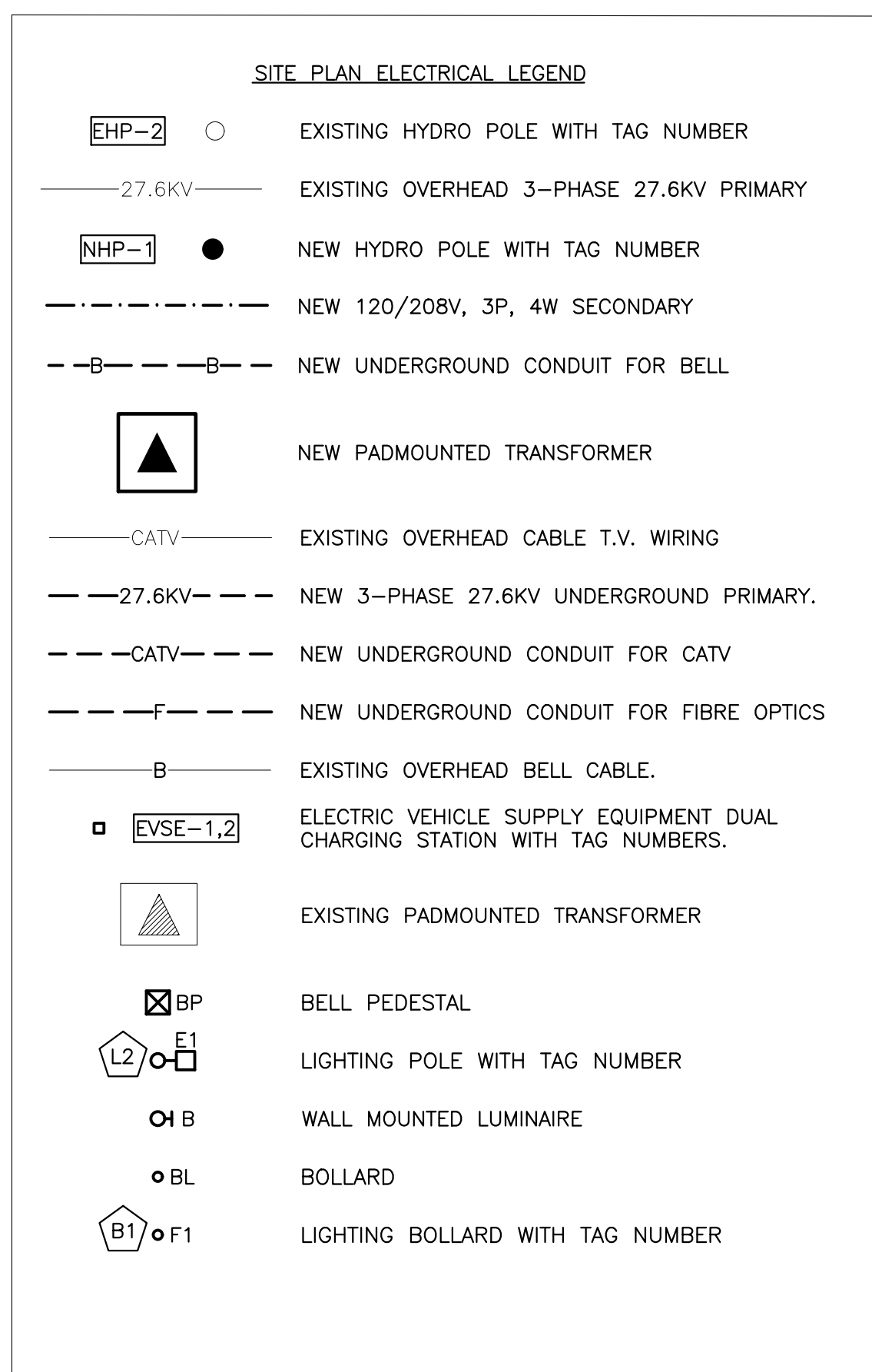
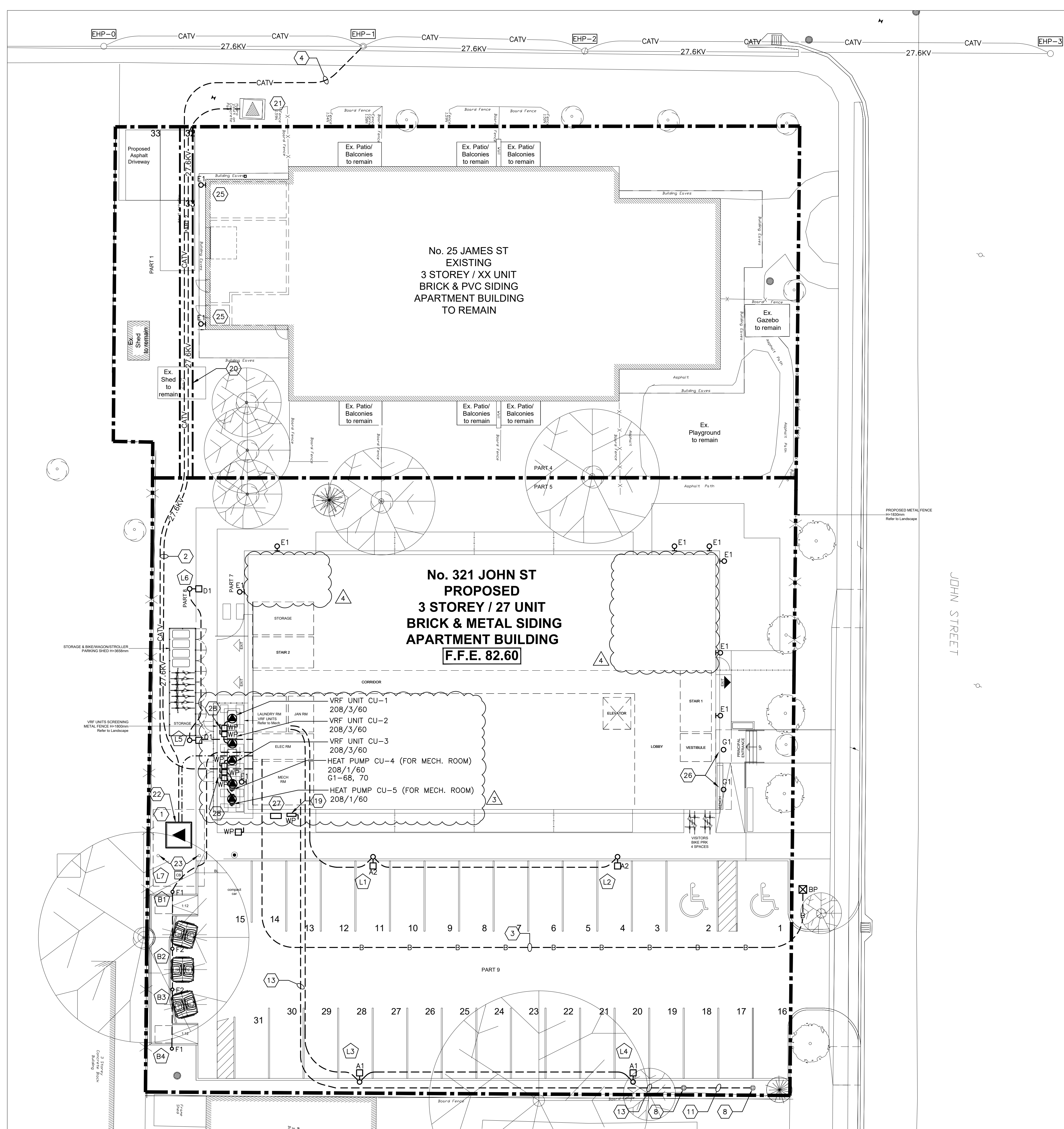




DRAWING NOTES

- 1 PRIOR TO TENDER CLOSE AND PRIOR TO INSTALLATION, CONTRACTOR IS TO OBTAIN FROM LAKEFRONT UTILITIES THE LATEST DETAILS FOR TRANSFORMER BASE INSTALLATION AND TRANSFORMER GROUNDING AND INCLUDE THESE COSTS IN BID.
- 2 PRIOR TO TENDER CLOSE AND PRIOR TO INSTALLATION, CONTRACTOR SHALL OBTAIN FROM LAKEFRONT UTILITIES THE LATEST DETAILS AND SPECIFICATIONS FOR CONCRETE ENCASED DUCT BANKS AND INCLUDE COST FOR SUCH IN BID. FOR THE PRIMARY DUCT BANK PROVIDE 4 x 100 mm CONCRETE ENCASED DUCT BANKS. CONTRACTOR SHALL ALSO PROVIDE THE 28KV PRIMARY CABLE IN THE DUCT BANK TO LAKEFRONT UTILITY STANDARDS.
- 3 PROVIDE ONE 78mm RIGID PVC DIRECT BURIED CONDUIT FOR BELL.
- 4 PROVIDE ONE 78mm RIGID PVC DIRECT BURIED CONDUIT FOR CATV.
- 5 NOTE NOT USED.
- 6 NOTE NOT USED.
- 7 NOTE NOT USED.
- 8 LEAVE CONDUITS CAPPED UNDERGROUND FOR FUTURE EVSE PEDESTAL LOCATIONS.
- 9 NOTE NOT USED.
- 10 NOTE NOT USED.
- 11 50mm DIRECT BURIED RIGID PVC CONDUIT FOR EVSE.
- 12 NOTE NOT USED.
- 13 TWO (2) 50mm DIRECT BURIED RIGID PVC CONDUITS FOR EVSE.
- 14 NOTE NOT USED.
- 15 NOTE NOT USED.
- 16 NOTE NOT USED.
- 17 NOTE NOT USED.
- 18 NOTE NOT USED.
- 19 EXTERIOR WEATHER PROOF DISCONNECT FOR SOLAR ARRAY.
- 20 PROVIDE DIRECTIONAL BORING FOR DUCT BANKS UNDER EXISTING SHED.
- 21 COORDINATE WITH LAKEFRONT UTILITIES INC. FOR CONNECTION OF NEW PRIMARY FEEDER TO EXISTING PADMOUNT TRANSFORMER.
- 22 BOND FENCE TO PADMOUNT TRANSFORMER GROUNDING GRID PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENTS.
- 23 PROVIDE BOLLARDS TO PROTECT NEW PADMOUNT TRANSFORMER.
- 24 NOTE NOT USED.
- 25 CONNECT NEW FIXTURES TYPE E1 TO EXISTING EXTERIOR LIGHTING CIRCUIT IN EXISTING BUILDING AT 25 JAMES STREET.
- 26 SURFACE MOUNTED FIXTURES ON UNDERSIDE OF METAL CANOPY. COORDINATE WITH ARCHITECT AND CANOPY INSTALLER WHO WILL BE PROVIDING A RECESSED SEALED METAL BOX FOR INSTALLATION OF THE ELECTRICAL JUNCTION BOX. PROVIDE WEATHERPROOF CONDUIT ON TOP OF STEEL CANOPY TO FEED THE LIGHT FIXTURES LOCATED UNDER THE CANOPY.
- 27 WEATHERPROOF EXTERIOR CAMLOCK CONNECTION BOX FOR CONNECTION OF PORTABLE GENERATOR.
- 28 COORDINATE DISCONNECT LOCATION WITH GATES IN FENCE TO PROVIDE 1m CLEAR WORKING SPACE.



1 ELECTRICAL SITE PLAN
E1 SCALE:

E1 SCALE:

1-150



553 College St Suite 100
Toronto, Ontario M6G 1A8
T: 416 203 7600 F: 416 203 3342
lga-ap.com

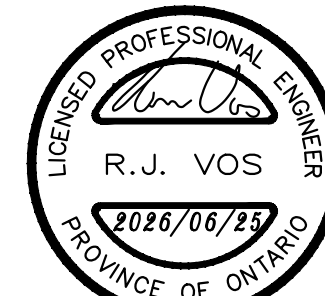
NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work.

KE
KIRKLAND ENGINEERING LTD.

570 Water Street
Peterborough, Ontario
K9H 3M8
p. (705) 745-2831
f. (705) 741-1526
www.kirklandeng.com

KEL Pr

KEL Project 6429



ELECTRICAL BCIN 2340

ISSUE DATE:

4	26/06/25	ISSUED FOR ADDENDUM E4
3	26/06/19	ISSUED FOR ADDENDUM E3
2	26/05/29	ISSUED FOR TENDER DRAFT
1	26/05/29	ISSUED FOR BUILDING PERMIT
NO.	DATE	DESCRIPTION

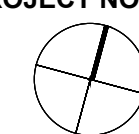
PROJECT:
ONTARIO ABORIGINAL
HOUSING SERVICES (OAHS), COBOURG

321 John Street, Cobourg, Ontario

DRAWING TITLE:
ELECTRICAL SITE PLAN

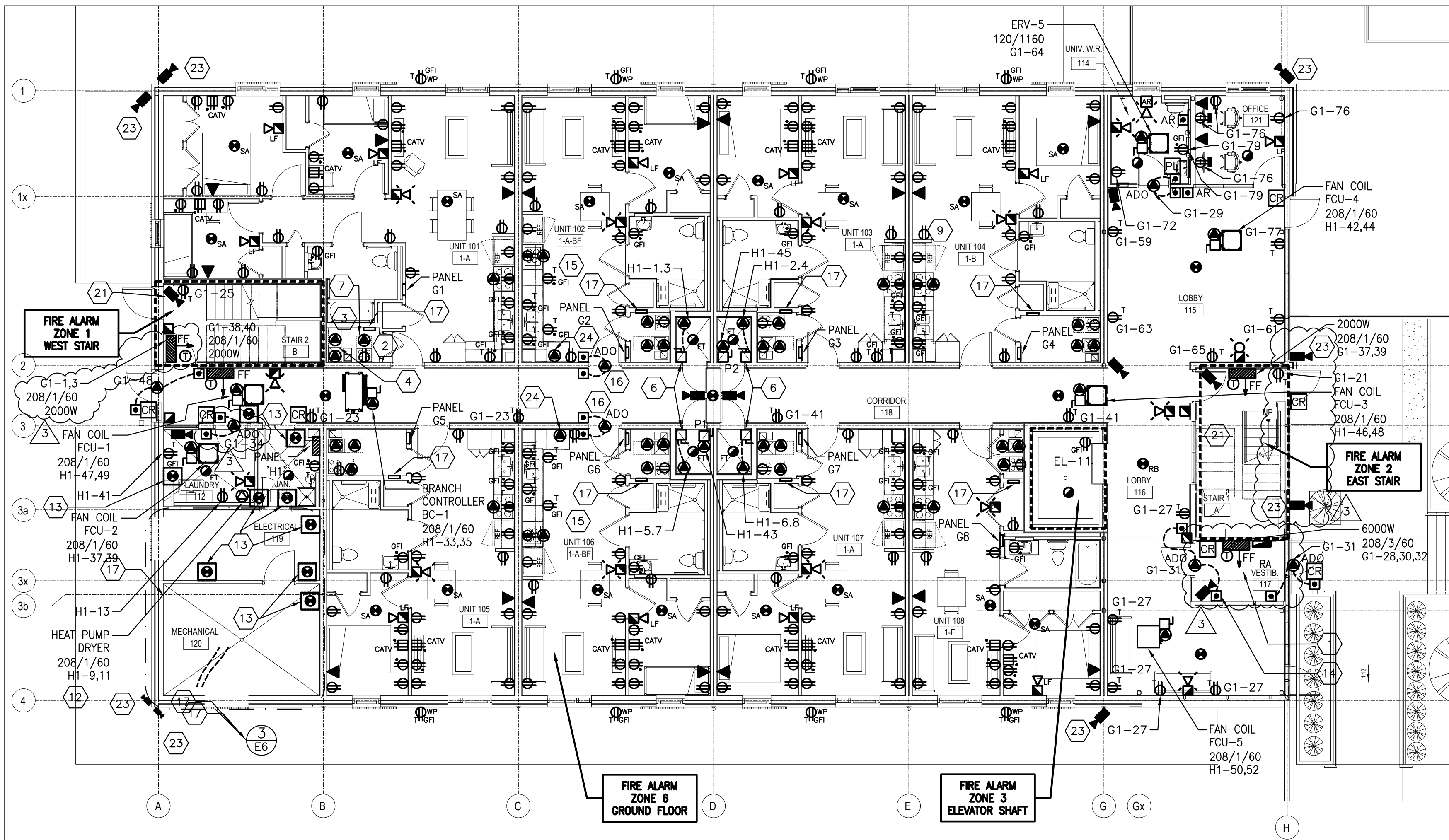
PROJECT NO: 251088
SCALE: AS NOTED
DRAWN BY: KER
REVIEWED BY: RJV

PROJECT NORTH:



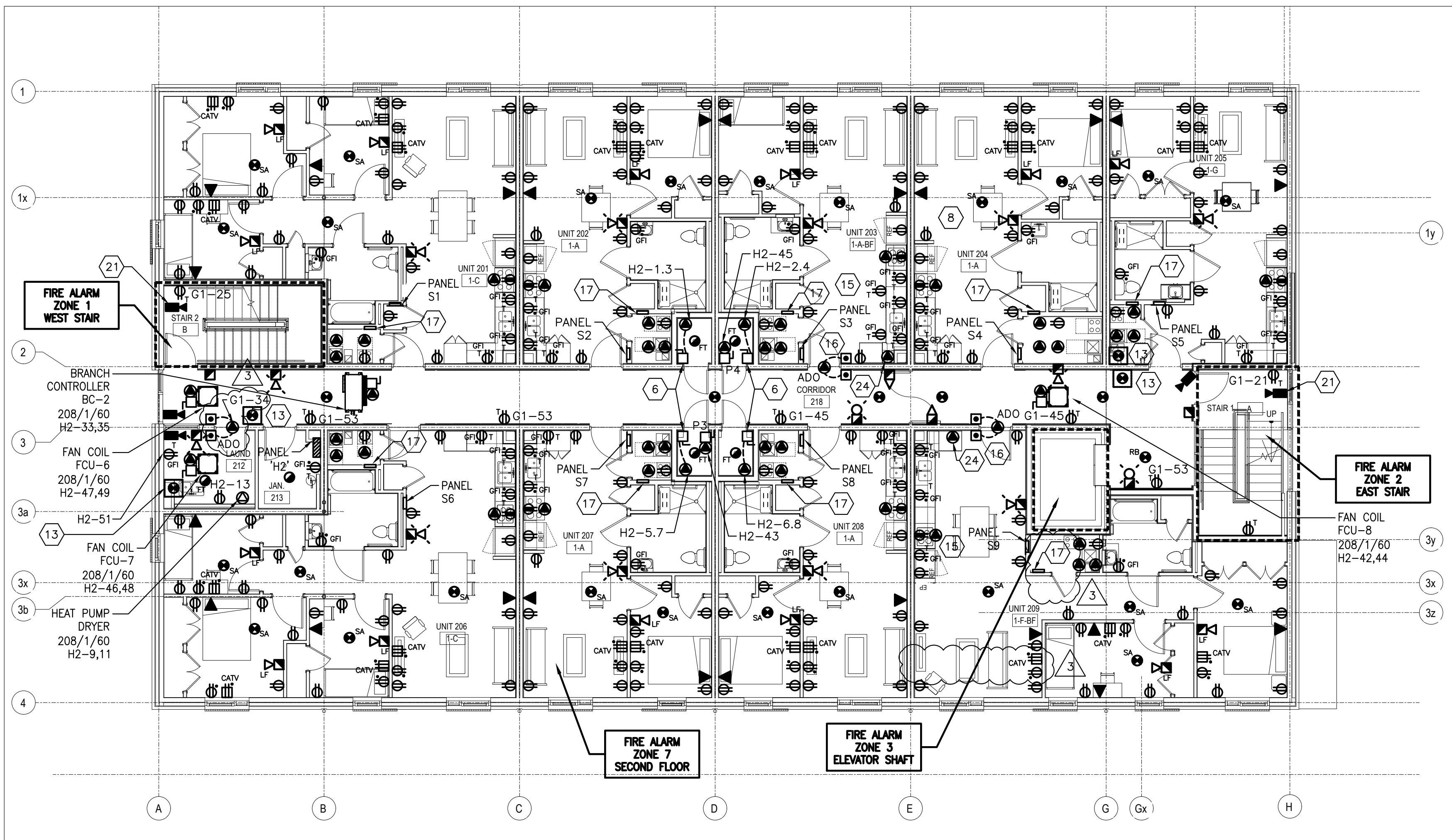
DRAWING NO:

E1



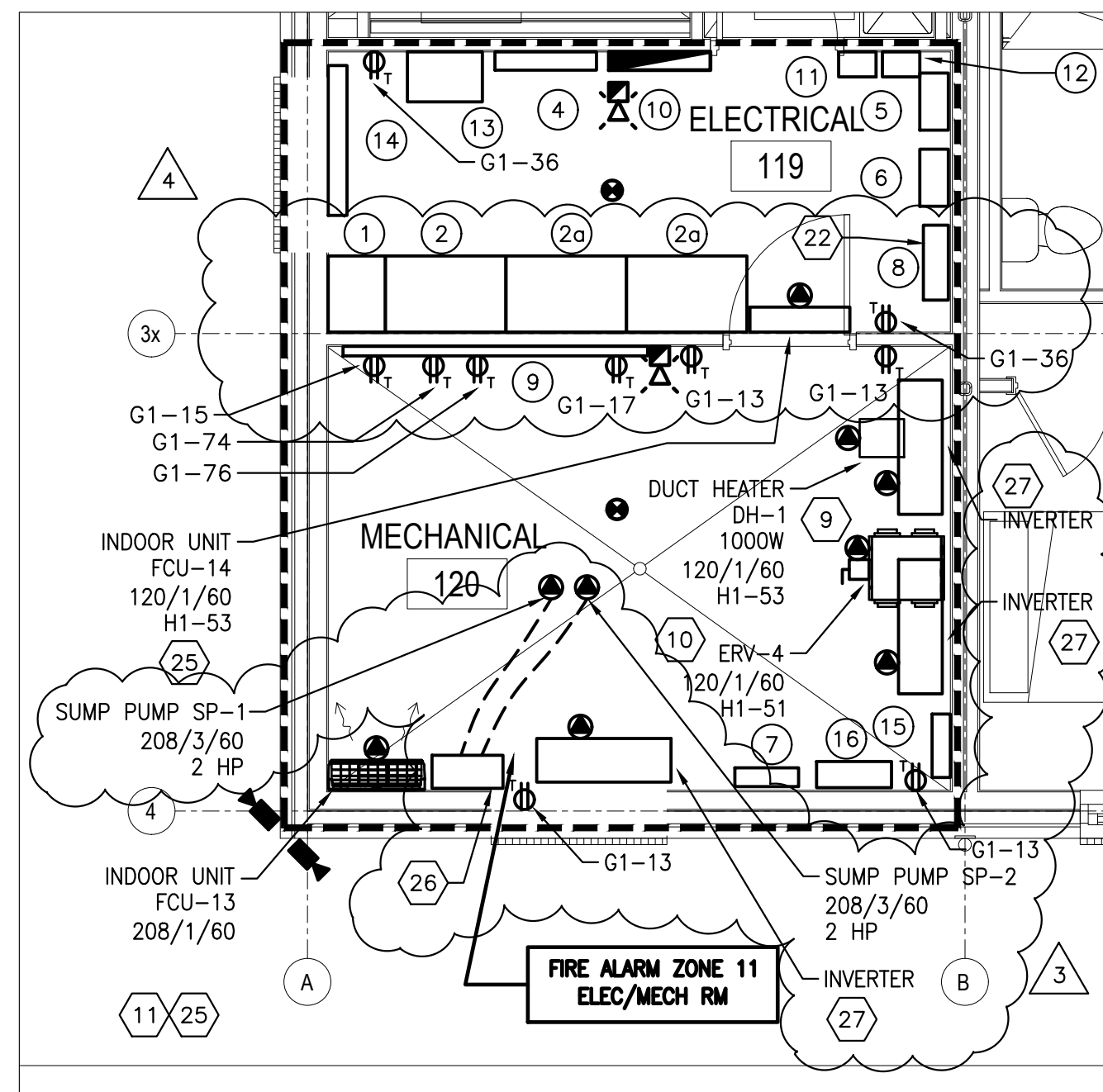
1 GROUND FLOOR POWER AND SYSTEMS PLAN

E6 SCALE: 1:100



2 SECOND FLOOR POWER AND SYSTEMS PLAN

E6 SCALE: 1:100



3 ELECTRICAL AND MECHANICAL ROOM ENLARGEMENT

E6 SCALE: 1:50

NOTES

- LOCATION OF ENTERPHONE PANEL. TO BE MOUNTED ABOVE RECESSED FAN FORCED HEATER. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS.
- PROVIDE RECEPTACLE FOR 120V ERV IN EACH SUITE. COORDINATE WITH MECHANICAL. TYPICAL FOR ALL SUITES UNLESS OTHERWISE NOTED.
- PROVIDE 208V, 1P DIRECT CONNECTION FOR FAN COIL. FEED FROM SUITE PANEL. COORDINATE WITH MECHANICAL. TYPICAL FOR ALL SUITES UNLESS OTHERWISE NOTED.
- PROVIDE 208V, 1P DIRECT CONNECTION FOR FAN COIL BACKUP HEATER. FEED THIS FROM THE HOUSE PANEL ON EACH FLOOR. COORDINATE WITH MECHANICAL. TYPICAL FOR ALL SUITES.
- NOTE NOT USED.
- PROVIDE 208/1/60 POWER TO 5000W ELECTRIC WATER HEATER. COORDINATE WITH MECHANICAL.
- PROVIDE 208V, 1P POWER TO ERV HEATER. COORDINATE WITH MECHANICAL. TYPICAL FOR ALL SUITES UNLESS OTHERWISE NOTED. FEED THIS FROM HOUSE PANEL ON EACH FLOOR.
- IN ALL SUITES CONFIRM WITH ESA THAT THERE IS PROPER CLEARANCES FOR THE ELECTRICAL PANELS. TYPICAL FOR ALL SUITES.
- PROVIDE 120V POWER TO ERV.
- PROVIDE 208V, 1P POWER TO ERV DUCT HEATER.
- INDOOR UNIT IS FED FROM OUTDOOR UNIT.
- PROVIDE L6-30R RECEPTACLE FOR HEAT PUMP DRYER. COORDINATE WITH DRYER SUPPLIER AND INSTALLER.
- PROVIDE DUCT SMOKE DETECTORS TO CLOSE ADJACENT COMBINATION FIRE SMOKE DAMPERS. LOCATE DUCT SMOKE DETECTORS AS PER CAN/ULC S524 "INSTALLATION OF FIRE ALARM SYSTEMS" WITH 1.5m HORIZONTALLY OF THE DUCT OR AIR TRANSFER OPENING IN THE FIRE SEPARATION. PROVIDE 120V AC TO FIRE AND SMOKE DAMPER AND WIRE DAMPER AND ACTUATOR TO CLOSE UPON SIGNAL FROM ADJACENT DUCT SMOKE DETECTOR. USE CIRCUIT G1-50 ON GROUND FLOOR AND G1-52 ON SECOND FLOOR.
- MOUNT ADO PUSH BUTTON ON NORTH WALL ABOVE HEATER. COORDINATION EXACT LOCATION WITH ARCHITECTURAL DRAWINGS.
- IN BARRIER FREE UNITS PROVIDE RECEPTACLES MOUNTED AT FACE OF COUNTER IN ADDITION TO RECEPTACLES SHOWN BEHIND COUNTER. COORDINATE WITH ARCHITECTURAL. SEE ONTARIO ELECTRICAL SAFETY CODE RULES 26-720(d), 26-656(f), AND CSA 651. ALSO PROVIDE SEPARATE POWER FEEDS TO COOKTOP AND OVEN.
- PROVIDE 120V POWER AND CONDUIT ROUGH-IN FOR PUSH BUTTONS FOR ADO IN BARRIER FREE SUITES.
- PROVIDE CENTRAL PANEL BOX FOR BELL AND CABLE AS NOTED IN NOTE 2 ON DETAILS 1 AND 2 ON DRAWING E11. PROVIDE 120V POWER TO THE RECEPTACLE IN THE BOX FROM THE LIVING ROOM RECEPTACLE CIRCUIT. COORDINATE LOCATION OF CENTRAL PANEL BOX WITH MECHANICAL TO ENSURE ADEQUATE WORKING SPACE IS PROVIDED. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS.
- IN SUITE 104, 108, 201, AND 206 INSTALL CENTRAL PANEL BOX FOR BELL AND CABLE UNDER SUITE PANEL. REFER TO NOTE 17.
- NOTE NOT USED.
- PROVIDE 120V POWER FOR GENERATOR ROOM LOUVRES.
- PROVIDE A SINGLE GANG BACK BOX IN CEILING FOR SECURITY CAMERA. RUN 21mm CONDUIT FROM BACK BOX TO ACCESSIBLE CEILING SPACE. COORDINATE WITH CAMERA INSTALLER.
- PROVIDE UNISTRUT FRAME FOR MOUNTING PANEL 'G1'.
- PROVIDE A SINGLE GANG BACK BOX ON EXTERIOR WALL FOR SECURITY CAMERA. RUN 21mm CONDUIT FROM BACK BOX TO ACCESSIBLE CEILING SPACE. COORDINATE WITH CAMERA INSTALLER.
- SEPARATE OVEN CONNECTION IN BARRIER FREE SUITES COORDINATE REQUIREMENTS WITH ARCHITECT.
- INDOOR UNITS ARE FED FROM OUTDOOR UNIT CU-4.
- HIGH LEVEL ALARM PANEL AND SUMP PUMP CONTROL PANEL FOR SUMP PUMP SP-1 AND SP-2. ELECTRICAL CONTRACTOR IS TO PROVIDE WIRING FROM PANEL G1 TO SUMP PUMP CONTROL PANEL. CONTROL PANEL IS SUPPLIED BY MECHANICAL AND PUMP WIRING AND LEVEL CONTROL WIRING FROM SUMP PUMP CONTROL PANEL IS BY MECHANICAL.

ELECTRICAL/MECHANICAL ROOM EQUIPMENT LIST

- MAIN SWITCHBOARD WIREWAY
- MAIN SWITCHBOARD MAIN BREAKER AND METERING
- MAIN SWITCHBOARD DISTRIBUTION
- ITEM NOT USED
- DISTRIBUTION PANEL DP-GEN
- CARMA EMP PANEL
- CARMA EMP PANEL
- INVERTER PANELBOARD DG-P1
- GENERATOR PANEL 'G1'
- TELEPHONE BACKBOARD: 2400mm x 2400mm x 21mm FIRE ALARM PLYWOOD
- FIRE ALARM CONTROL PANEL
- LIGHTING CONTACTOR
- LIGHTING TIMECLOCK
- AUTOMATIC TRANSFER SWITCH ATS-1
- 1200mm x 1200mm CABINET FOR UTILITY METERING
- PANEL 'EV'
- SCADA PANEL FOR SOLAR

GENERAL NOTES

- PROVIDE CIRCUITING IN THE SUITES AS INDICATED ON THE PANEL SCHEDULE FOR TYPICAL APARTMENTS, AND AS PER SECTION 26-656 OF THE ONTARIO ELECTRICAL SAFETY CODE. INCLUDE A SEPARATE CIRCUIT FOR DINING AREA RECEPTACLE.
- PROVIDE TAMPER RESISTANT RECEPTACLES AS PER RULE 26-706(d) OF THE ONTARIO ELECTRICAL SAFETY CODE.
- CONNECT SMOKE/CARBON MONOXIDE ALARMS TO UNSWITCHED PORTION OF BATHROOM LIGHTING CIRCUITS. SMOKE/CARBON MONOXIDE ALARMS IN EACH SUITE TO BE INTERCONNECTED.
- MOUNT POWER RECEPTACLES FOR T.V.'S AND CATV OUTLETS AT 42" ABOVE FINISHED FLOOR.
- PROVIDE AFCI PROTECTION OF BRANCH CIRCUITS AND RECEPTACLES AS PER ONTARIO ELECTRICAL SAFETY CODE RULE 26-658.
- ENSURE THAT BRANCH CIRCUITS ARE SIZED FOR VOLTAGE DROP.
- OAHs WILL ENTER INTO A SEPARATE CONTRACT WITH THE SEPARATE CONTRACT WITH THE SECURITY CONTRACTOR TO PROVIDE SECURITY CAMERAS AND ACCESS CONTROL.

THE SECURITY CONTRACTOR WILL PROVIDE:

CAMERAS (WORK BY SECURITY CONTRACTOR)

- SUPPLY AND INSTALL ALL REQUIRED CABLING
- SUPPLY AND INSTALL ALL CAMERAS AND MOUNTS
- SUPPLY AND INSTALL ALL NETWORK CABINETS, NETWORK SWITCHES AND UPS
- TERMINATE ALL CAMERA CABLING
- PROGRAM AND CONFIGURE SYSTEM

ACCESS CONTROL (WORK BY SECURITY CONTRACTOR)

- SUPPLY AND INSTALL ALL REQUIRED ACCESS CONTROL CABLING FROM DOORS TO PANELS
- SUPPLY AND INSTALL ALL REQUIRED READERS AND DOOR CONTACTS
- CONNECT TO EXISTING ELECTRIC STRIKES AND DOOR OPERATORS (SUPPLIED BY OTHERS)
- TERMINATE ALL CABLING
- PROGRAM AND CONFIGURE SYSTEM

THE ELECTRICAL CONTRACTOR WILL PROVIDE SECURITY ROUGH IN:

- CONDUIT OR RACEWAY
- CABLE TRAY OR BASKET TRAY
- COMMUNICATIONS BACKBOARD
- ELECTRIC STRIKES OR DOOR OPERATOR INTEGRATION
- FIRESTOPPING OR FLOOR/FIRE WALL PENETRATIONS

- FOR ALL AUTOMATIC DOOR OPERATORS ADO, ELECTRICAL CONTRACTOR SHALL SUPPLY 120V WIRING AND ALL CONDUITS AND INSTALLATION OF LOW VOLTAGE WIRING TO PUSH BUTTONS. FOR ADO FOR RESIDENT SUITES PROVIDE 120V POWER AND FOR PUSHBUTTONS PROVIDE CONDUIT ROUGH-IN ONLY.

NOTES CONTINUED

- FROM EACH OF THE THREE INVERTERS RUN A 53mm EMT CONDUIT UP THROUGH THE SHAFT IN LAUNDRY ROOMS 212 AND 312 CONTINUING UP TO THE ATTIC.

ISSUE DATE:

NO.	DATE	DESCRIPTION
1	26/06/25	ISSUED FOR ADDENDUM E4
2	26/06/17	ISSUED FOR ADDENDUM E2
2	26/05/29	ISSUED FOR TENDER DRAFT
1	26/05/29	ISSUED FOR BUILDING PERMIT

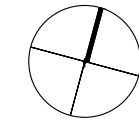
PROJECT:
ONTARIO ABORIGINAL
HOUSING SERVICES (OAHs), COBOURG

321 John Street, Cobourg, Ontario

DRAWING TITLE:
GROUND & SECOND FLOORS
POWER AND SYSTEMS PLANS

PROJECT NO: 251088
SCALE: AS NOTED
DRAWN BY: KER
REVIEWED BY: RJV

PROJECT NORTH:



DRAWING NO:

E6