



Liverpool Schools
Investment Programme
St Julies
Liverpool
Flues & Vent
Extraction Details

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CAVEAT

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Specification Origin

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SECTION 1.0 INTRODUCTION

Initial considerations in relation to the spaces requiring general or specialist ventilation have been undertaken.

Where spaces cannot be ventilated utilising opening windows additional Passive Ventilation or Mechanical Ventilation has been included.

Main Air Handling Plant serving mechanically ventilated areas is located within roof level enclosures on Block A & B while plant to Block C is located within a well area at the side of the Sports Hall.

A number of wall mounted Louvres have been included to facilitate Natural Ventilation requirements or Supply and Extract systems.

Architectural plans and elevations have been coordinated with Mechanical Systems and visible Louvre/Plant locations identified.

SECTION 2.0 VENTILATION SYSTEM

Where ever possible Natural Ventilation using opening windows has been utilised as the preferred means of ventilation.

Areas which cannot be ventilated through windows, are either ventilated by Passive Natural Ventilation means or Mechanical Systems.

Appendix A includes indicative ventilation strategies, which identify proposed ventilation strategy to each area.

2.1 Natural Ventilation

The majority of Naturally Ventilated spaces are provided with opening windows as the means of ventilation.

Due to noise constraints on the building façade and the high level of occupancy, Natural Ventilation units with roof mounted “Mushroom” Cowls are utilised to serve the Chapel area.

Due to the depth of space to the Tech areas Natural Ventilation units with roof mounted “Mushroom” Cowls are provided in addition to the opening windows.

The Sports Hall due to high occupancy summer period examination use has been provided with Natural Ventilation units with roof mounted “Mushroom” Cowls.

Roof mounted “Mushroom” Cowls have been selected for the above areas due to their low silhouette and enhanced weather protection that they provide.

The Gym area due to the depth has been provided with high level wall mounted Louvres in addition to opening windows to provide adequate cross flow ventilation.

Details of window locations and Natural Ventilation Cowls and Louvres located on Architects drawings and elevations.

2.2 Mechanical Ventilation

Where Natural Ventilation cannot be accommodated, Mechanical Ventilation (and VRF cooling in some instances) is to be provided.

Ventilation to the majority of areas is facilitated by 7 N^o Air Handling Units located within 3 N^o plant areas.

2 AHU's (and Heat Pumps) are located within a roof compound on Block A.

2 AHU's (and Heat Pumps) are located within a roof compound on Block B.

3 AHU's (and Heat Pumps) are located within a well area along the Sports Hall in Block C.

Associated with the Air Handling Units within Block C well area are a number of wall mounted Louvres to minimise stale re circulation potential.

A number of smaller localised systems within the building have necessitated additional wall mounted Louvres to a number of areas.

Details of roof ventilation compounds and Louvre locations are identified on Architect's drawing and elevations.

2.3 Fume Cupboard Discharges

Within Block A Science areas are 2 N^o ducted fume cupboards.

Ductwork passes through the building to independent exhaust fans located within the compound area.

Discharges from the fans terminate 1m above the compound wall.

Details of fume cupboard discharges are identified on Architect's drawings and elevations.

3.0 Flues

The main boiler and hot water plant is located within Block C.

Flues within the plantroom will be coupled together and run to terminate above the roof line adjacent to the Sports Hall.

See Architectural plans and elevations for Flue details

Appendix A : Indicative Ventilation Strategies.



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Client: ST. JULIE'S CATHOLIC HIGH SCHOOL

Project: LIVERPOOL SCHOOLS INVESTMENT ST. JULIE'S CATHOLIC HIGH SCHOOL

Office: LIVERPOOL

Discipline: MECHANICAL App: BW

Title: INDICATIVE VENTILATION STRATEGY LEVEL 0

Scale @ A1: 1 : 200 Status: CONCEPT



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