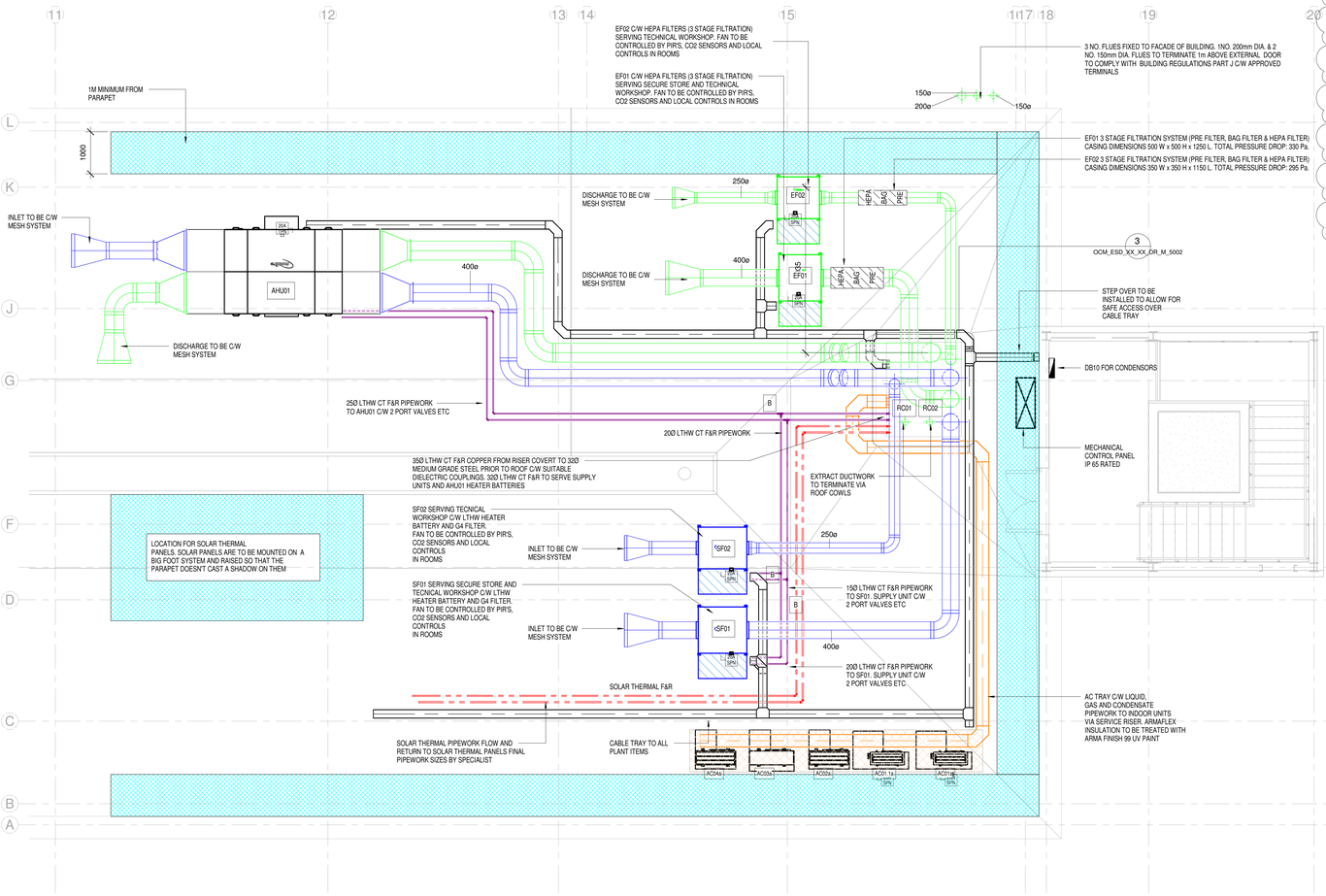
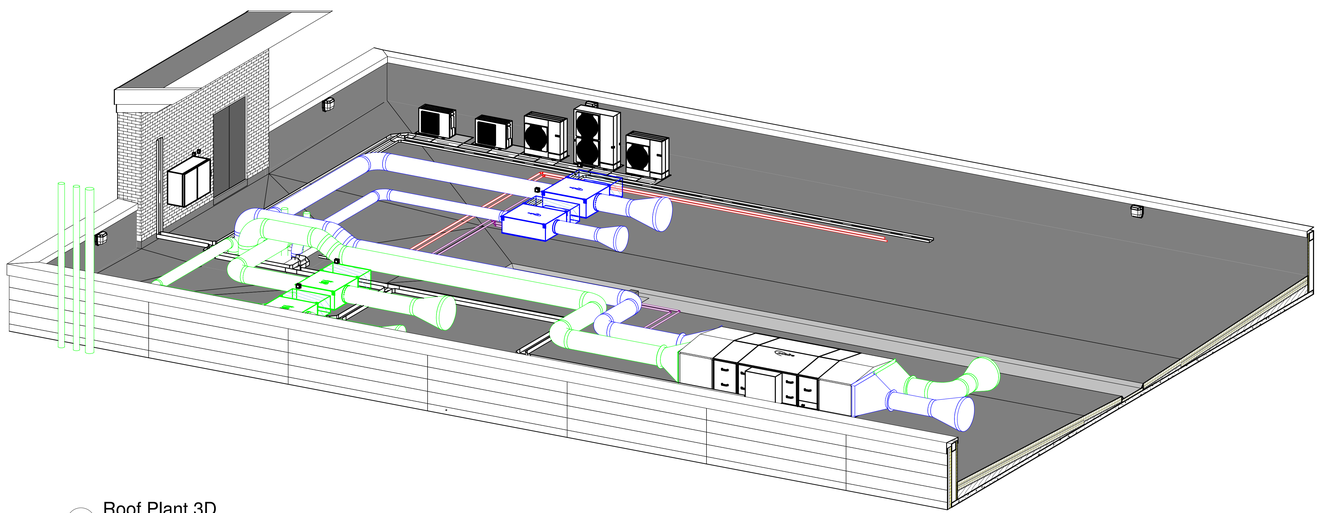


1 Proposed Roof Plant Layout
1 : 50



2 Roof Plant 3D

AHU01
MODEL: XBC85-HI-LESWP
WEIGHT: 835kg
LENGTH: 2800mm
WIDTH: 2000mm
HEIGHT: 975mm
NOISE DATA @ 56.7% SPEED CONTROL :
Sound power levels re 1 pWatts (Hz):
dBA is spherical measured at 3 meters

Hz	63	125	250	500	1k	2k	4k	8k	dBA	dBA at 100%
Breakout	71	63	67	56	50	45	47	35	40	+13
Induct Intake	71	72	76	75	72	69	64	60	56	+13
Induct Supply	72	69	71	71	68	62	50	37	52	+13
Induct Discharge	81	81	82	81	83	78	72	64	65	+13
Induct Extract	73	66	71	69	65	61	53	52	50	+13
For 100% speed:	+13	+13	+13	+13	+13	+13	+13	+13		

AC01a, AC01.1a & AC04
MODEL: PUZ-ZM50VKA
WEIGHT: 46kg
LENGTH: 809mm
WIDTH: 300mm
HEIGHT: 630mm
SOUND PRESSURE LEVEL: 51dBA
SOUND POWER LEVEL: 69dBA

AC02a & AC03a
MODEL: PUZ-ZM100VKA
WEIGHT: 119kg
LENGTH: 1050mm
WIDTH: 300mm
HEIGHT: 1338mm
SOUND PRESSURE LEVEL: 46dBA
SOUND POWER LEVEL: 65dBA

SF1
MODEL: DS6A-LES
WEIGHT: 110kg
LENGTH: 1154mm
WIDTH: 1100mm
HEIGHT: 465mm
NOISE DATA @ 65.6% SPEED CONTROL :
Sound power levels re 1 pWatts (Hz):
dBA is hemispherical measured at 3 meters

Hz	63	125	250	500	1k	2k	4k	8k	dBA	dBA at 100%
Induct Inlet	78	74	74	66	52	50	48	42		
Induct Outlet	86	76	69	57	52	48	44	37		
Breakout	66	55	62	46	39	30	25	19	36	+5
For 100% speed:	+3	+4	+5	+7	+10	+10	+10	+10		

SF2
MODEL: DS5A-LES
WEIGHT: 105kg
LENGTH: 1154mm
WIDTH: 992mm
HEIGHT: 420mm
NOISE DATA @ 53.2% SPEED CONTROL :
Sound power levels re 1 pWatts (Hz):
dBA is hemispherical measured at 3 meters

Hz	63	125	250	500	1k	2k	4k	8k	dBA	dBA at 100%
Induct Inlet	80	80	71	59	47	46	44	38		
Induct Outlet	79	74	65	55	43	41	38	30		
Breakout	64	57	59	42	32	25	20	<16	33	+7
For 100% speed:	+4	+5	+7	+10	+14	+14	+14	+14		

EF1
MODEL: DS6-ES
WEIGHT: 69kg
LENGTH: 605mm
WIDTH: 1100mm
HEIGHT: 465mm
NOISE DATA @ 95.7% SPEED CONTROL :
Sound power levels re 1 pWatts (Hz):
dBA is hemispherical measured at 3 meters

Hz	63	125	250	500	1k	2k	4k	8k	dBA	dBA at 100%
Induct Inlet	90	87	75	67	66	62	60	53		
Induct Outlet	90	87	75	67	66	61	57	50		
Breakout	74	67	66	52	53	42	37	31	42	+1
For 100% speed:	+1	+1	+1	+1	+1	+1	+1	+1		

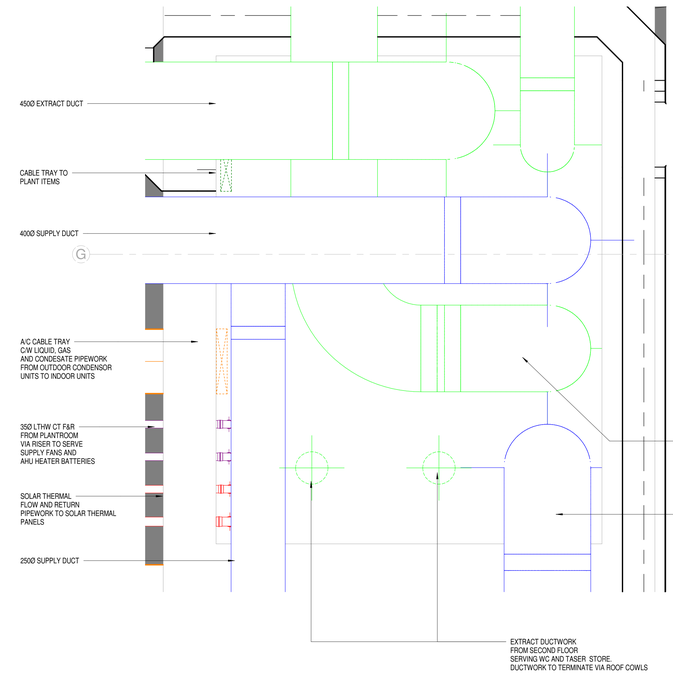
EF2
MODEL: DE5-ES
WEIGHT: 59kg
LENGTH: 605mm
WIDTH: 992mm
HEIGHT: 420mm
NOISE DATA @ 82.3% SPEED CONTROL :
Sound power levels re 1 pWatts (Hz):
dBA is hemispherical measured at 3 meters

Hz	63	125	250	500	1k	2k	4k	8k	dBA	dBA at 100%
Induct Inlet	87	87	71	69	58	57	56	51		
Induct Outlet	89	88	73	70	64	59	54	48		
Breakout	72	68	63	54	48	39	34	29	40	+3
For 100% speed:	+2	+2	+3	+3	+5	+5	+5	+5		

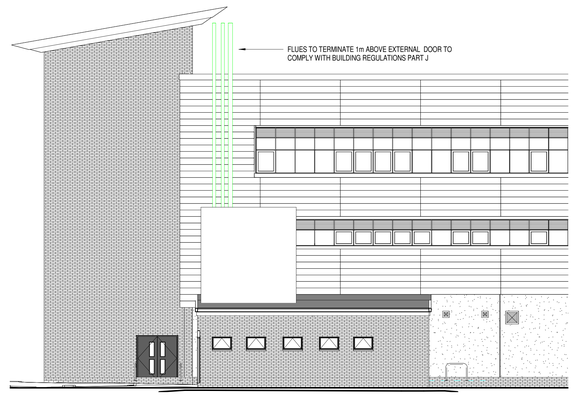
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. THIS DRAWING IS COPYRIGHT OF ENGINEERING SERVICES DESIGN LIMITED AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEERING SERVICES DESIGN LIMITED

NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. DRAWING TO BE PRINTED IN COLOUR
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER M&E, ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS.
4. ALL DUCTWORK AND FANS TO BE MOUNTED ON BIG FOOT TYPE SYSTEM.
5. ALL FANS TO BE MOUNTED ON ANIT-VIBRATION MOUNTS
6. ALL PIPEWORK AND DUCTWORK TO BE INSULATED IN BIB/ALUMINIUM OR VENTTURE CLADS INSULATION.
7. ALL VALVES TO BE C/W VALVE BAGS.
8. REFRIDGERANT PIPEWORK TO BE INSULATED IN ARMAFLEX. ARMAFLEX INSULATION TO BE TREATED WITH ARMA FINISH 99 UV PAINT



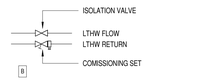
3 Proposed Roof Plant Layout - Roof Riser Detail
1 : 10



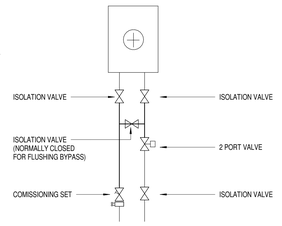
A Section - External Flue Routes
1 : 100

ROOF ACCESS/ WALKWAY MINIMUM 1000mm FROM PARAPET

DETAIL B



TYPICAL HEATER BATTERY CONNECTION DETAIL



C5	MECH PLANT DIMENSIONS & NOISE DATA ADDED FOR PLANNING CONDITION	14.10.2020
C4	REVISED FOR CONSTRUCTION - HEPA FILTER	14.09.2020
C3	REVISED FOR CONSTRUCTION	13.02.2020
C2	REVISED FOR CONSTRUCTION	20.12.2019
C1	CONSTRUCTION	07.01.2019
T1	TENDER	22.02.2018
P1	PRELIMINARY	21.12.2017
REVISION	DESCRIPTION	DATE

CONSTRUCTION

GREATER MANCHESTER POLICE

CLIENT/PROJECT
GREATER MANCHESTER POLICE
SOCH BUILDING

TITLE
PROPOSED ROOF PLANT LAYOUT

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esd Engineering Services Design

DRAWN	SI	DATE	24.02.2018
CHECKED	DS	DATE	24.02.2018
APPROVED	PG	DATE	24.02.2018
SIZE	A0	SCALE	AS SHOWN
DRAWING NO.	OCM_ESD_XX_XX_DR_M_5002	REV.	C5