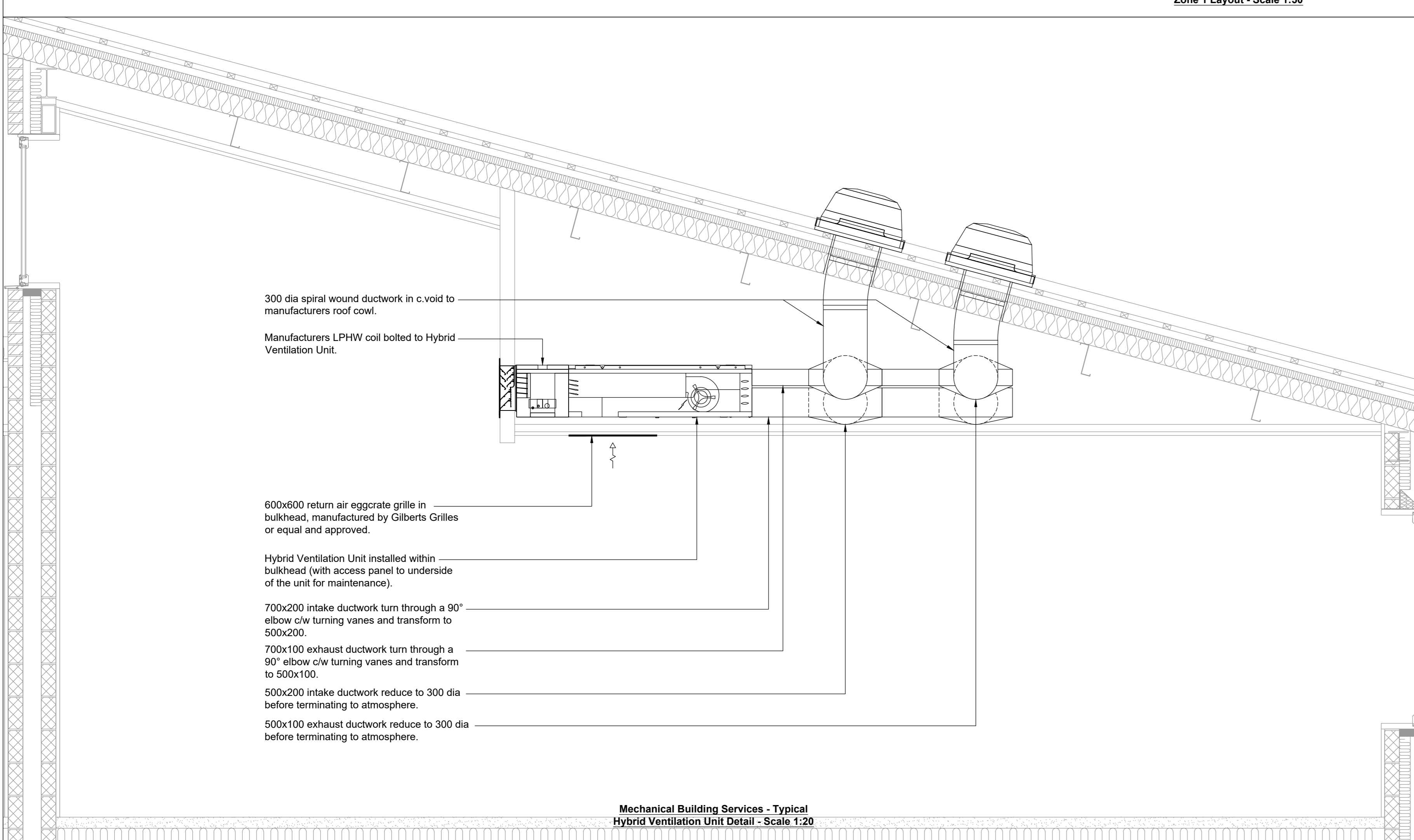
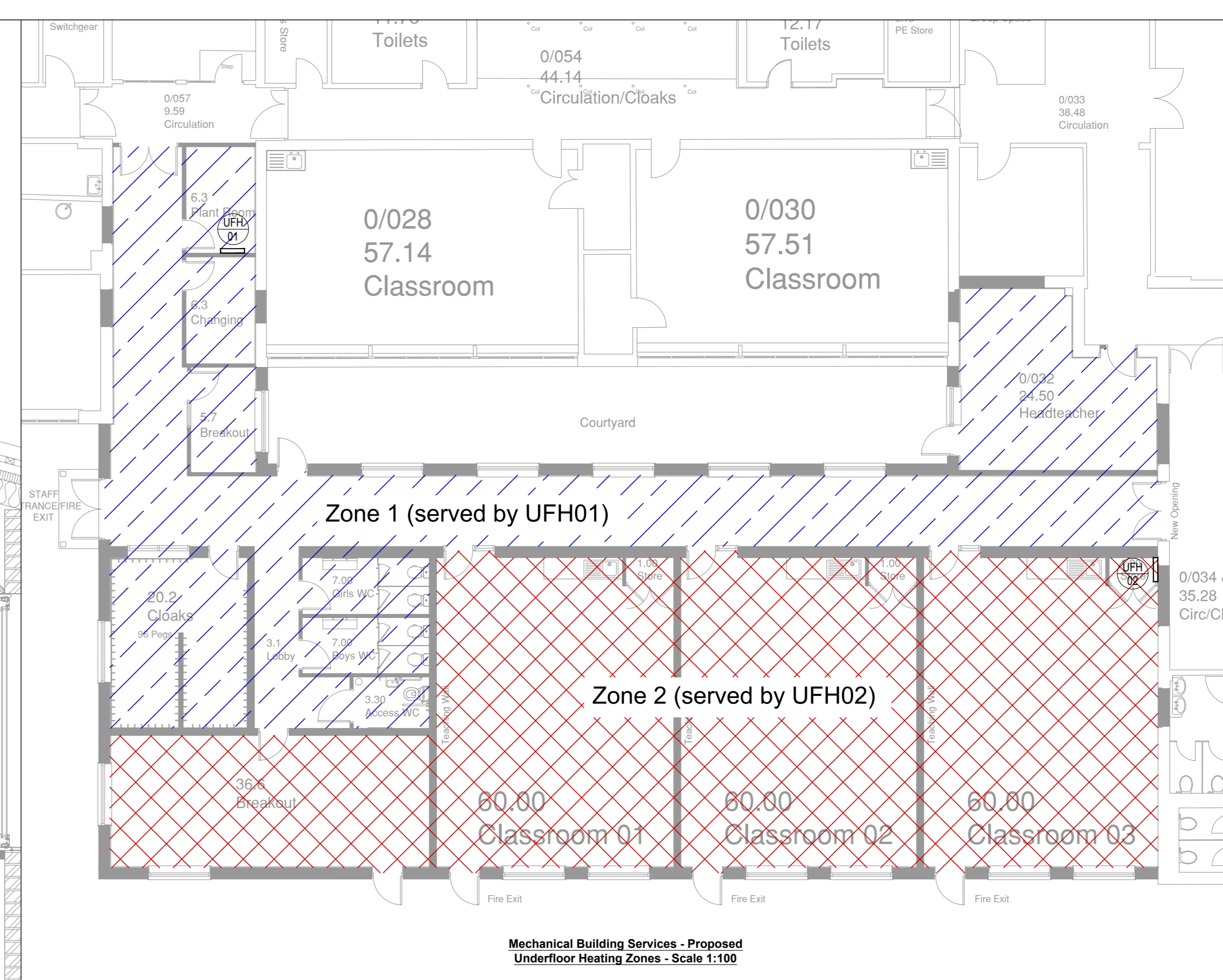


Mechanical Building Services - Proposed
Zone 1 Layout - Scale 1:50



Mechanical Building Services - Typical
Hybrid Ventilation Unit Detail - Scale 1:20



Mechanical Building Services - Proposed
Underfloor Heating Zones - Scale 1:100

Electric Water Heaters Schedule					Notes This Drawing is an instrument of service and shall remain the property of Align Property Partners Ltd copyright ©. It may not be reproduced or copied in any form. It shall not be used for the construction, enlargement or alteration of a building or area other than that project without the authorisation of the issuing office. Contractors shall verify and be responsible for any dimensions and conditions and shall report any discrepancies to the issuing office before proceeding with any work. Drawings shall not be scaled.
Ref	Type	Capacity (Litres)	Rating (kW)	Comments	
WH01	Speedflow SF15SS	15	2.0	Water heater to be mounted at low level within boxing.	
WH02	Speedflow SF10SS	10	2.0	Water heater to be mounted at low level within boxing.	
WH03-05	Speedflow SF1012SS	10	1.2	Water heater to be mounted in classroom store.	

- New electric water heaters to be manufactured by Hyco Ltd or equal and approved.
- New electric water heaters, WH01 - WH05, to be installed with manufacturers SF4 Unvented Kit.

Extract Fan Schedule					
Ref	Location	Type	Model	Duty (m³/s)	Comments
EF01	WC Area's	Inline	Dave DE1-ES	0.055 @ 55Pa	Enabled via PIR's
EF02	Changing	Roof Mounted	Silhouette 100/SELV	75	Enabled via PIR
EF03	Cloaks	Wall Mounted	Silhouette 100/SELV	75	Enabled via PIR

- Extract fan EF01 to be manufactured by Nuair Ltd or equal and approved. Extract fans EF02 & EF03 to be manufactured by Vent-Axia or equal and approved.
- EF02 to be supplied with manufacturers Untex Roof Cowl System, comprising of Cowl Assembly WB160, Weather Apron WA160 and Adaptor 370304.
- EF03 to be supplied with manufacturers 100mm termination sets and 1no. manufacturers 100mm terminal connector and grille sets.

Grille Schedule					
Ref	Location	Type	Duty (m³/s)	Size (WxH) mm	Comments
EG02-05	WC's	GECA Eggcrate	0.010	150x150	To be supplied with manufacturers side entry plenum box
EG01	Accessible WC	GECA Eggcrate	0.015	150x150	To be supplied with manufacturers side entry plenum box
EG06	SEN Room	GECA Eggcrate	0.020	150x150	To be supplied with manufacturers side entry plenum box
SD01	SEN Room	DG4A Diffuser	0.020	150x150	To be supplied with manufacturers side entry plenum box

Extract grilles to be manufactured by Gilberts Blackpool Ltd or equal and approved.
Finish of grilles to be agreed with Architect prior to ordering.

Louvre Schedule					
Ref	System	Type	Duty (m³/s)	Size (WxH) mm	Comments
L01	WC's Extract	WGF38	0.055	150x150	C/w side plenum box and bird mesh guard.

External weather louvres to be supplied by Gilberts Blackpool Ltd or equal and approved.
Louvres to be standard mill finish.

Heat Recovery AHU Schedule					
Ref	Location	Type	Model	Duty (l/s)	Dimensions (L x W x H) mm
HRU01	SEN Room	Ducted MVHR Unit	HR100RS	10 @ 65Pa	405 x 240 x 160

- Heat recovery air handling unit to be manufactured by Vent-Axia Ltd or equal and approved.
- Unit to be controlled via manufacturers wall mounted 3 Speed Controller within SEN room.
- The weight of the heat recovery AHU is 5.5kg.
- Contractor to be responsible for hanging all plant and ductwork back to steel frame / roof structure details of all supports to be detailed on ductwork Contractors fabrication / installation drawings.
- Unit to be complete with 2No. manufacturers Untex Roof Cowl System, comprising of Cowl Assembly WB160, Weather Apron WA160 and Adaptor 370304.

Hybrid Unit Schedule					
Ref	Model	Design Flow Rate (m³/s)	Length (mm)	Width (mm)	Height (mm)
H01, H02, H04, H06	XB-H130M	0.17	1250	950	359
H03, H05, H07	XB-H130S	0.17	1250	950	359

- Hybrid Ventilation Units to be manufactured by Nuair Ltd or equal and approved.
- Units to include manufacturers ductwork, diffusers, plenums, louvres and aggregate grilles detailed on this drawing.

LTHW Coil Schedule				
Ref	Model	Output (kW)	Comments	
C01 - C07	XB-H130-LT2	3.2 @ 16°C Δt	Associated with Hybrid Ventilation Unit	

- LTHW Coils to be manufactured by Nuair Ltd or equal and approved.

Roof Cowl Schedule					
Ref	System	Type	Duty (m³/s)	Size (LxWxH) mm	Comments
RC01, RC03, RC05, RC07, RC09, RC11	Hybrid Unit Exhaust	TRTS-A	0.17	900 x 620 x 340	The roof opening size between upstand to be 460 x 460mm
RC02, RC04, RC06, RC08, RC10, RC12	Hybrid Unit Intake	TRTS-A	0.17	900 x 620 x 340	The roof opening size between upstand to be 460 x 460mm

- External roof cowls to be supplied by Nuair Ltd or equal and approved.
- Cowls to be manufactured from flame retardant polymer finished to be agreed with Architect prior to ordering.
- The Contractor shall include for all builders work to ensure the cowls provide a weatherproof enclosure.

20. INSTRUCTION IN THE USE OF INSTALLATIONS
On completion of the installation of the mechanical services the Contractor shall give to the employees designated representatives in charge together with key staff, detailed instructions and training in the operation and control of the entire services installation in accordance with the Soft Landing M&E checklist to be issued by Align Property Partners.
The Contractor shall complete training records and have them signed by the trainers and the personnel receiving the training.

21. DRAWINGS
The tender drawings are representative of the work to be done. It should be noted that the drawings are essentially diagrammatic and are not intended to indicate the precise location of the services relating to the building structure or other building services.
Therefore the Contractor shall make provision to provide fully co-ordinated installation drawings as defined within BSRIA guide 'SG62014' - A Design Framework for Building Services.

22. OPERATING AND MAINTENANCE MANUALS AND AS INSTALLED DRAWINGS
The Contractor shall be responsible for providing operating and maintenance manuals and as installed drawings for the installation. The documentation shall be provided at least 14 days before practical completion.
The operating and maintenance manuals shall be provided in accordance with CIBSE / BSRIA guidance.

Rev	Issue	Auth	Check	Appr
01	Issue			

Project Name: Birkwood Primary School Extension
Drawing Title: Mechanical Building Services - Zone 1 Proposed Layout
Tender

Rev	Issue	Check	Appr
1102	1102	1102	1102

Drawing Number: BC2202 10-APP-XX-DR-M-000601