

August 23rd, 2018

**INVITATION TO TENDER "ITT" NO. PS20181308
CONTRACTOR FOR TENANT IMPROVEMENTS - ECHELON CENTRE**

ADDENDUM NO. 3

PLEASE ADD:

- 2018-08-23 Issued for Addendum # 3, Electrical EA#01R1

1. Drawings - E100
- E101

This addendum must be completed, and attached to your Tender form.

Envelopes submitted by courier or otherwise in-person should be delivered to: Supply Chain Management, 453 West 12th Avenue, 4th Floor (Bid Submission Box) Vancouver City Hall, Vancouver, British Columbia, prior to the Closing Time, in an envelope clearly marked "Addendum No. 1 to Invitation to Tender No. PS20181308: CONTRACTOR FOR TENANT IMPROVEMENTS - ECHELON CENTRE before the closing time of 3:00 p.m., Thursday, August 30th, 2018.

NAME OF VENDOR

SIGNATURE OF AUTHORIZED SIGNATORY

DATE

Nina Wood, Buyer
nina.wood@vancouver.ca

ECHELON CENTRE

**6/F, 575 WEST 8TH AVENUE
VANCOUVER, BC**

CHERNOFF THOMPSON ARCHITECTS

August 23 , 2018

Total 5 pages
including this page

ADDENDUM NO.3

Date: August 23 , 2018

Echelon Centre, Vancouver

CHERNOFF THOMPSON ARCHITECTS

CTA PROJECT NO. 38017

The following revisions supersede the information contained in the original drawings and specification issued for the above named project, and shall become part thereof. No consideration will be allowed for extras due to the contractor or any subcontractor not being familiar with this Addendum.

1. Refer to Electrical clarification EA#01R1.

Electrical Addendum EA#01R1

| | | |
|---|-------------------------|-------------------|
| Project Name: Tenant Fit-out for Echelon Centre | | |
| Client: City of Vancouver | | |
| Project No.: 39278.00 | Date: August 21, 2018 | |
| Distribution: | | |
| Tony Yip | Chernoff Thompson Arch. | tony.y@cta.bc.ca |
| Peggy Mittmann | Chernoff Thompson Arch | peggy.m@cta.bc.ca |

This addendum forms part of the Contract Documents and is to be read, interpreted, and coordinated with all other parts. The cost of all work contained herein is to be included in the Contract Sum. The specifications and drawings are complementary. Items listed under the specification in this addendum and having influence on the drawings are so deemed to alter the drawings. Items listed under the drawings in this addendum and having influence on the specification are so deemed to alter the specification.

1. Drawing E100:

- a. Clarified Key Note #2 for Pac poles.
- b. Clarified Key Note #6 for meeting room surface floor box.
- c. Revised General Notes G. Contractor must provide cat 6 cables from data outlets to run back to IT Cabinet 608.

2. Drawing E101:

- a. Revised Key Note #1 and added Key Note #4 to clarify occupancy sensors / light switching requirements.
- b. Added 1x light switch in Meeting Room 607 to control 2x light fixtures above the TV.

Prepared by,

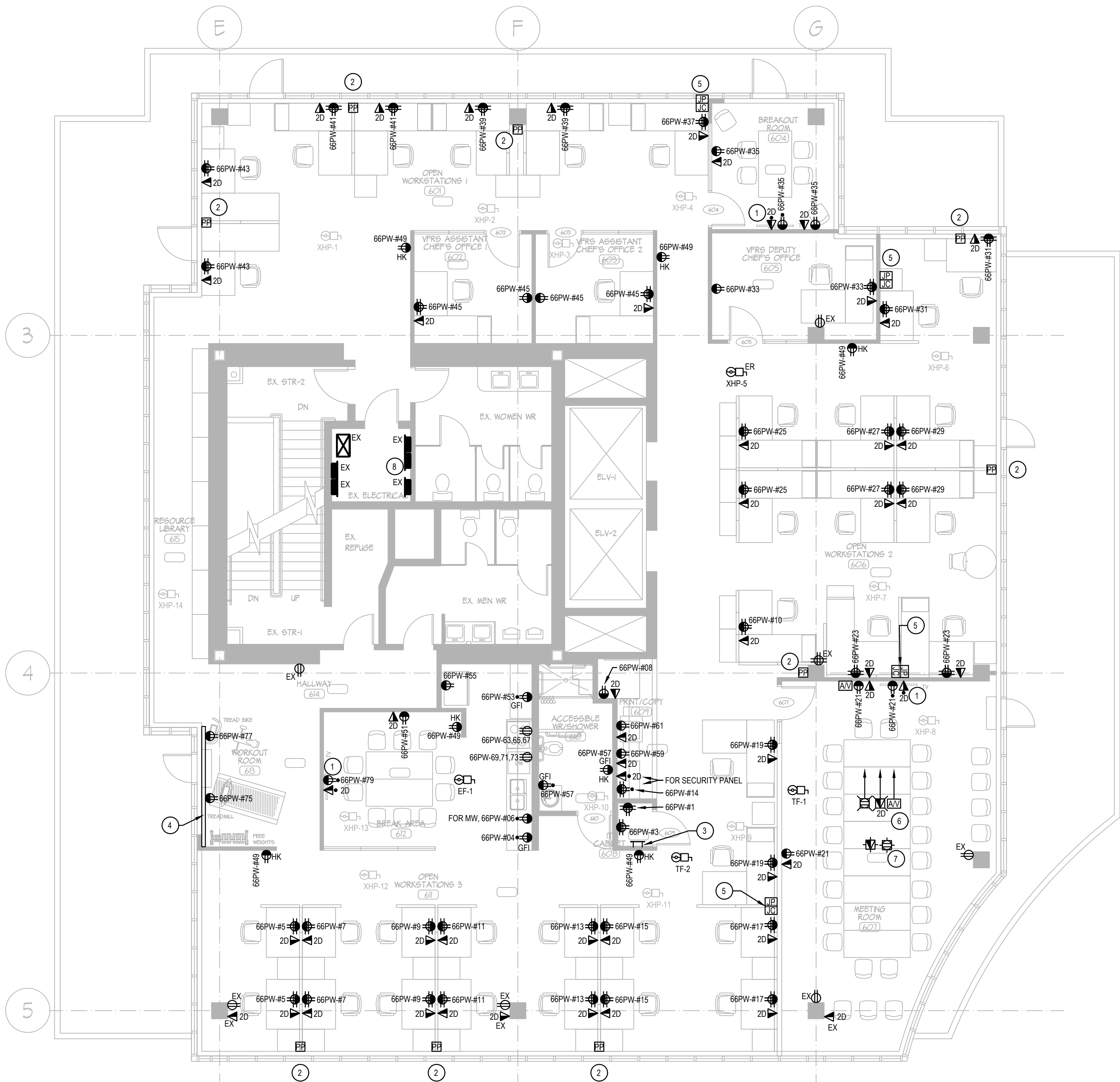
Williams Engineering Canada Inc.

Alex Gonzales, P.Eng.
Electrical Engineer

T 604.689.1915
E agonzales@williamsengineering.com

Enclosure(s): E100, E101

End of Addendum No. EA#01R1



1 NEW POWER & LOW TENSION PLAN
E100 1/75

GENERAL NOTES

- A. FOR ALL WORK PERTAINING TO FIRE ALARM SYSTEM, CONTRACTOR MUST COORDINATE DIRECTLY WITH BASE BUILDING SUPERINTENDENT PRIOR TO STARTING WORK. CONTRACTOR MUST PROVIDE FIRE ALARM VERIFICATION FOR THE ENTIRE FLOOR TO BE DONE BY LANDLORD'S CONSULTANT. VERIFICATION COST TO BE CARRIED BY THIS CONTRACTOR.
- B. PROVIDE STICKERS AT ALL OUTLET FACE PLATES INDICATING CIRCUIT NUMBERS OR DATA DROP PORT.
- C. CONTRACTOR SHALL PROVIDE FIRE-STOPPING ASSEMBLIES TO ALL PENETRATIONS IN FIRE RATED SEPARATIONS.
- D. PROVIDE POWER AND DISCONNECT TO NEW MECHANICAL EQUIPMENT. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND TO UNITS' NAMEPLATES FOR EXACT POWER REQUIREMENTS. FOR HEAT PUMPS THAT IS BEING RE-LOCATED, CONTRACTOR MUST PROVIDE POWER TO NEW LOCATIONS.
- E. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND DETAILS.
- F. ALL WIRING FOR POWER, DATA AND AV SHALL BE IN SEPARATE RACEWAYS.
- G. 30' BY DATA OUTLETS INDICATE NUMBER OF DATA DROPS. PROVIDE 3/4" CONDUIT INSIDE WALL FOR EACH DATA OUTLET. CONTRACTOR TO PROVIDE CAT.6 CABLES TO RUN FROM DATA OUTLETS BACK TO IT CABINET 608.

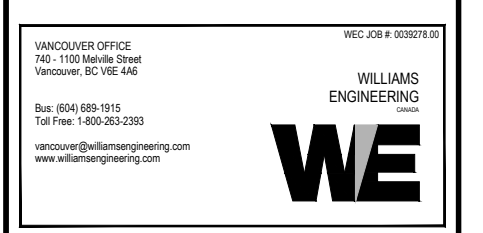
KEY NOTES

- 1. PROVIDE POWER AND DATA MOUNTED BEHIND THE TV. OUTLETS ARE TO BE PROVIDED BY FURNITURE SUPPLIER.
- 2.1. CONTRACTOR TO PROVIDE POWER CIRCUITS TO BE CONNECTED TO FURNITURE WHIP AND MUST BE COMPLETED FOR FINAL CONNECTIONS AFTER FURNITURES ARE INSTALLED. CONTRACTOR TO ENSURE CIRCUIT BREAKERS AMPERAGE RATING TO MATCH FURNITURE OUTLET AMPERAGE RATING.
- 2.2. DATA WIRING TO PASS THROUGH PAC POLES AND TERMINATE AT FURNITURE DATA OUTLETS.
- 2.3. PAC POLES TO BE EQUIVALENT TO LEGRAND TELE-POWER POLES WIREMOLD 30TP, MUST HAVE SEPARATE COMPARTMENTS FOR POWER AND DATA CABLES. PROVIDE ALL NECESSARY COMPONENTS TO ENSURE WIRING ARE ABLE TO PASS THROUGH.
- 3. PROVIDE THE FOLLOWING FOR IT CABINET:
 - 3.1. GROUND BUS ON 1" STANDOFFS. COPPER, 1/4" THK x 4" HIGH x 12" WIDE. PROVIDE #6 BARE COPPER CONDUCTOR FROM BUILDING GROUNDING SYSTEM TO THIS BUS BAR. LOCATE BUS BAR @+12" AFF.
 - 3.2. 2x 20A RATED QUADPLEX WITH 20A DEDICATED CIRCUITS.
 - 3.3. PROVIDE NEW WIRE MOLD AND OUTLETS TO SERVE POWER TO EXERCISE MACHINES.
- 4. PROVIDE THE FOLLOWING:
 - 4.1. JUNCTION BOX FOR FURNITURE POWER WHIP CONNECTION.
 - 4.2. FEED-THRU JUNCTION BOX FOR DATA CABLES TO PASS-THROUGH TO FEED THE DESKS.
 - 4.3. JUNCTION BOXES MUST BE RECESSED IN WALL AND CONCEALED.
- 5. FOR MEETING ROOM, PROVIDE THE FOLLOWING:
 - 5.1. FLOOR BOX: SURFACE MOUNTED UNDER THE TABLE TO HOUSE 1x 20A RATED DUPLEX RECEPTACLE, 1x DATA OUTLET AND AV CONNECTIONS.
 - 5.2. POWER, DATA AND AV WIRINGS TO RUN SURFACE ON FLOOR TO TV WALL. PROVIDE LOW PROFILE WIREMOLD FOR PHYSICAL PROTECTION OF WIRES. PROVIDE CONDUITS INSIDE WALL TO HOUSE THE WIRES TO BE 1" FOR DATA, 3/4" FOR POWER, 2" FOR AV.
 - 5.3. COORDINATE EXACT LOCATIONS & REQUIREMENTS WITH AV SUPPLIER.
- 6. LOW PROFILE WIREMOLD TO BE EQUIVALENT TO LEGRAND WIREMOLD OFR SERIES OFRBC-8 AND OVERFLOOR RACEWAY 4-GANG BOX OFR48-4. PROVIDE DIVIDERS TO SEPARATE POWER, DATA, AV WIRINGS. PROVIDE ALL NECESSARY COMPONENTS SUCH AS TRANSITION FITTING, RACEWAY BASE & COVER, IN WALL ENTRANCE END FITTING, TRANSITION ELBOW, OUTLET FACE PLATES, POWER RECEPTACLE, DATA OUTLET, AV TERMINATION, ETC. FOR A COMPLETE INTEGRATED OFR SYSTEM. PROVIDE BIGGER WIREMOLD / FLOOR BOX AS NEEDED TO ACCOMMODATE ALL WIRING.
- 7. PROVIDE CEILING MOUNTED POWER AND DATA OUTLETS FOR PROJECTOR. COORDINATE EXACT LOCATIONS ON SITE.
- 8. CONTRACTOR TO PROVIDE AND INSTALL NEW LIGHTING CONTROLS PANEL C/W TIME CLOCK AND RELAYS. LABEL AS 'LVLC#1'. CONTRACTOR MAY CHOOSE TO RE-USE EXISTING RELAYS IF THEY ARE COMPATIBLE WITH NEW CONTROLLER. PERFORM A SITE VISIT TO ASSESS THE CONDITION AND TO DETERMINE WHAT COMPONENTS ARE CURRENTLY EXISTING. PROVIDE ALL NEW NECESSARY COMPONENTS INCLUDING BUT NOT LIMITED TO ENCLOSURE, TIME CLOCK, RELAY CONTROLLER, RELAYS, CONTACTS, LOW VOLTAGE WIRING, LIGHT SWITCHES, ETC. TO ACHIEVE A FULLY FUNCTIONAL AUTOMATIC LIGHTING CONTROL SYSTEM.

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|-----|----------|----------------------------------|
| E | 21/08/18 | ISSUED AS PART OF ADDENDUM EAH1 |
| D | 08/08/18 | ISSUED FOR TENDER |
| C | 08/02/18 | ISSUED FOR BUILDING PERMIT |
| B | 07/23/18 | ISSUED FOR REVIEW & COORDINATION |
| A | 07/20/18 | ISSUED FOR COORDINATION |
| No. | DATE | REVISION |
| | | (887mm/yr) |

PROJECT TITLE
 TENANT FIT-OUT FOR ECHELON CENTRE
 6F-575 8TH AVE. WEST VANCOUVER

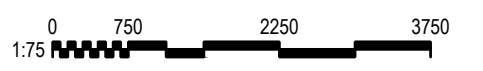
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SHEET TITLE
 6TH FLOOR NEW POWER & LOW TENSION PLAN

| | |
|-------------|-------------|
| PROJECT No. | 0330278.00 |
| DRAWN | AG |
| CHECKED | MA |
| SCALE | AS NOTED |
| DATE | JULY 2018 |
| PRINTED | AUGUST 2018 |

DRAWING No.
 E100



110-1281 WEST GEORGIA, VANCOUVER, B.C. V6E 3J5
 TELEPHONE (604) 669-9460 FAX: (604) 683-7684

CHERNOFF THOMPSON ARCHITECTS



GENERAL NOTES

- A. FOR ALL WORK PERTAINING TO FIRE ALARM SYSTEM, CONTRACTOR MUST COORDINATE DIRECTLY WITH BASE BUILDING SUPERINTENDENT PRIOR TO STARTING WORK. CONTRACTOR MUST PROVIDE FIRE ALARM VERIFICATION FOR THE ENTIRE FLOOR TO BE DONE BY LANDLORD'S CONSULTANT. VERIFICATION COST TO BE CARRIED BY THIS CONTRACTOR.
- B. CONTRACTOR TO RE-USE EMERGENCY CIRCUITS FOR EXIT SIGNS AND EMERGENCY LIGHTS.
- C. CONTRACTOR TO PROVIDE NEW EXIT SIGNS AS SHOWN ON LAYOUT. EXIT SIGNS TO BE LED GREEN RUNNING MAN PICTOGRAM, SELF-POWERED FOR 120 MINUTES, EQUIVALENT TO LUMACELL "LA" SERIES. RE-USE EXISTING EXIT SIGN CIRCUITS AND EXTEND TO NEW LOCATIONS. CONTRACTOR TO DETERMINE VOLTAGE USED FOR EXIT SIGN CIRCUIT(S) AND ENSURE NEW DEVICES MATCH THE VOLTAGE.
- D. AS STATED ON THE POWER LAYOUT, CONTRACTOR TO PROVIDE NEW LIGHTING CONTROLS PANEL C/W TIME CLOCK, RELAYS AND CONTACTS. LABEL CONTROL PANEL AS 'LVLCM'. THESE LIGHTS TO AUTOMATICALLY TURN 'ON' AT THE START OF TIME CLOCK PROGRAMMED HOURS AND TO AUTOMATICALLY TURN 'OFF' AT THE END OF PROGRAMMED HOURS. COORDINATE HOURS TO BE USED FOR PROGRAMMING DIRECTLY WITH CLIENT.
- E. UNLESS NOTED OTHERWISE, ALL LIGHT FIXTURES MUST BE WIRED TO BE TIED TO THE NEW LIGHTING CONTROLS SYSTEMS. CONTRACTOR TO RE-WIRE LIGHTS AS NEEDED.
 - a. ALL LIGHTS SHOWN ON NEW LIGHTING PLAN LOCATED INSIDE ENCLOSED ROOMS TO BE RE-WIRED SUCH THAT THESE LIGHT FIXTURES ARE CONTROLLED BY LOCAL OCCUPANCY SENSORS. ALL LUMINAIRES CONTROLLED BY LOCAL OCCUPANCY SENSORS MUST NOT BE TIED TO BASE BUILDING LIGHTING CONTROLS SYSTEM.
 - b. CONTRACTOR TO PROVIDE EMERGENCY LIGHTING LAYOUT AS SHOWN ON PLAN. RE-WIRE EXISTING EMERGENCY LIGHTING CIRCUITS TO ACHIEVE LAYOUT SHOWN. THESE LIGHTS TO SERVE AS NIGHT LIGHTS AND EMERGENCY LIGHTING THEREFORE MUST NOT BE PART OF SWITCHING.
- F. CONTRACTOR TO VERIFY VOLTAGE OF EXISTING LUMINAIRES. ALL NEW OCCUPANCY SENSORS, LIGHT SWITCHES, DIMMERS TO MATCH VOLTAGE RATING OF LUMINAIRES.
- G. CONTRACTOR MUST HIRE AND DIRECTLY INTERFACE WITH LIGHTING CONTROLS MANUFACTURER. PROVIDE ALL NECESSARY COMPONENTS, DEVICES, WIRING, PROGRAMMING FOR A FULLY FUNCTIONAL LIGHTING CONTROLS SYSTEMS.
- H. CONTRACTOR SHALL PROVIDE AND PAY FOR COMMISSIONING AND PROGRAMMING OF TIME CLOCK AND LIGHTING CONTROLS DEVICES. COORDINATE DIRECTLY WITH CLIENT FOR HOURS TO BE USED FOR TIME CLOCK FUNCTION. CONTRACTOR MUST CARRY THE COST OF INDEPENDENT THIRD PARTY TO PERFORM THE COMMISSIONING. SUBMIT COMMISSIONING REPORT TO THE ELECTRICAL CONSULTANT UPON COMPLETION.

KEY NOTES

- 1. CONTRACTOR TO PROVIDE CEILING MOUNTED OCCUPANCY SENSORS AS SHOWN ON LAYOUT. OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY (INFRARED & MICROPHONICS / ULTRASONIC). SENSORS TO AUTOMATICALLY TURN 'ON' UPON OCCUPANCY AND MUST AUTOMATICALLY TURN 'OFF' WHEN 30 MINUTES OF VACANCY IS DETECTED. ASSOCIATED WALL TOGGLE SWITCH MAY BE USED BY OCCUPANTS FOR MANUAL CONTROL OF LIGHTS.
- 2. CONTRACTOR TO PROVIDE NEW MASTER SWITCH (REPLACE EXISTING SWITCH). THIS SWITCH MUST FUNCTION AS AN OVERRIDE SWITCH TO TIME CLOCK TO ALLOW OCCUPANTS TO TURN LIGHTS 'ON' OUTSIDE OF PROGRAMMED HOURS. REFER TO GENERAL NOTES ABOVE FOR MORE LIGHTING INSTRUCTIONS.
- 3. CONTRACTOR TO PROVIDE NEW 4" LED DOWN LIGHT FOR SHOWER TO BE EQUIVALENT TO SENSO LATONA 1, WET RATED, 1000 LUMENS, 10 WATTS, CRI 80+, 2 STEP MACADAM ELLIPSE, 3500K COLOUR TEMP, TO BE MOUNTED RECESSED IN DRYWALL CEILING.
- 4. CONTRACTOR TO PROVIDE WALL MOUNTED OCCUPANCY SENSORS AS SHOWN ON LAYOUT. OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY (INFRARED & MICROPHONICS / ULTRASONIC). SENSORS TO AUTOMATICALLY TURN 'ON' UPON OCCUPANCY AND MUST AUTOMATICALLY TURN 'OFF' WHEN 30 MINUTES OF VACANCY IS DETECTED.
- 5. SMALL-CASE LETTERS USED IN MEETING ROOM 607 INDICATE LIGHTING CONTROLS GROUPING.

1 NEW LIGHTING PLAN
E101 1/75

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| E | 21/08/18 | ISSUED AS PART OF ADDENDUM E/AH |
| D | 08/08/18 | ISSUED FOR TENDER |
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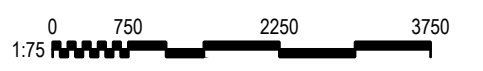
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SHEET TITLE
6TH FLOOR NEW LIGHTING & FIRE ALARM PLAN

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|-------------|-------------|
| PROJECT No. | 0030278.00 |
| DRAWN | AG |
| CHECKED | MA |
| SCALE | AS NOTED |
| DATE | JULY 2018 |
| PRINTED | AUGUST 2018 |

DRAWING No.
E101



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