Isles of Scilly

Capital Delivery Programme

Daylight and Sunlight Report (Neighbouring Properties)

Bishop and Wolf Pumping Station and Screening Plant

Report Ref.		**107780-PEF-ZZ-602-TRP-TS-0002**				
Rev	**Suit**	**Description**	**Date**	**Originator**	**Checker**	**Approver**
P01	S2	Interim Draft.	06/08/2024	Right of Light Consulting	E Stone	J Davey
P02	S3	Updated based on project briefing note.	27/08/2024	Right of Light Consulting	E Stone	J Davey
P03	S4	For acceptance	07/01/2025	E Samways	J Davey	J Davey
Ref. reference. Rev revision. Suit suitability.						

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RIGHT OF LIGHT CONSULTING
Chartered Surveyors

Daylight and Sunlight Report

(Neighbouring Properties)

27 August 2024

Water Treatment Works
Little Porth Road
Hugh Town
St Mary's
Isles of Scilly
TR21 0JG

Regulated by RICS

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CONTENTS

1 EXECUTIVE SUMMARY

1.1 Overview

1.1.1 Right of Light Consulting has been commissioned by IDP Landscapes Ltd to undertake a daylight and sunlight assessment for a proposed enlarged waste water infrastructure building on Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG.

1.1.2 The assessment is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' by P J Littlefair 2022.

1.1.3 The aim of the assessment is to consider the impact of the development on the light receivable by the neighbouring properties at:

- 1 & 3 The Corners
- Allwinds
- Bishop and Wolf Inn
- The Wrasse.

1.1.4 The images in Appendix 1 identify the windows we have assessed. Appendix 2 gives the numerical results of the various daylight and sunlight tests.

1.1.5 1 The Corner is a non-domestic building, which in our opinion does not have a requirement for daylight or sunlight. Even though a window does not pass the numerical tests, this does not amount to non-compliance with the BRE requirements.

1.1.6 The results demonstrate that the proposed development will have a relatively low impact on the light receivable by its neighbouring properties. Non-compliance with the BRE recommendations is limited to the daylight tests in respect of the bedroom served by window 16 at the Bishop and Wolf Inn. In our opinion, taking into account the overall high level of compliance with the BRE recommendations, and the mitigating factors set out in section 4, the proposed development is acceptable in terms of daylight and sunlight.

2 INFORMATION SOURCES

2.1 Drawings

2.1.1 This report is based on the following drawings:

Pell Frischmann

	Site Boundary	Rev -
107780-PEF-WW-602-DDR-T-0003	BISHOP AND WOLF PS & SCREENING PLANT SITE PLAN	Rev P01
107780-PEF-WW-602-DDR-C-0006	BISHOP AND WOLF PS & SCREENING PLANT EXISTING ELEVATIONS	Rev P01
107780-PEF-WW-602-DDR-C-0007	BISHOP AND WOLF PS & SCREENING PLANT PROPOSED ELEVATIONS	Rev P01
107780-PEF-WW-XXX-DDR-C-000X	BISHOP AND WOLF PS & SCREENING PLANT PROPOSED SITE LAYOUT SKETCH	Rev P01

External Measured Survey by Right of Light Consulting

	Point Cloud Data	Rev -

2.2 Daylight Distribution Room Layout Information

2.2.1 The daylight distribution test has been applied based on the following room layout information:

Online Local Authority planning records

Bishop and Wolf Inn:		
3258-1-110	Existing Plans & Section	Rev -

3 METHODOLOGY OF THE ASSESSMENT

3.1 Local Planning Policy

3.1.1 We understand that the Local Authority takes the conventional approach of considering daylight and sunlight amenity with reference to the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, by P J Littlefair. This report is based on the 3rd edition of the BRE guide which was published on 8 June 2022.

3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The BRE guide states:

3.1.3 "The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly, since natural lighting is only one of many factors in site layout design."

3.1.4 In reference to applying different numerical target values in different locations, the BRE guide states:

3.1.5 "These values are purely advisory and different targets may be used based on the special requirements of the proposed development or its location."

3.2 National Planning Policy Framework

3.2.1 The BRE numerical guidelines should be considered in the context of the National Planning Policy Framework (NPPF), which stipulates that local planning authorities should take a flexible approach to daylight and sunlight to ensure the efficient use of land. The NPPF states:

3.2.2 "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)."

3.3 National Planning Practice Guidance

3.3.1 The BRE numerical guidelines should also be considered in the context of the National Planning Practice Guidance (NPPG). The NPPG states that developments should maintain acceptable living standards. It goes on to explain that what this means in practice is that appropriate levels of sunlight and daylight, will depend to some extent on the context for the development. This is consistent with the BRE guide which as noted in paragraphs 3.1.4 to 3.1.5 above, states that site location is a relevant factor when setting sunlight and daylight targets.

3.4 Daylight to Windows

3.4.1 Diffuse daylight is the light received from the sun which has been diffused through the sky. Even on a cloudy day, when the sun is not visible, a room will continue to be lit with light from the sky. This is diffuse daylight.

3.4.2 Diffuse daylight calculations should be undertaken to all rooms within domestic properties, where daylight is required, including living rooms, kitchens and bedrooms. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. These room types are non-habitable and do not have a requirement for daylight.

3.4.3 The BRE guide states that the tests may also be applied to non-domestic buildings where there is a reasonable expectation of daylight. The BRE guide explains that this would normally include schools, hospitals, hotels and hostels, small workshops and some offices. The BRE guide is not explicit in terms of which types of offices it regards as having a requirement for daylight. However, it is widely accepted amongst consultants and local authorities, that for planning purposes, offices (which are commercial in nature) do not have a requirement for daylight. The point is touched on in the 'Daylighting and Sunlighting' guidance note published by the Royal Institution of Chartered Surveyors (RICS), which gives guidance to surveyors on how to produce their reports:

3.4.4 "The report should establish the limits of the assessment. For example, existing commercial premises are rarely assessed for loss of amenity."

3.4.5 The BRE guide contains two tests which measure diffuse daylight:

Test 1 Vertical Sky Component

3.4.6 The Vertical Sky Component is a measure of available skylight at a given point on a vertical plane. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

3.4.7 The BRE guide states that the total amount of skylight can be calculated by finding the Vertical Sky Component at the centre of each main window. However, the guide states that if there would be a significant loss of light to the main window but the room also has one or more smaller windows, an overall Vertical Sky Component may be derived by weighting each Vertical Sky Component element in accordance with the proportion of the total glazing area represented by its window.

Test 2 Daylight Distribution

3.4.8 The distribution of daylight within a room can be calculated by plotting the 'no sky line'. The no sky line is a line which separates areas of the working plane that do and do not have a direct view of the sky. Daylight may be adversely affected if, after the development, 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.

3.4.9 The BRE guide states that both the total amount of skylight (Vertical Sky Component) and its distribution within the building (Daylight Distribution) are important. The BRE guide states that the daylight distribution calculation can only be carried out where room layouts are known. It states that using estimated room layouts is likely to give inaccurate results and is not recommended. Therefore, we don't endorse the practice of applying the test based on assumed room layouts. However, we can provide additional daylight distribution data upon request by the local authority, if neighbouring room layout information is confirmed.

3.5 Sunlight availability to Windows

3.5.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The BRE guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight. It also states that normally loss of sunlight need not be analysed to kitchens and bedrooms, except for bedrooms which also comprise a living space. The tests should also be applied to non-domestic buildings where there is a particular requirement for sunlight.

3.5.2 The test is intended to be applied to main windows which face within 90 degrees of due south. However, the BRE guide explains that if the main window faces within 90 degrees of due north, but a secondary window faces within 90 degrees of due south, sunlight to the secondary window should be checked. For completeness, we have tested all windows which face within 90 degrees of due south. The BRE guide states that sunlight availability may be adversely affected 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.

3.6 Overshadowing to Gardens and Open Spaces

3.6.1 The availability of sunlight should be checked for all open spaces where sunlight is required. This would normally include:

- Gardens, usually the main back garden of a house
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting out areas, such as those between non-domestic buildings and in public squares
- Focal points for views such as a group of monuments or fountains.

3.6.2 One way to consider overshadowing is by preparing shadow plots. However, the BRE guide states that it must be borne in mind that nearly all structures will create areas of new shadow, and some degree of transient overshadowing is to be expected. Therefore, shadow plots are of limited use as interpretation of the plots is subjective. Shadow plots have not been undertaken as part of this assessment.

3.6.3 The BRE guide also contains an objective overshadowing test which has been adopted for the purpose of this assessment. The guide recommends that at least 50% of the area of each amenity space listed above should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sunlight on 21 March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

4 RESULTS OF THE ASSESSMENT

4.1 Windows & Amenity Areas Considered

4.1.1 The aim of the assessment is to assess the impact of the development on the light receivable by the neighbouring properties at:

- 1 & 3 The Corners
- Allwinds
- Bishop and Wolf Inn
- The Wrasse.

4.1.2 The images in Appendix 1 identify the windows we have assessed. Appendix 2 lists the detailed numerical daylight and sunlight test results.

4.1.3 1 The Corner is a non-domestic building, which in our opinion does not have a requirement for daylight or sunlight. Even though a window does not pass the numerical tests, this does not amount to non-compliance with the BRE requirements.

4.2 Daylight to Windows

Vertical Sky Component

4.2.1 All windows with a requirement for daylight pass the Vertical Sky Component test, with the exception window 16 at the Bishop and Wolfe Inn. There are however mitigating factors to consider.

4.2.2 We understand window 16 serves a staff bedroom at the Bishop and Wolf Inn. We are of the opinion that the same weight should not be given to a staff bedroom at a non-domestic property compared with a domestic property, given the somewhat transient nature of the occupant.

4.2.3 Additionally, the BRE guide states that daylight is required in living rooms, kitchens and bedrooms. In the context of daylight distribution, the guide states that bedrooms are less important. The guide does not distinguish between the relative importance of daylight in respect of the vertical sky component test. However, in our opinion less weight should be given to bedrooms than living rooms, on the basis that bedrooms are likely to be used less than living rooms during daylight hours.

4.2.4 Furthermore, whilst the BRE guide gives numerical guidelines, it states that these should be interpreted flexibly, since natural lighting is only one of many factors in site layout design.

Daylight Distribution

4.2.5 We have undertaken the Daylight Distribution test where room layouts are known. All rooms with a requirement for daylight pass the daylight distribution test, with the exception of the staff bedroom served by window 16. However, the mitigating factors mentioned above in relation to the vertical sky component test equally apply to daylight distribution.

4.3 Sunlight to Windows

4.3.1 All windows that face within 90 degrees of due south have been tested for direct sunlight. All windows with a requirement for sunlight pass both the total annual sunlight hours test and the winter sunlight hours test. The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

4.4 Overshadowing to Gardens and Open Spaces

4.4.1 There are no nearby gardens or amenity areas directly to the north of the development. The proposed development will therefore not create any new areas which receive less than two hours of sunlight on 21 March. The proposed development therefore satisfies the BRE overshadowing to gardens and open spaces requirements.

4.5 Conclusion

4.5.1 The results demonstrate that the proposed development will have a relatively low impact on the light receivable by its neighbouring properties. Non-compliance with the BRE recommendations is limited to the daylight tests in respect of the bedroom served by window 16 at the Bishop and Wolf Inn. In our opinion, taking into account the overall high level of compliance with the BRE recommendations, and the mitigating factors set out in section 4, the proposed development is acceptable in terms of daylight and sunlight.

5 CLARIFICATIONS

5.1 General

5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.

5.1.2 The assessment is limited to assessing daylight, sunlight and overshadowing to neighbouring windows, gardens and open spaces as set out in section 2.2, 3.2 and 3.3 of the BRE Guide.

5.1.3 The assessment is based on the information listed in section 2 of this report. The assessment has been undertaken without access to the proposed development site or neighbouring properties.

5.1.4 This assessment does not calculate the effects of trees and hedges on daylight, sunlight and overshadowing to gardens. The BRE guide states that it is usual to ignore the effect of existing trees.

5.1.5 We have undertaken the assessment following the guidelines of the RICS publication “Surveying Safely”. Where limited access or information is available, assumptions will have been made which may affect the conclusions reached in this report. For example, where neighbouring room uses are not known, we will either make a reasonable assumption regarding the use based on external observations, or take the prudent approach of assuming the room is of domestic purposes.

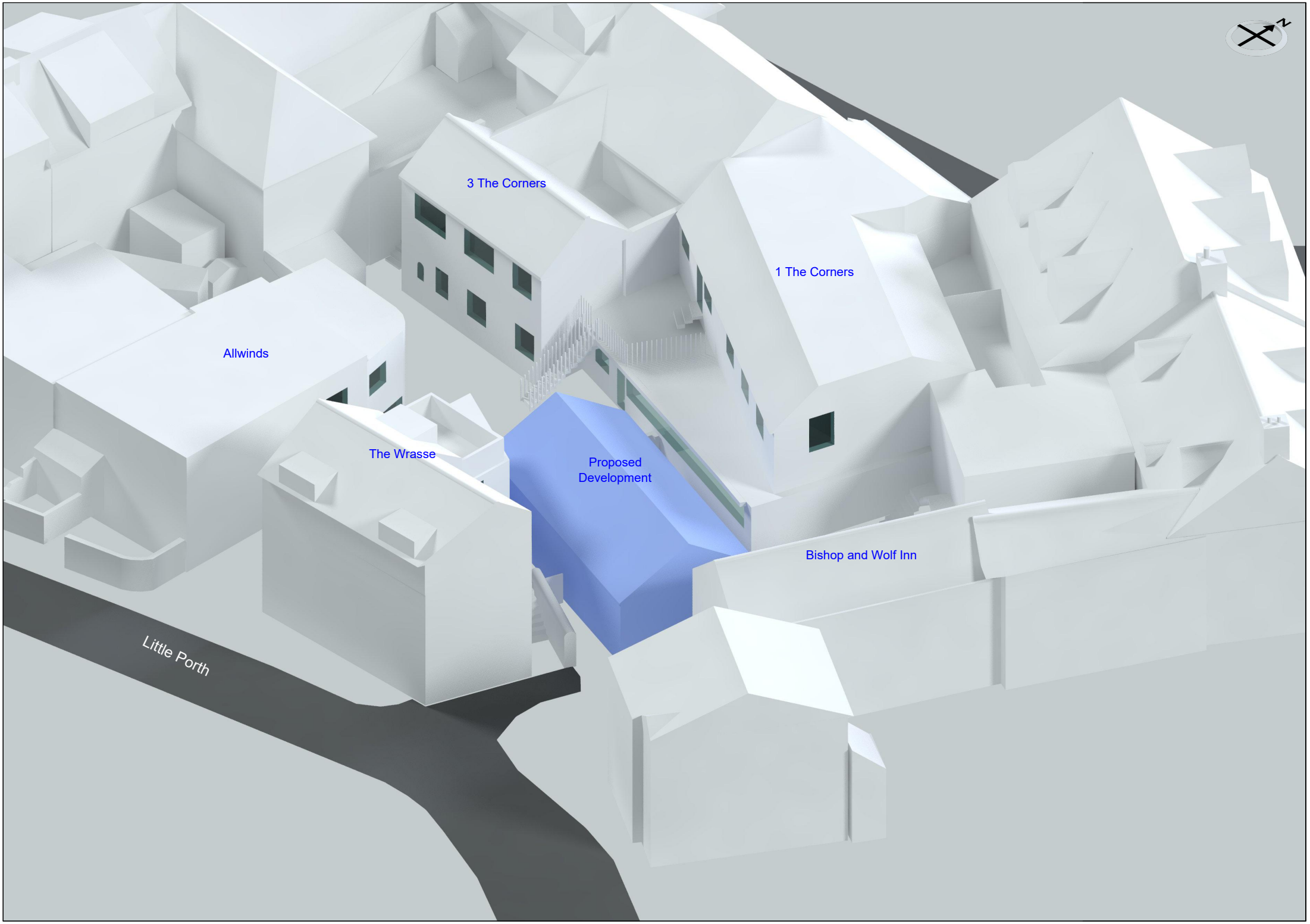
5.1.6 This report is based upon and subject to the scope of work set out in Right of Light Consulting’s quotation and standard terms and conditions.

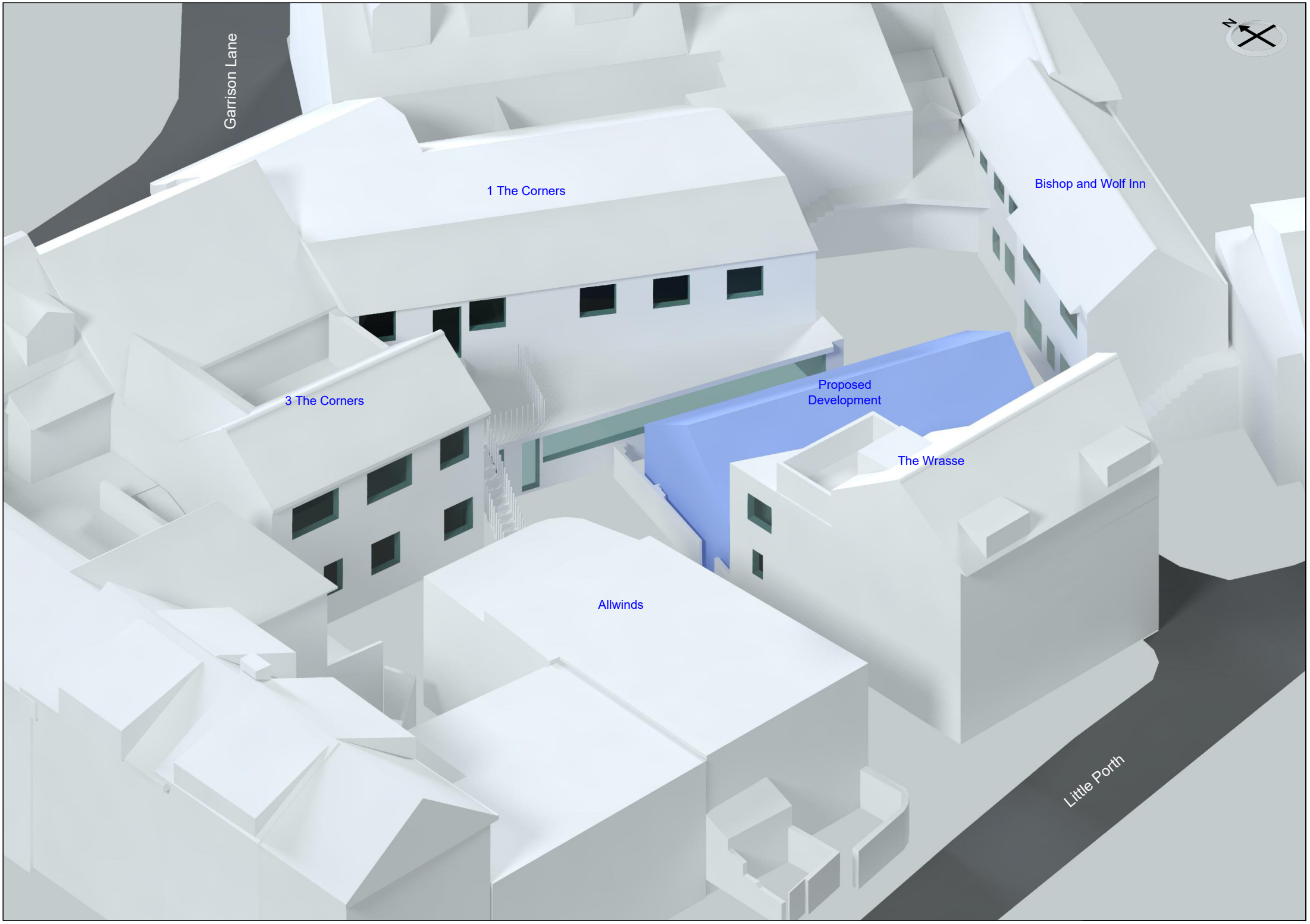
APPENDICES

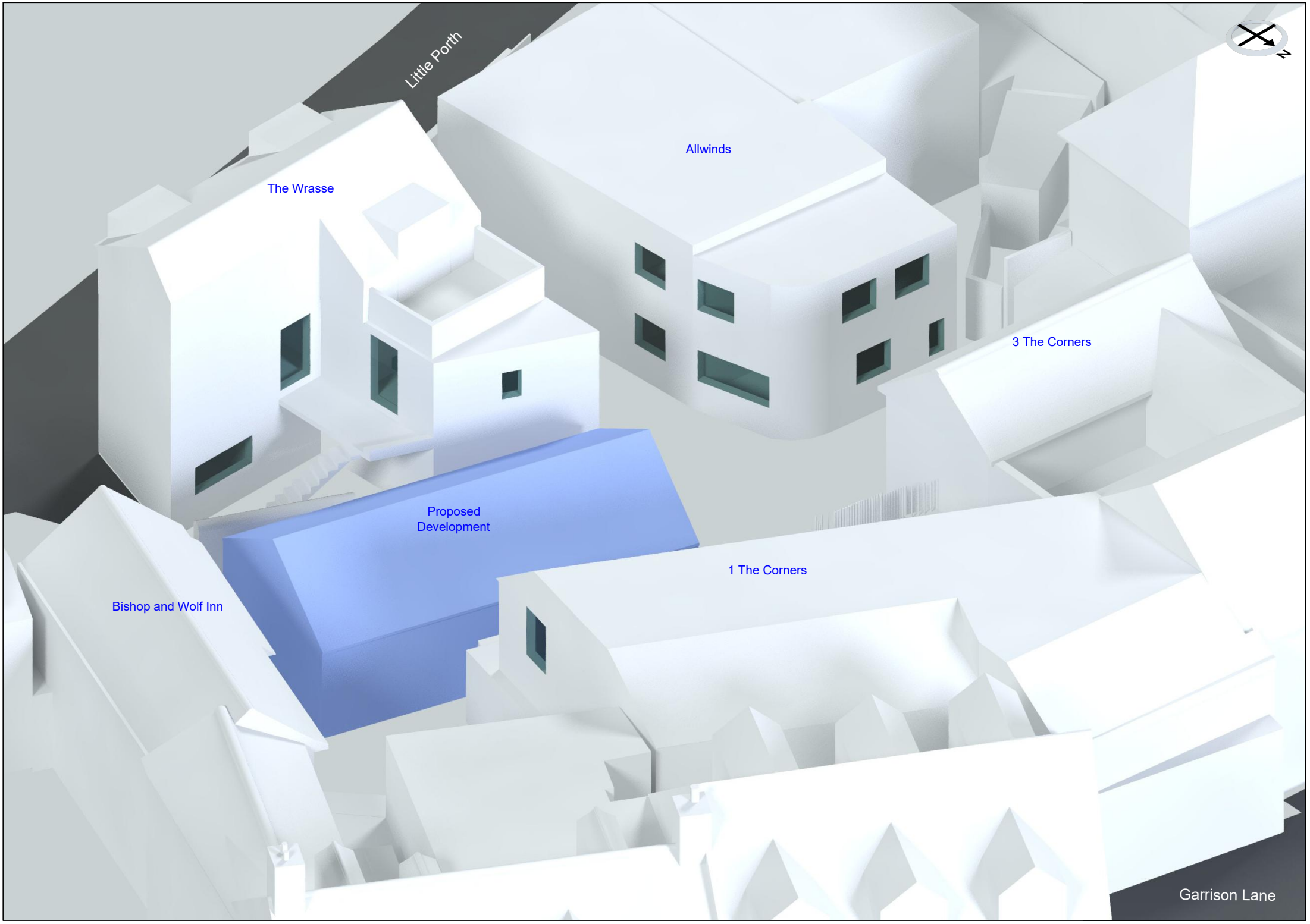
APPENDIX 1

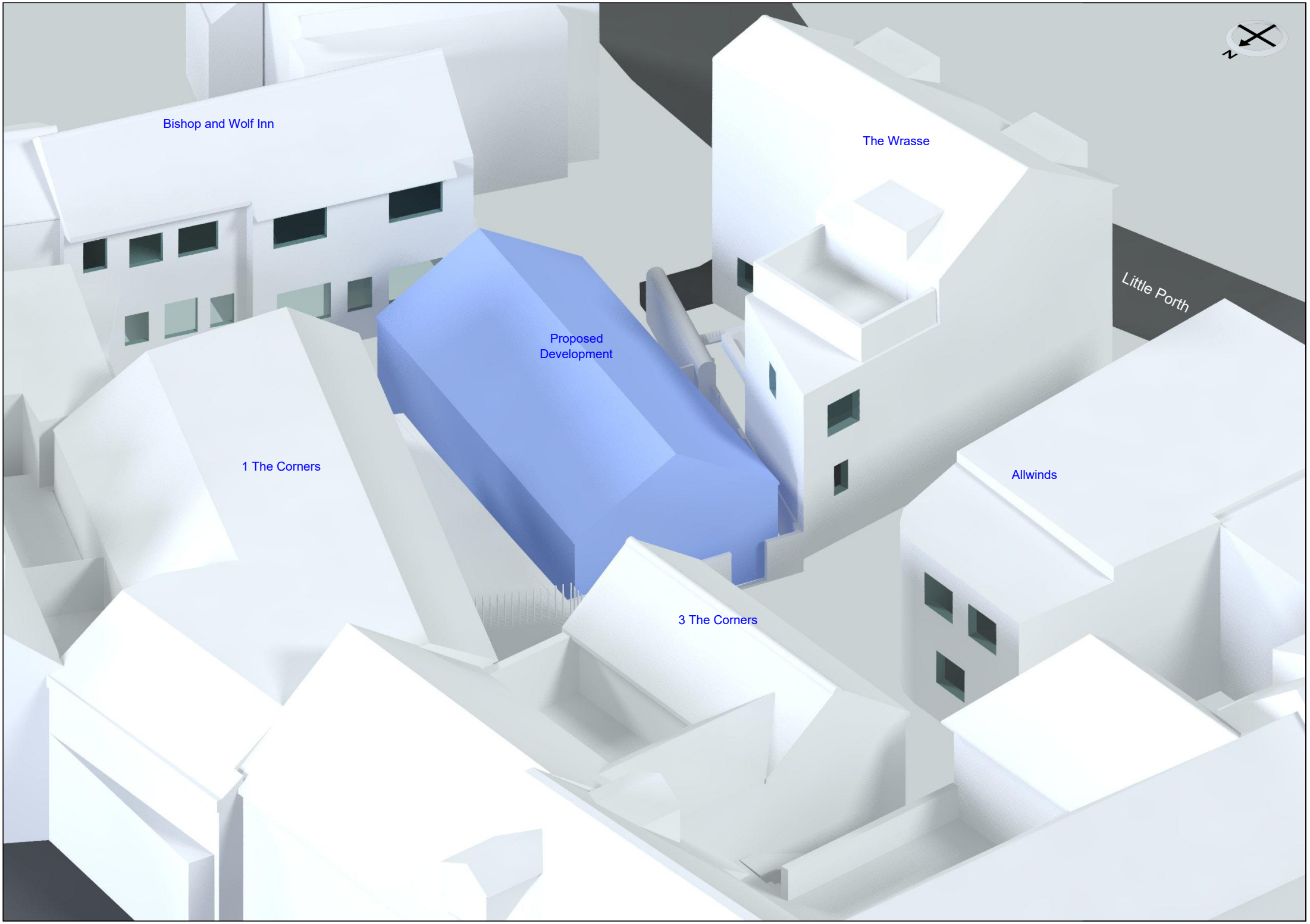
WINDOW & GARDEN KEY

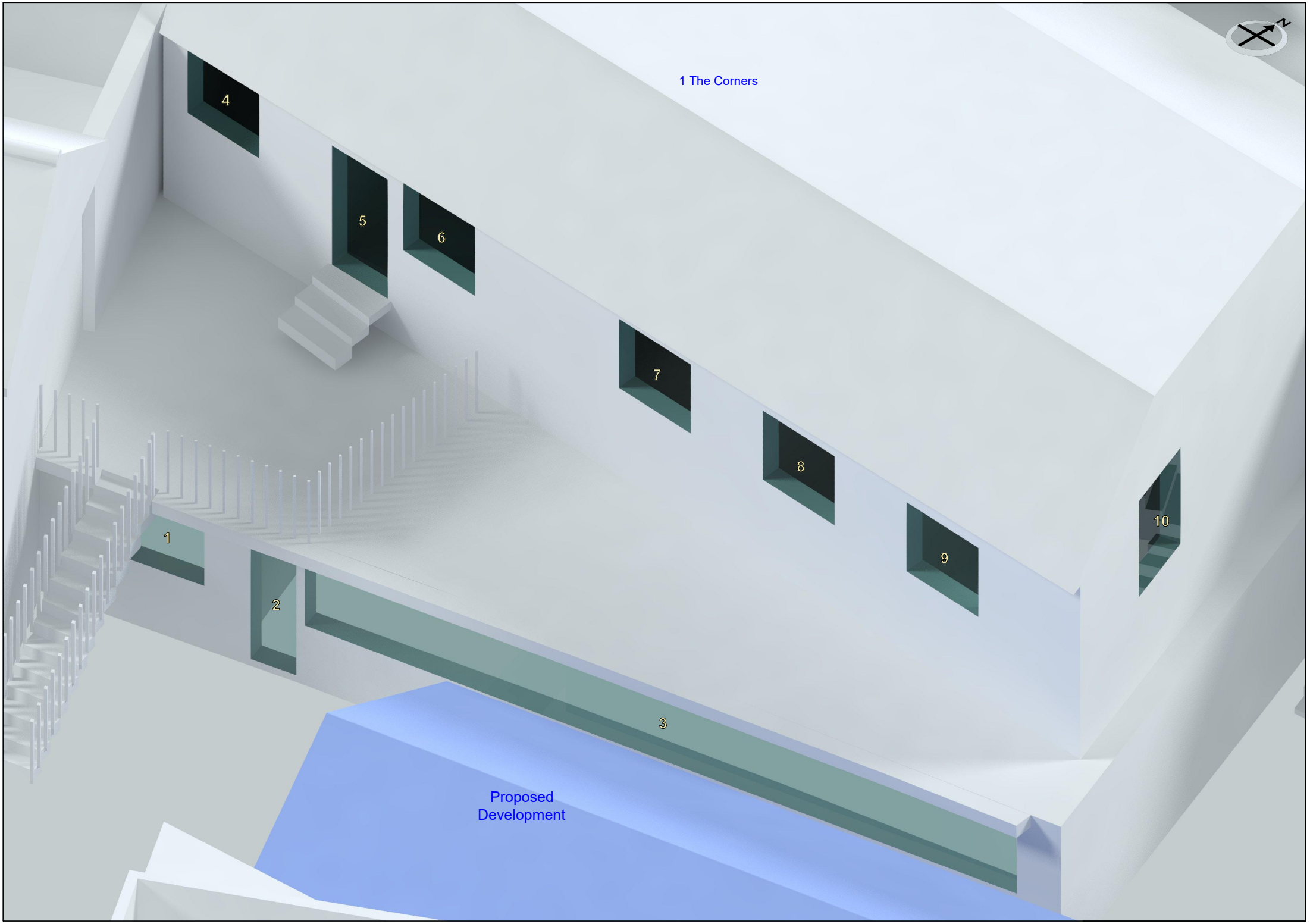

Garrison Lane
Silver Street
N
1 The Corners
3 The Corners
Proposed
Development
Bishop and Wolf Inn
Allwinds
The Wrasse
Little Porth


3 The Corners
1 The Corners
Allwinds
The Wrasse
Proposed
Development
Bishop and Wolf Inn
Little Porth
N


Garrison Lane
1 The Corners
Bishop and Wolf Inn
3 The Corners
Proposed
Development
The Wrasse
Allwinds
Little Porth


Little Porth
Allwinds
The Wrasse
3 The Corners
Proposed
Development
1 The Corners
Bishop and Wolf Inn
Garrison Lane
N


Bishop and Wolf Inn
The Wrasse
Little Porth
Proposed
Development
1 The Corners
Allwinds
3 The Corners
N


1 The Corners
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Proposed
Development


Bishop and Wolf Inn
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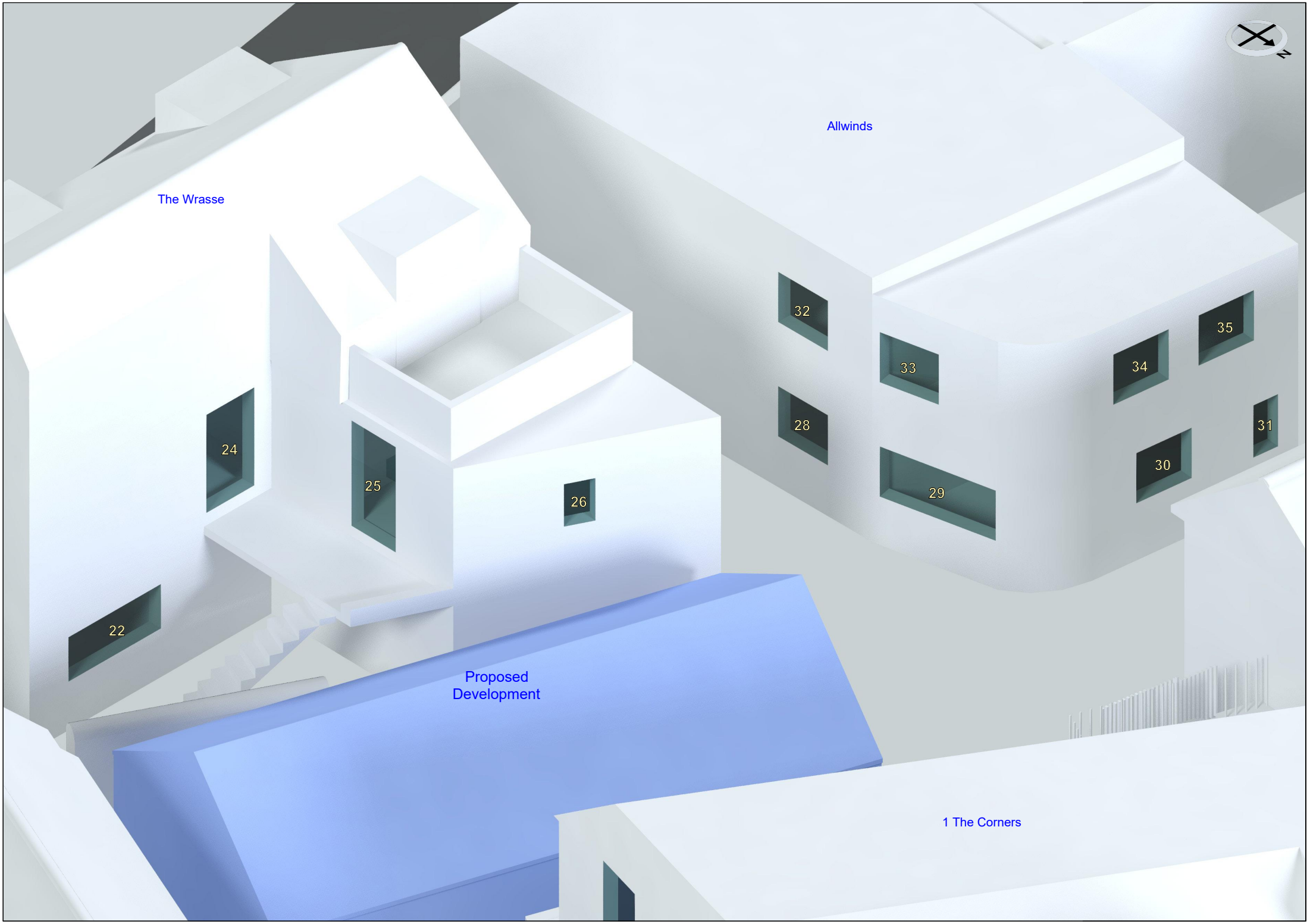
21
16
Proposed
Development


Allwinds
The Wrasse
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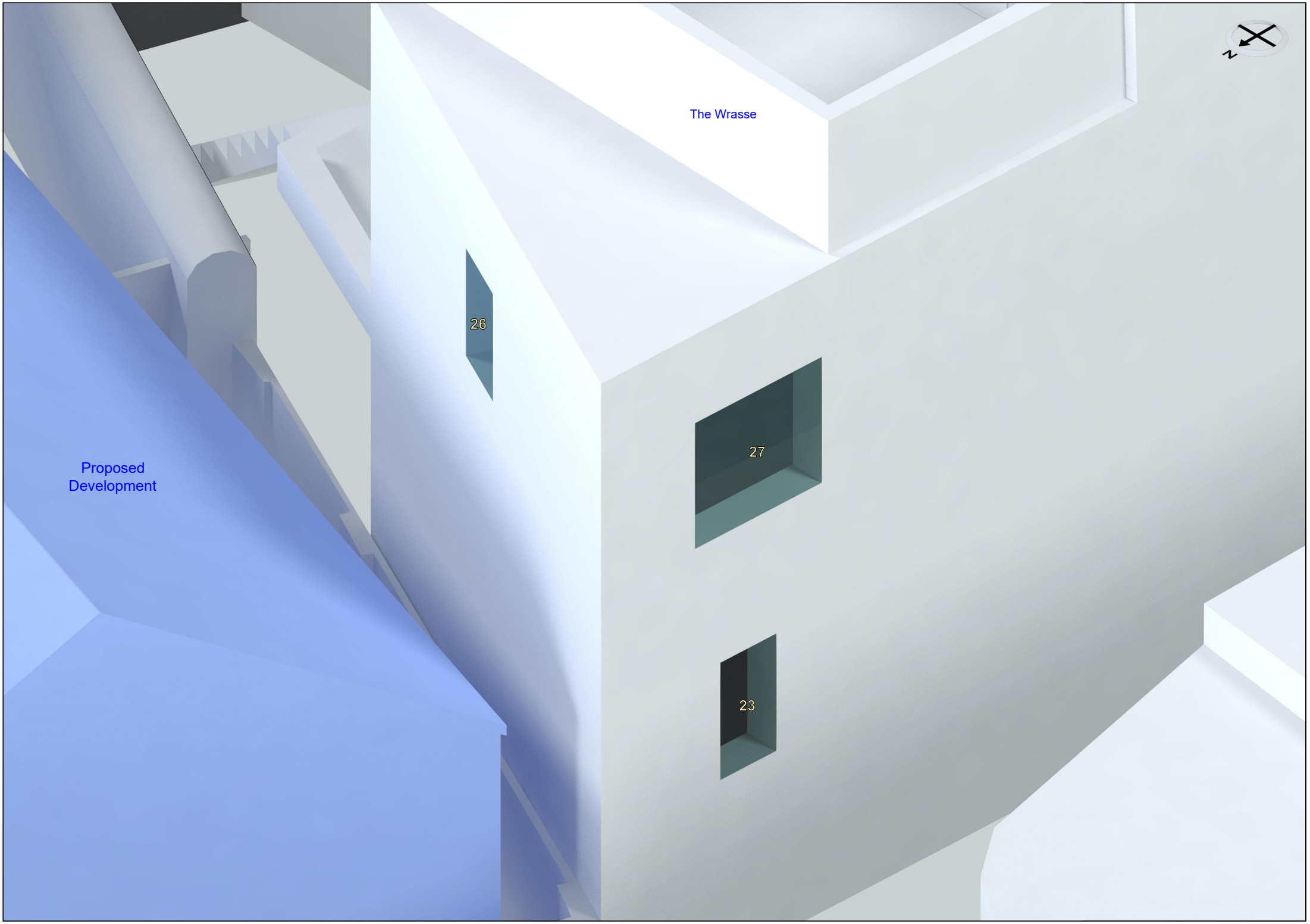
Proposed
Development
1 The Corners


The Wrasse
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Proposed
Development


3 The Corners
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APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS

Appendix 2 - Vertical Sky Component

Water Treatment Works, Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG

Reference	Room Use	Vertical Sky Component			
		Before	After	Loss	Ratio
1 The Corners					
Ground Floor					
Window 1	Non Domestic	14.9%	14.6%	0.3%	0.98
Window 2	Non Domestic	23.2%	22.7%	0.5%	0.98
Window 3	Non Domestic	24.6%	19.4%	5.2%	0.79
First Floor					
Window 4	Non Domestic	24.0%	24.0%	0.0%	1.0
Window 5	Non Domestic	28.6%	28.5%	0.1%	1.0
Window 6	Non Domestic	32.0%	32.0%	0.0%	1.0
Window 7	Non Domestic	33.5%	33.5%	0.0%	1.0
Window 8	Non Domestic	33.5%	33.5%	0.0%	1.0
Window 9	Non Domestic	33.3%	33.3%	0.0%	1.0
Window 10	Non Domestic	33.3%	33.3%	0.0%	1.0
Bishop and Wolf Inn					
Ground Floor					
Window 11	Store	19.4%	19.4%	0.0%	1.0
Window 12	Bedroom	22.2%	22.1%	0.1%	1.0
Window 13	Bedroom	22.0%	21.8%	0.2%	0.99
Window 14	Bedroom	25.9%	23.5%	2.4%	0.91
Window 15	Entrance	26.6%	19.2%	7.4%	0.72
Window 16	Bedroom	26.8%	15.7%	11.1%	0.59
First Floor					
Window 17	Non Domestic	24.2%	24.2%	0.0%	1.0
Window 18	Bedroom	26.6%	26.6%	0.0%	1.0
Window 19	Bedroom	27.1%	27.1%	0.0%	1.0
Window 20	Bedroom	27.3%	27.3%	0.0%	1.0
Window 21	Bedroom	27.8%	27.8%	0.0%	1.0
The Wrasse					
Ground Floor					
Window 22	Domestic	25.3%	23.9%	1.4%	0.94
Window 23	Domestic	22.8%	22.8%	0.0%	1.0
First Floor					
Window 24	Domestic	24.0%	24.0%	0.0%	1.0
Window 25	Domestic	27.3%	27.3%	0.0%	1.0
Window 26	Domestic	33.5%	33.5%	0.0%	1.0
Window 27	Domestic	32.5%	32.5%	0.0%	1.0

Appendix 2 - Vertical Sky Component

Water Treatment Works, Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG

Reference	Room Use	Vertical Sky Component			
		Before	After	Loss	Ratio
Allwinds					
Ground Floor					
Window 28	Domestic	17.0%	16.9%	0.1%	0.99
Window 29	Domestic	23.1%	22.9%	0.2%	0.99
Window 30	Domestic	20.1%	20.0%	0.1%	1.0
Window 31	Domestic	18.6%	18.6%	0.0%	1.0
First Floor					
Window 32	Domestic	26.0%	26.0%	0.0%	1.0
Window 33	Domestic	30.2%	30.2%	0.0%	1.0
Window 34	Domestic	27.9%	27.9%	0.0%	1.0
Window 35	Domestic	27.1%	27.1%	0.0%	1.0
3 The Corners					
Ground Floor					
Window 36	Domestic	22.3%	22.2%	0.1%	1.0
Window 37	Domestic	23.0%	22.9%	0.1%	1.0
Window 38	Domestic	23.2%	23.2%	0.0%	1.0
Window 39	Domestic	25.9%	25.6%	0.3%	0.99
First Floor					
Window 40	Domestic	32.4%	32.4%	0.0%	1.0
Window 41	Domestic	33.5%	33.5%	0.0%	1.0
Window 42	Domestic	33.9%	33.9%	0.0%	1.0

Appendix 2 - Daylight Distribution

Water Treatment Works, Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG

Reference	Room Use	Daylight Distribution			
		Before	After	Loss	Ratio
Bishop and Wolf Inn					
Ground Floor					
Window 11	Store	64%	64%	0%	1.0
Windows 12 & 13	Bedroom	94%	94%	0%	1.0
Window 14	Bedroom	92%	92%	0%	1.0
Window 15	Entrance	97%	97%	0%	1.0
Window 16	Bedroom	98%	74%	24%	0.76
First Floor					
Window 17	Non Domestic	96%	96%	0%	1.0
Windows 18 & 19	Bedroom	98%	98%	0%	1.0
Window 20	Bedroom	98%	98%	0%	1.0
Window 21	Bedroom	98%	98%	0%	1.0

Appendix 2 - Sunlight to Windows

Water Treatment Works, Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG

Reference	Room Use	Sunlight to Windows							
		Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
1 The Corners									
Ground Floor									
Window 1	Non Domestic	34%	33%	1%	0.97	13%	12%	1%	0.92
Window 2	Non Domestic	50%	49%	1%	0.98	16%	15%	1%	0.94
Window 3	Non Domestic	59%	51%	8%	0.86	15%	8%	7%	0.53
First Floor									
Window 4	Non Domestic	52%	52%	0%	1.0	18%	18%	0%	1.0
Window 5	Non Domestic	59%	59%	0%	1.0	20%	20%	0%	1.0
Window 6	Non Domestic	68%	68%	0%	1.0	24%	24%	0%	1.0
Window 7	Non Domestic	70%	70%	0%	1.0	25%	25%	0%	1.0
Window 8	Non Domestic	70%	70%	0%	1.0	26%	26%	0%	1.0
Window 9	Non Domestic	71%	71%	0%	1.0	25%	25%	0%	1.0
Window 10	Non Domestic	57%	57%	0%	1.0	18%	18%	0%	1.0
The Wrasse									
First Floor									
Window 25	Domestic	25%	25%	0%	1.0	1%	1%	0%	1.0
Allwinds									
Ground Floor									
Window 28	Domestic	19%	19%	0%	1.0	8%	8%	0%	1.0
First Floor									
Window 32	Domestic	32%	32%	0%	1.0	8%	8%	0%	1.0
3 The Corners									
Ground Floor									
Window 36	Domestic	53%	53%	0%	1.0	13%	13%	0%	1.0
Window 37	Domestic	56%	56%	0%	1.0	12%	12%	0%	1.0
Window 38	Domestic	57%	57%	0%	1.0	9%	9%	0%	1.0
Window 39	Domestic	65%	65%	0%	1.0	13%	13%	0%	1.0
First Floor									
Window 40	Domestic	73%	73%	0%	1.0	24%	24%	0%	1.0
Window 41	Domestic	78%	78%	0%	1.0	27%	27%	0%	1.0
Window 42	Domestic	80%	80%	0%	1.0	27%	27%	0%	1.0