E T H O S U R B A N

Visual Impact Assessment

Ivanhoe Estate Redevelopment Concept Development Application

Submitted to the NSW Department of Planning and Environment On behalf of the Aspire Consortium

14 December 2017



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A Visual Impact Assessment Virtual Ideas

Executive Summary

A concept development application has been made to the Department of Planning and Environment by the Aspire Consortium for redevelopment of the Ivanhoe Estate. The Department of Planning and Environment has issued Secretary's Environmental Assessment Requirements for this application, which include a requirement to prepare a Visual Impact Assessment.

Ethos Urban has prepared a Visual Impact Assessment on behalf of the Aspire Consortium. This Visual Impact Assessment has been based on established NSW, national and international policy and practices, and includes assessment of visual effect, assessment of visual impact and determination of the acceptability of the visual impact.

The findings of the Visual Impact Assessment are that overall the proposal will have a medium visual effect, and from certain viewpoints a high effect, on the existing visual condition. Application of physical absorption capacity and compatibility results in an overall medium visual impact.

Assessment against the SEARS and other relevant planning documents found that while the overall visual impact of the proposal is medium, it is acceptable on a balance of considerations. In particular, the proposal is consistent with, and promotes relevant, key planning documents that seek to guide the transition of Macquarie Park to a more dense, urban place with significant built form scale and height. In addition, the proposal is substantially the same as the existing planning framework for the site.

The VIA identifies a number of key elements in the concept development application that are critical for achieving this acceptable impact, in particular mitigating visual impact from Epping Road and new development on Herring Road. These include vegetation buffers, separation distances between buildings and building alignment. On this basis, the VIA recommends that their integrity be maintained as part of the current assessment process and are carried through to subsequent, detailed design work and the development application process.

1.0 Introduction

This report documents a Visual Impact Assessment (VIA) of the proposed Ivanhoe Estate redevelopment (the proposal), Macquarie Park (Concept Development Application SSD 8707) (the concept development application). It has been prepared by Ethos Urban on behalf of the Aspire Consortium. It is based on input provided by Bates Smart, CMS Surveyors, Virtual Ideas and AAM and documented in **Appendix A**.

The VIA responds to the Secretary's Environmental Assessment Requirements (SEARS) issued by the Department of Planning and Environment (the Department) dated 29 October 2017.

The purpose of the VIA is to determine whether the visual impact of the proposal is acceptable.

To achieve this purpose, this report is structured as follows:

- Parts 1 to 5: provide and introduction, background and overview of the site, its context and the proposal
- **Parts 6 and 7**: provide an assessment of the visual effect and visual impact of the proposal on the existing visual catchment
- Part 8: provides an assessment of acceptability of visual impact
- **Part 9**: provides a conclusion.

The scope of the VIA has been set to respond to the SEARS. The relevant SEARS and where they are addressed in this report is identified in **Table 1**.

Table 1: Address of SEARS

SEARS	Part of report
The visual impact assessment, including focal lengths, must be done in accordance with Land and Environment Court requirements	Appendix 1
The consultant's methodology should be explicit. This may include a flow chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities	Section 3 – Methodology, supplemented by the introduction of each subsequent key section where relevant
As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework	Section 7 – Assessment of acceptability of visual impact
Visual catchment should be defined an explained	Section 6.1.1 – Visual catchment
An assessment matrix should be produced including the number of viewers, period of view, distance of view, location of viewer to determine visual impact	Section 6 – Visual effect and Section 7 – Visual impact
Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified. This must include, but is not limited to Epping Road, Herring Road, Peach Tree Road and Shrimptons Creek foot / bicycle path	Section 6.1.1 – Visual catchment
Categories of views (eg from public open space, from key streets, from main buildings and from key heritage items) should be defined	Section 6 – Visual effect and Section 7 – Visual impact
Photos area required for representative view categories, plotted on a map	Section 6 – Visual effect
Reference to be made to site analysis	Section 6 – Visual effect

SEARS	Part of report
Provide a key plan indicating where viewpoints are located and narrative explaining why these have been selected	Section 6 – Visual effect
The built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact	Section 6 – Visual effect
The location of cross sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment	Cross sections are not a part of established VIA methodology, and will not add value to the assessment of either visual effect or visual impact. On this basis they have not been included
Vertical exaggeration should provide an accurate rather than flattened impression of buildings in the context of the visual catchment	Section 6 – Visual effect
A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views	Section 6 – Visual effect
Assessment must benchmark against the existing situation with the proposed plans	Section 6 – Visual effect
Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment	Section 6 – Visual effect
As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context	Cross sections are not a part of established VIA methodology, and will not add value to the assessment of either visual effect or visual impact. On this basis they have not been included
A comparison of before and after is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 460 angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating	Section 6 – Visual effect and Appendix 1

2.0 Background

In July 2012, the City of Ryde nominated the Macquarie University Station area (which includes the site) to the Department as a potential Priority Precinct (then called an Urban Activation Precinct). Following investigation, the Department declared the area a Priority Precinct in 2015. Priority Precincts are areas that the Department considers to have potential to contribute toward regional or state wide planning outcomes, including housing supply and jobs creation. Designation as a Priority Precinct signalled that the Department has an interest in facilitating the ability of the area to support greater development.

In September 2015, the Department implemented a new planning framework for the Macquarie University Station area. The revised planning framework rezoned the site and significantly increased maximum FSR (to 2.9:1) and height (between 45m and 75m). The intent of the revision was to facilitate redevelopment that leveraged the areas location adjoining the Macquarie Park jobs hub and excellent transport accessibility to deliver a greater amount and choice of homes in a mixed use, high density environment. This confirmed that change was intended to occur in the future, and set the broad parameters within which the scale and nature of this change was to be considered.

In August 2017, Aspire Consortium, comprising Frasers Property Australia, Citta Property Group and Mission Australia Housing was announced as the successful proponent to develop the site on behalf of the Land and Housing Corporation (LAHC). This concept DA is generally consistent with the planning framework for the site, and represents the first step in the redevelopment of the Ivanhoe Estate. Subject to its approval, subsequent, more detailed development applications (DAs) will be made for the site.

3.0 Methodology

There is currently no universally agreed method of undertaking VIA in NSW. Therefore, the methodology used to inform this VIA is based on established NSW practices and national and international policy. The scope of the SEARS in relation to visual impact closely resemble the process established by leading NSW practitioner Richard Lamb and Associates. On this basis, the general framework of this methodology has drawn heavily from RLA practices. Other documents that provide broader guidance, as well as specialist guidance in particular areas of VIA, have been considered where appropriate. These include:

Broad

- Visual Management System, United States Department of Agriculture Forest Service, 1974
- Guidance for Landscape and Visual Impact Assessment, United Kingdom Landscape Institute and the Institute of Environmental Management & Assessment, 2005

Specific

- Implementation Guideline No. 8: Identifying and protecting scenic amenity values, Queensland Government, 2008
- Planning Practice Note 43: Understanding Neighbourhood Character, Victorian Department of Environment, Land, Water and Planning, 2015.

The methodology for the preparation of the photomontages has been prepared in accordance with the Land and Environment Court Policy on this matter (refer to **Appendix 1**).

The core methodology follows three key steps:

- 1. visual effect assessment of the nature and scale of the proposal on the existing visual catchment
- 2. visual impact assessment of the impact of the visual effect following application of other, relevant considerations
- 3. acceptability of the visual impact assessment of the visual impact against a balance of other, broader considerations relevant to the proposal.

Based on the findings of this core methodology, a determination is then made as to whether the proposal can be supported in its current form from a visual impact perspective, and if so, whether any elements are critical to ensure its continued acceptability as it evolves from concept to detail design and development.

More specifically, the methodology comprises the following steps.

Visual effect

- Review the proposal
- Prepare a visual model of the proposal
- Identify and understand relevant key planning instruments
- Review topographic maps and undertake site visits to determine the visual catchment and key viewpoints to the site within the catchment
- Take photos from the viewpoints
- Undertake survey work in relation to the viewpoints
- Superimpose the visual model into the viewpoint photos to create accurate photomontages
- Assessment of visual effect using baseline factors
- Assessment of visual effect using variable factors

Visual impact

Assess of visual impact by applying physical absorption capacity and compatibility with urban features

Acceptability of the visual impact

- Assessment of the acceptability of visual impact against relevant considerations drawn from the SEARS and other planning instruments
- Identification of elements that are critical to ensure the continued acceptability of the proposal as it evolves from concept to detail design and development
- Drawing a conclusion.

4.0 The site and context

4.1 The site

The site is located in Macquarie Park near the corner of Epping Road and Herring Road within the City of Ryde Local Government Area (LGA) (refer to **Figure 1**). It is approximately 8.2 hectares in area and currently accommodates 259 social housing dwellings in a mix of townhouse and four storey apartment buildings set around a cul-de-sac street layout.

Land to the immediate north and east of the site is occupied by multi-level residential buildings. Land to the immediate south is occupied by the Shrimptons Creek open space corridor, which includes dense riparian vegetation and cleared, grassed informal recreation areas. Land on the opposite of Shrimptons Creek from the site is occupied by multi-level office buildings clearly visible from the adjoining Epping Road. Land to the west of the site is occupied by Epping Road, which is six travel lanes plus additional turning lanes in this location. Further to the west is land occupied by low density residential uses.

The site is located in the Macquarie University Station Priority Precinct of the broader Macquarie Park Corridor. Under relevant planning instruments, both areas are planned for significant change. Most land in Macquarie Park is to be consolidated for high value employment uses. However, certain areas such as the Macquarie University Station Priority Precinct as well as the North Ryde Station Precinct and potentially land close to Macquarie Park Station have either been planned for, or are being planned for, redevelopment for mixed use and higher density residential uses. Large scale, high rise, high density residential development is now already occurring in a number of locations, including to the north of the site at the corner of Herring and Epping Roads (Macquarie Park Village) and at the corner of Epping and Delhi Roads (Lachlan's Line). **Figure 2** to **Figure 4** below shows artist impressions of these developments.



Figure 1 – Site location



Figure 2 – Macquarie Park Village – artists impression



Figure 3 – Lachlan's Line, North Ryde – artist impression



Figure 4 – Lachlan's Line, North Ryde – artist's impression

4.2 Planning context

The main planning instruments that guide development on the site include:

Regional and District

- Draft Greater Sydney Region Plan
- Revised draft North District Plan

Local

- City of Ryde Local Environmental Plan
- City of Ryde Development Control Plan 2014, Part: 4.5 Macquarie Park Corridor.

Draft Greater Sydney Region Plan and the revised draft North District Plan

Both plans identify Macquarie Park as a key part of the Eastern Economic Corridor, and a Strategic Centre in its own right. The plans seek to transition Macquarie Park from its current business park nature to a vibrant commercial centre. Supporting this outcome will be a focus on encouraging health and education activities, and continuing the introduction of complementary uses such as high density residential, cafes, restaurants and retail and in the right locations to enhance the quality of the centre. As can be expected of higher level, strategic planning instruments, they are silent on visual impact as it relates to Macquarie Park.

City of Ryde Local Environmental Plan

The City of Ryde Local Environmental Plan (the LEP) was amended by the Department in 2015 to:

- zone the site a combination of B4 Mixed Use, RE1 Public Recreation and B7 Business Park
- set a maximum FSR of 2.9:1

• set a maximum height of between 45 metres to 75 metres.

City of Ryde Development Control Plan 2014, Part: 4.5 Macquarie Park Corridor

While the DCP was prepared prior to the LEP being amended, it remains a useful frame of refence in which to consider the preferred broad future intent of the Corridor. The vision for the Corridor under the DCP is for its maturation into a premium location for globally competitive businesses with strong links to the university and research institutions, as well as having an enhanced sense of identity, high-quality, well designed, safe and liveable environment with three accessible and vibrant railway station areas providing focal points.

The DCP provides limited guidance in terms of visual impact. However, it does note that taller buildings have an increased impact on their surroundings, and seeks to manage taller buildings primarily through numerical controls. The DCP also notes that the forms of taller buildings should contribute positively to the skyline of the Corridor, and contribute to the scale and proportion of the urban form.

5.0 The proposal

The concept development application seeks to replace all existing development on the site with a new mixed use community comprising:

- approximately 3,500 new dwellings, including social and affordable housing
- residential flat buildings
- · seniors housing, comprising a residential care facility and self-contained dwellings
- a high school
- child care centres
- minor retail development
- community uses
- parks, streets and pedestrian connections
- vehicular and intersection upgrades.

The concept development application includes proposed building envelopes and indicative building massing. It also seeks to establish the Ivanhoe Estate Design Guidelines to guide the future detailed design of development, including public domain and built form.

6.0 Visual effect

This part of the report describes the existing visual environment and assesses the visual effect of the proposal. Assessment is made against baseline and variable factors. Baseline factors are criteria that are independent of the nature of viewing locations. On this basis, they can be discussed for the site as a whole. Conversely, variable factors are criteria that differ according to viewing location. On this basis, they must be discussed individually.

To provide a representation of the existing visual environment and to enable discussion of variable visual factors, a selection of key viewpoints has been identified, and views have been captured from these viewpoints. The location of these key viewpoints is shown in **Figure 6**.



Figure 5- View locations

6.1 Baseline factors

6.1.1 Visual catchment

The visual catchment is the area that has the potential to be impacted by a proposal. It is created by the interrelationship of a number of factors, including elevation, landform and landscape elements. The visual catchment for the site comprises parts of the suburbs of Macquarie Park, North Ryde and Marsfield.

North of Sydney Harbour and the Parramatta River, land rises gradually northwards towards a pronounced ridgeline that runs east-west in the vicinity of Wahroonga, Pennant Hills and Cherrybrook. North of this ridgeline, land forms a gently undulating plateau that is punctuated by deep river and creek valleys before falling away to the north again towards the Hawkesbury River. The exception to this pattern is the deep, pronounced valley of the Land Cove River.

Within this broad pattern, the landform is gently undulating, featuring small hills, ridgelines, valley and gullies. This creates locally contained visual catchments. Despite this, as it is generally higher, views of the site from land to the north may be visible. However, this will be mitigated by the undulating nature of the land, and will depend on factors such as the presence of blocking elements such as buildings and trees. Sweeping vistas to the site are unlikely to occur. On this basis, the site will generally have low to medium visibility from higher points to the north.

On a district level, the main landform feature is the Shrimptons Creek valley. This creates a horseshoe shaped topography. Ridgelines run along Lane Cove Road to the south-east, Herring Road to the north-west and Blaxland Road to the south-west. Land within these confines falls towards Shrimptons Creek. On this basis, the district level visual catchment can be defined by these roads. The site has medium visibility from points within this district catchment.

Locally, the site is located on the south-eastern side of a ridgeline that runs south-west to north-east separating Shrimptons Creek to the south-east from Mars Creek to the north-west. The site occupies land near the crown of

this ridgeline (an elevation of approximately RL71.6m) to near its lowest point near Shrimptons Creek (an elevation of approximately RL45m). From its north-western end near the crown of the ridge, land remains generally level in the direction of Epping Road before falling away to the north-west to a small gully and south-west along Herring Road. Land falls immediately away from this point to the north along Herring Road and east along Epping Road. The fall is gentle to the north, but more pronounced to the south. The site has low to high visibility from points within the local catchment. Largely due to this landform, the site has high visibility to Epping Road. This visibility is mitigated by the presence of dense low to medium storey vegetation and regularly spaced, semi-mature eucalypts along the sites boundary with the road.

While views of the site from elevated locations such as high rise buildings in the Sydney CBD or Chatswood are likely to be obtained, they have not been used to delineate the visual catchment due to the low number of people who would have access to these views compared to the physical area that would need to be included.

6.1.2 Visual character

Visual character is formed by patterns created by the relationship of all elements within an area, including both the public and private domain. the combination of the public and private realms (Victorian Department of Environment, Land, Water and Planning, 2015).

Much of the local visual catchment for the site has a late 20th century, low to medium density, suburban character. While containing a range of different land uses, building scales and heights, the visual impact of the built form is mitigated by roadways, vegetation, setbacks from boundaries and separation between buildings. Of all surrounding areas, land to the south-west has the most suburban visual character. This is formed by the public domain, which features narrow paved roadways with generous nature strips, low fencing separating the public and private domains and one and two storey houses and townhouses with generous setbacks from boundaries, in particular the street, set in a heavily landscaped private domain. Where fronting Epping Road, engagement between the public and private domain is significantly diminished through the presence of either high, solid fencing or greater street setbacks. The suburban character visual character of the Epping Road part of the visual catchment is further strengthened by the large, raised and grassed embankment of Booth Reserve to the south-west of the site, the substantial grassed setback to the Avaya building, vegetation along Shrimptons Creek and the Epping Road boundary of the site and the width of Epping Road itself.

As its is occupied by multi-storey apartment buildings, land to the north-east around Peach Tree Road has an urban visual character. However, again this is mitigated by the siting and form of buildings, with generous setbacks and separation distances and relatively modest scale of the buildings, and the presence of vegetation in both the private and public domains. Land to the south-east has a business park character, with visual impact of bulky and taller buildings mitigated by similar elements such as separation distances and vegetation. Land to the north-west across Herring Road is currently undergoing transition from a low density form to an urban form. An example of the future character of this is provided by recent development at the intersection of Saunders Close and Herring Road. The built form of this development is dominant in the landscape, having significant bulk and height and setbacks to roads are significantly reduced. This creates a much more urban visual character.

The presence of this development, the nearby Macquarie Village development and the ability for a similar form of development in the area under the Macquarie University Station Priority Precinct will significantly alter the visual character of the surrounding area from its current late 20th century, low to medium density, suburban character to a more contemporary, higher density urban character. In broader terms, taken together with the Lachlan's Line precinct and changes that may be allowed under current planning investigations around Macquarie Park Station, this will reshape the urban form and skyline of the Macquarie Park Corridor. The urban form and skyline will change from having a solely low to medium rise, widely spaced visual profile to being punctuated by clusters of higher rise, more dense development. This change will in particular be highly visible for people travelling on Epping Road, as people will readily experience these clusters due to their proximity to the road.

6.1.3 Scenic quality

Scenic quality, or scenic amenity, is determined by a combination of factors. Most importantly it considers concepts of scenic preference and visual exposure from the public domain (Queensland Government, 2007).

Scenic preference indicates people's relative liking of different landscape features. Visual exposure is the extent to which a place in the landscape is seen from important public viewing locations (eg roads, recreation areas, schools, golf courses).

The scenic preference of the visual catchment is low to moderate. It mainly containes elements ranked as having low scenic preference, which includes housing, commercial development and major roads, and does not contain elements ranked as having high scenic preference such as water or forests. However, parts of it do contain open parkland in the form of Booths Reserve, which is ranked as having a moderate scenic preference.

The site will have low visual exposure to important public viewing locations. However, due to a number of factors, including the absence of foreground features, the site will have high visual exposure to Epping Road for people travelling to the north-west. However, this is mitigated by the site boundary vegetation. To a lesser degree, the site will also have visual exposure to Herring Road and parts of the Shrimptons Creek reserve.

Overall, the scenic quality of the visual catchment is low to moderate.

6.1.4 View place sensitivity

View place sensitivity is a measure relevant to the public domain. The main public locations in the visual catchment from which a view to the site can be obtained are roads and parks. Due to the large number of people who have the opportunity to obtain close and middle distance views to the site, Epping Road has high view place sensitivity. Due to people potentially being able to obtain close to middle distance views to the site during sustained periods of time associated with recreation activities, parts of the Shrimptons Creek corridor such as Booth Reserve and Cottonwood Park also have a high view place sensitivity.

6.1.5 Viewer sensitivity

Viewer sensitivity is a measure relevant to private domain. Viewer sensitivity is usually a relevant consideration in relation to the private domain, in particular residential areas. It is seldom a key matter for commercial areas. The main exception to this would be where a decision to invest in a premises was made on the basis of the quality of available views (eg CBD views to Sydney Harbour). Viewer sensitivity decreases with distance. The highest impacts occur within the closest sensitivity range (within 100m), with moderate sensitivity at the medium sensitivity range (100m – 1000m) and low sensitivity beyond 1000m (RLA 2016).

On this basis, there are three residential areas with high viewer sensitivity:

- 1. Peach Tree Road
- 2. The south-western side of Epping Road and adjoining Booth Street precinct
- 3. Herring Road.

The Peach Tree Road area is the only area that contains properties that directly borders the site. Views from these properties to the site, in particular at lower levels, will be mitigated by contiguous, semi-mature eucalypts on the site's boundary. Views from across Peach Tree Road to the site will be mitigated by these trees as well as the intervening built form.

Similarly, views to the site from the south western side of Epping Road will be mitigated by the sites boundary vegetation. Views from the adjoining Booth Street precinct will be mitigated by the intervening built form. Views to building A1 will be obtained from Herring Road, and the entirety of the site from new apartment buildings on the northern side of Herring Road. In addition to views to the site, based on advertising material accompanying its sale, long distance views to features such as the Sydney and Chatswood CBDs can also be obtained from the upper levels of these apartment buildings. Concept plan approval was granted by the Planning Assessment Commission for the most recent and largest of these developments (Macquarie Village) in 2012. In the project application, it was noted that the area was undergoing transition to a more dense urban environment, and that this was relied on as a ground for justification. The approval coincided with the Departments announcement of the Macquarie University Station Priority Precinct in late 2012.

6.2 Variable factors

The variable factors considered for each view are:

- 1. View composition type
 - a) Expansive
 - b) Restricted
 - c) Panoramic
 - d) Focal
 - e) Feature
- 2. Relative viewing level
 - a) Above the site
 - b) Level with the site
 - c) Below the site
- 3. Viewing period
 - a) Short
 - b) Long
 - c) Irregular
 - d) Regular
- 4. Viewing distance
 - a) Close range (<100m)
 - b) Medium range (100m 1,000m)
 - c) Long range (>1,000m)
- 5. View loss or blocking

6.3 Viewpoint 1: Intersection of Epping Rd and Herring Rd

Overall, the proposal will be perceived as being distinct and prominent in the landscape. On this basis, it will have a high effect on the existing visual environment visible from this viewpoint. This is largely due to:

- close to medium range of the viewpoint
- Herring Road and Epping Road occupying the foreground, which provides an absence of permanent landscape features that block or impede views
- visual exposure to a large part of the proposal.

Viewpoint 1: Intersection of Epping Rd and Herring Rd	
Category of view	Public domain, main road
View composition type	Feature
Relative viewing level	Slightly elevated with partial views over the site
Viewing period	Short, with opportunities for regularity
Viewing distance	Close to medium
View loss or blocking	No loss of valuable views of landscape features from ground level

Table 2: Viewpoint 1: Intersection of Epping Rd and Herring Rd



Figure 6 – Viewpoint 1: Intersection of Epping Rd and Herring Rd, existing view



Figure 7 – Viewpoint 1: Intersection of Epping Rd and Herring Rd, proposed view

6.4 Viewpoint 2: Epping Rd near Sobraon Rd

Overall, the proposal will have a low effect on the existing visual environment visible from this viewpoint. This is largely due to:

- medium to long range of the viewpoint
- presence of the Macquarie Village development closer to the viewer and directly in front of the proposal
- visual exposure to a small part of the proposal.

Table 3: Viewpoint 2: Epping Rd near Sobraon Rd

Viewpoint 2: Epping Rd near Sobraon Rd	
Category of view	Public domain, main road
View composition type	Feature
Relative viewing level	Below the site
Viewing period	Short, with opportunities for regularity
Viewing distance	Medium to long
View loss or blocking	No loss of valuable views of landscape features from ground level



Figure 8 – Viewpoint 2: Epping Rd near Sobraon Rd, existing view



Figure 9 - Viewpoint 2: Epping Rd near Sobraon Rd, proposed view

6.5 Viewpoint 3: Shrimptons Creek, north east of Cobar Way

Overall, the proposal will be perceived as being distinct and prominent in the landscape. On this basis, it will have a high effect on the existing visual environment visible from this viewpoint. This is largely due to:

- close to medium range of the viewpoint
- relative level slightly below the site that increases perception of visual effect
- potential for longer viewing periods
- no other landscape elements of similar bulk in the field of view.

Table 4: Viewpoint 3: Shrimptons	Creek, north east of Cobar Way
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Viewpoint 3: Shrimptons Creek, north east of Cobar Way	
Category of view	Public domain, public park
View composition type	Restricted feature
Relative viewing level	Slightly below
Viewing period	Long with opportunities for regular
Viewing distance	Close to medium
View loss or blocking	No loss of valuable views of landscape features from ground level



Figure 10 - Viewpoint 3: Shrimptons Creek, north east of Cobar Way, existing view



Figure 11 – Viewpoint 3: Shrimptons Creek, north east of Cobar Way, proposed view

6.6 Viewpoint 4: Cottonwood Crescent near Peach Tree Rd

Overall, the proposal will have a low effect on the existing visual environment visible from this viewpoint. This is largely due to the presence of tall, densely canopied trees between the viewing location and the proposal.

Table 5: Viewpoint 4: Cottonwood Crescent near Peach Tree Rd

Viewpoint 4: Cottonwood Crescent near Peach Tree Rd	
Category of view	Public domain, local road
View composition type	Restricted
Relative viewing level	Level
Viewing period	Short with opportunities for regular
Viewing distance	Medium
View loss or blocking	No loss of valuable views of landscape features from ground level



Figure 12 - Viewpoint 4: Cottonwood Crescent near Peach Tree Rd, existing view



Figure 13 – Viewpoint 4: Cottonwood Crescent near Peach Tree Rd, proposed view

6.7 Viewpoint 5: Herring Rd at Morling College

Overall, the proposal will be perceived as being prominent in the landscape. On this basis, it will have a medium effect on the existing visual environment visible from this viewpoint. This is largely due to:

Factors that increase effect

- close to medium range of the viewpoint
- relative level slightly below the site that increases perception of visual effect

Factors that decrease effect

- visibility of only two buildings
- presence of screening vegetation
- presence of similar development on the northern side of the Herring Road.

Viewpoint 5: Herring Rd at Morling College		
Category of view	Public domain, main road	
View composition type	Restricted feature	
Relative viewing level	Slightly below	
Viewing period	Short with opportunities for regular	
Viewing distance	Close	
View loss or blocking	No loss of valuable views of landscape features from ground level	

Table 6: Viewpoint 1: Herring Rd at Morling College



Figure 14 – Viewpoint 5: Herring Rd at Morling College, existing view



Figure 15 – Viewpoint 5: Herring Rd at Morling College, proposed view

6.8 Viewpoint 6: Macquarie University Station, Herring Rd and Waterloo Rd

Overall, the proposal will have a low effect on the existing visual environment visible from this viewpoint. This is largely due to:

- long range of the viewpoint
- visual exposure to a small part of the proposal
- presence of buildings and vegetation that blocks or screen the proposal
- general high level of activity and movement within the foreground that draws attention away from the long distance.

Table 7: Viewpoint 6: Macquarie University Station, Herring Rd and Waterloo Rd

Viewpoint 6: Macquarie University Station, Herring Rd and Waterloo Rd			
Category of view Public domain, main road			
View composition type	Restricted		
Relative viewing level	Below		
Viewing period	Short with opportunities for regular		
Viewing distance	Long		
View loss or blocking	No loss of valuable views of landscape features from ground level		



Figure 16 - Viewpoint 6: Macquarie University Station, Herring Rd and Waterloo Rd, existing view



Figure 17 - Viewpoint 6: Macquarie University Station, Herring Rd and Waterloo Rd, proposed view

6.9 Viewpoint 7: Epping Rd, east of Shrimptons Creek

Overall, the proposal will have a medium effect on the existing visual environment visible from this viewpoint. This is largely due to:

- medium range of the viewpoint
- visual exposure to a large part of the proposal
- counter balance to the scale of the development provided by visually prominent Avaya building in the foreground, and a similar scale reference provided by the south-western edge of the Macquarie Park Village in the background.

Table 8: Viewpoint 7 Epping Rd, east of Shrimptons Creek

Viewpoint 7: Epping Rd, east of Shrimptons Creek		
Category of view	Public domain, main road	
View composition type	Restricted feature	
Relative viewing level	Relatively level	
Viewing period	Short with opportunities for regular	
Viewing distance	Medium	
View loss or blocking	No loss of valuable views of landscape features from ground level	



Figure 18 – Viewpoint 7 Epping Rd, east of Shrimptons Creek, existing view



Figure 19 - Viewpoint 7: Epping Rd, east of Shrimptons Creek, proposed view

6.10 Viewpoint 8: Epping Rd, north of Lane Cove Rd

Overall, the proposal will have a low effect on the existing visual environment visible from this viewpoint. This is largely due to:

- long range of the viewpoint
- presence of buildings and vegetation that blocks or screen the proposal.

Table 9: Viewpoint 8: Epping Rd, north of Lane Cove Rd

Viewpoint 8: Epping Rd, north of Lane Cove Rd		
Category of view	Public domain, main road	
View composition type	Restricted	
Relative viewing level	Above	
Viewing period	Short with opportunities for regular	
Viewing distance	Long	
View loss or blocking	No loss of valuable views of landscape features from ground level	



Figure 20 - Viewpoint 8: Epping Rd, north of Lane Cove Rd, existing view



Figure 21 – Viewpoint 8: Epping Rd, north of Lane Cove Rd, proposed view

Factors	Low	Medium	High	Comment
Baseline				
Visual character		X	⊠	The proposal introduces new features in the form of large, tall buildings. From certain close range viewpoints along Epping Road, this represents a contrast to the prevailing existing visual character. The effect of this contrast is mitigated by the presence of the Macquarie Village development and the Avaya building
Scenic quality				Due to the absence of features associated with high scenic amenity, such as extensive areas of open water or forests, proposal has a low impact on scenic quality. However, from some viewpoints travelling north-west on Epping Road, the proposal will reduce the visual dominance of vegetation (Shrimptons Creek and site boundary) and open parkland (Booths Reserve)
View place sensitivity			⊠	The proposal is visible from nearby public roads and parks. Epping Road and Herring Road adjoining the site have high view place sensitivity due to their high traffic volumes. Parts of the Shrimptons Creek open space corridor, in particular parkland such as Cottonwood Park that is suitable for recreation activities, also has high view place sensitivity due to the extended period of time people may use the space.
Viewer sensitivity		⊠		A number of residential properties are located within close range of the site, and are likely to have views to the site from living spaces and private open space spaces. However, the nature of these views is restricted by the presence of intervening landscape features, in particular screening vegetation on the sites north-east and south-west

6.10.1 Summary

Factors	Low	Medium	High	Comment
				boundaries. This substantially reduces the effect of the proposal. Viewer sensitivity is likely to be high from upper levels of newer high- rise development to the north of the site on Herring Road
Variable				
View composition type				The proposal has a high effect on the composition of a number of views. In particular, it significantly increasing the dominance of middle ground views from Epping Road
Relative viewing level				There will be a low to medium effect on views obtained from the public domain at positions higher or at the same level of the site.
Viewing period		X		The proposal will be visible for the majority of the day from some nearby residences and workplaces. However, most viewing periods are short, as they are afforded to vehicles travelling along roads such as Epping Road and Herring Road. It will have a high effect on parts of the Shrimptons Creek open space corridor that may be used for extended period of time associated with recreation activities
Viewing distance				The proposal will have a high effect on some close range views, in particular from Epping Road and the Shrimptons Creek open space corridor. This will be mitigated by boundary vegetation
View loss or blocking		⊠		Significant views, such as panoramic views to attractive landscape features, will not be blocked from the public domain. Long range features views to the Sydney CBD and other skylines such as North Chatswood are likely to be affected from the upper levels of new high- rise development to the north of the site on Herring Road

7.0 Visual impact

This part of the report assesses the visual impact of the proposal. Visual impact is determined by considering visual effect against certain factors. The size of the visual effect does not necessarily correlate with the size of its impact. For example, a proposal may have a high visual effect, however a low or moderate visual impact. Conversely, due to the sensitive nature of a place, a small visual effect may have a high visual impact.

The factors selected to inform visual impact are:

- 1. physical absorption capacity
- 2. compatibility.

7.1 Physical absorption capacity

Physical Absorption Capacity (PAC) means the extent to which the existing visual environment can mitigate visibility of a proposal, including through hiding, screening or disguising, and the extent to which the character, scale, colours, materials and finishes of a proposal enable it to reduce contrast with similar nearby development to the extent that it cannot easily be distinguished as a new feature.

Prominence is also an attribute with relevance to PAC. High PAC can only occur where there is low to moderate prominence of the proposal in the existing visual environment. Design is also important to determining the PAC. Character, scale, colours, materials and finishes can decrease prominence.

The PAC for the proposal ranges from low to high. For most distant viewpoints, existing elements in the landscape such as topography, buildings and trees screen or hide the proposal. From some close range viewpoints, in particular Epping Road, the proposal is prominent and has a high contrast with the existing setting. However, this impact is mitigated by perimeter vegetation and the comparable form, scale and height of new development on

Herring Road, as well as other significant built form in the vicinity such as the Avaya building (refer viewpoint 7). As can be seen from the **Figure 2**, the proposed design of the public domain, in particular the forest to neighbourhood strategy and the associated drawing of existing bushland deep into the site, and the built form, including its materiality and colours, assists in integrating the proposal with existing key landscape features.

7.2 Compatibility

Visual compatibility is determined by whether the proposal will unacceptably change the essential scenic character of the visual catchment. Compatibility means that the proposal responds positively to or borrows from within the range of features (eg character, scale, form, colours, materials) of the surrounding area or of areas of the locality which have the same or similar existing visual character. Compatibility does not require that identical or closely similar features to those which are proposed exist in the immediate surroundings. It is also not correlated with whether the proposal can be seen or distinguished from its surroundings, as highly visible elements can be compatible with their setting. Consideration of preferred future character identified in adopted planning instruments is also a relevant consideration.

The compatibility of the proposal ranges from low to high. Key elements proposed within the public domain, in particular maintenance of vegetated site boundaries, drawing the existing bushland deep into the site and generously planted streets, result in the public domain being compatible with existing visual character.

The built form has low compatibility with the low density residential area to the south-west around Booth Street. While the built form of the proposal has low overall compatibility with the adjoining medium density residential area around Peach Tree Road, reduction in building heights along most of the boundary improves compatibility. The proposal is compatible with the visual character of new development on the northern side of Herring Road, as well as that further south along Epping Road at Lachlan's Line. While outside the visual catchment, compatibility with Lachlan's Line is an important consideration, as they are both highly visible from Epping Road. Epping Road arguably forms a distinct visual unit, and therefore compatibility of the visual experience is a relevant consideration.

The proposal is compatible with the preferred future visual character of the Macquarie Station Priority Precinct and the broader Macquarie Park Corridor in key planning documents. The proposal is compatible with the height provisions of the Ryde LEP, which establishes a key part of the visual environment, and is compatible with the character of the masterplan set for the precinct through the priority precinct process (refer **Figure 23**).

7.3 Application of factors

The effect of PAC on long distance views to the site is to further reduce its visual impact. However, PAC is generally low for close range views due to the scale of the proposal resulting in it having high prominence in the landscape. Nonetheless, application of proposed strategies including retention of perimeter vegetation and the forest to neighbourhood strategy, assists in improving PAC.

The effect of compatibility is to reduce its visual impact. While overall having low compatibility with the surrounding existing environment, the public domain is compatible with existing visual character, and the proposal is compatible with range of features of new development to the north on Epping Road. Furthermore, relevant planning documents are clear in their designation of the site and broader surrounding area to the north-east as an area that is to undergo significant change as it transitions to a more urban, high density place. The proposal is compatible with the preferred visual character than can reasonably be derived from balanced consideration of these relevant planning documents.



Figure 22: Macquarie University Station Masterplan - artists impression

8.0 Assessment of acceptability of visual impact

8.1 Criteria for assessment

The criteria for assessment of whether the visual impact is acceptable has been derived from applicable planning documents, including the revised draft North District Plan and the City of Ryde Development Control Plan 2014, Part: 4.5 Macquarie Park Corridor. Particular reference has been made to the SEARS, with criteria reflecting the identified key issues. Four criteria have been selected:

- 1. Criteria 1: Public domain and public access
- 2. Criteria 2: Built form and urban design
- 3. Criteria 3: Amenity
- 4. Criteria 4: Preferred future role and character of the Macquarie Park corridor.

SEARS and other planning document	Response
Detail and outline the interface between the proposed uses and the public domain, particularly the Shrimptons Creek open space corridor	 The proposal seeks to address the interface in two ways relevant to visual impact: public domain response built form response. The proposal seeks to preserve the existing Shrimptons Creek open space corridor, and undertake regeneration work. This will
	likely result in additional vegetation that will assist in the further screening of the proposal from the corridor as well as more distant locations further to the south-east.
	A key built form principle is the fragmentation of built for along the Shrimptons Creek open space corridor, with building forms broken down to provide a sense of smaller floorplates with a less formal arrangement than the urban grid. This will reduce the visual impact of the built form when viewed from the south-east, including from Epping Road.

8.2 Criteria 1: Public domain and public access

8.3 Criteria 2: Built form and urban design

SEARS and other planning document	Response
Consider the proposed building forms, typologies, height, bulk and scale in the context of the immediate locality, the wider Macquarie Park / Marsfield area and the desired future character of the area	The proposed built form is compatible with new development on the northern side of Herring Road. Under the City of Ryde LEP, the site and this land have a greater maximum FSR and building height to enable creation of a gateway into the northern part of Macquarie Park from the west. The impact of this greater development potential is migrated on more sensitive, lower density residential areas to the south-west by Epping Road, and is delineated from the employment part of Macquarie Park by Shrimptons Creek. While it is of a greater scale that adjoining medium density residential development to the north-east, under the City of Ryde LEP this land is able to be redeveloped to match that of the eastern part of the site. A substantial vegetated buffer will mitigate the visual impact of the proposal on this area in the interim. The desire future character of the area is for a more dense, urban place. The proposal is consistent with this character, and promotes the evolution of broader Macquarie Park to a more significant strategic centre.
Demonstrate how the proposal will achieve an optimal design and amenity outcome with specific consideration of the site character, layout, setbacks, amenity, views and vistas, open spaces and public domain, connectivity and street activation	Within the context of the site being highly suitable for dense, urban scale development, the proposal incorporates a number of elements that will reduce its visual impact. These include the retention of the existing perimeter vegetation, drawing this vegetation deep into the site, breaking up of built form where facing Shrimptons Creek, reduction in building height to the east where it borders medium density residential development, having substantial separation distances between tower building forms and orienting buildings so their long elevation is perpendicular to Epping Road. This outcome will be managed by the Bates Smart

SEARS and other planning document	Response
	Design Guidelines, in particular how they address variety in architecture.
Address the height, bulk, scale and setbacks of the proposed development within the context of the locality and ensure it does not create unacceptable environmental impacts	Consideration of built form is provided earlier in this table. The proposal incorporates a range of design measures that mitigate any potential visual impacts

8.4 Criteria 3: Amenity

SEARS and other planning document	Response
Demonstrate how the proposal maintains the amenity of surrounding residential development including potential overshadowing, privacy and view impacts	While the visual impact of the proposal is high from certain parts of the public domain and immediately adjoining residential development, it does not significantly impede or block desirable views from these areas. The proposal will have an impact on long distance views currently obtained from the upper floors of development on the northern side of Herring Road to the Sydney CBD and other skylines such as North Sydney. However, the presence of Herring Road that provides distance between this development and the site, the higher elevation of the development to most of the site and the siting and form of the individual buildings, particularly in relation to each other through separation distances, will mitigate these impacts.
	other parts of the concept DA.

8.5 Criteria 4: Preferred future role and character of the Macquarie Park corridor

All relevant key planning documents designate Macquarie Park as a key growth area within metropolitan Sydney. Under these documents, its future role is to be a strategic centre focussing on the provision of high value, innovation jobs with complementary areas that support this role, including high density residential, retail community and open space uses. Its' character is to evolve to a more dense and vibrant urban place. The proposal reinforces this preferred future role and character. In particular, taken together with other similar development occurring at North Ryde at the southern gateway to Macquarie Park and along Herring Road as well as possible development around Macquarie Park station, the proposal in its current form will make a significant contribution to the reshaping of Macquarie Park consistent with its preferred future as articulated in planning documents. This is a key factor in determining that the proposal has an acceptable visual impact.

9.0 Conclusion

The findings of the Visual Impact Assessment are that overall the proposal will have a medium visual effect, and from certain viewpoints a high effect, on existing visual conditions. Application of physical absorption capacity and compatibility results in an overall medium visual impact.

Assessment against the SEARS and other relevant planning documents found that while the overall visual impact of the proposal is medium, it is acceptable on a balance of considerations. In particular, the proposal is consistent with, and promotes relevant, key planning documents that seek to guide the transition of Macquarie Park to a more dense, urban place with significant built form scale and height. In addition, the proposal is substantially the same as the existing planning framework for the site.

The VIA identifies a number of key elements in the concept development application that are critical for achieving this acceptable impact, in particular mitigating visual impact from Epping Road and new development on Herring Road. The integrity of these elements should be maintained as part of the current assessment process, and are carried through to subsequent, detailed design work and the development application process

On this basis, it is determined that overall, the proposal in its current form has an acceptable visual impact.

Appendices

Appendix 1: Visual Impact Assessment, Virtual Ideas