URBIS

110 –122 WALKER STREET, NORTH SYDNEY

VISUAL ASSESSMENT REPORT

EXECUTIVE SUMMARY

URBIS STAFF RESPONSIBLE FOR THIS REPORT:

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Project Code: P0026455
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This report has been prepared by Urbis to accompany a development application (DA) for a proposed mixed use commercial development located at 110-122 Walker Street, North Sydney (the site).

This report is limited to an assessment of the visual effects and potential visual impacts on private view sharing associated with the proposed development.

The development application includes a tall tower form with rectangular floorplate where the long elevations present to the west and east. The built form proposed is taller and wider than the built form that currently occupies the site and will be taller than other immediately surrounding buildings.

The assessment of potential private domain view loss is based on an analysis of accurate Computer Aided Images (CGIs) prepared by Virtual Ideas, real-estate photographs from neighbouring residential dwellings, aerial photographs and a review of architectural drawings and modelling prepared by the project architects.

The view locations selected for analysis represent potential views to the south, south-east and east from the closest neighbouring residential development located at 79-81 Berry Street.

This report concludes that construction of the proposed mixed-use commercial development will result in some impacts on private domain views and in particular view loss from east-facing dwellings at the upper levels at 79-81 Berry Street.

Views from this residential development are likely to be the most affected by private domain view loss given their close proximity to the site, orientation and likely view access to the east and south-east.

Real-estate photographs from the level 35 Penthouse apartment combined with an analysis of CGIs provide an indication of the potential view sharing outcome in relation to some dwellings at 79-81 Berry Street..

The most widely referenced and relevant planning principle to private domain view sharing established in the Land and Environment Court of NSW is commonly referred to as Tenacity. Assessment against this principle requires views from dwellings to be physically inspected if possible inorder to satisfy all required steps. Further explanation of the planning principles relevant to this assessment is included in section 6.0.

Views inspections from dwellings at 79-81 Berry Street have not been undertaken at this time, however detailed CGIs have been prepared inorder to provide an indication of the extent of existing views availble and the likley effects of the proposed development, on those views.

We conclude that some view loss is likely to occur for upper floor dwellings at 79-81 Berry Street.

Some views lost are likely to include scenic or parts of some highly valued items as defined in the planning principle Tenacity.

The proposed development is not dissimilar in form and character to other mixed-use tower developments located within the B3 commercial core of North Sydney and that are present in the immediate visual context of the subject site.

The proposed development includes minor non-compliances in relation to DCP setbacks. The minor additional horizontal extent of the built form proposed beyond the permissible DCP envelope, does not create significant view blocking effects. In the majority of views the built form that is non- compliant with DCP setbacks, does not block access to scenic or iconic features as defined in Tenacity.

The additional height sought pursuant to clause 6.3 of North Sydney LEP 2013 (NSLEP 2013) does not block private domain views to scenic or highly valued items as defined in Tenacity. The additional height sought is likely to block areas of open sky in upward views from external locations at some neighbouring residential dwellings at 79-81 Berry Streets.

In this regard the regard the extent of view loss and likely visual impacts on private domain views is largely contemplated by the applicable controls.

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1.0 PURPOSE OF REPORT

This report provides an assessment of the potential visual effects and impacts of the built form proposed on private domain views subsequent to the approval of a DA for 110-122 Walker Street in, North Sydney. The DA seeks additional height subject to the provisions of clause 6.3 of NSLEP 2013. The planning merits of this are discussed by others with the appropriate expertise. This report addresses only the likely visual effects of the additional height sought as modelled in the CGIs.

The author of this report specialises in the assessment of visual effects and impacts, view loss and view sharing and in strategic planning of access to and protection of scenic resources. This report is based on a desktop review of aerial imagery, architectural plans and a Design Report prepared by Hassell Architects, CGIs prepared by Virtual Ideas and real estate photographs from neighbouring residential dwellings.

This report is restricted to the analysis of the likely views access from the upper floor, east-facing apartments at the 79-81 Berry Street and the likely view sharing outcomes as a result of the construction of the built form proposed. Urbis undertook fieldwork in November 2020 in order to record observations from surrounding streets and open spaces in relation to orientation and spatial separation of the 79-81 Berry Street to the subject site and to other recently constructed buildings and those under construction.

The assessment of view sharing outcomes takes into consideration the themes and steps outlined in the most relevant and widely referenced planning principle to views and view sharing established in the Land and Environment Court of New South Wales that is relevant to views (Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours (Tenacity).

In order to undertake a thorough and accurate view sharing assessment against Tenacity, views from potentially affected dwellings and rooms need to be inspected. This is required in order to answer the questions posed in each of the four steps established in the Principle.

Urbis has not undertaken views inspections at dwellings at this stage but has instead based this assessment on imagery provided by Virtual Ideas. The CGIs provide an indication of the likely views available and the likely visual effects of the proposed development on each view. In this regard an assessment against the four steps in Tenacity is approximate and indicative.

This assessment includes analysis of 9 CGIs which represent 'virtual' views which are potentially available from 3 upper floor apartments at 79-81 Berry Street.

Detailed analysis of the visual effects as modelled are included in section 6.1.

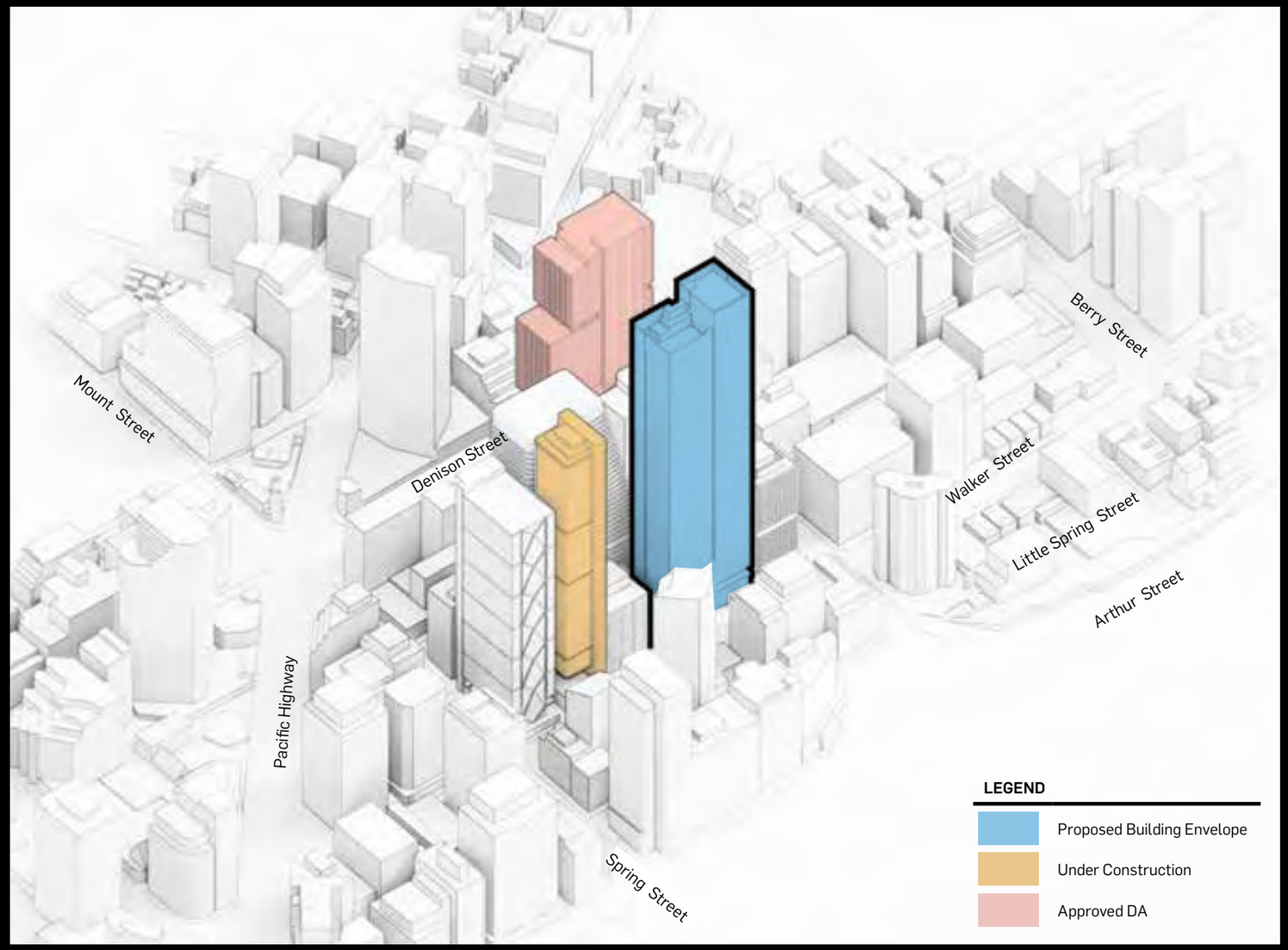


Figure 1 Proposed building envelope in context of existing and emerging context

2.0 BACKGROUNDS

2.1 SITE DESCRIPTION

The land to which this DA relates is known as 110-122 Walker Street, North Sydney. The site is situated on the western side of Walker Street.

The site occupies three land allotments and is legally described as follows:

- Lot 1 DP777779,
- Lot 101 DP730995, and
- Lot 8 DP304.

The site comprises a regular rectangular shaped allotment with a frontage to Walker Street of approximately 63 metres and a maximum overall depth of approximately 36.6 metres, yielding a total site area of approximately 2,305sqm.

The topography of the site has a fall of approximately 5.25 metres from north west to south east the site is devoid of any significant vegetation. There are no easements affecting the site.

A Location Plan including the site is provided in Figure 2.

The site is currently occupied by three low-scale commercial office buildings approximately seven-storeys in height. Primarily, vehicle access to the site is provided via Little Spring Street.

The surrounding land to the north, south, east and west includes mixed use commercial office developments, which vary in height typically with ground level lobby areas and retail uses. A residential flat building at 79-81 Berry Street is located directly to the north-west of the site and is one of the few remaining residential developments in the North Sydney commercial core.

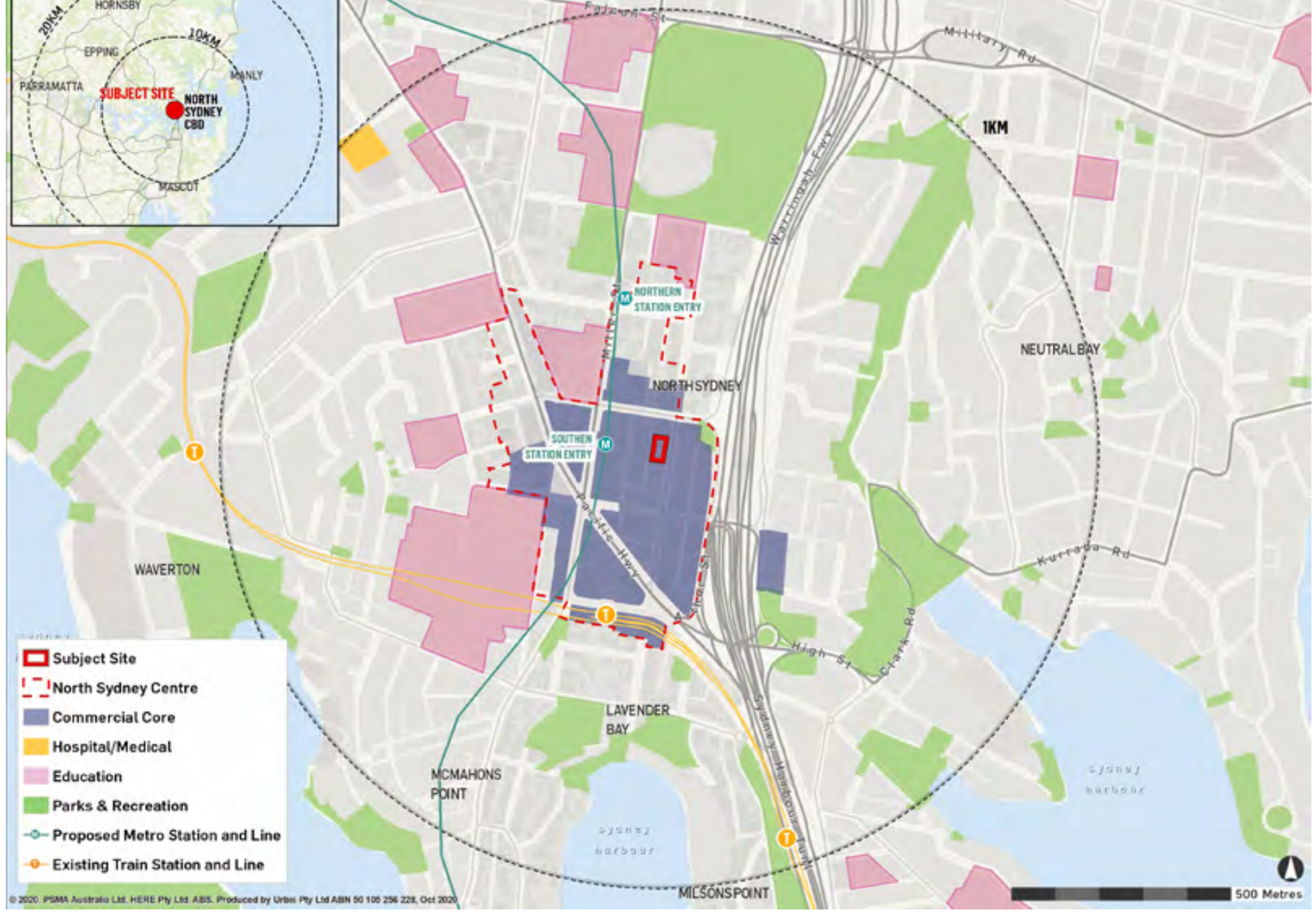


Figure 2 Strategic Location Plan

2.2 NORTH SYDNEY DCP 2013 PRINCIPLES RELEVANT TO VIEWS

The North Sydney DCP 2013 includes character statements for certain areas of the local government area. The site is located within the 'North Sydney Planning Area' Character Statement area.

The following is stated within the Character Statement 'Environmental Criteria'.

There is an opportunity to enjoy the views from and within the area towards the Sydney CBD, Sydney Harbour, heritage items and surrounding areas

Views to the Sydney CBD, Sydney Harbour and heritage items are available primarily only along road corridors due to the various high-rise buildings on the skyline. The proposed development would therefore not cause significant impact on views to any of these items and we note that there are no heritage items within the site or vicinity.

The site is within the 'Central Business District' locality area which lists the following views as significant elements:

P7 The following views and vistas are to be preserved and where possible enhanced:

(a) From the plaza at No.5 Blue Street and located over North Sydney Rail Station to the Sydney Harbour Bridge.

(b) From Doris Fitton Park (160-166 Arthur Street) to Sydney Harbour and Neutral Bay district.

(c) Views along the Pacific Highway to the Post Office on Mount Street from the south-east.

(d) Views along the Pacific Highway to Sydney Harbour from the intersection with Mount Street

The proposed development is not sited adjacent to or within any identified view corridor indentified in the DCP. Its mass and scale is unlikely to create any significant visual effects in relation to the character or quality of identified views and vistas within this part of North Sydney. The DCP does not include any specific references to private domain views.

LEGEND

- Subject Site
- Victoria Cross Metro
- 1 Denison Street
- 88 Walker Street
- 100 Mount Street

Figure 3 Location Plan & development applications in the vicinity of the site (*Source: Google Earth*)

3.0 THE EXISTING SITE AND VISUAL CONTEXT

The site is rectangular in shape and is located centrally within the North Sydney CBD, which is characterised by a mix of commercial towers with ground floor retail uses including restaurants, cafes and bars, and some residential developments. It presents its longest boundaries to Walker Street to the east and Little Spring Street to the west.

Building heights along the west and east sides of Walker Street between Berry and Mount Streets are typically significantly lower in height than that proposed and those that are currently under construction. For example the buildings which occupy the subject site are only are equivalent to approximately 6 residential storeys in height. Those opposite the site along the east side at 157, 153 and lower podium of 141 Walker Street are also low ranging in height from approximately 2 to 13 storeys in height. 141 Walker Street south-east of the site is the tallest building at 30 storeys (97 metres) along the east side of Walker Street within the immediate visual context and is characterised by tower frontages that are aligned diagonally relative to the street.

100 Walker Street adjoining the site to the south appears to be a commercial building which includes approximately 13 storeys. Further south at 86-88 Walker Street, a 50 storey mixed-use hotel development is under construction above a heritage listed former fire station. This building occupies a narrow site and is characterised by a small floorplate and tall, slim tower form.

124 to 126 Walker Street occupies the south-west corner at the intersection of Berry Street and Walker Street with a dual frontage to both and adjoins the subject site to the north. This building is the tallest in the immediate visual context within the urban block to the east.

To the west on the opposite side of Little Spring Lane is 1 Denison Street and a residential apartment development at 79-81 Berry Street (also known as the Alexander Apartments) which comprises mixed-uses at lower levels and res dwellings above. This is an early twenty-first century mixed-use residential development of 36 storeys and is approximately 115m in height. The site incorporates six levels of office premises above ground floor retail within the podium. Above the podium is a residential tower that accommodates 241 apartments over 30 storeys.

1 Denison Street immediately west and south-west of the site is a recently completed 37-storey commercial office tower and is currently the tallest building within the North Sydney CBD. South of the site is a commercial building at 100 Mount Street, completed in 2019, and comprising 35 storeys. To the northwest of the site, a 42-storey approved building will be constructed as part of the Victoria Cross Metro station at the corner of Berry and Miller Streets.

In summary the visual context and character of this part of North Sydney is changing in line with the strategic and existing planning controls where significant uplift is occurring on sites within and close to the North Sydney CBD. The extent and effects of visual change is evident when considering the built form that is present within the subject sites immediate visual context (urban block). As discussed above visually significant tower forms exist at 1 Denison and 100 Mount Street and will exist at 88 Walker Street and the Victoria Cross Over Station Development (OSD). These developments have individual and collective impacts on the extent of existing views that are likely to be available from some dwellings at 79-81 Berry Street.

Figure 4 Existing bird eye view of the site and the future development of 1 Denison Street *(Source: Bates Smart)*

4.0 PROPOSED DEVELOPMENT

This description relates to the form and scale of the proposed built form where it is relevant to views and visual effects and does not seek to explore the architectural merits, design or features of the proposed development. The design, materiality and fine-grained architectural detail of the proposed development will be provided by others with the relevant expertise. In its simplest visual sense the proposed development is a tower form with a rectangular floorplate that is orientated in a north-south arrangement parallel to Walker Street. In this regard its longest elevations present to the west and east so that it will be most visible from those directions including from east-facing apartments at 79-81 Berry Street.

5.0 EXISTING VIEW ACCESS - PRIVATE DOMAIN

In response to Council's pre DA advice, Urbis was instructed by the client to focus on the closest and potentially most affected residential development at 79-81 Berry Street which relates to the likely views available from this residential development. Our interpretation of likely views access is based on fieldwork observations, observations from the rooftops at 110, 118 and 122 Walker Street, constructed existing views and proposed views as modelled in CGIs and a review of real estate photographs from the penthouse at 79-81 Berry Street.

ANALYSIS OF REAL ESTATE VIEWS

Likely views avaialbe from the Penthouse at level 35, 79-81 Berry Street.

The real estate photographs from internal locations at 79-81 Berry Street provide an indication of likely view access at the time of photography. Views from dwelling are expansive to the south, south-east and east. Urbis comment that these photographs do not include the new built form of 1 Denison which is likely to block the majority of views to the south. The south-easterly view appears to include scenic, iconic and highly valued features and icons as described in Tenacity. In addition such views are likely to include little or none of the built form of 1 Denison but would appear to include the subject site and proposed development.

Real estate photos show that south-south-easterly orientated views from level 35 include features that are considered to be iconic and highly valued in Tenacity such as; parts of the Sydney Harbour (a heritage item itself) sections of land-water interface including the Royal Botanic Garden Sydney and Old Government House, Parts of the Sydney Harbour Bridge and all of the Sydney Opera House). Views to the south-east are also expansive and panoramic and include a number of existing buildings in the foreground such as 141 Walker Street.

Views to the south-east and east are also expansive and panoramic and include a foreground and mid-ground composition characterised by low height and density residential development across the lower North Shore. Part of the easterly view is available across the subject site. The distant composition to the east includes distant areas of ess of Sydney Harbour a distant background of the Tasman Sea-sky horizon. In this regard we note that the easterly composition would be considered as less scenic and of less value in Tenacity terms.

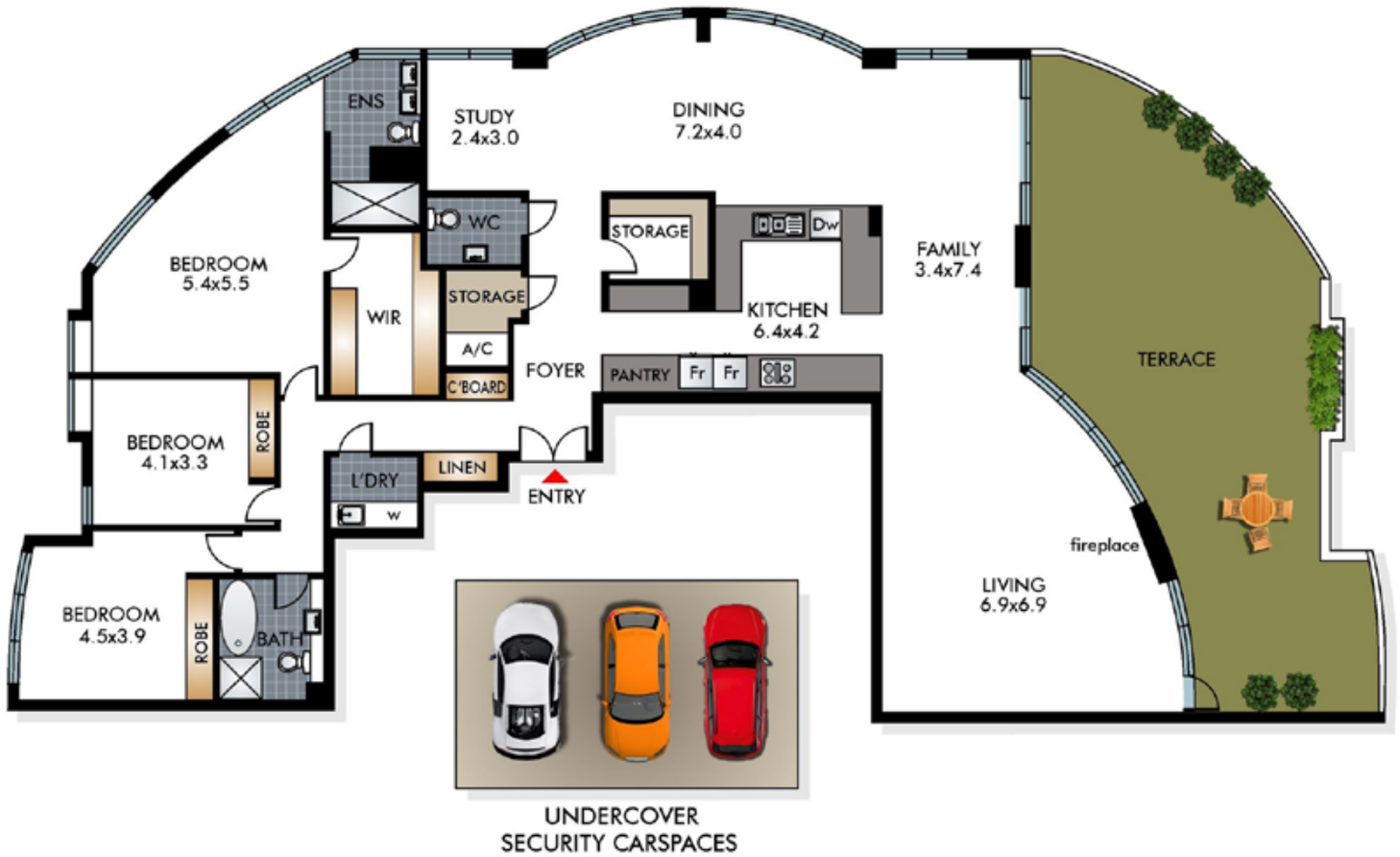


Figure 5 Penthouse Floor Plan level 35 at 79-81 Berry Street (*Source: Domain*)

Figure 6 View looking east from the bathroom (*Source: Domain*)

Internal Views from the penthouse apartment at 79-81 Berry Street Views

Figure 7 View south from living area

Figure 8 View south east from bedroom

Figure 9 View south east from living area

Figure 10 View north east from living room

6.0 RELEVANCE OF PLANNING PRINCIPLES

6.1 TENACITY

The extent and reasonableness of private domain view loss is typically assessed against the Land and Environment Court of New South Wales planning principle Tenacity Consulting v Warringah [2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours (Tenacity).

The planning principle is described by the Court as a statement of a 'desirable outcome' aimed at reaching a planning decision and defines a number of appropriate matters to be considered in making the planning decision. Therefore, the importance of the principle is in outlining all relevant matters and or the relationships of factors to be considered throughout the process and is not simply to list features that could be lost. In other words Tenacity is a recipe designed to guide decision making so that an equitable view sharing outcome can be acheived. The concept of view sharing means that it may be quite reasonable in some circumstances for some views to be taken away or 'shared' .

View loss or blocking effects refers to the extent to which a proposal is responsible for blocking access to an existing view or part of the composition of a view. The principle also describes the extent of view loss using a qualitative scale and takes into consideration the value of features in the composition and from where the views are available. Photomontages are frequently used as objective aids to assist in modelling and therefore quantifying the extent of visual change that would occur.

Roseth SC in Tenacity defines a four-step process to assist in the determination of the impacts of a development on views from the private domain. The steps are sequential and conditional, meaning that proceeding to further steps may not be required if the conditions for satisfying the preceding threshold are not met in each view considered. Prior to undertaking the assessment however Roseth discusses the notion of view sharing as quoted below.

"The notion of view sharing is invoked when a property enjoys existing views and a proposed development would share that view by taking some of it away for its own enjoyment. (Taking it all away cannot be called view sharing, although it may, in some circumstances, be quite reasonable.) To decide whether or not view sharing is reasonable, I have adopted a four step assessment".

Tenacity includes descriptions of highly valued features, iconic views and whole views which refer to the particulars of that matter, for example water and areas of land-water interface. By describing the nature and composition of the views and rating the value of the composition Tenacity suggests that if there if there is no substantive view loss in qualitative or quantitative terms, then the threshold to proceed to Step 1 may not be met and continuing with other steps in the process may not be justified.

6.2 RELEVANCE OF ARNOTT

Notwithstanding the importance of considering Tenacity, its use, application and findings cannot be relied upon in isolation. The utility of its application is considered in another planning principle established in the Land and Environment Court of New South Wales Arnott v City of Sydney (2015) NSWLEC 1052 (Arnott) which is relevant to view loss in relation to multiple dwellings from the same building. For example multiple dwellings in a residential flat building where there are the same or similar view compositions available that would be affected by a proposed development .

Commissioner O'Neill in Arnott cites the difficulty and utility of applying the threshold steps in Tenacity and assessing view loss caused for individual units within the same residential flat building such as at 79-81 Berry Street. Given the spatial relationship and orientation of the subject site to the existing apartment building at 79-81 Berry Street, there is limited if any ability to re-mass or re apportion the bulk and scale proposed, in a way that would significantly improve view sharing outcomes for neighbouring res dwellings to the west. In order to make any significant improvement to the view sharing outcome for the benefit of the majority of dwellings at 79-81 Berry Street would be to limit unreasonably the development potential for the site. This concept of favouring one outcome or the other is not support by either of the panning principles where the primary objective of the Tenacity is to achieve equitable view sharing outcomes in the context of all other relevant information.

Arnott goes on to state;

"Dr Roseth's own words at paragraph 29 of the Tenacity planning principle, 'whether a more skilful design could provide the applicant with the same development potential and amenity' It is partly for this reason that the Tenacity planning principle is less helpfully applied to impacts on views from individual apartments within residential apartment buildings, as there are generally more limited opportunities to rearrange massing to preserve what is often a singular orientation to a view. For this reason, it is also appropriate to consider the residential apartment building as a whole in assessing view impacts."

We comment that in the context of Arnott. the extent of view loss would be given less weight overall which reduces the significance of the visual impacts caused by the proposed development on the public domain.

6.3 SUMMARY OF TENACITY ASSESSMENT

A detailed assessment against Tenacity would require an inspection of views from individual dwellings. This is to be able to determine which threshold steps in Tenacity are met for example Steps 3 and 4.

The analysis of visual effects as modelled in the CGIs seeks to objectively establish the extent of potential view loss. Based on the information available, in our opinion the thresholds for Steps 1 and 2 have been met in all views except location 3 north-east and location 1 south-west which are unaffected by teh proposed development. In other words in all other views the proposed development will be visible and will create some level of view loss.

In order to reach a conclusion regarding the extent and reasonableness of the view loss that will be caused, Urbis provides the following general comments.

South-easterly views from locations 1, 2 and 3 at 79-81 Berry Street are those likely to be the most affected by potential view loss.

Based on the CGIs and real estate photos the extent of view loss if assessed against Tenacity would be likely to range from moderate to devastating. ,

These ratings assumes that some views are from living areas, kitchens and balconies which are considreed to be important living areas.

The question posed in Step 4 of Tenacity can be answered given that the proposed development is not fully compliant.

The non-compliance adds additional 'weight' to the significance of the potential view loss caused. Therefore in the most affected views from locations 1, 2 and 3 at the 79-81 Berry Street, view sharing outcomes may not be equitable and may require further analysis.

However following the guidance provided in Tenacity, there are other relevant issues to be considered such as the strategic value and planning context of the site, Council's desire to promote commercial tower development in this vicinity and the planning principle established in Arnott as discussed above. These factors, in our opinion provide a 'down weight' in relation to the significance of the final assessment of view sharing outcomes.

7.0 USE OF CGIs

Urbis identified three locations from which views should be modelled to provide representative compositions for analysis. Nine CGI views from three locations at 79-81 Berry Street were recommended for modelling and further analysis by Urbis. We note that the nature and content of the view compositions presented in the CGIs appears to closely reflect the view compositions that are demonstrated by the real estate photos.from one upper level unit within this building.

Four images were constructed from location 1 to represent potential views to the south-west, south-east, east and north-east. The variety of view orientations and fields of view (FOV) were designed to capture potentially panoramic views which may be available,whilst avoiding the new built form of 1 Denison in Little Spring Street which would occupy the majority of the view to the south. In addition in trying to satisfy Step 3 in Tenacity all views from a dwelling including those that will not be affected, should be considered when assessing the overall impacts of a development on views.

The preparation method for the CGIs has been outlined by Virtual Ideas in Appendix 1. The method uses detailed survey data of the subject site, parts of the AMM survey model for Sydney and further modelling of building envelopes that have been located and inserted by computer generated virtual camera based on correlating geo-referenced survey points in relation to the proposed development and other models. Each generated view composition is approximately equivalent to the FOV that would be captured by a 35mm focal length lens. In this regard in our opinion the CGIs can be relied upon as an accurate representation of the likely visual effects and for the assessment of visual impacts.

Commentary has been tailored broadly to reflect the 4 steps in Tenacity noting that in technical terms a Tenacity Assessment cannot be accurately prepared. Notwithstanding we have modelled a range of view orientations and in this regard can assess the likely potential impact on views from all parts of the dwelling and internal uses of the dwelling as is required in Step 3 of Tenacity.

COLOURS USED IN THE CGIS

The CGIs include a simple massing model of the proposed development shown as a cyan colour and an orange overlay which shows the extent of a permissible DCP envelope. The edge of the maximum permissible DCP envelope is defined by a bold orange line. The use of these colours and orange outline have informed our analysis of the extent of visual effects that may be caused by a fully compliant DCP building envelope, compared to the proposed development if approved and constructed. On this basis Urbis have analysed the significance of the likely visual impacts of the minor non-compliance with the DCP setback as proposed.

Figure 11 Aerial view with photomontage of camera position (Source: Virtual Ideas, 2020)

7.1 ANALYSIS OF CGIs

LOCATION 1 - VIEW - EAST

Location 1 is approximately equivalent RL 160.66 south-east corner dwelling balcony) this view is approximately equivalent to standing eye height at level 33.

CGI EXISTING VIEW

The CGI shows that the composition to the east is predominantly characterised by low height and density residential development across the lower North Shore. The southern part of the view is likely to include some northern sections of Sydney Harbour, distant ridgelines and to the north the long, low notable landform of North Head. The CGI image indicates that views to the east are likely to predominantly include features that are not considered to be highly valued in Tenacity such as low height and density residential development across the lower North Shore notwithstanding some sections of land-water interface.

CGI PROPOSED VIEW

The proposed development will fill all of the existing view composition, replacing some existing built elements with new built forms. All of the existing views available to the east including a minor amount of Sydney Harbour and development across the Lower North Shore would be lost. The majority of features in the view that would be lost are not considered as highly valued in Tenacity terms.

The view loss is caused by part of the proposed built form which sits below RL 260 and is fully compliant with the height control and DCP setback controls. The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of sky.

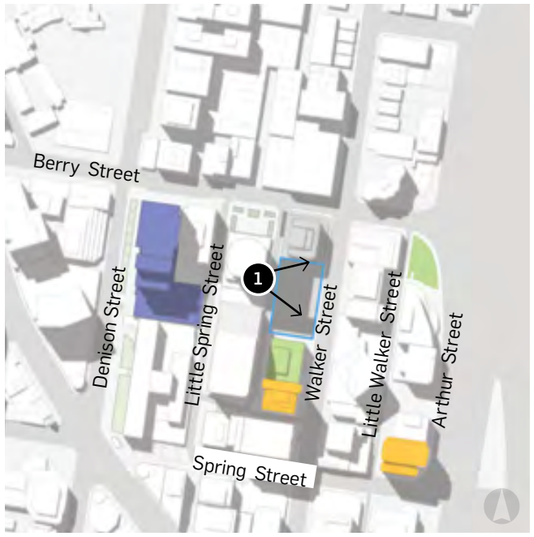
EXISTING VIEW

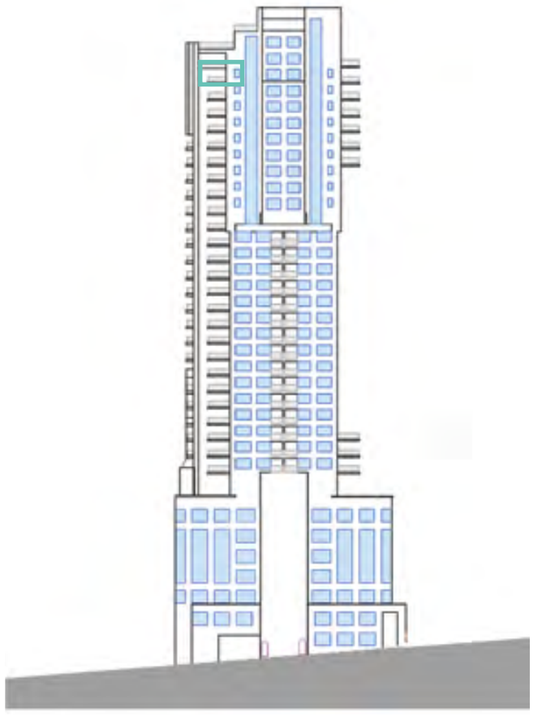
Existing 3D view east from 79-81 Berry Street at Level 33 approximately RL160.66

PROPOSED VIEW

Proposed view looking east from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

KEY PLAN





LEGEND

- DCP Permissible envelope
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 1 - VIEW SOUTH-EAST

CGI EXISTING VIEW

The CGI image indicates that views to the south-east will include the foreground built form of 1 Denison, a mid-ground composition that includes a section of Sydney Harbour, Kirribilli and Garden Island. Parts of the view include scenic items that are considered to be scenic and highly valued in Tenacity for example parts of Sydney Harbour.

CGI PROPOSED VIEW

The proposed development will create a new foreground view composition and all of the existing view corridor that is available to the south-east of 1 Denison would be blocked by the proposed development. The minor amount of additional width included in the proposed development as indicated by the bold orange line blocks views to 1 Denison and does not block views of scenic or high valued items.

The views to scenic items are blocked by parts of the proposed built form that are fully compliant in other words all parts of the view that would be considered in Tenacity as scenic and highly valued are blocked by compliant parts of the proposed development.

The minor additional width of built form proposed beyond the DCP setback control as shown by the bold orange line does not create any significant visual effects in addition to the extent of view loss that is anticipated by the controls.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of sky.

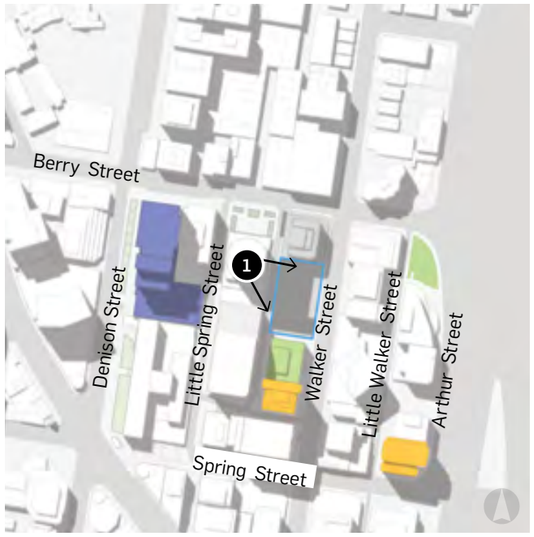
EXISTING VIEW

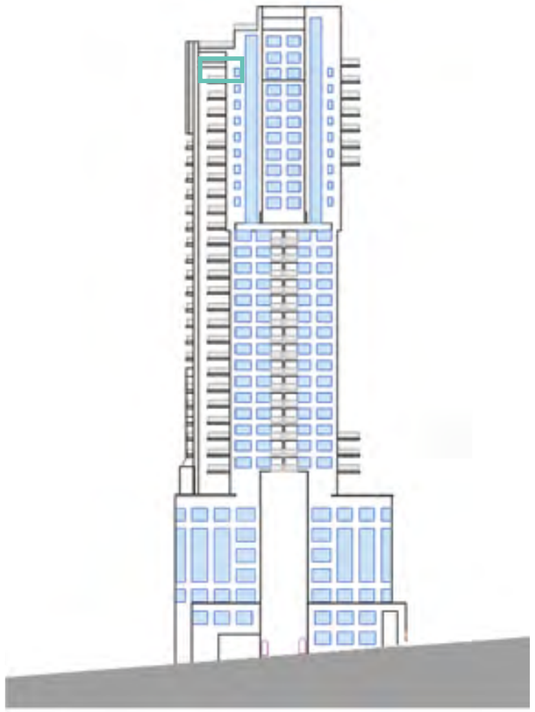
Existing 3D view without 110-122 Walker St. View looking south-east from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

PROPOSED VIEW

Proposed view looking south-east from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 1 - VIEW EAST NORTH - EAST

CGI EXISTING VIEW

The CGI images indicates that views to the north-east are likely to predominantly include features that are not considered to be highly valued in Tenacity such as low height and density residential development across the mid and upper North Shore.

CGI PROPOSED VIEW

A minor amount of the view composition in this direction would be blocked by the proposed development. The built form proposed will introduce a novel element into the immediate foreground and will block a minor amount of the wider district view that is characterised by residential development and potentially a short section of distant ridgeline-sky horizon.

The minor extent of built form proposed shown by the cyan coloured block which extends beyond the DCP setback control (as shown by the bold orange line) does not create any significant view loss . Views lost do not include items or features that would be considered as scenic or iconic in *Tenacity* Terms.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and woudl predominantly include open areas of sky.

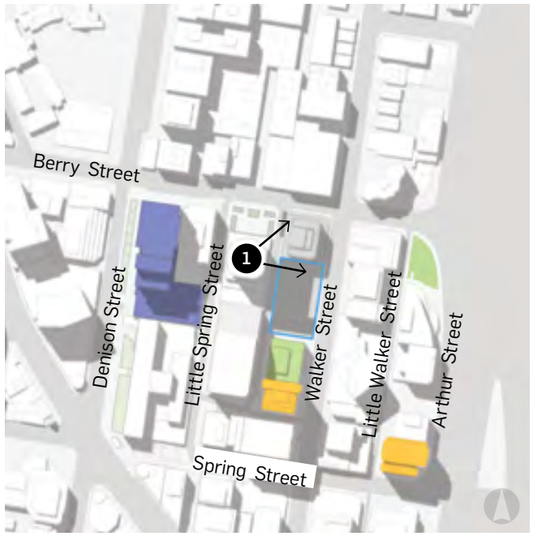
EXISTING VIEW

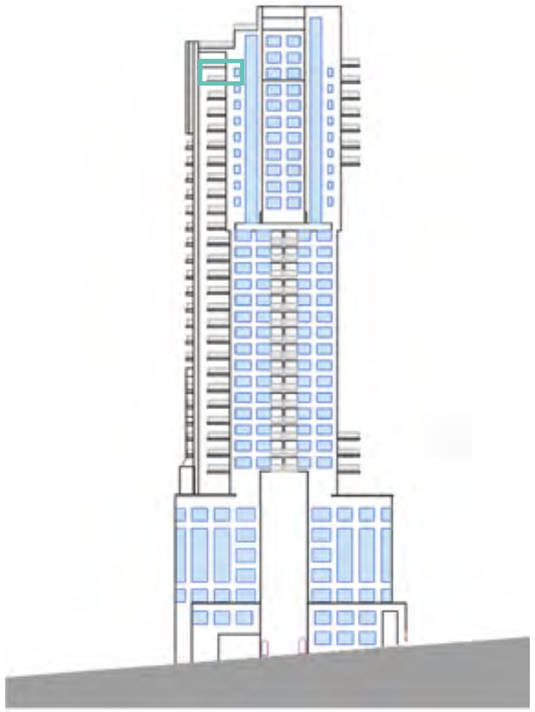
Existing 3D view east north-east from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

PROPOSED VIEW

Proposed view east north-east from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 1 - VIEW SOUTH-WEST

CGI EXISTING VIEW

The existing view corridor available between newly constructed and approved built forms to the south-west towards Balmain includes scenic and valued items for example Sydney Harbour Islands, sections of land-water interface and parts of Sydney Harbour and the Parramatta River.

CGI PROPOSED VIEW

Views to the south-west from location 1 and other view locations in this vicinity for example from the south elevation and south-west corner of this residential development will be unaffected by the proposed development.

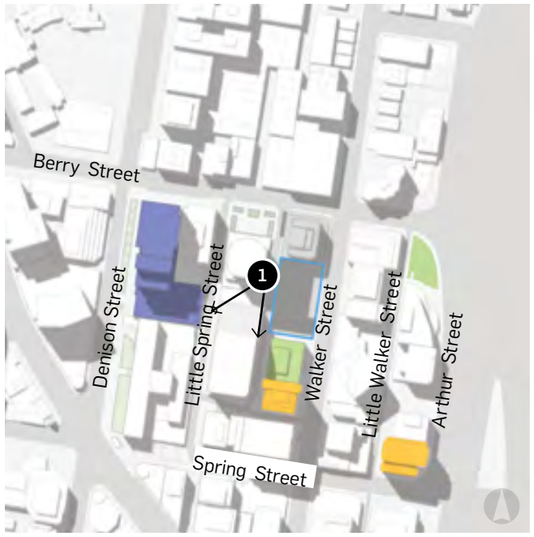
EXISTING VIEW

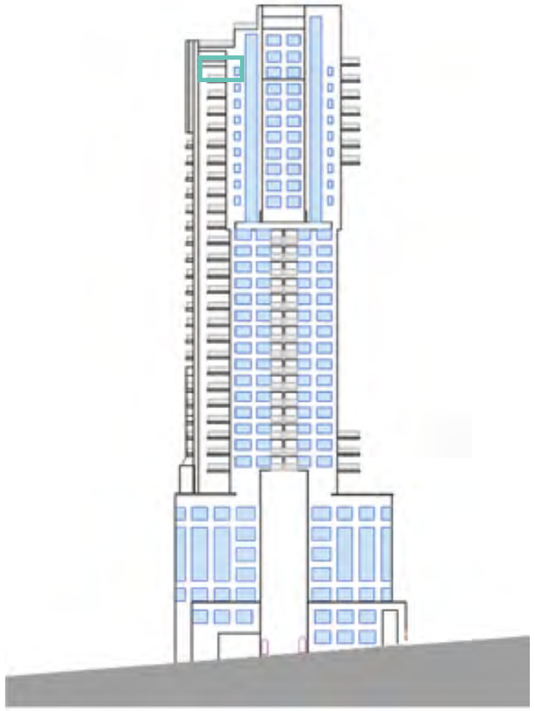
Existing 3D viewline without 110-122 Walker St. View looking south west from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

PROPOSED VIEW

Proposed view looking south west from 79-81 Berry Street Apartments at Level 33 approximately RL160.66

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 2 - VIEW SOUTH-EAST

The view location is intended to represent views from the southern stack of centrally located windows along the east elevation at 79-81 Berry Street. It is approximately at RL 168.05 equivalent to standing eye height at level 35. This stack of windows sits 'proud' or further east via a curved façade element compared to views from location 1 and 3. This stack of windows directly aligns with the subject site. Views to the south, south-east and north-east have been modelled.

CGI EXISTING VIEW

The CGI image shows views to the south-east are likely to include features that are considered to be iconic and highly valued in Tenacity such as; parts of the Sydney Harbour, sections of land-water interface including the Garden Island, Royal Botanic Garden Sydney and parts of the Sydney Opera House. Views to the south-east are expansive and panoramic and include a number of existing buildings in the foreground such as 141 Walker Street and the closely located form of 1 Denison.

CGI PROPOSED VIEW

From this location, the south-easterly view including iconic items and features will be lost. The view loss is caused by parts of the proposed development that are fully compliant with controls. For example, view loss is caused by part of the proposed built form which sits below RL 260 (the LEP height control) and within the permissible DCP setback.

The minor additional horizontal extent of the built form proposed beyond the DCP setback control as shown by the bold orange line, blocks views of other buildings and does not block items that would be considered to be scenic or highly valued in Tenacity terms.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of the sky.

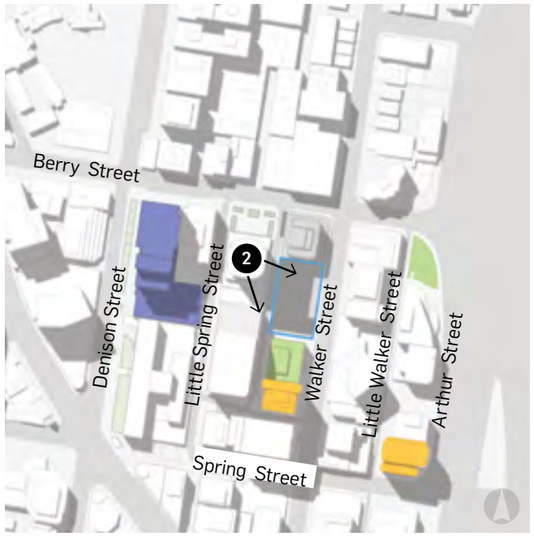
EXISTING VIEW

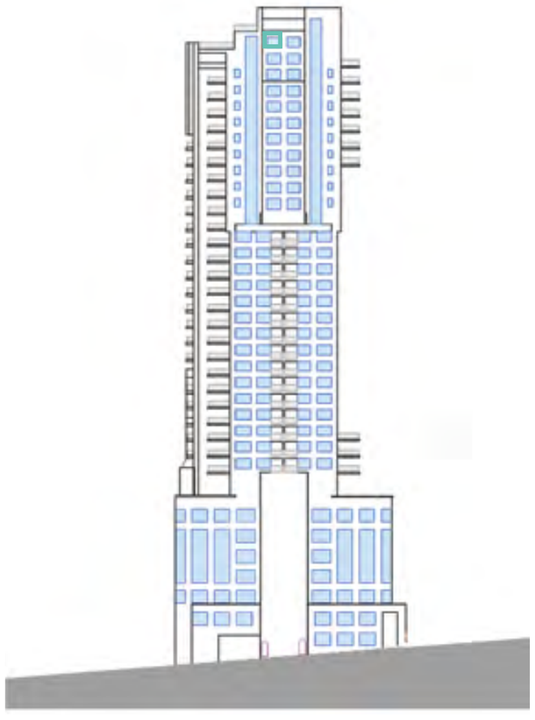
Existing 3D viewline without 110-122 Walker St. View looking south-east from 79-81 Berry Street Apartments at Level 35 approximately RL168.05

PROPOSED VIEW

Proposed view looking south-east from 79-81 Berry Street Apartments at Level 35 approximately RL168.05

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 2 - VIEW EAST

CGI EXISTING VIEW

The CGI image indicates that views to the east are likely to predominantly include features that are not considered to be highly valued in Tenacity such as low height and density residential development across the lower North Shore. The southern part of the view is likely to include some northern sections of Sydney Harbour, distant ridgelines and to the north the long, low notable landform of North Head.

CGI PROPOSED VIEW

The built form proposed will introduce a new element into the immediate foreground and will block approximately half of the existing easterly view. Views lost predominantly include the Lower North Shore and a minor amount of Sydney Harbour. The majority of features in the view that would be lost are not considered to be highly valued in Tenacity terms. The views lost that include scenic items such as parts of Sydney Harbour, are blocked by parts of the proposed development which fully comply with LEP and DCP controls.

The minor additional horizontal extent of the built form proposed as shown in cyan which extends beyond the DCP setback shown by the bold orange line, predominantly blocks vernacular district views and in addition some parts of Sydney that would be considered to be scenic and highly valued in Tenacity terms.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of sky.

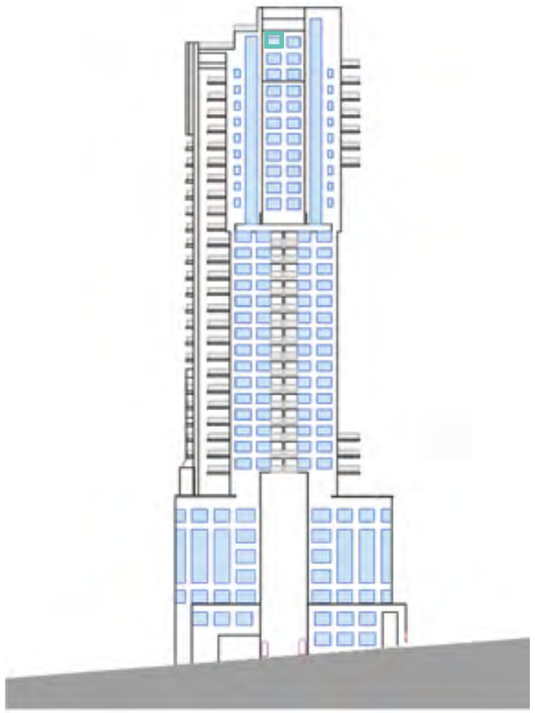
EXISTING VIEW

Existing 3D view east from 79-81 Berry Street Level 35 approximately RL168.05

PROPOSED VIEW

Proposed view looking east from 79-81 Berry Street Apartments at Level 35 approximately RL168.05

KEY PLAN



LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 2 - VIEW NORTH-EAST

CGI EXISTING VIEW

The CGI images indicate that views to the north- east are likely to predominantly include features that are not considered to be highly valued in Tenacity such as low height and density residential development across the mid and upper North Shore. We note that parts of Middle Harbour may be visible.

CGI PROPOSED VIEW

The proposed development is not be visible in this view composition. Views from this central location to the north-east will remain unaffected by the proposed development.

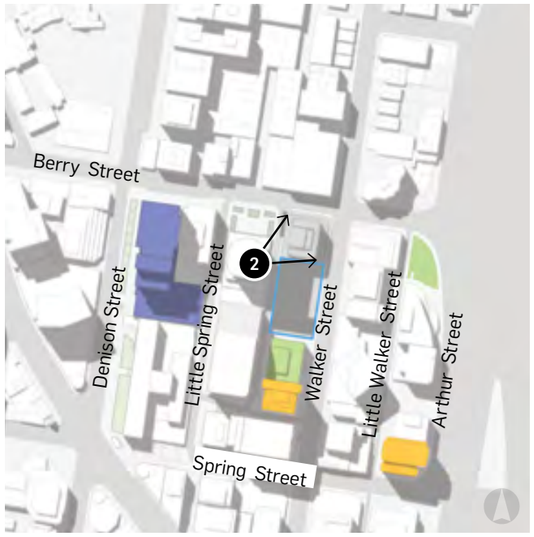
EXISTING VIEW

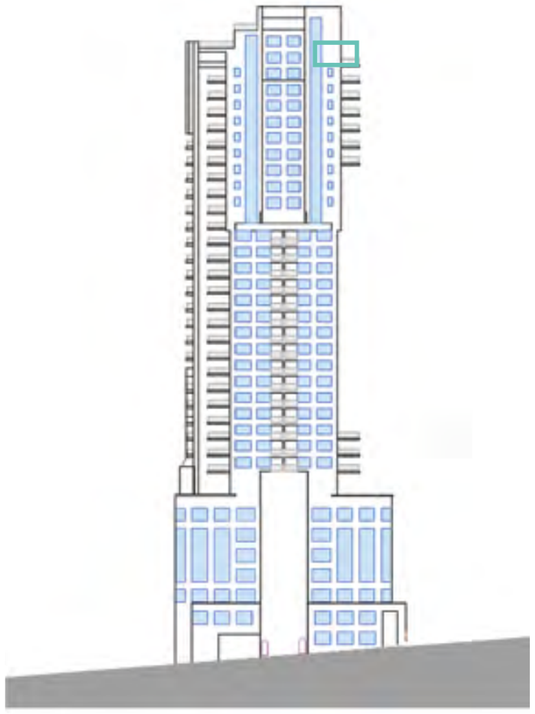
Existing 3D view north-east from 79-81 Berry Street Apartments at Level 35 approximately RL168.05

PROPOSED VIEW

Proposed view looking north-east from 79-81 Berry Street Apartments at Level 35 approximately RL168.05

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 3 - VIEW EAST

The view location is intended to represent views from the north-east corner at Level 34 at 79-81 Berry Street. It is approximately at RL 163.34 equivalent to standing eye height at level 34.

CGI EXISTING VIEW

The CGI image indicates that views to the east are likely to predominantly include features that are not considered to be highly valued in Tenacity such as low height and density residential development across the lower North Shore. The southern part of the view is likely to include some northern sections of Sydney Harbour, distant ridgelines and to the north the long, low notable landform of North Head.

CGI PROPOSED VIEW

The proposed development will introduce a minor amount of new built form into the foreground composition. A narrow vertical section of the view will be lost which includes parts of Sydney Harbour and distant vernacular district views. The minor additional extent of the built form proposed (as shown in cyan) which extends beyond the DCP setback indicated by the bold orange line, blocks access to a narrow section of Sydney Harbour.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of sky.

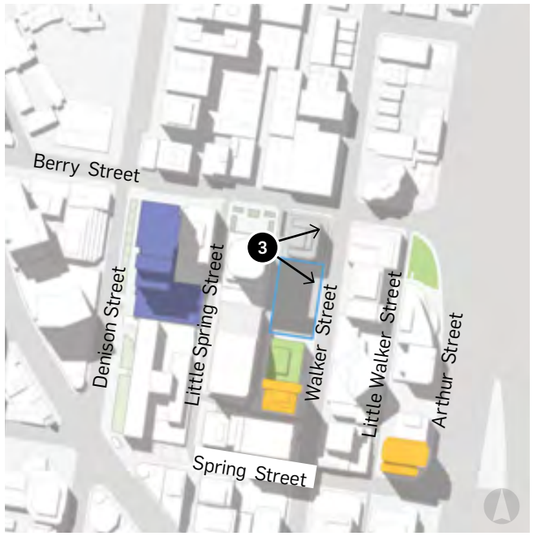
EXISTING VIEW

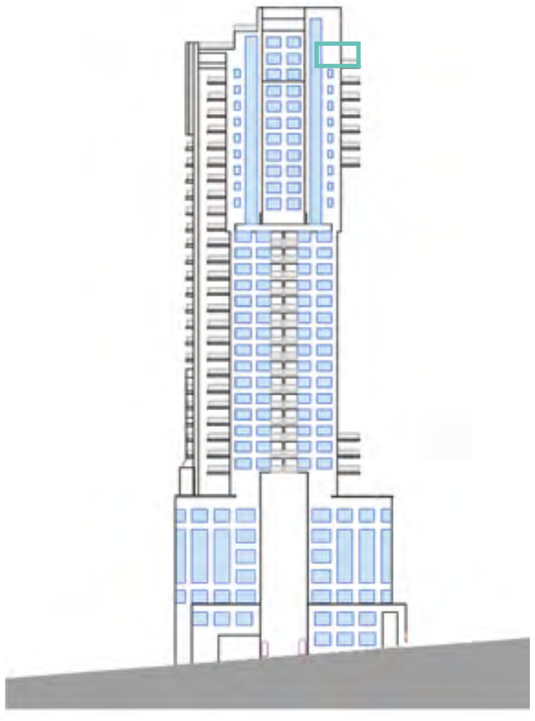
Existing 3D viewline without 110-122 Walker St. Existing view looking east from 79-81 Berry Street Apartments at Level 34 approximately RL163.34

PROPOSED VIEW

Proposed view looking east from 79-81 Berry Street Apartments at Level 34 approximately RL163.34

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

ANALYSIS OF CGIs

LOCATION 3 - VIEW SOUTH-EAST

CGI EXISTING VIEW

The CGI image indicates that views to the south-east are likely to include features that are considered to be iconic and highly valued in Tenacity such as; parts of the Sydney Harbour, sections of land-water interface including the Royal Botanic Garden Sydney, the north pylon of the Sydney Harbour Bridge and all of the Sydney Opera House. Views to the south-east are also expansive and panoramic and include a number of existing buildings in the foreground such as 141 Walker Street.

CGI PROPOSED VIEW

From this northern location at 79-81 Berry Street the view to the south-east including iconic items and features will be lost. The views lost are caused by part of the proposed built form which fully complies with LEP controls and DCP setbacks. Therefore the extent of visual effects and potential view loss is contemplated by the controls.

The additional height sought pursuant to clause 6.3 of NSLEP 2013 will not create any significant view loss if visible in upward views towards the highest part of the proposed development. Views lost would not include scenic or highly valued features as described in Tenacity and would predominantly include open areas of sky.

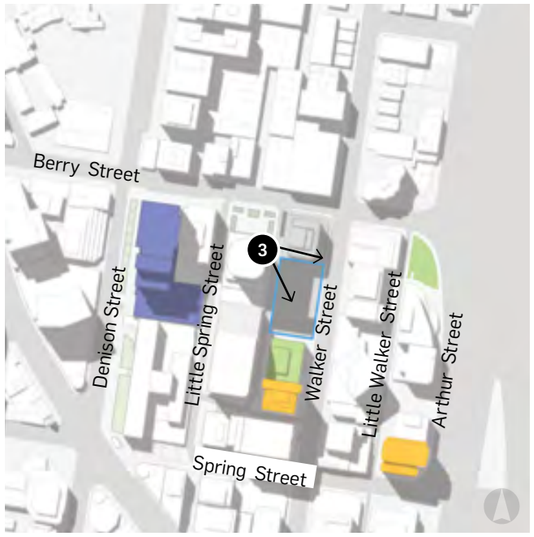
EXISTING VIEW

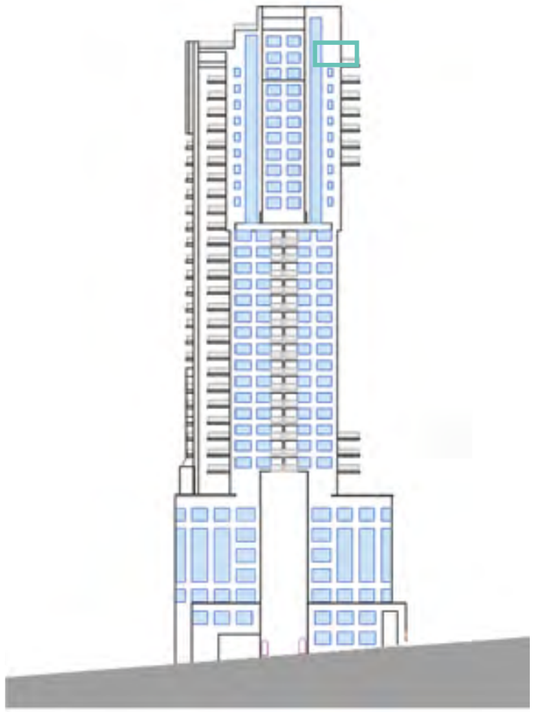
Existing view looking south east from 79-81 Berry Street Apartments at Level 34 approximately RL163.34

PROPOSED VIEW

Proposed view looking south east from 79-81 Berry Street Apartments at Level 34 approximately RL163.34

KEY PLAN





LEGEND

- DCP Permissible envelope
- Proposed 110-122 Walker Street
- Recently completed, under construction or approved North Sydney Developments
- AAM North Sydney Model

CONCLUSION

The proposed development will cause some view loss in relation to some views from the 79-81 Berry Street.

In some south-easterly views, for example from locations 2 and 3 the views lost include scenic and highly valued icons and features as defined in Tenacity.

View loss of scenic and highly valued features in views from locations 2 and 3 is caused by complying parts of the proposed built form.

The minor exceedence of built form proposed about the DCP setbacks and LEP height controls do not significantly increase the extent of view-blocking. These minor non-compliances do not create view loss which includes scenic items noting that from locations 2 and 3 a narrow section of water is likely to be lost in views to the east.

The steps and themes established in the Tenacity planning principle have been adopted in this assessmnet to form an opinion as to the likely extent of views that would lost following the approval and subsequent construction of the DA..

The importance of applying a Tenacity assessment to determine the extent of potential view loss in this highly urbanised visual context, is called into question by the themes in the Arnott planning principle.

Arnott cites the difficulty and utility of applying Tenacity when assessing view loss at multiple units within the same residential flat building. He suggets there may limited capacity to re-mass the bulk and scale of a proposal in a way that would significantly improve view sharing outcomes for neighbouring dwellings in relation to tightly constrained urban contexts.

The built form proposed will add to the gradual erosion of potential views from upper level units from some residential flat buildings within the North Sydney CBD, including 79-81 Berry Street.

The form and height of tower developments similar to that proposed are permissible in this part of the North Sydney CBD therefore it is not unreasonable to expect high-rise development at this site, given its location in the B3 Commercial Core land use zone. In this regard the extent of visual effects is contemplated by the planning controls that apply to the subject site.

In our opinion it would be impractical in this urban visual context to be able to maintain the existing access to views by manipulating the massing of the DA for that specific purpose and to do so would unreasonably constrain the development potential of the subject site.

In the context of all relevant issues the level of view sharing achieved subsequent to the construction of the built form proposed is considered to be reasonable.

APPENDIX 1

CGIs PREPARED BY VIRTUAL IDEAS

110-112 Walker Street, North Sydney

Visual impact 3D views and methodology report

December 2020

VIRTUAL IDEAS

1. INTRODUCTION

This document was prepared by Virtual Ideas to demonstrate the visual impact of the proposed development at 110-112 Walker Street, North Sydney with respect to the existing and approved built form, as viewed from select locations of The Alexander apartment building at 79-81 Berry Street, North Sydney.

2. OUR EXPERTISE

Virtual Ideas is an architectural visualisation company that has over 15 years experience in preparing visual impact assessment content and reports on projects of major significance that meet the requirements for relevant local and state planning authorities.

Our reports have been submitted as evidence in proceedings in both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has been an expert witness in the field of visual impact assement in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have been inspected by various court appointed experts in relation to previous visual impact assessment submissions and have always been found to be accurate and acceptable.

3. 3D RENDER CREATION METHODOLOGY

The following describes the process that we undertake to create the 3D renderings that form the basis of this report.

3.1 DIGITAL 3D SCENE CREATION

The first step in our process is the creation of an accurate, real world scale digital 3D scene that is positioned at a common reference point using the MGA 56 coordinates system.

We use a variety of data from various sources to create the 3D scene, most commonly survey data from registered surveyors, 3D photogrammetric models of cities (see Appendix B) and building 3D models supplied by Architects.
In some cases where 3D data does not exist, we are required to create 3D models from 2D CAD data. A detailed description of the various data sources used in this report can be found in Appendix A.

All data is imported into the 3D scene at real world scale and positioned to a common reference point. This common reference point is established by using the MGA-56 coordinates system.

When we receive data sources that are not positioned to MGA-56 coordinates, we use common points in the data sources that can be aligned to points in other data sources that are positioned at MGA-56. This can be data such as site boundaries and building outlines. Descriptions of how we have aligned each data source can also be found in Appendix A.

Once the various data sources have been imported and positioned with reference to each other, we then create digital 3D cameras in the 3D scene.

The camera locations selected for the 3D render in this report have been recommended by Urbis.

3.2 3D RENDER CREATION

Once the virtual 3D model is constructed and 3D cameras set-up, a digital sunlight system is added in the 3D scene to replicate the real world lighting conditions achieved at a chosen time of day and year. This is done using the software sunlight system, which matches location data and time and date information.
Materials are also added throughout the 3D scene to add further realism and to assist the viewer to identify landscape and architectural features in the image when assessing the visual impact of the proposed development.

In this instance, the materials chosen for the 3D scene include:
- white coloured massing for the surrounding buildings of North Sydney, as captured in the surveyed AAM context 3D model;
- dark grey coloured massing for the 3D models of recently completed, under construction or DA approved developments;
- cyan coloured massing for the 3D model of the proposed 110-112 Walker Street development; and
- photo-textures for the more distant Sydney Aerometrex context 3D model.

3.3 3D CAMERA POSITION AND LENS SELECTION

To ascertain the positioning of the 3D cameras in The Alexander apartment building, surveyed plans and elevations were referenced and matched to corresponding locations on the surveyed North Sydney AAM context 3D model.

Floor level RLs from supplied surveyed elevations were referenced and 3D cameras positioned 1.65m above the floor RL to replicate an average standing eye height of a person viewing from the equivalent real world position.

All images in the report use a 35mm focal length for the field of view.

3.3 Recently completed, under construction and DA approved developments

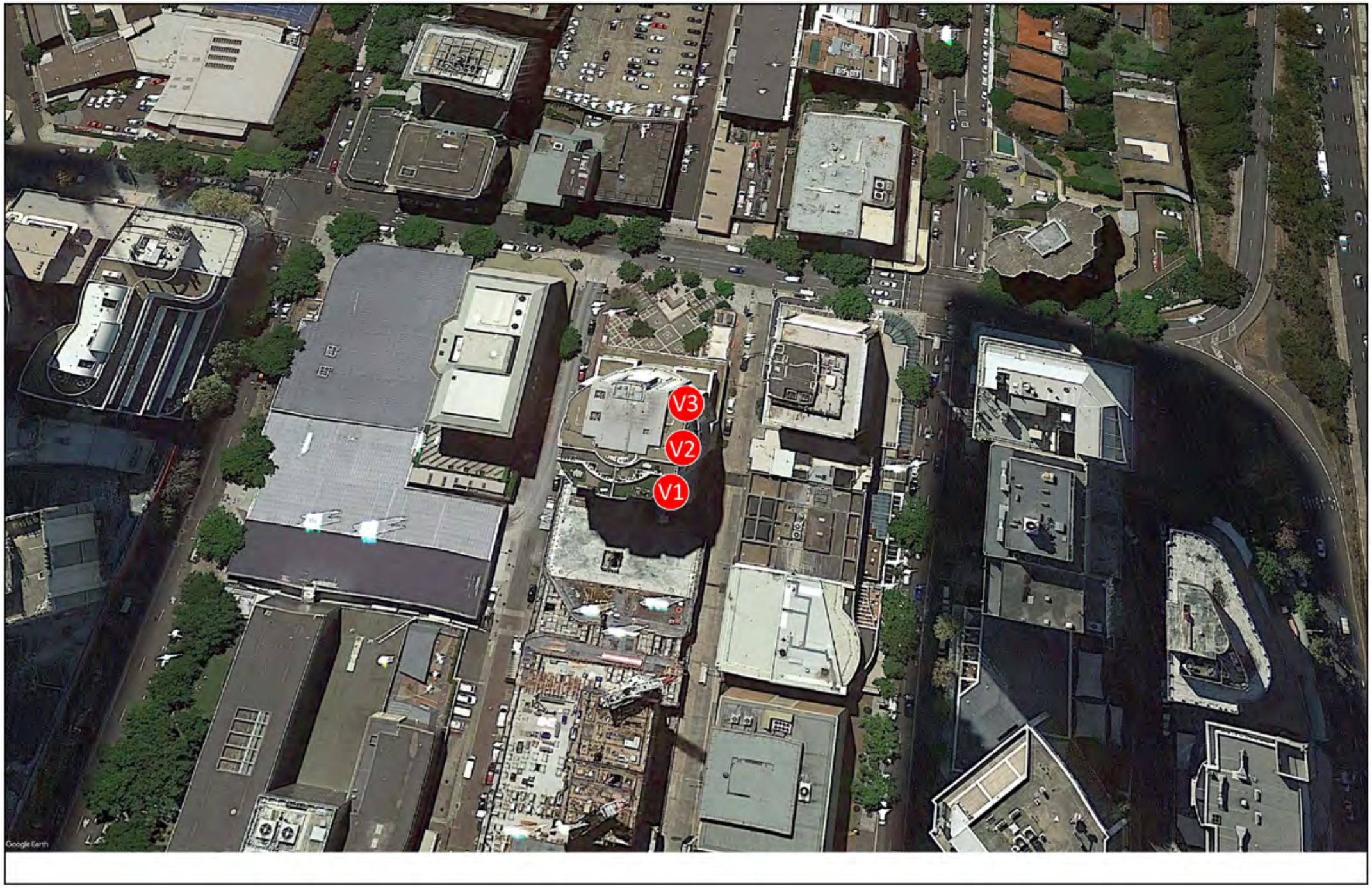
We have included a number of 3D models in the scene of North Sydney developments that have recently completed construction, are currently under construction or have DA approval for construction.

These have been included to provide current and future context that may be relevant to a view sharing analysis.

These include:
- 1 Denison Street
- 100 Mount Street
- 88 Walker Street
- 118 Mount Street
- Victoria Cross OSD

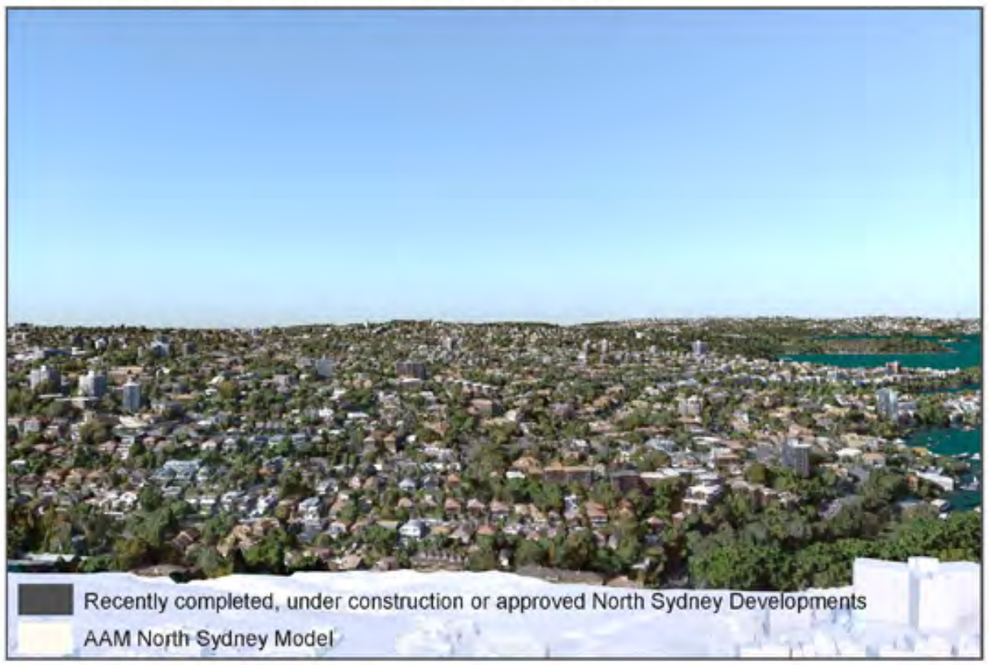
As noted above, these are shown as dark grey coloured massing 3D models with varying levels of facade articulation.

4. MAP OF 3D CAMERA LOCATIONS

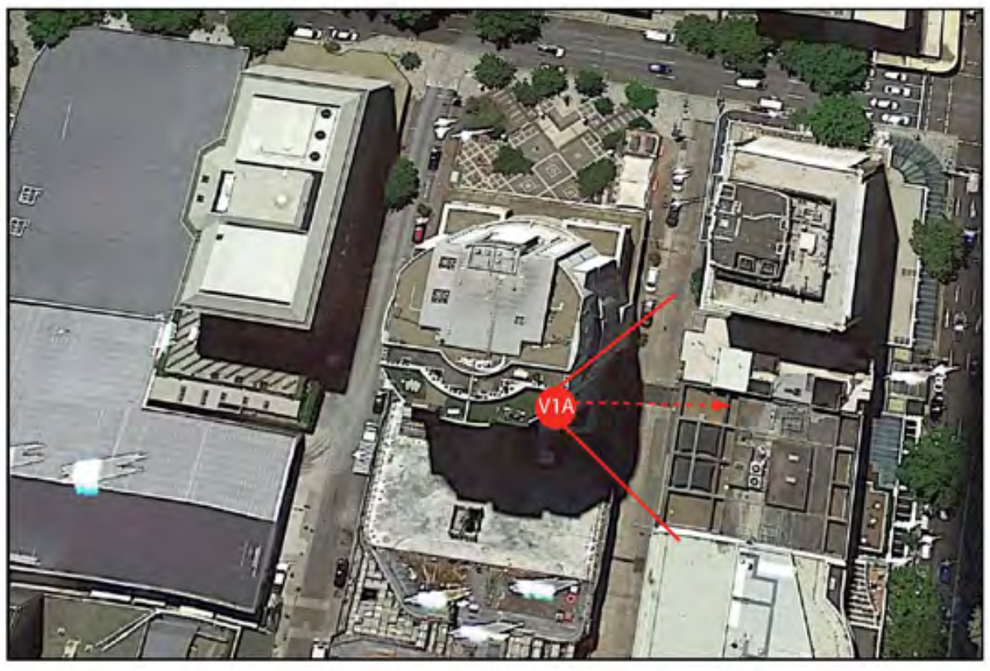


5.1 CAMERA POSITION 1 - EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST



PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST



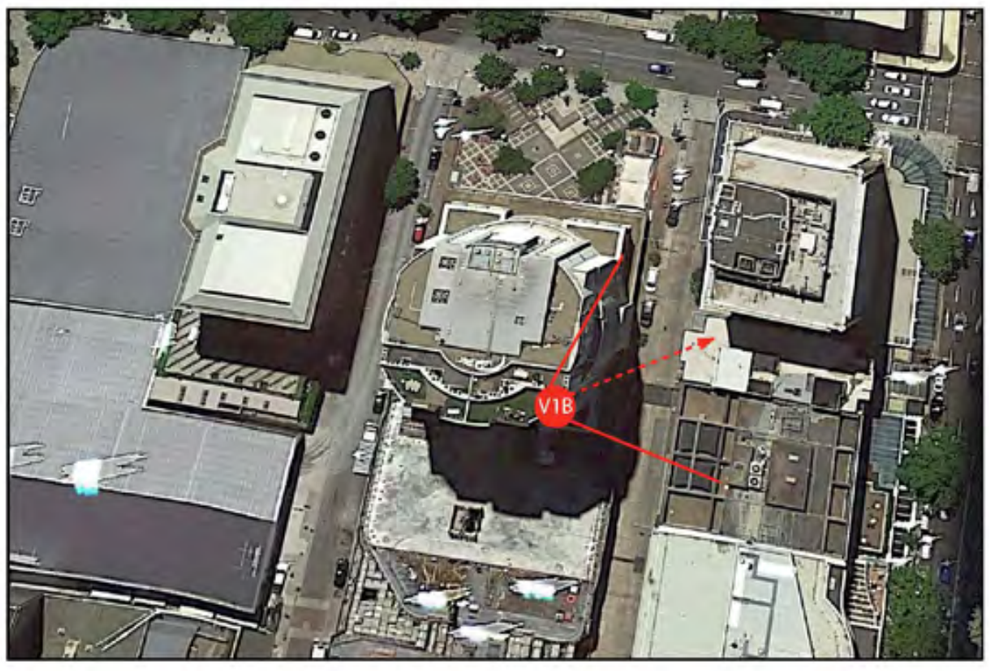
3D VIEWLINE LOCATION

Camera Location	Lvl 33, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	160.66m
Camera Lens	35mm

5.1 CAMERA POSITION 1 - EAST NORTH EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST

PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST

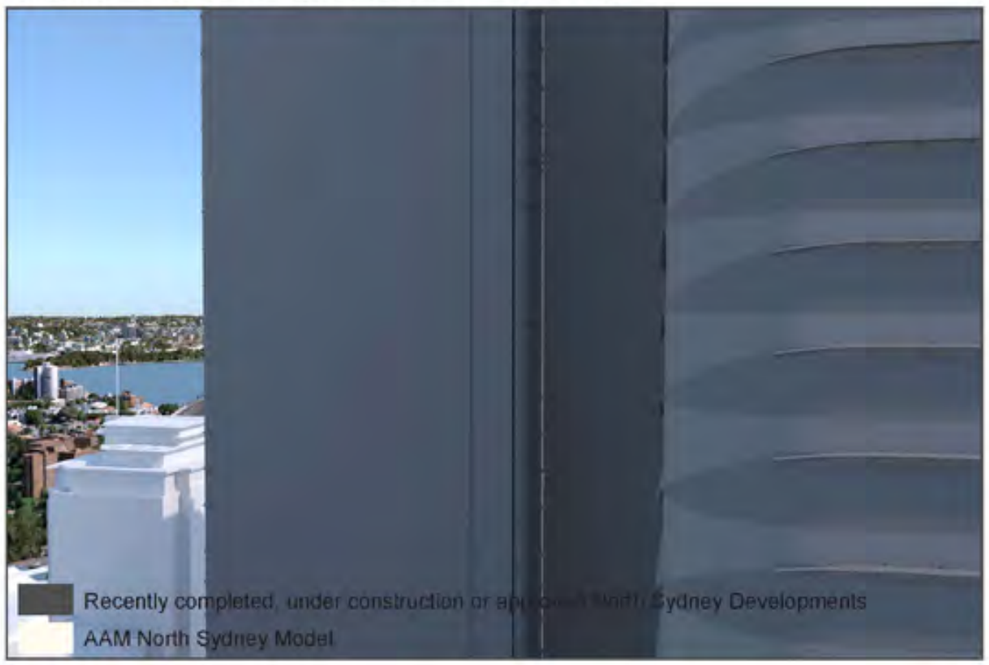


3D VIEWLINE LOCATION

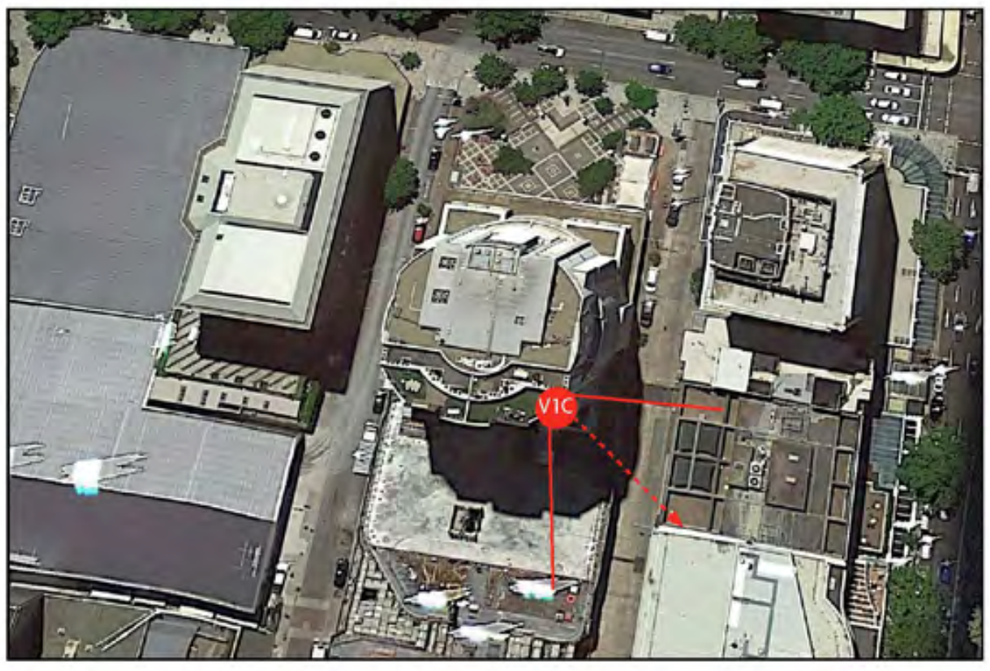
Camera Location	Lvl 33, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	160.66m
Camera Lens	35mm

5.1 CAMERA POSITION 1 - SOUTH EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST



PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST

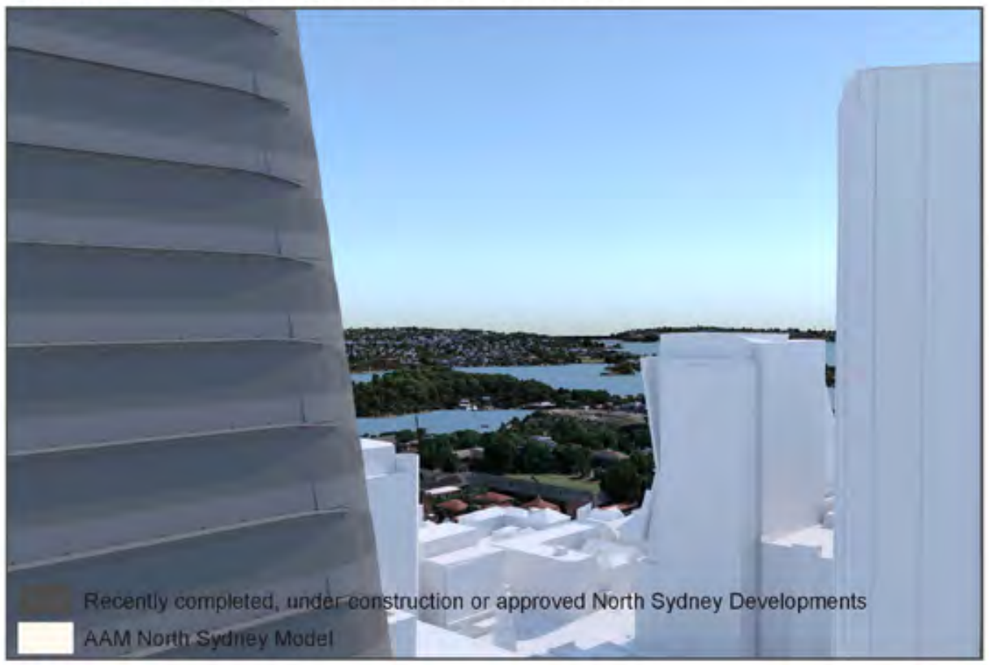


3D VIEWLINE LOCATION

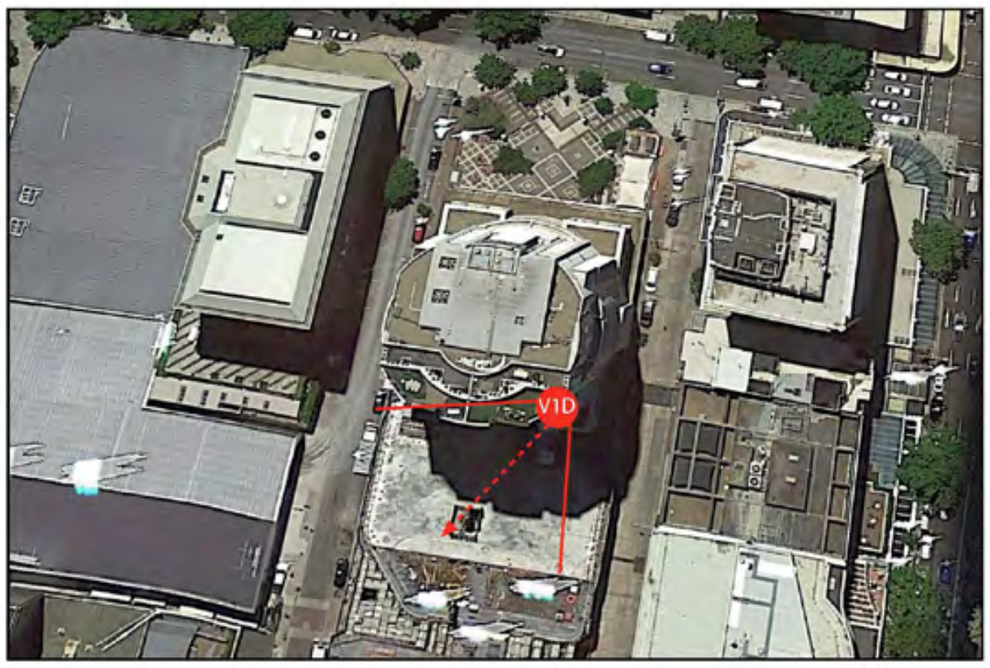
Camera Location	Lvl 33, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	160.66m
Camera Lens	35mm

5.1 CAMERA POSITION 1 - SOUTH WEST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST



PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST



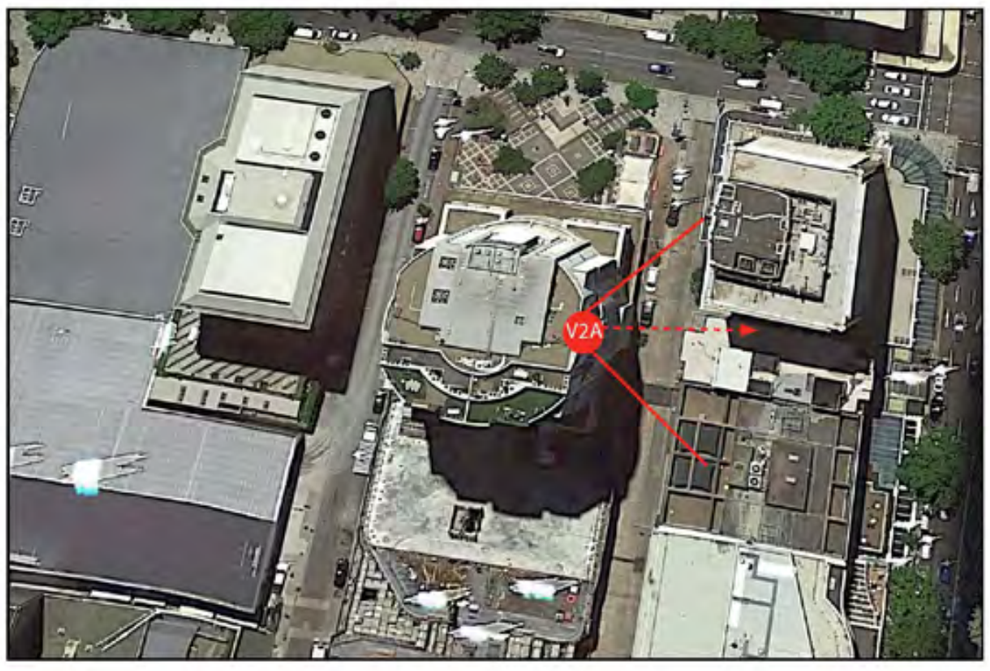
3D VIEWLINE LOCATION

Camera Location	Lvl 33, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	160.66m
Camera Lens	35mm

5.1 CAMERA POSITION 2 - EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST

PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST



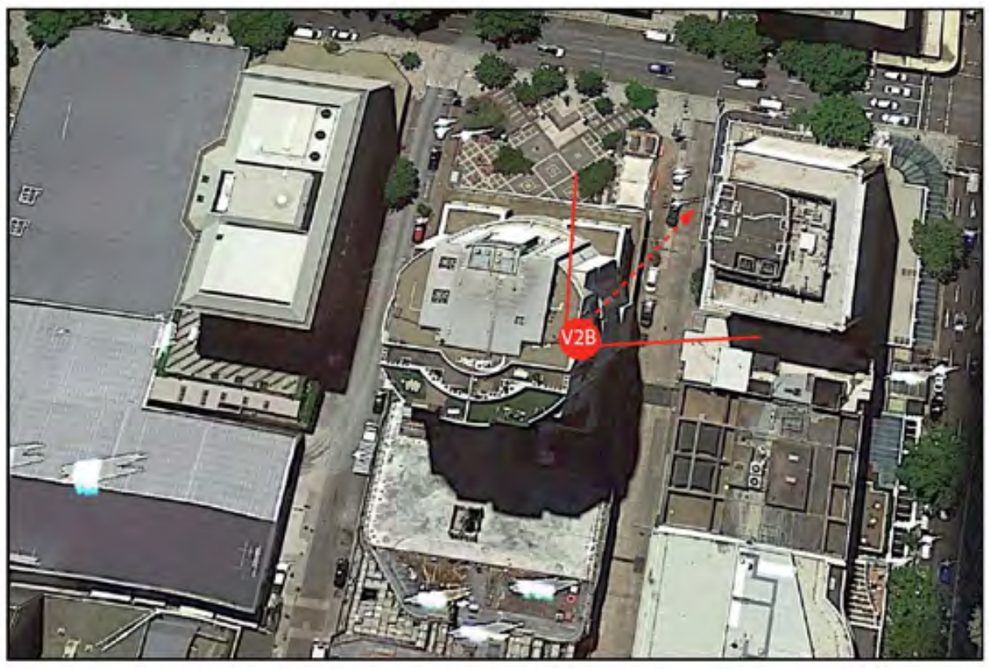
3D VIEWLINE LOCATION

Camera Location	Lvl 35, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	168.05m
Camera Lens	35mm

5.1 CAMERA POSITION 2 - NORTH EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST

PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST

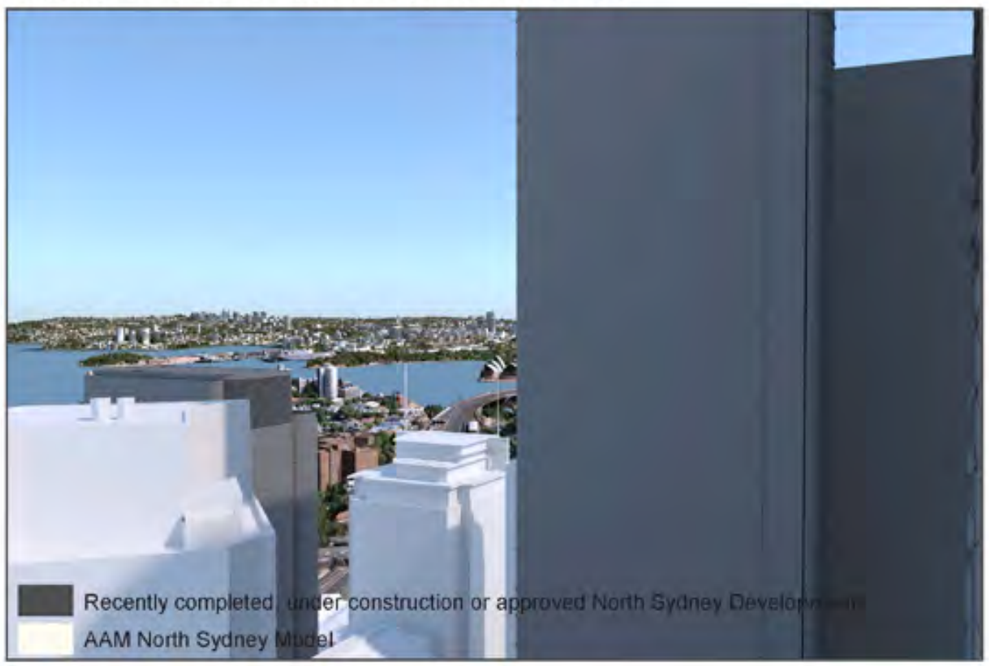


3D VIEWLINE LOCATION

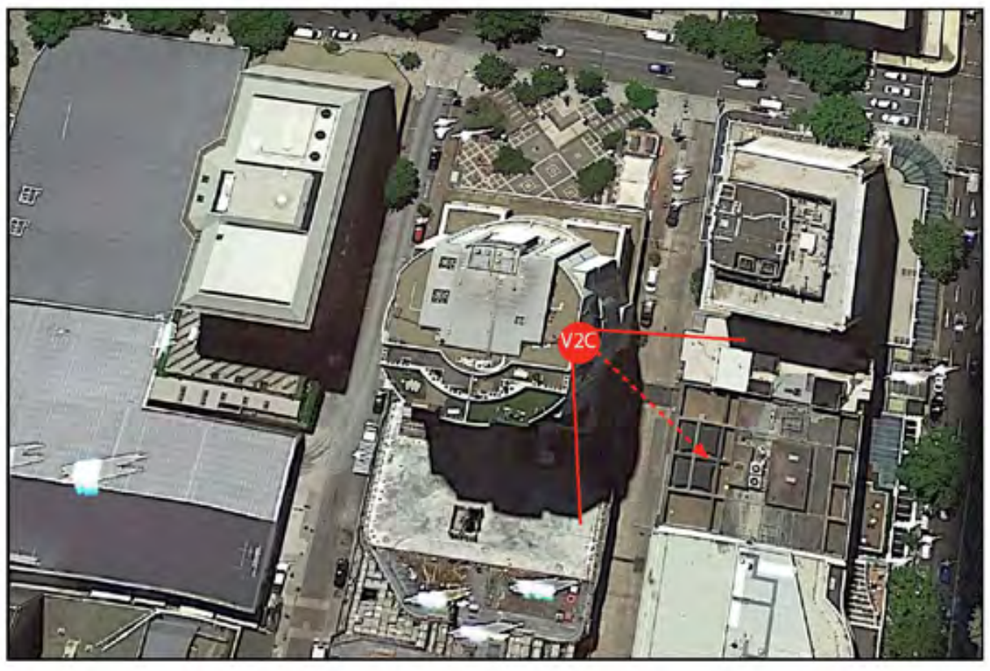
Camera Location	Lvl 35, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	168.05m
Camera Lens	35mm

5.1 CAMERA POSITION 2 - SOUTH EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST



PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST



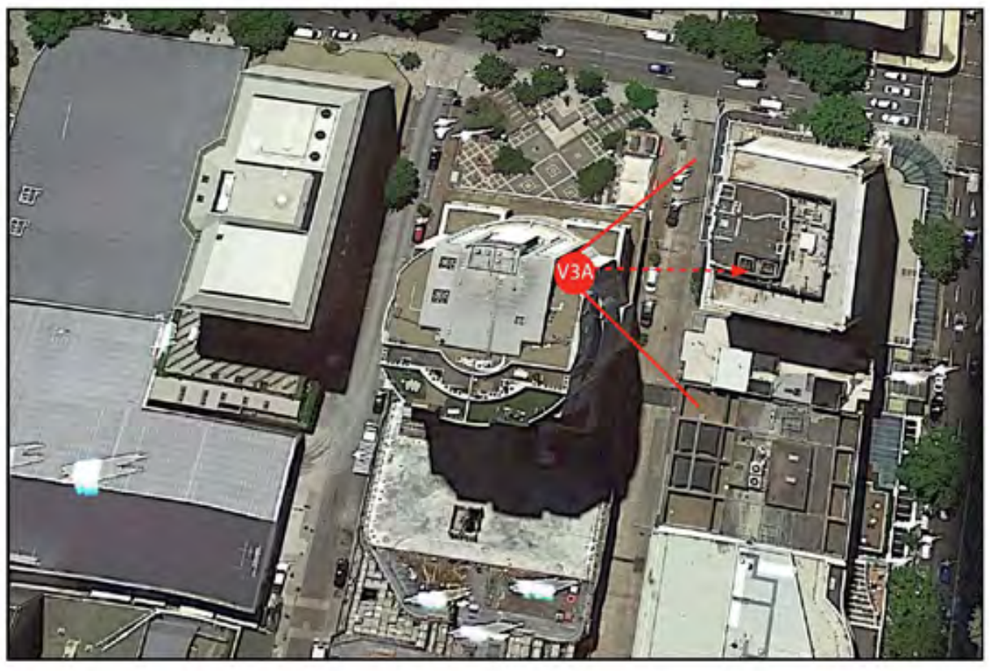
3D VIEWLINE LOCATION

Camera Location	Lvl 35, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	168.05m
Camera Lens	35mm

5.1 CAMERA POSITION 3 - EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST

PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST



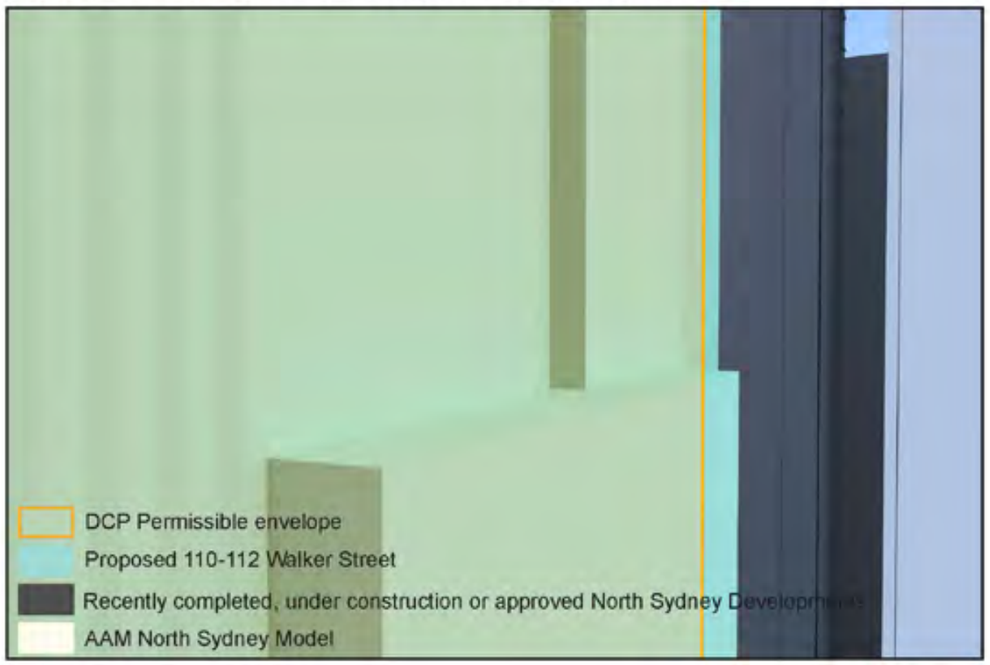
3D VIEWLINE LOCATION

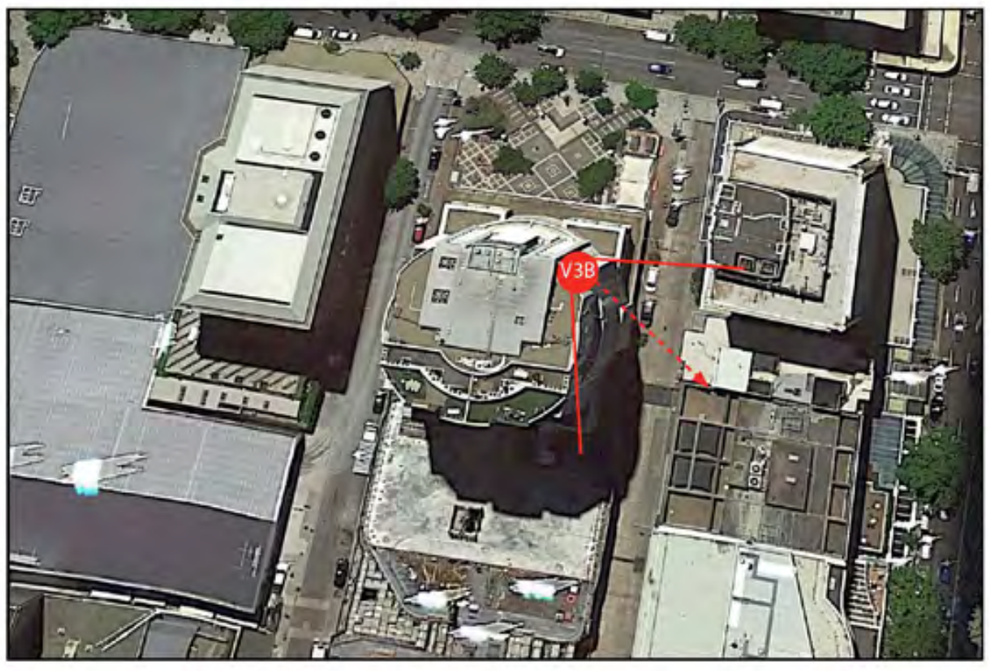
Camera Location	Lvl 34, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	163.34m
Camera Lens	35mm

5.1 CAMERA POSITION 3 - SOUTH EAST

EXISTING 3D VIEWLINE WITHOUT 110-112 WALKER ST

PROPOSED 3D VIEWLINE INCLUDING 110-112 WALKER ST





3D VIEWLINE LOCATION

Camera Location	Lvl 34, The Alexander Apartments, 79-81 Berry St, North Sydney
Camera RL	163.34m
Camera Lens	35mm

APPENDIX A: 3D SCENE DATA SOURCES

The massing envelopes of recently completed buildings and those of developments under construction, as shown in the CGIs, are available in the public domain.
The models included have been supplied by various sources including the respective project architects.

A.1 - 3D Model of proposed 110-112 Walker St

Author: Hassell
Format: 3DM
Alignment: Supplied referenced to MGA 56

A.2 - 3D Model of 100 Mount St

Author: FJMT
Format: Din3D
Alignment: Supplied referenced to MGA 56

A.3 - 3D Model of 88 Walker St

Author: Hassell
Format: 3DM
Alignment: Site boundary positioned to MGA 56

A.4 - 3D Model of 1 Denison St

Author: Bates Smart
Format: Revit
Alignment: Supplied referenced to MGA 56

A.5 - 3D Model of 118 Mount St

Author: FJMT
Format: Din3D
Alignment: Supplied referenced to MGA 56

A.6 - 3D Model of Victoria Cross OSD

Author: Bates Smart
Format: Revit
Alignment: Supplied referenced to MGA 56

A.7 - Surveyed 2015 3D North Sydney context model

Author: AAM
Format: 3DS Studio Max file
Alignment: Supplied referenced to MGA 56

A.8 - Photogrammetric Sydney 3D context model 2019

Author: Aerometrex
Format: 3DS Studio Max file
Alignment: Supplied referenced to MGA 56

APPENDIX B: DETAILS OF AAM AND AEROMETREX 3D MODELS USED FOR ALIGNMENT AND CONTEXT PURPOSES

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Geocirrus 3D Model

Accuracy, Reference Frames and Origin of Model Data

City of Sydney Ultimo Area

Untextured Wireframe model (2018),

Level of Detail – LOD3

AAM Project Number: PRJ35737

Accuracy details: *please refer to table A: 2018 untextured wireframe model*

Crows Nest Area 3D Data

Textured Wireframe model (2017),

Level of Detail - LOD3

AAM Project Number: PRJ33958

Accuracy details: *please refer to table B: 2017 textured wireframe model*

City of Sydney Update 3 square km

AAM Project Number: PRJ33453

Accuracy details: *please refer to table A (2018 untextured wireframe model) for Sydney CBD and Central Sydney area, and please refer to table B (2017 textured wireframe model) for North Sydney and Harbour Bridge area.*

ISO 27001 INFO SEC Certified System

Table A: 2018 untextured wireframe model	Table B: 2017 textured wireframe model
Level of Detail: LOD3	Level of Detail: LOD3
Capture Date: March 2018	Capture Date: 20/12/2016 and 13/01/2017
Capture resolution: 0.095m	Capture resolution: 0.125m
Accuracy: +/- 0.2m RMS vertically and horizontally	Accuracy: +/- 0.5 m

REFERENCE SYSTEMS:

Horizonal:		Vertical:	
Datum:	GDA94	Datum:	Australian Height Datum (AHD)
Projection:	MGA zone 56	Projection:	N/A
Geoid Model:	N/A	Geoid Model:	Ausgeoid98
Reference Point: 336305.14 E	6252061.22N	Reference Point: 2.36 RL	

Wireframe Models (untextured):
The wireframe model was digitized using photogrammetric methods from aerial imagery captured on 25-28 February 2009, updated from aerial imagery captured on 7th March 2013, again in August 2015, with the latest update in March 2018.

Visible features within the aerial imagery were captured as coplanar shapes with no overlap, gaps or slivers between abutting features. Demolished buildings were removed, and new buildings were added. These features were draped to a 0m ground surface around the building footprint and to other features within this footprint. Building within the CBD area are aligned to the land property base to form a single hollow shell. Models outside the CBD area have not been segregated into individual buildings. Ground control used was 72 topographic features surveyed with rapid static GPS

Wireframe Models (textured):
Digitised from nadir and oblique imagery captured Dec 2017-Jan 2018
Textured from the same imagery
Geometry at LOD3 level includes awnings and roof furniture

APPENDIX B: DETAILS OF AAM AND AEROMETREX 3D MODELS USED FOR ALIGNMENT AND CONTEXT PURPOSES

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Sydney 75mm - 3D MODEL

Aerometrex Project Number:	A5673
Aerial Survey Acquisition Dates:	4th, 10th, 11th and 12th February 2019
Number of frames captured:	127,250
Capture Pixel Size:	7.5 cm GSD
Horizontal Datum:	Geocentric Datum of Australia 1994 (GDA94)
Vertical Datum:	Australian Height Datum (AHD)
Map Projection:	MGA Zone 56 (MGA56) FBX Offsets: X= 313,000 Y= 5,236,000
Spatial Accuracy – XYZ:	Derived controls from 10cm Photogrammetric surveying – 25cm absolute accuracy

Data Summary:

- **FBX Tiles** – 3D mesh tiles in FBX format split into their Level of Details. Please refer to the associated *metadata.xml* and Tile_Index.kml folder for global offsets and tile extents respectively.

  Please note there are different directories for different Level of details meaning L19 is typically the highest level of resolution and geometry and every Level down the geometry gets simplified as well as the texture resolution.

aerometrex
Digital Mapping Specialists

Figure 1: Sydney 2019 3D Model example

Figure 2: Sydney 2019 3D Model example

Any queries/feedback please contact Aerometrex - Adelaide
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aerometrex

APPENDIX 2

TENACITY PLANNING PRINCIPLE

TENACITY PLANNING PRINCIPLE

The visual effects of the proposed development are assessment against Tenacity in relation to each photomontage view included above in section 7.0. The steps in the assessment are included below for completeness.

Step 1 views to be affected

"The first step is the assessment of views to be affected. Water views are valued more highly than land views. Iconic views (e.g. 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, e.g. a water view in which the interface between land and water is visible is more valuable than one in which it is obscured".

Step 2

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

Step 3

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.

Step 4

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.

The fourth step in Tenacity refers to the skilful design of the proposed development. This step is only applicable if the proposed development complies with all relevant controls. The so called 'test' is not about whether a design is skilful, in the sense of the architect's expertise in creating a successful architectural composition; instead the intent of the fourth step is to look for opportunities within the massing and form of the proposal to minimise the impact on views across the site, whilst ensuring that reasonable development potential for the site can be achieved

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