Prepared for: Toscuz Investiment Pty Limited
Date: February 9, 2023

Visual Impact Assessment

Macarthur Grange

architectus™

Architectus Australia Holdings Pty Ltd.
ABN 90 131 245 684

Nominated Architect
Managing Director
Ray Brown
NSWARB 6359

Adelaide
Lower Ground Floor
57 Wyatt Street
Adelaide SA 5000
Australia
T +61 8 8427 7300
adelaide@architectus.com.au

Melbourne
Level 25, 385 Bourke Street
Melbourne VIC 3000
Australia
T +61 3 9429 5733
F +61 3 9429 8480
melbourne@architectus.com.au

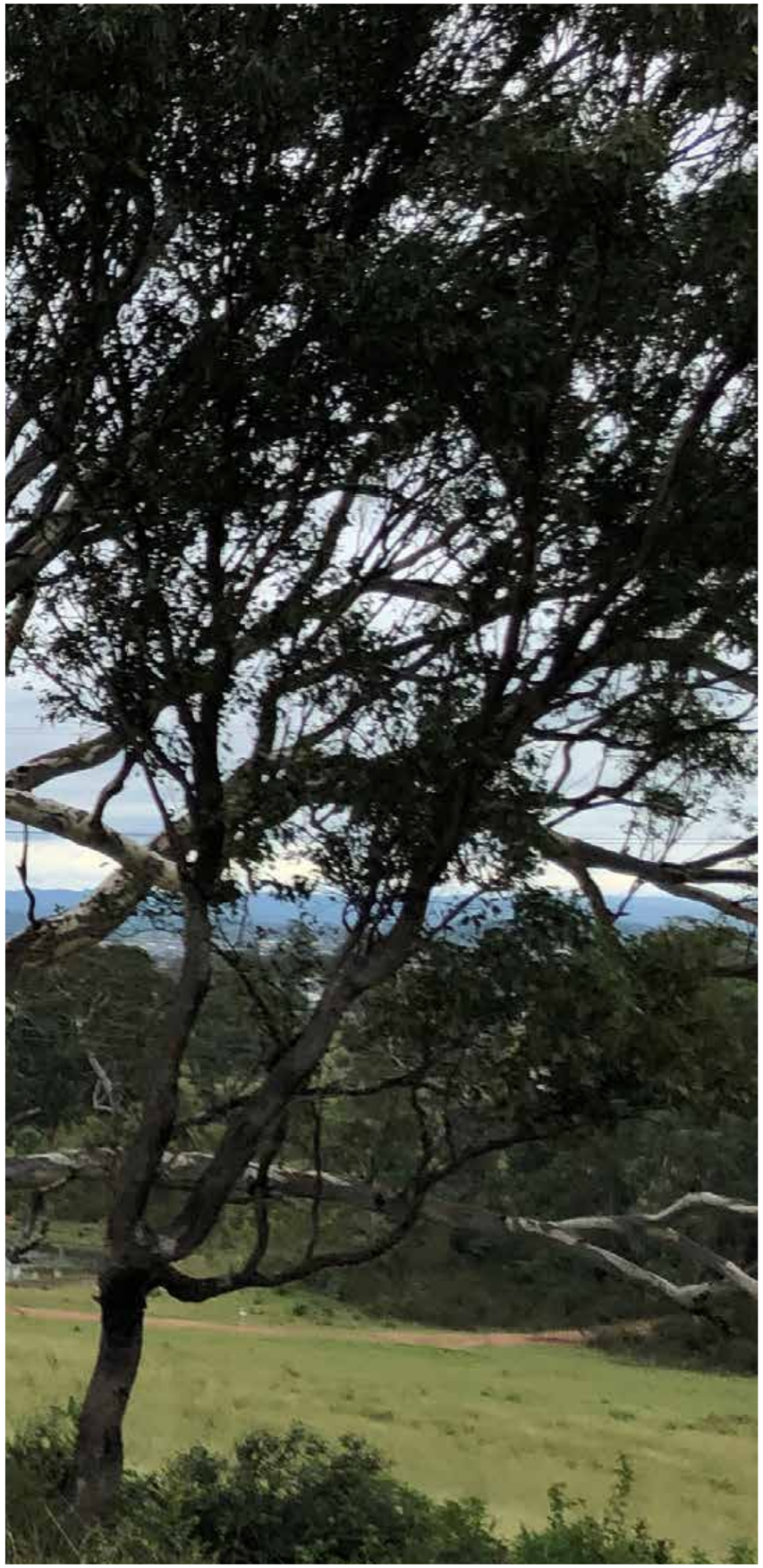
Perth
QV1 Upper Plaza West
250 St. Georges Terrace
Perth WA 6000
Australia
T +61 8 9412 8355
perth@architectus.com.au

Sydney
Level 18, MLC Centre
19 Martin Place
Sydney NSW 2000
Australia
T +61 2 8252 8400
F +61 2 8252 8600
sydney@architectus.com.au

architectus.com.au

Project and report	Macarthur Grange Redevelopment	
Date	February 9, 2023	
Client	Toscuz Investiment Pty Limited	
Project ref no.	190092.01	
Version and date issued	Issue A (Draft for review) - 03/05/20	Approved by: NB
	Issue B (Draft for review) - 19/05/20	Approved by: NB
	Issue C (Draft for review) - 28/05/20	Approved by: NB
	Issue D (Final) - 02/02/2023	Approved by: NB
Report contact	Nick Bucktin Senior Associate, Urban Design and Planning	
This report is considered a draft unless signed by a Director or Principal	Approved by:	

Contents



1 Visual Impact Assessment

Introduction

The project
This Visual Impact Assessment (VIA) has been prepared by Architectus to assess the potential visual impact of the proposed development at Macarthur Grange Golf Course (Lot 3900 DP1170905.

This chapter describes the visual impacts of the proposed development on the site.

The assessment pathway
This VIA has been prepared to support a Planning Proposal (PP), which seeks to amend the current planning controls for the site to allow residential development and supporting land uses. The PP will be submitted to Campbelltown City Council for determination.

Approach to methodology
The methodology used to inform this assessment is based on best practice and Architectus' experience in the field of the assessment of visual impact, including the NSW Land and Environment Court (LEC) Planning Principles in relation to views and impact on public domain views and our experience in preparing VIAs for a variety of residential and other projects.

This assessment has been undertaken using the following two step process:

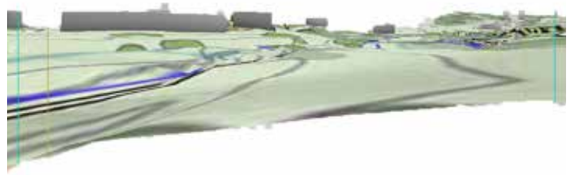
1. Preliminary assessment including photographs for public domain views and 3D model views for private views; and
2. Detailed photo-montage assessment based on key views selected from the above.

Photo-montages process
For each of the photo-montages prepared, the following process has been undertaken, consistent with the approach set out in the NSW LEC 'Use of photo-montages' policy:

– Step 1 - Digital photographs were taken from each of the selected viewpoints in the direction of the proposed development.
– Step 2 - A camera has been located in the digital model using the same focal length. The direction of the camera has been ascertained through comparing points in the photograph against other reference points.
– Step 3 - A computer generated 3D model of the proposed building was prepared and located accurately within the 3D model view.
– Step 4 - A rendered image was produced from the 3D model and a 'mask' created within the photograph to produce the final photo-montage.

Note: The images on this page are provided to demonstrate the production process of photo-montages only. They are process images and therefore the integration of the renders is not entirely resolved.


Step 1 - Photograph taken and location


Step 2 - Camera located in 3D model at surveyed location with matched camera attributes (film/sensor format and focal length) and rotated to match other points within the view.


Step 3 - Computer generated 3D model of the proposed building located within the 3D model view identified from Step 2. This is a process image, and the integration of the render is not entirely resolved at this point


Step 4 - Rendered image produced from 3D model and 'masked' into photograph to produce final photo-montage.

Selection of views for analysis

A preliminary photographic assessment of the site included five (5) views as potential views to be analysed. These views included important locations identified in relevant planning policy and prominent views in the area. The process for selecting and describing each view is provided adjacent.

1. *Selection of views*

A preliminary site analysis was undertaken, which considered the site context, important locations identified in relevant planning policy, prominent views in the area and possible locations of visual impact. Five (5) public domain views were selected for further consideration of visual impact. These are described through in the following pages of this chapter.

Views shown in this chapter are typically 20mm focal length equivalent for a 35mm camera (a wide angle view).

2. *Preliminary consideration of views*

Architectus has undertaken a preliminary consideration of each view's importance and potential for visual impact (e.g. views of documented importance are given higher 'importance' ratings). This is based on the criteria for assessment described in the previous chapter of this document, which includes the relevant NSW LEC Planning Principles.

3. *Selection of views for detailed (photo-montage) assessment*

The Five (5) views were then selected for detailed photo-montage analysis with the final proposal. This selection process for views includes:

- A focus on view locations of documented importance;
- View locations both near and far from the site; and
- Views from the water, that represent the character of the area.

Viewing zones

A number of viewing zones were nominated to categorise the views by distance from the site. The viewing zones have been categorised into two significant areas:

- **Main Roads** (Gregory Hills Drive & Raby Road)
- **Residential area** (Canadian Place & Somme Place)

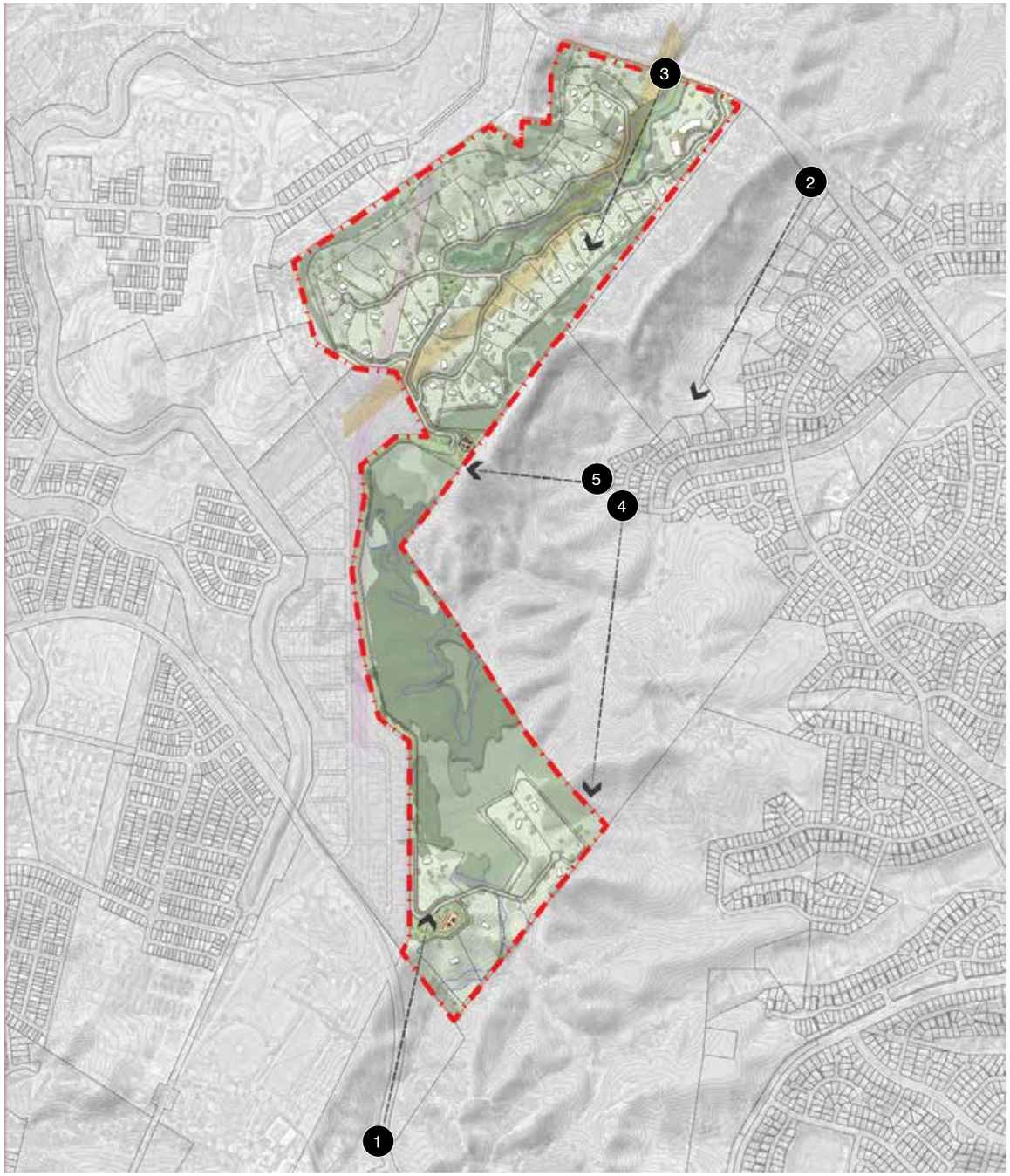
Viewpoints

Viewpoints were initially nominated for visual impact assessment based on views identified in the 'Visual Analysis of Campbelltown's Scenic Hills and East Edge Scenic Protection Lands' report (October 2011), as well as their relative importance and likelihood to be of value to the wider landscape.

The views typically represent locations in the public domain where a relatively significant number of people are likely to congregate or pass, and potentially, experience a view of the proposal. In addition, some viewpoints were chosen because of their public prominence and to assess whether the site can be seen from the viewpoint location.

The table below lists all the viewpoints and the reason for their nomination. No private views were assessed at this stage of the proposal.

Location No.	View Name	Viewing zone
1.	Gregory Hills Drive	Main Roads
2.	Raby Road (along eastern boundary)	Main Roads
3.	Raby Road (fronting the subject site)	Main Roads
4.	Canadian Place	Residential area
5.	Sommes Place	Residential area
6.	Queens Street & Broughton Street	Main Road (regional view)
7.	Broughton Street & Waminda Avenue	Main Road (regional view)



Proposed master plan with viewpoint locations

Assessment methodology

This visual assessment method has addressed views from the surrounding context and area's of landscape and ecological significance.

The visual impact assessment method for the views acknowledges the following five step process of the New South Wales Land and Environment Court Planning Principle:

- Identify the scope of the existing views from the surrounding context
- Identify the locations in the public domain from which the interrupted view is enjoyed
- Identify the extent of the obstruction at each relevant location
- Identify the intensity of public use of those locations
- Review any document that identifies the importance of the view to be assessed.

Standards for photography

All individual photographs have been taken with a 20mm focal length equivalent for a 35mm camera (wide angle view). This is the accepted standard of the New South Wales Land and Environment Court for approximating the normal human depth of field, so that the size of the image approximates the size of the object as seen by the eye from the same location.

Preparation of the masked outline overlays involved the following steps:

- Digital photographs were taken from each of the selected viewpoints in the direction of the proposed development;
- Each viewpoint was surveyed for a precise location and reduced level (RL) by Architectus;
- Computer generated 3D models of the buildings in the lodged and revised schemes were prepared
- The 3D model was inserted into the photographs from the key vantage points using the same 20mm and
- The precise RL of the location (plus 1.7m to represent eye height)

A mask is placed over the location of the 3d model, illustrating its extent in the view.

This section provides an initial assessment of a wide range of views which may be affected by the proposals. This provides an overall scope of the locations from which views may be obtained, what the likely impact of the proposal will be on these views and, where the impact is likely to be high or the view is important.

The assessment and categorisation of visual impacts is based on the New South Wales Land and Environment Court Planning Principles and a qualitative assessment is set out under the following headings:

- Importance of the view;
- Visual impact; and
- Visual absorption capacity.

A visual simulation (photo-montage) of the proposed development has been prepared for each view that was nominated for detailed visual impact assessment. The photo-montage was then used to determine the visual impact of the proposed development.

The photo-montages shown demonstrate the building form only; they do not show detailed articulation or material selection.

The importance of the view is defined differently for public domain and private views with weighting applied which is consistent with the New South Wales Land and Environment Court Planning Principles. The criteria are defined as follows.

Importance of the public domain view

It includes consideration of the following factors:

- The context of viewer (including whether the view is static or dynamic, obtained from standing or sitting positions);
- Elements within the view (including whether iconic elements or water views are present, the existing composition of the view, and any existing obstructions to the view);
- The number of viewers;
- The distance to the proposal; and
- The likely period of view.

The above features are described for each view and a final categorisation of view importance has been produced as a summary.

The following table provides a definition of example use cases for each categorisation of the importance of the view:

Importance of the public domain view	Definition
High	Unobstructed views of highly valuable or iconic elements from highly important locations in the public domain.
Moderate-High	Generally unobstructed views including important visual elements from well-used locations. The view attracts regular use of this location by the public.
Moderate	Views including elements of moderate importance with little obstruction which are obtained from moderately-well used locations. The view may assist in attracting the public to this location.
Low-Moderate	Views with some important elements which may be partially obstructed or from a less well used location. The view may be a feature of the location however is unlikely to attract the public to it.
Low	Views from spaces or streets with little pedestrian use or obstructed views or views with few important elements. Obtaining views is not a focus of using the space.

Likely visibility

Likely visibility provides an estimation of how visible the proposals will be in the view. The table below provides a definition of the categories used.

Likely visibility	Definition
High	The proposal will dominate the field of view.
Moderate	The proposal will form part of the overall composition of the view.
Low	The proposal will be noticeable as a minor part of the field of view.
Negligible	The proposal will not be noticeable.

Visual absorption capacity

The visual absorption capacity is an estimation of the capacity of the landscape and built environment to absorb development without creating significant visual change that would result in a reduction of scenic or visual quality. This is usually dependent on vegetation cover, landforms and existing built form and is influenced by the level of visual contrast between the proposal and the existing elements.

The degree of contrast between the various elements of the development and the physical environment/ landscape determine the level of visual absorption. Factors such as scale, shape, colour, texture and reflectivity of the development compared to the visual context define the degree of contrast. For this study, the rating outlined in the table below has been used in the assessment of visual absorption capacity.

As this is a high level assessment to inform a planning proposal, and materials and detailed form have not yet been established, this rating has concentrated on the bulk of the proposal in relation to screening factors and contextual development.

Rating	Definition
High	Existing landscape and built environment able to absorb development. Low degree of visual contrast will result from building envelopes.
Moderate	Existing landscape able to absorb some development. Some visual contrast will result from building envelopes.
Low	Existing landscape unable to absorb development. High degree of visual contrast will result from building envelopes.

Relative number of viewers and likely period of view

The tables below shows the criteria used in evaluating the relative number of viewers and period of view.

Relative number of viewers	Definition
High	> 1,000 people per day
Moderate	100-1,000 people per day
Low	< 100 people per day

Period of view	***Definition***
High (long-term)	> 120 minutes
Moderate	1-120 minutes
Low (short-term)	< 1 minute

Visual impact rating

The visual impact is a qualitative assessment of the impact of the proposal on the view. It includes consideration of:

- The quantitative extent to which the view will be obstructed or have new elements inserted into it by the proposed development;
- Whether any existing view remains to be appreciated (and whether this is possible) or whether the proposal will make the existing view more or less desirable, or locations more or less attractive to the public;
- Any significance attached to the existing view by a specific organisation;
- Any change to whether the view is static or dynamic.

A description of the visual impact rating for each view has been provided, with a final categorised assessment of the extent of visual impact provided under the following categories:

Extend of visual impact	Definition
High	The proposal obstructs iconic elements or elements identified as highly significant within the existing view.
Moderate	The proposal obstructs some elements of importance within the existing view.
Low	The proposal obstructs minor elements within the existing view.
Negligible	The proposal will not be noticeable within the view without scrutiny.

View One: Gregory Hills Drive

Viewing zone	Main Road
Description of view	The view is looking north along Gregory Hills Drive (just pass the St Gregory College entrance) with outlook towards the southern boundary of the subject site.
Context of viewer	Viewers are predominately passers-by traveling in vehicles along Gregory Hills Drive.
Likely visibility	Moderate.
Likely period of view	Moderate (1-2 minutes). The viewers are travelling at high speeds along Gregory Hills Drive pass the site, and there is currently no pedestrian footpaths or cycleways between the intersection of St Gregory College through to Donovan Boulevard intersection, so there is no opportunity to linger.
Importance of the public view	Low. Due to the topography and existing mature landscape on the subject site and along road verge, views to the proposal will be screened and no interrupt the distance views of the Scenic Hills area.
Relative number of viewers	High
Visual adsorption capacity	High
Visual impact rating	Low. The proximity of the view to the proposal means it is apparent, however due to the existing vegetation, the topography sloping down to the southern corner, and the proposed built form keep away from the ridge-line, the distance views looking north over the Scenic Hills will not be obstructed.
Mitigation	The proposal includes future landscape planting along the boundary edge that interfaces with Gregory Hills Drive to provide an additional level of screening to the built form and retain the landscape character.

Viewpoint location

Existing view

Photo-montage with proposal (Note: demonstrating indicative building envelopes only

View Two: Raby Road along eastern boundary

Viewing zone	Main Road
Description of view	The view is looking south from Raby Road (along the eastern edge of the subject site) with distance views of the southern portion of the subject site.
Context of viewer	Viewers are predominately passers-by traveling in vehicles along Raby Road.
Likely visibility	Negligible- low.
Likely period of view	Low (less than a minute) Due to the active nature of the view and dense vegetation along the road verge, the view will only be experience for a short period of time, with no opportunity to linger.
Importance of the public view	Low. Due to the existing residential development (Kearns) backing onto Raby Road, and existing vegetation, the view is unlikely to attract public use. The proposal does not obstruct views.
Relative number of viewers	High
Visual adsorption capacity	High
Visual impact rating	Negligible. Only a small section of the proposal can be seen from the view, however the distances and location, the proposal sits low in the topography and is screened by existing vegetation.
Mitigation	Not required as visual impact is negligible.

Viewpoint location

Existing view

Photo-montage with proposal (Note: demonstrating indicative building envelopes only

View Three: Raby Road fronting the subject site

Viewing zone	Main Road
Description of view	The view is looking south-east from Raby Road into the subject site, with views up through the valley of the golf course.
Context of viewer	Viewers are predominately passers-by traveling in vehicles along Raby Road.
Likely visibility	High
Likely period of view	Low. (Less than a minute) Due to the active nature of the view and dense vegetation along the road verge, the view will only be experience for a short period of time, with no opportunity to linger.
Importance of the public view	Low-Moderate. Passing vehicles are likely to experience short-term views. Although, the site sits within the Scenic Hills area, the view is unlikely to attract public use.
Relative number of viewers	High
Visual adsorption capacity	Low
Visual impact rating	Moderate. While the proposal does obstruct some elements of the existing view along the valley, the proposal is predominately screened by vegetation and with the low building height and wide building separation, decreases the impact of the view.
Mitigation	The proposal includes future landscape planting along the boundary edge that interfaces with Raby Road, as well as the re-vegetation of the existing riparian corridor, to provide an additional level of screening to the built form and retain the landscape character.

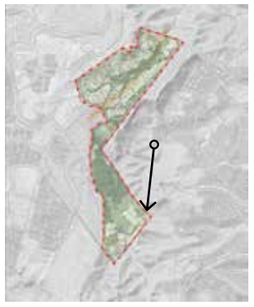
Viewpoint location

Existing view

Photo-montage with proposal (Note: demonstrating indicative building envelopes only

View Four: Canadian Place

Viewing zone	Residential neighbourhood
Description of view	The view is towards the southern portion of the subject site from the cul-de-sac of Canadian Place, looking over rural lands.
Context of viewer	Viewed primarily by residents on Canadian Place from the side and back boundaries of their properties.
Likely visibility	Negligible
Likely period of view	High. Residents on Canadian Place will experience long-term views.
Importance of the public view	Low-Moderate. The view is unlikely to attract public use; however, it sits within the Scenic Hills area. The proposal does not obstruct views of any significant items.
Relative number of viewers	Low
Visual adsorption capacity	High
Visual impact rating	Negligible. Due to the topography and the vegetation the proposal is obstructed.
Mitigation	Not required as visual impact is negligible.



Viewpoint location

Existing view

Photo-montage with proposal (Note: demonstrating indicative building envelopes only

View Five: Sommes Place

Viewing zone	Residential neighbourhood
Description of view	The view is from Somme Place, looking at the ridge-line running along the eastern boundary of the subject site.
Context of viewer	Viewed primarily by residents on Sommes Place from the front and site boundaries of their properties.
Likely visibility	Negligible
Likely period of view	High. Residents on Sommes Place will experience long-term views
Importance of the public view	Low-Moderate. The view is unlikely to attract public use; however, it sits within the Scenic Hills area. The proposal does not obstruct views of any significant items.
Relative number of viewers	Low
Visual adsorption capacity	High. The proposal is completely screened by the ridge and the existing vegetation.
Visual impact rating	Negligible. Due to the topography and the vegetation the proposal is obstructed.
Mitigation	Not required as visual impact is negligible.

Viewpoint location

Existing view

Photo-montage with proposal (Note: demonstrating indicative building envelopes only

View Six: Queens Street/ Broughton Road

Viewing zone	Main Road
Description of view	The view is from Queen Street/ Broughton Street.
Context of viewer	Viewers are predominately passers-by traveling in vehicles along Queen Street.
Likely visibility	Negligible
Likely period of view	Negligible. The site is not visible from this location.
Importance of the public view	Negligible. The site is not visible from this location.
Relative number of viewers	High
Visual adsorption capacity	High. The site is not visible from this location.
Visual impact rating	Negligible. Due to the topography, the proposal is not visible from this location.
Mitigation	Not required as visual impact is negligible.

Viewpoint location

Viewpoint location (Zoomed In)

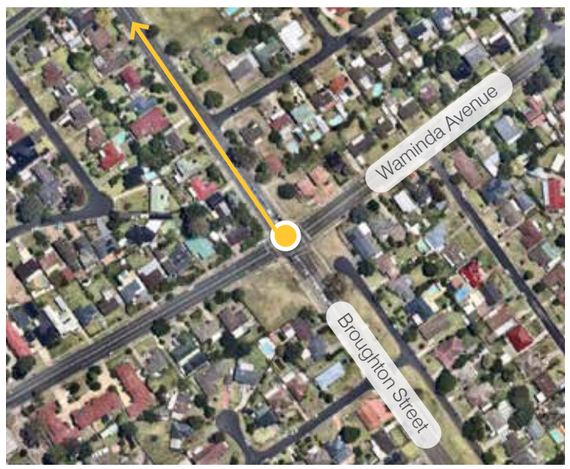
Existing view

Photo-montage with proposal (Note: demonstrating site boundary (in red) behind the ridgeline- not visible due to topography)

View Seven: Broughton Street/ Waminda Avenue

Viewing zone	Main Road
Description of view	The view is from Broughton Street/ Waminda Avenue
Context of viewer	Viewers are predominately passers-by traveling in vehicles along Broughton Street.
Likely visibility	Negligible
Likely period of view	Negligible. The site is not visible from this location.
Importance of the public view	Negligible. The site is not visible from this location.
Relative number of viewers	Low
Visual adsorption capacity	High. The site is not visible from this location.
Visual impact rating	Negligible. Due to the topography, the proposal is not visible from this location.
Mitigation	Not required as visual impact is negligible.

Viewpoint location



Viewpoint location (Zoomed In)

Existing view

Photo-montage with proposal (Note: demonstrating site boundary (in red) behind the ridgeline- not visible due to topography)

architectus™