URBIS

VISUAL ASSESSMENT

9-11 NELSON STREET , CHATSWOOD

PREPARED FOR

STRATA PLAN #65120

3 MARCH 2021

FINAL

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PURPOSE OF THIS REPORT

The purpose of the report is to provide an independent assessment of the visual effects and impacts of the planning proposal at the Indicative Reference Design. This report has been informed by a desktop review of relevant documents, fieldwork and review of photomontages.

This report also provides certification of the accuracy of the preparation of photomontages prepared that show the built forms proposed within the Concept Plan. Urbis has undertaken view mapping and fieldwork to assess the sites external visibility and documented views from a wide variety of representative public domain high-use or highly sensitive locations, such as main roads, reserves and parks. The photomontages prepared by Urbis include proposed development envelopes within the Concept Plan (where they are visible) and provide useful objective aids to inform our assessment.

Should the proposal be approved to progress to the development application stage, a more fine-grained consideration of the massing, articulation, detailing, materials, colours and finishes etc would occur.

For ease of reference this report is structured as follows:

CONTENTS

EXECUTIVE SUMMARY

This report is an assessment of the visual effects and potential impacts of a Planning Proposal for 9-11 Nelson Street in Chatswood, NSW.

A summary of the proposal and findings include:

- An Indicative Reference Design prepared by Urbis and PBD Architects shows the intended massing for the site.
- The site has a potentially large visual catchment, however visual effects of the proposed development will be predominantly restricted to the closest locations and adjacent roads including Nelson Street and Gordon Avenue.
- An assessment of the potential visual effects and impacts of the proposed built is based on the analysis of 6 block-model photomontages prepared by Urbis and fieldwork observations.
- The block-model photomontages have been prepared accurately using survey data to align the 3D architectural model.
- The upper part of the tower form proposed would be visible from distant locations predominantly to the north, west and east and will be visible in the context of the Chatswood skyline that is characterised by towers.
- The built form proposed in the Indicative Reference Design is compatible with the cluster of towers that currently exist in the wider visual context and others that are approved and are under construction. In this regard the height and form of the proposal is consistent and highly compatible with the desired future character for this part of Chatswood.
- Sensitive viewing locations such as high-use reserves and parks, with the exception of Chatswood Oval, are not located within the immediate context of the subject site.
- The built form proposed provides the potential for a high-quality development and amenity that would enhance the adjoining streetscape and will form as part of the continuation of the Chatswood CBD skyline which is in accordance with the controls in the Chatswood CBD strategy.
- Views from low and mid-level locations in neighbouring residential flat buildings in Nelson Street are unlikely to be significantly affected by potential view loss.
- Views from upper floors at 5-7 and 8-12 Sutherland Road apartments may be affected by some potential view loss in south-easterly views. It is unlikely that views from these locations are sufficiently high to include scenic and highly valued items as defined in Tenacity. In our opinion therefore, any potential view loss is likely to be minor when considering Tenacity's rating scale.
- The height sought by the planning proposal is unlikely to block views to scenic items, icons or important scenic resources and will predominantly block views of areas of open sky.
- Based on our analysis of the block-model photomontages and fieldwork observations, the extent of visual effects and significance of those effects (impacts) appear to be reasonable and acceptable. In this regard the planning proposal can be supported on visual impacts grounds.

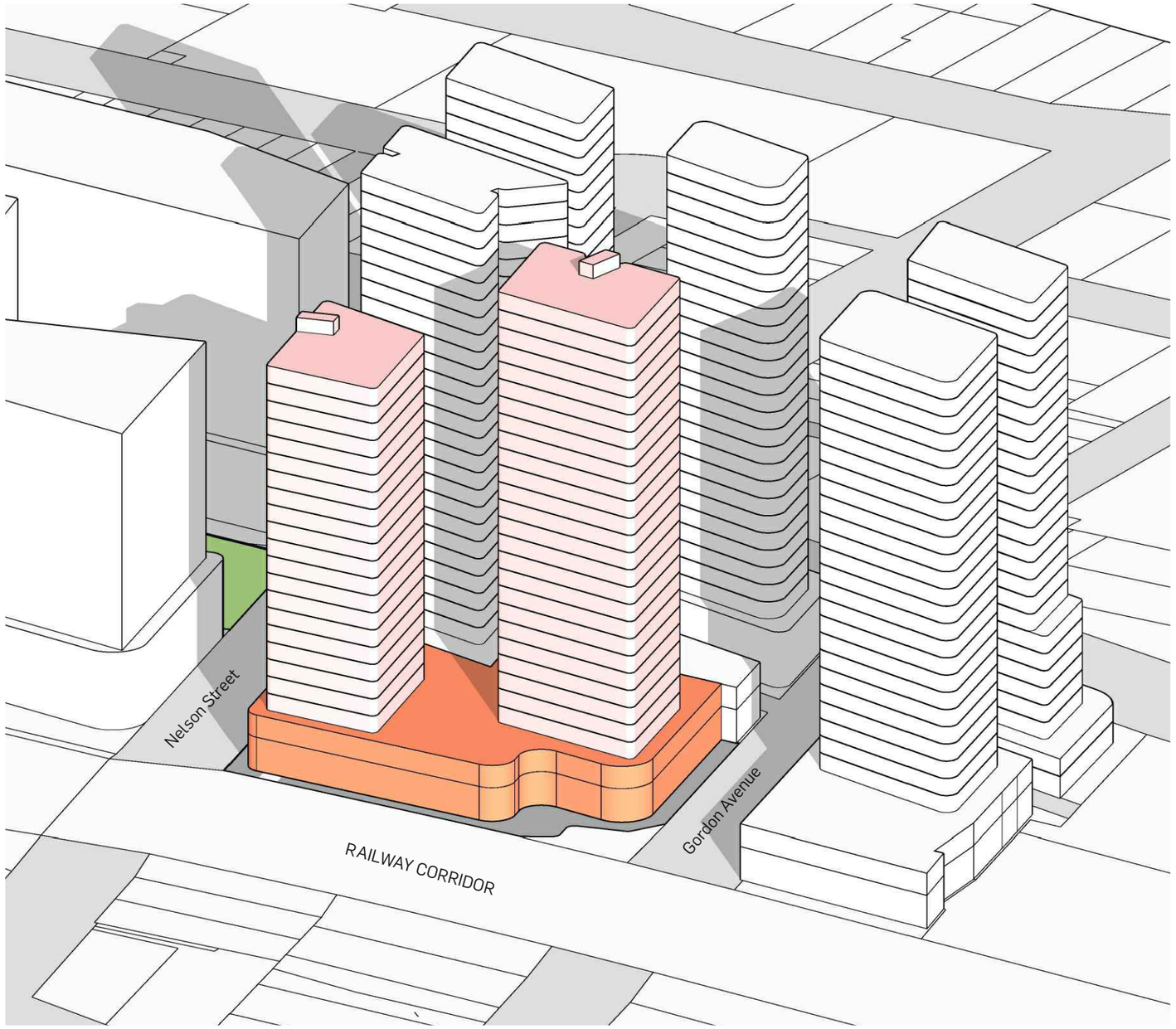


Figure 1 Reference Scheme Proposed Building Envelope (source PBD Architects)

1.0 INTRODUCTION

Urbis was engaged by the Strata Plan #65120 to prepare this Visual Assessment report as part of the planning proposal submission to Willoughby Council as the consent authority, for a proposed mix-use development at 9-11 Nelson, Chatswood.

The planning proposal¬¬ includes a reference scheme comprising of two tall towers on a two-storey commercial podium which sits in an urban block between the Pacific Highway and the north-south rail line. It has dual street frontage to the north along Gordon Avenue and to the south along Nelson Street.

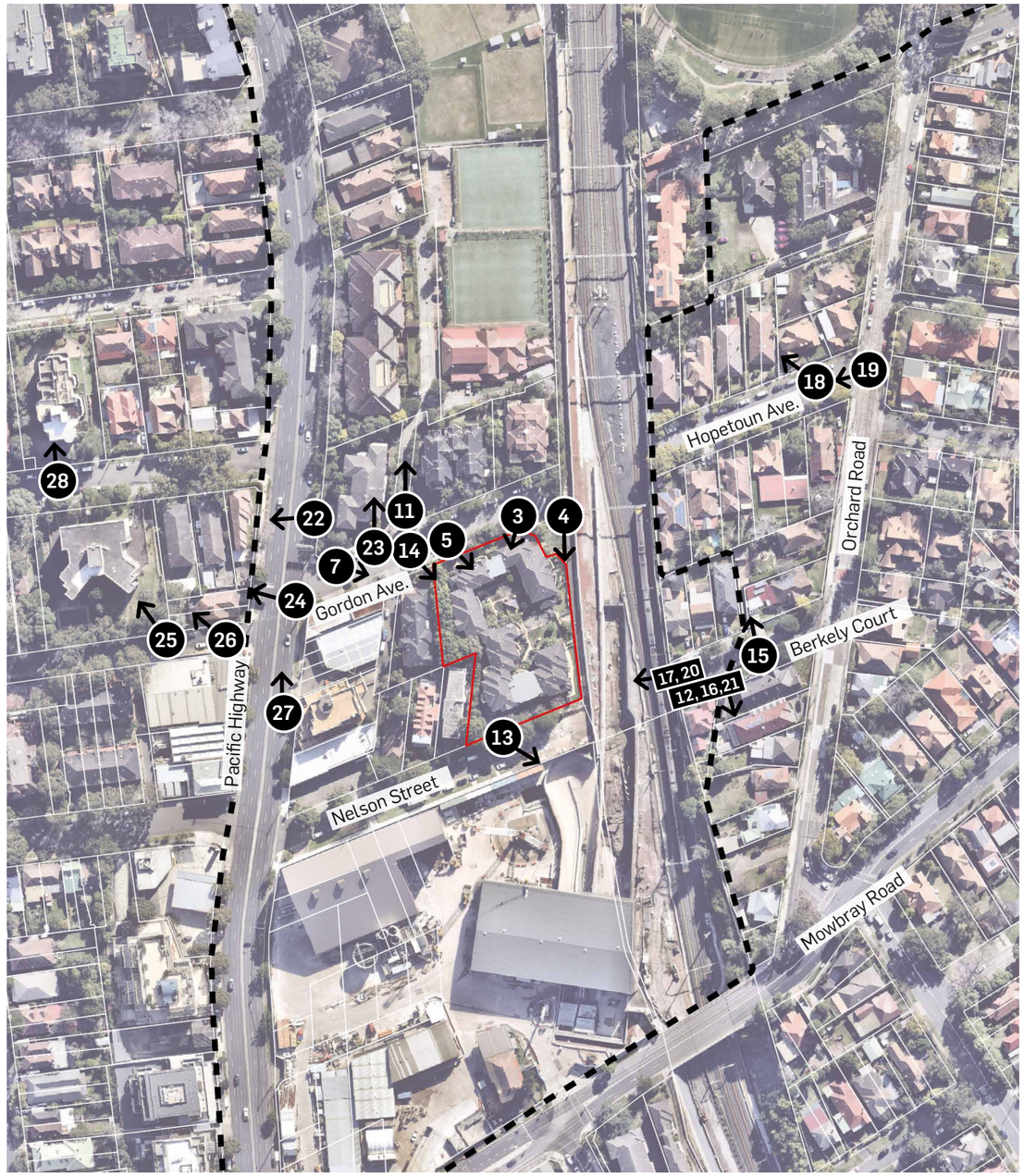
The author of this report has had substantial recent experience providing visual assessment, view sharing and visual impact assessment advice to Council and private clients across NSW. The author has provided independent visual analysis in relation to major projects, planning proposals and development applications in urban settings across NSW and in visual contexts that are not dissimilar to Chatswood.

Chatswood and in particular the precinct which includes the site, has been the subject of a number of strategic planning studies in relation to its importance in the wider context and longer-term North District Plan released by the Greater Sydney Commission in 2018. The Chatswood CBD Planning and Urban Design Strategy to 2036 (The Strategy) identify this part of Chatswood for high-density, mixed-use development and proposes significant change for the subject site.

1.1 ABOUT THE SITE

The subject site is located adjacent to the North Shore Rail line at the east end of the western section of Nelson Street. Nelson Street is separated not two section either side of the rail corridor.

The subject site address is 9-11 Nelson Street, Chatswood, located with in the Willoughby Local Government Area. The site is legally described as SP65120 and has a total areas of 4,219 sqm. It is broadly trapezoid in shape with obliquely angled boundaries to the north and south and presents to both Nelson Street and Gordon Avenue.



LEGEND

- Subject Site
- Chatswood CBD
- Lot Boundary
- 1 Photo Reference Figure #

Figure 2 Site and Context Plan *(Source: Urbis)*

1:2,500 @ A3

0 20 40 60 80 100 120

EXISTING SITE COMPOSITION

The site currently contains a three storey residential complex, containing 45 units under a strata plan. It is characterised by 3 storey residential buildings which are massed around the edges of the site as connected buildings. Furthermore:

- Built form on the site appears to be of late 20th Century origin with external elevations of masonry and cement render, exposed brick and tiled hip and gabled roof forms.
- The connected buildings form a floorplate that could be described as a reverse '3' shape, leaving the central parts of the site open to include ornamental gardens and open space. This open space extends to the east to meet a public walkway.
- The north, west and south boundaries are characterised by dense, mature, evergreen vegetation. Both Nelson Street and Gordon Avenue include street trees (Tristaniopsis sp native water gum) which contribute positively to the streetscape character and to local visual amenity.
- The built form is consistent with other residential developments of a similar scale in the area, with masonry and cement rendered external elevations.
- The site contains communal gardens and open space which connect to the public walkway along the eastern boundary of the site. Dense vegetation of medium age is located primarily along the western and southern boundaries, with additional mature street tree plantings that interface with adjoining neighbours and on both road frontages

Figure 5 Detail of north elevation of 9-11 Nelson, presenting to Gordon Avenue

Figure 6 Detail view of the south-east corner of 9-11 Nelson Street

Figure 3 Detail view of the south elevation of 9-11 Nelson Street

Figure 4 View looking south toward the south-east elevation of 9-11 Nelson Street

Figure 7 View looking south-east toward 9-11 Nelson Street left of frame filtered by street trees in the foreground

1.1 PROPOSED DEVELOPMENT

This Planning Proposal has been prepared to align with the planning controls in accordance with the Chatswood CBD Strategy to enable future redevelopment on site and through the preparation of a site-specific DCP.

The Urban Design report prepared by Urbis sets out the rationale in relation to potential built form options for the site and shows a proposed building envelope in the Indicative Reference Design, which has been used to inform this Planning Proposal.

The proposed development includes the demolition of the existing residential buildings on the site and redevelopment which will comprise the following key components:

- A two-storey commercial podium;
- Two residential towers on podium, comprising 22 and 27-storeys to a maximum proposal height of 90m. The towers are setback 3m from the podium and separated 18m apart.
- Communal and private open space above the podium in addition to communal open space on tower rooftops.
- Activated interface with Nelson Street, Gordon Avenue and the pedestrian/cycle path to the east.

The objective of the Planning Proposal is to facilitate the future redevelopment of the site for a mixed-use development with a maximum building height of 90m and a maximum FSR of 6:1 to align with the recommendations of the Chatswood CBD Planning and Urban Design Strategy 2036 (the CBD Strategy).

The Planning Proposal seeks to achieve the desired outcome by:

- Amending the land use zoning control applicable to the site under WLEP from R2 Low Density Residential to B4 Mixed Use.
- Amending the maximum height control from 12m to 90m.
- Amending the maximum Floor Space Ratio (FSR) control from 0.9:1 to 6:1.

The LEP amendments above will facilitate the delivery of the concept building illustrated in the accompanying Urban Design Report prepared by Urbis.

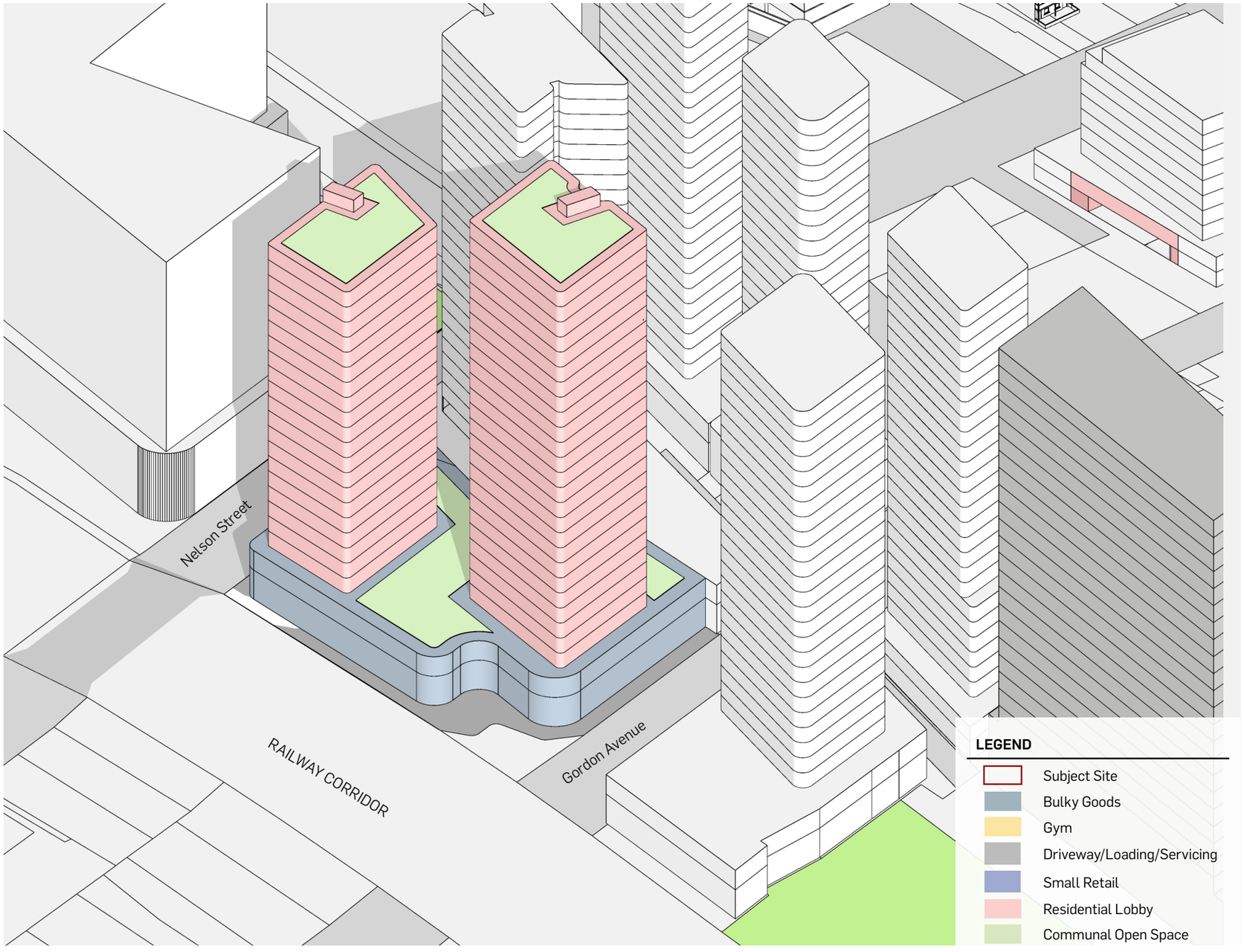


Figure 8 Concept Built Form 3d *(Source: Urbis)*

1.2 PLANNING CONTEXT

A review of key strategic planning documents has been undertaken to understand the future context of Chatswood, its growth and transformation in relation to views and visual impacts.

Chatswood CBD Planning and Urban Design Strategy 2036

The Chatswood CBD Strategy presents the latest vision and strategic intent for the area and supports a significant increase in density and building height within the subject site. The subject site is within the newly expanded Chatswood CBD boundary which has been endorsed subject to some minor amendments.

Table 1 summarises the key controls that are relevant to the site. These controls have informed the proposed built form that is sought under the planning proposal. In relation to the visual context the proposed built form is fully compliant with the height controls as prescribed in the Strategy and thus the future desired character of this part of Chatswood.

Table 1 Assessment of subject site

KEY RECOMMENDATIONS	SUBJECT SITE
▪ Extended CBD Boundary	▪ Within additional area
▪ Recommended Land Use	▪ B4 Mixed Use
▪ Recommended Base FSR	▪ 6:1
▪ Recommended Maximum FSR	▪ 6:1
▪ Recommended Building Height	▪ 90 meters
▪ Public Domain Projects	▪ In proximity to: – New through-site link to the west; – Potential new open space to the south; – Adjoining shared link to the east is maintained.
▪ Recommended Street Frontage Height and Setbacks	▪ North, south and east boundaries to adopt: – Mixed use frontage with commercial ground floor; – 6-14 meter street wall; – Minimum 3 meter setback above streetwall.

HERITAGE

The subject site at 9-11 Nelson Street, Chatswood is not a listed heritage item and is not located within a heritage conservation area. It is located in the vicinity of the following heritage items and conservation areas:

- Item 96 Mowbray House and 10m curtilage under Schedule 5 of the Willoughby Local Environmental Plan 2012 – located to the south of the subject site on the northern alignment of Mowbray Road.
- Item 147 Terrace house (including original interiors) under Schedule 5 of the Willoughby Local Environmental Plan 2012 – located more broadly to the south west of the subject site, but has no direct visual interface.
- C11 South Chatswood Heritage Conservation Area to the east of the subject site.

Urbis Comment

The conservation area is separated by the wide railway corridor.

View 5 on page 20 depicts the potential visual change that will be experienced by viewers within the Conservation Area.

The proposal will largely affect the background composition of open sky but will not block public domain views to any important scenic features. In the medium term the proposal will feature as a novel item in the skyline, until other taller built forms in the area have been realised in accordance with the Strategy.

Given this spatial separation from the site and in reviewing the proposed view,the proposal will not generate any significant visual effects. The proposed development is compatible with future desired character of the the location on which it sits and is in accordance with the proposed built form in the Strategy.

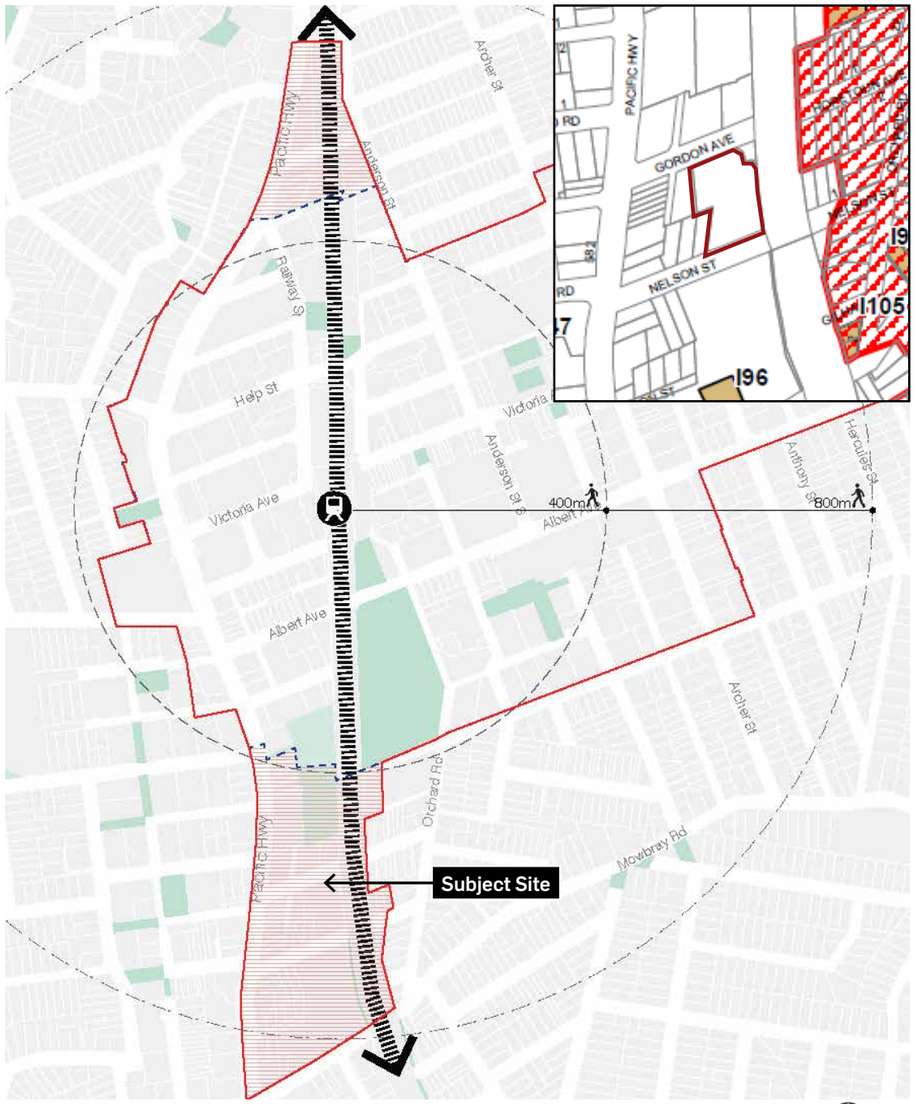


Figure 9 Chatswood CBD Strategy - Extended CBD Boundary

LEGEND

- Chatswood CBD Boundary
- Additional Areas

2.0 VISUAL CONTEXT ANALYSIS

Visual context investigations to understand existing, emerging and desired future visual character.

This section investigates visual context and character to identify broad opportunities and constraints within the area. The purpose of this analysis is to identify views and visual qualities around the site which are consistent with the desired future visual character of the locality.

GORDON AVENUE

The Gordon Avenue street scape includes residential development that is not dissimilar in height, form or scale to the subject site as described above. For example number 3 and 5 Gordon Avenue. The west end and north side of Gordon Avenue west of the driveway entry to the Chatswood Bowling Club includes the rear of an older brick and tile residential flat building which presents formally to the Pacific Highway (no 641-653).

10 Gordon Avenue adjoins the subject site to the west. This three-storey residential flat building includes external wide balconies that present to the north and west. Dense vegetation along the west boundary of the subject site currently separates the developments.

NELSON STREET

The streetscape character of Nelson Street is similar to that of Gordon Avenue in that it predominantly includes three-storey residential flat buildings which include basement carparking, street trees and older residential development near the corner of Pacific Highway. The visual context of Nelson Street also includes commercial two-storey development at its western end and the south side is wholly occupied by the Sydney Metro site.

Figure 13 Views looking south from the front elevation of 9-11 Nelson Street

Figure 14 Three storey RFB on 10 Gordon Avenue directly west and adjacent to the site

Figure 12 Streetscape character on Berkely Court (east of the rail corridor) at the corner of Orchard Road

Figure 11 South-west elevation adjoining the RFB on Hammond Lane, corner of Gordon Avenue

SOUTH

The Sydney Metro site fills a block of land bounded to the west by the Pacific Highway, to the south by Mowbray Road and the railway corridor to the east. The site includes two large bulky steel-clad sheds the western and largest of which appears to be approximately equivalent to 7 residential storeys in height.

EAST

Residential development located east of the railway corridor is zoned R2 low density residential and is included in a general conservation area. This visual context predominantly includes individual one and two-storey dwellings many which display Federation era architectural detailing for example in Tryon Street and Mowbray Road. The closest streets to the subject site in this vicinity for example in Nea Street, Orchard Road and Hopetoun Street include more variety of ages of dwellings such as Post-War era bungalows, simple brick and tile dwellings and more contemporary in-fill development.

Figure 18 Hopetoun Ave streetscape looking north-west

Figure 19 Hopetoun Ave streetscape looking west at the intersection of Orchard Road

Figure 20 From the western end of Berkeley Court (eastern side of the railway corridor) looking north west towards the site

Figure 21 Streetscape character on Berkely Court (east of the rail corridor) at the corner of Orchard Road

Figure 15 Number 3 and 5 Berkeley Court (eastern side of the railway corridor) looking north towards the Chatswood CBD

Figure 16 Streetscape character of Berkely Court on the eastern side of the rail corridor at 2 Berkely Court

Figure 17 From the western end of Berkeley Court (eastern side of the railway corridor) looking west towards the site

NORTH

North of the site, development along the east side of the Pacific Highway and west of Chatwood Oval is predominantly characterised by three to four storeys height buildings. Chatswood Oval is a large open and highly used public space located approximately 250m north-east of the subject site immediately adjacent to the east side of the railway corridor.

The Chatswood CBD approximately 700m north is highly urbanised, the south edge of which is marked by mixed-use tall tower forms along the west end and both sides of Albert Avenue. Development located between the Chatswood CBD and the subject site which appears to be largely residential, is not dissimilar in terms of height, form and character to that described above in relation to the west side of the Pacific Highway.

WEST

The west side of the Pacific Highway south-west of the site is zoned B5 and as such includes low-medium height mixed-use development such as commercial, retail and residential uses which present to the Highway.

Opposite the site the streetscapes of Moriarty Road, Fehon Road, Whitton Road and Sutherland Road are predominantly characterised by low-density, three-storey residential flat buildings that appear to range in age and architectural style from post World War 2 to late 20th Century. Notwithstanding the presence of some individual one and two-storey residences in this vicinity, the majority of the flat buildings present are characterised by long building masses within a garden setting, wide spatial setbacks and mature vegetation. For example Whitton Gardens at 12 Whitton Road and Goodchap Apartments at 19 Goodchap Road. All of the roads described include street tree planting and we note the heavily treed pocket park at the corner of Sutherland Road and Fehon Road.

Two taller residential towers are located west of the site and have elevations that are orientated towards it. 'High Barbaree' at 5-7 Sutherland Road is a blonde-brick clad, seven-story building which includes external balconies with curved brick balustrades that present to the south and east. Sutherland Gardens at 8-12 Sutherland Street appears to be a late 20th Century residential concrete and masonry tower with a 'butterfly' shaped floorplate. The eastern wing of which includes balconies and windows that are orientated towards the site.

These two buildings are the two tallest existing buildings in the immediate visual context. They establish taller forms, both novel elements in an low-medium scale area that is already present surrounding the site.

Figure 23 RFB atthe north-west corner of Hammond Lane and Gordon Avenue, rear of 641-653 Pacific Highway

Figure 22 Sutherland St east elevation fom Pacific Highway end of Gordon Avenue

Figure 24 Sutherland St east elevation fom Pacific Highway end of Gordon Avenue

2.1 VISUAL CATCHMENT

The existing built form on the site is low in height so that its potential visual catchment (external visibility) is limited to close neighbouring locations, refer to "Figure 2 Site and Context Plan (Source: Urbis)" on page 4 for photo location reference. Using the adjacent cranes to the south at the Sydney Metro site and other taller residential flat buildings in Sutherland Road as visual markers, the following observations in relation to the potential visual catchment subsequent to the construction of a tower on the site are as follows:

WEST

The Pacific Highway approximately follows a local north-south ridgeline so that the underlying topography west of the Pacific Highway falls in elevation to the west and south-west. In this regard potential views towards the proposed development will diminish approximately west of Whitton Road. There are limited opportunities from roads to the west for example; Fehon, Sutherland and Moriarty roads from which to view the site or proposed tower due to the road alignment, intervening built forms and the presence of street tree vegetation.

NORTH

Views to the site and proposed tower would be available from a short section of the Pacific Highway south of its intersection with Albert Avenue. North of this approximate location the road corridor bends to the north-east, so that all potential views southwards are likely to be blocked by intervening buildings located in the Chatswood CBD. Potential views would also be available from the eastern end of roads that intersect with the highway for example Cirtchett, Eddy and Freeman Road.

The upper parts of a tower form would be potentially visible via the side setbacks between residential dwellings along Ellis Street and from the northern open areas of Chatswood Oval.

SOUTH

The potential visual catchment of a proposed tower south of the site would also be constrained to a short section of the Pacific Highway. Views are available from the highway at its intersection with Mowbray Road and near Palmer Street. Views to the site are likely to be available from the mixed-use development along the west side of the Pacific Highway between Mowbray Road and Moriarty Road.

EAST.

The greatest external visibility of a tower form on the site, is to the east available across the relatively undeveloped width of the rail corridor and above and between lower density and height residential development. Notwithstanding there are no roads which are directly orientated towards the site to enable axial or focal views towards it. A tall tower form is likely to be visible intermittently from parts of Mowbray Road to the east and from some residential roads. Such views would be partially screened by intervening buildings and street vegetation.

Figure 27 Pacific Highly looking north towards the high density development in Chatswood

Figure 26 Sutherland Road east elevation from Gordon Avenue close to the Pacific Highway intersection

Figure 29 Taken from the corner of Nea St and Orchard Road view to Chatswood visual context

Figure 25 Detail east elevation Sutherland Gardens at 8-12 Sutherland Road

Figure 28 Sutherland St east elevation from Pacifi Highway end of Gordon Avenue

3.0 EXISTING VIEW ACCESS

3.1 PUBLIC DOMAIN VIEWS

Potential views to the site are predominantly constrained to immediately surrounding road corridors and streetscapes. There is unlikely to be any view access available to scenic or highly valued features or view compositions (as described in Tenacity or Rose Bay planning principles) from such areas.

Public domain views potentially most affected are those from streets and intersections close to the proposal. These are:

- Nelson Street
- Gordon Avenue
- Berkeley Court
- Houpetoun Avenue
- The Pacific Highway; and
- Mobray Road.

These public domain views are largely viewed whilst moving and screened by existing tree canopy which reduces the value of the potential impact. One axial view along Berkely Court from the east side of the railway will be for sustained / longer period (View 6 of the Visual Effects Analysis).

With the exception of Chatswood Oval (View 1 of the Visual Effects Analysis), sensitive viewing locations such as high-use reserves and parks are not located within the immediate context of the subject site, will be screened by trees and is at a greater distance from the proposal.

Figure 31 Chatwood Oval (View 1 of the Visual Effects Analysis)

Figure 32 Corner of Albert Avenue and the Pacific Highway looking south, with street trees screening the development

Figure 33 Site detail from Gordon Avenue (View 2 of the Visual Effects Analysis)

3.2 PRIVATE DOMAIN

Immediate Neighbours

Neighbouring dwellings located at 5 and 10 Gordon Avenue will have direct views to the site depending on the retention of the existing vegetation within it. Notwithstanding they are unlikely to have any view access available to scenic or highly valued features or view compositions (as described in Tenacity planning principle).

- Adjoining residential dwellings are likely to be exposed to foreground views where the composition existing built form would change to include new contemporary built form. This does not constitute view loss but rather, visual change to the composition of views.

Tall apartment buildings west of the site

Taller tower forms to the west and north may have access to a distant composition to the east and south-east across the subject site.

- The composition of such potential views would vary building but is likely to include residential development to the east, the typology of St Leonards and North Sydney both of which are characterised by tall tower forms.
- Some dwellings may have access to more distant features including parts of the Sydney CBD skyline, parts of Sydney Harbour and North Head.
- The presence of icons in the view may need to be tested at detailed design stage.
- The proposal will introduce new built forms into the foreground of the close views from surrounding streets. However it is anticipated that a proposed tower form on the site will not create any significant visual effects or potential visual impacts on views from the public domain. A tall slim tower form will predominately block areas of open sky and in views from the south would be seen in the context of tower development in the Chatswood CBD.
- In potential views from residential flat buildings west of the site, the tower form may be present within a wider more expansive view but is unlikely create any significant view blocking effects in relation to scenic or highly valued features.

Figure 35 View north from 5 Gordon Ave

Figure 34 Three storey RFB adjacent to site at 10 Gordon Avenue

4.0 VISUAL EFFECTS ANALYSIS

4.1 PRIVATE DOMAIN VIEWS

The likely impact of the proposal on outward views (private domain views) requires analysis and assessment in relation to the planning principle established by Roseth SC in the Land and Environment Court of New South Wales in Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours (Tenacity). At this stage in the planning process we have not undertaken a comprehensive Tenacity assessment, but rather have assessed the likely visual effects and potential impacts of the construction of the built form based on detailed fieldwork observations, the spatial relationship between the site and surrounding residential dwellings, aerial photographs and google earth 3D modelling. Therefore the following comments are indicative only;

- Roseth SC in Tenacity defines a four-step process to assist in the determination of the impacts of a development on views from the private domain. The steps are sequential and conditional, meaning that proceeding to further steps may not be required if the conditions for satisfying the preceding threshold is not met in each view or residence considered.
- In addition a pre-test to the application of the assessment requires consideration of the quantum and quality of the views to be lost. In other words if there is no substantive loss or if the items lost are not considered to be valued in Tenacity terms the threshold may not be reached and proceeding to further steps in Tenacity may not be required.
- The visual effects on views from the low-density residential context in Chatswood are likely to be minor, given the changing visual context of this area in the near future. Notwithstanding the proposed development will be visible in some views and would introduce two new slim tower forms into the mid-ground composition of the view, it will not block views to scenic or highly valued features but will block areas of open sky. In all such views the proposed development would be visible in the context of the cluster of commercial and mixed-use towers in Chatswood where it is not dissimilar in character or form to that proposed in the Strategy.
- The visual effects on low and mid-level units in residential flat buildings including 5 and 10 Gordon Avenue to the west of the subject site are likely to be minor. This is because views from low and mid-level locations would not be sufficiently elevated to be able to extend beyond foreground and mid-ground built forms to scenic or highly valued features. The proposed development would replace existing buildings with a contemporary podium and new slim tower and in upward views would block areas only of open sky.
- In relation to upper level units at 10 Gordon Avenue the proposed development would introduce a new slim tower form into the north-west part of a view that is available across a side boundary of the site.
- In potential views from residential flat buildings west of the site, the tower form may be present within a wider more expansive view but is unlikely create any significant view blocking effects in relation to scenic or highly valued features.
- We anticipate that adjoining residential dwellings are likely to be exposed to foreground views where the composition existing built form would change to include new contemporary built form. This does not constitute view loss but rather, visual change to the composition of views.
- The visual effects of the proposed development on easterly and south-easterly views from upper level units at 5 and 10 Sutherland Road apartments are likely to be minor to moderate. Notwithstanding that there would be some view loss, the effects would occur for a small proportion of the total views that are available from the 5 and 10 Sutherland Road apartments given that its longest elevations are orientated to the north and south. Views lost are not anticipated to include icons or highly valuable and scenic views as defined in Tenacity.
- We have considered the Visual Effects of the proposed development on the Heritage Conservation Area (HCA) based on fieldwork and the analysis of the photomontages. There is a distance of 70 meters between the site and HCA including the rail corridor.
- Based on an analysis of View 5 in our opinion the extent of visual effects does not generate any siginifcant visual impacts on views to and from the HCA.

4.2 USE OF PHOTOMONTAGES

The Landscape Institute (UK) provides the following guidance:

Visual representations or 'visualisations' must fairly represent what people would perceive in the field. The sophistication of visualisation technique needs to be proportionate to factors such as purpose, use, user, sensitivity of the situation and magnitude of potential effect.

The use of the most appropriate type of visualisation requires an understanding of the landscape and visual context within which the development may be seen, knowledge regarding the type of development proposed, its scale and size, and an understanding of the likely effect of introducing the development into the existing environment.

This analysis required only block-model photomontages as a means to show the extent of the built form proposed. Other graphic aids such as perspective sketch images of the built forms proposed will be provided by others.

It should be noted that the forms depicted are simply massed block model building of envelopes for th purposes of the planning proposal. Architectural detailing such materials, finishes, fenestrations, landscape will be provided at DA stage.

Urbis staff undertook fieldwork and documented views from within the potential visual catchment in 22 September, 2020. A number of close, medium-distant and distant views were selected for modelling and further analysis. 6 views were used as a basis for the preparation of photomontages.

- The original photographs were taken by Urbis using a Canon EOS 6D full frame camera using a 35mm Focal length lens and the GPS coordinates for each view locations were located on a google earth KMZ file.
- The Indicative reference design massing is shown in an opaque white colour.

Page 24 includes detail regarding the process followed by Urbis to prepare the photomontages.

Figure 36 Key plan of view locations with photosimulations

VIEW 1 (VP-A)

NORTH-WEST EDGE OF CHATSWOOD OVAL LOOKING SOUTH-SOUTH-WEST

This is a medium distant view 360m from an important public domain location at Chatswood Oval looking south-south west towards the site. The view is composed of the sports oval shown partially in the foreground with the midground comprised of existing trees the covered seating areas and the background view of sky and the electricity substation tower to the left of view.

The proposed built form is visible above a foreground of existing mature trees located within the oval grounds.

- The proposal introduces two slim tower forms into the composition which will block views of open sky.
- In the short term the proposal will be seen as a novel item in the skyline but will in time be visible in the context of other built forms in Chatswood including future built form (in accordance with the Strategy) that will not be dissimilar in terms of height or visual character.
- The height for the site reflects the desired future character and future visual context of the site and does not block views to scenic features or areas of high scenic quality.

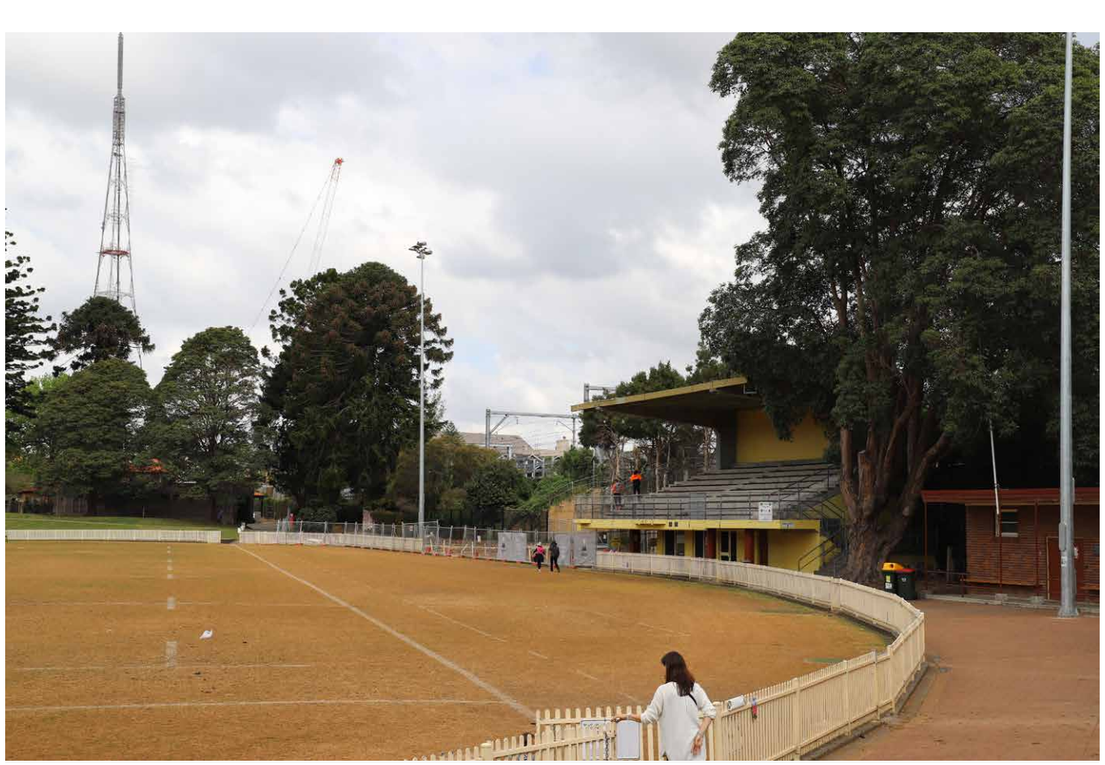


Figure 37 Existing view

Figure 38 Proposed view

Figure 39 Point cloud reference model and camera match

VIEW 2 (VP-B)

SITE DETAIL FROM GORDON AVENUE

This is a close view from approximately 30m looking south-east of the subject site where the two storey podium and lower levels of the northern tower is visible. The existing view is composed of vegetation and street trees in the mid-ground with buildings partially screened beyond. 10 Gordon Avenue is visible to the right of view.

The proposed development will introduce new, taller and bulkier form to the streetscape.

- Parts of the built form proposed will be partially screened by existing and retained streetscape vegetation.
- The built form will not block public domain views to any important scenic features or items, but will predominantly block views of open sky.
- It will introduce new height and scale to the immediate streetscape.
- The visual effects of the proposed built form will be softened with further architectural articulation and fine grained detailing at the DA stage.

Figure 40 Existing view

Figure 42 Proposed view

Figure 41 Point cloud reference model and camera match

VIEW 3 (VP-C)

SOUTH-WEST CORNER OF MOWBRAY ROAD AND THE PACIFIC HIGHWAY

This is a medium distance view of 280m looking north-east from the key public domain corridor of the Pacific Highway. The existing view includes roadway in the foreground, the Sydney Metro dive site in the mid-ground, part of the Chatswood skyline and open areas of sky.

The proposed built form is visible above a foreground of the Sydney Metro dive site. The proposal will introduce two slim forms into the composition.

- The built form will not block public domain views to any important scenic features or items, but will predominantly block views of open sky.
- Views to the proposal will be seen in the context of other built forms within the Chatswood CBD including future built form (in accordance with the Strategy) that will be similar in character and form.
- The height of the tower reflects the desired future character for this part of Chatswood.

Figure 43 Existing view

Figure 45 Proposed view

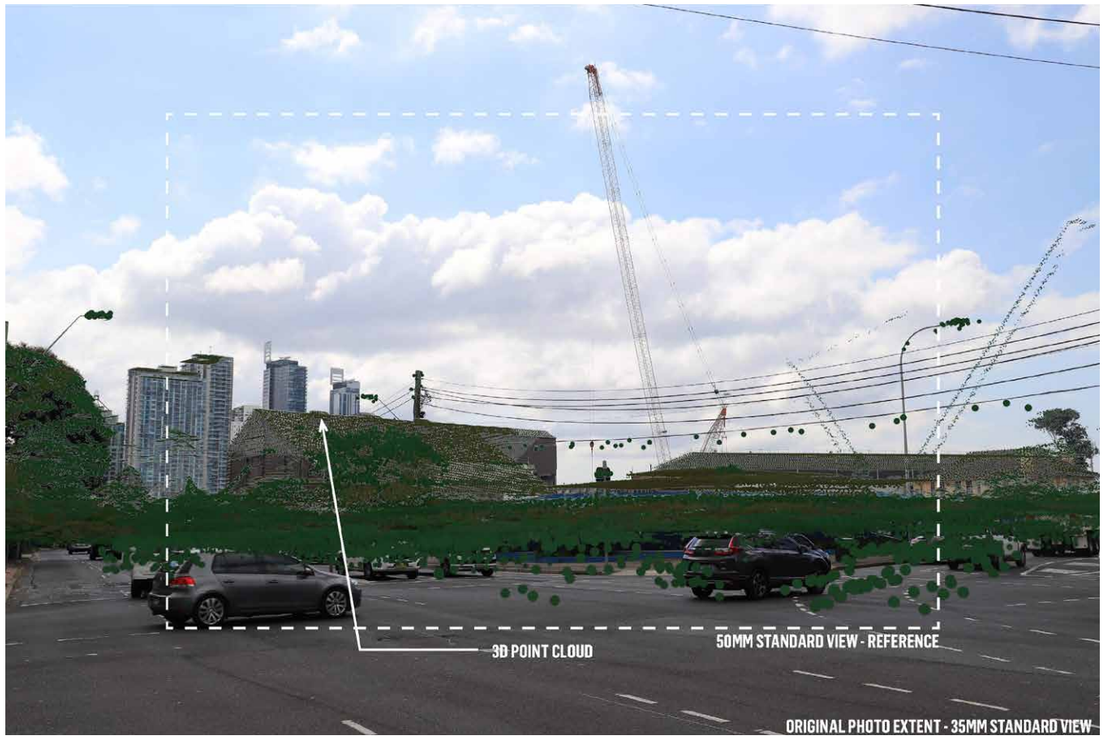


Figure 44 Point cloud reference model and camera match

VIEW 4 (VP-D)

NORTH-SIDE OF MOWBRAY ROAD

This is a close view from approximately 140m east of the subject site on the north side of Mowbray Road looking north-west. The composition of this view includes the rail corridor, the Sydney Metro dive site in the foreground and the skyline of Chatswood beyond to the right of view.

The one-storey podium and lower levels of the south-eastern tower elevation is visible.

- The podium form will not block any important whilst the tower component will block areas of open sky in upward views. The built form will not block public domain views to any important views, scenic features or items.
- In the short term the proposal will be seen as a novel item in the skyline but will in time be visible in the context of other built forms that will not be dissimilar in terms of height or visual character.
- The setback from the podium to the tower from this view place is in accordance with the DCP providing some visual relief between the tower form in the proposal and the towers beyond in the Chatswood CBD.
- Whilst there are some visual effects in the short-term, the proposed development is compatible with future desired character of the area in accordance with the Strategy.

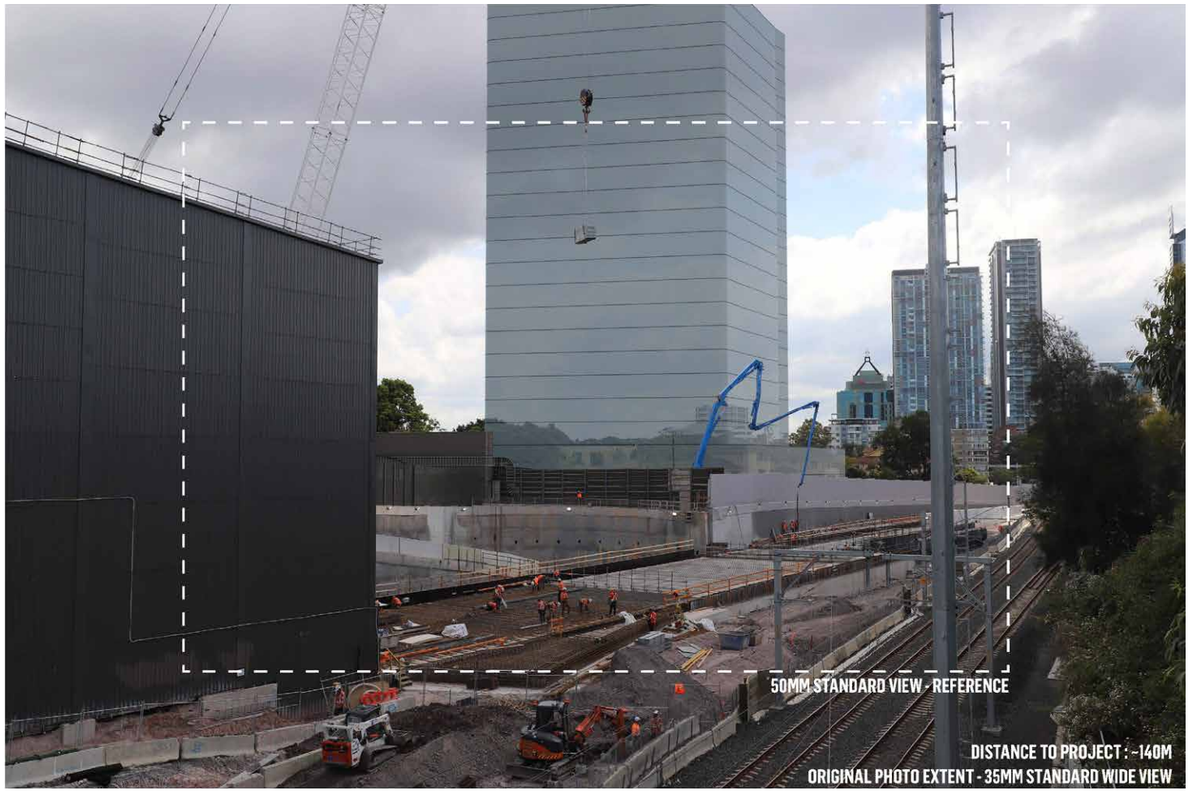


Figure 48 Proposed view

Figure 46 Existing view,

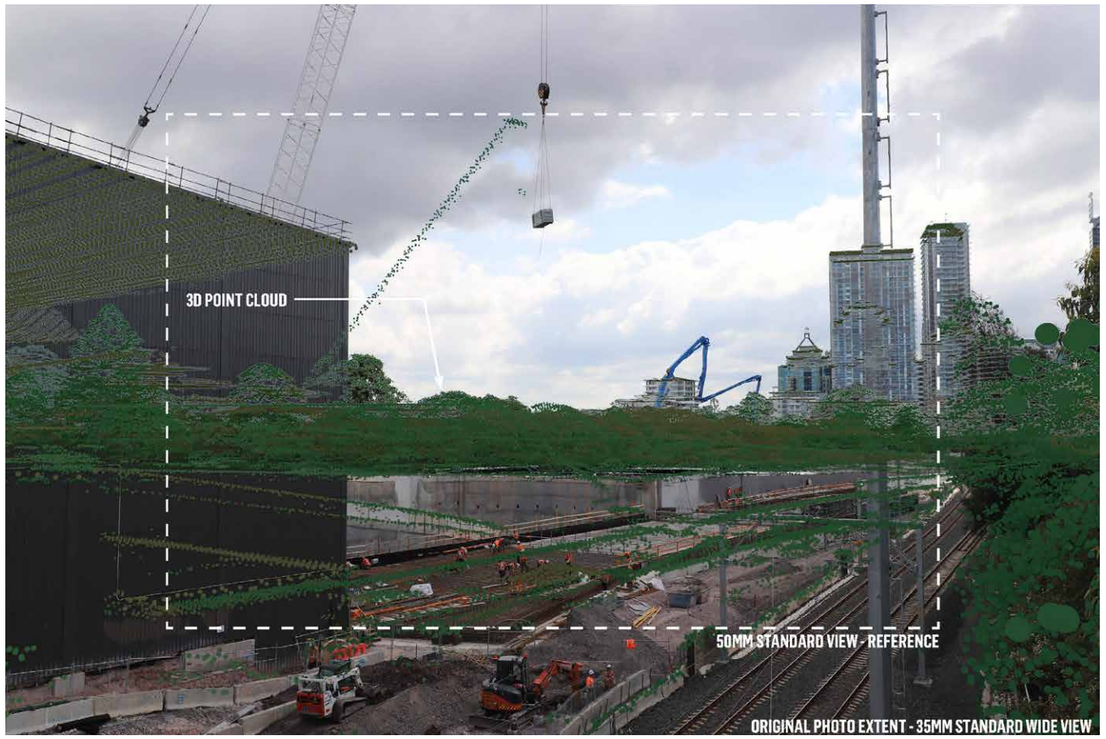


Figure 47 Point cloud reference model and camera match

VIEW 5 (VP-E)

NORTH-WEST VIEW FROM THE CORNER OF MOWBRAY ROAD AND ELIZABETH STREET

This is a medium distance view from approximately 170m south-east of the subject site within the South Chatswood Heritage Conservation Area. The composition of the view includes low scale, single storey houses in an area that as a whole attracts some heritage value. The backdrop is comprised of areas of open sky. The conservation area is separated by the railway corridor,

The composition is predominantly low-height residential development and the new tower forms will be novel in the short-term.

- The spatial separation helps to mitigate the sense of bulk and scale created by the proposed built forms.
- In the medium term the proposal will feature as a standalone item in the skyline, until other taller built forms in the area have been realised in accordance with the Strategy.
- The proposal will partially block views of open sky, however, the proposed development is compatible with future desired character of the location on which it sits and is in accordance with the proposed built form in the Strategy.
- Given the distance from the site and in reviewing the proposed view, the proposal will not generate any significant visual effects.
- The proposal will affect the background composition of open sky but will not block public domain views to any important scenic features.

Given this spatial separation from the site and in reviewing the proposed view,the proposal will not generate any significant visual effects. The proposed development is compatible with future desired character of the location on which it sits and is in accordance with the proposed built form in the Strategy.

Figure 49 Existing view

Figure 51 Proposed view

Figure 50 Point cloud reference model and camera match

VIEW 6 (VP-F)

NORTH-WEST VIEW FROM BERKELY COURT EAST OF THE RAILWAY LINE TO THE SUBJECT SITE

This is a close view from approximately 65m east of the subject site comprising of mostly sky view in the background and existing built form in the mid-view.

The two storey podium and lower levels of the both towers is visible above the top of the rail corridor fence. The podium form as viewed from Berkely Court will not block any important views whilst the tower component will block areas of open sky in upward views.

From this close view point, the foreground view will include the proposal with both of the tower's eastern elevations viewed front on.

- The setback abd building separation from the podium to the tower from this view place is in accordance with the DCP and ADG, but given the angle of the view the proposal will be viewed as contiguous form.
- In the short term the proposal will be seen as a novel item in the skyline but will in time be visible in the context of other built forms that will not be dissimilar in terms of height or visual character.
- The built form will not block public domain views to any important scenic features or items.
- Whilst there are some visual effects in the short-term, the proposed development is compatible with future desired character of the area in accordance with the Strategy.

Figure 52 Existing view

Figure 54 Proposed view

Figure 53 Point cloud reference model and camera match

4.3 REPRESENTATIVE PUBLIC DOMAIN VIEWS

Figure 55 Site detail from Nelson Street

Figure 57 From the south-west corner of Mowbray Road and the Pacific Highway

Figure 59 View from the south side of Mowbray Road

Figure 56 North-east view from the north-west corner of the Pacific Highway and Mowbray Road

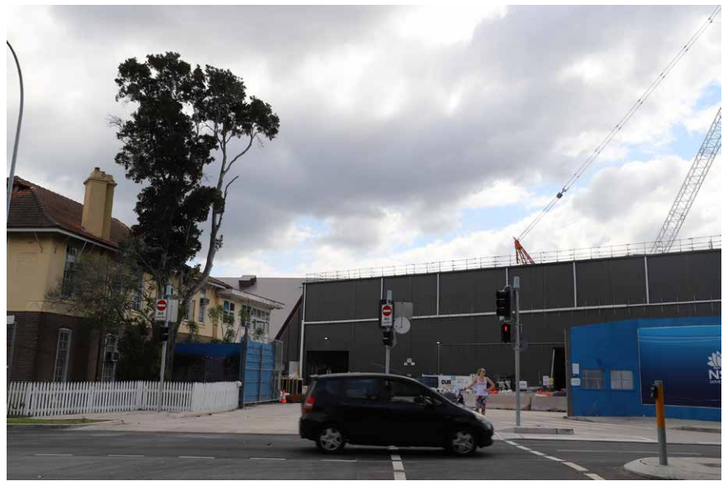


Figure 58 Mowbray Road including Mowbray House heritage item

Figure 60 North side of Mowbray Road

5.0 CONCLUSION

Figure 61 South-east corner of Mowbray Rd and Elizabeth Street

Figure 62 Berkely Court east of Nelson St looking north-west

- The character of the subject site and immediate visual context will transition from predominantly low-scale residential and commercial buildings to taller mixed-use towers in line with the strategic planning context and desired future character for this part of Chatswood.
- The built form proposed has a potentially large visual catchment in the medium term however the effective visual catchment is smaller and restricted to close locations within which architectural details, colour and materials are discernible.
- Direct views to the built form proposed are limited to the closest neighbouring locations and streets where all or part of the built form may be visible above and in the context of other tower development in future.
- There are limited public domain views from a restricted and close potential visual catchment. In such views, the massing of the Indicative Reference Design will not obscure or block views to any important items or scenic features.
- There is limited view access and likelihood of sustained views towards the subject site from public and private domain locations within the heritage conservation area.
- Public domain views from Chatswood Oval would include the proposed upper tower form of the proposal within an immediate visual context that will be characterised by other tower forms in the long term in accordance with the Strategy. In the immediate and medium term, the proposal will form as a novel item in the skyline, until other taller built forms in the area have been realised in accordance with the Strategy.
- The photomontages show that the proposal will be visible in the context of the existing low scale development immediately surrounding the site, however in the long term, taller tower forms as a continuation of the Chatswood CBD Strategy will alter the existing visual context in it current form.
- For mid-distance and distant views, the upper part of the tower will not block public domain views to any important scenic features or items, but will predominantly block views of open sky.
- The proposed development is highly compatible in terms of height, form and character within approved developments and those under construction in the Chatswood strategy boundary.
- The proposed development will contribute to and is compatible with the skyline and tower cluster typology of Chatswood that is transitioning to a desired future character which include tower forms of similar height to the proposal.
- The proposal including building separation and podium landscape provides the potential for a high-quality development and high amenity spaces which will enhance this part of Chatswood.
- Those most affected by potential view loss include a limited number of upper level units in the 10 Gordon Avenue and 5 Gordon Avenue. The effects and impacts in the majority of such views in our opinion are likely to be minor to moderate.
- View sharing impacts are likely to be minor to moderate because the composition of easterly views is unlikely to include scenic or iconic features, views are obtained across a side boundary.
- Based on an assessment of the Indicative Reference Design envelope shown in block-model photomontages, in our opinion the visual effects caused appear to allow for an acceptable level of view sharing in relation to the closest private domain views.
- The proposal will introduce new built forms into the foreground of the close views from surrounding streets. However, the proposed tower forms on the site will not create any significant visual effects or potential visual impacts on views from the public domain. The proposed tower form will predominately block areas of open sky and in views from the south would be seen in the context of tower development in the Chatswood CBD.
- The planning proposal and subsequently the construction of a built form according to the Indicative Reference Design can be supported on visual impacts grounds.

APPENDIX 1 - PHOTOMONTAGE METHODOLOGY

PHOTO-SIMULATIONS PREPARED BY:

Urbis, Level 10, 477 Collins Street, MELBOURNE 3000.

DATE PREPARED :

18th February 2021

VISUALISATION ARTIST :

Ashley Poon, Urbis – Lead Visual Technologies Consultant

Bachelor of Planning and Design (Architecture) with over 15 years' experience in 3D visualisation

LOCATION PHOTOGRAPHER :

Jane Maze-Riley, Urbis - Associate Director, National Design

CAMERA :

Canon EOS 6D Mark II - 26 Megapixel digital SLR camera (Full-frame sensor) - with GPS enabled

CAMERA LENS AND TYPE :

Canon EF24-105mm f/3.5-5.6 IS STM

SOFTWARE USED :

- 3DSMax 2021 with Arnold 4.0 (3D Modelling and Render Engine)
- AutoCAD 2016 (2D CAD Editing)
- Globalmapper 16 (GIS Data Mapping / Processing)
- Photoshop CC 2020 (Photo Editing)

DATA SOURCES :

- Proposed 3D massing model received from Architect - 2021-02-16
- Site survey data received from Project Surveyors - 2020-09-01
- Point cloud and Digital Elevation Models from NSW Government Spatial Services datasets - Sydney 2020-05
- Aerial photography from Nearmap - 2020-09-26

METHODOLOGY :

Photo-simulations provided on the following pages have been produced with a high degree of accuracy to comply with the requirements as set out in the practice direction for the use of visual aids in the Land and Environment Court of New South Wales.

The process for producing these photo-simulations are outlined below:

- Photographs have been taken on site using a full-frame GPS enabled digital camera coupled with a quality lens in order to obtain high resolution photos whilst minimising image distortion. Photos are taken hand-held and at a standing height of 1.6m above natural ground. Photos have generally been taken at 35mm to cover a wider context, with a 50mm reference window provided to assist with standardising the set for a standard view. A photo taken using the 50mm focal length on a full-frame camera (equivalent to 40° horizontal field-of-view / 46.8° diagonal field-of-view) is an accepted photographic standard to approximate human vision.
- Using available geo-spatial data for the site, including independent site surveys, aerial photography, digital elevation models and LiDAR point-clouds, the relevant datasets are validated and combined to form a geo-referenced base 3D model from which additional information, such as proposed architecture, landscape and photographic viewpoints can be inserted.
- Layers of the proposed development are obtained from the designers as digital 3D models and 2D plans. All drawings/models are verified and registered to their correct geo-location before being inserted into the base 3D model.
- For each photo being used for the photo-simulation, the GPS location, camera, lens, focal length, time/date and exposure information is extracted, checked and replicated within the 3D base model as a 3D camera. A camera match is created by aligning the 3D camera with the 3D base model against the original photo, matching the original photographic location, orientation.
- From each viewpoint, a reference 3D model camera match is generated to verify an accurate match between the base 3D model (existing ground survey/vegetation etc) and original photo. A 3D wireframe image of the 3D base model is rendered in the 3D modelling software and composited over the original photo using the photo-editing software.
- From each viewpoint, the final photo-simulation is then produced by compositing 3D rendered images of the proposed development into the original photo with editing performed to sit the render at the correct view depth. Photographic elements are cross-checked against the 3D model to ensure elements such as foreground trees and buildings that may occlude views to the proposed development are retained. Conversely, where trees/ buildings may be removed as part of the proposal, these are also removed in the photo-simulation.

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