

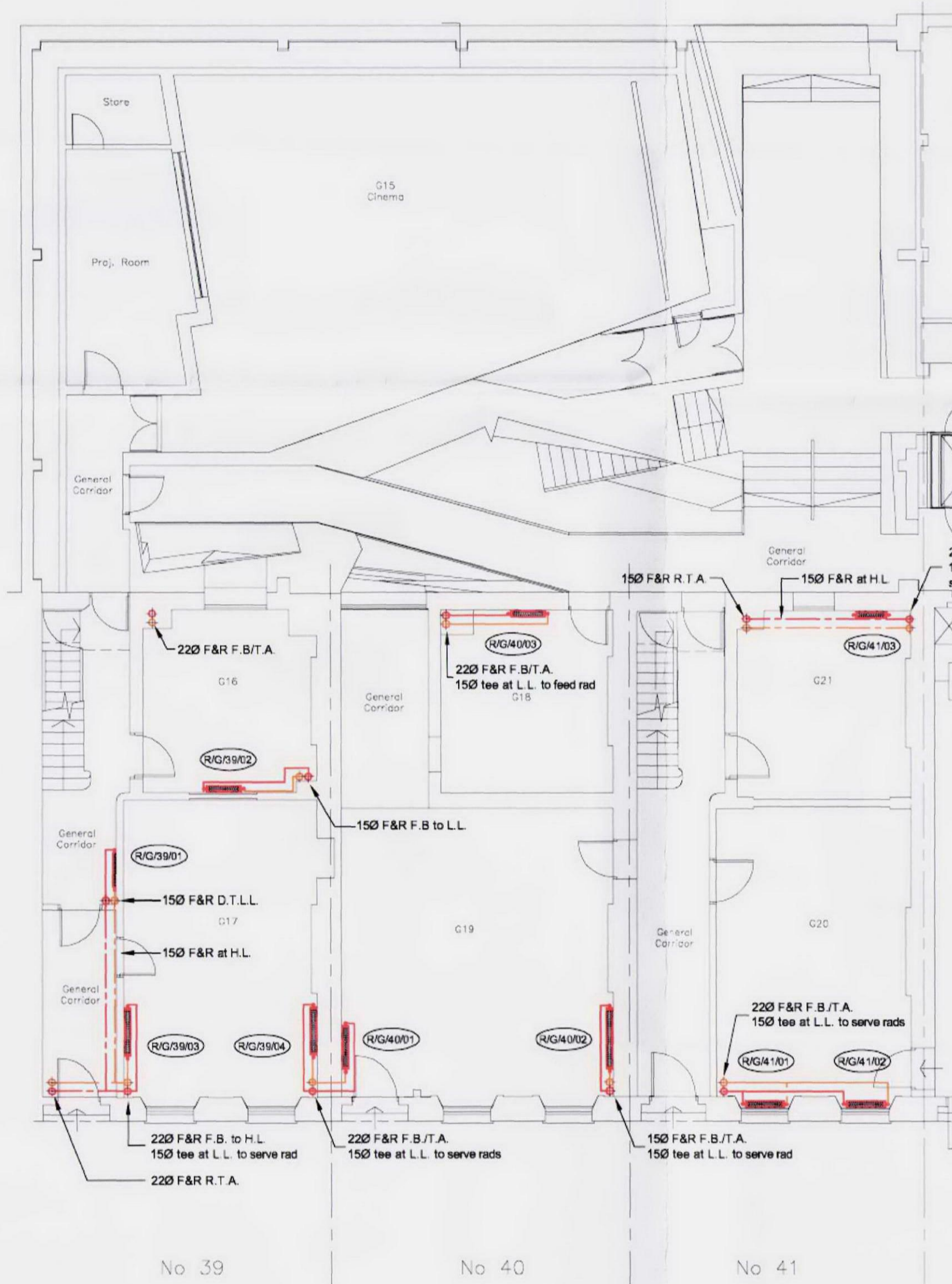


**GORDON SQUARE**  
Birkbeck College - University of London

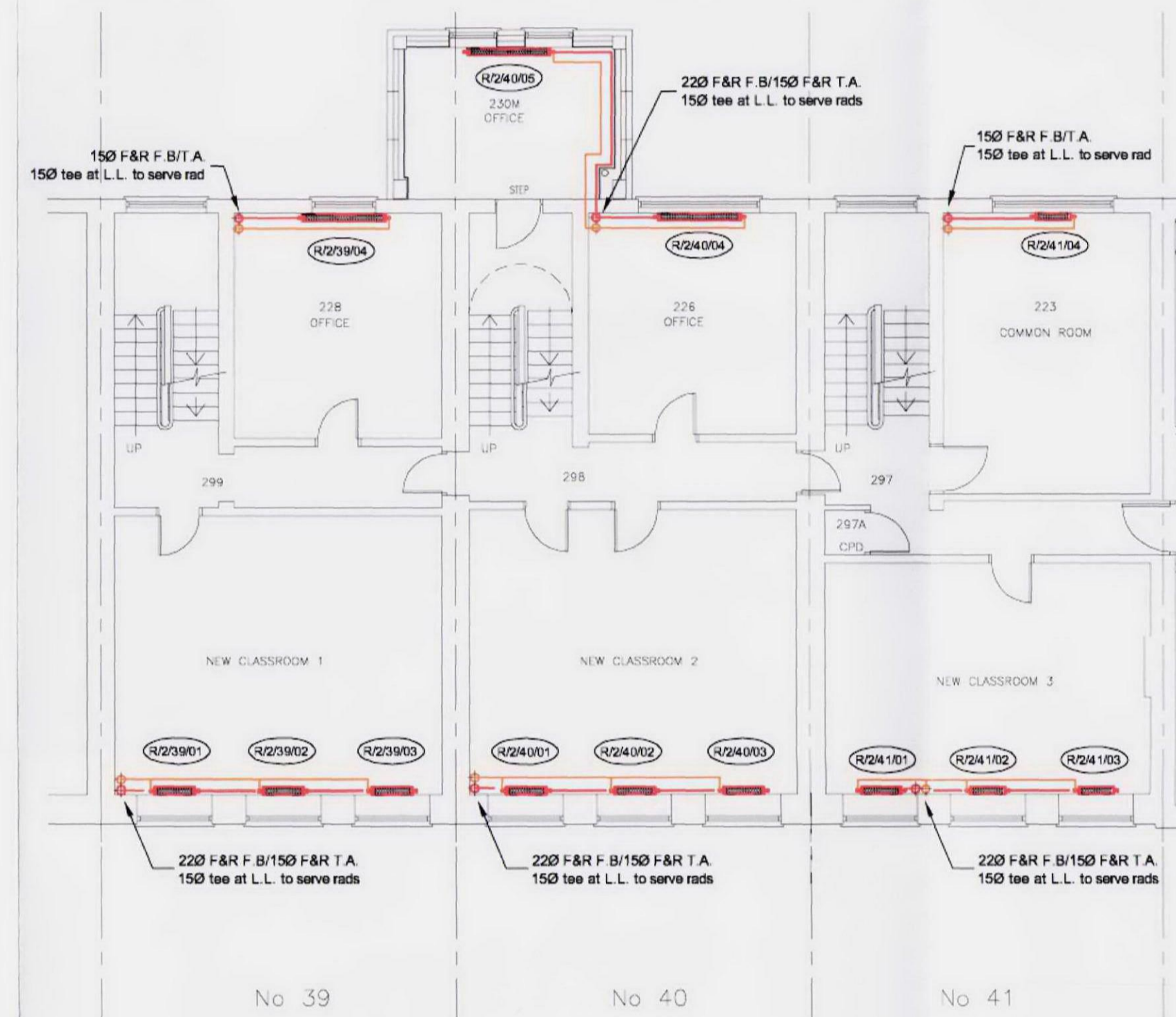


**SITE LAYOUT**  
(Scale 1:1250)

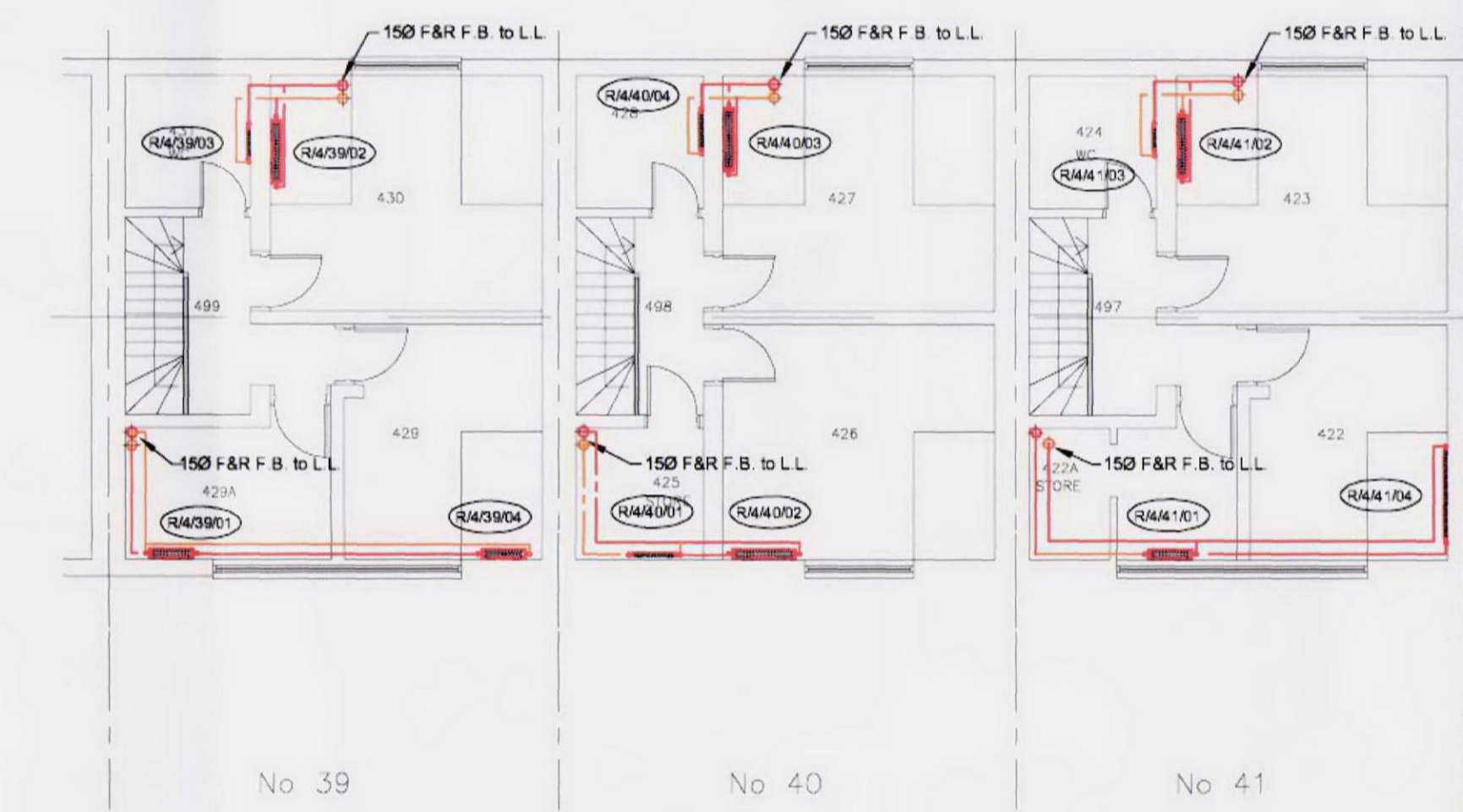
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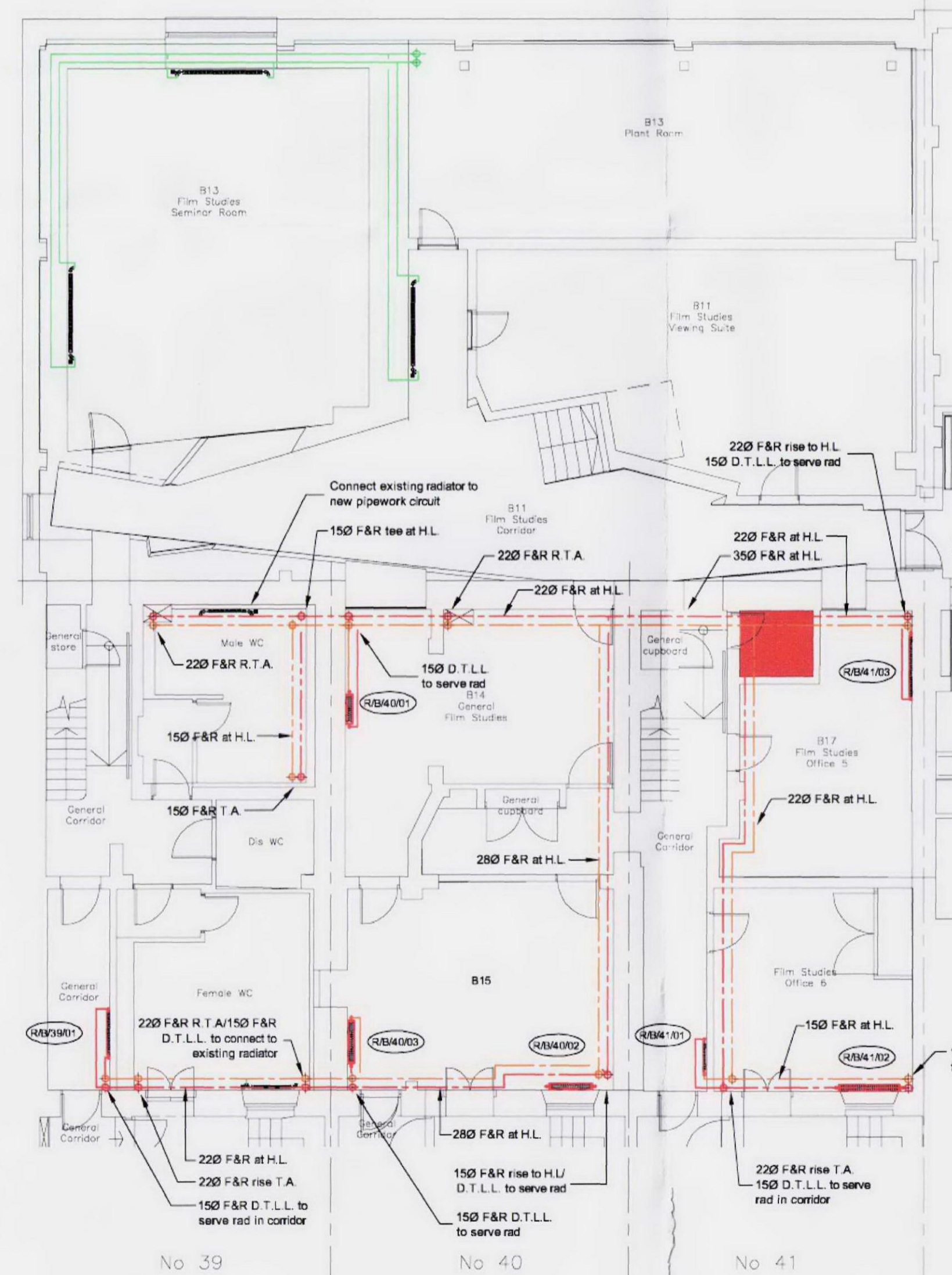
**GROUND FLOOR**



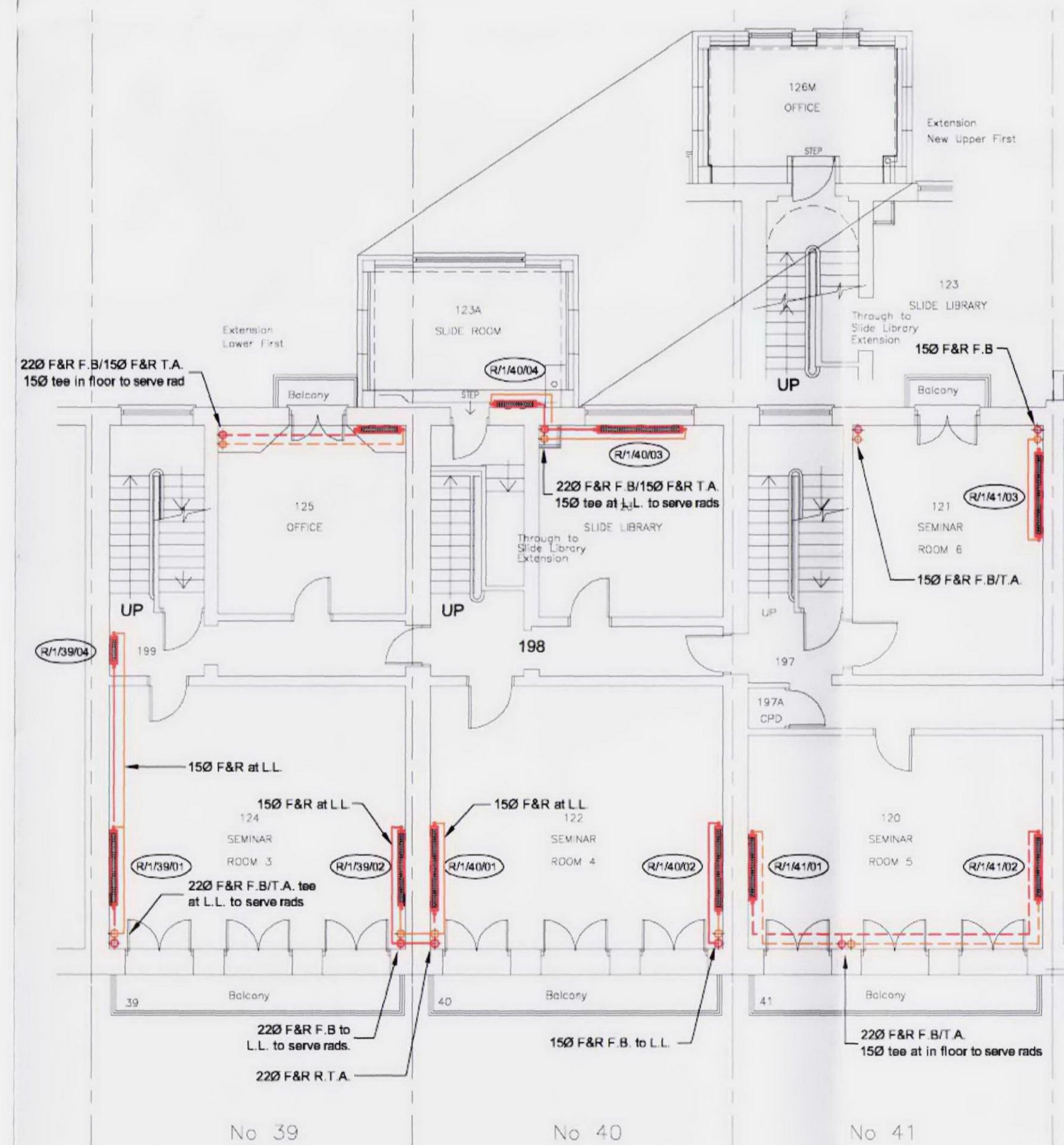
**SECOND FLOOR**



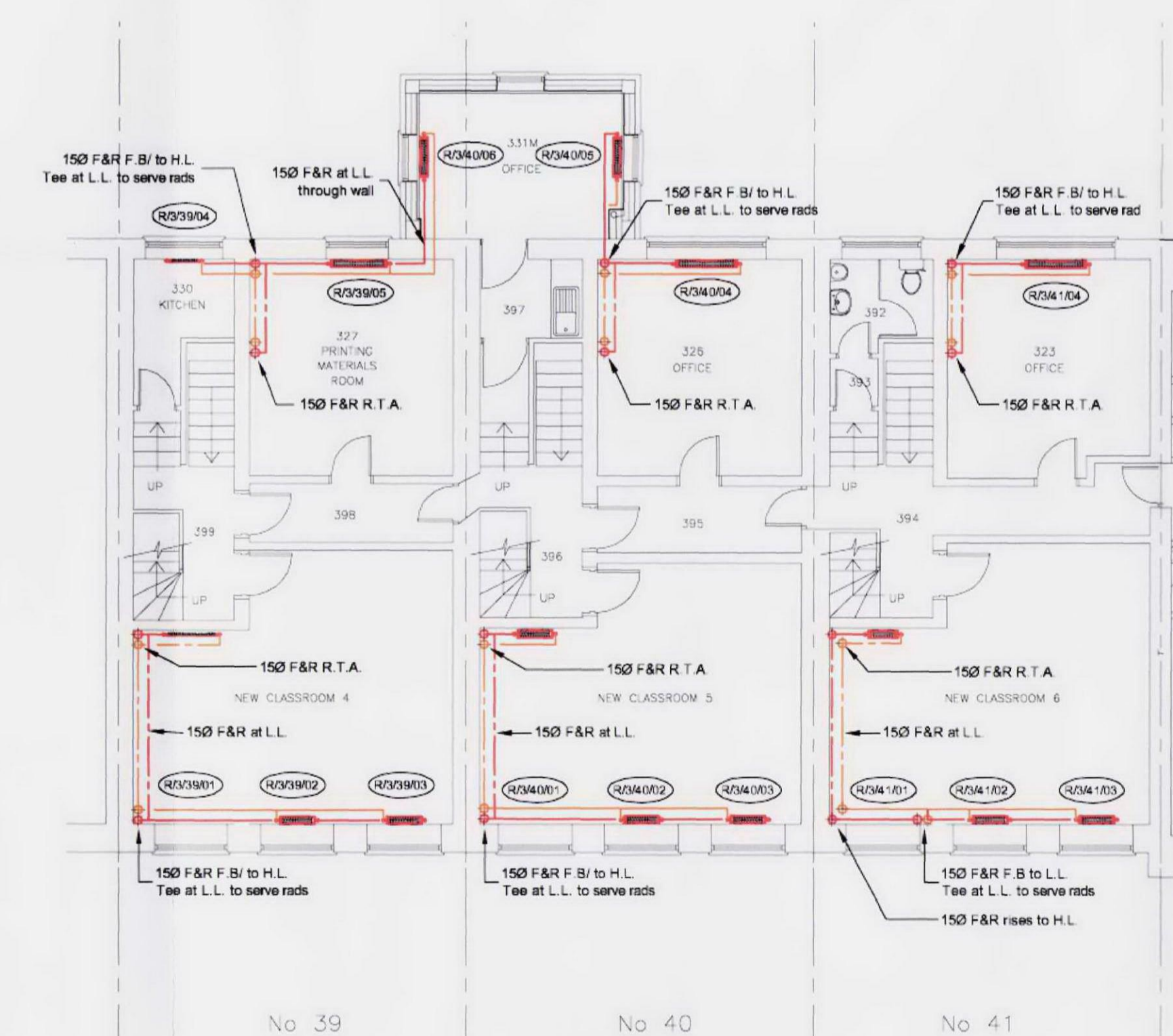
**FOURTH FLOOR**



**BASEMENT**



**FIRST FLOOR**



**THIRD FLOOR**

**Notes**

- This drawing shall be read in conjunction with all Mechanical and Electrical drawings, Schedules and Specification.
- Proposed heating distribution pipework shall follow the route of existing pipework to keep ceiling of existing floor plate to a minimum. Any new notches of floor joists or penetrations shall be agreed with the structural engineer and Camden Development Control Planning Services prior commencement of works.
- All pipework penetrations through any structure to be sleeved with oversized tube of same material.
- Domestic Water Services shall be installed in accordance with Water Supply (Water Fittings) Regulations 1999.
- All draw offs to be fitted with ballfloat valve.
- All high points to be provided with air vents & all low points to be provided with drain cocks.
- All pipework to be thermally insulated in accordance with BS 5422 except for final connections to appliances where it shall be painted by others to Architects' detail.
- Contractor to site measure locations of radiators prior to ordering.
- 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.
- For valving arrangements refer to schematic drawings.

**Legend**

- R.T.A. Rise To Above
- D.T.L.L. Drop To Low Level
- C.V. Ceiling Void
- F.A.R. Flow & Return
- T.A. To Above
- F.B. From Below
- L.L. Low Level

- Pipework at low level.
- Pipework in floor.
- Pipework at high level.
- Pipework in ceiling void.
- Pipework to remain as existing.

**Design and Access Statement**

Our proposal is to upgrade the heating system within houses 39-41 Gordon Square, Birkbeck College, Malet Street, London WC1H 0PD.

Having successfully carried out stage one of the brief, which was the installation of a new boiler in the vault under the pavements of Gordon Square, we now need to upgrade / replace the pipework and radiators in the building.

The current installation is between forty and fifty years old and is in need of modernisation. The radiators are a combination of cast iron and panel type, the majority of which are either leaking, inefficient due to excessive internal build-up of scale and magnetite sludge, have either faulty or no thermostatic valves or controls or are incorrectly sized for the required duty. Generally, the entire heating distribution system requires upgrading as there have been many complaints from both staff and students with the regards to the internal environmental conditions within many of the offices and classrooms.

We propose to replace all the radiators and heating distribution pipework on a like for like basis, including the positioning of radiators and routes of pipework. The radiator sizes may differ slightly from those installed as we intend to meet the calculated heatloss for the areas. In order to maximise the efficiency of the proposed system, the new gas fired condensing boiler, installed at stage one, was designed to operate with flow and return temperatures of 60/45°C; subsequently, the radiators have been design to match these temperatures which and in some instances, has resulted in the radiators slightly increasing in size.

The heating distribution pipework needs to be replaced and in doing so, we will be largely following the route of the existing pipework. The majority of heating distribution pipework is at low level (above skirting), ring in boating in the corners of some rooms (which will be removed and replaced when work is complete) and in the floor voids. We will be using existing notches in the joists of the floors and ceilings where necessary.

rev	date	description
P1	12.05.09	Preliminary issue



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Project Title:  
**39-41 GORDON SQUARE  
BIRKBECK COLLEGE  
LPHW HEATING SYSTEM**

Drawing Title:  
**PROPOSED RADIATOR  
& HEATING DISTRIBUTION  
PIPEWORK LAYOUTS**

Drawn	Date	Checked	Approved
SJL	MAY '09		

Scale	Size	Issue
1:100	A4	● Preliminary ○ Tender
	A1	○ Construction

Dir. No. **2188-PL-001** Rev **P1**