

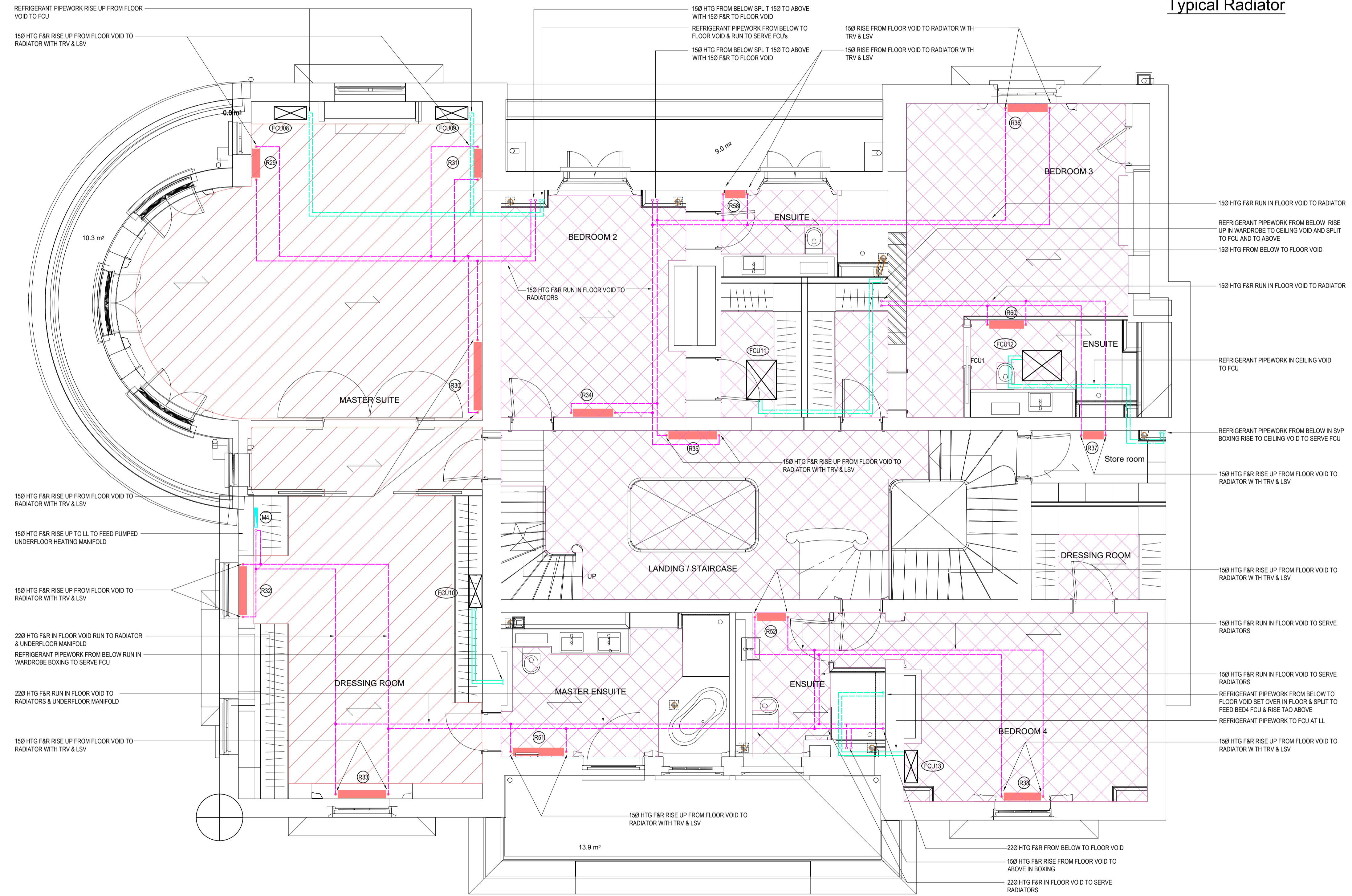
Typical Radiator

**Legend**

- HTG - Heating
- F&R - Flow & return
- HIU - Heat interface unit
- UFHM - Underfloor heating manifold
- (Red) - Primary Heating pipework
- (Green) - Secondary Heating pipework
- (Blue) - Refrigerant Pipework
- (Dashed) - Pipework within ceiling void
- (Dotted) - Pipework at high level
- (Dash-dot) - Pipework at low level
- (Long-dash) - Pipework within floor void
- [T] - Thermostat / controller
- [Line] - Underfloor heating manifold
- [X] - Electric underfloor heating
- [X] - 'Wet' underfloor heating
- [Arrow] - Timber joist direction

**Notes**

1. This drawing shall be read in conjunction with all Mechanical and Electrical drawings, Schedules and Specification.
2. Contractor to allow for on site co-ordination with the structure and other services and the production of fully dimensioned working drawings prior to installation.
3. All equipment to be installed in accordance with the manufacturers instructions.
4. All notched joists will be wrapped with hair felt lagging and the top of the notch to be mechanically protected
5. All pipework penetrations to be sleeved.
6. Drain off's to be fitted at low points.
7. Air vents to be fitted on all high points.
8. Commissioning set to be fitted on the return from each underfloor heating manifold.
9. Primary Heating flow and return temperatures 71/31°C.
10. All Plant to be commissioned by manufacturer or approved installer.
11. For further pipework details & valve arrangements refer to schematic drawing.
12. All pipework penetrations through any structure to be sleeved with oversized tube of same material.
13. All radiators to be fitted with adjustable TRV's.
14. All pipework and valves to be insulated.
15. Access panels to be installed by main contractor to allow access to all valves.
16. All steel pipework to be stainless steel grade 304.
17. All pipework to be earth bonded.
18. All gaps between pipework & sleeves to be fitted with fire resistant sealant.
19. All pressure gauges to be connected by pigtails.
20. All temperature gauges to be installed in a stainless steel pocket with heat conducting compound.
21. All pipework to run to fall to from bends & vents to aid draining & venting.
22. Commissioning set to be fitted on the return from each manifold.
23. Screed underfloor heating flow and return temperatures 45/37.5°C. (Pumped manifold)
24. Joisted underfloor heating flow and return to be 55/47.5°C (Pumped manifold)
25. Radiator circuit flow and return temperatures 65/45°C
26. All equipment to be commissioned by manufacturer or approved installer.
27. Thermostat / controller to be mounted at 1200mm above FFL



**FOR PLANNING**

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**RELATED DOCUMENTS**  
This drawing should be read with the appropriate Specification (a) and Schedule (a) and all other standard documentation.

**WARNING**  
Do Not Scale from this drawing. Verify all dimensions, levels and structural details on site.

REVISIONS			CLIENT	CONSULTING ENGINEER	CONTRACT	DRAWING TITLE
P01	29/11/18	Preliminary for discussion	Mount Anvil 140 Aldersgate Street London	C Watkins	Kidderpore Hall Kidderpore Avenue London NW3	Level 01 Heating & Cooling Layout
P02	13/12/18	Updated to Architects comments. Background updated. Shared for planning submission.				

DATE	29/10/18	DRAWN	KN
SCALE	1:50 @ A1	APP.	CW
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