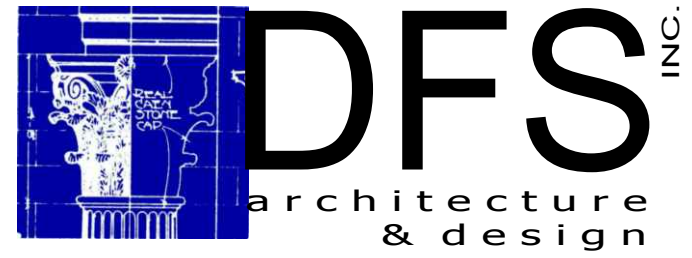


# ISSUED FOR TENDER

## 12/06/2018

# BUILDING A



Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
 Saint John, NB | Montréal (Québec) H3A 1L4  
 T: (514) 879-1708 F: (514) 861-6219  
 www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.



**CIMA**  
 Partenaires en excellence  
 Partenaire de génie

110-240 Catherine Street  
 Ottawa ON K2P 2G8  
 Téléphone: 613 860-2462  
 Fax: 613 860-1870  
 www.cima.ca

### GENERAL

- DETAIL 1 ON DRAWING E100
- ELEVATION ON DRAWING E100
- SECTION ON DRAWING E100
- REVISION No 1
- DRAWING NOTE
- EQUIPMENT IDENTIFICATION (SEE ASSOCIATED LIST)
- ABOVE FINISH FLOOR
- GROUND
- COMPLETE WITH
- WEATHERPROOF
- = SUPPLY, INSTALL AND CONNECT

### POWER RECEPTACLES

- 15A-120V DUPLEX RECEPTACLE TYPE 5-15R
- 15A/20A-120V DUPLEX RECEPTACLE TYPE 5-20R, 'Q' INDICATES QUAD RECEPTACLE
- 15A-120V SPLIT RECEPTACLE TYPE 5-15R MOUNTED 200mm ABOVE COUNTER
- 15A-120V DUPLEX GFI RECEPTACLE TYPE 5-15R MOUNTED 200mm ABOVE COUNTER
- 15A-120V DUPLEX RECEPTACLE TYPE 5-15R ON DEDICATED CIRCUIT
- 15A-120V DUPLEX RECEPTACLE TYPE 5-15R C/W ISOLATED GROUND
- 15A-120V DUPLEX RECEPTACLE TYPE 5-15R MOUNTED ABOVE CEILING
- 20A-120V DUPLEX RECEPTACLE TYPE 15-20R MOUNTED ON LADDER CABLE TRAY
- POWER, COMMUNICATIONS AND A/V ACCESS FLOOR MODULE, RECEPTACLE TYPE 5-15R, CIRCUIT AND CABLING AS INDICATED.
- POKE-THROUGH DUPLEX RECEPTACLE MONUMENT C/W INTEGRAL JUNCTION BOX, OF TYPE AS INDICATED
- GROMMET FOR STATION/DESK POWER FEEDER VIA RAISED FLOOR PANEL CUTOUT.
- DIRECT POWER CONNECTION

### LIGHTING

- 120V SINGLE POLE SWITCH
- 120V SINGLE POLE SWITCH C/W PILOT LAMP
- THREE WAY 120V SWITCH
- 347V SINGLE POLE SWITCH
- 347V SINGLE POLE SWITCH C/W PILOT LAMP
- 347V SINGLE POLE 3-WAY SWITCH
- 120V DIMMER
- LOW VOLTAGE SWITCH
- PHOTOELECTRIC CELL
- WALL MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- RECESSED CEILING MOUNT DOWNLIGHT FIXTURE, TYPE AS INDICATED
- SURFACE MOUNT CEILING DOWNLIGHT FIXTURE, TYPE AS INDICATED
- 1220mm WALL MOUNT STRIP LIGHTING FIXTURE, TYPE AS INDICATED
- 1220mm SURFACE/SUSPENDED MOUNT STRIP LIGHTING FIXTURE, TYPE AS INDICATED
- 610 x 1220mm RECESSED CEILING GRID MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- 610 x 610mm RECESSED CEILING GRID MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- 305 x 1220mm RECESSED CEILING GRID MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- 610 x 1200mm SURFACE OR SUSPENSION MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- 610 x 610mm SURFACE OR SUSPENSION MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- 305 x 1220mm SURFACE OR SUSPENSION MOUNT LIGHTING FIXTURE, TYPE AS INDICATED
- WALL MOUNT EXIT SIGN, SHADE INDICATE FACE, ARROW INDICATE EGRESS DIRECTION
- CEILING MOUNT EXIT SIGN, SHADE INDICATE FACE, ARROW INDICATE EGRESS DIRECTION
- EMERGENCY BATTERY UNIT
- WALL MOUNTED SINGLE HEAD EMERGENCY LIGHTING UNIT CONNECTED TO AN EMERGENCY BATTERY UNIT.
- WALL MOUNT DUAL HEAD EMERGENCY LIGHTING UNIT CONNECTED TO AN EMERGENCY BATTERY UNIT.
- WALL MOUNT EMERGENCY BATTERY UNIT WITH TWO LAMP HEADS.
- POLE MOUNT EXTERIOR LIGHTING, SINGLE FIXTURE.
- POLE MOUNT EXTERIOR LIGHTING, DOUBLE FIXTURE.
- WALL MOUNT, RED WARNING LIGHT FIXTURE ABOVE AIRLOCK DOORS

### ELECTRICAL DISTRIBUTION

- 347/600V ELECTRICAL DISTRIBUTION PANEL
- 120/208V ELECTRICAL PANELBOARD
- SPEED CONTROLLER
- DRY TRANSFORMER, SIZE AS INDICATED
- DISCONNECT SWITCH, SIZE AS INDICATED
- MAGNETIC STARTER C/W PILOT LAMP
- MANUAL STARTER C/W PILOT LAMP
- JUNCTION BOX, TYPE AS INDICATED
- ELECTRICAL METERING
- SINGLE PHASE ELECTRIC MOTOR
- THREE PHASE ELECTRIC MOTOR
- CIRCUIT BREAKER
- HYDRO METERING
- EQUIPMENT GROUND
- DEISEL GENERATOR
- TRANSFORMER, SIZE AS INDICATED
- ELECTRICAL PANEL BOARD

### HEATING

- CEILING MOUNTED CABINET HEATER
- SURFACE MOUNTED OR SUSPENDED UNIT HEATER
- WALL MOUNTED CABINET HEATER
- SURFACE MOUNT FAN COIL UNIT
- RECESSED MOUNT FAN COIL UNIT
- ELECTRICAL HEATING COIL, DUCT MOUNTED
- HEATING CABLE
- THERMOSTAT
- RELAY DEVICE
- 750 WATTS RATED ELECTRICAL BASEBOARD

### COMMUNICATIONS

- DATA OUTLET BOX
- PHONE OUTLET BOX
- DATA DROP - GROUP 1
- DATA DROP - GROUP 2
- OPTICAL FIBRE DROP - GROUP 3
- COAXIAL CABLEVISION OUTLET BOX
- GROMMET FOR STATION/DESK CABLE BUNDLE FEED VIA RAISED FLOOR PANEL CUTOUT.

### ANCILLARY

- 250x250x100mm JUNCTION BOX C/W COVER PAINTED PURPLE, MOUNTED ABOVE CEILING GRID, NOT EXCEEDING 3650mm HIGH
- SINGLE GANG JUNCTION BOX, WALL MOUNTED AT 2438 AFF. EXACT LOCATION TO BE DETERMINED BY CLIENT
- 200x200x100mm JUNCTION BOX C/W COVER PAINTED WHITE AND 21mm EMT CONDUIT CONNECTION TO JUNCTION BOX IN CEILING SPACE SEALED (TO IP66) PADLOCK LOCKABLE
- 305x305x150mm JUNCTION BOX MOUNTED INSIDE (UNDER) ROOF PARAPET, EXACT LOCATION TO BE DETERMINED BY CLIENT
- CAMERA MOUNT INSTALLATION (SUPPLIED BY CLIENT). EXACT MOUNTING LOCATION TO BE DETERMINED BY CLIENT
- 100x100mm OUTLET BOX C/W 21mm EMT CONDUIT CONNECTION TO JUNCTION BOX IN CEILING SPACE. EXACT LOCATION TO BE DETERMINED BY CLIENT
- NEMA RATED JUNCTION BOX. SIZE AND LOCATION TO BE DETERMINED.
- CAMERA POLE MOUNT INSTALLATION (SUPPLIED BY CLIENT). MOUNTING HEIGHT TO BE DETERMINED BY CLIENT.

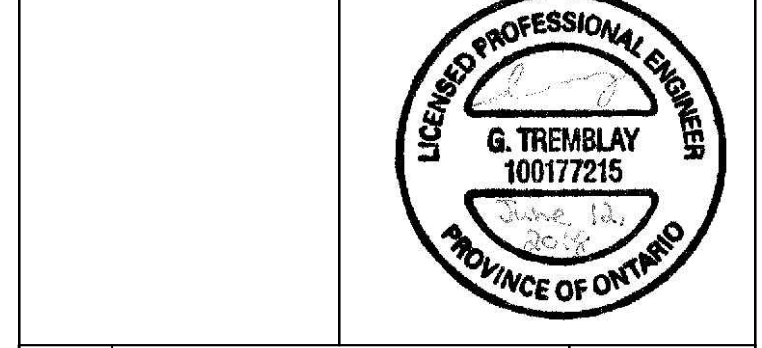
### FIRE ALARM

- FIRE ALARM CONTROL PANEL
- ANNUNCIATOR FIRE ALARM PANEL
- INTERFACE MODULE
- RELAY INTERFACE MODULE
- SURVEILLANCE INTERFACE MODULE
- FIRE ALARM BELL
- FIRE ALARM HORN
- FIRE ALARM HORN C/W STROBE
- UNDER RAISED FLOOR MOUNTED MULTI-DETECTION DETECTOR
- CEILING MOUNTED MULTI-DETECTION DETECTOR - TYPE 1
- DUCT TYPE MULTI-DETECTION DETECTOR TYPE 2
- MANUAL PULL STATION
- END LINE RESISTANCE
- FLOW SWITCH SUPERVISION
- SOLENOID VALVE SUPERVISION
- TEMPORARY SILENCE BUTTON
- LINE ISOLATION MODULE
- LIQUID LEAK DETECTION

### DRAWING LIST

E000	LEGEND AND DRAWING LIST
E001	SITE PLAN AND DETAILS
E002	SINGLE LINE AND FIRE ALARM SCHEMATICS
E100	GROUND FLOOR LIGHTING AND EGRESS
E200	GROUND FLOOR POWER AND FIRE ALARM
E300	GROUND FLOOR COMMUNICATIONS
E400	GROUND FLOOR ANCILLARY SYSTEMS
E401	ANCILLARY SYSTEMS DETAILS
E500	ROOF PLAN AND DETAILS
E600	MISCELLANEOUS DETAILS
E601	MISCELLANEOUS DETAILS

plan-repère key plan



no.	description	date
1	ISSUED FOR TENDER	June 12, 2018

RÉVISION

projet project

## BUILDING A PROJECT

dessin drawing

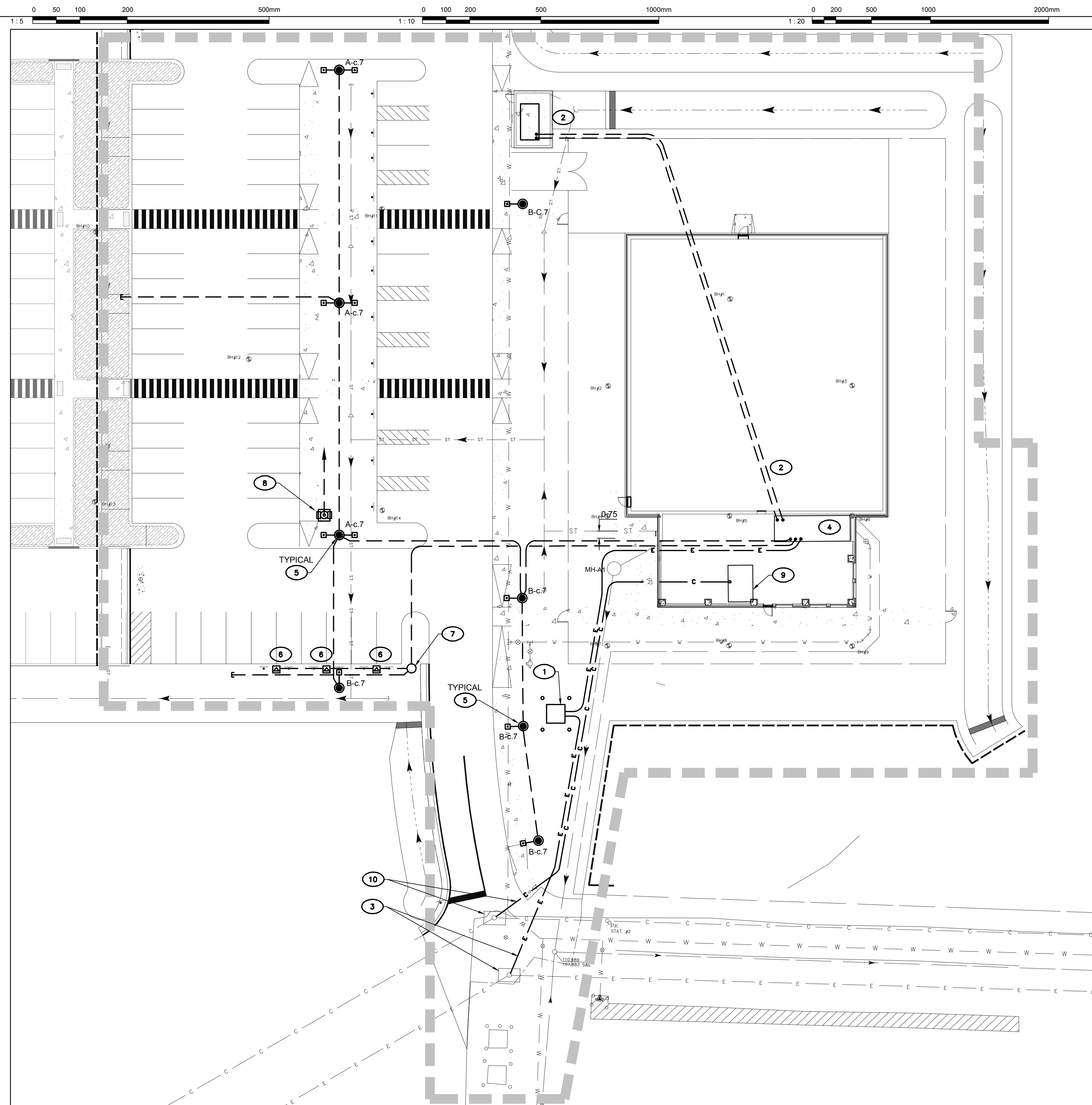
## LEGEND AND DRAWING LIST

conception	conception	no. dossier	project no.
S.Lavoie	drawn	A000566B	
dessiné	drawn	fichier DAO	CAD file
Y. Farmer			
approuvé	approved	dossier client	client file
S. Lavoie		7207528	
échelle	scale	imprimé	plot date
No Scale		February 2, 2018	
no. page	sheet number	rev	

# E000

Drawing name: C:\A\A000566B\_Building\_A\400\450\A000566B-E000.dwg Jun 11, 2018 - 3:55pm





**1 ELECTRICAL DISTRIBUTION AND LIGHTING LAYOUT**  
SCALE: 1 / 250

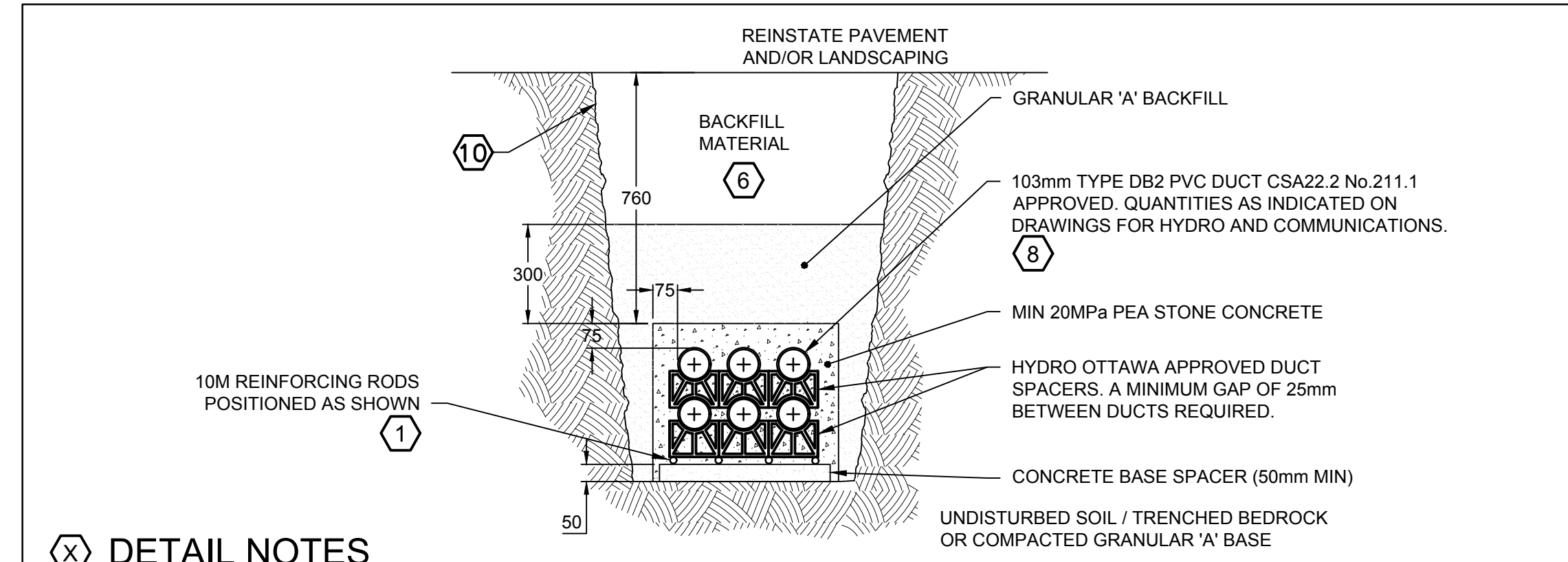
FIXTURE TYPE	FIXTURE DESCRIPTION	ILLUMINATION DISTRIBUTION	WATTAGE	LUMENS	VOLTAGE	COLOUR TEMP.	MOUNTING	REMARKS
A	EXTRUDED ALUMINUM DRIVER ENCLOSURE THERMALLY ISOLATED FROM LED. HEAVY WALL DIE CAST ALUMINUM HEAT SINK. INTERLOCKING HOUSING. 3G VIBRATION TESTED AND RATED. IP66 RATED, ULC LISTED FOR WET LOCATIONS. LED DRIVER MOUNTED TO REMOVABLE TRAY, STANDARD 0-10V DIMMING, OPERATION -40°C TO 40°C AMBIENT ENVIRONMENTS. L90 AT 60,000 HOURS. EXTRUDED ALUMINUM ARM WITH INTERNAL BOLT GUIDES, APPROX. 421mm IN LENGTH. POWDER COAT PAINT NOMINAL 2.5 MIL NOMINAL THICKNESS. 70CRI.	5WQ-WIDE OPTICS	225W	85L/W	347V	4000°K	9.14 m SQUARE TAPERED ALUM. POLE, 6mm WALL THICKNESS AND CONCRETE BASE	TO INCLUDE 1050mA DRIVER, INTEGRAL PHOTOCELL/ MOTION SENSOR AND ABILITY TO WIRELESSLY PROGRAM SENSOR
B	EXTRUDED ALUMINUM DRIVER ENCLOSURE THERMALLY ISOLATED FROM LED. HEAVY WALL DIE CAST ALUMINUM HEAT SINK. INTERLOCKING HOUSING. 3G VIBRATION TESTED AND RATED. IP66 RATED, ULC LISTED FOR WET LOCATIONS. LED DRIVER MOUNTED TO REMOVABLE TRAY, STANDARD 0-10V DIMMING, OPERATION -40°C TO 40°C AMBIENT ENVIRONMENTS. L90 AT 60,000 HOURS. EXTRUDED ALUMINUM ARM WITH INTERNAL BOLT GUIDES, APPROX. 421mm IN LENGTH. POWDER COAT PAINT NOMINAL 2.5 MIL NOMINAL THICKNESS. 70CRI.	SL2-SPILL LIGHT ELIMINATOR	59W	103L/W	347V	4000°K	6.0 m SQUARE TAPERED ALUM. POLE, 6mm WALL THICKNESS AND CONCRETE BASE	TO INCLUDE 1050mA DRIVER, INTEGRAL PHOTOCELL/ MOTION SENSOR AND ABILITY TO WIRELESSLY PROGRAM SENSOR

**GENERAL NOTES**

- ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
- REFER TO SINGLE LINE DIAGRAM DRAWING FOR ELECTRICAL CONNECTION REQUIREMENTS.
- REFER TO CIVIL AND ARCHITECTURAL DRAWINGS FOR LOCATION OF ELECTRICAL DEVICE/EQUIPMENT AS REQUIRED.

**(X) DRAWING NOTES**

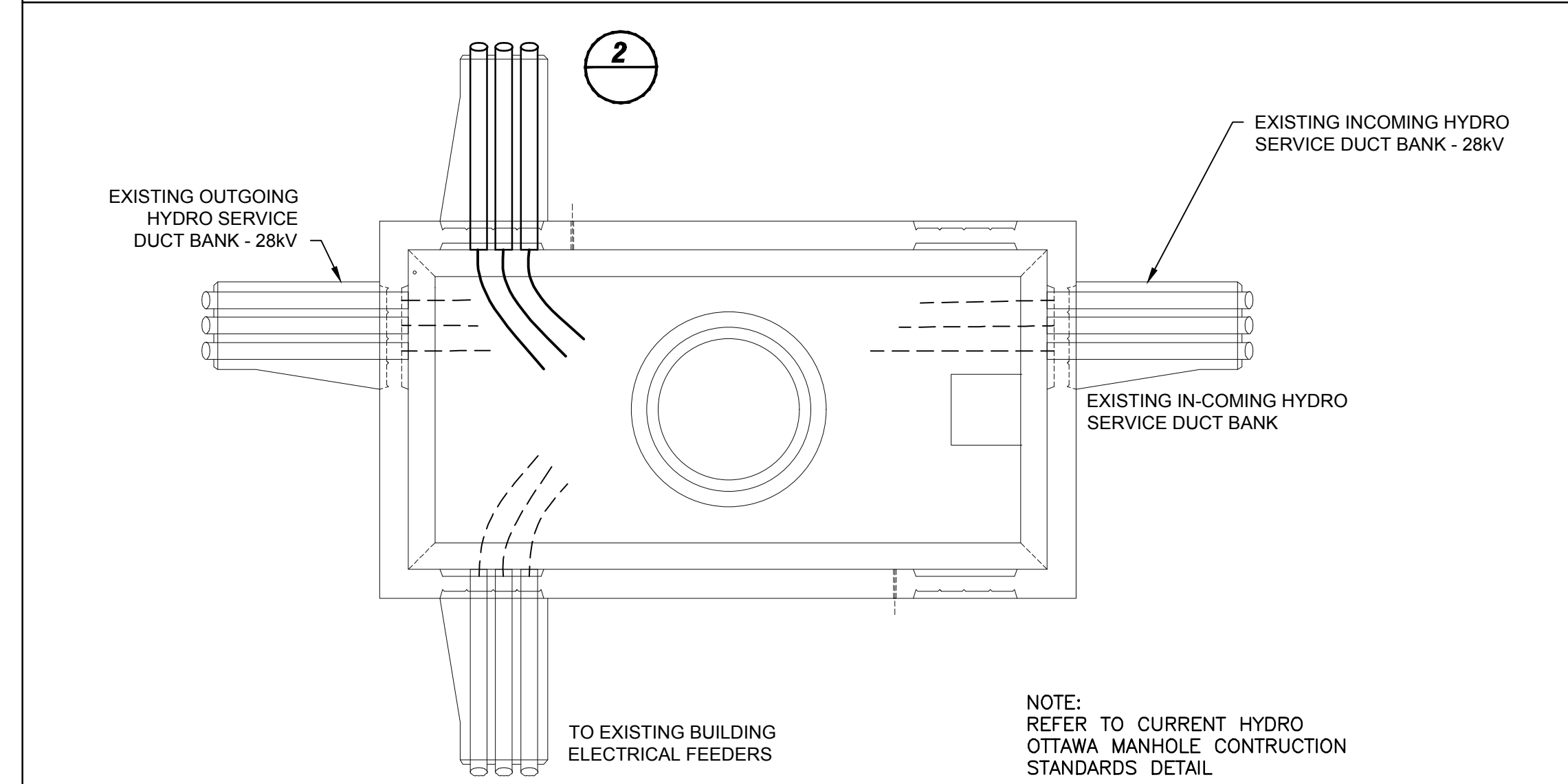
- PROVIDE FOR A 300kVA, 26kV - 347/600 V, 3 PHASE, 4 WIRE TRANSFORMER / PRIMARY SWITCHING C/W PADMOUNT AND PROTECTIVE BOLLARDS. BEDROCK TRENCH MAY BE REQUIRED.
- PROVIDE A COMPLETE UNDERGROUND ELECTRICAL CONNECTION FOR EMERGENCY GENERATOR, FROM ELECTRICAL ROOM 107 TO THE GENERATOR CONCRETE PAD LOCATION C/W AN ELECTRICAL CONNECTION FOR AN ELECTRICAL PANEL INSIDE ENCLOSURE AND A QUICK CONNECT PORTABLE GENERATOR OUTLET. REFER TO SINGLE LINE DRAWINGS 'E002' FOR DETAILS. (300 kVA/240 kW, 347/600 V, 3Ø-4W EMERGENCY GENERATOR IN SOUND ATTENUATED ENCLOSURE AND LOAD BANK PROVIDED BY CLIENT).
- PROVIDE 26 kV HIGH VOLTAGE SERVICE CONNECTION FROM EXISTING MANHOLE AND DUCT BANK TO NEW PADMOUNT TRANSFORMER VIA NEW UNDERGROUND DUCT BANK. BEDROCK TRENCH MAY BE REQUIRED. REFER TO DUCTBANK TRENCH DETAIL '2'.
- MAIN ELECTRICAL ROOM 107 LOCATION. REFER TO DRAWINGS E002 AND E200 FOR DETAILS.
- PROVIDE POLE MOUNTED EXTERIOR PARKING/PATHWAY LUMINAIRE OF TYPE AS INDICATED, FED THROUGH PANEL 'DP'. CONNECT LUMINAIRES VIA 3 #6 IN 53mm PVC DUCT TO CIRCUIT INDICATED, WHERE 'B-c.1' REFERS TO TYPE 'B' ON CIRCUIT #1. REFER TO DETAILS '2' AND '3' ON DRAWING 'E601'.
- PROVIDE AN ELECTRIC VEHICLE (EV) CHARGING STATION CONCRETE BASE INFRASTRUCTURE ONLY. REFER TO '5/E601' FOR DETAILS.
- PROVIDE AN 'EV' STATION FEEDER CABLE PULL PIT. REFER TO DRAWING '3/E601' FOR DETAILS.
- PROVIDE AN INTERACTIVE EMERGENCY COMMUNICATION UNIT (ASSISTANCE STATION) C/W A 1800mm HIGH ANCILLARY SUPPORT POST AND CONCRETE BASE. REFER TO DETAILS '4' AND '5' ON DRAWING 'E401' FOR INSTALLATION DETAILS.
- NEW DEMARCATION ROOM 101 LOCATION FOR TELECOMMUNICATIONS AND ANCILLARY SYSTEMS. REFER TO DRAWINGS 'E200' AND 'E400' FOR DETAILS.
- PROVIDE THREE (3) 103mm DUCTS FOR TELECOMMUNICATIONS SERVICE CONNECTION FROM EXISTING MANHOLE AND DUCT BANK TO DEMARCATION ROOM VIA UNDERGROUND DUCT BANK IN CONJUNCTION WITH HYDRO DUCTBANK.



**(X) DETAIL NOTES**

- REINFORCING RODS FULL LENGTH OF CONCRETE ENCASE DUCTS. OVERLAP JOINTS BY 150mm ON BASE SPACERS AND TIE BOTH ENDS. DRILL AND DOWEL RODS 85mm INTO WALL(S) OF CONCRETE STRUCTURE.
- DUCT SPACERS TO BE PLACED AT A MAXIMUM OF 1500mm AND WITHIN 150mm OF COUPLING. PLASTIC DUCT SPACERS TO BE USED ONLY IF CONCRETE DUCT SPACERS ARE UNAVAILABLE.
- FORMS REQUIRED FOR BOTH SIDES OF THE FULL LENGTH OF CONCRETE ENCASED DUCT STRUCTURE.
- DUCTS AND TRENCHES MUST BE INSPECTED BY HYDRO OTTAWA BEFORE ANY CONCRETE IS POURED.
- CONTRACTOR MUST ENSURE THAT ALL DUCTS ARE CLEANED, RODDED AND THAT A 8mm POLYPROPYLENE ROPE IS LEFT IN EACH DUCT.
- ALL BACKFILL MATERIAL MUST BE APPROVED BY HYDRO OTTAWA INSPECTOR. FOR ACCEPTABLE BACKFILL MATERIAL, REFER TO HYDRO OTTAWA SPECIFICATION DOCUMENT GC50005 SECTION 6.1.5.
- STEEL PLATES ARE TO BE USED IF THE COVER OVER THE DUCT BANK IS LESS THAN 450mm. THE PLATES ARE TO BE 6.5mm IN THICKNESS AND THE WIDTH OF THE DUCT BANK MUST BE COVERED. ANY DEVIATION FROM THE STANDARD COVER OF 760mm BEING APPROVED BY THE HYDRO OTTAWA INSPECTOR.
- BELL END TERMINATORS ARE TO BE USED WHEN TERMINATING DUCTS IN STRUCTURES.
- ALL MEASUREMENTS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- SLOPING OF TRENCH WALLS SHALL CONFORM TO REQUIREMENTS SPECIFIED IN THE OCCUPATIONAL HEALTH & SAFETY ACT.

**2 TYPICAL DUCTBANK TRENCH DETAIL**  
NOT TO SCALE



**3 EXISTING DUCT BANK / MANHOLE TYPICAL DETAIL**  
NOT TO SCALE

**DFS INC.**  
architecture & design

Montréal, QC 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.

**CIMA**  
Partners in excellence  
Partenaire de génie

110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone/télé: 613 860-2462  
Fax/télé: 613 860-1870  
www.cima.ca

plan-référence	key plan	
scale	stamo	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
RÉVISION		

projet

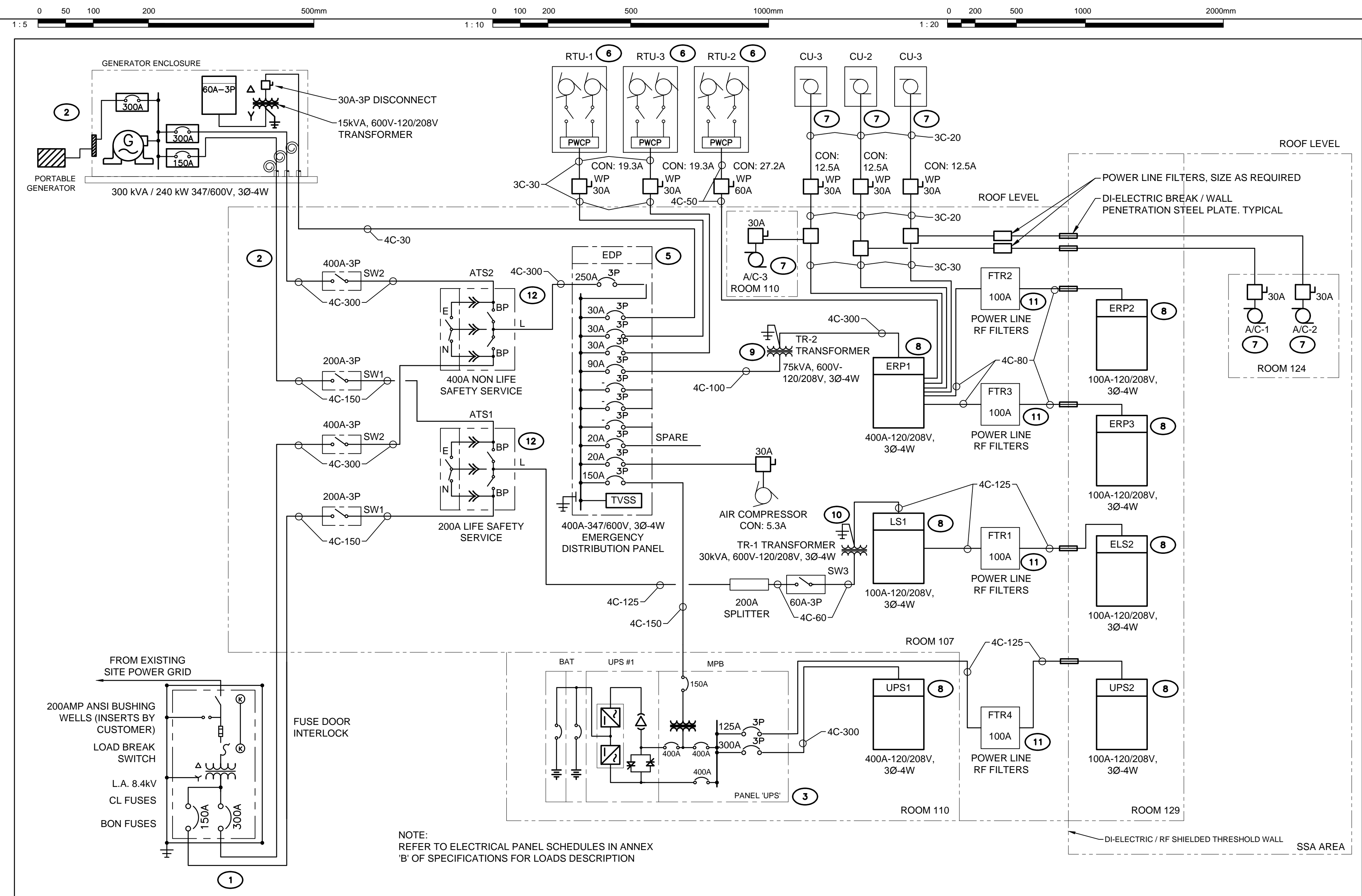
**BUILDING A PROJECT**

dessin	drawing		
<b>SITE PLAN</b>			
conception	conception	no. dossier	project no.
S. Lavoie	drawn	A000566B	
Y. Farmer	checked	fichier DAO	CAD file
approuvé	approved	dossier client	client file
S. Lavoie	imprimé	7207528	
échelle	scale	imprimé	plot date
1 : 250		February 2, 2018	
no. page	sheet number	rev	

**E001**

Drawing name: C:\A\A000566B\_Bldg-A\400V\450V\A000566B-E001.dwg Jun 11, 2018 - 3:55pm

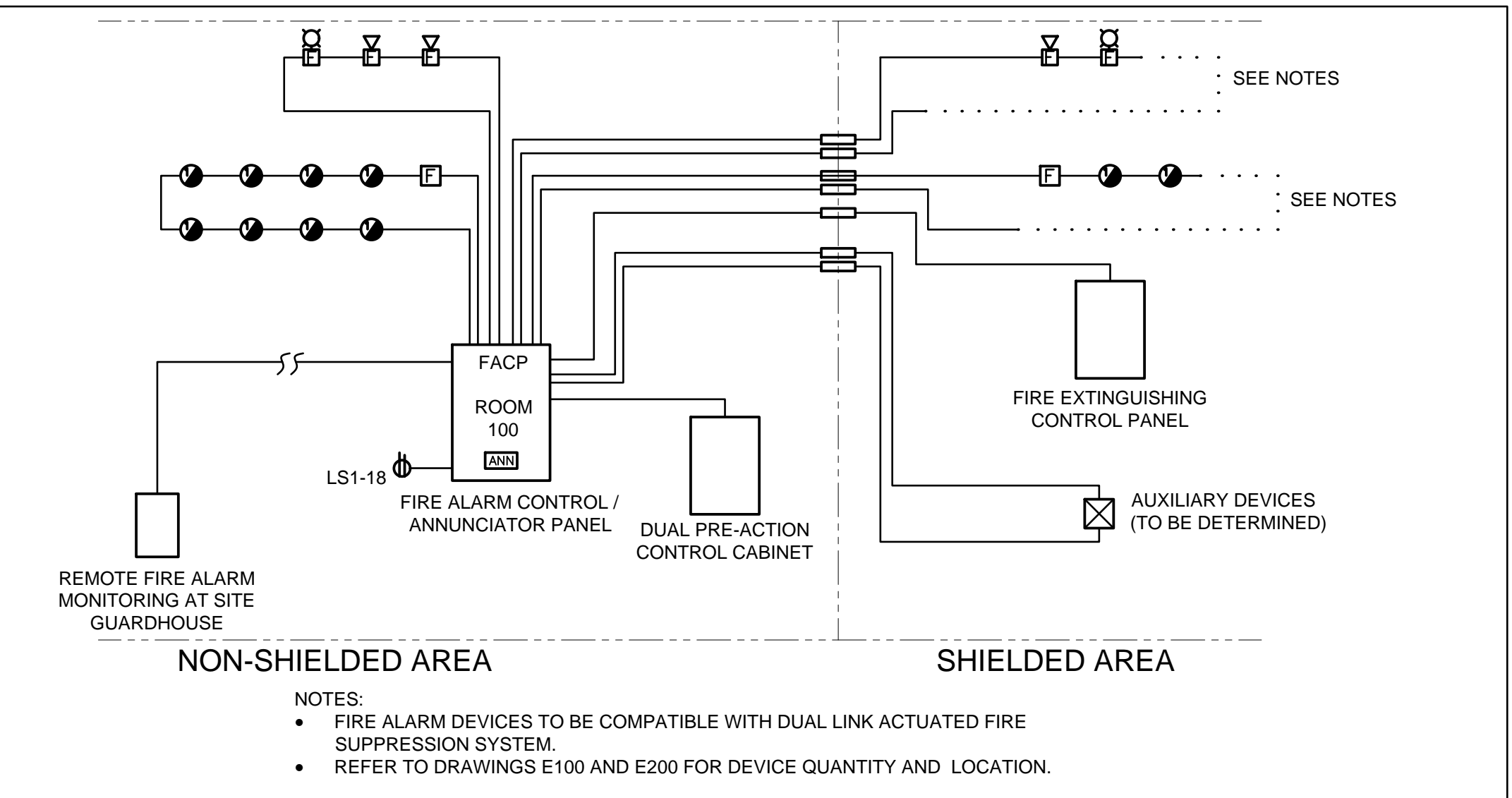




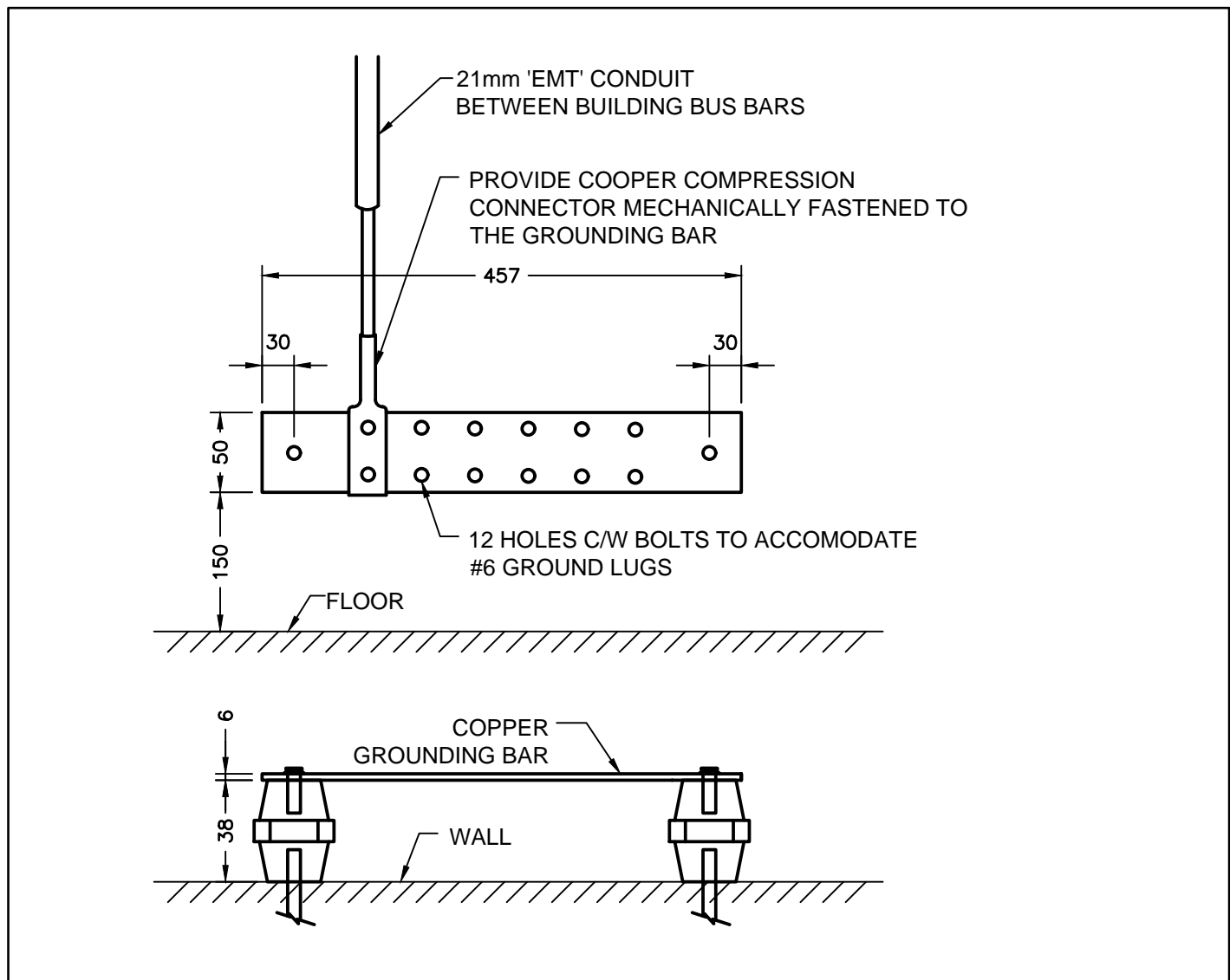
**1 ELECTRICAL DISTRIBUTION SINGLELINE SCHEMATIC**  
NOT TO SCALE

**GENERAL NOTES**

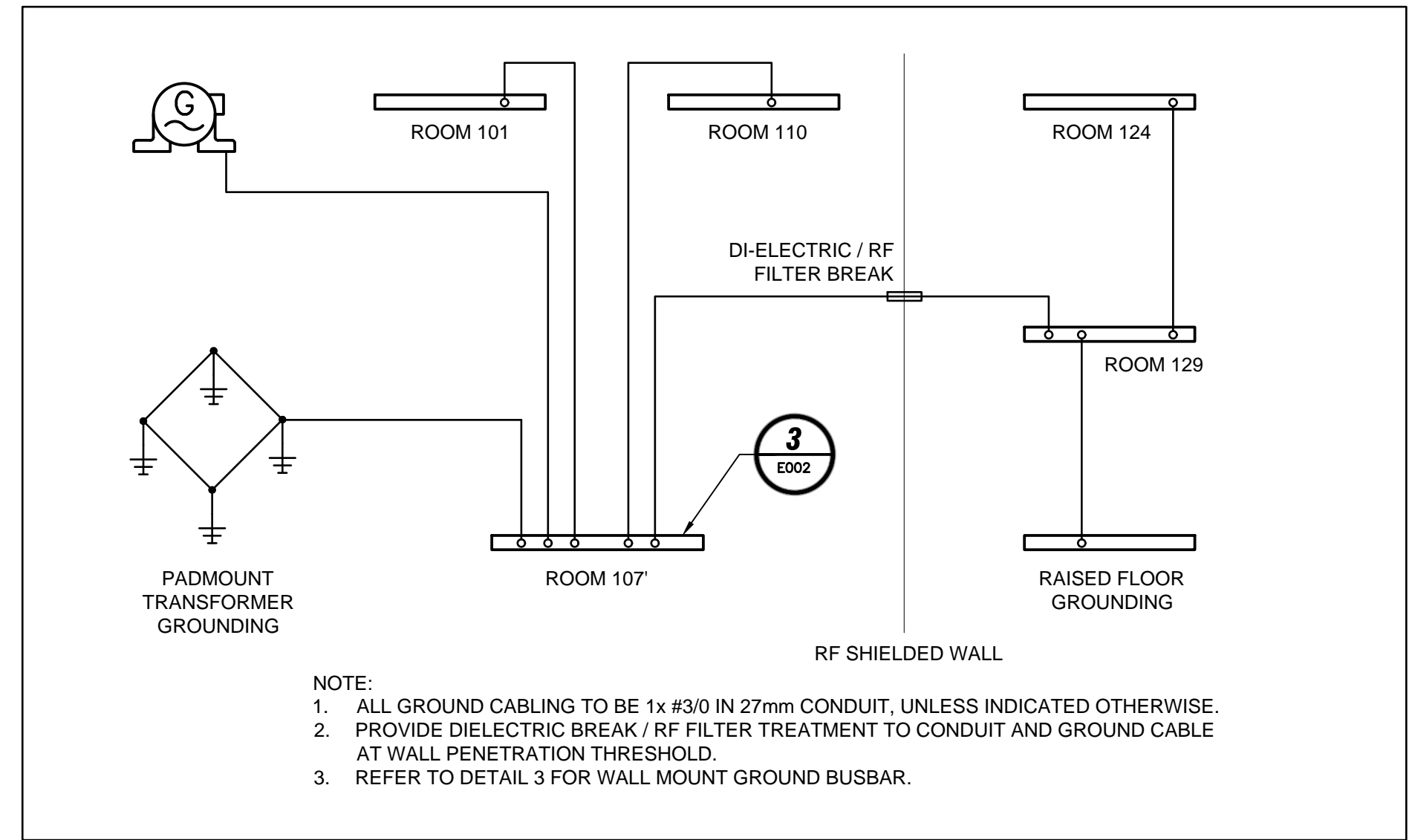
- ALL ELECTRICAL WIRING TO BE #3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
- ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS, AS REQUIRED. REFER TO DETAIL 5 FOR CONSTRUCTION.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.
- ANY AND ALL POWER CONDUCTORS, CONTROL WIRING AND COMMUNICATIONS CABLING MUST BE FITTED WITH DIELECTRIC BREAK AND/OR FEEDSIGNAL RF FILTERS OF APPROPRIATE CAPACITY AND TYPE WHEN CROSSING THE THRESHOLD WALL TO ROOM 129 FROM ELECTRICAL ROOM 107.



**2 FIRE ALARM SCHEMATIC DIAGRAM**  
NOT TO SCALE



**3 TYPICAL WALL MOUNT GROUNDING BUSBAR DETAIL**  
NOT TO SCALE



**4 GROUNDING SYSTEM DIAGRAM**  
NOT TO SCALE

**CABLE / CONDUIT SCHEDULE - COPPER (ABOVE GROUND)**

REF	REF	WIRE SIZE	AMP @ 75°C	CORRECTED AMP @ 90°C (NOTE 6)	CONDUIT SIZE			BONDING CONDUCTOR
					4C	3C	2C	
15	F20	#12	25	24	21 (3/4")	21 (3/4")	21 (3/4")	#12
20	F20	#12	25	24	21 (3/4")	21 (3/4")	21 (3/4")	#12
30	F30	#10	35	32	27 (1")	27 (1")	21 (3/4")	#10
50	F50	#8	50	44	27 (1")	27 (1")	21 (3/4")	#10
60	F60	#6	65	60	35 (1 1/4")	35 (1 1/4")	27 (1")	#8
80	F80	#4	85	76	41 (1 1/2")	35 (1 1/4")	35 (1 1/4")	#8
100	F100	#3	100	92	41 (1 1/2")	35 (1 1/4")	35 (1 1/4")	#6
125	F125	#1	130	116	53 (2")	53 (2")	35 (1 1/4")	#6
150	F150	#1/0	150	136	53 (2")	53 (2")	35 (1 1/4")	#6
200	F200	#2/0	175	180	78 (3")	63 (2 1/2")	41 (1 1/2")	#6
200	F200*	#3/0	200	-	78 (3")	63 (2 1/2")	41 (1 1/2")	#4
225	F225	#4/0	230	208	78 (3")	63 (2 1/2")	53 (2")	#4
250	F250	250MCM	255	232	78 (3")	78 (3")	53 (2")	#4
300	F300	350MCM	310	280	103 (4")	91 (3 1/2")	53 (2")	#3
350	F350	500MCM	380	344	103 (4")	103 (4")	63 (2 1/2")	#2
400	F400	600MCM	420	380	103 (4")	103 (4")	78 (3")	#2

**MAIN NOTE:**  
CABLES / FEEDER TO BE SIZED ACCORDINGLY TO THE SCHEDULE ABOVE UNLESS OTHERWISE NOTED. CABLES AMPACITY SHALL BE GREATER THAN OR EQUAL TO THE BREAKER SIZE PROTECTING IT.

**NOTES:**  
 1. ALL CABLES SHALL BE 90°C TYPE RATED FOR 75°C AMPACITY TO SUIT BREAKER TERMINATION CHARACTERISTICS.  
 2. ALL FEEDERS SHALL BE PROVIDED WITH BONDING CONDUCTORS AS SHOWN AND AS PER CODE.  
 3. FOR PARALLEL RUNS, BONDING CONDUCTOR IS REQUIRED IN EACH PARALLEL RUN.  
 4. RUN PARALLEL FEEDERS FOR RATINGS OVER 400A.  
 5. MINIMUM CABLE SIZE FOR PARALLEL RUN TO BE #4/0.  
 6. USE THIS COLUMN FOR CIRCUITS WITH CURRENT CARRYING NEUTRAL CONDUCTOR. AMPACITY IS CALCULATED BY MULTIPLYING 90°C CABLE AMPACITY WITH FACTOR 0.8. MATCH CABLE SIZE TO BREAKER SIZE.  
 7. THIS SCHEDULE IS APPLICABLE FOR AMBIENT TEMPERATURE OF 30°C AND NO MORE THAN 3 CURRENT CARRYING CONDUCTORS IN RACEWAY OR CABLE. USE CORRECTION FACTORS AS REQUIRED.  
 8. FOR UNDERGROUND CABLES, REFER TO TABLES D8A TO D15B AND APPENDIX B FOR RULE 4-004 IN CEC.  
 9. ALL CABLES TO BE INSTALLED WITH A MINIMUM SPACING REQUIREMENT AS PER RULE 4-004 AND 12-2210 IN OESC.

**5 FEEDER SCHEDULE**

**DRAWING NOTES**

- PROVIDE 300kVA PADMOUNT MINISUB TYPE TRANSFORMER C/W PRIMARY SWITCHING AND BREAKERS AS INDICATED. REFER TO SPECIFICATION FOR DETAILS. PROVIDE TRANSFORMER GROUNDING GRID AS PER HYDRO OTTAWA CONSTRUCTION DETAIL. REFER TO DETAIL 2/E600 FOR REFERENCE. CO-ORDINATE THE WORK WITH HYDRO OTTAWA LIMITED (HOL).
- PROVIDE DUCTBANK AND CABLES STUBBED-UP AT CONCRETE SLAB FOR CONNECTION OF EMERGENCY GENERATOR. PROVIDE AN UNDERGROUND ELECTRICAL CONNECTION C/W 30A DISCONNECT SWITCH, 15kVA, 600V-120/208V TRANSFORMER AND A 60A SERVICE PANEL MOUNTED INSIDE ENCLOSURE.
- MODULAR TYPE 100kW (10 x 10kW POWER MODULE), 600V INPUT 120/208V OUTPUT UPS UNIT C/W MAINTENANCE BYPASS PANEL AND BATTERY SYSTEM.
- PROVIDE SERVICE ENTRANCE SWITCHBOARD 'DP' 25KA 400A-347/600V, 3Ø-4W C/W TVSS, DIGITAL METERING SYSTEM.
- PROVIDE DISTRIBUTION PANEL 'EDP' 400A-347/600V, 3Ø-4W C/W BREAKER AS NOTED.
- PROVIDE ELECTRICAL CONNECTION TO EXTERIOR ROOF TOP UNIT COMPLETE WITH WEATHERPROOF DISCONNECT SWITCH.
- PROVIDE ELECTRICAL CONNECTION TO EXTERIOR ROOF TOP CONDENSER UNIT AND ASSOCIATED INDOOR A/C UNIT. REFER TO COMPLETE WITH WEATHERPROOF DISCONNECT SWITCH.
- PROVIDE 100A-120/208V, 3Ø-4W ELECTRICAL PANEL C/W BREAKERS. REFER TO PANEL SCHEDULE FOR DETAIL IN ANNEX B OF SPECIFICATIONS.
- PROVIDE 75kVA TRANSFORMER 600V-120/208V, 3Ø RATED AND CONNECT THE PRIMARY AND SECONDARY FEEDERS AS REQUIRED.
- PROVIDE 30kVA TRANSFORMER 600V-120/208V, 3Ø RATED AND CONNECT THE PRIMARY AND SECONDARY FEEDERS AS REQUIRED.
- PROVIDE POWER LINE FILTERS TO ASSOCIATED PANELBOARD MAIN FEEDER CONNECTION PRIOR TO PENETRATION OF THRESHOLD WALL. REFER TO DETAIL '5/E600' FOR INSTALLATION DETAILS.
- PROVIDE FOR THE INSTALLATION AND CONNECTION OF AUTOMATIC TRANSFER SWITCH (ATS) UNITS, C/W ISOLATION BYPASS SWITCH FOR NORMAL AND EMERGENCY POWER SOURCES. AUTOMATIC TRANSFER SWITCHES TO BE PROVIDED BY CLIENT. REFER TO DRAWING 'E200' FOR ATS LOCATION.

**DFS INC.**  
architecture & design

Montréal, QC 400 boul. de Maisonneuve O. Bur. 500  
 Saint John, NB Montréal (Québec) H3A 1L4  
 T: (514) 879-1708 F: (514) 861-6219  
 www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.

**CIMA**  
Partners in excellence  
Partenaire de génie

110-240 Catherine Street  
 Ottawa ON K2P 2G8  
 Phone/tel: 613 860-2462  
 Fax/télex: 613 860-1870  
 www.cima.ca

plan-répre key plan  
 sceau stamp

**LICENCED PROFESSIONAL ENGINEER**  
 G. TREMBLAY  
 10017215  
 PROVINCE OF ONTARIO

no.	description	date
1	ISSUED FOR TENDER	June 12, 2018

REVISION

projct project

**BUILDING A PROJECT**

dessin drawing

**SINGLE LINE AND FIRE ALARM SCHEMATICS**

conception	conception	no. dossier	project no.
S. Lavoie	drawn	A000566B	
Y. Farmer	drawn	DA00	CAD file
S. Lavoie	approved	dossier client	client file
	scale	7207528	
No Scale	imprimé	February 2, 2018	plot date

no. page sheet number rev

**E002**

Drawing name: C:\A\env\emp\re\VA u 8 - 832\A000566B-E002.dwg Jun 12, 2018 - 1:36pm

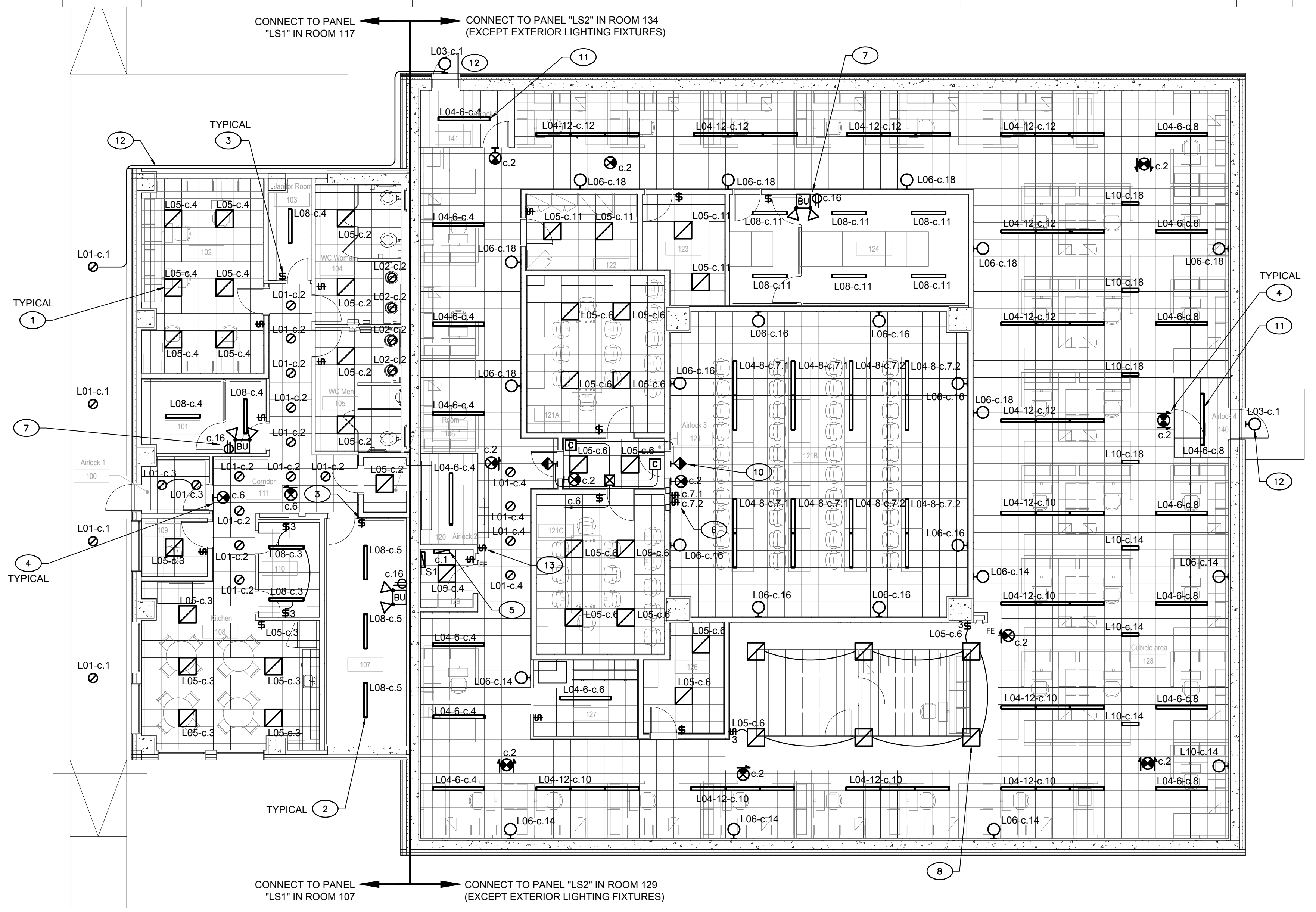


**GENERAL NOTES**

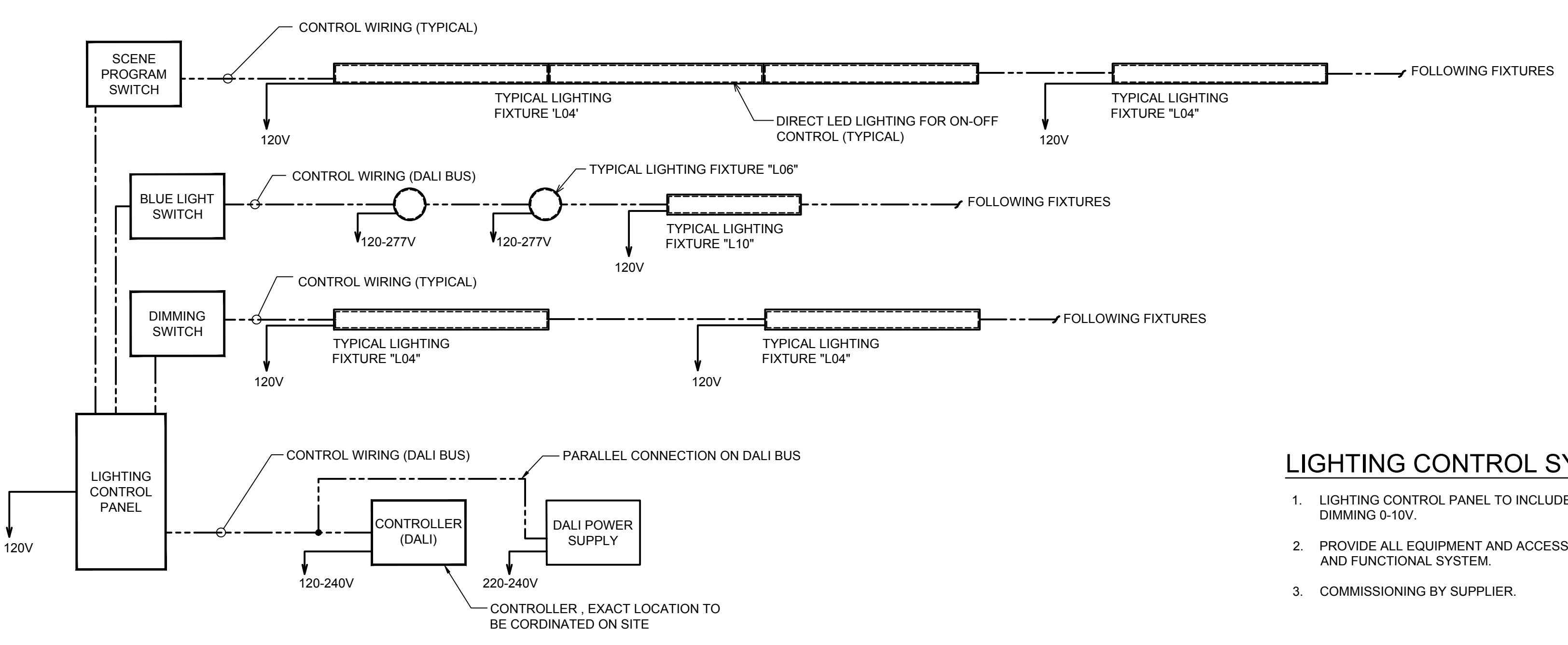
- ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT, UNLESS INDICATED OTHERWISE.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF LIGHTING FIXTURES AND MATERIAL LAYOUT.
- ALL EXTERIOR LIGHTING TO BE CONTROLLED BY TIMER AND PHOTOCELL. PROVIDE ALL NECESSARY ACCESSORIES INCLUDING 24/7 TIMER AND CONTACTORS AS REQUIRED AND CONNECT TO A 15A-1P 120V BREAKER. REFER TO LIGHTING CONTROL DIAGRAM DETAIL 3/E100.

**(X) DRAWING NOTES**

- PROVIDE LIGHTING FIXTURES AS SHOWN ON DRAWING COMPLETE WITH ALL ASSOCIATED CONDUIT, WIRING AND CONTROLS.
- PROVIDE 1220mm LIGHTING FIXTURE TYPE L08 SUSPENDED AT 2450mm AFF TO SUIT EQUIPMENT LAYOUT. CONNECT TO CIRCUIT INDICATED.
- PROVIDE LOW VOLTAGE SWITCHING FOR FIXTURE CONTROLS AND CONNECT TO CIRCUIT INDICATED.
- PROVIDE EXIT SIGN (RUNNING MAN) DEVICES WHERE SHOWN ON DRAWING AND CONNECT TO CIRCUIT INDICATED. PROVIDE A CIRCUIT BREAKER LOCKING MEANS IN ELECTRICAL PANEL.
- LIGHTING CONTROL PANEL FOR ALL 'L04', 'L07' AND 'L10' LIGHTING FIXTURES. SEE TYPICAL DIAGRAM FOR WIRING AND FUNCTIONS.
- ROOM LIGHTING CONTROLS TO BE CAPABLE OF DIMMING 0-10V AS INDICATED; FRONT OF ROOM FIXTURES AND BACK OF ROOM FIXTURES.
- PROVIDE EMERGENCY BATTERY UNIT COMPLETE WITH HEADS AND CONNECT TO RECEPTACLE CIRCUIT.
- PROVIDE LIGHTING FIXTURE TYPE 'L05' INSTALLED IN INVERSE BULKHEAD CEILING GRID ABOVE ENCLOSURE AND CONNECT TO CIRCUIT AND CONTROLS AS INDICATED.
- PROVIDE SURFACE MOUNT LIGHTING FIXTURE TYPE L08 INSTALLED INSIDE ENCLOSURE AND CONNECT TO CIRCUIT AND CONTROLS FROM ELECTRICAL PANEL INSIDE ENCLOSURE. SEE DRAWING E200 FOR DETAILS.
- IN-USE AIRLOCK WARNING LIGHT. PROVIDE RED WARNING LIGHT ABOVE BOTH AIRLOCK DOORS, ENERGIZED BY DOOR CONTACTS AND/OR CEILING MOUNTED MOTION SENSOR IN AIRLOCK SPACE. WARNING LIGHT MUST REMAIN ENERGIZED AS LONG AS SPACE IS OCCUPIED.
- PROVIDE LIGHTING FIXTURE AS SHOWN COMPLETE WITH ALL ASSOCIATED SURFACE MOUNT CONDUIT, WIRING, INCLUDING BUILT-IN OR REMOTE OCCUPANCY SENSOR FOR CONTROL. PROVIDE DI-ELECTRIC BREAK AND POWER LINE FILTERS AS REQUIRED.
- PROVIDE AN EXTERIOR ELECTRICAL CONNECTION TO WALL MOUNT LIGHTING FIXTURE AT EXIT DOORS 140.1 AND 141.1 AND CONNECT TO CIRCUIT INDICATED.
- LOCATION OF 'L06' AND 'L10' BLUE LIGHTING FIXTURES CONTROL SWITCH.



**1 LIGHTING LAYOUT**



**2 TYPICAL WIRING DIAGRAM FOR 'L04', 'L06' AND 'L10' LIGHTING FIXTURES**

**LIGHTING CONTROL SYSTEM NOTES**

- LIGHTING CONTROL PANEL TO INCLUDE SUCH FUNCTIONS FOR DIMMING 0-10V.
- PROVIDE ALL EQUIPMENT AND ACCESSORIES FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- COMMISSIONING BY SUPPLIER.

plan-repère	key plan	
scobu	stamp	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
REVISION		

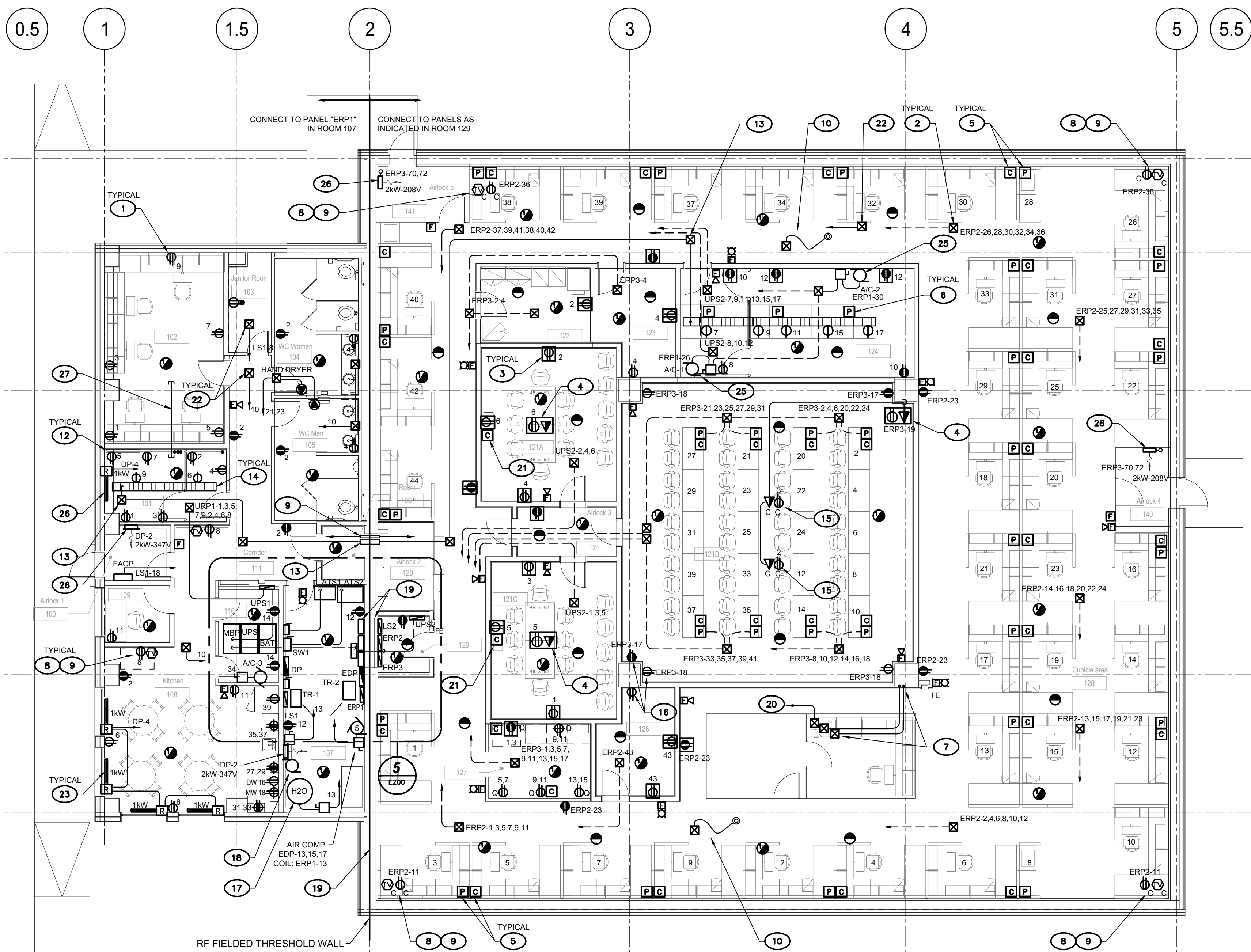
project project  
**BUILDING A PROJECT**

<b>GROUND FLOOR LIGHTING AND EGRESS</b>			
conception	conception	no. dossier	project no.
S. Lavoie		A000566B	
dessiné	drawn	no. dossier	project no.
Y. Farmer		A000566B-E100	
approuvé	approved	dossier client	client file
S. Lavoie		7207528	
échelle	scale	imprimé	plot date
1 : 100		February 2, 2018	
no. page	sheet number	rev	

**E100**

Drawing name: 01\_A\A000566B\_Bldg\_A\_V4\00450\_A000566B-E100.dwg Jun 11, 2018 - 3:56pm





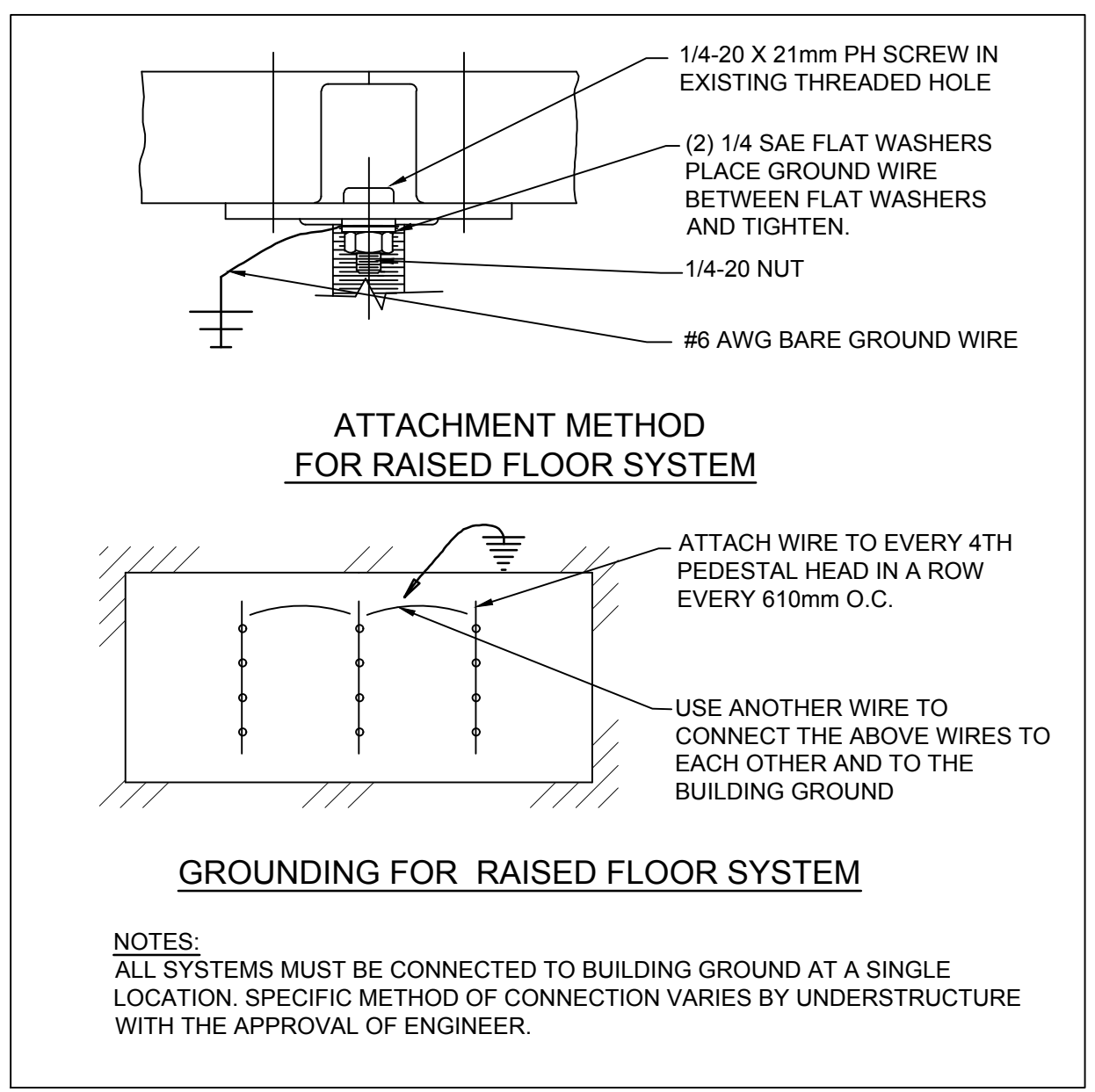
**1 POWER DISTRIBUTION LAYOUT**

**GENERAL NOTES**

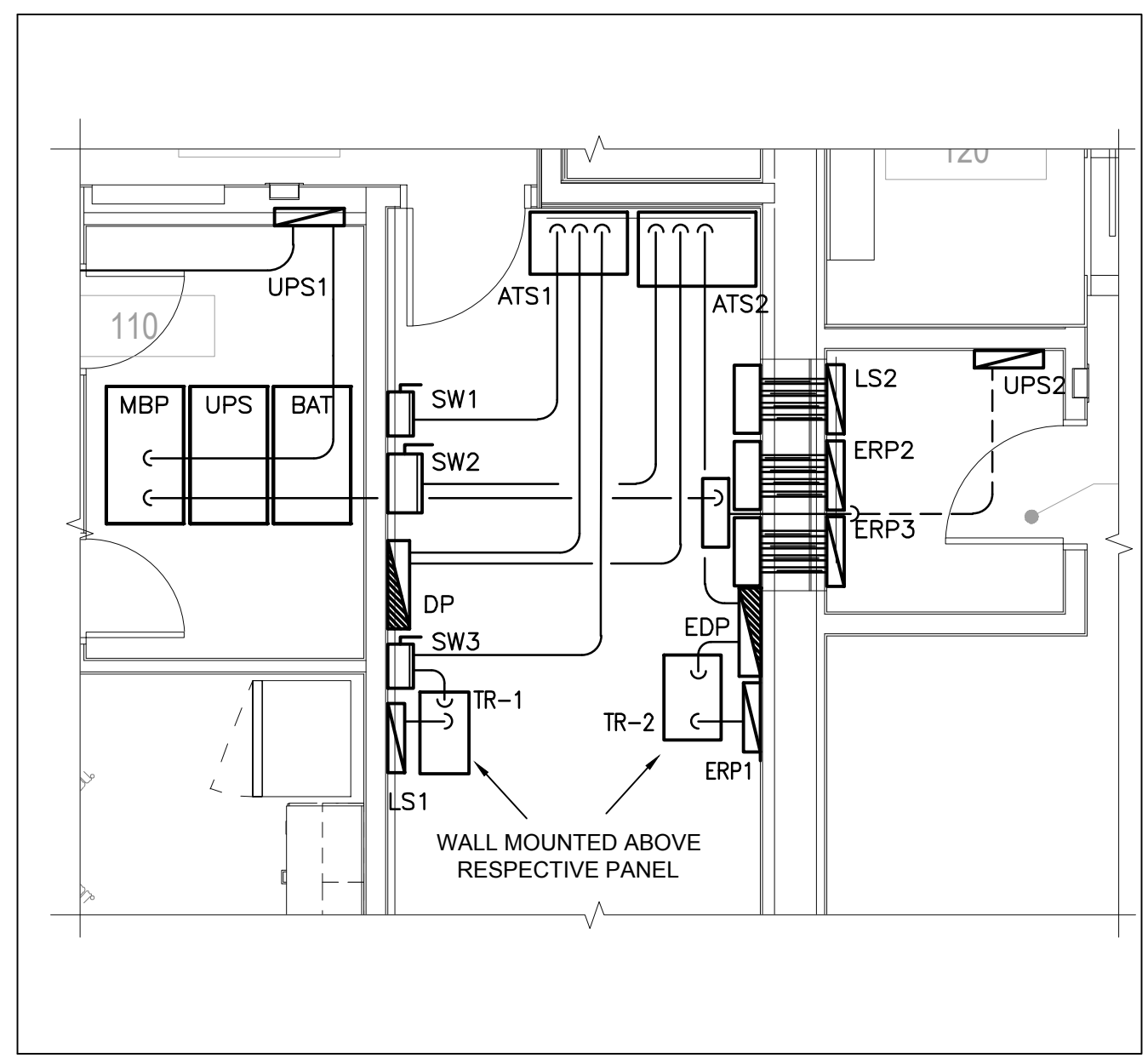
1. ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
2. ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
3. ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS, AS REQUIRED. REFER TO DETAIL 5 FOR CONSTRUCTION.
4. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.
5. ANY AND ALL POWER CONDUCTORS, CONTROLS WIRING AND COMMUNICATIONS CABLING MUST BE FITTED WITH DI-ELECTRIC BREAK AND FEED / SIGNAL RF FILTERS OF APPROPRIATE CAPACITY WHEN CROSSING THE THRESHOLD WALL TO ROOM 129.
6. MECHANICAL DI-ELECTRIC BREAK, APPLY PROPER GROUNDING ON BOTH SIDES OF WALL TO ALL MECHANICAL DUCT WORKS AND PIPING DI-ELECTRIC BREAKS. REFER TO MECHANICAL DRAWINGS FOR LOCATION AND QUANTITY.

**(X) DRAWING NOTES**

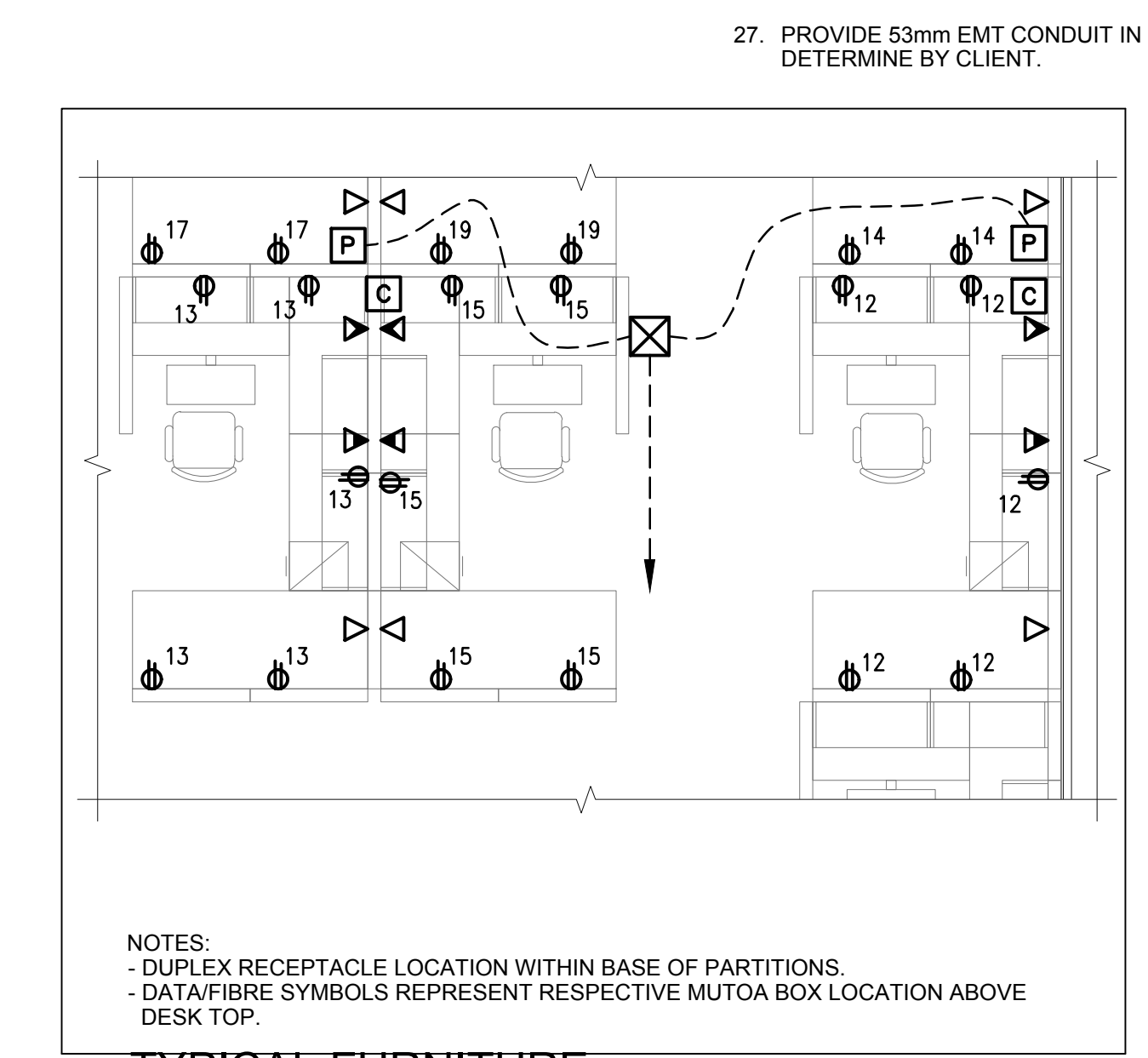
1. PROVIDE WALL MOUNT DUPLEX RECEPTACLE AT 400mm AFF WHERE SHOWN ON DRAWING COMPLETE WITH ALL ASSOCIATED WIRING AND CONDUIT. CONNECT TO CIRCUIT INDICATED.
- ELECTRICAL POWER DISTRIBUTION SYSTEM GRID UNDER RAISED FLOOR. PROVIDE SURFACE MOUNTED ON SLAB EMT CONDUITS AND BRANCH JUNCTION BOXES TO SIZE AND QUANTITY AS INDICATED ON DRAWING.
- PROVIDE A FLOOR MOUNT POKE-THROUGH TYPE DUPLEX RECEPTACLE OF TYPE AS INDICATED, INSTALLED FLUSH AND SECURED TO RAISED FLOOR PANEL AND CONNECT TO CIRCUIT INDICATED. (ACCEPTABLE MATERIAL: THOMAS & BETTS # T-449 OR APPROVED EQUIVALENT)
- PROVIDE A FLOOR MOUNT ACCESS MODULE FOR POWER / COMMUNICATIONS / AUDIOVISUAL. FLUSH TO RAISED FLOOR PANEL. CONNECT RECEPTACLE TO CIRCUIT INDICATED. REFER TO DRAWING E300 FOR COMMUNICATIONS CABLING REQUIREMENTS.
- PROVIDE RAISED FLOOR PANEL GROMMETS FOR FURNITURE SERVICES, ONE (1) FOR POWER AND TWO (2) FOR COMMUNICATIONS CABLING. CONNECTION WILL BE BASED ON FURNITURE SPECIFICATIONS AND LOCATION. INQUIRE TO RAISED FLOOR SUPPLIER FOR GROMMETS SUPPLY.
- PROVIDE RAISED FLOOR FLEXIBLE AIR SEAL GROMMET OVER PASS-THROUGH CUTOUPS FOR ELECTRICAL WIRING IN SERVER ROOM TO MINIMIZE BYPASS AIRFLOW. LOCATION OF GROMMET TO BE DETERMINED ON SITE BASED ON COMMUNICATIONS RACKING SYSTEM. (ACCEPTABLE MATERIAL: PANDUIT MODEL COOL BOOT, RFG SERIES OR APPROVED EQUIVALENT)
- PROVIDE 'EMT' CONDUITS UP THROUGH COLUMN FURRING TO CEILING SPACE AND REACHING OVER RF ENCLOSURE FOR POWER AND CONTROLS. TERMINATE CONDUIT SYSTEMS WITH INDIVIDUAL JUNCTION BOXES. COORDINATE PENETRATIONS AND CONNECTIONS OF SYSTEMS TO THE INSIDE OF RF SHIELDED ENCLOSURE AS INDICATED. REFER TO RF ENCLOSURE SPECIFICATIONS FOR DETAILS.
- PROVIDE A 5-15R TYPE DUPLEX RECEPTACLE, MOUNTED IN CEILING SPACE AND/OR ON WALL BEHIND WALL MOUNT TV C/W ASSOCIATED WIRING AND CIRCUIT FOR TELEVISION.
- PROVIDE AN OUTLET BOX C/W 21mm EMT CONDUIT AND COVER PLATE MOUNTED ABOVE CEILING SPACE FOR CABLE TV. PROVIDE A COAXIAL CABLE EXTENDING TO ETR ROOM 101 TO BE CONNECTED TO APPROPRIATE ELECTRONIC DEVICE. ELECTRONIC DEVICE PROVIDED BY CLIENT. PROVIDE FOR DI-ELECTRIC/RF FILTERING COAX CONNECTOR CABLE FOR ALL CABLE CROSSING AT THRESHOLD WALL. SEE GENERAL NOTE 5 ABOVE.
- PROVIDE LEAK DETECTION DEVICE UNDER RAISED FLOOR SYSTEM C/W OUTLET BOX AND 21mm EMT CONDUIT CONNECTION TO SECURITY RACEWAY JUNCTION BOX. LEAK DETECTION SHALL BE OF 1220mm LEAK DETECTION CABLE TYPE WITH MINIMUM 1820mm LEAD CABLE, TO BE LAID ON FLOOR SLAB 3.0 m FROM FLOOR DRAINS.
- PROVIDE GROUNDING SYSTEM FOR RAISED FLOOR STRUCTURE. REFER TO DETAIL '2' FOR INSTALLATION INSTRUCTION.
- BACKING PLYWOOD BOARD BY ARCHITECTURE. PROVIDE WALL DUPLEX RECEPTACLE AT 400mm AFF, RECESSED MOUNT IN PLYWOOD COMPLETE WITH ALL ASSOCIATED WIRING AND CONDUIT. CONNECT TO CIRCUIT INDICATED.
- PROVIDE A 78mm EMT CONDUIT RUN IN CEILING SPACE C/W CLIENT APPROVED LOCKABLE PULL BOXES (FAWCETT #SB161280) AND ASSOCIATED FITTINGS AS REQUIRED, INCLUDING REQUIRED DI-ELECTRIC BREAK CROSSING RF SHIELDED WALL THRESHOLD. SEE DETAIL '6/E600'. PROVIDE A 78mm WATERFALL CONDUIT STUB OVER CABLE TRAY IN ROOMS 101A AND 124.
- PROVIDE LADDER TYPE CABLE TRAY C/W WATERFALL HORIZONTAL CABLE MANAGEMENT ABOVE H-FRAMES REACHING BOTH SIDES OF ETR/TR CAGE WALL IN ROOM 101. REFER TO DETAIL '1/E600'.
- PROVIDE A DATA OUTLET BOX, ABOVE CEILING SPACE NEXT TO RECEPTACLE C/W 27mm EMT CONDUIT OVER AND DOWN COLUMN FURRING TO UNDERFLOOR SPACE FOR A DEDICATED PATHWAY BETWEEN FLOOR PODIUM TO CEILING PROJECTOR LOCATIONS. COORDINATE INSTALLATION WITH NOTE 4 ABOVE.
- PROVIDE WALL MOUNT DUPLEX RECEPTACLE AT 400mm AFF, WITHIN COLUMN FURRING WHILE MAINTAINING STC RATING OF WALL COMPLETE WITH ALL ASSOCIATED WIRING AND CONDUIT. CONNECT TO CIRCUIT INDICATED. THIS FOR ALL RECEPTACLES AT THE FOUR (4) COLUMNS OF ROOM 121B ONLY.
- PROVIDE ELECTRICAL CONNECTION TO HOT WATER TANK AS INDICATED. GAS HOT WATER TANK SUPPLIED AND INSTALLED BY DIVISION 22.
- PROVIDE AN ELECTRICAL CONNECTION TO HOT WATER RE-CIRCULATION PUMP AND CONNECT TO CIRCUIT INDICATED.
- POWER LINE RF FILTERS FOR ALL ELECTRICAL PANEL CONDUCTORS CROSSING THE THRESHOLD WALL IN MAIN ELECTRICAL ROOM. REFER TO GENERAL NOTE 5 AND DRAWING E601 FOR MORE DETAIL.
- SHIELDED ROOM FIRE ALARM. PROVIDE 'EMT' CONDUIT REACHING OVER RF ENCLOSURE IN CEILING SPACE. TERMINATE CONDUIT SYSTEM WITH JUNCTION BOX. COORDINATE SYSTEM CONNECTIONS TO RF SHIELDED ROOM WITH ENCLOSURE CONTRACTOR. REFER TO RF ENCLOSURE SPECIFICATIONS FOR DETAILS.
- PROVIDE ONE(1) FLOOR TILE COMMUNICATIONS GROMMET FOR TELECONFERENCE FURNITURE NEXT TO FLOOR MOUNT RECEPTACLE. SEE DRAWING E300 FOR CABLING REQUIREMENTS.
- PROVIDE A 15A-120V ELECTRICAL CONNECTION FOR MECHANICAL POWER SUPPLY TO WASHROOM FIXTURES UNDER COUNTER, TO MECHANICAL VAV BOX CONTROLS AND MOTORIZED DAMPERS IN CEILING SPACE, AND CONNECT TO CIRCUIT INDICATED.
- PROVIDE 347V BASEBOARD HEATER AT LOCATION SHOWN AND CONNECT TO CIRCUIT INDICATED. TEMPERATURE CONTROLS SUPPLIED AND INSTALLED BY DIVISION 23.
- PROVIDE A 100A-2P PANELBOARD C/W 12 CIRCUITS INSIDE RF SHIELDED ENCLOSURE. CONNECT TO CIRCUIT INDICATED.
- PROVIDE ELECTRICAL CONNECTION FOR A/C UNITS IN ROOM 124 TO CIRCUIT INDICATED. RACEWAY TO BE UNDER RAISED FLOOR C/W DI-ELECTRIC AND RF SHIELDING CROSSING THRESHOLD WALL VIA ROOM 129 FROM MAIN ELECTRICAL ROOM.
- PROVIDE 2kW FORCE FLOW HEATERS IN LOBBIES 100, 140, 141 AND IN ROOM 107 C/W INTEGRATED THERMOSTAT AND CONNECT TO CIRCUIT INDICATED. FEEDERS TO AIRLOCKS 4 (140) AND 5 (141) TO BE FED FROM ABOVE, DOWN PENETRATING INSIDE ENCLOSURE TO UNIT SURFACE MOUNTED C/W POWER LINE FILTERS.
- PROVIDE 53mm EMT CONDUIT IN CEILING SPACE FROM ETR ROOM 101 TO LINK ROOF ANTENNA WITH LOCAL ANTENNA IN ROOM 102. LOCATION TO BE DETERMINE BY CLIENT.



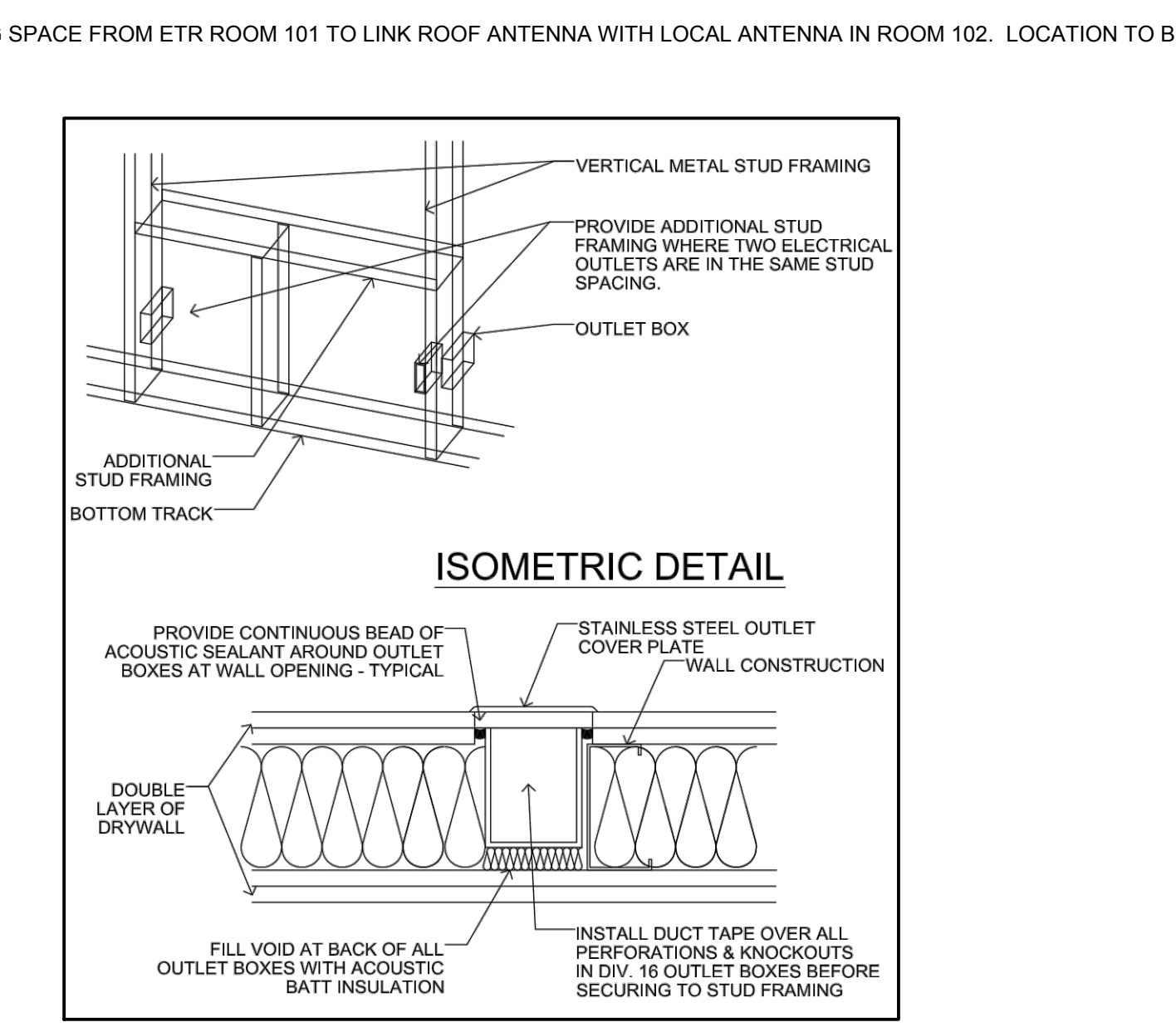
**2 RAISED FLOOR GROUNDING/BONDING DETAIL**  
NOT TO SCALE



**3 MAIN ELECTRICAL ROOM 117 LAYOUT**  
SCALE : 1 / 50



**4 TYPICAL FURNITURE DATA / RECEPTACLE LAYOUT**  
SCALE : 1 / 50



**5 TYPICAL WALL OUTLET BOX INSTALLATION DETAIL**  
SCALE : 1 / 50

**DFS INC.**  
architecture & design

Montréal, QC 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB Montréal (Québec) H3A 1L4  
T: (514) 679-1708 F: (514) 861-6219  
www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.

**CIMA**  
Partners in excellence  
Partenaire de génie

110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 869-2462  
Fax: 613 869-1870  
www.cima.ca

plan-repère	key plan	
soceau	stamp	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
REVISION		

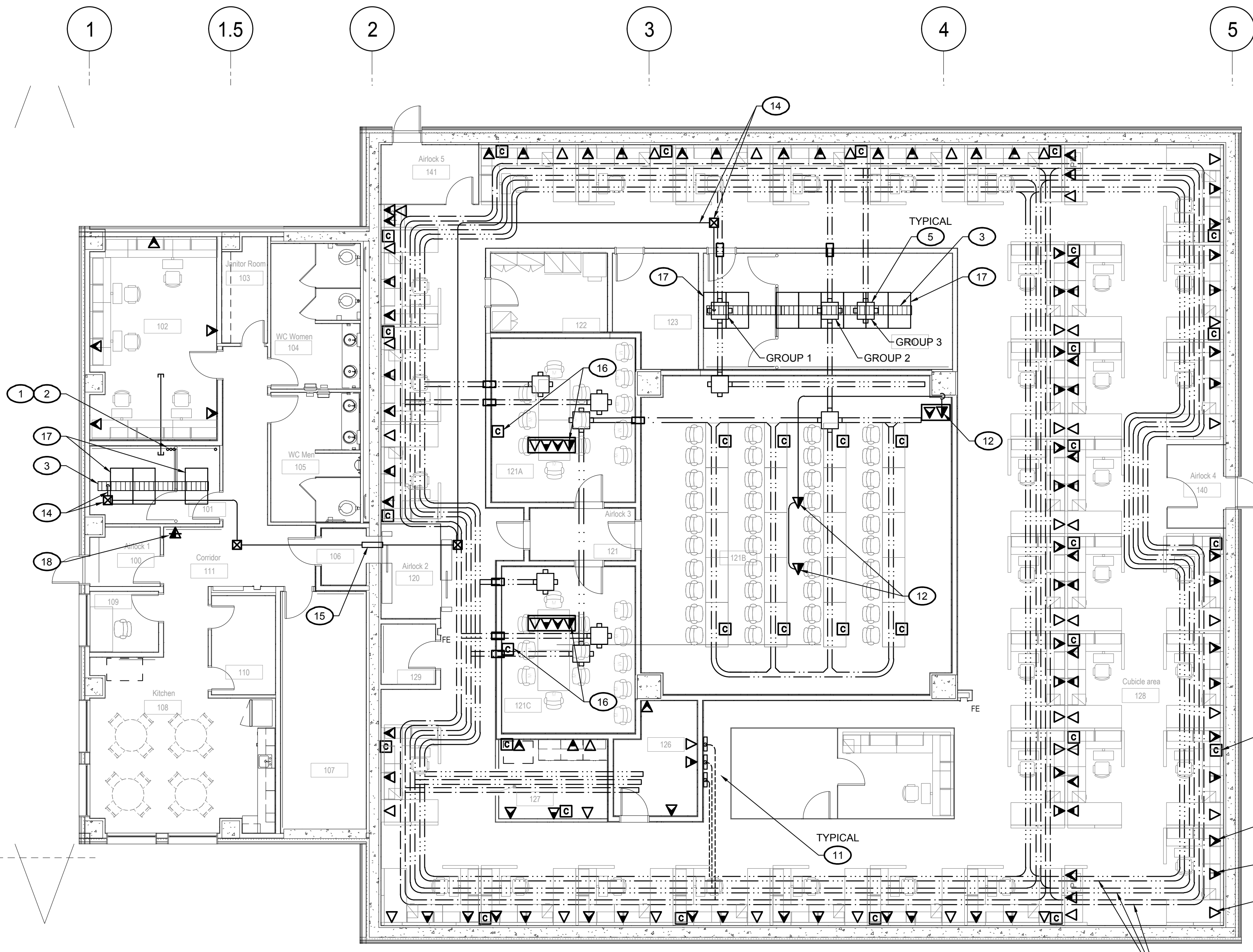
projet

**BUILDING A PROJECT**

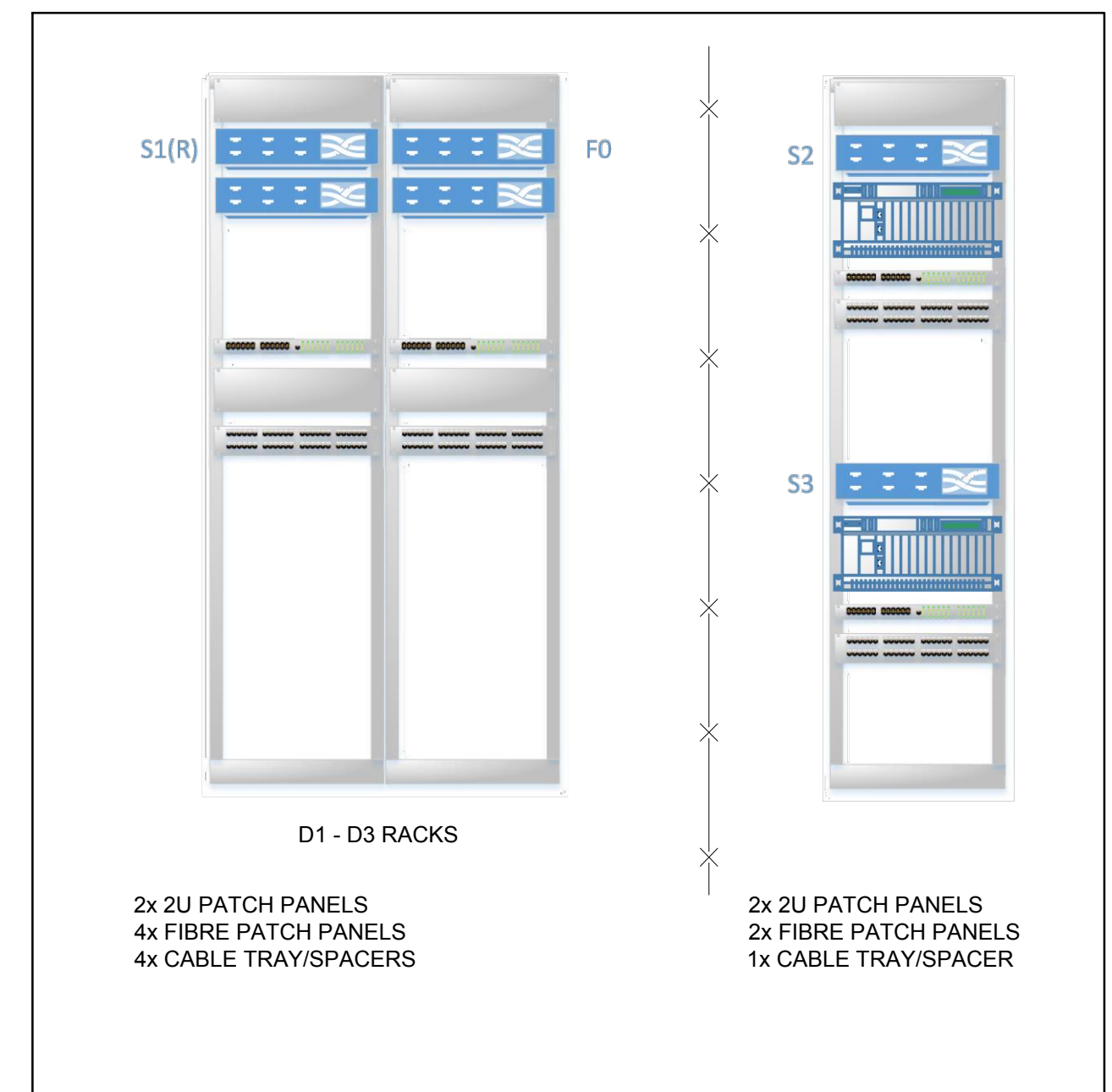
dessin		drawing	
<b>GROUND FLOOR PLAN POWER AND FIRE ALARM SYSTEM</b>			
conception	conception	no. dossier	project no.
S. Lavoie		A000566B	
dessiné	drawn	feuilleur DAO	CAD file
Y. Farmer			
approuvé	approved	dossier client	client file
S. Lavoie		7207528	
échelle	scale	imprimé	plot date
AS NOTED		February 2, 2018	
no. page	sheet number	rev	
<b>E200</b>			

Drawing name: C:\A\A000566B\_B\Building\_A\400\450\A000566B-E200.dwg Jun 11, 2018 - 3:56pm

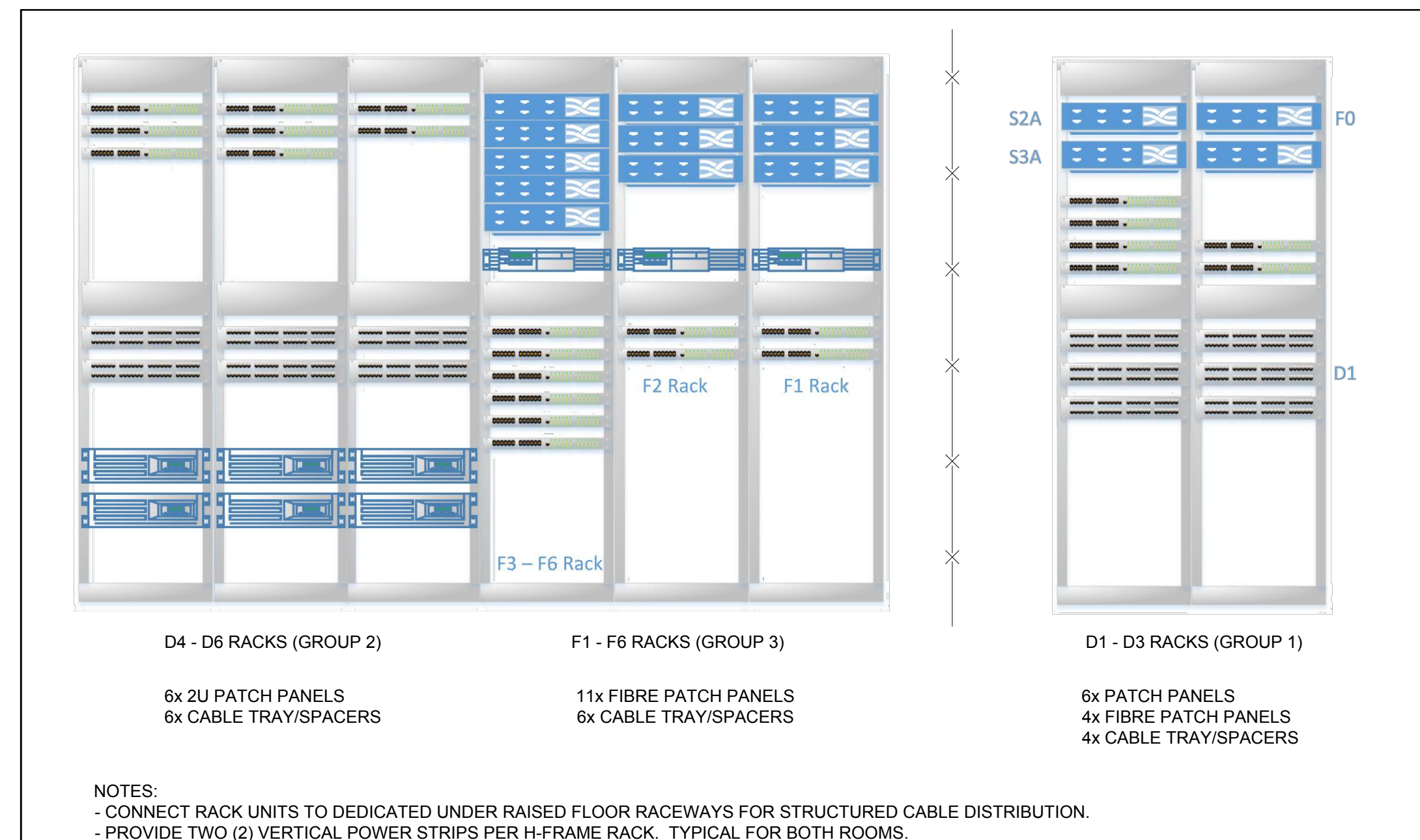




**1 COMMUNICATIONS LAYOUT**



**2 TYPICAL NETWORK RACK DETAIL - ROOM 101**  
NOT TO SCALE



**3 TYPICAL NETWORK RACK DETAIL - ROOM 124**  
NOT TO SCALE

**GENERAL NOTES**

- ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER OF 6x TYPE AND/OR IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
- ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS, AS REQUIRED.
- BASKET TRAY LOCATIONS ARE SUBJECT TO RAISED FLOOR SUPPORT STRUCTURES AND MECHANICAL AND ELECTRICAL SITE CONDITIONS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.
- ANY AND ALL POWER CONDUCTORS, CONTROLS WIRING AND COMMUNICATIONS CABLING MUST BE FITTED WITH DI-ELECTRIC AND RF LINE AND/OR SIGNAL FILTERS OF APPROPRIATE CAPACITY WHEN CROSSING THE THRESHOLD WALL.

**DRAWING NOTES**

- PROVIDE TWO (2) 12 STRAND OS2 SINGLE MODE OUTDOOR RATED FIBRE RUNS FROM FRONT AREA OF ROOM 101. EXTEND FIBRE CABLES TO MAIN BUILDING 405 VIA EXISTING COMMUNICATIONS DUCT/BANK RACEWAYS. TERMINATE AT DEDICATED PATCH PANEL IN FRONT AREA OF ROOM 101 WITH STANDARD LC CONNECTORS. ONE (1) DEDICATED CONDUIT FOR EACH FEED OUT TO COMMUNICATIONS RACEWAY. REFER TO DRAWING 'E200' FOR CONDUIT DETAILS AND OPTICAL KEYPLAN ON DRAWING 'E500'.
- PROVIDE ONE (1) 24 STRAND OS2 SINGLE MODE OUTDOOR RATED FIBRE FEED FROM FRONT AREA OF ROOM 101. EXTEND FIBRE CABLE TO MAIN BUILDING 405 VIA EXISTING COMMUNICATIONS DUCT/BANK RACEWAYS. TERMINATE AT DEDICATED PATCH PANEL AT BACK AREA OF ROOM 101 H-FRAME WITH STANDARD LC CONNECTORS. ONE (1) DEDICATED CONDUIT FOR FEED OUT TO COMMUNICATIONS RACEWAY. REFER TO DRAWING 'E200' FOR CONDUIT DETAILS AND OPTICAL KEYPLAN ON DRAWING 'E500'.
- OVERHEAD LADDER TYPE CABLE TRAY ABOVE H-FRAMES. REFER TO ELECTRICAL DRAWING 'E200' FOR DETAILS.
- CABLE TRAY INSTALLATION. PROVIDE THREE (3) DEDICATED 305 x 50mm BASKET TYPE CABLE TRAYS (GROUPS) C/W ASSOCIATED GROUNDING AND SUPPORT HARDWARE FOR COMPLETE SYSTEMS. BASKET TRAY ROUTES TO BE CLOSEST TO FURNITURE LOCATIONS WHERE FLOOR GROMMETS WILL BE INSTALLED. J-HOOKS AND WIRE WRAPS ARE NOT PERMITTED.
- PROVIDE RAISED FLOOR SINGLE TILE DROP-IN ENCLOSURE C/W ONE-PIECE MOUNTING BRACKETS AND COOL BOOT AIR SEALING GROMMETS AS CONSOLIDATION BOXES INLINE WITH CABLE TRAY AS SHOWN. ACCEPTABLE MATERIAL: PANDUIT 'PANZONE' MODEL #PZRFE4U WITH COPPER/FIBRE CONNECTIVITY OR APPROVED EQUIVALENT.
- STRUCTURED CABLING. PROVIDE ALL FIBRE AND DATA STRUCTURED CABLING IN RESPECTIVE UNDER FLOOR CABLE TRAYS GROUPING. REFER TO DATA / FIBRE CABLING SCHEDULE FOR STRUCTURED CABLE SPECIFICATIONS.
- GROUP 1 DATA DROPS. PROVIDE A DATA TYPE MUTOA BOX C/W COLOUR CODED RJ-45 CONNECTORS AT WORKSTATION, POSITIONED AT THIS LOCATION ABOVE DESK TOP. REFER TO 'GROUP 1' BASKET TRAY ON DATA/FIBRE CABLING SCHEDULE FOR REFERENCE. SEE 'E601' FOR DETAILS.
- GROUP 2 DATA DROPS. PROVIDE A DATA TYPE MUTOA BOX C/W COLOUR CODED RJ-45 CONNECTORS AT WORKSTATION, POSITIONED AT THIS LOCATION ABOVE DESK TOP. REFER TO 'GROUP 2' BASKET TRAY ON DATA/FIBRE CABLING SCHEDULE FOR REFERENCE. SEE 'E601' FOR DETAILS.
- GROUP 3 FIBRE DROPS. PROVIDE A FIBRE OPTICS TYPE MUTOA BOX C/W COLOUR KEYED LC FEMALE CONNECTORS AT WORKSTATION, POSITIONED AT THIS LOCATION ABOVE DESK TOP. REFER TO 'GROUP 3' BASKET TRAY ON DATA/FIBRE CABLING SCHEDULE FOR REFERENCE. SEE 'E601' FOR DETAILS.
- RAISED FLOOR PASS-THROUGH GROMMET FOR STRUCTURE CABLING.
- PROVIDE THREE (3) DEDICATED WALL MOUNT PATCH PANELS FOR FIBRE / DATA TRANSFER AT WAVEGUIDE LOCATIONS.
- PROVIDE A YELLOW CAT-6A SHIELDED TWISTED PAIR (STP) 3M AND YELLOW RJ-45 CONNECTORS FROM PODIUM TO CEILING PROJECTOR LOCATIONS FOR A DIRECT AUDIO VISUAL (AV) CONNECTION. PROVIDE EXTRON HDMI TRANSMITTER / RECEIVER SET AT PODIUM AND PROJECTOR LOCATIONS. REFER TO DRAWING E200 FOR CONDUIT DETAILS.
- PROVIDE A DI-ELECTRIC TYPE BREAK FOR CABLE TRAY/CONDUIT TRANSITION AT ALL DEMISING WALL CABLE TRAY PENETRATIONS. REFER TO DETAIL 'E/600' FOR STC RATING INFORMATION.
- PROVIDE BACKBONE OPTICAL CABLING AS DESCRIBED IN DATA / FIBRE CABLING SCHEDULE USING THE CEILING CONDUIT RACEWAY BETWEEN ROOMS 101 AND 124. REFER TO DRAWING E200 FOR CONDUIT INSTALLATION.
- PROVIDE DI-ELECTRIC BREAK AS PER DETAIL 'E/600' AND THE USE OF WAVEGUIDE FILTER PASS-THROUGHS FOR PRE-TERMINATED FIBRE OPTIC CABLES AT WALL THRESHOLD PENETRATION.
- PROVIDE A YELLOW CAT-6A SHIELDED TWISTED PAIR (STP) 3M AND YELLOW RJ-45 CONNECTORS BETWEEN MEETING TABLE AND 'AVTEQ ELT-2000' VIDEO TELECONFERENCE FURNITURE VIA UNDER RAISED FLOOR. PROVIDE EXTRON HDMI TRANSMITTER / RECEIVER SET AT TABLE AND FURNITURE LOCATIONS.
- PROVIDE ALL REQUIRED STANDARD FORMAT NETWORK H-FRAME RACKING SYSTEMS AS PRESENTED IN DETAIL '2/E300' AND '3/E300' C/W CABLE MANAGEMENT, PATCH PANELS, VERTICAL POWER STRIPS AND ASSOCIATED HARDWARE AND GROUNDING/BONDING TO CODE IN ROOMS 101 AND 124.
- PROVIDE A DATA DROP ADJACENT TO TV RECEPTACLE AND COAXIAL OUTLET BOXES BEHIND WALL MOUNTED TELEVISION.

**DATA / FIBRE CABLING SCHEDULE**

NETWORK SYSTEM	NETWORK NAME	PATCH PANELS	NETWORK PATCH CABLING	DESKTOP PATCH CABLING	CABLING SPECIFICATIONS
▽	GROUP 1 - BASKET TRAY				
	DATA 1	D1	48 PORT CAT-6A CAT-6A STP GREY 3M - 1 PER CONNECTION	CAT-6A STP GREY 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR GREY - WHITE CONNECTORS
	DATA 2	D2	48 PORT CAT-6A CAT-6A STP BLUE 3M - 1 PER CONNECTION	CAT-6A STP BLUE 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR BLUE - BLUE CONNECTORS
▽	GROUP 2 - BASKET TRAY				
	DATA 4	D4	48 PORT CAT-6A CAT-6A STP RED 3M - 1 PER CONNECTION	CAT-6A STP RED 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR RED - RED CONNECTORS
	DATA 5	D5	48 PORT CAT-6A CAT-6A STP WHITE 3M - 1 PER CONNECTION	CAT-6A STP WHITE 5M - 1 PER CONNECTION	CAT-6A SHIELDED TWISTED PAIR WHITE - BLACK CONNECTORS
▽	GROUP 3 - BASKET TRAY				
	FIBRE 1	F1	24 STRAND LC - STANDARD LC - 24 PORT - 1 PER CONNECTION	RED KEYS LC - ST 5M - 1 PER CONNECTION	OM4 FT-6 50UM MULTIMODE ZIPCORD RED JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN RED KEYS LC FEMALE CONNECTORS DESKTOP
	FIBRE 2	F2	24 STRAND LC - STANDARD LC - 24 PORT - 1 PER CONNECTION	BLUE KEYS LC - ST 5M - 1 PER CONNECTION	OM4 FT-6 50UM MULTIMODE ZIPCORD BLUE JACKET - TERMINATE WITH STANDARD LC FEMALE CONNECTORS AT RACK UNIT PATCH PANEL AND BELDEN BLUE KEYS LC FEMALE CONNECTORS DESKTOP
<b>BACKBONE OPTICAL CABLING</b>					
FIBRE 0	F0	24 STRAND LC - STANDARD LC - 24 PORT - 2 PER CONNECTION	STANDARD LC - STANDARD LC - 2 PER CONNECTION	STANDARD LC - STANDARD LC - 2 PER CONNECTION	24 STRAND OM4 FT-6 50UM VIOLET MULTIMODE ZIPCORD (NON-ARMOURD SHEATH) - TERMINATE WITH STANDARD LC CONNECTORS AT BOTH PATCH PANELS FIBRE CABLE CONDUIT PATHWAY - FROM ROOM 101 TO ROOM 124 RACK 1 - F0
SINGLE 1	S1	24 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING - 24 STRAND LC (BUILDING 405 - ROOM 1316 TO ROOM 101 TOP PATCH PANEL)
SINGLE 1R	S1R	24 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING - 24 STRAND LC (TPOF REDUNDANT FIBRE FEED - SERVICE PROVISIONING LOCATION TRIS TO ROOM 101 PATCH PANEL)
SINGLE 2	S2	24 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING - 24 STRAND LC (ETR BELL PANEL FROM BUILDING 405)
SINGLE 2A	S2A	12 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 INDOOR RATED FIBRE CABLING - 12 STRAND LC (101 PATCH PANEL TO 124 PATCH PANEL NON-ARMOURD SHEATH)
SINGLE 3	S3	24 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 OUTDOOR RATED FIBRE BACKBONE CABLING - 24 STRAND LC (ETR ROGERS PANEL FROM BUILDING 405)
SINGLE 3A	S3A	12 STRAND LC - LC OS2 5M	STANDARD LC - STANDARD LC - N/A	STANDARD LC - STANDARD LC - N/A	OM4 OS2 OM4 INDOOR RATED FIBRE CABLING - 12 STRAND LC (101 PATCH PANEL TO 124 PATCH PANEL NON-ARMOURD SHEATH)

NOTES:  
- CONNECT RACK UNITS TO DEDICATED UNDER RAISED FLOOR RACEWAYS FOR STRUCTURED CABLE DISTRIBUTION.  
- PROVIDE TWO (2) VERTICAL POWER STRIPS PER H-FRAME RACK. TYPICAL FOR BOTH ROOMS.

**DFS INC.**  
architecture & design  
Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB | Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com  
Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.  
**CIMA**  
Partners in excellence  
Partenaire de génie  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 869-2462  
Fax: 613 869-1970  
www.cima.ca

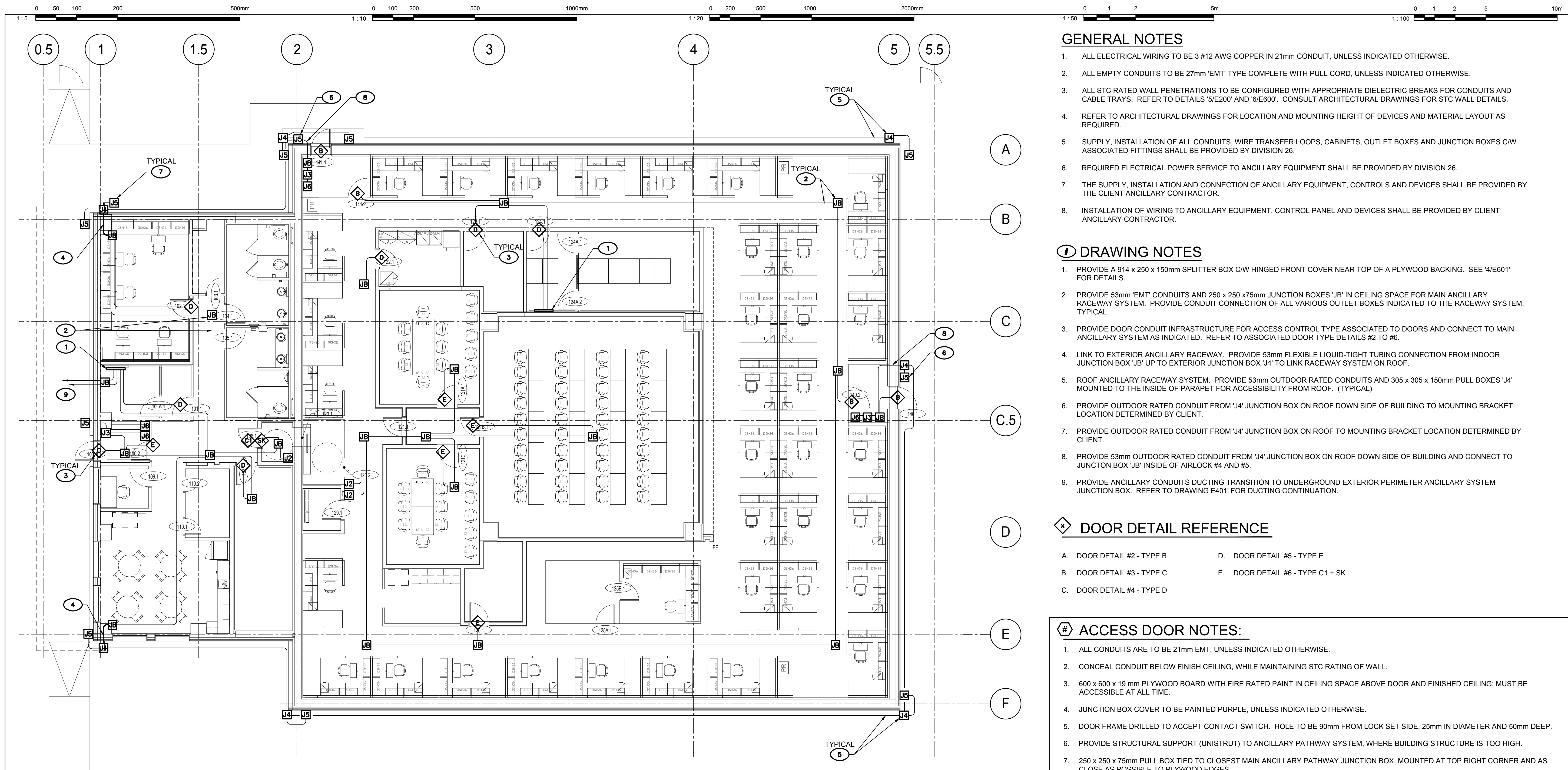
plan-repère key plan  
sceau stamp  
ISSUED FOR TENDER June 12, 2018  
no. description date  
REVISION

project project  
**BUILDING A PROJECT**

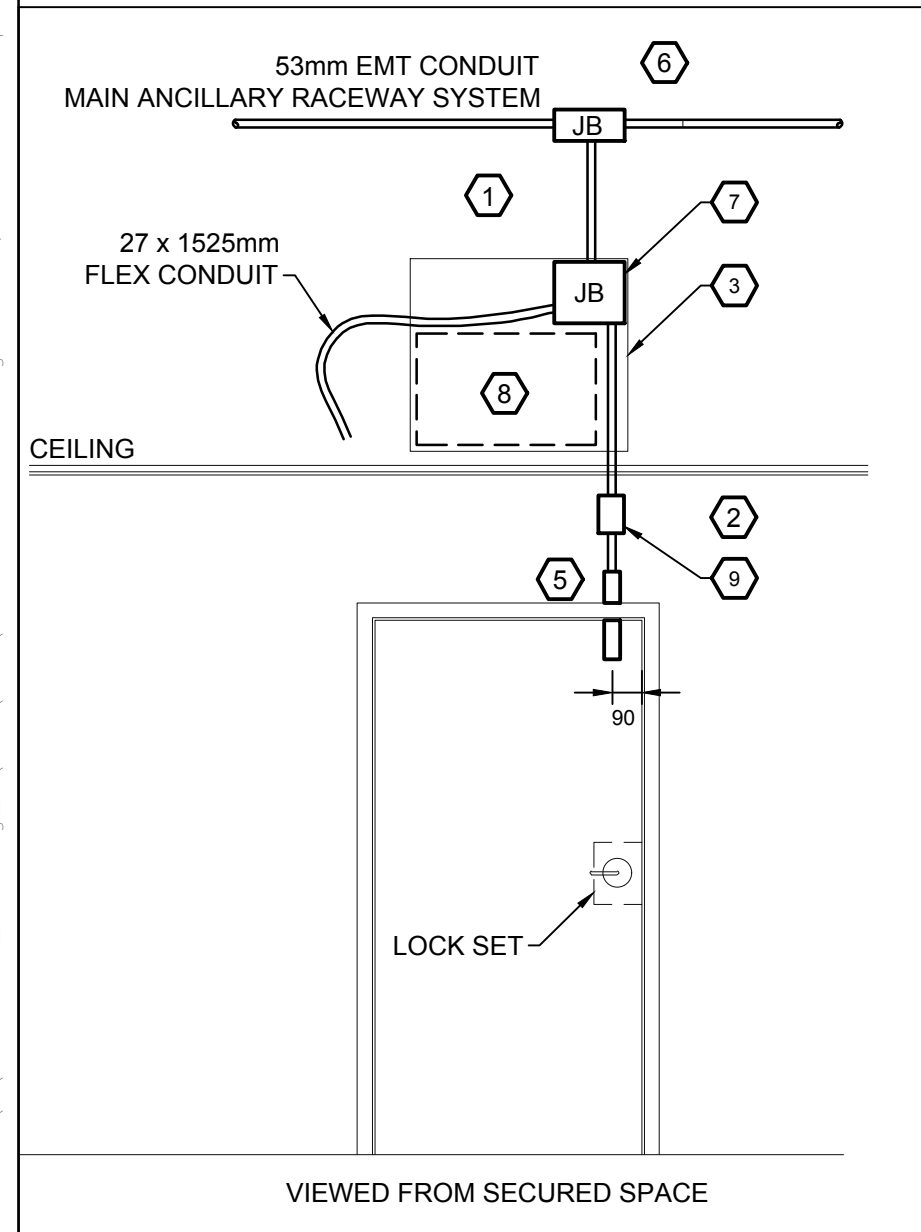
dessin drawing  
**GROUND FLOOR COMMUNICATIONS LAYOUT**  
conception conception no. dossier project no.  
S. Lavoie A000566B  
dessiné drawn fichier DAO CAD file  
Y. Farmer A000566B-E300  
approuvé approved dossier client client file  
S. Lavoie 7207528  
échelle scale imprimé plot date  
1 : 100 February 2, 2018  
no. page sheet number rev  
**E300**

Drawing name: C:\A\A000566B\_Building\_A\400\450\A000566B-E300.dwg Jun 11, 2018 - 3:56pm

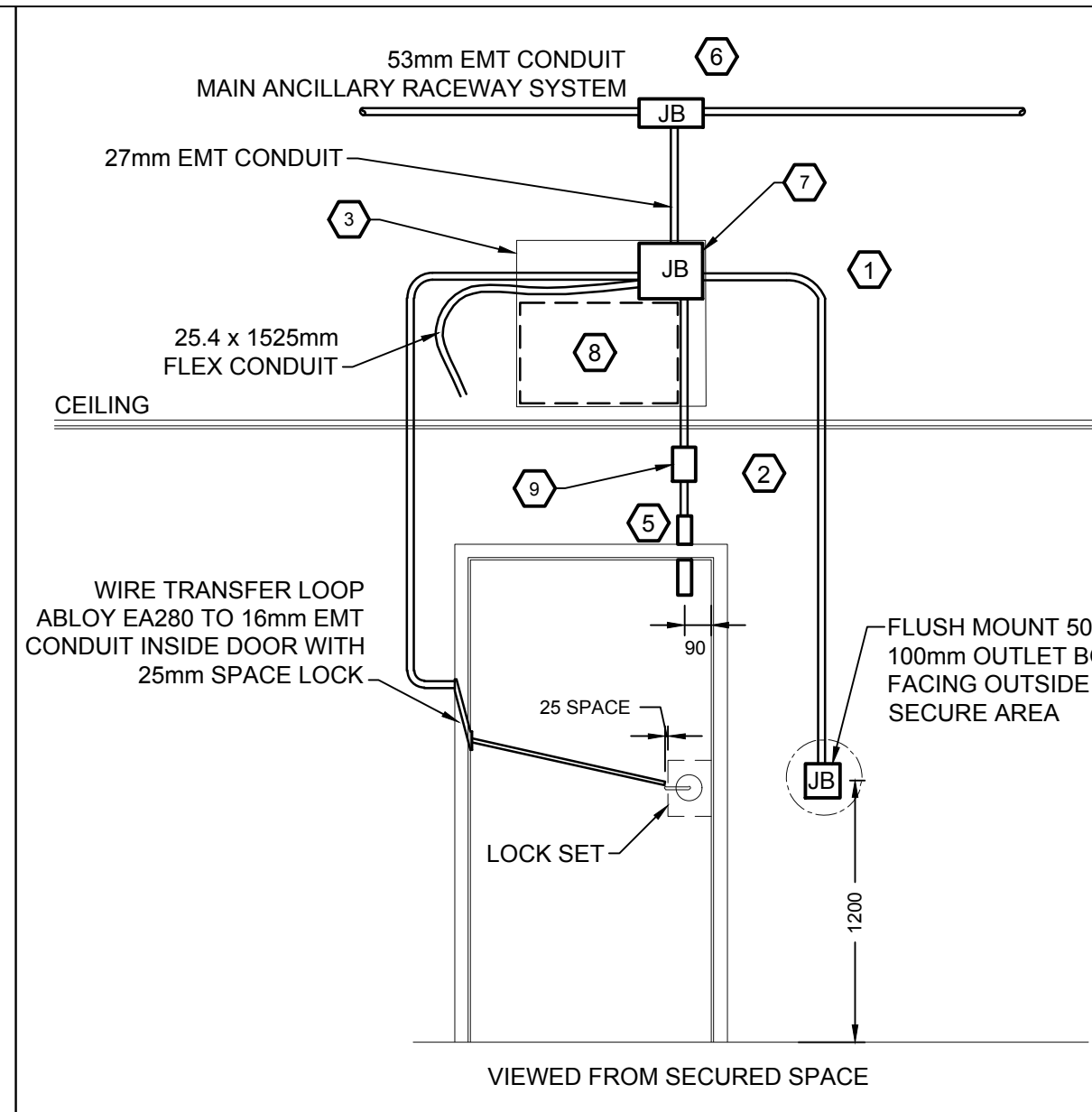




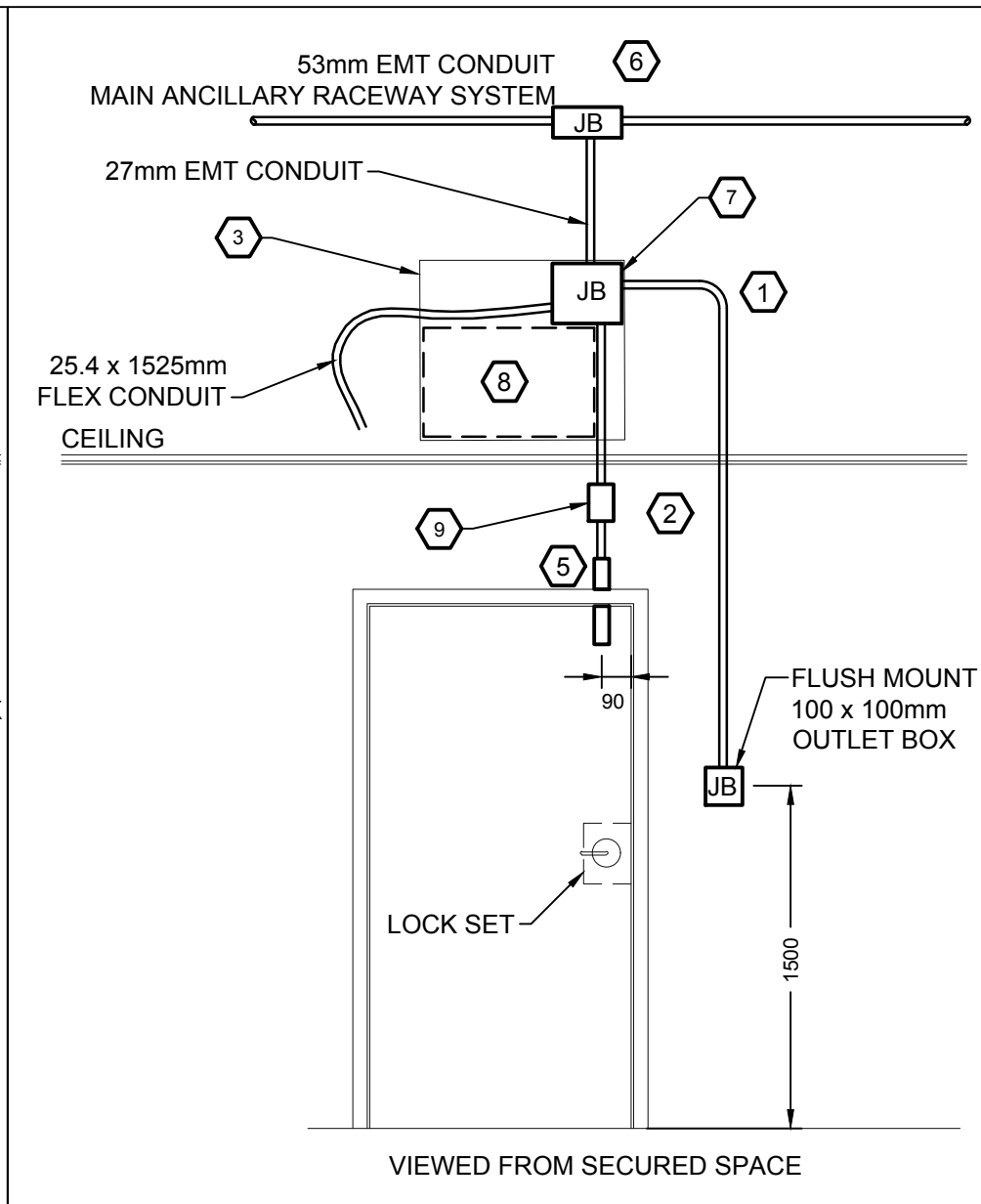
**1** ANCILLARY SYSTEM LAYOUT  
SCALE 1:100



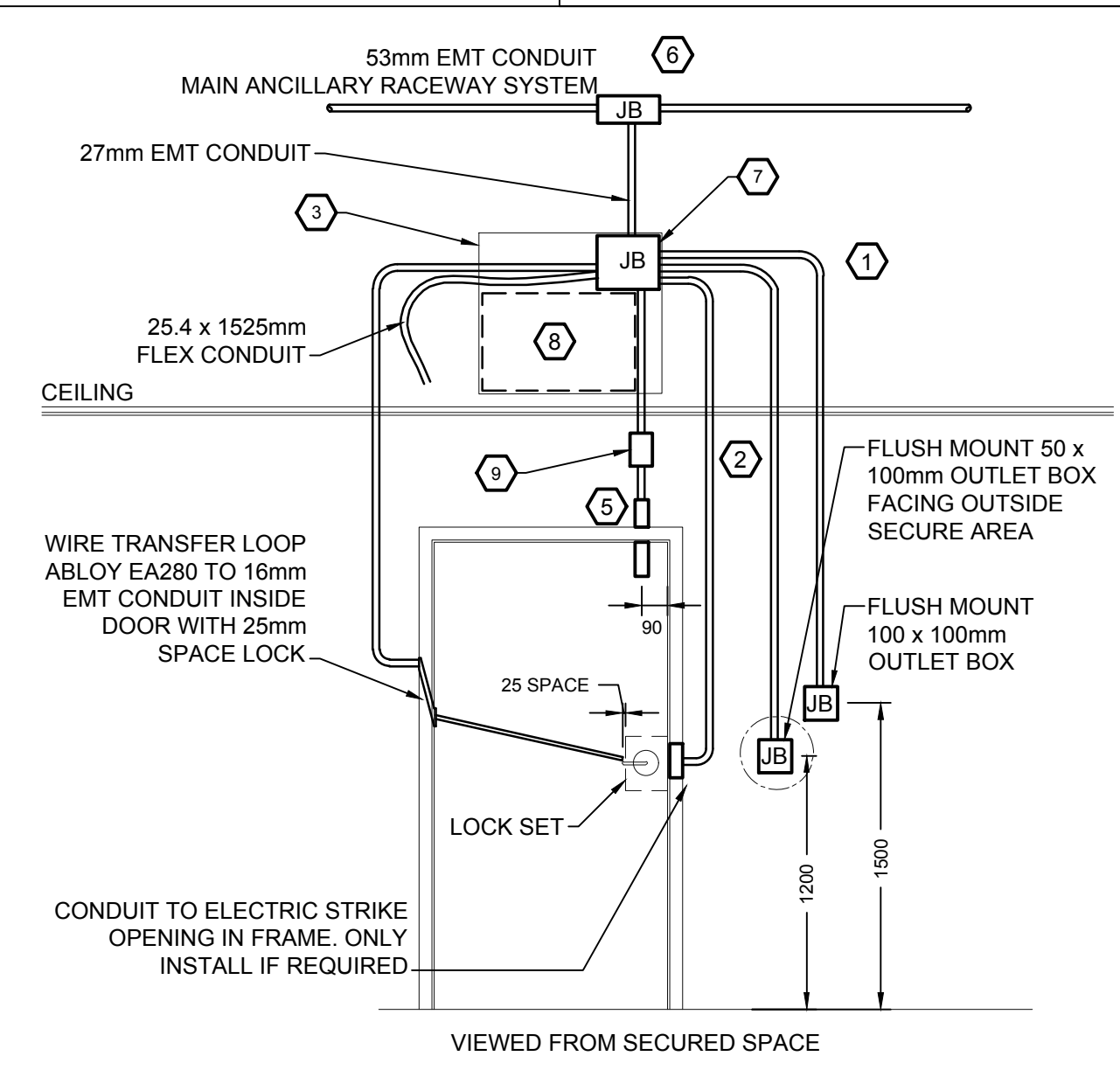
**2** ACCESS DOOR DETAIL - TYPE B  
NOT TO SCALE



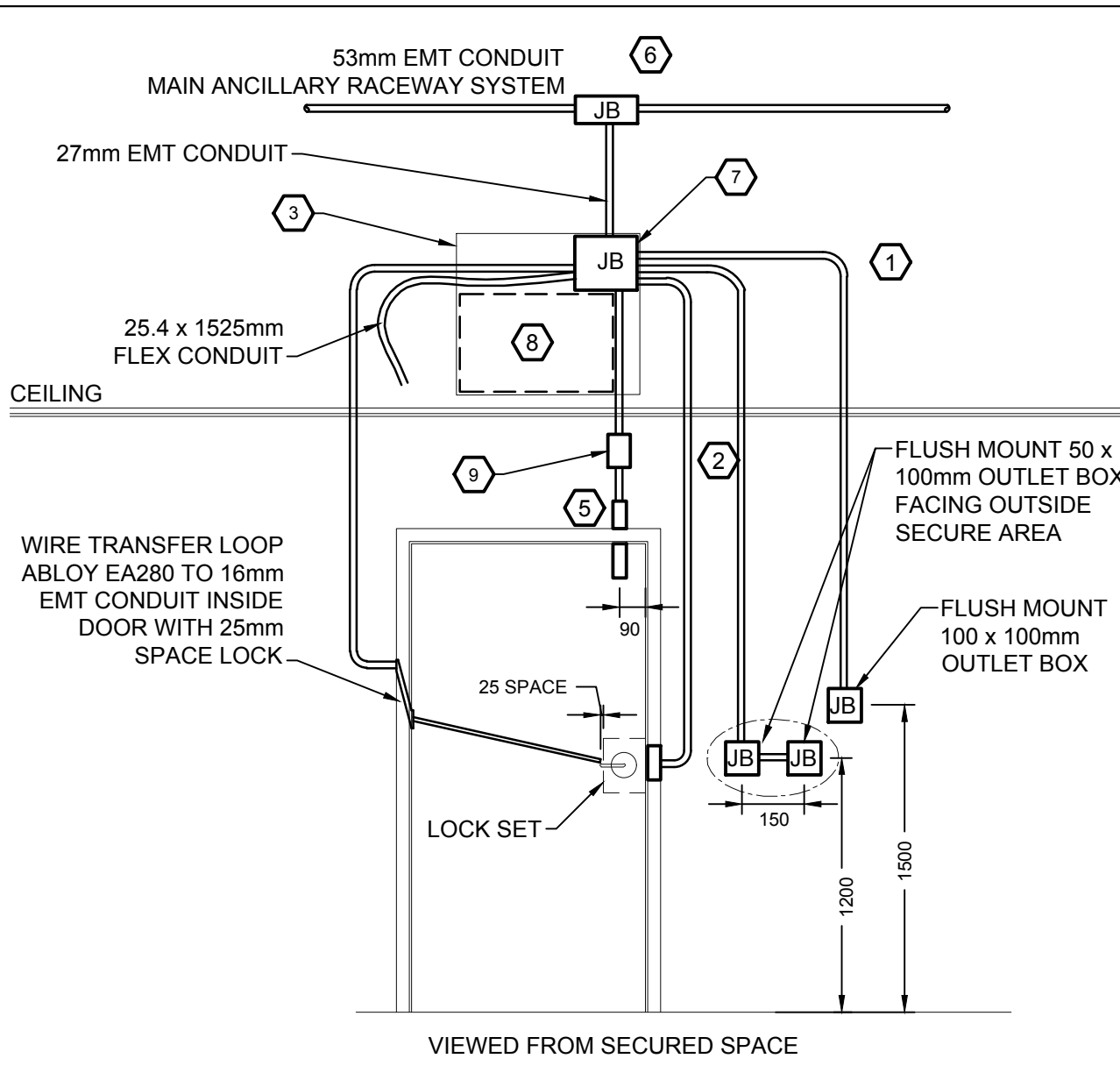
**3** ACCESS DOOR DETAIL - TYPE C  
NOT TO SCALE



**4** ACCESS DOOR DETAIL - TYPE D  
NOT TO SCALE



**5** ACCESS DOOR DETAIL - TYPE E  
NOT TO SCALE



**6** ACCESS DOOR DETAIL - TYPE C1 + SK  
NOT TO SCALE

**GENERAL NOTES**

- ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
- ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS. REFER TO DETAILS '5/E200' AND '6/E600'. CONSULT ARCHITECTURAL DRAWINGS FOR STC WALL DETAILS.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.
- SUPPLY, INSTALLATION OF ALL CONDUITS, WIRE TRANSFER LOOPS, CABINETS, OUTLET BOXES AND JUNCTION BOXES C/W ASSOCIATED FITTINGS SHALL BE PROVIDED BY DIVISION 26.
- REQUIRED ELECTRICAL POWER SERVICE TO ANCILLARY EQUIPMENT SHALL BE PROVIDED BY DIVISION 26.
- THE SUPPLY, INSTALLATION AND CONNECTION OF ANCILLARY EQUIPMENT, CONTROLS AND DEVICES SHALL BE PROVIDED BY THE CLIENT ANCILLARY CONTRACTOR.
- INSTALLATION OF WIRING TO ANCILLARY EQUIPMENT, CONTROL PANEL AND DEVICES SHALL BE PROVIDED BY CLIENT ANCILLARY CONTRACTOR.

**DRAWING NOTES**

- PROVIDE A 914 x 250 x 150mm SPLITTER BOX C/W HINGED FRONT COVER NEAR TOP OF A PLYWOOD BACKING. SEE '4/E601' FOR DETAILS.
- PROVIDE 53mm 'EMT' CONDUITS AND 250 x 250 x 75mm JUNCTION BOXES 'JB' IN CEILING SPACE FOR MAIN ANCILLARY RACEWAY SYSTEM. PROVIDE CONDUIT CONNECTION OF ALL VARIOUS OUTLET BOXES INDICATED TO THE RACEWAY SYSTEM. TYPICAL.
- PROVIDE DOOR CONDUIT INFRASTRUCTURE FOR ACCESS CONTROL TYPE ASSOCIATED TO DOORS AND CONNECT TO MAIN ANCILLARY SYSTEM AS INDICATED. REFER TO ASSOCIATED DOOR TYPE DETAILS #2 TO #6.
- LINK TO EXTERIOR ANCILLARY RACEWAY. PROVIDE 53mm FLEXIBLE LIQUID-TIGHT TUBING CONNECTION FROM INDOOR JUNCTION BOX 'JB' UP TO EXTERIOR JUNCTION BOX 'J4' TO LINK RACEWAY SYSTEM ON ROOF.
- ROOF ANCILLARY RACEWAY SYSTEM. PROVIDE 53mm OUTDOOR RATED CONDUITS AND 305 x 305 x 150mm PULL BOXES 'J4' MOUNTED TO THE INSIDE OF PARAPET FOR ACCESSIBILITY FROM ROOF. (TYPICAL)
- PROVIDE OUTDOOR RATED CONDUIT FROM 'J4' JUNCTION BOX ON ROOF DOWN SIDE OF BUILDING TO MOUNTING BRACKET LOCATION DETERMINED BY CLIENT.
- PROVIDE OUTDOOR RATED CONDUIT FROM 'J4' JUNCTION BOX ON ROOF TO MOUNTING BRACKET LOCATION DETERMINED BY CLIENT.
- PROVIDE 53mm OUTDOOR RATED CONDUIT FROM 'J4' JUNCTION BOX ON ROOF DOWN SIDE OF BUILDING AND CONNECT TO JUNCTION BOX 'JB' INSIDE OF AIRLOCK #4 AND #5.
- PROVIDE ANCILLARY CONDUITS DUCTING TRANSITION TO UNDERGROUND EXTERIOR PERIMETER ANCILLARY SYSTEM JUNCTION BOX. REFER TO DRAWING E401 FOR DUCTING CONTINUATION.

**DOOR DETAIL REFERENCE**

- A. DOOR DETAIL #2 - TYPE B
- B. DOOR DETAIL #3 - TYPE C
- C. DOOR DETAIL #4 - TYPE D
- D. DOOR DETAIL #5 - TYPE E
- E. DOOR DETAIL #6 - TYPE C1 + SK

**ACCESS DOOR NOTES:**

- ALL CONDUITS ARE TO BE 21mm EMT, UNLESS INDICATED OTHERWISE.
- CONCEAL CONDUIT BELOW FINISH CEILING, WHILE MAINTAINING STC RATING OF WALL.
- 600 x 600 x 19 mm PLYWOOD BOARD WITH FIRE RATED PAINT IN CEILING SPACE ABOVE DOOR AND FINISHED CEILING; MUST BE ACCESSIBLE AT ALL TIME.
- JUNCTION BOX COVER TO BE PAINTED PURPLE, UNLESS INDICATED OTHERWISE.
- DOOR FRAME DRILLED TO ACCEPT CONTACT SWITCH. HOLE TO BE 90mm FROM LOCK SET SIDE, 25mm IN DIAMETER AND 50mm DEEP.
- PROVIDE STRUCTURAL SUPPORT (UNISTRUT) TO ANCILLARY PATHWAY SYSTEM, WHERE BUILDING STRUCTURE IS TOO HIGH.
- 250 x 250 x 75mm PULL BOX TIED TO CLOSEST MAIN ANCILLARY PATHWAY JUNCTION BOX, MOUNTED AT TOP RIGHT CORNER AND AS CLOSE AS POSSIBLE TO PLYWOOD EDGES.
- RESERVED SPACE AREA ON PLYWOOD. DO NOT BLOCK OR CROSS CONDUITS THROUGH THIS SPACE.
- FLUSH MOUNT 50 x 100mm OUTLET BOX 150mm BELOW FINISH CEILING.

**DFS INC.**  
architecture & design

Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB | Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD

**CIMA**  
Partners in excellence  
Partenaire de génie

110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 860-2462  
Fax: 613 860-1970  
www.cima.ca

plan-référence	key plan	
scale	stamp	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
REVISION		

project

**BUILDING A PROJECT**

dessin

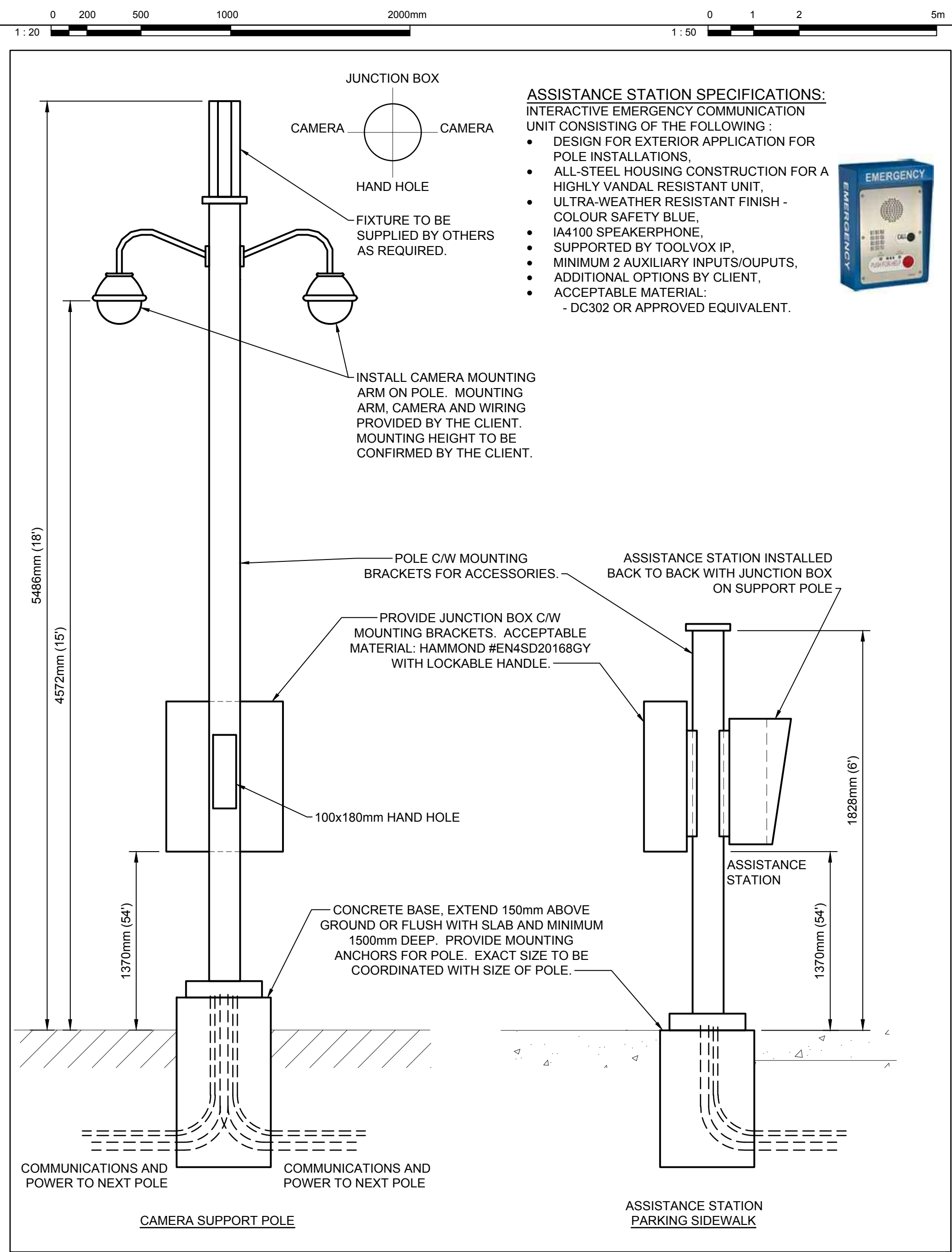
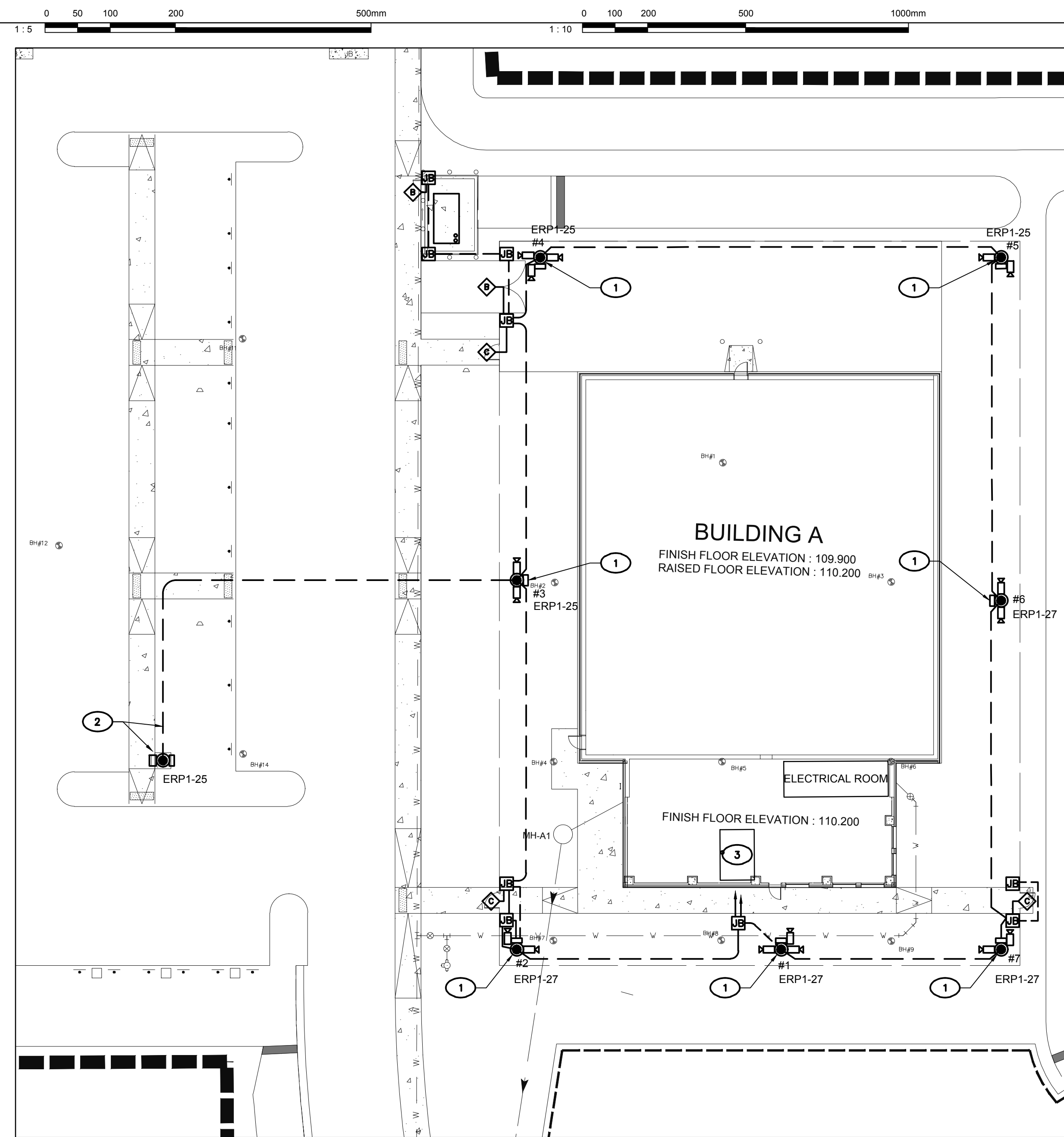
**GROUND FLOOR ANCILLARY SYSTEMS**

conception	conception	no. dossier	project no.
E. Allain	drawn	A000566B	
dessiné	drawn	DA00	CAD file
E. Allain	approved	dossier client	client file
S. Lavoie	approved	7207528	
échelle	scale	imprimé	plot date
As Noted		February 2, 2018	
no. page	sheet number	rev	

**E400**

Drawing name: C:\A\A000566B\_Bldg\_A\400\450\A000566B-E400.dwg Jun 11, 2018 - 3:56pm





**GENERAL NOTES**

1. ALL ELECTRICAL WIRING TO BE #3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
2. ALL EMPTY CONDUITS TO BE 78mm OUTDOOR RATED TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
3. REFER TO CIVIL AND ARCHITECTURAL DRAWINGS FOR LOCATION OF ELECTRICAL DEVICE/EQUIPMENT AS REQUIRED.
4. CONDUITS, JUNCTION BOXES, PULL BOXES AND 120V AC POWER WILL BE PART OF DIVISION 26. EXTERIOR RATED.
5. ALL VIDEO SYSTEM CABLEING, C/W PATCH PANEL AND DVO JACKS, SHALL BE PART OF THIS CONTRACT.
6. CENTRAL EQUIPMENT INCLUDING INTEGRATED SECURITY CONSOLE, NETWORK VIDEO RECORDING AND SWITCHING SYSTEM, VIDEO MONITORING EQUIPMENT INCLUDING CONTROLLERS, SERVERS AND WORK STATIONS WILL BE PROVIDED BY PSPC ANCILLARY CONTRACTOR.
7. FIELD EQUIPMENT CONSISTS OF FIBER MODULES, ENCODERS, POWER SUPPLIES, VIDEO CAMERAS, INCLUDING PUBLIC SAFETY VIDEO CAMERAS IN THE PARKING LOT WILL BE PROVIDED BY PSPC ANCILLARY CONTRACTOR.

**DRAWING NOTES**

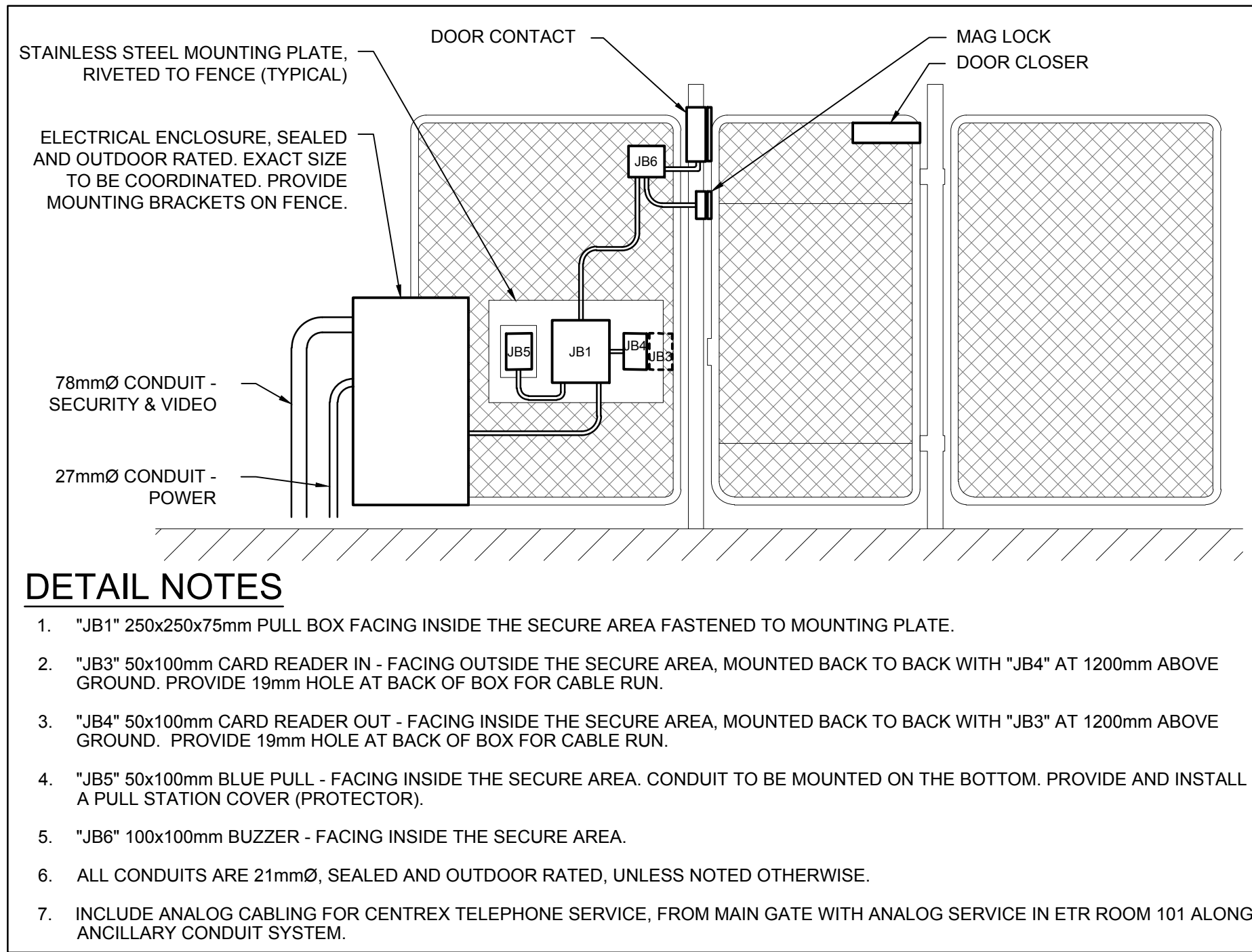
1. PROVIDE EXTERIOR ANCILLARY SUPPORT POLE C/W CONCRETE BASE. PROVIDE DUCTING SYSTEM BETWEEN POLES AS INDICATED, TYPICAL FOR ALL SEVEN (7) POLES. REFER TO DETAIL '5' FOR REQUIREMENTS.
2. PROVIDE AN INTERACTIVE EMERGENCY COMMUNICATION UNIT (ASSISTANCE STATION) C/W A 1800mm HIGH ANCILLARY SUPPORT POLE AND JUNCTION BOX ANCHORED TO CONCRETE BASE. REFER TO DETAIL 5. PROVIDE AN UNDERGROUND 15A-120V ELECTRICAL CONNECTION TO CIRCUIT 'ERP1-25' AND A 53mm PVC COMMUNICATIONS DUCT C/W TWO (2) CAT5e CABLES TO DEMARCATION ROOM 101 VIA SUPPORT POLE #2 AND #3. REFER TO DETAIL '4' FOR DUCT TRENCH.
3. DEMARCATION ROOM 101 LOCATION FOR TELECOMMUNICATIONS, ANCILLARY AND VIDEO SYSTEMS. REFER TO DRAWINGS 'E200' AND 'E400' FOR DETAILS.
4. PROVIDE AN UNDERGROUND 15A-120V ELECTRICAL CONNECTION TO EACH SUPPORT POLES JUNCTION BOX (QTY OF 7) C/W DUPLEX RECEPTACLE INSIDE JUNCTION BOX. CONNECT TO CIRCUITS ERP1-25 AND ERP1-27.

**DOOR DETAIL REFERENCE**

- A. GATE DETAIL #2 - TYPE C
- B. GATE DETAIL #3 - TYPE B

**1 SITE PLAN - ANCILLARY SYSTEMS**  
SCALE: 1:250

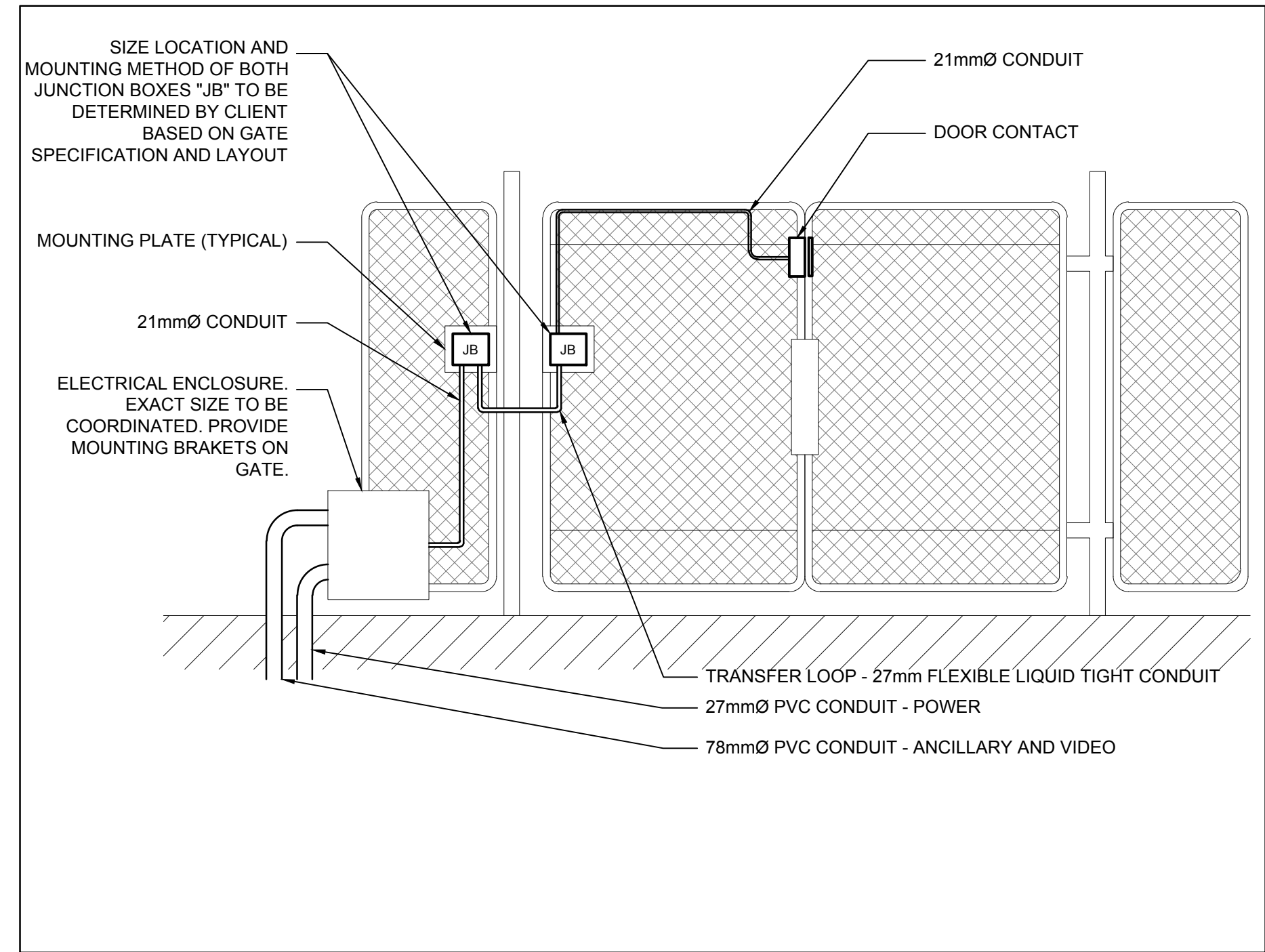
**5 TYPICAL ANCILLARY SUPPORT POLE DETAILS**  
NOT TO SCALE



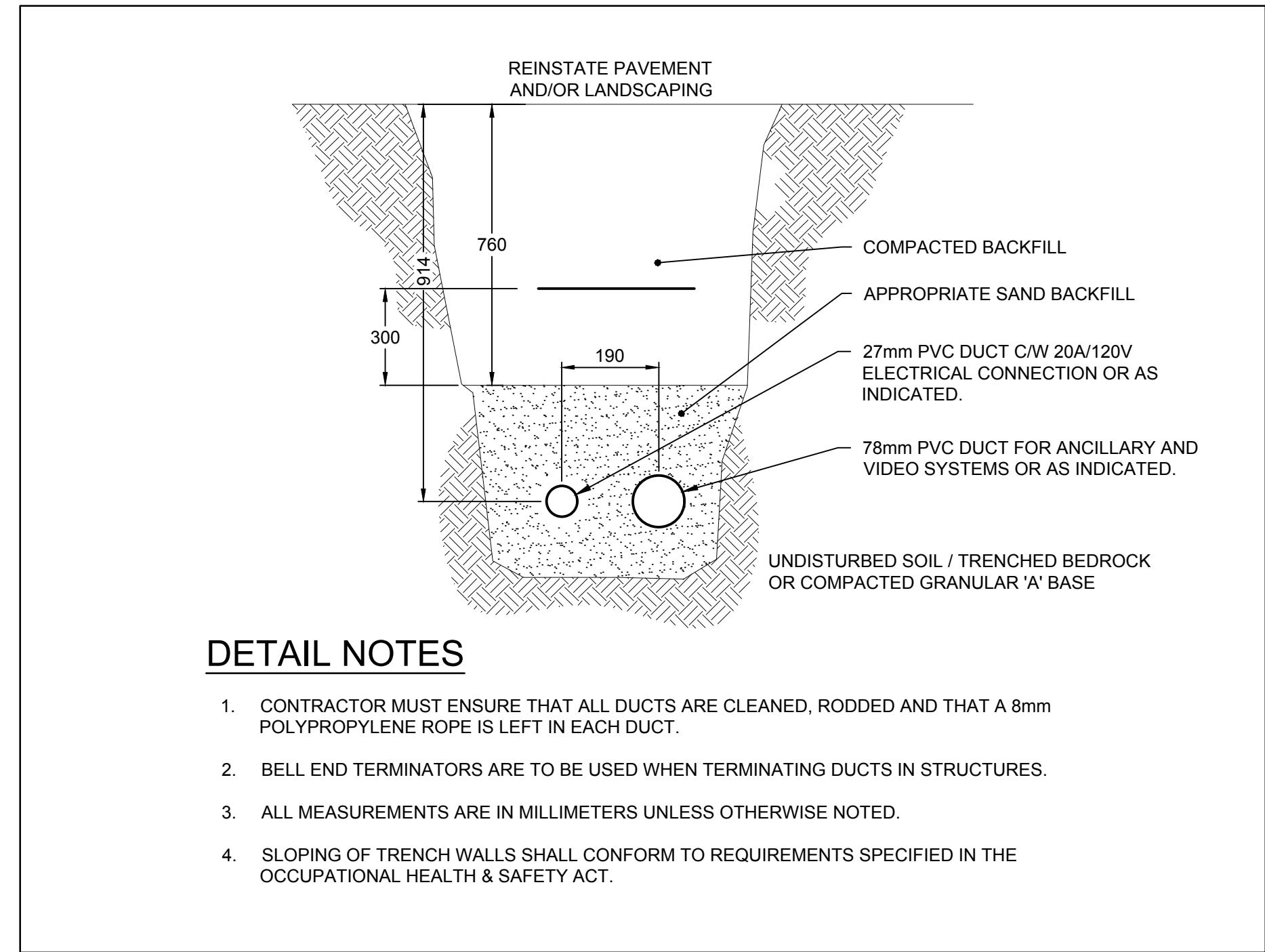
**DETAIL NOTES**

1. "JB1" 250x250x75mm PULL BOX FACING INSIDE THE SECURE AREA FASTENED TO MOUNTING PLATE.
2. "JB3" 50x100mm CARD READER IN - FACING OUTSIDE THE SECURE AREA, MOUNTED BACK TO BACK WITH "JB4" AT 1200mm ABOVE GROUND. PROVIDE 19mm HOLE AT BACK OF BOX FOR CABLE RUN.
3. "JB4" 50x100mm CARD READER OUT - FACING INSIDE THE SECURE AREA, MOUNTED BACK TO BACK WITH "JB3" AT 1200mm ABOVE GROUND. PROVIDE 19mm HOLE AT BACK OF BOX FOR CABLE RUN.
4. "JB5" 50x100mm BLUE PULL - FACING INSIDE THE SECURE AREA. CONDUIT TO BE MOUNTED ON THE BOTTOM. PROVIDE AND INSTALL A PULL STATION COVER (PROTECTOR).
5. "JB6" 100x100mm BUZZER - FACING INSIDE THE SECURE AREA.
6. ALL CONDUITS ARE 21mmØ, SEALED AND OUTDOOR RATED, UNLESS NOTED OTHERWISE.
7. INCLUDE ANALOG CABLEING FOR CENTREX TELEPHONE SERVICE. FROM MAIN GATE WITH ANALOG SERVICE IN ETR ROOM 101 ALONG ANCILLARY CONDUIT SYSTEM.

**2 DETAIL - OUTDOOR CARD IN / CARD OUT SECURITY - GATE C**  
NOT TO SCALE



**3 DETAIL - OUTDOOR VEHICULAR GATE - TYPE B**  
NOT TO SCALE



**DETAIL NOTES**

1. CONTRACTOR MUST ENSURE THAT ALL DUCTS ARE CLEANED, RODDED AND THAT A 8mm POLYPROPYLENE ROPE IS LEFT IN EACH DUCT.
2. BELL END TERMINATORS ARE TO BE USED WHEN TERMINATING DUCTS IN STRUCTURES.
3. ALL MEASUREMENTS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
4. SLOPING OF TRENCH WALLS SHALL CONFORM TO REQUIREMENTS SPECIFIED IN THE OCCUPATIONAL HEALTH & SAFETY ACT.

**4 TYPICAL ANCILLARY DUCT TRENCH DETAIL**  
NOT TO SCALE

**DFS INC.**  
architecture & design  
Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB | Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com  
Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 860-2462  
Fax: 613 860-1870  
www.cjma.ca

**CIMA**  
Partners in excellence  
Partenaire de génie  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 860-2462  
Fax: 613 860-1870  
www.cjma.ca

plan-repère	key plan	
scobau	stamo	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
REVISION		

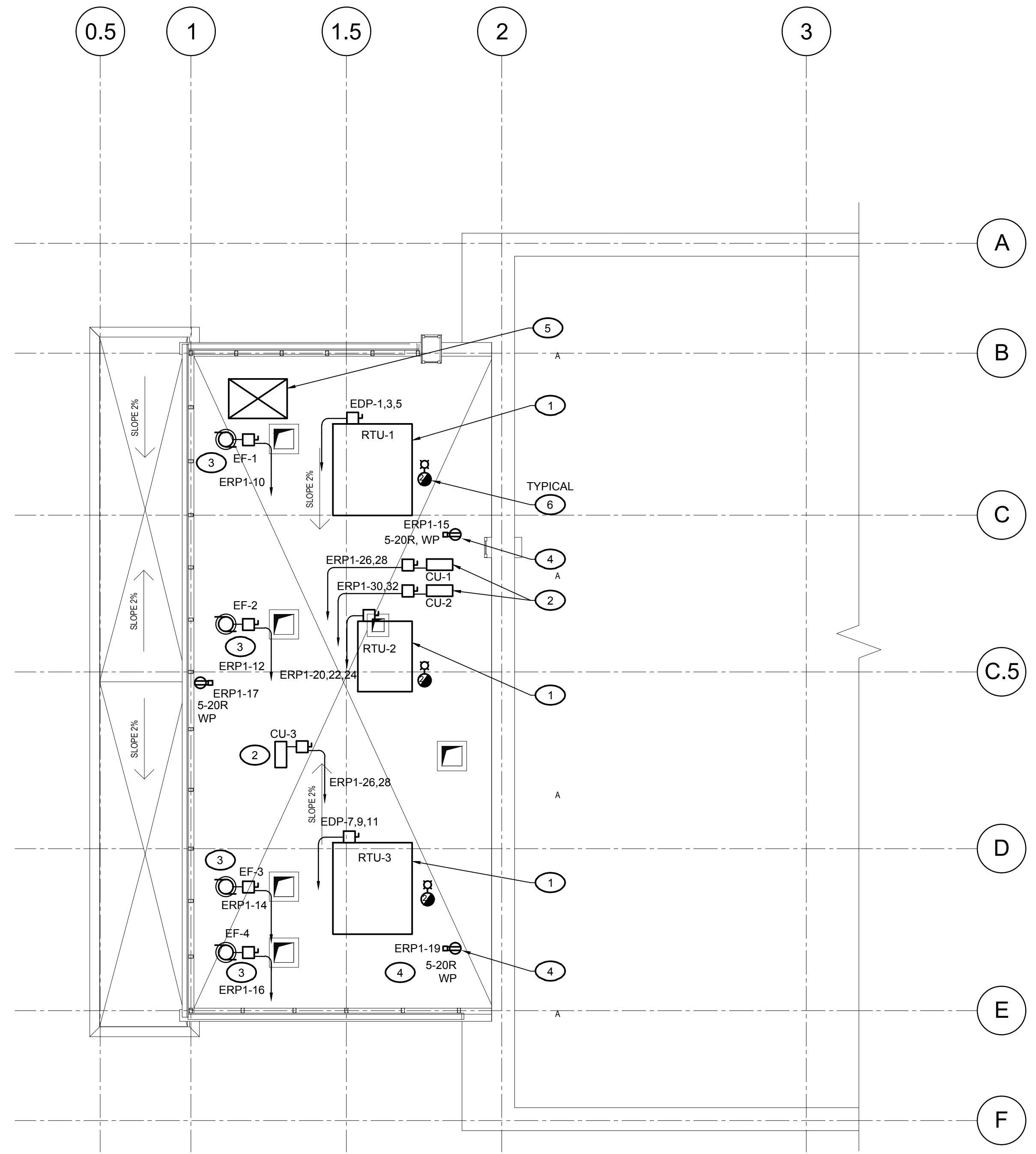
projet  
**BUILDING A PROJECT**

dessin		drawing	
<b>ANCILLARY SYSTEMS DETAILS</b>			
conception	S. Lavoie	no. dossier	A000566B
dessiné	Y. Farmer	no. fichier	DAO
approuvé	S. Lavoie	dossier client	7207528
échelle	AS NOTED	imprimé	February 2, 2018
no. page		sheet number	rev

**E401**

Drawing name: C:\A\A000566B\_B\Building\_A\400\450\A000566B-E401.dwg Jun 11, 2018 - 3:56pm





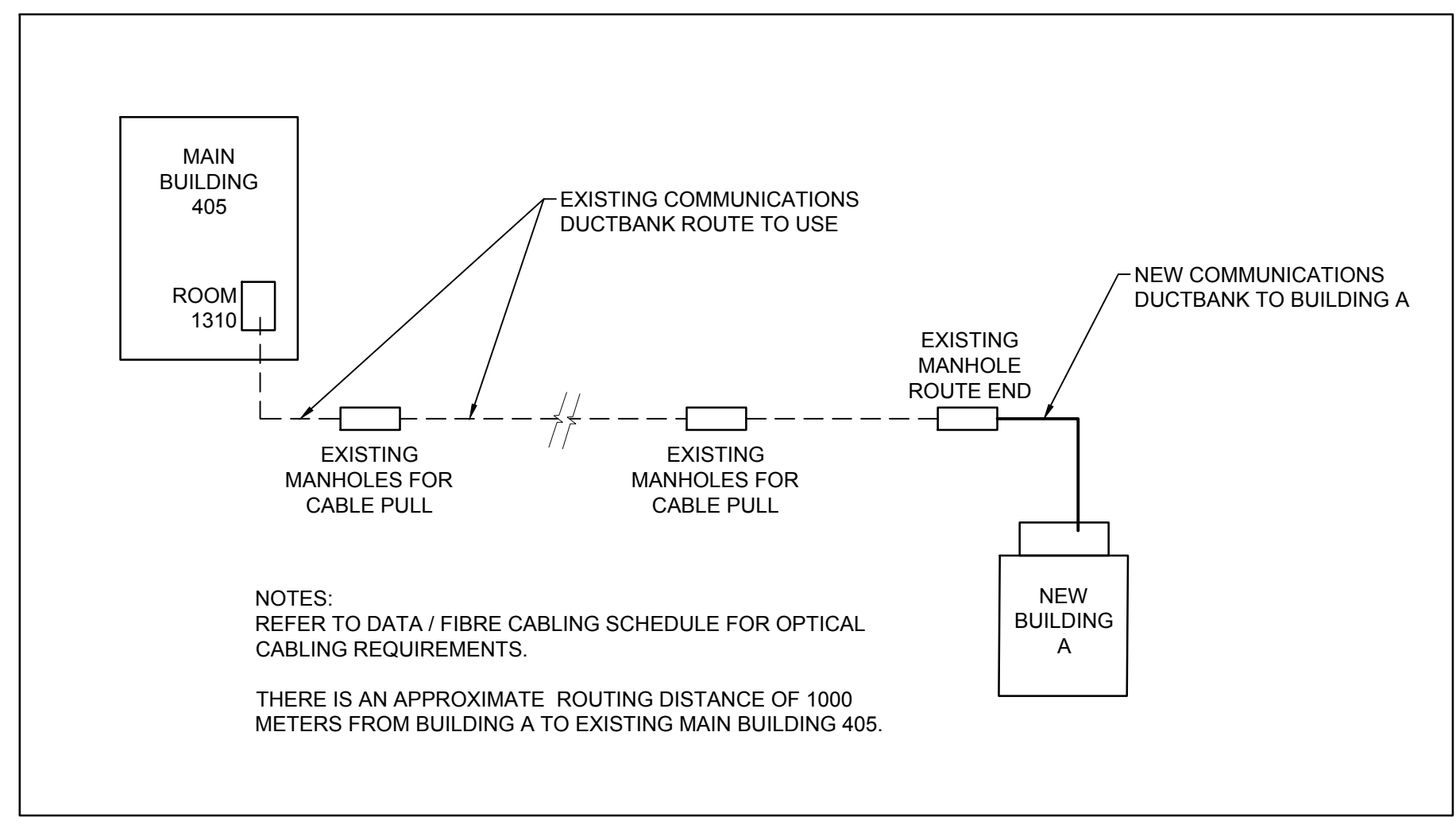
**1 PARTIAL ROOF PLAN LAYOUT**  
SCALE: 1 / 100

**GENERAL NOTES**

1. ALL ELECTRICAL WIRING TO BE 3 #12 AWG COPPER IN 21mm CONDUIT, UNLESS INDICATED OTHERWISE.
2. ALL EMPTY CONDUITS TO BE 27mm 'EMT' TYPE CONDUIT COMPLETE WITH PULL CORD, UNLESS INDICATED OTHERWISE.
3. ALL STC RATED WALL PENETRATIONS TO BE CONFIGURED WITH APPROPRIATE DIELECTRIC BREAKS FOR CONDUITS AND CABLE TRAYS, WHERE REQUIRED.
4. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT OF DEVICES AND MATERIAL LAYOUT AS REQUIRED.

**(X) DRAWING NOTES**

1. PROVIDE ELECTRICAL CONNECTION TO ROOF TOP AIR HANDLING UNIT TO CIRCUIT INDICATED.
2. PROVIDE ELECTRICAL CONNECTION TO ROOF TOP CONDENSOR UNIT TO CIRCUIT INDICATED.
3. PROVIDE ELECTRICAL CONNECTION TO ROOF TOP EXHAUST FAN UNIT TO CIRCUIT INDICATED.
4. PROVIDE WEATHERPROOF GFI TYPE UTILITY RECEPTACLE AND CONNECT TO CIRCUIT AS NOTED.
5. RADIO ANTENNA BASE LOCATION. LOCATE A MECHANICAL 'DOGHOUSE' SHAFT ON LOWER LEVEL ROOF. PROVIDE A 53mm EMT CONDUIT FROM ROOF DOGHOUSE OPENING AND DOWN TO ROOM 101 FOR ANTENNA CABLE AND IDENTIFY CONDUIT. ANTENNA, CABLE AND ACCESSORIES PROVIDED BY CLIENT.
6. PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT OF THE THREE (3) RTU UNITS AND CONNECT TO FIRE ALARM SYSTEM.



**2 BACKBONE OPTICAL ROUTING DEYPLAN**  
NOT TO SCALE

NOTES:  
REFER TO DATA / FIBRE CABLING SCHEDULE FOR OPTICAL CABLING REQUIREMENTS.  
THERE IS AN APPROXIMATE ROUTING DISTANCE OF 1000 METERS FROM BUILDING A TO EXISTING MAIN BUILDING 405.

**DFS INC.**  
architecture & design  
Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB | Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com  
Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phonerie: 613 869-2462  
Fax / téléc: 613 860-1870  
www.cjma.ca

**CIMA**  
Partners in excellence  
Partenaire de génie  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phonerie: 613 869-2462  
Fax / téléc: 613 860-1870  
www.cjma.ca

plan-repère	key plan	
scale	stamp	
1	ISSUED FOR TENDER	June 12, 2018
no.	description	date
RÉVISION		

projet  
**BUILDING A PROJECT**

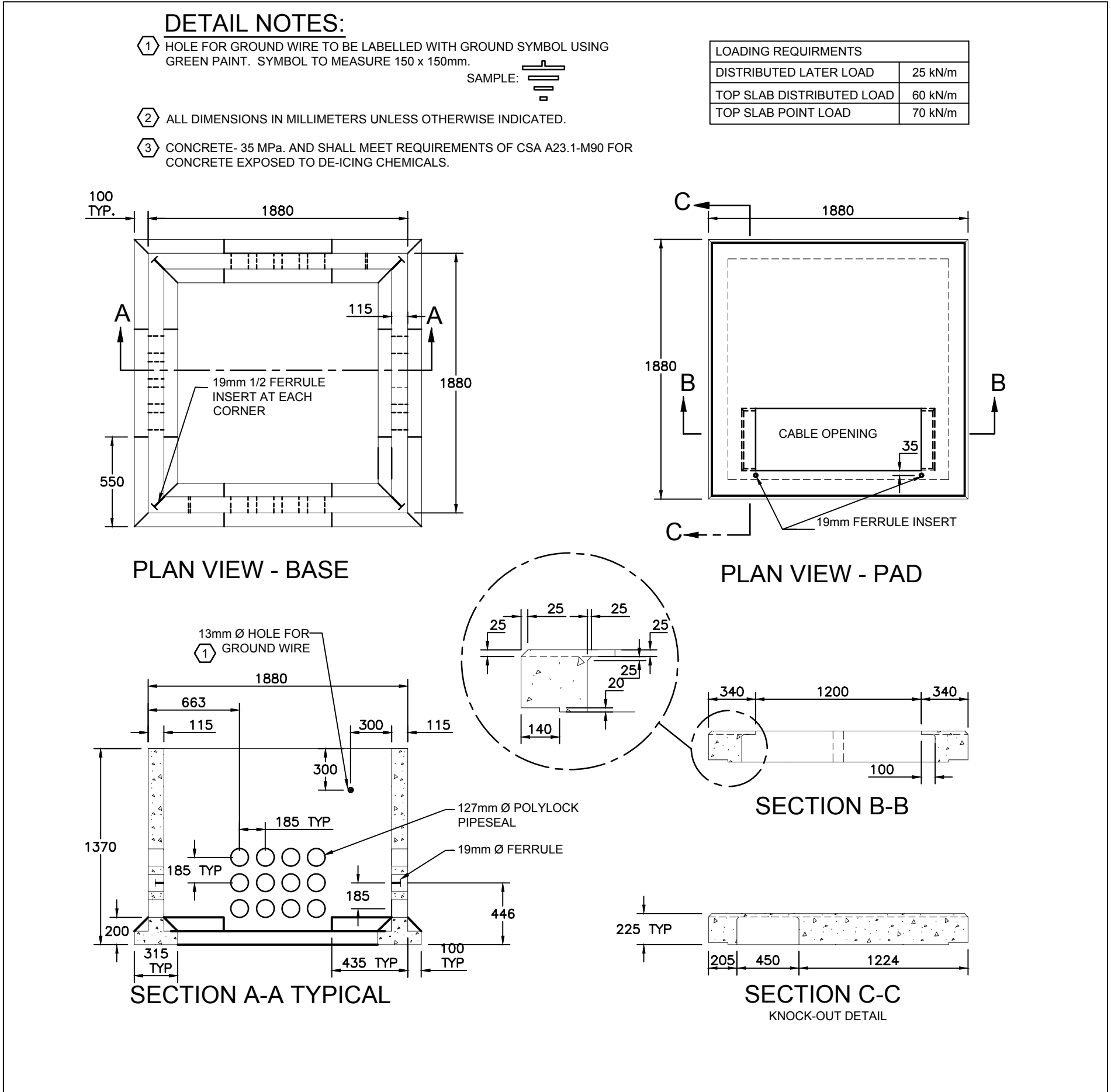
dessin  
**ROOF PLAN AND DETAIL**

conception	conception	no. dossier	project no.
S. Lavoie		A000566B	
dessiné	drawn	fichier DAO	CAD file
Y. Farmer		A000566B-E300	
approuvé	approved	dossier client	client file
S. Lavoie		7207528	
échelle	scale	imprimé	plot date
1 : 100		February 2, 2018	
no. page	sheet number	rev	

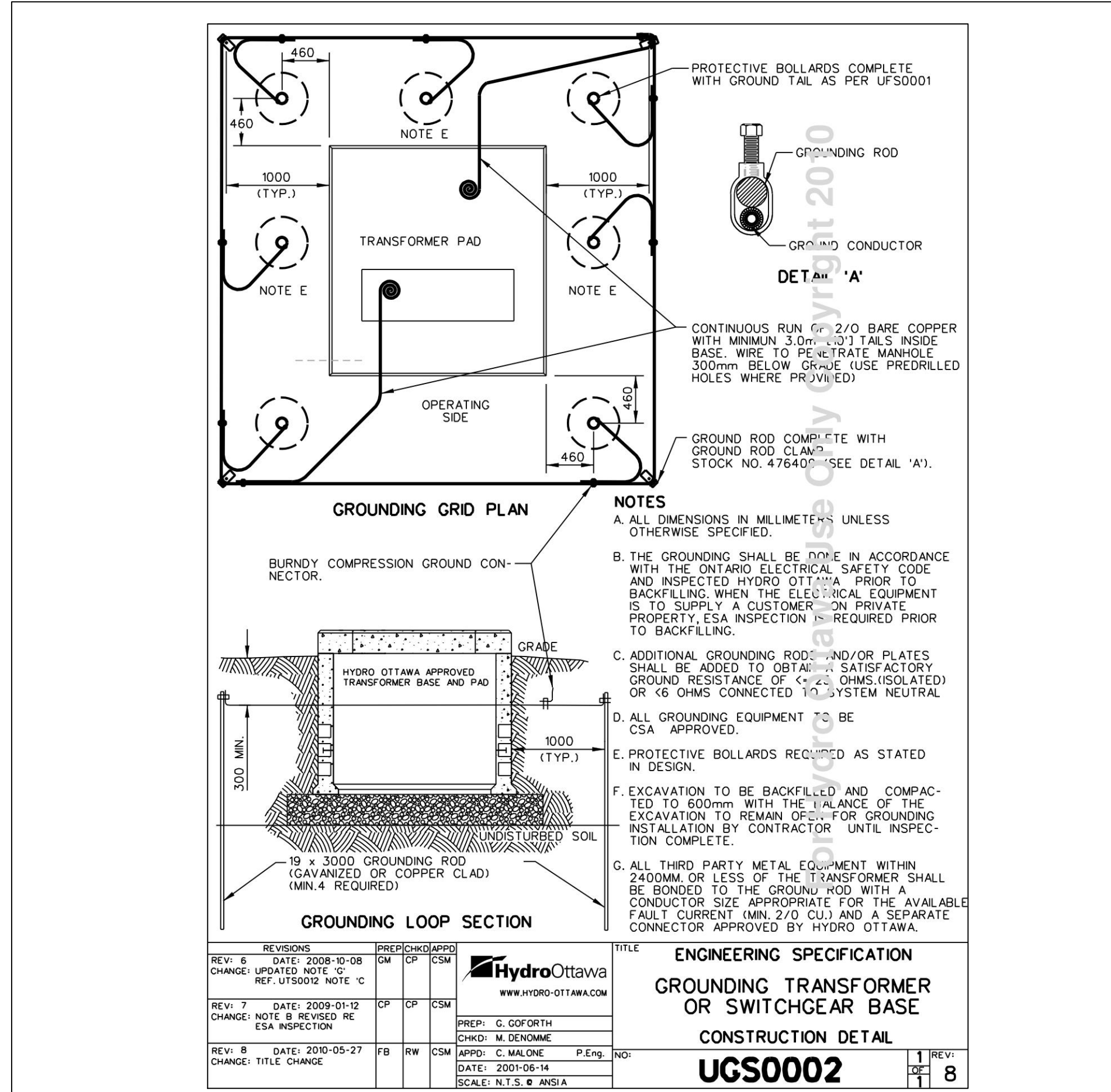
**E500**

Drawing name: C:\A\A000566B\_Building\_A\400\450\A000566B-E500.dwg Jun 11, 2018 - 3:56pm

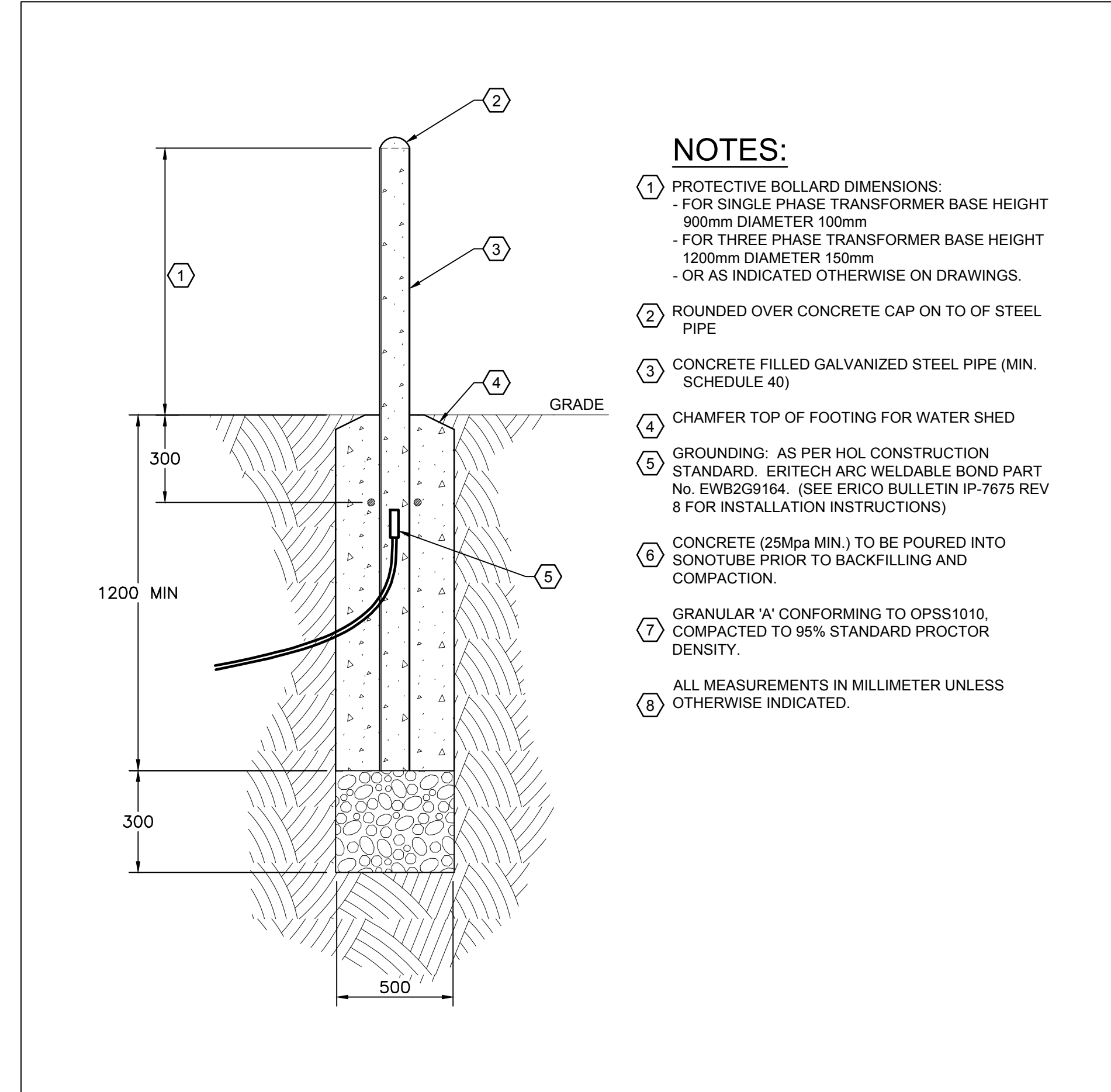




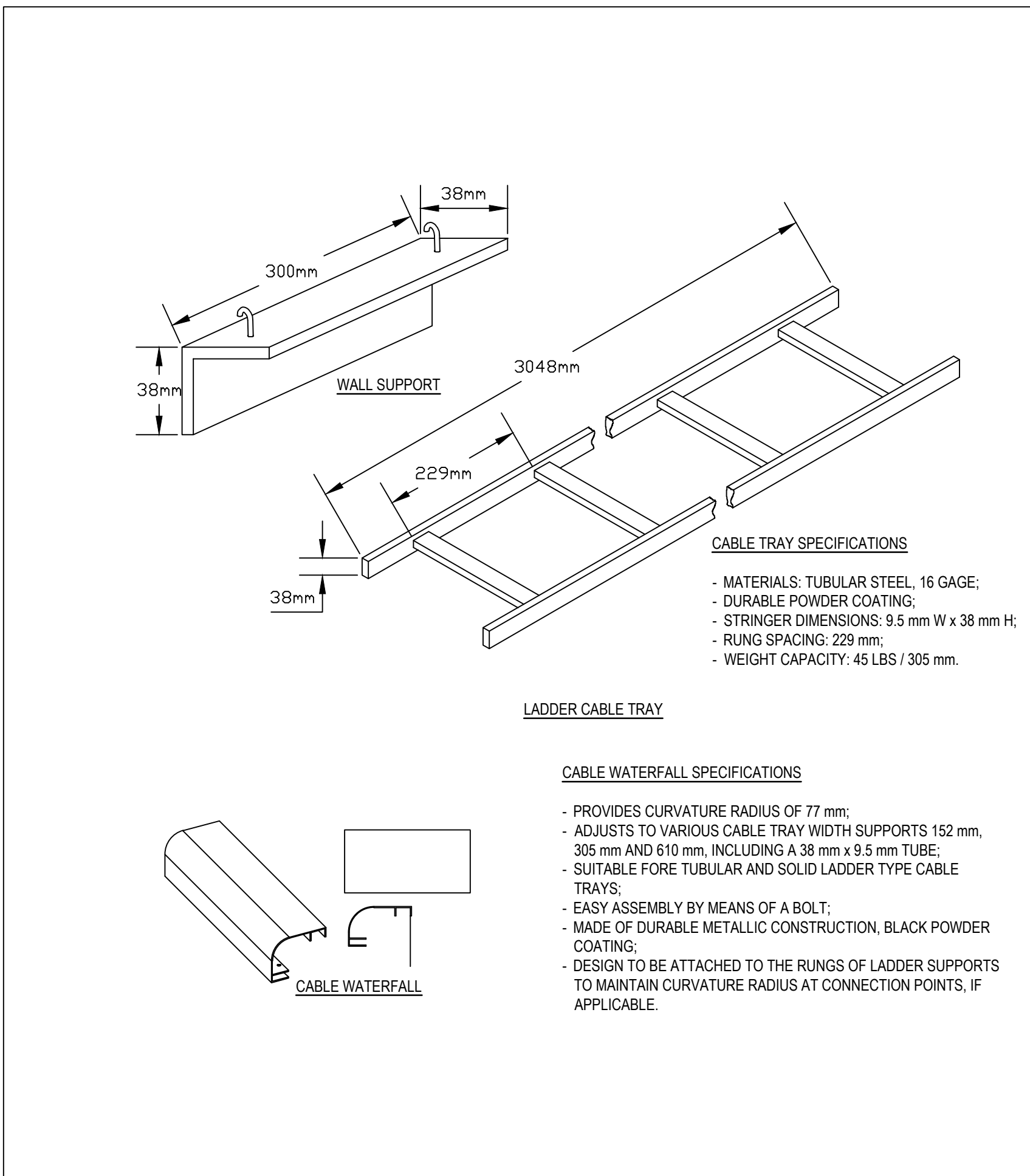
1 TYPICAL PADMOUNT TRANSFORMER BASE DETAIL  
NOT TO SCALE



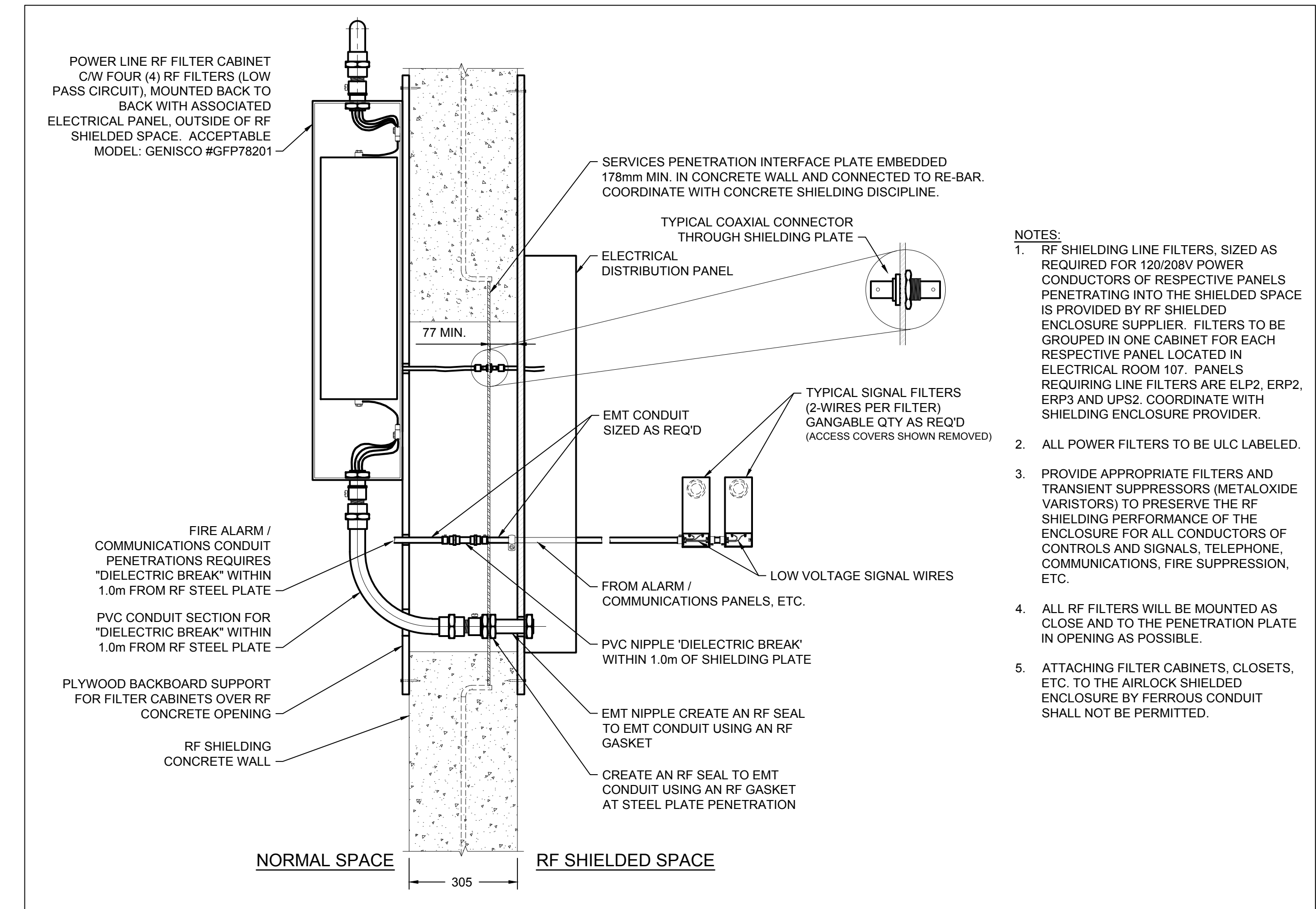
2 TRANSFORMER BASE GROUNDING - AS PER HOL STANDARD  
NOT TO SCALE (REFER TO CURRENT HYDRO OTTAWA CONSTRUCTION STANDARDS)



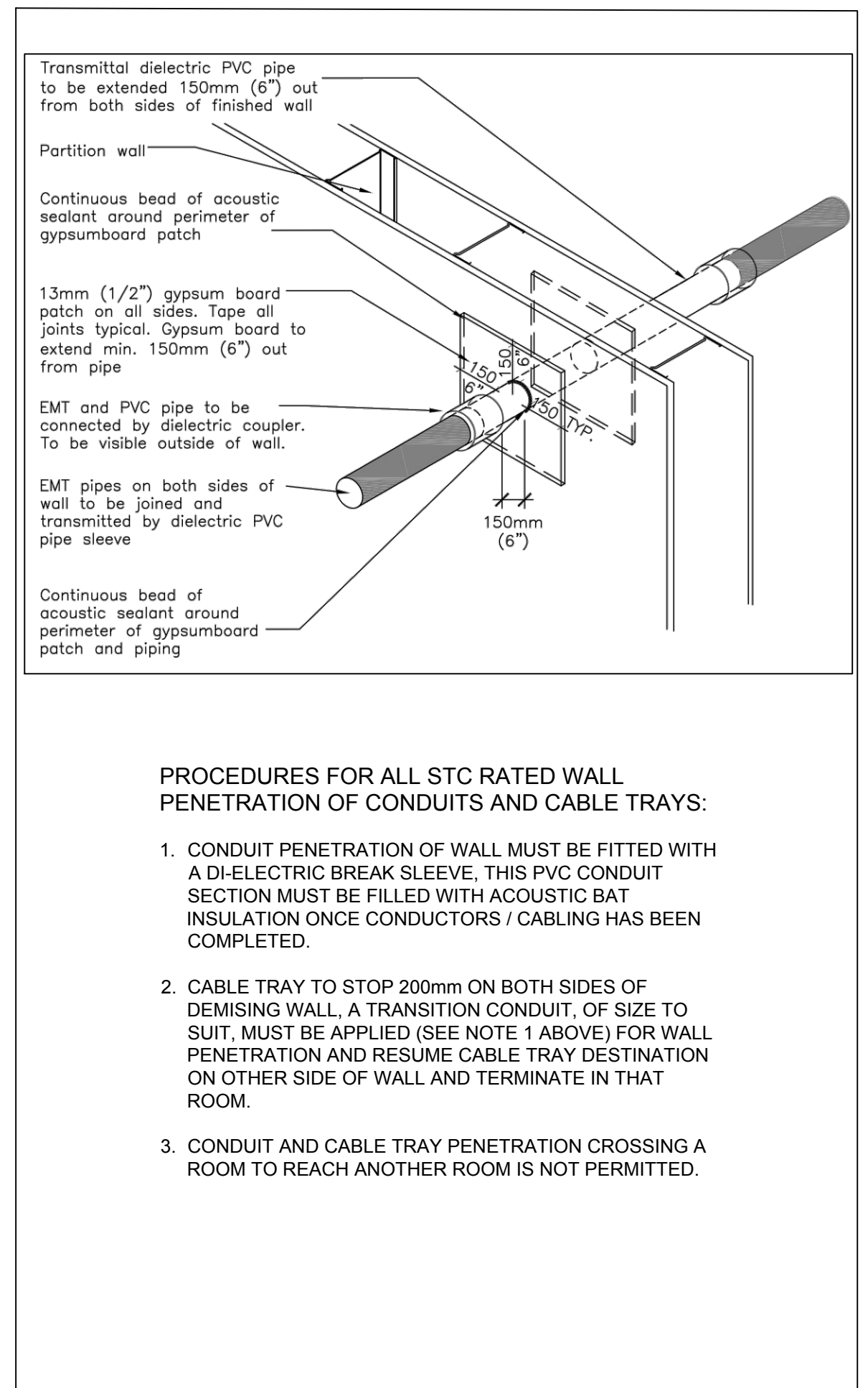
3 TYPICAL PROTECTIVE BOLLARD DETAIL  
NOT TO SCALE



4 TYPICAL LADDER TYPE CABLE TRAY  
NOT TO SCALE



5 TYPICAL POWER/SIGNAL FILTER AND GROUNDING CONNECTION TO RF SPACE DETAIL  
NOT TO SCALE



6 TYPICAL WALL PENETRATION DI-ELECTRIC DETAIL  
NOT TO SCALE

**DFS architecture & design INC.**

Montréal, QC 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE ENGINEERING LTD.**

**CIMA**  
Partners in excellence  
Partenaire de génie

110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone/tél: 613 869-2462  
Fax/télé: 613 860-1870  
www.cima.ca

plan-repère key plan  
sceau stamp

**LICENCED PROFESSIONAL ENGINEER**  
**G. TREMBLAY**  
10017215  
PROVINCE OF ONTARIO

no.	description	date
1	ISSUED FOR TENDER	June 12, 2018

REVISION

project project

**BUILDING A PROJECT**

dessin drawing

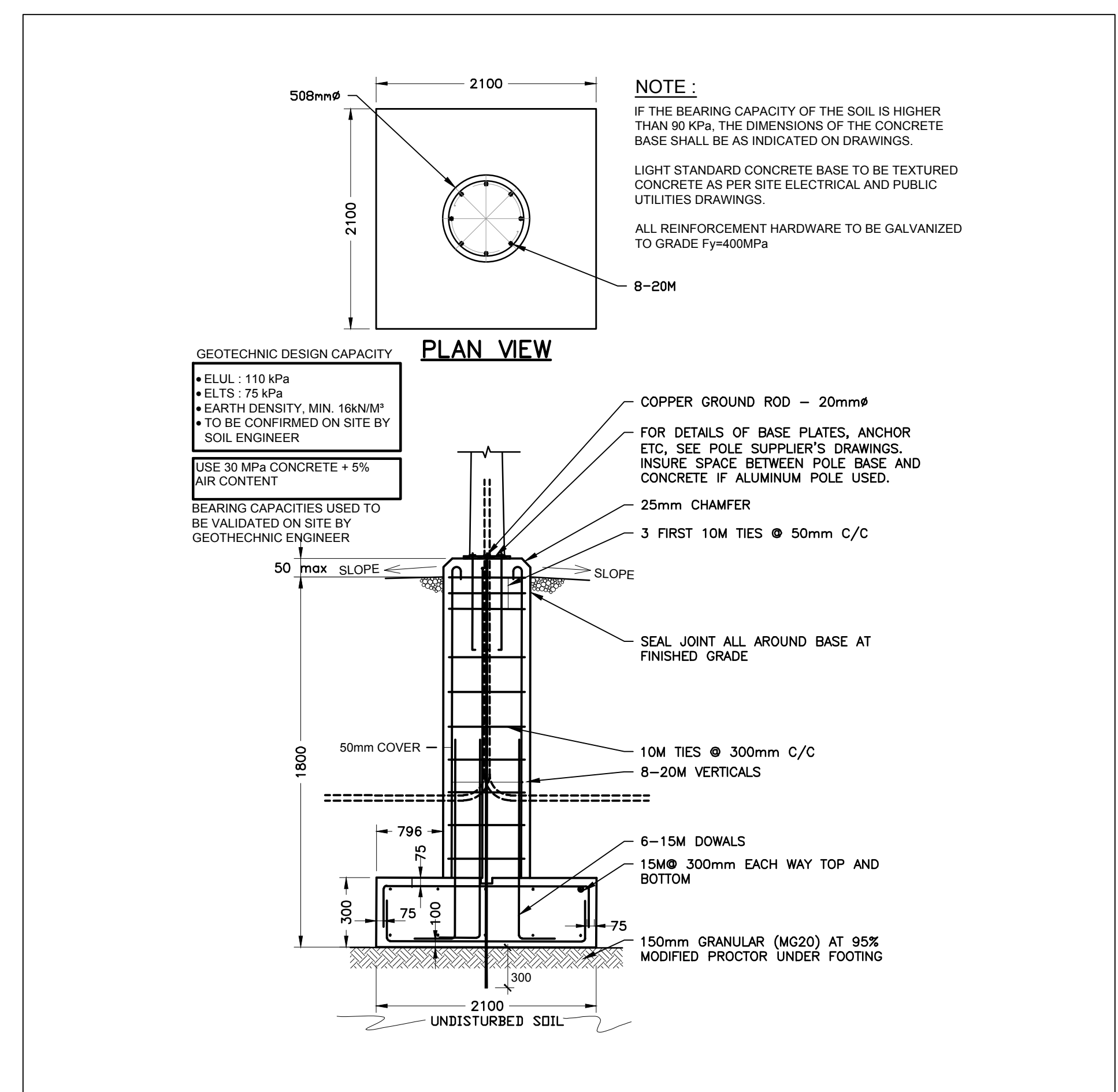
**MISCELLANEOUS DETAILS**

conception	conception	no. dossier	project no.
S. Lavoie		A000566B	
dessiné	drawn	feuille DAO	CAD file
Y. Farmer		A000566B-E600	
approuvé	approved	dossier client	client file
S. Lavoie		7207528	
échelle	scale	imprimé	plot date
AS NOTED		February 2, 2018	
no. page	sheet number	rev	

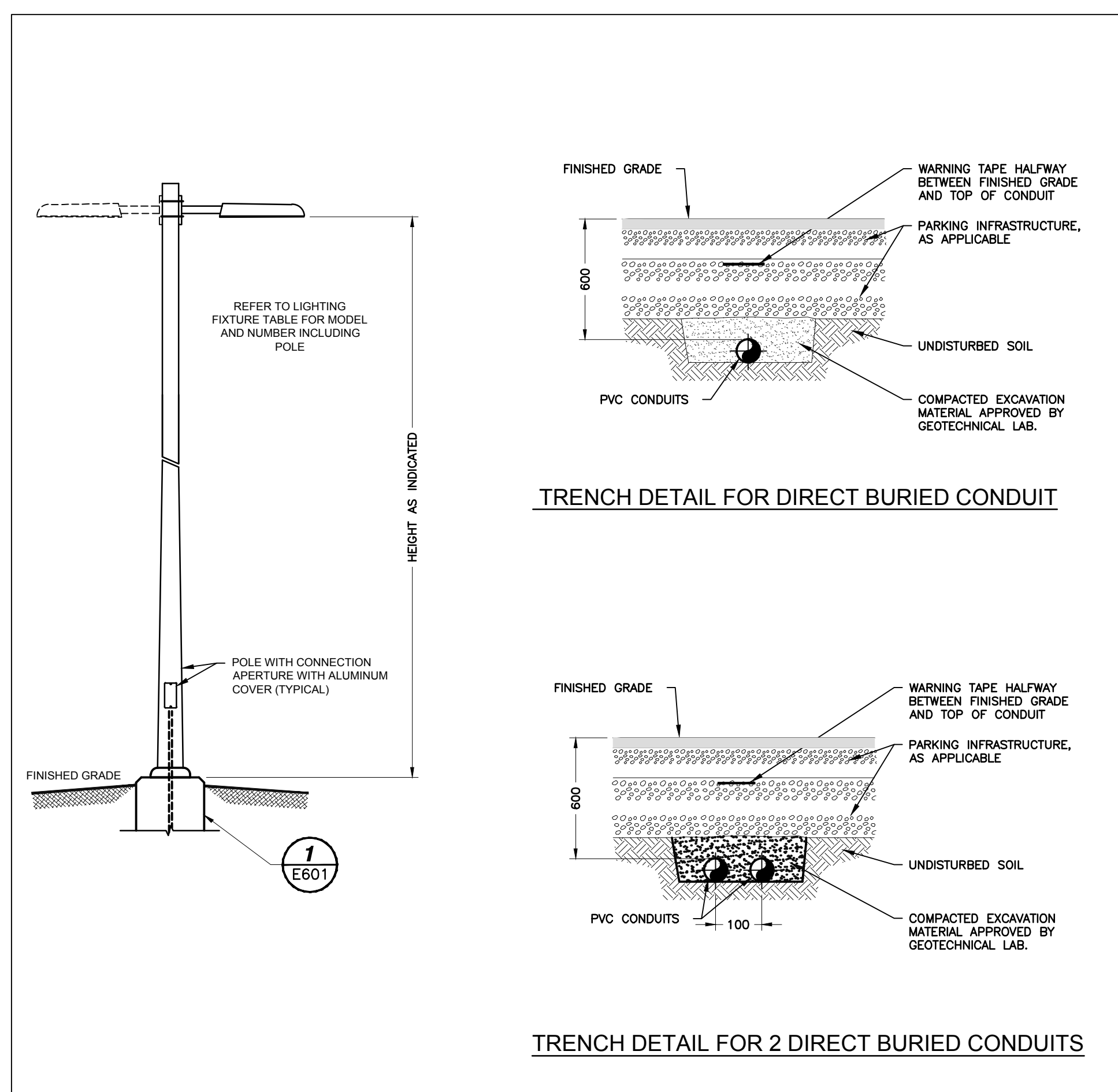
**E600**

Drawing name: C:\A\A000566B\_Building\_A\400\450\A000566B-E600.dwg Jun 11, 2018 - 3:56pm

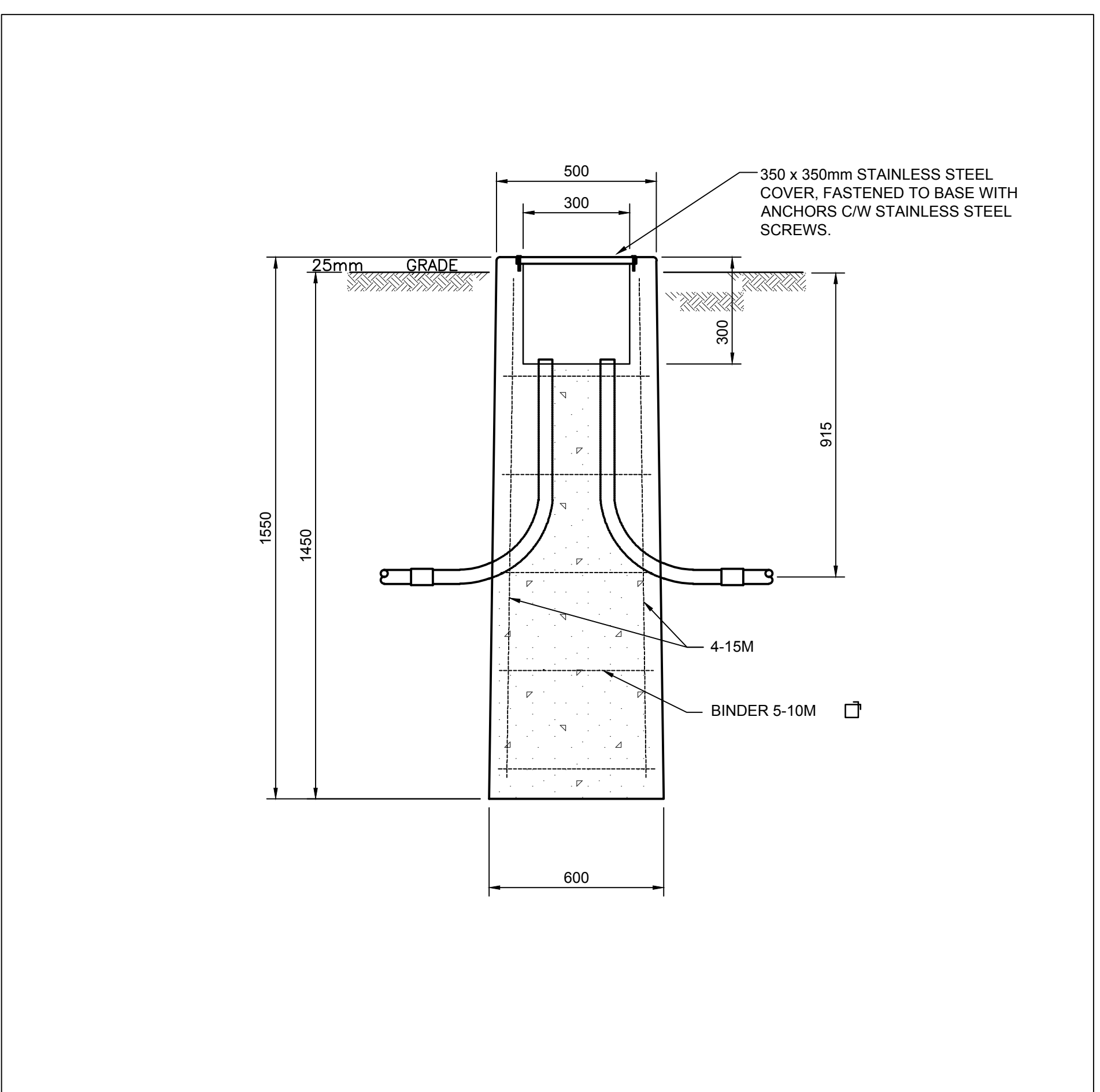




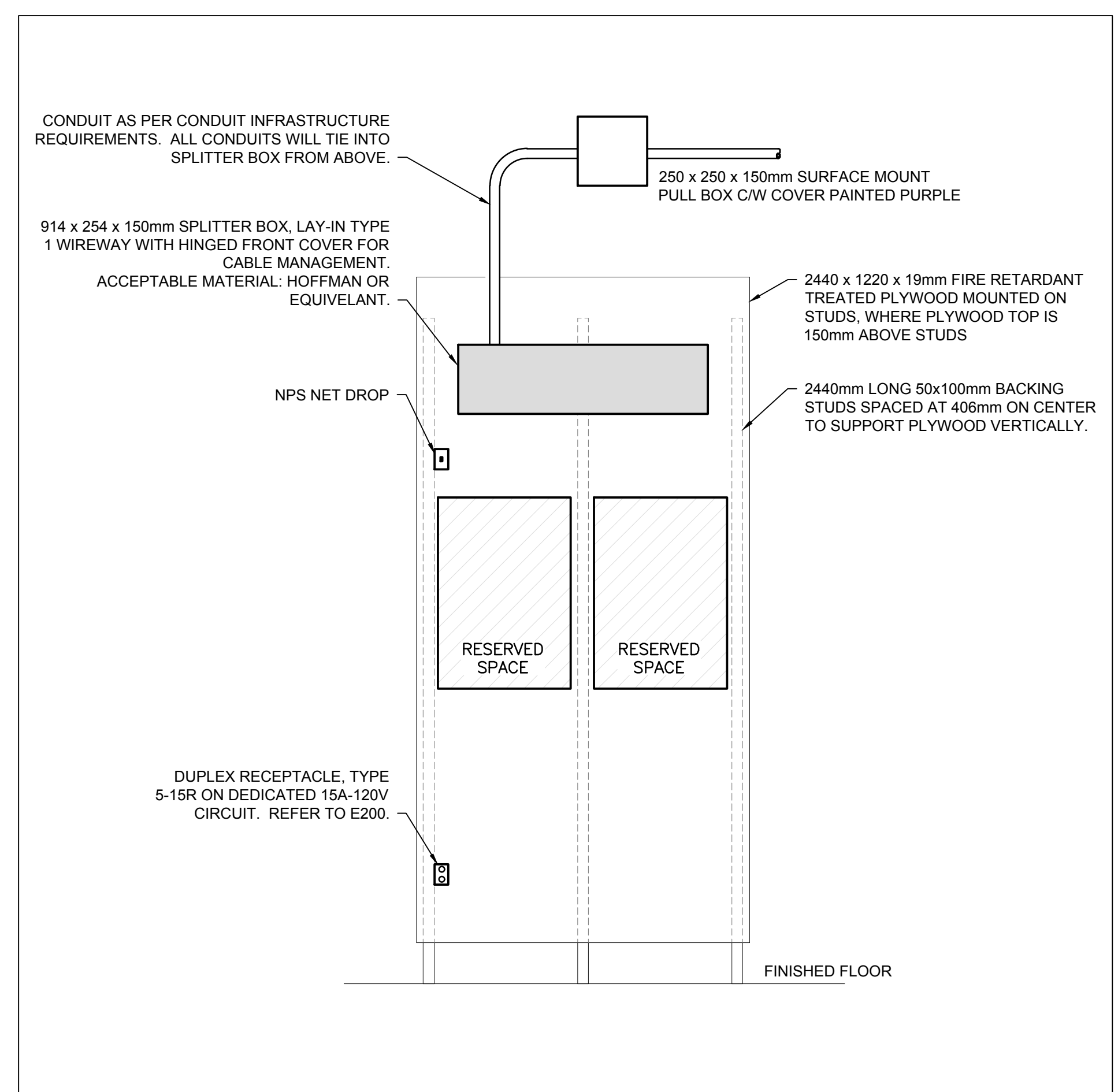
1 TYPICAL CONCRETE BASE DETAIL  
NOT TO SCALE



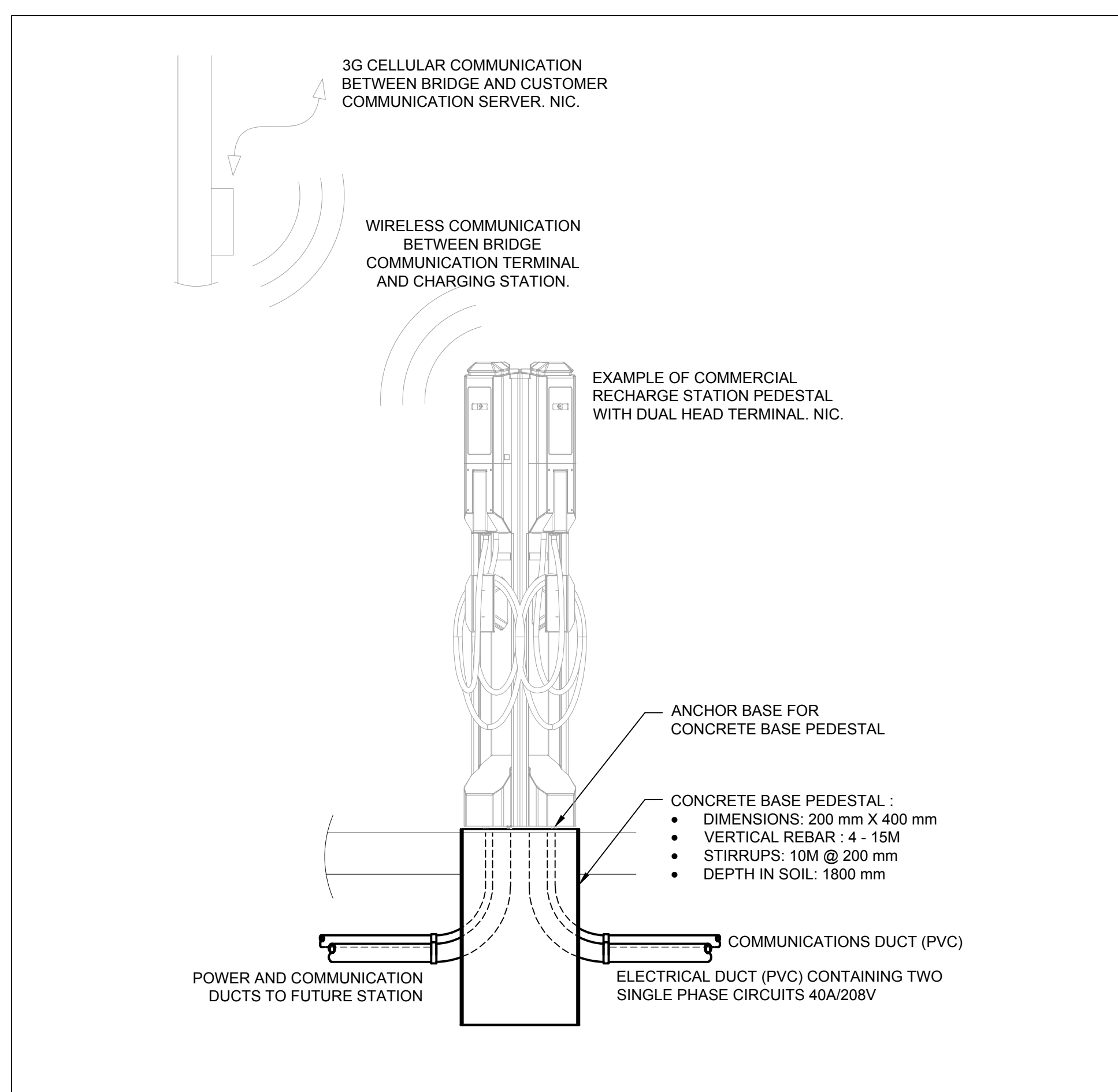
2 TYPICAL SITE LIGHTING FIXTURE AND TRENCH DETAILS  
NOT TO SCALE (REFER TO CURRENT HYDRO OTTAWA CONSTRUCTION STANDARDS)



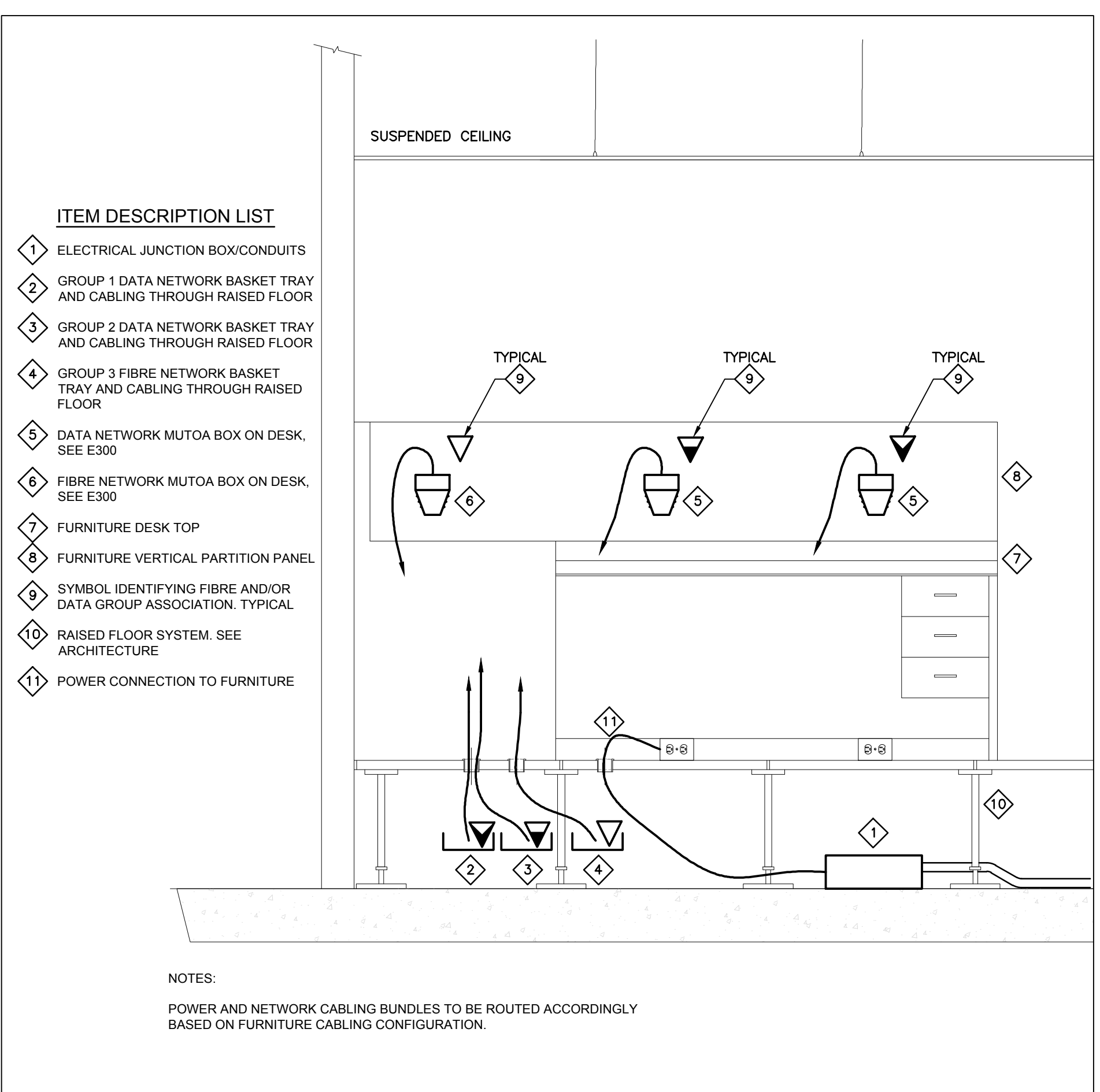
3 TYPICAL PULL PIT DETAIL  
NOT TO SCALE



4 ANCILLARY PANEL PLYWOOD MOUNT DETAIL  
NOT TO SCALE



5 TYPICAL CONCRETE BASE DETAIL - EV RECHARGE STATION  
NOT TO SCALE



6 TYPICAL WORKSTATION DATA/FIBRE NETWORK CABLING DETAIL  
NOT TO SCALE

**DFS INC.**  
architecture & design  
Montréal, QC | 400 boul. de Maisonneuve O. Bur. 500  
Saint John, NB | Montréal (Québec) H3A 1L4  
T: (514) 879-1708 F: (514) 861-6219  
www.dfsarch.com  
Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

**CLELAND JARDINE**  
ENGINEERING LTD.  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 860-2462  
Fax: 613 860-1970  
www.cjma.ca

**CIMA**  
Partners in excellence  
Partenaire de génie  
110-240 Catherine Street  
Ottawa ON K2P 2G8  
Phone: 613 860-2462  
Fax: 613 860-1970  
www.cjma.ca

plan-référence key plan  
sceau stamp  
LICENSED PROFESSIONAL ENGINEER  
G. TREMBLAY  
10017215  
PROVINCE OF ONTARIO

no.	description	date
1	ISSUED FOR TENDER	June 12, 2018
REVISION		

projet project  
**BUILDING A PROJECT**

dessin drawing  
**MISCELLANEOUS DETAILS**

conception	conception	no. dossier	project no.
S. Lavoie	dessiné	A000566B	
Y. Farmer	drawn	A000566B-E600	CAD file
S. Lavoie	approuvé	7207528	dossier client client file
AS NOTED	scale	February 2, 2018	imprimé plot date
no. page		sheet number	rev

**E601**

Drawing name: C:\A\A000566B\_Building\_A\400\450\A000566B-E600.dwg Jun 11, 2018 - 3:56pm