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27A Parkway,  
Camden,  
London, NW1 7NP

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**Basement Impact Assessment  
Stage 1: Screening Report**

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## Document Control

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## **1.0 Appointment**

- 1.1 Elliott Wood Partnership LLP have been appointed by Camden Bus Estate Agents to advise on the structural implications associated with the construction of a new basement at 27a Parkway, London, NW1 7NP, as part of proposals for the extension of the site for additional office space prepared by Emrys Architects.
- 1.2 This screening report sets out the scope of works that will be required to address Condition 4 as required in 'Camden Planning Guidance CPG4: Basements and Lightwells'.
- 1.3 In order to get a full understanding of what is required at this stage it is necessary for us to appraise the existing site and review the proposed scheme.

## **2.0 Existing Site**

- 2.1 27a Parkway is situated in the London Borough of Camden and is currently an area comprising flat land bounded by buildings on its north, south and eastern perimeters.
- 2.2 The majority of the current site, measuring 10.5m long by 4.5m wide, is occupied by a double decker bus, which is currently being used as an office by Camden Bus Estate agents. Access to the site is from Arlington Road.
- 2.3 Regents Canal is 300m north of the site and the Euston Railway line 200m to the west.
- 2.4 The surrounding area mainly consists of residential terraced properties and retail units. The properties bounding the site on the northern and southern perimeters are known to have single storey basements.
- 2.5 The British Geological Survey map of the area indicates that the site is underlain by London Clay. No site investigation has been carried out on this site. This will be required prior to any works commencing on site.

## **3.0 Proposed Alterations**

- 3.1 The current proposals consist of extending the site by constructing a new single storey basement which will be used for additional commercial space. A new double storey steel frame structure is to be erected with a large glazed frontage onto Arlington Street. At ground floor the double decker bus will be temporarily removed and later reinstated.

#### 4.0 BIA Determination – Stage 1: Screening

- 4.1 In determining proposals for basement and other underground development, the Council require an assessment of the scheme's impact on drainage, flooding, ground water conditions and structural stability.
- 4.2 The 'Camden Planning Guidance CPG4: Basements and Lightwells' states that "the first stage of the BIA is the identification of any matters of concern which should be investigated. Screening is a process of determining whether or not a full BIA is required." In order to identify key issues relevant to a proposed scheme a series of screening flow charts have been produced concerning; Ground Water Flow, Land Stability and Surface Flow and Flooding. Where the questions part of the flowchart are answered to with a "yes" or "unknown" these matters will need further investigation. "No" answers will require written justification for not needing further investigation.
- 4.3 We have undertaken the screening process and documented the outcome of this assessment in this report, to determine whether a full BIA is required. Our responses to the questions in the screening flow charts are as follows.

#### 5.0 Subterranean (Ground Water) Flow – Responses to Screening Flow Chart

Question	Response for 27a Parkway, London, NW1 7NP
<b>1a:</b> Is the site located above an aquifer?	<b>No.</b>
<b>1b:</b> Will the proposed basement extend beneath the water table surface?	<b>No.</b> The proposed basement is a maximum of 3m below ground level (bgl). From the British Geological Survey, 3No borehole logs obtained east, west and south of the site show no record of water being discovered. However 1No. borehole taken 150m north of the site recorded water at 1.78m bgl. It is considered this may have been temporary and localised only.
<b>2:</b> Is the site within 100m of a watercourse, well or potential spring line?	<b>No.</b> Regents Canal is 300m north of the site
<b>3:</b> Is the site within the catchment on the pond chains on Hampstead Heath?	<b>No.</b>
<b>4:</b> Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?	<b>No.</b>
<b>5:</b> As part of the site drainage, will more surface water (eg.rainfall and runoff) than at present be discharged to the ground (eg via soakaways and/or SUDs)?	<b>No.</b>
<b>6:</b> Is the lowest point of the proposed excavation close to, or lower than the mean water level in any local pond (not just the pond chains on Hampstead Heath) or spring line?	<b>No</b> (based on our local knowledge and initial research of the site).

## 6.0 Slope Stability – Responses to Screening Flow Chart

Question	Response for 27a Parkway, London, NW1 7NP
1: Does the existing site include slopes, natural or manmade greater than 7 degrees?	<b>No.</b> The existing site appears to be flat.
2: Will the proposed reprofiling of landscaping at site change slopes at the property boundary to more than 7 degrees?	<b>No.</b> There is no reprofiling of landscaping proposed.
3: Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7 degrees?	<b>No.</b> The area is relatively flat.
4: Is the site within a wider hillside setting in which the general slope is greater than 7 degrees?	<b>No.</b> The area is relatively flat.
5: Is the London Clay the shallowest strata at the site?	<b>Yes.</b> From geological maps and BGS borehole logs, the site consists of made ground over London Clay.
6: Will any trees be felled as part of the proposed development and/or are any works proposed within any tree protection zones where trees are to be retained?	<b>No.</b> No trees will be removed as part of this proposal and no works are to be carried out within any tree protection zones.
7: Is there a history of seasonal shrink-swell subsidence in the local area and or evidence of such effects at the site?	<b>No (based on our local knowledge and initial research of the site).</b>
8: Is the site within 100m of a watercourse or potential spring line?	<b>No.</b> Regents Canal is 300m north of the site
9: Is the site within an area of previously worked ground?	<b>No.</b>
10: Is the site within an aquifer? If so, will the proposed basement extend beneath the water table such that dewatering may be required during construction?	<b>No.</b>
11: Is the site within 50metres of the Hampstead Heath Ponds?	<b>No.</b>
12: Is the site within 5metres of a highway or pedestrian right of way?	<b>Yes.</b> The site fronts Arlington Road.
13: Will the proposal significantly increase the differential depth of foundations relative to neighbouring properties?	<b>Yes.</b> The property adjacent to the western perimeter of the site is not known to have a basement.
14: Is the site over (or within the exclusion zone of) any tunnels e.g. railway lines?	<b>No.</b> There are no tunnels within the vicinity of the site.

## 7.0 Surface Flow and Flooding – Responses to Screening Flow Chart

Question	Response for 27a Parkway, London, NW1 7NP
<b>1:</b> Is the site within the catchment of the pond chains on Hampstead Heath?	No.
<b>2:</b> As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	No.
<b>3:</b> Will the proposed basement development result in a change in the proportion of hard surfaced/paved areas?	No.
<b>4:</b> Will the proposed basement result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses?	No.
<b>5:</b> Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses.	No.
<b>6:</b> Is the site in an area known to be at risk from surface water flooding?	No.

## 8.0 Screening Summary

8.1 The screening process has identified a number of “yes” responses which indicate matters of concern in the following areas:

- London Clay is the shallowest strata at the site.
- The proposal significantly increases the differential depth of foundations relative to the western neighbouring property.
- The site is within 5metres of a public highway or pedestrian right of way.

8.2 In response to the concerns identified we propose the following actions as mitigation measures;

- *London Clay is the shallowest strata at the site*

Heave from underlying strata is common with cohesive soils such as London Clay. The main phase of uplift or heave from these soils will come immediately following the excavation of the basement when the greatest elastic rebound of soil (caused by loss of the overburden pressure) will occur. The impact of heave will be managed through the controlled excavation of the basement in stages.

There are no trees on site or in the immediate vicinity of the site and given the minimum depth of the proposed foundation to be approximately 3.0m below ground level, the foundations for the new structure are therefore assumed to not be affected by these features.

The excavation and construction of the basement at the site has potential to cause some movements in the surrounding ground. Ground movements and any temporary instability will be managed through a staggered underpin arrangement in conjunction with a propping system which will be outlined in the detailed method statement compiled by the chosen Contractor.

- *The proposal significantly increases the differential depth of foundations relative to the western neighbouring property*

The proposed development will result in differential foundation depths between the site and the adjacent single story building on its western perimeter. Hit and miss underpinning is commonly utilized with basements and are considered to be a suitable solution for this scheme given the extent of the excavations proposed and adjoining properties present on site. The Party Wall Act will be followed and adhered to during this development and all efforts will be made to ensure a contractor with good workmanship and proven experience in basement excavations will be appointed. This will help to ensure the basement excavations can be constructed without imposing more than a "very slight" level of damage on the adjoining property.

- *The site is within 5metres of a public highway or pedestrian right of way*

In the long term, once construction is complete, the basement condition will be similar to those of the adjoining properties which are adjacent to the public highway / pedestrian right of way at the eastern perimeter of the site. During construction all measures required by the local council to safe guard the right of way and services housed within the pavement will be adhered to.



## 9.0 Conclusions

- 9.1 The screening assessment completed in this report satisfies criteria set out for Stage 1 of the Basement Impact Assessment. The screening process has identified a limited number of concerns that need to be addressed in more detail.
- 9.2 Because of the physical restriction of the bus at the site we propose that the BIA Stage 2 Scoping requirements which include the ground site investigation work be postponed until the bus which obstructs the site has been removed. Progressing the trial pits and bore hole without the removal of the bus would also pose a hazard in both confined space and stability terms. It should be noted that the bus which houses the existing estate agent offices cannot be removed prior to planning due to its prolonged impact on the business.
- 9.3 It is predicted that the site investigation data will confirm the presence of London Clay and inform the final construction methods that are proposed for the construction of the basement. We do not envision that the investigations will cause a marked difference to the design of the permanent work or the method of temporary construction.
- 9.4 We consider the decision to delay the Stage 2 site investigation as reasonable, in section 8.2 concerns raised though the stage 1 screening have been addressed by suitable mitigation measures which will form the baseline for the development of the more detailed design.

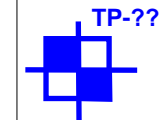
Appendix A Site Investigation Scope

This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

Do not scale from this drawing.

### S.I WORKS KEY

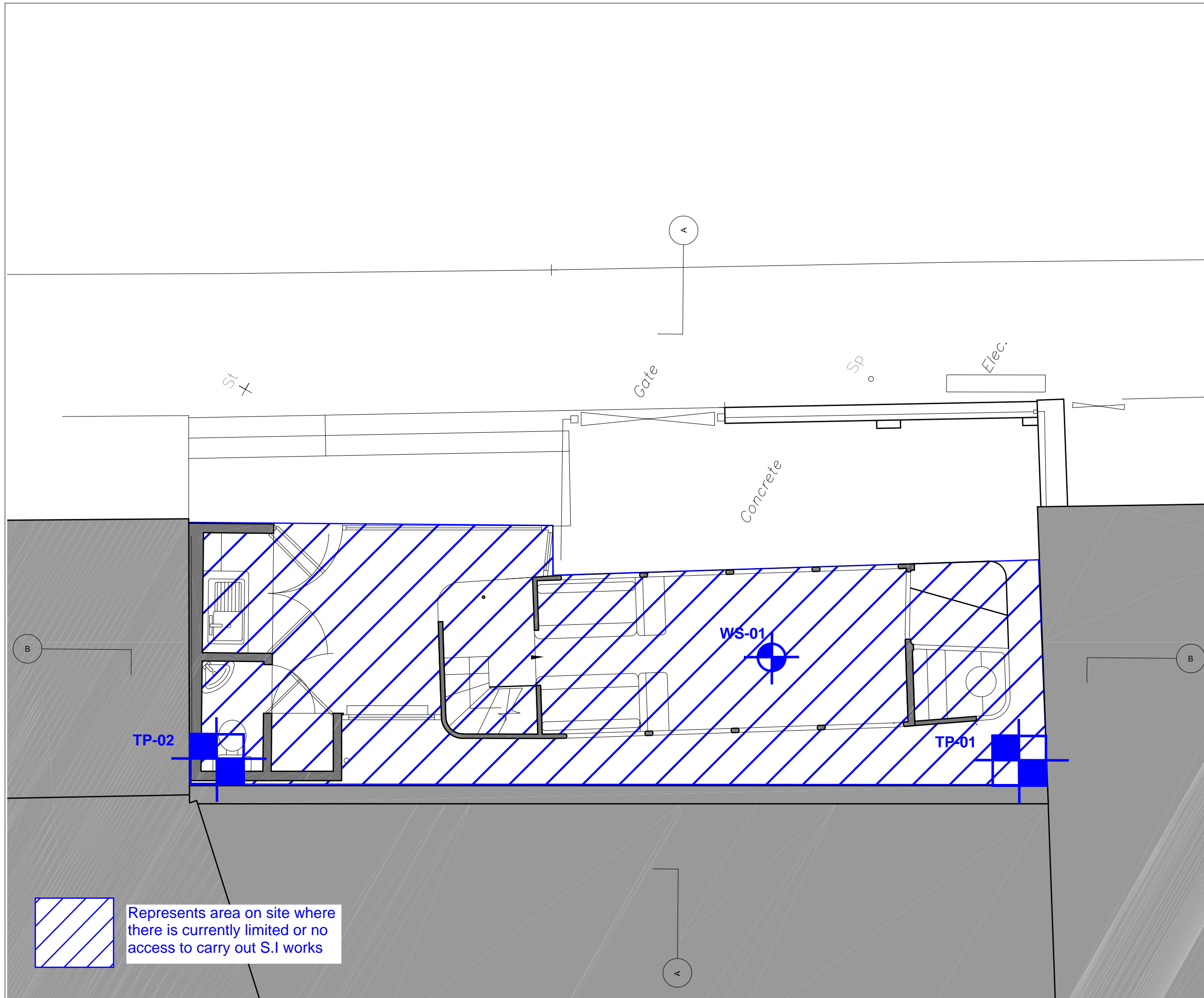
The S.I works indicated lie within the hatched area on plan where there is currently limited or no access. Therefore these works will take place after the bus is temporarily removed from site to allow works to take place.



TP-?? Denotes trial pit to determine details of existing footings of adjacent properties (assumed as 3.0m bgl)



WS-?? Denotes window sample required to extend to a depth of at least 1.0m below top of London Clay formation level. Overall window sample to extend to a depth of at least 5m below ground level.



rev	date	by	chk	description

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project  
**27A Parkway, London,  
 NW1 7PN**

drawing title  
**Site Investigation Mark-up**

scale (s)	date	drawn
1:50 @ A3	1:50 @ A3	AMi

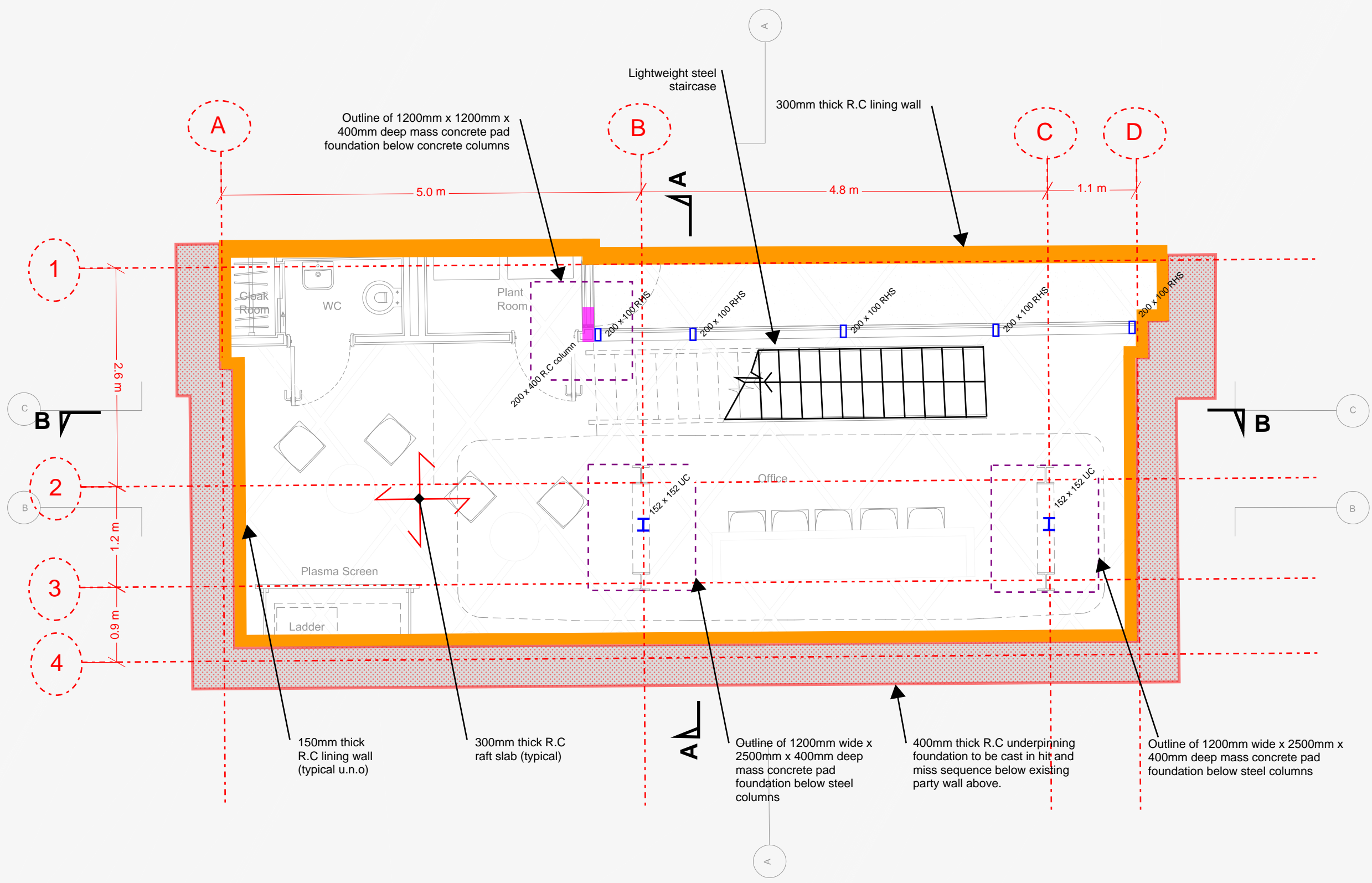
drawing status

**Preliminary**

job no	drawing no	revision
2140722	SK-002	P2

Represents area on site where there is currently limited or no access to carry out S.I works

Appendix B Outline Structural Scheme Sketches



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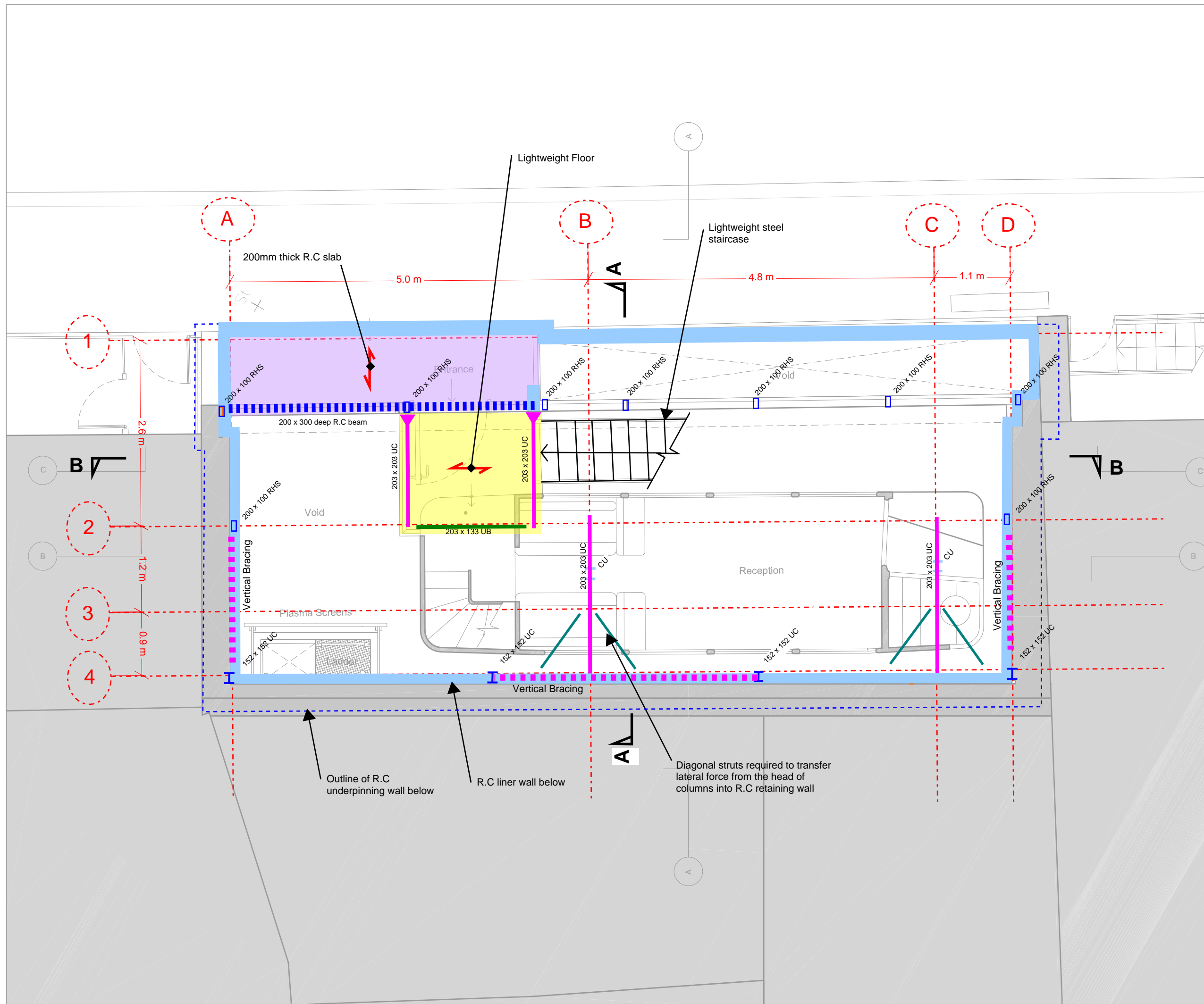
project  
**Camden Bus Estate Agents**

drawing title  
**Structural Mark-up**

scale (s)                      date                      drawn

drawing status

job no	drawing no	revision
2140722	SK-001	P2



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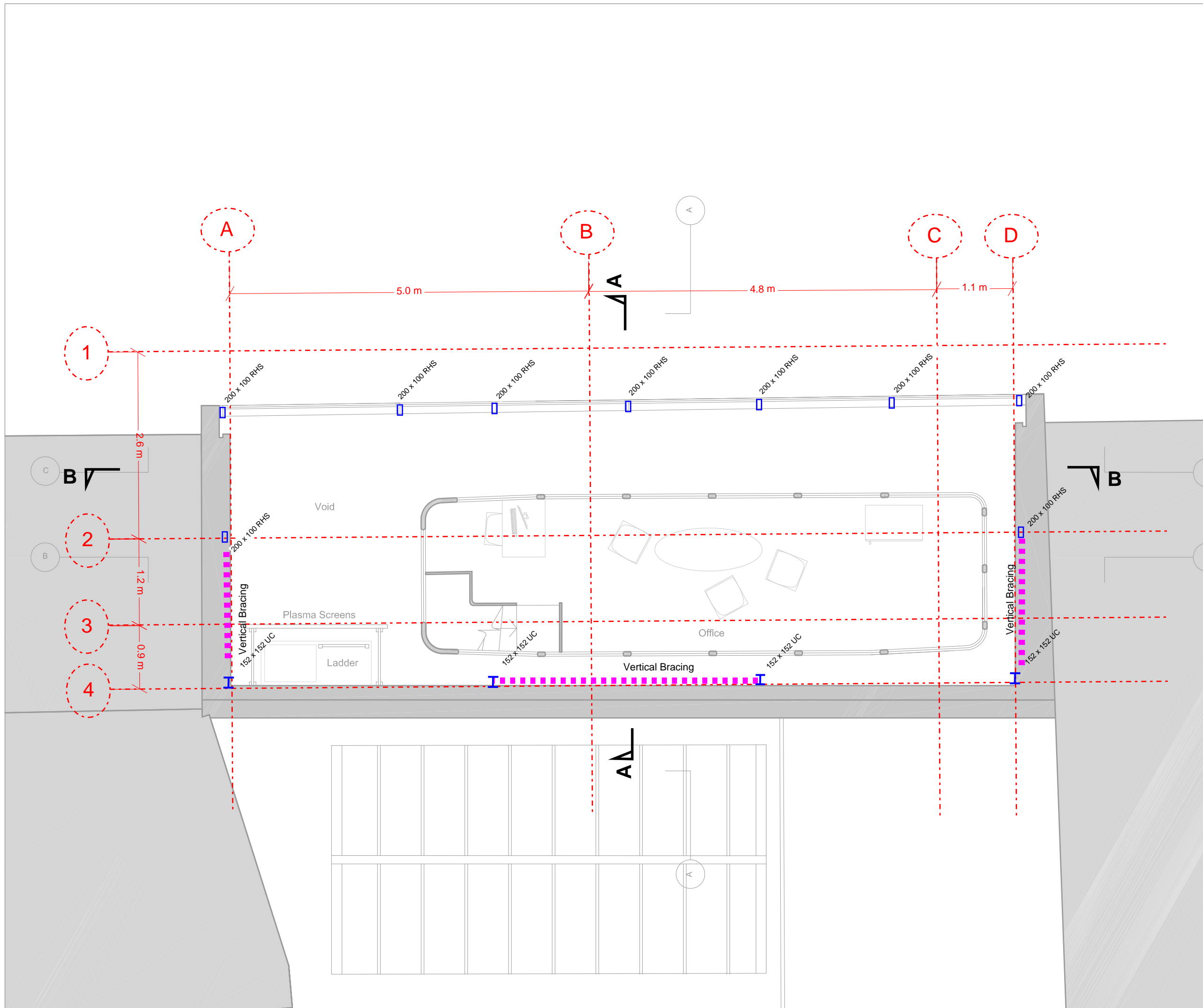
project  
**Camden Bus Estate Agents**

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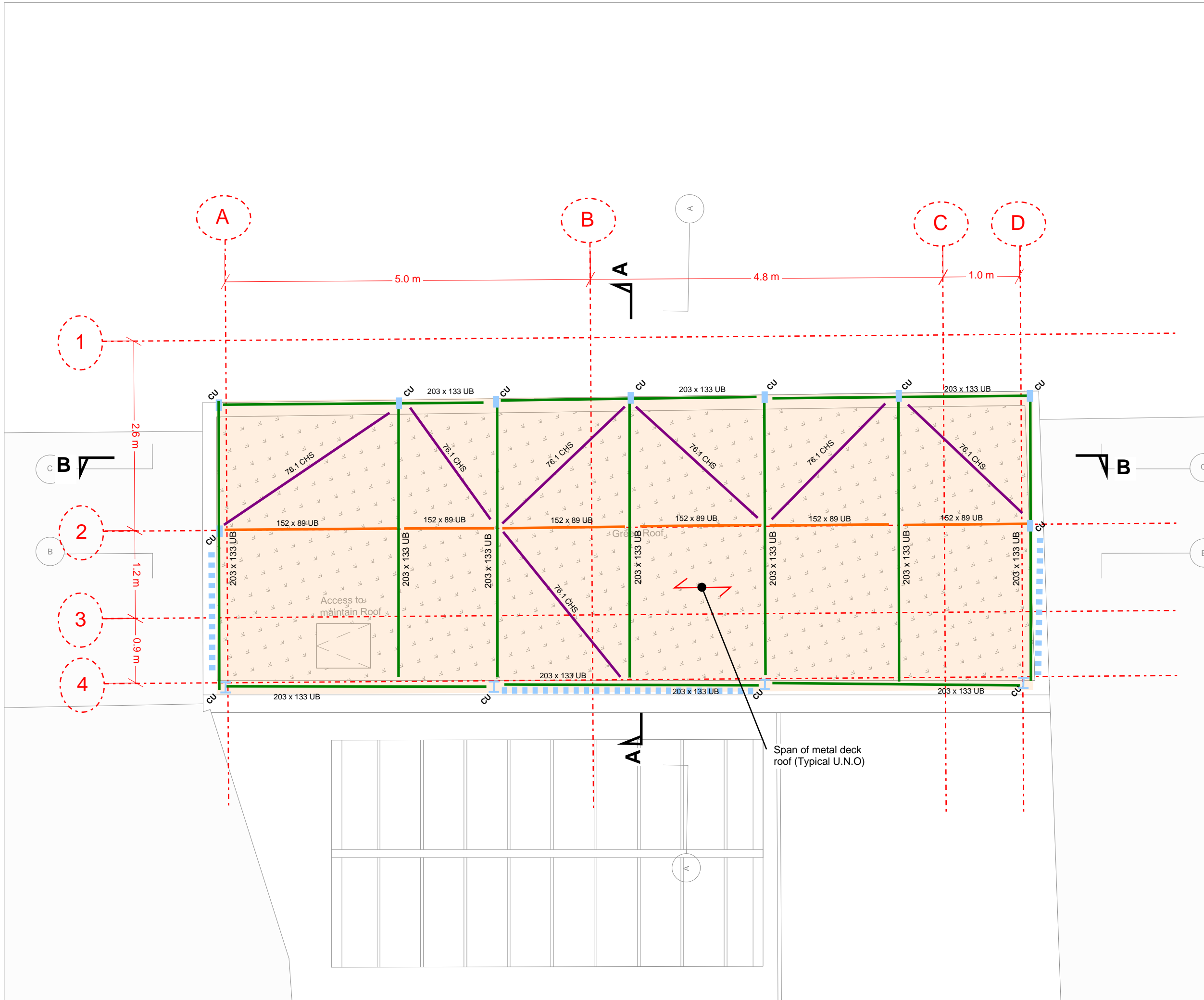
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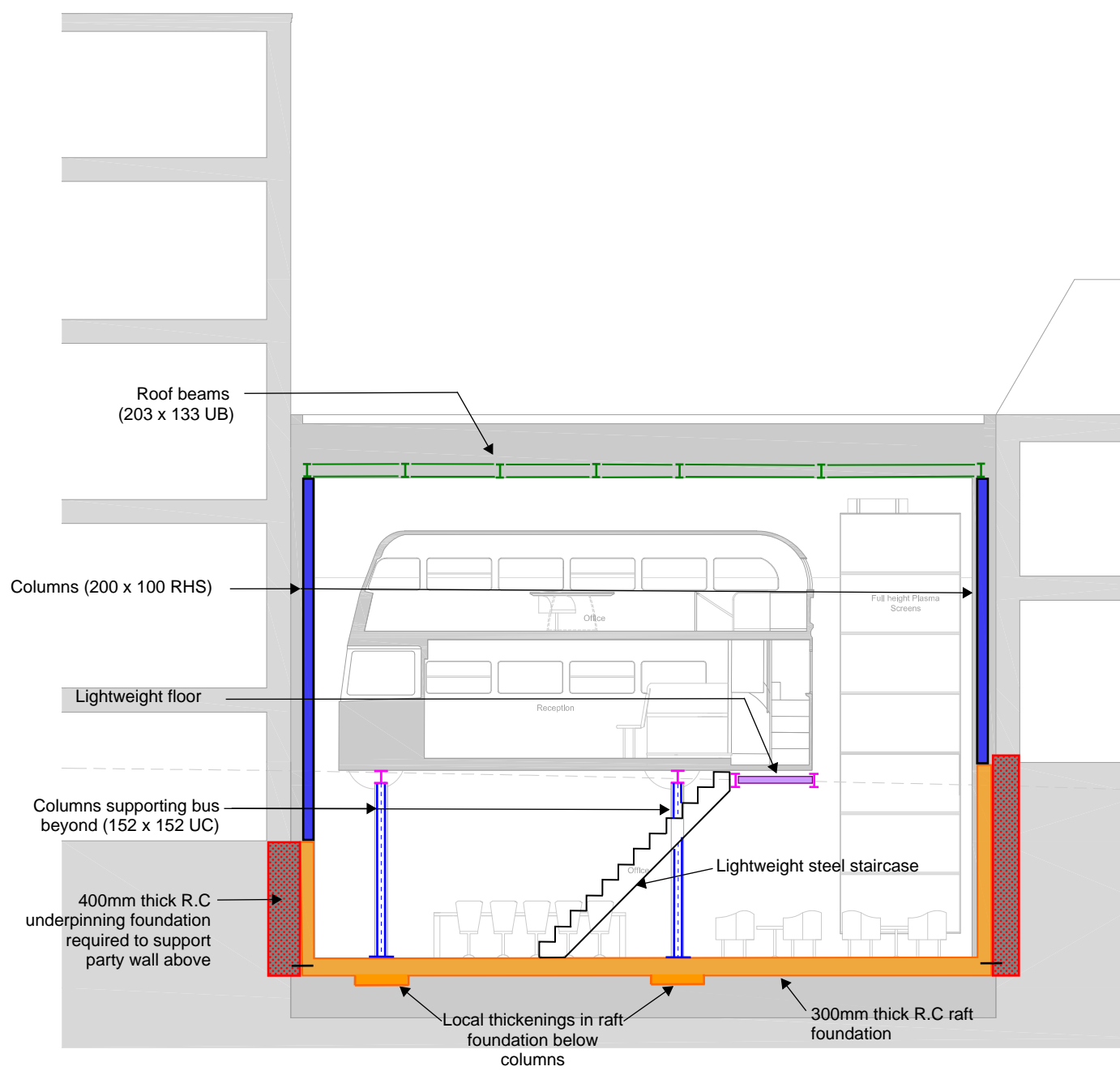
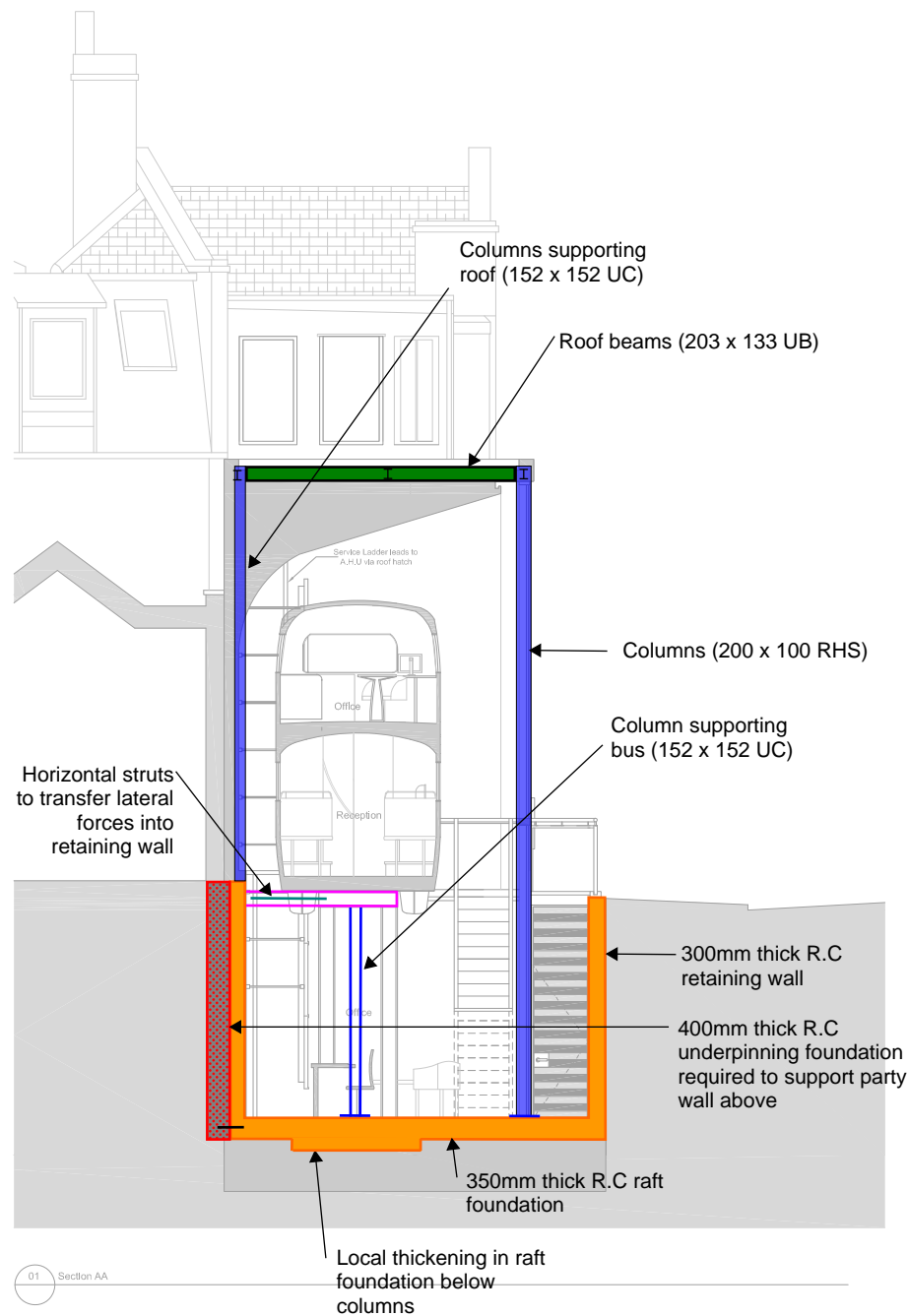
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project  
 Camden Bus Estate Agents

drawing title  
 Structural Mark-up

scale (s)                      date                      drawn

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job no	drawing no	revision
2140722	SK-001	P2

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