

APPENDIX 4.

GFA, URBAN DESIGN AND VISUAL ANALYSIS REVIEW
CONYBEARE MORRISON



Barangaroo Part 3A Modification Report GFA Review

Prepared for Sydney Harbour Foreshore Authority

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01	Oct 08	Draft Report	RN	DC	RN
02	08.10.08	Final Report	RN	DC	RN
03	09.10.08	Client Comments	RN	DC	RN

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1. INTRODUCTION

This review of the Part 3A Modification Report (MR) has been undertaken in response to ongoing comment on the design and the need to address comments arising from public concern about the height and bulk of buildings on the site. The review is aimed at an exploration of the strategic issues of the project, specifically the increased GFA proposed in the Modification Report (MR) and the implications of this on the site and surroundings, and is intended to serve as a guide to the further development of the scheme.

There are two main issues that need to be considered in this review. One is the actual increase of up to 120,000sm to the GFA on Blocks 2, 3, 4, and 5 and its affect on the city. The second issue is the actual configuration of the GFA on each of the Blocks.

It is important to note that the Part 3A Modification Report has been carried out to increase floor plate sizes to satisfy a market need to respond to the site's of potential. A two stage process has been undertaken to assess the implications of these changes: i) Floor plate increase and increased GFA amounts, and ii) Assessment of urban design aspects of the proposed change such as increased building height and bulk.

It should also be noted that Stage 1, Blocks 1, 2, 3 & 4, is subject to a competitive tender and therefore the final design for Barangaroo will not be determined until the tender is awarded and the tenderer completes the final design subject to planning review and comment. The public framework that identifies the planning and design goals for the site is a key element in setting the stage for this future development and ensuring that it provides benefits for the city.

Information in the MR supplements the CCP. The MR provides a guideline for built form rather than a description of an actual design. The CCP provides a set of built form controls in Appendix H however these are closely aligned with the built form of the CCP scheme and do not provide a great deal of latitude for the further design of the project.

Key Points of the MR include:

- The massing illustrated is indicative only and will be subject to further design resolution by tenderers.
- The design guidelines have been developed to allow a degree of flexibility for generating design excellence and creativity while, at the same time, establishing an overall framework of control to provide certainty to the design process and guide the tenderers in the realisation of project objectives outlined in the CCP.
- Proposed GFA and massing has been tested on alternate options to illustrate the potential for the distribution of GFA and to test associated impacts (positive or negative) on the surroundings.
- The final design of Barangaroo is subject to a Project Application process which offers further opportunity for comment on the design.
- Design guidelines are supported by illustrations to help clarify the way the design guidelines can be interpreted but these should not read as the prescribed outcome. The 3D digital model that has been used was originally created by Arterra.

2. BACKGROUND

The site of Barangaroo is adjacent to the Sydney CBD and approximately 300M from Wynyard Station. This makes the Barangaroo site an ideal place for providing expansion to the CBD and for accommodating commercial tenants who wish to remain in the CBD but prefer larger floor plates that commonly are unavailable in the CBD presently.

The site provides a unique opportunity near the centre of the city to develop contemporary residential and commercial designs that offer access to a spectacular natural amenity, the harbour, and a major international business centre.

The current urban context is a transitional area between the low rise residential scale of the High Street terraces and the larger floor plates evident in the residential and commercial towers from the Highgate towards the south. The Barangaroo site itself will need to respond to both of these scales and this is clearly indicated in the CCP and MR schemes.

The MR scheme provides modifications to the CCP scheme to provide greater flexibility for accommodating larger floor plates per market demand. These modifications have been made in response to:

- The limited availability for commercial large floorplate sites in the Sydney CBD
- The general lack of consolidated sites in the Sydney CBD that allow large floorplate buildings.
- Realisation of the potential of Barangaroo, as a large unencumbered site in single ownership, as a singular opportunity to address the above market demand issues in the CBD to assist in securing Sydney's future as a vibrant international business hub.

2.1. Approved Concept Plan Baseline GFA Parameters

The CCP calls for a mixed-use development within Blocks 1 – 8 with 388,300sm GFA, and 339,700sm GFA on Blocks 2 – 5, as follows:

- A maximum of 97,075sm GFA (25%) and a minimum 58,245sm (15%) GFA for residential development.
- A maximum of 50,000sm GFA for tourist uses.
- A maximum of 39,000sm GFA for retail uses.
- A maximum of 2,000sm GFA for community uses.

2.2. Part 3A Modification Report Design Objectives

- The additional 120,000sm of GFA has been proposed in order to provide, at a multiple of 20sm per job, space for approximately 6000 additional jobs in Barangaroo.
- GFA Modifications have been proposed for Blocks 2, 3, 4, and 5. These are summarised as follows:

Condition	Block 2	Block 3	Block 4	Block 5	Total
	sm	sm	sm	sm	sm
Approved Max GFA	180,000	56,000	74,500	29,200	339,700
Proposed Add GFA	26,250	32,250	46,500	15,000	120,000
New Max GFA	206,250	88,250	121,000	44,200	459,700

3. OVERALL GFA STRATEGY

Parameters affecting the new GFA totals should include:

- No consideration of additional residential GFA is being considered at this time due to traffic limitations and parking requirements.
- The overall increase in 120,000sm GFA over Blocks 2, 3, 4 and 5 is equivalent to an increase from 8.63FSR to 11.67FSR over these sites.
- When considering the GFA revisions over the Barangaroo site the overall FSR increases from 1.77FSR to 2.31FSR over the 22ha site.

Block	Area	GFA		FSR	
		CCP	MR	CCP	MR
1	1,430	11,800	11,800		
2	12,980	180,000	206,250		
3	6,760	56,000	88,250		
4	10,950	74,500	121,000		
5	8,690	29,200	44,200		
Total 2 - 5	39,380	339,700	459,700	8.63	11.67
6	1,855	3,000	3,000		
7	11,922	28,000	28,000		
8	1,335	5,800	5,800		
Total Blocks	55,922	388,300	508,300	6.94	8.09
Overall	220,000	388,300	508,300	1.77	2.31

4. URBAN DESIGN ASSESSMENT – CCP SCHEME AND OPTIONS 2 AND 3

Introduction

An urban design study was conducted to ascertain potential built forms that could be developed to accommodate the new GFA and floor plate requirements. In order to compare the new schemes to the indicative buildings in the CCP the new schemes were developed over the same public domain plan and street layout.

The 3D models were developed from the studies illustrated in Figure 12 of the MR. These included the Option 2 and Option 3 plans shown for Blocks 3, 4, and 5. Each of these is combined with the plan for Block 2 identified as Option B. The CCP Scheme remains the control scheme for comparison. CM⁺ conducted the urban design assessment of the schemes and Arterra developed the 3D digital model.

It is important to note that the 3D digital models developed for Option 1 and Option 2 are based on a preliminary built form which has been developed in order to accommodate the increased GFA and the larger floor plates. The massing of the site is subject to considerable further refinement and detailed development. Building facades and colours likewise are indicative and will be subject to further development and design review. In light of this the urban design assessment can only address strategic aspects of the design and its overall visual impact.

As each of the schemes are based on the same public domain and road layouts and a predetermined GFA, issues related to streetwall activation, vehicular and pedestrian access points, commercial justification for GFA, impact of traffic, and solar access are beyond the scope of this assessment.

The schemes have been assessed through viewpoints from the southwest across Darling Harbour, from the northeast across the Rocks showing the relationship to Hickson Road and from the west across from Jones Bay Wharf. These views capture the general form of the scheme and the relationship of the scheme to the city. The long water views illustrate how the schemes fit into the overall shape of the city and provide the new western edge to the city. The closer land views illustrate how the schemes relate to the existing context along Hickson Road. The western view provides a fairly accurate picture of the impact of the schemes on the immediate urban fabric just to the east of the project.

The Urban Design Assessment follows on the next several pages and a summary of the findings is provided in the paragraphs below.

Summary

In consideration of the urban design assessment provided on the following pages the three schemes are closely aligned in their overall form and strategic relationship to the city. When considering the Options showing the additional GFA, whilst Option 3 appears to have a bulkier urban form for individual buildings it has fewer individual buildings and greater space between buildings. With either option, the overall image and massing is in keeping with the broad objectives outlined in the CCP. Due to the additional open space provided between towers Option 3 is the preferred scheme for accommodating the additional GFA.

Whilst the broad objectives of the CCP appear to be followed, concern has been expressed about the bulkiness of the forms and lack of articulation that is apparent in the 3D images. This issue can be addressed by looking into a more detailed level of building form controls so that the further development of the design will result in a more refined cityscape and recapture some of the articulation that was evident in the indicative buildings of the CCP scheme.

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Indicative Buildings - CCP

- General Description – Graduated height building forms from north to south with Block 1 as a transitional block to King Street Wharf.
- Image – A variety of building forms which blend in with the city skyline to the east.
- Shoreside Massing – Narrow floor plates (25M max) provide for a diverse massing which is consistent with the creation of an urban fabric that has evolved over time. The Option illustrates 9 Towers visible from the southwest.
- Hickson Road Massing – Low rise street walls with arcades provide a boulevard character to Hickson Road except the southern end of Block 2 which has a major high-rise tower. This tower allows some of the overall built volume on Block 2 to be shifted away from the shoreside of the Block 2 opening up the block.
- Building Orientation – Building orientation generally allows a north/south exposure to the principle facades and visual openness in an east/west direction. This enhances opportunities for sustainability features and openness between the water and buildings to the east. When viewed obliquely however, the larger number of buildings will appear to form a continuous group without a great deal of openness between them.
- Western Façade to City – The scheme provides for a defined western edge to the city which appears to be an organic extension of the city towards the west.



Plan of CCP.

(3D model by Arterra)



View of CCP from West.

(3D model by Arterra)

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View of CCP from Southwest.

(3D model by Arterra)



View of CCP from North.

(3D model by Arterra)

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Option 2 MR

- General Description – Graduated height building forms from north to south with Block 1 as a transitional block to King Street Wharf.
- Image – Whilst this Option does not indicate a final design , it consists of a variety of building forms which blend in with the city skyline to the east however several pairs of towers are indicated as 'twin towers' which provide a heavier image to the skyline. Further design development can provide greater articulation of the massing.
- Shoreside Massing – Floor plates of 25M width max provide for a more even massing which appears is consistent with the creation of an urban fabric that has been created as a larger scaled development. The Option illustrates 9 Towers visible from the southwest.
- Hickson Road Massing – Low rise street walls with arcades provide a boulevard feeling to Hickson Road from Block 1 through to Block 8.
- Building Orientation – Building orientation generally allows a north/south exposure to the principle facades and visual openness in an east/west direction however the connections between tower wings presents wide façades to Hickson Road and restricts views through the site. Closely spaced 'courtyard' towers do not provide an optimal environment within the commercial towers.
- Western Façade to City – The scheme provides for a defined western edge to the city which appears to be an organic extension of the city towards the west.



Plan of Option 2

(3D model by Arterra)



View of Option 2 from West.

(3D model by Arterra)

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View of Option 2 from Southwest.

(3D model by Arterra)



View of Option 2 from North.

(3D model by Arterra)

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Option 3 MR

- General Description – Graduated height building forms from north to south with Block 1 as a transitional block to King Street Wharf.
- Image – Whilst this Option does not indicate a final design, it consists of a variety of building forms which blend in with the city skyline to the east. The introduction of a podium of continuous streetwall along Globe Street on Blocks 3, 4, and 5 allow the tower volumes to be consolidated into a series of wider, less numerous towers. Further development can provide more articulation of the massing.
- Shoreside Massing – Floor plates of 30M maximum width have been provided resulting in less slender tower proportions however creating a more workable floorplate. The additional GFA has been provided through the higher and wider buildings and the consistent rhythm of the towers suggests an urban fabric that has been created as a larger scaled development. The Option illustrates 5 Towers visible from the southwest. On Blocks 3, 4, and 5 the towers are spaced further apart than those shown in either the CCP Scheme or Option 2.
- Hickson Road Massing – Low rise street walls with arcades provide a boulevard feeling to Hickson Road from Block 1 through to Block 8.
- Building Orientation – Building orientation generally allows a north/south exposure to the principle facades and visual openness in an east/west direction. This enhances opportunities for sustainability features and openness between the water and buildings to the east. The buildings appear to form a continuous group however further design articulation of the individual buildings will alleviate this appearance.
- Western Façade to City – The scheme provides for a defined western edge to the city which appears to be an organic extension of the city towards the west.



Plan of Option 3

(3D model by Arterra)



View of Option 3 from West.

(3D model by Arterra)

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View of Option 3 from Southwest.

(3D model by Arterra)



View of Option 3 from North.

(3D model by Arterra)

5. DESIGN CONTROLS on GFA

Section 5 of this report deals with a review of the built form design principles of the CCP and identifies which of those principles can be retained in the design whilst accommodating the additional GFA proposed in the MR.

The additional 120,000sm can be accommodated on the affected blocks without exceeding the maximum building envelopes of the CCP as demonstrated in Section 7.5 of the MR. While this provides a degree of certainty about the urban design intent of the project, it does not go far enough in defining how the design principles articulated in the CCP apply at the scale of a block. A series of Design Control Guidelines have been proposed to fill this gap and to articulate, at a smaller scale, some of the key principles evident in the CCP and how they can be applied to each block.

5.1. Design Principles from the CCP and MR

A summary of the Built Form Principles set out in the CCP and reviewed in the MR includes:

- Principle 1 - City's New Western Façade
- Principle 2 - Hickson Road as Boulevard
- Principle 3 - Buildings to Define Streets
- Principle 4 - Low Scale Valley or North South Pedestrian Connection
- Principle 5 - Tapering Built Form (graduated height)
- Principle 6 - Open Space Within Blocks
- Principle 7 - View Sharing
- Principle 8 - Orientation of Buildings

Whilst these principles are illustrated in the built model as a general guide in both the CCP and the MR they are not explicitly reflected in the maximum building envelope provided. As the maximum building envelope simply illustrates the maximum permitted building limits, it appears to allow bulkier buildings than are envisioned by either the CCP or the MR. Such buildings would not be in keeping with the general intentions of the CCP.

The CCP and MR use a series of photo montages to illustrate possible scenarios for each of the build-out capacities. Whilst this approach does indicate possible scenarios which can be improved upon, it does not provide a guide for a more detailed application of the principles and leaves a significant amount of discretionary latitude in evaluating proposals.

The CCP indicative buildings indicates a series of closely spaced narrow buildings on Blocks 2, 3, 4, and 5 while the MR Scheme Option 3 illustrates a series of larger buildings albeit more widely spaced. Depending on how buildings are located with respect to street and lot lines the view corridors of the east-west streets may actually be wider in the MR Scheme than in the CCP Scheme. Having noted the above however, the larger footprints illustrated in the MR Scheme may appear bulkier and reduce the apparent variety of building form seen in the skyline of the CCP scheme. The proposed Design Control Guidelines are intended to address this issue.

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A brief review of the Design Principles from the CCP follows below.

- Principle 1 - City's New Western Façade – Achieved with either CCP or MR.
- Principle 2 - Hickson Road as Boulevard – Achieved with either CCP or MR.
- Principle 3 - Buildings to Define Streets - Achieved with either CCP or MR.
- Principle 4 - Low Scale Valley or North South Pedestrian Connection – Low scale valley may be more difficult to achieve with MR. North South Pedestrian connection can be achieved with either CCP or MR.
- Principle 5 - Tapering Built Form (Graduated Height Buildings)- Achieved with either CCP or MR. - Can be achieved with CCP or MR.
- Principle 6 - Open Space Within Blocks – More difficult to achieve with MR.
- Principle 7 - View Sharing - Achieved with either CCP or MR.
- Principle 8 - Orientation of Buildings - Achieved with either CCP or MR.

5.2. Additional Control Guidelines

A secondary series of design controls can be included with the project that would serve to supplement the overall bulk controls and provide a middle ground between the detailed design developed in the CCP scheme and the overall bulk controls given with that design. These would guide the designers so that the proposed GFA can be accommodated on the site in a way that is more closely aligned to the configuration initially illustrated in the CCP.

These controls are illustrated on the figures listed below. It should be noted that these illustrations, shown for Block 3, are intended only to illustrate characteristics of the controls and not a specific design for the site.

General principles applying to the controls:

- The Controls are general in nature and are intended to provide guidance for the development of built form and the selection of a scheme. Variations from these Controls may be permitted provided that design excellence in form or function can be demonstrated.
- The Controls have been developed to support key features of the CCP while allowing greater flexibility than those proposed in the CCP. The 'Urban Design Envelope' of the CCP and the MR are identical and conform to the Block footprints.
- The general massing strategy is similar between the CCP and the MR however the MR, with its larger floorplates and additional GFA, will result in a greater massing of the building closer to Hickson Road.
- The Controls are intended to supersede the controls provided in Appendix H of the CCP.

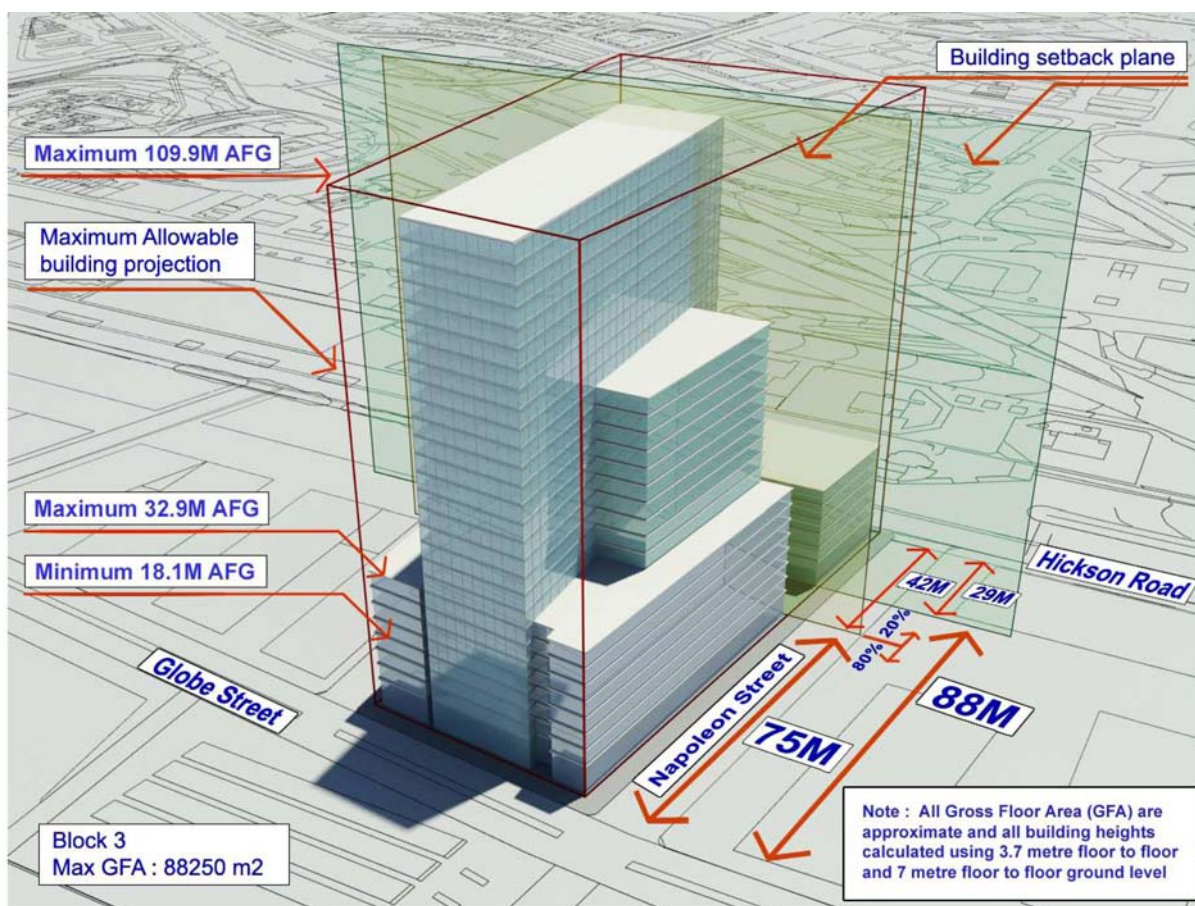
These principles can include:

Control 1

Objective

Building Mass Setback Planes – To confirm the principle of setting the largest bulk of the building toward the western edge of each block. See Figure 1.

- Establish building control planes from the SW corner of Block 3 at 88m and 75m from Globe Street.
- Require 80% of the building mass above podium level to be to the west of the 75m plane for Blocks 3, 4 and 5.

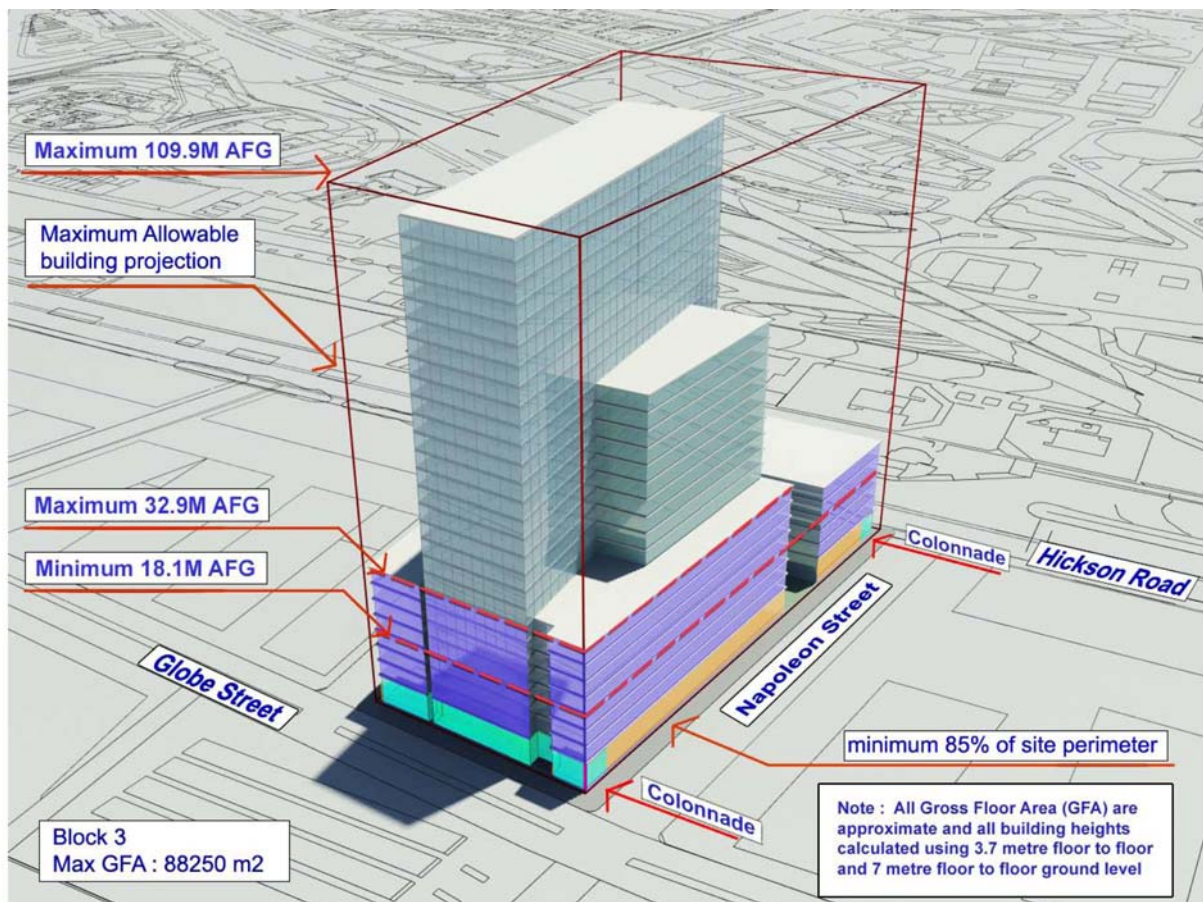


▪ Control 2

Objective

Building Streetwall Establishment Plane – To confirm the principle of providing an active streetwall around each block. See Figure 2.

- Require building mass at podium to form a continuous street wall around the site at 4 stories minimum and 8 stories maximum for 85% of the site perimeter.
- Colonnades are to be provided along Hickson Road and Globe Street.

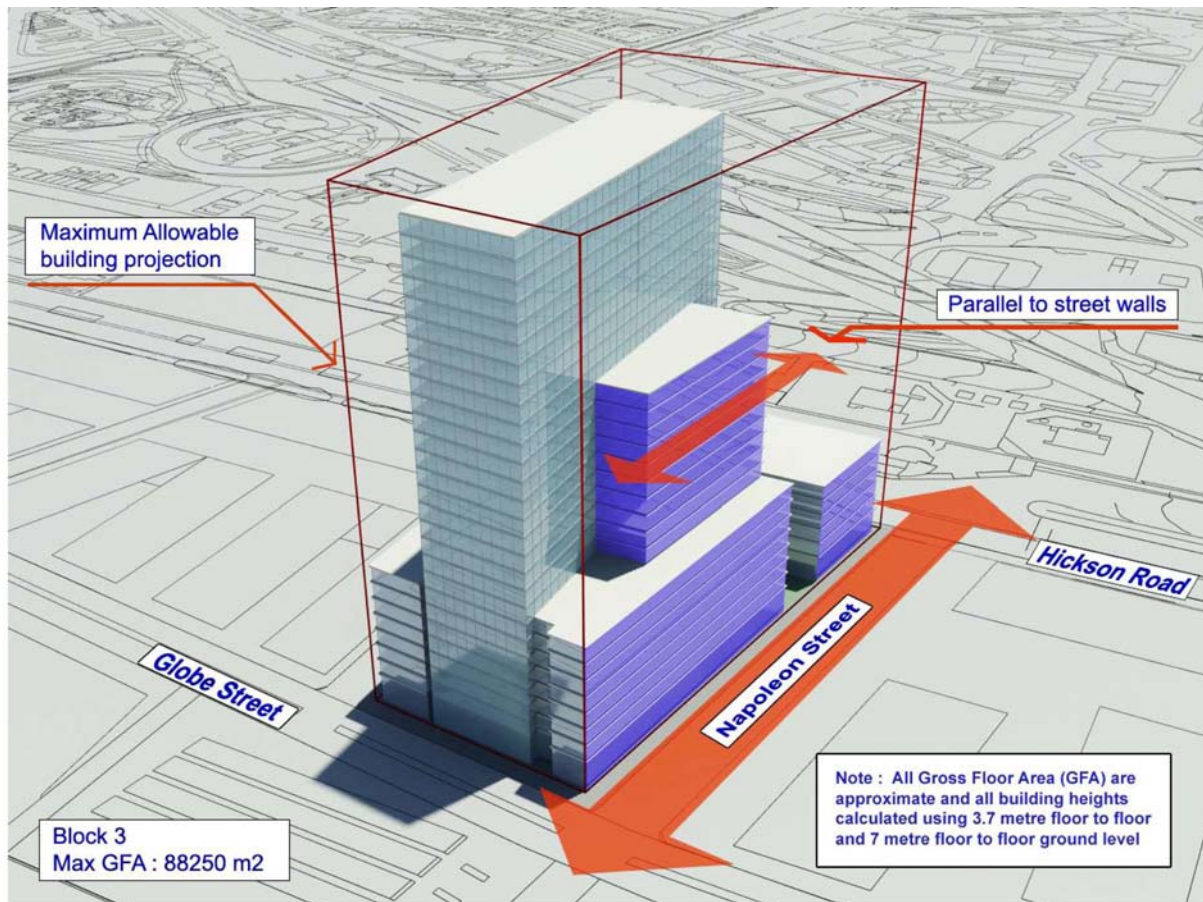


Control 3

Objective

Tower / Streetwall Relationship Plane – To confirm the principle of reinforcing the streetwall in the form of the tower and therefore in the skyplane of the development. See Figure 3.

- Require that at least a portion of each side of the tower above podium level be parallel to the street walls.
- This control can be relaxed pending design review and is subject to further interpretation during the tender assessment period.

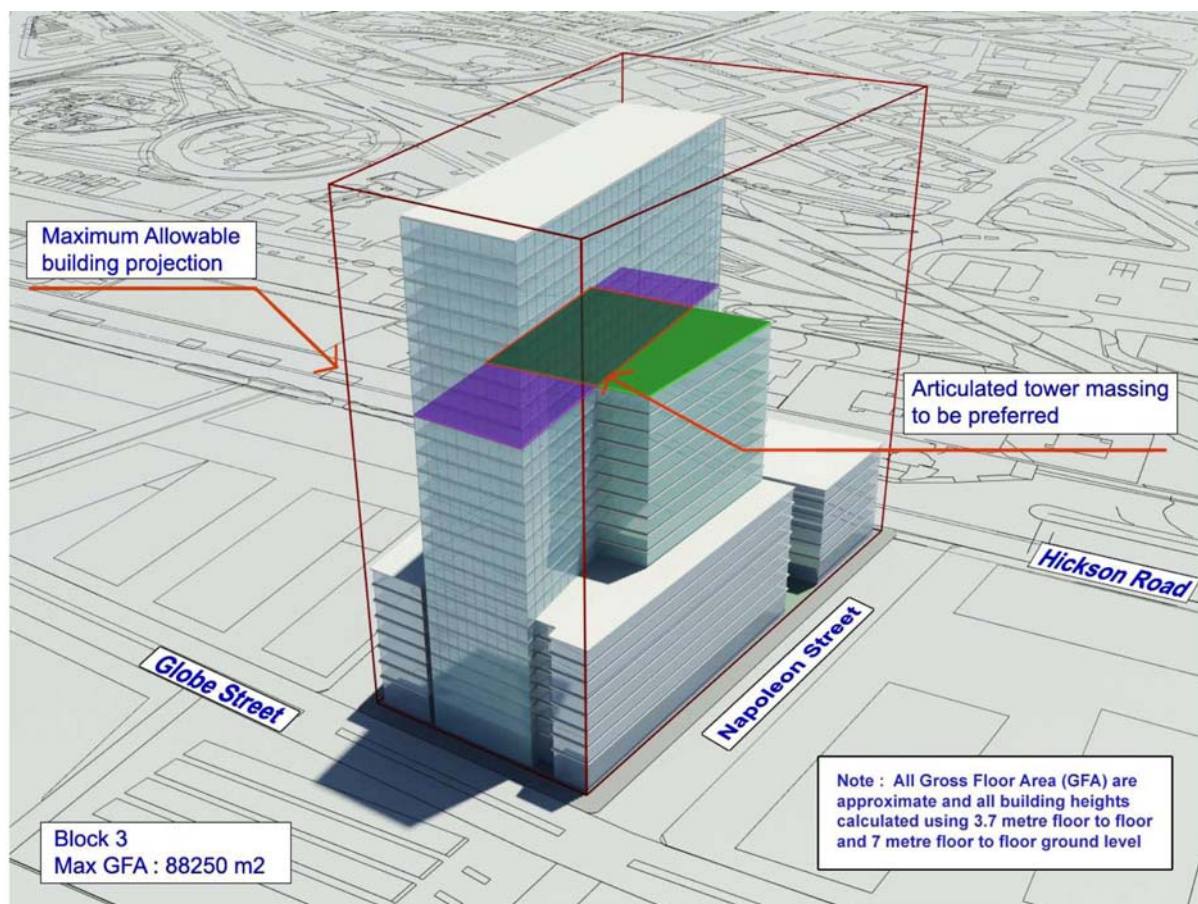


▪ Control 4

Objective

Building Floorplate Articulation – To establish an articulated form for each high-rise tower and limiting the bulky appearance of larger floorplates. The figure illustrates only one way of achieving this. Designers are to explore tower layout possibilities that add visual interest to the skyline. See Figure 4.

- Require that each tower floor plate provides for plan articulation. This may take the form of overlapping smaller floorplates, curved floorplates or other design attributes proposed by the designers.
- Require that tower form express sustainability features such as access to natural light and ventilation.
- Require that tower forms follow a general north/south orientation to ensure that sustainability goals can be met.

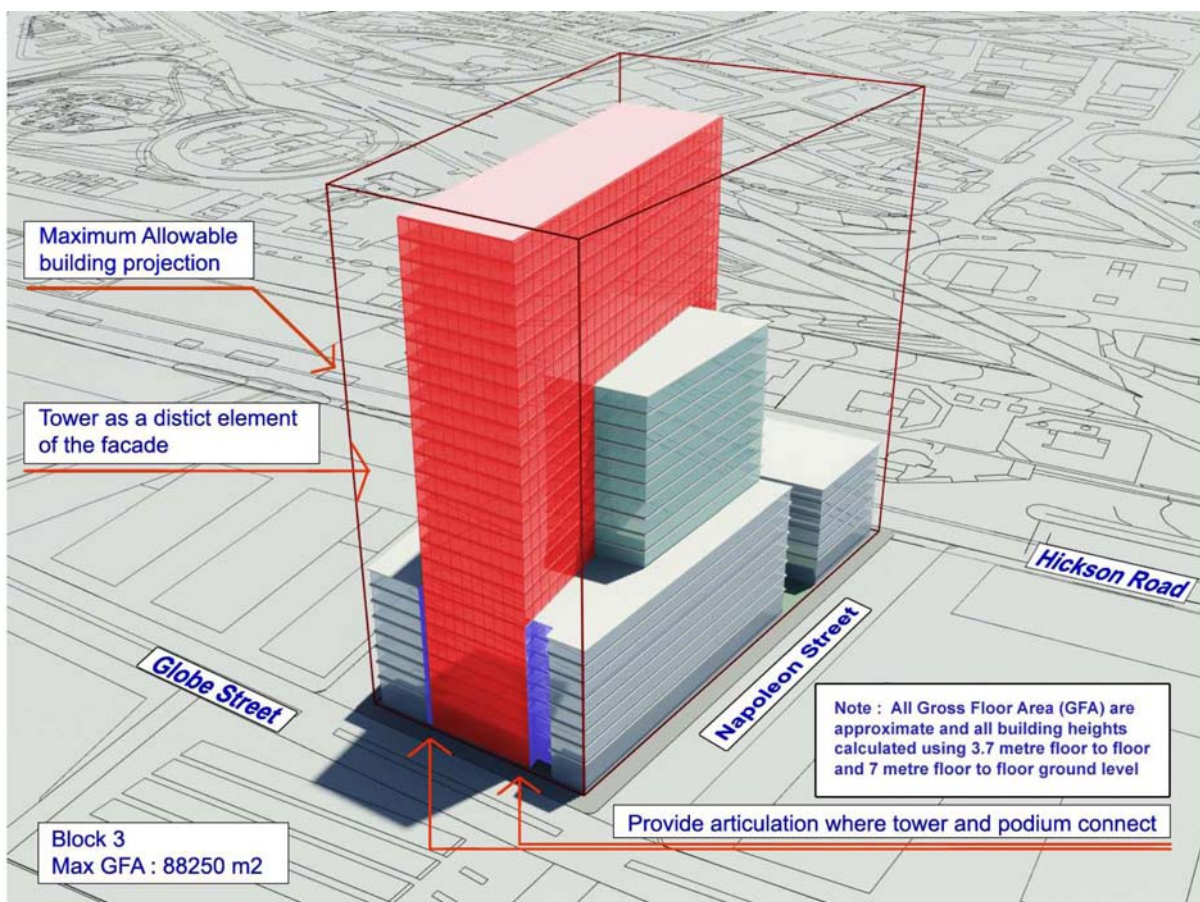


▪ Control 5

Objective

Tower Articulation Feature - To provide a distinction between the towers and the podiums so that the built form of each block will read as a series of separate buildings. See Figure 5.

- Articulation should be provided where the tower and podium connect to establish different identities for each element.

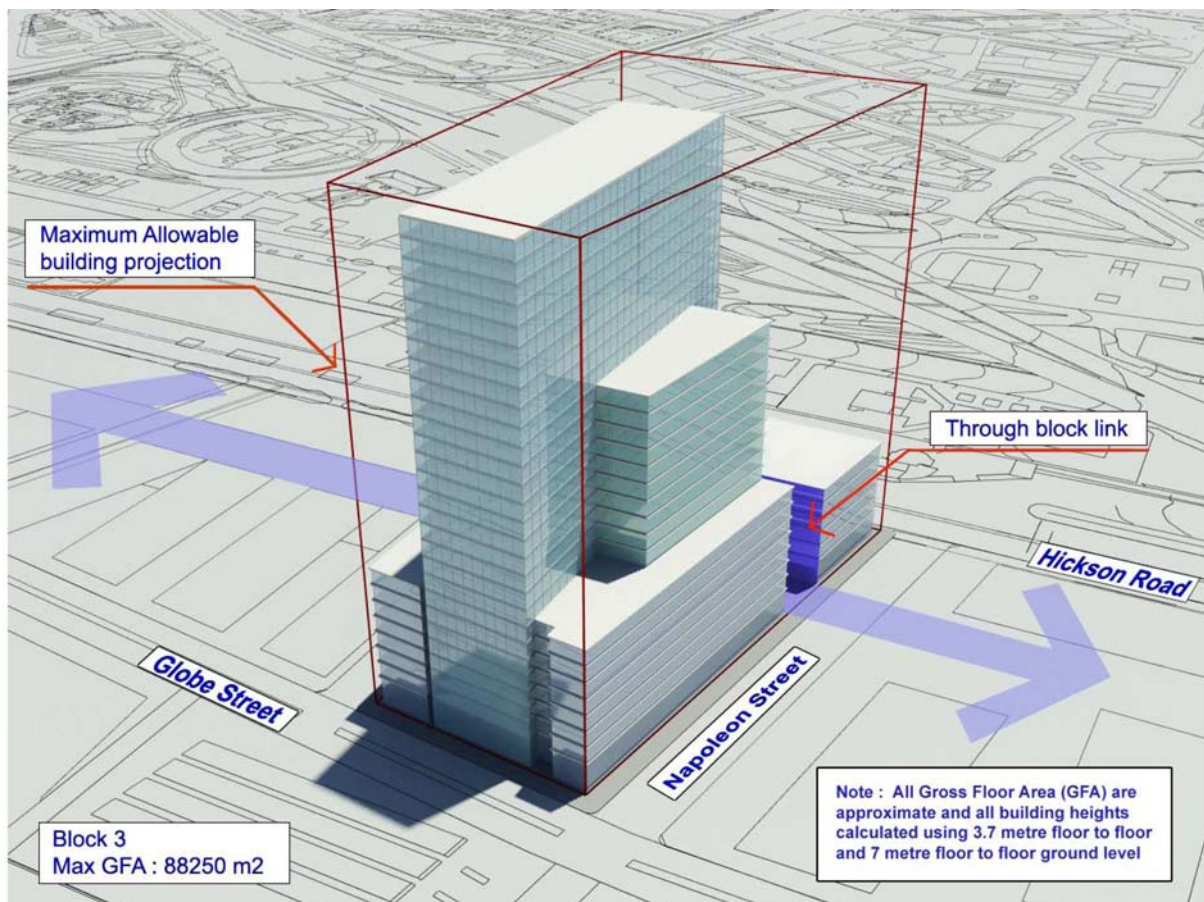


Control 6

Objective

Ground Floor Permeability at Through Block Links – To confirm that the north south connection reads as a public link and is apparent from the public domain of Barangaroo. See Figure 6.

- Building form may cover no more than 50% the length of this link and only occur from the fourth floor upward (Levels G, 1, 2, 3 are to remain open).
- Where the through site link not covered by built form as noted above the area should be left open to the sky except for glass canopies.
- The streetwall should be broken at the area of the through block link. This may include a screening device, but no habitable or service spaces should block sightlines into the through block link or sky above.

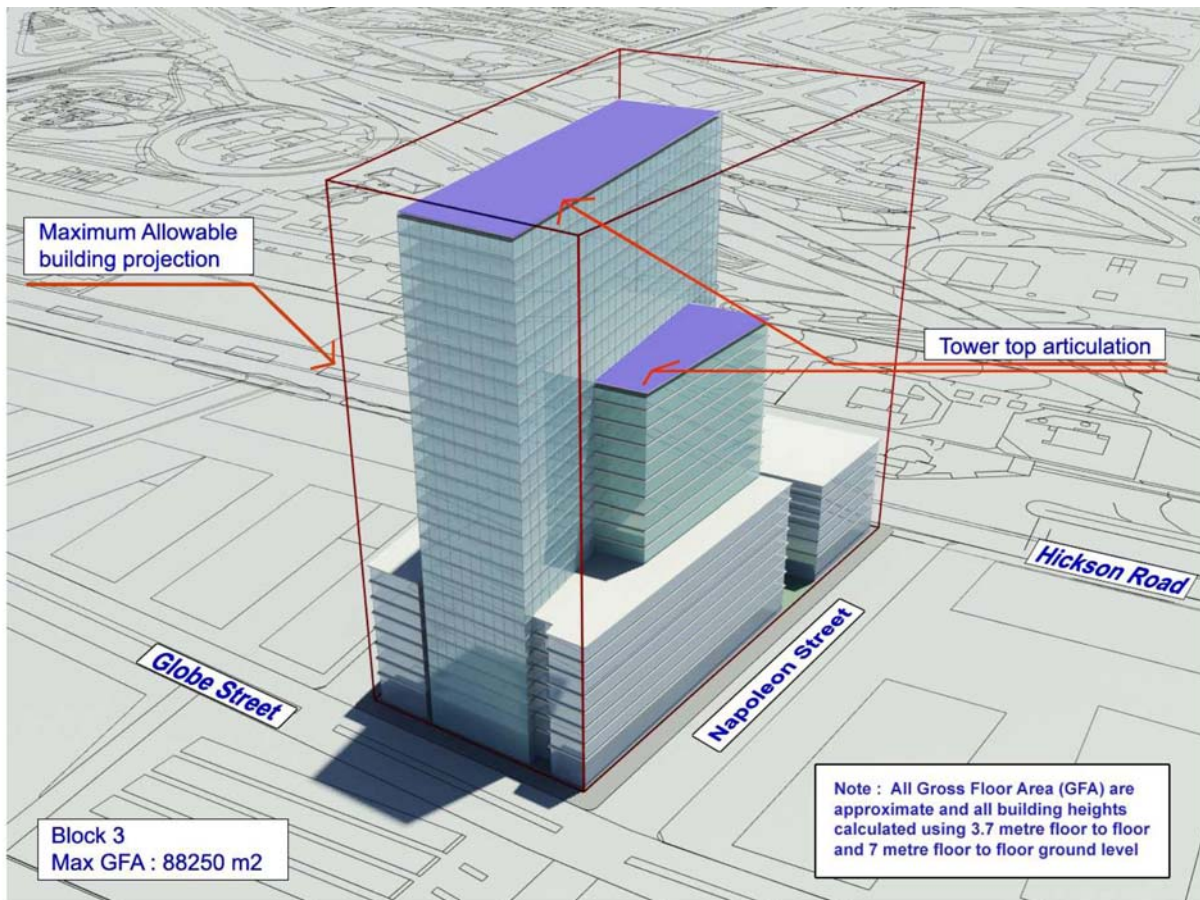


▪ Control 7

Objective

Tower Top Stepped Profile Articulation – To confirm the principle of articulated tower volumes in the cityscape by indicating that floorplates should provide an articulated skyline. See Figure 7.

- The building massing should step up from larger floorplates to smaller floorplates.
- The stepping should be implemented so that a significant portion of the building is stepped.

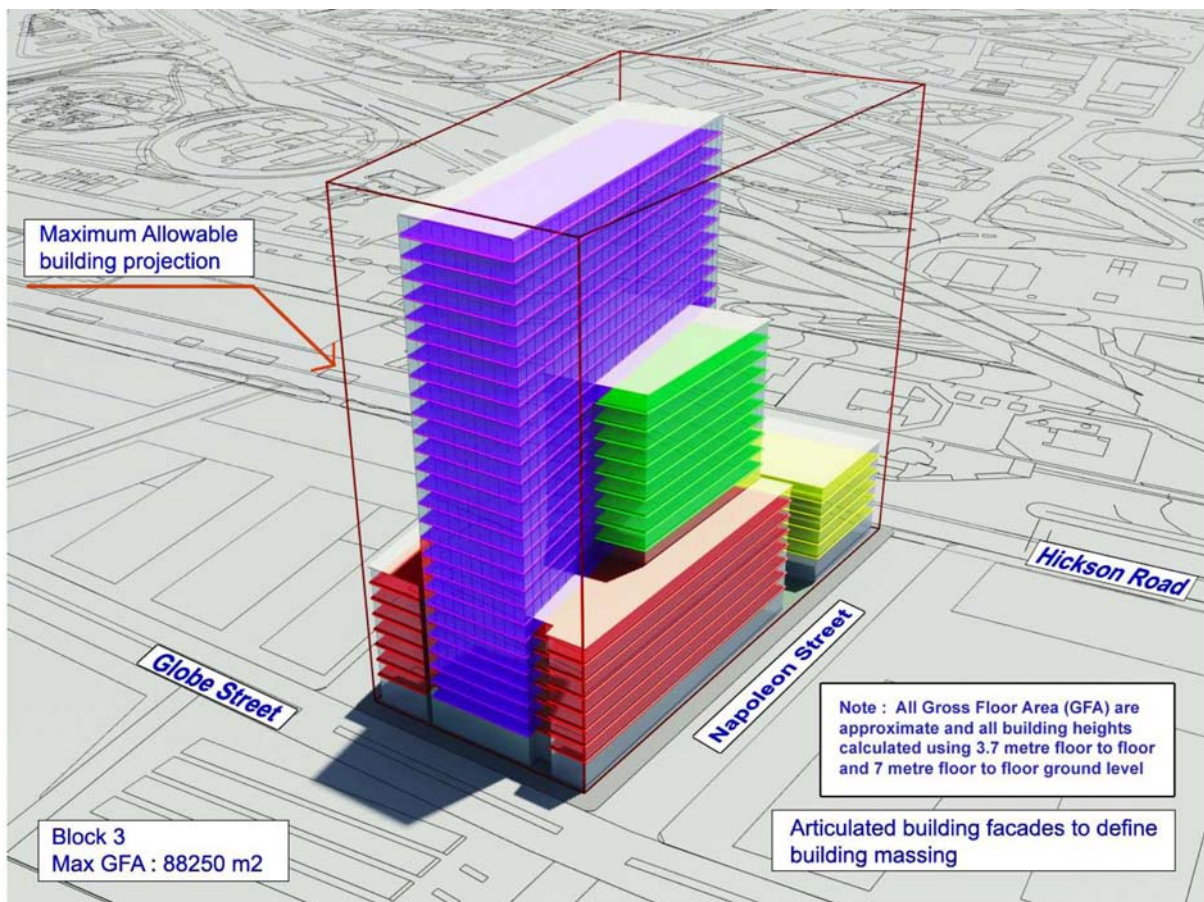


▪ Control 8

Objective

Articulated facades – Building facades should be articulated to define building massing. See Figure 8.

- The façade treatment should reinforce the volumetric configuration of the building.
- Façade treatments should be composed of a family of elements.

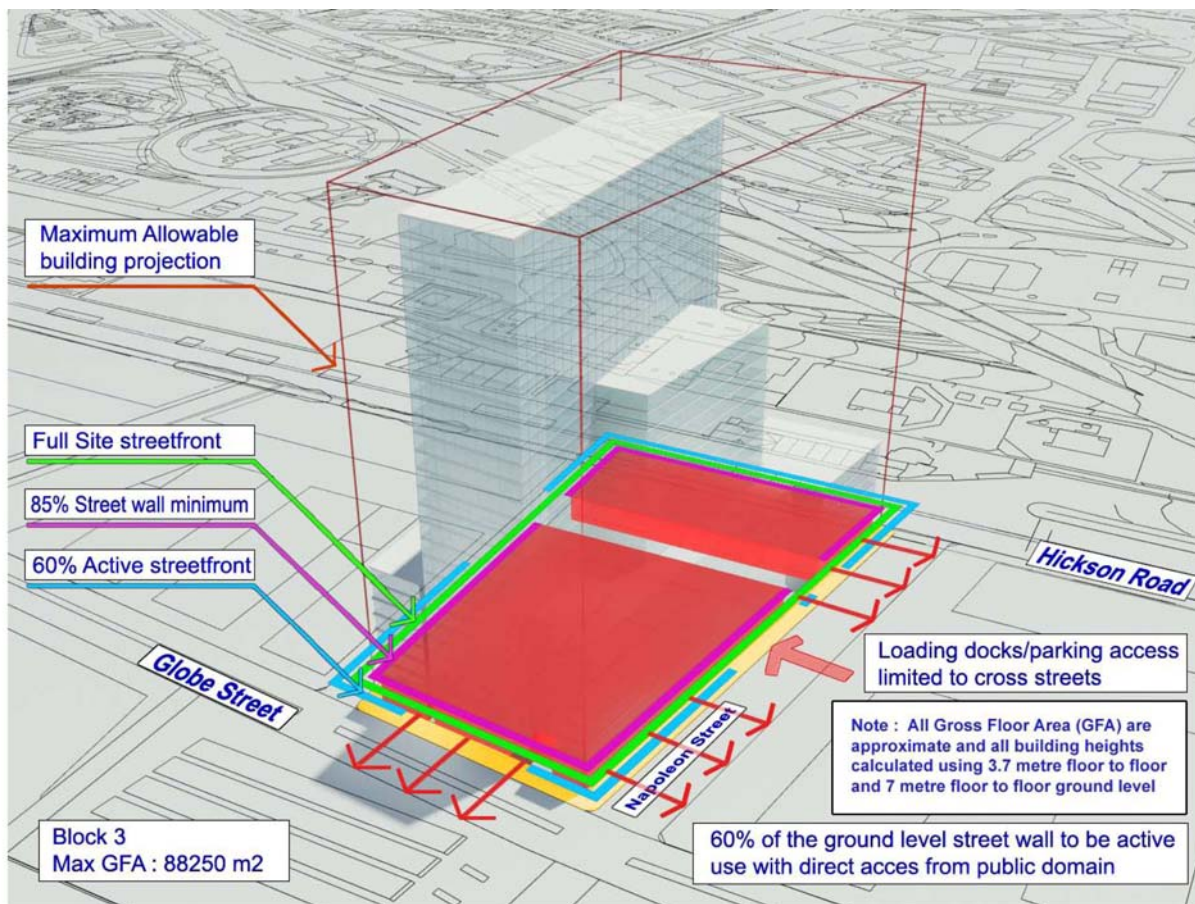


Control 9

Objective

Active Streetfronts – To confirm the principle that a vital public domain will be created at street level. See Figure 9

- At least 60% of the ground level street wall to be active uses with direct access from the public domain.
- Building areas such as office lobbies, exit ways, and service areas or loading docks does not count toward the 60% requirement. Main building entrances to internal lobby areas may be included provided that the lobby is internal to the façade.
- Building service areas, parking entrances and loading docks may not be located on Hickson Road or Globe Street.



6. VIEW IMPACT ASSESSMENT

A view impact assessment has been undertaken to compare the impacts of the CCP Scheme with the Option 3 Scheme.

This assessment has been focused on the impacts of the proposed developments on residential buildings immediately to the east of the site. These include:

- Highgate
- Stamford Marque
- Stamford on Kent
- The Bond Apartments

Methodology

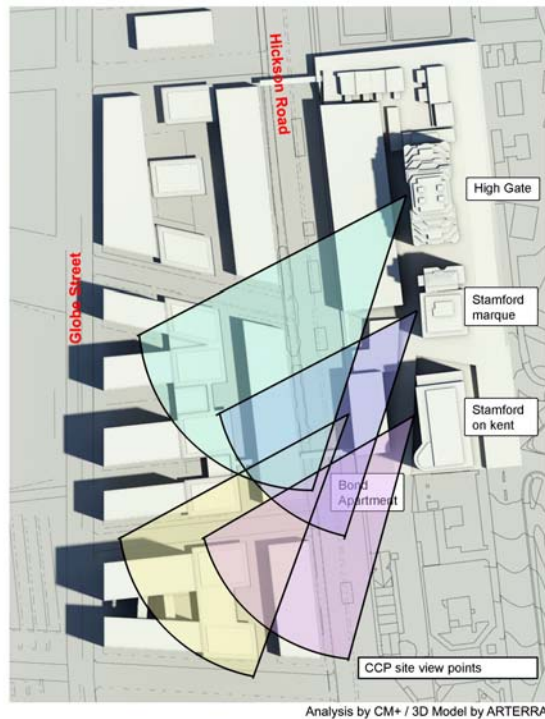
The visual assessment was undertaken on the subject buildings by using a 3D computer model of each building set within its context and tested against a 3D model of the CCP scheme and the MR Option 3 Scheme.

Key steps included:

- The vertical centreline of the western wall of each of the subject buildings was determined.
- A high, middle and low view point was established for each building. These view points are based on the individual heights of each building and therefore they are not necessarily aligned across the site.
- A view cone was established from the vantage point.
- Views to the Southwest, west, and northwest were built with the 3D model
- Views were aligned on a building by building basis from high to low comparing the two schemes.

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Visual Analysis
CCP - Looking South West

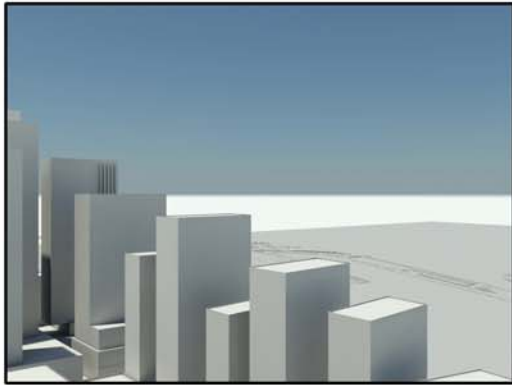


Visual Analysis
MR Option 3 - Looking South West

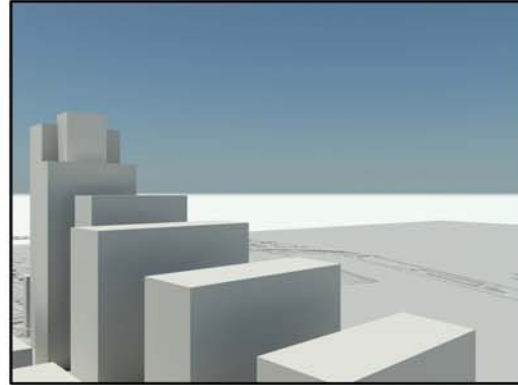


Barangaroo Visual Analysis

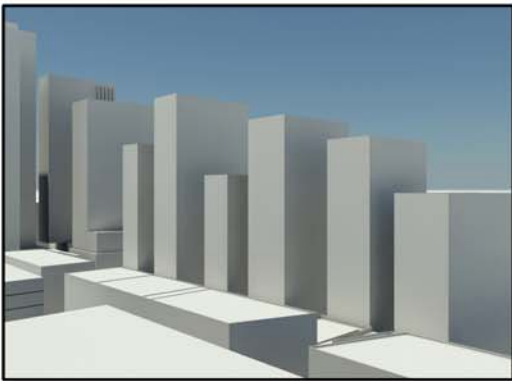
Highgate Building



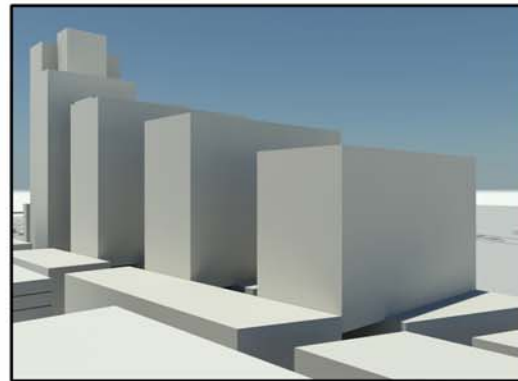
Looking South West
High view
CCP Scheme



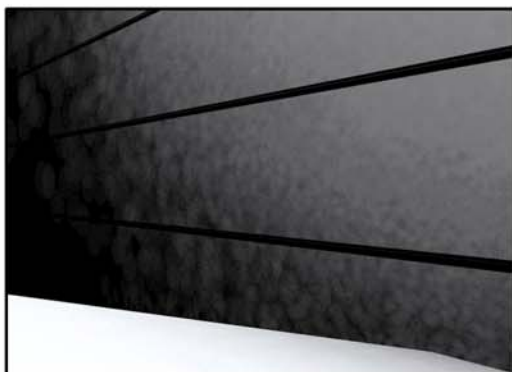
Looking South West
High view
MR Scheme Op-03



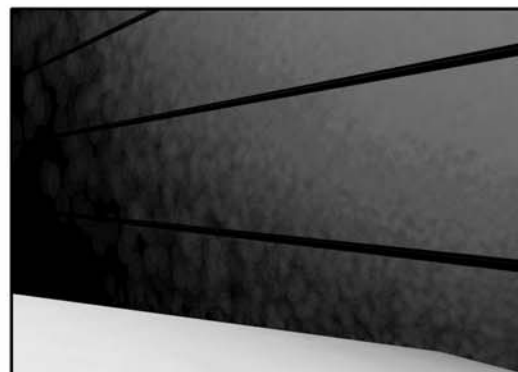
Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

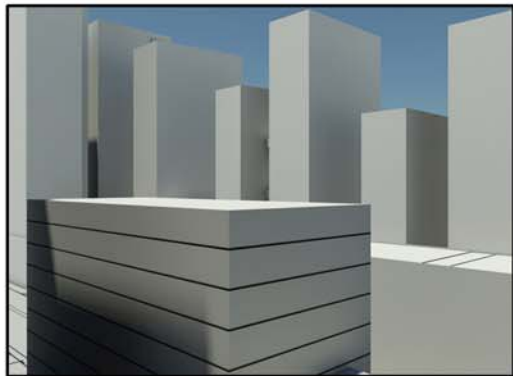
Stamford Marquee



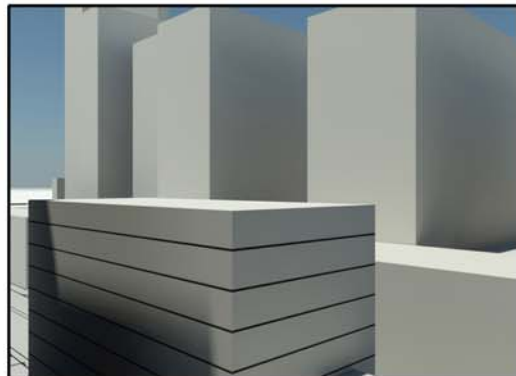
Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

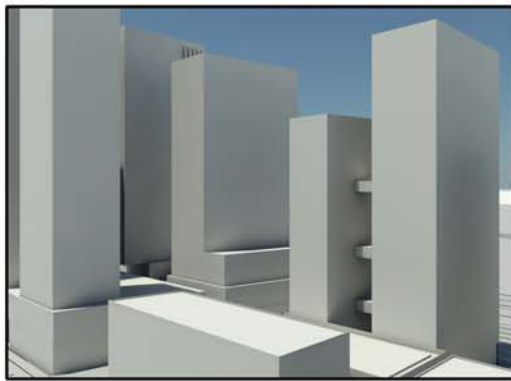
Stamford on Kent



Looking South West
High view
CCP Scheme



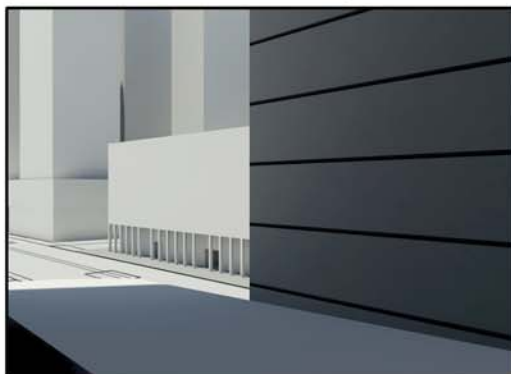
Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme

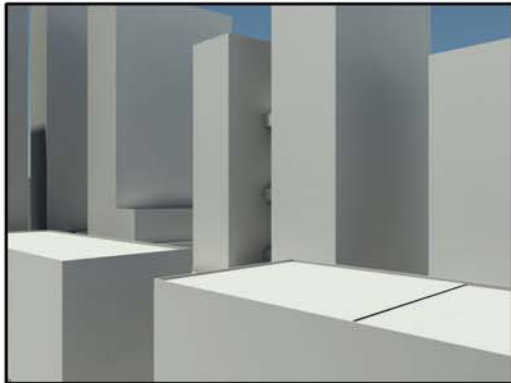


Looking South West
High view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

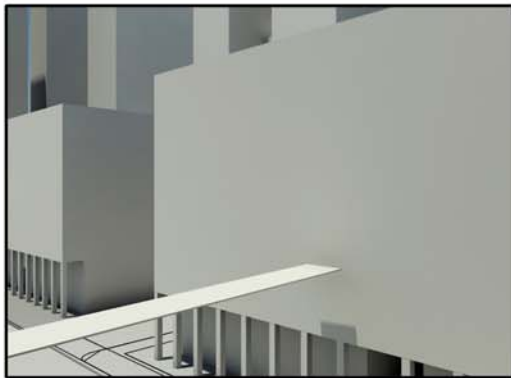
The Bond Apartments



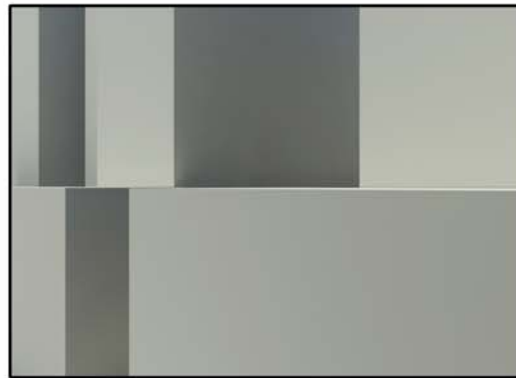
Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



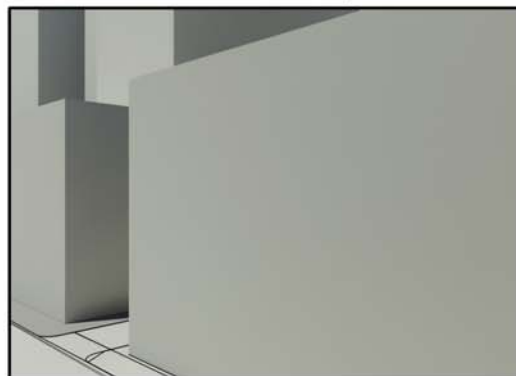
Looking South West
High view
CCP Scheme



Looking South West
High view
MR Scheme Op-03



Looking South West
High view
CCP Scheme

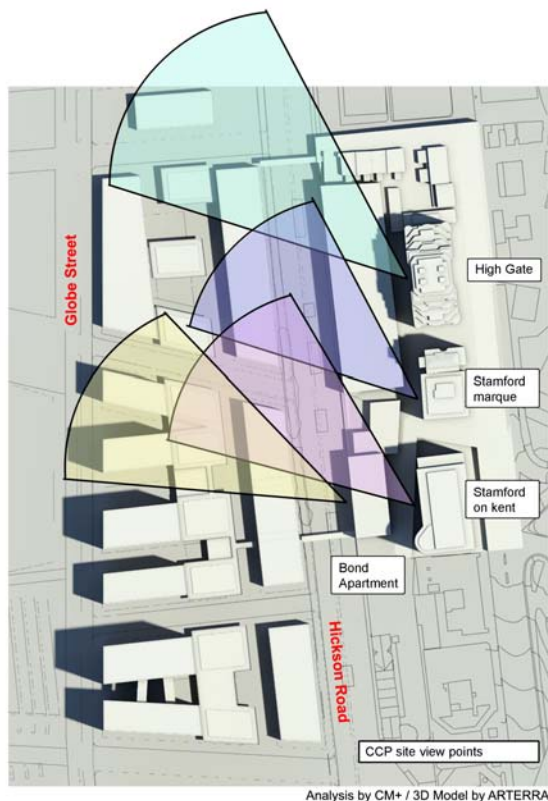


Looking South West
High view
MR Scheme Op-03

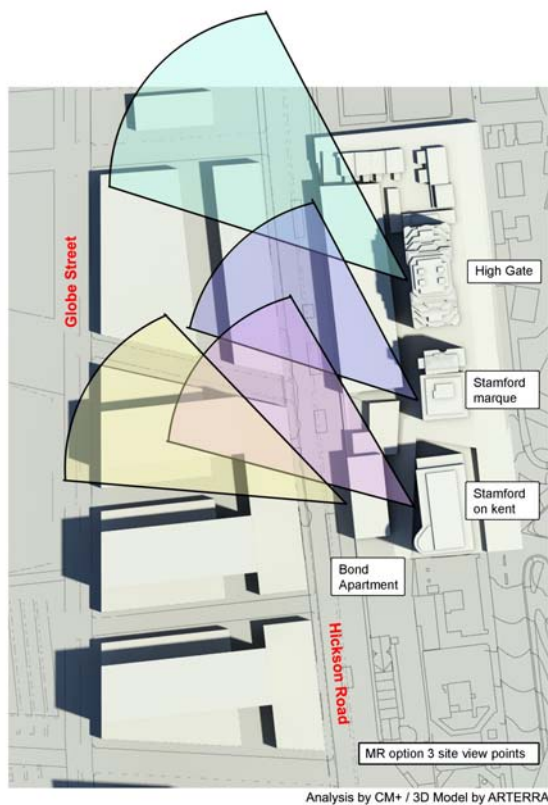
Analysis by CM⁺ / 3D Model by ARTERRA

CM⁺ - Barangaroo Part 3A Modification Report GFA Review

Visual Analysis
CCP - Looking North west

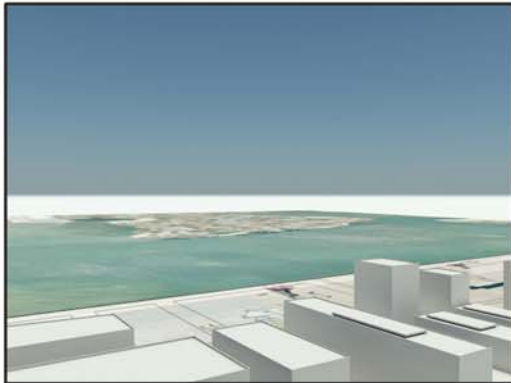


Visual Analysis
MR Option 3 - Looking North west



Barangaroo Visual Analysis

Highgate Building



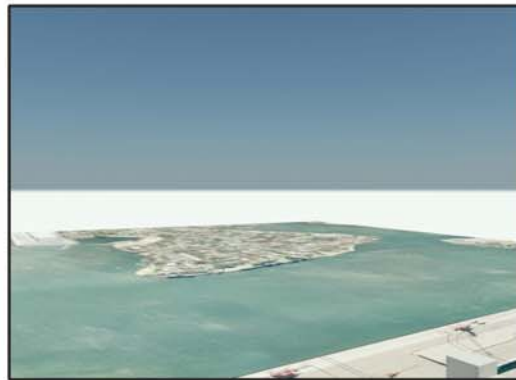
Looking North West
High view
CCP Scheme



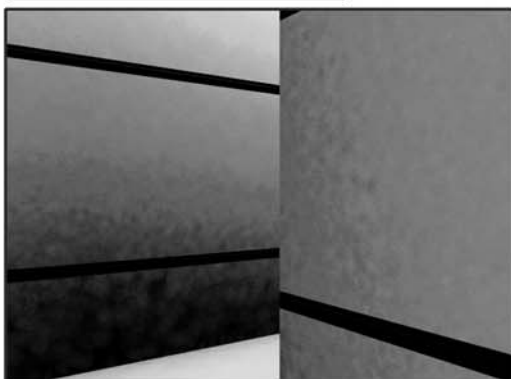
Looking North West
High view
MR Scheme Op-03



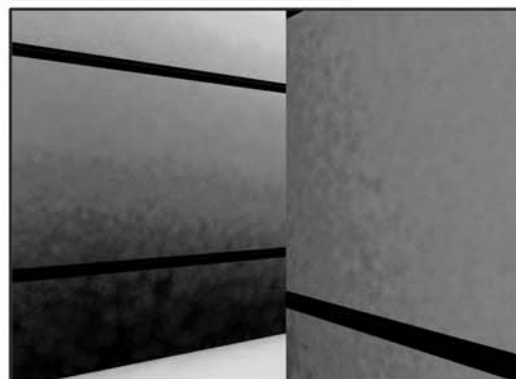
Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme

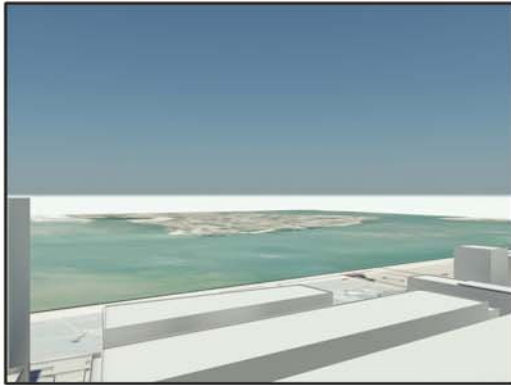


Looking North West
High view
MR Scheme Op-03

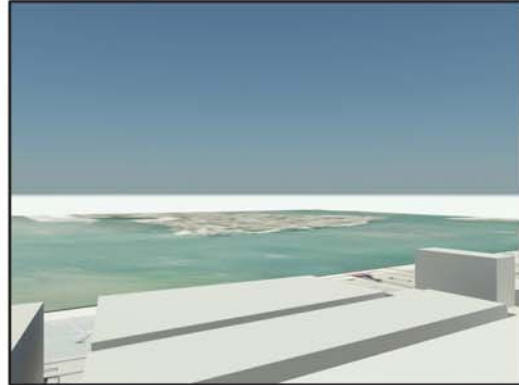
Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

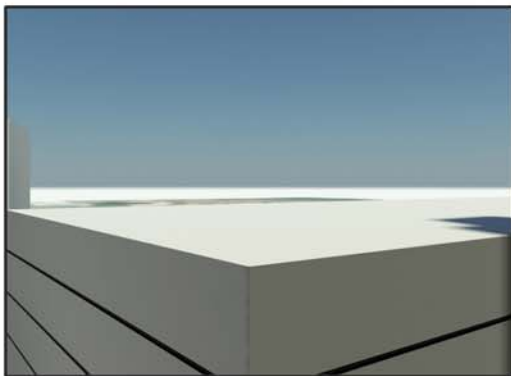
Stamford Marquee



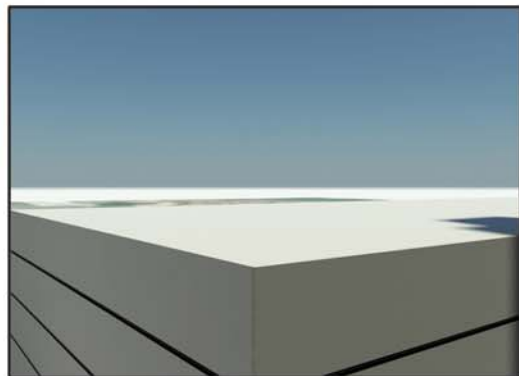
Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme

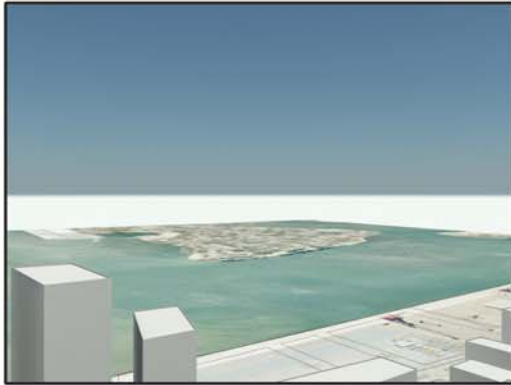


Looking North West
High view
MR Scheme Op-03

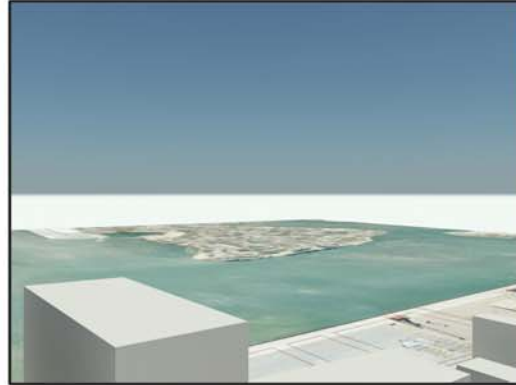
Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

Stamford on Kent



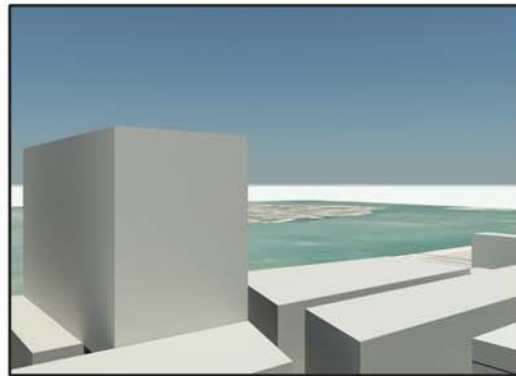
Looking North West
High view
CCP Scheme



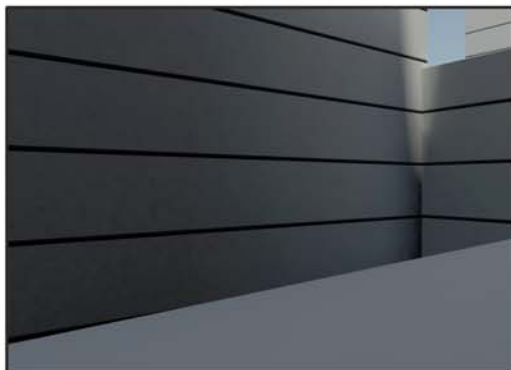
Looking North West
High view
MR Scheme Op-03



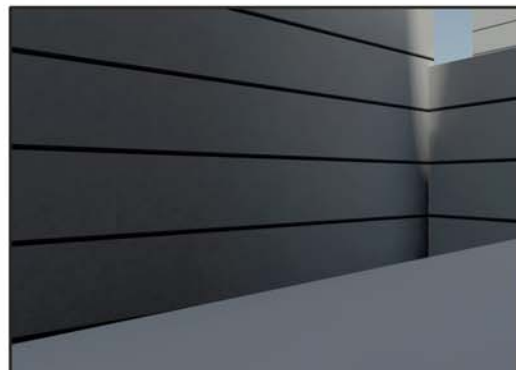
Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme

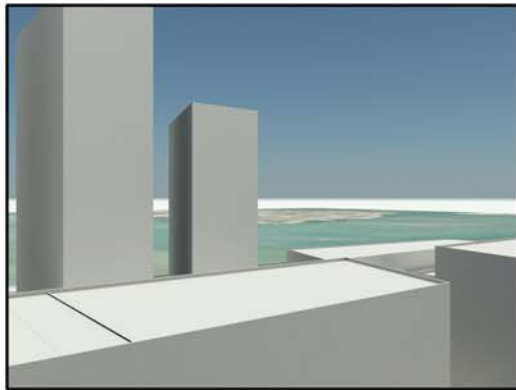


Looking North West
High view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

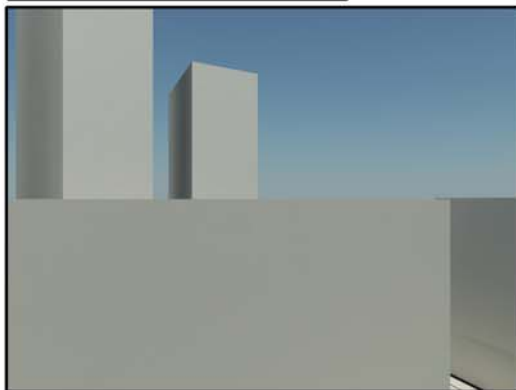
The Bond Apartments



Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme



Looking North West
High view
MR Scheme Op-03



Looking North West
High view
CCP Scheme

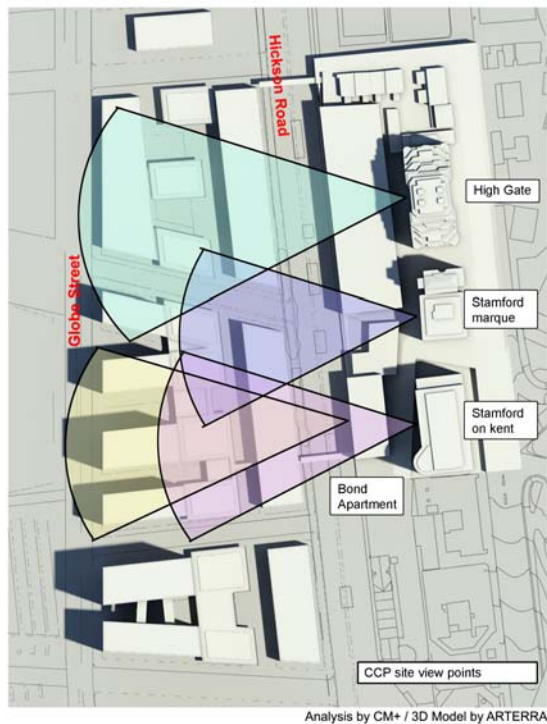


Looking North West
High view
MR Scheme Op-03

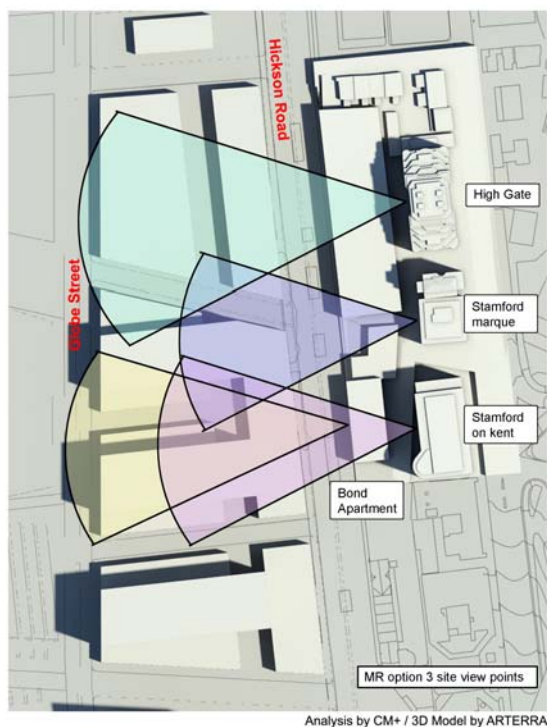
Analysis by CM⁺ / 3D Model by ARTERRA

CM⁺ - Barangaroo Part 3A Modification Report GFA Review

Visual Analysis
CCP - looking West

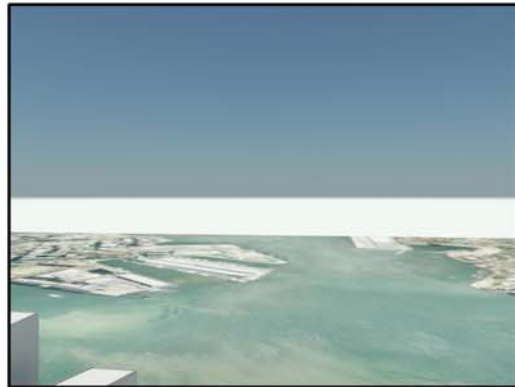


Visual Analysis
MR Option 3 - looking West

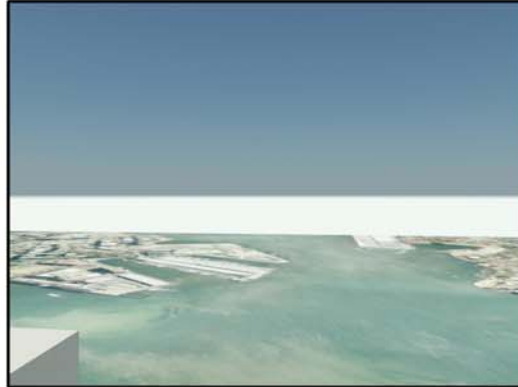


Barangaroo Visual Analysis

Highgate Building



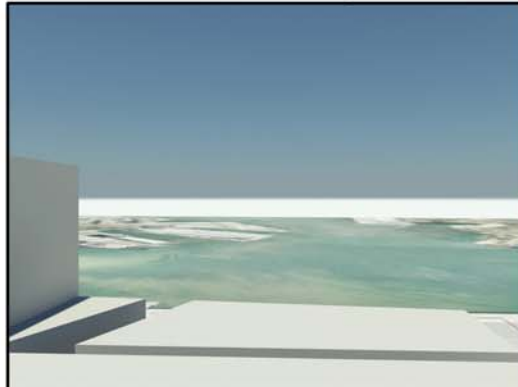
Looking west
High view
CCP Scheme



Looking west
High view
MR Scheme Op-03



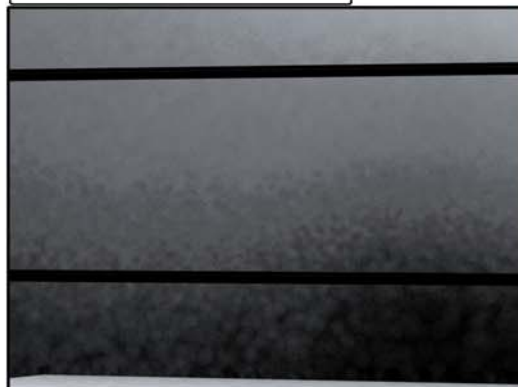
Looking west
Mid view
CCP Scheme



Looking west
Mid view
MR Scheme Op-03



Looking west
Low view
CCP Scheme

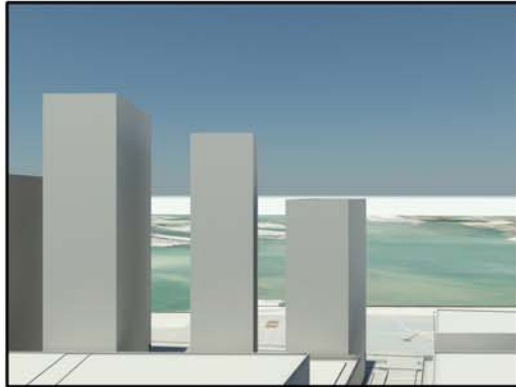


Looking west
Low view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

Stamford Marquee



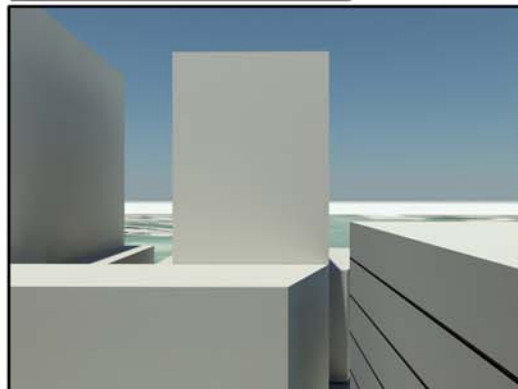
Looking west
High view
CCP Scheme



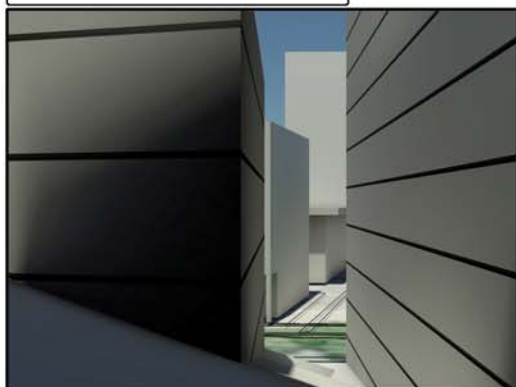
Looking west
High view
MR Scheme Op-03



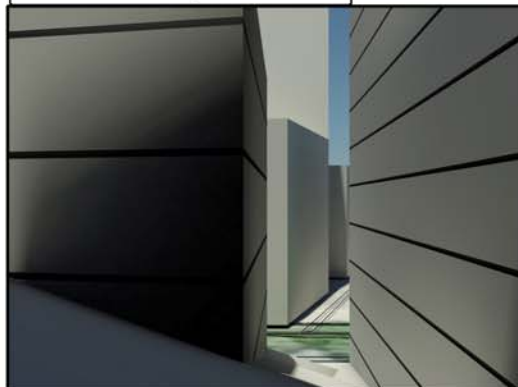
Looking west
Mid view
CCP Scheme



Looking west
Mid view
MR Scheme Op-03



Looking west
Low view
CCP Scheme

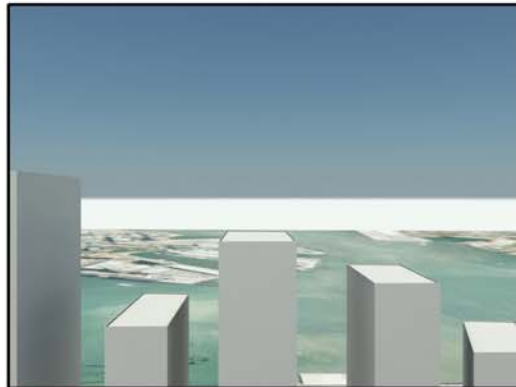


Looking west
Low view
MR Scheme Op-03

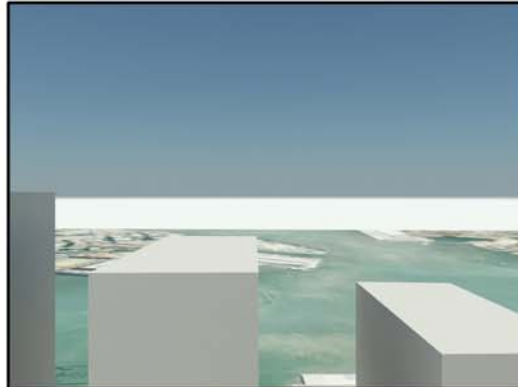
Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

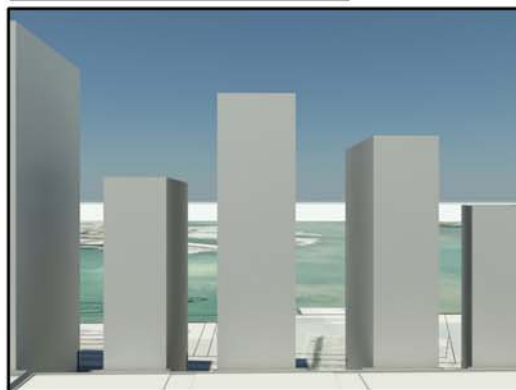
Stamford on Kent



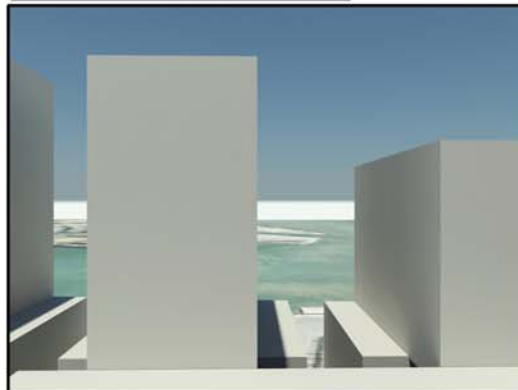
Looking west
High view
CCP Scheme



Looking west
High view
MR Scheme Op-03



Looking west
Mid view
CCP Scheme



Looking west
Mid view
MR Scheme Op-03



Looking west
Low view
CCP Scheme

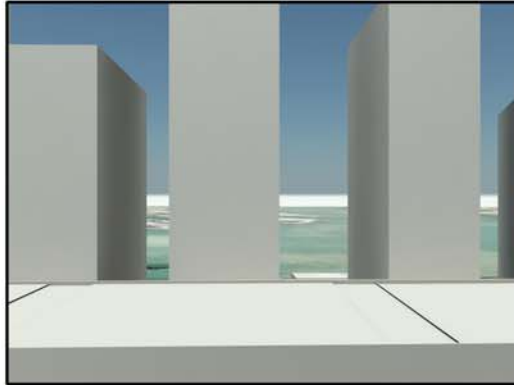


Looking west
Low view
MR Scheme Op-03

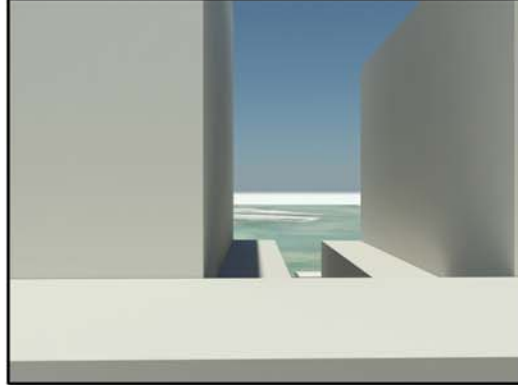
Analysis by CM⁺ / 3D Model by ARTERRA

Barangaroo Visual Analysis

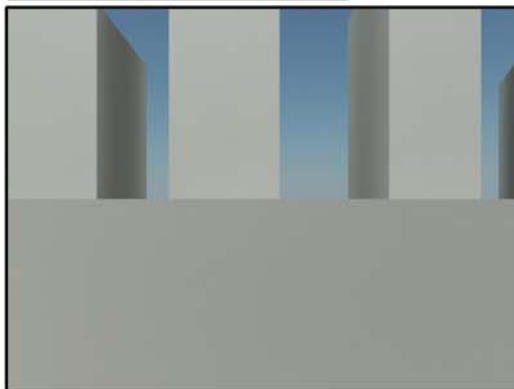
The Bond Apartments



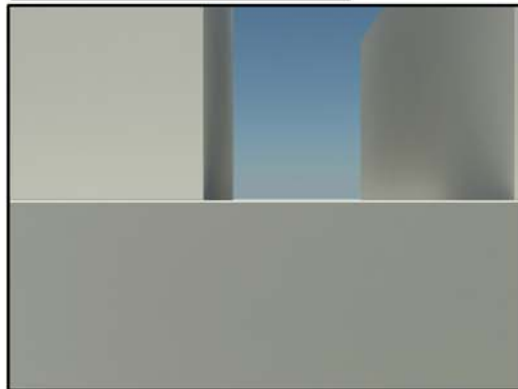
Looking west
High view
CCP Scheme



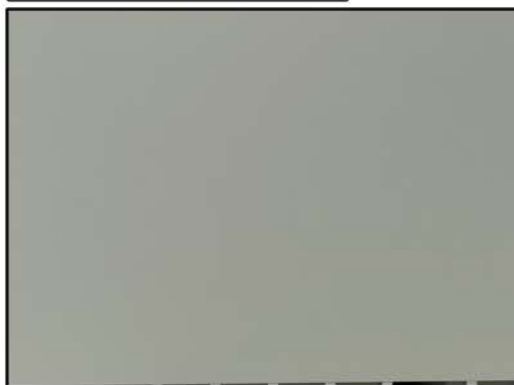
Looking west
High view
MR Scheme Op-03



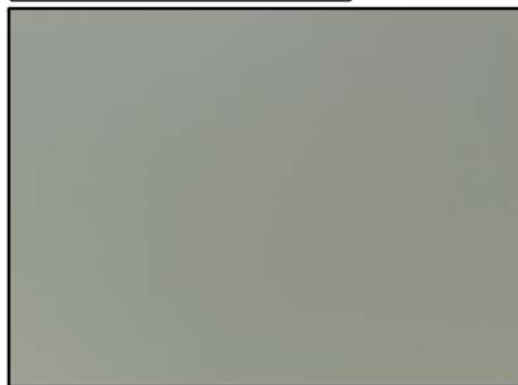
Looking west
Mid view
CCP Scheme



Looking west
Mid view
MR Scheme Op-03



Looking west
Low view
CCP Scheme



Looking west
Low view
MR Scheme Op-03

Analysis by CM⁺ / 3D Model by ARTERRA

Visual Analysis Summary

Overall Impact

Three major aspects of the visual environment have been assessed:

Proximity of Commercial Buildings - When comparing the two schemes it is evident that portions of the towers in the MR scheme will be closer to Hickson Road and buildings to the east of the site. This is partially mitigated by the east/west orientation of the buildings however some aspects of the visual impact of MR scheme may be greater due to this proximity on buildings to the east of Hickson Road.

Sky Exposure Plain – The sky exposure plain is the edge of the built form against the sky. It is essentially a plane connecting the tops of the buildings. When comparing the CCP with the MR from most viewpoints the sky exposure plain is in approximately the same relationship to the viewer.

Views through to the Water (Looking West) – A key aspect of the study is the review of impacts on views through to the water. This has been studied by generating a series of views to the west perpendicular to the subject building facades.

- From the Highgate Building there does not appear to be a substantial difference in the openness.
- From the Stamford Marque at the upper and mid view levels the CCP scheme appears to offer greater transparency, but only if the tower forms are not joined by a connecting core. Commercial floorplate advice, however, suggests the towers will be joined by a service core.
- From the Stamford on Kent at the mid view level the CCP scheme appears to offer greater transparency, but only if the tower forms are not joined by a connecting core. Commercial floorplate advice, however, suggests the towers will be joined by a service core.
- From the Bond Apartments, due to its limited height, the views west across either scheme are not significantly different. At the lower levels no views can be retained with either scheme and at the high view point the CCP may offer more frequent views but the MR may offer wider views.

The visual Analysis is limited in its scope to the models that have been prepared for this study. It should be noted that both the MR is subject to further detailed design development and a more accurate assessment of views should be undertaken as the Project Application is assessed. The actual views from individual apartments would need to be considered in this light.

7. CONCLUSION

The need to accommodate contemporary commercial office designs in the creation of the new western edge of the city may require the creation of larger floorplates and additional GFA than that illustrated in the CCP. However, the main vision of creating a lively and varied cityscape built upon the extension of the public domain, roads, sightlines and massing of the city towards the west can be maintained whilst allowing for these forces to bring the project to fruition.

Additional design controls should be included in the project requirements to provide some measure of certainty that the flexibility necessary to allow market forces to operate does not undermine the overall principles established by the CCP.

8. RECOMMENDATION

It is recommended that the indicative Design Controls provided for Block 3 described in Section 5 and the attached figures be further refined and tested on all blocks and incorporated into the project documents.

These principles can be used to assess tenders and as a measurement as the project moves forward.

As designs are developed for the project compliance with the Design Controls should be demonstrated. In cases where the design does not comply with the controls, justification should be given as to why the control was not applicable and what attributes of the design have been provided in lieu to ensure that the overall objectives of the CCP can be achieved.