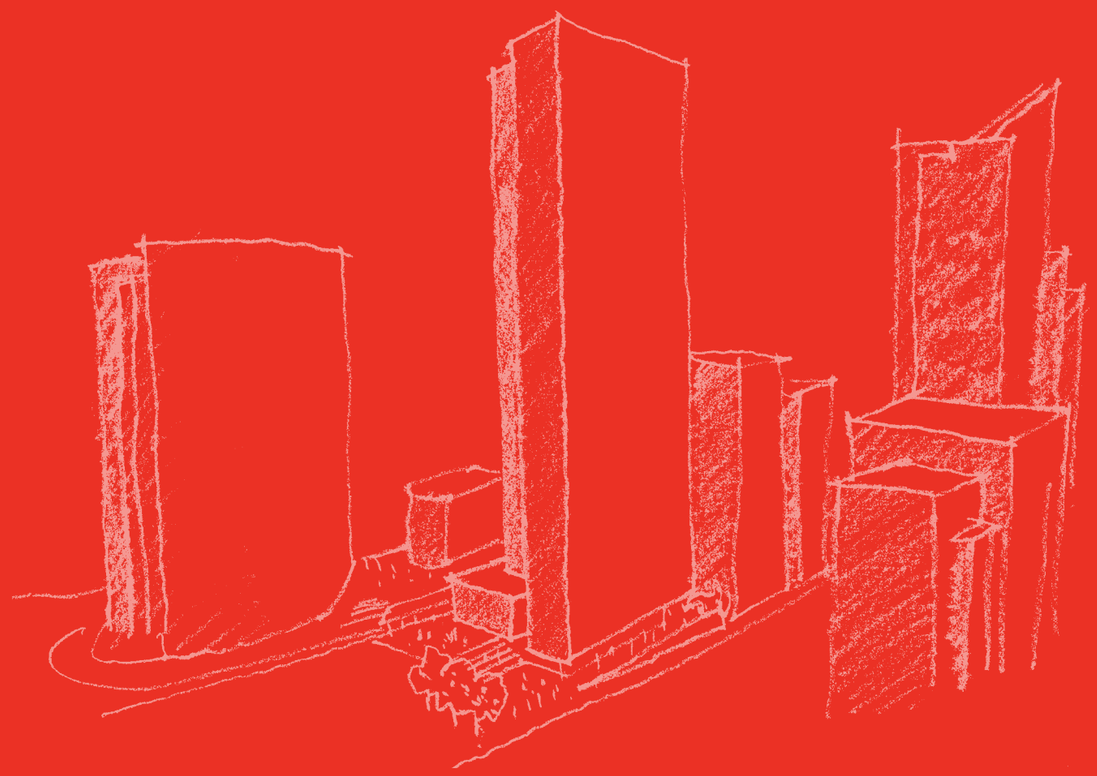
Appendix 4



Architectural Design Report and Drawings

Project Application to NSW Department of Planning

Atchison Street Mixed Use Development
6-16 Atchison Street, St Leonards NSW

Bancor Developments

fjmt

September 2010

TABLE OF CONTENTS

01. EXECUTIVE SUMMARY

ARCHITECTURAL DESIGN STATEMENT

The design proposal for this apartment building, hotel and public open space has emerged from a close and detailed analysis of this important St Leonards site, the streetscape, environmental effects and urban form. Our objective has been to create a very high quality five green star building of distinctive architecture together with a landscaped public open space sequence that forms a through block public connection.

A finely detailed podium aligns with the adjacent building scale to create a human scale to both Atchitson Street and Atchison Lane, with the tower above set well back from the street alignment. The podium is raised up and set back from the north to create generous and inviting public open spaces and a sense of invitation for the through block pedestrian connection.

The tower form above the podium has been carefully proportioned into a slim off-set pair to create an elegant contribution to the skyline of St Leonards. The tower position and height is determined to minimise any environmental effects such as overshadowing on any nearby residential or public open spaces and sit comfortably within the relative heights of adjacent towers such as the Forum and IBM.

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character. Equal care and attention is paid to the detailing of each element of the architecture including elements of the landscaped public open space such as the green wall, amphitheatre and plaza.

DEVELOPMENT STATISTICS

Site Area	1740.6 m^2
Residential Apartments	228
Hotel Rooms	38
Parking	168 Cars
	17 Motor Bikes
Tower	33
Basement Levels	5.5
Gross Floor Area	24962m^2
Building Height	109m
Building Maximum RL to AHD	196.25 AHD
Floor Space Ratio	14:1

SITE LOCATION AND CONTEXT

The subject site is located in St Leonards within a mixed use zoned precinct. The precinct is characterised by a dense urban environment of commercial, retail and high density residential developments. The precinct is divided into quarters by the Pacific Highway running East/West and the Chatswood rail line running North/South.

The precinct has been identified as a focus for increased density and activity given its close proximity to public transport nodes and employment potential.

TOPOGRAPHY AND ORIENTATION

The site is oriented east west with its long axis running perpendicular to north. The site is double sided with a frontage on Atchison St and the service corrdior of Atchison Lane. The site has significant cross falls on both edges and a cross site fall of some 3m The site offers extensive access to direct northern light and excellent ventilation due to the low level development to the north, site orientation and predominant North East Breezes. Outstanding 360º panoramic district views are also available from almost every level of the development.

EXISTINGDEVELOPMENTANDCURRENTSITE USES

The site currently accommodates;

- 6-12 Atchison St - 4 storey commercial/retail building including basement car park with rear access from Atchison Lane
- 14 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane.
- 16 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane

SURROUNDING DEVELOPMENT

All sites surrounding the site are zoned mixed use, with height limits in excess of the current developed envelopes. The site is surrounded by;

- West: - Linea Apartments, a 17 storey mixed use residential development
- East - 3 storey commercial developmentwith basement parking
- North - Commercial and mixed use residential developments of differing scales
- South - Medium scale commercial developments,

BUILT FORM

The proposed development is composed of 2 finely detailed tower forms separated by a recessed circulation spine, giving the effect of 2 thin towers. The elevated podium contains a gym and indoor pool which will be shared by the tenants and hotel guests.

The public domain offers an open and protected ground plane featuring

- seprate residential and hotel access
- 2 new cross site links between Atchison Street and Atchison Lane
- significant landscaping featuring a "green wall" on the eastern boundary adjacent the cafe.

VISION

As identified in the initial briefing documents for the project, Bancor Developments see the site as an opportunity to deliver significant affordable residential stock on a site which offers minimal environmental impacts to its neighbours and the precinct.

High quality design and a sustainable design philosophy were key design drivers for the development, with a 5 Star GreenStar resdiential design rating being targeted for the development. This would be the first residential development of this scale in NSW to achieve this rating.

DESIGN DEVELOPMENT

As the Project Team moves into detailed documentation, a number of fundamental design principles have been identified and will be consistently implemented throughout all next phases. These principles include:

- a clear identity and a commonality (language) to the complex. This applies to not only the base building but to adjoing site interfaces.
- to include a clarity to and a comprehension of any new insertions
- a sustainable and hence cost effective environment which can be interpreted by the public and managed by the users
- flexibility for future reconfigurations of the development
- considerations of the ongoing maintenance requirements of building fabric

STAGING

A 3 year construction program is illustrated in the Construction Management Plan.

ACCESS, TRANSPORT AND PARKING

The site is located in close proximity to St Leonards Railway Station and exstensive public transport infrastructure on the Pacific Highway and is within easy walking distance to the Crows Nest village.

The site itself acts as a mid way designation point between Christie and Mitchell St and the rejuvinated commercial/retail precinct along the Pacific Highway.

It is envisaged that a large number of visitors will arrive either by rail or foot.

PEDESTRIAN ENVIRONMENT

The development will have exceptional pedestrian amenity with special regard to accessible access. Given the ageing nature of the Australian population many visitors will require equitable access to the site which is achieved at all levels of the development

The site is located along two major and increasingly well used pedestrian routes - access from St Leonards train station to Crows Nest is generally taken by either Atchison St or Atchison Lane. The foyers can be easily accessed from both these routes, either directly from Atchison Lane or a via strong visual connections on Atchison Street

It is intended that the development will have an active environment after business hours giving good passive surveillance to the residential occupants and an active public domain. Strong visual links through the cross site links promote this endeavour.

This will enable the public to view into the new public domain spaces to provide a point of interest, along what is currently an inactive boundary edge on Atchison Lane.

The open landscaped courtyard to the East and the open area to the north will activate the edges of the development.

CURRENT LANDSCAPE AND OPEN SPACE

The site is bounded by Atchison Street and Atchison Lane. Sloping from east to west, the public pedestrian footpath on Atchison Street was upgraded recently and is predominately precast unit pavers set in a stretcher bond pattern with street tree planting.

There are a series of stepped terraces to the east and west of the site anticipating future outdoor cafes along the street. Existing tree planting along Atchison Street consists of relatively young native trees at about 14 metre centres along the footpath. There is also some existing street furniture including bench seats, light poles and bicycle racks that are proposed to be retained.

NEW PUBLIC DOMAIN LANDSCAPE

The primary objectives of the new public domain landscape design are one of connection and place. Connections and paths to destinations on the site (ie. hotel, apartments and cafe) as well as connections through the site to destinations beyond support the concept of permeability. The concept of place is supported by creating a design that characterises the site to ensure it is memorable for occupants and visitors alike.

Making new places also requires activity and this reflected by the cafe/restaurant proposal with outdoor seating and the potential to use the flight of stairs as 'intermittent' seating for nearby performances. In addition, it is expected that many pedestrians working nearby will use the through-site links as a local shortcut from Atchison Street to Atchison Lane beyond. This will also benefit the general level of activity expected around the Hotel and Residential lobbies and is anticipated to be open 24/7.

There are multiple pedestrian connections to the separate Hotel and Residential lobbies which front a paved forecourt, each with a different character. The backdrop of Hotel forecourt and lobby is a 10 metre high vertical green wall with nearby seating blocks, intersected by planting, to wait for a taxi or colleague undercover. On the western side of the site is the Residential apartment forecourt and lobby which is characterised by a feature stone wall.

An appropriate balance between hard paved surfaces and soft landscape areas is sought in the scheme. Whilst hard paved surfaces are necessary and appropriate for an urban space with dense populations and significant pedestrian traffic, such as St Leonards, the community expectation is often that green open space or planting is maximised. It is with this expectation in mind that the landscape design provides a range of different planting 'experiences' including an iconic 'green wall' and supplementary mass planting throughout the site.

The main public domain landscape components include:

- Street Interface (with Public Art Sculpture)
- Residential Forecourt
- Hotel Forecourt
- Green Wall
- Site Through-Link
- Cafe Square
- Feature Gravel Roof (at Podium Roof Level)

The Drawings, as well as the following descriptions describe these components.

The proposed public domain landscape design supports and extends the objectives of the Atchison Street West Master Plan by North Sydney Council.

LOADING AND UNLOADING FACILITIES

Access to the site for service vehicles is only from Atchison Lane, to the basement loading dock and site parking. The basement loading dock has been designed to accommodate garbage, general delivery vehicles and large removalist trucks.

Access to the development over is via the basement goods lift which service the entire tower. The loading strategy to the site was developed to minimise disruption to existing planning objectives and pedestrian routes.

WATER CYCLE MANAGEMENT

The Hydraulic and Fire Systems Report provide a number of water management measures for the new development, refer to the specific services reports.

WASTE MANAGEMENT FACILITIES

Waste facilities are to located in the basement with compaction and recycling facilities provided. The waste storage area is of sufficient size to accommodate both general waste and recyclable materials for storage and weekly pickup.

Details are provided in the Waste Management Plan

ESD

ESD initiatives have been addressed in the Steensen Varming Project Application Report and the BCA Report prepared by Dix Gardner.

A 5 Star GreenStar rating has been identified and achieved within the design proposal. The client is working towards achieving "best practice" ESD outcomes over a range of environmental initiatives.

NOISE

An acoustic report has been prepared for the new development which addresses both the potential noise impact of the development on surrounding properties and the control of internal noise levels within the building.

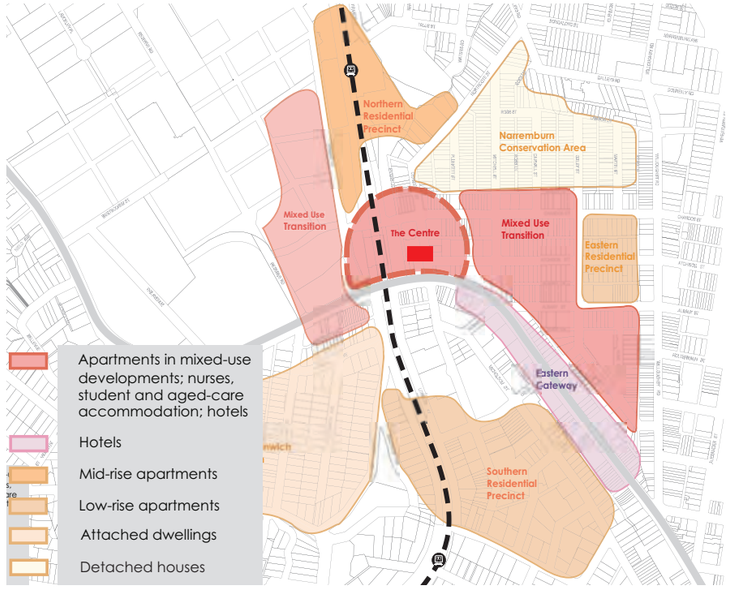
INFRASTRUCTURE AND UTILITIES

All issues associated with storm water management, water supply, sewerage services and gas services have been addressed in the Hydraulic and Fire Systems report Electrical services are addressed in the Steensen Varming project Application Report.

02. URBAN ANALYSIS

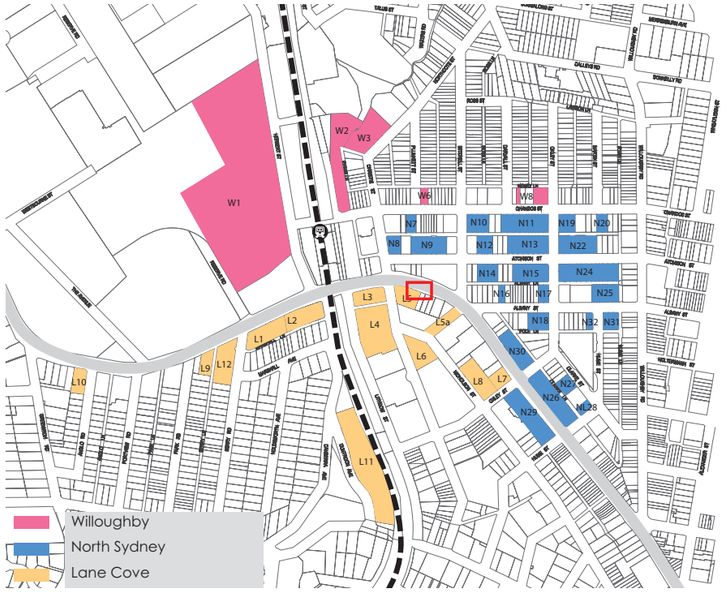
DEVELOPMENT OPPORTUNITIES

The site is located within an identified development zone as outlined in the St Leonards Strategy 2006. The site bridges the boundaries of the Urban centre and the Mixed Use Transition Zone. Both of these zones have undergone recent and significant redevelopment in recent years with mixed use residential developments being the focus.



KEY DEVELOPMENT OPPORTUNITIES

The St Leonards Strategy 2006 identified development sites across all three Local Government Areas (Willoughby, Lane Cove and North Sydney). 6-16 Atchison St has been noted as a key development opportunity within the precinct. The environmental impacts of increased development on the site have been seen as relatively benign and the increased density in keeping with the objectives of the strategy



LOCAL GOVERNMENT AREA BOUNDARIES

- Willoughby Council Local Government Area
- Lane Cove Council Local Government Area
- North Sydney Council Local Government Area

The site is centred within the St Leonards precinct and borders all 3 of the Local Government Area boundaries. A detailed consultation process was undertaken with the councils as well as presentations to the North Sydney Council Design Excellence Review Panel and a community consultation presentation to adjoinging land owners and concerned parties.

HERITAGE ITEMS AND CONSERVATION AREAS

LOCALITY AND CONTEXT ANALYSIS

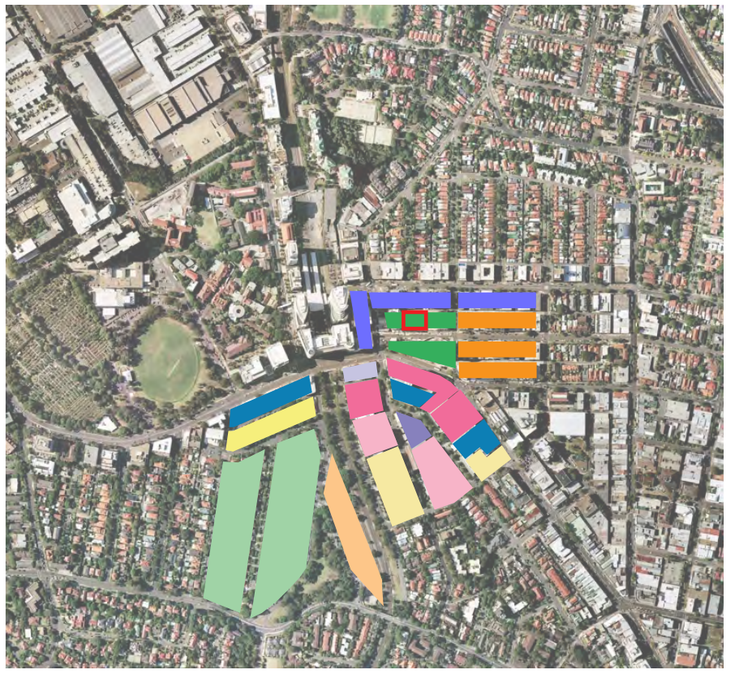
- Site
- Royal North Shore Hospital
- North Shore TAFE
- Gore Hill Cemetry
- Green space
- The Forum
- St Leonards Railway Station
- Crows Nest Village
- Commercial Mixed Use

ARTERIAL NETWORK ANALYSIS

- Atchison Street
- Chatswood Rail Line
- Pacific Highway
- Willoughby Road
- River Road
- Northcote Street
- Albany Street

PRECINCT HEIGHT LIMIT ANALYSIS

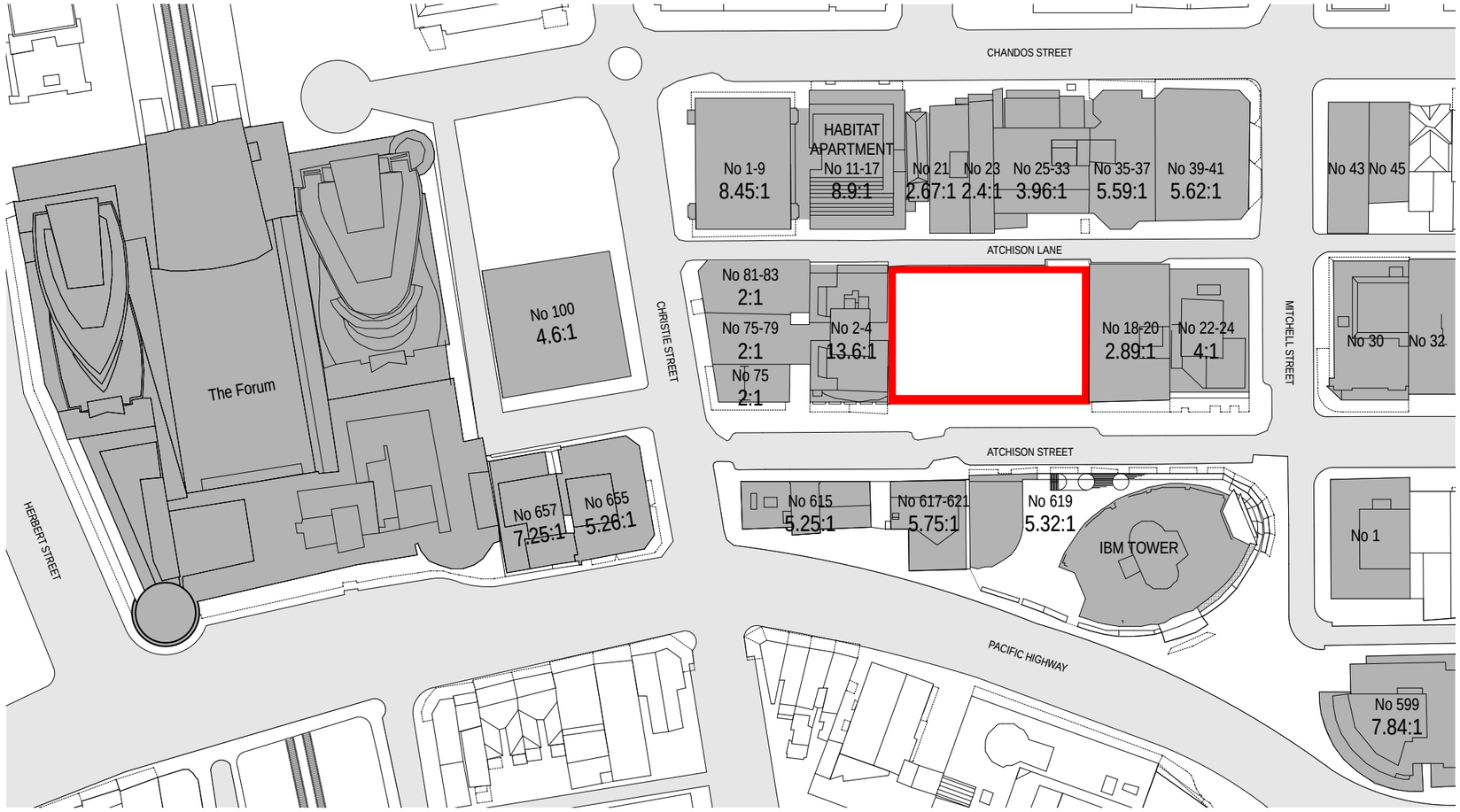
- Site
- 72m (Lane Cove LEP 2009)
- 65m (Lane Cove LEP 2009)
- 50m (Lane Cove LEP 2009)
- 49m (North Sydney LEP)
- 45m (Lane Cove LEP 2009)
- 40m (North Sydney LEP)
- 36m (Lane Cove LEP 2009)
- 33m (North Sydney LEP)
- 25m (Lane Cove LEP 2009)
- 21m (Lane Cove LEP 2009)
- 18m (Lane Cove LEP 2009)
- 15m (Lane Cove LEP 2009)
- 9.5m (Lane Cove LEP 2009)



PRECINCT FSR ANALYSIS

The current Floor Space Ratio of the site is in the order of 3:1. As identified in the St Leonards Strategy the site is seen as a key development opportunity with the potential to carry greater density.

The FSR analysis below notes the site address, use, height and current/proposed FSR



Street Address	Site Area (sqm)	As Built: Existing/ Approved height (storeys)	As Built: Existing / approved GFA (Source NS Council records	As Built: Existing / Approved FSR (Source NS Council records)	Permissible under NS LEP 2001: Zoning	Permissible under NS LEP 2001: Height (metres)	Permissible under NS LEP 2001: FSR	Permissible under Draft NSLEP: Zoning	Permissible under Draft NSLEP: Height (metres)	Permissible under Draft NSLEP: FSR (min non res for mixed use)	Permissible under Draft NSLEP: Max GFA
2-4 Atchison	720	17	9792	13.6	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
18-20 Atchison	720	4	2088	2.89	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
22-24 Atchison	720	6	2798	4	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
1-9 Chandos	116	13	9810	8.45	Mixed Use	33	3:1 - 4:1	B3 Commercial	33	12-14:1	1392
11-17 Chandos	862.4	12	6724.8	8.9	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2578.2
19 Chandos	223	1	178.4	0.8	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	669
21 Chandos	354.2	4	947	2.67	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	1062.6
23 Chandos	197	3	472.8	2.4	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	591
25-33 chandos	874	7	3454	3.96	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2622
35-37 Chandos	479.4	8	2678	5.59	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	1438.2
39-41 chandos	958.9	8	5369	5.62	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2876.7
75 Christie	216	2	432	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	2592
77-79 Christie	748	2	1496	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8976
81-83 Christie	355	2	710	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	4260
100 Christie	2476.5	12	11384.5	4.6	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	29718
599 Pacific Hwy (incl. 10-20 Albany st)	2583	17	20250	7.84	Mixed Use	40	3:1 - 4:1	B4 Mixed use	40	0.75-2:1	1937-5166
601 Pacific Hwy	2843	15	15119	5.32	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	34116
617-619 Pacific Hwy	480	part 2 part 8	2641	5.5	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	5760
621 Pacific Hwy	594	10	3562	6	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	7128
655 Pacific Hwy	731	7	3845	5.26	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8772
657 Pacific Hwy	674	8	4896	7.25	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8088

Assumptions:

Mixed use 80% efficiency
Commercial 90% efficiency

03. PRECINCT ANALYSIS

> "St Leonards will continue to develop as one of the major employment centres for knowledge-based industries within the Sydney metropolitan region, by capitalising on its location within Sydney's 'global arc' and building on opportunities arising from its excellent accessibility and co-location with regional scaled health and educational facilities.
>
> New and diverse housing opportunities will also continue to emerge and be supported by convenience shopping, cafes, bars, entertainment venues, community facilities, a high quality environment and excellent public transport, walking and cycling accessibility, creating a desirable place for cosmopolitan urban living.
>
> New development and public domain improvements will create a more consistent and high quality image throughout the centre, leading to an identifiable 'sense of place'. 1

The St Leonards centre has a number of issues which detract from the quality of the urban amenity and impact upon the ability of the public domain to attract and maintain users who both live and work in the area. The key elements with the greatest impact are the:

- different planning controls,
- public infrastructure and management of the centre by the three councils.
- The division of the precinct into 4 zones by the Pacific Highway and Chatswood Rail corridor
- The lack of clear pedestrian connections to Royal North Shore Hospital and North Sydney TAFE to the heart of the centre
- The ageing commercial building stock as a result of limited redevelopment opporunities

The St Leonards precinct urban quality is characterised by ;

- arbitrarily developed building scales which has led to a fractured skyline profile
- shaded public spaces due to the east west development grid
- intense traffic conditions at the peaks
- significant wind effects due to the east west orinetation of the street grid and togoraphy
- limited interblock cross site connectivity

01. VIEW FROM IBM TOWER COURTYARD

02. VIEW FROM IBM TOWER COURTYARD

03. VIEW FROM ALBANY STREET

04. VIEW FROM MITCHELL STREET

05. VIEW FROM CHRISTIE ST PARK

06. VIEW FROM CHRISTIE STREET

07. VIEW FROM PACIFIC HIGHWAY

08. VIEW OF IBM TOWER

09. VIEW OF ATCHISON STREET

10. VIEW ALONG ATCHISON STREET

1 P6 St Leonards Strategy | November 2006, Prepared by: David Lock Associates National Economics City scape Planning & Projects PBAI Australia

SKYLINE ANALYSIS AND MASSING STUDY

The Metropolitan Strategy seeks to concentrate new jobs in areas that are easily accessible by public transport, and that can capitalise on existing health and education facilities. It nominates 27 centres for particular employment growth and sets targets for additional jobs in each of these centres by 2031. St Leonards is one of these.

The St Leonards Strategy 2006 outlined opportunities and objectives which underline the potential development of the precinct. With the stated objectives of increased density and diversification of the uses to establish an urban mixed use centre.

The strategies objectives will increase development of the precinct skyline, with increased capacity and height being gazetted within the Willoughby and Lane Cove LEPS.

The scale of city skylines have been defined using a variety of generating influences. Many skylines initially develop around arbitrary factors and opportunities with little or no structure to the outcome.

The St Leonards skyline is characterised by the predominance in the skyline of;

- "The Forum" development over the rail corridor
- "The Abode" apartments, and;
- "The IBM Tower"

The 6-16 Atchison St site has been identified as a key development opportunity within the precinct it is important to define the appropriate envelope for any such development.

In defining an appropriate development height for the site Diagrams 01 and 06 illustrate the current skyline, which shows no definitive form from either the east/west axis or the North/ South.

Diagrams 02 and 07 illustrate a linear approach to developing the skyline. This approach suggests a development height in the order 90-100m would be appropriate.

Diagrams 03 and 08 illustrate a topographical response to developing the envelope. This approach suggests a height in the order of 110-120m would be appropriate.

Diagrams 04 and 09 illustrate a typical "dome" response to developing the envelope. This approach suggests height in the order of 110-115m would be appropriate.

Diagrams 05 and 10 illustrate a hybrid overlay of each approach, which suggests an envelope in the order of 110m would be appropriate compromise.

Any envelope of this magnitude would need to mitigate its environmental impacts on adjoining and adjacent precinct development.

EAST WEST PRECINCT SECTIONS

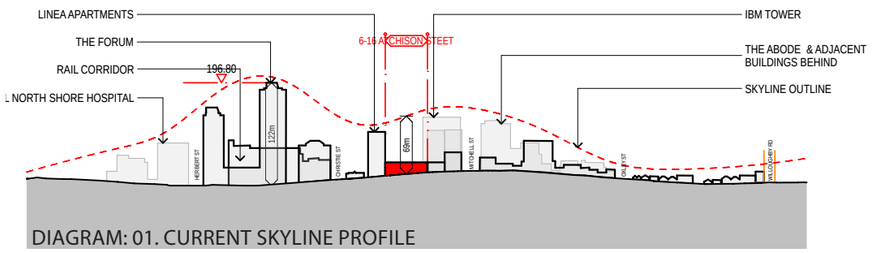


DIAGRAM: 01. CURRENT SKYLINE PROFILE

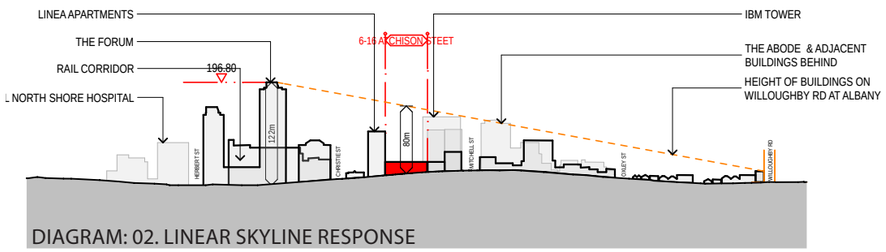


DIAGRAM: 02. LINEAR SKYLINE RESPONSE

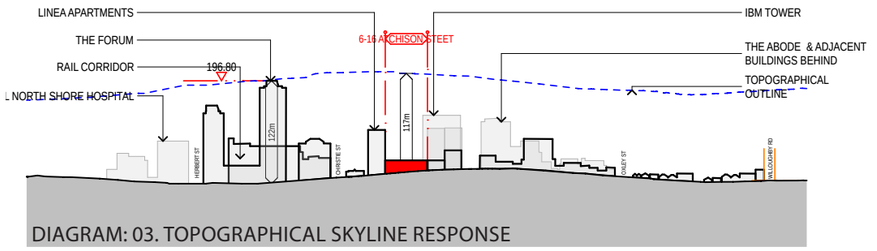


DIAGRAM: 03. TOPOGRAPHICAL SKYLINE RESPONSE

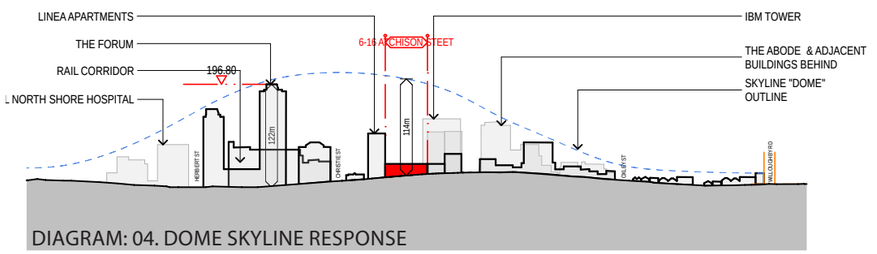


DIAGRAM: 04. DOME SKYLINE RESPONSE

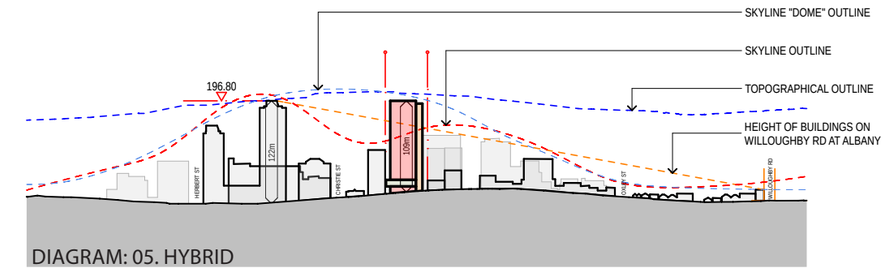


DIAGRAM: 05. HYBRID

NORTH SOUTH PRECINCT SECTIONS

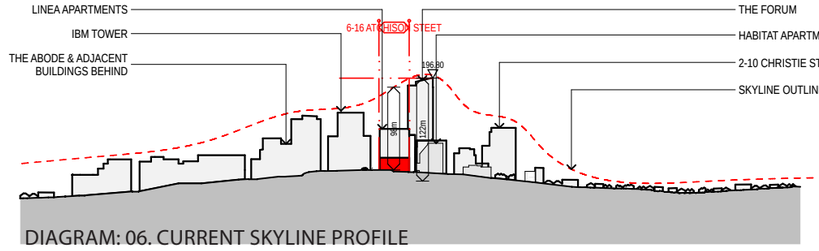


DIAGRAM: 06. CURRENT SKYLINE PROFILE

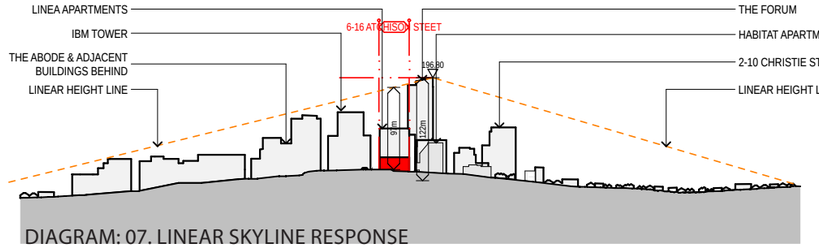


DIAGRAM: 07. LINEAR SKYLINE RESPONSE

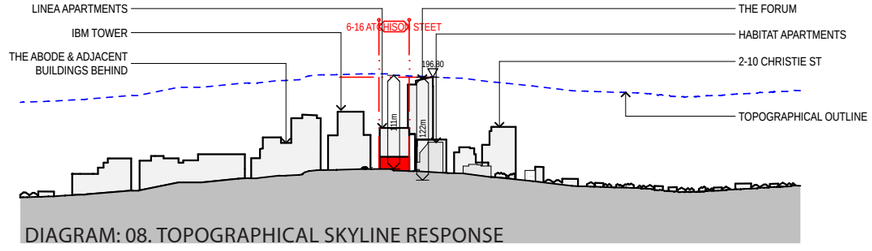


DIAGRAM: 08. TOPOGRAPHICAL SKYLINE RESPONSE

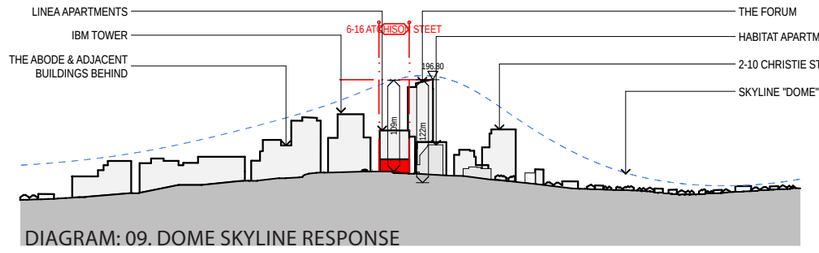


DIAGRAM: 09. DOME SKYLINE RESPONSE

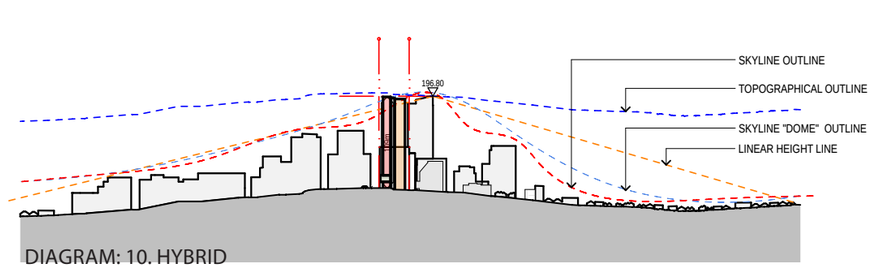
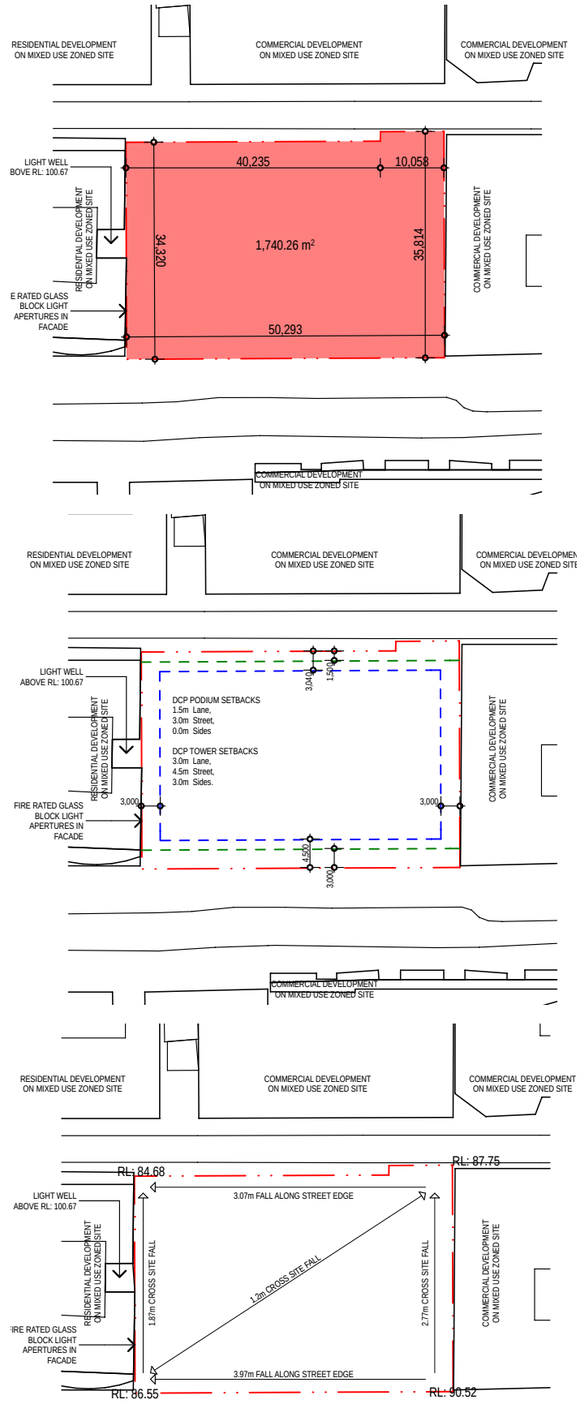


DIAGRAM: 10. HYBRID

04. SITE AND OPTION ANALYSIS

SITE PLAN

Notes the site dimensions and area



NORTH SYDNEY COUNCIL DCP SETBACKS

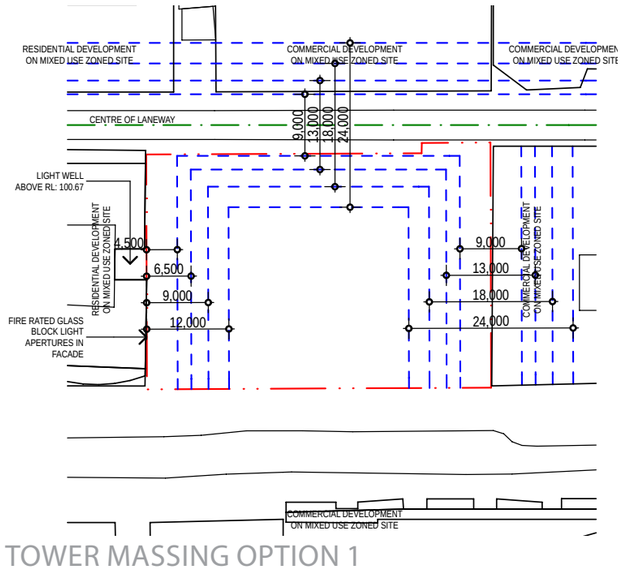
illustrates the generic setbacks as defined by the North Sydney Council DCP.

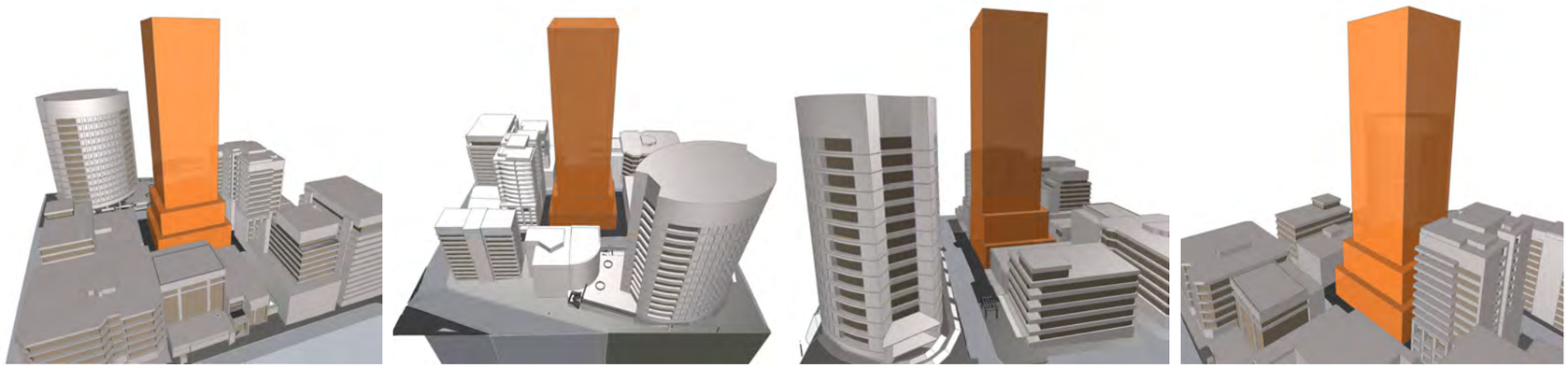
EXISTING SITE LEVELS AND FALLS

Notes the site levels and cross falls. this illustrates that there are significant falls along and across the site boundaries. The North Sydney Design Exscellence Panel noted a preference to develop cross site links. Given the grades of the site and endeavouring to maintain equitable agress across the site, it was decided to optimise equitable egress by establishing a diagonal cross site circulation path to take advantage of the minimum fall/ level difference in this direction.

SEPP 65 SETBACK ANALYSIS

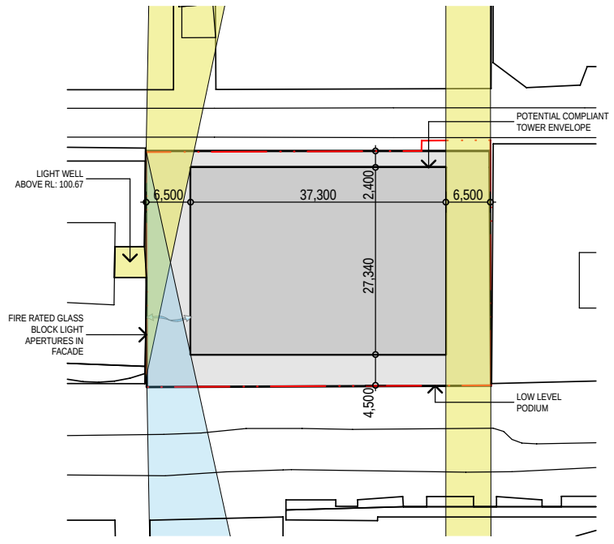
- Building height up to 12m; 12 m between habitable rooms/balconies, 9m between habitable/balconies and non-habitable rooms, 6m between non-habitable rooms
- Building height up to 25m; 18m between habitable rooms/balconies, 13m between habitable rooms/balconies and non-habitable rooms, 9m between non-habitable rooms
- Building height over 25m; 24m between habitable rooms/balconies, 18m between habitable rooms/balconies and non-habitable rooms, 12m between non-habitable rooms

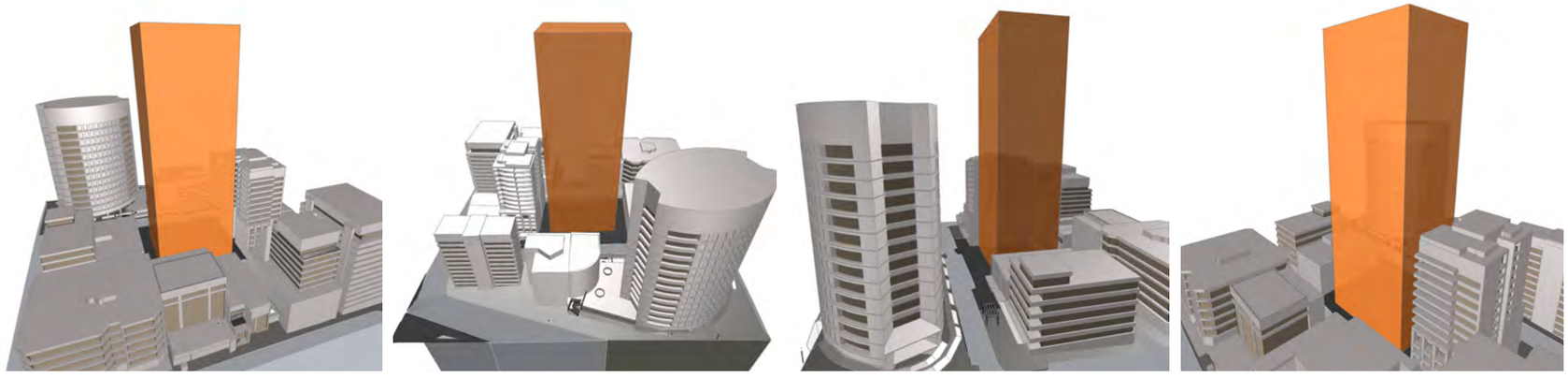




TOWER MASSING OPTION 1

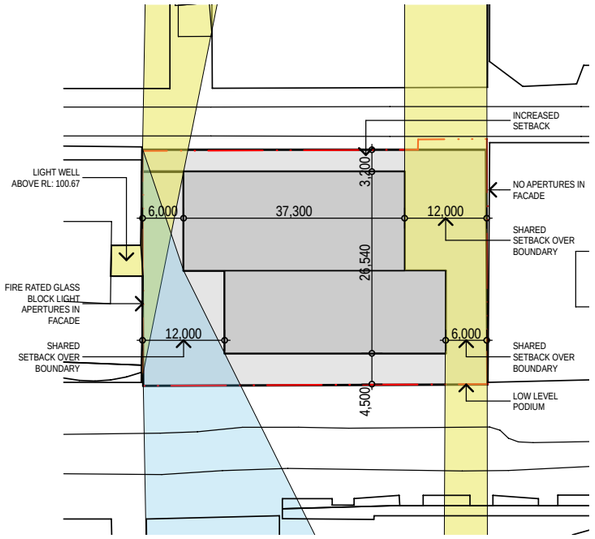
This option is least desirable as it constricts the site and has adverse impacts on its adjoining neighbours by limiting access to direct natural light, constrains view paths through the site beside the tower, and limiting development of the site to the east .

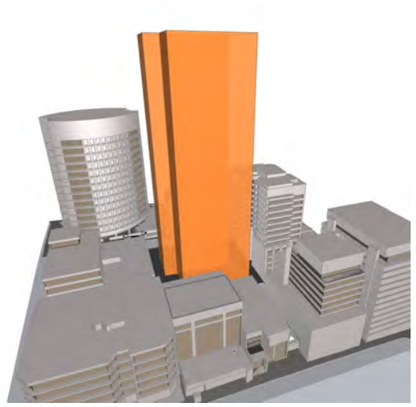


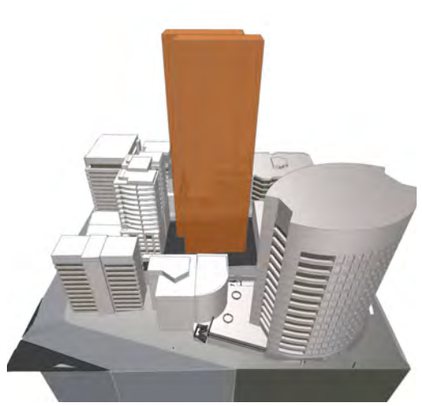


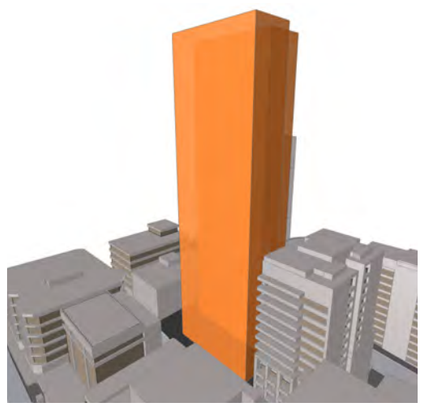
TOWER MASSING OPTION 2

Splits the tower into 2 masses to decrease the percieved mass. This strategy optimises access to Southern light for the site to the east, whilst maximising access to natural light within the proposed tower envelope itself. The extent of low level podium constricts access to natural on the ground plane and minimises the sites visual transparency.



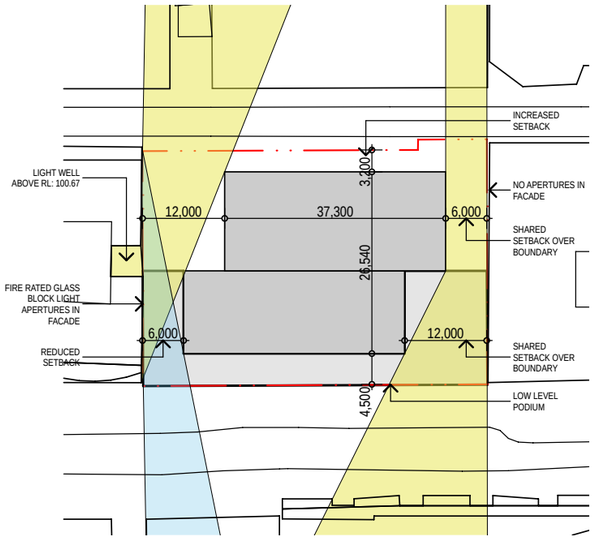


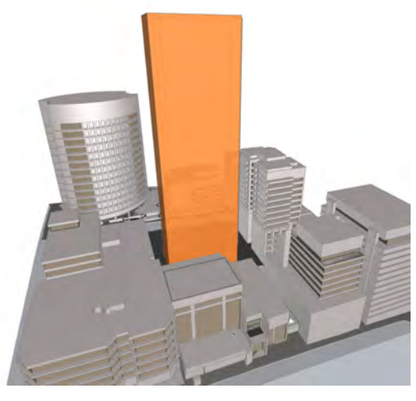


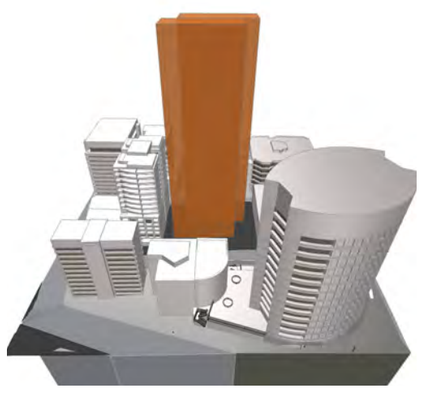


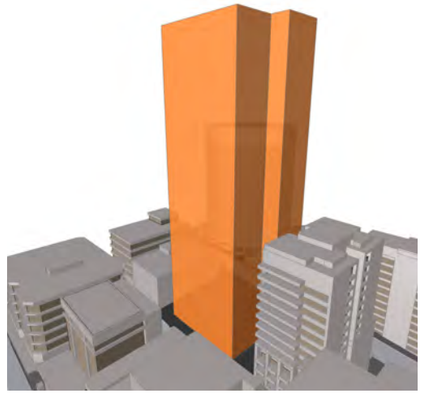
TOWER MASSING OPTION 3

This option splits the tower into 2 masses to decrease the percieved mass. This strategy optimises access to Northern light for the site to the east, whilst maximising access to natural light within the proposed tower envelope itself. Reversing the offset from option 2 maximises light access to the public domain areas to the south of the site. The extent of low level podium is reduced to optimise northern light access to the rear of the site.



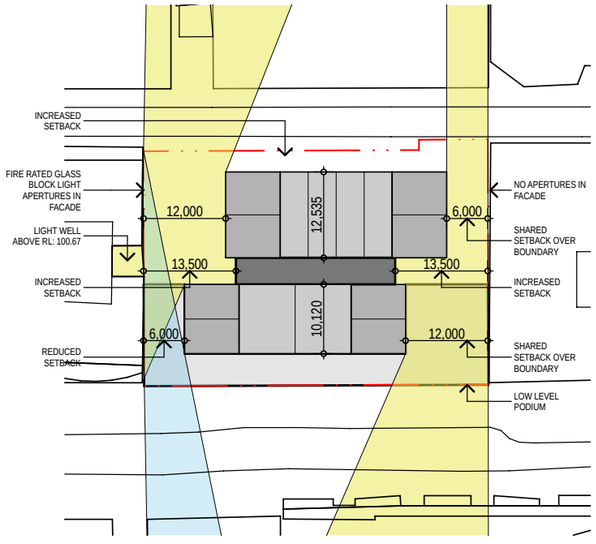


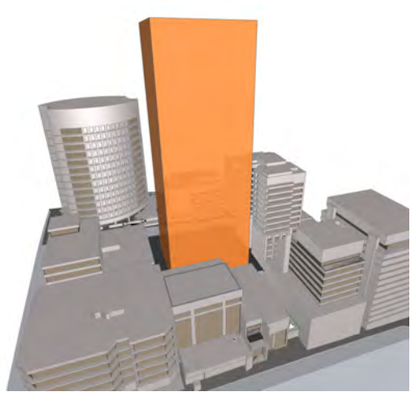


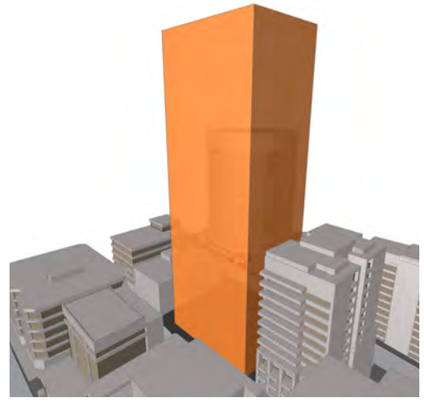


TOWER MASSING OPTION 4

Further artciulation of the tower mass by separating the forms with a smaller slot element allows the 2 forms to read as separate buildings. This strategy also optimises the number of corner apartments which is desirable under the SEPP65 design guidelines. The extent of low level podium is further reduced to optimise northern light access to the rear of the site.







PREFERRED TOWER MASSING OPTION 4

The proposed envelope mitigates the environmental impacts of the tower envelope by;

- optimising articulation of the tower form
- minimises mass of the tower envelope
- maximises access to natural light and ventilation for the tower and adjoining sites
- mitigates off-site environmental impacts