5.6 Daylight, Sunlight and Overshadowing

5.6.1 Chapter 12 of the 2013 ES reported the likely significant daylight, sunlight and overshadowing effects of the development on existing receptors during the construction and operational phase.

5.6.2 This Section has been prepared in order to outline the key changes in relation to the Consented Scheme and to identify changes to the findings and conclusions associated with the 2013 ES.

5.6.3 This ES Addendum Chapter is supported by the following appendices:

- Appendix 5.6.1 Planning Policy
- Appendix 5.6.2 Methodology
- Appendix 5.6.3 Drawings
- Appendix 5.6.4 Daylight and Sunlight Assessments
- Appendix 5.6.5 Overshadowing Assessments
- Appendix 5.6.6 Window Maps.

Legislation, Planning Policy and Guidance

5.6.4 A review of UK legislation, planning policy and guidance relevant to the proposals has been previously undertaken as part of the 2013 ES.

5.6.5 A full review of the relevant national, regional and local planning policy, and guidance which has come forward since the 2013 ES is provided in Appendix 5.6.1, with a summary listed below:

- National Planning Policy Framework (2023)
- London Plan (2021)
- Royal Greenwich Local Plan: Core Strategy with Detailed Policies (2014)
- The new Local Plan 2021-2036 (not yet adopted)
- BRE Guidance (2022).

5.6.6 Whilst these documents reference policy and guidance relating to daylight, sunlight, overshadowing, these does do not have any bearing on the methods of assessment or conclusions previously reported.

Non-Material Amendments

5.6.7 The Proposed Development proposes alterations to the outline parameters. The blocks would increase by up to 3 m. The overall form and footprint of the Proposed Development remains broadly in line with the Consented Scheme, except for the southernmost block, K1, which is removed.

5.7 Assessment Methodology and Significance Criteria

5.7.1 The revised edition of BRE Guidance (2022) has been published since the 2013 ES. However, this guidance in relation to the assessment methodology for daylight, sunlight and

overshadowing has not changed from the previous BRE Guidance edition (2011) referenced at the time of the 2013 ES.

5.7.2 Consequently, the assessment methodology and significance criteria stated in the daylight, sunlight, overshadowing 2013 ES Chapter remains applicable and valid.

5.7.3 The assessment methodology has been provided within Appendix 5.6.2 for completeness.

Extent of The Study Area

5.7.4 The extent of the study area has been reviewed to ensure any relevant changes in the surrounding context since the 2013 ES assessments are considered.

5.7.5 The relevant changes within the study area are:

- The Murray's Yard site is now cleared.
- Forbes Apartments (Block A3 of the wider masterplan) is now built out;
- Judde House, Deveraux House and Hampton Apartments (Blocks B1-3 of the wider masterplan) are now built out;
- Royal Arsenal Hotel (Premier Inn) is now built out;
- Royal Sovereign House is now built out;
- Residential buildings along New Warren Lane are built out; and
- Riverside House has a consent for change of use to residential.

5.7.6 Given the evolution of the surrounding context since the 2013 ES and proposed amendments to the Consented Scheme, it was necessary to review the sensitive receptors which fall into the extent of this study area.

5.7.7 BRE Guidance (2022) recommends measuring the angle to the horizontal subtended by the new development at the level of the centre of the lowest window of neighbouring properties. If this angle is less than 25° for the whole of the development, then it is unlikely to have a noticeable impact in terms of daylight and sunlight. Where the angle is greater than 25°, there is the potential for noticeable impacts to occur.

5.7.8 The sensitive receptors and extent of the study area is shown below in Figure 5.6.1.

Figure 5.6.1: Sensitive Receptors

Method of Baseline Collection

5.7.9 As mentioned above a review of the baseline conditions has been undertaken, as a result of the changes in the surrounding context.

5.7.10 The current baseline characterisation was completed by firstly reviewing the 2013 ES baseline conditions. Secondly, a review of the surrounding land uses was undertaken, using information and data sources from the Council (Valuation Office Agency (VOA) website[1]) and Google Maps[2]. This information and data has been reviewed to determine the confirm the uses of existing buildings which were previously assessed, as well as any new sensitive neighbouring properties which have come forward. Under construction buildings, such as Buildings A1-4, have been assumed as fully built out and occupied in the surrounding context.

5.7.11 Buildings which comprise sensitive residential uses in the existing baseline context have been identified following BRE Guidance recommendations. Those sensitive buildings where

[1] https://www.gov.uk/government/organisations/valuation-office-agency

[2] https://www.google.com/maps

the lowest window intersect with the 25º angle planes measure from the maximum extents of the Proposed Development have been assessed in the baseline condition.

5.7.12 From the review of the surrounding context, a 3D computer model was developed for the existing context. The 3D context model, which has been obtained from vucity, is based on photogrammetry. This has been reviewed and updated using the best available information that could be attained, including site photos, plans, sections and elevations from the local planning portal[3] and google maps street view.

Scenarios

5.7.13 The following scenarios have been considered for the purposes of this ES Addendum:

- Baseline;
- Proposed Development;
- Consented Scheme

Baseline

5.7.14 The Baseline condition, which has been updated since the 2013 ES, is shown in drawings 19164/04/01/01-03.

5.7.15 The current baseline conditions at sensitive receptors are considered in this scenario.

Proposed Development

5.7.16 The Proposed Development scenario, which considers the proposed amendments to the outline parameters is shown in drawings 19164/04/01/04-06.

5.7.17 The conditions at surrounding receptors with the Proposed Development in situ are compared against the baseline.

Consented Scheme

5.7.18 The Consented Scheme scenario is shown in drawings 19164/04/02/04-06.

5.7.19 Appendix F of BRE Guidance states that where an extant permission exists for a site, and a developer wants to change the design, *"the vertical sky component (VSC) and annual probable sunlight hours (APSH) for the permitted scheme to be used as alternative benchmarks".*

5.7.20 Therefore, the conditions at surrounding receptors with the Proposed Development in situ are compared against the Consented Scheme to ascertain whether the any change in effects is considered likely against those which were permitted.

5.8 Assessment of Effects, Mitigation and Residual Effects

[3] https://planning.royalgreenwich.gov.uk/online-applications/

Demolition & Construction Phase

5.8.1 The magnitude of impact and resultant potential effect in relation to the daylight, sunlight and overshadowing on the surrounding receptors would vary throughout the demolition and construction phase, depending on the level of obstruction caused.

5.8.2 During the construction phase, a number of tall temporary structures are likely to be present on-site. In some cases, scaffolding, cranes and hoarding would marginally increase the size of the Proposed Development's maximum massing, however this would be temporary and is unlikely to result in additional noticeable effects due to the scale of these structures and their transient nature.

5.8.3 The construction of the new building on the site would have a gradual effect upon the levels of overshadowing as the massing of the Proposed Development increases over time. It is therefore considered that the completed Proposed Development represents the worst-case assessment in terms of likely resultant effects. The effects during the enabling and construction works would almost certainly be less than that of the Proposed Development, given that the extent of permanent massing would increase throughout the construction programme, until the Proposed Development is complete.

5.8.4 As such, the effects would range from being Negligible, gradually increasing as construction works progress. The effects as set out in the assessment of the Operational Phase below represents the worst-case scenario.

5.8.5 This approach is unchanged from 2013 ES and therefore this section remains valid.

Operational Phase

5.8.6 This section identifies and assesses the scale and nature of the main daylight, sunlight and overshadowing effects arising from the Proposed Development during the operational phase.

<u>Daylight</u>

5.8.7 The full daylight assessment for the Proposed Development can be found within Appendix 5.6.3: Daylight and Sunlight Assessments.

5.8.8 The alterations in daylight (VSC and NSL) arising from the Proposed Development compared to the Baseline are summarised below in Table 5.6.1.

Address	VSC						NSL					
	Window						Room					
	Total	Pass	Alterations			Total	Total	Pass	Alterations			Total
			20-29.9%	30-39.9%	40+%				20-29.9%	30-39.9%	40+%	
Thunderer Walk (Minotaur & Ocean House)	123	56	17	14	36	67	101	59	16	7	19	42

7 New Warren Lane (Tyger House)	90	36	10	7	37	54	63	33	0	0	30	30
5 New Warren (Laborartory Pavillion)	18	4	0	1	13	14	6	1	1	2	2	5
91 Beresford Street (Royal Arsenal Hotel)	90	30	30	15	15	60	70	70	0	0	0	0
92 Beresford Street (Royal Sovereign House)	65	14	3	4	44	51	47	16	6	5	20	31
Building 40 Plumstead Road (Dancy Academy)	27	14	2	5	6	13	7	5	0	1	1	2
2 Duke of Wellington Avenue (Imperial Building)	41	17	8	0	16	24	22	12	3	1	6	10
6 Brigardier Walk	180	135	16	19	10	45	88	88	0	0	0	0
Judde House	178	74	11	14	79	104	71	70	1	0	0	1
Deveraux House	139	45	21	13	60	94	55	43	2	2	8	12
Hampton Apartments	176	121	32	13	10	55	69	62	3	3	1	7
Riverside House	581	399	36	2	144	182	204	157	10	14	23	47
Totals	**1708**	**945**	**186**	**107**	**470**	**763**	**803**	**616**	**42**	**35**	**110**	**187**

Thunderer Walk (Minotaur & Ocean House)

5.8.1 A total of 123 windows serving 101 rooms were assessed for daylight within this building.

5.8.2 For VSC, 56 of the 123 (45.5%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.3 Of the 67 affected windows, 17 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 14 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 36 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.4 For NSL, 101 of the 59 (58.4%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.5 Of the 42 affected rooms, 16 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and seven would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 19 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.6 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see instances of improvements due to the removal of Block K1 however the overall effect remains unchanged.

7 New Warren Lane (Tyger House)

5.8.7 A total of 90 windows serving 63 rooms were assessed for daylight within this building.

5.8.8 For VSC, 36 of the 90 (40%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.9 Of the 54 affected windows, 10 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and seven would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 37 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.10 For NSL, 33 of the 63 (52.4%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.11 Of the 30 affected rooms, all would experience an alteration in NSL greater than 40% which is considered a Major Adverse effect.

5.8.12 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

5 New Warren Lane (Laboratory Pavilion)

5.8.13 A total of 18 windows serving six rooms were assessed for daylight within this building.

5.8.14 For VSC, four of the 18 (22.2%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.15 Of the 14 affected windows, one would experience an alteration in VSC between 30-39.9% which is considered a Moderate Adverse effect whilst 13 would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.16 For NSL, one of the six (16.7%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.17 Of the five affected rooms, one would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and two would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining two rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.18 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

91 Beresford Street (Royal Arsenal Hotel)

5.8.19 A total of 90 windows serving 70 rooms were assessed for daylight within this building.

5.8.20 For VSC, 30 of the 90 (33.3%) windows assessed would meet BRE's criteria and are

therefore considered to experience a Negligible effect.

5.8.21 Of the 60 affected windows, 30 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 15 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 15 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.22 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

5.8.23 Overall, given the transient occupancy of this hotel building, which is less sensitive to daylight changes, the effect is considered **Minor Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

92 Beresford Street (Royal Sovereign House)

5.8.24 A total of 65 windows serving 47 rooms were assessed for daylight within this building.

5.8.25 For VSC, 14 of the 65 (21.5%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.26 Of the 51 affected windows, three would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and four would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 44 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.27 For NSL, 16 of the 47 (34%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.28 Of the 31 affected rooms, six would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and five would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 20 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.29 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Building 40 Plumstead Road (Dancy Academy)

5.8.30 A total of 27 windows serving seven rooms were assessed for daylight within this building.

5.8.31 For VSC, 14 of the 27 (51.9%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.32 Of the 13 affected windows, two would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and five would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining six windows would experience an alteration in excess of 40% which is considered a Major Adverse

effect.

5.8.33 For NSL, five of the seven (71.4%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.34 Of the two affected rooms, one would experience an alteration in NSL between 30-39.9% which is considered a Moderate Adverse effect whilst one would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.35 Overall, given the non-residential use of this building, which is less sensitive to daylight changes, the effect is considered **Minor Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

2 Duke of Wellington Avenue (Imperial Building)

5.8.36 A total of 41 windows serving 22 rooms were assessed for daylight within this building.

5.8.37 For VSC, 17 of the 41 (41.5%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.38 Of the 24 affected windows, eight would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect whilst 16 would experience an alteration greater than 40% which is considered a Major Adverse Effect.

5.8.39 For NSL, 12 of the 22 (54.5%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.40 Of the 10 affected rooms, three would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and one would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining six rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.41 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

6 Brigadier Walk

5.8.42 A total of 180 windows serving 88 rooms were assessed for daylight within this building.

5.8.43 For VSC, 135 of the 180 (75%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.44 Of the 45 affected windows, 16 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 19 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 10 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.45 For NSL, all rooms assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

5.8.46 Overall, the effect to this residential property is considered **Moderate Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Judde House

5.8.47 A total of 178 windows serving 71 rooms were assessed for daylight within this building.

5.8.48 For VSC, 74 of the 178 (41.6%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.49 Of the 104 affected windows, 11 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 14 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 79 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.50 For NSL, 70 of the 71 (98.6%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.51 The affected room would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect.

5.8.52 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Deveraux House

5.8.53 A total of 139 windows serving 55 rooms were assessed for daylight within this building.

5.8.54 For VSC, 45 of the 139 (32.4%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.55 Of the 94 affected windows, 21 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 13 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 60 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.56 For NSL, 43 of the 55 (78.2%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.57 Of the 12 affected rooms, two would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and two would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining eight rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.58 Overall, the effect to this residential property is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Hampton Apartments

5.8.59 A total of 176 windows serving 69 rooms were assessed for daylight within this building.

5.8.60 For VSC, 121 of the 176 (68.8%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.61 Of the 55 affected windows, 32 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and 13 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 10 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.62 For NSL, 62 of the 69 (89.9%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.63 Of the seven affected rooms, three would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and three would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining room would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.64 Overall, the effect to this residential property is considered **Moderate Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Riverside House

5.8.65 This building has approval for change of use to residential and has therefore been assessed.

5.8.66 A total of 581 windows serving 204 rooms were assessed for daylight within this building.

5.8.67 For VSC, 399 of the 581 (68.7%) windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.68 Of the 182 affected windows, 36 would experience an alteration in VSC between 20-29.9% which is considered a Minor Adverse effect and two would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 144 windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.69 For NSL, 157 of the 204 (77%) rooms assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.70 Of the 47 affected rooms, 10 would experience an alteration in NSL between 20-29.9% which is considered a Minor Adverse effect and 14 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 23 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.71 Overall, the effect to this residential property once the change of use consent is implemented would be considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Sunlight

5.8.72 The full sunlight assessment for the Proposed Development can be found within Appendix 5.6.3: Daylight and Sunlight Assessments.

5.8.73 The alterations in daylight (APSH and WPSH) arising from the Proposed Development compared to the Baseline are summarised below in Table 5.6.2.

5.8.74 Those five buildings highlighted in light blue would not see any alterations greater than 20% and are therefore considered to experience a Negligible effect. The remaining properties are discussed further below.

Address	Probable Sunlight Hours							
	Window							
			Annual			Winter		
	Total	Pass	20-29.9%	30-39.9%	40+%	20-29.9%	30-39.9%	40+%
Thunderer Walk (Minotaur & Ocean House)	55	55	0	0	0	0	0	0
7 New Warren Lane (Tyger House)	32	32	0	0	0	0	0	0
5 New Warren (Laborartory Pavillion)	5	5	0	0	0	0	0	0
91 Beresford Street (Royal Arsenal Hotel)	10	10	0	0	0	0	0	0
92 Beresford Street (Royal Sovereign House)	5	5	0	0	0	0	0	0
Building 40 Plumstead Road (Dancy Academy)	19	14	0	0	0	0	1	4
2 Duke of Wellington Avenue (Imperial Building)	17	5	0	0	3	0	0	12
6 Brigardier Walk	126	106	1	8	7	0	0	19
Judde House	178	78	3	3	81	0	0	72
Deveraux House	139	42	3	3	65	0	0	89
Hampton Apartments	167	117	19	18	13	0	0	31
Riverside House	63	63	0	0	0	0	0	0
Totals	**816**	**532**	**26**	**32**	**169**	**0**	**1**	**227**

Thunderer Walk (Minotaur & Ocean House)

5.8.75 A total of 55 windows were assessed for sunlight within this building of which 48 (98%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.76 For Annual PSH, all windows assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

5.8.77 For Winter PSH, 48 of the 49 windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.78 The one affected window in the winter would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.79 Overall, due to alteration occurring only in winter, the effect to this residential property is considered **Negligible**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Building 40 Plumstead Road (Dancy Academy)

5.8.80 A total of 19 windows were assessed for sunlight within this building of which 14 (73.7%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.81 For Annual PSH, all windows assessed would meet BRE's criteria and so are considered to experience a Negligible effect.

5.8.82 For Winter PSH, 14 of the 19 windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect.

5.8.83 Of the five windows affected in the winter, one would experience an alteration in Winter PSH between 30-39.9% which is considered a Moderate Adverse effect whilst four would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.84 Overall, given the non residential use of the building, which is considered less sensitive to sunlight change, the effect is considered **Negligible** to **Minor Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

2 Duke of Wellington Avenue (Imperial Building)

5.8.85 A total of 17 windows were assessed for sunlight within this building of which 5 (29.4%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.86 For Annual PSH, 12 of the 17 windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining three see losses greater than 40% which is considered a Major Adverse effect.

5.8.87 For Winter PSH, five of the 17 windows assessed would meet BRE's criteria and are therefore considered to experience a Negligible effect. The remaining nine see losses greater than 40% which is considered a Major Adverse effect.

5.8.88 Overall, the effects mostly occur in winter and therefore the effect to this residential property is considered **Minor** to **Moderate Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

6 Brigadier Walk

5.8.89 A total of 126 windows were assessed for sunlight within this building of which 106 (84.1%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.90 Of the 16 windows affected annually, one would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect and eight would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining seven windows would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.91 For 19 windows see losses greater than 40% which is considered a Major Adverse effect.

5.8.92 Overall, the effects mostly occur in winter and to bedrooms where sunlight is considered less important. As such, the effect to this residential property is considered **Minor Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Judde House

5.8.93 A total of 178 windows were assessed for sunlight within this building of which 78 (43.8%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.94 For Annual PSH, of the 87 windows affected annually, three would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse and three would experience an alteration in Annual PSH between 30-39.9% which is considered a Moderate Adverse effect. The remaining 81 would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.95 For Winter PSH, 72 windows see losses greater than 40% which is considered a Major Adverse effect.

5.8.96 Overall, the effect to the residential building is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Deveraux House

5.8.97 A total of 139 windows were assessed for sunlight within this building of which 42 (30.2%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.98 For Annual PSH, three would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse and three would experience an alteration in Annual PSH between 30-39.9% which is considered a Moderate Adverse effect. The remaining 65 would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.99 For Winter PSH, 89 see losses greater than 40% which is considered a Major Adverse effect.

5.8.100 Overall, the effect to the residential building is considered **Major Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Hampton Apartments

5.8.101 A total of 169 windows were assessed for sunlight within this building of which 117 (70.1%) would meet the BRE's criteria for both Annual and Winter PSH.

5.8.102 For Annual PSH, 19 would experience an alteration in Annual PSH between 20-29.9% which is considered a Minor Adverse effect and 18 would experience an alteration between 30-39.9% which is considered a Moderate Adverse Effect. The remaining 13 rooms would experience an alteration in excess of 40% which is considered a Major Adverse effect.

5.8.103 For Winter PSH, 31 windows see losses greater than 40% which is considered a Major Adverse effect.

5.8.104 Overall, as the alterations occur primarily to bedrooms, which are considered less sensitive to daylight changes, the effect to the residential building is considered **Minor Adverse**. Compared to the Consented Scheme, this property would see no material change in the scale of daylight alterations and so the overall effect remains unchanged.

Overshadowing

5.8.105 The full overshadowing assessment is presented in Appendix 5.6.5.

5.8.106 No new overshadowing effects are identified.

5.9 Cumulative Effects

Effect

5.9.1 The baseline conditions has captured each of the emerging schemes which have come forward since the 2013 ES as described in the Baseline section. No further consented schemes have been identified which would influence the daylight, sunlight and overshadowing conditions. As such, no cumulative effects are likely.

Mitigation

5.9.2 As the effects are not materially greater than those occurring as a result of the Consented Scheme, mitigation is inherently embedded in the design of the Proposed Development. The magnitude of impact in terms of daylight, sunlight and overshadowing has been considered acceptable, and the neighbouring sensitive receptors are considered to have been left with sufficient levels of light in line with local, regional and national policy. As such, no additional mitigation is required as a result of the Proposed Development.

5.10 Limitation and Assumptions

5.10.1 Obtaining these room layouts enables precise evaluation of the diffuse levels of daylight within each of the rooms via the No Sky Line (NSL). Layouts have been obtained for the following neighbouring properties.

5.10.2 Floor levels have been assumed for surrounding properties where access has not been obtained. With the working plane located 850mm above the finished floor level, this has the

potential to affect the assessment of NSL.

5.11 Summary & Conclusions

5.11.1 Of the 12 properties assessed for daylight, two would see Minor Adverse effects and two would see Moderate Adverse effects. The remaining eight would see Major Adverse effects.

5.11.2 For sunlight, six of the 12 properties would see Negligible effects and one would see Negligible to Minor Adverse effects. Two further buildings would see Minor Adverse effects, and another would see Minor to Moderate Adverse effects. The remaining to two buildings would see Major Adverse effects.

5.11.3 There would be no material change in effects for the seven sensitive amenity areas compared to the Consented Scheme.

5.11.4 These effects were not previously assessed, as the sensitive receptors have been built out subsequent to the 2013 ES. However, in comparing the massing of the Proposed Development against the Consented Development, there would be no material change in effects.

5.11.5 As such, it can be concluded that the no new daylight, sunlight or overshadowing effects to sensitive receptors would come forward as a result of the Proposed Development beyond the Consented Development.