



THG

SPA @ KSTH

Ventilation, Extraction and Odour - Verification Report





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Ventilation, Extraction and Odour - Verification Report

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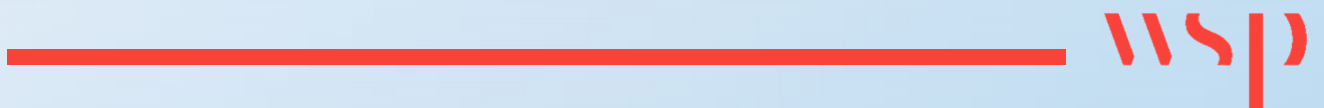
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VENTILATION, EXTRACTION AND ODOUR STATEMENT - VERIFICATION



1 VENTILATION, EXTRACTION AND ODOUR STATEMENT - VERIFICATION

1.1 INTRODUCTION

Upon completion of the development and before use, a verification report will be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the odour statement report.

This report addresses this condition and also includes photographs of any filters and odour abatement systems in situ within the ductwork before being boxed in, along with a diagram and photographs of the inspection access hatches.

Therefore, this report shall provide the following:

- Ventilation systems overview
- Photos of Filters within ductwork
- Photos of completed ductwork and external discharge points
- Mechanical Layout plans indicating filter locations
- Plan identifying Mechanical Access Hatches required for inspection for filters

1.2 DESIGN

The ventilation design complies with the following building regulation approved documents and standards.

Standards and guidelines

- British and European Standards (BSI).
- Chartered Institution of Building Services Engineers (CIBSE).
- Building Services Research and Information Association (BSRIA).
- Building Research Establishment (BRE).
- Heating & Ventilating Contractors Association (HVCA).
- Control of Odour and Noise from Commercial Kitchen Exhaust Systems (EMAQ)

Statutory Requirements

- The Building Regulations.
- Clean Air Act 1993.
- The Control of Pollution Act 1974 and Amendment Acts.
- The Construction (Design and Management) Regulations 2015.
- British Standards and Codes of Practice.
- Manchester City Council Planning Conditions & Requirements.

1.3 VENTILATION RATES

1.4 SYSTEMS

The systems below summarise all ventilation systems within the development, as shown on the drawings in Appendix A.

1.4.1 LOCALISED EXTRACT SYSTEM

A Dedicated in-line extract fan provides extract ventilation for the plunge pool area, rain showers and the chemical store, this fan is located at roof and ductwork routes up the central riser.

1.4.2 KITCHENETTE EXTRACT

The kitchenette area is served by an in-line extract fan via a duct which rises to ground floor level to an exhaust louvre above the door at ground floor level.

The kitchen is fitted with an internal Fume Filtration/ Recirculation hood above the induction hobs and inbuilt hood within the combi oven and hence is treated as a re-heat non-commercial kitchen and therefore does not need to meet EMAQ guidance for filtration.

1.4.3 AIR HANDLING UNIT

Ventilation in the remainder of the spaces is provided by an Air Handling Unit (AHU). The AHU is located on a raised plant deck on the roof.

Supply and extract air is ducted from the roof to ground floor and basement via an existing riser in the building.

1.5 MECHANICAL LAYOUT PLANS INDICATING FILTER LOCATIONS

Filters are located within the AHU and accessible via the plant deck.

All VRF FCUs have in built filters which are maintainable via access hatches as shown below.

There is no filter on the kitchen extract system as is not required.

See Appendix A which shows the ventilation systems and plan as described above.

Figure 1-1 - Image taken from the ventilation roof drawing within the appendix, filters are in-built

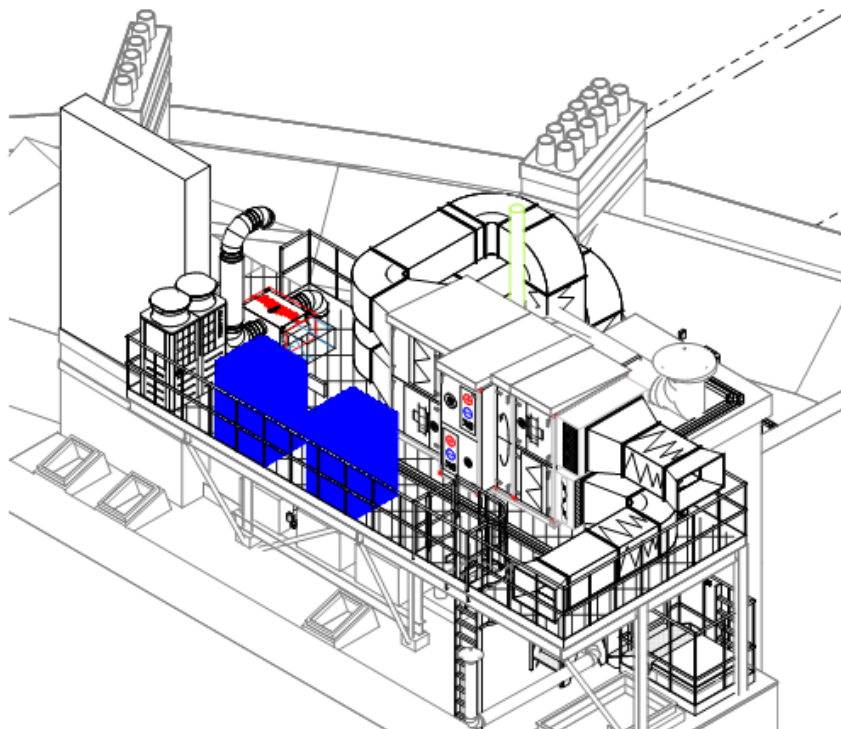
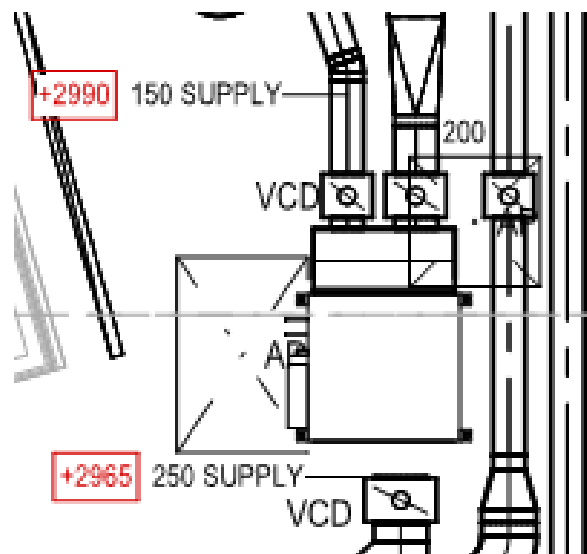


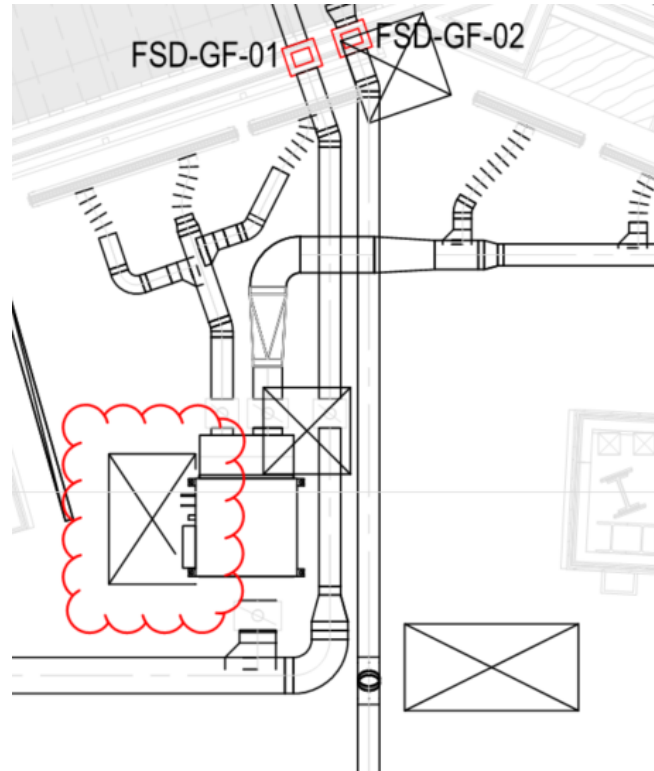
Figure 1-2 - All FCUs have in-built filters as shown in later images



1.6 PLAN IDENTIFYING MECHANICAL ACCESS HATCHES REQUIRED FOR INSPECTION FOR FILTERS

See Appendix 2 which indicates all access hatches required for maintenance and cleaning.

Figure 1-3 – Example of access hatch panel for filter change/ clean of typical FCU on side of unit from drawings in appendix



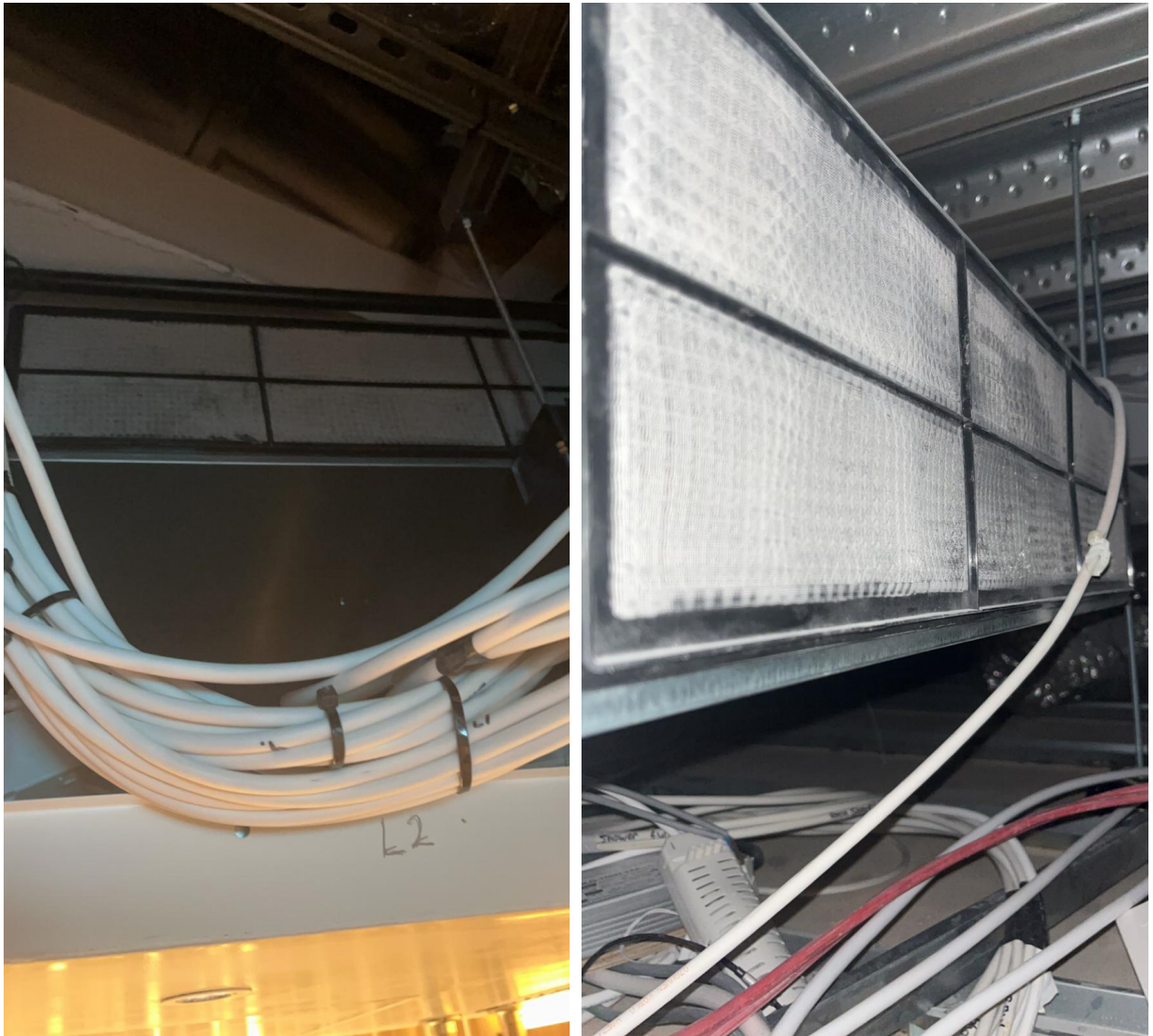
1.7 PHOTOS OF FILTERS WITHIN DUCTWORK

Below are example images of filters within the systems described above.

Figure 1-4 - Filter within AHU, accesable via access panel on the side of the unit at roof level



Figure 1-5 – Example of filters at back of FCUs, accesable via access hatches within ceiling



1.8 PHOTOS OF COMPLETED DUCTWORK AND EXTERNAL DISCHARGE POINTS

Figure 1-6 - Image of ductwork exiting the riser at roof



Figure 1-7 - Image of ductwork entering AHU



Figure 1-8 – Example of lagged ductwork photographed during construction



Figure 1-9 - Example of access hatch photographed during construction



Figure 1-10 - FCU and ductwork photographed during construction



Figure 1-11 - Example of access hatches photographed during construction



Figure 1-12 - Image of the kitchen extract louvre above the door



Appendix A

MECHANICAL LAYOUT PLANS



1::SHAPED S/S WORKTOP, W/ SINK
2::U/C DISHWASHER
3::MIXER TAPS x2
4::BIN
5::WALLSHELF
6::U/C FRIDGES x2
7::INDUCTION HOB x2
8::COMBI OVEN 6x $\frac{2}{3}$ INBUILT HOOD
9::WALLSHELF
10::HOT WATER BOILER
11::INSET WASH BASIN
12::FLYKILLER
13::U/C FRIDGE
14::WORKTOP
15::BLENDERS x2
16::PASS WORKTOP/ GANTRY (PLATES UNDER)
17::COFFEE MACHINE & GRINDER(1 grp espresso)
18::U/C BOTTLE FRIDGE
19::CHILLED PREP TOP
20::STORAGE RACK
21::DISHWASH/ DIRTIES TABLE W/ SINK
22::FUME FILTRATION UNIT L3
23::U/C ICE MAKER
24::ZIP CHILLER & FONT, DRIP TRAY

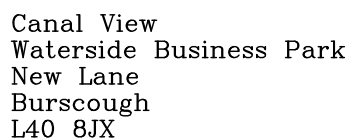
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All dimensions must be checked on site prior to project commencement.

It is the clients responsibility to provide a minimum 900 mm width for access of the largest item of equipment.

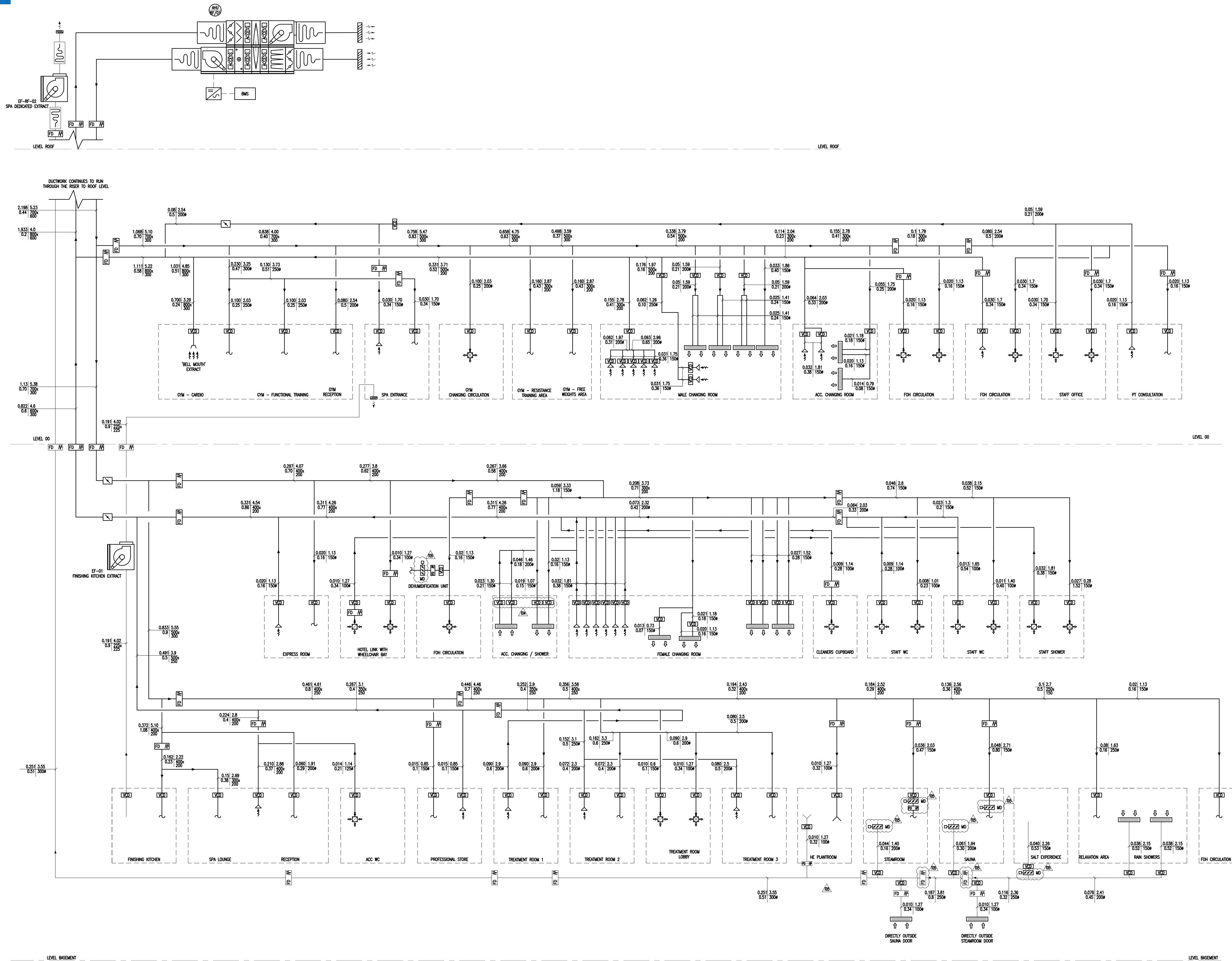
Revisions		
A	20.05.20	KITCHEN SIZE INCREASED
B	11.09.20	UPDATED FOR M&E LAYOUTS
C	16.09.20	UPDATED TO COMMENTS
D	12.10.20	ADDED INDUCTION HOB & HOOD
E	29.11.20	UPDATED TO COMMENTS
F	11.05.21	ITEM 17 NOW MACHINE & GRINDER



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CATERING EQUIPMENT & DESIGN SERVICES

Client	THE HUT GROUP
Project	SPA KITCHEN
Drg. Title	PROPOSED FOODSERVICE LAYOUT

Date 14.05.2020	Scale 1:25	Drawn By DH
Drwg No KE/1969/FS	Issued	Rev No F



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REV	DESCRIPTION	DATE	BY	OKD
REVISION SCHEDULE				
STATUS				
FOR APPROVAL				
PROJECT TITLE				
SPA@KSTH				
DRAWING TITLE				
BASEMENT LEVEL				
FLUE LAYOUT				
DRAWING NUMBER		REV	SIZE	SCALE
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DRAWN BY	DATE	CHECKED BY	DATE	
CM	24.06.2021	KEM	24.06.2021	



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P01	GYM VENTILATION UPDATED TO SUIT SITE CONDITIONS & REISSUED FOR APPROVAL		27.07.2021	CG	J
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PROJECT TITLE					
SPA@KSTH					
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	23.06.2021			23.06.2021	



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REV	DESCRIPTION	DATE	BY	OKD

REVISION SCHEDULE

STATUS

FOR APPROVAL

PROJECT TITLE

SPA@KSTH

DRAWING TITLE

GROUND LEVEL

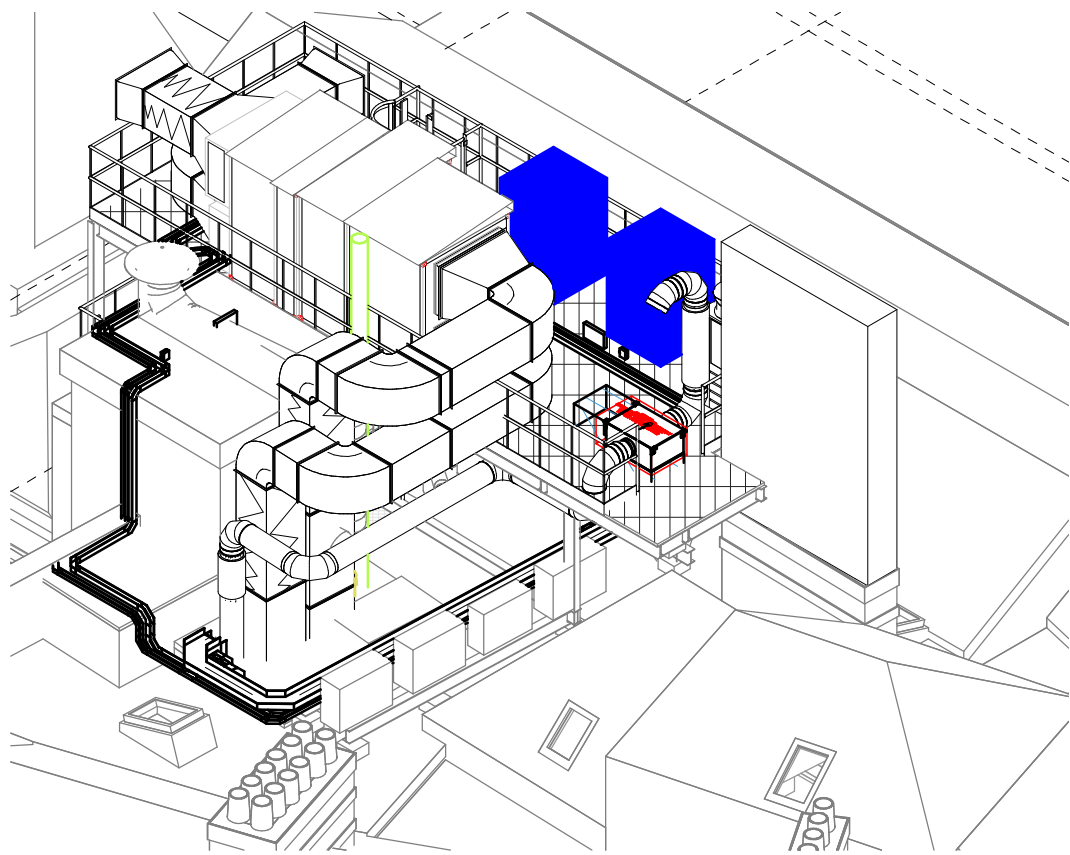
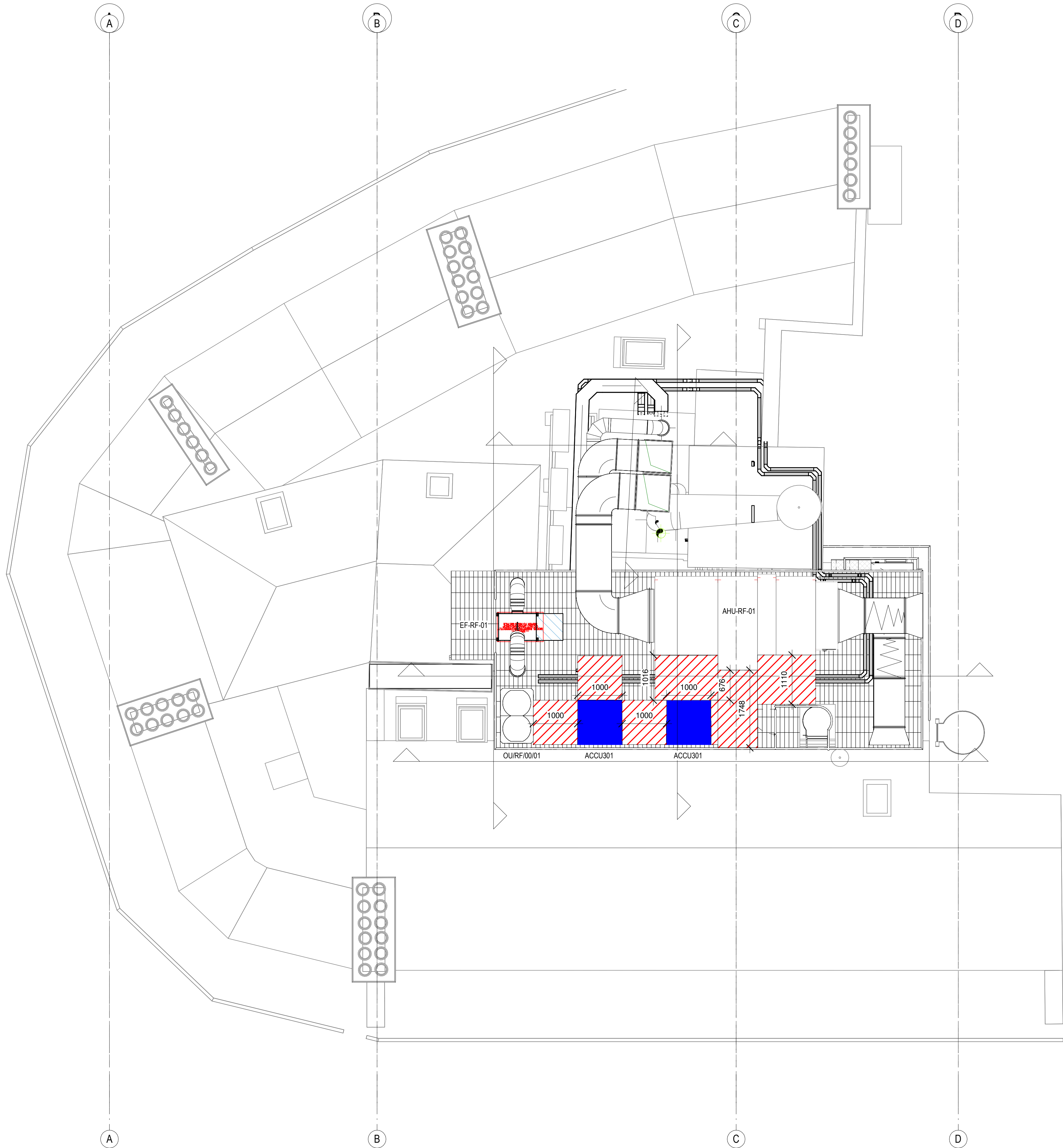
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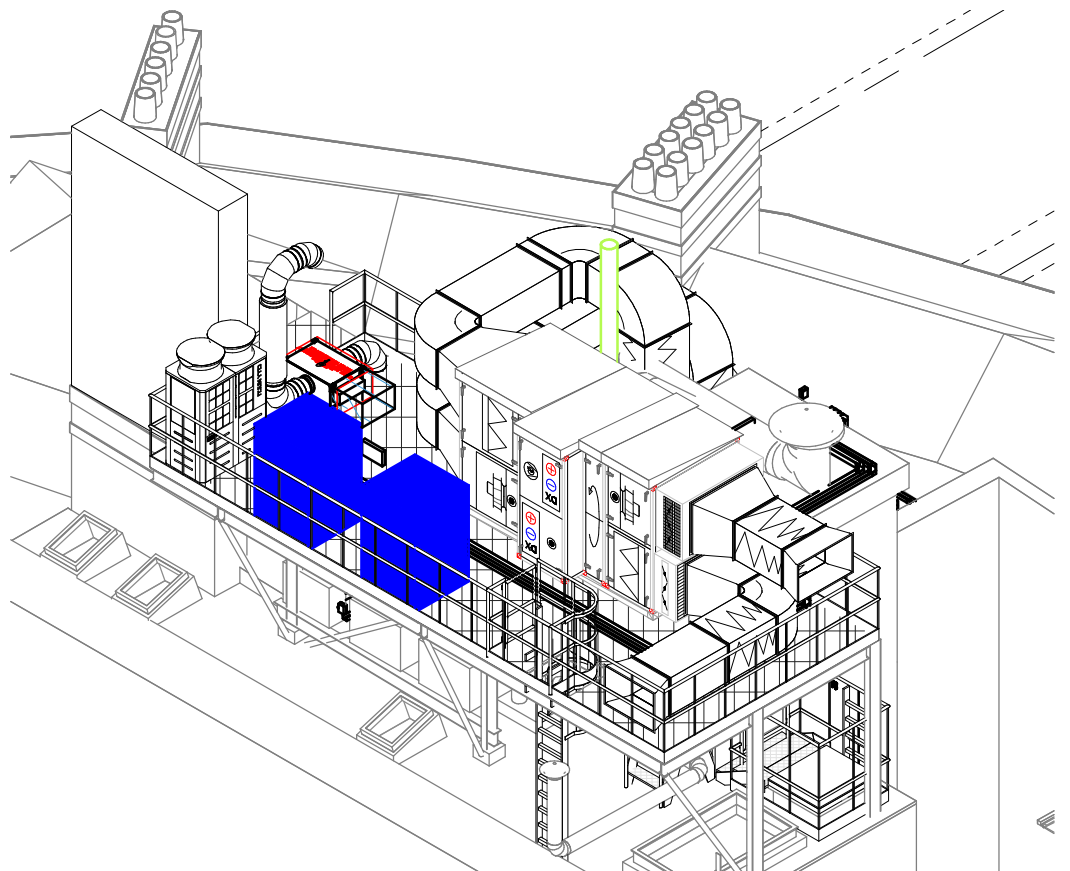
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CM	24.06.2021	KEM	24.06.2021



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North West View



South East View

A	ACCESS HATCH REQUIREMENTS ADDED	23/06/21	CG	MMG
REV	DESCRIPTION	DATE	BY	CHKD
REVISION SCHEDULE				
STATUS				
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SPA @ KSTH, MANCHESTER				
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Appendix B

MECHANICAL LAYOUT DAMPER LOCATION PLANS



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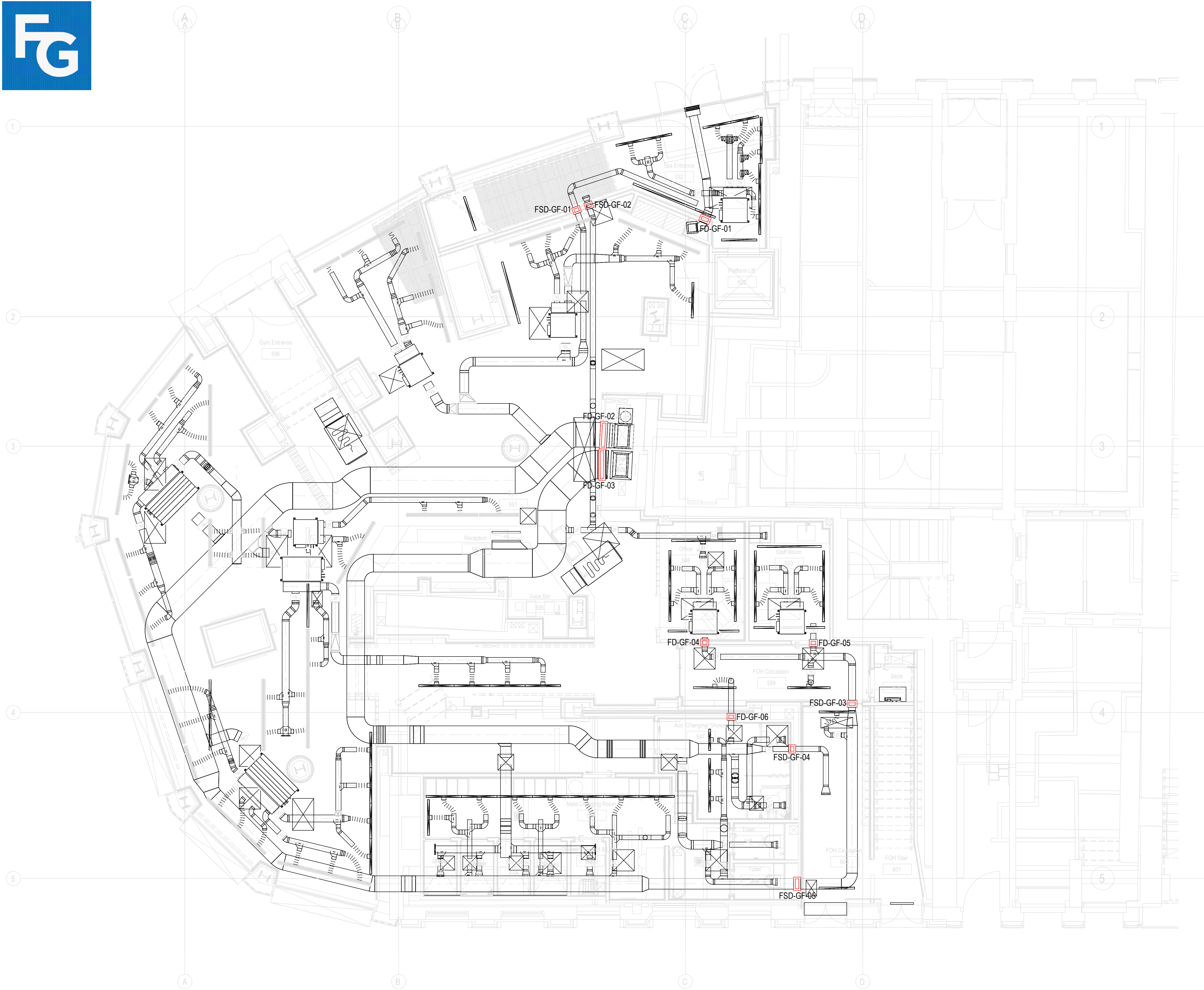
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