

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
LINETYPES	
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
ABBREVIATIONS	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
⋈	CENTRE LINE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
XP	EXPLOSION PROOF
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
ABBREVIATIONS - CODES AND STANDARDS	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
ABBREVIATIONS - CEILING TYPES	
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
ANNOTATIONS	
CL	CLOSET
WR	WASHROOM
PLUMBING	
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS) HVAC
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
CONDUIT AND BOXES	
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
	JUNCTION BOX
	PULL BOX
	HAND HOLE
CONNECTIONS TO EQUIPMENT	
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.	

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SYSTEM FURNITURE WALL FEED FOR POWER AND TELECOMMUNICATIONS UNLESS NOTED OTHERWISE. 'C' ADJACENT TO SYMBOL DENOTES CEILING FEED, 'F' ADJACENT TO SYMBOL DENOTES FLOOR FEED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC', LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
	PHOTOCELL SENSOR.
	PHOTOCELL SENSOR. 'PC' DENOTES CLOSED LOOP PHOTOCELL CONTROL. 'PO' DENOTES OPEN LOOP PHOTOCELL CONTROL.
	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'. 'OS' DENOTES UNKNOWN TECHNOLOGY.
	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTACLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED
	14-50R RECEPTACLE FOR ELECTRONIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT..
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS.
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
*	ADJACENT TO DEVICE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
LIGHTING FIXTURES SYMBOLS IN ACCORDANCE WITH IES DG-300 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.	
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED; PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. "X", WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 924 LISTED SHUNT TRIP RELAY OR EQUAL TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUITING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
EMERGENCY LIGHTING REFER TO EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.	
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE AND TWO HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES 'EMERGENCY'
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
EXTERIOR LIGHTING	
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	POST TOP LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	LIGHTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	GROUND MOUNTED FLOOD LIGHT
TELECOMMUNICATIONS	
	SYSTEM FURNITURE FEED.
W	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES WALL SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
F	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
C	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES CEILING SYSTEM FURNITURE FEED FOR COMMUNICATIONS (SERVICE POLE OR DROP CORD AS NOTED).
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
	HDMI OUTLET.
	AUDIO VIDEO GANG, AS NOTED.
	WIRELESS ACCESS POINT (WIFI)
	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
	AUDIO VISUAL SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SYSTEM HANDSET
	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE
	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH
	INTERCOM
	INSULATION DISPLACEMENT CONNECTION
	CLOCK
	GPS CLOCK SYSTEM MASTER TRANSMITTER
	GPS CLOCK SYSTEM GPS RECEIVER
	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (RECEIVER)
	GPS CLOCK SYSTEM RECEIVER SWITCH
ACCESS CONTROL AND DOOR HARDWARE	
	CARD READER
	DOOR ALARM SOUNDER
	DOOR CONTACT
	OVERHEAD DOOR CONTACT
	ELECTRIC LATCH RETRACTION
	ELECTRIC STRIKE
	ELECTRIC POWER TRANSFER CABLE
	POWER TRANSFER HINGE
	KEY SWITCH
	ELECTROMAGNETIC LOCK
	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT' MAGLOCK RELEASE, OR OTHER PUSH BUTTON, AS INDICATED.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
	TOUCHLESS 'WAVE SWITCH' FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
INTRUSION DETECTION	
	GLASS BREAK (GB)
	MOTION DETECTOR (MD)
	KEYPAD (KP)
	VIDEO SURVEILLANCE
	CCTV CAMERA
	CCTV CAMERA, CEILING OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
	PAN-TILT-ZOOM
DURESS SYSTEM	
	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP)
	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER
	DURESS SYSTEM STROBE LIGHT
FIRE DETECTION AND ALARM - GENERAL	
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPCP	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSCP	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
FIRE DETECTION - INITIATION DEVICES	
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES MANUAL PULL STATION C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM. 120 VOLT, COMPLETE WITH STROBE. FOR AREAS AS INDICATED ON PLANS BY 'CO'. PROVIDE INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
VESDA	VERY EARLY SMOKE DETECTING APPARATUS
BSDT	BEAM SMOKE DETECTOR TRANSMITTER
BSDR	BEAM SMOKE DETECTOR RECEIVER (OR REFLECTOR)
ASD	ASPIRATING SMOKE DETECTOR
	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL CIRCUITS
	HEAT DETECTOR - FIXED TEMPERATURE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES 'HIGH TEMPERATURE'
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE
LINEAR HEAT DETECTION CABLE	
	FLOW SWITCH
FIRE DETECTION AND ALARM - SUPERVISORY DEVICES	
	LOW TANK LEVEL
	LOSS OF POWER
	LOW TEMPERATURE
	PRESSURE SWITCH
	SUPERVISED VALVE
	SUPERVISED VALVE
FIRE DETECTION AND ALARM - SIGNALLING DEVICES	
	FIRE ALARM BELL, WALL MOUNTED.
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED.
	FIRE ALARM HORN
M	ADJACENT TO FIRE ALARM HORN, DENOTES 'MINI' HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES	
	EMERGENCY TELEPHONE FOR FIREFIGHTER'S USE
FIRE DETECTION AND ALARM - OTHER DEVICES	
	END OF LINE DEVICE
	WIRE GUARD
	"DO NOT ENTER" SIGN
	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
	ISOLATOR MODULE
	OUTPUT RELAY, FUNCTION AS INDICATED
	CONTROL MODULE
	MONITOR MODULE
	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION RELEASING STATION
	FIRE SUPPRESSION ABORT STATION
SINGLE LINE DIAGRAM	
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	FUSE
	METERING CABINET
	TRANSFORMER
	BUS DUCT
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ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	GENERATOR
	AUTOMATIC TRANSFER SWITCH
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
	AUTOMATIC TRANSFER SWITCH COMPLETE WITH SINGLE SIDED BYPASS ISOLATION
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
MTS	MANUAL TRANSFER SWITCH
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
DETAIL REFERENCES	
	SHEET KEYNOTE
	REVISION NUMBER
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ELECTRICAL DRAWING LIST	
DRAWING #	DRAWING NAME
E-001	ELECTRICAL LEGEND & DRAWING LIST
E-100	ELECTRICAL SITE PLAN
E-200	LIGHTING NEW WORK - GROUND FLOOR
E-300	POWER AND SYSTEMS NEW WORK - GROUND FLOOR
E-301	POWER AND SYSTEMS NEW WORK - ROOF PLAN
E-700	ELECTRICAL SINGLE LINE DIAGRAM
E-701	FIRE ALARM RISER
E-800	ELECTRICAL DETAILS
E-801	ELECTRICAL DETAILS
E-802	ELECTRICAL DETAILS
E-803	ELECTRICAL DETAILS
E-804	ELECTRICAL DETAILS
E-805	ELECTRICAL DETAILS
E-806	ELECTRICAL DETAIL S - TRAINING FACILITY
E-900	ELECTRICAL SCHEDULES
E-901	ELECTRICAL SCHEDULES
GENERAL NOTE:	
SYMBOLS WITHIN HATCHED AREA ARE ROUGH-IN ONLY. COORDINATE EXACT INSTALLATION LOCATION WITH OWNER. DEVICES TO BE INSTALLED BY OWNER. UNLESS NOTED OTHERWISE, ALL CONDUITS ARE MINIMUM 1 INCH, AND BROUGHT TO THE IT ROOM.	

PARKIN

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350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key
Plan

NO.	ISSUED	DATE
10	ISSUED FOR ADDENDUM 15	2024-12-04
9	ISSUED FOR ADDENDUM 14	2024-11-27
8	ISSUED FOR ADDENDUM 10	2024-10-15
7	ISSUED FOR ADDENDUM 8	2024-10-07
6	ISSUED FOR ADDENDUM 6	2024-09-30
5	ISSUED FOR ADDENDUM 3	2024-09-23
4	ISSUED FOR ADDENDUM 1	2024-09-16
3	ISSUED FOR TENDER	2024-09-09
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

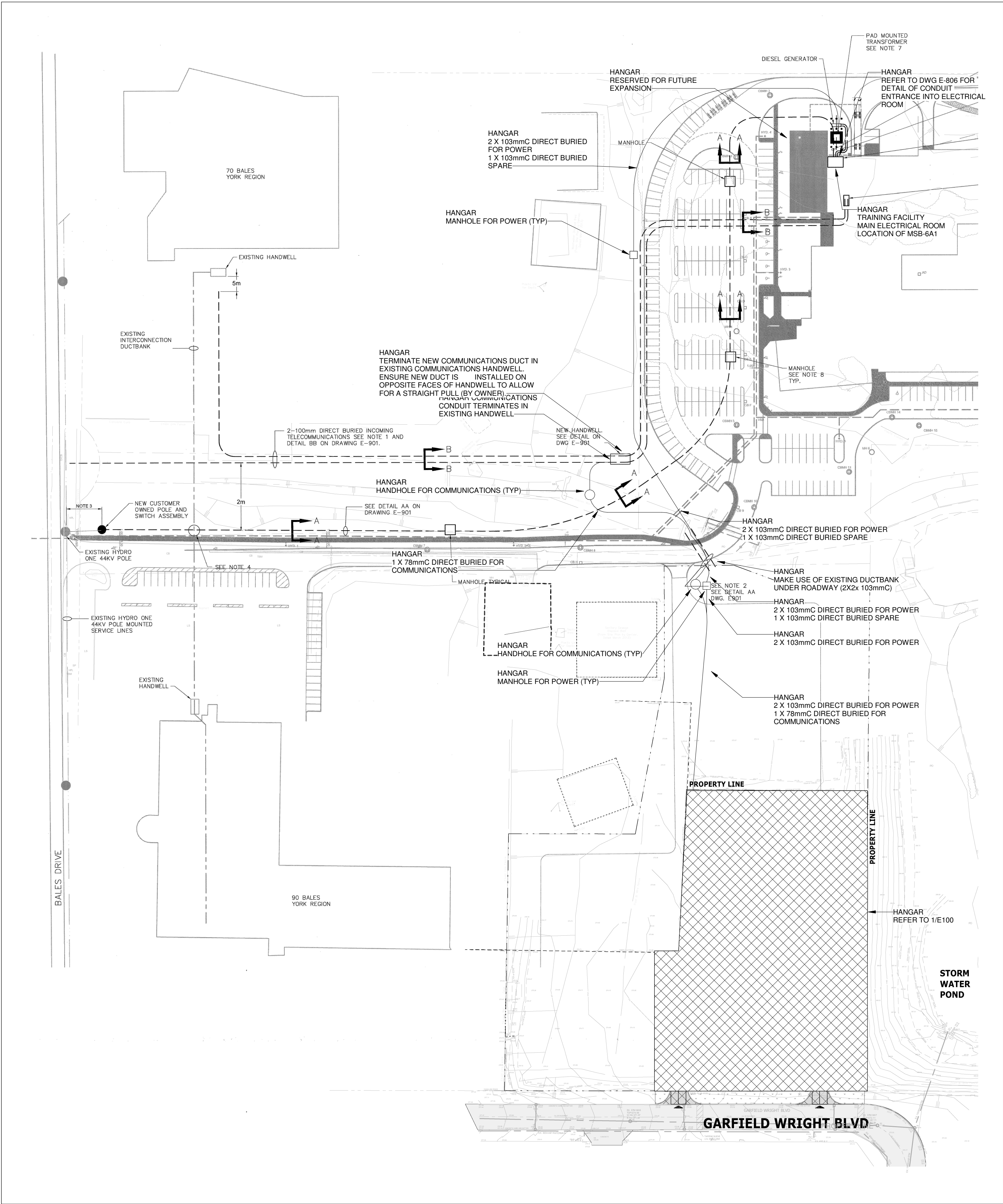
Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

Sheet
Title:
ELECTRICAL SITE PLAN

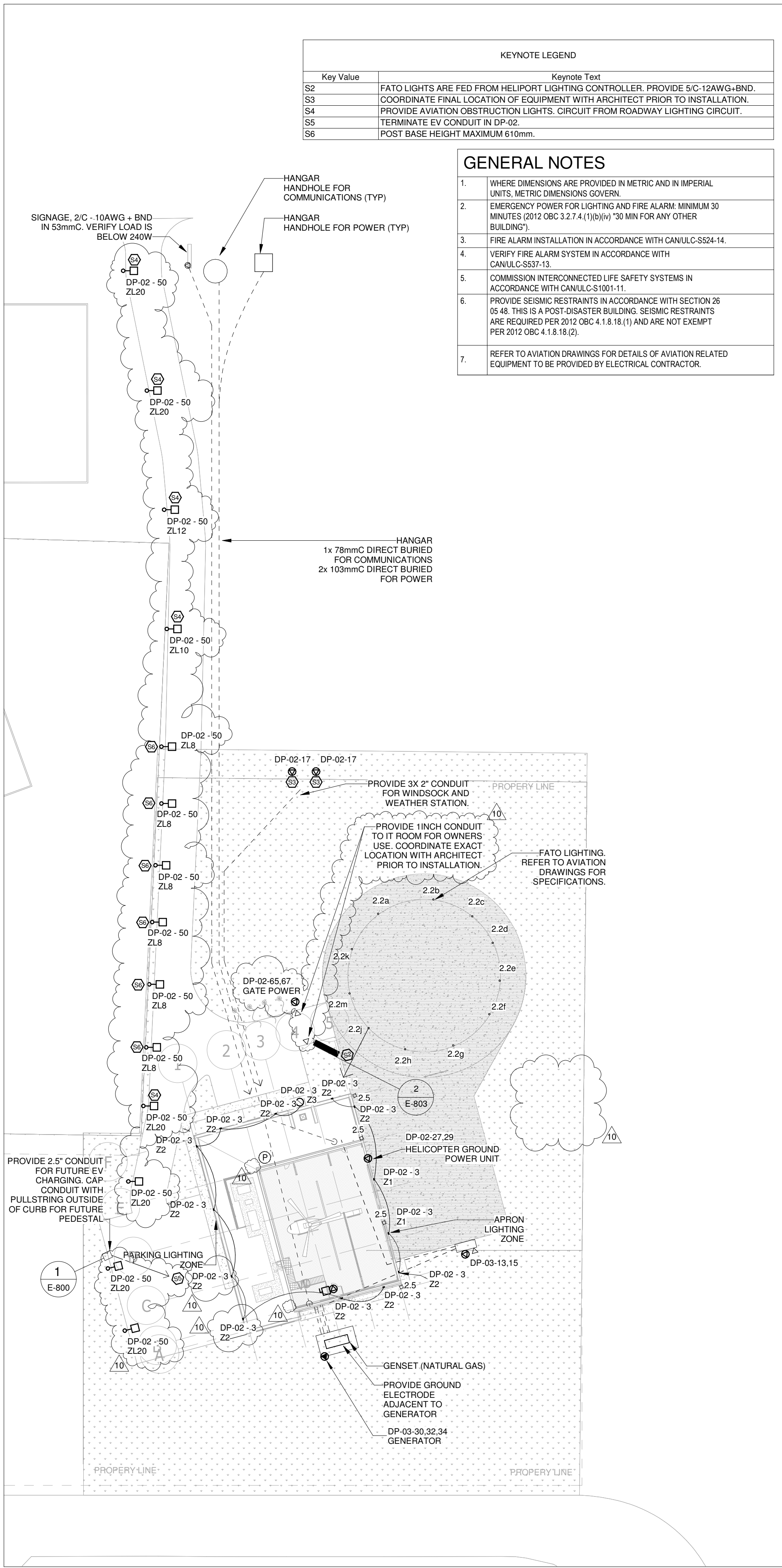
Drawing
No.
E-100

NOTES:

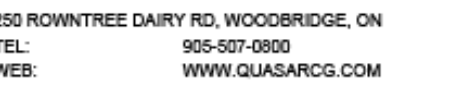
- OVERALL SITE PLAN (1:1000 SCALE) HAS BEEN DRAWN ON EXISTING SITE PLANS FROM OTHER PROJECTS. NOTES WRITTEN FOR THIS PROJECT ARE PREFIXED BY THE TERM "HANGAR". OTHER NOTES ARE INFORMATION ONLY.



OVERALL SITE PLAN
SCALE: 1 : 1000



SITE PLAN
SCALE: 1 : 500



350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

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Issues

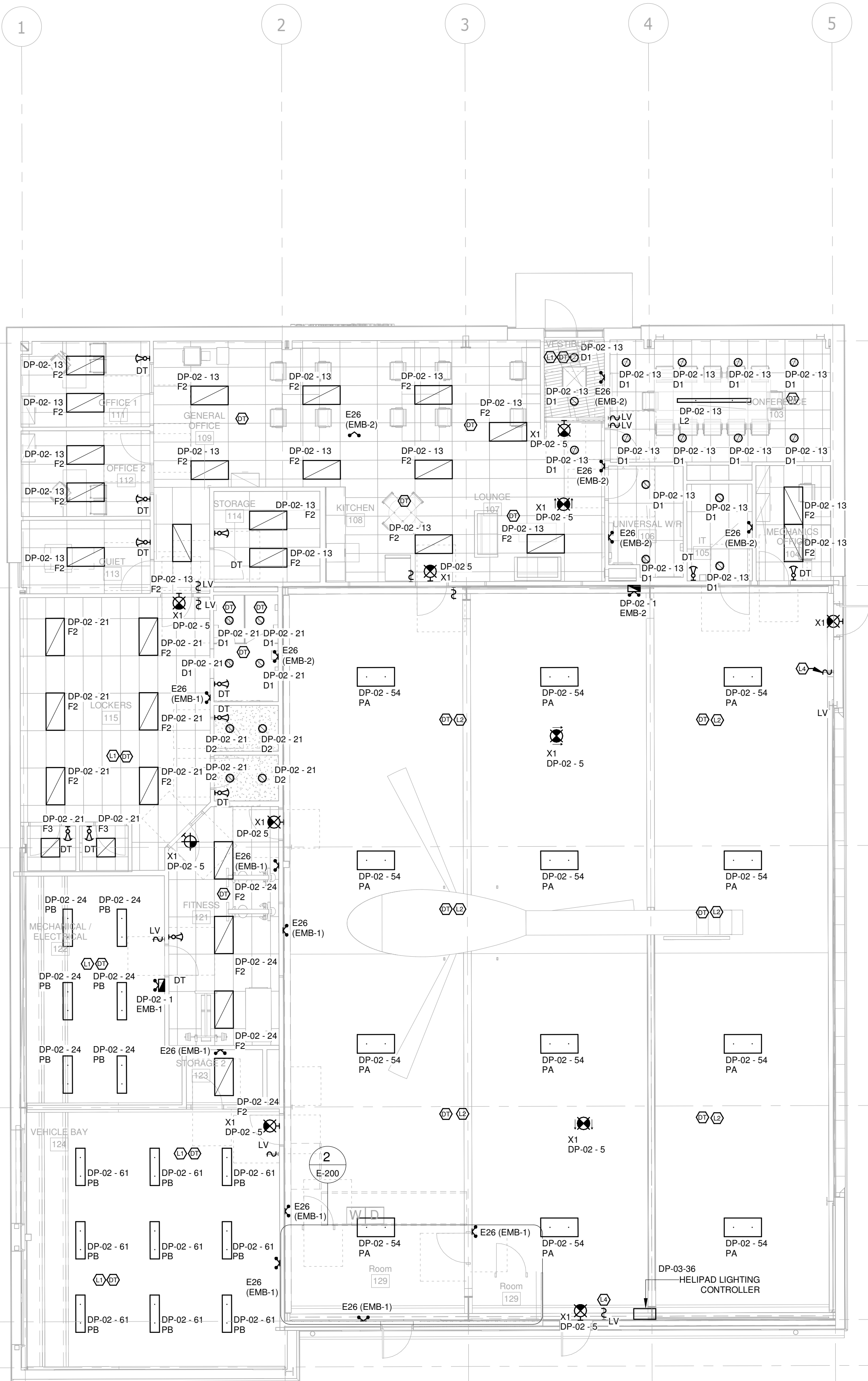
Do not scale drawings

Sheet
Title: LIGHTING NEW WORK -
GROUND FLOOR

Drawing
No. **E-200**

GENERAL NOTES:

1. REFER TO POWER AND SIGNALS DRAWINGS FOR SWITCHED RECEPTACLES.





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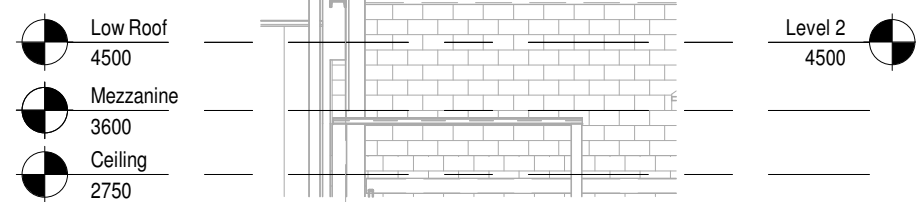
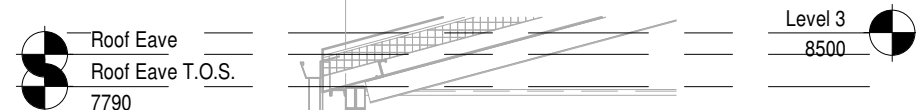
350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key
Plan

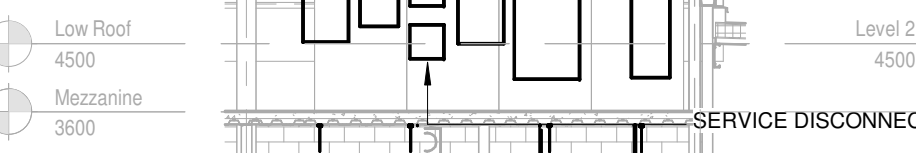
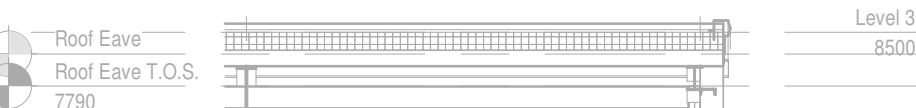
KEYNOTE LEGEND	
Key Value	Keynote Text
P1	CONDUIT TERMINATION FOR ANTENNA SYSTEM TO ROOF LEVEL. CONFIRM EXACT LOCATION ARCHITECT.
P2	P2 ANY EQUIPMENT INSTALLED UP TO 450mm AFF SHALL BE HAZARDOUS RATED ZONE 2 PER OESC 20-402 (2)
P3	P3 MOUNT BOTTOM OF RECEPTACLES MINIMUM 500mm AFF
P4	RADIO: MOUNT 1100AFF. CONFIRM LOCATION WITH ARCHITECT PRIOR TO INSTALLATION
P5	INSTALL TV POWER AND DATA 18INCH BELOW CEILING. VERIFY EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
P6	SCRAMBLEPAD
P7	INTRUSION DETECTION SYSTEM KEYPAD

GENERAL NOTES:

1. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS AND ELECTRICAL ROOMS. OR UNLESS OTHERWISE INDICATED IN THIS SPECIFICATION, OR NOTED ON THE DRAWINGS, SURFACE CONDUIT WORK IS NOT PERMITTED UNLESS SPECIFICALLY NOTED.



Section 3
SCALE: 1: 100



Section 5
SCALE: 1: 100

9	ISSUED FOR ADDENDUM 15	2024-12-04
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

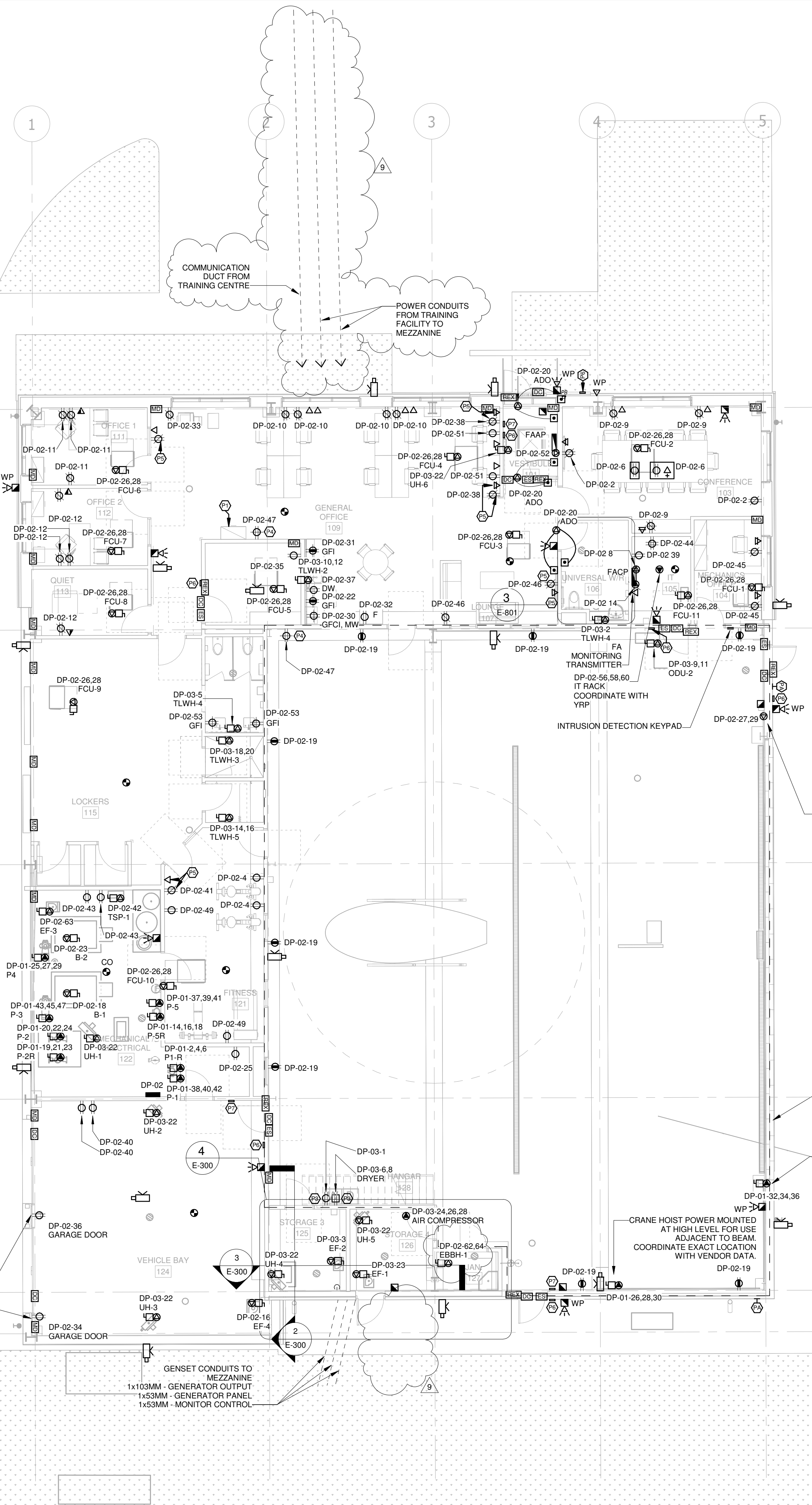
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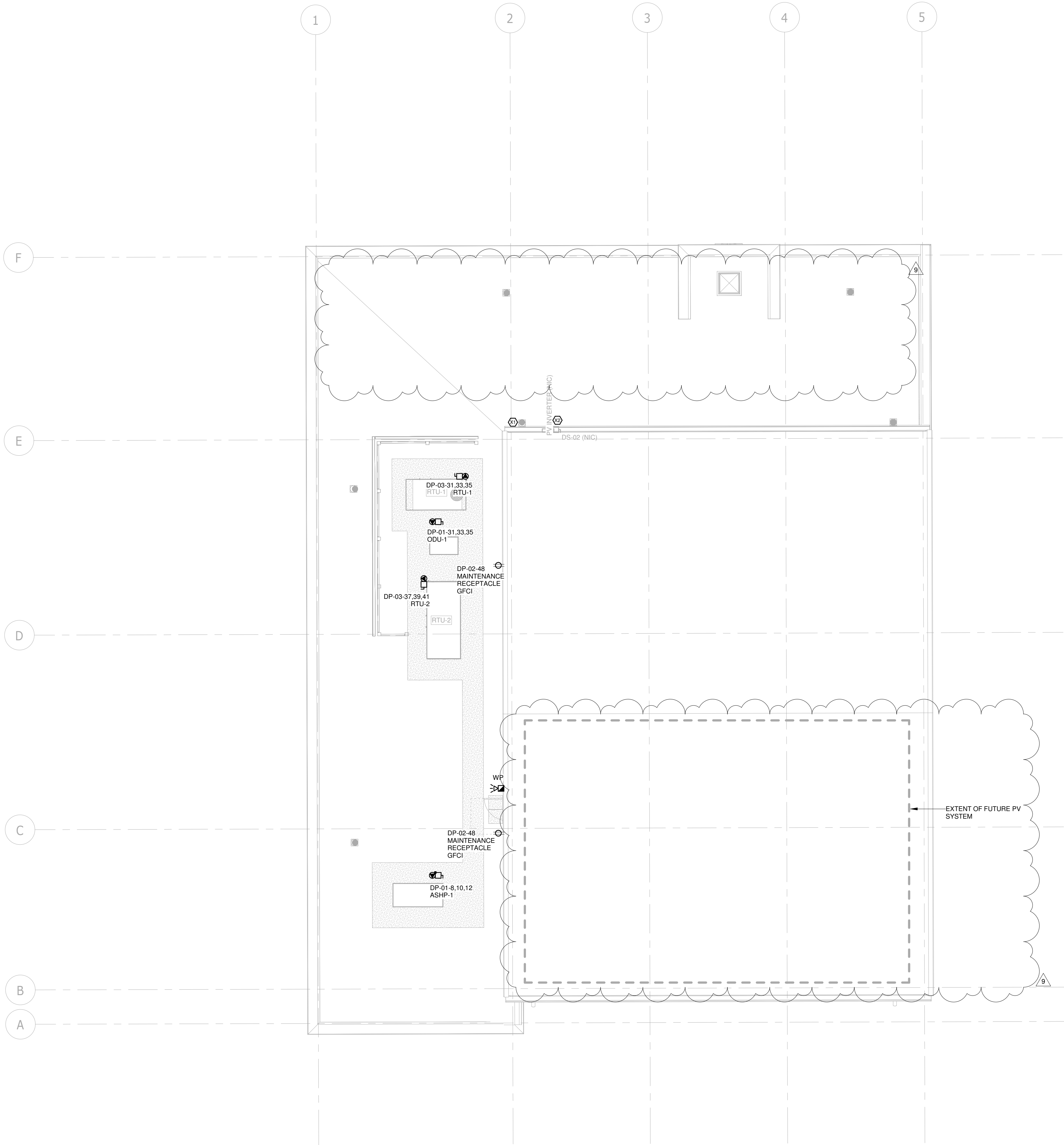
Title:

POWER AND SYSTEMS
NEW WORK - GROUND
FLOOR

Drawing

No.
E-300





KEYNOTE LEGEND	
Key Value	Keynote Text
X1	INSTALL 1 INCH CONDUIT FOR ANTENNA SYSTEM (CONFIRM CONDUIT SIZE AND LOCATION WITH OWNER PRIOR TO INSTALLATION)
X2	INSTALL CONDUIT FOR FUTURE PV SYSTEM.

GENERAL NOTE:
ALL ROOF MOUNTED EQUIPMENT TO BE FED DIRECTLY FROM BELOW.
NO CONDUIT TO BE RUN ALONG ROOF WHERE CAN BE AVOIDED.
CONFIRM WITH ARCHITECT ALL CONDUIT INSTALLATIONS WHICH WILL BE EXPOSED PRIOR TO INSTALLATION.

PARKIN

Parkin Architects Limited
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



YORK REGIONAL POLICE
HELICOPTER HANGAR

350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key
Plan

NO.	ISSUED	DATE
9	ISSUED FOR ADDENDUM 15	2024-12-04
8	ISSUED FOR ADDENDUM 14	2024-11-27
7	ISSUED FOR ADDENDUM 10	2024-10-15
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR ADDENDUM 1	2024-09-16
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31

Issues

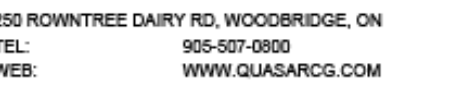
All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: 1 : 100

Sheet
Title:
POWER AND SYSTEMS
NEW WORK - ROOF
PLAN

Drawing
No.
E-301



350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

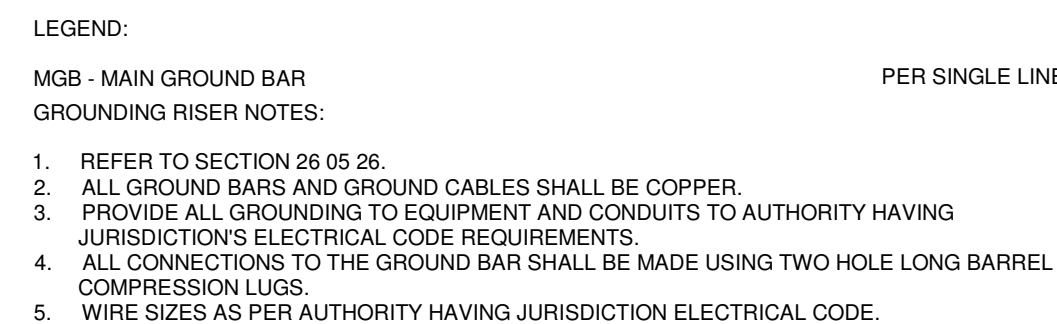
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All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005

ELECTRICAL SINGLE LINE DIAGRAM

10/15/2024 10:09:43 AM
Autodesk Docs://2402 - YRP Helicopter Hanger/TT-24-005-YRP-QCG ME Model_R24.rvt

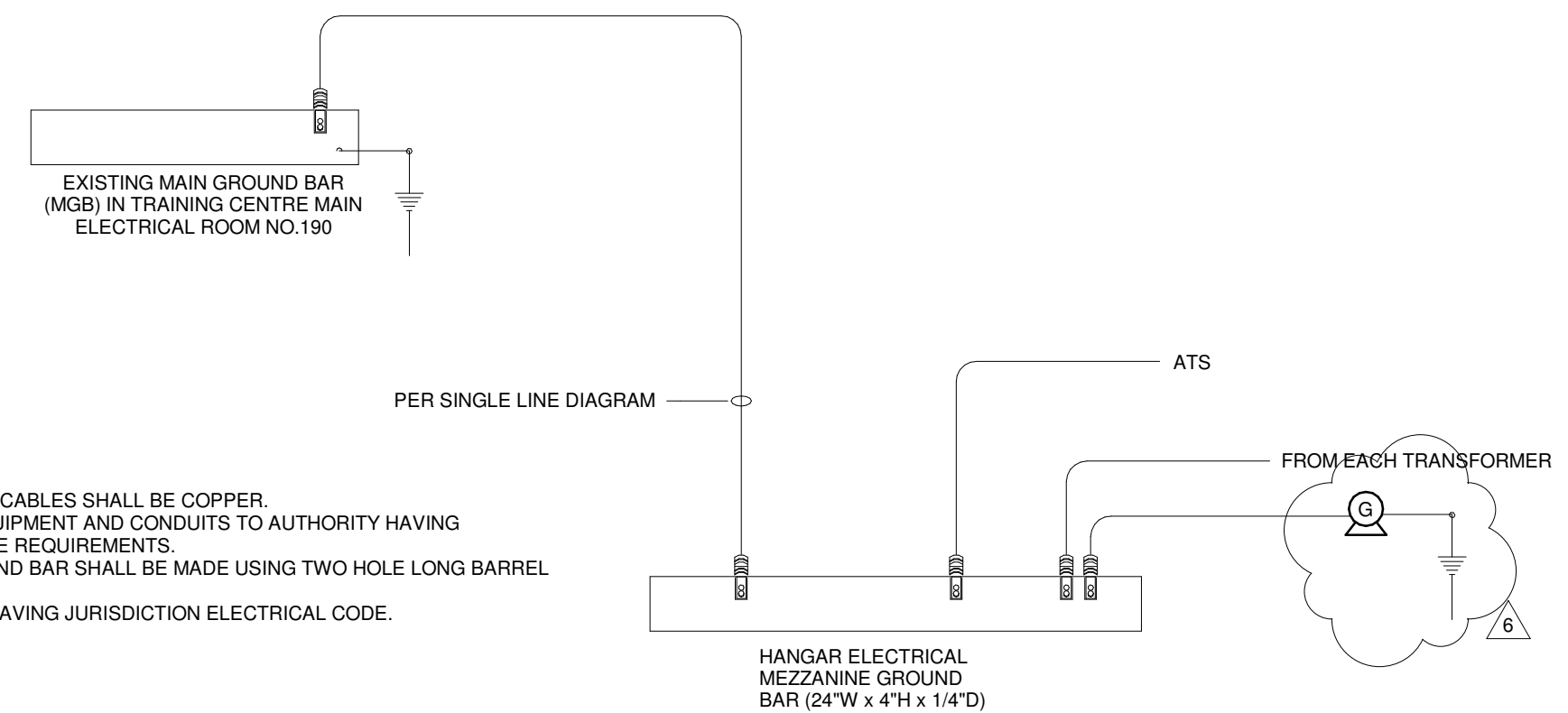


2



NOTES:

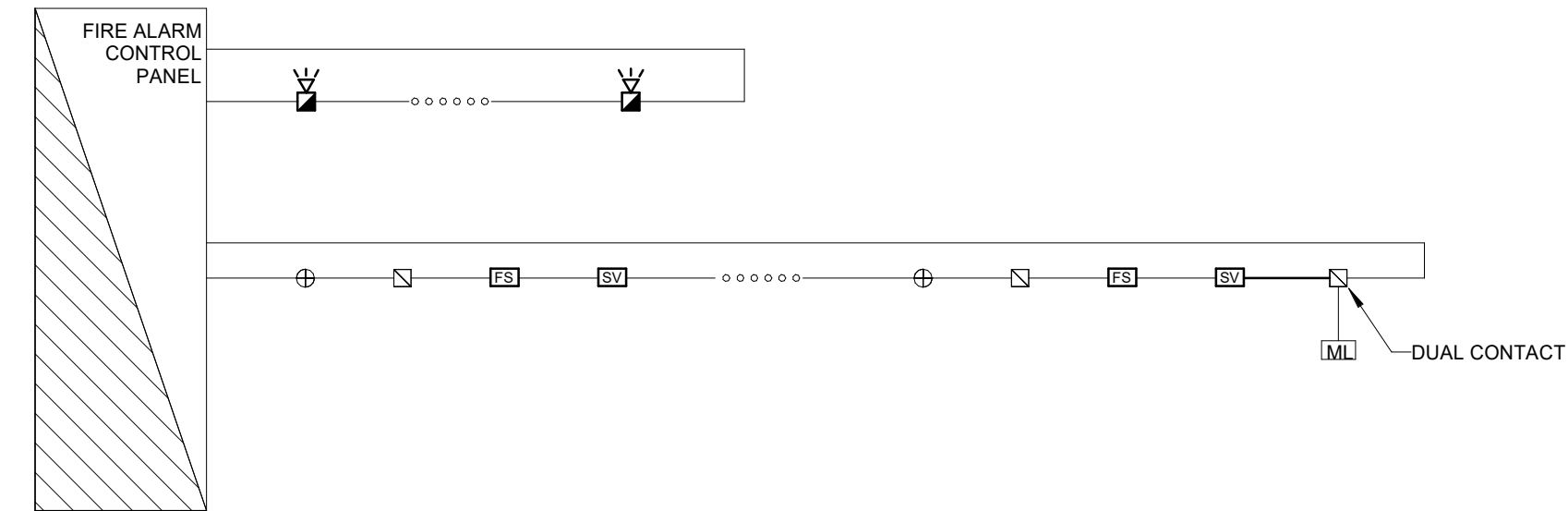
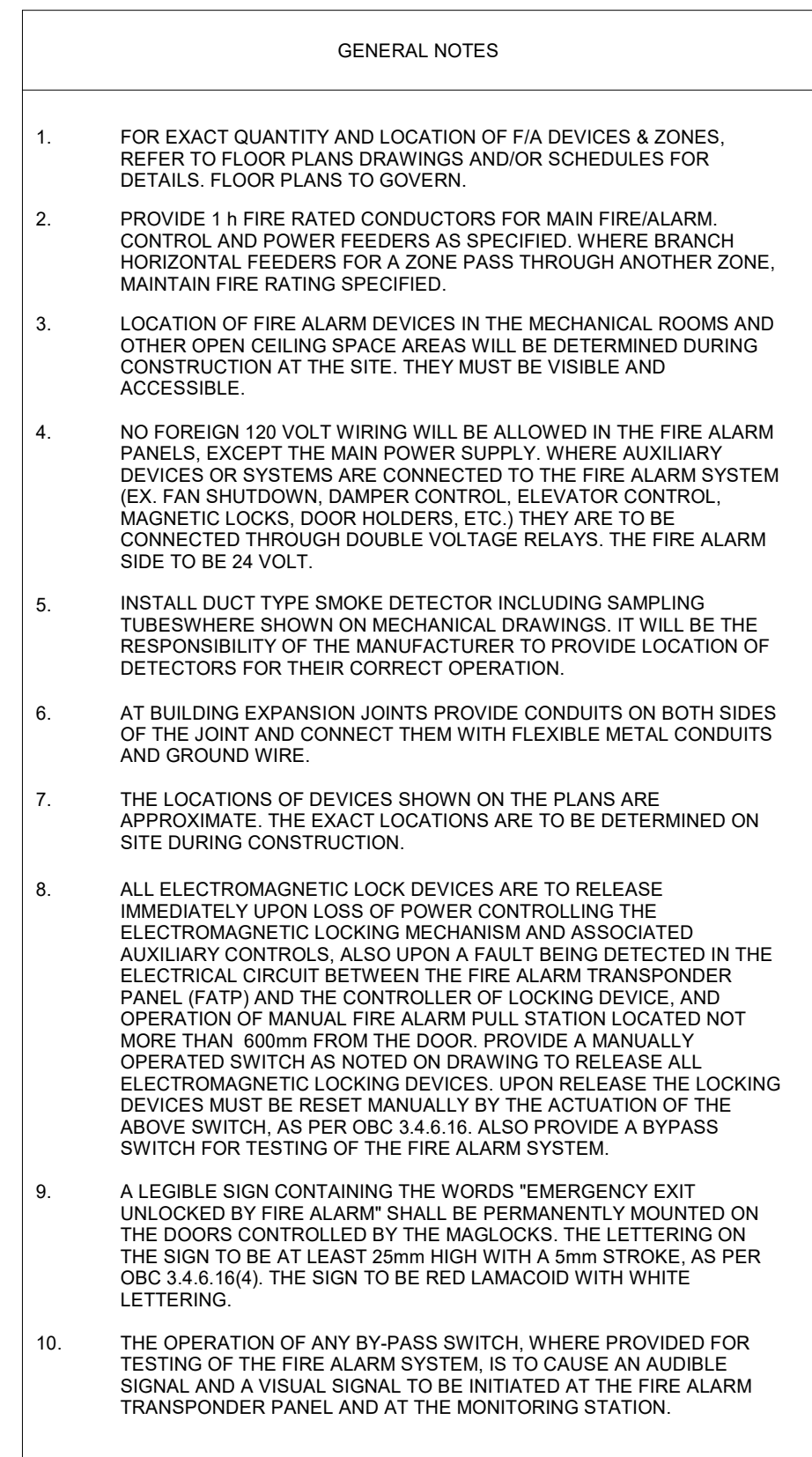
1. 600V CABLE SIZES WHERE NOT SHOWN ON SINGLE LINE DIAGRAM.
2. CABLE REQUIREMENTS TO BE CONFIRMED WITH EQUIPMENT REQUIREMENTS.



YORK REGIONAL POLICE
HELICOPTER HANGAR

350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan



FIRE ALARM RISER

SCALE:N.T.S.

[illegible]

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005

Sheet
Title:

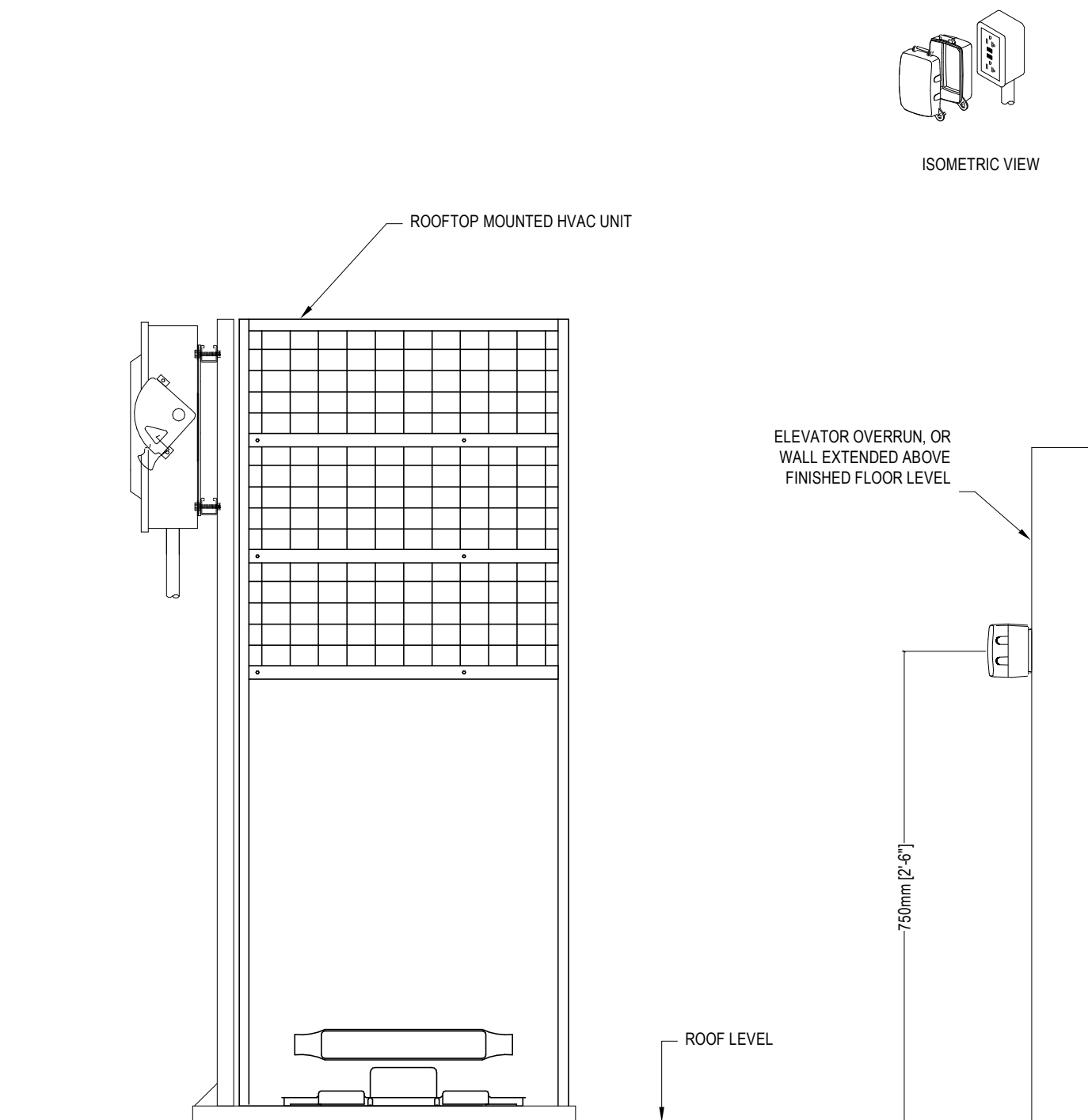
FIRE ALARM RISER

Drawing
No.
E-701

YORK REGIONAL POLICE
HELICOPTER HANGAR

350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan

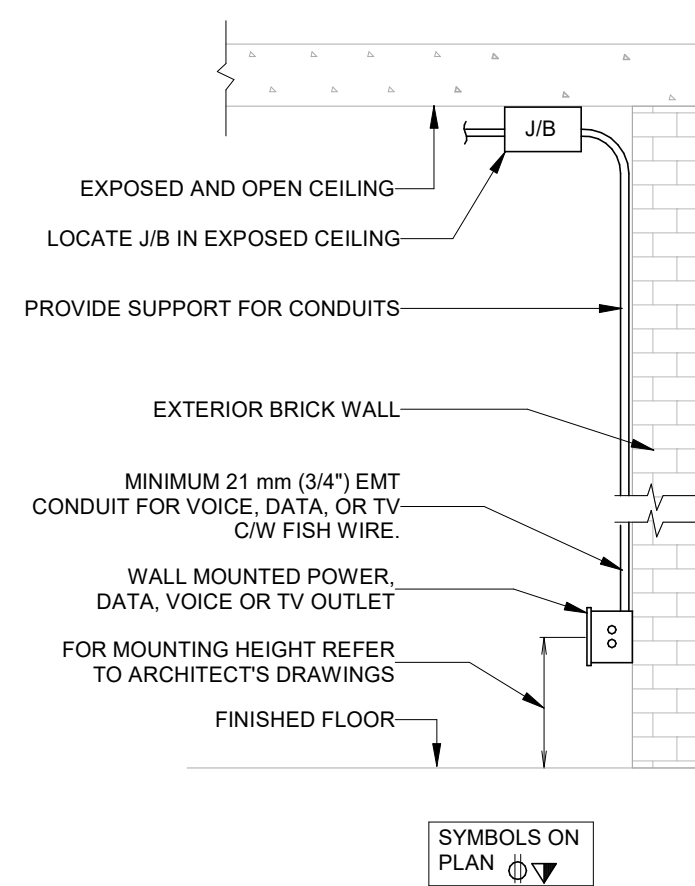


- NOTES:
1. PROVIDE WP GF1 5-20R @ 750 mm (30") ABOVE FINISHED ROOF LEVEL. CAN WET LOCATION COVER PLATE, TYPICAL. LOCATE WITHIN 7500 mm (25 FT) OF NEW HVAC EQUIPMENT, AND AT LEAST 1800 mm (6 FEET) AWAY FROM ROOF LINE. COVER PLATE TO BE MARKED "EXTRA DUTY". REFER TO 2021 OESC RULES 2-316, 26-708, AND 26-710, AND OESC BULLETIN 26-27-7. OR LATEST EDITION.
 2. LABEL RECEPTACLE WITH PHENOLIC (LAMACOID) NAMEPLATE WITH PANELBOARD ID, CIRCUIT NUMBER, AND PANELBOARD LOCATION.

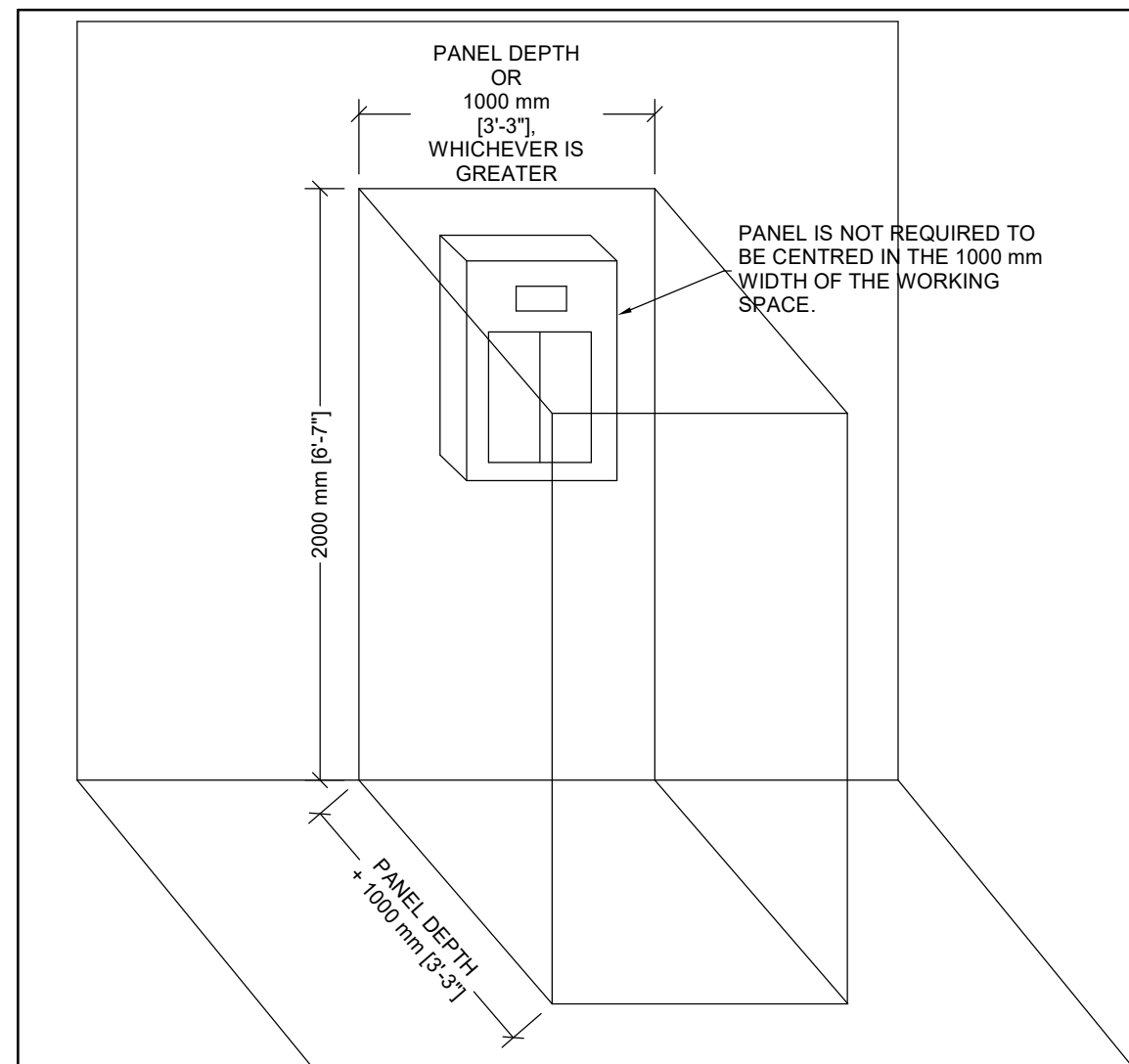
CODE REFERENCES (REFER TO 2021 OESC RULES 2-316, 26-708 AND 26-710, AND OESC BULLETIN 26-27-*), OR LATEST CODE EDITION:

1. HVAC EQUIPMENT MAINTENANCE RECEPTACLE
INSTALLED ON ROOF (2021 OESC RULE 2-316).
2. GFCI PROTECTED (2021 OESC 26-710(a)).
3. DEDICATED FOR "HVAC MAINTENANCE" (2021 OESC 26-710(b)).
4. CSA CONFIGURATION 5-20R (2021 OESC 26-710(c)).
5. LOCATED WITHIN 7500 mm OF THE ROOFTOP EQUIPMENT (2021 OESC 26-710(d)).
6. NOT LESS THAN 750 mm (30") ABOVE THE FINISHED ROOF LEVEL (2021 OESC 26-710(e)).
7. PROTECT FROM MECHANICAL DAMAGE (2021 OESC 26-710(f)).
8. LOCATE MINIMUM 1800 mm (6 FEET) AWAY FROM ROOF LINE. REFER TO FALL ARREST LEGISLATION.
9. USE LOCATION COVER PLATE TO BE "WHILE IN USE" TYPE, MARKED "EXTRA DUTY" (2021 OESC 26-708(2)).
10. SECURE COVER PLATE TO OUTLET BOX BY FOUR SCREWS OR EQUIVALENT MEANS (2021 OESC 26-708(4)).

3 MAINTENANCE RECEPTACLE ROOF MOUNTED HVAC EQUIPMENT
SCALE:N.T.S.

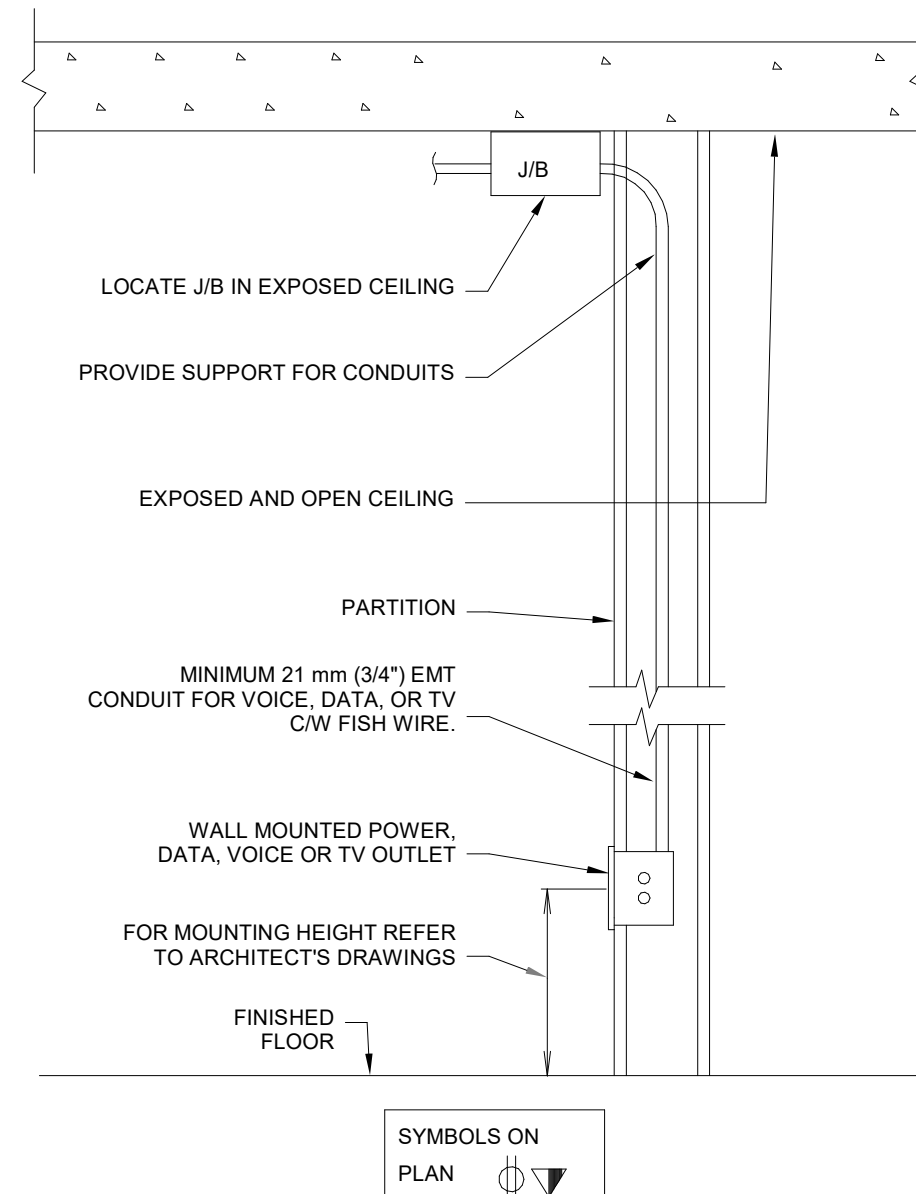


6 WALL MOUNTED OUTLET BOX (SURFACE)
SCALE:N.T.S.

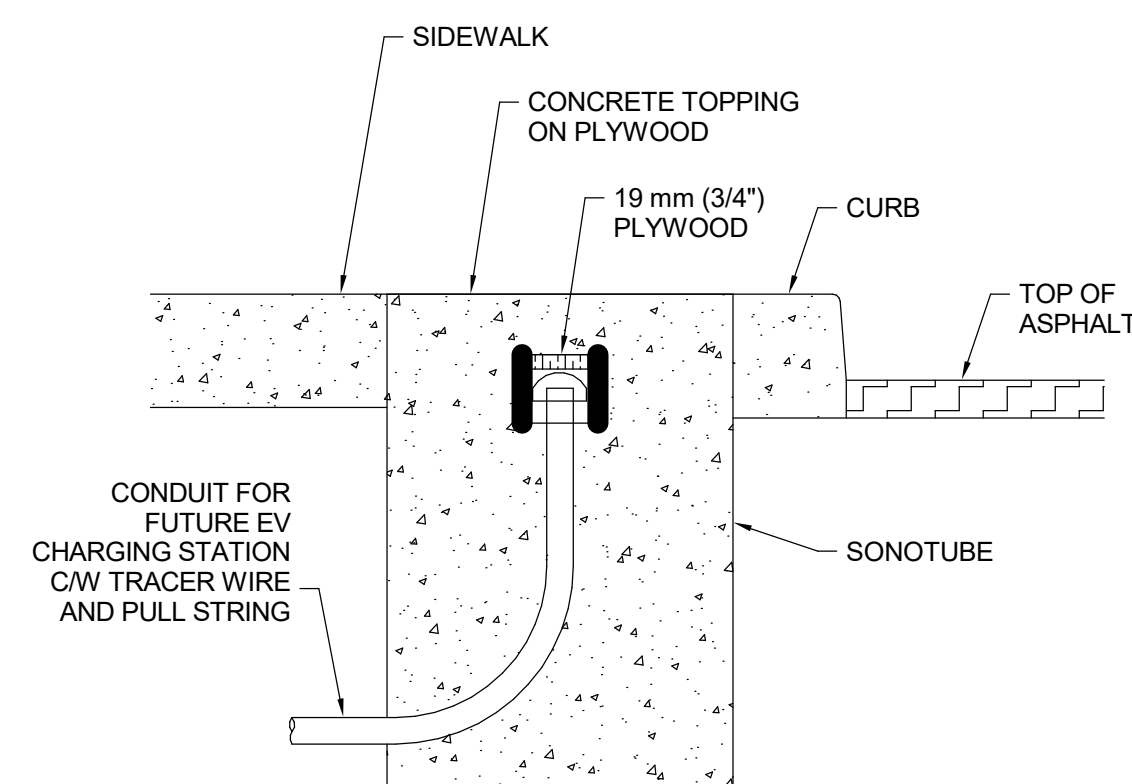


- REFERENCES:
1. 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), RULE 2-308(1) (OR LATEST EDITION)
 2. OESC BULLETIN 2-9-(LATEST VERSION)

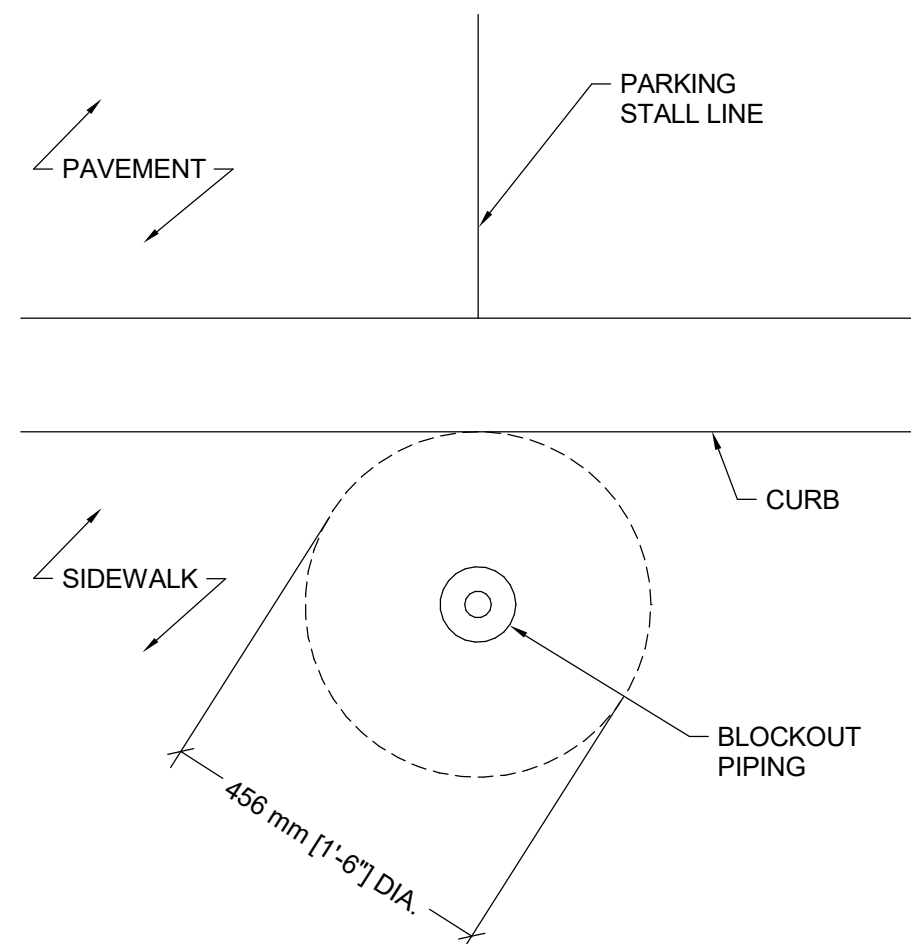
5 CLEAR SPACE AROUND PANELBOARDS
SCALE:N.T.S.



4 Wall Mounted Outlet Box Wall Recessed
SCALE:N.T.S.

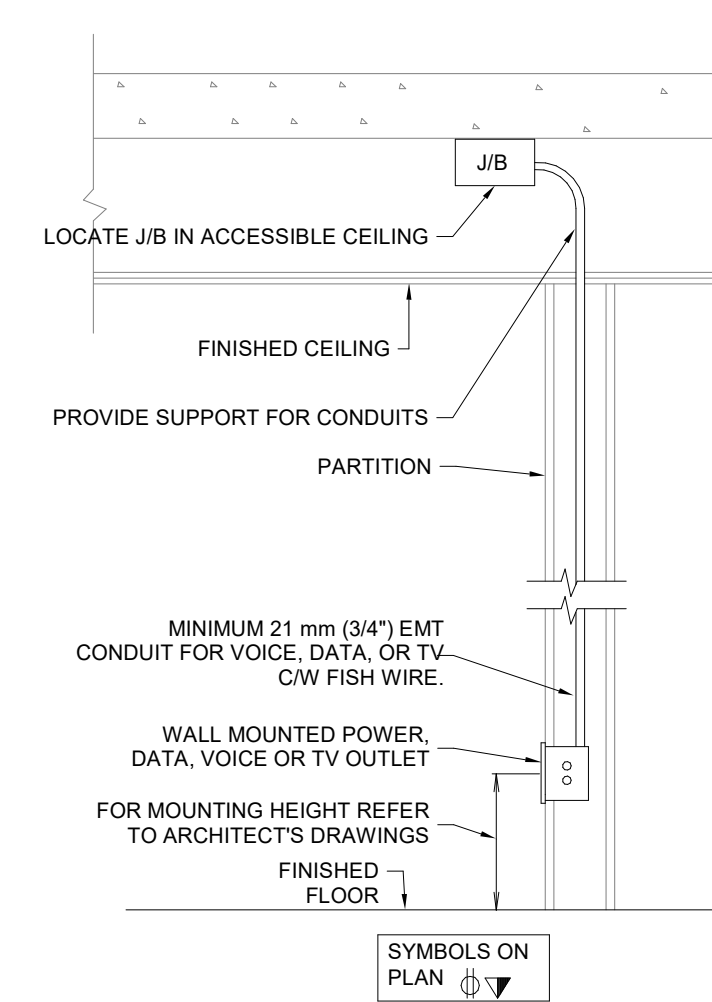


SECTION VIEW

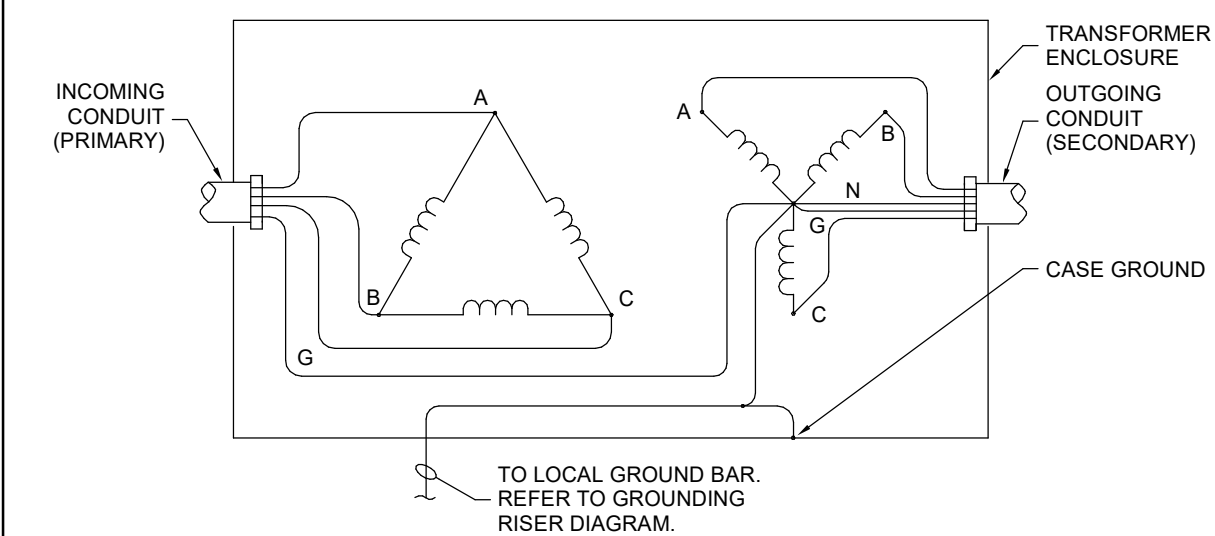


PLAN VIEW

1 Future EV Charging Station Pedestal Rough-In
SCALE: 1 : 10

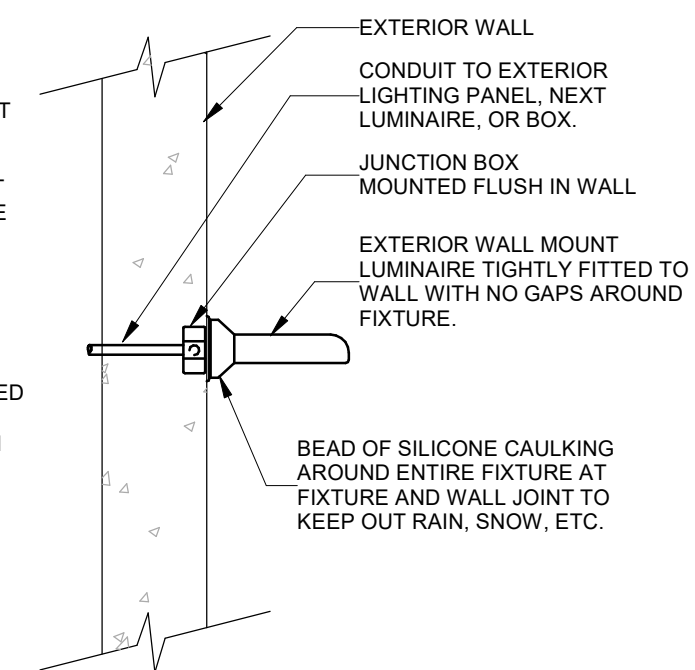


2 Wall Mounted Outlet Box Wall Recessed Ceiling
SCALE:N.T.S.



8 TRANSFORMER GROUNDING
SCALE: 1 : 50

- NOTES:**
1. A WEATHERPROOF GASKET SHALL BE INSTALLED BETWEEN THE WALL AND THE FIXTURE. IF A GASKET IS NOT SUPPLIED WITH THE FIXTURE, THE ELECTRICAL CONTRACTOR SHALL SUPPLY ONE AND CUT TO APPROPRIATE SIZE.
 2. THE BEAD OF SILICONE CAULKING SHALL BE PLACED AROUND THE FIXTURE TO PREVENT MOISTURE FROM GETTING BETWEEN THE FIXTURE AND THE WALL.



7 Sealing of Wall Mounted Exterior Luminaires
SCALE:N.T.S.

4	ISSUED FOR ADDENDUM 6	2024-08-30
3	ISSUED FOR ADDENDUM 3	2024-09-23
2	ISSUED FOR TENDER	2024-09-09
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

Issues

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Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005

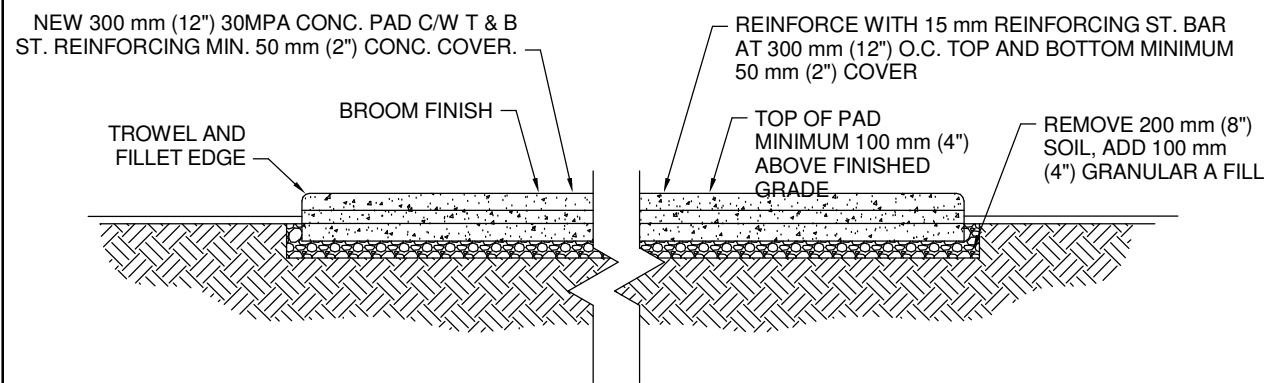
Sheet
Title: ELECTRICAL DETAILS

Drawing
No. **E-800**

YORK REGIONAL POLICE HELICOPTER HANGAR

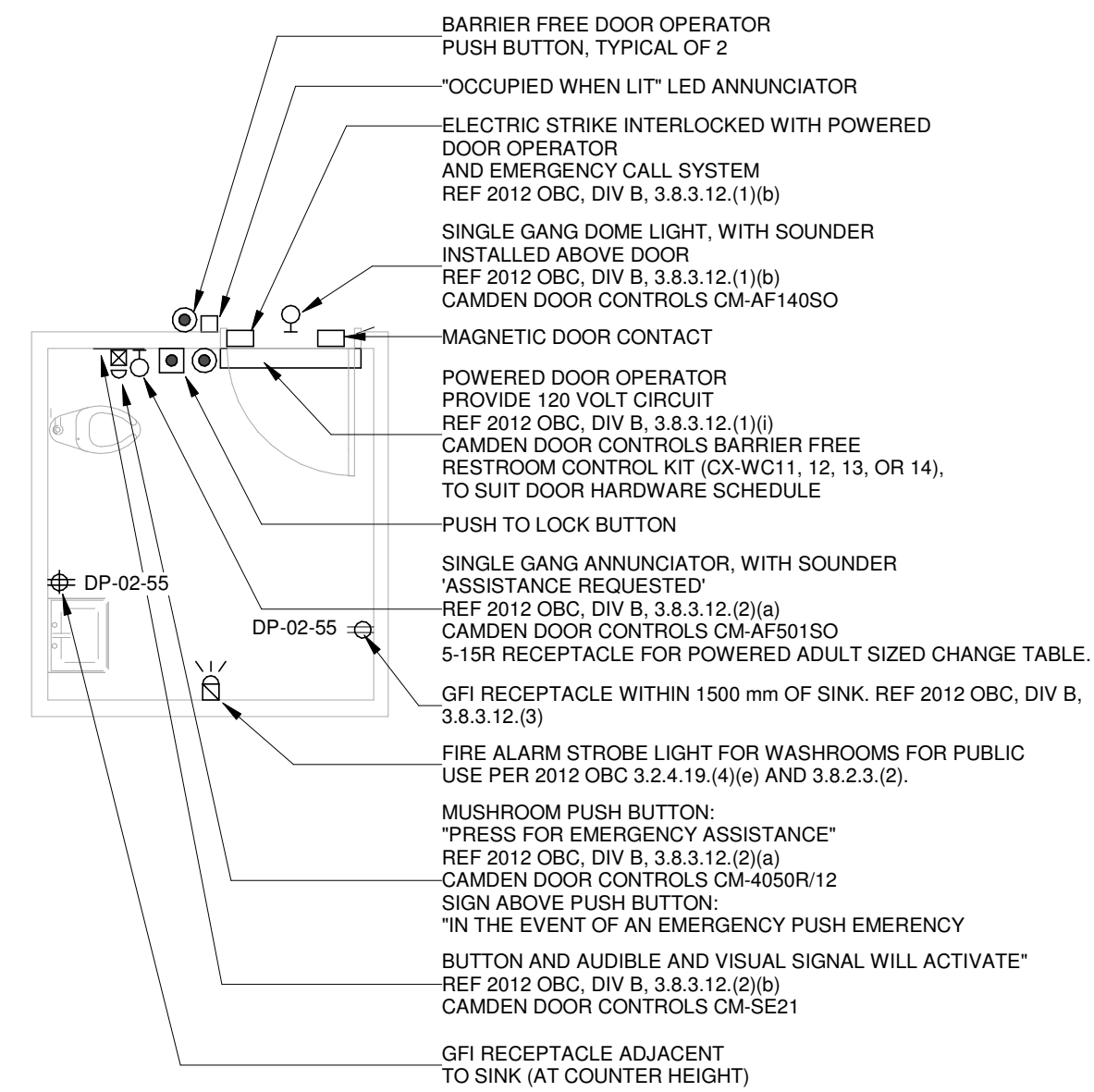
350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan



Cast-In-Place Concrete Generator Pad

SCALE: 1 : 50



UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:

1. CM-Q4050R12 SINGLE GAN MUSHROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACELATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE FACELATE.
2. CM-AF5050 SINGLE GAN LED ANNUNCIATOR WITH SOUNDER, RATED 85 db AT 100 mm, WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACELATE, WITH "ASSISTANCE REQUIRED" MESSAGE TEXT, THAT IS NOT REVERSIBLE, LESS THE MESSAGE "EMERGENCY ASSISTANCE".
3. CM-AF14050 SINGLE GAN DOME LIGHT WITH PIEZO SOUNDER, RATED 93 db AT 1 METRE, BRUSHED STAINLESS STEEL FACELATE AND 24 V INCANDESCENT BULB, 100 WATT, 120 VAC, 60 HZ, 1000 HOURS, 1000 HOURS, 1000 HOURS, 381 mm BY 381 mm (15" BY 15"), FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK LETTERING TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".
4. INTERCOM WITH TWO WAY SPEAKERS AND DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

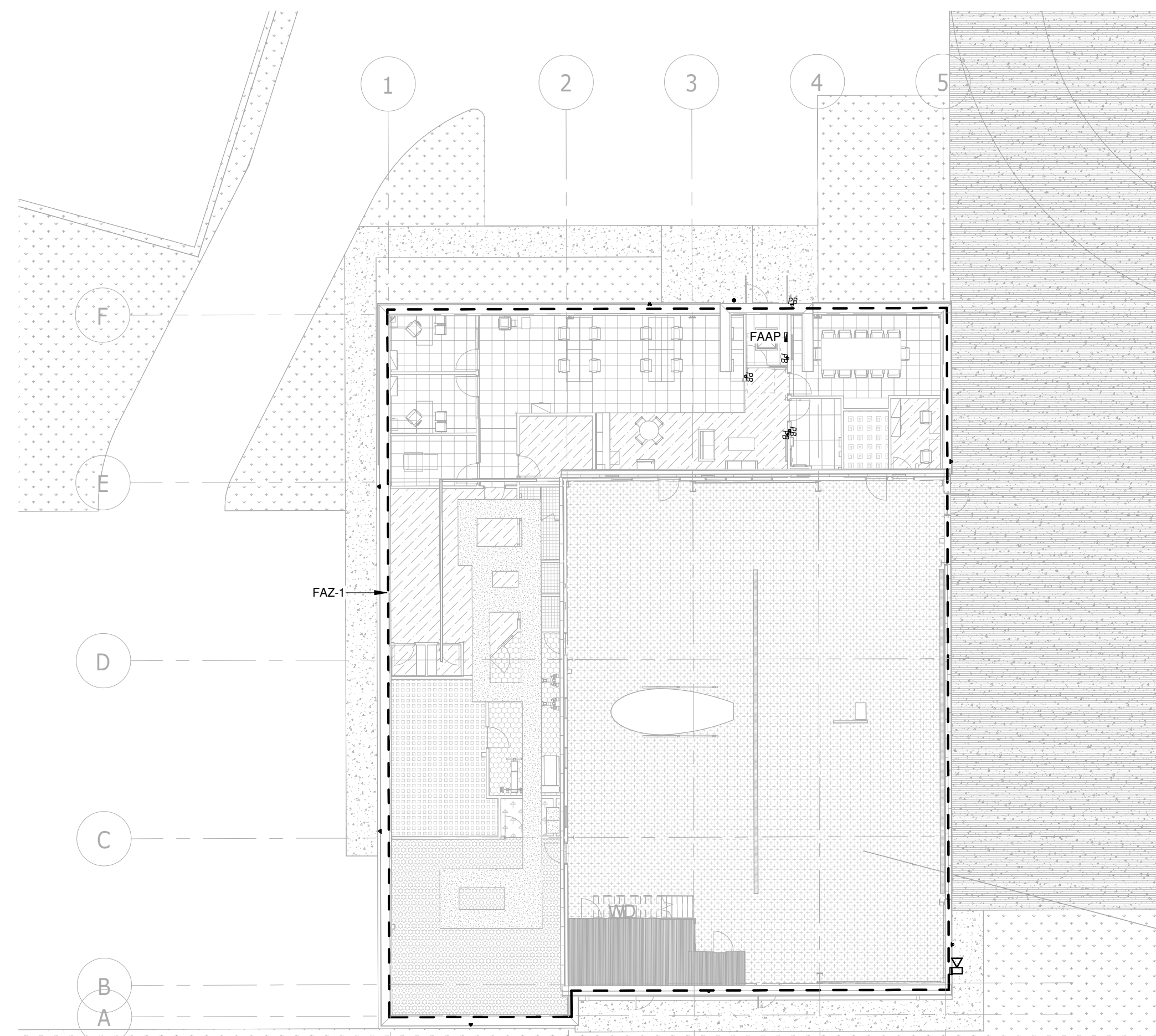
NOTES:

1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

28 26 23 - UNIVERSAL WASHROOM DOOR OPERATOR AND
EMERGENCY CALL SYSTEM

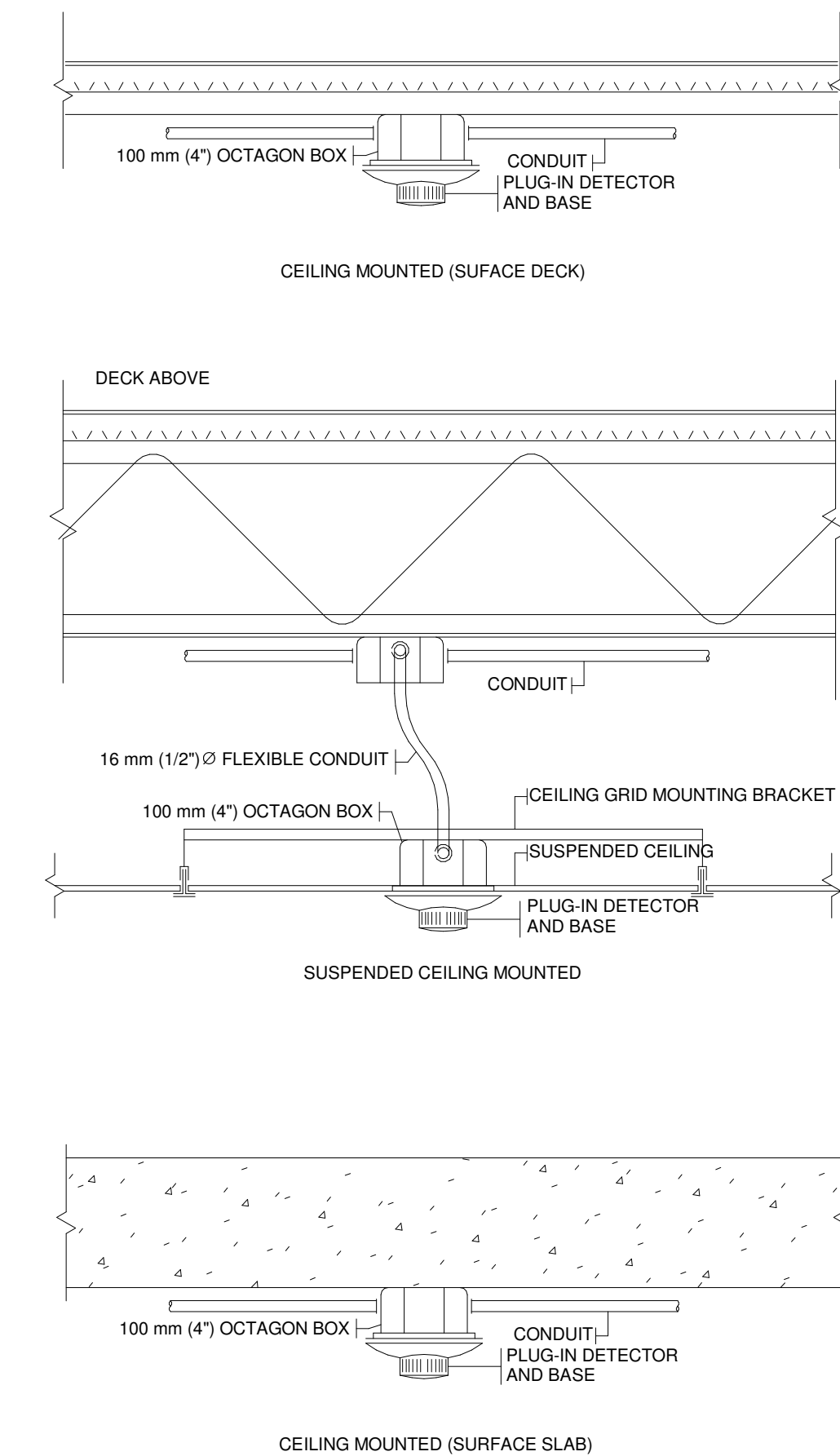
Universal Washroom Door Operator and Emergency Call System

SCALE:N.T.S.



FIRE ALARM ZONES

SCALE:N.T.S.



Typical Smoke Detector Installations

SCALE:N.T.S.

[illegible]

Issues

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Do not scale drawings

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Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

Sheet
Title:

ELECTRICAL DETAILS

Drawing
No. **E-801**

350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE

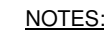
1 Max Branch Wiring Distance for 120 V System at 2% Voltage Drop
SCALE:N.T.S.

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

2 Max Branch Wiring Distance for 120 V System at 3% Voltage Drop
SCALE:N.T.S.



3 Ground Rod
SCALE:N.T.S.



- (A) COPPER GROUND BAR
- (B) INSULATORS - NEWTON CAT. #3061-4
- (C) 5/8" LOCKWASHERS - NEWTON CAT. #3015-B
- (D) WALL MOUNTING BRACKET - NEWTON CAT. #A-6056
- (E) 5/8 = 11x1" HHCS BOLT - NEWTON CAT. #3012-1
- (F) PROVIDE APPROPRIATE EXPANSION SHIELDS & BOLTS FOR MOUNTING ON CONCRETE STRUCTURE

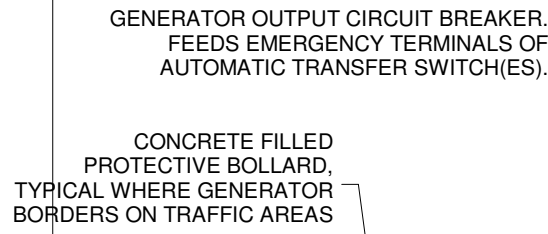
PLAN VIEW

FRONT VIEW

GENERAL NOTES

1. PROVIDE THREE HOLES SUITABLE FOR NEMA SPACING FOR BOTH #2/0 AND 750MCM TWO-HOLE COMPRESSION CONNECTORS.
2. UNCHOKE ALL METALLIC CONDUITS AS SHOWN.

4 Grounding Bar Detail
SCALE:N.T.S.



DUCT BANK ENTRY FROM BELOW GRADE:
 - GENERATOR OUTPUT FEEDER
 - GENERATOR ACCESSORY CONDUIT
 - MONITORING AND CONTROL CONDUIT
 CONFIRM EXACT CONDUIT ENTRY LOCATION
 WITH EQUIPMENT SHOP DRAWINGS.
 USE FLEXIBLE CONNECTORS FOR FINAL
 CONNECTIONS.

DETAILS WITH STRUCTURAL ENGINEER'S DETAILS.
EXTEND PAD MINIMUM 150 mm (6 IN) BEYOND
FOOTPRINT OF GENERATOR.

IN 1000 mm [3'-3"]
CLEARANCE

MAX 1500 mm [4'-11"]
BETWEEN BOLLARDS,
TYPICAL,
SPACED
EVENLY

GENERATOR ACCESSORY PANEL:
100 A, 120/208V, 3Ø 4W, C/W 100A/3P MAIN BREAKER

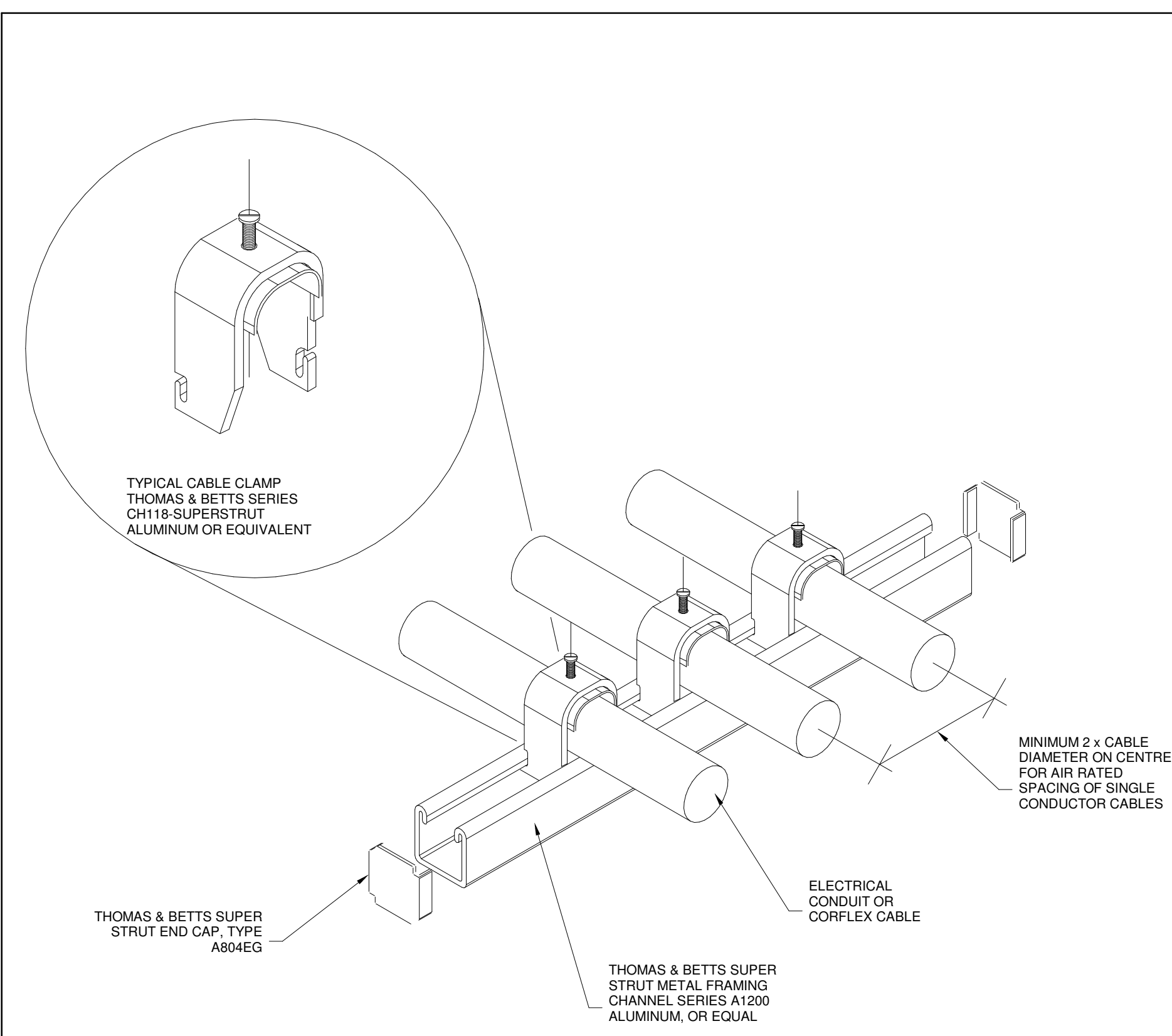
NATURAL GAS GENERATOR IN SKIN-TIGHT SOUND
ATTENUATING ENCLOSURE.
VERIFY EXACT DIMENSIONS AND LOCATION OF
COMPONENTS WITHIN GENERATOR WITH
EQUIPMENT SHOP DRAWINGS.

5 Skintight Gas Generator Plan
SCALE:N.T.S.

YORK REGIONAL POLICE
HELICOPTER HANGAR

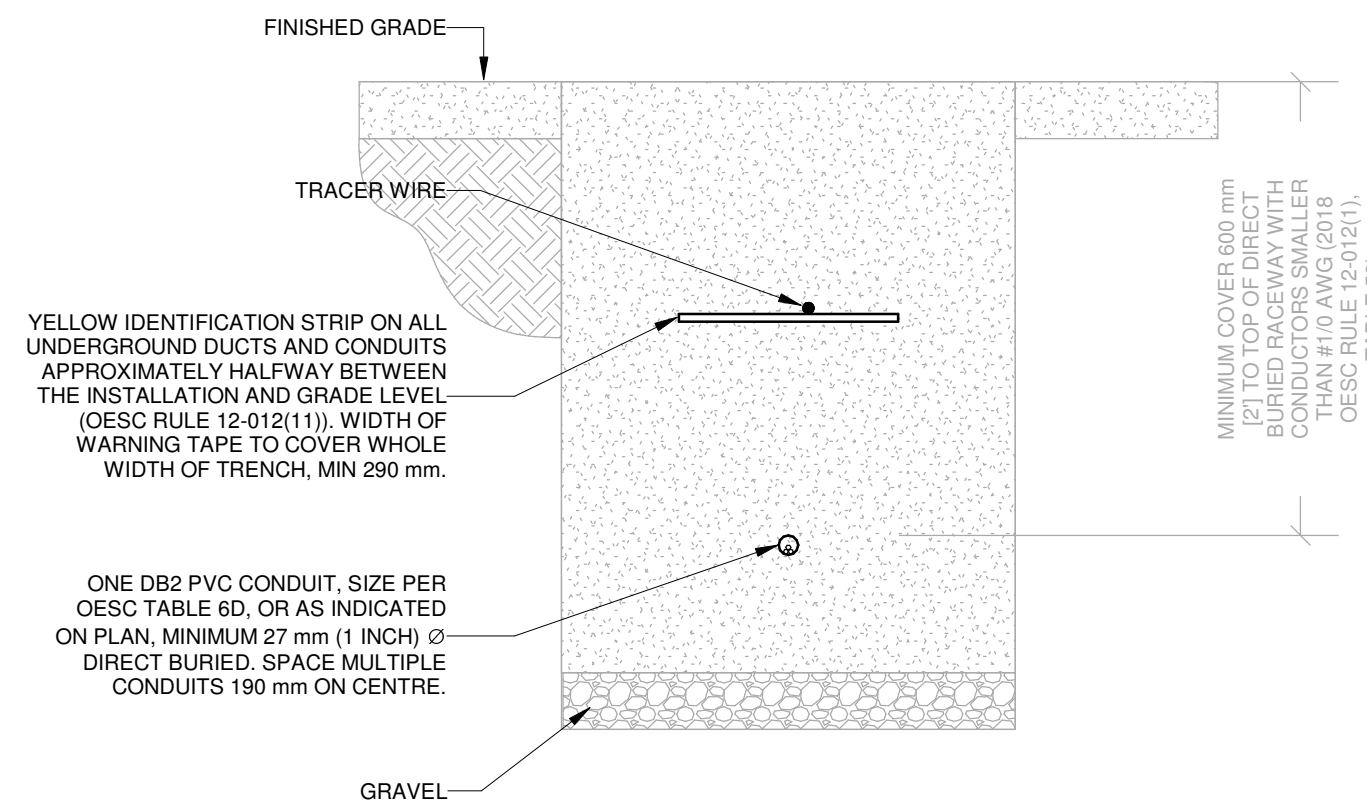
350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan



Strut Channel Suspension for Conduit and Cable

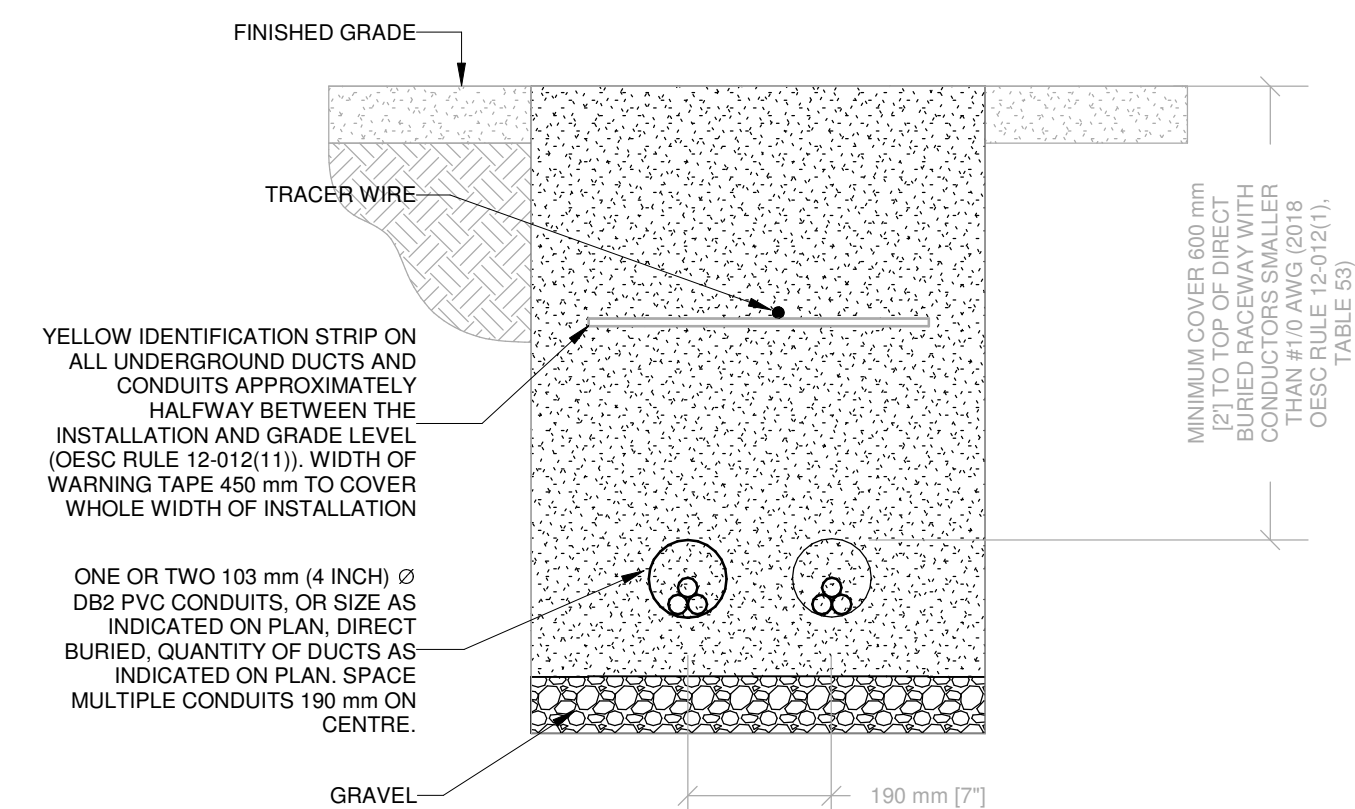
SCALE: 1 : 1



DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

NOTES:

1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #1/0 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.



DIRECT BURIED RACEWAY SECTION, 750 V OR LESS

NOTES:

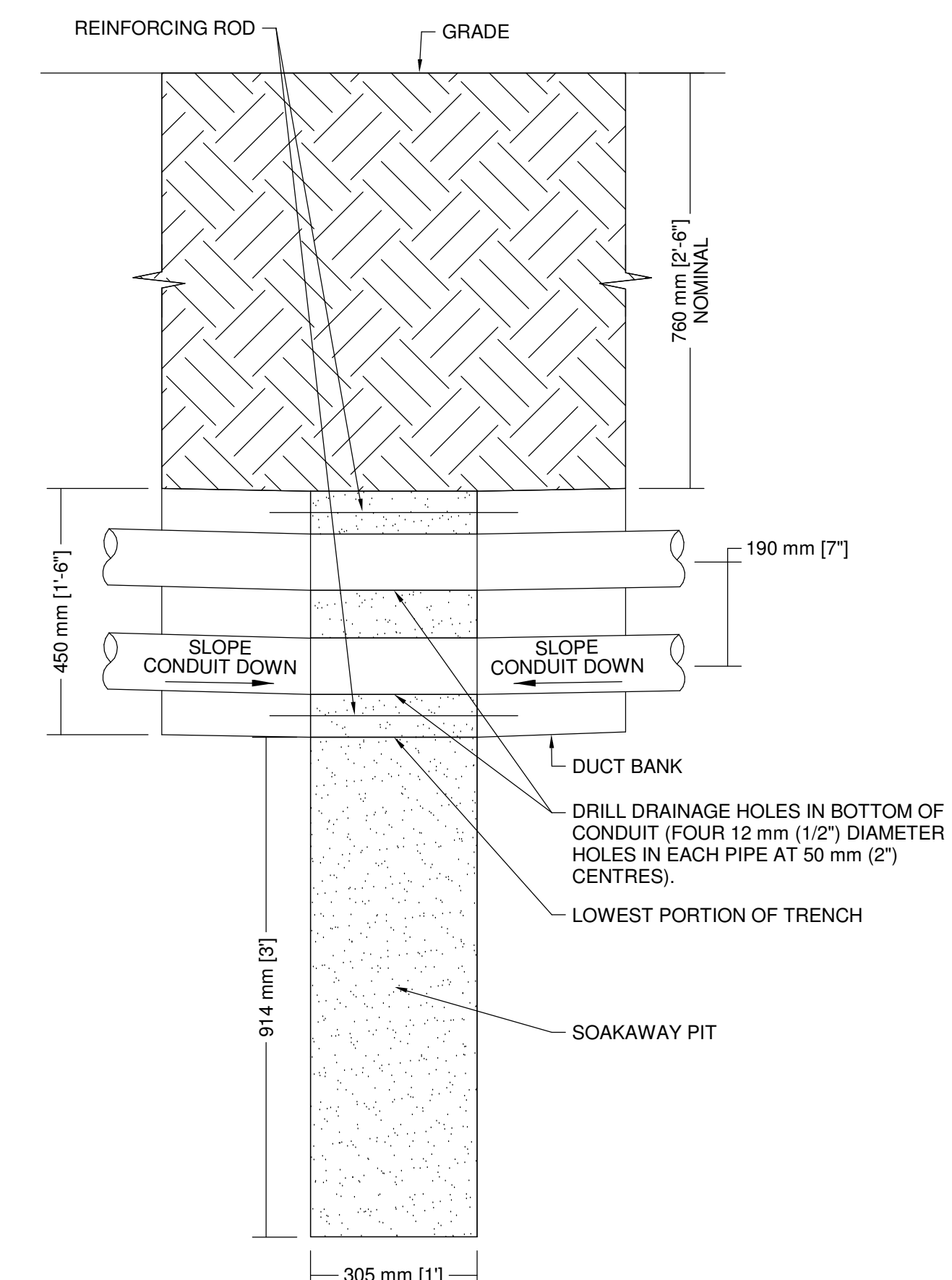
1. METRIC DIMENSIONS GOVERN.
2. DIRECT BURIED RACEWAY DUCTS TO BE IN COMPLIANCE WITH 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC), TABLE 53. MINIMUM COVER DEPTH MAY BE REDUCED BASED ON CRITERIA DESCRIBED IN TABLE 53.
3. DIRECT BURIED RACEWAY DUCTS TO BE INSPECTED PRIOR BACKFILL. COORDINATE WITH AUTHORITY HAVING JURISDICTION (ESA) AND RECEIVE ALL NECESSARY APPROVALS.
4. THIS DETAIL DOES NOT APPLY WHERE CONDUCTOR SIZE IS #10 OR GREATER IN A DIRECT BURIED RACEWAY. PROVIDE AN AMPACITY CALCULATION IN ACCORDANCE WITH IEEE 835.

ELECTRICAL ENERGY EFFICIENCY NOTES FOR PERMIT (ONTARIO BUILDING CODE SB-10)

ITEM	DESCRIPTION	CODE REFERENCE	SPECIFICATION REFERENCE
1A.	FEEDER CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 2% AT DESIGN LOAD.	QBC SB-10-2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
1B.	BRANCH CIRCUIT CONDUCTORS TO BE SIZED FOR MAXIMUM VOLTAGE DROP OF 3% AT DESIGN LOAD.	QBC SB-10-2017, ASHRAE 90.1-2013, 8.4.1.	26 05 19
2.	50% RECEPTACLE CONTROLS IN CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.	QBC SB-10-2017, ASHRAE 90.1-2013, 8.4.2.	26 09 23
3.	MEASUREMENT DEVICES ROUGHED IN TO MONITOR THE ELECTRICAL ENERGY USE FOR EACH OF THE FOLLOWING UNLESS EXCEPT: A. TOTAL ELECTRICAL ENERGY, B. HVAC, C. INTERIOR LIGHTING, D. EXTERIOR LIGHTING, E. RECEPTACLE CIRCUITS.	QBC SB-10-2017, ASHRAE 90.1-2013, 8.4.3.	26 27 13
4.	NEW LOW-VOLTAGE TRANSFORMERS TO MEET THE NOMINAL EFFICIENCIES SHOWN IN ASHRAE 90.1-2013, TABLE 8.4.4, UNLESS EXEMPT	QBC SB-10-2017, ASHRAE 90.1-2013, 8.4.4.	26 22 13
5.	PROVIDE LIGHTING CONTROL FUNCTIONS FOR EACH SPACE IN THE BUILDING PER PER ASHRAE 90.1-2013 TABLE 9.6.1. ASHRAE 90.1 EXEMPTIONS: -NORMALLY OFF EMERGENCY LIGHTING -DWELLING UNITS -LIFE SAFETY OR OTHER ORDINANCE	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.1.	26 09 23
5.1.	SPACES PROVIDED WITH READILY ACCESSIBLE LOCAL CONTROLS	QBC SB-10-2017, ASHRAE 90.1-2017, 9.4.1.1A.	26 09 23
5.2.	MAXIMUM OCCUPANCY SENSOR TIMEOUT 20 MINUTES.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.1.G, ASHRAE 90.1-2013, 9.4.1.1.H.	26 09 23
6.1	PARKING GARAGE LIGHTING TO BE PROVIDED WITH AUTOMATIC CONTROLS PER ASHRAE 90.1-2017 SECTION 9.4.1.2.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.2.	
6.2	PARKING GARAGE LIGHTING TO AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 30% BASED ON OCCUPANCY	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.2.	
6.3	PARKING GARAGE DAYLIGHT TRANSITION ZONE TO BE ON A SEPARATE SCHEDULE.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.2	
6.4	PARKING GARAGE LUMINAIRES TO BE PROVIDED WITH DAYLIGHT HARVESTING, IF NET OPENING-TO WALL RATIO IS GREATER THAN 40% UNLESS EXEMPT.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.2	
7.	PROVIDE ADDITIONAL CONTROLS FOR SPECIAL APPLICATIONS LISTED ASHRAE 90.1 SECTION 9.4.1.3.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.3	26 09 23
8.	INTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.2.2.3 MODIFIED BY SB-10.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.2.2.3	26 51 00
9.1	PROVIDE A PHOTOSENSOR FOR AUTOMATIC SHUTOFF OF EXTERIOR LIGHTS WHEN AVAILABLE DAYLIGHT IS SUFFICIENT.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 23
9.2	PROVIDE A SHUTOFF FOR LANDSCAPE AND FACADE LIGHTING BETWEEN THE HOURS OF MIDNIGHT AND 6:00 A.M.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
9.3	PROVIDE CONTROL TO REDUCE ILLUMINATED SIGNAGE POWER BY AT LEAST 30% BETWEEN MIDNIGHT AND 6:00 A.M.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.1.4	26 09 26
10.	EXTERIOR LIGHTING POWER COMPLIES WITH ASHRAE 90.1-2013 9.4.2. AS MODIFIED BY SB-10.	QBC SB-10-2017, ASHRAE 90.1-2013, 9.4.2.	26 53 00
11.	LIGHTING CONTROLS MANUFACTURER'S REPRESENTATIVE TO PROVIDE FUNCTIONAL TESTING AND REPORT IN ACCORDANCE WITH ASHRAE 90.1-2013.	QBC SB-10, ASHRAE 90.1-2010, 9.4.4.	26 09 23

Electrical SB-10 Notes

SCALE: 1 : 1



Duct Bank Soakaway Pit

SCALE: 1 : 10

[illegible]

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

Sheet
Title:

ELECTRICAL DETAILS

Drawing
No. **E-803**

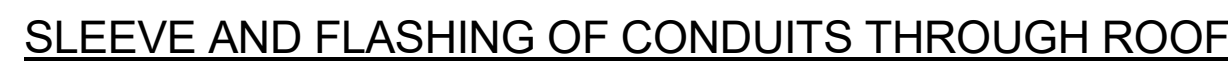
350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

[illegible]

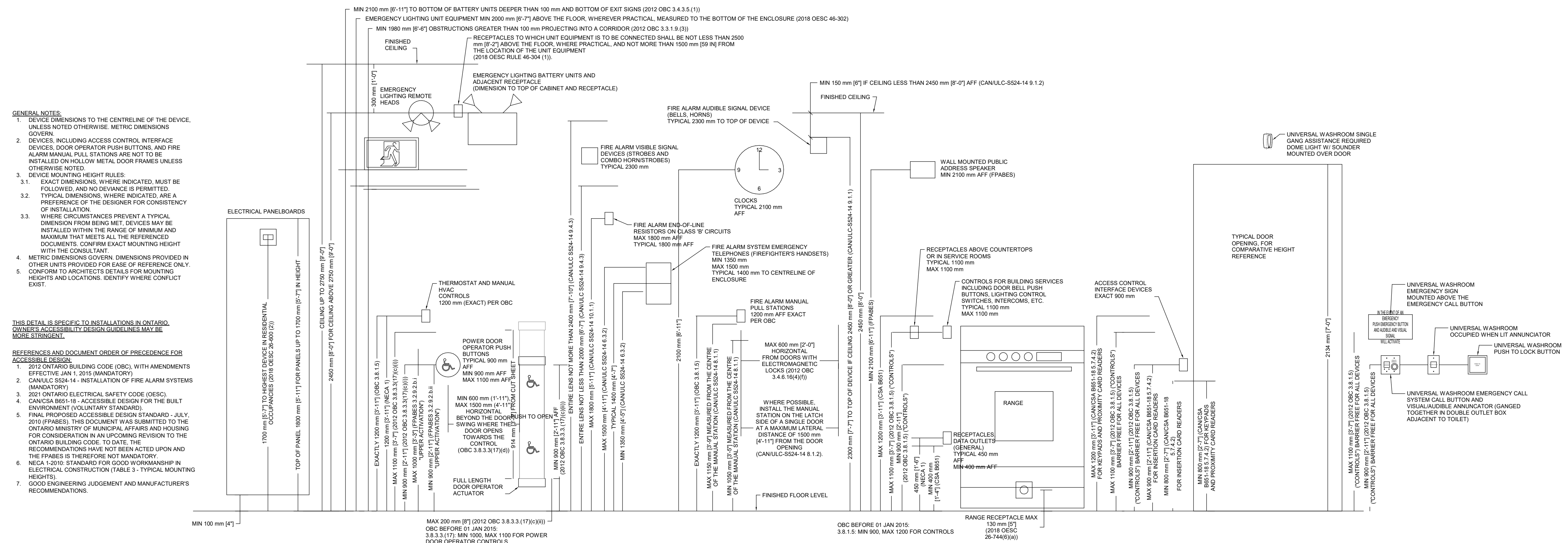
All measurements are to be checked and verified on site by the contractor before proceeding with work

Drawn by: Author
Checked by: Checker
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

Drawing
No.
E-804



SCALE:1 : 300

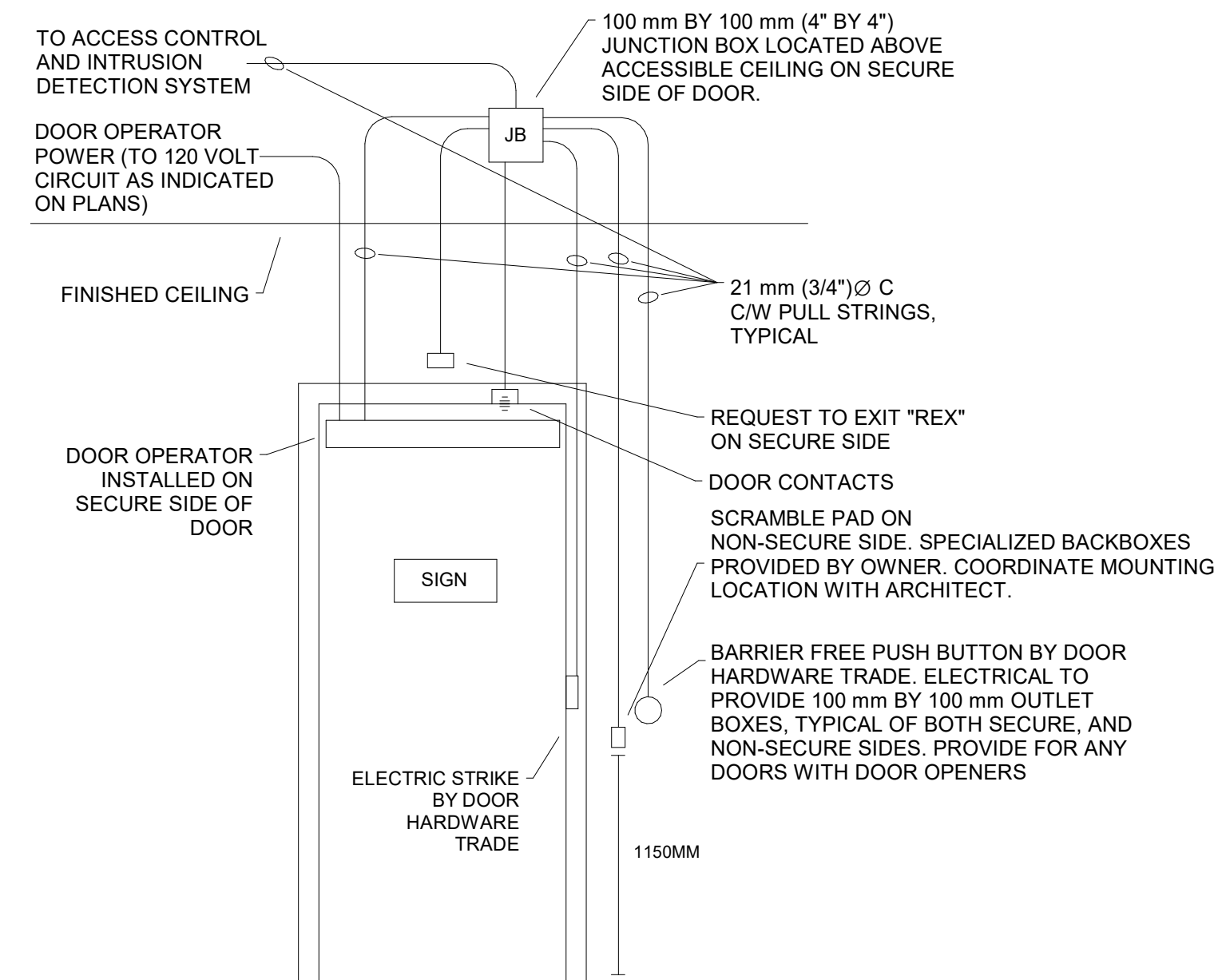


SCALE: 1:15

YORK REGIONAL POLICE HELICOPTER HANGAR

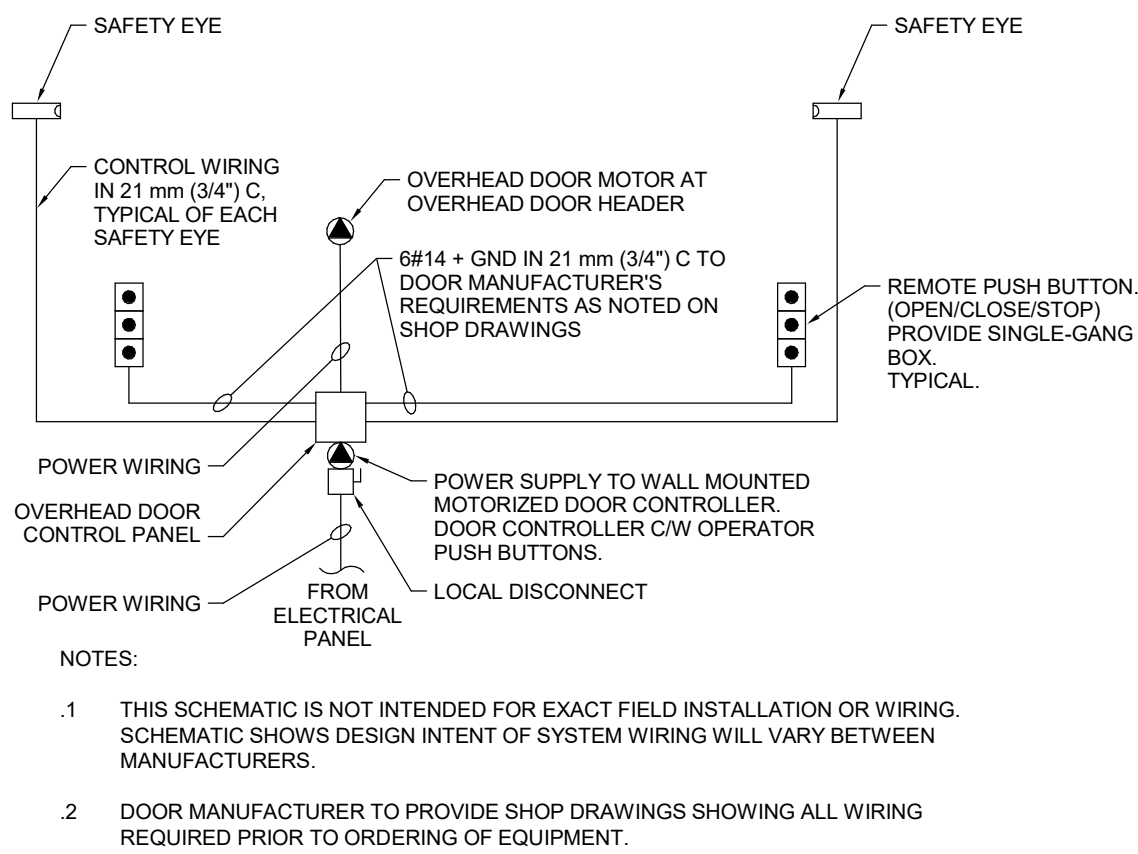
350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key Plan



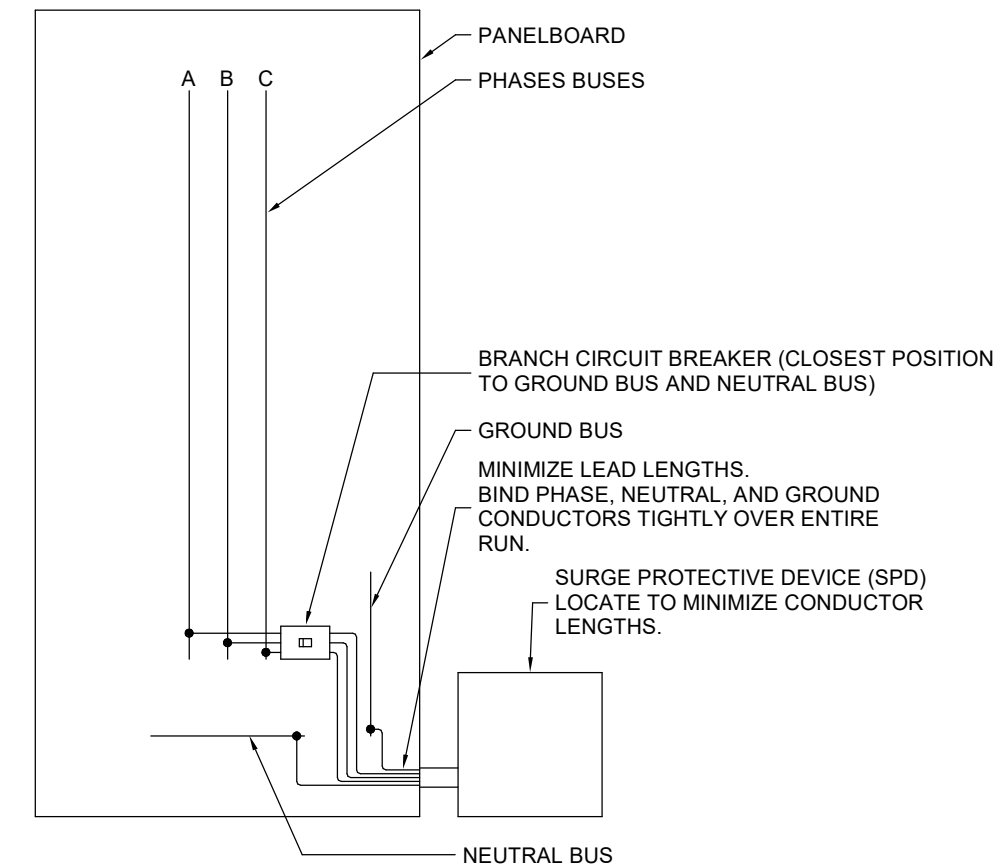
NOTES:

1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH SCRAMBLE PAD ON THE NON-SECURE SIDE.



Wiring Diagram for Overhead Doors

SCALE: 1 : 50

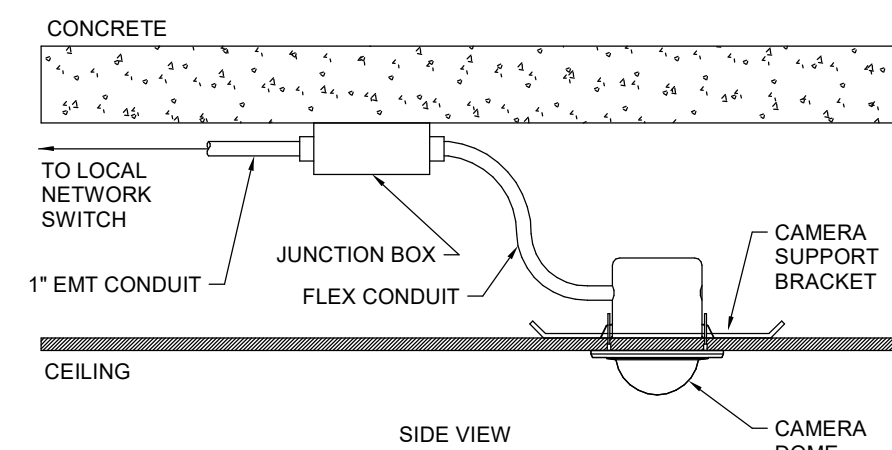


EXTERNALLY MOUNTED SURGE PROTECTION

SCALE: 1 : 50

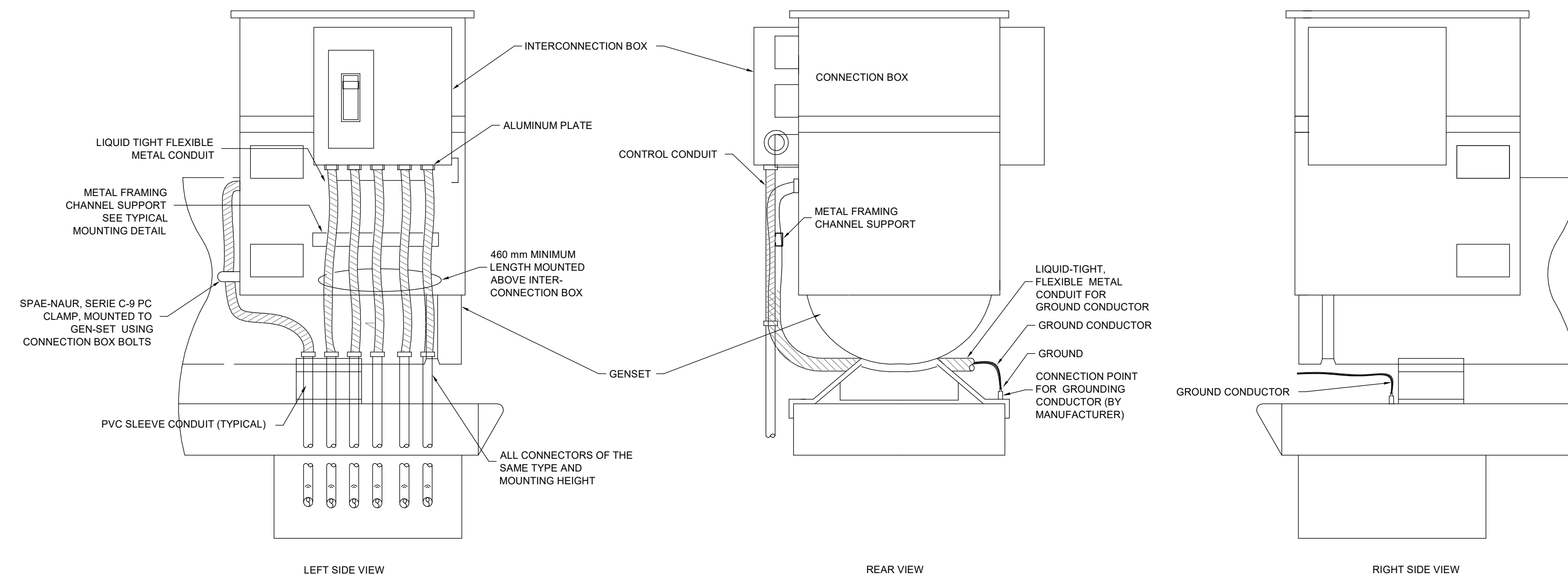
Access Control Rough-In

SCALE: 1 : 1



CEILING MOUNTED CAMERA

SCALE: 1 : 50



ENGINE GENERATOR BOTTOM FEED

SCALE: N.T.S.

Issues

All measurements are to be checked and verified on site by the contractor before proceeding with work

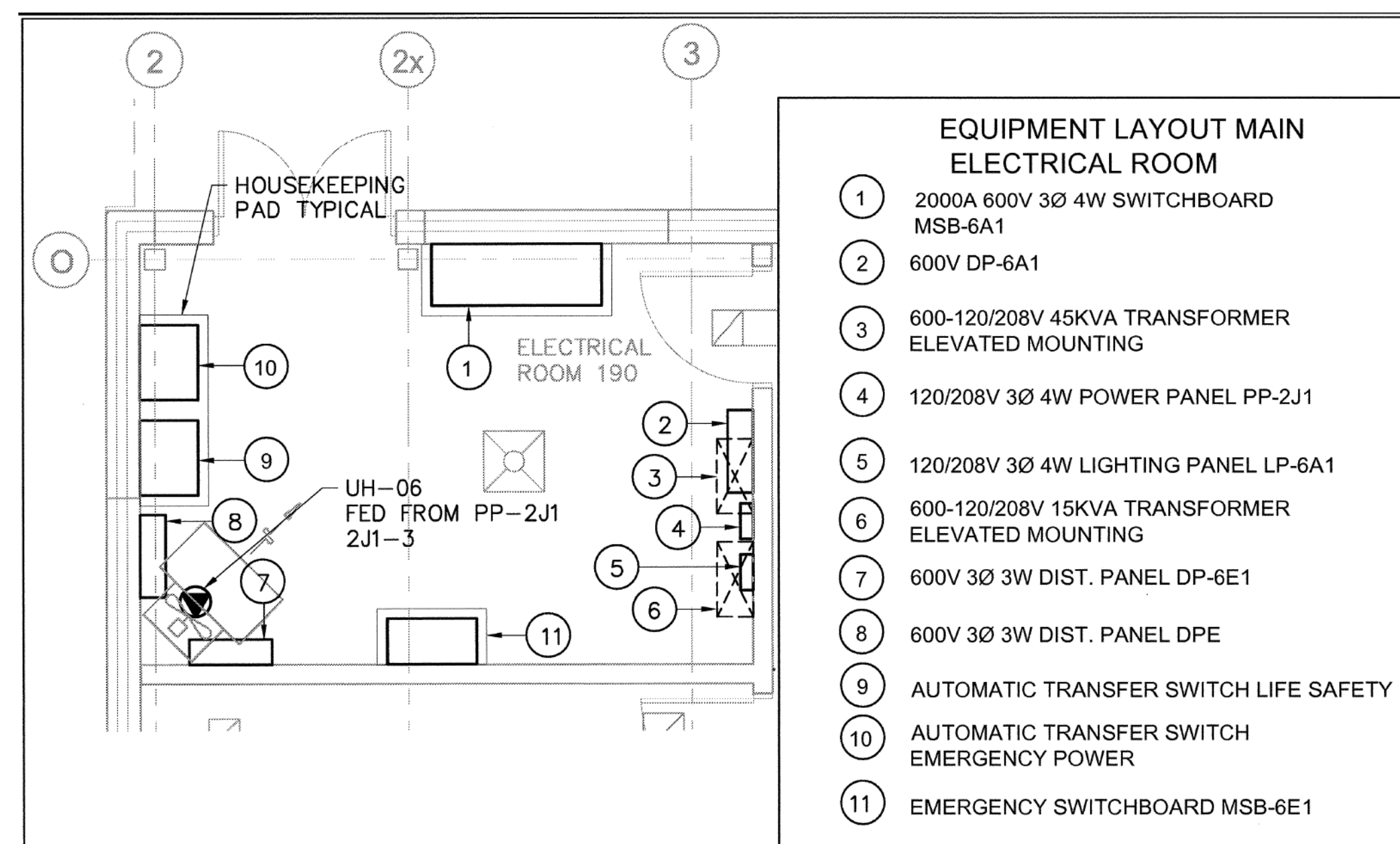
Do not scale drawings

Drawn by: Author
Checked by: Checker
Original Issue Date: 2024-07-31
Project No: TT-24-005
Scale: As indicated

Sheet
Title:

ELECTRICAL DETAILS

Drawing
No. **E-805**

[illegible]

LIGHT FIXTURE SCHEDULE													Count
	TYPE	MANUFACTURER	DESCRIPTION	MOUNTING	VOLTAGE	WATTS	LUMENS	DIMMABLE	CCT	MOUNTING HEIGHT		Count	
D1	LFR-4RD-M-15L35K8WD-DM1 LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	12 W	1404	0-10V	3500K	3m		19	
D2	LFR-4RD-M-20L35K8-DM1 LFR-4RD-T-SH-WT	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	15 W	1238	0-10V	3500K	3m		4	
F2	SOL-3-1ACF-24G-40-35K-MV	PEERLESS-ELECTRIC	2 x 4" LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	32 W	3968	0-10V	3500K	3m		29	
F3	SOL-3-1ACF-22G-40-35K-MV	PEERLESS-ELECTRIC	2 x 2" LED luminaire for recessed installation in an exposed flat	RECESSED	120 V	37 W	4070	0-10V	3500K	3m		2	
FL1	NOT USED				120 V	22 W	Modify name as required					1	
L2	LXD1-40-6U4-4-2G-35K-FA-W	PEERLESS-ELECTRIC	LED luminaire for suspended (with aircraft cables)	SUSPEND	120 V	64 W	3225		3500K	2.4m		1	
PA	AP4-HB-4-200-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	165 W	20000	0-10V	3500K	7.7m		12	
PB	AP4-HB-4-150-35K-A6	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SURFACE	120 V	119 W	15000	0-10V	3500K	4.5m		15	
PC	AP2W-4-420-35K-A2	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	35 W	4200	0-10V	3500K	3m		4	
PD	HEIM4-35M-DFA-EU	PEERLESS-ELECTRIC	LED luminaire for surface mounting with brackets	SUSPENDED	120 V	46 W	5425	0-10V	3500K	3m		4	
F1	VPW3-160L-95-3K7-4	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	91 W	12565	0-10V	3000K	9m		2	
Z3	VPW2-18L-50-3K7-4W	BEACON VIPER WALL	Exterior Wall-mounted Low profile LED luminaire	WALL	120 V	53 W	6138	0-10V	3000K	4.1m		11	
Z1	LFR-4RD-M-10L30K8XW-DM1 LFR-4RD-T-CL-S	PRESCOLITE	LITEFRAME 4" ROUND DOWNLIGHT	RECESSED	120 V	8 W	903	0-10V	3000K	2.75m		1	
ZL8	SAME AS ZL20			POLE-MOUNTED	120 V	35 W				3.05m		6	
ZL10	SAME AS ZL20			POLE-MOUNTED	120 V	35 W				3.96m		1	
ZL12	SAME AS ZL20			POLE-MOUNTED	120 V	35 W				4.57m		1	
ZL20	VP-1-160L-35-3K7-4-BC-PC	BEACON	EXTERIOR POLE MOUNTED LIGHT	POLE-MOUNTED	120 V	35 W	2816		3000K	7m		6	
Grand total: 116													

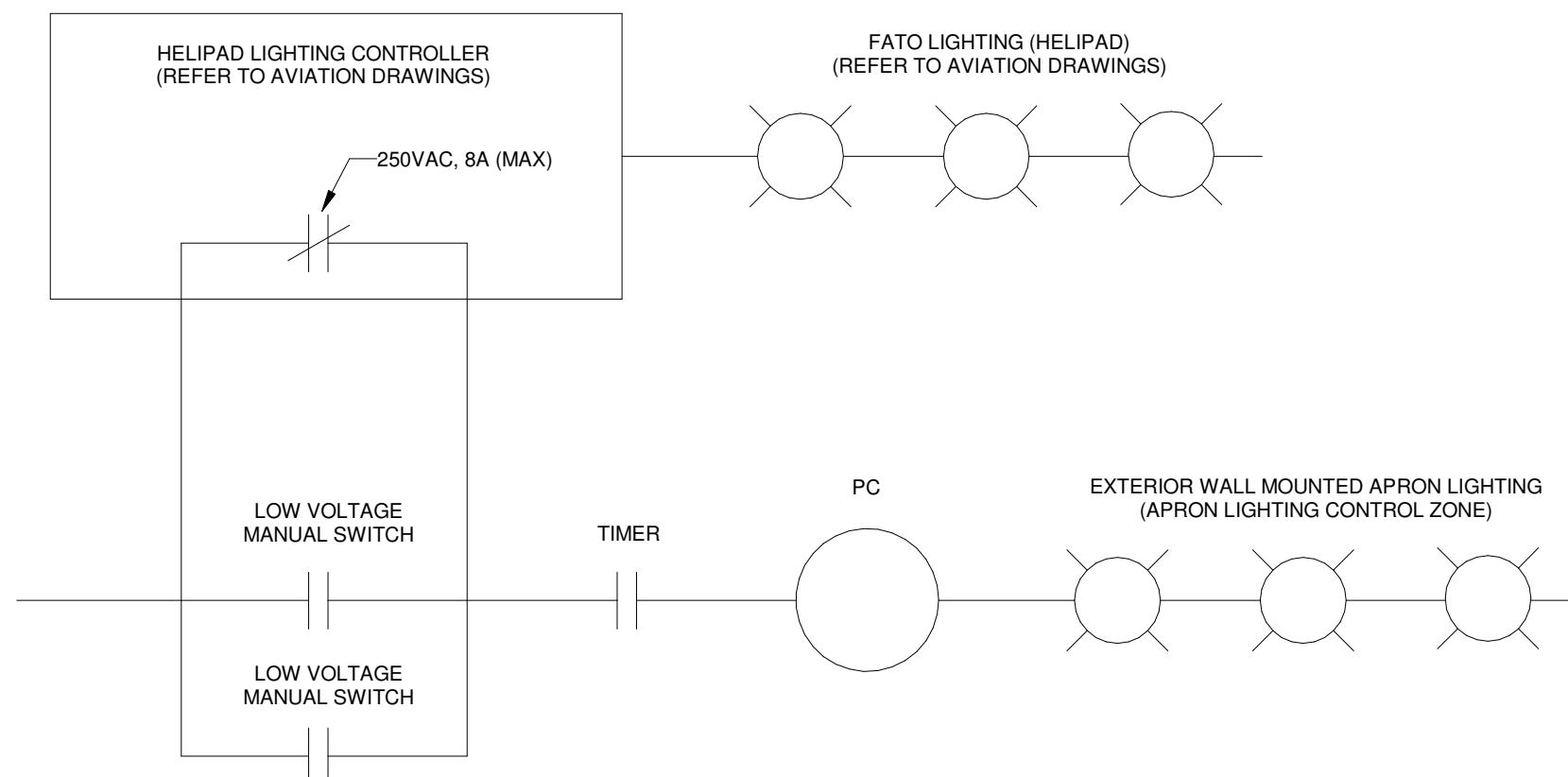
EMERGENCY LIGHTING WIRING MAX VOLTAGE DROP															
LOAD (WATTS) WIRE SIZE		LENGTH OF WIRE RUN (FEET)													
		13	18	25	30	35	50	60	75	100	150	200	250	300	400
6 VOLT	12	41	30	21	18	15	11	9	8	6	4	-	-	-	-
	10	65	47	32	28	24	17	14	11	9	6	-	-	-	-
	8	110	75	54	45	39	27	22	18	14	9	7	-	-	-
12 VOLT	12	165	110	85	71	61	42	35	29	24	14	8	-	-	-
	10	280	190	136	112	97	68	52	45	34	23	17	14	11	-
	8	415	300	215	180	154	108	90	72	54	36	27	21	18	-
24 VOLT	12	660	440	340	284	244	168	140	116	84	56	40	32	26	21
	10	1040	760	544	448	388	272	208	180	136	92	68	52	44	34
	8	1668	1200	860	720	616	432	360	288	216	144	108	84	72	54

EMERGENCY LIGHTING DEVICE SCHEDULE			
Type	Description	Manufacturer	VOLTAGE
E26	WATER-PROOF COMPACT REMOTE UNIT WITH DOUBLE HEAD LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE, FACTORY WHITE FINISH	STANPRO "M SERIES": CAT# M1-1V6 LA WH OR APPROVED EQUAL (BEGHELLI, EMERGI-LITE, LUXNET, AMLITE).	120 V
EMB-1	LIGHTING BATTERY UNIT C/W AUTO TEST. TWO REMOTE HEADS	12V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, FACTORY WHITE FINISH, UNIVERSAL 120/347VAC INPUT, AND SIX-ZONE DELTA VOLTAGE SENSING RELAY OPTION. TWO LAMPS: MR16 LED LAMP, 12V, 6W, 540 LUMEN, 25 DEGREE BEAM ANGLE -LUMACELL RG12S-(360)-2 -LD10-AT-VSR STANPRO SLC SERIES -EMERGLITE ESL SERIES	120 V
EMB-2	LIGHTING BATTERY UNIT C/W AUTO TEST. TWO REMOTE HEADS	SAME AS EMB-1	120 V
Wall Mounted - Down			120 V
X1	SELF-POWERED SLIM EDGE-LIT LED ILLUMINATED PICTOGRAM EXIT SIGN - SINGLE FACE C/W WHITE FINISH RECESSED HOUSING AND AUTOMATIC TEST SELF-DIAGNOSTIC	STANPRO "RMTE SERIES": CAT# RMTE1-UH-WH-B/AT OR APPROVED EQUAL (BEGHELLI, EMERGI-LITE, LUXNET, AMLITE).	120 V

ROOM NAME	ROOM NUMBER	CONTROLS PHILOSOPHY			LOCAL CONTROL (ASHRAE 90.1-2013 9.4.1.1a)		OCCUPANCY SENSOR					TIME SCHEDULE	DAYLIGHT SENSOR	OTHER		REMARKS								
		CONTROLS INTEGRATED INTO LUMINAIRES	STANDALONE CONTROL DEVICES	NETWORKED LIGHTING CONTROLS	MANUAL (ON/OFF) ONE ZONE ONLY FOR SPACE	MANUAL (ON/OFF) a. b ZONED SWITCHING	MANUAL DIMMING CONTROL	KEY SWITCH (KS)	SCENE CONTROL (SC) OR GRAPHIC TOUCHSCREEN	VACANCY MODE (MANUAL ON) (ASHRAE 90.1-2013 9.4.1.1b)	OCCUPANCY MODE (AUTO ON) (FULL)	OCCUPANCY MODE (AUTO ON) (PARTIAL)	AUTOMATIC PARTIAL OFF SENSOR TIME OUT (MINUTES) (ASHRAE 90.1-2013 9.4.1.1g)	AUTOMATIC PARTIAL OFF LUMINAIRE DIMMING LEVEL	FULL OFF SENSOR TIME OUT PERIOD (MINUTES) (ASHRAE 90.1-2013 9.4.1.1h)		SCHEDULE ON TIME <div>SCHEDULE OFF TIME</div> <div>SCHEDULE OVERRIDE SWITCH</div> <div>SWITCHING (ON/OFF)</div> <div>DIMMING</div> <div>TARGET LIGHTING LEVELS (Avg. Ic)</div> <div>EXTERIOR LOCATION</div> <div>PLUG LOAD CONTROL</div> <div>CONTROLLED EMERGENCY</div>							
VESTIBULE	101	X			X				X					20										
CONFERENCE ROOM	103	X			X				X					20								X		
OFFICE 4	104	X			X				X					20								X		
IT ROOM	105	X			X				X					20										
UNIVERSAL WASHROOM	106	X			X				X					20										
LOUNGE	107	X			X				X					20								X		
KITCHEN	108	X			X				X					20										
GENERAL OFFICE	109	X			X				X					20								X		
ROADWAY LIGHTING	110	X												20				X				X		
OFFICE 1	111	X			X				X					20								X		
OFFICE 2	112	X			X				X					20								X		
OFFICE 3	113	X			X				X					20								X		
STORAGE	114	X			X				X					20										
LOCKERS	115	X			X				X					20										
EXTERIOR - PARKING LIGHTING ZONE	116	X			X									20			X		X			X		
EXTERIOR - APRON LIGHTING ZONE	117	X			X									20			X		X			X		
WASHROOMS	118	X			X				X					20										
SHR1	119	X			X				X					20										
SHR2	120	X			X				X					20										
MECHANICAL/ELECTRICAL	122	X			X				X					20										
STORAGE 2	123	X			X				X					20										
VEHICLE BAY	124	X			X				X					20										
STORAGE 3	125	X			X				X					20										
STORAGE 4	126	X			X				X					20										
JANITOR ROOM	127	X			X				X					20										
HANGAR	128	X			X					50%				20					X		30			

APRON LIGHTING CONTROL ZONE FUNCTIONAL REQUIREMENTS:

1. TURN ON/OFF BASED ON PHOTOCELL
2. HELIPOUT OVERRIDE OFF:
 - A. AFTER WHEN HELIPOUT LIGHTING CONTROLLER (HLC) AUXILIARY DRY-CONTACT(MAX RATING 240VAC, 8A) CLOSSES (CORRESPONDS TO FATO LIGHTING TURNING ON, BY HLC)
 - B. AFTER HLC DEFINED TIME LIMIT, DRY-CONTACT WILL OPEN. APRON LIGHTING TO RESUME NORMAL FUNCTION CONTROLLED BY PHOTOCELL
3. MANUAL OVERRIDE ON:
 - A. APRON LIGHTING CAN BE MANUALLY TURNED ON TO OVERRIDE THE HLC CONTACT AND RESUME OPERATION BASED ON PHOTOCELL



NOTE:

1. THE HLC AND FATO LIGHTS OPERATE INDEPENDENTLY OF THE APRON LIGHTING CONTROL.
2. THE LV MANUAL SWITCHES CAN WILL PROVIDE A MOMENTARY (20 MINUTE INITIAL SETTING, AND OWNER ADJUSTABLE BETWEEN 1MIN AND 60MIN) TO BYPASS OF THE HLC CONTACT.

HELIPAD LIGHTING CONTROLLER - INTERFACE TO APRON LIGHTING CONTROL ZONE

SCALE:N.T.S.

KEYNOTE LEGEND	
Keynote Value	Keynote Text
1.	FLOOR PLANS TAKE PRECEDENCE. COUNT IS PROVIDED FOR INFORMATION ONLY AND DOES NOT DICTATE THE DESIGN REQUIREMENTS.
2.	TO BE DEFINED BY OWNER DURING CONSTRUCTION.

PARKIN

Parkin Architects Limited
1 VALLEYBROOK DRIVE, TORONTO, CANADA, M3B 2S7 416-467-8000



150 ROWNTREE DAIRY RD, WOODBRIDGE, ON
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WEB: WWW.QUASARCG.COM

YORK REGIONAL POLICE
HELICOPTER HANGAR

350 GARFIELD WRIGHT
BOULEVARD
TOWN OF EAST GWILLIMBURY

Key

Plan

8	ISSUED FOR ADDENDUM 15	2024-12-04
7	ISSUED FOR ADDENDUM 14	2024-11-27
6	ISSUED FOR ADDENDUM 8	2024-10-07
5	ISSUED FOR ADDENDUM 6	2024-09-30
4	ISSUED FOR ADDENDUM 3	2024-09-23
3	ISSUED FOR TENDER	2024-09-09
2	ISSUED FOR SITE PLAN APPROVAL	2024-08-16
1	ISSUED FOR BUILDING PERMIT	2024-07-31
NO.	ISSUED	DATE

Issues

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Do not scale drawings

Drawn by: ZK
Checked by: AO
Original Issue Date: 2024-07-31
Project No: TT-24-005

Shee

Title:

ELECTRICAL SCHEDULES

Drawing

No.

E-900

12/3/2024 10:28:35 PM
Autodesk Docs://2402 - YRP Helicopter Hangar/TT-24-005-YRP-QCG ME Model_P24.rvt

Branch Panel: DP-01															
Location: Room 129					Volts: 600V					A.I.C. Rating: 42 kA					
Supply From:					Phases: 3					Mains Type:					
Mounting: SURFACE					Wires: 3					Mains Rating: 400 A					
Enclosure: NEMA 3R										MCB Rating: 100 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Poles	A		B		C		Poles	Trip	QTY	Circuit Description	CKT
1					0 VA	400 VA									2
3	SURGE PROTECTION DEVICE	--	60 A	3			0 VA	400 VA			3	15 A	1	P1-R	4
5									0 VA	400 VA					6
7					0 VA	24333...									8
9	RESERVED SPACE FOR FUTURE PV INVERTER SYSTEM	--	0 A	3			0 VA	24333...			3	125 A	1	AIR SOURCE HEAT PUMP	10
11									0 VA	24333...					12
13					0 VA	400 VA									14
15	RESERVED SPACE FOR FUTURE EV CHARGING	--	0 A	3			0 VA	400 VA			3	15 A	1	P-5R	16
17									0 VA	400 VA					18
19					400 VA	400 VA									20
21	P-2R	1	25 A	3			400 VA	400 VA			3	25 A	1	P-2	22
23									400 VA	400 VA					24
25					400 VA	167 VA									26
27	P-4	1	15 A	3			400 VA	167 VA			3	20 A	1	CRANE HOIST POWER	28
29									400 VA	167 VA					30
31					7433 VA	400 VA									32
33	ODU-1	1	30 A	3			7433 VA	400 VA			3	30 A	1	HANGAR BIFOLD DOOR CONTROLLER	34
35									7433 VA	400 VA					36
37					400 VA	400 VA									38
39	P-5	1	15 A	3			400 VA	400 VA			3	15 A	1	P-1	40
41									400 VA	400 VA					42
43					400 VA										44
45	P-3	1	15 A	3			400 VA								46
47									400 VA						48
49															50
51															52
53															54
55															56
57															58
59															60
Total Load:					35533 VA		35533 VA		35533 VA						
Total Amps:					103 A		103 A		103 A						
Legend:															
Load Classification			Connected Load			Demand Factor			Estimated Demand			Panel Totals			
Other			106600 VA			100.00%			106600 VA						
												Total Conn. Load: 106600 VA			
												Total Est. Demand: 106600 VA			
												Total Conn.: 103 A			
												Total Est. Demand: 103 A			
Notes:															

Branch Panel: DP-03															
Location: Room 129					Volts: 120/208 Wye					A.I.C. Rating: 22 kA					
Supply From:					Phases: 3					Mains Type:					
Mounting: Surface					Wires: 4					Mains Rating: 400 A					
Enclosure: NEMA 3R										MCB Rating: 250 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Poles	A	B	C	A	B	C	Poles	Trip	QTY	Circuit Description	CKT
1	R: WASHER	1	15 A	1	180 VA			400 VA			1	30 A	1	TLWH-1	2
3	EF-2	1	15 A	1		700 VA									4
5	TLWH-4	1	30 A	1			400 VA			2496 VA	2	30 A	1	R: DRYER	6
7	METERING CABINET	1	15 A	1	500 VA			2496 VA							8
9	ODU-2	1	20 A	2		200 VA			200 VA		2	50 A	1	TLWH-2	10
11							200 VA			200 VA					12
13	FUEL TANK	1	15 A	2	250 VA			200 VA			2	50 A	1	TLWH-5	14
15						250 VA			200 VA						16
17							12083 VA			200 VA	2	60 A	1	TLWH-3	18
19	DP-02	1	225 A	3	9676 VA			200 VA			1	15 A	6	UH-1 TO UH-6	20
21						12191 VA			1296 VA						22
23	EF-1	1	15 A	1	233 VA			700 VA			3	25 A	1	AIR COMPRESSOR	24
25								233 VA							26
27	OTHER	1	20 A	3		233 VA			233 VA						28
29							233 VA			167 VA					30
31					167 VA			167 VA			3	20 A	1	GENERATOR ENCLOSURE PANEL	32
33	RTU-1	1	50 A	3		167 VA			167 VA						34
35							167 VA				1	15 A	--	HELIPAD LIGHTING CONTROLLER	36
37					167 VA										38
39	RTU-2	1	40 A	3		167 VA									40
41							167 VA								42
Total Load:					14869 VA		16000 VA		17246 VA						
Total Amps:					124 A		135 A		145 A						
Legend:															
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Other					25208 VA		100.00%		25208 VA		Total Conn. Load: 48107 VA				
Spare					500 VA		100.00%		500 VA		Total Est. Demand: 48230 VA				
EMERGENCY BATTERY PACK					100 VA		100.00%		100 VA		Total Conn.: 134 A				
Lighting - Dwelling Unit					2044 VA		100.00%		2044 VA		Total Est. Demand: 134 A				
Receptacle					15792 VA		100.00%		15792 VA						
Notes:															

Branch Panel: DP-02															
Location: MECHANICAL / ELECTRICAL...					Volts: 120/208 Wye					A.I.C. Rating: 22 kA					
Supply From: DP-03					Phases: 3					Mains Type:					
Mounting: SURFACE					Wires: 4					Mains Rating: 225 A					
Enclosure: NEMA 3R										MCB Rating: 225 A					
Notes:															
CKT	Circuit Description	QTY	Trip	Pole s	A		B		C		Pole s	Trip	QTY	Circuit Description	CKT
1	EMERGENCY BATTERY PACK	2	15 A	1	100 VA	360 VA					1	15 A	2	R: CONFERENCE ROOM	2
3	PARKING & SIGNAGE LIGHTING	14	15 A	1			256 VA	360 VA			1	15 A	2	R: FITNESS	4
5	EXIT SIGNS	10	20 A	1					275 VA	430 VA	1	20 A	2	R: CONFERENCE ROOM FLOOR...	6
7	AVIATION LIGHTING	1	15 A	1	500 VA	500 VA					1	15 A	1	FACP	8
9	R: CONFERENCE ROOM	3	15 A	1			540 VA	720 VA			1	15 A	4	R: GENERAL OFFICE	10
11	R: OFFICE 1	3	15 A	1					540 VA	720 VA	1	15 A	4	R: OFFICE 2	12
13	LIGHTING	35	15 A	1	846 VA	500 VA					1	20 A	1	FACP	14
15								1200...			1	25 A	1	EF-4	16
17	WINDSOCK AND...	2	15 A	1					1000...	1176...	1	15 A	1	B-1	18
19	R: HANGAR	8	20 A	1	1440...	1500...					1	15 A	3	AUTOMATIC DOOR OPERATORS...	20
21	LIGHTING	16	15 A	1			374 VA	180 VA			1	20 A	1	RECEPTACLE	22
23	B-2	1	15 A	1					1176...	1061...	1	15 A	15	LIGHTING	24
25	R: RPAS	1	20 A	1	180 VA	1500...									26
27							500 VA	1500...			2	15 A	11	FCU-1 TO FCU-11	28
29	GROUND POWER UNIT	2	20 A	2					500 VA	180 VA	1	20 A	1	R: MICROWAVE	30
31	R: KITCHEN COUNTER	1	20 A	1	180 VA	180 VA					1	15 A	1	R: FRIDGE	32
33	R: PRINTER	1	15 A	1			180 VA	180 VA			1	15 A	1	R: GARAGE DOOR	34
35	R: QUARTERMASTER	1	15 A	1					180 VA	180 VA	1	15 A	1	R: GARAGE DOOR	36
37	R: DISHWASHER	1	15 A	1	180 VA	360 VA					1	15 A	2	R: TV SECURITY DISPLAY	38
39	R: IT ROOM	1	15 A	1			180 VA	360 VA			1	15 A	2	R: VEHICLE BAY	40
41	R: FITNESS TV	1	20 A	1					180 VA	1200...	1	15 A	1	TSP-1	42
43	R: MECHANICAL ROOM	2	15 A	1	360 VA	360 VA					1	15 A	1	R: IT ROOM	44
45	R: MECHANICS OFFICE	2	15 A	1			360 VA	360 VA			1	15 A	2	R: LOUNGE AND TV	46
47	R: RADIO	2	15 A	1					360 VA	360 VA	1	20 A	2	R: MAINTENANCE	48
49	R: FITNESS	2	15 A	1	360 VA	490 VA					1	20 A	14	LIGHTING - EXTERIOR	50
51	R: GENERAL OFFICE	2	15 A	1			360 VA	500 VA			1	15 A	1	FAAP	52
53	R: WASHROOM	2	15 A	1					360 VA	1980...	1	20 A	12	LIGHTING - DWELLING UNIT	54
55	R: UNIVERSAL WASHROOM/	--	15 A	1	500 VA	167 VA									56
57							167 VA				3	30 A	1	IT RACK	58
59										167 VA					60
61	LIGHTING	9	15 A	1	1071...	200 VA									62
63	EF-3	1	15 A	1			1200...	200 VA			2	15 A	1	EBBH-1	64
65									250 VA						66
67	GATE POWER	1	20 A	2	250 VA										68
69															70
71															72
73															74
75															76
77															78
79															80
81															82
83															84
Total...					12083 VA		9676 VA		12191 VA						
Total...					104 A		81 A		105 A						
Legend:															
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Other					16212 VA		100.00%		16212 VA						
Spare					500 VA		100.00%		500 VA		Total Conn. Load: 33941 VA				
EMERGENCY BATTERY PACK					100 VA		100.00%		100 VA		Total Est. Demand: 34064 VA				
Lighting - Dwelling Unit					2044 VA		100.00%		2044 VA		Total Conn.: 94 A				
Receptacle					10620 VA		100.00%		10620 VA		Total Est. Demand: 95 A				
Notes:															