rla
richard lamb & associates

Development Application - SSD 9194
Student housing 13-23 Gibbons Street

Certification of photomontage View 7

Report prepared for WH Gibbons Trust

by Dr. Richard Lamb and Jane Maze-Riley

December 2019

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Our Reference 132618

6 November 2019

Stephen O'Hora

Allen Jack Cottier Architects
79 Myrtle Street
Chippendale
Sydney 2008

By email; stephen.ohora@architectsajc.com
Dear Stephen,

Assessment and certification of photomontage 17 (View 7)

SSD 9194, Student Accommodation 13-23 Gibbons Street

I refer to the above matter and to the preparation of an additional photomontage View 17 from Little Eveleigh Street, Redfern. This corresponds to View 7 in our Visual Impact Assessment report.

You have advised that the Department of Planning and Environment (DPE) requested that the proposed development be modelled in order for its visual effects to be assessed from one additional location. The view location is shown on the survey plan and preparation of photomontage report provided by Virtual Ideas (VI) both of which are included in Appendix 1 of this report.

I have had substantial experience in certification of photomontages for private clients and government departments including The Department of Planning and Infrastructure (DoP&I), Department of Planning & Environment, Roads and Maritime Services, TransportforNSW, Infrastructure NSW, etc. I have provided this kind of service to local councils, government departments and authorities, and private clients on many occasions. I have worked as a consultant on a large number of Planning Proposals, SSD application, Part 3A applications and DA's, including within the City of Sydney LGA. The range of services I provide and a full CV for myself can be seen on the RLA website at www.richardlamb.com.au.

This statement should be read in conjunction with a Visual Impact Assessment prepared by RLA in December 2018 (RLA VIA) for the proposed development. Based on our previous involvement including fieldwork, visual analysis and certification of photomontages in relation to this SSD, we advised that VI be engaged to prepare the additional photomontage following the practice direction for the preparation of such material for use in the Land and Environment Court of New South Wales.

In addition to certifying the accuracy of photomontage 17, we have assessed the visual effects and potential visual impacts of the proposed development using our methodology for visual impact assessment, a flow chart for which is included in our original report.

In order to assess the visual effects of the proposed development RLA firstly establish the baseline visual context of the view which we interpret as being formed by the visual character, scenic quality, likely viewer sensitivity and view place sensitivity. The baseline factors for this view are described in section 3.0 of the RLA VIA.

Our assessment of impacts relies on making a comparison of the existing visual context and the effects of the proposed development on the existing visual context followed by the consideration of several important variable factors for example visual absorption capacity (VAC) and compatibility. In our opinion the final level of visual impact on a view can be determined by applying a 'weighting' to the visual effects which relates to the significance of each of the variables considered. Further explanation of this process is included at section 4.0 of the RLA VIA.

Visual effects shown in photomontage

The proposed development introduces a new building mass to the mid-ground composition of this medium-distance range view. It provides a continuation of the predominant character and height of built form that is visible in this part of Gibbons Street but does not block views to scenic items or cause any significant visual effects in views from the surrounding public domain. Public domain views lost include areas of sky only. In time, the proposed tower would be visible in the context of other approved and proposed forms that are similar in character, height and scale. The approval and construction of such tower forms reflects the desired future character for this part of Redfern.

Visual impacts (View 7 of Visual Impact Assessment)

In our opinion this location is considered to be of low sensitivity. It is not an axial view or from a main road and is an incidental view gained across a railway station where the proposed built form has high compatible with urban features and has high potential VAC given that its form would be partly blocked from view by approved development once constructed.

Overall the visual impacts of the proposed development on this view are considered to be low as is the case for other views of the proposed development in the same distance class and vicinity for example views 9, 10, and 12.

Certification of accuracy of Photomontage 17

A methodology for the preparation of photomontages is included at Appendix 3 of the RLA VIA. This methodology describes the principles of verification of photomontages and requirements set out in the Land and Environment Court of New South Wales practice policy regarding the use of photomontages in the Court.

We have reviewed a report prepared by Virtual Ideas expert architectural illustrators as to the process employed for the preparation of photomontages (see Appendix 2 to this report) and can confirm that they have used survey information to locate the 3D model in the view, other surveyed markers and visual features to confirm alignment of the model of the proposed development to the photographs. The survey data on which this is based is in Appendix 3, provided by CMS Registered Surveyors.

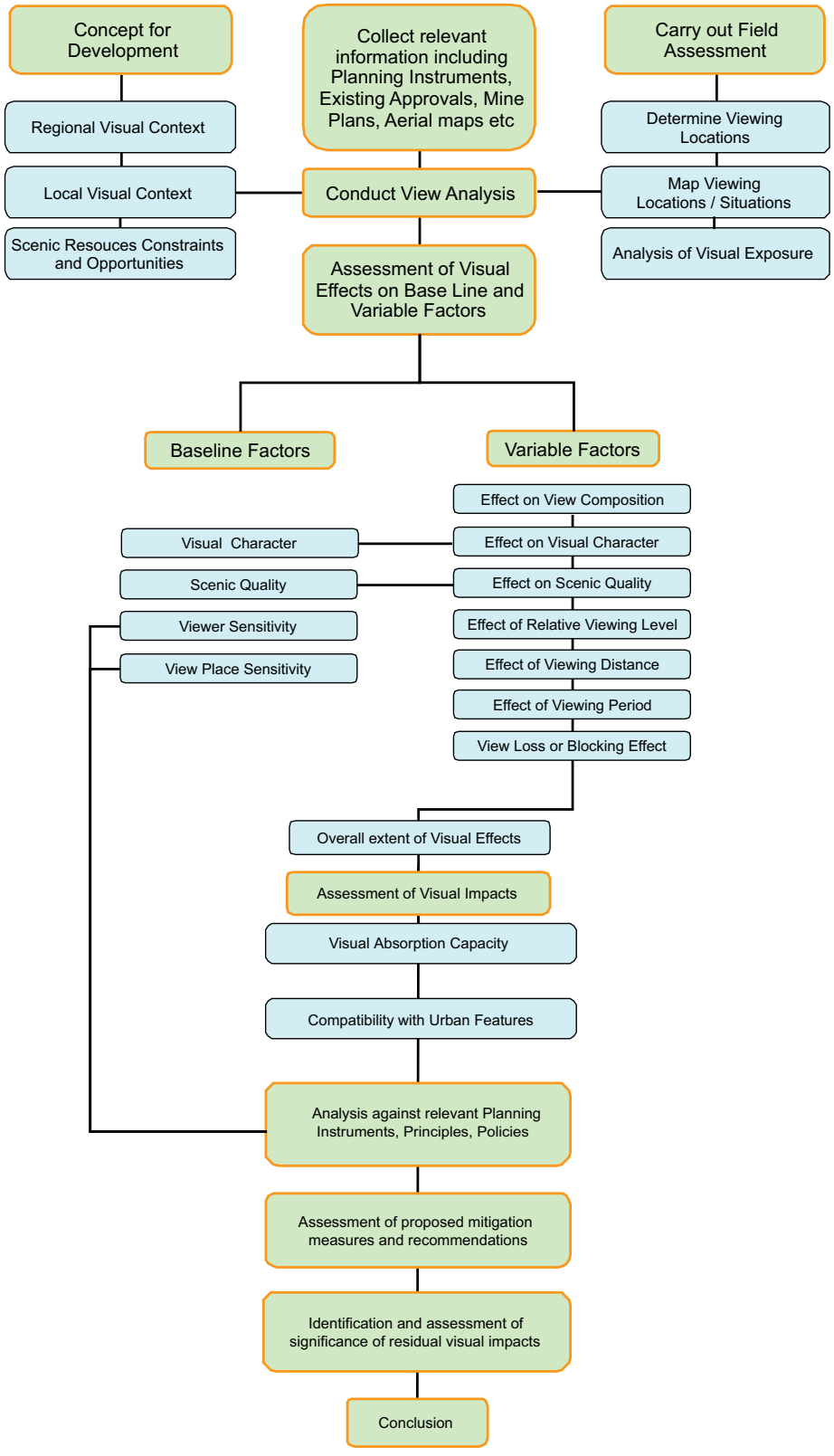
In our opinion the use of surveyed markers as shown by CMS and used by VI, is equivalent to showing a wire-frame diagram and demonstrates that the 3D model has been accurately aligned and fits into the existing context and the photographic images. In this regard RLA can certify that the photomontages are as accurate as is reasonably possible in the circumstances and that they comply with the Land and Environment Court of New South Wales practice policy for the use of photomontages in the Court.

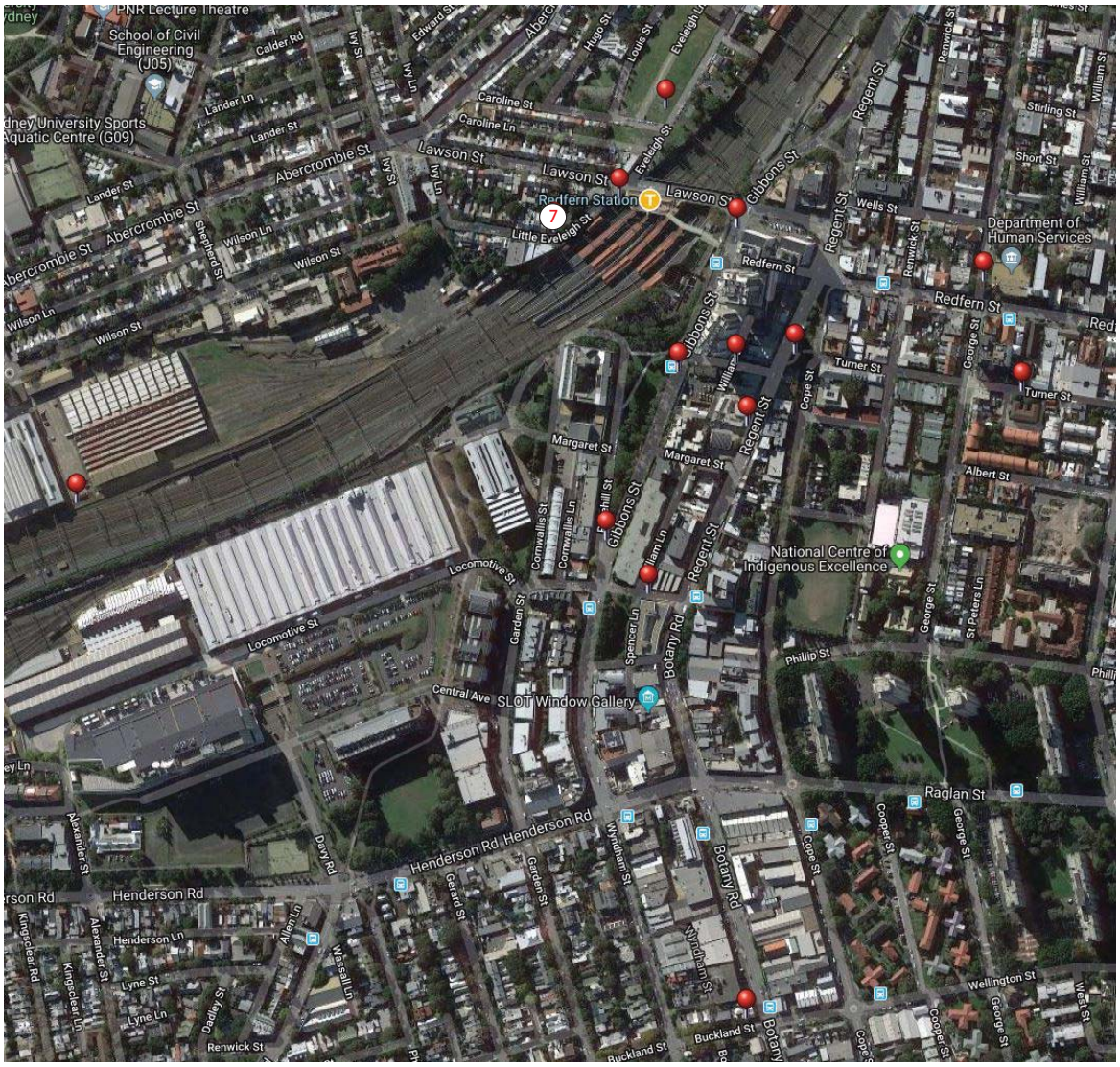
Yours sincerely

Dr Richard Lamb

Richard Lamb & Associates

RLA Development Assessment Method Flow Chart





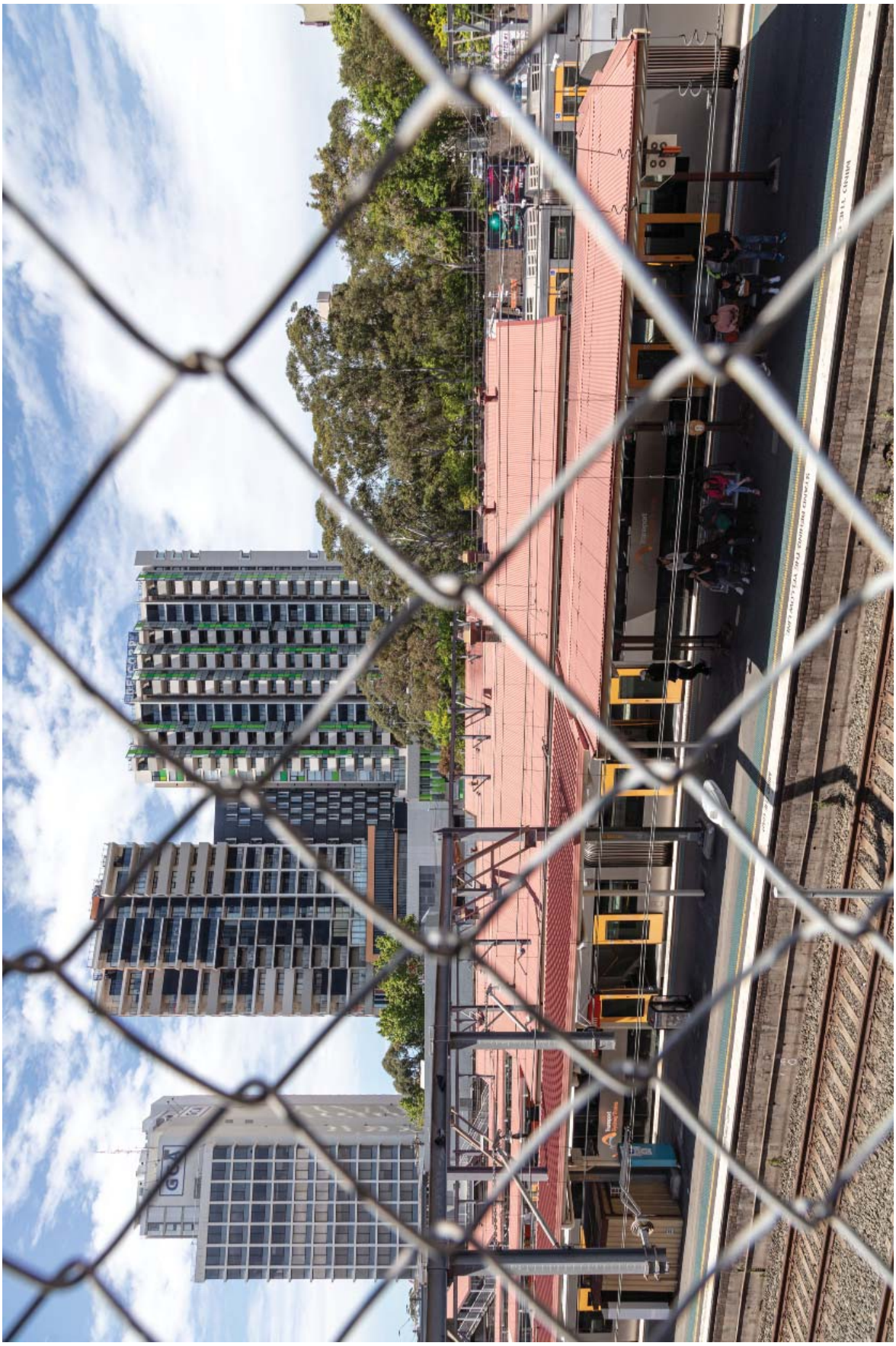
Map 1: Photomontage location (7)

Approximate location of subject site

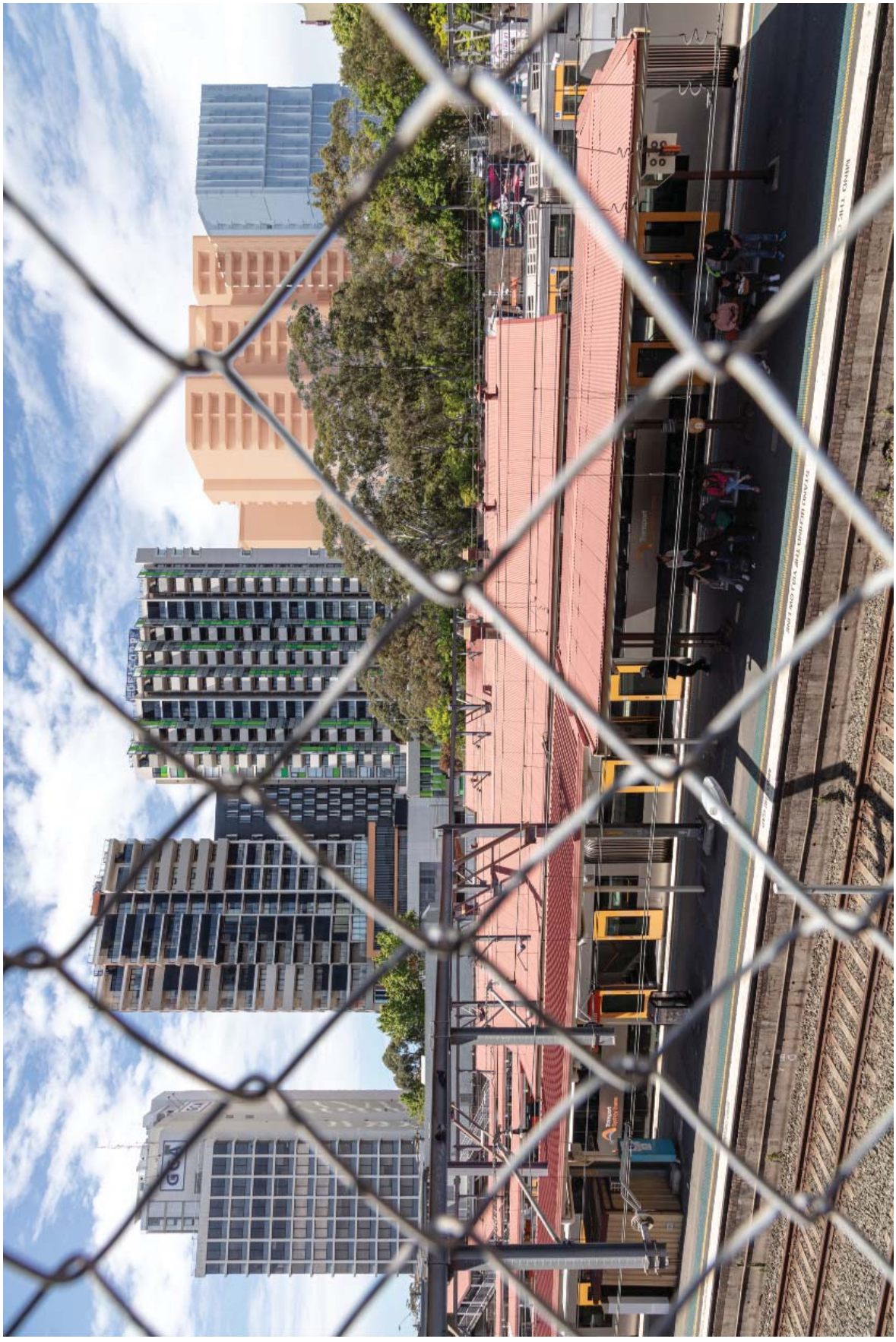
NORTH

Not to Scale

Existing view Photomontage 17 (position 7)



Photomontage 17 (position 7)



Appendix 2. Methodology for photomontages

Principles of verification of photomontages

For the certification of photomontages, the fundamental requirement is that there is a 3D computer model of the proposed development that can be accurately located and merged with representative photographs taken from key viewing places to produce a photomontage.

The key to being able to certify the accuracy of the photomontage resulting from merging the 3D model and photographs is being able to demonstrate that the 3D model of the proposed building has a good fit to known surveyed markers on the existing building and on fixed features of the site or locality which are shown on the survey plan. The second level of fit is the fit of the model to a realistic photographic representation of the site in its context.

Allen Jack Cottier Architects (AJC) prepared the 3D model of the proposed development and adjoining proposed developments, using the software programme Revit 2019, survey information for the site and adjoining sites, DA drawings for adjacent proposed developments (accessed via the DPE website) and cadastral information including strata contours for levels beyond the site. The models were supplied to Virtual Ideas, expert architectural illustrators, where the location and height of the 3D model of the proposal was verified with respect to surveyed features of the existing development site and features in the surrounding environment. Refer to survey information and 'markers diagram' included in Appendix 3.

Photographs were taken by Virtual Ideas using a professional quality 35mm format full-frame camera. The locations and RLs of the lens of the camera for photographs used to prepare photomontages were established by survey by CMS registered surveyors, consistent with the requirements of the practice note for use of photomontages in evidence by the Land and Environment Court of New South Wales. A report prepared by CMS which includes recorded survey data, is included in Appendix 3

The 3D models were then merged with digital photographic images of the existing environment by Virtual Ideas. As per the SEARs requirements the photomontages show the proposed built form. The photomontages also include neighbouring proposed buildings as translucent orange blocks, representing the intended future context. Photographic plates of the existing view and a photomontage from each view location (view point VP) inspected are included in Appendix 2.

Focal length of lens for photographs

The camera images for the photomontages need to be of sufficient resolution taken with a lens of low distortion. The focal length of the lens used needs to be appropriate for the purpose and the focal length of the lens used to take the single frame photographs has to be known and standardised so that every photograph used in that regard has the same horizontal field of view.

The reasons for using a specific focal length is determined by the vertical and horizontal scale of the subject of the view as well as the need to minimise apparent distortion of the images. The subject of the views commonly contains elements of vastly different horizontal and vertical scale, all of which must ideally be visible in each photograph.

It is a common problem in architectural photography that in close views a building cannot be encompassed in a single image, for the reasons above. That is, the subject of the view is too large or too close to be captured in a single image. It is critical however, in preparing 3D images, for example for

use in photomontages, that the subject can be captured in a single image. This is because a composite image, such as one 'stitched together" electronically out of separate images which can encompass the whole field of view (for example a panorama), has un-reconcilable distortions in it.

As a practical matter, it is not possible to represent the composition of the views from close range without using a wider angle lens. The horizontal and vertical scale relationships are such that a 'normal' lens could not capture the appropriate context.

It is conventional to use a 'normal' lens to take landscape photographs, for example a 50mm lens on a full-frame 35mm format film camera, as when reproduced in large format (eg. A3 size prints), the objects in the image appear of 'normal' scale. However, in photographing streetscapes and individual buildings, that convention cannot always be adopted other than for relatively distant views, as the horizontal and vertical scale of the buildings particularly from close locations when seen from parts of Regent Street or William Lane, is such that they cannot be accommodated in a single frame of 50mm focal length. The Land and Environment Court of New South Wales practice note does not require a specific focal length to be used, but requires that the characteristics of the camera, focal length of the lens and field of view of the lens are specified. A fixed focal length lens should be used in preference to a variable ("zoom") lens as there is no need to manually 'register' the focal length on the lens when taking photographs. For this project the majority of the photographs in the close and medium distant ranges were taken using a prime 24mm focal length lens. Other more distant views were taken with a 50mm focal length lens. The angle of view of the 50mm photographs is 39.60^0 and for 24mm photograph is 73.7^0. Neither of these angles of view equate to the SEARS requirement of 46^0, which does not correspond to either focal length, or to 50mm at FX format and may be an error.

Preparation of Photomontages

Virtual Ideas have provided the following statement in relation to the method of preparation of photomontages;

Site Photography

Site photography was taken from predetermined positions as instructed by Richard Lamb Associates.

Photograph 17 was taken using using a Canon EOS 5DS R digital camera, using EF24-105mm f/4L IS USM lens and 24.0 mm focal length. The positions of the photographs were surveyed and then plotted onto survey drawing in DWG format.

3D Model

Using the imported surveyed data into our 3D software (3DS Max), we then imported the supplied 3D model (provided by AJC architects) of the proposed building and relevant building envelopes.

Alignment

The positions of the real world photography were located in the 3D scene. Cameras were then created in the 3D model to match the locations and height of the position from which the photographs were taken from. They were then aligned in rotation so that the points of the 3D model aligned with their corresponding objects that are visible in the photograph.

Renderings of the building massing were then created from the aligned 3D cameras and montaged

into the existing photography at the same location. This produces an accurate representation of the scale and position of the new building envelope with respect to the existing surroundings.

In conclusion, it is my opinion as an experienced, professional 3D architectural and landscape renderer that the images provided accurately portray the level of visibility and impact of the built form.

Grant Kolln

The accuracy of the locations of the 3D model of the proposed development with respect to the photographic images was checked in multiple ways:

1. The model was checked for alignment and height with respect to the 3D survey and adjacent surveyed reference markers which are visible in the images taken by Virtual Ideas.

2. The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the photographs were reviewed by RLA.

3. Reference points from the survey were used for cross-checking accuracy in a sample of images.

4. No significant discrepancies were found between the known camera locations and those predicted by the computer software of the Camera Match utility. Minor inconsistencies occur due to the natural distortion created by the camera lens, were reviewed by Dr Richard Lamb and were approved by him for use after modifications as required.

Checking the montage accuracy

The purpose of the detailed surveying/modelling, and precisely recorded photography is to enable a 3d version of the actual physical site to be created in CAD software. If this has been done accurately, it is then possible to insert the selected photo into the background of the 3d view, position the 3d camera in the surveyed position and then rotate the camera around until the surveyed 3d points match up with the correlating real world objects visible in the photo. This is a self-checking mechanism – if the camera position or the survey data is out by even a small distance then good fit becomes impossible.

It is however important to note that it is not possible for a 100% perfect fit to occur for the following reasons:

Variance between measured focal length compared to stated focal length,

Minor lens distortion which varies from lens to lens and manufacturer to manufacturer,

Absence of a suitable range of reference points on site/visible through lens

Allowing for these limitations, Virtual Ideas reported that the alignment was achieved to a high degree of accuracy, within an acceptable tolerance.

CMS Surveyors Pty Limited
A.B.N. 79 096 240 201
LAND SURVEYING, PLANNING & DEVELOPMENT CONSULTANTS

Date: 30-10-2019
Our Ref: 18221 Photo Locations

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Laura Ellis.

As requested, we have attended site and measured the Co-ordinates and Elevations of the photo locations for Redfern.

Co-ordinate's are MGA 56 and elevation to Australian Height Datum (AHD).

Measurements were taken by GNSS.

A DWG of locations has also been supplied.

POINT NUMBER	EASTING	NORTHING	GROUND LEVEL (RL)	PHOTO POINT
9998	333364.028	6248360.777	31.029	PHOTO 01
5015	333369.791	6248365.805	31.009	PHOTO 02
5001	333404.921	6248328.505	32.341	CHIMNEY
5002	333385.722	6248332.944	31.208	ROOF RIDGE
5003	333394.433	6248340.448	31.189	ROOF RIDGE
5006	333435.132	6248309.714	31.896	ROOF RIDGE
5007	333452.857	6248324.891	31.961	ROOF RIDGE
5008	333496.145	6248255.59	93.361	PARAPET
5009	333496.635	6248258.744	93.368	PARAPET
5010	333531.151	6248352.49	74.729	PARAPET
5011	333536.879	6248371.124	74.712	PARAPET
5013	333410.631	6248251.904	49.137	PARAPET

The height of camera is 1.55m.

Note: This should be added to the supplied ground level RL of each corresponding photo location to get the RL of the camera.

Yours faithfully,
CMS Surveyors Pty Limited

D. Roach

Damon Roach

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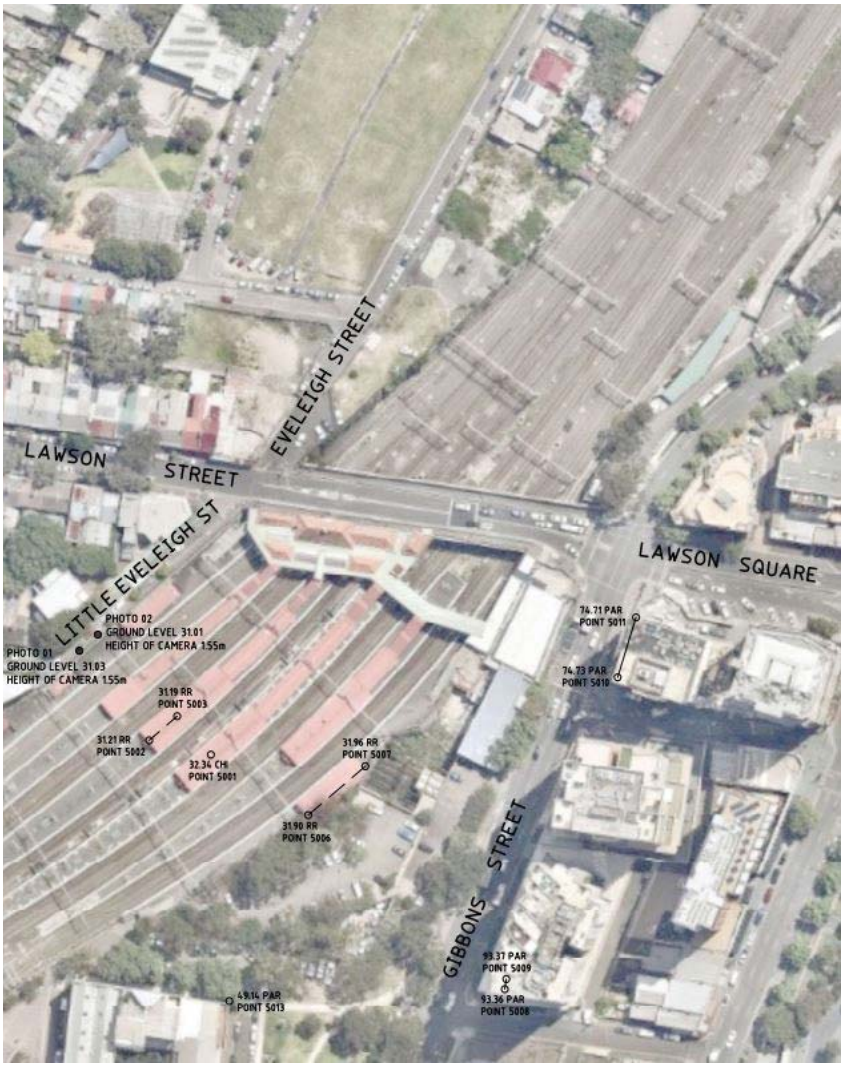

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Appendix 3 Assessment Methodology

B.1 Introduction

The assessment of visual impacts is a field that requires a degree of subjective judgement and cannot be made fully objective. It is therefore necessary to limit the subjectivity of the work by adopting a systematic, explicit and comprehensive approach. This has the aim of separating aspects that can be more objective, for example the physical setting, visual character, visibility and visual qualities of a proposal, from more subjective elements, such as visual absorption capacity and the compatibility of the proposal with the setting.

The methodology used in the present assessment has been developed over several years and uses relevant aspects of methods accepted in landscape assessment, extended and modified to adapt to urban and maritime environments. The modifications introduced are informed by visual perception research that has been carried out by ourselves and others in both natural and urban contexts.

The flow chart at Figure B1 indicates the relationships among the parts of the visual impact assessment methodology.

B.2 Components of the Methodology

Overall, the major components of the visual impact assessment are determining the concept for the development, and general strategic planning principles, view analysis, visual effects analysis, visual impact evaluation and assessment of significance of residual visual impacts. This assessment is also supplemented with an assessment of the merits and compliance of the proposed redevelopment with the relevant policies in relation to visual and related amenity impacts and the mitigation measures that have been undertaken or could be proposed to reduce or eliminate residual impacts.

B.2.1 The Components of the View Analysis

The development proposed and detailed field assessment

This includes a thorough understanding of the proposed development including its location, scale and extent to understand the scale and spatial arrangement of the development. The next step is to carry out a detailed field assessment by identifying the potential viewing locations, visiting the representative locations, documenting the proposal's approximate location on a base map, photographing representative locations and rating overall assessment of the visual effects and relative visual impacts factors. The assessment factors are explained in Section B2.2 and B2.3. The factors were in three ranges; Low, Medium and High. An indicative rating table that describes what is considered a low, medium and high effect and impact on each factor is shown in Tables B2.1 and B2.2, respectively.

Identifying and mapping viewing locations and situations

The representative viewing locations sample visited during the field assessment are mapped including the ones for which analytical and block model photomontages have been prepared to represent the general arrangement of tower form. (see photomontages, Appendix 1). The locations include sensitive locations identified by RLA

Identification and mapping of visual catchment

The potential total visual catchment is moderate given the scale of the proposed tower, within a relatively flat visual context. RLA have mapped a selection of representative locations from which an adjacent building of comparable height at 7-9 Gibbons Street is visible.

RLA have inspected and documented views from between 100m and 1000m of the subject site. The potential total visual catchment means the physical area within which the proposal would be visible and identifiable if there were no other constraints on that visibility, such as intervening vegetation and buildings. Within the potential total visual catchment, the visibility of the proposal would therefore vary. We identify the area within which the proposal would be identifiable and where it could cause visual impacts by assessing visibility.

Visibility means the extent to which the proposal would be physically visible to the extent that it could be identified, for example as a new, novel, contrasting or alternatively a recognisable but compatible feature. Features such as infrastructure, buildings and intervening topography can affect the degree of visibility.

B2.2 The components of the Visual Effect Analysis Matrix

B2.2.1 Baseline Factors

These are the criteria that remain predominantly constant and independent of the nature of viewing locations and factors which condition the viewing situation.

Visual character

The visual character of the locality in which the development would be seen is identified. It consists of identification of the physical and built components of the area and the setting of the proposal that contribute to its visual character. The character elements include topography, vegetation, land uses, settlement pattern, urban and built form, interface of land-water elements, maritime features and waterways.

Visual character is a baseline factor against which the level of change caused by the proposal can be assessed. The desired future character of the locality is also relevant to assessing the extent of acceptable change to character.

Scenic Quality

Scenic quality is a measure of the ranking, which the setting of the proposal either is accepted to, or would be predicted to have, on the basis of empirical research carried out on scenic beauty, attractiveness, preference or other criteria of scenic quality.

Scenic quality is a baseline factor against which the visual impacts caused by the proposal are assessed.

View place sensitivity

View place sensitivity means a measure of the public interest in the view. The public interest is considered to be reflected in the relative number of viewers likely to experience the view from a publicly available location. Places from which there would be close or middle distance views available to large numbers of viewers from public places such as roads, or to either large or smaller numbers of viewers over a sustained period of viewing time in places such as reserves, beaches and walking tracks, are considered to be sensitive viewing places.

Viewer sensitivity

Viewer sensitivity means a measure of the private interests in the effects of the proposal on views. The private interest is considered to be reflected in the extent to which viewers, predominantly viewing from private residences, would perceive the effects of the proposal. Residences from which there would be close or medium distance range views affected, particularly those which are available over extended periods from places such as the living rooms and outdoor recreational spaces, are considered to be places of medium and high viewer sensitivity respectively.

B2.2.2 Variable Factors

These are the assessment factors that vary between viewing places with respect to the extent of visual effects.

View composition type

View composition type means the spatial situation of the proposal with regard to the organisation of the view when it is considered in formal pictorial terms. The types of view composition identified are:

Expansive (an angle of view unrestricted other than by features behind the viewer, such as a hillside, vegetation and buildings.)

Restricted (a view which is restricted, either at close range or some other distance, by features between or to the sides of the viewer and the view such as vegetation and buildings.)

Panoramic (a 360 degree angle of view unrestricted by any features close to the viewer who is surrounded by space elements.)

Focal (a view that is focused and directed toward the proposal by lateral features close to the viewer, such as road corridors, roadside vegetation, buildings, boats etc.)

Feature (a view where the proposal is the form element that dominates the view, for example in close range views.)

It is considered that the extent of the visual effects of the proposal is related to its situation in the composition of the view. The visual effect of the proposal on the composition of the view is considered to be greater on a focal or a feature view, cognisant of the distance effect, compared to a restricted, panoramic or expansive view.

Relative viewing level

Relative viewing level means the location of the viewer in relative relief, compared to the location of the proposal. It is conventional in landscape assessment to assess views from locations above, level with and below the relative location of the proposal. However when maritime developments are concerned, the latter viewing level (i.e. relatively below the level of the proposal) has no practical application.

It is considered that the visual effects of a development are related to the relative viewing level and distance. Viewing levels above the development where views are possible over and beyond it decrease the visual effects, whereas views from level with and close to the development, dependent on viewing distance, may experience higher effects, particularly if built form intrudes into horizons.

Viewing period

Viewing period in this assessment means the influence on the visual effects of the proposal which is caused by the time available for a viewer to experience the view. It is assumed that the longer the potential viewing period, experienced either from fixed or moving viewing places such as dwellings, roads or the waterway, the higher the potential for a viewer to perceive the visual effects of the proposal. Repeated viewing period events, for example views repeatedly experienced from roads as a result of regular travelling, are considered to increase perception of the visual effects of the proposal.

Viewing distance

Viewing distance means the influence on the perception of the visual effects of the proposal which is caused by the distance between the viewer and the development proposed. It is assumed that the viewing distance is inversely proportional to the perception of visual effects: the greater the potential viewing distance, experienced either from fixed or moving viewing places, the lower the potential for a viewer to perceive and respond to the visual effects of the proposal.

Three classes of viewing distance have been adopted which are close range (<100m), medium range (100-500m) and distant (>500m).

View loss or blocking effects

View loss or blocking effects in this assessment means a measure of the extent to which the proposal is responsible for view loss or blocking the visibility of items in the view. View loss is considered in relation to the principles enunciated in the Land and Environment Court of NSW by Roseth SC in *Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours* Although Tenacity concerned view losses from residential properties, the matter of what could be construed to be a valuable feature of the view which could be lost, e.g. specific features of views such as whole views and iconic elements viewed across water, alluded to in *Tenacity*, are of some relevance to the public domain also. View loss in the public domain specifically has been considered in relation to the planning principles in *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor. [2013] NSWLEC 1046*.

It is assumed that view loss and blocking effects increase the perception of the visual effects of the proposal. View loss and view blocking are important matters for consideration regarding short range views from the public domain as identified in the SEARs.

An indicative rating table that describes what is considered a low, medium and high visual effect on each factor is shown in Table B2.1, below.

Table B 2.1: *Indicative ratings of visual effects factors*

Visual Effects Factors			
Factors	Low Effect	Medium Effect	High Effect
Scenic quality	Proposal does not have negative effects on features which are associated with high scenic quality, such as the quality of panoramic views, proportion of or dominance of structures, appearance of land-water interfaces and presence of extensive areas of water.	Proposal has the effect of reducing any or all of: the extent of panoramic views, the proportion of or dominance of water and maritime features, without significantly decreasing their presence in the view or the contribution that the combination of these features make to overall scenic quality	The proposal significantly decreases or eliminates perception of the integrity of any of: panoramic views, dominance of extensive areas of water and maritime features or important focal views. The result is a significant decrease in perception of the contribution that the combinations of these features make to scenic quality.
Visual character	Proposal does not decrease the presence of or conflict with existing scenic character elements such as built form, building scale, urban fabric, land/ water interface and maritime features.	Proposal contrasts with or changes the relationship between existing scenic character elements in some individual views by adding new or distinctive features, but does not affect the overall visual character of the Wharf precinct's setting.	The proposal introduces new or contrasting features which conflict with, reduce or eliminate existing character features. The proposal causes a loss of or unacceptable change to the overall visual character of individual items or the locality.
View place sensitivity	Public domain viewing places providing distant views, and/or with small number of users for small periods of viewing time (Glimpses-as explained in viewing period).	Medium distance range views from roads, recreation areas and waterways with medium number of viewers for a medium time (a few minutes or up to half day-as explained in viewing period).	Close distance range views from roads, recreation areas, foreshores and waterways with medium to high numbers of users for most the day (as explained in viewing period).
Viewer sensitivity	Residences providing distant views (>1000m)	Residences located at medium range from site (100-1000m) with views of the development available from bedrooms and utility areas.	Residences located at close or middle distance (<100m as explained in viewing distance) with views of the development available from living spaces and private open spaces.
View composition	Panoramic views unaffected, overall view composition retained, or existing views restricted in visibility of the proposal by the screening or blocking effect of structures or buildings..	Expansive or restricted views where the restrictions created by new work do not significantly reduce visibility of the proposal or important features of the visual environment.	Feature or focal views significantly and detrimentally changed
Relative viewing level	Elevated position such as ridge top, building or structure with views over and beyond the site.	Slightly elevated with partial or extensive views over the site.	Adjoining shorelines, aprons, waterway or reserves with view blocked by proposal.
Viewing period	Glimpse (eg moving vehicles or boats).	Few minutes up to half day (eg walking along foreshore, recreation in adjoining open space, boating on adjoining waterway).	Majority of day (eg adjoining residence or workplace).
Viewing distance	Land area or waterways (Distant Views) (>1000m).	Land or water (Medium Range) (100-1000m).	Adjoining residences, shoreline or waterway (Close)(<100m).
View loss or blocking effect	No view loss or blocking	Partial or marginal view loss compared to the expanse/extent of views retained. No loss of views of scenic icons.	Loss of majority of available views such as those of shoreline, waterways, land-water interface, in a restricted or focal view. Loss of views of scenic icons.

B2.2. 3 Overall Extent of Visual Effect

Based on the inspection of the pattern of the assessment ratings for the above factors on each viewing location an overall rating is arrived at which represents an overall extent of visual effects for a viewing location.

B2.3 The Components of the Visual Impact Analysis

The criteria in 2.2 concern assessment of the extent of the visual effects of the proposal when seen from specific viewing places. The extent of the visual effects is the baseline assessment against which to judge the visual impacts.

Whether a visual effect is an impact of potential significance cannot be equated directly to the extent of the visual effect. For example, a high visual effect can be quite acceptable, whereas a small one can be unacceptable. Thus, it is necessary to give a weighting to the assessed levels of effects to arrive at an assessment of the impact.

This method therefore does not equate visual effects directly to visual impacts. The approach is to assess visual effects as in B2.2. above to arrive at an overall level of visual effect of the proposal for each kind of viewing place and then to assess the level of impact, if any, by giving differential weighting to impact criteria. By this means, the relative importance of impacts are distinguished from the size of the effect. We consider that two weighting criteria are appropriate to the overall assessment of visual impacts, Physical Absorption Capacity and Visual Compatibility. Each of these addressed the primary question of the acceptability of the visual effects and changes caused by the proposal.

B2.3.1 Visual Absorption Capacity

Visual Absorption Capacity (VAC) means the extent to which the existing visual environment can reduce or eliminate the perception of the visibility of the proposed redevelopment.

PAC includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. It also includes the extent to which the colours, material and finishes of buildings, the scale and character of these allows them to blend with or reduce contrast with others of the same or closely similar kinds to the extent that they cannot easily be distinguished as new features of the environment.

Prominence is also an attribute with relevance to VAC. It is assumed in this assessment that higher VAC can only occur where there is low to moderate prominence of the proposal in the scene.

Low to moderate prominence means:

Low: The proposal has either no visual effect on the landscape or the proposal is evident but is subordinate to other elements in the scene by virtue of its small scale, screening by intervening elements, difficulty of being identified or compatibility with existing elements.

Moderate: The proposal is either evident or identifiable in the scene, but is less prominent, makes a smaller contribution to the overall scene, or does not contrast substantially with other elements or is a substantial element, but is equivalent in prominence to other elements and landscape alterations in the scene.

Design and mitigation factors are also important to determining the VAC. Appropriate colours, materials, building forms, line, geometry, textures, scale, character and appearance of buildings and other structures are relevant to increasing VAC and decreasing prominence.

VAC is related to but distinct from Visual Compatibility (see below).

B2.3.2 Visual Compatibility

Visual Compatibility is not a measure of whether the proposal can be seen or distinguished from its surroundings. The relevant parameters for visual compatibility are whether the proposal can be constructed and utilised without the intrinsic scenic character of the locality being unacceptably changed. It assumes that there is a moderate to high visibility of the project to some viewing places. It further assumes that novel elements which presently do not exist in the immediate context can be perceived as visually compatible with that context provided that they do not result in the loss of or excessive modification of the visual character of the locality.

A comparative analysis of the compatibility of similar items to the proposal with other locations in the area which have similar visual character and scenic quality or likely changed future character can give a guide to the likely future compatibility of the proposal in its setting.

Because the development proposed is on the interface between water and land, with components on each, the question of its visual impacts also depends on its perception both as an entity and in regard to its compatibility with the major scenic character attributes. In this regard, both the urban/ natural environment and the maritime/industrial environment are attributes of relevance. Hence, it is considered that there are two relevant measures of Visual Compatibility, i.e. Compatibility with Urban and Natural Features, and Compatibility with Maritime/Industrial Features.

Visual compatibility with urban features

This assessment is a measure of the extent to which the visual effects of the proposal are compatible with urban and natural features. It is assumed that in some views the proposal can be seen and clearly distinguished from its surroundings. Compatibility does not require that identical or closely similar features to those which are proposed exist in the immediate surroundings.

Compatibility with Urban and Natural Features means that the proposal responds positively to or borrows from within the range of features of character, scale, form, colours, materials and geometrical arrangements of urban and natural features of the surrounding area or of areas of the locality which have the same or similar existing visual character.

An indicative rating table that describes what is considered a low, medium and high impact on each factor is shown in Table B2.2, below.

Table B2.2: *Indicative ratings table of visual impacts factors*

Visual Impacts Factors			
Factors	Low Impact	Medium Impact	High Impact
Visual absorption capacity	Existing elements of the landscape physically hide, screen or disguise the proposal. The presence of buildings and associated structures in the existing landscape context reduce visibility. Low contrast and high blending within the existing elements of the setting and built forms.	The proposal is of moderate visibility but is not prominent because its components, forms and line and its textures, scale and building and vessel form have low to moderate contrasts with existing features of the scene.	The proposal is of high visibility and it is prominent in some views. The project has a high contrast and low blending within the existing elements of the of the setting and foreshores.
Compatibility with urban/natural features	High compatibility with the character, scale, form, colours, materials and geometrical arrangements of existing urban and natural features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character, and geometrical arrangements of the existing urban and natural features in the immediate context. The proposal introduces new urban features, but these features are compatible with the scenic character and qualities of facilities in similar settings.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the urban features in the immediate context or which could reasonably be expected to be new additions to it when compared to other examples in similar settings.

B2.4 Overall Extent of Visual Impact

Based on the inspection of the pattern of the assessment ratings for the above factors for each viewing location, an overall rating is arrived at which represents an overall extent of visual impacts for a sensitivity zone.

Three visual sensitivity zones are identified which are based on the view place sensitivity or viewer sensitivity as explained above in Section B2.2.1. These are related to the distance zones from the development site and whether views are from significant public domain or private viewing locations. Viewing places within the high or medium visual sensitivity zones are further assessed as explained below.

B2.4.1 Applying the weighting factors

An overall impact rating for each of the two relevant visual sensitivity zones is arrived at by applying the weighting factors of VAC and Compatibility to the overall extent of visual impacts. An upweight increases the significance of the impact, while a down-weight decreases it.

B2.5 Analysis against relevant information/planning instruments/policies & master plans

The proposed redevelopment and its overall impacts on each of the visual sensitivity zones is analysed against the relevant criteria provided in the SEARs.

B2.7 Significance of residual visual impacts

Finally, after the visual effects of the mitigation factors are assessed, a relevant question is whether there are any residual visual impacts and whether they are acceptable in the circumstances. These residual impacts are predominantly related to the extent of permanent visual change to the immediate setting.

In terms of the urban component of the development, residual impacts relate to individuals' preferences for the nature and extent of change which cannot be mitigated by means such as colours, materials and the articulation of building surfaces. These personal preferences are also a result of people's resistance to or resilience towards change to the existing arrangement of views. Individuals or groups may express strong preferences for either the existing, approved or proposed form of urban development.

The significance of these residual impacts is assessed based on the relative sensitivity of viewing places that may experience these impacts. Whether overcoming these impacts would result in undermining of the potential capacity of the development site to economically support the intended use is not the focus of a visual impacts assessment

Summary Curriculum Vitae: Dr Richard Lamb

Summary

- Qualifications
  - Bachelor of Science - First Class Honours, University of New England in 1969
  - Doctor of Philosophy, University of New England in 1975

- Employment history
  - Tutor and teaching fellow – University of New England School of Botany 1969-1974
  - Lecturer, Ecology and environmental biology, School of Life Sciences, NSW Institute of Technology (UTS) 1975-1979
  - Senior lecturer in Landscape Architecture, Architecture and Heritage Conservation in the Faculty of Architecture, Design and Planning at the University of Sydney 1980-2009
  - Director of Master of Heritage Conservation Program, University of Sydney, 1998-2006
  - Principal and Director, Richard Lamb and Associates,1989-2019

- Teaching and research experience
  - visual perception and cognition
  - aesthetic assessment and landscape assessment
  - interpretation of heritage items and places
  - cultural transformations of environments
  - conservation methods and practices

- Academic supervision
  - Undergraduate honours, dissertations and research reports
  - Master and PhD candidates: heritage conservation and environment/behaviour studies

- Professional capability
  - Consultant specialising in visual and heritage impacts assessment
  - 30 year's experinence in teaching and research on environmental assessment and visual impact assessment.
  - Provides professional services, expert advice and landscape and aesthetic assessments in many different contexts
  - Specialist in documentation and analysis of view loss and view sharing
  - Provides expert advice, testimony and evidence to the Land and Environment Court of NSW on visual contentions in various classes of litigation.
  - Secondary specialisation in matters of landscape heritage, heritage impacts and heritage view studies
  - Appearances in over 275 Land and Environment Court of New South Wales cases, submissions to Commissions of Inquiry and the principal consultant for over 1000 individual consultancies concerning view loss, view sharing, visual impacts and landscape heritage

A full CV can be viewed on the Richard Lamb and Associates website at www.richardlamb.com.au