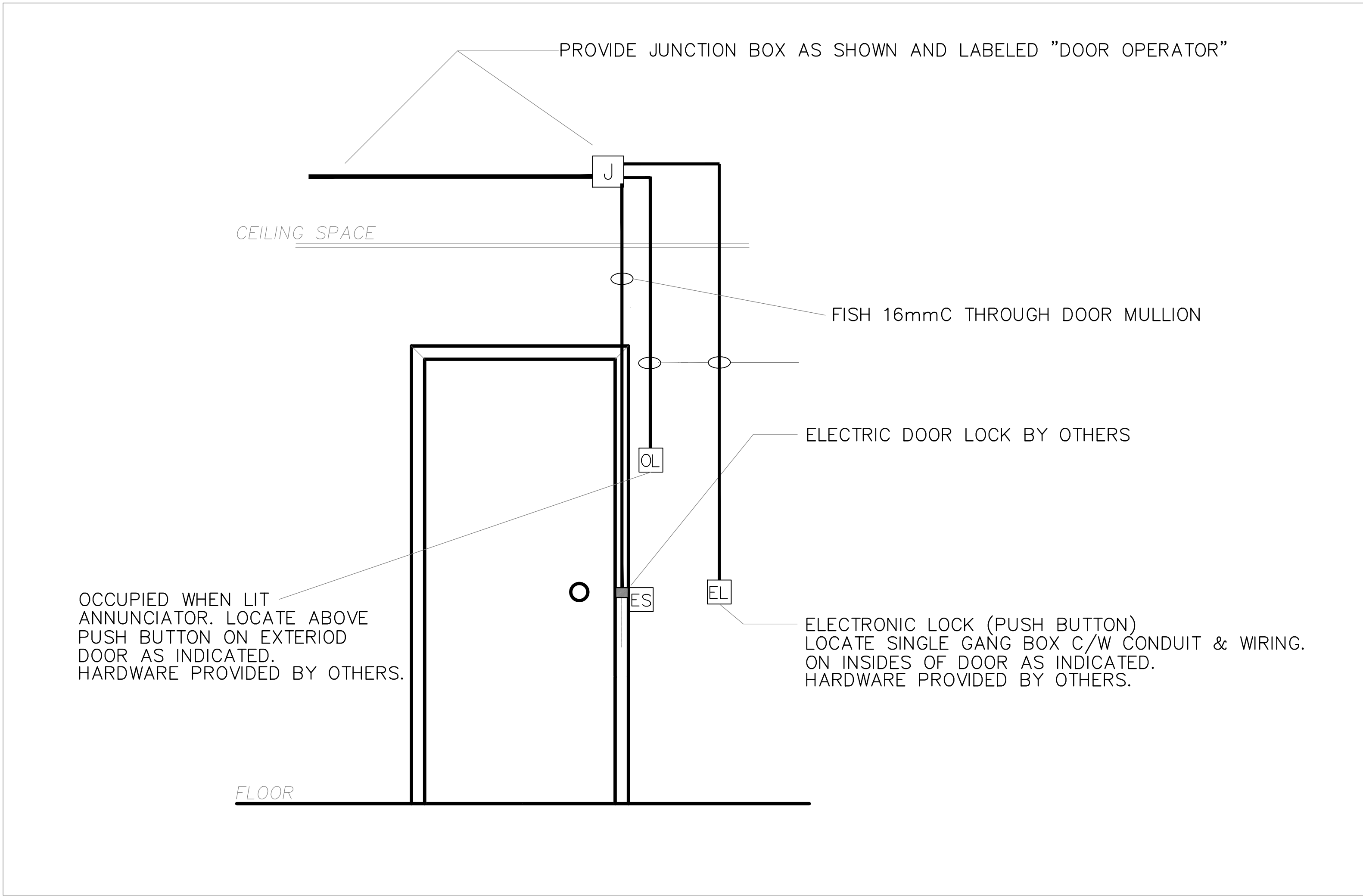
NOTE:

- MECHANICAL EQUIPMENT IDENTIFIED IN THE ITEMIZED LIST ABOVE WILL HAVE AN IDENTIFIER ON THE PLAN DRAWINGS. I.E. AHU#1
- REFER TO PANEL SCHEDULES FOR POWER SOURCE LOCATION TO MECHANICAL UNITS, PROVIDED BY THE ELECTRICAL CONTRACTOR.

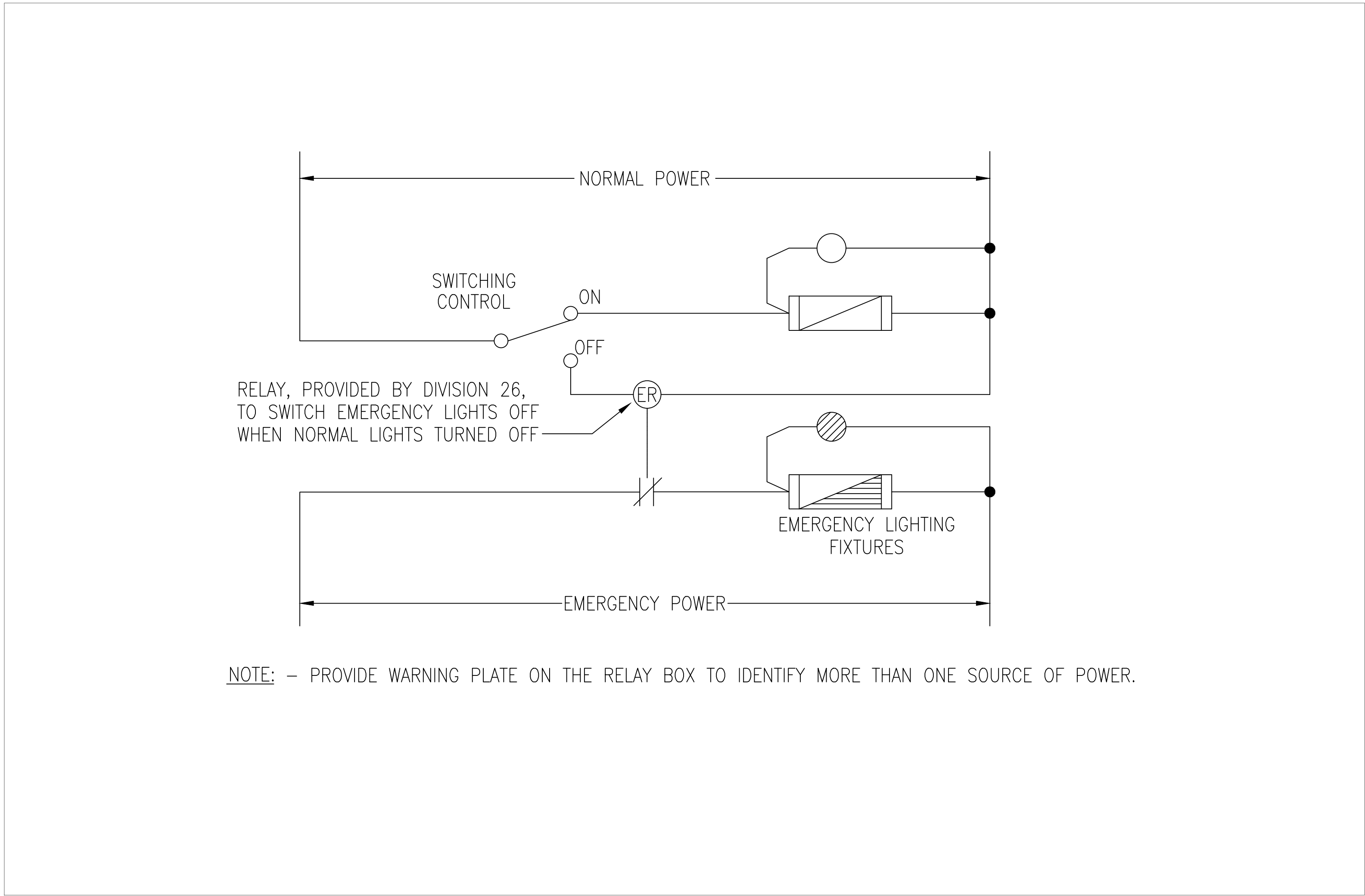
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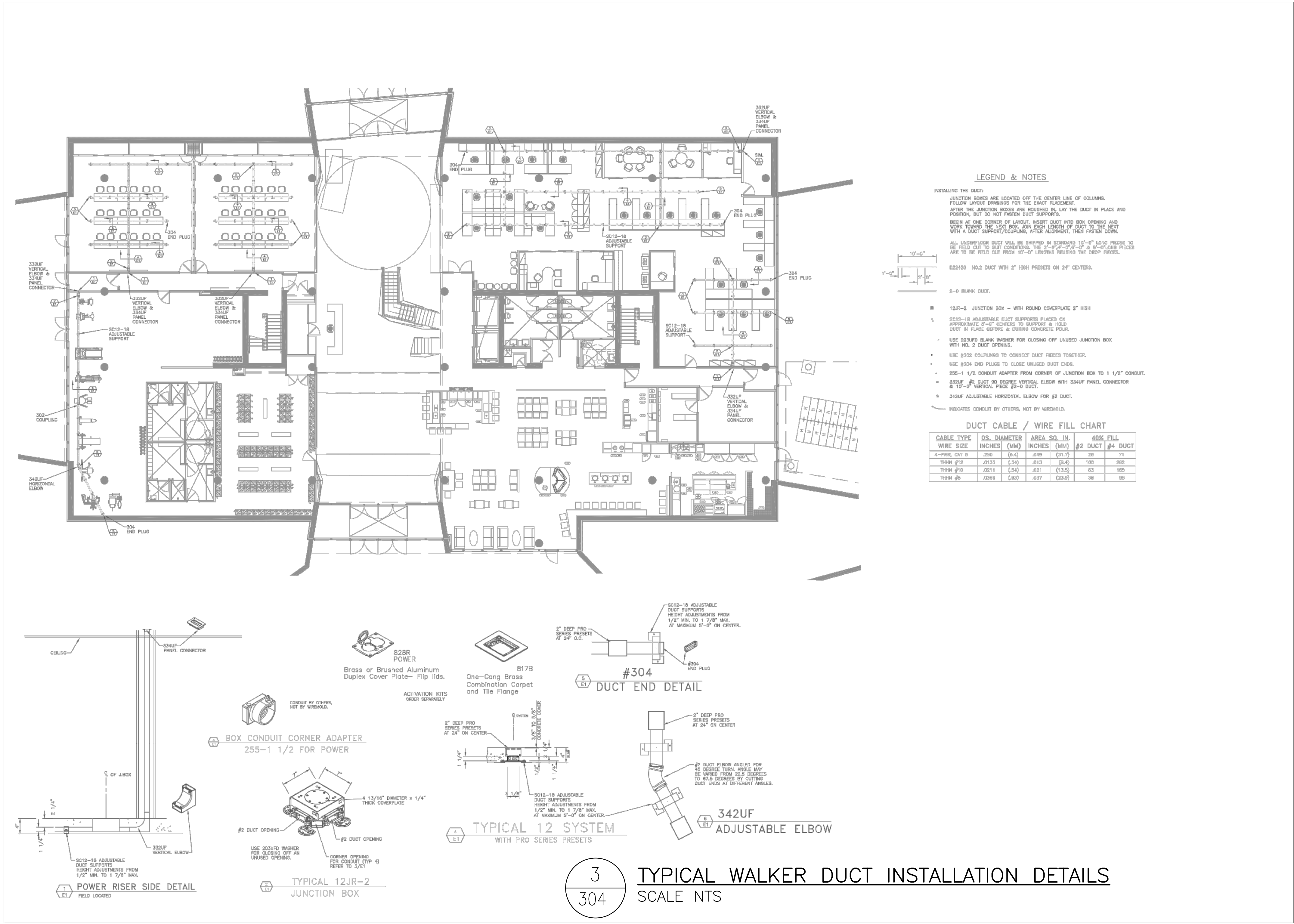
project no.: 100-16L	drawing no.: E-303
revision: 0	



1 UNIVERSAL WASHROOM
304 SCALE NTS



2 TYPICAL MEETING ROOM – EMERGENCY LIGHT CONTROL
304 SCALE NTS



3 TYPICAL WALKER DUCT INSTALLATION DETAILS
304 SCALE NTS

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No	DESCRIPTION	DATE
1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

client:

TOMLINSON
5587 POWER RD
OTTAWA, ON
K1G 3N4

project:

TOMLINSON
NEW BUILDING
CITIGATE, OTTAWA

drawing title:

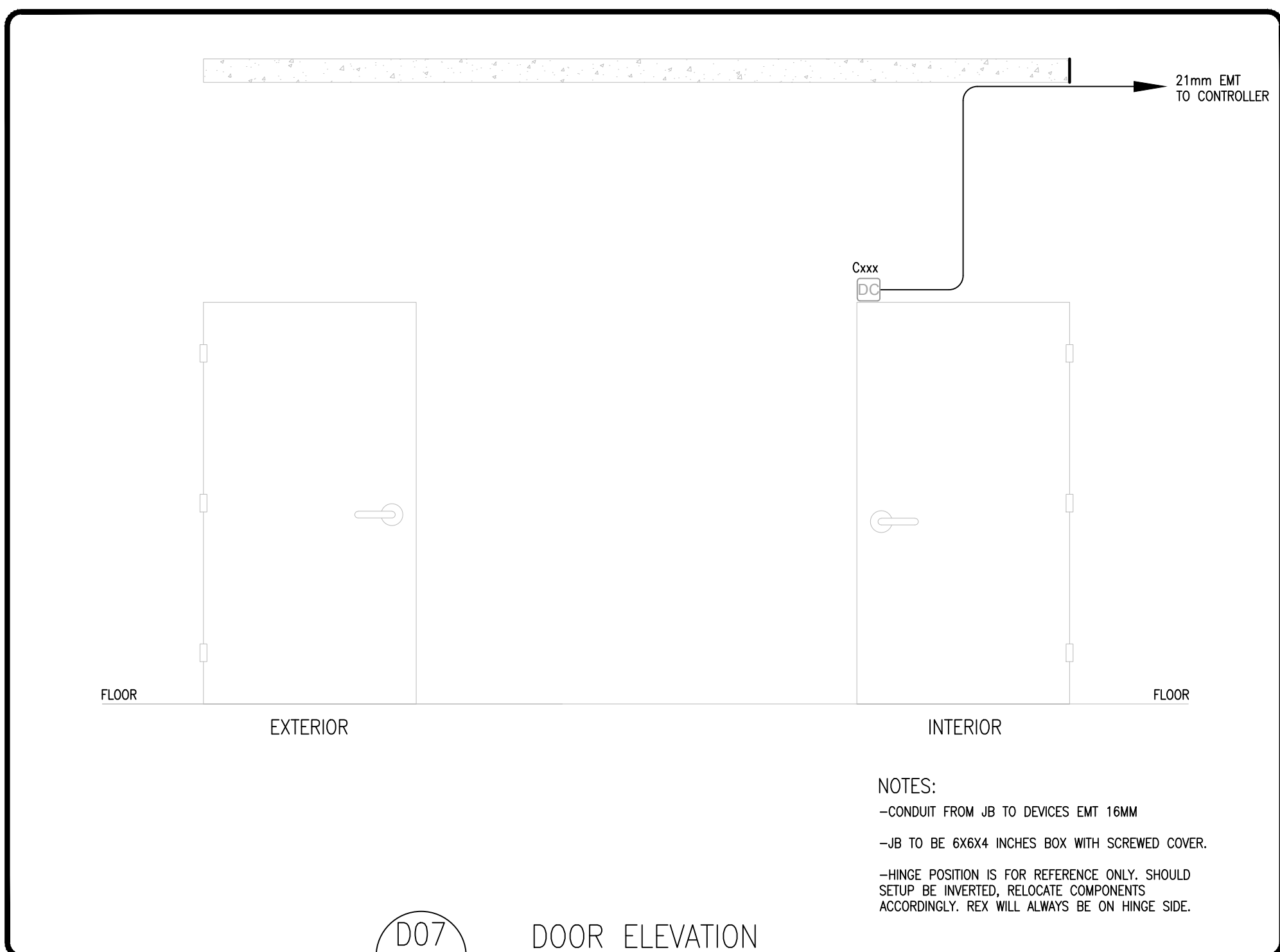
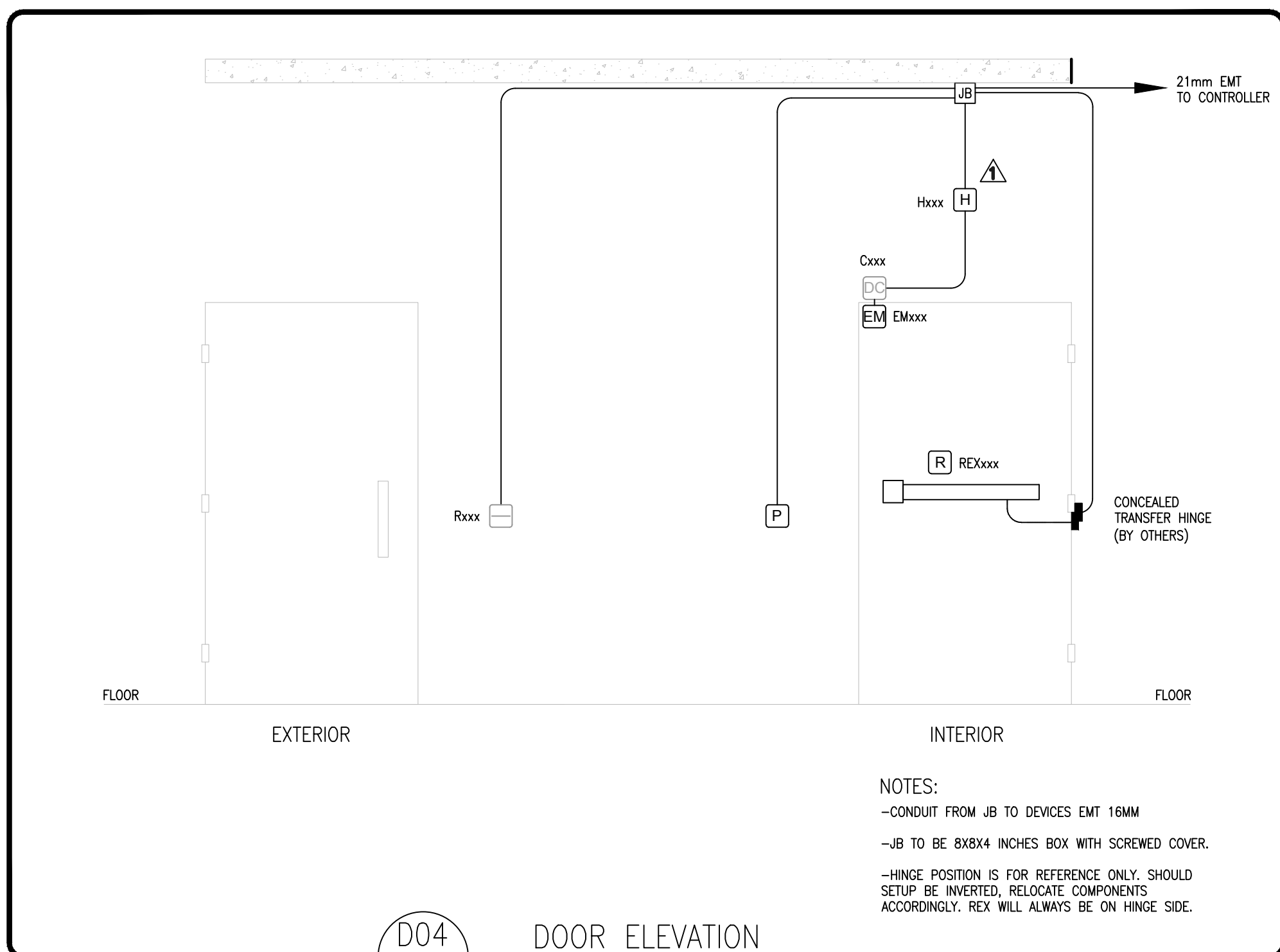
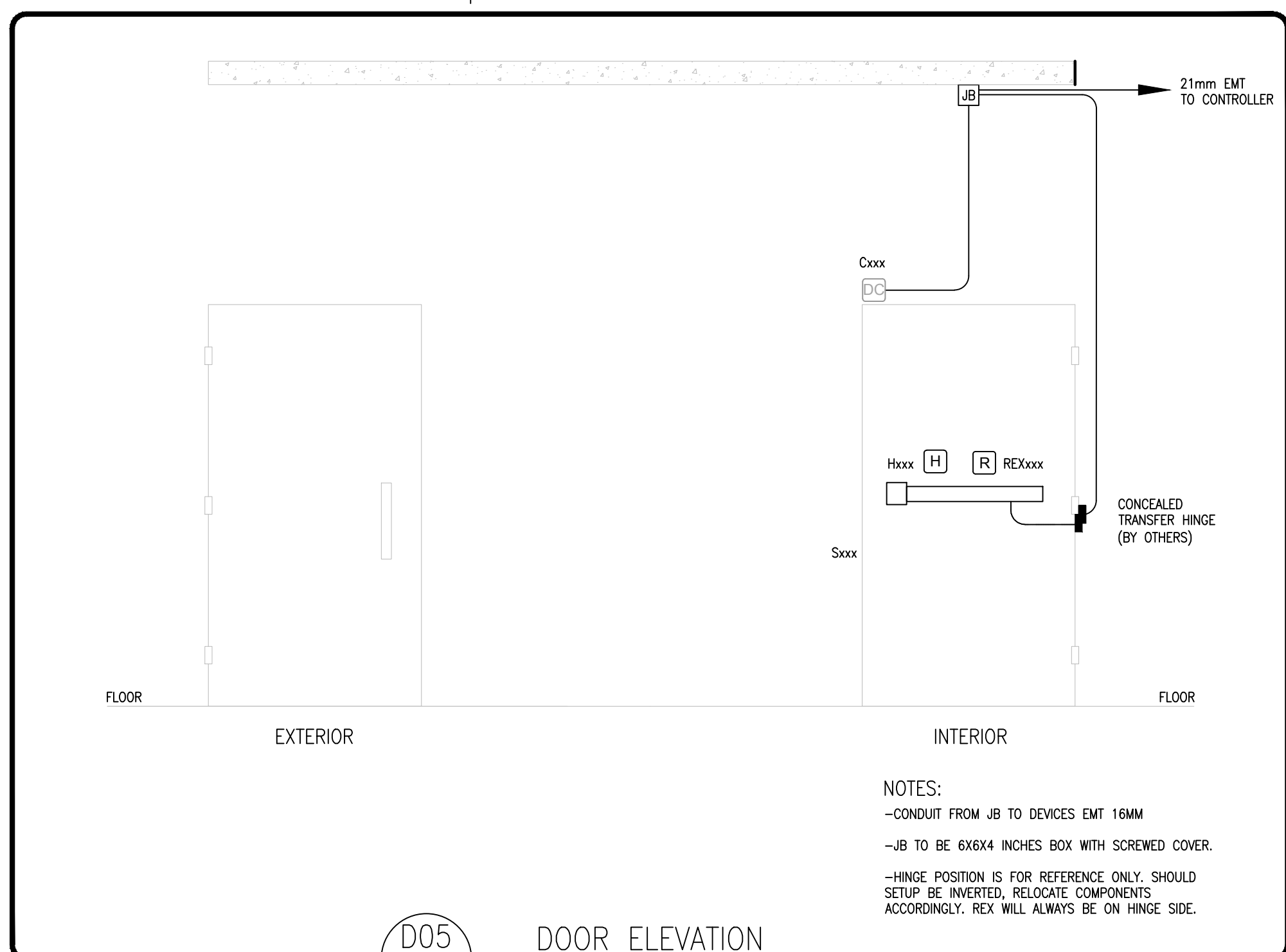
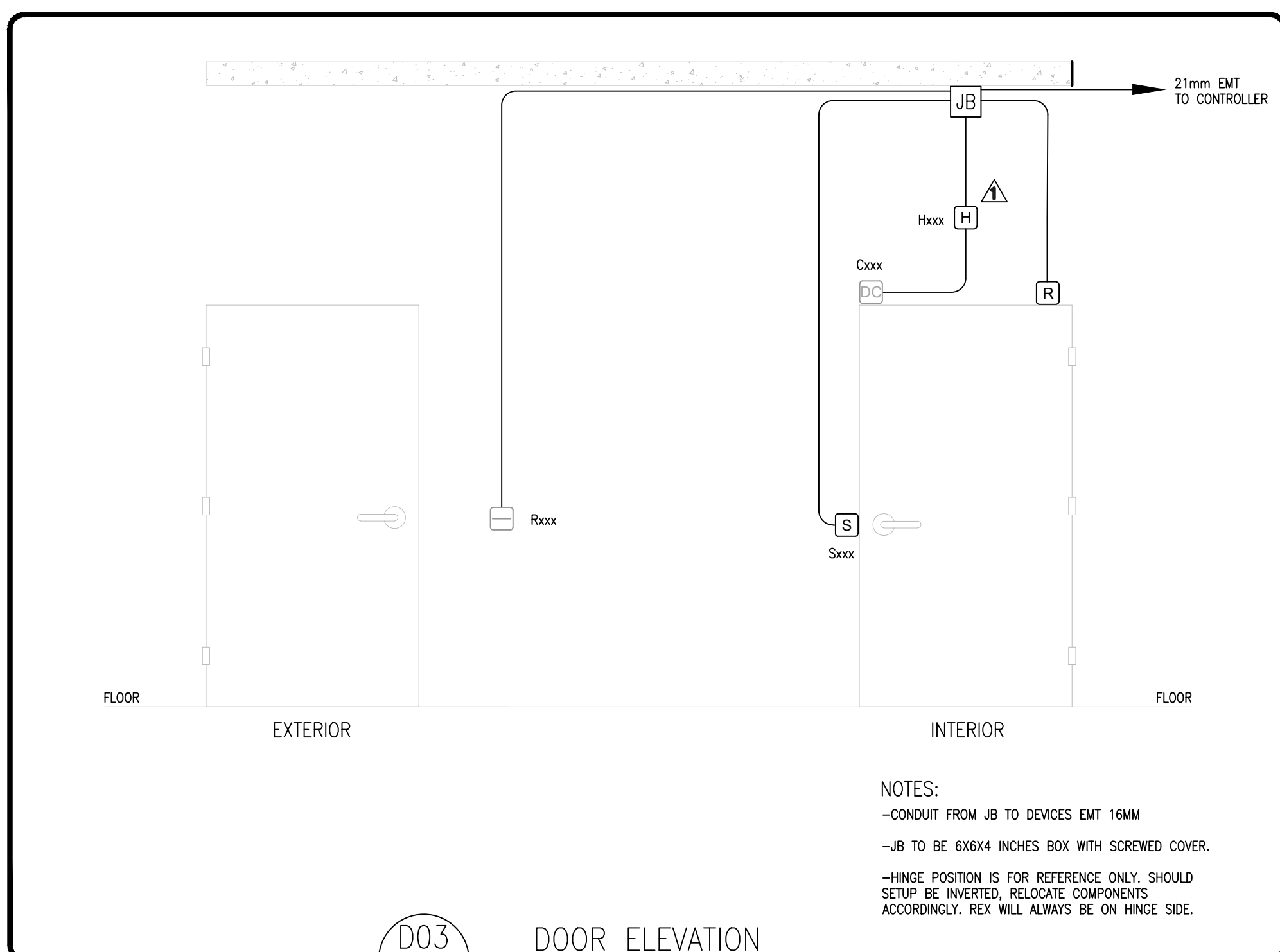
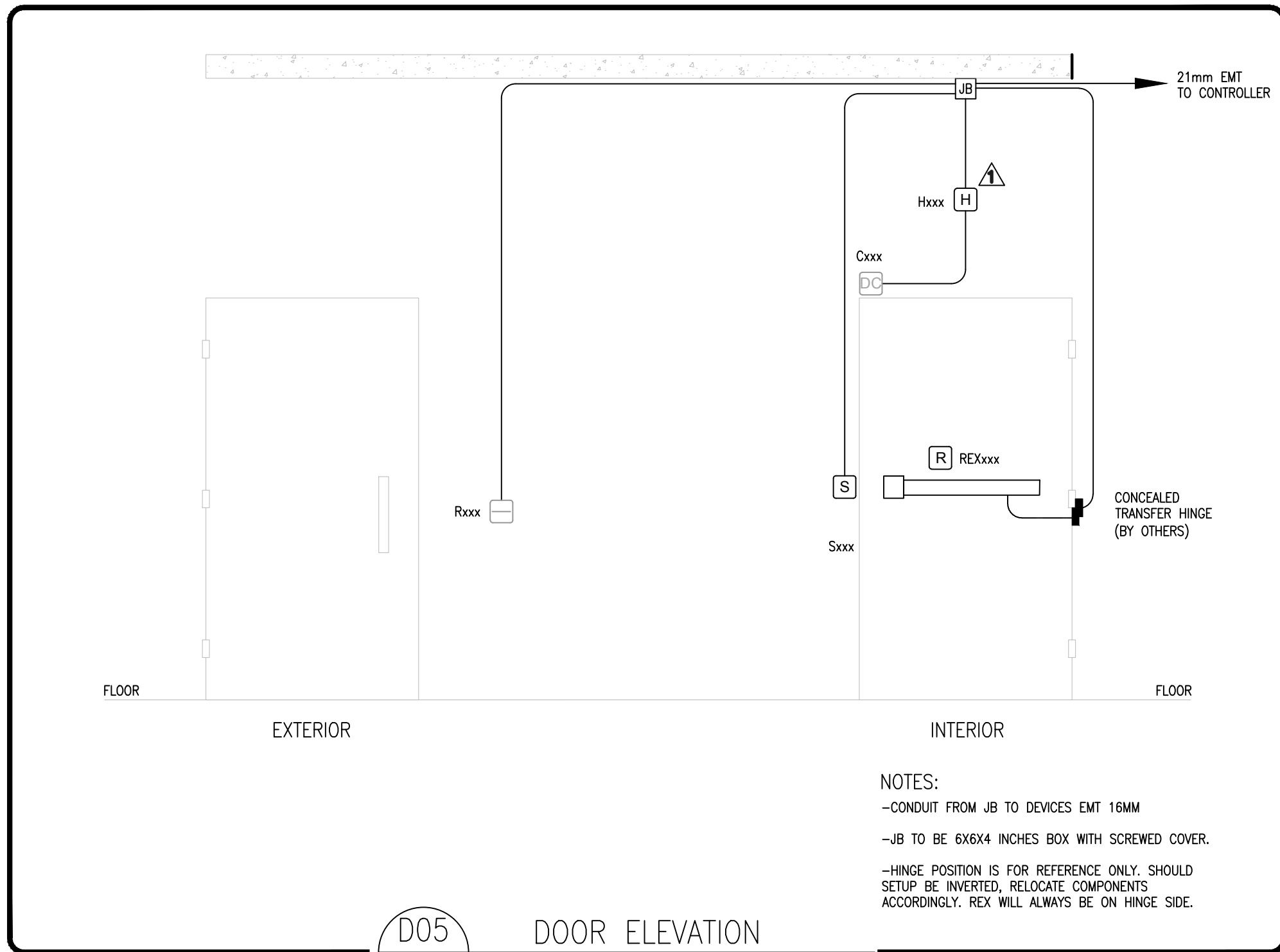
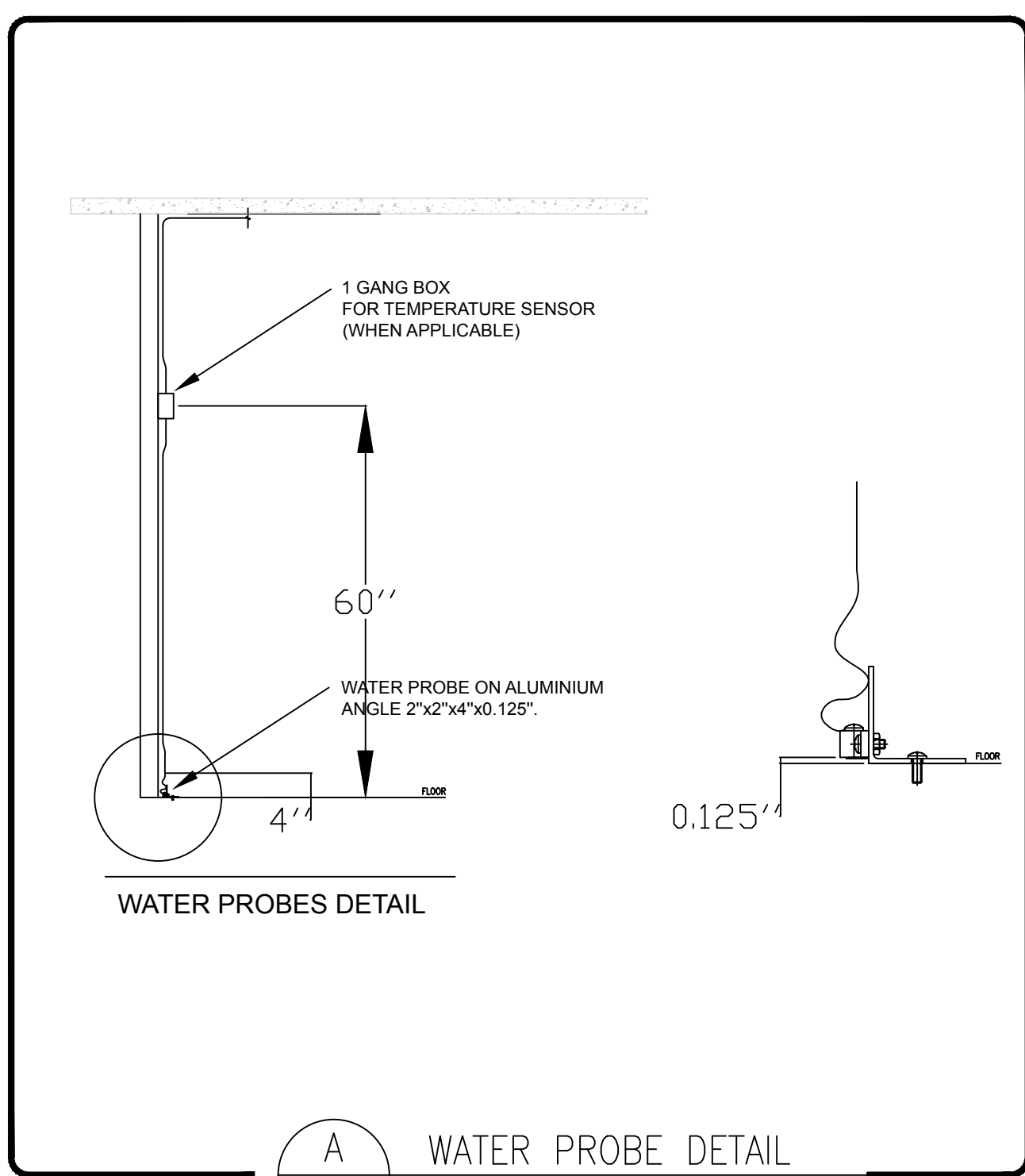
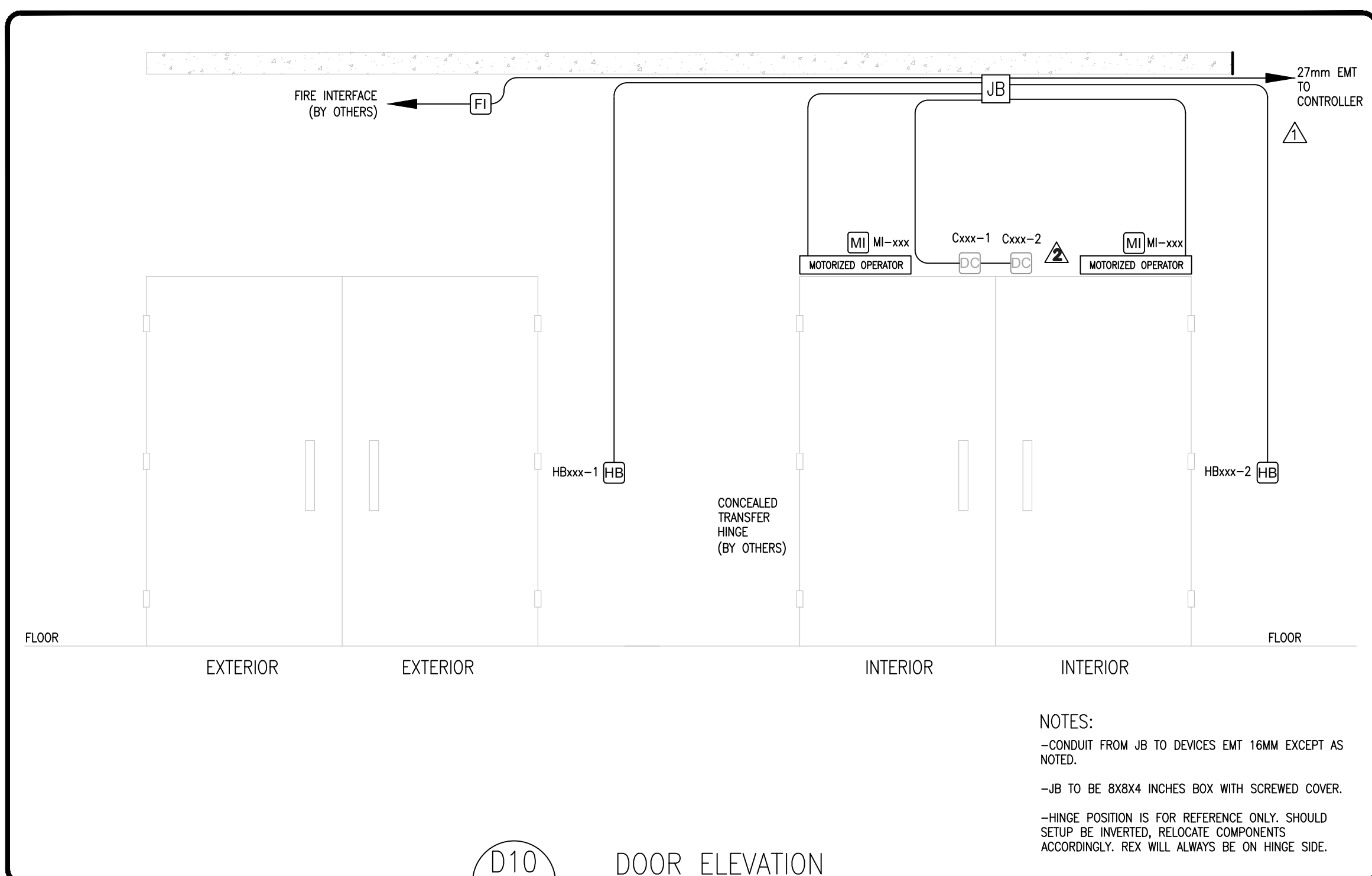
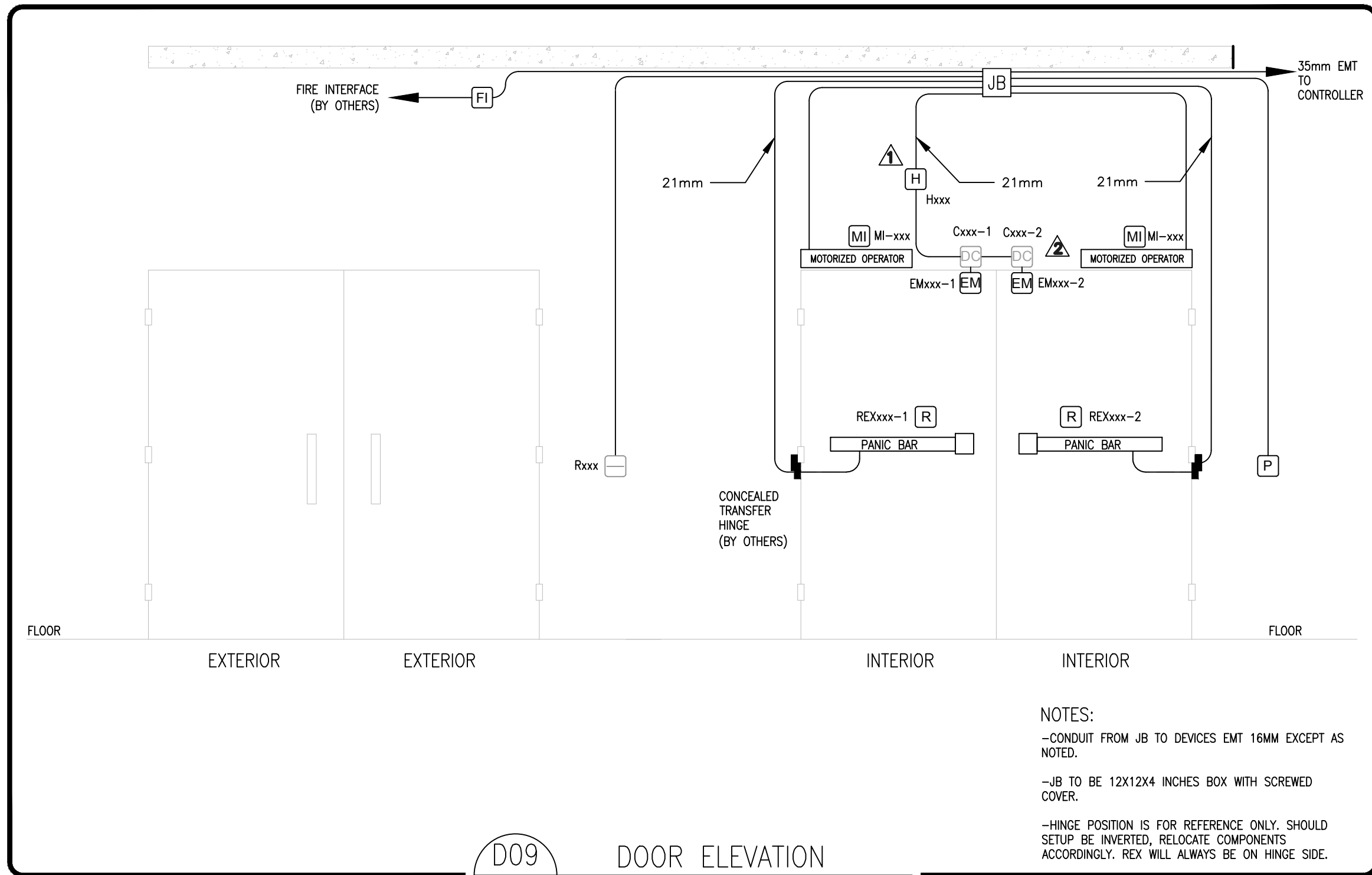
TYPICAL DETAILS

scale:	AS SHOWN	drawn by:	M.G
designed by: <td>M.G<td>reviewed by:<td>J.R.P.</td></td></td>	M.G <td>reviewed by:<td>J.R.P.</td></td>	reviewed by: <td>J.R.P.</td>	J.R.P.
approved by: <td>J.R.P.<td>date:<td>APR 2016</td></td></td>	J.R.P. <td>date:<td>APR 2016</td></td>	date: <td>APR 2016</td>	APR 2016

project no.:	drawing no.:
100-16L	E-304
revision:	0

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DEVICES LEGEND	
PROX CARD READER	ELECTRIC DOOR STRIKE
LONG RANGE WIEGAND READER	ELECTROMAGNET
DOOR CONTACT, DOUBLE	EMERGENCY PULL STATION
DOOR CONTACT, SINGLE	EXIT BUTTON
DOOR CONTACT, HEAVY DUTY	HANDICAPPED BUTTON
UTILITY CONTACT	REX (request to exit) DEVICE
MOTION DETECTOR	LOCKDOWN BUTTON
WATER DETECTOR	PANIC BAR
HI/LO TEMPERATURE DETECTOR	STROBE
SECURITY KEYPAD	FIRE INTERFACE
SECURITY CAMERA, FIXED	HORN (door forced open or open too long)
	BELL
	SOUNDER
	MOTOR INTERFACE
	PANIC BUTTON
CENTER HORN HORIZONTALLY ACROSS DOOR WIDTH	
CONTACTS HOOKUP AS PER ULC COMMERCIAL STANDARD	

No	DESCRIPTION	DATE
1	ISSUED FOR BUILDING PRICING	AUGUST 29 2016
0	ISSUED FOR BUILDING PERMIT	AUGUST 5 2016

REVISIONS

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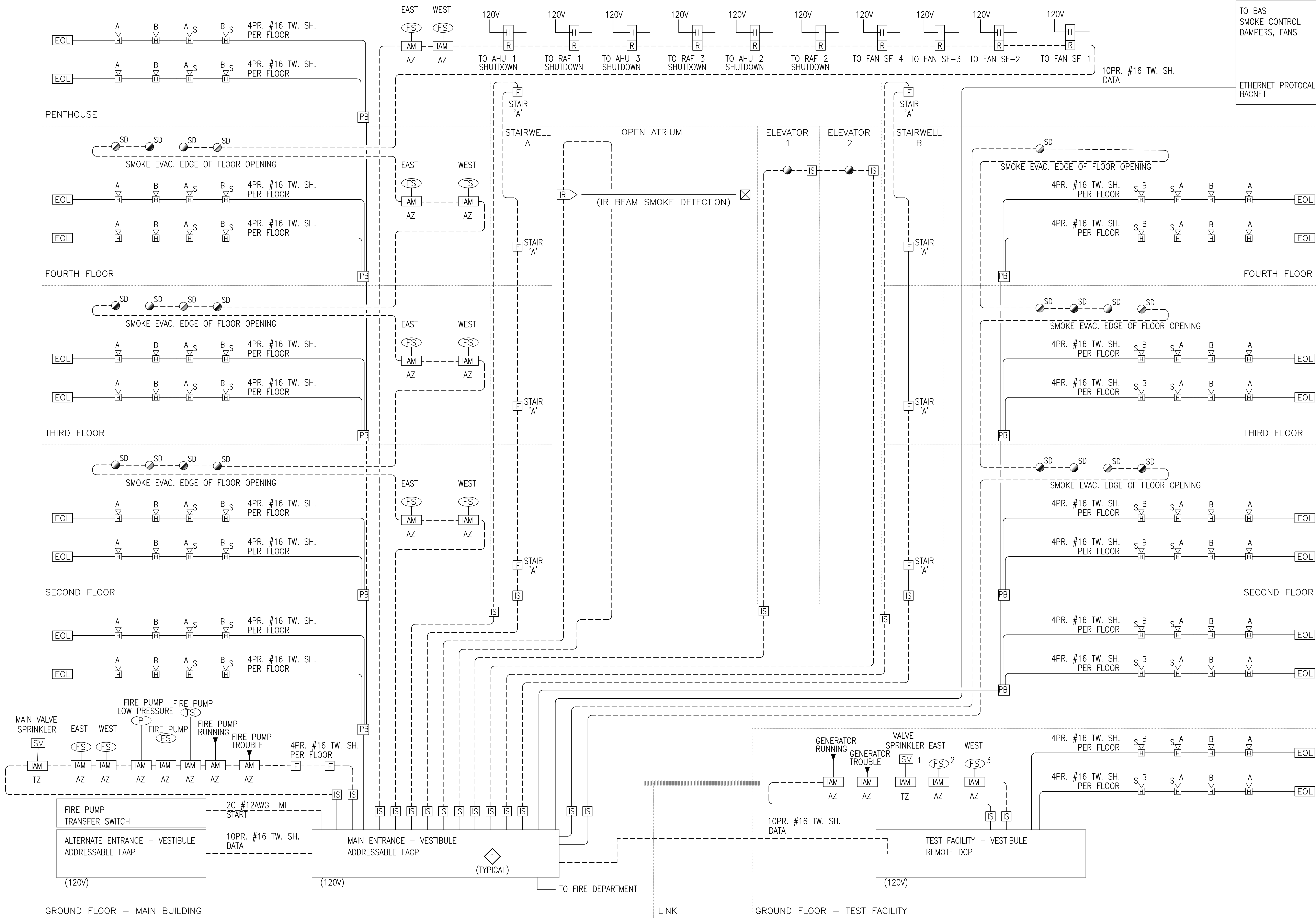
client:	TOMLINSON 5597 POWER RD OTTAWA, ON K1G 3N4
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project:	TOMLINSON NEW BUILDING CITIGATE, OTTAWA
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drawing title:	SECURE DOOR TYPICAL DETAILS
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scale:	AS SHOWN	drawn by:	M.G.
designed by:	M.G.	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.:	100-16L	drawing no.:	E-305
revision:	0		



DRAWING NOTES:

- THE ELECTRICAL CONTRACTOR SHALL INSTALL A FIRE ALARM SYSTEM SIMILAR TO THE RISER DIAGRAM DETAILED ABOVE. FINAL SYSTEM COMPONENTS, FIRE ALARM PANEL MODULE, COMPONENT CARDS, I/O, INITIATING DEVICES, SIGNALING APPLIANCES, AND CONDUIT RUNS ARE TO BE DETERMINED BY THE CONTRACTOR BASED ON THE PARTICULAR SYSTEM THAT IS SELECTED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE - AS A MINIMUM - THE QUANTITY OF INITIATING DEVICES, SIGNALING APPLIANCES AND CONTROL PANELS SHOWN ON THE DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A SYSTEM THAT MEETS THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION OVER FIRE ALARM INSTALLATIONS. THE FIRE ALARM SYSTEM SHALL BE RECEIVE FINAL INSPECTION BY THE CITY OF OTTAWA BUILDING INSPECTOR.

ALL FIRE ALARM INITIATING CIRCUITS ARE TO BE STRICTLY RUN AS CLASS 'A' CIRCUITS MAINTAIN MINIMUM CLEARANCE AS REQUIRED THROUGHOUT. INITIATING CIRCUIT WIRING TO BE #16AWG, 105° DEGREE FAS TYPE, TWISTED, SHIELDED.
- ALL FIRE ALARM SIGNAL CIRCUITS TO BE A MINIMUM #14AWG, 105° DEGREE RATED FAS TYPE.

PROVIDE SIGNAL BOOSTERS FOR STROBE CIRCUITS AS REQUIRED c/w 120V CIRCUITS TO BOOSTER PANEL LOCATIONS AS REQUIRED. LOCATIONS FOR BOOSTER PANELS TO BE COORDINATED ON SITE AS REQUIRED.

MINIMUM SIZE CONDUIT RACEWAY FOR FIRE ALARM SYSTEM IN 21mmC.

FIRE ALARM ADDRESSABLE LOOP TO BE EXTENDED TO WATER ENTRY ROOM. PROVIDE INTELLIGENT ADDRESSABLE INPUT MODULES TO FIRE PUMP CONTROL PANEL, TAMPER SWITCHES, FLOW SWITCHES AS REQUIRED.
- FIRE ALARM REQUIREMENTS FOR ATRIUM SMOKE EVAC SEQUENCE TO BE AS FOLLOWS:

 - SMOKE IS DETECTED IN ZONE X
 - ATRIUM DOORS OPEN
 - AHU #2 SA FAN OFF
 - RA FAN OFF AT AHU #2
 - ATRIUM SMOKE EXHAUST DAMPER OPENS
 - ATRIUM SMOKE EXHAUST FAN ON
 - AHU SA FAN SERVING ZONE X OFF
 - RA FAN SERVING ZONE X OFF
 - ZONE X RA DAMPER REMAINS OPEN
 - ZONE X SA DAMPER REMAINS OPEN
 - ZONE X VAV DAMPERS TO FULL OPEN
 - ZONE X VAV DAMPERS TO FULL OPEN
 - ALL OTHER RA AND SA DAMPERS CLOSE ON FLOORS ABOVE AND BELOW ZONE X
 - RA FAN DAMPER #1 CLOSES AT AHU SERVING ZONE X
 - RA FAN DAMPER #2 CLOSES AT AHU SERVING ZONE X
 - EA DAMPER CLOSES AT AHU SERVING ZONE X
 - MAIN OA DAMPER OPENS 100% AT AHU SERVING ZONE X
 - SMOKE EXHAUST DAMPER OPENS AT AHU SERVING ZONE X
 - SMOKE EXHAUST FAN ON AT AHU SERVING ZONE X
 - AHU SA FAN SERVING ZONE X ON AND SET TO SMOKE CONTROL SPEED SETPOINT
 - AHU SA FAN SERVING OPPOSITE SIDE OF ATRIUM TO ZONE X OFF

JRP ENGINEERING
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1	ISSUED FOR PRICING	AUG 29 2016
0	ISSUED FOR PERMIT	AUG 5 2016
No	DESCRIPTION	DATE
REVISIONS		
client:		
TOMLINSON 5587 POWER RD OTTAWA, ON K1G 3N4		
project:		
TOMLINSON NEW BUILDING CITIGATE, OTTAWA		
drawing title:		
FIRE ALARM RISER DIAGRAM		
scale:	AS SHOWN	drawn by: M.G
designed by:	M.G	reviewed by: J.R.P.
approved by:	J.R.P.	date: APR 2016
project no.:	100-16L	drawing no.: E-306
revision:	0	

Authorized modifications must be signed and sealed by an engineer and this engineer will be completely responsible for these modifications. **J.R.P. Engineering** is not and will not be responsible for the consequences of these modifications or for modifications carried out without its consent.



- ① 1000VA PAD MOUNT TRANSFORMER BY HYDRO OTTAWA. CONCRETE PAD AND PROTECTIVE BOLLARDS BY GENERAL CONTRACTOR AS PER TYPICAL DETAILS 1&2. EXACT LOCATION TO BE DETERMINED ON SITE.
- ② UNDERGROUND SECONDARY IN CONCRETE DUT BANK AS PER TYPICAL DETAIL 3. TRENCHING AND BACKFILL BY GENERAL CONTRACTOR.
- ③ TYPICAL: ROADWAY/PARKING LOT/SITE LIGHTING AS PER TYPICAL DETAIL 3 FOR INSTALLATION DETAILS (TRENCHING CONDUIT SIZING ETC). NOT ALL CONDITIONS ARE SHOWN. CONSULT FOR LANDSCAPE AND LOW VOLTAGE CONDUITS ARE NOT SHOWN.
- ④ SITE COMMUNICATIONS AS PER TYPICAL DETAIL 5 FOR INSTALLATION DETAILS (TRENCHING, CONDUIT SIZING ETC).
- ⑤ ELECTRICAL SERVICE ROOM.
- ⑥ REBARS DEMARCATION POINT.
- ⑦ BELL DEMARCATION POINT.
- ⑧ PROVIDE GFI DUPLEX RECEPTACLE C/W NEMA 4X EXTERIOR ENCLOSURE, ALL CONDUIT, WIRING ND ASSOCIATED HARDWARE FOR COMPLETE INSTALLATION.
- ⑨ PROVIDE EXTERIOR LIGHTING C/W ALL REQUIRED CONDUIT WIRING, CONTROL ALL EXTERIOR LIGHTING CIRCUITS WITH PHOTOCELL (NOT PHOTO) AND ASSOCIATED HARDWARE. LOCATE PHOTOCELL ON MECH. PENTHOUSE.



EXTERIOR LIGHTING SCHEDULE				
SYMBOL	LABEL	DESCRIPTION	WATTAGE	LUMEN
	A-EX	VP-S-30NB-70-KC-14-BLC	71.56	4739
	B-EX	WHD-S-120-MLED-120/277V-OPAL-LENS-CN BASE-COVER-PPROCKER-C-W-A-B-I-COLOR WHITE-LEU		
	C-EX	VP-S-30NB-70-KC-14	71.3878	7817
	D-EX	VP-S-30NB-70-KC-12	71.56	7133
	E-EX	VP-S-30NB-70-KC-14 828	71.3878	7817
	F-EX	WHD-S-48-MLED-120/277V-OPAL-LENS-CN BASE-COVER-PPROCKER-C-W-A-B-I-COLOR WHITE-LEU		
	G-EX	LS76LED-016-NS-15-DM-CB LS-TM-T-1-NO REMOTE 300W POWER SUPPLY		
	H-EX	PV-2840-48-TT-HB		



3	ISSUED FOR PRICING	AUG 25 2016
2	ISSUED FOR CONSTRUCTION	JULY 14 2016
1	ISSUED FOR SITE PLAN APPROVAL REV. 1	APRIL 1 2016
0	ISSUED FOR SITE PLAN APPROVAL	DEC 16 2015
No	DESCRIPTION	DATE

REVISIONS

client:

TOMLINSON

5597 POWER RD
OTTAWA, ON
K1G 3N4

project:

TOMLINSON

NEW BUILDING
CITIGATE, OTTAWA

ELECTRICAL
SITE PLAN

scale:	AS SHOWN	drawn by:	M.G
designed by:	M.G	reviewed by:	J.R.P.
approved by:	J.R.P.	date:	APR 2016

project no.: 100-16L	drawing no.: ES1
revision: 0	of 1