



BUILDING SERVICES ENGINEERS
LIVERPOOL

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(M.S.D) LTD & A&B ENGINEERING (E.S.D) LTD.

REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	08.10.2021
P02	Preliminary Issue	04.02.2022
C01	CONSTRUCTION ISSUE	15.03.2022

NOTES:

LEGEND

EF	- EXTRATCT FAN
HRU	- HEAT RECOVERY UNIT
SG	- SUPPLY GRILLE
EG	- EXTRACT GRILLE
RG	- RETURNS GRILLE
FD	- FIRE DAMPER
VAV	- VARIABLE AIR VOLUME
HB	- HEATER BATTERY
VCD	- VOLUME CONTROL DAMPER
ATT	- ATTENUATOR
TG	- TRANSFER GRILLE
DT	- DOOR TRANSFER GRILLE
SV	- SMOKE VENT
AOV	- AUTOMATIC OPENING VENT

1. FINAL LOCATION OF EXTERNAL LOUVRES TO BE AGREED BY ARCHITECT
2. AWAITING CEILING LAYOUT TO CO-ORDINATE MEP SERVICES

CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP- ARCHITECTURE

CONTRACT

CHRISTABEL PANKHURST INSTITUTE

TITLE

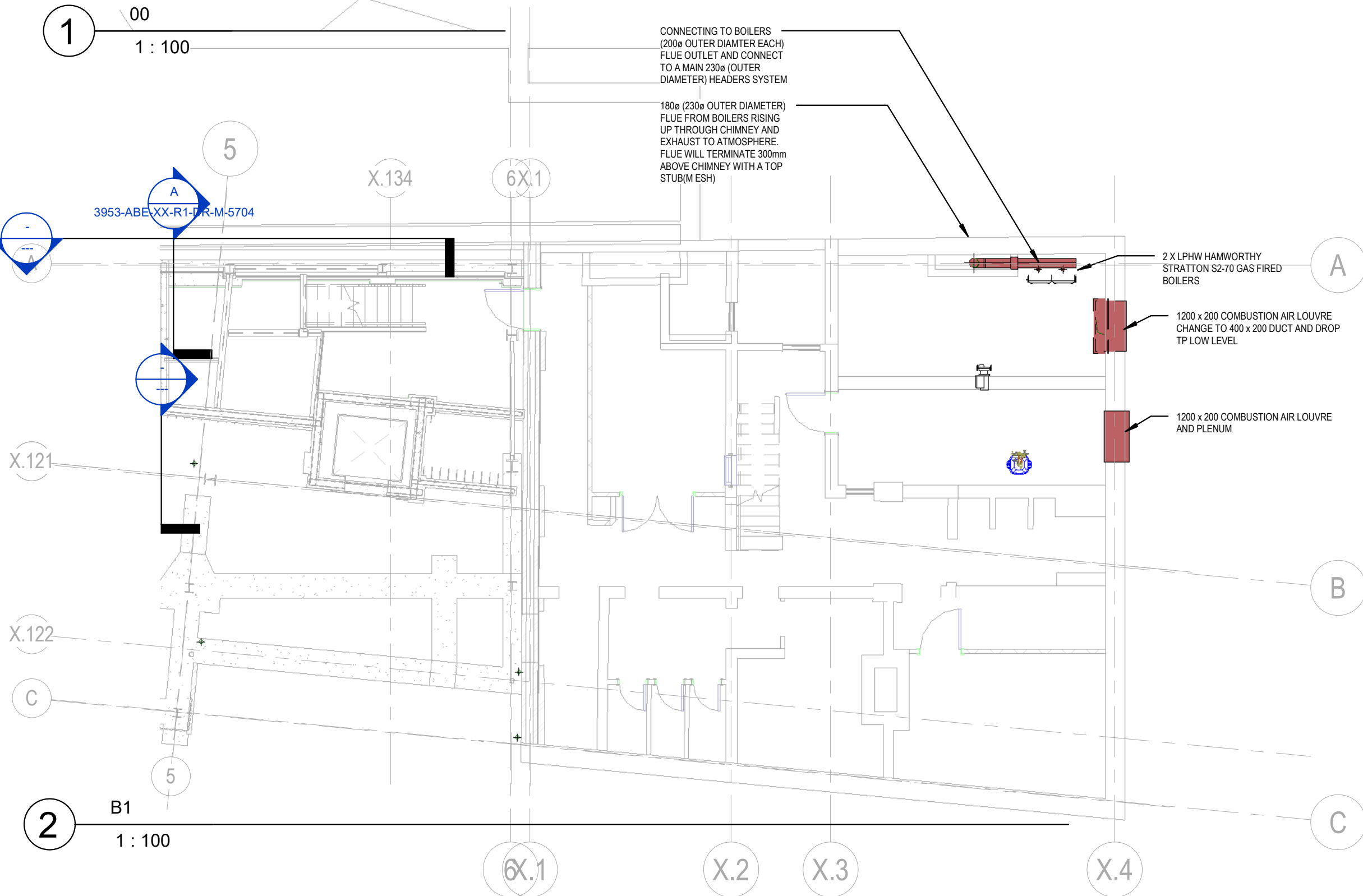
Ground Floor - Ventilation

DRAWN	CHECKED	SCALE
SK	AC	As indicated
DATE	DRAWING No	REV
09.06.2021	3953-ABE-XX-00-DR-M-5700	C01



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1 : 100



Ground Floor Extract Grille Schedule						
Equipment Reference Number	ABE AirFlow (ls)	Diffuser Width	Diffuser Depth	Diffuser Type	Location	Manufacturer
EG.C2.I.01	125 L/s	300	300	DG4 4 Way	C2 Exhibition 1	GILBERTS
EG.C2.I.02	125 L/s	300	300	DG4 4 Way	C2 Exhibition 1	GILBERTS
EG.C2.I.01	125 L/s	300	300	DG4 4 Way	C2 Exhibition 2	GILBERTS
EG.C2.I.02	125 L/s	300	300	DG4 4 Way	C2 Exhibition 2	GILBERTS
EG.C2.M.01	60 L/s	300	300	DG4 4 Way	C2 Meeting Room	GILBERTS

Ground Floor Supply Grille Schedule						
Equipment Reference Number	ABE AirFlow (ls)	Diffuser Width	Diffuser Depth	Diffuser Type	Location	Manufacturer
SG.C2.I.01	125 L/s	300	300	DG4 4 Way	C2 Exhibition 1	GILBERTS
SG.C2.I.02	125 L/s	300	300	DG4 4 Way	C2 Exhibition 1	GILBERTS
SG.C2.I.01	125 L/s	300	300	DG4 4 Way	C2 Exhibition 2	GILBERTS
SG.C2.I.02	125 L/s	300	300	DG4 4 Way	C2 Exhibition 2	GILBERTS
SG.C2.M.01	60 L/s	300	300	DG4 4 Way	C2 Meeting Room	GILBERTS

Ground Floor Toilet Extract Grille Schedule					
Equipment Reference Number	ABE AirFlow (ls)	Size	Location	Grille Type	Manufacturer
EG.G.005.01	7 L/s	100 mm	G.005 Universal WC	Valve	GILBERTS
EG.G.005.02	7 L/s	100 mm	G.005 Universal WC	Valve	GILBERTS
EG.G.005.03	7 L/s	100 mm	G.005 Universal WC	Valve	GILBERTS
EG.G.005.04	7 L/s	100 mm	G.005 Universal WC	Valve	GILBERTS
EG.G.005.01	15 L/s	100 mm	Acc WC	Valve	GILBERTS
EG.G.005B.01	7 L/s	100 mm	G.005B Cleaner Store	Valve	GILBERTS

Ground Floor Fire Damper Schedule							
Equipment Reference	Type	ABE Ductwork Diameter	FD Duration	ABE Buildwork Height	ABE Buildwork Width	ABE Buildwork OffsetToCentre	Damper Type
FD.G.005.01	BSB FD Type C Circular 500a	500	30	610	596	3785	Fusible Link Fire Damper
FD.G.005B.01	BSB FD Type C Circular 125a	125	30	211	211	3734	Fusible Link Fire Damper
FD.G.005.02	BSB FD Type C Circular 500a	500	30	610	596	3785	Fusible Link Fire Damper
FD.G.E1.01	BSB FD Type B Rectangle 400x300	400	30	386	486	3785	Fusible Link Fire Damper
FD.G.E1.02	BSB FD Type B Rectangle 400x300	400	30	386	486	3785	Fusible Link Fire Damper
FD.G.M.01	BSB FD Type C Circular 200a	200	30	286	286	3454	Fusible Link Fire Damper
FD.G.I.01	BSB FD Type C Circular 200a	200	30	286	286	3454	Fusible Link Fire Damper
FD.G.M.02	BSB FD Type C Circular 200a	200	30	286	286	3453	Fusible Link Fire Damper
FD.G.I.02	BSB FD Type C Circular 200a	200	30	286	286	3453	Fusible Link Fire Damper
FD.G.I.03	BSB FD Type C Circular 500a	500	30	610	596	3785	Fusible Link Fire Damper

Ground Floor Louvre Schedule				
Equipment Reference Number	ABE AirFlow (ls)	Size	Manufacturer	Louvre Reference
EL.G.005.01	53 L/s	300 mmx300 mm	GILBERTS	WSF 75

Ground Floor Fan Schedule				
Equipment Reference Number	Flowrate (ls)	Location	Control	Manufacturer
EF.G.005.01	53	G.005A Accessible WC	Background Tickle Ventilation and To boost upon PIR Activation	Vent Axis

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES OR METRES. ALL DIMENSIONS TO BE CHECKED ON SITE BY INSTALLERS PRIOR TO COMMENCEMENT OF WORKS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS / DOCUMENTS / SCOPE OF WORKS AND SPECIFICATIONS. THIS DRAWING SHOULD ONLY BE USED FOR ITS INTENDED PURPOSE.
3. BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.
4. ALL DUCTWORK SYSTEMS TO BE INSTALLED IN ACCORDANCE WITH DW1144 SPECIFICATION FOR SHEET METAL DUCTWORK FOR LOW PRESSURE 'CLASS A' SYSTEMS.
5. ALL DUCTWORK TO BE SUPPORTED IN ACCORDANCE WITH DW1144 ARRANGEMENT OF BEARERS AND HANGERS.
6. ACCESS PANELS TO BE PROVIDED ADJACENT TO ALL FIRE DAMPERS BOTH SIDES.
- 6b. INSPECTION PANELS TO BE PROVIDED ADJACENT TO ALL VOLUME CONTROL DAMPERS BOTH SIDES.
7. FOR LOCATIONS OF ACCESS PANELS FOR INSPECTION / SERVICING AND OR CLEANING REFER TO SECTION 3.13 TABLE 3 OF THE DW1144 INTERNAL CLEINLINES OF VENTILATION SYSTEMS DOCUMENT
8. ALL ACCESS/INSPECTION HATCHES ARE TO BE PROPRIETARY MANUFACTURED WITH QUICK RELEASE CATCHES AND SELF SEALING GASKETS.
9. ALL ACCESS/INSPECTION PANELS SHALL REMAIN ACCESSIBLE. THE INSULATION CONTRACTOR SHALL SUITABLY DRESS THE EDGES OF THE INSULATION TO THE EDGE OF THE ACCESS OPENING.
10. THE USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 500mm IN LENGTH TO MAKE FINAL CONNECTIONS ONLY.
11. DUCTWORK SHALL BE MANUFACTURED WITH GRADUAL TRANSFORMATIONS AND CHANGES OF SHAPE/DIRECTION.
12. TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR SECTION DUCTWORK AT ALL CHANGES IN DIRECTION WHETHER INDICATED ON THE DRAWINGS OR NOT.
13. SPLITTERS SHALL BE INCORPORATED WITHIN RECTANGULAR DUCTWORK WITH AN ASPECT RATIO OF GREATER THAN 4:1 AS DW1144 WHETHER INDICATED ON THE DRAWINGS OR NOT.
14. FLEXIBLE CONNECTIONS SHALL BE INCORPORATED WITHIN THE DUCTWORK SYSTEM TO ISOLATE THE DUCTWORK DISTRIBUTION SYSTEM FROM VIBRATION PRODUCING EQUIPMENT.
15. GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH THE MANUFACTURERS PURPOSE MADE PLENUM BOX (SIDE OR TOP ENTRY SPOOT AS NECESSARY) WHERE INDICATED.
16. ALL GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS WITHIN THE DUCTWORK SERVING THE GRILLE OR DIFFUSER.
17. ALL GRILLES AND DIFFUSERS SHALL HAVE A FINISH/COLOUR TO SUIT THE ARCHITECTS REQUIREMENTS.
18. ALL FANS SHALL BE MOUNTED COMPLETE WITH ANTI-VIBRATION MOUNTINGS.
19. BALANCING AND CONTROL DAMPERS SHALL BE INCLUDED WITHIN THE DUCTWORK SECTIONS AS INDICATED UPON THE DRAWINGS AND PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.
20. ALL CONTROL DAMPERS SHALL BE HAND ADJUSTABLE WITH A LOCKING DEVICE AND SHALL BE MULTI-BLADE, DOUBLE SKINNED TYPE WITH OPPOSED BLADE ACTION.
21. ALL AIR DISTRIBUTION DUCTS PASSING THROUGH ELEMENTS OF STRUCTURE FORMING FIRE COMPARTMENTS SHALL INCORPORATE A FIRE DAMPER. THE FIRE DAMPER ARRANGEMENT INCLUDING SUITABLE HVAC INSTALLATION FRAME SHALL HAVE A FIRE RESISTANCE RATING EQUAL TO THE ELEMENT WHICH IT PENETRATES WITH A MINIMUM RATING OF 1 HOUR.
22. THE FIRE DAMPER BLADE SHALL BE OF STAINLESS STEEL CONSTRUCTION AND SHALL BE HELD IN THE OPEN POSITION BY MEANS OF A THERMAL RELEASE MECHANISM RATED AT 72°C +/- 2°C.
23. ALL FIRE DAMPERS SHALL BE PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.
24. ALL BRANCHES FROM THE MAIN DISTRIBUTION DUCTS SHALL BE BY A SHOE-BRANCH FITTING.
25. DUCTWORK TO BE THERMALLY INSULATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.
26. DUCTWORK BETWEEN AHUS / FANS / VAVS AND ATTENUATORS TO BE ACOUSTICALLY LAGGED TO PREVENT NOISE BREAKOUT THROUGH DUCT.
27. VOLUME CONTROL DAMPERS TO BE PROVIDED ON ALL MAIN BRANCHES AND ALL FINAL CONNECTIONS TO GRILLES.
28. FUSIBLE LINK FIRE DAMPERS TO BE PROVIDED WHERE DUCTS PASS THROUGH CAVITY BARRIERS / FIRE COMPARTMENTATION.
29. DUCT ACCESS PANELS FOR CLEANING PURPOSES SHALL BE LOCATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.
30. ALL FLOOR GRILLES TO BE PROVIDED COMPLETE WITH A DIRT TRAP AND BALANCING DAMPER.
31. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 3953-ABE-XX-ZZ-DR-M-5750
32. VENTILATION SERVICES ELEVATION FROM FFL TO BOTTOM OF DUCT



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LIVERPOOL

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C01	CONSTRUCTION ISSUE	15.03.2022

NOTES:

- DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES OR METRES. ALL DIMENSIONS TO BE CHECK ON SITE BY INSTALLERS PRIOR TO COMMENCEMENT OF WORKS.
- BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT PROJECT DOCUMENTATION.
- ALL ABOVE & BELOW GROUND DRAINAGE TO COMPLY WITH EN12056 & BS8301 IN ALL RESPECTS AND TO THE SATISFACTION OF THE LOCAL DRAINAGE AND ENVIRONMENTAL INSPECTOR AND THE SERVICES ENGINEER.
- ALL DRAINAGE PIPEWORK ABOVE 40mm DIA SHALL BE PROVIDED WITH FIRE COLLARS WHEREVER THE PIPEWORK PASSES THROUGH FIRE RATED STRUCTURES. THE RATING OF THE FIRE COLLAR SHALL BE EQUAL TO THE FIRE RATING OF THE STRUCTURE THROUGH WHICH THE PIPE PASSES.
- ALL VERTICAL AND HORIZONTAL TO BE SUPPORTED BY THE MANUFACTURERS RECOMMENDED PIPE SUPPORTS. SUPPORTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS PRINTED INSTRUCTIONS.
- RODDING ACCESS POINTS SHALL BE PROVIDED APPROXIMATELY 1.2m ABOVE FINISHED FLOOR LEVEL AND WHERE CHANGES OF DIRECTION TAKE PLACE OR BLANK ENDS.
- THE ABOVE GROUND DRAINAGE WILL BE TESTED BEFORE BEING ENCLOSED WITHIN PIPE BOXING ETC.
- REFER TO THE ARCHITECTS INFORMATION FOR THE SANITARYWARE SCHEDULES.
- SOIL & WASTE PIPE FALL IS 1:80
- PIPES WHICH DO NOT VENTILATE TO THE ROOF TO HAVE AIR ADMITTANCE VALVES AND CLEANING EYES.
- W.C. FLOAT CLEANING EYES SHOULD BE TURNED UP ABOVE THE W.C. FLOOD LEVELS.
- 32mm CONNECTIONS TO WHBs.
- 40mm CONNECTIONS TO SINKS.
- 110mm CONNECTIONS TO WCs.
- 28mm COPPER DRAIN TO WATER BOILER.
- SYPHONIC RAINWATER SERVICE BY OTHERS
- THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 3953-ABE-XX-ZZ-DR-M-5200

CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP- ARCHITECTURE

CONTRACT

CHRISTABEL PANKHURST INSTITUTE

TITLE

First Floor - Drainage

DRAWN

SK

CHECKED

AC

SCALE

As indicated

DATE

09.06.2021

DRAWING No

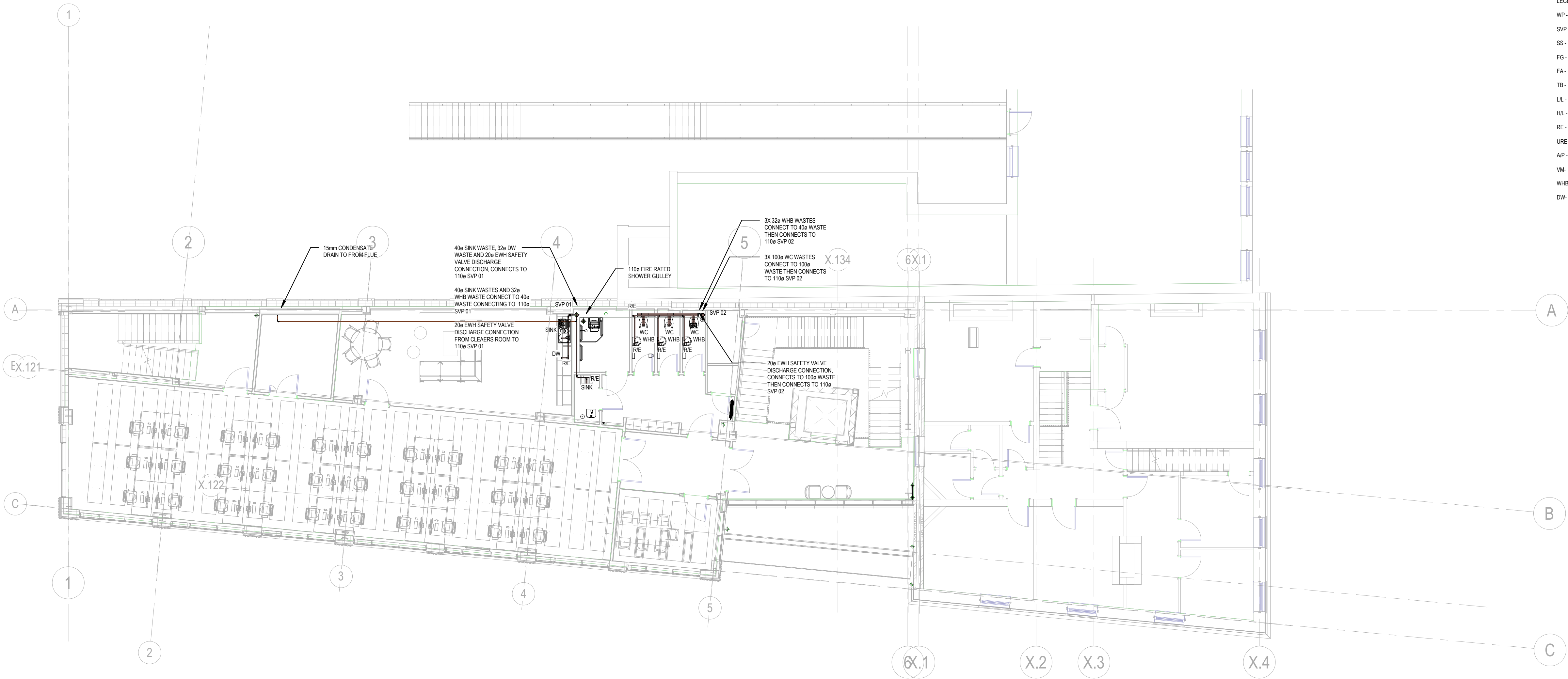
3953-ABE-XX-01-DR-M-5201

REV

C01

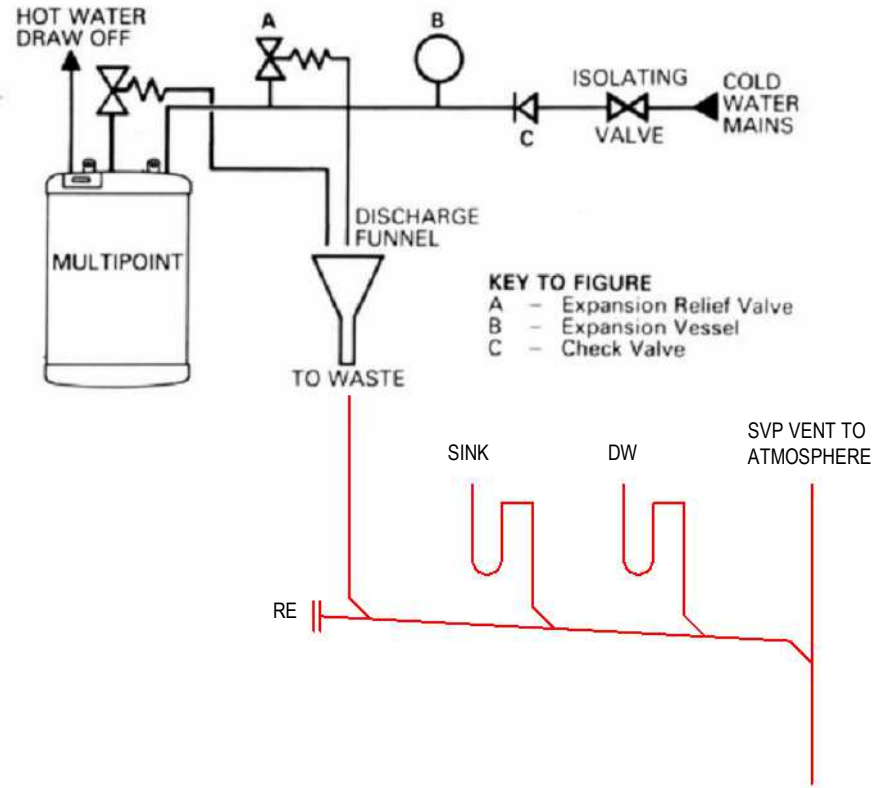


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1 01
1 : 100

First Floor Electric Water Heater Schedule				
Equipment Reference	ABE Model	Type	Location	Manufacturer
EW1.01	Multipoint 10L 3KW	Unvented Electric Water Heater	1.005A Kitchenette	Heatrae Sadia
EW1.02	Multipoint 15L 3KW	Unvented Electric Water Heater	1.005 Universal WC's Ceiling Void	Heatrae Sadia
EW1.03	Multipoint Eco 30H	Unvented Electric Water Heater	1.005B Cleaners Store Ceiling Void	Heatrae Sadia
EW1.04	Electric Shower	Unvented Electric Water Heater	1.005A ACC WC Ceiling Void	Heatrae Sadia



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C01	CONSTRUCTION ISSUE	15.03.2022

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LEGEND

EF	- EXTRATCT FAN
HRU	- HEAT RECOVERY UNIT
SG	- SUPPLY GRILLE
EG	- EXTRACT GRILLE
RG	- RETURNS GRILLE
FD	- FIRE DAMPER
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HB	- HEATER BATTERY
VCD	- VOLUME CONTROL DAMPER
ATT	- ATTENUATOR
TG	- TRANSFER GRILLE
DT	- DOOR TRANSFER GRILLE
SV	- SMOKE VENT
AOV	- AUTOMATIC OPENING VENT

1. FINAL LOCATION OF EXTERNAL LOUVRES TO BE AGREED BY ARCHITECT
2. AWAITING CEILING LAYOUT TO CO-ORDINATE MEP SERVICES

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES OR METRES. ALL DIMENSIONS TO BE CHECKED ON SITE BY INSTALLERS PRIOR TO COMMENCEMENT OF WORKS.

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3. BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.

4. ALL DUCTWORK SYSTEMS TO BE INSTALLED IN ACCORDANCE WITH DW144 SPECIFICATION FOR SHEET METAL DUCTWORK FOR LOW PRESSURE "CLASS A" SYSTEMS.

5. ALL DUCTWORK TO BE SUPPORTED IN ACCORDANCE WITH DW144 ARRANGEMENT OF BEARERS AND HANGERS.

6. ACCESS PANELS TO BE PROVIDED ADJACENT TO ALL FIRE DAMPERS BOTH SIDES.

6. INSPECTION PANELS TO BE PROVIDED ADJACENT TO ALL VOLUME CONTROL DAMPERS BOTH SIDES.

7. FOR LOCATIONS OF ACCESS PANELS FOR INSPECTION / SERVICING AND OR CLEANING REFER TO SECTION 3.13 TABLE 3 OF THE DW144 INTERNAL CENLINES OF VENTILATION SYSTEMS DOCUMENT

8. ALL ACCESS/INSPECTION HATCHES ARE TO BE PROPRIETARY MANUFACTURED WITH QUICK RELEASE CATCHES AND SELF SEALING GASKETS.

9. ALL ACCESS/INSPECTION PANELS SHALL REMAIN ACCESSIBLE. THE INSULATION CONTRACTOR SHALL SUITABLY DRESS THE EDGES OF THE INSULATION TO THE EDGE OF THE ACCESS OPENING.

10. THE USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 500mm IN LENGTH TO MAKE FINAL CONNECTIONS ONLY.

11. DUCTWORK SHALL BE MANUFACTURED WITH GRADUAL TRANSFORMATIONS AND CHANGES OF SHAPE/DIRECTION.

12. TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR SECTION DUCTWORK AT ALL CHANGES IN DIRECTION WHETHER INDICATED ON THE DRAWINGS OR NOT.

13. SPLITTERS SHALL BE INCORPORATED WITHIN RECTANGULAR DUCTWORK WITH AN ASPECT RATIO OF GREATER THAN 4:1 AS DW144 WHETHER INDICATED ON THE DRAWINGS OR NOT.

14. FLEXIBLE CONNECTIONS SHALL BE INCORPORATED WITHIN THE DUCTWORK SYSTEM TO ISOLATE THE DUCTWORK DISTRIBUTION SYSTEM FROM VIBRATION PRODUCING EQUIPMENT.

15. GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH THE MANUFACTURERS PURPOSE MADE PLENUM BOX (SIDE OR TOP ENTRY SPOUT) AS NECESSARY WHERE INDICATED.

16. ALL GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS WITHIN THE DUCTWORK SERVING THE GRILLE OR DIFFUSER.

17. ALL GRILLES AND DIFFUSERS SHALL HAVE A FINISH/COLOUR TO SUIT THE ARCHITECTS REQUIREMENTS.

18. ALL FANS SHALL BE MOUNTED COMPLETE WITH ANTI-VIBRATION MOUNTINGS.

19. BALANCING AND CONTROL DAMPERS SHALL BE INCLUDED WITHIN THE DUCTWORK SECTIONS AS INDICATED UPON THE DRAWINGS AND PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.

20. ALL CONTROL DAMPERS SHALL BE HAND ADJUSTABLE WITH A LOCKING DEVICE AND SHALL BE MULTI-BLADE, DOUBLE SKINNED TYPE WITH OPPOSED BLADE ACTION.

21. ALL AIR DISTRIBUTION DUCTS PASSING THROUGH ELEMENTS OF STRUCTURE FORMING FIRE COMPARTMENTS SHALL INCORPORATE A FIRE DAMPER. THE FIRE DAMPER ARRANGEMENT INCLUDING SUITABLE HVAC INSTALLATION FRAME, SHALL HAVE A FIRE RESISTANCE RATING EQUAL TO THE ELEMENT WHICH IT PENETRATES WITH A MINIMUM RATING OF 1 HOUR.

22. THE FIRE DAMPER BLADE SHALL BE OF STAINLESS STEEL CONSTRUCTION AND SHALL BE HELD IN THE OPEN POSITION BY MEANS OF A THERMAL RELEASE MECHANISM RATED AT 72°C +/- 2°C.

23. ALL FIRE DAMPERS SHALL BE PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.

24. ALL BRANCHES FROM THE MAIN DISTRIBUTION DUCTS SHALL BE BY A SHOE-BRANCH FITTING.

25. DUCTWORK TO BE THERMALLY INSULATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.

26. DUCTWORK BETWEEN AHUS / FANS / VAVS AND ATTENUATORS TO BE ACOUSTICALLY LAGGED TO PREVENT NOISE BREAKOUT THROUGH DUCT.

27. VOLUME CONTROL DAMPERS TO BE PROVIDED ON ALL MAIN BRANCHES AND ALL FINAL CONNECTIONS TO GRILLES.

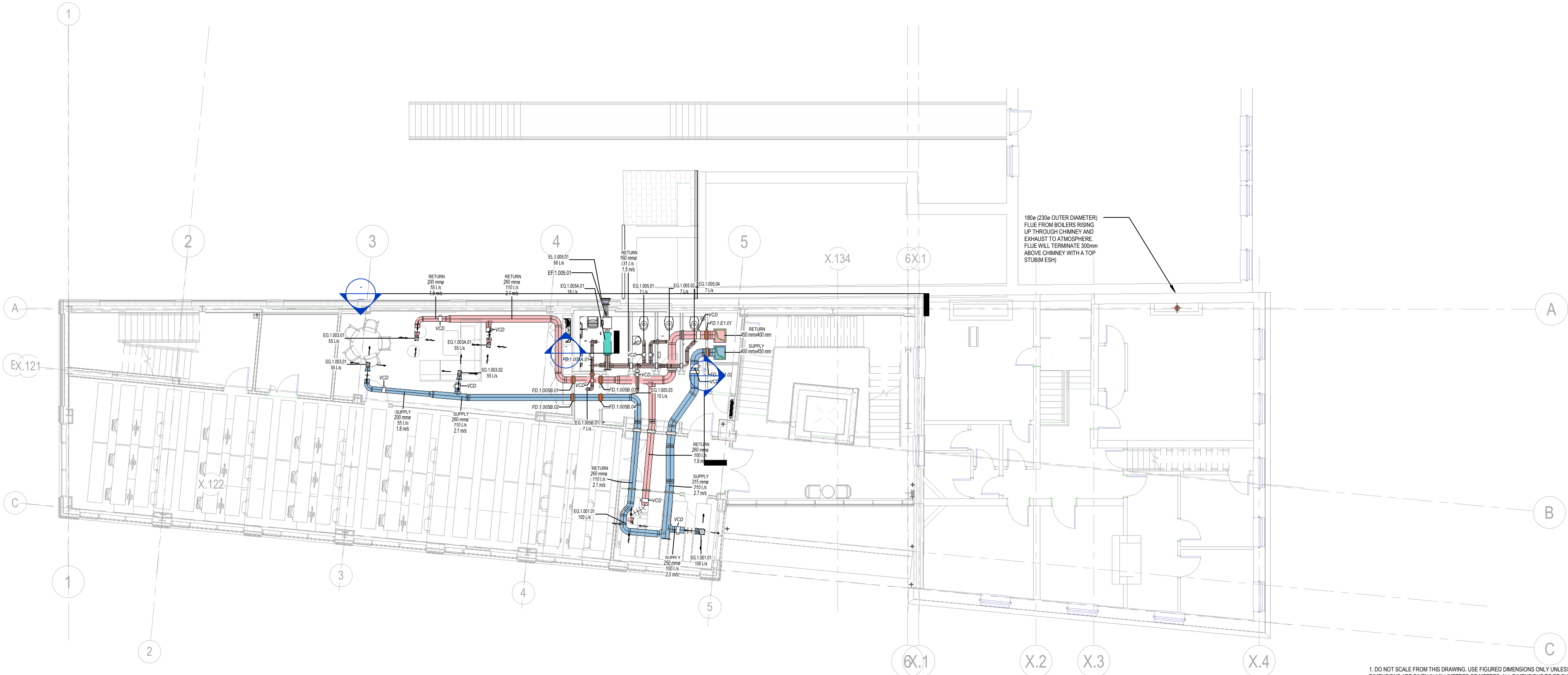
28. FUSIBLE LINK FIRE DAMPERS TO BE PROVIDED WHERE DUCTS PASS THROUGH CAVITY BARRIERS / FIRE COMPARTMENTATION.

29. DUCT ACCESS PANELS FOR CLEANING PURPOSES SHALL BE LOCATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.

30. ALL FLOOR GRILLES TO BE PROVIDED COMPLETE WITH A DIRT TRAP AND BALANCING DAMPER.

31. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 3853-ABE-XX-ZZ-DR-M-570.

32. VENTILATION SERVICES ELEVATION FROM FFL TO BOTTOM OF DUCT

01
1 : 100

First Floor Extract Grille Schedule							
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Size	Diffuser Type	Location	Manufacturer
EG 1.001.01	100 L/s	225	225	225 mm	4 Way	1.001 Group Study	GILBERTS
EG 1.003.01	55 L/s	150	150	150 mm	4 Way	1.003 Breakout	GILBERTS
EG 1.003A.01	55 L/s	150	150	150 mm	4 Way	1.003A Kitchenette	GILBERTS
EG 1.005.01	7 L/s			100 mm		1.005 Universal WC	GILBERTS
EG 1.005.02	7 L/s			100 mm		1.005 Universal WC	GILBERTS
EG 1.005.03	10 L/s			100 mm		1.005 Universal WC	GILBERTS
EG 1.005.04	7 L/s			100 mm		1.005 Universal WC	GILBERTS
EG 1.005A.01	18 L/s			125 mm		1.005A Acc WC	GILBERTS
EG 1.005B.01	7 L/s			100 mm		1.005B Cleaner Store	GILBERTS

First Floor Supply Grille Schedule						
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Diffuser Type	Location	Manufacturer
SG 1.001.01	100 L/s	225	225	4 Way	1.001 Group Study	GILBERTS
SG 1.003.01	55 L/s	150	150	4 Way	1.003 Breakout	GILBERTS
SG 1.003.02	55 L/s	150	150	4 Way	1.003 Breakout	GILBERTS

First Floor Fire Damper Schedule							
Equipment Reference	Type	ABE Ductwork Diameter	FD Duration	ABE Builderswork Height	ABE Builderswork Width	ABE Builderswork OffsetToCentre	Damper Type
FD 1.005B.01	BSB FD Type C Circular 260a	260	30	346	346	2743	Fusible Link Fire Damper
FD 1.005B.02	BSB FD Type C Circular 260a	260	30	346	346	2743	Fusible Link Fire Damper
FD 1.005B.03	BSB FD Type C Circular 260a	260	30	346	346	2743	Fusible Link Fire Damper
FD 1.005B.04	BSB FD Type C Circular 260a	260	30	346	346	2743	Fusible Link Fire Damper
FD 1.E1.01	BSB FD Type C Circular 315a	315	60	425	401	2743	Fusible Link Fire Damper
FD 1.E1.02	BSB FD Type C Circular 315a	315	60	425	401	2734	Fusible Link Fire Damper
FD 1.005A.01	BSB FD Type C Circular 125a	125	30	211	211	3220	Fusible Link Fire Damper

First Floor Fan Schedule					
Equipment Reference	Flowrate (l/s)	Location	Control	Manufacturer	Type
EF 1.005.01	56	1.005A Accessible Shower	Background Trickle Ventilation and To boost upon PIR Activation	Vent Asia	SLP 150EC

First Floor Louvre Schedule				
Equipment Reference Number	ABE AirFlow (l/s)	Size	Manufacturer	Louvre Reference
EL 1.005.01	56 L/s	300 mmx300 mm	GILBERTS	WGF 75

CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP- ARCHITECTURE

CONTRACT

CHRISTABEL PANKHURST INSTITUTE

TITLE

First Floor - Ventilation

DRAWN

SK AC

DATE

09.06.2021

CHECKED

AC

SCALE

As indicated

DRAWING No

3953-ABE-XX-01-DR-M-5701

REV

C01

abengineering

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2. AWAITING CEILING LAYOUT TO CO-ORDINATE MEP SERVICES

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES OR METRES. ALL DIMENSIONS TO BE CHECKED ON SITE BY INSTALLERS PRIOR TO COMMENCEMENT OF WORKS.

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS / DOCUMENTS / SCOPE OF WORKS AND SPECIFICATIONS. THIS DRAWING SHOULD ONLY BE USED FOR ITS INTENDED PURPOSE.

3. BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.

4. ALL DUCTWORK SYSTEMS TO BE INSTALLED IN ACCORDANCE WITH DW144 SPECIFICATION FOR SHEET METAL DUCTWORK FOR LOW PRESSURE 'CLASS A' SYSTEMS.

5. ALL DUCTWORK TO BE SUPPORTED IN ACCORDANCE WITH DW144 ARRANGEMENT OF BEARERS AND HANGERS.

6. ACCESS PANELS TO BE PROVIDED ADJACENT TO ALL FIRE DAMPERS BOTH SIDES.

6b. INSPECTION PANELS TO BE PROVIDED ADJACENT TO ALL VOLUME CONTROL DAMPERS BOTH SIDES.

7. FOR LOCATIONS OF ACCESS PANELS FOR INSPECTION / SERVICING AND OR CLEANING REFER TO SECTION 3.13 TABLE 3 OF THE DW144 INTERNAL CLENLINES OF VENTILATION SYSTEMS DOCUMENT

8. ALL ACCESS/INSPECTION HATCHES ARE TO BE PROPRIETARY MANUFACTURED WITH QUICK RELEASE CATCHES AND SELF SEALING GASKETS.

9. ALL ACCESS/INSPECTION PANELS SHALL REMAIN ACCESSIBLE. THE INSULATION CONTRACTOR SHALL SUITABLY DRESS THE EDGES OF THE INSULATION TO THE EDGE OF THE ACCESS OPENING.

10. THE USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 500mm IN LENGTH TO MAKE FINAL CONNECTIONS ONLY.

11. DUCTWORK SHALL BE MANUFACTURED WITH GRADUAL TRANSFORMATIONS AND CHANGES OF SHAPE/DIRECTION.

12. TURNING VANES SHALL BE INSTALLED IN ALL RECTANGULAR SECTION DUCTWORK AT ALL CHANGES IN DIRECTION WHETHER INDICATED ON THE DRAWINGS OR NOT.

13. SPLITTERS SHALL BE INCORPORATED WITHIN RECTANGULAR DUCTWORK WITH AN ASPECT RATIO OF GREATER THAN 4:1 AS DW144 WHETHER INDICATED ON THE DRAWINGS OR NOT.

14. FLEXIBLE CONNECTIONS SHALL BE INCORPORATED WITHIN THE DUCTWORK SYSTEM TO ISOLATE THE DUCTWORK DISTRIBUTION SYSTEM FROM VIBRATION PRODUCING EQUIPMENT.

15. GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH THE MANUFACTURERS PURPOSE MADE PLENUM BOX (SIDE OR TOP ENTRY) SPOUT AS NECESSARY WHERE INDICATED.

16. ALL GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS WITHIN THE DUCTWORK SERVING THE GRILLE OR DIFFUSER.

17. ALL GRILLES AND DIFFUSERS SHALL HAVE A FINISH COLOUR TO SUIT THE ARCHITECTS REQUIREMENTS.

18. ALL FANS SHALL BE MOUNTED COMPLETE WITH ANTI-VIBRATION MOUNTINGS.

19. BALANCING AND CONTROL DAMPERS SHALL BE INCLUDED WITHIN THE DUCTWORK SECTIONS AS INDICATED UPON THE DRAWINGS AND PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.

20. ALL CONTROL DAMPERS SHALL BE HAND ADJUSTABLE WITH A LOCKING DEVICE AND SHALL BE MULTI-BLADE, DOUBLE SKINNED TYPE WITH OPPOSED BLADE ACTION.

21. ALL AIR DISTRIBUTION DUCTS PASSING THROUGH ELEMENTS OF STRUCTURE FORMING FIRE COMPARTMENTS SHALL INCORPORATE A FIRE DAMPER. THE FIRE DAMPER ARRANGEMENT INCLUDING SUITABLE HVCA INSTALLATION FRAME, SHALL HAVE A FIRE RESISTANCE RATING EQUAL TO THE ELEMENT WHICH IT PENETRATES WITH A MINIMUM RATING OF 1 HOUR.

22. THE FIRE DAMPER BLADE SHALL BE OF STAINLESS STEEL CONSTRUCTION AND SHALL BE HELD IN THE OPEN POSITION BY MEANS OF A THERMAL RELEASE MECHANISM RATED AT 72°C +/- 2°C.

23. ALL FIRE DAMPERS SHALL BE PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.

24. ALL BRANCHES FROM THE MAIN DISTRIBUTION DUCTS SHALL BE BY A SHOE-BRANCH FITTING.

25. DUCTWORK TO BE THERMALLY INSULATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.

26. DUCTWORK BETWEEN AHU'S / FAN'S / VAV'S AND ATTENUATORS TO BE ACOUSTICALLY LAGGED TO PREVENT NOISE BREAKOUT THROUGH DUCT.

27. VOLUME CONTROL DAMPERS TO BE PROVIDED ON ALL MAIN BRANCHES AND ALL FINAL CONNECTIONS TO GRILLES.

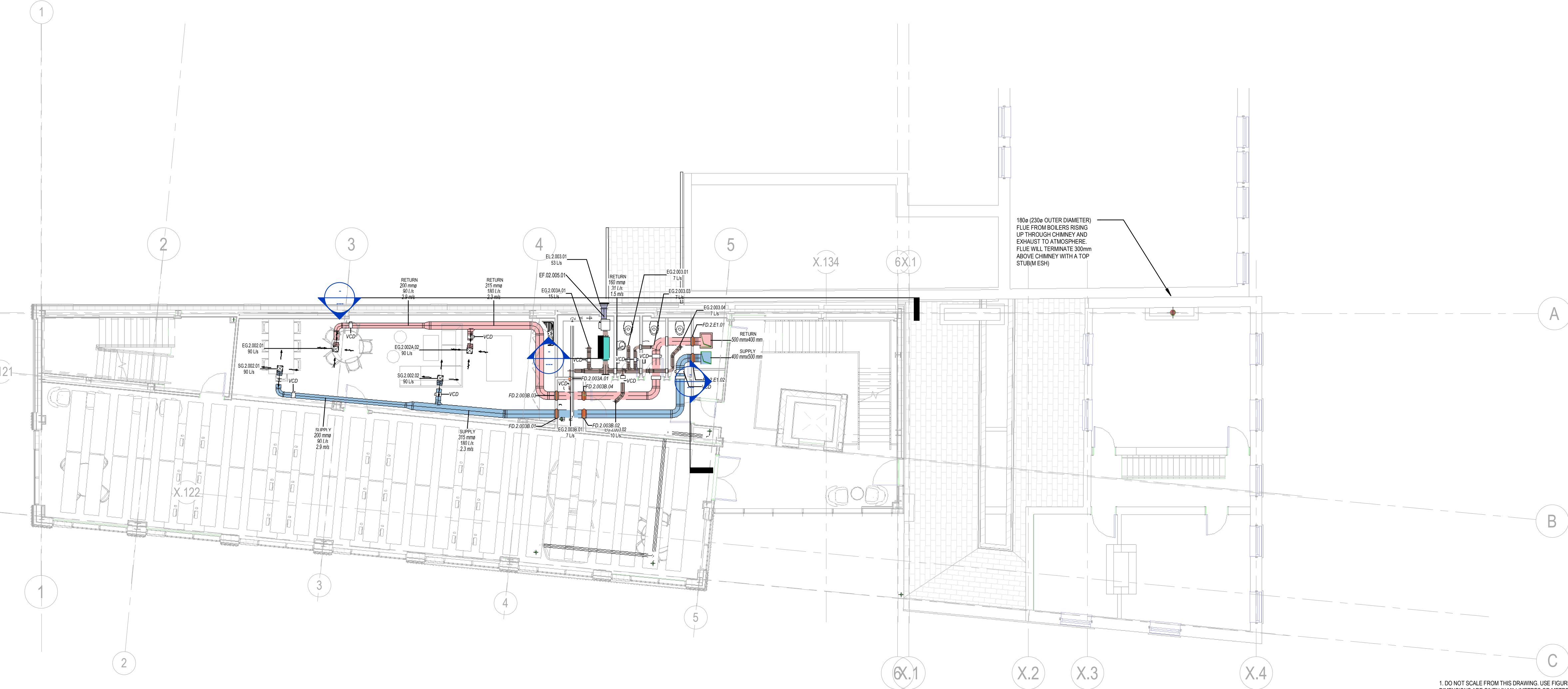
28. FUSIBLE LINK FIRE DAMPERS TO BE PROVIDED WHERE DUCTS PASS THROUGH CAVITY BARRIERS / FIRE COMPARTMENTATION.

29. DUCT ACCESS PANELS FOR CLEANING PURPOSES SHALL BE LOCATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.

30. ALL FLOOR GRILLES TO BE PROVIDED COMPLETE WITH A DIRT TRAP AND BALANCING DAMPER.

31. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 3953-ABE-XX-02-DR-M-5702

32. VENTILATION SERVICES ELEVATION FROM FFL TO BOTTOM OF DUCT



02
1 : 100

Second Floor Supply Grille Schedule						
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Diffuser Type	Location	Manufacturer
SG 2.002.01	90 L/s	225	225	4 Way	2.002 Breakout	GILBERTS
SG 2.002.02	90 L/s	225	225	4 Way	2.002 Breakout	GILBERTS

Second Floor Extract Grille Schedule						
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Size	Diffuser Type	Location
EG 2.002.01	90 L/s	225	225	225 mm	4 Way	2.002 Breakout
EG 2.002A.02	90 L/s	225	225	225 mm	4 Way	2.002A Kitchenette
EG 2.003.01	7 L/s			100 mm	2.003 Universal WC	
EG 2.003.02	10 L/s			100 mm	2.003 Universal WC	
EG 2.003.03	7 L/s			100 mm	2.003 Universal WC	
EG 2.003.04	7 L/s			100 mm	2.003 Universal WC	
EG 2.003A.01	15 L/s			125 mm	Acc WC	
EG 2.003B.01	7 L/s			100 mm	2.003B Cleaner Store	

Second Floor Fire Damper Schedule							
Equipment Reference	Type	ABE Ductwork Diameter	FD Duration	ABE Builderswork Height	ABE Builderswork Width	ABE Builderswork OffsetToCentre	Damper Type
FD 2.003B.03	BSSB FD Type C Circular 315e	315	30	425	401	2743	Fusible Link Fire Damper
FD 2.003B.01	BSSB FD Type C Circular 315e	315	30	425	401	2743	Fusible Link Fire Damper
FD 2.003B.04	BSSB FD Type C Circular 315e	315	30	425	401	2743	Fusible Link Fire Damper
FD 2.003B.02	BSSB FD Type C Circular 315e	315	30	425	401	2743	Fusible Link Fire Damper
FD 2.003A.01	BSSB FD Type C Circular 125e	125	30	211	211	3220	Fusible Link Fire Damper
FD 2.E1.01	BSSB FD Type C Circular 315e	315	60	425	401	2743	Fusible Link Fire Damper
FD 2.E1.02	BSSB FD Type C Circular 315e	315	60	425	401	2743	Fusible Link Fire Damper

Second Floor Fan Schedule					
Equipment Reference	Flowrate (l/s)	Location	Control	Manufacturer	Type
EF 02.005.01	53	2.003A Accessible WC	Background Trickle Ventilation and To boost upon PIR Activation	Vent Axia	SLF150EC

Second Floor Louvre Schedule				
Equipment Reference Number	ABE AirFlow (l/s)	Size	Manufacturer	Louvre Reference
EL 2.003.01	53 L/s	300 mmx300 mm	GILBERTS	WGF 75

CONSTRUCTION

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ADP- ARCHITECTURE

CONTRACT

CHRISTABEL PANKHURST INSTITUTE

TITLE

Second Floor - Ventilation

DRAWN

SK

CHECKED

AC

SCALE

As indicated

DATE

09.06.2021

DRAWING No

3953-ABE-XX-02-DR-M-5702

REV

C01



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REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	08.10.2021
P02	Preliminary Issue	04.02.2022
C01	CONSTRUCTION ISSUE	15.03.2022

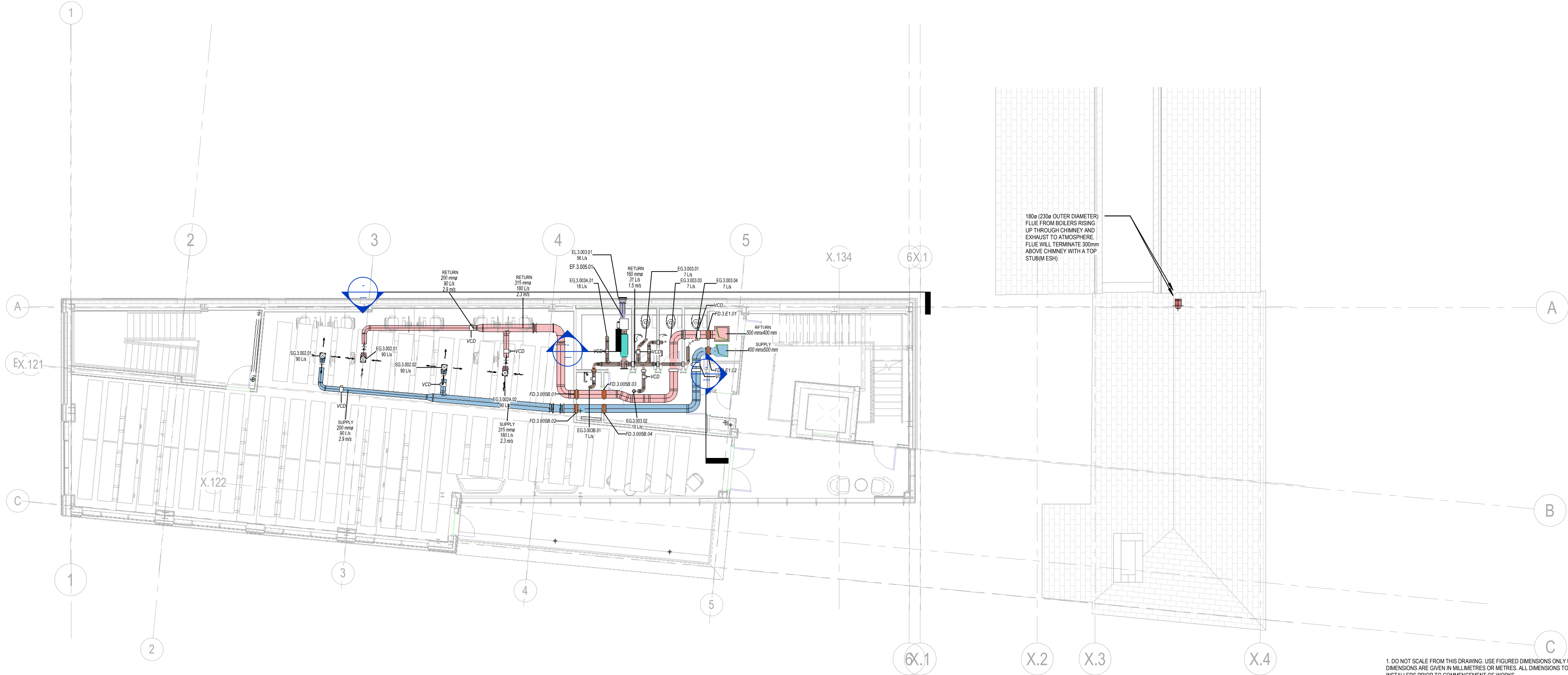
NOTES:

LEGEND

EF	-EXTRACT FAN
HRU	-HEAT RECOVERY UNIT
SG	-SUPPLY GRILLE
EG	-EXTRACT GRILLE
RG	-RETURNS GRILLE
FD	-FIRE DAMPER
VAV	-VARIABLE AIR VOLUME
HB	-HEATER BATTERY
VCD	-VOLUME CONTROL DAMPER
ATT	-ATTENUATOR
TG	-TRANSFER GRILLE
DT	-DOOR TRANSFER GRILLE
SV	-SMOKE VENT
ADV	-AUTOMATIC OPENING VENT

1. FINAL LOCATION OF EXTERNAL LOUVRES TO BE AGREED BY ARCHITECT
2. AWAITING CEILING LAYOUT TO CO-ORDINATE MEP SERVICES

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY UNLESS OTHERWISE STATED. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES OR METRES. ALL DIMENSIONS TO BE CHECKED ON SITE BY INSTALLERS PRIOR TO COMMENCEMENT OF WORKS.
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3. BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.
4. ALL DUCTWORK SYSTEMS TO BE INSTALLED IN ACCORDANCE WITH DW144 SPECIFICATION FOR SHEET METAL DUCTWORK FOR LOW PRESSURE CLASS A SYSTEMS.
5. ALL DUCTWORK TO BE SUPPORTED IN ACCORDANCE WITH DW144 ARRANGEMENT OF BEARERS AND HANGERS.
6. ACCESS PANELS TO BE PROVIDED ADJACENT TO ALL FIRE DAMPERS BOTH SIDES.
6. INSPECTION PANELS TO BE PROVIDED ADJACENT TO ALL VOLUME CONTROL DAMPERS BOTH SIDES.
7. FOR LOCATIONS OF ACCESS PANELS FOR INSPECTION / SERVICING AND / OR CLEANING REFER TO SECTION 3.13 TABLE 3 OF THE DW144 INTERNAL CLENNELINES OF VENTILATION SYSTEMS DOCUMENT
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11. DUCTWORK SHALL BE MANUFACTURED WITH GRADUAL TRANSFORMATIONS AND CHANGES OF DIRECTION.
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13. SPLITTERS SHALL BE INCORPORATED WITHIN RECTANGULAR DUCTWORK WITH AN ASPECT RATIO OF GREATER THAN 4:1 AS DW144 WHETHER INDICATED ON THE DRAWINGS OR NOT.
14. FLEXIBLE CONNECTIONS SHALL BE INCORPORATED WITHIN THE DUCTWORK SYSTEM TO ISOLATE THE DUCTWORK DISTRIBUTION SYSTEM FROM VIBRATION PRODUCING EQUIPMENT.
15. GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH THE MANUFACTURERS PURPOSE MADE PLENUM BOX (SIDE OR TOP ENTRY SPIGOT AS NECESSARY) WHERE INDICATED.
16. ALL GRILLES AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS WITHIN THE DUCTWORK SERVING THE GRILLE OR DIFFUSER.
17. ALL GRILLES AND DIFFUSERS SHALL HAVE A FINISH COLOUR TO SUIT THE ARCHITECTS REQUIREMENTS.
18. ALL FANS SHALL BE MOUNTED COMPLETE WITH ANTI-VIBRATION MOUNTINGS.
19. BALANCING AND CONTROL DAMPERS SHALL BE INCLUDED WITHIN THE DUCTWORK SECTIONS AS INDICATED UPON THE DRAWINGS AND PROVIDED WITH AN INDICATING DEVICE ON THE OUTSIDE OF THE DAMPER PROVIDING VISUAL INDICATION OF THE DAMPER POSITION.
20. ALL CONTROL DAMPERS SHALL BE HAND ADJUSTABLE WITH A LOCKING DEVICE AND SHALL BE MULTI-BLADE DOUBLE SKINNED TYPE WITH OPPOSED BLADE ACTION.
21. ALL AIR DISTRIBUTION DUCTS PASSING THROUGH ELEMENTS OF STRUCTURE FORMING FIRE COMPARTMENTS SHALL INCORPORATE A FIRE DAMPER. THE FIRE DAMPER ARRANGEMENT INCLUDING SUITABLE HVCA INSTALLATION FRAME SHALL HAVE A FIRE RESISTANCE RATING EQUAL TO THE ELEMENT WHICH IT PENETRATES WITH A MINIMUM RATING OF 1 HOUR.
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26. DUCTWORK BETWEEN AHUS / FANS / VAVS AND ATTENUATORS TO BE ACOUSTICALLY LAGGED TO PREVENT NOISE BREAKOUT THROUGH DUCT.
27. VOLUME CONTROL DAMPERS TO BE PROVIDED ON ALL MAIN BRANCHES AND ALL FINAL CONNECTIONS TO GRILLES.
28. FUSIBLE LINK FIRE DAMPERS TO BE PROVIDED WHERE DUCTS PASS THROUGH CAVITY BARRIERS / FIRE COMPARTMENTATION.
29. DUCT ACCESS PANELS FOR CLEANING PURPOSES SHALL BE LOCATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.
30. ALL FLOOR GRILLES TO BE PROVIDED COMPLETE WITH A DIRT TRAP AND BALANCING DAMPER.
31. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 3953-ABE-XX-ZZ-DR-M-570
32. VENTILATION SERVICES ELEVATION FROM FFL TO BOTTOM OF DUCT



03

1 : 100

Third Floor Supply Grille Schedule					
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Diffuser Type	Location
SG.3.002.01	90 L/s	225	225	4 Way	2.002 Breakout
SG.3.002.02	90 L/s	225	225	4 Way	2.002 Breakout

Third Floor Extract Grille Schedule							
Equipment Reference Number	ABE AirFlow (l/s)	Diffuser Width	Diffuser Depth	Size	Diffuser Type	Location	Manufacturer
EG.3.002.01	90 L/s	225	225	225 mm	4 Way	2.002 Breakout	GILBERTS
EG.3.002A.02	90 L/s	225	225	225 mm	4 Way	2.002A Kitchenette	GILBERTS
EG.3.003.01	7 L/s			100 mm		2.003 Universal WC	GILBERTS
EG.3.003.02	10 L/s			100 mm		2.003 Universal WC	GILBERTS
EG.3.003.03	7 L/s			100 mm		2.003 Universal WC	GILBERTS
EG.3.003.04	7 L/s			100 mm		2.003 Universal WC	GILBERTS
EG.3.003A.01	18 L/s			125 mm		Azc WC	GILBERTS
EG.3.003B.01	7 L/s			100 mm		2.003B Cleaner Store	GILBERTS

Third Floor Fire Damper Schedule							
Equipment Reference	Type	ABE Ductwork Diameter	FD Duration	ABE Builderswork Height	ABE Builderswork Width	ABE Builderswork Offset to Centre	Damper Type
FD.3.005B.01	BSS FD Type C Circular 315e	315	30	425	401	2570	Fusible Link Fire Damper
FD.3.005B.02	BSS FD Type C Circular 315e	315	30	425	401	2570	Fusible Link Fire Damper
FD.3.005B.03	BSS FD Type C Circular 315e	315	30	425	401	2570	Fusible Link Fire Damper
FD.3.005B.04	BSS FD Type C Circular 315e	315	30	425	401	2570	Fusible Link Fire Damper
FD.3.005B.05	BSS FD Type C Circular 125e	125	30	211	211	2531	Fusible Link Fire Damper
FD.3.E1.01	BSS FD Type C Circular 315e	315	60	425	401	2509	Fusible Link Fire Damper
FD.3.E1.02	BSS FD Type C Circular 315e	315	60	425	401	2509	Fusible Link Fire Damper

Third Floor Fan Schedule					
Equipment Reference	Flowrate (l/s)	Location	Control	Manufacturer	Type
EF.3.005.01	56	3.003.A Accessible WC	Background Trickle Ventilation and To boost upon PIR Activation	Vent Axia	SLP150EC

Third Floor Louvre Schedule				
Equipment Reference Number	ABE AirFlow (l/s)	Size	Manufacturer	Louvre Reference
EL.3.003.01	56 L/s	300 mmx300 mm	GILBERTS	WGF 75

CONSTRUCTION

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ARCHITECT

ADP- ARCHITECTURE

CONTRACT

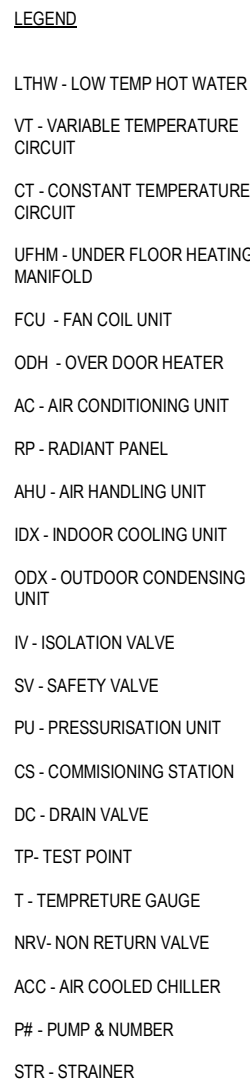
CHRISTABEL PANKHURST INSTITUTE

TITLE

Third Floor - Ventilation

DRAWN SK	CHECKED AC	SCALE As indicated	REV C01
DATE 09.06.2021	DRAWING No 3953-ABE-XX-03-DR-M-5703		

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NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT CONTRACT DRAWINGS & INFORMATION.
2. THIS DRAWINGS SHALL BE READ IN CONJUNCTION WITH BOTH THE ARCHITECTURAL AND STRUCTURAL ENGINEERING DRAWINGS
3. ALL PIPEWORK SHALL BE INSULATED AS DEFINED IN THE MECHANICAL SPECIFICATION UNLESS EXPOSED ADJACENT TO EMITTERS. EXPOSED PIPEWORK SHALL BE MAINTAINED TO THE ARCHITECT'S REQUIREMENTS.
4. PIPEWORK TO BE INSTALLED SUCH THAT NO HIGH POINTS OCCUR WITH ROOMS, AIR BOTTLE/STORAGE ARE VENTS TO BE INSTALLED AT ALL HIGH POINTS.
5. ALL PIPES PENETRATING THE BUILDING FABRIC TO BE SLEEVED AND PACKED WITH SUITABLE MATERIAL.
6. GENERAL ARRANGEMENT DRAWINGS DO NOT SHOW ALL NECESSARY VALVES, REFER TO DETAIL SCHEMATIC DRAWINGS AND TECHNICAL SPECIFICATIONS FOR FULL REQUIREMENTS.
7. ALL EXTERNAL EXPOSED PIPEWORK TO BE TRACE HEATED, INSULATED AND PROTECTED WITH HAMMER-LAC FINISH FOR Frost PROTECTION
8. ALL CONNECTIONS TO EMITTERS ARE 15MM UNLESS NOTED.
9. THE UNDERFLOOR HEATING ZONES SHALL BE DEVELOPED BY THE UNDERFLOOR HEATING SPECIALIST TO INCLUDE ALL NECESSARY PIPE COLLS AND TO CO-ORDINATE WITH ANY FIXED EQUIPMENT OR FURNITURE.
10. THE UNDERFLOOR HEATING SPECIALIST SHALL BE RESPONSIBLE FOR SURVEYING THE STRUCTURAL FLOOR SLAB AND CONFIRMING ITS SUITABILITY PRIOR TO COMMENCING WORKS.
11. ALL EXPOSED PIPEWORK LOCATIONS SERVING RADATORS SHALL BE BOXED.
12. ALL PIPEWORK DROP LOCATIONS SHALL BE AGREED WITH THE ARCHITECT. THE PROVISION OF BOXING DETAILS FOR PIPEWORK DROPS ARE TBC BY THE ARCHITECT.
13. WHERE POSSIBLE, SERVICES REQUIRING MAINTENANCE, OR USED FOR COMMISSIONING PURPOSES SHALL BE KEPT TO AVOID ACCESSIBLE CEILINGS.
14. REFRIGERATION LINES SHALL BE MOUNTED ON BASKET TRAY.
15. ALL WALL MOUNTED FAN COIL UNITS SHALL BE MOUNTED AT A MINIMUM OF 100mm FROM CEILING LEVEL, TO TOP OF UNIT.
17. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE SCHEMATIC DRAWINGS 365-AR-XX-ZZ OR M-5650
18. PIPEWORK SERVICES ELEVATION FROM FFL TO BOTTOM OF PIPE
19. ALL HEATING PUMPS TO BE COMPLETE WITH FLEXIBLE CONNECTIONS
20. EXTERNALLY EXPOSED CONTROL VALVES TO BE P 66 RATED

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CONTRACT

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TITLE

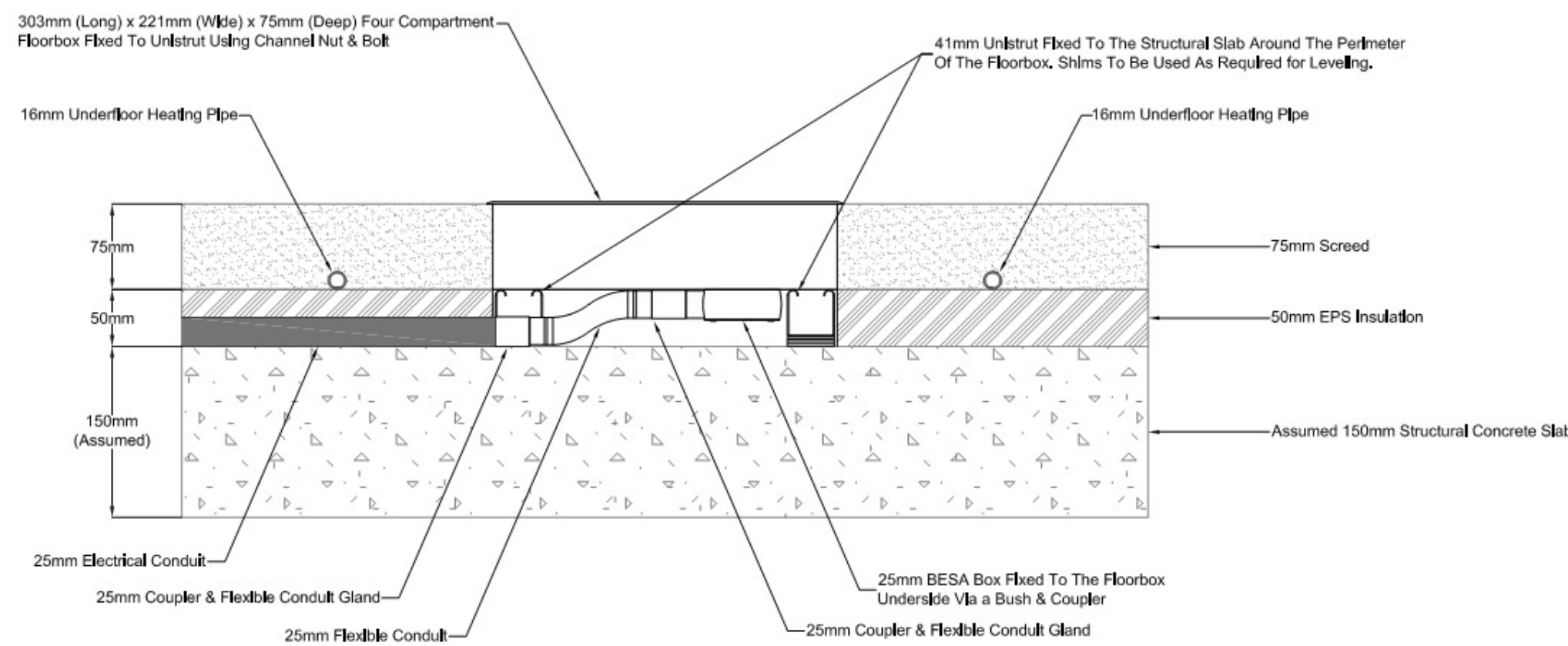
Basement- Plantroom Layout

DRAWN SK	CHECKED AC	SCALE As indicated
DATE 09.06.2021	DRAWING No 3953-ABE-XX-B1-DR-M-5001	

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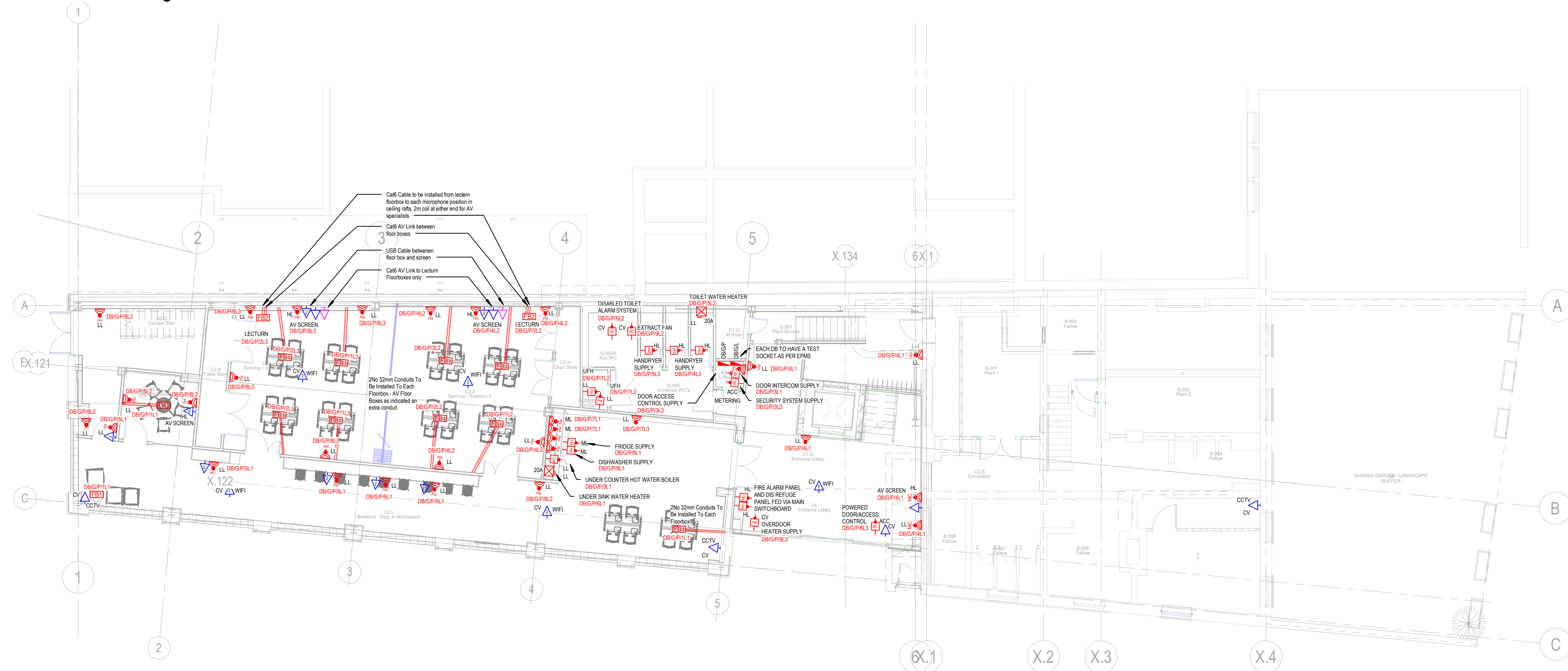
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Old Swan • Liverpool • L13 6QA
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www.abeng.co.uk





 FB1	4 COMPARTMENT FLOOR BOX 2 TWIN SOCKETS, 2 DATA OUTLETS		SINGLE DATA OUTLET
 FB2	4 COMPARTMENT FLOOR BOX 2 TWIN SOCKETS, 3 DATA OUTLETS & 1 AV OUTLET LINK		DOUBLE DATA OUTLET
 PM	TWIN SOCKET OUTLET - PLASTIC MOLDED		SINGLE DATA OUTLET - AV
 MC	TWIN SOCKET OUTLET - METAL CLAD		DOUBLE DATA OUTLET - AV
 PM	SWITCHED FUSED CONNECTION UNIT - PLASTIC MOLDED		
 MC	SWITCHED FUSED CONNECTION UNIT - METAL CLAD		
 PM	UN SWITCHED FUSED CONNECTION UNIT - PLASTIC MOLDED		
 MC	UN SWITCHED FUSED CONNECTION UNIT - METAL CLAD		
 TPN	SINGLE OR THREE PHASE ROTARY ISOLATOR (TPN DENOTES THREE PHASE)		
 TP&N	DISTRIBUTION BOARD		
	42U DATA CABINET 800mm x 800mm		

Floorbox Containment Interface



1 — 00
1 : 100

CONSTRUCTION

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ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Ground Floor Small Power & Data

DRAWN J.B	CHECKED C.E	SCALE 1:100
DATE 09.06.2021	DRAWING No 8796-ABE-XX-00-DR-E-6201	REV C02

abengineering

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REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	02.12.21
P02	Revised inline with comments	05.01.22

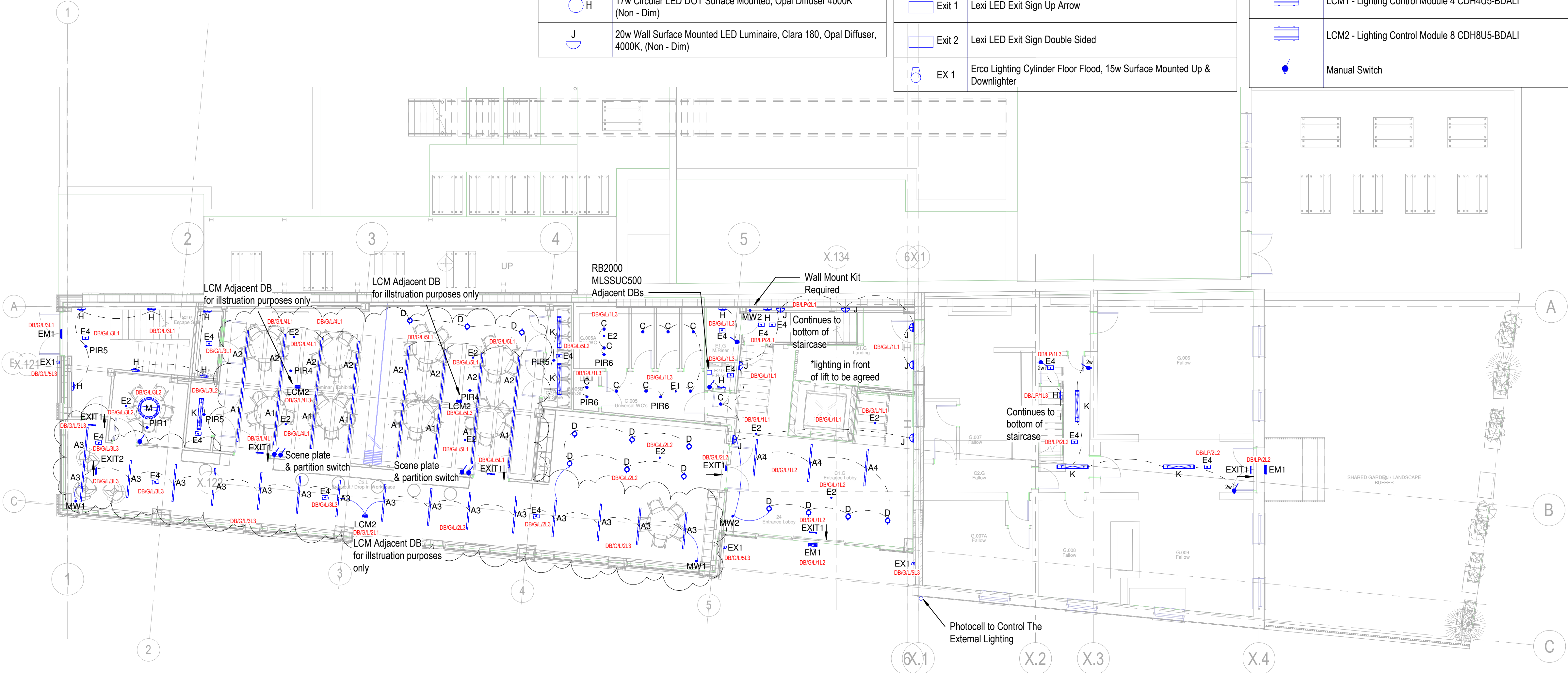
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3. BEFORE COMMENCEMENT OF WORK ASSOCIATED WITH THIS DRAWING REFER TO THE APPROPRIATE METHOD STATEMENTS AND RISK ASSESSMENTS.

LIGHTING LEGEND					
	34w LED 3000mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k		23w Throrproof Eco IP66 Surface Mounted LED, Opal Diffuser 4000K (Non - Dim)		PIR1 - DALI Surface Mounted PIR, Ex-OR MLS2001DALISM
	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k		11w G3 LED Surface Downlighter. Dali. White Finish. 4000k		PIR2 - DALI Recessed PIR, Ex-OR MLS2001DALIF
	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k		59w Clara 720 Suspended Pendant LED, 4000k, Dali Dimming		PIR3 - DALI Surface PIR to suit LCMs, Ex-OR MLS3000CDRSM
	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k		3w Fire Fly Recessed Corridor Emergency LED		PIR4 - DALI Recessed PIR to suit LCMs, Ex-OR MLS3000CDRSM
	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k		3w Fire Fly Recessed Open Area Emergency LED		PIR5 - Switching Surface Recessed PIR, Ex-OR MLS2001ASM
	8w G3 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)		3w Fire Fly Surface Corridor Emergency LED		PIR6 - Switching Recessed PIR, Ex-OR MLS2001AF
	12w G2 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)		3w Fire Fly Surface Open Area Emergency LED		MW1 - DALI Surface Microwave Detector to suit LCMs, Ex-OR MLS2500CDRSM
	18w LED R3 Downlighter Opal Diffuser, 4000k Dali Dimming		Mini-8 Surface Mounted LED Bulkhead		MW2 - DALI/Switching Surface Microwave Detector, Ex-OR MLS2500DALI
	17w Circular LED DOT Surface Mounted, Opal Diffuser 4000K (Non - Dim)		Lexi LED Exit Sign Up Arrow		LCM1 - Lighting Control Module 4 CDH4U5-BDALI
	20w Wall Surface Mounted LED Luminaire, Clara 180, Opal Diffuser, 4000K, (Non - Dim)		Lexi LED Exit Sign Double Sided		LCM2 - Lighting Control Module 8 CDH8U5-BDALI
			Erco Lighting Cylinder Floor Flood, 15w Surface Mounted Up & Downlighter		Manual Switch



PRELIMINARY

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Ground Floor General & Emergency Lighting

DRAWN

J.B

CHECKED

C.E

SCALE

1:100

DATE

09.06.2021

DRAWING No

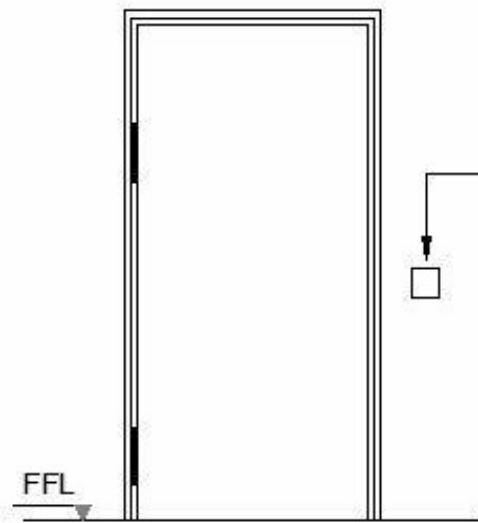
8796-ABE-XX-00-DR-E-6301

REV

P02

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Access control Door Controller.
(To be located in a riser.
Refer to layout for further details.)



Non-secure / Entry side.

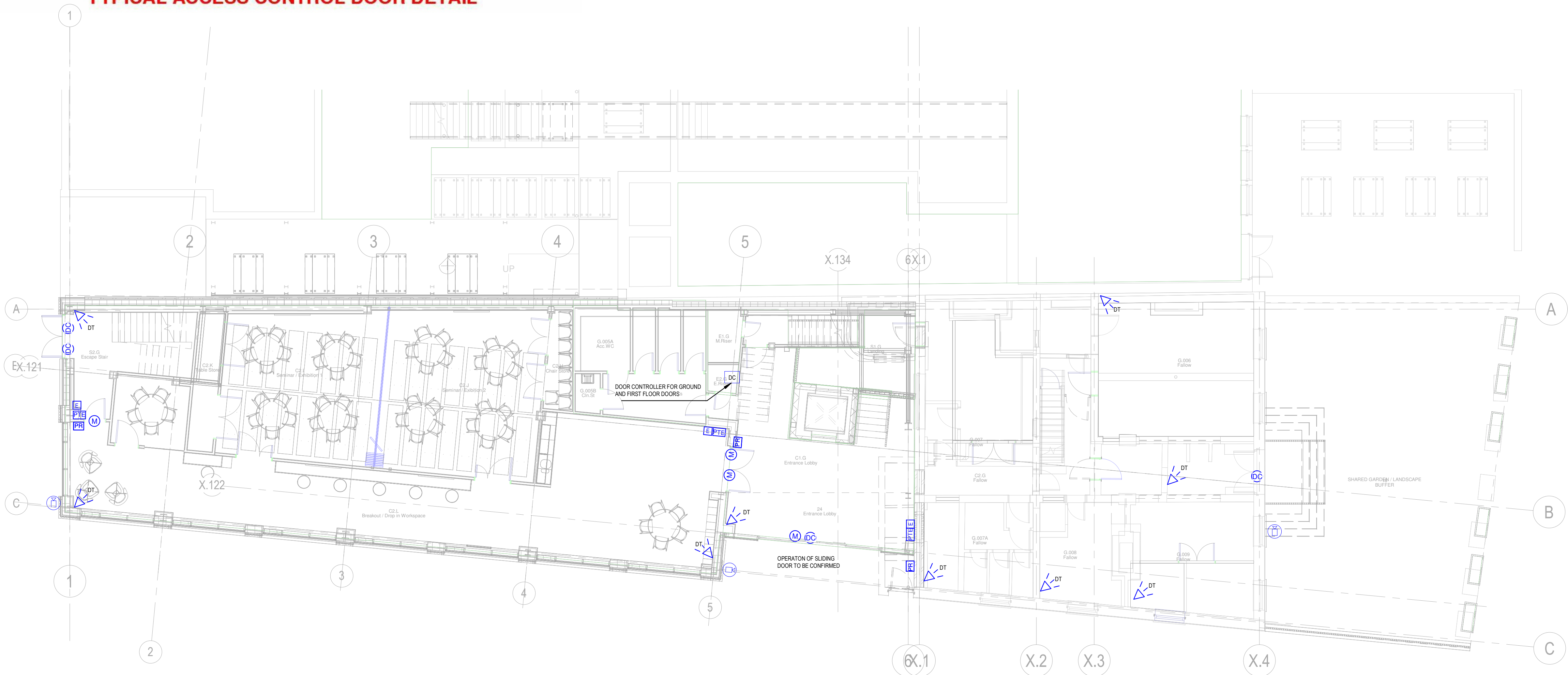
Secure / Exit Side.

INTRUDER ALARM LEGEND	
AP	INTRUDER ALARM PANEL
KP	KEYPAD
DC	DOOR CONTACT
RS	ROLLER SHUTTER CONTACT
DT	DUAL TECH PRESENCE DETECTOR
IS	INTERNAL SOUNDER
BB	BELLBOX

CCTV LEGEND	
SB	STATIC BOX TYPE CCTV CAMERA
SD	STATIC DOME TYPE CCTV CAMERA
CM	CCTV MONITOR
PLR	CCTV CONTROLS/RECORDING EQUIPMENT

ACCESS CONTROL LEGEND	
PR	PROXIMITY READER
E	GREEN BREAK GLASS UNIT
PE	REQUEST TO EXIT BUTTON
M	MAGNETIC LOCK
OR	DOOR RELEASE BUTTON WITH OVERRIDE FACILITY
HT	AUDIO AND VISUAL HANDSET
CR	CARD READER
DC	ACCESS CONTROL DOOR CONTROLLER
SV	SIMONS VOSS LOCK (SUPPLY ONLY)

TYPICAL ACCESS CONTROL DOOR DETAIL



1 00
1 : 100

CONSTRUCTION

CLIENT
UNIVERSITY OF MANCHESTER

ARCHITECT
ADP - Architecture

CONTRACT
Christable Pankhurst Institute

TITLE
Ground Floor Security Layout

DRAWN
J.B

CHECKED
C.E

SCALE
1:100

DATE
09.06.2021

DRAWING No
8796-ABE-XX-00-DR-E-6501

REV
C02

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CONSTRUCTION

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ARCHITECT

ADP - Architecture

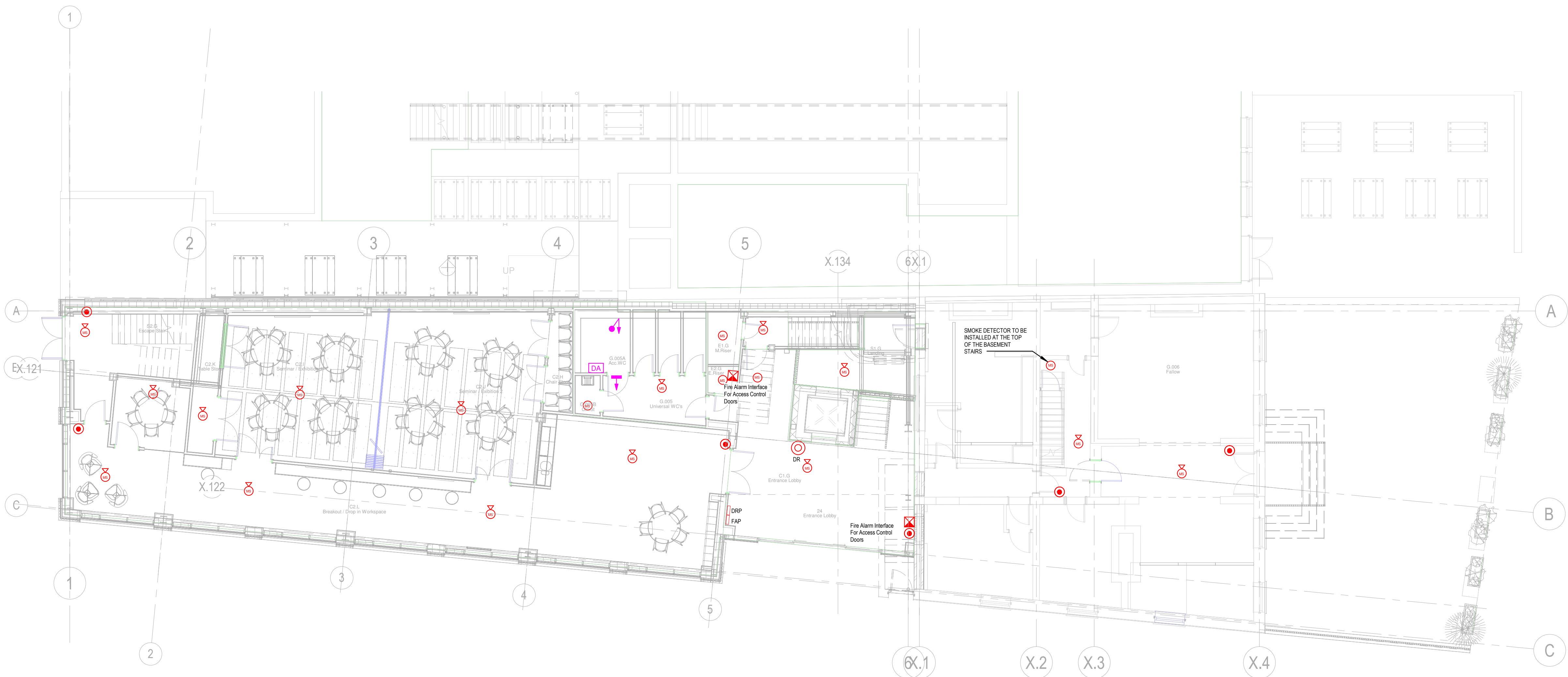
CONTRACT

Christable Pankhurst Institute

TITLE

Ground Floor Fire Alarm Layout

DATE	DRAWING No	F
09.06.2021	8796-ABE-XX-00-DR-E-6701	



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1 : 100



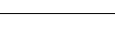
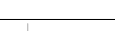
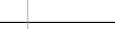
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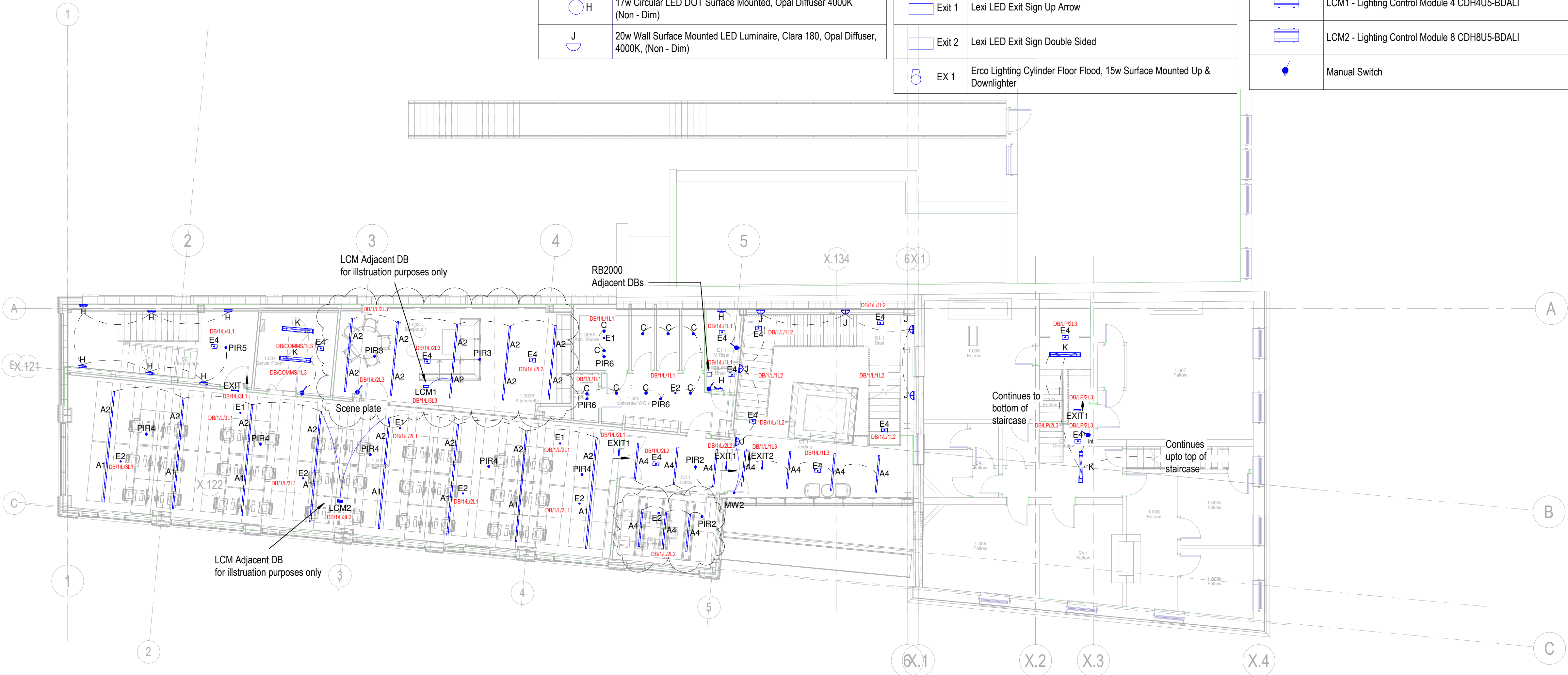
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REVISION	ITEM REVISED	DATE
P01 P02	Preliminary Issue Revised inline with comments	02.12.21 05.01.22

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LIGHTING LEGEND	
 A1	34w LED 3000mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
 A2	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
 A3	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
 A4	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
 A5	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
 B	8w G3 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)
 C	12w G2 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)
 D	18w LED R3 Downlighter Opal Diffuser, 4000k Dali Dimming
 H	17w Circular LED DOT Surface Mounted, Opal Diffuser 4000K (Non - Dim)
 J	20w Wall Surface Mounted LED Luminaire, Clara 180, Opal Diffuser, 4000K, (Non - Dim)
 K	23w Thororproof Eco IP66 Surface Mounted LED, Opal Diffuser 4000K (Non - Dim)
 L	11w G3 LED Surface Downlighter. Dali. White Finish. 4000k
 M	59w Clara 720 Suspended Pendant LED, 4000k, Dali Dimming
 E1	3w Fire Fly Recessed Corridor Emergency LED
 E2	3w Fire Fly Recessed Open Area Emergency LED
 E3	3w Fire Fly Surface Corridor Emergency LED
 E4	3w Fire Fly Surface Open Area Emergency LED
 EM1	Mini-8 Surface Mounted LED Bulkhead
 Exit 1	Lexi LED Exit Sign Up Arrow
 Exit 2	Lexi LED Exit Sign Double Sided
 EX 1	Erco Lighting Cylinder Floor Flood, 15w Surface Mounted Up & Downlighter
	PIR1 - DALI Surface Mounted PIR, Ex-OR MLS2001DALISM
	PIR2 - DALI Recessed PIR, Ex-OR MLS2001DALIF
	PIR3 - DALI Surface PIR to suit LCMs, Ex-OR MLS3000CDRSM
	PIR4 - DALI Recessed PIR to suit LCMs, Ex-OR MLS3000CDRSM
	PIR5 - Switching Surface Recessed PIR, Ex-OR MLS2001ASM
	PIR6 - Switching Recessed PIR, Ex-OR MLS2001AF
	MW1 - DALI Surface Microwave Detector to suit LCMs, Ex-OR MLS2500CDRSM
	MW2 - DALI/Switching Surface Microwave Detector, Ex-OR MLS2500DALI
	LCM1 - Lighting Control Module 4 CDH4U5-BDALI
	LCM2 - Lighting Control Module 8 CDH8U5-BDALI
	Manual Switch



01
1 : 100

PRELIMINARY

CLIENT
UNIVERSITY OF MANCHESTER

ARCHITECT
ADP - Architecture

CONTRACT
Christable Pankhurst Institute

TITLE
First Floor General & Emergency Lighting

DRAWN
J.B

CHECKED
C.E

SCALE
1:100

DATE
09.06.2021

DRAWING No
8796-ABE-XX-01-DR-E-6302

REV
P02



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REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	08.10.21
P02	Preliminary Issue	01.12.21
C01	Construction Issue	15.03.22
C02	Construction Issue	07.04.22

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CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

First Floor Fire Alarm Layout

DRAWN J.B	CHECKED C.E	SCALE 1:100
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DATE 09.06.2021	DRAWING No 8796-ABE-XX-01-DR-E-6702	REV C02
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FIRE ALARM LEGEND

MS	MULTI SENSOR
MS	MULTI SENSOR SOUNDER
HD	HEAT DETECTOR
MC	MANUAL CALL POINT
I/O	INPUT OUTPUT UNIT
FAP	FIRE ALARM PANEL

DISABLED REFUGE & WC ALARM LEGEND

DR	DISABLED REFUGE CALL POINT
DRP	DISABLED REFUGE PANEL
FB	FLASHING BEACON
WC	WC ALARM PULL CORD
DA	ALARM RESET BUTTON
OVI	OVERDOOR INDICATOR



1 01
1 : 100



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REVISION	ITEM REVISED	DATE
P01 P02	Preliminary Issue Revised inline with comments	02.12.21 05.01.22

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PRELIMINARY

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ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Second Floor General & Emergency Lighting

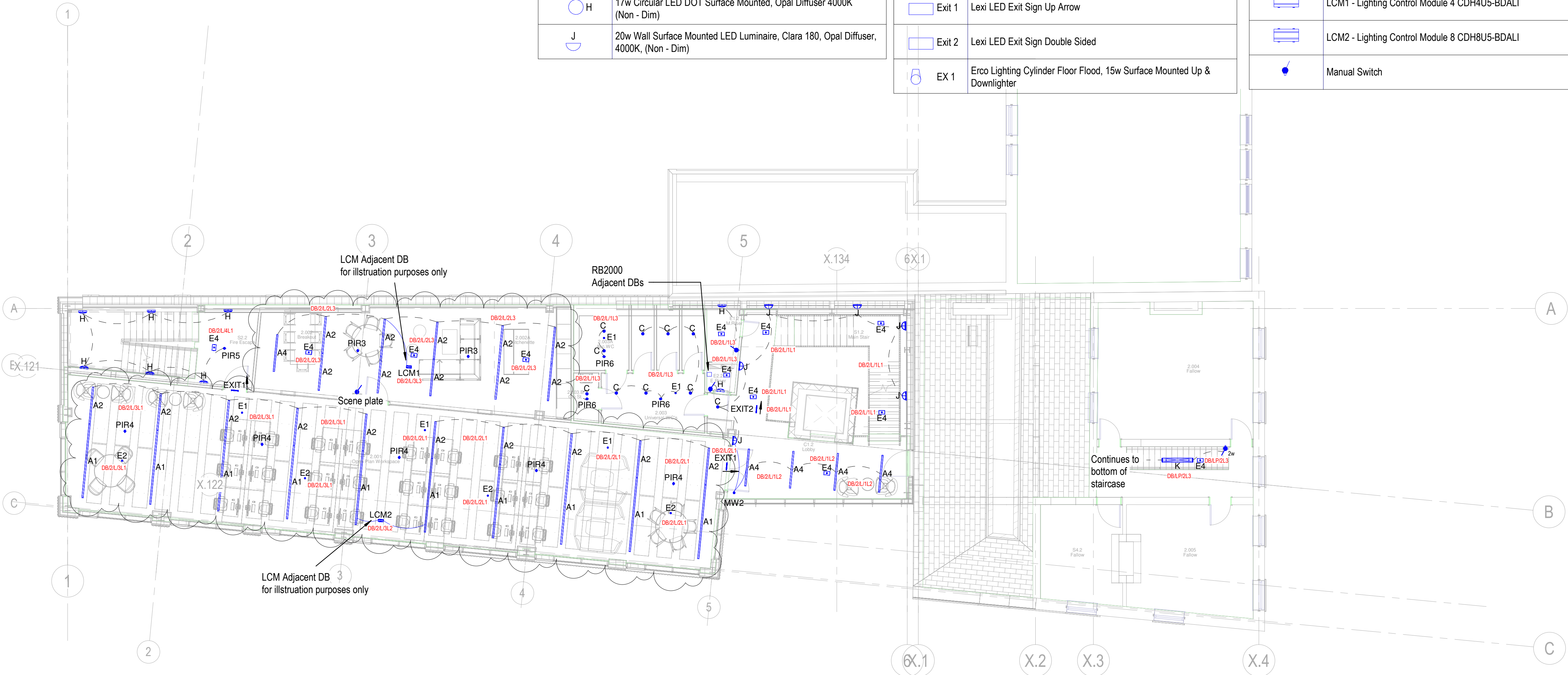
DRAWN	CHECKED	SCALE
J.B	C.E	1:100

DATE	DRAWING No	REV
09.06.2021	8796-ABE-XX-02-DR-E-6303	P02



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LIGHTING LEGEND				
 A1	34w LED 3000mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k	 K	23w Throrproof Eco IP66 Surface Mounted LED, Opal Diffuser 4000K (Non - Dim)	 PIR1 - DALI Surface Mounted PIR, Ex-OR MLS2001DALISM
 A2	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k	 L	11w G3 LED Surface Downlighter. Dali. White Finish. 4000k	 PIR2 - DALI Recessed PIR, Ex-OR MLS2001DALIF
 A3	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k	 M	59w Clara 720 Suspended Pendant LED, 4000k, Dali Dimming	 PIR3 - DALI Surface PIR to suit LCMs, Ex-OR MLS3000CDRSM
 A4	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k	 E1	3w Fire Fly Recessed Corridor Emergency LED	 PIR4 - DALI Recessed PIR to suit LCMs, Ex-OR MLS3000CDRSM
 A5	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k	 E2	3w Fire Fly Recessed Open Area Emergency LED	 PIR5 - Switching Surface Recessed PIR, Ex-OR MLS2001ASM
 B	8w G3 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)	 E3	3w Fire Fly Surface Corridor Emergency LED	 PIR6 - Switching Recessed PIR, Ex-OR MLS2001AF
 C	12w G2 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)	 E4	3w Fire Fly Surface Open Area Emergency LED	 MW1 - DALI Surface Microwave Detector to suit LCMs, Ex-OR MLS2500CDRSM
 D	18w LED R3 Downlighter Opal Diffuser, 4000k Dali Dimming	 EM1	Mini-8 Surface Mounted LED Bulkhead	 MW2 - DALI/Switching Surface Microwave Detector, Ex-OR MLS2500DALI
 H	17w Circular LED DOT Surface Mounted, Opal Diffuser 4000K (Non - Dim)	 Exit 1	Lexi LED Exit Sign Up Arrow	 LCM1 - Lighting Control Module 4 CDH4U5-BDALI
 J	20w Wall Surface Mounted LED Luminaire, Clara 180, Opal Diffuser, 4000K, (Non - Dim)	 Exit 2	Lexi LED Exit Sign Double Sided	 LCM2 - Lighting Control Module 8 CDH8U5-BDALI
		 EX 1	Erco Lighting Cylinder Floor Flood, 15w Surface Mounted Up & Downlighter	 Manual Switch





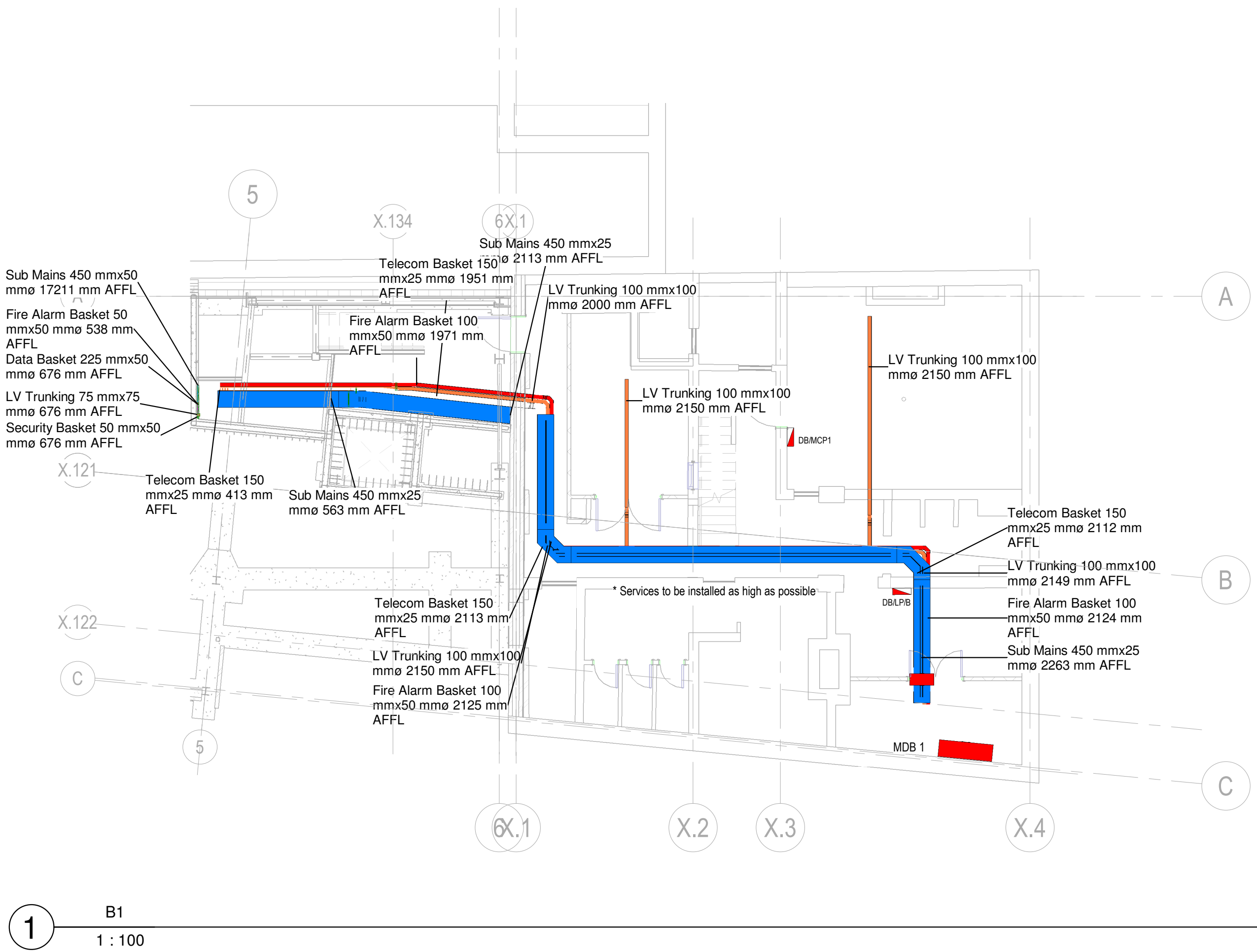
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REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	08.10.21
P02	Security containment added	05.01.22
C01	Construction Issue	15.03.22

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CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Basement Containment Layout

DRAWN

J.B

CHECKED

C.E

SCALE

1:100

DATE

09.06.2021

DRAWING No

8796-ABE-XX-B1-DR-E-6100

REV

C01



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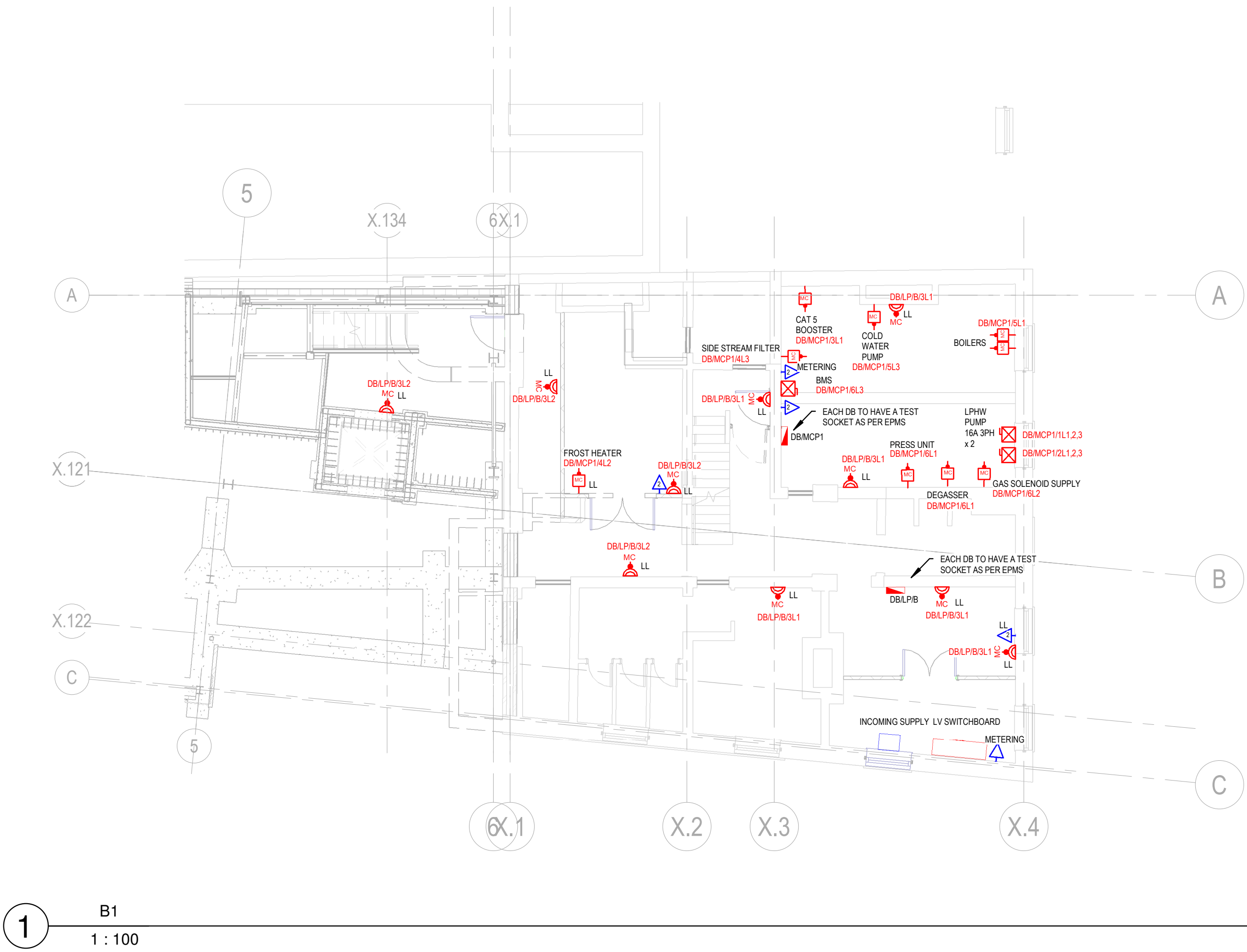
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REVISION	ITEM REVISED	DATE
P01 P02 C01	Preliminary Issue Preliminary Issue Construction Issue	08.10.21 02.12.21 30.03.22

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[FB1]	4 COMPARTMENT FLOOR BOX, 2 TWIN SOCKETS, 2 DATA OUTLETS	[Symbol]	SINGLE DATA OUTLET
[FB2]	4 COMPARTMENT FLOOR BOX, 2 TWIN SOCKETS, 3 DATA OUTLETS & 1 AV OUTLET LINK	[Symbol]	DOUBLE DATA OUTLET
[PM]	TWIN SOCKET OUTLET - PLASTIC MOLDED	[Symbol]	SINGLE DATA OUTLET - AV
[MC]	TWIN SOCKET OUTLET - METAL CLAD	[Symbol]	DOUBLE DATA OUTLET - AV
[MC]	SWITCHED FUSED CONNECTION UNIT - PLASTIC MOLDED		
[MC]	SWITCHED FUSED CONNECTION UNIT - METAL CLAD		
[MC]	UN SWITCHED FUSED CONNECTION UNIT - PLASTIC MOLDED		
[MC]	UN SWITCHED FUSED CONNECTION UNIT - METAL CLAD		
[TPI]	SINGLE OR THREE PHASE ROTARY ISOLATOR (TPI DENOTES THREE PHASE)		
[Symbol]	4 COMPARTMENT FLOOR BOX, 2 TWIN SOCKETS, 2 DATA OUTLETS		
[Symbol]	42U DATA CABINET 800mm x 800mm		

CONSTRUCTION

CLIENT	UNIVERSITY OF MANCHESTER		
ARCHITECT	ADP - Architecture		
CONTRACT	Christable Pankhurst Institute		
TITLE	Basement Small Power & Data		
DRAWN	CHECKED	SCALE	
J.B	C.E	1:100	
DATE	DRAWING No	REV	
09.06.2021	8796-ABE-XX-B1-DR-E-6200	C01	



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REVISION	ITEM REVISED	DATE
P01 P02	Preliminary Issue Revised inline with comments	02.12.21 05.01.22

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ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Basement General & Emergency Lighting

DRAWN	CHECKED	SCALE
J.B	C.E	1:100

DATE	DRAWING No	REV
09.06.2021	8796-ABE-XX-B1-DR-E-6300	P02



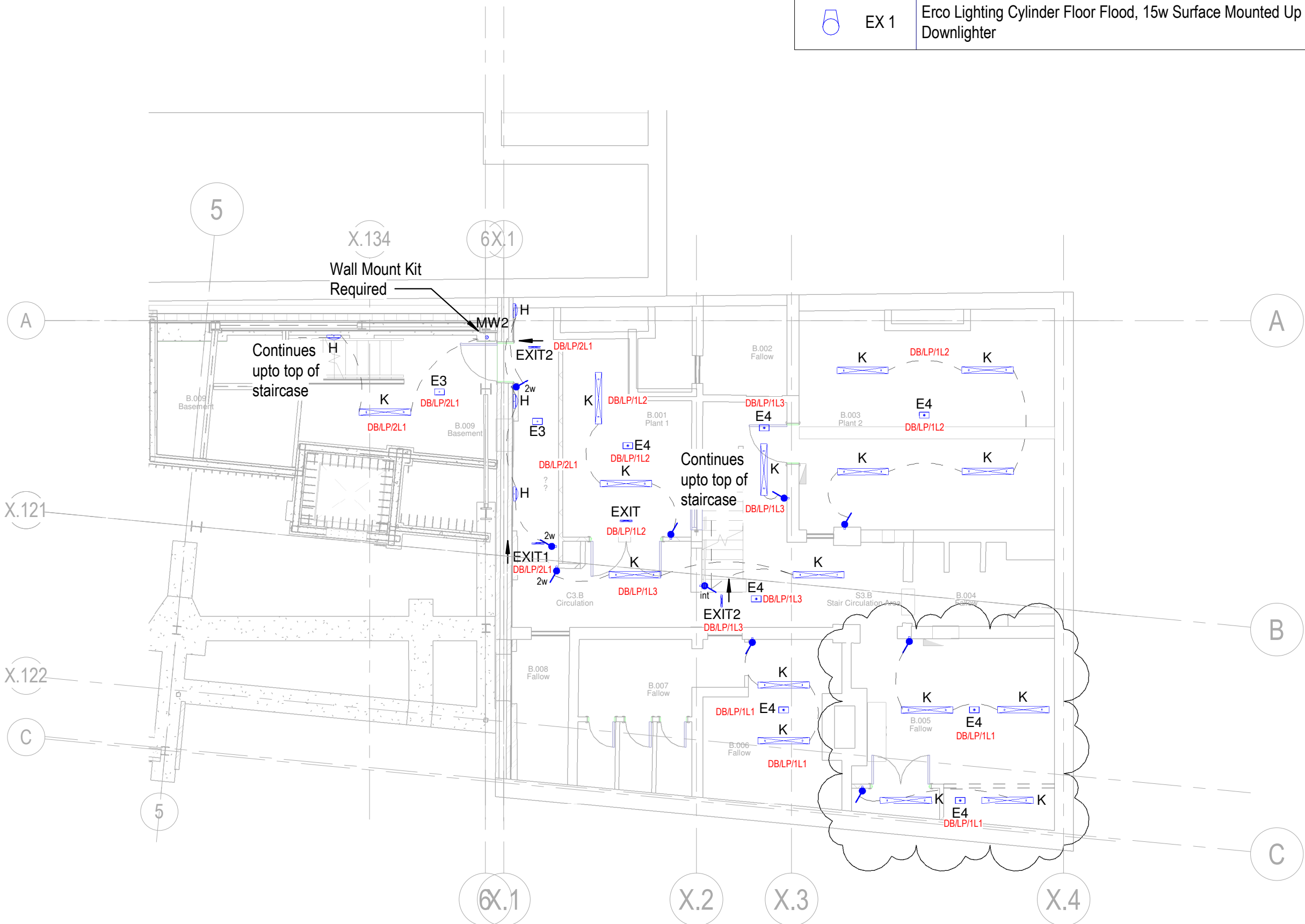
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LIGHTING LEGEND

A1	34w LED 3000mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
A2	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
A3	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
A4	17w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
A5	30w LED 1500mm Hi Bar Surface/Suspended Continuous Luminaire. Dali. White Finish, Opal Diffuser. 4000k
B	8w G3 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)
C	12w G2 LED Recessed Downlighter With ABS Housing. 4000k (Non - Dim)
D	18w LED R3 Downlighter Opal Diffuser, 4000k Dali Dimming
H	17w Circular LED DOT Surface Mounted, Opal Diffuser 4000K (Non - Dim)
J	20w Wall Surface Mounted LED Luminaire, Clara 180, Opal Diffuser, 4000K, (Non - Dim)

K	23w Throrproof Eco IP66 Surface Mounted LED, Opal Diffuser 4000K (Non - Dim)
L	11w G3 LED Surface Downlighter. Dali. White Finish. 4000k
M	59w Clara 720 Suspended Pendant LED, 4000k, Dali Dimming
E1	3w Fire Fly Recessed Corridor Emergency LED
E2	3w Fire Fly Recessed Open Area Emergency LED
E3	3w Fire Fly Surface Corridor Emergency LED
E4	3w Fire Fly Surface Open Area Emergency LED
EM1	Mini-8 Surface Mounted LED Bulkhead
Exit 1	Lexi LED Exit Sign Up Arrow
Exit 2	Lexi LED Exit Sign Double Sided
EX 1	Erco Lighting Cylinder Floor Flood, 15w Surface Mounted Up & Downlighter

PIR1	DALI Surface Mounted PIR, Ex-OR MLS2001DALISM
PIR2	DALI Recessed PIR, Ex-OR MLS2001DALIF
PIR3	DALI Surface PIR to suit LCMs, Ex-OR MLS3000CDRSM
PIR4	DALI Recessed PIR to suit LCMs, Ex-OR MLS3000CDRSM
PIR5	Switching Surface Recessed PIR, Ex-OR MLS2001ASM
PIR6	Switching Recessed PIR, Ex-OR MLS2001AF
MW1	DALI Surface Microwave Detector to suit LCMs, Ex-OR MLS2500CDRSM
MW2	DALI/Switching Surface Microwave Detector, Ex-OR MLS2500DALI
LCM1	Lighting Control Module 4 CDH4U5-BDALI
LCM2	Lighting Control Module 8 CDH8U5-BDALI
	Manual Switch

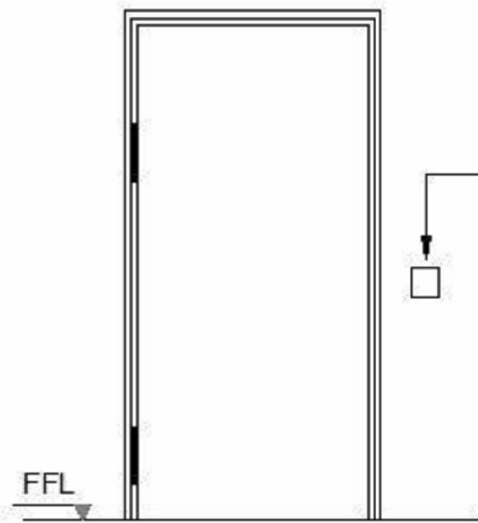


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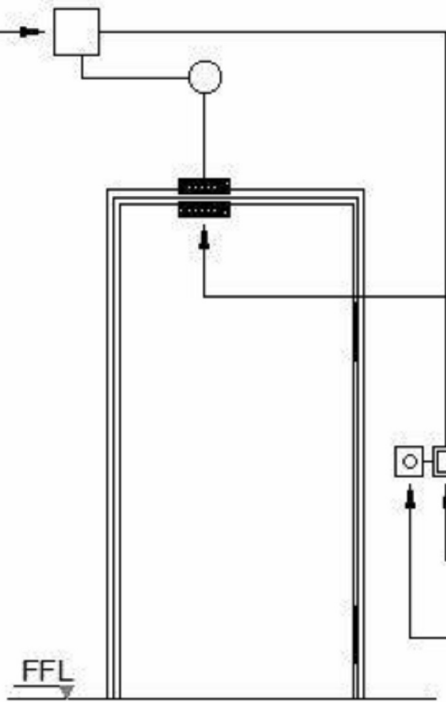
B1

1 : 100

Access control Door Controller.
(To be located in a riser.
Refer to layout for further details.)



Non-secure / Entry side.



Secure / Exit Side.

TYPICAL ACCESS CONTROL DOOR DETAIL

INTRUDER ALARM LEGEND

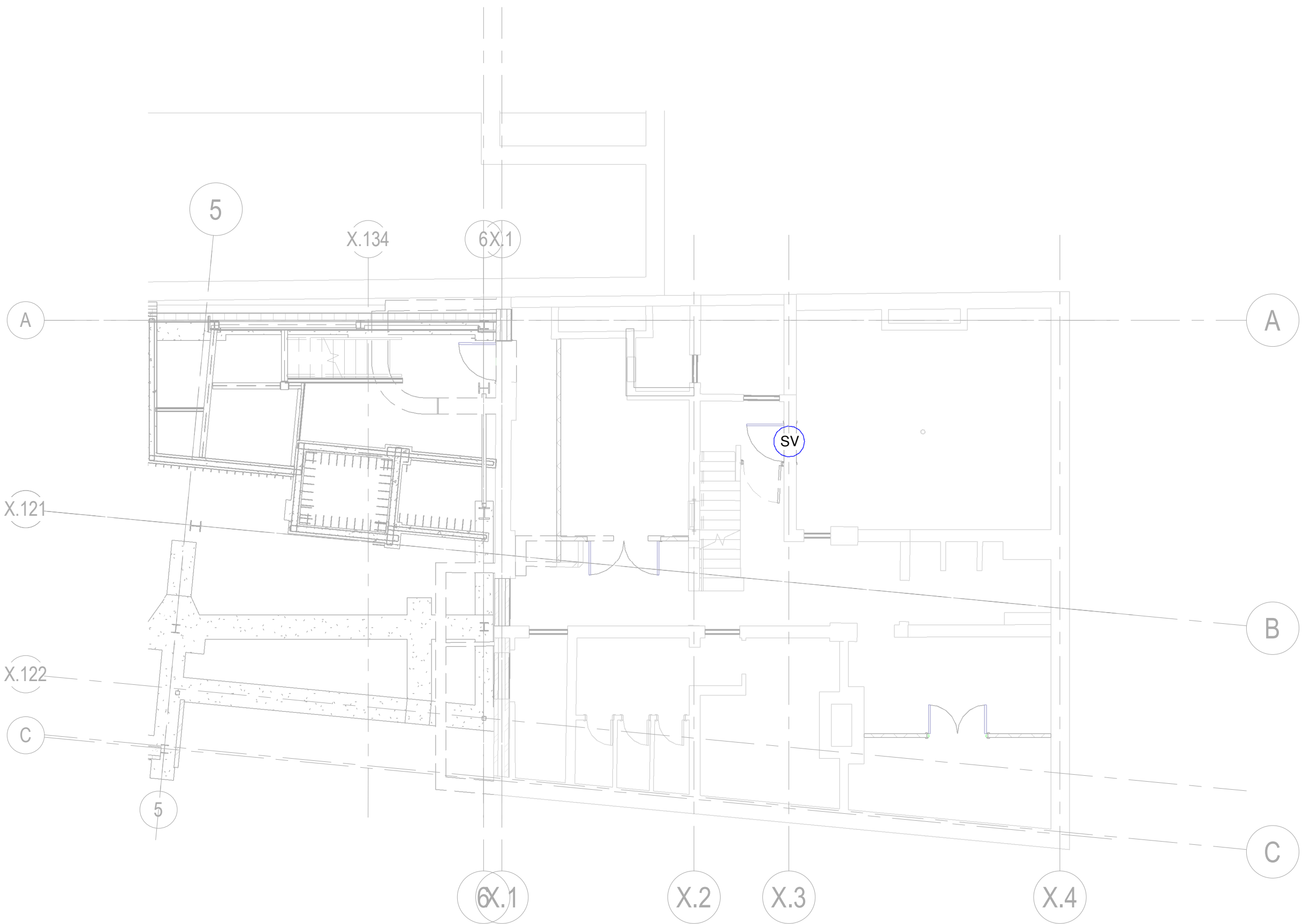
IA1	INTRUDER ALARM PANEL
IA2	KEYPAD
IC	DOOR CONTACT
IS	ROLLER SHUTTER CONTACT
IT	DUAL TECH PRESENCE DETECTOR
ISND	INTERNAL SOUNDER
IB	BELLBOX

CCTV LEGEND

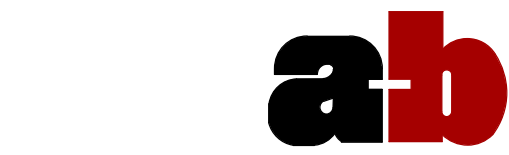
SCB	STATIC BOX TYPE CCTV CAMERA
SD	STATIC DOME TYPE CCTV CAMERA
CM	CCTV MONITOR
PLX	CCTV CONTROLS/RECORDING EQUIPMENT

ACCESS CONTROL LEGEND

PR	PROXIMITY READER
E	GREEN BREAK GLASS UNIT
PE	REQUEST TO EXIT BUTTON
M	MAGNETIC LOCK
DR	DOOR RELEASE BUTTON WITH OVERRIDE FACILITY
AV	AUDIO AND VISUAL HANDSET
CR	CARD READER
DC	ACCESS CONTROL DOOR CONTROLLER
SV	SIMONS VOSS LOCK (SUPPLY ONLY)



1 B1
1 : 100



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REVISION	ITEM REVISED	DATE
P01 C01 C02	Preliminary Issue Construction Issue Construction Issue	08.10.21 15.03.22 07.04.22

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CONSTRUCTION

CLIENT
UNIVERSITY OF MANCHESTER

ARCHITECT
ADP - Architecture

CONTRACT
Christable Pankhurst Institute

TITLE
Basement Security Layout

DRAWN J.B	CHECKED C.E	SCALE 1:100
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DATE 09.06.2021	DRAWING No 8796-ABE-XX-B1-DR-E-6500	REV C02
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REVISION	ITEM REVISED	DATE
P01	Preliminary Issue	08.10.21
P02	Preliminary Issue	01.12.21
C01	Construction Issue	15.03.22
C02	Construction Issue	07.04.22

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CONSTRUCTION

CLIENT

UNIVERSITY OF MANCHESTER

ARCHITECT

ADP - Architecture

CONTRACT

Christable Pankhurst Institute

TITLE

Basement Fire Alarm Layout

DRAWN	CHECKED	SCALE
J.B	C.E	1:100

DATE	DRAWING No	REV
09.06.2021	8796-ABE-XX-B1-DR-E-6700	C02



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FIRE ALARM LEGEND

	MULTI SENSOR
	MULTI SENSOR SOUNDER
	HEAT DETECTOR
	MANUAL CALL POINT
	INPUT OUTPUT UNIT
	FIRE ALARM PANEL

DISABLED REFUGE & WC ALARM LEGEND

	DISABLED REFUGE CALL POINT
	DISABLED REFUGE PANEL
	FLASHING BEACON
	WC ALARM PULL CORD
	ALARM RESET BUTTON
	OVERDOOR INDICATOR

