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MANOR ROAD, RICHMOND

Daylight and Sunlight Report

Overshadowing

• Daylight & Sunlight • Light Pollution •

Solar Glare • Daylight Design

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DEVELOPMENTS LIMITED

Date: February 2019

VERSION: V1
PROJECT: P1685

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1 <u>Executive Summary</u>

- 1.1 This report has considered the potential Daylight, Sunlight and Overshadowing effects to the surrounding residential properties and amenity spaces as a result of the implementation of the proposed Assael Architecture scheme for the site at Manor Road, Richmond. The daylight potential within the proposed residential units has also been assessed as part of this report.
- 1.2 The assessments contained within this report have been undertaken in accordance with the BRE report entitled 'Site layout planning for daylight and sunlight: A guide to good practice', more commonly known as "The BRE Guidelines".
- 1.3 Overall, the Proposed Development will relate well to neighbouring residential properties. Where there are changes which fall short of the BRE Guidelines, these are largely the product of the proximity and outlook of sensitive windows that overlook the largely undeveloped development site.
- 1.4 The overall daylight amenity levels within the proposed residential units are considered excellent with a very high overall compliance rate for a scheme of this size and density.
- 1.5 The proposed scheme performs well in overshadowing terms with only one proposed amenity space failing to receive at least 2 hours of direct sunlight to over 50% of its area on 21st March. The additional study on 21st June demonstrates that the sunlight potential will be significantly improved during the summer months, when the space is most likely to be used and enjoyed. In summary, the overshadowing results fall within the practical application and intention of the BRE Guidelines.

2 Introduction

- 2.1 Point 2 Surveyors Ltd has been appointed by Avanton Richmond Developments Limited to undertake a Daylight, Sunlight and Overshadowing review with regard to the proposed redevelopment of 84-86 Manor Road, Richmond hereafter referred to as the 'Site'.
- 2.2 The technical review considers the assessment of the proposed scheme by reference to the Building Research Establishment (BRE) Guidelines which seek to highlight the potential changes in light to those neighbouring buildings with a residential component.
- 2.3 The development site is currently being operated as a retail park and is occupied by one low-level warehouse building. The site is located close to both Richmond and North Sheen train stations, within the London Borough of Richmond Upon Thames.
- 2.4 The report and the technical analysis of the likely significant effects of the Proposed Development has been undertaken via the creation of a digital three-dimensional model of the Site and surroundings. Buildings situated within the vicinity have been modelled from a full measured survey where additional context has been provided by a photogrammetry Z-mapping tile. The information used for this model included site-photographs and research from local authority planning records. The calculations in this report have been based on the submitted drawings produced and supplied by Assael Architecture.
- 2.5 The Proposed Development under assessment is the scheme designed by Assael Architecture. The source materials used to create the Proposed Development can be listed as follows:
 - A3004_Combined Model_Simple.skp
 - MNR-AA-ALL-01-DR-A-2001-R1 to MNR-AA-ALL-01-DR-A-2500-R1
- 2.6 The extents of the current site (drawings P1685/01 to 03) and proposed buildings (drawings P1685/13 to 15) can be seen in Appendix A.
- 2.7 Access into the surrounding properties assessed as part of this report has not been obtained and we have therefore used site photographs and information from the local authority's planning records to best establish the internal layouts and room uses.

Guidance

National Planning Policy

National Planning Policy Framework (NPPF) 2018

2.8 Paragraph 123 of the NPPF (Ref. 14.1) states:

"Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities and ensure that developments make optimal use of the potential of each site. In these circumstances: ...

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

Historic England Guidance on Tall Buildings – Historic England Advice Note 4, 2015

2.9 The Historic England Advice Note 4 sets out guidance on dealing with tall buildings in the planning process. It supersedes the 'Guidance on Tall Buildings' issued by English Heritage and CABE in 2007. The Introduction notes that:

"Alternative approaches may be equally acceptable, provided they are demonstrably compliant with legislation and national policy objectives." It notes that what might be considered a tall building will vary from area to area and "A ten storey building in a mainly two-storey neighbourhood will be thought of as a tall building by those affected, whereas in the centre of a large city it may not."

2.10 The note states that it would be important to assess social and environmental effects associated with tall buildings. Amongst others, consideration should be given of the impact on the local environment, including microclimate, overshadowing, night-time appearance, light pollution, vehicle movements, the environment and amenity of those in the vicinity of the building, and the impact on the pedestrian experience.

<u>Building Research Establishment Guidelines: Site Layout Planning for Daylight and Sunlight 2011, A Guide to Good Practice, Second Edition</u>

2.11 The Site Layout Planning for Daylight and Sunlight ("BRE Guidelines") (Ref. 1.8) provide advice on site layout planning to achieve good sunlighting and daylighting within buildings, and in the open spaces between them. It is intended for building designers, developers, consultants and Local Planning Authorities (LPAs). It is intended to be used in conjunction with the interior daylight recommendations in the British Standard BS8206 Part II and the Applications Manual Window Design of the Chartered Institute of Building Services Engineers (CIBSE) (Ref 1.9). The advice it gives is not mandatory and should not be used as an instrument of planning policy. Of particular relevance, it states:

"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...the aim of the document is to help rather than constrain the designer. Though it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design. In special circumstances, the developer or the planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."

- 2.12 Through the planning process the local authority will wish to be reassured that the construction of the new scheme will not materially harm the neighbour's daylight and sunlight beyond BRE and British Standard Guidance.
- 2.13 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE guidance. Consideration will be given to the urban context within which a scheme is located, and the daylight and sunlight will be one of a number of planning considerations which the local authority will weigh.
- 2.14 In relation to the primary daylight test, VSC, the BRE Guidelines recognise that the target of 27% is not always suitable, especially in urban areas. It is, therefore, often appropriate to consider a suitable alternative target for the first daylight test.

Local Policy Context

Richmond Upon Thames – Local Plan (adopted 3 July 2018)

2.15 Spatial Strategy – Spatial Distribution of Development paragraph 3.1.35:

"Despite the constrained nature of the borough, there is a need to provide more housing, employment, education, retail, leisure and other community and infrastructure services that are needed to support growth within the borough."

2.16 Policy LP 8 – Amenity and Living Conditions:

"All development will be required to protect the amenity and living conditions for occupants of new, existing, adjoining and neighbouring properties. The Council will:

Ensure that the design and layout of the buildings enables good standards of daylight and sunlight to be achieved in new development and in existing buildings affected by new development; where existing daylight and sunlight conditions are substandard, they should be improved where possible;

2.17 Policy LP 8 – paragraph 4.8.5:

"In assessing whether sunlight and daylight conditions are good, both inside buildings and in gardens and open spaces, the Council will have regard to the most recent Building Research Establishment guidance, both for new development, and for properties affected by new development. In some circumstances, mathematical calculations to assess daylighting and sunlighting may be an inappropriate measure, and an on-site judgement will often be necessary."

Daylighting

- 2.18 It is common to consider the site context in order to establish the basis for which consideration in relation to light should be approached. The following can be used as a quick test to assess the likely effect on existing surrounding properties:
 - Project a 25-degree line from the centre of the lowest window on the existing building;
 - If the whole of your new development is lower than this line, then it is unlikely to have a substantial effect on the daylight enjoyed by occupants in the existing building.
- 2.19 The above test is also known as the 25° angle test but has not been used for this assessment as it does not reflect the differing heights and layouts of the buildings in the local area.
- 2.20 More detailed tests can be undertaken to fully assess the loss of daylight in existing buildings, in particular the use of the Vertical Sky Component (VSC) method of assessment.

"The Vertical Sky Component is expressed as a ratio of the maximum value of daylight achievable for a completely unobstructed vertical wall. The maximum value is almost 40%. This is because daylight hitting a window can only come from one direction immediately halving the available light. The value is limited further by the angle of the sun. This is why if the VSC is greater than 27% enough sunlight [SIC] should be reaching the existing window. Any reduction below this level should be kept to minimum.

Windows to some existing rooms may already fail to achieve this target under existing conditions. In these circumstances it is possible to accept a reduction to the existing level of daylight to no less than 80% of its former value."

- 2.21 In summary to the above, a room is considered to continue to receive good levels of daylight if the window can receive a VSC of at least 27%. If the window receives a VSC below 27% in the existing scenario a reduction of less than 0.8 times its former value (20%), as a result of the proposed development, is considered acceptable.
- 2.22 In conjunction with the VSC tests, the BRE guidelines and British Standard 8206-Part2:2008 suggest that the distribution of daylight is assessed using the No Sky Line (NSL) test. This test separates those areas of the working plane that can receive direct skylight and those that cannot.

2.23 The BRE guidelines suggest that the daylight distribution test is undertaken to existing surrounding properties when the internal arrangements are known. To assess the impact of any reduction the BRE guidelines suggest:

"If, following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value this will be noticeable to the occupants, and more of the room will appear poorly lit."

Balconies

2.24 The BRE Guidelines acknowledge that existing windows with balconies above them typically receive less daylight:

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

2.25 Where neighbouring residential properties surrounding the Site are served by balconies, an additional assessment with the balconies removed has been undertaken to demonstrate whether the presence of the balcony is having a limiting and disproportionate effect in daylighting terms with the introduction of the Proposed Development.

Sunlighting

2.26 The amount of direct sunlight a window can enjoy is dependent on its orientation and the extent of any external obstructions. For example, a window that faces directly north, no matter what external obstructions are present, will not be able to receive good levels of sunlight throughout the year. However, a window that faces directly south with no obstructions will enjoy very high levels of sunlight throughout the year. As the potential to receive sunlight is dependent on a window's orientation, the BRE guidelines state:

"To assess loss of sunlight to an existing building, it is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun."

2.27 To consider any sunlight effect to the surrounding properties the BRE guidelines suggest calculating the Annual Probable Sunlight Hours (APSH) at the centre of each window on the outside face of the window wall. The BRE guidelines suggest that:

"If this window point can receive more than one quarter of APSH (see section 3.1), including at least 5% of APSH in the winter months between 21st September and 21st March, then the room should still receive enough sunlight."

- 2.28 If the above criteria is not met, the BRE guidelines suggest calculating the APSH at the window in the existing situation, i.e. before redevelopment. If the reduction of APSH between the existing and proposed situations is less than 0.8 times its former value for either the total APSH or in the winter months; and greater than 4% for the total APSH, then the occupants of the adjoining building are likely to notice the reduction in sunlight.
- 2.29 In assessing the daylight and sunlight to the neighbouring buildings as well as assessing the quality of light within the proposed habitable rooms that make up the residential units, the true existing baseline condition has been observed. This includes all neighbouring buildings and obstructions within the vicinity that could be affected by the scheme proposal and or affect the potential for light entering into the proposed residential rooms within the scheme.
- 2.30 Trees and any other foliage have not been considered as part of the assessments as their size, shape, and density are impossible to predict. The BRE do recognise that certain tree types can be obstructive in allowing light penetration and further provide a transparency (% radiation passing) to apply within the calculation of daylight.
- 2.31 The obstruction produced by trees will in any event be blocking a certain view of the sky dome and thus the actual impact produced by testing the changes in light (or view of the sky dome) by the scheme can be slightly misleading given that in some instances no view of the existing and proposal will be prevalent and thus no recording of any alteration observed. The results are therefore a clear indication as to what would be available in the event that no trees were present and therefore what the worst-case impacts would be by the implementation of the proposal.
- 2.32 Due to the orientation of the site not all of the neighbouring properties tested for daylight analysis qualify for sunlight analysis.

Internal Daylight Amenity within New Development

- 2.33 The BRE recognises the importance for receiving adequate daylight within the proposed residential accommodation. The use of the Average Daylight Factor (ADF) is used to determine the average illuminance on the working plane in a room, divided by the illuminance on an unobstructed surface outdoors. This analysis is undertaken in accordance with BS 8206 Part 2:2008.
- 2.34 The BRE suggests minimum ADF standards for room use for which the following is recommended:

Kitchens 2.0%

Living rooms 1.5%

Bedrooms 1.0%



2.35 Although the ADF test is typically used as a measure of daylight amenity within new developments, it can also act as indication of retained daylight amenity to existing neighbouring properties where room uses, and internal finishes are known.

Overshadowing

2.36 The 2011 BRE Guidelines acknowledge that sunlight in the space between buildings has an important effect on the overall appearance and ambience of a development. It states:

"...good site layout planning for daylight and sunlight should not limit itself to providing good natural light inside buildings. Sunlight in the space between buildings has an important effect on the overall appearance and ambience of a development."

Sun on the Ground

- 2.37 The method for assessing sun on the ground is the 'sun-on-ground indicator'. The BRE Guidelines suggest that the Spring Equinox (21st March) is a suitable date for the assessment.
- 2.38 Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not. This assessment reviews the total percentage of an area that receives at least 2 hours of direct sunlight on 21 March.
- 2.39 The Guidelines suggest that for a garden or amenity area to appear adequately sunlit throughout the year, no more than half (50%) of the area should be prevented by buildings from receiving 2 hours of sunlight on the 21 March or the area that can receive two hours of sun on 21 March is less than 0.8 times former value. The BRE guidelines advise that any alteration beyond these standards may be noticeable to occupants.
- 2.40 It is sometimes beneficial to run an additional test for the 21 June to establish how the sunlight potential to receive 2 hours of sun improves over the summer when occupants typically use outdoor amenity spaces more frequently.

Transient Overshadowing

- 2.41 The BRE Guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment, the overshadowing was mapped for the following three key dates in the year:
 - 21st March (Spring Equinox);
 - 21st June (Summer Solstice); and
 - 21st December (Winter Solstice).
- 2.42 21st September (Autumn Equinox) provides the same overshadowing images as 21st March (Spring Equinox) as the sun follows the same path at these corresponding times of year.

- 2.43 For each of these dates, the overshadowing is calculated at hourly intervals throughout the day from 08:00 to 19:00. Some images are not included within Appendix D because the sun would not be present during these times (e.g. from approximately 16:00 onwards on 21 December) and thus no shadow can be cast.
- 2.44 The indicators are calculated for different latitudes, London being at 51.5° north. Southern orientation is critically important, as are the heights of the existing and proposed buildings.
- 2.45 Table 01 below shows the sunset and sunrise times for 21 March, 21 June and 21 December. It also shows the maximum altitude of the sun and the time at which the sun reaches the altitude of 10° which is the altitude at which the BRE Guidelines specifies overshadowing should be assessed. Receipt of sunlight can be disregarded when it is lower than this altitude.

TABLE 01 -SUN ALTITUDE DATES AND TIMES

London, UK - Greenwich Mean Time (Accurate to Nearest 10 minutes)										
Date	Sunrise Time	Time at 10° Altitude Rising	Maximum (degrees) Altitude	Time at Setting 10° Altitude	Sunset Time					
21st March	06:10	07:10	39.4	17:10	18:10					
21st June	03:50	05:10	62.4	19:00	20:10					
21st December	08:10	09:50	15.6	14:10	16:00					

2.46 The BRE Guidelines state: "Adverse effects occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space... The assessment of effect will depend on a combination of factors, and there is no simple rule of thumb that can be applied."

3 <u>Computer Model</u>

3.1 The technical analysis of the likely effects of the Development has been undertaken through the creation of a digital three-dimensional model of the site and existing surrounding buildings. A full measured survey has been carried out, together with a photogrammetric tile to assemble the base model from site photographs confirming the location and size of those windows facing the development site. The Proposed Development has been incorporated into the three-dimensional model of the site and used to inform a comparative assessment against each of the baseline conditions. Detailed technical assessments have been undertaken by reference to the calculations and methodologies outlined in the BRE guidance.

4 <u>Surrounding Properties</u>

- 4.1 It is understood that only the following properties are registered with a residential usage or include a residential component which could in turn experience a change in light by the implementation of the proposed scheme.
 - 1-11 Manor Grove
 - 1-5 Marylebone Gardens
 - 69A Manor Road
 - 71-81 Manor Road
 - 80 Manor Road
 - 1-24 Manor Park
 - 1-53 Calvert Court
 - 1-39 Robinson Court
 - 50-52 Robinson Court
 - Clarence Court

- 33-39 Crown Terrace
- 1-8 Victoria Villas
- 19-22 Victoria Villas
- 2-6 Bardolph Road
- 13-15 Trinity Cottages
- 7-24 Trinity Road
- 3-11 St George's Road
- 40-58 St George's Road
- Falstaff House
- St George's House
- 4.2 A site plan illustrating the position of the above surrounding properties is shown on Plate 01 below. The BRE guide mainly focuses on residential properties in terms of daylight and thus this review concentrates on those specific buildings. The residential receptors (highlighted in *blue*) in the vicinity of the site (as shown in *orange*) with a clear view of the proposed massing are shown on Plate 01 below.



PLATE 01 – PLAN SHOWING RESIDENTIAL (BLUE) AND COMMERCIAL (RED) PROPERTIES SURROUNDING THE MANOR ROAD SITE (ORANGE)

4.3 The tabulated results of the BRE Daylight & Sunlight assessments are included within Appendix B. A detailed explanation of the results for each property is set out in Section 5 of this report.

4.4 Some of the properties (as highlighted on Plate 01) are either too far away to be affected by the implementation of the Proposed Development or understood to be of commercial use and not considered to have the same expectation for daylight or sunlight as those buildings with habitable uses. Detailed assessments have therefore only been undertaken to those properties closest to the development site which could in turn be affected by the implementation of the Assael Architecture proposal.

5 <u>Assessment Key for Daylight & Sunlight to Neighbouring Buildings</u>

- 5.1 Following the identification of those properties that are considered to have a reasonable expectation of daylight and sunlight, VSC, NSL and where appropriate, APSH tests have been undertaken.
- 5.2 The tabular results of the assessment are given at Appendix B of this report.
- 5.3 A full set of window maps demonstrating the locations of neighbouring windows surrounding the site can be found in Appendix D of this report.
- 5.4 The baseline scenario for the technical assessments is shown on Plate 02 below.



PLATE 02 - TRUE EXISTING UNDEVELOPED BASELINE (AS INDICATED BY PINK HIGHLIGHT)

5.5 The extent of the proposed Assael Architecture scheme is shown below on Plate 03.



PLATE 03- THE PROPOSED ASSAEL ARCHITECTURE SCHEME (AS IDENTIFIED BY GOLD HIGHLIGHT)

5.6 The results of the Daylight & Sunlight assessment are captured within the summary tables (02,03 &04) below.

Daylight

TABLE 02 - VSC SUMMARY

	Total that	Below BRE Guidelines				Total No.
Address	Meet BRE Guidelines	20-29% Loss	30-39.9% Loss	>=40% Loss	Total	of Windows
7- 11 Manor Grove	0	0	3	0	3	3
6 Manor Grove	3	1	2	0	3	6
5 Manor Grove	0	2	1	0	3	3
4 Manor Grove	0	2	1	0	3	3
3 Manor Grove	3	2	1	0	3	6
2 Manor Grove	0	2	1	0	3	3
1 Manor Grove	0	2	1	0	3	3
1 Marylebone Gardens	11	1	0	0	1	12
2 Marylebone Gardens	5	0	0	0	0	5
3 Marylebone Gardens	6	1	0	0	1	7
4 -5 Marylebone Gardens	8	0	0	0	0	8
69a - 81 Manor Road	35	0	0	0	0	35
2 - 4 Manor Park	17	0	0	0	0	17
6 Manor Park	5	1	0	0	1	6
8 - 16 Manor Park	43	0	0	0	0	43
18 Manor Park	8	1	0	0	1	9
20 Manor Park	4	1	0	0	1	5
22 Manor Park	3	1	0	0	1	4
24 Manor Park	4	1	0	0	1	5
80 Manor Road	7	0	0	0	0	7
1-17 Manor Park	61	0	0	0	0	61
19 Manor Park	5	1	0	0	1	6
21 Manor Park	4	0	0	1	1	5
1-53 Calvert Court	28	0	0	0	0	28
1-39 Robinson Court	46	0	0	0	0	46
50 - 52 St Mary's Grove	6	0	0	0	0	6
Clarence Court	3	0	0	0	0	3
33-39 Crown Terrace	9	0	0	0	0	9
1-8 Victoria Villas	62	15	5	0	20	82
19-22 Victoria Villas	13	6	2	1	9	22
2-6 Bardolph Road	2	0	10	39	49	51
13-15 Trinity Cottages	26	0	0	0	0	26
7-24 Trinity Road	69	1	0	0	1	69
3 -11 St Georges Road	21	0	0	0	0	21
Falstaff House	40	0	3	3	6	46
St Georges House	63	0	0	0	0	63
40 -58 St Georges Road	42	0	0	0	0	42
Total	662	41	42	45	128	790

5.7 The results of the first daylight test, VSC, demonstrate that 662 out of 790 windows (84%) meet the strict application of the BRE guide.

TABLE 03 - NSL SUMMARY

	Total that	Below BRE Guidelines				Total
Address	Meet BRE Guidelines	20-29% Loss	30-39.9% Loss	>=40% Loss	Total	No. of Rooms
11 Manor Grove	1	1	0	1	2	3
10 Manor Grove	1	1	0	1	2	3
9 Manor Grove	1	1	0	1	2	3
8 Manor Grove	1	1	0	1	2	3
7 Manor Grove	1	1	0	1	2	3
6 Manor Grove	3	0	1	0	1	4
5 Manor Grove	2	1	0	0	1	3
4 Manor Grove	2	1	0	0	1	3
	3	0	1	0	1	4
3 Manor Grove						
2 Manor Grove	1	1	0	1	2	3
1 Manor Grove	1	1	0	1	2	3
1 - 5 Marylebone Gardens	14	0	0	0	0	14
71-81 Manor Road	16	0	0	0	0	16
2 -18 Manor Park	37	0	0	0	0	37
20 Manor Park	3	1	0	0	1	4
22 Manor Park	3	1	0	0	1	4
24 Manor Park	3	0	0	0	0	3
80 Manor Road	5	0	0	0	0	5
1 - 17 Manor Park	31	0	0	0	0	31
19 Manor Park	3	0	1	0	1	4
21 Manor Park	3	0	0	0	0	3
1-53 Calvert Court	27	0	0	0	0	27
1-39 Robinson Court	38	0	0	0	0	38
50 -52 St Mary's Grove	6	0	0	0	0	6
Clarence Court	3	0	0	0	0	3
33-39 Crown Terrace	9	0	0	0	0	9
1-8 Victoria Villas	39	4	1	1	6	45
19-22 Victoria Villas	13	3	0	0	3	16
2-6 Bardolph Road	24	3	2	0	5	29
13-15 Trinity Cottages	14	0	0	0	0	14
7- 24 Trinity Road	39	0	0	0	0	39
3-11 St George's Road	15	0	0	0	0	15
Falstaff House	38	0	0	0	0	38
St George's House	17	0	0	0	0	17
40- 58 St George's Road	31	0	0	0	0	31
Total	448	21	6	8	35	483

- 5.8 The results of the NSL test demonstrate that 448 out of 483 rooms (93%) meet the BRE Guidelines.
- 5.9 Further consideration is given to some of the neighbouring properties, as highlighted below:

1-11 Manor Grove

5.10 This row of 2-storey properties can be found on the other side of Manor road to the development site. Currently, the occupants enjoy a direct view over the vacant and undeveloped part of the site part of the development site and it follows that these windows record almost maximum values in terms of the VSC methodology (existing values of circa 34%-36%).

- 5.11 The results show that there will be changes in light which do not meet the strict application of the BRE Guidelines when one considers both the VSC and NSL methods of assessment. However, in every instance the windows contained within these properties will have a retained VSC value exceeding 22% following the implementation of the proposed development.
- 5.12 The BRE Guidelines recognises that the numerical target values may vary depend on the unique nature of a development site which is predominantly clear and undeveloped. Based on the unusual outlook of the windows within 1-11 Manor road, the retained level of daylight is considered exceptionally good for an urban setting.

1-8 Victoria Villas

- 5.13 1-8 Victoria Villas is situated to the northwest of the site and has several windows that face the southern portion of the development site.
- 5.14 When tested against the relatively low-level warehouse structure that is currently on the Manor Road site, the results show that there will be changes in light exceeding the suggested 20% permissible reduction set by the BRE Guidelines.
- 5.15 However, the results of the daylight distribution test, the NSL, reveal that in every instance more than 60% of the area within the rooms tested will continue to have a direct view of the sky at the working plane.

19-22 Victoria Villas

- 5.16 Situated to the northwest of the development site, the results show that there will be changes in light to this residential building that exceed the targets within the BRE Guidelines.
- 5.17 Of the 9 windows that fall short of the recommended levels in terms of VSC, 6 experience reductions within 10% of the suggested permissible 20% set by the BRE. A further 3 windows experience VSC reductions beyond this and are understood to be bedrooms and a kitchen. These rooms carry less daylight significance than living rooms, in accordance with the BRE Guidelines.
- 5.18 In respect of the NSL methodology, 3 out of 13 rooms will exceed the recommendations of the BRE Guidelines. However, all 3 rooms will retain a view of unobstructed view of the sky to more than 70% of the room area (at working plane height).

2-6 Bardolph Road

- 5.19 This block of apartments can be found northwest of the site, on the other side of the railway line. It has been possible to secure layouts from the planning portal which along with site photography and survey information have been used to form the basis of these assessments.
- 5.20 Given the proximity and outlook of this property, it is particularly sensitive to any development on the Manor Road site. Only the rear aspect of this building faces the development site.

- 5.21 It can be noted that these properties (the rear aspect) currently enjoy uncharacteristically high levels of daylight due to the relatively low-level existing structures currently on the site. Whilst the results show there will be alterations in light beyond the recommended 20% from former VSC value, the retained VSC Values for these windows (17%-24.75%) are considered good for an urban location.
- 5.22 Recognising that the VSC method of assessment considers only the amount of daylight hitting the centre point of a window, it does not consider the area of glazing nor the dimensions of the room behind the aperture. For this reason, given that accurate information as to the internal layouts of 2-6 Bardolph Road has been secured, the NSL method of assessment is considered a better indicator of daylight quality for these sensitive rooms.
- 5.23 Therefore, when one considers the NSL methodology, 24 rooms will meet the strict application of the BRE (out of a total 29 rooms assessed). Out of the 5 rooms that exceed the recommendations set by the BRE, 4 are bedrooms which the BRE recognise carry less of an expectation for natural lighting when compared to main habitable spaces, such as living rooms.

Sunlight

5.24 In terms of the sunlight assessment, there are 270 rooms which face the development site and have windows within 90 degrees of due south.

TABLE 04 - APSH SUMMARY

	Meet BRE Guidelines	No. of rooms below the APSH stated in BRE Guidelines							Total No.	
	Carasiiros	% Belov	v threshol	d for Wint	er APSH	% Below th	nreshold for T	Total APSH		Rooms
Address		20-	30-							
Address		30%	40%	>40%	Total	20-30%	30-40%	>40%	Total	
3 Manor Grove	1	0	0	0	0	0	0	0	0	1
1 Marylebone Gardens	3	0	0	0	0	0	0	0	0	3
3 Marylebone Gardens	0	0	0	1	1	0	1	0	1	1
69a - 81 Manor Road	16	0	0	0	0	0	0	0	0	16
8 - 21 Manor Park	22	0	0	0	0	0	0	0	0	22
1-53 Calvert Court	12	0	0	0	0	0	0	0	0	12
1-39 Robinson Court	21	0	0	0	0	0	0	0	0	21
1-8 Victoria Villas	28	0	0	0	0	0	0	0	0	28
19-22 Victoria Villas	11	0	0	1	1	1	0	0	1	12
2-6 Bardolph Road	29	0	0	0	0	0	0	0	0	29
13-15 Trinity Cottages	9	0	0	0	0	0	0	0	0	9
7-24 Trinity Road	20	0	0	0	0	0	0	0	0	20
3 -11 ST Georges Road	11	0	0	0	0	0	0	0	0	11
Falstaff House	35	0	0	3	3	1	1	0	2	38
St Georges House	17	0	0	0	0	0	0	0	0	17
40 St Georges Road	30	0	0	0	0	0	0	0	0	30
Total	265	0	0	5	5	2	2	0	4	270

5.25 The results of the APSH (sunlight) assessment show a 98% compliance rate.

6 Proposed Residential Accommodation

- 6.1 Point 2 have worked closely with Assael Architecture to maximise the daylight potential of the proposed units. With urban developments such as the Manor Road site, there is often a trade-off between the provision of private amenity space and maximising daylight potential.
- The full and detailed analysis can be found within Appendix C of this report. Drawings P1685_INT_02-18 show both the location and configuration of the rooms and the resultant Average Daylight Factor (ADF).
- 6.3 Not every habitable room within the Proposed Development has been considered but rather all rooms have been tested on basement level to the fourth floor. It can be noted that the corresponding rooms on upper floors will receive improved levels of ADF given their elevated location and outlook over less obstruction.
- The analysis demonstrates that 726 out of 779 rooms (93%) tested will either meet or exceed the recommended ADF targets. Where there are rooms that do not meet the strict application of the BRE Guidelines, this is in many instances a product of providing private amenity space in the form of projecting balconies and 'winter gardens'. It follows that if rooms above level 4 were included within this assessment, the overall compliance rate would be higher still due to their elevated position within the Proposed Development.
- 6.5 Overall, the daylight amenity to the rooms tested within the Proposed Development is considered excellent for a high-density scheme such as the Manor Road development site.



7 Hours in Sun Assessment Results

- 7.1 The results of the Sun Hours on Ground ("SHOG") assessment can be found in Appendix E. Drawing P1685_SHA01 demonstrates the percentage surface-area of amenity spaces comprising the Proposed Development that can receive at least 2 hours of direct sunlight on the 21st March, the BRE Guidelines' suggested test date.
- 7.2 The results of the detailed computer assessment show that the amenity areas comprising the Proposed Scheme will perform extremely well although it is noted that one proposed amenity space will fall marginally short of the guidelines, receiving at least 2 hours of direct sunlight to 27.4% of its area on 21st March.
- An additional study has been undertaken on 21st June to assess the sunlight potential of this amenity space during the summer months, when the space is most likely to be used and enjoyed. Drawing P1685_SHA02 shows that the amenity space will have access to excellent levels of sunlight, with 79.4% of its area receiving at least 2 hours of direct sunlight on 21st June.

8 <u>Transient Overshadowing Results</u>

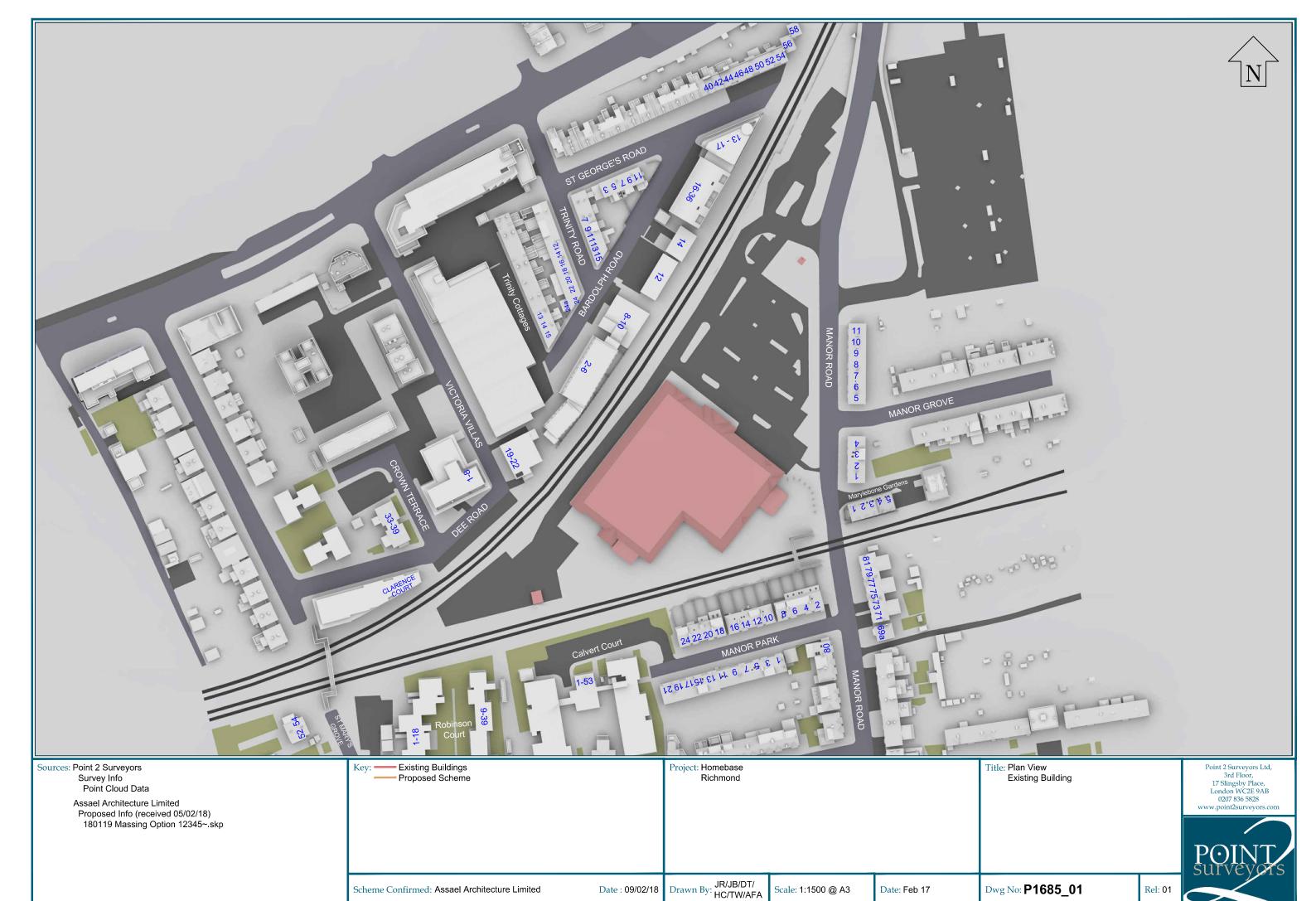
- 8.1 Detailed transient overshadowing plots can be found in Appendix F. These show a comparison of the path of the shadows cast by the existing buildings and the Proposed Development for the sun's highest, lowest and mid height altitude, namely 21st June, 21st December and 21st March, respectively at hourly intervals in both baseline conditions.
- 8.2 An analysis of the path of transient shadow from the existing building shows that, in the existing situation, due to its currently low level of massing, the existing building casts very small incidents of transient shadow upon the surrounding context on March 21st, June 21st and December 21st.
- 8.3 The results of the path of transient shadow from the proposed development demonstrate that:
 - On 21st June (Summer Solstice), the immediate site context will receive direct sunlight throughout the day (08:00 to 18:00) with minor shadow effects between 18:00 to 20:00.
 - With regards to 21st March (Spring Equinox), the Proposed Development will cause minor shadow effects early in the morning (07:00 to 10:00) and in the late afternoon (16:00 to 15:00).
 - When considering 21st December (Winter Solstice), there will be a minor change in sunlight availability between 09:00 to 15:00, when the sun is lowest in the sky and a degree of transient overshadowing is to be expected.
- 8.4 Overall, a review of the transient overshadowing plots confirms that the majority of the surrounding amenity areas are unaffected by the additional shadows cast by the proposed scheme. Where there are some impacts, the additional shadows cast by the proposed development are transient in nature and will move quickly as the sun tracks from east to west during the day and instances of additional shadows are therefore considered minor.



9 Conclusions

- 9.1 This report has considered the potential Daylight, Sunlight and Overshadowing effects to the surrounding residential properties as a result of the implementation of the proposed Assael Architecture scheme for a site located at Manor Road, Richmond.
- 9.2 The assessments contained within this report have been undertaken in accordance with the BRE report entitled 'Site layout planning for daylight and sunlight: A guide to good practice', more commonly known as "The BRE Guidelines".
- 9.3 Overall, the Proposed Development will relate well to neighbouring residential properties. Where there are changes which fall short of the BRE Guidelines, these are largely the product of the proximity and outlook of sensitive windows that overlook the development site.
- 9.4 The overall daylight amenity levels within the proposed residential units are considered excellent with a very high overall compliance rate for a scheme of this size and density.
- 9.5 The proposed scheme performs well in overshadowing terms with only one proposed amenity space failing to receive at least 2 hours of direct sunlight to over 50% of its area on 21st March. The additional study on 21st June demonstrates that the sunlight potential will be significantly improved during the summer months, when the space is most likely to be used and enjoyed. In summary, the overshadowing results fall within the practical application of the BRE Guidelines.

Appendix A – Drawings



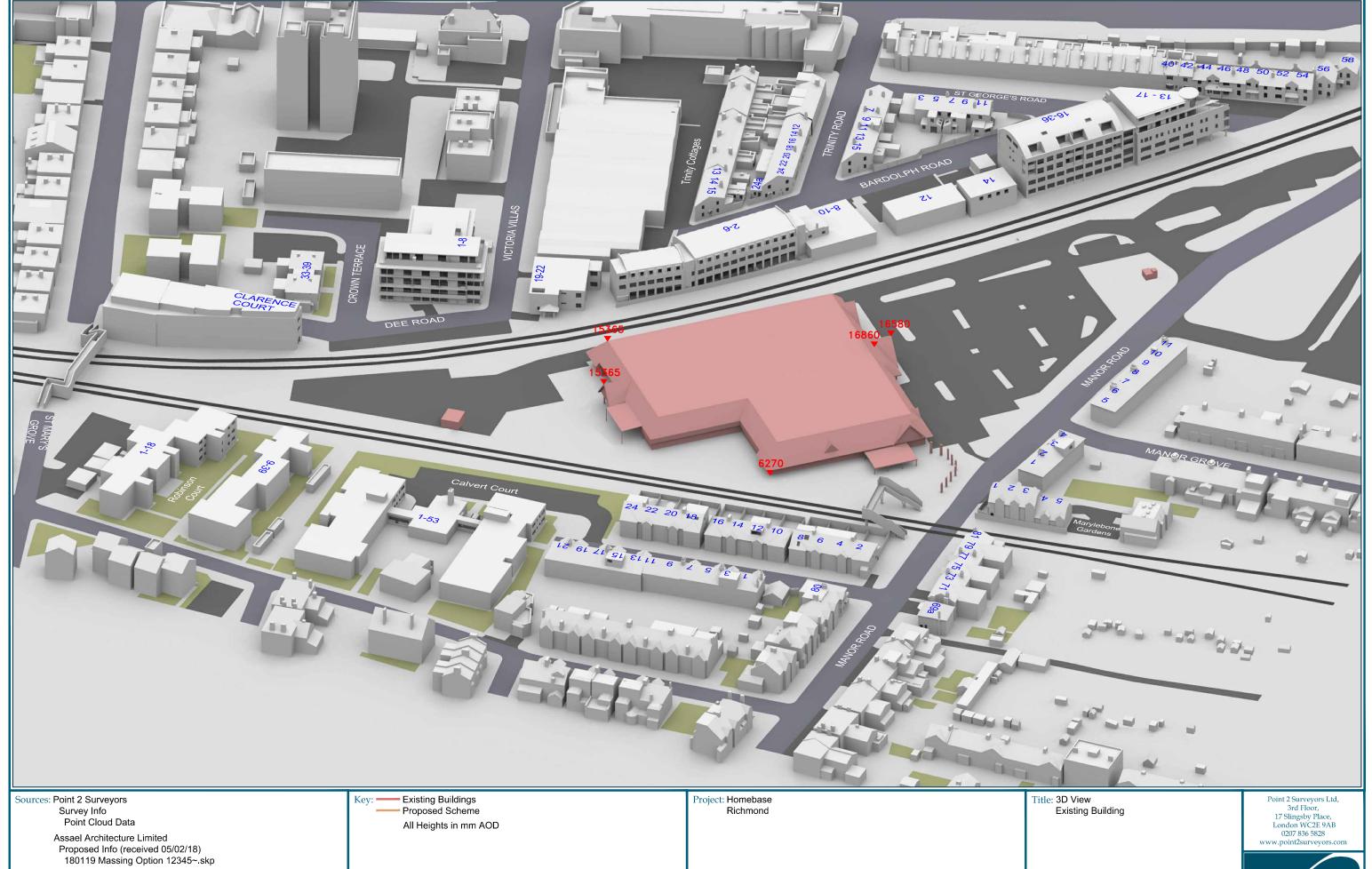
Scheme Confirmed: Assael Architecture Limited

Scale: 1:1500 @ A3

Date: Feb 17

Dwg No: **P1685_01**

Rel: 01





Scheme Confirmed: Assael Architecture Limited

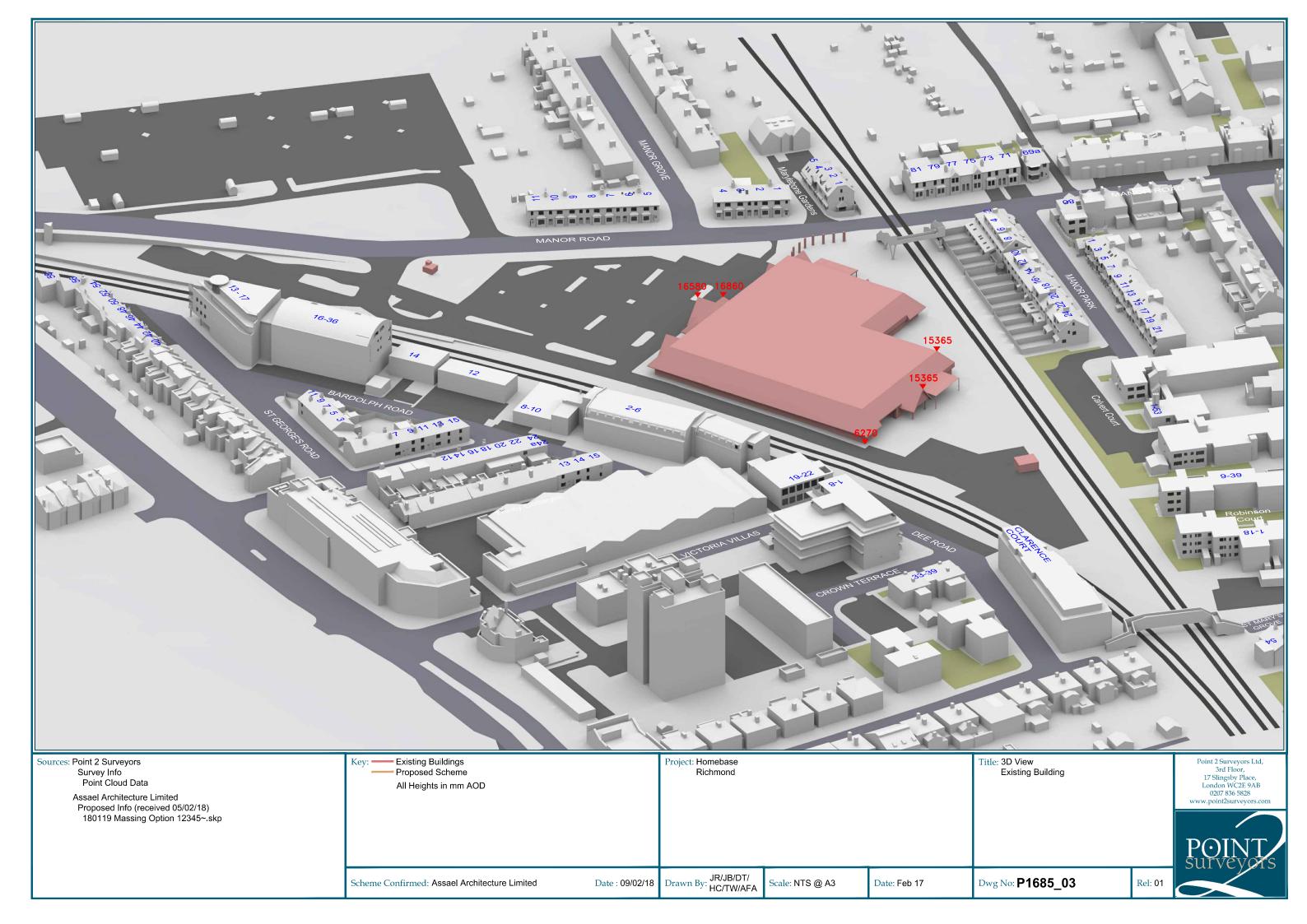
Date: 09/02/18 Drawn By: JR/JB/DT/ HC/TW/AFA

Scale: NTS @ A3

Date: Feb 17

Dwg No: **P1685 02**

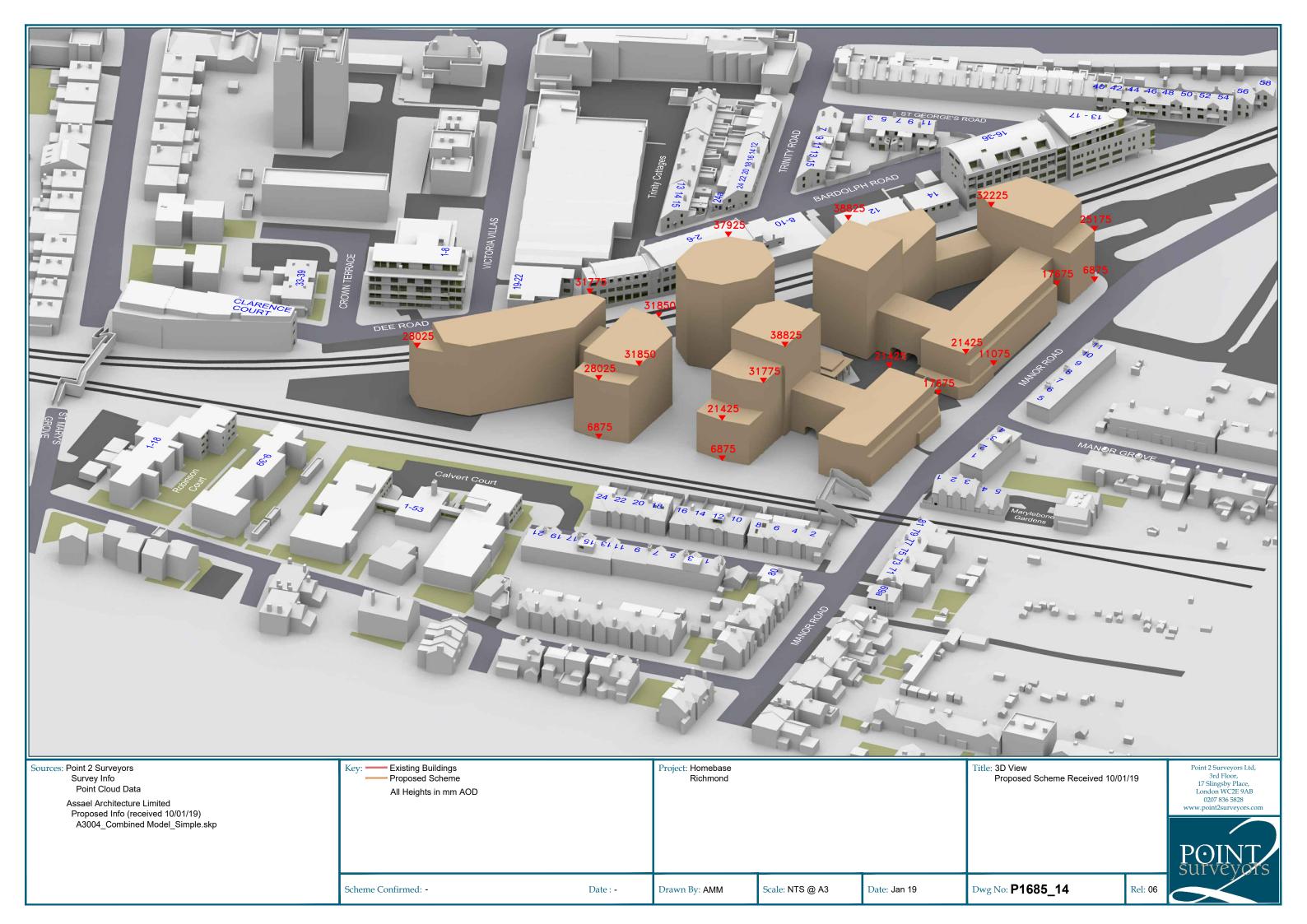
Rel: 01

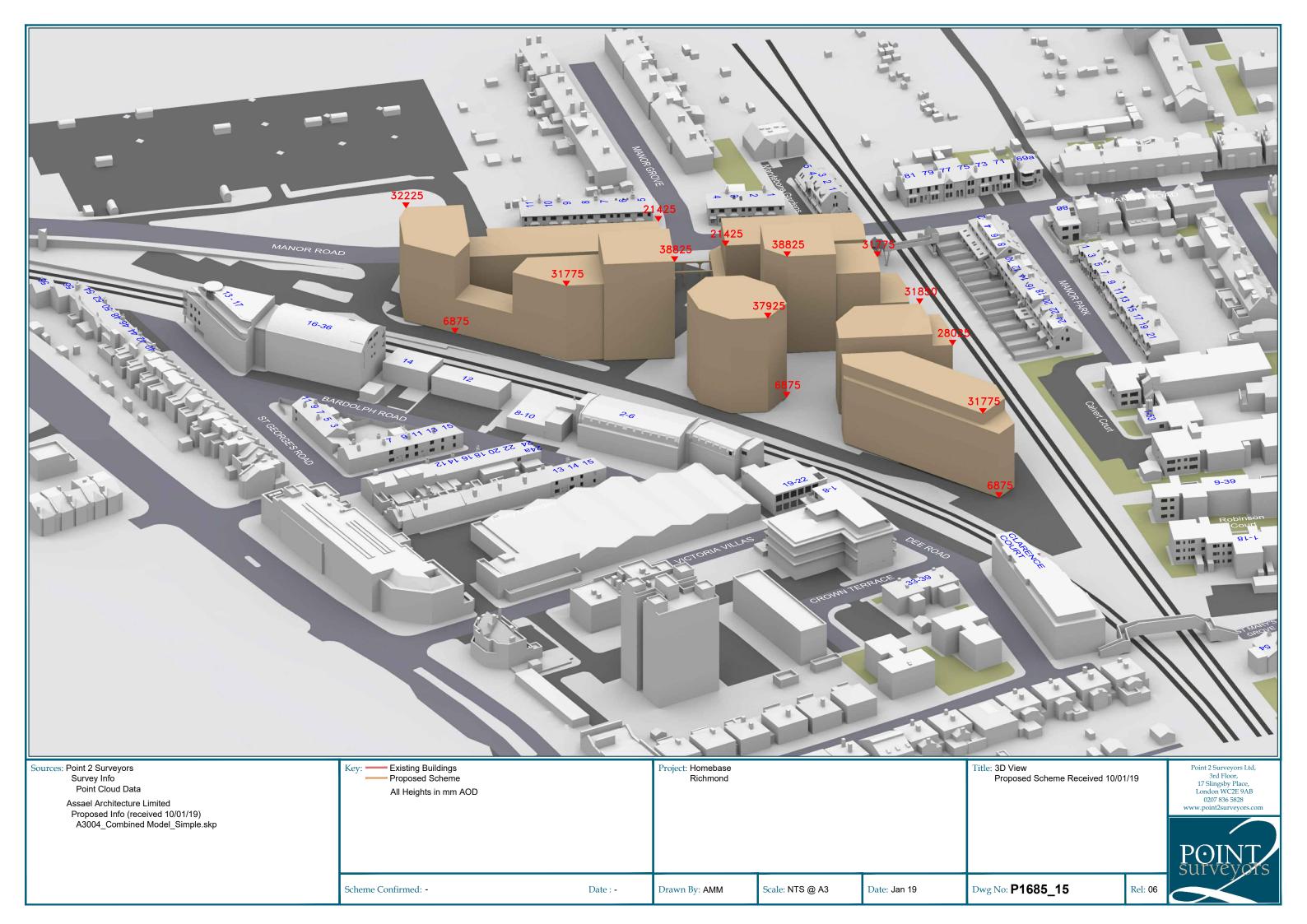




Scheme Confirmed: -







Appendix B – External Results

DAYLIGHT ANALYSIS EXISTING vs PROPOSED SCHEME 10/01/19

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC					
11 MANOR GROVE											
R2/10	ASSUMED	W6/10	36.74	22.47	14.27	38.84					
R1/11	ASSUMED	W1/11	35.70	23.89	11.81	33.08					
R2/11	ASSUMED	W2/11	35.62	23.91	11.71	32.87					
10 MANOR GROVE											
R4/10	ASSUMED	W10/10	36.66	22.52	14.14	38.57					
R3/11	ASSUMED	W3/11	35.72	24.13	11.59	32.45					
R4/11	ASSUMED	W4/11	35.71	24.19	11.52	32.26					
9 MANOR GROVE											
R5/10	ASSUMED	W11/10	36.61	22.55	14.06	38.40					
R5/11	ASSUMED	W5/11	35.74	24.29	11.45	32.04					
R6/11	ASSUMED	W6/11	35.72	24.34	11.38	31.86					
8 MANOR	GROVE										
R8/10	ASSUMED	W16/10	36.56	22.72	13.84	37.86					
R7/11	ASSUMED	W7/11	35.76	24.42	11.34	31.71					
R8/11	ASSUMED	W8/11	35.76	24.47	11.29	31.57					
7 MANOR	7 MANOR GROVE										
R9/10	ASSUMED	W17/10	36.53	22.82	13.71	37.53					
R9/11	ASSUMED	W9/11	35.74	24.54	11.20	31.34					
R10/11	ASSUMED	W10/11	35.75	24.60	11.15	31.19					
6 MANOR	GROVE										
R12/10	ASSUMED	W25/10	36.46	23.59	12.87	35.30					

1

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DAYLIGHT ANALYSIS EXISTING vs PROPOSED SCHEME 10/01/19

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R11/11	ASSUMED	W11/11	35.73	24.78	10.95	30.65		
R12/11	ASSUMED	W12/11	35.71	25.11	10.60	29.68		
R1/12 R1/12 R1/12	ASSUMED ASSUMED ASSUMED	W1/12 W2/12 W3/12	86.95 85.71 81.73	81.41 80.21 76.24	5.54 5.50 5.49	6.37 6.42 6.72		
5 MANOR	GROVE							
R13/10	RECEPTION	W26/10	36.42	24.16	12.26	33.66		
R13/11	BEDROOM	W13/11	35.71	25.46	10.25	28.70		
R14/11	BEDROOM	W14/11	35.76	25.84	9.92	27.74		
4 MANOR	GROVE							
R2/20	ASSUMED	W3/20	36.38	24.72	11.66	32.05		
R1/21	ASSUMED	W1/21	35.37	25.64	9.73	27.51		
R2/21	ASSUMED	W2/21	35.22	25.42	9.80	27.83		
3 MANOR	GROVE							
R3/20	RECEPTION	W4/20	36.29	24.18	12.11	33.37		
R3/21	BEDROOM	W3/21	35.18	25.09	10.09	28.68		
R8/21	HALL	W4/21	35.13	24.84	10.29	29.29		
R1/22 R1/22	BEDROOM BEDROOM	W1/22 W2/22	85.42 86.69	79.88 80.81	5.54 5.88	6.49 6.78		
R1/22	BEDROOM	W3/22	39.23	39.23	0.00	0.00		
2 MANOR GROVE								
R4/20	ASSUMED	W11/20	36.17	23.87	12.30	34.01		
R4/21	ASSUMED	W6/21	35.14	25.00	10.14	28.86		
R7/21	ASSUMED	W5/21	35.13	24.88	10.25	29.18		

2

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			EXISTING	PROPOSED	LOSS	%LOSS		
Room	Room Use	Window	VSC	VSC	VSC	VSC		
1 MANOR	GROVE							
R5/20	ASSUMED	W12/20	36.11	23.97	12.14	33.62		
R5/21	ASSUMED	W7/21	35.15	25.19	9.96	28.34		
113,21	ASSOIVIED	VV / / Z I	33.13	23.13	5.50	20.54		
R6/21	ASSUMED	W8/21	34.91	25.18	9.73	27.87		
1 MARYLEBONE GARDENS								
R5/30	LKD	W5/30	25.96	21.29	4.67	17.99		
R5/30	LKD	W35/30	27.16	21.85	5.31	19.55		
R5/30	LKD	W36/30	18.74	14.69	4.05	21.61		
R5/30	LKD	W37/30	33.51	28.05	5.46	16.29		
R5/30	LKD	W38/30	18.11	18.11	0.00	0.00		
R5/30	LKD	W39/30	31.76	31.76	0.00	0.00		
113,30	LIND	1133,30	31.70	31.70	0.00	0.00		
R5/31	BEDROOM	W10/31	35.42	31.04	4.38	12.37		
R5/31	BEDROOM	W11/31	35.74	31.09	4.65	13.01		
R6/31	BEDROOM	W12/31	37.55	31.96	5.59	14.89		
R6/31	BEDROOM	W13/31	37.56	32.17	5.39	14.35		
R3/32	BEDROOM	W4/32	38.58	34.65	3.93	10.19		
R3/32	BEDROOM	W5/32	38.60	33.83	4.77	12.36		
2 MARYLE	BONE GARDENS							
R4/30	ASSUMED	W4/30	25.35	22.20	3.15	12.43		
R4/30	ASSUMED	W28/30	25.63	21.86	3.77	14.71		
R4/31	ASSUMED	W8/31	34.57	31.43	3.14	9.08		
R4/31	ASSUMED	W9/31	34.84	31.42	3.42	9.82		
114,51	7103011120	***************************************	31.01	31.12	3.12	3.02		
R2/32	ASSUMED	W3/32	38.37	34.91	3.46	9.02		
3 MARYLE	BONE GARDENS							
D2 /20	A CCLIBATE	W/2/20	25.40	22.76	1 72	C 70		
R3/30	ASSUMED	W3/30	25.49	23.76	1.73	6.79		
R3/30	ASSUMED	W21/30	25.67	23.33	2.34	9.12		
R3/31	ASSUMED	W5/31	22.89	22.89	0.00	0.00		
R3/31	ASSUMED	W6/31	35.38	33.17	2.21	6.25		
R3/31	ASSUMED	W7/31	18.98	14.62	4.36	22.97		
113/31	NOOUVILD	VV / / JI	10.50	17.02	7.50	22.31		

3

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/32	ASSUMED	W1/32	79.28	76.93	2.35	2.96		
R1/32	ASSUMED	W2/32	78.14	76.10	2.04	2.61		
4 MARYI	EBONE GARDENS							
R2/30	ASSUMED	W2/30	26.29	25.28	1.01	3.84		
R2/30	ASSUMED	W14/30	26.28	25.05	1.23	4.68		
R2/31	ASSUMED	W3/31	70.54	69.36	1.18	1.67		
R2/31	ASSUMED	W4/31	62.58	61.78	0.80	1.28		
E BAA DVI	EDONE CARDENS							
5 MAKYI	EBONE GARDENS							
R1/30	ASSUMED	W1/30	27.84	27.06	0.78	2.80		
R1/30	ASSUMED	W7/30	27.11	26.27	0.84	3.10		
R1/31	ASSUMED	W1/31	74.68	73.39	1.29	1.73		
R1/31	ASSUMED	W2/31	74.21	72.89	1.32	1.78		
81 MANOR ROAD								
OI WAIN	OK NOAD							
R1/40	ASSUMED	W1/40	34.83	31.97	2.86	8.21		
R1/40	ASSUMED	W2/40	34.83	32.09	2.74	7.87		
R1/41	ASSUMED	W1/41	36.54	33.49	3.05	8.35		
R1/41	ASSUMED	W2/41	36.57	33.68	2.89	7.90		
79 MAN	OR ROAD							
R4/40 R4/40	ASSUMED ASSUMED	W8/40 W9/40	34.80 34.79	32.35 32.38	2.45 2.41	7.04 6.93		
114740	ASSOMED	W 3/ 40	34.73	32.30	2.41	0.55		
R2/41	ASSUMED	W3/41	36.50	33.82	2.68	7.34		
R2/41	ASSUMED	W4/41	36.35	33.80	2.55	7.02		
77 MAN	OR ROAD							
R5/40	ASSUMED	W10/40	35.53	33.22	2.31	6.50		
R5/40	ASSUMED	W11/40	35.50	33.21	2.29	6.45		
R3/41	ASSUMED	W5/41	37.17	34.73	2.44	6.56		
R3/41	ASSUMED	W6/41	37.12	34.73	2.39	6.44		

4

						0/1.000			
	Barrie Har	Mart and a	EXISTING	PROPOSED	LOSS	%LOSS			
Room	Room Use	Window	VSC	VSC	VSC	VSC			
75 844810									
75 MANOR ROAD									
DO /40	A CCLINATED	VA/4.5./4.0	25.25	22.40	1.05	F F2			
R8/40	ASSUMED	W15/40	35.35	33.40	1.95	5.52			
R8/40	ASSUMED	W16/40	35.34	33.49	1.85	5.23			
D4/41	ACCLINATED	\A/7/41	27.00	24.05	2.45	Г 01			
R4/41	ASSUMED	W7/41	37.00	34.85	2.15	5.81			
R4/41	ASSUMED	W8/41	37.01	34.95	2.06	5.57			
72 844810	D DOAD								
73 MANOR ROAD									
R9/40	ASSUMED	W17/40	34.31	32.75	1.56	4.55			
R9/40	ASSUMED	W17/40 W18/40	34.22	32.75	1.47	4.30			
N3/40	ASSOIVILD	VV 10/40	34.22	32.73	1.47	4.30			
R5/41	ASSUMED	W9/41	36.02	34.28	1.74	4.83			
R5/41	ASSUMED	W10/41	35.99	34.41	1.58	4.39			
1137 41	7.00011120	***********	33.33	3 1. 11	1.50	1.55			
69A MAN	OR ROAD								
R1/50	ASSUMED	W1/50	28.12	26.15	1.97	7.01			
R1/50	ASSUMED	W2/50	33.55	32.71	0.84	2.50			
R1/50	ASSUMED	w3/50	25.77	25.77	0.00	0.00			
-		•							
R2/50	ASSUMED	W4/50	28.64	28.35	0.29	1.01			
R2/50	ASSUMED	W5/50	31.66	30.95	0.71	2.24			
R2/50	ASSUMED	W6/50	25.07	25.07	0.00	0.00			
R2/50	ASSUMED	W7/50	25.02	25.02	0.00	0.00			
R1/51	ASSUMED	W1/51	29.93	27.58	2.35	7.85			
R1/51	ASSUMED	W2/51	33.23	32.05	1.18	3.55			
R1/51	ASSUMED	W3/51	27.94	27.93	0.01	0.04			
R2/51	ASSUMED	W4/51	31.85	30.91	0.94	2.95			
71 MANO	R ROAD								
R12/40	ASSUMED	W27/40	33.93	32.77	1.16	3.42			
R12/40	ASSUMED	W28/40	33.75	32.65	1.10	3.26			
R6/41	ASSUMED	W11/41	35.83	34.40	1.43	3.99			
R6/41	ASSUMED	W12/41	35.74	34.39	1.35	3.78			
2 Manor F	Park								
D4 /4 = 5	ACCUMATE TO	144 / 2 = 0	22.65	22.66	0.00	0.00			
R1/150	ASSUMED_TW	W1/150	33.63	33.63	0.00	0.00			

5

						0/1.000		
	Berry Her	Mart and a	EXISTING	PROPOSED	LOSS	%LOSS		
Room	Room Use	Window	VSC	VSC	VSC	VSC		
D4 /4 F0	ACCURATE TIM	W/2/4F0	24.42	22.50	1.05	7.57		
R1/150	ASSUMED_TW	W2/150	24.43	22.58	1.85	7.57		
R1/150	ASSUMED_TW	W3/150	82.88	81.62	1.26	1.52		
R1/150	ASSUMED_TW	W4/150	24.00	22.42	1.58	6.58		
R1/150	ASSUMED_TW	W5/150	79.81	78.02	1.79	2.24		
R1/151	ASSUMED_TW	W3/151	35.13	31.81	3.32	9.45		
N1, 131	7.550WIED_1W	VV3/131	55.15	31.01	3.32	3.43		
R2/151	ASSUMED_TW	W1/151	34.74	34.70	0.04	0.12		
R2/151	ASSUMED_TW	W2/151	35.29	31.99	3.30	9.35		
•	_	,						
R1/152	ASSUMED	W1/152	77.24	75.11	2.13	2.76		
4 MANOR PARK								
R2/150	ASSUMED_TW	W6/150	25.73	21.38	4.35	16.91		
R2/150	ASSUMED_TW	W7/150	77.09	74.40	2.69	3.49		
R2/150	ASSUMED_TW	W8/150	27.08	23.28	3.80	14.03		
R2/150	ASSUMED_TW	W9/150	76.81	73.92	2.89	3.76		
/					4.40			
R3/151	ASSUMED_TW	W4/151	35.30	31.20	4.10	11.61		
D4/1F1	ACCUMED TWO	\A/E /1 E1	35.44	30.65	4.70	12.52		
R4/151	ASSUMED_TW	W5/151	33.44	30.03	4.79	13.52		
R2/152	ASSUMED_TW	W2/152	38.99	34.30	4.69	12.03		
112, 132	7.550WED_1W	VVZ/ 13Z	30.33	34.30	4.03	12.03		
R3/152	ASSUMED	W3/152	38.90	34.01	4.89	12.57		
-,								
6 MANOF	R PARK							
R3/150	KD_TW	W10/150	28.54	22.74	5.80	20.32		
R3/150	KD_TW	W11/150	76.91	73.61	3.30	4.29		
R3/150	KD_TW	W12/150	29.45	24.67	4.78	16.23		
R3/150	KD_TW	W13/150	77.56	73.98	3.58	4.62		
R6/151	BEDROOM	W7/151	36.23	30.24	5.99	16.53		
R5/152	BEDROOM	W5/152	38.91	33.43	5.48	14.08		
0.14110								
8 MANOF	RPARK							
D4/150	CONSERVATORY T	\	31.81	25 47	6.34	10.02		
R4/150 R4/150	CONSERVATORY_T CONSERVATORY T		32.13	25.47 26.60	5.53	19.93 17.21		
R4/150 R4/150	CONSERVATORY_T		32.13 73.47			5.70		
R4/150 R4/150	CONSERVATORY_T		73.47 31.93	69.28 26.81	4.19 5.12	5.70 16.04		
N4/ 13U	CONSERVATORY_I	A. AAT\\T20	31.33	20.01	3.12	10.04		

6

			EVICEINO.	222222	1000	2/1.000		
Doom	Doom Hoo	Mindow	EXISTING	PROPOSED	LOSS	%LOSS		
Room	Room Use	Window	VSC	VSC	VSC	VSC		
D4/1F0	CONCEDIVATORY TV	A VA/1 O /1 F O	20.02	26.22	4.60	14.02		
R4/150	CONSERVATORY_TV	W18/150	30.83	26.23	4.60	14.92		
R5/150	KITCHEN	W19/150	5.89	5.29	0.60	10.19		
K3/130	KITCHEN	VV 19/ 130	3.03	3.29	0.00	10.19		
R8/151	BEDROOM	W8/151	36.65	30.39	6.26	17.08		
NO/ 131	BEDIOON	VVO/ 131	30.03	30.39	0.20	17.08		
R7/152	BEDROOM	W6/152	38.91	33.15	5.76	14.80		
R7/152	BEDROOM	W8/152	83.10	83.10	0.00	0.00		
R7/152	BEDROOM	W9/152	82.87	82.87	0.00	0.00		
117/132	BEDITOON	VV 3/ 132	02.07	02.07	0.00	0.00		
10 MANOR PARK								
D4 /4 02	ACCUMATE	W4 /4 02	04.40	77.44	2.60	4.55		
R1/102	ASSUMED	W1/102	81.10	77.41	3.69	4.55		
R1/120	DINING_TW	W9/120	27.36	23.00	4.36	15.94		
K1/120	DIMING_I W	VV 3/ 120	27.30	23.00	4.30	13.94		
R2/120	CONSERVATORY_TV	1W2/120	23.43	22.66	0.77	3.29		
R2/120	CONSERVATORY_TV		75.82	72.68	3.14	4.14		
R2/120	CONSERVATORY TV		33.18	26.80	6.38	19.23		
R2/120 R2/120	CONSERVATORY_TV	-	76.10	72.94	3.16	4.15		
R2/120 R2/120	CONSERVATORY_TV		57.32	54.83	2.49	4.13		
R2/120 R2/120	CONSERVATORY_TV		31.74	26.42	5.32	16.76		
R2/120 R2/120	CONSERVATORY_TV		18.60	16.99	1.61	8.66		
NZ/ 120	CONSERVATORI_TV	1 110	10.00	10.55	1.01	8.00		
R1/121	ASSUMED	W2/121	36.28	29.48	6.80	18.74		
.,		,	00.120		0.00			
R2/121	ASSUMED	W1/121	35.86	29.20	6.66	18.57		
12 MANO	R PARK							
R3/120	KD	W10/120	32.89	27.23	5.66	17.21		
R3/120	KD	W11/120	34.72	28.20	6.52	18.78		
R3/121	BEDROOM	W3/121	36.30	29.49	6.81	18.76		
R4/121	BATHROOM	W4/121	35.93	29.05	6.88	19.15		
D4 /422	DEDDOOM	W/1 /122	27.02	27.02	0.00	0.00		
R1/122	BEDROOM	W1/122	37.03	37.03		0.00		
R1/122	BEDROOM	W2/122	38.51	32.17	6.34	16.46		
14 MANO	R PARK							
•								
R1/100	ASSUMED_TW	W1/100	66.04	61.41	4.63	7.01		
R1/100	ASSUMED_TW	W2/100	31.83	26.36	5.47	17.19		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/100	ASSUMED_TW	W3/100	34.89	27.97	6.92	19.83		
R1/101	ASSUMED	W1/101	35.40	28.55	6.85	19.35		
R2/101	ASSUMED	W2/101	35.99	28.99	7.00	19.45		
R2/102	ASSUMED	W2/102	84.48	79.89	4.59	5.43		
R3/102	ASSUMED	W3/102	84.35	79.72	4.63	5.49		
16 MANOR PARK								
R2/100	ASSUMED_TW	W4/100	33.58	27.27	6.31	18.79		
R2/100	ASSUMED_TW	w5/100	31.47	26.38	5.09	16.17		
R2/100	ASSUMED_TW	W6/100	30.35	25.72	4.63	15.26		
R2/100	ASSUMED_TW	W7/100	66.45	60.40	6.05	9.10		
R2/100	ASSUMED_TW	W8/100	4.49	4.28	0.21	4.68		
R3/101	ASSUMED	W3/101	35.98	28.86	7.12	19.79		
R4/101	ASSUMED_TW	W4/101	35.41	28.13	7.28	20.56		
R4/101	ASSUMED_TW	W5/101	4.11	3.68	0.43	10.46		
R4/102	ASSUMED	W4/102	84.36	79.59	4.77	5.65		
18 MANO	OR PARK							
R1/90	LKD	W1/90	8.35	7.83	0.52	6.23		
R1/90	LKD	W2/90	63.13	62.13	1.00	1.58		
R1/90	LKD	W3/90	33.43	25.07	8.36	25.01		
R1/90	LKD	W4/90	62.82	61.78	1.04	1.66		
R1/91	BEDROOM	W3/91	36.53	28.66	7.87	21.54		
R1/92	BEDROOM	W1/92	85.02	85.02	0.00	0.00		
R1/92	BEDROOM	W2/92	83.55	83.55	0.00	0.00		
R1/92	BEDROOM	W3/92	38.83	31.29	7.54	19.42		
R1/92	BEDROOM	W5/92	38.96	31.45	7.51	19.28		
20 MANO	DR PARK							
R1/80	ASSUMED	W1/80	33.60	25.65	7.95	23.66		
R1/80 R1/80	ASSUMED	W1/80 W2/80	64.58	63.91	0.67	1.04		
11,00	ANDOINED	V V Z / OU	07.50	03.31	0.07	1.07		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/81	ASSUMED	W1/81	36.55	28.51	8.04	22.00		
R2/81	ASSUMED	W2/81	36.06	28.08	7.98	22.13		
R1/82	ASSUMED	W1/82	38.90	31.42	7.48	19.23		
22 MANOR PARK								
R1/62	ASSUMED	W1/62	83.18	78.09	5.09	6.12		
R2/80	ASSUMED	W3/80	33.71	26.52	7.19	21.33		
R3/81	ASSUMED	W3/81	36.16	28.10	8.06	22.29		
R4/81	ASSUMED	W4/81	36.58	28.45	8.13	22.23		
24 MANOR PARK								
R3/60	KD	W1/60	30.20	22.66	7.54	24.97		
R3/60	KD	W4/60	36.25	33.54	2.71	7.48		
R2/61	BEDROOM	W1/61	36.60	28.22	8.38	22.90		
R2/62	BEDROOM	W2/62	38.82	30.79	8.03	20.69		
R2/62	BEDROOM	W3/62	38.92	30.90	8.02	20.61		
80 MANO	R ROAD							
R3/500	RECEPTION_ROOM	W4/500	30.75	30.62	0.13	0.42		
R4/500	KITCHEN	W5/500	29.79	29.58	0.21	0.70		
R2/501	BEDROOM	W2/501	34.81	33.99	0.82	2.36		
R3/501	BEDROOM	W3/501	34.31	33.42	0.89	2.59		
R1/502	BEDROOM ASSUM	E W1/502	87.78	86.26	1.52	1.73		
R1/502	BEDROOM_ASSUM	-	76.79	75.80	0.99	1.29		
R1/502	BEDROOM_ASSUM	E W3/502	74.81	73.86	0.95	1.27		
1 MANOR	PARK							
D1 /E10	ASSUMED	W1/510	25.53	25.39	0.14	0.55		
R1/510 R1/510	ASSUMED	W1/510 W2/510	30.16	30.01	0.14	0.55		
11,510	,	112,510	30.10	30.01	5.15	3.30		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/510	ASSUMED	W7/510	18.03	17.92	0.11	0.61		
R1/511	ASSUMED	W1/511	28.08	27.37	0.71	2.53		
R1/511	ASSUMED	W2/511	33.51	32.04	1.47	4.39		
R1/511	ASSUMED	W4/511	25.45	24.02	1.43	5.62		
R2/511	ASSUMED	W5/511	31.66	30.28	1.38	4.36		
3 MANOR PARK								
R4/510	ASSUMED	W6/510	18.54	18.46	0.08	0.43		
R4/510	ASSUMED	W11/510	23.51	23.31	0.20	0.85		
R4/510	ASSUMED	W12/510	30.14	29.97	0.17	0.56		
R3/511	ASSUMED	W6/511	31.54	30.12	1.42	4.50		
R4/511	ASSUMED	W3/511	25.66	24.94	0.72	2.81		
R4/511	ASSUMED	W8/511	33.05	31.54	1.51	4.57		
R4/511	ASSUMED	W9/511	22.12	20.66	1.46	6.60		
R1/512	ASSUMED	W4/512	86.39	84.28	2.11	2.44		
5 MANOR PARK								
R5/510	ASSUMED	W9/510	23.61	23.48	0.13	0.55		
R5/510	ASSUMED	W10/510	30.18	29.99	0.19	0.63		
R5/510	ASSUMED	W16/510	17.96	17.80	0.16	0.89		
R5/511	ASSUMED	W7/511	23.00	22.22	0.78	3.39		
R5/511	ASSUMED	W10/511	33.09	31.53	1.56	4.71		
R5/511	ASSUMED	W11/511	25.96	24.45	1.51	5.82		
R6/511	ASSUMED	W12/511	32.12	30.56	1.56	4.86		
R2/512	ASSUMED	W1/512	87.27	85.07	2.20	2.52		
R2/512	ASSUMED	W2/512	86.74	84.57	2.17	2.50		
R2/512	ASSUMED	W3/512	84.91	82.76	2.15	2.53		
7 MANOF	R PARK							
R8/510	ASSUMED	W18/510	18.54	18.40	0.14	0.76		
R8/510	ASSUMED	W10/510 W19/510	30.36	30.04	0.32	1.05		
R8/510	ASSUMED	W19/510 W20/510	19.04	18.67	0.37	1.94		
, 510	, WOONIED	** 20/ 310	15.07	10.07	0.57	1.57		

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R7/511	ASSUMED	W13/511	32.06	30.40	1.66	5.18		
R8/511	ASSUMED	W14/511	33.33	31.53	1.80	5.40		
R8/511	ASSUMED	W15/511	26.71	25.81	0.90	3.37		
R8/511	ASSUMED	W16/511	26.84	25.17	1.67	6.22		
9 MANOR PARK								
R4/520	ASSUMED	W1/520	14.34	13.88	0.46	3.21		
R4/520	ASSUMED	W2/520	27.58	27.04	0.54	1.96		
R4/520	ASSUMED	W2/520 W3/520	24.43	23.75	0.68	2.78		
114,320	ASSONIED	VV3/320	24.43	23.73	0.00	2.70		
R2/521	ASSUMED	W3/521	32.85	31.01	1.84	5.60		
R4/521	ASSUMED	W2/521	33.39	31.37	2.02	6.05		
11 MANOR PARK								
R1/520	ASSUMED	W4/520	13.58	13.48	0.10	0.74		
R1/520	ASSUMED	W10/520	26.92	26.47	0.45	1.67		
R1/520	ASSUMED	W11/520	25.21	24.67	0.54	2.14		
R1/521	ASSUMED	W1/521	32.02	30.12	1.90	5.93		
R3/521	ASSUMED	W4/521	32.84	31.02	1.82	5.54		
R1/522	ASSUMED	W1/522	87.78	85.46	2.32	2.64		
R1/522	ASSUMED	w2/522	87.81	85.50	2.31	2.63		
13 MANO	DR PARK							
R4/540	ASSUMED	W7/540	4.28	3.54	0.74	17.29		
R4/540	ASSUMED	W8/540	29.21	28.52	0.69	2.36		
R3/541	ASSUMED	W4/541	28.54	26.47	2.07	7.25		
R4/541	ASSUMED	W5/541	17.29	16.44	0.85	4.92		
R4/541	ASSUMED	W6/541	33.58	31.72	1.86	5.54		
15 MANO	DR PARK							
R1/540	LIVINGROOM	W1/540	30.85	28.92	1.93	6.26		
R1/540	LIVINGROOM	W2/540	2.68	2.64	0.04	1.49		
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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/541	BEDROOM	W1/541	34.30	31.62	2.68	7.81		
R1/541	BEDROOM	W2/541	16.73	16.55	0.18	1.08		
R2/541	BEDROOM	W3/541	28.76	26.47	2.29	7.96		
R1/542	BEDROOM	W1/542	85.64	83.20	2.44	2.85		
R1/542 R1/542	BEDROOM BEDROOM	W2/542 W3/542	85.91 38.31	83.62 38.31	2.29 0.00	2.67 0.00		
17 MANOR PARK								
R6/530	ASSUMED	W11/530	1.77	0.62	1.15	64.97		
R6/530	ASSUMED	W12/530	30.94	28.13	2.81	9.08		
R5/531	ASSUMED	W7/531	29.10	25.62	3.48	11.96		
R6/531	ASSUMED	W8/531	17.63	16.60	1.03	5.84		
R6/531	ASSUMED	W9/531	34.79	31.59	3.20	9.20		
19 MANOR PARK								
R3/530	ASSUMED	W5/530	31.48	27.76	3.72	11.82		
R3/530	ASSUMED	W6/530	0.46	0.36	0.10	21.74		
R3/531	ASSUMED	W4/531	35.44	31.54	3.90	11.00		
R3/531	ASSUMED	W5/531	17.08	16.81	0.27	1.58		
R4/531	ASSUMED	W6/531	28.81	25.20	3.61	12.53		
R1/532	ASSUMED	W1/532	86.54	83.97	2.57	2.97		
21 MANO	DR PARK							
R2/530	ASSUMED	W3/530	0.64	0.04	0.60	93.75		
R2/530	ASSUMED	W4/530	31.56	27.71	3.85	12.20		
R1/531	ASSUMED	W1/531	30.89	26.64	4.25	13.76		
R2/531	ASSUMED	W2/531	19.66	18.85	0.81	4.12		
R2/531	ASSUMED	W3/531	35.82	31.67	4.15	11.59		
1-53 CAL	VERT COURT							
R1/1030		W17/1030	33.01	31.96	1.05	3.18		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R2/1030		W16/1030	33.71	32.53	1.18	3.50
R3/1030		W15/1030	34.05	32.75	1.30	3.82
R4/1030	LD	W14/1030	34.26	32.79	1.47	4.29
R6/1030		W12/1030	37.14	29.24	7.90	21.27
R7/1030		W11/1030	34.35	33.01	1.34	3.90
R8/1030		W10/1030	33.07	31.89	1.18	3.57
R9/1030	LD	W9/1030	27.53	26.11	1.42	5.16
R10/1030	KITCHEN	W8/1030	32.46	30.79	1.67	5.14
R11/1030	KITCHEN	W7/1030	33.92	32.10	1.82	5.37
R12/1030	LD	W6/1030	34.48	32.55	1.93	5.60
R14/1030	LD	W4/1030	31.03	31.03	0.00	0.00
R15/1030	KITCHEN	W3/1030	31.20	31.20	0.00	0.00
R16/1030	KITCHEN	W2/1030	31.12	31.12	0.00	0.00
R17/1030	LD	W1/1030	30.74	30.74	0.00	0.00
R1/1031		W1/1031	35.65	34.61	1.04	2.92
R3/1031	KITCHEN	W3/1031	36.21	34.94	1.27	3.51
R4/1031		W4/1031	36.34	34.91	1.43	3.94
R6/1031 R6/1031		W6/1031 W7/1031	37.88 36.95	30.50 35.76	7.38 1.19	19.48 3.22
R7/1031		W8/1031	36.74	35.69	1.05	2.86
R8/1031		W9/1031	37.16	35.58	1.58	4.25
R10/1031	KITCHEN	W11/1031	37.33	35.59	1.74	4.66

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC			
R11/1031		W12/1031	37.30	35.43	1.87	5.01			
R13/1031		W14/1031	34.50	34.50	0.00	0.00			
R15/1031	KITCHEN	W16/1031	34.58	34.58	0.00	0.00			
R16/1031		W17/1031	34.36	34.36	0.00	0.00			
R3/1040	ASSUMED	W21/1040	26.49	26.04	0.45	1.70			
19-39 ROBINSON COURT									
R1/1020	ASSUMED_RESI	W1/1020	20.05	18.07	1.98	9.88			
R2/1020	ASSUMED_RESI	W2/1020	36.33	33.23	3.10	8.53			
R3/1020	ASSUMED_RESI	W3/1020	31.18	31.18	0.00	0.00			
R4/1020	ASSUMED_RESI	W4/1020	29.40	29.40	0.00	0.00			
R1/1021	ASSUMED_RESI	W3/1021	34.49	34.49	0.00	0.00			
R2/1021	ASSUMED_RESI	W2/1021	37.23	34.36	2.87	7.71			
R3/1021	ASSUMED_RESI	W4/1021	33.14	33.14	0.00	0.00			
R4/1021	ASSUMED_RESI	W1/1021	20.92	19.06	1.86	8.89			
R1/1022	ASSUMED_RESI	W3/1022	37.34	37.34	0.00	0.00			
R2/1022	ASSUMED_RESI	W2/1022	37.71	35.12	2.59	6.87			
R3/1022	ASSUMED_RESI	W1/1022	22.66	20.94	1.72	7.59			
R4/1022	ASSUMED_RESI	W4/1022	36.87	36.87	0.00	0.00			
1-18 ROBI	NSON COURT								
R1/1000 R1/1000	ASSUMED_RESI ASSUMED_RESI	W1/1000 W2/1000	24.01 17.05	24.01 17.05	0.00 0.00	0.00 0.00			
R3/1000	ASSUMED_RESI	W3/1000	29.03	27.69	1.34	4.62			
R4/1000	ASSUMED_RESI	W4/1000	30.47	29.02	1.45	4.76			

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R5/1000	ASSUMED_RESI	W10/1000	34.46	34.46	0.00	0.00
R5/1000	ASSUMED_RESI	W11/1000	33.44	33.44	0.00	0.00
R6/1000	ASSUMED_RESI	W12/1000	31.17	31.17	0.00	0.00
R6/1000	ASSUMED_RESI	W21/1000	26.10	26.10	0.00	0.00
R8/1000	ASSUMED_RESI	W18/1000	23.22	23.22	0.00	0.00
R8/1000	ASSUMED_RESI	W22/1000	27.80	27.80	0.00	0.00
R9/1000	ASSUMED_RESI	W19/1000	26.11	26.11	0.00	0.00
R9/1000	ASSUMED_RESI	W20/1000		21.04	0.00	0.00
R1/1001	RESI	W12/1001	22.86	22.86	0.00	0.00
-		·				
R2/1001	RESI	W1/1001	29.03	29.03	0.00	0.00
R3/1001	RESI	W2/1001	19.93	19.93	0.00	0.00
R5/1001	BEDROOM	W4/1001	33.40	32.15	1.25	3.74
R6/1001	LIVINGROOM	W5/1001	34.31	32.96	1.35	3.93
R7/1001	KITCHEN	W6/1001	36.56	36.56	0.00	0.00
R9/1001	BEDROOM	W13/1001	33.99	33.99	0.00	0.00
R10/1001	RESI	W10/1001	34.31	34.31	0.00	0.00
R11/1001	RESI	W11/1001	29.48	29.48	0.00	0.00
R11/1001	RESI	W14/1001	32.89	32.89	0.00	0.00
R1/1002	ASSUMED_RESI	W12/1002	28.83	28.83	0.00	0.00
R2/1002	ASSUMED_RESI	W1/1002	35.68	35.57	0.11	0.31
R3/1002	ASSUMED_RESI	W2/1002	25.64	25.64	0.00	0.00
R5/1002	ASSUMED	W4/1002	37.43	36.28	1.15	3.07
R6/1002	ASSUMED	W5/1002	37.73	36.49	1.24	3.29
R7/1002	ASSUMED	W6/1002	37.85	37.85	0.00	0.00

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R8/1002 R8/1002	ASSUMED ASSUMED	W7/1002 W8/1002	37.71 37.42	37.71 37.42	0.00 0.00	0.00 0.00		
R9/1002	ASSUMED	W14/1002	36.93	36.93	0.00	0.00		
R10/1002	RESI	W10/1002	37.47	37.47	0.00	0.00		
	ASSUMED_RESI ASSUMED_RESI	W11/1002 W13/1002		35.53 36.99	0.00 0.00	0.00 0.00		
50 ST MARY'S GROVE								
R2/990	ASSUMED	W2/990	35.39	34.77	0.62	1.75		
R1/991		W1/991	23.65	23.25	0.40	1.69		
R2/991	ASSUMED	W2/991	36.41	35.79	0.62	1.70		
52 ST MARY'S GROVE								
R3/990	LIVINGROOM	W3/990	35.12	34.78	0.34	0.97		
R3/991	BEDROOM	W3/991	36.38	35.76	0.62	1.70		
R4/991		W4/991	24.56	24.10	0.46	1.87		
CLARENCE	COURT							
R1/300	ASSUMED_RESI	W1/300	36.15	31.74	4.41	12.20		
R1/301	ASSUMED_RESI	W1/301	37.58	33.62	3.96	10.54		
R1/302	ASSUMED_RESI	W1/302	38.59	35.05	3.54	9.17		
33-39 CRO	WN TERRACE							
R2/310	ASSUMED	W2/310	31.25	27.60	3.65	11.68		
R3/310	ASSUMED	W3/310	29.83	26.68	3.15	10.56		
R6/310	ASSUMED	W6/310	27.34	25.40	1.94	7.10		
R7/310	ASSUMED	W7/310	27.01	25.71	1.30	4.81		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/311	ASSUMED	W1/311	32.56	29.10	3.46	10.63		
R2/311	ASSUMED	W2/311	31.32	28.36	2.96	9.45		
R3/311	ASSUMED	W3/311	22.75	21.35	1.40	6.15		
R4/311	ASSUMED	W4/311	28.87	27.08	1.79	6.20		
R5/311	ASSUMED	W5/311	27.99	26.79	1.20	4.29		
1-8 VICTORIA VILLAS								
R1/1050 R1/1050	ASSUMED_STUDIO ASSUMED_STUDIO		23.66 22.28	19.51 17.82	4.15 4.46	17.54 20.02		
R2/1050	ASSUMED_BEDROO	W3/1050	22.68	16.78	5.90	26.01		
R3/1050	ASSUMED_LKD	W4/1050	22.82	16.42	6.40	28.05		
R3/1050	ASSUMED LKD	W5/1050	22.90	15.96	6.94	30.31		
R3/1050	ASSUMED_LKD	W6/1050	22.98	15.53	7.45	32.42		
R5/1050	ASSUMED_LKD	W7/1050	27.94	18.66	9.28	33.21		
R5/1050	ASSUMED_LKD	W8/1050	29.96	20.33	9.63	32.14		
R5/1050	ASSUMED_LKD	w9/1050	29.43	25.10	4.33	14.71		
R6/1050	ASSUMED_BEDROO	W10/1050	29.00	26.75	2.25	7.76		
R6/1050	ASSUMED_BEDROO	W11/1050	21.25	21.25	0.00	0.00		
R6/1050	ASSUMED_BEDROO	W12/1050	18.52	18.52	0.00	0.00		
R9/1050	ASSUMED_STUDIO	W17/1050	26.41	25.19	1.22	4.62		
R9/1050	ASSUMED_STUDIO	W18/1050	20.15	18.76	1.39	6.90		
R9/1050	ASSUMED_STUDIO	W19/1050	15.16	13.73	1.43	9.43		
R9/1050	ASSUMED_STUDIO	W20/1050	8.46	8.02	0.44	5.20		
R1/1051	ASSUMED_LKD	W1/1051	24.60	20.78	3.82	15.53		
R1/1051	ASSUMED_LKD	W2/1051	24.35	20.46	3.89	15.98		
R2/1051	ASSUMED_BEDROO	W3/1051	24.25	19.88	4.37	18.02		
R3/1051	ASSUMED_BEDROO	W4/1051	24.60	19.13	5.47	22.24		
R4/1051	ASSUMED_LKD	W5/1051	24.04	18.37	5.67	23.59		
R5/1051	ASSUMED_BEDROO	W6/1051	24.62	17.69	6.93	28.15		

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			EXISTING	PROPOSED	LOSS	%LOSS
Room	Room Use	Window	VSC	VSC	VSC	VSC
R6/1051	ASSUMED_LKD	W7/1051	24.79	17.47	7.32	29.53
R7/1051	ASSUMED_LKD	W8/1051	27.75	19.14	8.61	31.03
R7/1051	ASSUMED_LKD	W9/1051	31.30	22.24	9.06	28.95
R7/1051	ASSUMED_LKD	W10/1051	28.29	23.30	4.99	17.64
R8/1051	ASSUMED_BEDROO	W11/1051	28.27	25.07	3.20	11.32
R8/1051	ASSUMED_BEDROO	W12/1051	20.14	20.14	0.00	0.00
R8/1051	ASSUMED_BEDROO	W13/1051	17.10	17.09	0.01	0.06
R9/1051	ASSUMED_BEDROO	W14/1051	16.19	15.91	0.28	1.73
R9/1051	ASSUMED BEDROO	W15/1051	21.69	20.43	1.26	5.81
•	_	•				
R10/1051	ASSUMED BEDROO	W16/1051	26.36	24.21	2.15	8.16
•	_	·				
R11/1051	ASSUMED_BEDROO	W17/1051	22.62	20.27	2.35	10.39
,		,	-			
R12/1051	ASSUMED_LKD	W18/1051	22.67	20.46	2.21	9.75
	ASSUMED LKD	W19/1051		21.59	2.37	9.89
,	7.000	,			,	3133
R1/1052	ASSUMED LKD	W1/1052	31.02	27.56	3.46	11.15
R1/1052	ASSUMED LKD	W2/1052	31.27	27.84	3.43	10.97
,	7.000	,				
R2/1052	ASSUMED BEDROO	W3/1052	31.17	27.54	3.63	11.65
,	///	,			0.00	
R3/1052	ASSUMED BEDROO	W4/1052	31.39	26.45	4.94	15.74
,	7.000M25_5251100	11 1, 2002	31.03	20.13		23.7 .
R4/1052	ASSUMED LKD	W5/1052	30.85	26.08	4.77	15.46
,	7.000 W.ED_ERD	113, 2032	30.03	20.00	,,	23.10
R5/1052	ASSUMED BEDROO	W6/1052	31.47	25.17	6.30	20.02
113/ 1032	7.050WED_DEDITOO	W0, 1032	31.17	23.17	0.50	20.02
R6/1052	ASSUMED LKD	W7/1052	30.65	24.70	5.95	19.41
110, 1002	7.050WED_ERD	W7, 1032	30.03	21.70	3.33	13.11
R7/1052	ASSUMED_LKD	W8/1052	30.15	22.68	7.47	24.78
R7/1052	ASSUMED_ERD	W9/1052	33.06	25.18	7.88	23.84
R7/1052	ASSUMED_LKD	W10/1052		26.99	5.70	17.44
117/1032	7.050WIED_ERD	W10/1032	32.03	20.55	3.70	17.44
R8/1052	ASSUMED BEDROO	W/11/1052	32 91	28.15	4.76	14.46
R8/1052	ASSUMED BEDROO	-		23.80	0.02	0.08
R8/1052	ASSUMED BEDROO	-		19.44	0.02	0.10
110/ 1032	, 1330 WILD_DEDINOO	VV 13/ 1032	±3. 4 0	±J. 1 T	5.02	5.10
R9/1052	ASSUMED BEDROO	W/14/1052	17 1 <i>4</i>	16.65	0.49	2.86
R9/1052	ASSUMED_BEDROO	-		21.92	1.99	8.32
113/ 1032	, 1330 WIED_DEDINOO	VV 13/ 1032	25.71	21.32	1.55	J.J2

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R10/1052	ASSUMED_BEDROO	W16/1052	30.24	27.35	2.89	9.56
R11/1052	ASSUMED_BEDROO	W17/1052	29.72	26.67	3.05	10.26
	ASSUMED_LKD ASSUMED_LKD	W18/1052 W19/1052		27.46 29.00	2.81 2.99	9.28 9.35
R1/1053 R1/1053	ASSUMED_LKD ASSUMED_LKD	W1/1053 W2/1053	26.95 25.72	23.96 22.74	2.99 2.98	11.09 11.59
R2/1053	ASSUMED_BEDROO	W3/1053	26.29	22.39	3.90	14.83
R3/1053	ASSUMED	W4/1053	25.99	21.51	4.48	17.24
R5/1053	ASSUMED	W6/1053	26.43	20.96	5.47	20.70
R6/1053	ASSUMED_LKD	W7/1053	26.13	19.87	6.26	23.96
R7/1053	ASSUMED_LKD	W8/1053	26.22	19.36	6.86	26.16
R7/1053	ASSUMED_LKD	W9/1053	27.36	20.12	7.24	26.46
R7/1053	ASSUMED_LKD	W10/1053	32.76	27.08	5.68	17.34
R8/1053	ASSUMED BEDROO	W11/1053	32.58	27.88	4.70	14.43
R8/1053	ASSUMED_BEDROO			22.06	0.03	0.14
R8/1053	ASSUMED_BEDROO	W13/1053	16.89	16.86	0.03	0.18
R9/1053	ASSUMED BEDROO	W/14/1053	12 52	11.85	0.67	5.35
R9/1053	_			18.82	2.10	10.04
R10/1053	ASSUMED_BEDROO	W16/1053	25.49	22.58	2.91	11.42
	ASSUMED_BEDROO			22.44	3.09	12.10
R12/1053	ASSUMED_LKD	W18/1053	25.46	22.60	2.86	11.23
R12/1053	ASSUMED_LKD	W19/1053	26.81	23.77	3.04	11.34
R1/1054	ASSUMED LKD	W1/1054	35.72	33.41	2.31	6.47
R1/1054	ASSUMED LKD	W2/1054	35.45	33.03	2.42	6.83
R1/1054	ASSUMED_LKD	W3/1054	34.54	32.37	2.17	6.28
R2/1054	ASSUMED_LKD	W4/1054	30.54	27.42	3.12	10.22
R3/1054	ASSUMED_BEDROO	W5/1054	34.69	31.44	3.25	9.37

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R4/1054	ASSUMED_LKD	W6/1054	35.42	30.78	4.64	13.10
R4/1054	ASSUMED_LKD	W7/1054	35.72	30.79	4.93	13.80
R4/1054	ASSUMED_LKD	W8/1054	37.85	33.56	4.29	11.33
/						
R5/1054	ASSUMED_BEDROO		37.85	33.96	3.89	10.28
R5/1054	ASSUMED_BEDROO	W10/1054	33.42	33.39	0.03	0.09
19-22 VIC	TORIA VILLAS					
R1/1060	BEDROOM	W1/1060	23.47	22.97	0.50	2.13
R2/1060	LD	W2/1060	23.50	22.94	0.56	2.38
R2/1060 R2/1060	LD	W2/1000 W3/1060	23.93	23.29	0.64	2.67
KZ/ 1000	LU	W3/1000	23.33	23.23	0.04	2.07
R3/1060	LD	W4/1060	24.68	23.96	0.72	2.92
R3/1060	LD	W5/1060	25.87	25.04	0.83	3.21
113/ 1000		113, 1000	23.07	23.01	0.03	3.21
R4/1060	BEDROOM	W6/1060	27.36	26.37	0.99	3.62
R7/1060	BEDROOM	W9/1060	34.57	20.19	14.38	41.60
R8/1060	LIVINGROOM	W10/1060	23.87	16.74	7.13	29.87
R8/1060	LIVINGROOM	W11/1060	20.24	14.95	5.29	26.14
R9/1060	LIVINGROOM	W12/1060	13.50	10.46	3.04	22.52
R10/1060	KITCHEN	W13/1060	18.68	12.86	5.82	31.16
_						
R1/1061	BEDROOM	W1/1061	27.17	26.74	0.43	1.58
D2/1061	I.D.	W2/10C1	27.00	26.50	0.40	1 01
R2/1061	LD	W2/1061	27.08	26.59	0.49	1.81
R2/1061	LD	W3/1061	27.30	26.75	0.55	2.01
R3/1061	LD	W4/1061	27.85	27.23	0.62	2.23
R3/1061	LD	W 4 /1001 W5/1061	28.72	28.01	0.71	2.47
113/1001	LD	VV3/1001	20.72	20.01	0.71	2.47
R4/1061	BEDROOM	W6/1061	29.80	28.95	0.85	2.85
R7/1061	BEDROOM	W17/1061	36.83	22.85	13.98	37.96
R8/1061	LIVINGROOM	W18/1061		22.27	7.52	25.24
R8/1061	LIVINGROOM	W19/1061	27.80	22.20	5.60	20.14
DO /4004	LIVING BOOK	W20/1061	22.20	10.70	2 44	15.26
R9/1061	LIVINGROOM	W20/1061	ZZ.ZU	18.79	3.41	15.36

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
noom	Noom osc	· · · · · · · · · · · · · · · · · · ·	750	130	100	730		
R10/1061	KITCHEN	W21/1061	26.10	19.78	6.32	24.21		
2-6 BARDOLPH ROAD								
D4 /200	DEDDOOM	M4 /200	24.52	40.22	42.20	20.02		
R1/200	BEDROOM	W1/200	31.52	19.22	12.30	39.02		
R2/200	BEDROOM	W2/200	33.39	19.78	13.61	40.76		
R2/200	BEDROOM	W2/200 W3/200	33.37	19.65	13.72	41.11		
,		,						
R3/200	BEDROOM	W4/200	33.26	19.47	13.79	41.46		
R3/200	BEDROOM	W5/200	33.14	19.14	14.00	42.25		
R4/200	BEDROOM	W6/200	32.98	18.70	14.28	43.30		
			/		\			
R6/200	BEDROOM	W8/200	33.32	17.34	15.98	47.96		
P7/200	LKD	WO/200	22.44	17 17	16.27	10 CE		
R7/200 R7/200	LKD	W9/200 W10/200	33.44 32.69	17.17 17.09	16.27 15.60	48.65 47.72		
K//200	LND	VV 10/ 200	32.03	17.09	13.00	47.72		
R8/200	LKD	W11/200	33.69	17.51	16.18	48.03		
R8/200	LKD	W12/200	34.02	17.86	16.16	47.50		
R8/200	LKD	W13/200	34.16	18.05	16.11	47.16		
R9/200	BEDROOM	W14/200	34.18	18.28	15.90	46.52		
R9/200	BEDROOM	W15/200	33.69	18.53	15.16	45.00		
_								
R10/200	BEDROOM	W16/200	34.33	19.10	15.23	44.36		
D11/200	DEDDOOM	W17/200	24.04	10.50	15 44	44.10		
R11/200	BEDROOM	W17/200	34.94	19.50	15.44	44.19		
R12/200	LKD	W18/200	35.14	19.37	15.77	44.88		
R12/200	LKD	W19/200	35.13	19.30	15.83	45.06		
R12/200	LKD	W20/200	34.14	18.74	15.40	45.11		
•		•						
R1/201	LKD	W1/201	37.04	22.40	14.64	39.52		
R1/201	LKD	W2/201	36.69	22.20	14.49	39.49		
R1/201	LKD	W3/201	36.85	22.28	14.57	39.54		
			200	10.11	47.05			
R6/201	BEDROOM	W9/201	36.82	19.44	17.38	47.20		
D7/204	IKD	\\/10/201	26.00	10.25	17.64	47.02		
R7/201 R7/201	LKD LKD	W10/201 W11/201	36.89 36.97	19.25 19.26	17.64 17.71	47.82 47.90		
N//2UI	LVD	AA TT/ 50T	30.37	13.20	17./1	47.30		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
_						
R8/201	LKD	W12/201	37.05	19.54	17.51	47.26
R8/201	LKD	W13/201	37.14	19.90	17.24	46.42
R8/201	LKD	W14/201	37.29	20.16	17.13	45.94
R9/201	BEDROOM	W15/201	37.33	20.41	16.92	45.33
R9/201	BEDROOM	W15/201 W16/201	37.33 37.41	20.41	16.65	43.55 44.51
N3/201	BEDROOM	VV 10/ 201	37.41	20.70	10.03	44.31
R10/201	BEDROOM	W17/201	37.47	21.24	16.23	43.31
R11/201	ASSUMED_RESI	W18/201	37.59	21.69	15.90	42.30
R11/201	ASSUMED_RESI	W19/201	37.71	21.69	16.02	42.48
N11/201	ASSONIED_NESI	VV13/201	37.71	21.03	10.02	42.40
R12/201	ASSUMED_RESI	W20/201	37.82	21.81	16.01	42.33
R12/201	ASSUMED_RESI	W21/201	37.93	21.78	16.15	42.58
·	_	•				
R1/202	LIVINGROOM	W1/202	37.89	37.89	0.00	0.00
R1/202	LIVINGROOM	W4/202	39.07	24.52	14.55	37.24
•		•				
R2/202	KD	W2/202	29.70	29.70	0.00	0.00
R2/202	KD	W3/202	39.29	24.75	14.54	37.01
R3/202	BEDROOM	W5/202	39.27	24.57	14.70	37.43
R7/202	LKD	W10/202	39.28	21.43	17.85	45.44
R7/202	LKD	W11/202	39.29	21.23	18.06	45.97
R8/202	BEDROOM	W12/202	39.30	21.24	18.06	45.95
_						
R9/202	BEDROOM	W13/202	39.31	21.51	17.80	45.28
R9/202	BEDROOM	W14/202	39.32	21.88	17.44	44.35
D40/222	DEDDOOM4	MAT 1222	20.22	22.44	16.01	42.04
R10/202	BEDROOM	W15/202	39.32	22.41	16.91	43.01
R11/202	BEDROOM	W16/202	39.33	22.91	16.42	41.75
R11/202	BEDROOM	W17/202	39.34	23.26	16.08	40.87
N11/202	BEDITOON	VV17/202	33.34	23.20	10.08	40.07
R12/202	BEDROOM	W18/202	39.35	23.72	15.63	39.72
-,		, 202		· -		==:· =
R14/202	LKD	W20/202	39.37	23.91	15.46	39.27
R14/202	LKD	W21/202	39.37	23.91	15.46	39.27
-		•				
15 TRINIT	Y COTTAGES					
			o=	0= 0:	0.4.5	
R3/380	LIVINGROOM	W10/380	25.75	25.61	0.14	0.54

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R3/380	LIVINGROOM	W11/380	25.62	25.52	0.10	0.39
R3/380	LIVINGROOM	W12/380	26.57	25.86	0.71	2.67
R5/380	LKD	W16/380	27.09	26.16	0.93	3.43
R5/380	LKD	W17/380	19.81	19.81	0.00	0.00
R5/380	LKD	W18/380	18.74	18.74	0.00	0.00
R4/381	BEDROOM	W4/381	30.95	28.68	2.27	7.33
R5/381	BEDROOM	W5/381	31.40	28.85	2.55	8.12
R6/381	BEDROOM	W6/381	34.55	32.08	2.47	7.15
14 TRINIT	Y COTTAGES					
R2/380	ASSUMED	W6/380	27.92	27.78	0.14	0.50
R2/380	ASSUMED	W7/380	25.07	25.04	0.03	0.12
R2/380	ASSUMED	W8/380	25.40	25.28	0.12	0.47
R7/380	ASSUMED	W20/380	16.76	16.01	0.75	4.47
R8/380		W21/380	16.10	14.85	1.25	7.76
R8/380		W22/380	23.51	22.82	0.69	2.93
R2/381	ASSUMED	W2/381	32.53	32.31	0.22	0.68
R7/381	ASSUMED	W7/381	34.74	32.00	2.74	7.89
13 TRINIT	Y COTTAGES					
R1/380	DINING	W1/380	24.46	24.44	0.02	0.08
R1/380	DINING	W2/380	25.48	25.38	0.10	0.39
R1/380	DINING	W3/380	25.09	24.89	0.20	0.80
R1/380	DINING	W4/380	26.75	26.62	0.13	0.49
R1/380	DINING	W5/380	27.91	27.78	0.13	0.47
R10/380	RECEPTION_ROOM	W25/380	15.14	15.14	0.00	0.00
R1/381	BEDROOM	W1/381	32.18	31.99	0.19	0.59
R8/381	BEDROOM	W8/381	34.23	31.59	2.64	7.71
R8/381	BEDROOM	W9/381	33.91	31.61	2.30	6.78
110/ 301	DEDITOON	**5/301	55.51	31.01	2.50	5.76

24 TRINITY ROAD

D	Danie Har	Mindon.	EXISTING	PROPOSED	LOSS	%LOSS
Room	Room Use	Window	VSC	VSC	VSC	VSC
R1/390	ASSUMED	W1/390	27.54	25.85	1.69	6.14
R1/390	ASSUMED	W2/390	22.91	22.43	0.48	2.10
R2/390	ASSUMED	W3/390	26.17	23.49	2.68	10.24
R2/390	ASSUMED	W4/390	12.34	9.26	3.08	24.96
R2/390	ASSUMED	W5/390	29.91	26.67	3.24	10.83
R3/390	ASSUMED	W6/390	32.36	28.54	3.82	11.80
R3/390	ASSUMED	W7/390	32.25	28.43	3.82	11.84
R3/390	ASSUMED	W8/390	34.11	31.25	2.86	8.38
R1/391	ASSUMED	W1/391	33.05	32.88	0.17	0.51
R2/391	ASSUMED	W2/391	34.86	29.72	5.14	14.74
R3/391	ASSUMED	W3/391	35.84	30.08	5.76	16.07
R3/391	ASSUMED	W4/391	35.07	31.20	3.87	11.04
R3/391	ASSUMED	W5/391	34.92	31.18	3.74	10.71
22 TRINIT	TY ROAD					
R4/390	ASSUMED	W9/390	32.15	28.85	3.30	10.26
R4/390	ASSUMED	W10/390	33.72	30.86	2.86	8.48
R4/390	ASSUMED	W11/390	31.34	29.31	2.03	6.48
R4/390	ASSUMED	W12/390	33.87	31.00	2.87	8.47
R4/391	ASSUMED	W6/391	35.16	31.66	3.50	9.95
20 TRINIT	TY ROAD					
D= /200	4.CCL IN 4.E.D.	1442/202	24.42	24.46	2.06	0.60
R5/390	ASSUMED	W13/390	34.12	31.16	2.96	8.68
R5/390	ASSUMED	W14/390	32.95	30.25	2.70	8.19
DE /201	ACCLINATED	VVZ/201	24.72	24.65	2.00	0.07
R5/391	ASSUMED	W7/391	34.73	31.65	3.08	8.87
18 TRINIT	ΓY ROAD					
R6/390	ASSUMED	W15/390	32.00	29.57	2.43	7.59
R6/390	ASSUMED	W16/390	31.99	29.94	2.05	6.41
R6/390	ASSUMED	W17/390	32.48	30.36	2.12	6.53
R6/391	ASSUMED	W8/391	34.31	31.47	2.84	8.28

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC			
16 TRINITY ROAD									
R7/390	ASSUMED	W18/390	32.33	30.39	1.94	6.00			
R7/390	ASSUMED	W19/390	31.01	29.36	1.65	5.32			
R7/391	ASSUMED	W9/391	33.62	31.54	2.08	6.19			
14 TRINIT	Y ROAD								
R8/390	ASSUMED	W20/390	30.63	29.23	1.40	4.57			
R8/390	ASSUMED	W21/390	30.86	29.60	1.26	4.08			
R8/390	ASSUMED	W22/390	31.39	30.10	1.29	4.11			
R8/391	ASSUMED	W10/391	33.37	31.57	1.80	5.39			
12 TRINIT	Y ROAD								
R9/390	ASSUMED	W23/390	30.76	29.60	1.16	3.77			
R9/390	ASSUMED	W24/390	31.29	30.11	1.18	3.77			
R9/390	ASSUMED	W25/390	29.94	28.38	1.56	5.21			
R9/390	ASSUMED	W26/390	30.15	29.15	1.00	3.32			
R9/390	ASSUMED	W27/390	29.10	28.63	0.47	1.62			
R9/391	ASSUMED	W11/391	33.08	31.72	1.36	4.11			
15 TRINIT	TV POAD								
TO LUMIN	TROAD								
R5/400	ASSUMED	W11/400	29.65	29.53	0.12	0.40			
R6/400	ASSUMED	W12/400	29.81	29.72	0.09	0.30			
R6/400	ASSUMED	W13/400	34.29	29.14	5.15	15.02			
R7/400	ASSUMED	W14/400	34.05	29.27	4.78	14.04			
R7/400	ASSUMED	W15/400	29.85	27.95	1.90	6.37			
R5/401	ASSUMED	W5/401	33.18	33.01	0.17	0.51			
R6/401	ASSUMED	W6/401	33.33	33.16	0.17	0.51			
R6/401	ASSUMED	W7/401	36.72	30.66	6.06	16.50			
R7/401	ASSUMED	W8/401	36.54	30.79	5.75	15.74			
R7/401	ASSUMED	W9/401	35.00	32.52	2.48	7.09			
12 TRINIT	TV DO 4 D								

13 TRINITY ROAD

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R4/400	ASSUMED	W9/400	30.75	30.63	0.12	0.39		
R4/400	ASSUMED	W10/400	29.71	29.60	0.11	0.37		
R4/401	ASSUMED	W4/401	33.14	32.97	0.17	0.51		
R9/401	ASSUMED	W10/401	34.96	32.71	2.25	6.44		
R10/401	ASSUMED	W11/401	34.86	32.70	2.16	6.20		
11 TRINITY ROAD								
R3/400	ASSUMED	W6/400	29.51	29.42	0.09	0.30		
R3/400	ASSUMED	W7/400	30.02	29.91	0.11	0.37		
R3/400	ASSUMED	W8/400	30.67	30.55	0.12	0.39		
R8/400	ASSUMED	W16/400	20.51	20.51	0.00	0.00		
R3/401	ASSUMED	W3/401	33.04	32.89	0.15	0.45		
R11/401	ASSUMED	W12/401	34.73	32.74	1.99	5.73		
9 TRINITY ROAD								
R2/400	ASSUMED	W4/400	30.56	30.46	0.10	0.33		
R2/400	ASSUMED	W5/400	29.47	29.38	0.09	0.31		
R2/401	ASSUMED	W2/401	33.01	32.86	0.15	0.45		
R12/401	ASSUMED	W13/401	34.66	32.83	1.83	5.28		
R1/402	ASSUMED	W1/402	36.34	34.36	1.98	5.45		
R1/402	ASSUMED	W2/402	36.25	34.39	1.86	5.13		
7 TRINITY	ROAD							
R1/400	ASSUMED	W1/400	29.24	29.16	0.08	0.27		
R1/400	ASSUMED	W2/400	29.89	29.80	0.09	0.30		
R1/400	ASSUMED	W3/400	30.56	30.47	0.09	0.29		
R1/401	ASSUMED	W1/401	32.86	32.71	0.15	0.46		
R13/401	ASSUMED	W14/401	34.27	32.58	1.69	4.93		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
3 ST GEORGES ROAD								
R9/410	ASSUMED	W1/410	33.13	29.69	3.44	10.38		
5 ST GEO	RGES ROAD							
R8/410 R8/410	KITCHEN KITCHEN	W2/410 W3/410	32.57 62.98	29.58 62.02	2.99 0.96	9.18 1.52		
R8/410	KITCHEN	W4/410	48.43	47.54	0.89	1.84		
R7/411	BEDROOM	W9/411	23.79	21.10	2.69	11.31		
7 ST GEO	RGES ROAD							
R6/410	ASSUMED	W6/410	28.82	25.65	3.17	11.00		
R7/410	ASSUMED	W5/410	58.36	57.83	0.53	0.91		
R5/411	ASSUMED	W7/411	35.42	31.72	3.70	10.45		
R6/411	ASSUMED	W8/411	26.05	23.49	2.56	9.83		
9 ST GEORGES ROAD								
R3/411	ASSUMED	W5/411	23.35	21.18	2.17	9.29		
R4/411	ASSUMED	W6/411	27.17	26.65	0.52	1.91		
11 ST GEO	ORGES ROAD							
R1/410 R1/410	ASSUMED ASSUMED	W12/410 W13/410	27.97 31.74	27.97 31.74	0.00 0.00	0.00 0.00		
R3/410	ASSUMED	W10/410	23.82	23.82	0.00	0.00		
R4/410	ASSUMED	W8/410	24.17	22.75	1.42	5.88		
R4/410	ASSUMED	W9/410	26.15	26.12	0.03	0.11		
R5/410	ASSUMED	W7/410	30.98	28.46	2.52	8.13		
R1/411 R1/411	ASSUMED ASSUMED	W1/411 W2/411	33.68 31.81	33.68 31.77	0.00 0.04	0.00 0.13		
R2/411	ASSUMED	W3/411	30.58	30.52	0.06	0.20		

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R2/411	ASSUMED	W4/411	32.97	30.36	2.61	7.92
FALSTAFF	HOUSE					
R1/241	ASSUMED	W1/241	38.87	27.28	11.59	29.82
R2/241	ASSUMED	W2/241	38.98	27.88	11.10	28.48
R3/241	ASSUMED	W3/241	39.01	28.47	10.54	27.02
R4/241	ASSUMED	W4/241	39.04	29.24	9.80	25.10
R5/241	ASSUMED	W5/241	38.80	29.69	9.11	23.48
R6/241	ASSUMED	W6/241	38.81	30.37	8.44	21.75
R7/241	ASSUMED	W7/241	39.09	31.39	7.70	19.70
R8/241	ASSUMED	W8/241	39.10	32.06	7.04	18.01
R9/241	ASSUMED	W9/241	39.12	32.78	6.34	16.21
R10/241	ASSUMED	W10/241	39.14	33.53	5.61	14.33
R11/241	ASSUMED	W11/241	32.82	28.55	4.27	13.01
R1/242	ASSUMED	W1/242	38.92	35.57	3.35	8.61
R2/242	ASSUMED	W2/242	38.90	35.40	3.50	9.00
R2/242 R2/242	ASSUMED	W3/242 W4/242	9.54	2.55 29.39	6.99	73.27
K2/242	ASSUMED	VV4/242	39.30	29.39	9.91	25.22
R5/242	ASSUMED	W5/242	39.31	29.97	9.34	23.76
R6/242	ASSUMED	W6/242	39.30	30.47	8.83	22.47
R7/242	ASSUMED	W7/242	16.09	10.89	5.20	32.32
R8/242	ASSUMED	W8/242	15.81	9.89	5.92	37.44
R9/242	ASSUMED	W9/242	39.29	32.48	6.81	17.33
R10/242	ASSUMED	W10/242	39.33	33.15	6.18	15.71

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
R11/242	ASSUMED	W11/242	39.30	33.76	5.54	14.10
R12/242	ASSUMED	W12/242	11.97	10.83	1.14	9.52
R13/242	ASSUMED	W13/242	33.62	29.90	3.72	11.06
R1/243 R1/243 R1/243 R1/243	ASSUMED ASSUMED ASSUMED ASSUMED	W1/243 W2/243 W3/243 W4/243	39.36 39.34 10.09 39.32	36.50 36.37 3.34 30.91	2.86 2.97 6.75 8.41	7.27 7.55 66.90 21.39
R5/243	ASSUMED	W5/243	39.32	31.38	7.94	20.19
R6/243	ASSUMED	W6/243	39.32	31.79	7.53	19.15
R7/243	ASSUMED	W7/243	12.07	7.61	4.46	36.95
R8/243	ASSUMED	W8/243	11.88	6.81	5.07	42.68
R9/243	ASSUMED	W9/243	39.23	33.44	5.79	14.76
R10/243	ASSUMED	W10/243	39.25	34.01	5.24	13.35
R12/243	ASSUMED	W11/243	39.23	34.53	4.70	11.98
R12/243	ASSUMED	W12/243	9.09	8.13	0.96	10.56
R12/243	ASSUMED	W14/243	6.42	6.42	0.00	0.00
R13/243	ASSUMED	W13/243	32.54	29.35	3.19	9.80
R1/244	ASSUMED	W1/244	39.43	37.09	2.34	5.93
R2/244	ASSUMED	W2/244	39.41	36.96	2.45	6.22
R2/244	ASSUMED	W3/244	33.97	29.37	4.60	13.54
R3/244	ASSUMED	W4/244	95.72	93.95	1.77	1.85
R4/244	ASSUMED	W5/244	34.11	30.04	4.07	11.93
R5/244	ASSUMED	W6/244	34.08	30.25	3.83	11.24
R6/244	ASSUMED	W7/244	95.81	94.54	1.27	1.33
R7/244	ASSUMED	W8/244	34.17	31.40	2.77	8.11

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
ST GEORGES HOUSE								
SI GEORG	3E2 HOO2E							
R1/231	BEDROOM	W1/231	38.85	35.02	3.83	9.86		
R2/231	BEDROOM	W2/231	38.85	35.69	3.16	8.13		
D2/224	LVD	W2/224	20.00	26.27	2.64	C 74		
R3/231 R3/231	LKD LKD	W3/231 W4/231	38.88 38.89	36.27 36.73	2.61 2.16	6.71 5.55		
K3/231	LKD	VV4/231	38.89	30.73	2.10	5.55		
R4/231	LKD	W5/231	39.21	37.38	1.83	4.67		
R4/231	LKD	W6/231	39.24	37.52	1.72	4.38		
R4/231	LKD	W7/231	39.26	37.74	1.52	3.87		
R4/231	LKD	W8/231	39.25	37.91	1.34	3.41		
R4/231	LKD	W9/231	35.69	35.69	0.00	0.00		
R4/231	LKD	W10/231	35.85	35.85	0.00	0.00		
R4/231	LKD	W11/231	35.78	35.78	0.00	0.00		
R4/231	LKD	W12/231	35.70	35.70	0.00	0.00		
D4 /000	25220014	1111 /222	20.45	25.07	2.50	0.07		
R1/232	BEDROOM	W1/232	39.45	35.87	3.58	9.07		
R1/232	BEDROOM	W2/232	39.46	36.08	3.38	8.57		
R1/232	BEDROOM	W3/232	39.45	36.24	3.21	8.14		
R2/232	BEDROOM	W4/232	39.47	36.53	2.94	7.45		
R2/232	BEDROOM	W5/232	39.46	36.74	2.72	6.89		
R3/232	LKD	W6/232	39.46	36.98	2.48	6.28		
R3/232	LKD	W7/232	39.47	37.18	2.29	5.80		
R3/232	LKD	W8/232	39.48	37.31	2.17	5.50		
R3/232	LKD	W9/232	39.48	37.54	1.94	4.91		
R3/232	LKD	W10/232	39.47	37.65	1.82	4.61		
R4/232	LKD	W11/232	39.48	37.89	1.59	4.03		
R4/232	LKD	W12/232	39.49	37.99	1.50	3.80		
R4/232	LKD	W13/232	39.49	38.17	1.32	3.34		
R4/232	LKD	W14/232	39.47	38.30	1.17	2.96		
R4/232	LKD	W15/232	38.95	38.95	0.00	0.00		
R4/232	LKD	W16/232	39.16	39.16	0.00	0.00		
R4/232	LKD	W17/232	39.11	39.11	0.00	0.00		
R4/232	LKD	W18/232	39.07	39.07	0.00	0.00		
R1/233	ASSUMED	W1/233	35.92	33.03	2.89	8.05		
R2/233	ASSUMED	W2/233	35.53	33.34	2.19	6.16		

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC
_						
R3/233	ASSUMED	W3/233	35.91	33.84	2.07	5.76
R4/233	ASSUMED	W4/233	36.07	34.18	1.89	5.24
11-1, 255	7.00011125	W 1/ 233	30.07	31.10	1.05	3.2 1
R5/233	ASSUMED	W5/233	36.06	34.36	1.70	4.71
R5/233	ASSUMED	W6/233	36.00	34.45	1.55	4.31
R5/233	ASSUMED	W7/233	34.19	33.32	0.87	2.54
R5/233	ASSUMED	W8/233	24.66	24.53	0.13	0.53
R5/233	ASSUMED	W9/233	18.72	18.72	0.00	0.00
R5/233	ASSUMED	W10/233	34.18	34.18	0.00	0.00
R5/233	ASSUMED	W11/233	18.72	18.72	0.00	0.00
R5/233	ASSUMED	W12/233	26.26	26.26	0.00	0.00
R1/234	ASSUMED	W1/234	28.79	26.56	2.23	7.75
N1/ 254	7.03014122	W 1/ 254	20.75	20.30	2.25	7.73
R2/234	ASSUMED	W2/234	28.95	27.15	1.80	6.22
R3/234	ASSUMED	W3/234	28.78	27.22	1.56	5.42
D4/224	ACCUMED	14/4/224	20.02	27.20	4.42	4.06
R4/234	ASSUMED	W4/234	28.82	27.39	1.43	4.96
R4/234	ASSUMED	W5/234	29.41	28.13	1.28	4.35
R4/234 R4/234	ASSUMED ASSUMED	W6/234 W7/234	12.18 12.14	10.17 10.54	2.01 1.60	16.50 13.18
R4/234 R4/234	ASSUMED	W8/234	12.14	10.54	2.10	17.34
R4/234 R4/234	ASSUMED	W9/234	12.11	11.11	0.93	7.72
R4/234	ASSUMED	W10/234	11.95	10.11	1.84	15.40
R4/234	ASSUMED	W13/231	36.55	35.08	1.47	4.02
R4/234	ASSUMED	W12/234	36.90	36.24	0.66	1.79
R4/234	ASSUMED	W13/234	36.76	36.66	0.10	0.27
R4/234	ASSUMED	W14/234	36.65	36.65	0.00	0.00
R4/234	ASSUMED	W15/234	36.69	36.69	0.00	0.00
R4/234	ASSUMED	W16/234	36.60	36.60	0.00	0.00
R4/234	ASSUMED	W17/234	36.61	36.61	0.00	0.00
R4/234	ASSUMED	W18/234	36.81	36.81	0.00	0.00
R4/234	ASSUMED	W19/234	36.18	36.18	0.00	0.00
R4/234	ASSUMED	W20/234	30.91	30.91	0.00	0.00
R4/234	ASSUMED	W21/234	11.87	11.59	0.28	2.36
40 ST GEO	ORGES ROAD					
R1/420	BEDROOM	W1/420	25.05	25.03	0.02	0.08
R1/420	BEDROOM	W2/420	26.17	26.16	0.01	0.04
R1/420	BEDROOM	W3/420	26.30	26.29	0.01	0.04
R1/420	BEDROOM	W4/420	25.09	25.09	0.00	0.00

Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R1/421	BEDROOM	W1/421	28.94	28.92	0.02	0.07		
R1/422	BEDROOM	W1/422	82.04	82.03	0.01	0.01		
R1/422	BEDROOM	W2/422	83.66	83.65	0.01	0.01		
42 ST GEO	ORGES ROAD							
R2/430 R2/430		W5/430 W6/430	26.28 26.79	26.28 26.79	0.00 0.00	0.00 0.00		
R2/430		W7/430	26.94	26.94	0.00	0.00		
R1/431		W1/431	29.22	29.22	0.00	0.00		
R1/432		W1/432	84.26	84.26	0.00	0.00		
44 ST GEORGES ROAD								
R3/430	LIVINGROOM	W8/430	26.39	26.39	0.00	0.00		
R2/431	BEDROOM	W2/431	25.63	25.63	0.00	0.00		
R2/432 R2/432		W2/432 W3/432	69.74 78.49	69.74 78.49	0.00 0.00	0.00 0.00		
46 ST GEO	ORGES ROAD							
20/100								
R6/430 R6/430	LIVINGROOM LIVINGROOM	W15/430 W16/430	11.91 21.29	11.91 21.29	0.00 0.00	0.00 0.00		
R6/430	LIVINGROOM	W17/430	19.55	19.55	0.00	0.00		
R4/431	BEDROOM	W5/431	26.80	26.80	0.00	0.00		
48 ST GEO	ORGES ROAD							
R7/430		W18/430	31.14	31.12	0.02	0.06		
R6/431		W6/431	29.93	29.93	0.00	0.00		
R7/431		W7/431	31.77	31.71	0.06	0.19		
50 ST GEO	ORGES ROAD							
R9/430	LIVINGROOM	W20/430	34.91	34.05	0.86	2.46		

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Room	Room Use	Window	EXISTING VSC	PROPOSED VSC	LOSS VSC	%LOSS VSC		
R8/431	BEDROOM	W8/431	30.91	30.56	0.35	1.13		
R9/431	BEDROOM	W9/431	32.93	32.16	0.77	2.34		
52 ST GEC	ORGES ROAD							
R10/430	LIVINGROOM	W21/430	35.96	34.71	1.25	3.48		
R10/431	BEDROOM	W10/431	32.04	30.92	1.12	3.50		
R11/431	BEDROOM	W11/431	34.58	33.39	1.19	3.44		
54 ST GEORGES ROAD								
R12/430	LIVINGROOM	W24/430	37.36	35.94	1.42	3.80		
R13/431	BEDROOM	W13/431	34.97	33.65	1.32	3.77		
56 ST GEORGES ROAD								
R1/440		W1/440	29.10	28.63	0.47	1.62		
R2/440 R2/440		W2/440 W3/440	8.68 0.57	8.68 0.57	0.00 0.00	0.00 0.00		
R3/440		W4/440	8.42	8.42	0.00	0.00		
R1/441		W1/441	31.99	31.58	0.41	1.28		
R2/441		W2/441	37.39	36.23	1.16	3.10		
58 ST GEC	ORGES ROAD							
R4/440		W5/440	16.05	16.05	0.00	0.00		
R4/440		W6/440	17.89	17.89	0.00	0.00		
R5/440		W7/440	32.40	31.92	0.48	1.48		
R3/441		W3/441	32.37	32.37	0.00	0.00		
R4/441		W4/441	35.79	35.33	0.46	1.29		

33

Room/		Whole	Prev	New	Loss	%Loss		
Floor	Room Use	Room	sq ft	sq ft	sq ft	/0LUSS		
11001	- Noom osc				- oq 10			
11 MANOR G	GROVE							
R2/10	ASSUMED	137.0	134.5	79.8	54.7	40.7		
R1/11	ASSUMED	49.8	48.6	47.8	0.8	1.6		
R2/11	ASSUMED	125.7	123.3	92.9	30.4	24.7		
10 MANOR GROVE								
D4/40	ACCUMATE	425.7	122.0	C4 7	70.2	F2 2		
R4/10	ASSUMED	135.7	132.0	61.7	70.3	53.3		
R3/11 R4/11	ASSUMED ASSUMED	47.8 125.7	47.2 124.0	43.4 88.8	3.9 35.2	8.3 28.4		
K4/11	ASSUMED	125.7	124.0	88.8	33.2	28.4		
9 MANOR GF	ROVE							
R5/10	ASSUMED	135.6	131.9	61.6	70.3	53.3		
R5/11	ASSUMED	125.5	123.9	87.0	36.9	29.8		
R6/11	ASSUMED	47.1	46.6	43.1	3.4	7.3		
8 MANOR GF	ROVE							
D9/10	ACCUMED	125.7	122.1	62.2	60.8	F2 0		
R8/10 R7/11	ASSUMED ASSUMED	135.7 47.8	132.1 47.3	62.3 43.8	69.8 3.5	52.8 7.4		
R8/11	ASSUMED	47.8 125.7	47.5 124.0	45.8 87.8	36.3	29.3		
NO/11	ASSOIVIED	123.7	124.0	67.6	30.3	29.3		
7 MANOR GF	ROVE							
R9/10	ASSUMED	135.6	132.1	64.9	67.2	50.9		
R9/11	ASSUMED	125.6	123.9	88.0	36.0	29.1		
R10/11	ASSUMED	47.1	46.6	42.1	4.4	9.4		
6 MANOR GF	ROVE							
R12/10	ASSUMED	135.7	132.3	89.2	43.1	32.6		
R11/11	ASSUMED	47.8	47.3	43.7	3.5	7.4		
R12/11	ASSUMED	125.7	124.0	102.3	21.8	17.6		
R1/12	ASSUMED	259.8	217.1	217.1	0.0	0.0		
5 MANOR GF	ROVE							
D42/40	DECEDION	425.7	422.2	101.1	24.4	22.5		
R13/10	RECEPTION	135.7	132.2	101.1	31.1	23.5		
R13/11	BEDROOM	125.6	124.0	111.3	12.7	10.2		
R14/11	BEDROOM	48.3	47.7	46.8	0.9	1.9		

4 MANOR GROVE

Room/		Whole	Prev	New	Loss	%Loss			
Floor	Room Use	Room	sq ft	sq ft	sq ft	/0LUSS			
1.001			<u> </u>						
R2/20	ASSUMED	135.0	131.5	104.4	27.1	20.6			
R1/21	ASSUMED	47.9	47.4	47.1	0.3	0.6			
R2/21	ASSUMED	124.7	123.0	113.9	9.1	7.4			
3 MANOR GROVE									
R3/20	RECEPTION	135.8	132.2	91.3	40.9	30.9			
R3/21	BEDROOM	125.5	123.8	105.9	17.9	14.5			
R8/21	HALL	47.3	46.8	44.5	2.3	4.9			
R1/22	BEDROOM	281.1	255.4	253.9	1.4	0.5			
2 MANOR G	GROVE								
R4/20	ASSUMED	135.0	131.5	58.9	72.6	55.2			
R4/21	ASSUMED	124.7	123.0	89.1	33.9	27.6			
R7/21	ASSUMED	47.3	46.8	43.7	3.1	6.6			
1 MANOR G	GROVE								
DE /20	ACCUMATE	126.0	122.2	F7.0	74.4	56.3			
R5/20	ASSUMED	136.0	132.3	57.8	74.4	56.2			
R5/21	ASSUMED	125.6	123.9	89.5	34.5	27.8			
R6/21	ASSUMED	47.1	45.6	41.5	4.1	9.0			
1 MARYLEB	ONE GARDENS								
R5/30	LKD	265.1	263.9	262.4	1.5	0.6			
R5/31	BEDROOM	107.3	103.7	103.7	0.0	0.0			
R6/31	BEDROOM	42.0	40.5	40.5	0.0	0.0			
R3/32	BEDROOM	181.3	166.0	166.0	0.0	0.0			
2 MARYLER	ONE GARDENS								
R4/30	ASSUMED	154.2	154.1	154.0	0.1	0.1			
R4/31	ASSUMED	154.2	150.8	150.8	0.0	0.0			
R2/32	ASSUMED	154.2	130.5	126.7	3.9	3.0			
3 MARYLEB	ONE GARDENS								
R3/30	ASSUMED	154.8	154.8	148.6	6.2	4.0			
R3/31	ASSUMED	154.8	152.9	152.9	0.0	0.0			
R1/32	ASSUMED	154.8	130.4	130.4	0.0	0.0			
4 MARYLEB	ONE GARDENS								
									
R2/30	ASSUMED	155.1	154.9	154.7	0.2	0.1			
DDPR100119.xls 16-	01-19		2						

Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss			
R2/31	ASSUMED	155.1	129.7	128.3	1.4	1.1			
5 MARYLEBONE GARDENS									
R1/30	ASSUMED	155.2	155.1	155.0	0.1	0.1			
R1/31	ASSUMED	155.2	131.0	131.0	0.0	0.0			
81 MANOR ROAD									
R1/40	ASSUMED	161.5	155.7	155.7	0.0	0.0			
R1/41	ASSUMED	172.0	167.0	167.0	0.0	0.0			
79 MANOR	ROAD								
R4/40	ASSUMED	149.3	144.3	144.3	0.0	0.0			
R2/41	ASSUMED	189.0	183.4	183.4	0.0	0.0			
77 MANOR	ROAD								
R5/40	ASSUMED	164.2	160.3	160.3	0.0	0.0			
R3/41	ASSUMED	202.1	190.4	189.8	0.7	0.4			
75 MANOR	ROAD								
R8/40	ASSUMED	161.2	155.8	155.8	0.0	0.0			
R4/41	ASSUMED	199.2	184.8	184.8	0.0	0.0			
73 MANOR	ROAD								
R9/40	ASSUMED	159.7	153.6	153.6	0.0	0.0			
R5/41	ASSUMED	190.1	184.2	184.2	0.0	0.0			
69A MANO	R ROAD								
R1/50	ASSUMED	176.3	176.3	176.3	0.0	0.0			
R2/50	ASSUMED	58.8	58.1	58.1	0.0	0.0			
R1/51	ASSUMED	176.3	176.3	176.3	0.0	0.0			
R2/51	ASSUMED	58.8	56.5	56.5	0.0	0.0			
71 MANOR	ROAD								
R12/40	ASSUMED	158.5	152.6	152.6	0.0	0.0			
R6/41	ASSUMED	195.7	190.3	190.3	0.0	0.0			

Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss		
2 Manor Park								
R1/150	ASSUMED_TW	350.4	349.6	348.6	1.0	0.3		
R1/151	ASSUMED_TW	121.6	119.9	119.9	0.0	0.0		
R2/151	ASSUMED_TW	67.5	65.2	65.2	0.0	0.0		
R1/152	ASSUMED	107.4	53.6	53.6	0.0	0.0		
4 MANOR PA	ARK							
R2/150	ASSUMED_TW	356.3	354.4	352.4	2.0	0.6		
R3/151	ASSUMED_TW	135.8	133.6	133.3	0.3	0.2		
R4/151	ASSUMED_TW	67.5	65.9	65.9	0.0	0.0		
R2/152	ASSUMED_TW	159.5	155.7	155.7	0.0	0.0		
R3/152	ASSUMED	53.6	51.1	51.1	0.0	0.0		
C MANAGE E	NDV							
6 MANOR PA	AKK							
R3/150	KD_TW	356.3	349.4	348.5	0.9	0.3		
R6/151	BEDROOM	128.2	127.1	121.9	5.2	4.1		
R5/152	BEDROOM	170.4	168.4	162.0	6.4	3.8		
8 MANOR PA	ARK							
R4/150	CONSERVATORY_TW	84.3	84.3	84.3	0.0	0.0		
R5/150	KITCHEN	64.5	30.2	30.2	0.0	0.0		
R8/151	BEDROOM	132.2	130.3	125.4	4.9	3.8		
R7/152	BEDROOM	306.2	206.7	202.0	4.7	2.3		
10 MANOR F	PARK							
R1/102	ASSUMED	101.7	64.8	64.8	0.0	0.0		
R1/120	DINING_TW	115.8	113.6	111.0	2.5	2.2		
R2/120	CONSERVATORY_TW	71.0	71.0	71.0	0.0	0.0		
R1/121	ASSUMED	122.9	120.6	118.4	2.2	1.8		
R2/121	ASSUMED	47.3	44.2	44.2	0.0	0.0		
12 MANOR F	PARK							
R3/120	KD	200.9	198.9	198.4	0.5	0.3		
R3/121	BEDROOM	130.3	127.4	126.8	0.6	0.5		
R4/121	BATHROOM	47.3	43.8	43.8	0.0	0.0		
R1/122	BEDROOM	201.0	196.6	195.3	1.2	0.6		

14 MANOR PARK

Room/		Whole	Prev	New	Loss	%Loss		
Floor	Room Use	Room	sq ft	sq ft	sq ft			
R1/100	ASSUMED_TW	229.3	227.4	227.4	0.0	0.0		
R1/101	ASSUMED	58.3	56.6	55.6	0.9	1.6		
R2/101	ASSUMED	126.9	125.1	123.5	1.6	1.3		
R2/102	ASSUMED	107.6	69.2	69.2	0.0	0.0		
R3/102	ASSUMED	72.7	51.0	51.0	0.0	0.0		
16 MANOR I	PARK							
R2/100	ASSUMED_TW	232.2	230.8	230.0	0.8	0.3		
R3/101	ASSUMED	130.3	128.5	126.7	1.7	1.3		
R4/101	ASSUMED_TW	59.3	56.9	56.9	0.0	0.0		
R4/102	ASSUMED	108.4	73.0	73.0	0.0	0.0		
18 MANOR PARK								
								
R1/90	LKD	374.3	373.2	356.2	17.0	4.6		
R1/91	BEDROOM	132.9	131.5	130.6	0.9	0.7		
R1/92	BEDROOM	222.3	221.1	221.1	0.0	0.0		
20 MANOR I	PARK							
R1/80	ASSUMED	306.1	304.1	226.3	77.7	25.6		
R1/81	ASSUMED	135.0	132.8	129.6	3.2	2.4		
R2/81	ASSUMED	56.2	54.5	54.4	0.1	0.2		
R1/82	ASSUMED	103.4	79.0	73.2	5.8	7.3		
22 MANOR I	PARK							
R1/62	ASSUMED	141.7	49.2	49.2	0.0	0.0		
R2/80	ASSUMED	202.8	202.1	151.0	51.1	25.3		
R3/81	ASSUMED	56.2	54.5	53.2	1.3	2.4		
R4/81	ASSUMED	135.0	133.1	123.1	9.9	7.4		
24 MANOR I	PARK							
D2/C0	KD	202.0	202.2	107.1	C 1	2.0		
R3/60	KD	203.8	203.2	197.1	6.1	3.0		
R2/61 R2/62	BEDROOM BEDROOM	135.0 180.1	133.1 179.0	124.5 176.9	8.6 2.1	6.5 1.2		
N2/ U2	BEDINOOIVI	100.1	1/3.0	170.5	۷.1	1.2		
80 MANOR I	ROAD							
R3/500	RECEPTION_ROOM	135.2	132.9	132.9	0.0	0.0		
R4/500	KITCHEN	256.5	188.5	188.5	0.0	0.0		
R2/501	BEDROOM	92.1	89.5	89.5	0.0	0.0		
R3/501 R1/502	BEDROOM ASSUMED	92.1 335.9	90.8 278.8	90.8 278.8	0.0 0.0	0.0 0.0		
R1/5U2 DDPR100119.xls 16-0	BEDROOM_ASSUMED	333.3	278.8 5	210.0	0.0	0.0		
DD: WT00113-XI2 10-0	· 13		-					

JAN 2019

DAYLIGHT DISTRIBUTION ANALYSIS EXISTING vs PROPOSED SCHEME 10/01/19

Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	70E055
11001	- Hoom Osc				<u> </u>	
1 MANOR P	ARK					
R1/510	ASSUMED	143.0	142.3	142.3	0.0	0.0
R1/511	ASSUMED	143.0	142.3	142.3	0.0	0.0
R2/511	ASSUMED	72.9	71.9	71.9	0.0	0.0
3 MANOR P	ARK					
R4/510	ASSUMED	143.1	142.7	142.7	0.0	0.0
R3/511	ASSUMED	72.8	71.8	71.8	0.0	0.0
R4/511	ASSUMED	142.8	142.4	142.4	0.0	0.0
R1/512	ASSUMED	213.3	94.2	94.2	0.0	0.0
	ADV					
5 MANOR P	ANN					
R5/510	ASSUMED	144.1	143.7	143.7	0.0	0.0
R5/510 R5/511	ASSUMED	143.6	143.7	143.2	0.0	0.0
R6/511	ASSUMED	71.0	70.5	70.5	0.0	0.0
R2/512	ASSUMED	211.9	118.9	118.9	0.0	0.0
•						
7 MANOR P	ARK					
R8/510	ASSUMED	137.6	137.3	137.3	0.0	0.0
R7/511 R8/511	ASSUMED ASSUMED	71.3 137.6	70.7 137.4	70.7 137.4	0.0 0.0	0.0 0.0
VO/211	ASSUMED	137.0	137.4	137.4	0.0	0.0
9 MANOR P	ARK					
R4/520	ASSUMED	156.4	152.5	152.5	0.0	0.0
R2/521	ASSUMED	78.9	78.2	78.1	0.1	0.1
R4/521	ASSUMED	133.0	132.7	132.7	0.0	0.0
11 MANOR	ΡΔRΚ					
TT MV1401/	. Auto					
R1/520	ASSUMED	160.1	157.5	157.5	0.0	0.0
R1/521	ASSUMED	131.1	130.8	130.8	0.0	0.0
R3/521	ASSUMED	79.3	78.7	78.5	0.2	0.3
R1/522	ASSUMED	206.7	113.4	113.4	0.0	0.0
40.141	DA DI					
13 MANOR	PARK					
R4/540	ASSUMED	147.9	145.5	145.5	0.0	0.0
R4/540 R3/541	ASSUMED	69.5	68.5	145.5 64.5	0.0 4.1	6.0
R3/541 R4/541	ASSUMED	147.9	147.5	147.5	0.0	0.0
DDPR100119.xls 16-0		177.5	6	177.3	5.0	0.0
55200115.Als 10°C						

Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
15 MANOR F	PARK					
R1/540	LIVINGROOM	149.6	146.5	146.5	0.0	0.0
R1/541	BEDROOM	150.6	148.2	148.2	0.0	0.0
R2/541	BEDROOM	52.5	51.5	51.5	0.0	0.0
R1/542	BEDROOM	192.8	189.1	187.2	1.9	1.0
17 MANOR F	PARK					
R6/530	ASSUMED	145.2	137.9	122.7	15.2	11.0
R5/531	ASSUMED	54.5	52.3	52.3	0.0	0.0
R6/531	ASSUMED	145.2	144.5	144.5	0.0	0.0
, 331	ASSONIED	173.2	177.5	144.5	0.0	0.0
19 MANOR F	PARK					
R3/530	ASSUMED	147.9	146.6	92.8	53.8	36.7
R3/531	ASSUMED	155.8	155.4	155.4	0.0	0.0
R4/531	ASSUMED	52.9	50.8	50.8	0.0	0.0
R1/532	ASSUMED	127.5	127.5	127.5	0.0	0.0
21 MANOR F	PARK					
R2/530	ASSUMED	160.9	159.2	155.5	3.7	2.3
R1/531	ASSUMED	55.6	54.6	54.6	0.0	0.0
R2/531	ASSUMED	169.4	169.2	169.2	0.0	0.0
1-53 CALVER	PT COURT					
1-55 CALVER	AI COOKI					
R1/1030		202.0	200.1	200.1	0.0	0.0
R2/1030		41.9	40.8	40.8	0.0	0.0
R3/1030		49.1	47.1	47.1	0.0	0.0
R4/1030	LD	230.8	227.7	227.7	0.0	0.0
R6/1030		87.5	85.7	83.9	1.8	2.1
R7/1030		83.9	83.5	83.5	0.0	0.0
R8/1030		153.6	152.9	152.9	0.0	0.0
R9/1030	LD	179.3	177.8	177.7	0.1	0.1
R10/1030	KITCHEN	45.6	44.7	44.7	0.0	0.0
R11/1030	KITCHEN	45.6	44.7	44.7	0.0	0.0
R12/1030	LD	183.9	183.7	183.7	0.0	0.0
R14/1030	LD	184.0	129.1	129.1	0.0	0.0
R15/1030	KITCHEN	45.6	44.7 44.7	44.7	0.0	0.0
R16/1030 R17/1030	KITCHEN	45.6 178.8	44.7 120.1	44.7 120.1	0.0	0.0
R1//1030 R1/1031	LD	178.8 201.5	130.1	130.1	0.0 0.0	0.0
	KITCHEN	201.5 55.3	200.5 53.7	200.5 53.7	0.0	0.0 0.0
R3/1031 R4/1031	KITCHEN	234.5	230.6	230.6	0.0	0.0
DDPR100119.xls 16-03	1.19	234.3	230.6 7	230.0	0.0	0.0
2D1 UT00113-YI2 10-0			-			

HOMEBASE

RICHMOND

DAYLIGHT DISTRIBUTION ANALYSIS EXISTING vs PROPOSED SCHEME 10/01/19

Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	70LUSS
11001	- ROOM OSC	— Nooni		<u></u>	<u> </u>	
R6/1031		176.3	175.7	175.7	0.0	0.0
R7/1031		153.6	151.2	151.2	0.0	0.0
R8/1031		192.9	191.7	191.7	0.0	0.0
R10/1031	KITCHEN	56.2	54.9	54.9	0.0	0.0
R11/1031	-	214.9	210.8	210.8	0.0	0.0
R13/1031		209.2	207.8	207.8	0.0	0.0
R15/1031	KITCHEN	58.0	56.7	56.7	0.0	0.0
R16/1031		222.1	220.6	220.6	0.0	0.0
R3/1040	ASSUMED	149.0	131.4	131.4	0.0	0.0
40 30 DODIN	ISON COURT					
19-39 ROBIN	ISON COURT					
R1/1020	ASSUMED_RESI	86.4	40.8	40.8	0.0	0.0
R2/1020	ASSUMED_RESI	120.0	110.9	108.0	2.9	2.6
R3/1020	ASSUMED_RESI	119.3	114.6	114.6	0.0	0.0
R4/1020	ASSUMED_RESI	112.0	105.2	105.2	0.0	0.0
R1/1021	ASSUMED_RESI	181.7	178.9	178.9	0.0	0.0
R2/1021	ASSUMED_RESI	52.0	51.0	51.0	0.0	0.0
R3/1021	ASSUMED_RESI	100.7	97.4	97.4	0.0	0.0
R4/1021	ASSUMED_RESI	86.8	41.3	41.3	0.0	0.0
R1/1022	ASSUMED_RESI	142.7	138.5	138.5	0.0	0.0
R2/1022	ASSUMED_RESI	30.3	29.2	29.2	0.0	0.0
R3/1022	ASSUMED_RESI	85.6	56.3	56.3	0.0	0.0
R4/1022	ASSUMED_RESI	114.2	109.5	109.5	0.0	0.0
1-18 ROBINS	SON COURT					
D4 /4000	ACCUMED DECI	222.2	222.0	222.0	0.0	0.0
R1/1000	ASSUMED_RESI	232.2	222.8	222.8	0.0	0.0
R3/1000	ASSUMED_RESI	162.7	139.1	139.1	0.0	0.0
R4/1000	ASSUMED_RESI	162.7	146.8	146.8	0.0	0.0
R5/1000 R6/1000	ASSUMED_RESI ASSUMED RESI	162.7	157.7 156.5	157.7	0.0	0.0
R8/1000	ASSUMED_RESI	162.7 161.7	156.5 149.4	156.5 149.4	0.0 0.0	0.0 0.0
R9/1000	ASSUMED_RESI	162.1	154.8	154.8	0.0	0.0
R1/1001	RESI	97.6	82.7	82.7	0.0	0.0
R2/1001	RESI	129.4	126.8	126.8	0.0	0.0
R2/1001 R3/1001	RESI	108.5	88.2	88.2	0.0	0.0
R5/1001	BEDROOM	129.8	122.8	122.8	0.0	0.0
R6/1001	LIVINGROOM	183.6	179.1	179.1	0.0	0.0
R7/1001	KITCHEN	129.8	128.0	128.0	0.0	0.0
R9/1001	BEDROOM	128.1	124.3	124.3	0.0	0.0
R10/1001	RESI	106.5	102.8	102.8	0.0	0.0
R11/1001	RESI	94.7	92.7	92.7	0.0	0.0
R1/1002	ASSUMED_RESI	102.3	98.8	98.8	0.0	0.0
R2/1002	ASSUMED_RESI	129.6	126.0	126.0	0.0	0.0
R3/1002	ASSUMED_RESI	108.5	103.2	103.2	0.0	0.0
R5/1002	ASSUMED_RES	129.8	121.6	121.6	0.0	0.0
R6/1002	ASSUMED	183.6	179.1	179.1	0.0	0.0
R7/1002	ASSUMED	129.8	126.5	126.5	0.0	0.0
R8/1002	ASSUMED	97.1	93.9	93.9	0.0	0.0
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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	/0LUSS
R9/1002	ASSUMED	120.4	115.1	115.1	0.0	0.0
R10/1002	RESI	101.5	97.0	97.0	0.0	0.0
R11/1002	ASSUMED_RESI	94.7	91.6	91.6	0.0	0.0
	_					
FO CT BAADY	S CROVE					
50 ST MARY'	2 GKUVE					
R2/990	ASSUMED	166.9	161.9	161.9	0.0	0.0
R1/991		23.9	23.3	23.3	0.0	0.0
R2/991	ASSUMED	166.8	161.7	161.7	0.0	0.0
52 ST MARY	S GROVE					
D2/000	LIVINGROOM	166.6	100.0	160.6	0.0	0.0
R3/990	LIVINGROOM	166.6	160.6	160.6	0.0	0.0
R3/991 R4/991	BEDROOM	166.5 24.2	161.5 23.1	161.5 23.1	0.0	0.0 0.0
K4/331		∠4. ∠	∠3.1	23.1	0.0	U.U
CLARENCE CO	OURT					
R1/300	ASSUMED_RESI	236.9	232.0	232.0	0.0	0.0
R1/301	ASSUMED_RESI	236.9	231.6	231.6	0.0	0.0
R1/302	ASSUMED_RESI	236.9	231.6	231.6	0.0	0.0
22 20 00014	N TEDDACE					
33-39 CROW	IN IERRACE					
R2/310	ASSUMED	166.2	151.3	151.3	0.0	0.0
R3/310	ASSUMED	169.2	151.4	151.4	0.0	0.0
R6/310	ASSUMED	173.4	146.0	146.0	0.0	0.0
R7/310	ASSUMED	176.6	138.3	138.0	0.3	0.2
R1/311	ASSUMED	166.2	145.2	145.2	0.0	0.0
R2/311	ASSUMED	169.2	144.5	144.0	0.5	0.3
R3/311	ASSUMED	73.5	72.0	72.0	0.0	0.0
R4/311	ASSUMED	173.4	143.6	143.6	0.0	0.0
R5/311	ASSUMED	176.6	138.9	138.9	0.0	0.0
1-8 VICTORIA	A VILLAS					
R1/1050	ASSUMED_STUDIO	447.1	349.1	349.1	0.0	0.0
R2/1050	ASSUMED_BEDROOM	129.9	128.3	118.1	10.2	8.0
R3/1050	ASSUMED_LKD	256.7	254.6	254.6	0.0	0.0
R5/1050	ASSUMED_LKD	338.2	331.5	254.9	76.7	23.1
R6/1050	ASSUMED_BEDROOM	125.6	125.3	125.3	0.0	0.0
R9/1050	ASSUMED_STUDIO	334.0	332.0	332.0	0.0	0.0
R1/1051	ASSUMED_LKD	250.1	242.8	242.8	0.0	0.0
R2/1051	ASSUMED_BEDROOM	132.9	132.0	132.0	0.0	0.0
R3/1051	ASSUMED_BEDROOM	135.9	133.6	133.6	0.0	0.0
R4/1051	ASSUMED_LKD	254.2	248.8	183.9	64.9	26.1
R5/1051	ASSUMED_BEDROOM	138.9	136.9	136.3	0.6	0.4
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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
R6/1051	ASSUMED_LKD	251.5	248.3	147.1	101.2	40.8
R7/1051	ASSUMED_LKD	314.3	309.2	251.2	58.0	18.8
R8/1051	ASSUMED_BEDROOM	149.4	149.0	149.0	0.0	0.0
R9/1051	ASSUMED_BEDROOM	124.7	124.6	124.6	0.0	0.0
R10/1051	ASSUMED_BEDROOM	140.2	137.0	137.0	0.0	0.0
R11/1051	ASSUMED_BEDROOM	85.0	84.9	84.9	0.0	0.0
R12/1051	ASSUMED_LKD	277.9	277.8	277.8	0.0	0.0
R1/1052	ASSUMED_LKD	254.3	250.7	250.7	0.0	0.0
R2/1052	ASSUMED_BEDROOM	120.8	120.3	120.3	0.0	0.0
R3/1052	ASSUMED_BEDROOM	135.9	134.4	134.4	0.0	0.0
R4/1052	ASSUMED_LKD	272.7	267.4	213.5	54.0	20.2
R5/1052	ASSUMED_BEDROOM	189.1	185.9	185.3	0.5	0.3
R6/1052	ASSUMED_LKD	246.9	243.2	166.2	77.0	31.7
R7/1052	ASSUMED_LKD	306.5	301.5	251.5	49.9	16.6
R8/1052 R9/1052	ASSUMED_BEDROOM	149.4 124.7	149.4	149.4 124.6	0.0 0.0	0.0 0.0
R10/1052	ASSUMED_BEDROOM ASSUMED_BEDROOM	140.2	124.6 137.0	137.0	0.0	0.0
R10/1052 R11/1052	ASSUMED_BEDROOM	85.0	84.9	84.9	0.0	0.0
R11/1052 R12/1052	ASSUMED_LKD	277.9	277.9	277.9	0.0	0.0
R12/1032 R1/1053	ASSUMED_LKD	240.6	238.7	238.7	0.0	0.0
R2/1053	ASSUMED_BEDROOM	215.2	211.0	201.3	9.8	4.6
R2/1053 R3/1053	ASSUMED_BEDITOOM	324.5	316.2	280.7	35.5	11.2
R5/1053 R5/1053	ASSUMED	261.8	259.2	233.2	25.9	10.0
R6/1053	ASSUMED_LKD	246.9	244.3	186.0	58.3	23.9
R7/1053	ASSUMED_LKD	306.5	301.5	252.0	49.4	16.4
R8/1053	ASSUMED BEDROOM	149.4	149.0	149.0	0.0	0.0
R9/1053	ASSUMED_BEDROOM	159.4	159.3	159.3	0.0	0.0
R10/1053	ASSUMED_BEDROOM	228.8	225.7	225.7	0.0	0.0
R12/1053	ASSUMED_LKD	277.9	277.9	277.9	0.0	0.0
R1/1054	ASSUMED_LKD	232.5	230.5	230.5	0.0	0.0
R2/1054	ASSUMED_LKD	170.6	167.0	167.0	0.0	0.0
R3/1054	ASSUMED_BEDROOM	194.3	190.8	190.5	0.2	0.1
R4/1054	ASSUMED_LKD	227.9	227.4	227.4	0.0	0.0
R5/1054	ASSUMED_BEDROOM	143.5	143.1	143.1	0.0	0.0
19-22 VICTOI	RIA VILLAS					
D4 /40C0	DEDDOO!!	104 5	07.7	07.7	0.0	0.0
R1/1060	BEDROOM	101.5	87.7	87.7	0.0	0.0
R2/1060	LD	247.0	213.3	213.3	0.0	0.0
R3/1060 R4/1060	LD	192.7	190.3 91.3	190.3	0.0	0.0 0.0
R7/1060 R7/1060	BEDROOM BEDROOM	94.8 113.3	106.9	91.3 81.7	0.0 25.3	23.7
R8/1060	LIVINGROOM	150.0	148.7	142.1	23.3 6.6	4.4
R9/1060	LIVINGROOM	150.0	123.3	90.8	32.5	26.4
R10/1060	KITCHEN	64.2	61.4	90.8 61.4	0.0	0.0
R10/1000 R1/1061	BEDROOM	101.5	98.8	98.8	0.0	0.0
R2/1061 R2/1061	LD	217.3	207.8	207.8	0.0	0.0
R2/1061 R3/1061	LD	192.4	189.7	189.7	0.0	0.0
R4/1061	BEDROOM	98.6	97.6	97.6	0.0	0.0
R7/1061	BEDROOM	113.3	106.9	82.3	24.7	23.1
R8/1061	LIVINGROOM	150.0	148.7	147.1	1.7	1.1
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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
DO /4 OC4	LIVUNICROOM	150.0	420 F	122.2	16.2	11.0
R9/1061 R10/1061	LIVINGROOM KITCHEN	150.0 64.2	138.5 62.6	122.2 62.6	16.3 0.0	11.8 0.0
K10/1001	KITCHEN	04.2	02.0	02.0	0.0	0.0
2-6 BARDOL	PH ROAD					
R1/200	BEDROOM	103.1	102.5	102.5	0.0	0.0
R2/200	BEDROOM	161.9	161.6	161.6	0.0	0.0
R3/200	BEDROOM	161.4	161.1	161.1	0.0	0.0
R4/200	BEDROOM	102.6	102.0	96.9	5.1	5.0
R6/200	BEDROOM	123.6	123.1	102.3	20.8	16.9
R7/200	LKD	293.5	293.2	270.3	22.8	7.8
R8/200 R9/200	LKD BEDROOM	318.3 173.4	318.0 173.1	312.8 169.9	5.1 3.3	1.6 1.9
R10/200	BEDROOM	138.7	138.5	137.5	3.3 1.0	0.7
R10/200	BEDROOM	142.5	142.1	139.6	2.5	1.8
R12/200	LKD	424.1	420.5	417.3	3.2	0.8
R1/201	LKD	407.8	407.0	380.4	26.6	6.5
R6/201	BEDROOM	123.6	123.0	100.6	22.4	18.2
R7/201	LKD	305.4	304.6	260.3	44.3	14.5
R8/201	LKD	318.3	315.6	297.9	17.7	5.6
R9/201	BEDROOM	173.4	172.9	163.8	9.1	5.3
R10/201	BEDROOM	158.2	157.6	148.2	9.5	6.0
R11/201	ASSUMED_RESI	143.3	143.0	142.7	0.3	0.2
R12/201	ASSUMED_RESI	368.0	366.5	349.7	16.8	4.6
R1/202	LIVINGROOM	236.4	234.9	233.8	1.1	0.5
R2/202	KD	189.8	189.6	189.6	0.0	0.0
R3/202	BEDROOM	101.6	90.8	76.1	14.7	16.2
R7/202	LKD	256.9	250.0 115.3	185.7 77.8	64.3	25.7
R8/202 R9/202	BEDROOM BEDROOM	124.9 168.7	163.5	123.9	37.5 39.6	32.5 24.2
R10/202	BEDROOM	136.6	130.9	85.6	45.3	34.6
R11/202	BEDROOM	176.3	173.4	154.6	18.8	10.8
R12/202	BEDROOM	162.1	157.1	120.9	36.2	23.0
R14/202	LKD	289.0	280.8	233.4	47.5	16.9
15 TRINITY O	COTTAGES					
D2 /200		220.4	240 7	247 5	4.2	0.5
R3/380 R5/380	LIVINGROOM LKD	238.1 221.5	218.7 205.4	217.5 201.1	1.2 4.3	0.5 2.1
R4/381	BEDROOM	113.3	102.6	93.5	4.5 9.1	8.9
R5/381	BEDROOM	89.0	74.6	74.5	0.0	0.0
R6/381	BEDROOM	90.8	86.7	86.7	0.0	0.0
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14 TRINITY (COTTAGES					
R2/380	ASSUMED	99.6	95.9	95.9	0.0	0.0
R7/380	ASSUMED	114.0	101.3	101.2	0.1	0.1
R8/380		64.1	60.2	60.2	0.0	0.0
R2/381	ASSUMED	91.3	83.9	83.9	0.0	0.0
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Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss
R7/381	ASSUMED	105.4	97.8	97.3	0.5	0.5
13 TRINITY (COTTAGES					
13 1811111	COTTAGES					
R1/380	DINING	113.8	111.0	111.0	0.0	0.0
R10/380	RECEPTION_ROOM	150.6	120.8	120.8	0.0	0.0
R1/381	BEDROOM	100.7	91.3	91.3	0.0	0.0
R8/381	BEDROOM	115.6	112.0	112.0	0.0	0.0
24 TRINITY I	ROAD					
R1/390	ASSUMED	163.4	133.2	126.1	7.0	5.3
R2/390	ASSUMED	138.8	119.5	108.8	10.7	9.0
R3/390	ASSUMED	176.6	174.2	174.2	0.0	0.0
R1/391	ASSUMED	128.8	124.8	124.8	0.0	0.0
R2/391	ASSUMED	134.4	119.3	108.8	10.5	8.8
R3/391	ASSUMED	149.6	147.7	147.7	0.0	0.0
22 TRINITY F	ROAD					
R4/390	ASSUMED	148.0	145.9	145.9	0.0	0.0
R4/391	ASSUMED	125.2	117.6	117.6	0.0	0.0
20 TRINITY I	ROAD					
R5/390	ASSUMED	136.9	128.5	128.5	0.0	0.0
R5/391	ASSUMED	115.8	107.6	107.6	0.0	0.0
18 TRINITY I	ROAD					
10 11(11(11))	(OAD					
R6/390	ASSUMED	159.7	150.2	150.2	0.0	0.0
R6/391	ASSUMED	135.0	124.2	124.2	0.0	0.0
16 TRINITY I	ROAD					
R7/390	ASSUMED	147.1	136.9	136.9	0.0	0.0
R7/391	ASSUMED	124.3	114.4	114.4	0.0	0.0
14 TRINITY I	ROAD					
R8/390	ASSUMED	151.8	144.1	144.1	0.0	0.0
R8/391	ASSUMED	128.4	117.0	117.0	0.0	0.0

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12 TRINITY ROAD

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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
R9/390	ASSUMED	171.7	166.9	166.8	0.0	0.0
R9/391	ASSUMED	144.7	133.6	133.6	0.0	0.0
K3/331	ASSUMED	144.7	155.0	155.0	0.0	0.0
15 TRINITY R	OAD					
R5/400	ASSUMED	97.4	91.7	91.7	0.0	0.0
R6/400	ASSUMED	88.5	86.0	84.1	1.9	2.2
R7/400	ASSUMED	102.0	100.2	100.2	0.0	0.0
R5/401	ASSUMED	98.1	91.6	91.6	0.0	0.0
R6/401	ASSUMED	88.5	84.6	84.0	0.7	0.8
R7/401	ASSUMED	102.5	94.4	94.4	0.0	0.0
13 TRINITY R	OAD					
TO LUMINI CT	UAU					
R4/400	ASSUMED	149.6	146.2	146.2	0.0	0.0
R4/401	ASSUMED	149.2	143.4	143.4	0.0	0.0
R9/401	ASSUMED	96.3	94.6	94.6	0.0	0.0
R10/401	ASSUMED	43.8	42.2	42.2	0.0	0.0
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11 TRINITY R	OAD					
R3/400	ASSUMED	133.6	131.7	131.7	0.0	0.0
R8/400	ASSUMED	92.0	88.3	88.3	0.0	0.0
R3/401	ASSUMED	134.6	127.9	127.9	0.0	0.0
R11/401	ASSUMED	80.6	79.0	79.0	0.0	0.0
9 TRINITY RO	AD					
J IMMITTING						
R2/400	ASSUMED	131.9	125.1	125.1	0.0	0.0
R2/401	ASSUMED	132.6	125.3	125.3	0.0	0.0
R12/401	ASSUMED	88.0	85.1	85.1	0.0	0.0
R1/402	ASSUMED	98.1	95.1	95.1	0.0	0.0
7 TRINITY RO	AD					
R1/400	ASSUMED	137.4	136.3	136.3	0.0	0.0
R1/401	ASSUMED	137.3	132.2	132.2	0.0	0.0
R13/401	ASSUMED	83.8	79.8	79.5	0.3	0.4
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3 ST GEORGE	S ROAD					
R9/410	ASSUMED	56.2	55.4	55.4	0.0	0.0

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5 ST GEORGES ROAD

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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	/6LUSS
11001	- Noom Osc		- 34 It	34 16	<u> </u>	
R8/410	KITCHEN	125.3	124.5	124.5	0.0	0.0
R7/411	BEDROOM	72.5	70.9	70.9	0.0	0.0
7 ST GEORG	ES ROAD					
R6/410	ASSUMED	49.9	46.7	46.7	0.0	0.0
R7/410	ASSUMED	63.2	63.2	63.2	0.0	0.0
R5/411	ASSUMED	48.5	47.1	47.1	0.0	0.0
R6/411	ASSUMED	71.1	69.9	69.9	0.0	0.0
9 ST GEORG	ES ROAD					
J J1 GEORG						
R3/411	ASSUMED	79.5	75.0	75.0	0.0	0.0
R4/411	ASSUMED	47.4	41.9	41.9	0.0	0.0
44 CT CTC	CEC DOAD					
11 ST GEOR	GES ROAD					
R1/410	ASSUMED	100.2	97.4	97.4	0.0	0.0
R3/410	ASSUMED	99.0	67.3	67.3	0.0	0.0
R4/410	ASSUMED	52.7	52.3	52.3	0.0	0.0
R5/410	ASSUMED	91.3	87.3	87.3	0.0	0.0
R1/411	ASSUMED	125.5	123.5	123.5	0.0	0.0
R2/411	ASSUMED	131.0	129.8	129.8	0.0	0.0
FALSTAFF H	OUSE					
FALSTAFF II	OUSE					
R1/241	ASSUMED	141.2	140.9	133.8	7.1	5.0
R2/241	ASSUMED	124.7	124.6	115.2	9.4	7.5
R3/241	ASSUMED	133.3	133.1	121.9	11.2	8.4
R4/241	ASSUMED	124.8	124.7	116.9	7.8	6.3
R5/241	ASSUMED	138.0	137.8	134.2	3.6	2.6
R6/241	ASSUMED	138.8	138.5	134.6	3.8	2.7
R7/241	ASSUMED	127.7	127.6	127.5	0.1	0.1
R8/241	ASSUMED	133.0	132.8	132.8	0.0	0.0
R9/241	ASSUMED	123.9	123.8	123.8	0.0	0.0
R10/241	ASSUMED	142.2	142.0	142.0	0.0	0.0
R11/241	ASSUMED	283.3	278.7	278.7	0.0	0.0
R1/242	ASSUMED	44.1	37.1	37.1	0.0	0.0
R2/242	ASSUMED	388.4	383.0	382.7	0.3 13.1	0.1
R5/242 R6/242	ASSUMED ASSUMED	133.3 124.8	132.9 124.6	119.8 115.2	13.1 9.4	9.9 7.5
R7/242	ASSUMED	138.0	135.1	112.3	9.4 22.8	7.5 16.9
R7/242 R8/242	ASSUMED	138.8	133.1	134.1	0.6	0.4
R9/242	ASSUMED	127.7	127.4	127.4	0.0	0.0
R10/242	ASSUMED	133.0	132.6	132.6	0.0	0.0
R11/242	ASSUMED	123.9	123.6	123.6	0.0	0.0
R12/242	ASSUMED	142.2	136.5	133.6	2.9	2.1
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Room/		Whole	Prev	New	Loss	%Loss
Floor	Room Use	Room	sq ft	sq ft	sq ft	
R13/242	ASSUMED	283.3	277.5	277.5	0.0	0.0
R1/243	ASSUMED	442.5	436.8	436.8	0.0	0.0
R5/243	ASSUMED	133.3	132.9	122.2	10.7	8.1
R6/243	ASSUMED	124.8	124.6	118.3	6.3	5.1
R7/243	ASSUMED	138.0	135.1	112.4	22.7	16.8
R8/243	ASSUMED	138.8	134.6	134.2	0.4	0.3
R9/243	ASSUMED	127.7	127.4	127.4	0.0	0.0
R10/243	ASSUMED	133.0	132.6	132.6	0.0	0.0
R12/243	ASSUMED	332.0	329.1	327.5	1.6	0.5
R13/243	ASSUMED	278.9	277.8	277.8	0.0	0.0
R1/244	ASSUMED	279.6	275.3	274.6	0.7	0.3
R2/244	ASSUMED	280.9	279.1	279.1	0.0	0.0
R3/244	ASSUMED	185.9	185.9	185.9	0.0	0.0
R4/244	ASSUMED	211.4	209.8	209.8	0.0	0.0
R5/244	ASSUMED	199.4	198.4	198.4	0.0	0.0
R6/244	ASSUMED	198.0	195.1	195.1	0.0	0.0
R7/244	ASSUMED	264.6	261.6	261.6	0.0	0.0
ST GEORGE	S HOUSE					
_						
R1/231	BEDROOM	223.0	221.1	221.1	0.0	0.0
R2/231	BEDROOM	171.6	169.7	169.7	0.0	0.0
R3/231	LKD	406.0	402.0	402.0	0.0	0.0
R4/231	LKD	432.5	432.5	432.5	0.0	0.0
R1/232	BEDROOM	223.0	220.5	220.5	0.0	0.0
R2/232	BEDROOM	171.6	166.5	166.5	0.0	0.0
R3/232	LKD	406.0	398.3	398.3	0.0	0.0
R4/232	LKD	432.5	432.1	432.1	0.0	0.0
R1/233	ASSUMED	188.8	187.9	187.9	0.0	0.0
R2/233	ASSUMED	212.6	210.5	210.5	0.0	0.0
R3/233	ASSUMED ASSUMED	39.6	39.2	39.2	0.0	0.0
R4/233		82.5	82.3	82.3	0.0	0.0 0.0
R5/233	ASSUMED ASSUMED	350.8	350.8	350.8	0.0	0.0
R1/234	ASSUMED	202.6	197.5	197.5	0.0	0.0
R2/234 R3/234	ASSUMED	186.1 53.8	184.1 52.8	184.1 52.8	0.0 0.0	0.0
R3/234 R4/234	ASSUMED	467.9	467.1	467.1	0.0	0.0
K4/234	ASSOINIED	407.9	407.1	407.1	0.0	0.0
40 ST GEOR	GES ROAD					
40 31 GEOR	GLS NOAD					
R1/420	BEDROOM	82.8	76.5	76.5	0.0	0.0
R1/421	BEDROOM	149.7	114.0	114.0	0.0	0.0
R1/422	BEDROOM	148.5	121.7	121.7	0.0	0.0
1127 -122	DEDITOON	110.5	121.7	121.7	0.0	0.0
42 ST GEOR	GES ROAD					
R2/430		96.9	70.1	70.1	0.0	0.0
R1/431		89.7	85.3	85.3	0.0	0.0
R1/432		123.6	110.0	110.0	0.0	0.0
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Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss
44 ST GEORG	GES ROAD					
R3/430 R2/431 R2/432	LIVINGROOM BEDROOM	140.3 132.9 170.4	108.6 104.6 78.5	108.6 104.6 78.5	0.0 0.0 0.0	0.0 0.0 0.0
46 ST GEORG	GES ROAD					
R6/430 R4/431	LIVINGROOM BEDROOM	115.3 115.1	99.9 109.6	90.8 109.6	9.1 0.0	9.1 0.0
48 ST GEORG	GES ROAD					
R7/430 R6/431 R7/431		112.2 112.2 57.0	106.0 105.7 54.9	104.1 105.7 54.9	1.9 0.0 0.0	1.8 0.0 0.0
50 ST GEORG	GES ROAD					
R9/430 R8/431 R9/431	LIVINGROOM BEDROOM BEDROOM	118.9 39.2 118.9	114.6 35.6 114.6	114.6 35.6 114.6	0.0 0.0 0.0	0.0 0.0 0.0
52 ST GEORG	GES ROAD					
R10/430 R10/431 R11/431	LIVINGROOM BEDROOM BEDROOM	111.2 111.4 38.7	109.3 106.4 36.5	109.3 106.4 36.5	0.0 0.0 0.0	0.0 0.0 0.0
54 ST GEORG	GES ROAD					
R12/430 R13/431	LIVINGROOM BEDROOM	114.1 114.1	110.1 110.0	110.1 110.0	0.0 0.0	0.0 0.0
56 ST GEORG	GES ROAD					
R1/440 R2/440 R3/440 R1/441 R2/441		111.5 41.6 67.8 111.7 72.3	99.6 36.1 40.5 104.3 69.9	99.6 36.1 40.5 104.3 69.9	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0

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58 GEORGES ROAD

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Room/ Floor	Room Use	Whole Room	Prev sq ft	New sq ft	Loss sq ft	%Loss	
R4/440		61.7	49.3	49.3	0.0	0.0	
R5/440		88.2	83.6	83.6	0.0	0.0	
R3/441		52.3	51.2	51.2	0.0	0.0	
R4/441		97.4	93.4	93.4	0.0	0.0	



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			Window							R				
			Exi	isting	Pro	posed			Ex	isting	Pro	posed		
		Room	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual	Winter	Annual
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss
2 MANO	R GROVE													
3 IVIAINO	K GROVE													
R1/22	W1/22	BEDROOM	23	80	20	72	13.0	10.0						
R1/22	W2/22	BEDROOM	22	79	19	71	13.6	10.1						
R1/22	W3/22	BEDROOM	15	50	15	50	0.0	0.0	30	100	27	92	10.0	8.0
1 MARYL	EBONE GAI	RDENS							1					
R5/30	W5/30	LKD	0	8	0	1	_	87.5						
R5/30	W35/30	LKD	0	11	0	2	_	81.8						
R5/30	W36/30	LKD	0	8	0	1	_	87.5						
R5/30	W37/30	LKD	18	53	18	<u>4</u> 7	0.0	11.3						
R5/30	W38/30	LKD	19	50	19	50	0.0	0.0						
R5/30	W39/30	LKD	24	78	24	78	0.0	0.0	25	90	25	82	0.0	8.9
R6/31	W12/31	BEDROOM	20	57	20	51	0.0	10.5						
R6/31	W13/31	BEDROOM	20	57	20	51	0.0	10.5	20	57	20	51	0.0	10.5
R3/32	W4/32	BEDROOM	0	11	0	5	-	54.5						
R3/32	W5/32	BEDROOM	19	56	19	50	0.0	10.7	19	57	19	51	0.0	10.5
2 MADVI	EBONE GAI	DDENS												
3 IVIANT	LDONL GAI	VDLING												
R3/31	W5/31	ASSUMED	0	5	0	5	-	0.0						
R3/31	W6/31	ASSUMED	0	11	0	5	-	54.5						
R3/31	W7/31	ASSUMED	0	12	0	6	-	50.0	0	17	0	11	-	35.3
81 MAN	OR ROAD													

			Window							Room						
			Ex	isting	Pro	posed			Ex	isting	Pro	posed				
		Room	Winter	Annual												
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss		
R1/40	W1/40	ASSUMED	17	51	17	48	0.0	5.9								
R1/40	W2/40	ASSUMED	17	52	17	49	0.0	5.8	18	53	18	50	0.0	5.7		
D4 /44	VA14 /44	ACCUMED	4.5	40	4.5	4.6	0.0	C 1								
R1/41	W1/41	ASSUMED	15	49	15	46	0.0	6.1	1.5	40	4.5	46	0.0	C 4		
R1/41	W2/41	ASSUMED	15	49	15	46	0.0	6.1	15	49	15	46	0.0	6.1		
79 MAN	OR ROAD															
R4/40	W8/40	ASSUMED	16	49	16	47	0.0	4.1								
R4/40	W9/40	ASSUMED	15	49	15	46	0.0	6.1	17	51	17	48	0.0	5.9		
R2/41	W3/41	ASSUMED	16	50	16	48	0.0	4.0								
R2/41	W4/41	ASSUMED	14	48	14	47	0.0	2.1	16	50	16	49	0.0	2.0		
77 MAN	OR ROAD															
5= /40	11/40/40	4.001.19.45.0	10		16		0.0	4.0								
R5/40	W10/40	ASSUMED	16	53	16	52	0.0	1.9								
R5/40	W11/40	ASSUMED	16	52	16	51	0.0	1.9	16	53	16	52	0.0	1.9		
R3/41	W5/41	ASSUMED	15	50	15	49	0.0	2.0								
R3/41	W6/41	ASSUMED	17	53	17	52	0.0	1.9	17	53	17	52	0.0	1.9		
75 MAN	OR ROAD															
R8/40	W15/40	ASSUMED	16	52	16	51	0.0	1.9								
R8/40	W16/40	ASSUMED	15	51	15	50	0.0	2.0	16	52	16	51	0.0	1.9		

			Window					Room							
			Ex	isting	Pro	posed			Ex	isting	Pro	posed			
		Room	Winter	Annual											
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss	
R4/41	W7/41	ASSUMED	18	53	18	52	0.0	1.9							
R4/41	W8/41	ASSUMED	19	55	19	54	0.0	1.8	19	55	19	54	0.0	1.8	
73 MAN	OR ROAD														
R9/40	W17/40	ASSUMED	15	47	15	47	0.0	0.0							
R9/40	W18/40	ASSUMED	16	50	16	49	0.0	2.0	16	50	16	49	0.0	2.0	
R5/41	W9/41	ASSUMED	16	49	16	48	0.0	2.0							
R5/41	W10/41	ASSUMED	15	49	15	48	0.0	2.0	16	50	16	49	0.0	2.0	
69A MAI	NOR ROAD														
R1/50	W1/50	ASSUMED	1	19	1	19	0.0	0.0							
R1/50	W2/50	ASSUMED	14	48	14	48	0.0	0.0							
R1/50	W3/50	ASSUMED	13	51	13	51	0.0	0.0	14	52	14	52	0.0	0.0	
R2/50	W4/50	ASSUMED	12	47	12	47	0.0	0.0							
R2/50	W5/50	ASSUMED	10	46	10	46	0.0	0.0							
R2/50	W6/50	ASSUMED	9	66	9	66	0.0	0.0							
R2/50	W7/50	ASSUMED	9	66	9	66	0.0	0.0	16	82	16	82	0.0	0.0	
R1/51	W1/51	ASSUMED	2	20	2	19	0.0	5.0							
R1/51	W2/51	ASSUMED	15	45	15	44	0.0	2.2							
R1/51	W3/51	ASSUMED	17	58	17	58	0.0	0.0	18	60	18	59	0.0	1.7	
D2/E4	\A/A /F4	ACCUMED	1.4	4.4	1.4	42	0.0	2.2	1,4	4.4	1.4	42	0.0	2.2	
R2/51	W4/51	ASSUMED	14	44	14	43	0.0	2.3	14	44	14	43	0.0	2.3	
									1						

			Window							Room					
			Ex	isting	Pro	posed			Ex	isting	Pro	posed			
		Room	Winter	Annual											
Room	Window	Use	APSH	APSH	APSH	APSH	%Loss	%Loss	APSH	APSH	APSH	APSH	%Loss	%Loss	
71 MAN	OR ROAD														
R12/40	W27/40	ASSUMED	14	48	14	47	0.0	2.1							
R12/40	W28/40	ASSUMED	14	48	14	47	0.0	2.1	14	48	14	47	0.0	2.1	
R6/41	W11/41	ASSUMED	16	50	16	49	0.0	2.0							
R6/41	W12/41	ASSUMED	16	50	16	49	0.0	2.0	17	51	17	50	0.0	2.0	
8 MANO	R PARK														
R5/150	W19/150	KITCHEN	4	9	4	9	0.0	0.0	4	9	4	9	0.0	0.0	
R7/152	W6/152	BEDROOM	0	11	0	10	-	9.1							
R7/152	W8/152	BEDROOM	30	93	30	93	0.0	0.0							
R7/152	W9/152	BEDROOM	30	93	30	93	0.0	0.0	30	100	30	99	0.0	1.0	
10 MANO	OR PARK														
R2/120	W2/120	CONSERVATORY_TW	1	7	1	7	0.0	0.0							
R2/120	W3/120	CONSERVATORY_TW	0	20	0	18	-	10.0							
R2/120	W4/120	CONSERVATORY_TW	0	9	0	7	-	22.2							
R2/120	W5/120	CONSERVATORY_TW	0	20	0	17	-	15.0							
R2/120	W6/120	CONSERVATORY_TW	0	13	0	11	-	15.4							
R2/120	W7/120	CONSERVATORY_TW	0	16	0	15	-	6.3							
R2/120	W8/120	CONSERVATORY_TW	0	9	0	8	-	11.1	1	26	1	24	0.0	7.7	
12 MAN	OR PARK														