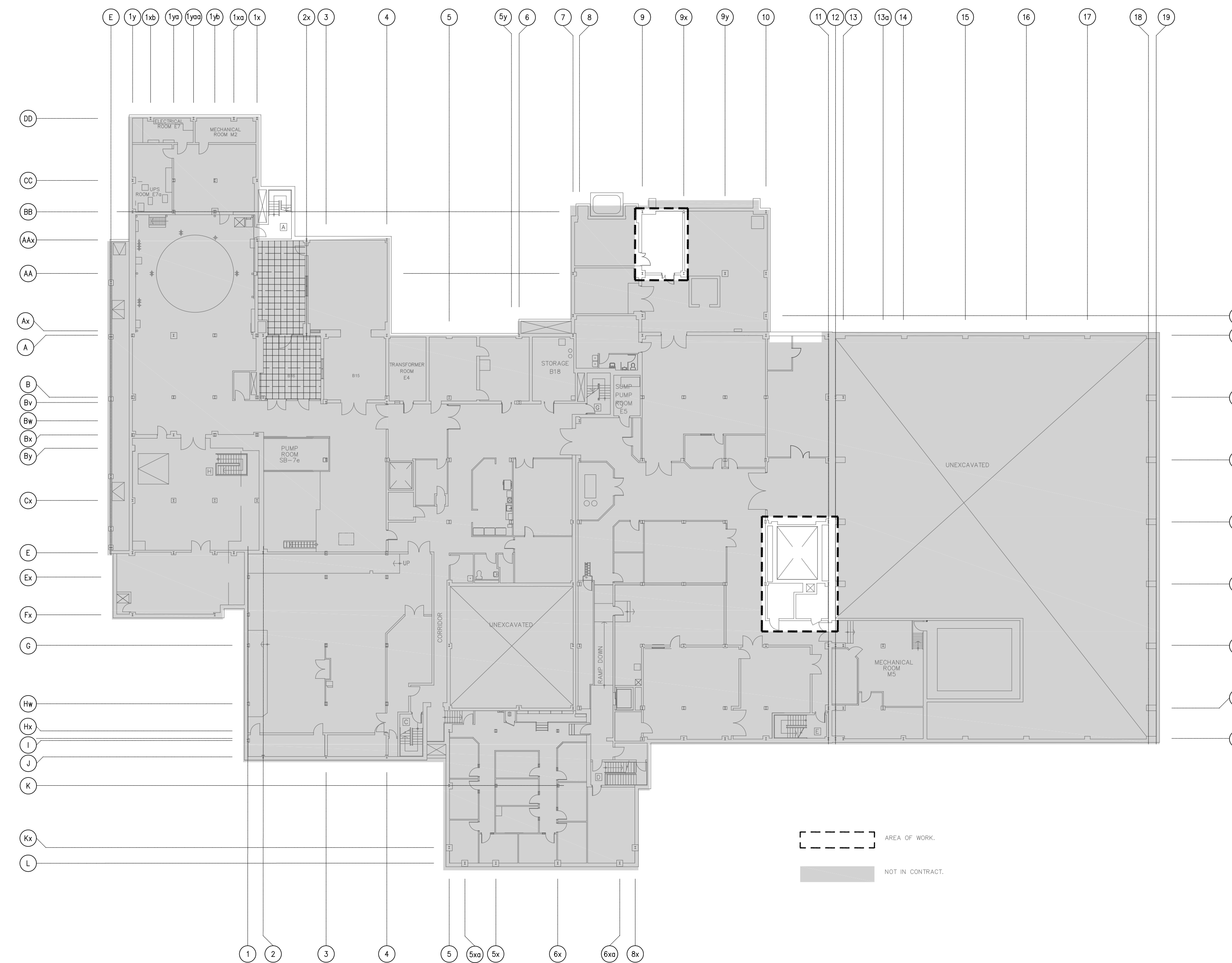


ISSUED FOR TENDER
SEPTEMBER 2016

DAVID FLORIDA LABORATORY
LARGE FREIGHT ELEVATOR
REPLACEMENT
BUILDING 65, SHIRLEY'S BAY

ÉRIC VACHON
Director, Security & Facilities

M. FARID, P. Eng.
Manager, Building Operations & Security



DRAWING LIST	
ELECTRICAL	
DRAWING #	TITLE, KEY PLAN, LEGEND AND DRAWING LIST
E000	TITLE, KEY PLAN, LEGEND AND DRAWING LIST
E001	SPECIFICATIONS
E002	POWER LAYOUT DEMOLITION AND NEW
E003	LIGHTING LAYOUT, FIRE ALARM DEMOLITION AND NEW

ELECTRICAL LEGEND

⊞	EXISTING LINE VOLTAGE TOGGLE SWITCH
⊞	347/600V 3Ø/4W DISTRIBUTION PANEL
⊞	120/208V 3Ø/4W DISTRIBUTION PANEL
⊞	JUNCTION BOX
⊞	DUPLEX RECEPTACLE
⊞	DISCONNECT
⊞	SMOKE DETECTOR

ABBREVIATIONS

N	NEW
D	TO BE REMOVED/DEMOLISHED

GENERAL SYMBOLS LEGEND

#	DRAWING NOTE REFERENCE
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LINE TYPE LEGEND

—	EXISTING
- - - - -	EXISTING TO BE REMOVED
—	NEW

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No.	Revision	Date

PROFESSIONAL STAMP

A	A detail no. no. du détail
C	B location drawing no. no. de dessin no.
	C drawing no. dessin no.

project DAVID FLORIDA LABORATORY project
BUILDING No. 65, SHIRLEY'S BAY, ONTARIO
LARGE FREIGHT ELEVATOR REPLACEMENT

drawing TITLE, KEY PLAN, LEGEND AND DRAWING LIST dessin

designed	M. MANSOUR, P. Eng.	conçu
date	APRIL 2016	
drawn	M. MANSOUR, P. Eng.	dessiné
date	APRIL 2016	
reviewed	M. FARID, P. Eng.	examiné
date	APRIL 2016	
approved	M. MANSOUR, P. Eng.	approuvé
date	APRIL 2016	
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project no.	no. du projet
CSA15-M10	
drawing no.	no. du dessin
E000	

1 BASEMENT FLOOR KEY PLAN
E000 SCALE: N.T.S.

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ELECTRICAL SPECIFICATION NOTES:

1.0 GENERAL

- DO COMPLETE INSTALLATION IN ACCORDANCE WITH THE FOLLOWING: ONTARIO BUILDING CODE, ONTARIO ELECTRICAL CODE, AMENDMENTS AND APPLICABLE LOCAL REGULATIONS C/W INSPECTION CERTIFICATE.
- PATCH, SAND, PRIME AND PAINT AFFECTED AREAS TO MATCH EXISTING, REPAIR AND MAKE GOOD ALL WALLS, CEILINGS, ETC. CUT UNDER THIS DIVISION.
- PRIOR TO TENDER, CONFIRM SITE CONDITIONS AND LOCATION OF EXISTING SERVICES.
- DRAWINGS INDICATE GENERAL LOCATION, QUANTITY AND TYPE OF OUTLETS FOR ELECTRICAL SERVICES ONLY. DO NOT SCALE.
- SUBMIT ALL PLANS REQUIRED BY THE INSPECTION AUTHORITY FOR APPROVAL. FURNISH INSPECTION CERTIFICATE. PRIOR TO FINAL PAYMENT, TO SHOW INSTALLED WORK CONFORMS WITH SPECIFICATION AND REGULATIONS. PAY ALL FEES AND PERMIT COSTS.
- SUBMIT COPY OF SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL. PROVIDE SHOP DRAWINGS OF ALL EQUIPMENT AND DEVICES.
- UPON COMPLETION OF WORK PROVIDE MARKUP PRINTS DESCRIBING ASBUILT CONDITIONS AND 1 COPY OF MAINTENANCE MANUALS.
- ALLOW FOR RELOCATION OF OUTLETS UP TO 3000mm PRIOR TO INSTALLATION AT NO EXTRA COST.
- ALL WIRING DEVICES TO BE SPECIFICATION GRADE.
- INSTALL ELECTRICAL EQUIPMENT AT THE FOLLOWING HEIGHTS UNLESS OTHERWISE INDICATED OR DIRECTED OTHERWISE:
 - LOCAL SWITCHES AND DIMMER SWITCHES: 1220mm
 - GENERAL RECEPTACLES: 400mm
 - RECEPTACLES ABOVE COUNTER: 175mm ABOVE BACKSPASH
 - PANELBOARDS: 1800mm FROM THE TOP OF PANELBOARD TO FLOOR
 - TELECOM AND CABLE TV OUTLETS: 400mm
 - FIRE ALARM PULL STATIONS: 1200mm
 - WALL MOUNTED FIRE ALARM BELLS, HORNS OR STROBES: 2400mm
 - EMERGENCY LIGHTING BATTERY UNITS AND REMOTE HEADS: 2400mm
 - CARD READERS, KEYPADS AND SECURITY DEVICES: 1220mm
 - DOOR CONTACTS: TOP OF DOOR FRAME
- SCAN ALL AFFECTED SHAFT WALLS, BLOCK WALLS, FLOORS OR OTHER SUCH ASSEMBLIES PRIOR TO ANY CORE DRILLING OR SAW-CUTTING.
- PROVIDE APPROPRIATE FIRESTOPPING FOR ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES.
- BE RESPONSIBLE FOR REMOVAL AND REINSTATING CEILINGS AS NECESSARY.
- ALL NEW & EXISTING SUSPENDED LIGHT FIXTURES, FANS ... ETC. SHALL BE PROVIDED WITH SECURITY CHAINS TO MEET CODE.
- CONTRACTOR TO BALANCE ELECTRICAL LOAD ON THE THREE-PHASE SUPPLY. MEASUREMENTS TO BE SUBMITTED FOR APPROVAL BEFORE FINAL INSPECTION BE CARRIED OUT.
- USE OF TIE WRAPS, TIE WIRE, PERFORATED BAND, WIRE CHAIN OR SOLID RING TYPE HANGERS IS NOT PERMITTED.
- USE OF C-CLAMPS ON BEAMS IS NOT PERMITTED. ALWAYS USE BEAM CLAMP TO SUPPORT THREADED RODS FROM BEAMS OR OWSJ.

2.0 WIRING METHOD

- USE ELECTRICAL METALLIC TUBING (EMT) FOR ALL WORK EXCEPT FOR THE FOLLOWING USAGE:
 - USE FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO FLUORESCENT FIXTURES.
- CONDUITS & JUNCTION BOXES SHALL NOT BE LOADED MORE THAN 60% OF ITS MAXIMUM RATED CAPACITY.
- ALL CONNECTORS & COUPLINGS SHALL BE STEEL WITH INSULATED THROATS.
- ALL CONDUITS TO BE EMT, MINIMUM OF 3/4" UNLESS OTHERWISE STATED. ARMORED CABLE IS NOT A CONDUIT & PROJECT MANAGER MUST APPROVE THE USE OF IT.
- PROVIDE IN ALL CONDUITS AN INSULATED GREEN GROUNDING CONDUCTOR (NO.12 AWG), RUN WITH CIRCUIT CONDUCTORS AN TO ALL ENCLOSURES.
- PROVIDE PULL STRINGS IN ALL EMPTY CONDUIT.
- CONDUCTOR MATERIAL (WIRE IN CONDUIT) - ANNEALED COMMERCIAL GRADE, 98% CONDUCTIVITY, COPPER. NO.14 TO NO.10 AWG - SOLID; NO.8 AND LARGER - STRANDED. RW90, UNLESS OTHERWISE NOTED. PROVIDE 600V RATED FOR 347/600V AND 120/208V WIRING. SIZES NO.12 AND NO.10 AWG.
- RWU90, NO.8 AND LARGER, 1000V RATED FOR 347/600V AND 120/208V WIRING.
- ALL WIRING TO BE MINIMUM #12 AWG COPPER STRANDED WIRES UNLESS OTHERWISE STATED.
- FOR BRANCH CIRCUITS OVER 23M (75') IN LENGTH, USE NO.10 AWG FOR ENTIRE LENGTH. PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR ALL COMPUTER BRANCH CIRCUITS (SIZE TO MATCH HOT WIRE).
- IN FINISHED AREAS RUN CONDUIT CONCEALED, PARALLEL TO BUILDING LINES.

3.0 GROUNDING

- GROUNDING EQUIPMENT TO CSA C22.2 NO. 41. COPPER GROUNDING CONDUCTORS TO CSA C22.1, SECTION 10 (LATEST EDITION). INSULATED GROUNDING CONDUCTORS AS HEREIN SPECIFIED.
- NON-CORRODING ACCESSORIES NECESSARY FOR GROUNDING SYSTEM, TYPE, SIZE, MATERIAL AS INDICATED, INCLUDING BUT NOT NECESSARILY LIMITED TO:
 - GROUNDING AND BONDING BUSHINGS; PROTECTIVE TYPE CLAMPS; BOLTED TYPE CONDUCTOR CONNECTORS; THERMIT WELDED TYPE CONDUCTOR CONNECTORS; BONDING JUMPERS AND STRAPS; PRESSURE WIRE CONNECTORS.
- INSTALL COMPLETE PERMANENT, CONTINUOUS, SYSTEM AND CIRCUIT GROUNDING SYSTEMS, INCLUDING ELECTRODES, CONDUCTORS, CONNECTORS AND ACCESSORIES. TO CONFORM TO REQUIREMENTS OF ARCHITECT/ENGINEER AND LOCAL AUTHORITY HAVING JURISDICTION OVER INSTALLATION.
- MAKE GROUNDING CONNECTIONS IN RADIAL CONFIGURATION ONLY, WITH ALL CONNECTIONS TERMINATING AT SINGLE GROUNDING POINT. AVOID LOOP CONNECTIONS. ENSURE UNIFORMITY OF GROUNDING PRACTICES THROUGHOUT INSTALLATION. INSTALL SYSTEM AND CIRCUIT GROUNDING CONNECTIONS TO THE NEUTRALS OF THE SECONDARY SYSTEMS.
- FOR STANDARD DUPLEX RECEPTACLES PROVIDE INSULATED GROUND CONDUCTOR. SIZE FOR EQUIPMENT GROUND IN ACCORDANCE WITH ELECTRICAL CODE. MINIMUM CONDUCTOR SIZE #12 WITH GREEN INSULATION. GROUND CONDUCTOR TO BE CONNECTED UNDER A BONDING SCREW TO OUTLET BOX(ES) AND PANELBOARD.
- FOR ISOLATED GROUND DUPLEX RECEPTACLES PROVIDE EQUIPMENT GROUNDING CONDUCTOR AS FOR STANDARD RECEPTACLES, AND SEPARATE INSULATED GROUND CONDUCTOR. SIZE TO MATCH LINE CONDUCTORS WITH GREEN INSULATION AND YELLOW STRIP. ISOLATED GROUND CONDUCTOR TO BE CONNECTED TO ISOLATED GROUND TERMINAL STRIP PROVIDED IN PANEL.
- IN PANELBOARD, ISOLATED GROUND BUS AND EQUIPMENT GROUND BUS TO BE TIES TOGETHER WITH #10 INSULATED CONDUCTOR.
- INSTALL SEPARATE 'GREEN' GROUND CONDUCTOR IN SAME CONDUIT WITH CIRCUIT (POWER WIRING) CONDUCTORS. BOND SECURELY TO GROUND SCREW IN EACH OUTLET, JUNCTION, PULL BOX AND EQUIPMENT ENCLOSURE. GROUND CONDUCTOR EQUAL IN AMPACITY TO SIZE OF CIRCUIT AMPACITY OR IN ACCORDANCE WITH CODE FOR EQUIPMENT GROUNDING.

4.0 IDENTIFICATION

- IDENTIFY SOURCE, VOLTAGE AND LOAD ON ALL JUNCTION BOXES. USE OF INDELIBLE MARKER FOR THESE LOCATIONS IS ACCEPTABLE.
- ALL CONDUCTORS TO BE COLOUR CODED IN ACCORDANCE WITH CSA 22.1 - SECTION 4.036 AND EXISTING BUILDING WIRE COLOUR CODE SYSTEM.
- ALL CONDUIT RUNS SHALL BE COLOR CODED TO BUILDING COLOR CODE. ALL CONDUITS TO BE MARKED AT THE START AND END OF EACH RUN & AT BOTH SIDES OF ANY WALL. STANDARD ELECTRIC TAPE IS TO BE USED FOR MARKING.
 - 120/208V : BLUE
 - 120/240V : GREY
 - 277/480V : BLACK
 - 347/600V : PURPLE
 - BUILDING AUTOMATION & LAB CONTROLS: ORANGE
 - SECURITY ACCESS & CAMERA: YELLOW
 - GROUNDING: BROWN
 - TELEPHONE / DATA: GREEN
 - PA FIRE SAFETY: PINK
 - FIRE ALARM: RED
 - SPECIAL COMMUNICATION: WHITE
- UPDATE ALL PANELBOARD SCHEDULES AS REQUIRED.
- PROVIDE LAMICOID IDENTIFICATION LABELS ON ALL EQUIPMENT.
- MARK ALL CIRCUIT NUMBERS ON RECEPTACLES, DOWNFEED SERVICE POLES, ETC. WITH BLACK LETTERS ON CLEAR P-TOUCH LABELS.

5.0 MOULDED CASE CIRCUIT BREAKERS

- PROVIDE MOULDED CASE CIRCUIT BREAKERS TO CSA 22.2 NO. 5.1, WITH THE FOLLOWING FEATURES:
 - PROVIDE AUTOMATIC MOULDED CASE CIRCUIT BREAKERS IN PANELBOARDS AS INDICATED. BREAKER SIZES AND TRIPS AS SCHEDULED, OR INDICATED ON THE ONE-LINE DIAGRAM.
 - USE BOLT-ON MOULDED CASE CIRCUIT BREAKERS, QUICK-MAKE, QUICK-BREAK TYPE FOR MANUAL AND AUTOMATIC OPERATION WITH TEMPERATURE COMPENSATION FOR 40°C (104°F) AMBIENT.
 - BREAKERS SHALL BE COMMON TRIPS WITH SINGLE HANDLE FOR MULTI-POLE APPLICATION. IN PANELBOARDS, MOULDED CASE CIRCUIT BREAKERS TO OPERATE AUTOMATICALLY BY MEANS OF THERMAL AND MAGNETIC TRIPPING DEVICES TO PROVIDE INVERSE TIME CURRENT TRIPPING UNDER OVERLOAD CONDITIONS, AND INSTANTANEOUS MAGNETIC TRIPPING FOR CIRCUIT PROTECTION.
 - MAGNETIC INSTANTANEOUS TRIP ELEMENTS TO OPERATE ONLY WHEN THE VALUE OF CURRENT REACHES 10 TO 12 TIMES THE BREAKER TRIP SETTING.
 - BREAKER MINIMUM INTERRUPTING CAPACITY (SYMMETRICAL RMS VALUES) SHALL BE NOT LESS THAN THE FOLLOWING: 600V - 25KA; 240V - 14KA.
 - MOTOR CONTROL MAGNETIC STARTERS SHALL BE PROVIDED WITH MOTOR CIRCUIT INTERRUPTER BREAKERS - 600V, 3 POLE, 25KA INTERRUPTING CAPACITY, MAGNETIC TRIP ONLY, ADJUSTABLE (8 SETTINGS), WITH LOCKING PIN.
 - BREAKERS FEEDING EMERGENCY AND EXIT SYSTEM SHALL BE PAINTED RED AND PROVIDED WITH MECHANICAL LOCKS.
- STANDARD OF ACCEPTANCE: CSA APPROVED FOR PANELBOARD.

6.0 WIRING DEVICES

- MANUALLY OPERATED GENERAL PURPOSE AC SWITCHES TO CSA C22.2 NO. 111.
- SNAP SWITCHES TO CSA C22.2 NO. 55-M1986 (R2003).
- RECEPTACLES, PLUGS AND SIMILAR DEVICES TO CSA C22.2 NO. 42-99 (R2004).
- COVERPLATES TO CSA C22.2 NO. 42.1-00 (R2004).
- SWITCHES:
 - 15A, 120V SINGLE POLE, THREE-WAY, FOUR-WAY SPECIFICATION GRADE SWITCHES AS INDICATED.
- TOGGLE OPERATED, FULLY RATED FOR TUNGSTEN FILAMENT AND FLUORESCENT LAMPS, AND UP TO 80% OF RATED CAPACITY OF MOTOR LOADS.
- SWITCHES OF ONE MANUFACTURER THROUGHOUT PROJECT. EQUAL TO HUBBELL 1200 SERIES FOR 120V. AND HUBBELL 1800 SERIES FOR 347V.
- INSTALL SINGLE THROW SWITCHES WITH HANDLE IN THE 'UP' POSITION WHEN SWITCH IS CLOSED.
- INSTALL SWITCHES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE SWITCH IS REQUIRED IN ONE LOCATION.
- COVERPLATES:
 - PROVIDE STAINLESS STEEL COVERPLATES FOR ALL WIRING DEVICES.

7.0 FIXTURES

- FIXTURE TYPES:
 - REFER TO FIXTURE SCHEDULE.
- CONTRACTOR TO PROCURE ALL FIXTURES ON THE FIXTURE SCHEDULE AS INDICATED. PROCUREMENT TO INCLUDE F.O.B. AND UNLOADING

8.0 DISCONNECT SWITCHES

- ENCLOSED MANUAL DISCONNECT SWITCHES IN NON-HAZARDOUS LOCATIONS - TO CSA C22.2 NO. 4-M89 WITH THE FOLLOWING FEATURES:
 - FUSE HOLDER ASSEMBLIES TO CSA C22.2 NO. 39-M1987 (R1992).
- FUSIBLE AND NON-FUSIBLE DISCONNECT SWITCHES IN CSA ENCLOSURE AS INDICATED. PROVISION FOR PADLOCKING IN 'OFF' SWITCH POSITION BY ONE LOCK.
- MECHANICALLY INTERLOCKING DOOR TO PREVENT OPENING WHEN HANDLE IN 'ON' POSITION.
- QUICK-MAKE, QUICK-BREAK ACTION.
- ON-OFF SWITCH POSITION INDICATION ON SWITCH ENCLOSURE COVER.
- INSTALL DISCONNECT SWITCHES COMPLETE WITH FUSES AS INDICATED.

9.0 FUSES

- PLUG AND CARTRIDGE FUSES: TO CSA C22.2 NO. 59.1-M1987, WITH THE FOLLOWING FEATURES:
 - HRC CLASS 'J' FUSES: TO CSA C22.2 NO. 106-M92 TO HAVE INTERRUPTING CAPACITY OF 200,000A SYMMETRICAL.

10.0 FIRE PROTECTION SYSTEM

- SMOKE DETECTORS:
 - 10.1 SMOKE DETECTORS:
 - SURFACE MOUNTED (FLUSH BOX) INTELLIGENT 4D MULTISENSOR DETECTOR, IONIZATION TYPE ACTIVATED BY PRESENCE OF INVISIBLE PRODUCTS OF COMBUSTION, VISIBLE LED; C/W MOUNTING BASE AND SKIRT; BASE SUPPLIED WITH SCREW WIRING TERMINALS; MOUNTED ON 100mm SQUARE BOX.
 - MAKE: EDWARDS, MODEL #SIGA-IPHS

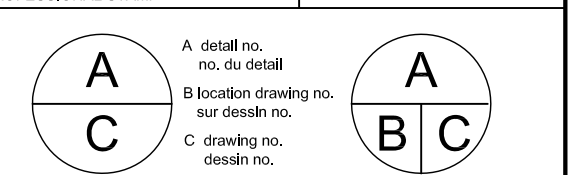
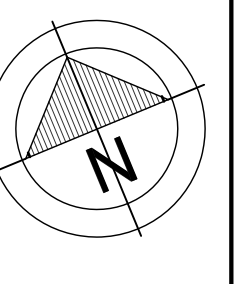
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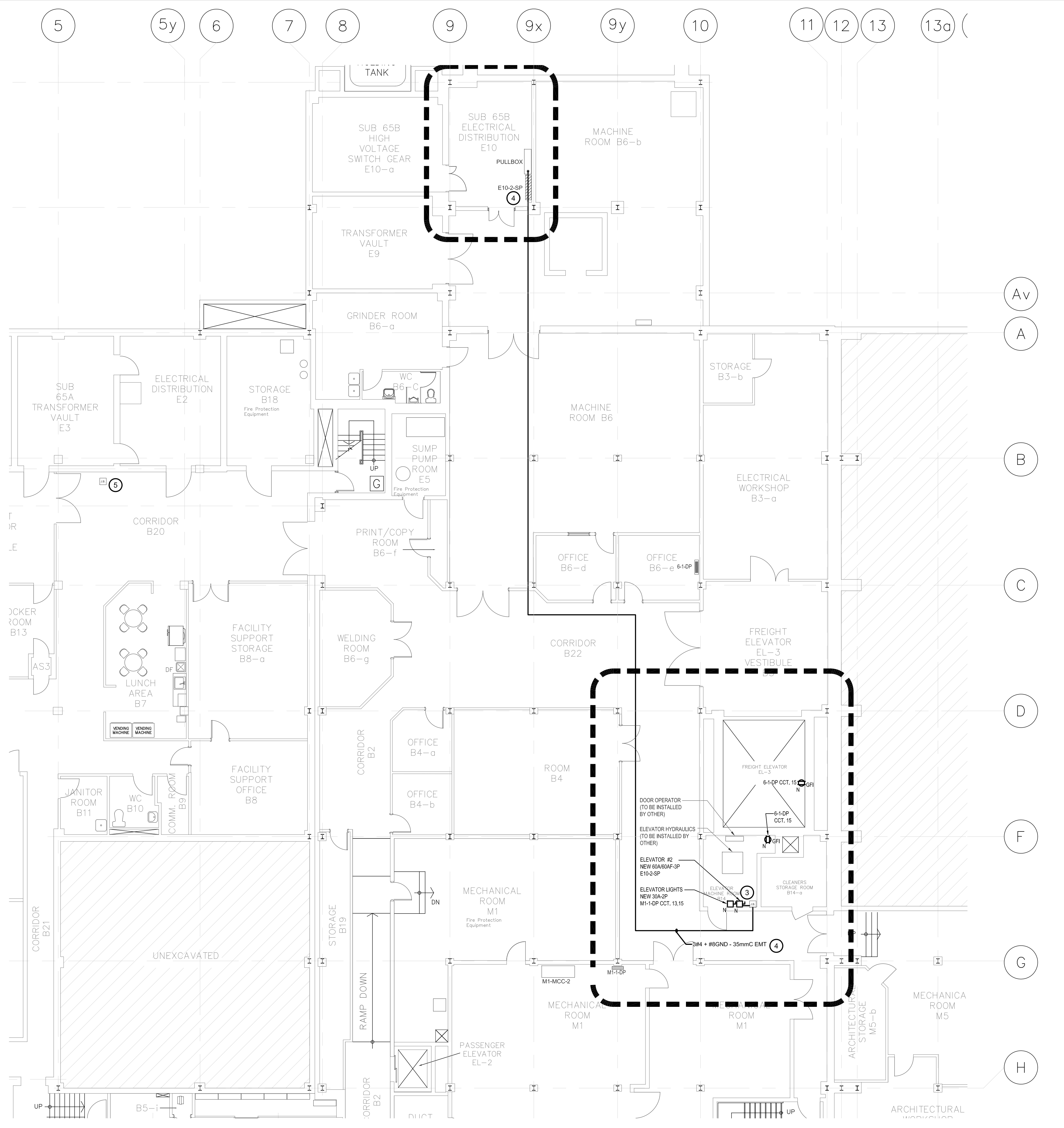


project **DAVID FLORIDA LABORATORY** project
BUILDING No. 65, SHIRLEY'S BAY, ONTARIO
LARGE FREIGHT ELEVATOR REPLACEMENT

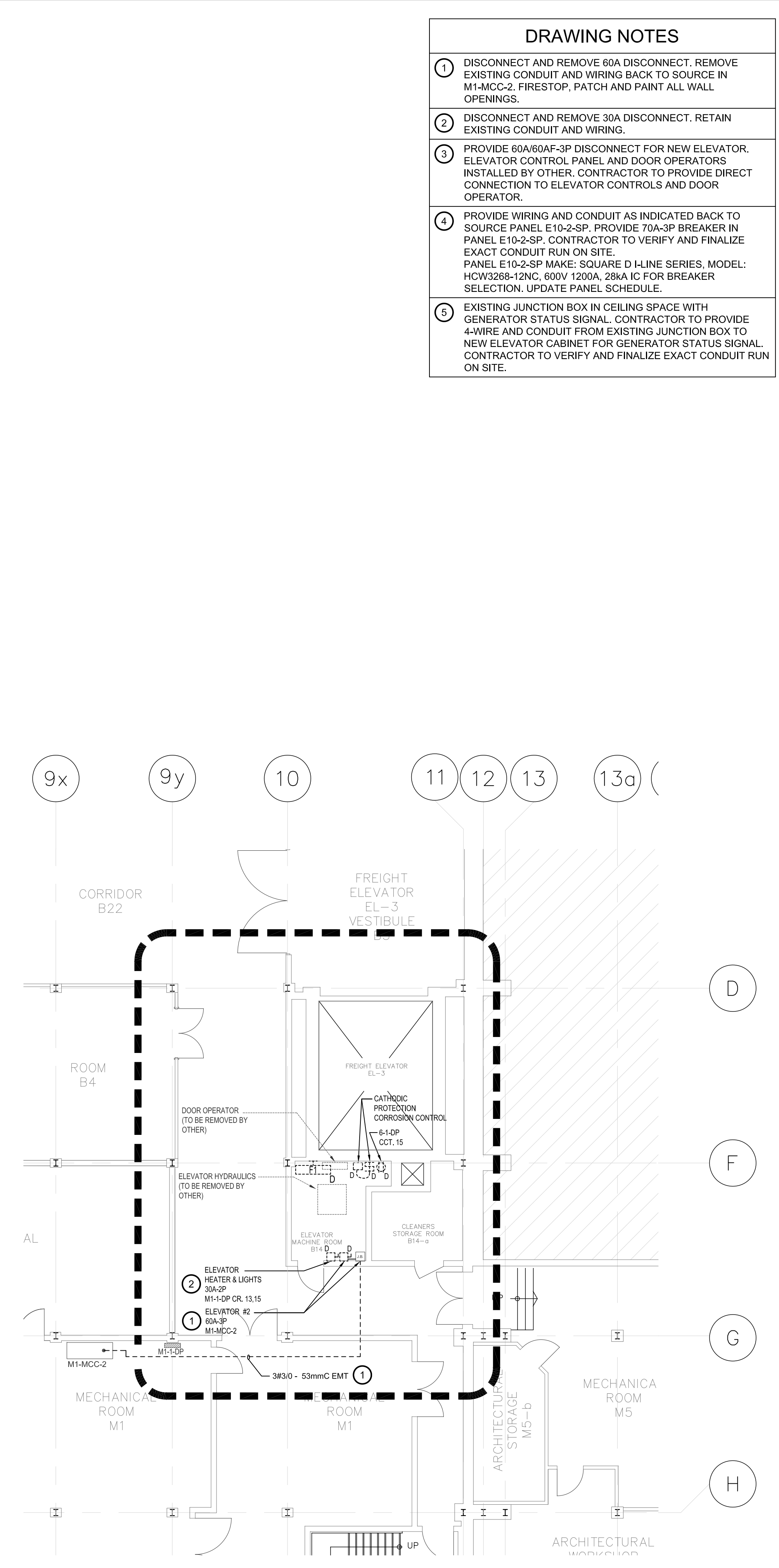
drawing **SPECIFICATIONS** dessin

designed	M. MANSOUR, P.Eng.	concu
date	APRIL 2016	
drawn	M. MANSOUR, P.Eng.	dessine
date	APRIL 2016	
reviewed	M. FARID, P.Eng.	examine
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E001	



1 BASEMENT - POWER NEW
E002 SCALE: 1:100



2 BASEMENT - POWER DEMOLITION
E002 SCALE: 1:100

- ### DRAWING NOTES
- DISCONNECT AND REMOVE 60A DISCONNECT. REMOVE EXISTING CONDUIT AND WIRING BACK TO SOURCE IN M1-MCC-2. FIRESTOP, PATCH AND PAINT ALL WALL OPENINGS.
 - DISCONNECT AND REMOVE 30A DISCONNECT. RETAIN EXISTING CONDUIT AND WIRING.
 - PROVIDE 60A/60AF-3P DISCONNECT FOR NEW ELEVATOR. ELEVATOR CONTROL PANEL AND DOOR OPERATORS INSTALLED BY OTHER. CONTRACTOR TO PROVIDE DIRECT CONNECTION TO ELEVATOR CONTROLS AND DOOR OPERATOR.
 - PROVIDE WIRING AND CONDUIT AS INDICATED BACK TO SOURCE PANEL E10-2-SP. PROVIDE 70A-3P BREAKER IN PANEL E10-2-SP. CONTRACTOR TO VERIFY AND FINALIZE EXACT CONDUIT RUN ON SITE. PANEL E10-2-SP MAKE: SQUARE D I-LINE SERIES. MODEL: HCW3268-12NC, 600V 1200A, 28kA IC FOR BREAKER SELECTION. UPDATE PANEL SCHEDULE.
 - EXISTING JUNCTION BOX IN CEILING SPACE WITH GENERATOR STATUS SIGNAL. CONTRACTOR TO PROVIDE 4-WIRE AND CONDUIT FROM EXISTING JUNCTION BOX TO NEW ELEVATOR CABINET FOR GENERATOR STATUS SIGNAL. CONTRACTOR TO VERIFY AND FINALIZE EXACT CONDUIT RUN ON SITE.

Canadian Space Agency / Agence spatiale canadienne

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key plan plan c48

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PROFESSIONAL STAMP

M. MANSOUR
100138114
PROVINCE OF ONTARIO

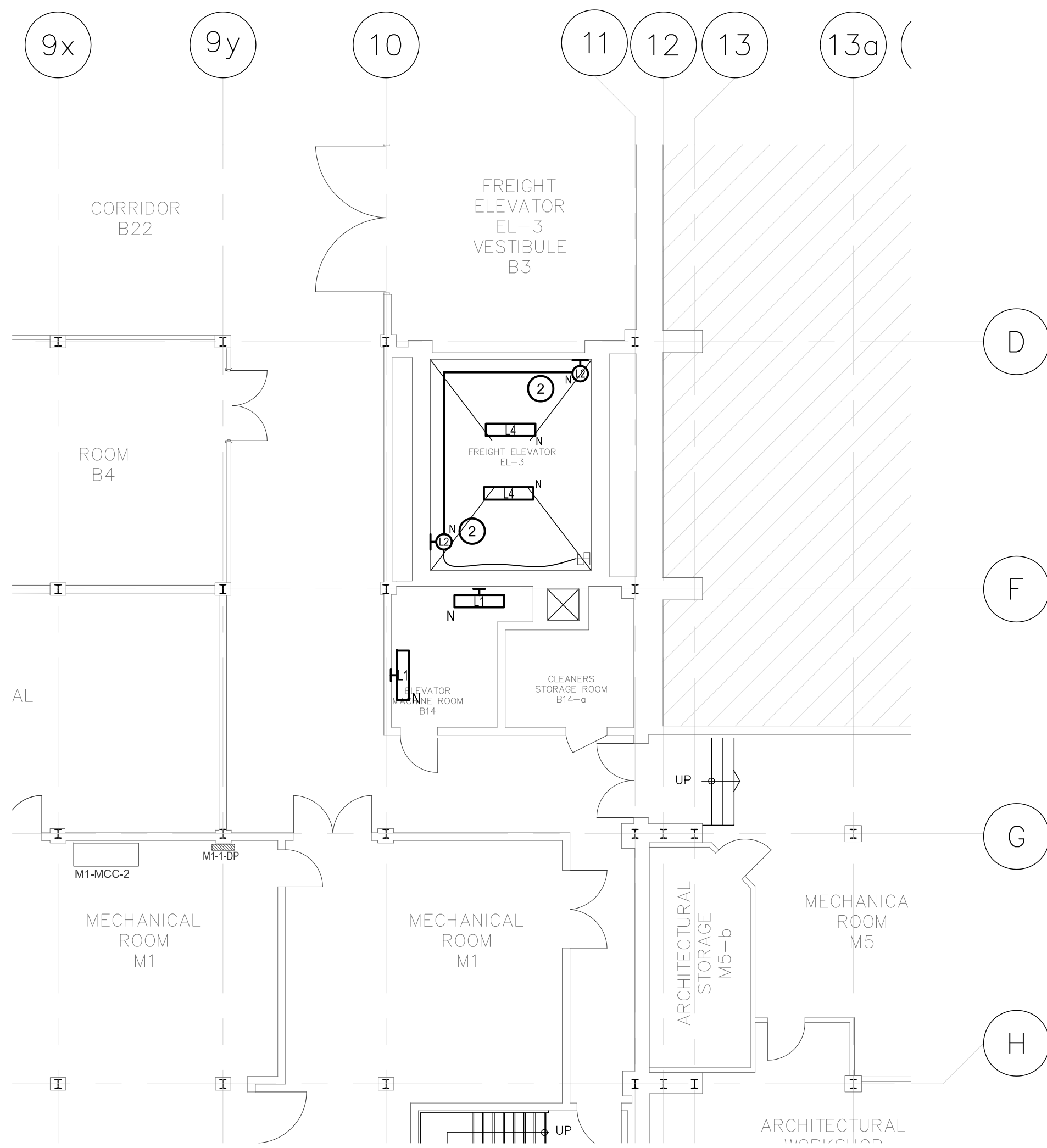
project: DAVID FLORIDA LABORATORY
BUILDING No. 65, SHIRLEY'S BAY, ONTARIO

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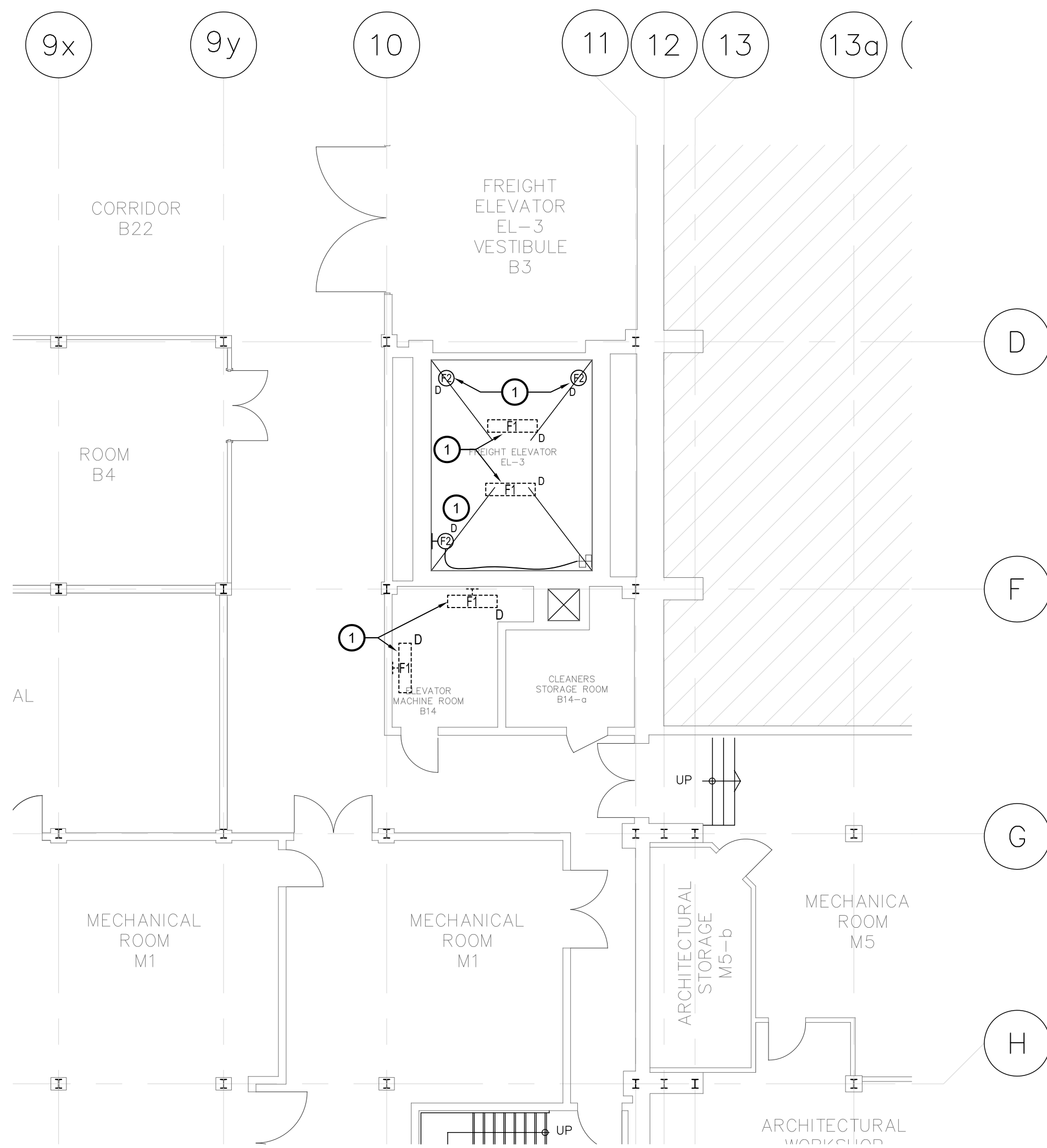
drawing: dessin

POWER LAYOUT DEMOLITION AND NEW

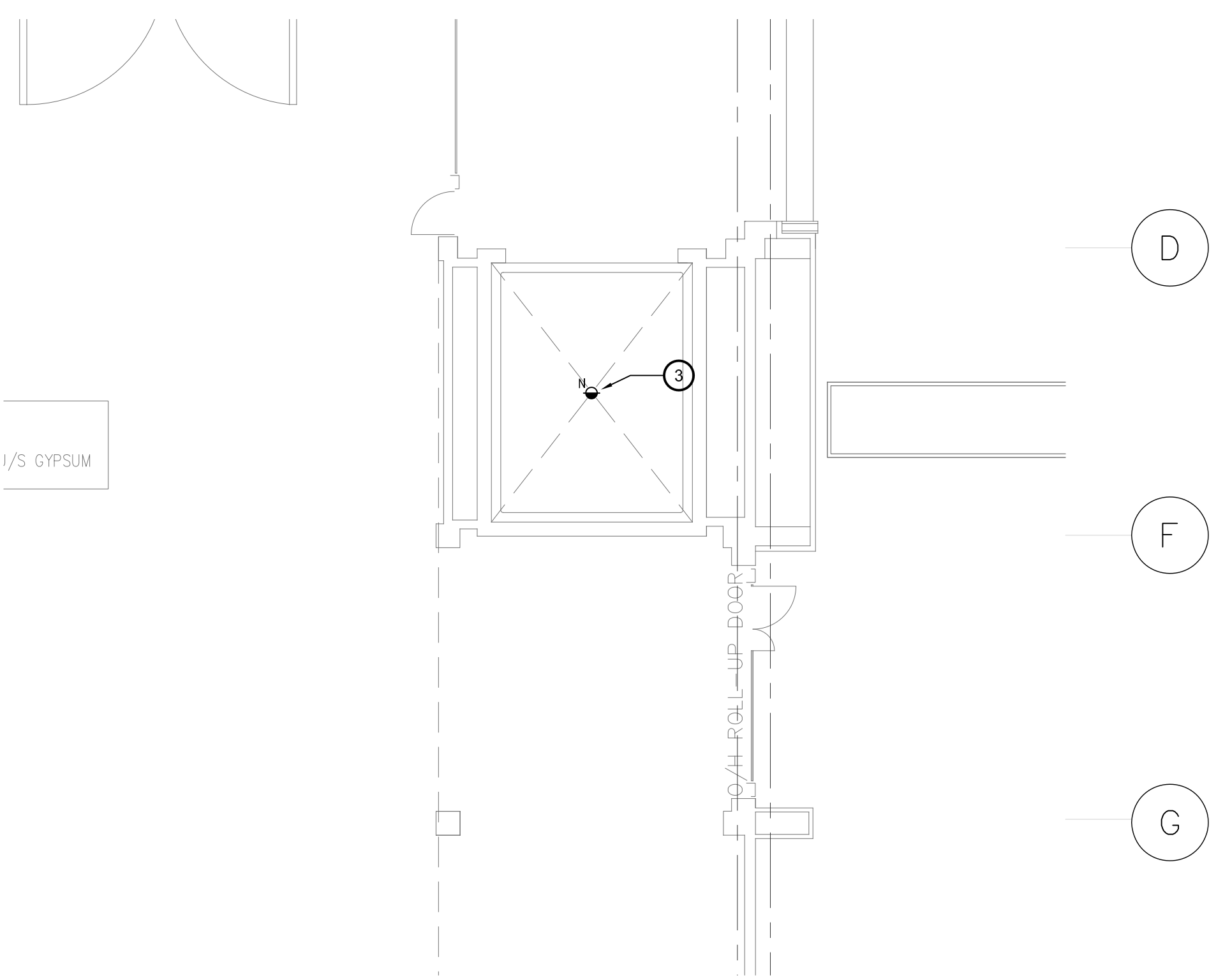
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drawing no.	E002	no. du dessin



1 BASEMENT - LIGHTING NEW
E003 SCALE: 1:100



2 BASEMENT - LIGHTING DEMOLITION
E003 SCALE: 1:100



3 GROUND - FIRE ALARM NEW
E003 SCALE: 1:100

- DRAWING NOTES**
- REMOVE EXISTING FIXTURE. MAINTAIN EXISTING CIRCUIT, WIRING AND CONDUIT.
 - PROVIDE NEW LIGHTING FIXTURE. REUSE EXISTING CIRCUIT. EXTEND WIRING AND CONDUIT FROM EXISTING CIRCUIT TO ACCOMMODATE A SECOND FIXTURE IN THE ELEVATOR PIT.
 - PROVIDE NEW ADDRESSABLE FIRE ALARM DEVICE AT THE TOP OF THE ELEVATOR SHAFT AND CONNECT TO EXISTING LOOP. DEVICE SHALL BE COMPATIBLE WITH EXISTING EDWARDS SYSTEM. SPLICES IN CONDUCTOR NOT ACCEPTABLE.

FIXTURE SCHEDULE

TYPE	DESCRIPTION
L1	WALL MOUNT, 1220mm CUBE LED LUMINAIRE VOLTAGE INPUT: 120V MINIMUM CRI: 85 MIN. COLOUR TEMP: 4000K NOMINAL LUMENS: 3,600 SYSTEM WATTS: 37W LENS: FROSTED, ACRYLIC LENS HOUSING: 20-GAUGE COLD ROLLED STEEL FIXTURE CHANNEL WITH FRONT FINISH: WHITE POWDER COAT
L2	WALL MOUNT, HAZARDOUS LOCATION CFL FIXTURE VOLTAGE INPUT: 120V RATING: CLASS 1 DIV 2 SYSTEM WATTS: 26W LENS: FROSTED, HIGH IMPACT HOUSING: NON-METALIC HIGH IMPACT WITH GUARD, ENCLOSED AND GASKETED INSTALLATION: ANCHOR TO WALL USING EXPANDABLE STAINLESS STEEL BOLTS.
L4	SURFACE, 1220X 305mm HIGH IMPACT LED LUMINAIRE VOLTAGE INPUT: 120V MINIMUM CRI: 85 MIN. COLOUR TEMP: 4000K NOMINAL LUMENS: 3,600 SYSTEM WATTS: 39W LENS: FROSTED, PRISMATIC ACRYLIC LENS, PIXILATION-FREE HOUSING: 22-GAUGE DIE-FORMED COLD-ROLLED STEEL HOUSING CW FLAT ALUMINUM DOOR, T-SLOT HINGE ALLOWS REVERSIBLE HINGING AND LATCHING. FULLY ENCLOSED SPRING-LOADED CAMP LATCHES. RATING: ULc FINISH: WHITE POWDER COAT C/W WIRE-GUARD

Canadian Space Agency / Agence spatiale canadienne

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key plan / plan clé

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LICENSED PROFESSIONAL ENGINEER
M. MANSOUR
100138114
PROVINCE OF ONTARIO

PROFESSIONAL STAMP

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A C / A B C

project / projet
DAVID FLORIDA LABORATORY
BUILDING No. 65, SHIRLEY'S BAY, ONTARIO

LARGE FREIGHT ELEVATOR REPLACEMENT

drawing / dessin
LIGHTING LAYOUT, FIRE ALARM DEMOLITION AND NEW

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