



Existing AHU Enclosure



Existing AHU Enclosure



Existing AHU Enclosure



Typical Bigfoot system

Copyright - This drawing and the designs it represents are the property of MKP Consultants Ltd and shall not be copied, circulated or issued other than as necessary to fulfil contractual requirements of the project.

DO NOT scale from this drawing - site measure only.

Scope of works

This project comprises of replacing an existing air handling unit and associated extract fans within a roof top enclosure at the Carr Saunders Student Hall Accommodation Building, Fitzroy St, London, W1T4BN.

The entire existing waterproof structure shall be removed and disposed of to provide full access to the existing ventilation plant. The existing plant shall be removed and disposed of. A new combined supply and extract unit shall be installed incorporating the necessary filtration, heat exchangers and LTHW heater battery. The AHU shall be insulated and be suitable for an external environment and as such an external lightweight enclosure would not be required. The AHU shall be positioned on the roof to ensure that sufficient manway access is provided to the supply and extract units in accordance with the manufacturer's recommendations. The AHU shall be supported on a Big foot type system, which would allow the roof to be resurfaced without removing the plant. The existing heating pipework shall be rerouted and reinsulated with lagging suitable for an external environment. The pipework insulation shall be fitted with electric trace heating. The existing supply and extract ductwork shall be cleaned throughout as part of these works to comply with TR19.

Ductwork Notes

1. This drawing shall be read in conjunction with all Mechanical and Electrical drawings, Schedules and Specification.
2. Contractor to allow for on site co-ordination with the structure and other services and the production of fully dimensioned working drawings prior to installation.
3. All equipment to be installed in accordance with the manufacturers instructions.
4. All ductwork to comply with DW144.
5. All ductwork to be air pressure leakage tested.
6. All grille plenum boxes to be independently supported.
7. Fire dampers to be installed where ductwork passes through fire walls/barriers c/w adjacent access doors.
8. Ductwork shall be insulated with rigid phenolic foam sections securely bonded to the duct with a suitable adhesive, the underside insulation shall be additionally supported at 300mm centers to prevent sagging. Corners shall be reinforced by light gauge angle or similar.
9. Insulation shall be applied as rigid sections and shall be securely attached as previously described. Insulation of tops of rectangular ducts shall be arranged to maintain a minimum of 10° pitch to prevent ponding.
10. Insulation shall be contained with Aluminum cladding to provide a rigid and protective finish.

Pipework Notes

1. This drawing shall be read in conjunction with all Mechanical and Electrical drawings, Schedules and Specification.
2. Contractor to allow for on site co-ordination with the structure and other services and the production of fully dimensioned working drawings prior to installation.
3. All LTHW pipework to be trace heated for frost protection and must be thermally insulated with Rockwool type insulation material of 40mm minimum thickness.
4. All equipment to be installed in accordance with the manufacturers instructions.
5. All pipework penetrations to be sleeved.
6. All Plant to be commissioned by manufacturer or approved installer.
7. All pipework penetrations through any structure to be sleeved with oversized tube of same material.
8. All pipework and valves to be insulated.
9. All pipework to be earth bonded.
10. All gaps between pipework & sleeves to be fitted with fire resistant sealant.
11. Insulation shall be tapered and stopped off at all flanges, unions, valves and the like, which shall then be fitted with shaped and formed boxes as required. The boxes shall be fitted with quick release toggle clips for easy removal and shall be lined with the same material and to the same thickness as the adjacent pipework. The insulation shall terminate short of the fitting to allow for bolt withdrawal and the boxes shall extend over the pipework insulation and finish.

| | | |
|-----|--------|-------------------|
| P1 | Dec'16 | Preliminary Issue |
| Rev | Date | Description |

Client



LONDON SCHOOL OF ECONOMICS & POLITICAL SCIENCE

Project Title

CARR SAUNDERS BUILDING

Drawing Title

MECHANICAL SERVICES PROPOSED VENTILATION PLANT

MKP CONSULTANTS
ENGINEERING EXCELLENCE

Warren Farm Barn, Andover Road,
Micheldever Station, Winchester, SO21 3FL
Tel. 01962 774665, www.mkpg.com

| | | | |
|-------|--------|---------|----------|
| Drawn | Date | Checked | Approved |
| LS | DEC'16 | GS | PK |

| | | |
|-------|---|--|
| Scale | Size | Issue |
| 1:50 | <input type="radio"/> A4 <input type="radio"/> A3 <input checked="" type="radio"/> A1 <input type="radio"/> A0 | <input checked="" type="radio"/> Preliminary <input type="radio"/> Tender <input type="radio"/> Construction <input type="radio"/> Contract |

| | |
|------------|-----|
| Drg. No. | Rev |
| 2479-M-002 | P1 |

