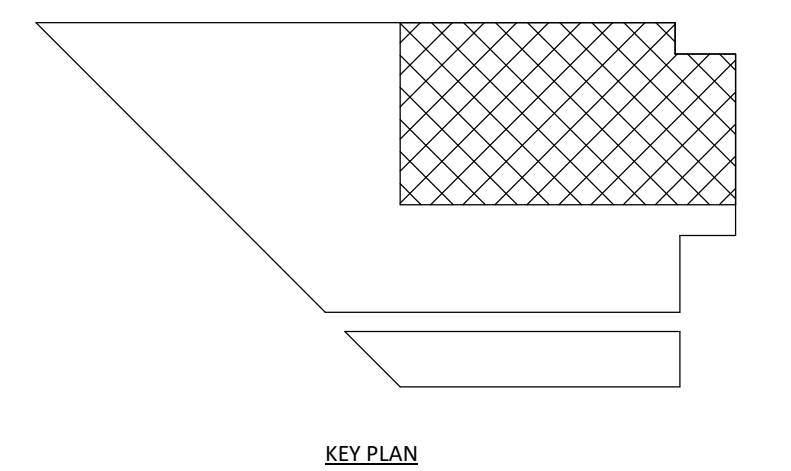


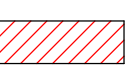
SAFETY, HEALTH & ENVIRONMENTAL INFORMATION

For details of the wide and general risks to be read in conjunction with these notes, refer to the following documents:

No specific SHE risks have been identified for the contents of this drawing.



- NOTES:**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL, INTERIOR DESIGNER & STRUCTURAL DRAWINGS, MECHANICAL EQUIPMENT SCHEDULES, CONTRACT DOCUMENTATION AND SPECIFICATION ASSOCIATED WITH THE WORKS AND DETAILS OF EQUIPMENT POSITIONS, AND PROPOSED WORKS BY OTHERS.
 - THIS DRAWING FORMS PART OF THE SPECIFICATION AND CONTRACT DOCUMENTS FOR THE WORKS.
 - ANY DEVIATIONS FROM THIS DRAWING SHALL BE RECORDED AND RETURNED TO INFORM THE RECORD DRAWING.
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED. UNDER NO CIRCUMSTANCES SHOULD DIMENSIONS BE SCALED FROM THIS DRAWING.
 - INSTALL IN LINE WITH MANUFACTURERS GUIDANCE FOR DUCT, FITTINGS, EQUIPMENT, AND PLANT.
 - DUCTWORK MANUFACTURED AND INSTALLED IN ACCORDANCE WITH DW144.
 - KITCHEN EXTRACT DUCTWORK MANUFACTURED AND INSTALLED IN ACCORDANCE WITH DW172.
 - ALL KITCHEN EXTRACT DUCTWORK SUPPORTS ARE TO BE FIRE RATED UNLESS STATED OTHERWISE IN THE SPECIFICATION. THE LEVEL OF CLEANLINESS SHALL BE IN LINE WITH HVCA TR/29 TABLE F2 - INTERMEDIATE FDI LEVEL.
 - UNLESS STATED OTHERWISE IN THE SPECIFICATION, THE DUCTWORK CONTRACTOR SHALL INSTALL ACCESS DOORS FITTED IN ACCORDANCE WITH HVCA TR/29 TABLES 3, 4 AND 5. ALL ACCESS DOORS TO BE INSULATED TYPE.
 - VCDs ARE INSTALLED ON ALL MAIN, SUB MAIN AND TERMINAL BRANCHES UNLESS DRAWING INDICATES SELF-BALANCED HEADER.
 - ALL METAL DUCTWORK PENETRATIONS THROUGH A FIRE COMPARTMENT OF ANY BUILDING SHALL HAVE FIRE DAMPERS WHICH ARE INDEPENDENTLY SUPPORTED TO THE BUILDING STRUCTURE AND ALL PLASTIC DUCTWORK PASSING THROUGH A FIRE COMPARTMENT OF ANY BUILDING SHALL HAVE AN INTUMESCENT BLOCK INSTALLED TO MEET THE SAME RATING WHICH SHALL BE INDEPENDENTLY SUPPORTED TO THE BUILDING STRUCTURE.
 - ALL FIRE DAMPERS HAVE VISUAL INDICATION STATUS.
 - ALL RECTANGULAR DUCTWORK, AND CIRCULAR OVER 250 DIA SHALL HAVE MULTI-BLADE ORB TYPE VCDs.
 - SUPPLY GRILLE FLEXIBLE CONNECTIONS ARE FULLY INSULATED AND OF THE ACOUSTIC FLEX TYPE (500MM MAX).
 - FIRE ISSUE FILTER MEDIA IS INSTALLED BY THE DUCTWORK CONTRACTOR PRIOR TO PROJECT COMPLETION.
 - THE DISHWASHER EXTRACT SYSTEM IS INSTALLED IN STAINLESS STEEL AS PER PROJECT SPECIFICATION.
 - SLEEVES ARE INSTALLED THROUGH ALL WALLS UNLESS STATED OTHERWISE IN THE SPECIFICATION, THE FOLLOWING MINIMUM SHALL APPLY TO DAMPER TESTING: 100% OF FIRE AND MOTORISED DAMPERS SHALL BE TESTED, WITH 50% OFFERED TO NGB AND 50% TO THE CLIENT BUILDING CONTROL FINAL SIGN OFF.
 - ALL DUCTWORK COMPONENTS SHALL BE INDEPENDENTLY SUPPORTED TO THE BUILDING STRUCTURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - DOOR UNDERCUTS SHALL BE 10MM UNLESS NOTED OTHERWISE.
 - ALL EXTRACT BELLAUCHTS TO INCLUDE WIRE MESH ON INTAKE TOP PREVENT DEBRIS ENTERING THE SYSTEM.

- LEGEND:**
- | | |
|------|----------------------------|
| VCD | VOLUME CONTROL DAMPER |
| FD | FIRE DAMPER |
| IC | INTUMESCENT COLLAR |
| ATT | ATTENUATOR |
| CTA | CROSTALK ATTENUATOR |
| VAV | VARIABLE AIR VOLUME BOX |
| CAV | CONSTANT AIR VOLUME BOX |
| FG | FLOOR GRILLE |
| SG | SUPPLY GRILLE |
| EG | EXTRACT GRILLE |
| EL | EXHAUST LOUVER |
| FCU | FAN COIL UNIT |
| GEA | GENERAL EXTRACT |
| DSH | GENERAL SUPPLY |
| FAI | FRESH AIR INTAKE |
| FEA | EXHAUST AIR |
| KEA | KITCHEN EXTRACT |
| KSA | KITCHEN SUPPLY |
| SKA | SMOKE EXTRACT |
| FEL | FINISHED FLOOR LEVEL |
| AFEL | ABOVE FINISHED FLOOR LEVEL |
| CL | CENTRE LINE |
| IL | INVERT LEVEL |
| FA | FROM ABOVE |
| FB | TO BELOW |
| TA | FROM BELOW |
| RB | RISE TO ABOVE |
| LL | LOW LEVEL |
| HL | HIGH LEVEL |
| RHL | RISE TO HIGH LEVEL |
-  FIRE RATED DUCTWORK
-  UNDERFLOOR DUCTWORK

03 Ventilation - Low Level
1 : 50

FOR CONTINUATION PLEASE SEE DRAWING: NB-03-DR-M-570001

FOR CONTINUATION PLEASE SEE DRAWING: NB-03-DR-M-570004

Rev	Description	Date
001	Contractor Issue	06/06/22
002	Comments Incorporated	17/02/22
003	Comments Incorporated	06/11/22
004	Preliminary Issue	22/06/22



6th Floor, 5 Exchange Quay, Salford, M3 3ET
Tel: 0161 872 0171

Client:
Manchester Metropolitan University

Contract:
**MMU Science & Engineering
99 Oxford RD
Manchester
M1 7EL**

Design Manager:
NGB

Checked By:
J Bejsluk

Title:
Ventilation Third Floor Sheet 2 of 4

Drawn By:
J Parker

Issue Date:
08/06/22

Status:
A1 - Approved & Accepted

Scale:
1 : 50

Sheet Size:
A0

Rev:
C01

1338B-NGB-NB-03-DR-M-570002