

# BATESSMART™



WINTEN  
PROPERTY  
GROUP

## North Sydney Commerce Centre 177-199 Pacific Highway North Sydney

Architectural Design Statement - May 2010



Architecture  
Interior Design  
Urban Design  
Strategy

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**Introduction**

This Architectural Design Statement has been prepared by Bates Smart to form part of the Part 3A Concept Plan Submission to NSW Planning on behalf of Winten Property Group for their land at 177-199 Pacific Highway North Sydney.

**Vision**

Our vision is to create a commercial building that will deliver a 21st century design with flexible floorplates to reinvigorate North Sydney as part of global Sydney. The tower design will create a new gateway to North Sydney; anchoring the north-west corner of the CBD. Its asymmetrical composition of forms will create a dynamic tower where each volume responds to its respective orientation and solar aspect; creating a unique tower which varies depending on the vantage point. The resulting built form has enabled us to create a major public space for the people of North Sydney in the form of a naturally ventilated all weather Garden Plaza, which will be a major extension of the Berry Street Special Area.

**Developers**



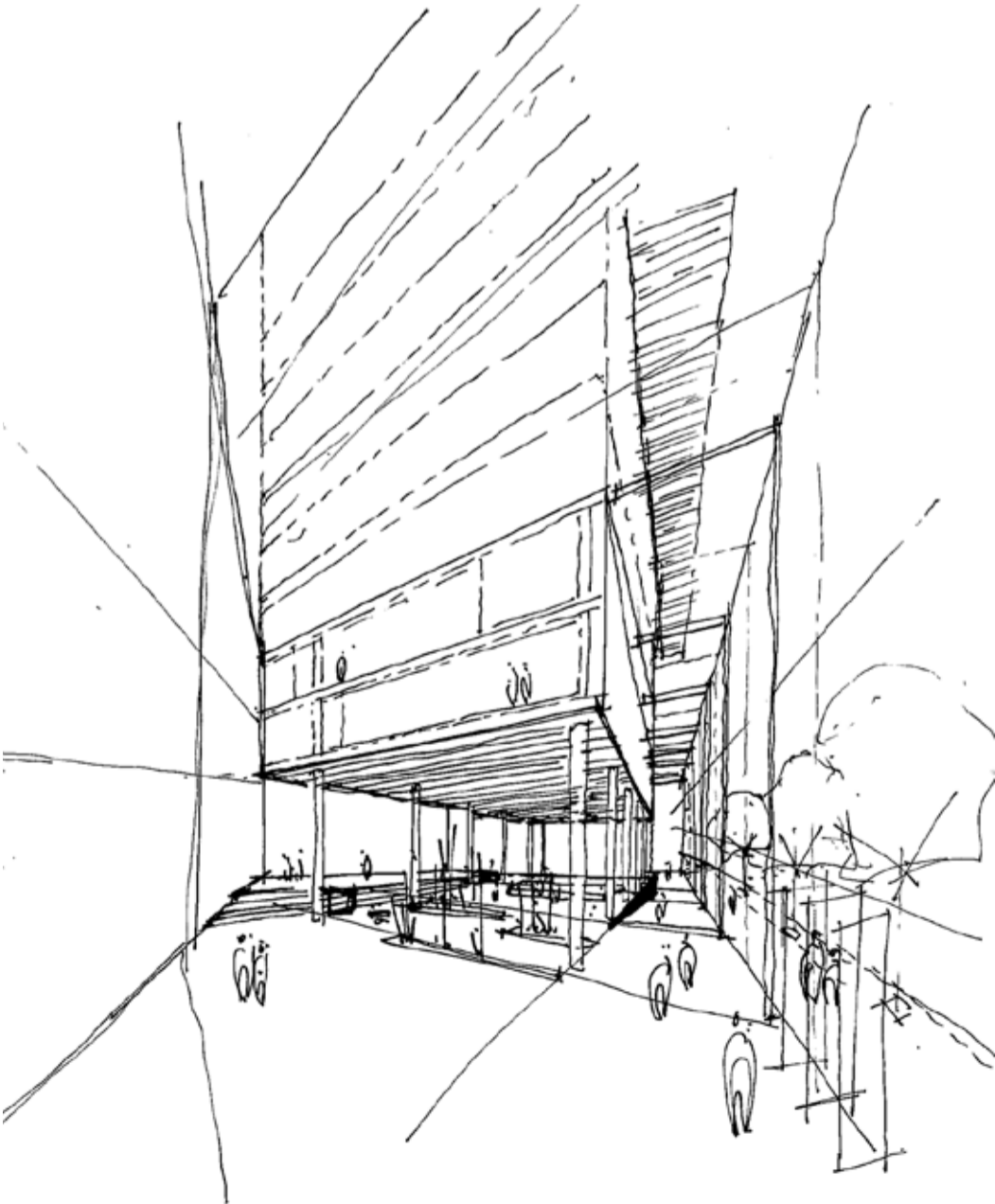
Client and Owner  
Development Management

Winten Property Group (Anthony Otto)  
Winten Property Group (Stuart Vaughan)

**Consultants**

Architects  
Planning Consultant  
Structure  
Lifts  
Traffic  
Heritage  
Landscape  
Quantity Surveyor  
Surveyor  
Water and Stormwater  
Geotechnical  
Contamination  
Wind

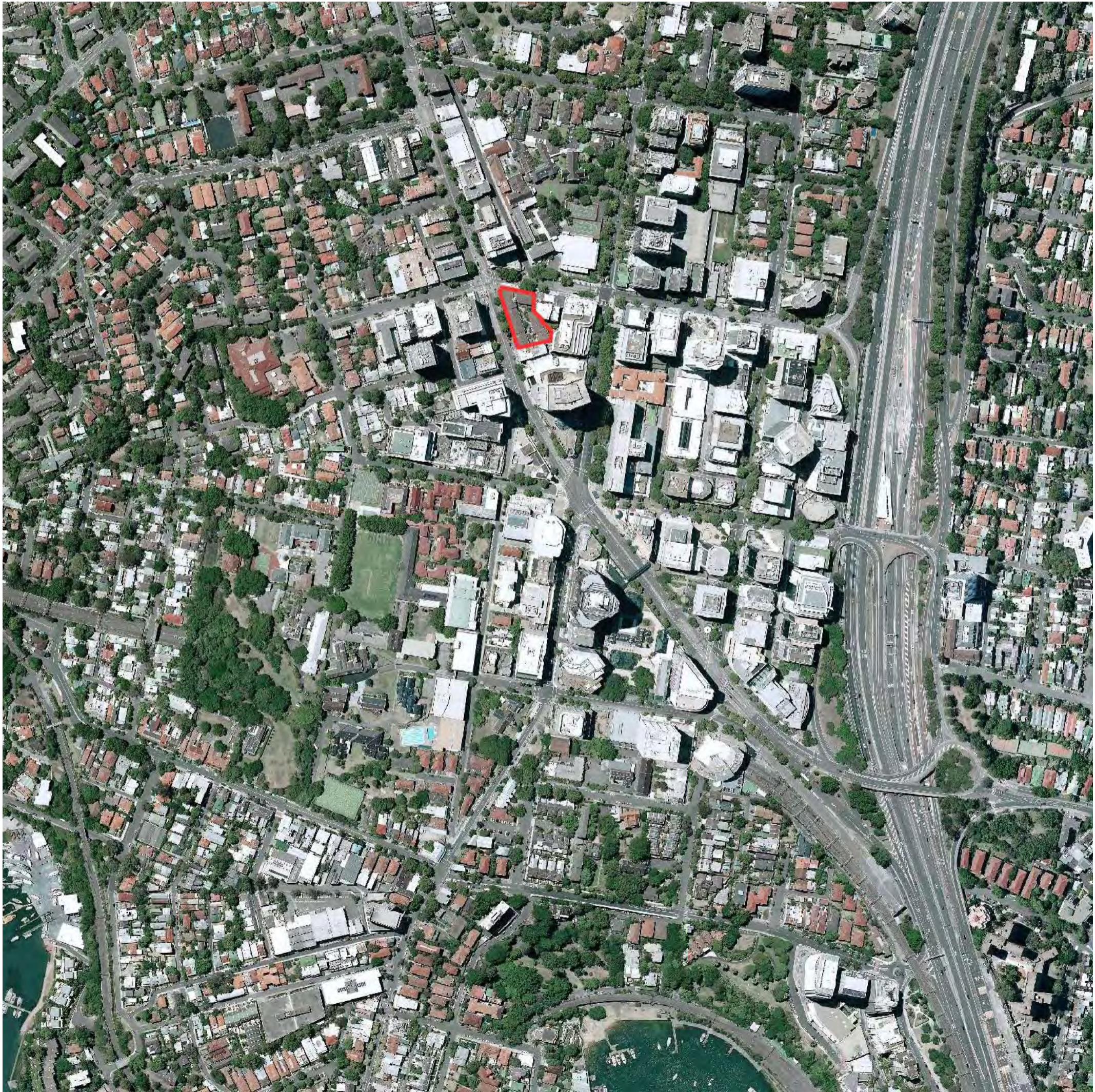
Batesmart (Philip Vivian, Brad Dorn)  
JBA Planning (Oliver Klein, Michael Rowe)  
Enstruct Group (Ross Clarke)  
NDY (Ian Hanna)  
CBHK (Josh Hollis, Stan Kafes)  
GBA Heritage (Graham Brooks)  
McGregor Coxall (Philip Coxall, Christian Borchert)  
WT Partnership (John Ferrarin)  
Craig & Rhodes (David Bushell)  
Hyder (Ryan Smith, John McDermott)  
Hyder (Dr Jim Yang)  
Hyder (Ken Lundy, Brad Searle)  
Windtech (Tony Rofail)



Location Plan

Location

The site is located on the corner of Pacific Highway and Berry Street; at what is arguably the north western gateway to the North Sydney CBD. The site is currently occupied by the brick strata office terraces known as Norberry Terrace.







Berry Street Elevation

Extent of Site: Berry Street



Extent of Site: Berry Street

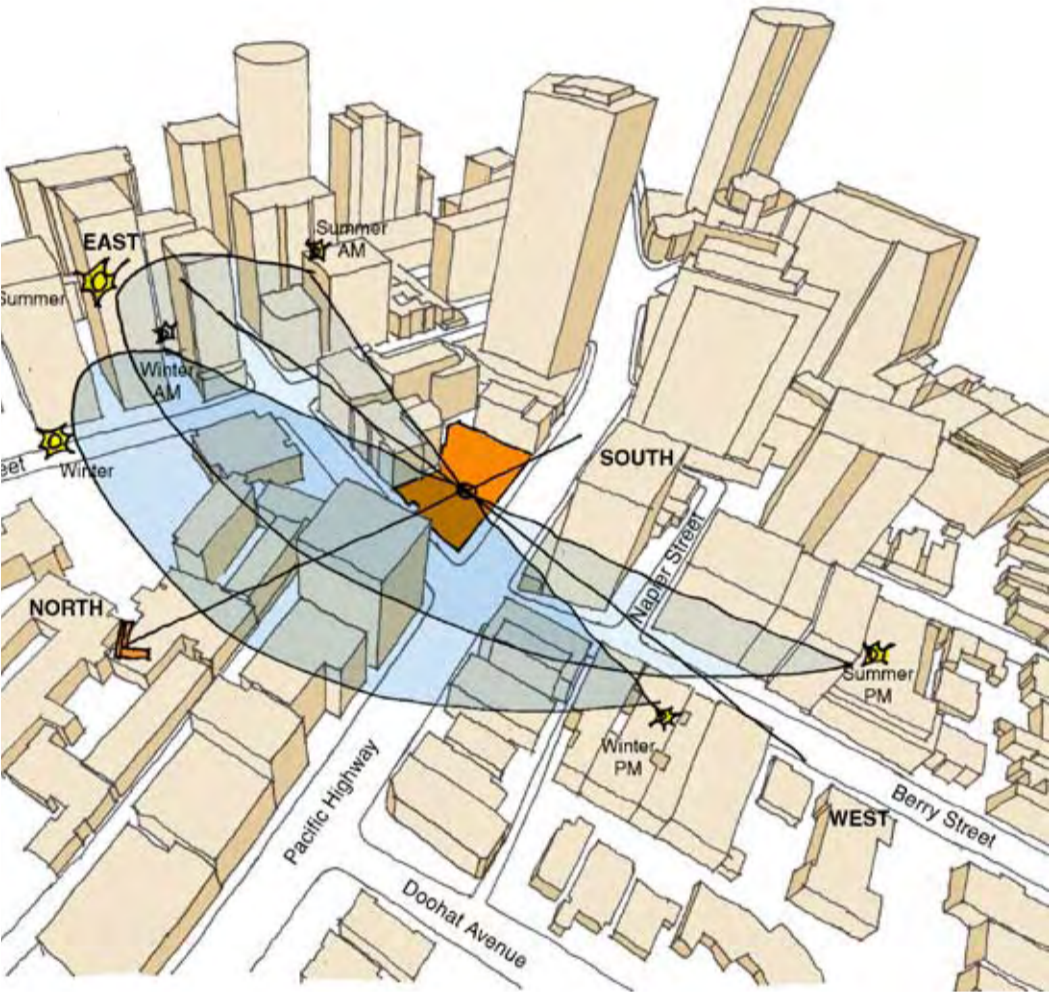
Pacific Hwy. intersection

Berry Street Elevation - continued

Site Analysis  
Environmental Considerations

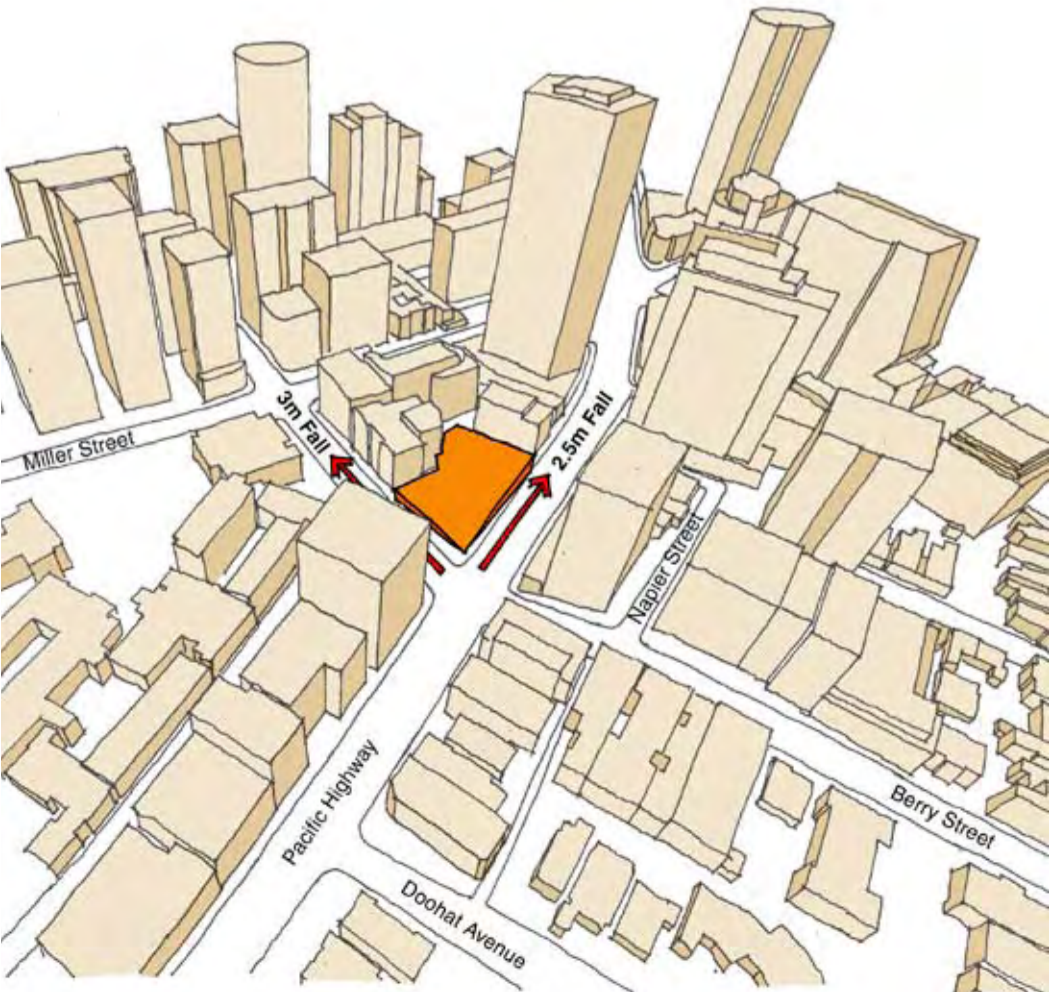
>Solar Orientation

The long axis of the site is aligned approximately north-south, thus the site has long boundaries to the east and west, with a short northern boundary to Berry Street. The absence of tall buildings to the north, east and west means the site has excellent solar access.



>Topography

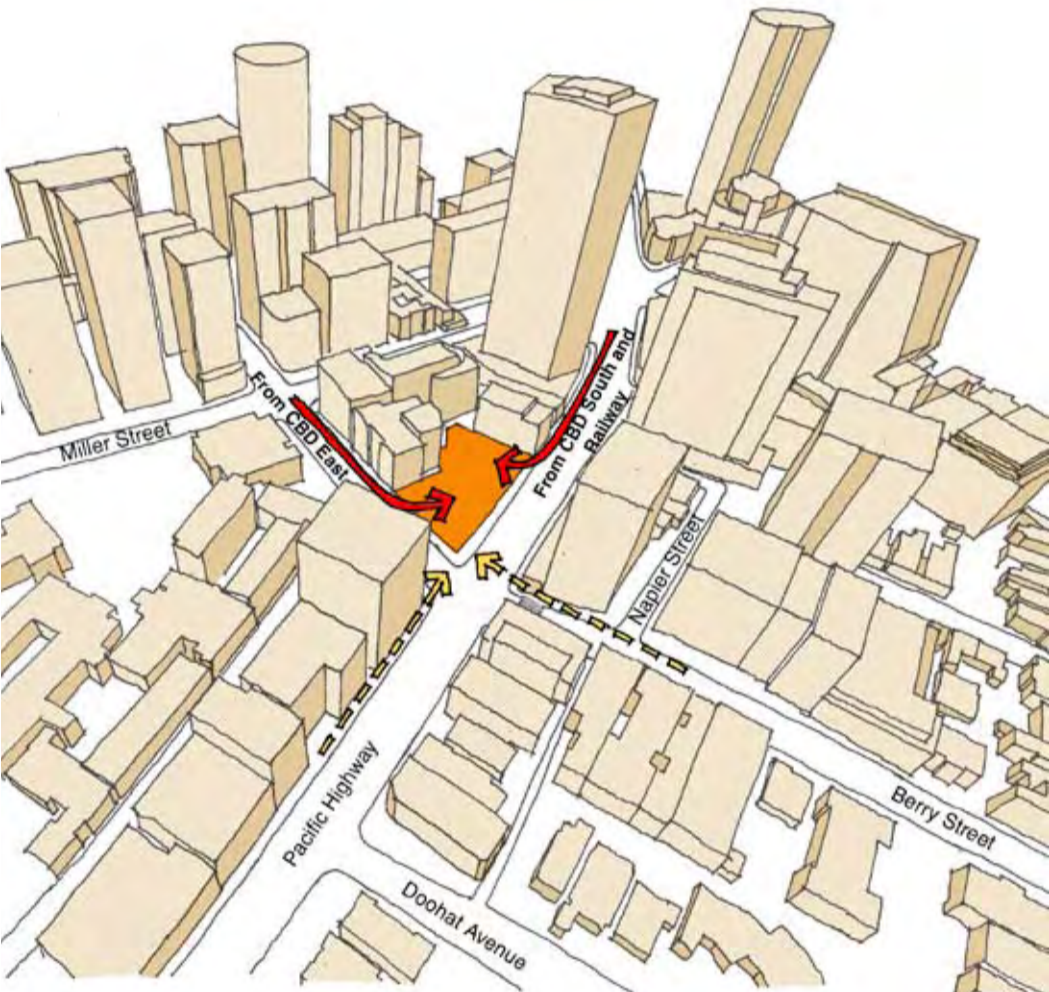
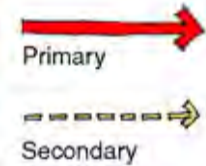
The corner of Pacific Highway and Berry Street is the high point of the site, which falls along Pacific Highway to the south approximately 2.5m and along Berry Street approximately 3.0m.



Site Analysis  
Movement

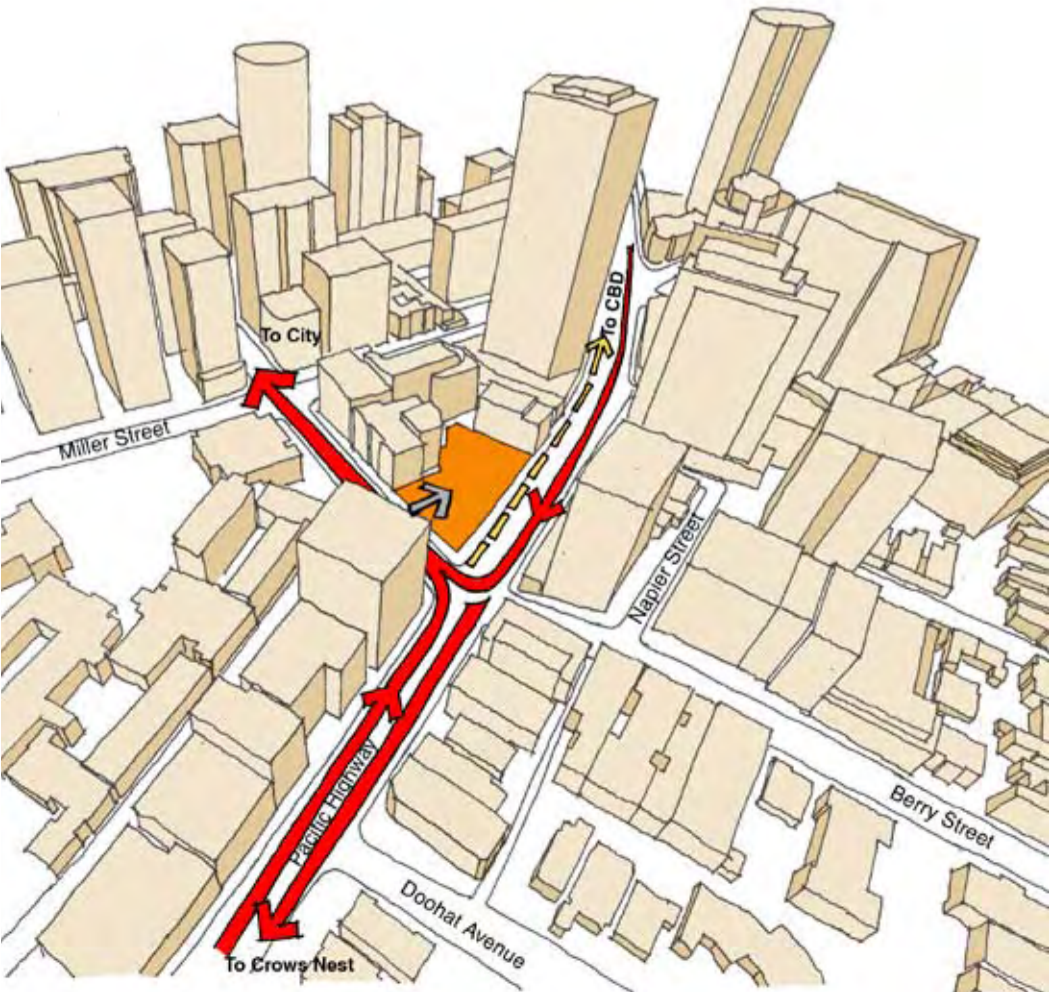
>Pedestrian Movement

The primary pedestrian approaches are along Pacific Highway from the south where pedestrians approach from the North Sydney Train Station and the southern area of the CBD; and from the east where pedestrians approach from the eastern parts of the CBD. Secondary approaches are across the intersection from pedestrian approaching from the north along Pacific Highway and from the west along Berry Street.



>Vehicular Movement

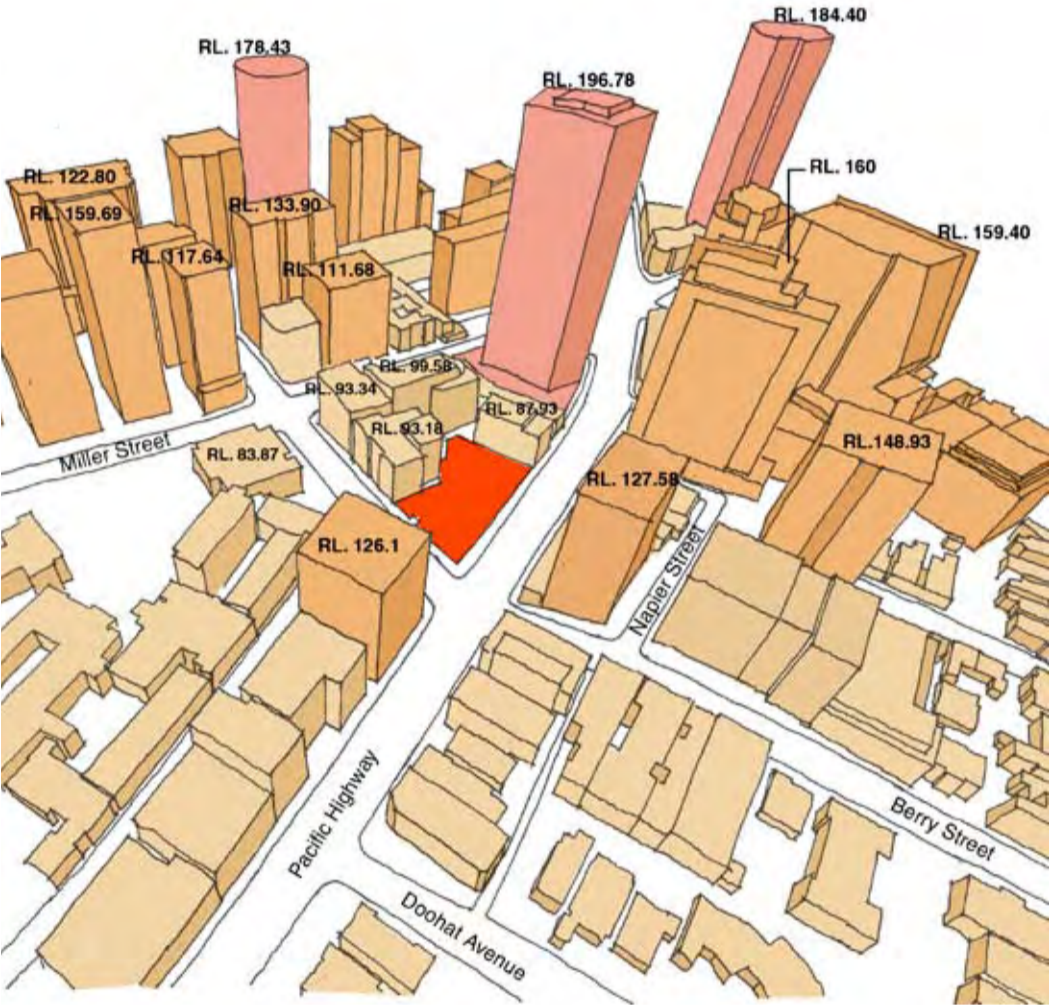
The primary vehicular approaches are from Pacific highway travelling north and south, and tuning into Berry Street, or continuing north. Secondary movements are vehicles continuing south along Pacific Highway.



Site Analysis  
Context

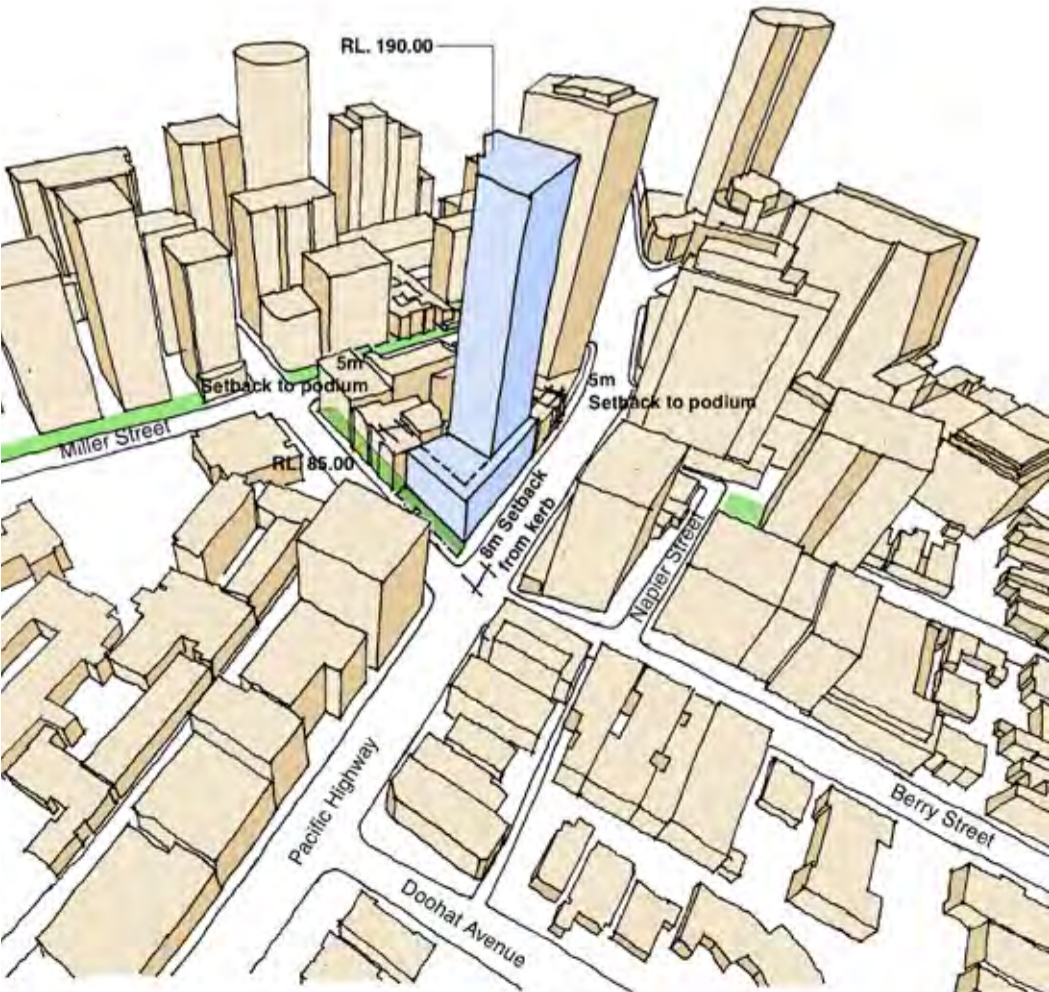
>Context

The surrounding context can be grouped into low, medium and high rise development. The low rise context is predominantly to the north and west; as the site operates as an informal north-western gateway to the CBD. The medium rise context is to the east and south west of the site, being buildings up to 12 storeys. Several high rise buildings exist, most notably the North Point Tower to the south of the site, and Beaumonde Building on Berry Street to the east. Adjoining this building is the recently approved commercial high rise development at 88 Walker Street.



>Planning Constraints

The North Sydney Local Environmental Plan 2001 (LEP 2001), Draft Local Environmental Plan 2009 (LEP 2009), and North Sydney Development Control Plan 2002 (DCP 2002) provide the key planning constraints for the site. LEP 2001 allows a maximum height of RL 195m but prohibits overshadowing on various areas within and around the North Sydney centre, including the Miller Street and Don Bank Museum Special Areas. Draft LEP 2009 allows a maximum height of RL of 190 on the southern part of the site and a maximum RL of 85 on the northern half whilst also including similar overshadowing provisions to LEP 2001. The DCP requires a maximum 14m high podium, to align with the surrounding context; with a weighted average five metre setback above the podium height. The envelope shown indicates the potential envelope created by the numeric constraints of the Draft LEP 2009 and DCP 2002, prior to the overshadowing analysis being undertaken. Indeed it is this envelope that has been used in the North Sydney capacity study (prepared by Rice Daubney architects). The Environmental Assessment Report provides a detailed analysis of the LEP overshadowing provisions.



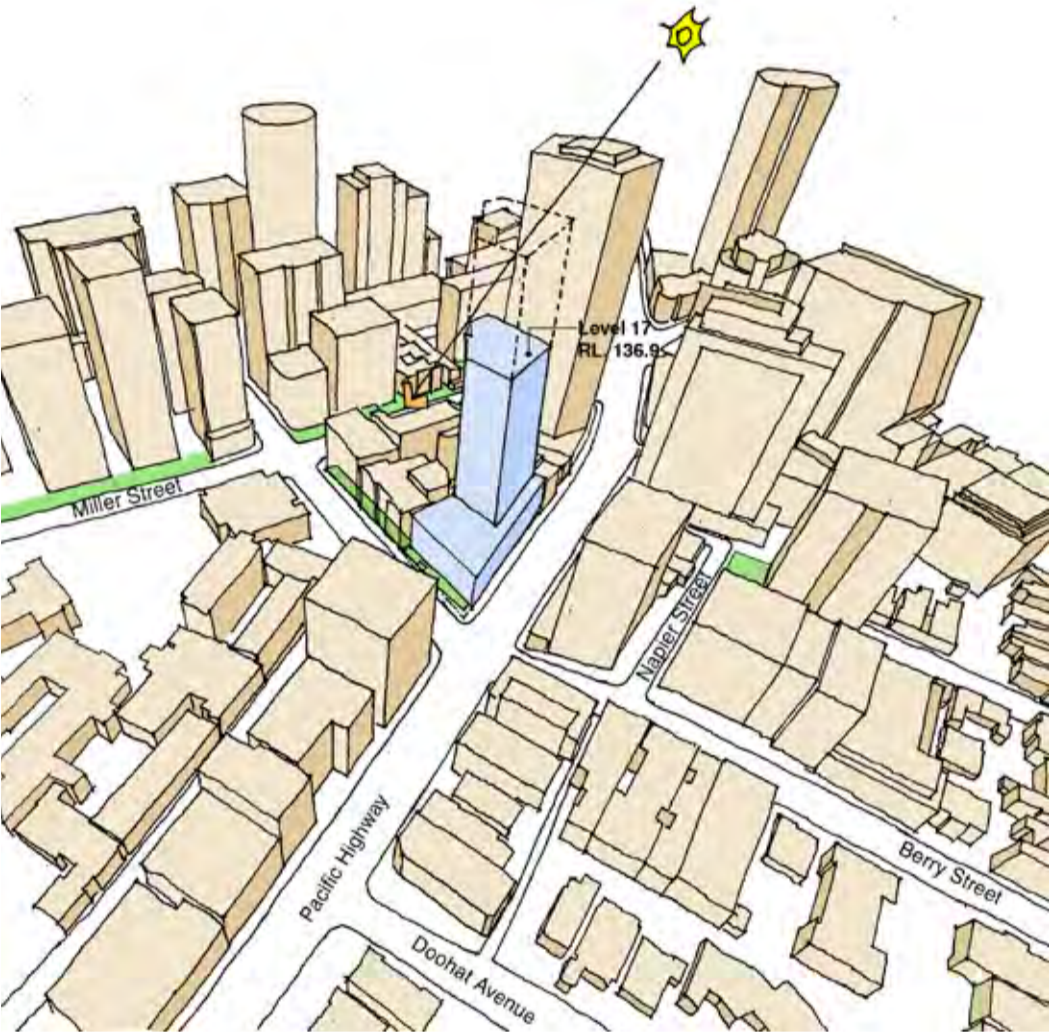
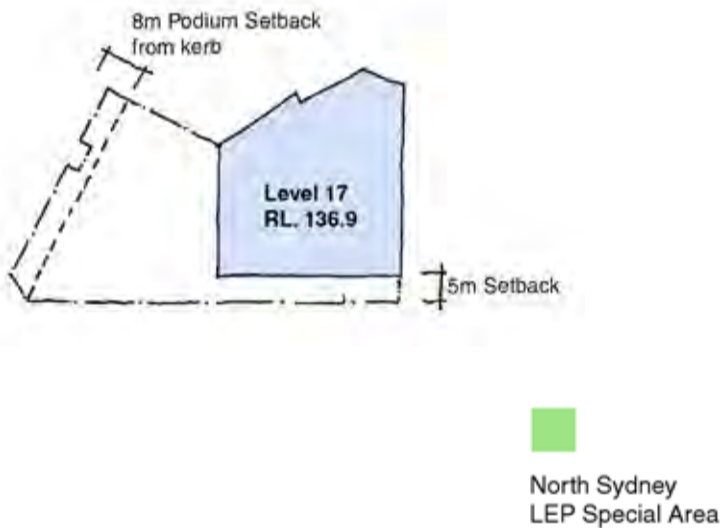
Design Concept

Development Issues

This site is one of six identified in North Sydney Councils capacity study to achieve a major commercial office building in the North Sydney CBD. To achieve a viable commercial building on the site the developer requires regular, rectangular floorplates; as well as floorplates that achieve 1300-1500sqm NLA. Smaller floorplates and those with a highly irregular geometry will not create a viable commercial building for leasing and subsequent ownership. With these criteria in mind we have developed a building that minimizes overshadowing and provides a major public benefit while achieving the commercial aims that will allow a building to be achieved on the site. The following is an analysis of how we arrived at the proposed design concept.

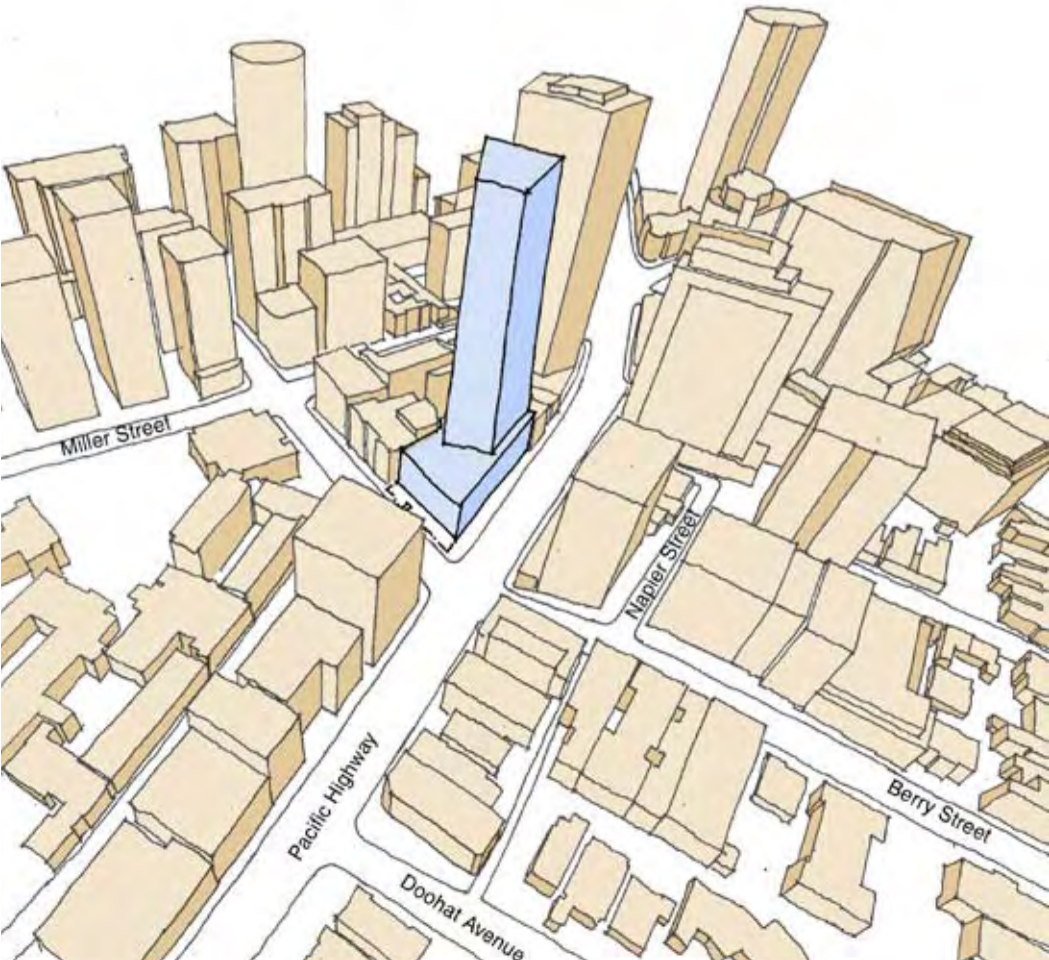
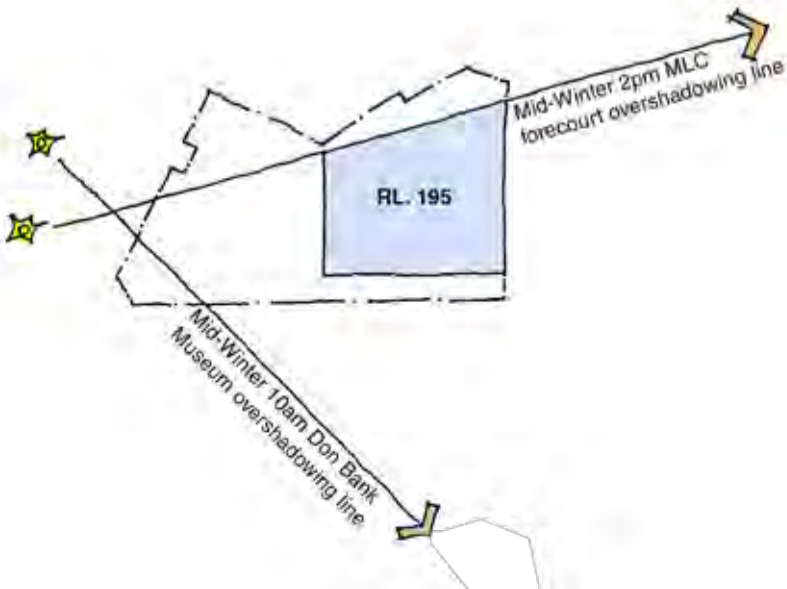
1. Maximum Complying Planning Envelope

The envelope shown is the maximum complying envelope under the current and proposed planning controls for the site. The envelope incorporates the DCP's requirement for a street aligning podium, and a five metre weighted average setback for the tower. The tower is set on the developable part of the property to the south and extended to the maximum height that can be reached without overshadowing Don Bank Museum or the Miller Street Special Areas. The development standards create a low building that occupies approximately half the permissible height envisaged under both LEP 2001 and Draft LEP 2009, and has a small irregular floorplate that doesn't meet commercial criteria. In order to design a commercially viable building with minimal environmental impacts, Bates Smart implemented the following innovative approach to the Concept Plan envelope.



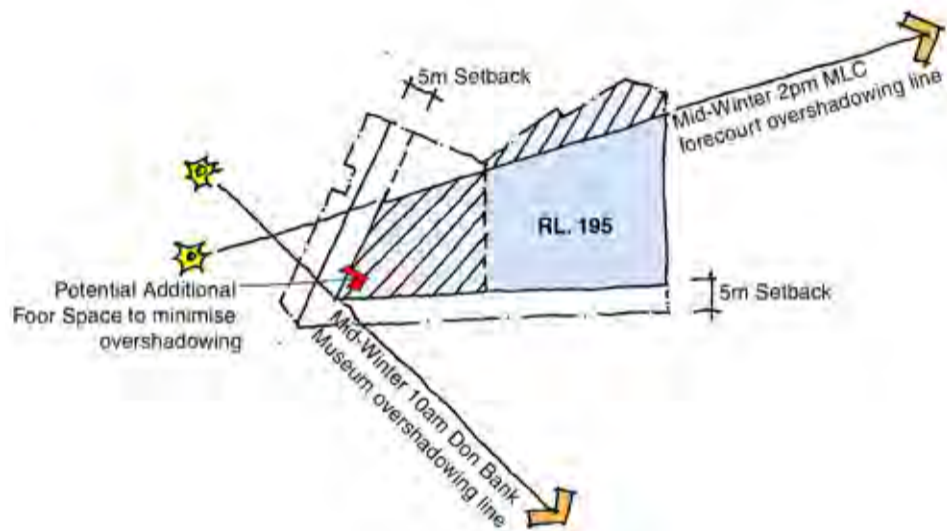
2. Envelope less mid-winter overshadowing

This envelope has been sliced along the eastern face on a line that will eliminate overshadowing to the Miller Street Special Area. This alignment has been created by taking the north-east corner of North Point Tower at the 2pm sun angle. The resulting envelope further diminishes the floorplate area, and thus further reduces its commercial viability.



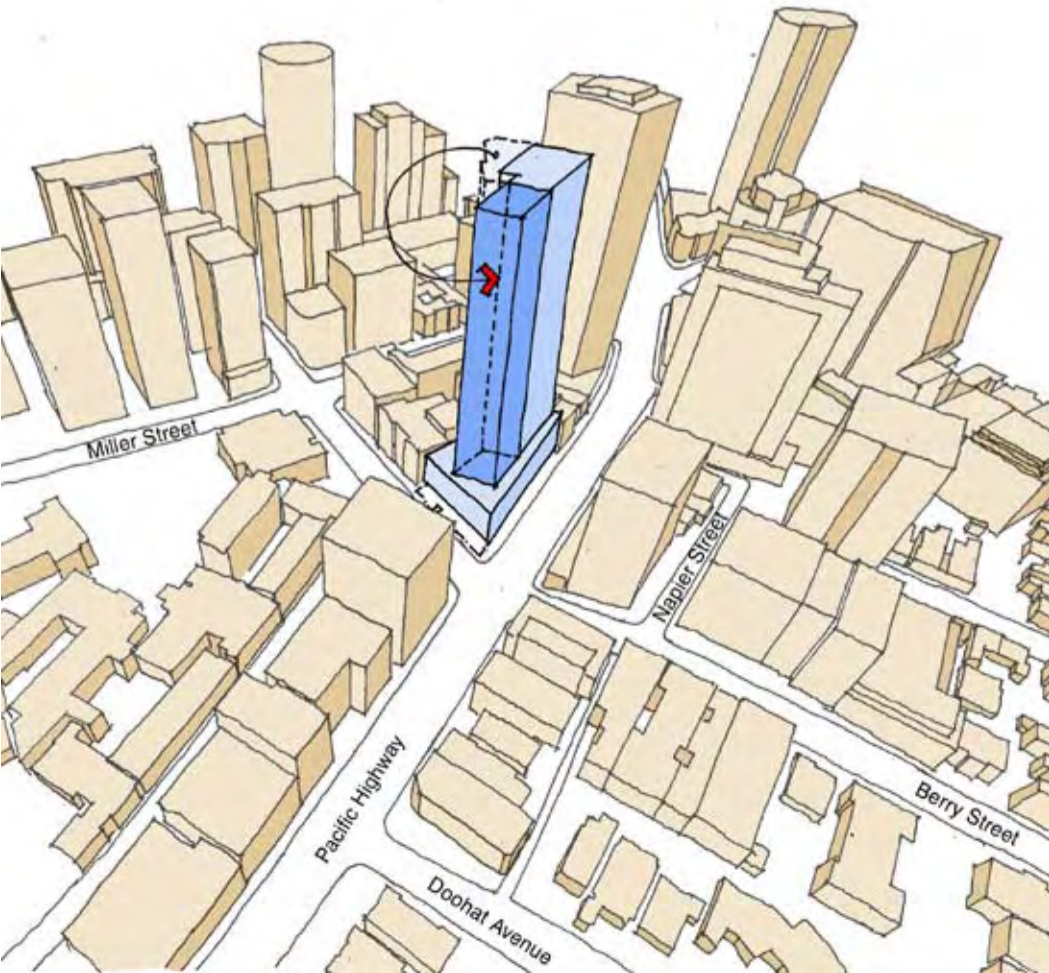
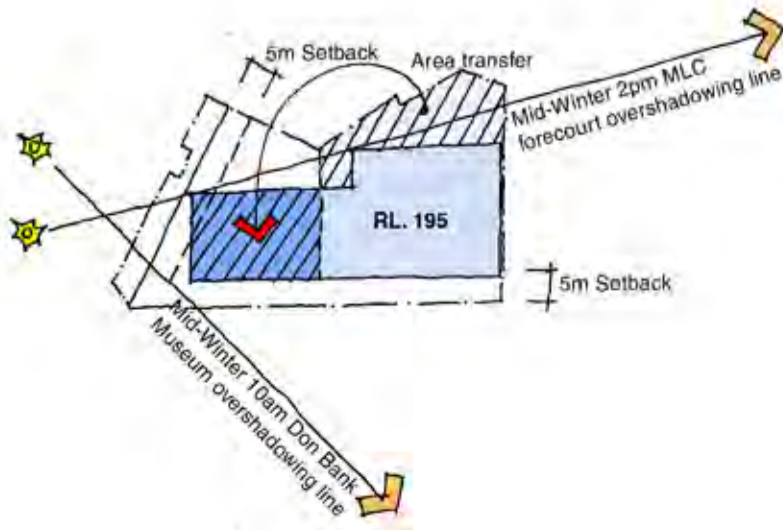
3. Maximum envelope without mid-winter overshadowing

The envelope utilises the maximum floorplate area available within the five metre DCP setbacks and without overshadowing either of the Miller Street or Don Banks Museum Special Areas. The study identifies additional area on the site that could contribute to a commercially viable floorplate, without overshadowing the Special Areas in mid-winter. However, the resulting irregular floorplate still needs to be addressed to achieve a commercially viable plate.



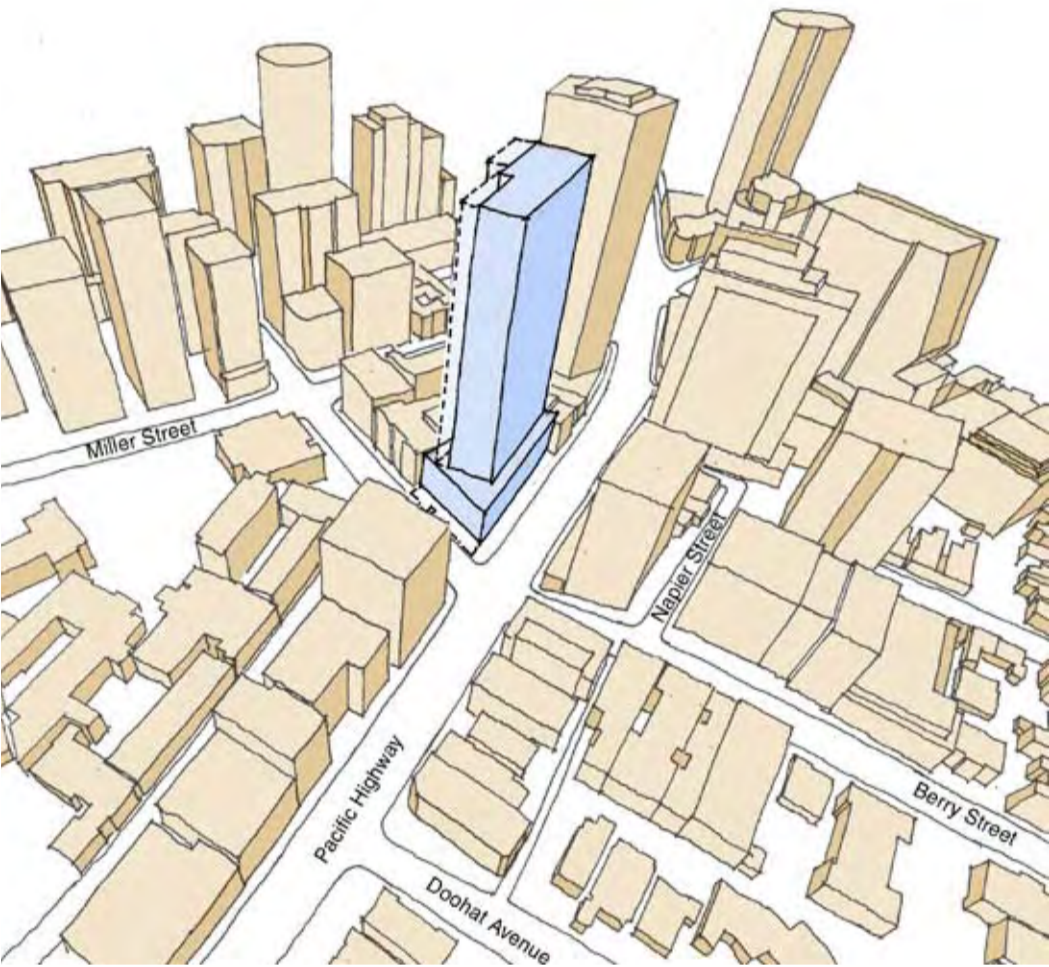
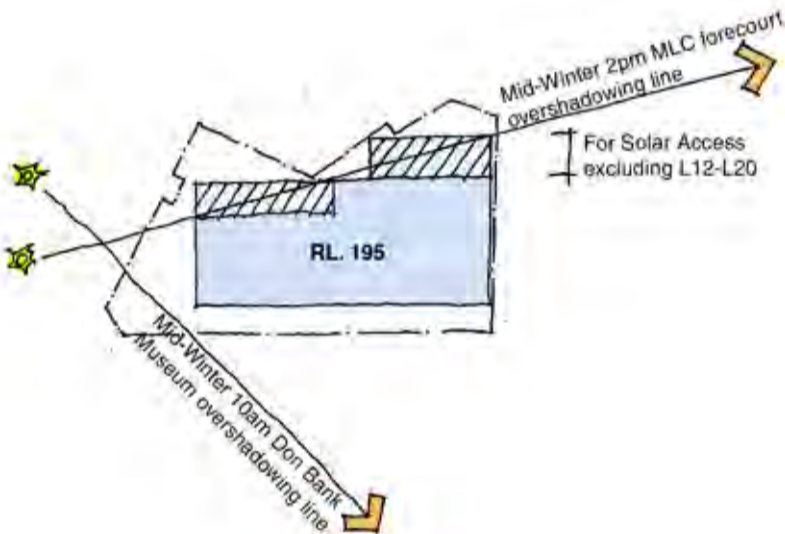
4. Rectangular Floorplate without mid-winter overshadowing

The envelope is a rectangular floorplate within the maximum developable area identified above. The setback to the Berry Street frontage has been averaged to achieve five metres. The loss of area to achieve a rectangular floorplate advances the viability objectives, however, the challenge remains to achieve a truly viable floorplate area.



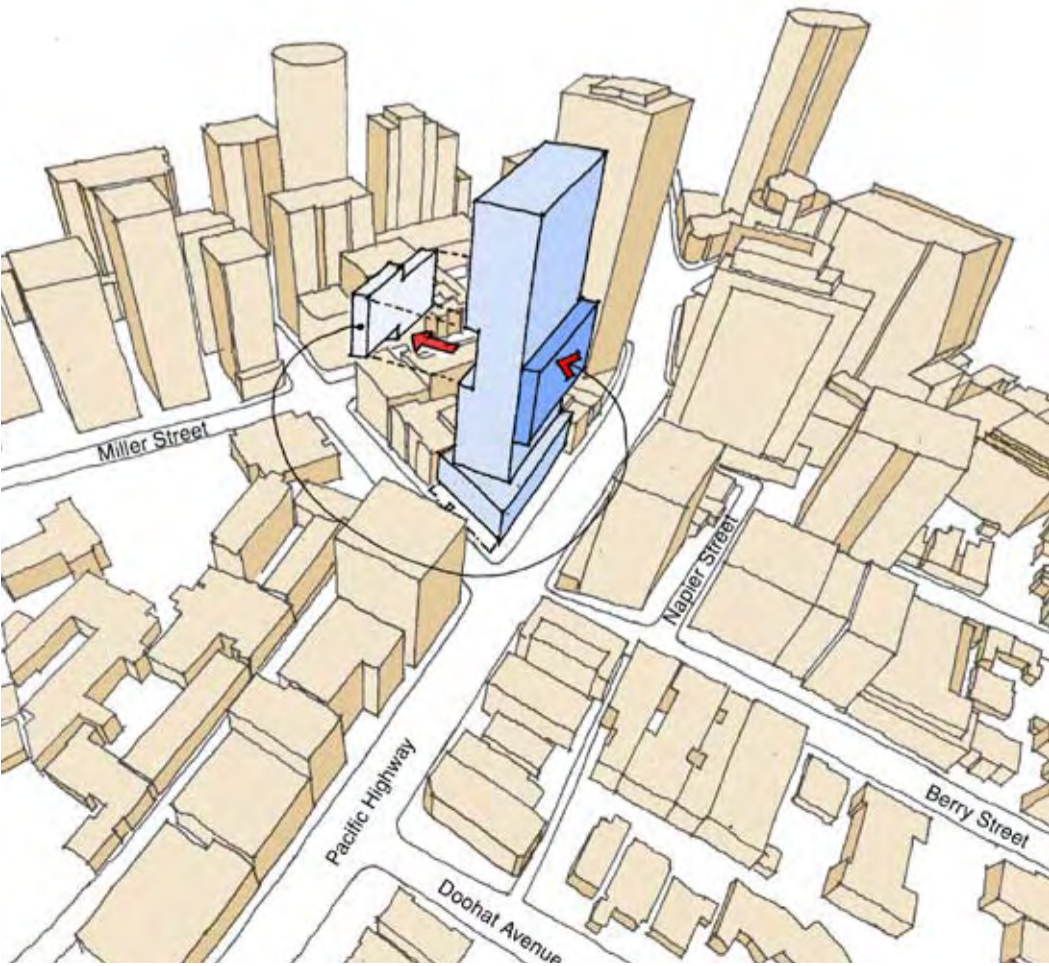
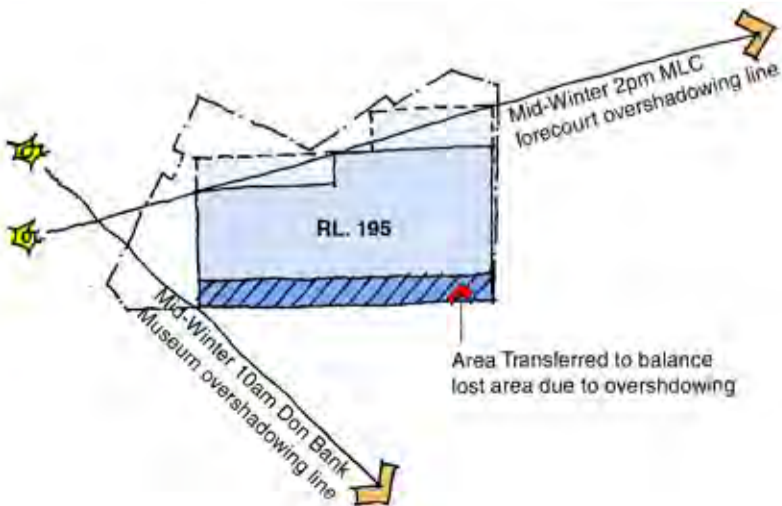
5. Maximum Rectangular Floorplate

This envelope proposes a five metre extension to the floorplate towards the east to increase the floorplate area. These extensions are within the mid-winter overshadowing plane.



6. Area transferred to allow for no overshadowing in mid-winter

In this envelope careful analysis of the mid-winter overshadowing to the Miller Street Special Area has been undertaken identify those parts of the volume that affect the Special area. These volumes are removed from the eastern façade and transferred to the western façade where they are within the five metre setback. Where there are floorplates with an extension to both the east and the west, these plates achieve the objective of 1500sqm NLA required for commercial viability.

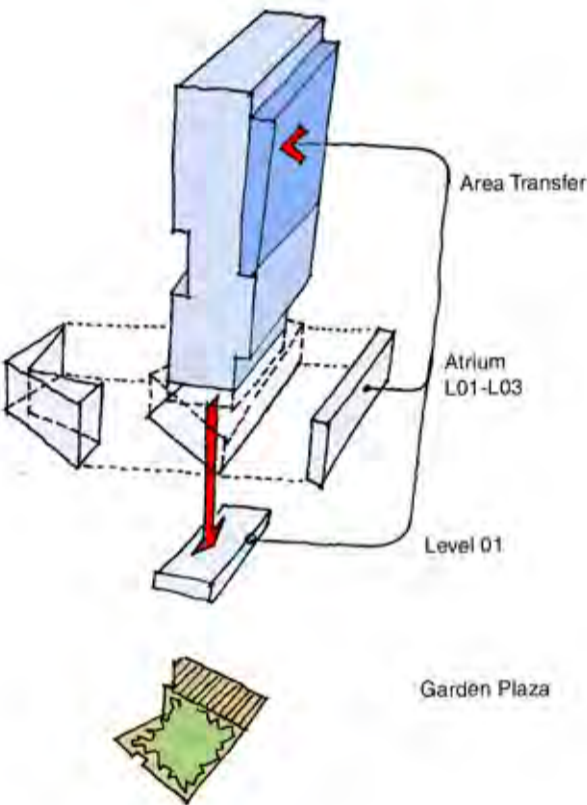
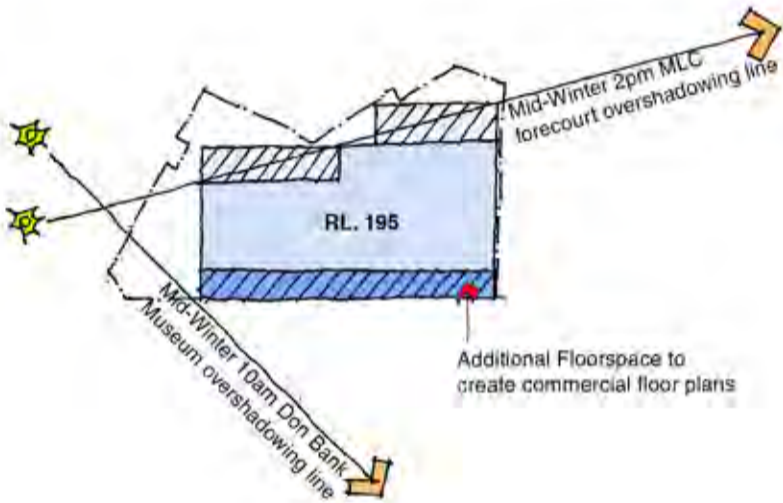


Design Concept

7. Areas transferred to add amenity to Garden plaza

In this final envelope areas within the podium, including Level 1, and the additional volume between the typical floorplates above and the podium have been transferred to the western façade. These areas have been transferred to increase the volume, solar access, amenity and attractiveness of the proposed Garden Plaza to the ground floor of the building.

The envelope that has been created achieves the commercial requirements of a rectangular floorplate with areas over 1500sqm NLA. The envelope is has been modified to eliminate overshadowing in mid-winter.



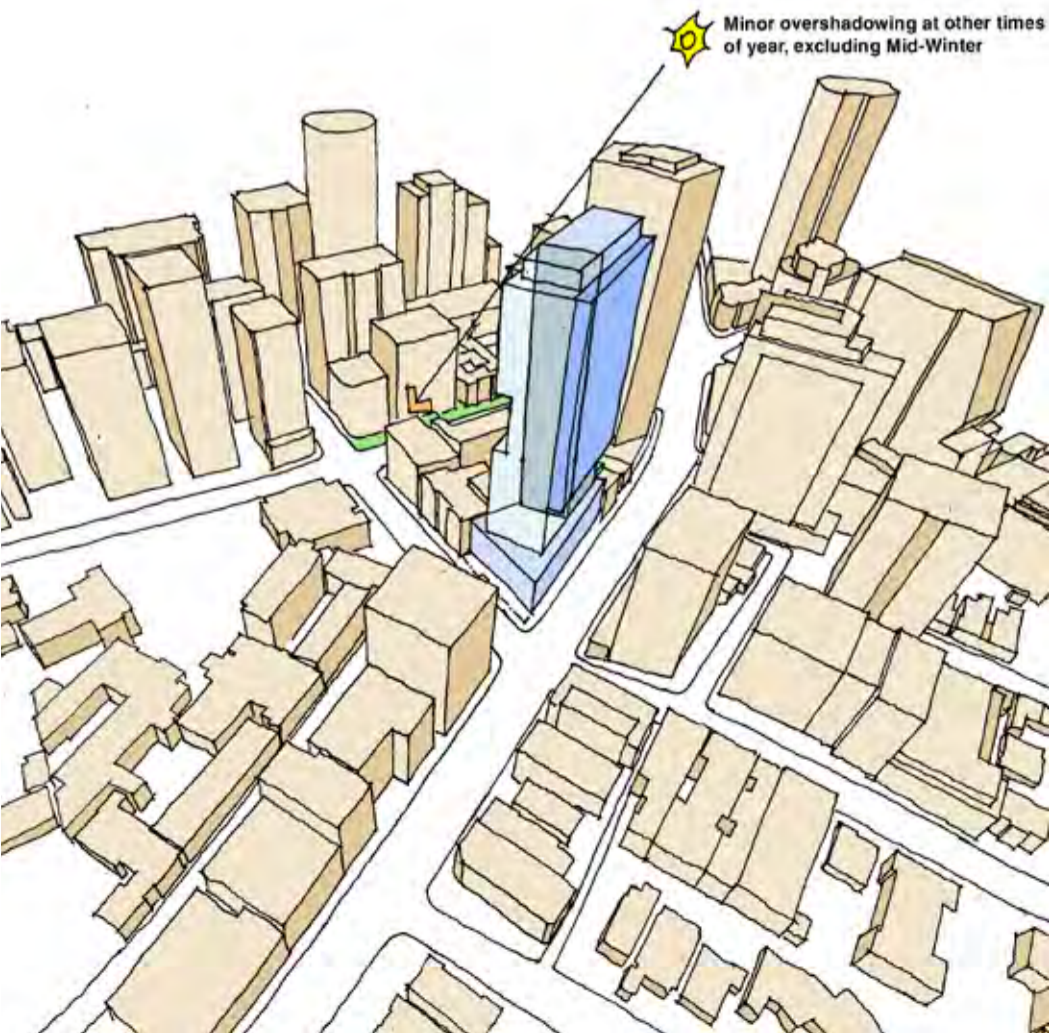
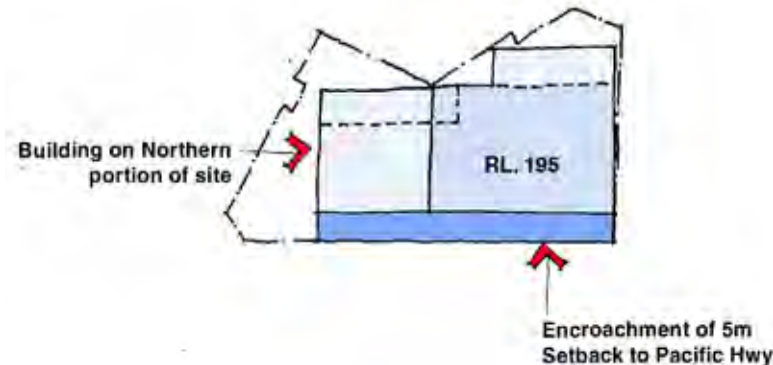
8. Envelope Non-Compliance

The Environmental Assessment Report provides a detailed analysis of the proposal's compliance with the relevant planning controls.

The proposed envelope is non-compliant with LEP 2001 and Draft LEP 2009 as it will create some minor overshadowing of the areas which are defined in the LEP as not to be overshadowed. However, the overshadowing, in particular of the Special Areas is relatively minor, and there is no overshadowing at mid-winter when sun is most desired. The minor areas of overshadowing are more than compensated by the extensive Garden Plaza that has been created as a public amenity for the centre.

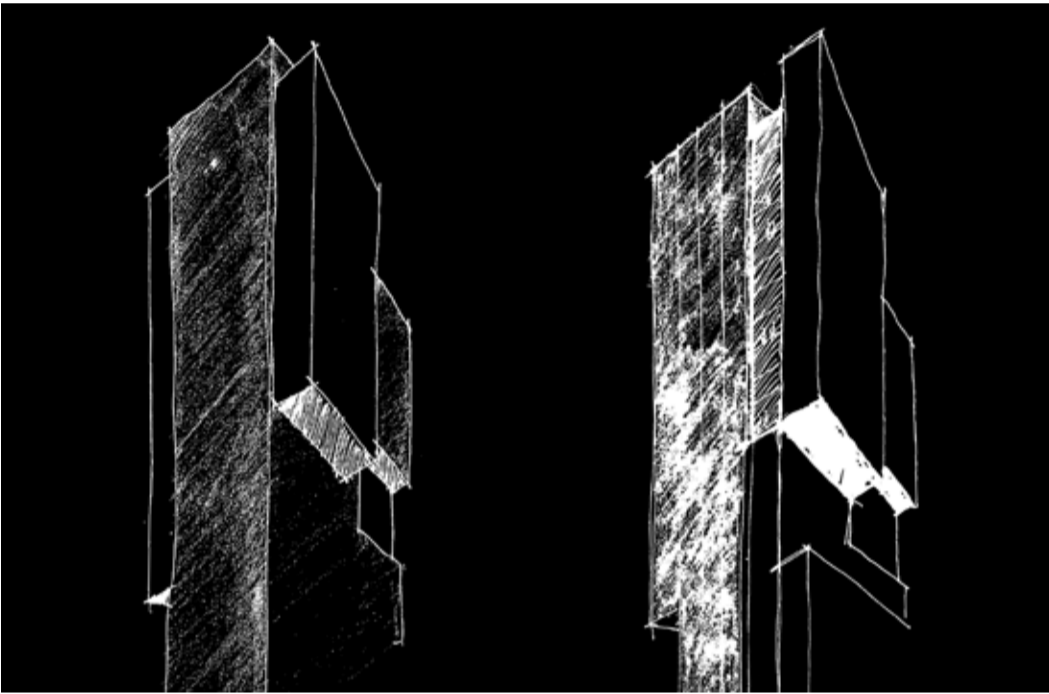
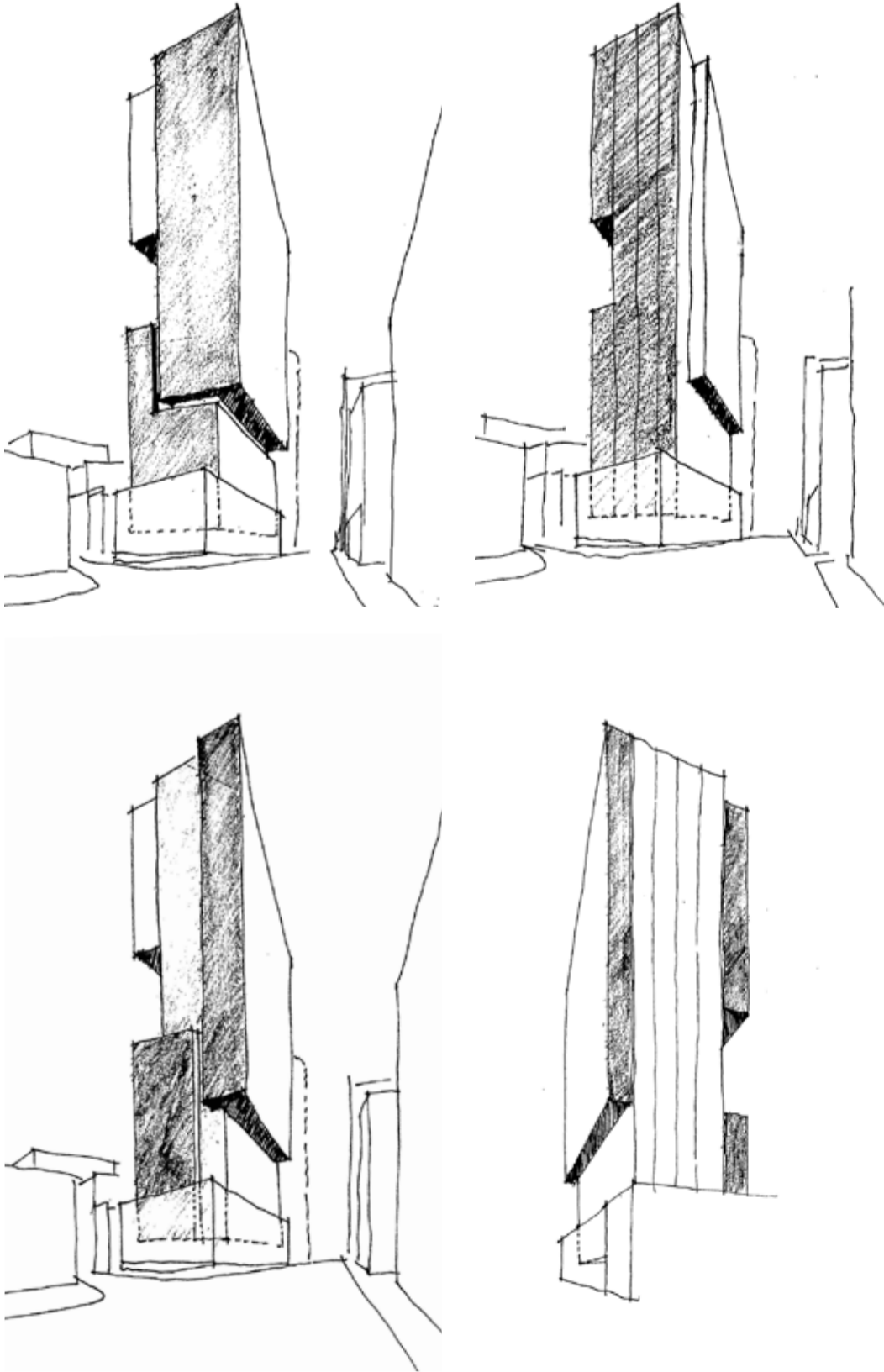
The building on the northern portion of the site also does not comply with draft LEP 2009 as it exceeds the maximum height control of 85. The non-compliance can be justified in terms of it will not create any additional overshadowing of Special Areas in mid-winter, and is required to create a commercially viable envelope. In addition it creates a building that can act as a gateway to the North Sydney CBD.

The proposed envelope is non-compliant with DCP 2002 in that it will have a weighted average setback of less than 5m to Pacific Highway. The encroachment of the five metre Pacific Highway setback has been sculpted such that the five storey's above the podium comply with the setback, and in doing acknowledge the scale of smaller buildings to the north along Pacific Highway; thus creating a contextual reference point in the building. The zero setback has been established as a precedent in the block by the North Point Tower to the south. The encroachment is also required to create a viable floorplate size.



Design Excellence of Envelope

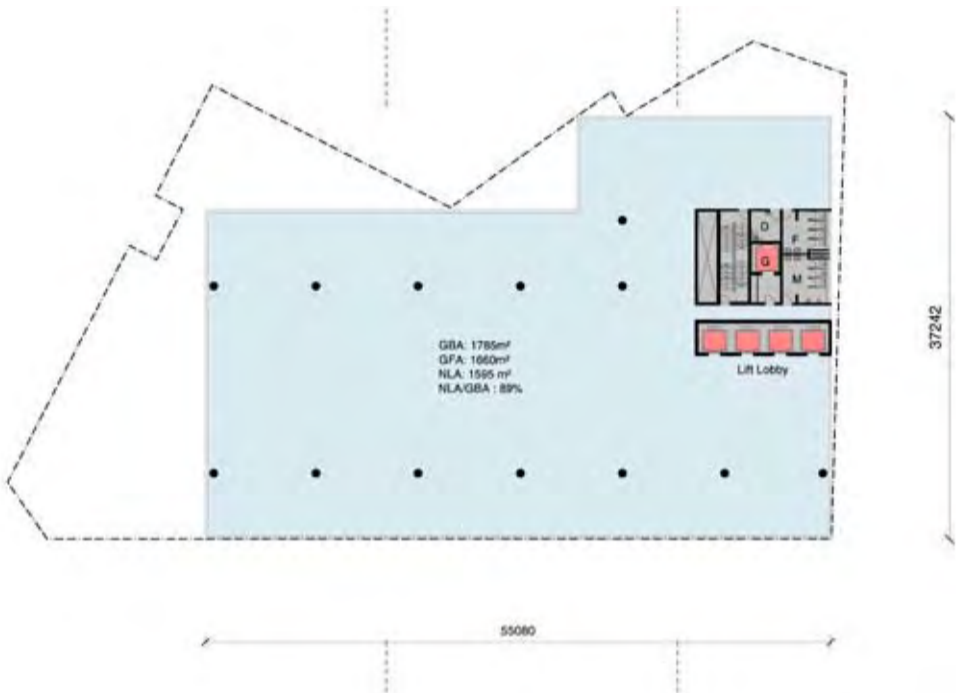
The resulting highly irregular envelope as it has been modified to eliminate mid-winter overshadowing to the Special Areas. An obvious question is can such an envelope achieve the Design Excellence required of major planning applications? To answer this question we have undertaken conceptual studies of how a building form might be designed that logically accommodates the irregular envelope. The preferred option is based on a composition of volumes asymmetrically attached to the central anchoring volume. This pin wheel arrangement of volumes creates a dynamic assemblage of volumes that creates a differing appearance for the building depending on the point of view. Each volume has been studied for its impact on the overall composition, and given a differing façade treatment in response to orientation. The western volume has been emphasized to acknowledge the gateway entry to the North Sydney CBD.



Design Description

>Tower

The office tower consists of three lifts rises (low, mid, and high rise) each with four lifts. The lift core is located adjacent to the southern façade, creating a side core arrangement with a large contiguous open flexible floorplate to the north to meet the needs of the new workplace. A central long span structure of 17m minimises internal columns and allows six metre cantilevers to the east and west to accommodate the envelope cut-outs to minimise overshadowing. The floorplates modify to fit the envelope, without any need to modify or transfer the structure.



>Façade

The commercial development at 177-199 Pacific Highway will consist of a composition of interlocking volumes. The strategy evolved from the need to minimise overshadowing of North Sydney's Special Areas, and thus volumes have been added and subtracted in response to overshadowing criteria. The volumes will be clad in a double glazed curtain wall, with solar shading differentiating the individual volumes. Each volume will have a shading strategy that specifically responds to their orientation and solar impact. This creates a highly specific design response to North Sydney's public domain, the location and orientation of the building, and the clients desire for a dynamic gateway to the North Sydney CBD.

The publicly accessible Garden Plaza at the podium base of the building will consist of a four storey clear glass volume, with a steel structure and fine solar shading. This space will be open and inviting to the public, naturally ventilated and provide an exceptional public place in the CBD of which there is no current equivalent.



>Environmentally Sustainable Design

The proposed envelope is capable of achieving a high environmental rating at the detailed design phase. The developer is committing to a minimum Five Green Star Rating for building. Specific environmental benefits that will be explored will include natural ventilation to the podium, orientation specific sun shading to minimise heat gain, low temperature VAV or chilled beams, rainwater recycling, solar water heating, and low embodied energy in materials.



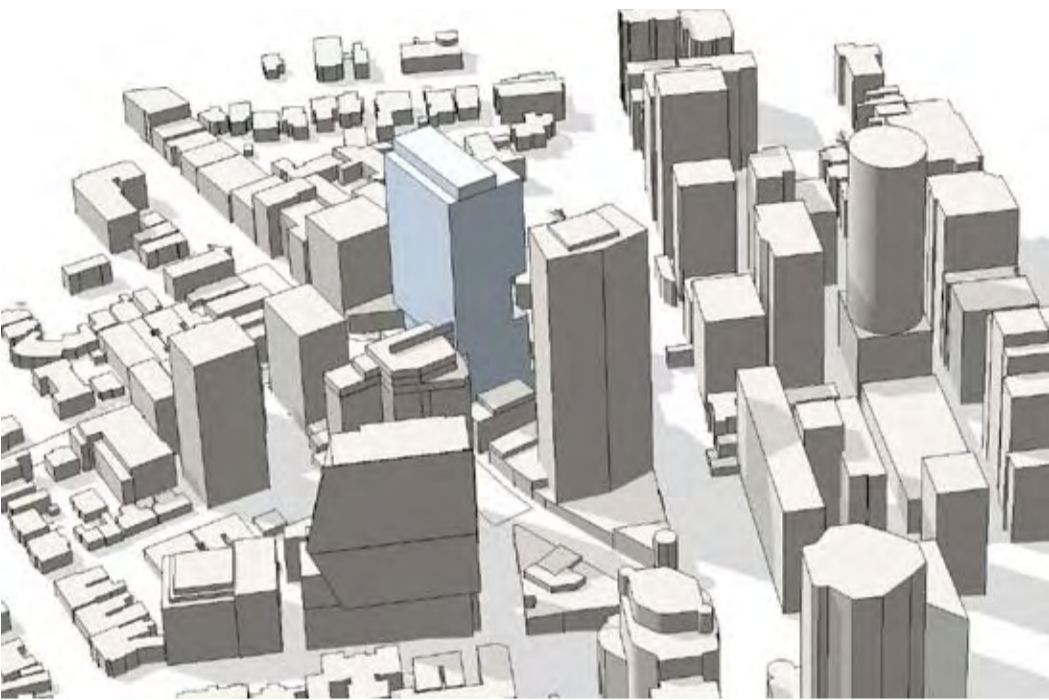
**Precedent Images**  
**Tower**

The following precedent images outline our design intent for the proposed development. They describe the building form as a series of glazed volumes with a variety of shading responses that reflect the building's orientation.

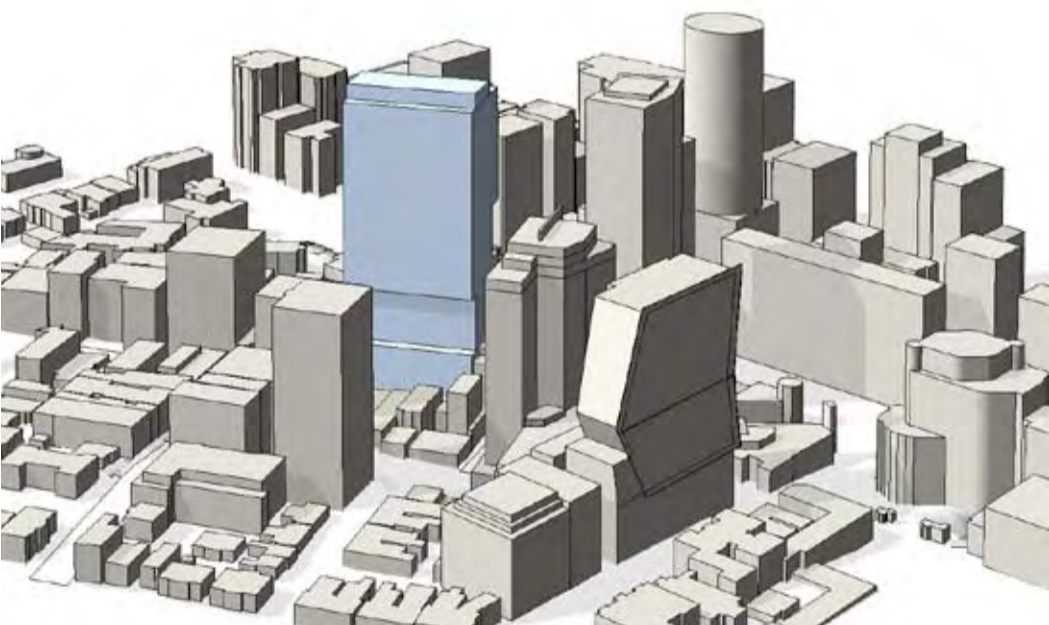


**View Analysis from Key points**

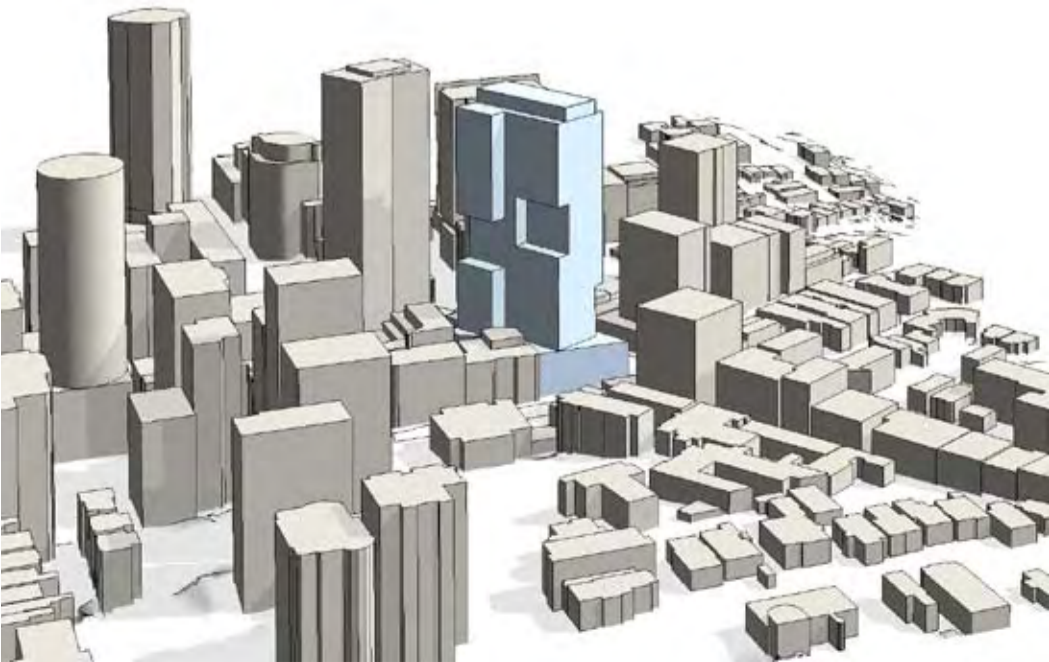
1. View of proposal looking north



2. View of proposal looking East



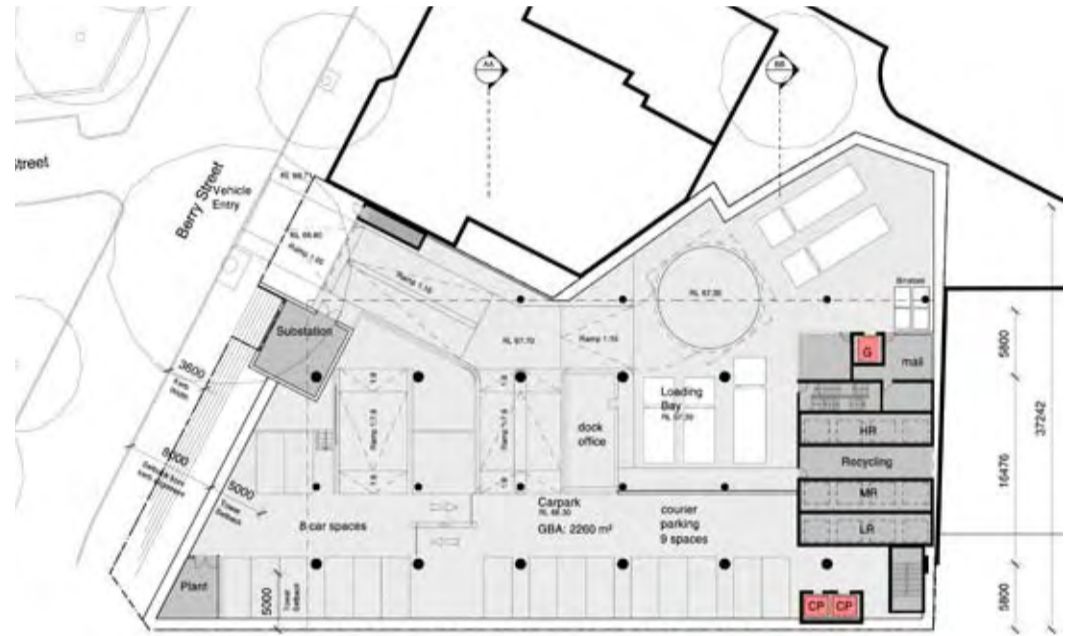
3. View of proposal looking West





### >Basement Carpark

The carpark is entered off Berry Street at the low point of the site. A ramp bifurcates half way down to the first level, with loading vehicles going to the loading dock off to the left, and regular vehicles proceeding to the first level to the right. The loading dock is located adjacent to the lift core and goods lifts for ease of access. The carpark is arranged with aisles running north-south to provide the most efficient layout of cars within the basement. At the northern end of each basement level a half level ramp allows cars to a half level on the east with further carparking bays, before another half level ramp returns cars to the main western carparking level. This half level split with circulating ramps creates an efficient basement carpark.

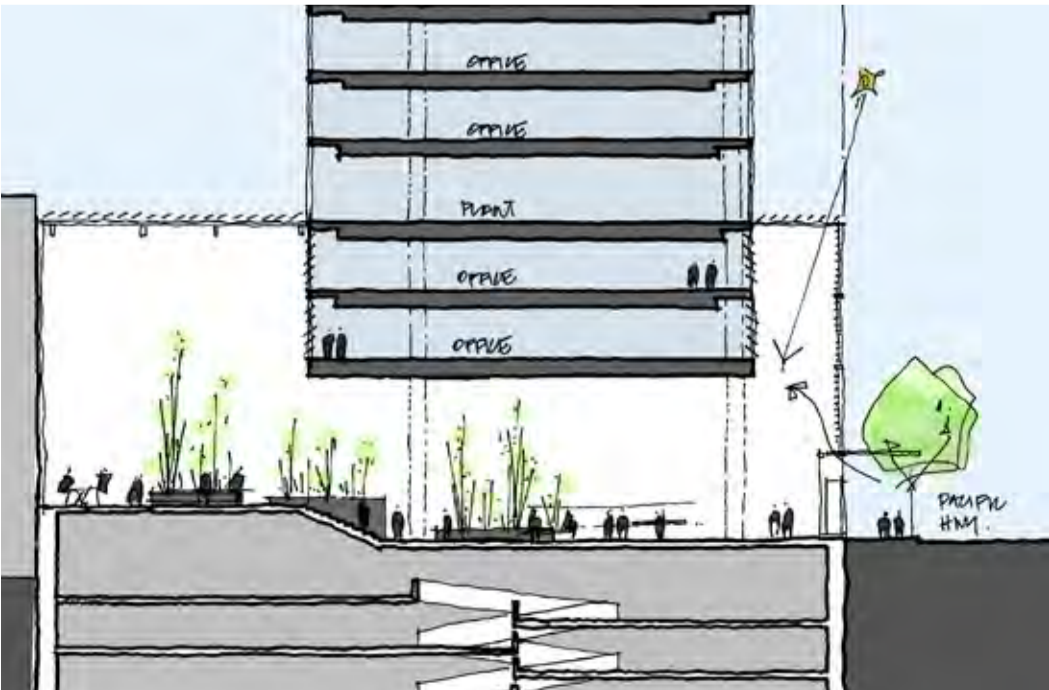
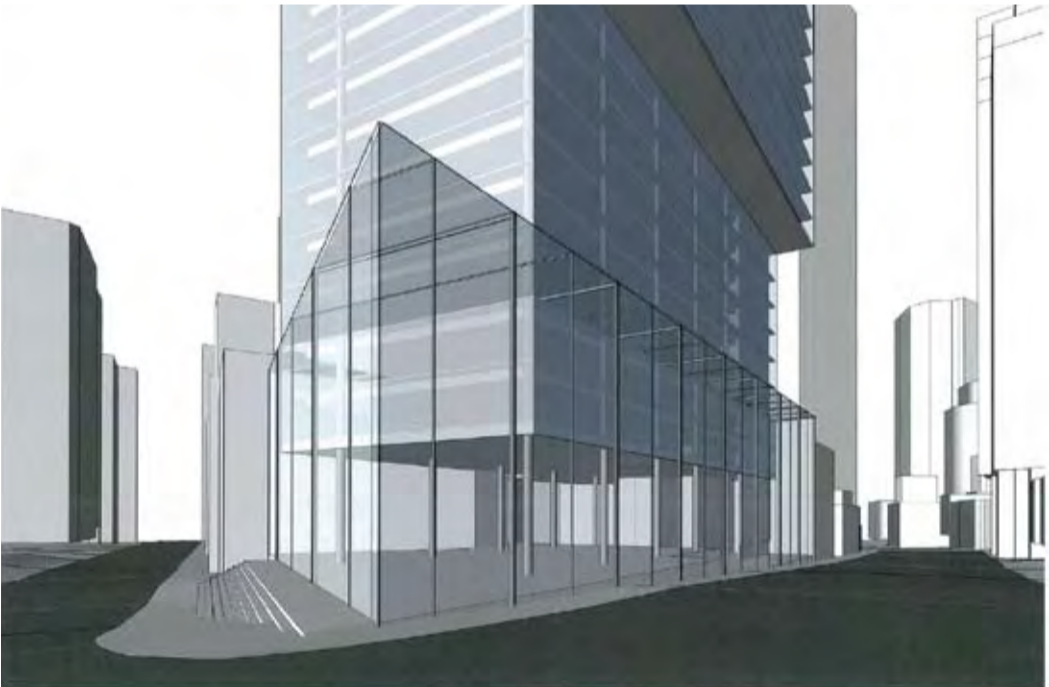


>Ground Floor and Garden Plaza

The Ground Floor has been created as a publicly accessible Garden Plaza, creating a major new public space for the North Sydney CBD which has no peer. This space will provide an attractive year round weather protected space for the public to gather, meet for coffee or lunches, and potentially host exhibitions and events. Access to the plaza is via Berry Street through large operable glass doors with secondary access off the Pacific Highway frontage. It has been designed such that the entire podium appears as a four storey glazed volume that is open and inviting to the public. The office tower visually penetrates this glass podium, creating a dynamic connection between the public space of the podium, and the tower over.

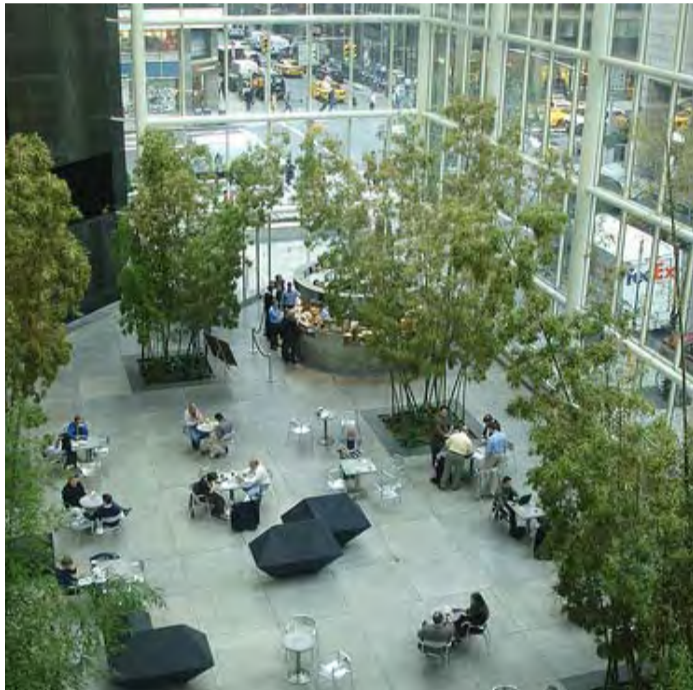
The central volume of the space is dedicated to public seating. A small café is proposed to serve coffees and light lunches, however there will be no dedicated seating for commercial purposes. Loose seating allow members of the public to arrange the furniture to suit their needs, while moveable planters create discrete spaces within the overall volume. The tower structure is a long span structure(17m) over this space to eliminate columns and create a highly useable public space. The side volumes area treated differently to create a variety of useable spaces. To the east a linear water element provides background noise and lively reflectivity to the space. Stairs provide access over the water feature to a raised seating space, which provides a raised prospect for the public overlooking the space. To the west, running along the Pacific Highway frontage, a series of smaller more intimate spaces have been created contained within a bed of wildflowers.

At the southern end of the of building is the lift core and entry foyer to the commercial office tower. This space is entered from Pacific Highway and provides direct access to the low, mid, and high rise lifts. A 'green' wall separates the foyer from the Garden Plaza, allowing the foyer to be a commercial office lobby space and the Garden Plaza to be a public amenity. Either side of the 'green' wall glazing provides security and acoustic separation between the spaces. Doors will provide access between the spaces during office hours.



**Precedent Images**  
**Garden Plaza**

The following precedent images outline our design intent for the proposed Public Garden Plaza in the development. They describe a publicly accessible space with abundant natural light with casual seating, planting and a small cafe to provide an attractive destination for public recreation and amenity.





View from Montpelier Street Neutral Bay



View from Warringah Freeway pedestrian overpass



View from Waverton Bowling Club



# appendices

- 1.0 Architectural Drawings
- 2.0 Schedule of Areas
- 3.0 Landscape Plan
- 4.0 Shadow Diagrams
  - 4.1 North Sydney LEP 2001 Analysis
  - 4.2 North Sydney LEP 2009 Analysis
  - 4.3 Impact on Miller Street Special Area
  - 4.4 DGR Analysis