



LONGSIGHT CUSTODY SUITE

Greater Manchester Police

Planning Condition 4 Information Pack

'Prior to first operation of the new custody suite, final details of the elevational appearance and location, of all externally mounted ancillary plant, equipment and servicing, shall be submitted to and approved in writing by the City Council, as Local Planning Authority.'

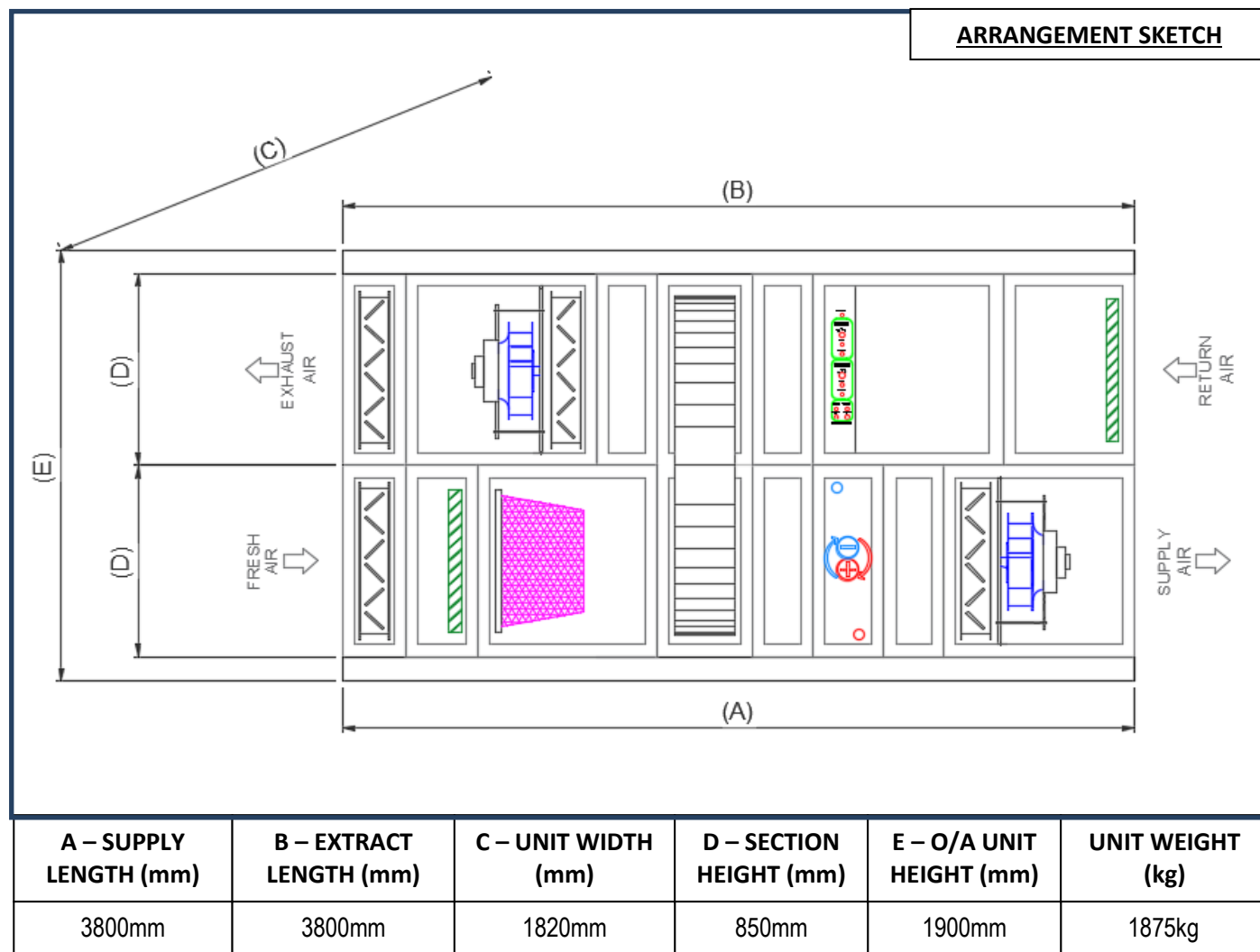
September 2025

RIBA Stage 5

Appended to include:
AHU Data Sheets
External Condenser Data Sheets
Plantroom Drawings
Elevations

TECH SUB

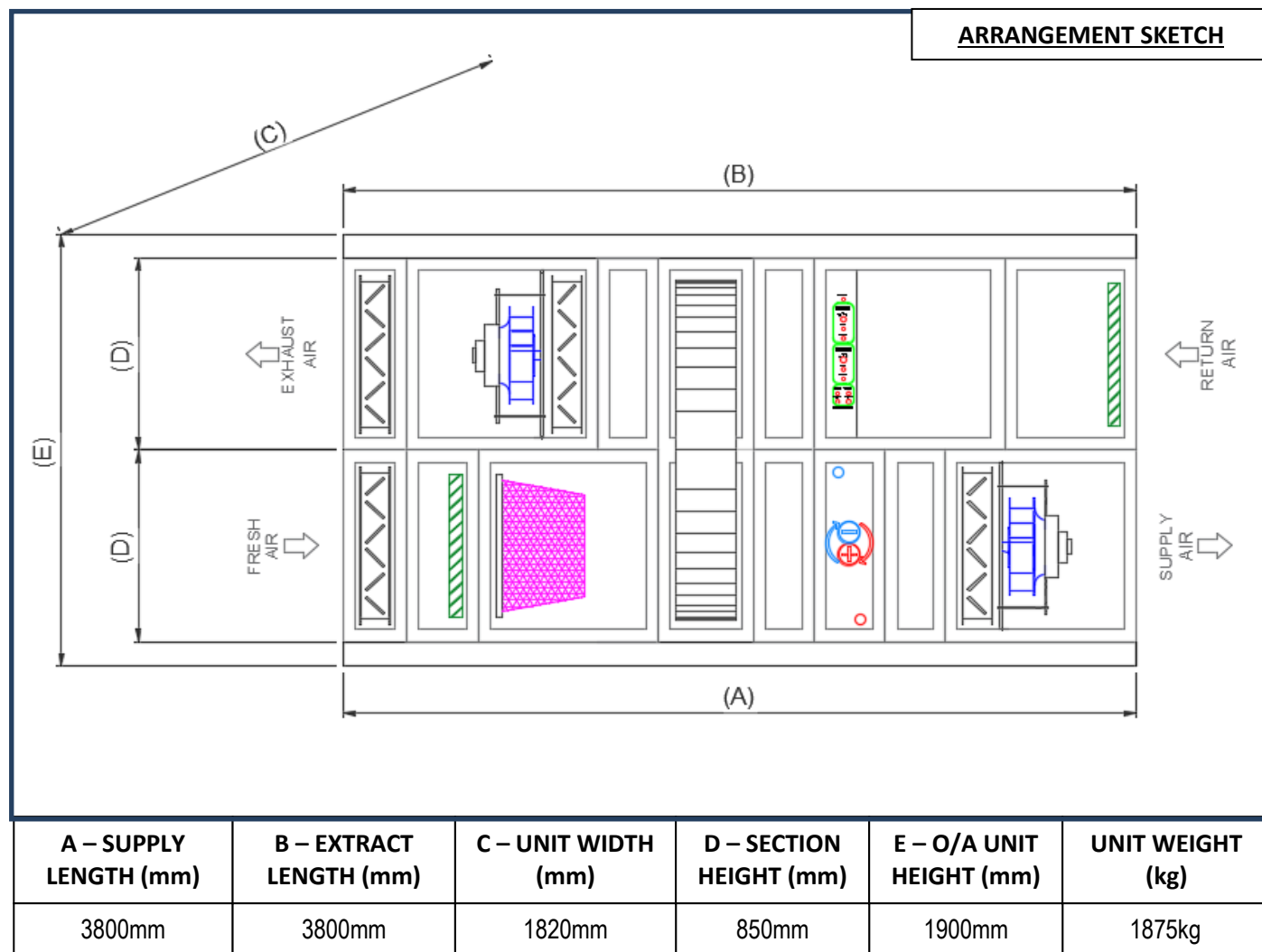
Unit Reference: -	AHU 01 CELL WING 1
Location: -	EXTERNAL
Type: -	BVU
Arrangement: -	DOUBLE DECK



TERMS: All products and services quoted are subject to AirSource Ventilation Ltd standard Terms and Conditions, available on request. Details are subject to revision at any time.
This document is confidential and may also be privileged. You may not copy it, use it for any purpose nor disclose its contents to any person. Please check the enclosed details carefully and advise us of any discrepancies to avoid potential problems at a later date.

Tech sub

Unit Reference: -	AHU 02 CELL WING 2
Location: -	EXTERNAL
Type: -	BVU
Arrangement: -	DOUBLE DECK



TERMS: All products and services quoted are subject to AirSource Ventilation Ltd standard Terms and Conditions, available on request. Details are subject to revision at any time.
This document is confidential and may also be privileged. You may not copy it, use it for any purpose nor disclose its contents to any person. Please check the enclosed details carefully and advise us of any discrepancies to avoid potential problems at a later date.

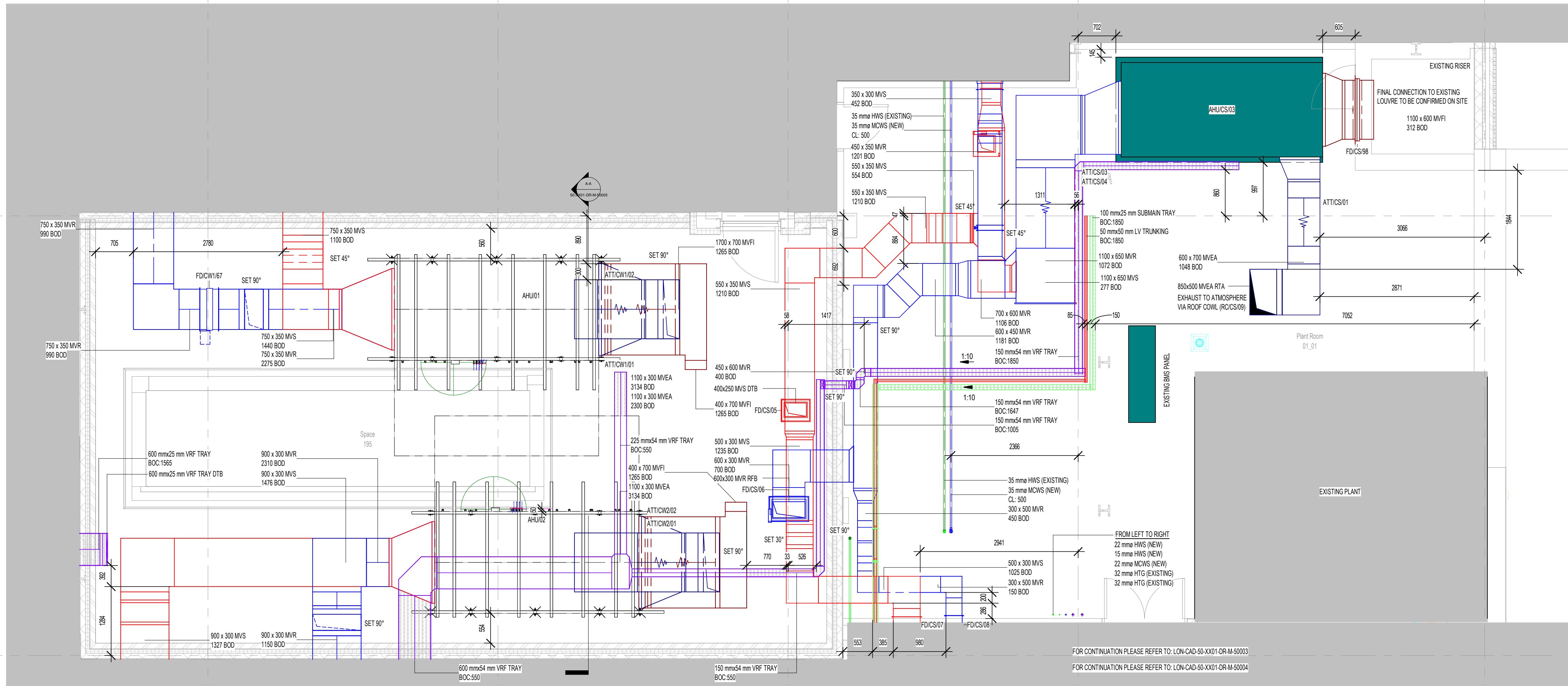
Project: Longsight Custody Suite
Schedule: LON-WAL-50-XXXX-SH-M-50010
Title: DX/VRF Heating & Cooling Units
Date: 09.09.25
Revision: C01
Status: AS: Construction

Unit Ref.	Associated Outdoor Unit(s)	Area Served	Minimum Secondary Air Flow Rate from FCU(l/s) - Cooling	Minimum Secondary Air Flow Rate from FCU(l/s) - Heating		Indoor Unit External Static Resistance (Pa)	Cooling				Heating			NR Rating Room Served	Primary Fresh Air to Unit (l/s)	Primary Fresh Air to Unit °C - Heating	Primary Fresh Air to Unit °C - Cooling	Unit Type	Indoor Model Ref.	Unit Dimensions (mm) (H x W x D)	Airflow Rate (l/s) (H/M/L)	Sound Pressure Level (dBA) (H/M/L)	Selected Fan Speed	Weight (Kg)	Notes
							Min. Cooling	Cooling Coil Design			Heating Coil Design														
							Fan Coil Sensible CLG Load	Room Temperature	Coil air On Temperature	Minimum Off coil temperature	Minimum Heating Capacity	Coil air On Temperature	Coil air Off Temperature												
							kW	deg C (db)	deg C (db)	deg C (db)	kW	deg C (db)	deg C (db)												

OUTDOOR UNITS

Unit Ref.	-	Model Ref.	Max. Capacity			Unit Dimensions (mm) (H x W x D)	Electrical		COP	SCOP	EER	SEER		Comments
			Cooling (Total)		Heating		Max. Current	Supply						
			kW		kW		Amps	V/ph/Hz/A						
CU/01	-	AC052RXADKG/EU	5.0		6.0	638x880x310	-	230/1/50/20	-		Min. 3.20	Min. 5.50		00_93 Intox 01 1-2-1 split outdoor unit serving duct mounted DX coil - located in ground floor ceiling void
CU/02	-	AC026RXADKG/EU	3.5		4.0	548x790x285	-	230/1/50/13	-	-	Min. 3.20	Min. 5.50		00_91 Search 01 1-2-1 split outdoor unit serving duct mounted DX coil - located in ground floor ceiling void
CU/03	-	AC026RXADKG/EU	3.5		4.0	548x790x285	-	230/1/50/13	-	-	Min. 3.20	Min. 5.50		00_84 Adult Intervention Room 1-2-1 split outdoor unit serving duct mounted DX coil - located in plant void
CU/04	-	AC052RXADKG/EU	5.0		6.0	638x880x310	-	230/1/50/20	-	-	Min. 3.20	Min. 5.50		00_87 Forensic Medical 1-2-1 split outdoor unit serving duct mounted DX coil - located in ground floor ceiling void
CU/05a	-													
CU/05b	-													00_82 Corms / Control Room outdoor unit - duty and standby w/ auto changeover control via the BMS
CU/06a	-	AM100AXVGGR/EU				1695x930x765	-	400/3/50/32	-	Min. 4.50	Min. 3.20	Min. 6.00		VRF System c/w BC box controllers capable of simultaneous heating & cooling (Custody Support)
CU/06b	-	AM200AXVGGR/EU	84.0		84.0	1695x1295x765	-	400/3/50/63	-	Min. 4.50	Min. 3.20	Min. 6.00		VRF System c/w BC box controllers capable of simultaneous heating & cooling (Custody Support)
CU/07a	-	AC071RXADKG/EU	7.1		8.0	798x880x310	-	230/1/50/25	-	Min. 4.00	Min. 3.20	Min. 5.50		Plant distribution zone 07 outdoor unit - duty and standby w/ auto changeover control via the BMS
CU/07b	-	AC071RXADKG/EU	7.1		8.0	798x880x310	-	230/1/50/25	-	Min. 4.00	Min. 3.20	Min. 5.50		
CU/07c	-	AC071RXADKG/EU	7.1		8.0	798x880x310	-	230/1/50/25	-	Min. 4.00	Min. 3.20	Min. 5.50		Plant distribution zone 07 outdoor unit - duty and standby w/ auto changeover control via the BMS
CU/07d	-	AC071RXADKG/EU	7.1		8.0	798x880x310	-	230/1/50/25	-	Min. 4.00	Min. 3.20	Min. 5.50		
CU/08	-	AC026RXADKG/EU	2.6		3.4	548x790x285	-	230/1/50/13	-	Min. 4.00	Min. 3.20	Min. 5.50		00_66 Consultation 1-2-1 split outdoor unit serving duct mounted DX coil - located in ground floor ceiling void
CU/09	-	AC026RXADKG/EU	2.6		3.4	548x790x285	-	230/1/50/13	-	Min. 4.00	Min. 3.20	Min. 5.50		00_67 Consultation 1-2-1 split outdoor unit serving duct mounted DX coil - located in ground floor ceiling void
CU/10a	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Duty) serving AHU 01 - Cell Wing 1
CU/10b	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Duty) serving AHU 01 - Cell Wing 1
CU/10c	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Standby) serving AHU 01 - Cell Wing 1
CU/11a	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Duty) serving AHU 02 - Cell Wing 2
CU/11b	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Duty) serving AHU 02 - Cell Wing 2
CU/11c	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Standby) serving AHU 02 - Cell Wing 2
CU/12a	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Duty) serving AHU 03 - Custody Support
CU/12b	-	RAV-GV1401ATP-E	12.0		16.0	710x900x320	-	230/1/50/32	-	Min. 4.00	Min. 3.20	Min. 3.50		DX Heat Pump (Standby) serving AHU 03 - Custody Support

- Notes:**
- Unit selections are to be confirmed by the system supplier prior to ordering to ensure the required duty is provided at the stated coil air on conditions.
 - All outdoor units shall be selected to provide the required duty at outdoor design conditions of 35 deg C wb (Summer) and -5 deg C db (Winter)
 - Installer to check final pipe lengths and height differences between indoor and outdoor units to confirm unit suitability
 - Units to be supplied with a wall mounted controller with 7-day timeclock control capability
 - All systems to be interfaced with the building BMS system via Black Pear (or equivalent) interfaces eg Trend, BacNet , Modbus.
 - Server Room systems to be Duty/Standby. Autochangeover to be controlled by local controller with BMS reporting
 - No. of outdoor units and arrangement to be confirmed by system supplier
 - Manufacturer to ensure the maximum permissible pipework distance between the furthest indoor unit and respective outdoor unit is not exceeded.
 - Contractor to allow provision for big-foot system to all external condensers.
 - External condensers to be accoustically treated. Full requirements to be confirmed by the accoustician.



SAFETY HEALTH & ENVIRONMENTAL INFORMATION

For details of site wide & general risks, to be read in conjunction with the relevant project drawings and designers risk assessment

In addition to the risks normally associated with the types of work detailed in this drawing, note the following risks & information

For information relating to cleaning & maintenance see the H&S file

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

Construction
Working within ceiling void level & enclosed plant areas

Maintenance
Access for maintenance of equipment within ceiling voids

DOMESTICS NOTES:

- ALL CONCEALED PIPEWORK TO BE INSULATED.
- ALL HOT AND COLD TERMINAL BRANCHES TO BE 15mm UNLESS OTHERWISE STATED
- THE CONTRACTOR SHALL DISPLAY 'CAUTION HOT WATER' SIGNS AT ALL UNBLENDED OUTLETS
- DOUBLE CHECK VALVES TO BE PROVIDED TO ALL LAUNDRY AND KITCHEN APPLIANCES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PARTICULAR PROJECT SPECIFICATION AND ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS
- DCs TO BE INSTALLED TO ALL LOW POINTS.
- THE MECHANICAL CONTRACTOR SHALL ALLOW FOR EXPANSION ON ALL PIPEWORK BY INCLUDING FOR BELLOW, EXPANSION LOOPS AND ANCHOR POINTS.
- PROVIDE TERMINAL BRANCH ISOLATION ON ALL HOT & COLD WATER OUTLETS.
- ALL HOT WATER OUTLETS SERVING WASH HAND BASINS TO BE BLENDED TO 43°C MAXIMUM.
- REFER TO SCHEMATIC DRAWING INFORMATION FOR TYPICAL THERMOSTATIC VALVE & PIPEWORK CONFIGURATIONS FOR VARIOUS OUTLETS
- ALL EXPOSED PIPEWORK WITHIN STAFF AREAS TO BE CHROME PLATED
- ALL AFL AND THERMOSTATIC MIXING VALVES TO INCORPORATE INTEGRAL STRAINERS AND ISOLATION VALVES.

HEATING LEGEND:

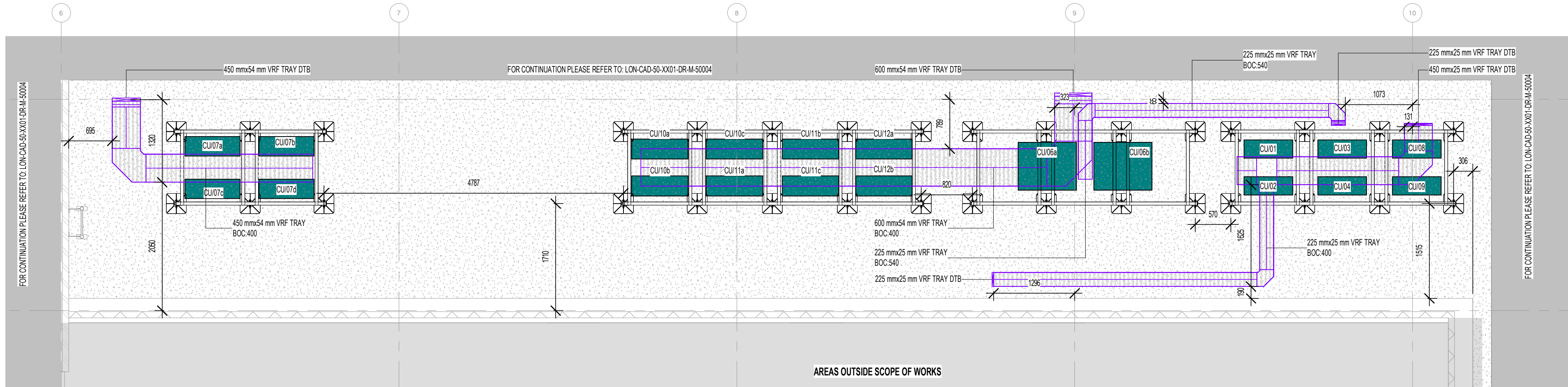
- TS ROOM TEMPERATURE SENSOR
- RC FCU CONTROLLER
- ELECTRIC PANEL HEATER
- ELECTRIC RADIANT PANEL
- FAN COIL UNIT
- DUCT MOUNTED HEATER BATTERY
- DUCT MOUNTED DX COIL

NOTES:
THIS IS A DESIGN DRAWING NOT AN INSTALLATION DRAWING. DIMENSIONS SHOULD NOT BE SCALED.
SITE DIMENSIONS TO BE CHECKED BEFORE PRODUCTION OF CRITICAL MANUFACTURING DRAWINGS.
THE DRAWING IS COPYRIGHT AND NO PART MAY BE REPRODUCED WITHOUT WRITTEN CONSENT.

VENTILATION NOTES:

- THIS DRAWING IS FOR COSTING ONLY. FULLY CO-ORDINATED, DETAILED INSTALLATION DRAWINGS MUST BE PROVIDED BY THE CONTRACTOR.
- ALL EQUIPMENT AND GRILLES TO BE SUSPENDED BY BUILDING STRUCTURE NOT BY SUSPENDED CEILING.
- ALL SHEET METAL DUCTWORK SHALL BE PROVIDED WITH ACCESS DOORS IN COMPLIANCE WITH RECOMMENDATIONS MADE WITHIN HVAC PUBLICATION. CLEANLINESS OF VENTILATION TRITV AND HTM'S, ALL POSITIONS OF ACCESS DOORS SHALL BE DETAILED ON THE CONTRACTORS WORKING DRAWING.
- ALL FLEXIBLE CONNECTIONS TO BE MAXIMUM OF 300mm.
- ROOF COWL LOCATIONS TO BE COORDINATED WITH ARCHITECT.
- ALL GRILLES TO BE CO-ORDINATED ON SITE IN CONJUNCTION WITH ALL OTHER SERVICES
- THE CONTRACTOR SHALL ALLOW FOR ALL SECONDARY STEELWORK NECESSARY FOR DUCTWORK SUPPORTS, ETC.
- THE DUCTWORK INSTALLATION SHALL BE PROVIDED WITH ACCESS DOORS IN COMPLIANCE WITH RECOMMENDATIONS MADE WITHIN HVAC PUBLICATION. CLEANLINESS OF VENTILATION SYSTEMS TRITV. ALL POSITIONS OF ACCESS DOORS SHALL BE FULLY DETAILED ON THE MECHANICAL SUB-CONTRACTORS WORKING DRAWINGS.
- ACCESS PANELS & BOXING ARE INDICATIVE ONLY AND ARE TO BE CONFIRMED AND CO-ORDINATED ON SITE IN CONJUNCTION WITH ARCHITECTS DRAWING.
- THE CONTRACTOR SHALL COORDINATE CORRIDOR GRILLE CONNECTIONS ON SITE. WHERE NECESSARY, BESPOKE CONNECTIONS MAY BE REQUIRED.

1 01 - Main Building - Central Plant
1:50



VENTILATION LEGEND:

- MVEA EXHAUST AIR DUCTWORK
- MVFI FRESH AIR INTAKE DUCTWORK
- MVR RETURN DUCTWORK
- MVSS SUPPLY DUCTWORK
- MVSE SMOKE SUPPLY DUCTWORK
- MVSE SMOKE EXTRACT DUCTWORK
- NAT VENT NATURAL VENTILATION
- SOLID HATCH DENOTES DUCTS TO BE FIRE RATED

DUCT SYSTEM ABBREVIATIONS:

- EG EXTRACT GRILLE
- SD SUPPLY DIFFUSER
- SEG SMOKE EXTRACT GRILLE
- SSG SMOKE SUPPLY GRILLE
- ATT ATTENUATOR
- CTA CROSS TALK ATTENUATOR
- FD FIRE DAMPER
- FSD FIRE/SMOKE DAMPER
- FCU FAN COIL UNIT
- HB HEATER BATTERY
- HRU HEAT RECOVERY UNIT
- MD MOTORISED DAMPER
- MFD MOTORISED FIRE DAMPER
- MFSO MOTORISED FIRE SMOKE DAMPER
- VCD VOLUME CONTROL DAMPER
- RC WALL MOUNTED FCU CONTROLLER

PIPED SERVICES LEGEND:

- COLD WATER SERVICE - MAINS (NEW)
- COLD WATER SERVICE - MAINS (EXISTING)
- HOT WATER SERVICE - (NEW)
- HOT WATER SERVICE - (EXISTING)
- HEATING - (NEW)
- HEATING - (EXISTING)
- HEATING - (EXISTING TO BE REMOVED)
- DRAINAGE - ABOVE GROUND
- DRAINAGE - CONDENSATE
- DRAINAGE - RAIN WATER
- DRAINAGE - VENT

PIPEWORK - CEILING VOID

PIPEWORK - FLOOR VOID

PIPEWORK - HIGH LEVEL

PIPEWORK - LOW LEVEL

MAINS COLD WATER SERVICE

HOT WATER SERVICE

HEATING

ABOVE GROUND DRAINAGE

ABOVE GROUND DRAINAGE VENT

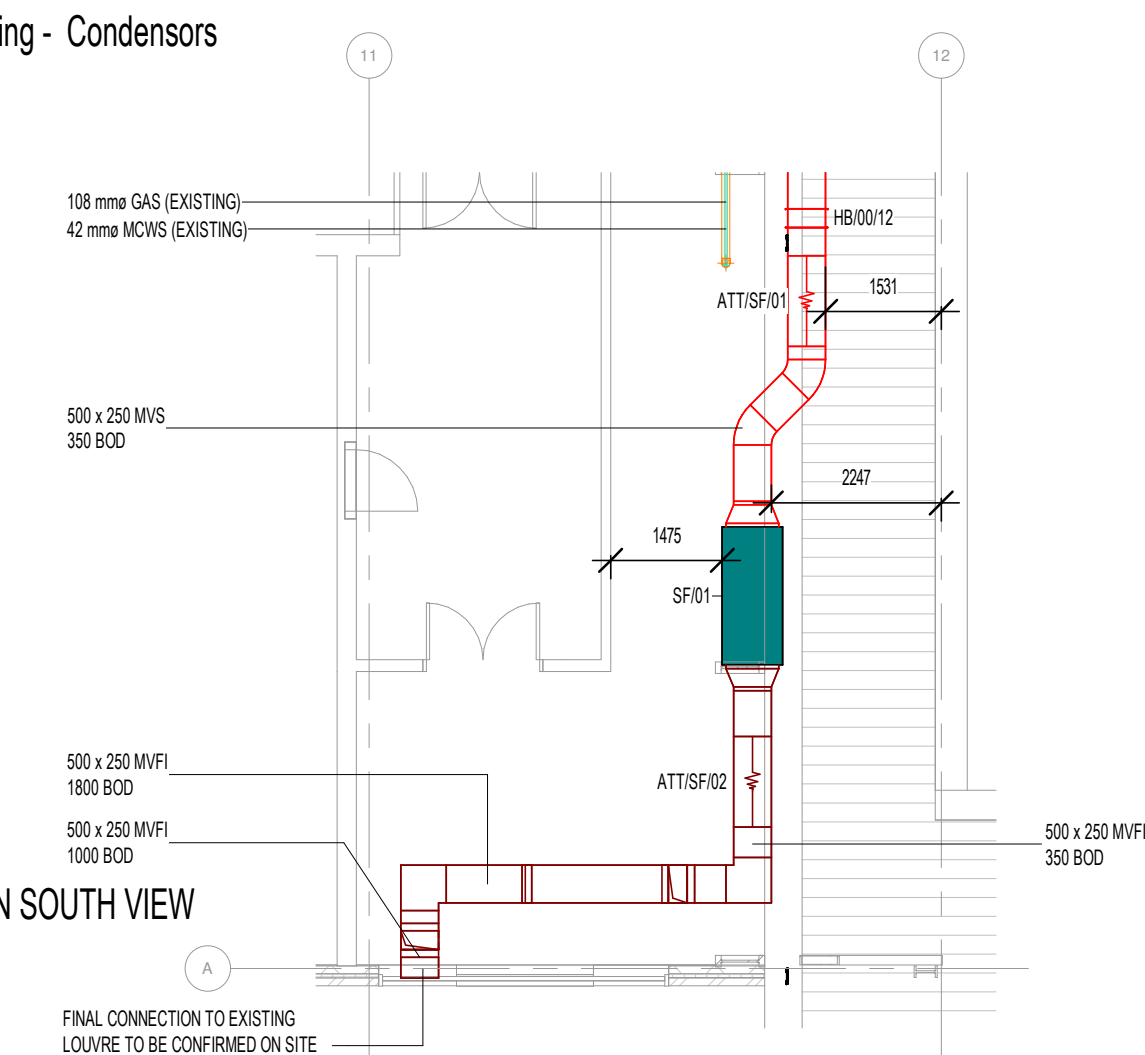
CONDENSATE

FLOOR GULLY

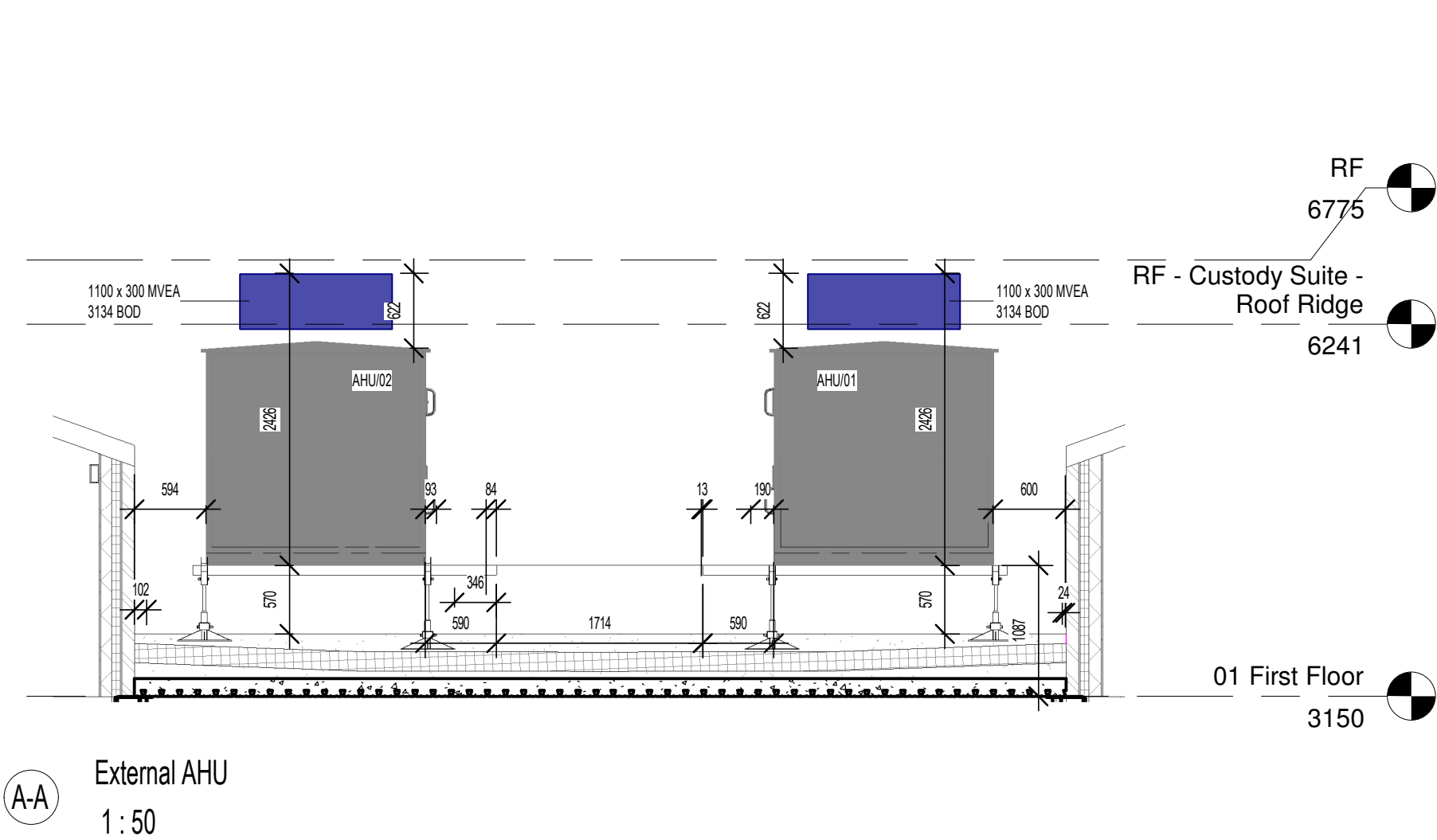
VALVE ABBREVIATIONS:

- DC DRAIN COCK
- IV ISOLATION VALVE
- SV SOLENOID VALVE

2 01 - Main Building - Condensors
1:50



3 01 - SUPPLY FAN SOUTH VIEW
1:100



External AHU
1:50

01 First Floor
3150

Rev C01
CONSTRUCTION ISSUE

By: NS Chkd: MD Date: 11.07.25 App: OC

Status A5 Description CONSTRUCTION Stage 5

Client
GREATER MANCHESTER POLICE

Project
LONGSIGHT CUSTODY SUITE

Drawing
MECHANICAL SERVICES
COMBINED MECHANICAL PLANTROOM
CENTRAL PLANT
GENERAL ARRANGEMENT LAYOUT

Drawing Number LON-WAL-50-XX01-DR-M-50005
Scale As indicated Size A1
Revision C01

Drawing Origins:
LON-CWA-XX-XX-M3-A-0011_C05
LON-XXX-XX-XX-M3-S-00001_D