ETHOS URBAN

Visual Impact Assessment

26 - 42 Eden Street & 161 - 179 Princes Highway, Arncliffe
Eden Street Communities Plus Project

Submitted to Department of Planning, Industry and Environment
On behalf of Billbergia

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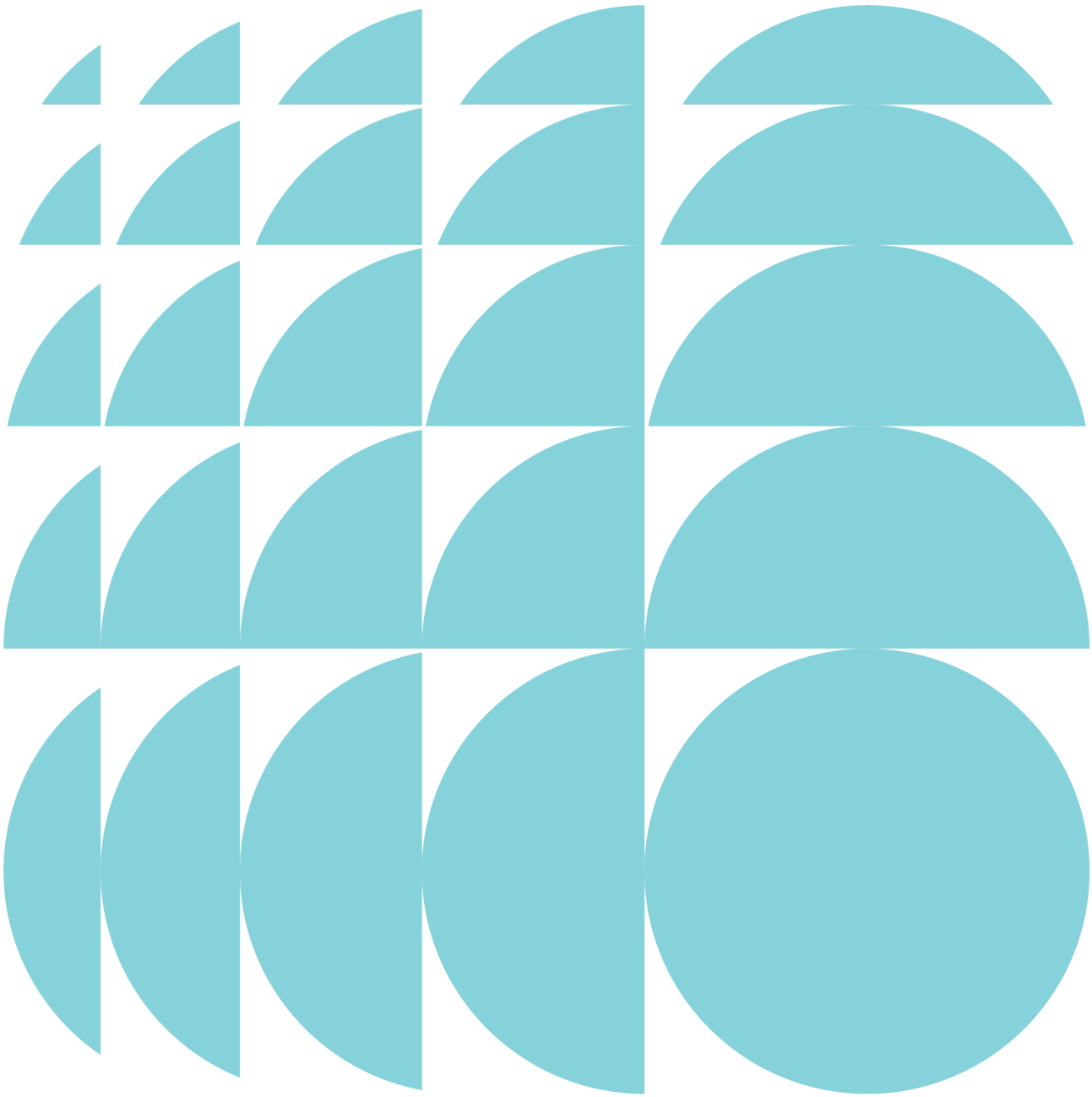

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A Visual impact evidence
CMS

Executive summary

Billbergia has submitted a State significant development application (SSDA) that seeks consent from the Department of Planning, Industry and Environment (the Department) for the redevelopment of land at 26-42 Eden Street and 161-179 Princes Highway, Arncliffe for a mixed-use residential, retail and community precinct.

The Department has issued Secretary's Environmental Assessment Requirements (SEARs) for this SSDA. SEAR 4 – "Visual impacts" requires preparation of "a Visual Impact Assessment (VIA), with photomontages, justifying potential visual impacts associated with the proposal when compared to the existing situation and a compliant development (if relevant), when viewed to and from key vantage points".

This VIA has been prepared to satisfy this SEAR. It has been prepared generally in accordance with the international standard Guidelines for Landscape and Visual Impact Assessment version 3 (GLVIA3), adjusted to better reflect the NSW planning system.

The VIA is based on photomontages that compare the existing visual environment with an approximation of the likely future visual environment at the time of ultimate development. As the emphasis at this stage is on considering matters of scale and form, detail such as materiality and landscaping have been excluded from these visuals. The photomontages have been prepared in accordance with the Land and Environment Court photomontage policy. The photomontages were prepared for six (6) viewpoints that are representative of the pattern of viewing in the visual catchment. While the visual catchment is large, the proposal will be most exposed to the adjoining Princes Highway and Eden Street.

Consideration of visual impact is based on a two part process:

- significance of visual impact based on the sensitivity of the existing visual environment to the nature of change being proposed and the magnitude of the change
- acceptability of visual impact based on consideration of relevant parts of the applicable planning framework.

The sensitivity of the existing visual environment ranges from low to medium. The visual quality of the existing Princes Highway environment is low, and most people exposed to views will be travelling through and a such are unlikely to have a high level of interest or attention on views. In addition, the large scale Endeavour Apartments visible in this segment of the Princes Highway (delineated by Argyle Street to the north and the pedestrian overbridge to the south) sets the tone for the emerging visual character of this part of the Princes Highway. Eden Street is more sensitive visual environment, largely due to its residential nature. However, the street is a conventional suburban visual character, and is dominated by the existing Eden Street social housing estate. More consistently low density suburban locations further away, in particular to the west, have the highest sensitivity.

As is to be expected, magnitude of visual impact is greatest when seen from viewpoints in the close range such as the Princes Highway. The level of this magnitude is consistent with that of most developments of this nature in settings that are undergoing the first stages of transition from a lower rise to higher rise built form typology. Away from immediately adjoining streets, the magnitude of visual impact decreases considerably. This is particularly evident from viewpoints to the west, where the proposal will only be visible in part in the background of the view. Beyond this segment of the Princes Highway, visual receptors travelling southwards along the Princes Highway will read the proposal as a logical continuation of the scale and character of built form established by the Wolli Creek development. In this sense, the proposal will not be seen as being incongruous with its broader surrounding context.

Combining sensitivity and magnitude, the significance of visual impact ranges from low to dominant.

It is considered that the proposal:

- results in an urban form outcome consistent with the planning intent for the Arncliffe Planned Precinct, in particular through consolidates the urban form and visual character of the Princes Highway Corridor as an emerging node of substantial growth and visually demarcating the location of the Arncliffe rail station
- does not block, occlude or otherwise adversely impact significant views obtained from the public domain to elements identified as being of high scenic value such as Botany Bay, the Cooks River or the Sydney CBD skyline
- is the product of a comprehensive and considered design process that has been subject to design review and incorporates a number of design measures that mitigate visual impact.

On this basis, while acknowledging that the proposal gives rise to significant visual impact, these impacts are considered reasonable given they are consistent with the desired future planning intent for the precinct and give rise to visual impacts compatible with this intent, is consistent with key development standards and has taken appropriate steps that can be considered to represent skilful design.

As the proposal results in a minor exceedance of the 70m height limit for the site, further detailed in the Clause 4.6 Variation Request at **Appendix L** of the EIS, this VIA also assesses the visual impact of the proposed development compared to a height compliant envelope. The VIA confirms that the degree of non-compliance from a visual impact perspective is minor and unlikely to give rise to any additional significant visual impacts.

For these reasons outlined in this report and subject to the mitigation measures identified in this report, it is considered that the proposal has an acceptable visual impact.

1.0 Introduction

This visual impact assessment (VIA) assesses the visual impact of a proposal by Billbergia to redevelop land located at 26-42 Eden Street and 161-179 Princes Highway, Arncliffe for a mixed-use residential, retail and community precinct.

It has been prepared by Ethos Urban on behalf of Billbergia as the proponent.

The VIA is structured as follows:

- **Part 1 – Introduction**: identifies the purpose and structure of this VIA
- **Part 2 – Methodology**: outlines the methodology used as the basis for this VIA
- **Part 3 – The precinct and its context**: provides an overview of the precinct and surrounding land
- **Part 4 – The proposal**: describes the proposal, including its key parameters
- **Part 5 – The planning framework**: identifies relevant parts of the applicable framework against which the acceptability of visual impact is to be assessed
- **Part 6 – The visual catchment**: identifies the area from which the proposal is likely to be seen
- **Part 7 – Viewpoints**: identifies the viewpoints that form the basis of this VIA
- **Part 8 – Visual impact**: identifies the key visual impacts of the proposal through the use of photomontages
- **Part 9 – Visual impact assessment**: undertakes an assessment of visual impact against the factors of sensitivity to the nature of change proposed and the magnitude of the change proposed to identify significant visual impacts
- **Part 10 – Assessment against the planning framework**: undertakes an assessment of visual impact against relevant parts of the applicable framework to determine its acceptability
- **Part 11 – Mitigation measures**: recommends any mitigation measures to
- **Part 12 – Conclusion**: identifies whether the proposal can be supported on visual impact grounds.

2.0 Methodology

The VIA has been prepared generally in accordance with the international standard Guidelines for Landscape and Visual Impact Assessment version 3 (GLVIA3) published by the Landscape Institute and the Institute of Environmental Management and Assessment in 2013. The GLVIA is widely referenced in Australian VIA (Australian Institute of Landscape Architects, 2018). A summary outline of this methodology is provided in **Figure 1**.

The basis for the VIA, which is surveying, photography and software based modelling, was undertaken in accordance with the Land and Environment Court photomontage policy.

Stage 1
Identify and describe the existing visual environment

Stage 2
Identify and describe potential visual impacts (for each viewpoint)

Stage 3
Determine significance of visual impact based on sensitivity and magnitude (for each viewpoint)

Stage 4
Assess appropriateness against the planning framework

Stage 5
Recommend mitigation measures

Stage 6
Draw conclusion

Figure 1 Summary outline of methodology

2.1 Assumptions, limitations and exclusions

The following limitations apply to this VIA:

- while photomontages provide an indication of likely future visual environment, they can only provide an approximation of the rich visual experience enabled by the human eye. As they are based on photographs, the same limitations that apply to photography, including optical distortion, apply
- while consideration has been given to the likely impact on views obtained from the private domain, detailed assessment in accordance Tenacity Consulting v Waringah [2004] NSWLEC 140 based on photomontages has not been undertaken.

The following exclusions apply to this VIA:

- consideration of night-time impact, including lighting, is excluded
- consideration of impact on Aboriginal cultural heritage values associations is excluded. This is only appropriately undertaken by a member or qualified representative of the Aboriginal community.

3.0 The precinct and its context

3.1 The precinct context

The precinct is located within the suburb of Arncliffe within the Bayside local government area (LGA) (refer **Figure 2**). Located approximately 10 kilometres south of the Sydney CBD, the precinct is also located 1.5km to the west of Sydney (Kingsford Smith) Airport.

The precinct forms part of a broader emerging urban renewal precinct focussed on the Princes Highway and Illawarra Rail Line. This includes the surrounding Arncliffe Planned Precinct, the largely completed Wolli Creek and Bonar Street precincts and the future Cook Cove Precinct.

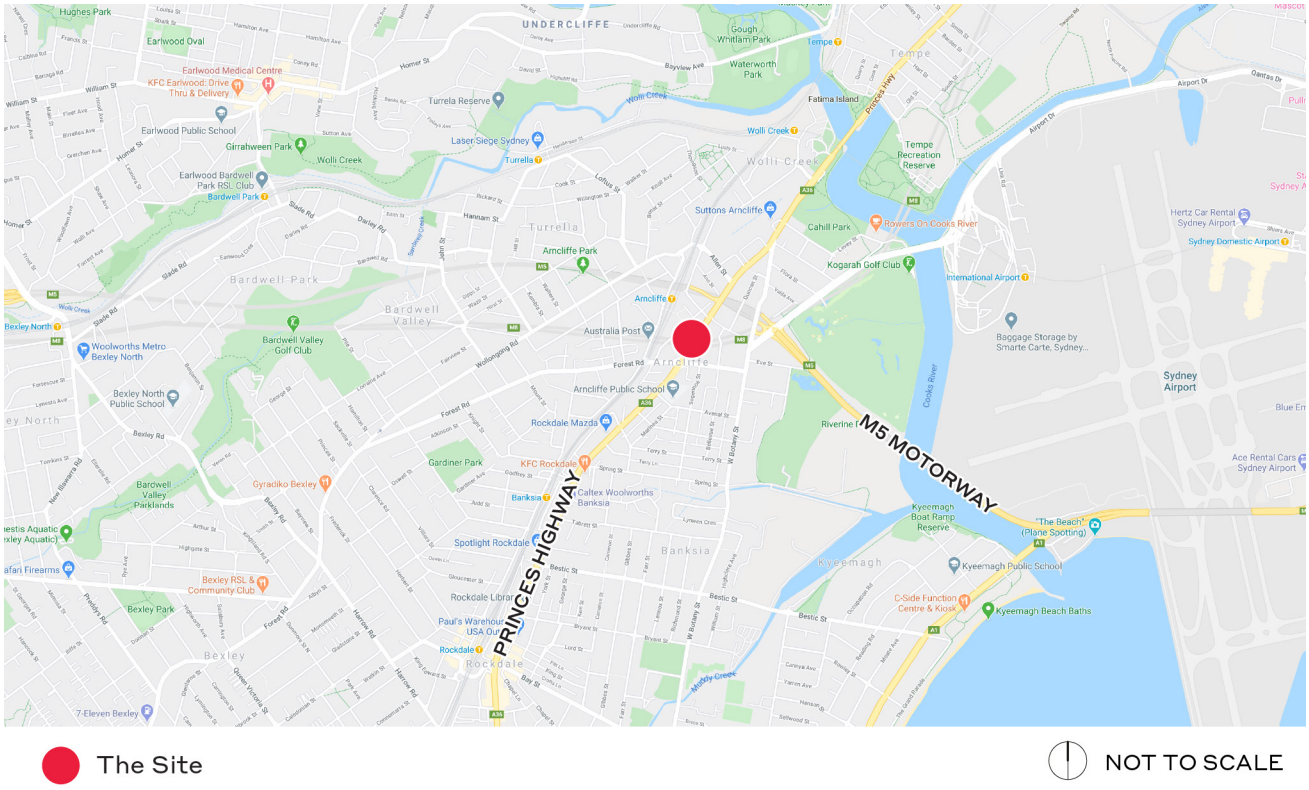

Figure 2 The precinct context

Source: Google Maps and Ethos Urban

3.2 The precinct

The precinct is located at 26-42 Eden Street and 161-179 Princes Highway, Arncliffe (refer **Figure 3**). It has a large area (approximately 1.34ha) and substantial frontage to the Princes Highway and Eden Street.

The precinct is currently occupied by the Arncliffe social housing estate. The estate comprises fourteen buildings providing 142 social housing dwellings, as well as above ground car parking and vegetated open space.

The current precinct is shown in **Figure 4** to **Figure 7** below.

Figure 3 The precinct

Source: Nearmap and Ethos Urban

Figure 4 The site as viewed from the northern end of the Eden Street frontage looking south

Source: Ethos Urban

Figure 5 View from the southern end of the Eden Street frontage looking northeast

Source: Ethos Urban

Figure 6 View from the corner of Princes Highway and Forest Road looking north

Source: Ethos Urban

Figure 7 View from the northern end of the Princes highway frontage looking southwest

Source: Ethos Urban

3.3 Surrounding development

Surrounding land uses are predominantly residential, comprising a variety of typologies ranging from detached dwellings to high density apartments.

Immediately to the northeast of the site are two 4-storey apartment buildings known as 20-24 Eden Street with other apartment buildings and detached dwellings being located further north. Residential apartment buildings generally ranging from 2-4 storeys in height are located across the site's long Eden Street frontage to the northwest.

To the south of the site are a number of detached dwellings, attached dwellings, shop top housing and retail uses.

Land to the east of the site across the Princes Highway is comprised of remnant industrial uses and the recently constructed 10 storey mixed-use 'Endeavour Apartments' at 118 Princes Highway.

Surrounding development is shown in **Figure 8** to **Figure 11** below.

Figure 8 20-24 Eden Street

Source: Ethos Urban

Figure 9 Residential flat buildings across Eden Street

Source: Ethos Urban

Figure 10 Residential dwellings and shop top housing to the south of the site

Source: Ethos Urban

Figure 11 Endeavour Apartments, 118 Princes Highway

Source: Ethos Urban

4.0 The proposal

The (SSDA) seeks consent from the Department of Planning, Industry and Environment (the Department) for the redevelopment of land at 26-42 Eden Street and 161-179 Princes Highway, Arncliffe for a mixed-use residential, retail and community precinct. Components include:

- demolition of all existing buildings and structures on the site;
- site preparation works, excavation and tree removal;
- the construction of a mixed-use development comprising:

  - 744 apartments across (4) buildings between 19-23 storeys in height;
  - 3,113m^2 gross floor area of retail premises;
  - 3,706m^2 of communal open space;
  - 813 spaces of lower ground and basement car parking; and
- 4,870m^2 of publicly accessible open space including a 4,000m^2 publicly accessible park, and a 870m^2 public meeting space and through site link.

The proposal is shown in **Figure 12** and **Figure 13** below.

Figure 12 The proposal

Source: Group GSA

Figure 13 The proposal

Source: Group GSA

5.0 The planning framework

The relevant parts of the planning framework are identified in **Table 1** and **Table 2** below.

Table 1 Relevant SEARS

Number	SEAR
4. Visual impacts	'The EIS must include a Visual Impact Assessment, with photomontages, justifying potential visual impacts associated with the proposal when compared to the existing situation and a compliant development (if relevant), when viewed to and from key vantage points'

Table 2 The planning framework

Name of plan	Type of planning instrument
Greater Sydney Region Plan - A Metropolis of Three Cities (the Regional Plan)	Strategic plan
Eastern City District Plan (the District Plan)	Strategic plan

Name of plan	Type of planning instrument
Bayside Local Strategic Planning Statement (LSPS)	Strategic plan
Rockdale Local Environmental Plan 2011 (RLEP2011)	Environmental planning instrument
Draft Bayside Local Environmental Plan 2020 (Draft BLEP2020)	Environmental planning instrument
Rockdale Development Control Plan 2011 (RDCP2011)	Development control plan
Tenacity Consulting v Waringah [2004] NSWLEC 140 (Tenacity)	Planning principle

5.1 Strategic planning context

The Rockdale City Urban Strategy in 2010 first identified the precinct, surrounding Arncliffe area and the broader Princes Highway Corridor as being suitable for substantial renewal. This was supported and further refined by the Princes Highway Corridor Strategy (Rockdale Council, 2013) the Bayside West Precincts Plan 2036 (DPIE, 2018) and the Bayside LSPS (Bayside Council, 2020). This has created a reasonable expectation for significant growth in the precinct.

These documents have also made specific reference to the precinct as being a key site, with support being provided for development of scale. For example, the Bayside West Precincts Plan 2036 also stated that "The NSW Land and Housing Corporation site on Eden Street, within the Arncliffe Precinct, also presents an opportunity for the significant renewal of the social housing and to provide affordable housing on this site to better meet the needs of the community".

This strategic planning direction was reflected in a Ministerial Direction that guided the rezoning of the precinct, Arncliffe precinct and the broader Princes Highway Corridor.

Views

The Bayside West Precincts Plan 2036 identifies that the following types of views are present in the Bayside West Precincts:

- district wide views from high points
- towards the Sydney CBD from the northern and eastern parts of Arncliffe and Banksia
- towards the Cooks River and Botany Bay from the Forest Road ridgeline.

The location and scale of development, including building heights, was determined based on consideration of these views as stated in the plan:

- "This is reflected in the built form opportunities recognised for the Precincts and shown in the changes to building heights set out in the rezoning plan".

5.2 Statutory planning context

Reflecting this strategic planning direction, the precinct was rezoned under the RLEP2011 to have the following planning parameters;

- **Zone**: B4 Mixed Use
- **Building height (max)**: 70m
- **Floor space ratio (max.)**: 4:1 (noting greater FSR is permissible under SEPPs)

6.0 The visual catchment

6.1 The zone of theoretical visibility

The area in which the proposal may be visible, in totality or in part, is called the "Zone of Theoretical Visibility" (ZTV).

The ZTV is influenced by the interplay of a number of factors. These include physical factors such as landform, the alignment of streets, the nature of open space and vegetation (in particular that in parks or that is otherwise afforded some level of protection) and other factors such as distance, direction of view, angle of view and scale of the development.

The proposal is likely to be visible from the area generally bounded by:

- **North**: Allen Street
- **East**: Princes Highway
- **South**: Forest Road
- **West**: Wollongong Road.

It is considered that it will be most visible from the adjoining parts of the Princes Highway and Eden Street.

Of note is the prominent south-west to north-east aligned ridgeline that is largely aligned with Forest Road and that rises upwards from its intersection with the Princes Highway and generally falls away to the north-west and south. Due to the relatively steep elevation change from surrounding land to the north, it is likely that the proposal will in part be visible from some properties on the northern side of this ridgeline in the vicinity of the ends of Towers Place, Stanley Street and Stanley Lane. It is noted that the primary value of views obtained from these premises is likely to be towards the Sydney CBD skyline in a more north-easterly direction. The proposal will be visible to the right of any direct line of sight to the Sydney CBD skyline.

The apartment complex located at158-164 Princes Highway is proximate to the precinct. However, the nature of views obtained from this complex are likely to be largely that of local views from upper levels. The proposal's location to the north-west of the site will not obscure any broader views obtained towards the Sydney CBD skyline.

6.2 Pattern of viewing

Pattern of viewing in important in informing the selection of viewpoints upon which the VIA will be based. The pattern of viewing in the visual catchment is determined by visual receptors (type and number) and viewing range.

Visual receptors

People within the visual catchment who will be affected by the changes in views and visual amenity are referred to as "visual receptors"

Based on the GLVIA3, there are a number of different types of visual receptor:

- residents at home
- communities where views contribute to the landscape setting enjoyed by residents in the area
- people, whether residents or visitors, who are engaged in outdoor recreation, including use of public footpaths, whose attention or interest is likely to be focused on the landscape and on particular views
- travellers on road, rail or other transport routes
- travellers on road, rail or other transport routes where travel involves recognised scenic routes
- visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience
- visitors to facilities or services (eg, shops, offices, cafes) that meet their day to day needs
- people engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape
- people at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life.

Viewing planes

Views occur through 'view planes' that comprise a foreground, middle-ground and background. The qualities or components of the foreground, middle-ground and background help to define what is significant about a view, and changes within those 'planes' will alter the qualities and characteristics of a view.

View ranges

Views also occur through ranges that comprise close, medium and long range. Viewing range is important in determining how change is perceived across a landscape. However, assigning specific distances to the 'view planes' that occur within a view in urban landscapes is difficult as the various planes are also defined according to the character of the viewed landscape i.e. the foreground of a view may terminate at a particular element or feature as opposed to being defined by a distance in metres.

The following table summarises the pattern of viewing.

Table 3 Pattern of viewing

Direction	Place	Prevailing land use	Prevailing type of visual receptor	Relative number	Viewing plane	View range
North	Burrow Street and north	Mixed residential and transitioning remnant light industry	Residents at home; People at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life	Moderate	Background	Close to medium
South	Forest Road	Education, hotel and mixed residential	Travellers on road, rail or other transport routes; Visitors to facilities or services (eg, shops, offices, cafes) that meet their day to day needs	Moderate	Midground	Close
East	Princes Highway	High density residential and remnant light industry	Travellers on road, rail or other transport routes	High	Foreground	Close

Direction	Place	Prevailing land use	Prevailing type of visual receptor	Relative number	Viewing plane	View range
	East of Princes Highway	Mixed residential	Residents at home	Low	Background	Medium
West	Eden Street	Mixed residential	Residents at home	Low	Foreground	Medium
	Arncliffe local centre	Low scale commercial premises	Visitors to facilities or services (eg, shops, offices, cafes) that meet their day to day needs	Moderate	Background	Medium
	West of Arncliffe local centre	Mixed residential transitioning to low density residential	Residents at home	Low	Background	Long

7.0 Viewpoints

The following six viewpoints were selected to represent this pattern of viewing:

1. Princes Highway (south)
2. Princes Highway (north)
3. Eden Street
4. Arncliffe local centre (Belmore Street)
5. Forest Road
6. Barden Street.

8.0 Visual impact

This section of the report provides photomontages that illustrate the likely visual impacts of the proposal by comparing existing views with proposed views from the selected viewpoints.

It is important to note that as the emphasis of assessment should be on scale and form, detail such as materiality and landscaping have been excluded from these visuals. On this

basis and consistent with accepted practice they can be considered to represent a 'worst case' scenario in terms of visual impact.

Figure 14 Viewpoint 1 – Princes Highway (south): existing view

Source: CMS

Figure 15 Viewpoint 1 – Princes Highway (south): proposed view

Source: CMS

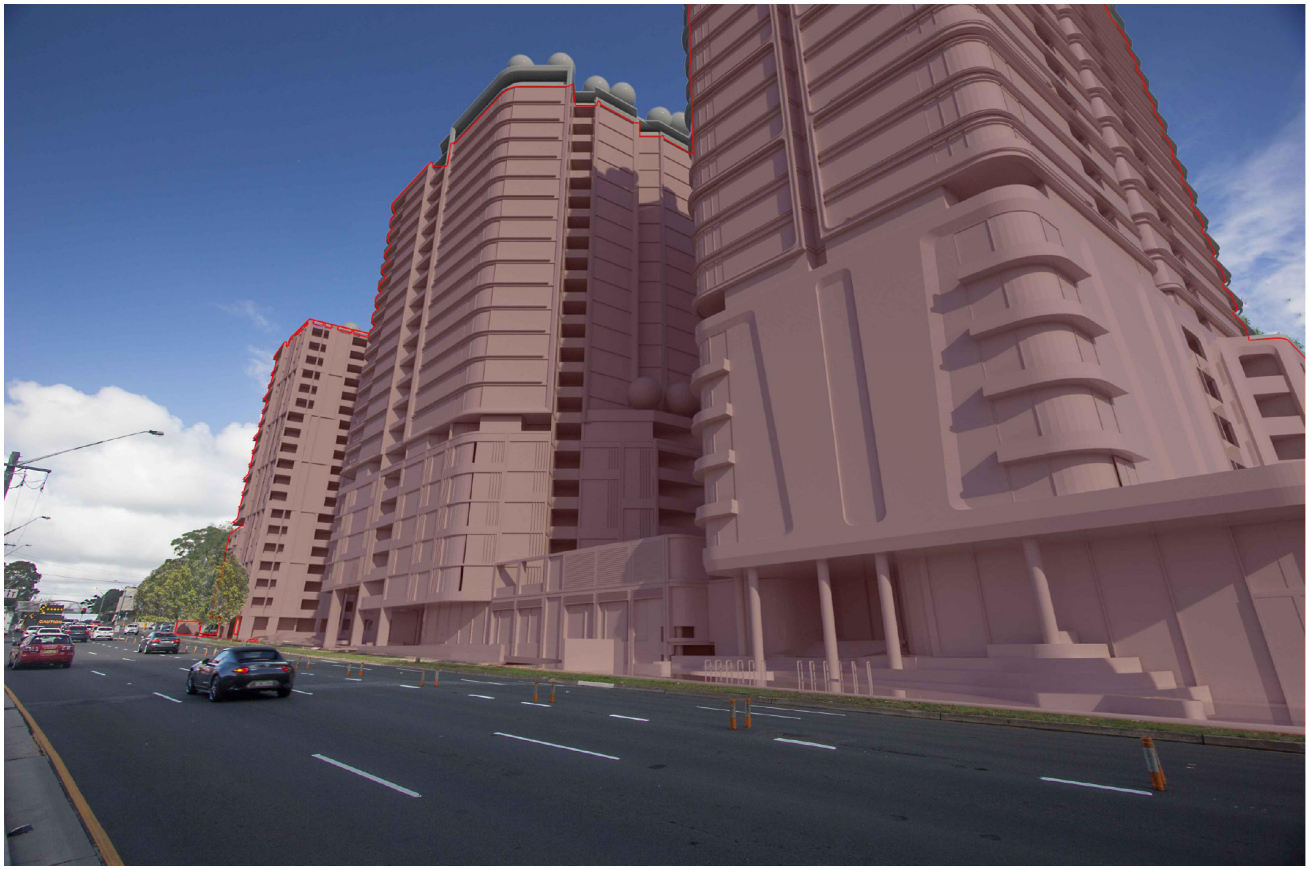

Figure 16 Viewpoint 1 – Princes Highway (south): comparison against 70m compliant building envelope

Source: CMS

Figure 17 Viewpoint 2 – Princes Highway (north): existing view

Source: CMS

Figure 18 Viewpoint 2 – Princes Highway (north): proposed view

Source: CMS

Figure 19 Viewpoint 2 – Princes Highway (north): comparison against 70m compliant building envelope

Source: CMS

Figure 20 Viewpoint 3 – Eden Street: existing view

Source: CMS

Figure 21 Viewpoint 3 – Eden Street: proposed view

Source: CMS

Figure 22 Viewpoint 3 – Eden Street: comparison against 70m compliant building envelope

Source: CMS

Figure 23 Viewpoint 4 – Arncliffe local centre (Belmore Street): existing view

Source: CMS

Figure 24 Viewpoint 4 – Arncliffe local centre (Belmore Street): proposed view

Source: CMS

Figure 25 Viewpoint 4 – Arncliffe local centre (Belmore Street): comparison against 70m compliant building envelope

Source: CMS

Figure 26 Viewpoint 5 – Forest Road: existing view

Source: CMS

Figure 27 Viewpoint 5 – Forest Road: proposed view

Source: CMS

Figure 28 Viewpoint 5 – Forest Road: comparison against 70m compliant building envelope

Source: CMS

Figure 29 Viewpoint 6 – Barden Street: existing view

Source: CMS

Figure 30 Viewpoint 6 – Barden Street: proposed view

Source: CMS

Figure 31 Viewpoint 6 – Barden Street: comparison against 70m compliant building envelope

Source: CMS

9.0 Visual impact assessment

Under the GLVIA3 methodology, VIA is undertaken against three key criteria:

1. sensitivity
2. magnitude
3. significance.

9.1.1 Sensitivity assessment

Sensitivity involves consideration of

- the type of visual receptor (ie, people) ordinarily exposed to the view
- the value of the view.

Type of visual receptor

While ultimately a personal matter and subject to variation, for the purposes of VIA each type of visual receptor can be considered to have a different level of overall sensitivity to change in their visual environment on a spectrum ranging from higher to lower (refer **Table 4**).

Table 4 Level of likely sensitivity to change

Level of likely sensitivity to change	Type of visual receptor
Higher	• Residents at home • People, whether residents or visitors, who are engaged in outdoor recreation, including use of public footpaths, whose attention or interest is likely to be focused on the landscape and on particular views • Travellers on road, rail or other transport routes where travel involves recognised scenic routes • Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience • Communities where views contribute to the landscape setting enjoyed by residents in the area
Lower	• Travellers on road, rail or other transport routes • Visitors to facilities or services (eg, shops, offices, cafes) that meet their day to day needs

Level of likely sensitivity to change	Type of visual receptor
	• People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape • People at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life

Value

The value of a view is a complex concept. A variety of theories such as "prospect-refuge" inform a number of different approaches. These approaches range on a spectrum from those that say value is to be determined by the trained experts (the objectivist school) to those that suggest value can only be determined by an individual's perceptions. It is suggested that a balance between these two ends of the spectrum is most appropriate. In particular, due to the mechanics and limitations of planning policy, a bias is to be made to more objective, measurable and approaches that involve informed generalisations.

Under this approach, value is often influenced by components and composition when considered against aesthetic principles (eg, features, edges or contrasts and composition) (Planisphere, 2016) and other aspects such as rarity, representativeness and condition (LI and IEMA, 2013) and iconic status (Planisphere, 2016) (NSW Land and Environment Court).

In terms of general human preferences, the following principles have been consistently found in scenic preference studies and community consultation (AILA, 2018):

- water and natural elements are preferred over urban scenes
- mountains and hills are preferred over flat land
- views are preferred which include both mid-ground elements (with some detail discernible) and a background
- views with skyline features and views which include focal points are preferred.

The GLVIA3 states that value should be informed by consideration of:

- recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations
- indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards and interpretive material) and references to them in literature or art.

In Tenacity, Roseth SC made specific reference to relative value, stating that in general:

- water views are valued more highly than land views
- iconic views (eg of the Opera House, the Harbour Bridge or North Head) are valued more highly than views without icons
- whole views are valued more highly than partial views, eg a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

Visual amenity is also a relevant consideration. Under the GLVIA3, visual amenity is defined as "the overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area". This is supported by the NSW Government, which states that "amenity is the pleasantness, attractiveness, desirability or utility of a place, facility, building or feature".

Based on this, it is considered that views that have the following parameters are capable of being considered to have a higher value:

- designated landscapes or the backdrop to a heritage item
- recognised and important viewpoints or from recognised scenic routes
- full views to iconic landscape elements such as the Sydney Opera House
- other specific designation in an environmental planning instrument.

For the purposes of this VIA and to be meaningful in a DA setting, the value of a view can be considered to involve consideration of its characteristics as determined by an interplay of:

- components (ie, elements and features)
- composition
- other aspects.

This is shown in **Table 5**.

Table 5 Value

Value	Components	Composition	Oher aspects
Higher	• Natural • Water • Mountains and hills • Skyline features • Icons	• Clearly discernible mid ground and background • Focal points • Whole views	• Rare • Representative of a valued condition, intact and cohesive • Good condition

Value	Components	Composition	Oher aspects
	• Heritage and heritage conservation areas		• Recognition of the value attached to particular views
Lower	• Urban • Land • Level landform • No skyline features • No icons • No heritage or heritage conservation areas	• Lesser distinction between midground and background • No focal points • Partial views	• Common • Not representative of a valued condition, intact or cohesive • Poor condition • No recognition of the value attached to particular views

Table 6 provides an assessment of the sensitivity of the views.

Table 6 Sensitivity assessment

Ref	Viewpoint	Main visual receptor	Value	Sensitivity
1.	Princes Highway (south)	Travellers on road, rail or other transport routes	Highly urban visual landscape dominated by the Princes Highway	Low
2.	Princes Highway (north)	Travellers on road, rail or other transport routes	Highly urban visual landscape dominated by the Princes Highway	Low
3.	Eden Street	Residents at home	Conventional, mixed suburban streetscape dominated by the Eden Street social housing estate	Low – medium
4.	Arncliffe local centre (Belmore Street)	Visitors to facilities or services (eg, shops, offices, cafes) that meet	Local centre dominated by Arncliffe rail station. Contiguous line of	Low – medium

Ref	Viewpoint	Main visual receptor	Value	Sensitivity
		their day to day needs	well-established tree bordering Belmore Street form an attractive, natural visual element	
5.	Forest Road	Visitors to facilities or services (eg, shops, offices, cafes) that meet their day to day needs	Local centre with view over the Illawarra Line embankment	Low
6.	Barden Street	Residents at home	Conventional suburban streetscape largely comprising single storey detached dwellings in landscaped private gardens	Medium

9.1.2 Magnitude

Magnitude is a key measure of visual impact in the GLVIA3 and the "Guideline for landscape character and visual impact assessment" (TfNSW, 2020)

Magnitude is measured based on consideration of:

- size or scale
- geographical extent of the area influenced
- duration and reversibility.

It is important that magnitude is judged is a factor of deviation from the existing visual environment. This includes the current signage.

Size or scale

Size or scale involves consideration of:

- the scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development
- the degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture
- the nature of the view of the proposed development, in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpses.

In general, large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be placed in the major category.

Geographical extent of the area influenced

Geographical extent of the area influenced involves consideration of:

- the angle of view in relation to the main activity of the receptor
- the distance of the viewpoint from the proposed development
- the extent of the area over which the changes would be visible.

Duration and reversibility

Duration and reversibility involve consideration of whether the proposal:

1. ongoing and irreversible
1. ongoing and capable of being reversed
2. limited life (5 – 10 years)
3. limited life (< 5 years).

It is important to noted that whether a proposal can be considered to be ongoing and irreversible or ongoing capable of being reversed is relative. While there is generally not development proposal that is fully, development of an apartment building that is intended to be strata titled can be considered ongoing and irreversible due to the challenges associated with its consequent removal, and certainly the return of the land to its previous state.

These considerations are then combined as shown in **Table 7** to provide a rating of magnitude based on a five point verbal scale:

1. major
2. moderate
3. minor
4. insignificant

5. imperceptible.

Table 7 Factors of magnitude

		Duration and / or reversibility			
		Ongoing and irreversible	**Ongoing capable of being reversed**	**Limited life (5 – 10 years)**	**Limited life (< 5 years)**
Scale of change and geographical extent of the area influenced	**Major change over wide area**	Dominant	Considerable	Considerable	Noticeable
	Major change over restricted area or Moderate change over wide area	Considerable	Considerable	Noticeable	Noticeable
	Moderate change over restricted area or Minor change over a wide area	Considerable	Noticeable	Noticeable	Perceptible
	Minor change over a restricted area or Insignificant change	Perceptible	Perceptible	Perceptible	Imperceptible
	Imperceptible change	Imperceptible	Imperceptible	Imperceptible	Imperceptible

Table 8 provides an assessment of the magnitude of visual impact.

Table 8 Magnitude assessment

Ref	Viewpoint	Size and scale	Duration and reversibility	Magnitude
1.	Princes Highway (south)	Major change over wide area	Ongoing and irreversible	Dominant
2.	Princes Highway (north)	Major change over wide area	Ongoing and irreversible	Dominant
3.	Eden Street	Major change over wide area	Ongoing and irreversible	Dominant
4.	Arncliffe local centre (Belmore Street)	Major change over restricted area	Ongoing and irreversible	Considerable
5.	Forest Road	Major change over restricted area	Ongoing and irreversible	Considerable
6.	Barden Street	Minor change over a restricted area	Ongoing and irreversible	Perceptible

9.1.3 Assessment against 70m compliant building envelope

As the proposal results in a minor exceedance of the 70m height limit for the site, further detailed in the Clause 4.6 Variation Request at **Appendix L** of the EIS, this VIA also assesses the visual impact of the proposed development compared to a height compliant envelope. The VIA confirms that the degree of non-compliance from a visual impact perspective is minor and unlikely to give rise to any additional significant visual impacts.

9.1.4 Significance

Significance of visual impact is determined by combining judgements about sensitivity and magnitude (refer **Table 9**).

The categories of significance are as follows:

1. major
2. high
3. moderate
4. low
5. negligible.

The GLVIA3 provides the following guidance for judgements about significance:

- "There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and context and with the type of proposal. In making a judgement about the significance of visual effects the following points should be noted:
  - effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant
  - effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant
  - large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view".

It should be noted that determination of significance does not automatically mean that the impact is unacceptable. Rather, subsequent consideration is required to be made of the reasonableness of the visual impact. Regard in this matter is to be given to the planning framework.

Table 9 Factors of significance

		Magnitude				
		Dominant	**Considerable**	**Noticeable**	**Perceptible**	**Imperceptible**
Sensitivity	**High**	Major	High	Moderate	Low	Negligible
	Medium	High	Moderate	Low	Low	Negligible
	Low	Moderate	Low	Low	Negligible	Negligible
	Negligible	Low	Low	Negligible	Negligible	Negligible

Table 10 provides an assessment of the significance of visual impact.

Table 10 Significance assessment

Ref	Viewpoint	Sensitivity	Magnitude	Significance
1.	Princes Highway (south)	Low	Dominant	Moderate
2.	Princes Highway (north)	Low	Dominant	Moderate
3.	Eden Street	Low – medium	Dominant	Moderate - high

Ref	Viewpoint	Sensitivity	Magnitude	Significance
4.	Arncliffe local centre (Belmore Street)	Low – medium	Considerable	Low – moderate
5.	Forest Road	Low	Considerable	Low
6.	Barden Street	Medium	Perceptible	Low

9.2 Discussion

The proposal will be visible as a new built element in the landscape. as is to be expected, magnitude of visual impact is greatest when seen from viewpoints in the close range such as the Princes Highway. The level of this magnitude is consistent with that of most developments of this nature in settings that are undergoing the first stages of transition from a lower rise to higher rise built form typology.

Away from immediately adjoining streets, the magnitude of visual impact decreases considerably. This is particularly evident from viewpoint 1, where the proposal will only be visible in part in the background of the view.

While the magnitude of visual impact is highest when seen from viewpoints in the close range, the sensitivity of viewpoints from the Princes Highway to the nature of change proposed is low. The visual environment seen from these viewpoints is dominated by the scale and highly trafficked nature of the Princes Highway. In addition, the large scale Endeavour Apartments visible in this segment of the Princes Highway (delineated by Argyle Street to the north and the pedestrian overbridge to the south) sets the tone for the emerging visual character of this part of the Princes Highway. It can also be argued that the more slender, well separated tower form of the proposal provides for a lesser magnitude of visual impact for people at the ground plane than the longer, perimeter block form of the Endeavour Apartments, and that the public open space also provides for relief from the sense of spatial enclosure created by this complex.

Beyond this segment, visual receptors travelling southwards along the Princes Highway will read the proposal as a logical continuation of the scale and character of built form established by the Wolli Creek development. In this sense, the proposal will not be seen as being incongruous with its broader surrounding context.

While the sensitivity of Eden Street to the nature of change proposed is higher, Eden Street is nonetheless a conventional urban streetscape and is visually dominated by the existing Eden Street social housing estate. While is it acknowledged that the proposal represents a significant increase in the scale of development in Eden Street, the reasonableness of this is discussed in section 1 of this report.

10.0 Assessment against the planning framework

10.1 SEARS

The address of relevant SEARS in this report is shown in the following table:

Table 11 Address of SEARS

SEAR	Component	Addressed
The EIS must include a Visual Impact Assessment, with photomontages, justifying potential visual impacts associated with the proposal when compared to the existing situation and a compliant development (if relevant), when viewed to and from key vantage points	This document is a VIA	Yes
	Photomontages prepared in accordance with LEC photomontages policy and showing the existing and proposed future visual environment from representative viewpoints are provided at **section 1** of this report	Yes
	The proposal is compliant with key development standards relevant to visual impact, including maximum building height and floor space ratio	Yes
	Justification for potential visual impacts is provided at part 1 of this report	Yes

10.2 Greater Sydney Region Plan – A Metropolis of Three Cities

The proposal is consistent with relevant provisions for visual impact in the Greater Sydney Region Plan – A Metropolis of Three Cities as shown in the following table:

Table 12 Consistency with Greater Sydney Region Plan – A Metropolis of Three Cities

Provision	Assessment	Consistent
Objective 28: Scenic and cultural landscapes are protected	Provisions for visual impact are high level, and are framed in relation to scenic landscapes. Relevant supporting explanatory text highlights views from the public domain to coastline and waterways (eg, Botany Bay and Cooks River), the variety of urban landscapes and views to the Sydney CBD. This includes the following statements: • "One of the District's key assets is its stunning Harbour and coastline. The District's urban landscapes sit within this	Yes
Strategy 28.1: Identify and protect scenic and cultural landscapes		Yes
Strategy 28.2: Enhance and protect views of scenic and cultural landscapes from the public realm		Yes

Provision	Assessment	Consistent
	natural setting and contribute to the diversity of the District's scenic value Renewal in the eastern urban parts of the District can also protect and maintain views to the coastline, harbours and waterways from public spaces" • "Local neighbourhoods and centres, dense commercial and retail centres, open spaces and industrial precincts each have their own distinct character and add to the patchwork of the built environment of the District" • "The Sydney City skyline (including the Sydney Opera House and the Sydney Harbour Bridge) is an iconic urban landscape and can be viewed from many areas of Greater Sydney". The proposal does not block or otherwise occlude significant views obtained from the public domain to Botany Bay, the Cooks River or the Sydney CBD skyline. The proposal consolidates the urban form and visual character of the Princes Highway Corridor as an emerging node of substantial growth, and visually demarcates the location of the Arncliffe rail station. This pattern is consistent with that of the Eastern District and Greater Sydney overall, where significant development including taller buildings are concentrated around public transport infrastructure.	

10.3 Eastern City District Plan

The proposal is consistent with relevant provisions for visual impact in the Eastern City District Plan as shown in the following table:

Table 13 Consistency with Eastern City District Plan

Provision	Assessment	Consistent
Objective 28: Scenic and cultural landscapes are protected	Refer to assessment in **part 1** above	Yes
Planning Priority E16: Protecting and enhancing scenic and cultural landscapes	Refer to assessment in **part 1** above	Yes
Action 63: Identify and protect scenic and cultural landscapes	Refer to assessment in **part 1** above	Yes
Action 64: Enhance and protect views of scenic and cultural landscapes from the public realm	Refer to assessment in **part 1** above	Yes

10.4 Bayside Local Strategic Planning Statement

The proposal is consistent with relevant provisions for visual impact in the Bayside Local Strategic Planning Statement as shown in the following table:

Table 14 Consistency with Bayside Local Strategic Planning Statement

Provision	Assessment	Consistent
Planning Priority 22: Protect and enhance scenic and cultural landscapes	The Environment Structure Plan identifies the Botany Bay foreshore from the Cooks River to Kogarah Bay as being an "area of scenic and cultural protection". The supporting explanatory text for this planning priority is as follows: • Scenic and cultural landscapes such as waterways, coastline and bushland make an important contribution to the identity of Bayside and help people appreciate the natural environment, protect heritage and culture and create opportunities for recreation and tourism. In Bayside, of particular importance are Botany Bay and the Cooks River which are culturally	Yes

Provision	Assessment	Consistent
	significant and scenically important. They also offer an opportunity to reflect on Aboriginal and non-Aboriginal heritage. The proposal does not have a visual impact on scenic and cultural landscapes such as waterways, coastline and bushland, including Botany Bay and the Cooks River	
Action 22.1: Review the existing provisions relating to scenic and cultural landscape protection and consider the inclusion of a local provision in the Bayside LEP 2020	A local provision for scenic and cultural landscapes has not been included in the draft BLEP2020	N/a

10.5 Rockdale Local Environmental Plan 2011

Table 15 Assessment against the Rockdale Local Environmental Plan 2011

Provision	Control	Assessment	Compliance
Height of buildings (clause 4.3)			
(1) The objectives of this clause are as follows • (a) to establish the maximum limit within which buildings can be designed and floor space can be achieved • (b) to permit building heights that encourage high quality urban form • (c) to provide building heights	Maximum building height is 70m	Proposed maximum building height varies between RL89.65m - RL 98.05m. Merit assessment against the objectives is therefore required. The following is noted in relation to the extent of non-compliance: • non-compliance is due to rooftop elements of Buildings A and B • no habitable floorspace exceeds the control • buildings C and D are below the height limit.	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
that maintain satisfactory sky exposure and daylight to buildings, key areas and the public domain • (d) to nominate heights that will provide an appropriate transition in built form and land use intensity		On this basis, the extent of non-compliance is considered relatively minor. Non-compliance provides for the modulation of tower roof forms. This provides for a more visually varied and interesting overall building form without giving rise to significant adverse visual impacts. In particular, it will not block important sightlines obtained from the public domain to Botany Bay or the Cooks River or create an excessive scale that is inconsistent with the government endorsed planning intent for the Arncliffe Planned Precinct. It is nonetheless recommended that consideration be given to the form and materials of these roof elements to mitigate any impact. Due its relatively minor nature, it is not considered that the non-compliance gives rise to inappropriate transitions in built form and land use intensity. For these reasons, it is considered that there are sufficient visual impact grounds to justify the relatively minor extent of non-compliance with the building height control.	
Floor Space Ratio (clause 4.3)			

Provision	Control	Assessment	Compliance
(1) The objectives of this clause are as follows— • (c) to maintain an appropriate visual relationship between new development and the existing character of areas or locations that are not undergoing or likely to undergo a substantial transformation	Maximum FSR is 4:1 and 4.8:1 when including the 20% bonus under the ARH SEPP	As is noted in the EIS, the proposal does not comply with the FSR control. Merit assessment against the objectives is therefore required. Non-compliance is due to the use of wintergardens instead of open balconies for some apartments for acoustic amenity purposes. On this basis, the extent of non-compliance is considered relatively minor. As is shown in the EIS, the precinct is located in the centre of the Arncliffe Planned Precinct. As such, surrounding land is identified as being suitable for renewal of substantial scale, and the precinct does not interface with more sensitive locations such as low and medium rise residential areas to the west of the rail line. The establishment of relatively small areas of tall buildings focussed around rail stations or centres and separated by lower rise development is consistent with the prevailing urban form pattern in the Bayside LGA and Eastern City District, and that which is emerging in the broader Sydney Metropolitan Region. The non-compliance is also not considered to give rise to	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
		significant adverse visual impacts. For these reasons, it is considered that there are sufficient visual impact grounds to justify the relatively minor extent of non-compliance with the FSR control.	
Heritage Conservation (clause 5.10)			
(1) The objectives of this clause are as follows— • (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views	N/a	The precinct does not contain any heritage items and is not included in a heritage conservation area. However, two local heritage items are located on the western side of Eden Street opposite the site (27 Eden Street – "Glenwood" and 39 Eden Street – "Bard of Avon"). The Heritage Impact Statement (HIS) supporting this EIS has found that the proposed development will not result in adverse heritage impacts. In addition, the proposal will not be visible in the curtilage of these heritage items in views from obtained from the Eden Street public domain, enabling their continued legibility and appreciation.	Yes, based on merit assessment
Design Excellence (clause 6.14)			
(1) The objective of this clause is to deliver the highest standard of architectural, urban	N/a	The proposal does not impact on any view corridors identified in council planning instruments.	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
and landscape design. (4) In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters— • (c) whether the development detrimentally impacts on view corridors		This VIA has considered 6 representative viewpoints in the visual catchment. These shows that the proposal will not adversely impact on any other significant view corridors obtained from the public domain.	

10.6 Draft Bayside Local Environmental Plan 2020

Due to its advanced state (including having been subject to public notification), under NSW planning practice the draft Bayside Local Environmental Plan 2020 (the draft BLEP2020) is to be afforded weight in assessing development applications.

The intent of the BLEP2020 is to both give effect to the provisions of the Region Plan, District Plan and the LSPS, and harmonise the provisions of the Botany Bay LEP 2013 (BBLEP2013) and Rockdale LEP 2011 (RLEP2011).
Consistent with the policy directions of the Regional Plan, District Plan and LSPS, clause 1.2 aims of the plan includes the following:

- (a) to protect, conserve and enhance the environmental, scenic and cultural heritage, and landscapes, of Bayside.

The draft BLEP2020 does not contain a specific, consolidated additional local provision addressing scenic landscapes. Rather, provisions addressing scenic landscapes are included in parts covering land adjacent to waterways. This includes:

- Zone W1 Natural Waterways: Objectives of zone - to protect the ecological and scenic values of natural waterways.
- Zone W2 Recreational Waterways: 1 Objectives of zone – to protect the ecological, scenic and recreation values of recreational waterways

- Clause 6.7 Riparian land, wetlands and waterways: (1) The objectives of this clause is to protect and maintain the following – (v) scenic and cultural heritage values of waterways and riparian lands.

As is shown in table 1 above, the proposal does not impact the land identified as being a scenic landscape by State or council strategic planning policy. Furthermore, the proposal does not impact land in included in Zone W1 Natural Waterways, Zone W2 Recreational Waterways or subject to clause 6.7 Riparian land, wetlands and waterways.

Existing provisions addressing visual impact in the RLEP2011 have largely been carried over into the BLEP2020. Assessment against these provisions is provided in the table below. Note that this assessment is consistent with that for the RLEP2011.

Table 16 Assessment against the Draft Bayside Local Environmental Plan 2020

Provision	Control	Assessment	Compliance
Height of Buildings (clause 4.3)			
(1) The objectives of this clause are as follows: • (b) to minimise visual impact of new development, disruption of views, loss of privacy and loss of solar access to existing development	Maximum building height is 70m	Proposed maximum building height varies between RL89.65m - RL 98.05m. Merit assessment against the objectives is therefore required. Minimisation of visual impact compared to alternative strategies such as reduce or mitigate is a very rigorous test. Arguably, only a low-rise, small scale development can achieve minimisation. However, this is inappropriate for this precinct given other strategic planning objectives such as additional homes. On this basis minimisation can only be meaningfully judged against the relevant planning controls. This position was held by Roseth SC in his judgement in Veloshin v Randwick Council [2007] NSWLEC 428 that	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
		formed the basis for a planning principle on impact: • "30 The debate about height and bulk can be meaningful only against the background of local planning controls, such as maximum height, floor space ratio, site coverage and setbacks". The surrounding context does not provide for important views from the public domain to Botany Bay or the Cooks River. Attractive views over a long range to the Sydney CBD skyline are obtained from private properties approximately 400m to the west. It is not considered that the proposal will give rise to unreasonable blocking of these views. The relatively minor extent of non-compliance with the control identified in table 15 is noted. Given these considerations, it is considered that the proposal minimises visual impact appropriate for an identified high growth precinct and does not unreasonably disrupt views.	
Floor Space Ratio (clause 4.4)			
(1) The objectives of this clause are as follows: • (d) to maintain an appropriate visual	Maximum FSR is 4:1 and 4.8:1 when including the 20% bonus under the ARH SEPP	As is noted in the EIS, the proposal does not comply with the FSR control.	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
relationship between new development and the existing character of areas or locations that are not undergoing or likely to undergo a substantial transformation. • (e) to ensure that buildings do not adversely affect the streetscape, skyline or landscape when viewed from adjoining roads and other public places such as parks, and community facilities.		Merit assessment against the objectives is therefore required. Assessment against item (d) is made in table 15. The proposal will impact the nature of the streetscape, skyline and landscape when viewed from public places such as parks. Scoping, including field visits, showed that the proposal would unlikely be prominent element in the landscape when seen from Arncliffe Park to the west due to distance or from Wooroona Reserve to the north due to the occluding effect of existing buildings in the foreground. Photomontages prepared for Belmore Street, which is a key community gathering place for the local community, show that while visible, the proposal will appear as an element in the background of appropriate scale relative to the foreground. This photomontage also shows that due to the fragmentation of development into different, well spaces and relatively slender towers, ,the proposal will provide visual interest in the local skyline. The proposal will be a dominant feature when seen from the adjoining Princes	

Provision	Control	Assessment	Compliance
		Highway and Eden Street streetscapes. However, as has been noted, the visual nature of these streetscapes is not considered to be of sufficient sensitivity to warrant reconsideration of the proposal on visual grounds. Design measures, including separation of massing into different buildings and provision of a substantial new open space, have been included that are appropriate to a precinct identified for substantial growth. In addition, more detailed matters such as landscaping and materiality that further mitigate visual impact can be conditioned as part of development consent.	
Heritage Conservation (clause 5.10)			
(1) The objectives of this clause are as follows: • (b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,	N/a	Refer to Table 1 of this report	Yes, based on merit assessment
Design Excellence (clause 6.12)			
(1) The objective of this clause is to deliver the highest standard	N/a	Refer to Table 1 of this report	Yes, based on merit assessment

Provision	Control	Assessment	Compliance
of architectural, urban and landscape design. (4) In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters— • (c) whether the development detrimentally impacts on view corridors			

10.7 Rockdale Development Control Plan 2011

Pursuant to the Act, SSDA is not subject to assessment against development control plans. Nonetheless, it is considered to be best practice to have a level of regard to relevant provisions of development control plans applying more broadly in the relevant LGA. In this case, this is the Rockdale Development Control Plan 2011

Assessment against these provisions is provided in the table below.

Table 17 Assessment against the Rockdale Development Control Plan 2011

Objective	Control	Assessment	Consistent
4.1.1 Views and Vistas			
O.A To maintain and enhance existing views to and from the Cooks River and Botany Bay	C1. Development must consider any significant views to, from and across the site	There are no significant views to, from and across the site	Yes, based on merit assessment
O.B To protect significant view corridors to landmarks and heritage items	C2. Development must retain existing views to Botany Bay, and where possible enhance views	The site does not block existing views to Botany Bay	Yes, based on merit assessment

Objective	Control	Assessment	Consistent
that contribute to a sense of place	through site planning and building design		
O.C To ensure the appearance of development at highly visible sites complements the character of the area and its skyline	C3. Development on highly visible sites, such as ridgelines, must be carefully designed so that it complements the character of the area and its skyline.	The proposal is not located on a ridgeline	Yes, based on merit assessment
O.D To encourage view sharing as a means of ensuring equitable access to views from neighbouring properties O.E To provide additional views and vistas from streets and other public spaces where opportunities arise	C4. View corridors to landmarks and significant heritage items must be protected where possible. Applicants may be required to prepare photo montages of the proposed development to illustrate the impact on views	The proposal does not impact a view corridor to landmarks or significant heritage items	Yes, based on merit assessment
	C5. Building forms and setbacks permit views from public streets and open spaces. In particular, views from public open spaces to the bay and district are preserved.	The proposal does not block views to Botany Bay. As is shown in Figure 1, the clustering of the towers minimises it footprint and visual impact in district views obtained from more elevated locations to the south-west of the precinct	Yes, based on merit assessment
	C6. Roof forms on the low side of streets are well articulated to allow public views and add interest to the scenic outlook. Large, flat expansive roofs with vents, air	The intent of this provision is to enable views from adjoining development on the higher side of a street across sites to elements that provide for scenic amenity such as Botany Bay. It is likely most relevant to	Yes, based on merit assessment

Objective	Control	Assessment	Consistent
	conditioning units and similar structures are inappropriate.	situations where view sharing is a desirable outcome in a lower rise, suburban context. On this basis it is argued that it is not of high relevance to this proposal. Nonetheless, as is shown in the EIS and supporting architectural plans, roof forms are well articulated	
	C7. Building forms enable a sharing of views with surrounding residences, particularly from the main habitable rooms of surrounding residences.	Significant views to elements of scenic values such as Botany Bay or the Cooks River are not obtained from surrounding premises. Due to distance and angle, the proposal will appear at distance and peripheral in views to the Sydney CBD skyline obtained from elevated premises around Towers Place, Towers Street, Stanley Street and Stanley Lane	Yes, based on merit assessment

It is to be noted there is an amended Rockdale DCP 2011 that was on exhibition, there were no changes to the controls relate to visual impact.

10.8 Planning principle: Tenacity Consulting v Waringah [2004] NSWLEC 140

The Land and Environment Court outlines planning principles as follows:

"A planning principle is a statement of a desirable outcome from a chain of reasoning aimed at reaching, or a list of appropriate matters to be considered in making, a planning decision.

While planning principles are stated in general terms, they may be applied to particular cases to promote consistency. Planning principles are not legally binding and they do not prevail over councils' plans and policies.

Planning principles assist when making a planning decision, including:

- where there is a void in policy

- where policies expressed in qualitative terms allow for more than one interpretation
- where policies lack clarity."

There are a number of current planning principles that have a bearing on the consideration of visual impact. The most relevant of these is Tenacity Consulting v Waringah [2004] NSWLEC 140. While formulated based on case that involved consideration of view sharing in a lower rise suburban context, it has nonetheless been established as the pre-eminent test set of principles for views more broadly. The key tests involves one of a reasonableness as judged by compliance with controls and skilful design to distribute massing.

The following table provides consideration against Tenacity Consulting v Waringah [2004] NSWLEC 140.

Table 18 Consideration of Tenacity Consulting v Waringah [2004] NSWLEC 140

Principles	Assessment	Consistent
26 The first step is the assessment of views to be affected. Water views are valued more highly than land views. Iconic views (eg of the Opera House, the Harbour Bridge or North Head) are valued more highly than views without icons. Whole views are valued more highly than partial views, eg a water view in which the interface between land and water is visible is more valuable than one in which it is obscured	This VIA has shown that the proposal will not impact any significant views to elements of scenic value	Yes
27 The second step is to consider from what part of the property the views are obtained. For example the protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries. In addition, whether the view is enjoyed from a standing or sitting position may also be relevant. Sitting views are more difficult to protect than standing views. The expectation to retain side views and sitting views is often unrealistic	This VIA has shown that the proposal will not impact any significant views to elements of scenic value	Yes

Principles	Assessment	Consistent
28 The third step is to assess the extent of the impact. This should be done for the whole of the property, not just for the view that is affected. The impact on views from living areas is more significant than from bedrooms or service areas (though views from kitchens are highly valued because people spend so much time in them). The impact may be assessed quantitatively, but in many cases this can be meaningless. For example, it is unhelpful to say that the view loss is 20% if it includes one of the sails of the Opera House. It is usually more useful to assess the view loss qualitatively as negligible, minor, moderate, severe or devastating.	As this VIA has shown that the proposal will not impact any significant views to elements of scenic value, the ranking system on a spectrum between negligible to devastating is not relevant. Rather, the VIA has considered the broader visual impact of the proposal. It shows that the proposal will have a significant visual impact from a number of viewpoints in the close range. This effect is inherent to the nature of the proposal as a large scale renewal precinct featuring tall buildings.	Yes
29 The fourth step is to assess the reasonableness of the proposal that is causing the impact. A development that complies with all planning controls would be considered more reasonable than one that breaches them. Where an impact on views arises as a result of non-compliance with one or more planning controls, even a moderate impact may be considered unreasonable. With a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable.	As has been shown, a finding of a significant visual impact does not automatically correlate with an unreasonable or unacceptable visual impact. Rather, acceptability is determined with reference to the planning framework. The proposal complies with the key development standards that have a bearing on visual impact, namely maximum building height and maximum FSR. In addition, the proposal has been developed through a comprehensive and considered design process that has been subject to design review. This has resulted in a number of design measures that mitigate visual impact. These include: • distribution of floor space in a number of separate buildings • varied orientation of buildings	Yes

Principles	Assessment	Consistent
	• offsetting the lower and upper parts of some buildings • separating towers in accordance with the ADG • articulating building elevations through recessing and projecting elements such as balconies and providing for a balance of vertical and horizontal lines • articulating the roof form • variety of materiality • provision of a large, publicly accessible open space at the ground plane to break up the scale of the streetscape • incorporating substantial landscaping	

10.9 Discussion

Consistent with relevant parts of applicable strategic plans such as the Eastern City District Plan, the proposal does not block, occlude or otherwise adversely impact significant views obtained from the public domain to elements identified as being of high scenic value such as Botany Bay, the Cooks River or the Sydney CBD skyline.

The proposal results in an urban form outcome consistent with the planning intent for the Arncliffe Planned Precinct, in particular through consolidates the urban form and visual character of the Princes Highway Corridor as an emerging node of substantial growth and visually demarcating the location of the Arncliffe rail station. This pattern is consistent with that of the Eastern District and Greater Sydney overall, where significant development including taller buildings are concentrated around public transport infrastructure.

It is considered that non-compliance with controls does not give rise to significant unacceptable visual impacts. Consideration of the test of reasonableness under Tenacity Consulting v Waringah [2004] NSWLEC 140 has shown that the design is both the product of a comprehensive and considered design process that has been subject to design review and incorporates a number of design measures that mitigate visual impact. On this basis, it is considered that there are sufficient visual impact grounds to justify the relatively minor extent of non-compliances

On this basis, while acknowledging that the proposal gives rise to significant visual impact, these impacts are considered reasonable given they are consistent with the desired future planning intent for the precinct and give rise to visual impacts compatible with this intent, is consistent with key development standards and has taken appropriate steps that can be considered to represent skilful design.

11.0 Mitigation measures

There are three broad types of mitigation measures:

1. avoid
2. minimise
3. offset.

This is generally consistent with the principles for the management of environmental impacts in the GLVIA3 (part 3.37).

Under the GLVIA3 (part 4.21), there are a number of stages in the development process when mitigation measures should be considered. Of relevance to this proposal are the following:

- **primary measures**: considered as part of design development and refinement
- **secondary measures**: considered as part of conditioning a development consent.

It is the finding of this VIA that the proposal has an acceptable visual impact. Nonetheless, it is recommended that the following mitigation measures embedded in the design be carried through to construction to ensure this outcome.

Table 19 Mitigation measures

Matter	Mitigation measure	Stage
Siting	Varied orientation of buildings	Detailed DA stage
	Separating towers in accordance with the ADG	Detailed DA stage
	Provision of a large, publicly accessible open space at the ground plane to break up the scale of the streetscape	Detailed DA stage
Scale	Distribution of floor space in a number of separate buildings	Detailed DA stage
Form	Offsetting the lower and upper parts of some buildings	Detailed DA stage

Matter	Mitigation measure	Stage
Detailed design	Articulating building elevations through recessing and projecting elements such as balconies and providing for a balance of vertical and horizontal lines	Detailed DA stage
	Articulating the roof form	Detailed DA stage
	Variety of materiality	Detailed DA stage
	Incorporating substantial landscaping	Detailed DA stage

12.0 Conclusion

When considering the factors of sensitivity and magnitude, the proposal gives rise to significant visual impact. However, these impacts are considered acceptable as the proposal:

- results in an urban form outcome consistent with the planning intent for the Arncliffe Planned Precinct, in particular through consolidates the urban form and visual character of the Princes Highway Corridor as an emerging node of substantial growth and visually demarcating the location of the Arncliffe rail station
- does not block, occlude or otherwise adversely impact significant views obtained from the public domain to elements identified as being of high scenic value such as Botany Bay, the Cooks River or the Sydney CBD skyline
- is the product of a comprehensive and considered design process that has been subject to design review and incorporates a number of design measures that mitigate visual impact.

For these reasons outlined in this report and subject to the mitigation measures identified in section 11 of this report, it is considered that the proposal has an acceptable visual impact. On this basis, it can be supported on visual impact grounds.

Appendix A. Visual impact evidence (CMS)

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VISUAL IMPACT STUDY - EDEN STREET, ARNCLIFFE

PRODUCED FOR ETHOS URBAN ON BEHALF OF BILLBERGIA GROUP

ISSUE 2 - 19.07.2021

A3

VISUAL IMPACT STUDY PROCESS

Preamble

CMS Surveyors has been engaged to prepare the following survey accurate representation of the visual impact of the proposed development.

CMS Surveyors have developed this methodology based on sound knowledge of coordinate systems, survey data, 3D modelling software and Photography.

In preparing this documentation to support the Visual Impact Study, CMS Surveyors has collected survey data and photography on site, related this information to a coordinate system, and prepared rendered views from a composition of the design model (as supplied) and the existing scene.

Process

The site and existing building(s) are surveyed using a Leica Laser scanner which is able to capture 1,000,000 points per second to an accuracy of 3mm at 50m from the scanner and is able to scan almost any material or surface.
The scan data is linked to to the Australian Height Datum (AHD) and the Map Grid of Australia (MGA). Likewise, the photographs are captured on site and the camera location for each photo location is surveyed for later virtual scene and camera replication.

The proposed development has been supplied by the Architect and has been aligned and referenced to survey data captured on site, including existing physical features and/or the boundaries of the site. Virtual Camera View Points are positioned exactly in the 3D scene with the vertical and horizontal coordinates listed for reference.

The methodology used for scene setup is further described in the images on the right of this page.

View Points and Lens Choice
Various view points have been produced to ascertain the impact of the proposed development on the existing "high value" view elements as per the client's directions.

The photos in this study have been captured using a number of different focal lengths as shown in the data, representing multiple different fields of view. The field of view of human vision is subject to conjecture and the way an image of a scene is viewed on a flat piece of paper or screen is different to how it is perceived in reality. Due to the variabilities in the way the scene is perceived to the viewer, to be most confident in how the proposed development will look in reality, the photomontages are best viewed on site in the position of the camera to get the best 'feel' for the visual impact of the proposal.

This report has been produced by Christopher Larmour B. Eng (Surveying and Spatial Information Systems), NSW Registered Surveyor

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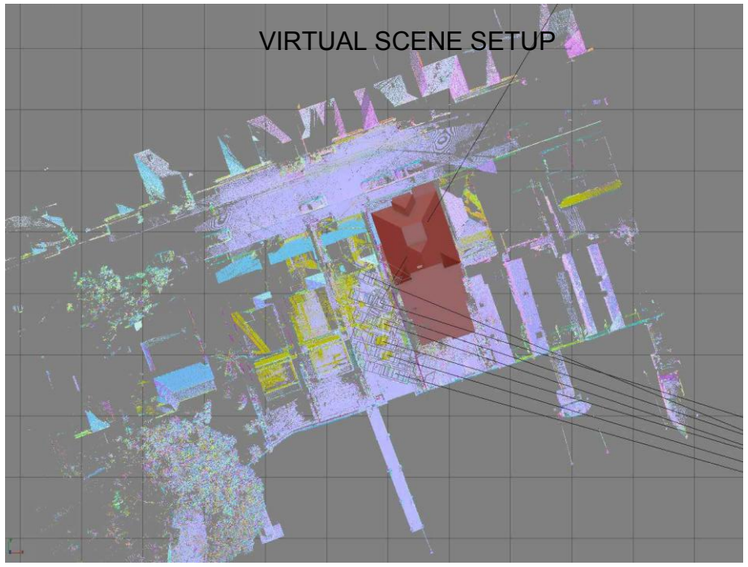
EXAMPLE VISUAL IMPACT STUDY PROCESS

VIRTUAL SCENE SETUP



Step 1:
- Laser scan existing location and surrounds on MGA coordinates (Location) and AHD (height).
- Carry out boundary survey to accurately position boundaries.
- Take photos on site at known coordinates pointing towards measured target.
- Set up scene in 3D graphics software

REAL + VIRTUAL CAMERA ALIGNMENT PROOF

Step 1:
- Using the surveyed camera position and the point cloud data, accurately align the virtual camera to the captured 3D data and check the alignment on the photograph background
- This image shows the alignment of the 3D Scanner point cloud data overlaid on the 2D photograph proving correct camera parameters.

INSERT PROPOSAL

Step 3:
- Position proposed development in CAD software based on DA plans, surveyed boundaries and existing features.
- Import 3D model of proposed development into scene

FINAL COMPOSITION

Step 4:
- Render out model and re-layer with any foreground objects. Note that any colour, lighting and materials of the proposed development is strictly indicative only.

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PHOTO LOCATIONS

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Notes:

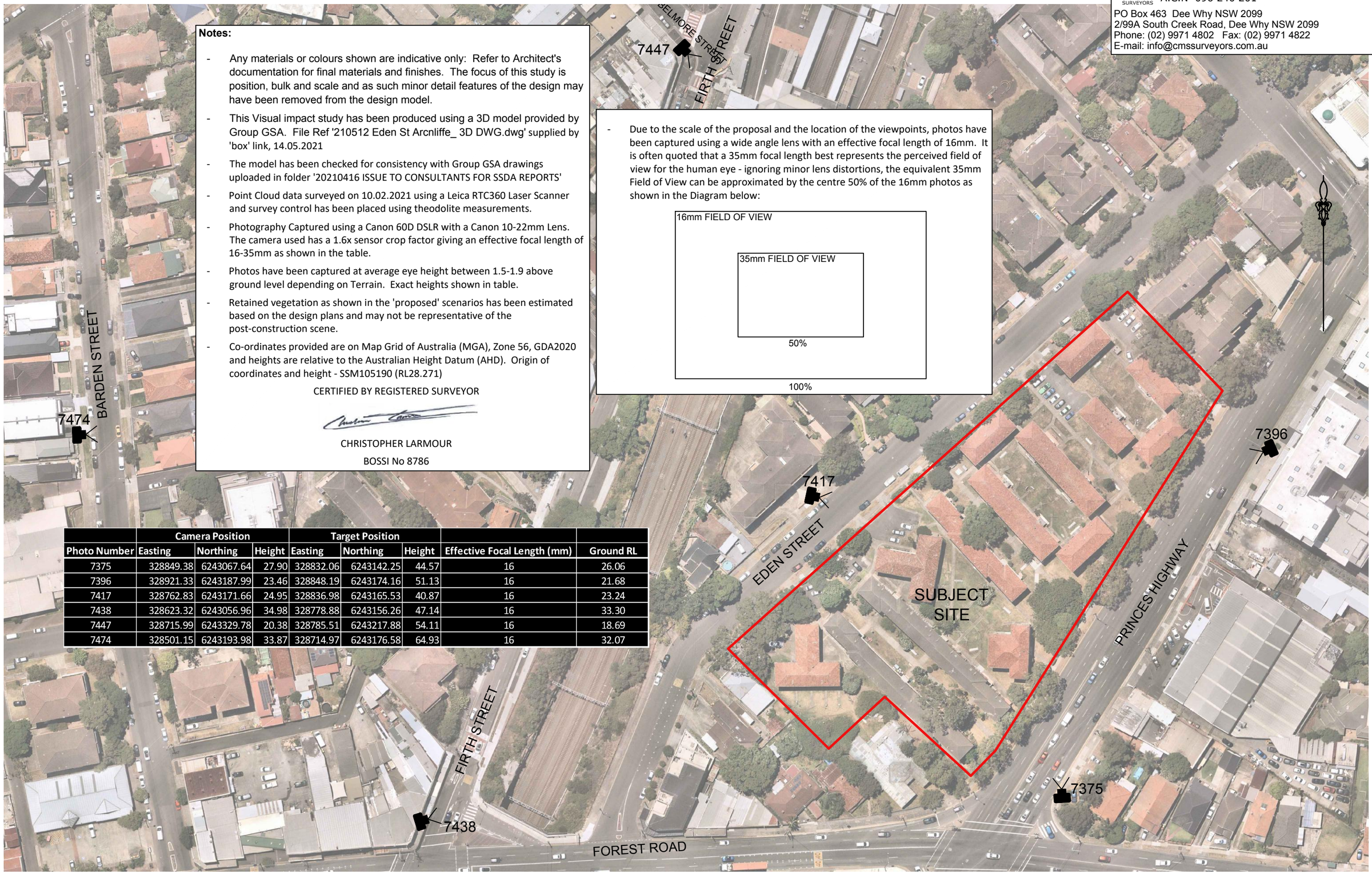
- Any materials or colours shown are indicative only: Refer to Architect's documentation for final materials and finishes. The focus of this study is position, bulk and scale and as such minor detail features of the design may have been removed from the design model.
- This Visual impact study has been produced using a 3D model provided by Group GSA. File Ref '210512 Eden St Arcnliffe_ 3D DWG.dwg' supplied by 'box' link, 14.05.2021
- The model has been checked for consistency with Group GSA drawings uploaded in folder '20210416 ISSUE TO CONSULTANTS FOR SSDA REPORTS'
- Point Cloud data surveyed on 10.02.2021 using a Leica RTC360 Laser Scanner and survey control has been placed using theodolite measurements.
- Photography Captured using a Canon 60D DSLR with a Canon 10-22mm Lens. The camera used has a 1.6x sensor crop factor giving an effective focal length of 16-35mm as shown in the table.
- Photos have been captured at average eye height between 1.5-1.9 above ground level depending on Terrain. Exact heights shown in table.
- Retained vegetation as shown in the 'proposed' scenarios has been estimated based on the design plans and may not be representative of the post-construction scene.
- Co-ordinates provided are on Map Grid of Australia (MGA), Zone 56, GDA2020 and heights are relative to the Australian Height Datum (AHD). Origin of coordinates and height - SSM105190 (RL28.271)

CERTIFIED BY REGISTERED SURVEYOR

CHRISTOPHER LARMOUR

BOSSI No 8786

- Due to the scale of the proposal and the location of the viewpoints, photos have been captured using a wide angle lens with an effective focal length of 16mm. It is often quoted that a 35mm focal length best represents the perceived field of view for the human eye - ignoring minor lens distortions, the equivalent 35mm Field of View can be approximated by the centre 50% of the 16mm photos as shown in the Diagram below:



	Camera Position			Target Position				
Photo Number	Easting	Northing	Height	Easting	Northing	Height	Effective Focal Length (mm)	Ground RL
7375	328849.38	6243067.64	27.90	328832.06	6243142.25	44.57	16	26.06
7396	328921.33	6243187.99	23.46	328848.19	6243174.16	51.13	16	21.68
7417	328762.83	6243171.66	24.95	328836.98	6243165.53	40.87	16	23.24
7438	328623.32	6243056.96	34.98	328778.88	6243156.26	47.14	16	33.30
7447	328715.99	6243329.78	20.38	328785.51	6243217.88	54.11	16	18.69
7474	328501.15	6243193.98	33.87	328714.97	6243176.58	64.93	16	32.07

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PHOTO No. 7375

Scene setup proof 1 - Virtual Camera in Point cloud

Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

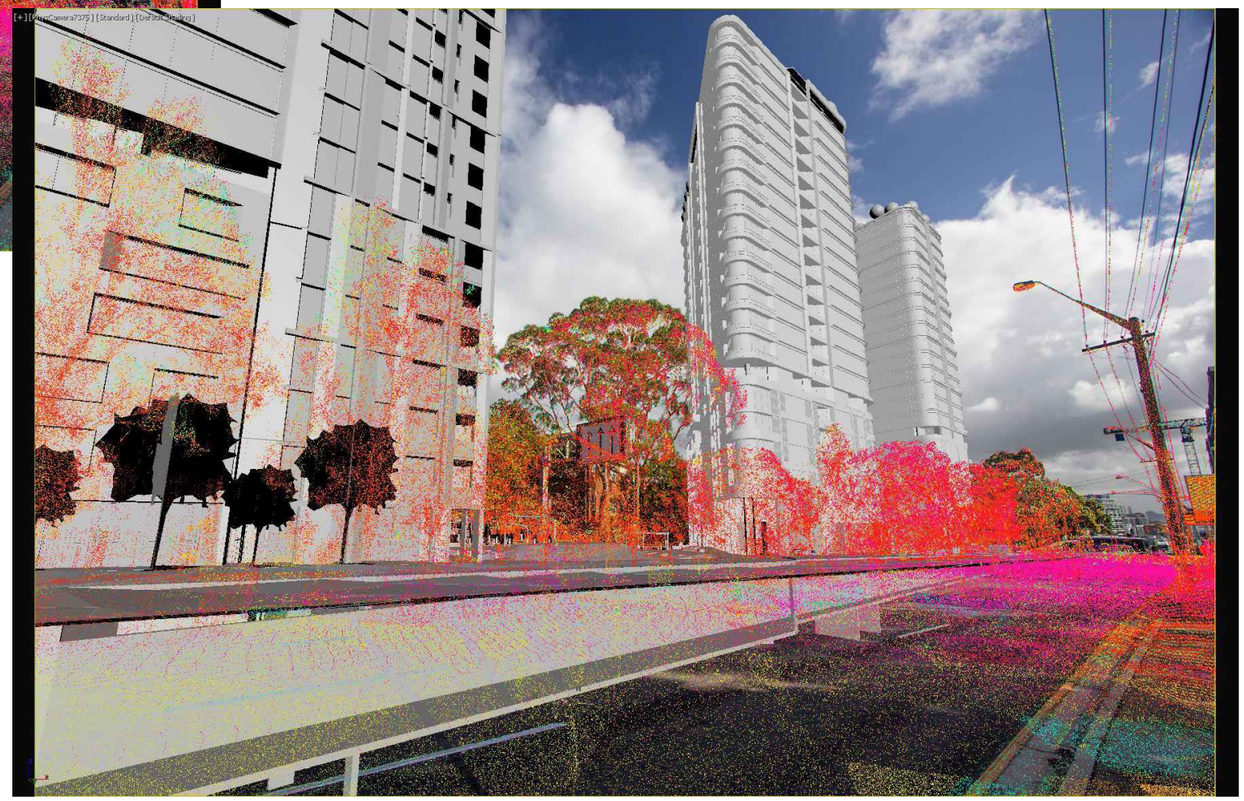

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PHOTO No. 7375

Pre-development Scene

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PHOTO No. 7375

Proposed Scene

A3

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PHOTO No. 7375

Proposed Scene (Hypothetical compliant design overlaid in red)

A3

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PHOTO No. 7396

Scene setup proof 1 - Virtual Camera in Point cloud

Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

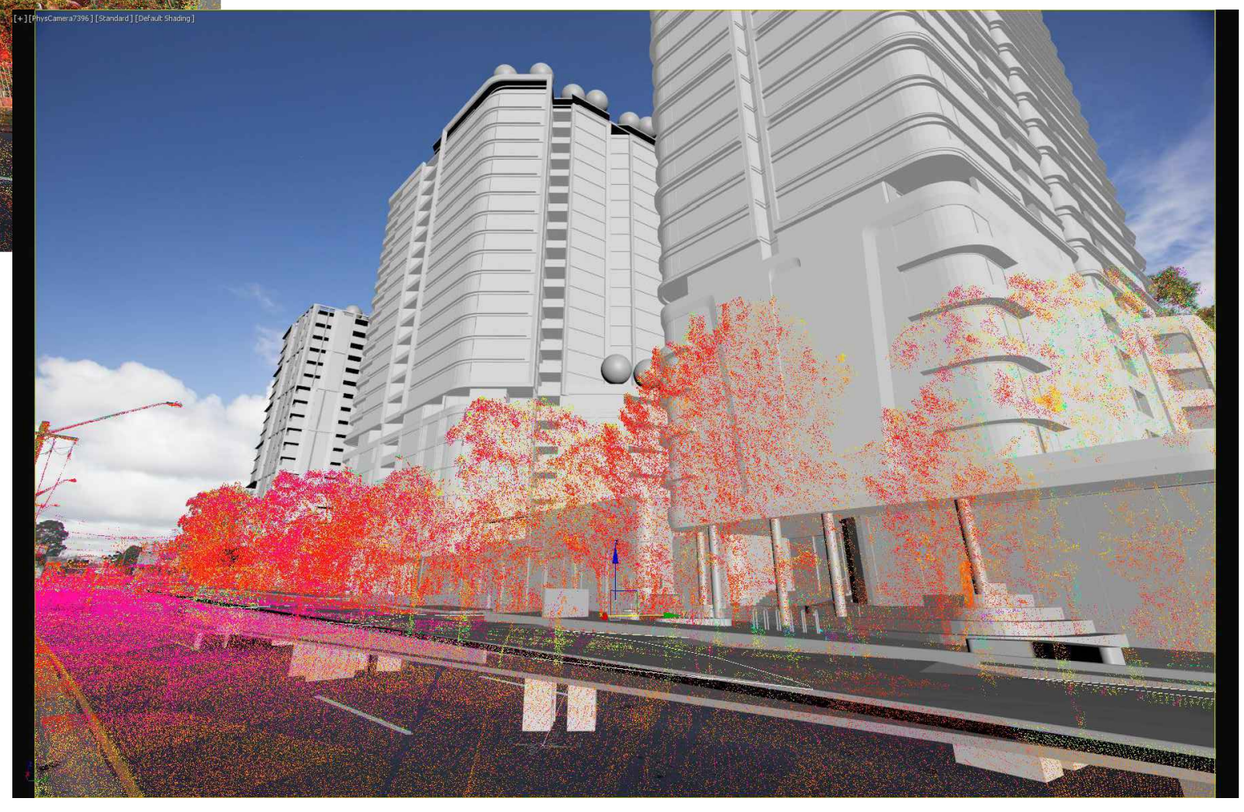

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PHOTO No. 7396

Pre-development Scene

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PHOTO No. 7396

Proposed Scene

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PHOTO No. 7396

Proposed Scene (Hypothetical compliant design overlaid in red)

A3

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PHOTO No. 7417

Scene setup proof 1 - Virtual Camera in Point cloud

Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

A3

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PHOTO No. 7417

Pre-development Scene

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PHOTO No. 7417

Proposed Scene

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PHOTO No. 7417

Proposed Scene (Hypothetical compliant design overlaid in red)

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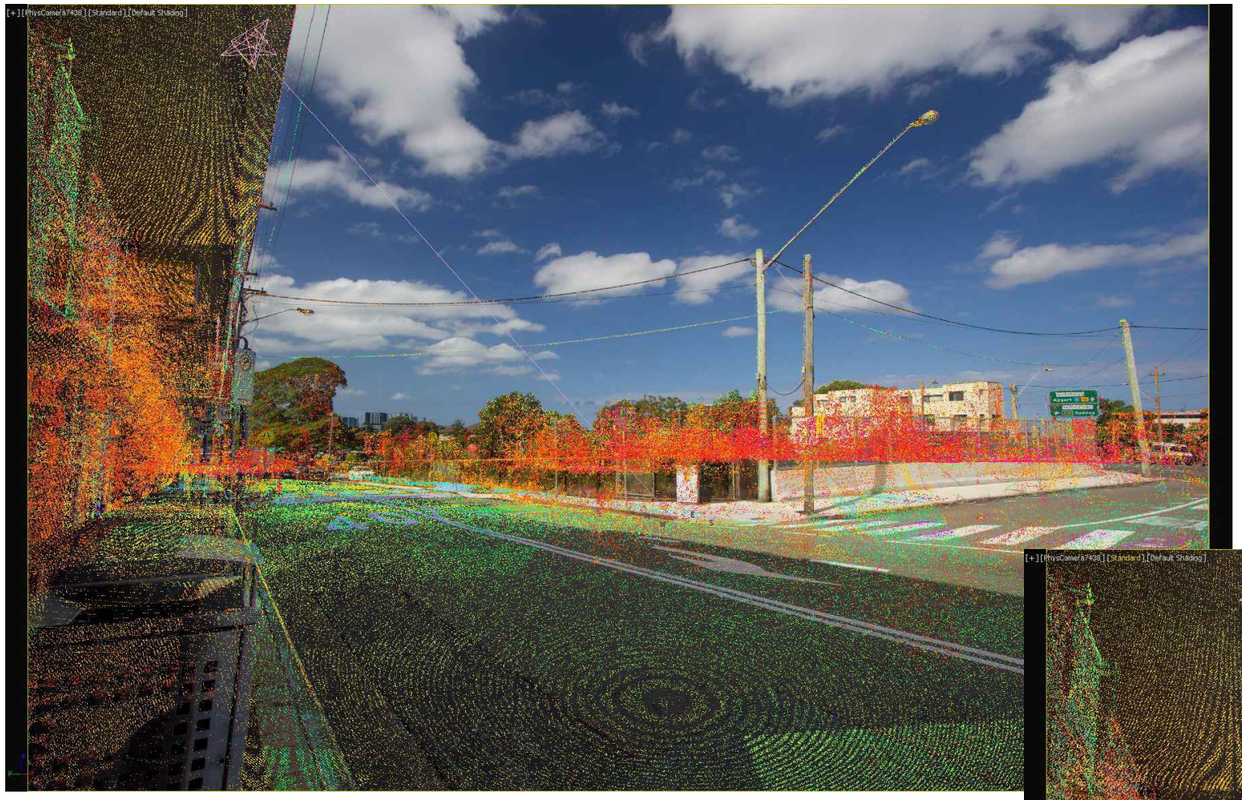
PHOTO No. 7438

Scene setup proof 1 - Virtual Camera in Point cloud



Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

A3

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PHOTO No. 7438

Pre-development Scene

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PHOTO No. 7438

Proposed Scene

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PHOTO No. 7438

Proposed Scene (Hypothetical compliant design overlaid in red)

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PHOTO No. 7447

Scene setup proof 1 - Virtual Camera in Point cloud

Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

A3

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PHOTO No. 7447

Pre-development Scene

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PHOTO No. 7447

Proposed Scene

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PHOTO No. 7447

Proposed Scene (Hypothetical compliant design overlaid in red)

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PHOTO No. 7474

Scene setup proof 1 - Virtual Camera in Point cloud

Scene setup proof 2 - Virtual Camera in Point cloud with Proposal

A3

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PHOTO No. 7474

Pre-development Scene

A3

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PHOTO No. 7474

Proposed Scene

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PHOTO No. 7474

Proposed Scene (Hypothetical compliant design overlaid in red)