AnsteyHorne

DAYLIGHT & SUNLIGHT

REPORT

for

PROPOSED DEVELOPMENT

at

BROADWATER GARDENS

WELWYN GARDEN CITY

REF: MG/GI/ROL00494
REV: -
10 December 2020

expertise *applied*

TABLE OF CONTENTS

SECTION **PAGE NO.**

APPENDICES

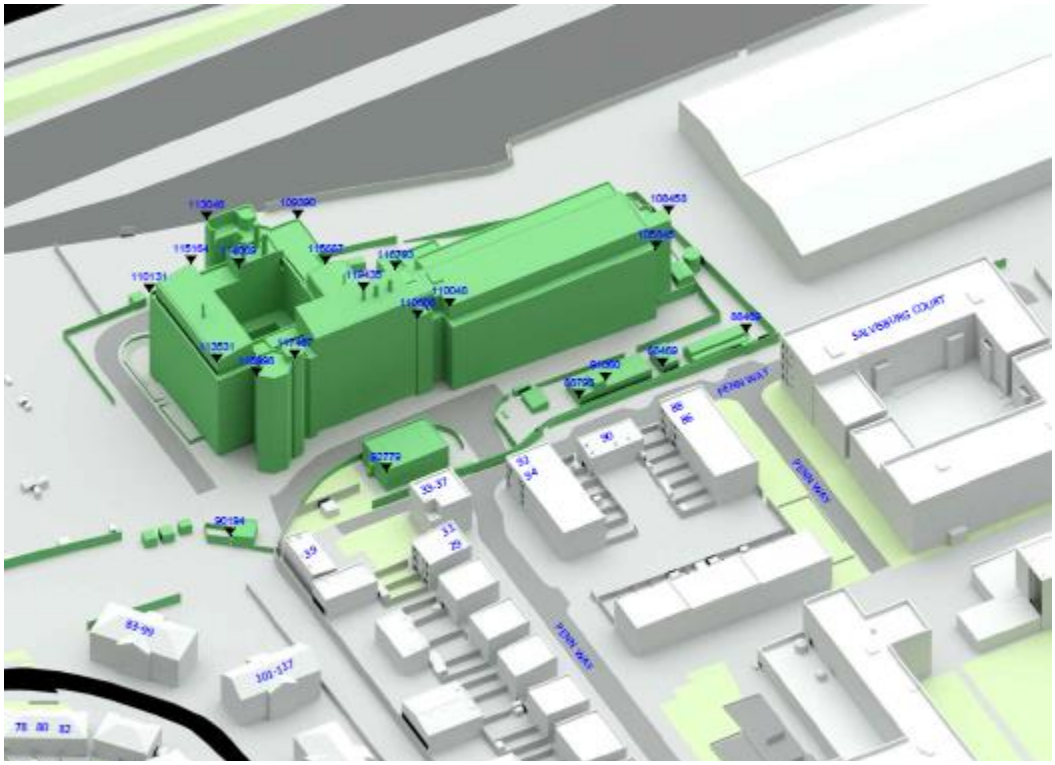

Figure 1: 3D view of computer model in the existing condition

Figure 2: 3D view of computer model in the proposed condition

1. INTRODUCTION

1.1 HG Group is proposing a development at BioPark, Broadwater Road, Welwyn Garden City, AL7 3AX. The development is known as Broadwater Gardens.

1.2 The application site is situated to the south-east of Welwyn Garden City Railway Station and is bound by properties in Broadwater Crescent and Penn Way.

1.3 HG Group is conscious of the need to minimise impact on the light to neighbouring residential properties and therefore instructed Anstey Horne to work with the project architect, Alan Camp Architects, so that the effects of the proposed development could be properly understood and, wherever possible, minimised.

1.4 Anstey Horne has been commissioned to undertake a formal technical assessment of the effect of the proposed development upon the existing surrounding properties, having regard to the recommendations in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011). We have also been commissioned to undertake a study of the interior light levels within the proposed development, which is the subject of a separate report titled *'Report on Daylight and Sunlight within the proposed dwellings and sunlight to proposed amenity spaces at Broadwater Gardens, Welwyn Garden City'.*

1.5 Our study has been carried out using 3D computer modelling and our specialist computer simulation software. Our 3D model is shown in Figure 2 on page 1.

1.6 This report summarises the relevant planning policy, the basic principles of daylighting and sunlighting, the methods used to assess the potential impact of the development, the information used in compiling our 3D computer model and the results of our technical assessment. Drawings and full tables of results of our technical assessment are attached in the appendices.

2. PLANNING POLICY AND GUIDANCE

National Planning Policy and Guidance

2.1 The Revised National Planning Policy Framework (February 2019) sets out the Government's planning policies and how these are expected to be applied. It provides a framework within which councils can produce their own local plans that reflect the needs and priorities of their communities.

2.2 Paragraph 127(e) states that:

"Planning policies and decisions should ensure that developments:

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users…"

2.3 Chapter 11 'Making effective use of land' states in paragraph 123(c) that:

"local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."

2.4 The Building Research Establishment, whose aims include achieving a higher quality built environment, publish BRE guidelines 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011) by PJ Littlefair. This guide gives advice on site layout planning to retain good daylighting and sunlighting in existing surrounding buildings and achieve to it in new buildings. The guide is intended for use by designers, consultants and planning officials and notes that:

"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."

Local Planning Policy and Guidance

2.5 The development site is located within Welwyn Hatfield borough.

<u>Welwyn Hatfield Borough Council Draft Local Plan</u>

2.6 The draft local plan was published in August 2016. Policy SADM 11 'Amenity and Layout' states the following:

"i. All proposals will be required to create and protect a good standard of amenity for buildings and external open space in line with the Council's Supplementary Design Guidance, and in particular should ensure:

a. The levels of sunlight and daylight within buildings and open spaces, and garden areas in particular, are satisfactory..."

2.7 Paragraph 11.16 in 'Quality of New Development' states that:

"A wide range of other factors also have a significant influence upon the internal and external amenity of dwellings and other types of development. These include levels of sunlight and daylight, relationship with other buildings and elements of the built environment (e.g. Roads), ventilation, and general outlook."

Welwyn Hatfield District Plan Supplementary Design Guidance

2.8 The supplementary design guidance document was published in February 2005. Paragraph 3.18 provides guidance on sunlight and daylight as follows:

"This section supplements Policy D1 Quality of Design in the District Plan. All new developments should be designed and built to ensure that there is a satisfactory level of sunlight and daylight to both the new development and surrounding developments and/or open spaces. Access to sunlight and daylight not only improves the interior and exterior appearance of a building, it also improves the standard of living or workspace for the residents or users of a building. Access to sunlight can help to make a building more energy efficient, whilst daylight reduces the need for electric lighting and winter solar gain can meet some of the heating requirements. Advice on site layout planning to achieve good sunlight and daylight within buildings and the open spaces between them is set out in the Building Research Establishment's document entitled, 'Site Layout Planning for Daylight and Sunlight: a guide to good practice', 1991."

2.9 We confirm that we have undertaken our daylight and sunlight study in accordance with BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011).

3. BRE METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES

Daylight to existing surrounding buildings

3.1 Section 2.2 of the BRE Report makes recommendations concerning the impact on daylight to existing buildings. In summary, the BRE report states that:

"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° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- *the VSC [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; [or]*
- *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."*

3.2 So, where the angle to the horizontal subtended by the new development measured at the centre of the lowest window in an existing surrounding building (the angle of obstruction) is less than 25° (see Figure 3 below), the diffuse daylight to that building is unlikely to be significantly affected and need not be tested.

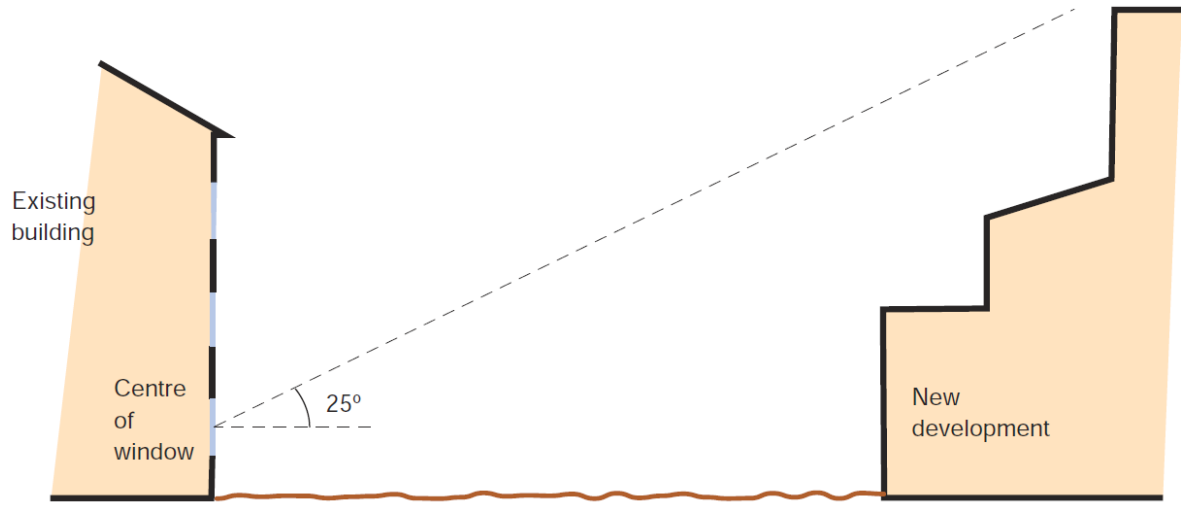

Figure 3 - Section perpendicular to a main window wall of an existing building showing a new development subtending an angle of less than 25° to the horizontal from the centre of the lowest window. (© BRE Report 209)

3.3 Where the obstruction angle is greater than 25°, both of the more detailed daylight tests should be undertaken, namely vertical sky component ('VSC') at the window and daylight distribution on the working plane. For each test the guidelines operate on the general principle that if the amount of daylight is reduced to less than 0.8 times its former value (i.e. there will be more than a 20% loss) the reduction will be noticeable to the building's occupants.

3.4 'Noticeable' does not necessarily equate to 'unacceptable' and the BRE's standard target values should not be considered as pass/fail criteria. Ultimately the local planning authority will need to make a judgement as to whether any impacts are acceptable when weighed against the many other planning considerations.

3.5 The VSC test measures the amount of skylight available at the centre of a window on the external plane of the window wall. It has a maximum value of almost 40% for a completely unobstructed vertical window wall. If a room has two or more windows of equal size, the mean of their VSCs may be taken. As the VSC calculation takes no account of the size of the window being tested, the size of the room it lights or multiple windows of unequal size, it does not measure light inside the room. It merely measures the potential conditions in the room. The VSC results can therefore be potentially misleading if considered in isolation and should be read in conjunction with those of the second test - daylight distribution.

3.6 The daylight distribution test calculates the area of the working plane inside a room that will have a direct view of the sky. This is done by plotting the no-sky line, i.e. the line on the working plane that divides those areas that receive direct skylight from those that do not, as shown in Figure 4 below.

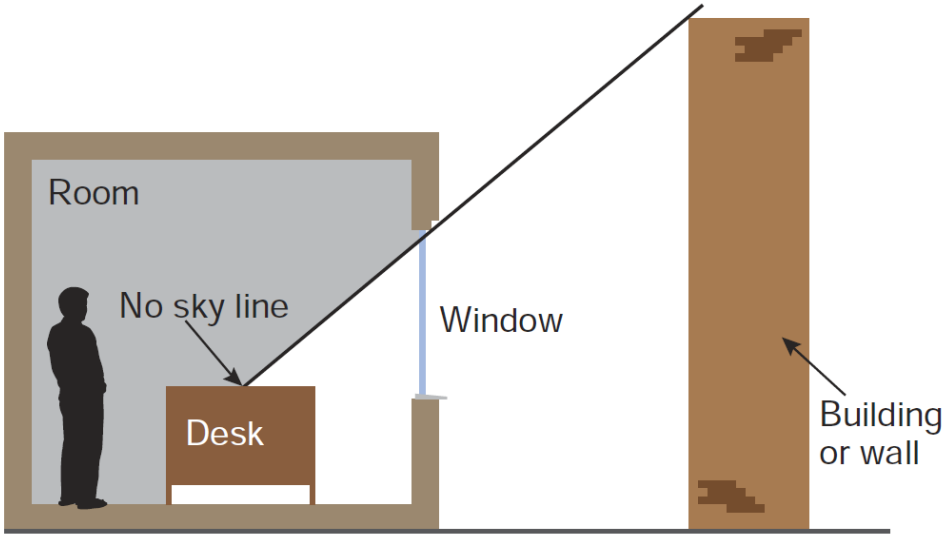

Figure 4 - The no-sky line divides areas of the working plane which can and cannot receive direct skylight.
(© BRE Report 209)

3.7 One benefit of the daylight distribution test is that the resulting contour plans show where the light falls within a room, both in the existing and proposed conditions, and a judgement may be made as to whether the room will retain light to a reasonable depth.

3.8 The BRE guidelines are intended for use for rooms in adjoining dwellings. They may also be applied to any existing non-domestic buildings where the occupants have a reasonable expectation of daylight, which could include schools, hospitals, hotels and offices. For dwellings it states that living rooms, dining rooms and kitchens should be assessed. Bedrooms should also be checked, although it states that they are less important. Other rooms, such as bathrooms, toilets, storerooms, circulation areas and garages need not be assessed.

Sunlight to existing surrounding buildings

3.9 Section 3.2 of the BRE Report makes recommendations concerning the impact on sunlight to existing dwellings or non-domestic buildings where there is a particular requirement for sunlight. The guide notes at paragraph 3.2.1 that:

"obstruction to sunlight may become an issue if:

- *some part of a new development is situated within 90° of due south of a main window wall of an existing building; and*
- *in the section drawn perpendicular to the existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from the centre of the lowest window to a main living room."*

3.10 If these angle criteria are not met, the guide recommends a more detailed check to calculate the impact of the proposed development on the available sunlight.

3.11 The guide suggests:

"all main living rooms of dwellings, and conservatories, 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. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked; they will normally face within 90° of due south anyway." (BRE paragraph 3.2.3)

3.12 The available sunlight is measured in terms of the percentage of annual probable sunlight hours ('APSH') at the centre point of the window. 'Probable sunlight hours' is defined as:

"the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account)."

3.13 Paragraph 3.2.11 of the BRE Report summarises its sunlight guidance as follows:

"If a living room of an existing dwelling has a main window facing within 90º of due south, and any part of a new development subtends an angle of more than 25º to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- *receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and*
- *receives less than 0.8 times its former sunlight hours during either period and*
- *has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours".*

Computer simulation

3.14 Appendix A of the BRE guide describes a method for calculating VSC and APSH using various indicator templates and Appendix D shows how the no-sky line may be plotted inside a room. Where the obstructions on the skyline are complex these manual methods can be difficult to apply and the results can be crude. We therefore prefer to use computer simulation and our specialist software, which is based on the more accurate Waldram method, which is described in Appendix B of the BRE guide.

3.15 The information upon which our computer model was based is explained in the section 5 of this report.

4. APPLICATION OF BRE GUIDELINES

Flexible application of the guidelines

4.1 In its introduction the BRE Report 209 (second edition, 2011) states:

- *(Its) "main aim is … to help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions."* (BRE paragraph 1.5)

- *"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."* (BRE paragraph 1.6)

- *"Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."* (BRE paragraph 1.6)

4.2 Clearly, the BRE guide is an advisory document, not a rigid set of rules. Care must therefore be taken to apply its recommendations in a manner fitting to the location of the proposed development.

Alternative target values

4.3 In theory the BRE report's numerical guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, it notes:

"In special circumstances the developer or planning authority may wish to use different target values. For example, in a 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… The calculation methods … are entirely flexible in this respect." (BRE paragraph 1.6)

4.4 At paragraph 2.2.3 the guide states:

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

4.5 Appendix F of the BRE Guide gives advice on setting alternative target values for skylight access. At page 62 it states:

"different targets may be used, based on the special requirements of the proposed development or its location".

4.6 Clearly, rigid application of the numerical guidelines could well give rise to an inappropriate answer and form of development for city centre sites, in which case it may be appropriate to adopt lower target values that are more appropriate to the location concerned.

Proximity of neighbouring building to the boundary

4.7 The BRE guide permits the reasonableness or otherwise of the distance of the neighbouring building from the boundary to be taken into account. At paragraph 2.2.3 it states:

"Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light".

Interpretation of relative impacts

4.8 Except where the BRE guide's specified minimum values will be retained in the proposed condition (see paragraphs 3.1 and 3.13 above), the guide advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value. (We refer to this as the 'BRE 0.8 guideline'.) Care must be taken when interpreting the 'relative impact' figures (in the columns marked "factor of former value" in the tables of results), because where an existing value is low even a small reduction in real terms can manifest itself as a large relative impact. For example a reduction from 6% VSC to 3% VSC will appear as a reduction to 0.5 times its former value, and is therefore a transgression of the guidelines in theory, but in reality a loss of 3% VSC is very small and would be barely perceptible.

4.9 When the BRE launched the second edition of their guidelines in 2011, they cited the above logic as the reason for introducing the third tier to their sunlight criteria, as referred to in paragraph 3.13 above, namely that sunlight will be adversely affected where it is reduced below 25% APSH annually or 5% APSH in winter and to less than 0.8 times its former value and where the reduction annually is greater than 4% APSH.

Balconies, projecting wings and other self-obstructing projections

4.10 The BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and sunlight and, as a consequence, larger relative reductions in light may be unavoidable. More specifically it states:

"Existing windows with balconies above them typically receive less daylight. Because the balcony cuts out light from the top part of the sky, even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct skylight. One way to demonstrate this would be to carry out an additional calculation of the VSC and area receiving direct skylight, for both the existing and proposed situations, without the balcony in place. For example, if the proposed VSC with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of light." (BRE paragraph 2.2.11)

"A larger relative reduction in VSC may also be unavoidable if the existing window has projecting wings on one or both sides of it, or is recessed into the building so that it is obstructed on both sides as well as above." (BRE paragraph 2.2.12)

"Balconies and overhangs above an existing window tend to block sunlight, especially in summer. Even a modest obstruction opposite may result in a large relative impact on the sunlight received. One way to demonstrate this would be to carry out an additional calculation of the APSH, for both the existing and proposed situations, without the balcony in place. For example, if the proposed APSH with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of sunlight." (BRE paragraph 3.2.9)

4.11 Clearly, where windows are inset or self-obstructed by balconies or other projections they will be unusually sensitive to changes in massing opposite and transgressions of the BRE's default numerical guidelines are more likely to arise. In such circumstances flexible application of the guidelines is very important.

Deep rooms

4.12 The BRE guide advises that light penetration into deep rooms lit from one side only may be unavoidably affected. At paragraph 2.2.10 it states

"The guidelines … need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no sky line may be unavoidable."

5. INFORMATION USED IN THE TECHNICAL STUDY

5.1 In order to carry out the tests recommended in the BRE Report, we commenced by building a 3D computer model of the existing buildings on the site, the existing surrounding buildings to be studied, other relevant background massing and the proposed scheme. The computer model is illustrated on the drawings at Appendix A and is based on the information listed below.

Proposed scheme:

- Alan Camp Architect's 3D model of the proposed scheme received 27 November 2020.

Existing building on the site and existing surrounding buildings:

- Z-map model received 30 September 2020
- Aerial photography from Google and Microsoft Bing
- Site photographs

Internal arrangements within existing surrounding buildings:

Property	Drawings with planning application ref.
Salvisburg Court	
88 Penn Way	
90 Penn Way	
92 Penn Way	
56-76 Penn Way	
86 Penn Way	N6/2010/1776/MA
94 Penn Way	
39 Penn Way	
29 Penn Way	
31 Penn Way	
33-37 Penn Way	

5.2 Where plans of the existing surrounding buildings were not available we estimated the internal arrangements and room uses based on an external inspection. Where we have had to estimate internal arrangements and room uses, this has no bearing upon the tests for VSC or APSH because the reference point is at the centre of the window. It is relevant to the daylight distribution assessment, but in the absence of suitable plans, estimation is a conventional approach.

6. SCOPE OF TECHNICAL STUDY

6.1 In our experience local planning authorities are usually only concerned with the impact on dwellings and, perhaps, schools, hospitals and nursing homes. This is the basis on which we have scoped our technical study.

6.2 Having regard to the preliminary 25°-line test and orientation test recommended in the BRE Report, as explained above in paragraphs 3.1 to 0 and 3.9, we have calculated the impact of the proposed development on the daylight and sunlight levels to relevant rooms in the following existing surrounding buildings:

Table 1 - Scope of assessments

Properties	Daylight	Sunlight
Salvisburg Court	Yes	Yes
88 Penn Way	Yes	Yes
90 Penn Way	Yes	Yes
92 Penn Way	Yes	Yes
56-76 Penn Way	Yes	No
86 Penn Way	Yes	Yes
94 Penn Way	Yes	Yes
39 Penn Way	Yes	No
29 Penn Way	Yes	Yes
31 Penn Way	Yes	Yes
33-37 Penn Way	Yes	No
76 Broadwater Crescent	Yes	Yes
74 Broadwater Crescent	Yes	No
72 Broadwater Crescent	Yes	Yes
70 Broadwater Crescent	Yes	No
78 Broadwater Crescent	Yes	No
80 Broadwater Crescent	Yes	No
82 Broadwater Crescent	Yes	No

83-99 Broadwater Crescent	Yes	No
101-117 Broadwater Crescent	Yes	No

6.3 We have only tested the impact on the main rooms in each property, as advised in the BRE guidelines. It is not necessary to test staircases, hallways, bathrooms, toilets etc.

6.4 Each of the existing surrounding buildings tested is shown labelled on the plan views of the computer model on our drawings at Appendix A of this report.

6.5 The daylight distribution contour plans at Appendix E show the window positions and room layouts that have been tested in each of the buildings concerned.

7. IMPACT UPON SURROUNDING PROPERTIES

7.1 In this section of our report we set out our analysis of the results of our impact study under the headings of daylight and sunlight. For each element we will provide commentary on the results taking each property, or groups of properties, in turn.

7.2 To re-cap briefly on the assessment criteria explained in section 5, each of the tests is run in the existing and proposed condition so that the daylight and sunlight levels before and after development are quantified and the relative change is determined. Except where the BRE guide's specified minimum values will be retained in the proposed condition, it advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value (the "BRE 0.8 guideline").

Daylight and sunlight to existing surrounding buildings

7.3 The numerical results of the vertical sky component ('VSC') test are tabulated at Appendix B. For the daylight distribution test, numerical results are tabulated at Appendix C and no-sky contour plans are shown on our drawings at Appendix E. On the plans, the area of the room with a view of sky in the proposed condition is enclosed by the red contour and in the existing condition by the green contour. Where there will be no effect on the no-sky contour the red contour sits on top of the green one and only the red contour is visible. Where there will be a change, the areas of the room that will either lose or gain a view of sky are cross-hatched black.

7.4 The numerical results of the percentage of annual probable sunlight hours ('APSH') test are tabulated at Appendix D. Only those buildings identified by application of the BRE guide's preliminary 25° line test and orientation test, as explained above, have been tested.

7.5 The overall adherence rates for the neighbouring properties are as follows:

- Of the 285 windows tested for VSC, 277 (97%) achieve the BRE's guideline values
- Of the 166 rooms tested for daylight distribution, 162 (98%) achieve the guideline values
- Of the 27 rooms tested for APSH, all 27 (100%) achieve the BREs guidelines for both annual and winter sunlight availability.

7.6 It is worth noting that a number of the neighbouring windows and rooms experience an increase in daylight and/or sunlight availability as a result of the development proposals.

7.7 The following properties meet the BRE's guideline values for the both the daylight and sunlight assessments:

- 90 Penn Way
- 92 Penn Way
- 56-76 Penn Way
- 86 Penn Way
- 94 Penn Way
- 39 Penn Way
- 29 Penn Way
- 31 Penn Way
- 33-37 Penn Way
- 76 Broadwater Crescent
- 74 Broadwater Crescent
- 72 Broadwater Crescent
- 70 Broadwater Crescent
- 78 Broadwater Crescent
- 80 Broadwater Crescent
- 82 Broadwater Crescent

7.8 The remaining properties are discussed in further detail below:

Salvisburg Court

7.9 This residential property is located to the north-east of the development site. The results show that 56 (98%) of the 57 windows tested within this property achieve the guideline values for VSC. The single window which falls below the guideline values is located on the second floor and achieves 0.79 times former value against a guideline of 0.8. Furthermore, this window is one of five serving an LKD and the remaining 4 windows all exceed the guideline VSC values.

7.10 The daylight distribution results show that 31 (97%) of the 32 rooms assessed achieve the guideline values. The single room which falls short of the guidelines is located on the third floor and falls only marginally below achieving a factor of former value of 0.79 against the BRE's recommended value of 0.8 times. It is important to note that the BRE guidelines suggest that the results of the two daylight tests are considered in parallel and where any reductions outside the guideline values are identified, these are only for one of the two daylight tests

7.11 In terms of sunlight, the APSH results show that all of the rooms assessed achieve the guideline values, achieving annual APSH values of between 54% and 57% and winter APSH values of between 21% and 22% which greatly exceed the BRE's recommended values of 25% annually and 5% during the winter months.

88 Penn Way

7.12 This residential property is located to the north-east of the development site on the eastern side of Penn Way. The results show that 16 (89%) of the 18 windows tested within this property achieve the guideline values for VSC. The two windows which fall short of the guidelines are located on the ground and second floors and achieve factor of former values of 0.64 and 0.76 respectively. Both of these windows serve rooms which are also served by additional windows which are shown to exceed the guideline VSC values.

7.13 The daylight distribution results show that 6 (100%) of the 6 rooms assessed achieve the guideline values. When considering these results, it is important to note that the BRE guidelines suggest that the results of the two daylight tests are considered in parallel and where any reductions outside the guideline values are identified, these are only for one of the two daylight tests.

7.14 The results of the sunlight assessments show that all of the rooms assessed achieve the guideline values, achieving annual APSH values of between 46% and 53% and winter APSH values of between 11% and 21% which greatly exceed the BRE's recommended values of 25% annually and 5% during the winter months.

83-99 Broadwater Crescent

7.15 These residential properties are located to the north-east of the development site. The results show that 16 (80%) of the 20 windows tested within this property achieve the guideline values for VSC. The four windows which fall short of the guideline values are located on the ground to second floors and three of these windows achieve factor of former values of between 0.71 and 0.78 against guideline of 0.8 and therefore fall only marginally below the guidelines. The remaining window is one of two serving a room of unknown use on the first floor which is served by an additional window which exceeds the guideline values.

7.16 The daylight distribution results show that 13 (81%) of the 16 rooms assessed achieve the guideline values. The three rooms which fall short of the guidelines are located on the ground floor and first floors and achieve factor of former values of 0.67, 0.71 and 0.74 against the BRE's recommended value of 0.8 times. When considering these results, it is important to note that the BRE guidelines suggest that the results of the two daylight tests are considered in parallel.

7.17 These properties were not assessed for sunlight availability as all of the windows and rooms tested face within 90 degrees of due north.

101-117 Broadwater Crescent

7.18 These residential properties are located to the east of the development site. The results show that 19 (95%) of the 20 windows tested within this property achieve the guideline values for VSC. The single window which falls short of the guideline values achieves 0.79 times former value against a guideline of 0.8 times and is therefore only marginally below the guidelines. Furthermore, this window is one of two serving the room and the remaining window is shown to exceed the guideline VSC values.

7.19 The daylight distribution results show that 16 (100%) of the 16 rooms assessed achieve the guideline values. When considering these results, it is important to note that the BRE guidelines suggest that the results of the two daylight tests are considered in parallel and where any reductions outside the guideline values are identified, these are only for one of the two daylight tests.

7.20 These properties were not assessed for sunlight availability as all of the windows and rooms tested face within 90 degrees of due north.

8. SUMMARY AND CONCLUSION

8.1 Welwyn Hatfield's planning policy seeks to safeguard daylight and sunlight to existing buildings and points to the guidance published in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice*.

8.2 We have undertaken a study of the impact of the proposed development on the relevant rooms in the surrounding dwellings. The tests were undertaken in accordance with the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011). The BRE guide gives useful advice and recommends various numerical guidelines by which to assess the impact of development on daylight and sunlight to existing surrounding properties.

8.3 The results show that the vast majority of the windows and rooms within the neighbouring properties will exceed the guideline values with the proposed development in place. The assessment shows overall daylight adherence rates of 97% for VSC and 98% for daylight distribution. In terms of sunlight, all of the rooms within the neighbouring properties are shown to exceed the guideline values. It is also worth noting that a number of the windows and rooms assessed will experience an increase in daylight and/or sunlight availability as a result of the development proposals. Overall, the results of the daylight and sunlight assessments show an excellent level of adherence to the BRE guidelines.

8.4 In conclusion, the layout of the proposed development follows the BRE guidelines and will not materially reduce sunlight or daylight to existing surrounding properties. In our opinion, Welwyn Hatfield's planning policy on daylight and sunlight to neighbouring properties will be satisfied.

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ANSTEY HORNE

10 December 2020

APPENDIX A

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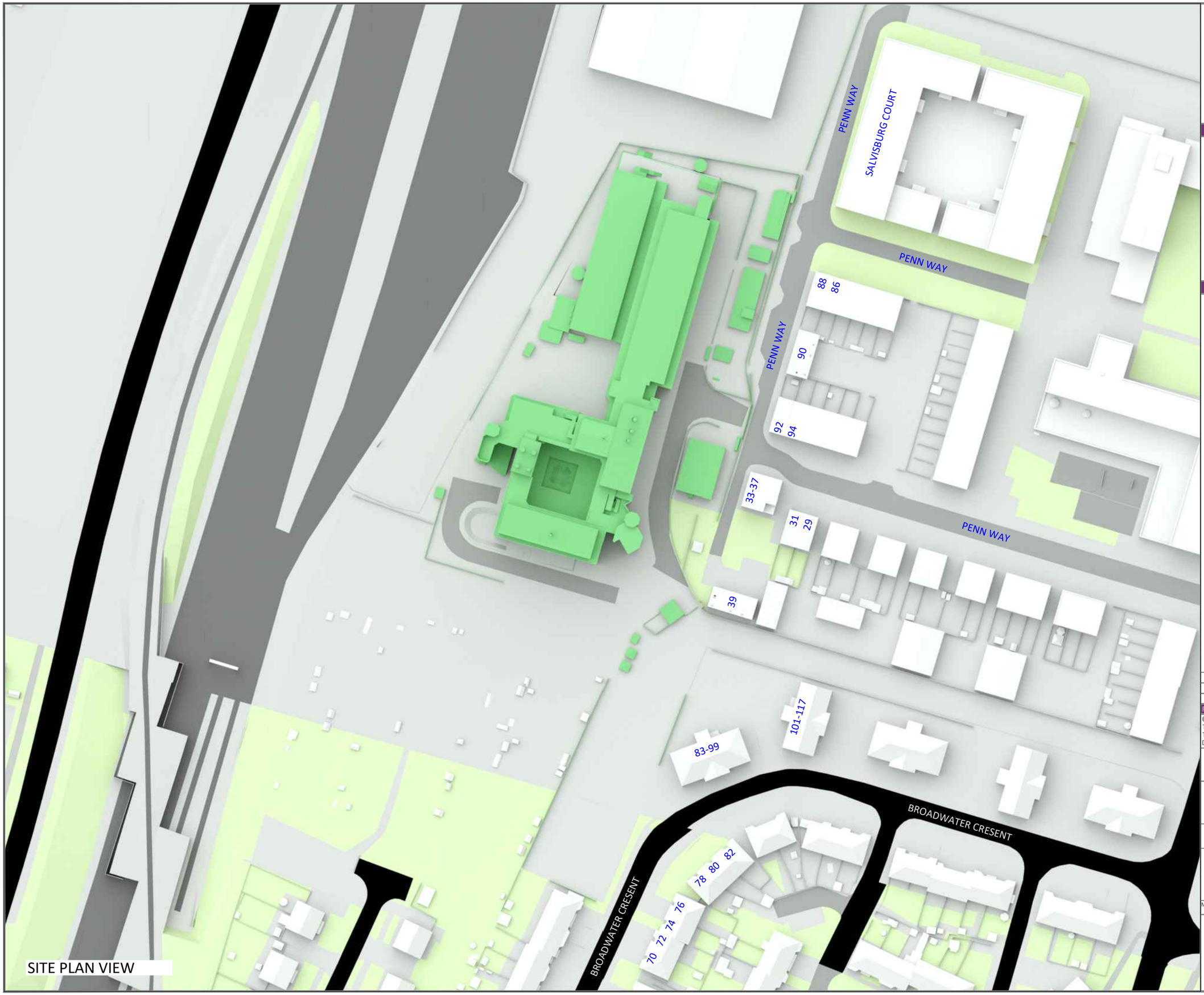
PLAN AND 3D VIEWS OF THE COMPUTER MODEL

DRAWING NOS. ROL00494_R03_V02_001 TO 006



AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

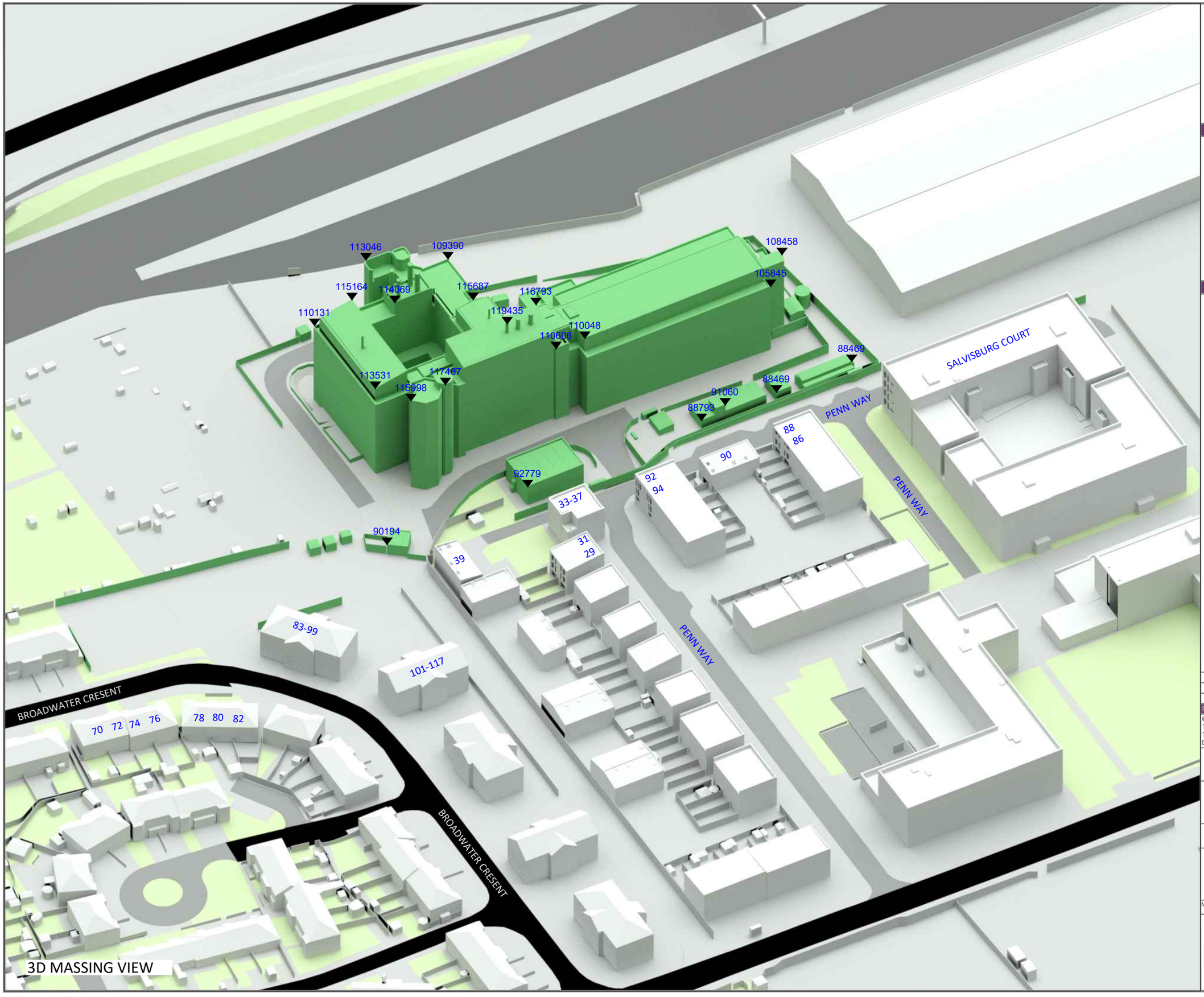
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: SITE PLAN VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:1000	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	001

Site Plan



AnsteyHorne

CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

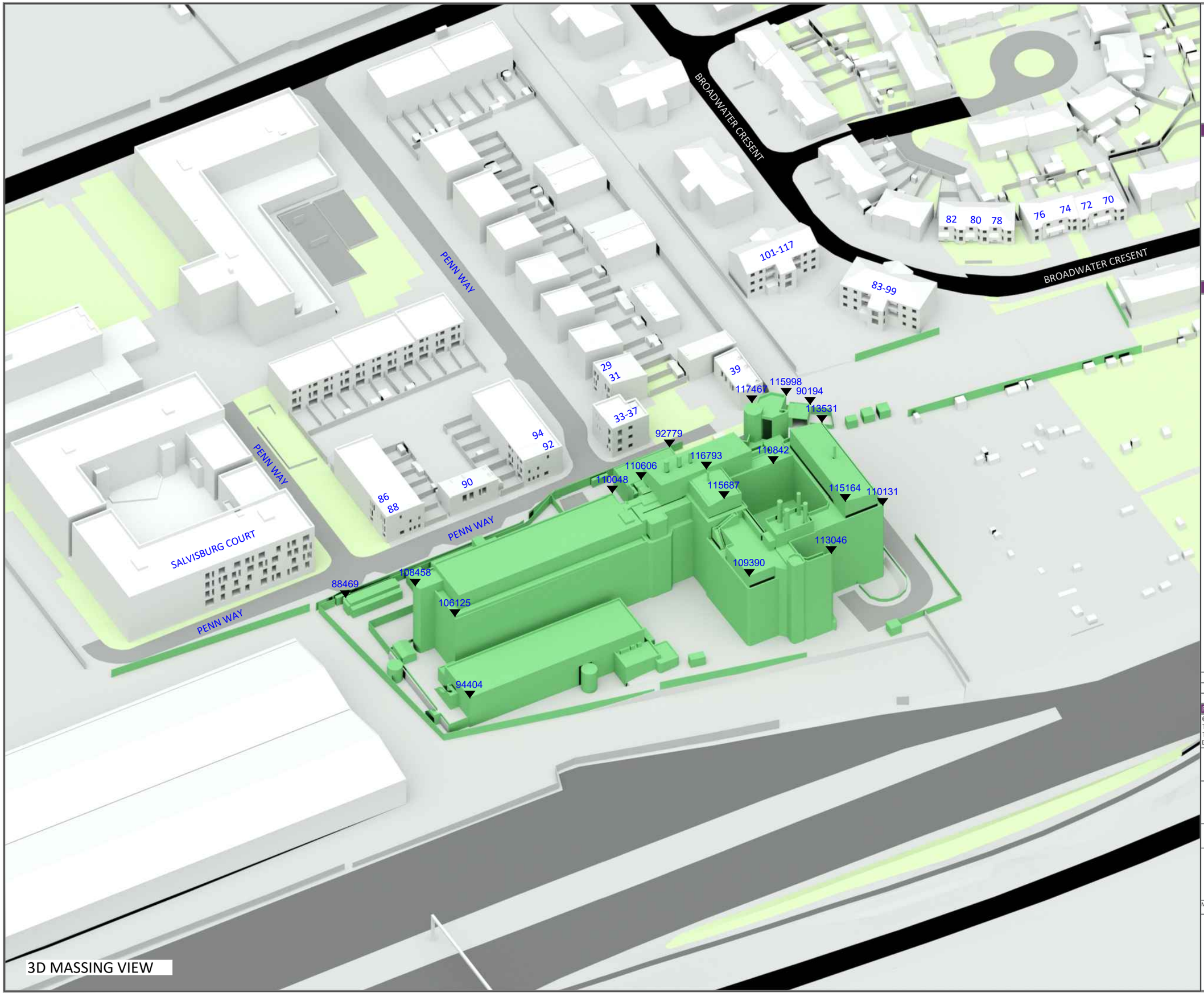
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: 3D MASSING MODEL VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:1000	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494	R03	V02	002

3D Massing Model



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Birmingham 0121 667 9902
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LEGEND:

- Existing
- Proposed
- 12120 AOD Height (mm)
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N W E S

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: 3D MASSING MODEL VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY: xx/xx | DATE: DEC.2020 | SCALE: 1:1000 | A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			003

3D Massing Model

SITE PLAN VIEW

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Bristol 0117 911 3061
Birmingham 0121 667 9902
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LEGEND:

- Existing
- Proposed
- AOD Height (mm) (12120)
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: SITE PLAN VIEW
PROPOSED CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:1000	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			004

Site Plan

AnsteyHorne
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Bristol 0117 911 3061
Birmingham 0121 667 9902
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LEGEND:

- Existing
- Proposed
- AOD Height (mm) (e.g. 12120)
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: 3D MASSING MODEL VIEW
PROPOSED CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:1000	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			005

3D Massing Model

AnsteyHorne

CHARTERED SURVEYORS

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Bristol 0117 911 3061
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LEGEND:

- Existing
- Proposed
- 12120 AOD Height (mm)
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N W E S

0m 10m 20m 30m 40m 50m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: 3D MASSING MODEL VIEW
PROPOSED CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:1000	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			006

3D Massing Model

APPENDIX B

-

VERTICAL SKY COMPONENT ('VSC') TABLE

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
SALVISBURG COURT						
F01						
R1	RESIDENTIAL	LKD	W1	7.99	8.33	1.04
R1	RESIDENTIAL	LKD	W2	17.57	17.79	1.01
R1	RESIDENTIAL	LKD	W3	24.84	24.59	0.99
R1	RESIDENTIAL	LKD	W4	24.30	19.81	0.82
R1	RESIDENTIAL	LKD	W5	17.54	14.03	0.80
R2	RESIDENTIAL	BEDROOM	W6	25.05	20.99	0.84
R3	RESIDENTIAL	LKD	W7	25.79	22.19	0.86
R4	RESIDENTIAL	BEDROOM	W8	26.04	22.70	0.87
R5	RESIDENTIAL	BEDROOM	W9	26.41	23.53	0.89
R6	RESIDENTIAL	BEDROOM	W10	26.60	24.09	0.91
R7	RESIDENTIAL	BEDROOM	W11	26.69	24.54	0.92
R8	RESIDENTIAL	LKD	W12	18.80	18.23	0.97
R8	RESIDENTIAL	LKD	W13	26.79	24.98	0.93
F02						
R1	RESIDENTIAL	LKD	W1	12.21	12.13	0.99
R1	RESIDENTIAL	LKD	W2	18.97	19.17	1.01
R1	RESIDENTIAL	LKD	W3	26.71	26.50	0.99
R1	RESIDENTIAL	LKD	W4	18.00	14.27	0.79
R1	RESIDENTIAL	LKD	W5	25.74	21.57	0.84
R2	RESIDENTIAL	BEDROOM	W6	26.15	22.16	0.85
R2	RESIDENTIAL	BEDROOM	W7	26.41	22.55	0.85
R3	RESIDENTIAL	LKD	W8	29.81	26.15	0.88
R4	RESIDENTIAL	BEDROOM	W9	19.62	17.43	0.89
R4	RESIDENTIAL	BEDROOM	W10	27.30	24.20	0.89
R5	RESIDENTIAL	BEDROOM	W11	30.45	27.43	N/A
R6	RESIDENTIAL	BEDROOM	W12	19.92	18.65	0.94
R6	RESIDENTIAL	BEDROOM	W13	27.86	25.51	0.92
R7	RESIDENTIAL	BEDROOM	W14	27.98	25.87	0.92
R7	RESIDENTIAL	BEDROOM	W15	19.84	19.18	0.97
R8	RESIDENTIAL	LKD	W16	19.82	19.30	0.97
R8	RESIDENTIAL	LKD	W17	28.20	26.48	0.94
F03						
R1	RESIDENTIAL	LKD	W1	12.84	12.78	1.00
R1	RESIDENTIAL	LKD	W2	19.29	19.52	1.01
R1	RESIDENTIAL	LKD	W3	27.34	27.18	N/A
R1	RESIDENTIAL	LKD	W4	29.52	25.47	0.86
R2	RESIDENTIAL	BEDROOM	W5	26.99	23.32	0.86
R2	RESIDENTIAL	BEDROOM	W6	19.35	16.68	0.86
R3	RESIDENTIAL	LKD	W7	27.47	24.16	0.88
R4	RESIDENTIAL	BEDROOM	W8	30.88	27.85	N/A
R5	RESIDENTIAL	BEDROOM	W9	20.11	18.59	0.92
R5	RESIDENTIAL	BEDROOM	W10	28.16	25.70	0.91
R6	RESIDENTIAL	BEDROOM	W11	31.35	28.90	N/A

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
R7	RESIDENTIAL	BEDROOM	W12	31.57	29.45	N/A
R8	RESIDENTIAL	LKD	W13	20.15	19.70	0.98
R8	RESIDENTIAL	LKD	W14	28.72	27.19	N/A
F00UG						
R1	RESIDENTIAL	LKD	W1	7.93	8.04	1.01
R1	RESIDENTIAL	LKD	W2	15.64	15.89	1.02
R1	RESIDENTIAL	LKD	W3	22.34	22.11	0.99
R1	RESIDENTIAL	LKD	W4	23.00	18.49	0.80
R2	RESIDENTIAL	BEDROOM	W5	26.21	21.89	0.83
R2	RESIDENTIAL	BEDROOM	W6	17.41	14.29	0.82
R3	RESIDENTIAL	LKD	W7	24.24	20.48	0.84
R3	RESIDENTIAL	LKD	W8	17.87	15.28	0.86
R4	RESIDENTIAL	BEDROOM	W9	27.24	23.67	0.87
R5	RESIDENTIAL	BEDROOM	W10	25.00	22.13	0.89
R6	RESIDENTIAL	BEDROOM	W11	28.74	25.82	0.90
R7	RESIDENTIAL	BEDROOM	W12	25.00	22.78	0.91
R8	RESIDENTIAL	LKD	W13	28.67	26.34	0.92
88 PENN WAY						
F00						
R1	RESIDENTIAL	KD	W1	16.80	15.98	0.95
R1	RESIDENTIAL	KD	W2	11.74	7.56	0.64
R2	RESIDENTIAL	LD	W3	6.57	5.59	0.85
R2	RESIDENTIAL	LD	W4	6.37	5.71	0.90
R2	RESIDENTIAL	LD	W5	6.15	5.82	0.95
R2	RESIDENTIAL	LD	W6	17.54	18.08	1.03
F01						
R1	RESIDENTIAL	BEDROOM	W1	13.90	13.90	1.00
R1	RESIDENTIAL	BEDROOM	W2	14.29	14.29	1.00
R2	RESIDENTIAL	BEDROOM	W3	7.12	5.94	0.83
R2	RESIDENTIAL	BEDROOM	W4	6.70	6.17	0.92
R2	RESIDENTIAL	BEDROOM	W5	20.60	21.39	1.04
R2	RESIDENTIAL	BEDROOM	W6	13.82	14.05	1.02
F02						
R1	RESIDENTIAL	BEDROOM	W1	15.04	15.04	1.00
R1	RESIDENTIAL	BEDROOM	W2	15.31	15.31	1.00
R1	RESIDENTIAL	BEDROOM	W3	15.63	15.63	1.00
R1	RESIDENTIAL	BEDROOM	W4	8.74	6.60	0.76
R2	RESIDENTIAL	UNKNOWN	W5	20.17	20.74	1.03
R2	RESIDENTIAL	UNKNOWN	W6	15.10	14.96	0.99
90 PENN WAY						
F01						
R1	RESIDENTIAL	BEDROOM	W1	15.45	15.13	0.98
R2	RESIDENTIAL	BEDROOM	W2	15.28	15.26	1.00
R3	RESIDENTIAL	LKD	W3	9.85	10.18	1.03
R3	RESIDENTIAL	LKD	W4	14.99	15.54	1.04

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
R3	RESIDENTIAL	LKD	W5	25.05	25.05	1.00
92 PENN WAY						
F00						
R1	RESIDENTIAL	LD	W1	21.89	20.32	0.93
R1	RESIDENTIAL	LD	W2	5.93	8.69	1.47
R1	RESIDENTIAL	LD	W3	5.88	8.93	1.52
R1	RESIDENTIAL	LD	W4	5.83	9.14	1.57
R2	RESIDENTIAL	KD	W5	8.51	13.23	1.56
R2	RESIDENTIAL	KD	W6	13.71	13.19	0.96
F01						
R1	RESIDENTIAL	BEDROOM	W1	16.44	15.75	0.96
R1	RESIDENTIAL	BEDROOM	W2	24.00	22.28	0.93
R1	RESIDENTIAL	BEDROOM	W3	6.46	8.88	1.38
R1	RESIDENTIAL	BEDROOM	W4	6.35	9.29	1.46
R2	RESIDENTIAL	BEDROOM	W5	13.98	12.87	0.92
R2	RESIDENTIAL	BEDROOM	W6	13.78	12.84	0.93
F02						
R1	RESIDENTIAL	UNKNOWN	W1	15.83	15.22	0.96
R1	RESIDENTIAL	UNKNOWN	W2	21.50	19.91	0.93
R2	RESIDENTIAL	BEDROOM	W3	7.43	10.48	1.41
R2	RESIDENTIAL	BEDROOM	W4	16.63	15.56	0.94
R2	RESIDENTIAL	BEDROOM	W5	16.54	15.65	0.95
R2	RESIDENTIAL	BEDROOM	W6	16.41	15.68	0.96
56-76 PENN WAY						
F00						
R1	RESIDENTIAL	LD	W1	24.78	24.26	0.98
R2	RESIDENTIAL	LD	W2	25.11	24.82	0.99
R3	RESIDENTIAL	LD	W3	24.94	25.14	1.01
R4	RESIDENTIAL	LD	W4	24.56	24.79	1.01
R5	RESIDENTIAL	LD	W5	25.31	25.46	1.01
R6	RESIDENTIAL	LD	W6	25.04	25.07	1.00
R7	RESIDENTIAL	LD	W7	24.84	24.73	1.00
R8	RESIDENTIAL	LD	W8	24.36	24.08	0.99
R9	RESIDENTIAL	LD	W9	25.84	25.25	0.98
R10	RESIDENTIAL	LD	W10	25.45	25.27	0.99
R11	RESIDENTIAL	LD	W11	24.79	24.91	1.00
F01						
R1	RESIDENTIAL	BEDROOM	W1	23.53	22.89	0.97
R1	RESIDENTIAL	BEDROOM	W2	16.63	15.73	0.95
R2	RESIDENTIAL	BEDROOM	W3	16.51	15.76	0.95
R2	RESIDENTIAL	BEDROOM	W4	23.49	23.10	0.98
R3	RESIDENTIAL	BEDROOM	W5	23.31	23.16	0.99
R3	RESIDENTIAL	BEDROOM	W6	16.09	15.78	0.98
R4	RESIDENTIAL	BEDROOM	W7	15.88	15.65	0.99
R4	RESIDENTIAL	BEDROOM	W8	23.13	23.11	1.00

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
R5	RESIDENTIAL	BEDROOM	W9	23.31	23.32	1.00
R5	RESIDENTIAL	BEDROOM	W10	15.93	15.86	1.00
R6	RESIDENTIAL	BEDROOM	W11	15.93	15.88	1.00
R6	RESIDENTIAL	BEDROOM	W12	23.50	23.44	1.00
R7	RESIDENTIAL	BEDROOM	W13	23.57	23.45	0.99
R7	RESIDENTIAL	BEDROOM	W14	15.89	15.86	1.00
R8	RESIDENTIAL	BEDROOM	W15	15.80	15.83	1.00
R8	RESIDENTIAL	BEDROOM	W16	23.64	23.43	0.99
R9	RESIDENTIAL	BEDROOM	W17	23.81	23.52	0.99
R9	RESIDENTIAL	BEDROOM	W18	15.70	15.85	1.01
R10	RESIDENTIAL	BEDROOM	W19	15.61	15.91	1.02
R10	RESIDENTIAL	BEDROOM	W20	23.69	23.54	0.99
R11	RESIDENTIAL	BEDROOM	W21	23.56	23.45	1.00
R11	RESIDENTIAL	BEDROOM	W22	15.53	15.91	1.02
F02						
R1	RESIDENTIAL	UNKNOWN	W1	20.04	19.51	0.97
R1	RESIDENTIAL	UNKNOWN	W2	14.47	13.71	0.95
R2	RESIDENTIAL	UNKNOWN	W3	14.39	13.70	0.95
R2	RESIDENTIAL	UNKNOWN	W4	20.07	19.62	0.98
R3	RESIDENTIAL	UNKNOWN	W5	19.99	19.60	0.98
R3	RESIDENTIAL	UNKNOWN	W6	14.22	13.72	0.96
R4	RESIDENTIAL	UNKNOWN	W7	14.06	13.62	0.97
R4	RESIDENTIAL	UNKNOWN	W8	19.96	19.64	0.98
R5	RESIDENTIAL	UNKNOWN	W9	20.11	19.82	0.99
R5	RESIDENTIAL	UNKNOWN	W10	14.04	13.74	0.98
R6	RESIDENTIAL	UNKNOWN	W11	13.95	13.73	0.98
R6	RESIDENTIAL	UNKNOWN	W12	20.19	19.94	0.99
R7	RESIDENTIAL	UNKNOWN	W13	20.16	19.96	0.99
R7	RESIDENTIAL	UNKNOWN	W14	13.82	13.79	1.00
R8	RESIDENTIAL	UNKNOWN	W15	13.69	13.79	1.01
R8	RESIDENTIAL	UNKNOWN	W16	20.15	20.01	0.99
R9	RESIDENTIAL	UNKNOWN	W17	20.25	20.08	0.99
R9	RESIDENTIAL	UNKNOWN	W18	13.60	13.93	1.02
R10	RESIDENTIAL	UNKNOWN	W19	13.48	13.94	1.03
R10	RESIDENTIAL	UNKNOWN	W20	20.18	20.12	1.00
R11	RESIDENTIAL	UNKNOWN	W21	20.08	20.08	1.00
R11	RESIDENTIAL	UNKNOWN	W22	13.44	14.01	1.04
86 PENN WAY						
F00						
R1	RESIDENTIAL	KD	W1	14.48	14.35	0.99
R2	RESIDENTIAL	LD	W2	19.61	19.75	1.01
F01						
R1	RESIDENTIAL	BEDROOM	W1	11.91	11.91	1.00
R1	RESIDENTIAL	BEDROOM	W2	12.12	12.12	1.00
R2	RESIDENTIAL	BEDROOM	W3	15.30	15.31	1.00
R2	RESIDENTIAL	BEDROOM	W4	22.71	23.18	1.02
F02						

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
R1	RESIDENTIAL	BEDROOM	W1	13.77	13.77	1.00
R1	RESIDENTIAL	BEDROOM	W2	13.91	13.91	1.00
R1	RESIDENTIAL	BEDROOM	W3	14.08	14.08	1.00
R2	RESIDENTIAL	UNKNOWN	W4	15.40	15.28	0.99
R2	RESIDENTIAL	UNKNOWN	W5	20.70	21.32	1.03
94 PENN WAY						
F00						
R1	RESIDENTIAL	LD	W1	22.43	22.23	0.99
R2	RESIDENTIAL	KD	W2	14.33	14.34	1.00
F01						
R1	RESIDENTIAL	BEDROOM	W1	24.36	23.43	0.96
R1	RESIDENTIAL	BEDROOM	W2	16.76	16.58	0.99
R2	RESIDENTIAL	BEDROOM	W3	13.60	13.60	1.00
R2	RESIDENTIAL	BEDROOM	W4	13.89	13.89	1.00
F02						
R1	RESIDENTIAL	UNKNOWN	W1	21.74	20.41	0.94
R1	RESIDENTIAL	UNKNOWN	W2	15.84	15.43	0.97
R2	RESIDENTIAL	BEDROOM	W3	16.24	16.13	0.99
R2	RESIDENTIAL	BEDROOM	W4	16.39	16.34	1.00
R2	RESIDENTIAL	BEDROOM	W5	16.64	16.61	1.00
39 PENN WAY						
F01						
R1	RESIDENTIAL	LKD	W1	32.58	32.21	N/A
R1	RESIDENTIAL	LKD	W2	24.22	24.12	1.00
R1	RESIDENTIAL	LKD	W3	17.40	16.87	0.97
R2	RESIDENTIAL	BEDROOM	W4	24.16	23.98	0.99
R3	RESIDENTIAL	BEDROOM	W5	23.68	23.55	0.99
29 PENN WAY						
F00						
R1	RESIDENTIAL	KD	W1	18.81	18.54	0.99
R2	RESIDENTIAL	LD	W2	21.98	21.96	1.00
F01						
R1	RESIDENTIAL	BEDROOM	W1	16.36	16.31	1.00
R1	RESIDENTIAL	BEDROOM	W2	16.28	16.22	1.00
R2	RESIDENTIAL	BEDROOM	W3	16.88	16.80	1.00
R2	RESIDENTIAL	BEDROOM	W4	24.90	24.40	0.98
F02						
R1	RESIDENTIAL	BEDROOM	W1	26.21	25.71	0.98
R1	RESIDENTIAL	BEDROOM	W2	18.22	17.98	0.99
R2	RESIDENTIAL	BEDROOM	W3	18.72	18.54	0.99
R2	RESIDENTIAL	BEDROOM	W4	27.40	26.68	0.97

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

ROL00494 - BROADWATER GARDENS TABLE P1
WELWYN GARDEN CITY VERTICAL SKY COMPONENT (VSC)
RELEASE 03_V02 - DEV.2020 SURROUNDING BUILDINGS

AnsteyHorne

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
31 PENN WAY						
F00						
R1	RESIDENTIAL	KD	W1	15.90	15.78	0.99
R2	RESIDENTIAL	LD	W2	20.88	20.82	1.00
F01						
R1	RESIDENTIAL	BEDROOM	W1	15.88	15.72	0.99
R1	RESIDENTIAL	BEDROOM	W2	15.88	15.70	0.99
R2	RESIDENTIAL	BEDROOM	W3	24.81	24.01	0.97
R2	RESIDENTIAL	BEDROOM	W4	16.52	16.35	0.99
F02						
R1	RESIDENTIAL	BEDROOM	W1	18.14	17.80	0.98
R1	RESIDENTIAL	BEDROOM	W2	25.14	24.71	0.98
R2	RESIDENTIAL	BEDROOM	W3	27.51	26.53	0.96
R2	RESIDENTIAL	BEDROOM	W4	18.75	18.41	0.98
33-37 PENN WAY						
F00						
R1	RESIDENTIAL	BEDROOM	W1	11.78	10.84	0.92
R1	RESIDENTIAL	BEDROOM	W2	12.30	11.35	0.92
R1	RESIDENTIAL	BEDROOM	W3	6.97	12.65	1.81
R2	RESIDENTIAL	BEDROOM	W4	7.09	12.19	1.72
F01						
R1	RESIDENTIAL	BEDROOM	W1	23.11	21.86	0.95
R1	RESIDENTIAL	BEDROOM	W2	12.82	18.23	1.42
R2	RESIDENTIAL	BEDROOM	W3	8.85	13.65	1.54
F02						
R1	RESIDENTIAL	BEDROOM	W1	26.28	25.07	0.95
R1	RESIDENTIAL	BEDROOM	W2	14.67	19.73	1.34
R2	RESIDENTIAL	BEDROOM	W3	10.68	15.21	1.42
76 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	26.98	25.34	0.94
R1	RESIDENTIAL	LIVING ROOM	W2	36.65	32.77	N/A
F01						
R1	RESIDENTIAL	BEDROOM	W1	36.97	34.84	N/A
R2	RESIDENTIAL	BEDROOM	W2	34.18	33.09	N/A
R2	RESIDENTIAL	BEDROOM	W3	37.64	35.13	N/A
74 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	32.42	29.75	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	28.18	25.67	0.91

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

ROL00494 - BROADWATER GARDENS TABLE P1
WELWYN GARDEN CITY VERTICAL SKY COMPONENT (VSC)
RELEASE 03_V02 - DEV.2020 SURROUNDING BUILDINGS

AnsteyHorne

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
F01						
R1	RESIDENTIAL	LIVING ROOM	W1	35.18	33.46	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	33.74	32.15	N/A
R2	RESIDENTIAL	BEDROOM	W3	37.02	35.12	N/A
72 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	27.86	27.17	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	35.77	33.24	N/A
F01						
R1	RESIDENTIAL	BEDROOM	W1	36.65	35.35	N/A
R2	RESIDENTIAL	BEDROOM	W2	34.08	33.63	N/A
R2	RESIDENTIAL	BEDROOM	W3	37.25	35.62	N/A
70 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	34.66	33.36	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	27.10	25.39	0.94
F01						
R1	RESIDENTIAL	BEDROOM	W1	36.69	35.83	N/A
R1	RESIDENTIAL	BEDROOM	W2	33.40	32.31	N/A
R2	RESIDENTIAL	BEDROOM	W3	36.39	35.30	N/A
78 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	36.10	32.36	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	26.07	24.78	0.95
F01						
R1	RESIDENTIAL	BEDROOM	W1	37.07	34.68	N/A
R1	RESIDENTIAL	BEDROOM	W2	32.84	32.09	N/A
R2	RESIDENTIAL	BEDROOM	W3	35.18	33.04	N/A
80 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	35.79	32.31	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	26.03	24.80	0.95
F01						
R1	RESIDENTIAL	BEDROOM	W1	36.85	34.68	N/A
R1	RESIDENTIAL	BEDROOM	W2	32.86	32.21	N/A
R2	RESIDENTIAL	BEDROOM	W3	34.95	32.93	N/A
82 BROADWATER CRESCENT						

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

ROL00494 - BROADWATER GARDENS TABLE P1
WELWYN GARDEN CITY VERTICAL SKY COMPONENT (VSC)
RELEASE 03_V02 - DEV.2020 SURROUNDING BUILDINGS

AnsteyHorne

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
F00						
R1	RESIDENTIAL	LIVING ROOM	W1	35.20	31.90	N/A
R1	RESIDENTIAL	LIVING ROOM	W2	26.49	25.46	0.96
F01						
R1	RESIDENTIAL	BEDROOM	W1	36.61	34.52	N/A
R1	RESIDENTIAL	BEDROOM	W2	32.83	32.22	N/A
R2	RESIDENTIAL	BEDROOM	W3	36.02	34.03	N/A
83-99 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	UNKNOWN	W1	33.13	30.18	N/A
R2	RESIDENTIAL	UNKNOWN	W2	31.24	28.86	N/A
R5	RESIDENTIAL	UNKNOWN	W7	31.63	23.33	0.74
R6	RESIDENTIAL	UNKNOWN	W8	32.44	22.93	0.71
F01						
R1	RESIDENTIAL	UNKNOWN	W1	34.67	32.70	N/A
R2	RESIDENTIAL	UNKNOWN	W2	33.68	31.81	N/A
R3	RESIDENTIAL	UNKNOWN	W3	6.57	6.13	0.93
R3	RESIDENTIAL	UNKNOWN	W4	5.76	5.58	0.97
R4	RESIDENTIAL	UNKNOWN	W5	5.32	2.34	0.44
R4	RESIDENTIAL	UNKNOWN	W6	6.64	6.12	0.92
R5	RESIDENTIAL	UNKNOWN	W7	33.99	27.89	N/A
R6	RESIDENTIAL	UNKNOWN	W8	35.06	27.59	N/A
F02						
R1	RESIDENTIAL	UNKNOWN	W1	35.93	34.89	N/A
R2	RESIDENTIAL	UNKNOWN	W2	35.85	34.74	N/A
R3	RESIDENTIAL	UNKNOWN	W3	8.78	8.55	0.97
R3	RESIDENTIAL	UNKNOWN	W4	6.37	6.26	0.98
R4	RESIDENTIAL	UNKNOWN	W5	5.99	4.64	0.78
R4	RESIDENTIAL	UNKNOWN	W6	8.82	8.96	1.02
R5	RESIDENTIAL	UNKNOWN	W7	36.02	33.32	N/A
R6	RESIDENTIAL	UNKNOWN	W8	36.13	32.86	N/A
101-117 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	UNKNOWN	W1	33.19	30.17	N/A
R2	RESIDENTIAL	UNKNOWN	W2	31.72	28.74	N/A
R5	RESIDENTIAL	UNKNOWN	W7	27.95	26.42	0.95
R6	RESIDENTIAL	UNKNOWN	W8	28.29	27.16	N/A
F01						
R1	RESIDENTIAL	UNKNOWN	W1	34.72	32.51	N/A
R2	RESIDENTIAL	UNKNOWN	W2	33.78	31.61	N/A
R3	RESIDENTIAL	UNKNOWN	W3	9.67	7.66	0.79
R3	RESIDENTIAL	UNKNOWN	W4	5.42	4.46	0.82
R4	RESIDENTIAL	UNKNOWN	W5	5.54	4.56	0.82
R4	RESIDENTIAL	UNKNOWN	W6	8.95	7.52	0.84

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

ROL00494 - BROADWATER GARDENS TABLE P1
WELWYN GARDEN CITY VERTICAL SKY COMPONENT (VSC)
RELEASE 03_V02 - DEV.2020 SURROUNDING BUILDINGS

AnsteyHorne

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
R5	RESIDENTIAL	UNKNOWN	W7	31.31	30.35	N/A
R6	RESIDENTIAL	UNKNOWN	W8	31.67	31.00	N/A
F02						
R1	RESIDENTIAL	UNKNOWN	W1	36.22	34.83	N/A
R2	RESIDENTIAL	UNKNOWN	W2	36.18	34.84	N/A
R3	RESIDENTIAL	UNKNOWN	W3	10.81	9.47	0.88
R3	RESIDENTIAL	UNKNOWN	W4	5.30	4.79	0.90
R4	RESIDENTIAL	UNKNOWN	W5	6.33	5.64	0.89
R4	RESIDENTIAL	UNKNOWN	W6	9.91	9.24	0.93
R5	RESIDENTIAL	UNKNOWN	W7	35.43	34.96	N/A
R6	RESIDENTIAL	UNKNOWN	W8	35.30	35.03	N/A

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

APPENDIX C
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DAYLIGHT DISTRIBUTION TABLE

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
SALVISBURG COURT						
F01						
R1	RESIDENTIAL	LKD	20.90	20.90	20.90	1.00
R2	RESIDENTIAL	BEDROOM	12.37	11.58	10.14	0.88
R3	RESIDENTIAL	LKD	25.44	23.62	22.75	0.96
R4	RESIDENTIAL	BEDROOM	10.43	9.96	8.61	0.86
R5	RESIDENTIAL	BEDROOM	14.06	13.70	13.58	0.99
R6	RESIDENTIAL	BEDROOM	14.06	13.70	13.49	0.98
R7	RESIDENTIAL	BEDROOM	10.43	10.18	10.18	1.00
R8	RESIDENTIAL	LKD	25.43	24.20	24.20	1.00
F02						
R1	RESIDENTIAL	LKD	20.90	20.89	20.89	1.00
R2	RESIDENTIAL	BEDROOM	12.37	12.26	12.19	0.99
R3	RESIDENTIAL	LKD	25.44	23.94	23.17	0.97
R4	RESIDENTIAL	BEDROOM	10.43	10.36	10.36	1.00
R5	RESIDENTIAL	BEDROOM	14.06	13.90	13.90	1.00
R6	RESIDENTIAL	BEDROOM	14.06	13.93	13.91	1.00
R7	RESIDENTIAL	BEDROOM	10.43	10.36	10.36	1.00
R8	RESIDENTIAL	LKD	25.43	24.21	24.21	1.00
F03						
R1	RESIDENTIAL	LKD	20.90	20.89	20.89	1.00
R2	RESIDENTIAL	BEDROOM	12.37	12.05	12.05	1.00
R3	RESIDENTIAL	LKD	25.44	23.17	18.20	0.79
R4	RESIDENTIAL	BEDROOM	10.43	10.35	10.35	1.00
R5	RESIDENTIAL	BEDROOM	14.06	13.91	13.91	1.00
R6	RESIDENTIAL	BEDROOM	14.06	13.88	13.85	1.00
R7	RESIDENTIAL	BEDROOM	10.43	10.34	10.34	1.00
R8	RESIDENTIAL	LKD	25.43	24.21	24.21	1.00
F00UG						
R1	RESIDENTIAL	LKD	20.90	20.89	20.88	1.00
R2	RESIDENTIAL	BEDROOM	12.37	12.14	11.77	0.97
R3	RESIDENTIAL	LKD	25.44	23.61	22.85	0.97
R4	RESIDENTIAL	BEDROOM	10.43	10.29	9.57	0.93
R5	RESIDENTIAL	BEDROOM	14.06	13.62	13.62	1.00
R6	RESIDENTIAL	BEDROOM	14.06	13.99	13.95	1.00
R7	RESIDENTIAL	BEDROOM	10.43	10.17	10.17	1.00
R8	RESIDENTIAL	LKD	25.43	24.32	24.32	1.00
88 PENN WAY						
F00						
R1	RESIDENTIAL	KD	9.90	9.64	9.64	1.00
R2	RESIDENTIAL	LD	17.95	17.47	17.40	1.00
F01						
R1	RESIDENTIAL	BEDROOM	5.53	5.23	5.23	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
R2	RESIDENTIAL	BEDROOM	12.97	12.95	12.93	1.00
F02						
R1	RESIDENTIAL	BEDROOM	11.87	11.84	11.84	1.00
R2	RESIDENTIAL	UNKNOWN	9.70	9.52	9.52	1.00
90 PENN WAY						
F01						
R1	RESIDENTIAL	BEDROOM	12.99	7.41	10.80	1.46
R2	RESIDENTIAL	BEDROOM	9.86	5.40	8.06	1.49
R3	RESIDENTIAL	LKD	21.39	14.83	19.60	1.32
92 PENN WAY						
F00						
R1	RESIDENTIAL	LD	17.95	17.86	17.90	1.00
R2	RESIDENTIAL	KD	10.08	10.00	10.00	1.00
F01						
R1	RESIDENTIAL	BEDROOM	13.02	12.94	12.97	1.00
R2	RESIDENTIAL	BEDROOM	5.75	5.67	5.67	1.00
F02						
R1	RESIDENTIAL	UNKNOWN	9.70	9.40	9.40	1.00
R2	RESIDENTIAL	BEDROOM	12.21	12.17	12.17	1.00
56-76 PENN WAY						
F00						
R1	RESIDENTIAL	LD	18.13	17.56	17.36	0.99
R2	RESIDENTIAL	LD	18.14	17.38	17.51	1.01
R3	RESIDENTIAL	LD	18.12	17.19	18.05	1.05
R4	RESIDENTIAL	LD	18.13	16.78	17.96	1.07
R5	RESIDENTIAL	LD	18.12	17.41	18.00	1.03
R6	RESIDENTIAL	LD	18.16	17.39	18.10	1.04
R7	RESIDENTIAL	LD	18.11	17.30	18.03	1.04
R8	RESIDENTIAL	LD	18.13	16.72	17.67	1.06
R9	RESIDENTIAL	LD	18.12	17.16	17.73	1.03
R10	RESIDENTIAL	LD	18.13	16.85	18.06	1.07
R11	RESIDENTIAL	LD	18.12	16.50	18.06	1.09
F01						
R1	RESIDENTIAL	BEDROOM	13.09	13.02	13.02	1.00
R2	RESIDENTIAL	BEDROOM	13.11	13.03	13.03	1.00
R3	RESIDENTIAL	BEDROOM	13.09	13.02	13.02	1.00
R4	RESIDENTIAL	BEDROOM	13.11	13.02	13.01	1.00
R5	RESIDENTIAL	BEDROOM	13.11	13.02	13.02	1.00
R6	RESIDENTIAL	BEDROOM	13.11	13.03	13.03	1.00
R7	RESIDENTIAL	BEDROOM	13.08	12.99	12.99	1.00
R8	RESIDENTIAL	BEDROOM	13.11	13.03	13.03	1.00
R9	RESIDENTIAL	BEDROOM	13.09	13.01	13.01	1.00
R10	RESIDENTIAL	BEDROOM	13.11	13.03	13.03	1.00
R11	RESIDENTIAL	BEDROOM	13.09	13.01	13.01	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
F02						
R1	RESIDENTIAL	UNKNOWN	9.71	9.46	9.46	1.00
R2	RESIDENTIAL	UNKNOWN	9.71	9.48	9.48	1.00
R3	RESIDENTIAL	UNKNOWN	9.70	9.48	9.48	1.00
R4	RESIDENTIAL	UNKNOWN	9.71	9.45	9.45	1.00
R5	RESIDENTIAL	UNKNOWN	9.70	9.44	9.44	1.00
R6	RESIDENTIAL	UNKNOWN	9.71	9.42	9.42	1.00
R7	RESIDENTIAL	UNKNOWN	9.70	9.44	9.44	1.00
R8	RESIDENTIAL	UNKNOWN	9.71	9.44	9.44	1.00
R9	RESIDENTIAL	UNKNOWN	9.70	9.45	9.45	1.00
R10	RESIDENTIAL	UNKNOWN	9.71	9.47	9.47	1.00
R11	RESIDENTIAL	UNKNOWN	9.70	9.47	9.47	1.00
86 PENN WAY						
F00						
R1	RESIDENTIAL	KD	9.46	5.41	5.40	1.00
R2	RESIDENTIAL	LD	18.12	16.95	17.43	1.03
F01						
R1	RESIDENTIAL	BEDROOM	5.06	4.89	4.89	1.00
R2	RESIDENTIAL	BEDROOM	13.08	13.05	13.06	1.00
F02						
R1	RESIDENTIAL	BEDROOM	11.19	11.14	11.14	1.00
R2	RESIDENTIAL	UNKNOWN	9.70	9.51	9.52	1.00
94 PENN WAY						
F00						
R1	RESIDENTIAL	LD	18.11	17.69	17.60	0.99
R2	RESIDENTIAL	KD	10.04	9.10	9.01	0.99
F01						
R1	RESIDENTIAL	BEDROOM	13.04	12.96	12.96	1.00
R2	RESIDENTIAL	BEDROOM	5.65	5.62	5.62	1.00
F02						
R1	RESIDENTIAL	UNKNOWN	9.70	9.45	9.45	1.00
R2	RESIDENTIAL	BEDROOM	12.08	12.04	12.04	1.00
39 PENN WAY						
F01						
R1	RESIDENTIAL	LKD	21.51	18.39	18.39	1.00
R2	RESIDENTIAL	BEDROOM	9.86	9.76	9.76	1.00
R3	RESIDENTIAL	BEDROOM	12.99	12.39	12.35	1.00
29 PENN WAY						
F00						
R1	RESIDENTIAL	KD	8.66	6.60	6.60	1.00
R2	RESIDENTIAL	LD	18.13	18.04	18.01	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
F01						
R1	RESIDENTIAL	BEDROOM	4.63	4.62	4.62	1.00
R2	RESIDENTIAL	BEDROOM	15.65	15.41	15.41	1.00
F02						
R1	RESIDENTIAL	BEDROOM	8.91	8.89	8.89	1.00
R2	RESIDENTIAL	BEDROOM	14.55	14.36	14.36	1.00
31 PENN WAY						
F00						
R1	RESIDENTIAL	KD	8.66	6.34	6.34	1.00
R2	RESIDENTIAL	LD	18.13	17.96	17.94	1.00
F01						
R1	RESIDENTIAL	BEDROOM	4.63	4.62	4.62	1.00
R2	RESIDENTIAL	BEDROOM	13.30	13.25	13.25	1.00
F02						
R1	RESIDENTIAL	BEDROOM	8.91	8.87	8.87	1.00
R2	RESIDENTIAL	BEDROOM	14.55	14.37	14.37	1.00
33-37 PENN WAY						
F00						
R1	RESIDENTIAL	BEDROOM	9.96	9.72	9.70	1.00
R2	RESIDENTIAL	BEDROOM	6.95	4.75	6.84	1.44
F01						
R1	RESIDENTIAL	BEDROOM	9.96	9.76	9.91	1.01
R2	RESIDENTIAL	BEDROOM	6.95	5.34	6.84	1.28
F02						
R1	RESIDENTIAL	BEDROOM	9.96	9.86	9.93	1.01
R2	RESIDENTIAL	BEDROOM	6.95	5.82	6.84	1.17
76 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	14.85	14.69	14.48	0.99
F01						
R1	RESIDENTIAL	BEDROOM	11.05	10.69	10.69	1.00
R2	RESIDENTIAL	BEDROOM	12.50	12.49	12.48	1.00
74 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	14.98	14.61	14.61	1.00
F01						
R1	RESIDENTIAL	LIVING ROOM	11.72	11.71	11.71	1.00
R2	RESIDENTIAL	BEDROOM	9.99	9.75	9.75	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
72 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	13.13	12.84	12.73	0.99
F01						
R1	RESIDENTIAL	BEDROOM	9.59	9.39	9.39	1.00
R2	RESIDENTIAL	BEDROOM	11.04	10.99	10.94	1.00
70 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	15.95	15.74	15.74	1.00
F01						
R1	RESIDENTIAL	BEDROOM	14.20	14.15	14.15	1.00
R2	RESIDENTIAL	BEDROOM	9.07	8.91	8.91	1.00
78 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	16.03	15.82	15.74	0.99
F01						
R1	RESIDENTIAL	BEDROOM	13.52	13.52	13.52	1.00
R2	RESIDENTIAL	BEDROOM	8.53	8.38	8.38	1.00
80 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	15.94	15.73	15.73	1.00
F01						
R1	RESIDENTIAL	BEDROOM	14.65	14.57	14.57	1.00
R2	RESIDENTIAL	BEDROOM	7.24	7.18	7.18	1.00
82 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	LIVING ROOM	17.13	16.72	16.44	0.98
F01						
R1	RESIDENTIAL	BEDROOM	13.79	13.71	13.74	1.00
R2	RESIDENTIAL	BEDROOM	11.35	10.97	11.00	1.00
83-99 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	UNKNOWN	9.23	8.87	8.52	0.96
R2	RESIDENTIAL	UNKNOWN	9.79	9.10	8.53	0.94
R5	RESIDENTIAL	UNKNOWN	9.79	9.19	6.82	0.74
R6	RESIDENTIAL	UNKNOWN	9.23	8.87	5.90	0.67

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
F01						
R1	RESIDENTIAL	UNKNOWN	9.23	8.86	8.66	0.98
R2	RESIDENTIAL	UNKNOWN	9.79	9.10	8.79	0.97
R3	RESIDENTIAL	UNKNOWN	9.00	8.25	8.07	0.98
R4	RESIDENTIAL	UNKNOWN	9.00	7.59	6.89	0.91
R5	RESIDENTIAL	UNKNOWN	9.79	9.22	8.12	0.88
R6	RESIDENTIAL	UNKNOWN	9.23	8.89	6.68	0.75
F02						
R1	RESIDENTIAL	UNKNOWN	9.23	9.13	9.13	1.00
R2	RESIDENTIAL	UNKNOWN	9.79	9.52	9.54	1.00
R3	RESIDENTIAL	UNKNOWN	9.00	8.58	8.58	1.00
R4	RESIDENTIAL	UNKNOWN	9.00	8.68	8.63	0.99
R5	RESIDENTIAL	UNKNOWN	9.79	9.55	9.55	1.00
R6	RESIDENTIAL	UNKNOWN	9.23	9.12	8.92	0.98
101-117 BROADWATER CRESCENT						
F00						
R1	RESIDENTIAL	UNKNOWN	7.86	7.76	7.76	1.00
R2	RESIDENTIAL	UNKNOWN	8.42	8.22	8.22	1.00
R5	RESIDENTIAL	UNKNOWN	8.42	7.96	7.94	1.00
R6	RESIDENTIAL	UNKNOWN	7.86	7.30	7.29	1.00
F01						
R1	RESIDENTIAL	UNKNOWN	7.86	7.80	7.80	1.00
R2	RESIDENTIAL	UNKNOWN	8.42	8.28	8.28	1.00
R3	RESIDENTIAL	UNKNOWN	8.02	7.77	7.77	1.00
R4	RESIDENTIAL	UNKNOWN	8.02	7.79	7.78	1.00
R5	RESIDENTIAL	UNKNOWN	8.42	8.27	8.26	1.00
R6	RESIDENTIAL	UNKNOWN	7.86	7.75	7.74	1.00
F02						
R1	RESIDENTIAL	UNKNOWN	7.86	7.80	7.80	1.00
R2	RESIDENTIAL	UNKNOWN	8.42	8.28	8.28	1.00
R3	RESIDENTIAL	UNKNOWN	8.02	7.84	7.84	1.00
R4	RESIDENTIAL	UNKNOWN	8.02	7.82	7.82	1.00
R5	RESIDENTIAL	UNKNOWN	8.42	8.28	8.28	1.00
R6	RESIDENTIAL	UNKNOWN	7.86	7.81	7.81	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

APPENDIX D

-

ANNUAL PROBABLE SUNLIGHT HOURS ('APSH') TABLE

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS

AnsteyHorne

PROPERTY					WINDOW						ROOM					
					ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Property type	Flat no.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
SALVISBURG COURT																
F01																
R1	RESIDENTIAL		W1	LKD	18	18	1.00	17	17	N/A						
R1	RESIDENTIAL		W2	LKD	37	37	N/A	17	17	N/A						
R1	RESIDENTIAL		W3	LKD	54	54	N/A	21	22	1.05						
R1	RESIDENTIAL		W4	LKD	18	8	0.44	0	0	-						
R1	RESIDENTIAL		W5	LKD	12	4	0.33	0	0	-	64	57	N/A	21	22	1.05
F02																
R1	RESIDENTIAL		W1	LKD	23	23	1.00	20	21	1.05						
R1	RESIDENTIAL		W2	LKD	37	38	1.03	17	18	1.06						
R1	RESIDENTIAL		W3	LKD	55	54	N/A	22	22	N/A						
R1	RESIDENTIAL		W4	LKD	12	4	0.33	0	0	-						
R1	RESIDENTIAL		W5	LKD	18	9	0.50	0	0	-	66	56	N/A	22	22	N/A
F03																
R1	RESIDENTIAL		W1	LKD	23	23	1.00	20	21	1.05						
R1	RESIDENTIAL		W2	LKD	37	38	1.03	17	18	1.06						
R1	RESIDENTIAL		W3	LKD	56	55	N/A	22	22	N/A						
R1	RESIDENTIAL		W4	LKD	26	17	0.65	3	3	1.00	66	57	N/A	22	22	N/A
F00UG																
R1	RESIDENTIAL		W1	LKD	21	22	1.05	19	20	1.05						
R1	RESIDENTIAL		W2	LKD	34	35	1.03	14	15	1.07						
R1	RESIDENTIAL		W3	LKD	51	50	N/A	18	19	1.06						
R1	RESIDENTIAL		W4	LKD	14	8	0.57	0	0	-	60	54	N/A	20	21	1.05
88 PENN WAY																
F00																
R2	RESIDENTIAL		W3	LD	2	4	2.00	0	0	-						
R2	RESIDENTIAL		W4	LD	2	3	1.50	0	0	-						
R2	RESIDENTIAL		W5	LD	2	2	1.00	0	0	-						
R2	RESIDENTIAL		W6	LD	48	48	N/A	11	11	N/A	48	50	1.04	11	11	N/A
F01																
R2	RESIDENTIAL		W3	BEDROOM	4	5	1.25	0	0	-						
R2	RESIDENTIAL		W4	BEDROOM	4	4	1.00	0	0	-						
R2	RESIDENTIAL		W5	BEDROOM	49	49	N/A	16	17	1.06						
R2	RESIDENTIAL		W6	BEDROOM	33	34	1.03	13	14	1.08	53	53	N/A	18	18	N/A
F02																
R2	RESIDENTIAL		W5	UNKNOWN	46	46	N/A	21	21	N/A						

*NOTES:'Factor of former value' = Proposed/Existing. A factor >1 indicates an increase in sunlight.An APSH > 25%/5% satisfies BRE criteria and ratio is N/A.Total annual sunlight (100% APSH) in London is 1486 hours.

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS

AnsteyHorne

PROPERTY					WINDOW						ROOM					
					ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Property type	Flat no.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
R2	RESIDENTIAL		W6	UNKNOWN	33	33	N/A	17	17	N/A	46	46	N/A	21	21	N/A
90 PENN WAY																
F01																
R3	RESIDENTIAL		W3	LKD	5	5	1.00	0	0	-						
R3	RESIDENTIAL		W4	LKD	10	11	1.10	0	0	-						
R3	RESIDENTIAL		W5	LKD	28	28	N/A	3	3	1.00	38	39	1.03	3	3	1.00
92 PENN WAY																
F00																
R2	RESIDENTIAL		W5	KD	5	14	2.80	0	0	-						
R2	RESIDENTIAL		W6	KD	40	39	N/A	12	9	N/A	40	46	1.15	12	9	N/A
F01																
R2	RESIDENTIAL		W5	BEDROOM	32	30	N/A	12	10	N/A						
R2	RESIDENTIAL		W6	BEDROOM	33	32	N/A	13	12	N/A	33	32	N/A	13	12	N/A
F02																
R2	RESIDENTIAL		W3	BEDROOM	2	10	5.00	0	0	-						
R2	RESIDENTIAL		W4	BEDROOM	37	35	N/A	17	15	N/A						
R2	RESIDENTIAL		W5	BEDROOM	37	36	N/A	17	16	N/A						
R2	RESIDENTIAL		W6	BEDROOM	36	36	N/A	16	16	N/A	39	47	1.21	17	17	N/A
86 PENN WAY																
F00																
R2	RESIDENTIAL		W2	LD	52	51	N/A	15	15	N/A	52	51	N/A	15	15	N/A
F01																
R2	RESIDENTIAL		W3	BEDROOM	34	34	N/A	14	14	N/A						
R2	RESIDENTIAL		W4	BEDROOM	53	53	N/A	20	20	N/A	53	53	N/A	20	20	N/A
F02																
R2	RESIDENTIAL		W4	UNKNOWN	33	33	N/A	17	17	N/A						
R2	RESIDENTIAL		W5	UNKNOWN	47	46	N/A	22	21	N/A	47	46	N/A	22	21	N/A
94 PENN WAY																
F00																
R2	RESIDENTIAL		W2	KD	44	45	1.02	14	14	N/A	44	45	1.02	14	14	N/A
F01																
R2	RESIDENTIAL		W3	BEDROOM	32	32	N/A	12	12	N/A						
R2	RESIDENTIAL		W4	BEDROOM	34	34	N/A	14	14	N/A	34	34	N/A	14	14	N/A

*NOTES:'Factor of former value' = Proposed/Existing. A factor >1 indicates an increase in sunlight.An APSH > 25%/5% satisfies BRE criteria and ratio is N/A.Total annual sunlight (100% APSH) in London is 1486 hours.

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS

AnsteyHorne

PROPERTY					WINDOW						ROOM					
					ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Property type	Flat no.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
F02																
R2	RESIDENTIAL		W3	BEDROOM	37	36	N/A	17	16	N/A						
R2	RESIDENTIAL		W4	BEDROOM	36	36	N/A	16	16	N/A						
R2	RESIDENTIAL		W5	BEDROOM	37	37	N/A	17	17	N/A	38	37	N/A	18	17	N/A
29 PENN WAY																
F00																
R2	RESIDENTIAL		W2	LD	54	54	N/A	14	14	N/A	54	54	N/A	14	14	N/A
F01																
R2	RESIDENTIAL		W3	BEDROOM	37	37	N/A	17	17	N/A						
R2	RESIDENTIAL		W4	BEDROOM	57	57	N/A	23	23	N/A	57	57	N/A	23	23	N/A
F02																
R2	RESIDENTIAL		W3	BEDROOM	39	38	N/A	19	18	N/A						
R2	RESIDENTIAL		W4	BEDROOM	59	58	N/A	25	24	N/A	59	58	N/A	25	24	N/A
31 PENN WAY																
F00																
R2	RESIDENTIAL		W2	LD	52	51	N/A	13	13	N/A	52	51	N/A	13	13	N/A
F01																
R2	RESIDENTIAL		W3	BEDROOM	57	55	N/A	23	21	N/A						
R2	RESIDENTIAL		W4	BEDROOM	38	38	N/A	18	18	N/A	58	56	N/A	24	22	N/A
F02																
R2	RESIDENTIAL		W3	BEDROOM	59	56	N/A	25	22	N/A						
R2	RESIDENTIAL		W4	BEDROOM	39	38	N/A	19	18	N/A	59	56	N/A	25	22	N/A
76 BROADWATER CRESCENT																
F00																
R1	RESIDENTIAL		W1	LIVING ROOM	31	29	N/A	6	6	N/A						
R1	RESIDENTIAL		W2	LIVING ROOM	35	33	N/A	8	8	N/A	37	35	N/A	8	8	N/A
F01																
R2	RESIDENTIAL		W2	BEDROOM	48	47	N/A	12	12	N/A						
R2	RESIDENTIAL		W3	BEDROOM	36	35	N/A	9	9	N/A	48	47	N/A	12	12	N/A
72 BROADWATER CRESCENT																
F00																
R1	RESIDENTIAL		W1	LIVING ROOM	31	31	N/A	5	5	N/A						

*NOTES:'Factor of former value' = Proposed/Existing. A factor >1 indicates an increase in sunlight.An APSH > 25%/5% satisfies BRE criteria and ratio is N/A.Total annual sunlight (100% APSH) in London is 1486 hours.

ROL00494 - BROADWATER GARDENS
WELWYN GARDEN CITY
RELEASE 03_V02 - DEV.2020

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS

AnsteyHorne

PROPERTY					WINDOW						ROOM					
					ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Property type	Flat no.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
R1	RESIDENTIAL		W2	LIVING ROOM	33	33	N/A	7	7	N/A	36	36	N/A	7	7	N/A
F01																
R2	RESIDENTIAL		W2	BEDROOM	47	47	N/A	11	11	N/A						
R2	RESIDENTIAL		W3	BEDROOM	36	36	N/A	9	9	N/A	47	47	N/A	11	11	N/A

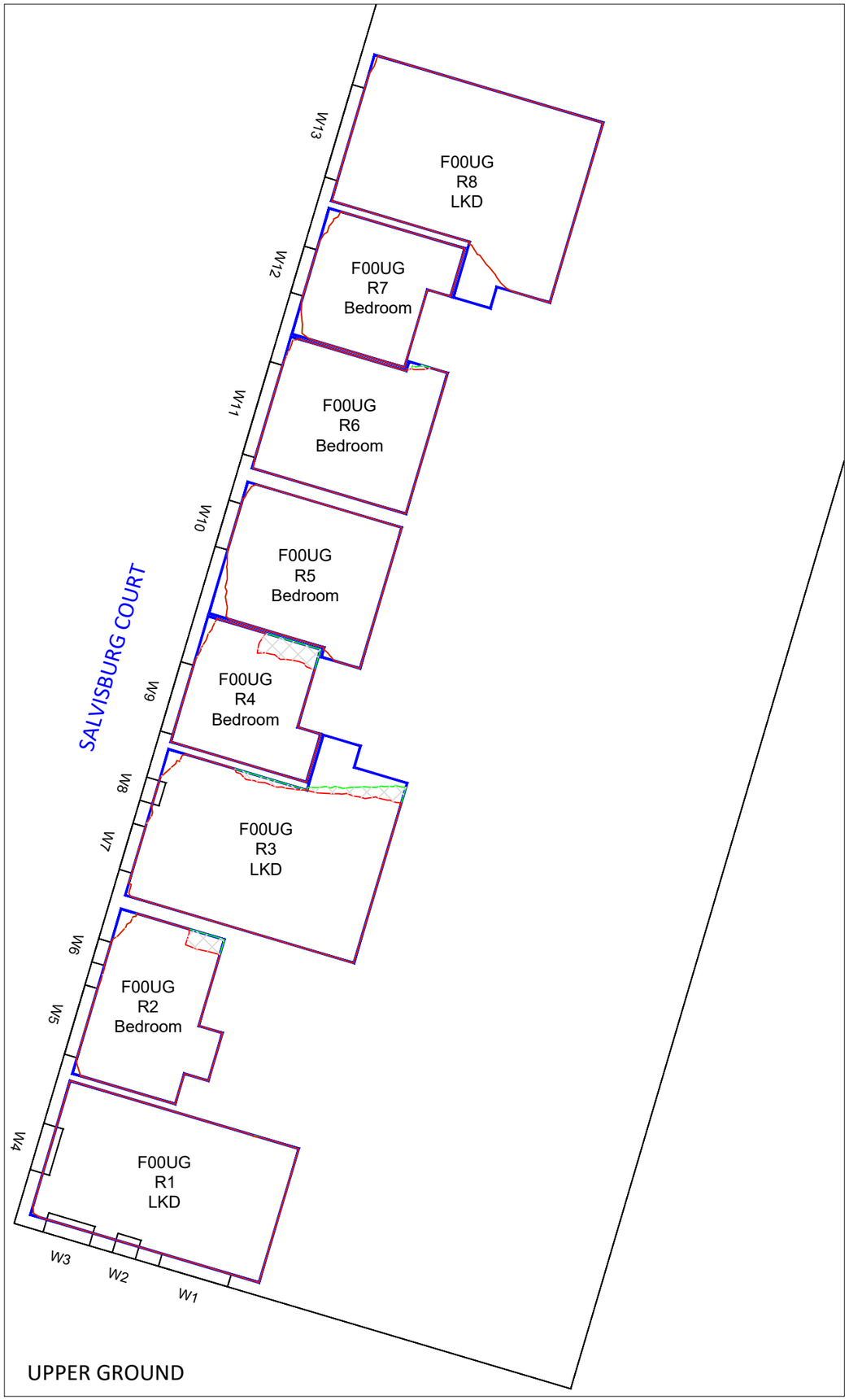
*NOTES:'Factor of former value' = Proposed/Existing. A factor >1 indicates an increase in sunlight.An APSH > 25%/5% satisfies BRE criteria and ratio is N/A.Total annual sunlight (100% APSH) in London is 1486 hours.

APPENDIX E

-

DAYLIGHT DISTRIBUTION CONTOUR PLANS

DRAWING NOS. ROL00494_R03_V02_101-01 TO 112-01



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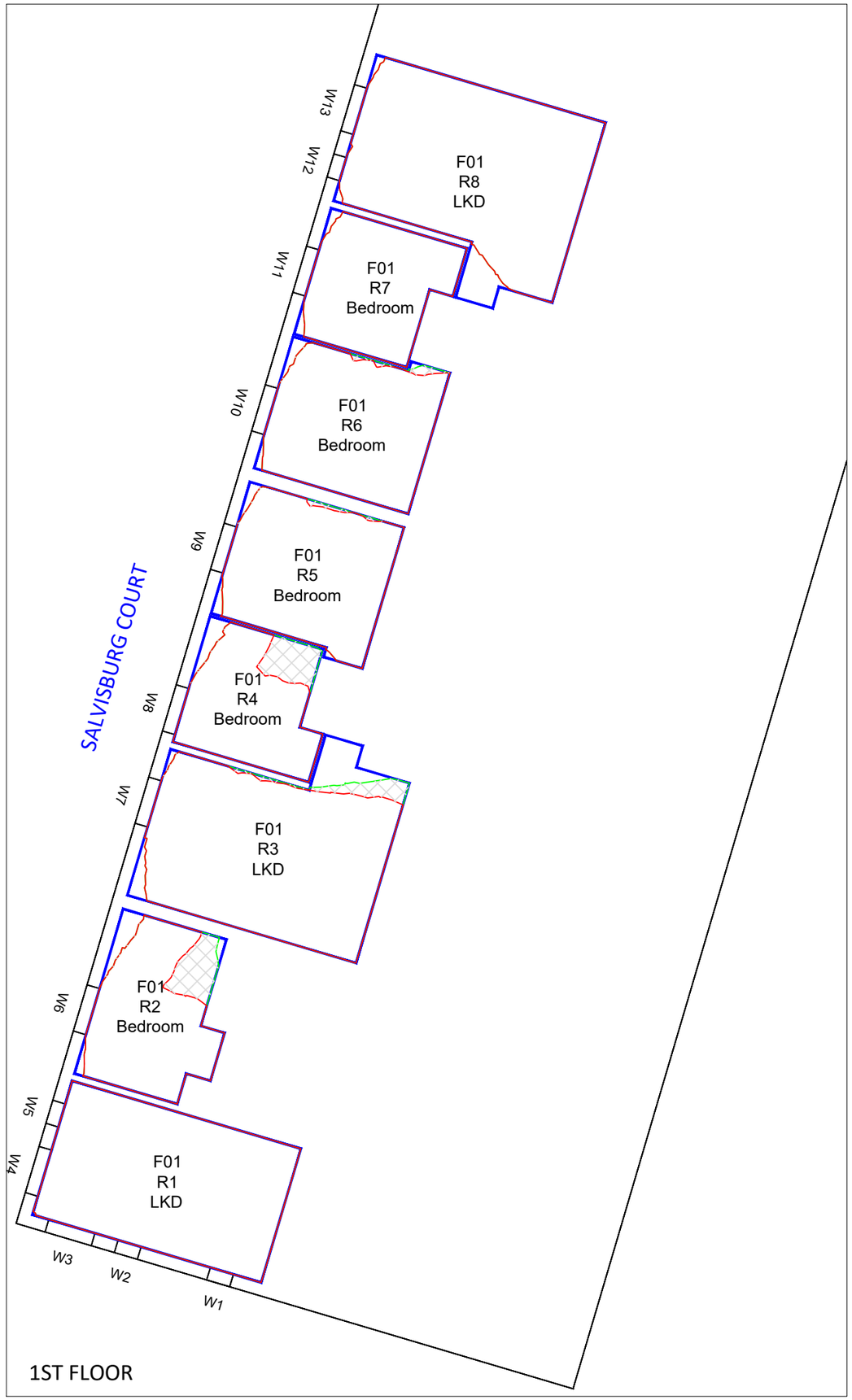


1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m 6m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

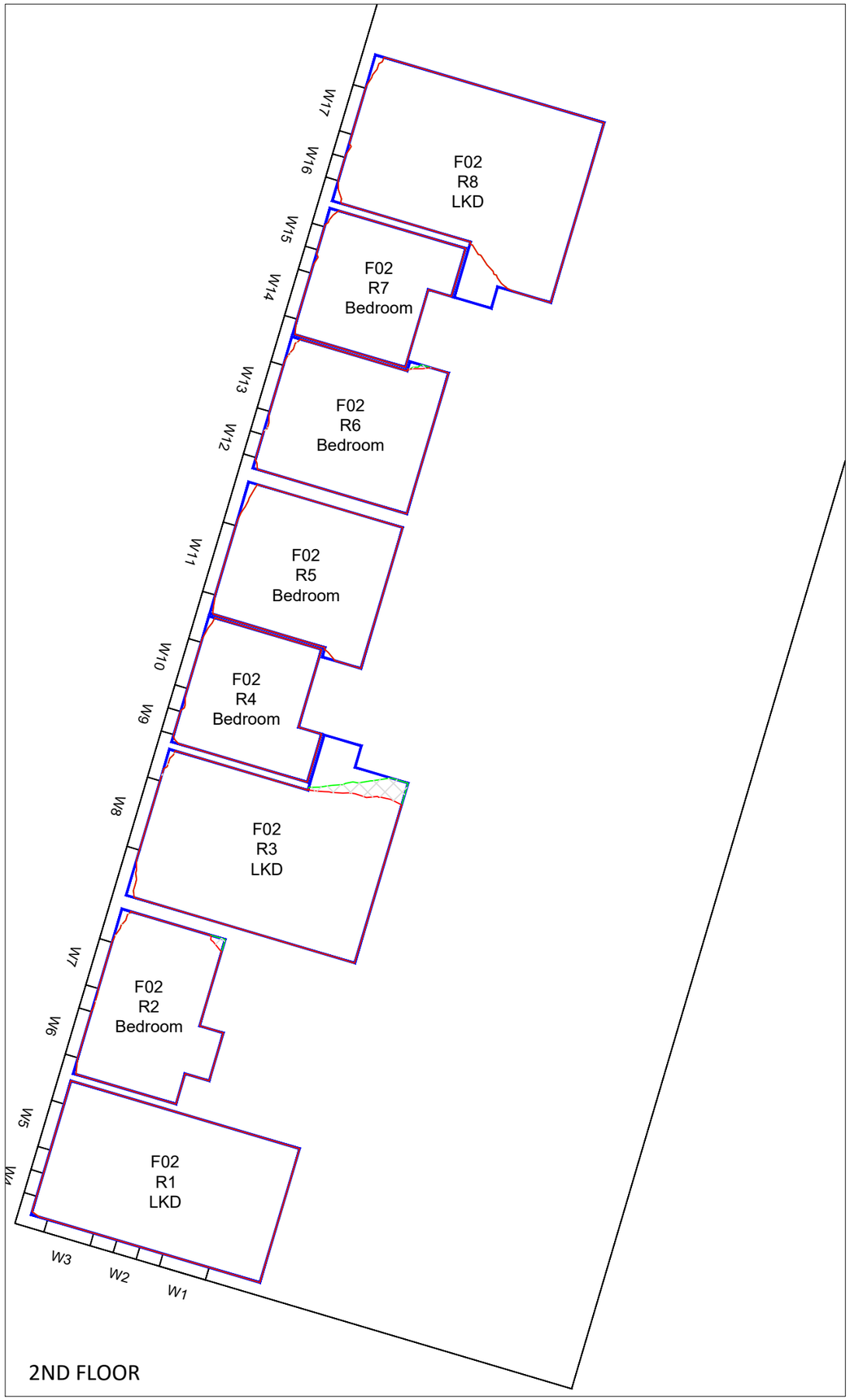
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
SALVISBURG COURT

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
XX/XX	DEC.2020	1:125	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	101-01

Daylight & Sunlight



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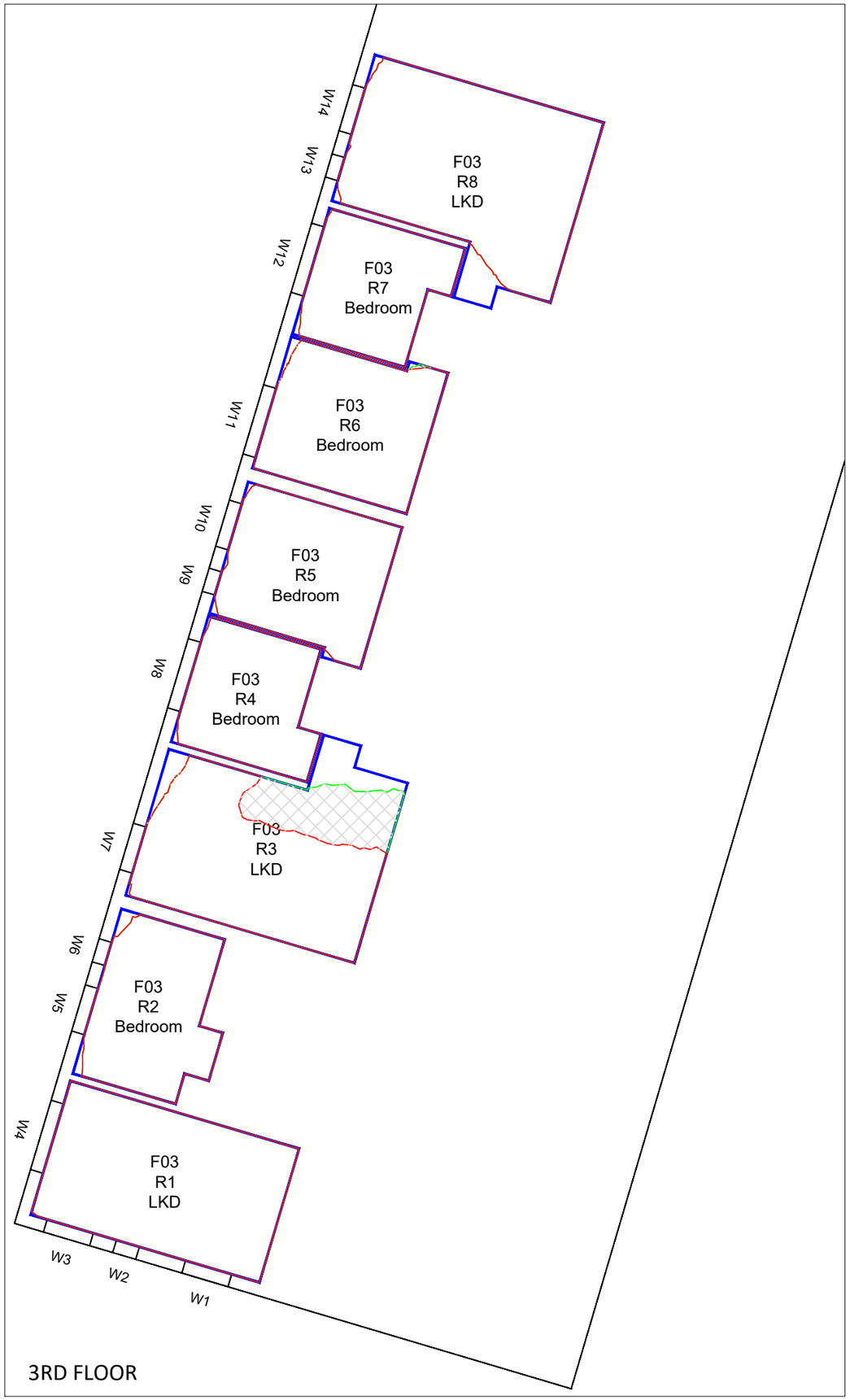


3RD FLOOR

AnsteyHorne

CHARTERED SURVEYORS

London 020 7065 2770 | Bristol 0117 911 3061 | Birmingham 0121 667 9902

www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m 6m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

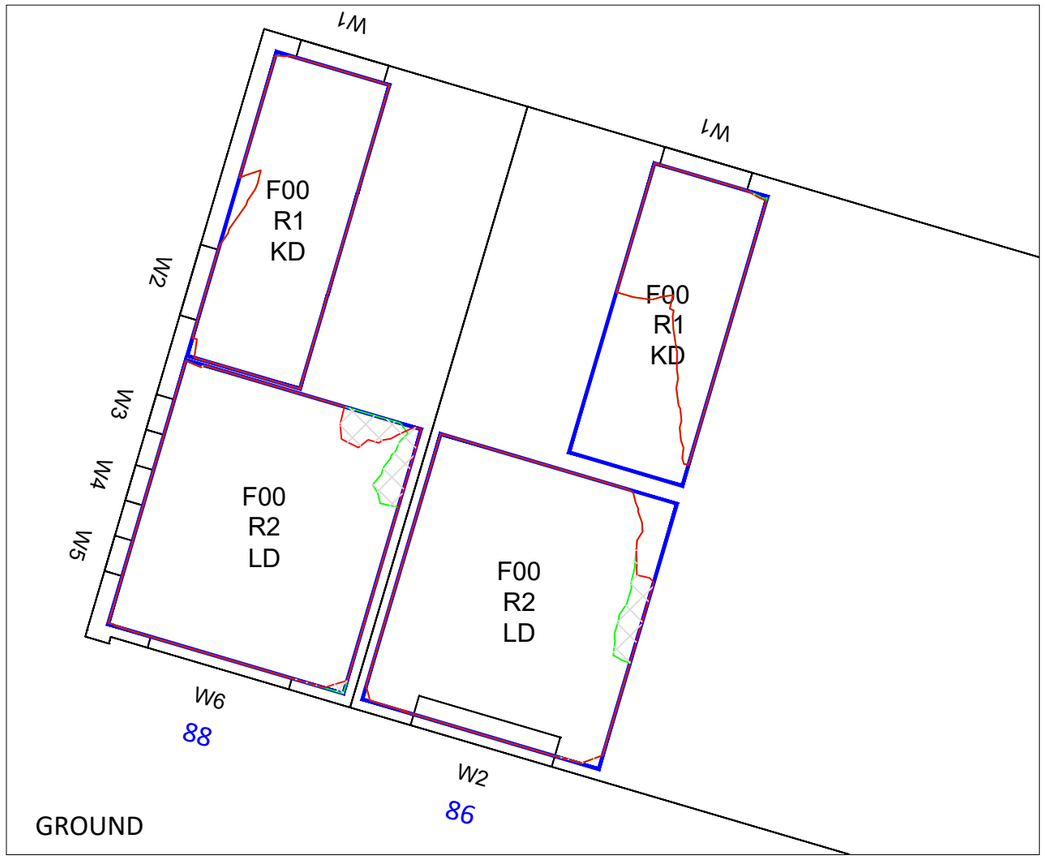
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
SALVISBURG COURT
BLOCK 01

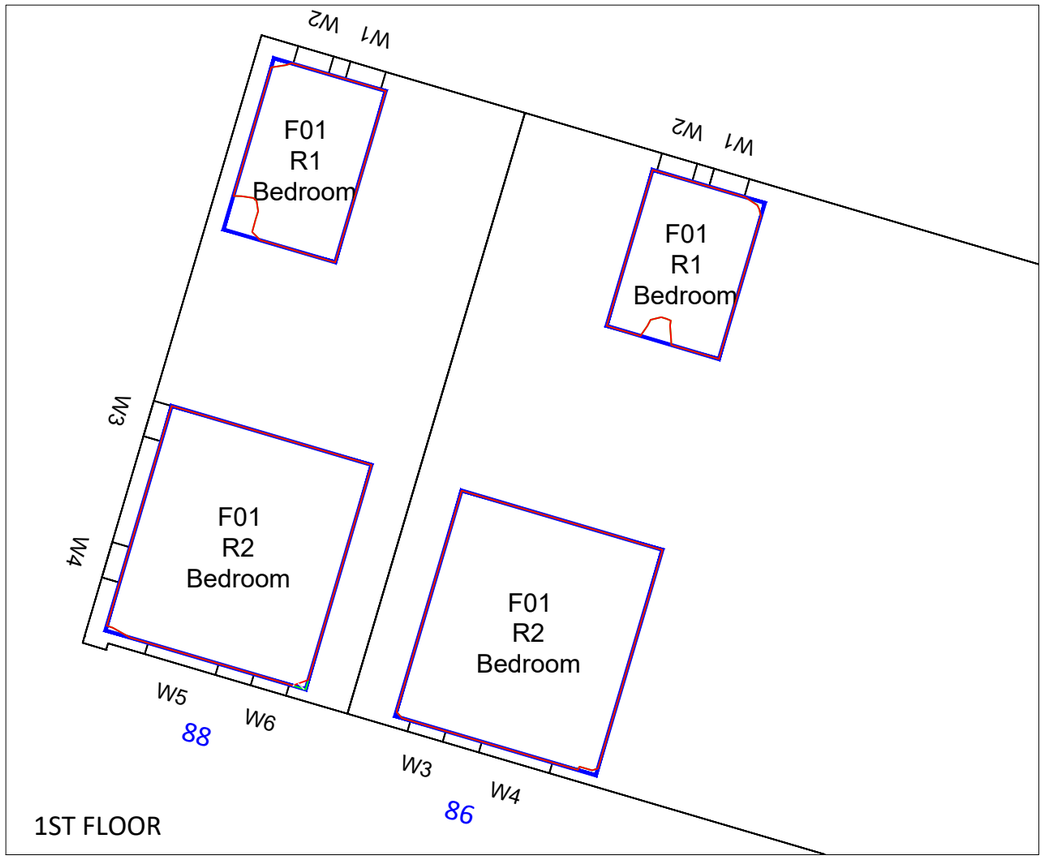
MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:125	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	101-02

Daylight & Sunlight



GROUND



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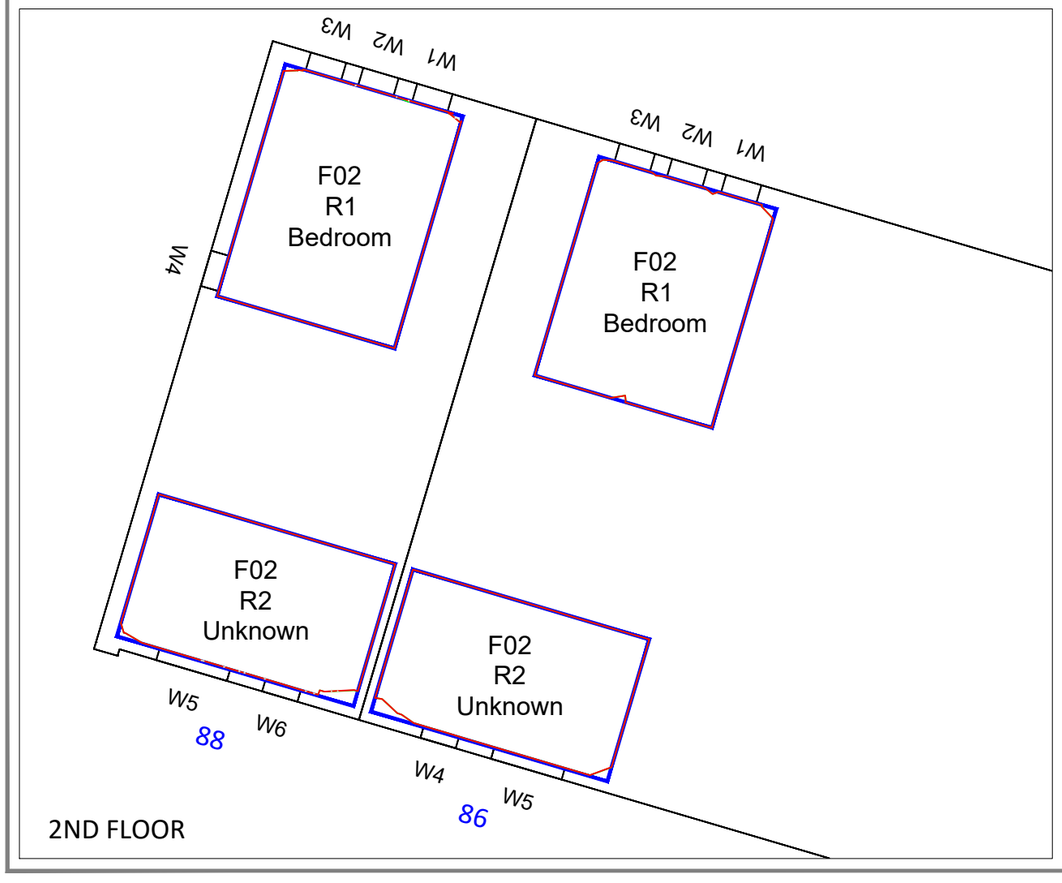


2ND FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

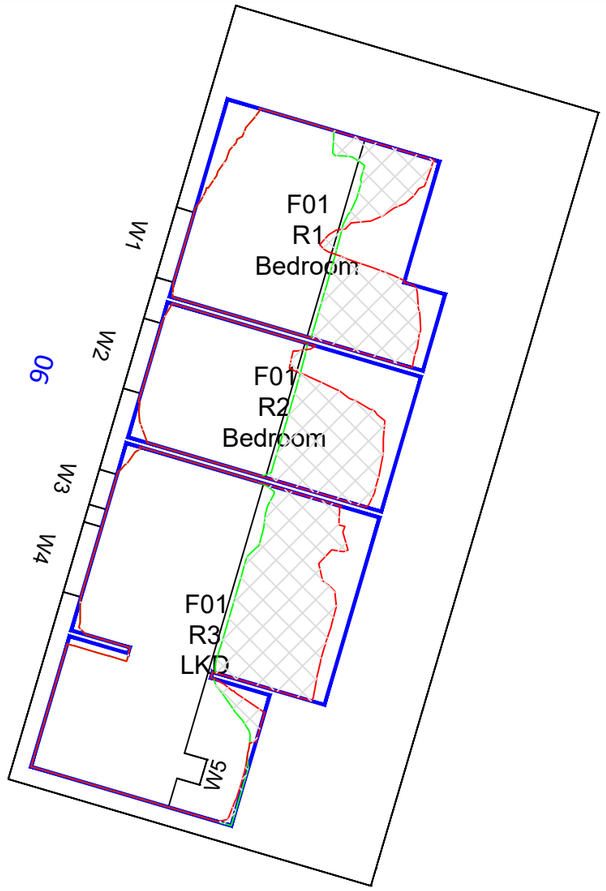
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
86 & 88 PENN WAY
BLOCK 02

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			102-01

Daylight & Sunlight



1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

Room Layout - Plan/ Inspection

Room Layout - Notional/ Cellular

Room Layout - Assumed

Proposed Contour

Existing Contour

Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N W E S

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

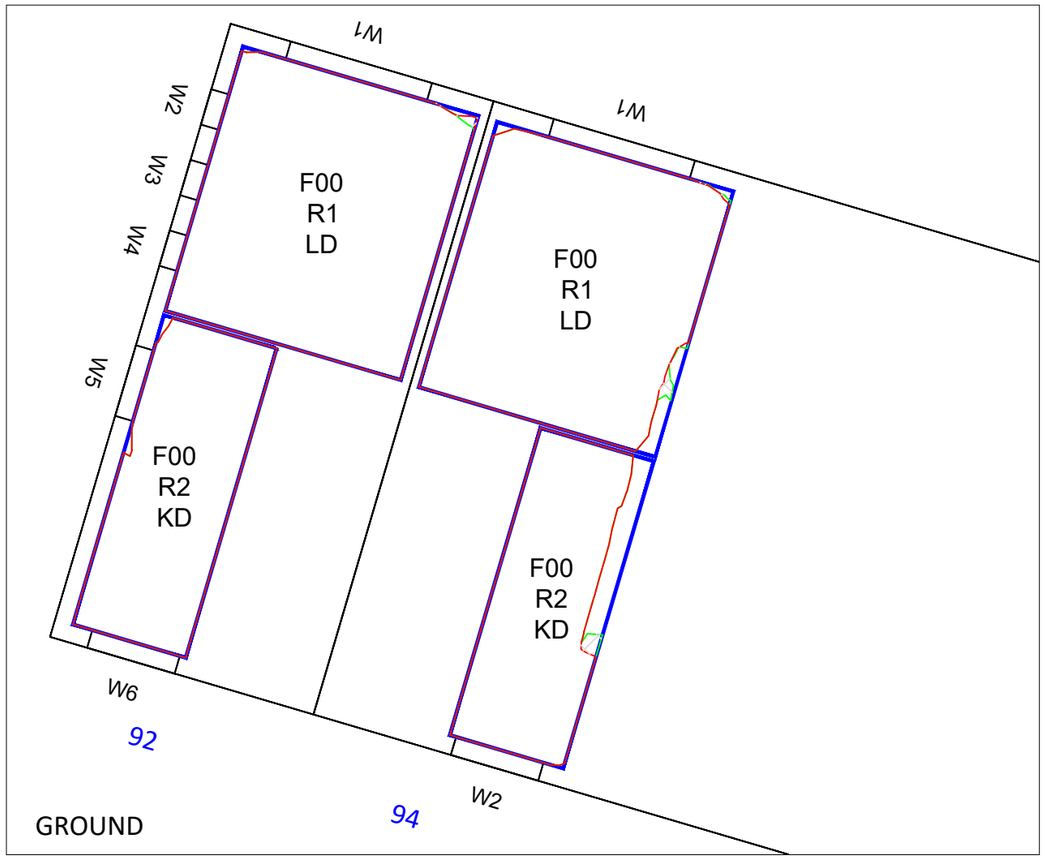
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
90 PENN WAY
BLOCK 02

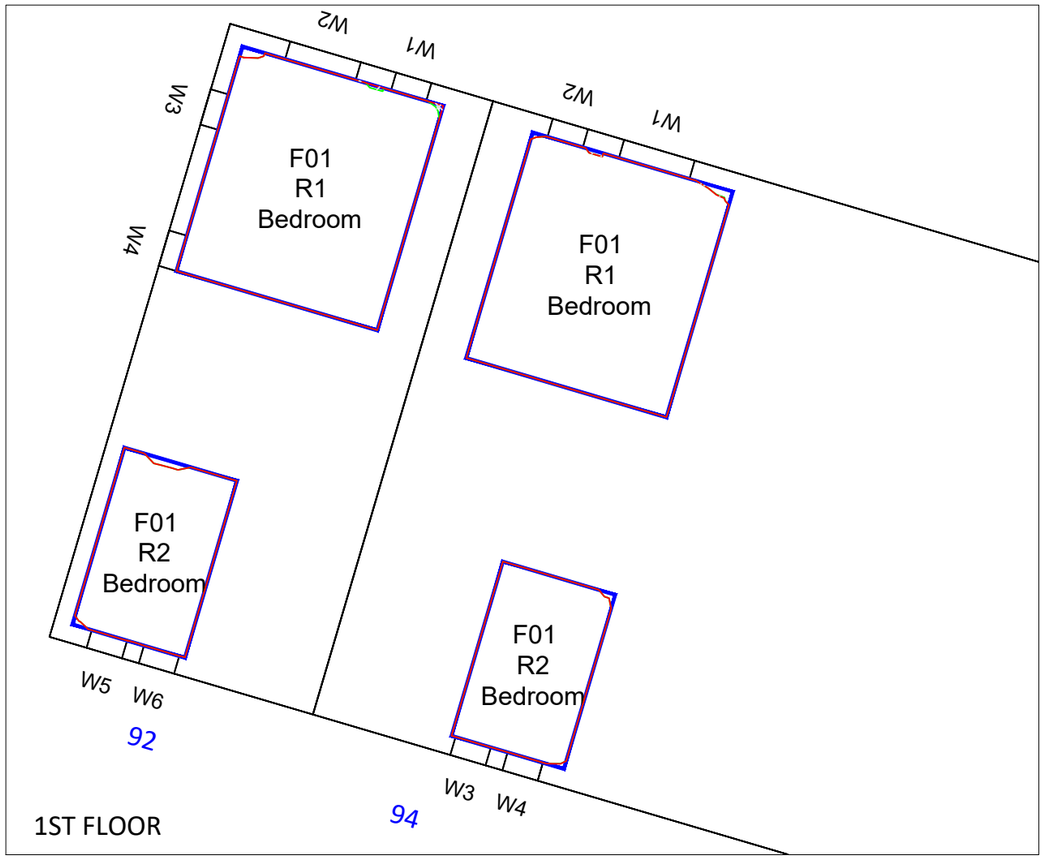
MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			103-01

Daylight & Sunlight



GROUND



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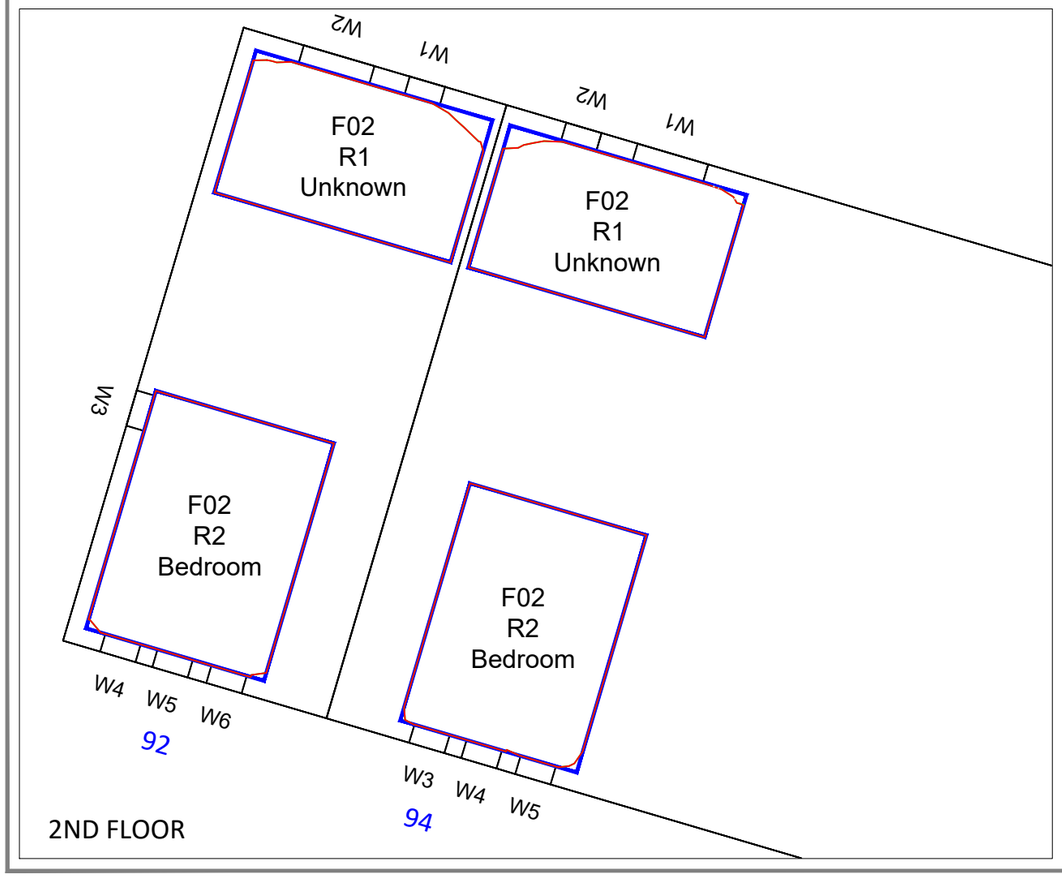


2ND FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

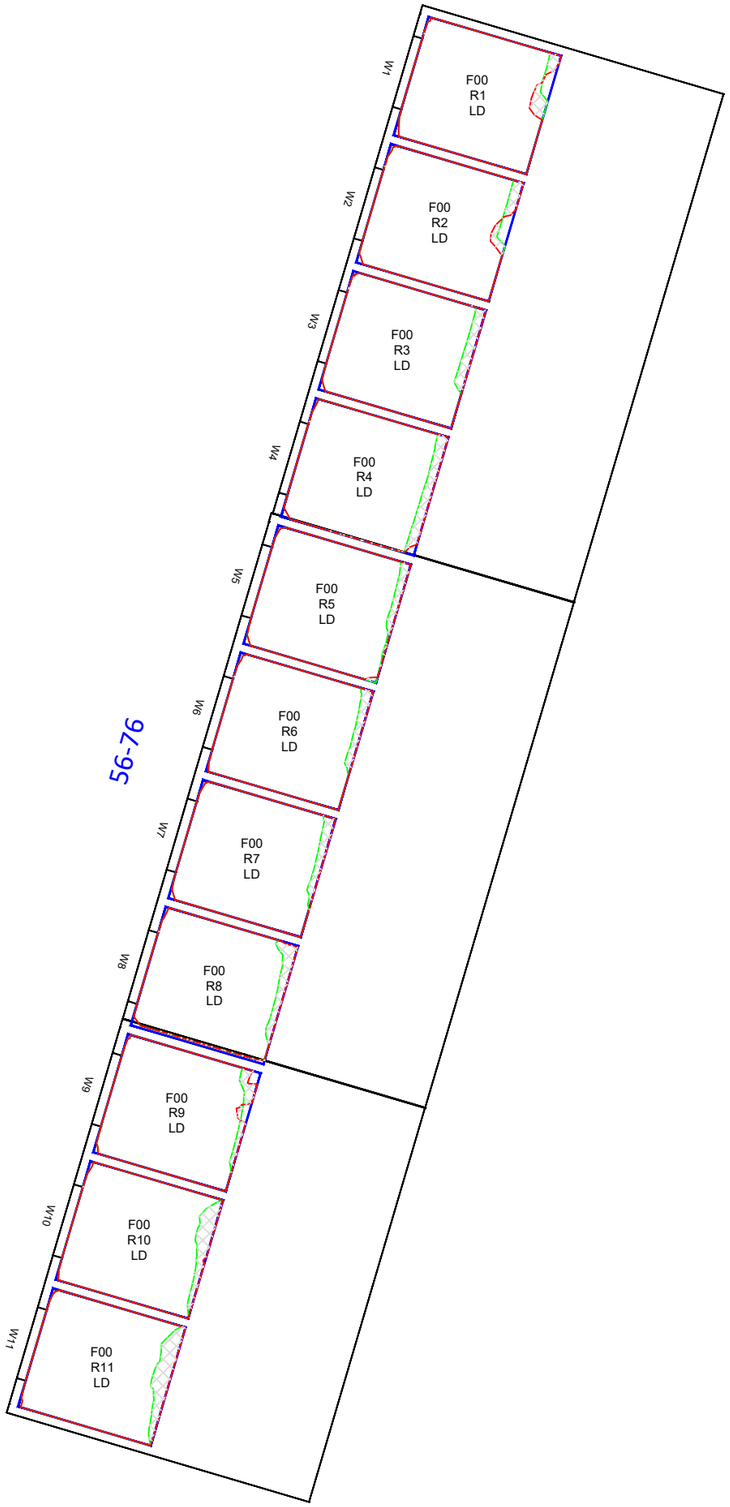
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
92 & 94 PENN WAY
BLOCK 02

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			104-01

Daylight & Sunlight



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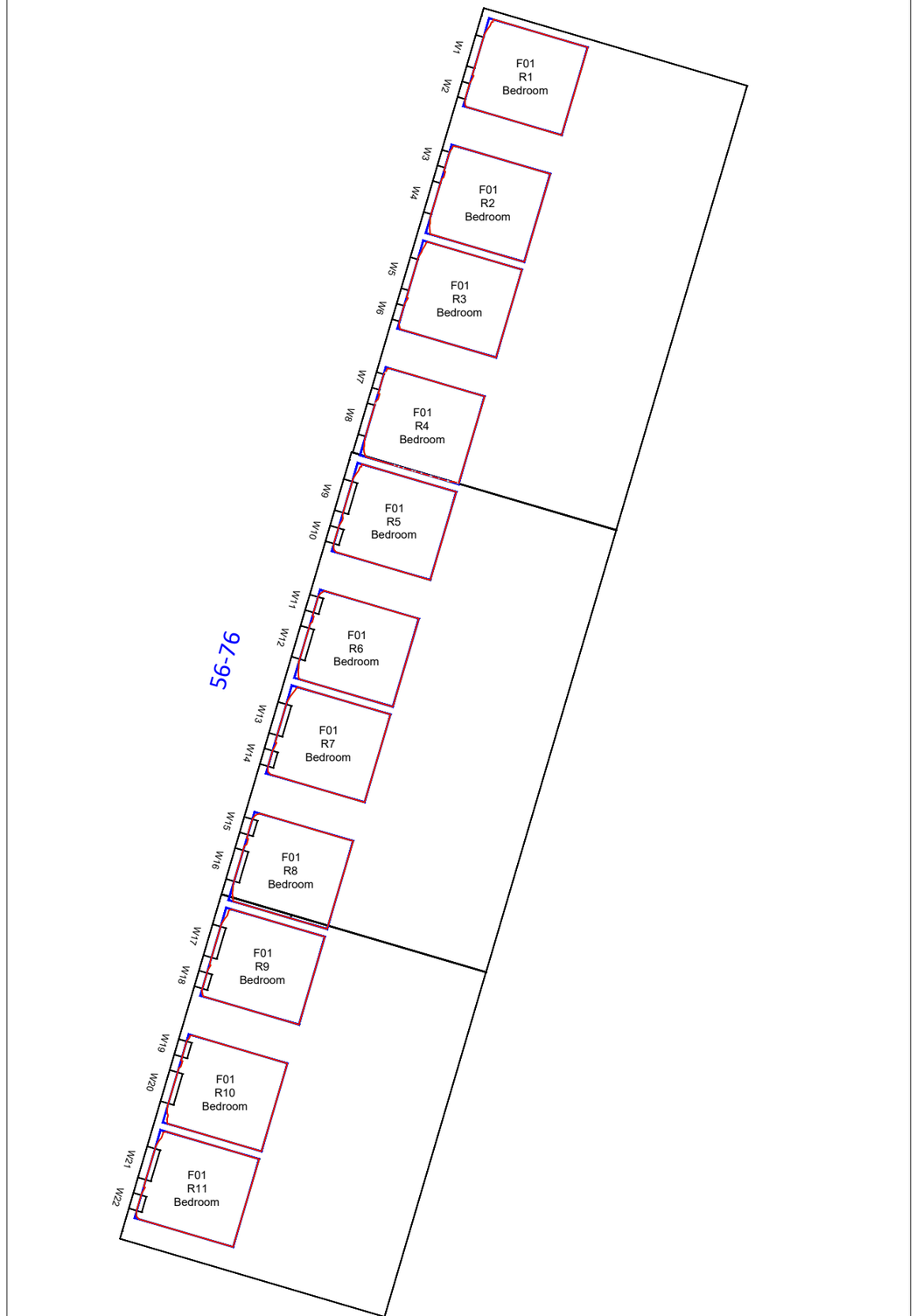


1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

Room Layout - Plan/ Inspection

Room Layout - Notional/ Cellular

Room Layout - Assumed

Proposed Contour

Existing Contour

Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

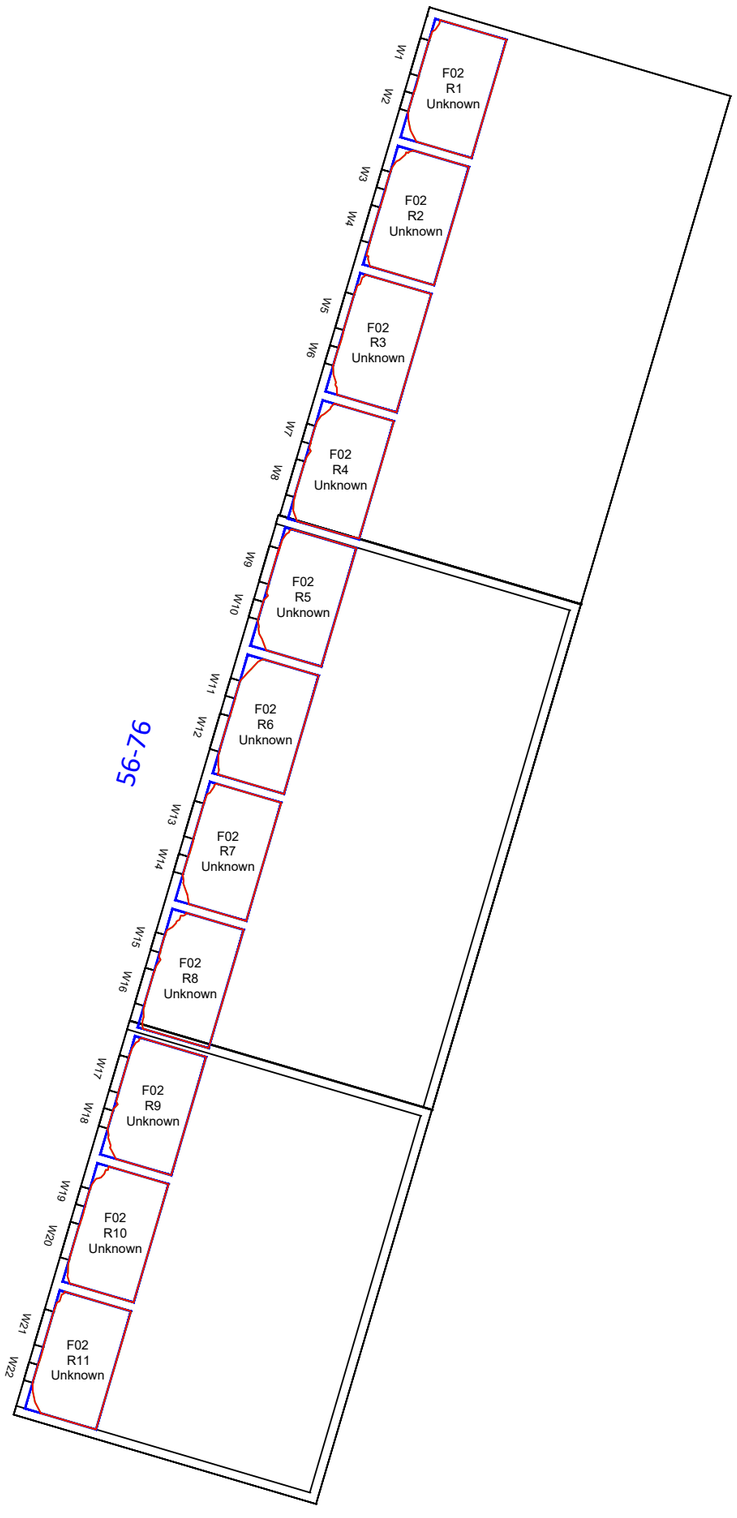
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
56-76 PENN WAY (EVEN No.s)
BLOCK 02

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:200	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	105-01

Daylight & Sunlight



2ND FLOOR

AnsteyHorne

CHARTERED SURVEYORS

London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902

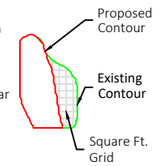
www.ansteyhorne.co.uk

LEGEND:

Room Layout - Plan/ Inspection

Room Layout - Notional/ Cellular

Room Layout - Assumed



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

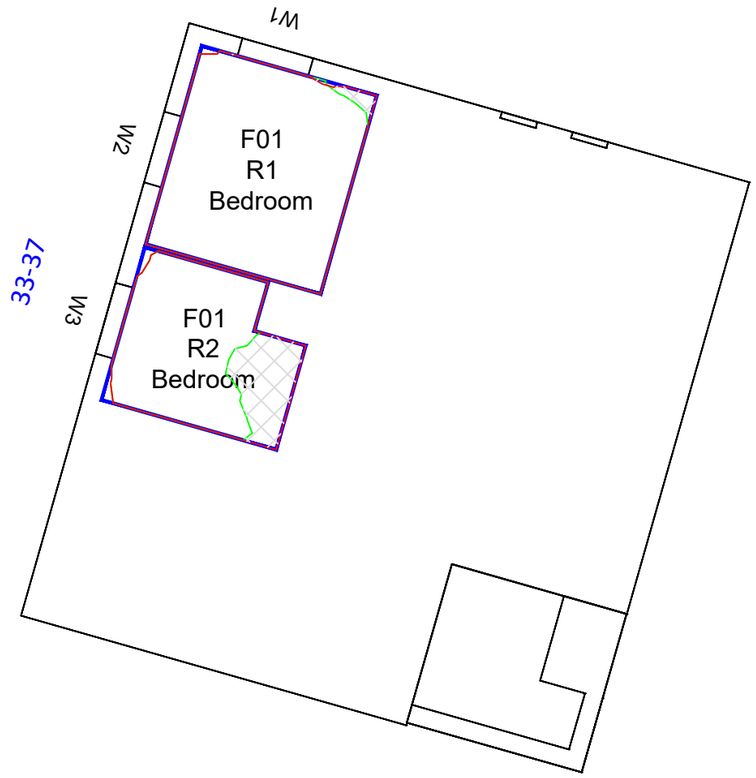
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
56-76 PENN WAY (EVEN No.s)
BLOCK 02

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:200	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			105-02

Daylight & Sunlight



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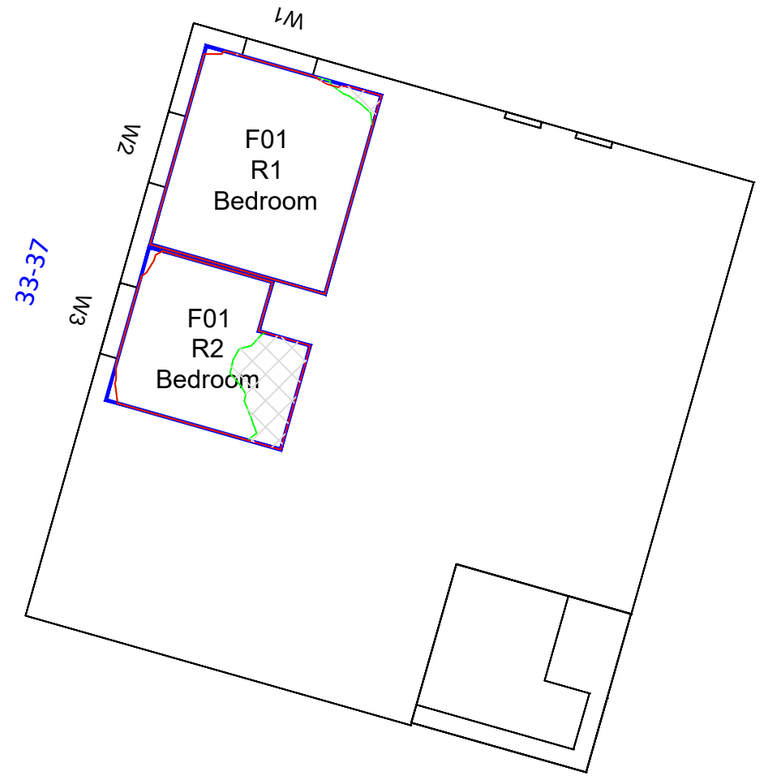
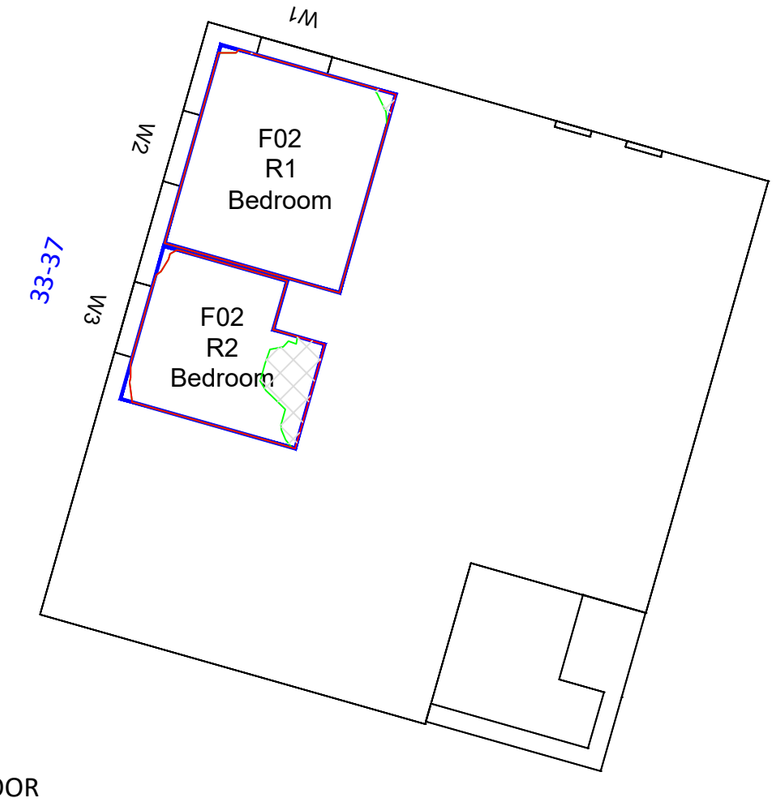


1ST FLOOR



2ND FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

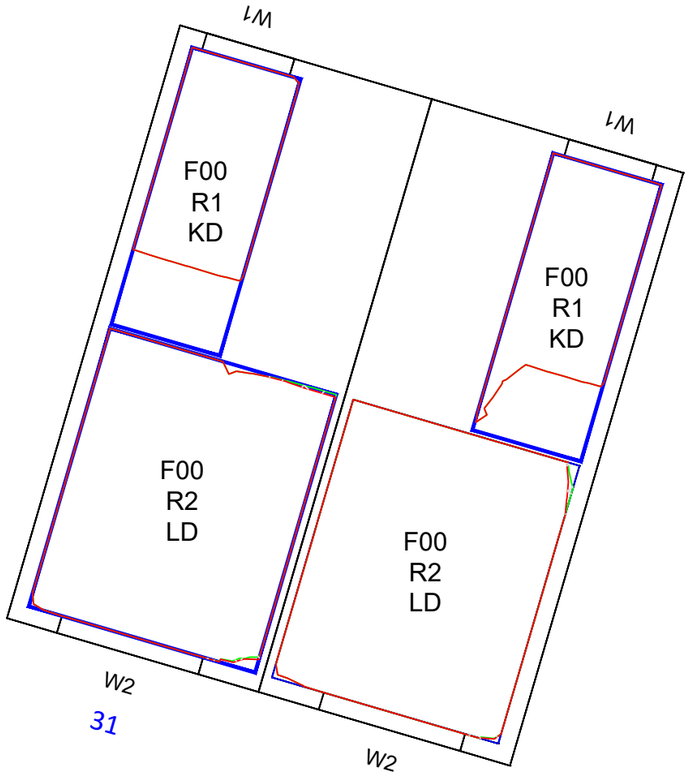
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
33-37 PENN WAY (ODD No.s)
BLOCK 01

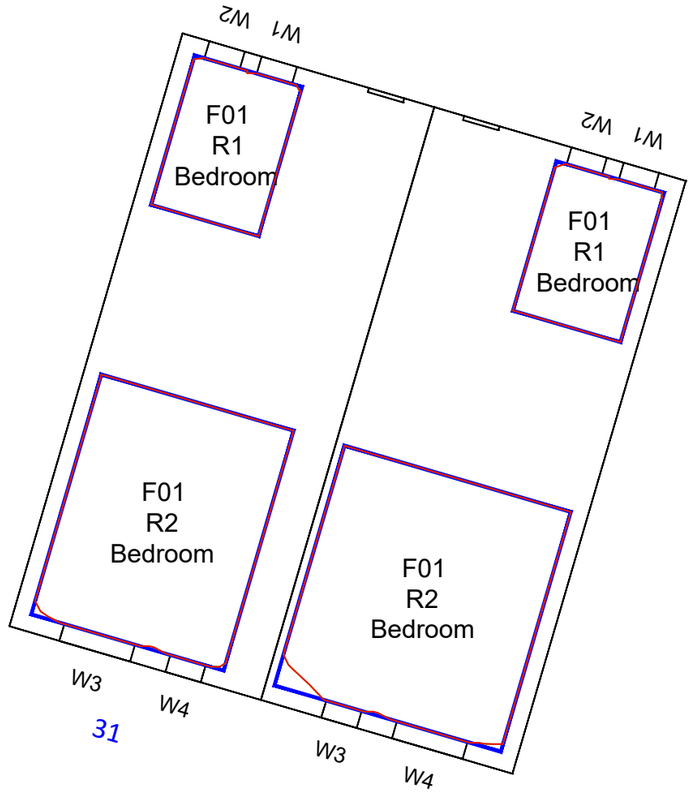
MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			106-01

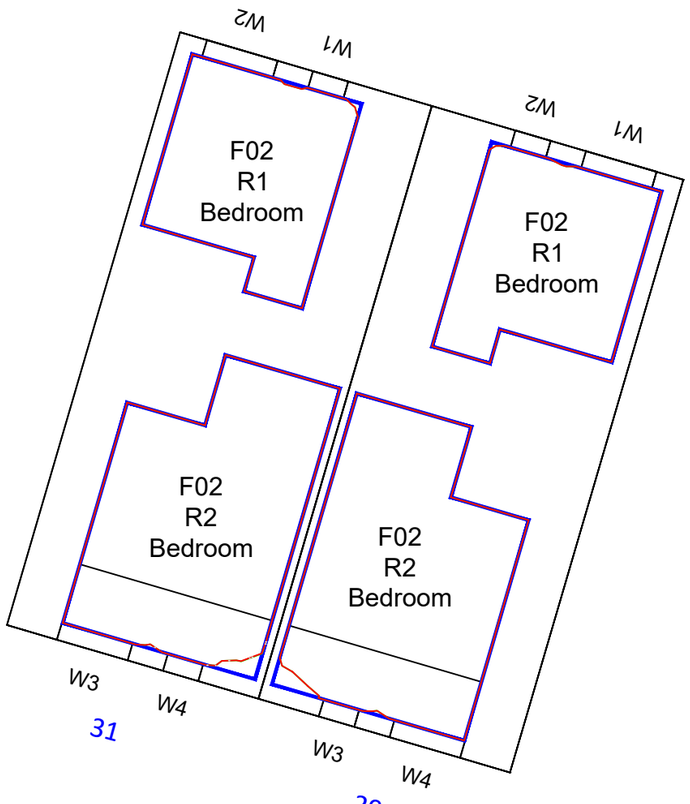
Daylight & Sunlight



GROUND



1ST FLOOR



2ND FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

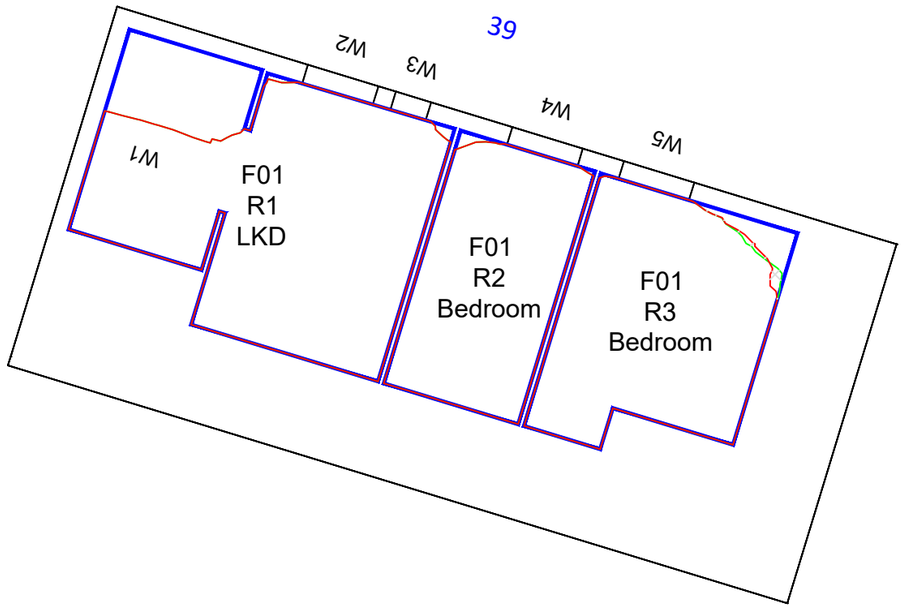
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
29 & 31 PENN WAY
BLOCK 01

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			107-01

Daylight & Sunlight



1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

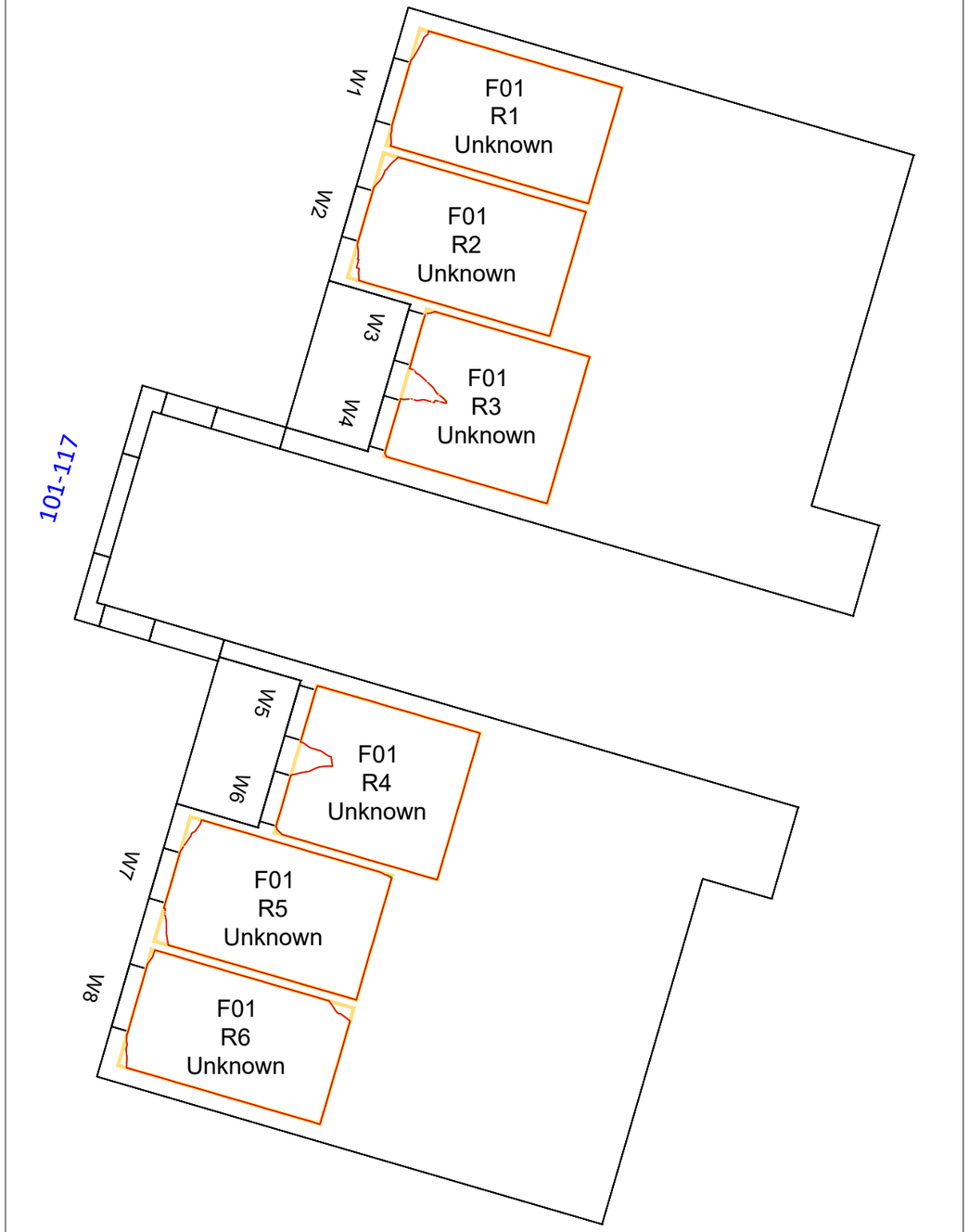
DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
39 PENN WAY
BLOCK 01

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			108-01

Daylight & Sunlight

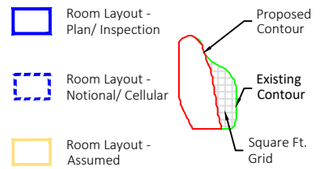
GROUND



1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

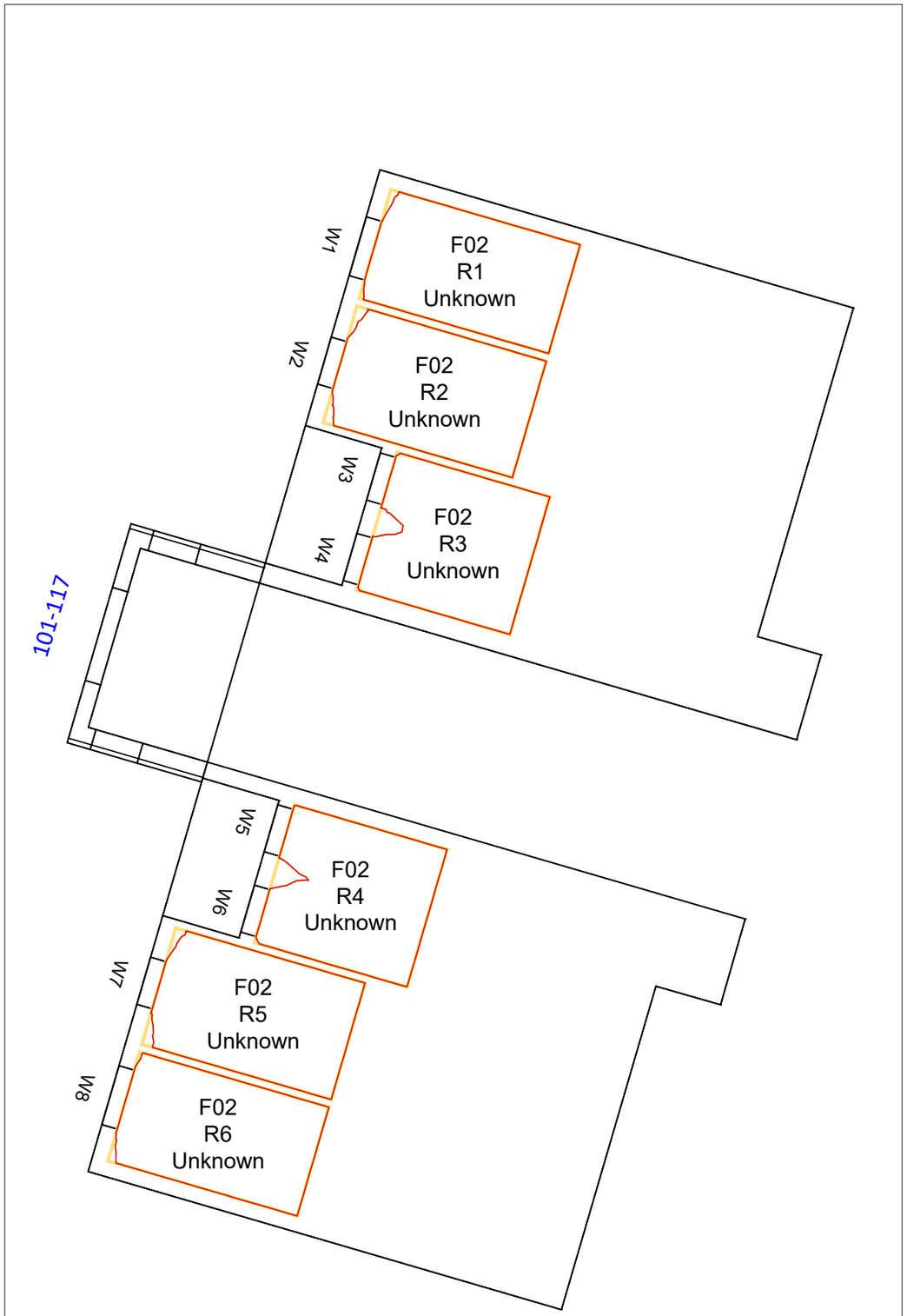
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
101-117 BROADWATER CRESCENT
(ODD.No.s)

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			109-01

Daylight & Sunlight



2ND FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

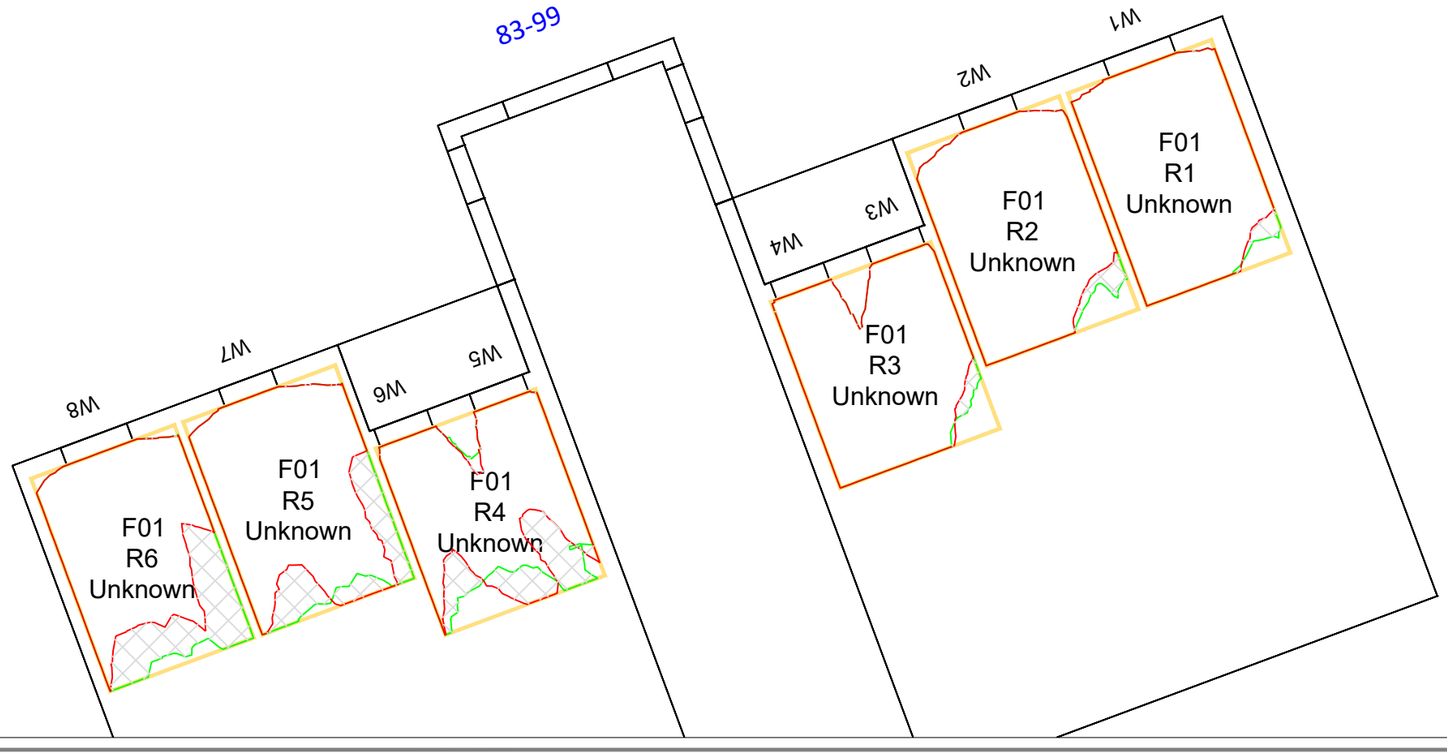
DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
101-117 BROADWATER CRESCENT
(ODD.No.s)

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	109-02

Daylight & Sunlight

GROUND



1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

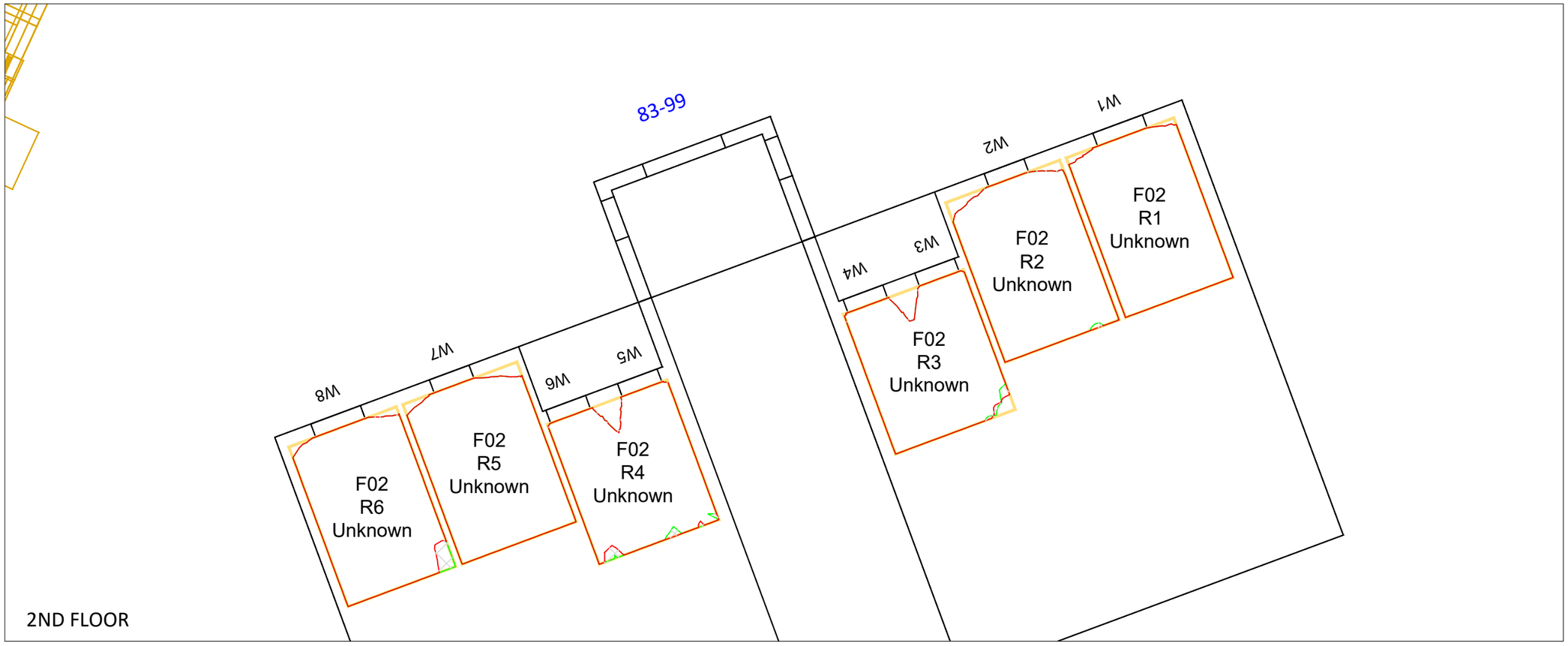
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
83-99 BROADWATER CRESCENT
(ODD No.s)

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			110-01

Daylight & Sunlight



2ND FLOOR

AnsteyHorne

CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

N W E S

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

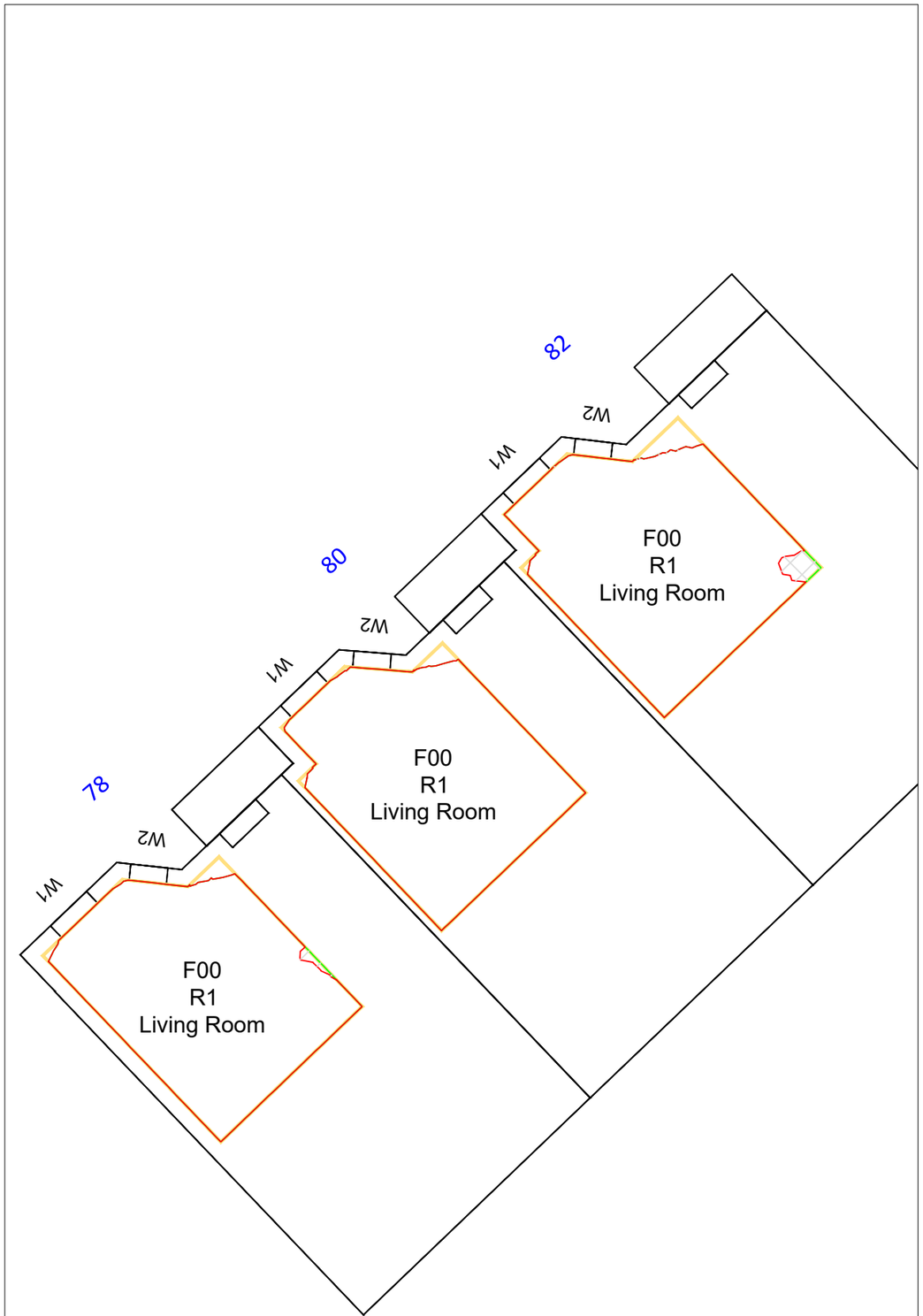
SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
83-99 BROADWATER CRESCENT
(ODD No.s)

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_R03_V02_			110-02

Daylight & Sunlight



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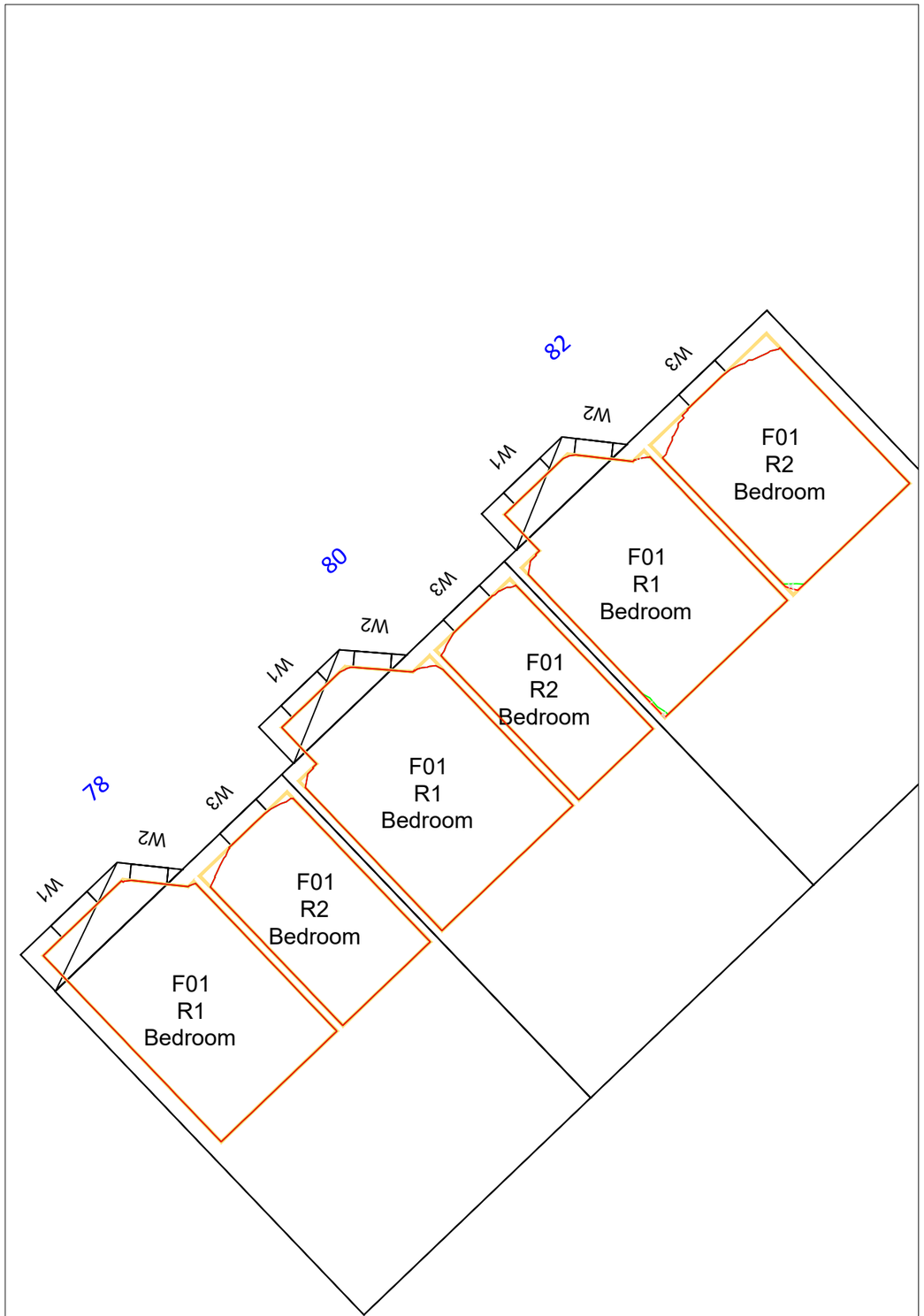


1ST FLOOR

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS
ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

0m 1m 2m 3m 4m 5m

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

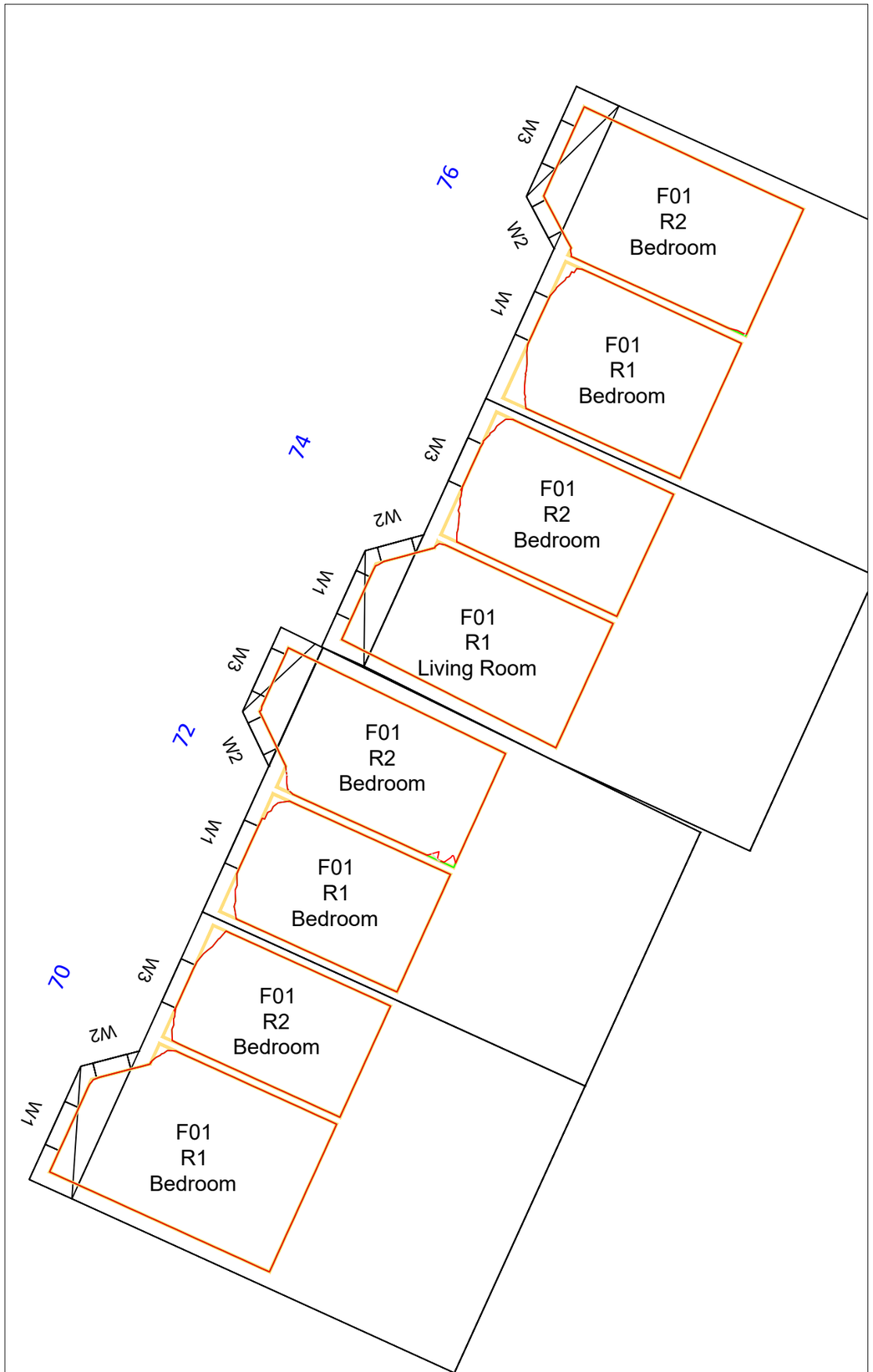
DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
78, 80 & 82 BROADWATER CRESCENT

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	111-01

Daylight & Sunlight

GROUND



1ST FLOOR

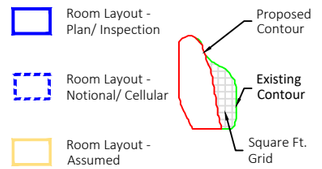
AnsteyHorne

CHARTERED SURVEYORS

London 020 7065 2770 | Bristol 0117 911 3061 | Birmingham 0121 667 9902

www.ansteyhorne.co.uk

LEGEND:



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

TERRAIN SURVEYS & 3D Z-MAPPING MODEL
Received on 30/09/20

Site and aerial photos.

PROPOSED BUILDINGS

ALAN CAMP ARCHITECTS LLP
Received on 27/11/20

REV	DESCRIPTION	DATE

CLIENT:

PROJECT TITLE: BROADWATER GARDENS
WELWYN GARDEN CITY
HERTFORDSHIRE, AL7

SCHEME REF: SCHEME RECEIVED: 27/11/20

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
70-76 BROADWATER CRESCENT
(EVEN No.s)

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
xx/xx	DEC.2020	1:100	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00494_	R03_	V02_	112-01

Daylight & Sunlight

AnsteyHorne

4 Chiswell Street, London EC1Y 4UP
T: 020 7065 2770

3 Temple Row West, Birmingham B2 5NY
T: 0121 667 9902

510 Bristol Business Park, Bristol BS16 1EJ
T: 0117 911 3061

ansteyhorne.co.uk

Regulated by RICS

Chartered Surveyors

Rights of Light | Party Walls | Building Surveying | Neighbourly Liaison

expertise *applied*