Client: Lau Yuk Ltd

Daylight and Sunlight Assessment for the Development at 78-80 Tib Street, Manchester M4 1LG

November 2025

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1 Executive Summary

A daylight and sunlight assessment has been carried out in accordance with the BRE Guidelines (BR209 2022) in order to assess the potential impact of the proposed development at 78-80 Tib Street Manchester, M4 1LG on the neighbouring residential properties.

In line with the VSC daylight assessment criteria, it has been shown that 95% of the assessed neighbouring windows will not experience a reduction beyond the acceptable BRE threshold. The remaining 5% of windows comply with the BRE mirror-image methodology.

When applying the NSL daylight assessment, 79% of rooms meet the standard BRE criteria. The remaining rooms either comply with the BRE mirror-image methodology (where appropriate) or comply with alternative reduction thresholds considered more appropriate for underdeveloped sites within dense, urban environments.

It has also been possible to demonstrate that none of the neighbouring properties will experience a reduction beyond the BRE thresholds for sunlighting and therefore is considered acceptable.

2 Background and Scope of Appraisal

2.1 Study Objectives

EPS has been commissioned by Lau Yuk Ltd to assess the potential impact of the proposed development at 78-80 Tib Street, Manchester M4 1LG, in relation to daylight, sunlight and overshadowing on the neighbouring buildings. The key objectives of the assessment are to:

- assess the baseline conditions at the site;
- analyse the potential impacts of the development on the daylight and sunlight currently received by the neighbouring buildings;
- assess these impacts in line with any relevant planning policies and best practice guidance.

2.2 Site Location

The site is situated in the Northern Quarter of Central Manchester and is located within the administrative boundaries of Manchester City Council. The location of the site is shown in Figure 2.1 and the site plan included in Appendix A.1 gives a more detailed reference to the site location and layout.

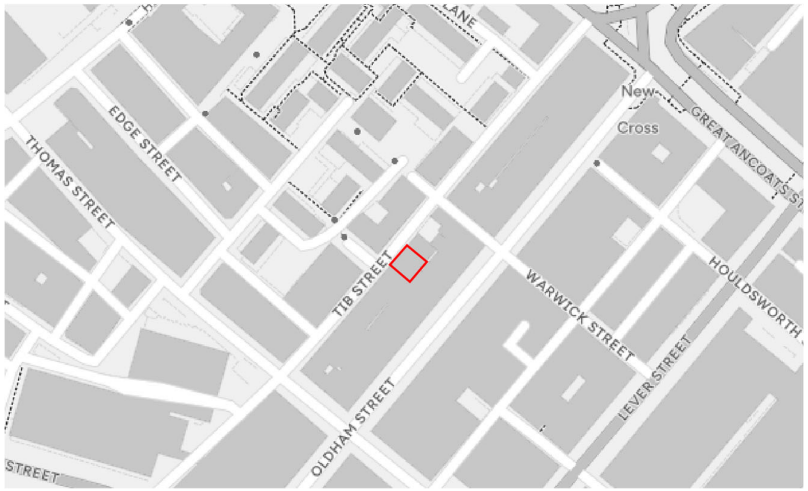


Figure 2.1 - Location map (contains Ordnance Survey data © Crown copyright and database rights 2025)

2.3 The Development

The proposal for development is to demolish the existing derelict building and build a three-storey development with a setback fourth floor. Drawings of the proposed scheme are included in Appendix A.1 and a 3D rendered image of the development proposal is shown in Figure 2.2.

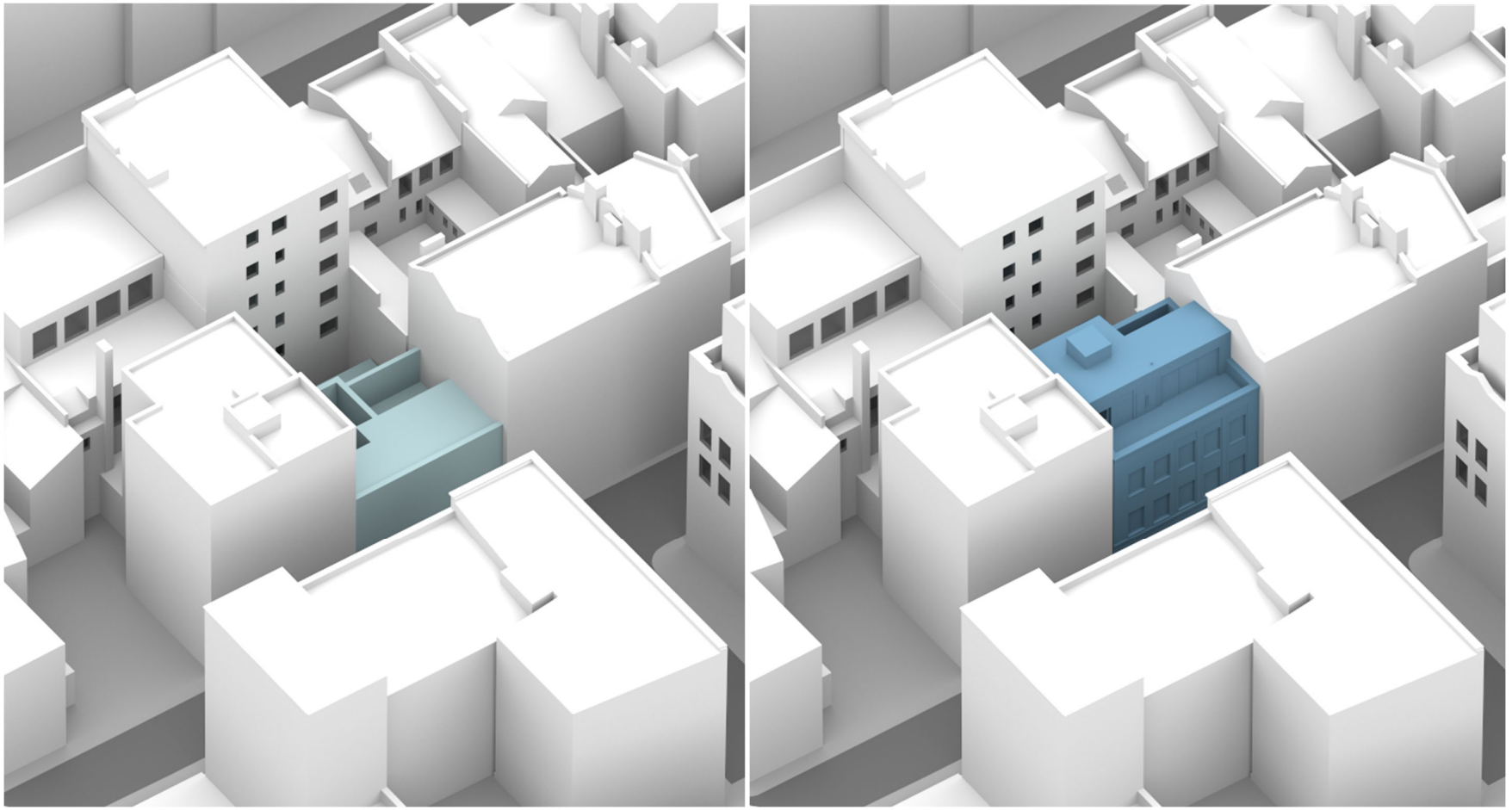


Figure 2.2 -- 3D Image of the existing (left) and proposed (right) development scenarios

3 Policy and Guidance

3.1 National Planning Policy

National Planning Policy Framework (December 2024, as amended February 2025)

Paragraph 130 on 'Achieving appropriate densities' states that *"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)."*

Guidance on Effective Use of Land (Revised July 2019)

The guidance states that *"Where a planning application is submitted, local planning authorities will need to consider whether the proposed development would have an unreasonable impact on the daylight and sunlight levels enjoyed by neighbouring occupiers, as well as assessing whether daylight and sunlight within the development itself will provide satisfactory living conditions for future occupants."*

Furthermore, it also states that "*All developments should maintain acceptable living standards. What this means in practice, in relation to assessing appropriate levels of sunlight and daylight, will depend to some extent on the context for the development as well as its detailed design. For example in areas of high-density historic buildings, or city centre locations where tall modern buildings predominate, lower daylight and daylight and sunlight levels at some windows may be unavoidable if new developments are to be in keeping with the general form of their surroundings. In such situations good design (such as giving careful consideration to a building's massing and layout of habitable rooms) will be necessary to help make the best use of the site and maintain acceptable living standards."*

3.2 Regional and Local Planning Policy

There is no regional or local planning policy in relation to daylight, sunlight or overshadowing.

3.3 Best Practice Guidance

In the absence of official national planning guidance/legislation on daylight and sunlight, the most recognised guidance document is published by the Building Research Establishment and entitled 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice', Third Edition, 2022; herein referred to as the '**BRE Guidelines**'.

The BRE Guidelines are not mandatory and themselves state that they should not be used as an instrument of planning policy, however in practice they are heavily relied upon as they provide a good guide to approach, methodology and evaluation of daylight and sunlight impacts.

Whilst the BRE Guidelines provide numerical guidance for daylight, sunlight and overshadowing, these criteria should not be seen as absolute targets. The document states that the intention of the guide is to aid rather than constrain the designer. The Guide is not an instrument of planning policy, therefore whilst the methods given are technically robust, it is acknowledged that some level of flexibility should be applied where appropriate.

4 Assessment Techniques

4.1 Background

Natural light refers to both daylight and sunlight. However, a distinction between these two concepts is required for the purpose of analysis and quantification of natural light in buildings. In this assessment, the term '*Daylight*' is used for natural light where the source is the sky in overcast conditions, whilst '*Sunlight*' refers specifically to the light coming directly from the sun.

The primary objective of this assessment is to quantify the impacts of the proposed development on the adjacent building[s] and therefore the methods employed by this study are focussed on this objective. These methodologies are described in the following sections of this report and follow the hierarchical approach set out by the BRE Guidelines. The 'decision chart' outlining this process (Figure 20 of the Guidelines) has been reproduced for clarity.

The BRE guidelines are primarily intended for use for residential rooms in adjoining dwellings. However, they may also be applied to any existing non-domestic buildings where the occupants have a reasonable expectation of daylight, which could include schools, hospitals, hotels and offices in specific circumstances. For dwellings, it states that living rooms, dining rooms and kitchens should be assessed. Bedrooms should also be checked, although it states that they are less important. Other rooms, such as bathrooms, toilets, storerooms, circulation areas and garages need not be assessed.

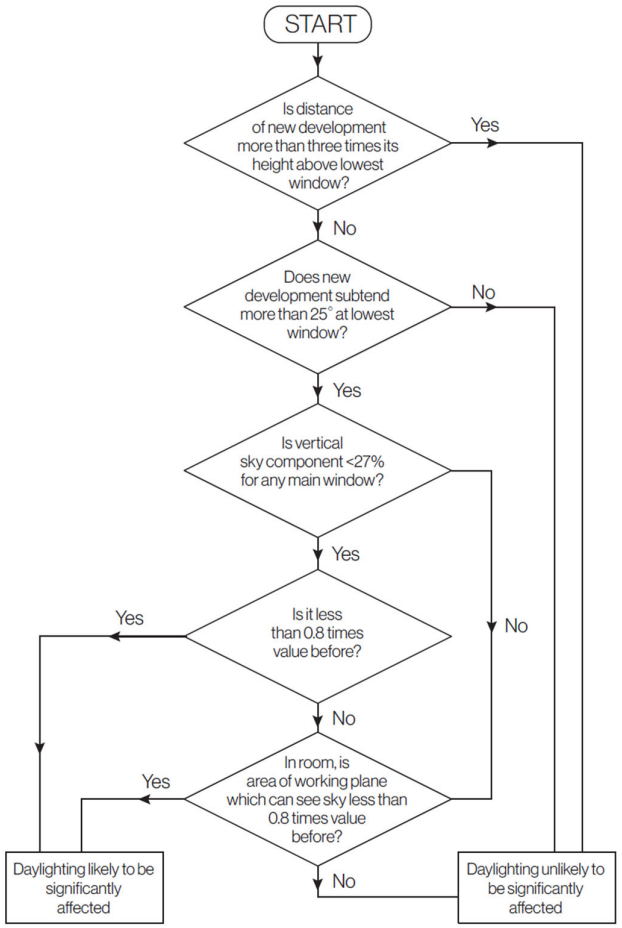


Figure 4.1 - Decision chart (Figure 20 of the BRE Guidelines)

4.2 Vertical Sky Component

The Vertical Sky Component (VSC) calculation is the ratio of the direct sky illuminance falling on the outside of a window, to the simultaneous horizontal illuminance under an unobstructed sky. The standard CIE (Commission Internationale d'Éclairage) Overcast Sky is used and the ratio is expressed as a percentage. For example, a window that has an unobstructed view over open fields would benefit from the maximum VSC, which would be close to 40%. For a window to be considered as having a reasonable amount of skylight reaching it, the BRE Guidelines suggests that a minimum VSC value of 27% should be achieved. When assessing the impact of a new development on an existing building, the BRE Guidelines specifies the following requirement:

> *"If the VSC with the new development in place is both less than 27% and less than 0.8 times its former value, then the reduction in light to the window is likely to be noticeable."*

This means that a reduction in the VSC value of up to 20% its former value would be acceptable and thus the impact would be considered negligible. It is important to note that the VSC is a simple geometrical calculation, which provides an early indication of the potential for daylight entering the space. It does not, however, assess or quantify the actual daylight levels inside the rooms.

4.3 No Sky Line

The No Sky Line, or sometimes referred to as No Sky View method, describes the distribution of daylight within rooms by calculating the area of the 'working plane', which can receive a direct view of the sky. The working plane height is generally set at 850mm above floor level within a residential property and 700mm within a commercial property. When assessing the potential impacts on the daylight available to the neighbouring properties, the BRE Guidelines state that if the area within a room receiving direct skylight is reduced by less than 0.8 following the construction of a new development, the impact will be noticeable to the occupants. This is also true if the No Sky Line encroaches onto key areas like kitchen sinks and worktops.

One benefit of the daylight distribution test is that the resulting contour plans show where the light falls within a room, for both the existing and proposed conditions, and a judgement can be made as to whether the room will retain light to a reasonable depth.

4.4 Annual Probable Sunlight Hours

It is also possible to quantify the amount of sunlight available to a new development and the recognised methodology for undertaking this analysis is the Annual Probable Sunlight Hours (APSH) method.

The BRE Guidance outlines the following parameters and for the assessment to conclude that the sunlighting of the existing dwelling could be adversely affected, all three of the following tests need to have been failed:

Test A - Does the window receive less than 25% of the APSH, or less than 5% the APSH between 21st September and 21st March?

Test B - Does the assessed window receive less than 0.8 times its former sunlight hours during either the 'whole year' or 'winter' period?

Test C - Is the reduction in sunlight received over the whole of the year greater than 4% of the APSH?

For new development and especially where existing buildings are being re-developed, it is important to acknowledge that these are aspirational targets intended to aid and not constrain the designer.

These aspirational targets were derived to improve the amenity of single dwellings that typically comprise a living room, kitchen and bedrooms; the objective being to maximise sunlight in the main living areas. However, for buildings that contain multiple apartments, it is rarely possible to configure the internal layout such that all rooms receive direct sunlight as it is inevitable that some windows will be situated on an elevation that faces within 90 degrees of due north.

It is therefore important to understand that when assessing the provision of sunlight to a building containing multiple dwellings, the BRE Guidelines seek only to maximise the amount of sunlight received. They do not set absolute targets.

4.5 Overshadowing

The BRE Guidance suggests that where new development may affect one or more amenity areas, then analysis can be undertaken to quantify the loss of sunlight resulting from overshadowing. Typical examples of areas that could be considered as open spaces or amenity areas are main back gardens of houses, allotments, parks and playing fields, children's playgrounds, outdoor swimming pools, sitting-out areas, such as in public squares and focal points for views, such as a group of monuments or fountains. Amenity areas in the form of balconies are not recommended to be assessed under the BRE Guidelines due to their small size and often significant obstruction.

Sun Hours on Ground

The BRE Guidelines acknowledge that 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 ambiance of a development.

The BRE Guidelines recommend that for a garden or amenity area to appear adequately sunlit throughout the year, at least 50% of an amenity area should receive at least 2 hours of sunlight on 21st March. The BRE Guidelines also suggest that if, as a result of a new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on the 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.

When undertaking this analysis, sunlight from an altitude of 10° or less has been ignored as this is likely to be obscured by planting and undulations in the surrounding topography. Driveways and hard standing for cars is also usually left out of the area used for this calculation. Fences or walls less than 1.5 metres high are also ignored. Front gardens which are relatively small and visible from public footpaths are omitted, with only main back gardens needing to be analysed.

The Guidelines also state that *"normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than a deep shadow of a building."* This is especially the case for deciduous trees, which provide welcome shade in the summer whilst allowing sunlight to penetrate during the winter months.

Transient Overshadowing

The BRE Guidelines suggest that where large buildings are proposed, which may affect a number of open spaces or amenity areas, it is useful and illustrative to plot a shadow plan to show the location of shadows at different times of the day and at key times during the year. Typically, the 21st March, the 21st June, and 21st December are used to represent the annual variance of sun position, noting that the position of the sun in the sky during the spring equinox (21st March) is equivalent to that of the autumn equinox.

The BRE Guidelines provide no criteria for the significance of transitory overshadowing other than to suggest that by establishing the different times of day and year when shadow would be cast over surrounding areas, an indication as to the significance of the likely effect of a new development will be found.

The assessment of transient overshadowing effects is therefore based upon expert judgment, taking into consideration the likely effects of the various baseline conditions and comparing them with the likely significant transient overshadowing effects of the development proposals.

5 Assessment Methodology

5.1 Method of Baseline Data Collation

The following data has been used to inform this study:

- OS Mastermap mapping
- Measured survey data (Spatial Dimensions – June 2025)
- Scheme drawings in AutoCAD format (LDM Design and Lee Evans Partnership – October 2025)
- 3D Building model of the proposed development in DWG format (Lee Evans Partnership – October 2025)
- Photographic information provided by Lee Evans Partnership in April 2025
- 3D Building model constructed using photogrammetric techniques (provided by AccuCities 2025 based on satellite imagery from 2023 to 15cm accuracy)
- Aerial photography (Google Maps and Bing)

5.2 Identification of Key Sensitive Receptors

The BRE Guidelines are intended for use for rooms and adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storeroom circulation areas and garages are not deemed as requiring daylight and therefore are not identified as sensitive receptors. The BRE document also states that the guidelines may be applied to any non-domestic building where the occupants have a reasonable expectation of daylight. This would normally include schools, hospitals, hotels, hostels, small workshops and some offices.

The first step in this process is to determine the key sensitive receptors, i.e. which windows may be affected by the proposed development. Key receptors are those windows that face or are located broadly perpendicular to the proposed development.

If a window falls into this category, the second step is to measure the obstruction angle. This is the angle at the level of the centre of the lowest window between the horizontal plane and the line joining the highest point of nearest obstruction formed from any part of the proposed development. If this angle is less than 25°, then it is unlikely to have a substantial effect on the diffuse daylight enjoyed by the existing window and the window is not deemed to be a sensitive receptor. A graphical representation of the 25° rule is illustrated in Figure 5.1.

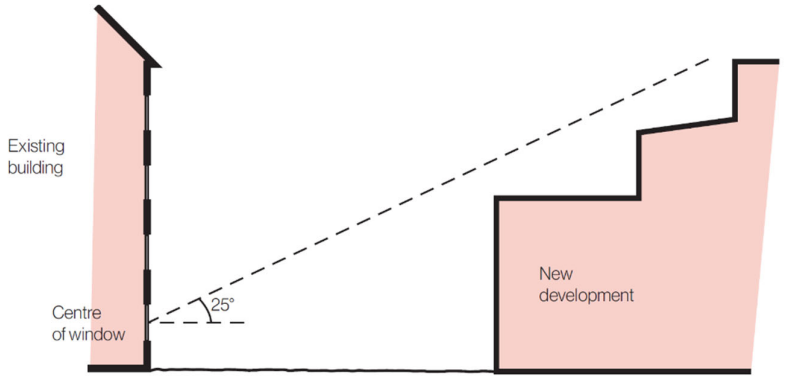


Figure 5.1 - Graphical representation of the 25° Rule (indicative buildings used for illustration purposes only)

As part of this assessment a digital three-dimensional model of the study area has been created for both the 'pre' and 'post' development scenarios. Images of these models are shown in Appendix A.2.

Using the 3D model, it is possible to identify all windows having an obstruction angle no greater than 25°. Impacts to these windows are therefore deemed to be negligible in line with the criteria set out within the BRE Guidelines.

There are, however, circumstances where the 25° rule is not wholly appropriate, for example where the development facing the window does not create a uniform obstruction along the skyline, or where the proposals are not directly adjacent to the receptor window. In these situations, professional judgement is used to differentiate between windows that require more detailed analysis and those that will clearly not be impacted. Where any level of uncertainty exists, the window is taken forward for detailed analysis.

Windows serving non-habitable spaces are not included within the assessment as these are not identified by planning policy or by the BRE Guidelines to be sensitive to changes in daylight and sunlight. Therefore, as part of the identification of sensitive receptors, the use of each room is, where possible, established and windows serving non-habitable spaces such as toilets, storerooms, stairwells and circulation spaces are identified. **Typically, kitchens that have a floor area less then 13m^2 are not considered to be habitable spaces in their own right,** if they do not contain any dining facilities**.**

Windows serving rooms within commercial premises are assumed to be non-habitable and in accordance with the BRE Guidelines are not identified as sensitive receptors. However, there are special cases where it can be assumed that some non-domestic uses have a reasonable expectation of daylight and therefore could be taken forward for more detailed analysis. Typically, these could be school classrooms, hospital wards, art studios etc. but professional judgement is generally relied upon to determine this and where considered appropriate, windows serving commercial premises are included.

Drawings showing the location of all sensitive receptors that have been assessed as part of this study are included in Appendix A.2.

In summary, habitable rooms in the following residential buildings have been identified as potential sensitive receptors and have therefore been tested:

- 31 Tib Street
- 1 Dorsey Street/33-37 Tib Street
- 82-84 Tib Street
- 89-95 Oldham Street
- 97-99 Oldham Street

The following properties are understood to be commercial and are therefore not reported on in this assessment.

- 101-103 Oldham Street – Property is understood to be commercial on all floors
- 72-76 Tib Street – This property contains a ground floor retail unit with office accommodation above.

5.3 Numerical Modelling

The numerical analysis used in this assessment has been undertaken using the Waldrum Tools (Version 7.0.0.7) software package.

5.4 Calculation Assumptions

The following assumptions have been made when undertaking the analysis:

- When assessing the VSC, the calculation is based on the centre point of the window position.

- When assessing the daylighting for internal rooms and in the absence of specific information, the following parameters are assumed:

Parameter	Value
Glazing Transmittance: Neighbours - Double Glazed	0.68
Correction Factor for Frames and Glazing Bars	0.8
Maintenance Factor	0.92
Working Plane/ Assessment Calculation Height	0.85m
Grid Spacing	0.3m

Table 5.1 - Assumed Calculation Parameters

- Where information on internal room layouts of adjacent properties is not known, best estimates as to room layout and size have been made in order to undertake the No Sky Line analysis.

- Where the internal arrangements and room uses have been estimated, it should be noted that this has no bearing upon the tests for VSC or APSH because the reference point is at the centre of the window being tested (and windows have been accurately drawn from survey information, where possible). It is relevant to the daylight distribution assessment, but in the absence of suitable plans, estimation is a conventional approach.

- In areas where survey data has not been provided or needs to be supplemented with additional information, photographs, OS mapping and brick counts have been used in the process of building the 3D model of the surrounding and existing buildings.

- When analysing the effect of the new building on the existing buildings, the shading effect of the existing trees has been ignored. This is the recommended practice where deciduous trees that do not form a dense belt or tree line are present (BRE Guidelines – Appendix H). This is because daylight is at its scarcest and most valuable in the winter when most trees will not be in leaf.

5.5 Assessment Criteria

The numerical assessment criteria specified within the BRE Guidelines is designed to identify the threshold at which point a change in daylight or sunlight would become ‘noticeable’ to the occupants. Consequently, where the results of the daylight and/or sunlight analysis demonstrate compliance with the BRE criteria, it can be concluded that the impact will be negligible. However, a point that should be stressed here is that ‘noticeable’ does not necessarily equate to ‘unacceptable’, and the BRE’s standard target values should not always be considered as pass/fail criteria. Whilst the BRE Guidelines provide numerical guidance for daylight, sunlight and overshadowing, these criteria should not be seen as absolute targets since, as the document states, the intention of the guide is to help rather than constrain the designer. The Guide is not an instrument of

planning policy, therefore whilst the methods given are technically robust, it is acknowledged that some level of flexibility should be applied where appropriate.

Consequently, based on the numerical assessment criteria set out within the BRE Guidelines and the use of professional judgment, the following assessment criteria have been established and are used in describing the impacts of the proposed development.

Significance	Description	Change Ratio
Negligible	No alteration or a small alteration from the existing scenario. Results demonstrate full compliance with the BRE assessment criteria and therefore occupants are unlikely to notice any change	1.0 to 0.8
Minor adverse	An alteration from the existing scenario which may be marginally noticeable to the occupant. This may include a marginal infringement of the numerical levels suggested in the BRE Guidelines, which should be viewed in context. A typical change ratio for this level of significance would be 0.7	0.7 to 0.8
Moderate adverse	An alteration from the existing scenario which may cause a moderate noticeable change to the occupant. This may consist of a modest infringement of the numerical BRE assessment criteria	0.6 to 0.7
Major adverse	An alteration from the existing scenario which may cause a major noticeable change to the occupant. This may consist of a significant infringement of the numerical BRE assessment criteria	Less than 0.6

Figure 5.2 - Daylight & Sunlight impact descriptors

6 Neighbouring Property Information

In order to assess the potential impact of the proposed development in relation to daylight, sunlight and overshadowing, the neighbouring properties should be modelled as accurately as possible.

6.1 Evidence

The information used in our modelling can be obtained in a variety of ways and sources of information used for each property are detailed below:

- 1 Dorsey Street / 33-37 Tib Street – Planning permission was granted in 1996 for the Erection of a four-storey building to form 13 flats and ground floor retail space. Elevations and floor plans showing the room layouts have been obtained from Planning Ref: 050572/FO/CITY/96. These plans show that the windows facing the proposed development site serve either Living/Dining rooms or kitchens. This is shown below in Figure 6.1

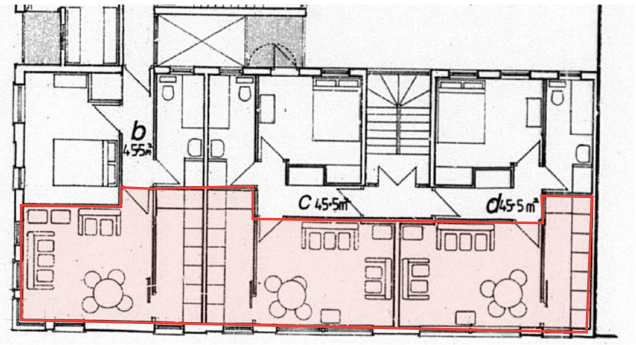


Figure 6.1 – First Floor plan of 1 Dorsey Street showing assessed frontage in red

- 31 Tib Street – The windows have been based on an elevation survey and there are no internal layouts available. Therefore, assumptions of dimensions and layouts have been made.
- 82-84 Tib Street – The windows have been based on an elevation survey and there are no internal layouts available. Therefore, assumptions of dimensions and layouts have been made.
- 89-95 Oldham Street – Existing internal information is available on the planning portal for two withdrawn schemes from 2021 and 2018 (Ref: 126921/FO/2020 and 116729/FO/2017)
- 97-99 Oldham Street – Internal floor layouts have been obtained from estate agent floor plans and images. In addition, a typical upper floor plan of the property has been provided by Manchester City Council in a response document on 97-99 Oldham Street (App Ref: 137210/FO/2023).

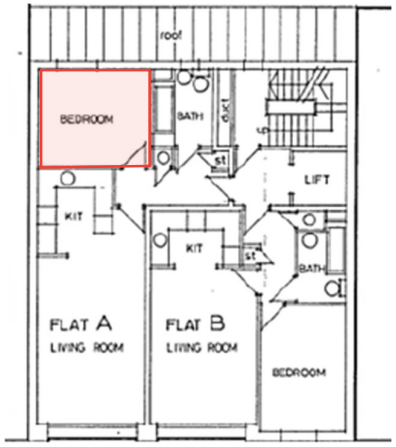


Figure 6.2 – Typical upper floor plan of 97-99 Oldham Street showing assessed habitable room in red

7 Daylighting Results

Based on the assessment techniques discussed in Section 4 and the results of the numerical analysis summarised in Appendix A.3, it is possible to draw conclusions on the impacts that the proposed development will have on the neighbouring buildings. The results of the daylight tests are discussed below.

7.1 Vertical Sky Component Analysis

The results of the VSC analysis are summarised below in Table 7.1.

Property	No. Windows Tested	Windows Satisfying BRE Criteria		VSC Windows Transgressions		
		No.	%	Minor Adverse	Moderate Adverse	Major Adverse
31 Tib Street	10	10	100%	0	0	0
1 Dorsey/33-37 Tib St	18	18	100%	0	0	0
82-84 Tib Street	4	4	100%	0	0	0
93-95 Oldham St	7	7	100%	0	0	0
97-99 Oldham St	5	3	60%	1	0	1
Total	**44**	**42**	**95%**	**1**	**0**	**1**

Table 7.1 - Results of the VSC Analysis

Inspection of the results of this test show that the vast majority of the windows either retain a VSC value greater than 27% post development, or have a ratio of change that is 0.8 or above and therefore are fully compliant. Consequently, in line with the assessment criteria set out within the BRE Guidelines, it is possible to conclude that the impact will be **negligible**.

There are two bedrooms situated at the rear on the first and second floor of 97-99 Oldham Street which are shown to experience a potentially noticeable reduction in sky view. The location of these two rooms which closely overlook the shared development boundary is shown in Image 7.1.

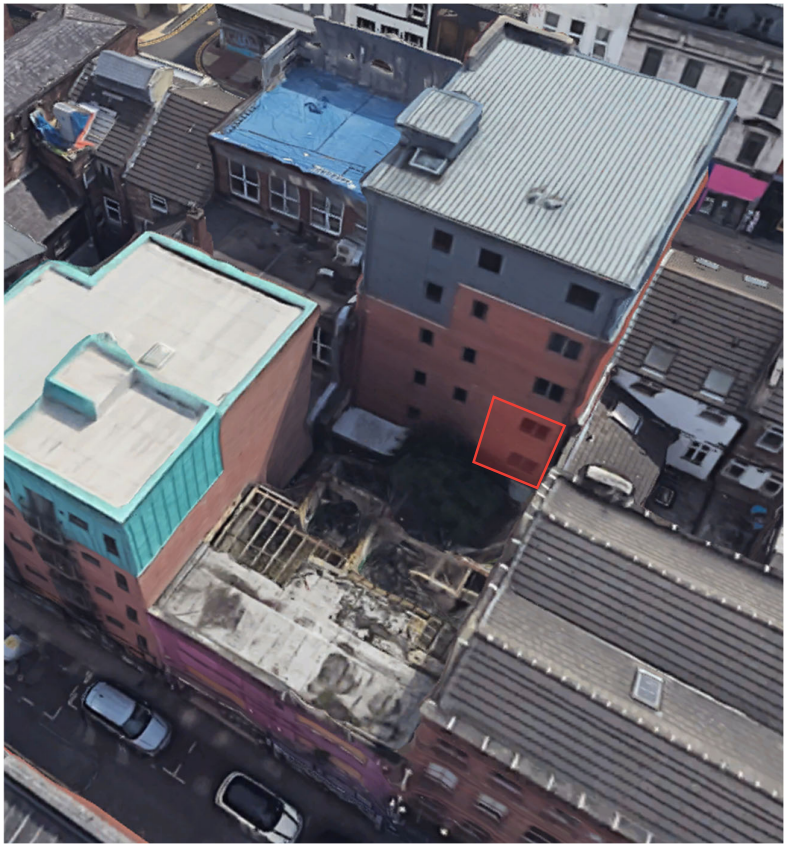


Figure 7.2 – Location of bedrooms in 97-99 Oldham Street

It is first important to note that although daylight analysis should be carried out for bedrooms, the BRE Guidelines do recognise that they are less important than living rooms, dining rooms and kitchens. The main living/kitchen/dining room of these two units fronts Oldham Street and will be unaffected by the proposed development.

Secondly, the habitable windows in this property closely overlook the shared boundary with the proposed development site and are only situated approximately 1.65m away from the rear boundary. Therefore, the rear windows and rooms within 97-99 Oldham Street are taking more than their fair share of light and unfairly constrain development at 78-80 Tib Street. This is exacerbated by the fact that 78-80 Tib Street is currently underdeveloped compared to its immediate neighbours to the front, rear and adjacent.

The scenario at 97-99 Oldham Street is acknowledged by the BRE Guidelines as an 'unneighbourly development'. For situations such as this, the BRE Guidelines include a specific appendix (Appendix F) on how alternative targets can be developed. This states that '*Alternative targets may be generated from the layout of an existing development…where an existing building has windows that are unusually close to the site boundary and taking more than their fair share of light*'.

This approach assumes that the massing of the neighbouring building is mirrored around the boundary line between the two plots. The development is then permitted to impact on daylight up to the degree that would result from the mirror image on the neighbouring property. This alternative target setting is a commonly applied calculation method based on recommended BRE Guidance.

In this case, given that the building 97-99 Tib Street has single aspect windows in very close proximity to the development site, the mirror image approach has been adopted. The property has been mirrored along the central boundary line shown in Figure 7.2 and a 3D image showing the mirrored massing is shown in Figure 7.3 and 7.4.

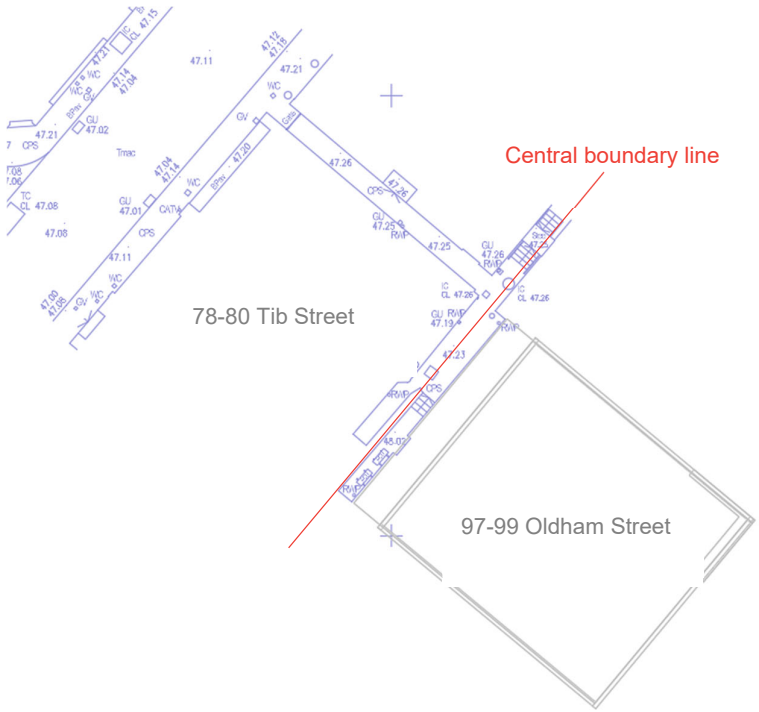


Figure 7.2 – Location of central boundary line between 97-99 Oldham St and 78-80 Tib St



Figure 7.3 – Plan view showing mirrored massing of 97-99 Oldham Street (pink)

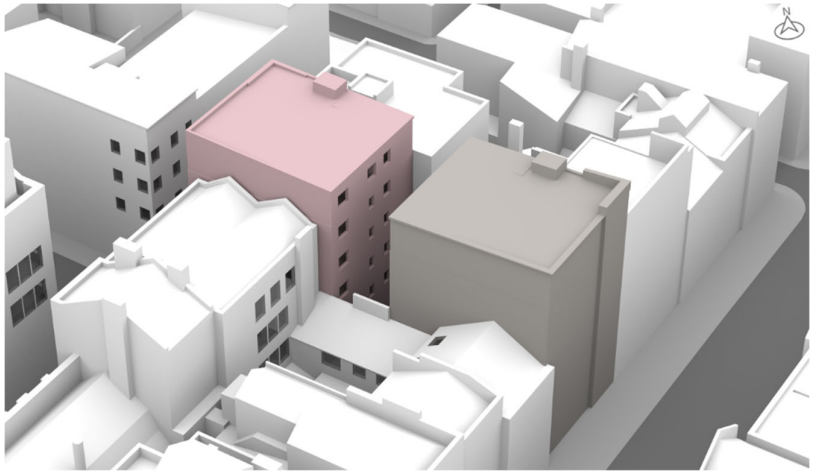


Figure 7.4 – View looking north showing mirrored massing of 97-99 Oldham Street (pink)

Alternative VSC targets have been set for the two windows experiencing transgressional results and the results of the mirror image analysis for the windows experiencing a transgression are summarised in Table 7.2. The target ratio of change value for the mirror image test is 1.0 and this is the case to ensure that the proposed development can pose no greater impact than if a building of the same size and massing of 97-99 Oldham Street was to be built.

Floor	Room No. and Use	Window Ref.	VSC Value %		Ratio of Change
			'Existing' Mirror Image	Proposed	
97-99 Oldham Street					
First	R3 – Bedroom	W3	3.27	7.67	2.35
Second	R3 – Bedroom	W4	7.24	15.02	2.07

Table 7.2 - Results of the VSC Mirror Image Analysis

It can be seen that when applying the mirror image methodology, both windows register a ratio of change greater than 1.0. This demonstrates that these bedrooms exceed the alternative target threshold. Therefore, the proposed development poses no greater impact than if an equal sized development to 97-99 Oldham Street were to be constructed on the proposed development site. Overall, it can be concluded that the results are compliant with the BRE mirror image alternative targets.

7.2 No Sky Line Analysis

In Appendix D of the BRE Guidelines, it states in Paragraph D3 that *"In most cases the position of the no sky line has to be found from plans. The calculation can only be carried out where room layouts are known. Using estimated room layouts is likely to give inaccurate results and is not recommended. However, where plans are available, for example on the local authorities online planning portal, the calculation should be carried out."* The information used for each neighbouring property is detailed in Section 6.

The results of the No Sky Line analysis are summarised in Table 7.3.

Property	No. Rooms Tested	Rooms Satisfying BRE Criteria		No Sky Line Room Transgressions		
		No.	%	Minor Adverse	Moderate Adverse	Major Adverse
31 Tib Street	2	2	100%	0	0	0
1 Dorsey/33-37 Tib St	9	6	67%	1	2	0
82-84 Tib Street	4	4	100%	0	0	0
93-95 Oldham St	4	4	100%	0	0	0
97-99 Oldham St	5	3	47%	0	0	2
Total	**24**	**19**	**79%**	**1**	**2**	**2**

Table 7.3 - Results of the No Sky Line Analysis

From the results summarised above, it can be seen that as a result of the proposed development, the impact on the daylight distribution within the majority of assessed rooms will be **negligible**. The reduction in the area of the working plane that has a direct view of the sky will be less than 20%, therefore occupants are unlikely to notice any change.

There are two bedrooms within 97-99 Oldham Street which are experiencing a reduction in the distribution of daylight. As previously discussed in Section 7.1, the windows that serve these rooms closely overlook the shared development boundary and are taking more than their fair share of light. The existing site is currently derelict and is relatively underdeveloped compared to the surrounding properties. Therefore, any reasonable development at 78-80 Tib Street is likely to cause a reduction in light to the rear bedrooms of 97-99 Oldham Street as these windows are extremely sensitive due to their un-neighbourly position.

The 'mirror-image' methodology has again been applied to these bedrooms for the No Sky Line test and the results are detailed in Table 7.4.

Floor	Room No. and Use	NSL Value (Lit Area of room) %		Ratio of Change
		'Existing' Mirror Image	Proposed	
97-99 Oldham Street				
First	R3 – Bedroom	8.23%	16.47%	2.00
Second	R3 – Bedroom	17.55%	34.60%	1.97

Table 7.4 - Results of the No Sky Line Mirror Image Analysis

Again, it can be seen that when applying the mirror image methodology, both rooms register a ratio of change greater than 1.0. This demonstrates that these bedrooms exceed the alternative target threshold. Therefore, the proposed development poses no greater impact than if an equal sized development to the 97-99 Oldham Street were to be constructed on the proposed development site. Overall, it can be concluded that the results are compliant with the BRE mirror image alternative targets.

In addition to the bedrooms at 97-99 Oldham Street, there are three living/dining rooms in 1 Dorsey Street/33-37 Tib Street which are shown to experience a potentially noticeable reduction in daylight distribution. One of the second-floor rooms experiences a very minor reduction of 21%, only 1% beyond the BRE standard acceptable threshold. Given the high-density environment in which the development site is located, this result is considered acceptable.

There are two living/dining rooms that experience a 'moderate' reduction of 31% and 34% with the proposed development in place. Whilst this is beyond the standard BRE criteria, the BRE make it quite clear that this is not unacceptable as the specific site location and surrounding environment should be taken into account. The existing development site is currently derelict and underdeveloped and therefore, any reasonable increase in massing is likely to cause a greater than normal reduction, especially if the height of the development were to match its immediate neighbours, including 1 Dorsey Street itself, a four-storey building.

Drawing upon evidence for a development in an under-developed location, guidance provided for a representation hearing report for the Greater London Authority (GLA) (D&P/3067/03 - 2013) for Holy Trinity Primary School, Dalston concluded that '*with respect to the reduction factor, it should also be noted that whilst BRE Guidelines state that a 20% reduction is the threshold for a materially noticeable change, the independent daylight and sunlight review sets out that given the underdeveloped nature of the site relative to its context, this percentage reduction should be increased to 30%, with an upper threshold of 40%*'.

In this, the reduction in no sky line to 1 Dorsey Street is well within a 40% reduction threshold and the results should be considered reasonable in this location.

8 Sunlight and Overshadowing Results

8.1 Annual Probable Sunlight Hours Analysis

The Annual Probable Sunlight Hours (APSH) tests have been carried out using the numerical model described in Section 4.3.

However, these tests are only applicable to windows that face within 90 degrees of due south. Consequently, in line with the guidelines and assessment methodologies set out within the BRE document, the analysis of sunlight impacts has only been carried out for these windows. Windows facing within 90 degrees of due north are not analysed and impacts are deemed to be negligible.

It should also be noted that where rooms have windows on more than one elevation, it is acceptable to sum the non-coincident sunlight hours to achieve a 'room total'. This approach is acknowledged by the BRE Guidelines and facilitates a greater understanding of the sunlight received within a room, by taking into account the fact that some windows will receive sunlight at different times during the day.

When examining the results of the three sunlight tests, it is first necessary to understand why there are three separate tests and more importantly, why it is not necessary to pass all three to demonstrate that there is no adverse impact. The BRE Guidelines clearly state that for the proposed development to be considered to adversely affect the available sunlight to neighbouring windows, all three tests would need to have been failed.

This is because sunlight is not assessed in terms of its contribution to the overall lighting levels within the room. The value attributed to sunlight is its transient presence and the way in which it can make a room appear bright and cheerful. There are also therapeutic values associated with sunlight and therefore it can be seen that these are not quantitative metrics that can be assessed using a single pass/fail criteria test. It is also necessary to understand that the amount of sunlight received by a window is strongly influenced by the orientation of the window elevation and any surrounding obstructions.

As a consequence of these factors, the assessment methodology embodied within the three separate tests allows the change in sunlight to be assessed in terms of the magnitude of change, absolute change and the retained level of sunlight. To conclude that a new development has no adverse impact, all that is required is for one of the three tests to be passed. The APSH test has been carried out and a summary of the results are shown below, with the detailed results of the analysis included in Appendix A.3.

Property	Number of Windows Tested	Annual			Winter		
		Windows satisfying BRE Criteria		Number of Windows Experiencing Adverse Impacts	Windows satisfying BRE Criteria		Number of Windows Experiencing Adverse Impacts
		Number	%		Number	%	
31 Tib Street	6	6	100%	0	6	100%	0
1 Dorsey Street / 33-37 Tib Street	18	18	100%	0	18	100%	0
82-84 Tib Street	4	4	100%	0	4	100%	0
93-95 Oldham Street	3	3	100%	0	3	100%	0
97-99 Oldham Street	**windows facing within 90 degrees of due north**						
101-103 Oldham Street	**windows facing within 90 degrees of due north**						
Total	**31**	**31**	**100%**	**0**	**31**	**100%**	**0**

Table 8.1 - Results of the APSH Analysis

When the results of the APSH analysis summarised in Table 8.1 and Appendix A.3 are inspected, it can be seen that all windows and rooms pass at least one of the three sunlight tests. Consequently, it has been demonstrated that the proposed scheme will have a **negligible** impact on the vast majority of neighbouring buildings.

8.2 Sun on the Ground

Using the specialist software described in Section 5.3 and assessment parameters set out in Section 4.5, the path of the sun is tracked to determine where the sun would reach the ground and where it would not on the 21st March.

However, from the inspection of aerial photographs and site-specific photos, it is evident that there are no amenity areas in close proximity to the proposed development, and therefore there is no potential for adverse impacts from overshadowing.

9 Conclusions

The proposed development at 78-80 Tib Street, Manchester M4 1LG has been evaluated against the criteria set out by the BRE Guidelines for the assessment of the potential impacts on the daylight to the neighbouring properties. Five residential properties have been identified as sensitive receptors for this study:

- 31 Tib Street
- 1 Dorsey Street/33-37 Tib Street
- 82-84 Tib Street
- 89-95 Oldham Street
- 97-99 Oldham Street

The habitable rooms and the windows serving the rooms within these properties have been tested.

When the magnitude of reduction is considered, it is evident that this will be within the standard acceptable limits prescribed by the BRE Guidelines for the significant majority of properties. Consequently, it is possible to conclude that any changes to the daylight received by the habitable rooms of the neighbouring buildings will not be significant and is unlikely to be noticeable by the occupants.

There are a small number of rooms on the lower floors of 1 Dorsey Street and 97-99 Oldham Street which have been shown to experience a reduction beyond the standard BRE threshold. As with most new development in dense, urban locations, it is inevitable that some degree of change will occur as a consequence. It is therefore important to acknowledge that the BRE Guidelines are intended to be interpreted flexibly, and a transgressional reduction does not necessarily mean the reduction is unacceptable.

After applying alternative targets using the BRE recommended mirror image methodology and drawing upon evidence from a representation hearing report for a similarly under-developed site in an urban location, these results should not be considered unreasonable given the site location.

The assessment of the impact of the proposed development on the sunlight enjoyed by the neighbouring buildings has shown that despite some reductions seen in the number of probable sunlight hours enjoyed by these windows, these are again within the limits prescribed by the BRE Guidelines as being acceptable.

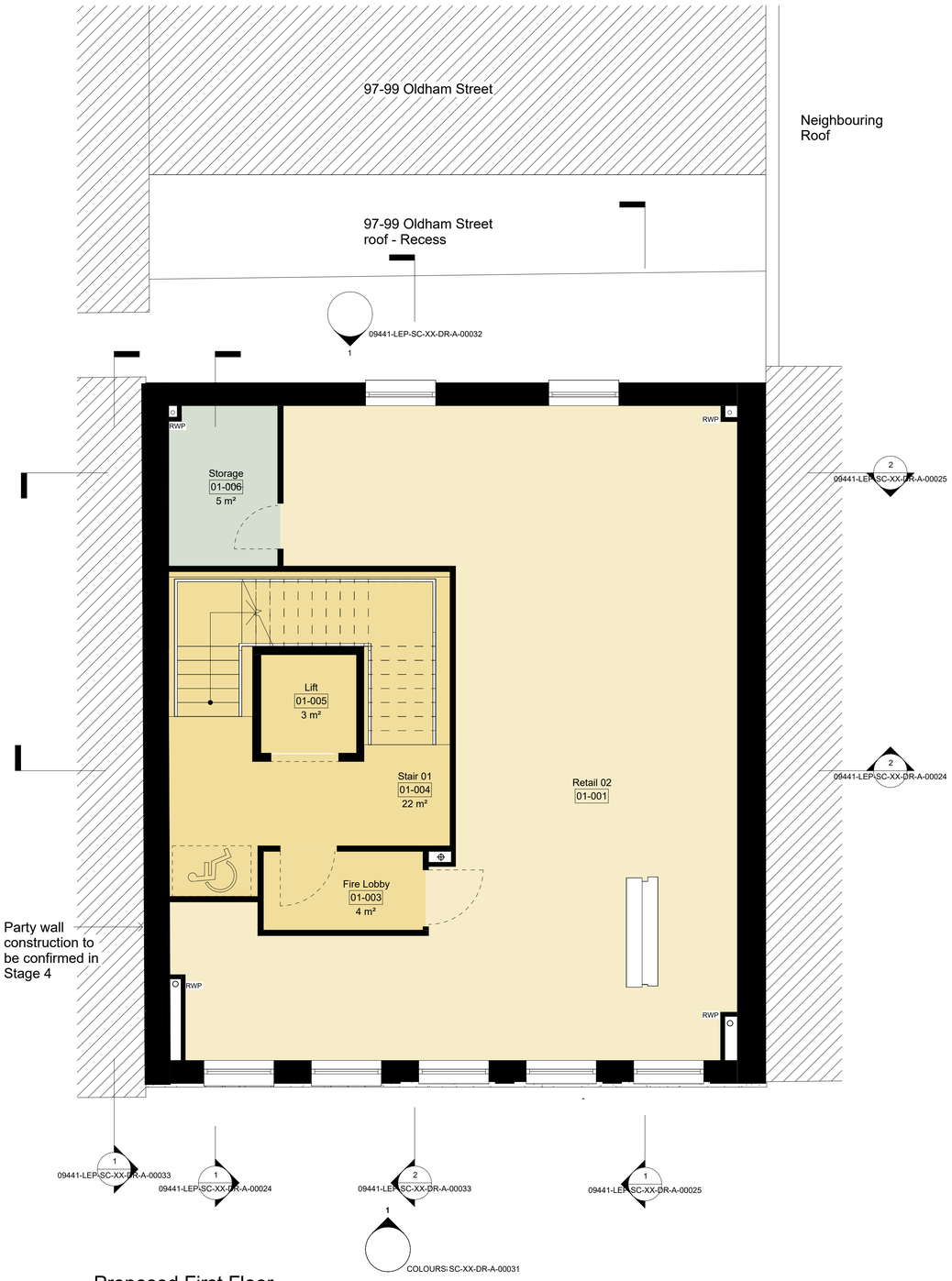
A Appendices

Appendix A.1 – Scheme Drawings

Appendix A.2 – Graphical Model Outputs

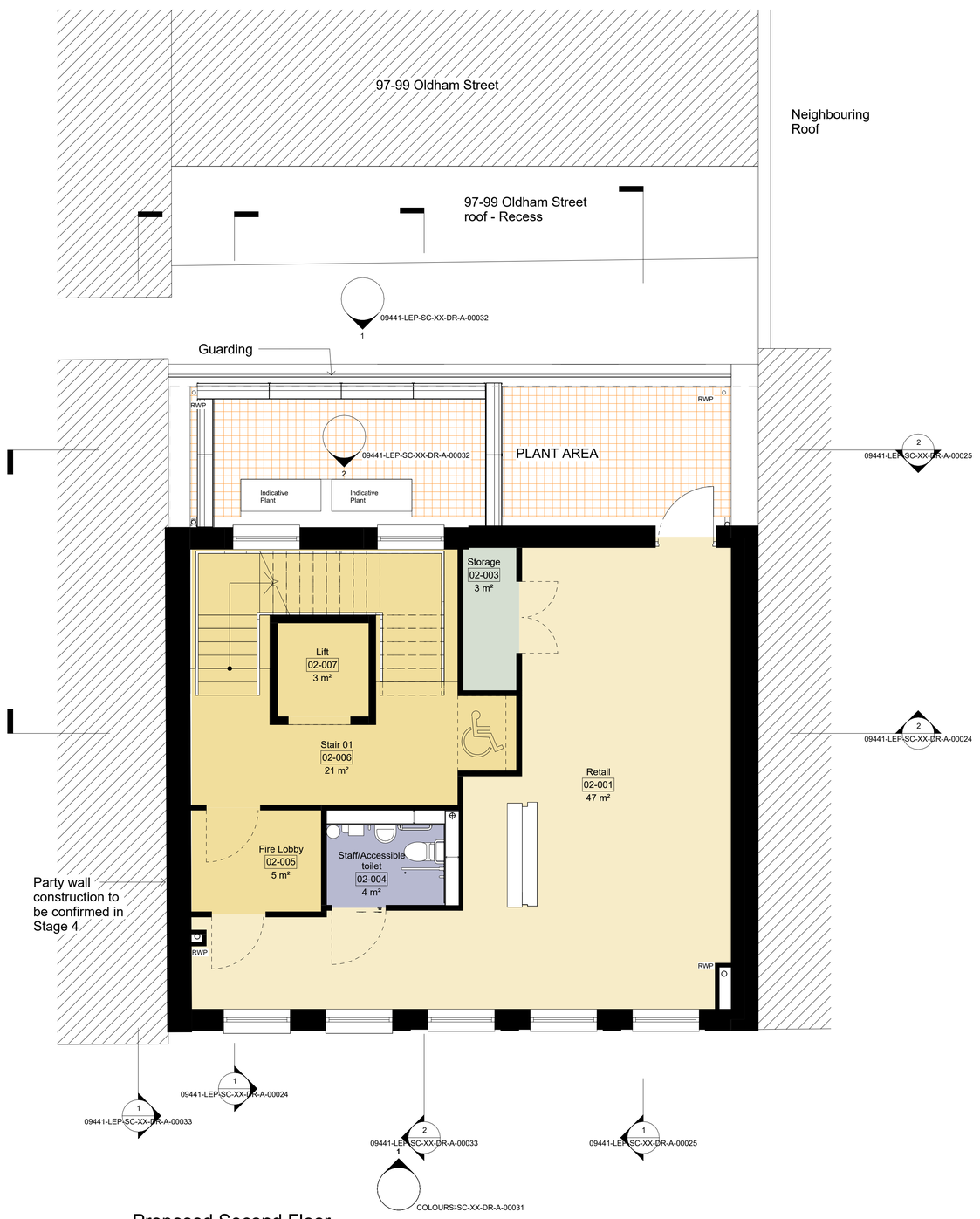
Appendix A.3 – Tabulated Results for Daylight & Sunlight Calculations

Appendix A.1 – Scheme Drawings



Proposed First Floor

Scale: 1 : 50



Proposed Second Floor

Scale: 1 : 50

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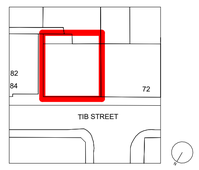
Room Type Legend

- Circulation
- Kitchen
- Outdoor
- Pop Up
- Restaurant
- Retail
- Sanitary
- Store
- Waste

- Existing
- Proposed
- Existing Buildings

Revision	Description	DRN	CHK	Date
P01	Planning Package	EFA	MHY	24/10/25

KEY PLAN



0 0.5 1 2.5 4m

ISSUE STATUS
STAGE 3

L E P Architecture Heritage Planning Interiors
www.lee-evans.co.uk | office@lee-evans.co.uk | 01227 784444

CLIENT
LAU YAK Ltd

PROJECT NAME
78-80 Tib Street

PROJECT NO	ISSUE DATE	DRAWN BY	CHECKED BY	SCALE @ A1
9441	08/06/25	EFA	MHY	1 : 50

DRAWING TITLE
Proposed First & Second Floor Plans

DRAWING NUMBER
09441-LEP-SC-XX-DR-A-00021

REVISION
P01

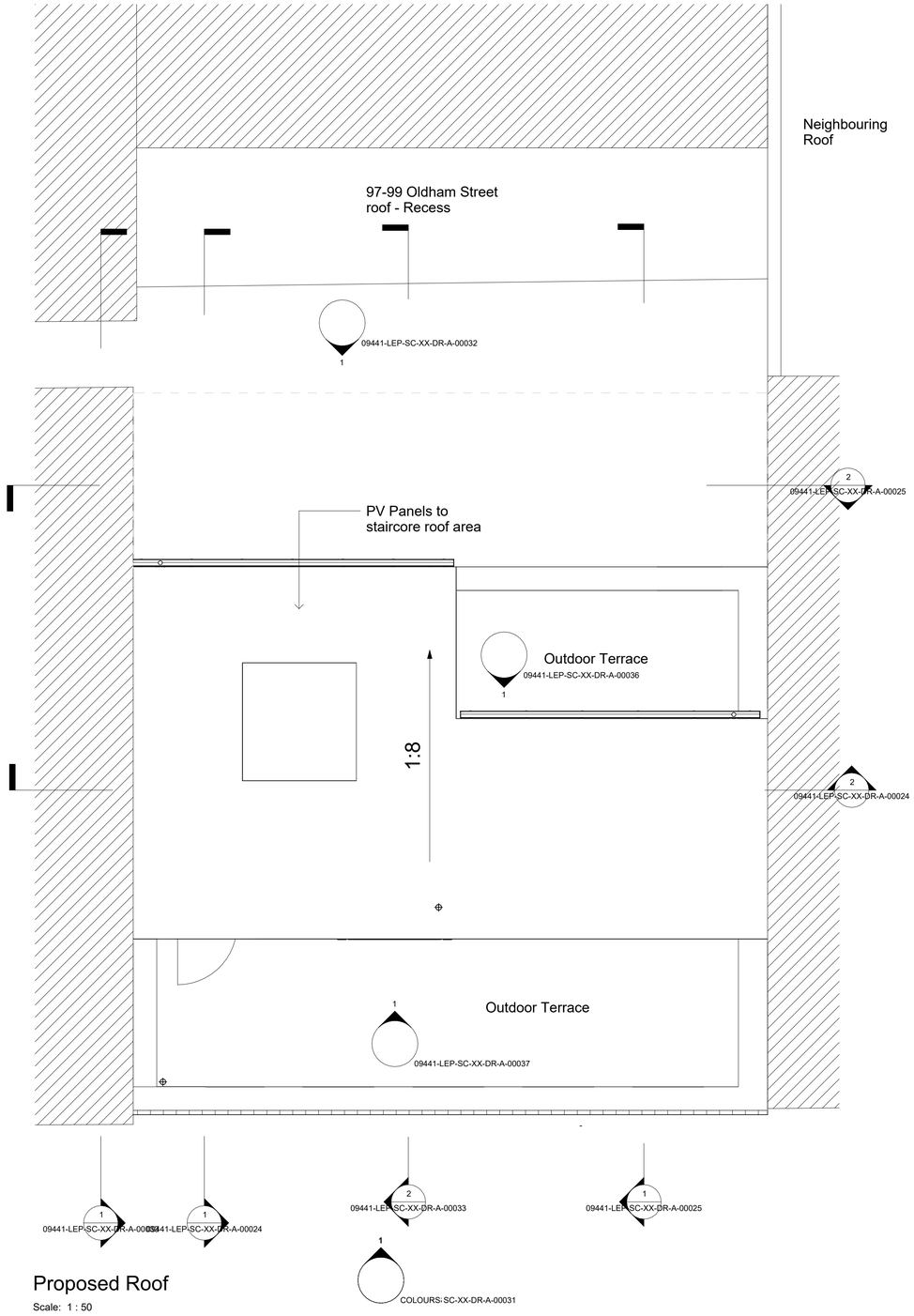
PROJECT | AUTHOR | ZONE | LEVEL | TYPE OF INFO | ROLE | NUMBER

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Proposed Third Floor

Scale: 1 : 50



Proposed Roof

Scale: 1 : 50

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Room Type Legend

- Circulation
- Kitchen
- Outdoor
- Pop Up
- Restaurant
- Retail
- Sanitary
- Store
- Waste

Existing

Proposed

Existing Buildings

Revision	Description	DRN	CHK	Date
P01	Planning Package	EFA	MHY	24/10/25

KEY PLAN



ISSUE STATUS
STAGE 3

L E P Architecture Heritage Planning Interiors
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CLIENT
LAU YAK Ltd

PROJECT NAME
78-80 Tib Street

PROJECT NO	ISSUE DATE	DRAWN BY	CHECKED BY	SCALE @ A1
9441	08/06/25	EFA	MHY	1 : 50

DRAWING TITLE
Proposed Third Floor & Roof Plan

DRAWING NUMBER
09441-LEP-SC-XX-DR-A-00022

REVISION
P01

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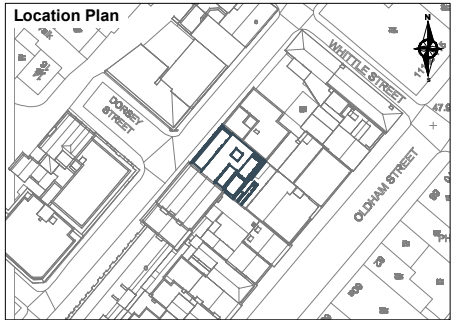
Appendix A.2 – Graphical Model Outputs



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Location Plan



Legend

- Existing Buildings
- Surrounding Buildings

Rev	Description	Date
01	Second issue	
00	First issue	06/11/2025

CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

SCALE	PROJ REF	ANALYST	DRAWN BY
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DWG No.: 4295_01

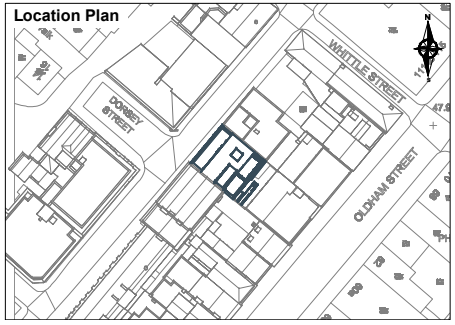


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Location Plan



Legend

Proposed Buildings

Surrounding Buildings

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CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

SCALE	PROJ REF	ANALYST	DRAWN BY
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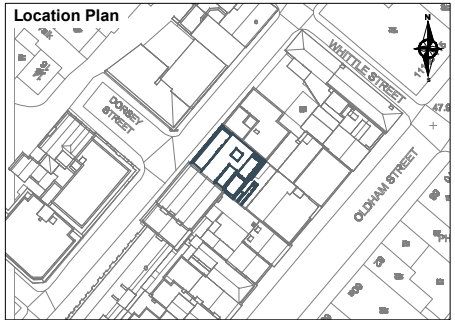
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PROJECT: Tib Street, Manchester

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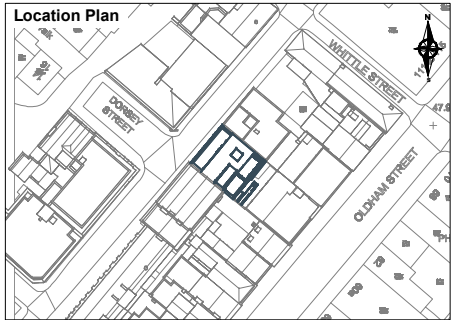
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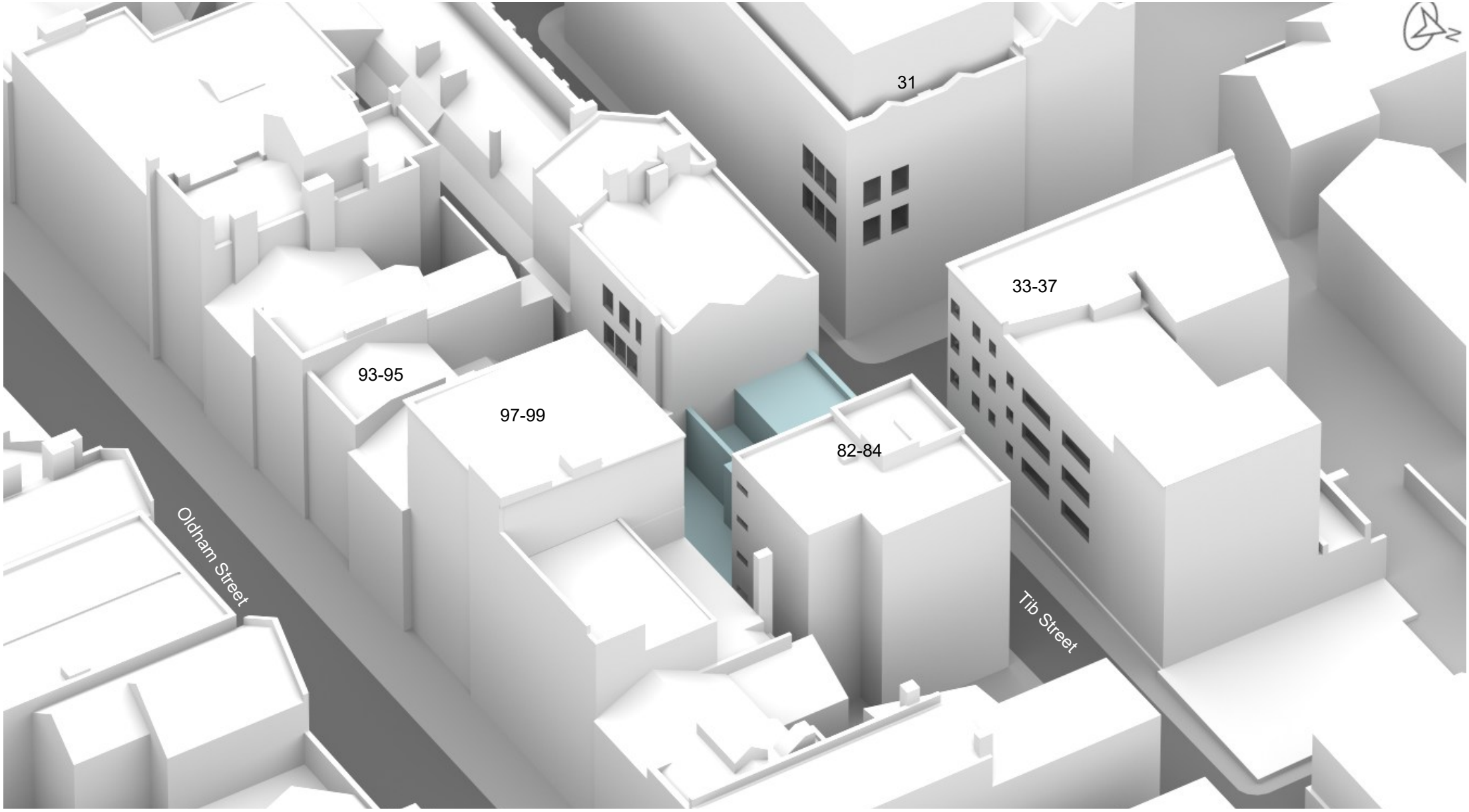
CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

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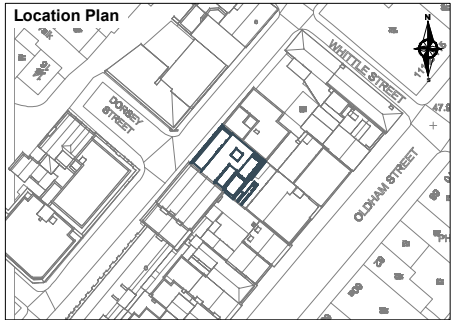
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PROJECT: Tib Street, Manchester

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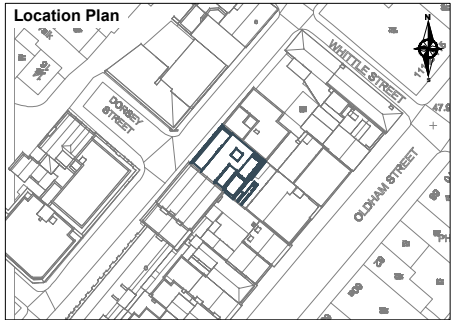
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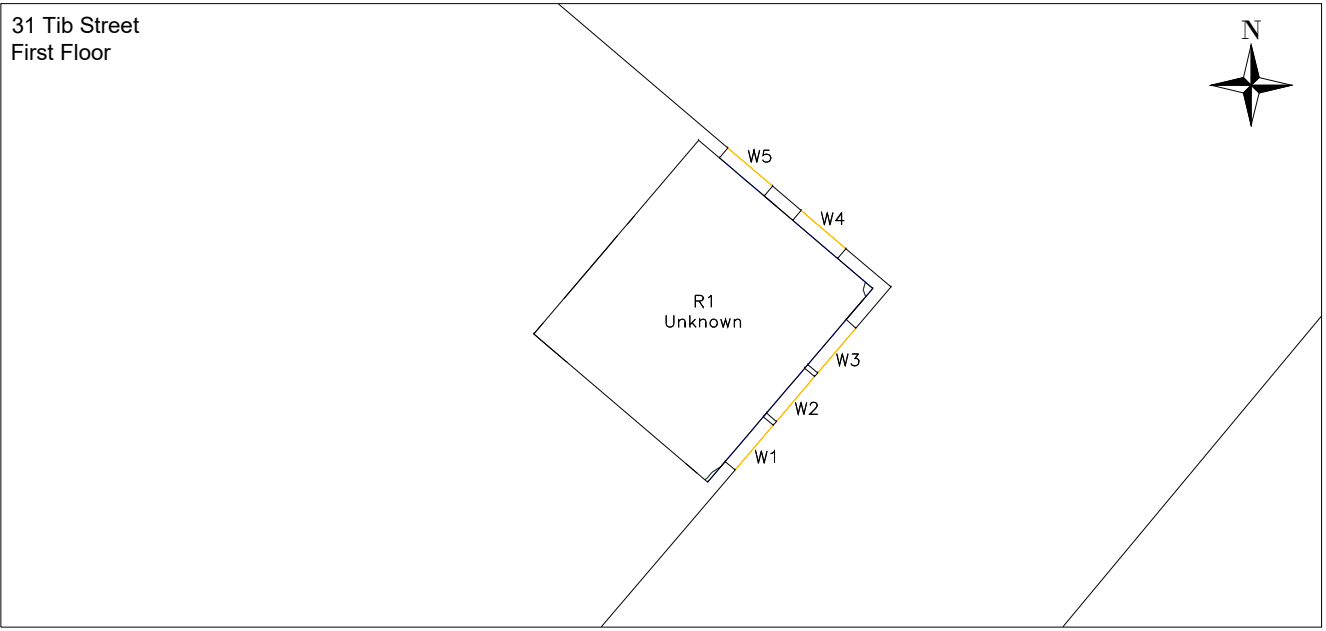
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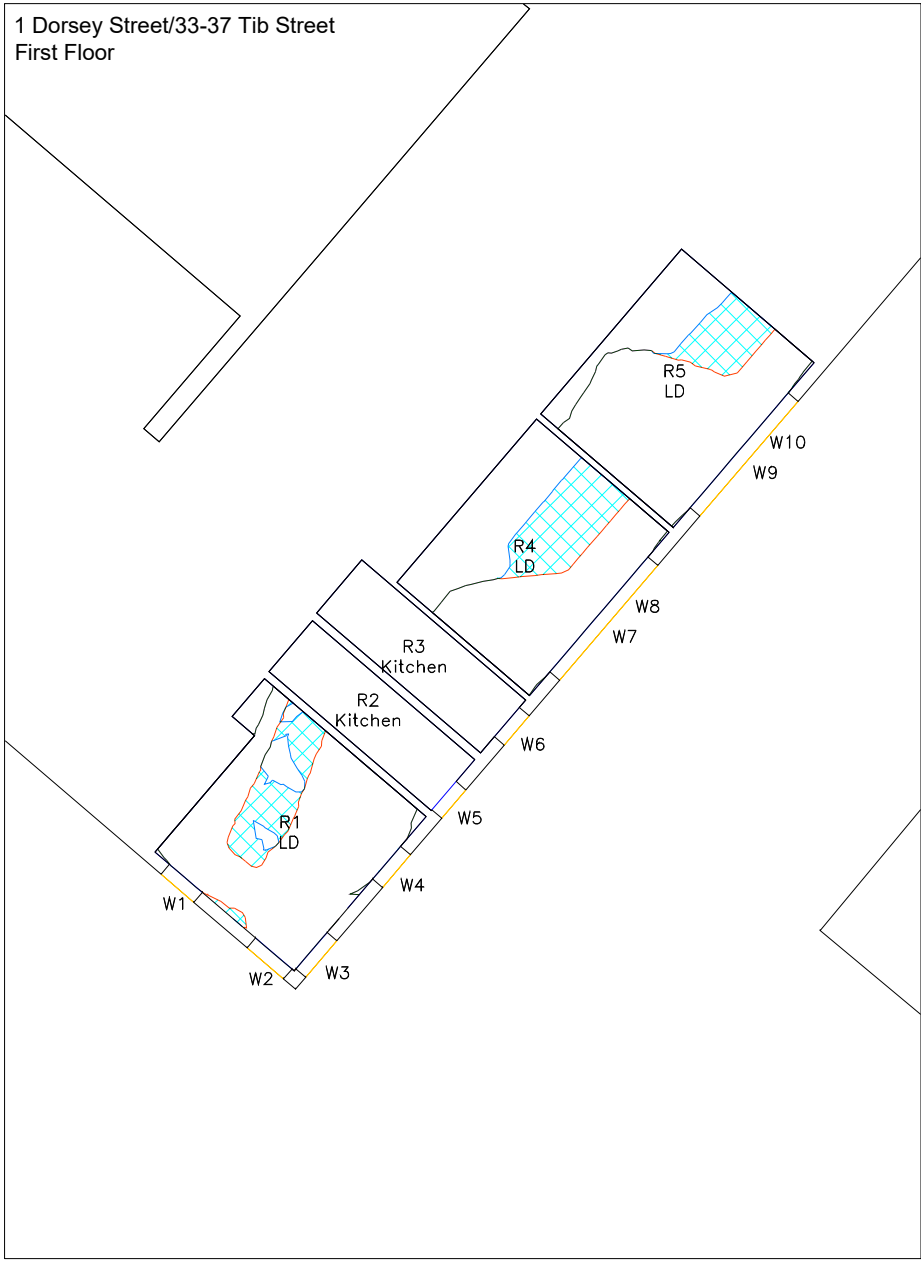
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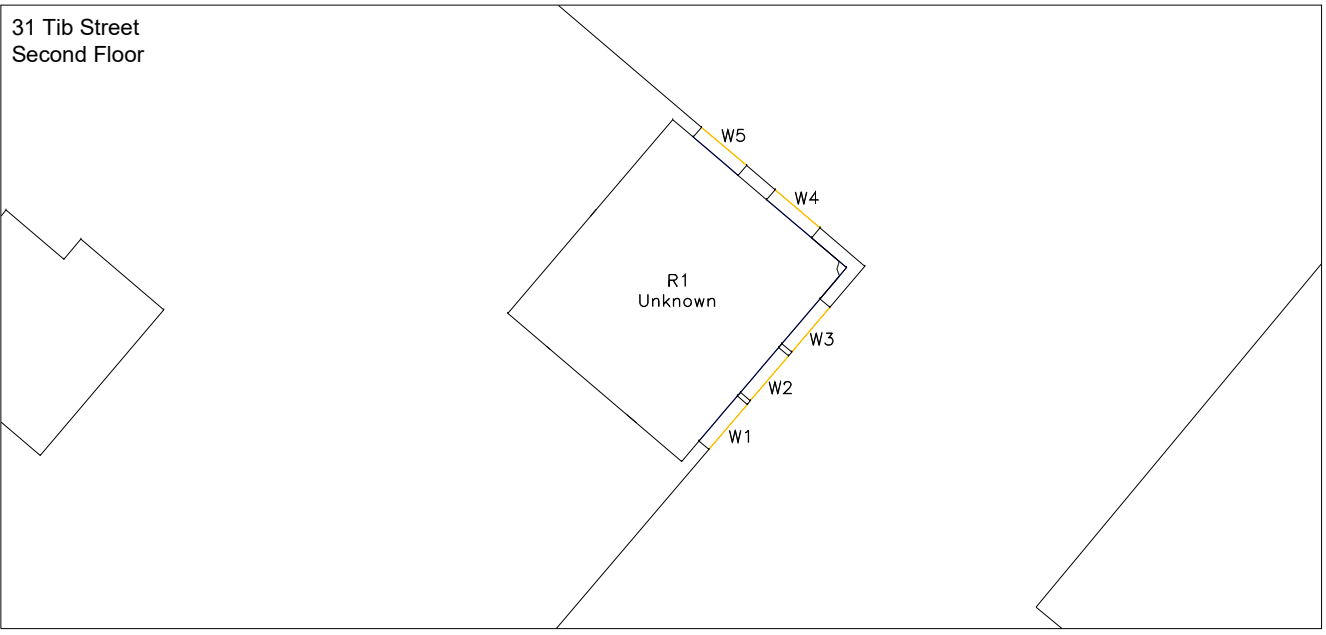
31 Tib Street
First Floor



1 Dorsey Street/33-37 Tib Street
First Floor

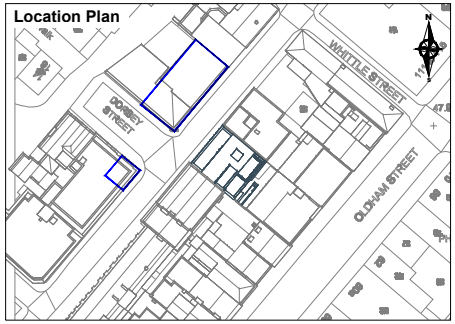


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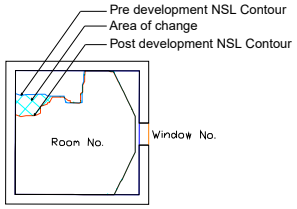


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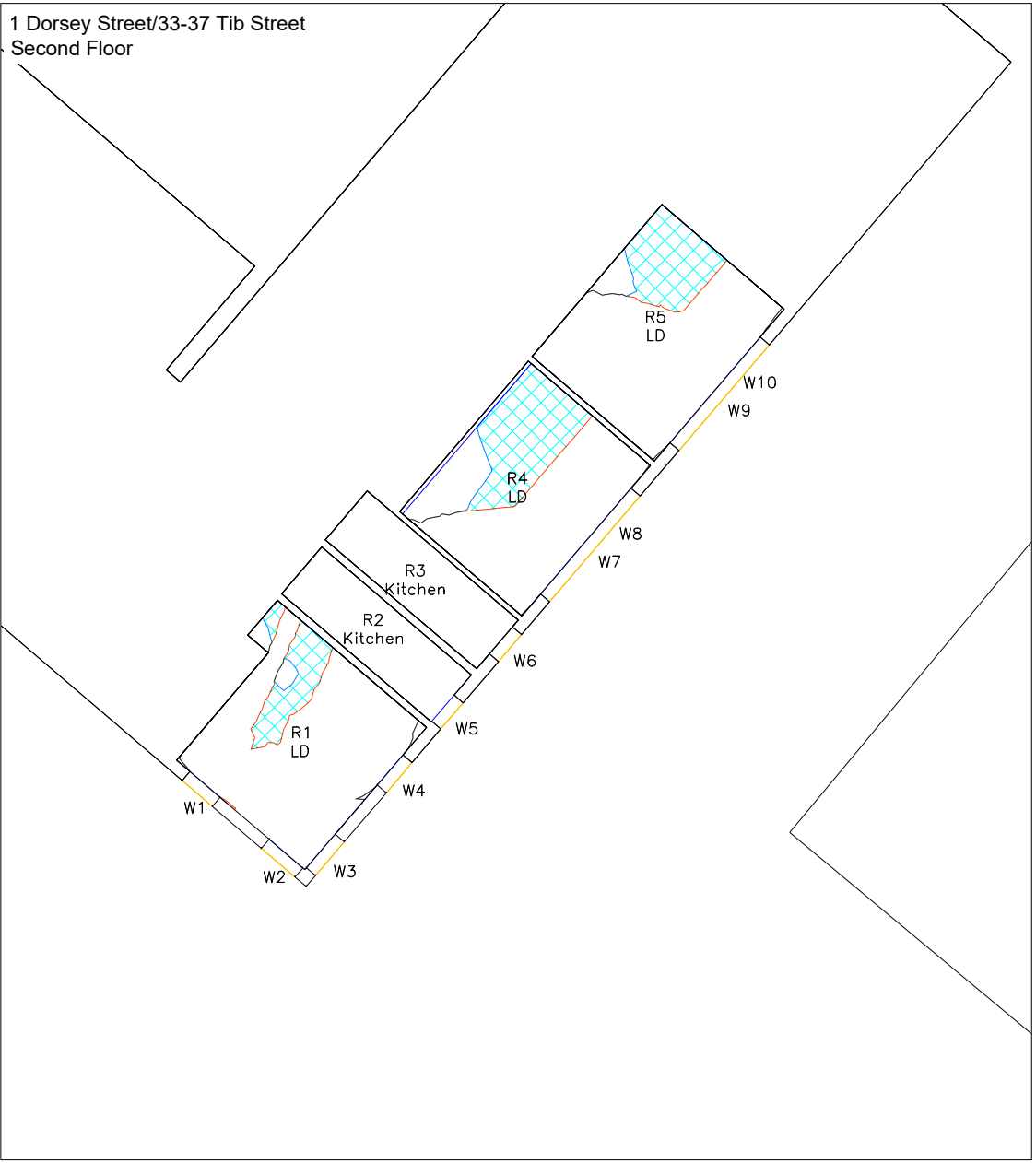
CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

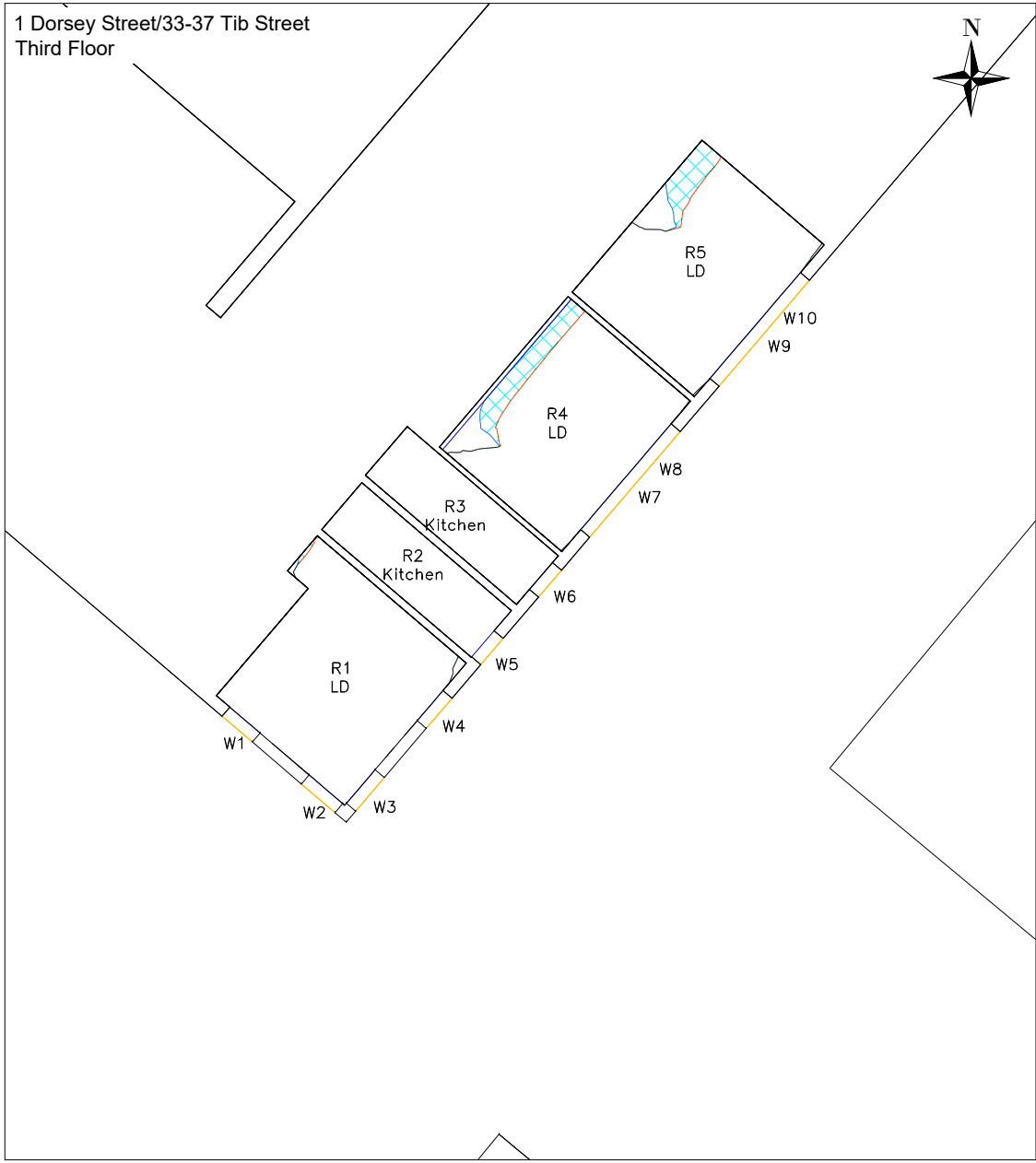
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Second Floor



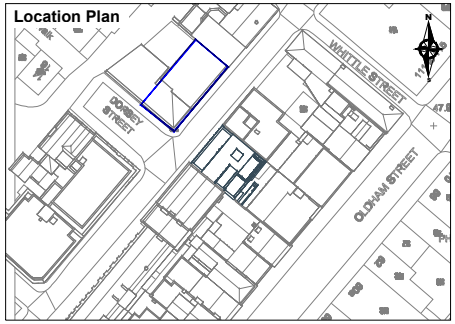
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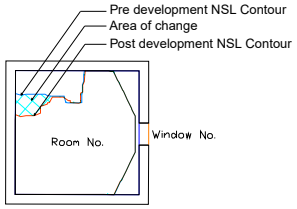
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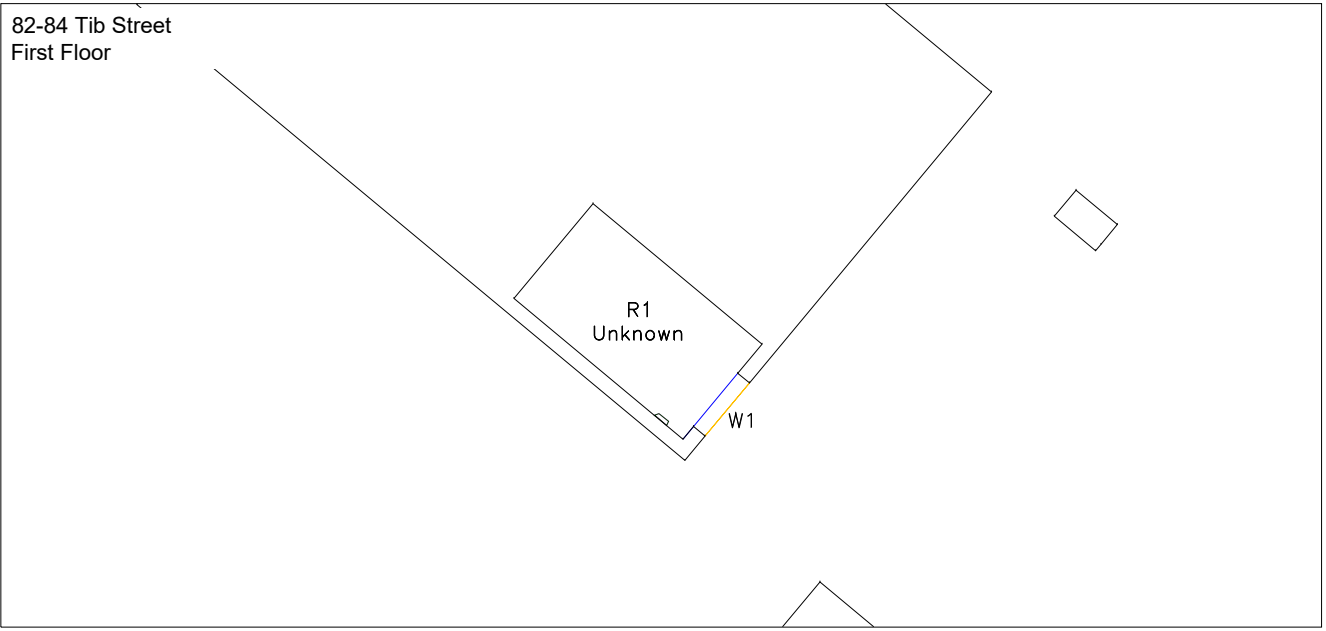
PROJECT: Tib Street, Manchester

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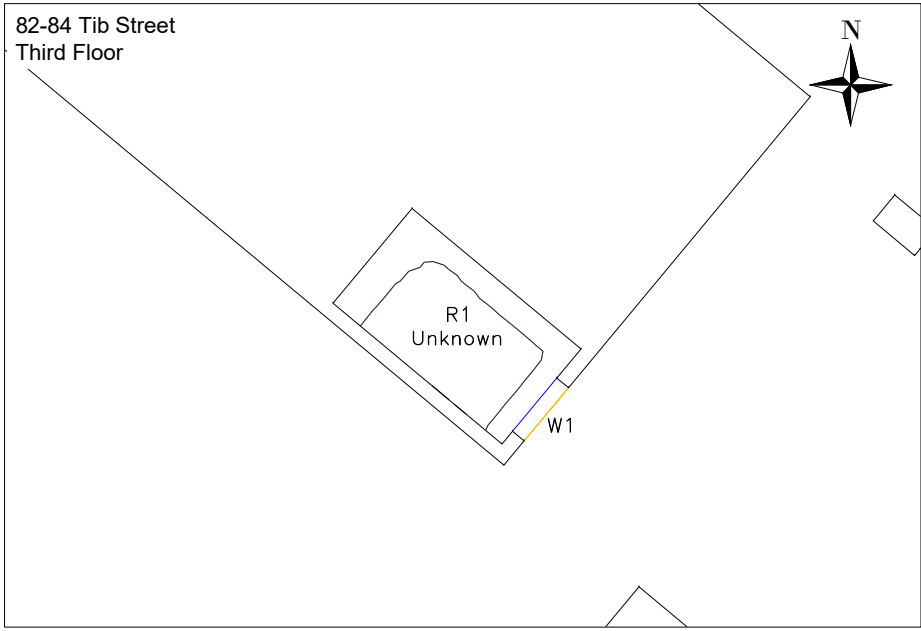
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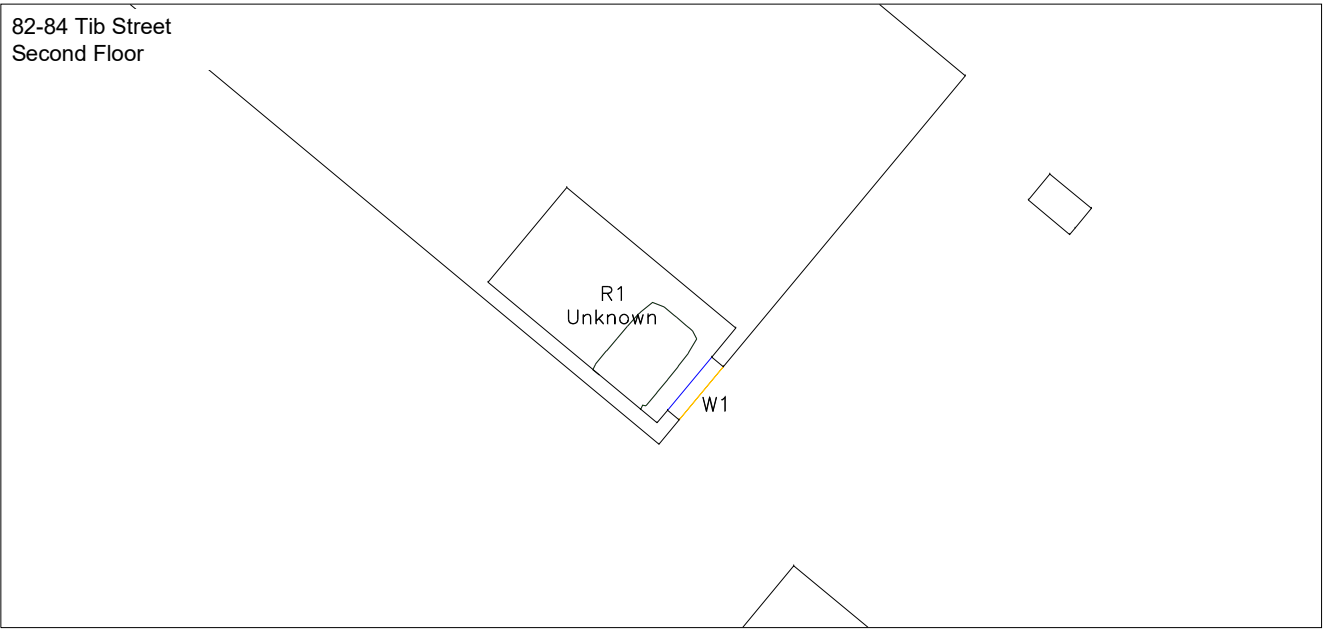
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First Floor



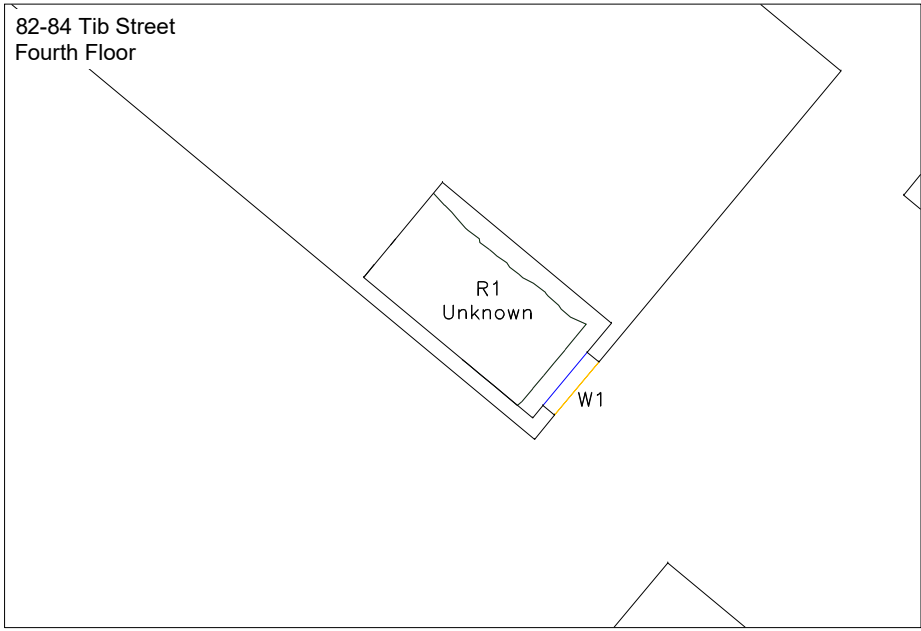
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Third Floor



82-84 Tib Street
Second Floor

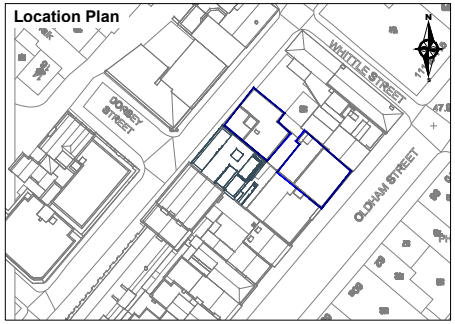


82-84 Tib Street
Fourth Floor

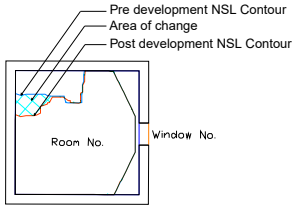


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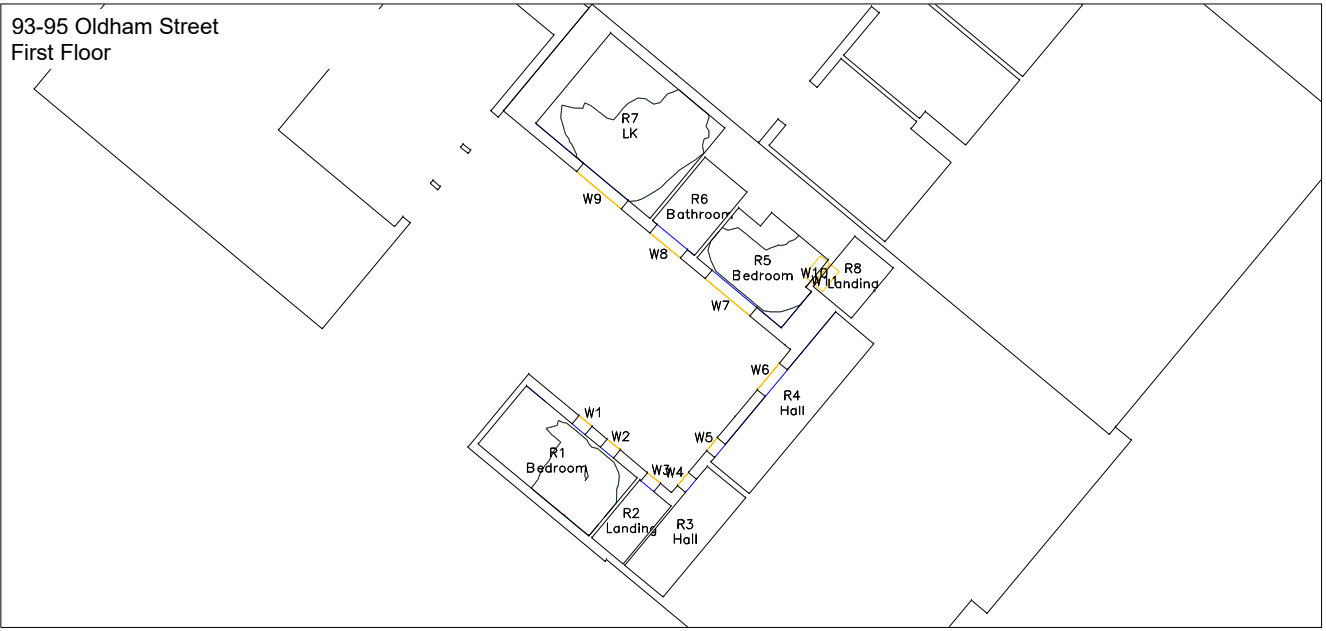
CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

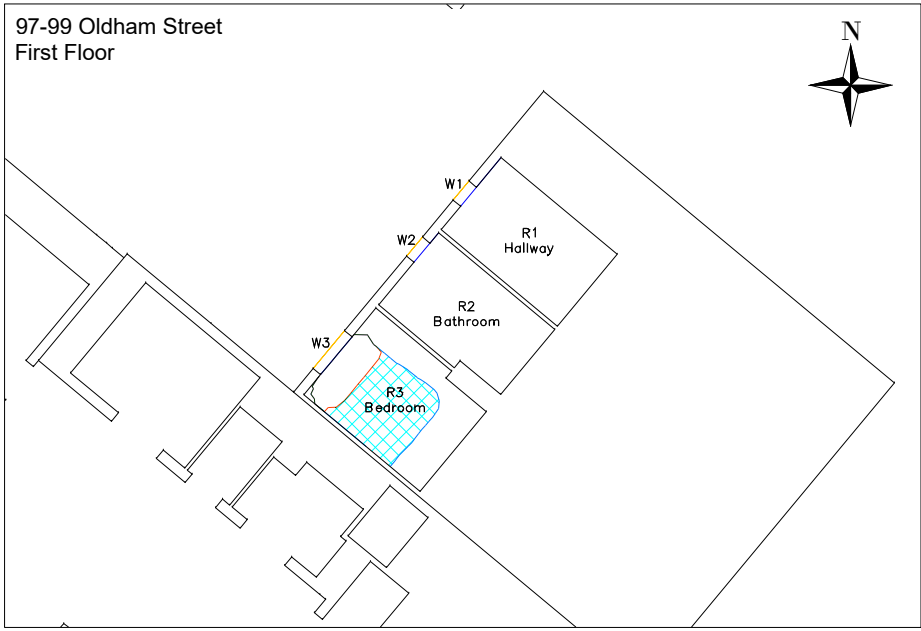
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Not to scale	4295	KC	JP

DWG REF.	DWG No.
NSL contours	4295_09

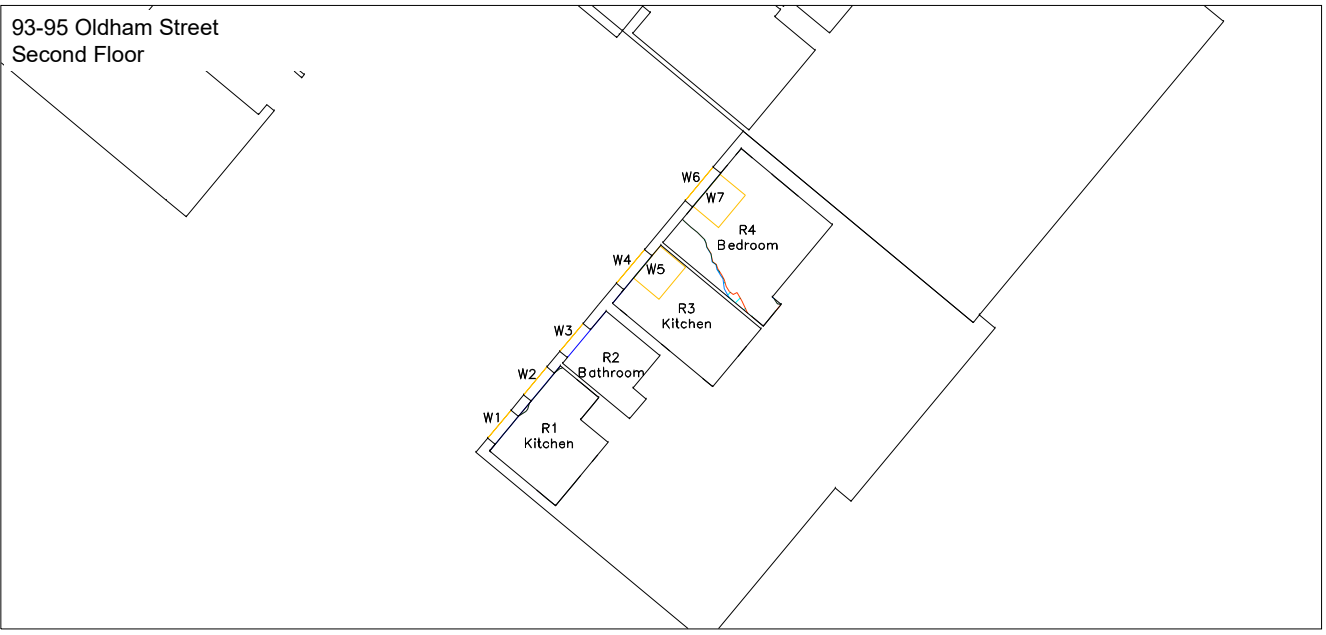
93-95 Oldham Street
First Floor



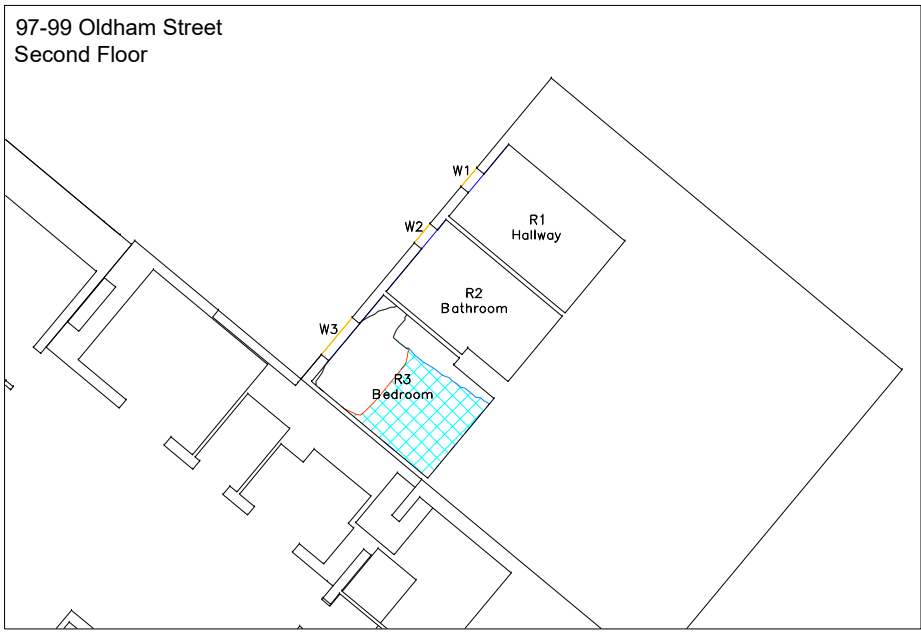
97-99 Oldham Street
First Floor



93-95 Oldham Street
Second Floor

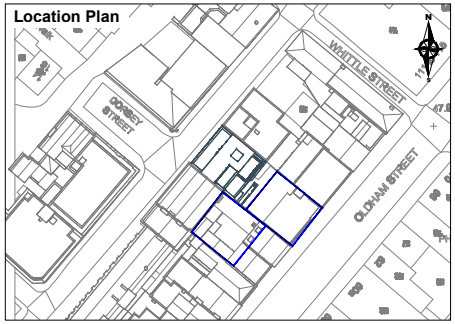


97-99 Oldham Street
Second Floor

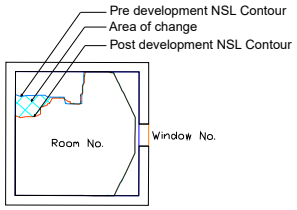


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CLIENT: Lau Yuk Ltd

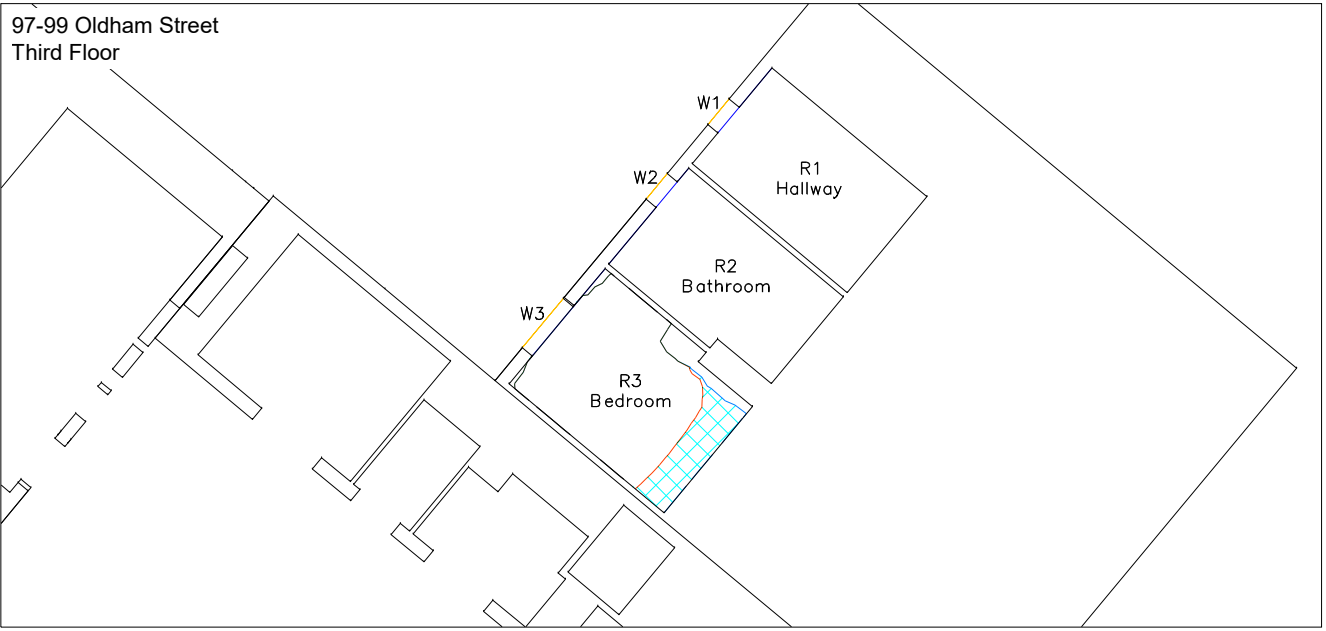
PROJECT: Tib Street, Manchester

SCALE	PROJ REF	ANALYST	DRAWN BY
Not to scale	4295	KC	JP

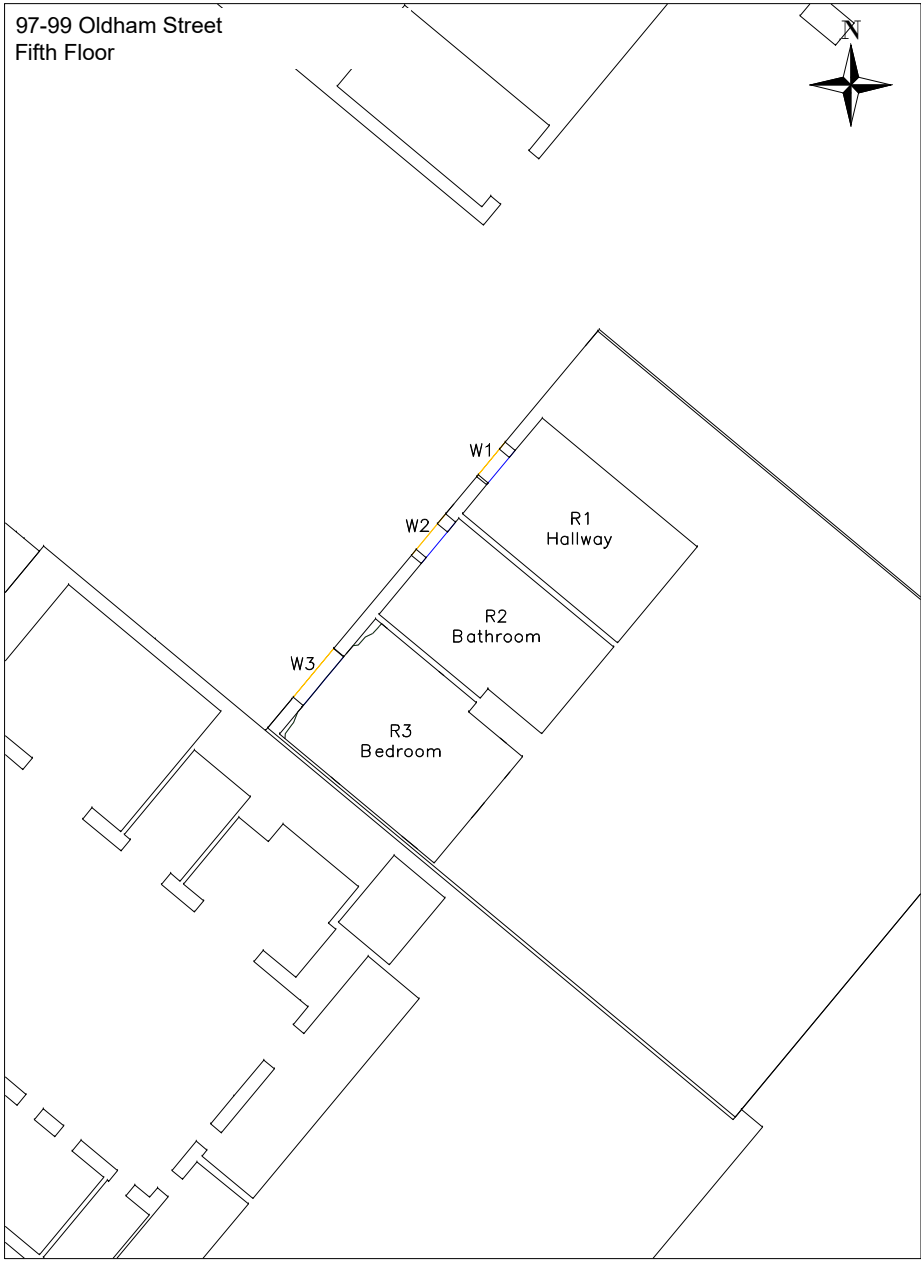
DWG REF.: NSL contours

DWG No.: 4295_10

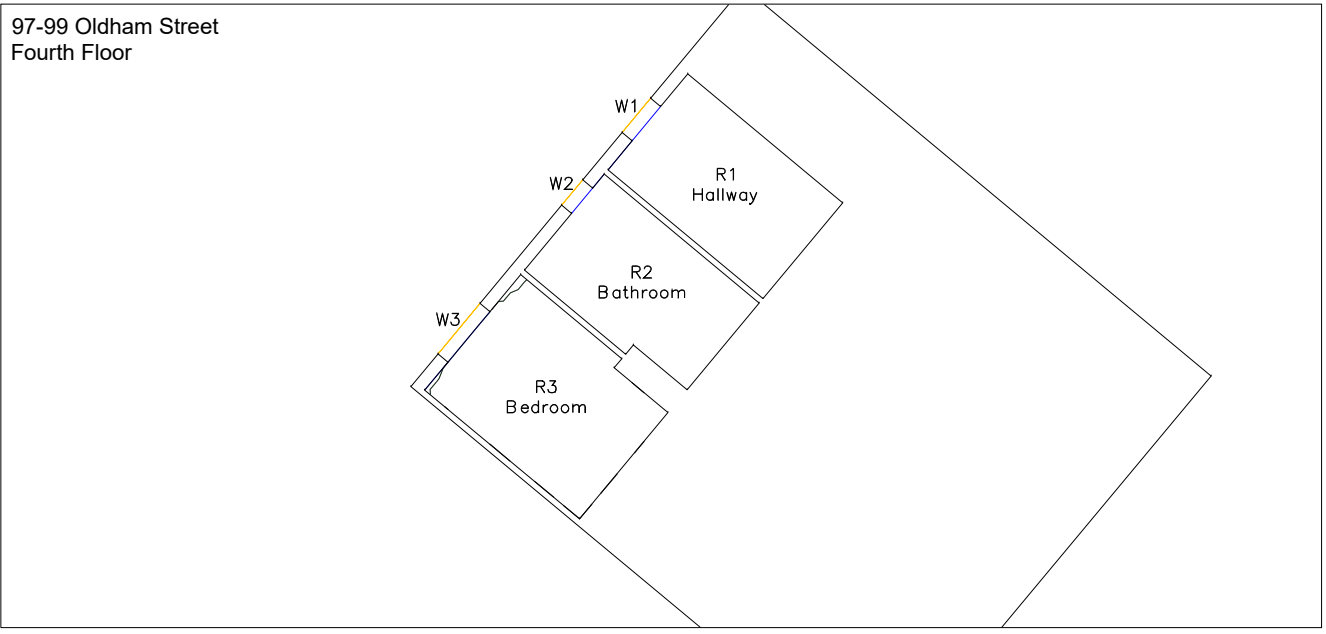
97-99 Oldham Street
Third Floor



97-99 Oldham Street
Fifth Floor

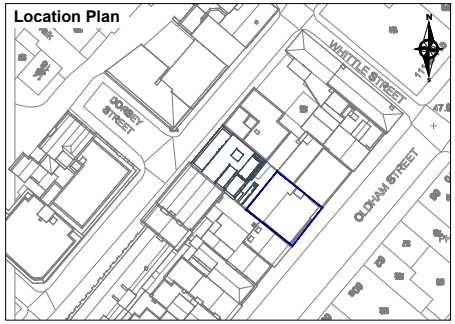


97-99 Oldham Street
Fourth Floor

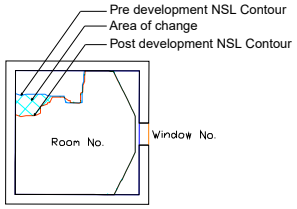


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00	First issue	06/11/2025

CLIENT: Lau Yuk Ltd

PROJECT: Tib Street, Manchester

SCALE	PROJ REF	ANALYST	DRAWN BY
Not to scale	4295	KC	JP

DWG REF.	DWG No.
NSL contours	4295_11

Appendix A.3 – Tabulated Results for Daylight & Sunlight Calculations

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC APSH Analysis

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
31 Tib Street																					
First	R1	Residential	Unknown	W1	Existing	18.79	1.00	YES	130°				40.00	1.00	YES						
					Proposed	18.78							40.00								
				W2	Existing	18.11	1.00	YES	130°				37.00	1.00	YES						
					Proposed	18.08							37.00								
				W3	Existing	17.62	1.00	YES	130°				36.00	1.00	YES						
					Proposed	17.57							36.00								
				W4	Existing	25.30	0.99	YES	40°N				8.00	*North	*North						
					Proposed	25.07							6.00								
				W5	Existing	25.10	0.99	YES	40°N				12.00	*North	*North						
					Proposed	24.84							11.00								
										20.98	0.99	YES				50.00			14.00		
										20.87						49.00	0.98	YES	14.00	1.00	YES
Second	R1	Residential	Unknown	W1	Existing	26.80	1.00	YES	130°				55.00	1.00	YES						
					Proposed	26.80							55.00								
				W2	Existing	26.37	1.00	YES	130°				53.00	1.00	YES						
					Proposed	26.36							53.00								
				W3	Existing	26.01	1.00	YES	130°				55.00	1.00	YES						
					Proposed	25.99							55.00								
				W4	Existing	31.78	1.00	YES	40°N				16.00	*North	*North						
					Proposed	31.70							16.00								
				W5	Existing	31.68	1.00	YES	40°N				18.00	*North	*North						
					Proposed	31.62							17.00								
										28.53	1.00	YES				63.00			16.00		
										28.49						62.00	0.98	YES	16.00	1.00	YES
1 Dorsey Street / 33-37 Tib Street																					
First	R1	Residential	LD	W1	Existing	17.86	1.00	YES	221°				37.00	0.97	YES						
					Proposed	17.80							36.00								
				W2	Existing	18.46	0.99	YES	221°				35.00	0.97	YES						
					Proposed	18.36							34.00								
				W3	Existing	19.11	0.81	YES	131°				41.00	0.80	YES						
					Proposed	15.52							33.00								
				W4	Existing	19.30	0.81	YES	131°				42.00	0.79	YES						
					Proposed	15.63							33.00								
										18.69	0.90	YES				54.00			10.00		
										16.83						44.00	0.81	YES	8.00	0.80	YES
	R2	Residential	Kitchen <13sqm	W5	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R3	Residential	Kitchen <13sqm	W6	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R4	Residential	LD	W7	Existing	15.69	0.86	YES	131°				30.00	0.87	YES						
					Proposed	13.46							26.00								
										15.69	0.86	YES				30.00			5.00		
										13.46						26.00	0.87	YES	3.00	0.60	YES
	R5	Residential	LD	W9	Existing	15.70	0.96	YES	131°				29.00	0.97	YES						
					Proposed	15.07							28.00								
										15.70	0.96	YES				29.00			5.00		
										15.07						28.00	0.97	YES	4.00	0.80	YES

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC APSH Analysis

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
Second	R1	Residential	LD	W1	Existing	21.88	1.00	YES	221°				48.00	1.00	YES						
					Proposed	21.84							48.00								
				W2	Existing	22.53	1.00	YES	221°				49.00	1.00	YES						
					Proposed	22.46							49.00								
				W3	Existing	24.59	0.90	YES	131°				51.00	0.94	YES						
					Proposed	22.07							48.00								
				W4	Existing	24.78	0.89	YES	131°				48.00	0.94	YES						
					Proposed	22.14							45.00								
										23.46	0.94	YES				67.00			13.00		
										22.13						64.00	0.96	YES	12.00	0.92	YES
	R2	Residential	Kitchen <13sqm	W5	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R3	Residential	Kitchen <13sqm	W6	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R4	Residential	LD	W7	Existing	20.53	0.91	YES	131°				42.00	0.86	YES						
					Proposed	18.68							36.00								
										20.53	0.91	YES				42.00			13.00		
										18.68						36.00	0.86	YES	7.00	0.54	YES
	R5	Residential	LD	W9	Existing	20.18	0.98	YES	131°				38.00	1.00	YES						
					Proposed	19.68							38.00								
										20.18	0.98	YES				38.00			7.00		
										19.68						38.00	1.00	YES	7.00	1.00	YES
Third	R1	Residential	LD	W1	Existing	26.46	1.00	YES	221°				59.00	1.00	YES						
					Proposed	26.45							59.00								
				W2	Existing	27.34	1.00	YES	221°				61.00	1.00	YES						
					Proposed	27.31							61.00								
				W3	Existing	30.67	0.98	YES	131°				61.00	0.98	YES						
					Proposed	29.93							60.00								
				W4	Existing	30.71	0.97	YES	131°				61.00	0.98	YES						
					Proposed	29.90							60.00								
										28.80	0.99	YES				82.00			20.00		
										28.40						81.00	0.99	YES	19.00	0.95	YES
	R2	Residential	Kitchen <13sqm	W5	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R3	Residential	Kitchen <13sqm	W6	Existing			n/a	131°						n/a						
					Proposed							n/a						n/a			n/a
	R4	Residential	LD	W7	Existing	26.58	0.96	YES	131°				55.00	0.95	YES						
					Proposed	25.63							52.00								
										26.58	0.96	YES				55.00			17.00		
										25.63						52.00	0.95	YES	14.00	0.82	YES
	R5	Residential	LD	W9	Existing	26.42	0.99	YES	131°				57.00	1.00	YES						
					Proposed	26.15							57.00								
										26.42	0.99	YES				57.00			12.00		
										26.15						57.00	1.00	YES	12.00	1.00	YES

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC APSH Analysis

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
72-76 Tib Street																					
First	R1	Commerical	Unknown	W1	Existing			n/a	130°						n/a						
					Proposed																
				W2	Existing			n/a	130°						n/a						
					Proposed																
				W3	Existing			n/a	130°						n/a						
					Proposed																
												n/a						n/a			n/a
Second	R1	Commerical	Unknown	W1	Existing			n/a	130°						n/a						
					Proposed																
				W2	Existing			n/a	130°						n/a						
					Proposed																
				W3	Existing			n/a	130°						n/a						
					Proposed																
												n/a						n/a			n/a
Third	R1	Commerical	Unknown	W1	Existing			n/a	130°						n/a						
					Proposed																
				W2	Existing			n/a	130°						n/a						
					Proposed																
				W3	Existing			n/a	130°						n/a						
					Proposed																
												n/a						n/a			n/a
82-84 Tib Street																					
First	R1	Residential	Unknown	W1	Existing	5.22	1.00	YES	130°				6.00	1.00	YES						
					Proposed	5.22				5.22	1.00	YES	6.00			6.00	1.00	YES	1.00	1.00	YES
										5.22											
Second	R1	Residential	Unknown	W1	Existing	11.78	1.00	YES	130°				15.00	1.00	YES						
					Proposed	11.78				11.78	1.00	YES	15.00			15.00	1.00	YES	2.00	1.00	YES
										11.78											
Third	R1	Residential	Unknown	W1	Existing	18.26	1.00	YES	130°				27.00	1.00	YES						
					Proposed	18.26				18.26	1.00	YES	27.00			27.00	1.00	YES	2.00	1.00	YES
										18.26											
Fourth	R1	Residential	Unknown	W1	Existing	23.62	1.00	YES	130°				42.00	1.00	YES						
					Proposed	23.62				23.62	1.00	YES	42.00			42.00	1.00	YES	5.00	1.00	YES
										23.62											
89-95 Oldham Street																					
First	R1	Residential	Bedroom	W1	Existing	12.94	0.97	YES	40°N					*North	*North						
					Proposed	12.60															
				W2	Existing	11.65	0.97	YES	40°N					*North	*North						
					Proposed	11.29															
										12.30	0.97	YES					*North	*North		*North	*North
										11.95											
	R2	Residential	Landing	W3	Existing			n/a	40°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R3	Residential	Hall	W4	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R4	Residential	Hall	W5	Existing			n/a	310°N					*North	*North						
					Proposed																
				W6	Existing			n/a	310°N					*North	*North						
					Proposed																
												n/a					*North	*North		*North	*North
				W7	Existing	12.66	1.00	YES	220°				19.00	1.00	YES						

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC APSH Analysis

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
	R5	Residential	Bedroom	W10	Proposed	12.66							19.00								
					Existing	41.98	1.00	YES	220° Inc				22.00	1.00	YES						
					Proposed	41.83							22.00								
										16.81	1.00	YES				27.00			1.00		
										16.79						27.00	1.00	YES	1.00	1.00	YES
	R6	Residential	Bathroom	W8	Existing			n/a	220°						n/a						
					Proposed							n/a						n/a			n/a
	R7	Residential	LK	W9	Existing	14.26	1.00	YES	220°				34.00	1.00	YES						
					Proposed	14.26							34.00								
										14.26	1.00	YES				34.00			2.00		
										14.26						34.00	1.00	YES	2.00	1.00	YES
	R8	Residential	Landing	W11	Existing			n/a	220° Inc						n/a						
					Proposed							n/a						n/a			n/a
Second	R1	Residential	Kitchen <13sqm	W1	Existing			n/a	310°N					*North	*North						
					Proposed																
				W2	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R2	Residential	Bathroom	W3	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R3	Residential	Kitchen	W4	Existing			n/a	310°N					*North	*North						
					Proposed																
				W5	Existing			n/a	310°N Inc					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R4	Residential	Bedroom	W6	Existing	16.26	0.95	YES	310°N					*North	*North						
					Proposed	15.51															
				W7	Existing	53.37	0.99	YES	310°N Inc					*North	*North						
					Proposed	53.09															
										36.47	0.99	YES									
										35.97							*North	*North		*North	*North

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
97-99 Oldham Street																					
First	R1	Residential	Hallway	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R2	Residential	Bathroom	W2	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R3	Residential	Bedroom	W3	Existing Proposed	13.71 7.67	0.56	NO	310°N	13.71 7.67	0.56	NO		*North	*North		*North	*North		*North	*North
Second	R1	Residential	Hallway	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R2	Residential	Bathroom	W2	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R3	Residential	Bedroom	W3	Existing Proposed	20.72 15.02	0.72	NO	310°N	20.72 15.02	0.72	NO		*North	*North		*North	*North		*North	*North
Third	R1	Residential	Hallway	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R2	Residential	Bathroom	W2	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R3	Residential	Bedroom	W3	Existing Proposed	28.41 25.20	0.89	YES	310°N	28.41 25.20	0.89	YES		*North	*North		*North	*North		*North	*North
Fourth	R1	Residential	Hallway	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R2	Residential	Bathroom	W2	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R3	Residential	Bedroom	W3	Existing Proposed	35.09 34.61	0.99	YES	310°N	35.09 34.61	0.99	YES		*North	*North		*North	*North		*North	*North
Fifth	R1	Residential	Hallway	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R2	Residential	Bathroom	W2	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
	R3	Residential	Bedroom	W3	Existing Proposed	37.80 37.80	1.00	YES	310°N	37.80 37.80	1.00	YES		*North	*North		*North	*North		*North	*North
101-103 Oldham Street																					
	R1	Commercial	Bathroom	W1	Existing Proposed			n/a	310°N			n/a		*North	*North		*North	*North		*North	*North
				W2	Existing			n/a	310°N					*North	*North						

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC APSH Analysis

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
First	R2	Commercial	Unknown		Proposed							n/a					*North	*North		*North	*North
	R3	Commercial	Unknown	W3	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R4	Commercial	Unknown	W4	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
Second	R1	Commercial	Unknown	W1	Existing			n/a	310°N					*North	*North						
					Proposed																
				W2	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North
	R2	Commercial	Unknown	W3	Existing			n/a	310°N					*North	*North						
					Proposed																
				W4	Existing			n/a	310°N					*North	*North						
					Proposed							n/a					*North	*North		*North	*North

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: Daylight Distribution Analysis

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
31 Tib Street									
First	R1	Residential	Unknown	Area m2	25.27	25.21	25.21	1.00	YES
				% of room		99.80%	99.80%		
Second	R1	Residential	Unknown	Area m2	25.27	25.23	25.23	1.00	YES
				% of room		99.88%	99.88%		
1 Dorsey Street / 33-37 Tib Street									
First	R1	Residential	LD	Area m2	16.80	15.36	12.87	0.84	YES
				% of room		91.41%	76.61%		
	R2	Residential	Kitchen <13sqm	Area m2	6.22				n/a
				% of room					
	R3	Residential	Kitchen <13sqm	Area m2	6.53				n/a
				% of room					
	R4	Residential	LD	Area m2	16.30	10.70	7.37	0.69	NO
				% of room		65.64%	45.21%		
	R5	Residential	LD	Area m2	16.46	12.79	10.78	0.84	YES
				% of room		77.69%	65.53%		
Second	R1	Residential	LD	Area m2	16.80	16.24	13.96	0.86	YES
				% of room		96.68%	83.09%		
	R2	Residential	Kitchen <13sqm	Area m2	6.22				n/a
				% of room					
	R3	Residential	Kitchen <13sqm	Area m2	6.53				n/a
				% of room					
	R4	Residential	LD	Area m2	15.89	13.98	9.19	0.66	NO
				% of room		87.93%	57.82%		
	R5	Residential	LD	Area m2	16.46	15.83	12.49	0.79	NO
				% of room		96.18%	75.89%		
Third	R1	Residential	LD	Area m2	16.80	16.69	16.64	1.00	YES
				% of room		99.33%	99.06%		
	R2	Residential	Kitchen <13sqm	Area m2	6.22				n/a
				% of room					
	R3	Residential	Kitchen <13sqm	Area m2	6.53				n/a
				% of room		81.24%	64.40%		
	R4	Residential	LD	Area m2	15.89	15.30	13.76	0.90	YES
				% of room		96.28%	86.55%		
	R5	Residential	LD	Area m2	16.46	15.85	14.83	0.94	YES
				% of room		96.32%	90.12%		
72-76 Tib Street									
First	R1	Commercial	Unknown	Area m2	29.09				n/a
				% of room					

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: Daylight Distribution Analysis

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
Second	R1	Commercial	Unknown	Area m2 % of room	29.09				n/a
Third	R1	Commercial	Unknown	Area m2 % of room	29.09				n/a
82-84 Tib Street									
First	R1	Residential	Unknown	Area m2 % of room	8.66	0.02 0.22%	0.02 0.22%	1.00	YES
Second	R1	Residential	Unknown	Area m2 % of room	8.66	1.89 21.83%	1.89 21.83%	1.00	YES
Third	R1	Residential	Unknown	Area m2 % of room	8.66	4.99 57.58%	4.99 57.58%	1.00	YES
Fourth	R1	Residential	Unknown	Area m2 % of room	8.66	6.66 76.90%	6.66 76.90%	1.00	YES
89-95 Oldham Street									
First	R1	Residential	Bedroom	Area m2 % of room	8.55	4.38 51.28%	4.38 51.25%	1.00	YES
	R2	Residential	Landing	Area m2 % of room	2.38				n/a
	R3	Residential	Hall	Area m2 % of room	4.96				n/a
	R4	Residential	Hall	Area m2 % of room	7.49	71.27%	71.27%		n/a
	R5	Residential	Bedroom	Area m2 % of room	6.40	4.79 74.89%	4.79 74.89%	1.00	YES
	R6	Residential	Bathroom	Area m2 % of room	3.48				n/a
	R7	Residential	LK	Area m2 % of room	13.49	7.96 59.04%	7.96 59.04%	1.00	YES
	R8	Residential	Landing	Area m2 % of room	2.51				n/a

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
Second	R1	Residential	Kitchen <13sqm	Area m2	6.55				n/a
				% of room					
	R2	Residential	Bathroom	Area m2	4.01				n/a
				% of room					
	R3	Residential	Kitchen <13sqm	Area m2	7.63				n/a
				% of room					
	R4	Residential	Bedroom	Area m2	11.49	10.17	10.02	0.99	YES
				% of room		88.49%	87.23%		
97-99 Oldham Street									
First	R1	Residential	Halllway	Area m2	10.92				n/a
				% of room					
	R2	Residential	Bathroom	Area m2	10.56				n/a
				% of room					
	R3	Residential	Bedroom	Area m2	12.79	7.30	2.11	0.29	NO
				% of room		57.09%	16.47%		
Second	R1	Residential	Halllway	Area m2	10.92				n/a
				% of room					
	R2	Residential	Bathroom	Area m2	10.56				n/a
				% of room					
	R3	Residential	Bedroom	Area m2	12.79	10.80	4.42	0.41	NO
				% of room		84.49%	34.60%		
Third	R1	Residential	Halllway	Area m2	10.92				n/a
				% of room					
	R2	Residential	Bathroom	Area m2	10.56				n/a
				% of room					
	R3	Residential	Bedroom	Area m2	12.79	11.88	9.81	0.83	YES
				% of room		92.91%	76.70%		
Fourth	R1	Residential	Halllway	Area m2	10.92				YES
				% of room					
	R2	Residential	Bathroom	Area m2	10.56				YES
				% of room					
	R3	Residential	Bedroom	Area m2	12.79	12.66	12.66	1.00	YES
				% of room		99.05%	99.05%		
Fifth	R1	Residential	Halllway	Area m2	10.92				YES
				% of room					
	R2	Residential	Bathroom	Area m2	10.56				YES
				% of room					
	R3	Residential	Bedroom	Area m2	12.79	12.66	12.66	1.00	YES
				% of room		99.02%	99.02%		
101-103 Oldham Street									
	R1	Commercial	Bathroom	Area m2	6.26				n/a

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: Daylight Distribution Analysis

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
First	R2	Commercial	Unknown	% of room Area m2 % of room	11.67				n/a
	R3	Commercial	Unknown	Area m2 % of room	9.91				n/a
	R4	Commercial	Unknown	Area m2 % of room	10.24				n/a
Second	R1	Commercial	Unknown	Area m2 % of room	21.31				n/a
	R2	Commercial	Unknown	Area m2 % of room	20.50				n/a

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: NSL Analysis using Mirror Image Methodology

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
97-99 Oldham Street									
First	R3	Residential	Bedroom	Area m2 % of room	12.79	1.05 8.23%	2.11 16.47%	2.00	YES
Second	R3	Residential	Bedroom	Area m2 % of room	12.79	2.24 17.55%	4.42 34.60%	1.97	YES

Project Name: Tib Street, Manchester
Project No.: 4295
Report Title: VSC Analysis using Mirror Image Methodology

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
97-99 Oldham Street																					
First	R3	Residential	Bedroom	W3	Existing Proposed	3.27 7.67	2.35	YES	310°N	3.27 7.67	2.35	YES		*North	*North		*North	*North		*North	*North
Second	R3	Residential	Bedroom	W3	Existing Proposed	7.24 15.02	2.07	YES	310°N	7.24 15.02	2.07	YES		*North	*North		*North	*North		*North	*North