

FISHERIES AND OCEAN CANADA IOS NEW GUARD HOUSE

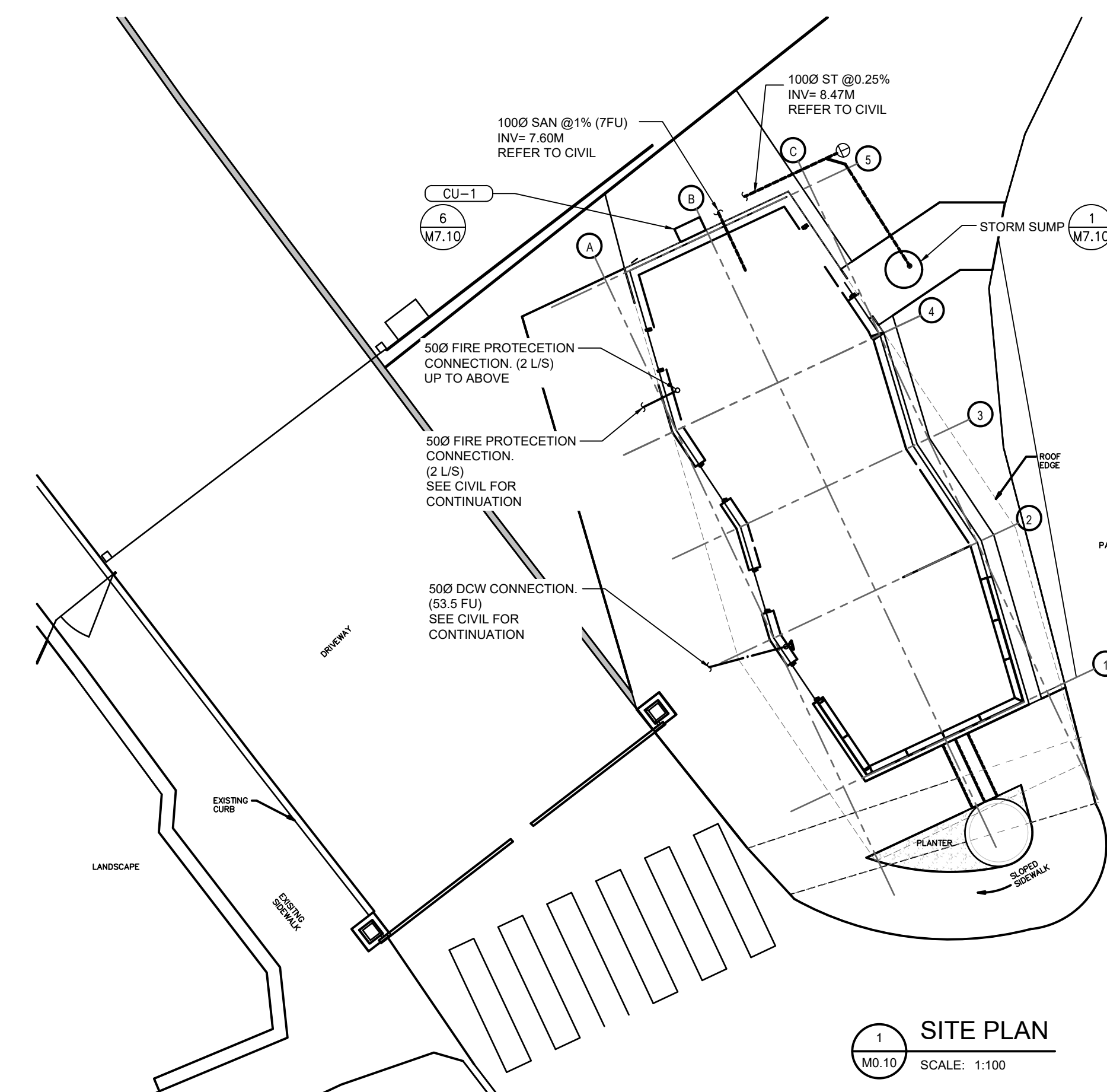
SYMBOL SCHEDULE AND ABBREVIATIONS																																																																																																			
PIPING 	EQUIPMENT TAGS 																																																																																																		
FITTINGS & VALVES 	ABBREVIATIONS <table border="0"> <tr><td>AVV</td><td>AUTOMATIC AIR VENT</td></tr> <tr><td>BHP</td><td>BRAKE HORSE POWER</td></tr> <tr><td>BTUH</td><td>BRITISH THERMAL UNIT/HOUR</td></tr> <tr><td>CFM</td><td>CUBIC FEET PER MINUTE</td></tr> <tr><td>CO</td><td>CLEANOUT</td></tr> <tr><td>C/W</td><td>COMPLETE WITH</td></tr> <tr><td>DB</td><td>DRY BULB</td></tr> <tr><td>DDC</td><td>DIRECT DIGITAL CONTROL</td></tr> <tr><td>E/A</td><td>EXHAUST AIR</td></tr> <tr><td>EAT</td><td>ENTERING AIR TEMPERATURE</td></tr> <tr><td>EF</td><td>EXHAUST FAN</td></tr> <tr><td>EFF</td><td>EFFICIENCY</td></tr> <tr><td>ENT</td><td>ENTERING</td></tr> <tr><td>ESP</td><td>EXTERNAL STATIC PRESSURE</td></tr> <tr><td>EWT</td><td>ENTERING WATER TEMPERATURE</td></tr> <tr><td>FLA</td><td>FULL LOAD AMPS</td></tr> <tr><td>IBC</td><td>INSTALLED BY CONTRACTOR</td></tr> <tr><td>INV</td><td>INVERT</td></tr> <tr><td>KW</td><td>KILOWATT</td></tr> <tr><td>KWH</td><td>KILOWATT PER HOUR</td></tr> <tr><td>L</td><td>LOUVER</td></tr> <tr><td>LAT</td><td>LEAVING AIR TEMPERATURE</td></tr> <tr><td>LAV</td><td>LAVATORY</td></tr> <tr><td>LWT</td><td>LEAVING WATER TEMPERATURE</td></tr> <tr><td>MAT</td><td>MIXED AIR TEMPERATURE</td></tr> <tr><td>MBH</td><td>1000 BRITISH THERMAL UNITS PER HOUR</td></tr> <tr><td>NIC</td><td>NOT IN CONTRACT</td></tr> <tr><td>NO</td><td>NORMALLY OPEN</td></tr> <tr><td>NC</td><td>NORMALLY CLOSED</td></tr> <tr><td>N.T.S.</td><td>NOT TO SCALE</td></tr> <tr><td>O/A</td><td>OUTDOOR AIR</td></tr> <tr><td>PD</td><td>PRESSURE DROP</td></tr> <tr><td>PSI</td><td>POUNDS PER SQUARE INCH</td></tr> <tr><td>R/A</td><td>RETURN AIR</td></tr> <tr><td>RF</td><td>RETURN FAN</td></tr> <tr><td>RPM</td><td>REVOLUTIONS PER MINUTE</td></tr> <tr><td>RWL</td><td>RAIN WATER LEADER</td></tr> <tr><td>RWT</td><td>RETURN WATER TEMPERATURE</td></tr> <tr><td>S/A</td><td>SUPPLY AIR</td></tr> <tr><td>SD</td><td>SMOKE DAMPER</td></tr> <tr><td>SF</td><td>SUPPLY FAN</td></tr> <tr><td>SK</td><td>SINK</td></tr> <tr><td>SP</td><td>STATIC PRESSURE</td></tr> <tr><td>TS</td><td>TAMPER SWITCH</td></tr> <tr><td>WG</td><td>WATER GAUGE</td></tr> <tr><td>VTR</td><td>VENT THROUGH ROOF</td></tr> <tr><td>RPBFP</td><td>REDUCED PRESSURE BACKFLOW PREVENTOR</td></tr> <tr><td>DCVA</td><td>DOUBLE CHECK BACKFLOW PREVENTOR</td></tr> <tr><td>DUCVA</td><td>DUAL CHECK BACKFLOW PREVENTOR</td></tr> </table>	AVV	AUTOMATIC AIR VENT	BHP	BRAKE HORSE POWER	BTUH	BRITISH THERMAL UNIT/HOUR	CFM	CUBIC FEET PER MINUTE	CO	CLEANOUT	C/W	COMPLETE WITH	DB	DRY BULB	DDC	DIRECT DIGITAL CONTROL	E/A	EXHAUST AIR	EAT	ENTERING AIR TEMPERATURE	EF	EXHAUST FAN	EFF	EFFICIENCY	ENT	ENTERING	ESP	EXTERNAL STATIC PRESSURE	EWT	ENTERING WATER TEMPERATURE	FLA	FULL LOAD AMPS	IBC	INSTALLED BY CONTRACTOR	INV	INVERT	KW	KILOWATT	KWH	KILOWATT PER HOUR	L	LOUVER	LAT	LEAVING AIR TEMPERATURE	LAV	LAVATORY	LWT	LEAVING WATER TEMPERATURE	MAT	MIXED AIR TEMPERATURE	MBH	1000 BRITISH THERMAL UNITS PER HOUR	NIC	NOT IN CONTRACT	NO	NORMALLY OPEN	NC	NORMALLY CLOSED	N.T.S.	NOT TO SCALE	O/A	OUTDOOR AIR	PD	PRESSURE DROP	PSI	POUNDS PER SQUARE INCH	R/A	RETURN AIR	RF	RETURN FAN	RPM	REVOLUTIONS PER MINUTE	RWL	RAIN WATER LEADER	RWT	RETURN WATER TEMPERATURE	S/A	SUPPLY AIR	SD	SMOKE DAMPER	SF	SUPPLY FAN	SK	SINK	SP	STATIC PRESSURE	TS	TAMPER SWITCH	WG	WATER GAUGE	VTR	VENT THROUGH ROOF	RPBFP	REDUCED PRESSURE BACKFLOW PREVENTOR	DCVA	DOUBLE CHECK BACKFLOW PREVENTOR	DUCVA	DUAL CHECK BACKFLOW PREVENTOR
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MECHANICAL DRAWING LIST			ISSUED FOR			
DWG. NO.	DESCRIPTION	SCALE	CLIENT 50% REVIEW	CLIENT 90% REVIEW	CLIENT 95% REVIEW	ISSUED FOR TENDER
M0.10	MECHANICAL COVERSHEET	N.T.S.	✓	✓	✓	
M0.20	MECHANICAL SCHEDULES	N.T.S.	✓	✓	✓	
M1.10	ROOF PLAN (MOVED TO M2.10)	1:50	✓	✓	✓	
M2.10	PLUMBING PLAN - ROOF, FOUNDATION AND GROUND FLOOR	1:50	✓	✓	✓	
M2.20	PLUMBING PLAN - GROUND LEVEL (MOVED TO M2.10)	1:50	✓	✓	✓	
M3.10	FIRE PROTECTION PLAN	1:50	✓	✓	✓	
M4.10	HVAC PLAN	1:50	✓	✓	✓	
M7.10	MECHANICAL DETAILS	NTS	✓	✓	✓	

SITE DATA	
MUNICIPAL ADDRESS:	9860 WEST SAANICH ROAD SIDNEY, BC, V8L5T5

BUILDING LOADS				
DESCRIPTION	LOAD	UNITS	PIPE SIZE	NOTES
DOMESTIC WATER	53.5	FU	500	2
FIRE	2	L/S	500	
SANITARY	7	FU	1000	
STORM	610	L	1000	1

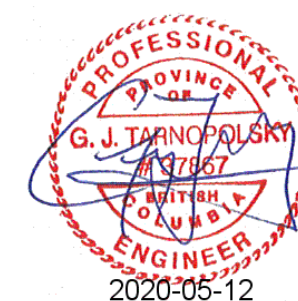
NOTES:
 1. STORM LOAD IS BASED ON 9mm/15 MINUTE RAINFALL INTENSITY.
 2. DOMESTIC WATER SIZED TO ASPE UNIFORM PRESSURE LOSS METHOD, BASED ON MAXIMUM 5FT/S USING COPPER PIPE UNLESS OTHERWISE INDICATED.



1 SITE PLAN
M0.10 SCALE: 1:100

DWG. NO.	DRAWING REFERENCES	NOTES
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RATIO



DESIGNED	DAJ
DRAWN	DAJ/SR
CHECKED	GT
RECOMMENDED	
APPROVED	
APPROVED	

NO.	DATE	REVISIONS
4	2020-04-24	Issued for Tender
3	2020-04-13	Issued for 90% Review
2	2019-10-30	Issued for 90% Review
1	2019-09-18	Issued for 50% Review

FISHERIES AND OCEANS CANADA REAL PROPERTY AND SAFETY AND SECURITY		SCALE AS SHOWN
INSTITUTE OF OCEAN SCIENCES NEW GUARDHOUSE 9860 WEST SAANICH ROAD SIDNEY, BC, V8L 5T5		DRAWING NUMBER M0.10
MECHANICAL COVERSHEET		REVISION 1

REDUCED PRESSURE BACKFLOW PREVENTER								
EQUIPMENT TAG	LOCATION	SERVICE	BACKFLOW PREVENTOR TYPE	MANUFACTURER	MODEL NO.	SIZE (MM)	MAX WORKING PRESS. (KPA)	NOTES
BFP-1	WATER ENTRY	DOMESTIC WATER	DCVA	WATTS	LF007	65	1207	1
BFP-2	SPRINKLER CABINET	FIRE PROTECTION	DCDA	WATTS	007DCDA	65	1207	

NOTES:
1 LEAD FREE (NO EXCEPTIONS)

DIFFUSERS AND GRILLES					
EQUIPMENT TAG	DESCRIPTION/TYPE	MANUFACTURER	SERVICE	MODEL NUMBER	NOTES
SG-1	SQUARE PLAQUE DIFFUSER	EH-PRICE	SUPPLY	SPD	ALL
SG-2	LOUVERED FACE SUPPLY	EH-PRICE	SUPPLY	530	1,2
L-1	LOUVER	EH-PRICE	OUTDOOR AIR	DE825	1,2
R-1	LOUVERED FACE RETURN	EH-PRICE	RETURN	530	1,2
E-1	LOUVERED FACE RETURN	EH-PRICE	OUTDOOR AIR/ EXHAUST	630	ALL

NOTES:
1 PROVIDE DIFFUSERS AND GRILLES WITH BORDER STYLES THAT ARE COMPATIBLE WITH ADJACENT WALLS AND CEILING SYSTEMS. REFER TO ARCHITECTURAL DRAWINGS.
2 STANDARD WHITE COLOR
3 BORDER STYLE SUITABLE FOR SOFFIT INSTALLATION

MECHANICAL MOTORLIST																								
UNIT NUMBER	QTY	UNIT DESCRIPTION	UNIT LOCATION	ELECTRICAL LOAD				VOLT	PH	EQUIPMENT			STARTER			DISCONNECT			CONTROL			NOTES		
				MCA	FLA	KW	HP			S	I	C	S	I	C	TYPE	S	I	C	S	I		C	TYPE
		DOMESTIC WATER HEATER																						
DWH-1	1	DOMESTIC HOT WATER (TANKLESS)	ATTIC ABOVE UNIVERSAL WC 106		54	18		240	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	INT	1
		FAN COIL UNIT																						
CU-1	1	VRF HEAT PUMP/CONDENSING UNIT	OUTDOORS - NORTH SIDE OF BUILDING	16.5				208	1	M	M	E	M	M	E	INT	E	E	E	M	M	M	PCS	
FC-1	1	MEETING ROOM 103 FAN COIL	ATTIC ABOVE VESTIBULE 105	0.8				208	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	WC	
FC-2	1	SECURITY ROOM 106 VESTIBULE 104 FAN COIL	ATTIC ABOVE SECURITY CONTROL ROOM 107	0.3				208	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	WC	
FC-3	1	ELEX 101 FAN COIL	ELEX 101 WALL	0.8				208	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	WC	
FC-4	1	DATA 102 FAN COIL	DATA 102 WALL	0.8				208	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	WC	
		EXHAUST FANS																						
EF-1	1	WIC UNIVERSAL 106 EXHAUST FAN	WASHROOM 106	0.18				FRAC 120	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	TC, WS	
EF-2	1	MEETING ROOM EXHAUST FAN	MEETING ROOM 104	0.13				FRAC 120	1	M	M	E	M	M	M	INT	E	E	E	M	M	M	OS	
		MISCELLANEOUS																						
		HEAT TRACE	REFER TO DWGS																					

SUPPLIER / INSTALL / WIRE CODES:
MECH = MECHANICAL
ELEC = ELECTRICAL
S = SUPPLIED BY
I = INSTALLED BY
C = CONNECTED BY

CONTROL DEVICE CODES:
AQUA = PUMP CONTROLLED BY AQUASTAT
BMS = BLDG MANAGEMENT SYSTEM
ES = END SWITCH
ET = LINE VOLTAGE T'STAT
FAP = FIRE ALARM PANEL
FS = FLOW SWITCH
H = HUMIDITY SENSOR
I = INTERLOCK, SEE NOTES
LIGHT = WIRED TO LIGHT SWITCH
LS = LEVEL SWITCH
OS = OCCUPANT SENSOR
PS = PRESSURE SWITCH
R_STAT = REVERSE ACTING THERMOSTAT
TC = TIME CLOCK
T = LOW VOLTAGE T'STAT OR SENSOR
VS = VARIABLE SPEED SWITCH
WS = WALL SWITCH
WC = WALL MOUNTED HARD-WIRED CONTROLLER

ELECTRICAL LOAD CODES:
BHP = BREAK HORSEPOWER
FLA = UNIT FULL LOAD AMPS
HP = UNIT OR MOTOR HORSE POWER
PH = POWER PHASE
MCA = MINIMUM CIRCUIT AMPS
VOLT = REQUIRED SUPPLY VOLTAGE

MISCELLANEOUS CODES:
FRAC = FRACTIONAL HORSEPOWER
INT = INTEGRAL PART OF UNIT

GENERAL NOTES:
1. POWER AND OUTPUT TO BE DE-RATED BY 25% WHEN CONNECTED TO 208/1/60

FAN COIL UNIT																	
EQUIPMENT TAG	QTY	DESCRIPTION	SERVICE	LOCATION	MANUFACTURER	MODEL	MODEL SIZE	WEIGHT (KG)	AIR FLOW (LPS)		OUTDOOR AIR FLOW (L/S)	ESP (PA)	HGT CAP (KW)	TOTAL CLG CAP (KW)	SENS. CLG CAP (KW)	NOTES	
									HIGH	LOW							
FC-1	1	CONCEALED DUCTED	MEETING ROOM 102	ATTIC ABOVE UNIVERSAL WC 105	DAIKIN	FXSQ05TAVJU	0.5	24.9	133	109	65	50	1.9	1.7	1.4	1,3,4	
FC-2	1	CASSETTE	SECURITY CONTROL ROOM 106	ATTIC ABOVE SECURITY CONTROL ROOM 106	DAIKIN	FXZQ05TAVJU	0.5	15.5	142	108	35	-	1.9	1.7	1.4	2,4	
FC-3	1	CONCEALED DUCTED	ELEX 101	MEETING ROOM 104	DAIKIN	FXSQ07TAVJU	0.6	24.9	133	109	0	149	2.5	2.2	1.7	1,3,4	
FC-4	1	CONCEALED DUCTED	DATA 102	MEETING ROOM 104	DAIKIN	FXSQ12TAVJU	1	24.9	158	117	0	149	4.0	3.5	2.8	1,3,4	

NOTES:
1 C/W DRIP PAN UNDER COOLING COIL AND/OR UNIT.
2 C/W CONDENSATE PUMP.
3 PROVIDE MERV-13 FILTER AT AIR INLET.
4 PROVIDE CONDENSATE LINE TO NEAREST SANITARY DRAIN.

FANS												
EQUIPMENT TAG	QTY	SERVICE	LOCATION	TYPE	MANUFACTURER	MODEL	AIR FLOW (L/s)	E. S. P. (IN Pa)	FAN (RPM)	DRIVE TYPE	SOUND LEVEL (SONES)	NOTES
EF-1	1	WIC UNIVERSAL (106)	WIC UNIVERSAL (106)	CEILING MOUNTED	PANASONIC	FV-0511VQ1	40	75.0	1,172	DIRECT	0.6	1,2,3
EF-2	1	MEETING ROOM (104)	MEETING ROOM (104)	CEILING MOUNTED	PANASONIC	FV-0511VQ1	55	75.0	1,093	DIRECT	0.4	1,2,4

NOTES:
1 FAN SUPPLIED WITH CONTROL MODULE TO ALLOW FAN TO RUN CONTINUOUSLY AT LOW SPEED (30CFM).
2 REFER TO MOTORLIST FOR ELECTRICAL REQUIREMENTS
3 PROVIDE AND INSTALL WALL SWITCH (2-POSITION, LOW, HIGH).
4 PROVIDE AND INSTALL OCCUPANCY SENSOR, UPON OCCUPANCY, SWITCH TO HIGH SPEED.

VRF CONDENSING OUTDOOR UNITS										
EQUIP TAG	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	DIMENSIONS WxHxD (mm)	WEIGHT (KG)	POWER (V/PH)	COOLING CAPACITY KW	HEATING CAPACITY KW	NOTES
CU-1	HEAT PUMP	WALL MOUNTED	DAIKIN	RXTQ38TAVJ9	940x916x305	78	208/1/60	10	11	ALL

NOTES:
1 INDOOR UNITS POWERED BY OUTDOOR UNIT
2 PROVIDE FACTORY WALL-MOUNT KIT, C/W RUBBER ISOLATORS FOR VIBRATION.

DOMESTIC WATER HEATER (ELECTRIC)									
EQUIPMENT TAG	LOCATION	MANUFACTURER	MODEL	INPUT (KW)	TYPE	TEMP RISE (F) AT 0.09/0.12L/S(1.5/2GPM)	POWER (V/PH)	SHIPPING WEIGHT (KG)	NOTES
DWH-1	BELOW KITCHETTE	RHEEM	RTEX-18	18.0	TANKLESS	82/62	240/1/60	3.86	ALL

NOTES:
1. C/W COMPRESSION FITTINGS
2. REPLACEMENT CARTRIDGE INSERT
3. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
4. POWER AND OUTPUT TO BE DE-RATED BY 25% WHEN CONNECTED TO 208/1/60.

DWG. NO.	DRAWING REFERENCES	NOTES
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N.O.	DATE	REVISIONS
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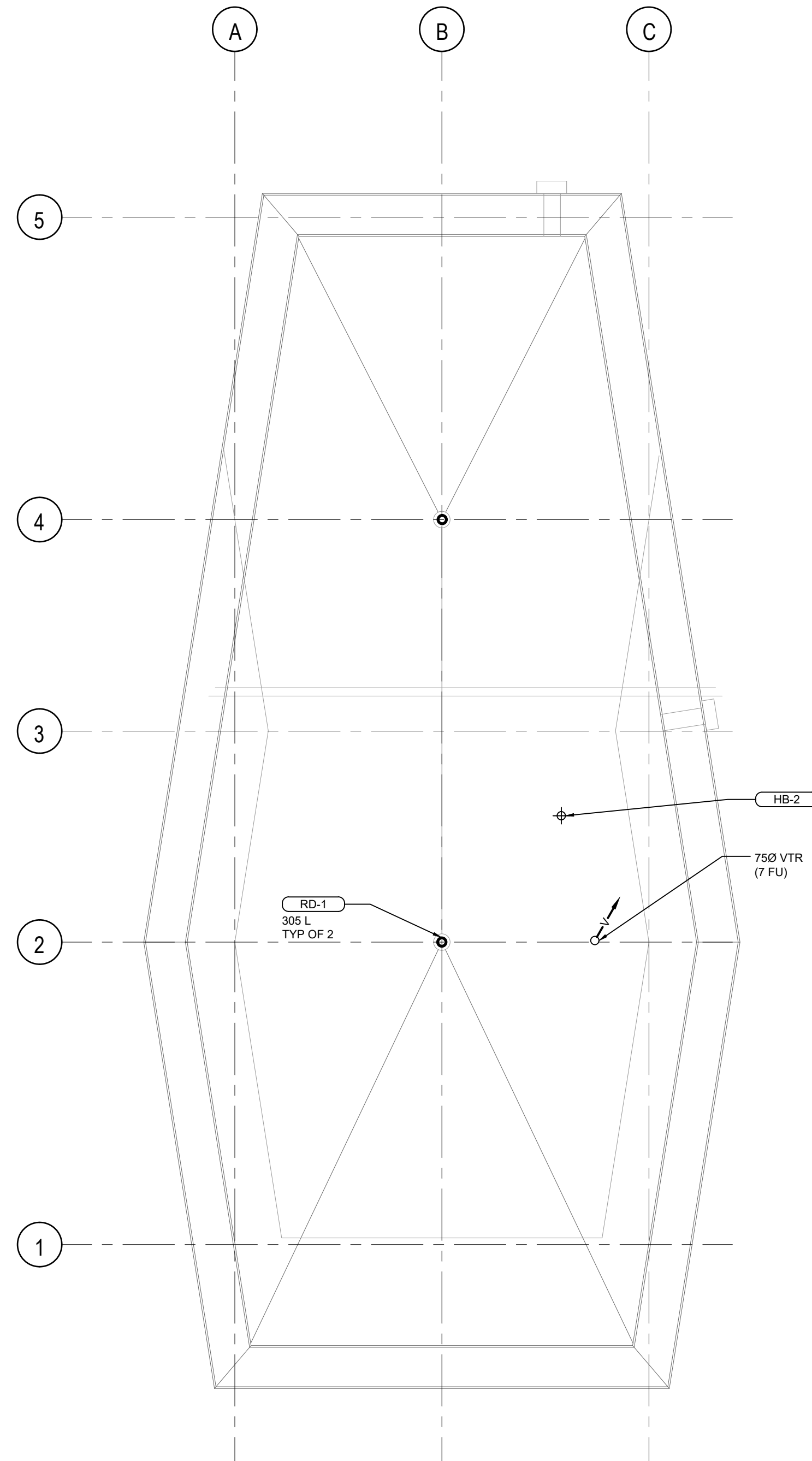
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REAL PROPERTY AND SAFETY AND SECURITY

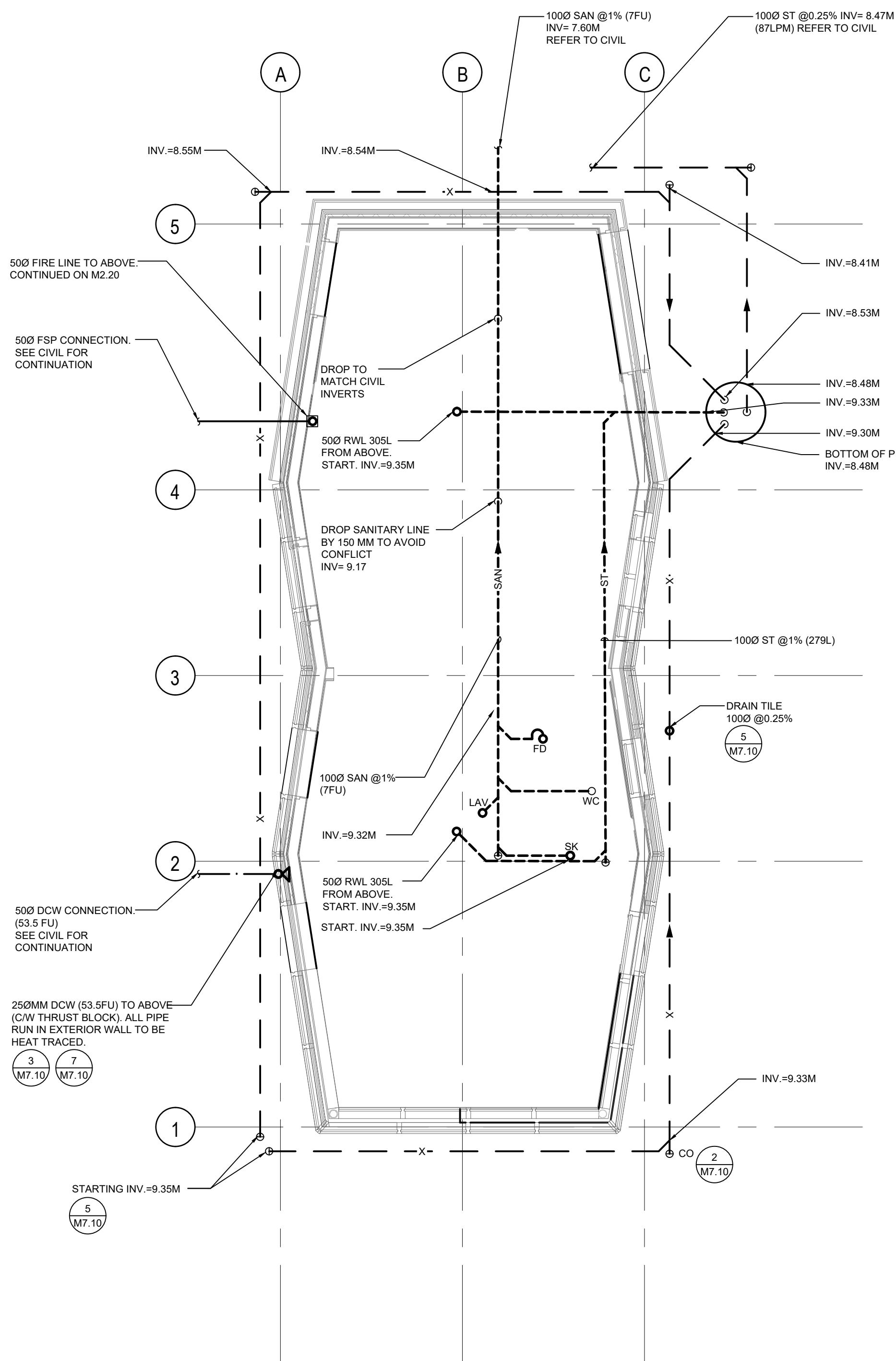
INSTITUTE OF OCEAN SCIENCES
NEW GUARDHOUSE
9860 WEST SAANICH ROAD
SIDNEY, BC, V8L 5T5

MECHANICAL SCHEDULES

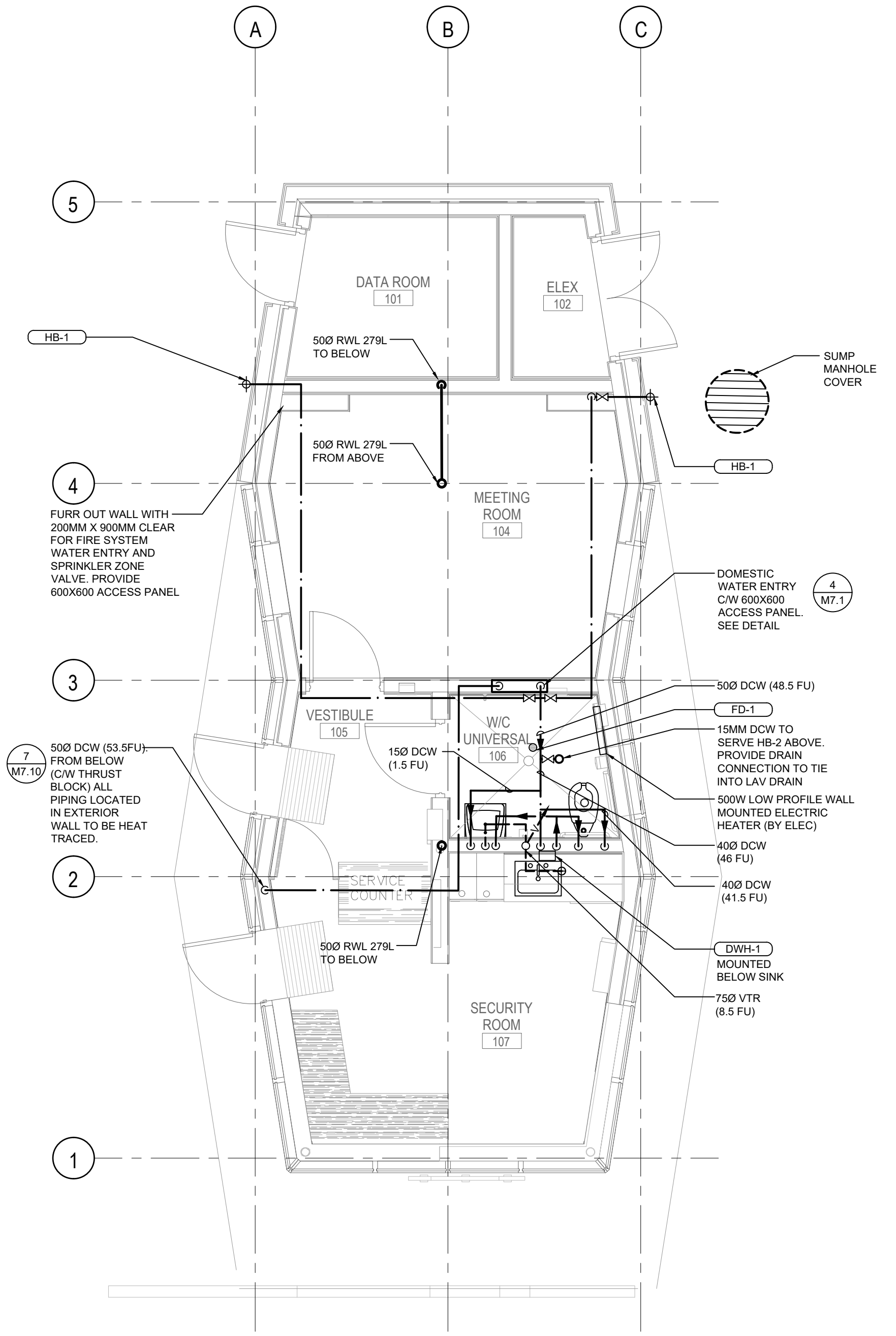
SCALE AS SHOWN
START DATE
DRAWING NUMBER **M0.20**
REVISION **1**



3 MECHANICAL ROOF PLAN
M2.10 SCALE: 1:30



2 MECHANICAL FOUNDATION PLAN
M2.10 SCALE: 1:50



1 PLUMBING PLAN - GROUND FLOOR
M2.10 SCALE: 1:50

RATIO



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FISHERIES AND OCEANS CANADA
REAL PROPERTY AND SAFETY AND SECURITY

INSTITUTE OF OCEAN SCIENCES
9860 WEST SAANICH ROAD
SIDNEY, BC, V8L 5T5

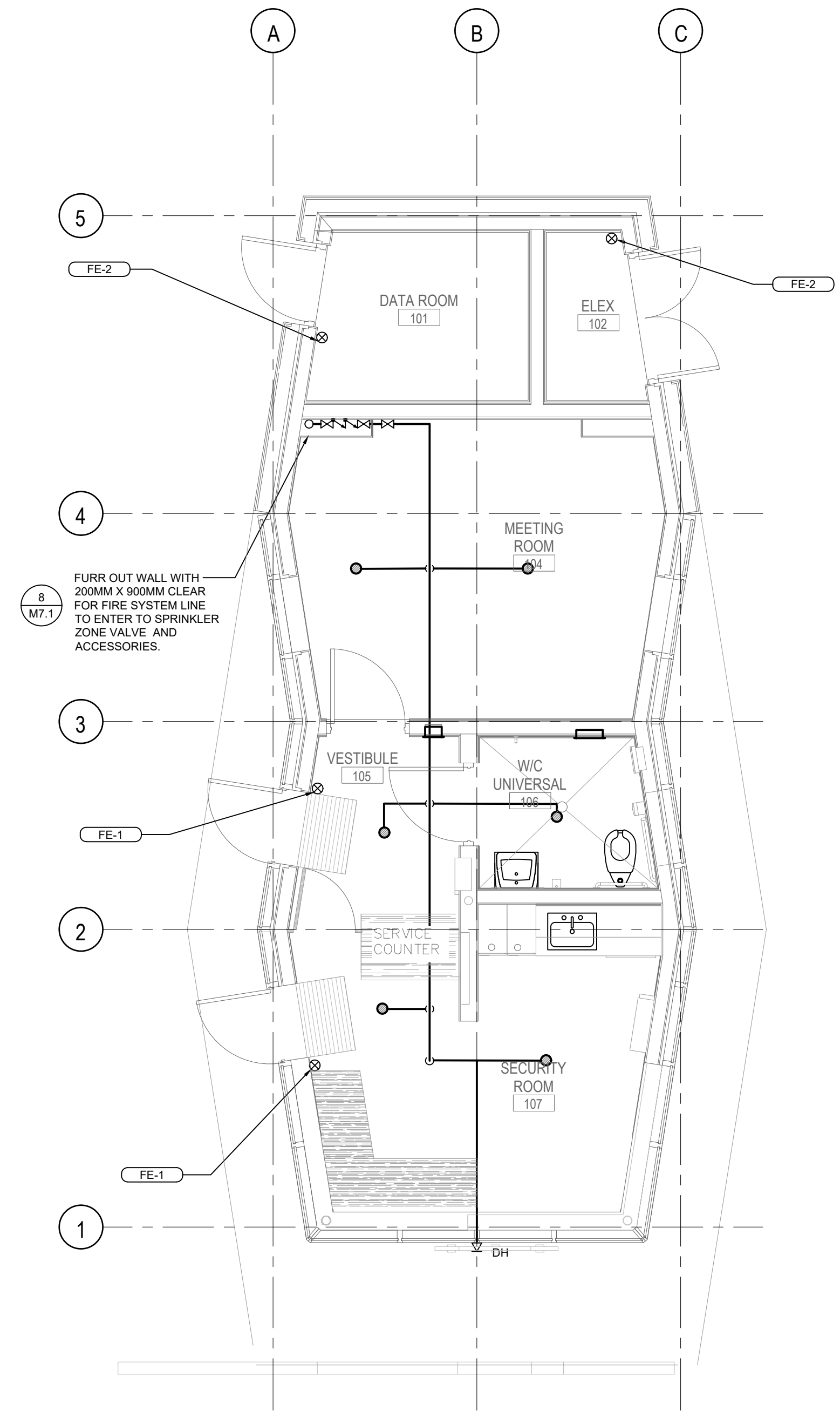
PLUMBING PLAN - ROOF, FOUNDATION AND GROUND FLOOR

SCALE AS SHOWN
START DATE
DRAWING NUMBER **M2.10**
REVISION **1**

DWG. NO.	DRAWING REFERENCES

NO.	DATE	NOTES

NO.	DATE	REVISIONS



1 FIRE PROTECTION PLAN
M3.10 SCALE: 1:50

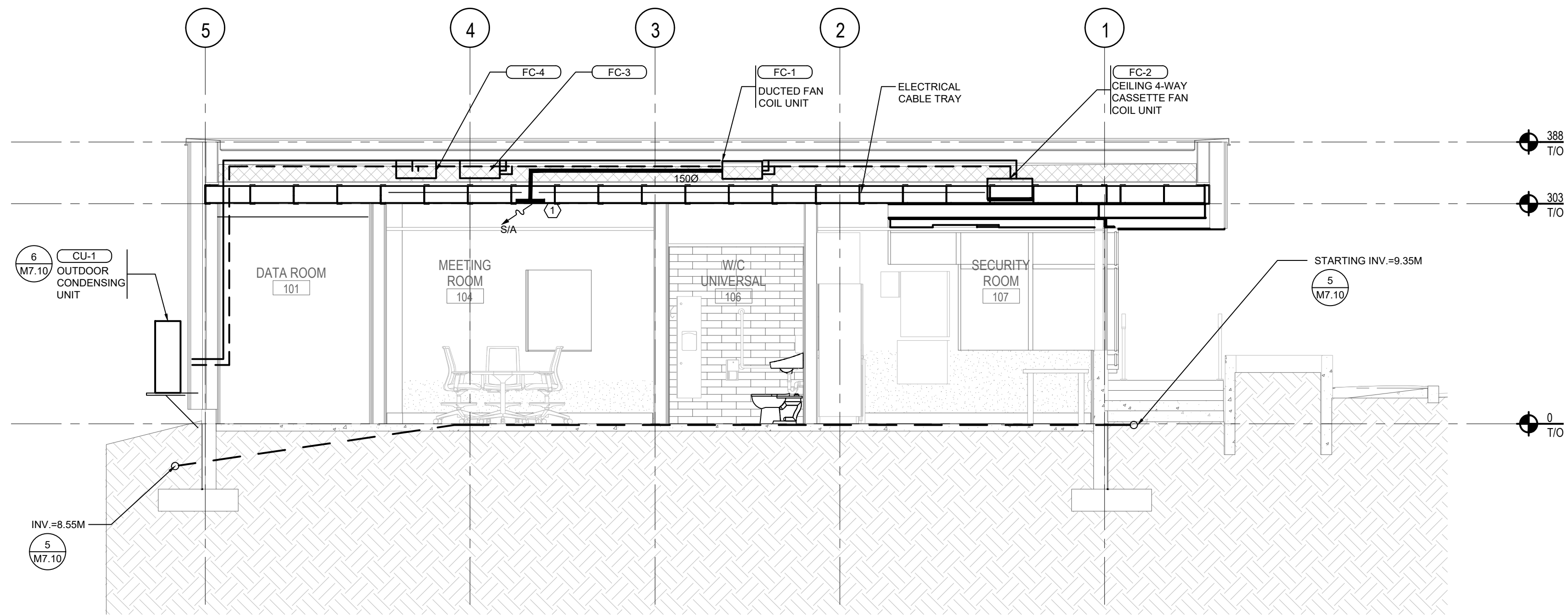
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INSTITUTE OF OCEAN SCIENCES NEW GUARDHOUSE 9860 WEST SAANICH ROAD SIDNEY, BC, V8L 5T5	
SCALE AS SHOWN	START DATE
DRAWING NUMBER M3.10	
REVISION 1	

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						CHECKED GT	DRAWING NUMBER M3.10
						RECOMMENDED	REVISION 1
						APPROVED	
						APPROVED	

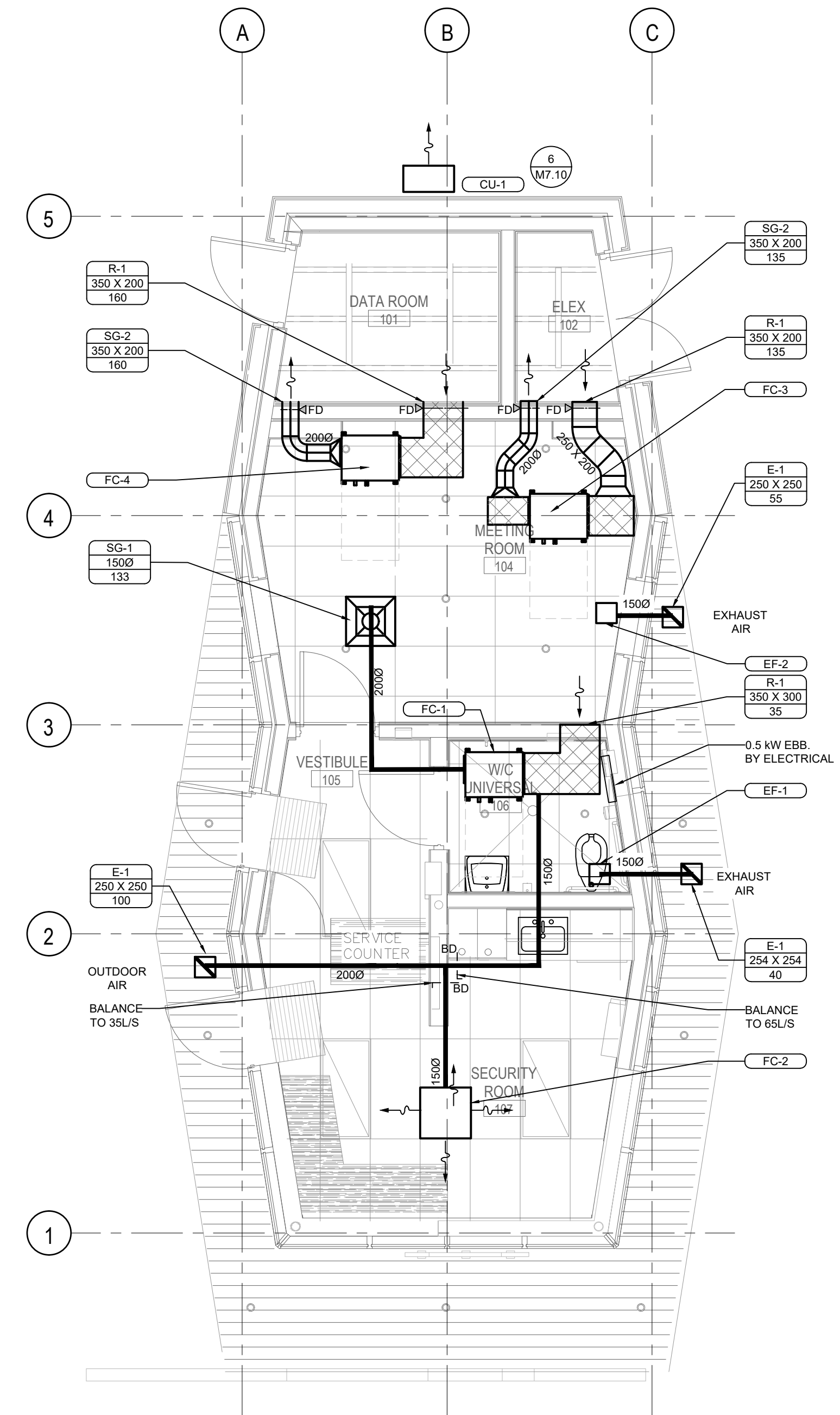


GENERAL NOTE
 1. RUN ALL FAN COIL CONDENSATE TO NEAREST SINK

KEY NOTES
 ① DUCT TO BE MOUNTED TO PROVIDE 150 MM CLEARANCE BELOW FOR ELECTRICAL CABLE TRAY

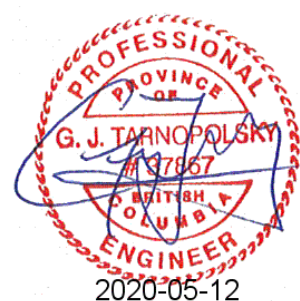


② SOUTH-NORTH SECTION - MECHANICAL
 M4.10 SCALE: 1:50



① HVAC PLAN
 M4.10 SCALE: 1:50

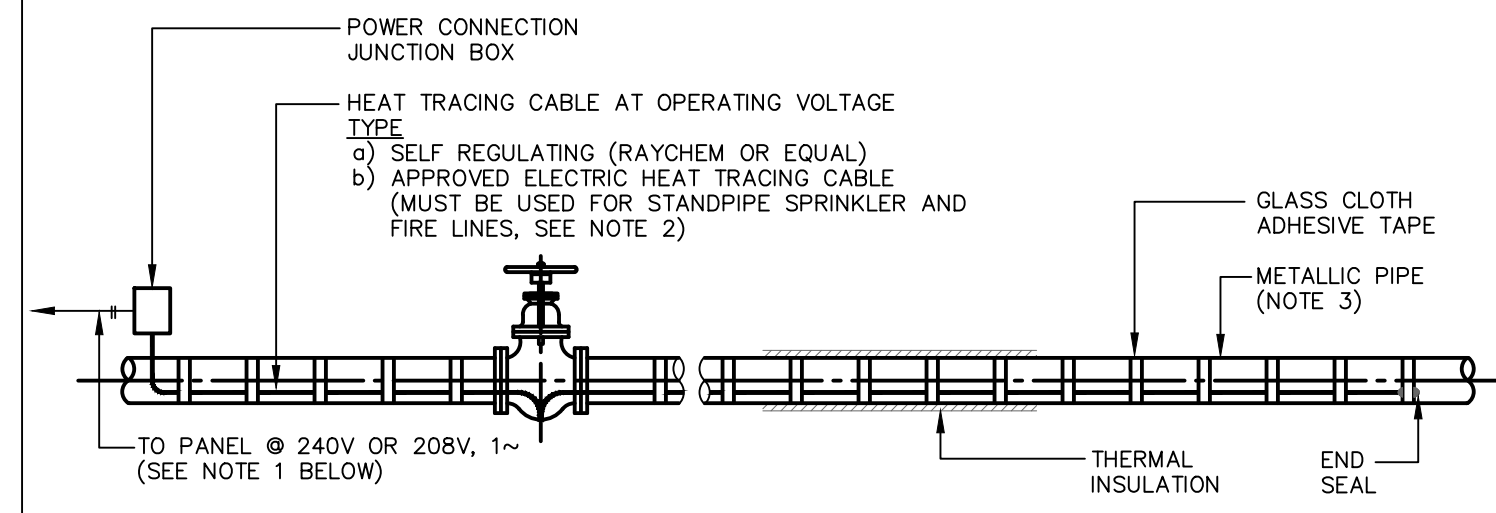
RATIO



NO.	DATE	REVISIONS
4	2020-04-24	Issued for Tender
3	2020-04-13	Issued for 99% Review
2	2019-10-30	Issued for 90% Review
1	2019-09-19	Issued for 50% Review

DESIGNED	DAJ
DRAWN	DAJ/SR
CHECKED	GT
RECOMMENDED	
APPROVED	
APPROVED	

FISHERIES AND OCEANS CANADA REAL PROPERTY AND SAFETY AND SECURITY	
INSTITUTE OF OCEAN SCIENCES NEW GUARDHOUSE 9860 WEST SAANICH ROAD SIDNEY, BC, V8L 5T5	
SCALE	AS SHOWN
START DATE	
DRAWING NUMBER	M4.10
REVISION	1



DESIGN BASED ON FOLLOWING GUIDELINE

PIPE SIZE	CABLE RATING	
	2" & SMALLER	6" & SMALLER
INSULATION = 1" TEMP. DIFFERENCE = 40° F	5 W/FT ①	8 W/FT ②
INSULATION = 2" TEMP. DIFFERENCE = 40° F	5 W/FT	5 W/FT ③

THE MECHANICAL CONTRACTOR MUST PROVIDE HEAT TRACING AND ASSOCIATED WIRING AS INDICATED ON THE MECHANICAL AND SPRINKLER DRAWINGS FOR THE FOLLOWING (THERMAL INSULATION BY MECHANICAL)

- ALL EXPOSED COLD WATER PIPES
- ALL EXPOSED SPRINKLER "WET" PIPES ONLY (NOTE 2)
- ALL EXPOSED STANDPIPES (NOTE 2)
- ALL EXPOSED FIRE LINES (NOTE 2)

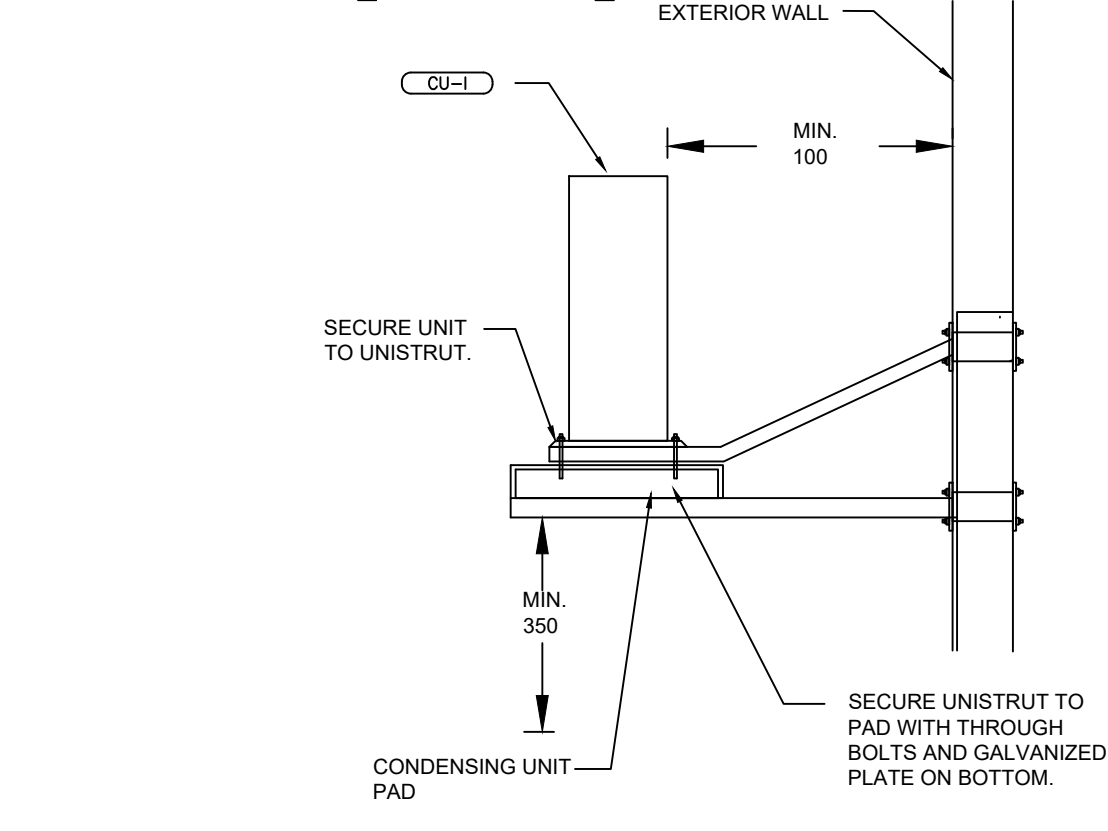
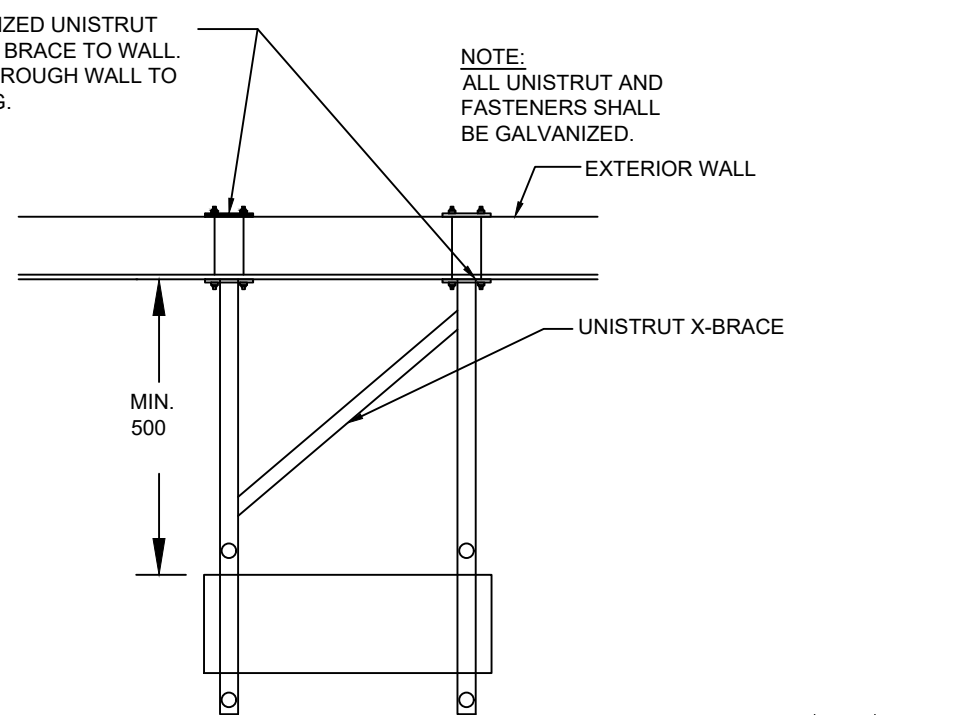
NOTES:

1. USE GFCI BREAKER (TO MINIMIZE DANGER OF FIRE IF HEATING CABLE DAMAGED OR IMPROPERLY INSTALLED)
2. STANDPIPES, SPRINKLER PIPING AND FIRE LINES
 - a) APPROVED ELECTRIC HEAT TRACING CABLES SHALL BE USED FOR PROTECTION OF STANDPIPES, SPRINKLER PIPING AND FIRE LINES AGAINST FREEZING (ie. CSA/ULC AND LOCAL AUTHORITY APPROVED CABLE)
 - THE CONTRACTOR SHALL INCLUDE ALL REASONABLE ASSISTANCE BY THE CABLE MANUFACTURER DURING THE PLANNING AND INSTALLATION OF THESE CABLES.
 - b) PROVIDE HEATING CIRCUIT "CONTINUOUS MONITORING" FOR : LOSS OF POWER, GROUND FAULT CONTINUITY
 - c) PROVIDE REMOTE ALARM CONSISTING OF AN INDICATOR LIGHT, ADIBLE ALARM AND TEST SWITCH LOCATED IN/ON THE MAIN BUILDING FIRE ALARM PANEL.
3. ELECTRIC HEAT TRACING CABLES SHALL NOT BE APPLIED TO NON-METALLIC PIPES

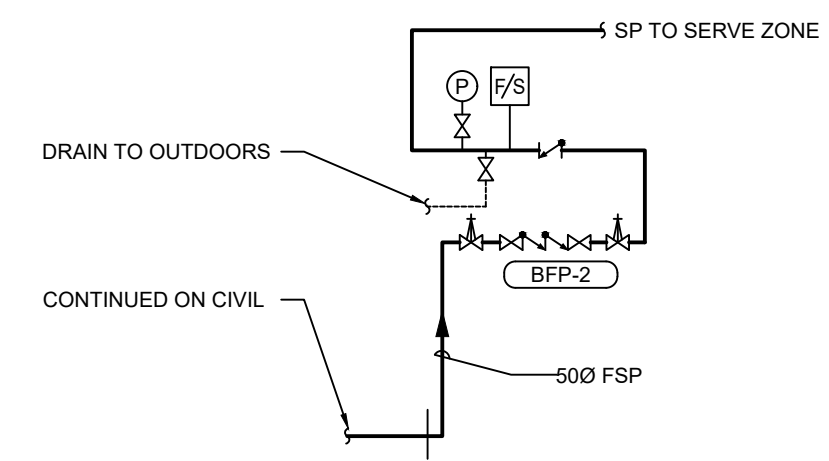
THE CONTRACTOR MUST PROVIDE UNIT PRICE FOR "10 FT" RUN (ADD & DELETE) FOR THE SUPPLY AND INSTALLATION OF HEAT TRACING CABLES AS FOLLOWS:

ITEM	ADD (+\$)	SUBTRACT (-\$)
ITEM ① (10 FT RUN)		
ITEM ② (10 FT RUN)		
ITEM ③ (10 FT RUN)		

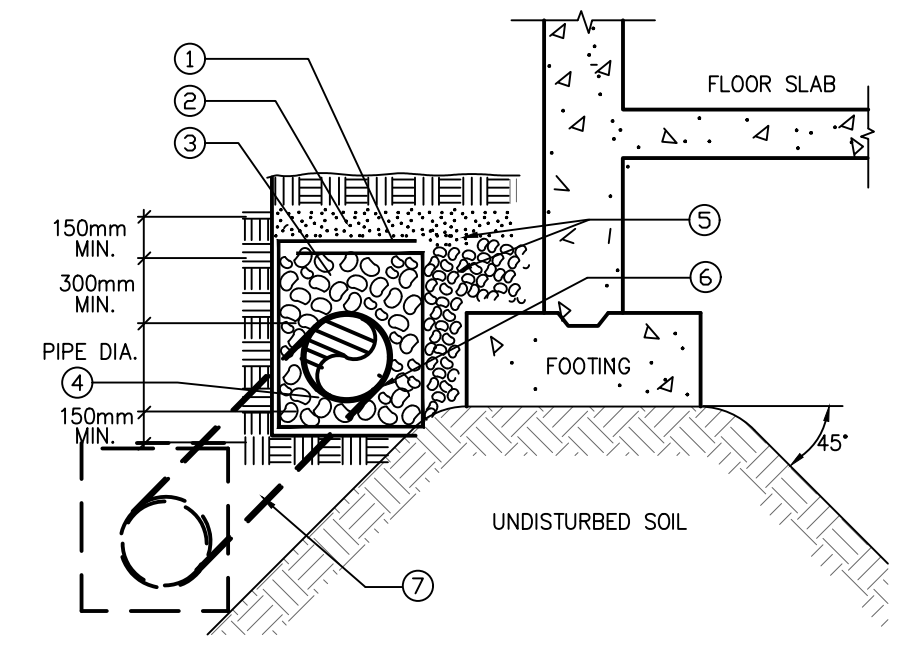
7 HEAT TRACING DETAIL
M7.1 SCALE: NTS



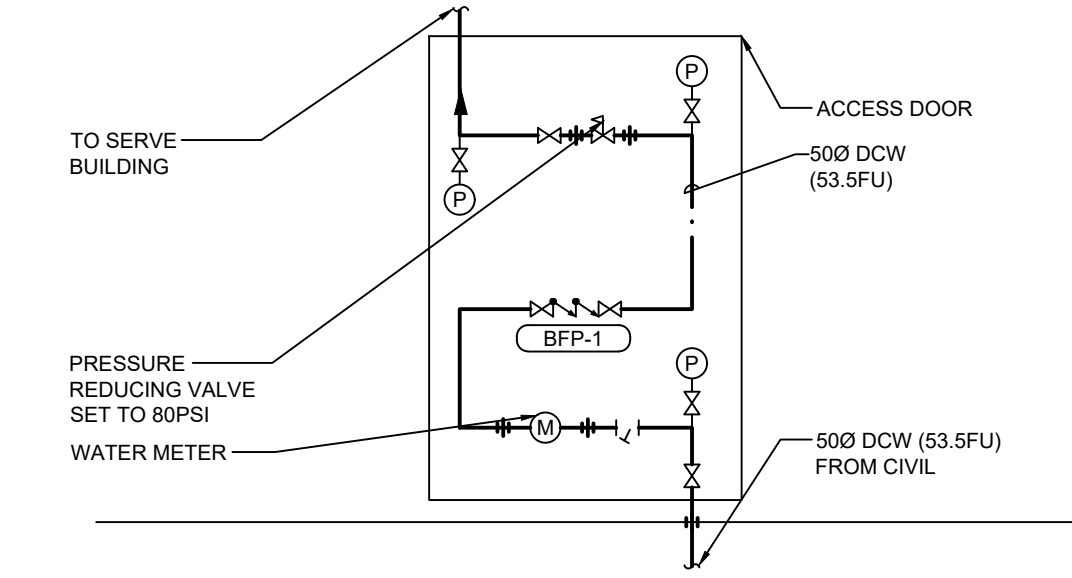
6 CONDENSING UNIT SUSPENDED - DETAIL
M7.1 SCALE: NTS



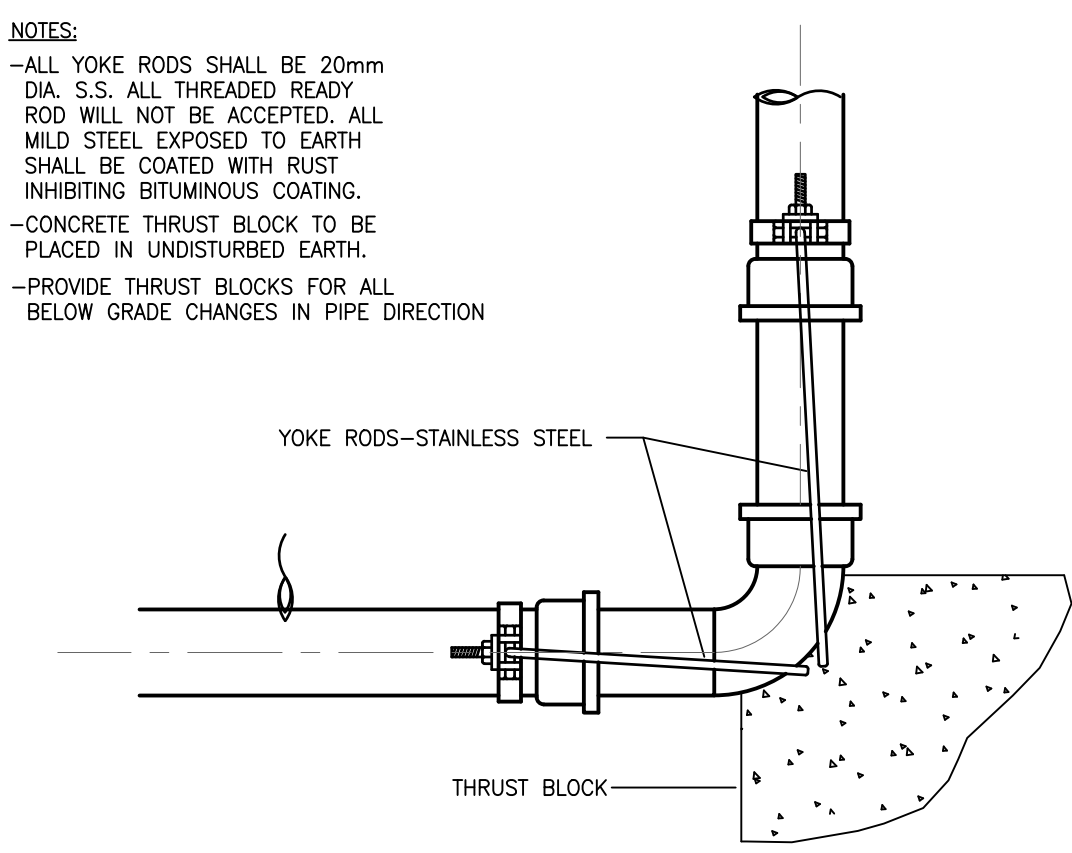
8 FIRE SPRINKLER SCHEMATICS
M7.1 SCALE: NTS



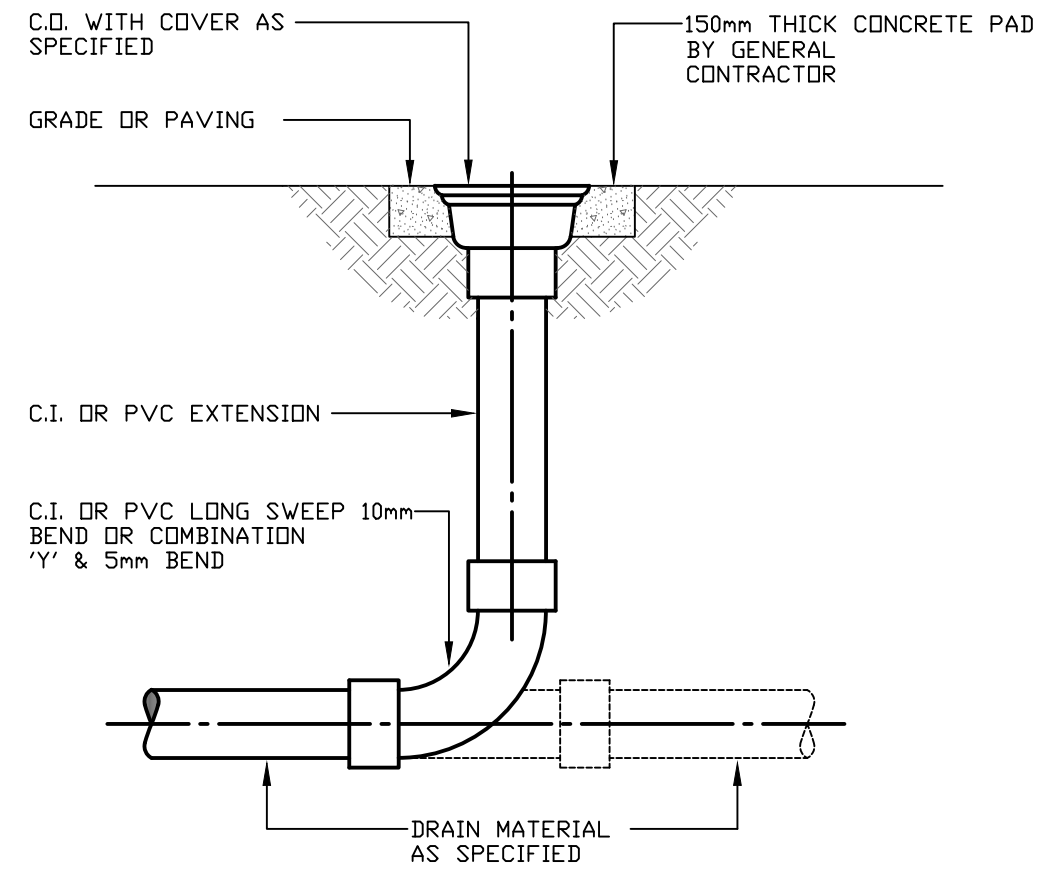
5 PERIMETER DRAINAGE
M7.1 SCALE: NTS



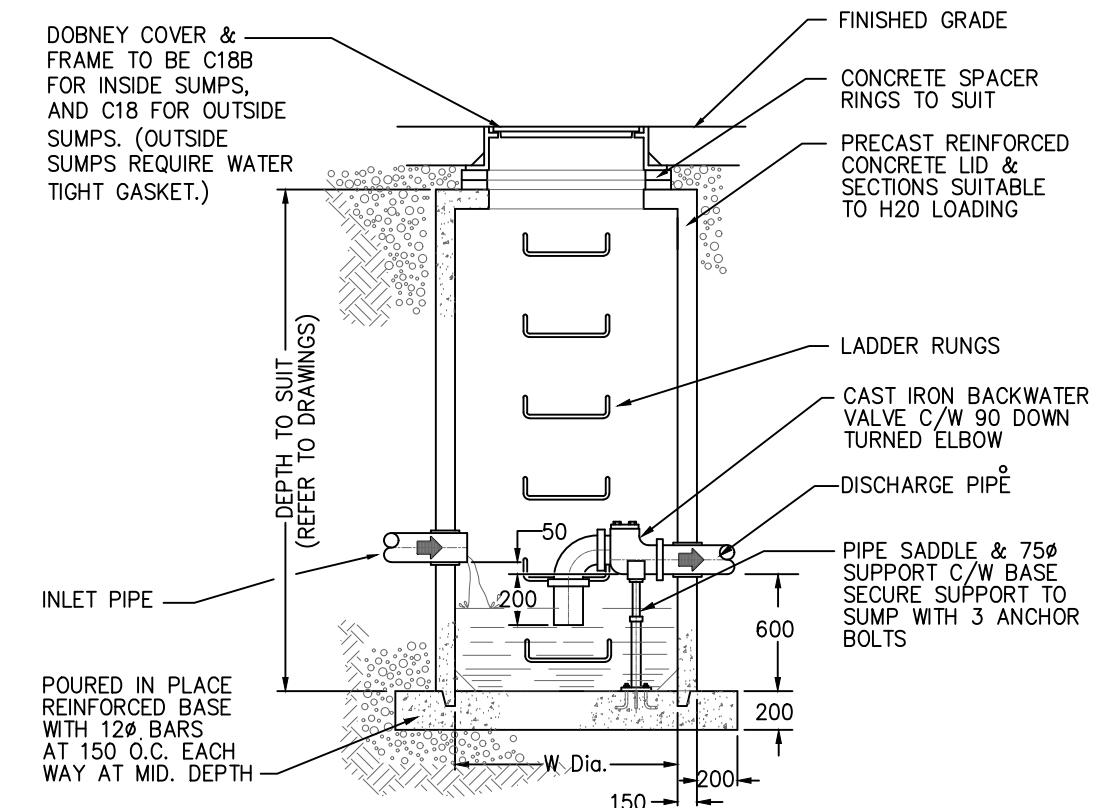
4 WATER ENTRY STATION DETAIL
M7.1 SCALE: NTS



3 THRUST BLOCK DETAIL
M7.1 SCALE: NTS



2 CLEANOUT DETAIL
M7.1 SCALE: NTS



NOTES

- ALL YOKE RODS SHALL BE 20mm DIA. S.S. ALL THREADED READY ROD WILL NOT BE ACCEPTED. ALL MILD STEEL EXPOSED TO EARTH SHALL BE COATED WITH RUST INHIBITING BITUMINOUS COATING.
- CONCRETE THRUST BLOCK TO BE PLACED IN UNDISTURBED EARTH.
- PROVIDE THRUST BLOCKS FOR ALL BELOW GRADE CHANGES IN PIPE DIRECTION

SUMP DEPTH (mm)	(W) SUMP DIAMETER (mm) (Min. I.D.)
FOR SUMPS OVER 1200 DEEP	PROVIDE 129mm GALVANIZED STEEL LADDER RUNGS CAST INTO WALL AT 300 ON CENTER FOR FULL DEPTH
LESS THAN 1200	1050mm
GREATER THAN 1200	1200mm
GREATER THAN 2400	1500mm

FOR PIPES GREATER THAN 200mm MIN. SUMP DIAMETER TO BE 1200mm

GROUT ALL JOINTS AND AROUND INLET & OUTLET PIPES

REFER TO DRAWNS FOR PIPE SIZES AND ENTRY POINTS TO SUMP PIT

PROVIDE WELL COMPACTED CLEAN RIVER SAND AROUND SIDES AND BOTTOM OF SUMP PIT & BASE

CONTRACTOR TO VERIFY WITH THE LOCAL PLUMBING INSPECTOR AND INCORPORATE AND ADDITIONAL REQUIREMENTS

SET GRATE & FRAME AS PER THE FOLLOWING

ASPHALT	12mm BELOW FINISH GRADE
CONCRETE	FLUSH WITH FINISHED GRADE
ROUGH LANDSCAPE	75mm ABOVE ROUGH GRADE
FINISHED LANDSCAPE	FLUSH WITH FINISHED GRADE

1 SEDIMENT SUMP DETAIL
M7.1 SCALE: NTS

FISHERIES AND OCEANS CANADA
REAL PROPERTY AND SAFETY AND SECURITY

INSTITUTE OF OCEAN SCIENCES
NEW GUARDHOUSE
9860 WEST SAANICH ROAD
SIDNEY, BC, V8L 5T5

SCALE AS SHOWN
START DATE
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MECHANICAL DETAILS

RATIO



DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED DAJ	DRAWN DAJ/SR	CHECKED GT	RECOMMENDED	APPROVED
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