

Daylight and Sunlight

Steele's Studio

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Reference: 12783

Date: 27/04/2018

Contents Page

Client:	James Gorst Architects Ltd
Issue Date:	27 th April 2018
Document References:	12783-mm-18-0427(DaySun Report) Principles of Daylight and Sunlight Existing Drawings: 12783/IS03/01-02 (Rel01) Proposed Drawings: 12783/IS01/01-02 (Rel02) Daylight and Sunlight Results (Rel02)
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Appended to this report:

Appendix 01 - Principles of Daylight and Sunlight
 Appendix 02 - Existing & Proposed Drawings
 Appendix 03 - Daylight and Sunlight Results
 Appendix 04 - Floorplans

Sources of Information:

Information Received: Valuation Office Agency

London Bough of Camden - Online Planning Database Search

James Gorse Architects

Release Number: IR01-110817

IR02-05092017 IR06-12092017 IR07-12092017 IR08-25092017 Rel_02_12783_CAD

Issue Number: Rel_02_12783_CA

OS Data: F!ND Maps

3D Models: Ground Surveys Ltd

James Gorse Architects – 'TH16_3D_Model.skp'

Site Photos: GIA

Google: Maps & Street Views

1.0 Executive Summary

GIA have undertaken technical daylight and sunlight analysis in order to understand the potential impacts of the proposed scheme at 1 Steele's Studios, 91A Haverstock Hill, London.

This assessment has been undertaken with reference to the BRE Guidelines – Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011) (the 'BRE guidelines').

The technical analysis illustrates that of the 104 windows assessed for VSC, 103 (99%) shall experience compliance with the BRE guidelines for VSC. In terms of NSL, all 51 rooms assessed (100%) shall adhere to the BRE guidelines. With regards to sunlight, all 81 windows assessed (100%) within 47 rooms will adhere to the BRE guidelines for sunlight (APSH).

The technical analysis illustrates that there is nearly total compliance with the BRE guidelines for daylight (VSC NSL) and sunlight (APSH) following implementation of the proposed scheme. Where there is a fractional transgression from the BRE guidelines in VSC to one window, it is our opinion that given the room contains three additional VSC compliant windows and is compliant with regards to NSL there is unlikely to be a noticeable change in daylight (VSC and NSL) to the occupants. On this basis, it is our opinion that the scheme performs well against the BRE guidelines for daylight and sunlight.

2.0 Instructions

This daylight and sunlight assessment has been commissioned by the applicant, to support the planning application for the proposed scheme at 1 Steele's Studios, 91A Haverstock Hill ("the site").

The results and advice contained in this report is based upon the proposed scheme produced by James Gorst Architects Ltd and issued to GIA on the 20th April 2018 (the "proposed development").

The daylight and sunlight review within this report considers habitable spaces only, as they are recognised by the Building Research Establishment as having the highest expectation for natural light when compared to other uses – such as commercial (BRE Guidelines 2.2.2). According to the BRE guidelines, non-habitable rooms such as bathrooms, storerooms and circulation spaces can be discounted from consideration (BRE Guidelines 2.2.2).

GIA have produced a three-dimensional model of the site and surrounding properties using measured survey information provided by Ground Surveys Ltd on 5th September 2017. The model has been used to compare the existing levels of daylight and sunlight to those that will be experienced upon implementation of the James Gorst Architects Ltd scheme.

The technical analysis has been carried out by reference to the methodology within the 2011 BRE guidelines which is considered to be the primary authority in these matters.

3.0 Introduction

Daylight and Sunlight

The technical analysis that forms the basis of this report has been predicated against the methodologies set out within the Building Research Establishment Guidelines entitled 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011)'. The guidelines in question are precisely that; guidelines which provide a recommendation to inform site layout and design. They are not mandatory, nor do they form planning policy and their interpretation may be treated flexibly depending on the specifics of each site (BRE 1.6).

The BRE Guidelines provide three methodologies for daylight assessment, namely;

1) The Vertical Sky Component (VSC);

2) The No Sky Line (NSL); and

3) The Average Daylight Factor (ADF)

We have used the VSC and NSL assessment methods to analyse the effects of the proposed scheme on the surrounding properties. ADF is not generally recommended by the BRE for assessing daylight to existing surrounding properties, however, it may be used in certain circumstances and these are explained in more detail within the BRE handbook.

In addition, we have used one methodology provided by the BRE Guidelines for sunlight assessment, denoted as Annual Probable Sunlight Hours (APSH).

Appendix 01 of this report elaborates on the mechanics of each of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

4.0 Sources of Information

In compiling this report we have used the following information:

GIA

Site Photographs

F!ND

IR05 - 070917 - OS Map IR00 - 311017 - OS Map Aerial Photography

James Gorse Architects

IR01-110817-Drawings IR06-12092017- Context 2

1R13-200418 -JGA(Updated scheme info)

Ground Surveys Ltd

IR02-05092017-Survey

IR03-05092017-Topographical Survey

London Bough of Camden

IR02-05092017-2 Steel Studios Floorplans IR07-12092017- The Sir Richard Steele IR08-25092017-2 Steel Studios Floorplans

5.0 Assumptions

a) A 3D contextual model of the site and its surrounds has been produced using 2D survey data supplied to GIA by Ground Surveys Ltd on the 5th September 2017 and OS data. The location and size of some windows within surrounding properties have been based on site observations, site photographs and brick counting. GIA have sought to create the most accurate model possible based on the data available.

b) We have undertaken a search of public records for internal room layouts and updated the 3D model prior to undertaking the technical analysis. Floorplans have been obtained for the following properties and can be seen in Appendix 04:

> 2 Steel Studios; and

> The Sir Richard Steele

These layouts have been incorporated into our computer model as they enhance the accuracy of the NSL assessment, however, please note that we have not undertaken internal viewings of properties listed above and therefore we cannot confirm these layouts represent the current position.

c) Where we have been unable to obtain floor plans we have made reasonable assumptions as to the internal layouts of the rooms behind the fenestration in accordance with GIA's standard practice. This is normal practice where access to adjoining properties is not available. Unless the building form dictates otherwise, we assume a standard 4.2m deep room (14ft) for residential properties.

d) Floor levels have been assumed for the adjoining properties where drawing information has not been obtained. This dictates the level of the working plane which is relevant for the daylight distribution (NSL) assessment.

e) The scope of buildings assessed has been determined as a reasonable zone which considers both the scale of the proposed scheme and the proximity of those buildings which surround and face the site.

f) All residential buildings have been identified by reference to the Valuation Office Agency (VOA) search undertaken in November 2017 and/or external observation.

6.0 The Site

The site is located in the London Borough of Camden at Steel Studios near Haverstock Hill. The existing building on site currently comprises of two separate two-story residential properties, one located to the east of the site and the other to the west.

The site is illustrated in brown in Figure 01 below, and also in GIA drawings located in Appendix 2.

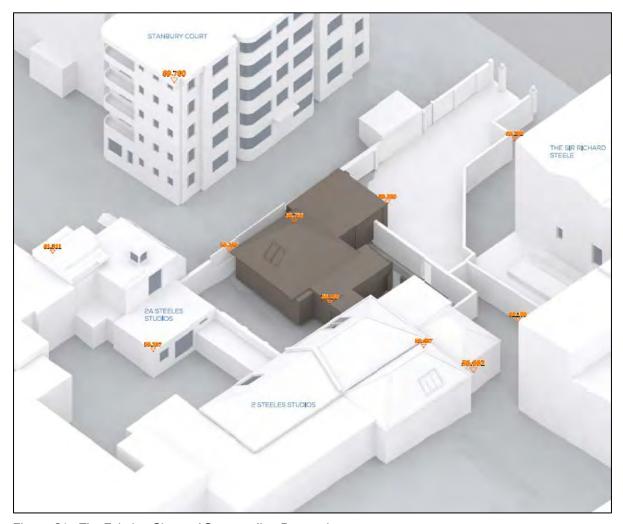


Figure 01 - The Existing Site and Surrounding Properties

The proposal seeks to redevelop the eastern section of the site into a three-story property which will extend over a slightly larger footprint and make internal amendments to the western section of the site.

GIA's understanding of the proposed scheme is shown in blue in Figure 02 below and in GIA drawings located in Appendix 2.

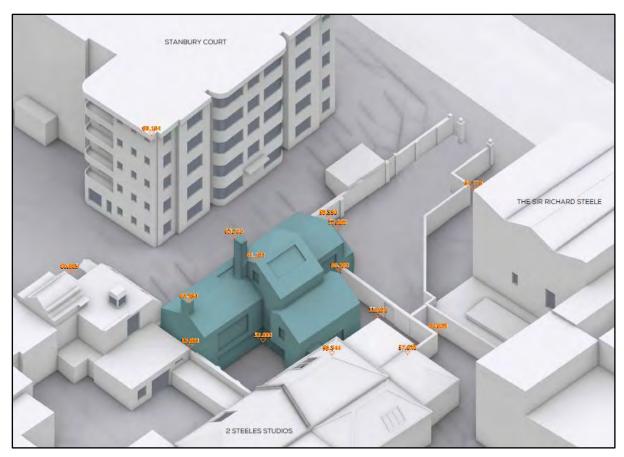


Figure 02 - The Proposed Development

7.0 Surrounding Properties

The BRE Guidelines 2011 state that residential properties have a greater requirement for daylight and sunlight than commercial properties (BRE Guidelines 2011 Section 2.2.2). GIA's understanding of the usage of the properties surrounding the site can be seen below in Figure 03.

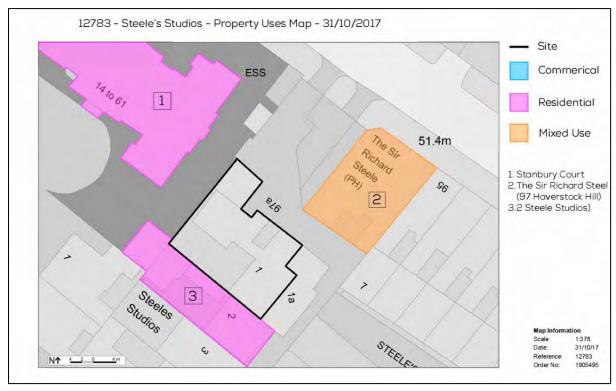


Figure 03 - Property Use Map

As illustrated above, GIA have identified three properties within a considered scope (based on the scale of the proposed scheme and the proximity of the buildings surrounding the site) that include residential accommodation (by reference to a VOA search).

Following the technical analysis considering the implementation of the proposed scheme, it was found that two of the three properties assessed will comply with the BRE guidelines for daylight (VSC and NSL) and sunlight (APSH) and thus require no further consideration.

- The Sir Richard Steel (97 Haverstock Hill); and
- > Stanbury Court.

The remaining property has been discussed in greater detail below.

2 Steel Studios



2 Steel Studios is a two-story property located to the south west of the development site. GIA have obtained floorplans (Appendix 04) for this property from the London Brough of Camden's planning portal which have informed the modelling of the internal configuration. It has been assumed that the room uses (where identified in the floor plan) are correct for the purpose of this assessment.

Daylight

In relation to daylight (VSC and NSL), GIA have considered there to be a total of 13 windows serving four rooms within this property relevant for assessment.

Three rooms served by nine windows will adhere to the BRE Guidelines for daylight (VSC and NSL).

The remaining room, R1/F00, is served by four windows, one of which (W1/F00) will experience a reduction in VSC of 20.3 % which is fractionally in excess of the 20% threshold given by the BRE Guidelines. R1/F00 is also served by three other windows which do adhere to BRE guideline for VSC and will allow the room the receive additional sources of light. As a result, the room retains an average VSC of 26% with an average reduction of 3.7% when considering all four windows.

The No Sky Line (NSL) assessment for this room has shown that this room will achieve BRE guideline compliance for NSL with a retained view of the sky dome for 84% of the room area.

As such, in consideration the mitigating windows to this room and the NSL result, in our opinion although not technically BRE compliant there is unlikely to be a noticeable alteration to the receipt of daylight within this room.

Sunlight

In relation to sunlight (APSH), all of the windows and rooms relevant for assessment show full compliance with the BRE Guidelines criteria for APSH.

In consideration of the above, we would consider that the scheme performs well in relation to the BRE criteria for daylight and sunlight. Where there is an alteration in light to this property, in our opinion, it is unlikely to be noticeable to the occupants in consideration of the light received from mitigating windows to the room.

8.0 Conclusions

GIA have undertaken a daylight and sunlight technical assessment for the James Gorst Architects Ltd proposed scheme at 1 Steele's Studios in order to understand the effect it may have upon the surrounding properties daylight and sunlight amenity. This assessment has been based on the methodologies and criteria within the 2011 BRE Guidelines.

The technical analysis undertaken illustrates that whilst there will be some change in light to the neighbouring properties, of the 104 windows assessed for VSC, 103 (99%) will be compliant with the BRE Guidelines. In relation to NSL, all 51 rooms assessed (100%) will adhere to the BRE Guidelines. With regards to sunlight, all 81 windows assessed within 47 rooms (100%) will meet the BRE criteria for sunlight (APSH).

In consideration of the above, it is our view that the proposed development performs well against the BRE Guidelines for daylight and sunlight with only one window experiencing an alteration beyond the guideline criteria.

Appendix 01

Principles of Daylight and Sunlight



Background

The quality of amenity and open spaces is often stipulated within planning policy for protection or enhancement and is often a concern for adjoining properties and other interested parties.

Historically the department of environment provided guidance with the issues, and in this country, this role has now been taken on by the Building Research Establishment (BRE), the British Standards Institutions (BSI) and the Chartered Institute of Building Services Engineers (CIBSE). Fortunately they have collaborated in many areas, to provide as much unified advice as possible in the form of industry best practice.

Many local planning authorities consider daylight and sunlight an important factor for determining planning applications. Policies refer to both the protection of daylight and sunlight amenity within existing properties as well as the creation of proposed dwellings with high levels of daylight and sunlight amenities.

In terms of considering what is material, local authorities typically refer to the BRE guidelines and apply their criteria set out within. The guidelines were originally produced in 1991, but superseded by the BRE guidelines (2011) site layout planning for daylight and sunlight.

Where developers are seeking to maximise their development value, it is often in the area of daylight and sunlight issues that they may seek to push the boundaries. Particularly in London, there is a priority on the creation of more housing thus resulting in the densification of urban areas. Local authorities vary in their attitude of how flexible they can be with the degree of impact on the daylight and sunlight amenity enjoyed by neighbouring owners and it is one factor among many planning aspects considered when determining an application. In city centres where high density is common, the protection of amenity is more challenging and there are many factors that need to be taken into account: each case has to be considered on its own merits.

The BRE Guidelines

The guidelines are typically referred to for daylight and sunlight amenity issues, however they were not intended to be used as an instrument of planning policy. In the introduction of 'Site Layout Planning for Daylight and Sunlight (2011)', section 1.6 (page 1), states that:-

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design (see Section 5). In special circumstances the developer or Planning Authority may wish to use different target values. For example, in an historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings".

Again, the paragraph 2.2.3 (page 7) of the document states:-

"Note that numerical values given here are purely advisory. Different criteria may be used, based on the requirements for daylighting in an area viewed against other site layout constraints".



The numerical criteria suggested by the BRE are therefore designed to provide industry advice/guidance to plan/design with daylight in mind. Alternative values may be appropriate in certain circumstances such as highly dense urban areas around London, for e.g. the approach to creating alternative criteria is detailed within Appendix F of the BRE.

Measurement and Criteria for Daylight and Sunlight as set out in the BRE Guidelines

The BRE guidelines state that they are;

"intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedroom. Windows to bathrooms, toilets, garages need not be analysed."

They are therefore primarily designed to be used for residential properties however, the BRE guidelines continue to state that they may be applied to any existing non-residential buildings where there may be a reasonable expectation of daylight including; schools, hospitals, hostels, small workshop and some offices.

Daylight

In the first instance, if a proposed development falls beneath a 25 degree angle taken from the centre point of the lowest window, then the BRE suggests that no further analysis is required as there will be adequate sky light (i.e. sky visibility). This rule is applied when considering the scope of any assessments.

The BRE guidelines provide two methods for calculating daylight to existing surrounding properties:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) also referred to as daylight distribution

A further method, the Average Daylight Factor (ADF) is provided for calculating daylight within proposed properties. However, it is sometimes applied as a supplementary assessment for exiting surrounding properties.

Each method is described below:

Vertical Sky Component

Methodology

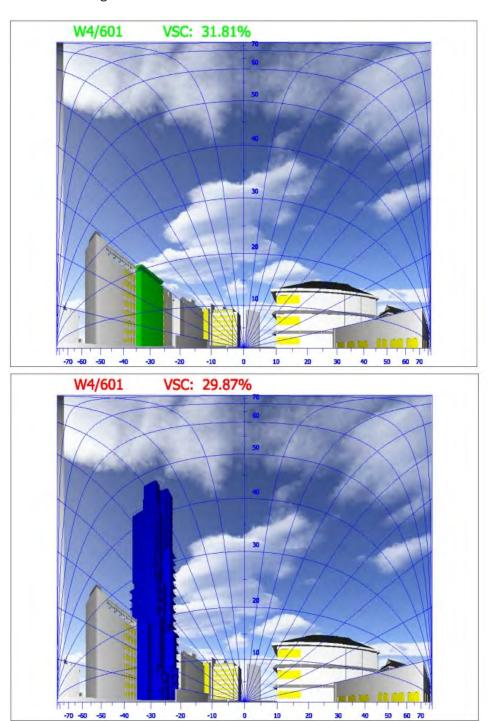
This is defined in the BRE as:-

"Ratio of that part of illuminance, at a point on a given vertical plane that, is received directly from a CIE standard overcast sky, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky."

This statement means, in practice that if one had a totally unobstructed view of the sky, looking in a single direction, then just under 40% of the complete hemisphere would be visible. The measurement of this vertical sky component is undertaken using two indicators, namely a skylight indicator and a transparent direction finder.



Alternatively a further method of measuring the VSC, which is easier to understand both in concept and analysis, is often more precise and can deal with more complex instructions, is that of the Waldram diagram.



The point of reference is the same as for the skylight indicator, at the centre of the outward window face. Effectively a snap shot is taken from that point of the sky in front of the window, before and after the obstruction is put in place together with all the relevant obstructions to it, i.e. the buildings.



An unobstructed sky from that point of reference would give a vertical sky component of 39.6%, corresponding to 50% of the hemisphere, and therefore the purpose of the diagram is to discover how much sky remains once obstructions exist in front of that point.

Criteria

The BRE Handbook provides criteria for:

- (a) New Development
- (b) Existing Buildings
- (c) Adjoining Development Land

(a) New Development

Paragraph 2.1.21 of the BRE states that:

"Obstructions can limit access to light from the sky. This can be checked by measuring or calculating the angle of visible sky 'theta', angle of obstruction or Vertical Sky Component (VSC) at the centre of the lowest window where daylight is required. If VSC is:

- at least 27% ('theta' is greater than 65 degrees, obstruction angle less than 25 degrees) conventional window design will usually give reasonable results.
- between 15% and 27% ('theta' is between 45 degrees and 65 degrees, obstruction angle between 25 degrees and 45 degrees) special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight.
- between 5% and 15% ('theta' is between 25 degrees and 45 degrees, obstruction angle between 45 degrees and 65 degrees) it is very difficult to provide adequate daylight unless very large windows are used.
- less than 5% ('theta' less than 25 degrees, obstruction angle more than 65 degrees) it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed."

(b) Existing Buildings

Para 2.2.21 (page 11) of the BRE states:

"If any part of a new building or extension measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25 degree to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value".

The VSC provides a quick and simple test which looks to give an early indication of the potential for light at the window face. However considered in isolation, it does not, in any fashion, indicate the quality of actual light within a space. It does not take into account the window size, the room size or room use. It helps by indicating that if there is an appreciable amount of sky visible from a given point there will be a reasonable potential for daylighting.



(c) Adjoining Development Land

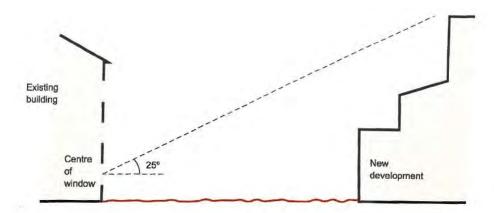
Paragraph 2.3.10 of the BRE guidelines states:

"in broad general terms, a development site next to a proposed new building will retain the potential for good diffuse daylighting provided that on each common boundary:

- (a) no new building, measured in a vertical section perpendicular to the boundary, from a point 1.6m above ground level, subtends an angle of more than 43 degrees to the horizontal:
- (b) or, If (a) is not satisfied, then all points 16.m above the boundary line are within 4m (measured along the boundary) of a point which has a VSC (looking towards the new building(s)) of 17% or more 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.

Alternative VSC criteria as per Appendix F of the BRE guidelines

The 27% VSC target criteria is based upon a sub-urban type environment whereby a 25 degree line was taken from the centre point on a ground floor window as shown below:



However, in city centre locations and urban areas where density levels are increasing, these values may not be considered appropriate. The BRE guidelines provide that "different targets may be used based on the special requirements of the proposed development or its location" (paragraph F1).

Appendix F of the BRE suggests several approaches as to how alternative targets may be considered including:

- Consented scheme use of an extant planning permission to establish alternative benchmark criteria for VSC and APSH. It is not appropriate to treat a permitted scheme in the same manner as an existing building and allow a 20% reduction beyond this. If the levels of daylight and sunlight retained are similar to a previously consented scheme then it follows that these levels should be considered acceptable again, notwithstanding other planning considerations.
- Mirror massing to ensure a development matches the height and proportions of existing buildings, the VSC and APSH targets could be set to those of a mirror image of the same height and size, an equal distance away from the boundary (paragraph F5).
- Consider surrounding context and existing obstruction angles as well as spacing to height ratios.



In addition, due to the requirements for external amenity space within local planning policies, many residential buildings are served by balconies. Balconies can restrict the view of the sky dome whereby even the modest obstruction may result in a large relative impact on the VSC. The BRE guidelines therefore provide that an assessment can be carried out comparing the levels of VSC with and without the balconies in place for both the existing and proposed scenarios, to establish whether it is the presence of the balcony or the size of the new obstruction that is the main factor in the loss of light (paragraph 2.2.11).

No Sky Line

Methodology

The NSL method is a measure of the distribution of daylight at the working plane within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.

It is similar to the VSC approach in that a reduction of 0.8 times in the area of sky visibility at the working plane may be deemed to be noticeable. It is however, very dependent upon knowing the actual room layouts or having a reasonable understanding of the likely layouts.

It is assessed by plotting the area of a room which can see the sky and which cannot, referred to as the NSL contour or daylight distribution contour. The contours assist in helping to understand the way the daylight is distributed within a room and the comparisons of existing and limitations of proposed circumstances within neighbouring properties. Like the VSC method, it relates to the amount of visible sky but does not consider the room use in its criteria, it is simply a test to assess the change in position of the No Sky Line, between the existing and proposed situation. It does take into account the number and size of windows to a room, but does not give any quantitative or qualitative assessment of the light in the rooms, only where sky can or cannot be seen.

Criteria

BS 8206 Part 2 (para 5.7) that the:

"uniformity of daylight is considered to be unsatisfactory if a significant part of the working plane (normally more than 20%) lies behind the no-sky line".

Therefore, it is implied that an NSL of at least 80% would be considered satisfactory in regards to deep rooms which are lit by windows on one side, the BRE Guidelines state (para, 2.2.10):

In regards to the alteration as a result of a proposed development or obstruction the BRE provide that the daylight may be adversely affected if "the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.".



Average Daylight Factor

Methodology

The Average Daylight Factor (ADF) is defined within the 2011 BRE Guidelines as:

'a ratio of total daylight flux incident on a reference area to the total area of the reference area, expressed as a percentage of outdoor luminance on a horizontal plane, due to an unobstructed sky of assumed or known luminance distribution'.

Whilst the BRE guidelines provide this measure as a tool to understand daylight within proposed dwellings not existing dwellings, if room layouts are known it can provide a useful supplementary measure of daylight and is often requested by many local authorities.

The ADF method of assessment considers:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass). A transmittance value of 0.8% is assumed for single glazing and 0.65% for double glazed windows;
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows); and
- The angle of visible sky reaching the window(s) in question

In addition, the ADF method makes allowance for the average reflectance of the internal surfaces of the room and of external obstruction (assumed to be 0.5 unless otherwise stated).

Criteria

The criteria for ADF is taken from the British Standard 8206 part II which gives the following criteria based on the room use:

- Bedroom 1% ADF
- Living room 1.5% ADF
- Kitchen 2% ADF

Where a room has multiple uses such as a living kitchen diner (LKD) or a studio apartment, the highest value is taken so in these cases the required ADF is 2%.

Sunlight

Methodology

The BS 8206 part 2 (section 5.2) states that:

"Provided that the entry of sunlight is properly controlled, it is generally welcome in most buildings in the UK. Dissatisfaction can arise as much from the permanent exclusion of sunlight as from its excess. The provision of sunlight is important in dwellings, particularly during winter months. Sunlight is especially valued in habitable rooms used for long periods during the day."



Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of Annual Probable Sunlight Hours (APSH). Where no obstruction exists the total APSH would amount to 1486 hours and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

The number of spots is calculated for both the whole year and also during the winter period (21st September to 21st March) prior to an obstruction and after the obstruction is put in place. This provides a percentage of APSH for each of the time periods for each window assessed. The 2011 BRE Guidelines note that:

- "In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon."
- "all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun":
- "If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked."
- "...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day".

When a room has multiple windows, not all may have a southerly orientation however, these windows may contribute to the levels of sunlight within a given room even if by 1-2% APSH. As well as the assessment on a window basis the BRE guidelines provide that an assessment can be undertaken on a room basis.

Whilst the emphasis of the BRE guidelines is in regards to living rooms, it is not always possible to determine the room uses within all of the properties assessed and therefore typically all windows or all rooms with windows facing within 90 degrees of due south and facing the site are assessed.

Criteria

The BRE provide that for existing buildings a window maybe adversely affected if a point at the centre of a window receives:

- Less than 25% of the APSH during the whole year, of which 5% APSH must be in the winter period; and
- Receives less than 0.8 times its former sunlight hours in either time period; and
- Has a reduction in sunlight for the whole year more than 4% APSH.

In terms of the assessment on a room basis the criteria applied is the same.

For proposed buildings the BRE provide (paragraph 3.1.15) that a dwelling or building which has a particular requirement for sunlight will appear reasonably sunlit provided:

• At least one main window faces within 90 degrees of due south; and



• Centre of one main living room window can receive 25% of APSH including 5% APSH in the winter months.

It continues that where groups of dwellings are planned the layout should aim to maximise the number of living rooms that meet the above recommendations.

Overshadowing

As well as daylight and sunlight amenity to neighbouring dwellings, planning policy often refers to the levels of overshadowing to amenity areas such as parks, public squares, playgrounds etc. The BRE guidelines provide two methods of calculation in regards to overshadowing which are as follows:

Sun Hours on Ground

Methodology

This method of overshadowing assessment uses the sun on ground indicator to determine the areas which receive direct sunlight and those which do not. This method applies to both new and existing areas of amenity space. The BRE Guidelines suggest that the Spring Equinox (21st March) is a suitable date for the assessment as this is the midpoint of the suns position throughout the year. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not.

Criteria

The BRE guidelines recommend that at least half of an amenity space should receive at least two hours of direct sunlight on March 21st. In regards to existing spaces where the existing sunlit area is less than half of the area, the area which receives two hours of sunlight should not be reduced by more than 20% (it should retain 0.8 times its former value).

Transient Overshadowing

The BRE guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment, shadow has been mapped at the following times of the year:

- 21st March (Spring equinox)
- 21st June (Summer solstice)
- 21st December (Winter solstice)

The September equinox is not assessed as this would provide the same results as those for March 21st.

For each of these dates the overshadowing is calculated at hourly intervals throughout the day however some images may not be present given the early sunset during the Winter period.

The BRE guidelines do not provide any criteria for transient overshadowing. Therefore the analysis provides a description of where additional shadow is cast as a result of a development with professional judgement to determine the effect comparing the shadow resulting from the proposed development against that of the existing site.



Light pollution and Solar Glare

Light pollution is defined as any light emitting from artificial sources into spaces where it is not wanted for example from offices into neighbouring residential properties where it could cause a nuisance. The ILP Guidance notes provide details of how to measure light pollution and criteria based on the urban density of the respective area to determine the acceptability of the light levels.

Solar glare is particularly important at pedestrian and road junctions as well as along railway lines where the glare can cause a temporary blinding to drivers or pedestrians. Glare can occur from reflective materials such as glazed areas or metal cladding on the facades. This assessment is therefore undertaken from viewpoints surrounding the site at junctions and positioned at the driver's eye level. Focal points are dictated by the location of signals or oncoming traffic.

Other Amenity Considerations

Daylight and sunlight is one factor among many under the heading of residential amenity considerations for any given development design or planning application; others include:

- outlook
- sense of enclosure
- privacy
- access to outdoor space e.g. balconies or communal garden/courtyard

Appendix 02 Drawings



IR01-Sketch Drawings (James Gorst Architects)

IR02-SURVEY-GroundSurveysLtd-040917

IR03-Topo dwg -James Gorst Architects 050917

IR05 - OS Map

IR06 - Context-2-120917

IR07 - James Gorst Architects - 17-1209

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: EXISTING SCENARIO SHOWN IN SEPIA

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:

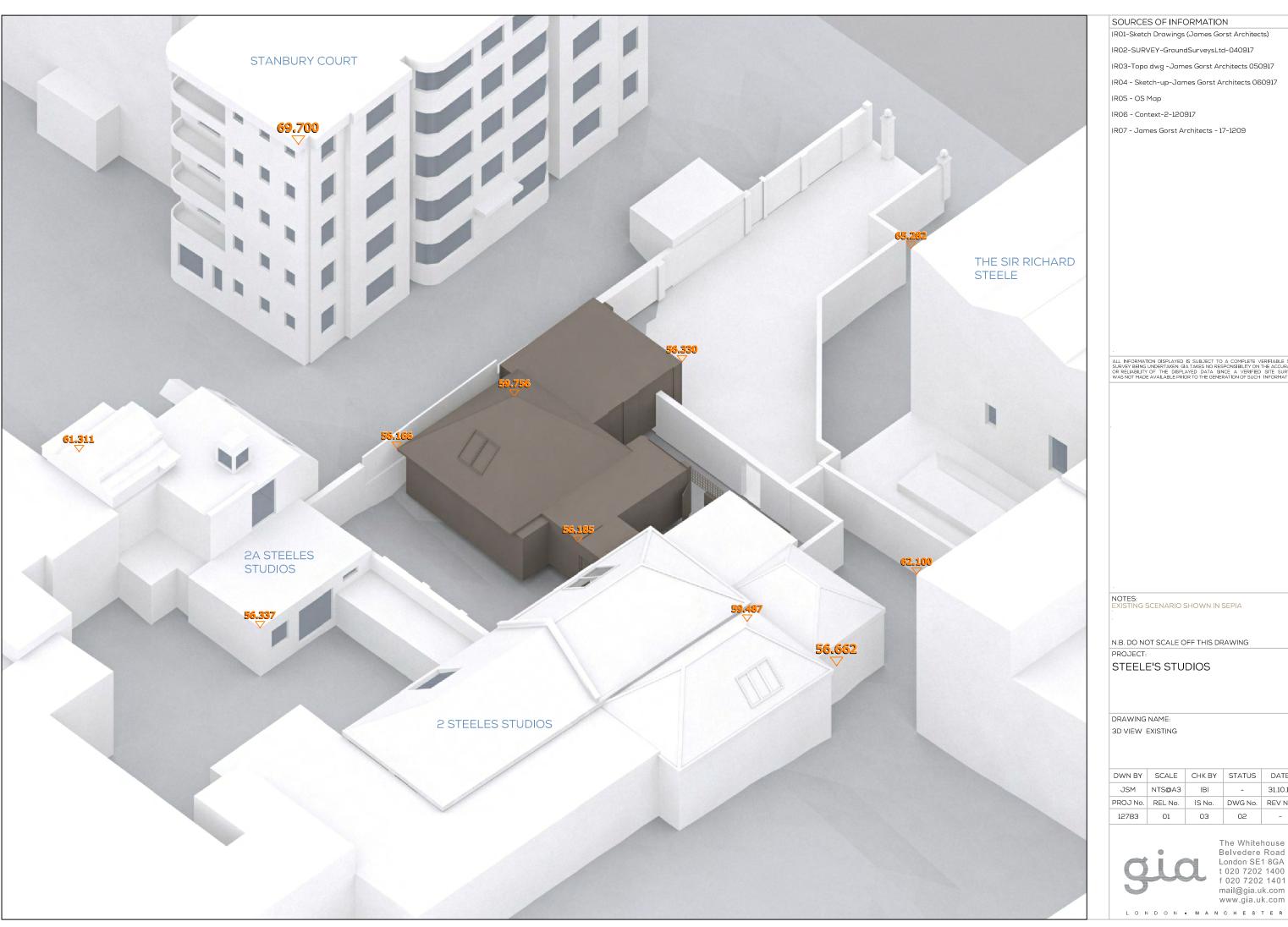
STEELE'S STUDIOS

DRAWING NAME: PLAN VIEW EXISTING

DWN BY	SCALE	CHK BY	STATUS	DATE		
JSM	1:150@A3	IBI	-	31.10.17		
PROJ No.	REL No.	IS No.	DWG No.	REV No.		
12783	01	03	01	-		



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IR01-Sketch Drawings (James Gorst Architects)

IR02-SURVEY-GroundSurveysLtd-040917

IR03-Topo dwg -James Gorst Architects 050917

IR05 - OS Map

IR06 - Context-2-120917

IR07 - James Gorst Architects - 17-1209

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NOTES: EXISTING SCENARIO SHOWN IN SEPIA

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:

STEELE'S STUDIOS

DRAWING NAME: 3D VIEW EXISTING

DWN BY	SCALE	CHK BY	STATUS	DATE					
JSM	NTS@A3	IBI	-	31.10.17					
PROJ No.	REL No.	IS No.	DWG No.	REV No.					
12783	01	03	02	-					



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JAMES GORST ARCHITECTS IRO1-SKETCH DRAWINGS (JAMES GORST ARCHITECTS)

IR03-TOPO DWG -JAMES GORST ARCHITECTS 050917

IR13-200418-JGA(UPDATED SCHEME INFO)

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

ALL HEIGHTS AND DIMENSIONS GIVEN IN mm AOD

N.B. DO NOT SCALE OFF THIS DRAWING

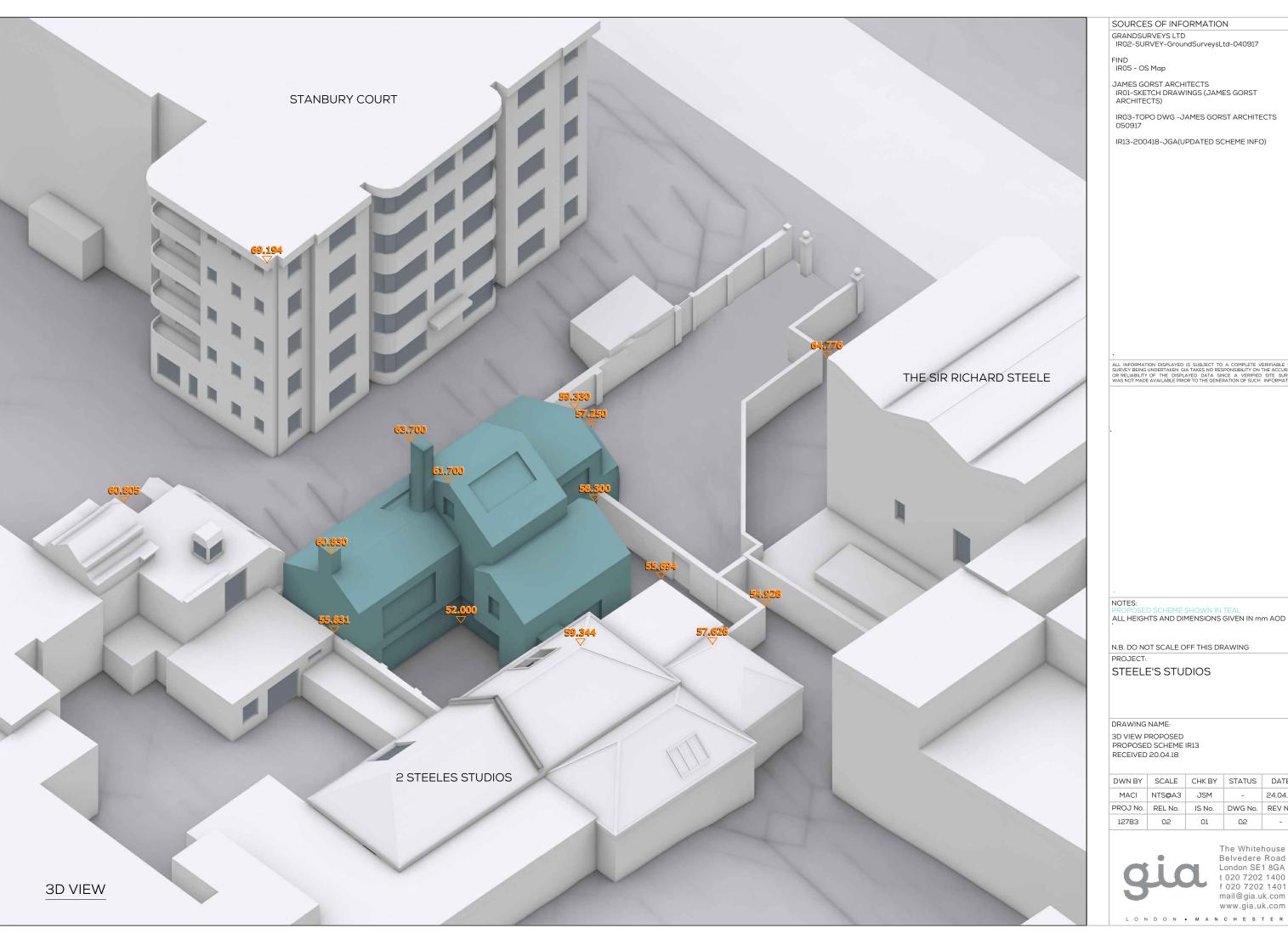
STEELE'S STUDIOS

PROPOSED SCHEME IR13

DWN BY	SCALE	CHK BY	STATUS	DATE				
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PROJ No.	REL No.	IS No.	DWG No.	REV No.				
12783	02	01	01	-				



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GRANDSURVEYS LTD IR02-SURVEY-GroundSurveysLtd-040917

JAMES GORST ARCHITECTS IRO1-SKETCH DRAWINGS (JAMES GORST ARCHITECTS)

IR03-TOPO DWG -JAMES GORST ARCHITECTS 050917

IR13-200418-JGA(UPDATED SCHEME INFO)

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

ALL HEIGHTS AND DIMENSIONS GIVEN IN mm AOD

N.B. DO NOT SCALE OFF THIS DRAWING

STEELE'S STUDIOS

3D VIEW PROPOSED PROPOSED SCHEME IR13

RECEIVED 20.04.18

DWN BY	SCALE	CHK BY	STATUS	DATE
MACI	NTS@A3	JSM	-	24.04.18
PROJ No.	REL No.	IS No.	DWG No.	REV No.
12783	02	01	02	-



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Appendix 03

Daylight and Sunlight Results

Vertical Sky Component (VSC) No Skyline (NSL) Annual Probable Sunlight Hours (APSH)

24,04,2010					VERTICAL	_SKY COMPC	NFNT		NO SKY I I	NO SKY LINE				ANNUAL PROBABLE SUNLIGHT HOURS					
FLOOR	ROOM	PROPERTY	ROOM	WINDOW	EXISTING			LOSS	EXISTING		ROPOSED LOSS	LOSS	EXISTING		PROPOSED		LOSS %		
		TYPE	USE		%	%		%	%	%	SQM	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	
TANDU	DV COLIDT																		
OO	RY COURT R1	RESIDENTIAL	UNKNOWN-RESI	W2/F00	34.1	34	0.1	0.3%	99.8	99.8	0.0	0.0%	75	26	75	26	0.0%	0.0%	
00	KI	RESIDENTIAL	UNKNOWN-RESI	W3/F00	33.8	33.7	0.1	0.3%	33.0	33.0	0.0	0.076	72	23	72	23	0.0%	0.0%	
			UNKNOWN-RESI	W1/F00	19.6	19.6	0.1	0.0%					29	5	29	5	0.0%	0.0%	
	R2	RESIDENTIAL	UNKNOWN-RESI	W4/F00	34.1	33.9	0.2	0.6%	91	91	0.0	0.0%	73	24	73	24	0.0%	0.0%	
	R3	RESIDENTIAL	UNKNOWN-RESI	W5/F00	33.8	33.5	0.3	0.9%	99.7	99.7	0.0	0.0%	73	23	73	23	0.0%	0.0%	
			UNKNOWN-RESI	W6/F00	33.5	33	0.5	1.5%					72	22	72	22	0.0%	0.0%	
			UNKNOWN-RESI	W7/F00	33.1	28.8	4.3	13.0%					64	21	60	18	6.3%	14.3%	
	R4	RESIDENTIAL	UNKNOWN-RESI	W8/F00	33.9	29.6	4.3	12.7%	99.4	99.4	0.0	0.0%	65	22	58	15	10.8%	31.8%	
	R5	RESIDENTIAL	UNKNOWN-RESI	W9/F00	22	19	3	13.6%	97.4	97.4	0.0	0.0%	55	22	51	18	7.3%	18.2%	
			UNKNOWN-RESI	W11/F00	33	29.8	3.2	9.7%					63	21	60	18	4.8%	14.3%	
			UNKNOWN-RESI	W10/F00	31.8	27.7	4.1	12.9%					66	21	62	17	6.1%	19.0%	
	R6	RESIDENTIAL	UNKNOWN-RESI	W12/F00	32.8	31.2	1.6	4.9%	97.4	97.4	0.0	0.0%	58	19	57	18	1.7%	5.3%	
			UNKNOWN-RESI	W13/F00	30.9	30.6	0.3	1.0%					44	12	43	11	2.3%	8.3%	
			UNKNOWN-RESI	W14/F00	14	14	0	0.0%					18	0	18	0	0.0%	-	
	R7	RESIDENTIAL	UNKNOWN-RESI	W15/F00	33.4	32.6	0.8	2.4%	99.4	99.4	0.0	0.0%	62	20	61	19	1.6%	5.0%	
	R8	RESIDENTIAL	UNKNOWN-RESI	W16/F00	33	32.4	0.6	1.8%	99.8	99.8	0.0	0.0%	58	17	58	17	0.0%	0.0%	
			UNKNOWN-RESI	W17/F00	36	36	0	0.0%					19	0	19	0	0.0%	-	
=01	R1	RESIDENTIAL	UNKNOWN-RESI	W2/F01	21.4	21.4	0	0.0%	98.4	98.4	0.0	0.0%	40	19	40	19	0.0%	0.0%	
			UNKNOWN-RESI	W3/F01	14.1	14.1	0	0.0%					28	9	28	9	0.0%	0.0%	
			UNKNOWN-RESI	W1/F01	21.1	21.1	0	0.0%					30	5	30	5	0.0%	0.0%	
	R2	RESIDENTIAL	UNKNOWN-RESI	W4/F01	37.7	37.7	0	0.0%	94.5	94.5	0.0	0.0%	76	26	76	26	0.0%	0.0%	
	R3	RESIDENTIAL	UNKNOWN-RESI	W5/F01	37.7	37.7	0	0.0%	99.8	99.8	0.0	0.0%	76	26	76	26	0.0%	0.0%	
			UNKNOWN-RESI	W6/F01	37.8	37.7	0.1	0.3%					76	26	76	26	0.0%	0.0%	
			UNKNOWN-RESI	W7/F01	36.5	34.6	1.9	5.2%					68	23	65	20	4.4%	13.0%	
	R4	RESIDENTIAL	UNKNOWN-RESI	W8/F01	36.9	35.2	1.7	4.6%	99.4	99.4	0.0	0.0%	69	24	67	22	2.9%	8.3%	
	R5	RESIDENTIAL	UNKNOWN-RESI	W9/F01	23.9	22.7	1.2	5.0%	97.4	97.4	0.0	0.0%	56	23	56	23	0.0%	0.0%	
			UNKNOWN-RESI	W11/F01	36.7	35.4	1.3	3.5%					69	24	69	24	0.0%	0.0%	
			UNKNOWN-RESI	W10/F01	34.7	33.1	1.6	4.6%					70	24	70	24	0.0%	0.0%	
	R6	RESIDENTIAL	UNKNOWN-RESI	W13/F01	36.5	35.5	1	2.7%	100	100	0.0	0.0%	68	23	68	23	0.0%	0.0%	
	R7	RESIDENTIAL	UNKNOWN-RESI	W14/F01	36.3	35.6	0.7	1.9%	97.4	97.4	0.0	0.0%	68	23	68	23	0.0%	0.0%	
			UNKNOWN-RESI	W15/F01	33.1	33	0.1	0.3%					49	14	49	14	0.0%	0.0%	
			UNKNOWN-RESI	W17/F01	14.8	14.8	0	0.0%					22	2	22	2	0.0%	0.0%	
	R8	RESIDENTIAL	UNKNOWN-RESI	W18/F01	35.9	35.5	0.4	1.1%	99.4	99.4	0.0	0.0%	63	20	63	20	0.0%	0.0%	
	R9	RESIDENTIAL	UNKNOWN-RESI	W19/F01	35.3	35	0.3	0.8%	99.8	99.8	0.0	0.0%	59	18	59	18	0.0%	0.0%	
			UNKNOWN-RESI	W20/F01	37.4	37.4	0	0.0%					20	1	20	1	0.0%	0.0%	
-02	R1	RESIDENTIAL	UNKNOWN-RESI	W2/F02	23.1	23.1	0	0.0%	98.4	98.4	0.0	0.0%	44	21	44	21	0.0%	0.0%	
			UNKNOWN-RESI	W3/F02	15.4	15.4	0	0.0%					31	10	31	10	0.0%	0.0%	
			UNKNOWN-RESI	W1/F02	22.7	22.7	0	0.0%					31	6	31	6	0.0%	0.0%	
	R2	RESIDENTIAL	UNKNOWN-RESI	W4/F02	38.8	38.8	0	0.0%	90.8	90.8	0.0	0.0%	77	27	77	27	0.0%	0.0%	
	R3	RESIDENTIAL	UNKNOWN-RESI	W5/F02	38.8	38.8	0	0.0%	99.7	99.7	0.0	0.0%	77	27	77	27	0.0%	0.0%	
			UNKNOWN-RESI	W6/F02	38.9	38.9	0	0.0%					77	27	77	27	0.0%	0.0%	
	D.4	DECIDENTIAL	UNKNOWN-RESI	W7/F02	37.9	37.7	0.2	0.5%	00.4	00.4	0.0	0.00/	68	23	68	23	0.0%	0.0%	
	R4	RESIDENTIAL	UNKNOWN-RESI	W8/F02	38.4	38.2	0.2	0.5%	99.4	99.4	0.0	0.0%	69	24	69	24	0.0%	0.0%	
	R5	RESIDENTIAL	UNKNOWN-RESI UNKNOWN-RESI	W9/F02	24.3	24.1	0.2	0.8%	97.5	97.5	0.0	0.0%	56	23	56	23	0.0%	0.0%	
			UNKNOWN-RESI	W11/F02 W10/F02	38.4	38.3	0.1	0.3%					69	24	69	24	0.0%	0.0%	
	R6	RESIDENTIAL	UNKNOWN-RESI	W10/F02 W12/F02	35.9 38.3	35.7 38.2	0.2	0.6%	100	100	0.0	0.0%	70 69	24	70 69	24	0.0%	0.0%	
		RESIDENTIAL	UNKNOWN-RESI			38.2	0.1		97.4	97.4							0.0%		
	R7	KESIDENTIAL	UNKNOWN-RESI	W13/F02	38.2		0	0.0%	37.4	37.4	0.0	0.0%	69 50	24 15	69 50	24		0.0%	
			UNKNOWN-RESI	W14/F02 W15/F02	35.1 15.6	35.1 15.6	0	0.0%					50 23	15 3	50 23	15 3	0.0%	0.0%	
	R8	RESIDENTIAL	UNKNOWN-RESI	W15/F02 W16/F02	37.9	37.8	0.1	0.0%	99.4	99.4	0.0	0.0%	66	22	66	22	0.0%	0.0%	
	R9	RESIDENTIAL	UNKNOWN-RESI	W17/F02	37.2	37.1	0.1	0.3%	99.8	99.8	0.0	0.0%	61	19	61	19	0.0%	0.0%	

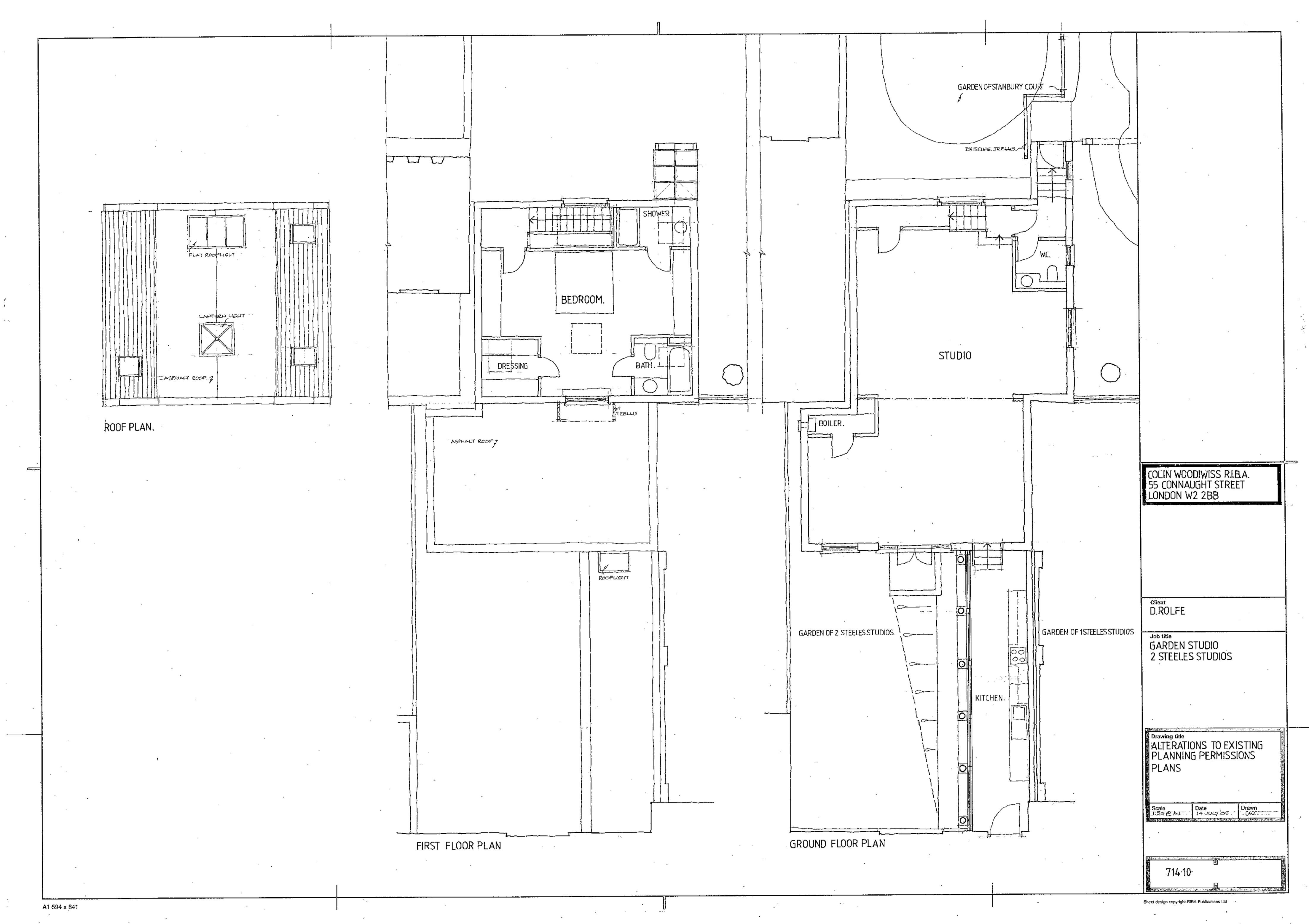
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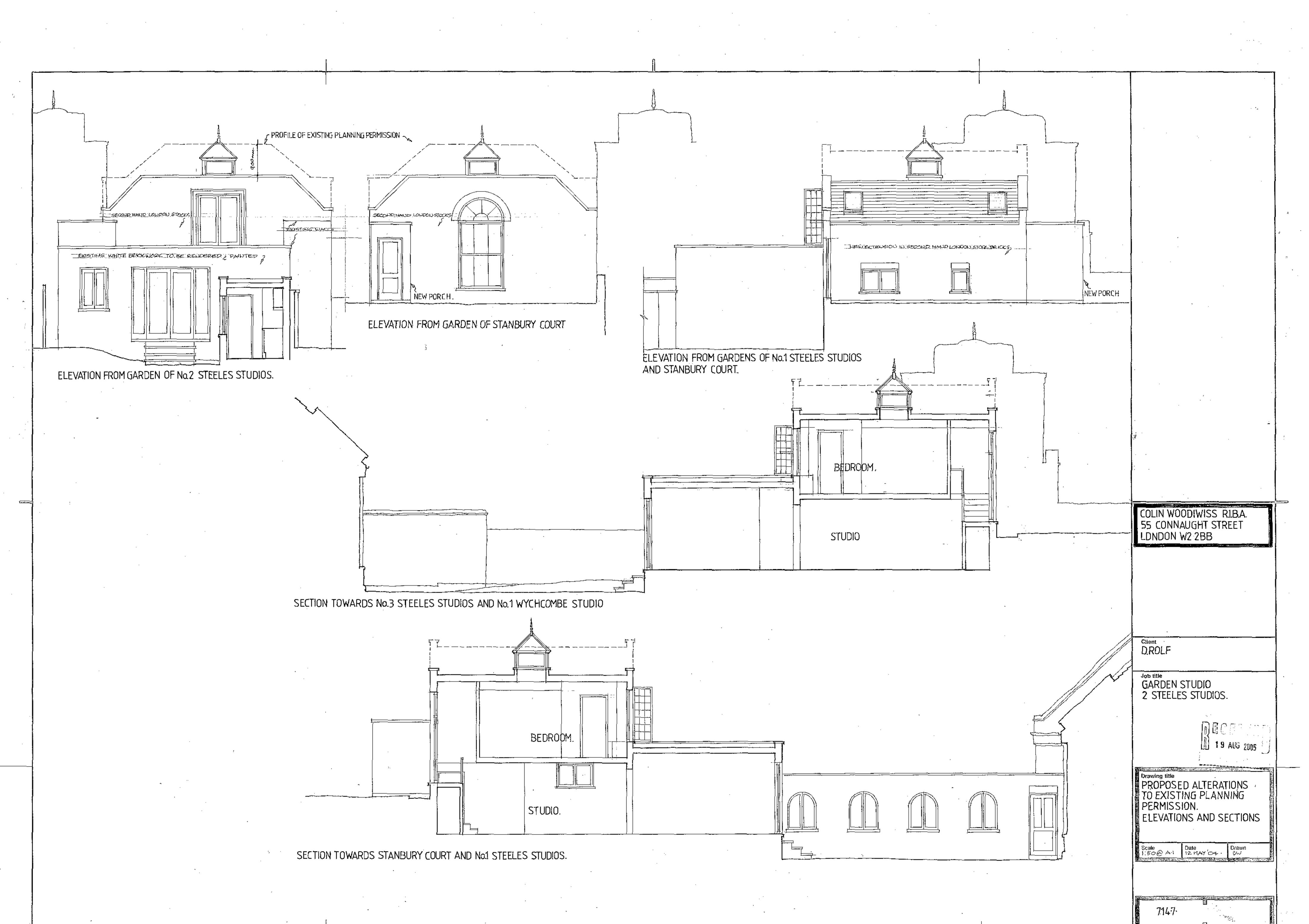
04/2018			kelease uz, issue ui															
						SKY COMPON			NO SKY LII				ANNUAL PROBABLE S					
FLOOR	ROOM	PROPERTY	ROOM	WINDOW	EXISTING	PROPOSE	D LOSS	LOSS	EXISTING	PROPOSED		LOSS	EXISTING		PROPOSED		LOSS %	LAWAITED
		TYPE	USE		%	%		%	%	%	SQM	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER
F A NIDI IF	Y COURT (Continued)																	
ANDUR	r Cooki (continued)		UNKNOWN-RESI	W18/F02	38.5	38.5	0	0.0%					22	2	22	2	0.0%	0.0%
03	R1	RESIDENTIAL	UNKNOWN-RESI	W2/F03	23.7	23.7	0	0.0%	98.4	98.4	0.0	0.0%	44	21	44	21	0.0%	0.0%
<i>J J</i>	KI	RESIDENTIAL	UNKNOWN-RESI	W3/F03	15.9	15.9	0	0.0%	30.4	30.4	0.0	0.0%	31	10	31	10	0.0%	0.0%
			UNKNOWN-RESI	W1/F03	25.8	25.8	0	0.0%					31	6	31	6	0.0%	0.0%
	R2	RESIDENTIAL	UNKNOWN-RESI	W4/F03	39	39	0	0.0%	90.8	90.8	0.0	0.0%	75	27	75	27	0.0%	0.0%
	R3	RESIDENTIAL	UNKNOWN-RESI	W5/F03	39	39	0	0.0%	99.8	99.8	0.0	0.0%	77	27	77	27	0.0%	0.0%
			UNKNOWN-RESI	W6/F03	39.1	39.1	0	0.0%					77	27	77	27	0.0%	0.0%
			UNKNOWN-RESI	W7/F03	38.6	38.6	0	0.0%					68	23	68	23	0.0%	0.0%
	R4	RESIDENTIAL	UNKNOWN-RESI	W8/F03	39.2	39.2	0	0.0%	99.4	99.4	0.0	0.0%	69	24	69	24	0.0%	0.0%
	R5	RESIDENTIAL	UNKNOWN-RESI	W9/F03	24.4	24.4	0	0.0%	97.5	97.5	0.0	0.0%	56	23	56	23	0.0%	0.0%
			UNKNOWN-RESI	W11/F03	39.3	39.3	0	0.0%					69	24	69	24	0.0%	0.0%
			UNKNOWN-RESI	W10/F03	36.4	36.4	0	0.0%					69	24	69	24	0.0%	0.0%
	R7	RESIDENTIAL	UNKNOWN-RESI	W12/F03	39.3	39.3	0	0.0%	100	100	0.0	0.0%	69	24	69	24	0.0%	0.0%
	R8	RESIDENTIAL	UNKNOWN-RESI	W13/F03	39.3	39.3	0	0.0%	97.4	97.4	0.0	0.0%	69	24	69	24	0.0%	0.0%
			UNKNOWN-RESI	W14/F03	36.4	36.4	0	0.0%					50	15	50	15	0.0%	0.0%
			UNKNOWN-RESI	W15/F03	16.1	16.1	0	0.0%					23	3	23	3	0.0%	0.0%
	R9	RESIDENTIAL	UNKNOWN-RESI	W16/F03	39.1	39.1	0	0.0%	99.4	99.4	0.0	0.0%	64	22	64	22	0.0%	0.0%
	R10	RESIDENTIAL	UNKNOWN-RESI	W17/F03	38.4	38.4	0	0.0%	99.8	99.8	0.0	0.0%	62	20	62	20	0.0%	0.0%
			UNKNOWN-RESI	W18/F03	39.2	39.2	0	0.0%					23	3	23	3	0.0%	0.0%
4	R1	RESIDENTIAL	UNKNOWN-RESI	W2/F04	15.7	15.7	0	0.0%	98.9	98.9	0.0	0.0%	24	15	24	15	0.0%	0.0%
			UNKNOWN-RESI	W3/F04	10.6	10.6	0	0.0%					16	9	16	9	0.0%	0.0%
			UNKNOWN-RESI	W1/F04	31.9	31.9	0	0.0%					26	6	26	6	0.0%	0.0%
	R2	RESIDENTIAL	UNKNOWN-RESI	W4/F04	29.2	29.2	0	0.0%	82.3	82.3	0.0	0.0%	57	24	57	24	0.0%	0.0%
	R3	RESIDENTIAL	UNKNOWN-RESI	W5/F04	29.2	29.2	0	0.0%	99.7	99.7	0.0	0.0%	57	24	57	24	0.0%	0.0%
			UNKNOWN-RESI	W6/F04	29.5	29.5	0	0.0%					59	26	59	26	0.0%	0.0%
			UNKNOWN-RESI	W7/F04	35.3	35.3	0	0.0%					62	23	62	23	0.0%	0.0%
	R4	RESIDENTIAL	UNKNOWN-RESI	W8/F04	38.3	38.3	0	0.0%	99.4	99.4	0.0	0.0%	67	24	67	24	0.0%	0.0%
	R5	RESIDENTIAL	UNKNOWN-RESI	W9/F04	22.4	22.4	0	0.0%	97.5	97.5	0.0	0.0%	51	22	51	22	0.0%	0.0%
			UNKNOWN-RESI	W11/F04	36.6	36.6	0	0.0%					62	23	62	23	0.0%	0.0%
	DC	DECIDENTIAL	UNKNOWN-RESI	W10/F04	34.7	34.7	0	0.0%	100	100	0.0	0.00/	71	24	71	24	0.0%	0.0%
	R6	RESIDENTIAL	UNKNOWN-RESI	W12/F04	36.5	36.5	0	0.0%	100	100	0.0	0.0%	61	22	61	22	0.0%	0.0%
	R7	RESIDENTIAL	UNKNOWN-RESI	W13/F04	36.6	36.6	0	0.0%	97.4	97.4	0.0	0.0%	60	21	60	21	0.0%	0.0%
			UNKNOWN-RESI UNKNOWN-RESI	W14/F04 W15/F04	35.2 15.3	35.2	0	0.0%					48	15	48	15	0.0%	0.0%
	R8	RESIDENTIAL	UNKNOWN-RESI	W16/F04	38.5	15.3 38.5	0	0.0%	99.4	99.4	0.0	0.0%	23 64	3 21	23 64	3	0.0%	0.0%
	R9	RESIDENTIAL	UNKNOWN-RESI	W17/F04	30.2	30.2	0	0.0%	99.8	99.8	0.0	0.0%	51	20	51	21	0.0%	0.0%
	R9	RESIDENTIAL	UNKNOWN-RESI	W18/F04	34.8	34.8	0	0.0%	33.0	33.0	0.0	0.0%	15	3	15	3	0.0%	0.0%
			ONKINO WIN-RESI	W10/1 04	34.0	34.0	O	0.0%					10	3	15	3	0.0%	0.0%
TEELE	S STUDIOS																	
0	R1	RESIDENTIAL	UNKNOWN-RESI	W1/F00	26.7	26.2	0.5	1.9%	97.8	97.8	0.0	0.0%	Ν/Δ	N/Δ	N/A	N/A	N/A	N/A
	TVI	NEOIDEI VIII NE	UNKNOWN-RESI	W2/F01 / Inc (2) (dup.)	78.1	77.8	0.3	0.4%	07.0	07.0	0.0	0.070						
			UNKNOWN-RESI	W2/F00	29.7	29.2	0.5	1.7%										
	R1	RESIDENTIAL	UNKNOWN-RESI	W2/F01 / Inc (2)	78.1	77.8	0.3	0.4%	72	72	0.0	0.0%						
STEEL	ES STUDIOS																	
)	R1	RESIDENTIAL	LIVING ROOM	W1/F00	22.7	18.1	4.6	20.3%	89.7	85.3	2.7	5.0%	15	0	1	0	93.3%	-
			LIVING ROOM	W4/F00	28.8	28.6	0.2	0.7%					59	17	59	17	0.0%	0.0%
			LIVING ROOM	W5/F00	27.2	26.8	0.4	1.5%					57	16	57	16	0.0%	0.0%
			LIVING ROOM	W6/F00	30.4	27.5	2.9	9.5%					63	19	61	19	3.2%	0.0%
_	R3	RESIDENTIAL	BEDROOM	W3/F01	29.3	28.4	0.9	3.1%	99.6	99.6	0.0	0.0%	22	2	22	2	0.0%	0.0%
			BEDROOM	W4/F01	29.2	29.2	0	0.0%					25	3	25	3	0.0%	0.0%
			BEDROOM	W5/F01	36.6	36.6	0	0.0%					71	25	71	25	0.0%	0.0%

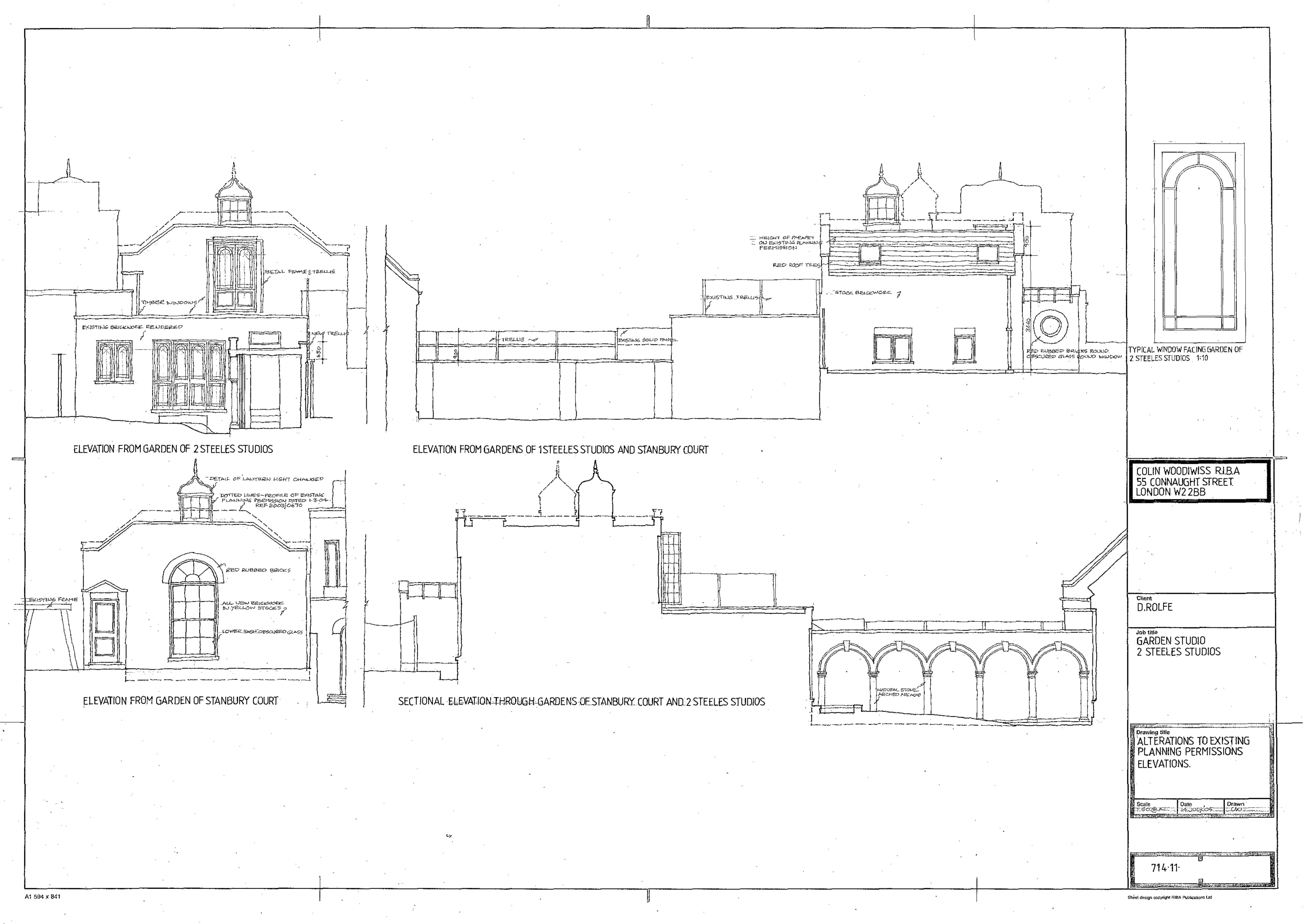
					VERTICAL SKY COMPONENT				SKY COMPONENT NO SKY LINE				ANNUAL PROBABLE SUNLIGHT HOURS					
FLOOR	ROOM	PROPERTY	ROOM	WINDOW	EXISTING	PROPOSED	LOSS	LOSS	EXISTING	PROPOSED	LOSS	LOSS	EXISTING		PROPOSED)	LOSS %	
		TYPE	USE		%	%		%	%	%	SQM	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER
2a STEELES	S STUDIOS (Continued)																	
			BEDROOM	W6/F01	38.1	37.1	1	2.6%					68	23	67	23	1.5%	0.0%
			BEDROOM	W7/F00	36.1	32.6	3.5	9.7%					68	23	62	23	8.8%	0.0%
THE SIR RIC	HARD STEELE (97 HOVERS	STOCK HILL)																
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	32.4	32.2	0.2	0.6%	96.8	96.8	0.0	0.0%						
	R2	RESIDENTIAL	BEDROOM	W2/F01	31.6	31.2	0.4	1.3%	95.7	95.7	0.0	0.0%						
	R4	RESIDENTIAL	BEDROOM	W4/F01	29.2	28.9	0.3	1.0%	83	83	0.0	0.0%	50	10	49	10	2.0%	0.0%

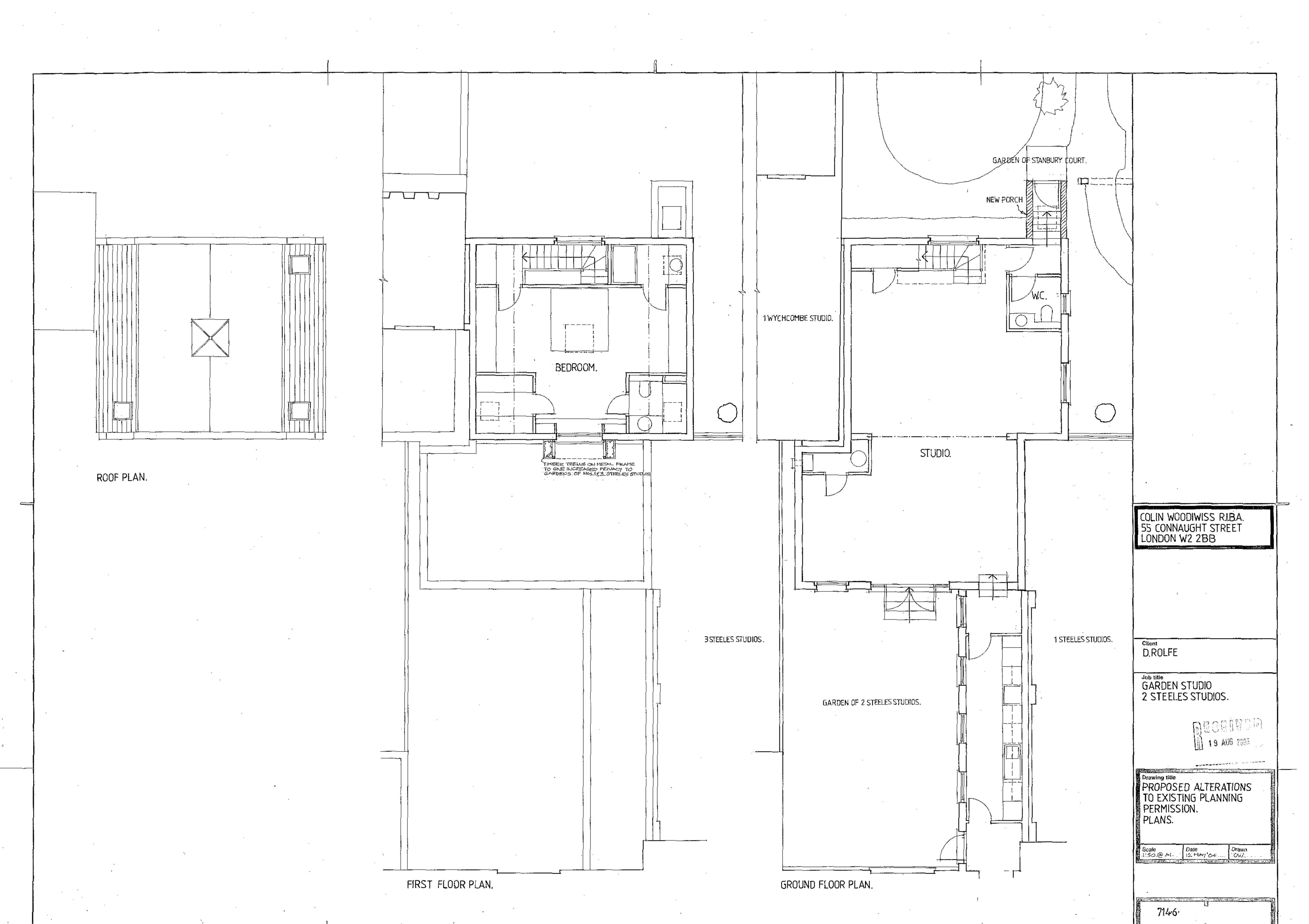
Appendix 04

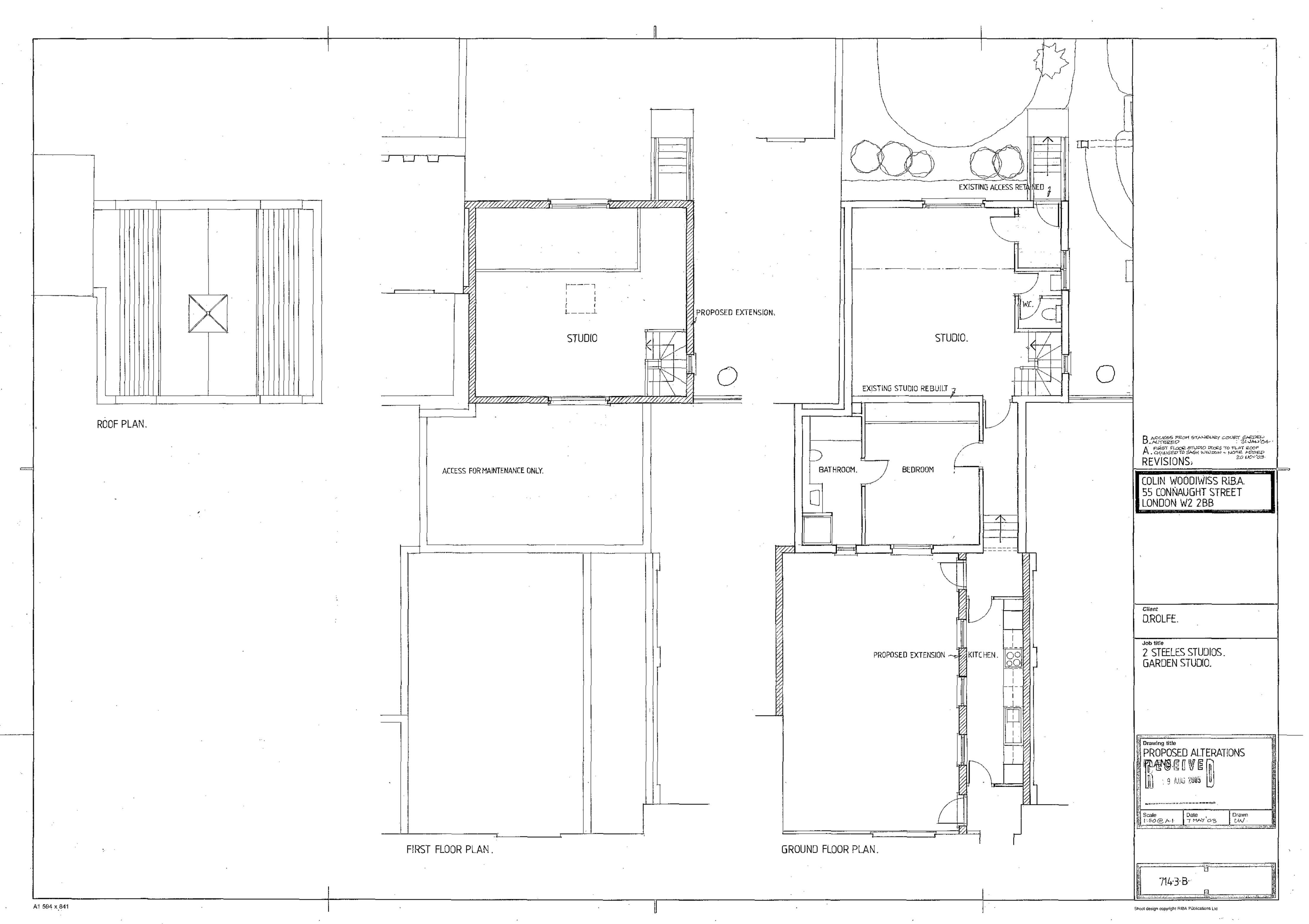
Floorplans

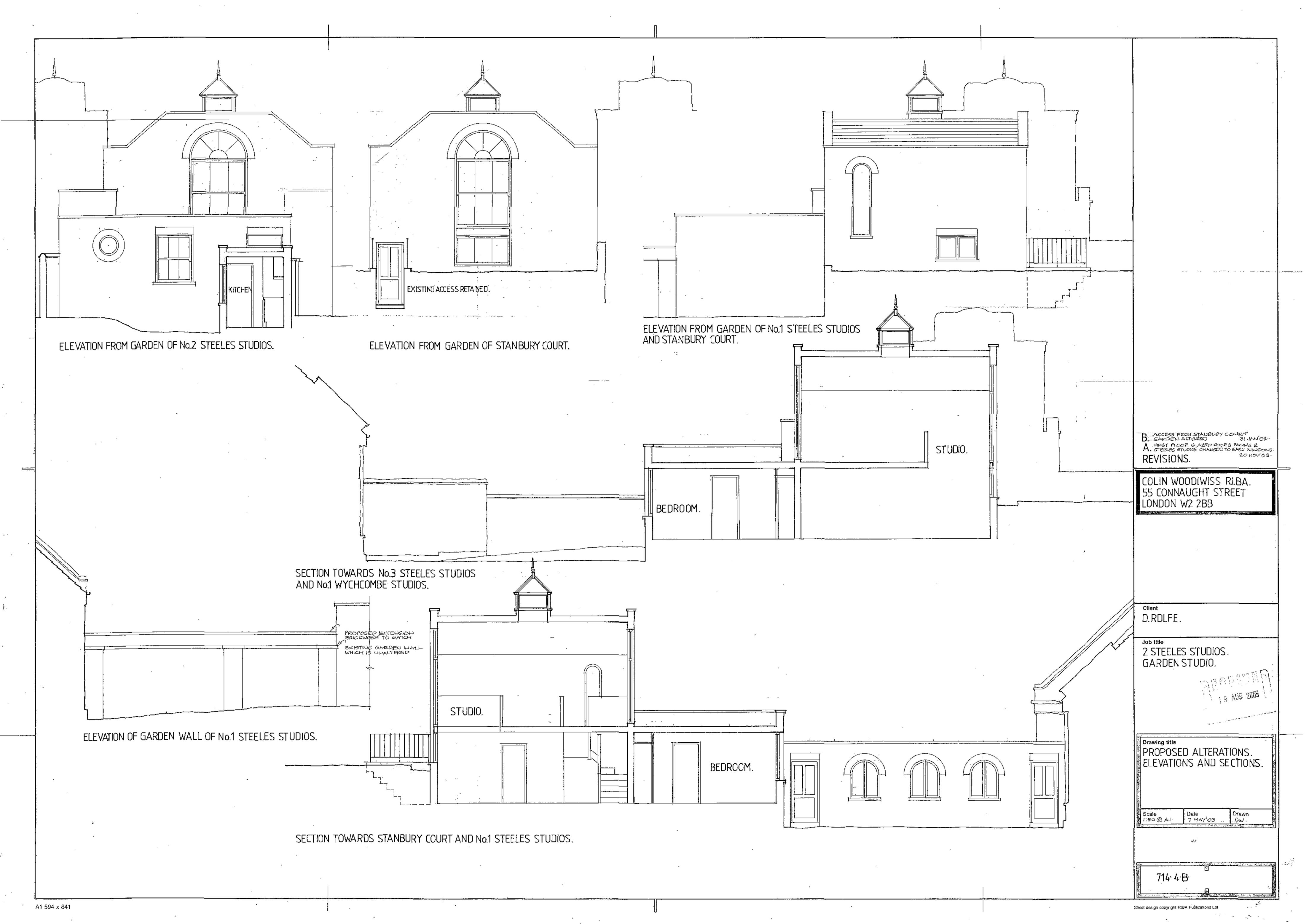












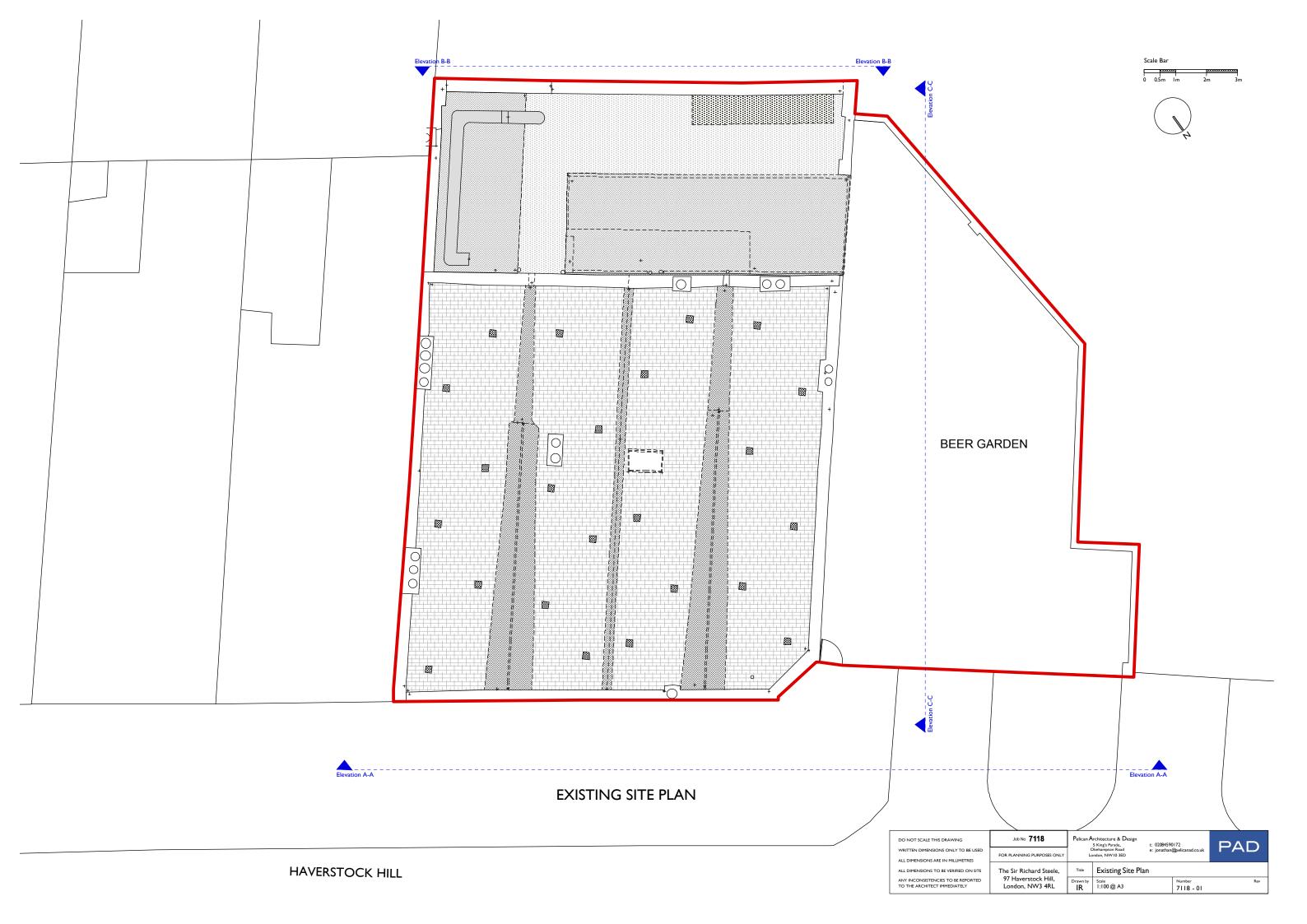
The Sir Richard Steele



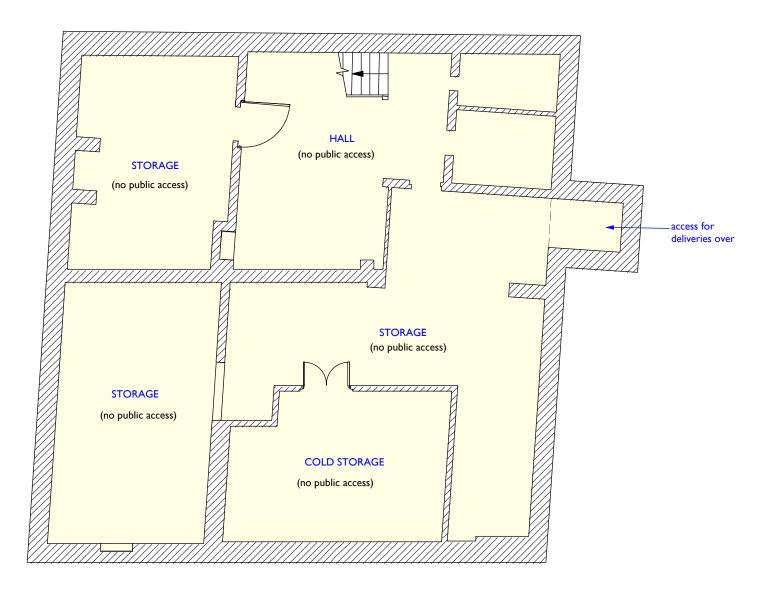
THE SIR RICHARD STEELE, 97 HAVERSTOCK HILL, NW3 4RL

FEBRUARY 2016

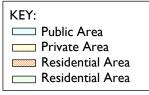




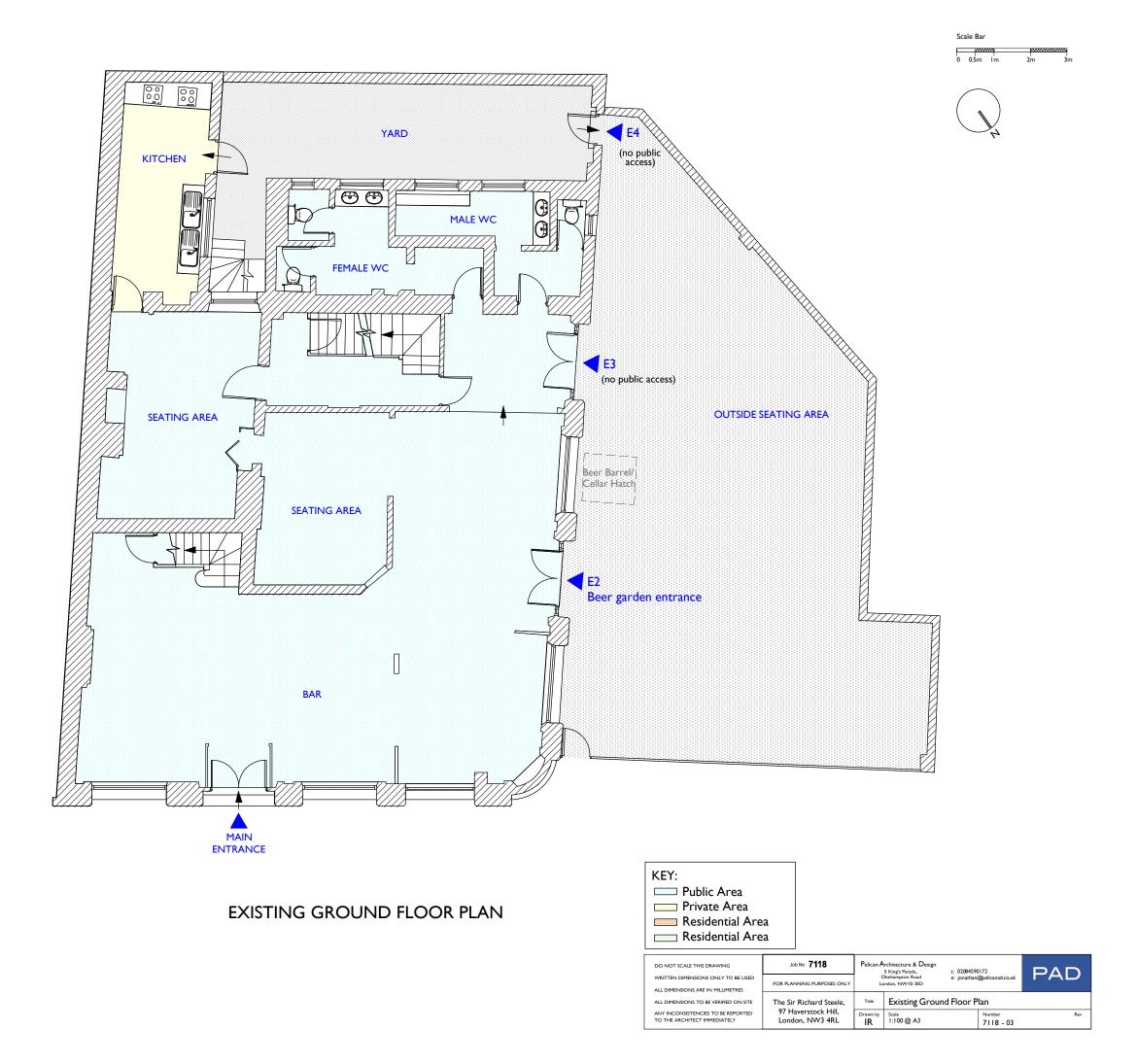


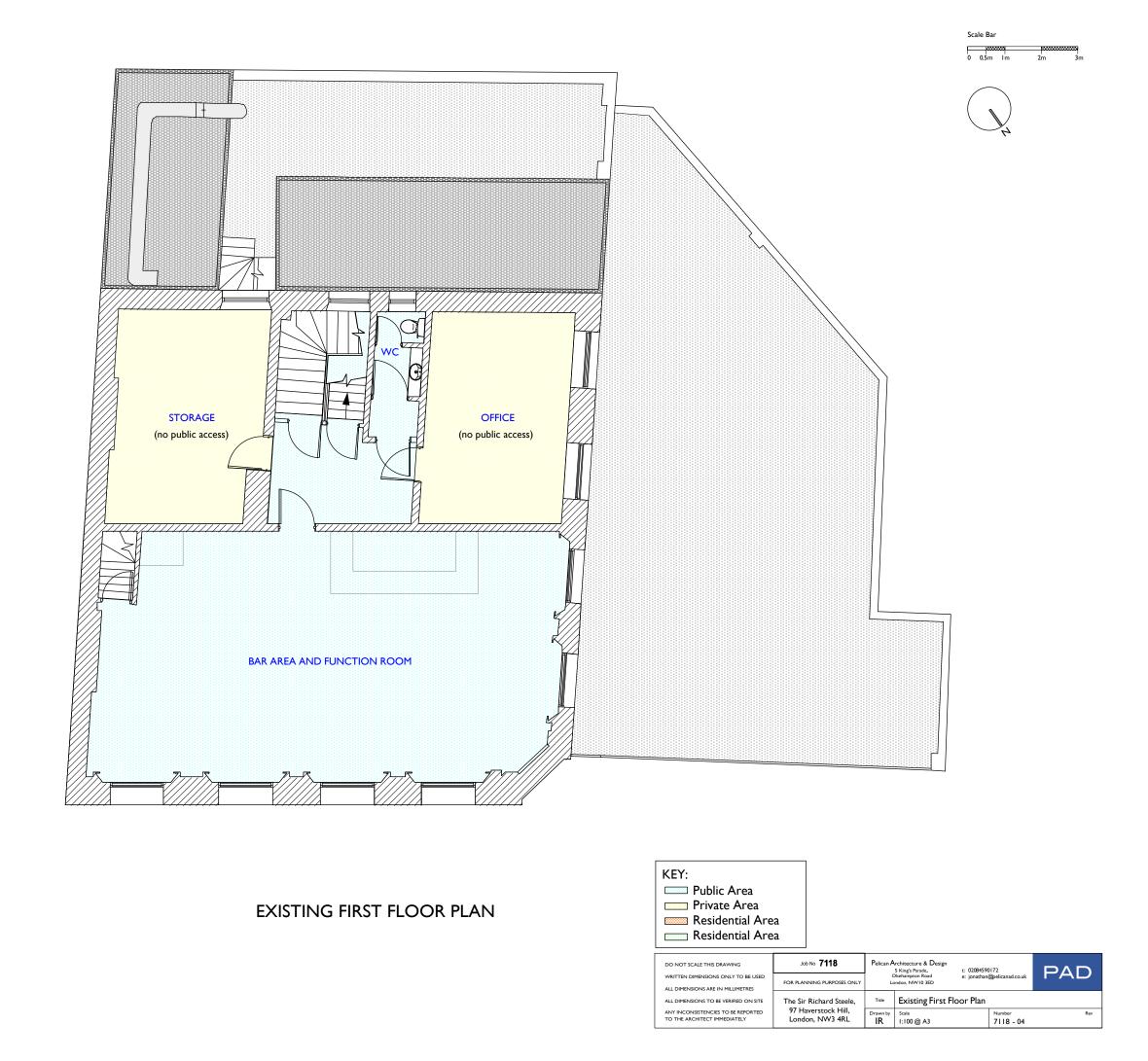


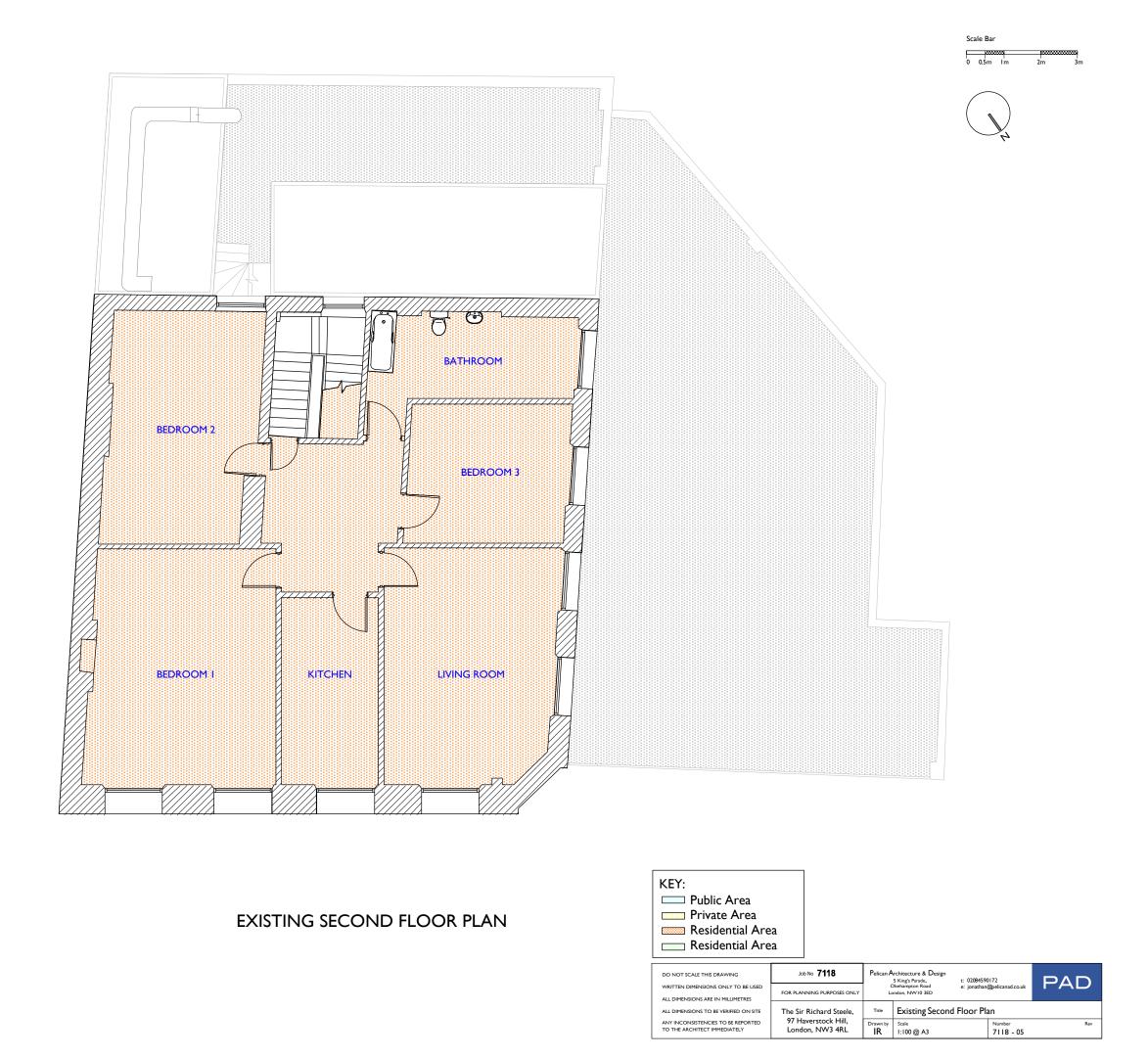
EXISTING BASEMENT PLAN



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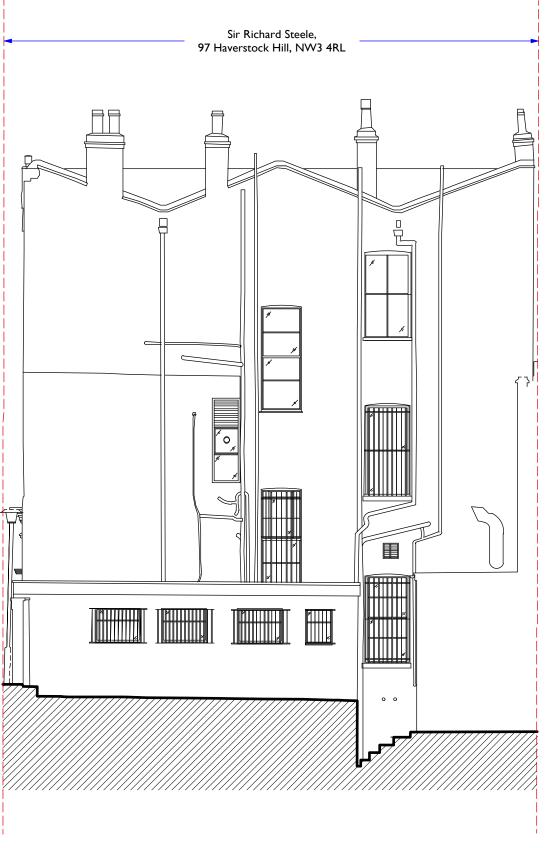






EXISTING FRONT ELEVATION

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ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Existing Front Elevation A-A		A-A			
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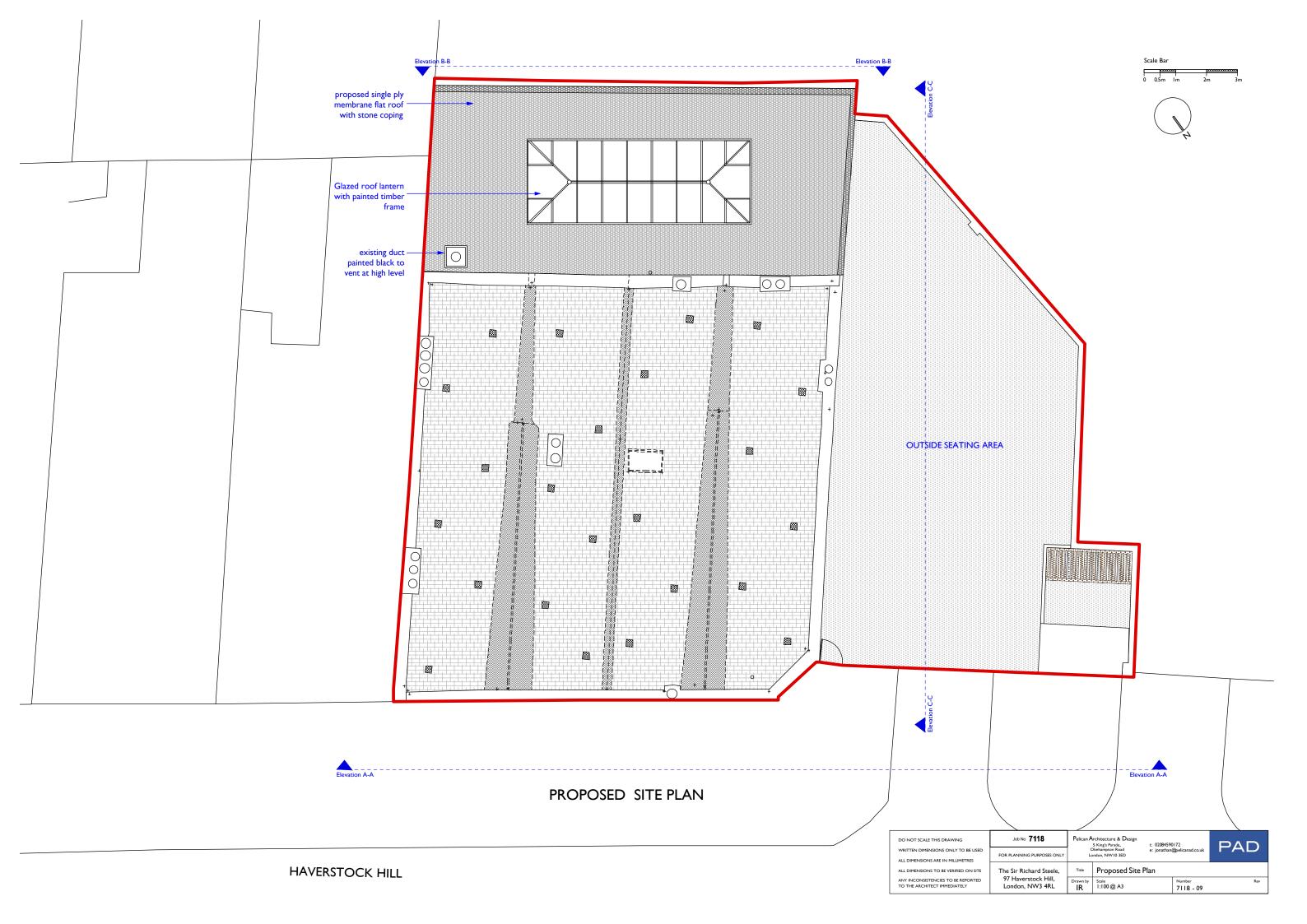


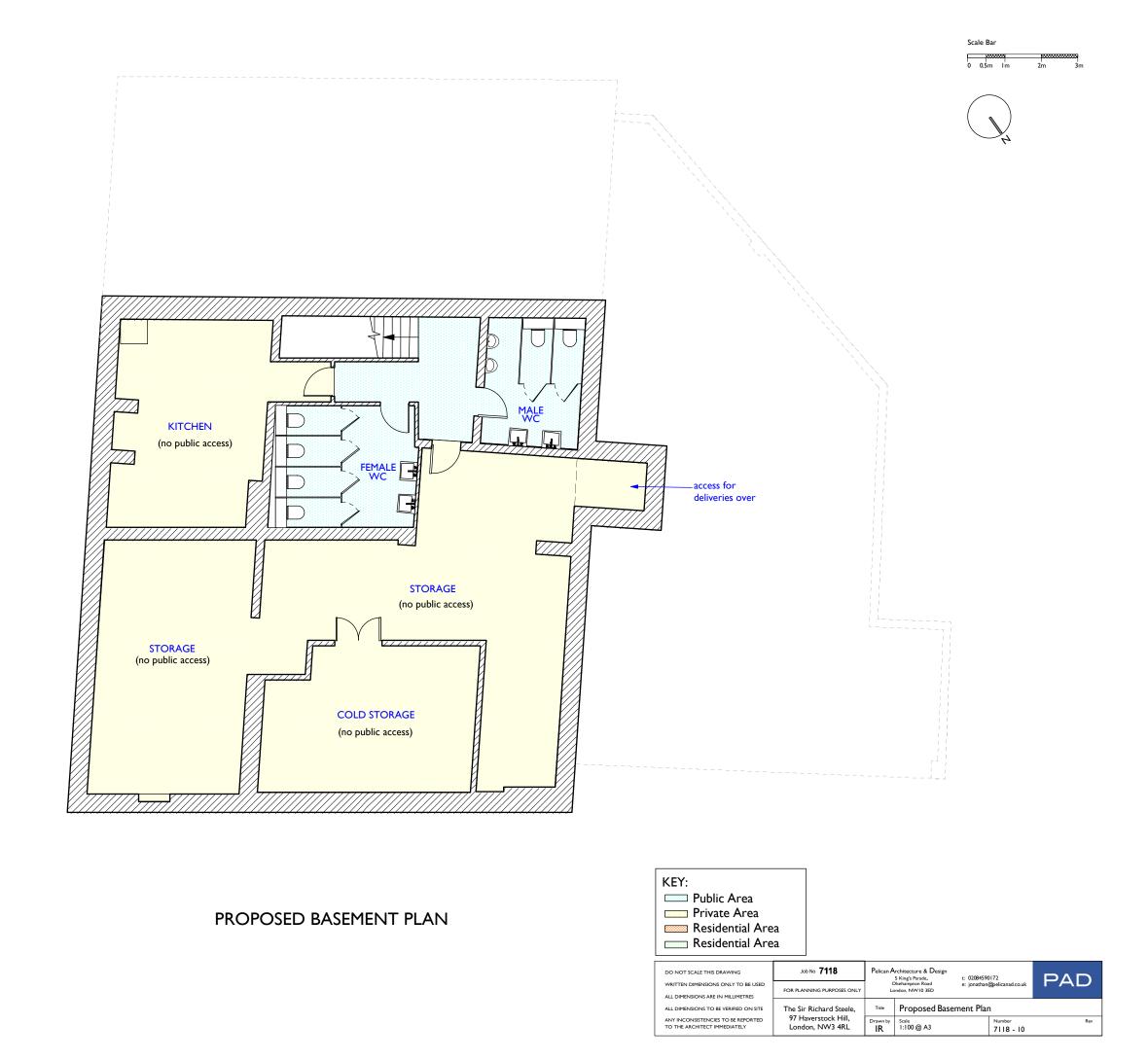
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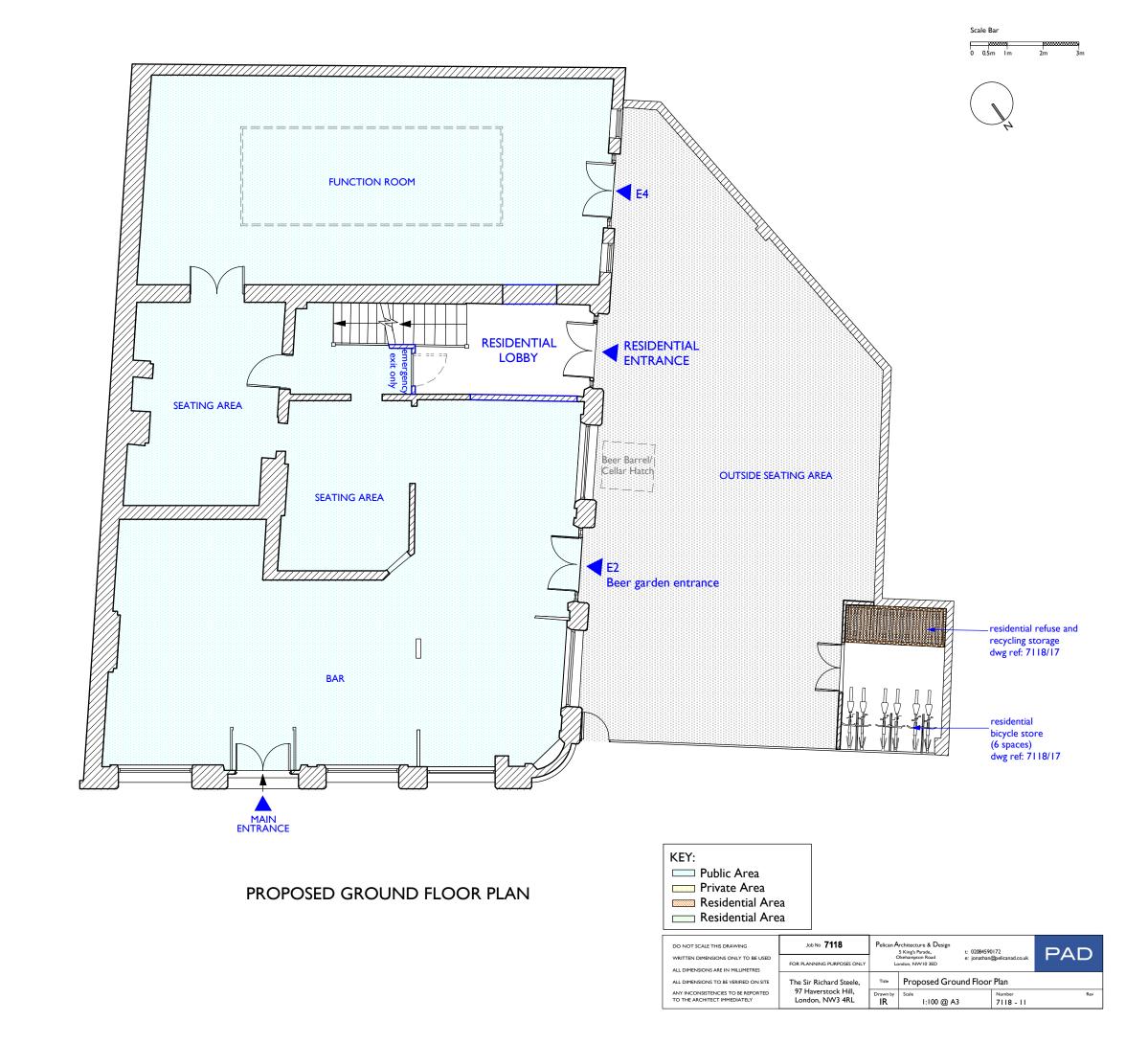
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ALL DIMENSIONS ARE IN MILLIMETRES						
ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Existing Rear Elevation B-B		3-B	
ANY INCONSISTENCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY	97 Haverstock Hill, London, NW3 4RL	Drawn by	Scale 1:100 @ A3		Number 7118 - 07	Rev

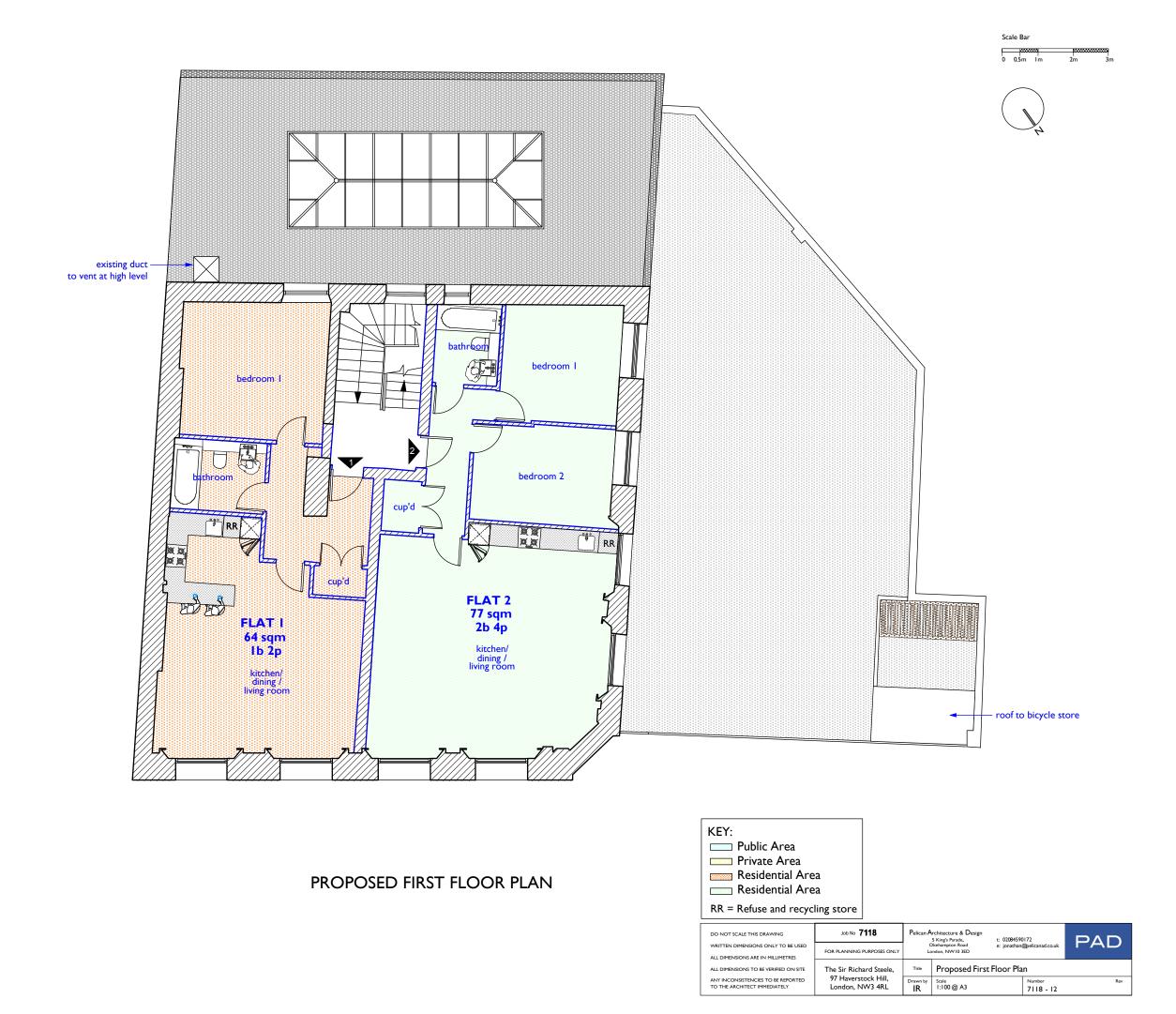


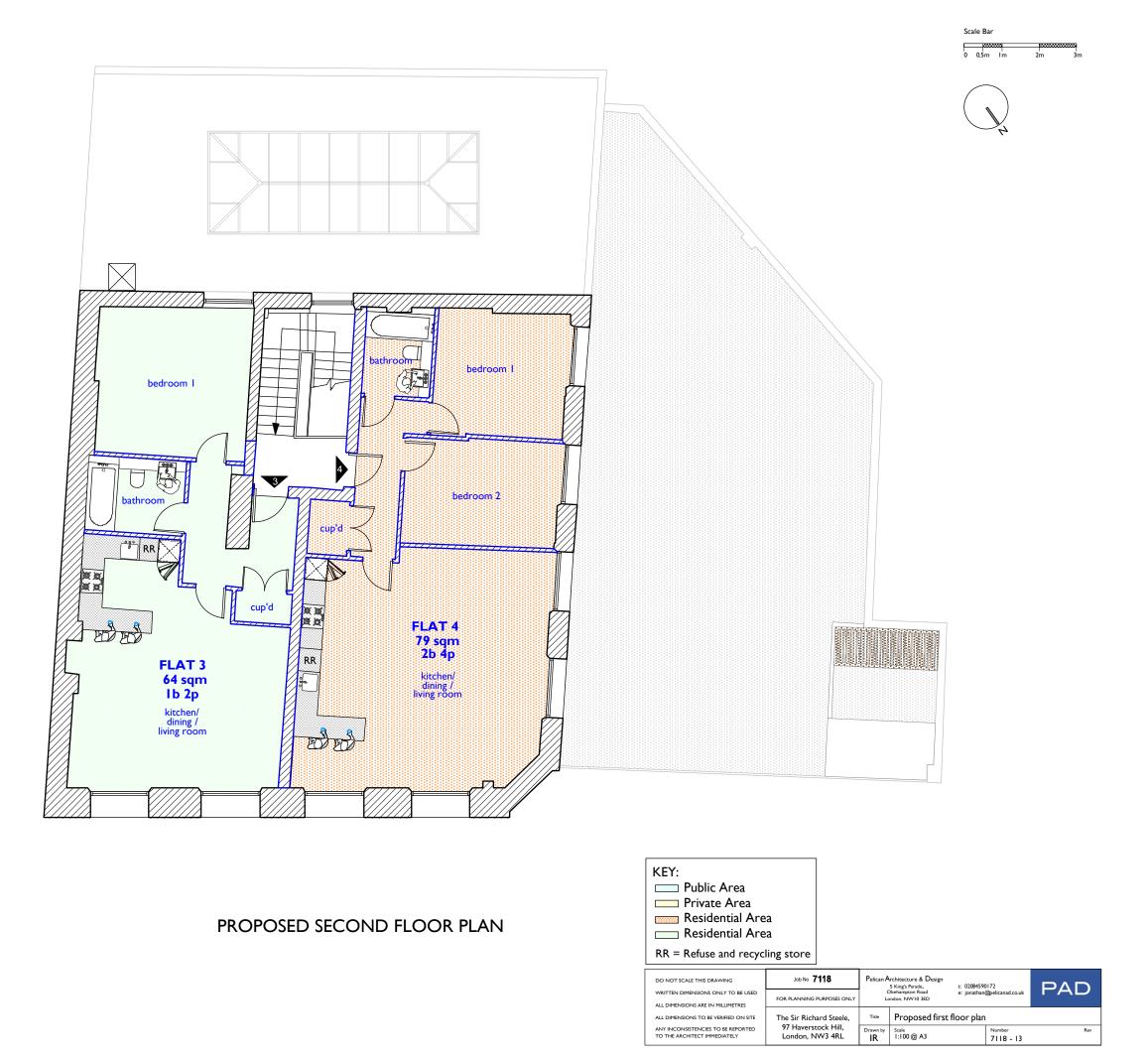
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WRITTEN DIMENSIONS ONLY TO BE USED	FOR PLANNING PURPOSES ONLY			e: jonathan@pelicanad.co.		FAD
ALL DIMENSIONS ARE IN MILLIMETRES	1001201111101010002501121					
ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Existing Elevation	on C-C		
ANY INCONSISTENCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY	97 Haverstock Hill, London, NW3 4RL	Drawn by	Scale 1:100 @ A3		Number 7118 - 08	Rev









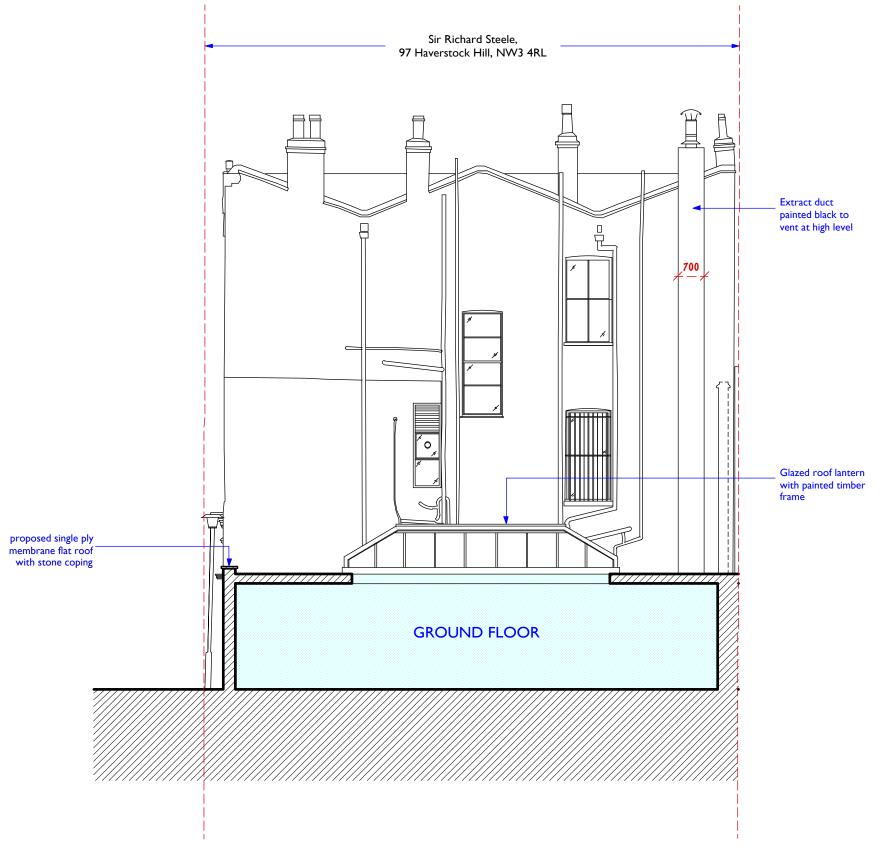




PROPOSED FRONT ELEVATION

TO REMAIN UNCHANGED

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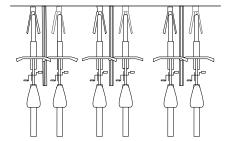
PROPOSED REAR ELEVATION

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ALL DIMENSIONS ARE IN MILLIMETRES						
ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Proposed Secti	ctional Elevation B-B		
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ALL DIMENSIONS ARE IN MILLIMETRES						
ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Proposed Elevation	on C-C		
ANY INCONSISTENCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY	97 Haverstock Hill,	Drawn by	Scale		Number	Rev
TO THE ARCHITECT IMMEDIATELY	London, NW3 4RL	IR	1:100 @ A3		7118 - 16	

SECURE BICYCLE STORAGE



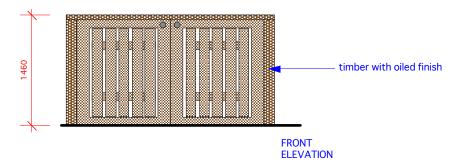
Plan of Sheffield cycle stands

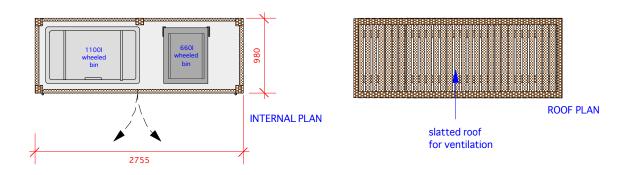


Example of Sheffield cycle stand

NOTE: REFER TO DRAWING: 7118/11 FOR LOCATION OF BICYCLE HOUSING

SECURE REFUSE AND RECYCLING HOUSING





NOTE: REFER TO DRAWING: 7118/11 FOR LOCATION OF REFUSE AND RECYCLING HOUSING

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ALL DIMENSIONS TO BE VERIFIED ON SITE	The Sir Richard Steele,	Title	Proposed Re	icycle Sto	orage		
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ADDRESS

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