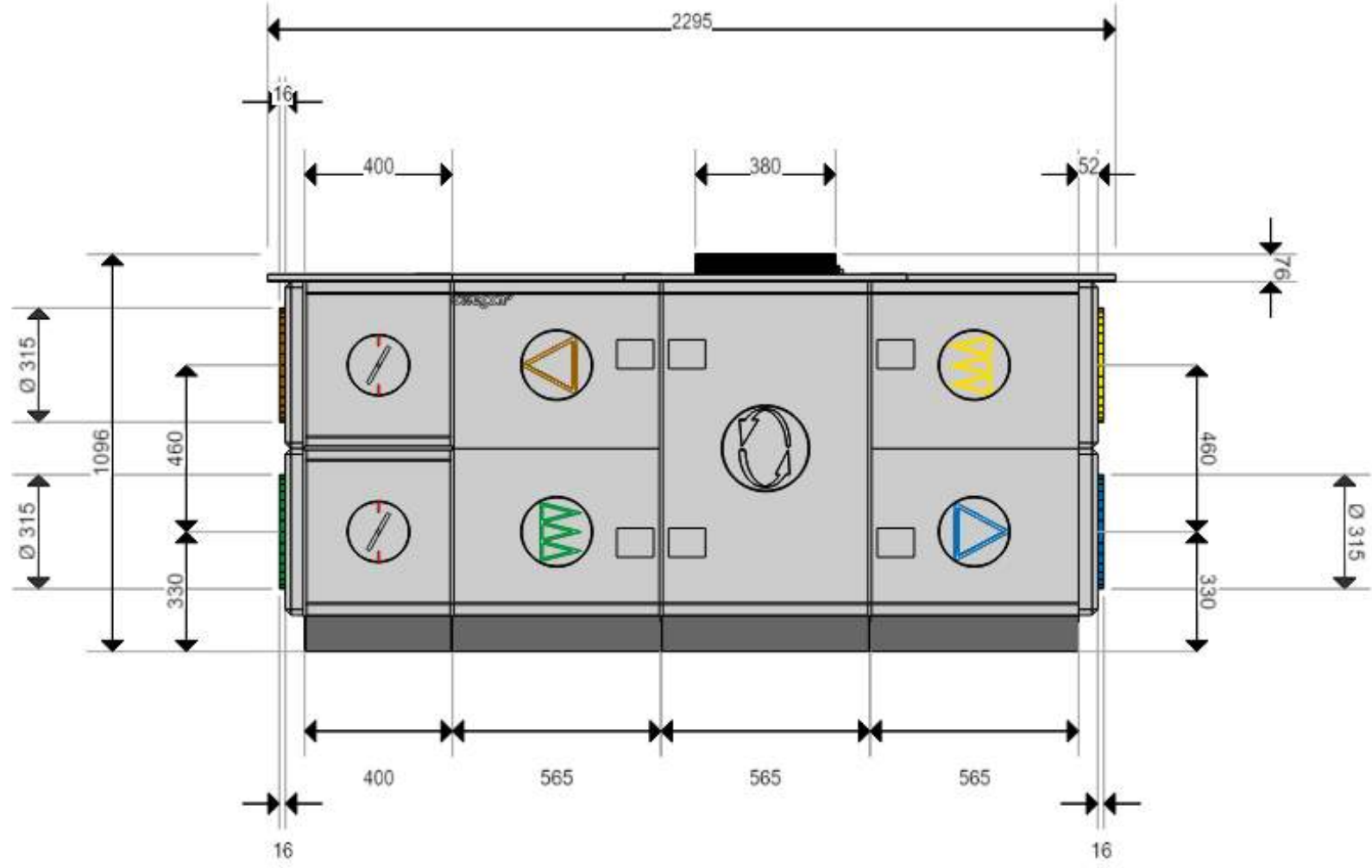




Image of current arrangement in roof void



Example of an air handling unit, Swegon Gold F RX - 400kg

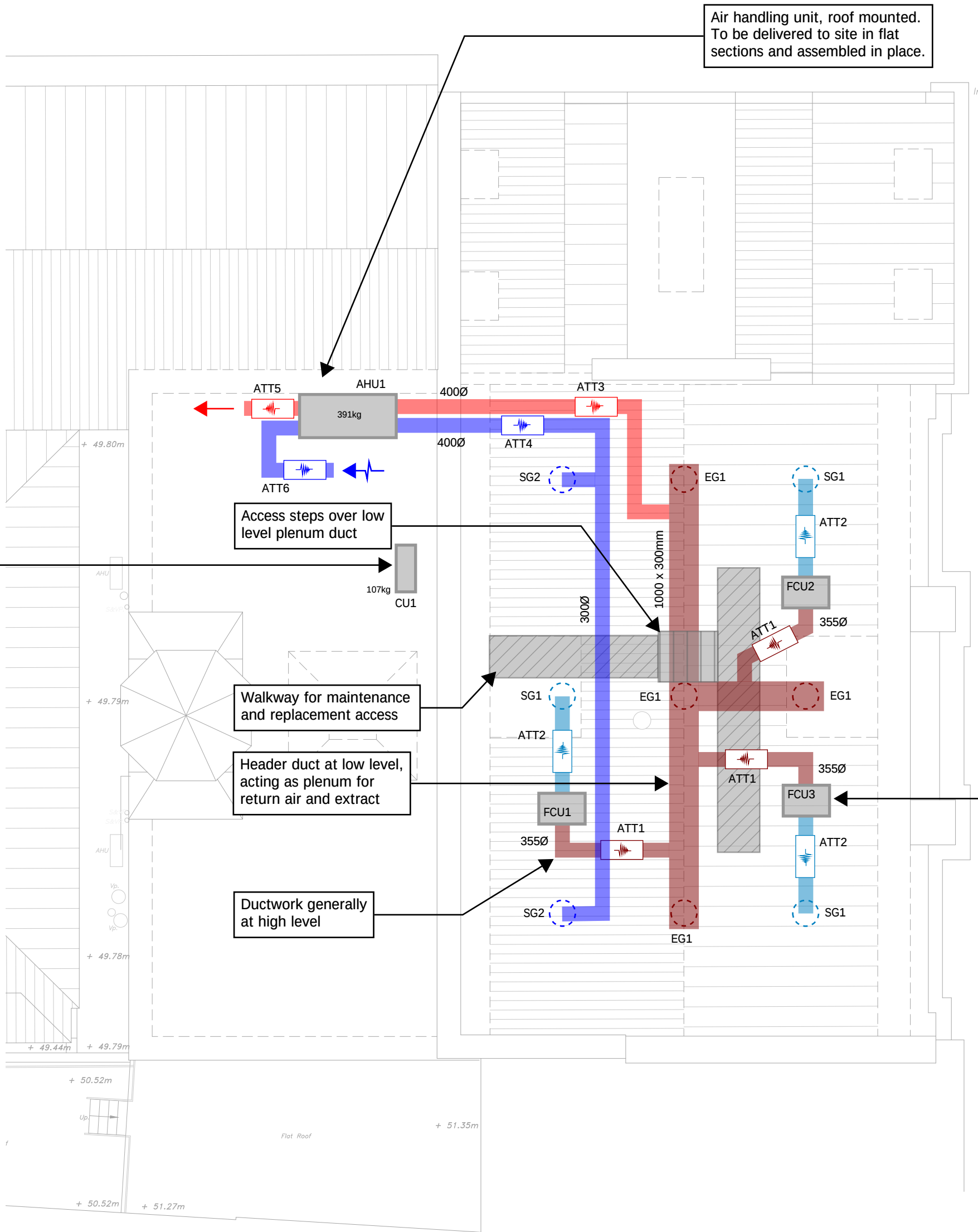


Frequency band	63	125	250	500	1k	2k	4k	8k	All	
To supply air duct	75	71	68	68	69	67	63	60	dB	73 dB(A)
To outdoor air duct	69	66	59	58	47	45	39	38	dB	58 dB(A)
To extract air duct	69	66	60	58	47	46	43	42	dB	58 dB(A)
To exhaust air duct	75	71	68	68	69	67	63	60	dB	73 dB(A)
To surroundings	67	60	48	50	39	37	32	32	dB	50 dB(A)



Example of an external condensing unit, Mitsubishi PUZ-ZM140VDA, R32 - 115kg

Condensing unit serving fan coil units



FCU schedule

Ref	Heating	Cooling	Model	Weight
FCU1	4.4kW	5.2kW	Mitsubishi PEAD-M50JA2	30kg
FCU2	4.4kW	5.2kW	Mitsubishi PEAD-M50JA2	30kg
FCU3	4.4kW	5.2kW	Mitsubishi PEAD-M50JA2	30kg



Example of a ducted fan coil unit

Grille schedule

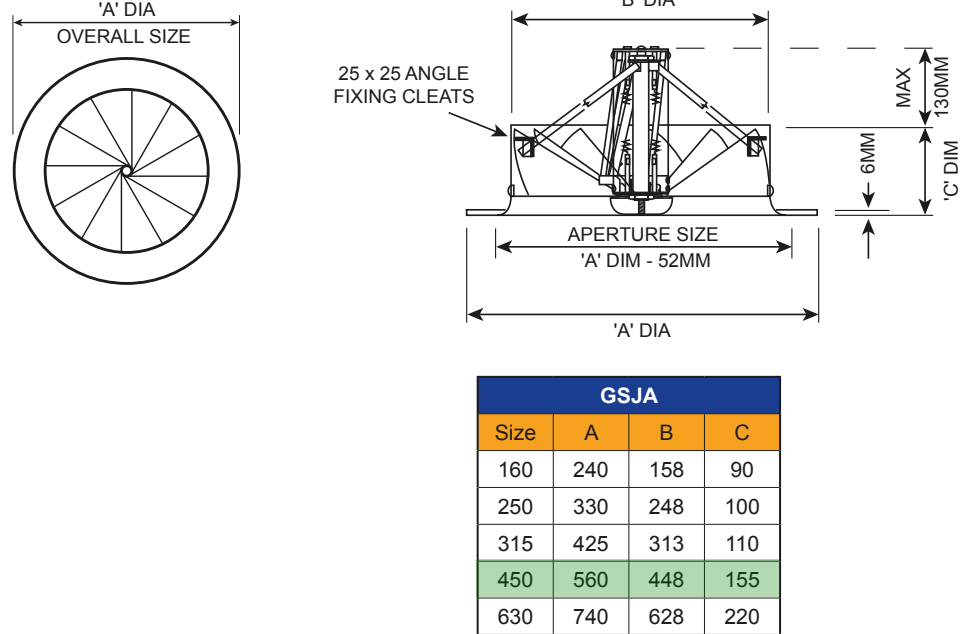
Ref	Flow	Qu	Model
SG1	266l/s	3	Gilberts GSJ 450
SG2	200l/s	2	Gilberts GSJ 450
EG1	300l/s	4	TBC, GSJ or perforated plate only

Example of Gilberts GSJ



Note - to get the correct performance we are finding that we need to use the version without a cover, so this is what would be on view. Colour can be selected - red or black?

Option to specify a version with a perforated face cover but would sacrifice performance and the space may experience stratification in heating mode (i.e. warm portion at the top and occupants still cooler below).

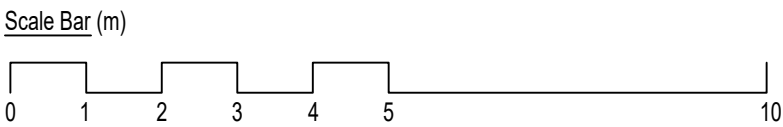


Horizontal Distribution

Type GSJA	Size 450
NECK VELOCITY (M/S)	1.25 1.5 1.75 2.0 2.25 2.5 2.75 3.0
VOLUME FLOW RATE (M ³ /S)	0.198 0.238 0.278 0.318 0.357 0.397 0.437 0.477
PRESSURE DROP (Pa)	4 6.5 7.8 9 12 17 20 24
THROW TO 0.25 MS (M)	2.4 2.8 3.6 4.0 4.8 5.2 5.8 6.2
THROW TO 0.5 MS (M)	1.5 2.4 2.8 3.2 3.6 4.2 4.8 5.4
NOISE LEVEL (NC)	1 20 25 30 35 38 40 40

Vertical Distribution

Type GSJA	Size 450
NECK VELOCITY (M/S)	1.25 1.5 1.75 2.0 2.25 2.5 2.75 3.0
VOLUME FLOW RATE (M ³ /S)	0.198 0.238 0.278 0.318 0.357 0.397 0.437 0.477
PRESSURE DROP (Pa)	13 2.5 2.9 3.3 3.3 6.3 8 10.7
THROW TO 0.25 MS (M)	2.8 3.1 3.7 4.2 4.7 5.2 5.7 6.2
THROW TO 0.5 MS (M)	1.5 1.8 2.1 2.2 2.4 2.7 2.9 3.1
NOISE LEVEL (NC)	20 20 20 20 20 25 25 25



Do not scale from this drawing. All dimensions to be confirmed on site.

Notes

- Drawing produced from E3 visual inspection, December 2024. Not a formal as-seen survey.

Key

- U/H Unheated
- EH Electric Heater
- ESH Electric Storage Heater
- R Radiator
- FCU Fan Coil Unit
- DB Distribution Board
- MP Main Panel
- DX Direct Expansion (condensing unit)
- W/H Water heater
- SG Supply Grille

- 11 May 26 Scale Bar Included
- 08 Apr 25 Draft issue - inc noise data
- 03 Apr 25 Draft issue - inc weights
- 18 Mar 25 Draft issue

Revisions

Client
Chippenham Town Council

Architect
N/A

e3 consulting engineers
QUEEN SQUARE HOUSE, 18-21 QUEEN SQUARE, BRISTOL BS14NH
TEL: 0117 238 0909 www.e3ce.com

Job
Chippenham Town Hall

Title
Town Hall Roof
Proposed Mechanical and Electrical Services Diagrams

Drawing No.
4887 SK03

Scale 1:100 @ A1	Author IMB	Reviewer HG	Status -	Rev. 2
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