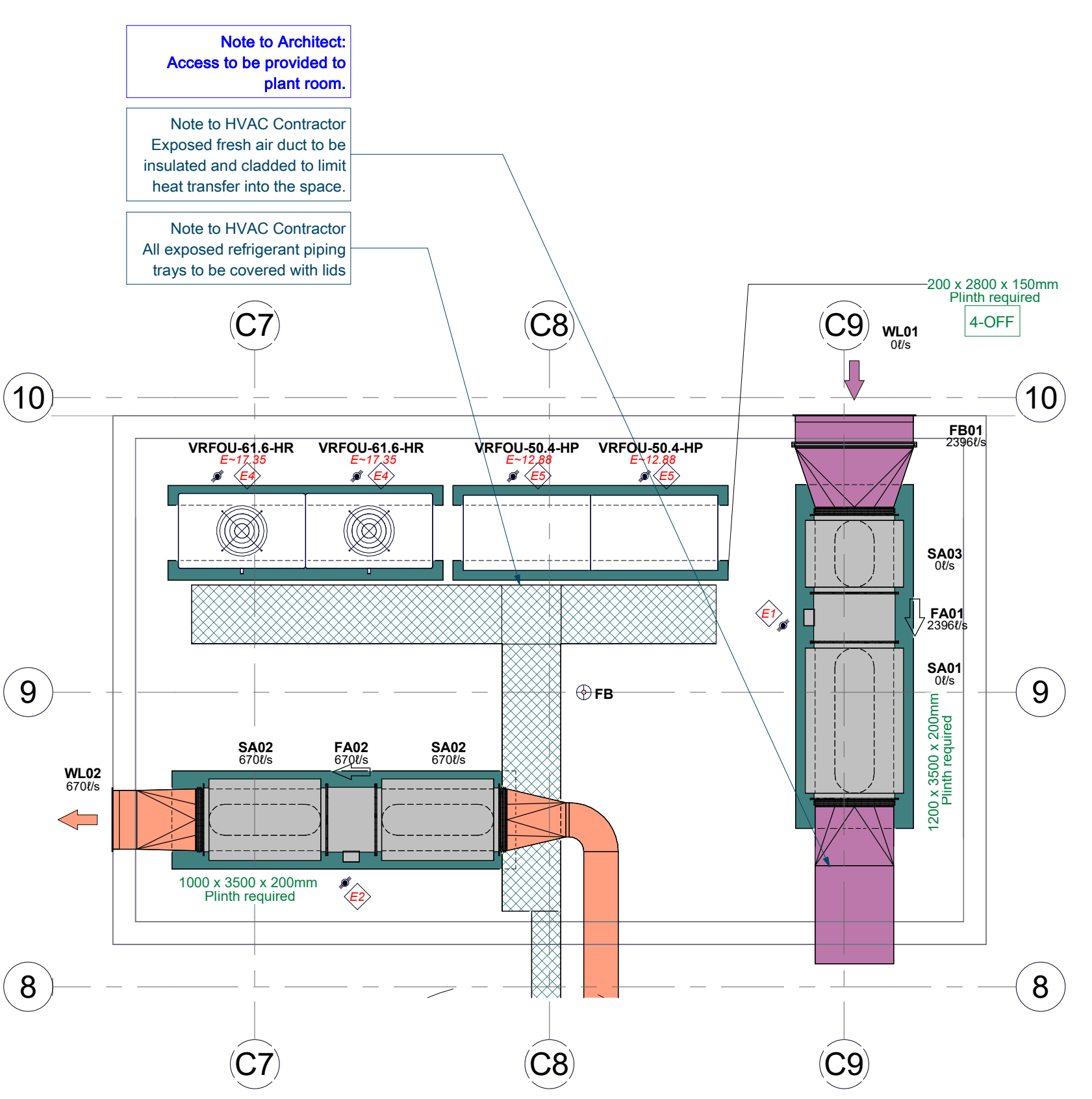
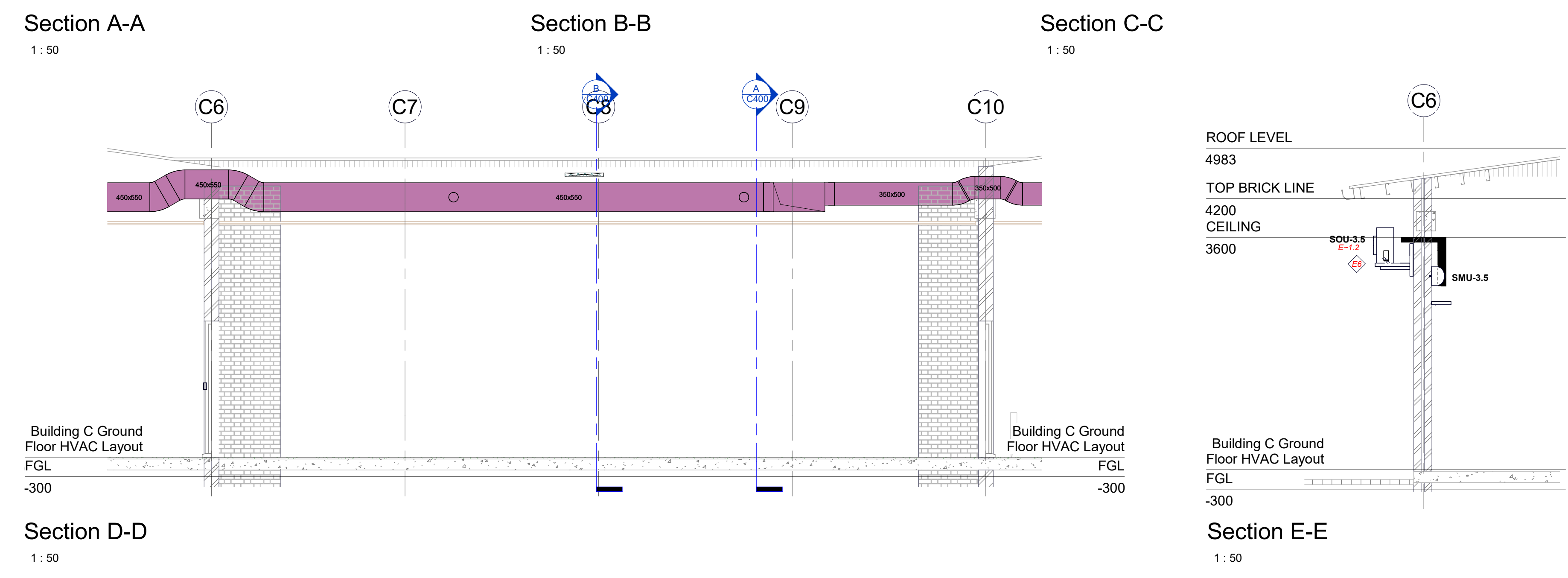
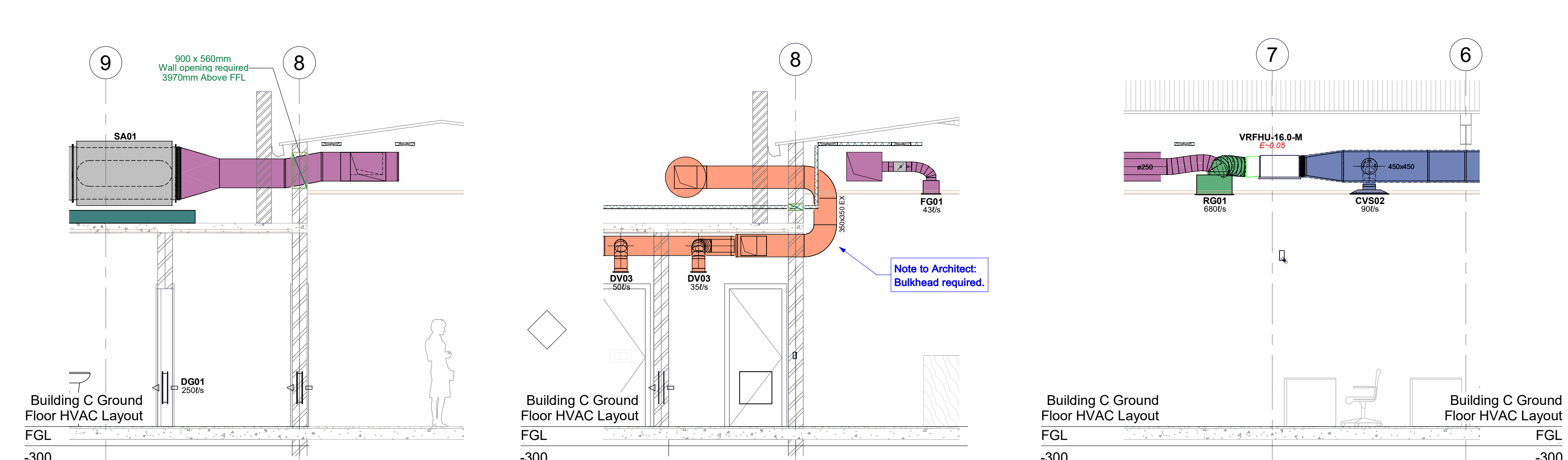
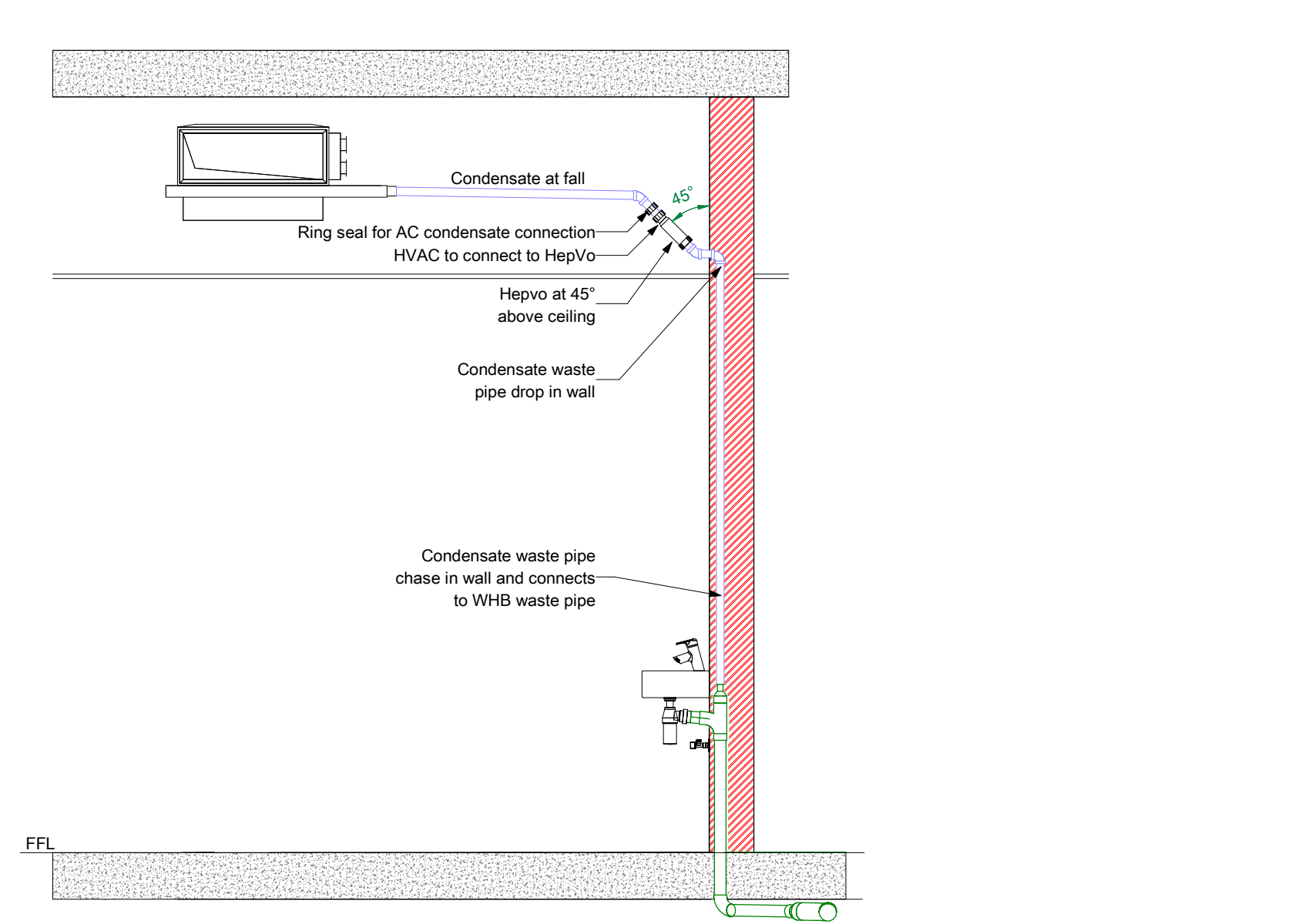


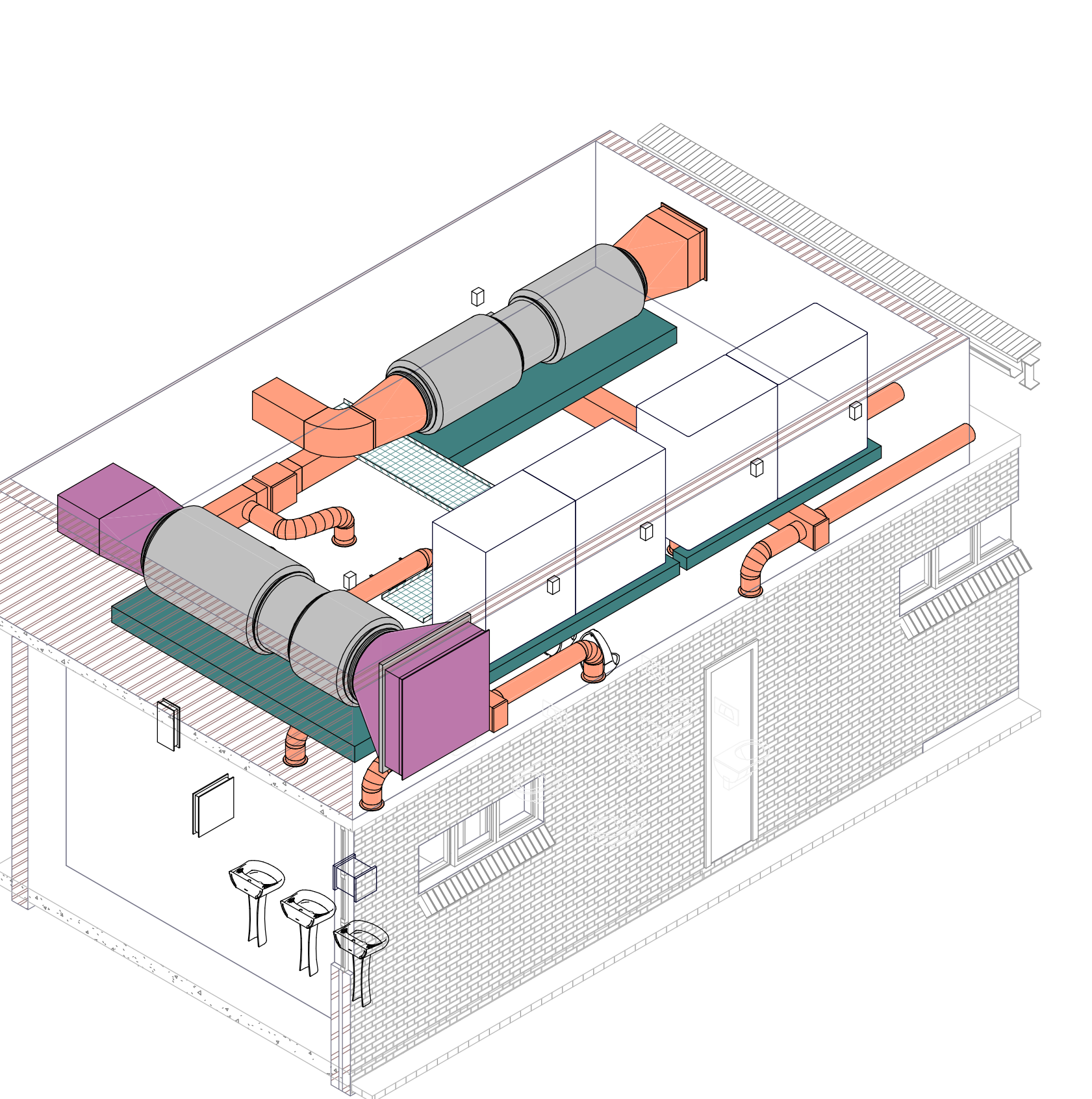
Building C HVAC Layout  
1:100



Building C HVAC Layout  
1:50



Detail - Typical Condensate to WHB Connection  
1:25



Plantroom 3D

Master - Sound Attenuator Schedule											
Code	Type	Width (mm)	Height (mm)	Diameter (mm)	Depth (mm)	Air Flow (l/s)	Pressure Drop (Pa)	No. Off	Notes		
SA01	Cylindrical 20-Hood	800	1600	0	10	1	Build C: Toilet Extract				
SA02	Cylindrical 20-Hood	630	1260	670	10	2	Build C: Toilet Extract				
SA03	Cylindrical 10-Hood	800	800	0	10	1	Build C: Toilet Extract				

Master - Fans Schedule											
Code	Type	Diameter (mm)	Air Flow (l/s)	Pressure Static (Pa)	Pressure Total (Pa)	Power Absorbed (kW)	Power Motor (kW)	Variable Speed (Yes/No)	Smoke Rated (Yes/No)	No. Off	Notes
FA01	Axial	800	2396	250	250	400/350	0.42	0.55	No	No	Build C: Toilet Extract
FA02	Axial	630	670	250	250	400/350	0.42	0.55	No	No	Build C: Toilet Extract
FW01	Wall Fan	150	30	10	35	231/150	0.05	0.05	No	No	3

Master - Dampers Schedule											
Code	Type	Control	Blade Width (mm)	Blade Height (mm)	Diameter (mm)	Air Flow (l/s)	Pressure Drop (Pa)	Power Absorbed (kW)	Power Input (V/Hz)	Fire Interlock	Notes
DA01	Balancing Damper	Manual	Butterfly	150	18	0	1	1	1	No	1
DA01	Balancing Damper	Manual	Butterfly	150	20	0	1	1	1	No	1
DA01	Balancing Damper	Manual	Butterfly	150	24	1	1	1	1	No	1
DA01	Balancing Damper	Manual	Butterfly	150	33	1	2	2	2	No	2
DA01	Balancing Damper	Manual	Butterfly	150	37	2	2	2	2	No	2
DA01	Balancing Damper	Manual	Butterfly	150	43	2	2	2	2	No	2
DA01	Balancing Damper	Manual	Butterfly	150	49	3	2	2	2	No	2
DA02	Balancing Damper	Manual	Butterfly	200	72	2	2	2	2	No	2
DA03	Balancing Damper	Manual	Butterfly	250	126	2	2	2	2	No	2
DA03	Balancing Damper	Manual	Butterfly	250	140	3	1	1	1	No	1
DA03	Balancing Damper	Manual	Butterfly	250	154	4	2	2	2	No	2
DA03	Balancing Damper	Manual	Butterfly	250	255	10	1	1	1	No	1
DA04	Balancing Damper	Manual	Butterfly	300	255	10	2	2	2	No	2

Master - Electrical Equipment Schedule											
Code	Type	Equipment Served	Absorbed (kW)	Power (kW)	UPS (kW)	Power (V/Hz)	Power Source	Location of Power	Fire Signal (Y/N)	No. Off	Notes
E1	Three Phase Isolator	FAU-01	1.470	1.470	0.000	400/350	Normal	Isolator at equipment	No	1	
E2	Three Phase Isolator	FA02	0.415	0.415	0.000	400/350	Normal	Isolator at equipment	No	1	
E3	Single Phase Isolator	FW01	0.050	0.050	0.000	231/150	Normal	Isolator at equipment	No	3	
E4	Three Phase Isolator	VRFCU-50.4-HR	12.800	0.000	0.000	400/350	Normal	Isolator at equipment	No	2	
E5	Three Phase Isolator	VRFCU-61.6-HR	17.350	0.000	0.000	400/350	Normal	Isolator at equipment	No	2	
E6	Single Phase Isolator	SOU-3.5	1.200	1.200	0.000	231/150	Normal	Isolator at equipment	No	1	
E7	Single Phase Isolator	SOU-4.5	1.700	1.700	0.000	231/150	Normal	Isolator at equipment	No	1	
E8	Single Phase Isolator	VRFHU-16.0-M	0.050	0.050	0.000	231/150	Normal	Isolator at equipment	No	6	
E9	Single Phase Isolator	VRFCU-5.6	0.030	0.030	0.000	231/150	Normal	Isolator at equipment	No	6	
E10	Single Phase Isolator	VRFCU-9.0	0.080	0.080	0.000	231/150	Normal	Isolator at equipment	No	2	
E11	Single Phase Isolator	VRFCU-11.2	0.080	0.080	0.000	231/150	Normal	Isolator at equipment	No	1	
E12	Single Phase Isolator	VRFCU-14.0	0.090	0.090	0.000	231/150	Normal	Isolator at equipment	No	1	
E13	Single Phase Isolator	VRFCU-3.6	0.030	0.030	0.000	231/150	Normal	Isolator at equipment	No	3	
E14	Single Phase Isolator	VRFCU-2.8	0.030	0.030	0.000	231/150	Normal	Isolator at equipment	No	1	
E14	Single Phase Isolator	VRFCB-06	0.060	0.060	0.000	231/150	Normal	Isolator at equipment	No	1	
E15	Single Phase Isolator	VRFCB-04	0.060	0.060	0.000	231/150	Normal	Isolator at equipment	No	3	

Master - Split DX Units Schedule											
Code	Part ID	Type	Cooling Capacity (kW)	Heating Capacity (kW)	Air Flow (l/s)	Air Flow (m³/s)	Depth (mm)	Height (mm)	Weight (kg)	Phase (V/Hz)	Notes
SMU-3.5	0	Midwall	3.5	2.6	4	133	116	820	205	285	8.2
SMU-4.5	0	Midwall	2.8	1.9	4.5	175	158	820	205	285	8.2
SOU-3.5	0	Condenser	3.5	4	617	720	265	550	30	231/150	1.20
SOU-4.5	0	Condenser	4.5	0	484	790	285	540	33	231/150	1.70

VRFCU-8.0	Cassette 4 Way Blow	9	6.8	10	467	950	950	249	21	231/150	0.06
VRFCU-11.2	Cassette 4 Way Blow	11.2	8.4	12.5	467	950	950	291	23	231/150	0.08
VRFCU-14.0	Cassette 4 Way Blow	14	10.5	16	467	950	950	333	25	231/150	0.05
VRFHU-16.0-M	Ducted Hide-away (Medium ESP)	16	11.5	18	717	1200	650	360	24	231/150	0.05
VRMU-2.8	Midwall	2.8	2.1	3.2	96	825	189	285	8	231/150	0.03
VRFCU-50.4-HR	Condenser Vertical Heat Pump VRF	50.4	50.4	56.7	4833	1295	765	1695	105	400/350	12.88
VRFCU-61.6-HR	Heat Recovery Condenser	61.6	61.6	69.3	4833	1295	765	1695	306	400/350	17.35

Master - Terminal Schedule - Constant Volume											
Code	Type	Length (mm)	Height (mm)	Diameter (mm)	Free Area (mm²)	Min. (mm)	Max. (mm)	Min. (mm)	Max. (mm)	Capacity (l/s)	Notes
CV502	Swirl	600	600	70	130	0.0	2.5	0	40	33	250
CV503	Swirl	600	600	130	179	0.0	2.9	0	40	33	250
DG01	Door Grille	450	450	70	0	300	0.0	0.0	10	0	16
DV03	Extract Duct Valve	0	50	50	0.0	0.0	0.0	0.0	0	0	14
FG01	Supply Air Grille w/ Plenum Box	300	300	70	0	60	0.0	0.0	30	31	150
FG02	Supply Air Grille w/ Plenum Box	300	300	70	0	126	0.0	0.0	30	31	200
FG03	Supply Air Grille w/ Plenum Box	300	300	70	0	230	0.0	0.0	30	31	250
FG04	Supply Air Grille w/ Plenum Box	600	600	70	0	370	0.0	0.0	30	31	300
RG01	Return Air Grille w/ Plenum Box	600	1200	70	0	320	0.0	0.0	5	20	300
WL01	Weather Louvre	1200	1200	0	430	0	0	0	5	40	No
WL02	Weather Louvre	600	600	0	430	0	0	0	5	40	No

Revisions:

Rev	Description	Date	By
0	Issued for Tender	07.09.2022	PM

Standard Mechanical Notes:

This drawing shall not be used as a construction document.

Routes and areas have been allocated to this service, locations dimensions are indicated in these.

To prepare his construction/installation drawing, the (sub) contractor shall adhere to this co-ordination principle and shall inspect all the architectural drawings, including structural and other services design drawings pertaining to the works. The (sub) contractor shall acquire him/herself with the general arrangement of all other services and ensure that in doing further work it will not obstruct the fitting of future maintenance of other services.

The (sub) contractor shall be responsible for the correct field dimensions, clearances and heights, quantities, fabrication processes and techniques of construction co-ordination of his/her work with that of all other trades, providing all devices necessary for safe and satisfactory operation.

Legend:

**Ducting**

- Externally insulated supply air ducting
- Uninsulated return air ducting
- Uninsulated fresh air ducting
- Uninsulated Extract air ducting
- Internal lining
- External insulation

**Fire Legend:**

- Input/Output relay and transformer for fire damper control and interface (by HVAC sub-contractor)
- Smoke interface unit (by smoke detection contractor)

**Plumbing:**

- Drain point ABOVE CEILING by plumber Refer to Unit details
- Drain point BELOW CEILING by plumber Refer to Unit details
- Full bore drain point by plumber
- ø50mm make up water point by plumber
- Drain Point at floor level by plumber

**Electrical:**

- Single phase electrical isolator by electrical sub-contractor
- Three phase electrical isolator by electrical sub-contractor
- Equipment Electrical load in kW
- Air Terminal heating load in kW equal to electrical load
- Sensor / Setpoint adjuster at 1100 AFPL
- Ø30mm conduit chased into wall with draw wire by electrical sub-contractor

This drawing is based on Architects drawing No: IDW Building C\_Rev.B.int 2022-08-10

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Project:

LET COL

Drawing Title:

Building C HVAC Layout

Designed	Drawn	Checked	Passed	Date	Size
HVZ	SE	SE	PR Eng	25-10-2021	AS

Drawing Status: **Issued for Tender**

Project Number	Division	Service	Drawing Number	Revision
211056	M	A	C400	0