Patel Taylor

Grahame Park
Stage B (Plots A-Q)

Masterplan
Daylight and Sunlight Report

Notting Hill Genesis

BARNET
LONDON BOROUGH

Hybrid Planning Application
October 2019

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WSP
Transport / Air quality consultant

Planning Documentation

Design and Access Statement
Vol. 1 - Outline Component

Design and Access Statement
Vol. 2 - Detailed Component

Design Guidelines

Planning Statement

Statement of Community Involvement

Environmental Statement

Drainage Strategy

Flood Risk Assessment

Masterplan Daylight and Sunlight Report

Internal Daylight Report

Ecological Walkover

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Outline Fire Safety Strategy

Transport Assessment

Framework Residential Travel Plan

Framework Workplace Travel Plan

Local Model Validation Report

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Outline Construction Logistics Plan

Outline Construction Environmental Management Plan

Outline Site Waste Management Plan

Sustainability Statement

Planning Utilities Statement

Energy Assessment

Historic Desk-Based Assessment

Arboricultural Method Statement

Arboricultural Impact Assessment

Wind Microclimate Assessment

GRAHAME PARK MASTER PLAN
LONDON BOROUGH OF BARNET
DAYLIGHT AND SUNLIGHT REPORT

DIRECTOR: LIAM DUNFORD
CLIENT: CHOICES FOR GRAHAME PARK – NOTTING HILL GENESIS
DATE: OCTOBER 2019
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PROJECT: P2045

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1 Introduction

1.1 This report relates to Patel Taylor Architects' Proposed Scheme received 28 June 2019 for the redevelopment of the Grahame Park Master Plan insofar as it affects the daylight and sunlight amenity to the surrounding residential properties.

1.2 The Local Authority will be informed in this by the BRE document entitled Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011 (the BRE guidelines). This document is the principal guidance in this area and sets out the methodology for measuring light and recommends what it considers to be permitted or unobtrusive levels of change.

1.3 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE guidance. Consideration will be given to the urban context within which a scheme is located and the daylight and sunlight will be one of a number of planning considerations which the local authority will weigh.

1.4 The Grahame Park Master Plan is the centrepiece of an extensive community regeneration programme incorporating the wider Grahame Park area in Colindale, North London with Notting Hill Genesis Housing Association working with the London Borough of Barnet to deliver over 2,000 new homes, community and commercial floorspace and significant open space and landscaping.

1.5 The planning application will be a hybrid planning application in which a full detailed consent is being applied for Plot A and the remainder of the site (Master Plan) is being applied for in outline only, with all matters reserved.

2 Sources of Information

In the process of compiling this report, the following sources of information have been used:

Point 2 Surveyors
Site Photography
Point Cloud Survey

Patel Taylor Architects
Plot A Proposed Info (received 27/06/19) 529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19) HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

3 Methodology

3.1 It is usual to assess daylight and sunlight in relation to the guidelines set out in the 2011 Building Research Establishment (BRE) Report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair. This document is most widely accepted by planning authorities as the means by which to judge the acceptability of a scheme. One of the primary sources for the BRE Report is the more detailed guidance contained within 'British Standard 8206 Part 2:2008'.

3.2 In relation to the properties surrounding a site, usually the local planning authority will only be concerned with the impact to main habitable accommodation (i.e. living rooms, bedrooms and kitchens) within residential properties.

3.3 To determine whether a neighbouring existing building may be adversely affected, the initial test provided by the BRE is to establish if any part of the proposal subtends an angle of more than 25˚ from the lowest window serving the existing building. If this is the case then there may be an adverse effect, and more detailed calculations are required to quantify the extent of any impact.

3.4 The BRE guidelines provide two principal measures of daylight for assessing the impact on properties neighbouring a site, namely Vertical Sky Component (VSC) and No-Sky Line (NSL). They also detail a third measure of daylight which is primarily used for assessing amenity within proposed accommodation, namely Average Daylight Factor (ADF).

3.5 In terms of sunlight we examine the BRE Annual Probable Sunlight Hours (APSH); and in relation to sunlight amenity to gardens and amenity spaces, we apply the quantitative BRE overshadowing guidance.

3.6 These measures of daylight and sunlight are discussed in the following paragraphs.

Diffuse Daylight

3.7 **Vertical Sky Component (VSC)** – VSC is a measure of the direct skylight reaching a point from an overcast sky. It is the ratio of the illuminance at a point on a given vertical plane to the illuminance at a point on a horizontal plane due to an unobstructed sky.

3.8 For existing buildings, the BRE guideline is based on the loss of VSC at a point at the centre of a window, on the outer plane of the wall.

3.9 The BRE guidelines state that if the VSC at the centre of a window is less than 27%, and it is less than 0.8 times its former value (i.e. the proportional reduction is greater than 20%), then the reduction in skylight will be noticeable, and the existing building may be adversely affected.

3.10 **No-Sky Line (NSL)** - NSL is a measure of the distribution of daylight within a room. It maps out the region within a room where light can penetrate directly from the sky, and therefore accounts for the size of and number of windows by simple geometry.

3.11 The BRE suggest that the area of the working plane within a room that can receive direct skylight should not be reduced to less than 0.8 times its former value (i.e. the proportional reduction in area should not be greater than 20%).

3.12 **Average Daylight Factor (ADF)** - ADF is a measure of the overall amount of diffuse daylight within a room. It is the average of the daylight factors across the working plane within a room. This equates to the ratio of the average illuminance across the working plane, to the illuminance due to an unobstructed sky.

3.13 In addition to accounting for external obstructions, the ADF accounts for the number of windows and their size in relation to the size of the room, the window transmittance and the reflectance of the internal walls, floor and ceiling.

3.14 While the ADF can be calculated from first principles using a lighting simulation software suite such as Radiance, in simple situations it can approximated using the empirical formula detailed in both British Standard 8206 Part 2:2008 and Appendix C of the BRE Report.

3.15 Both the BRE Report and BS 8206 Part 2:2008 provide guidance for acceptable ADF values in the presence of supplementary electric lighting, depending on the room use. These are 1.0% for a bedroom, 1.5% for a living room and 2.0% for a kitchen.

Sunlight

3.16 **Annual Probable Sunlight Hours (APSH)** - In relation to sunlight, the BRE recommends that the APSH received at a given window in the proposed case should be at least 25% of the total available, including at least 5% in winter.

3.17 Where the proposed values fall short of these, and the absolute loss is greater than 4%, then the proposed values should not be less than 0.8 times their previous value in each period (i.e. the proportional reductions should not be greater than 20%).

3.18 The BRE guidelines state that '...all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block out too much sun'.

3.19 The APSH figures are calculated for each window, and where a room is served by more than one window the contribution of each is accounted for in the overall figures for the room. The acceptability criteria are applied to overall room based figures.

Overshadowing

3.20 The BRE guidelines describe the method for assessment of the availability of sunlight within garden/amenity spaces. Sunlight in the spaces between buildings also has an important impact on the overall appearance and ambience of either a proposed development or existing property affected by new developments.

3.21 If a space is used all year round, the equinox (21st March) is the best date for which to prepare shadow plots as is give the average level of shadowing, however if a particular space is used only at certain times of the year, it is instructive to plot shadows for those specific times.

3.22 The BRE criteria for gardens or amenity areas state that, 'It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity space should receive at least two hours of sunlight on 21st March.' If as a result of new developments an existing garden or amenity are does not meet the criteria, then the loss of sunlight is likely to be noticeable.

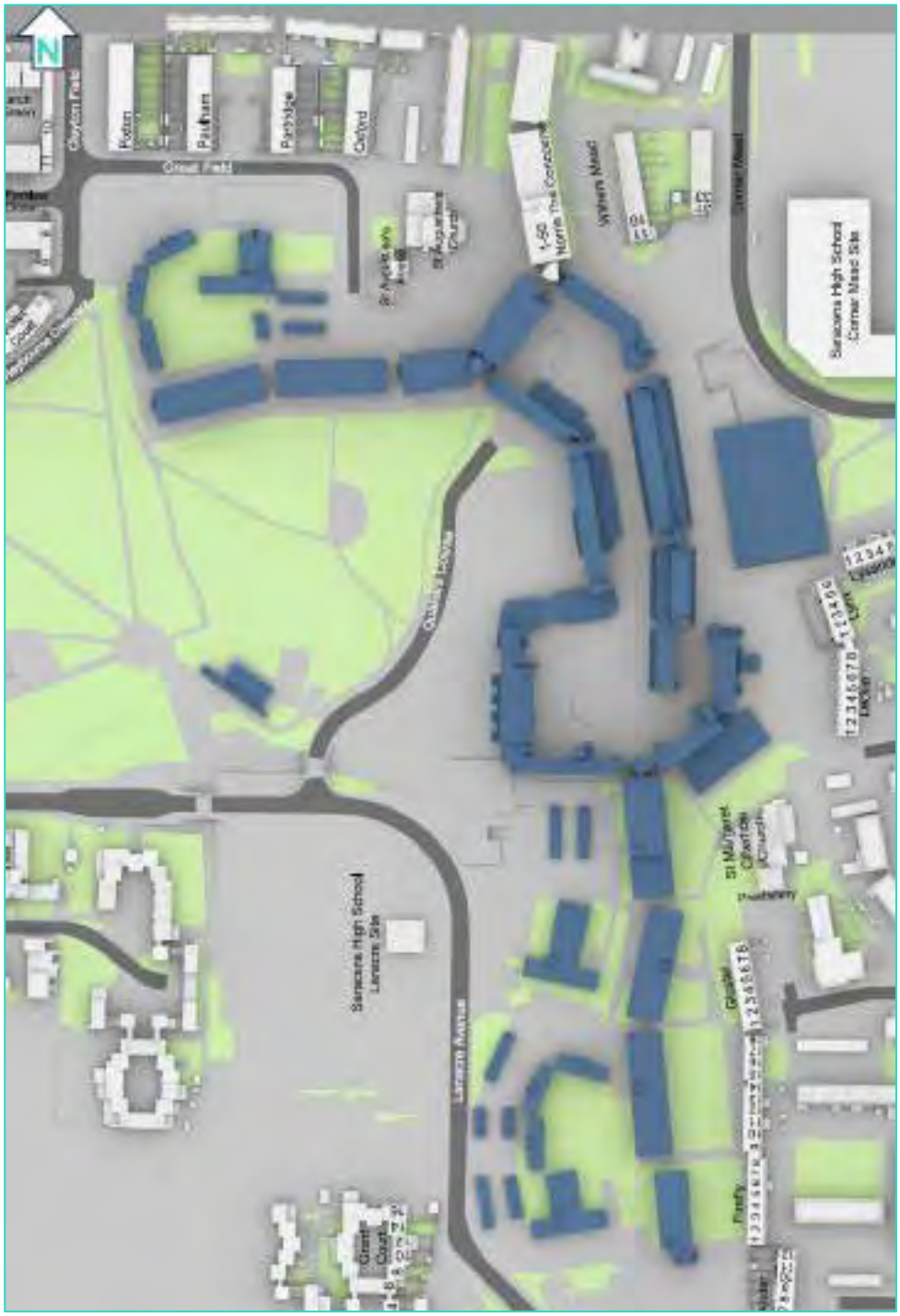
4 Standard Survey Limitations

4.1 Although we have undertaken as detailed an inspection as possible, we are required by our professional indemnity insurers to notify you that our report is based upon the Standard Terms and Conditions provided along with our fee proposal. Our understanding of the existing massing, including the surrounding context was established from the sources of information details within Section 2.

4.2 In addition to our standard limitations the following limitations and assumptions also apply.

- Best estimates were made in establishing building use (residential or commercial) and room uses; generally, these were made from external observations and recourse to planning records where available.
- When floor plans of surrounding properties were not available, room depths have been assumed from external observations. Where no indicators of room depth were available a standard of 4m, 6m or 8m depths have been used.

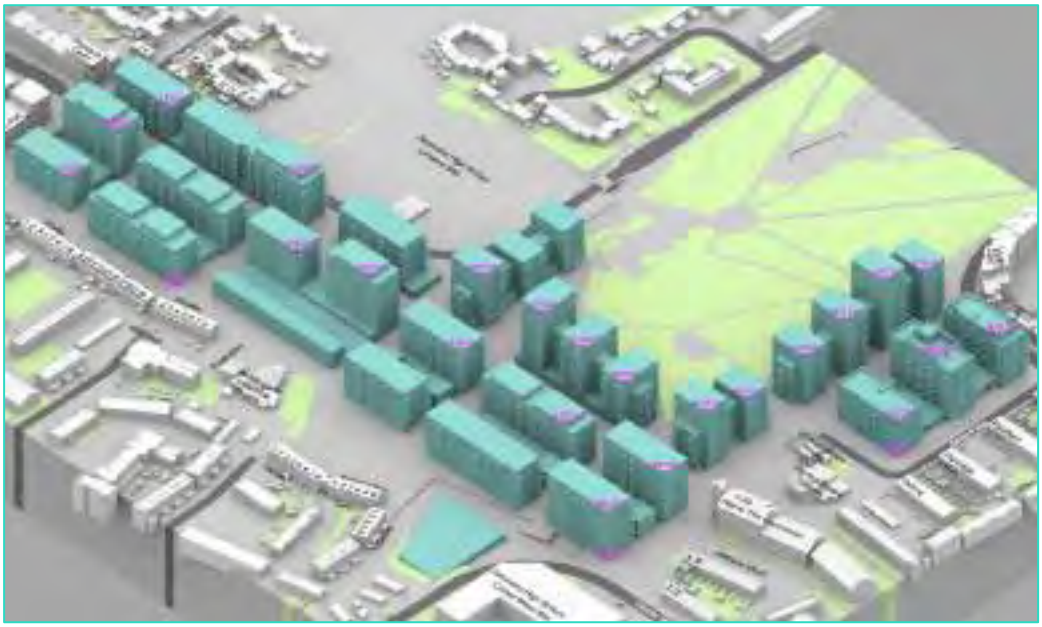
5 The Existing Site



Drawing Number: P2045/19 3D view of existing buildings

5.1 The site is located within Colindale in the London Borough of Barnet. The current situation is illustrated in drawings P2045/19-21. All drawings can be found within Appendix 2.

6 The Proposed Scheme



Drawing Number: P2045/23 3D view of proposed scheme Master Plan including Plot A

6.1 Our understanding of the proposed scheme is illustrated in drawings P2045/22-24 within Appendix 2.

6.2 The planning application will be a hybrid planning application such that full detailed planning is being applied for Plot A (highlighted below) and the remainder of the site is being applied for in outline only, with all matters reserved.

Drawing Extract: 3D view of Plot A within the Master Plan

6.3 The Daylight & Sunlight assessment has been based upon detailed fixed plans for Plot A (highlighted in yellow within the drawing extract above) with an indicative masterplan for the remaining phases (i.e. the outline element of the application).

6.4 Whilst assessment of the outline elements is not based upon fixed design or maximum parameters it does provide guidance as to the scale of the overall development as demonstrated by the illustrative masterplan, which can be accommodated without giving rise to significant adverse impacts. It is however considered that upon submission of reserved matters applications for the outline elements, a detailed Daylight & Sunlight assessment will be required to ensure that these subsequent applications do not give rise to adverse impact and are in line with BRE guidance.

7 Setting Appropriate Daylight Targets

7.1 The Application site sits within one of the Barnet Regeneration Areas, see below:

Extract from Barnet's Regeneration Area Map

7.2 The regeneration of the Grahame Park estate, northwest of the borough in Colindale, aims to create a new and thriving mixed tenure community. The plan for the area includes social rent, affordable and private sale homes, major infrastructure upgrades, improved transport links and a range of high quality health, library, community and retail facilities.

Key facts

7.3 The redevelopment of this phase of Grahame Park will deliver:

- 2,088 new homes
- New road, pedestrian and cycling network
- Work with Transport for London (TfL) to ensure that the existing bus services in the estate are improved
- Replacement community centre and provision of community facilities.
- Retail and commercial floor space
- Health Centre to be re-provided within the wider Colindale area
- Heybourne Park improvements

7.4 In order to deliver all of the above, particularly the number of homes, departure from rigid BRE targets is inevitable and appropriate, alternate targets need to be considered.

7.5 The BRE daylight and sunlight guidance was established in relation to a sub-urban environment.

7.6 As such, the default nationwide BRE numerical criteria are based on 25-degree development angles, which are frequently inappropriate, and indeed unachievable, in urban areas.

7.7 This is openly acknowledged by the BRE, and in its introduction, the BRE guide itself urges that the guidelines be interpreted flexibly:

"The advice given here is not mandatory……Although it gives numerical guidelines these should be interpreted flexibly……For example in an historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable…."

7.8 This is also acknowledged in the National Planning Policy Framework February 2019 ("NPPF") where it states at paragraph 123(c):

"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*** [emphasis added]*, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."*

7.9 It has been held at Appeal for the development of the Land at Edgeware Road, Church Street, Paddington Green and Newcastle Place; Application Nos. 03/03464/CAC, 03/03466/CAC, 03/03463/FULL and 03/03465/FULL) that **'noticeable'** is not to be equated with **'unacceptable'.** The following extract from the inspector's report gives pragmatic guidance on the interpretation of the default BRE criteria:

"13.103 According to the BRE Guide, a Vertical Sky Component (VSC) of 27% will give the potential for good interior diffuse daylighting. A reduction in VSC to less than both 27% and 80% of its former value will be noticeable. ***'Noticeable', however, is not to be equated with 'unacceptable'*** [emphasis added]. *And, as its introduction acknowledges, the Guide is just that - 'although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design'. That is true in urban areas especially, where VSCs very much lower than 27% do not seem to diminish the attraction of some popular residential areas."*

7.10 Appendix F of the BRE guidelines provides advice on setting alternative targets for access to daylight and sunlight. In relation to the default targets it says; *"These values are purely advisory and different targets may be used…..for example, in a mews in a historic city centre, a typical obstruction angle might be close to 40 degrees. This would correspond to a VSC of 18%, which could be used as a target."*

7.11 In relation to considering alternative targets, Appendix F of the BRE guidelines states that:

"*In assessing the loss of light to an existing building, the VSC is generally recommended as the appropriate parameter to use. This is because VSC depends only on obstruction, and is therefore a measure of the daylit environment as a whole."* In accordance with this, in assessing the proposal, primary consideration is given to the VSC figures.

7.12 In many urban areas development angles of 40 degrees, or more, are common and a VSC of 18% has been a reasonable and accepted level of daylight in many desirable urban areas for well over a century.

7.13 In recent years the need to make best use of available land means that the redevelopment of previously comparatively low rise, low density sites has required an increase in density, with corresponding increases in typical development angles and reductions in daylight. In many recent developments, therefore, angles greater than 40 degrees are not uncommon.

7.14 The Mayor of London; Housing; Supplementary Planning Guidance (SPG) Document March 2016 states at paragraph 1.3.45 and 1.3.46, that:

(1.3.45) *"Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time."*

(1.3.46) *"Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm."*

7.15 The inspectorate considered the above Guidance in the Whitechapel Estate Appeal (Reference: APP/E5900/W/17/3171437); they stated that that:

"The figures show that a proportion of residual ***Vertical Sky Component ('VSC') values in the mid-teens have been found acceptable in major developments across London*** [emphasis added]. *This echoes the Mayor's endorsement in the pre- SPG decision at Monmouth House, Islington that VSC values in the* ***mid-teens are acceptable in an inner urban environment. They also show a smaller proportion in the bands below 15%*** [emphasis added]*. Even if there were some discrepancy in the appellants' figures for this lower band at Whitechapel Central, which is disputed,* ***the VSC outcomes for the appeal proposal would in general be very similar to those of the other major schemes*** [emphasis added]. *The appeal proposal would therefore appear to be in compliance with the LP as amplified by the SPG and as it is being interpreted by the Mayor. The GLA responses to the planning application did not raise any concern about neighbours' amenity."*

7.16 Therefore, taking into consideration the intention of the London Plan, NPPF, flexibility of the default BRE Guidance and the above referenced decisions in relation other Major

Developments, **we consider a general VSC target of 15% is appropriate in relation to the Grahame Park Application site, with a smaller proportion in bands below 15%.**

8 The Surrounding Properties

8.1 We have undertaken research into the surrounding properties to ascertain which buildings contain residential accommodation and therefore are material for Daylight and Sunlight assessment. Using the Council Tax Valuation Office Agency (VOA) database, the following properties are identified as containing residential accommodation and due to their proximity have been assessed in terms of daylight and sunlight amenity:

1) Violet Court
2) 8 & 9 Parklea Close
3) 10 & 11 Larch Green
4) Pixton, Paulham, Partridge, Oxford
5) Saint Augustine's House
6) 1-50 Norris The Concourse
7) 10 & 11 Withers Mead and 31 & 33 Corner Mead
8) 1-5 Lysander, 1-6 Lynx, 1-8 Leckie
9) 1-8 Gloster
10) 1-18 Firefly
11) 1-12 Dessouter
12) 1-19 Jaguar Court
13) Panavia Court, 9 Bristol Avenue
14) 1 Deal Court
15) 2-16 (even) Grant Court

8.2 The location of these properties can be seen in the drawing below and within Appendix 1.

Site Plan with Property References

8.3 It should be noted that due to the nature of this planning application, properties (1) through to (6) namely Violet Court, 8 & 9 Parklea Close, 10 & 11 Larch Green, Pixton, Paulham, Partridge, Oxford, Saint Augustine's House & 1-50 Norris The Concourse form part of the full detailed planning assessment being applied to Plot A, the remaining properties are in outline only, with all matters reserved.

8.4 The assessment of properties (1) through to (6) will assume that the Master Plan has been built thus the light levels are based upon the proposed end state position.

9 Daylight & Sunlight Results

Plot A Assessment

1) VIOLET COURT

9.1 West/north-west of the site and referenced '1' on the site plan this property is identified as containing residential accommodation. This property forms part of the detailed planning assessment. We have managed to source layouts for the property via Barnet's online planning portal which have been incorporated into our analysis model. There are 74 windows that serve 36 site facing rooms.

Drawing Number: P2045/WM/01 - Violet Court – Window Reference Map

Daylight

9.2 As you will observe from the above image, several of the site facing windows are recessed behind balconies. BRE Guidance notes that *"A larger relative reduction in VSC may also be unavoidable if…recessed into the building so that it is obstructed on both sides as well as above."* (BRE Guide 209, paragraph 2.2.12). In accordance with BRE Guidance, we have conducted an additional assessment by removing the balconies to understand their influence on the daylight levels received (i.e. we have moved the VSC calculation spot to the front of the balcony). We have not been able to do this for windows W3/81, W6/81, W3/82, W6/82, W3/83, W7/83, W3/84, W8/84 (which are bordered yellow above) because they are positioned on side returns of the balcony and are used for access to the balconies and are considered to be secondary windows. The 'main' windows serving each room are positioned on the curved elevation.

9.3 With the balconies in place, the main windows experience proportionate VSC losses up to 65% their existing value. This breaks down into the following bands: 31 BRE Compliant, 7 between 20-29.9%, 14 between 30-30.9% and 22 above 40%.

9.4 With the balconies removed, the main windows experience proportionate VSC losses up to 49% their existing value. This breaks down into the following bands: 41 BRE compliant, 6 between 20-29.9%, 14 between 30-30.9% and 13 above 40%.

9.5 In terms of NSL, of the 36 rooms tested 27 are BRE compliant. Of the remaining 9 rooms, 4 (R3/80, R5/81, R5/82 and R5/83) experience 20-29.9% reductions, 3 (R3/81, R3/82 and R3/83) experience 30-39.9% reductions and 2 (R5/80 & R7/81) experience over 40% reductions. Notably the 5 rooms experiencing reductions >30% are bedrooms, which BRE states are less important (BRE Guide 209, paragraph 2.2.6) and one small kitchen (7.8sqm) which falls below the habitable room size threshold (see paragraph 1.3.19 of the Housing SPG) thus also considered to be less important in terms of daylight amenity.

9.6 Turning to the retained VSC values, on an unobstructed façade the main windows retain between 18.35% and 34.6% VSC after implementation of the Master Plan. These retained VSC values sit comfortably above the target detailed in Section 7 of this Report.

9.7 Overall, notwithstanding there are some reductions in daylight as a result of the proposed scheme that may be noticeable, the reductions on not considered unacceptable by virtue of the retained daylight values which are in excess of the proposed appropriate targets.

Sunlight

9.8 With the balcony provision removed, all site facing rooms retain levels of APSH that accord with BRE Guidance.

2) 8 & 9 PARKLEA CLOSE

9.9 West of the site and referenced '2' on the site plan these properties are identified as containing residential accommodation. This property forms part of the detailed planning assessment. We have not been able to source layouts for the properties thus the internal configurations have been assumed from external observations. Our analysis considers 12 windows assumed to serve 11 rooms.

9.10 From external observation, we note the windows bordered yellow (W2/10, W2/11 and W5/11) are frosted thus likely to serve bathroom/WC's and not considered further. The windows bordered green (W5/10 and W6/10) serving 8 Parklea Close are perpendicular to one another and therefore expected to serve one space – and by virtue of the size of W6 on the end elevation we expect to be where the living room is sited. 9 Parklea Close has a garden to the rear of the property facing away from the site; the logical layout design would be for the living room to lie adjacent to the garden on the rear elevation. Based on the positioning of external flues adjacent to the central ground floor windows we expect these serve small kitchens for the respective properties. The remaining first floor windows on the site facing elevation are expected to be bedrooms.

Daylight

9.11 The windows on the site facing elevation currently receive unusually high levels of existing VSC, between 35-38%, as they currently face across little-to-no existing massing. The site facing windows experience VSC reductions up to 67% their existing value. With the exception of the assumed living room (R5/10), the other rooms experience proportionate reductions in NSL up to 76% their existing value.

9.12 Importantly, the identified living room (R5/10) is dual aspect with the larger window on the end elevation which is largely unaffected by the development and retains an absolute VSC of >32%. Subsequently there is an imperceptible change in NSL and 99% of the room continues to benefit from daylight distribution.

9.13 Turning to retained VSC values, the assumed bedrooms and kitchens retain absolute VSC values between 11.6% and 13.8%. These retained values fall below the suggested 15% target detailed at Section 7. Overall, the proposed condition is not considered unacceptable when one has regard for the likely room uses and appropriate targets; recognising a small proportion may be in bands below 15%

Sunlight

9.14 These rooms are orientated due east thus will receive sunlight *"at certain times of the day"* (BRE Guide 209, paragraph 3.1.6). Notwithstanding there may some noticeable change in

sunlight, retained APSH is upward of 15% which is good within dense urban areas, particularly considering the rooms are orientated due east and only just fall into the BRE testing parameters. Furthermore, the rooms are identified as being mainly bedrooms and kitchens where access is less important (BRE Guide 209, paragraph 3.1.2).

3) 10 & 11 LARCH GREEN

9.15 North-west of the site and referenced '3' on the site plan these properties are identified as containing residential accommodation. This property forms part of the detailed planning assessment. We have not been able to source layouts for the properties thus the internal configurations have been assumed from external observations. Our analysis considers 9 windows assumed to serve 9 rooms.

Daylight

9.16 One window (W1/20) experiences a 23.4% reduction in VSC, which is a minor derogation from BRE Guidance. Moreover, the window retains an absolute VSC of 26.9% which is some 0.1% shy of full BRE compliance in relation to the VSC criteria.

9.17 In terms of NSL, all but one room (R2/21) experience unnoticeable changes in daylight distribution. Room R2/21 experiences a 39.3% reduction in NSL but the window (W2/21) retains an absolute VSC above 27% which is BRE compliant. On balance this is considered acceptable given the urban location.

Sunlight

9.18 All rooms retain BRE compliant levels of APSH. Retained winter APSH is 4% against the suburban target of 5%. This is considered acceptable in consideration of the intended urban regeneration.

4) PIXTON, PAULHAM, PARTRIDGE AND OXFORD

9.19 North of the site and referenced '4' on the site plan these blocks of apartments are identified as being residential. We have sourced layouts for these properties via Barnet's online planning portal which have been incorporated into our analysis model. These properties form part of the detailed planning assessment. Our analysis considers 48 windows serving 48 site facing rooms. There are other windows/rooms in this building however they are further away from the site thus not considered necessary to assess given the results of the sample tested.

Daylight

9.20 All windows and associated rooms experience fully BRE compliant changes in VSC and NSL as a result of the proposed development.

Sunlight

9.21 All rooms retain BRE compliant levels of APSH. Retained winter APSH is 1-4% against the suburban target of 5%. This is considered acceptable in consideration of the intended urban regeneration where winter sunlight is often impossible to achieve.

5) ST. AUGUSTINE'S HOUSE

9.22 East/north-east of the site and referenced '5' on the site plan, this property is identified as containing residential accommodation. This property forms part of the detailed planning assessment. We have not managed to source layouts for this building thus the internal configuration has been assumed from external observation. There are 17 windows which we have assumed to serve 12 rooms.

Daylight

9.23 The site facing windows currently receive unusually high levels of exiting VSC for an urban area. As a result of the proposed development, the site facing windows experience proportionate VSC reductions up to 46% their existing value. The site facing rooms experience proportionate NSL reductions up to 41% their existing value. The reductions in daylight are likely to be noticeable to this property.

9.24 Turning to retained VSC levels, where a site facing window experiences a noticeable change, the windows retain absolute VSC levels between 16.7% and 21.8%, thus sitting above the proposed targets described at Section 7. Notwithstanding there are some noticeable reductions in daylight properties the overall position is not considered to be unacceptable by virtue of the retained daylight levels being consistent with the proposed targets.

Sunlight

9.25 All rooms retain BRE compliant levels of APSH. Retained winter APSH is 0-3% against the suburban target of 5%. This is considered acceptable in consideration of the intended urban regeneration.

6) 1-50 NORRIS THE CONCOURSE

9.26 North/north-east of the site and referenced '6' on the site plan this property is identified as containing residential accommodation. This property forms part of the detailed planning assessment. We have not managed to source layouts for this building thus the internal configurations have been assumed from external observation. Our analysis considers 72 windows serving 24 rooms. We note the presence of balconies shrouding the windows; in accordance with BRE Guidance these have been removed from the calculation (BRE Guide 209, paragraph 2.2.11).

Daylight

9.27 With the balcony provisions removed, all the site facing windows experience BRE compliant changes in VSC as a result of the proposed development. The greatest change being <13%. BRE Guidance advises this level of change will be unnoticeable. Furthermore, the NSL analysis similarly confirms there will be no noticeable changes in daylight distribution.

Sunlight

9.28 With the balcony provision removed, all rooms retain BRE compliant levels of APSH; winter and total.

9.29 The following properties are not impacted by the development of Plot A and therefore form part of the outline planning permission of the Master Plan.

Masterplan Assessment

7) 10 & 11 WITHERS MEAD AND 31 & 33 CORNER MEAD

9.30 North-east of the site and referenced '7' on the site plan these properties are identified as containing residential accommodation. We have not managed to source layouts for these buildings thus the internal configurations have been assumed from external observation. Our analysis considers 26 windows serving 22 rooms.

Daylight

9.31 All windows and associated rooms experience fully BRE compliant changes in VSC and NSL as a result of the proposed development.

Sunlight

9.32 All windows and rooms which have a window orientated within 90 degrees due south experience fully BRE compliant changes in APSH as a result of the proposed development.

8) 1-5 LYSANDER, 1-6 LYNX AND 1-8 LECKIE

9.33 North-east of the site and referenced '8' on the site plan these properties are identified as containing residential accommodation. We have not managed to source layouts for these buildings thus the internal configurations have been assumed from external observation. Our analysis considers 100 windows serving 59 rooms. We note several windows are subject to overhangs. Following the principles applied to overhanging balconies, these overhangs have been removed from the calculation.

Daylight

9.34 All the site facing windows experience BRE compliant changes in VSC as a result of the proposed development. The greatest change being <11%. BRE Guidance advises this level of change will be unnoticeable. Furthermore, the NSL analysis similarly confirms there will be no noticeable changes in daylight distribution.

Sunlight

9.35 All windows and rooms which have a window orientated within 90 degrees due south experience fully BRE compliant changes in APSH as a result of the proposed development.

9) 1-8 GLOSTER

9.36 East/south-east of the site and referenced '9' on the site plan these properties are identified as containing residential accommodation. We have managed to source layouts for the properties via Estate Agency plans which have been incorporated into our analysis model. It should be noted that the design of these buildings positions the bedrooms on the site facing elevations with the living room and kitchen/dining rooms on the opposite elevations facing away from the site. There are 16 windows serving 16 bedrooms.

Daylight

9.37 The bedroom windows currently receive over 30% VSC, which is unusually high for an urban area. The windows experience proportionate reductions in VSC between 21% and 32% their existing value. The NSL analysis confirms there will be an unnoticeable change in daylight distribution.

9.38 The retained VSC values to these windows are 22% to 26% after implementation of the scheme which sit comfortably above the proposed daylight targets.

Sunlight

9.39 All windows and rooms which have a window orientated within 90 degrees due south experience fully BRE compliant changes in APSH as a result of the proposed development.

10) 1-18 FIREFLY

9.40 East/south-east of the site and referenced '10' on the site plan these properties are identified as containing residential accommodation. We have managed to source layouts for the properties via Estate Agency plans which have been incorporated into our analysis model. It should be noted that the design of these buildings positions the bedrooms on the site facing elevations with the living room and kitchen/dining rooms on the opposite elevations facing away from the site. There are 36 windows serving 36 bedrooms.

Daylight

9.41 The bedroom windows currently receive over 30% VSC, which is unusually high for an urban area. The windows experience proportionate reductions in VSC between 34% and 57% their existing value. 26 of these rooms also experience reductions in NSL which exceed default BRE Guidance.

9.42 The retained absolute VSC values range 14.4% up to 24% after implementation of the scheme. A total of 5 of the 36 windows analysed fall into a band less than 15% VSC. We consider this represents a 'small band' below 15% and therefore not considered unacceptable in the context of the proposed urban environment as a whole. It should also be borne that daylight to bedrooms is less important than living rooms.

Sunlight

9.43 None of the rooms have a window orientated within 90 degrees due south thus not material for BRE assessment.

11) 1-12 DESSOUTER

9.44 South-east of the site and referenced '11' on the site plan these properties are identified as containing residential accommodation. We have managed to source layouts for the properties via Estate Agency plans which have been incorporated into our analysis model. It should be noted that the design of these buildings are the same as Firefly and Gloster considered above, however the elevations are reversed. There are 78 windows serving 36 bedrooms.

Daylight

9.45 Of the 78 windows tested, 52 are BRE compliant in relation to the VSC criterion. The remaining 26 experience 20-20.9% reductions in VSC which are minor derogations from default BRE Guidance. All rooms experience compliant changes in NSL. Overall the impact on this property is considered very minor in nature.

Sunlight

9.46 None of the rooms have a window orientated within 90 degrees due south thus not material for BRE assessment.

12) 1-19 JAGUAR COURT

9.47 South of the site and referenced '12' on the site plan this property is identified as containing residential accommodation. We have managed to source layouts for the property via Barnet's online planning portal which have been incorporated into our analysis model. There are 91 windows that serve 44 site facing rooms. We note the presence of balconies shrouding the windows; in accordance with BRE Guidance these have been removed from the calculation (BRE Guide 209, paragraph 2.2.11).

Daylight

9.48 With the balcony provision removed, the site facing windows experience proportionate VSC reductions up to 51.98% their existing value. 12 of the rooms assessed experience NSL reductions between 20% to 43%. The remaining 32 rooms experience unnoticeable changes in daylight distribution.

9.49 The retained VSC values to the windows range 16% up to 38%, which sit above the proposed targets detailed within Section 7. Notwithstanding there are some noticeable reductions in daylight to this property, the overall position is not considered to be unacceptable by virtue of the retained daylight levels being consistent with the proposed targets.

Sunlight

9.50 None of the rooms have a window orientated within 90 degrees due south thus not material for BRE assessment.

13) PANAVIA COURT

9.51 South of the site and referenced '13' on the site plan this property is identified as containing residential accommodation. We have managed to source layouts for the property via Barnet's online planning portal which have been incorporated into our analysis model. There are 49 windows that serve 25 site facing rooms. We note the presence of balconies shrouding the windows; in accordance with BRE Guidance these have been removed from the calculation (BRE Guide 209, paragraph 2.2.11).

Daylight

9.52 With the balcony provision removed, the site facing windows experience proportionate VSC reductions up to 51.9% their existing value. 6 of the rooms assessed experience NSL reductions between 20% to 37.7%. The remaining 19 rooms experience unnoticeable changes in daylight distribution.

9.53 The retained VSC values to the windows range 17.7% up to 39%, which sit above the proposed targets detailed within Section 7. Notwithstanding there are some noticeable reductions in daylight properties the overall position is not considered to be unacceptable by virtue of the retained daylight levels being consistent with the proposed targets.

Sunlight

9.54 All windows and rooms which have a window orientated within 90 degrees due south experience fully BRE compliant changes in APSH as a result of the proposed development.

14) 1 DEAL COURT

9.55 South-west of the site and referenced '14' on the site plan this property is identified as containing residential accommodation. We are not in receipt of layouts for the property thus the internal configurations have been assumed from external observation. We do however note the ground floor is a garage thus not been assessed. There are 4 windows assessed as serving 3 site facing rooms.

Daylight

9.56 Of the 4 windows, 1 experiences a 20.47% reduction in VSC which is a very minor derogation from default BRE Guidance. The room behind the window experiences an unnoticeable change in daylight distribution. The other 3 windows are all BRE compliant.

Sunlight

9.57 All windows and rooms which have a window orientated within 90 degrees due south experience fully BRE compliant changes in APSH as a result of the proposed development.

15) 1-6 GRANT COURT

9.58 South-west of the site and referenced '15' on the site plan this property is identified as containing residential accommodation. We are not in receipt of layouts for the property thus the internal configurations have been assumed from external observation. There are 34 windows assessed as serving 25 site facing rooms. We note there are overhangs above the windows at 12 Grant Court, which accordance with BRE Guidance have been removed from the calculation (BRE Guide 209, paragraph 2.2.11).

Daylight

9.59 The site facing windows experience proportionate VSC reductions up to 52.7% their existing value. 12 of the rooms assessed experience NSL reductions between 21% to 56%. The remaining 13 rooms experience unnoticeable changes in daylight distribution.

9.60 The retained VSC values to the windows range 14.5% up to 30.8%, which sit above the proposed targets detailed within Section 7. A total of 1 of the 34 windows analysed fall into a band less than 15% VSC. We consider this represents a 'small band' below 15% and therefore not considered unacceptable in the context of the proposed urban environment as a whole.

Sunlight

9.61 All but 4 rooms retain fully BRE compliant levels of APSH; total and winter. The 4 which do not retain between 21-23 APSH and 0-7 in winter. Retained sunlight levels are considered acceptable in view of the intended urban regeneration.

10 Overshadowing

10.1 Detailed results for each amenity spaces assessed can be found in plots P2045/SHAD/01-02 for 21st March (equinox) and P2045/SHAD/03-04 for 21st June (summer solstice) within Appendix 2; the results are discussed below. The assessment assumes that the Master Plan is in the as built (completed) situation. Internal amenity space assessment will only be assessed to Plot A as it is only this building which is being submitted for detailed planning approval.

OVERSHADOWING TO EXISTING PROPERTIES (PLOT A)

10.2 In total, 39 residential properties are material for overshadowing assessment, these are associated with Violet Court, 8 Parklea, Pixton, Paulham, Partridge, Oxford and St Augustine's House.

10.3 P2045/SHAD/01 provides the existing overshadowing plot of all properties material for assessment and highlights the percentage of amenity space which currently receives at least 2 hours of direct sunlight at the March 21st equinox. P2045/SHAD/02 provides the proposed overshadowing plot and demonstrates the percentage of amenity space which will retain at least 2 hours of direct sunlight at the equinox.

10.4 In the current circumstance, 12 of the 39 amenity spaces currently do not achieve the BRE recommended target of at least half of the garden or amenity space receiving at least 2 hours of direct sunlight. Of the remaining 27 amenity spaces, 25 achieve 2 hours or more of direct sunlight to circa 50% of the amenity area, thus are very close to the BRE compliance threshold. The existing derogations and low existing values are likely to be as a result of high fencing combined with narrow gardens. The remaining 2 amenity areas currently achieve 2 hours of sunlight circa 90% of their area.

10.5 The proposed scenario indicates that 15 properties will be impacted by the development to the extent that they achieve less than the recommended 2 hours of direct sunlight to 50% of their area. Four of these amenity spaces are already below the BRE recommendation in the existing circumstance placing a burden on any additional massing built in close proximity, whilst a further 7 currently enjoy 2 hours of direct sunlight to only circa 50%-55% of the amenity area, making them sensitive to any additional massing.

10.6 As it is likely that the amenity spaces will be used primarily in the summer months, we have undertaken a study of the overshadowing at the summer solstice (21st June). The existing scenario is provided in P2045/SHAD/03 and the proposal within P2045/SHAD/04. In the proposed scenario, of the 39 amenity spaces material for assessment, all are fully BRE compliant as they achieve more than 2 hours of direct sunlight to over 50% of their area, a clear majority are at circa 90%.

10.7 On balance, the reductions in direct sunlight are minor, and derogations occur primarily due to the low existing values at the equinox; these derogations are unavoidable if there is to be a significant increase in massing in an area where the amenity space is sensitive to minor reductions in direct sunlight. The summer solstice results, when the amenity spaces are more

likely to be in use, indicate full BRE compliance with high retained direct sunlight for all amenity spaces.

OVERSHADOWING TO PLOT A'S AMENITY SPACE

10.8 With reference to drawing P2045/SHAD/06, which depicts the area of amenity space within the proposed development which receives at least 2 hours of direct sunlight, 2 amenity spaces have been reviewed, one located on the western side and one to the eastern. It is envisaged that this amenity space will be used primarily in the summer months, and in accordance with BRE Guidance if a space is only to be used at certain times of year it is instructive to plot shadows for those specific times. As a result, we have undertaken an assessment of both amenity spaces on 21st of June (summer solstice). The spaces each receive 81% and 83% respectively; in accordance with BRE Guidance, if 50% of the amenity space receives at least 2 hours of sunlight, the area will be adequately lit.

10.9 We assess that the amenity space will experience sufficient daylit area.

11 Conclusion

DAYLIGHT AND SUNLIGHT

11.1 Point 2, Patel Taylor and HGH have worked closely to develop a scheme that delivers the housing regeneration requirements, responds to the intended increase in density whilst safeguarding daylight amenity to surrounding residential properties in line with the intention of the London Plan, National Planning Policy Framework and intended flexibility of the BRE Guidelines. With this level of increased density, the London Borough of Barnet should recognise that reductions in daylight to surrounding properties is inevitably going to be noticeable, but this should not be equated to unacceptable. Rather, it is appropriate to develop alternate daylight targets that respond to the intended urban regeneration of the area.

11.2 At Section 7 of this report we have detailed what we believe to be appropriate daylighting targets for the area based on similar high-density schemes, outcomes of appeals and the advice of the GLA. In summary, we believe that a general VSC target for the daylit environment is 15%, with a small band below this level.

PLOT A

11.3 The development of Plot A has been assessed in context with the proposed Master Plan. Overall Plot A presents itself well and a clear majority of windows experince reductions in daylight which are fully BRE compliant. It is noted that there will be some noticeable reductions in daylight to Violet Court, 8 & 9 Parklea Close & St Augustine's House, however these reductions tend to occur to a minority of windows which primarily are considered either secondary windows or serve secondary spaces.

11.4 When considering retained VSC values on an unobstructed façade within Violet Court, main windows retain between 18.35% and 34.6% VSC. These retained VSC values sit comfortably above the target detailed in Section 7 of this Report. For 8 & 9 Parklea the assumed bedrooms and kitchens retain absolute VSC values of between 11.6% and 13.8%. The proposed condition is considered acceptable when the likely room uses are considered. Finally, St Augustine's House retained absolute VSC levels sit between 16.7% and 21.8%, thus sitting above the proposed targets described at Section 7.

11.5 Overall, 85% of the total number of windows retain above the suggested 15% VSC target. Although the remaining windows achieve below this level it should be noted that some of these are secondary windows that simply supplement a room which has a main window retaining above this level.

11.6 The remaining properties at 10 & 11 Larch Green, Pixton, Paulham Partridge, and Oxford experince unnoticeable reductions to VSC.

11.7 Plot A relates well with the existing residential properties in terms of daylight amenity and demonstrates comparable impacts to other major schemes across London.

11.8 With regards to Sunlight, the APSH analysis confirms that most of properties achieve 25% APSH target for sunlight. Where rooms fall below this level, the derogations are minor, and we conclude that they are consistent with urban developments. Regarding winter APSH, in urban areas receiving any winter APSH is often impossible due to the high density of the environment and the fact that the sun is low in the sky. As a result, a degree of flexibility is required, and it should be borne in mine that the target values within the BRE are blanket values based upon a suburban environment.

11.9 We consider that the proposed daylighting and sunlighting position is acceptable on balance and that the scheme has been well designed to safeguard the daylight and sunlight amenity of the surrounding residential properties.

MASTER PLAN

11.10 The table below summarises the number of windows that fall within the retained VSC bandings, a more detailed breakdown property-by-property can be seen with Appendix 4.

RETAINED VSC SUMMARY							
	No. of Windows	**0-5%**	**5-10%**	**10-15%**	**15-20%**	**20-25%**	**25%+**
Total	665	2 (secondary windows)	2 (secondary windows)	19 (3 are secondary windows)	76	139	427
% of Total	665	<1%	<1%	3%	11%	21%	64%

Table Showing Retained VSC Levels to Properties Surrounding the Site

11.11 The table identifies that, notwithstanding there may be some noticeable reductions in daylight to some of the properties surrounding the site, the vast majority of windows retain very good daylight levels despite the increase in density. 96% of the total number of windows retain above the suggested 15% VSC target. Less than 4% of windows achieve below this level; but noting some of these are secondary windows that simply supplement a room which has a main window retaining above this level. We consider this nominal percentage of windows to represent a 'small band below' as stipulated within Section 7.

11.12 Overall, in our opinion the proposed Master Plan relates well with the existing residential context in terms of daylight amenity and certainly demonstrates comparison to other major schemes across London.

11.13 In terms of sunlight amenity, the APSH analysis confirms that almost all the surrounding rooms orientated within 90 degrees of due south retain above the suburban 25% APSH target for sunlight. Where rooms fall below this level, they do so marginally, and we would conclude that the retained APSH values where below are consistent with urban developments. This is

also similar for winter APSH where, in urban areas, receiving any winter APSH is often impossible.

11.14 Daylight and sunlight need to be considered in the overall amenity balance. The plan for the area includes social rent, affordable and private sale homes, major infrastructure upgrades, improved transport links and a range of high-quality health, library, community and retail facilities. The development will improve the quality of housing by bringing them up to the Decent Homes Standard and enhance the overall layout of the estate.

11.15 Overall, having regard to the numerous benefits the regeneration has to offer, we consider that the proposed daylighting and sunlighting position is acceptable on balance, not least given the urban nature of the surrounding environment where there is a lower expectation of daylight and sunlight amenity.

OVERSHADOWING

11.16 Of the 39 surrounding residential properties material for overshadowing assessment, just over a third of the properties are adversely impacted by the development at the March equinox. Overall, the reductions of direct sunlight are minor and the derogations tend to occur primarily due to the low existing values during the equinox where only circa 50% of the amenity area enjoys more than 2 hours of direct sunlight. Derogations from BRE Guidance are unavoidable if there is to be a significant increase in massing in an area where the amenity space is sensitive to minor reductions in direct sunlight due to low existing values.

11.17 It is assessed that the amenity spaces are more likely to be in use during the summer months, the results of the assessment at the summer solstice in this circumstance indicate full BRE compliance with high retained direct sunlight for all amenity spaces.

11.18 The amenity space for the proposal (Plot A) has been assessed at the summer solstice when it is envisaged that the space will primarily be in use. The results indicate that the proposed amenity space is assessed as enjoying at least 2 hours of direct sunlight to 81% to 83% of the area and is therefore fully BRE compliant.

11.19 We fully support this planning application in terms of daylight and sunlight amenity.

Appendix 1:

Site Plan with Property References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15
Heybourne Crescent
Clayton Field
Great Field
Saracens High School
Lanacre Site
Lanacre Avenue
Quakers Course
Hazel Close
Deal
Court
St Augustine's
Church
Withers Mead
Corner Mead
Saracens High School
Corner Mead Site
Firefly
Gloster
St Margaret
Cliterhow
Church
Presbytery
Leckie
Lynx
Lysander
Piston
Partridge
Oxford
Jaguar Court

Appendix 2:
Drawings

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

Project: Heybourne Park
London

Title: Site Plan
Existing Buildings

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	1:1750	July 19	P2045/19	06

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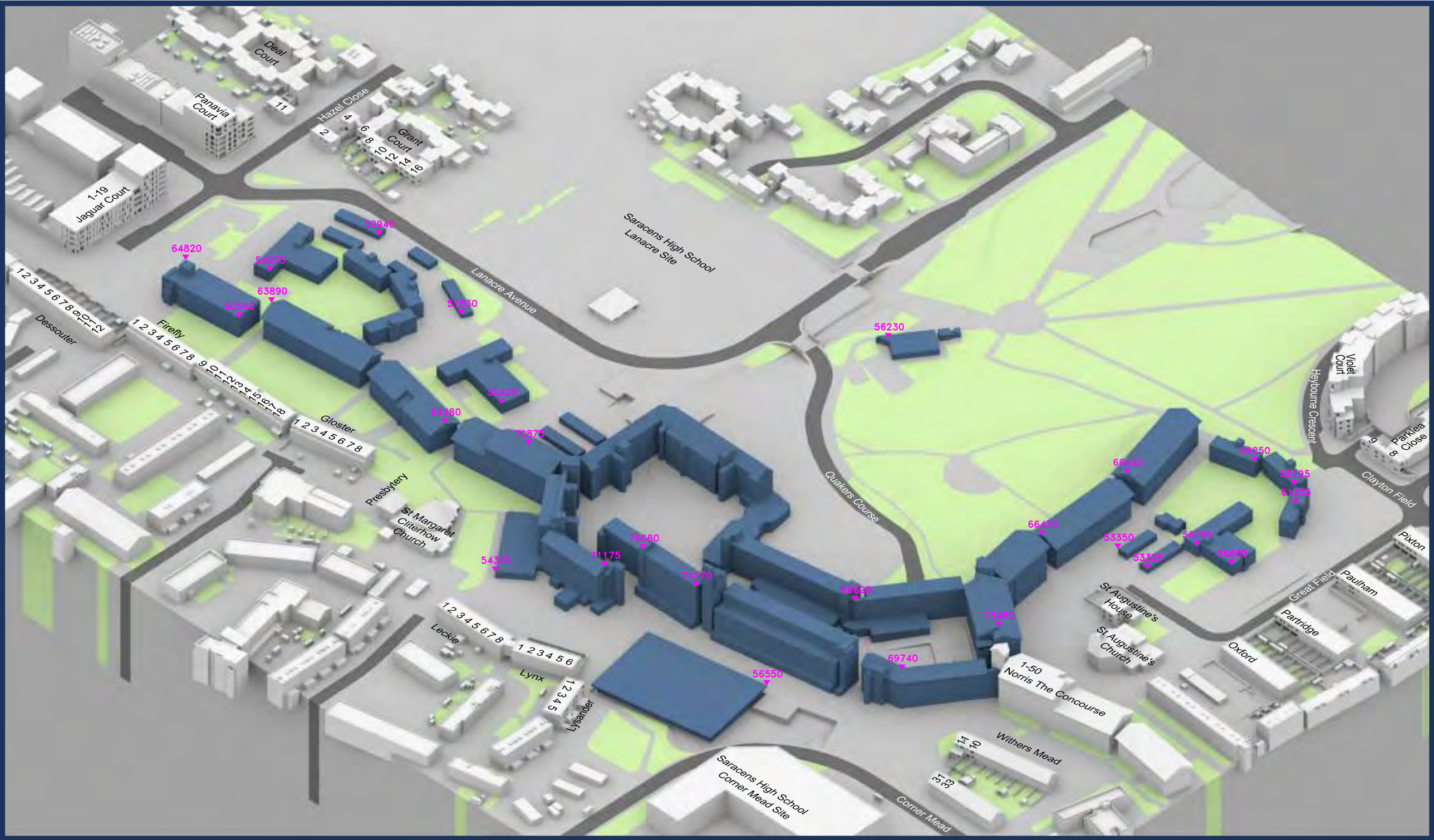

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

All Heights in mm AOD

Project: Heybourne Park
London

Title: 3D View
Existing Buildings

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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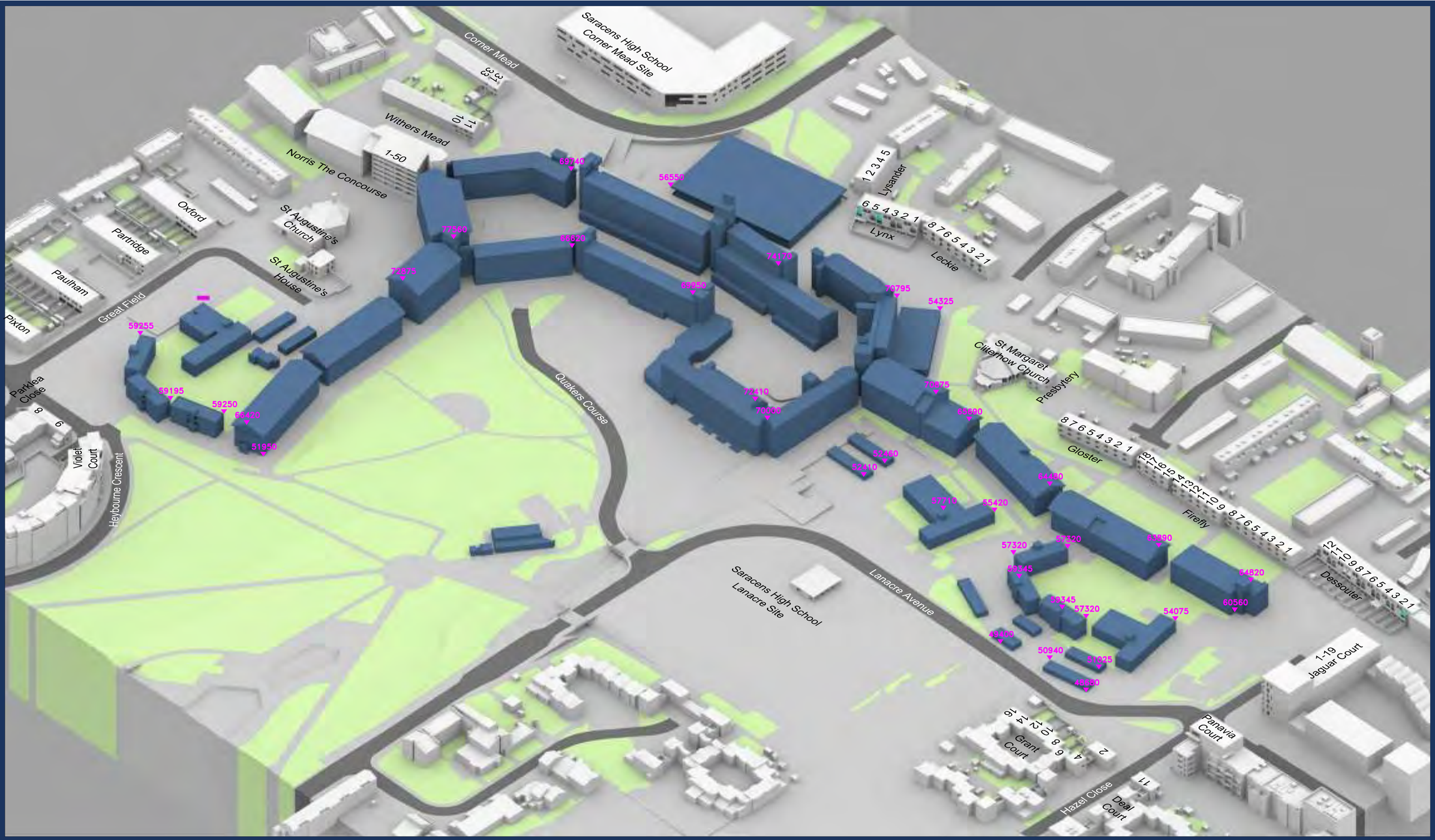

Sources: Point 2
Survey Info (received 13/06/19)
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Patel Taylor
Plot A Proposed Info (received 27/06/19)
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Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

All Heights in mm AOD

Project: Heybourne Park
London

Title: 3D View
Existing Buildings

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/21	06

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

Project: Heybourne Park
London

Title: Site Plan
Proposed Scheme Plot A 27/06/19
and Masterplan 28/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

All Heights in mm AOD

Project: Heybourne Park
London

Title: 3D View
Proposed Scheme Plot A 27/06/19
and Masterplan 28/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
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Patel Taylor
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Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key: Existing Buildings
Proposed Scheme

All Heights in mm AOD

Project: Heybourne Park
London

Title: 3D View
Proposed Scheme Plot A 27/06/19
and Masterplan 28/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:
- Area analysed
- Area with more than 2 hours of direct sunlight
- Area with less than 2 hours of direct sunlight
- 50% Percentage of area with more than 2 hours of direct sunlight

Project: Heybourne Park
London

Title: BRE 2 Hour Overshadowing Study
21st March
Existing Buildings

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	1:600	July 19	P2045/SHAD/01	06

Sources: Point 2
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Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:
- Area analysed
- Area with more than 2 hours of direct sunlight
- Area with less than 2 hours of direct sunlight
- 50% Percentage of area with more than 2 hours of direct sunlight

Project: Heybourne Park
London

Title: BRE 2 Hour Overshadowing Study
21st March
Proposed Plot A 27/06/19 & Masterplan 28/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:
- Area analysed
- Area with more than 2 hours of direct sunlight
- Area with less than 2 hours of direct sunlight
- 50% Percentage of area with more than 2 hours of direct sunlight

Project: Heybourne Park
London

Title: BRE 2 Hour Overshadowing Study
21st June
Existing Buildings

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
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Key:
- Area analysed
- Area with more than 2 hours of direct sunlight
- Area with less than 2 hours of direct sunlight
- 50% Percentage of area with more than 2 hours of direct sunlight

Project: Heybourne Park
London

Title: BRE 2 Hour Overshadowing Study
21st June
Proposed Plot A 27/06/19 & Masterplan 28/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Sources: Point 2
Survey Info (received 13/06/19)
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Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:
- Area analysed
- Area with more than 2 hours of direct sunlight
- Area with less than 2 hours of direct sunlight
- 50% Percentage of area with more than 2 hours of direct sunlight

Project: Heybourne Park
London

Title: BRE 2 Hour Overshadowing Study
21st June
Amenities of Plot A

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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Appendix 3:
Window Maps

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
Violet Court

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
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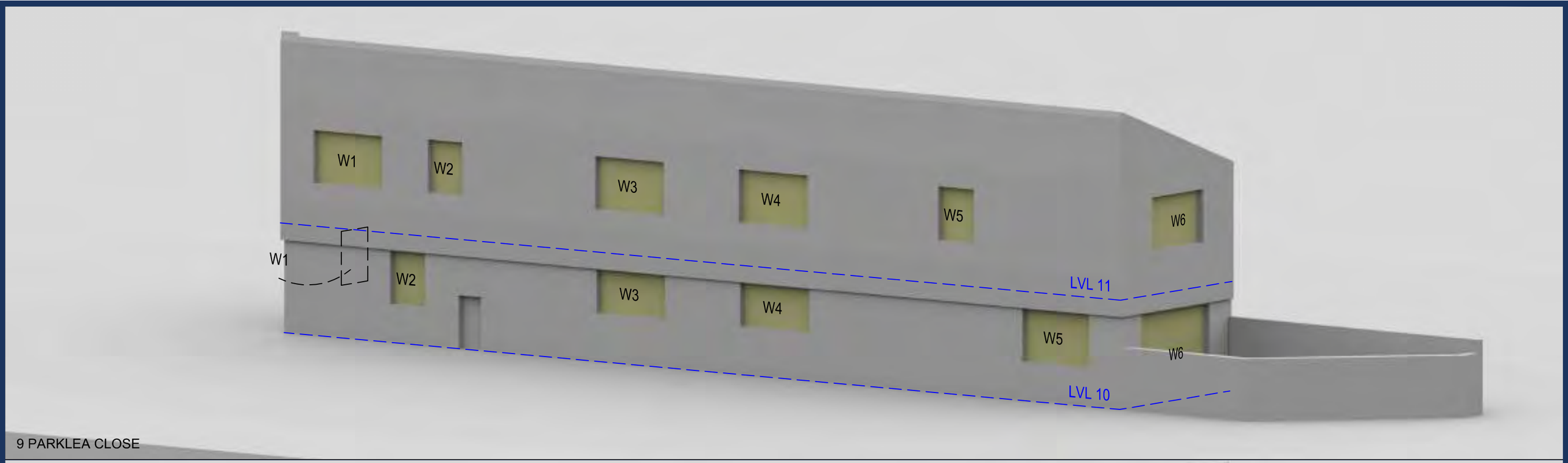
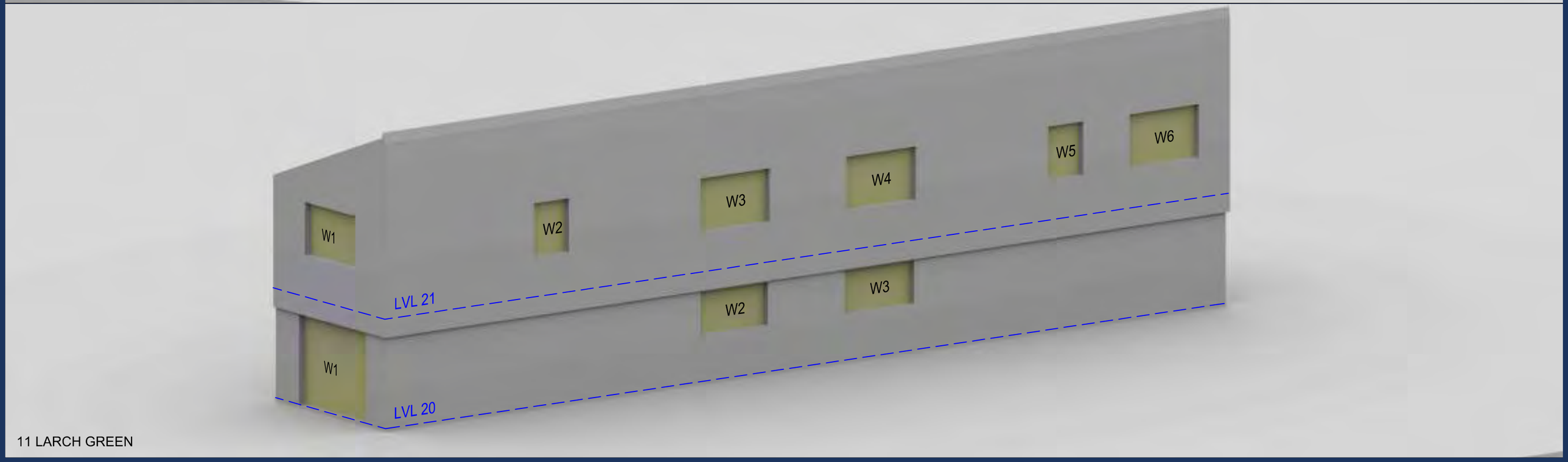


9 PARKLEA CLOSE



11 LARCH GREEN

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
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Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
9 Parklea Close &
11 Larch Green

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/02	06

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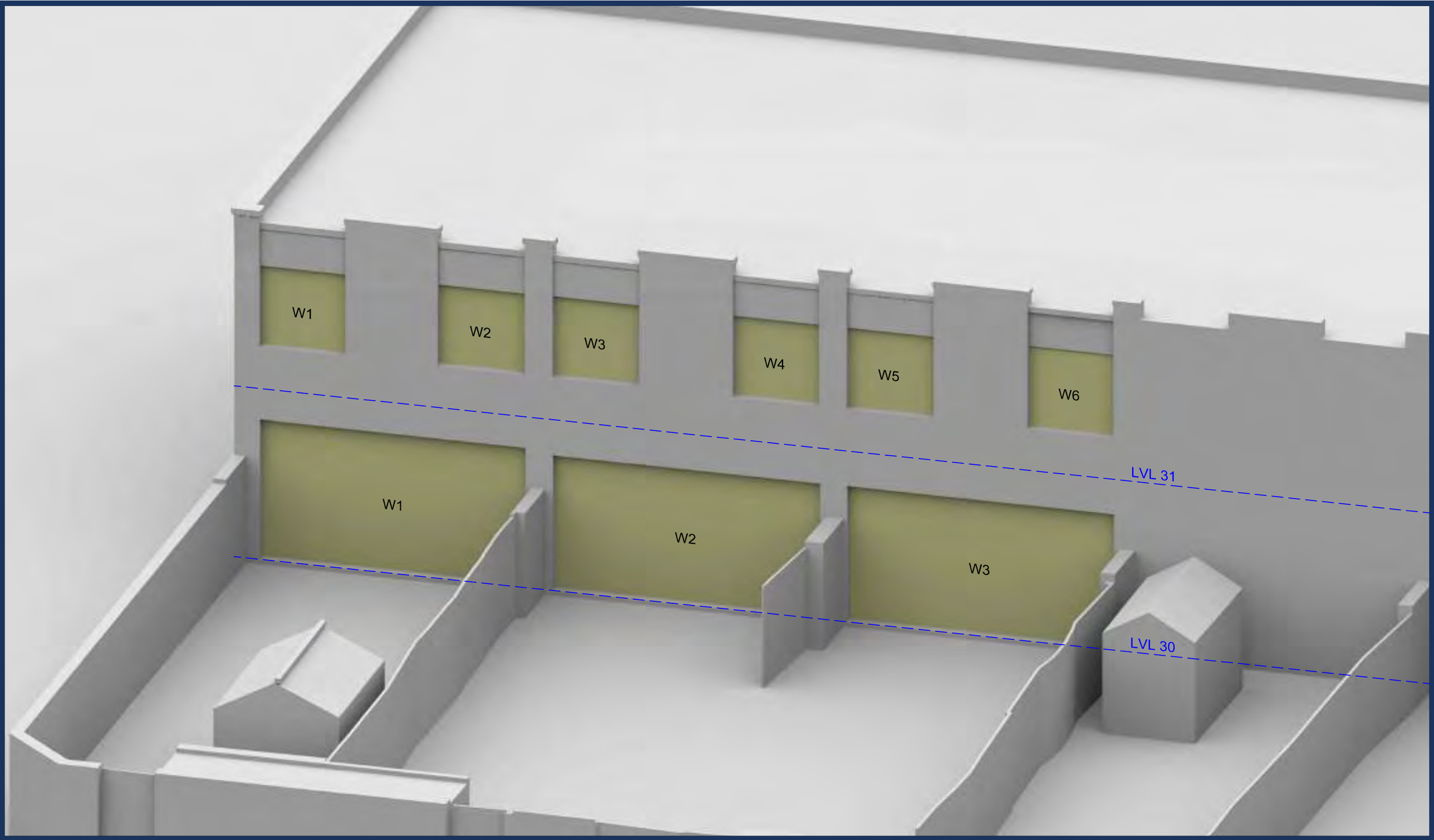


Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

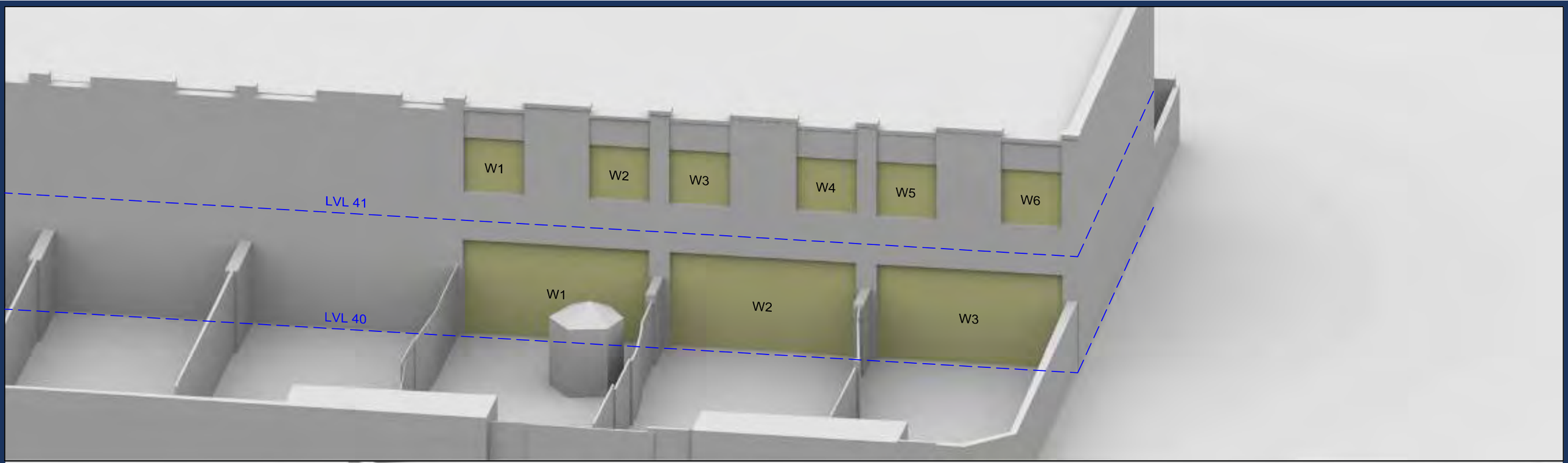
Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

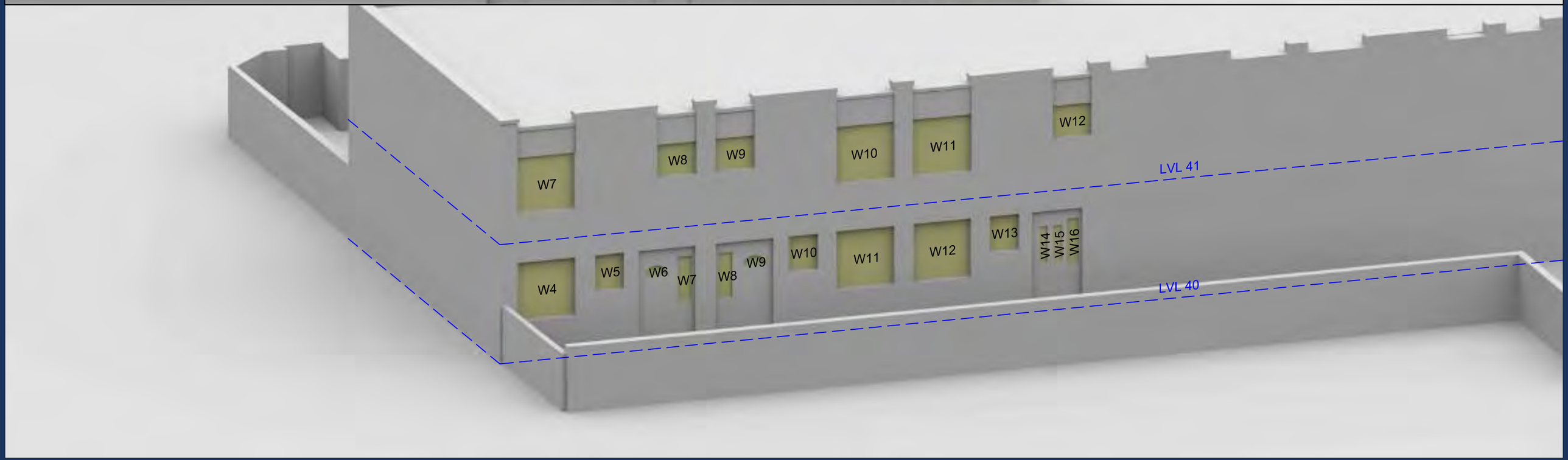
Key:

Project: Heybourne Park
London

Title: Window Locations
Pixton Great Field

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/03	06





Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
Paulham Great Field

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/04	06

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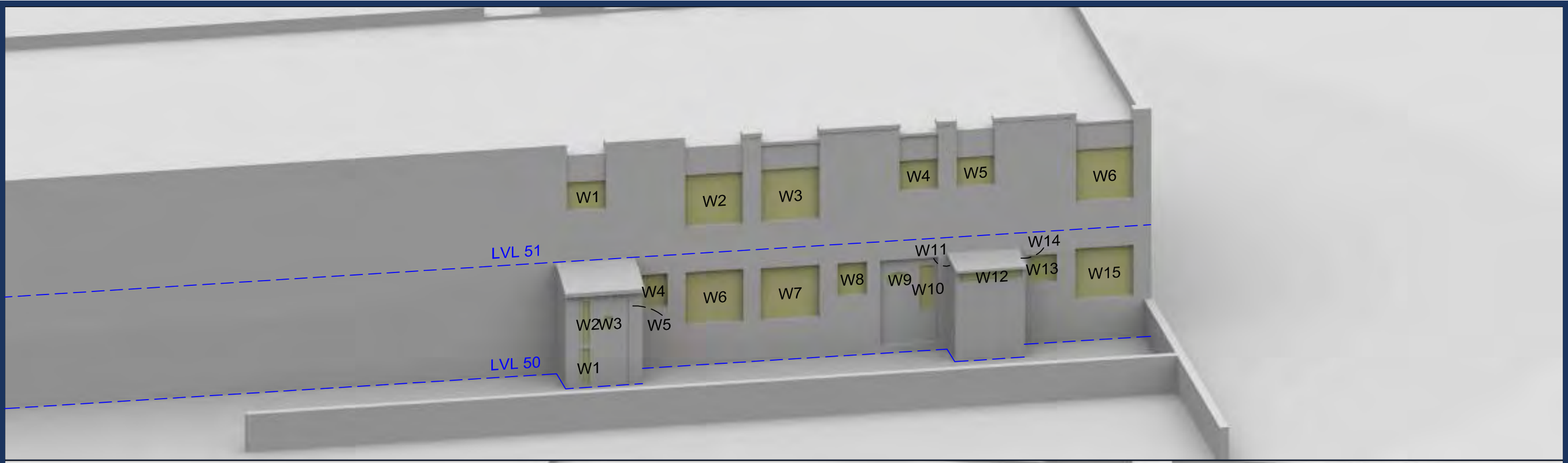

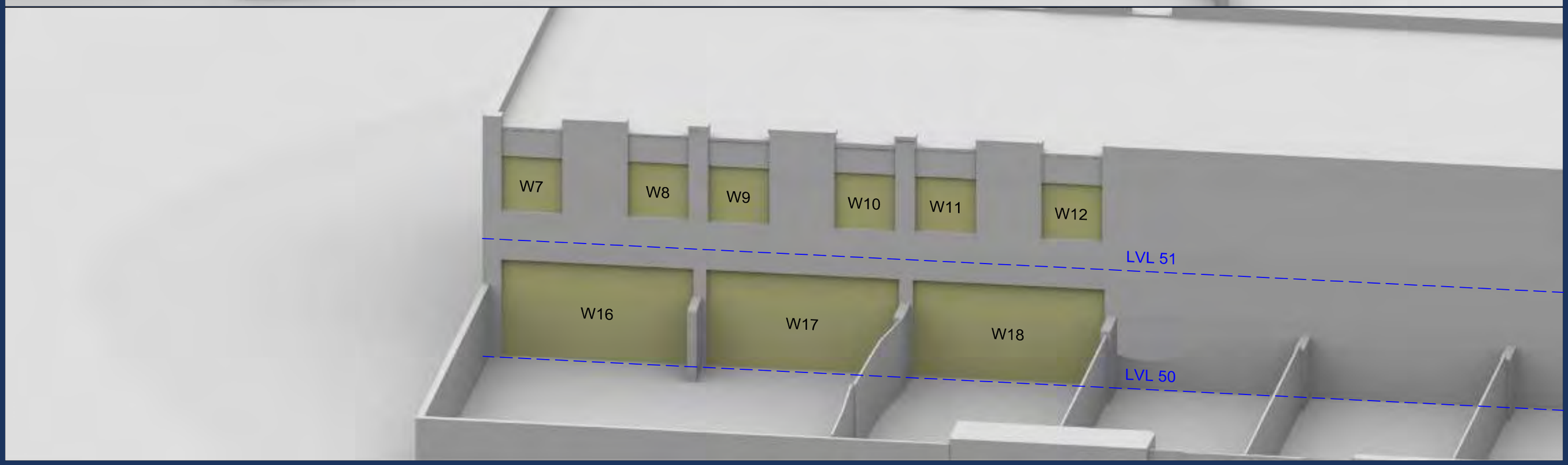

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
Partridge Great Field

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/05	06

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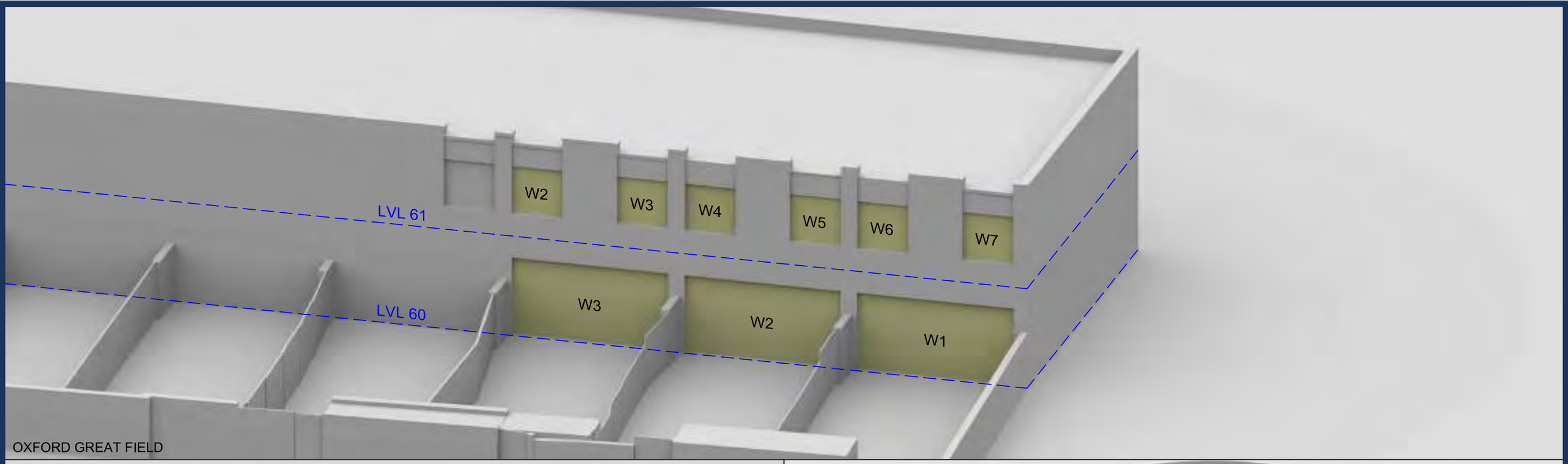
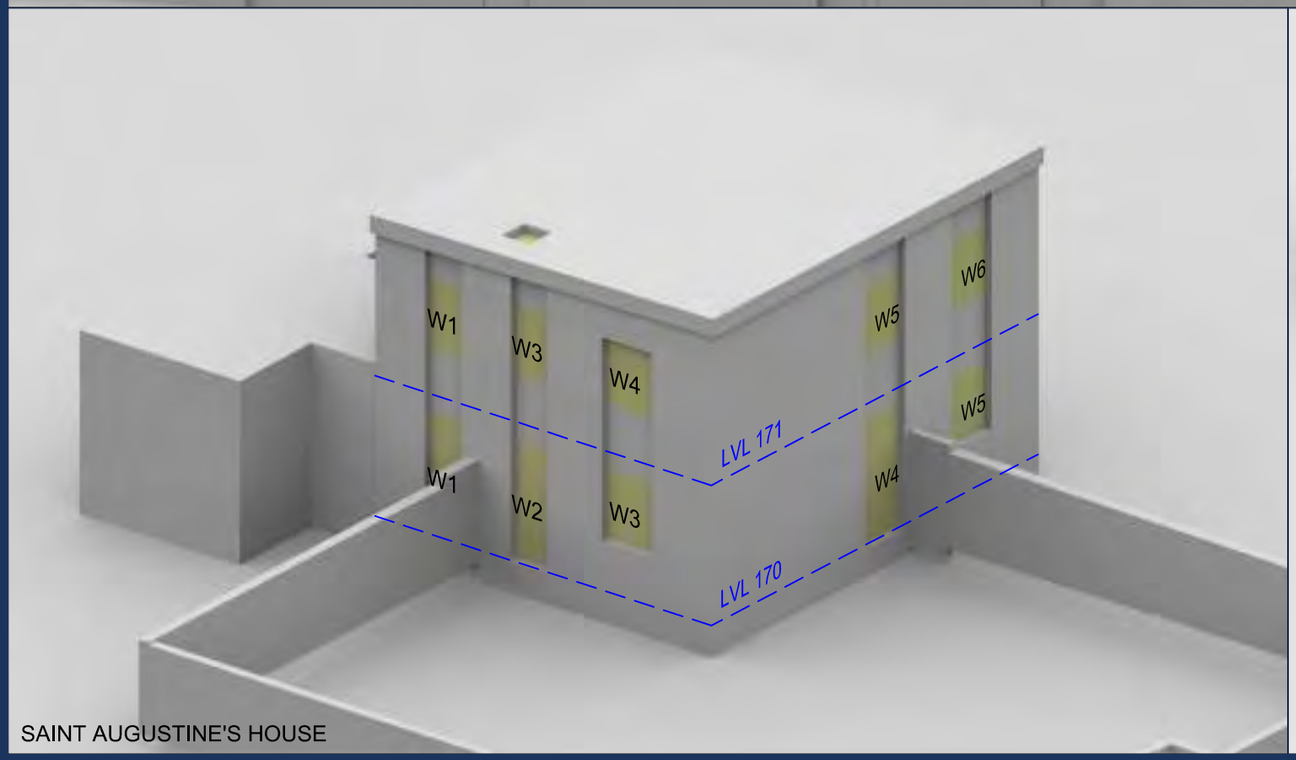
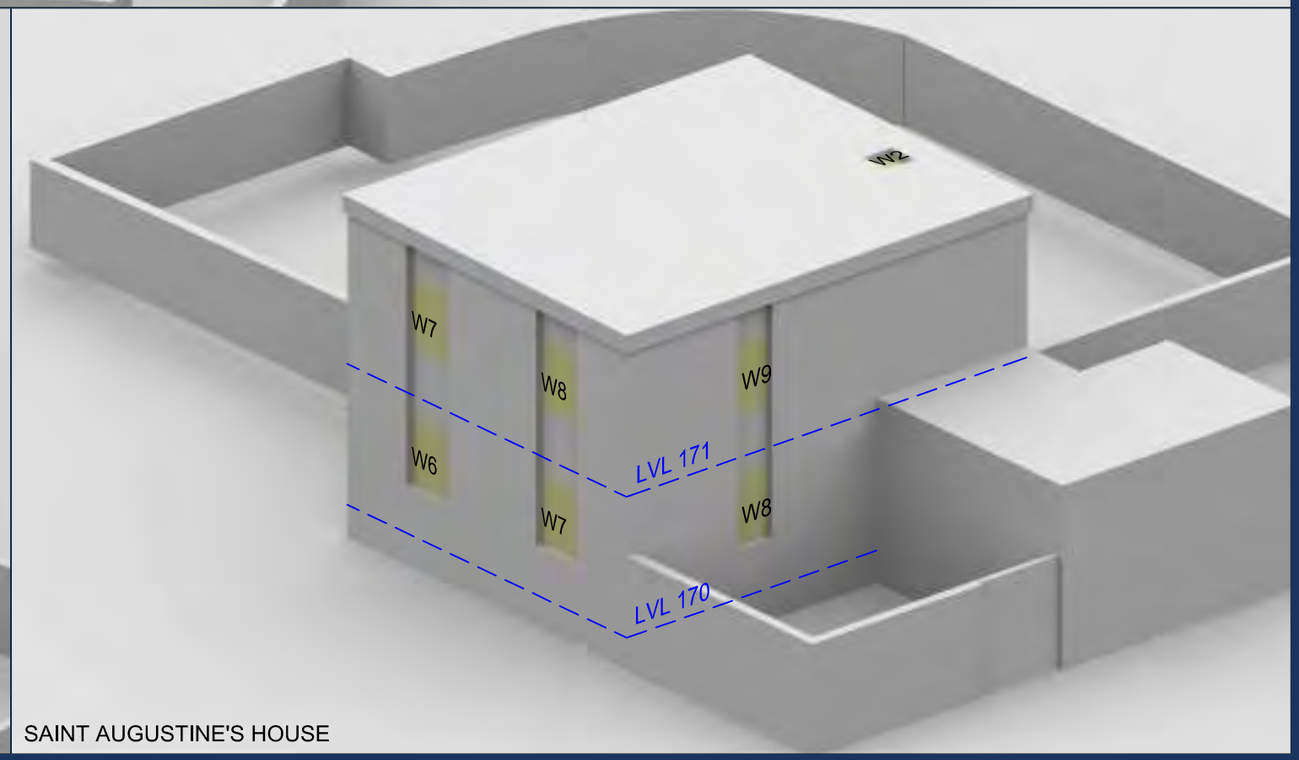


OXFORD GREAT FIELD



SAINT AUGUSTINE'S HOUSE



SAINT AUGUSTINE'S HOUSE

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
Oxford Great Field & Saint Augustine's House

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/06	06

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
1-50 Norris The Concourse

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/07	06

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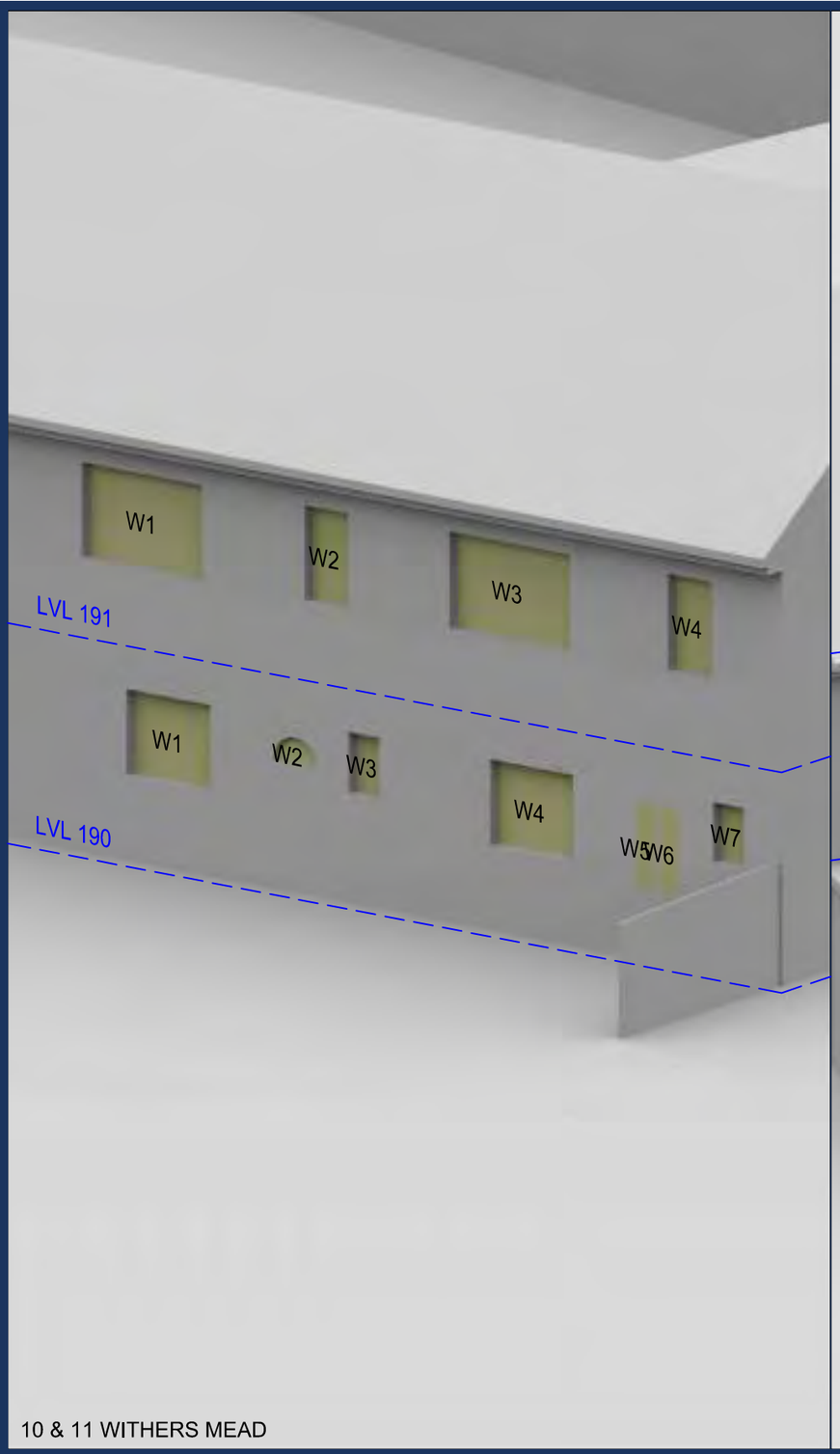
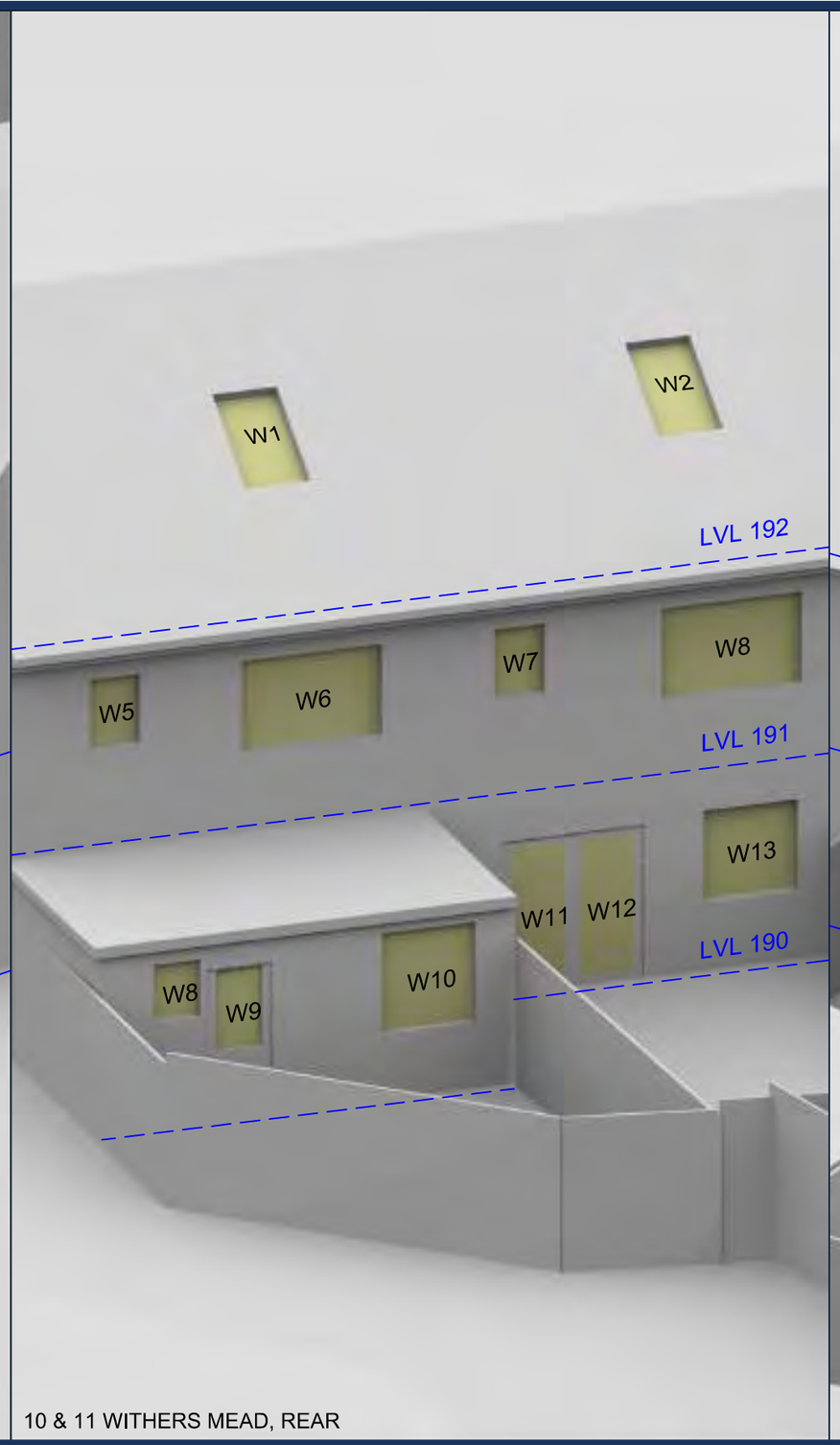
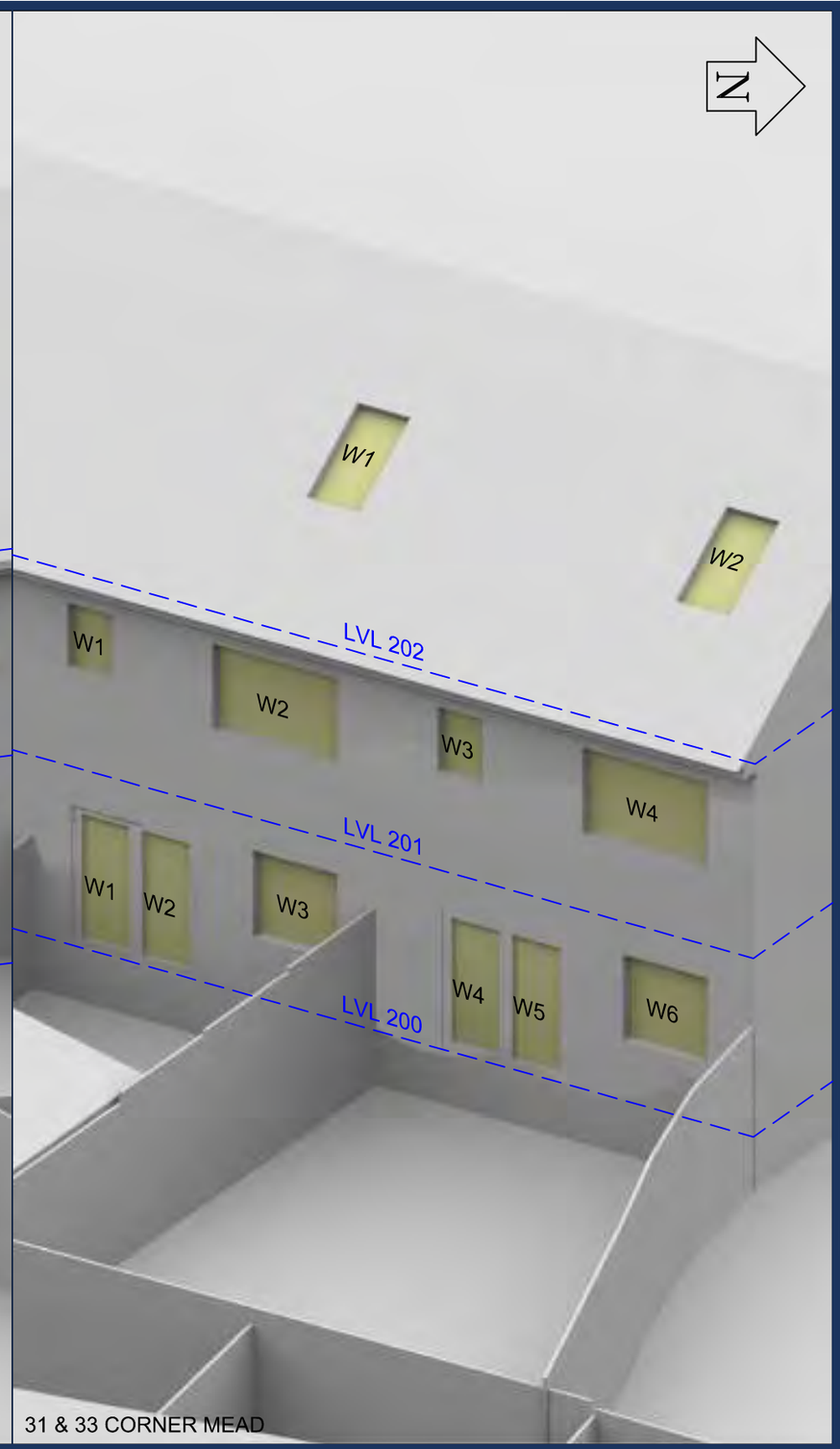


10 & 11 WITHERS MEAD



10 & 11 WITHERS MEAD, REAR



31 & 33 CORNER MEAD

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

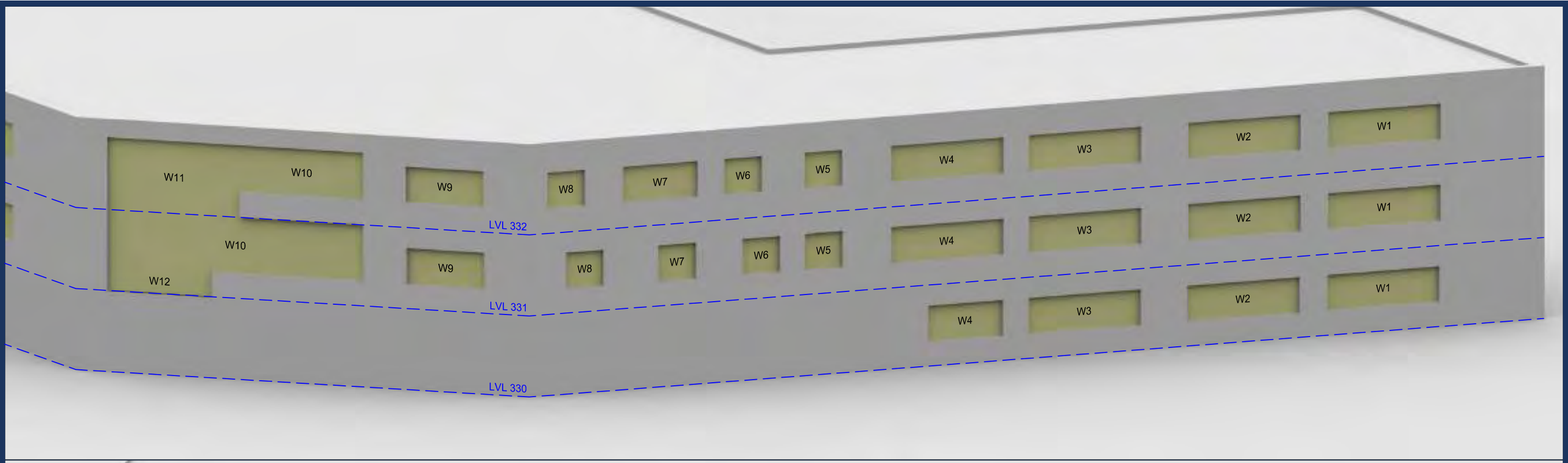
Patel Taylor
Plot A Proposed Info (received 27/06/19)
529-PTA-AZ-ZZ-M3-A-1100_S2-P06.rvt
Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

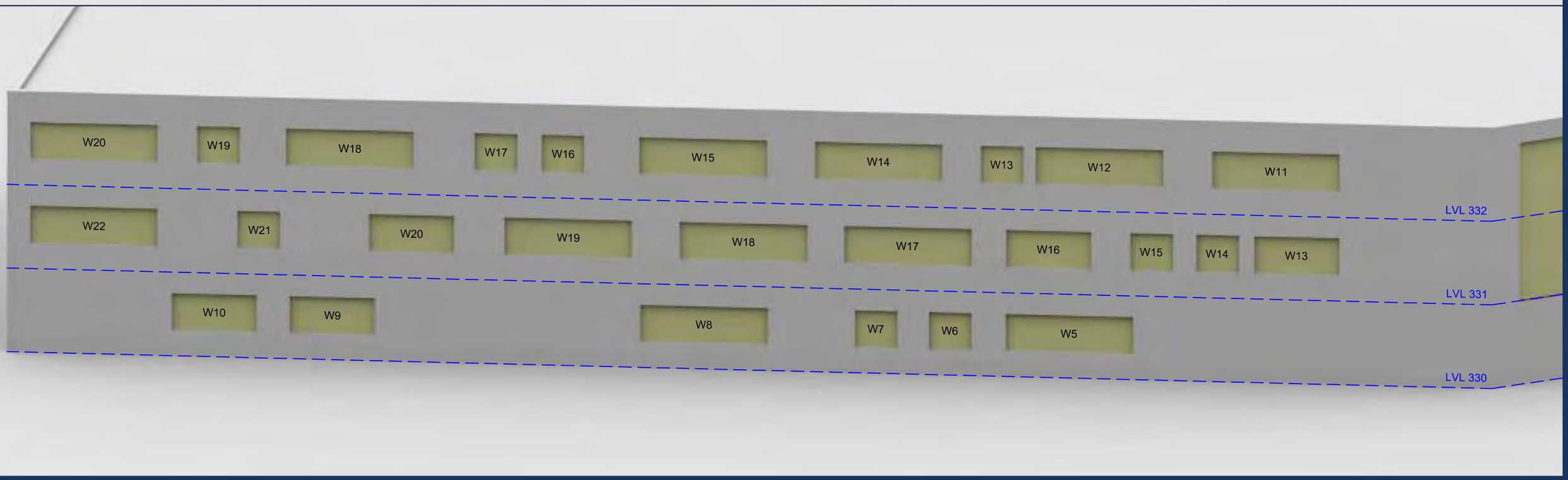
Key:

Project: Heybourne Park
London

Title: Window Locations
10 & 11 Withers Mead &
31 & 33 Corner Mead

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/08	06





Sources: Point 2
Survey Info (received 13/06/19)
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HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
Saracens High School, Corner Mead Site

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/09	06

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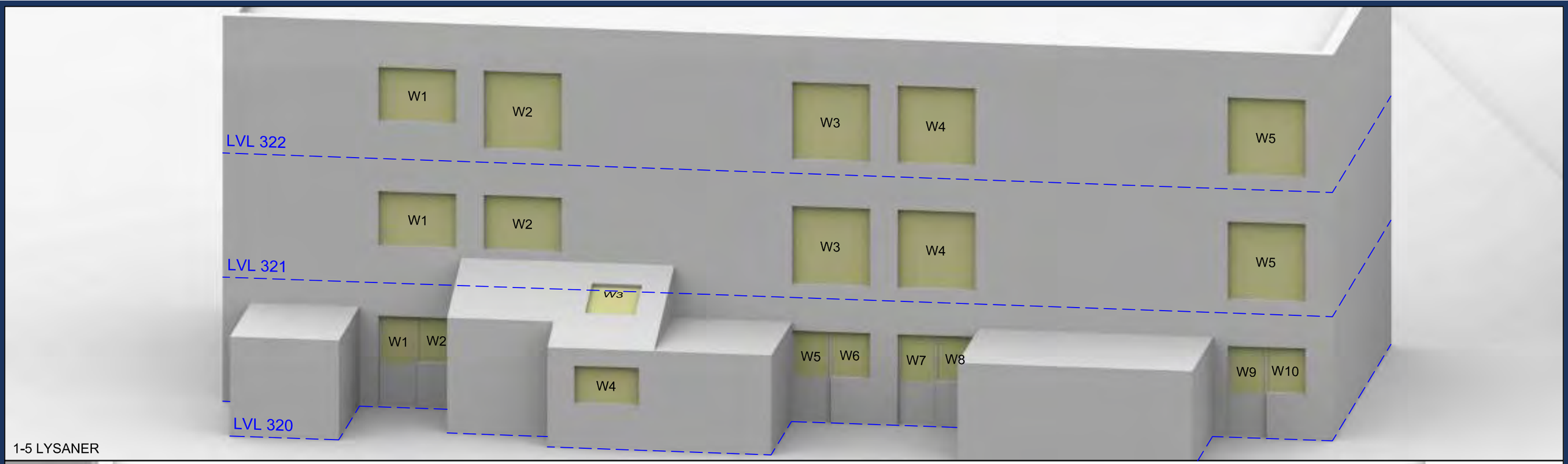

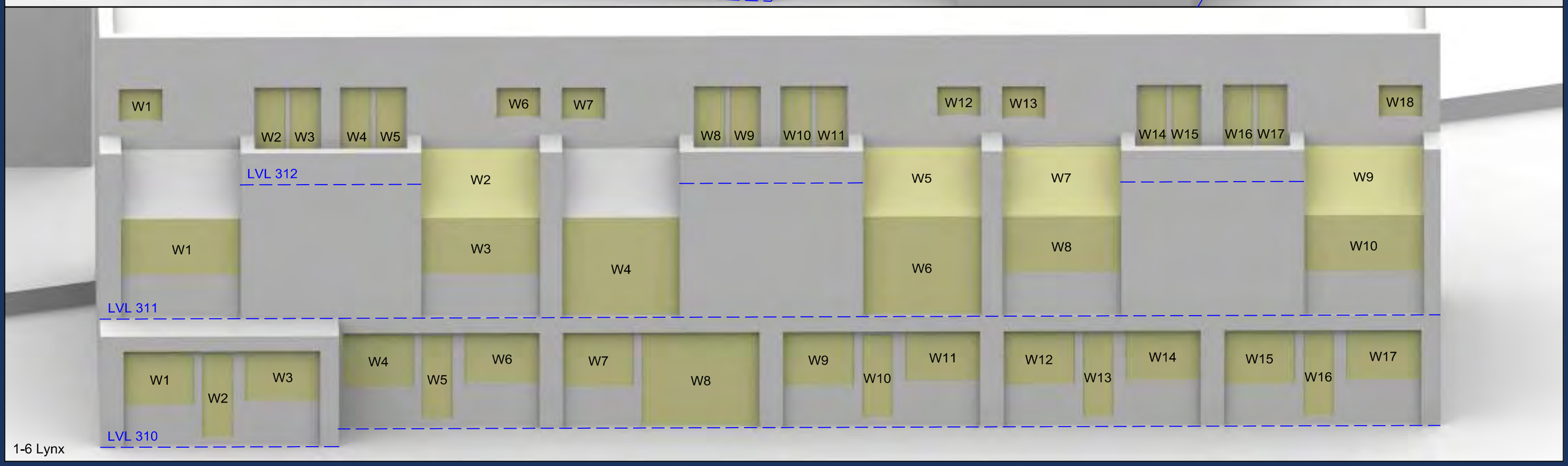

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

Patel Taylor
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Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
1 - 5 Lysaner & 1 - 6 Lynx

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/10	06

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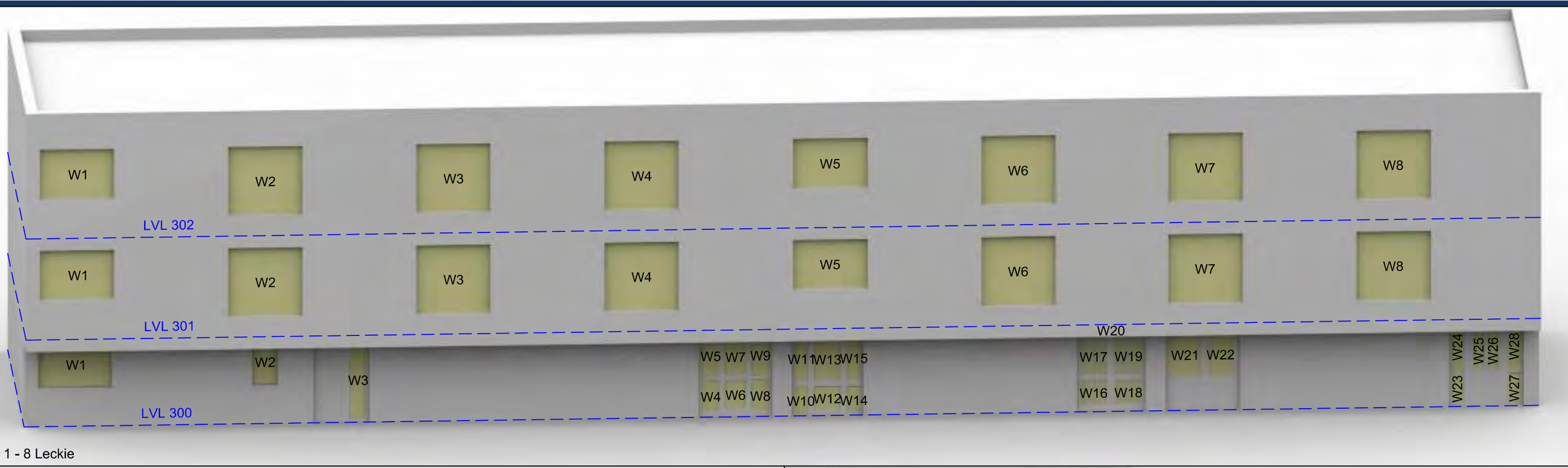
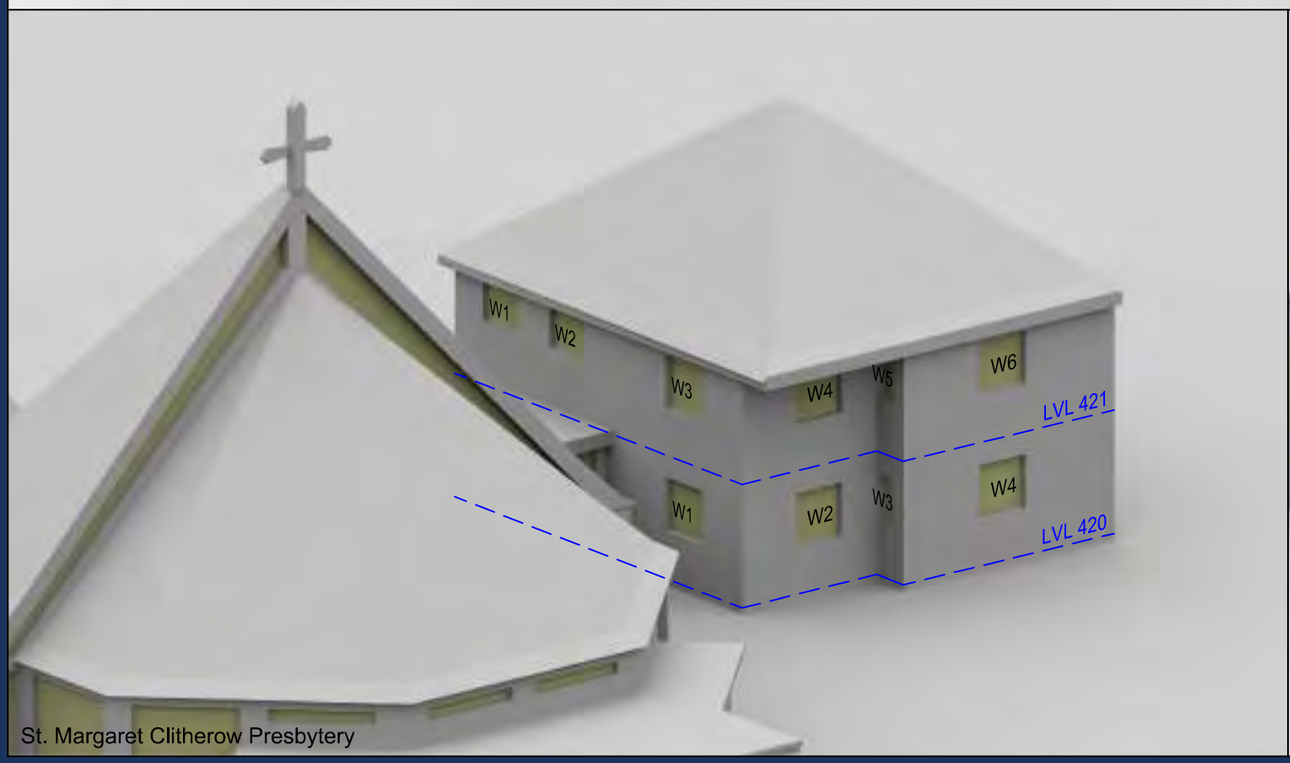
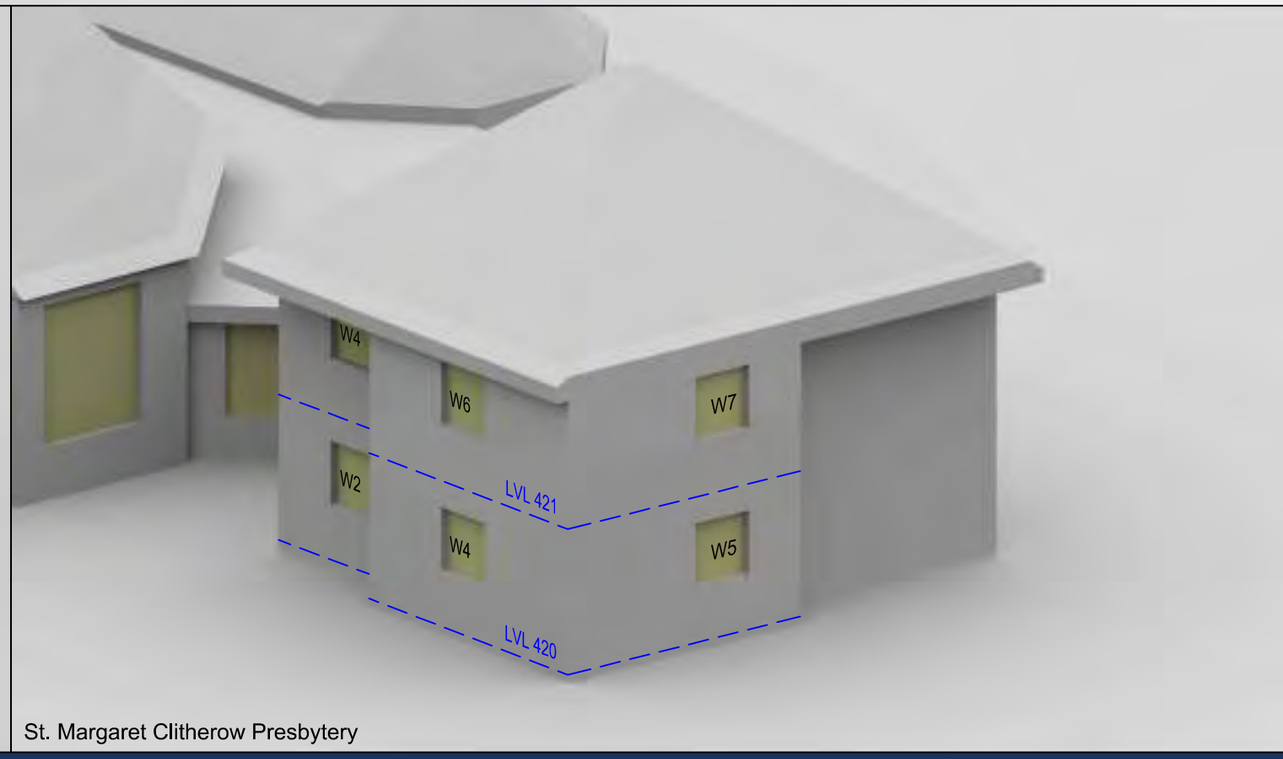


1 - 8 Leckie



St. Margaret Clitherow Presbytery



St. Margaret Clitherow Presbytery

Sources: Point 2
Survey Info (received 13/06/19)
Heybourne Park_Sent.imp

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Plot A Proposed Info (received 27/06/19)
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Masterplan Proposed Info (received 28/06/19)
HP-PTA-MP-XX-MR-A-0010_S2-P06.dwg

Key:

Project: Heybourne Park
London

Title: Window Locations
1 - 8 Leckie & St. Margaret Clitherow Presbytery

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
--	--	DT/AFA	NTS	July 19	P2045/WM/11	06

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