	ELECTRICAL SYMB	OLS - LEGEND / ABBREVIATIONS /	TYPE DESIGNATIONS	
LIGHTING	POWER	FIRE ALARM	LIGHTING CONTROLS	ABBREVIATIONS
LED LIGHTING FIXTURE (610x1220mm), TYPE AS INDICATED, RECESSED CEILING MOUNTED - NORMAL POWER LED LIGHTING FIXTURE (305x1220mm), TYPE AS INDICATED, RECESSED CEILING MOUNTED - NORMAL POWER LED LIGHTING FIXTURE (610x610mm), TYPE AS INDICATED, RECESSED CEILING MOUNTED - NORMAL POWER TYP LED LIGHTING FIXTURE (610x1220mm), TYPE AS INDICATED, SURFACE CEILING MOUNTED - NORMAL POWER TYP LED LIGHTING FIXTURE (610x1220mm), TYPE AS INDICATED, MOUNTED ACCORDING TO FIXTURE TYPE - EMERGENCY POWER LED LIGHTING FIXTURE (305x1220mm), TYPE AS INDICATED, MOUNTED ACCORDING TO FIXTURE TYPE - EMERGENCY POWER LED LIGHTING FIXTURE (610x610mm), TYPE AS INDICATED, RECESSED CEILING MOUNTED - EMERGENCY POWER INDICATED, RECESSED CEILING MOUNTED - NORMAL POWER LED POT LIGHT TYPE AS INDICATED, RECESSED CEILING MOUNTED - NORMAL POWER LED WALL MOUNTED LIGHT TYPE AS INDICATED, WALL MOUNTED - NORMAL POWER	## 15A. 125V. NEMA 5-15R, DUPLEX RECEPTACLE, FLUSH MOUNTED. ## 20A. 125V. NEMA 5-20R, DEDICATED DUPLEX RECEPTACLE (ONE PER CIRCUIT) FLUSH WALL MOUNTED. ## 20A. 125V. NEMA 5-20RA, (T-SLOT) DUPLEX RECEPTACLE, FLUSH WALL MOUNTED. ## 20A. 125V. NEMA 5-20RA, (T-SLOT) GROUND FAULT CIRCUIT INTERRUPER DUPLEX RECEPTACLE, FLUSH WALL MOUNTED. ## 15A. 125V. NEMA 5-15R, RECESSED DUPLEX RECEPTACLE SIMILAR TO LEVITON 689. ## 15A. 125V. NEMA 5-15R, DUPLEX RECEPTACLE c/w 2 USB PORTS FLUSH MOUNTED. SIMILAR TO LEVITON 15632 ## 125V QUAD RECEPTACLE, FLUSH WALL MOUNTED. ## 125V QUAD RECEPTACLE, TYPE AS INIDICATED ## 125V QUAD RECEPTACLE ## 125V QUAD RECE	FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM RELAY, TYPE AS INDICATED FIRE ALARM PULL STATION, WALL MOUNTED AT 1150mm A.F.F. UNLESS OTHERWISE NOTED. FIRE ALARM SMOKE DETECTOR CEILING MOUNTED UNLESS OTHERWISE NOTED. AUX FIRE ALARM CONVENTIONAL SMOKE DETECTOR WITH FA RELAY AND REMOTE INDICATOR FIRE ALARM BELL STROBE WALL MOUNTED AT 2100mm A.F.F. UNLESS OTHERWISE NOTED. CIP FIRE ALARM STROBE CEILING MOUNTED UNLESS OTHERWISE NOTED. DH FIRE ALARM MAGNETIC DOOR HOLDER FIRE ALARM SPRINKLER SYSTEM FLOW SWITCH FIRE ALARM SPRINKLER SYSTEM TAMPER SWITCH FIRE ALARM ISOLATOR MODULE	\$ 15A, 125V. SINGLE POLE TOGGLE SWITCH, FLUSH WALL MOUNTED CIRCUIT AS INDICATED \$ 15A, 125V. 3-WAY LIGHT SWITCH, FLUSH WALL MOUNTED CIRCUIT AS INDICATED \$ 15A, 125V. 4-WAY LIGHT SWITCH, FLUSH WALL MOUNTED CIRCUIT AS INDICATED ON / OFF / VACANCY SENSOR LIGHT SWITCH. FLUSH WALL MOUNTED. CIRCUIT AS INDICATED. ON / OFF / DIMMING / VACANCY SENSOR LIGHT SWITCH. FLUSH WALL MOUNTED. CIRCUIT AS INDICATED. LIGHTING CONTROL SWITCH. FLUSH WALL MOUNTED. CIRCUIT AS INDICATED. "LC1" LETTER DENOTES TYPE REFER TO E15 FOR INFORMATION LIGHTING CONTROL SENSOR CEILING MOUNTED, DUAL TECHNOLOGY VS = VACANCY / OS = OCCUPANCY "C" LETTER DENOTES TYPE REFER TO E15 FOR INFORMATION LIGHTING CONTROL SENSOR WALL MOUNTED, DUAL TECHNOLOGY VS = VACANCY / OS = OCCUPANCY "A" LETTER DENOTES TYPE REFER TO E15 FOR INFORMATION LIGHTING CONTROL SENSOR WALL MOUNTED, DUAL TECHNOLOGY VS = VACANCY / OS = OCCUPANCY "A" LETTER DENOTES TYPE REFER TO E15 FOR INFORMATION	A.F.F. ABOVE FINISHED FLOOR A.F.G. ABOVE STAIR LANDING A.S.L. ABOVE STAIR LANDING ATS AUTOMATIC TRANSFER SWITCH C MOUNTED NEAR CEILING CL CEILING MOUNTED DN ROUTED DOWN DTT DRY TYPE TRANSFORMER E EMERGENCY POWER F MOUNTED ON FURNITURE FL FLOOR MOUNTED GF GROUND FAULT CIRCUIT INTERRUPTER GND GROUND CONDUCTOR IG ISOLATED GROUND LT LIQUID TIGHT LV LOW VOLTAGE MH MOUNTING HEIGHT N NORMAL POWER NIC NOT IN CONTRACT NTS NOT TO SCALE OC OVER COUNTER PC PHOTO ELECTRIC CELL PM PEDESTAL MOUNTED TIL TWIST LOCK TV RECEPTACLE FOR TELEVISION MOUNTED 1500mm A.F.F. UP ROUTED UP WP WEATHER PROOF #*SCELLANEOUS #*SCELLANEOUS MECHANICAL EQUIPMENT REFERENCE NUMBER. REFER TO MOTOR STARTER AND CONTROLS SCHEDULE FOR INFORMATION. ROOM NUMBER.

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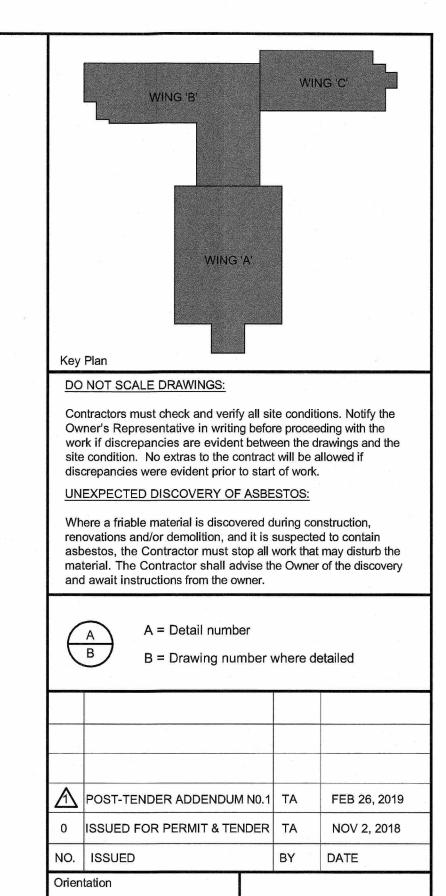
ELECTRICAL LEGEND

		LU	MINAIRE SCHEDULE	
TYPE LAMP		DESCRIPTION	MANUFAC	TURER (MODEL NUMBER)
A1 ,	LED 3500K 40W	1'x4' 120V LED TROFFER RECESSED IN T-BAR CEILING, 4400 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	EATON METALUX CRUZE SERIES - H.E. WILLIAMS LT LED SERIES - COLUMBIA LIGHTING LCAT SERIES -	(14CZ-LD5-44SE-UNV-L835-CD1-U) (LT-14-L47/835-DIM-UNV) (LCAT-14-35-LW-G-ED-U)
A2	LED 3500K 40W	2'x2' 120V LED TROFFER RECESSED IN T-BAR CEILING, 4400 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	EATON METALUX CRUZE SERIES - H.E. WILLIAMS LT LED SERIES - COLUMBIA LIGHTING LCAT SERIES -	(22CZ-LD5-44SE-UNV-L835-CD1-U) (LT-22-L49/835-DIM-UNV) (LCAT-22-35-LW-G-ED-U)
А3	LED 3500K 40W	2'x4' 120V LED TROFFER RECESSED IN T-BAR CEILING, 4500 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	EATON METALUX CRUZE SERIES - H.E. WILLIAMS LT LED SERIES - COLUMBIA LIGHTING LCAT SERIES -	(24CZ-LD5-45SE-UNV-L835-CD1-U) (LT-24-L52/835-DIM-UNV) (LCAT-24-35-LW-G-ED-U)
В1	LED 3500K 25W	1'x4' 120 V LED TROFFER RECESSED IN T-BAR CEILING, 3150 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	FLUXWERX - LOOP 1x4 SERIES - OR APPROVED EQUIVALENT	(LR1-14-B-35-E1-M)
B2	LED 3500K 25W	2'x2' 120 V LED TROFFER RECESSED IN T-BAR CEILING, 3400 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	FLUXWERX - LOOP 2x2 SERIES - OR APPROVED EQUIVALENT	(LR1-22-B-35-E1-M)
В3	LED 3500K 25W	2'x4' 120 V LED TROFFER RECESSED IN T-BAR CEILING, 3300 LUMEN OUTPUT, 0-10V DIMMING, 80CRI.	FLUXWERX - LOOP 2x4 SERIES - OR APPROVED EQUIVALENT	(LR1-24-B-35 E1 M)
C1	LED 3500K 10W	150mm DIA. LED DOWNLIGHT RECESSED IN GYPSUM CEILING, 1000 LUMEN OUTPUT, 80CRI, 0-10V DIMMING.	LUMENPULSE DOWNLIGHT - SENSO LIGHTING ARTEMIS 3 SERIES - GOTHAM LIGHTING INCITO SERIES -	(LADM-A-120-L10-35K-CR80-M-RD-BK) AR3D-FL-A90-645-35-10-01-01-915-LCS-120) (ICO 35 / 20 6BR LSS 40D 120 EZ10)
C2	LED 3500K 10W	150mm DIA. LED DOWNLIGHT RECESSED IN T-BAR CEILING, 1000 LUMEN OUTPUT, 80CRI, 0-10V DIMMING.	LUMENPULSE DOWNLIGHT - SENSO LIGHTING ARTEMIS 3 SERIES - GOTHAM LIGHTING INCITO SERIES -	(LADM-A-120-L10-35K-CR80-M-RD-BK) AR3D-FL-A90-645-35-10-01-915-LCS-120) (ICO 35 / 20 6BR LSS 40D 120 EZ10)
СЗ	LED 3500K 30W	150mm DIA. LED DOWNLIGHT RECESSED IN GYPSUM CEILING, 3000 LUMEN OUTPUT, 80CRI, 0-10V DIMMING.	LUMENPULSE DOWNLIGHT - SENSO LIGHTING ARTEMIS 3 SERIES - GOTHAM LIGHTING INCITO SERIES -	(LADM-A-120-L30-35K-CR80-M-RD-BK) AR3D-FL-A90-645-35-30-01-01-915-LCS-120) (ICO 35 / 30 6BR LSS 40D 120 EZ10)
C4	LED 3500K 30W	150mm DIA. LED DOWNLIGHT RECESSED IN T-BAR CEILING, 3000 LUMEN OUTPUT, 80CRI, 0-10V DIMMING.	LUMENPULSE DOWNLIGHT - SENSO LIGHTING ARTEMIS 3 SERIES - GOTHAM LIGHTING INCITO SERIES -	(LADM-A-120-L30-35K-CR80-M-RD-BK) (AR3D-FL-A90-645-35-30-01-01-915-LCS-120) (ICO 35 / 30 6BR LSS 40D 120 EZ10)
C5	LED 3500K 30W	125/75mm DIA LED TILT DOWNLIGHT RECESSED IN T-BAR CEILING, 700 LUMEN OUTPUT, 90CRI. 0-10V DIMMING, MEDIUM OPTICS WITH SOFTENING/FROSTED LENS.	LUMENPULSE TILT DOWNLIGHT - OR APPROVED EQUIVALENT	(LACM-TILT-A-120-L07-35-CR90-DA1-NC-SL)
C6	LED 3500K 30W	150mm DIA. ULTRA THIN LED DOWNLIGHT RECESSED IN T-BAR CEILING, 900 LUMEN OUTPUT, 90CRI. LUMINAIRE DRIVER TO BE COLOUR TUNEDAND SET TO 3500K.	HALO DOWNLIGHT - OR APPROVED EQUIVALENT	(HLB6-09-9FS-1E-MW- HL6NCMF)
F1	LED 3500K 50W	WALL MOUNTED STAIRWELL LUMINAIRE, INTEGRAL OCCUPANCY SENSOR CONTROL, 80CRI, 5100 LUMEN OUTPUT.	LUMINAIRE LED TSL 9 SERIES - H.E. WILLIAMS SLF LED SERIES - LITHONIA LIGHTING BLWP SERIES -	(TSL92-50W-3500K-M7-120-277-OP-WHT) (SLF-2-L52/835-HIA-OCCSS SBR-10-DIM-UNV) (BLWP2 48L ADSMT EZ1 LP835 MSDPDT7ADCX DIM50)
H1 SERIES	LED 3500K	LED LINEAR LUMINAIRE RECESSED IN WOOD FEATURE CEILING, LENGTH AND ORIENTATION AS SHOWN ON DRAWINGS, 120V, 0-10V DIMMING.	REFER TO SCHEDULE ON DRAWING E09.	
J1	LED 3500K 45W	4 FOOT LED LENSED LUMINAIRE RECESSED IN COVE, 120V, 4600 LUMEN OUTPUT, 3500K, 0-10V DIMMING.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L835-CD1-U) (75R-4-L50/835-DIM-UNV) (MPS-4-35-LW-C-W-ED-U)
J2	LED 3500K 20W	2 FOOT LED LENSED LUMINAIRE RECESSED IN COVE, 120V, 2400 LUMEN OUTPUT, 3500K, 0-10V DIMMING.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(2SNLED-LD5-22SL-LN-UNV-L835-CD1-U) (75R-2-L30/835-DIM-UNV) (MPS-2-35-MW-C-W-ED-U)
J4	LED 4000K 45W	4 FOOT LED LENSED LUMINAIRE CHAIN HUNG AT 2700mm AFF, 120V, 4600 LUMEN OUTPUT.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L840-CD1-U) (75R-4-L50/840-DIM-UNV) (MPS-4-40-LW-C-W-ED-U)
J5	LED 4000K 45W	4 FOOT LED LENSED LUMINAIRE WALL MOUNTED IN ELEVATOR SHAFT AT 2600mm AFF, 120V, 4600 LUMEN OUTPUT.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L840-CD1-U) (75R-4-L50/840-DIM-UNV) (MPS-4-40-LW-C-W-ED-U)

TYPE	LAMP	DESCRIPTION	MANUFAC	CTURER (MODEL NUMBER)
J1	LED 3500K 45W	4 FOOT LED LENSED LUMINAIRE RECESSED IN COVE, 120V, 4600 LUMEN OUTPUT, 3500K, 0-10V DIMMING.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L835-CD1-U) (75R-4-L50/835-DIM-UNV) (MPS-4-35-LW-C-W-ED-U)
J2	LED 3500K 20W	2 FOOT LED LENSED LUMINAIRE RECESSED IN COVE, 120V, 2400 LUMEN OUTPUT, 3500K, 0-10V DIMMING.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(2SNLED-LD5-22SL-LN-UNV-L835-CD1-U) (75R-2-L30/835-DIM-UNV) (MPS-2-35-MW-C-W-ED-U)
J4	LED 4000K 45W	4 FOOT LED LENSED LUMINAIRE CHAIN HUNG AT 2700mm AFF, 120V, 4600 LUMEN OUTPUT.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L840-CD1-U) (75R-4-L50/840-DIM-UNV) (MPS-4-40-LW-C-W-ED-U)
J5	LED 4000K 45W	4 FOOT LED LENSED LUMINAIRE WALL MOUNTED IN ELEVATOR SHAFT AT 2600mm AFF, 120V, 4600 LUMEN OUTPUT.	EATON METALUX SNLED SERIES - H.E. WILLIAMS 75 LED SERIES - COLUMBIA LIGHTING MPS SERIES -	(4SNLED-LD5-46SL-LN-UNV-L840-CD1-U) (75R-4-L50/840-DIM-UNV) (MPS-4-40-LW-C-W-ED-U)
T1	LED 3000- 5000K 40W	2'x4' TUNABLE WHITE LED PANEL RECESSED IN T-BAR CEILING, 4500 LUMEN OUTPUT, 3000-5000 K CCT.	EATON METALUX CRUZE TUNABLE WHITE	(24CZ-I D5-45SE UNV-L83050-CDW2A-2)
01	LED 3000K 72W	LOW PROFILE EXTERIOR WALL MOUNTED LUMINAIRE, SURAFEC WALL MOUNTED DOWN LIGHTING, , 8700 LUMENS OUTPUT, 80 CRI.	EATON LUMARK AXCL SERIES	(AXCL8A-W (3000K) - LUMINAIRE COLOUR TO BE VERIFIED BY ARCHITECT DURING SHOP DRAWING REVIEW-120V-PC1)
02	72W	LOW PROFILE EXTERIOR WALL MOUNTED LUMINAIRE, SURAFEC WALL MOUNTED DOWN LIGHTING C/W REFRACTIVE LENS, , 8700 LUMENS OUTPUT, 80 CRI.	EATON LUMARK AXCL SERIES	(AXCL8ARL-W (3000K) - LUMINAIRE COLOUR TO BE VERIFIED BY ARCHITECT DURING SHOP DRAWING REVIEW-120V-PC1)
03	3000K	EXTERIOR 6 INCH DOWNLIGHT RECESSED IN CANOPY, WIDE DISTRIBUTION, 1500 LUMENS OUTPUT, 0-10V DIMMING, 80CRI.	EATON PORTFOLIO SERIES - H.E. WILLIAMS 6DR SERIES - LITHONIA LIGHTING LDN6 SERIES -	(LD6B15D010-EUB10208030-6LBWH1) (6DR-TL-L15-8-30-DIM-UNV-O-W-OF-CS-WET / CC) (LDN6 30 / 15 L06AR LSS MVOLT GZ10)
S1	LED 3000K 60W	EXTERIOR GROUND MOUNTED BOLLARD LED, 3550 LUMENS OUTPUT, 80CRI. MINIMUM	SISTEMALUX STELO BOLLARD LED SERIES - TUMENPULSE ELEMENT SERIES - BEGA LIGHTING -	(S.4120W-UNV 14) (ELMC20-HO-120-30K-CRI 80-BK-NO)

Plo	PICTOGRAM EMERGENCY EGRESS SIGN FIXTURE IDENTIFICATION SCHEDULE			
EGRESS SIGN TYPE#	EGRESS SIGN PICTOGRAM IMAGE GRAPHICAL SYMBOLS AND DESCRIPTION	LEGEND FACE PLATE(S) S - SINGLE SIDED -W - WALL MOUNTED -C - CEILING MOUNTED WITH CANOPY -E - END MOUNTED -U - UNIVERSAL MOUNTED WITH CANOPY(S) -ST - STEM MOUNTED WITH RAIN TIGHT FITTING		
x1	RUNNING MAN IN DOORWAY	EGRESS SIGN IDENTIFICATION EXAMPLES		
x2	RUNNING MAN IN DOORWAY WITH PROGRESS TO THE RIGHT 90° DIRECTIONAL ARROW	LETTER: DENOTES FACE PLATE (SINGLE SIDED) S-x1-W -LETTER: DENOTES MOUNTING TYPE (WALL MOUNTED)		
х3	RUNNING MAN IN DOORWAY WITH PROGRESS TO THE LEFT 90° DIRECTIONAL ARROW	-x# : DENOTES EGRESS SIGN FACE PLATE TYPE PICTOGRAM IMAGE EXAMPLE #1		
x4	RUNNING MAN IN DOORWAY WITH PROGRESS TO THE FORWARD DIRECTIONAL ARROW	₹ D-x2/x3-C		
x5	RUNNING MAN IN DOORWAY WITH PROGRESS DOWN DIRECTIONAL ARROW	LETTER: DENOTES FACE PLATE (DOUBLE SIDED) D-x2/x3-C LETTER: DENOTES MOUNTING TYPE (CEILING MOUNTED WITH CANOPY)		
х6	RUNNING MAN IN DOORWAY WITH PROGRESS DOWN TO THE RIGHT DIRECTIONAL ARROW	x# / x# : DENOTES EGRESS SIGN FACE PLATE TYPES (PICTOGRAM IMAGE ON SIDE ONE AND PICTOGRAM IMAGE ON SIDE TWO.)		
x7	RUNNING MAN IN DOORWAY WITH PROGRESS DOWN TO THE LEFT DIRECTIONAL ARROW	Ontario Building Code 2012 Refer to the following OBC 2012 standards: Division B Part 3: 3.2.7 - Lighting and Emergency Power Systems		
x8	RUNNING MAN IN DOORWAY WITH PROGRESS UP TO THE RIGHT DIRECTIONAL ARROW	Division B Part 3: 3.2.7 Lighting and Emergency Power Systems Division B Part 3: 3.4.5 Exit Signs Division B Part 9: 9.9.11 Exit Signs Division B Part 9: 9.9.12 Lighting Division B Appendix A: A-3.4.5.1.(2)(c) - Graphical Symbols for Exit Signs ISO 3864-1 - Graphical Symbols (Pictogram) ISC 1070 - Dimensions Graphical Symbols.		
х9	RUNNING MAN IN DOORWAY WITH PROGRESS UP TO THE LEFT DIRECTIONAL ARROW	Additional References: CSA - C860-01 December 2002 - Performance of Internally Lighted Exit Signs CSA - C22.2 No. 141-10 - Unit Equipment for Emergency Lighting NFPA 101-2006 - Life Safety Code NMS 26 53 10 National Master Specification - Pictogram Exit Lights		

DRAWING LIST			
Sheet Number	Sheet Title		
₹ E01	ELECTRICAL COVER SHEET & LUMINAIRE SCHEDULE		
E02	SINGLE LINE DIAGRAM		
€03	ELECTRICAL SITE PLAN		
₹ E09	STAIR SECTIONS WING B		
⚠ E10	LIGHTING LAYOUT WING B LEVEL 1		
₹ E11	LIGHTING LAYOUT WING B LEVEL 2		
₹ E12	LIGHTING LAYOUT WING C		
₹ E15	LIGHTING CONTROL SCHEMATICS SHEET No.1		
1 E16	LIGHTING CONTROL SCHEMATICS SHEET No.2		
1 €17	LIGHTING CONTROL SCHEMATICS SHEET No.3		
₹ E18	LIGHTING CONTROL SCHEMATICS SHEET No.4		
A E20	POWER LAYOUT WING B LEVEL 1		
E21	FIRE ALARM LAYOUT WING B LEVEL 1		
↑ E22	MECHANICAL EQUIPMENT WING B LEVEL 1		
₹ E23	POWER LAYOUT WING B LEVEL 2		
E24	FIRE ALARM LAYOUT WING B LEVEL 2		
€ 25	MECHANICAL EQUIPMENT WING B LEVEL 2		
E26	ELECTRICAL LAYOUT WING B MECHANICAL PENTHOUSE		
₹ E27	POWER AND FIRE ALARM LAYOUT WING C		
E28	MECHANICAL EQUIPMENT WING C		
E29	ROOF LAYOUT		
1 E30	LIGHTING CONTROL SCHEDULE & DETAILS		
1 E31	MOTOR STARTER AND CONTROL LIST		
E32	FIRE ALARM RISER DIAGRAM		
E33	PANEL SCHEDULES - 1 OF 4		
1 E34	PANEL SCHEDULES - 2 OF 4		
A E35	PANEL SCHEDULES - 3 OF 4		
E36	PANEL SCHEDULES - 4 OF 4		
DE10	EXISTING POWER AND FIRE ALARM WING B LEVEL 1		
DE11	EXISTING POWER AND FIRE ALARM WING B LEVEL 2		
DE12	EXISTING ELECTRICAL SYSTEMS WING C		
DE13	EXISTING LIGHTING WING B LEVEL 1		
DE14	EXISTING LIGHTING WING B LEVEL 2		
DE15	SINGLE LINE DEMOLITION		





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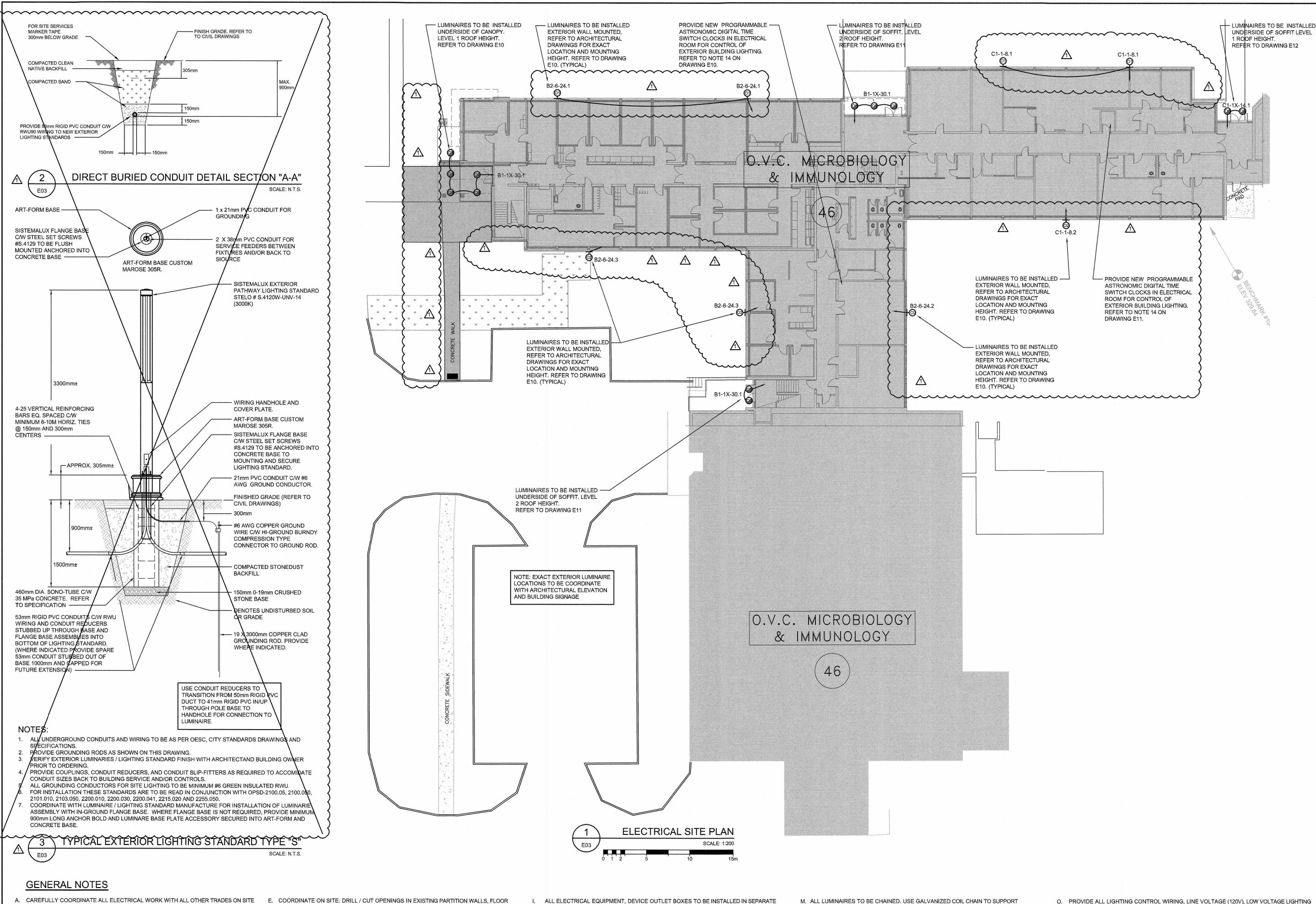
BUILDING #046 RENOVATIONS

ELECTRICAL
ELECTRICAL COVER SHEET
& LUMINAIRE SCHEDULE
Project No.
504034

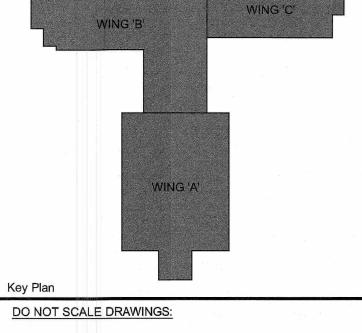
UNIVERSITY OF GUELPH BUILDING #046

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- TO ENSURE NO CONFLICTS OR INTERFERENCES OCCUR.
- B. PROVIDE ALL FASTENERS, FITTINGS, JUNCTION, OUTLET, BACKBOXES, CONDUIT, WIRING AND HARDWARE REQUIRED TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM. REFER TO SPECIFICATIONS.
- BOXES ON EITHER SIDE OF JOINT C/W METAL FLEX CONDUIT & WIRING SYSTEM TO BRIDGE JOINT AND ALLOW FOR BUILDING MOVEMENT. REFER TO DETAILS ON DRAWINGS AND / OR SPECIFICATIONS.
- D. ALL JUNCTION BOX CONDUIT AND WIRING SYSTEMS ARE TO BE CONCEALED IN PARTITIONS WALL FLOOR SLABS AND CEILING SPACES UNLESS NOTED OTHERWISE.
- SLAB TO FACILITATE INSTALLATION OF ELECTRICAL SYSTEMS. PATCH, REPAIR AND REPAINT ALL OPENINGS TO MATCH EXISTING AND/OR NEW FINISH REQUIREMENTS.
- F. SEAL ALL THROUGH WALL, FLOOR SLAB PENETRATIONS WITH APPROVED FIRE STOP SEALANT.
- C. WHERE CONDUIT SYSTEMS CROSS BUILDING EXPANSION JOINTS PROVIDE JUNCTION G. PROVIDE LAMACOID NAMEPLATE AND P-TOUCH CIRCUIT IDENTIFICATION ON EQUIPMENT. COVER PLATES, JUNCTION BOXES. REFER TO SPECIFICATION FOR ADDITIONAL
 - H. THE WORD "PROVIDE" USED ON THESE DRAWINGS, MEAN THE CONTRACTOR IS RESPONSIBLE TO SUPPLY, INSTALL, WIRE, CONNECT, CONTROL SETUP, TEST, AND COMMISSION EQUIPMENT, DEVICES, AND/OR LUMINAIRES.
- ALL ELECTRICAL EQUIPMENT, DEVICE OUTLET BOXES TO BE INSTALLED IN SEPARATE STUD SPACES (SEPARATED BY A STUD) AND PREFERABLY ISOLATED BY MIN. 600mm APART WHERE POSSIBLE FOR WALL ERATED STC 45 OR HIGHER. REFER TO DETAIL 3/E20 ON DRAWINGS.
- J. EXPOSED ELECTRICAL BOXES IN WALLS RATED STC 50 AND HIGHER TO BE SEALED. K. REFER TO LUMINAIRE SCHEDULE FOR LIGHTING FIXTURE TYPE AND MOUNTING.
- GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE UNDER ONE (1) COMMON COVER PLATE UNLESS NOTED OTHERWISE.
- COORDINATE MOUNTING AND INSTALLATION OF EXTERIOR / OUTDOOR MOUNTED LUMINAIRES WITH ARCHITECT AND BUILDING OWNER.
- M. ALL LUMINAIRES TO BE CHAINED. USE GALVANIZED COIL CHAIN TO SUPPORT LUMINAIRE(S) TO BUILDING STRUCTURE FROM MINIMUM TWO (2) LOCATIONS. CORNER OF EACH TO BE SUPPORTED. POINT ON CHAINS TO BE SECURED. INSTALLATION TO MEET SEISMIC REQUIREMENTS.
- N. ALL LIGHTING FIXTURES NORMAL / EMERGENCY, EXIT LIGHTING TO BE CONNECTED AND SWITCHED AS INDICATED VIA A JUNCTION BOX, CONDUIT AND WIRING SYSTEM AS
- CIRCUIT, AND CONTROL WIRING VIA CEILING SPACE MOUNTED JUNCTION BOX, CONDUIT AND WIRING SYSTEM TO END DEVICE(S). SENSORS AND / OR MANUAL SWITCHES MAY BE EITHER INDIVIDUALLY WIRED OR WIRED IN TANDEM AS PER LIGHTING CONTROL SCHEDULES. REFER TO LIGHTING CONTROL SCHEDULE AND CONTROL SCHEMATIC DETAILS ON DRAWING E15, E16, E17, E18 AND E30
- P. LIGHTING CIRCUIT SWITCHING AS FOLLOWS:
 - CIRCUIT (CKT.) AS INDICATED EI "B2-6-2.1" DENOTES: NORMAL POWER PANEL B2-6, CKT. 2, RELAY OR DEVICE SWITCHING POINT 1 CIRCUIT (CKT.) AS INDICATED EI "B1-1X-30.1" DENOTES: EMERGENCY POWER PANEL B1-1X, CKT. 30, RELAY OR DEVICE SWITCHING POINT 1. NOTE: EXTERIOR DEVICE SWITCHING POINTS TO BE MADE VIA PROGRAMMABLE



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Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

A = Detail number

UNEXPECTED DISCOVERY OF ASBESTOS:

B = Drawing number where detailed

POST-TENDER ADDENDUM NO.1 TA FEB 26, 2019 ISSUED FOR PERMIT & TENDER | TA | NOV 2, 2018 NO. ISSUED BY DATE

Orientation



Seal



Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

BUILDING #046 RENOVATIONS

ELECTRICAL **ELECTRICAL SITE PLAN**

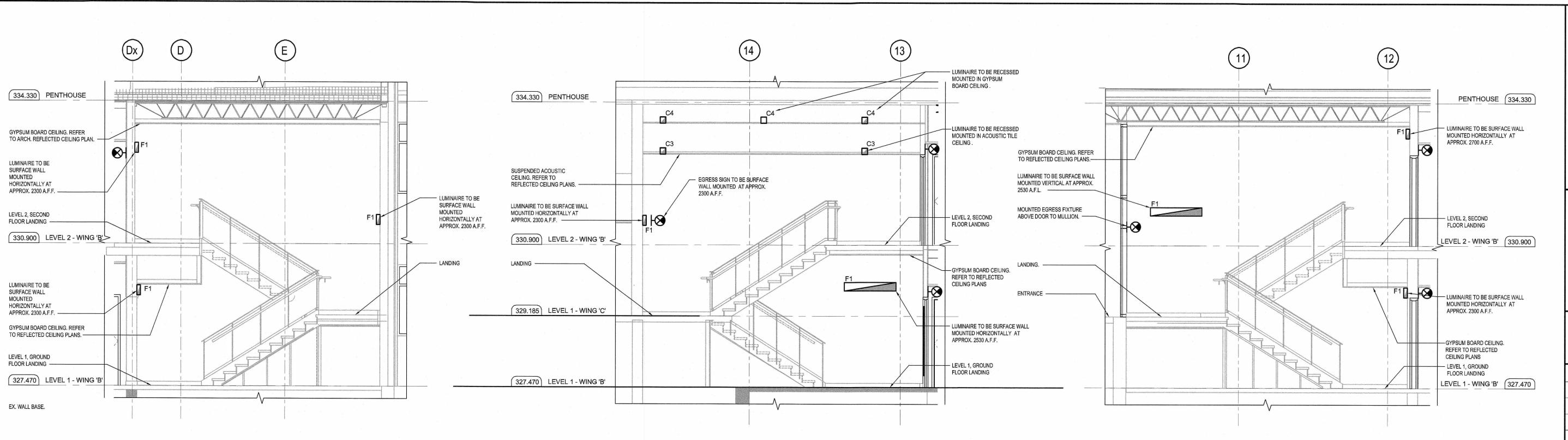
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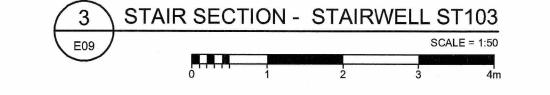
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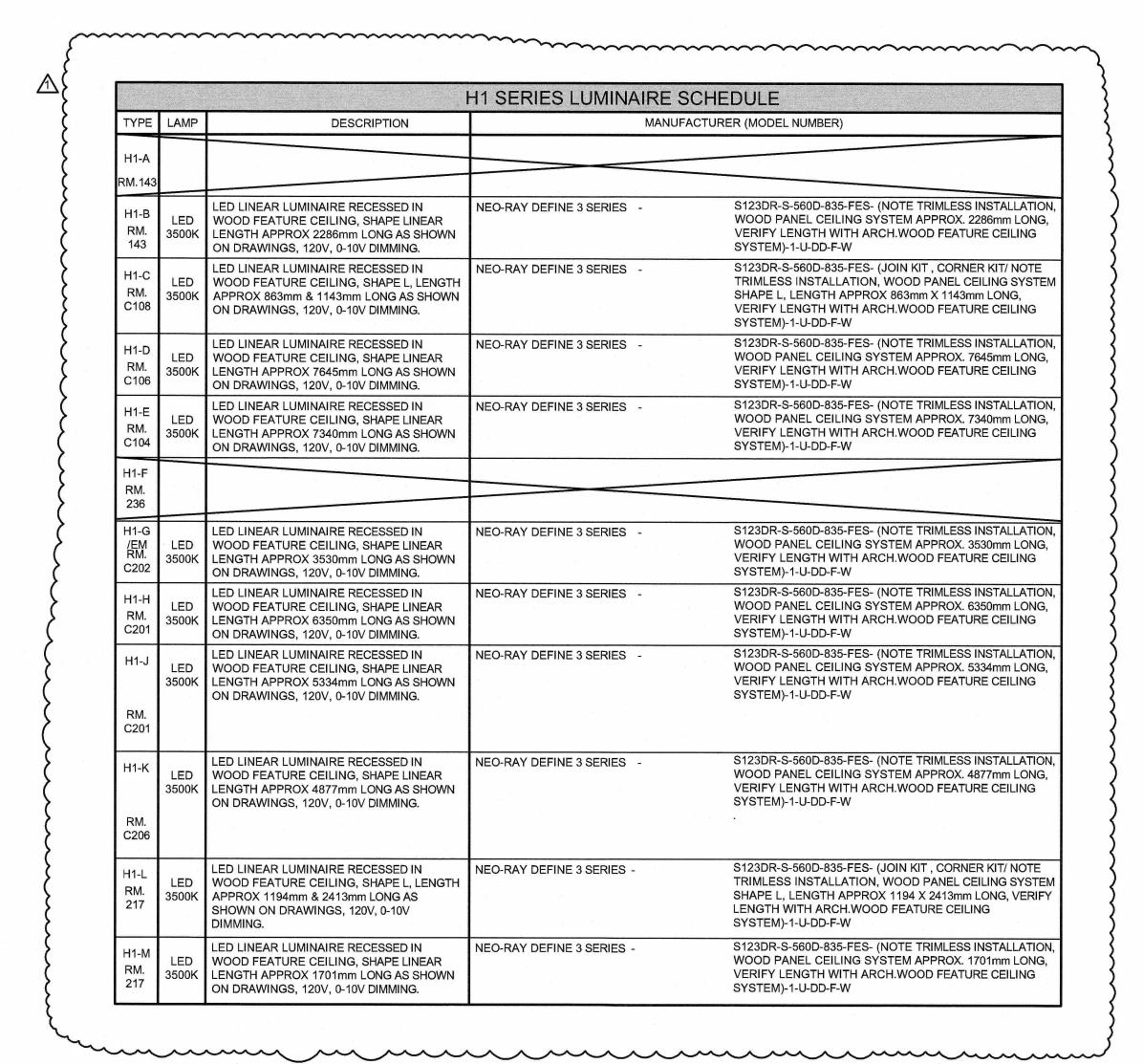


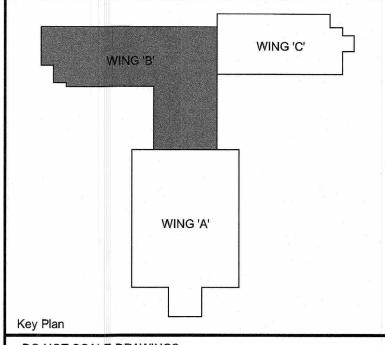
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DO NOT SCALE DRAWINGS:

Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.

UNEXPECTED DISCOVERY OF ASBESTOS:

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A = Detail number

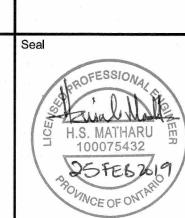
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Consultant



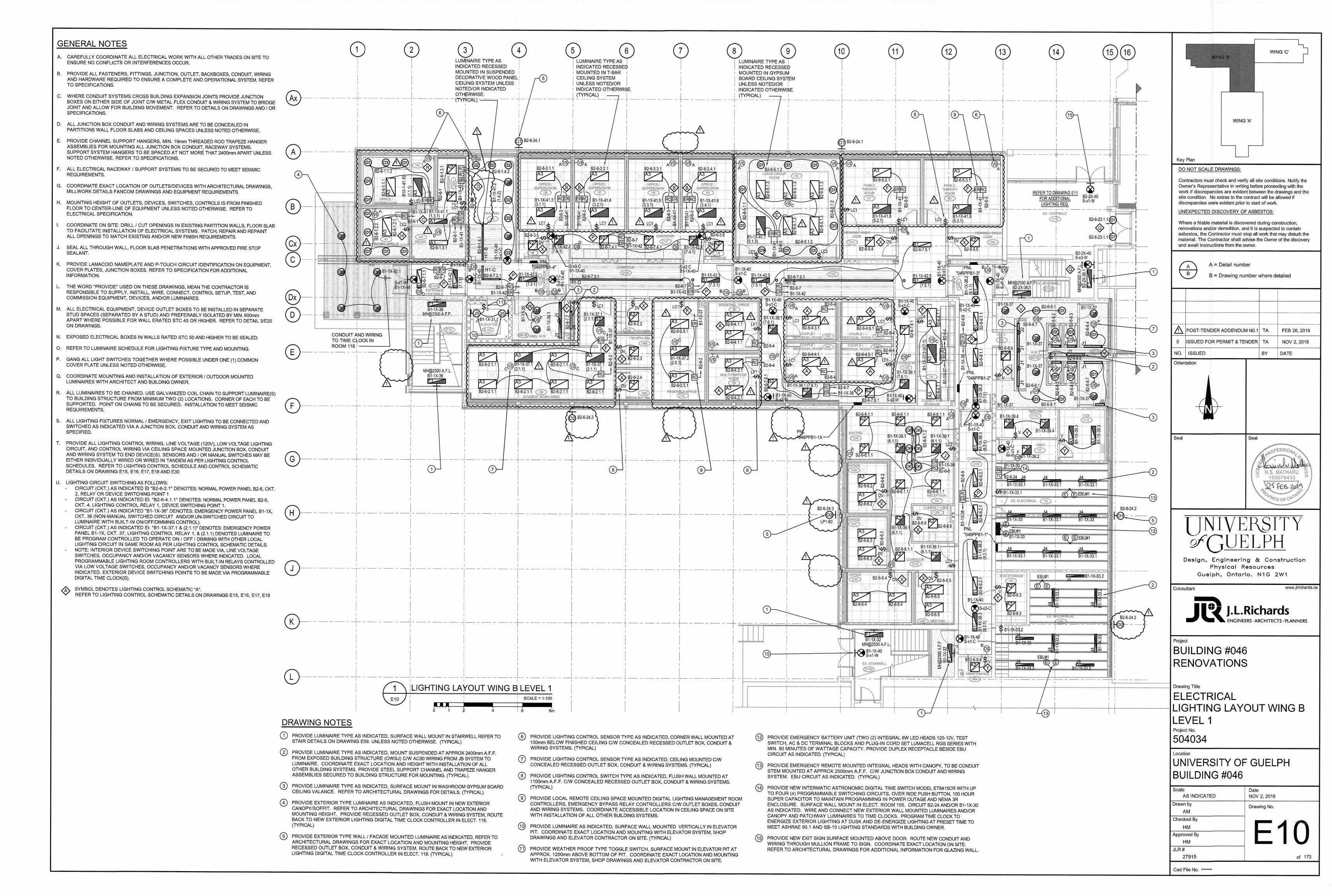
BUILDING #046 RENOVATIONS

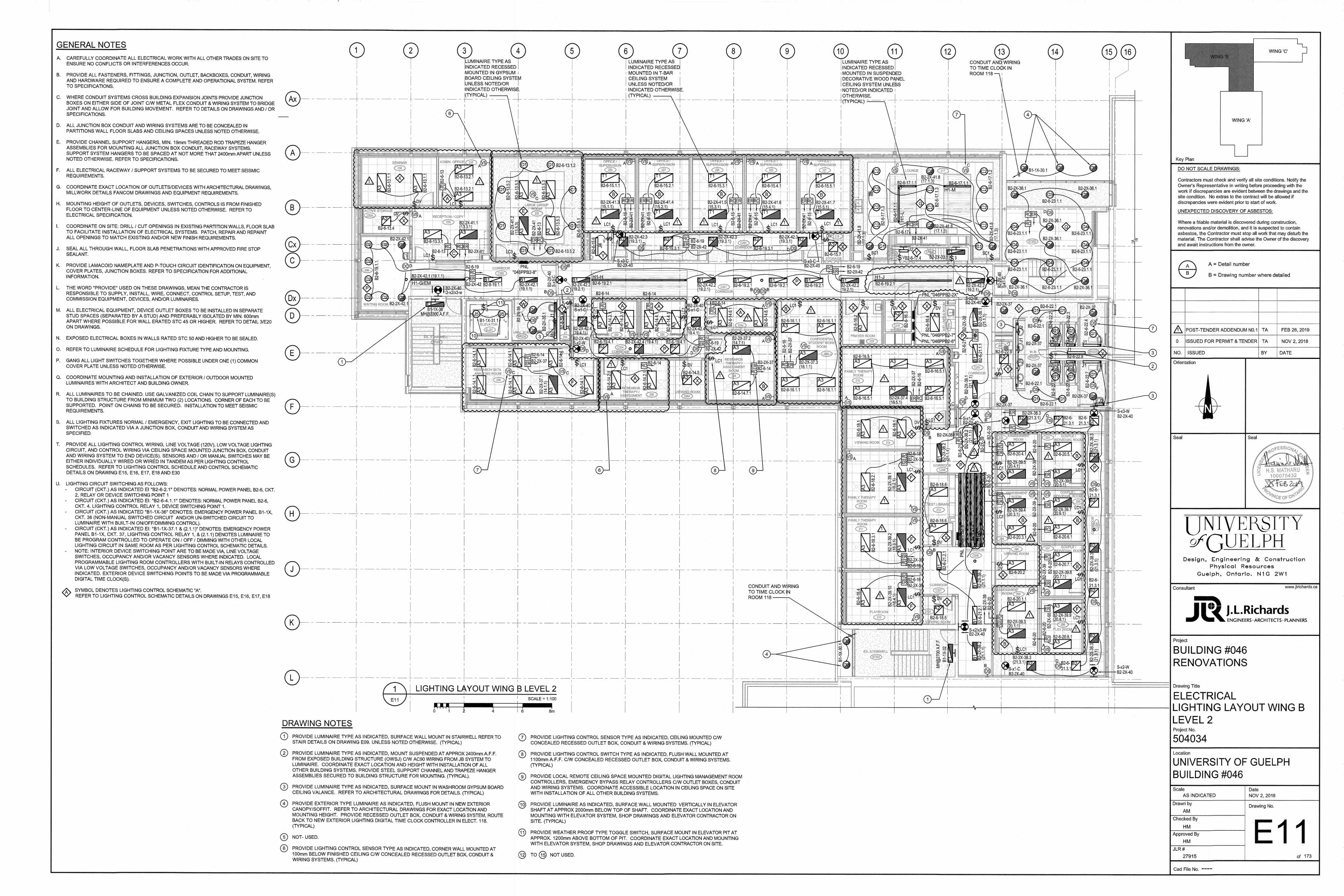
Drawing Title
ELECTRICAL

STAIR SECTIONS WING B

Project No. 504034

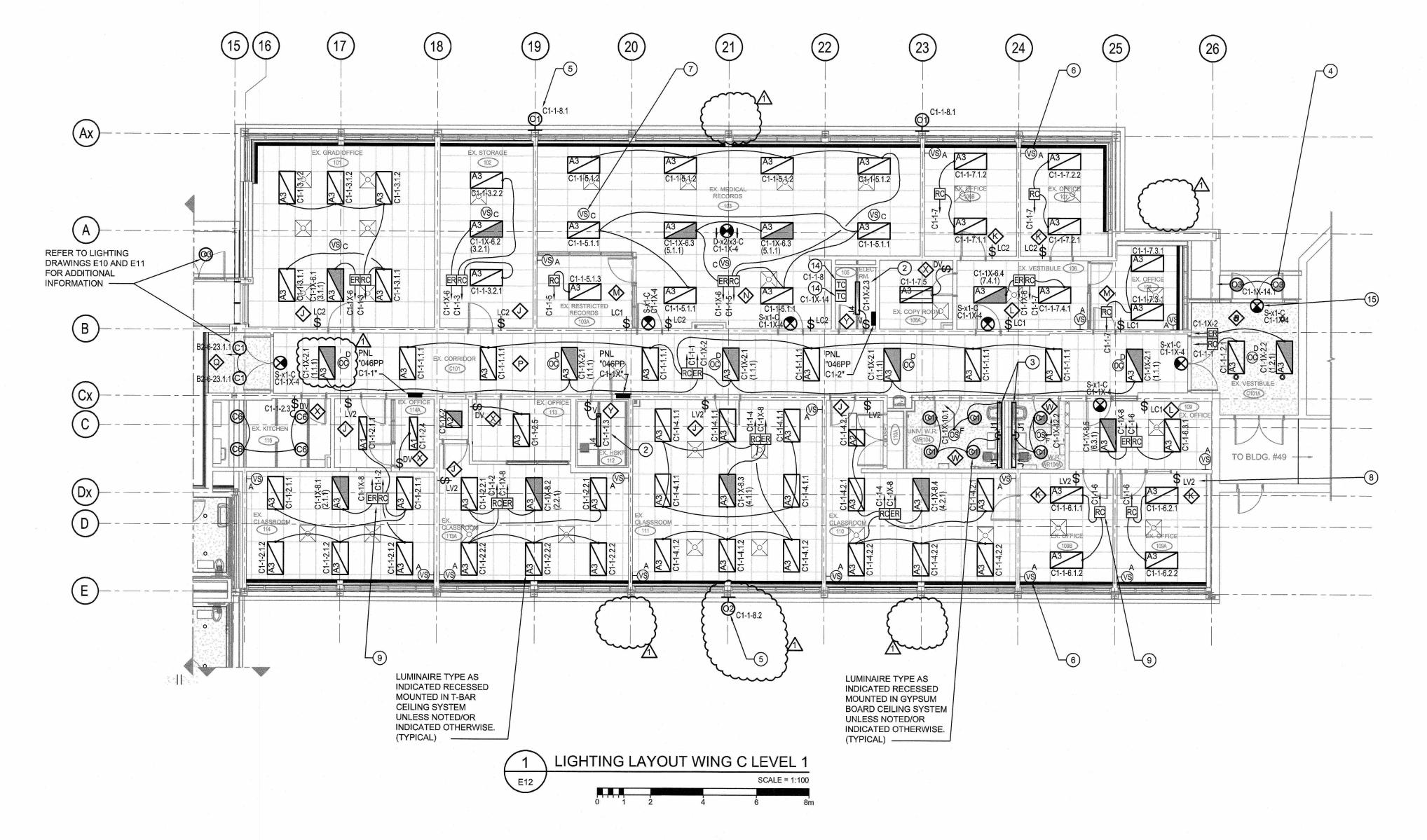
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GENERAL NOTES

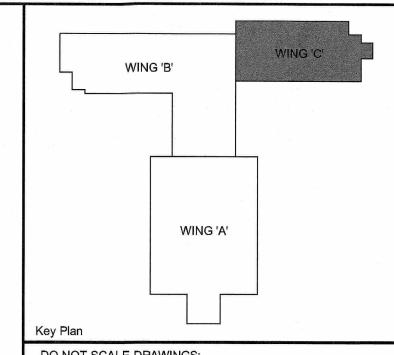
- A. CAREFULLY COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES ON SITE TO ENSURE NO CONFLICTS OR INTERFERENCES OCCUR.
- B. PROVIDE ALL FASTENERS, FITTINGS, JUNCTION, OUTLET, BACKBOXES, CONDUIT, WIRING AND HARDWARE REQUIRED TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM. REFER
- C. WHERE CONDUIT SYSTEMS CROSS BUILDING EXPANSION JOINTS PROVIDE JUNCTION BOXES ON EITHER SIDE OF JOINT C/W METAL FLEX CONDUIT & WIRING SYSTEM TO BRIDGE JOINT AND ALLOW FOR BUILDING MOVEMENT. REFER TO DETAILS ON DRAWINGS AND / OR SPECIFICATIONS.
- D. ALL JUNCTION BOX CONDUIT AND WIRING SYSTEMS ARE TO BE CONCEALED IN PARTITIONS WALL FLOOR SLABS AND CEILING SPACES UNLESS NOTED OTHERWISE.
- E. PROVIDE CHANNEL SUPPORT HANGERS, MIN. 19mm THREADED ROD TRAPEZE HANGER ASSEMBLIES FOR MOUNTING ALL JUNCTION BOX CONDUIT, RACEWAY SYSTEMS. SUPPORT SYSTEM HANGERS TO BE SPACED AT NOT MORE THAT 2400mm APART UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS.
- F. ALL ELECTRICAL RACEWAY / SUPPORT SYSTEMS TO BE SECURED TO MEET SEISMIC REQUIREMENTS.
- G. COORDINATE EXACT LOCATION OF OUTLETS/DEVICES WITH ARCHITECTURAL DRAWINGS, MILLWORK DETAILS FANCOM DRAWINGS AND EQUIPMENT REQUIREMENTS.
- H. MOUNTING HEIGHT OF OUTLETS, DEVICES, SWITCHES, CONTROLS IS FROM FINISHED FLOOR TO CENTER-LINE OF EQUIPMENT UNLESS NOTED OTHERWISE. REFER TO ELECTRICAL SPECIFICATION.
- I. COORDINATE ON SITE: DRILL / CUT OPENINGS IN EXISTING PARTITION WALLS, FLOOR SLAB TO FACILITATE INSTALLATION OF ELECTRICAL SYSTEMS. PATCH, REPAIR AND REPAINT ALL OPENINGS TO MATCH EXISTING AND/OR NEW FINISH REQUIREMENTS.
- J. SEAL ALL THROUGH WALL, FLOOR SLAB PENETRATIONS WITH APPROVED FIRE STOP SEALANT.
- K. PROVIDE LAMACOID NAMEPLATE AND P-TOUCH CIRCUIT IDENTIFICATION ON EQUIPMENT. COVER PLATES, JUNCTION BOXES. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
- L. THE WORD "PROVIDE" USED ON THESE DRAWINGS, MEAN THE CONTRACTOR IS RESPONSIBLE TO SUPPLY, INSTALL, WIRE, CONNECT, CONTROL SETUP, TEST, AND COMMISSION EQUIPMENT, DEVICES, AND/OR LUMINAIRES.
- M. ALL ELECTRICAL EQUIPMENT, DEVICE OUTLET BOXES TO BE INSTALLED IN SEPARATE STUD SPACES (SEPARATED BY A STUD) AND PREFERABLY ISOLATED BY MIN. 600mm APART WHERE POSSIBLE FOR WALL ERATED STC 45 OR HIGHER. REFER TO DETAIL 3/E20 ON DRAWINGS.
- N. EXPOSED ELECTRICAL BOXES IN WALLS RATED STC 50 AND HIGHER TO BE SEALED.
- O. REFER TO LUMINAIRE SCHEDULE FOR LIGHTING FIXTURE TYPE AND MOUNTING.
- P. GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE UNDER ONE (1) COMMON COVER PLATE UNLESS NOTED OTHERWISE.
- Q. COORDINATE MOUNTING AND INSTALLATION OF EXTERIOR / OUTDOOR MOUNTED LUMINAIRES WITH ARCHITECT AND BUILDING OWNER.
- R. ALL LUMINAIRES TO BE CHAINED. USE GALVANIZED COIL CHAIN TO SUPPORT LUMINAIRE(S) TO BUILDING STRUCTURE FROM MINIMUM TWO (2) LOCATIONS. CORNER OF EACH TO BE SUPPORTED. POINT ON CHAINS TO BE SECURED. INSTALLATION TO MEET SEISMIC REQUIREMENTS.
- S. ALL LIGHTING FIXTURES NORMAL / EMERGENCY, EXIT LIGHTING TO BE CONNECTED AND SWITCHED AS INDICATED VIA A JUNCTION BOX, CONDUIT AND WIRING SYSTEM AS SPECIFIED.
- T. PROVIDE ALL LIGHTING CONTROL WIRING, LINE VOLTAGE (120V), LOW VOLTAGE LIGHTING CIRCUIT, AND CONTROL WIRING VIA CEILING SPACE MOUNTED JUNCTION BOX, CONDUIT AND WIRING SYSTEM TO END DEVICE(S). SENSORS AND / OR MANUAL SWITCHES MAY BE EITHER INDIVIDUALLY WIRED OR WIRED IN TANDEM AS PER LIGHTING CONTROL SCHEDULES. REFER TO LIGHTING CONTROL SCHEDULE AND CONTROL SCHEMATIC DETAILS ON DRAWING E15, E16, E17, E18 AND E30
- U. LIGHTING CIRCUIT SWITCHING AS FOLLOWS:
 - CIRCUIT (CKT.) AS INDICATED EI "B2-6-2.1" DENOTES: NORMAL POWER PANEL B2-6, CKT. 2. RELAY OR DEVICE SWITCHING POINT 1
- CIRCUIT (CKT.) AS INDICATED EI: "B2-6-4.1.1" DENOTES: NORMAL POWER PANEL B2-6, CKT. 4. LIGHTING CONTROL RELAY 1, DEVICE SWITCHING POINT 1. CIRCUIT (CKT.) AS INDICATED "B1-1X-36" DENOTES: EMERGENCY POWER PANEL B1-1X, CKT. 36 (NON-MANUAL SWITCHED CIRCUIT AND/OR UN-SWITCHED CIRCUIT TO
- LUMINAIRE WITH BUILT-IN ON/OFF/DIMMING CONTROL). CIRCUIT (CKT.) AS INDICATED EI: "B1-1X-37.1 & (2.1.1)" DENOTES: EMERGENCY POWER PANEL B1-1X, CKT. 37, LIGHTING CONTROL RELAY 1, & (2.1.1) DENOTES LUMINAIRE TO BE PROGRAM CONTROLLED TO OPERATE ON / OFF / DIMMING WITH OTHER LOCAL LIGHTING CIRCUIT IN SAME ROOM AS PER LIGHTING CONTROL SCHEMATIC DETAILS.
- NOTE: INTERIOR DEVICE SWITCHING POINT ARE TO BE MADE VIA, LINE VOLTAGE SWITCHES, OCCUPANCY AND/OR VACANCY SENSORS WHERE INDICATED. LOCAL PROGRAMMABLE LIGHTING ROOM CONTROLLERS WITH BUILT-IN RELAYS CONTROLLED VIA LOW VOLTAGE SWITCHES, OCCUPANCY AND/OR VACANCY SENSORS WHERE INDICATED. EXTERIOR DEVICE SWITCHING POINTS TO BE MADE VIA PROGRAMMABLE DIGITAL TIME CLOCK(S).
- SYMBOL DENOTES LIGHTING CONTROL SCHEMATIC "A". REFER TO LIGHTING CONTROL SCHEMATIC DETAILS ON DRAWINGS E15, E16, E17, E18



DRAWING NOTES

- 1) NOT USED.
- (2) PROVIDE LUMINAIRE TYPE AS INDICATED, MOUNT SUSPENDED AT APPROX 2400mm A.F.F. FROM EXPOSED BUILDING STRUCTURE (OWSJ) C/W AC90 WIRING FROM JB SYSTEM TO LUMINAIRE. COORDINATE EXACT LOCATION AND HEIGHT WITH INSTALLATION OF ALL OTHER BUILDING SYSTEMS. PROVIDE STEEL SUPPORT CHANNEL AND TRAPEZE HANGER ASSEMBLIES SECURED TO BUILDING STRUCTURE FOR MOUNTING. (TYPICAL).
- (3) PROVIDE LUMINAIRE TYPE AS INDICATED, SURFACE MOUNT IN WASHROOM GYPSUM BOARD CEILING VALANCE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. (TYPICAL)
- PROVIDE EXTERIOR TYPE LUMINAIRE AS INDICATED, FLUSH MOUNT IN NEW EXTERIOR CANOPY/SOFFIT. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHT. PROVIDE RECESSED OUTLET BOX, CONDUIT & WIRING SYSTEM, ROUTE BACK TO NEW EXTERIOR LIGHTING DIGITAL TIME CLOCK CONTROLLER IN ELECT. 105.
- (5) PROVIDE EXTERIOR TYPE WALL / FACADE MOUNTED LUMINAIRE AS INDICATED, REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHT. PROVIDE RECESSED OUTLET BOX, CONDUIT & WIRING SYSTEM, ROUTE BACK TO NEW EXTERIOR LIGHTING DIGITAL TIME CLOCK CONTROLLER IN ELECT. 105. (TYPICAL)
- (6) PROVIDE LIGHTING CONTROL SENSOR TYPE AS INDICATED, CORNER WALL MOUNTED AT 100mm BELOW FINISHED CEILING C/W CONCEALED RECESSED OUTLET BOX, CONDUIT & WIRING SYSTEMS. (TYPICAL)
- (7) PROVIDE LIGHTING CONTROL SENSOR TYPE AS INDICATED, CEILING MOUNTED C/W CONCEALED RECESSED OUTLET BOX, CONDUIT & WIRING SYSTEMS. (TYPICAL)

- 8 PROVIDE LIGHTING CONTROL SWITCH TYPE AS INDICATED, FLUSH WALL MOUNTED AT 1100mm A.F.F. C/W CONCEALED RECESSED OUTLET BOX, CONDUIT & WIRING SYSTEMS. (TYPICAL)
- 9 PROVIDE LOCAL REMOTE CEILING SPACE MOUNTED DIGITAL LIGHTING MANAGEMENT ROOM CONTROLLERS, EMERGENCY BYPASS RELAY CONTROLLERS C/W OUTLET BOXES, CONDUIT AND WIRING SYSTEMS. COORDINATE ACCESSIBLE LOCATION IN CEILING SPACE ON SITE WITH INSTALLATION OF ALL OTHER BUILDING SYSTEMS.
- (10) TO (13) NOT USED.
- 14 PROVIDE NEW INTERMATIC ASTRONOMIC DIGITAL TIME SWITCH MODEL ET8415CR WITH UP TO FOUR (4) PROGRAMMABLE SWITCHING CIRCUITS, OVER RIDE PUSH BUTTON, 100 HOUR SUPER CAPACITOR TO MAINTAIN PROGRAMMING IN POWER OUTAGE AND NEMA 3R ENCLOSURE. SURFACE WALL MOUNT IN ELECT. ROOM 105. CIRCUIT C1-1-8 OR C1-1X-14 AS INDICATED. WIRE AND CONNECT NEW EXTERIOR WALL MOUNTED LUMINAIRES AND/OR CANOPY LUMINAIRES TO TIME CLOCKS. PROGRAM TIME CLOCK TO ENERGIZE EXTERIOR LIGHTING AT DUSK AND DE-ENERGIZE LIGHTING AT PRESET TIME TO MEET ASHRAE 90.1 AND SB-10 LIGHTING STANDARDS WITH BUILDING OWNER.
- (15) PROVIDE NEW EXIT SIGN SURFACE MOUNTED ABOVE DOOR. ROUTE NEW CONDUIT AND WIRING THROUGH MULLION FRAME TO SIGN. COORDINATE EXACT LOCATION ON SITE. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION FOR GLAZING WALL



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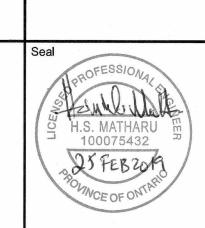
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Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1



BUILDING #046 RENOVATIONS

Drawing Title

LIGHTING LAYOUT WING C

Project No. 504034

UNIVERSITY OF GUELPH BUILDING #046

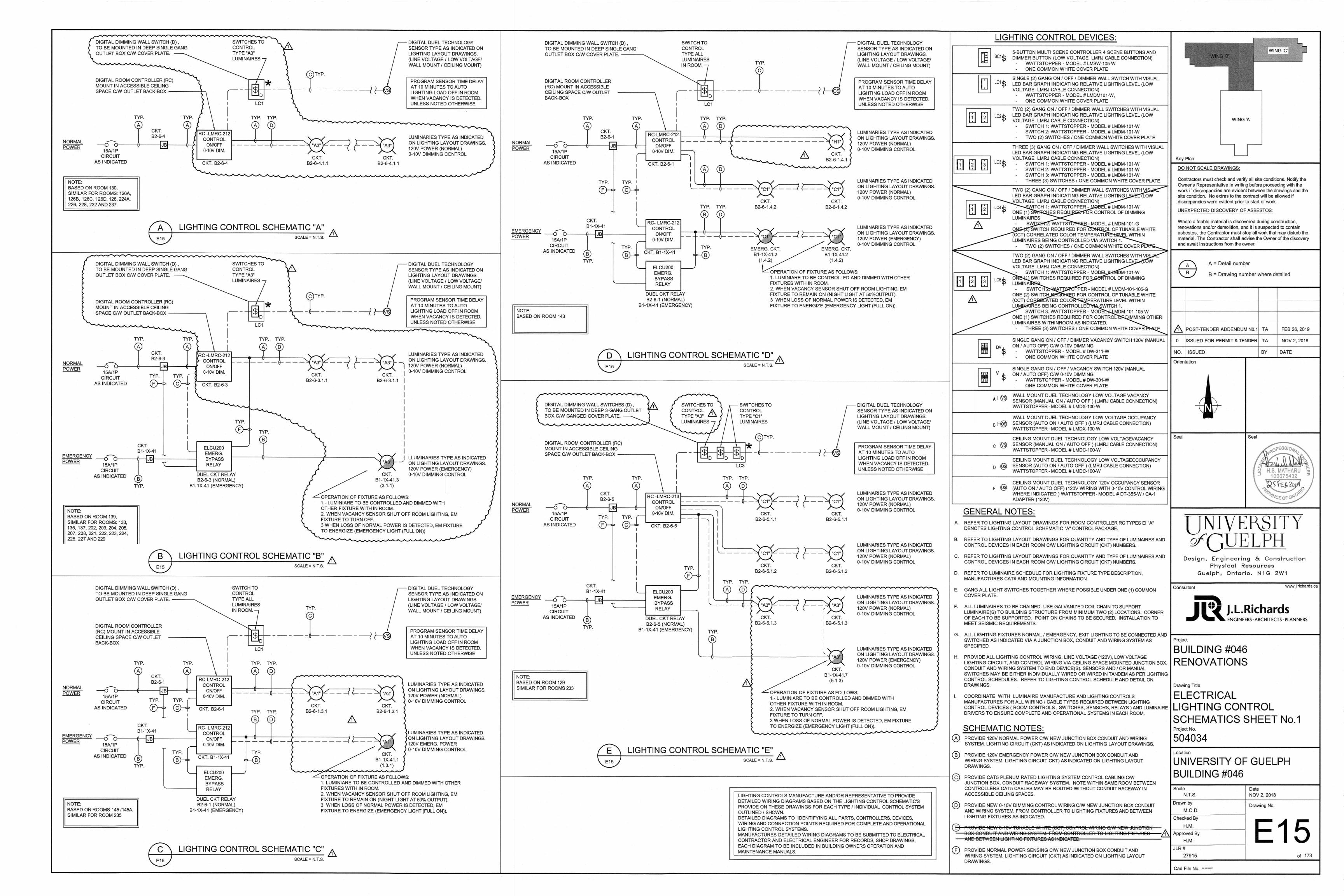
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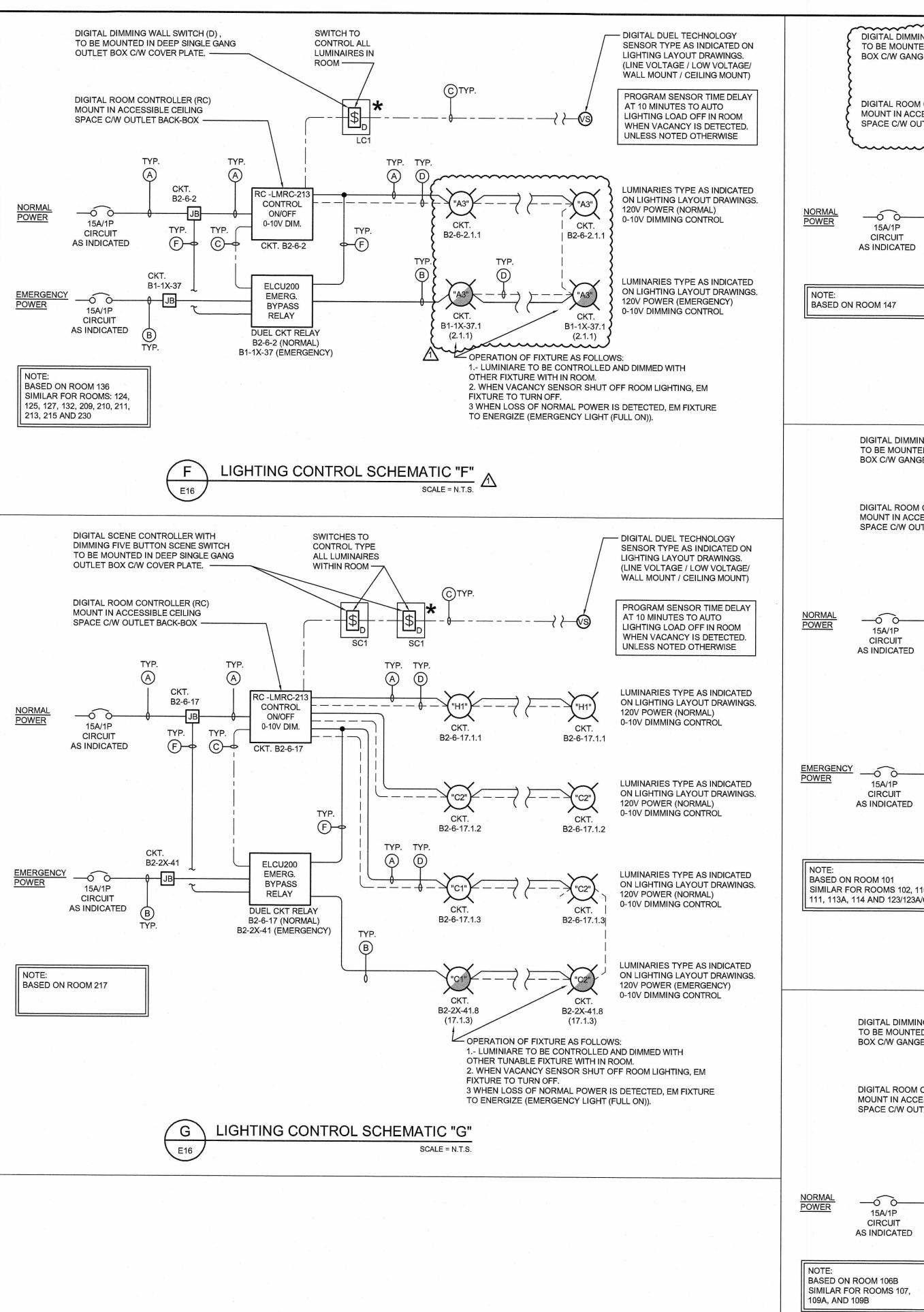
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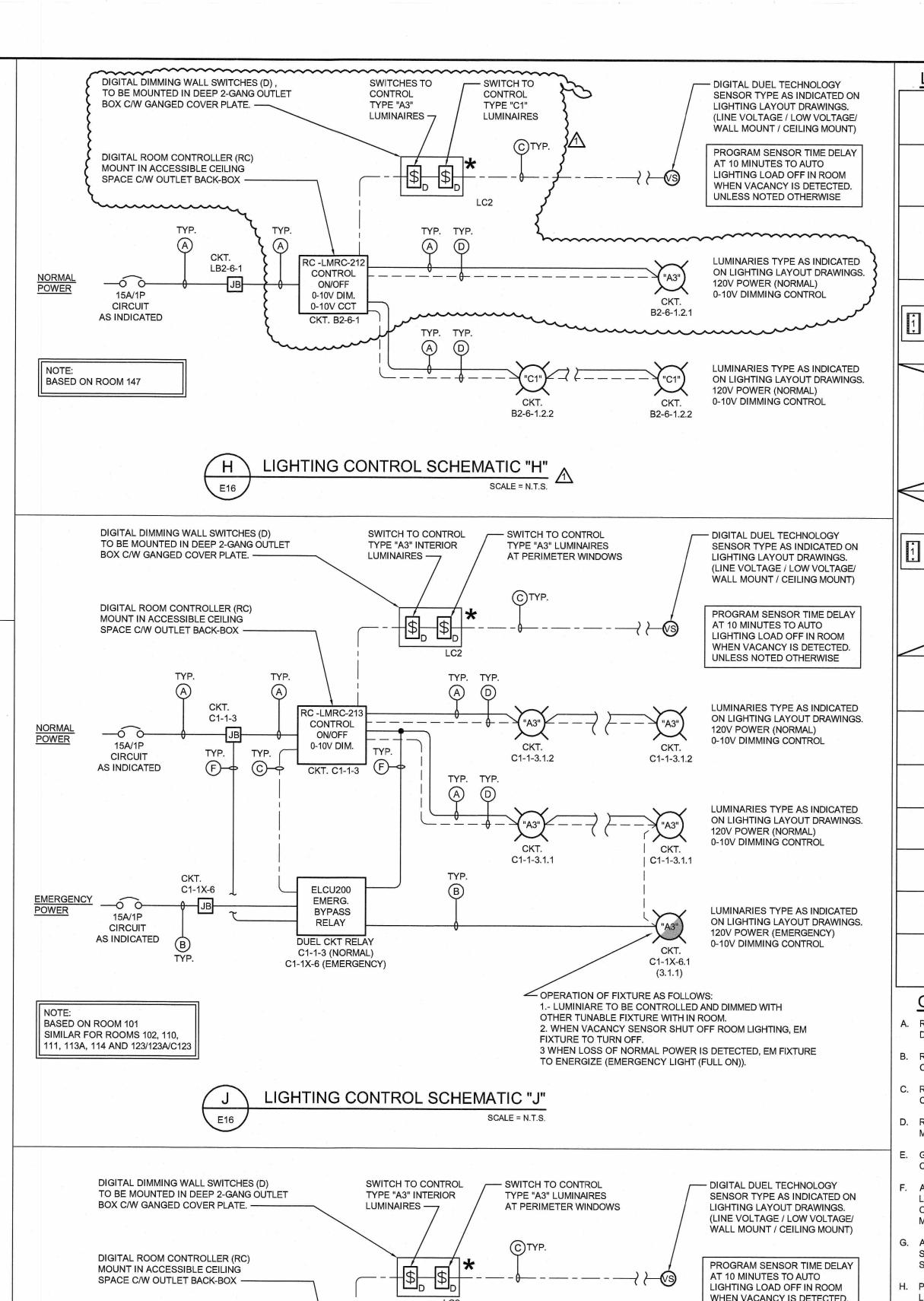
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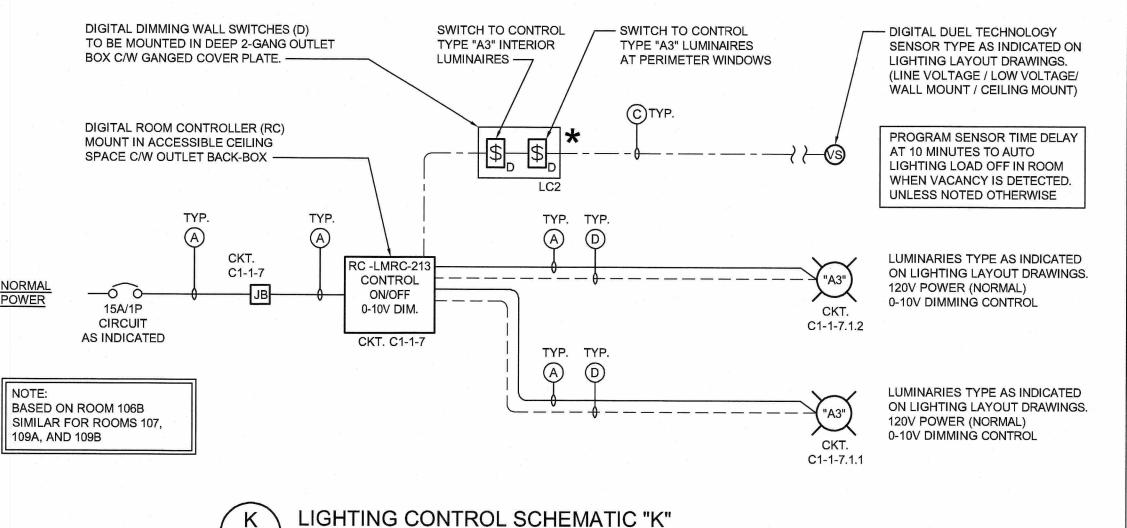
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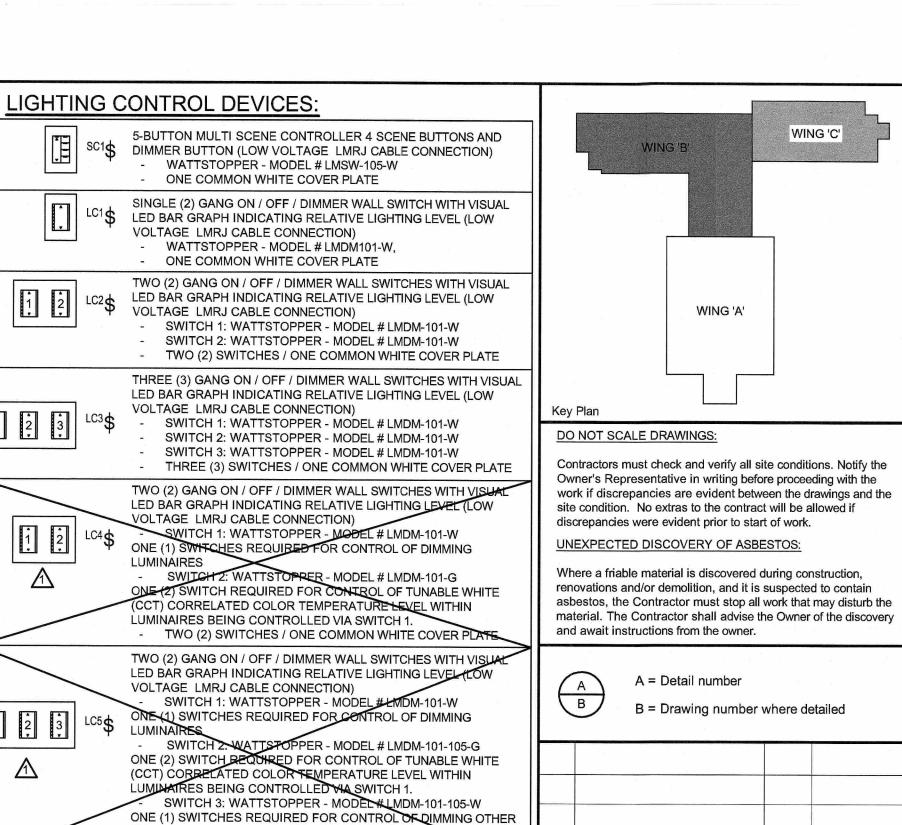


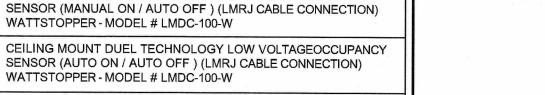


LIGHTING CONTROLS MANUFACTURE AND/OR REPRESENTATIVE TO PROVIDE
DETAILED WIRING DIAGRAMS BASED ON THE LIGHTING CONTROL SCHEMATIC'S
PROVIDE ON THESE DRAWINGS FOR EACH TYPE / INDIVIDUAL CONTROL SYSTEM
OUTLINED / SHOWN.
DETAILED DIAGRAMS TO IDENTIFYING ALL PARTS, CONTROLLERS, DEVICES,
WIRING AND CONNECTION POINTS REQUIRED FOR COMPLETE AND OPERATIONAL
LIGHTING CONTROL SYSTEMS.
MANUFACTURES DETAILED WIRING DIAGRAMS TO BE SUBMITTED TO ELECTRICAL
CONTRACTOR AND ELECTRICAL ENGINEER FOR RECORDS, SHOP DRAWINGS,
EACH DIAGRAM TO BE INCLUDED IN BUILDING OWNERS OPERATION AND
MAINTENANCE MANUALS.









CEILING MOUNT DUEL TECHNOLOGY 120V OCCUPANCY SENSOR
(AUTO ON / AUTO OFF) (120V WIRING WITH 0-10V CONTROL WIRING WHERE INDICATED) WATTSTOPPER - MODEL # DT-355-W / CA-1 ADAPTER (120V)

GENERAL NOTES:

- A. REFER TO LIGHTING LAYOUT DRAWINGS FOR ROOM CONTROLLER RC TYPES EI "A" DENOTES LIGHTING CONTROL SCHEMATIC "A" CONTROL PACKAGE.
- B. REFER TO LIGHTING LAYOUT DRAWINGS FOR QUANTITY AND TYPE OF LUMINAIRES AND CONTROL DEVICES IN EACH ROOM C/W LIGHTING CIRCUIT (CKT) NUMBERS.

LUMINAIRES WITHINROOM AS INDICATED.

WATTSTOPPER - MODEL # DW-311-W

WATTSTOPPER - MODEL # DW-301-W

ONE COMMON WHITE COVER PLATE

ONE COMMON WHITE COVER PLATE

ON / AUTO OFF) C/W 0-10V DIMMING

ON / AUTO OFF) C/W 0-10V DIMMING

WATTSTOPPER - MODEL # LMDX-100-W

WATTSTOPPER - MODEL # LMDX-100-W

- THREE (3) SWITCHES / ONE COMMON WHITE COVER PLATE

SINGLE GANG ON / OFF / DIMMER VACANCY SWITCH 120V (MANUAL

SINGLE GANG ON / OFF / VACANCY SWITCH 120V (MANUAL

WALL MOUNT DUEL TECHNOLOGY LOW VOLTAGE VACANCY

SENSOR (MANUAL ON / AUTO OFF) (LMRJ CABLE CONNECTION)

WALL MOUNT DUEL TECHNOLOGY LOW VOLTAGE OCCUPANCY

CEILING MOUNT DUEL TECHNOLOGY LOW VOLTAGEVACANCY

SENSOR (AUTO ON / AUTO OFF) (LMRJ CABLE CONNECTION)

- C. REFER TO LIGHTING LAYOUT DRAWINGS FOR QUANTITY AND TYPE OF LUMINAIRES AND
- CONTROL DEVICES IN EACH ROOM C/W LIGHTING CIRCUIT (CKT) NUMBERS.
- REFER TO LUMINAIRE SCHEDULE FOR LIGHTING FIXTURE TYPE DESCRIPTION, MANUFACTURES CAT# AND MOUNTING INFORMATION.
- GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE UNDER ONE (1) COMMON
- F. ALL LUMINAIRES TO BE CHAINED. USE GALVANIZED COIL CHAIN TO SUPPORT LUMINAIRE(S) TO BUILDING STRUCTURE FROM MINIMUM TWO (2) LOCATIONS. CORNER OF EACH TO BE SUPPORTED. POINT ON CHAINS TO BE SECURED. INSTALLATION TO MEET SEISMIC REQUIREMENTS.
- 3. ALL LIGHTING FIXTURES NORMAL / EMERGENCY, EXIT LIGHTING TO BE CONNECTED AND SWITCHED AS INDICATED VIA A JUNCTION BOX, CONDUIT AND WIRING SYSTEM AS SPECIFIED.
- PROVIDE ALL LIGHTING CONTROL WIRING, LINE VOLTAGE (120V), LOW VOLTAGE
 LIGHTING CIRCUIT, AND CONTROL WIRING VIA CEILING SPACE MOUNTED JUNCTION BOX,
 CONDUIT AND WIRING SYSTEM TO END DEVICE(S). SENSORS AND / OR MANUAL
 SWITCHES MAY BE EITHER INDIVIDUALLY WIRED OR WIRED IN TANDEM AS PER LIGHTING
 CONTROL SCHEDULES. REFER TO LIGHTING CONTROL SCHEDULE AND DETAIL ON
- COORDINATE WITH LUMINAIRE MANUFACTURE AND LIGHTING CONTROLS

 MANUFACTURES FOR ALL WIRING / CABLE TYPES REQUIRED BETWEEN LIGHTING

 CONTROL DEVICES (ROOM CONTROLS , SWITCHES, SENSORS, RELAYS) AND LUMINAIRE

 DRIVERS TO ENSURE COMPLETE AND OPERATIONAL SYSTEMS IN EACH ROOM.

SCHEMATIC NOTES:

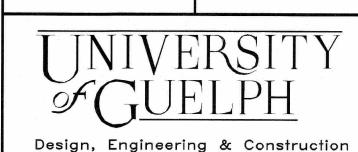
- A PROVIDE 120V NORMAL POWER C/W NEW JUNCTION BOX CONDUIT AND WIRING SYSTEM. LIGHTING CIRCUIT (CKT) AS INDICATED ON LIGHTING LAYOUT DRAWINGS.
- B PROVIDE 120V EMERGENCY POWER C/W NEW JUNCTION BOX CONDUIT AND WIRING SYSTEM. LIGHTING CIRCUIT CKT) AS INDICATED ON LIGHTING LAYOUT DRAWINGS.
- PROVIDE CAT5 PLENUM RATED LIGHTING SYSTEM CONTROL CABLING C/W
 JUNCTION BOX, CONDUIT RACEWAY SYSTEM. NOTE WITHIN SAME ROOM BETWEEN
 CONTROLLERS CAT5 CABLES MAY BE ROUTED WITHOUT CONDUIT RACEWAY IN
- ACCESSIBLE CEILING SPACES.

 PROVIDE NEW 0-10V DIMMING CONTROL WIRING C/W NEW JUNCTION BOX CONDUIT
- AND WIRING SYSTEM. FROM CONTROLLER TO LIGHTING FIXTURES AND BETWEEN LIGHTING FIXTURES AS INDICATED.

 E) PROVIDE NEW 0-10V TUNABLE WHITE (CCT) CONTROL WIRING C/W NEW JUNCTION

F PROVIDE NORMAL POWER SENSING C/W NEW JUNCTION BOX CONDUIT AND WIRING SYSTEM. LIGHTING CIRCUIT (CKT) AS INDICATED ON LIGHTING LAYOUT

- AND BETWEEN LIGHTING FIXTURES AS INDICATED.



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Physical Resources
Guelph, Ontario. N1G 2W1

J.L.Richards

ENGINEERS ARCHITECTS PLANNERS

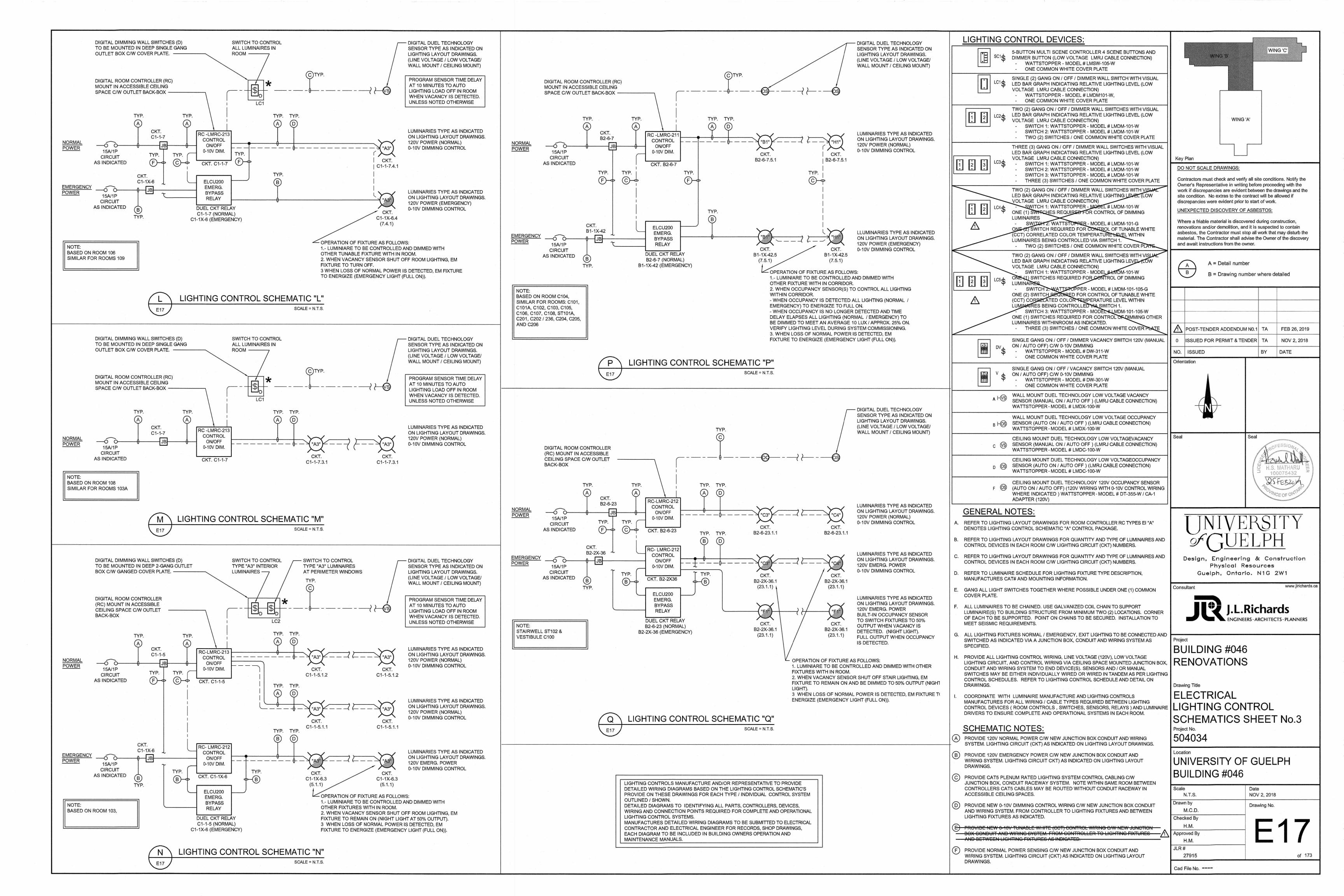
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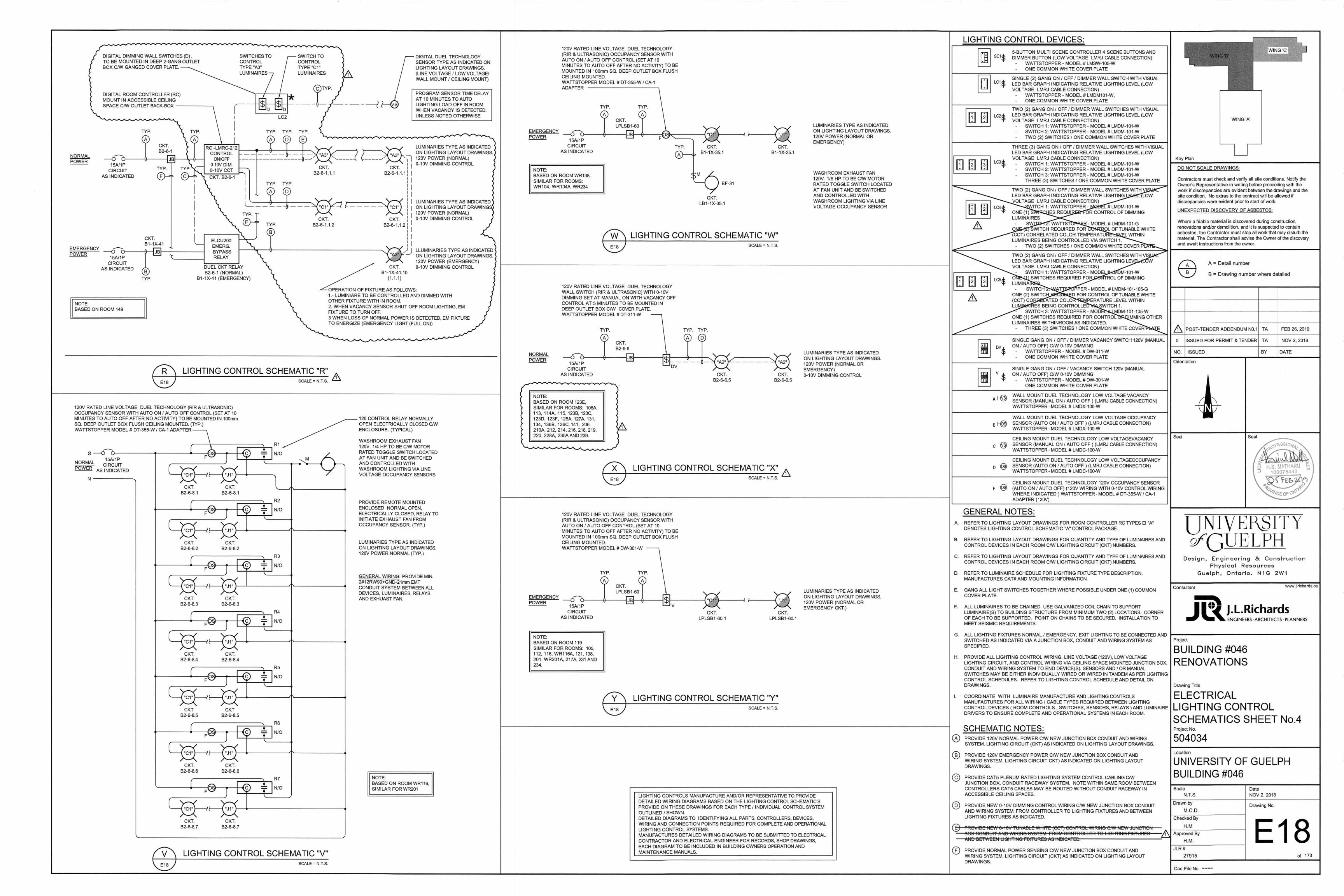
ELECTRICAL
LIGHTING CONTROL
SCHEMATICS SHEET No.2
Project No.
504034

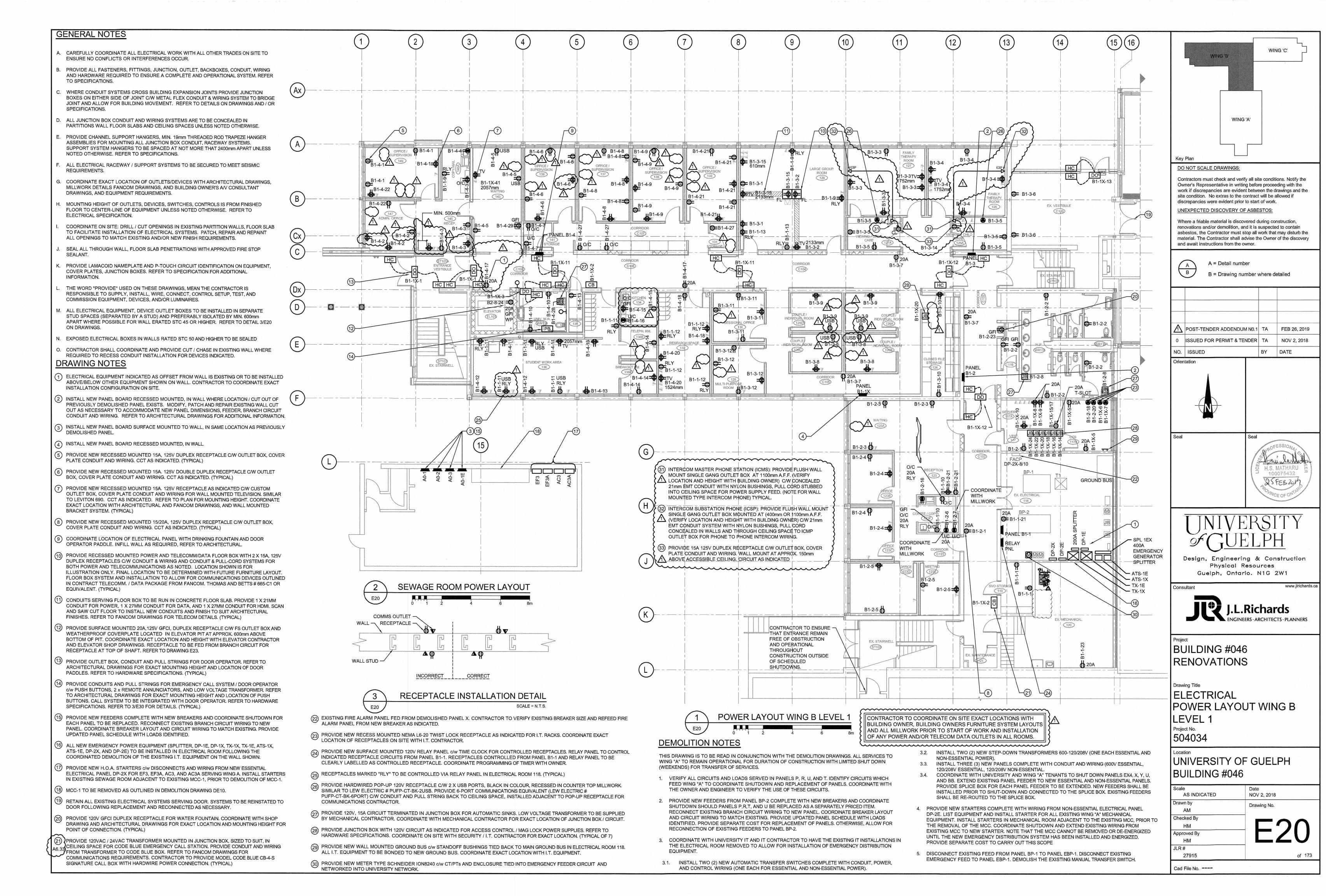
UNIVERSITY OF GUELPH BUILDING #046

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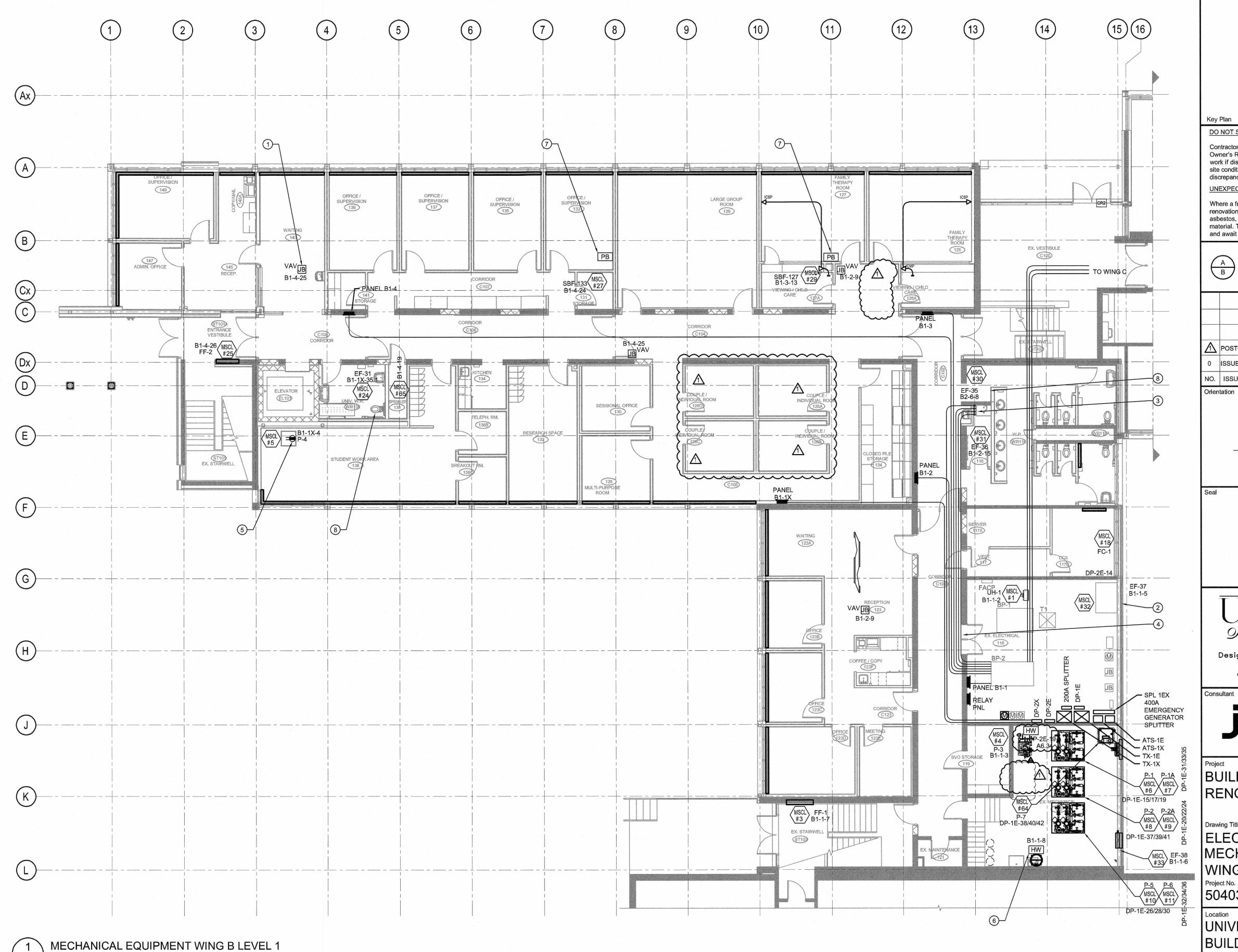


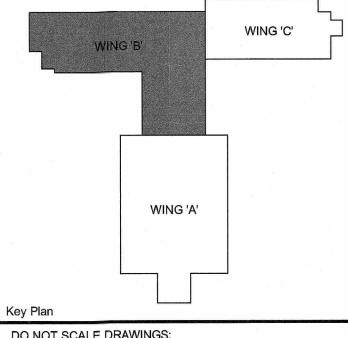
GENERAL NOTES:

- A. COORDINATE WIRING TO MECHANICAL EQUIPMENT AS PER MOTOR STARTER AND CONTROL LIST REQUIREMENTS ON DRAWING E31.
- B. COORDINATE WITH MECHANICAL EQUIPMENT PROVIDER TO TEST AND COMMISSION EQUIPMENT.

DRAWING NOTES

- 1 PROVIDE DEDICATED 120V CIRCUIT INSTALLED IN CEILING MOUNTED JUNCTION BOX FOR POWER TO MECHANICAL VAV BOXES. CIRCUIT AS INDICATED. MECHANICAL CONTRACTOR TO SUPPLY TRANSFORMER AND LOW VOLTAGE WIRING. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL CONTRACTOR. (TYPICAL OF 4)
- PROVIDE HARDWIRED CONNECTION TO MECHANICAL EQUIPMENT. CIRCUIT AS INDICATED. REFER TO DRAWING E31 FOR DETAILS. (TYPICAL)
- (3) CONDUITS FEEDING PANELS LOCATED ON SECOND FLOOR TO BE RUN VERTICALLY THROUGH NEW ELECTRICAL CHASE.
- (4) REFER TO SINGLE LINE DIAGRAM E02 FOR FEEDER DETAILS. CONDUITS TO BE RUN FROM EXISTING PANEL BP-2 TO RESPECTIVE PANELS THROUGH MAIN CORRIDOR C103 CEILING SPACE. COORDINATE CONDUIT INSTALLATION ON SITE WITH MECHANICAL CONTRACTOR / DUCT WORK.
- 5 COORDINATE INSTALLATION OF RECEPTACLE FOR SUMP PUMP WITH MECHANICAL CONTRACTOR.
- 6 PROVIDE HARDWIRED CONNECTION TO GLYCOL FILLING STATION. COORDINATE WITH MECHANICAL CONTRACTOR.
- (7) PROVIDE FLUSH MOUNTED PUSH BUTTON FOR SUPPLY / PURGE FANS. PUSH BUTTON TO BE TIED INTO BAS SYSTEM FOR FAN OPERATION. REFER TO DRAWING E31 AND MECHANICAL DRAWINGS FOR DETAILS. COORDINATE ON SITE WITH MECHANICAL CONTRACTOR AND OWNER FOR EXACT LOCATION. (TYPICAL OF 2)
- 8 WASHROOM EXHAUST FANS TO BE TIED INTO LIGHTING OCCUPANCY SENSOR CIRCUIT. REFER TO LIGHTING CONTROL SCHEMATICS. (TYPICAL OF 2)





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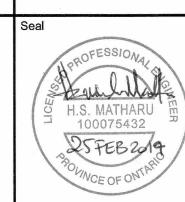
Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

A = Detail number

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POST-TENDER ADDENDUM NO.1 TA FEB 26, 2019 0 ISSUED FOR PERMIT & TENDER TA NOV 2, 2018 NO. ISSUED BY DATE

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Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

J.L.Richards

BUILDING #046 **RENOVATIONS**

ELECTRICAL MECHANICAL EQUIPMENT WING B LEVEL 1 504034

UNIVERSITY OF GUELPH BUILDING #046

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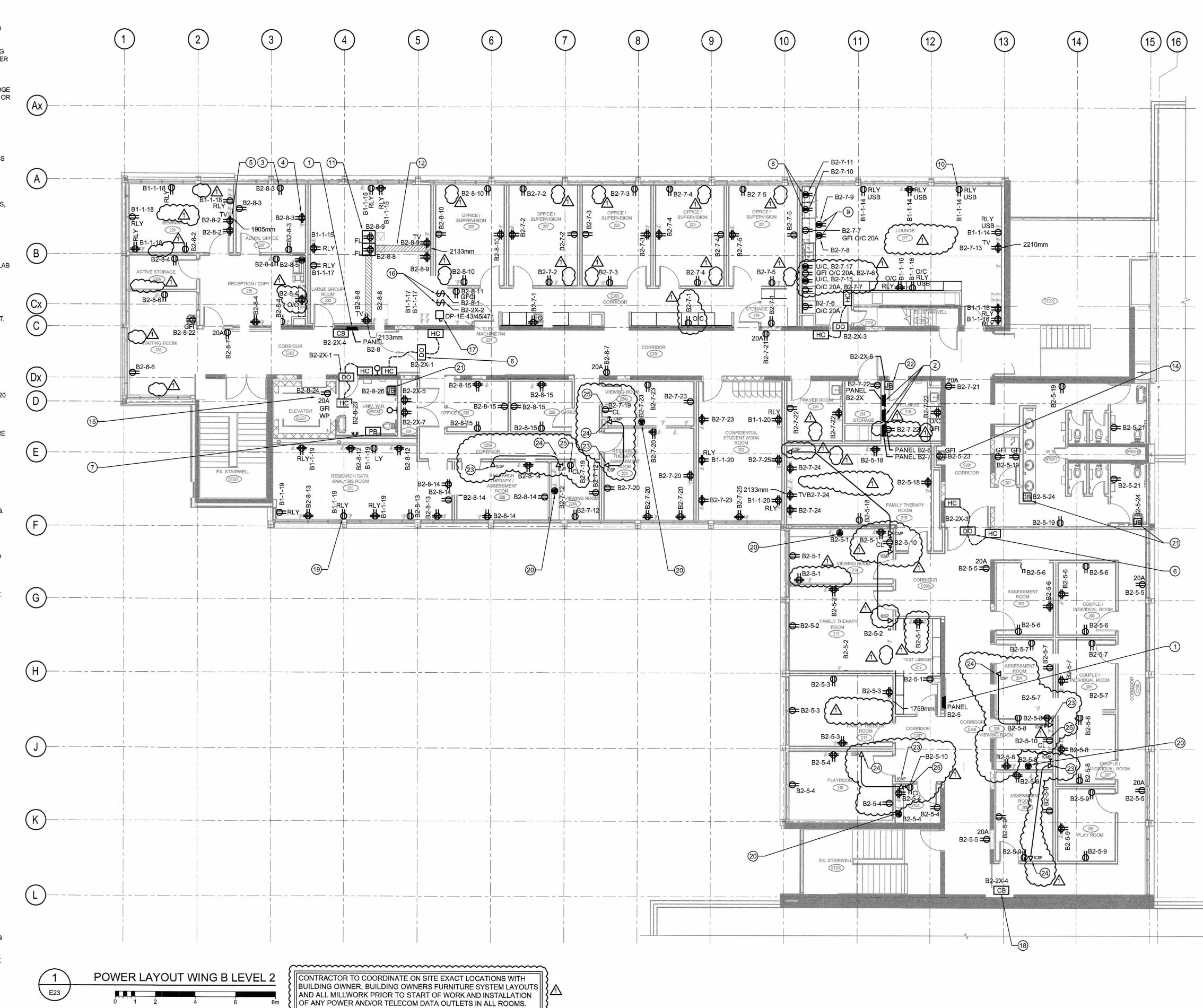
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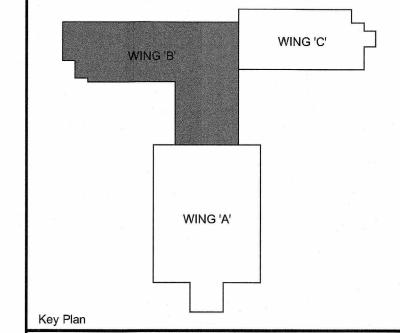
GENERAL NOTES

- A. CAREFULLY COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES ON SITE TO ENSURE NO CONFLICTS OR INTERFERENCES OCCUR.
- PROVIDE ALL FASTENERS, FITTINGS, JUNCTION, OUTLET, BACKBOXES, CONDUIT, WIRING AND HARDWARE REQUIRED TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM. REFER
- C. WHERE CONDUIT SYSTEMS CROSS BUILDING EXPANSION JOINTS PROVIDE JUNCTION BOXES ON EITHER SIDE OF JOINT C/W METAL FLEX CONDUIT & WIRING SYSTEM TO BRIDGE JOINT AND ALLOW FOR BUILDING MOVEMENT. REFER TO DETAILS ON DRAWINGS AND / OR
- D. ALL JUNCTION BOX CONDUIT AND WIRING SYSTEMS ARE TO BE CONCEALED IN PARTITIONS WALL FLOOR SLABS AND CEILING SPACES UNLESS NOTED OTHERWISE.
- PROVIDE CHANNEL SUPPORT HANGERS, MIN. 19mm THREADED ROD TRAPEZE HANGER ASSEMBLIES FOR MOUNTING ALL JUNCTION BOX CONDUIT, RACEWAY SYSTEMS. SUPPORT SYSTEM HANGERS TO BE SPACED AT NOT MORE THAT 2400mm APART UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS.
- F. ALL ELECTRICAL RACEWAY / SUPPORT SYSTEMS TO BE SECURED TO MEET SEISMIC REQUIREMENTS.
- G. COORDINATE EXACT LOCATION OF OUTLETS/DEVICES WITH ARCHITECTURAL DRAWINGS, MILLWORK DETAILS FANCOM DRAWINGS, AND BUILDING OWNER'S AV CONSULTANT DRAWINGS, AND EQUIPMENT REQUIREMENTS.
- MOUNTING HEIGHT OF OUTLETS, DEVICES, SWITCHES, CONTROLS IS FROM FINISHED FLOOR TO CENTER-LINE OF EQUIPMENT UNLESS NOTED OTHERWISE. REFER TO ELECTRICAL SPECIFICATION.
- COORDINATE ON SITE: DRILL / CUT OPENINGS IN EXISTING PARTITION WALLS, FLOOR SLAB TO FACILITATE INSTALLATION OF ELECTRICAL SYSTEMS. PATCH, REPAIR AND REPAINT ALL OPENINGS TO MATCH EXISTING AND/OR NEW FINISH REQUIREMENTS.
- J. SEAL ALL THROUGH WALL, FLOOR SLAB PENETRATIONS WITH APPROVED FIRE STOP SEALANT.
- K. PROVIDE LAMACOID NAMEPLATE AND P-TOUCH CIRCUIT IDENTIFICATION ON EQUIPMENT, COVER PLATES, JUNCTION BOXES. REFER TO SPECIFICATION FOR ADDITIONAL
- THE WORD "PROVIDE" USED ON THESE DRAWINGS, MEAN THE CONTRACTOR IS RESPONSIBLE TO SUPPLY, INSTALL, WIRE, CONNECT, CONTROL SETUP, TEST, AND COMMISSION EQUIPMENT, DEVICES, AND/OR LUMINAIRES.
- M. ALL ELECTRICAL EQUIPMENT, DEVICE OUTLET BOXES TO BE INSTALLED IN SEPARATE STUD SPACES (SEPARATED BY A STUD) AND PREFERABLY ISOLATED BY MIN. 600mm APART WHERE POSSIBLE FOR WALL ERATED STC 45 OR HIGHER. REFER TO DETAIL 3/E20 ON DRAWINGS.
- N. EXPOSED ELECTRICAL BOXES IN WALLS RATED STC 50 AND HIGHER TO BE SEALED
- O. CONTRACTOR SHALL COORDINATE AND PROVIDE CUT / CHASE IN EXISTING WALL WHERE REQUIRED TO RECESS CONDUIT INSTALLATION FOR DEVICES INDICATED.

DRAWING NOTES

- (1) NEW ELECTRICAL PANEL TO BE INSTALLED RECESSED IN WALL WHERE LOCATION / CUT OUT OF PREVIOUSLY DEMOLISHED PANEL EXISTS. EXTEND / PATCH EXISTING WALL CUT OUT AS NECESSARY TO ACCOMMODATE NEW PANEL DIMENSIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.
- (2) EXISTING WALL SHALL BE CUT OPEN TO INSTALL NEW PANEL AND CONDUITS TO CEILING. REINSTATE TO MEET ARCHITECTURAL FINISHES.
- PROVIDE NEW RECESS MOUNTED 120V DUPLEX RECEPTACLE c/w CONDUIT AND WIRING AS INDICATED. (TYPICAL)
- PROVIDE NEW RECESS MOUNTED 120V DOUBLE DUPLEX RECEPTACLE c/w CONDUIT AND WIRING AS INDICATED. (TYPICAL)
- PROVIDE NEW RECESSED MOUNTED 15A, 125V RECEPTACLE AS INDICATED c/w CUSTON OUTLET BOX, COVER PLATE CONDUIT AND WIRING FOR WALL MOUNTED TELEVISION. SIMILAR TO LEVITON 690. CCT AS INDICATED. REFER TO PLANS FOR MOUNTING HEIGHT. COORDINATE EXACT LOCATION WITH ARCHITECTURAL AND FANCOM DRAWINGS, AND WALL MOUNTED BRACKET SYSTEM. (TYPICAL)
- 6 PROVIDE OUTLET BOX, CONDUIT AND PULL STRINGS FOR DOOR OPERATOR. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT AND LOCATION OF DOOR PADDLES. REFER TO HARDWARE SPECIFICATIONS. (TYPICAL)
- PROVIDE CONDUITS AND PULL STRINGS FOR EMERGENCY CALL SYSTEM / DOOR OPERATOR c/w PUSH BUTTONS, 2 x REMOTE ANNUNCIATORS, AND LOW VOLTAGE TRANSFORMER. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT AND LOCATION OF PUSH BUTTONS. CALL SYSTEM TO BE INTEGRATED WITH DOOR OPERATOR. REFER TO HARDWARE SPECIFICATIONS. REFER TO 3/E30 FOR DETAILS.
- (8) PROVIDE DEDICATED 120V DUPLEX RECEPTACLE FOR REFRIGERATOR MOUNTED AT 1200mm A.F.F.
- (9) PROVIDE DEDICATED 120V DUPLEX RECEPTACLE FOR MICROWAVE. RECEPTACLES TO BE MOUNTED UNDER COUNTER IN MILLWORK. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS.
- PROVIDE 120V DUPLEX RECEPTACLE c/w 2 x INTEGRAL USB CHARGING PORTS SIMILAR TO LEVITON T5632. (TYPICAL)
- (11) PROVIDE RECESSED MOUNTED FIRE RATED POKE-THROUGH POWER AND TELECOMM/DATA FLOOR BOX WITH 2 X 15A, 125V DUPLEX RECEPTACLES C/W CONDUIT & WIRING AND CONDUIT & PULL-CORD SYSTEMS FOR BOTH POWER AND TELECOMMUNICATIONS AS NOTED. CONTRACTOR TO SCAN AND CORE THROUGH CONCRETE FLOOR SLAB FOR FLOOR BOX INSTALLATION. FLOOR BOX SYSTEM AND INSTALLATION TO ALLOW FOR COMMUNICATIONS DEVICES OUTLINED IN CONTRACT TELECOMM. / DATA PACKAGE FROM FANCOM. THOMAS AND BETTS RPT6 SERIES OR EQUIVALENT. (TYPICAL)
- CONDUITS SERVING FLOOR BOX TO BE RUN IN UNDER CONCRETE FLOOR SLAB IN CEILING SPACE OF FIRST FLOOR. TERMINATE CONDUITS IN FIRE RATED POKE-THROUGH FLOOR BOX. PROVIDE 1 x 21mm CONDUIT FOR POWER, 1 x 21mm CONDUIT FOR DATA, AND 1 x 27mm CONDUIT FOR HDMI. REFER TO FANCOM DRAWINGS FOR TELECOM DETAILS. (TYPICAL)
- 13 NOT USED
- PROVIDE 120V GFCI DUPLEX RECEPTACLE FOR WATER FOUNTAIN. COORDINATE WITH SHOP DRAWING AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHT FOR POINT OF CONNECTION. (TYPICAL)
- PROVIDE SURFACE MOUNTED 20A,120V GFCI, DUPLEX RECEPTACLE C/W FS OUTLET BOX AND WEATHERPROOF COVERPLATE LOCATED AT TOP OF ELEVATOR SHAFT. COORDINATE EXACT LOCATION AND HEIGHT WITH ELEVATOR CONTRACTOR AND ELEVATOR SHOP DRAWINGS.
- 16 PROVIDE 2 x 120V, 15A MOTOR RATED LOCKABLE TOGGLE SWITCHES. 1 x TOGGLE SWITCH FOR ELEVATOR CAB GFCI RECEPTACLE, AND 1 x TOGGLE SWITCH FOR ELEVATOR CAB LIGHTING AND VENTILATION. COORDINATE FEEDERS WITH ELEVATOR SHOP DRAWINGS AND ELEVATOR CONTRACTOR.
- PROVIDE 600V, 3P DISCONNECT c/w AUX CONTACTS FOR ELEVATOR CONTROL PANEL. COORDINATE REQUIREMENTS AND SIZE OF DISCONNECT WITH ELEVATOR SHOP DRAWINGS.
- (18) PROVIDE 120VAC / 24VAC TRANSFORMER MOUNTED IN JUNCTION BOX, SIZED TO SUIT, IN A6.35 CEILING SPACE FOR CODE BLUE EMERGENCY CALL STATION. PROVIDE CONDUIT AND WIRING FROM TRANSFORMER TO CODE BLUE BOX. REFER TO FANCOM DRAWINGS FOR COMMUNICATIONS REQUIREMENTS. CONTRACTOR TO PROVIDE MODEL CODE BLUE CB-4-S SIGNATURE CALL BOX WITH HARDWIRE POWER CONNECTION. (TYPICAL)
- (19) RECEPTACLES MARKED "RLY" TO BE CONTROLLED VIA RELAY PANEL IN ELECTRICAL ROOM 118. (TYPICAL)





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BUILDING #046 RENOVATIONS

ELECTRICAL POWER LAYOUT WING B LEVEL 2 504034

UNIVERSITY OF GUELPH BUILDING #046

Date NOV 2, 2018
Drawing No.
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PROVIDE HARDWIRED POP-UP 120V RECEPTACLE C/W 2 X USB PORTS, BLACK IN COLOUR, RECESSED IN COUNTER TOP MILLWORK. SIMILAR TO LEW ELECTRIC # PUFP-CT-BK-2USB. PROVIDE 6-PORT COMMUNICATIONS EQUIVALENT (LEW ELECTRIC # PUFP-CT-BK-6PORT) C/W CONDUIT AND PULL STRING BACK TO CEILING SPACE, INSTALLED ADJACENT TO POP-UP RECEPTACLE FOR

- PROVIDE 120V, 15A CIRCUIT TERMINATED IN JUNCTION BOX IN CEILING SPACE FOR AUTOMATIC SINKS. LOW VOLTAGE TRANSFORMER TO BE SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF JUNCTION BOX / CIRCUIT.
- (22) PROVIDE JUNCTION BOX WITH 120V CIRCUIT AS INDICATED FOR ACCESS CONTROL / MAG LOCK POWER SUPPLIES. REFER TO HARDWARE SPECIFICATIONS. COORDINATE ON SITE WITH SECURITY / I.T. CONTRACTOR FOR EXACT LOCATION.

COMMUNICATIONS CONTRACTOR.

(23) INTERCOM MASTER PHONE STATION (ICMS): PROVIDE FLUSH WALL MOUNT SINGLE GANG OUTLET BOX AT 1100mm A.F.F. (VERIFY LOCATION AND HEIGHT WITH BUILDING OWNER) C/W CONCEALED 21mm EMT CONDUIT WITH NYLON BUSHINGS, PULL CORD STUBBED INTO CEILING SPACE FOR POWER SUPPLY FEED. (NOTE FOR WALL MOUNTED TYPE INTERCOM PHONE) TYPICAL.

(25) PROVIDE 15A 125V DUPLEX RECEPTACLE C/W OUTLET BOX, COVER

ABOVE ACCESSIBLE CEILING. CIRCUIT AS INDICATED

PLATE CONDUIT AND WIRING. WALL MOUNT AT APPROX. 150mm

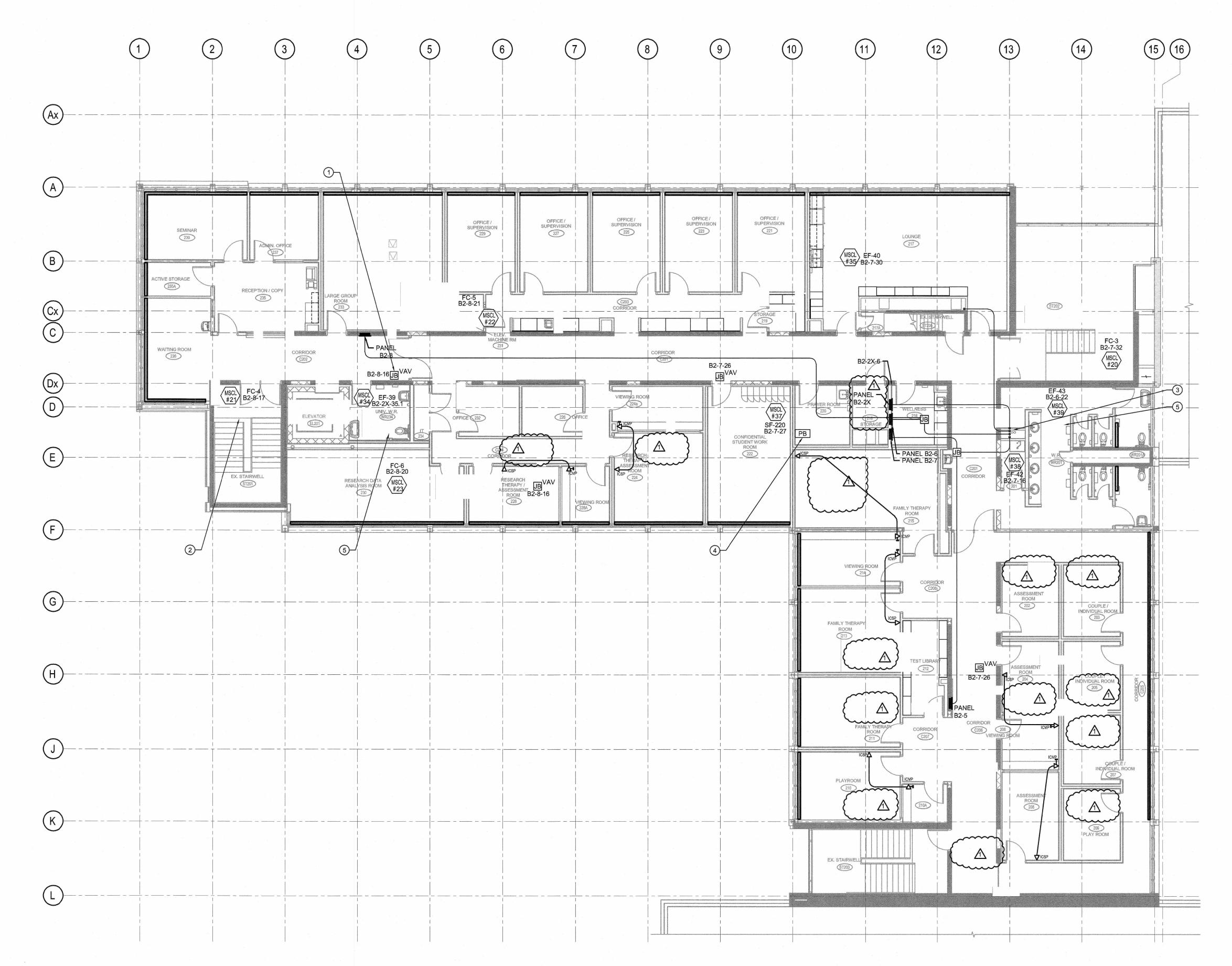
(24) INTERCOM SUBSTATION PHONE (ICSP): PROVIDE FLUSH WALL MOUNT SINGLE GANG OUTLET BOX MOUNTED AT (400mm OR 1100mm A.F.F. (VERIFY LOCATION AND HEIGHT WITH BUILDING OWNER) C/W 21mm EMT CONDUIT SYSTEM WITH NYLON BUSHINGS, PULL CORD CONCEALED IN WALLS AND THROUGH CEILING SPACE TO ICMP OUTLET BOX FOR PHONE TO PHONE INTERCOM WIRING.



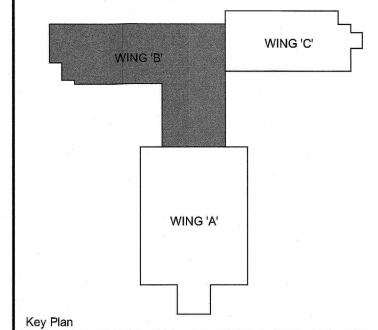
- A. COORDINATE WIRING TO MECHANICAL EQUIPMENT AS PER MOTOR STARTER AND CONTROL LIST REQUIREMENTS ON DRAWING E31.
- B. COORDINATE WITH MECHANICAL EQUIPMENT PROVIDER TO TEST AND COMMISSION EQUIPMENT.

DRAWING NOTES

- PROVIDE DEDICATED 120V CIRCUIT INSTALLED IN CEILING MOUNTED JUNCTION BOX FOR POWER TO MECHANICAL VAV BOXES. CIRCUIT AS INDICATED. MECHANICAL CONTRACTOR TO SUPPLY TRANSFORMER AND LOW VOLTAGE WIRING. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL CONTRACTOR. (TYPICAL OF 4)
- (2) PROVIDE HARDWIRED CONNECTION TO MECHANICAL EQUIPMENT. CIRCUIT AS INDICATED. REFER TO DRAWING E31 FOR DETAILS. (TYPICAL)
- (3) REFER TO SINGLE LINE DIAGRAM E02 FOR FEEDER DETAILS. CONDUITS TO BE RUN FROM EXISTING PANEL BP-2 TO RESPECTIVE PANELS THROUGH MAIN CORRIDOR CEILING SPACE. COORDINATE CONDUIT INSTALLATION ON SITE WITH MECHANICAL CONTRACTOR / DUCT WORK.
- PROVIDE FLUSH MOUNTED PUSH BUTTON FOR SUPPLY / PURGE FANS. PUSH BUTTON TO BE TIED INTO BAS SYSTEM FOR FAN OPERATION. REFER TO DRAWING E31 AND MECHANICAL DRAWINGS FOR DETAILS. COORDINATE ON SITE WITH MECHANICAL CONTRACTOR AND OWNER FOR EXACT LOCATION. (TYPICAL OF 2)
- (5) WASHROOM EXHAUST FANS TO BE TIED INTO LIGHTING OCCUPANCY SENSOR CIRCUIT. REFER TO LIGHTING CONTROL SCHEMATICS. (TYPICAL OF 2)







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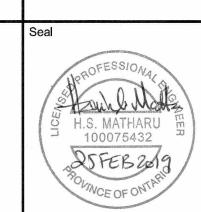
and await instructions from the owner.

B = Drawing number where detailed

POST-TENDER ADDENDUM N0.1 TA FEB 26, 2019 0 ISSUED FOR PERMIT & TENDER TA NOV 2, 2018 NO. ISSUED BY DATE

Orientation





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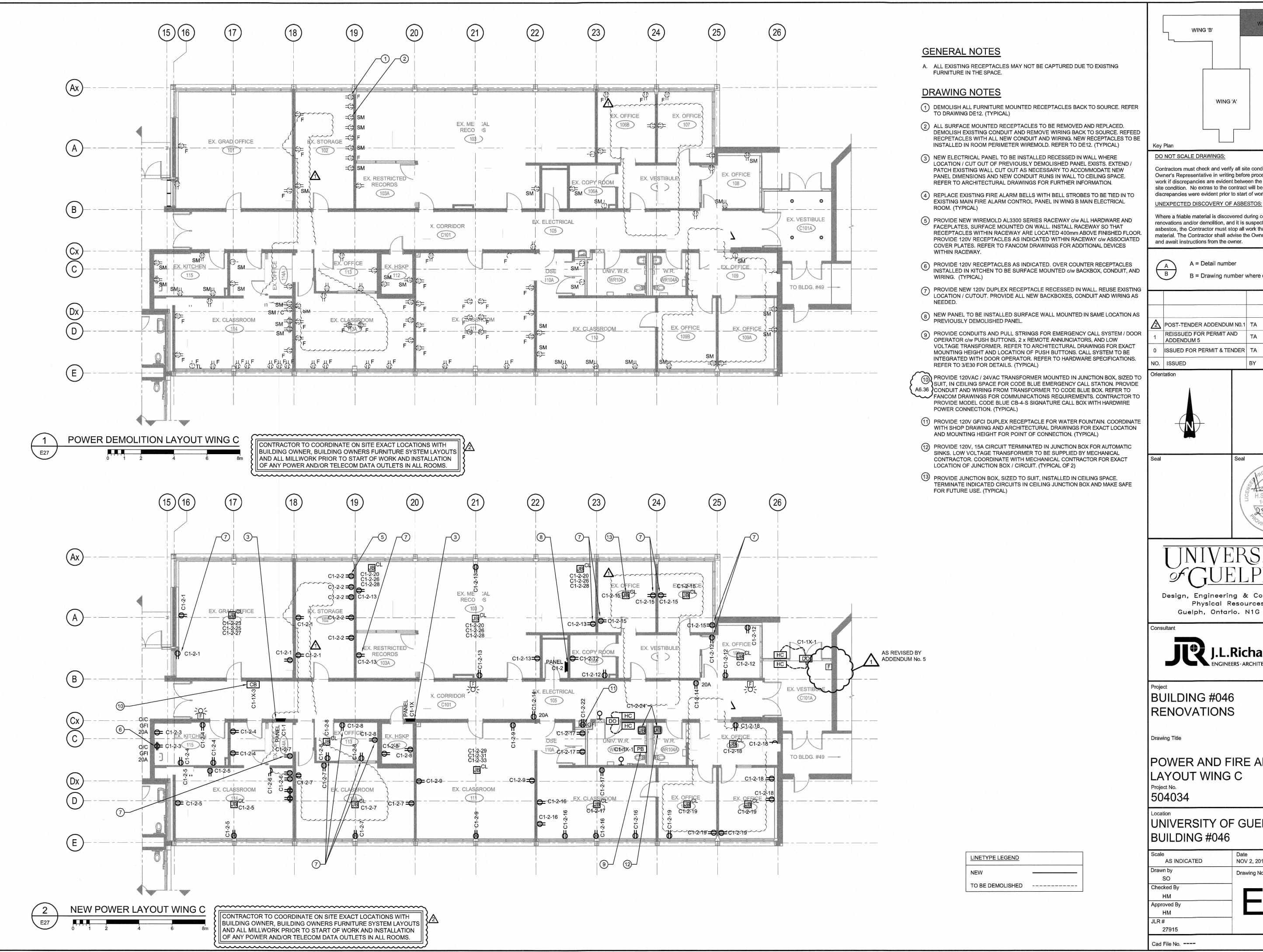
BUILDING #046 RENOVATIONS

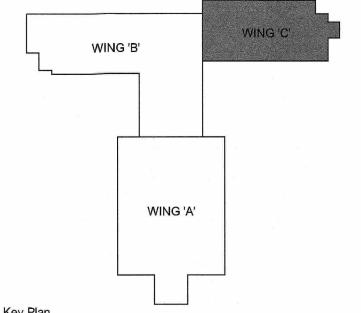
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Drawing Title ELECTRICAL MECHANICAL EQUIPMENT WING B LEVEL 2 504034

UNIVERSITY OF GUELPH BUILDING #046

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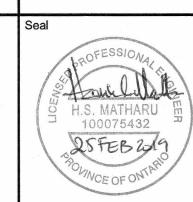
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BUILDING #046

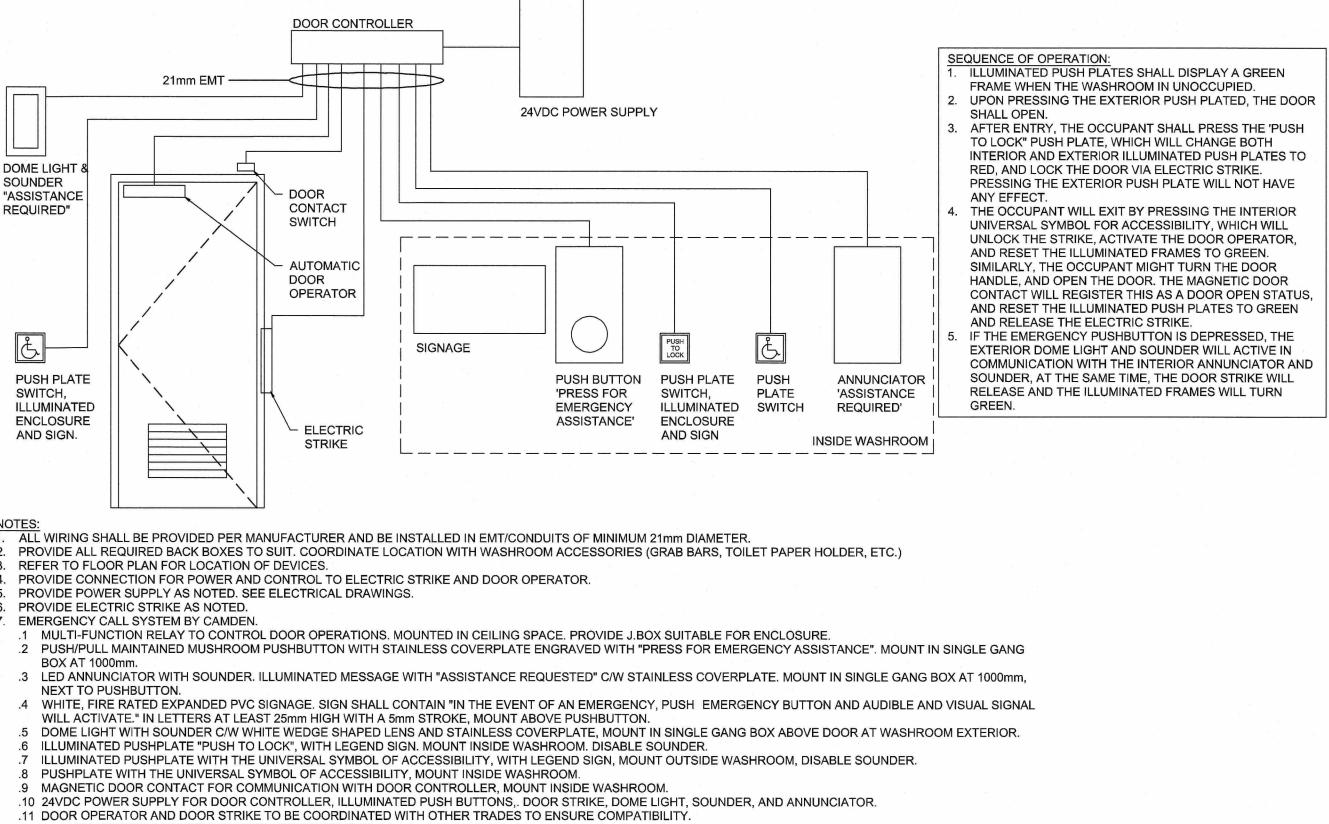
POWER AND FIRE ALARM LAYOUT WING C

UNIVERSITY OF GUELPH

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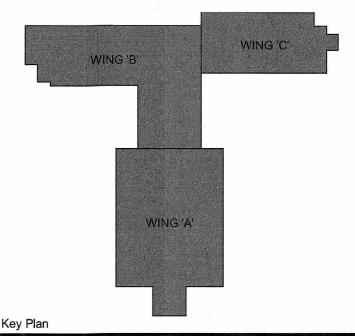
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ROOM NUMBER / DESCRIPTION	BUILDING INWITEDATION FINE	HINE VOLTAGE WALL SWITCH(S) (MANUAL ON / MANUAL OFF) (IP, 3-WAY, 4-WAY AS INDICATED (TY. LINE VOLTAGE WALL SWITCH (MANUAL ON / VACANCY OFF) WITH PIR / ULTRASONIC SENSOR	ATY. LINE VOLTAGE WALL SWITCH (MANUAL ON / 0-10V DIMMING / SYCANCY OFF) WITH PIR / ULTRASONIC SENSOR	LOW VOLTAGE SWITCH (MANUAL ON / OFF + DIMMING)	TTC.	LOW VOLTAGE SWITCH (NMANUAL ON / OFF + DIMMING S 4 SCEEN CONTROLLER)	SENSOR, CEILING MOUNT SENSOR, CEILING MOUNT AUTO ON / AUTO OFF P. I.R. / ULTRASONIC)	SENSOR, W (P.I.R. / ULTF	RENSOR, WALL MOUNT (P.I.R. / ULTRASONIC) XTY. LOW VOLTAGE VACANCY SENSOR, CEILING MOUNT	TY. LOW VOLTAGE OCCUPANCY SENSOR, CEILING MOUNT (P.I.R. / ULTRASONIC)	DIGITAL MANAGEMENT PROGRAMMABLE ROOM CONTROLLER LMRC SERIES	EMERGENCY LIGHTING CONTROL UNIT CONTROLLER ELCU SERIES LIGHTING CONTROL	SCHEMATIC (REFER TO DRAWING E15, 16, 17, 18.)	NOTES	ROOM NUMBER / DESCRIPTION	BUILDING	INE VOLTAGE WALL SWITCH(S) (MANUAL ON / MANUAL OFF) 1P, 3-WAY, 4-WAY AS INDICATED IT, 2.WAY, 4-WAY AS INDICATED IT, 2.WAY, 4-WAY AS INDICATED (MANUAL ON / VACANCY OFF)	WITH PIR / ULI INASONIC SENSOR LINE VOLTAGE WALL SWITCH (MANUAL ON / 0-10V DIMMING / VACANCY OFF) WITH PIR / ULTRASONIC SENSOR	LOW VOLTAGE SWITCH (MANUAL ON / OFF + DIMMING) TO LOW VOLTAGE SWITCH CON / OFF + TUNABLE WHITE	TT. LOW VOLTAGE SWITCH (NMANUAL ON / OFF + DIMMING 13) 4 SCEEN CONTROLLER) THE VOLTAGE OCCUPANCY	SENSOR, CEILING MOUNT AUTO ON / AUTO OFF (P.I.R. / ULTRASONIC)	LOW VOL IAGE VACANCY SENSOR, WALL MOUNT (P.I.R. / ULTRASONIC) LOW VOLTAGE OCCUPANCY SENSOR, WALL MOUNT (P.I.R. / ULTRASONIC)	LOW VOLTAGE VACANCY SENSOR, CEILING MOUNT (P.I.R. / ULTRASONIC)	ENSOR, CEILING MOUNT SENSOR, CEILING MOUNT (P.I.R. / ULTRASONIC) ITY DIGITAL MANAGEMENT PROGRAMMABLE ROOM CONTROLLER LMRC SERIES	EMERGENCY LIGHTING CONTROL UNIT CONTROLLER ELCU SERIES	LIGHTING CONTROL SCHEMATIC (REFER TO DRAWING E15, 16, 17, 18.)	NOTES
STING VESTIBULE (C101A) STING CORRIDOR (C101)	WING C WING C							3 6	0	1 • 5	1 • 1	1 • 1	P P		CUSTODIAN (201) WASHROOM (WR201)	WING B WING B	3 3	1 •	9 9	8	3 0		g c	3 3	G G	Y	EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING
STING GRADUATE OFFICE (101) STING STORAGE (102) STING MEDICAL RECORDS (103)	WING C WING C WING C			2 • 4					1 •		1 •	1 •	J LIGHTING	B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED	WC MECH CLOSET (WR 116A) ASSESSMENT ROOM (202) COUPLE/INDIVIDUAL THERAPY ROOM (20	WING B WING B 03) WING B	1 •		1 •		1	•		1 •		Y B	
STING RESTRICTED RECORDS (103A) ISTING ELECTRICAL ROOM (105)	WING C WING C	1 •		1 •				1 •			1 •		M LIGHTING	S NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED	ASSESSMENT ROOM (204) COUPLE/INDIVIDUAL THERAPY ROOM (20	WING B					1	•		1 •	1 •	В	
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TING OFFICE (109A)	WING C			2 •				1 •			1 •	1 • I	V 16.1	S NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED	VIEWING ROOM (210A) FAMILY THERAPY ROOM (211)	WING B WING B		1 •	1 •		1	•		1 •	1 •	X F	
TING OFFICE (109B) HROOM (WR104)	WING C WING C			2			1 •	1 •	· ·		1 •	I	W WASHROO	B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED OM EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING		WING B WING B		1 •	1 •		2	•		1 •	1 •	X	
TERSAL WASHROOM (WR104A) TING CLASSROOM (110)	WING C WING C			2 •		1 200 =	1 •	2 •			1 •	1 • .		OM EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED		WING B WING B		1 •	1 •		2	•		1 •	1 •	X	
SET (110A) STING CLASSROOM (111)	WING C WING C			2 •				2 •			1 •	1 • .		TING IN CLOSET B NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED	WELLNESS ROOM (216) LOUNGE (217)	WING B WING B		1 •		2			1 •	1 •	1 •	X	
STING HOUSEKEEPING (112) STING OFFICE (113)	WING C WING C	1 •	1 •										Y	THE IS SECTION THE IS SECTION TO	LOUNGE STORAGE (217A) STORAGE (218)	WING B WING B	1 •	1 4				1				Y	
STING CLASSROOM (113A) STING CLASSROOM (114)	WING C WING C		1	2 •		- 4	2	2 •			1 •	1 • .		S NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED S NEAREST EXTERIOR WALL TO BE SEPARATELY CONTROLLED	STORAGE (219) STORAGE (219) PRAYER ROOM (220)	WING B		1 •								X	
STING CEASSICOM (114) STING OFFICE (114A) STING KITCHEN (115)	WING C WING C		1 •								1 •	1 • ;	X LIGHTING	ONLANCO EXTERIOR WALL TO BE SEPARATELY CONTROLLED	OFFICE/SUPERVISION (221)	WING B WING B		(1) • • • · · · · · · · · · · · · · · · ·	1 •		1	•		1 •	1 •	B B	
STODIAN (116)	WING C		1 •									,	^		CONFIDENTIAL WORK ROOM (222) OFFICE/SUPERVISION (223)	WING B WING B			1 0000		1	•		1 •	1 •	B B	
SHROOM (WR 116)	WING B	1 •					8 •						Y WASHROO	OM EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING		WING B WING B					1	•		1 •	1 •	B A	The second secon
MECH CLOSET (WR 116A) TIBULE (117)	WING B WING B	1 •					1 •						Y AUTO ON	I/OFF	OFFICE/SUPERVISION (225) OFFICE (226)	WING B WING B	1 -		1 • •	3	1	•		1 •	1 •	B A	:
VER ROOM (117A) (117B)	WING B WING B	1 •				-							Y		OFFICE/SUPERVISION (227) RESEARCH THERAPYROOM (228)	WING B WING B			1 • •	3	1	•		1 •	1 •	B A	
FING ELECTRICAL ROOM (118) FING STORAGE (119)	WING B 1	1 •											MANUAL (ON / OFF	VIEWING ROOM (228A) OFFICE/SUPERVISION (229)	WING B WING B		1 •	1		1	•		1 •	1 •	X	
ING MECHANICAL (120) ING MAINTENANCE (121)	WING B 1	1 •	-			=						,	MANUAL (ON / OFF	RESEARCH DATA ANALYSIS ROOM (230) ELEVATOR MACHINE ROOM (231)	WING B WING B	1 •	-	1 •	A			2	1 •	1 •	F	
PTION (123, 1234A, C123) CE (123B)	WING B WING B		1 •	3 •			3	3 •			1 •	1 • .	J SWITCH T	TO CONTROL LIGHTING IN ROOMS 123, 123A, AND C123	OFFICE (232) LARGE GROUP ROOM (233)	WING B WING B			1 • ~~		1	•		1 •		A	
RAGE (123C) ICE (123D)	WING B WING B		1 •		-								X		UNIVERSAL WASHROOM (WR234) IT CLOSET (234)	WING B			3	1	1 •			1 •		W	EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING
ETING (123E) FEE / COPY (123F)	WING B WING B		1 •										X		RECEPTION/COPY (235) ACTIVE STORAGE (235A)	WING B WING B	1 •		1 •		1	•		2	1 •	C	
SED FILE STORAGE (124)	WING B		1 •	1 •					1 •		1 •	1 • 1	X F		ADMINISTRATION OFFICE (237)	WING B WING B		1	1 • ~		1	•		1 •		Α	
WING ROOM (125A)	WING B WING B		1 •	1 •		1		1 •			1 •	1 • 1	F X		OFFICE (239) STAIRWELL (ST201)	WING B WING B		1 •									AUTO ON 100%, VACANCY DIM. 50% WITHIN "F1" LUMINAIRE
JPLE / INDIVIDUAL ROOM (126A) JPLE / INDIVIDUAL ROOM (126B)	WING B WING B		-	1 •		<u>1</u>		1 •			1 •		A A		STAIRWELL (ST203) STAIRWELL (ST205)	WING B WING B	8 •										AUTO ON 100%, VACANCY DIM. 50% WITHIN "F1" LUMINAIRE
JPLE / INDIVIDUAL ROOM (126C) JPLE / INDIVIDUAL ROOM (126D)	WING B WING B			1 •				1 •			1 •	,	A A		CORRIDOR (C201) WAITING RM / CORRIDOR (236, C202)	WING B WING B						5 • 1 •	1	2 •	2 •	P P	AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)
ILY THERAPY ROOM (127) VING ROOM (127A)	WING B WING B		1 •	2		4		1			1	1 • 1	F X		CORRIDOR (C203) CORRIDOR (C204)	WING B WING B							2	2 • 1 •	1 •	P	AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)
TI PURPOSE ROOM (128) GE GROUP ROOM (129)	WING B WING B			1 •		<u> </u>		1 •			1 •	,	A		CORRIDOR (C205) CORRIDOR (C206, C207, C208)	WING B WING B						4	4	1 1 0	1 •	P	AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) AUTO ON 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)
SSIONAL OFFICE (130) DRAGE (131)	WING B WING B		1 •	1 •			·	1 •			1 •	,	A X		ELEVATOR (EL201)	WING B	2 •									<u> </u>	3-WAY SWITCHES TO CONTROL LIGHTING IN EL101, EL201
SEARCH SPACE (132) FICE / SUPERVISION (133)	WING B WING B			1 •		Δ		1 •	1 •		1 •	1 • Í	F						<u> </u>								
CHENETTE (134) FICE / SUPERVISION (135)	WING B WING B		1 •	1 •		Λ					1 0)	X			-					-					ů.	
DENT WORK AREA (136) EPHONE (136B)	WING B WING B			1 •	h	-			3 •			1 • I	F							* v .							
AKOUT ROOM (136C)	WING B		1 •			A							X		<u> </u>		DOOR	CONTROLLER	¬								
ICE / SUPERVISION (137) /ERSAL WASHROOM (WR138)	WING B WING B			1 •	hand	1 2011	1 •	1 •			1 •	1 • E	B WASHROO	OM EXHAUST FAN TO BE CONTROLLED ON / OFF WITH LIGHTING	<u> </u>										SEQUENC	CE OF OPE	RATION: USH PLATES SHALL DISPLAY A GREEN
INKLER ROOM (138) ICE / SUPERVISION (139)	WING B WING B	1 •	i ·	1 •				1 •			1 •	1 • [Y B			21mm EMT -			> [FRAM	IE WHEN T	"HE WASHROOM IN UNOCCUPIED. G THE EXTERIOR PUSH PLATED, THE DOOR
DRAGE (141) FING (143)	WING B WING B		1 •	1 •				1	•	=	2 •	1 • [X WALL MO	OUNT CONTROL SWITCH TO BE LOCATED IN ROOM 145	1	The second of th			1	24VDC POWER	SUPPLY					L OPEN. R ENTRY,	THE OCCUPANT SHALL PRESS THE 'PUSH
EPTION / MAIL RM.S (145, 145A) IIN OFFICE (147)	WING B WING B			1 •	h	<u> </u>		1 •		1 •	2 • 1	1 • (C H			-]							INTER	RIOR AND E	FINATE, WHICH WILL CHANGE BOTH EXTERIOR ILLUMINATED PUSH PLATES TO
ICE / SUPERVISION (149)	WING B			2				1 •			1 •	1 • F	R		DOME LIGHT & SOUNDER "ASSISTANCE		DOOR				10 10 10 10 10 10 10 10 10 10 10 10 10 1	×	· -		PRES	SING THE	THE DOOR VIA ELECTRIC STRIKE. EXTERIOR PUSH PLATE WILL NOT HAVE
STING STAIRWELL (ST101) RANCE VESTIBULE (ST101A)	WING B WING B					= 1			1	1 .	1 0	1 •	BUILT-IN /	AUTO ON 100%, VACANCY DIM. 50% WITHIN "F1" LUMINAIRE	REQUIRED"		CONTA								4. THE C		F WILL EXIT BY PRESSING THE INTERIOR
TING STAIRWELL (ST102, C100) TING STAIRWELL (ST103)	WING B WING B							1	7. •	2	2	1 • (AUTO ON 100%, VACANCY DIM. 50% WITHIN "F1" LUMINAIRE AUTO ON 100%. VACANCY DIM. 50% WITHIN "F1" LUMINAIRE	1			-				-			UNLO	OCK THE ST	MBOL FOR ACCESSIBILITY, WHICH WILL TRIKE, ACTIVATE THE DOOR OPERATOR, E ILLUMINATED FRAMES TO GREEN.
RRIDOR (C102) RRIDOR (C103)	WING B WING B							2	•		1 •	1 • [P AUTO ON	I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)	1		AUTOM DOOR		7,000,000,000,000,000,000,000			ν,			SIMILA	ARLY, THE	E OCCUPANT MIGHT TURN THE DOOR OPEN THE DOOR. THE MAGNETIC DOOR
RRIDOR (C104)	WING B							2 2	•		1 •	1 • F	P AUTO ON	I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)] ,	/	OPERA	ror							CONT.	TACT WILL RESET THE	REGISTER THIS AS A DOOR OPEN STATUS, E ILLUMINATED PUSH PLATES TO GREEN
RRIDOR (C105) RRIDOR (C106)	WING B WING B							2	•	2	1 •	1 • F	P AUTO ON	I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)		M. I			ON 67			PUSH	 		AND F	RELEASE 1 E EMERGE	THE ELECTRIC STRIKE. ENCY PUSHBUTTON IS DEPRESSED, THE
RRIDOR (C107) RRIDOR (C108)	WING B WING B							2	•	2	1 •	1 • F	P AUTO ON	I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC) I 100%, VACANCY DIM. 25% (MIN. 10 LUX / 1FC)			s	S	GNAGE			TO OCK	<u>니</u>		COMM	MUNICATIO	DN WITH THE INTERIOR ANNUNCIATOR AND
/ATOR (EL101)	WING B 2	•						1					3-WAY SW	WITCHES TO CONTROL LIGHTING IN EL101, EL201	PUSH PLATE SWITCH,	\				PUSH BU 'PRESS F	OR S	WITCH, P	PLATE '	ANNUNCIATOR 'ASSISTANCE	RELEA	ASE AND T	THE SAME TIME, THE DOOR STRIKE WILL THE ILLUMINATED FRAMES WILL TURN
	ž ,		i'		, .				-		= _				J ILLUMINATED ENCLOSURE AND SIGN.		L ELEC	TRIC		EMERGE ASSISTA	NCE' E	LUMINATED S NCLOSURE ND SIGN		REQUIRED'	GREE	=IN.	
															AND GIGIN.		STRI						INSII	DE WASHROOM			
															NOTES:												
															NOTES: 1. ALL WIRING SHALL BE 2. PROVIDE ALL REQUIR								T DADED HOL	DEP ETC \			,
															PROVIDE ALL REQUIR REFER TO FLOOR PLA PROVIDE CONNECTIO	AN FOR LOCATION	ON OF DEVICES.				ONIES (GK	ארים הייים מייים מייים מייים מייים מייים מייים ו	. PAPER MUL	.DEN, ETO.)			
															5. PROVIDE CONNECTION 5. PROVIDE POWER SUP 6. PROVIDE ELECTRIC S'	PPLY AS NOTED	. SEE ELECTRICA										
															7. EMERGENCY CALL SY .1 MULTI-FUNCTION	STEM BY CAME RELAY TO CON	DEN. TROL DOOR OPE										
															.2 PUSH/PULL MAINT BOX AT 1000mm.	TAINED MUSHRO	OOM PUSHBUTTO	N WITH STAINL	SS COVERPLAT	E ENGRAVED \	WITH "PRE	SS FOR EMERGE	ENCY ASSISTA				
															.3 LED ANNUNCIATO NEXT TO PUSHBU		ER. ILLUMINATEI	MESSAGE WIT	1 "ASSISTANCE I	REQUESTED" C	/W STAINL	ESS COVERPLAT	TE. MOUNT IN	N SINGLE GANG B	BOX AT 1000	Omm,	





ACCESSIBLE WASHROOM DOOR CONTROLS

SCALE: N.T.S.



T SCALE DRAWINGS:

tors must check and verify all site conditions. Notify the Representative in writing before proceeding with the discrepancies are evident between the drawings and the dition. No extras to the contract will be allowed if ancies were evident prior to start of work.

ECTED DISCOVERY OF ASBESTOS:

a friable material is discovered during construction, ons and/or demolition, and it is suspected to contain s, the Contractor must stop all work that may disturb the . The Contractor shall advise the Owner of the discovery ait instructions from the owner.

A = Detail number

B = Drawing number where detailed

ST-TENDER ADDENDUM N0.1 TA FEB 26, 2019 UED FOR PERMIT & TENDER | TA | NOV 2, 2018



BY DATE

sign, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

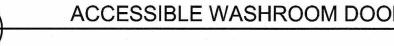
J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS

LDING #046 IOVATIONS

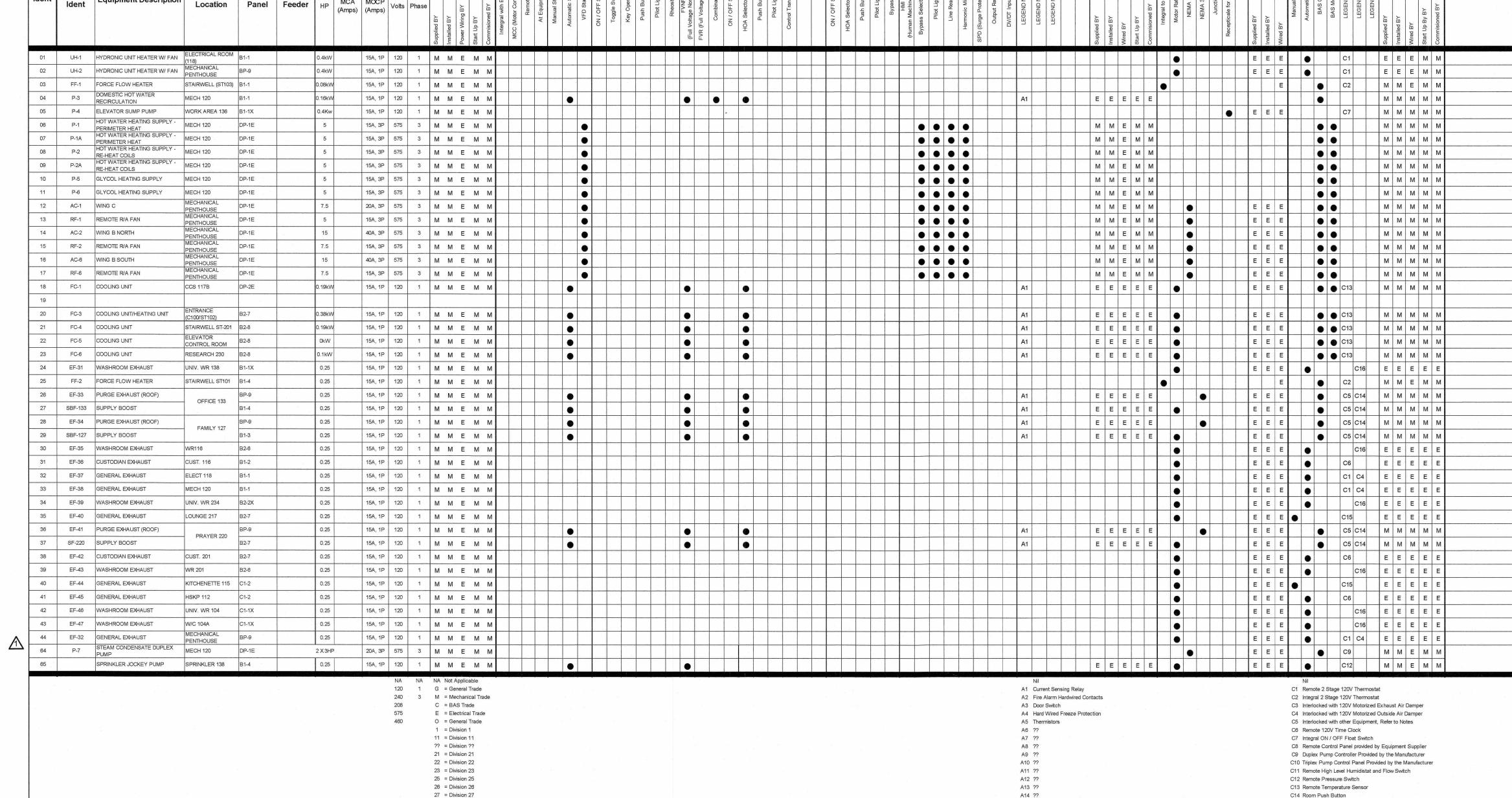
TITLE ELECTRICAL HTING CONTROL IEDULE & DETAILS

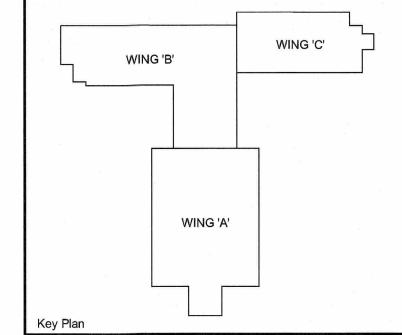
Cad File No. ----

Scale N.T.S.	Date NOV 2, 2018
Drawn by MCD	Drawing No.
Checked By	
НМ	しつハ
Approved By	
НМ	
JLR#	
27915	of 173



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			T	Equipmen	t Information		er Requirement	ts		Location	Starte	Type	Manual	Starter		7.00 8.000	ter Info gnetic S	ormation Starter	-	Soff	Start Sta	arter		VFD Sta	arter		Auxili	aries			L	ocal Dis	connect	ng Me	ans	+-		Contro	DI	<u> </u>			
MS&C Ident	Equip Ident	Equipment Description	Equipment Location	Power Panel		UD MCA	A MOCP	s Phase	Supplied BY Installed BY Power Wring BY Start Up BY Commisioned BY	Intergral with Equipment MCC (Motor Control Center) Remote	At Equipment Manual Starter Automatic Starter	VFD Starter ON / OFF Switch	Toggle Switch Key Operated	Push Button Pilot Light Rheostat	FVNR (Full Voltage Non-Reversing) FVR (Full Voltage Reversing)	Combination ON / OFF Switch	HOA Selector Switch	Pilot Light Control Transformer		ON / OFF Switch HOA Selector Switch	Push Button	Bypass Bypass HMI	(Human Machine Interface) Bypass Selector Switch	Line Reactor Harmonic Mitination	Harmonic Mitigation SPD (Surge Protection Device)	Output Reactor DV/DT Input Filter	LEGEND NOTE	alles	Supplied BY Installed BY	Wired BY Start Up BY	Commissioned BY Integral to Equipment Motor Rated Toogle	NEMA 1 Rated	Junction Box Recepticale for Equipment Plug	Supplied BY	Installed BY Wired BY	Manual Control Automatic Control	BAS Control BAS Monitoring	LEGEND NOTE LEGEND NOTE LEGEND NOTE	Supplied BY Installed BY	Wired BY Start Up By BY	Commisioned BY	N	Notes
01	UH-1	HYDRONIC UNIT HEATER W/ FAN	ELECTRICAL ROOM	1 B1-1		0.4kW	15A, 1P 120	1	MMEMN																									E	E E			C1	E E	E E M	М		
02	UH-2	HYDRONIC UNIT HEATER W/ FAN	MECHANICAL PENTHOUSE	BP-9	7	0.4kW	15A, 1P 120	1	MMEMN																		7	, ,			•			E	E E	•	,	C1	E E	E E M	М		
03	FF-1	FORCE FLOW HEATER DOMESTIC HOT WATER	STAIRWELL (ST103)			0.08kW			M M E M N							=		1:							22 - 24						•				E		•	32		/ E M			
04	P-3 P-4	RECIRCULATION ELEVATOR SUMP PUMP	MECH 120 WORK AREA 136	B1-1 B1-1X		0.16kW 0.4Kw			M M E M N)			•	•	•										A1		E E	EE	E			+			•	07		и м м и м м	1		
06	P-1	HOT WATER HEATING SUPPLY - PERIMETER HEAT	MECH 120	DP-1E		5			M M E M N		-																		M	E M	м				EE		• •	31		M M M			
07	P-1A	HOT WATER HEATING SUPPLY - PERIMETER HEAT	MECH 120	DP-1E	· ·	5		+	MMEMN			•																		ЕМ							• •		1 11200 1 220	и м м			
08	P-2	HOT WATER HEATING SUPPLY - RE-HEAT COILS	MECH 120	DP-1E		5	15A, 3P 575	3	M M E M N			•											•	• •	•				ММ	ЕМ	М						• •		M	и м м	М		
09	P-2A	HOT WATER HEATING SUPPLY - RE-HEAT COILS	MECH 120	DP-1E		5			M M E M N			•							1 ::											E M							• •		-	и м м			
10	P-5	GLYCOL HEATING SUPPLY GLYCOL HEATING SUPPLY	MECH 120	DP-1E		5		-	M M E M N			•						++-												E M		-					0 0	-		M M M			. "
12		WING C	MECHANICAL PENTHOUSE	DP-1E		7.5			M M E M N				12																+	E M				E	EE		• •			M M M			
13	RF-1	REMOTE R/A FAN	MECHANICAL PENTHOUSE	DP-1E		5	15A, 3P 575	3	MMEMN			•																		ЕМ		•			EE		0 0		M N	и м м	М		
14	AC-2	WING B NORTH	MECHANICAL PENTHOUSE	DP-1E	-	15	40A, 3P 575	3	M M E M N			•											•	• •	•				ММ	ЕМ	м	•		E	E E		• •		M	и м м	М		
15		REMOTE R/A FAN	MECHANICAL PENTHOUSE MECHANICAL	DP-1E		7.5		4	M M E M N			•		- ×																E M		•			E E		• •			и м м		_	
16	AC-6 RF-6	WING B SOUTH REMOTE R/A FAN	PENTHOUSE MECHANICAL	DP-1E		7.5			M M E M N			•							-1											E M	M	•			E E		• •			и м м и м м			
18		COOLING UNIT	PENTHOUSE CCS 117B	DP-2E		0.19kW			M M E M N						•												A1		+	EE	E a				EE		• •	C13		M M M		Y	_
19		· · · · · · · · · · · · · · · · · · ·		=																																							
20		COOLING UNIT/HEATING UNIT	ENTRANCE (C100/ST102)	B2-7		0.38kW			M M E M N						•		•										A1		E E		E				E E		• •			и м м			
21		COOLING UNIT	STAIRWELL ST-201 ELEVATOR	B2-8		0.19kW 0kW			M M E M N						•		•										A1		E E		E .				EE		• •			M M	+		
22		COOLING UNIT	CONTROL ROOM RESEARCH 230	B2-8	+	0.1kW			M M E M N						•		•		-								A1 A1		E E	EE	E C		=		EE					и м м и м м			
24		WASHROOM EXHAUST	UNIV. WR 138	B1-1X		0.25		-	MMEMM																				+-+-						EE	-		C16	+	EEE	+		,
25	FF-2	FORCE FLOW HEATER	STAIRWELL ST101	B1-4		0.25	15A, 1P 120	1	M M E M N												12		1								•				E		•	C2	M	и в м	М		
26		PURGE EXHAUST (ROOF)	OFFICE 133	BP-9		0.25		+	M M E M N						•	 	•										A1		E E		E			E	EE			C5 C14		и м м			
27		SUPPLY BOOST PURGE EXHAUST (ROOF)	 	B1-4 BP-9		0.25			M M E M N						•	<i>3</i> ,	•										Δ1		EE	EE	E				EE		+ - + -	C5 C14		M M M			
29		SUPPLY BOOST	FAMILY 127	B1-3		0.25		-	M M E M N						•		•										A1		+	EE	E (EE		+ $ +$	C5 C14		и м м			
30	EF-35	WASHROOM EXHAUST	WR116	B2-6		0.25	15A, 1P 120	1	M M E M N																									E	E E	•	,	C16	EE	E E	E		1
31		CUSTODIAN EXHAUST	CUST. 116	B1-2		0.25		_	M M E M N					. v											, .	1, 2					•			- E	EE	•		C6		E E E			
32		GENERAL EXHAUST GENERAL EXHAUST	ELECT 118 MECH 120	B1-1	_	0.25			M M E M N																			-,							EE	•		C1 C4 C1 C4	+	E E E	+		
34		WASHROOM EXHAUST	UNIV. WR 234	B2-2X		0.25			M M E M N										-																EE		+++	C1 C4	+	EEE	+		
35	EF-40	GENERAL EXHAUST	LOUNGE 217	B2-7	10	0.25			MMEMM																									E	EE			C15		EEE			
36	EF-41	PURGE EXHAUST (ROOF)	PRAYER 220	BP-9		0.25			MMEMN						•	" -	•										A1		E E		E			Е	EE		+	C5 C14	M N	и м м	М		
37		SUPPLY BOOST	CUST. 201	B2-7		0.25		+	MMEMN						•		•		-								A1	:	E E	EE	E				EE			C5 C14		и м м			
39		CUSTODIAN EXHAUST WASHROOM EXHAUST	WR 201	B2-7 B2-6	-	0.25		-	M M E M N												1														EE			C6 C16		E E E		-	=
40		GENERAL EXHAUST	KITCHENETTE 115			0.25		+	M M E M N										+++		++-														EE			C15		EEE	+		
41	EF-45	GENERAL EXHAUST	HSKP 112	C1-2		0.25			MMEMM																									E	E E	•	,	C6		EE			
42		WASHROOM EXHAUST	UNIV. WR 104	C1-1X		0.25			M M E M N										-																EE	-	,	C16		E E E	+	· · ·	
43		WASHROOM EXHAUST GENERAL EXHAUST	W/C 104A MECHANICAL	C1-1X BP-9		0.25			M M E M N							=	-								- 1		: 1,						h'		EE		4	C16 C1 C4		E E E			* 11
64	P-7	STEAM CONDENSATE DUPLEX PUMP	PENTHOUSE MECH 120	DP-1E		2 X 3HP			M M E M N										++									-					· .		EE		+-+	C1 C4	M	и в м	I М	1	1
65		SPRINKLER JOCKEY PUMP	SPRINKLER 138	B1-4		0.25			M M E M N						•														E E	E E	E				E E			C12		И E M			
							120	1 3	NA Not Applicable G = General Trade M = Mechanical Trade C = BAS Trade E = Electrical Trade O = General Trade 1 = Division 1 11 = Division 11 ?? = Division 21 22 = Division 22 23 = Division 23 25 = Division 25 26 = Division 26 27 = Division 27																		Nil A1 Current Si A2 Fire Alarm A3 Door Swit A4 Hard Wire A5 Thermisto A6 ?? A7 ?? A8 ?? A9 ?? A10 ?? A11 ?? A12 ?? A14 ?? A15 ??	n Hardwired Co ch ed Freeze Prot							2	C2 Interest	mote 2 Stage 1; erlocked with 1; erlocked with 1; erlocked with ot mote 120V Tim egral ON / OFF mote Control P plex Pump Con mote High Leve mote Pressure mote Temperat mote Temperat mote Temperat mote Temperat mote Temperat	20V Thermosta 20V Motorized 20V Motorized ther Equipment the Clock Float Switch anel provided the throller Provided throller Provided thro	at I Exhaust A I Outside A It, Refer to by Equipmed by the Minded by the	ir Damper Notes ent Supplier anufacturer e Manufacture			
																										,	A15 ??										0V Motor Rated erconnected Wi			erving Space	į.		





DO NOT SCALE DRAWINGS:

Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work. UNEXPECTED DISCOVERY OF ASBESTOS:

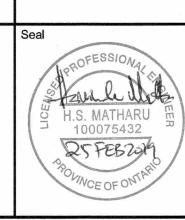
Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

A = Detail number

B = Drawing number where detailed

	1		ı
	50 Sec. 201	:	13
\triangle	POST-TENDER ADDENDUM N0.1	TA	FEB 26, 2019
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018
NO.	ISSUED	BY	DATE
Orier	ntation		





UNIVERSITY &GUELPH

Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

J.L.Richards

ENGINEERS · ARCHITECTS · PLANNERS

BUILDING #046 RENOVATIONS

Drawing Title
ELECTRICAL MOTOR STARTER AND CONTROL LIST Project No. 504034

N.T.S.	NOV 2, 2018
Drawn by AM	Drawing No.
Checked By	
НМ	Lつ1
Approved By	
НМ	
JLR#	
27915	of 173
Cad File No	:



NEW PANEL "046 PP B1-1"

208/120V, 3PH, 4-WIRE 225A MAINS SURFACE MOUNTED 10 KAIC

LOAD PHASE C: _____

NEW PANEL "046 PP B1-2" 208/120V, 3PH, 4-WIRE

225A MAINS **RECESS MOUNTED**

		50		0 KAI	OUNTED C					RE	CESS N 10 K		NTED		
LOAD	DESCRIPTION	BKR	ССТ		CCT BKR	DESCRIPTION	LOAD	LOAD	DESCRIPTION	BKR	ст		CT BKR	DESCRIPTION	LOAI
	RECEPTACLES RM. 119	15A, 1P	1	•	2 15A, 1P	UH-1			RECEPTACLES RM. C103, 117	20A, 1P	1	Ш	2 15A, 1P	RECEPTACLES RM. 116. WR116	
	P-3	15A, 1P	3 -	++	4 15A, 1P	SPARE	TP-01		RECEPTACLES RM. 123A	15A, 1P			4 15A, 1P	RECEPTACLES RM. 123B, 123C, 123F	-
	EF-37	15A, 1P	5 -	++	6 15A, 1P	EF-38	::		RECEPTACLES RM. 123D, 123E	15A, 1P	5 1		6 20A, 1P	MICROWAVE RM. 123F	
	FF-1	15A, 1P	7 -	 	8 15A, 1P	GLYCOL FILLING STATION RM. 120			REFRIGERATOR RM. 123F	15A, 1P	7		8 15A, 1P	AUTOMATIC SINKS RM. WR116	
1	CONTROLLED RECEPTACLES RM. 145A, 129	① 15A, 1P	9 -	╅	10 20A, 1P	CONTROLLED RECEPTACLES RM. 123F	1	~~~	VAV DOVEC	15A, 1P	9 1		10 15A, 1P	SPARE SPARE	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	CONTROLLED RECEPTACLES RM. 136	15A, 1P	11 -	++-	12 15A, 1P	CONTROLLED RECEPTACLES RM. 132	1	A	SPARE	15A, 1P	11		12 15A, 1P	SPARE	\ \frac{1}{4}
	CONTROLLED RECEPTACLES RM. 129	15A, 1P	13 -	+	14 15A, 1P	CONTROLLED RECEPTACLES RM. 217	1	{ A	SPARE	15A, 1P	13		14 15A, 1P	SPARE	\d_1'
	CONTROLLED RECEPTACLES RM. 233	15A, 1P		+	16 15A, 1P	CONTROLLED RECEPTACLES RM. 217	1		EF-36		15		16 15A, 1P	RECEPTACLES RM. 123F	
	CONTROLLED RECEPTACLES RM. 233	15A, 1P	17 -	++	18 15A, 1P	CONTROLLED RECEPTACLES RM. 239	1		SPARE	15A, 1P	17		18 20A, 1P	RECEPTACLES RM. 117B	
	CONTROLLED RECEPTACLES RM. 230	15A, 1P	19		20 15A, 1P	CONTROLLED RECEPTACLES RM. 222	1		SPARE	15A, 1P	19	1 H	20 20A, 1P	RECEPTACLES RM. 117B	
	RECEPTACLE RM. 118	20A, 1P	21	┵	22 15A, 1P	SPARE	A6.37		RECEPTACLES RM. 123	15A, 1P	21		22 15A, 1P	SPARE	
	RECEPTACLE RM. 120	20A, 1P	23 -	++-	24 15A, 1P	SPARE	A6.37		WATER FOUNTAIN RM. C103	15A, 1P	23		24 15A, 1P	SPARE	
	SPARE	15A, 1P	25 -		26 20A, 1P	SPARE			SPARE	20A, 1P	25		26 15A, 1P	SPARE	-
	SPARE	15A, 1P	27 -	╅	28 20A, 1P	SPARE			SPARE		27		28 15A, 1P	SPARE	
	SPARE	20A, 1P	29 -	+	30 15A, 1P	SPARE			SPARE				30 20A, 1P	SPARE	
	SPARE	20A, 1P	31 -	 	32 15A, 1P	SPARE		1.	SPACE	20.4	31	<u>₩</u>	32	SPACE	
. 1	SPACE		33 -	+ +	34	SPACE			SPACE		33	<u></u>	84	SPACE	
	SPACE		35 -	++	36	SPACE		-	SPACE		35		36	SPACE	
	SPACE		37	♦	38	SPACE			SPACE		37	1	88	SPACE	
	SPACE		39	+	40	SPACE			SPACE		39		The state of the s	SPACE	
	SPACE		41		42	SPACE			SPACE		41		12	SPACE	

NEW PANEL "046 PP B1-3"

208/120V, 3PH, 4-WIRE 225A MAINS RECESS MOUNTED 10 KAIC

LOAD	DESCRIPTION	BKR	CC.	Т				ССТ	BKR	DESCRIPTION	LOAD
	RECEPTACLES RM. 129	15A, 1P	1	H	•	丰	丰	2	15A, 1P	RECEPTACLES RM. 129	
	RECEPTACLES RM. 127	15A, 1P	3	$ begin{array}{c} - \end{array}$	╀	-	+	4	15A, 1P	RECEPTACLES RM. 125	
	RECEPTACLES RM. 125A, 127A	15A, 1P	5	brack	╀	+	-	- 6	15A, 1P	RECEPTACLES RM. C100	
	RECEPTACLES RM. C104, C105	20A, 1P	7	\vdash	•	╁	╁	- 8	15A, 1P	RECEPTACLES RM. 126B, 126C	
	RECEPTACLES RM. 126A, 126D	15A, 1P	. 9	┝	╁	+ -	+	10	15A, 1P	RECEPTACLES RM. 124	
	RECEPTACLES RM. 130	15A, 1P	11	_	┝	╁	┿	12	15A, 1P	RECEPTACLES RM. 128	
	SBF-127	15A, 1P	13	H	-	+	+	14	15A, 1P	CEIL SPACE RECEPTACLES RM. 125A, 127A	1
	RECEPTACLES RM. 129	15A, 1P	15	-	+	•	+	16	15A, 1P	SPARE	Turn
	SPARE	15A, 1P	.17	}-	-	╆	+ -	18	15A, 1P	SPARE	
	SPARE	15A, 1P	19	\vdash	┝-	+	+	20	15A, 1P	SPARE	
	SPARE	20A, 1P	21	\vdash	┝	•	+	22	20A, 1P	SPARE	
716710 114	SPARE	20A, 1P	23	brack	┝	+	+ -	24	20A, 1P	SPARE	
	SPACE		25	H	-	+	+	26		SPACE	
	SPACE		27	上	┝	+ -	+	28		SPACE	
	SPACE		29	┢	┝	╁	+	30		SPACE	
	SPACE		31	H	-	+	+	32		SPACE	1.2
	SPACE		33	F	H	+	+	34		SPACE	_
	SPACE		35	F	┝	╁	+	36		SPACE	
-	SPACE		37	H	-	+	+	38		SPACE	
	SPACE		39	H	┝	+ -	╁	40		SPACE	
	SPACE		41	-	-	+	•	42		SPACE	

TOTAL CONNECTED LOAD: 0 WATTS

PHASE LOAD TO BE FILLED IN BY CONTRACTOR:

LOAD PHASE B: _____ LOAD PHASE A: _____

REMARKS

1. ALL LOADS ARE IN WATTS, UNLESS OTHERWISE NOTED.

2. † DEDICATED NEUTRAL

3. 🔺 GFI 4. LOCKED

> NEW PANEL "046 PP B1-4" 208/120V, 3PH, 4-WIRE 225A MAINS RECESS MOUNTED

10 KAIC

LOAD	DESCRIPTION	BKR	CCT	ď				ССТ	BKR	DESCRIPTION	LOAD
	RECEPTACLES RM. 149	15A, 1P	1	F	•	F	Ŧ	2	15A, 1P	RECEPTACLES RM. 147	
	RECEPTACLES RM. 145, 145A	15A, 1P	3	┝	+	┿-	+	4	15A, 1P	RECEPTACLES RM. 145A	
	RECEPTACLES RM. 143	15A, 1P	5	}	+	╀	+	6	15A, 1P	RECEPTACLES RM. 139	
	RECEPTACLES RM. 141	15A, 1P	7	-	•	╀	+	8	15A, 1P	RECEPTACLES RM. 137	-
	RECEPTACLES RM. 135	15A, 1P	9	}-	+	┿-	+	10	15A, 1P	RECEPTACLES RM. WR138	
	RECEPTACLES RM. 136	15A, 1P	11	}	╁	╀	•	12	15A, 1P	RECEPTACLES RM. 136	
On the latest and the	RECEPTACLES RM. 136, 138	15A, 1P	13	}	┿	╁	+	14	15A, 1P	RECEPTACLES RM. 136B, 136C	
	RECEPTACLES RM. 134	15A, 1P	15	}	╁	┿-	+	16	15A, 1P	RECEPTACLES RM. 134	
	RECEPTACLES RM. C106, C108	20A, 1P	17	┝	+	+	+	18	15A, 1P	RECEPTACLES RM. 132	
	JOCKEY PUMP	15A, 1P	19	ŀ	 	╁	+	20	15A, 1P	RECEPTACLES RM. 132	
	RECEPTACLES RM. 133	15A, 1P	21	ŀ	+-	•	╁	22	15A, 1P	RECEPTACLES RM. 147, 149	
	SPARE	15A, 1P	23	\vdash	╁	╁	 	24	15A, 1P	SBF-133	
	VAV BOXES	15A, 1P	25	H	 	╁	+	26	15A, 1P	FF-2	
-	RECEPTACLES RM. C107, 131	15A, 1P	27	}-	+	┿┈	+	28	15A, 1P	AUTOMATIC SINKS RM. WR138	
	WATER FOUNTAIN RM. 143	15A, 1P	29	\vdash	╁	╁	•	30	15A, 1P	SPARE	TOTAL STREET
	SPARE	15A, 1P	31	\vdash	 	╁	+	32	15A, 1P	SPARE	
	SPARE	15A, 1P	33	\vdash	╁	┿-	+	34	15A, 1P	SPARE	
	SPARE	20A, 1P	35	ŀ	+	-	•	36	20A, 1P	SPARE	
	SPARE	20A, 1P	37	\vdash	-	+	+	38	20A, 1P	SPARE	
	SPACE		39	-	┢	-	+	40		SPACE	:
	SPACE		41	\vdash	+	+	•	42		SPACE	

NEW PANEL "046 PP B2-5" 208/120V, 3PH, 4-WIRE 225A MAINS **RECESS MOUNTED** 10 KAIC

LOAD	DESCRIPTION	BKR	ССТ				ССТ	BKR	DESCRIPTION	LOA
	RECEPTACLES RM. 212, 214	15A, 1P	1	-	7	Ħ	2	15A, 1P	RECEPTACLES RM. 213	
	RECEPTACLES RM. 211	15A, 1P	3	\vdash	+	+	4	15A, 1P	RECEPTACLES RM. 210, 210A	2
	RECEPTACLES RM. C206	20A, 1P	5	\vdash	-	┿┤	6	15A, 1P	RECEPTACLES RM. 202, 203	
::	RECEPTACLES RM. 204, 205	15A, 1P	. 7	+	+	+[8	15A, 1P	RECEPTACLES RM. 206, 207	
	RECEPTACLES RM. 208, 209	15A, 1P	9	\vdash	+	+[10	15A, 1P	CEIL SPACE RECEPTACLES RM. 206, 210A, 214	1
1	SPARE	15A, 1P	11	\vdash	+	┿╢	12	15A, 1P	SPARE	1
<u> </u>	SPARE	15A, 1P	13	+	+	+[14	15A, 1P	SPARE	1
<u>/1</u> \	SPARE	15A, 1P	15	H	+	+	16	15A, 1P	SPARE	1
<u>/1\</u>	SPARE	15A, 1P	17	\vdash	+	┿-[18	15A, 1P	RECEPTACLES RM. 215	
	RECEPTACLES RM. WR201, 201	15A, 1P	19	+	+	+[20	15A, 1P	SPARE	
	RECEPTACLES RM. WR201	15A, 1P	21	+	+	+	22	15A, 1P	SPARE	
	WATER FOUNTAIN RM. C206	15A, 1P	23	+	+	+	24	15A, 1P	AUTOMATIC SINKS RM. WR201	
	SPARE	15A, 1P	25	+	+	+	26	15A, 1P	SPARE	
	SPARE	15A, 1P	27	+	+	+	28	15A, 1P	SPARE	
	SPARE	15A, 1P	29	+	+	┿╢	30	15A, 1P	SPARE	
	SPARE	20A, 1P	31	-	+	+	32	20A, 1P	SPARE	
	SPARE	20A, 1P	33	+	+	+[34	20A, 1P	SPARE	
	SPACE		35	+	+	•-[36		SPACE	
	SPACE		37	+	+	+[38	-	SPACE	
	SPACE		39	+	+	+[40		SPACE	
	SPACE		41	-	4	┢	42		SPACE	

NEW LIGHTING PANEL "046 PP B2-6"

208/120V, 3PH, 4-WIRE 225A MAINS **RECESS MOUNTED** 14 KAIC

: [: []

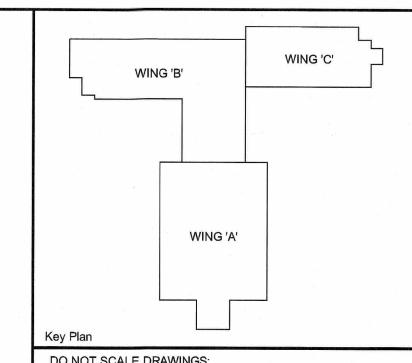
LOAD	DESCRIPTION	BKR	ССТ				ССТ	BKR	DESCRIPTION	LOAD
	LEVEL 1 LTG (143, 145, 145A, 147, 149)	15A, 1P	1 -	+	7	\mp	- 2	15A, 1P	LEVEL 1 LTG (132, 134, 136, 136B, 136C)	
	LEVEL 1 LTG (131,133, 135, 137, 139, 141)		3 -	+	+	+	4	15A, 1P	LEVEL 1 LTG (124, 126A, 126B, 126C, 126D, 128, 130)	
	LEVEL 1 LTG (125, 125A, 127, 127A, 129)		5 -	+	+	+	- 6	15A, 1P	LEVEL 1 LTG (123, 123A, 123B, 123C, 123D, 123E, 123F)	
1	LEVEL 1 CORR. LTG (C104, C105, C106, C107, C108, ST101A, 138)	15A, 1P	7	┿	+	+	- 8	15A, 1P	LEVEL 1 LTG / EF-35 (116, WR116)	
	LEVEL 1 CORR. LTG (C102, C103, 119, 121)	15A, 1P	9 -	+		+	10	15A, 1P	SPARE	
	SPARE	15A, 1P	11 -			+	12	15A, 1P	SPARE	
	LEVEL 2 LTG (233, 235, 235A, 237, 239)		13 -	+	+	+	14	15A, 1P	LEVEL 2 LTG (224, 224A, 226, 228, 228A, 230, 232)	
	LEVEL 2 LTG (219, 221, 223, 225, 227, 229, 231)		15 -	+	+	+	16	15A, 1P	LEVEL 2 LTG (215, 216, 218, 220, 222)	
	LEVEL 2 LTG (217, 217A)		17 -	+	+	+	- 18	15A, 1P	LEVEL 2 LTG (210, 210A, 211, 212, 213, 214)	-
	LEVEL 1 CORR. LTG (C104, C105, C106, C107, C108, ST101A)		19 -	+	+	+	20	15A, 1P	LEVEL 2 LTG (202, 203, 204, 205, 206, 207, 208, 209)	
	LEVEL 1 CORR. LTG (C102, C103)	15A, 1P	21 -	+	+	+	- 22	15A, 1P	LEVEL 2 LTG / EF-43 (201, WR201)	, and
	LEVEL 2 LTG (ST102, C100)	15A, 1P	23 -	+	+	+	24	20A, 1P	EXTERIOR LIGHTING WING B / TIME CLOCK	
	PENTHOUSE LTG.	15A, 1P	P 25 -		+	+	26	20A, 1P	EXTERIOR LIGHTING WING B / TIME CLOCK	
	SPARE	15A, 1P	27 -	+	+	+	- 28	15A, 1P	SPARE	
	SPACE		29	+	+	┿	30	15A, 1P	SPARE	
:1	SPACE		31 -	+	+	+	32		SPACE	
ı	SPACE		33 -	+	+	+	- 34		SPACE	
	SPACE		35 -	+	+	+	36		SPACE	
	SPACE		37 -	+	+	+	38	2	SPACE	
	SPACE		39 -	+	+	+	40		SPACE	
	SPACE		41 -	+	+	+	42		SPACE	:

GENERAL NOTES:

A. KA RATINGS FOR PANELS ARE INDICATIVE. FINAL KA RATINGS SHALL BE VERIFIED AS PER ARC FLASH COORDINATION REPORT.

DRAWING NOTES

1 CIRCUIT TO BE CONTROLLED VIA RELAY PANEL



DO NOT SCALE DRAWINGS:

Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.

UNEXPECTED DISCOVERY OF ASBESTOS:

Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

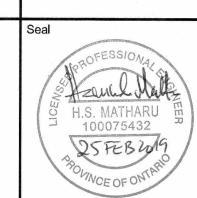


A = Detail number

B = Drawing number where detailed

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\triangle	POST-TENDER ADDENDUM N0.1	TA	FEB 26, 2019
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018
NO.	ISSUED	BY	DATE
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Orientation



Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

J.L.Richards

BUILDING #046 RENOVATIONS

Drawing Title ELECTRICAL PANEL SCHEDULES - 1 OF 4

504034

Cad File No. ----

Scale N.T.S.	Date NOV 2, 2018
Drawn by	Drawing No.
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Approved By	
НМ	LVV
JLR#	
27915	of 17:

NEW PANEL "046 PP B2-7" 208/120V, 3PH, 4-WIRE 225A MAINS **RECESS MOUNTED**

10 KAIC

NEW PANEL "046 PP B2-8" 208/120V, 3PH, 4-WIRE 225A MAINS RECESS MOUNTED 10 KAIC

LOAD

DESCRIPTION

ELEVATOR CAB RECEPTACLE RECEPTACLES RM. 237

RECEPTACLES RM. 235

RECEPTACLES RM. C201 RECEPTACLES RM. 233

RECEPTACLES RM. 231

1 SPARE

SPARE

SPARE SPARE SPARE

SPACE

SPACE

SPACE SPACE

RECEPTACLES RM. 230

RECEPTACLES RM. 226, 232

RECEPTACLES RM. WR234

NEW PANEL "046 PP BP-9"	
208/120V, 3PH, 4-WIRE	

225A MAINS SURFACE MOUNTED 10 KAIC

LOAD	DESCRIPTION	DVD	CC	7	T		CCT	DIAD	DESCRIPTION	TIOAD
LOAD	DESCRIPTION	BKR	CC.	1			ССТ	BKR	DESCRIPTION	LOAD
	RECEPTACLES RM. 302	20A, 1P	1	$ar{}$	•		_ 2	20A, 1P	RECEPTACLES RM. 302	1
	EF-33	15A, 1P	3	brack	┥		4	15A, 1P	EF-34	
1	EF-41	15A, 1P	5	\vdash	-	-	6	20A, 1P	RECEPTACLES - ROOF	1
	EF-32	15A, 1P	7	\vdash	•	Н	- 8	15A, 1P	UH-2	
	SPARE	15A, 1P	9	┝	\vdash		10	15A, 1P	SPARE	
	SPARE	15A, 1P	11	\vdash	-	-	12	15A, 1P	SPARE	
**	SPARE	20A, 1P	13	ŀ	•	\vdash	14	20A, 1P	SPARE	
	SPARE	20A, 1P	15	H	-	\vdash	16	20A, 1P	SPARE	
	SPACE		17	}	-	-	18		SPACE	
	SPACE		19	┝	•	\dashv	20		SPACE	
	SPACE		21	-	-	\vdash	22		SPACE	
	SPACE		23	F	-	-	24	=	SPACE	
	SPACE		25	1	-	\vdash	26		SPACE	
	SPACE		27	1	-	-	28	:	SPACE	
	SPACE		29	L	\perp		30		SPACE	

		2 ;:									
LOAD	DESCRIPTION	BKR	ССТ					ССТ	BKR	DESCRIPTION	LOAD
	RECEPTACLES RM. 219, CORRIDOR	15A, 1P	1	H	尸	\vdash	Ħ	2	15A, 1P	RECEPTACLES RM. 227	1900
	RECEPTACLES RM. 225	15A, 1P	3	-	H	_	Н	4	15A, 1P	RECEPTACLES RM. 223	
	RECEPTACLES RM. 221	15A, 1P	5	┝	Н	H	┿╌	6	20A, 1P	RECEPTACLES RM. 217	
	RECEPTACLES RM. 217	20A, 1P	7	H		_	Н	8	15A, 1P	RECEPTACLE RM. 217	
	RECEPTACLE RM. 217	15A, 1P	9	\vdash	H	_	Н	10	15A, 1P	RECEPTACLE RM. 217	
	RECEPTACLE RM. 217	15A, 1P	11	\vdash	\vdash	-	┿╌	12	15A, 1P	RECEPTACLES RM. 228A	
	RECEPTACLES RM. 217	15A, 1P	13	H		_	+[14	15A, 1P	RECEPTACLES RM. 217	
	RECEPTACLE RM. 217 (DISHWASHER)	15A, 1P	15	\vdash	-	-	Н	16	15A, 1P	EF-42	1
<u> </u>	RECEPTACLE RM. 217 (DISHWASHER)	15A, 1P	17	\vdash	\vdash	H	┿╌	18	15A, 1P	SPARE	A
71	CEIL SPACE RECEPTACLES 224A, 228A	15A, 1P	19	H		_	+[20	15A, 1P	RECEPTACLES RM. 224	
	RECEPTACLES RM. C201	20A, 1P	21	_	-	—	Н	22	15A, 1P	RECEPTACLES RM. 216, 218, 220	
11	RECEPTACLES RM. 222, 224A	15A, 1P	23	H	\vdash	-	┿╌	24	15A, 1P	RECEPTACLES RM. 215	
	RECEPTACLES RM. 222	15A, 1P	25	-		-	Н	26	15A, 1P	VAV BOXES	
	SF-220	15A, 1P	27	_	-	_	Н	28	15A, 1P	SPARE	1
1	SPARE	15A, 1P	29	-	\vdash	T T	•-[30	15A, 1P	EF-40	
	SPARE	15A, 1P	31	H		_	+[32	15A, 1P	FC-3	
	SPARE	15A, 1P	33	-	H	_	+[34	15A, 1P	SPARE	
	SPARE	15A, 1P	35	\vdash	$\vdash\vdash$	H	┿╌	36	15A, 1P	SPARE	
	SPARE	20A, 1P	37	H	\vdash	-	+	38	20A, 1P	SPARE	
1.	SPACE		39	\vdash	-	<u> </u>	$+\Gamma$	40		SPACE	
	SPACE		41	\vdash	\vdash	-	┿╌┌	42		SPACE	:1

TOTAL CONNECTED LOAD: 0 WATTS

PHASE LOAD TO BE FILLED IN BY CONTRACTOR: LOAD PHASE A: _____ LOAD PHASE B: _____

LOAD PHASE C: _____

REMARKS

1. ALL LOADS ARE IN WATTS, UNLESS OTHERWISE NOTED.

† DEDICATED NEUTRAL

3. \star GFI 4. LOCKED

> NEW PANEL "046 PP B1-1X" 208/120V, 3PH, 4-WIRE

225A MAINS RECESS MOUNTED 10 KAIC

LOAD	DESCRIPTION	BKR	ССТ				ССТ	BKR	DESCRIPTION	LOAD
	DOOR OPERATORS RM. ST101A	15A, 1P	1	+	#	丰	2	15A, 1P	EMERGENCY CALL STATION	
	DOOR OPERATORS RM. WR138, 143	15A, 1P	3	+	+	+	4	25A, 1P	P-4 *	**************************************
	RECEPTACLES RM. 117B	20A, 1P	5	+	+	+	6	20A, 1P	RECEPTACLES RM. 117B	
	RECEPTACLES RM. 117B	20A, 1P	7	-	+	+	8	20A, 1P	RECEPTACLES RM. 117A	
	RECEPTACLES RM. 117A	20A, 1P	9	\vdash	+	+	10	20A, 1P	RECEPTACLES RM. 117A	
	DOOR OPERATORS RM. C106	15A, 1P	11	+	+	-	12	15A, 1P	DOOR OPERATORS RM. C103, C104	
	DOOR OPERATORS RM. C100	15A, 1P	13	-	+	+	14	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	RECEPTACLE RM. 117A	20A, 2P	15	+	+	+	16	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	REOLI TAGLE RW. 117A	20/1, 21	17	+	+	+	18	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	SPARE	15A, 1P	19	•	+	+	20	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	SPARE	15A, 1P	21	\vdash	+	+	22	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	SPARE	20A, 1P	23	+	+	-	24	15A, 1P	ACCESS CONTROL POWER SUPPLY	
	SPARE	20A, 1P	25	-	+	+	26	20A, 1P	SPARE	
	SPARE	15A, 1P	27	+	+	+	28	15A, 1P	SPARE	
***	SPARE	15A, 1P	29	+	+	-	30	15A, 1P	EXTERIOR CANOPY / PATHWAY LTG. & TIME CLOCK	
1 2	ELEVATOR SHAFT LIGHTING (EL101, EL201)		31	•	+	+	32	15A, 1P	STAIRWELL LIGHTING LEVEL 1 & 2 (ST103)	
	LEVEL 1 LTG / EBU#1 (118, 120)		33	+	+	+	34	15A, 1P	SPARE	
		15A, 1P	35	+	+	+	36	15A, 1P	STAIRWELL LIGHTING LEVEL 1 & 2 (ST101)	
	LEVEL 1 LTG (124, 132, 136, WR116)		37	+	+	+	38	15A, 1P	LEVEL 1 CORR. LTG. (C102, C103, C105)	
	LEVEL 1 LTG (117, 117A, 117B, 123, 123A, 123C)		39	+	-	+	40	15A, 1P	EXIT LIGHTING (ALL EGRESS LEVEL 1 WING B)	
	LEVEL 1 LTG (125, 127, 129, 133, 135, 137, 139, 143, 145)	15A, 1P	41	\pm	\pm	-	42	15A, 1P	LEVEL 1 CORR. LTG (1C104, C106, C107, C108, ST101A)	

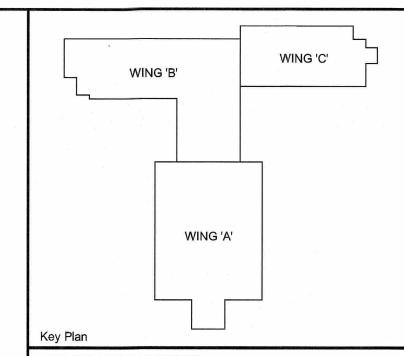
NEW PANEL "046 PP B2-2X" 208/120V, 3PH, 4-WIRE 225A MAINS RECESS MOUNTED

10 KAIC

	=	7				, .					
LOAD	DESCRI	PTION	BKR	ССТ			CĊ	T	BKR	DESCRIPTION	LOAD
- Service Control of the Control of	DOOR OPERATORS	×	15A, 1P	1	•		2	15	5A, 1P	ELEVATOR CAB LIGHTING & VENTILATION	
-	DOOR OPERATORS		15A, 1P	3		•	4	15	5A, 1P	EMERGENCY CALL STATION	
	RECEPTACLE RM. 234		20A, 1P	5	+	+	6	15	5A, 1P	ACCESS CONTROL POWER SUPPLY	
	RECEPTACLE RM. 234		20A, 1P	7	-	+	- 8	15	5A, 1P	SPARE	
	SPARE		15A, 1P	9		+	10) 15	5A, 1P	SPARE	
	SPARE	v v	15A, 1P	11	-	+	12	2 15	5A, 1P	SPARE	
	SPARE		20A, 1P	13	-	+	14	1 20	0A, 1P	SPARE	
	SPARE		20A, 1P	15		\blacklozenge	16	3 20	0A, 1P	SPARE	
	SPACE		3	17	+	+	18	3		SPACE	
	SPACE			19	-	+	20			SPACE	
	SPACE			21	-	\blacklozenge	22	2	:	SPACE	
	SPACE	-		23	+	+	24	1	_	SPACE	
W-10-10-1	SPACE			25	-	+	26	3		SPACE	
	SPARE		15A, 1P	27	+	•	28	3 15	5A, 1P	SPARE	
	SPARE		15A, 1P	29	+	┼┥	30) 15	5A, 1P	SPARE	in the second
	SPARE	:	15A, 1P	31	-	+	32	2 15	5A, 1P	SPARE	
	LEVEL 3 PENTHOUSE EBU	U#2	15A, 1P	33	+	♦	- 34	1 15	5A, 1P	SPARE	
	LEVEL 2 LTG & EF-39	(WR234)	15A, 1P	35	+	+	36	3 15	5A, 1P	STAIRWELL LIGHTING LEVEL 1 & 2 (ST102, C100)	
	LEVEL 2 LTG	(215, 222, 224, 230, WR201)		37	+		38	3 15	5A, 1P	LEVEL 2 CORR. LTG. (C201, C205, C206)	/
	LEVEL 2 LTG (202, 203, 204,	, 205, 207, 208, 209, 211, 213)	15A, 1P	39	+		40) 15	5A, 1P	EXIT LIGHTING (ALL EGRESS LEVEL 2 & 3 WING B)	
	LEVEL 2 LTG (217, 221,	, 223, 225, 227, 229, 233, 235)	15A, 1P	41	+	+	42	2 15	5A, 1P	LEVEL 2 CORR. LTG (C201, C203, C204, C202, 236)	

GENERAL NOTES:

A. KA RATINGS FOR PANELS ARE INDICATIVE. FINAL KA RATINGS SHALL BE VERIFIED AS PER ARC FLASH COORDINATION REPORT.



DO NOT SCALE DRAWINGS:

Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.

UNEXPECTED DISCOVERY OF ASBESTOS:

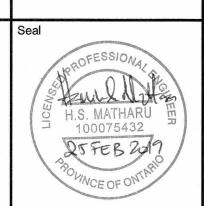
Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.



A = Detail number

B = Drawing number where detailed

	1		
\triangle	POST-TENDER ADDENDUM N0.1	TA	FEB 26, 2019
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018
NO.	ISSUED	BY	DATE



Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1



BUILDING #046 RENOVATIONS

ELECTRICAL PANEL SCHEDULES - 2 OF 4

504034

Cad File No. ----

Scale N.T.S.	Date NOV 2, 2018
Drawn by SO	Drawing No.
Checked By	
НМ	
Approved By	— F-54
HM	
JLR#	
27915	of 173

NEW PANEL "046 PP C1-1"

225A MAINS SURFACE MOUNTED 10 KAIC

208/120V, 3PH, 4-WIRE

LOAD	DESCRIPTION	BKR	ССТ	-			ССТ	BKR	DES	CRIPTION	LOAD
	LEVEL 1 CORR. LTG (C101, 101A)	15A, 1P	1	-	#	7	2	15A, 1P	LEVEL 1 LTG	(113, 113A, 114, 114A, 115)	
	LEVEL 1 LTG (101, 102)	15A, 1P	3	H	-	+	4	15A, 1P	LEVEL 1 LTG	(110, 111)	
	LEVEL 1 LTG (103, 103A)	15A, 1P	5	Н		-	- 6	15A, 1P	LEVEL 1 LTG	(109, 109A, 109B)	
	LEVEL 1 LTG (106, 106A, 106B, 107, 108)	15A, 1P	7	┝	+	+	- 8	20A, 1P	EXTERIOR LIGHTING	WING C / TIME CLOCK	
	SPARE	15A, 1P	9	Н	-	+	10	15A, 1P			=
	SPARE	15A, 1P	11	H	-	+	12	15A, 1P	4 (P	
	SPARE	15A, 1P	13	┝	+	+	14	15A, 1P	SPARE		
	SPARE	15A, 1P	15	H	•	+	16	15A, 1P	SPARE		
	SPARE	15A, 1P	17	H	+	-+	18	15A, 1P	SPARE	127	
	SPACE		19	┝	+	+	20		SPACE		
	SPACE		21	H	+	+	- 22		SPACE		
	SPACE		23	Н	\dashv	-	24		SPACE		
	SPACE		25	┝╪	+	+	26		SPACE		
	SPACE		27	H	-	+	- 28		SPACE		
	SPACE		29	H	+	+	30		SPACE	V.	
	SPACE		31	┝╪	+	+	- 32	-	SPACE	et x	
	SPACE		33	H	-	+	- 34		SPACE		
	SPACE		35	H	+	-	- 36		SPACE		
	SPACE		37	┝	+	+	- 38		SPACE	- 1	
	SPACE		39	\vdash	-	+	40		SPACE		
	SPACE	· ·	41	\vdash	_	-	42		SPACE		

LOAD PHASE B: _____

TOTAL CONNECTED LOAD: 0 WATTS

2. † DEDICATED NEUTRAL

LOAD PHASE A: _____

REMARKS

3. 🔺 GFI 4. LOCKED

PHASE LOAD TO BE FILLED IN BY CONTRACTOR:

1. ALL LOADS ARE IN WATTS, UNLESS OTHERWISE NOTED.

NEW PANEL "046 PP C1-2"

208/120V, 3PH, 4-WIRE 225A MAINS RECESS MOUNTED 10 KAIC

LOAD	DESCRIPTION	BKR	ССТ					ССТ	BKR	DESCRIPTION	LOAD
	RECEPTACLES RM. 101, 102	15A, 1P	1	H		\Box	H	2	15A, 1P	RECEPTACLES RM. 102	
	RECEPTACLES RM. 115	20A, 1P	3	-	⊣	┝┤	Н	4	15A, 1P	RECEPTACLES RM. 114, 115	
	RECEPTACLES RM. 114	15A, 1P	5	┝	╀┦	1	\vdash	6	15A, 1P	RECEPTACLES RM. 114	
	RECEPTACLES RM. 113A	15A, 1P	7	H	- -	\vdash	Н	8	15A, 1P	RECEPTACLES RM. 112, 113	
	RECEPTACLES RM. 111	15A, 1P	9	┝	₽	┥┤	H	10	15A, 1P	EF-44	
	EF-45	15A, 1P	11	-	\vdash	-		12	15A, 1P	RECEPTACLES RM. 106A, 108	
	RECEPTACLES RM. 103, 103A	15A, 1P	13	H	-	Н	+[14	20A, 1P	RECEPTACLES RM. C101	
	RECEPTACLES RM. 106B, 107	15A, 1P	15	┝	\vdash		H	16	15A, 1P	RECEPTACLES RM. 110	
	RECEPTACLES RM. 110, 110A	15A, 1P	17	-	\vdash	H	\vdash	18	15A, 1P	RECEPTACLES RM. 109, 109A	,
	RECEPTACLES RM. 109A, 109B	15A, 1P	19	H	┝╌╵	Н	H	20	15A, 1P	CEILING JUNCTION BOX RM. 103	
	VAV BOXES	15A, 1P	21	-	⊣		+[22	15A, 1P	WATER FOUNTAIN RM. C101	* 4 =
	CEILING JUNCTION BOX RM. 101	15A, 1P	23	-	\vdash	-	\vdash	24	15A, 1P	AUTOMATIC SINKS RM. WR104, WR104A	
	CEILING JUNCTION BOX RM. 101	15A, 1P	25	H	-	Н	H	26	15A, 1P	CEILING JUNCTION BOX RM. 103	
	CEILING JUNCTION BOX RM. 101	15A, 1P	27	\vdash	⊣	┝╌┤	+[28	15A, 1P	CEILING JUNCTION BOX RM. 103	
	CEILING JUNCTION BOX RM. 111	15A, 1P	29	-	╁	-	-	30	15A, 1P	SPARE	
	CEILING JUNCTION BOX RM. 111	15A, 1P	31	H	-	\vdash	H	32	15A, 1P	SPARE	
1	CEILING JUNCTION BOX RM. 111	15A, 1P	33	\vdash	⊣	┥┤	H	34	15A, 1P	SPARE	
j	SPACE		35	H	⊣	-	\vdash	36	15A, 1P	SPARE	
	SPACE		37	H	 		\vdash	38	15A, 1P	SPARE	
	SPACE	177	39	-	\vdash			40	20A, 1P	SPARE	
-	SPACE		41.				\mathbf{F}	42	20A, 1P	SPARE	

NEW PANEL "046 PP C1-1X"

208/120V, 3PH, 4-WIRE 225A MAINS **RECESS MOUNTED** 10 KAIC

LOAD	DESCRIPTION	BKR	CCT				CCT	BKR	DESCRIPTION LO	DAD
	DOOR OPERATOR RM. WR104, C101A	15A, 1P	1	•	-	Ħ	2	15A, 1P	LEVEL 1 CORR. LTG. (C101, C101A, 105)	
	EMERGENCY CALL STATION	15A, 1P	3 -	+	•	Н	4	15A, 1P	EXIT LIGHTING (ALL EGRESS LEVEL 1 WING C)	
	SPARE	15A, 1P	5 -	+-	┿	\vdash	6	15A, 1P	LEVEL 1 LTG (101, 102, 103, 106)	
× *	SPARE	15A, 1P	7 -	•	+	Н	8	15A, 1P	LEVEL 1 LTG (109, 110, 111, 113A, 114)	
	SPARE	20A, 1P	9 -	+	•	Н	10	15A, 1P	LEVEL 1 LTG & EF-46 (WR104)	
- 11 	SPARE	20A, 1P	11 -	+	+	\vdash	12	15A, 1P	LEVEL 1 LTG & EF-47 (WR104A)	
	SPACE	20A, 1P	13 -	•	+-	H	14	15A, 1P	EXTERIOR CANOPY LIGHTING / TIME CLOCK	
	SPACE	20A, 1P	15 -	+	•	Н	16	15A, 1P	SPACE	
	SPACE		17 -	+	-	\vdash	18		SPACE	
	SPACE		19	•	+	Н	20		SPACE	
	SPACE		21 -	+-	•	Н	22		SPACE	
· ·	SPACE		23 -	+	┿	\vdash	24		SPACE	
	SPACE		25 -	•	-	H	26		SPACE	
	SPACE		27	+	•	Н	28		SPACE	
	SPACE		29 -	-	1	\vdash	30		SPACE	

NEW PANEL "046 DP-2E"

120/208V, 3PH, 4-WIRE

400A MAINS

SURFACE MOUNTED

22 KAIC

BKR CCT CCT BKR

DESCRIPTION

 BKR
 CCT
 BKR

 1 00A, 3P
 1 00A, 3P
 PANEL BB

 1 00A, 3P
 9
 10 100A, 3P
 PANEL EX4

 100A, 3P
 10 100A, 3P
 PANEL EX4

 100A, 3P
 10 100A, 3P
 PANEL EX4

 10 100A, 3P
 PANEL EX4
 SPACE

 <t

WING 'C' WING 'B' WING 'A' Key Plan

DO NOT SCALE DRAWINGS:

Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.

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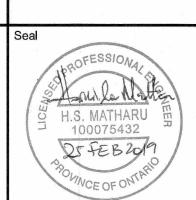
A = Detail number

B = Drawing number where detailed

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\triangle	POST-TENDER ADDENDUM N0.1	TA	FEB 26, 2019
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018
NO.	ISSUED	BY	DATE

Orientation

LOAD



Design, Engineering & Construction Physical Resources Guelph, Ontario. N1G 2W1

J.L.Richards
ENGINEERS - ARCHITECTS - PLANNERS

BUILDING #046

RENOVATIONS

Drawing Title ELECTRICAL PANEL SCHEDULES - 3 OF 4

504034

UNIVERSITY OF GUELPH BUILDING #046

AS INDICATED	NOV 2, 2018
Drawn by	Drawing No.
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Checked By	
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Approved By	
НМ	
JLR#	· ·
27915	of 1
Cad File No	

NEW PANEL "046 DP-2X" 120/208V, 3PH, 4-WIRE 400A MAINS SURFACE MOUNTED 10 KAIC

LOAD PHASE C: _____

LOAD	DESCRIPTION	BKR	ССТ				ССТ	BKR	DESCRIPTION	LOAD
	B1-1X	150A, 3P	1 3 5	[2 - 4 - 6	150A, 3P	C1-1X	
4	B2-2X	150A, 3P	7	H		_	- 8 - 10	??A, 2P	FIRE ALARM PANEL	2
		:	11	Н		•	12		SPACE	
	SPD 3	60A, 3P	13	H	-	+	14		SPACE	
			15	Н	-	+	16	=	SPACE	
	:		17	Н	-	+	18		SPACE	
E	SPACE		19	H		+	20		SPACE	
	SPACE		21	Н	4	+	- 22		SPACE	
	SPACE		23	Н	\vdash	-	- 24		SPACE	
	SPACE	2	25	H		+	26		SPACE	
	SPACE		27	Н	-	+	28		SPACE	
	SPACE		29	Н		-	- 30		SPACE	
	SPACE		31	H	•	+	- 32		SPACE	
	SPACE		33	Н	-	+	- 34		SPACE	
-	SPACE		35	Н		-	- 36		SPACE	
	SPACE		37	H		-	- 38		SPACE	
	SPACE		39	Н	-	\dashv	40		SPACE	
	SPACE	 	41	Ц		_	42		SPACE	1

NEW PANEL "046 DP-1E" 600V, 3PH, 3-WIRE 225A MAINS SURFACE MOUNTED

35 KAIC

LOAD	DES	SCRIPTION	BKR	ССТ	CC	T BKR	DESCRIPTION	LOAD
75 kVA	DP-2E VIA TX-1E		90A, 3P	1 3 5	4 6	20A, 3P	AC-1	
	AC-2	-	40A, 3P	7 9 11	8 10 12	40A, 3P	AC-6	
	RF-1		15A, 3P	13 15 17	16	15A, 3P	RF-2	
	RF-6	= 1	15A, 3P	19 21 23	20 22 24	15A, 3P	P-2A	
\$ 6	P-1		15A, 3P	25 27 29	28	15A, 3P	P-5	
	P-1A		15A, 3P	31 33 35	32	15A, 3P	P-6	-
· · · · · · · · · · · · · · · · · · ·	P-2		15A, 3P	37 39 41	38 40 42	20A, 3P	P-7	
1	ELEVATOR		35A, 3P	43 45 47	46	60A, 3P	SPD 3	
	SPACE	-	12	49	50		SPACE	(A6.37 /
7-311-14900/	SPACE	a a samuel		51	52		SPACE	A6.37
1	SPACE	I STATE OF THE STA		53	54		SPACE	m
	SPACE	3 2 27	····	55	56		SPACE	
	SPACE			57	58		SPACE	
	SPACE	1:		59	60)	SPACE	

DESCRIPTION

LOAD

PANEL U

PANEL X

PANEL Y

HEAT EXCHANGER

SPACE

SPACE SPACE SPACE SPACE SPACE SPACE

SPACE SPACE

SPACE

SPACE

A. KA RATINGS FOR PANELS ARE INDICATIVE. FINAL KA RATINGS SHALL BE

- (1) COORDINATE BREAKER SIZE WITH ELEVATOR SHOP DRAWINGS.
- 2 COORDINATE BREAKER SIZE WITH EXISTING FIRE ALARM PANEL REQUIREMENTS. BREAKER TO BE LOCKABLE AND PAINTED RED.
- 3 COORDINATE BREAKER SIZE WITH SPD MANUFACTURER.
- 4 STARTERS FOR MECHANICAL EQUIPMENT FOLLOWING DEMOLITION OF MCC-1 TO BE FED BY PANEL DP-2X. CONTRACTOR TO COORDINATE BREAKER SIZE REQUIREMENTS WITH EQUIPMENT ON SITE.

GENERAL NOTES:

VERIFIED AS PER ARC FLASH COORDINATION REPORT.

DRAWING NOTES