

Appendix: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution

Annex 1: Legislation, Planning Policy and Other Relevant Standards and Guidance

Legislation and Planning Policy Context

1.1 The following sections of this ES Chapter annex provide a review of relevant legislation, guidance and national, regional and local planning policy in terms of daylight, sunlight and overshadowing.

National Legislation

1.2 There is no relevant legislation for daylight, sunlight and overshadowing.

National Planning Policy

National Planning Policy Framework (2019)

1.3 The National Planning Policy Framework¹, adopted in February 2019, stipulates that:

“... planning policies and decisions should ensure that developments ... create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users.”

1.4 Paragraph 123, part C stipulates that:

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

National Planning Practice Guidance (MHCLG) November 2016 (Last updated July 2019)

1.5 The National Planning Practice Guidance (NPPG) was last updated in July 2019. This document states that the form and scale of tall buildings should be designed with respect to daylight and sunlight patterns and whether the development would have an unreasonable impact on the daylight and sunlight levels enjoyed by neighbouring occupiers.

Regional Planning Policy

The London Plan - The Spatial Development Strategy for London Consolidated with Alterations Since 2011 (2016)²

1.6 The key policies from the adopted London Plan of relevance to this assessment are:

- Policy '7.6 – Architecture' which states that *“...buildings and structures should...not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and micro-climate.”*; and
- Policy '7.7 - Location and Design of Tall Buildings' which states that large buildings should not adversely affect their surroundings in terms of overshadowing and solar reflected glare: *“Location and design of tall buildings should not affect their surroundings adversely in terms of microclimate, wind turbulence, overshadowing, noise, reflected glare, aviation, navigation and telecommunication interference.”*

The Draft New London Plan - Intend to Publish Version (December 2019)³

1.7 Policy D6 Housing Quality and Standards states that:

- 'The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.'

1.8 Policy D9 Tall buildings states that:

- '...development proposals should address the following impacts: ...buildings should not cause adverse reflected glare [and] ...buildings should be designed to minimise light pollution from internal and external lighting.' It continues that “wind, daylight, sunlight penetration and temperature conditions around the building(s) and neighbourhood must be carefully considered and not compromise comfort and the enjoyment of open spaces, including water spaces, around the building.'

The Mayor's Housing Supplementary Planning Guidance (SPG) (March 2016)

1.9 The SPG⁴ draws on the London Plan, primarily policy 7.6Bd, and provides further guidance on standards to daylight, and overshadowing. The guidance states that:

“...an appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves... Guidelines should be applied sensitively to higher density development...where BRE advice suggests considering the use of alternative targets' taking in to account the 'local circumstances; the need to optimise housing capacity; and scope for character and form of an area to change over time.”

1.10 Standard 32 states that:

“All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight.”

1.11 It is also states that:

“Natural light is also vital to a sense of wellbeing in the home, and this may be restricted in densely developed parts of the city”. The Mayor seeks to encourage housing that provides comfortable and enjoyable places of retreat and privacy” and factors to be considered include daylight and sunlight.”

Local Planning Policy

London Borough Of Tower Hamlets Local Plan 2031: Managing Growth and Sharing Benefits (January 2020)

1.12 The recently adopted local plan provides spatial policies, development management policies and site allocations to guide and manage development in the borough. The policy document states that *“a sunlight and daylight assessment must accompany all major planning applications and/or smaller schemes where adverse effects on daylight and sunlight levels are anticipated.”*

1.13 Policy S.DH1 notes that *“development is required to meet the highest standards of design, layout and construction which respects and positively responds to its context, townscape, landscape and public realm at different spatial scales”*. In order to achieve this, developments must:

“use design and construction techniques to ensure that the development does not result in unacceptably harmful impacts arising from overheating, wind, air pollution, light pollution and noise pollution and the loss of sunlight and daylight.”

1.14 Additionally, Policy D.DH8 states that development is required to protect and where possible enhance amenity in order to:

“ensure adequate levels of daylight and sunlight for new residential developments, including amenity spaces within the development.

not result in an unacceptable material deterioration of the sunlight and daylight conditions of surrounding development and not resulting in an unacceptable level of overshadowing to surrounding open space and private outdoor space, and

not create unacceptable levels of artificial light, odour, noise, fume or dust pollution during the construction and life of the development.”

¹ Department for Communities and Local Government (DCLG), National Planning Policy Framework, 2012.

² Greater London Authority (GLA), 2016; The London Plan: Spatial Development Strategy of Greater London, 2016.

³ Greater London Authority (GLA), 2019; The Draft New London Plan, 2019.

⁴ GLA, 2016, Housing Supplementary Guidance, 2016.

London Borough Of Tower Hamlets Tall Buildings Study Draft Report (July 2017)

Tall Building Design

1.15 As with any other development, the London Plan and the borough's design policies apply in guiding an appropriate and high quality design response. However, tall building developments should bring forward an exceptionally well considered urban design response and due to its wider visibility and prominence the architectural quality of a tall building needs specific attention. This must consider in particular:

"The design to minimise impacts on microclimate including wind, overshadowing and daylighting, solar glare and light pollution."

Impact On The Local Environment Impact On Microclimate

1.16 Tall buildings, due to their size and their significant extension above the typical height in an area, will have significantly greater impacts on the local microclimate than other ordinary building types. The following micro-climatic impacts will need particular attention:

- *"Overshadowing and Day Lighting*
- *Solar Glare and Light Pollution"*

Other Relevant Policy, Standards and Guidance

Historic England Guidance on Tall Buildings – Historic England Advice Note 4 (2015)

1.17 Paragraph 4.10 of the Historic England Advice Note 4 recommends that the following should be addressed in relation to tall buildings:

"consideration of the impact on the local environment, including microclimate, overshadowing, night-time appearance, vehicle movements and the environment and amenity of those in the vicinity of the building".

Building Research Establishment (BRE) Guidelines: Site Layout Planning for Daylight and Sunlight 2011, A Guide to Good Practice, Second Edition (2011)

1.18 The Building Research Establishment (BRE) Guidelines 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011, 2nd edition' (released October 2011)⁵ ('BRE Guidelines') provides advice on site layout planning to achieve good sunlighting and daylighting within buildings, and in the open spaces between them. The BRE Guidelines are intended for use by building designers, developers, consultants and Local Planning Authorities (LPAs). The advice presented in the BRE Guidelines is not mandatory and should not be used as an instrument of planning policy, the Guidelines state:

"This guide is a comprehensive revision of the 1991 edition of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice. It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location."

1.19 The BRE Guidelines also state:

"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. In special circumstances the developer or planning authority may wish to use different target values... in an area with modern high-rise buildings, a higher degree of obstruction maybe unavoidable if new developments are to match the height and proportions of existing building" (para.1.6).

1.20 In addition, the BRE Guidelines state:

"it is intended to be read in conjunction with the interior daylighting recommendations in the British Standard 8206-2 Code of practice for daylighting, and in the CIBSE publication Lighting guide: daylighting and window design" (para. 1.3).

"Daylighting gives to a building a unique variety and interest. An interior which looks gloomy, or which does not have a view to the outside when this could reasonably be expected, will be considered unsatisfactory by its users."

⁵ Building Research Establishment (BRE) Guidelines: Site Layout Planning for Daylight and Sunlight 2011, A Guide to Good Practice, Second Edition, 2011

Annex 2: Methodology and Baseline

Methodology

Outline Approach for Daylight, Sunlight, Overshadowing and Light Pollution Assessments

- 1.1** The technical analyses carried out to inform the assessments have been undertaken by creating a digital three dimensional (3D) model of the existing site and Proposed Development, based on measured survey data.

Daylight

Vertical Sky Component

- 1.2** The VSC method of assessment is defined in the BRE Guidelines as the:

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

- 1.3** The 3D model uses Waldram Diagrams to establish the VSC and 3D geometric calculations for daylight distribution. This model (which is orientated to north by the use of Ordnance Survey (OS) information) enables the path of the sun to be tracked throughout the year to establish the shadow cast by the existing and proposed buildings, and thus calculate the sun hours on ground in each scenario.

- 1.4** Only those surrounding properties which have windows facing towards the application site were included in the assessment. If a nearby property has no windows facing the application site, these properties would not be affected by the Proposed Development in terms of light.

- 1.5** The assessment is calculated from the centre of a window on the outward face and measures the amount of light available on a vertical wall or window following the introduction of visible barriers, such as buildings.

- 1.6** The maximum VSC value is almost 40% for a completely unobstructed vertical wall or window. In terms of assessment criteria, the BRE Guidelines state that:

“If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the VSC measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value*
- 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.”*

No Sky Line

- 1.7** The BRE Guidelines state that where room layouts are known, the effect on the daylight distribution can be calculated by plotting the NSL. In terms of the surrounding receptors, it has not been possible to obtain room layouts for all of the properties and therefore layouts have been assumed where information is not available.

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

- 1.9** Where actual room layouts were available, these have been considered in the modelling of the internal layouts within the surrounding properties. Obtaining these room layouts enables precise evaluation of the diffuse levels of daylight within each of the rooms via the NSL. Where layout information was not available assumptions have been made as to the use and internal configuration of the rooms (from external observations) behind the fenestration observed. In such

cases a standard 4.2m (14 ft) room depth has been assumed, unless the building form dictated otherwise. This is common practice where access to buildings for surveying is unavailable.

- 1.10** The potential effects of daylighting distribution in an existing building can be found by plotting the NSL in each of the main rooms. For houses, this will include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. The BRE Guidelines identify that if the area of a room that does receive direct sky light is reduced to less than 0.8 times its former value, then this would be noticeable to its occupants.

- 1.11** In relation to deep rooms lit by windows on one side, the BRE Guidelines state (para. 2.2.10):

“If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no sky line may be unavoidable.”

Average Daylight Factor

- 1.12** The BRE Guidelines state the following in Appendix C:

“If a predominantly day lit appearance is required, then ADF should be 5% or more if there is no supplementary electric lighting, or 2% or more if supplementary electric lighting is provided. There are additional recommendations for dwellings of 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. These additional recommendations are minimum values of Average Daylight Factor, and should be attained even if a predominantly day lit appearance is not achievable.”

- 1.13** This method of assessment takes into account the total glazed area to the room, the visible light transmittance of the glazing proposed, the total area of the room surfaces including ceilings and floors, and the internal average reflectance for the room being assessed. The method also takes into account the VSC and the quantum of reflected light.

- 1.14** This is, therefore, a significantly more detailed method of assessment than the VSC method.

- 1.15** The BRE Guidelines state that this method of assessment for daylight should be applied to new developments rather than existing neighbouring buildings, unless the internal subdivision of the properties is known; whereby the ADF may be used to inform the light potential.

- 1.16** The ADF gives a more detailed assessment of the daylight within a room and takes into account the highest number of factors in establishing a quantitative output.

Sunlight

Annual Probable Sunlight Hours

- 1.17** APSH is measured using a sun indicator containing 100 spots, each representing 1% of APSH. Therefore, where no obstruction exists the total annual probable sunlight hours would amount to 1486 hours and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

- 1.18** The number of spots is calculated for the baseline and Proposed Development scenarios during the year and also during the winter period, and a comparison made between the two. This provides a percentage of APSH for each window assessed.

- 1.19** The BRE Guidelines note that:

“In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon.”;

“all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun.”;

“If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked.”; and

“...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day”.

- 1.20** In relation to existing surrounding receptors, the BRE Guidelines state that a window may be adversely affected if a point at the centre of the window receives for the whole year, less than

25% of the APSH, including at least 5% of the APSH during the winter months (21st September to 21st March) and less than 0.8 times its former sunlight hours during either period, and if there is a reduction in total APSH which is greater than 4%.

1.21 It is often not possible to determine the room uses within each of the neighbouring properties, nor is it clear which windows should be considered as the 'main windows'. Therefore, regardless of use, all the rooms with windows facing the site and within 90° of due south have been considered in the assessment.

Summary of Criteria for Daylight and Sunlight

1.22 The following table provides a summary of the criteria set out within the BRE Guidelines for daylight and sunlight.

Table 9.1 Summary of Daylight and Sunlight Assessment Criteria

Method	BRE Criteria
VSC	A window may be adversely affected if its VSC measured at the centre of the window is less than 27% and less than 0.8 times its former value.
NSL	A room may be adversely affected if the daylight distribution (NSL) is reduced beyond 0.8 times its existing area.
ADF	Bedroom 1%, Living room 1.5% and kitchen 2%.
APSH	A window may be adversely affected if a point at the centre of the window received for the whole year, less than 25% of the APSH including at least 5% of the APSH during the winter months (21 st September to 21 st March) and less than 0.8 times its former sunlight hours during either period, and for existing neighbouring buildings, if there is a reduction in total APSH which is greater than 4%.

Transient Overshadowing

1.23 Where a Proposed Development includes tall buildings, these may affect the sunlight availability to gardens or open spaces in close proximity to the site. Owing to the southerly location of the sun path, only amenity areas located within 90° of due north of the Proposed Development have the potential to be affected by overshadowing from tall buildings and therefore taken into consideration in this assessment.

1.24 The 2011 BRE guidelines suggest plotting a series of shadow plans illustrating the location of shadows cast from those buildings at different times of the day and period of the year to assess the potential overshadowing effects. To this end, the overshadowing plots are mapped for the three key dates listed below:

- 21st March (Spring Equinox);
- 21st June (Summer Solstice); and
- 21st December (Winter Solstice).

1.25 The 21st September (Autumn Equinox) is not assessed owing to the identical solar altitude and therefore equivalent outcomes of overshadowing to those presented for 21st March.

1.26 For each of these dates, the overshadowing is calculated at hourly intervals throughout daylight hours from sunrise to sunset. On 21st December, the sun is at its lowest altitude consequently creating long shadows to be cast and represents the worst-case scenario in terms of overshadowing.

1.27 The analysis described above varies according to different latitudes. The Site is located within London, which is at a latitude of 51.5° north.

Sun Hours on Ground

1.28 The BRE Guidelines suggest that Sun Hours on Ground assessments should be undertaken on the Equinox (21st March and 21st September). Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not.

1.29 It is recommended that at least half of a garden or amenity area should receive at least 2 hours of sunlight on 21st March or the area which receives 2 hours of direct sunlight should not be reduced to less than 0.8 times its former value (i.e. there should be no more than a 20% reduction).

Baseline Results

Address	Total No. Windows that meet VSC Criteria (>27%)		Total No. Windows that receive NSL in excess of 80%		Total No. Rooms that meet APSH Criteria	
	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria
CRUSE HOUSE	42	11	31	23	39	23
DINGLE GARDENS 1-12	32	28	30	30	32	28
DINGLE GARDENS 13	6	0	4	4	6	4
DINGLE GARDENS 14	4	3	4	4	4	3
DINGLE GARDENS 15	4	3	4	4	4	3
DINGLE GARDENS 16	4	2	4	3	3	2
DINGLE GARDENS 17	4	2	4	3	4	3
DINGLE GARDENS 18	4	2	4	3	4	2
DINGLE GARDENS 19	4	2	4	3	4	2
DINGLE GARDENS 20	8	2	5	5	6	5
DINGLE GARDENS 21	3	0	3	2	3	3
DINGLE GARDENS 22	2	0	2	2	2	2
DINGLE GARDENS 23	2	0	2	2	2	2
DINGLE GARDENS 24	3	0	3	3	3	3
DINGLE GARDENS 25	3	0	3	3	3	3
DINGLE GARDENS 26	2	0	2	2	2	2
DINGLE GARDENS 27	2	0	2	2	2	2
DINGLE GARDENS 28	3	0	3	3	3	3
DINGLE GARDENS 29	3	0	3	3	3	3

Address	Total No. Windows that meet VSC Criteria (>27%)		Total No. Windows that receive NSL in excess of 80%		Total No. Rooms that meet APSH Criteria	
	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria
DINGLE GARDENS 30	2	0	2	2	2	2
DINGLE GARDENS 31	2	0	2	2	2	2
DINGLE GARDENS 32	3	1	3	3	3	3
DINGLE GARDENS 33	3	0	3	3	3	3
DINGLE GARDENS 34	2	0	2	2	2	2
DINGLE GARDENS 35	2	1	2	2	2	2
DINGLE GARDENS 36	3	2	3	3	3	3
DINGLE GARDENS 37	6	1	6	6	6	6
DINGLE GARDENS 38	6	2	6	6	6	6
DINGLE GARDENS 39	5	3	5	5	5	5
DINGLE GARDENS 40	5	2	3	3	5	4
DINGLE GARDENS 41	5	1	4	4	5	3
DINGLE GARDENS 42	4	1	4	3	3	3
DINGLE GARDENS 43	8	2	4	3	8	3
DINGLE GARDENS 44	6	0	4	3	6	3
DINGLE GARDENS 45	6	0	4	3	6	3
DINGLE GARDENS 46	6	1	4	3	6	3
DINGLE GARDENS 47	6	1	4	3	6	3
DINGLE GARDENS 48	4	1	4	3	4	3
DINGLE GARDENS 49	4	1	4	3	4	3
DINGLE GARDENS 50	4	0	4	3	4	3
DINGLE GARDENS 51	6	0	4	4	6	6
DINGLE GARDENS 52	6	2	6	6	6	4
DINGLE GARDENS 53	6	2	6	4	6	4

Address	Total No. Windows that meet VSC Criteria (>27%)		Total No. Windows that receive NSL in excess of 80%		Total No. Rooms that meet APSH Criteria	
	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria
DOLPHIN LANE 1	8	8	4	2	8	7
DOLPHIN LANE 11	6	6	4	4	6	6
DOLPHIN LANE 13	6	6	4	4	6	4
DOLPHIN LANE 15	6	2	4	4	6	6
DOLPHIN LANE 17	6	0	4	4	6	6
DOLPHIN LANE 2	7	2	6	5	7	4
DOLPHIN LANE 3	8	8	4	4	8	8
DOLPHIN LANE 4	7	2	6	5	7	5
DOLPHIN LANE 5	6	6	4	4	6	6
DOLPHIN LANE 7	6	6	4	4	6	6
DOLPHIN LANE 9	6	5	4	4	6	5
EASTERN TOWER WEST INDIA QUAY	1384	1272	209	208	957	905
GOOD FAITH HOUSE	9	7	6	6	8	8
GOOD SPEED HOUSE	18	18	18	18	18	18
GOOD HOPE HOUSE	63	19	18	18	54	27
GOODWILL HOUSE	51	28	43	32	38	28
HORIZON BUILDING	67	40	43	41	67	10
LITTLE ST MATTHIAS PRESCHOOL	22	19	2	2	4	3
LUBBOCK HOUSE 1-18	98	46	54	39	98	53
MARTINDALE HOUSE 1-12	66	53	51	51	65	50
MING ST 32A-32B	4	1	4	4	4	4
MING ST 32C-32D	4	0	4	2	4	3
MING ST 38A	6	2	6	4	6	6
MING ST 38C	6	2	6	4	6	6
MING ST 40	6	2	6	4	6	6
MING ST 34A	6	1	4	2	4	4
MING ST 34C	6	3	6	4	6	6

Address	Total No. Windows that meet VSC Criteria (>27%)		Total No. Windows that receive NSL in excess of 80%		Total No. Rooms that meet APSH Criteria	
	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria	Total Assessed	Total that meet Criteria
MING ST 34E	6	3	6	5	6	2
MING ST 36A	6	0	6	2	6	6
MING ST 36C	6	2	6	4	6	6
MING STREET 2-30	48	46	24	24	48	48
MOSQUE POPLAR	15	11	2	2	8	8
POPLAR HIGH ST 130	20	11	10	10	1	0
POPLAR HIGH STREET 2-24	66	41	52	41	55	45
POPLAR HIGH STREET 26-36	16	14	15	14	16	14
POPLAR HIGH STREET 40-50	16	14	15	14	16	13
POPLAR HIGH STREET 54-64	16	4	15	9	16	14
POPLAR HIGH STREET 74	13	9	8	8	12	12
PORT EAST APARTMENTS	54	0	45	19	51	6
STONEYARD LANE 1-8	27	14	19	19	23	17
STONEYARD LANE 9-24	56	43	56	54	50	50
TOWER HAMLETS COLLEGE	175	94	58	55	171	155
WIGRAM HOUSE	40	40	32	32	36	36
WILLIS HOUSE	89	74	89	87	79	79
WINANT HOUSE	73	25	18	18	66	35
TOTALS	2875	2088	1214	1086	2321	1926

Annex 3: Daylight and Sunlight Assessment

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				ND SKYLINE				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS											
			BASELINE		PROPOSED		BASELINE		PROPOSED		LOSS		%		WINDOW BASELINE		WINDOW PROPOSED		TOTAL		WINDOW PROPOSED		TOTAL							
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%						
ZONE 1 CARPENTRY 1																														
F00	R1	UNKNOWN	W1	282	253	27	9.6	89.3	98.3	0.0	0.0							27.0	5	23	2	14.8	0	27	5	23	2	14.8	0	
	R2	UNKNOWN	W2	317	313	4	1.7	94.3	94.3	0.0	0.0							17.0	2	17	0	0	0	27	2	17	0	0	0	
F01	R1	UNKNOWN	W1	298	297	1	1.38	98.3	97.7	0.6	0.6							38.0	8	30	4	23.1	96.8	38	9	30	4	23.1	96.8	
	R2	UNKNOWN	W2	299	298	1	1.37	98.8	98.5	0.3	0.3							38.0	8	29	3	23.7	96.3	38	8	29	3	23.7	96.3	
ZONE 1 CARPENTRY 2																														
F00	R1	UNKNOWN	W1	14.9	14.9	0.0	0.0	75.7	75.7	0.0	0.0							31.0	2	29	2	6.3	0	31	2	29	2	6.3	0	
	R2	UNKNOWN	W2	26.4	25.4	1.0	3.8	98.7	98.2	0.5	0.5								40.0	7	32	3	22	97.1	41	7	32	3	22	97.1
F01	R1	UNKNOWN	W1	32.8	28.6	4.2	12.8	97.6	96.6	1.0	2.0								38.0	6	29	4	23.7	50	38	6	29	4	23.7	50
	R2	UNKNOWN	W2	30.3	26.0	4.3	14.2	96.7	96.7	0.0	0.0								38.0	6	29	4	23.7	50	38	6	29	4	23.7	50
ZONE 1 CARPENTRY 3																														
F00	R1	UNKNOWN	W1	11.0	7.6	3.4	30.9	70.3	37.5	32.8	46.7								30.0	8	21	4	30	50	30	8	21	4	30	50
	R2	UNKNOWN	W2	23.7	21.0	2.7	11.4	98.7	98.7	0.0	0.0								35.0	2	29	1	17.1	50	35	2	29	1	17.1	50
F01	R1	UNKNOWN	W1	30.2	25.9	4.3	14.2	97.3	94.7	2.6	2.7								38.0	8	29	4	23.7	50	38	8	29	4	23.7	50
	R2	UNKNOWN	W2	32.8	28.5	4.3	13.1	98.5	98.5	0.0	0.0								42.0	8	33	4	21.4	50	42	8	33	4	21.4	50
ZONE 1 CARPENTRY 4																														
F00	R1	UNKNOWN	W1	6.7	6.1	0.6	8.9	95.5	95.1	0.4	5.3								16.0	4	15	0	6.3	0	16	4	15	0	6.3	0
	R2	UNKNOWN	W2	25.6	22.5	3.1	12	98.3	98.3	0.0	0.0								38.0	4	30	1	23.1	75	38	4	30	1	23.1	75
F01	R1	UNKNOWN	W1	29.9	26.9	3.0	14	97.9	96.5	1.4	5.1								38.0	8	27	1	23.7	50	38	8	27	1	23.7	50
	R2	UNKNOWN	W2	29.8	25.3	4.5	14.5	97.8	95.5	2.3	2.4								38.0	8	27	2	25	68.7	38	6	27	2	25	68.7
ZONE 1 CARPENTRY 5																														
F00	R1	UNKNOWN	W1	25.0	23.1	1.9	7.6	94.9	92.3	2.6	3.1								22.0	3	17	0	22.7	100	22	3	17	0	22.7	100
	R2	UNKNOWN	W2	61	61	0	0	51.8	51.2	0.6	1.2								11.0	0	11	0	0	0	11	0	11	0	0	0
F01	R1	UNKNOWN	W1	29.0	24.7	4.3	14.8	98.0	94.6	3.4	3.5								38.0	6	26	2	27.8	68.7	38	6	26	2	27.8	68.7
	R2	UNKNOWN	W2	28.6	24.1	4.5	15.7	95.1	98.3	6.8	9.3								38.0	6	26	2	27.8	68.7	38	6	26	2	27.8	68.7
ZONE 1 CARPENTRY 6																														
F00	R1	UNKNOWN	W1	19.3	16.9	2.4	12.4	94.0	94.0	0.0	0.0								24.0	2	21	2	12.5	0	24	2	21	2	12.5	0
	R2	UNKNOWN	W2	24.4	19.8	4.6	19.7	96.4	96.4	0.0	0.0								31.0	7	21	3	33.3	97.1	31	7	21	3	33.3	97.1
F01	R1	UNKNOWN	W1	26.1	23.1	3.0	11.0	96.0	96.1	1.9	1.9								62.0	15	52	12	16.1	20	69	15	59	12	14.5	20
	R2	UNKNOWN	W2	28.1	23.2	4.9	17.4	95.1	95.8	2.3	2.9								34.0	6	23	2	32.4	68.7	34	6	23	2	32.4	68.7
F02	R1	UNKNOWN	W1	24.4	19.5	4.9	20.1	97.5	95.5	2.0	5.0								35.0	6	25	2	28.6	68.7	35	6	25	2	28.6	68.7
ZONE 1 CARPENTRY 7																														
F00	R1	UNKNOWN	W1	21.5	17.6	3.9	18.1	96.7	93.3	3.4	3.5								51.0	7	40	3	21.6	97.1	51	7	40	3	21.6	97.1
	R2	UNKNOWN	W2	25.0	21.3	3.7	14.8	76.7	75.3	1.4	1.8								63.0	10	53	7	15.9	30	63	10	53	7	15.9	30
F01	R1	UNKNOWN	W1	20.3	15.9	4.4	21.7	98.1	90.6	7.5	8.5								54.0	14	43	10	20.4	28.6	54	14	43	10	20.4	28.6
ZONE 1 CARPENTRY 8																														
F00	R1	UNKNOWN	W1	21.5	18.0	3.5	16.3	94.1	76.4	7.7	9.2								51.0	6	41	4	19.6	33.3	51	6	41	4	19.6	33.3
	R2	UNKNOWN	W2	24.8	20.2	4.6	18.5	91.8	84.4	7.4	8.1								61.0	15	50	11	18	26.7	61	15	50	11	18	26.7
F01	R1	UNKNOWN	W1	24.8	20.1	4.7	19.0	94.7	88.1	6.6	7.0								63.0	11	51	7	19	36.4	63	11	51	7	19	36.4
	R2	UNKNOWN	W2	24.8	20.6	4.2	16.9	90.3	84.2	6.1	6.8								63.0	15	50	11	18	26.7	61	15	50	11	18	26.7
ZONE 1 CARPENTRY 9																														
F00	R1	UNKNOWN	W1	26.1	21.3	4.8	18.4	99.1	98.3	0.8	0.8								67.0	13	55	9	17.9	30.8	67	13	55	9	17.9	30.8
	R2	UNKNOWN	W2	24.3	20.7	3.6	14.6	100.0	100.0	0.0	0.0								59.0	8	50	7	13.3	22.2	59	8	50	7	13.3	22.2
F01	R1	UNKNOWN	W1	21.8	16.9	4.9	22.5	99.2	88.2	10.0	10.1								59.0	16	48	11	22	31.3	59	16	46	11	22	31.3
ZONE 1 CARPENTRY 10																														
F00	R1	UNKNOWN	W1	18.3	13.4	4.9	26.8	99.0	96.0	3.0	4.0								46.0	9	33	5	28.7	44.4	46	9	33	5	28.7	44.4
	R2	UNKNOWN	W2	26.0	21.0	5.0	19.2	94.4	93.5	0.9	1.0								68.0	14	55	10	19.1	28.6	68	14	55	10	19.1	28.6
F01	R1	UNKNOWN	W1	21.8	16.8	5.0	22.9	98.7	97	1.7	2.1								61.0	18	48	13	21.3	27.8	61	18	48	13	21.3	27.8
ZONE 1 CARPENTRY 11																														
F00	R1	UNKNOWN	W1	24.7	20.3	4.4	17.8	96.6	87.9	8.7	9.0								63.0	11	50	7	20.6	36.4	63	11	50	7	20.6	36.4
	R2	UNKNOWN	W2	23.6	18.5	5.1	21.6	99.2	87.6	11.6	11.7								61.0	15	48	11	21.3	28.7	61	15	48	11	21.3	28.7
F01	R1	UNKNOWN	W1	25.7	20.5	5.2	20.2	98.7	84.1	14.6	14.8								65.0	12	52	8	20	33.3	65	12	52	8	20	33.3
	R2	UNKNOWN	W2	25.0	19.7	5.3	21.2	98.7	84.9	13.8	14.0								61.0	15	48	11	21.3	28.7	61	15	48	11	21.3	28.7
ZONE 1 CARPENTRY 12																														
F00	R1	UNKNOWN	W1	26.8	21.4	5.4	20.1	96.6	94.5	2.1	2.2								71.0	18	55	10	22.5	37.5	71	18	55	10	22.5	37.5
	R2	UNKNOWN	W2	26.1	20.9	5.2	19.9	100.0	100.0	0.0	0.0								67.0	13	51	8	23.9	38.5	67	13	51	8	23.9	38.5
F01	R1	UNKNOWN	W1	21.9	16.5	5.4	24.7	97.4	89.3	14.1	14.5								60.0	17	44	11	26.7	38.3	60	17	44	11	26.7	38.3

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				ND SKYLINE							
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FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				ND SKYLINE				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS										
			BASELINE		PROPOSED		LOSS		%		BASELINE		PROPOSED		LOSS		%		WINDOW BASELINE		WINDOW PROPOSED		TOTAL		WINDOW PROPOSED		TOTAL		
			W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3
F01	R1	UNKNOWN	W1	247	182	65	263	303	701	208	233	179	0.0	0.0	0.0	0.0	0.0	0.0	650	19	92	11	10	421	19	52	11	60	461
	R2	UNKNOWN	W1	274	208	68	241	378	657	189	179	0.0	0.0	0.0	0.0	0.0	0.0	730	23	59	18	18	548	23	59	18	60	548	
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	114	104	10	88	840	707	133	168	0.0	0.0	0.0	0.0	0.0	0.0	180	12	14	7	283	417	45	21	32	12	289	469
	R2	UNKNOWN	W1	152	103	19	594	554	554	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	360	50	26	0	343	458	0	0	0	0	0	0
	R3	UNKNOWN	W1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	R4	UNKNOWN	W1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F01	R1	UNKNOWN	W1	270	208	64	232	329	703	225	245	0.0	0.0	0.0	0.0	0.0	0.0	740	23	89	14	184	375	24	24	60	15	194	375
	R2	UNKNOWN	W1	270	208	64	232	329	703	225	245	0.0	0.0	0.0	0.0	0.0	0.0	740	24	61	15	184	375	24	24	60	15	194	375
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	15	10	C5	333	504	504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	650	12	14	7	153	167	15	44	7	164	167	
	R2	UNKNOWN	W1	15	10	C5	333	504	504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	650	12	14	7	153	167	15	44	7	164	167	
	R3	UNKNOWN	W1	15	10	C5	333	504	504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	650	12	14	7	153	167	15	44	7	164	167	
	R4	UNKNOWN	W1	15	10	C5	333	504	504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	650	12	14	7	153	167	15	44	7	164	167	
F01	R1	UNKNOWN	W1	255	186	59	231	387	989	66	69	0.0	0.0	0.0	0.0	0.0	0.0	680	22	54	13	194	381	67	21	54	13	194	381
	R2	UNKNOWN	W1	255	186	59	231	387	989	66	69	0.0	0.0	0.0	0.0	0.0	0.0	680	22	54	13	194	381	67	21	54	13	194	381
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	13	0.9	C4	308	379	379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	2	1	1	50	50	2	2	1	1	50	50
	R2	UNKNOWN	W1	13	0.9	C4	308	379	379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	2	1	1	50	50	2	2	1	1	50	50
	R3	UNKNOWN	W1	13	0.9	C4	308	379	379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	2	1	1	50	50	2	2	1	1	50	50
	R4	UNKNOWN	W1	13	0.9	C4	308	379	379	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20	2	1	1	50	50	2	2	1	1	50	50
F01	R1	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
	R2	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	184	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	360	8	32	6	111	25	36	8	32	6	111	25
	R2	UNKNOWN	W1	184	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	360	8	32	6	111	25	36	8	32	6	111	25
	R3	UNKNOWN	W1	184	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	360	8	32	6	111	25	36	8	32	6	111	25
	R4	UNKNOWN	W1	184	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	360	8	32	6	111	25	36	8	32	6	111	25
F01	R1	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
	R2	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	234	185	49	209	992	988	24	24	0.0	0.0	0.0	0.0	0.0	0.0	640	18	53	11	172	389	78	18	67	11	141	389
	R2	UNKNOWN	W1	234	185	49	209	992	988	24	24	0.0	0.0	0.0	0.0	0.0	0.0	640	18	53	11	172	389	78	18	67	11	141	389
	R3	UNKNOWN	W1	234	185	49	209	992	988	24	24	0.0	0.0	0.0	0.0	0.0	0.0	640	18	53	11	172	389	78	18	67	11	141	389
	R4	UNKNOWN	W1	234	185	49	209	992	988	24	24	0.0	0.0	0.0	0.0	0.0	0.0	640	18	53	11	172	389	78	18	67	11	141	389
F01	R1	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
	R2	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	164	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	220	4	17	1	227	75	22	4	17	1	227	75
	R2	UNKNOWN	W1	164	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	220	4	17	1	227	75	22	4	17	1	227	75
	R3	UNKNOWN	W1	164	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	220	4	17	1	227	75	22	4	17	1	227	75
	R4	UNKNOWN	W1	164	149	15	91	906	688	20	22	0.0	0.0	0.0	0.0	0.0	0.0	220	4	17	1	227	75	22	4	17	1	227	75
F01	R1	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
	R2	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13	187	381
DRIDGE GARAGE (S)																													
F02	R1	UNKNOWN	W1	241	212	29	120	1000	962	38	38	0.0	0.0	0.0	0.0	0.0	0.0	340	10	25	3	265	70	34	10	25	3	265	70
	R2	UNKNOWN	W1	241	212	29	120	1000	962	38	38	0.0	0.0	0.0	0.0	0.0	0.0	340	10	25	3	265	70	34	10	25	3	265	70
DRIDGE GARAGE (S)																													
F00	R1	UNKNOWN	W1	251	250	51	107	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	460	8	69	0	105	105	45	10	30	0	333	100
	R2	UNKNOWN	W1	251	250	51	107	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	460	8	69	0	105	105	45	10	30	0	333	100
	R3	UNKNOWN	W1	251	250	51	107	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	460	8	69	0	105	105	45	10	30	0	333	100
	R4	UNKNOWN	W1	251	250	51	107	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	460	8	69	0	105	105	45	10	30	0	333	100
F01	R1	UNKNOWN	W1	250	203	54	198	315	814	101	110	0.0	0.0	0.0	0.0	0.0	0.0	760	21	60	13	187	381	75	21	60	13		

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS											
			BASELINE		PROPOSED		BASELINE		PROPOSED		LOSS		%		WINDOW BASELINE		WINDOW PROPOSED		TOTAL % LOSS		ROOM PROPOSED		TOTAL			
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	
F01	R2	UNKNOWN	W4	293	259	34	116	116	1.7	98.7	98.1	0.6	0.6	40.0	10	85	2	35	80	40	10	26	2	35	80	
	R1	UNKNOWN	W1	288	256	32	111	111	3.3	98.6	98.6	0.0	0.0	37.0	10	25	4	32.4	37	10	25	4	32.4	37		
	R2	UNKNOWN	W2	293	251	42	113	113	3.9	98.7	98.4	0.3	0.3	41.0	11	25	3	72.7	41	11	25	3	72.7	41		
	DOOR BASELINE																									
F00	R1	UNKNOWN	W1	301	265	36	120	120	2.4	97.6	96.2	1.4	1.4	42.0	10	27	2	35.7	80	42	10	27	2	35.7	80	
	R2	UNKNOWN	W2	297	261	36	121	121	0.4	96.6	96.2	0.4	0.4	39.3	10	28	3	29.3	70	42	10	28	3	29.3	70	
	R1	UNKNOWN	W1	297	261	36	121	121	0.4	96.6	96.2	0.4	0.4	39.3	10	28	3	29.3	70	42	10	28	3	29.3	70	
	R2	UNKNOWN	W2	291	256	35	120	120	2.8	96.2	96.8	0.6	0.6	38.0	9	25	3	34.2	77.8	38	9	25	3	34.2	77.8	
F01	R1	UNKNOWN	W1	290	256	34	117	117	1.8	94.5	96.8	2.3	2.3	37.0	9	25	3	32.4	68.7	37	9	25	3	32.4	68.7	
	DOOR BASELINE																									
	R1	UNKNOWN	W1	251	256	0.5	16	16	0.0	96.0	96.0	0.0	0.0	40.0	9	26	0	0.0	0.0	43	9	29	2	0.0	0.0	
	R2	UNKNOWN	W2	302	265	37	123	123	1.4	98.9	97.5	1.4	1.4	43.0	9	29	2	34.6	77.8	43	10	28	2	34.6	77.8	
F01	R1	UNKNOWN	W1	294	258	36	122	122	3.0	90.0	96.8	7.8	7.8	41.0	9	28	2	31.7	77.8	41	9	28	2	31.7	77.8	
	R2	UNKNOWN	W2	293	257	36	123	123	2.1	98.9	96.8	2.1	2.1	41.0	9	28	2	31.7	77.8	41	9	28	2	31.7	77.8	
	DOOR BASELINE																									
	R1	L/K/D	W1	290	289	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	21
F13	R1	L/K/D	W1	289	288	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	21
	R2	UNKNOWN	W2	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R3	UNKNOWN	W3	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R4	UNKNOWN	W4	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
F14	R1	UNKNOWN	W1	293	291	0.2	0.7	0.7	0.0	100.0	100.0	0.0	0.0	52.0	5	0.2	0.2	3.8	75.0	22	73	22	73	22	73	
	R2	UNKNOWN	W2	289	288	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	
	R3	UNKNOWN	W3	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R4	UNKNOWN	W4	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
F15	R1	L/K/D	W1	299	298	0.1	0.3	0.3	0.0	92.8	96.8	4.0	4.0	22.0	2.7	0.1	0.1	3.6	75.0	22	73	22	73	22	73	
	R2	UNKNOWN	W2	298	298	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R3	UNKNOWN	W3	298	298	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R4	UNKNOWN	W4	298	298	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
F16	R1	L/K/D	W1	302	262	40	125	125	0.0	93.7	96.7	3.0	3.0	44.0	4.2	0.2	0.2	4.9	75.0	23	75	23	75	23	75	
	R2	UNKNOWN	W2	299	265	34	123	123	0.0	90.0	96.8	6.8	6.8	41.0	4.2	0.2	0.2	4.9	75.0	23	75	23	75	23	75	
	R3	UNKNOWN	W3	299	265	34	123	123	0.0	90.0	96.8	6.8	6.8	41.0	4.2	0.2	0.2	4.9	75.0	23	75	23	75	23	75	
	R4	UNKNOWN	W4	299	265	34	123	123	0.0	90.0	96.8	6.8	6.8	41.0	4.2	0.2	0.2	4.9	75.0	23	75	23	75	23	75	

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS											
			BASELINE		PROPOSED		BASELINE		PROPOSED		LOSS		%		WINDOW BASELINE		WINDOW PROPOSED		TOTAL % LOSS		ROOM PROPOSED		TOTAL			
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL			
F01	R2	UNKNOWN	W4	293	259	34	116	116	1.7	98.7	98.1	0.6	0.6	40.0	10	85	2	35	80	40	10	26	2	35	80	
	R1	UNKNOWN	W1	288	256	32	111	111	3.3	98.6	98.6	0.0	0.0	37.0	10	25	4	32.4	37	10	25	4	32.4	37		
	R2	UNKNOWN	W2	293	251	42	113	113	3.9	98.7	98.4	0.3	0.3	41.0	11	25	3	72.7	41	11	25	3	72.7	41		
	DOOR BASELINE																									
F00	R1	UNKNOWN	W1	301	265	36	120	120	2.4	97.6	96.2	1.4	1.4	42.0	10	27	2	35.7	80	42	10	27	2	35.7	80	
	R2	UNKNOWN	W2	297	261	36	121	121	0.4	96.6	96.2	0.4	0.4	39.3	10	28	3	29.3	70	42	10	28	3	29.3	70	
	R1	UNKNOWN	W1	297	261	36	121	121	0.4	96.6	96.2	0.4	0.4	39.3	10	28	3	29.3	70	42	10	28	3	29.3	70	
	R2	UNKNOWN	W2	291	256	35	120	120	2.8	96.2	96.8	0.6	0.6	38.0	9	25	3	34.2	77.8	38	9	25	3	34.2	77.8	
F01	R1	UNKNOWN	W1	290	256	34	117	117	1.8	94.5	96.8	2.3	2.3	37.0	9	25	3	32.4	68.7	37	9	25	3	32.4	68.7	
	DOOR BASELINE																									
	R1	UNKNOWN	W1	251	256	0.5	16	16	0.0	96.0	96.0	0.0	0.0	40.0	9	26	0	0.0	0.0	43	9	29	2	0.0	0.0	
	R2	UNKNOWN	W2	302	265	37	123	123	1.4	98.9	97.5	1.4	1.4	43.0	9	29	2	34.6	77.8	43	10	28	2	34.6	77.8	
F01	R1	UNKNOWN	W1	294	258	36	122	122	3.0	90.0	96.8	7.8	7.8	41.0	9	28	2	31.7	77.8	41	9	28	2	31.7	77.8	
	R2	UNKNOWN	W2	293	257	36	123	123	2.1	98.9	96.8	2.1	2.1	41.0	9	28	2	31.7	77.8	41	9	28	2	31.7	77.8	
	DOOR BASELINE																									
	R1	L/K/D	W1	290	289	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	
F13	R1	L/K/D	W1	289	288	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	
	R2	UNKNOWN	W2	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R3	UNKNOWN	W3	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R4	UNKNOWN	W4	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
F14	R1	UNKNOWN	W1	293	291	0.2	0.7	0.7	0.0	100.0	100.0	0.0	0.0	52.0	5	0.2	0.2	3.8	75.0	22	73	22	73	22	73	
	R2	UNKNOWN	W2	289	288	0.1	0.3	0.3	0.0	99.9	99.9	0.0	0.0	42.0	4.1	0.1	0.1	2.4	74.0	21	72	21	72	21	72	
	R3	UNKNOWN	W3	289	289	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	40.0	8	18	7	95.1	32.5	0	0	0	0	0	0	
	R4	UNKNOWN	W4	289	289	0.0	0.0</																			

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				ND SKYLINE				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS								
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	TOTAL	WINTER	WINTER	% LOSS	ROOM PROPOSED	ROOM PROPOSED	TOTAL	WINTER	WINTER	% LOSS	
			W10	W20	W30	W40	W10	W20	W30	W40	W10	W20	W30	W40	W10	W20	W30	W40	W10	W20	W30	W40	W10	W20	W30	W40	W10
F2	R5	L/K/D	312	285	87	87	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			311	283	88	90	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			310	281	89	91	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			309	279	90	92	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			308	277	91	93	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			307	275	92	94	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			306	273	93	95	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			305	271	94	96	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			304	269	95	97	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
			303	267	96	98	100.0	100.0	0.0	0.0	7.5	5.4	2.1	28	78.0	22	84	21	158	45	83	23	65	22	21.7	4.3	
F2	R6	BEDROOM	332	305	127	127	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			331	303	128	128	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			330	301	129	129	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			329	299	130	130	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			328	297	131	131	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			327	295	132	132	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			326	293	133	133	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			325	291	134	134	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			324	289	135	135	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
			323	287	136	136	100.0	100.0	0.0	0.0	8.3	3.5	4.8	57.8	42.0	9	22	8	47.6	11.1	43	9	21	8	51.2	11.1	
F2	R7	STUDIO	342	315	27	27	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			341	313	28	28	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			340	311	29	29	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			339	309	30	30	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			338	307	31	31	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			337	305	32	32	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			336	303	33	33	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			335	301	34	34	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			334	299	35	35	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
			333	297	36	36	100.0	100.0	0.0	0.0	10.4	7.2	3.2	30.8	10.0	1	0	1	88.7	50	45	8	22	7	51.1	12.5	
F2	R8	BEDROOM	352	325	27	27	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			351	323	28	28	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			350	321	29	29	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			349	319	30	30	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			348	317	31	31	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			347	315	32	32	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			346	313	33	33	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			345	311	34	34	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			344	309	35	35	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
			343	307	36	36	100.0	100.0	0.0	0.0	3.9	3.8	0.1	2.6	78.0	23	76	23	2.6	0	80	23	76	23	5	0	
F2	R9	BEDROOM	362	335	27	27	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			361	333	28	28	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			360	331	29	29	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			359	329	30	30	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			358	327	31	31	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			357	325	32	32	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			356	323	33	33	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			355	321	34	34	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			354	319	35	35	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			353	317	36	36	100.0	100.0	0.0	0.0	5.4	5.2	0.2	3.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
F2	R10	STUDIO	372	345	27	27	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			371	343	28	28	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			370	341	29	29	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			369	339	30	30	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			368	337	31	31	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			367	335	32	32	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			366	333	33	33	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			365	331	34	34	100.0	100.0	0.0	0.0	7.3	7.1	0.2	2.7	78.0	23	68	22	10.5	4.3	79	23	68	22	13.9	4.3	
			364	329	35	35	100.0</																				

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				ND SKYLINE				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS										
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	TOTAL	WINTER	WINTER	TOTAL	ROOM PROPOSED	ROOM PROPOSED	TOTAL	WINTER	WINTER	TOTAL			
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	LOSS	%	
F25	R4	BEDROOM	W5	327	314	13	4.0	100.0	100.0	0.0	0.0	6	5.6	0.4	6.7	78.0	88	29	10.5	4.3	80	24	69	23	138	42	138	42	
			W6	327	314	13	4.3	100.0	100.0	0.0	0.0	6	5.6	0.4	6.7	80.0	84	69	23	138	42	80	24	69	23	138	42	138	42
			W7	352	337	15	7.8	100.0	100.0	0.0	0.0	6	5.6	0.4	6.7	80.0	84	69	23	138	42	80	24	69	23	138	42	138	42
	R5	L/K/D	W20	321	293	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W21	321	293	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W22	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W23	319	289	30	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W24	319	289	30	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W25	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
	R6	BEDROOM	W26	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W27	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W28	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W29	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W30	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
			W31	320	280	40	9.4	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	83	66	22	15.4	85	24	67	23	212	42	212	42	
	R7	STUDIO	W32	341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111
			W33	341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111
			W34	341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111
W35			341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111	
W36			341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111	
W37			341	311	30	8.8	100.0	100.0	0.0	0.0	10.4	7.3	3.1	29.8	100.0	100.0	0.0	0.0	100	43	80	24	69	23	511	111	511	111	
F26	R1	STUDIO	W1	340	338	2	0.3	99.2	99.2	0.0	0.0	3.9	3.9	0	0	78.0	84	77	24	2.5	82	25	78	25	4.9	0	4.9	0	
			W2	340	338	2	0.3	99.2	99.2	0.0	0.0	3.9	3.9	0	0	78.0	84	77	24	2.5	82	25	78	25	4.9	0	4.9	0	
			W3	336	332	4	1.2	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
	R2	BEDROOM	W4	335	330	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
			W5	335	330	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
			W6	334	329	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
			W7	334	329	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
			W8	334	329	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
			W9	334	329	5	1.5	100.0	100.0	0.0	0.0	3.9	3.9	0	0	78.0	84	76	24	3.8	82	25	78	25	4.9	0	4.9	0	
	R3	L/K/D	W10	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W11	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W12	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W13	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W14	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W15	329	319	10	3.0	100.0	100.0	0.0	0.0	4.6	4.5	0.1	2.2	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
	R4	BEDROOM	W16	325	289	36	8.0	100.0	100.0	0.0	0.0	6	5.7	0.3	5	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W17	325	289	36	8.0	100.0	100.0	0.0	0.0	6	5.7	0.3	5	77.0	84	69	23	10.4	80	24	69	23	138	42	138	42	
			W18	322	294	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4	
W19			322	294	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
W20			322	294	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
W21			322	294	28	8.7	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
R5	L/K/D	W22	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
		W23	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
		W24	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
		W25	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
		W26	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
		W27	322	291	31	9.6	100.0	100.0	0.0	0.0	7.7	5.6	2.1	27.3	78.0	84	67	23	15.2	86	25	68	24	20.9	4	20.9	4		
R6	BEDROOM	W28	325	288	37																								

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS										
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS	WINDOW PROPOSED	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS							
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL						
F03	R1	UNKNOWN	W5	38	1.3	25	65.8	99.0	0.0	2.0	2.0	13.0	7.0	1	5	0	48.2	100	18	2	12	0	33.3	100	
	R2	UNKNOWN	W6	5.2	4.4	15.4	100.0	100.0	0.0	0.0	0.0	44.0	9	39	0	13.6	22.2	45	10	38	7	15.6	3	15.6	3
	R3	UNKNOWN	W9	5.3	4.3	10	18.9	100.0	99.0	1.0	1.0	8.0	2	5	0	37.5	100	8	2	5	0	37.5	100	0	
	R4	UNKNOWN	W1	34.4	31.2	32	93	100.0	100.0	0.0	0.0	37.0	3	31	0	16.2	100	37	3	31	0	16.2	100	0	
	R5	UNKNOWN	W2	35.8	32.4	34	95	98.8	98.8	0.0	0.0	45.0	10	39	7	13.3	30	45	10	39	7	13.3	30	0	
	R6	UNKNOWN	W3	35.8	32.4	35	98	100.0	100.0	0.0	0.0	45.0	10	39	7	13.3	30	45	10	39	7	13.3	30	0	
	R7	UNKNOWN	W4	35.8	32.4	36	101	100.0	100.0	0.0	0.0	45.0	10	38	7	15.6	30	45	10	38	7	15.6	30	0	
	R8	UNKNOWN	W5	35.8	32.4	37	103	100.0	100.0	0.0	0.0	45.0	10	38	7	15.6	30	45	10	38	7	15.6	30	0	
	R9	UNKNOWN	W6	35.8	32.4	37	103	98.8	98.8	0.0	0.0	45.0	10	38	7	15.6	30	45	10	38	7	15.6	30	0	
	R10	UNKNOWN	W7	35.8	32.4	38	106	100.0	98.4	0.0	0.0	44.0	9	38	7	13.6	22.2	44	9	38	7	13.6	22.2	0	
	R11	UNKNOWN	W8	35.7	31.8	39	109	100.0	100.0	0.0	0.0	44.0	9	38	7	13.6	22.2	44	9	38	7	13.6	22.2	0	
	R12	UNKNOWN	W9	35.7	31.7	41	112	100.0	100.0	0.0	0.0	44.0	9	38	7	13.6	22.2	44	9	38	7	13.6	22.2	0	

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS										
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS	WINDOW PROPOSED	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS							
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL						
F00	R1	UNKNOWN	W1	26.8	25.1	17	6.3	86.8	86.1	0.8	0.8	63.0	16	60	15	4.8	6.3	63	16	60	15	4.8	6.3	0	
	R2	UNKNOWN	W2	28.6	25.9	27	9.4	93.7	93.5	0.2	0.2	74.0	18	69	16	6.8	11.1	74	18	69	16	6.8	11.1	0	
	R3	UNKNOWN	W3	24.9	21.1	28	11.7	90.5	89.4	1.1	1.2	60.0	20	54	17	10	15	60	20	54	17	10	15	0	
	R4	UNKNOWN	W4	24.2	21.4	28	11.6	93.4	92.1	1.3	1.4	63.0	21	58	19	7.9	9.5	63	21	58	19	7.9	9.5	0	
	R5	UNKNOWN	W5	19.8	19.8	0	0.0	53.7	53.7	0.0	0.0	37.0	11	37	11	0	0	37	11	37	11	0	0	0	
	R6	UNKNOWN	W6	9.7	8.3	14	14.4	98.8	98.8	0.0	0.0	18.0	12	15	12	12	15	10	10	10	10	10	10	10	0
	R7	UNKNOWN	W7	22.4	20.5	19	8.5	73.9	55.5	18.4	24.9	56.0	17	52	15	7.1	11.8	56	17	52	15	7.1	11.8	0	
	R8	UNKNOWN	W8	23.6	20.9	27	11.4	67.5	58.3	9.2	33.4	61.0	19	54	15	11.5	21.1	61	19	54	15	11.5	21.1	0	
	R9	UNKNOWN	W9	25.0	22.5	27	9.2	91.5	89.5	2.0	2.5	74.0	17	65	16	8.1	11.1	74	17	65	16	8.1	11.1	0	
	R10	UNKNOWN	W10	17.0	17.0	0	0.0	45.7	45.7	0.0	0.0	33.0	11	33	11	0	0	33	11	33	11	0	0	0	
	R11	UNKNOWN	W11	21.8	19.2	26	11.9	90.3	87.0	3.3	3.7	52.0	19	47	17	9.6	10.5	52	19	47	17	9.6	10.5	0	
	R12	UNKNOWN	W12	22.0	19.4	26	11.8	89.5	86.3	3.2	3.6	55.0	19	50	17	9.1	10.5	55	19	50	17	9.1	10.5	0	

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS									
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS	WINDOW PROPOSED	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS						
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL					
F01	R1	UNKNOWN	W1	29.2	26.7	25	8.6	93.1	91.5	1.6	1.7	73.0	18	67	16	8.2	11.1	73	18	67	16	8.2	11.1	0
	R2	UNKNOWN	W2	29.3	26.8	25	8.5	92.6	90.5	2.1	2.3	75.0	18	69	16	8	11.1	75	18	69	16	8	11.1	0
	R3	UNKNOWN	W3	18.4	18.4	0	0.0	44.5	44.5	0.0	0.0	35.0	12	39	12	0	0	35	12	39	12	0	0	0
	R4	UNKNOWN	W4	20.9	18.5	24	11.5	92.7	89.9	2.8	3.0	48.0	20	43	18	10.4	10	48	20	43	18	10.4	10	0
	R5	UNKNOWN	W5	18.6	18.6	0	0.0	47.6	47.6	0.0	0.0	40.0	12	40	12	0	0	40	12	40	12	0	0	0
	R6	UNKNOWN	W6	23.9	20.6	23	8.0	94.7	93.5	1.2	1.3	68.0	18	63	16	8.7	11.1	68	18	63	16	8.7	11.1	0
	R7	UNKNOWN	W7	18.4	18.4	0	0.0	46.5	46.5	0.0	0.0	40.0	12	40	12	0	0	40	12	40	12	0	0	0
	R8	UNKNOWN	W8	21.8	19.5	23	10.6	94.3	91.0	3.3	3.5	50.0	19	45	17	10	10.5	50	19	45	17	10	10.5	0
	R9	UNKNOWN	W9	22.0	19.7	23	10.5	94.2	91.6	2.6	2.8	54.0	20	49	17	11.1	11.2	54	20	49	17	11.1	11.2	0
	R10	UNKNOWN	W10	18.9	18.9	0	0.0	50.0	50.0	0.0	0.0	43.0	12	43	12	0	0	43	12	43	12	0	0	0
	R11	UNKNOWN	W11	26.9	23.9	30	11.2	77.8	69.3	8.5	10.9	37.0	6	30	2	18.9	66.7	37	6	30	2	18.9	66.7	0
	R12	UNKNOWN	W12	26.8	23.9	29	10.8	78.1	69.3	8.8	11.3	34.0	6	27	2	20.6	66.7	34	6	27	2	20.6	66.7	0

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS									
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS	WINDOW PROPOSED	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS						
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL					
F02	R1	UNKNOWN	W1	27.3	24.1	32	11.7	86.7	75.7	11.0	12.7	33.0	5	25	1	24.2	80	33	5	25	1	24.2	80	0
	R2	UNKNOWN	W2	27.2	24.1	31	11.4	71.6	48	0.0	0.0	36.0	5	29	1	19.4	80	36	5	29	1	19.4	80	0
	R3	UNKNOWN	W3	27.2	24.1	31	11.4	64.8	48	0.0	0.0	36.0	5	29	1	18.4	80	36	5	29	1	18.4	80	0
	R4	UNKNOWN	W4	22.7	20	30	13.0	93.1	92.6	0.5	0.5	33.0	5	26	1	21.2	80	33	5	26	1	21.2	80	0
	R5	UNKNOWN	W5	22.5	20	30	13.4	90.6	90.6	0.0	0.0	33.0	5	26	1	21.2	80	33	5	26	1	21.2	80	0
	R6	UNKNOWN	W6	22.5	20	30	14.8	92.4	88.4	4.0	26.0	33.0	5	25	1	21.2	80	33	5	25	1	21.2	80	0
	R7	UNKNOWN	W7	27.3	24.9	35	13.5	95.3	95.4	0.0	0.0	36.0	4	27	1	25.9	75	36	4	27	1	25.9	75	0
	R8	UNKNOWN	W8	27.3	24.9	35	12.1	89.7	85.4	4.3	7.2	32.0	4	24	1	24.2	80	33	5	25	1	24.2	80	0
	R9	UNKNOWN	W9	27.3	24.0	33	12.1	86.0	80.0	6.0	31.8	33.0	5	25	1	24.2	80	33	5	25	1	24.2	80	0
	R10	UNKNOWN	W10	20.5	22.4	41	15.5	98.1	98.1	0.0	0.0	32.0	4	24	1	25	75	32	4	24	1	25	75	0
	R11	UNKNOWN	W11	22.5	22.5	40	15.1	89.0	84.0	5.0	28.1	33.0	5	25	1	24.2	80	33	5	25	1	24.2	80	0

FLOOR	ROOM	ROOM USE	VERTICAL SKY COMPONENT (WINDOWS)				AVERAGE DAYLIGHT FACTOR				ANNUAL PROBABLE SUNLIGHT HOURS				ANNUAL PROBABLE SUNLIGHT HOURS			
			BASELINE	PROPOSED	LOSS	%	BASELINE	PROPOSED	LOSS	%	WINDOW BASELINE	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS	WINDOW PROPOSED	WINDOW PROPOSED	WINDOW PROPOSED	% LOSS
			LOSS	%	LOSS	%	LOSS	%	LOSS	%	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER	TOTAL	WINTER
F00	R1	UNKNOWN	W1	15.1	15.1	0	0.0	42.1	42.1	0.								