SUMMARY OF AMENDMENTS

277A Gray's Inn Road, London October 2016

WAUGH THISTLETON ARCHITECTS

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SCOPE OF REPORT

This report is prepared for submission to LB Camden to facilitate discussions regarding the scope of an amendment application and the discharge of Condition 3; Materials and Condition 10; Cycles, Condition 5; Sample panels and detail and Section 106; Clause in relation to levels and office plan.

It seeks to describe a summary of change that is to be applied for and explain why this change is necessary to enable the delivery of the building.

A suite of additional documents are to be read in conjunction with this summary which provide more detail:

- 'Office Changes' pack, update version dated December 2016

- 'Brick Detailing' pack, additional info version dated December 2016

- 'Concrete Elements' pack, additional info version December 2016

- 'Birkenhead Boundary' pack, additional info, wall and lightwells to the Birkenhead Estate

version dated December 2016.

The change sought will be described in two main areas namely;

'Changes to Ground and Lower Ground Plans'

'Minor Alterations to the Elevations and Material Choices'

The changes have been reviewed twice to date with LB Camden, at a pre-application meeting on 16 Feb 2016 and on site to review samples on 19 April 2016. Reference in this document is made to discussions held and agreements in principle made at those meetings.

1.0 CHANGES TO GROUND AND LOWER GROUND PLANS

Related documents:

- 'Office Changes' pack, update version dated December 2016

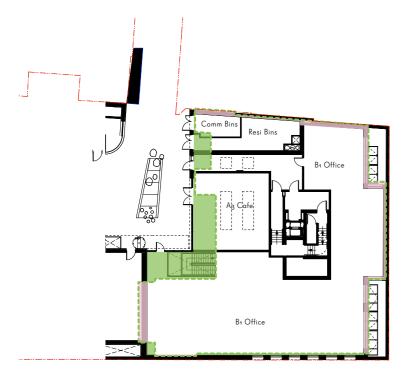
1.1 CHANGES TO THE ARRANGEMENT OF THE BASEMENT.

The changes highlighted in this section are proposed to be dealt with under an amendment to the original consent.

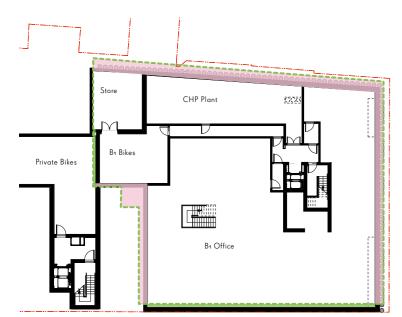
In developing the design for the basement of the scheme, it became clear that the consented design did not make sufficient allowance for below ground structures for the new building.

In order to form the basement, significant retaining structure is required, especially where the basement is lower than adjacent structures. Also, in some areas, there are basement retaining walls which enclose internal space, rather than external below ground yards. In these instances the walls also need to provide a thermal performance.

Whilst a basement design statement was submitted, not all of the measures recommended there were illustrated in the consented plans. In almost all instances, the walls shown were of insufficient thickness to provide either structural performance or thermal performance. In some areas, no new walls were shown at basement level at all - only the existing structure of adjacent buildings.



Extract of proposed ground floor plan with areas of loss and recoup highlighted



Extract of proposed basement plan with areas of loss and recoup highlighted

gross internal area lost since planning

gross internal area recouped since planning

In some areas of the consented scheme, the required thickness of basement structure, allowing for the required performance, is as much as 1,550mm. The structure shown at planning is typically around 600mm but in some places decreases to zero.

In order to accommodate the wall thickness required to successfully and safely build the principles of the consented scheme, the basement needed to be reconfigured. To accommodate a similar amount of gross internal area as consented, the proportion of site area covered by the basement has increased.

The effects on key components of the scheme will be discussed in detail under the following sections and much greater detail is provided in the separate 'Office Changes' document.

However, in principle:

- The total gross internal B1 area has had to be decreased by 7.4sqm
- The total let-able A3 area has been increased by 2.4 sqm
- The total area allocated to the residents' gym has decreased
- The number of cycle storage spaces has been maintained
- Plant space has been allocated in accordance with a detailed design
- The SUDS strategy has been revised to minimize the impact
- The overall gross internal area of non-residential space in this core has decreased by 51.9sqm

Additional detail on the precise areas from which area is lost or gained can be found in the accompanying 'Office Changes' pack.

1.2 A FUNCTIONAL PLANT ROOM

The location of the plant room as illustrated in the consented plans was not possible to deliver.

One of the main elements of plant is the communal gas fired boiler that provides heating

and hot water to the residential units. This communal boiler approach is essential to the sustainability performance of the scheme.

All large boilers require a flue to rise through the building and discharge at a suitable height above all other structures within a set radius. In simple terms, this means a pipe from the boiler needs to go up to the highest roof on the scheme. Ideally this pipe will have no bends in it and will not pass through any regularly inhabited spaces like flats or offices.

In practice, one or two bends will be essential to find a route from the boiler to a suitable riser.

However, in the consented scheme, the boiler flue required several bends. Also, because the plant room was located remotely from the tallest vertical core, the flue needed to travel across the ceiling of the office accommodation in order to reach a riser to the roof. This is not an acceptable approach.

For that reason, the plant room has been moved closer to the tallest core in a part of the scheme that was previously designated as office space. Detailed diagrams can be found in the separate 'Office Changes' document.

1.3 EFFECTS ON THE FORM OF THE NON-RESIDENTIAL SPACE

This section should be read alongside the separately submitted 'Office Changes' document.

The non-residential space is the main area where internal accommodation is close to the boundary at basement level and insufficient space was left for structure and insulation. This has also been compromised by the relocation of the plant room closer to the main vertical core as described above.

Therefore, there was potentially a significant reduction in the amount of space that could be

provided for B1 use if the originally consented layout was simply amended to accommodate the changes required to build the scheme.

With this in mind, reorganisation of the basement was undertaken to try to recoup as much of the lost space as possible. This required the ground floor level to be reconfigured too.

In order to recoup basement office space lost to the increased external walls:

- The basement B1 cycle store was pushed north
- The basement private residential cycle store was also pushed north, reconfigured into an 'L' shape
- The movement of the cycle stores caused a decrease in size to the ancillary gym
- The basement RSL cycle store was relocated to covered, secure lockers at ground floor in the 'under croft'
- The SUDS strategy has been reappraised to remove water storage from the basement (see also item 1.5)

In order to recoup further office space at ground floor:

- The line of the B1 / A3 ground floor elevation was pushed out toward the 'under croft' but no further than the consented 1st floor roof (i.e. infilling the overhanging shelter)
- Bin stores were relocated to allow for more rationally sized spaces
- The location of the A_3 unit was adjusted to accommodate the bin store relocation

This reconfiguration allowed for maintenance of the entire area of A₃ space but still resulted in a loss of area to the B₁ space.

The total number of cycle storage spaces is maintained and in the same proportion by use

/ tenure. Bin storage is in line with LB Camden requirements. An illustration of the effect on the appearance of the entrance area is included later in this document and also in the separate detailed 'Office Changes' document.

1.4 EFFECTS ON THE LOCATION OF CYCLE STORAGE

As noted above, the quantum of cycle storage is maintained. Grade level cycle parking is unaffected by the proposed amendments.

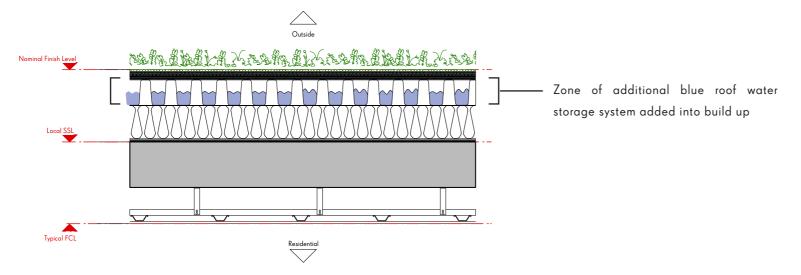
The B1 cycle storage is still located at basement level and is still accessed directly from the B1 accommodation.

The cycle storage for RSL flats has been moved from the basement to the 'under croft' area at ground floor where the site is accessed from Gray's Inn Road. This will be in the form of permanent lockers with individual key access.

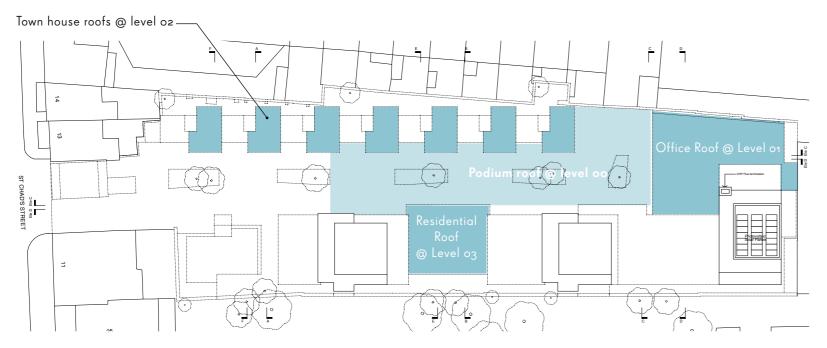
With the thickening of the basement structure, it was no longer possible to maintain the location of the store as shown in the consent as the increased wall thickness closed off the corridor between the office space to the west and east of the core. Coupled with the essential relocation of the plant room, this left an non-viable 'pocket' of B1 space in the basement.

We also feel that cycle stores in the 'under-croft', close to the entrance and at entrance level have a much greater chance of regular use than if they were located at basement level with the residential units they serve, starting from level 1.

Similarly, this also reduces the potential for damage to internal finishes and lifts as cycles will no longer need to be brought inside the building or moved between floors by residential occupants.



Illustrative root build up identitying additional 'blue root' layer.



Locations of 'blue roof' replacing SUDS tanks

Blue roof with increase of 150mm

Blue roof with no increase

1.5 CHANGES TO THE SUDS STRATEGY

In order to attempt to mitigate the increase in site coverage of the basement, it has been also decided to amend the strategy for Sustainable Urban Drainage.

The attenuated water will no longer be stored below ground. This storage will be replaced by 'egg crate' layers within the roof build-ups.

The water will be stored within the zone of the build up of the ground floor deck in the mews (over the basement box) and within the roof build ups at first floor level. It will then be released at an attenuated rate into the drainage system using adapted rainwater outlets. The levels at ground floor will not be altered. The height of roofs at first floor will increase slightly.

The key points are:

- The same volume of water storage as the consent
- The same flow rate of release into the mains system
- No change to ground floor levels
- Minor increase to roof heights in some locations (see left) of 150mm.

A letter has been prepared by the MEP engineer (XCO₂) confirming that the volume and flow rates will remain unchanged.

2.0 MINOR ALTERATIONS TO THE ELEVATIONS AND MATERIAL CHOICES

Related documents:

- 'Office Changes' pack, update version dated December 2016

- 'Brick Detailing' pack, additional info version dated December 2016

- 'Concrete Elements' pack, additional info version dated December 2016

- 'Wall To Birkenhead' pack, additional info, wall and lightwells to the Birkenhead Estate

version dated December 2016.

- 'Proposed Sections' pack, drawings 1_529-A-PL-550 series

We propose some amendments to the external elevation design as previously consented.

The reasons for change are discussed in detail below. In general, where change is required, our approach has been to choose traditional and contextual materials in place of lightweight or artificial ones where possible, whilst still maintaining the dynamic modern rectilinear forms the comprise the basis of the consented design.

These changes fall under three key headings addressed over the following pages:

2.1 MATERIALS THAT ARE BETTER SUITED TO THEIR PURPOSE

We would like to amend two materials identified in the consent.

We have applied for this under the NMA submitted on the week starting 12.12.16. The amended material is subject to the outcome of the NMA, the final choice of material will be agreed under the discharge of condition 3.

A. Metal Cladding

The high level cladding to the main accommodation floors and to the mansard roof on St. Chad's Street are referred to in the planning consent elevations as 'anodised aluminium' and shown in a gold colour. We are concerned that anodised aluminium is not a suitable material for some parts of the roof.

In the location of the mansard, the system would need to be a sealed system rather than an open rain screen that would be applied in the rest of the facade. Aluminium roofs of this type are normally associated with light industrial buildings. We are concerned that a metallic anodised finish will be difficult to achieve with a system / contractor more used to circumstances where appearance is not the primary concern. We believe that the strategy of unifying the roof elements in a single colour / material is correct, but if the material chosen is not suitable for one part of the roof then a new material should be chosen for all the 'gold anodised' elements.

We also have concerns that a gold anodised finish will provide unacceptable levels of reflection when used at high levels across large surfaces.

Finally, a concern is that an anodised finish, particularly in metal effect, is easily prone to damage, for example by bird strike, but is notoriously difficult to patch up.

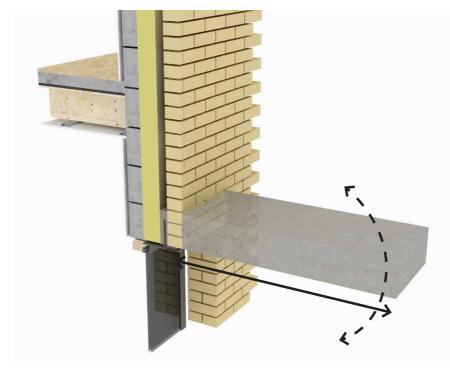
The consented design makes the metal clad areas of the scheme very difficult to access for maintenance or repair due to step backs in the facade meaning that the elevations can only be reached by accessing private ownerships by individual flat owners.

To resolve these problems, we propose to use a coloured zinc cladding with standing seams. Similar to the proposed anodised aluminium but without reflectiveness. It is robust, durable and is a more traditional roofing material which is suitable for use both on vertical surfaces and on the inclined roof of the St. Chad's Street mansard.



The issue of offset concrete elements leading to the proposal for replacement by fibre C





The issue of large cantilevers to concrete elements leading to the proposal for replacement by fibre C

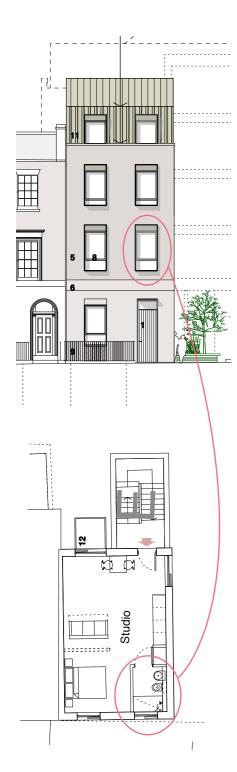




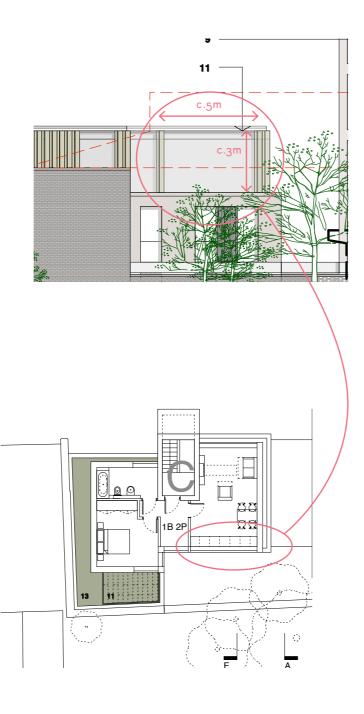
The two extracts above show how build-ability issues have changed the proportion of the parapet detail from planning (left) to construction (right) necessitating review of the brick detailing strategy.



The proposed simplified office elevation



Extract from consent showing a full height, clear glass window against shower tray



Extract from consent showing very large window in accessible area of the site. It is shown as clear with no mullions or transoms but in plan is shown with a full kitchen behind.

2.2 MAINTENANCE ACCESS TO ROOF

PV's and access for window cleaning at upper roof levels to Cores A, C and RSL require cat ladders to facilitate safe regular maintenance.

These are shown on the submitted accompanying elevations.

2.3 MECHANICAL / SMOKE VENTILATION

Plant for emergency smoke ventilation to lobbies is required to fulfil the requirements set out in Approved Document Part B, and as part of the site wide fire strategy. These are located at the 6th floor level on cores A and C only.

These are shown on the submitted accompanying elevations.

3.0 CONCLUSION

The document above provides a summary of the proposed changes and identifies outcomes of preliminary discussions we have had with officers regarding those changes.

It is supported by a suite of documents providing additional detailed information describing those changes.

Some notes are provided above as to how we see the changes being resolved through the planning process.

In summary, these changes will be secured by Discharge / Variation of Conditions:

- Basement

- Brick patterns / bonds

- Plant

- Brick choice / mortar

- Non-Resi Space

- Concrete areas to be Fibre C

- SUDS

- Metal Areas to b Zinc

- Minor Elevation Changes

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