URBIS

SYDNEY METRO OVER STATION DEVELOPMENT

PITT STREET SOUTH

VISUAL AND VIEW IMPACT ASSESSMENT

PREPARED FOR

PITT STREET DEVELOPER SOUTH PTY LTD

MAY 2020 - REVISION C
ISSUE FOR SSD DA
SMCSWSPS-URB-OSS-PL-REP-000006

1.0 INTRODUCTION

This report provides an independent visual and view impact assessment (VIA) of the proposed development at the subject site legally described as Lot 10 in DP 1255507 and street address identified as 125 Bathurst Street, Sydney.

This report provides a comparative analysis of the visual effects of the proposed development to those of the Approved SSD 8879 Modification Application (the concept approval).

The proposed development is Stage 2 of the Sydney Metro Pitt Street South over station development. This follows the approval of the concept SSD and the approval of SSD 8879- Mod 1.

This report accompanies the Environmental Impact Statement (EIS) and Section 4.55(2) modification report that has been prepared by Urbis Planning to accompany the detailed State Significant Development (SSD) development application (DA) for an over station development (OSD) above the Sydney Metro Pitt Street South Station. The findings of this visual impact assessment report support both the MOD report as well as the SSD DA.

This VIA should be read in conjunction with the Secretary's Environmental Assessment Requirements (SEARs) dated 28 October 2019 and Schedule 2 conditions of consent issued for the SSD in June 2019.

REPORT CONTENTS

This purpose of this report is to assess the visual and view sharing impacts that would occur as a result of the detailed SSD DA and Stage 2 modification for the Pitt Street over station development. The investigation into visual impact of the proposed development considers both the existing and emerging CBD visual context of the approved Concept SSD DA envelope and the proposed detailed SSD DA.

For ease of navigation, this report is structured as follows:

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BACKGROUND

The following timeline provides an overview of the planning and approvals background of this project. The existing, approved and proposed SSDA built form outcomes are depicted in the massing diagrams on the opposite page.

TIMELINE

CONCEPT APPROVAL

OCTOBER 2008
Announcement of Sydney Metro Project

9 JANUARY 2017
CSSI Approval of the Sydney Metro City & Southwest - Chatswood to Sydenham

NOVEMBER 2017
Concept SSD DA Lodged

25 JUNE 2019
CONCEPT SSD DA APPROVED

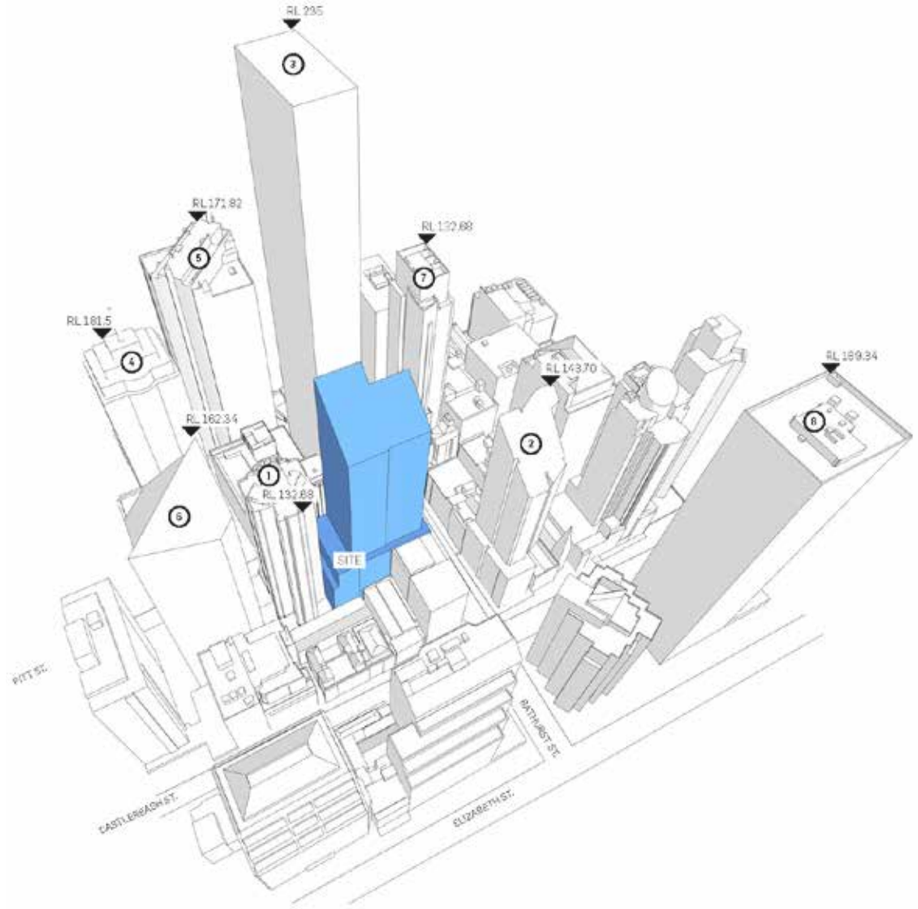
PROPOSED DEVELOPMENT

SEPTEMBER 2019
Project awarded to Applicant

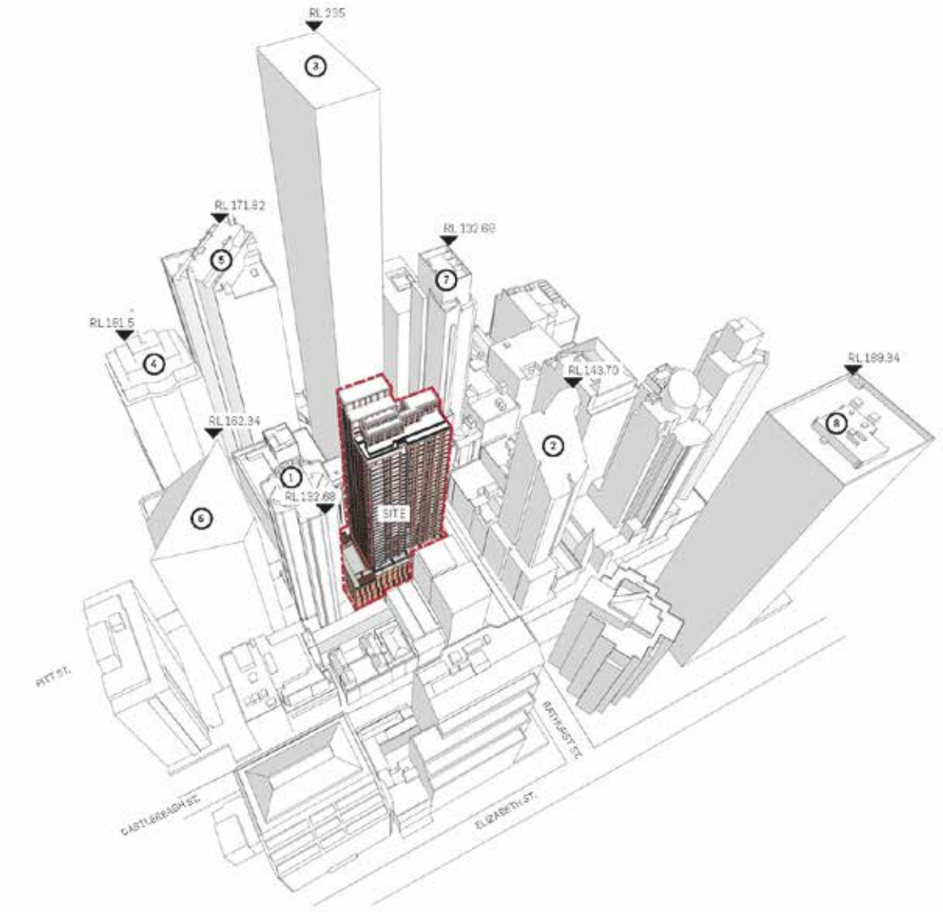
28 OCTOBER 2019
SSD-8879 MOD 1 approved and amended SEARS issued

MAY 2020
PITT STREET SOUTH OSD STAGE 2 DETAILED SSD DA & MOD LODGEMENT

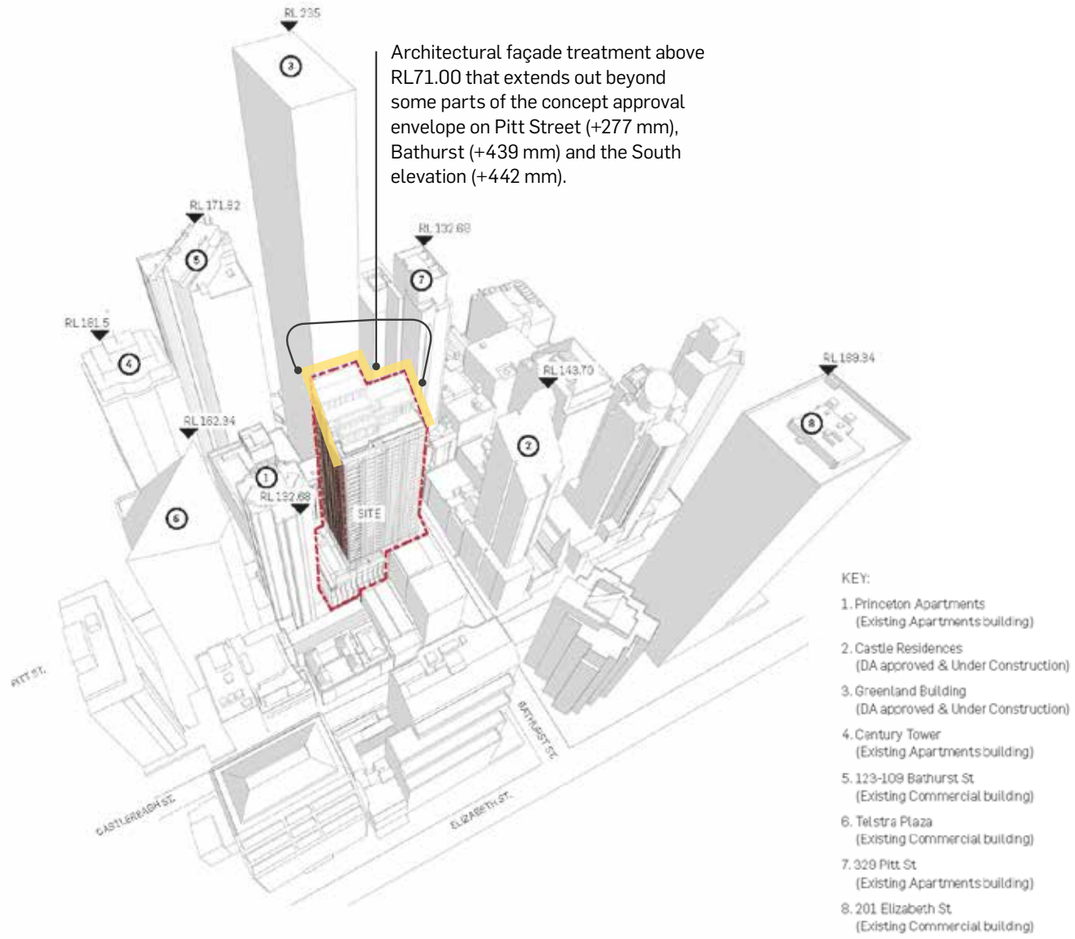
APPROVED CONCEPT SSD DA ENVELOPE - JUNE 25, 2019



PROPOSED DEVELOPMENT 2020



EXTENT OF PROPOSED DEVELOPMENT OUTSIDE OF CONCEPT APPROVAL ENVELOPE



(Source: Bates Smart)

SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARS) Dated 28 October 2019. Specifically, this report has been prepared to respond to SEARS Item 5: Visual and amenity impacts:

Item 5: Visual and amenity impacts

The EIS shall:

- *Provide a detailed visual / view impact analysis, which considers the impact of the proposed building (compared to the existing situation and the approved envelope) when viewed from the public domain and key vantage points surrounding the site. This is to include a written description of the existing view, the likely impact and justification of the proposal and any required mitigation measures. The view locations and methodology for the analysis must be prepared in consultation with the Department and Council.*
- *Provide a view impact analysis showing the proposed building as viewed by pedestrians when moving along Bathurst and Pitt Streets and where the proposed building is visible from the streets immediately surrounding the site*

Urbis Comment

The proposed development has been assessed from 11 public domain view points which are shown on view location Map Figure 2. The photo-montages include block models of both the concept approval and the proposed development using photographs taken in January this year by Unsigned Studio which reflect the existing visual setting. A written description of the existing view, a comparative analysis of the visual effects caused by the proposed development in relation to the concept approval and a level of overall visual impacts is identified. View points assessed include close locations in Pitt Street and Bathurst Street.

PLANS AND DOCUMENTS

Block-model and rendered photomontages have been prepared by Unsigned Studio in relation to public domain views and Computer Generated Images (CGIs) have been provided to show the effects of the proposed development on private domain views. Refer to figures noted as sourced from Unsigned Studio.

Eleven (11) public domain view points have been selected by the project team for investigation. The views selected include close and medium distant views from Pitt Street and Bathurst Street selected for Pitt Street South over station identified as View 6 and View 7 in this report.

STAGE 1 SSD DA CONDITIONS OF CONSENT

The concept SSD concept approval for Stage 1 issued in June 2019 for the building envelope includes conditions that are relevant in relation to the assessment of visual effects and impacts. Relevant conditions are as follows;

Design Guidelines A24.

(a)(b) amend Clause 7 (Built Form above the Podium) as follows:

(b)(i) 7. Where practicable preserve maximise sunlight access and views to the north for adjoining and surrounding neighbouring properties

(d) I; Design and articulation of roof forms must consider retention of a view to St Mary's Cathedral from Century Tower (342-357 Pitt Street)

a) a minimum 3 metres continuous setback to the eastern boundary

b) a minimum 12 metres above the podium with permitted reduction to minimum 3 metres within the structure reservation zone in accordance with Condition A 17 for essential structural support and service to integrate the over station development with the station below.

Alternative options must be considered before any built form is proposed within the structure reservation zone. Any structure or built forms within the structure reservation zone must be designed to minimise its impacts to the outlook and amenity of the adjoining Princeton Apartments (304 - 308 Pitt Street, Sydney).

Built form B1

(d) the structure reservation zone is only to be used for non-gross floor area (including structural supports and plants/services relating to the integration with the approved station), alternative options should be considered before built form is proposed in the zone. Any structure or built forms within the structure reservation zone must be designed to minimise its impacts to the outlook and amenity of the adjoining Princeton Apartments

(g) articulation of roof forms must consider opportunity to retain view to St Mary's Cathedral from Century Tower (343 - 357 Pitt Street, Sydney)

Urbis Comment

Analysis of the sloping roof form included in the proposed development in relation to private domain view to St Mary's Cathedral is included in Section 5 Private Domain Views. Our analysis assesses the difference in the extent of visual impacts caused by the proposed development compared to the concept approval. The effects of both envelopes have been modelled by Unsigned Studio in block-model photomontages in figures noted as sourced from Unsigned Studio.

LIMITATIONS

This report is limited to an assessment of visual impacts. Analysis in this report provides a comparison of the visual effects and potential visual impacts of the proposed Stage 2 development and the extent of visual effects and impacts that would be caused by the construction of theconcept approval. Visual issues that are related to other technical disciplines for example town planning are addressed with other SSD DA reports.

METHODOLOGY

In the context of the concept approval and the assessment of baseline factors, visual effects and impacts in relation to each of the public domain views, Urbis have accepted that the level of impacts caused by the concept approval is acceptable and reasonable in the circumstances. We acknowledge that the Department of Planning, Industry and Environment (DPIE) have accepted and approved a level of visual impacts on private and public domain that will be caused by the building envelope included in the concept approval. In this regard, this report focusses only on the visual impacts caused by the minor differences that are shown by the project architect Bates Smart in the Design Report dated February 2020 including architectural façade treatment that extends up to between 277mm to 442mm beyond some parts of the concept approval envelope. It also assesses on the impact (even if it is a reduced impact) of the proposed development compared to concept approval envelope.

2.0 VISUAL CONTEXT

THE SITE & SURROUNDS

The site is generally described as 125 Bathurst Street, Sydney (the site). The site comprises one allotment and is legally described as Lot 10 DP 1255507 which occupies the south-east corner at the intersection of Bathurst and Pitt Streets. This is a visually prominent location that includes two street frontages within the urban block that is bounded by Bathurst, Pitt, Castlereagh and Liverpool Streets. The site is located at the southern end of the Sydney CBD, north of Haymarket and west of Hyde Park. The site is located on and set within topography that is relatively flat but has a slight cross-fall from east to west so that Castlereagh Street and Hyde Park to the east are slightly elevated in relation to the site.

The site's immediate visual context is characterised by high density built form in a highly urbanised visual context that is characterised by mixed-use, commercial and residential buildings. The north side of Bathurst Street opposite the site is occupied by an eight storey, red-brick circa 1930's era building at 284-292 and to its east a construction site which presents to both Bathurst and Castlereagh Street. This site includes an concept approval known as Castle Towers which appears to include a built form of similar height to that proposed. The north-west corner of Pitt and Bathurst Street is occupied by a Meriton Tower which appears to be approximately equivalent to 42 residential storeys in height. The Greenland tower development which includes residential dwellings is currently under construction at 115-119 Pitt Street.

The Princeton Apartments at 304-308 Pitt Street adjoins the subject site to the south. This is a medium-height residential tower characterised broadly by a cruciform floorplate and vertical stacks of external balconies which present to the west and east.

THE PROJECT

The most visible elements of the proposed development include the podium and tower forms. Both forms have been arranged to be able to retain heritage building facades and elements including the Edinburgh Castle Hotel. The podium varies in height from approximately three residential storeys at Pitt Street above which at RL41 the tower form is setback. The podium height which presents to the east towards the adjacent Euro Tower is equivalent to approximately 8 residential storeys. Therefore in views from the north and south the tower is setback above the podium. The tower has a roof form which slopes down sharply from its western parapet and high point at RL 165.15m to an eastern roof above level 34 at RL 150.25m.

- Approved concept envelope (subject site)
- Under construction
- Pending approval & building envelopes
- Existing development
- Development approval
- Individual heritage buildings

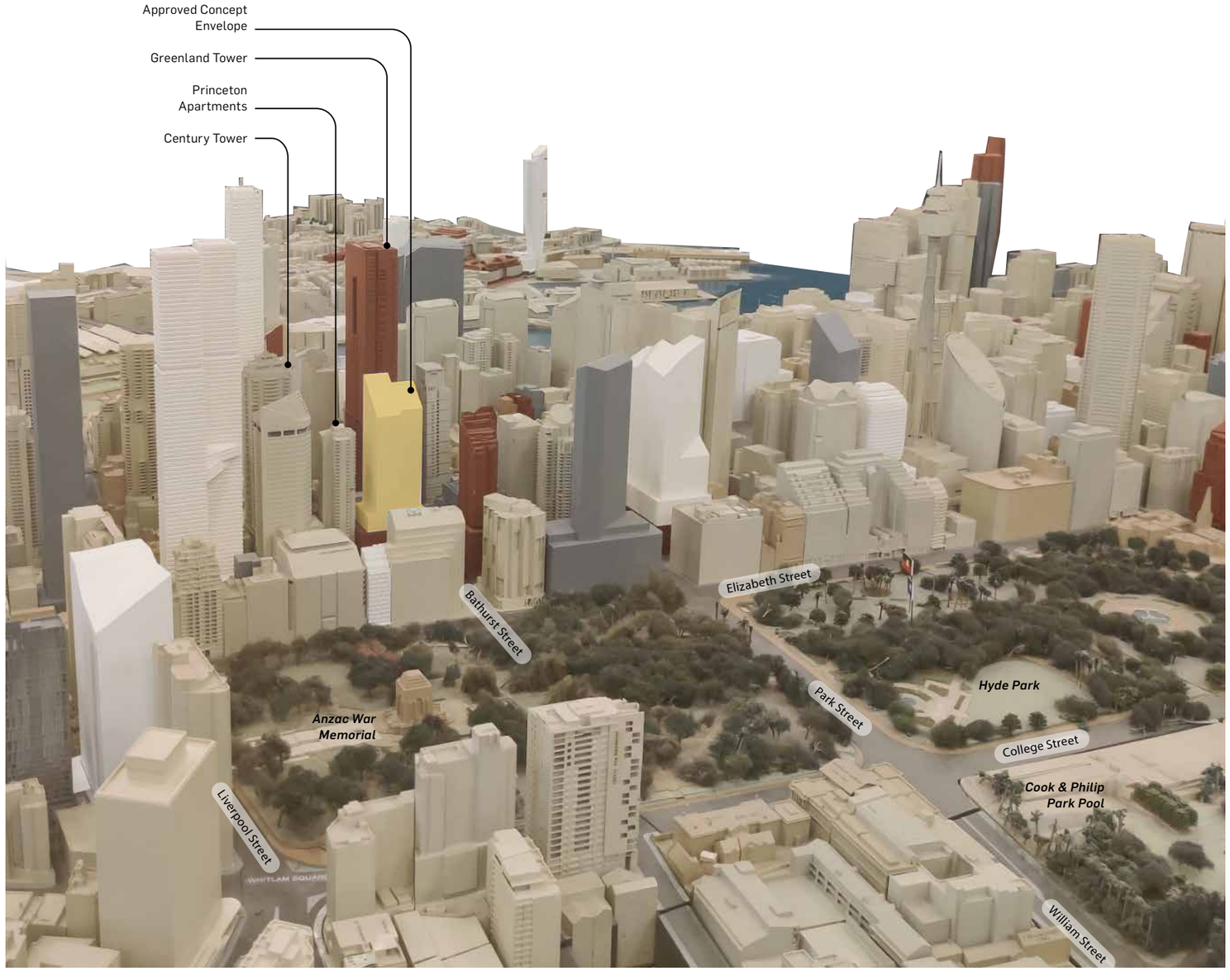


Figure 1 Visual Context *(Source: City of Sydney City Model)*

3.0 VISUAL EFFECTS

EXTERNAL VISIBILITY

Urbis conducted fieldwork in February 2020 to review the public domain view points that had been selected and assessed in relation to concept approval. We found that due to the underlying street-grid arrangement, relatively uniform topography and the alignment of roads in relation to the subject site, that direct views to the proposed development were limited to close views (within 100m) and medium distant view (between 200-500m).

There is limited visual exposure of the site and the proposed development to the south, west and north. Exposure in these directions is limited to close locations in Bathurst, Pitt Street and from the corner of Castlereagh Street. East of Castlereagh Street and adjacent to the intersection of Elizabeth Street and entrance to Hyde Park, visual access to the site is constrained by mature street tree vegetation and built forms typically have a zero setback to Bathurst Street.

Visibility is limited from more distant locations by intervening development in each direction including by towers of a similar height as that proposed and taller forms to the south and south-west for example Century Tower at 343 Pitt Street, Greenland Tower development currently under construction at 115-119 Bathurst Street north and the Telstra Plaza at 294 Pitt Street.

Greater visual exposure of the proposed development exists to the east and south-east where the upper parts of the tower will be potentially visible above the lower built forms located between Elizabeth Street and Castlereagh Street.

A comparative analysis of the visual effects of the concept approval and proposed development is tabulated in Table 2.

VISUAL ANALYSIS

THE VISUAL CATCHMENT OF THE PROJECT SITE

The potential visual catchment of the proposed development was considered following a desktop review of the subject site using 3D aerial imagery, maps, client supplied information and a review of relevant documentation submitted in relation to the concept approval. Subsequent to this process the visual catchment was determined via fieldwork observations from public view points including the inspection of view locations that were included in the VIA in relation to the concept approval which were accepted as being representative by the NSW Department of Planning and Environment (DPE).

The potential visual catchment of the site is a theoretical description of the extent of visibility of the site or the proposed development on the site. The potential visual catchment is constrained to a limited area in the public domain due to its height and the immediately surrounding visual context including taller and similar height tower forms.

The visual catchment is therefore limited to a short section of Pitt Street to the north and south and west and east along Bathurst Street. Fieldwork observations from public domain locations surrounding the site indicate that parts of the proposed development will be visible from those directions including from the corner from George Street and Bathurst Street. However due to intervening built form we observed that there is no visibility of the subject site and will be no visibility of the proposed development north-west of this location in the vicinity of Sydney Town Hall Station and St Andrew's Cathedral or from the public plazas between and surrounding these landmarks.

The visual catchment extends to the north along Pitt Street approximately to its intersection with Market Street. From this location views are constrained to the road corridor by built form which is predominantly characterised by a zero setback at street level. To the south along Pitt Street the visual catchment extends approximately to Goulburn Street south of which the alignment of Pitt Street curves to the west. Views from this direction and from this vicinity are also constrained by intervening built form characterised by zero setbacks and overhanging awnings.

The upper parts of the tower are potentially visible from the east from locations along Elizabeth Street, Park Street and to the south-east in College Street. Views from Elizabeth Street are constrained to small isolated high-level gaps between buildings and would be oblique and upward views. Views from a number of locations in Hyde Park are potentially available notwithstanding the blocking effects of the mature canopy of the evergreen fig trees that form a visually significant and dense visual screen through the central north-south axis of the Park. Some potential views to the upper parts of the tower are available from the Park Street entry steps to north section of the park and from the south section of Hyde Park from an open area adjacent to the Lake of Reflections.

VISUAL CHARACTER

The site has been cleared of existing built forms and is being prepared for construction according to the development consent and in this regard the previous character of the site has been subject to significant change.

Visual character in the vicinity of the site to the north, west and south as described above in section 2 includes a variety of types of development and built form that varies in height, architectural age and detailing. The visual character of areas east of the subject includes a greater number of low to medium height buildings compared to the visual catchment to the west of Pitt Street. The height of buildings located along the west side of Elizabeth Street and between Elizabeth Street and Castlereagh Street south of Bathurst Street are typically lower in height. For example the Sydney Fire Station at 211-217 is a low long mass approximately equivalent to 4 residential storeys in height. We observed that the south end of this building also aligns with another lower height built form located at 251-253 Elizabeth Street or Hellenic House. Notwithstanding the alignment of low-height built form creates a potential east-west view corridor in relation to the Princeton Apartments and the subject site, we understand that the Hellenic Building is the subject of a DA.

Considering the number or proposed and approved taller developments in the vicinity of the subject site it is clear that this urban block is undergoing a change in characterised to one that reflects a desired future character which includes tower forms of greater height.

SCENIC QUALITY

The site would be considered in isolation and within its visual setting as having moderate scenic quality given the likely expectations of viewers in this CBD environment for scenic views.

VIEWER SENSITIVITY

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

ADDITIONAL FACTORS FOR CONSIDERATION

Many factors affect the perception of visual effects of a proposed development. In broad terms these refer to the type or extent of the existing view available. Views can be characterised according to their composition for example using key words such as; expansive, restricted, panoramic, focal or feature. An example of a 'restricted view' would be one that is characterised by features which constrain or block part of a potential view such as vegetation, built forms and topography. An example of a focal view is when direction of the view is dictated by peripheral features as a road corridor or the spatial arrangement of built forms.

Other additional factors that influence the perception of visual effects include;

- Relative viewing level
- Viewing period
- Viewing distance
- View loss or blocking effects

Given that the level of visual effects and potential visual impacts of the concept approval have already been accepted by the department this report does not provide explicit detail as to weighting that these variable factors would add to the perception of visual effects. The most relevant factors to consider in relation to the proposed development are outlined in section 5 Visual Impact Assessment.

For this assessment the view loss and blocking effects of the proposed development will be considered in the context of the effects of the concept approval and the principles of private domain view sharing established by Roseth SC in the Land and Environment Court of New South Wales. These are referred to in *Tenacity Consulting v Warringah* (2004) NSWLEC140 – Principles of view sharing: the impact on neighbours.

VISUAL IMPACT ANALYSIS

The significance of visual impacts is differentiated from the extent of visual effects by giving weight to relevant impact criteria. In this way, the relative importance of impacts is distinguished from the size of the visual effects. The weighting factors most relevant for consideration for this assessment are sensitivity, visual absorption capacity and compatibility with the concept approval.

SENSITIVITY

The overall rating for view place sensitivity was weighted according to the influence of variable factors such distance, any documented heritage significance or has high amenity and user numbers. One location was assessed as being of greater sensitivity at location 16 , Hyde Park adjacent to the Pool of Reflection. Views 3 and 4 from the east side of Hyde Park are also considered as high amenity, close locations of higher sensitivity relative to other close or medium distant locations. However the proposed development is not visible from location 3 and from location 4 only the upper parts of the built form are visible above mid-ground tree canopy.

VISUAL ABSORPTION CAPACITY

For most viewers within the immediate and wider visual catchment, the visual setting has a high visual absorption capacity (VAC) for the proposed development. The visual catchment is small and constrained so that the majority of views are from close of medium distance ranges. The proposed development is partially or completely blocked in views from key view points as shown in the photo-montages for example from view 9 Eastern Distributor where it is blocked wholly by intervening built forms.

In other distant or medium distant views the form and architectural detail of the upper parts of the tower are not easily perceived above or within the CBD building typology. The proposed development would not be perceived as being significantly different in terms of its form or character to the concept approval. This situation arises in relation to locations 1, 3, 10 and 11.

COMPATIBILITY

COMPATIBILITY WITH URBAN FEATURES

In all cases the visual compatibility of proposed development is high is because in the majority of views the proposed tower would be visible within an immediate visual context that includes or will include other tall tower forms. Our assessment takes into account the existing towers including the emerging development approved envelopes and buildings under construction.

COMPATIBILITY WITH THE CONCEPT APPROVAL

This assessment is a measure of the extent to which the visual effects of the proposal are compatible with the concept approval

APPLYING THE WEIGHTING FACTORS

The weighting factors are applied to the overall level of visual effects to determine the significance of visual impacts.

The overall level of visual effects on all medium and long-range views in the public and the private domain was rated as low.

4.0 PUBLIC DOMAIN VIEWS

The following pages undertake a detailed analysis of the 11 view points identified comprised of the original Stage 1 SSD DA views and the additional views confirmed by the Department of Planning, Industry and Environmment (Views 6 & 7).

Table 1: Unsigned Studios View Reference

View reference	Unsigned Location Reference	Description	View Direction	Photo Number	Focal Lens	Distance range <100m, 100-500m, >500m
View 01	Cam_01	Macquarie Street east side, next to Hyde Park Barracks	South-west	9758	35mm	678m
View 02	Cam_02	Plaza above Cook and Philip Park, close to water feature next to aquatic centre	South-west	9770	35mm	470m
View 03	Cam_03	South-east corner inersection of College Street and Oxford Street	North-west	9931	35mm	417m
View 04	Cam_04	Hyde park, north-east corner of War memorial pool	North-west	9975	24mm	278m
View 05	Cam_05	William Street at Kings Cross	North-west	9746	50mm	1229m
View 06	Cam_06	North-east corner intersection of Bathurst Street and Castlereagh Street	South-west	9797	35mm	58m
View 07	Cam_07	South-west intersection of Pitt Street and Wilmot Street	South-west	9825	24mm	33m
View 08	Cam_08	North-west corner intersection of Druitt Street and Clarence Street	South-east	9849	24mm	330m
View 09	Cam_09	Western Distribuitor beside Darling Park	South-east	9861	35mm	598m
View 10	Cam_10	South-west corner intersection of Pitt Street and Campbell Street	North-east	9898	35mm	498m
View 11	Cam_11	North-east corner intersection of Pitt Street and Market Street next to Centre Point	South-east	0011	24mm	440m

SELECTED VIEWS FOR PHOTO-SIMULATION

Photographs were taken by Unsigned Studio from locations that were directed and specified by others. The composition, distance range and location of views used were based on the locations used and that were accepted in relation to Stage 1 SSD Application and have been revisited, inspected by Urbis and updated by Unsigned Studio. In some cases, the approved and proposed South OSD is not visible in a view however has been included in this report for completeness based on the accepted view locations included in the Stage 1 SDD application.

Photography

Photographs were taken by Unsigned Studio using a professional quality 35mm format full-frame camera and both 50mm, 35mm and 24mm fixed focal length lenses. The images are single frame photographs, have not been stitched together or otherwise modified to our knowledge and in this regard have one centre of perspective. The single frame photograph has limited peripheral distortion at the outer edges of the image which replicates the same single point perspective as that used by the computer software to generate a 3D image of the proposed development.

Notwithstanding an industry wide preference for the use of a 50mm focal length lens as bases for photomontages, in some situations given the size, scale and horizontal extent of a proposed development, the use of a 50mm focal length lens is not practicable. Therefore, the focal lengths used for the base photographs vary depending on the location of each view relative to the subject site. For close locations the proposed built form and surrounding visual context cannot be captured in the composition of a photographs using a 50mm focal length and in this regard views 35mm or 24mm photographs which allow for a wider field of view have been adopted. For distant views a 50mm focal length lens has been used. The focal length lens for each view is recorded in Table 1 prepared by Unsigned Studio.

The locations and RLs of the camera lens used to prepare photomontages were established by survey by Aurecon on the day of photography. Aurecon used 'point-cloud' survey capture to record multiple fixed features around the site and in the composition of the view including the camera location. In this way the location of the camera's lens can be in the software used by Unsigned Studio as an additional cross reference when locating the 3D architectural model in the view. The camera was levelled and set on a tripod at 1.6m above ground level.

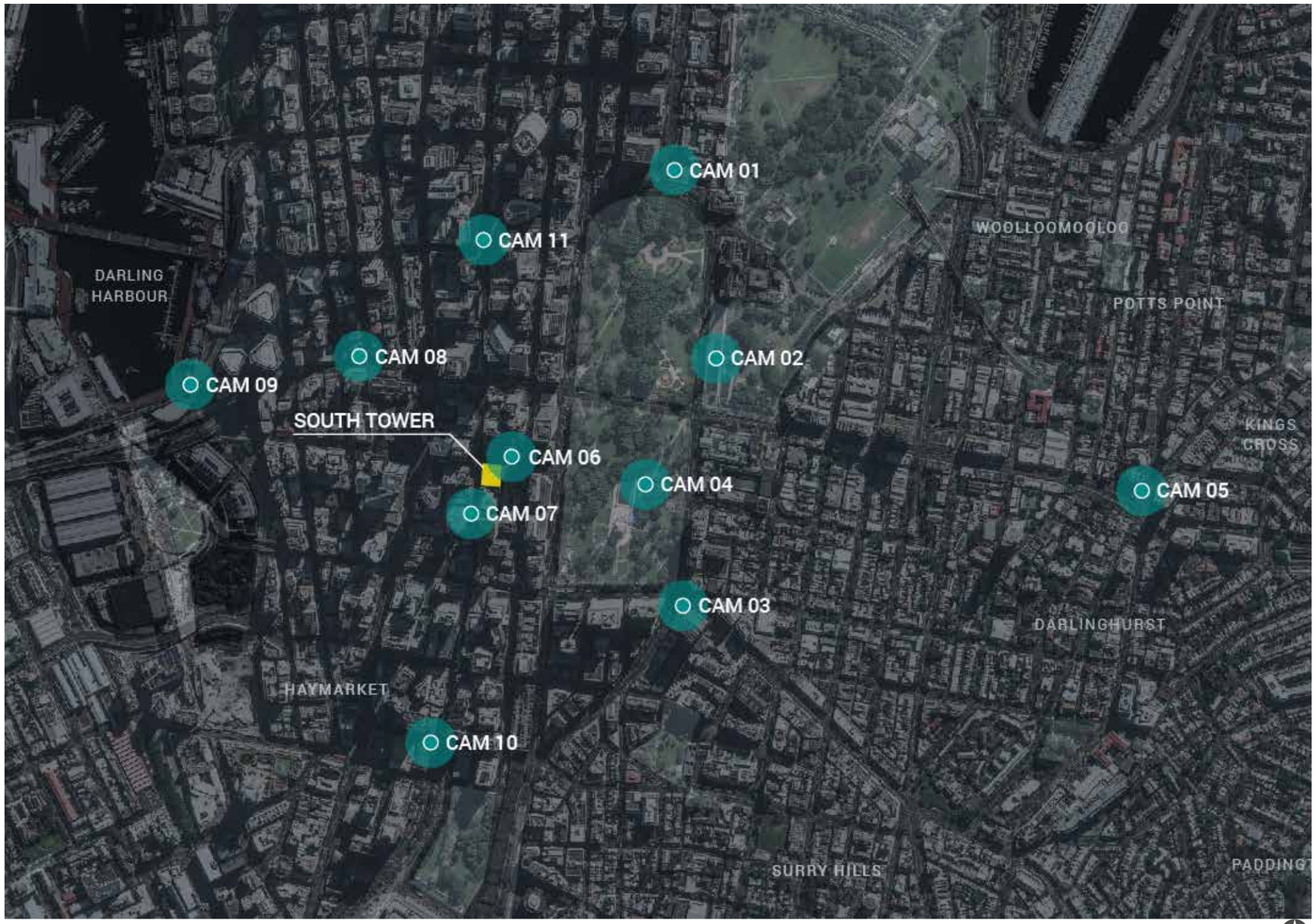


Figure 2 View Locations *(Source: Unsigned Studio)*

VIEW 1

MACQUARIE STREET, SOUTH-EAST SIDE NEXT TO HYDE PARK BARRACKS

Description & Distance
South-east end of Macquarie Street pedestrian area, looking south-west across Hyde Park

- Approximately 678m to proposed Pitt Street South OSD.

Visual effects of the concept approval
The upper parts of the Pitt Street North OSD is visible. The concept approval envelope is not visible above mid-ground vegetation.

Visual effects of the proposed development
The proposed Pitt Street South OSD is not visible above mid-ground vegetation from this view point.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	NA

Variable weighting factors rated as low, medium, high	
Sensitivity	NA
Visual Absorption Capacity	NA
Compatibility with concept approval	NA

Overall rating of significance of visual impact impact

Nil - The proposed development is not visible from this view.

Figure 3 View 1 Macquarie Street - existing view (35mm focal length, *Source: Unsigned Studio)*

Figure 4 View 1 Macquarie Street - alignment points for model integration *(Source: Unsigned Studio).*

Figure 5 View 1 Macquarie Street - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio)*.

Figure 6 View 1 Macquarie Street - photomontage of proposed development *(Source: Unsigned Studio).*

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

VIEW 2

PLAZA ABOVE COOK AND PHILIP PARK

Description & Distance
View south-west across the plaza and tree canopy in Hyde Park.

- Approximately 470m to proposed Pitt Street South OSD.

Visual effects of the concept approval
The upper part of the south-west elevation of the approved Pitt Street South OSD building envelope is visible above a foreground dominated by public open spaces and vegetation.

Visual effects of the proposed development
The upper part of the proposed building envelope for Pitt Street South OSD is visible above a foreground dominated by public open spaces and vegetation. There is no discernable difference in height or bulk of the building envelope from this location and no significant additional extent of visual effects or view blocking.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Medium
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is an improvement in visual permeability to the sky (shown in green) achieved by the proposed development when compared to the approved concept envelope. The protrusion of proposed development outside of the approved envelope is not discernible from this view.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

Figure 7 View 2 Plaza above Cook and Phillip Park - existing view (35mm focal length, *Source: Unsigned Studio)*

Figure 8 View 2 Plaza above Cook and Phillip Park - alignment points for model integration *(Source: Unsigned Studio).*

Figure 9 View 2 Plaza above Cook and Phillip Park - comparative analysis of approved concept envelope and proposed development *(Source: Unsigned Studio).*

Figure 10 View 2 Plaza above Cook and Phillip Park - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 3

SOUTH - EAST INTERSECTION OF COLLEGE & OXFORD STREET

Description & Distance
View north-west across a foreground of road carriageway and mid-ground of Hyde Park vegetation.

- Approximately 417m to proposed Pitt Street South OSD.

Visual effects of the concept approval
The upper parts of the concept approval envelope are visible above mid-ground vegetation in Hyde Park.

Visual effects of the proposed development
The upper parts of the proposed building envelope are visible above mid-ground vegetation. There is no discernable difference in height or bulk of the proposed building envelope in this view. The additional extent of visual effects caused by the minor additional extent of facade treatment does not create any significant view loss in relation to the concept approval. The additional extent of visual effects caused blocks views of background built form.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Low-medium
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development when compared to the approved concept envelope. The backdrop of the proposed development includes the Greenland Tower (under construction) which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is not discernible from this view.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

Figure 11 View 3 South-east intersection of College and Oxford Street - existing view (35mm focal length, *Source: Unsigned Studio)*

Figure 12 View 3 South-east intersection of College and Oxford Street - alignment points for model integration *(Source: Unsigned Studio).*

Figure 13 View 3 South-east intersection of College and Oxford Street - comparative analysis of approved concept envelope and proposed development *(Source: Unsigned Studio).*

Figure 14 View 3 South-east intersection of College and Oxford Street - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 4

HYDE PARK, NORTH-EAST CORNER OF THE POOL OF REFLECTION

Description & Distance
View west across part of Hyde Park

- Approximately 278m to proposed Pitt Street South OSD.

Visual effects of the concept approval
This is a close-medium view from the east which includes the upper parts of the concept approval envelope above vegetation.

Visual effects of the proposed development
The upper parts of the proposed building envelope are visible above mid-ground vegetation. There is no discernable difference in height or bulk of the proposed building envelope in this view. The additional extent of visual effects caused by the minor additional extent of facade treatment does not create any significant view loss in relation to the concept approval. The additional extent of visual effects caused blocks views of background built form.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	High
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development when compared to the approved concept envelope. The backdrop of the proposed development includes the Greenland Tower (under construction) and other existing buildings which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is not discernible from this view.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

Figure 15 View 4 Hyde Park adjacent to the Pool of Reflection - existing view (24mm focal length, *Source: Unsigned Studio)*

Figure 16 View 4 Hyde Park adjacent to the Pool of Reflection - alignment points for model integration *(Source: Unsigned Studio).*

Figure 17 View 4 Hyde Park adjacent to the Pool of Reflection - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

Figure 18 View 4 Hyde Park adjacent to the Pool of Reflection - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 5

WILLIAM STREET AND DARLINGHURST ROAD

Description & Distance
View west along William Street

- Approximately 1,229m to proposed Pitt Street South OSD.

Visual effects of the concept approval
A minor amount of the approved Pitt Street South OSD is visible in the distance.

Visual effects of the proposed development
A minor amount of the proposed Pitt Street South OSD is visible from this distant location. However the detail and minor changes included in the proposed are not easily discernable and will not create any significant additional extent of built form, view loss or blocking effects.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Low
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development when compared to the approved concept envelope. The backdrop of the proposed development includes the Greenland Tower (under construction) and other existing buildings which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is not discernible from this view.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

Figure 19 View 5 William Street and Darlinghurst Road- existing view (50mm focal length, *Source: Unsigned Studio)*

Figure 20 View 5 William Street and Darlinghurst Road - alignment points for model integration *(Source: Unsigned Studio).*

Figure 21 View 5 William Street and Darlinghurst Road - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

Figure 22 View 5 William Street and Darlinghurst Road - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 6

NORTH-EAST CORNER OF BATHURST STREET AND CASTLEREAGH STREET

Description & Distance
View south towards the site from a close viewing location.

- Approximately 58m to proposed Pitt Street South OSD.

Visual effects of the concept approval
This is a close view of the concept approval envelope seen obliquely against a background of built form.

Visual effects of the proposed development
This is a close view of the proposed development where the additional extent of façade treatment proposed to extend to the north and west is visible. The proposed built form blocks views of background built form and does not create any significant additional visual effects or view loss in relation to the concept approval.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Medium
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development. The backdrop of the proposed development includes the Greenland Tower (under construction) which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is minimally discernible from this view and does not create significant additional visual effects or view loss.

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the approved concept envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

Figure 23 View 6 North-east corner of Bathurst and Castlereagh Streets - existing view (35mm focal length, *Source: Unsigned Studio).*

Figure 24 View 6 North-east corner of Bathurst and Castlereagh Streets - alignment points for model integration *(Source: Unsigned Studio).*

Figure 25 View 6 North-east corner of Bathurst and Castlereagh Streets - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

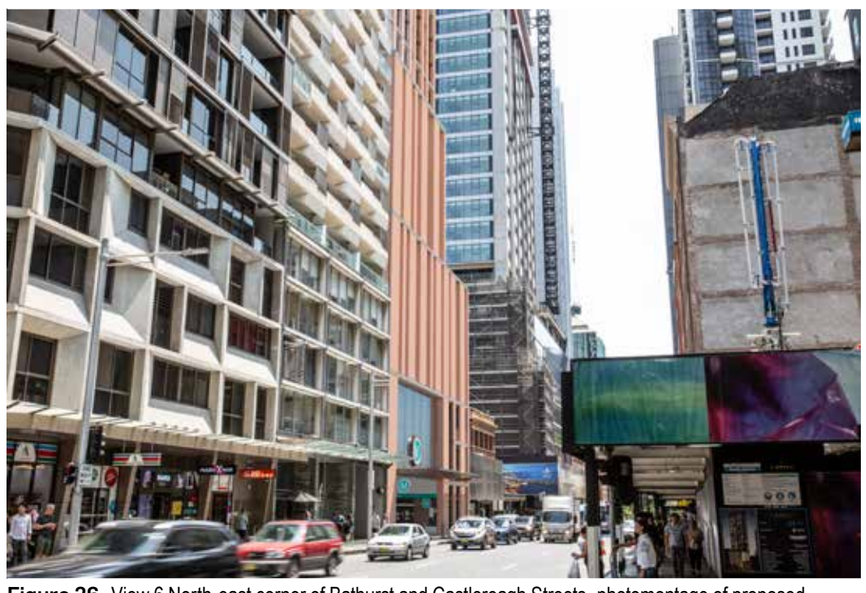


Figure 26 View 6 North-east corner of Bathurst and Castlereagh Streets- photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 7

SOUTH-WEST INTERSECTION OF PITT STREET AND WILMOT STREET

Description & Distance
View north towards along Pitt Street to the west façade

- Approximately 33m south of proposed Pitt Street South OSD.

Visual effects of the concept approval
This is a close view of the concept approval envelope seen obliquely against a background of built form.

Visual effects of the proposed development
This is a close view of the proposed development which shows that a slim vertical column of additional built form as shown in pink, is visible beyond concept approval envelope. The additional amount of built form visible blocks views of background buildings and does not create any significant additional visual effects, or view loss or visual impacts in relation to the concept approval.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Medium
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development. The backdrop of the proposed development consists of existing buildings which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is minimally discernible from this view and does not create significant additional visual effects or view loss.

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the approved concept envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

Figure 27 View 7 South-west intersection of Pitt Street and Wilmot Street - existing view (24mm focal length, *Source: Unsigned Studio).*

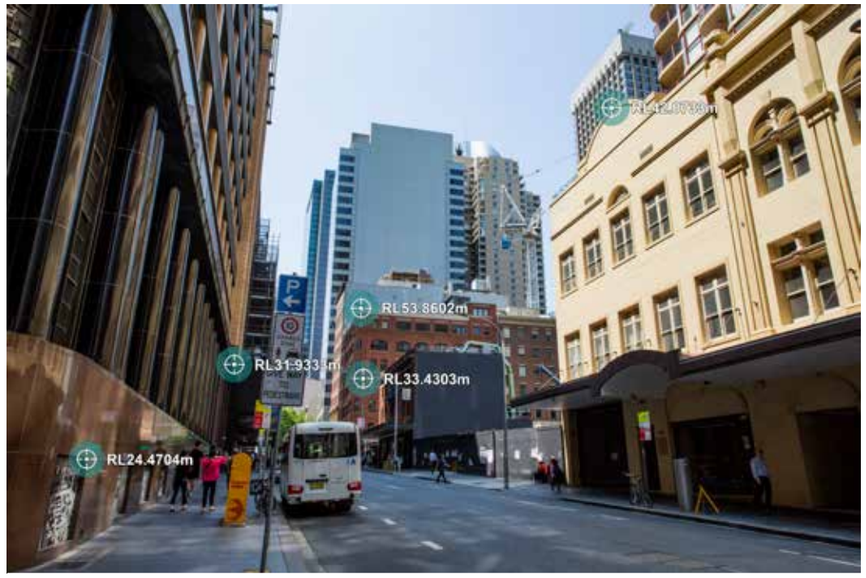


Figure 28 View 7 South-west intersection of Pitt Street and Wilmot Street - alignment points for model integration *(Source: Unsigned Studio).*

Figure 29 View 7 South-west intersection of Pitt Street and Wilmot Street - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

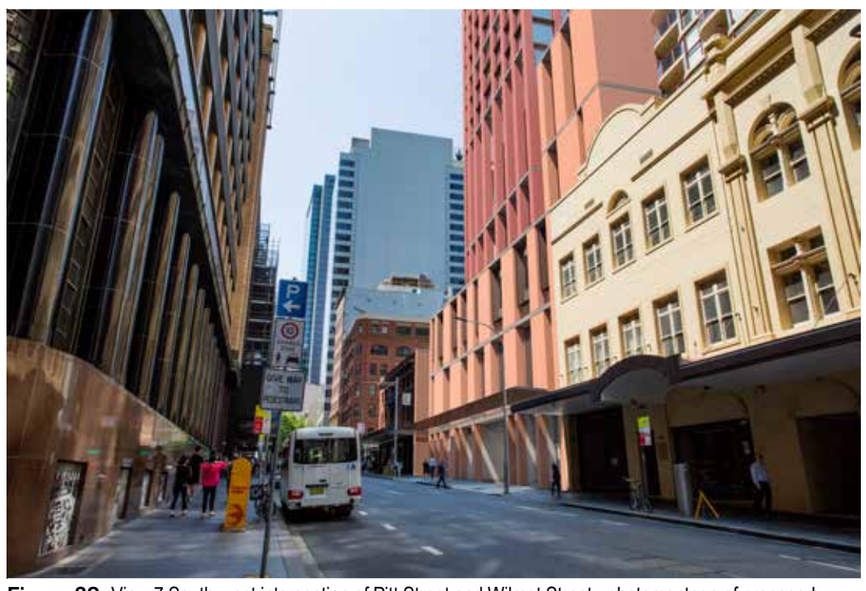


Figure 30 View 7 South-west intersection of Pitt Street and Wilmot Street - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 8

NORTH-EAST CORNER OF DRUITT STREET AND CLARENCE STREET

Description & Distance
View south-east towards Pitt Street South OSD.

- Approximately 330m from proposed Pitt Street South OSD.

Visual effects of the concept approval
The concept approval is not visible from this location.

Visual effects of the proposed development
From this location the proposed development is not visible due to the existing building in the foreground obstructing any visibility.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	NA

Variable weighting factors rated as low, medium, high	
Sensitivity	NA
Visual Absorption Capacity	NA
Compatibility with concept approval	NA

Overall rating of significance of visual impact impact

Nil - The proposed development is not visible from this view.

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the approved concept envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

Figure 31 View 8 North-east corner of Druitt and Clarence Streets - existing view (24mm focal length, *Source: Unsigned Studio).*

Figure 32 View 8 North-east corner of Druitt and Clarence Streets - alignment points for model integration *(Source: Unsigned Studio).*

Figure 33 View 8 North-east corner of Druitt and Clarence Streets - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

Figure 34 View 8 North-east corner of Druitt and Clarence Streets - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 9

WESTERN DISTRIBUTOR NEAR THE INTERNATIONAL CONVENTION CENTRE

Description & Distance
View east.

- Approximately 598m from the proposed Pitt Street South OSD.

Visual effects of the concept approval
The concept approval is not visible from this location.

Visual effects of the proposed development
From this location the proposed development is not visible due to foreground built form. The proposed and concept approval will sit behind the Park Royal Hotel and a concept approval that is currently under construction.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	NA

Variable weighting factors rated as low, medium, high	
Sensitivity	NA
Visual Absorption Capacity	NA
Compatibility with concept approval	NA

Overall rating of significance of visual impact impact

Nil - The proposed development is not visible from this view.

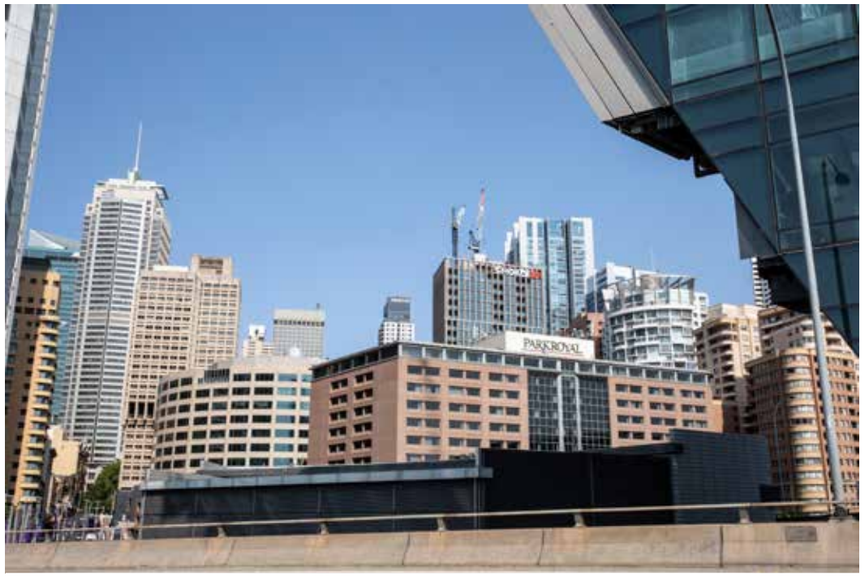


Figure 35 View 9 Western Distributor near the ICC - existing view (35mm focal length, *Source: Unsigned Studio).*

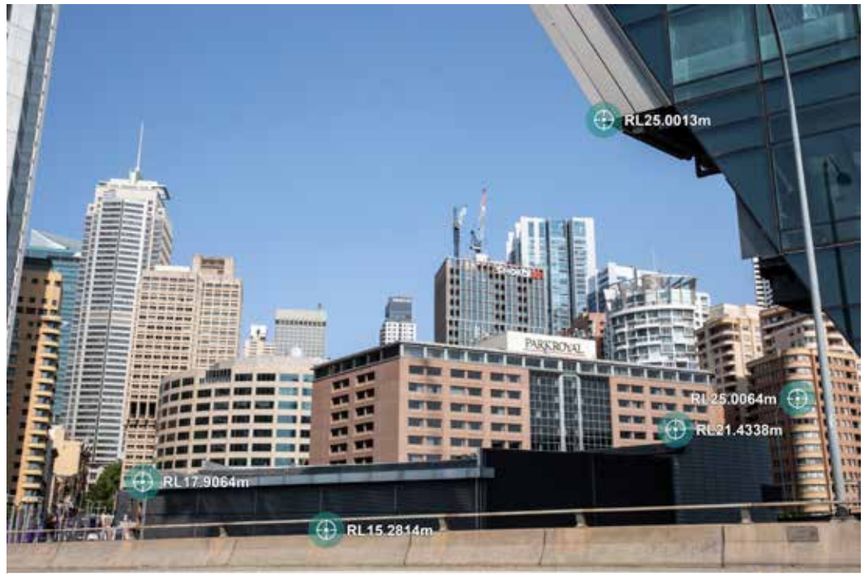


Figure 36 View 9 Western Distributor near the ICC - alignment points for model integration *(Source: Unsigned Studio).*

Figure 37 View 9 Western Distributor near the ICC - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

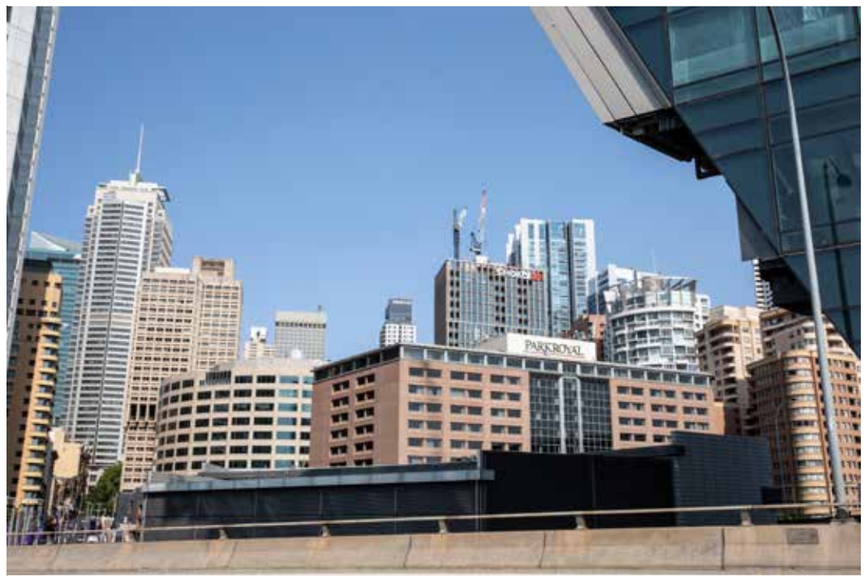


Figure 38 View 9 Western Distributor near the ICC - photomontage of proposed development *(Source: Unsigned Studio).*

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the approved concept envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

VIEW 10

THE SOUTH-WEST CORNER OF PITT STREET & CAMPBELL STREET

Description & Distance
View north.

- Approximately 498m from the proposed Pitt Street South OSD.

Visual effects of the concept approval
The concept approval is not visible from this location.

Visual effects of the proposed development
From this location the proposed development is not visible due to the existing buildings and vegetation in the foreground obstructing any visibility.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	NA

Variable weighting factors rated as low, medium, high	
Sensitivity	NA
Visual Absorption Capacity	NA
Compatibility with concept approval	NA

Overall rating of significance of visual impact impact

Nil - The proposed development is not visible from this view.

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the approved concept envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

Figure 39 View 10 South-west corner of Pitt and Campbell Streets - existing view (35mm focal length, *Source: Unsigned Studio).*

Figure 40 View 10 South-west corner of Pitt and Campbell Streets - alignment points for model integration *(Source: Unsigned Studio).*

Figure 41 View 10 South-west corner of Pitt and Campbell Streets - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

Figure 42 View 10 South-west corner of Pitt and Campbell Streets - photomontage of proposed development *(Source: Unsigned Studio).*

VIEW 11

NORTH-EAST CORNER OF PITT STREET & MARKET STREET

Description & Distance
View south along Pitt Street.

- Approximately 420m from the proposed Pitt Street South OSD.

Visual effects of the concept Aapproval
A narrow vertical edge of the north-east corner of the building envelope is visible. The additional 200mm of built form that projects from the west elevation of the proposed development is not easily discernable in this view.

Visual effects of the proposed development
A narrow vertical edge of the north-west corner of the building envelope is visible. The 200mm extension of built form that projects from the west elevation of the proposed development compared to the concept approval is not clearly identifiable from this distance and does not create any significant additional view blocking effects.

Assessment of visual effects of the proposed development	
Visual effects of the proposed development	Negligible

Variable weighting factors rated as low, medium, high	
Sensitivity	Low-medium
Visual Absorption Capacity	High
Compatibility with concept approval	High

Overall rating of significance of visual impact impact

Low - there is some improvement in visual permeability (shown in green) achieved by the proposed development. The backdrop of the proposed development consists of existing buildings which means a high visual absorption capacity. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is minimally discernible from this view and does not create significant additional visual effects or view loss.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the approved concept envelope

Figure 43 View 11 North-east corner of Pitt and Market Streets - existing view (24mm focal length, *Source: Unsigned Studio).*

Figure 44 View 11 North-east corner of Pitt and Market Streets - alignment points for model integration *(Source: Unsigned Studio).*

Figure 45 View 11 North-east corner of Pitt and Market Streets - comparative analysis of approved concept envelope and proposed development (*Source: Unsigned Studio).*

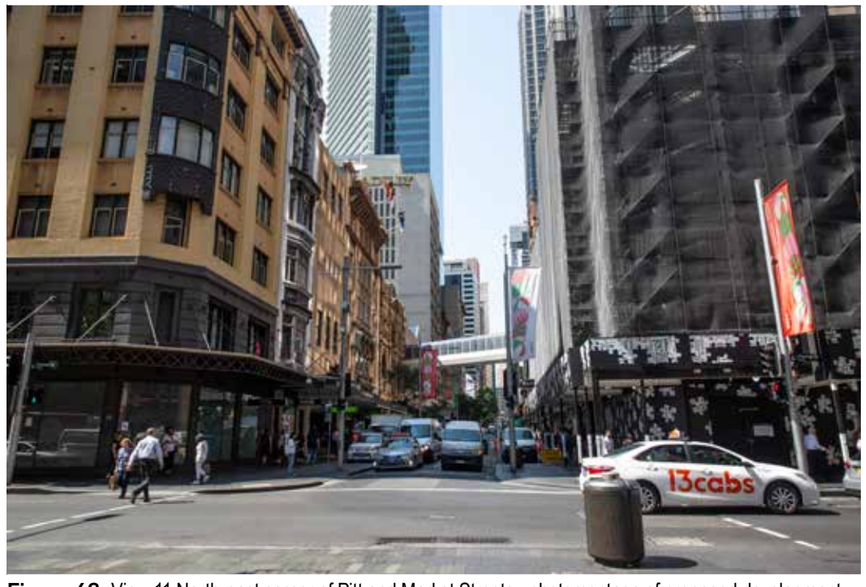


Figure 46 View 11 North-east corner of Pitt and Market Streets - photomontage of proposed development *(Source: Unsigned Studio).*

SUMMARY STATEMENT ON PUBLIC DOMAIN VISUAL IMPACTS

The nature and level of visual impacts caused by the concept approval been accepted as being reasonable by the DPE.

The form, height and floor plate of the proposed development as shown in the photomontages does not significantly change or add to the extent of visual effects or visual impacts generated by those effects compared to the concept approval.

In all public domain views, the additional extent of visual effects caused by the façade treatment of the proposed development which extends a minor amount beyond the concept approval could not easily be discerned.

The table of visual effects includes weighting factors which influence the overall significance of the visual impact rating. This table shows that the visual effects of the proposed development for all public domain views were found to have low levels of visual effects and high compatibility with the concept approval and high absorption capacity.

In the closest views from locations 6 and 7 notwithstanding the level of view place sensitivity was medium due to their proximity, the weighting factors and in particular the high compatibility of proposed development with the concept approval, the level of visual impact was rated as low.

Location 4 in Hyde Park was rated as being a high sensitivity location however notwithstanding its importance as a public open space, the visual effects of the proposed development are not easily discernible and were rated as negligible. This combined with high Visual Absorption Capacity and Compatibility with the concept approval have reduced the overall level of visual impacts to low.

The amount of additional built form at the north, west and south elevations in relation to the solar and amenity façade treatment creates a minor or negligible level of visual effects beyond the concept approval envelope that are likely to cause minor additional visual impacts compared to the concept approval. In addition, in some upward views where the stepped roof form of the proposed development is visible, it generates less visual impacts in the public domain compared to the concept approval.

Overall the level of visual impacts on all public domain view locations modelled, is considered to be low. In the context of the concept approval the visual effects and potential visual impacts of the proposed development on the public and private domain is considered to be reasonable and acceptable.

Table 2: Public Domain Views Summary Assessment

			Relevant variable weighting factors rated as low, medium, high			
View Reference	**Location**	**Negligible, minor, moderate, severe, devastating**	***Sensitivity***	***Visual Absoprtion Capacity***	***Compatibility with concept approval***	**Overall rating of significance of visual impact**
View 01	South-east end of Macquarie Street pedestrian area	N/A	N/A	N/A	N/A	N/A
View 02	Cook and Phillip Park public plaza	negligible	low-med	high	high	low
View 03	South-east intersection at College Street and Oxford Street	negligible	low-med	high	high	low
View 04	Hyde Park adjacent to the Pool of reflection	negligible	high	high	high	low
View 05	North-west corner of William Street and Darlinghurst Road	negligible	low	high	high	low
View 06	North-east corner of Bathurst and Castlereagh Streets	negligible	medium	high	high	low
View 07	Pitt Street approximately 100m south of the site	negligible	medium	high	high	low
View 08	North-east corner of Druitt and Clarence Streets	N/A	N/A	N/A	N/A	N/A
View 09	Western Distributer near the International Convention Centre	N/A	N/A	N/A	N/A	N/A
View 10	The south-east corner of Pitt Street and Campbell Street	N/A	N/A	N/A	N/A	N/A
View 11	North-wast corner of Pitt Street and Market Street	negligible	low-med	high	high	low

STATEMENT OF CERTIFICATION OF PHOTO-MONTAGES

The preparation of photomontages has been undertaken to comply with the practice direction for the use of photomontages in the Land and Environment Court of New South Wales. In NSW this is the most conservative standard to follow in the absence of any statutory. This involves following a number of steps as follows;

Use of photomontages

The following requirements for photomontages proposed to be relied on as or as part of expert evidence in Class 1 appeals will apply for proceedings commenced on or after 1 October 2013. The following directions will apply to photomontages from that date:

Requirements for photomontages

Any photomontage proposed to be relied on in an expert report or as demonstrating an expert opinion as an accurate depiction of some intended future change to the present physical position concerning an identified location is to be accompanied by:

Existing Photograph.

- A photograph showing the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage (the existing photograph);
- A copy of the existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed. The wire frame overlay represents the existing surveyed elements which correspond with the same elements in the existing photograph; and
- A 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken.
- Survey data.
- Confirmation that accurate 2D/3D survey data has been used to prepare the Photomontages. This is to include confirmation that survey data was used:
- For depiction of existing buildings or existing elements as shown in the wire frame; and
- To establish an accurate camera location and RL of the camera.

Any expert statement or other document demonstrating an expert opinion that proposes to rely on a photomontage is to include details of:

- The name and qualifications of the surveyor who prepared the survey information from which the underlying data for the wire frame from which the photomontage was derived was obtained; and
- The camera type and field of view of the lens used for the purpose of the photograph in (1)(a) from which the photomontage has been derived.

Verification Key Steps

The fundamental requirement to be able to certify photomontages is that there is a 3D architectural model of the proposed development which can accurately located within the composition of a photograph.

In order to be able to certify the accuracy of the photomontage resulting from merging the 3D model and photographs is being able to demonstrate that the 3D model of the proposed building has a good fit to known surveyed markers on the existing building and other fixed features of the site or locality which are shown on the survey plan.

In addition the model must fit realistically into a photographic representation of the site in its context. Foster and Partners prepared the 3D model of the proposed development using Revit 2019. Parts of the surrounding visual context present in the composition include proposed and approved building envelopes sourced from the City of Sydney 3D model.

Photographs were taken by Unsigned Studio from locations that were directed and specified by others. The composition, distance range and location of views used were based on the locations used and that were accepted in relation to Stage 1 SSD Application and have been revisited, inspected by Urbis and updated by Unsigned. In some cases the approved and proposed North OSD is not visible in the view however has been included in this report for completeness based on the accepted view locations included in the Stage 1 SDD application.

Base photographs and focal lengths

Photographs were taken by Unsigned Studio using a professional quality Canon EOS 5D Mark III full-frame camera at 50mm, 35mm and 24mm Focal lengths. The images are single frame photographs and in this regard have one centre of perspective and therefore limited peripheral distortion at the outer edges of the image. The perspective in the 3D model of the proposed development that is generated by the computer is most closely aligned to the perspective that occurs in a single frame photograph.

The camera images for the photomontages need to be of sufficient resolution taken with a lens of low distortion. The focal length of the lens used needs to be appropriate for the purpose and the focal length of the lens used to take the single frame photographs has to be known and should be standardised wherever possible. The reasons for using a specific focal length is determined by the vertical and horizontal scale of the subject of the view as well as the need to minimise apparent distortion of the images. The subject of the views commonly contains elements of vastly different horizontal and vertical scale, all of which must ideally be visible in each photograph.

The focal lengths used vary between 50mm and 24mm depending on the proximity of the view location to the site. It is not practical to use a 50mm lens from close locations given that the height and scale of the mass could not sensibly fit into a single image. In this regard close views have been taken using wider angel lens at 24mm and 35mm as required. The locations and RLs of the lens of the camera for photographs used to prepare photomontages were established by independent survey by Aurecon on the day of photography. Aurecon used point cloud survey techniques to capture fixed features around the site and in the composition of the view as well as the camera and lens location. In this way the location of the camera's lens can be located and positioned by the modelling software used by Unsigned Studio.

A wire frame image is required to be presented in relation to photomontages used in the Land and Environment. In this project as the view locations surveyed features on the subject site and in the immediate visual context adjacent to the subject site are not visible making the preparation of a wire frame image is problematic.

By using LIDAR Point Cloud capture an extremely dense site survey was captured, due the density and accuracy of information captured a wire-frame model was not needed. However to illustrate the accuracy the coordinates of 5 fixed features have been isolated from the point cloud survey and highlighted in image 3 of each view. Court of New South Wales.

The highlighted RLs (as well as the other dense data captured by the point cloud survey technique) have been used as fixed features or 'markers' that have been linked to RLs on the subject site and to RLs utilised in the 3D model of the proposed building. In this way the surveyed features in each composition are used to cross-check the accuracy of the location and alignment of the model. The 3D models were then merged with digital photographic images of the existing environment

As per the SEARs requirements the photomontages show the proposed built form. Visual Effects are shown in a series of 4 views for each view location including the existing view, the equivalent of wire frame view where the RLs of fixed features in each view are shown. Given the distance of some view locations from the site and the extent of intervening development which blocks views to the ground plane of the subjects site and base of the proposed development, a wire frame image is not practically able to be produced.

The purpose of the detailed surveying/modelling, and independently surveyed camera locations is to enable a 3D virtual version of the site to be created in CAD software. If this has been done accurately, it is then possible to insert the selected photo into the background of the 3d view, position the 3d camera in the surveyed position and then rotate the camera around until the surveyed 3d points match up with the correlating real world objects visible in the photo. If the camera position or the survey data is out by even a small distance then a good fit becomes impossible. A perfect cannot occur for the reasons;

- Variance between measured focal length compared to stated focal length,
- Minor lens distortion which varies from lens to lens and manufacturer to manufacturer,
- Absence of a suitable range of reference points on site/visible through lens
- Allowing for these limitations, Virtual Ideas reported that the alignment was achieved to a high degree of accuracy, within an acceptable tolerance.
- Unsigned provided the following text as to the process followed for the preparation of photomontages

The positions of the real world photography were located in the 3D scene. Cameras were then created in the 3D model to match the locations and height of the position from which the photographs were taken. They were then aligned in rotation so that the points of the 3D model aligned with their corresponding objects that are visible in the photograph.

Renderings of the building massing were then created from the aligned 3D cameras and montaged into the existing photography at the same location. This produces an accurate representation of the scale and position of the new building envelope with respect to the existing surroundings. In conclusion, it is my opinion as an experienced, professional 3D architectural and landscape renderer that the images provided accurately portray the level of visibility and impact of the built form.

Certification Statement

The accuracy of the locations of the 3D model of the proposed development with respect to the photographic images was checked in multiple ways:

1. The model was checked for alignment and height with respect to the 3D survey and adjacent surveyed reference markers which are visible in the images taken by Unsigned Studios.
2. The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the photographs were reviewed by Urbis.
3. Reference points from the survey were used for cross-checking accuracy in a sample of images.
4. No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the camera lens, were reviewed by Urbis and were considered to be reasonable in the circumstances.

Urbis can certify, based on the methods followed and considering the information provided to us, that the photomontages comply with the SEARs and the required level of accuracy. Unsigned Studios have used survey information to locate the 3D model in each view. Surveyed markers and visual features used for alignment are shown on camera alignment images (view 3 in each set). In our opinion the use of surveyed markers as shown by Unsigned Studios is equivalent to showing a wire-frame diagram and demonstrates that the 3D model has been accurately aligned and fits into the existing visual context.

In our opinion the photomontages are as accurate as is reasonably possible and comply with the Land and Environment Court of New South Wales practice note concerning the use of photomontages in the Court, as is required in the SEARs.

5.0 PRIVATE DOMAIN VIEWS

VIEW SHARING ASSESSMENT

There are two planning principles from the Land and Environment Court of New South Wales that are relevant, ie. *Tenacity Consulting v Warringah* **[2004] NSWLEC 140 - Principles of view sharing: the impact on neighbours (***Tenacity***) and Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor. [2013] NSWLEC 1046 (Rose Bay).**

Rose Bay is relevant to view loss in the public domain. The principle in Rose Bay contains a recommended approach based first of a quantitative and secondly a qualitative assessment. It also emphasises the need to consider views that have been identified as of specific importance for example as documented heritage views or views identified in planning instruments and policies

PRIVATE DOMAIN VIEW LOSS

This report assesses the likely visual effects and potential impacts of the construction of the proposed development from three neighbouring residential developments to the site. Our analysis of view loss and blocking effects of the proposed development are considered in the context of the visual effects of the concept approval and the principles of private domain view sharing established by Roseth SC in the Land and Environment Court of New South Wales. These are referred to in *Tenacity Consulting v Warringah* (2004) NSWLEC140 – Principles of view sharing: the impact on neighbours. *Tenacity* concerns view sharing in the private domain and is the most widely referenced planning principle according to Land and Environment Court of New South Wales records.

In summary, 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 is not met in each view or residence considered. Our assessment is based on a review of the potential effects of the building envelope as modelled and shown as a translucent yellow, pink and orange colours. The concept approval is shown in a translucent yellow and the proposed development is shown in pink. Where the existing and proposed envelopes over lap and fill the same extent of envelope they appear as a translucent colour.

Prior to undertaking the assessment however Roseth discusses the notion of view sharing and in the first step of his four-step method requires that views to be affected should be identified and described.

25 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.

The description in *Tenacity* of highly valued features and such as iconic views suggests that some views which do not contain such features may be less valued. If the view is not considered to be highly scenic or include iconic items it follows that the loss of the view may not be considered to be significant. In other words if there is no substantial loss of view in qualitative or quantitative terms then the threshold to apply the four-step *Tenacity* assessment may not be required.

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 analysis is based on a review of private domain views as modelled in CGIs prepared by Unsigned Studio. The view locations adopted for analysis are those from neighbouring residential development that were identified in consent documentation for the concept approval. This includes the locations at the Century Tower, Princeton Apartments and the Greenland building which is currently under construction. The CGIs include other approved and proposed building envelopes that are likely to be visible in the composition of north-easterly and easterly views from some residential dwellings at these locations.

Stage 1 SSDA consent conditions issued by the DPE state that;

(d) I; Design and articulation of roof forms must consider retention of a view to St Mary's Cathedral from Century Tower (342-357 Pitt Street)

For completeness all CGI views that were included in the SSD concept approval have been remodelled. The views considered by the consent conditions to be of most concern are from the Century Tower located south-west of the subject site. An accurate appraisal of potential view loss in relation to a proposed development requires inspections of all views available from a dwelling ideally including those that may not be affected. Access to inspect views has not be arranged or undertaken in relation to neighbouring residential dwellings and therefore this assessment relies wholly on analysis of the existing view access and potential view sharing shown in CGIs.

CGIs can only show relatively simple features in the composition based on what is available from the City of Sydney 3D digital model which therefore limits the accuracy of the assessment For this project the private domain view locations used for the Stage 1 SSD application have been replicated and updated to include the proposed development. The extent of the concept approval Ps shown in a translucent yellow colour with any additional extent of massing included in the proposed development shown as a bright pink outline. The minor addition of built form proposed for the west and south he south and west facing façades of the building and are designed to provide privacy and include angle louvres for privacy.

PRIVATE DOMAIN VIEW LOCATIONS

This analysis is based on a review of private domain views as modelled in CGIs prepared by Unsigned Studio. The view locations adopted for analysis are those from neighbouring residential development that were identified in consent documentation for the concept approval. This includes the locations at the Century Tower, Princeton Apartments and the Greenland building that is currently under construction. The CGIs include other approved and proposed building envelopes that are likely to be visible in the composition of north-easterly and easterly views from some residential dwellings at these locations.

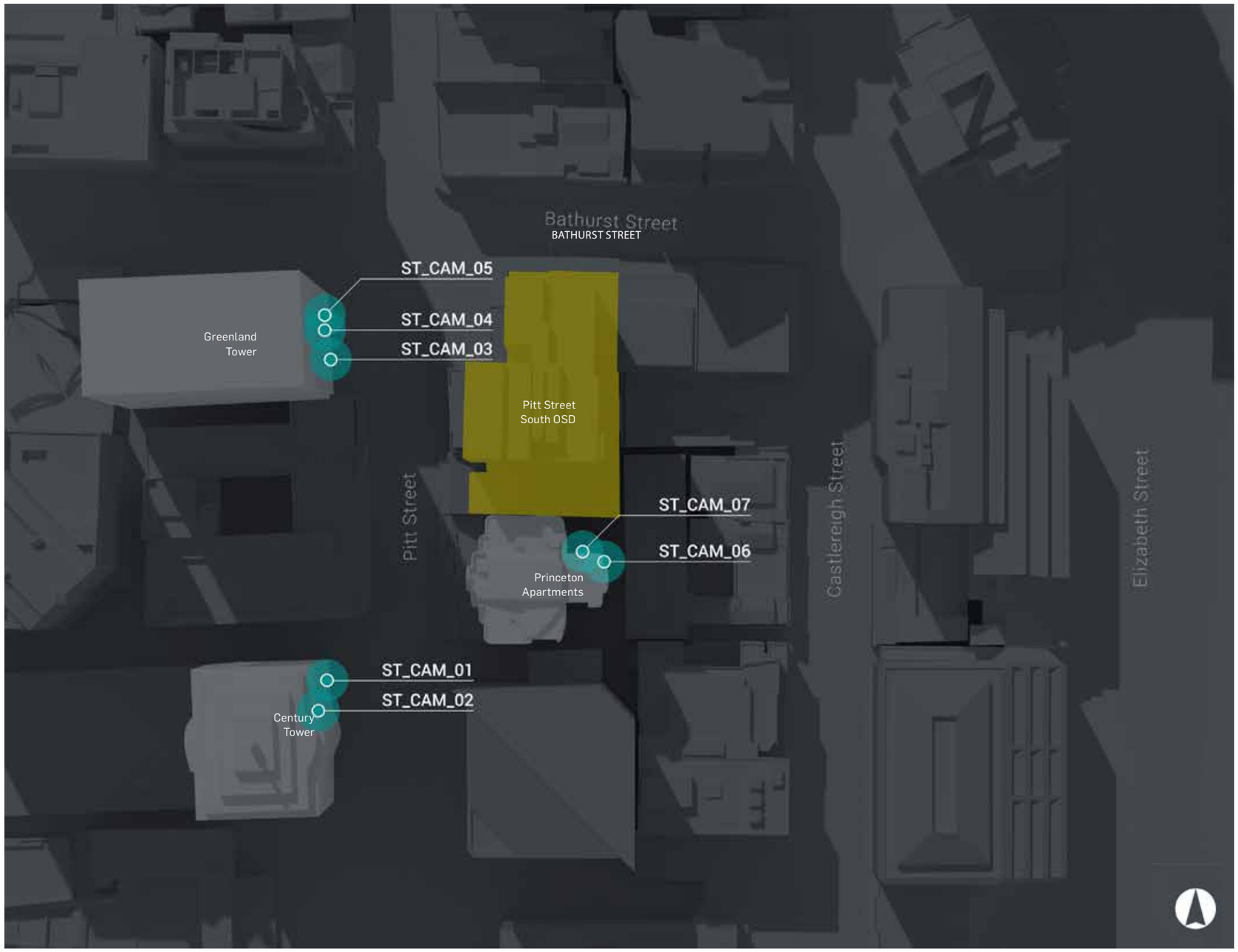


Figure 47 Private Domain View Locations *(Source: Unsigned Studio)*

CENTURY TOWER

LOW RISE VIEW TO THE NORTH-EAST
RL 63.7

This view is orientated to the north-east towards the northern part of Hyde Park. The view predominantly includes intervening built form characterised by low height development along the east side of Pitt Street and other taller built form to the south-west in Sydney's CBD. The existing view access does not include any scenic or iconic views as defined in *Tenacity*. The concept approval occupies a central part of the mid-ground composition and blocks views to intervening built form.

The proposed development occupies slightly less of the view due to its narrower tower form at lower levels for example at the north-west corner where the reduced floorplate reveals a narrow vertical column of additional view. The view revealed does not include any scenic or iconic features but does contribute to less bulk in the foreground composition and provides an improvement to the view sharing outcome.

The upper parts of the proposed tower generally fall within the concept approval and in this regard do not create any additional view loss or blocking effects. The protrusion (shown in yellow) of the proposed development outside of the approved envelope is slim and minimal from this view and does not create significant additional visual effects or view loss.

- Approved concept envelope (improved visual permeability)
- Proposed development within approved concept envelope
- Proposed development outside the concept approval envelope
- Approved concept envelope outline not visible from this view
- Proposed development outline not visible from this view

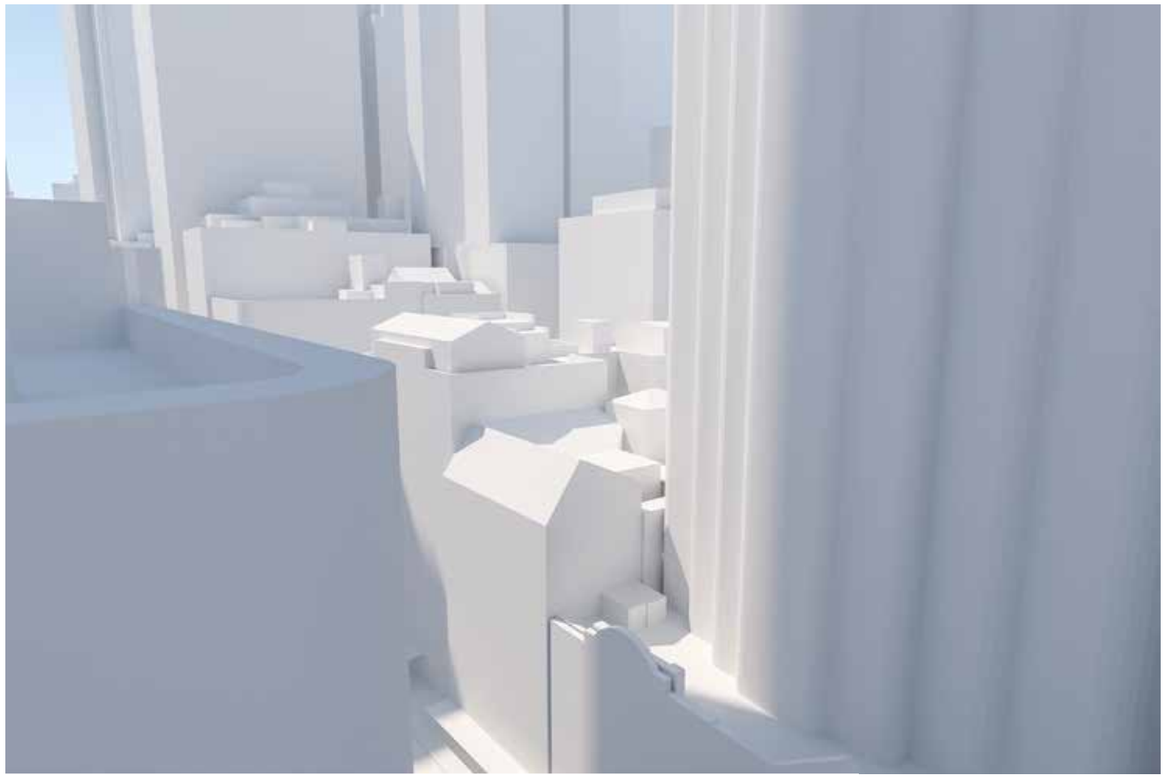


Figure 48 Century Tower: Low rise, existing view to the North-East *(Source: Unsigned Studio)*.

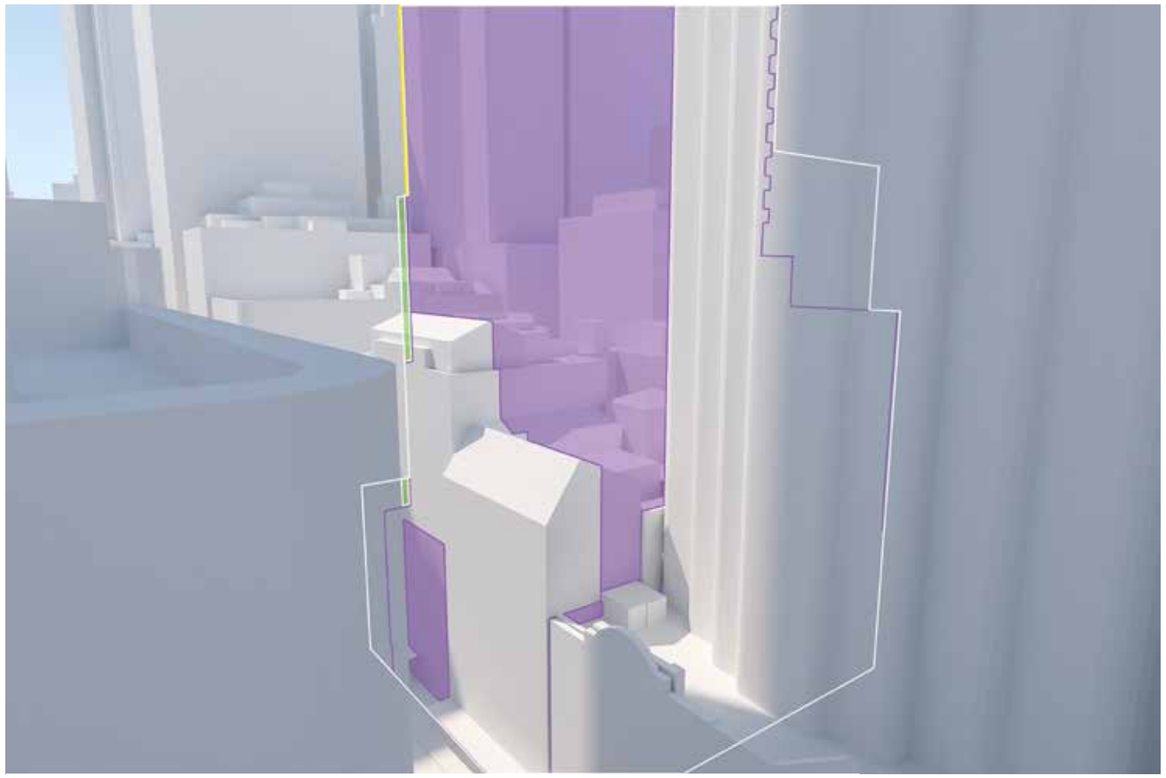


Figure 49 Century Tower: Low rise, proposed view to the North-East *(Source: Unsigned Studio)*.

CENTURY TOWER

HIGH RISE VIEW TO THE NORTH-EAST
RL 158.8

The composition of this high-level and downward view includes a foreground and mid-ground predominantly characterised by high-density urban development and parts of Hyde Park. The south elevation and dual spires of St Mary's Cathedral and parts of Cook and Phillip Park would also be visible prior to the construction of the concept approval. Further north as the topography falls in elevation the distant background composition includes parts of the Domain playing fields, Woolloomooloo Bay and wharfs. To the north-west some parts of the Domain in the vicinity of Mrs Macquarie's chair are also likely to be visible.

As with the concept approval, the proposed development will introduce a new tall built form into the foreground composition which will block mid-ground views of other urban development, including the parts of St Mary's Cathedral which are potentially currently visible. The proposed development is marginally setback within width and angled height plane of the concept approval. A small amount of additional view of sky and built is revealed in relation to the reduced height of the proposed development and a minor areas of additional view are revealed as a result of the balcony treatment that is evident at the south-east corner of the proposed built form. The stepped height of the proposed tower form will create greater spatial permeability of views above the proposed development compared to the concept approval and provide a more positive view sharing outcome for high rise views from these locations.

Overall, there is some improvement in visual permeability (shown in green) achieved by the proposed development in comparison to the approved concept envelope. The protrusion of the proposed development outside of the approved envelope is not discernible from this view and does not create significant additional visual effects or view loss.

Approved concept envelope (improved visual permeability)

Proposed development within approved concept envelope

Proposed development outside the concept approval envelope

Approved concept envelope outline not visible from this view

Proposed development outline not visible from this view

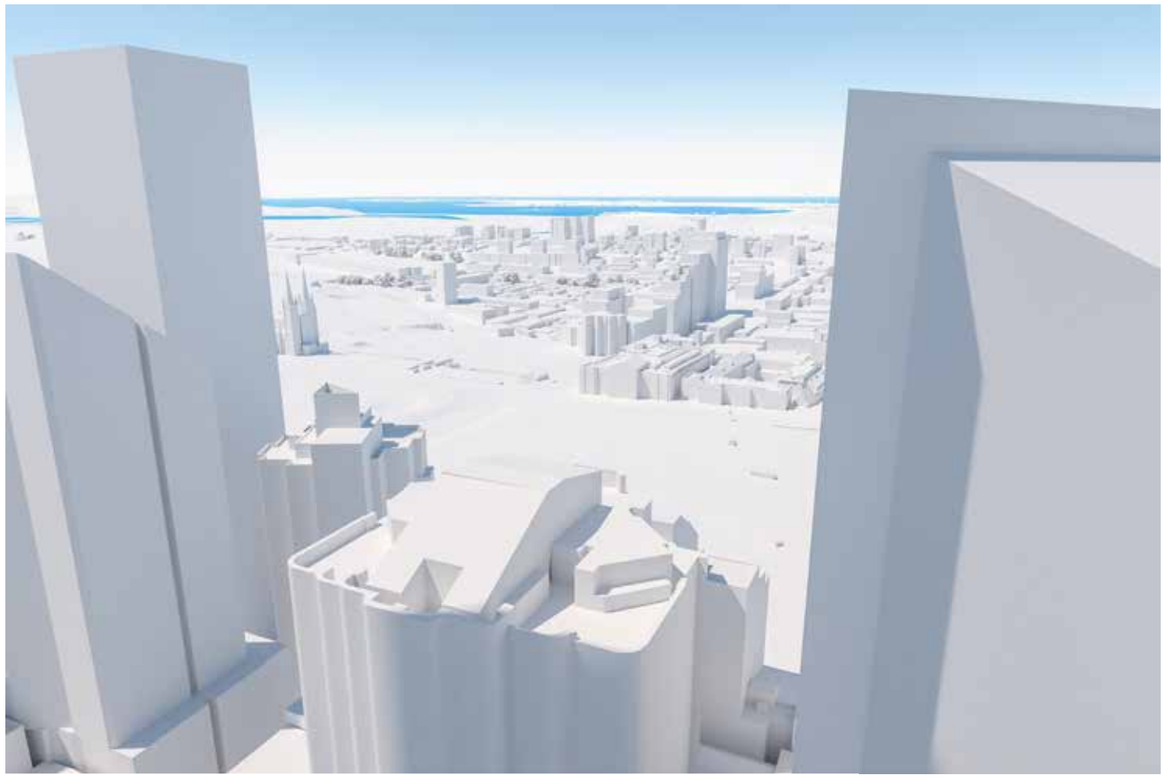


Figure 50 Century Tower: High rise, existing view to the North-East *(Source: Unsigned Studio)*.

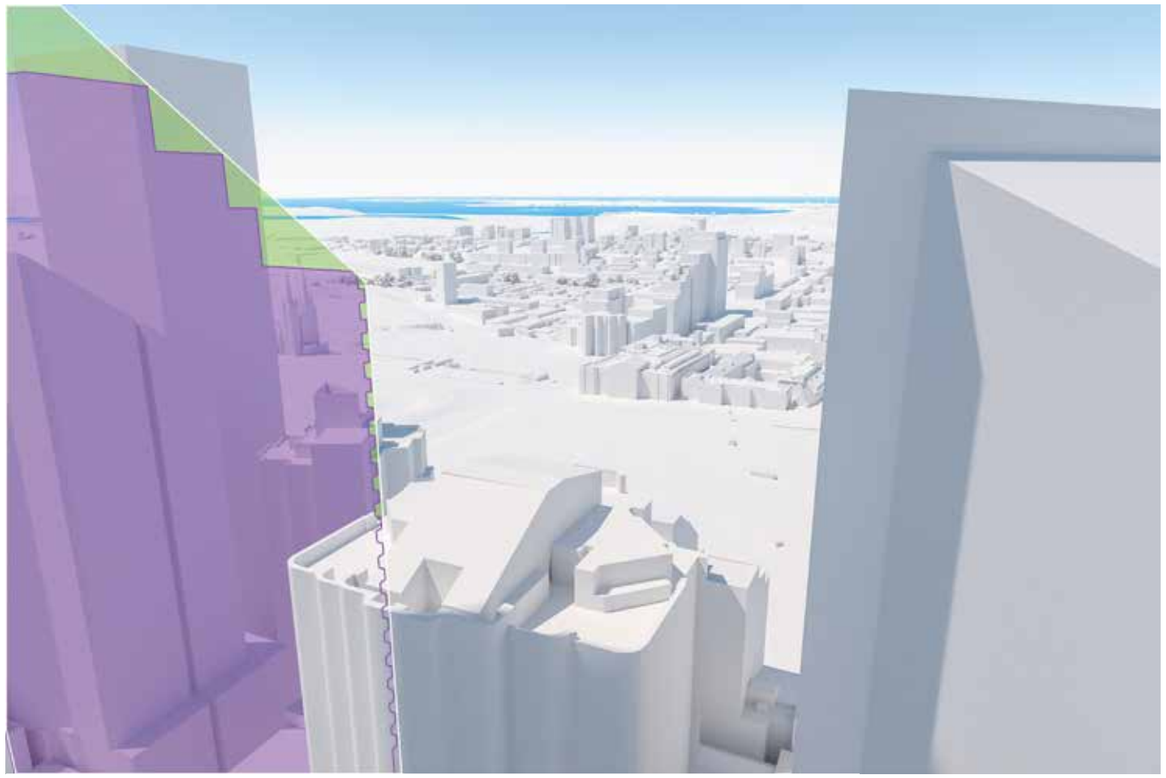


Figure 51 Century Tower: High rise, proposed view to the North-East *(Source: Unsigned Studio)*.

PRINCETON APARTMENTS

LOW RISE VIEW TO THE NORTH-EAST
RL 57.2

This is an oblique potential view to the north-east from a dwelling located at the north-east corner of this apartment building. The foreground and mid-ground composition is dominated by a mix of low, medium and tall tower forms within a highly urbanised visual context. There is no potential access for to distant views over this intervening development.

The concept approval and proposed development are visible at the western edge of this view where the outline of the proposed development shown in pink sits within the approved envelope and does not extend beyond it. Whilst the tower is visible, it's mass blocks background built form and does not contribute any additional view blocking effects into the composition compared to the concept approval.

Overall, there is some improvement in visual permeability (shown in green) achieved by the proposed development in comparison to the approved concept envelope. The protrusion of the proposed development outside of the approved envelope is not visible from this view and does not create significant additional visual effects or view loss.

- Approved concept envelope (improved visual permeability)
- Proposed development within approved concept envelope
- Proposed development outside the concept approval envelope
- Approved concept envelope outline not visible from this view
- Proposed development outline not visible from this view

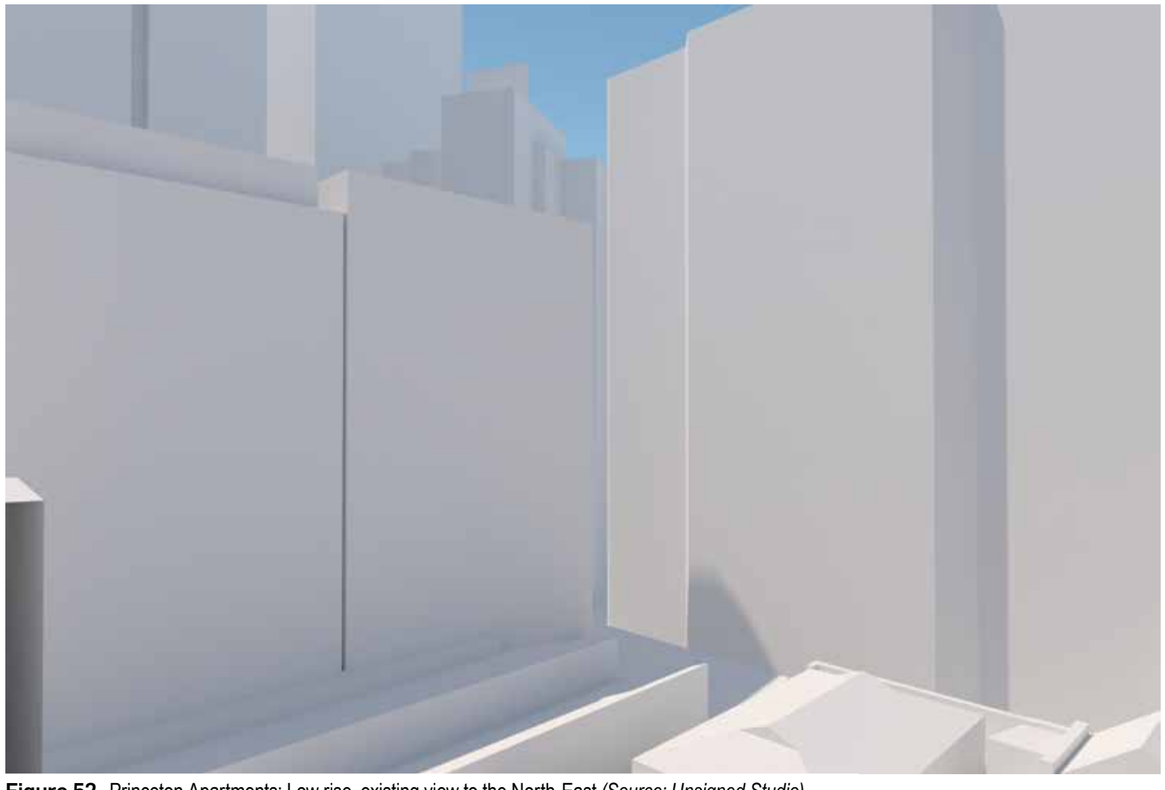


Figure 52 Princeton Apartments: Low rise, existing view to the North-East *(Source: Unsigned Studio)*.

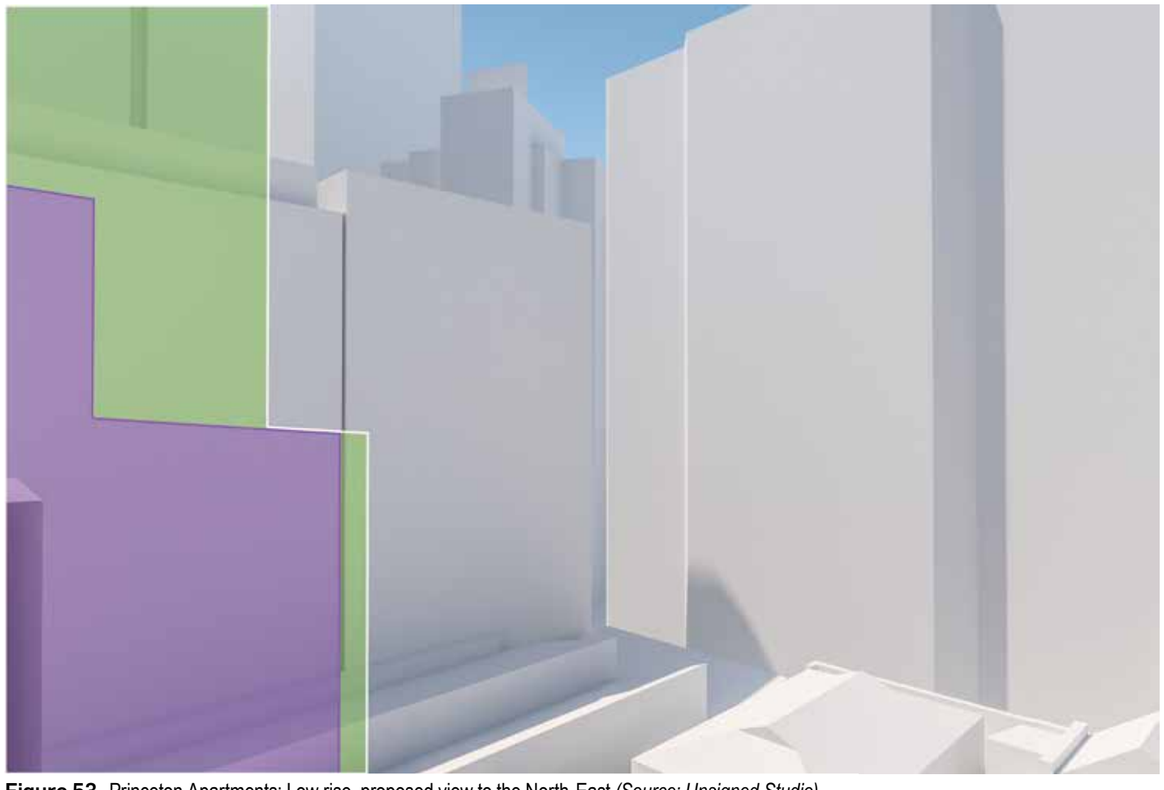


Figure 53 Princeton Apartments: Low rise, proposed view to the North-East *(Source: Unsigned Studio)*.

PRINCETON APARTMENTS

HIGH RISE VIEW TO THE NORTH-EAST
RL 124.3

This is an oblique potential view to the north-east from a dwelling located at the north-east corner of this apartment building. The foreground and mid-ground composition includes a mix of low, medium and tall tower forms urban development over which a distant view to parts of Sydney Harbour is available. The south elevation of St Mary's Cathedral and parts of Hyde Park are also visible.

The concept approval and proposed development are visible at the western edge of this view where the outline of the proposed development shown in pink sits within the approved envelope and does not extend beyond it. Whilst the tower is visible, its mass blocks background built form and does not contribute any additional view blocking effects into the composition compared to the concept approval.

Overall, there is some improvement in visual permeability (shown in green) achieved by the proposed development in comparison to the approved concept envelope. The protrusion of the proposed development outside of the approved envelope is not visible from this view and does not create significant additional visual effects or view loss.

- Approved concept envelope (improved visual permeability)
- Proposed development within approved concept envelope
- Proposed development outside the concept approval envelope
- Approved concept envelope outline not visible from this view
- Proposed development outline not visible from this view

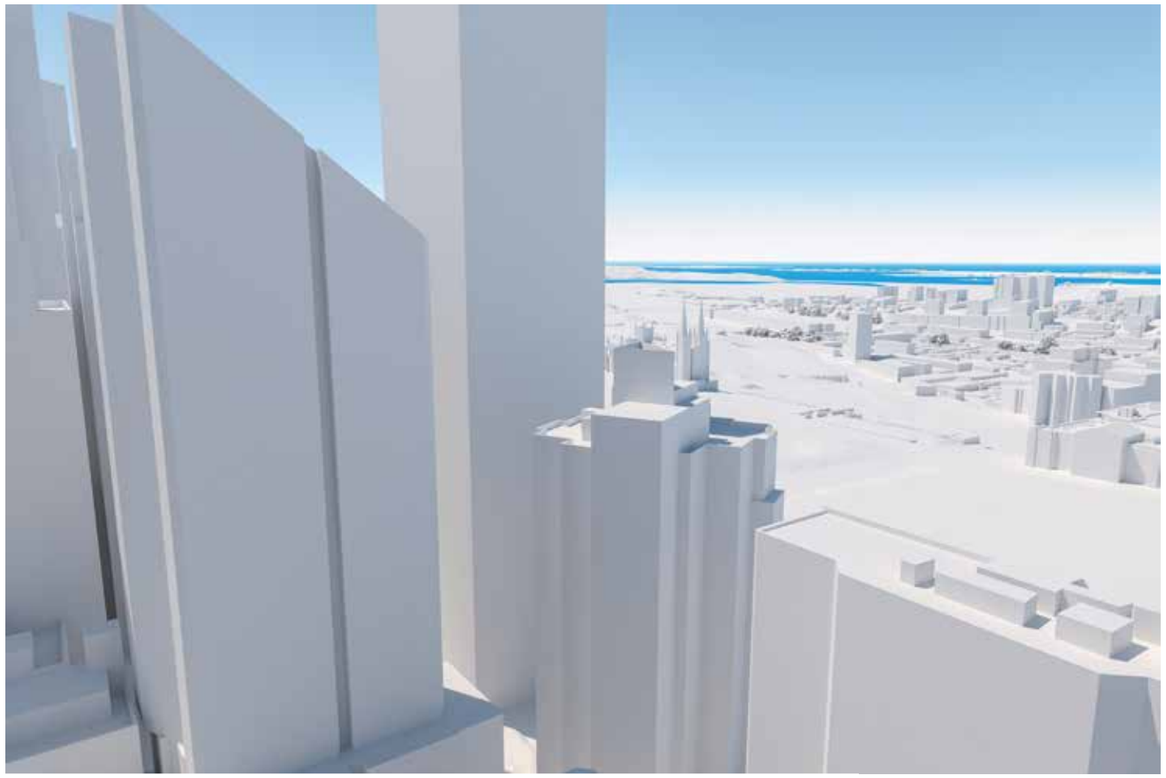


Figure 54 Princeton Apartments: High rise, existing view to the North-East *(Source: Unsigned Studio)*.

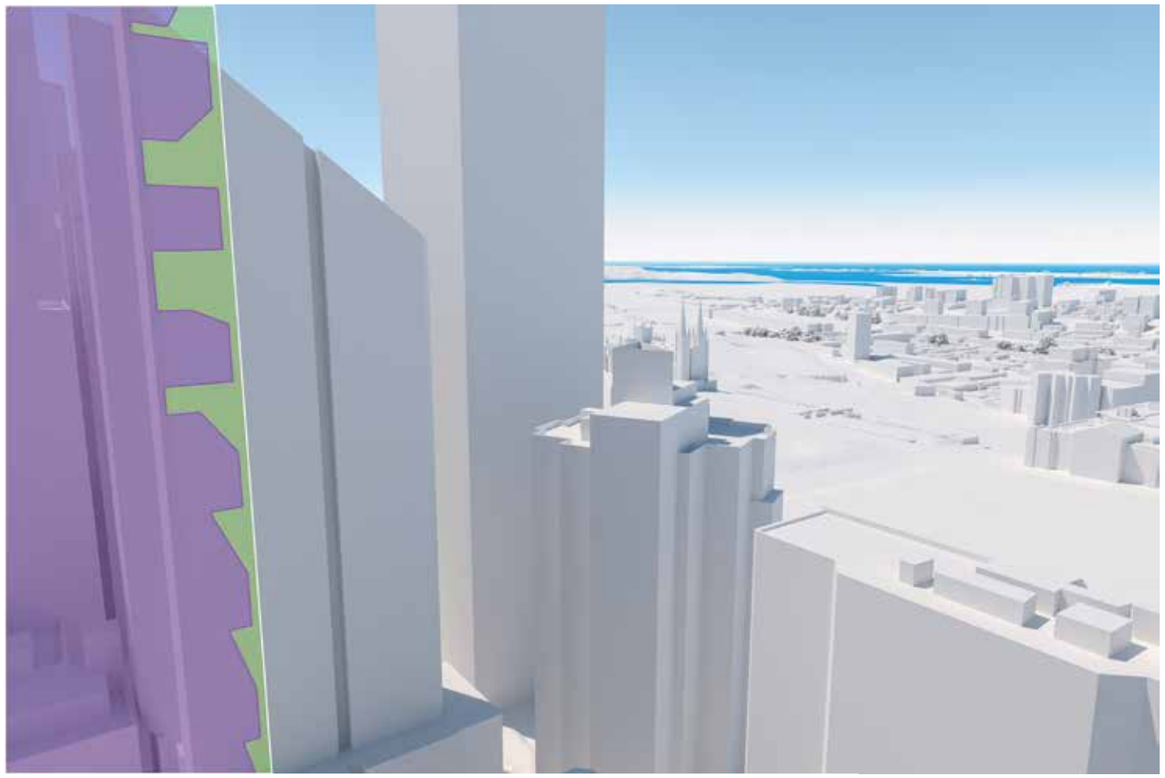


Figure 55 Princeton Apartments: High rise, proposed view to the North-East *(Source: Unsigned Studio)*.

GREENLAND CENTRE (UNDER CONSTRUCTION)

LOW RISE VIEW TO THE NORTH-EAST
RL 57.2

This view is orientated to the east towards the western elevation of the subject site where the Concept Approval dominates the foreground composition. The existing view access and approved view does not include any scenic or iconic features as defined in *Tenacity*. The west elevation including the stepped arrangement of built form occupies less of the composition and the reduced floorplate reveals a vertical column of additional view.

The view revealed does not include any scenic or iconic features but does contribute to less bulk in the foreground composition, a greater degree of visual permeability into and beyond the site to the north-west and in our opinion provides a reasonable view sharing outcome. Therefore the proposed development does not create any significant additional view loss or blocking effects in the view modelled in this CGIs.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the Concept Approval envelope

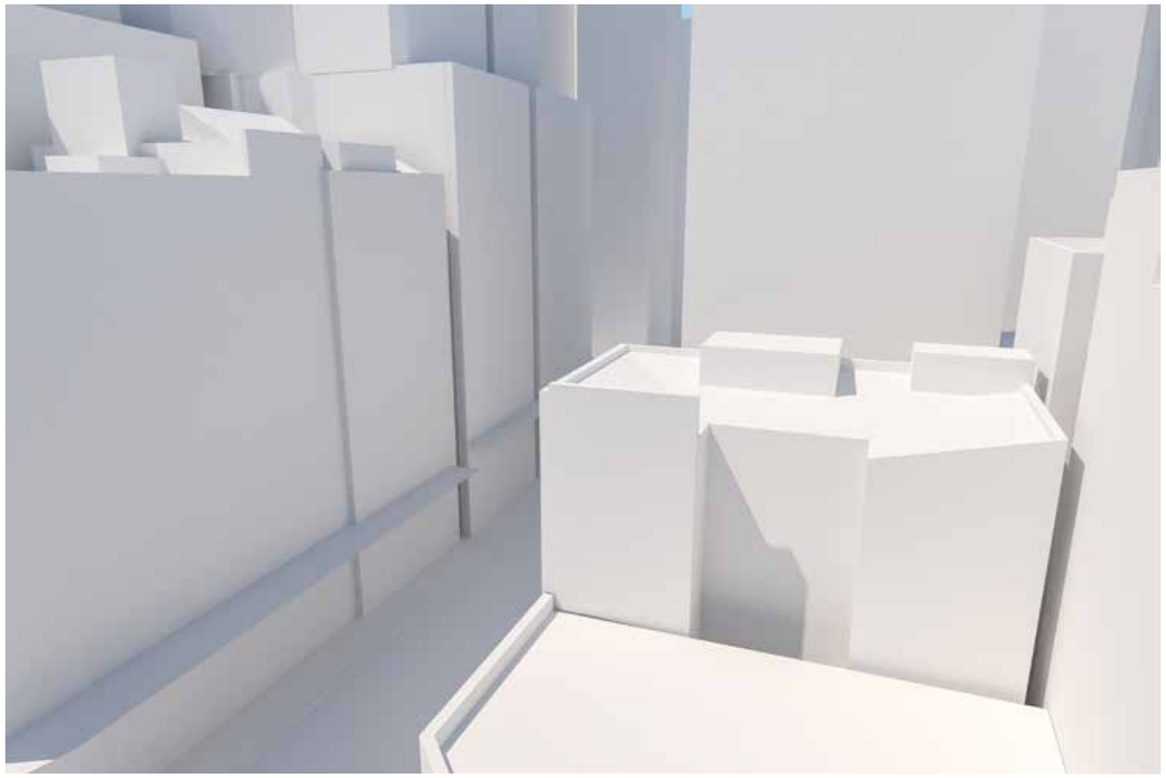


Figure 56 Greenland Centre: Low rise, existing view to the North-East *(Source: Unsigned Studio).*

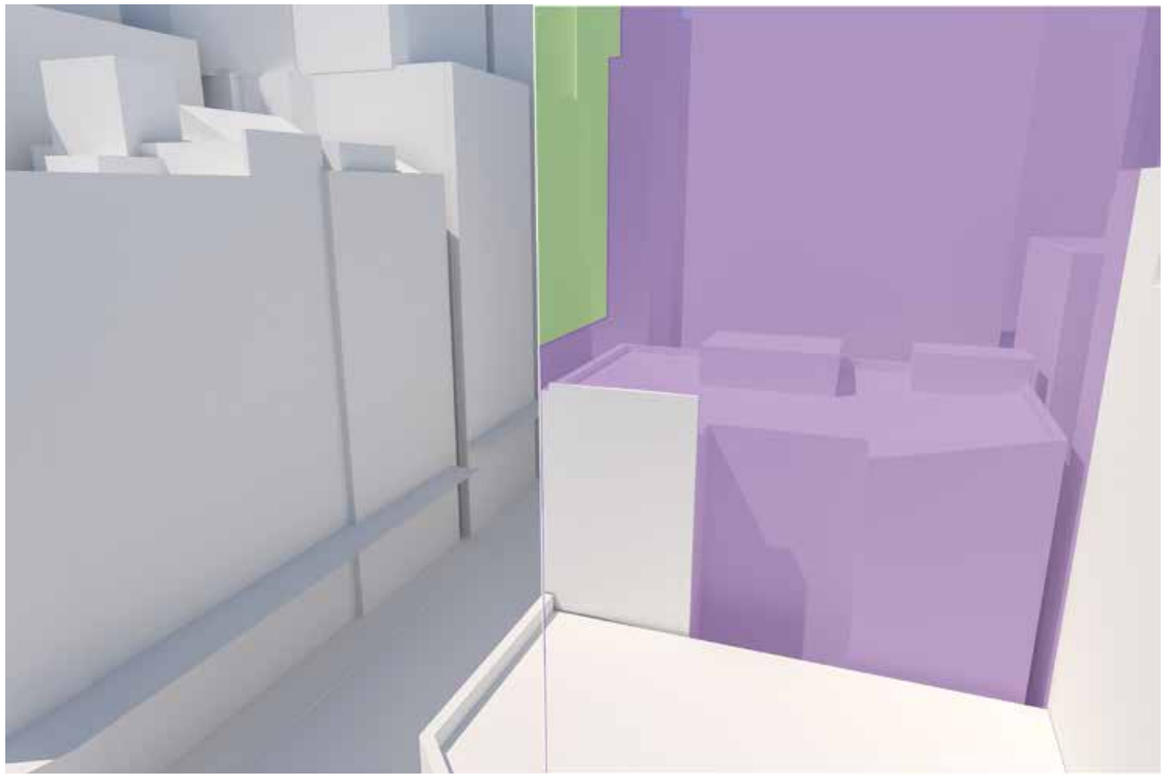


Figure 57 Greenland Centre: Low rise, propsed view to the North-East *(Source: Unsigned Studio).*

GREENLAND CENTRE (UNDER CONSTRUCTION)

MID RISE VIEW TO THE NORTH-EAST

This is a north-easterly, oblique view that takes in potential future views from dwellings that are currently under construction. The foreground composition includes low-height buildings and a mid-ground composition that includes parts of the Hyde Park. The south elevation of St Mary's Cathedral is visible between existing tower forms to the north-east. The background composition extends eastwards to include parts of Paddington and Bondi Junction and in the distant open water views

As with the Concept Approval, the Proposed Development will introduce a new tall built form into the foreground composition at the south end of this view and blocks some access to parts of Hyde Park. Views to St Mary's Cathedral remain available and unaffected by the Proposed Development.

The northern elevation of the Proposed Development projects forward beyond the Concept Approval by 439mm creating a minor additional vertical column of built form which does not in our opinion create any significant additional view loss.

The stepped roof form proposed as seen in the view modelled, is significantly lower compared to the Concept Approval and reveals additional areas of sky and creates greater spatial permeability in relation to the Concept Approval and a more positive view sharing outcome for high rise views from this vicinity.

The protrusion of the proposed development outside of the approved envelope is minimal from this view and does not create significant additional visual effects or view loss.

Approved concept envelope (improved visual permeability)

Approved concept envelope outline not visible from this view

Proposed development within approved concept envelope

Proposed development outline not visible from this view

Proposed development outside the Concept Approval envelope

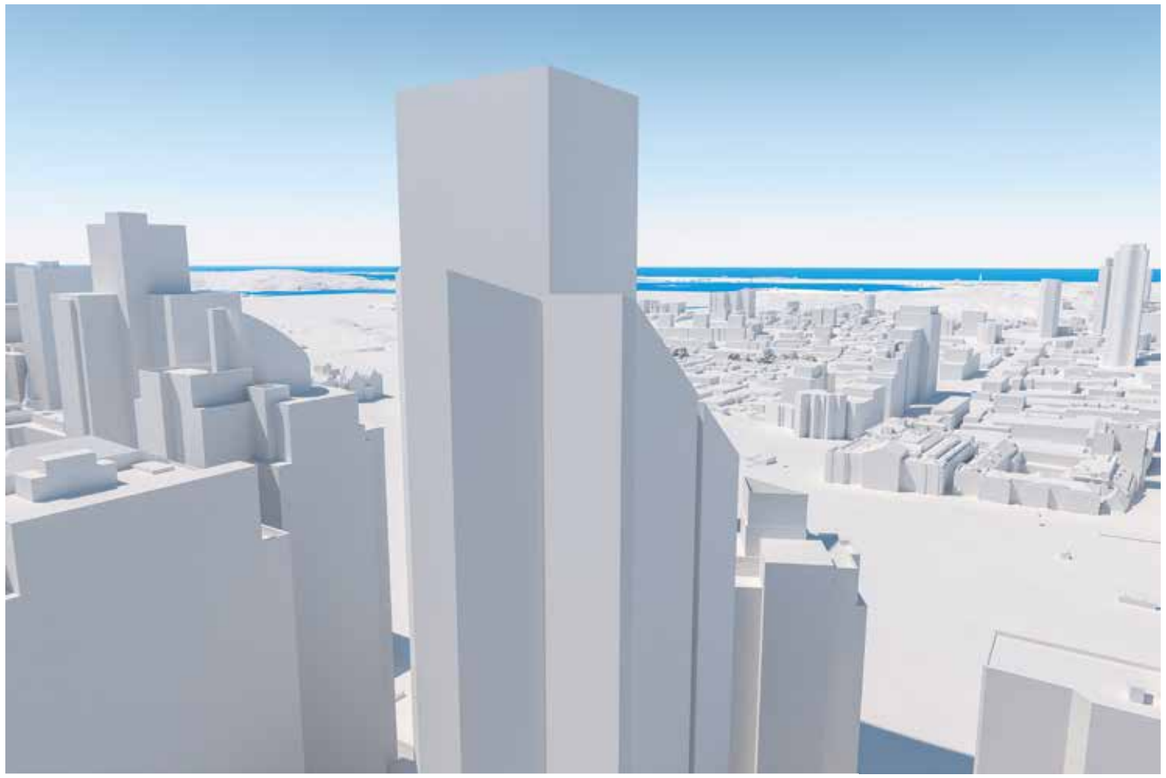


Figure 58 Greenland Centre: Mid rise, existing view to the North-East *(Source: Unsigned Studio)*.

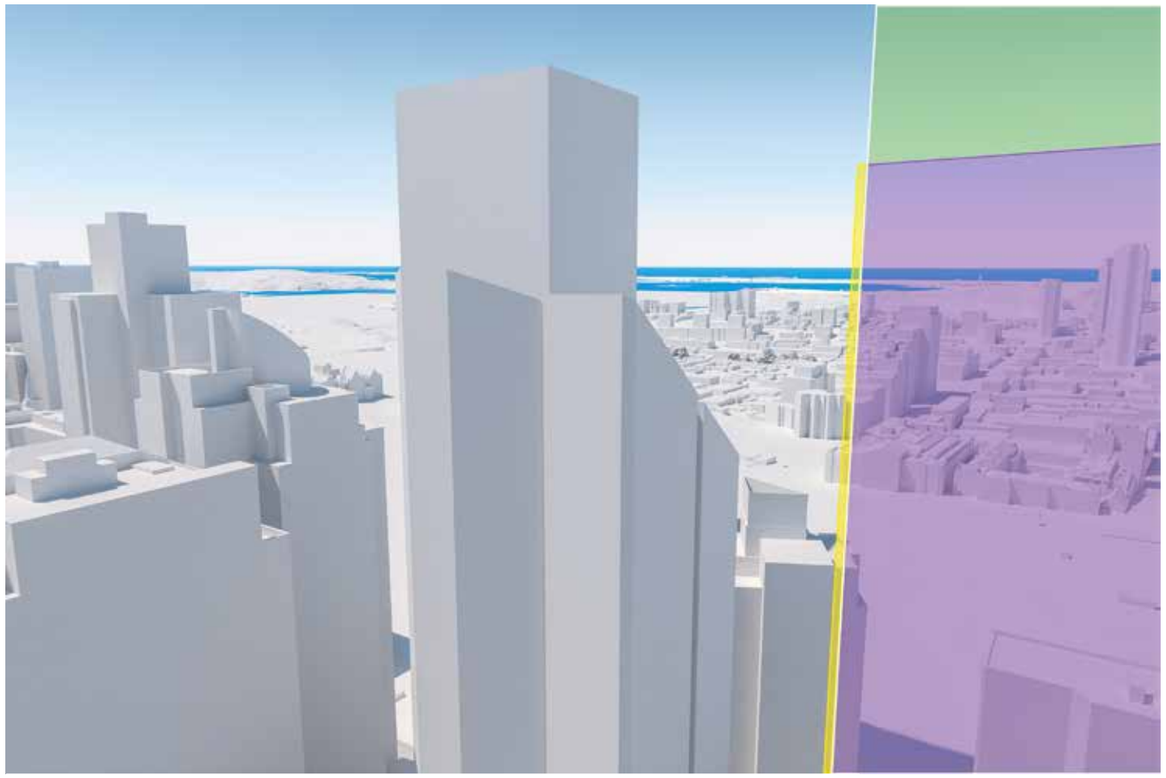


Figure 59 Greenland Centre: Mid rise, proposed view to the North-East *(Source: Unsigned Studio)*.

GREENLAND CENTRE (UNDER CONSTRUCTION)

MID RISE VIEW TO THE EAST

This is an easterly view that takes in potential future views from dwellings that are currently under construction. The foreground composition includes low-height buildings and beyond to a mid-ground composition that includes the Hyde Park War Memorial and Lake of Reflections. The background composition extends eastwards to include parts of Paddington and Bondi Junction and in the distant open water views

As with the concept approval, the proposed development will introduce a new tall built form into the foreground composition which will block mid-ground views of other urban development, including to the distant features outlined above. The northern elevation of the proposed development projects forward beyond the concept approval by 439mm. This additional built form blocks a minor vertical column of view which predominantly includes background-built form.

The stepped roof form proposed and as seen in the view modelled, is significantly lower compared to the concept approval and reveals additional areas of sky. The stepped height of the proposed tower will create greater spatial permeability in relation to the concept approval and provide a more positive view sharing outcome for high rise views from this vicinity.

The protrusion of the proposed development outside of the approved envelope is minimal from this view and does not create significant additional visual effects or view loss.

- Approved concept envelope (improved visual permeability)
- Proposed development within approved concept envelope
- Proposed development outside the concept approval envelope
- Approved concept envelope outline not visible from this view
- Proposed development outline not visible from this view

Figure 60 Greenland Centre: Mid rise, existing view to the East *(Source: Unsigned Studio)*.

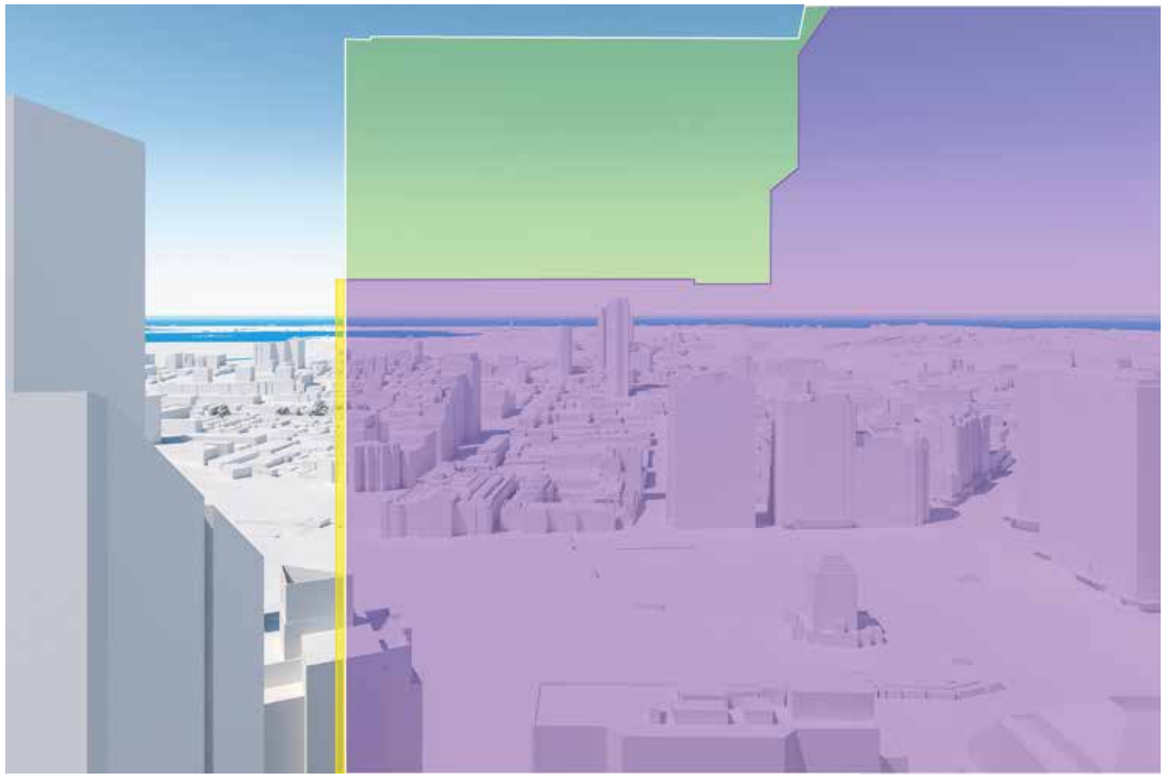


Figure 61 Greenland Centre: Mid rise, proposed view to the East *(Source: Unsigned Studio)*.

SUMMARY OF VIEW SHARING OUTCOMES

We note that the visual impacts of the concept qpproval have been accepted as being reasonable by the DPE and further that in analysing the viewer sensitivity above it was concluded that it is unlikely that private domain views would be significantly affected by the proposed development.

The form, height and floor plate of the proposed development as shown in the CGIs does not significantly change the extent of visual effects or view blocking compared to the extent caused by the concept approval and the majority of views for example Century Tower high-rise and Greenland mid and high-rise CGIs.

In relation to all views modelled in the CGIs the likely private domain view sharing outcome will be the same or improved as a result of the lower, stepped height of the roof form proposed and the façade and balcony arrangement as shown in views from the Century Tower.

In close private domain views where the additional extent of façade treatment is visible, the minor does not create any significant view loss or visual impacts.

Given the minor level of visual effects caused by the proposed development compared to the concept approval in the majority of views, in our opinion a *Tenacity* assessment is not required. That is to say that the amount of additional built form at the north, west and south elevations in relation to the solar and amenity façade treatment creates a minor or negligible level of visual effects beyond the concept approval envelope. In this regard the visual effects of the Proposed Development do not meet the threshold criteria for the application of Step 1 of *Tenacity*. Where a minor amount of view is caused beyond the concept approval envelope by the proposed development, for example in relation to at Greenland tower mid and high-rise views, it is neither qualitatively nor quantitively substantial, therefore *Tenacity* has no work to do.

If the proposed development was considered in isolation and without the knowledge of the level of visual impacts already approved in relation to the concept approval, a *Tenacity* assessment would be likely to find that view loss would be moderate for views from Century Tower high-rise and Greenland mid-rise view east.

In summary in all cases the view sharing outcome caused by the proposed development is considered to be reasonable and acceptable in the circumstances.

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