130-150 GEORGE STREET PARRAMATTA

ARCHITECTURAL DESIGN REPORT FOR DEVELOPMENT APPLICATION TO PARRAMATTA COUNCIL

1ST SEPTEMBER 2017

dexus

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CLIENT

DEXUS Property Group

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CONSULTANTS

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Structure	Enstruct
Facade Engineer/ESD/Waste	Arup
Traffic	Arup
Building Services	NDY
Fire Engineering	Defire
Quantity Surveyors	Slattery
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Landscape Architect	Turf
BCA	Steve Watson & Partners
Flood Engineer	Mott McDonald
Pool Consultant	Stevenson & Associates
Archaeologist	Casey & Lowe
Heritage	NBRS Architecture
Art Consultant	Virginia Wilson
Surveyor	Linker Surveying
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PROJECT NUMBER

S12054

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DISCLAIMER

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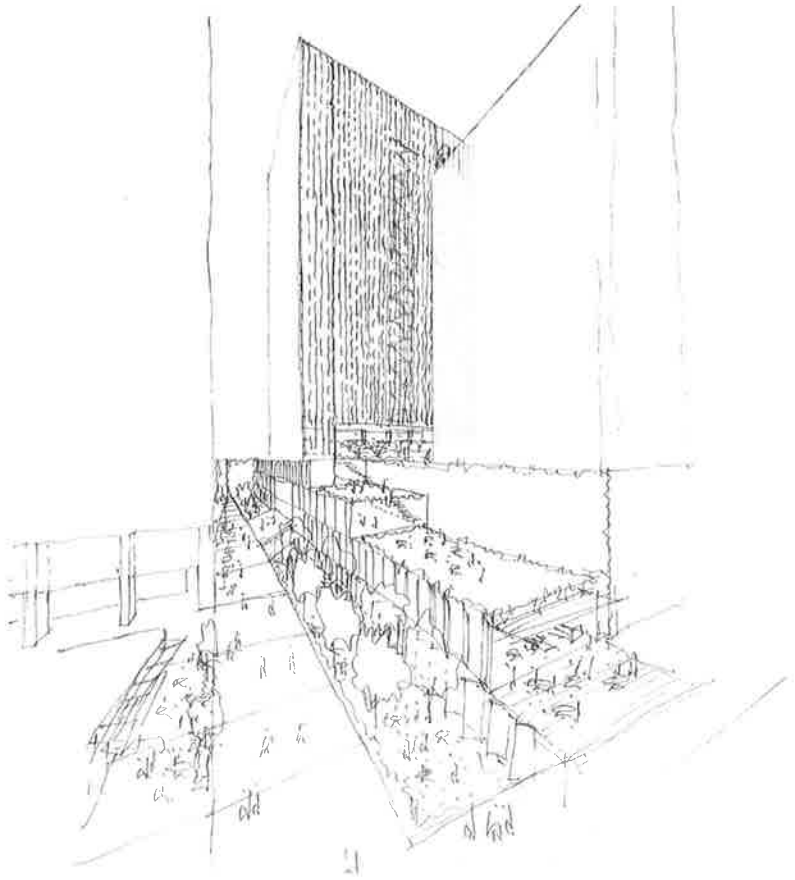
INTRODUCTION

"Parramatta City River Strategy proposes a world class public domain and a high quality collection of new buildings that are seamlessly knitted together by a dense network of accessible and active spaces." Quote from Parramatta City River Strategy Design and activation plan.

The proposed commercial building at 130-150 George Street responds to this vision by creating a workplace full of amenity for its occupants. The building uses a new landscaped plaza & podium with retail to enliven & engage with the public domain. This development will further contribute to the revitilisation of the riverside precinct and provide a high quality commercial office effectively extending the CBD to the River.



DEVELOPMENT SUMMARY

This development application design report has been prepared on behalf of Dexus for the sites at 130 & 150 George Street Parramatta.
It describes the design and planning considerations for a commercial building proposal comprised of a 33-storey tower with a stepped podium and new actived landscaped plaza. The tower is to sit over an existing podium carpark structure. The new plaza and through site link connects Phillip Street and George Street replacing an existing above-grade two-storey carpark.

The site is in zone B3-Commercial Core and according to Parramatta Local Environment Plan 2011 (PLEP2011) has a height limit of 120m with an allowable FSR of 10:1 resulting in a potential 114,404sqm of GFA.

The design consists of commercial office accommodation with 48,338sqm additional GFA which includes 655sqm of new retail GFA.

The proposal includes a series of landscaped roof terraces for use by the building tenants. These are located at each podium level including the roof of the existing Charles Street carpark. Other external spaces include a sunken garden to the lower ground floor Wellness Centre and roof terrace at Level 31.

The tenant brief called for a building of minimum 40,000sqm total nett lettable area with minimum 1,600sqm NLA floorplates. The building is also required to meet the Property Council of Australia's A-grade commercial standards.
In response to this brief, the building has been designed with large, open, contiguous floorplates to maximise fitout flexibility, daylight access and outlook. A high quality facade design balances access to natural daylight against thermal performance.

Minimum sustainable initiatives:

- 5 Star Greenstar Design
- 5 Star NABERS Energy

The following development application design seeks to address clear urban design principles that align and adhere to Parramatta City's strategic vision for the precinct.

DEVELOPMENT SUMMARY

Site Area:	11,404 sqm
FSR	10:1
Allowable GFA:	114,404sqm
Existing GFA 150 Phillip Street:	23,982 sqm
Existing GFA 130 George Street:	22,000sqm
Total Existing GFA on the site:	45,982ssqm
Proposed additional GFA:	48,338sqm
Total site GFA:	94,320sqm
FSR	8.27:1
Building Height:	138m
Storeys:	33-Storeys (incl. plant and excl. lower ground & mezzanines) (RL 145.00 to top of building)
Typical floor to floor height:	3.7m
Podium height:	4- Storeys to George Street.
Car parking spaces	502

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LOCATION & CONTEXT

1.1 LOCATION
PARRAMATTA CBD LOCALITY

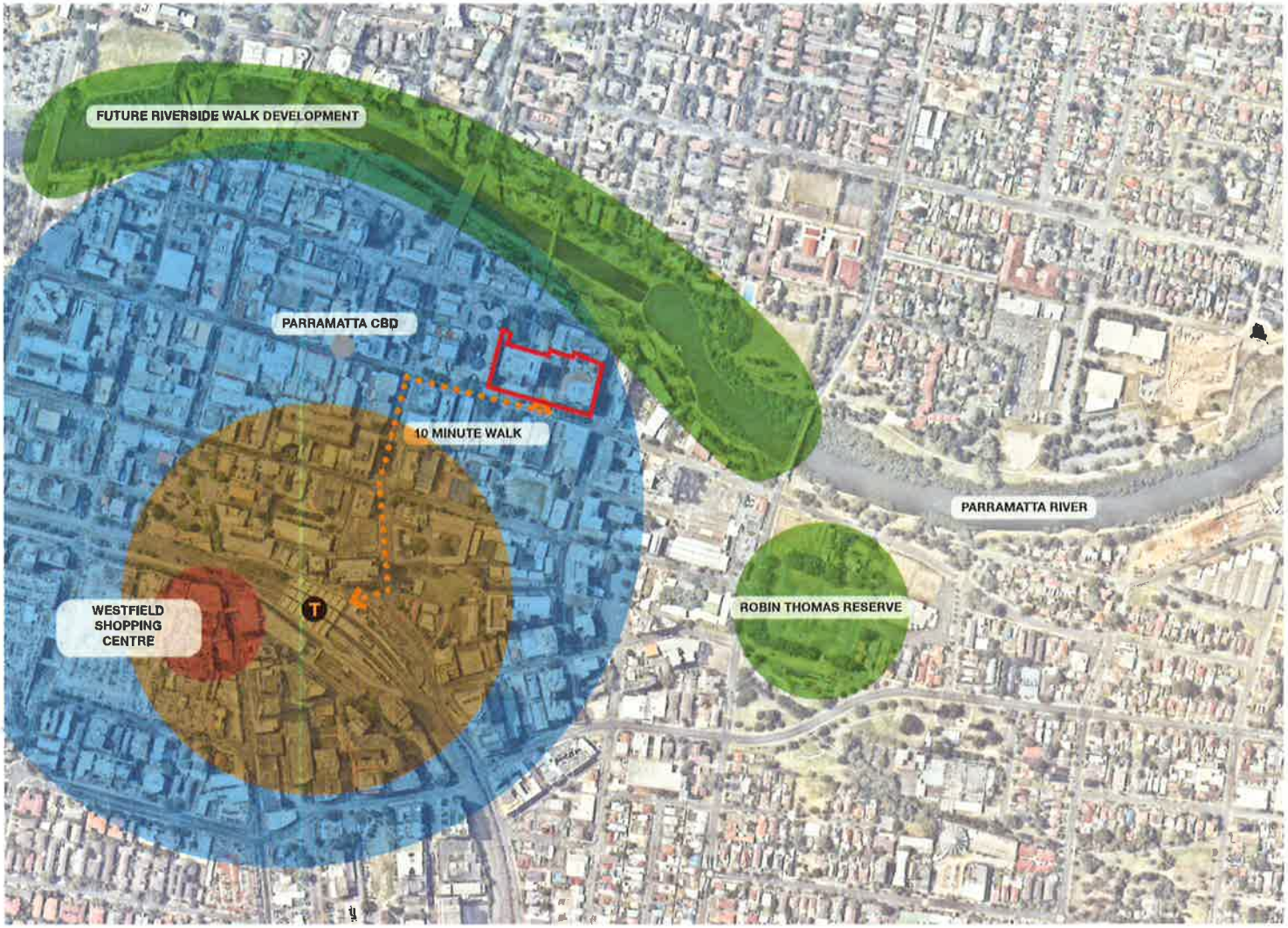
LOCATION

The site is located to the northern boundary of the Parramatta CBD and commercial core at corner of George and Charles Streets.

The location is approximately 5-10 minute walk from the civic centre and Parramatta Transport Interchange. The site is also close to the Parramatta Ferry Terminal providing excellent access to public transport and pedestrian links to the CBD's retail and services core.

The site currently contains two buildings and an above grade carpark. A 16-storey commercial building on 130 George Street and a 23-storey commercial building connected to a 6-level podium used for parking accessed from Charles Street. The above-grade two-storey open deck carpark structure occupies the western portion of the site and is currently accessed from George Street.

The site offers excellent amenity with direct access to Parramatta riverside walk immediately to the north and public recreation open space of Robin Thomas Reserve to the east.



Subject Site
5 minute walking radius from station
Parramatta CBD
Parramatta Westfield Shopping Centre

T Parramatta Transport Interchange

AERIAL PHOTO OF PARRAMATTA CBD

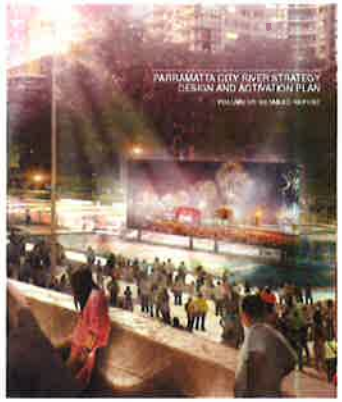
RIVERSIDE LOCALITY

RIVERSIDE LOCALITY

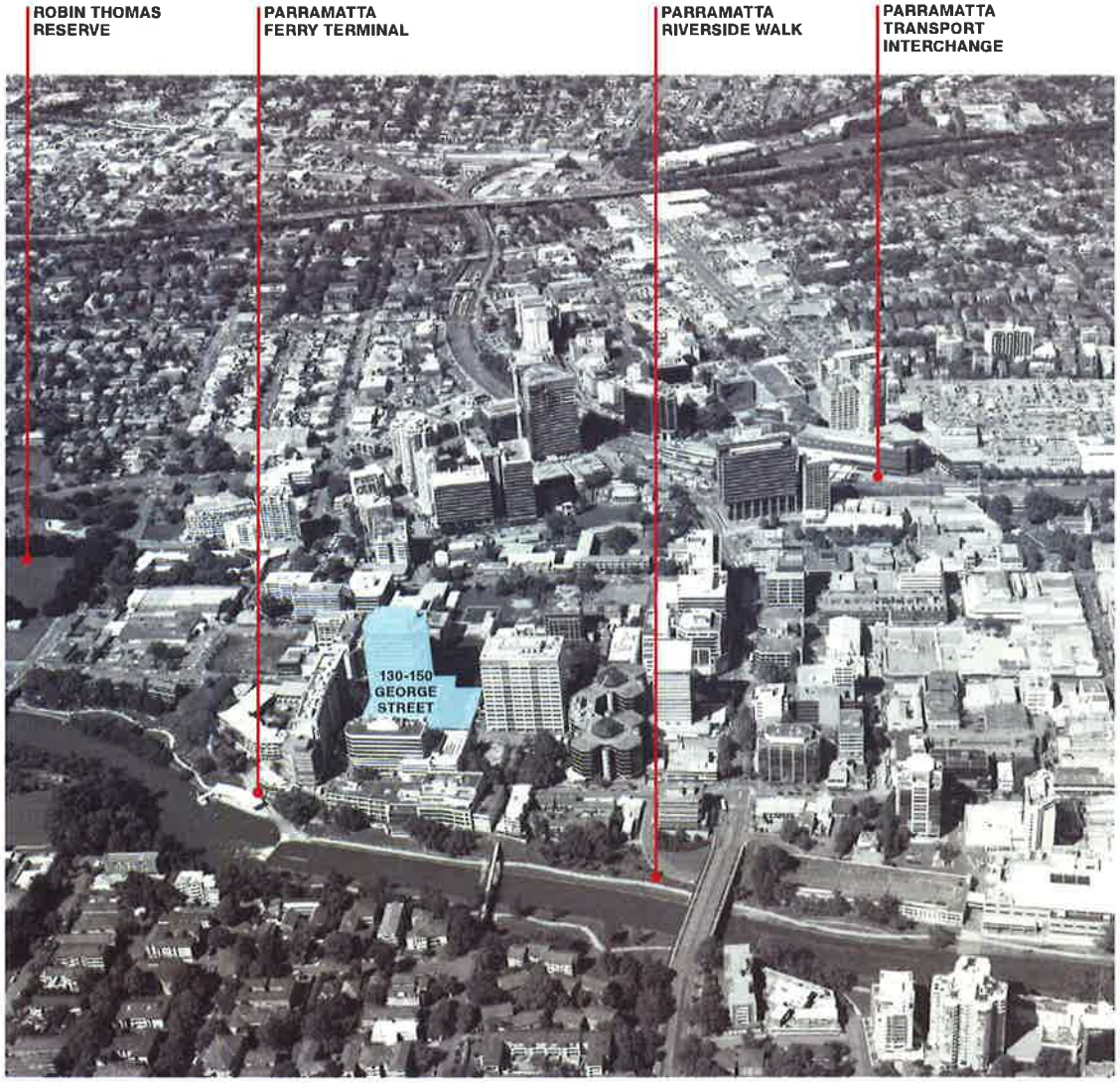
The site lies close to a key stretch of the Parramatta River that contains the ferry terminal. Parramatta City Council aims to revitalise the river foreshore in stages over a 20 year timeframe with funding from a range of sources including Council, the State Government and the Private Sector. A river Quay with an upgraded ferry terminal, vibrant new outdoor entertainment area and terraces and a world class public square are part of a new vision to activate Parramatta River.

The draft 'City River Strategy Master Plan' encompasses 31 hectares on the Parramatta River foreshore and proposes major changes for the regeneration of Sydney's second largest CBD. The River City Plan positions Parramatta River at the front and centre of Parramatta City Centre as redevelopment occurs. The plan proposes a world-class public domain and a high quality collection of new buildings that are seamlessly knitted together by a dense network of accessible and active spaces.

The proposal at 130-150 George Street will add to a number of other new commercial buildings that are regenerating the precinct. This development will continue to set an A-grade benchmark for future commercial buildings



VISION FOR THE PARRAMATTA CITY RIVER STRATEGY DESIGN AND ACTIVATION



EXISTING CONDITIONS

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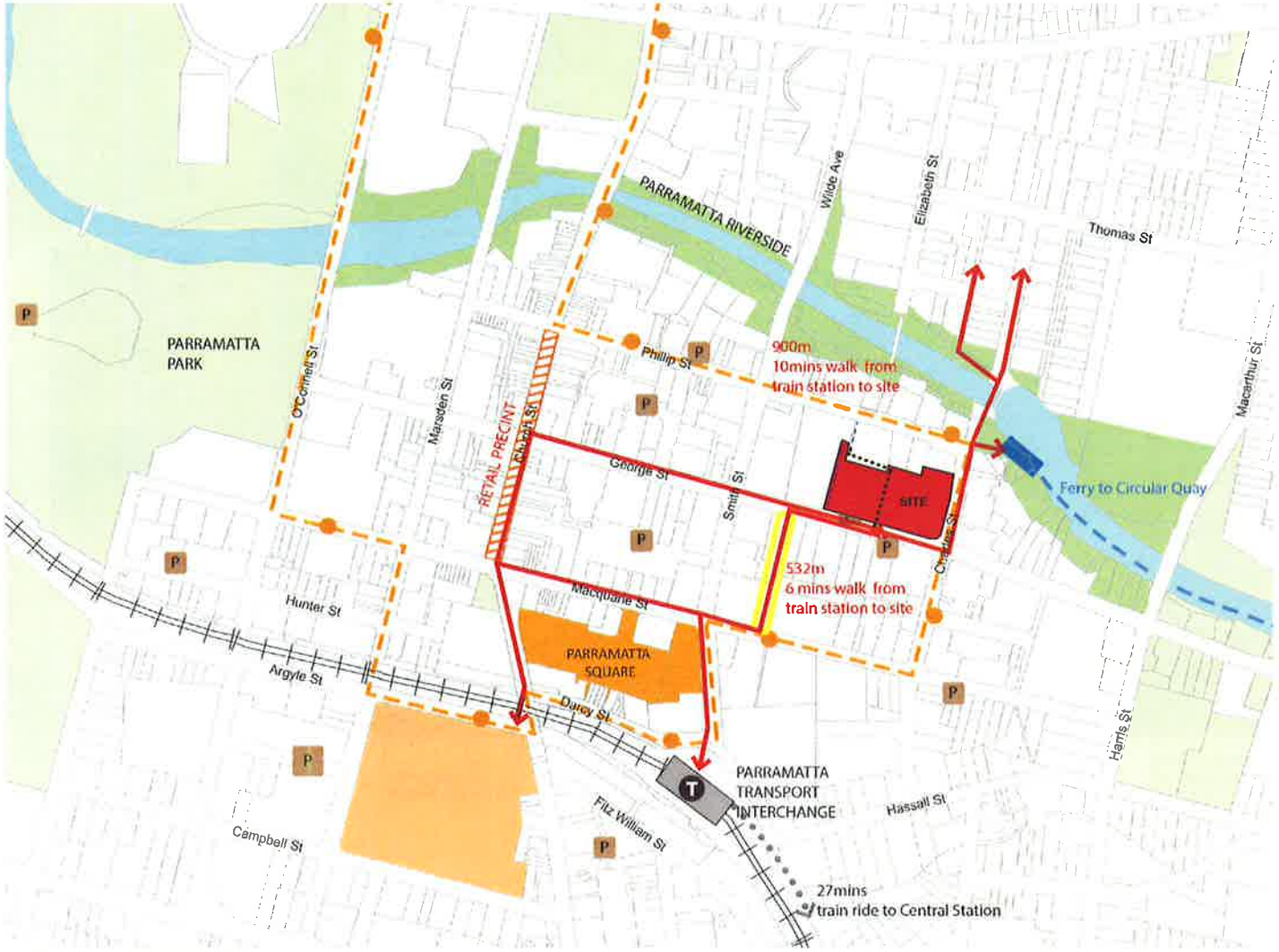
PROXIMITY TO TRANSPORT INTERCHANGE

The site has excellent links to public transport and retail facilities with available services such as train, ferry and bus all within 10 minutes walking distance. From the Parramatta Transport Interchange the Sydney CBD can be reached in around 27 minutes.

The site also lies on the route of the free shuttle bus route through the city centre.

The site has retail opportunities with nearby Church Street Mall cafes and restaurants and is also close to the Westfield Shopping Centre.



LOCATION PLAN PARRAMATTA CBD

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1.2 SITE CONTEXT

SITE

SITE CONTEXT

The site covers an area of 11,404m2 with two street frontages to George Street (92.1m in width) to the South and Charles Street (87.8m in width) to the East.

The adjacent context is comprised of generally low to mid-rise commercial buildings, with some other mixed used type buildings such as the Meriton serviced apartments immediately opposite on Charles Street.

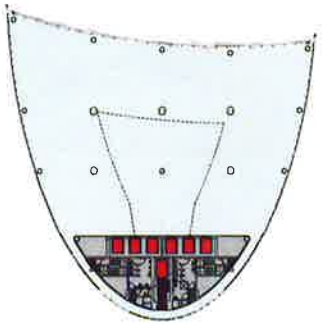
The built form context contains a diverse range of building heights, form, street setbacks and interface with adjacent public domain.

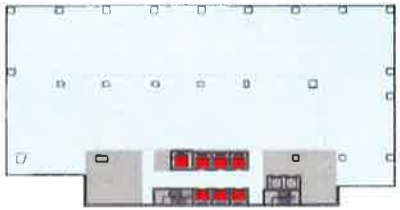
1.3 CLIENT BRIEF
CONTEMPORARY OFFICE WORKPLACE

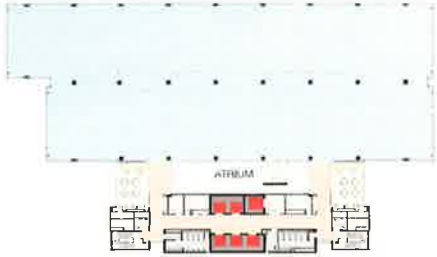
The architectural design proposal sets a framework for the building to establish high quality workplace environments through key design principles. This framework creates a comfortable and enjoyable workplace whilst ensuring long term commercial viability of the building. The floors have excellent daylight penetration via a large facade to core wall ratio, long north facing orientation of floorplate; high levels of air quality through an advanced mechanical ventilation system; excellent outlook and views along Parramatta River to Sydney CBD; inter-floor connectivity through glazed firestair on the floorplate; multi-use spaces within the building with external terraces for relaxation and breakout areas which all contribute to creating a high level of occupant amenity.

1.3 CLIENT BRIEF
BENCHMARK COMMERCIAL BUILDINGS

Some important recent commercial developments have been studied to understand the quality of the commercial market in Parramatta and establish a quality benchmark that the proposal will equal or better. The existing buildings have been subject to a study carried out to evaluate the efficiency of their floorplates in terms of % NLA to GBA and daylight access.







ECLIPSE
FITZPATRICK + PARTNERS

NLA 1318 sqm (81%)
GBA 1619 sqm
Type C daylight access 255 sqm (19%)

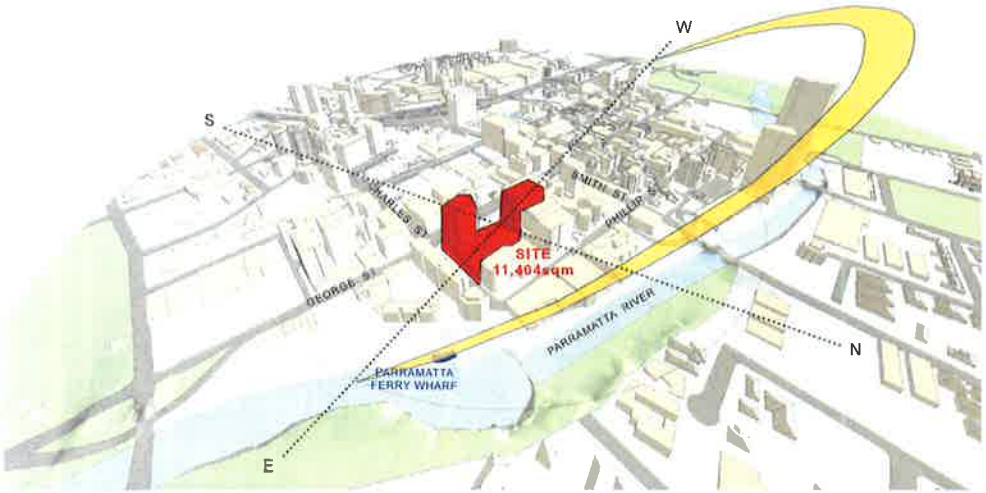
SYDNEY WATER CORPORATE HEADQUARTERS
DENTON, CORKER, MARSHALL

NLA 1787 sqm (79%)
GBA 2262 sqm
Type C daylight access 528 sqm (30%)

PARRAMATTA JUSTICE PRECINCT
BATES SMART

NLA 1970 sqm (77%)
GBA 2546 sqm (excl. atrium)
Type C daylight access 100 sqm (5%)

2.0 CONTEXT ANALYSIS
SOLAR & VIEWS



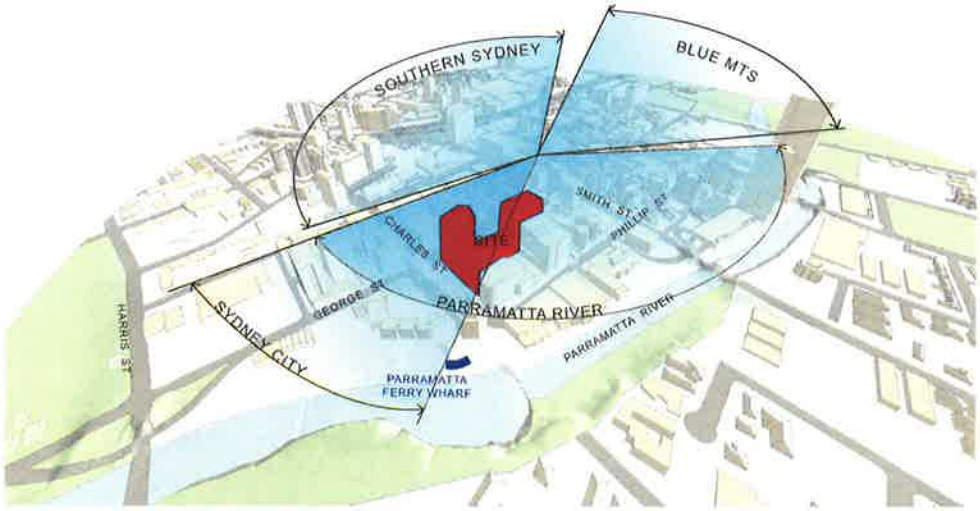
SITE & SOLAR

Site is located at corner of George and Charles Streets with an area of 11,404sqm.

The site has gentle falls towards George Street of approximately 1m.

There is excellent daylight access due to limited tall development to the east, north or west.

Due to the close proximity to the river the site lies within an identified flood area.

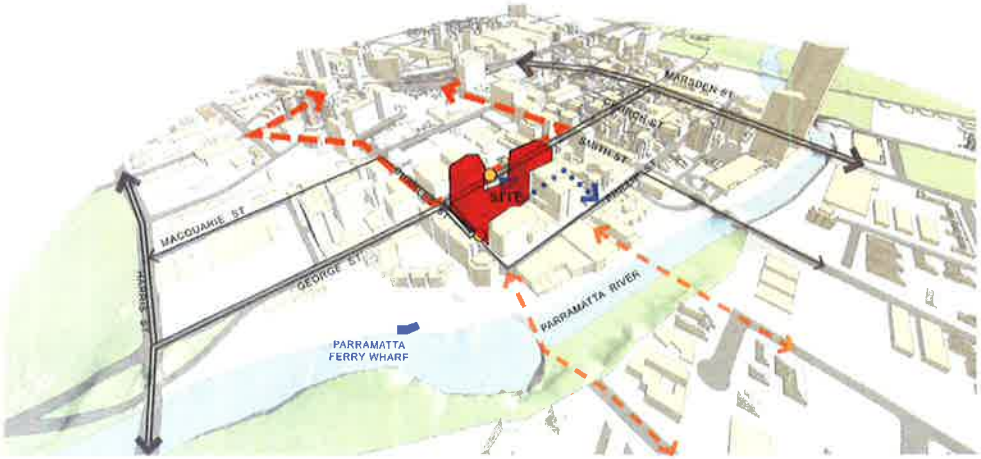


VIEWS

At the upper levels the key view opportunities are along Parramatta River towards Sydney's CBD skyline to the east. To the west views to the Blue Mountains are possible and the southern views overlook Parramatta city centre and southern suburbs beyond.

Views to the North are generally of district views towards the Hawkesbury River hinterland.

2.0 CONTEXT ANALYSIS
SITE ACCESS & FUTURE CONTEXT



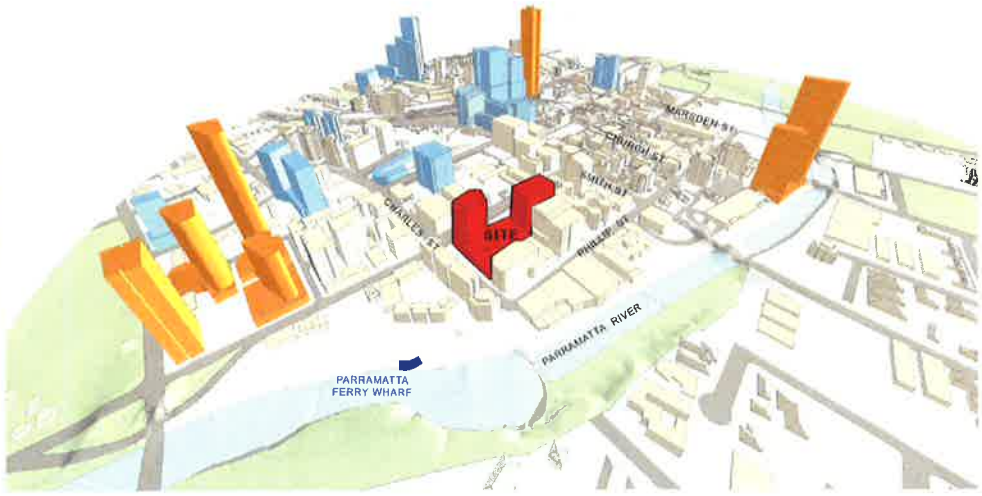
PEDESTRIAN & VEHICULAR ACCESS

The site is located within 5-10 minutes walking distance from the Civic Centre and Parramatta Transport Interchange and is in close proximity to Parramatta Ferry Terminal accessed from the corner of Phillip and Charles Streets. Charles and Smith Streets are the key pedestrian connections from the city centre and the pedestrian bridges across Parramatta River provide access from predominantly residential development north of the river.

Laneway access via Barrack Lane is potentially the main ant-track between the site and the Transport Interchange. Barrack Lane is scheduled for an up-grade with a focus on heritage and public art. The proposal lies on route between the Transport Interchange and the river making the through-site link an important connector for the wider Parramatta precinct.

Vehicular access to the site is generally via the northern entry points to the CBD via the bridges over Parramatta River at Smith, Church and Harris Streets that feed from both Victoria Road and James Ruse Drive, major arterial roads that connect Parramatta to Sydney CBD.

PRIMARY VEHICULAR ACCESS
SECONDARY VEHICULAR ACCESS
PEDESTRIAN ACCESS
THROUGH SITE LINK
BUILDING ACCESS

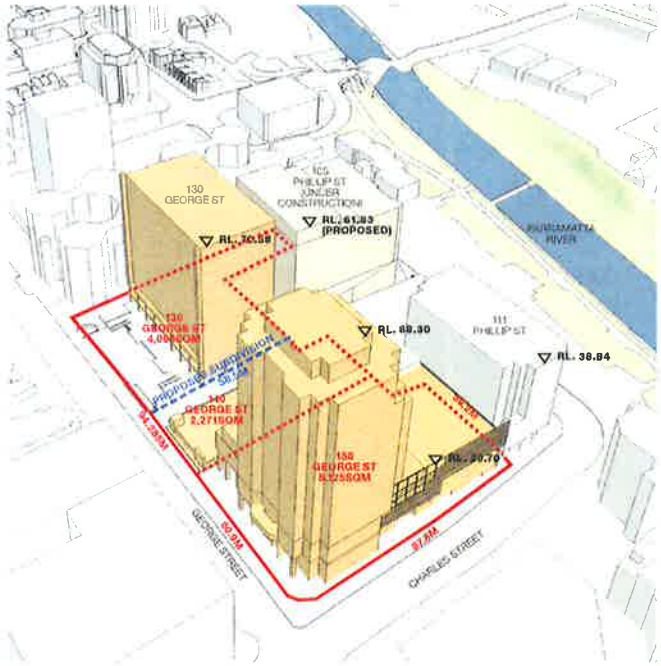


HEIGHT & SCALE

There has been significant change to the Parramatta skyline through recent highrise development, in particular, the Meriton residential tower alongside the river at Church Street. This shift in scale has been encouraged by changes to development framework policy from Parramatta City council. This will continue to evolve with a number of tall development proposal's of both residential and commercial highrise buildings in planning or under construction across the city. In particular Parramatta Square, which will comprise one of the tallest residential buildings in the country.

FUTURE COMMERCIAL DEVELOPMENT
FUTURE RESIDENTIAL DEVELOPMENT

3.0 SITE ANALYSIS
EXISTING CONDITIONS



EXISTING VEHICLE ACCESS

EXISTING LOADING VEHICLE ACCESS

EXISTING SITE

The site is comprised of two land parcels, known as 130 George Street & 150 George Street. There is currently a plan of subdivision lodged with council to create a separate site at 140 George Street.
The 150 George Street site contains a 23-storey commercial building of 23,982sqm with a 6-storey podium containing 483 cars. The building is setback from George Street and Charles Street to create a footpath widening and entry forecourt with colonnades either side of a lobby. On the 130 George Street site lies a 16-storey commercial building setback 20m from the street boundary with a two-storey above-grade concrete parking deck structure that currently accommodates 95 cars. Below grade is a single level basement that accommodates 184 cars.

ENTRY & ACCESS

The existing vehicle access occurs from George Street that services the above grade carpark and from Charles Street which serves the podium carpark structure of 150 George Street. There are currently two vehicle access points to the carpark for 150 George Street as well as a separate loading dock entry, resulting in three footpath cross-overs along Charles Street.

The below-grade carpark at 130 George Street is accessed via the 105 Phillip Street basement.

ROOF TERRACE

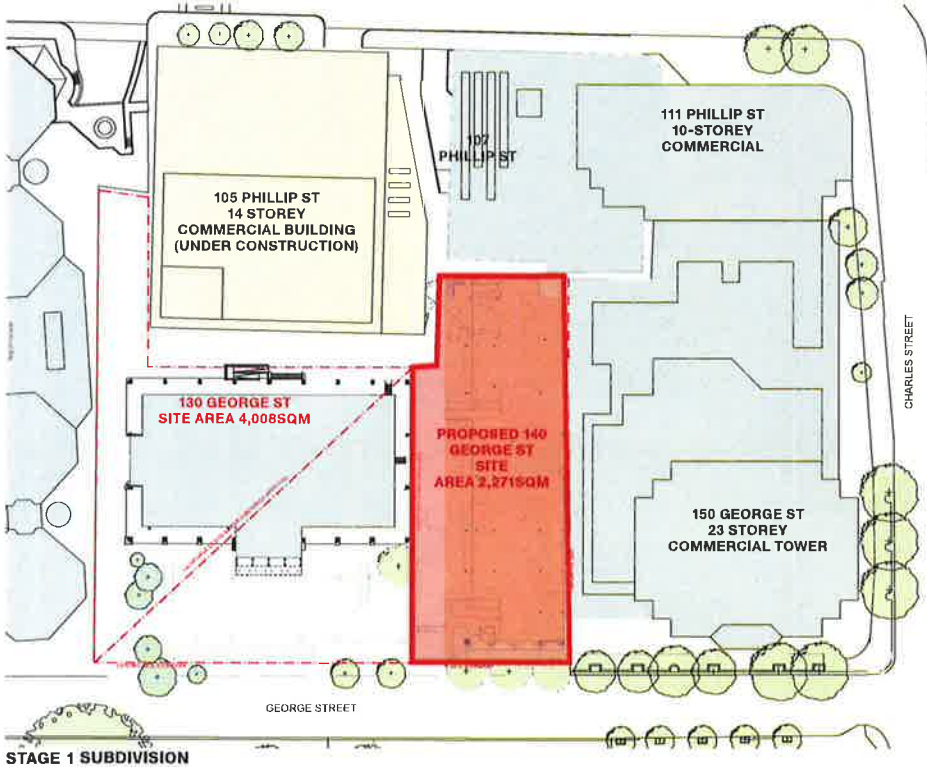
The existing building at 150 George Street includes a large accessible roof terrace above the parking below.

3.0 SITE ANALYSIS
SITE SUBDIVISION

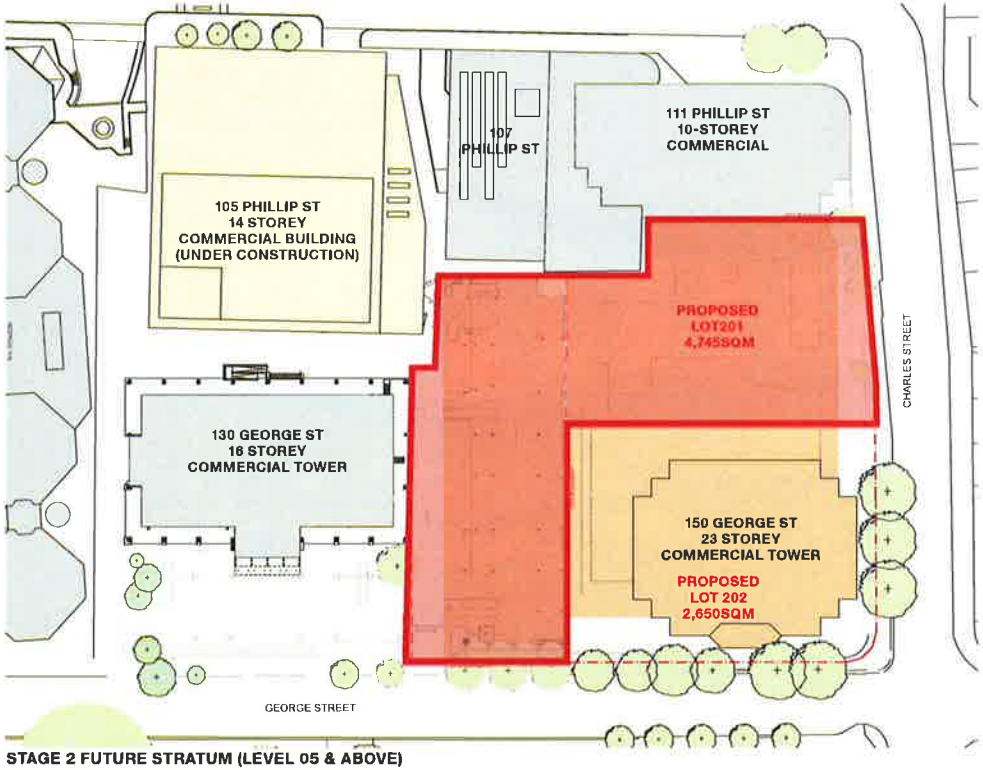
The site has recently been subject to a subdivision proposal. This is currently being assessed with Parramatta council. This subdivision creates a new site known as 140 George Street and would first of a 2-stage approach to the site subdivision.

A further subdivision, creates two individual stratum for both 150 George Street & 140 George Street to manage the separation of these two buildings.

The following diagrams highlight and explain these boundaries.



STAGE 1 SUBDIVISION



STAGE 2 FUTURE STRATUM (LEVEL 05 & ABOVE)

DESIGN APPROACH & DESCRIPTION

4.0 DESIGN APPROACH COMPETITION SCHEME

The design of the development will provide for the construction of Building/Stage 1 and Building/Stage 2 separately or concurrently depending on the needs of future tenant(s)

The proposed development meets the threshold requirements in Clause 7.10 of the PLEP 2011 and therefore, is subject to the requirement to undertake a competitive design process before consent can be granted for the development.

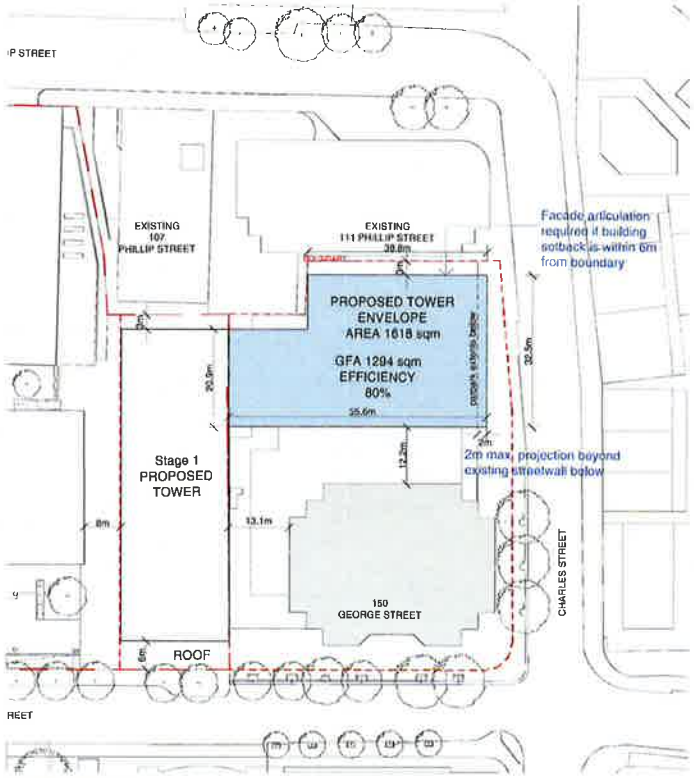
The Design Excellence Competition was invited to three architects as per competition guidelines and Bates Smart were selected as the preferred architect by the competition jury.

The competition brief called for 75,000sqm of total sqm distributed over two sites able to be developed in two-stages either separately or concurrently.

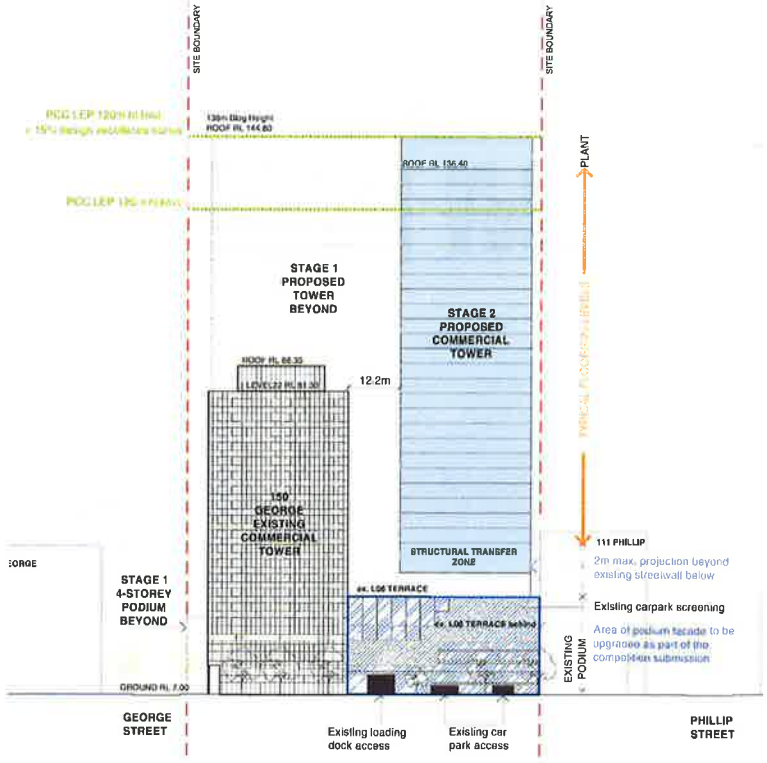
The design solution could be arranged across the site to ensure flexibility for future adjustments to the client brief whilst still adhering to the principles established and endorsed by the design competition jury.

The following diagrams outline the envelopes both in plan and height as suggested at competition stage.

The design competition process facilitated an uplift in height of 15% in accordance with the design excellence provisions, or an additional 18m above the allowable height limit of 120m, as stated in the PLEP 2011.



ENVELOPE PLAN



ENVELOPE ELEVATION

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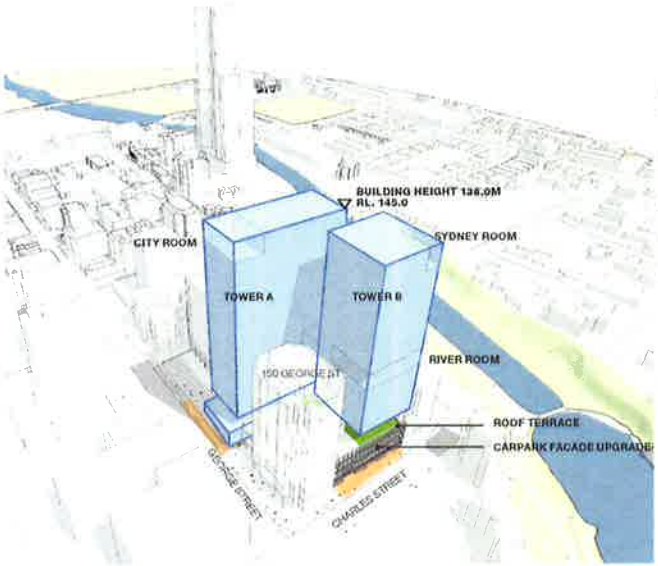
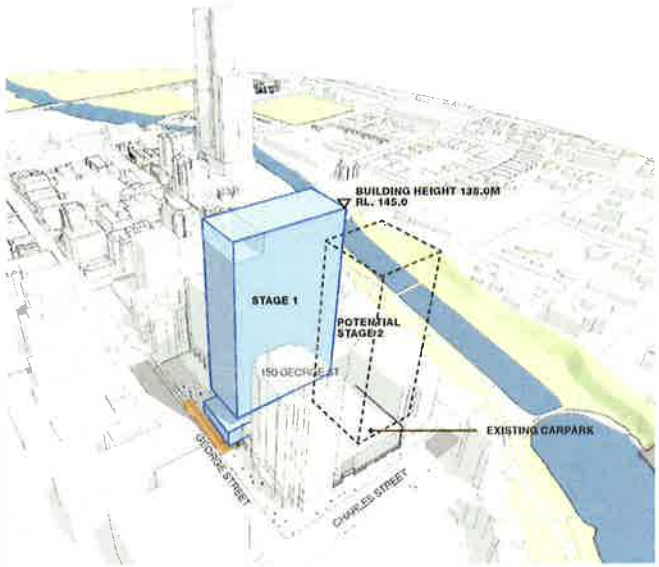
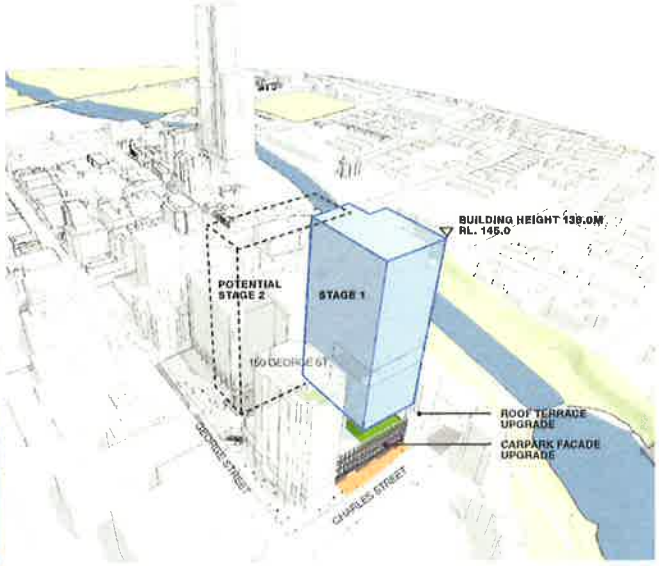






AREA OF PUBLIC
DOMAIN UPGRADE

WINNING DESIGN COMPETITION SCHEME

The above diagram shows the endorsed design competition scheme for the site which allowed for 2x towers able to be connected. Tower A had an area of 41,000sqm NLA & Tower B 35,000sqm.

The development would have a George Street address with a 4-storey podium whilst the existing carpark on Charles Street would be upgraded to integrate with the new tower over. A revitalised public domain at Charles Street would suitably respond to a scheme of this scale.

POTENTIAL SCHEME - STAGE 1

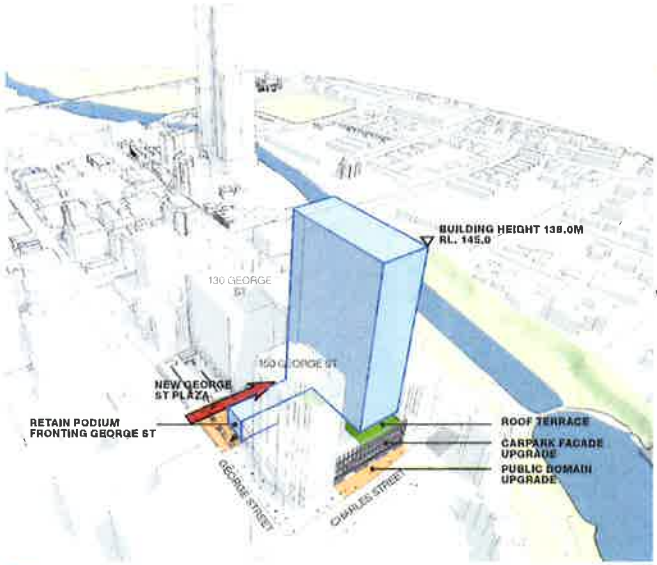
The design competition could therefore be adapted to comprised into a single tower accessed off George Street with a development of 40,000sqm. This scheme retains the existing 150 George Street podium carpark with an opportunity to develop this part of the site in future.

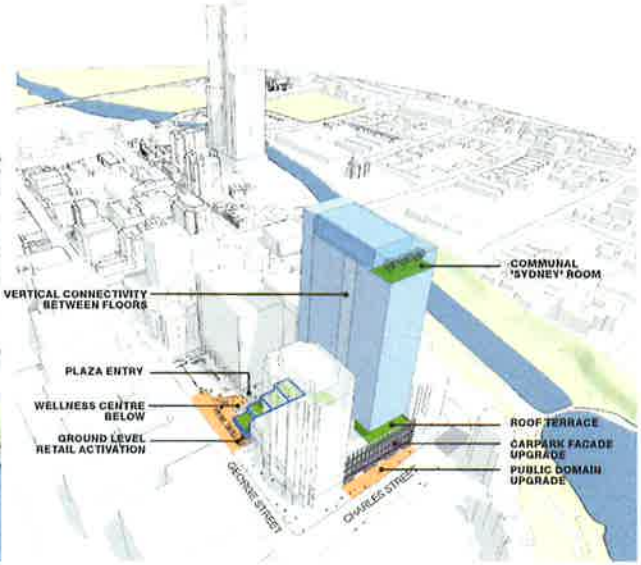
POTENTIAL SCHEME - ALTERNATE STAGE 1

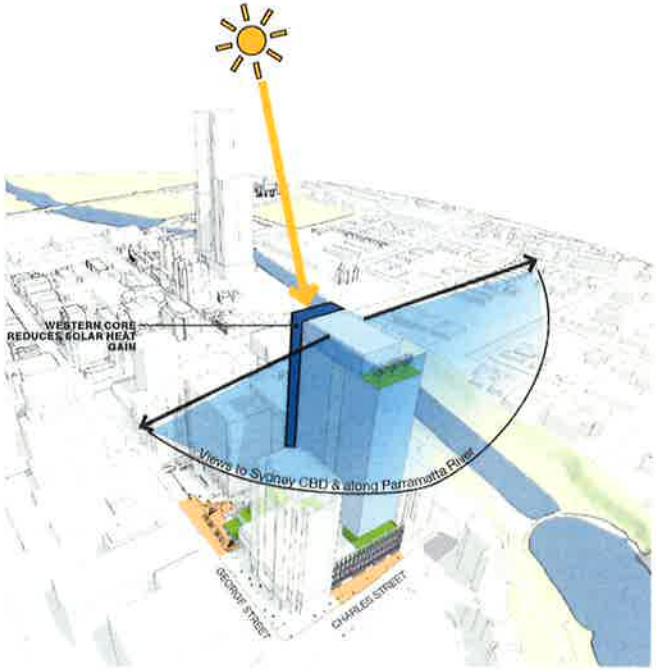
The design competition also allowed for a potential alternate staging strategy of a single tower constructed over the 150 George Street podium carpark with a potential future stage on the 140 George Street site.

This approach would trigger an up-grade of the podium carpark facade immediately under the new tower to create an integrated design solution and a revitalised public domain on Charles Street.

4.1
DESIGN APPROACH
CONCEPT







AREA OF PUBLIC DOMAIN UPGRADE

AREA REDISTRIBUTION - CREATE RECTILINEAR FLOORPLATE

The proposed scheme lies within the framework established in the design competition process therefore adhering to the principles endorsed by design competition jury.
The proposal consists of a tower located above the existing 6-storey carpark podium with a new 4-storey entry pavilion accessed off George Street. The development achieves a total GFA of 40,000sqm with rectilinear floorplates of 1650sqm. The buildings lift and services core is located to the west of the tower so to be constructed outside the existing carpark structure.

Main building address is via a new George Street plaza entry and 4-storey pavillion.

WORKPLACE AMENITY & ARCHITECTURE

The proposal utilises a number of key architectural moves that provide innovative workplace environment & amenity to promote "Wellness" of building occupants. These include:
- Interconnecting glazed firestair between floors in tower with natural light
- Dedicated 'Wellness Centre' at lower ground including a pool, gym, yoga & change facilities.
- End of trip facilities with bike store, lockers & change rooms linked to the pool area.
- Large external roof terrace at podium of existing carpark with potential retail offering
- Roof top landscaped communal space with mixed mode ventilation.
- Terraced podium with outdoor roof gardens & flexible conference, training spaces to supplement the commercial floors over.
- Active ground level retail.

CORE LOCATION & ESD ADVANTAGES

The core location to the west straddles the existing carpark structure below. The west facing core effectively shields the glazing from the harsher sun angle whilst maximising views and outlook of the river, city centre and Sydney CBD beyond.

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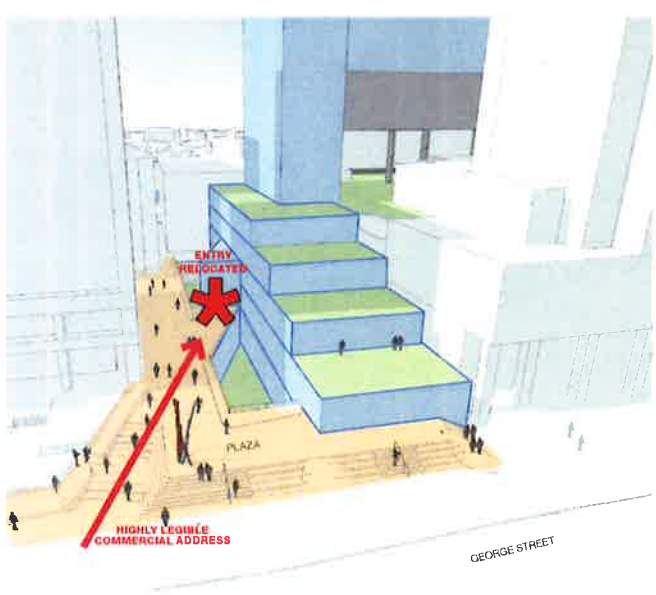
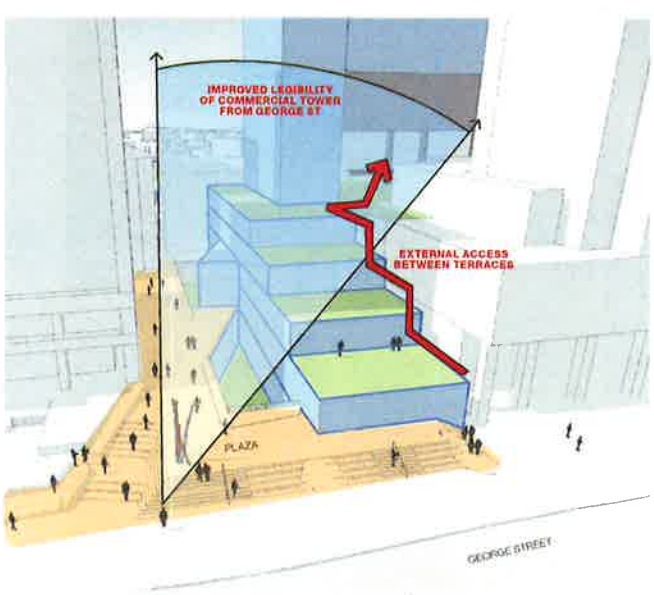
4.2
DESIGN APPROACH
TOWER

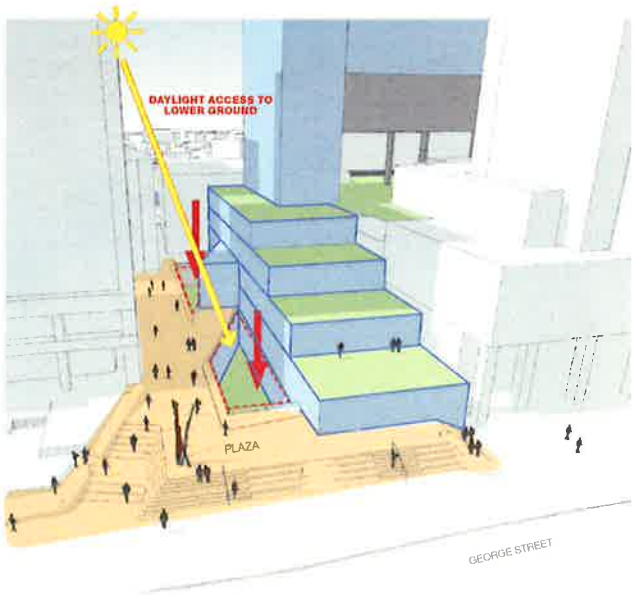
INTEGRATED ARCHITECTURAL FORM

The resulting proposal creates an integrated tower form that floats over the existing carpark. The new public domain interface with landscaped plaza's and an expanded retail offering ensures a vibrant & active streetscape.
The proposal demonstrates a consistency with the endorsed competition scheme whilst adapting to an evolving client brief to create a high-quality architectural commercial development aligned to the objectives of the Parramatta Design Excellence process.

4.3
DESIGN APPROACH
PODIUM MASSING







NEW GEORGE ST PLAZA

The location of the commercial lobby to the rear of the site positions the building's entry immediately adjacent to the lift core. A new public plaza accessed from George Street activates this thoroughfare via new retail offerings. The change in height from footpath level assists in mitigating flood control measures as well as creating the ability to connect to the existing 130 George Street forecourt to the west.

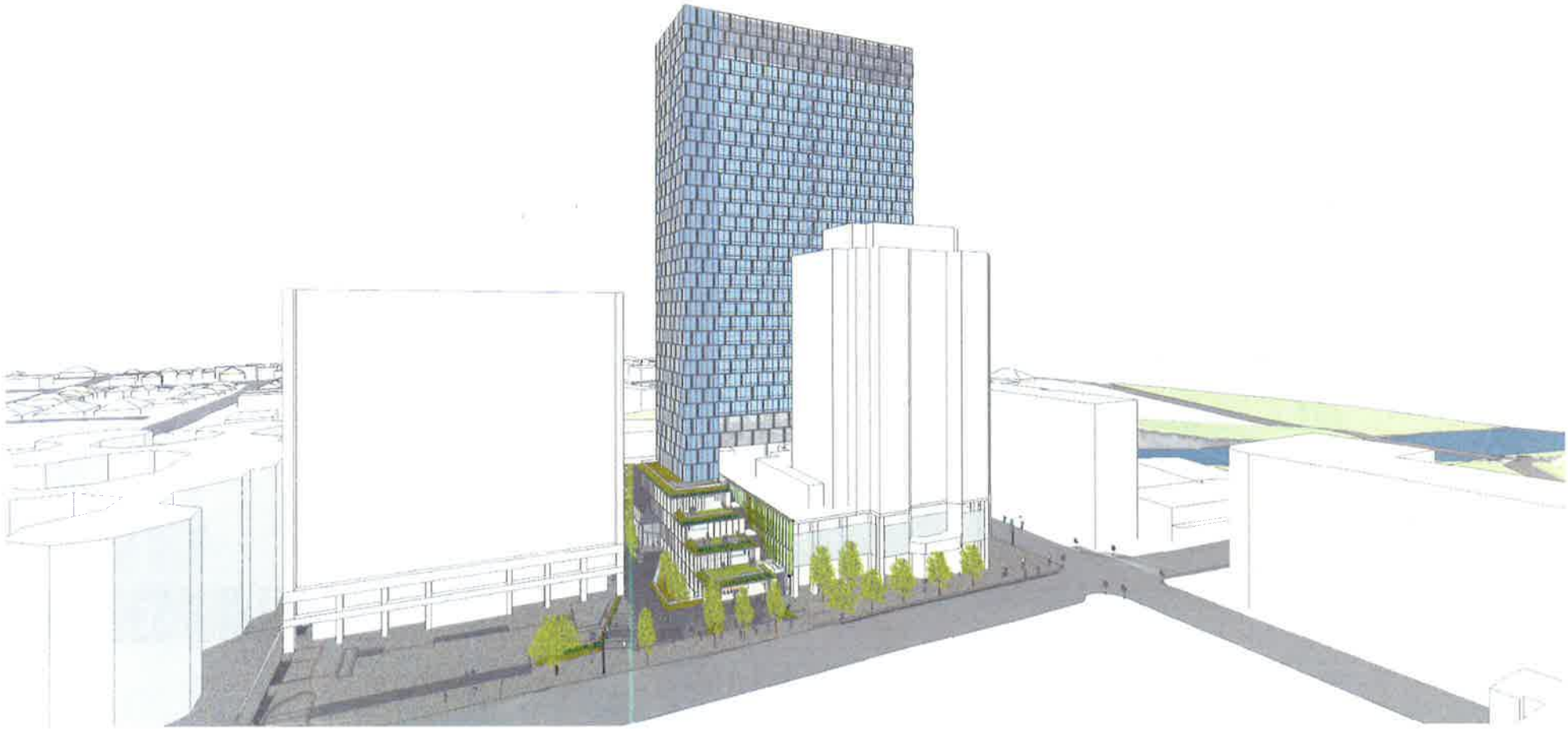
STEPPED FORM IMPROVES VISUAL CONNECTION TO COMMERCIAL TOWER

The scheme proposes a stepped or terraced built form to the podium to improve the visual connection to the tower beyond, when viewed from George Street plaza entry. The terrace-form also creates usable landscaped roof areas for improved occupant amenity. Roof level access is proposed between these levels and a large roof terrace above carpark to link all external areas of the building.

SUNKEN GARDEN FOR WELLNESS & RECREATION

With the creation of a sunken garden the legibility of the building address is enhanced via a direct bridge-link to lobby. Daylight access is also now achievable to this lower level and therefore can be utilised for additional uses. At this lower ground level a "Wellness Centre" with direct access to a private landscaped garden is proposed with a pool, gym & expanded end-of-trip-facilities that compliment the large commercial building over.

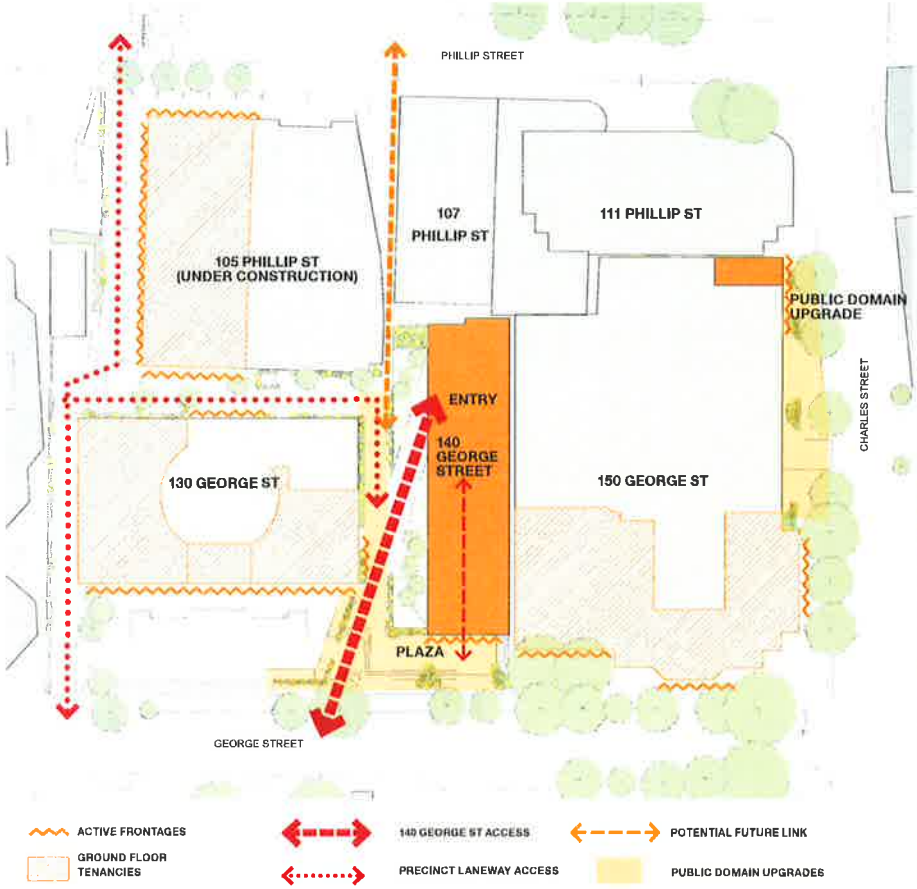
4.4
DESIGN APPROACH
OVERVIEW



5.0
DESIGN DESCRIPTION
PUBLIC PLAZA

The proposal creates a new public plaza off George Street that acts as a forecourt to the commercial development. This plaza clearly denotes the building entry and will connect with existing laneway through-site links of the site (currently under construction) to create a highly accessible, safe & active public precinct. The plaza will be landscaped and the geometry of the steps enhance legibility of address. Areas of retail activate this public space and external seating such as bleachers and cafe retail seating provide opportunities for gathering.

In addition to the George Street frontage, a new upgraded public domain at Charles Street utilises the wide footpath and provides landscaping and fixed seating for passive recreation. A new retail offering to the northeast corner of the site further enhances opportunities for activation to revitalise this currently under utilised street frontage.



GEORGE STREET PLAZA

BATESSMART

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5.1 DESIGN DESCRIPTION

GROUND PLANE

The proposed ground plane aims to reinvigorate the public domain to create a vibrant and active plaza worthy of a major commercial development. The new plaza off George Street denotes the key access to a major new commercial lobby with retail fronting George Street. The plaza continues through the site and connects with an existing through-site link connection between George and Phillip Streets at 105 Phillip Street.

The finished floor levels of the public domain have been established through meeting the desired minimum habitable flood level of RL 8.78 which includes 500mm of freeboard and other constraints such as existing levels and service access requirements. Steps have been carefully designed to allow for east-west access to 130 George Street forecourt and the forecourt in front of 150 George Street.

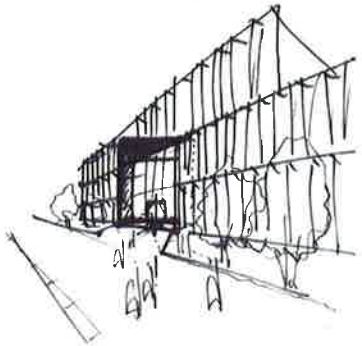
The plaza wraps around a sunken court or garden that enables the lower levels access to daylight and provides an accessible garden for relaxation with a lush backdrop to the wellness centre.

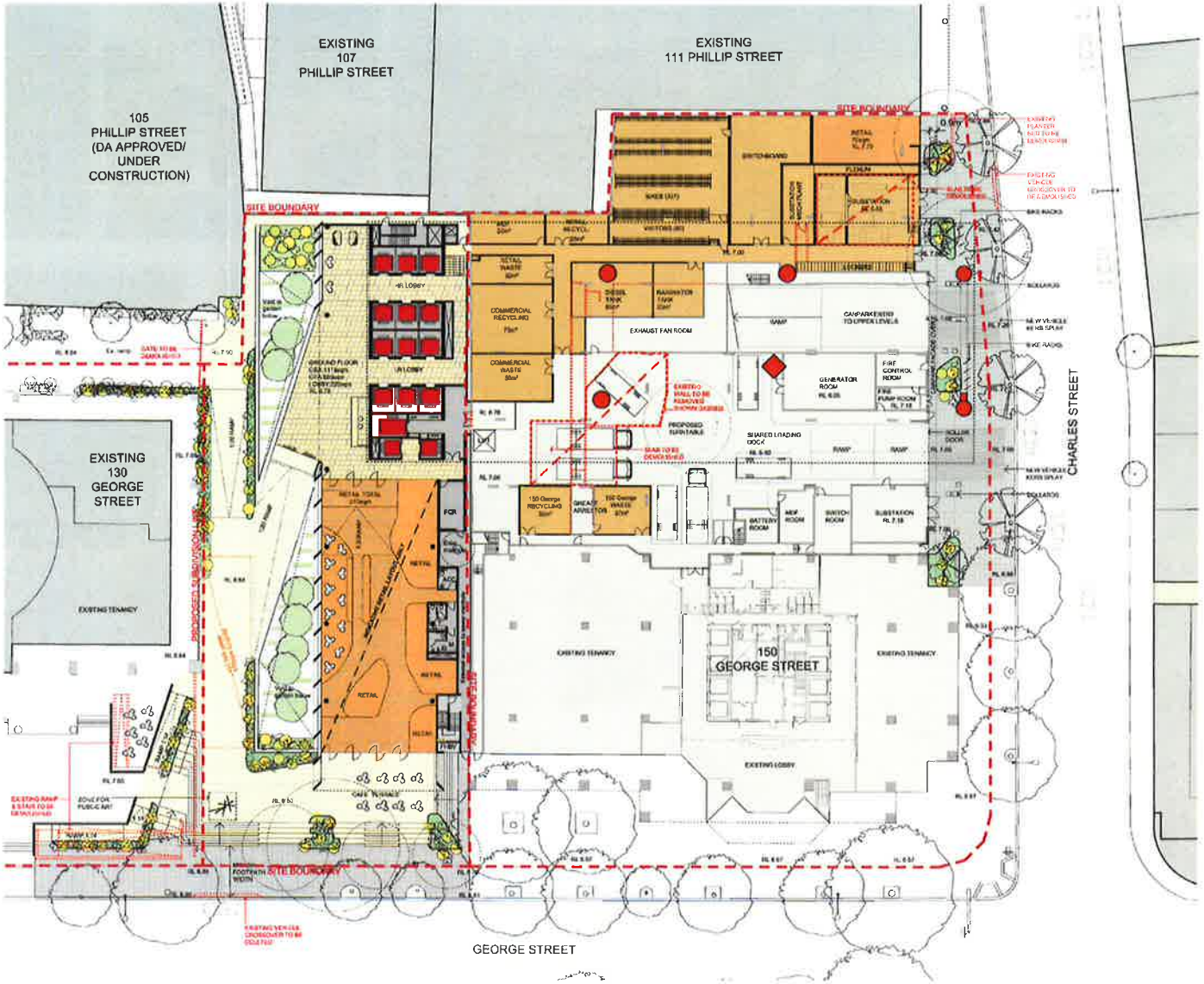
Retail is also proposed at Charles Street with an upgraded landscaped public domain to activate a under utilised street frontage.

The Charles Street frontage is to be reinvigorated with public domain upgrade that is landscaped and includes small retail opportunity to activate the street frontage and an access to the main bike parking facility for the EOTF.

Service access and vehicle access is via existing footpath cross-overs at Charles Street, one vehicle cross-over to the north is to be deleted and this portion of carpark to be converted into back of house areas such as bike parking, waste rooms and a new substation fronting Charles Street will serve the commercial building over.

The existing loading dock is to be enlarged to accommodate the additional commercial and retail accommodation.





GROUND FLOOR PLAN

VIEW FROM GEORGE STREET

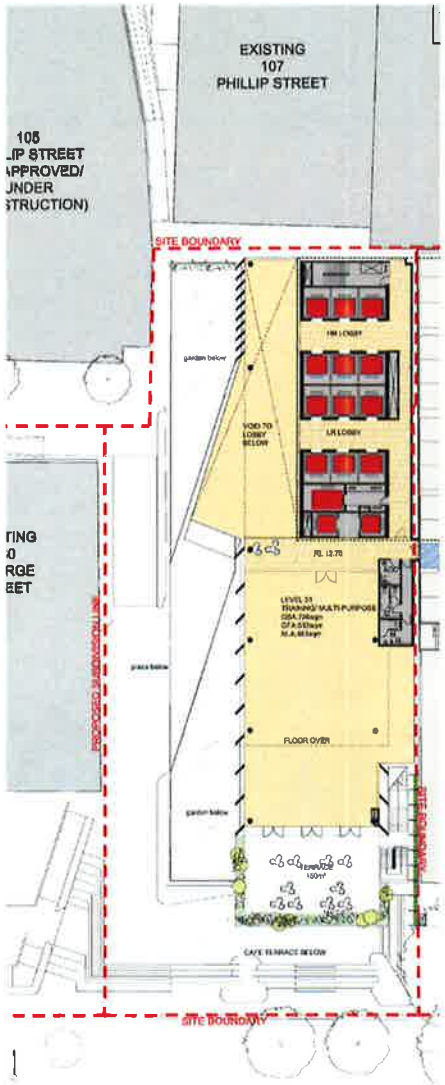
5.2 DESIGN DESCRIPTION

PODIUM AMENITY

The podium levels of the proposal are planned as support space or multi- purpose areas that act as "public interface" functions for the building. These levels could accommodate meeting facilities or training space, lounges or small conference rooms.

Each of these levels have access to external landscaped roof terraces and are linked via an external stair.

This stair also gives access to a large roof terrace areas at Level 04 above the Charles Street carpark. This level may accommodate a small retail offering. Lift access to the parking levels is possible from this level via a transfer floor from the tower lifts to the carpark shuttle lifts.



LEVEL 01 PLAN

LEVEL 03 PLAN ROOF TERRACE

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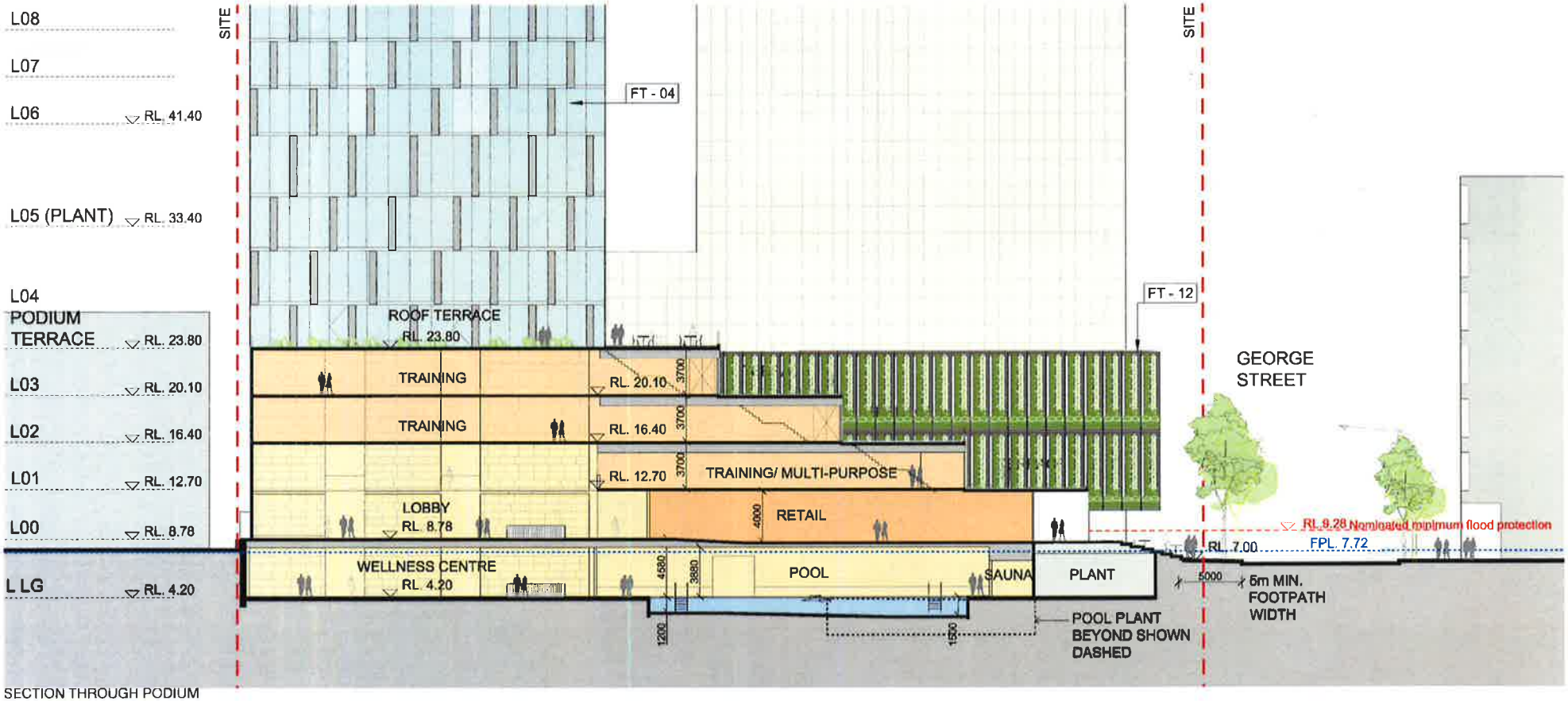

SECTION THROUGH PODIUM






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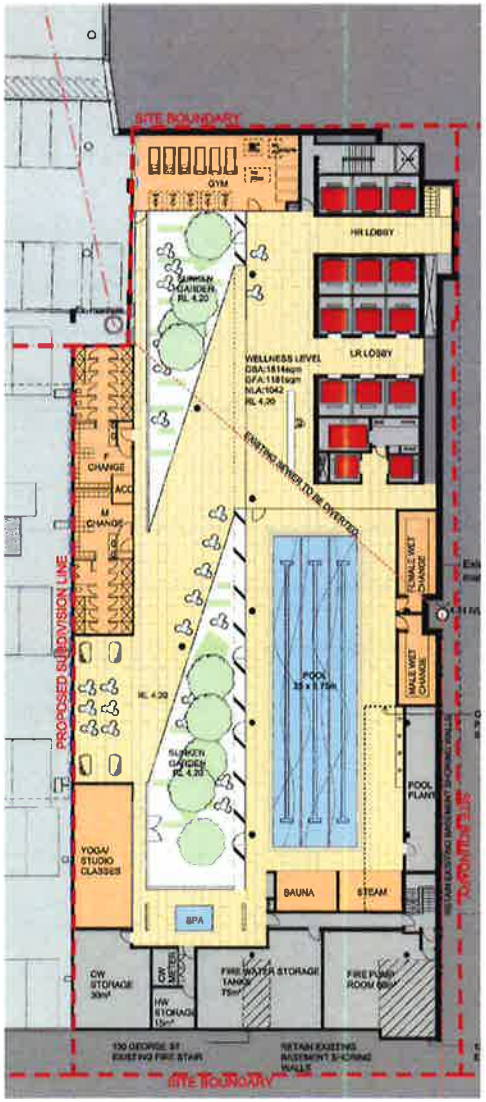
5.3 DESIGN DESCRIPTION

WELLNESS CENTRE

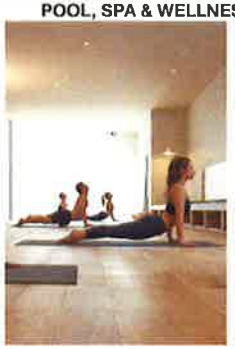
The proposal includes a lower ground level with accommodation for an expanded end-of-trip-facility (EOTF) that could include a pool, spa, yoga studio & gym in addition to change room facilities. This level is closely linked to the bike store accessed off Charles Street.

All lifts in the building can access this level to promote convenient use from the tower & carpark levels over.

The interior space wraps around two sunken gardens, with lush planting and seating which will provide quiet semi-private courts for recreation and respite whilst provide an excellent backdrop for the exercise and wellness facilities at this level.



POOL, SPA & WELLNESS CENTRE



WELLNESS CENTRE PRECEDENTS

SUNKEN GARDEN VIEW






SUNKEN GARDEN PRECEDENTS

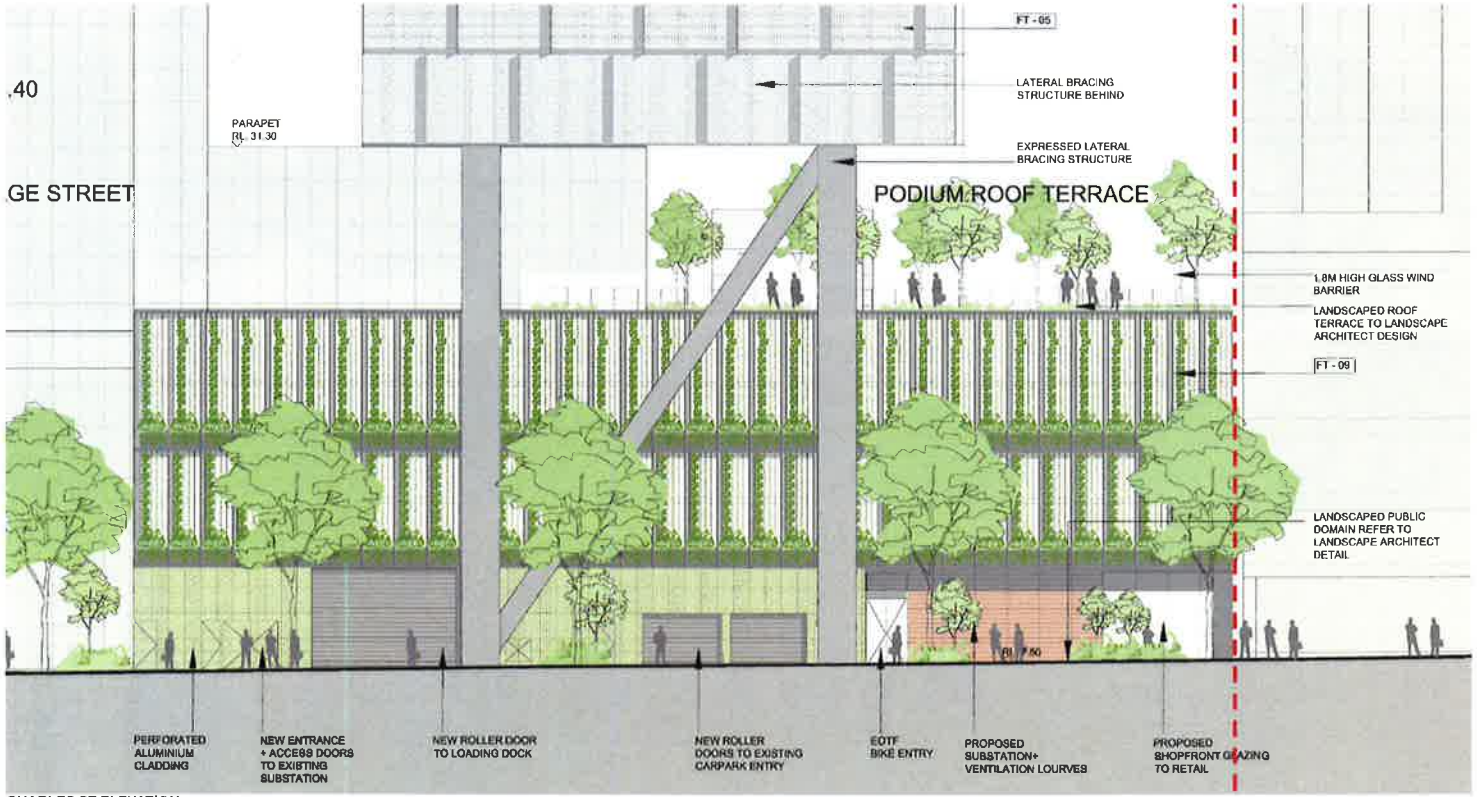
5.4 DESIGN DESCRIPTION
CHARLES ST

Part of the design competition brief called for an updated carpark facade to the above-grade parking structure at Charles Street. This was to ensure an integrated solution for Charles could be possible as well as providing an opportunity to enliven an under-utilised street frontage.

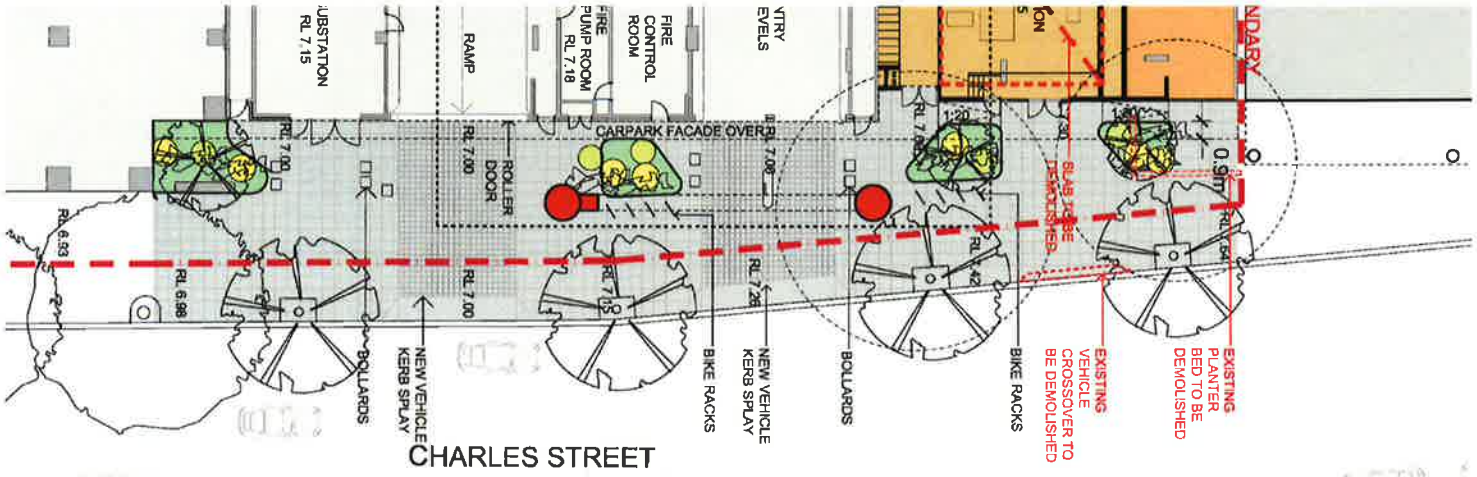
The current frontage generally accommodates all the service access for the existing building including, loading dock, two vehicle access footpath cross-overs, substation and other buildings services and egress doors.

The design proposal introduces a new facade treatment to the parking levels over consisting of perforated metal baffles with vertical planting that visually screen the cars whilst maintaining the car park ventilation requirements. This design suitably responds to the functional requirements of the podium's use whilst clearly relating to the tower over. A series of columns are located in the public domain within the site boundary to manage the lateral bracing of the tower over. These column locations provide minimum of 4m footpath width.

At the ground level the northern footpath vehicle cross-over has been removed to accommodate a new retail offering, access to the EOTF bike store & a substation that serves the new commercial building over.
The retail has been recessed to articulate the new use and provide some shelter at street level. New planting and fixed seating further activate and soften the building interface whilst a generous footpath width is retained to allow for shore-lining from the existing 150 George Street facade line.



CHARLES ST ELEVATION



CHARLES ST PLAN

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CHARLES ST PLAZA





CHARLES ST INTERFACE PRECEDENT IMAGES

5.4 DESIGN DESCRIPTION

BUILDING SECTION

The composition of the building is broken into two distinct components. These are, the tower and the podium below which are connected via the lift and services core that straddles the existing carpark structure. The location of this core minimises impact on demolition of this structure. To enable this concept, a large steel structural transfer occurs above the podium with a limited number of columns penetrating the carpark levels by-passing the existing tenancy and major services of the building. This effectively creates a floating tower over the existing structure.
The base of the tower is 26m above street level adhering to the principles set out in the built form control of the DCP Street frontage height for Charles Street. When viewed together along Charles Street the towers of 150 George Street and the proposal are separated 14m at the facade line. This reduces to 10m at the upper levels and is 7m for the lowest seven levels of 150 George tower.

The structural transfer level accommodates building plant such as mechanical system for the building with an additional area of plant on the roof.

The tower consists of two lift rises with a mid-building lift transfer level. A roof terrace is proposed at Level 31 which will take advantage of the best views and outlook from the site as well as provide excellent amenity to occupants of the building.

The 4-storey podium aligns with the height of the existing 150 George Street carpark and is setback 13m from 130 George Street building to create a plaza and connection to the building lobby. The lobby will be 2-storeys in height to create a sense of arrival and generous entry. Below ground level is a floor of facilities known as the Wellness Centre which accommodates an expanded EOTF including showers, gym, pool sauna and spa and is closely linked to secure bike storage are located in the basement of the 150 George Street carpark.

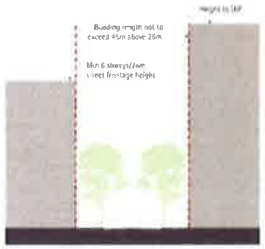
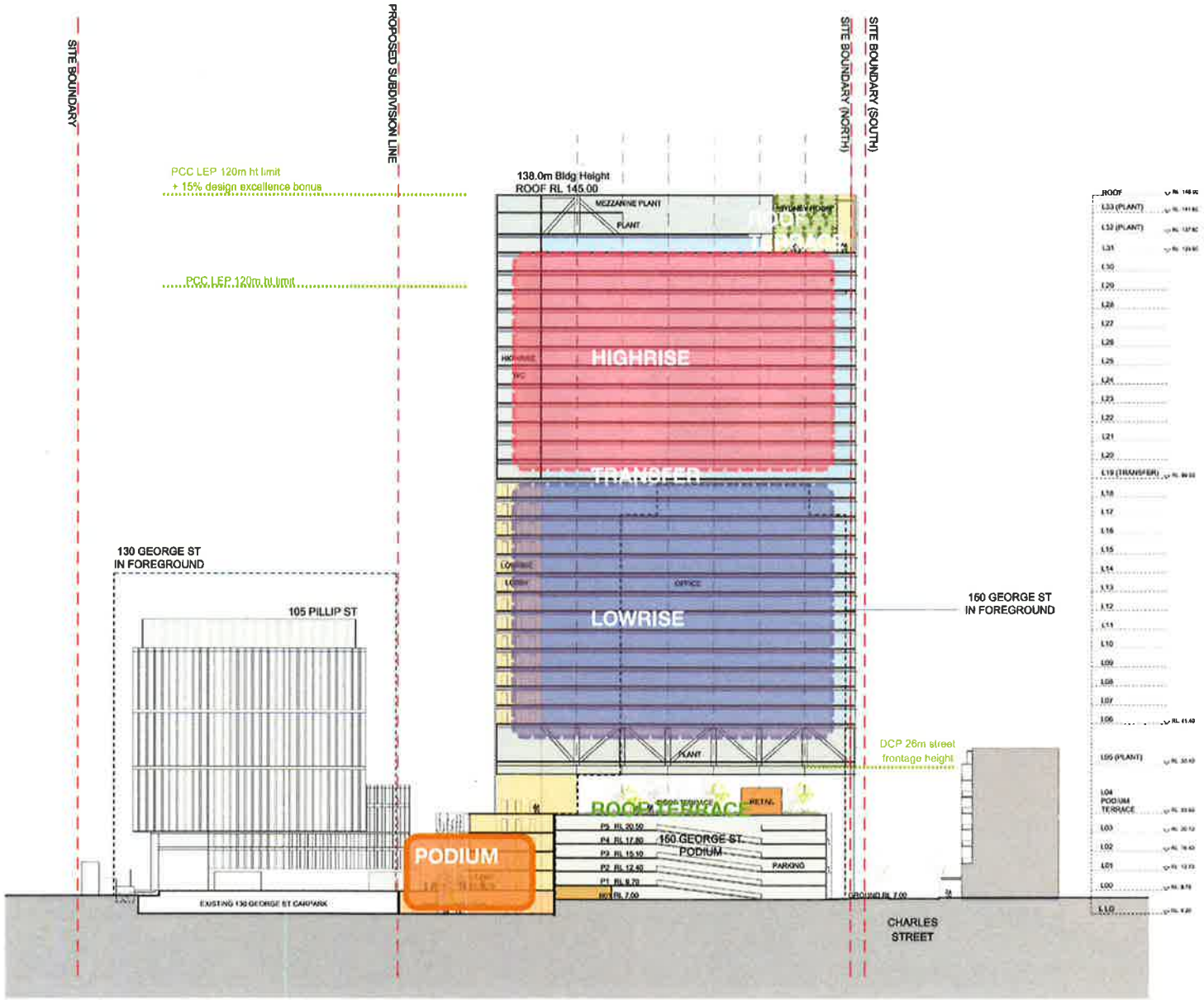


Figure 4.3.3.1.10
Street Frontage Heights and Upper Level Setbacks
Charles Street



SECTION A-A

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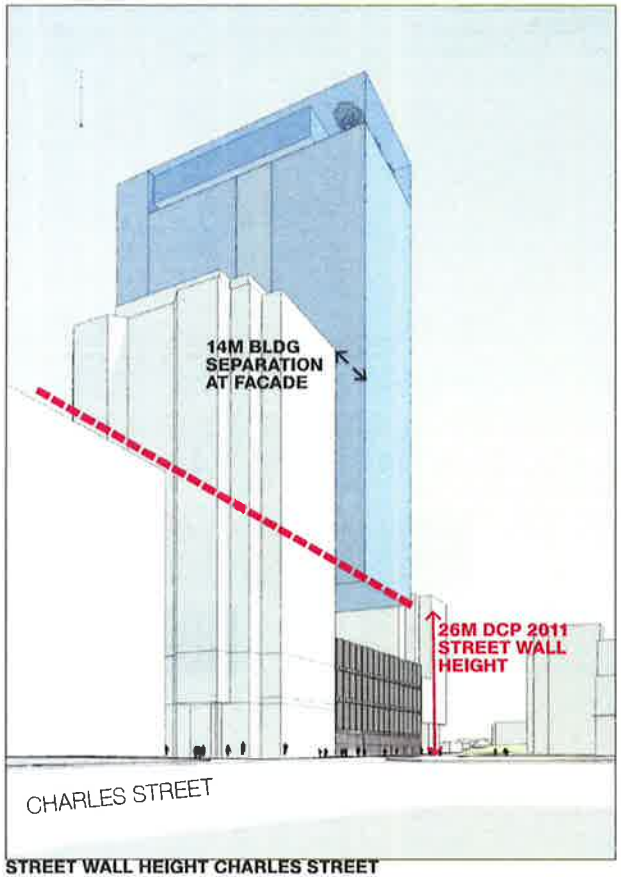
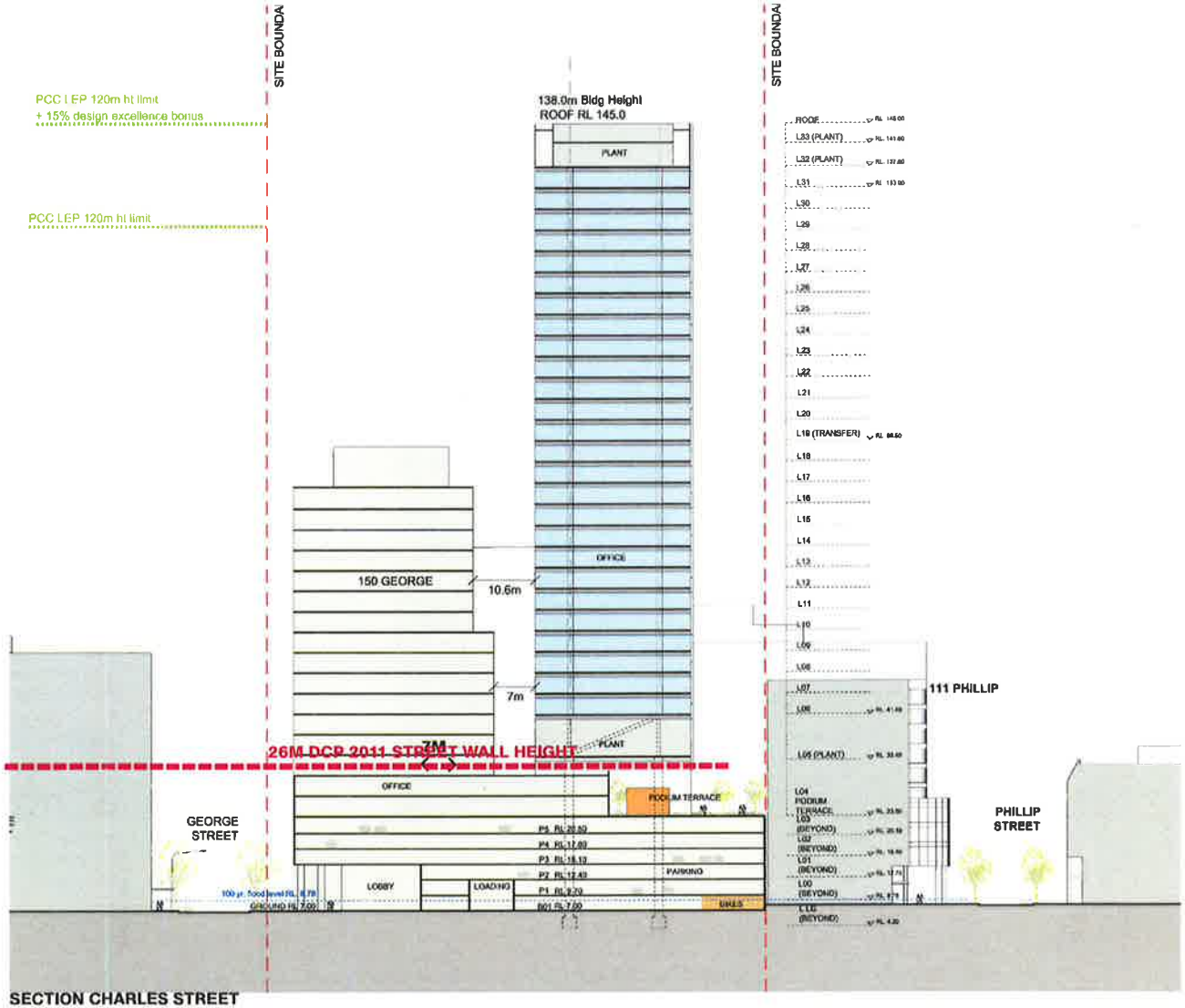
5.5 DESIGN DESCRIPTION

STREET WALL ALIGNMENT



STREET WALL HEIGHT CHARLES STREET



SECTION CHARLES STREET

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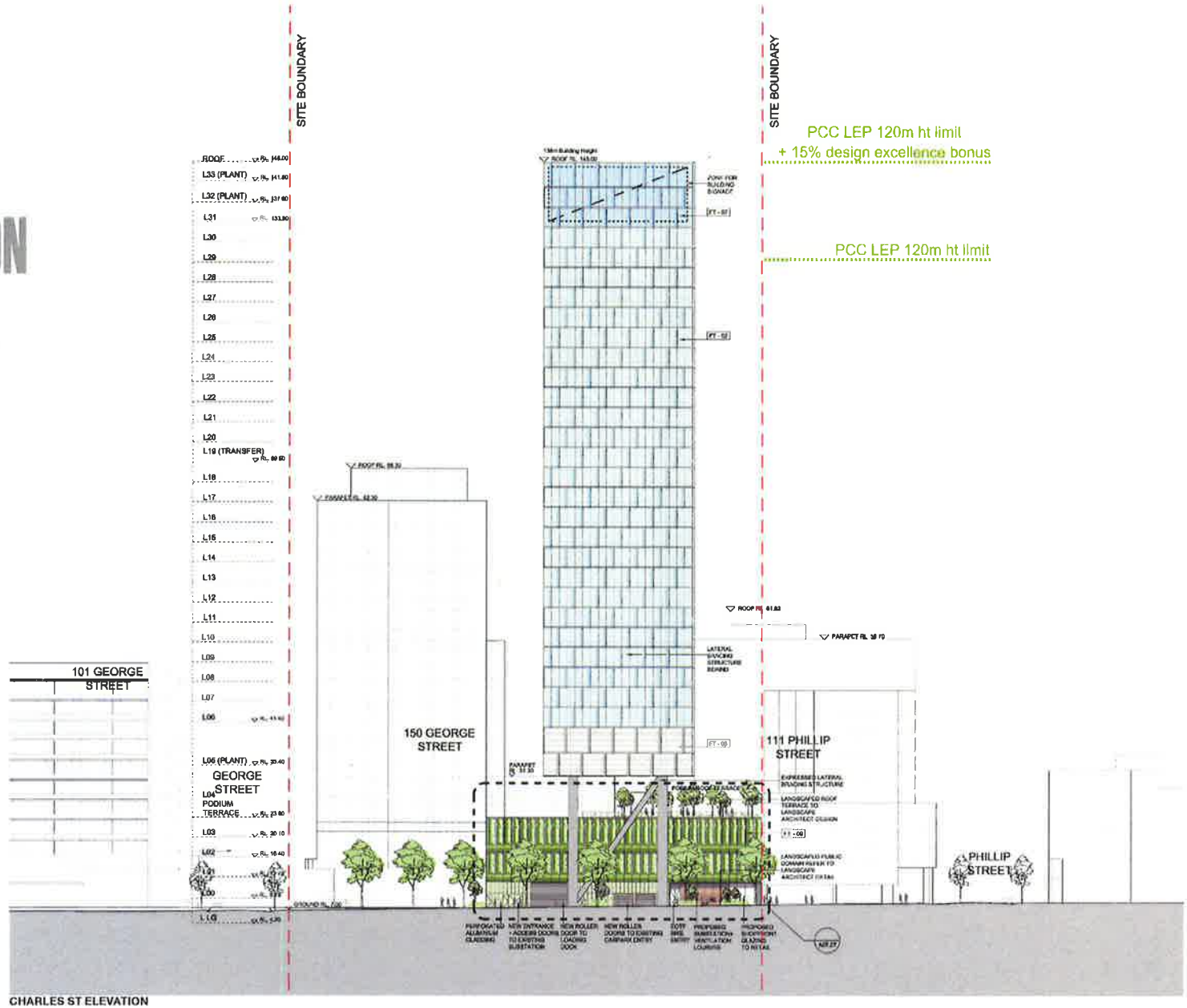
5.6 DESIGN DESCRIPTION
CHARLES ST ELEVATION

The resulting architectural form creates a slender tower when viewed along Charles Street. The tower is setback minimum of 7m from 150 George Street that steps out to 10m at the upper levels of this building. To the north the tower is setback 12.7m from 111 Phillip Street.

The tower effectively floats over the carpark structure below whilst the buildings lateral structure ties the tower to the street level. The upgraded podium facade with screen planting softens the parking structure and presents a colourful and visually striking architectural statement to Charles Street.



CHARLES ST ELEVATION

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VIEW ALONG CHARLES STREET

5.7 DESIGN DESCRIPTION

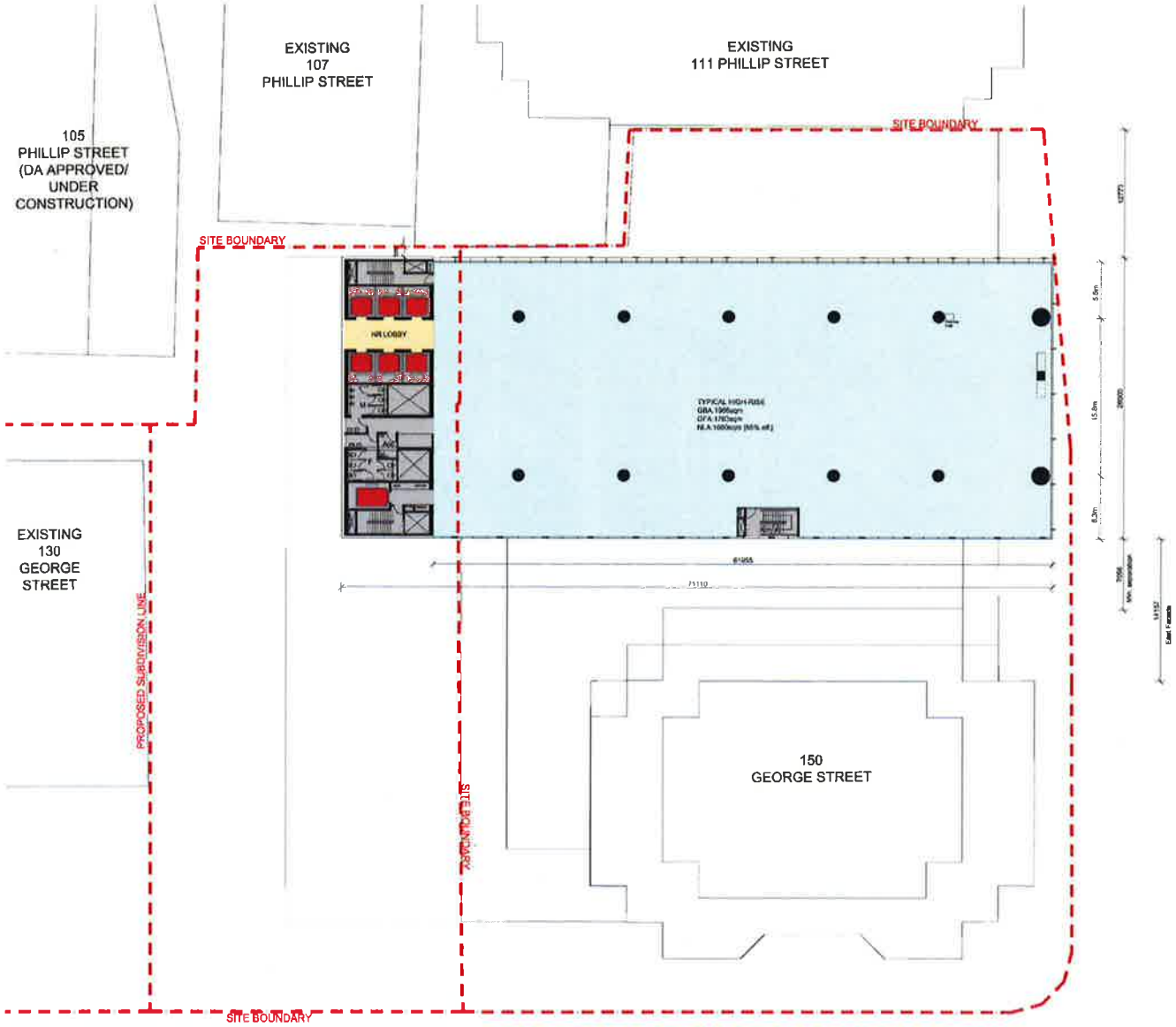
TOWER FLOORPLATE

Above the structural transfer level the tower is consistent in built form as a rectilinear floorplate with a lift and services core to the west. This creates a large open and contiguous floorplate with excellent daylight access and extensive views to the north, east and south. Lifting is grouped into 6x lowrise lifts and 6x highrise that transfer at Level 19. Bathrooms are located on the facade to achieve natural light to the amenities and firestairs are located in each corner of the core. An additional firestair, required to ensure minimum egress distances from tenancy subdivision, is to be glazed to encourage inter-floor connectivity between floors whilst providing additional natural light.

The large structural span with only 2x rows of central columns reduces impact on fitout ensuring flexibility for future tenants. The ends of the floorplate are cantilevered to provide column-free facade zone.

The core location on the west of the floor improves environmental credentials of the building effectively shielding the glazing from the harshest westerly orientation.

The floorplate is to be setback a minimum of 7m from the adjacent 150 George Street building and 12.7m from 111 Phillip Street with a zero setback at Charles Street that tapers according to the existing site boundary geometry.

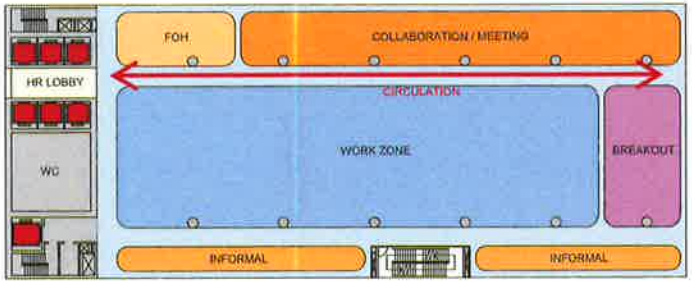


TYPICAL HIGH-RISE FLOOR PLAN

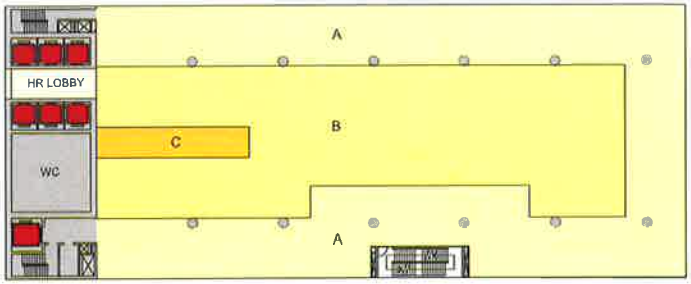
5.8 DESIGN DESCRIPTION FLOORPLATE ANALYSIS

An analysis of the floorplate design was undertaken to understand the potential workplace configuration and opportunities for the building. This has shown the current design to be highly flexible and adaptable to accommodate both single tenant floors with a design that meets current commercial market expectation, as well as, a subdivided option where each tenant has good access to the facade for views and daylight.

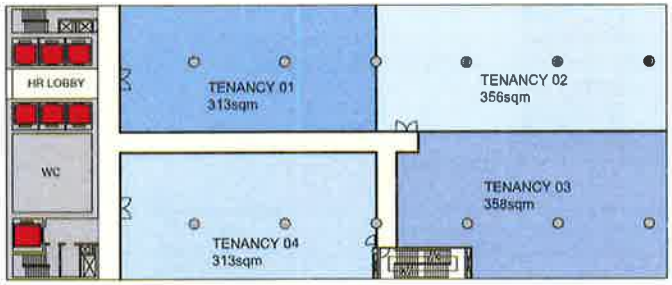
This design approach aims to ensure sustainable and long-term viability of the building's use.



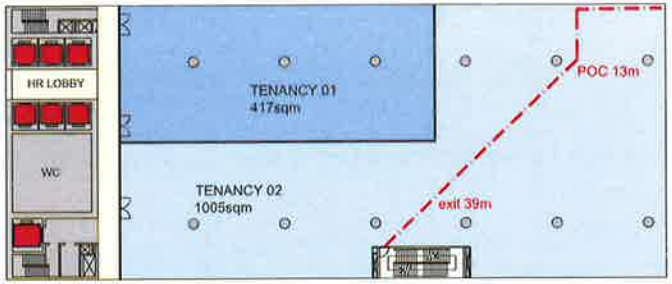
1. FLEXIBLE FLOORPLATE
/ 28m wide contiguous open floorplate with 16m clear workzone between columns
/ encourage inter-connectivity between floors with glazed fire stair
/ maximise adaptability of workspace groups to expand or contract
/ opportunities for informal collaboration and breakout with the best views



2. DAYLIGHT ACCESS
/ minimal amount of type c space due to 3x facades of natural light
/ glazed firestair does not reduce daylight access



FOUR TENANTS
3. SUBDIVISIBILITY FLEXIBILITY
/ ability to subdivide floorplate to ensure maximum of 4 tenant split
/ each tenant has access to facade
/ additional stair on the floorplate maximises tenant subdivisibility.

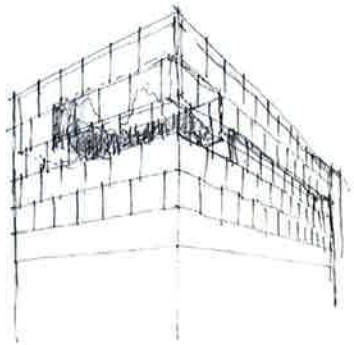


TWO TENANTS

5.9 DESIGN DESCRIPTION

ROOF TERRACE

The roof terrace at Level 31 is located on the eastern portion of the building to take advantage of the best views along Parramatta River towards Sydney CBD skyline. This space is proposed to be landscaped and will have a glazed perimeter facade to protect from wind.



ROOF TERRACE FLOOR PLAN

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ROOF TERRACE

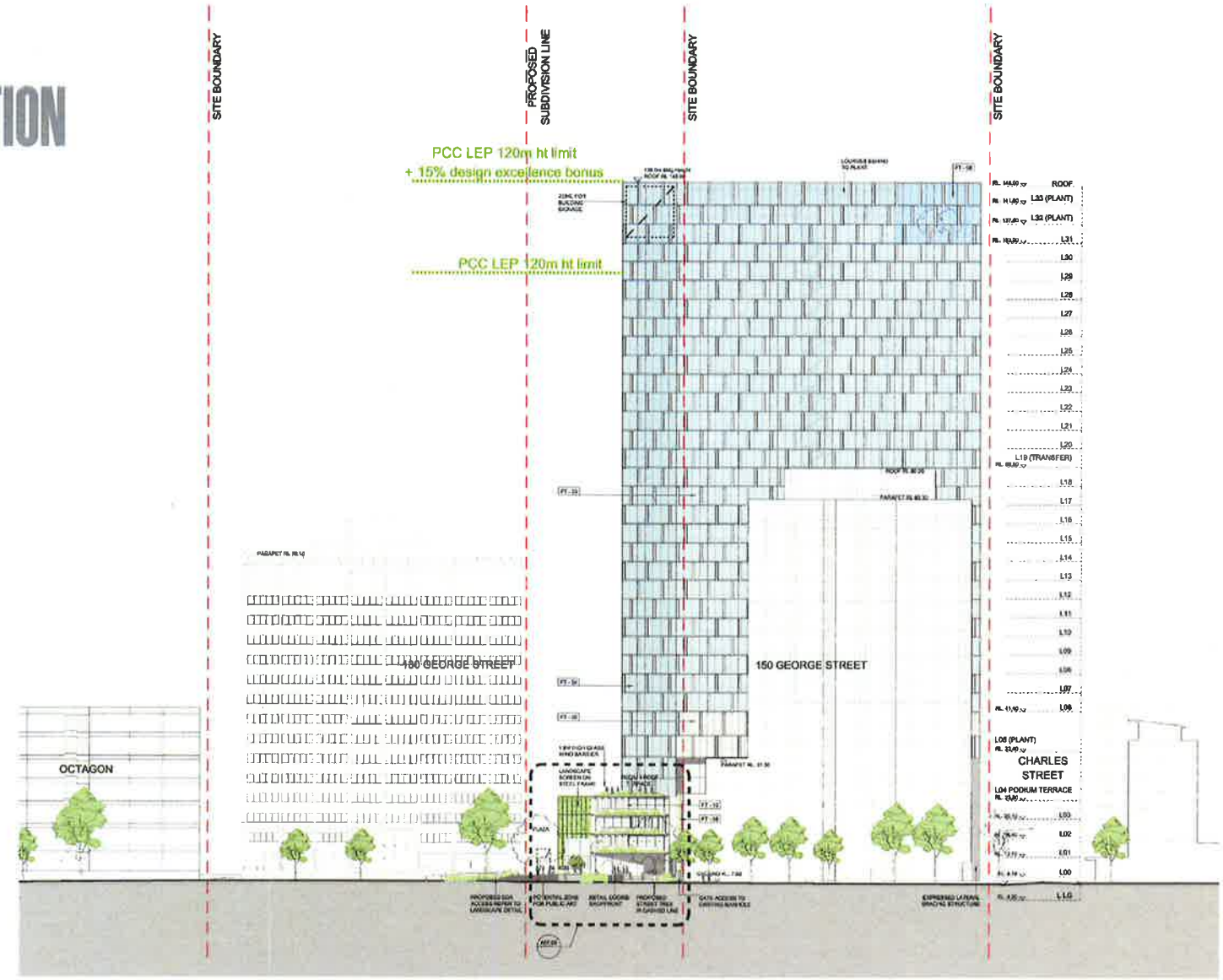
ROOF TERRACE PRECEDENTS

5.10
DESIGN DESCRIPTION
GEORGE STREET ELEVATION

The proposed tower is setback considerably when viewed from George Street and will act as a backdrop to taller buildings along the street. The 4-storey podium fronts the street and continues the street wall alignment of 150 George Street building.

The rooftop terrace is expressed through a change of glass type and together with the plant levels articulate the roof of the building. The glazed firestair can be subtly read through the facade and the glazed core help to create multiple layering of the buildings composition. A sequence of vertical and horizontal spandrel panels make a pattern across the facade to animate and enliven the skin of the building.

The podium is setback 13m from 130 George Street to emphasise the plaza link and address to the building lobby beyond and the landscaped terraces soften and animate the base of the building. Retail frontage to George Street activates and engages with the public domain.



GEORGE STREET ELEVATION

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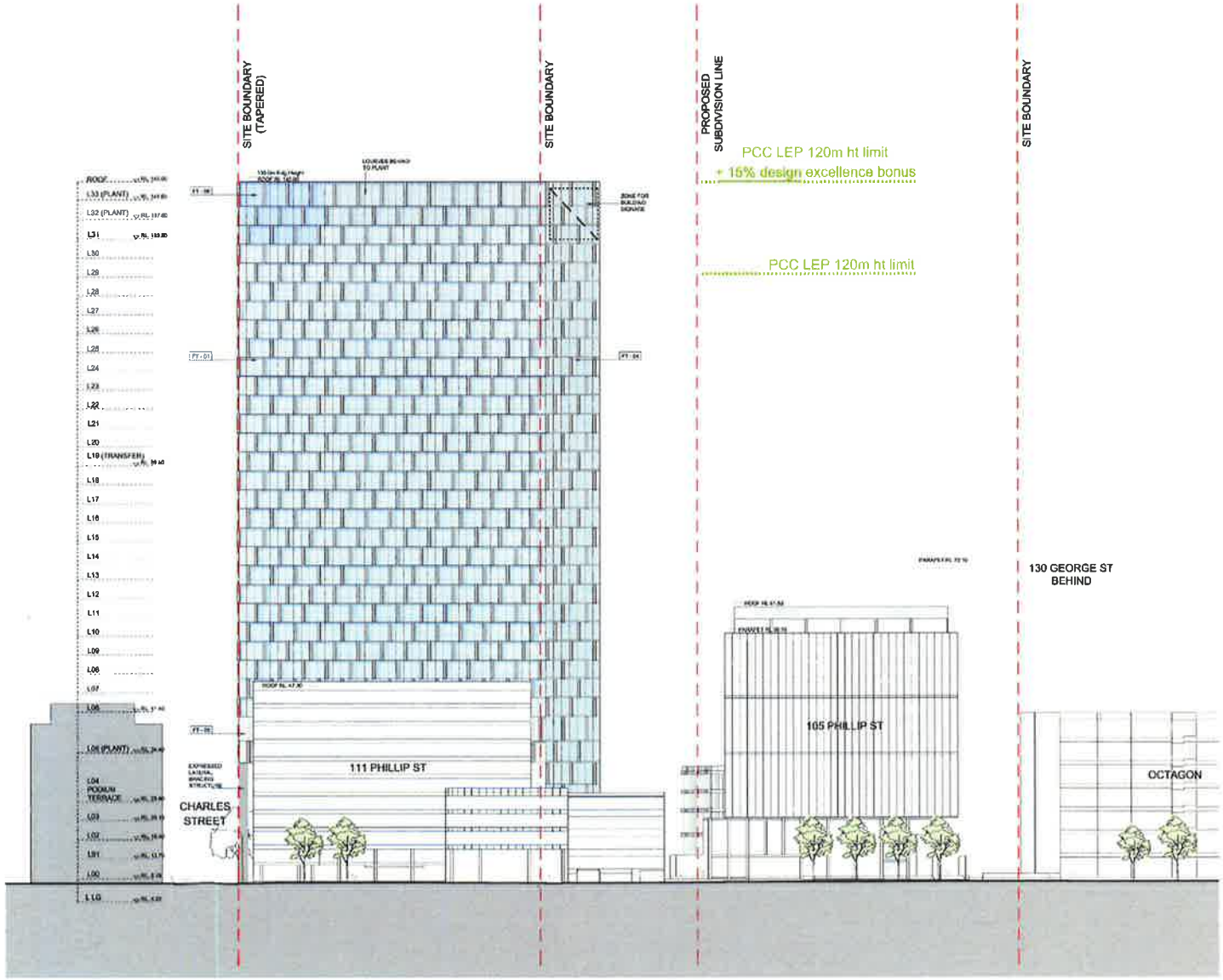
5.11
DESIGN DESCRIPTION
NORTH ELEVATION

The north elevation consists of a repetitive facade model comprised of horizontal and vertical sunshades. This repetition creates a decorative, 'jewel-like' skin to the building.
The rooftop terrace is expressed through a change of glass type and together with the plant levels articulate the roof of the building. The glazed core with in-fill aluminium spandrels that reference the pattern of shading subtly contrasts to the vision glass of the office zones to create layering of architectural elements.



NORTH ELEVATION

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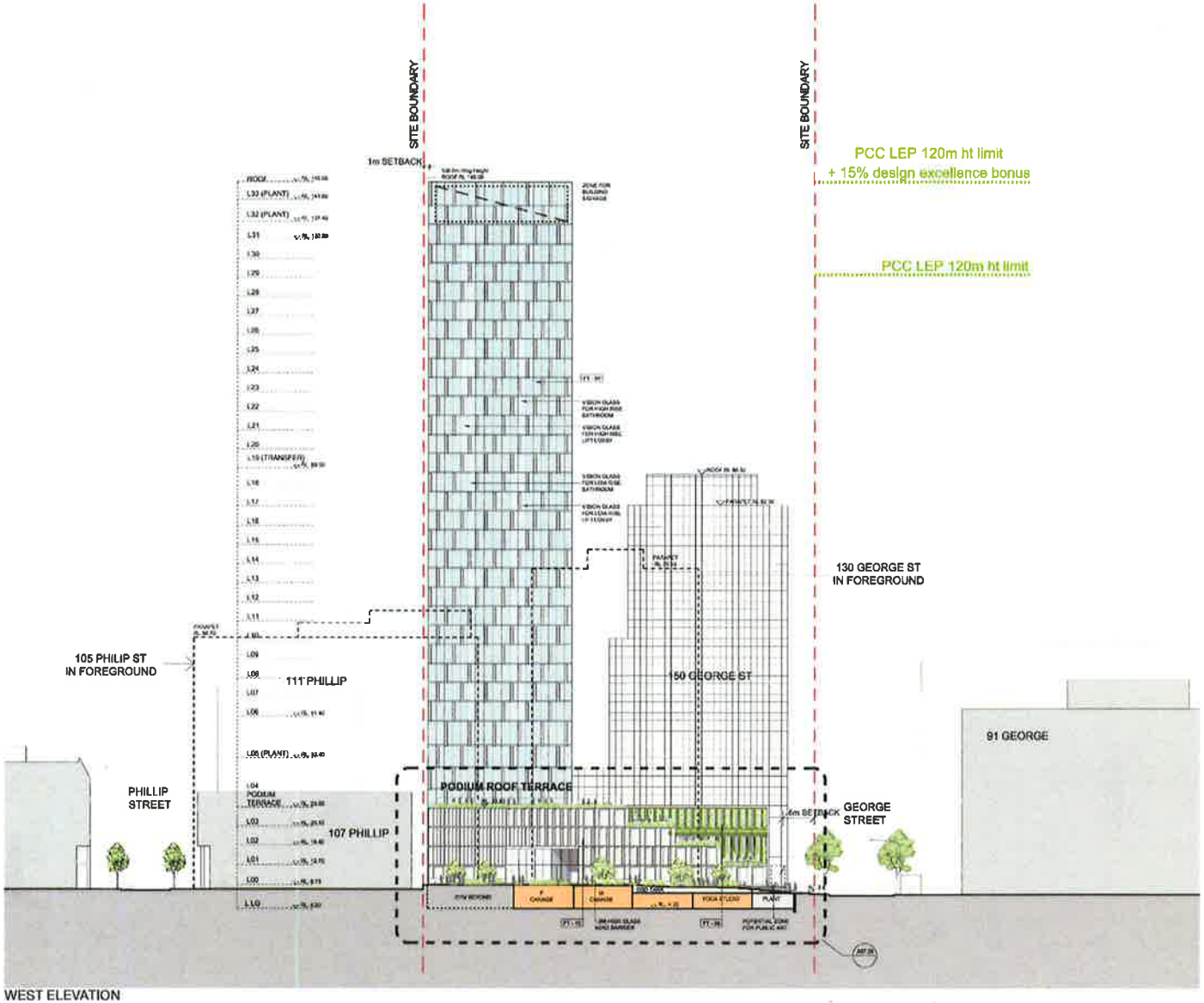
5.12
DESIGN DESCRIPTION
WEST ELEVATION

To the west, the buildings core location provides a physical screen to the harsher climate conditions of a west orientation. Heatload onto office levels vision glass is therefore reduced whilst a high quality facade design of colour-backed glass with in-fill spandrel continues the facade treatment around the building. This approach animates a potentially very blank tall facade of the building and glazing to bathroom on this elevation provides natural light to the amenities.

Opportunities for signage at the top of the core utilise the high visibility of this elevation from Parramatta CBD and surrounds.



WEST ELEVATION

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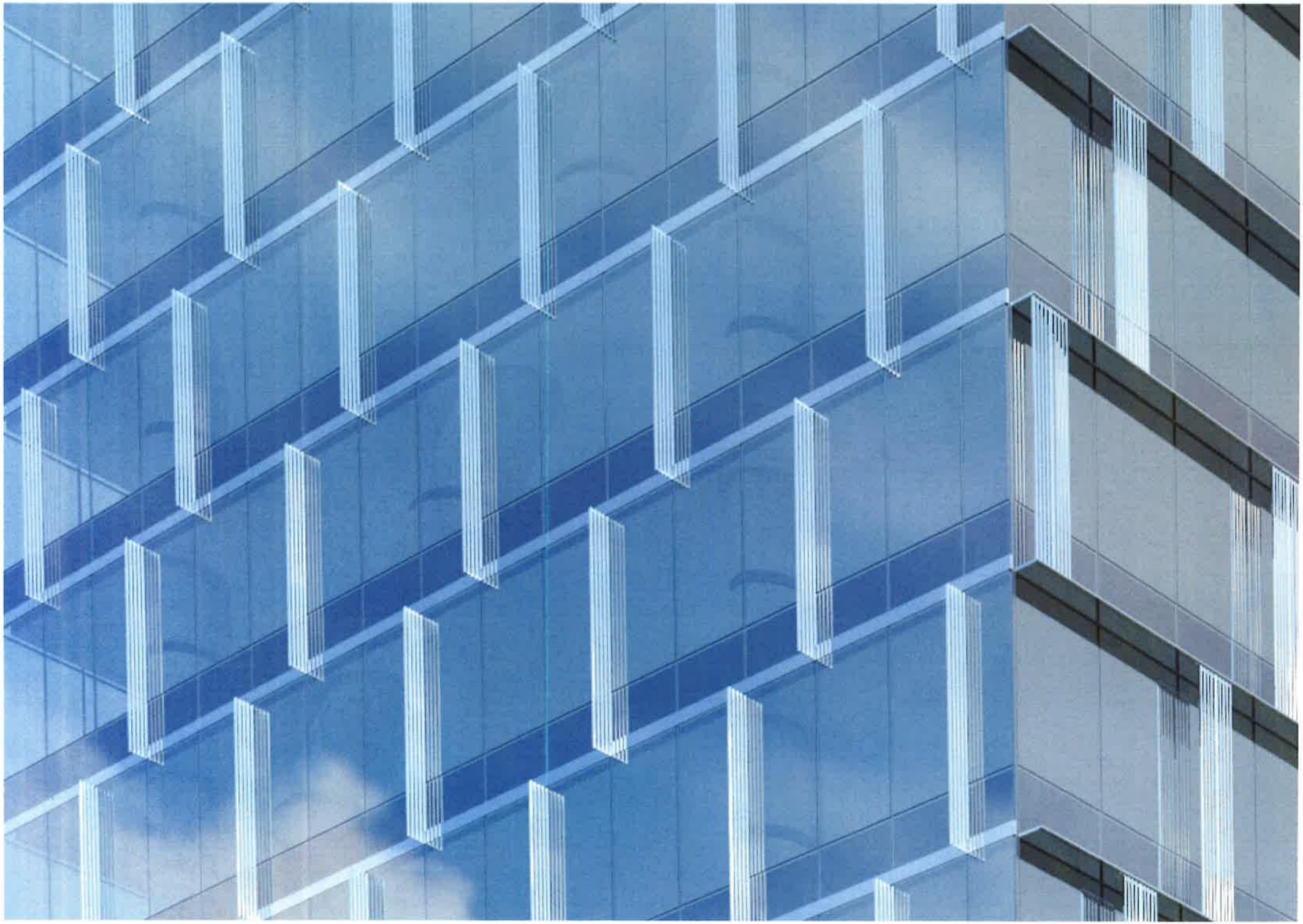


FACADE & ESD

6.0
FACADE DESIGN
CONCEPT

The facade concept carefully manages key environmental criteria, such as, orientation and outlook against commercial considerations such as cost and build-ability.

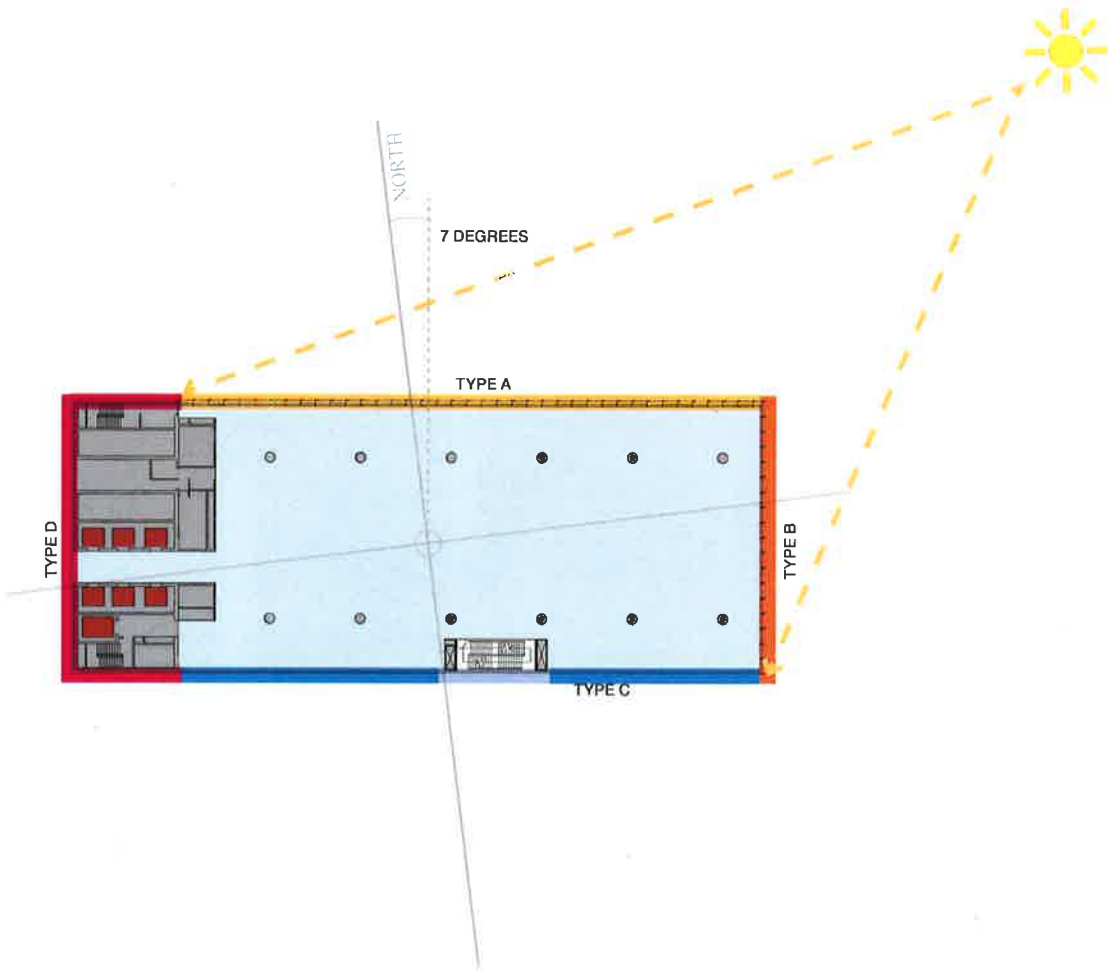
The building design with the core located to the west assists in managing the harsher westerly sun which will reduce heatload onto the glazing of office areas.

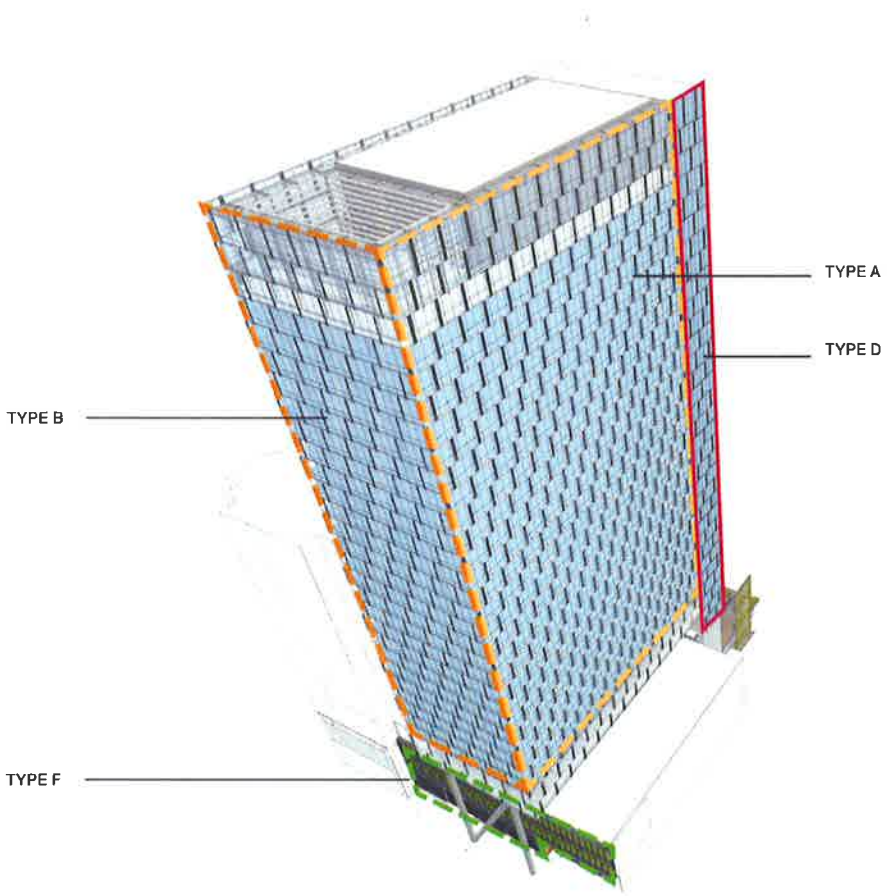
The north facade with a high exposure to heatload throughout the day, is designed with an expressed shading system projected from the glass that combines horizontal and vertical shading elements. These shades will shelter the facade from both high and low angle sun.

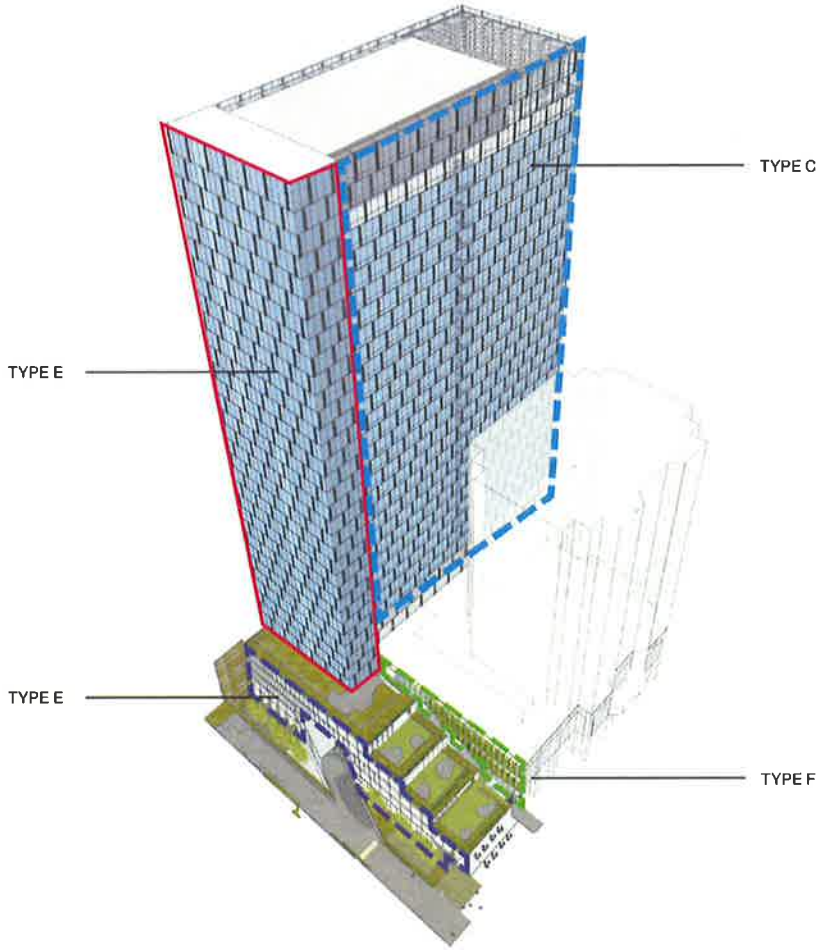
To the east, a vertical sunshade manages the lower angle sun.

The south and core facade consist of a combination of glazing and spandrels that mimic the pattern of the north facade's shading pattern in an integrated curtain wall facade system. Glazing types vary from vision glass to colour-backed glass depending on the program behind the facade, such as firestair, bathrooms, lift lobby or solid walls to core.

The podium levels generally consists of two types of facade. A masonary louvre to the office space of the podium and a perforated metal & screen planting to the existing carpark.







FACADE KEYPLAN

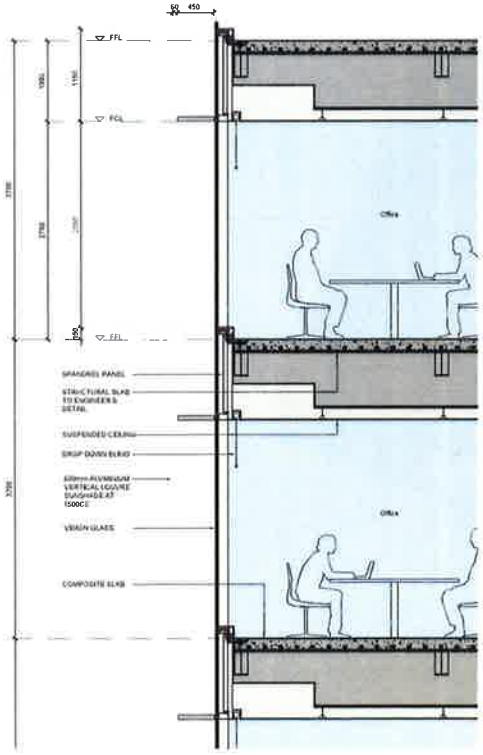
6.1 FACADE DESIGN NORTH [TYPE A]

Type A facade, to the north elevation, is comprised of floor to ceiling vision glass to maximise outlook and daylight access whilst a shading strategy manages the widest exposure of sun angles throughout the day and year.

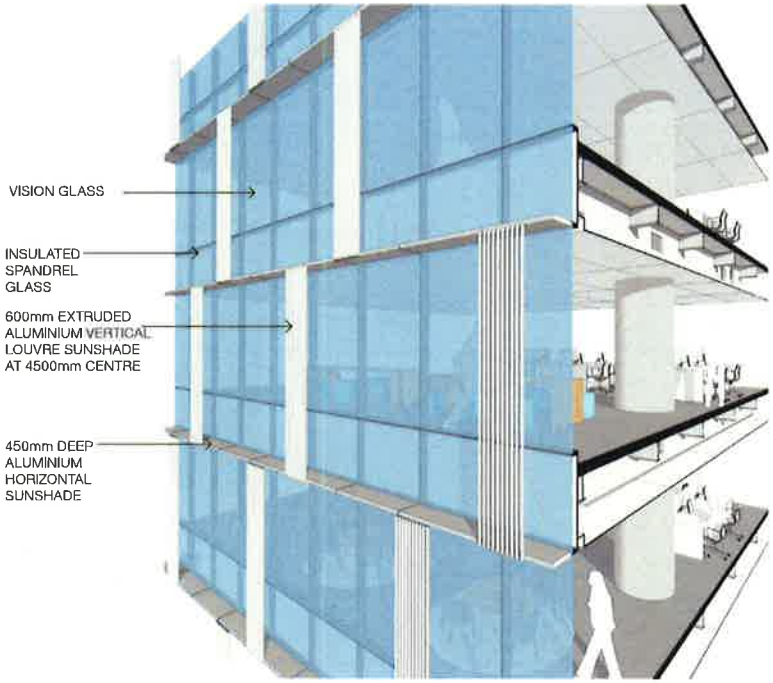
The facade concept utilises an expressed horizontal sunshade at the ceiling level to shade the glazing from high angle sun that occur in the warmer summer months, whilst allowing for sun penetration when angle is lower in the cooler winter months. A vertical extruded aluminium sunshade louvre further contributes to shading of the facade through shielding of lower angled easterly and westerly sun angles. This element will shade the facade whilst still allowing views beyond.

The composition of these elements across the facade in a staggered offset arrangement, together with the metallic material quality, will create a shimmering, jewel-like quality to the building.

NORTH FACADE PRECEDENTS



PART SECTION



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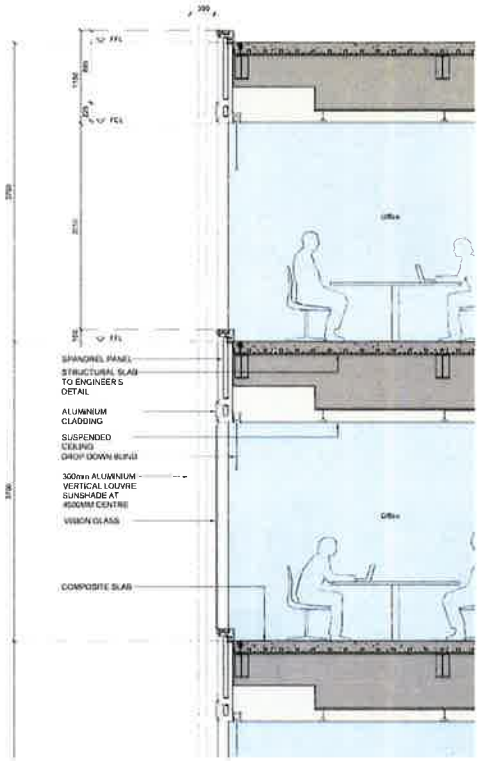
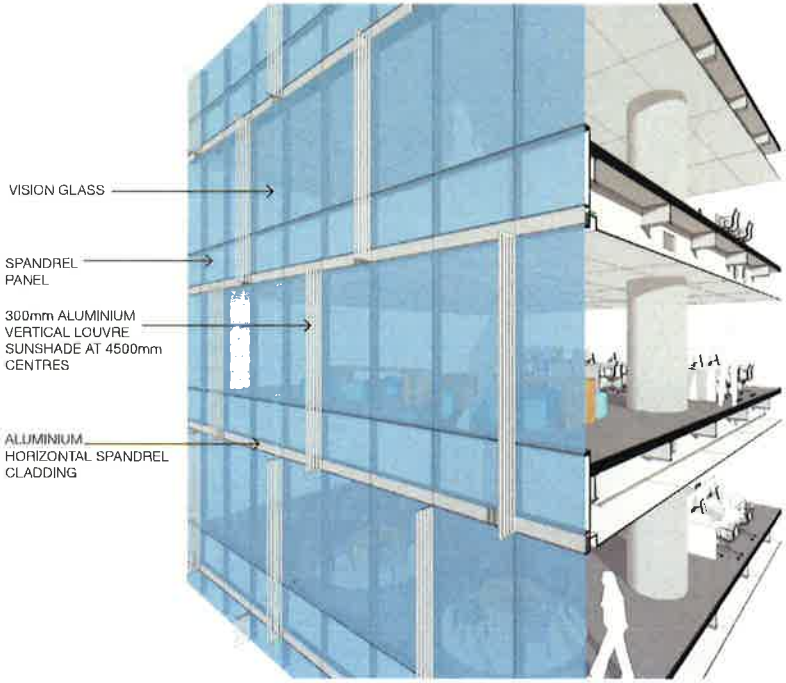
6.2 FACADE DESIGN EAST [TYPE 2]

The east facade consists of floor to ceiling vision glass curtain wall with insulated spandrel glass, a horizontal spandrel and an expressed vertical fin fixed to the mullion.
The fin utilises the same aluminium extrusion found on the north facade to ensure repetition and therefore cost effective solution. This fin will contribute to lowering heatload on the facade from protecting low angle sun, whilst maintaining views out through the fin from the floorplate.

EAST FACADE PRECEDENTS



PART SECTION



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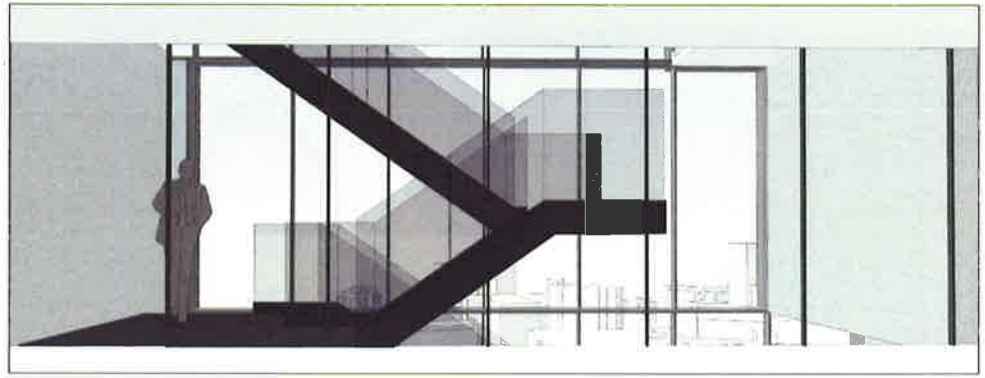
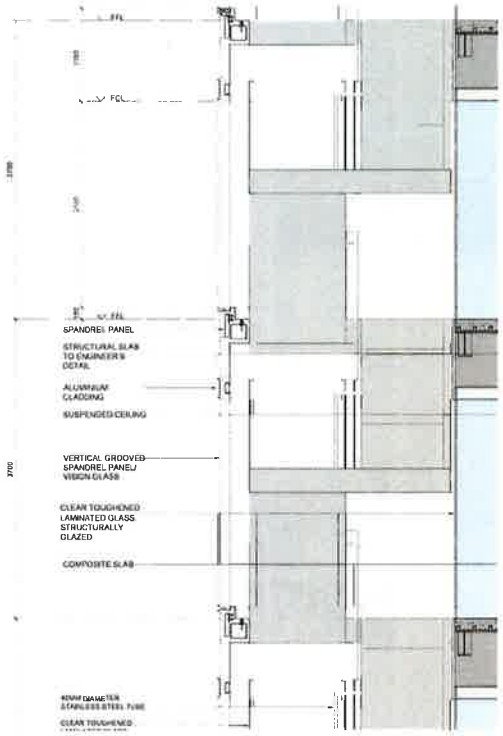
6.3 FACADE DESIGN
SOUTH [TYPE C]

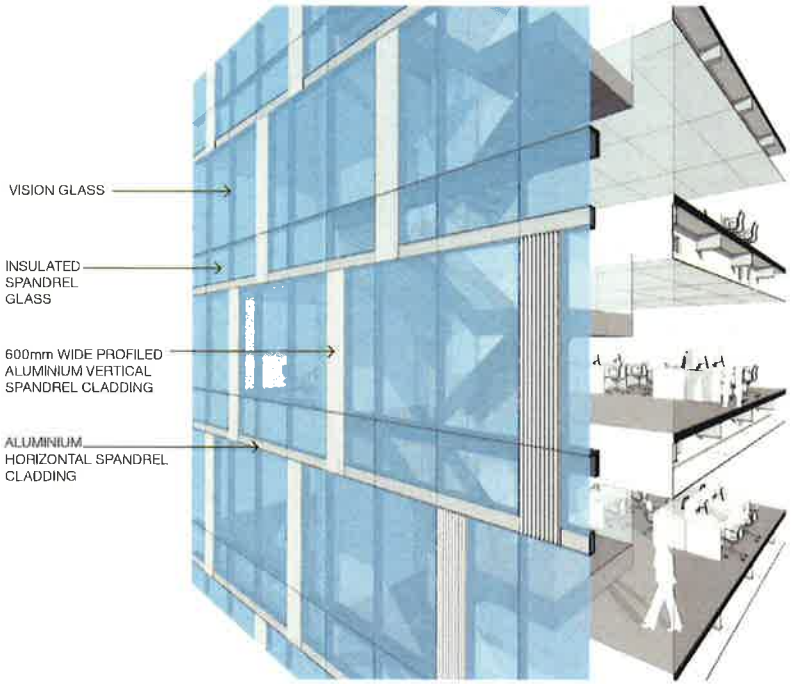
The south facade consists of floor to ceiling vision glass with insulated glass horizontal spandrel with a series of aluminium vertical and horizontal spandrel panels that reflect the proportion and composition of architectural elements of the north facade. This approach creates a consistent facade design around the building without requiring expressed sun-shading on the south where reducing impact from solar heat gain isn't warranted.
The vertical spandrels are to be profiled to closely reflect the extruded sunshade of the north facade to create further consistency across the building.

The external glazed firestair is the key feature along this elevation. The glazed internal wall allows for daylight to penetrate the office floor whilst the exterior facade continues passed to subtly define this when viewed from street level.





PART SECTION



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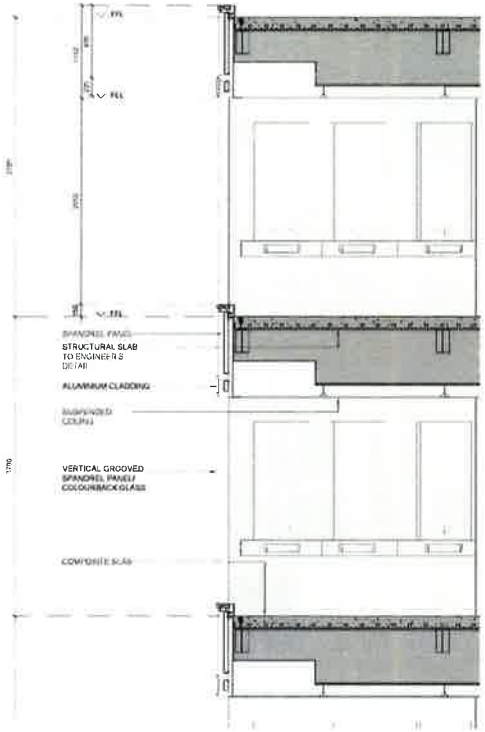
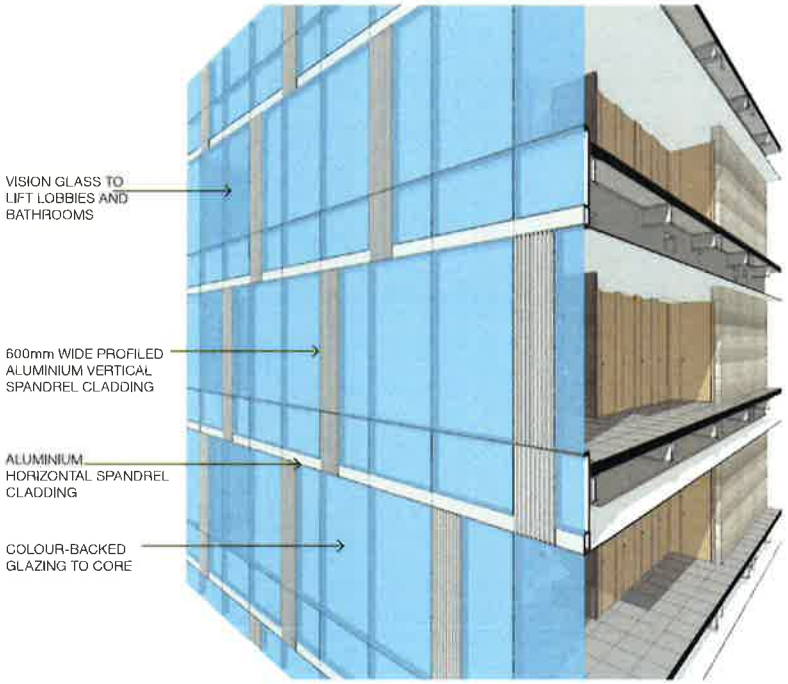
6.4 FACADE DESIGN
CORE [TYPE D]

The core facade is of similar composition to that of the south with a differing glass type to visually shield the structural core, Section of the facade will be vision glass to provide daylight and outlook to the lift lobbies and bathrooms.

FACADE PRECEDENTS



PART SECTION



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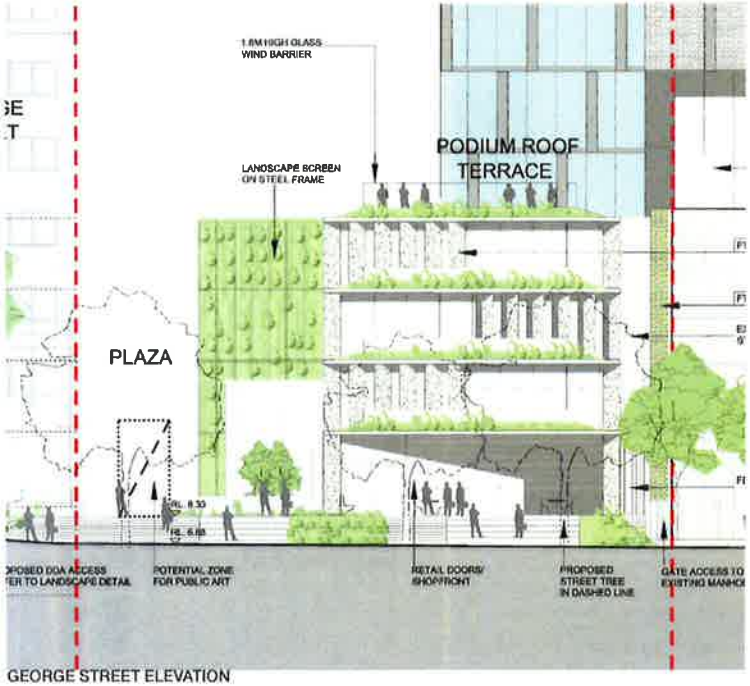
6.5
FACADE DESIGN
DETAIL ELEVATION & SECTION GEORGE ST [TYPE E]

The facade design for the George Street podium reflects the masonary context of adjacent buildings within the precinct. The 4-storey scale is consistent in height with adjoining 150 George Street podium form.

The facade consists of glass-reinforced concrete vertical louvres that are angled to allow visual connection with the plaza whilst shading from westerly sun. The louvres are at varying spaces to reflect the stepped form of the podium. At lower level the louvres are mirrored to provide more privacy to the pool area when viewed from the new plaza and to maximise access to northern daylight.

Behind these large format louvres will be clear glazing to maximise transparency between architectural elements. Areas of planting including a tall planted backdrop screen and roof terraces help to soften and humanise the podium to encourage activation and use of these areas.



GEORGE STREET ELEVATION

GEORGE STREET PODIUM SECTION

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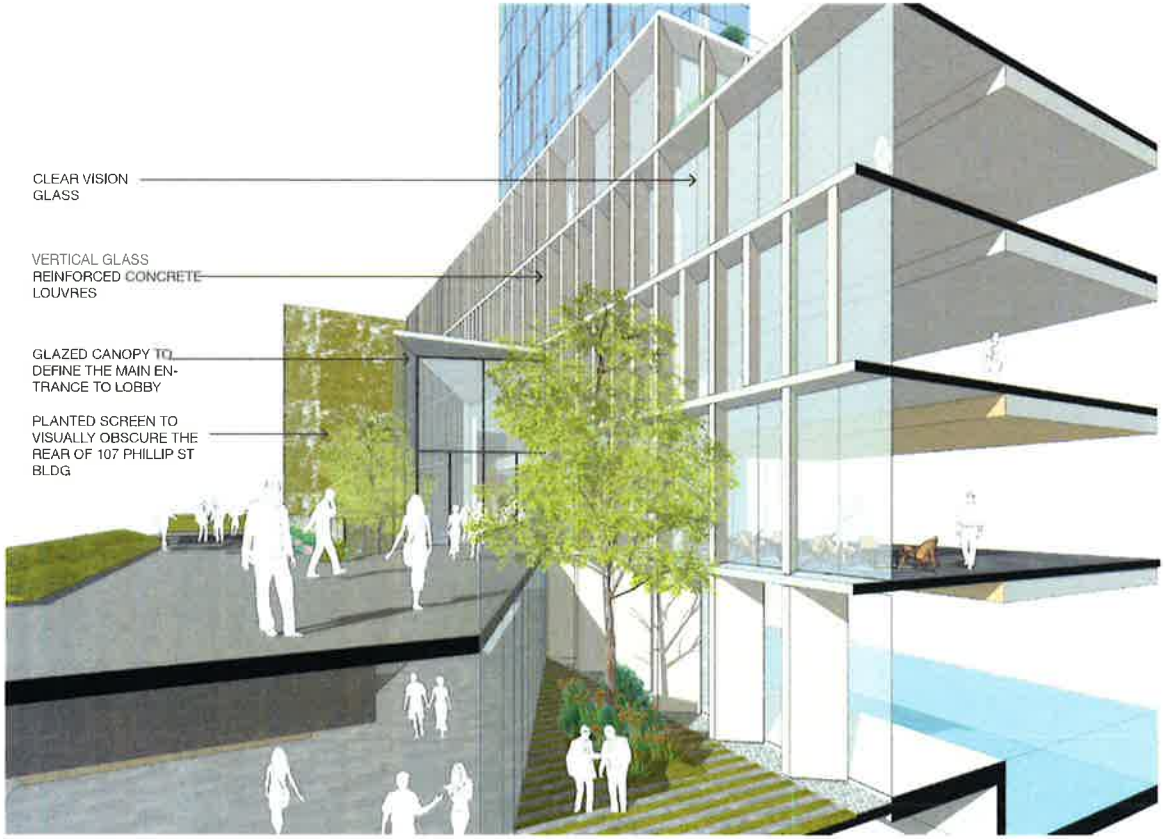
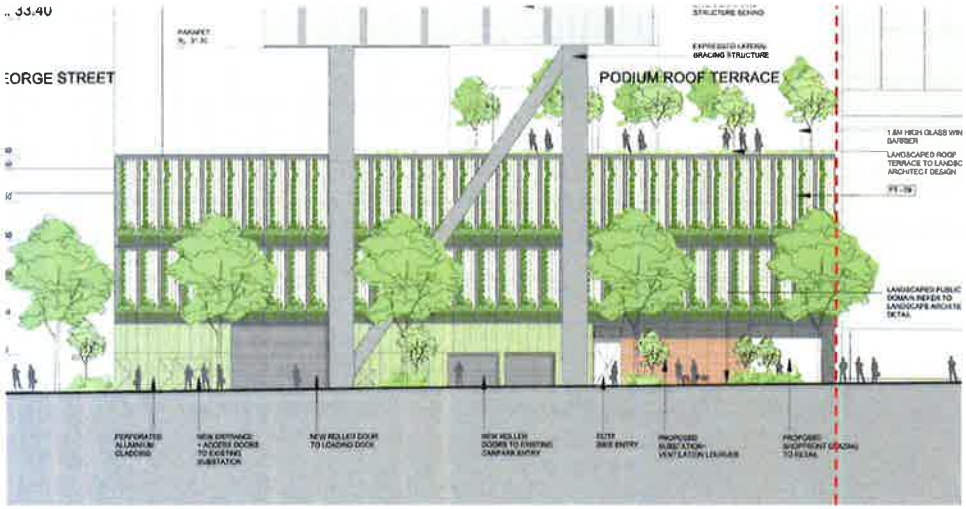
PODIUM FACADE PRECEDENTS



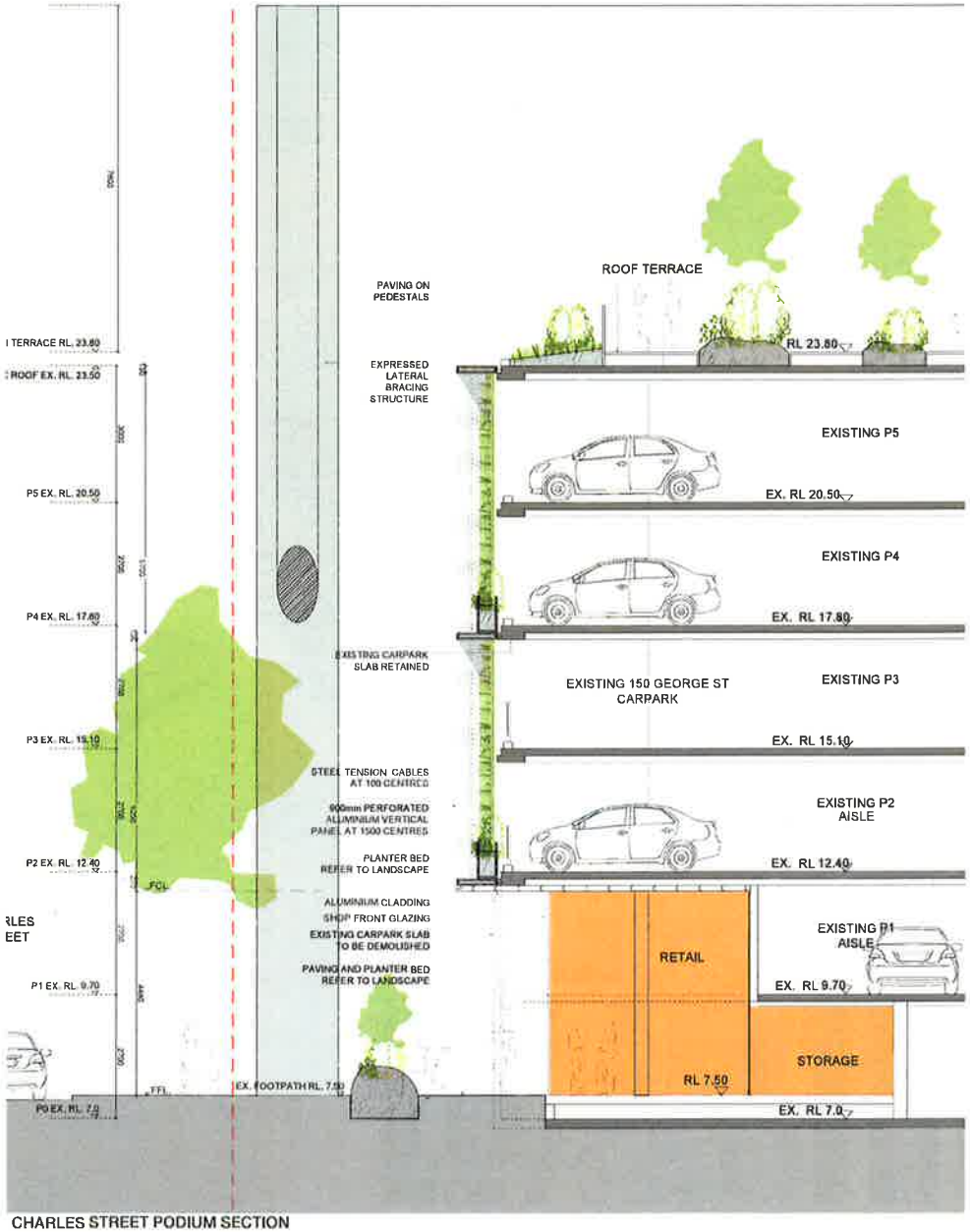
6.6
FACADE DESIGN
DETAIL ELEVATION & SECTION - CHARLES ST [TYPE F]

The Charles Street podium facade design consists of an upgraded treatment to the existing carpark to create a completely integrated approach that links the new tower with the street.

The design contains a baffle type facade constructed of perforated metal with in-fill planting to provide additional visual screening of the cars from pedestrian level. This perforated material is used as cladding to the ground floor walling which currently houses the existing service doors and access. At the northern section of this facade the retail offering will be setback and a change in material to a metallic bronze cladding panels create warmth and contrast to the texture of the carpark screen over. The retail will have a glazed shopfront and louvres for ventilation to proposed substation will be in the same bronze metallic colour to ensure a consistent and elegant composition is achieved.



CHARLES STREET ELEVATION



CHARLES STREET PODIUM SECTION

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CARPARK FACADE PRECEDENTS

7.0 ESD STRATEGY

The proposal contains a number of key environmentally sustainable initiatives consistent with Parramatta council's planning policies and ESD framework. The project achieves an integrated environmental approach to sustainability achieving environmental efficiency, rather than adding expensive plant and equipment. To measure and achieve our targets we are using a number of the following key sustainability performance indicators:

The project will target a 5-star Green Star rating, a 5-star NABERS Base Building Energy Commitment Agreement, and a 5-star + 26.5% NABERS Energy rating in design. This site-specific strategy will ensure the sustainability targets are achieved throughout the design, construction, and operation phases of the project.

To achieve these ambitious targets we are proposing these key environmental initiatives:

/ A high performance façade with sunshading to reduce cooling loads

/ Condenser loop heat recovery system that could be used for hot water plant or pool heating, etc.

/ The ability to provide natural ventilation to the podium, retail & lobby areas.

/ A low energy air conditioning system with healthy indoor air quality

/ High levels of daylighting without glare

/ Energy efficient artificial lighting with daylight sensors

/ Water efficient fixtures

/ Low embodied energy in material selection including manufacturing, transport and disposal

/ Rainwater collection and re-use with potential Water Sensitive Urban Design principles where possible

/ Provision of electric car charge points and allocated spaces to promote low emissions vehicle use

/ Extensive bike storage and end-of-trip-facilities to encourage cycling to the workplace

/ Planting through the podium structure to facilitate improved air quality, provide shading and high amenity external environments for building occupants

/ Potential photo-voltaic panels on the roof to supplement power supply to plant.

/ On-going program & management with the tenants to ensure reduction of energy use.

FACADE

The façade is an integral part of every building and is one of the most effective ways of reducing energy consumption in a building. We have designed a façade with floor to ceiling glass to maximise daylight penetration, and thus reduce reliance on artificial lighting. The buildings core is located to the west to reduce heatload on the vision glass facades from harsher west orientation.

Horizontal and vertical sunshading on the north further reduces heatload whilst maintains views and daylight to the floors.

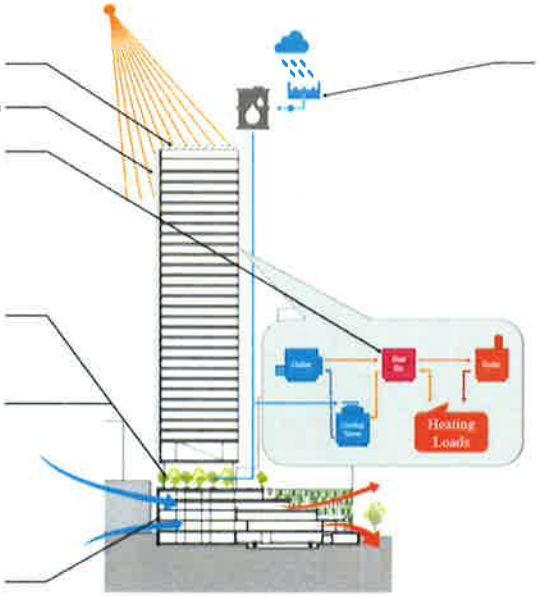
We have undertaken an extensive analysis of the facade to define scientific rationale for the shading to ensure effective use of these architectural elements. Using the proposed shading as a cumulative calculation throughout the day from 8am til 6pm at the mid-point between the summer solstice and the equinox, the shading presents a 57.6% reduce in direct sunlight loading onto the glazing.

Energy
- PV optimized if needed for NABERS target
- Optimized façade system to reduce cooling loads
- Condenser loop heat recovery potentially used for hot water or process loads (pool, etc.) and reduces cooling tower water

Land Use and Ecology
- Planting throughout podium and atria for air quality, shading, and comfort
- Native vegetation

Materials
- Life cycle assessment of material selection

IEQ
- Shading system to allow daylighting
- Mixed mode cross ventilation of podium



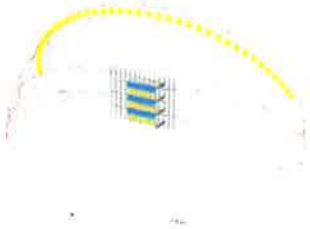
Water
- Rainwater collection tank, prioritizing landscape and cooling tower supply
- Landscape drip irrigation
- Potential connection to future city recycled water system

Emissions
- Minimize impacts of refrigerants, light pollution, and legionella risks

Management
- Establish a regular communication pathway with the tenants for base building energy usage

Transport
- Provisions of electric car charge and bike facilities

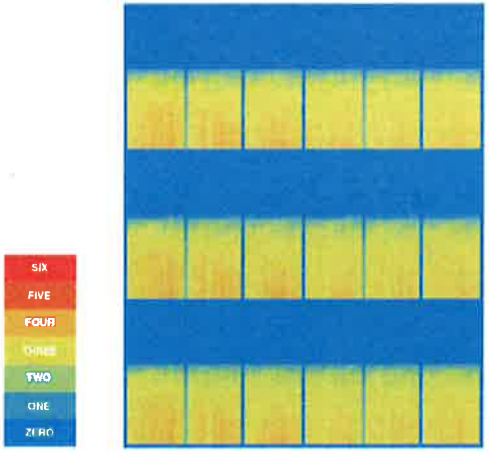
Summernox - February 9
8am - 6pm



57.6%

reduction in cumulative sunlight hours on facade

Cumulative direct sunlight hours on facade



FACADE THERMAL PERFORMANCE ANALYSIS

ARUP

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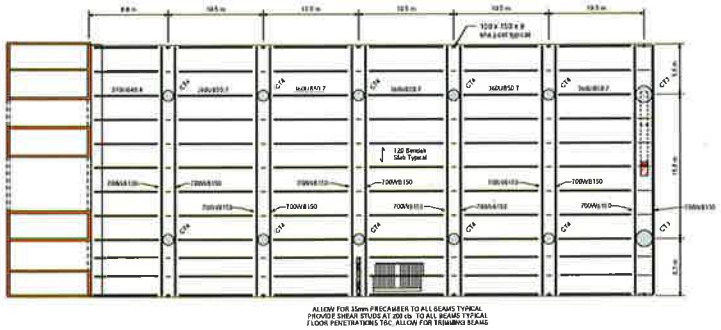
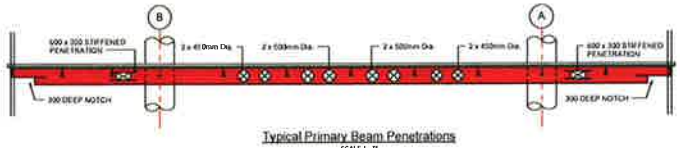
8.0 STRUCTURAL CONCEPT



TYPICAL HIGH RISE FLOOR GENERAL ARRANGEMENT



Typical Primary Beam Penetrations

Overview

A structural system has been designed and developed in conjunction with Bates Smart to prove the proposed building design and ensure that an efficient structural solution is provided.

A structural system has been developed which consists of either post tensioned concrete or steel framed floor structure with limited columns on the floor plate. The column grid has been developed to allow efficient floor framing systems to be developed for both buildings with the demands of the cantilevers and internal spans matched. The lateral system for both buildings consist of reinforced concrete core structures utilising concrete core walls at locations in which solid fire rated walls must be provided to satisfy planning, services, lift and fire stair requirements with these walls extending from base level of the buildings to top of the building and dropping off as the core diminishes in size through the height of the building. This allows a lateral system to be provided for the building without impacting on the floor plate functionality.

The principal structural elements of the building are:

Floor Plate:	Either:
	• Post tensioned band beams and slabs; or
	• Composite steel framed beams and slabs;
Lateral Structure:	Reinforced concrete core wall system (jump formed)
Columns:	Reinforced high strength concrete
Transfer Structure:	Stage 2 Only – Steel framed truss system as outlined in the structural design brief

All structural elements have been designed to utilise conventional construction techniques which will allow for an efficient structural program for the building construction with the structural components and their arrangement being consistent with conventional Australian high rise construction practice.

Vertical Load Transfer

To accommodate the existing building being retained below the Stage 2 building a steel transfer truss system is proposed at the base of the tower above the existing building. The framing of this transfer truss system is in accordance with the system outlined in the enstruct structural design brief. Detailed analysis of this transfer truss system have not been undertaken for the preliminary design due to it conforming with the structural design brief for the Stage 2 building.

The transfer systems consists of a steel diagonal and horizontal members providing a direct load transfer between the terminating transferred columns and the supporting column below. Being a steel transfer structure the steelwork system can be prefabricated off site and then installed in position once the core and vertical structure has been constructed to the base of the transfer level ensuring that there will be minimal impact on the construction cycle for the construction of this transfer arrangement.

Typical Floor

Due to the need for the steel framed transfer truss system for the Stage 2 building there is significant benefit in the floor plate framing for the Stage 2 building to be composite steel framed:

- Steel framed floor plate reduces the structural self-weight of the floor plate by approximately 40% which corresponds to a total building vertical load reduction of approximately 20%. This minimises the loading on the transfer trusses allowing the sizing of the trusses to be reduced compared to a concrete framed floor plate;
- With the Stage 2 building requiring a significant steelwork framing system for the transfer trusses alone framing the floor plates as composite steel frame avoids the need to change construction methodology/work force part way up the building as would be required if concrete framed floor plates were provided.

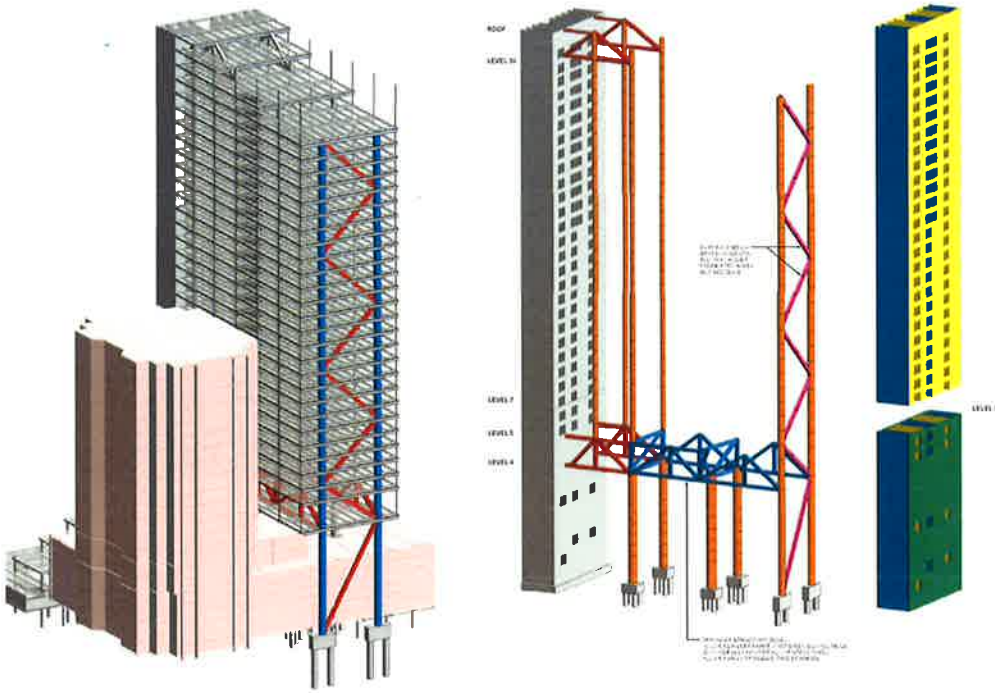
The steel framed floor plate options utilise composite steel beams and composite slab supported on metal decking. All primary beams with more than one span have been arranged to have continuity of the beams to minimise the beam depth and weight. To readily accommodate the beam continuity without complicated connections to the column double beams have been provided for all continuous beams allowing the beams to be located to each side of the columns with a simple connection to the column. The splices of the continuous beams will be located at points of inflection along the beam (locations of zero/minimal moment) to minimise these connections with all other connections being simple type connections that can be readily fabricated and erected. Penetration servicing for the steel framed floor plate options will be provided by penetrations through the beam webs which will be sized structurally to ensure the majority of penetrations are unstiffened which can be provided for effectively nil impact to the fabrication cost.

The floor plate systems developed for the building has been designed to ensure serviceability criteria (deflection and vibration) meet the standard criteria for typical commercial office buildings of this nature. A key serviceability design criteria is ensuring adequate performance of the façade system which has been satisfied by ensuring that differential deflection between vertically adjacent floors in both cantilever and non-cantilever edges is limited to a magnitude that can be accommodated by a standard façade slack and vertical joint systems.

Construction Methodology

Development of an efficient construction methodology between the lead contractor and the project team will be critical to the efficient and successful deliver of this project on a constrained site. The structural system has been planned to allow a conventional and efficient construction process.

Due to the constrained nature of the site continued development of the construction methodology throughout the development of the design will be critical to the successful delivery of the project and will continue in the design development of the project.



enstruct

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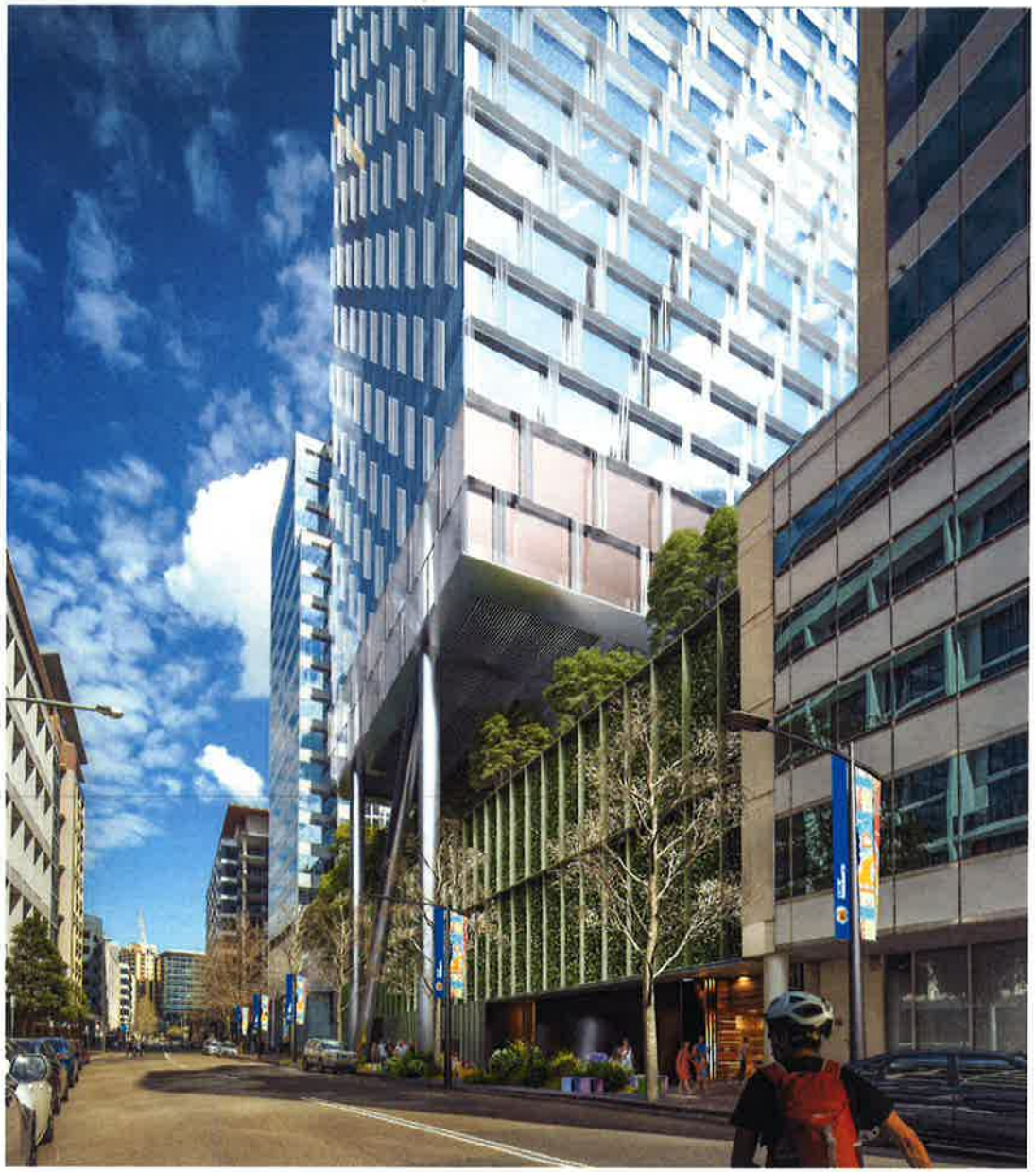
9.0 VISUALISATION RIVER CONTEXT

9.1 VISUALISATION GEORGE STREET

9.2 VISUALISATION
CHARLES STREET



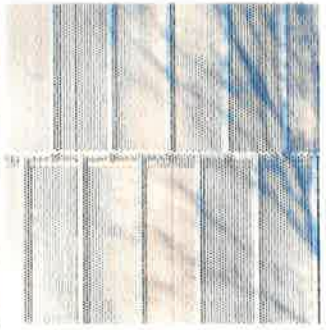
10.0 MATERIALS SCHEDULE

The selection of the following materials was carefully considered to achieve an high quality finish whilst ensuring natural and robust characteristics.

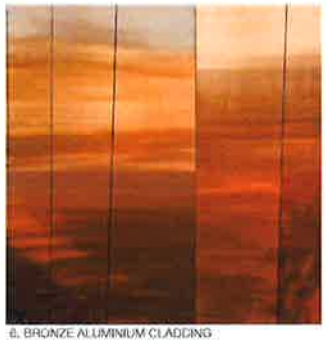

1. VERTICAL ALUMINIUM FIN / SUNSHADE


2. HORIZONTAL SUNSHADE


3. PERFORMANCE DOUBLE GLAZED UNITS


4. FINE MESH PLANT SCREEN


5. PERFORATED STEEL FRAME WITH PLANTING


6. BRONZE ALUMINIUM CLADDING


7. PLANT LOUVRES


8. METAL PERFORATED SCREEN


9. COLOURBACK GLASS FACADE


10. ALUMINIUM VERTICAL SPANDREL


11. GLASS REINFORCED CONCRETE LOUVRES


12. FRAMELESS GLASS BALUSTRADE

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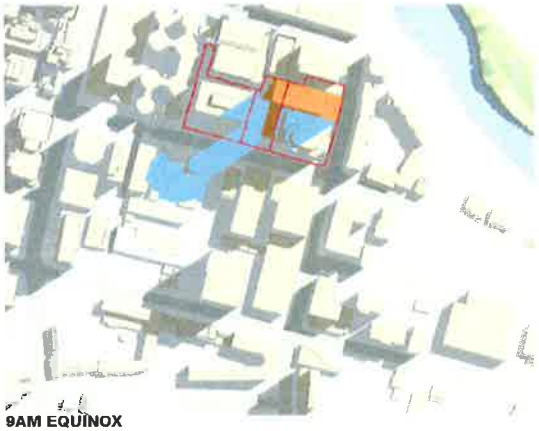
11.0 SHADOW DIAGRAMS

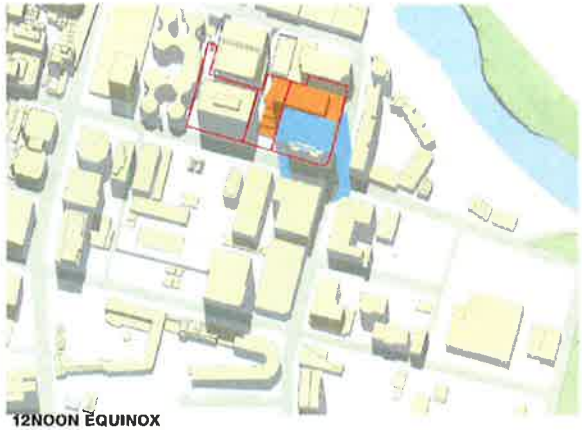
ADDITIONAL SHADOWS CAST BY PROPOSAL

ADDITIONAL SHADOW FROM 105 PHILLIP STREET

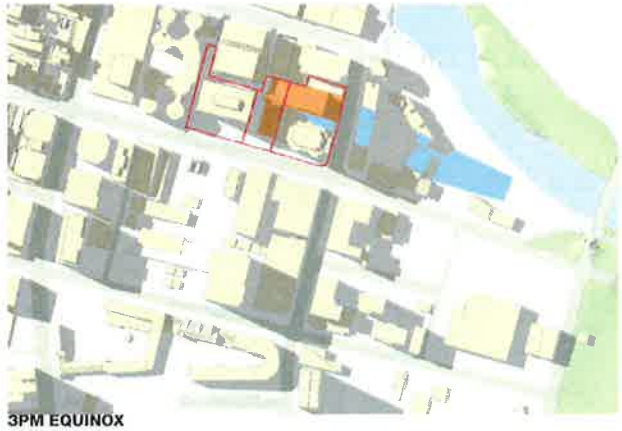
PROPOSAL



9AM EQUINOX



12NOON EQUINOX



3PM EQUINOX

9AM WINTER SOLSTICE

12NOON WINTER SOLSTICE

3PM WINTER SOLSTICE

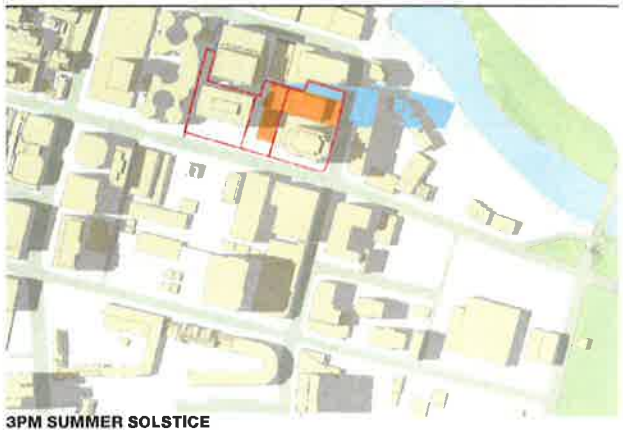
ADDITIONAL SHADOWS CAST BY PROPOSAL

ADDITIONAL SHADOW FROM 105 PHILLIP STREET

PROPOSAL

9AM SUMMER SOLSTICE

12NOON SUMMER SOLSTICE



3PM SUMMER SOLSTICE

11.1 SHADOW DIAGRAMS
IMPACT ON ADJACENT RESIDENTIAL DEVELOPMENT

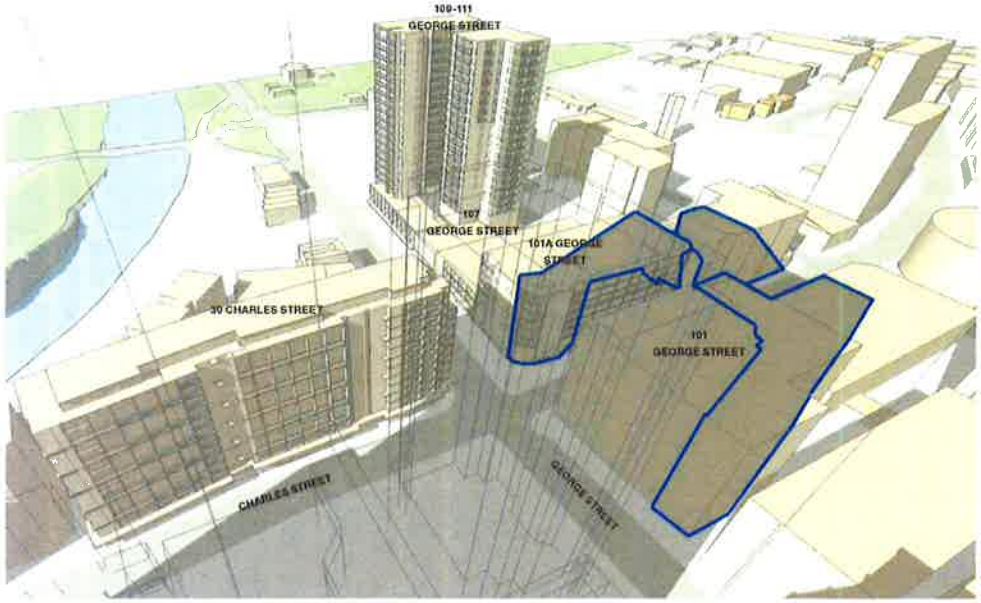
SHADOWS CAST BY EXISTING DEVELOPMENT

ADDITIONAL SHADOWS CAST BY PROPOSAL

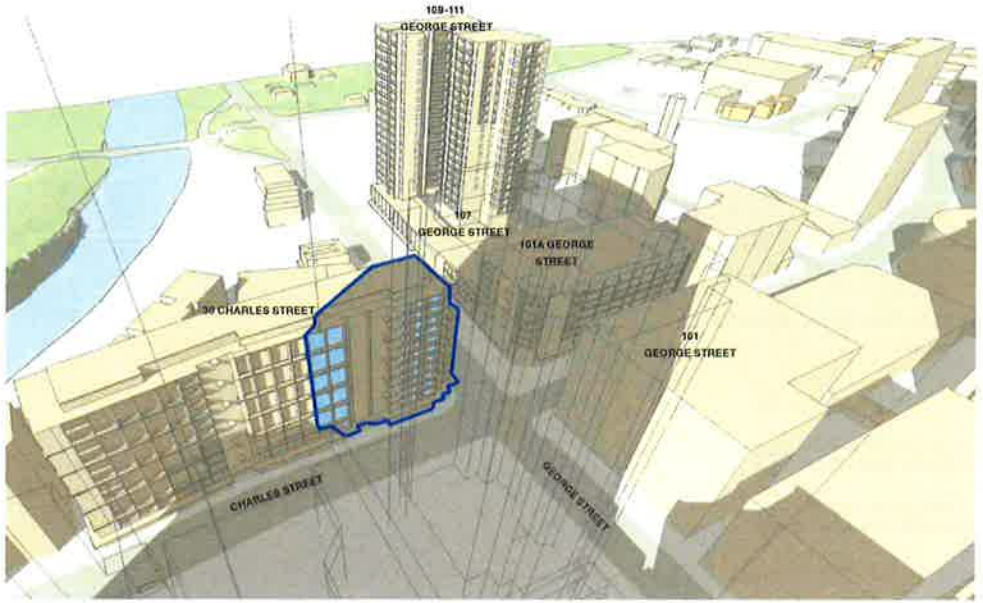
ADDITIONAL SHADOWS CAST BY PROPOSAL ONTO RESIDENTIAL GLAZING

EXISTING SERVICED APARTMENT BLDG CHARLES STREET

EXISTING SERVICED APARTMENT BLDG CHARLES STREET



12PM WINTER SOLSTICE



1PM WINTER SOLSTICE

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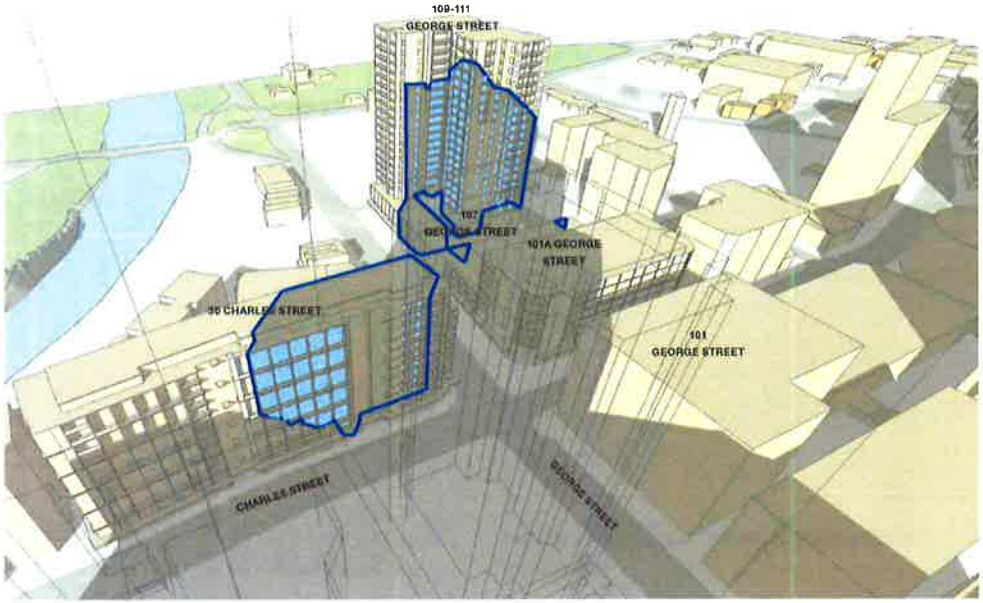
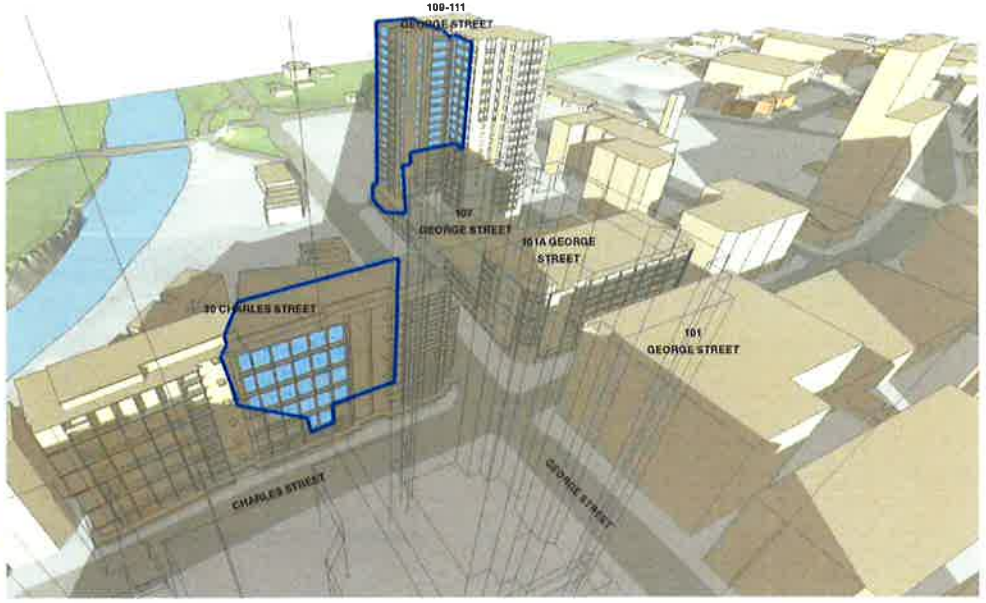
EXISTING MULTI-RESIDENTIAL BLDG 22 CHARLES STREET

EXISTING MULTI-RESIDENTIAL BLDG 103 GEORGE STREET

EXISTING MULTI-RESIDENTIAL BLDG 109-113 GEORGE STREET



2PM WINTER SOLSTICE



3PM WINTER SOLSTICE

12.0 AREA SCHEDULE

The following area schedule summarises the area and uses for the site.

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S12054_130-150 George St Parramatta

01.09.2017 Revision B

Summary A	Areas(m2)
Site Area (130, 140 & 150 George St)	11,404
Existing GFA (150 George St)	23,982
Existing GFA (130 George St)	22,000
Existing GFA total	45,982
Existing FSR	4.03
Existing carspaces (130, 140 & 150 George St)	667

Summary B	Areas(m2)
Site Area (140 & 150 George St)	7,394
Existing GFA (150 George St)	23,982
Existing GFA (140 George St)	0
Existing GFA total	23,982
Existing FSR	3.24
Existing carspaces (140 & 150 George St)	578

140 George St

Level	Liftrise	Floor to Floor Height	Use	GBA Total (incl. plant)	GFA	NLA (excl. retail & lobby, EQTF)	GLAR	L31 roof terrace	External terrace area podium
		(mm)		(m²)	(m²)	(m²)	(m²)	(m²)	(m²)
Level 33 Mezz plant / Highrise LMR		3400	plant	609					
Level 32 plant/ Highrise Liftoverrun		4000	plant	1240					
Level 31		3700	Commercial/ Communal	1503	1266	1200		465	
Level 30		3700	Commercial	1966	1763	1680			
Level 29	HIGH RISE	3700	Commercial	1966	1763	1680			
Level 28		3700	Commercial	1966	1763	1680			
Level 27		3700	Commercial	1966	1763	1680			
Level 26		3700	Commercial	1966	1763	1680			
Level 25		3700	Commercial	1966	1763	1680			
Level 24		3700	Commercial	1966	1763	1680			
Level 23		3700	Commercial	1966	1763	1680			
Level 22		3700	Commercial	1966	1763	1680			
Level 21 Lowrise LMR		3700	Commercial	1966	1715	1626			
Level 20 Lowrise Liftoverrun		3700	Commercial	1966	1715	1626			
Level 19 Transfer Level		3700	Commercial	1966	1713	1595			
Level 18		3700	Commercial	1966	1715	1626			
Level 17		3700	Commercial	1966	1715	1626			
Level 16		3700	Commercial	1966	1715	1626			
Level 15	LOW RISE	3700	Commercial	1966	1715	1626			
Level 14		3700	Commercial	1966	1715	1626			
Level 13		3700	Commercial	1966	1715	1626			
Level 12		3700	Commercial	1966	1715	1626			
Level 11		3700	Commercial	1966	1715	1626			
Level 10		3700	Commercial	1966	1715	1626			
Level 09		3700	Commercial	1966	1715	1626			
Level 08		3700	Commercial	1966	1715	1626			
Level 07		3700	Commercial	1966	1715	1626			
Level 06		3700	Commercial	1966	1715	1626			
Level 05 (Plant)		6000	plant	1000	0	0			
Level 04 (terrace)		9600	Roof terrace/garden	473	329		72		1780
Level 03 Mezzanine	P5		Void						
Level 03	P4		Training	640	391	331			150
Level 02	P3		Training	788	511	454			150
Level 01	P2		Training	799	532	461			150
Ground Floor Mezzanine	P1		Void						
Level 00 Ground Floor		3920	Lobby/retail	1115	803		565		
Level Lower Ground Floor	-	4580	Wellness Level/ Pool	1814	1181	1042			
TOTAL				60028	48338	44603	656	465	2230

56279 excl. plant

SUBTOTAL NLA: 45712 includes: L31 roof terrace & retail

150 George St

Level	Existing GFA	Car spaces proposed
	(m²)	
Level 22 plant		
Level 21	1088	
Level 20	1089	
Level 19	1089	
Level 18	1089	
Level 17	1141	
Level 16	1141	
Level 15	1087	
Level 14	1221	
Level 13	1221	
Level 12	1221	
Level 11	1221	
Level 10	1221	
Level 09	1221	
Level 08	1221	
Level 07	2132	
Level 06	2132	
P5	0	110
P4	0	110
P3	0	110
P2	1026	66
P1	1210	31
Ground Floor	1210	0
TOTAL	23982	417

Definitions

GFA

Gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:
a) the area of a mezzanine, and
b) habitable rooms in a basement or an attic, and
c) any shop, auditorium, cinema, and the like, in a basement or attic,
but excludes:
d) any area for common vertical circulation, such as lifts and stairs, and
e) any basement:
- storage, and
- vehicular access, loading areas, garbage and services, and
f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
g) car parking to meet any requirements of the consent authority (including access to that car parking), and
h) any space used for the loading or unloading of goods (including access to it), and
i) terraces and balconies with outer walls less than 1.4 metres high, and
j) voids above a floor at the level of a storey or storey above.

NLA

Nett Lettable Area (NLA) has been calculated based on the definition of the Property Council of Australia Method of Measurement

GLAR

Gross Lettable Area Retail (GLAR) has been calculated based on the definition of the Property Council of Australia Method of Measurement

FSR

Floor space ratio means the ratio of the gross floor area of a building to the area of the site on which it is situated.

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APPENDICES

APPENDIX A: ARCHITECTURAL DRAWINGS
APPENDIX B: LANDSCAPE DESIGN
APPENDIX C: SURVEY