46-50 BELMORE STREET PENRITH

DEVELOPMENT APPLICATION
CITY OF PENRITH

FEBRUARY 2017

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CLIENT

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PROJECT NUMBER

S12022

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DISCLAIMER

Note: All area calculations are advisory only and all figures should be checked and verified by a licensed surveyor.

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1.0 INTRODUCTION

The proposed commercial building at 46-50 Belmore Street responds to the growing demand from Government and the private sector for new contemporary work space in Western Sydney. Nominated as a Key Site within the Penrith Commercial Core, the proposal forms part of a broader plan to revitalise the Penrith CBD.

Our vision is to create a building design that compliments its surrounding built context, both existing and future. The façades have simple, elegant quality that is both robust and responsive the environmental conditions. At the ground plane, pedestrianised laneways are activated by food and beverage tenancies, creating a vibrant urban space in the heart of Penrith.

The campus style floorplates maximize connectivity, encourage communication & collaboration, whilst retaining the flexibility to accommodate either a single tenant or multiples tenants. The central atrium vertically connects the commercial floors, drawing natural light down through the building and supporting a healthy working environment.

This development application has been prepared on behalf of Sandran Property Group for the site at 46-50 Belmore Street, Penrith. It describes the design and planning considerations for a commercial building proposal comprising an 8-storey commercial building (plus plant) on Belmore Street with a new landscaped laneway that will integrate with the recent public domain improvements to 121 Henry Street, and will provide an activated pedestrian link between Belmore Street and Henry Street.

The following Development Application design seeks to address clear urban design principles that align with Penrith City Council's strategic vision for the commercial core precinct and compliments the other substantial new works proposed for the precinct including:

/ Upgrade of the Penrith Railway Station

/ Creation of Penrith City Park bounded by Station Street, Henry Street and Allen Pl

/ New mixed use development in North Penrith

/ Precinct 4 as described in the Penrith DCP Section E11

DESIGN INTEGRITY PANEL (DIP)

The design progress of the proposed development has been reviewed by a Design Integrity Panel, to ensure to ensure the achievement of design excellence. The Panel included a Council representative, a representative from the Government Architects Office and a representative nominated by Sandran Property Group (the applicant).

The building concept and design was presented to the panel on two occassions during the design process at the following meetings:

/ First Meeting - 25th October 2016

/ Second Meeting - 28th November 2016

Feedback and recommendations from the Panel have informed the design evolution of the proposed development. Further detail of the process is provided within the SEE.

DEVELOPMENT SUMMARY

Site Address:	46-50 Belmore Street, Penrith
Site Area:	2,754m2
Zoning:	B3 Commercial Core
Building Area:	11,493 sqm GFA.
Building Height:	8 Storeys + roof plant

2.0 SITE CONTEXT

REGIONAL CONTEXT

Located on the western edge of greater Sydney, Penrith sits on the banks of the Nepean River and at the foot of the World Heritage Blue Mountains. Identified as a 'Regional City Centre' in the 2014 report 'A Plan For Growing Sydney', Penrith is a city and region that is experiencing significant development as it transforms into a strategic centre for housing, services and employment.

The subject site is located within an area defined as the Penrith City Centre which stretches from the Nepean River to the west to the eastern end of the High Street. To the north of the railway line, a significant mixed use development is currently occurring on the former North Penrith army lands. The site is in close proximity to Penrith Station which has regular services to Parramatta and the Sydney CBD, as well as the Blue Mountains.

LEGEND

- Subject Site
- Area covered by Penrith City Centre
- Commercial Core
- North Penrith mixed use development (Former North Penrith army lands)
- Penrith Transport Interchange (Railway Station and Bus Interchange)

SITE LOCATION

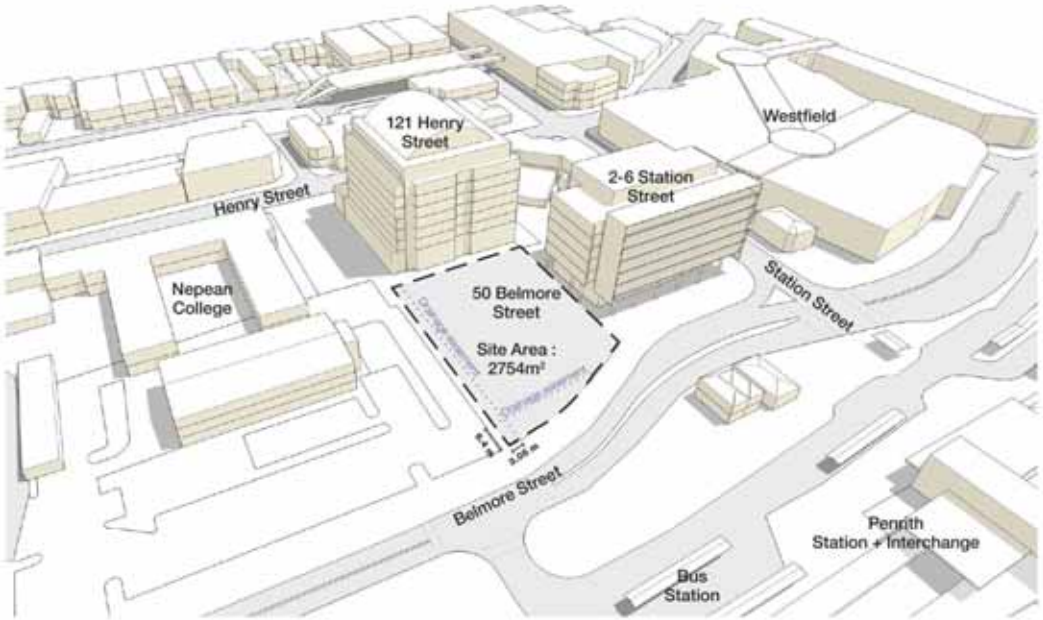
The site is located at 46 -50 Belmore Street, within the commercial centre of the Penrith CBD. It has a single street frontage to Belmore Street to the north and is currently used an on-grade council car park. The site is in close proximity to public transport links with Penrith Railway Station and Bus Interchange providing public transport connections to both local and metropolitan areas. The site is also situated within 150m of the Westfield Shopping Centre and the established retail strip of High Street providing further amenity.

The site is part of an emerging commercial precinct of medium rise buildings, bounded by Belmore Street, Station St and Henry Street. The spaces between these buildings have recently been upgraded to provide pedestrianised landscaped public space. There exists an opportunity to create a vibrant urban precinct activated by ground floor retail tenancies in the heart of Penrith.

LEGEND

- Subject Site
- Westfield Shopping Centre
- Precinct 4
- Penrith City Park Planning Proposal
- Penrith Transport Interchange (Railway Station and Bus Interchange)

3.0 SITE ANALYSIS



1. EXISTING CONDITION

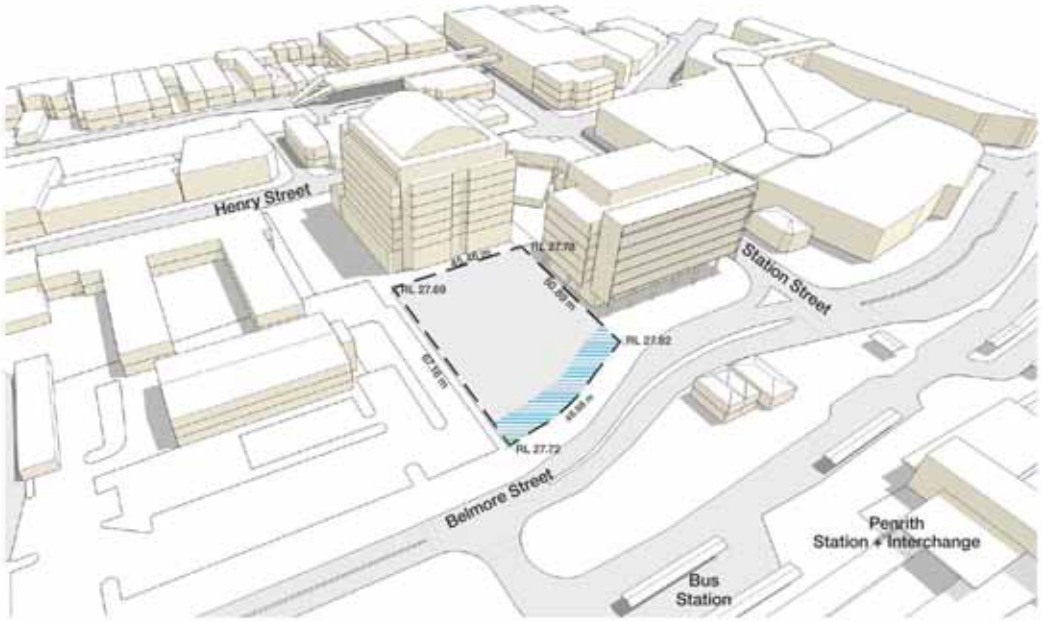
The site covers an area of 2,754m2. It is generally rectangular is shape with an angled boundary to the north following the cranked line of Belmore Street. To the north, the site fronts onto Belmore Street, with the railway station car park and train lines situated beyond. To the west of the site is 2-6 Station Street, an 8 storey commercial building tenanted by Government agencies. To the south of the site is a 10 storey commercial building tenanted by the Australian Tax Office, which has recently received a major upgrade. To the east is a collection of 2-3 storey buildings occupied by TAFE NSW. The setbacks of adjacent buildings do not appear to follow the DCP controls, and would suggest a site specific approach to setbacks to the subject site would be more appropriate.

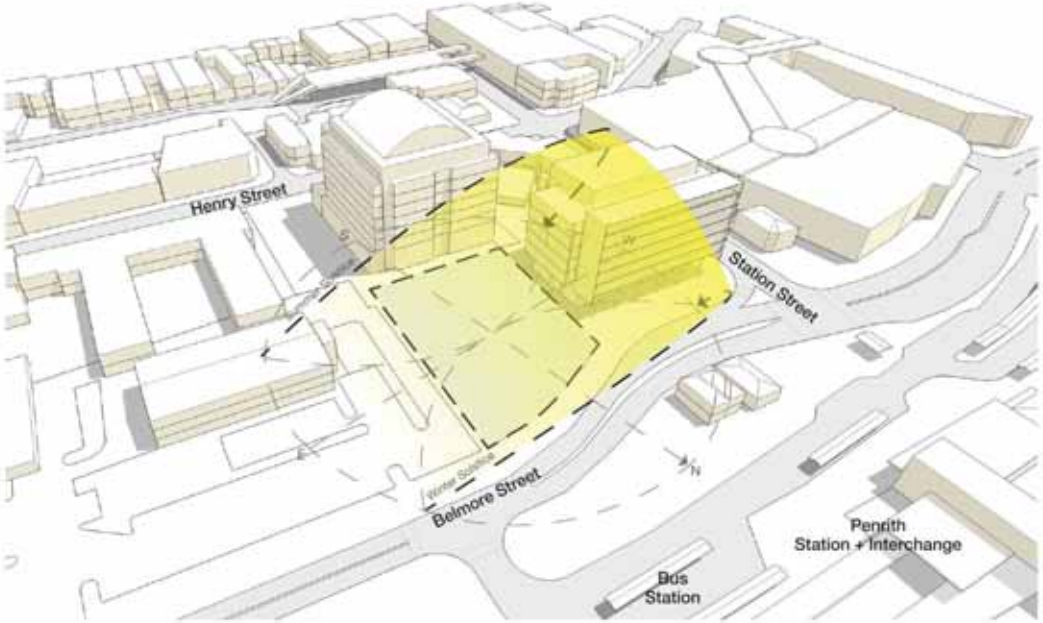
There are existing drainage easements to both the northern and eastern edges of the site.

SITE PHOTOGRAPHS

1. View of site from north east
2. View of site from across Belmore Street
3. View of southern edge of site
4. View of site from Belmore Street footpath

Approximate portion of land affected by 100 year flood





2. PHYSICAL FEATURES

The existing site is currently an on grade car park, and is relatively flat with minimal level changes. The levels to the site perimeter typically vary between RL27.69 and RL.27.82. The plaza level to the south of the site is at approximately RL28.78 and the intention is for the external ground plane to be graded to provide a flush transition with the neighbouring sites.

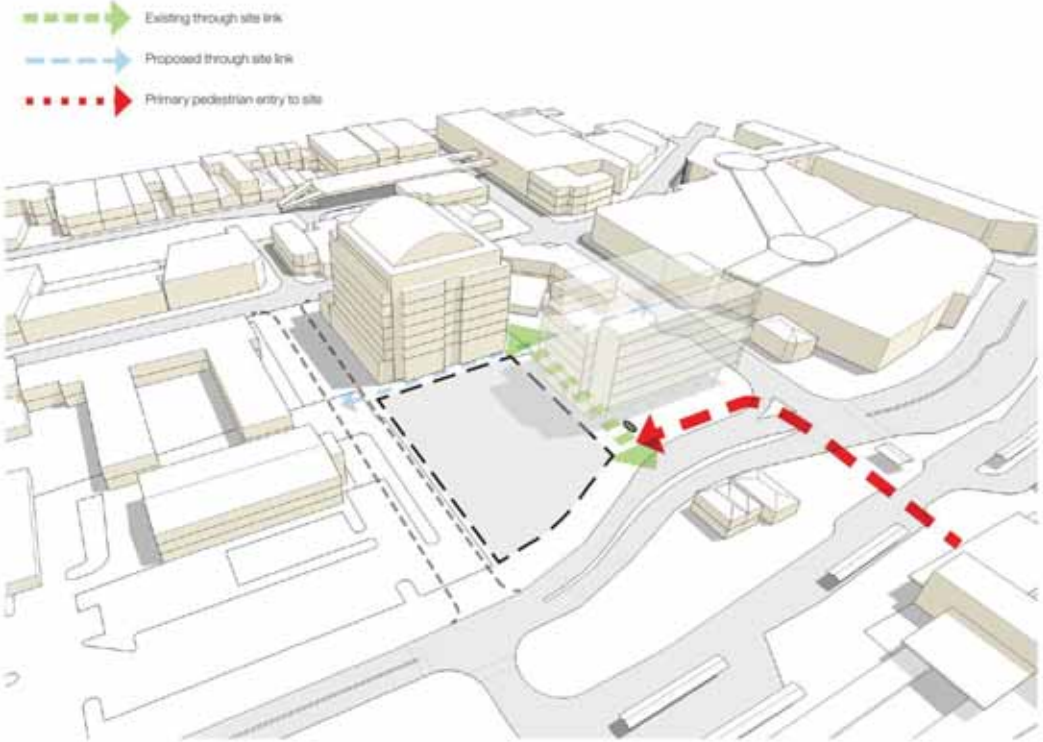
In the recent Penrith Flood Study, the northern edge of the site has been identified as being impacted by the 1 in 100 years flood event. The 100 year flood level has been identified as RL27.7m. To provide 300mm freeboard, the ground level with be set at a minimum RL28.00.

Refer to Civil and Stormwater documents for further detail.

3. SOLAR ACCESS AND ORIENTATION

The site is generally orientated north-south, meaning the long sides of the site faces east and west. The proposed development will require sun shading to the east, north and west elevations to reduce heat gain and demand on mechanical air-conditioning systems. The existing building to the west (2-6 Station Street) will provide some additional afternoon shading for a large extent of the year.

Refer to the Shadow Diagrams for further information.



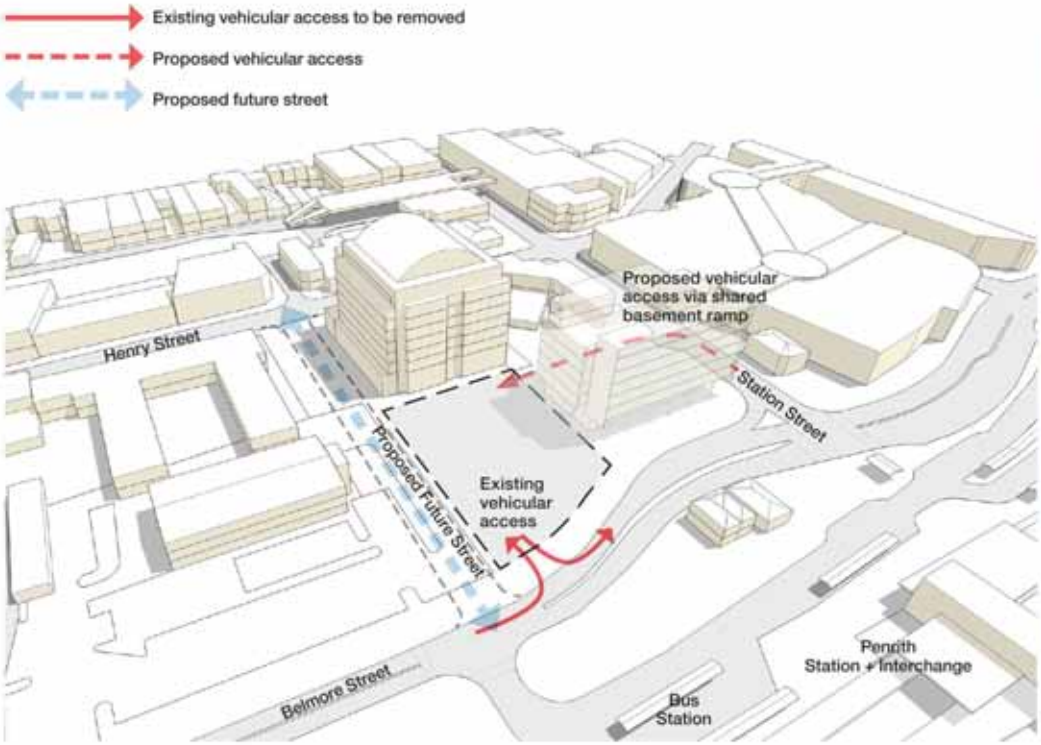
4 . PEDESTRIAN ACCESS

The site is in close proximity to public transport links with Penrith Railway Station and Bus Interchange being a 3 minute walk to the north west. It is anticipated that the Station approach will be the primary route for the majority of pedestrian traffic entering the site. There is an existing through-site link to the western boundary which provides a pedestrianised link from Belmore Street, through to Henry Street. A potential future road / vehicular laneway to the east of the site has been proposed in the Penrith DCP 2014. There is an opportunity to provide a pedestrianised link along the southern edge of the subject site to further improve access across the site, and create links to any future development to the west.

There is an existing basement ventilation stack for 2-6 Station Street located along the primary route from the station. To improve the urban design outcome, the removal of the ventilation stack could potentially be explored under a separate application.

APPROACH FROM PENRITH STATION

1. View from Station forecourt
2. View from corner of Belmore St and Station St
3. Approach on Belmore St footpath
4. Approach under colonnade of 2-6 Station St



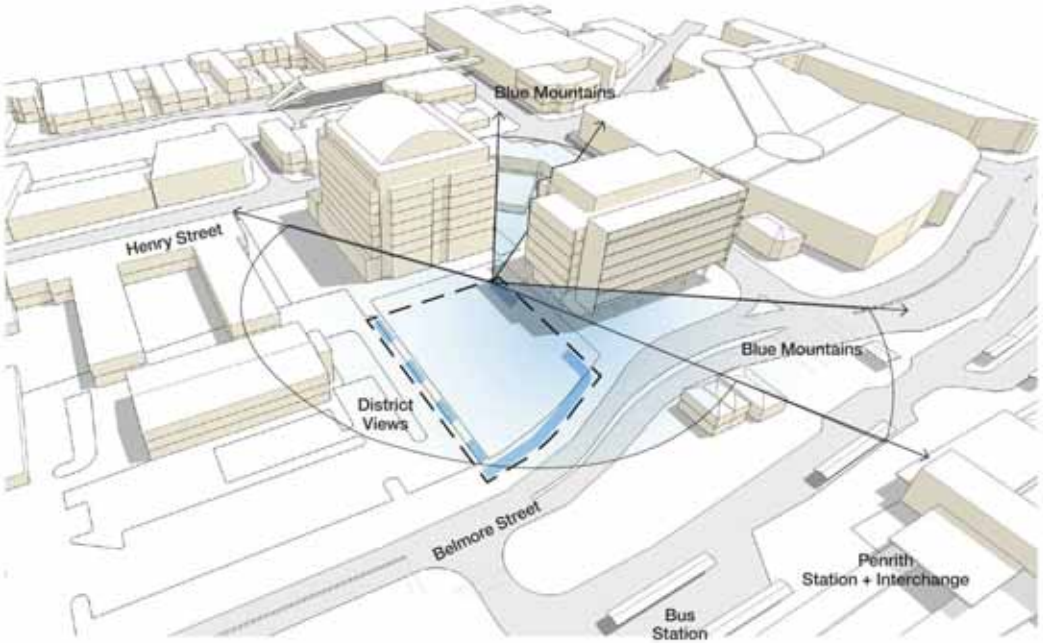
5 . VEHICULAR ACCESS

The site is currently used an on-grade car park with access via Belmore Street. As part of the development, this existing vehicular access from Belmore Street will be removed, with the footpath and kerb being re-constructed. Vehicular access for the proposed development will be via the shared basement ramp off Station Street. This access is shared with both 2-6 Station Street and 121 Henry Street, and provides a secure, discreet access for both cars, and delivery / collection vehicles to the proposed basement car park.

Refer to the Traffic report for further analysis.

PROPOSED VEHICULAR ENTRY

1. Existing entry from Station Street
2. Basement Ramp
3. Shared basement



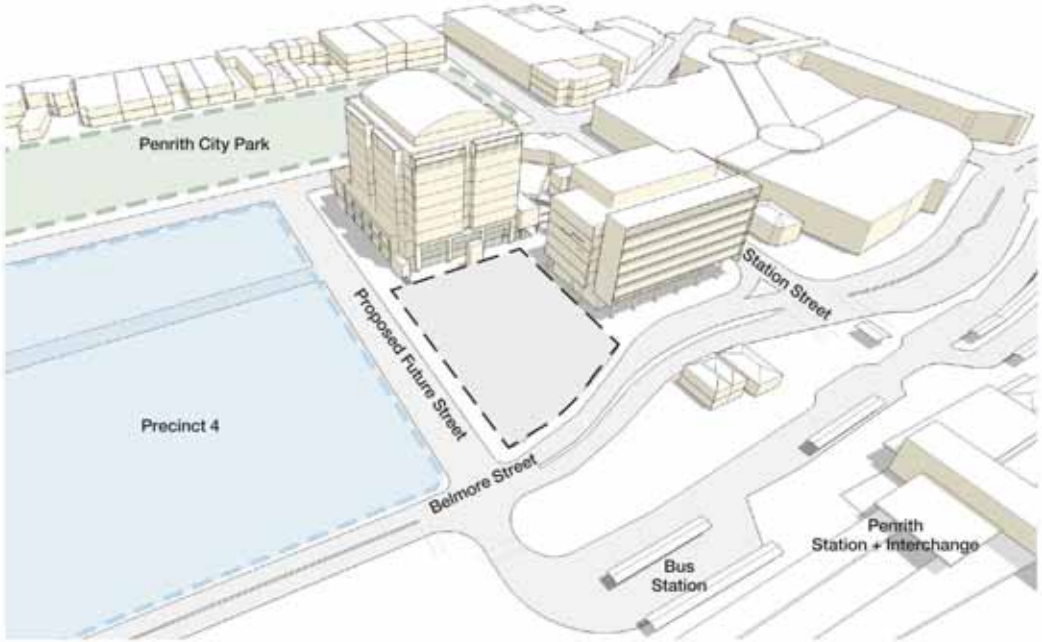

North and western views towards the Blue Mountains

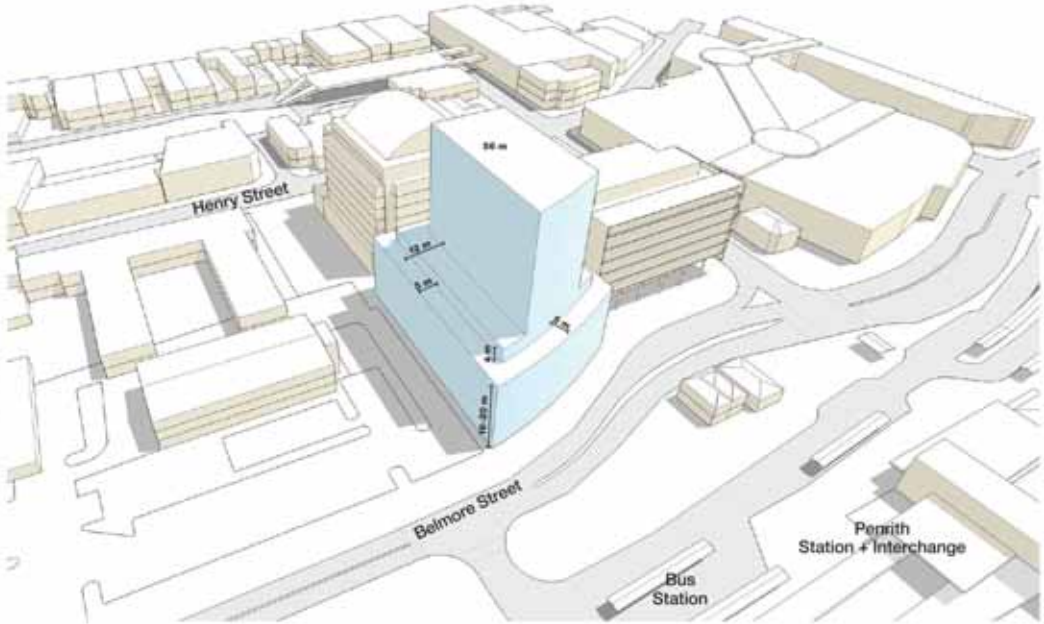

Northern and eastern district views

6. VIEWS

The site benefits from good views towards the Blue Mountains to the north west, as well as glimpsed Mountains views between the neighbouring buildings to the south west. Given the relatively low-rise nature of the surrounding built context, there is also good outlook across the local district extending from the north to the south east.

The photographs to the right of the page are taken from the rooftop of 121 Henry Street and are indicative of the views and outlook available from the upper levels of the proposed development.





7. FUTURE CONTEXT

The areas to the east and south of the site are subject to future planning proposals as part of the wider development of the Penrith CBD.

To the East of the site is an area designated as 'Precinct 4' within the Penrith DCP. This Precinct includes a new public street running north-south alongside the subject site and is described as a retail and commercial development of strategic importance in the City Centre. To the south of the site is Penrith City Park, an area currently the subject of a planning proposal. This proposal will create a new public park and civic square within the centre of the Penrith CBD, as well an associated development site.

The proposed development at 46-50 Belmore Street aims to integrate into this future public domain by creating pedestrianised through-site links that would lead directly to the City Park, as well as the laneways and streets within Precinct 4. The timeframe for Precinct 4 and the Penrith City Park is not currently known.

8. DCP CONTROLS ENVELOPE

The DCP envelope is derived from front and side setbacks described in Penrith City DCP Section E11. The maximum height is 56m as per the LEP. The compliant DCP envelope was reviewed by the Design Integrity Panel at the first meeting, and was considered to be inappropriate to the urban objectives of the site, as it did not relate the scale and massing of the adjacent commercial buildings. Additionally, due to the DCP setbacks, the resulting floorplate size above 16-20m would be approximately 820sqm (NLA) which is considered to be commercially unviable.

The massing of the proposed development has been developed in response to the scale and setbacks of the adjacent buildings. The resultant massing described in the following section 4.0 Design Approach has been presented to the satisfaction of the Design Integrity Panel.

4.0 DESIGN APPROACH

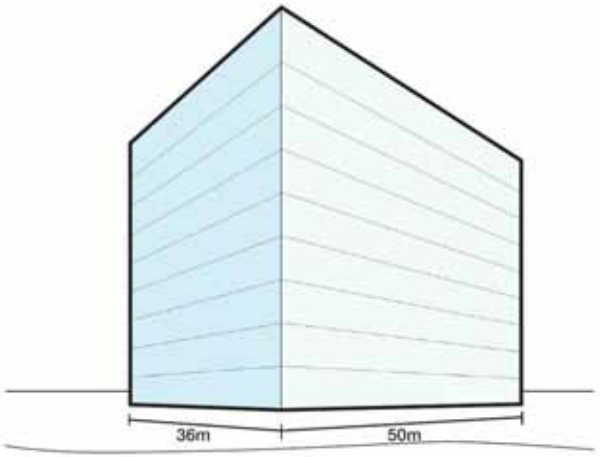
The concept for the building massing and façade has evolved from first principles to make consideration of the building brief, the existing and future urban context and public domain objectives for the site. Feedback from the Design Integrity Panel has informed the design evolution of the proposed massing, ensuring the resultant built form is appropriate to the site and achieves the desired urban outcomes. The Design Integrity Panel identified the following key issues:

/ Necessity for the activation of the ground plane, particularly pedestrian laneways between the proposed development and adjoining buildings

/ Importance of developing a massing that is responsive to the site context

/ Exploring opportunities to improve/break the massing of the building, particularly fronting Belmore Street

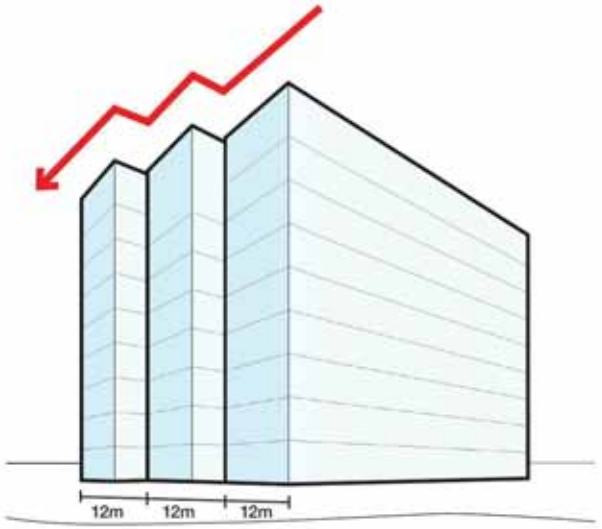
/ Removing 'dead edges' adjoining the streetscape by providing activation to as many frontages as possible



1. MASSING - BASIC VOLUME

The building brief, which requires minimum 1500sqm floorplates (with the flexibility required of a contemporary workplace) has formed the basis for the building massing to ensure the resultant floorplates are commercially viable and meet the market requirements.

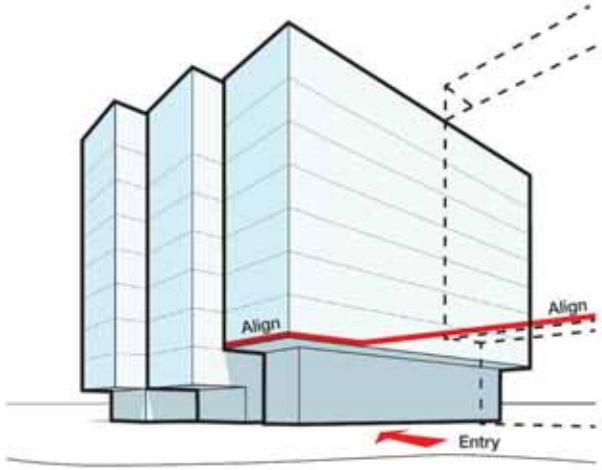
The basic massing provides adequate building separation and creates a public laneway to western side of the site. At 8 storeys plus a roof plant level, it is also of a familiar scale to adjacent commercial buildings



2. MASSING - EXPRESSION OF FLOORPLATE

The typical floorplate consists of 3 bars running on the north-south axis. The eastern and western bars contain column free office space, whilst the central bar contains the lift core, a full height atrium, staff amenities and an outdoor / naturally ventilated space facing onto Belmore Street.

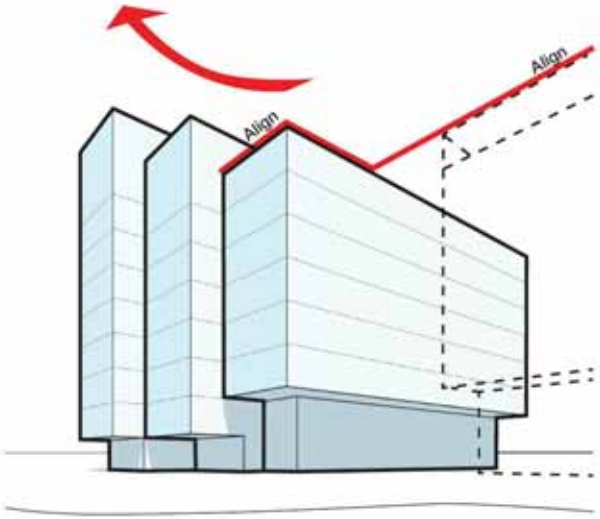
The building massing is broken down into 3 distinct volumes as an expression of the internal planning and stepped in plan to respond to cranked alignment of Belmore Street.



3. MASSING – STEPPED PLAN

In response to the adjacent building and the public laneway, the ground floor and Level 01 of the western bar has been set back by 4.2m to create a double height colonnade and building entry. The colonnade provides a covered walkway along the laneway and will be activated by food and beverage tenancies. The two-storey scale creates a clearly defined building entrance addressing Belmore Street and the main pedestrian approach from the Station and transport interchange, whilst responding to the colonnade scale to 2-6 Station Street.

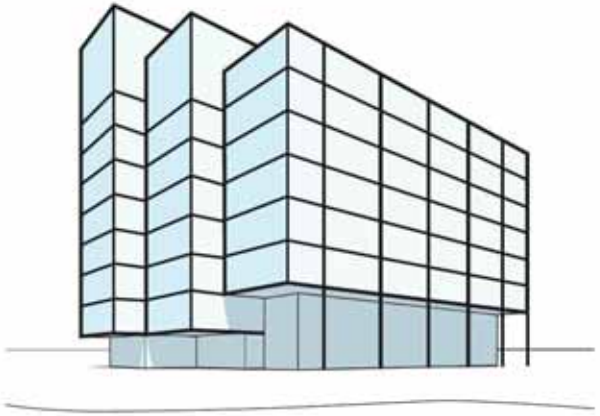
Ground floor of the central and eastern bars setback have been set back to avoid the drainage easement along the northern edge of the site.



4. MASSING – STEPPED HEIGHT

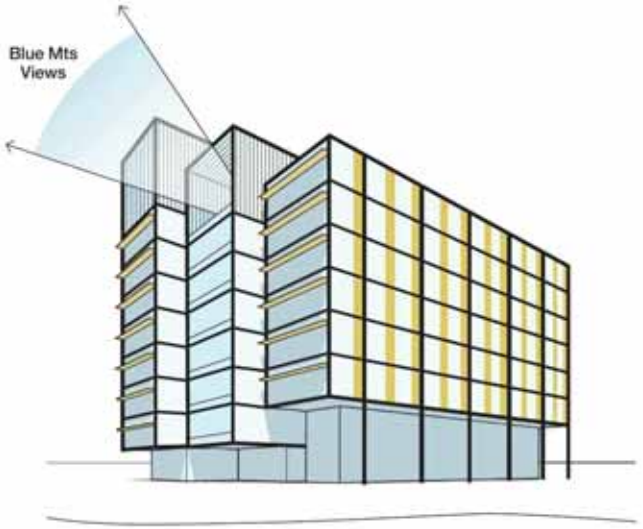
The heights of the 3 bars are stepped to create a dynamic built form that steps both in plan and in elevation. The stepped bars reference the heights of adjacent buildings and the potential future height to the west along Belmore Street

The roof plant is located on the top of the eastern bar and is integrated into the overall architectural expression.



5. FAÇADE – EXPRESSION OF PRIMARY STRUCTURE

The scale of the building massing is broken down further by expressing the primary structure as part of the building façade to provide a more legible scale. The expressed concrete frame creates a robust quality that is simple and timeless, whilst providing integrated horizontal and vertical sun-shading.



6. FAÇADE – INFILL ELEMENTS

Angled aluminium panels are inserted within the frame to provide contrast and balance to the expressed concrete frame. These infill elements creates articulation and warmth to balance the expressed concrete frame. Utilising solid panels within the facade reduces extent of glass to reduce demand on mechanical systems.

The roof plant to eastern bar is clad with angled aluminium louvres to maintain a consistent architectural language with the infill panels.

Following feedback from the frist DIP meeting, a north facing roof terrace has been inserted within the top floor to provide further amenity for the building occupants. In response to comments from the second DIP meeting, horizontal sun shades have been added to northern façade to further reduce heat load.

5.0 DESIGN DESCRIPTION

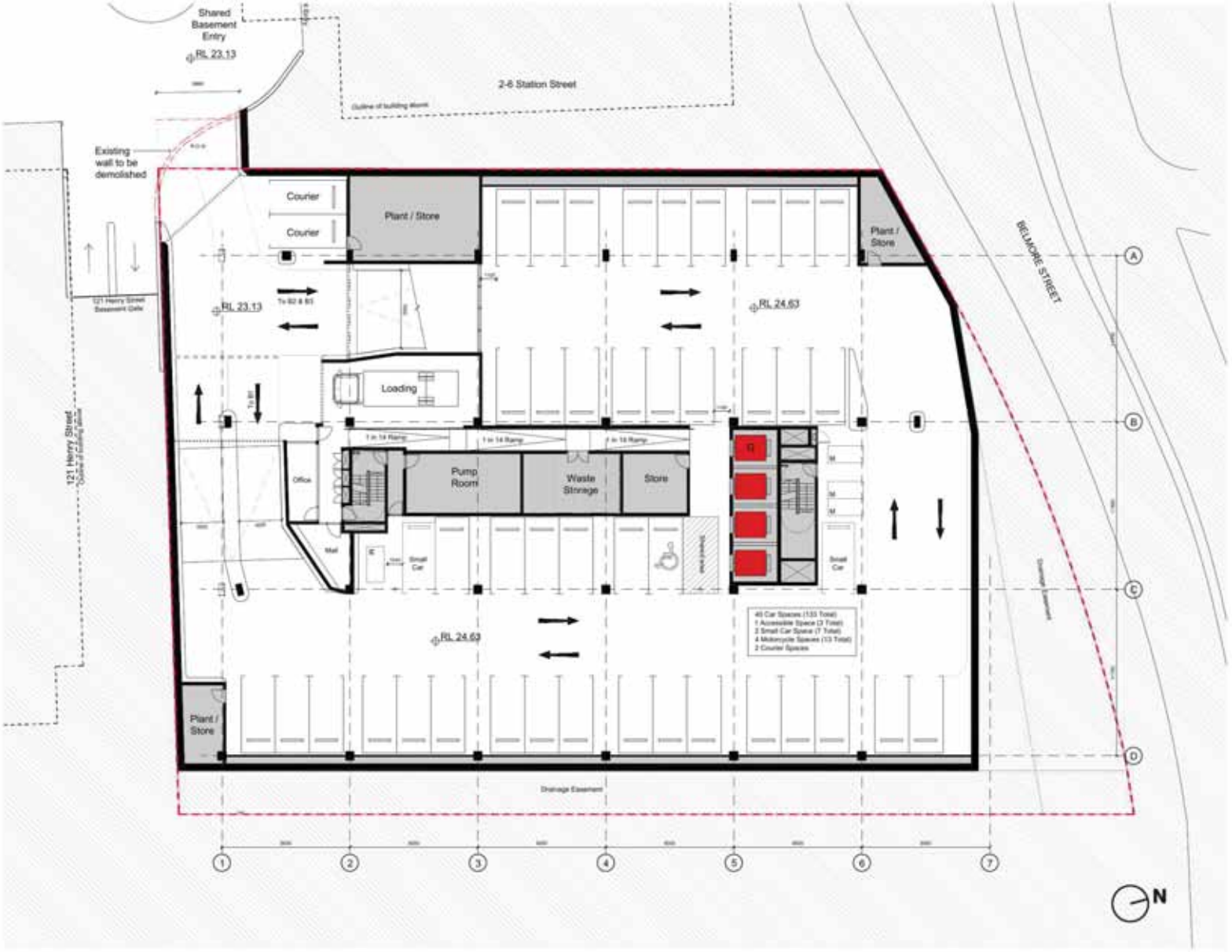
BASEMENT B1

The basement entry is located in the south west corner of the site. It is accessed from the shared entry ramp off Station Street (also shared with 2-6 Station Street and 121 Henry Street).

The loading dock and courier parking are positioned near to the entry point at the same floor level as the shared entry (RL23.13). Adjacent to the loading dock are the loading dock office, mailroom and waste storage rooms.

The basement utilises a split level design to minimise the depth of excavation required. From the entry, there are two ramps to the car park levels; one up to the uppermost car park level (B1) and the other down to the lower two levels (B2 and B3). The car park provide

Refer to the Traffic report for further analysis.



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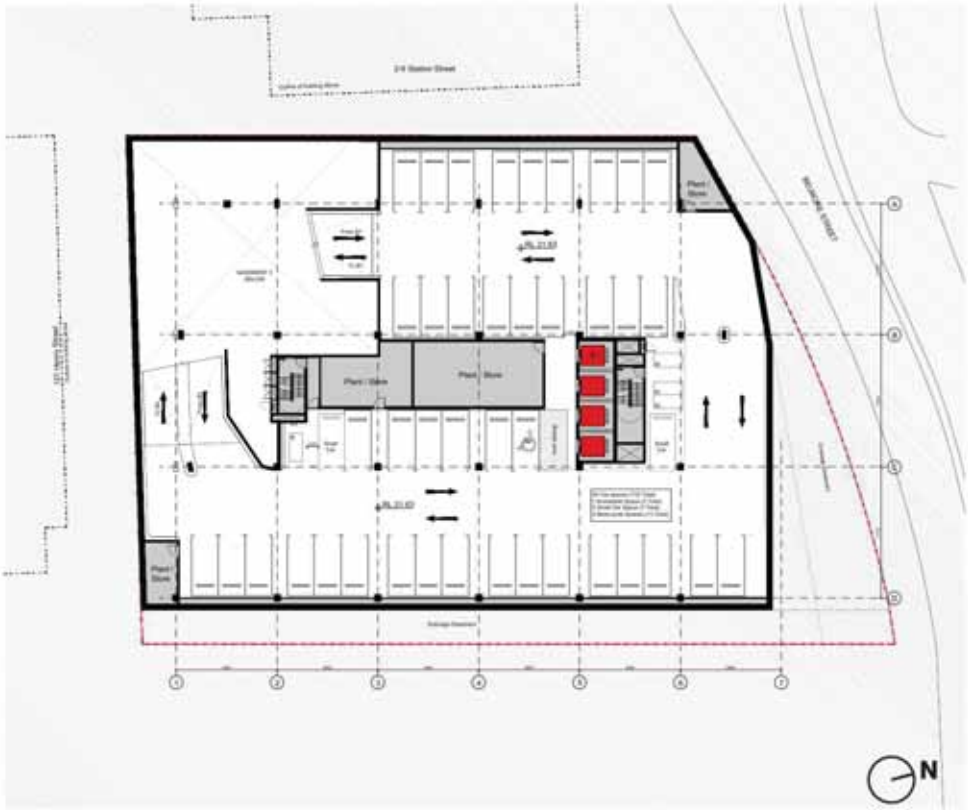

BASEMENT LEVEL B2

BASEMENT LEVEL B3

SITE PLAN

The proposed development is located within an emerging commercial precinct within central Penrith. The public domain to the perimeter of the proposed building will integrate with the existing adjacent public spaces, to complete the pedestrianised connections linking Belmore Street and Henry Street.

The building lobby is located to the north west corner of the building fronting both the laneway and Belmore Street, creating a highly visible street address. It also addresses the primary route for pedestrians walking to building from the Penrith Station and Transport Interchange.

The substation has been located to the rear of the building to maintain a positive streetscape outcome. Vehicular access to the substation is proposed to be from Henry Street via the service lane alongside 121 Henry Street.

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PUBLIC DOMAIN AND LANEWAY

The laneway is situated between the proposed development and 2-6 Station Street. The ground plane gently grades up from the Belmore Street footpath to the higher plaza level around the 121 Henry Street building, creating a seamless transition between new and existing.

LANEWAY - LANDSCAPE DESIGN

The design responds to the varying site levels across the site by creating a series of stepped terraces and ramps to traverse the laneways. These spaces will be used by the various food and beverage offerings creating streetscape activation, whilst considered planters have been positioned to delineate cafe seating areas from pedestrian movement paths.

Following feddback from the Design Integrity Panel, the separation between the planter boxes and the row of columns to the adjacent building has been increased to 2m.

GROUND FLOOR

The ground floor benefits from having the car park entry located away from the site on Station Street, by containing mostly active uses. In addition to the lobby and food and beverage tenancies, the ground floor also contains a business centre to be used for meetings and conferences, creating activation to the facades fronting onto Belmore Street. To the eastern edge of the site, the business centre opens onto a landscaped terrace with integrated planters and bench seating.

Bicycle storage and end of trip facilities are situated to the southern end of the building with both spaces benefitting from natural light. External access to these facilities has been located off the southern laneway to create additional activation to this part of the site. Following feedback from the Design Integrity Panel, internal circulation paths used by people with bicycles were increased to 1.6m wide to allow two people to pass.

LANDSCAPE PLAN

The proposed landscape plan encourages indoor/outdoor relationships; the buildings edge seamlessly transitions to the surrounding streetscape, offering a unified internal and external spatial experience. The ground plane is activated through extension of the public domain into the property, providing meaningful gathering spaces fronting Belmore Street, while new laneways, activated by various food and beverage offerings, provide pedestrian connection through the site.

The proposed planting to the street frontage create an active interface to the street edge of the development, while the furniture and planter arrangements at the entries from the street and the façade of the new building articulates the main entry points from Belmore Street. The design language of the landscaped elements are continued throughout the development creating a consistent palette and identity.

Following feedback from the Design Integrity Panel, the landscaped public realm has been wrapped around the southern end of the site to create further usable space with a ramp providing an accessible link to the future street along the eastern boundary.





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FOOD AND BEVERAGE TENANCIES

Retail space fronting onto the laneway provides street activation. These tenancies are proposed as food and beverage spaces that will have associated external seating / dining areas, defined by raised planters. Retractable awnings provide additional shade and shelter to these outdoor areas when required.

COLONNADE AND SHOPFRONT

At ground floor the building line is set back to creating a 4 metre deep colonnade fronting on to the laneway. This setback provides a clear circulation path for pedestrians whilst the building above provides shelter and shade.

The shopfronts have been designed to create a strong framework for tenant signage zones and shopfront glazing. Guidelines for location, type and size of signage will ensure a consistent design aesthetic is maintained.

BUILDING LOBBY

The building lobby is a double height space located off the northern end of the laneway. It has a simple material palate of polished concrete floors and timber screens and ceilings, that echoes the materiality of the façade. The reception desk is positioned opposite the entry door to provide good surveillance to the lobby and the laneway. To the end wall of the lobby there is an opportunity to locate an artwork (far right on the section below).

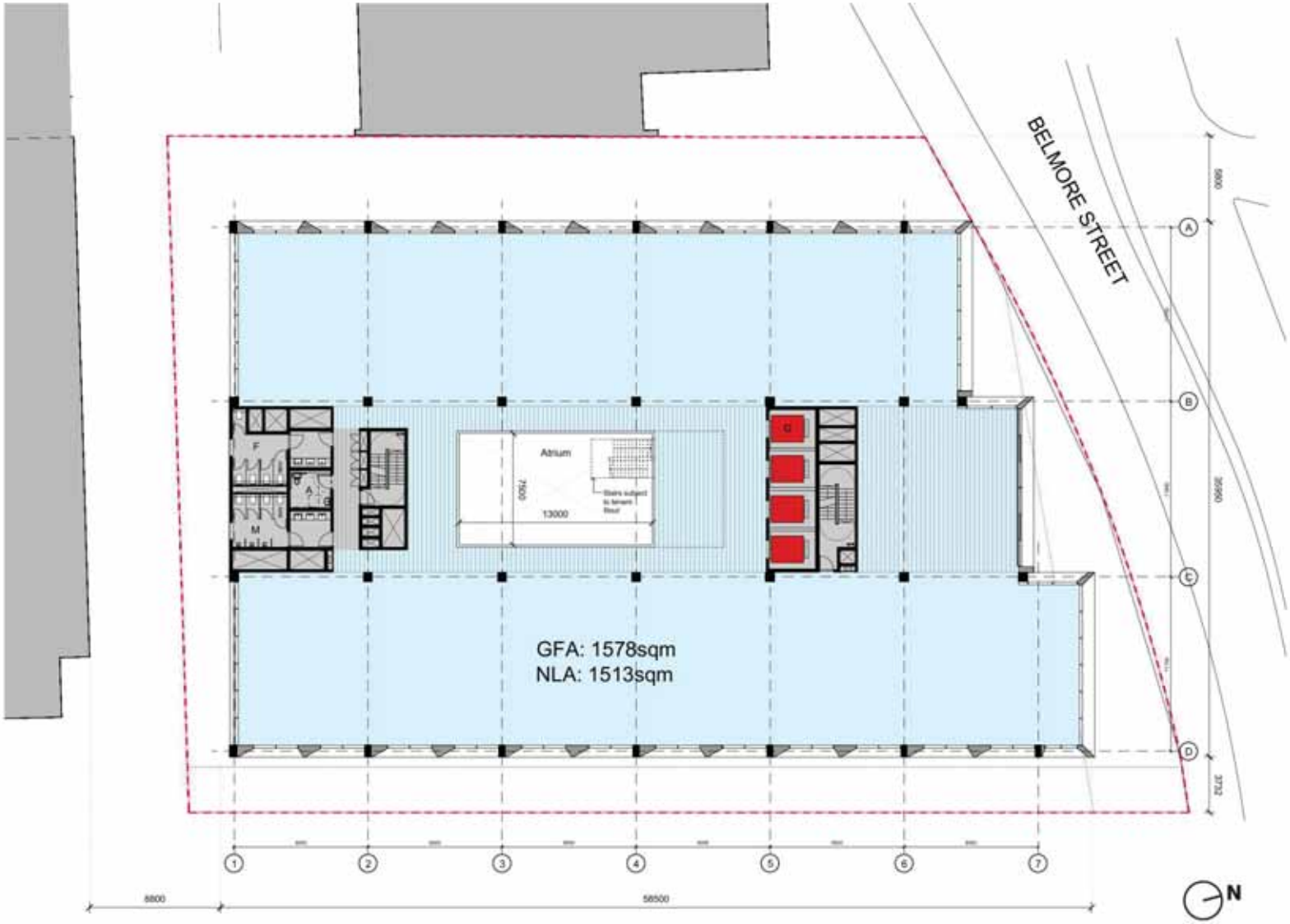
TYPICAL FLOOR

The typical floorplate is based on a campus style typology with a central split core and atrium. At the first Design Integrity Panel meeting, the panel noted that the campus style floorplate was preferred over a side core floorplate due to the opportunity to improve the massing outcome of the building, and increase activation at ground level by having a centralised core.

The floorplan is organized into three bars which run in a north-south orientation. The outer bars to the east and west contain open and flexible floor space, whilst the central bar contains a split core, a full height atrium, breakout spaces and a mixed mode space overlooking Belmore Street. The building line steps along the northern façade to acknowledge the angled geometry of the site created by the crank in Belmore Street whilst expressing the internal organisation of the floorplate within the built form.

Utilising a centralized core frees up the façade to maximize natural light and amenity to the floorplates, as well as reducing the extent of inactive street frontage at ground level. By splitting the core, we have been able to introduce a full height atrium which brings natural daylight into the heart of the building. The lift core is located to the north of the plan, near to the lobby at ground level and in a central location within the typical levels providing excellent access from all parts of the floorplate. The staff bathrooms are located within the southern core with discreet access off the main circulation path. The northern end of the plan is envisaged as a space suitable for meeting rooms or a breakout space, with an operable façade capable of being opened up to allow natural ventilation into the space.

The circulation path that links the split core and the atrium encourages occupants to regularly use and experience these spaces, increasing the potential for staff interactions and promoting social cohesion.



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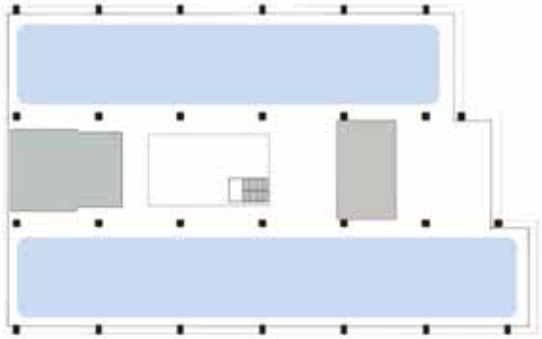
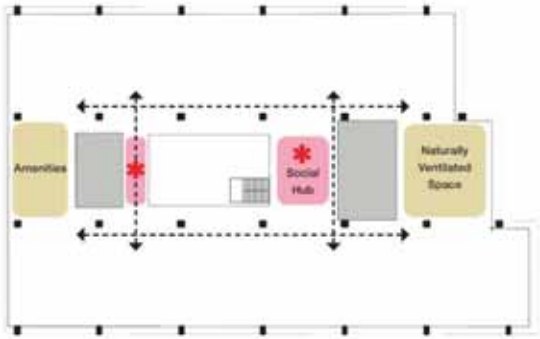


1. WORKPLACE CONCEPT

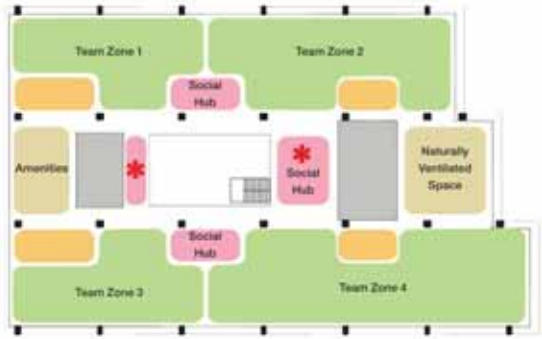
The typical floorplate consists of two large open workzones typical of a campus style workplace. These column free contiguous zones maximize space planning flexibility, whilst the central core and circulation zone supports multiple floorplate subdivisibility. The atrium void draws natural light into the heart of the building, encourages social connections and provides excellent visual connectivity across the floorplate and between floors



2. COLLABORATIONS & CIRCULATION

The central bar contains the common functions and spaces that connects the two workzones. A naturally ventilated space is located at the northern end of the building, with potential use as meeting rooms or a staff kitchen area. The primary breakout space and social hub is located immediately adjacent to the lifts and atrium, with an open interconnecting stair (subject to tenant fitout) located in close proximity to the lifts. Staff amenities are located at the other end of the atrium to create a natural path of travel along the end of the atrium.

Establishing the breakouts, common amenities and primary circulation paths around this central zone encourages regular usage and promotes social interactions.



3. WORK COMMUNITIES

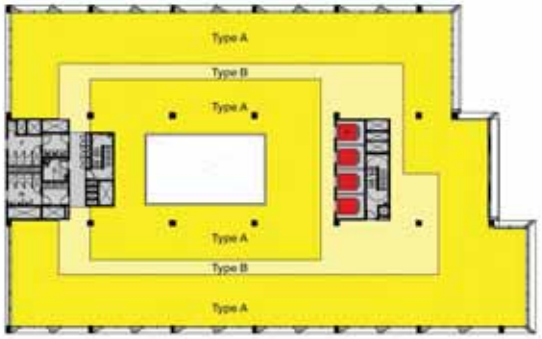
The large open floorplates have been designed for efficient workplace planning. In a potential single tenant scenario, the floorplates are divided into 4 team zones all in close proximity to one another. The social hubs are clustered around the atrium on the natural path of travel encouraging workplace interaction and collaboration by linking workgroups or communities via breakout areas. The built zones, such as storage and utility spaces are located alongside the cores. Vertical interconnectivity is encouraged with an open interconnecting stair (subject to tenant fitout) being located within the atrium.








ACCESS TO NATURAL LIGHT

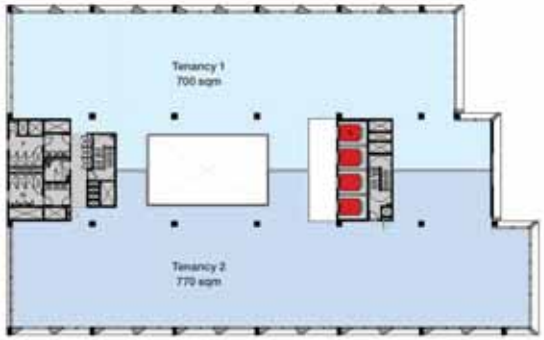


Access to natural light can be quantified by measuring the area of floorplate based on its depth from the façade or source of natural light (e.g. atrium open to the sky). Designing as much of the floorplate to achieve good access to natural light is vital to support space planning flexibility, as well as creating a healthy workplace environment.

Type A space is categorised as being within 6m of the natural light source, Type B is between 6-12m from the natural light source and Type C is greater than 12m. Type A & B space is ideal for locating people in primary work stations with access to daylight and views. Type C space is suited to storage and utility spaces.

Type A	79%
Type B	21%
Type C	0%

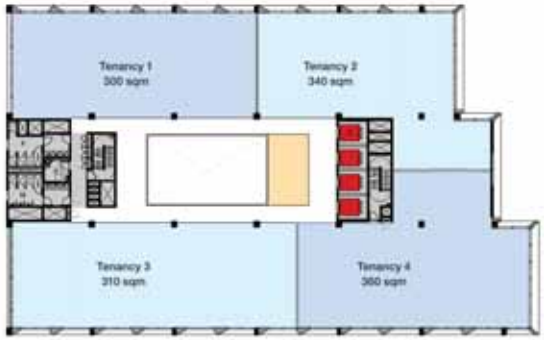
SUB-DIVISIBILITY (2 TENANTS)



Sub-divisibility is the capability to divide a floorplate into multiple secure tenancy compartments whilst minimising the loss of Net Tenancy Area. Each compartment should have a reasonable address with respect to lifts, and meet regulatory requirements in terms of amenities and fire egress.

The two contiguous zones within the campus style floorplate is well suited for an efficient two tenant sub-division. Both tenants would benefit from excellent access to natural light as well as making joint use of the atrium and naturally ventilation space at the northern end of the central bar. They would also both have a north facing aspect to capitalize on the views towards the Blue Mountains.

SUB-DIVISIBILITY (4 TENANTS OR MORE)



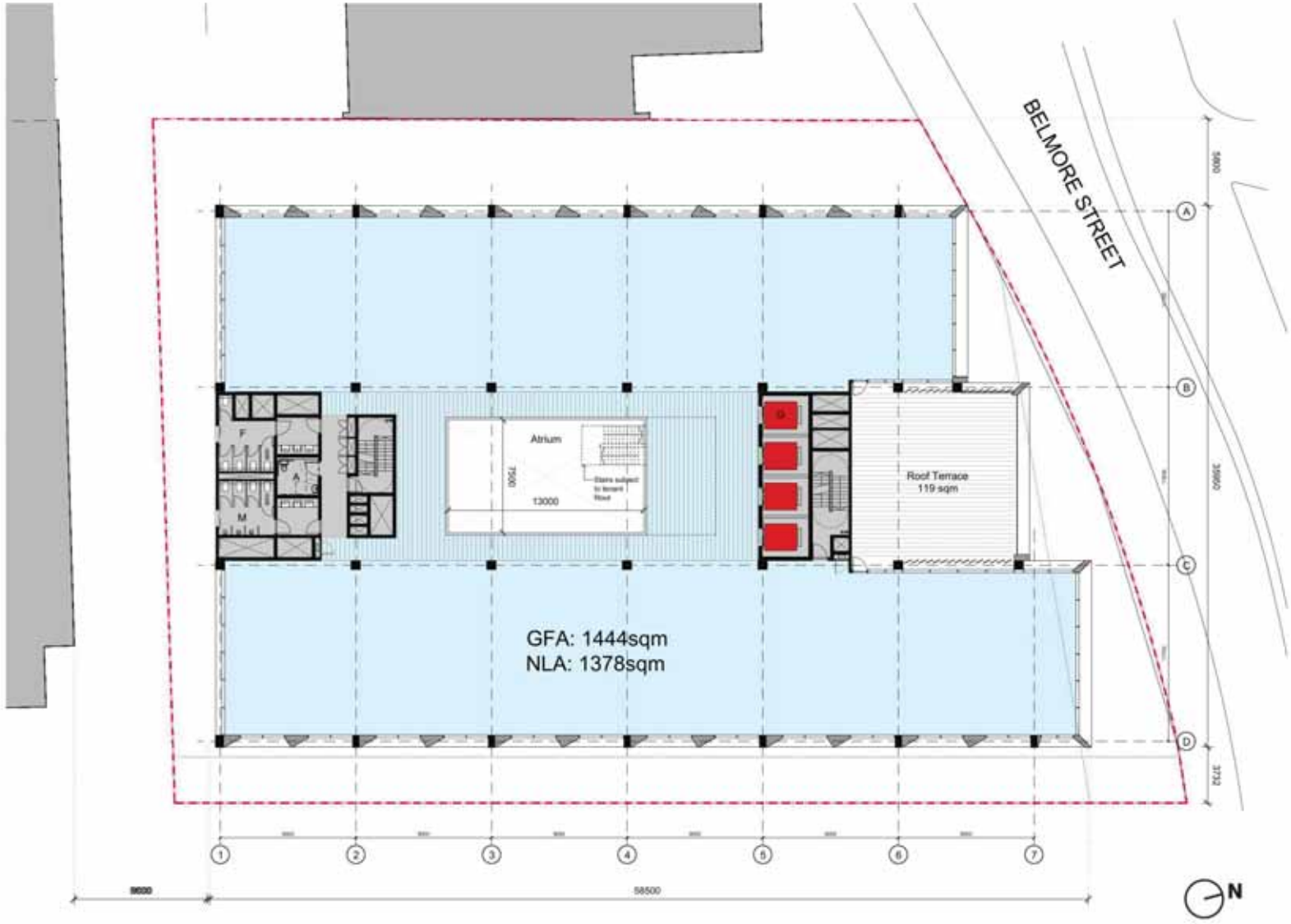
The floorplate can be sub-divided further to accommodate four or more tenancies, with each having good access to natural light. In this scenario, the central atrium and connecting circulation paths help create a village-type community feel, with the different tenancies having good visual connections to one another. The central circulation zone means the floorplate has the potential to be sub-divided further if required, offering maximum flexibility for securing future tenants. The space in front of the lift core would be a shared meeting or breakout space.

ATRIUM VISUALISATION

LEVEL 07 PLAN

Level 07 is the uppermost commercial level and contains a covered outdoor roof terrace. Facing north, this terrace is located to capture the primary views towards the Blue Mountains and has excellent access to sunlight throughout the day.

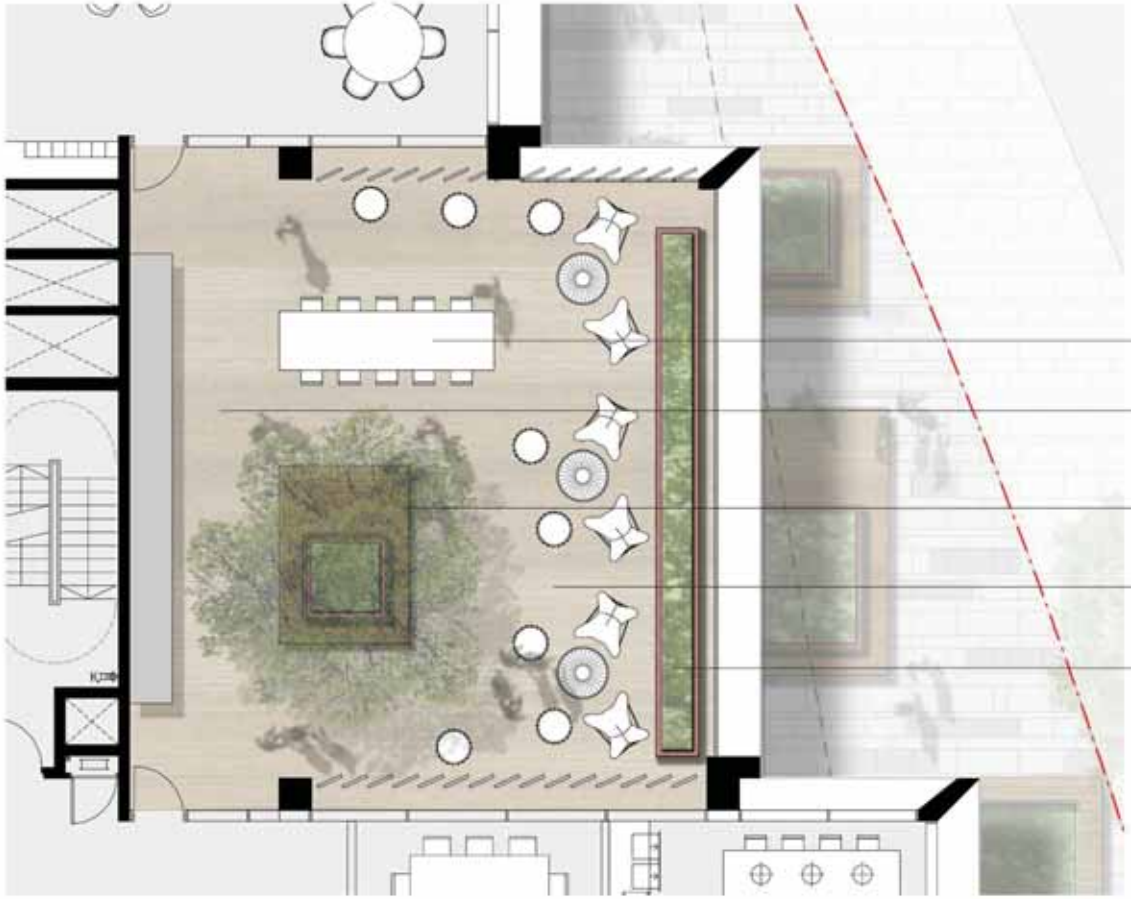
An operable louvred roof can be opened up to allow sunlight and breezes, or closed to provide shade and shelter. It is envisaged that the space will have soft landscaping and seating areas to provide office workers with an outdoor place to relax and socialize with colleagues. Refer to the following page and the Landscape Drawings for further detail.



BATESSMART. 360°

LEVEL 07 ROOF TERRACE

View of roof terrace from street level



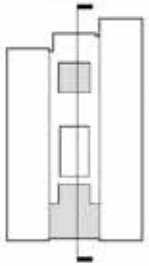
BATESSMART. 360°

LONG SECTION

Running on a north-south axis, the long section demonstrates the importance of the atrium to visually and physically connect the levels up through the building. A glazed roof over the atrium draws natural light down through the building improving the amenity of all levels. An connecting stair (subject to tenant requirements) winds up through the atrium encouraging people to take the stairs rather than the lifts.

The roof terrace to the northern end of the building is accessed from Level 08. It has an operable louvred roof which can opened up to allow daylight and breezes to the terrace, or closed to provide shading and shelter from the elements. The double height volume of the terrace allows the lift overrun to be discreetly concealed behind.

LEGEND

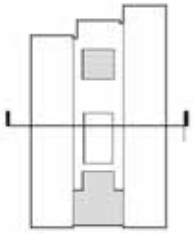


CROSS SECTION

Running on an east-west axis, the cross section illustrates the connectivity between the commercial floorplates. The atrium helps to unify the building, creating an office community where occupants can experience the life of the building regardless of the level they are situated on.

At ground level, the food and beverage tenancies (bottom left) open out onto the laneway creating an active and vibrant public space. In reference to the adjacent building at 2-6 Station Street, the tenancies are set back behind a colonnade to provide summer shading as well as creating a sheltered circulation route for pedestrians.

LEGEND



6.0 FACADE + MATERIALS

FACADE DESIGN

The façades have simple, elegant quality that is both robust and responsive the environmental conditions. The facade concept design was presented to the Design Integrity Panel at the second meeting. In response to feedback from the panel, horizontal sun shades have been added to the northern facade to improve shading from the midday sun and reduce the reliance on mechanical systems.

EAST AND WEST FACADE

The west and west facades are defined by an expressed frame with solid and glazed infill elements. The exposed concrete frame is an expression of primary structural grid and projects 600mm beyond the glass line to provide both vertical and horizontal sun shading. Each frame bay accommodates a family of infill elements which create a secondary level of articulation across the façade. A 3000mm wide, full height fixed glass module maximizes views from the workspace, whilst profiled aluminium infill panels provide increased solidity as well as reducing the heat load on the building.

The concrete frame extends from the ground up to the roof to integrate the plant area into the overall building expression.

View of East Elevation

FINISHES AND MATERIALS

1. Exposed Concrete Frame

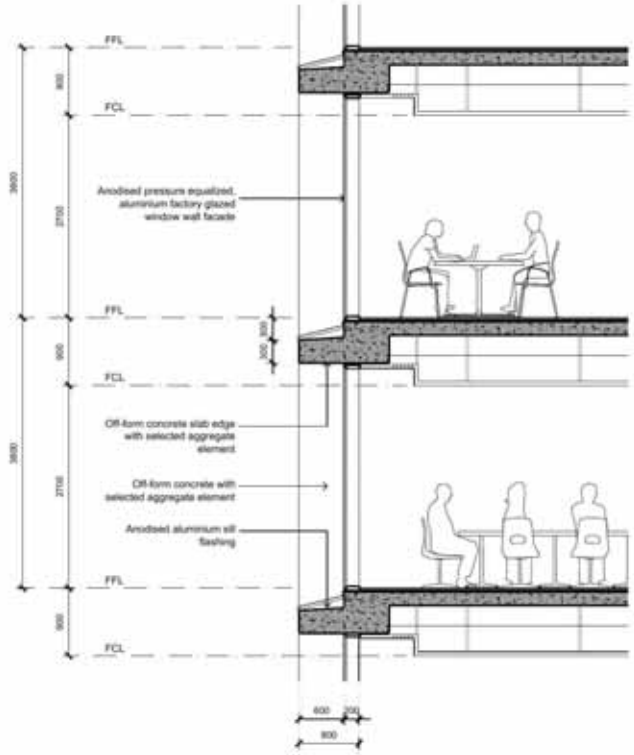
2. Bronze Aluminium Infill Panel

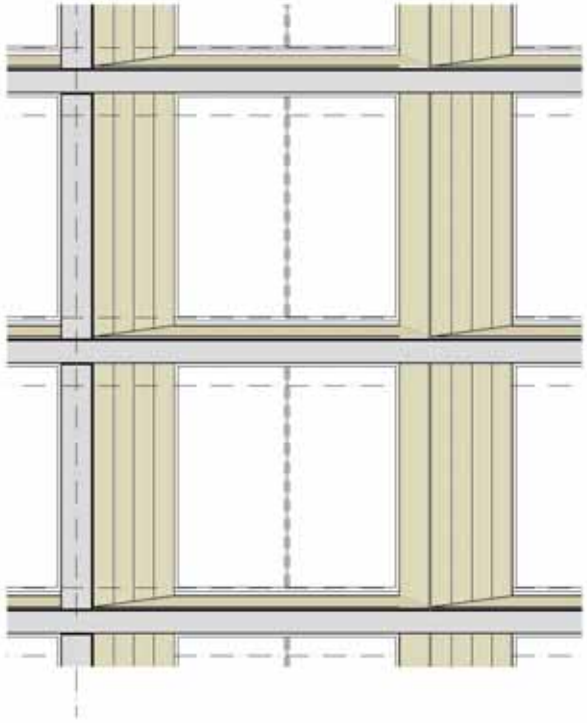
3. Profiled Bronze Aluminium Cladding

4. Dark Window Frames

5. Glass

6. Aluminium Louvres





BATESSMART.

NORTH FACADE

The north façade has a horizontal expression that differentiates it from the east and west facades and responds to the northern orientation by providing a high level of shading to the glass. The concrete frame projects 800mm beyond the glass line providing close to 100% shade during the summer months.

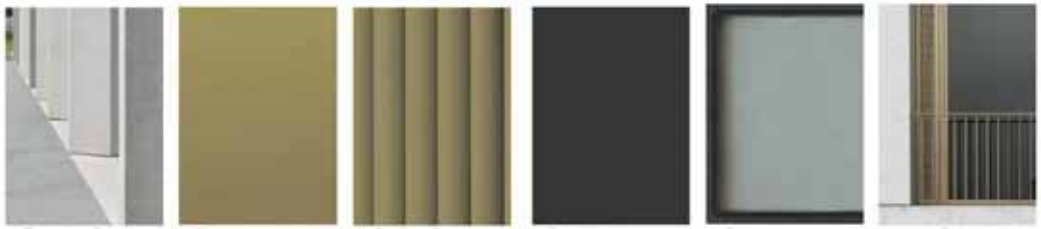
Type 1

The two side bars have aluminium horizontal sunshades (at 2250mm above finished floor level) to provide additional shade throughout the remainder of the year when the sun is lower, further reducing the heat load. These sunshades have been added in response to feedback from the Design Integrity Panel.

Type 2

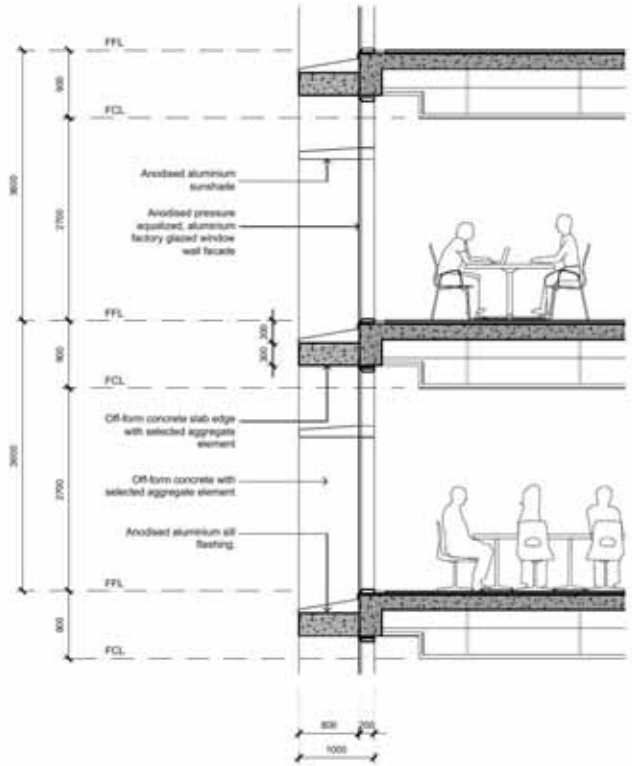
The central bar contains the proposed mixed mode spaces which can be naturally ventilated. Operable sliding doors allow the facade to be opened up as required to create outdoor terraces. A metal balustrade is positioned behind the glass line.

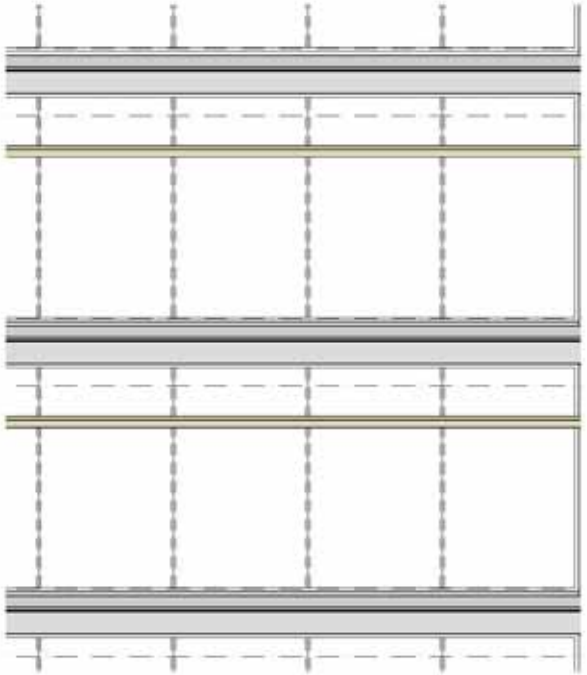
FINISHES AND MATERIALS



1. Exposed Concrete Frame
2. Bronze Aluminium Sunshades
3. Profiled Bronze Aluminium Cladding
4. Dark Window Frames
5. Glass
6. Metal Balustrades

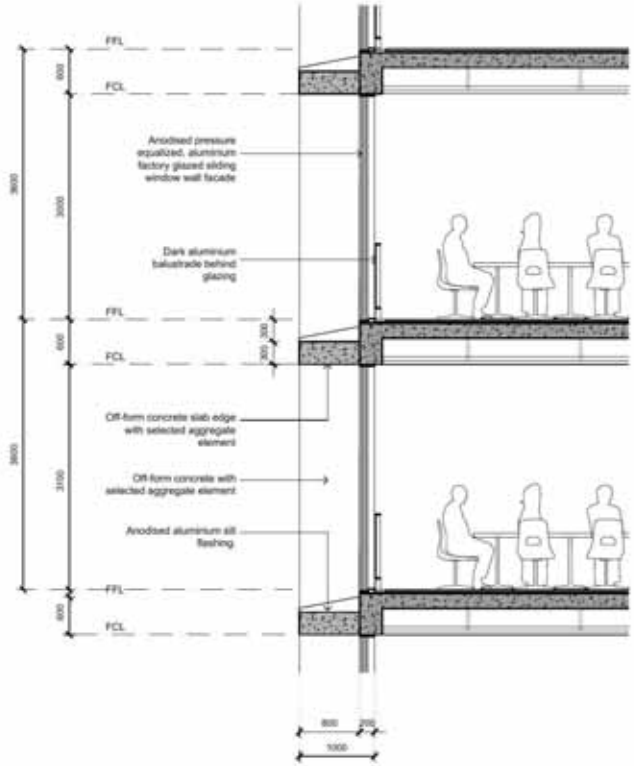
BATESSMART.

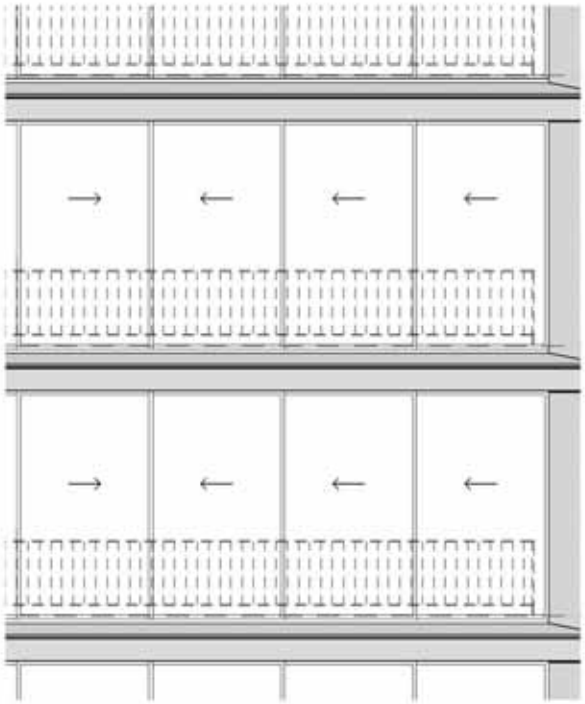


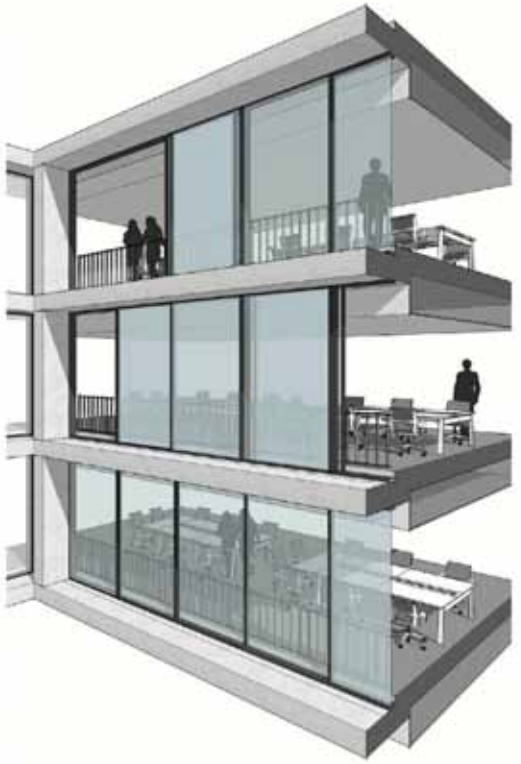


NORTH FACADE - TYPE 1

BATESSMART.







NORTH FACADE - TYPE 2

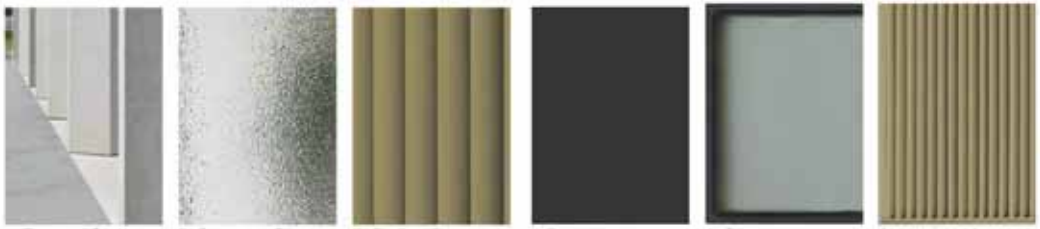
SOUTH FACADE

The southern facade uses the established family of facade elements to express the 3 bars through the use of different materials.

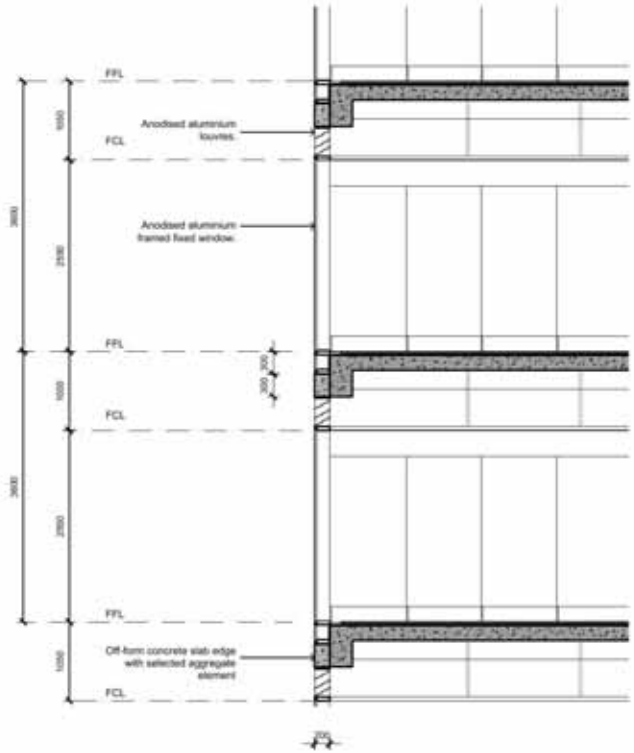
The two sides bars containing the office workspaces have full height glazing, with the concrete frame projecting 400mm beyond the glass line.

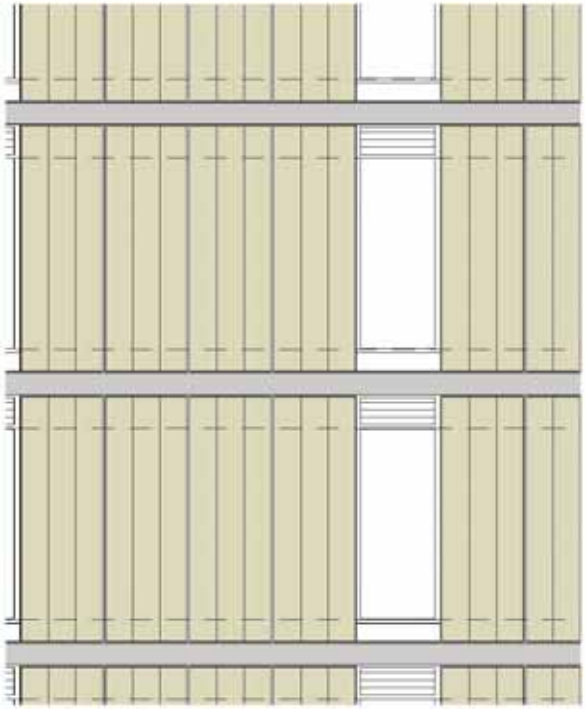
The central bar is clad in profiled bronze aluminium panels, similar to those used to the east and west facades. Glazed panels with obscured glazing provides natural light to the staff bathrooms.

FINISHES AND MATERIALS



1. Exposed Concrete Frame
2. Obscured Glass
3. Profiled Bronze Aluminium Cladding
4. Dark Window Frames
5. Glass
6. Aluminium Louvres





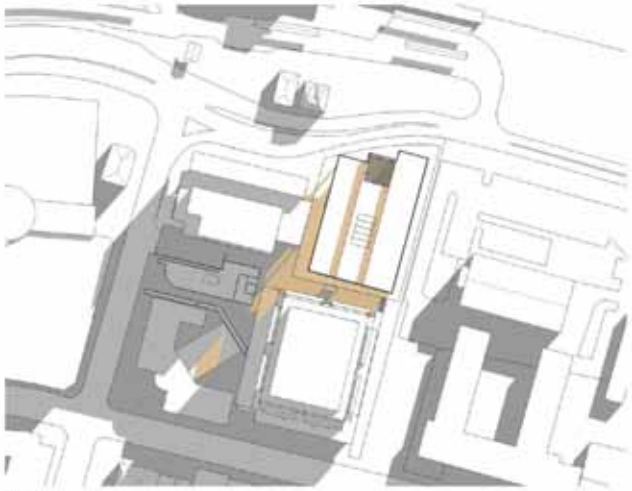
SOUTH FACADE

7.0 SHADOW DIAGRAMS

WINTER SOLSTICE

The adjacent shadow studies illustrate the extent of additional shadows cast by the proposed development during the winter solstice (21st June). The diagrams demonstrate that the laneway between the proposed development and 2-6 Station Street benefits from a good degree of sunlight between 11am and 2pm, and does not receive any additional shadowing after 11am.

ADDITIONAL SHADOW FROM 46-50 BELMORE STREET



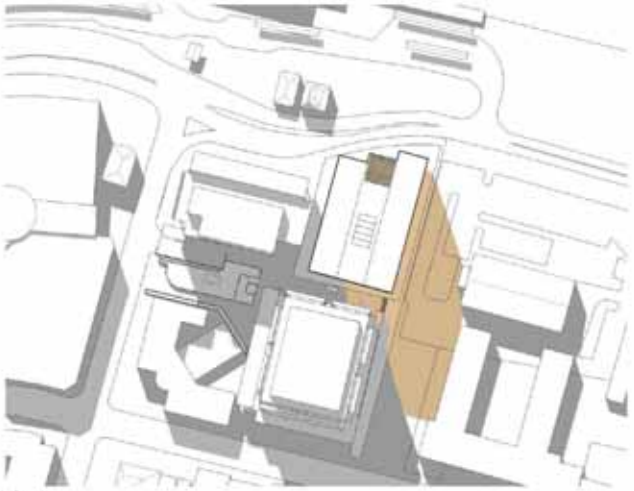
9AM

10AM

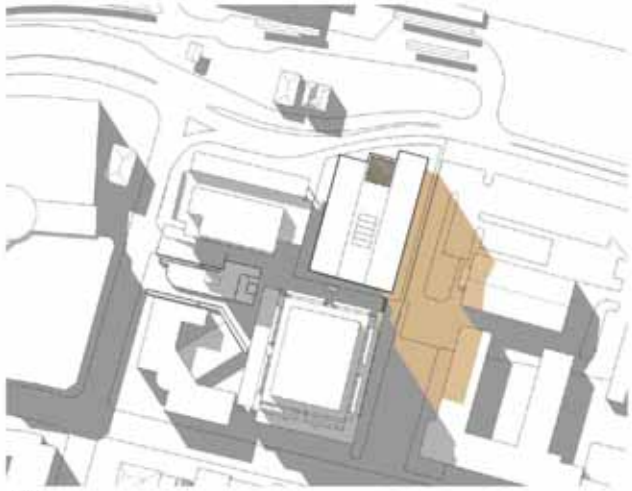
11AM

12PM

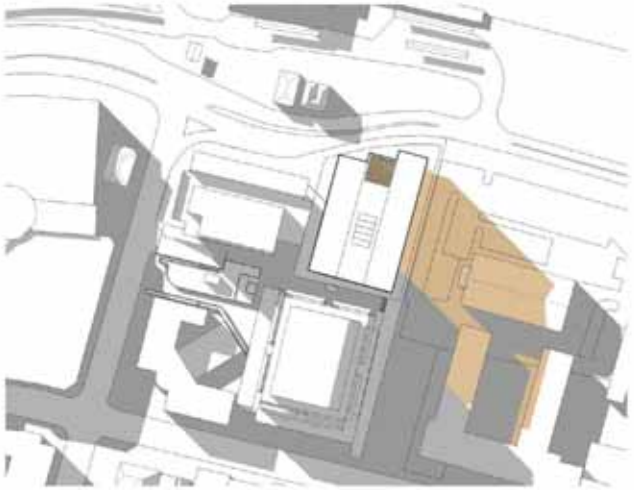
ADDITIONAL SHADOW FROM
46-50 BELMORE STREET



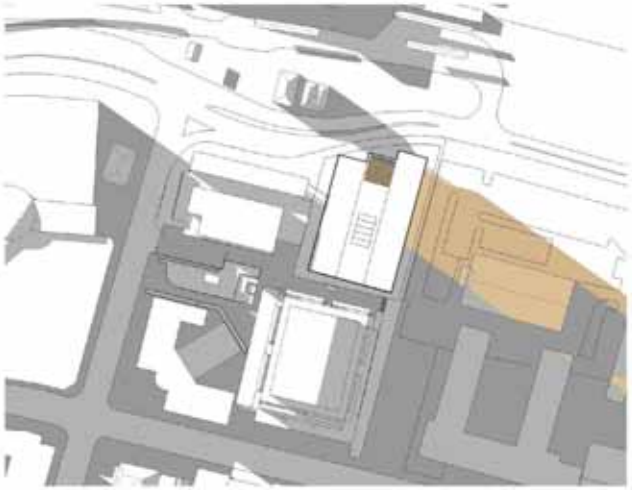
1PM



2PM



3PM



4PM

8.0 AREA SCHEDULE

46-50 Belmore Street, Penrith
AREA SCHEDULE
15.02.2017

Development Application
Job No: S12022

Site Area	2754 sqm
Maximum Height	56.00 m
Permissable FSR	4.00 :1
Total Permissable GFA:	11,016 sqm

Level	Use	Floor Height	GBA (m²)	GFA (m²)	Commercial NLA (m²)	Retail NLA (m²)
Level 08	Plant	4.5	1058			
Level 07	Commercial + Roof Terrace	3.6	1740	1444	1378	
Level 06	Commercial	3.6	1740	1578	1513	
Level 05	Commercial	3.6	1740	1578	1513	
Level 04	Commercial	3.6	1740	1578	1513	
Level 03	Commercial	3.6	1740	1578	1513	
Level 02	Commercial	3.6	1718	1554	1488	
Level 01	Commercial + Mezzanine	3.6	1268	1114	1049	
Ground	Commercial Lobby / Retail	4.3	1547	1069	595	189
B01	Car Park	3	2366			
B02	Car Park	3	1895			
B03	Car Park	3	2366			
Total		34	20918	11493	10562	189

DEFINITIONS:

GBA: Gross Building Area: means the sum of the floor area of a building measured from the external face of external walls including all lifts, stairs, services risers, structure, plant and covered roof terraces / wintergarden / balcony areas. Excludes external roof terraces open to the sky, and atrium voids

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:

(i) storage, and

(ii) 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.

(ii) 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.