

DRAWING NOT TO SCALE

DRAWING NOT TO SCALE



BUILDING SERVICES ENGINEERS
LIVERPOOL

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REVISION	ITEM REVISED	DATE
R01	PRELIMINARY	23.05.25
C01	CONSTRUCTION ISSUE	12.06.25
C02	CONSTRUCTION ISSUE	25.09.25

VENTILATION NOTES

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.
7. INSPECTION PANELS TO BE PROVIDED ADJACENT TO ALL VOLUME CONTROL DAMPERS.
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.
13. SPLITTERS SHALL BE INCORPORATED WITHIN RECTANGULAR DUCTWORK WITH AN ASPECT RATIO OF GREATER THAN 4:1 AS DW144.
14. ALL GRILLES AND DIFFUSERS SHALL HAVE A FINISH COLOUR TO SUIT THE ARCHITECT'S REQUIREMENTS.
15. ALL FANS SHALL BE MOUNTED COMPLETE WITH ANTI-VIBRATION MOUNTINGS.
16. 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.
17. ALL AIR DISTRIBUTION DUCTS PASSING THROUGH ELEMENTS OF STRUCTURE FORMING FIRE COMPARTMENTS SHALL INCORPORATE A FIRE DAMPER. THE FIRE DAMPER ARRANGEMENT INCLUDING SUITABLE MVCA INSTALLATION FRAME (IF APPLICABLE), SHALL HAVE A FIRE RESISTANCE RATING EQUAL TO THE ELEMENT WHICH IT PENETRATES WITH A MINIMUM RATING OF 1 HOUR.
18. ALL BRANCHES FROM THE MAIN DISTRIBUTION DUCTS SHALL BE BY A SMOKE BRANCH FITTING.
19. DUCTWORK TO BE THERMALLY INSULATED AS INDICATED WITHIN THE MECHANICAL SPECIFICATION.
20. VOLUME CONTROL DAMPERS TO BE PROVIDED ON ALL MAIN BRANCHES AND ALL FINAL CONNECTIONS TO GRILLES.
21. FUSIBLE LINK FIRE DAMPERS TO BE PROVIDED WHERE DUCTS PASS THROUGH CAVITY BARRIERS / FIRE COMPARTMENTATION IN COMPLIANCE WITH THE FIRE ENGINEERS REPORT.
22. DUCTWORK CONNECTIONS TO FIRE & SMOKE DAMPERS MUST BE SEALED WITH AN APPROVED DUCTWORK SEALER AND FIXED WITH LOW RESISTANCE FIXINGS SUCH AS ALUMINIUM.

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
- AOV - AUTOMATIC OPENING VENT

CONSTRUCTION

CLIENT



ARCHITECT



CONTRACT

MCWFC

TITLE

EXTERNAL PLANT

DRAWN

SK

CHECKED

PG

SCALE

1:20@A0

DATE

FEB 24

DRAWING No

Z30565-ABE-ZZ-00-DR-M-1700

REV

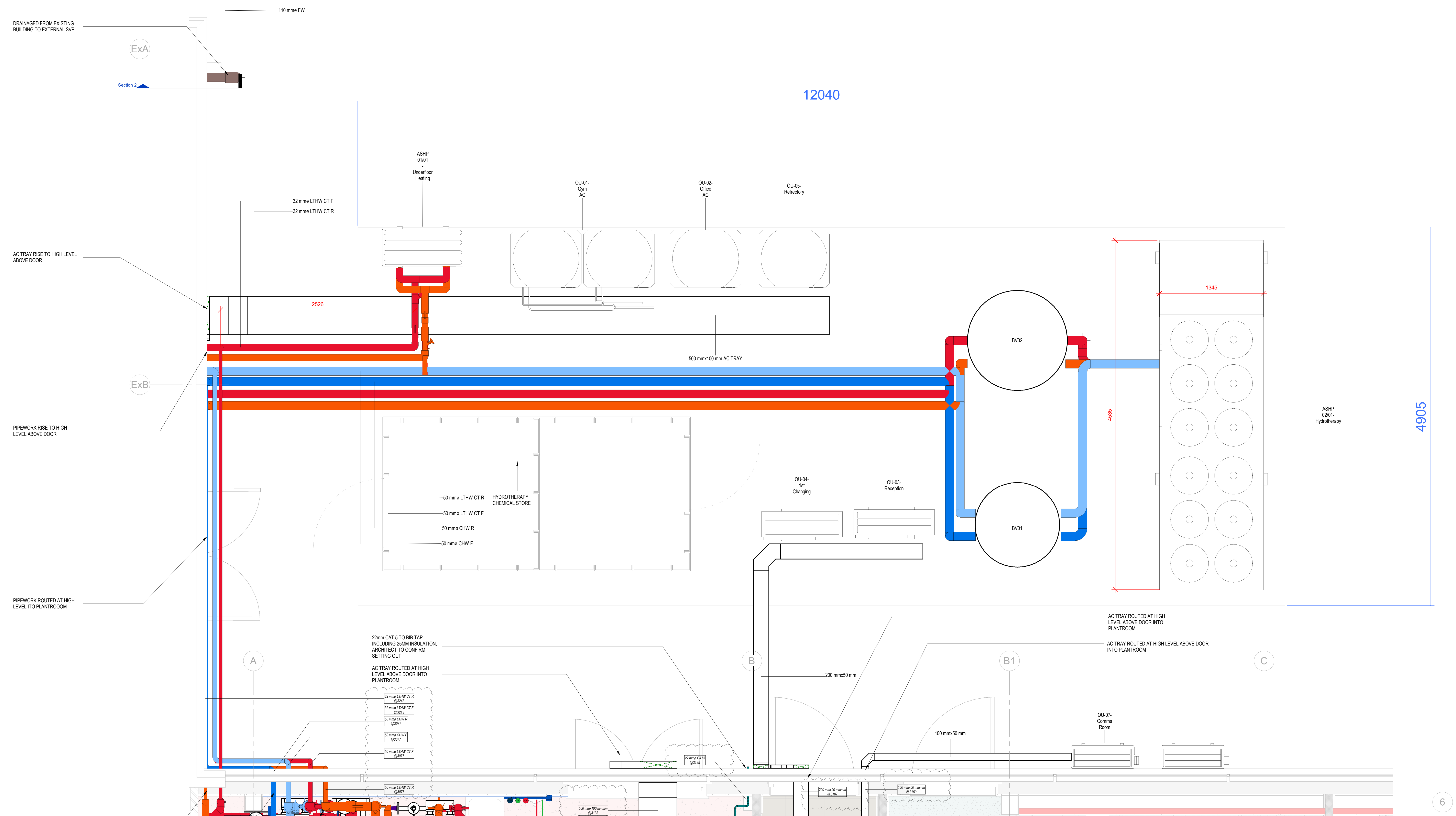
C02



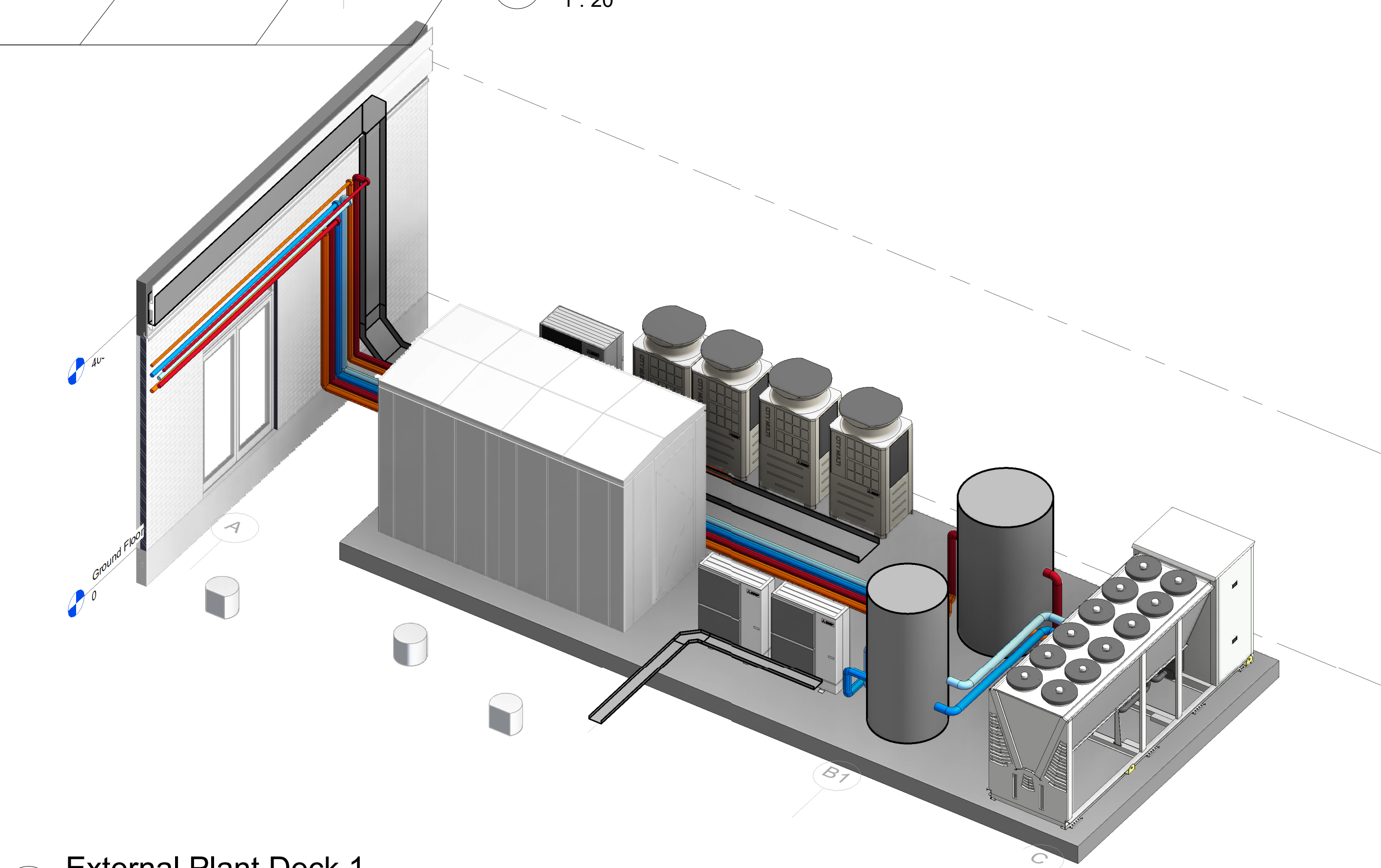
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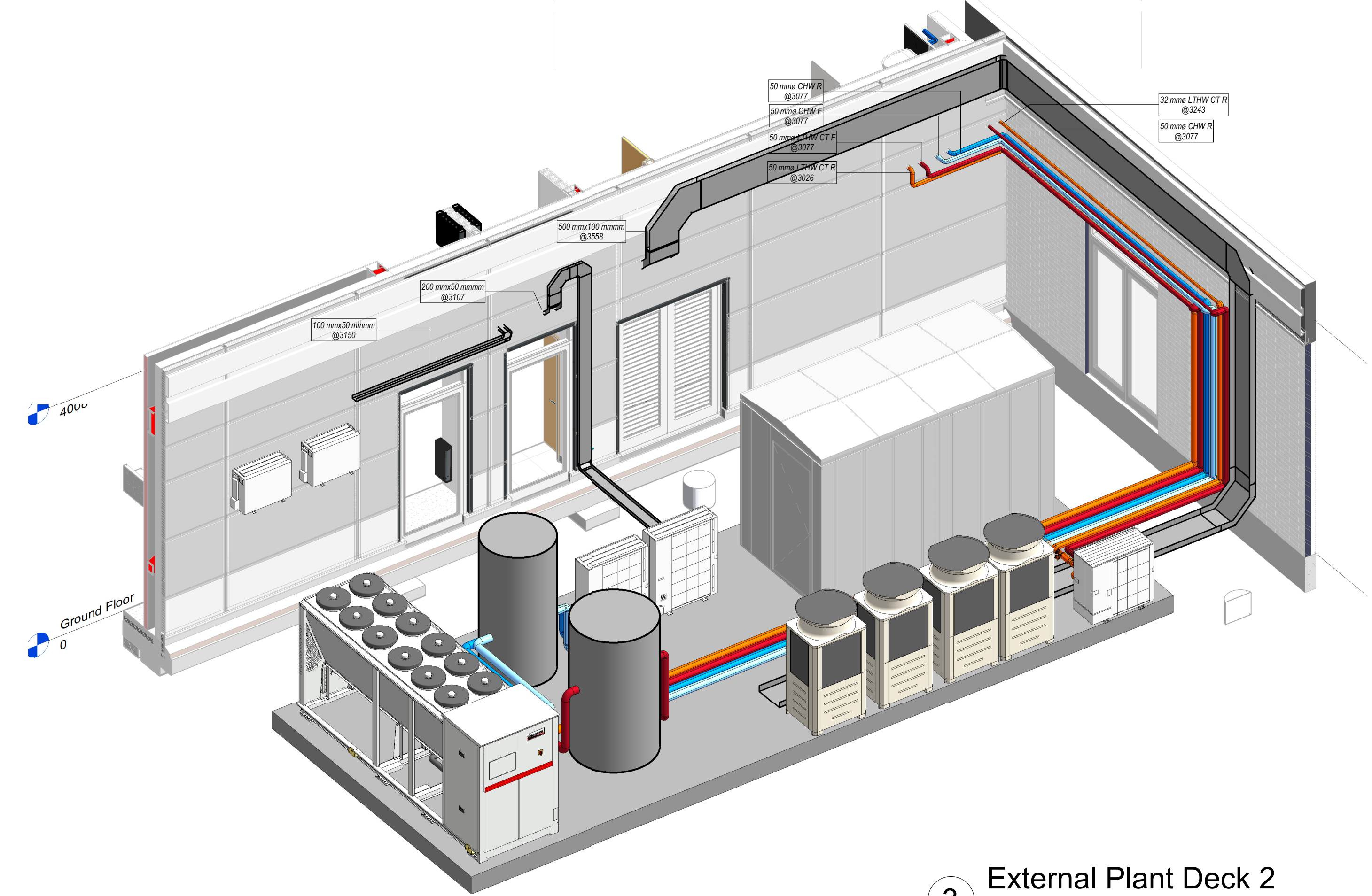
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1 Ground Floor - External Plant Layout
1:20



2 External Plant Deck 1



3 External Plant Deck 2

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