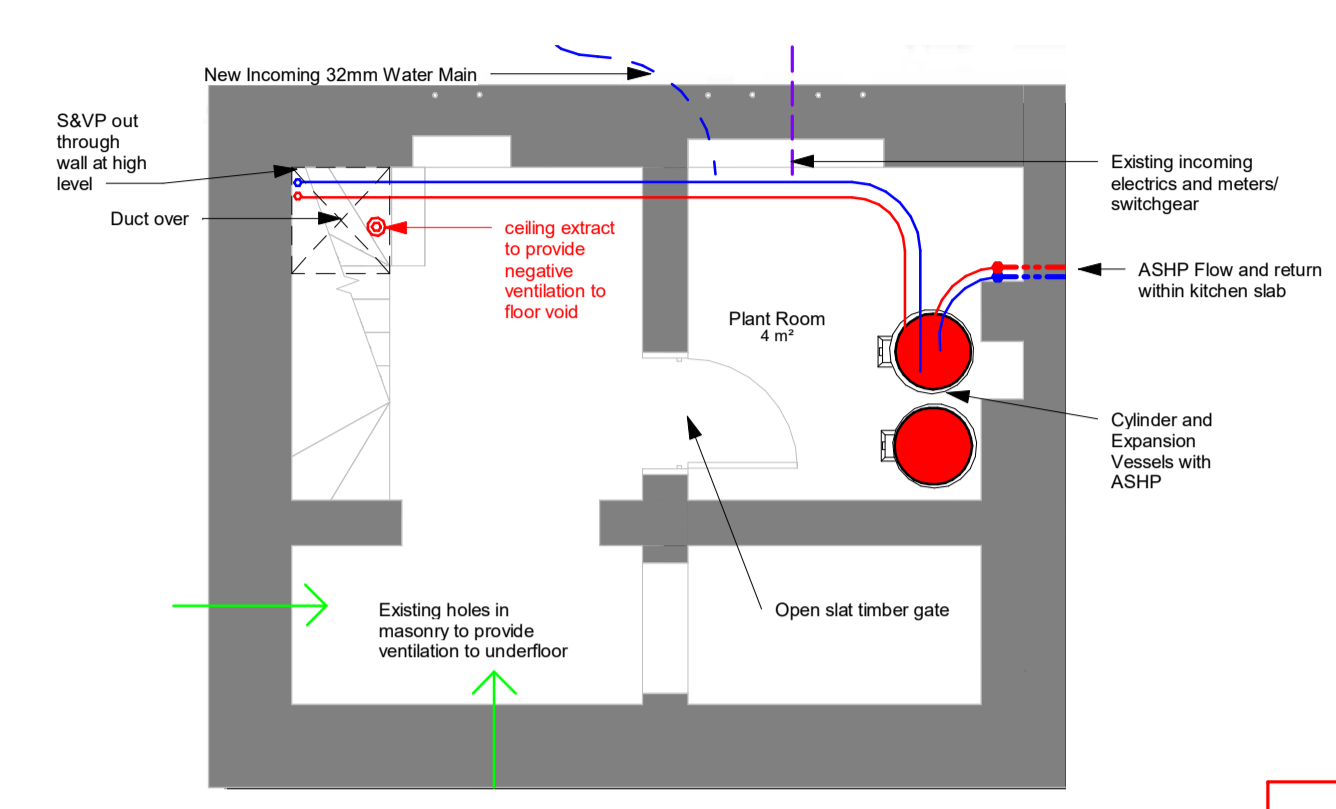


1 Ground Heating, Vent
1:50



5 Basement Heating, Vent
1:50

- Floors - U-Values
- Ty-Mawr Limecrete floor (200mm Glepour RFG) - 0.23 W/m²K
 - Existing timber floor with 100mm Celotex GA4000 PIR insulation - 0.2 W/m²K
 - Suspended upper floors (100mm Thermaflex or Rockwool)
- Walls - U-Values
- Ty-Mawr wall insulation (40mm Woodfibre) - 0.65 W/m²K
 - Schnesler GmbH 40mmx50x1250mm with Schnesler GmbH 20mm for reveals U value 1.1 W/m²K
- Roofs - U-Values
- Existing roofs Pitched within rooms (100mm Celotex GA4000 plus 60mm Celotex PL4060 with 12.5mm Insulated Plasterboard) joints taped and sealed - 0.22 W/m²K
 - Insulation at ceiling line (ie storage loft and above flat roof ceilings to kitchen and bedroom) 3 rolls, 100mm Rockwool - 0.15 W/m²K

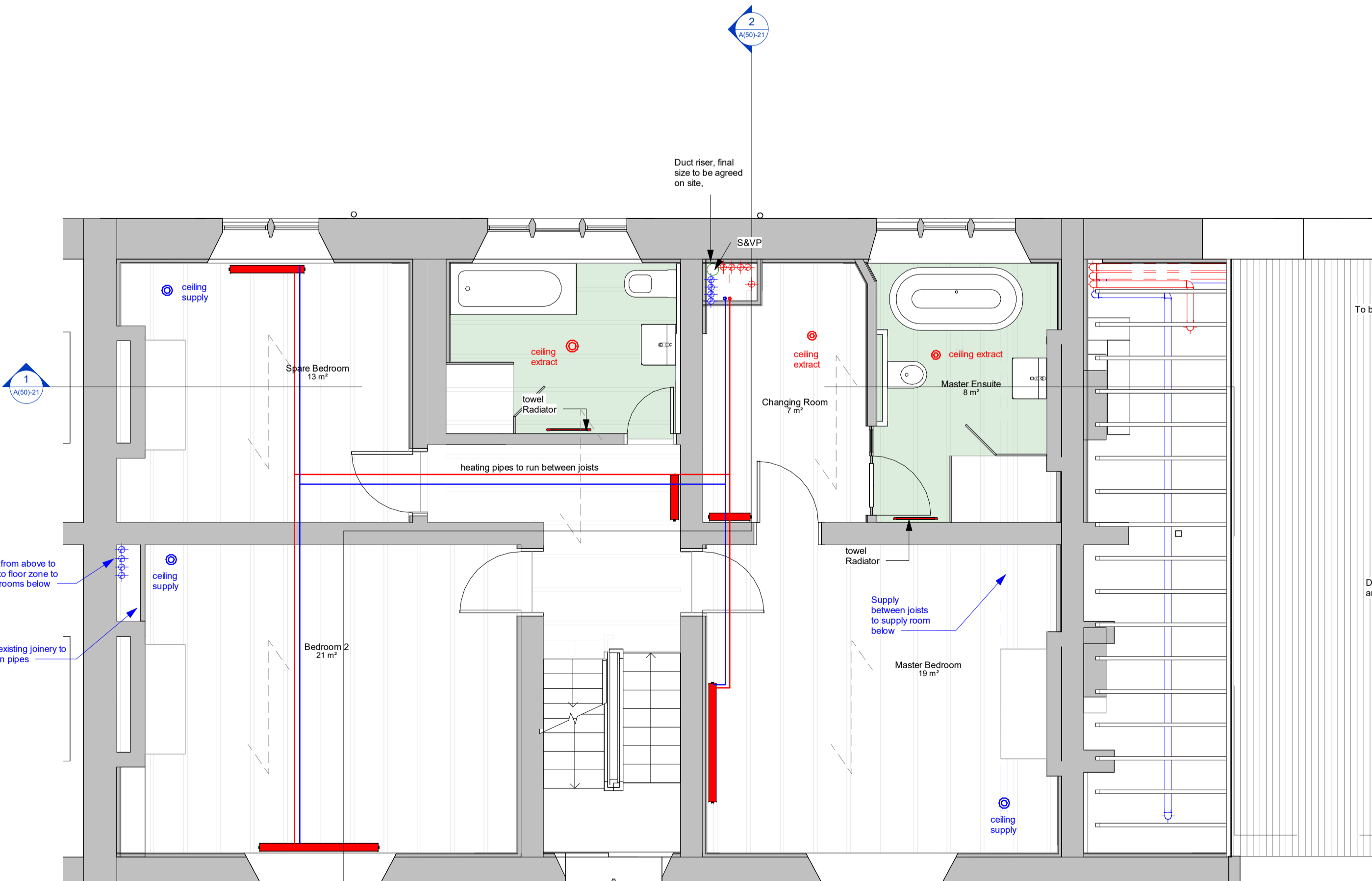
NOTE:
 Heating system to be above floorboards, designed by specialist
 all floors to be insulated,
 all doors to be undercut by 10mm
 MVHR system to be designed by specialist, layout indicative

INSULATION BETWEEN JOISTS TO SUSPENDED FLOOR IN PINK AND GREEN ZONES TO ACHIEVE 0.164 W/m²K

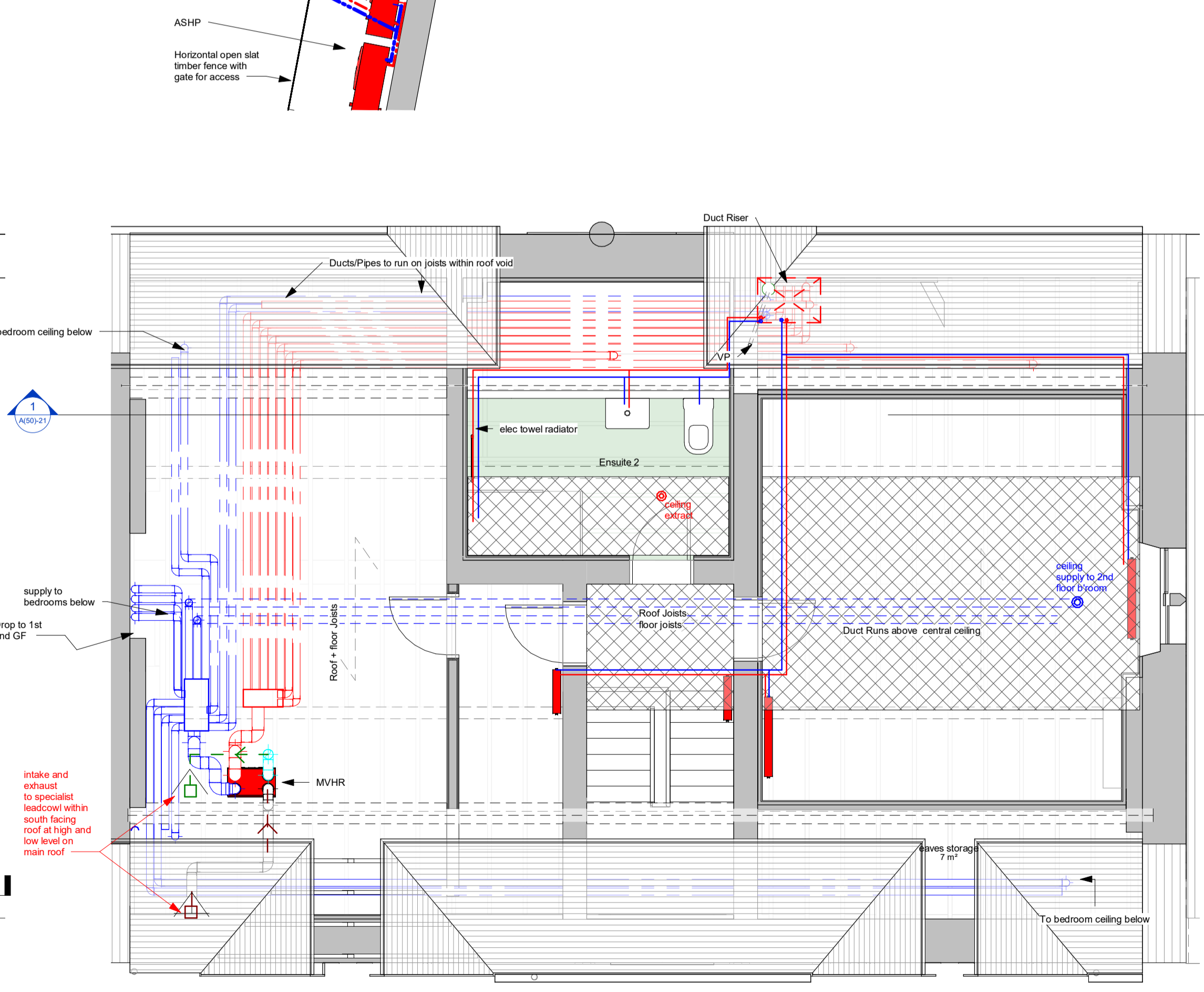
ALL EXTERNAL WALLS TO BE INSULATED AND 1m OF RETURN TO ACHIEVE EITHER 0.65 W/m²K or 1.10 W/m²K DEPENDING ON ENERGY CALCS

ROOF TO ACHIEVE 0.22 W/m²K WITH ADDITIONAL INSULATION BELOW RAFTERS

WINDOWS
 TYPE A TIMBER + GLASS 3.6 W/m²K
 TYPE B METAL + Sec GLAZ 1.8 W/m²K
 TYPE C TIMBER + DGLAZ 1.9W/m²K
 TYPE D METAL ORIGINAL 4.3 W/m²K
 TYPE E NEW DG 1.4W/m²K



2 First Heating, Vent
1:50



3 2nd Heating, Vent
1:50

Room Schedule Volumes and areas		
Name	Area	Volume
Workshop	8 m ²	19.58 m ³
Utility	5 m ²	10.29 m ³
Kitchen/ Dining	35 m ²	103.42 m ³
Family Living Rm	20 m ²	60.92 m ³
Studio	5 m ²	13.90 m ³
Cloaks/Shwr	6 m ²	10.70 m ³
Corridor	6 m ²	19.28 m ³
Snug/ office	13 m ²	39.43 m ³
Lounge	22 m ²	66.89 m ³
Pantry	3 m ²	5.98 m ³
Spare Bedroom	13 m ²	32.54 m ³
Bedroom 2	21 m ²	54.31 m ³
Landing	12 m ²	28.69 m ³
Family Bathroom	7 m ²	17.16 m ³
Changing Room	7 m ²	19.12 m ³
Master Ensuite	8 m ²	17.47 m ³
Master Bedroom	19 m ²	49.12 m ³
Bedroom 3	23 m ²	51.98 m ³
Ensuite 2	7 m ²	14.68 m ³
SF Landing	8 m ²	13.84 m ³
Basement Store	11 m ²	23.57 m ³
eaves storage	7 m ²	15.90 m ³
eaves storage	7 m ²	5.83 m ³
Loft Storage/ Plant	31 m ²	54.90 m ³
Bed 3 Dressing	5 m ²	9.75 m ³
Hall	18 m ²	56.16 m ³
Plant Room	4 m ²	10.05 m ³
plant room	Not Placed	Not Placed
Bmt stairs	1 m ²	2.98 m ³

rev	description	by	date
E	Notes updated to submit for planning	CM	23/04/24
D	Insulations and U values updated	CM	14/04/24
C	Notes updated	CM	18/03/24
B	Services updated following M&E Meeting	CM	28/02/24
A	Heating Ventilation updated first issue	Author	02/02/24

St. Andrew, High St, Llandaff, CF5 2DX
 Matthew Skuse

Heating and Ventilation Layout
 job no. drawing no. rev status scale @ A1
 348 A(50)-20 E Information 1:50

© Downs Merrifield Architects 2018
 refer to dimensions where provided - do not scale from drawing
 90 70 50 40 30 20 00