

15-21 Cottonwood Crescent Macquarie Park

SSDA

Visual Impact Assessment

Prepared For

Billbergia Group

January 2026

Final



Acknowledgement of Country

We acknowledge the Traditional Owners of the lands we operate on. We acknowledge their continuing connection to Country through culture and community and we pay our respects to Elders past and present.

Urbis staff responsible for this report

Director:

Associate Director:

Consultant:

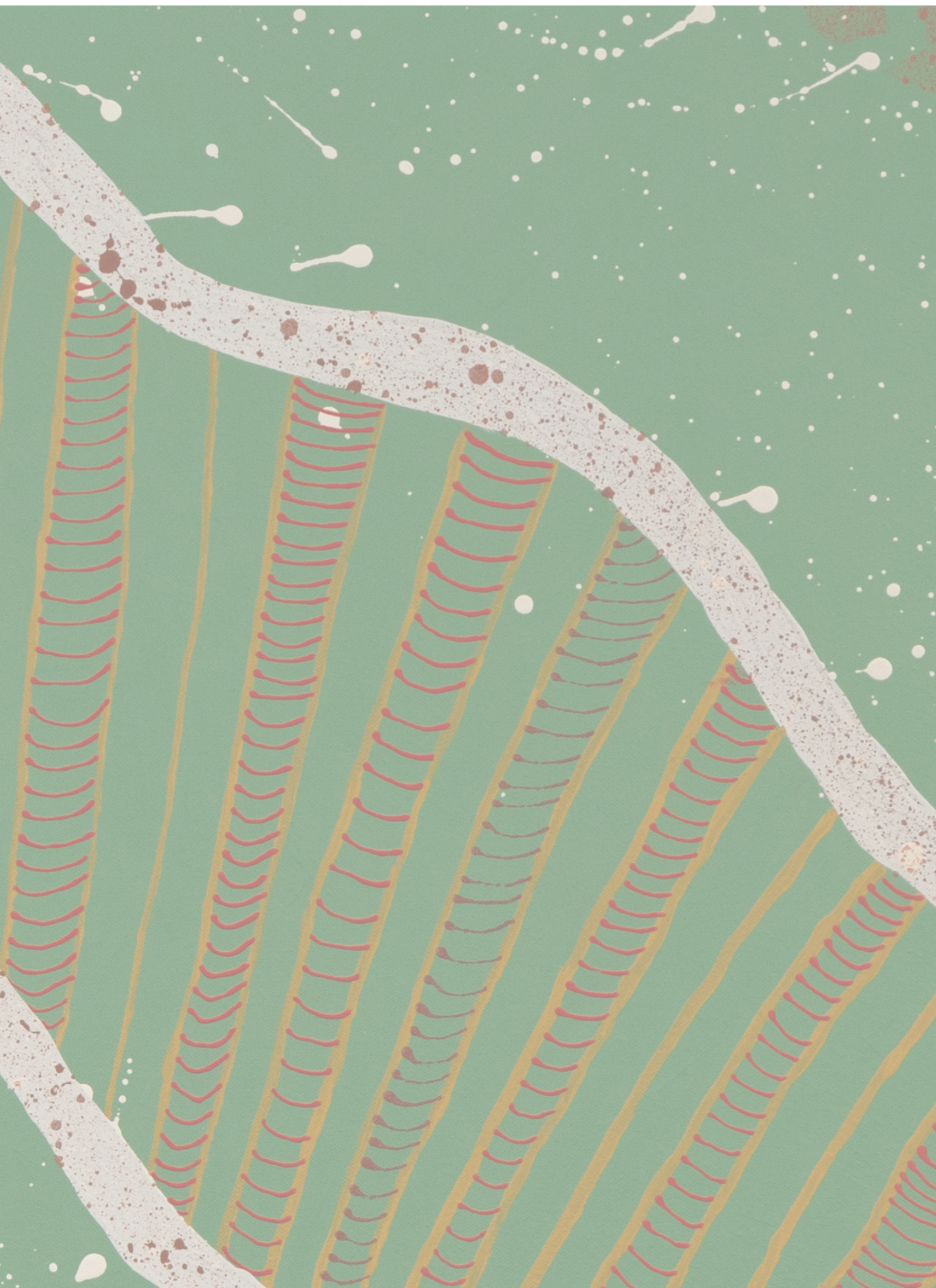
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Executive summary



This Visual Impact Assessment (VIA) has been prepared by Urbis to accompany a State Significant Development Application (SSDA) and concurrent Rezoning Proposal – SSD-94006708 for a mixed-use development at 15–21 Cottonwood Crescent, Macquarie Park (the site).

The proposal includes provision for the demolition of existing buildings and construction of a residential development comprising two residential flat buildings above a common basement car park/sleeved podium incorporating residential, car parking, and a retail component within the Waterloo Road frontage and provision of 10% affordable housing based on the uplift proposed.

The legal description of the site is outlined in Table 1 below:

Property Address	Title Description
15 Cottonwood Crescent, Macquarie Park	SP8144
17 Cottonwood Crescent, Macquarie Park	SP7630
19 Cottonwood Crescent, Macquarie Park	SP7892
21 Cottonwood Crescent, Macquarie Park	SP7894

Note: for the purposes of reporting and branding of the proposal, we will also refer to the site as '88 Waterloo Road, Macquarie Park'.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project (SSD-94006708).

This VIA follows an objective, logical process to determine the importance of the extent of the visual change associated with the proposal, in relation to the local and wider visual catchment.

A 3D architectural model of the proposal has been used by Urbis in the preparation of 11 photomontages which show the proposal in a range of representative views from across the visual catchment.

Photomontages have informed analysis to determine the extent of visual change, the effects of those changes on the existing visual environment and the importance of those changes, being the final rating of impact.

Method & Results

The methodology employed to assess visual impacts establishes the baseline visual data and visual effects of the proposal on the visual baseline.

The visual impacts of the proposal have been determined by applying various weighting factors to each representative view, including Sensitivity, Compatibility and Visual Absorption Capacity.

The significance of visual effects and final impact rating is included in Section 5.0 of this report.

- Underlying topography, vegetation and surrounding intervening tower development constrain more distant views to the to the proposal.
- Visibility to the proposal from immediate road corridors and streetscapes is typically constrained to the podium and lower levels of the proposal.
- Upper parts of the proposed development will be potentially visible from a wide visual catchment including several kilometres away, in isolated, elevated and intermittent views.
- In medium and distant views from Christie Park, Dunbar Park and ELS Hall Park (photomontage 10, 15 and 18) the proposal will be seen as part of a varied composition, predominantly characterised by other, similar tower forms.
- The proposal is highly compatible with its existing visual setting which includes similar high density development and has a high level of visual absorption capacity.
- The majority of views will be brief, from moving viewing situations. Sustained views are possible from a limited number of parks where visibility is constrained to the upper-most storeys of the proposal, and is seen within a context of high density tower development.
- The proposal is consistent with the future desired character of Macquarie Park which anticipates intensified tower development not dissimilar to those which already characterise the site's context.

Private Domain Views

- Immediate neighbours will experience some level of visual change where no views of scenic merit in Tenacity terms will be impacted.
- Close, direct views to the proposal from immediate neighbours will change to include foreground development.
- Where private domain views align with the site, the proposal will be viewed as part of a composition predominantly characterised by similar tower development.
- Potential, partial visibility to mid and upper parts of the proposal is likely from upper level dwellings within tower clusters across the visual catchment, noting extensive blocking effects of surrounding intervening density.
- Views from neighbouring dwellings could be described as vernacular district views predominantly characterised by significant tree canopy and clusters of development. No views available from surrounding residential development are characterised by compositions of value in Tenacity terms.
- Additional height sought above the LEP height control for the site will not cause any view loss of merit in Tenacity terms.
- Private domain impacts are likely to be low and acceptable.

The proposal can be supported on visual impact and view sharing grounds.

01 Introduction



1.1 Introduction

This report has been prepared in support of a State Significant Development Application (SSDA) and concurrent Rezoning Proposal SSD-94006708 at 15-21 Cottonwood Crescent, Macquarie Park, otherwise known as 88 Waterloo Road, Macquarie Park (the site).

The proposed SSDA seeks development consent for demolition of existing buildings and construction of a residential development comprising two residential flat buildings above a common basement car park/sleeved podium incorporating residential, car parking, and a retail component within the Waterloo Road frontage. Other key parameters include:

- Provision of 10% affordable housing per the uplift sought
- 1 x 60 storey tower (205.5m) and 1 x 52 storey tower (179.4m)

The proposal includes provision to amend Clauses 4.3 and 4.4 of the Ryde Local Environmental Plan 2014 (RLEP2014) by virtue of the concurrent rezoning process. This includes the following amendments:

- Clause 4.3 - Height of Buildings
 - Amend the current 65m maximum building height to 212m
- Clause 4.4 - FSR
 - Amend the current FSR of 4:5:1 to 17:8:1

1.2 Purpose of this report

This report has been prepared in response to the requirements included in the Secretary's Environmental Assessment Requirements (SEARs) dated 8 October issued for SSD-94006708. Specifically, this report has been prepared to respond to the SEARs requirements and government agency comments outlined in Table 1 below.

Table 1 SEARs Compliance.

Description of Requirement	Section Reference
7. Visual Impact	
<ul style="list-style-type: none"> • Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development. • If the proposal would result in significant visual impact not anticipated by the planning controls, provide a visual impact assessment that addresses the visual impacts of the development on the existing catchment. 	Section 4.0, 5.0 and 6.0

This report also addresses the following matters raised by City of Ryde (30 September 2025), in addition to the standard SEARs requirements:



© Geoscape, OpenStreetMap, Nearmap Australia Pty Ltd. Jan 2026.

Figure 1 Site location | Urbis.

2.1.2 Supporting Documentation

- Visual Impact Assessment (depicting views of the development from key vantage points to the south)

This VIA follows an objective, logical process to determine the importance of the extent of visual change in relation to the local and wider visual context.

1.3 Proposed development

This application seeks development consent for the redevelopment of the site for a mixed-use development comprising residential accommodation and retail uses.

Specifically, this application seeks approval for the following:

- Demolition of all existing four-storey residential flat buildings on the site
- Site preparation works including:
 - Removal of existing trees
 - Excavation of the site to a maximum depth of six (6) basement levels
- Construction of two mixed-use buildings comprising a 60 and 52 storey building respectively, which will accommodate:
 - 858 residential apartments including 10% affordable housing based on the uplift proposed.
- Six (6) levels of basement with 825 car parking spaces, bicycle parking services
- A two level commercial podium containing retail spaces

1.3.1 Proposed development in visual terms

The proposal includes two slender tower forms supported by a common four storey podium. The tower forms are differentiated in height at 52 and 60 storeys, and spatially separated where the taller tower presents to Waterloo Road and the shorter tower to Cottonwood Crescent.

Photomontages

A 3D architectural model of the proposal has been used by Urbis in the preparation of 10 photomontages which show the proposal in a range of representative public domain views. Photomontages show the proposal as a solid grey mass and also include an approved development for the site (shown in yellow) and the LEP height plane (shown in pink).

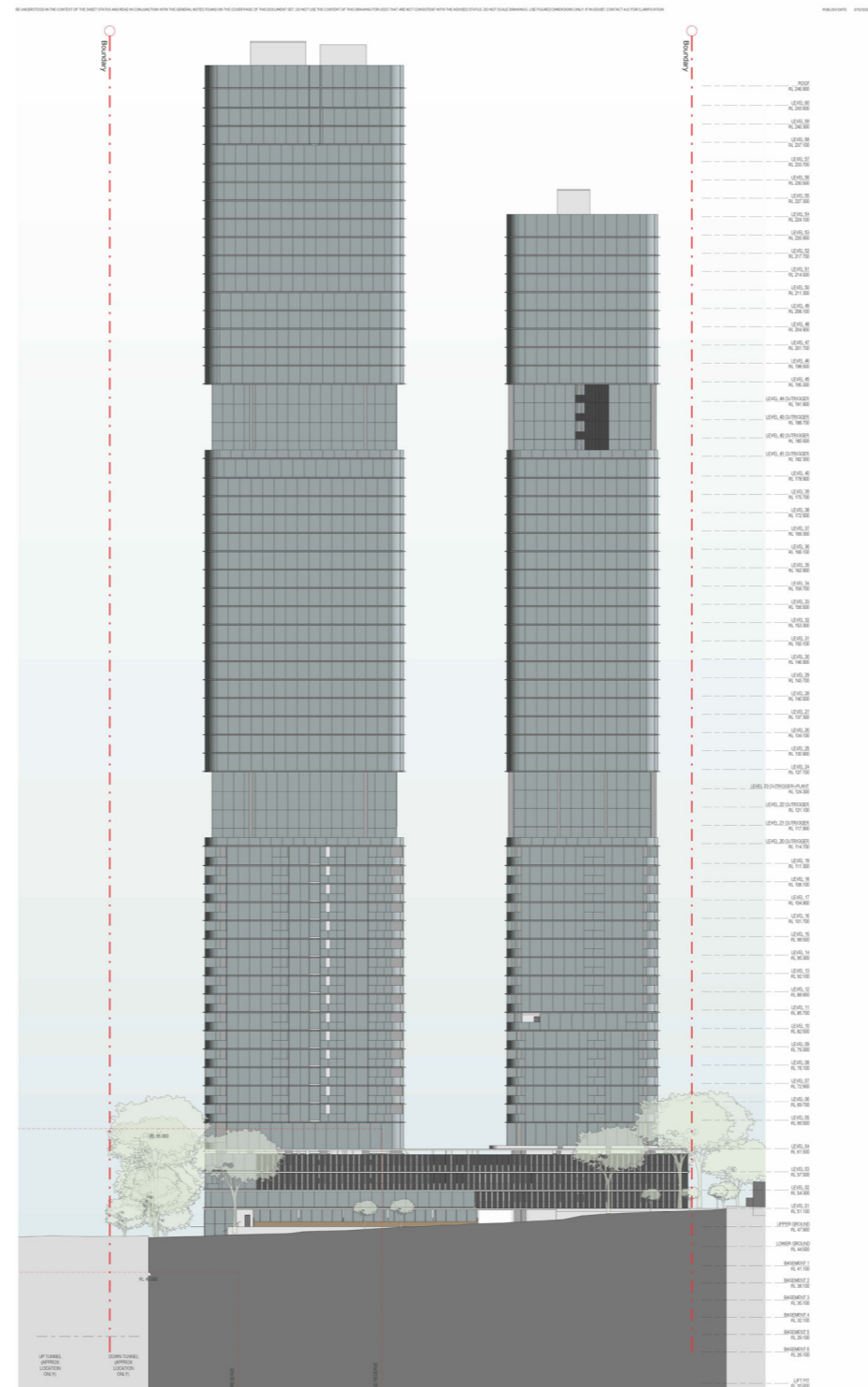


Figure 2 Extract from architectural drawing set, west elevation | AJC

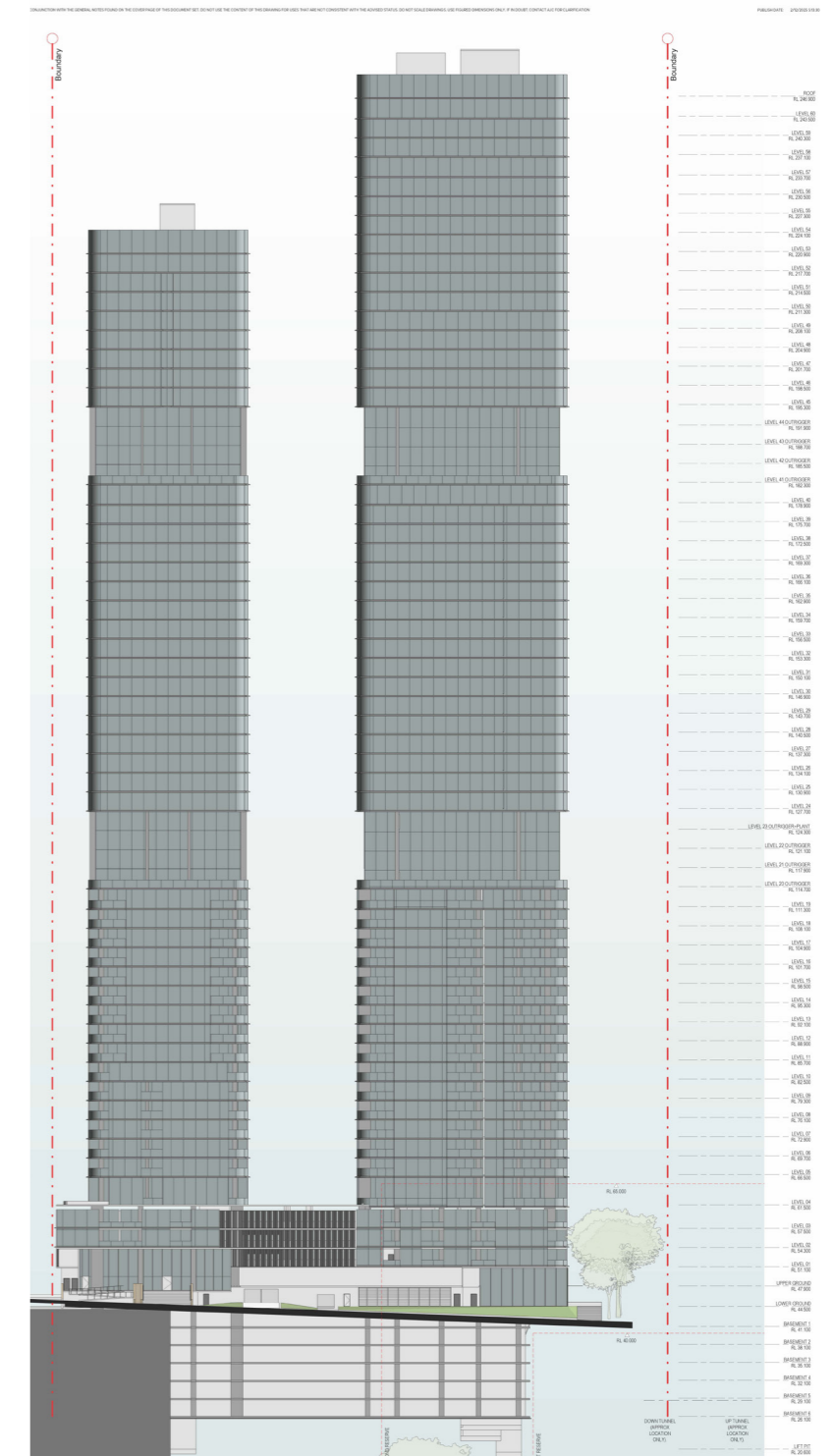


Figure 3 Extract from architectural drawing set, east elevation | AJC

02 Methodology



2.1 Urbis methodology

The methodology employed by Urbis to assess visual impacts is based on a combination of established methods used in NSW. It is based on widely adopted concepts and terminology included in multiple Visual Impact Assessment (VIA) methods, guidelines and objectives.

In addition the Urbis VIA method draws on 30 years of academic research and publications by industry leaders who have considered a more tailored response to assess the visual impacts of built forms in urban settings rather than Landscape Character Visual Impacts Assessments (LCVIA).

An LCVIA takes a more holistic approach to changes proposed to the physical and visual landscape, which in our opinion is more appropriate to assess the impacts of development in greenfield locations or sites that are predominantly characterised by rural or open, less developed landscapes.

The Urbis methodology identifies objective 'visual baseline' information about the site and surrounds, analyses the extent of visual effects or quantum of change using visual aids from key locations, and considers the importance of that change. The significance of the extent of visual effects is explained and determined in the visual impact assessment section of the method and this report.

The Urbis method takes into consideration other relevant factors such as the underlying strategic planning intent of the site, its immediate or wider setting. For example other methods do not consider visual compatibility with the existing or desired future character for the site or area which may allow for transformational visual change.

The Urbis method also distinguishes and places 'weight' on key factors such as view place and viewer sensitivity, physical absorption capacity etc. and considers impacts on unique settings near the site that could be potentially affected, including for example heritage items, conservation areas, views to icons and areas of high scenic quality.

Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

The sequence of steps and logic flow is shown graphically in the method flow chart.

Our method also has regard to:

- 'Guidelines for Landscape and Visual Impact Assessment' (Third Edition) (GLVIA3) Landscape Institute and Institute of Environmental Management & Assessment (2013)
- The Landscape Institute Technical Guideline Note- Visual Representation of Development Proposals (AILA 2019)
- Guidance note for Landscape and Visual Assessment (AILA 2018)
- Guidelines for Landscape Character and Visual Impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services 2018 (RMS LCIA)

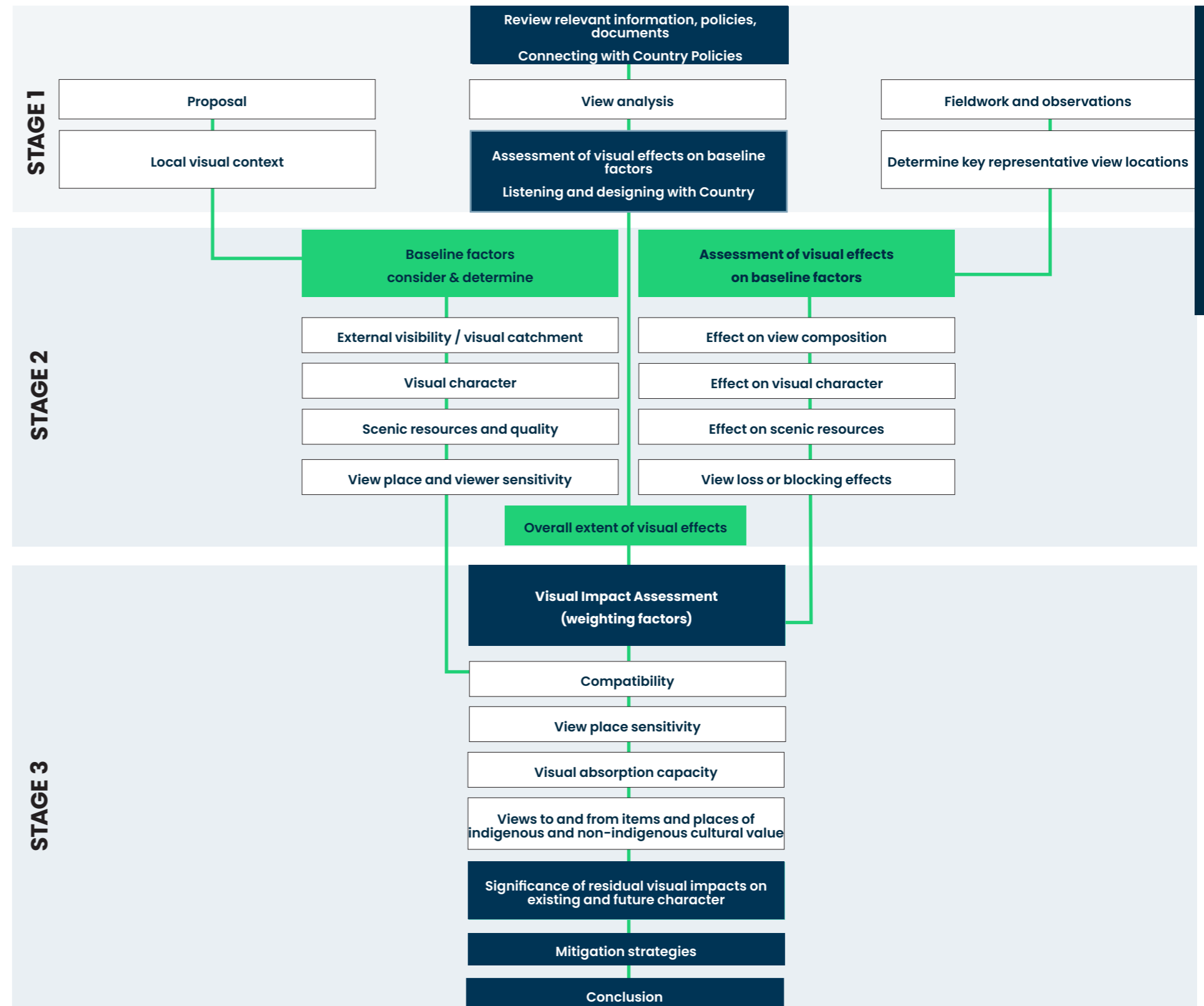


Figure 4 Urbis methodology flowchart.

A photograph of a wet, paved walkway lined with trees and a fence, with a large green '03' and the text 'Baseline visual analysis' overlaid. The scene is captured on an overcast day, with the wet pavement reflecting the grey sky. The walkway is bordered by a metal fence on the right and a grassy area with trees on the left. In the background, a large, multi-story building is visible through the trees.

03 Baseline visual analysis

3.1 Visual context

The following sections and photographs detail the visual character of the surrounding area and include views from within the visual catchment. The immediate visual context is influenced by the following:

- South of Shrimptons Creek (immediately east of the site) is characterised by high rise tower forms along either side of the Shrimptons Creek corridor.
- The Shrimptons Creek corridor is located south-east of the site, south of Cottonwood Crescent and is visually characterised by dense riparian vegetation and cleared public open green space Wilga Park. A pedestrian and cycle path links Waterloo Road to Wilga Park via the Shrimptons Creek corridor, along which views to surrounding high-rise development are filtered by riparian vegetation.
- Elouera Reserve is public open space adjoining the western site boundary characterised by green spaces and open lawn, a playground and outdoor eating areas. Retaining walls along the western site boundary address a significant level change between the site and this public open space.
- Quandong Reserve is situated immediately west of Wilga Park on the western side of Cottonwood Crescent and is similarly characterised by dense vegetation and a pedestrian through-link that provides access between Cottonwood Crescent and Lachlan Avenue.
- South-east of the site on the southern side of Cottonwood Crescent is Cottonwood Reserve, a small publicly accessible green space characterised by open lawns and mature vegetation. Cottonwood Reserve adjoins the pedestrian and cycleway within Shrimptons Creek corridor, and is surrounded by residential tower forms.
- Macquarie Shopping centre and mixed use development is located opposite the site on the northern side of Waterloo Road. The centre includes long, low bulky forms, and tower forms which spring from 3 to 4 storey podiums. Tower clusters continue the pattern of high rise development south of Shrimptons Creek (82-84 and 80 Waterloo Road).
- The Macquarie University campus, which accommodates a variety of multi-storey education and institutional buildings set in expansive park-like open spaces is located north-east of the site. The campus is characterised by large, bulky forms interspersed with several open, grassed areas, plazas and mature stands of vegetation.
- The main landform in the local area is the Shrimptons Creek valley. Ridgelines run along Lane Cove Road to the south-east and Herring Road to the north-west. Generally, land between these roads undulates down to the Shrimptons Creek open space corridor.

Summary

The immediate visual context is predominantly characterised by established and emerging high-rise development including tower clusters, interspersed with public open spaces and several reserves which include

mature canopy trees. Major large scale built form in proximity to the site include Macquarie Centre and Macquarie University Campus. Lower height, smaller scale development includes predominantly 3-4 storey brick construction residential flat buildings.

Key Insights

- Built form height varies where tall tower forms are generally concentrated along Waterloo Road, transitioning to areas of lower scale development.
- The variety of building heights indicates this part of Macquarie Park is transitioning to a future visual context characterised by tall tower forms.
- The built form context increases the compatibility and visual absorption capacity (VAC) of the tower forms proposed given that it is compatible in scale, height and form.
- Notwithstanding the surrounding visual context is heavily influenced by tall tower forms, recreation space and public reserves are present and contribute to the fine grain detail and character of this part of Macquarie Park.
- The changing visual context for the immediate locality is anticipated by the Macquarie Park Innovation Precinct State-led Rezoning which set a benchmark and vision for strategic uplift and density and increased proximity to infrastructure. In this regard, tall slender tower forms are planned for, and expected to become more relevant in the skyline as future development evolves.

3.2 Heritage context

The property at 197-233 Herring Road (Macquarie Centre) is identified as a local heritage item (Item 345) under Schedule 5 of the RLEP 2014. While the extent of this local heritage listing identifies the entire centre, the heritage item (Macquarie Ice Rink) is confined inside Macquarie Shopping Centre and is not visible from the site. The proposal will not create any adverse visual impact on Macquarie Ice Rink.

3.3 Documented views

A review of the RLEP 2014 and the Ryde DCP 2014 indicates there are no documented views that form part of the site or its immediate visual context.

3.4 Visual catchment

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography to establish the potential visual catchment to inform fieldwork inspections.

Potential visibility of the proposal was further investigated by Urbis during fieldwork observations of the site from a range of distance classes (close, medium and distant views) and an indicative visual catchment from Google Earth.

- Visibility to the proposal from immediate surrounding locations is constrained to the podium and lower levels of the proposal.
- Given the height of the proposal, visibility to any one part of the development, including for example, the upper-most storeys, is possible from medium and distant locations within the visual catchment. This includes, for example, from isolated high points along Lane Cove Road, approximately 2.5km south of the site.
- Visibility to the proposal from medium and distant viewing locations is generally constrained by intervening tower development, topography and dense vegetation.

3.6 Inspected fieldwork locations



Figure 5 Locations inspected during fieldwork

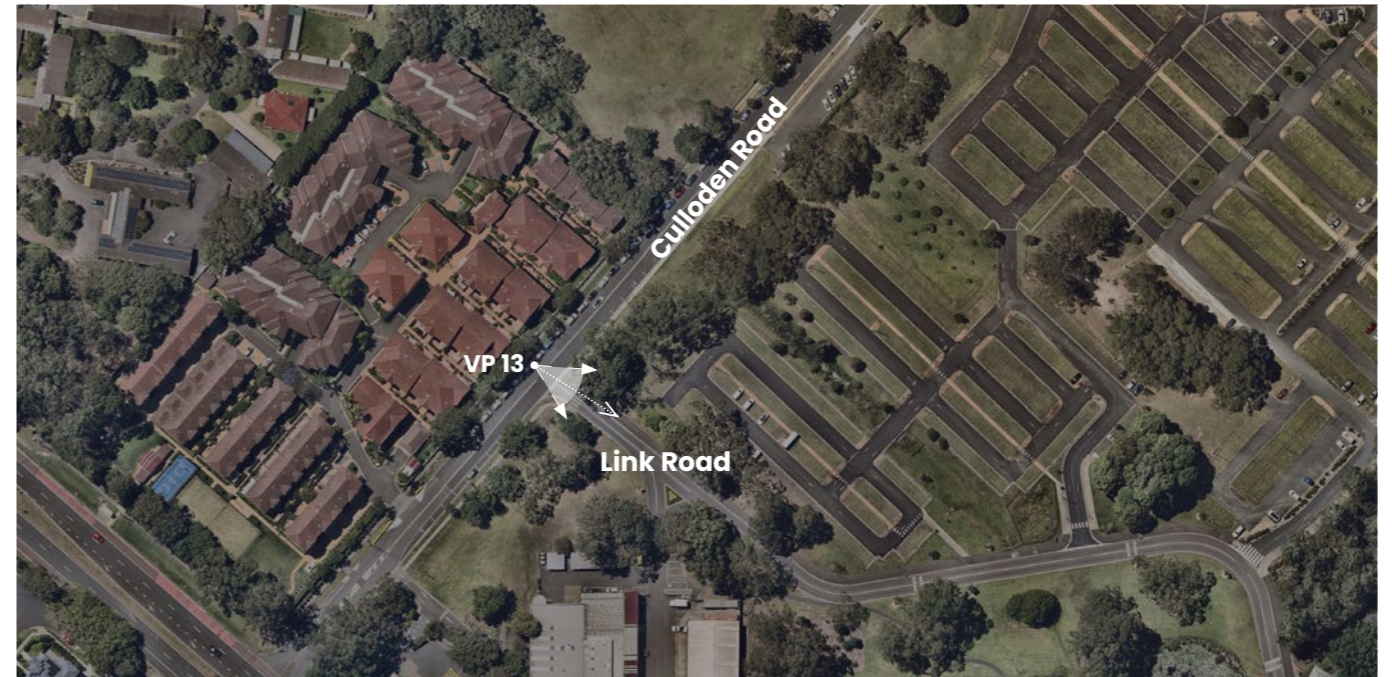


Figure 6 Locations inspected during fieldwork



Figure 7 Locations inspected during fieldwork



Figure 8 View towards site from corner of Herring Road and Waterloo Road.



Figure 9 Residential tower clusters from rooftop of Macquarie Centre car park.

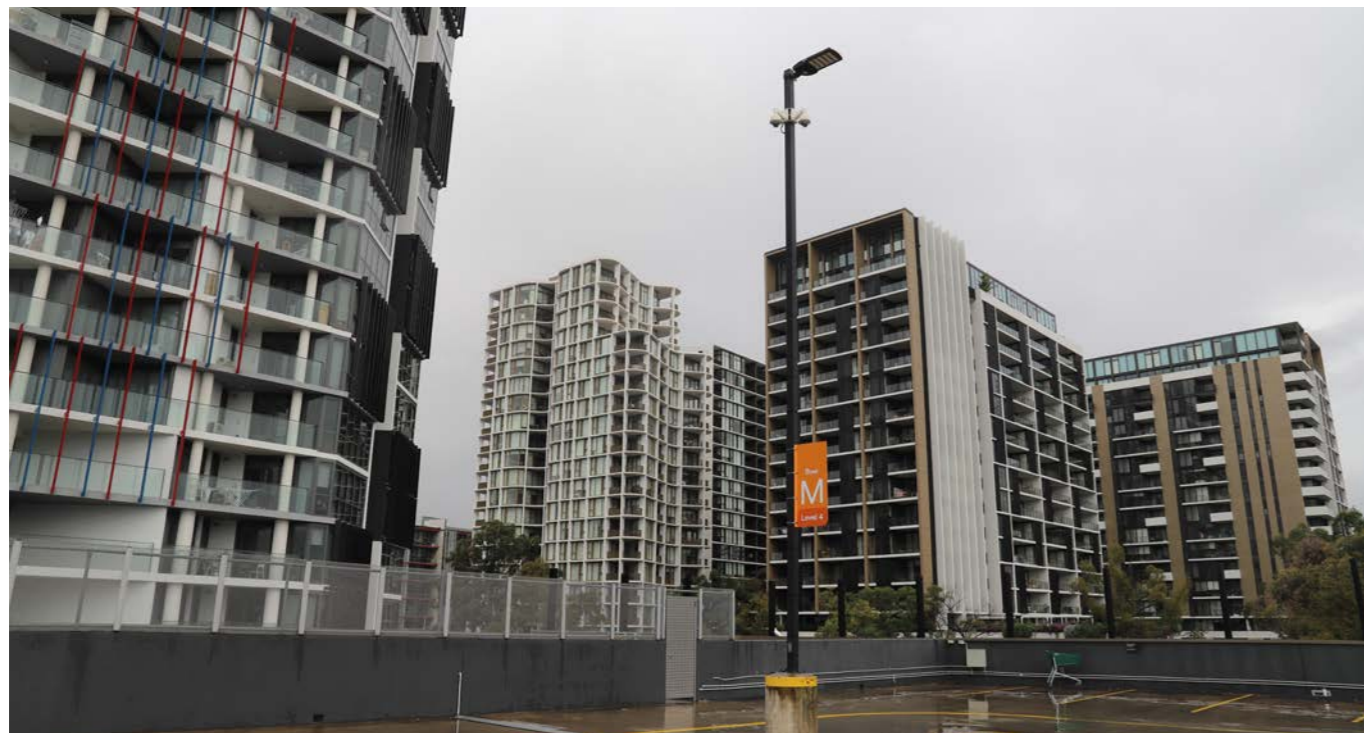


Figure 10 Residential tower clusters from rooftop of Macquarie Centre car park.



Figure 11 Existing immediate visual context from Waterloo Road.

3.6 Visual character of the site

The site is located at the north-west corner of Cottonwood Crescent and Waterloo Road within the City of Ryde LGA. The site is an amalgamation of 4 rectangular lots (15-21 Cottonwood Crescent) which include 4 residential flat buildings. The site has two street frontages, Waterloo Road and Cottonwood Crescent and adjoins Elouera Reserve to the south-east. The topography of the site is characterised by a shallow slope from the south-west to the north-east.

Each lot includes a detached four storey, brick facade residential flat building containing 15 dwellings. Built form across the lots is characterised by uniform height and massing setback from Cottonwood Crescent and Waterloo Road. The buildings are visually separated by generous side and front setbacks which include low-height retaining walls, driveways, hardstand areas and at ground parking facilities where the primary orientation of dwellings is south-east towards Cottonwood Crescent. Boundary and perimeter vegetation includes semi-mature, native Eucalyptus species. These are locally visually prominent and contribute to the city greening effects across this part of Macquarie Park.

Mature canopy trees along the frontages to Cottonwood Crescent (native evergreen Brushbox) and Waterloo Road are visually prominent. The height of the existing canopy tree line exceeds the height of existing development at the site. The built form combined with these mature trees contribute towards a sense of spatial definition and enclosure.

3.7 Scenic quality

Scenic quality relates to the likely expectations of viewers regarding scenic beauty, attractiveness, or preference. Scenic preferences typically relates to the variety of features that are present, and the uniqueness or combination of those features. Scenic quality of the visual setting of the subject site is a baseline factor against which to measure visual effects. Criteria and ratings for preferences of scenic quality and cultural values of aesthetic landscapes are based on empirical research undertaken in Australia and internationally.

Therefore, analysis of the existing scenic quality of a site or its visual context and understanding the likely expectations and perception of viewers is an important consideration when assessing visual effects and impacts.

Comment: The scenic quality of the site is low. The site includes 3 to 4 storey built form of uniform height and bulk, surrounded by concrete hardstand areas. The buildings are simply massed and are not visually unique or distinct. The site is not characterised by features or compositions of high scenic quality.

3.8 Public view place sensitivity

This factor relates to the likely level of public interest in a view of the proposed development. The level of public interest includes assumptions made about its exposure in terms of distance and number of potential viewers. For example, close and middle-distance views from public

places such as surrounding roads and intersections that are subject to large numbers of viewers, would be considered as being sensitive view places. However, the level of sensitivity depends on the nature of the view and whether it is gained from either a moving viewing situation and the duration of exposure to the view for example for short periods of time or for sustained periods.

Comment:

There are several public open green space within the immediate visual context of the site from which the proposal is visible including Wilga Park, Elouera Reserve and Shrimptons Creek corridor. Visibility to the site from Shrimptons Creek corridor is brief, where views are temporary, from moving viewing situations as pedestrians and cyclists travel between Wilga Park and Waterloo Road. Dense riparian vegetation within the Shrimptons Creek corridor filters views to surrounding high-rise development.

Visibility to the site from Elouera Reserve and Wilga Park is more sustained where viewers would typically spend longer periods of time in fixed locations utilising public amenity (outdoor eating areas, shelters, playground, seating etc). Notwithstanding the sensitivity of these locations, the proposal will be seen in the context of several tall tower forms of compatible height, bulk and scale.

Views from immediately adjacent road corridors and intersections including Waterloo Road, the intersection of Waterloo Road and Herring Road (north-west) and the intersection of Waterloo Road and Byfield Street (south-east) are from moving viewing situations, experienced for short periods of time, predominantly from vehicles and pedestrians. Though highly visible, views to the proposal are brief and characterised by tower forms that are visually similar.

3.9 Private view place sensitivity

Viewer sensitivity is a judgement as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

Comment:

Private domain views potentially impacted by the proposal are unlikely to be characterised by compositions of high scenic quality as defined in Tenacity. Private domain views from surrounding residential dwellings would likely be identified as district views, characterised by a visual setting where high-rise development is present and anticipated.

While vernacular district views are typically considered to be of less value, a high-level analysis of potential private domain view impacts is included at Section 6.0 of this report. Private domain view impacts are considered low risk to the proposal.



Figure 12 Detail of existing development at southern end of subject site.



Figure 13 View towards site from Cottonwood Reserve.



Figure 14 View towards Cottonwood Crescent from Shrimptons Creek Corridor adjacent to Cottonwood Reserve.



Figure 15 Detail of 'Vicinit' at 2-10 Cottonwood Crescent.



04 Strategic Context

4.1 Strategic Context

The subject site is located within the Macquarie Park Corridor, the Herring Road and North Ryde Station Priority Precincts, and adjacent to the TOD rezoning area for Macquarie Park. While there are no documented view corridors, the aims and objectives of the Macquarie Park Corridor include provision of intensified development along Waterloo Road to peripheral areas characterised by lower-scale development. The desired future character for this part of Macquarie Park is therefore one of increased scale that will include tall tower forms not dissimilar to those which already influence the surrounding visual character of the site.

Other relevant considerations include the Shrimptons Creek corridor, which, under the objectives of the provisional open space network for the Macquarie Park Corridor is to remain visually open, vegetated and connected to other open spaces and urban development.

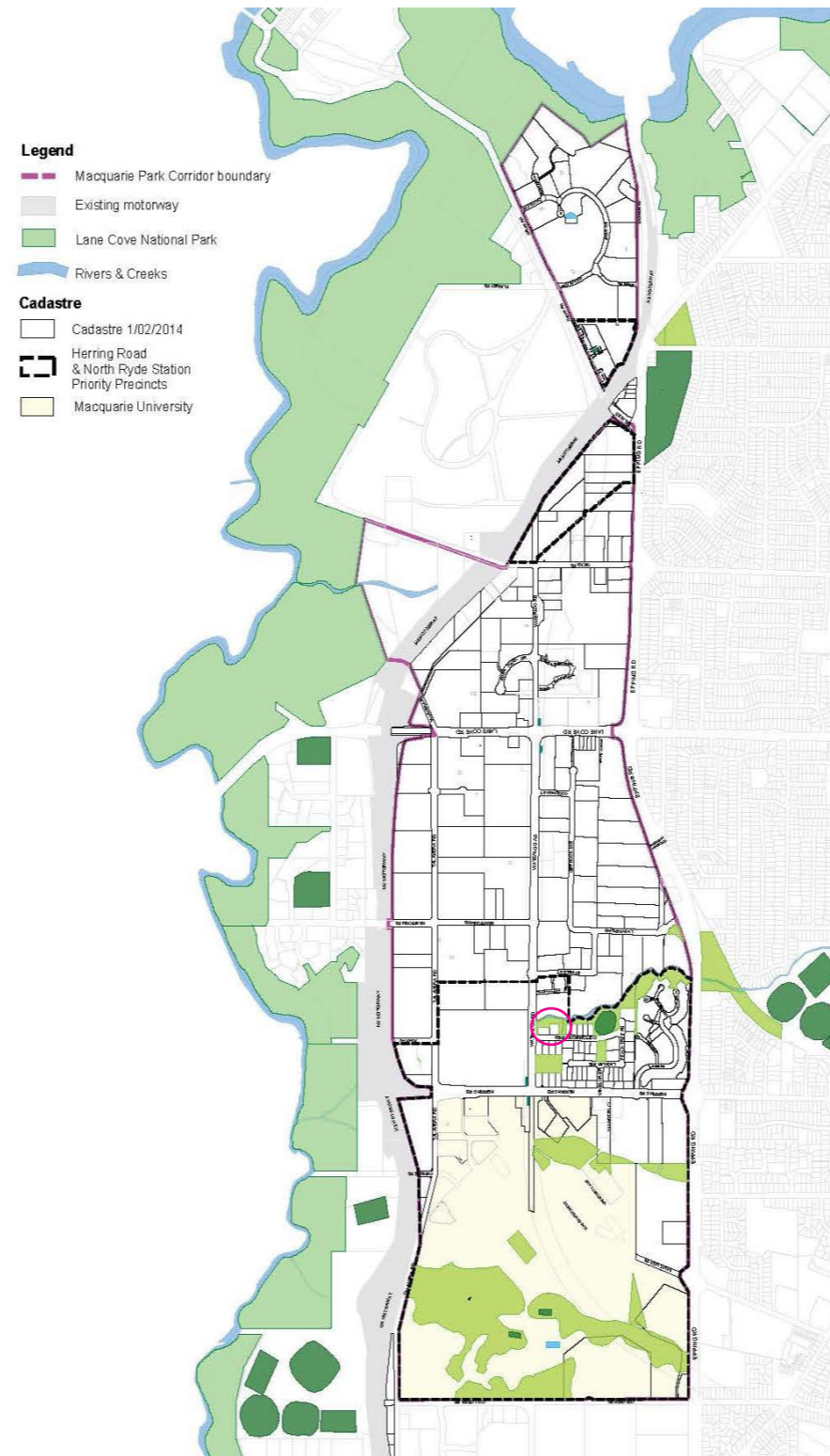


Figure 16 Macquarie Park Corridor Mapping, location of subject site indicated in pink.

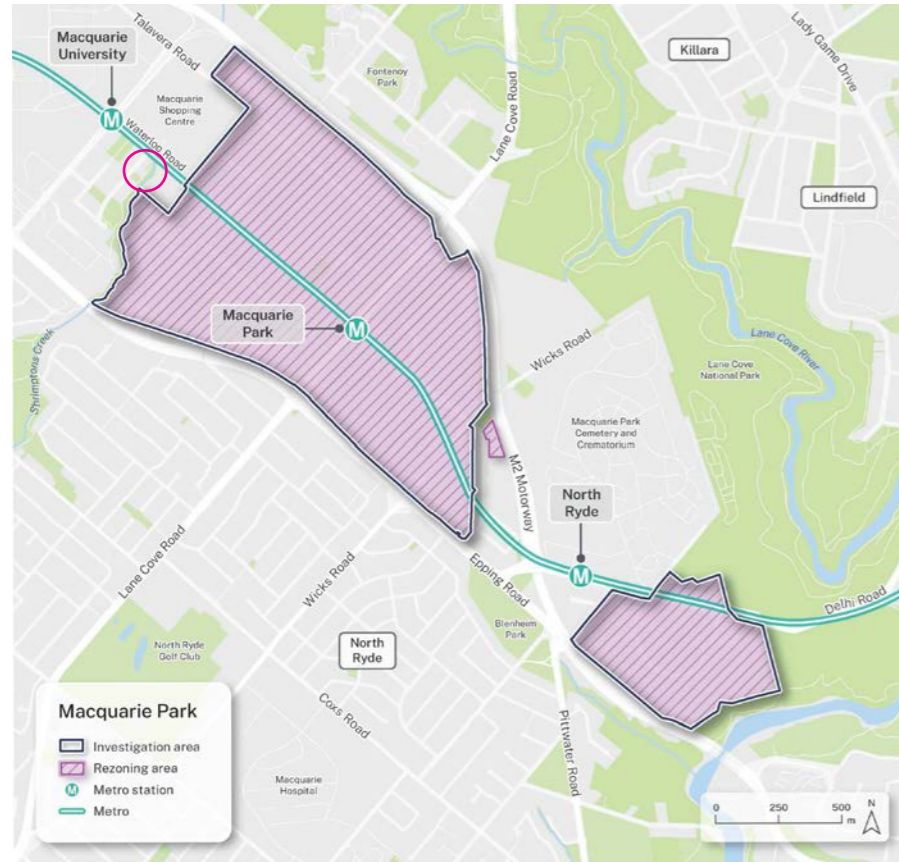


Figure 17 Macquarie Park TOD re-zoning area mapping, location of subject site indicated in pink.

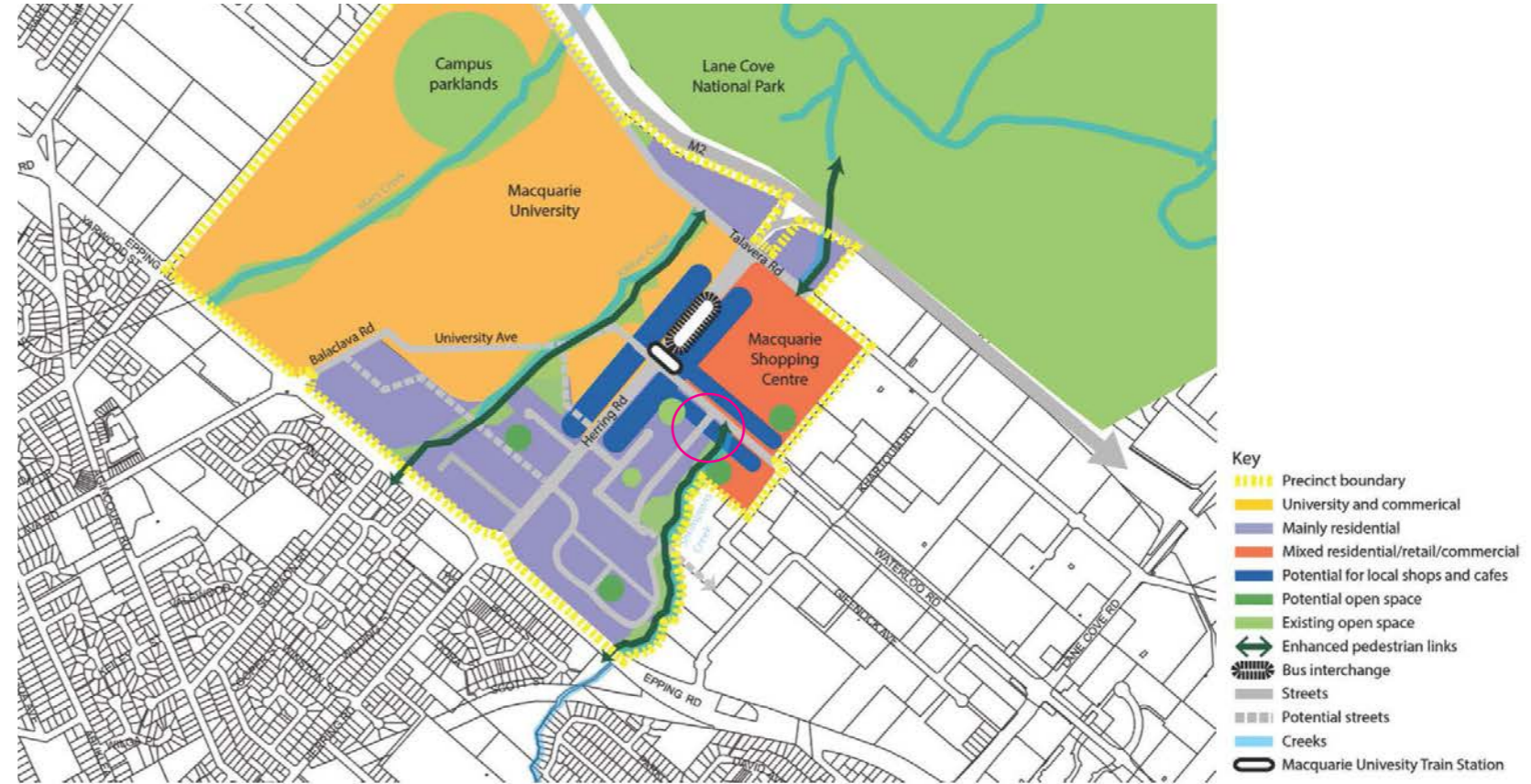
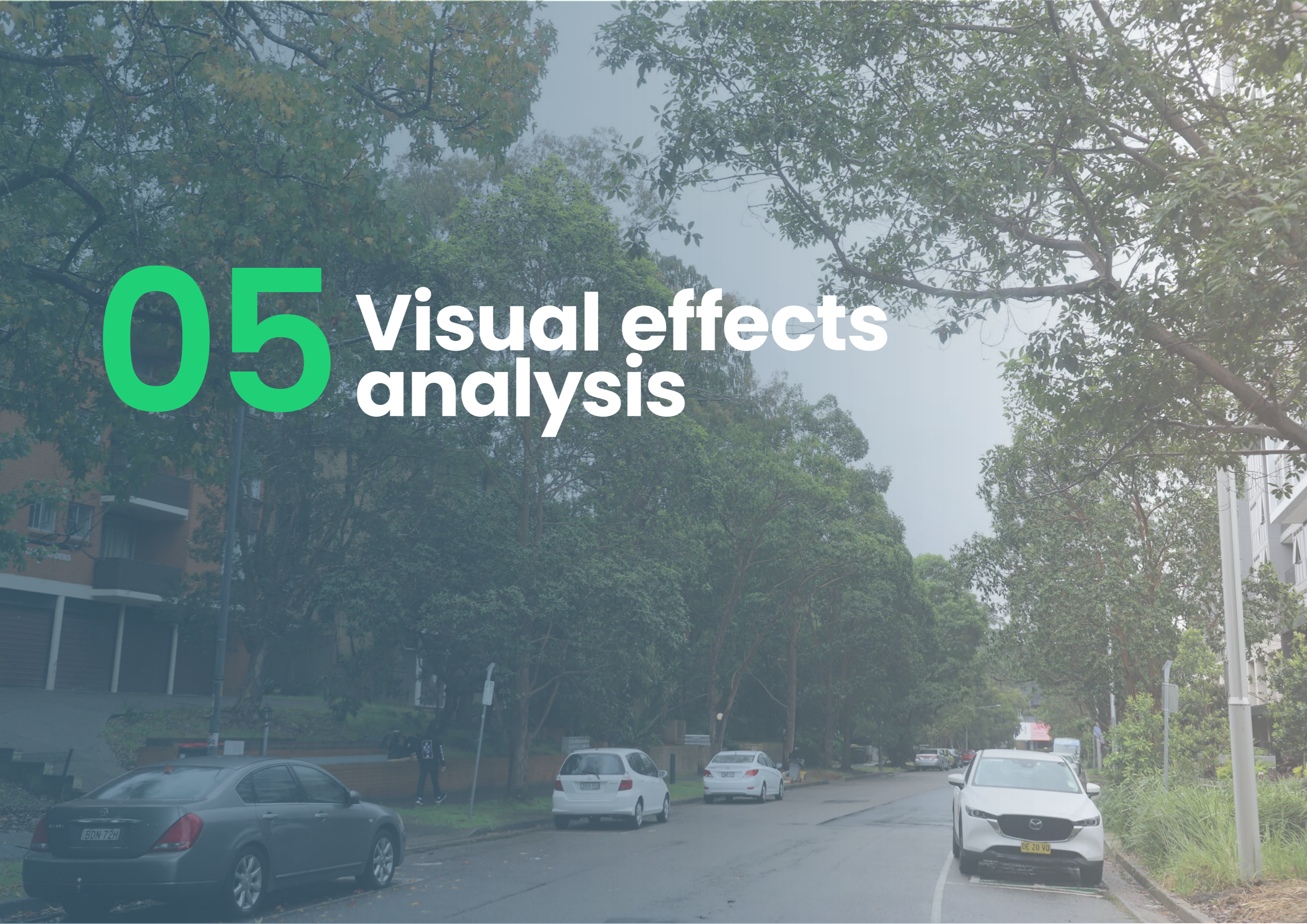


Figure 18 Macquarie Corridor structure plan, location of subject site indicated in pink.

05 Visual effects analysis



5.1 Selection of views for analysis

Prior to undertaking fieldwork, Urbis undertook a desktop review of all relevant statutory and non-statutory documents, an analysis of aerial imagery and topography and LiDAR data to establish the potential visual catchment to inform fieldwork inspections. Following fieldwork Urbis selected and recommended 10 public view locations for further analysis.

No.	View location
PM 01	View north-west from Lane Cove Road near Byron Park
PM 02	View north from Macquarie Hospital
PM 03	View north from Wilga Park
PM 05	View north-west from Waterloo Road near Khartoum Road
PM 06	View north-west from Jarvis Circuit
PM 10	View south-east from Christie Park
PM 12	View south-east from Macquarie Univeristy
PM 15	View north-east from Dunbar Park
PM 17	View north-east from Herring Road
PM 18	View north-east from ELS Hall Park

5.2 Certification of photomontages

The method of preparation is outlined in Appendix 3 of this report.

The accuracy of the locations of the 3D model (prepared by the project architects) of the proposed development inserted into digital photographs has been checked by Urbis in multiple ways:

1. The placement and location of the 3D architectural model was checked against surveyed visible fixed features using LiDAR data.
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 are known.
3. Reference points from the survey were used for cross-checking accuracy in all images.
4. No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the

camera lens, were reviewed by Urbis and were considered to be within reasonable limits.

Urbis is satisfied that the photomontages have been prepared in accordance with the Land and Environment Court of New South Wales photomontage policy.

Urbis certifies, based on the methods used and taking all relevant information into account, that the photomontages are as accurate as is possible in the circumstances and can be relied upon by the Court for assessment.

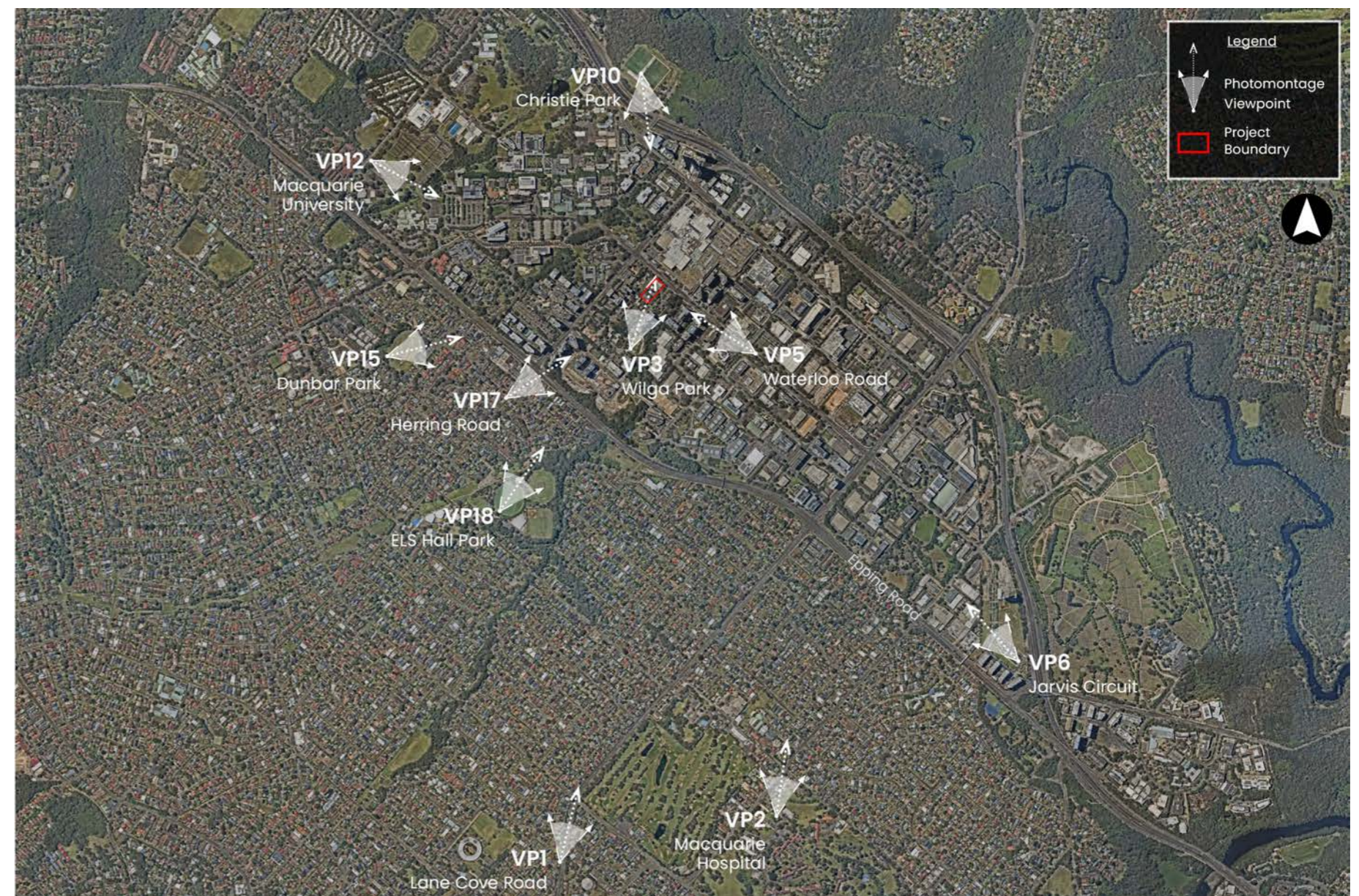


Figure 19 Photomontage location map.

Photomontage 01

View north-west from Lane Cove Road near Byron Park

Distance class

- Distant
- >1000m

Existing composition of the view

This is a distant northerly view from a high point along Lane Cove Road south of Macquarie Park. This elevated knoll marks the approximate south-western edge of the potential visual catchment of the proposal. This view is predominantly characterised by the road corridor, vegetation and distant development including existing towers at Macquarie Park.

Visual effects of the proposal on the composition

A limited extent of the upper section of the north tower is partially visible behind vegetation for oncoming traffic using the northern carriageway. The majority of the development is blocked by vegetation and built form and is not visible in this view.

The upper narrow tower form does not block any scenic or unique view compositions.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	nil
Scenic quality	nil
View composition	nil
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

nil

Weighting factors

Public domain view place sensitivity	low-medium (neutral)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	low (down-weight)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.

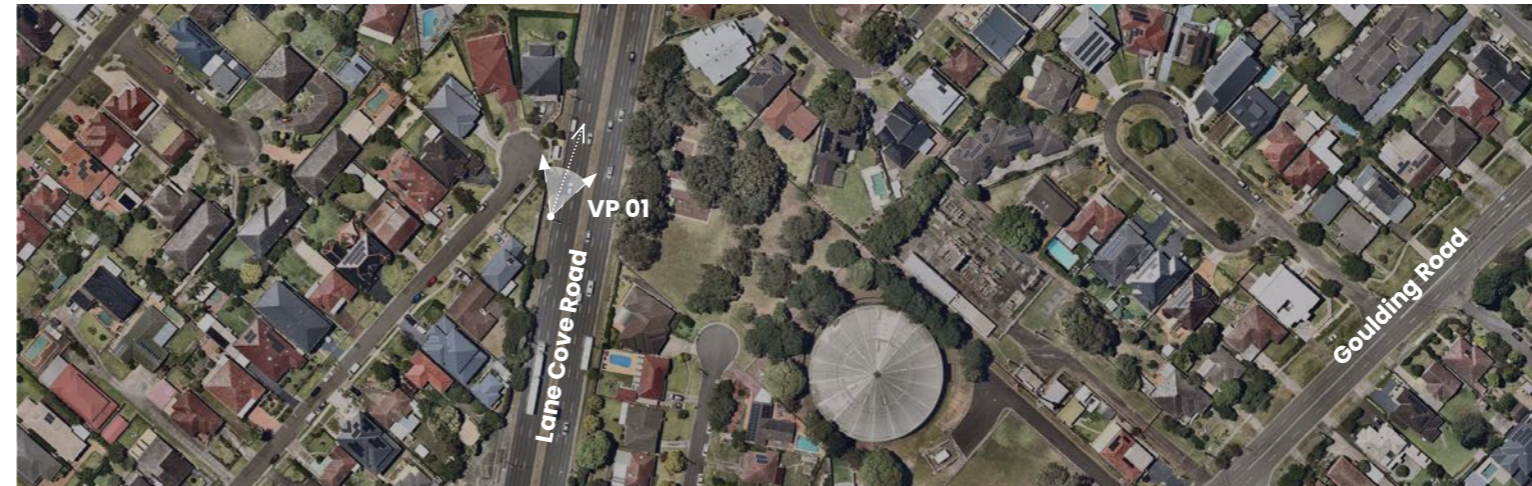


Figure 20 Viewpoint 01 location.



Figure 21 Viewpoint 01 existing view.



Figure 22 Viewpoint 01 proposed view.

Photomontage 02

View north from Macquarie Hospital

Distance class

- Distant
- >1000m

Existing composition of the view

This is a distant, northerly views from the south-eastern edge of Macquarie Hospital. The view is predominantly characterised by open areas of grass, single storey hospital buildings and vegetation. The distant background composition includes some large scale background development.

Visual effects of the proposal on the composition

The proposed development is blocked by vegetation within the Macquarie Hospital grounds and is not visible in this view. The proposal does not block compositions of high scenic quality.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	nil
Scenic quality	nil
View composition	nil
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

nil

Weighting factors

Public domain view place sensitivity	low-medium (neutral)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	low (down-weight)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.

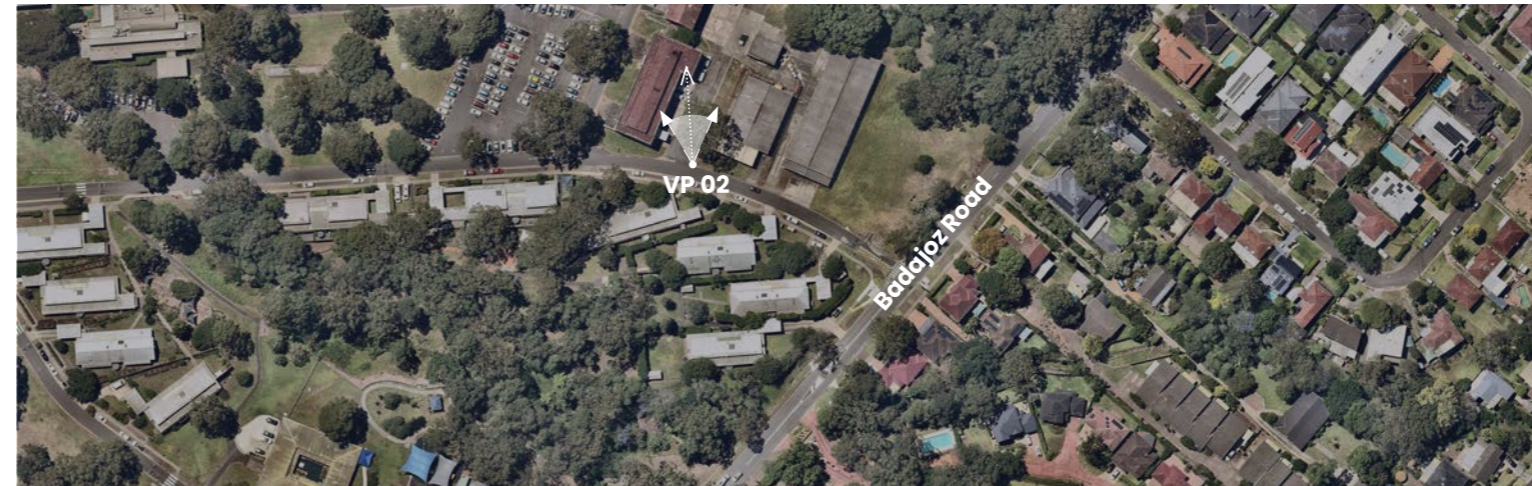


Figure 23 Viewpoint 02 location.



Figure 24 Viewpoint 02 existing view.

Original Photo Extent - 35mm Standard View



Figure 25 Viewpoint 02 proposed view.

Photomontage 03

View north-east from Wilga Park

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a medium-distance view from Wilga Park characterised by open park, vegetation and contemporary, mid-height residential development (Vicinti Macquarie Park) which occupies the northern boundary of the park to the right of the mid-ground composition.

Visual effects of the proposal on the composition

From this location and other parts of Wilga Park, lower parts of the proposal will be blocked by intervening built form.

The proposal will introduce a slender, contemporary tower form to the composition where mid and upper level built form is visible above mid-ground elements, blocking areas of open sky and background development.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	med
View blocking of scenic elements	low

Overall rating of effects on baseline factors

Weighting factors

Public domain view place sensitivity	medium (up-weight)
Visual absorption capacity	low-medium (neutral)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	medium (up-weight)
Viewing distance	medium (neutral)

See section 6.7 for overall visual impact rating.



Figure 26 Viewpoint 03 location.



Figure 27 Viewpoint 03 existing view.

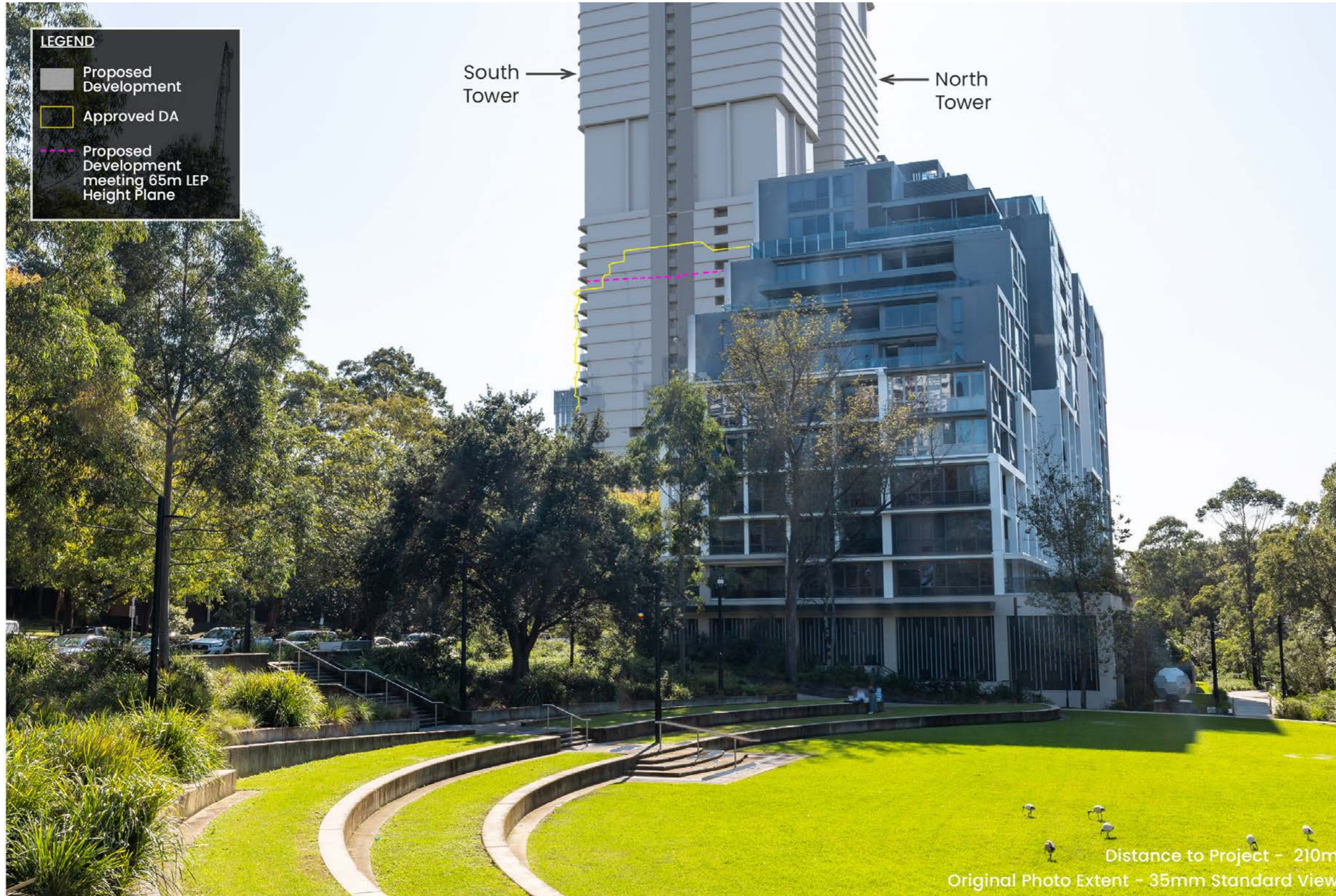


Figure 28 Viewpoint 03 proposed view.

Photomontage 05

View north-west from Waterloo Road near Khartoum Road

Distance class

- Medium
- 100-1000m

Existing composition of the view

This north-easterly view along Waterloo Road includes juvenile street tree vegetation, and tower development either side of the road carriageway.

Visual effects of the proposal on the composition

The proposal introduces contemporary, slender tower forms of significant height to the local visual context. Mid-ground elements including lower surrounding tower forms and vegetation block the lower half of the proposal. The upper tower forms are spatially separated and differentiated in height, blocking areas of open sky. The proposal does not block compositions of high scenic quality.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low-medium
Scenic quality	low
View composition	medium
View blocking of scenic elements	low

Overall rating of effects on baseline factors

low-medium

Weighting factors

Public domain view place sensitivity	low-medium (neutral)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	low (down-weight)
Viewing distance	medium (neutral)

See section 6.7 for overall visual impact rating.

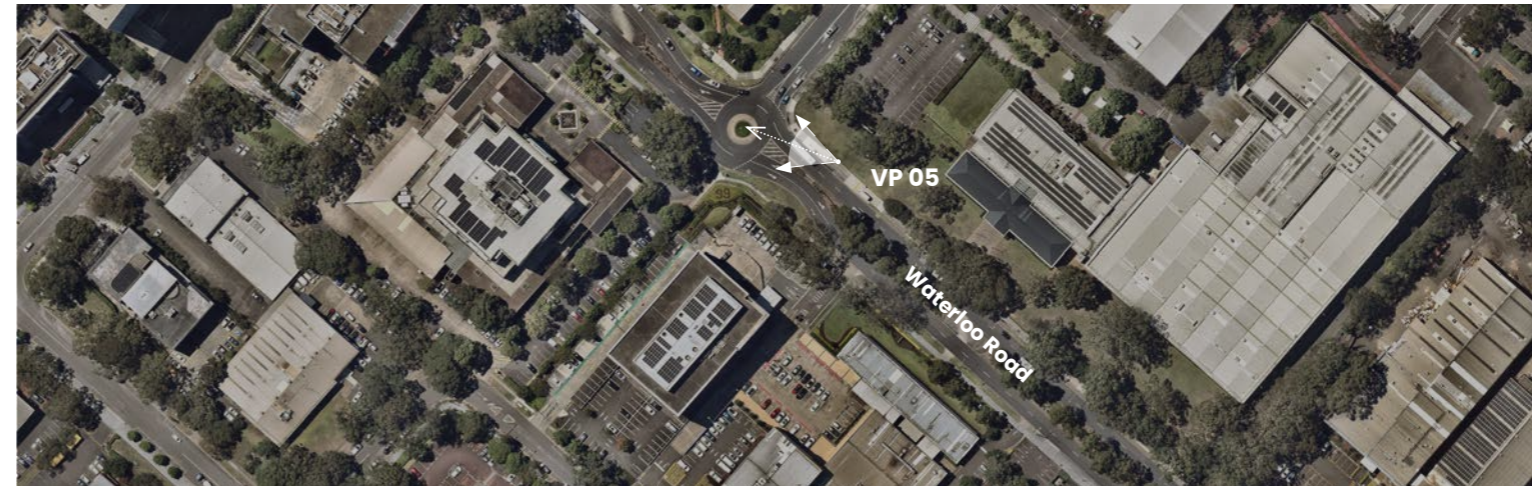


Figure 29 Viewpoint 05 location.



Figure 30 Viewpoint 05 existing view.



Figure 31 Viewpoint 05 proposed view.

Photomontage 06

View north from Jarvis Circuit

Distance class

- Distant
- 100-1000m

Existing composition of the view

This is a long distance view from a local elevated location at Jarvis Circuit, near Lachlan's Line Park. The view is predominantly characterised by open space and vegetation, park amenities and background development located within Macquarie Park including existing and emerging tower forms.

Visual effects of the proposal on the composition

Upper sections of both towers are visible in the distant mid-ground behind existing tower development and vegetation. The majority of the proposal is blocked by mid-ground elements.

The proposal blocks limited areas of open sky and does not block compositions of high scenic quality.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	low
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

low

Weighting factors

Public domain view place sensitivity	medium (up-weight)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	medium (neutral)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.



Figure 32 Viewpoint 06 location



Figure 33 Viewpoint 06 existing view



Figure 34 Viewpoint 06 proposed view

Photomontage 10

View south-south-east from Christie Park

Distance class

- Medium
- 100-1000m

Existing composition of the view

The foreground of this view is characterised by open playing fields and two height amenity blocks within Christie Park. The mid-ground composition is predominantly characterised by vegetation and high density tower development to the south-east (Trilogy Macquarie Park by Meriton).

Visual effects of the proposal on the composition

The proposal appears as a single form where the spatial separation is not evident from this location. The forms are, however, differentiated by height, width and articulation so that the proposal introduces some visual interest to the composition. It is not dissimilar in height, form and character to the foreground Trilogy tower development.

Lower and middle sections of the proposal are blocked by foreground elements and vegetation.

The proposal does not block unique compositions of high scenic quality but rather only a limited section of open sky.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	low
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

low

Weighting factors

Public domain view place sensitivity	low-medium (down-weight)
Visual absorption capacity	medium (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	medium (neutral)
Viewing distance	medium (neutral)

See section 6.7 for overall visual impact rating.



Figure 35 Viewpoint 10 location.



Figure 36 Viewpoint 10 existing view.



Figure 37 Viewpoint 10 proposed view.

Photomontage 12

View south-east from Macquarie University

Distance class

- Distant
- 100-1000m

Existing composition of the view

This view is predominantly characterised by vegetation and limited visible development. Tall vegetation filters views to high density residential tower clusters to the south-east.

Visual effects of the proposal on the composition as modelled

Mid and upper sections of two slender tower forms are introduced to the mid-ground composition. The lower half of the towers is blocked by vegetation within the University campus.

The towers are well separated, differentiated in height and block areas of open sky only. The proposal appears as novel element within this view, however does not block scenic features or compositions of high scenic quality, and does not visually dominate or overwhelm the composition.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	low
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

low

Weighting factors

Public domain view place sensitivity	low (down-weight)
Visual absorption capacity	medium (down-weight)
Compatibility with urban context and visual character	medium (neutral)
Viewing period	low (down-weight)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.

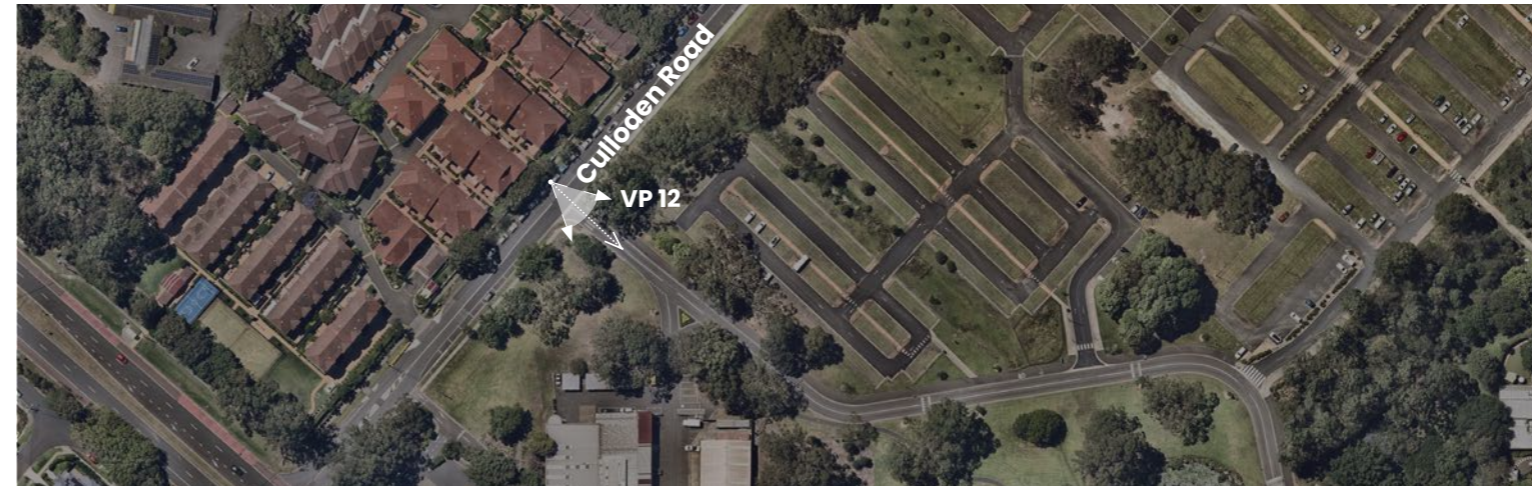


Figure 38 Viewpoint 12 location



Figure 39 Viewpoint 12 existing view

Original Photo Extent - 35mm Standard View



Figure 40 Viewpoint 12 proposed view

Photomontage 15

View north-east from Dunbar Park

Distance class

- Distant
- 100-1000m

Existing composition of the view

This is a northerly view from the south end of Dunbar Park predominantly characterised by open playing fields and amenities. The mid-ground composition is characterised by tall vegetation along the northern edge of the park which filters views to background tower development within Macquarie Park.

Visual effects of the proposal on the composition as modelled

The proposal appears as a single form where the spatial separation is not evident from this location. The forms are, however, differentiated by height, width and articulation so that the proposal introduced some visual interest to the composition. It is not dissimilar to existing tower forms visible in this composition. The base and lower parts of the proposal are blocked by intervening mid-ground elements and vegetation.

The proposal does not block compositions of high scenic quality but rather a limited extent of open sky.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	low
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

Weighting factors

Public domain view place sensitivity	medium (up-weight)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	medium (up-weight)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.



Figure 41 Viewpoint 15 location



Figure 42 Viewpoint 15 existing view

Original Photo Extent - 35mm Standard View



Figure 43 Viewpoint 15 proposed view

Photomontage 17

View north-east from Herring Road

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a north-easterly view from Herring Road characterised by the road corridor, single-storey foreground development, tall intermittent vegetation and high density residential tower clusters.

Visual effects of the proposal on the composition as modelled

The proposal is blocked by existing intervening residential tower clusters and mid-ground vegetation, and is not visible in this view.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	nil
Scenic quality	nil
View composition	nil
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

nil

Weighting factors

Public domain view place sensitivity	low-medium (neutral)
Visual absorption capacity	high (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	low (down-weight)
Viewing distance	medium (neutral)

See section 6.7 for overall visual impact rating.



Figure 44 Viewpoint 17 location



Figure 45 Viewpoint 17 existing view



Figure 46 Viewpoint 17 proposed view

Photomontage 18

View north-east from ELS Hall Park

Distance class

- Distant
- >1000m

Existing composition of the view

This is a north-easterly view from ELS Hall Park characterised by a wide section of open playing fields bordered by dense vegetation and a low-height amenities block. Background high density residential development is visible through gaps in vegetation.

Visual effects of the proposal on the composition as modelled

The proposal appears as a single form where the spatial separation is not evident from this location. The forms are, however, differentiated by height, width and articulation so that the proposal introduced some visual interest to the composition. The base and lower parts of the development are blocked by intervening mid-ground elements and vegetation.

The proposal does not block compositions of high scenic quality but rather a limited extent of open sky.

Visual effects of Proposal (quantum of change) on existing view attributes

Visual character	low
Scenic quality	low
View composition	low
View blocking of scenic elements	nil

Overall rating of effects on baseline factors

low

Weighting factors

Public domain view place sensitivity	medium (up-weight)
Visual absorption capacity	medium (down-weight)
Compatibility with urban context and visual character	high (down-weight)
Viewing period	medium (up-weight)
Viewing distance	distant (down-weight)

See section 6.7 for overall visual impact rating.



Figure 47 Viewpoint 18 location.



Figure 48 Viewpoint 18 existing view



Figure 49 Viewpoint 18 proposed view

06

Visual impact assessment



Having determined the extent of the visual change based on the 10 representative modelled views (photomontages), Urbis have applied relevant weighting factors to determine the overall level of visual impacts or importance of the visual effects. The factors have been considered in relation to the visual effects to provide up-weight or down-weights and to determine a final impact rating.

The weighting factors include sensitivity, visual absorption capacity and compatibility with urban features.

6.1 Sensitivity

The overall rating for view place sensitivity was weighted according to the influence of variable factors such as distance, the location of items of heritage significance or public spaces of high amenity and high user numbers.

Urbis Comment: The proposal will be visible from several close and distant public parks within the visual catchment including for example, Wilga Park, Christie Park and ELS Hall Park. From close locations such as Wilga Park the proposal will be highly visible in the context of existing surrounding development of similar scale and character. The proposal is consistent with existing outward views from Wilga Park which is surrounded by high density residential towers to the north, north-east and south-west.

From more distant parks, the proposal is viewed within existing compositions predominantly characterised by similar tower forms and vegetation. In this regard, the proposal is consistent with viewer expectations for park users given the existing visual context of this part of Macquarie Park.

6.2 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.

VAC 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 and in the case 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.

Urbis Comment: The existing visual environment has a high capacity to absorb the visual change proposed. From both close and distant viewing locations, surrounding built form and vegetation limit visibility to middle and lower parts of the development. The effects of future anticipated density for Macquarie Park will increase the VAC, reducing the long term visual effects of the proposal and lowering the overall rating of visual impact.

In the majority of views, the proposal will be of low prominence, viewed as part of a wide and varied composition characterised by vegetation and built form of similar scale and character.

6.3 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 areas that have similar visual character and scenic quality or intended changes to future character can guide the likely future compatibility of the proposal in its setting.

Urbis Comment: The proposal is highly compatible with the existing surrounding visual context which predominantly includes high density tower clusters. In the majority of views from across the wider visual catchment, the proposal does not appear as a novel or uncharacteristic and is consistent with viewer expectations within this visual context.

We note that visual compatibility will increase with the construction of anticipated future density within this part of Macquarie Park.

6.4 Viewing period

Viewing period in this assessment refers to the influence of time available to a viewer to experience the view to the site and the visual effects of the proposed development. Longer viewing periods, experienced either from fixed or moving viewing places such as dwellings, roads or waterways, provide for greater potential for the viewer to perceive the visual effects.

Urbis Comment: Visual effects of the proposal with respect to viewing periods are low. The majority of views to the proposal are from moving viewing situations where visibility is intermittent and fleeting. Longer viewing periods are possible from public parks, however where the proposal is

contextualised by other similar built form, and is therefore consistent with expectations of park users.

6.5 Viewing distance

Viewing distance can 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.

Urbis Comment: The proposal is visible in close, medium and distant views across the visual catchment. The proposal will be highly visible in a limited number of close views including for example, from locations such as Wilga Park or Waterloo Road.

In the majority of medium and distant views across the visual catchment visibility is constrained to mid and upper level sections of the development.

6.6 Significance of residual visual impacts

The final question to be answered after the mitigation factors are assessed, 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.

Urbis Comment: The residual impacts are low and acceptable given the limited visual effects in the majority of views across the visual catchment, which will further reduce with anticipated future density.

6.7 Applying the ‘weighting’ factors

To arrive at a final level of significance of visual impact, the weighting factors are applied to the overall level of visual effects.

Table 3 – Summary of Visual Effects and Weighting Factors.

Visual Effect Rating	VP1	VP2	VP3	VP5	VP6	VP10	VP12	VP15	VP17	VP18
Visual character	nil	nil	low	low-med	low	low	low	low	nil	low
Scenic quality	nil	nil	low	low	low	low	low	low	nil	low
View composition	nil	nil	med	med	low	low	low	low	nil	low
View blocking of scenic elements	nil	nil	low	low	low	nil	nil	nil	nil	low
Weighting Factors	VP1	VP2	VP3	VP5	VP6	VP10	VP12	VP15	VP17	VP18
Public Domain View Place Sensitivity	low-med	low-med	med	low-med	med	low-med	low	med	low-med	med
Visual Absorption Capacity	high	high	low-med	high	high	med	med	high	high	med
Compatibility with Urban & Visual Context	high	high	high	high	high	high	med	high	high	high
Viewing Period	low	low	med	low	med	med	low	med	low	med
Viewing Distance	distant	distant	med	med	distant	med	distant	distant	med	distant
Visual Impact Rating	VP1	VP2	VP3	VP5	VP6	VP10	VP12	VP15	VP17	VP18
	low	low	med	med	low	low	med	low-med	low	low

6.8 Overall visual impacts

The overall visual impact rating for each view assessed after considering the visual effects (quantum of change) and the weighting factors in Section 5.0, the overall visual impact ratings are:

- View 01 - **low**
- View 02 - **low**
- View 03 - **medium**
- View 05 - **medium**
- View 06 - **low**
- View 10 - **low**
- View 12 - **medium**
- View 15 - **low-medium**
- View 17 - **low**
- View 18 - **low**

07 Private domain views



7.1 Private view place sensitivity

Viewer sensitivity is a judgement as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

Comment:

Private domain views potentially impacted by the proposal are unlikely to be characterised by compositions of high scenic quality as defined in Tenacity. Instead, it is expected that private domain views from surrounding residential dwellings would be identified as vernacular, district views in a visual setting where high-rise development is present and anticipated.

7.2 Potential private domain impacts

The most relevant planning principle established in the Land and Environment Court of New South Wales in relation to view sharing is referred to as Tenacity Consulting v Warringah [2004] NSWLEC 140 – Principles of view sharing: the impact on neighbours (Tenacity).

The assessment steps in Tenacity include the need to inspect views access and the composition of views from all parts of a dwelling. Part of the assessment details some elements that are considered to be of greater value to the viewer than others.

Themes and descriptions in Tenacity provide useful guidance as to defining the importance or value of a view for example some items and features have greater scenic value than other, for examples areas of land-water interface, whole views rather than part views and particular features that may be considered as 'iconic'.

7.3 Significant District Views

In scenic terms in our opinion, to be considered as 'significant', a view would need to be characterised by scenic quality or aesthetic feature or features and the value or significance of a view composition must necessarily have some value for the viewer.

This is a subjective concept. For example, a resident may consider an available view to be of significant value to them without the inclusion of any particular or distinctive features or unique scenic quality.

We have adopted the below definition which reflects our understanding of what a significant regional or district view is, in an effort to assess any potential visual impacts on such a view.

To be significant some part of the composition of a primary regional or district view should be sufficiently important to be worthy of attention, in other words, something in the view composition should stand out as being

prominent or unique compared to the predominant composition. To this end, we define a significant regional or district view as:

"A view that includes unique or particular visual features within the view composition so as to make it noteworthy and ultimately of greater value to a viewer compared to other views."

The definitions of a typical or important view are included below.

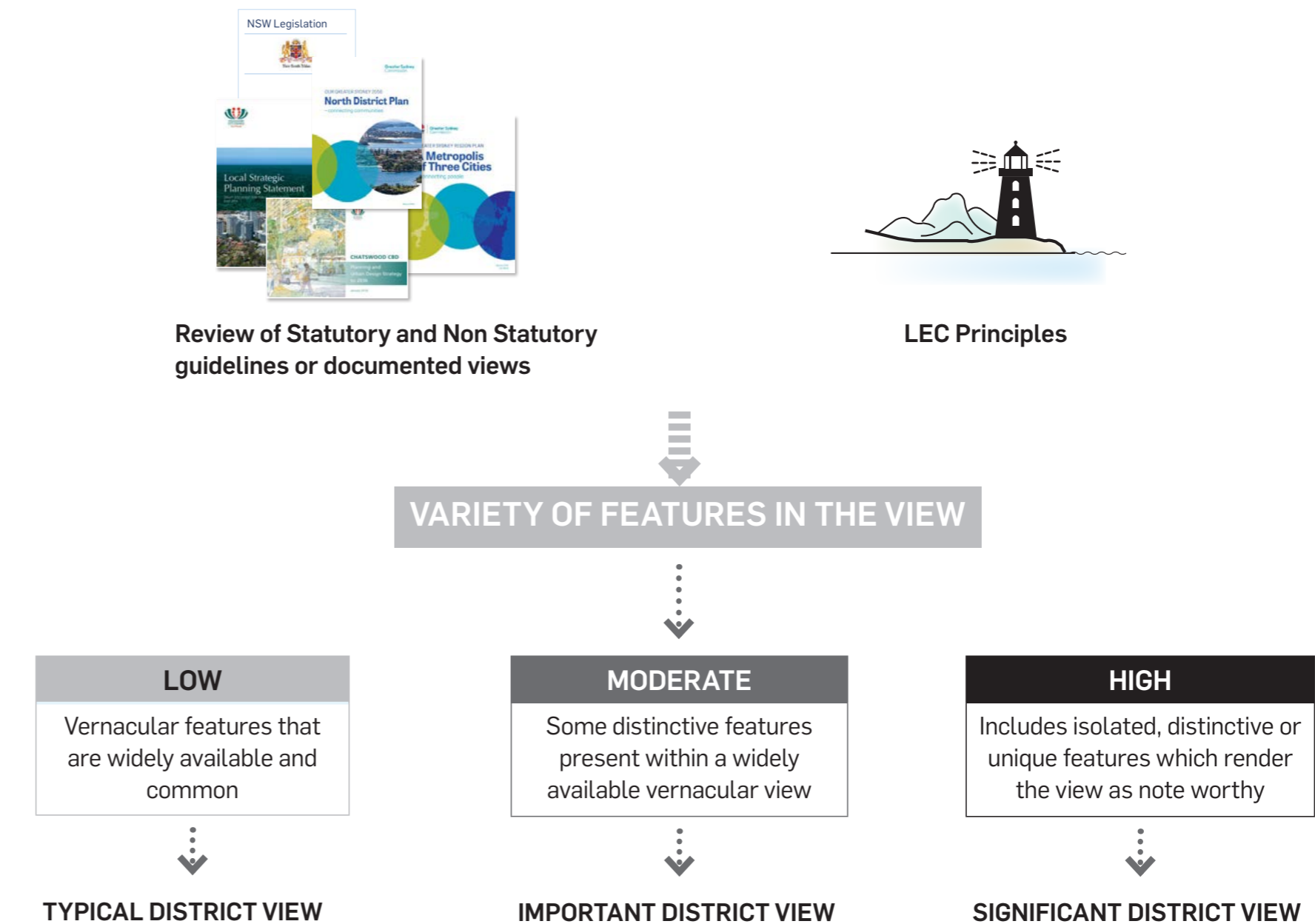


Figure 50 Definitions of typical, important or significant district views.

7.4 Private domain access to views

The immediate visual context is characterised by recently completed and emerging high density residential towers and large scale commercial mixed use development. Existing private domain views from neighbouring dwellings are predominantly characterised by surrounding tower development and do not include scenic features or compositions of merit in Tenacity terms.

In private domain views that directly align with the site the proposal is likely to be seen as part of a composition characterised by existing surrounding tower development.

The level of high density development in this area of Macquarie Park constrains private domain visibility to the proposal. In this regard, the majority of private domain views that align with the site will include only part of the proposed development.

Close views of the proposal from immediate neighbouring dwellings include, though are not limited to the following:

Cottonwood Crescent

- Direct, north-westerly views from residential flat buildings 12, 14 and 16 Cottonwood Crescent
- Oblique north-westerly views from upper level units at residential flat building, 'Vicinit' (2-10 Cottonwood Crescent)
- North-easterly views from residential flat buildings at 5, 7, 9, 11 and 13 Cottonwood Crescent

Lachlan Avenue

- North-easterly views from residential flat buildings at 8, 10 and 12-14 Lachlan Avenue (south-west side) and 13-15, 17-21 and 23-25 Lachlan Avenue (north-east side)

Herring Road

- Direct south-easterly views across Elouera Reserve from residential flat buildings at 169, 171, 173 and 175 Herring Road
- Oblique easterly views across Elouera Reserve from residential flat building at 165-167 Herring Road

Blocking effects of surrounding intervening built form limit private domain visibility to the proposal. Partial visibility to mid and upper sections of the proposal is likely from tall surrounding residential towers including but not limited to:

Waterloo Road

- North-westerly views over low height development from mid and upper level dwellings at residential towers 82-84 Waterloo Road
- Partial north-westerly views from upper level dwellings at 80 Waterloo Road

- Oblique south-westerly views from 101-107 Waterloo Road

Saunders Close

- Oblique north-easterly views from mid and upper level dwellings at 1 and 2 Saunders Close.

Peach Tree Road

- Northerly views across Wilga Park from upper level dwellings at 9 Peach Tree Road

Mahogany Avenue

- North-easterly views from mid and upper level dwellings at residential tower complex 1A Mahogany Road, 5 and 7 Mahogany Road

Epping Road & Lyonpark Road

- Northerly views from upper level dwellings at tower complexes 109-123 Epping Road and 2 Lyon Park Road

We note that private domain visibility to the proposal will become increasingly constrained from more distant locations across the private domain visual catchment and that the list of potentially affected locations included in this report is not exhaustive.

Private domain access to scenic views

- Fieldwork observations confirm that no neighbouring mid-height residential flat buildings have access to views that are predominantly characterised by compositions of high scenic quality and value in Tenacity terms.
- Upper level views from surrounding residential tower clusters can be summarised as vernacular, district views which include residential towers, vegetation and surrounding areas of built form.
- We note views from upper level dwellings may be expansive and distant characterised by depth of field of view, across a wide and varied composition.
- Future density planned for this part of Macquarie Park anticipates a level of visual change where private domain views will transition to be predominantly characterised by high density built form.

Summary

- Potential visibility to lower parts of the proposal is limited to immediately surrounding residential flat buildings.
- Potential, partial visibility to mid and upper parts of the proposal is likely from upper level dwellings within tower clusters across the visual catchment, noting extensive blocking effects of surrounding intervening density.
- The spatial arrangement may change where some views will include a foreground of development, noting the proposal is compliant with setback requirements.
- The proposal does not block highly valued or scenic compositions as defined by Tenacity.

- Dwellings will experience visual change rather than view loss of any scenic merit in Tenacity terms.
- The additional height sought sits above the height of surrounding residential towers and does not create any further potential view loss.
- Where surrounding dwellings align directly with the site, the proposal will be viewed as part of a composition predominantly characterised by similar tower development.
- Additional height sought above the LEP height control for the site will not cause any private domain view loss of merit.
- Private domain view impacts are likely to be low and acceptable.



Figure 51 Typical view compositions from surrounding dwellings characterised by tower development (80 Waterloo Road)



Figure 52 Potential visibility from immediate and surrounding dwellings to part of the proposal



Figure 53 Typical view compositions from surrounding dwellings characterised by tower development (82-84 Waterloo Road)



Figure 54 Typical view compositions from surrounding dwellings characterised by tower development (82-84 Waterloo Road)

08 Conclusion



Public Domain Views

- View impacts of the proposal across the visual catchment as a whole have been determined based on fieldwork observations and analysis of 10 accurate, certifiable photomontages prepared by Urbis.
- The proposal was found to create low and medium visual effects from close, medium and distant views within the visual catchment.
- Overall visual impacts for the majority of views modelled were found to be low.
- Visibility to the proposal from across the visual catchment is limited by topography, vegetation and intervening tower development.
- In the majority of views, including from sensitive locations such as public parks, the proposal is seen as part of a varied composition characterised by similar tower development.
- The proposal is highly compatible with its existing visual setting and desired future character which anticipates increased density and tower development.

Private Domain Views

- Potentially impacted views from neighbouring dwellings are district views predominantly characterised by vegetation and tower development. Access to scenic compositions in Tenacity terms is limited.
- Close, direct views to the proposal from immediate neighbours will change to include foreground development.
- Where private domain views from neighbouring dwellings align with the site, the proposal will be viewed as part of a composition predominantly characterised by similar tower development.
- High rise dwellings within the visual catchment will potentially align with the proposal where visibility will be limited by blocking effects of surrounding intervening density.
- Immediate neighbours will experience some level of visual change where no views of scenic merit in Tenacity terms will be impacted.
- Additional height sought above the LEP height control for the site will not cause any view loss of merit in Tenacity terms.
- Private domain impacts are likely to be low and acceptable.

09 Appendix



Appendix 1

Analysis of visual effects

Published on the NSW Department of Planning, Housing and Infrastructure website via major projects tab (NSW DPHI). This information has been developed by RLA and is acknowledged as being a comprehensive summary of typical descriptions regarding visual effects. The descriptions below have been used as a guide to make subjective judgements in relation to the effects and impacts of the proposed development on each modelled view.

Factors	Low effect	Medium effect	High effect
Scenic quality	The 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, and the appearance of interfaces.	The proposal has the effect of reducing some or all of the extent of panoramic views, 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 the perception of the integrity of any of panoramic views 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	The proposal does not decrease the presence of or conflict with the existing visual character elements such as the built form, building scale and urban fabric	The proposal contrasts with or changes the relationship between existing visual character elements in some individual views by adding new or distinctive features but does not affect the overall visual character of the precinct's setting.	The proposal introduces new or contrasting features which conflict with, reduce or eliminate existing visual 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 and public domain areas 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 nearby roads and public domain areas 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 the visibility of the proposal or important features of the existing visual environment.	Feature or focal views significantly and detrimentally changed.
Viewing period	Glimpse (e.g. moving vehicles).	Few minutes to up to half day (e.g. walking along the road, recreation in adjoining open space).	Majority of the day (e.g. adjoining residence or workplace).
Viewing distance	Distant Views (>1000m).	Medium Range Views (100- 1000m).	Close Views (<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 including loss of views of scenic icons.

Table 1 Description of visual effects.

Factors	Low impact	Medium impact	High impact
Physical 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 surrounding setting and built form.	The proposal is of moderate visibility but is not prominent because its components, texture, scale and building form partially blend into the existing scene.	The proposal is of high visibility and it is prominent in some views. The project location is high contrast and low blending within the existing elements of the surrounding setting and built form.
Compatibility with urban/natural features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing urban and natural features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character, scale, form and spatial arrangement 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 existing urban features in the immediate context which could reasonably be expected to be new additions to it when compared to other examples in similar settings.

Appendix 2

Analysis of visual impacts

In order to establish an objective assessment of the extent and significance of the likely visual changes in each view, Urbis have used the following descriptions of visual impacts on baseline factors sourced from Richard Lamb and Associates (RLA).

15-21 Cottonwood Cres, Macquarie Park

*Appendix A
Visual Assessment | Photomontages*

Photomontages Prepared By:

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

Date Prepared:

20 January 2026

Visualisation Artist:

Ashley Poon, Urbis – Lead Visual Technologies Consultant
Bachelor of Planning and Design (Architecture) with over 20 years' experience in 3D visualisation

Manuel Alvelo, Urbis – Visual Technologies Consultant
Bachelor of Architecture and Masters of Urban Planning and Environment

Location Photographer:

Grant Leslie, Specialist Photographer – Grant Leslie Photography
under direction from Jane Maze-Riley, Urbis – Director, National Design

Camera:

Canon EOS R3 – 24.1 Megapixel digital mirrorless camera (Full-frame sensor)

Camera Lens and Type:

Canon EOS R3 RF24-70mm F2.8 L IS USM

Software Used:

- 3DSMax 2023 with Arnold 5 (3D Modelling and Render Engine)
- AutoCAD 2025 (2D CAD Editing)
- Globalmapper 26.1 (GIS Data Mapping / Processing)
- Photoshop CC 2025 (Photo Editing)

Data Sources:

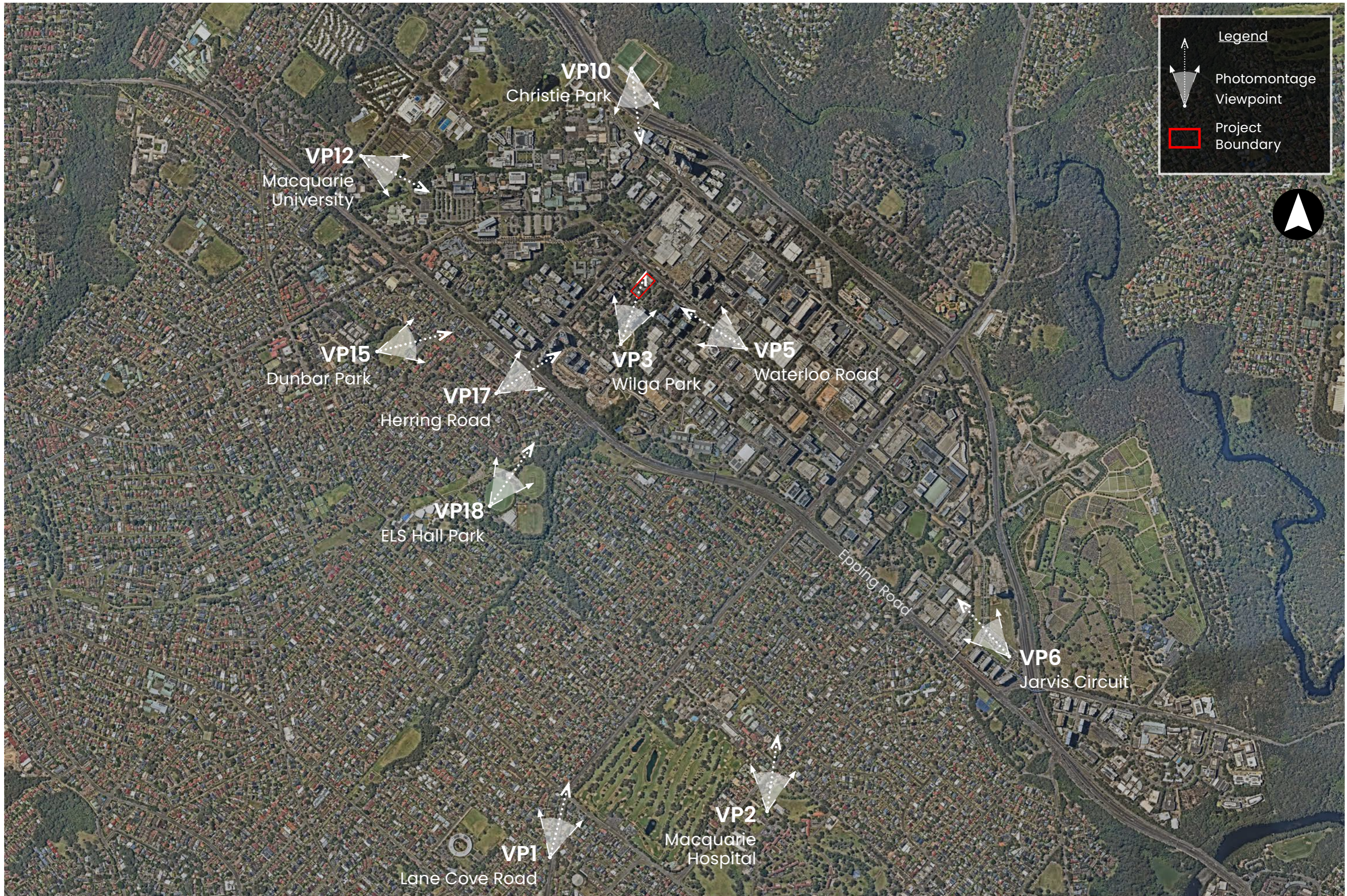
- Point cloud and Digital Elevation Models from NSW Government Spatial Services datasets (LAS and DEM) – Sydney 2020-05
- Aerial photography from Nearmap (geo-referenced JPG) – 2024-0407
- Proposed 3D model received from Architect (Autodesk Revit IFC) – Received 2025-12-17

Methodology:

Photomontages provided on the following pages have been produced with a high degree of accuracy to satisfy the intent of the requirements as set out in the practice direction for the use of visual aids in the NSWLEC Policy: Use of Photomontages and Visualisation Tools, May 2024 (the Policy).

The process for producing these photomontages are outlined below:

- Photographs have been taken on site using a full-frame digital camera coupled with a quality lens in order to obtain high resolution photos whilst minimising image distortion. Photos are taken handheld at a standing height of 1.60m above natural ground level. Photos have generally been taken at a standard focal length of 35mm to show a slightly wider context.
- Using available geo-spatial data for the site, 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 photomontage, the photo's 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 and 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 photomontage 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 photomontage.



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

Photomontages - View Location Map

DATE: 2026-01-20
 JOB NO: P0059330
 DWG NO: VP_MAP
 REV: -



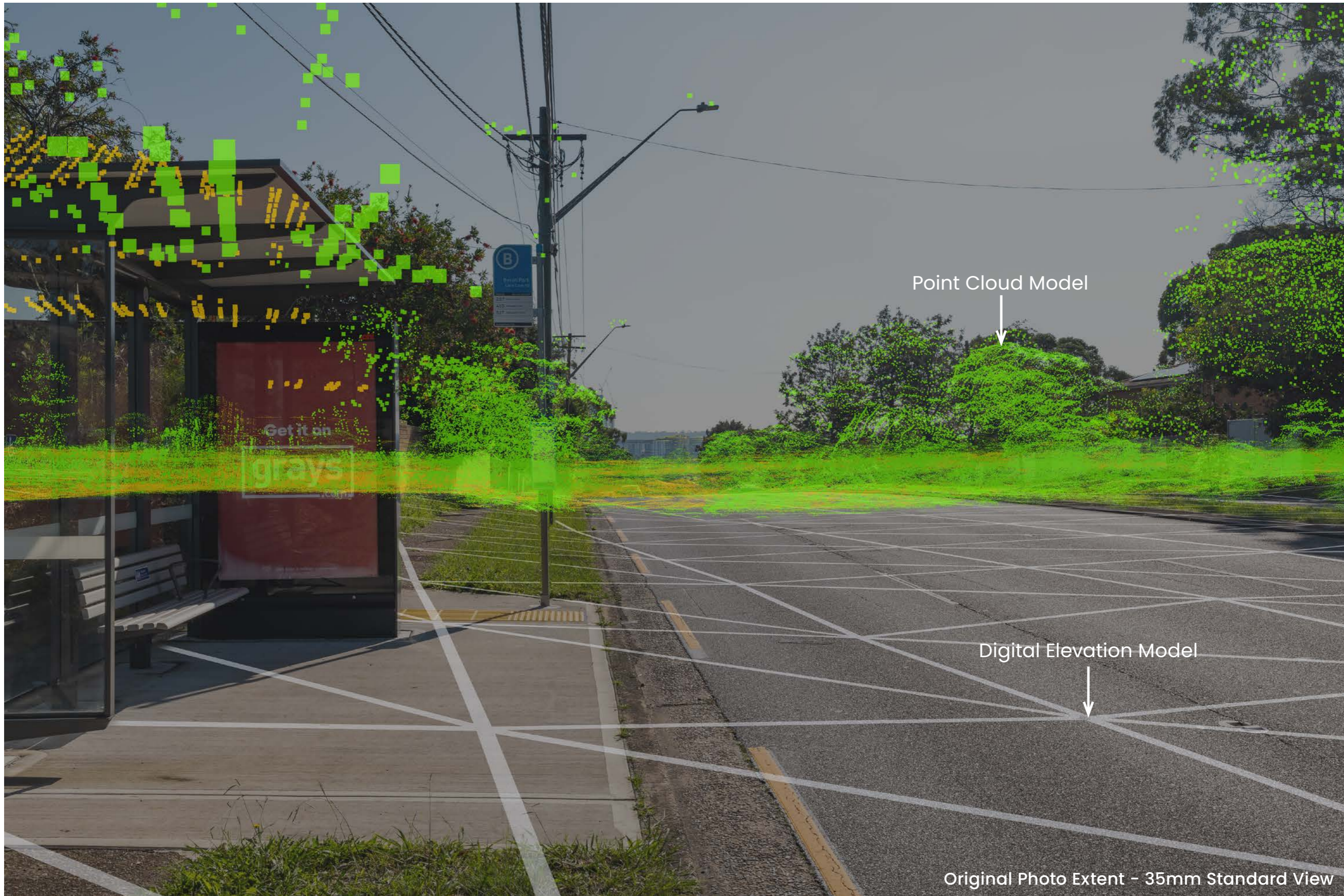
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VPI: Looking NNE along Lane Cove Road
Existing Conditions 2025-04-29 09:50 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_1A
REV: -



Point Cloud Model

Digital Elevation Model

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VPI: Looking NNE along Lane Cove Road
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_IB
REV: -

LEGEND

■ Proposed Development

⋯ Proposed Development not visible in this view



← North Tower

Distance to Project - 2.3km
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VPI: Looking NNE along Lane Cove Road
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_IC
REV: -



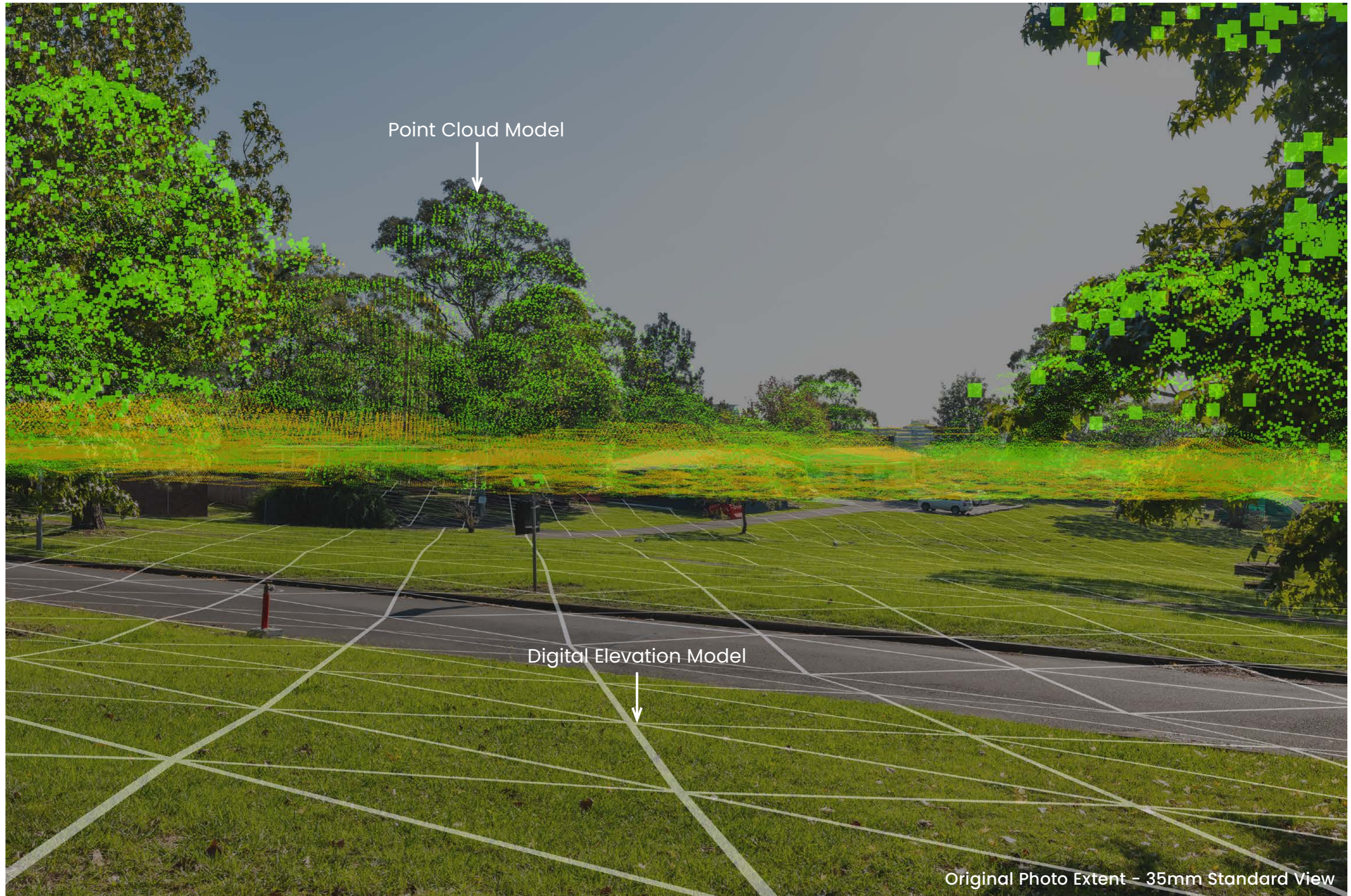
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP2: Looking NNE from Macquarie Hospital
Existing Conditions 2025-04-29 09:35 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_2A
REV: -



Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP2: Looking NNE from Macquarie Hospital
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_2B
REV: -

LEGEND

Proposed
Development not
visible in this view



Distance to Project - 2.1km
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP2: Looking NNE from Macquarie Hospital
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_2C
REV: -

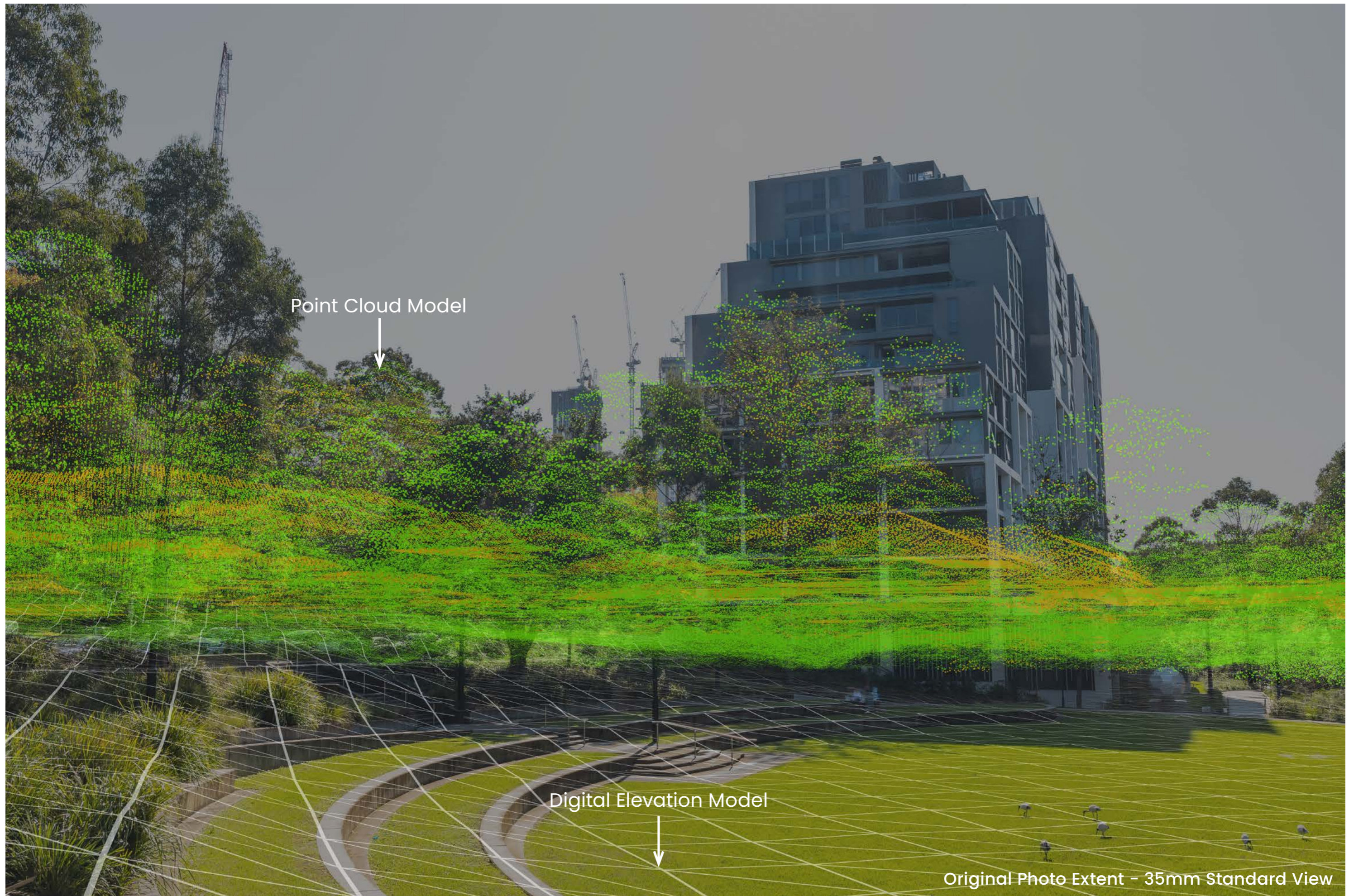


Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP3: Looking North East from Wilga Park
Existing Conditions 2025-04-29 10:24 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_3A
REV: -



Point Cloud Model



Digital Elevation Model



Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP3: Looking North East from Wilga Park
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_3B
REV: -



LEGEND

- Proposed Development
- Approved DA
- Proposed Development meeting 65m LEP Height Plane

South Tower →

← North Tower

Distance to Project - 210m

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP3: Looking North East from Wilga Park
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_3C
REV: -



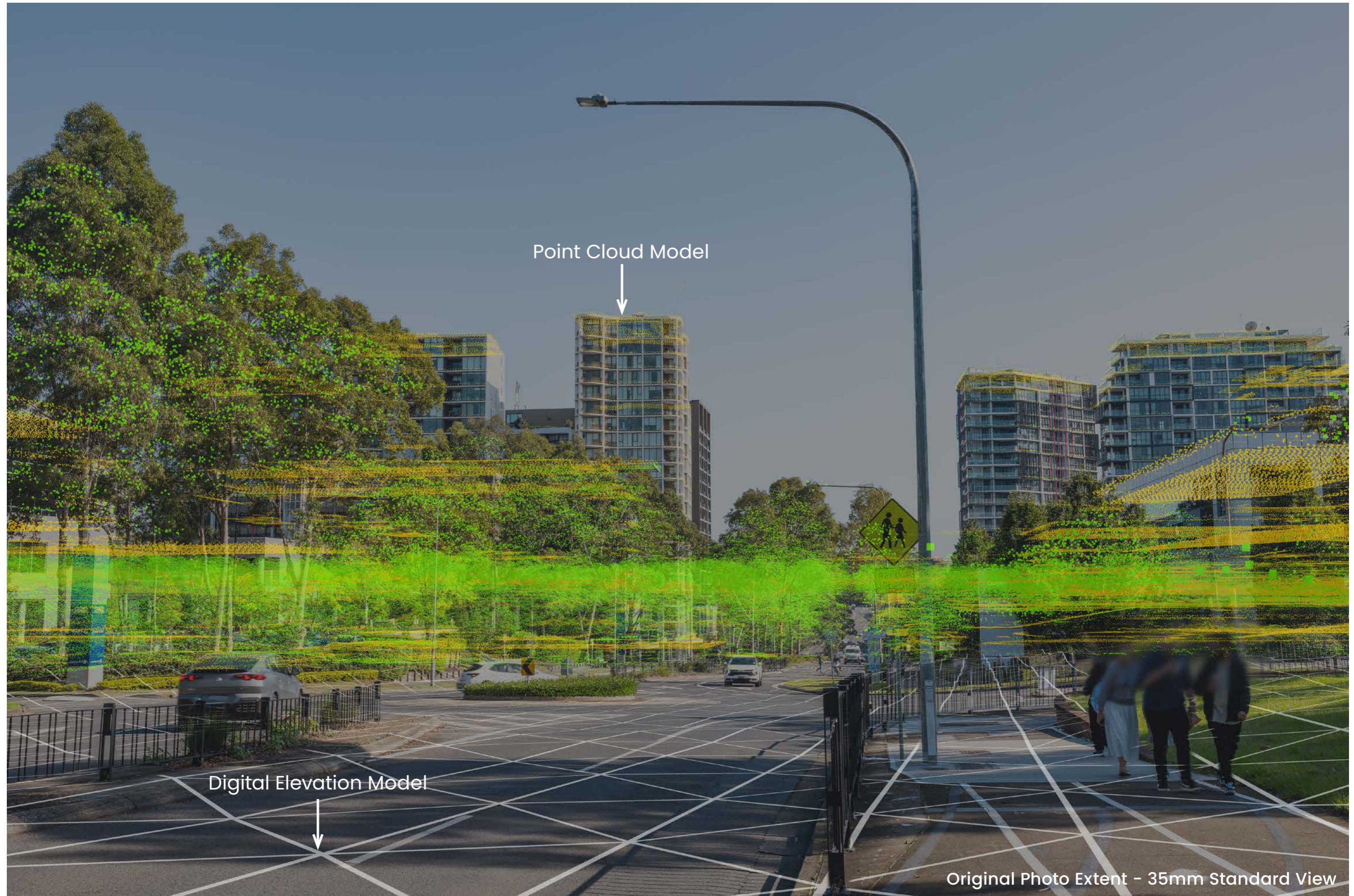
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP5: Looking North West along Waterloo Road
Existing Conditions 2025-04-29 10:10 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_5A
REV: -



Point Cloud Model

Digital Elevation Model

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP5: Looking North West along Waterloo Road
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_5B
REV: -

LEGEND

- Proposed Development
- Approved DA
- Proposed Development meeting 65m LEP Height Plane



Distance to Project - 460m
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
 VP5: Looking North West along Waterloo Road
 Photomontage - Proposed Development

DATE: 2026-01-20
 JOB NO: P0059330
 DWG NO: VP_5C
 REV: -

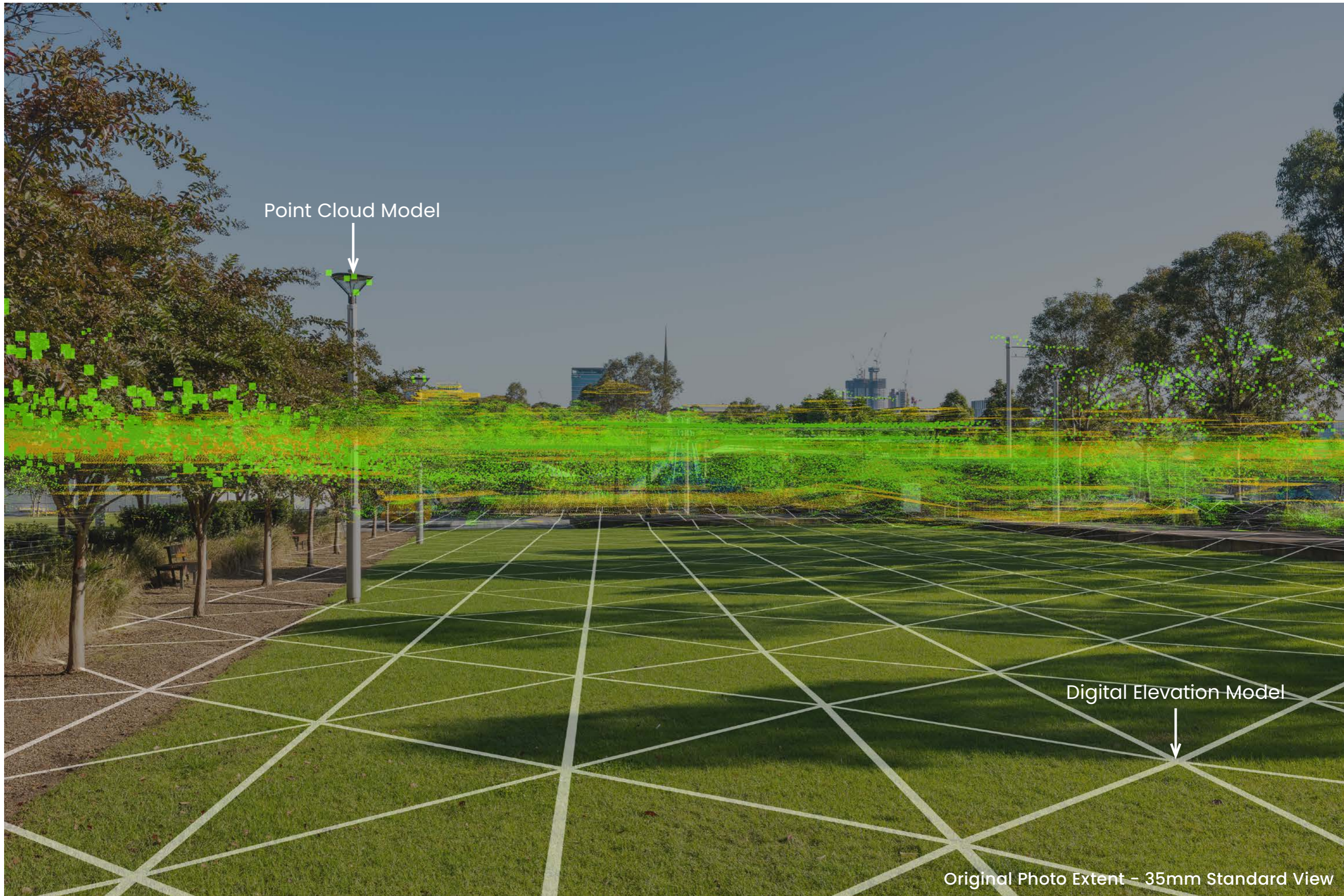


Original Photo Extent – 35mm Standard View



15–21 Cottonwood Cres, Macquarie Park – Visual Assessment
VP6: Looking North West from Jarvis Circuit
Existing Conditions 2025-04-29 09:10 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_6A
REV: -



Point Cloud Model

Digital Elevation Model

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP6: Looking North West from Jarvis Circuit
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_6B
REV: -



South Tower → ← North Tower

Distance to Project – 2.1km
Original Photo Extent – 35mm Standard View



15–21 Cottonwood Cres, Macquarie Park – Visual Assessment

VP6: Looking North West from Jarvis Circuit
Photomontage – Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_6C
REV: -



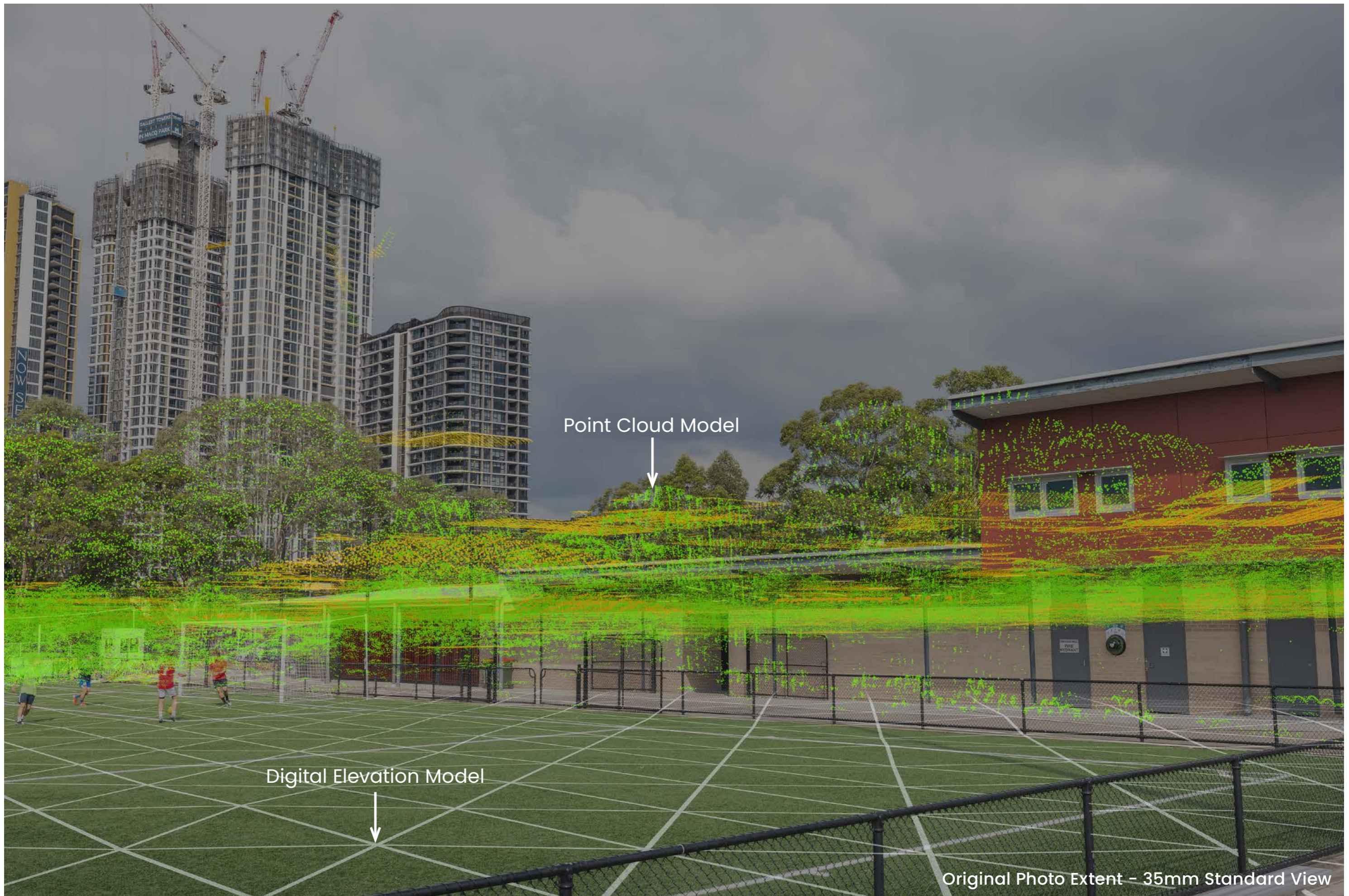
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP10: Looking SSE from Christie Park
Existing Conditions 2025-04-29 12:48 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_10A
REV: -



Point Cloud Model

Digital Elevation Model

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP10: Looking SSE from Christie Park
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_10B
REV: -

LEGEND

Proposed Development

North Tower

South Tower

Distance to Project - 840m
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP10: Looking SSE from Christie Park
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_10C
REV: -

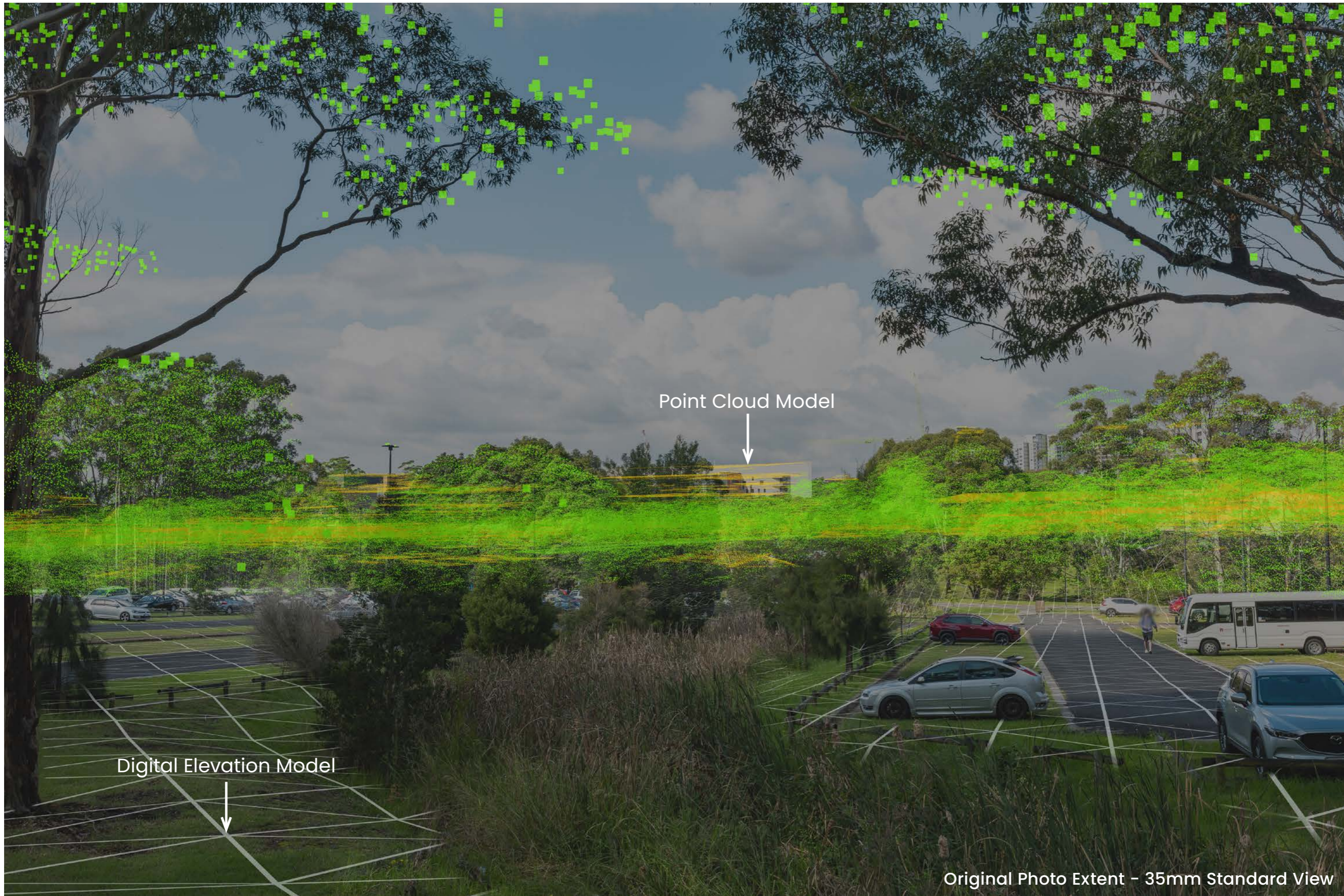


Original Photo Extent – 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park – Visual Assessment
VP12: Looking ESE from Macquarie University
Existing Conditions 2025-04-29 11:52 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_12A
REV: -



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP12: Looking ESE from Macquarie University
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_12B
REV: -

LEGEND

Proposed Development

North Tower →

← South Tower

Distance to Project - 1.2km
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP12: Looking ESE from Macquarie University
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_12C
REV: -

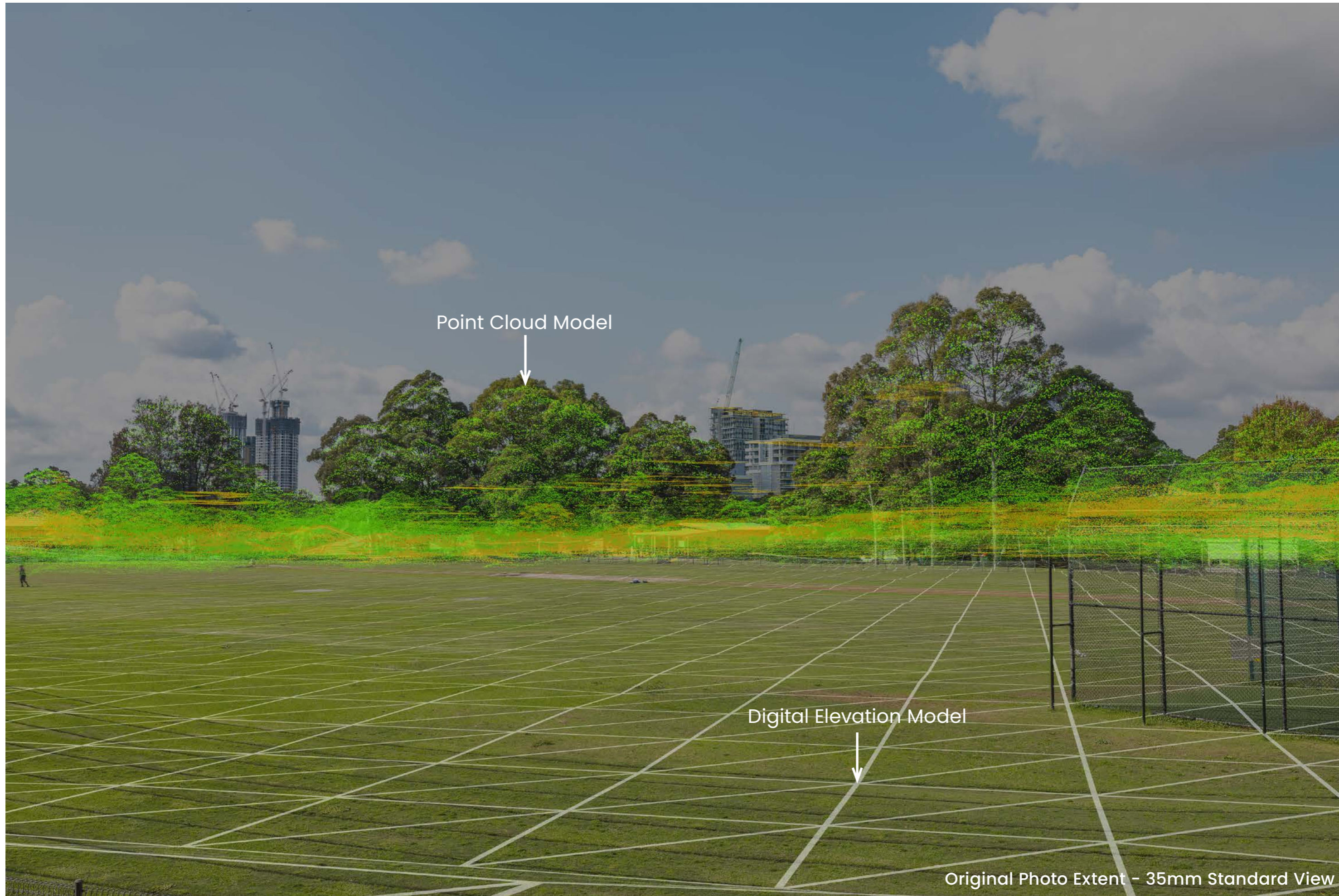


Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP15: Looking ENE from Dunbar Park
Existing Conditions 2025-04-29 12:14 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_15A
REV: -



Point Cloud Model

Digital Elevation Model

Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP15: Looking ENE from Dunbar Park
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_15B
REV: -

LEGEND

Proposed Development

North Tower

South Tower

Distance to Project - 1.1km
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP15: Looking ENE from Dunbar Park
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_15C
REV: -



Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP17: Looking ENE along Herring Road
Existing Conditions 2025-04-29 12:25 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_17A
REV: -



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP17: Looking ENE along Herring Road
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_17B
REV: -

LEGEND

Proposed Development not visible in this view



Distance to Project - 700m
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP17: Looking ENE along Herring Road
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_17C
REV: -



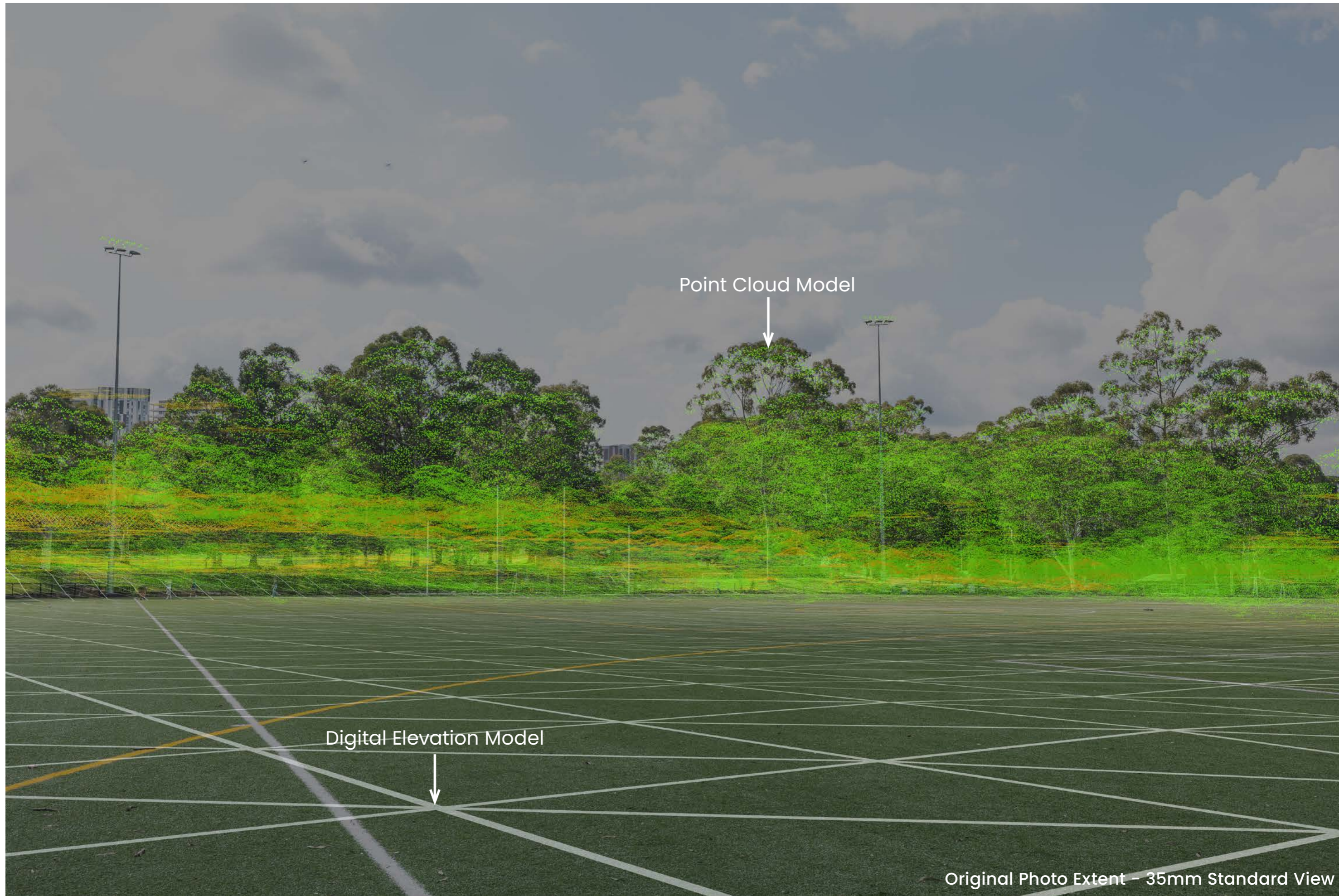
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment

VP18: Looking North East from ELS Hall Park
Existing Conditions 2025-04-29 12:32 AEST

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_18A
REV: -



Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP18: Looking North East from ELS Hall Park
Camera Match 3D Model to Photo (Wire Frame)

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_18B
REV: -

LEGEND

Proposed Development

South Tower
North Tower



Distance to Project - 1.1km
Original Photo Extent - 35mm Standard View



15-21 Cottonwood Cres, Macquarie Park - Visual Assessment
VP18: Looking North East from ELS Hall Park
Photomontage - Proposed Development

DATE: 2026-01-20
JOB NO: P0059330
DWG NO: VP_18C
REV: -