

Andre J.M Cointreau C/- Commercial & General

Partial demolition of existing buildings and structures, construction of a commercial building consisting of retail, office and restaurant/café tenancies, associated car parking, landscaping and building works.

200 North Terrace

DA 020/A055/17

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OVERVIEW

Application No	020/A055/17
Unique ID/KNET ID	2017/18891/01
Applicant	Andre J.M Cointreau C/- Commercial and General
Proposal	Partial demolition of existing buildings and structures, construction of a multi storey commercial building consisting of retail, restaurant/cafe and office tenancies, associated car parking, landscaping and building works.
Subject Land	12-20 Gawler Place, 199-200 North Terrace, Adelaide
Zone/Policy Area	Capital City Zone / Central Business Policy Area
Relevant Authority	State Commission Assessment Panel
Lodgement Date	18/08/2017
Council	Adelaide City Council
Development Plan	Adelaide City Development Plan [Consolidated 20 June 2017]
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	State Heritage, Adelaide Airport, ODASA
Report Author	Karl Woehle
RECOMMENDATION	Development Plan Consent subject to a Reserve Matter and Conditions

EXECUTIVE SUMMARY

The applicant seeks Development Plan Consent for the partial demolition of existing buildings and structures. The construction of a multi storey commercial building consisting of retail, restaurant/cafe and office tenancies, associated car parking, landscaping and building works in the Central Business Policy Area of the Capital City Zone at 200 North Terrace, Adelaide.

The proposed development is a merit kind of development that triggers a statutory referral to the Government Architect, State Heritage and Adelaide Airport. The proposed land use is considered acceptable and consistent with the land-uses envisaged in the Central Business Policy Area of the Capital City Zone.

The height and scale of the proposed development is considered appropriate and consistent with the planning policy provisions. The design and appearance of the proposed development appropriately addresses the desired character of the policy area and zone. The Government Architect in principle supports the proposed built form, scale, articulation and materials.

State Heritage are of the opinion that the adaptive reuse of the State Heritage Place and the proposed new built form is considered acceptable. State Heritage consider the proposed towers are sufficiently setback from North Terrace and should not visually dominate the historic State Heritage Places and other adjacent buildings along North Terrace.

Notwithstanding the resolution of vehicle access to Fisher Place which has been incorporated into a reserve matter. The proposal achieves appropriate performance outcomes in respect to technical matters such as pedestrian access, bicycle parking, energy efficiency, waste management and acoustics. Adelaide City Council did not object to the proposed development and initial concerns around the canopy encroachments were addressed to meet Council's encroachment policies.

On balance, it is considered that the proposal satisfies the intent of the Central Business Policy Area and other relevant development control policies. It is consequently considered that it warrants Development Plan Consent subject to a reserve matter and conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

On 30 May 2017 the Minister for Planning approved the Capital City Policy Review (Design Quality) Development Plan Amendment. The purpose of the DPA was to introduce and reinforce design quality within the Capital City Zone which:

- Reinforce design quality for new development;
- Establish additional requirements for over-height development including zone interface treatments and triggers for over-height allowances;
- Increase greening policy provisions for over-height development and;
- strengthen the Desired Character Statement along Rundle Street to recognise its important character.

1.2 Pre-Lodgement Process

The applicant engaged in the Pre-lodgement Service offered by the Department of Planning, Transport and Infrastructure which is provided to applicants with developments involving building work exceeding 10 million dollars in value within the Capital City Zone.

The proponent engaged in one (1) Pre-lodgement Panel meeting and one (1) Design Review Session. The proponent responded to some of the issues raised during the pre-lodgement panel meeting and design review panel session

2. DESCRIPTION OF PROPOSAL

Application details are contained in the ATTACHMENTS.

Land Use Description	Multi-storey commercial use building consisting of retail, restaurant/café and office space tenancies
Building Height	84.5 metres or 19 levels
Description of levels	Basement: Plant Room, tower store/back of house, retail spaces and associated services Ground: Transformer, waste collection, associated building services, bicycle parking and end of trip facilities, retail spaces and lobby area for offices Level 1: Retail spaces, car parking, plant equipment and sky bridge Level 2: Retail space, offices, car parking, plant equipment roof terrace and landscaping Level 3: Offices, car parking and lobby/core/plant Level 4: Offices, sky lobby, terrace and core Level 5: Offices, mezzanine / lobby /core Level 6 – 18: Offices with floor space ranging between 1,672sqm and 1,800sqm Level 19 – Plant and equipment
Site Access	Pedestrian access is via North Terrace, Gawler Place and public lane (between Fisher Place and North Terrace)
Car Parking	73 car parks, access gained via Fisher Place. Car parking provided on multiple levels and fully screened from public view.
Bicycle Parking	100 bicycle parks and associated end of trip facilities provided. Access gained via public laneway off Gawler Place.
Encroachments	Gawler Place canopy
Staging	Applicant has not requested staged planning consent

3. SITE AND LOCALITY

3.1 Site Description

The development site is comprised of 6 allotments located at 12-20 Gawler Place and 199-200 North Terrace, Adelaide and is situated on the southern side of North Terrace. The development site is T-shaped and has an area of approximately 3,300 square metres. The primary street frontage to the north consist of 199 and 200 North Terrace, which is approximately 26.5 metres. The secondary street frontage to Gawler Place and a public lane way to the west of the development site is approximately 27 metres. The development site has a frontage to Fisher Place to the south which is approximately 29.8 metres.

The development site incorporates several vacant buildings one of which is a State Heritage Place (200 North Terrace) a former G&R Willis & Co warehouse. It is also noted that the second portion of the G&R Willis & Co warehouse a State Heritage Place abuts 200 North Terrace to the immediate east.

It is noted that the subject site is adjacent to a soon to be constructed tram stop on North Terrace. Bus stops are located on North Terrace and Grenfell Street, with the Adelaide Railway Station located approximately 500 metres to the west of the subject site.

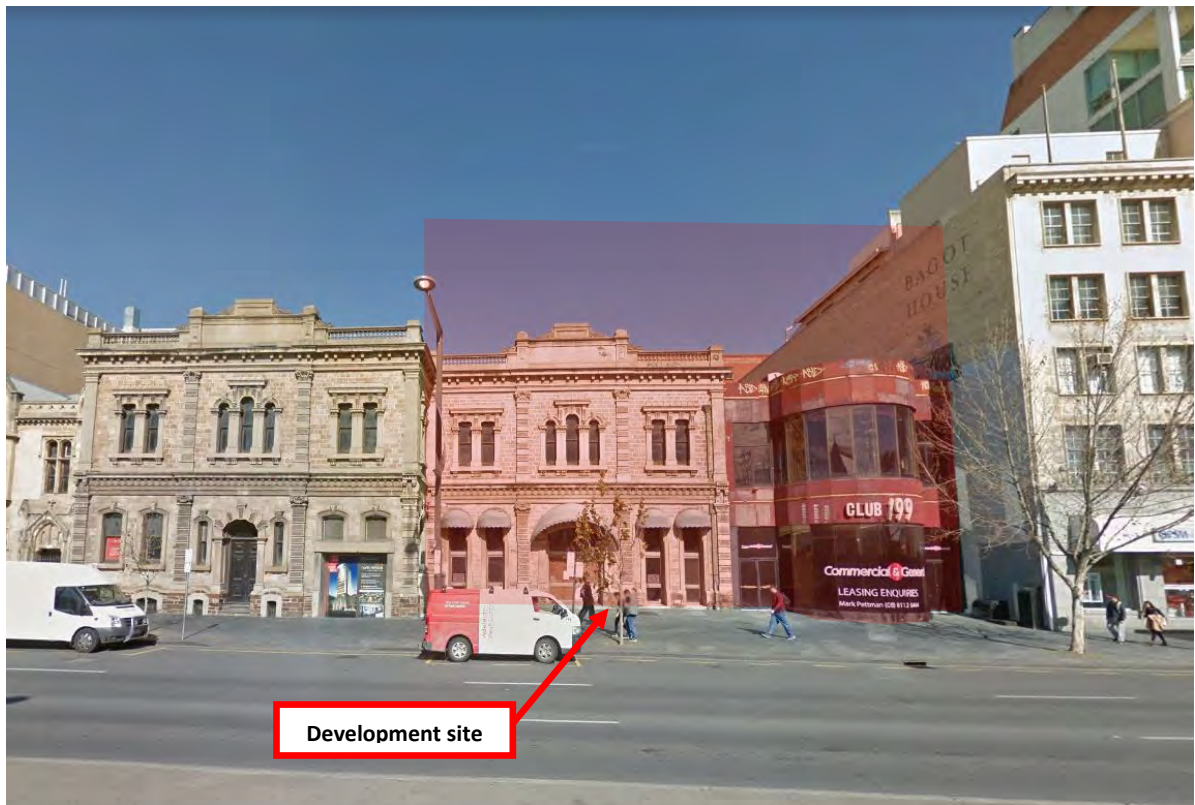


Figure 1 – Subject site, North Terrace Frontage

Lot No	Section	Street	Suburb	Hundred	Title
A1	F2373	Gawler Place	Adelaide	Adelaide	CT 5848/483
A2	F112515	Gawler Place	Adelaide	Adelaide	CT 5848/486
A3	F2373	Gawler Place	Adelaide	Adelaide	CT 6079/188
A1	F104271	Gawler Place	Adelaide	Adelaide	CT 6079/189
A10	F101569	North Terrace	Adelaide	Adelaide	CT 6079/186
A1	F112515	Gawler Place	Adelaide	Adelaide	CT 5848/482

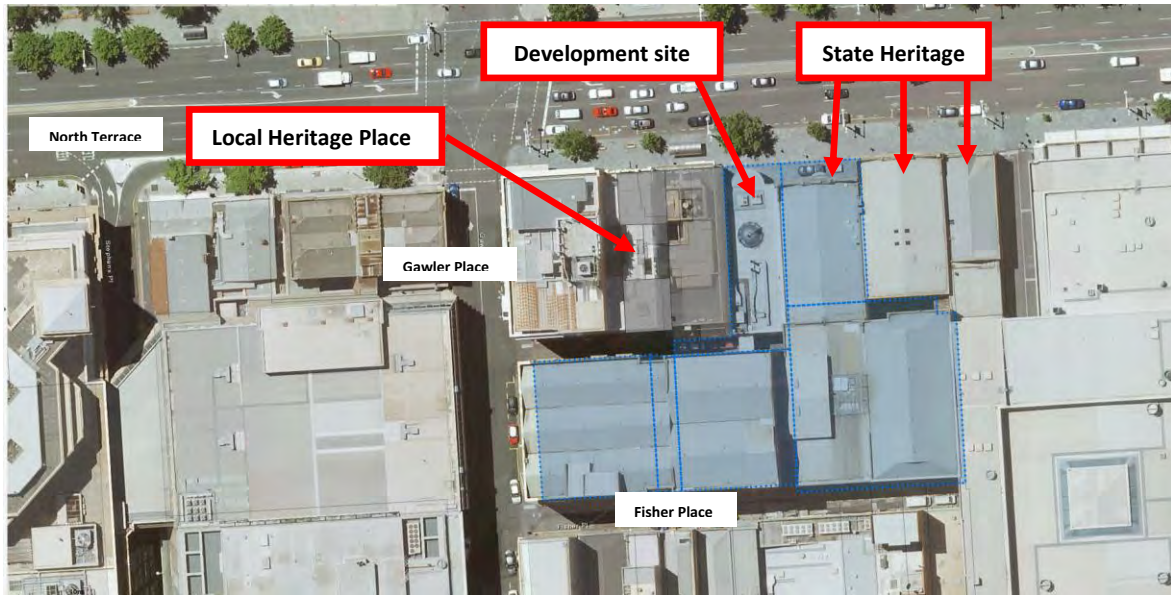


Figure 2 – Location Map
The development site gains vehicle access via Fisher Place

Figure 3: Site Photographs



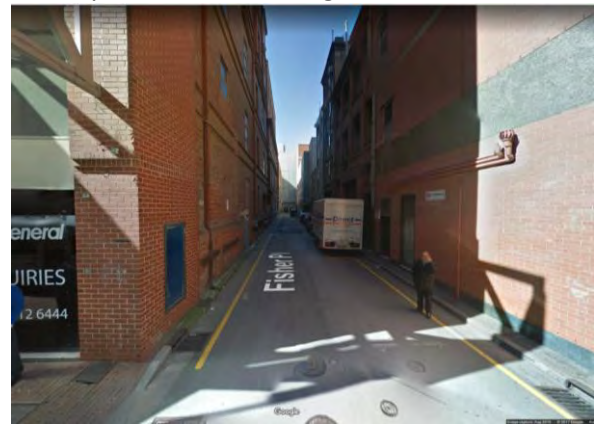
Development Site – looking north



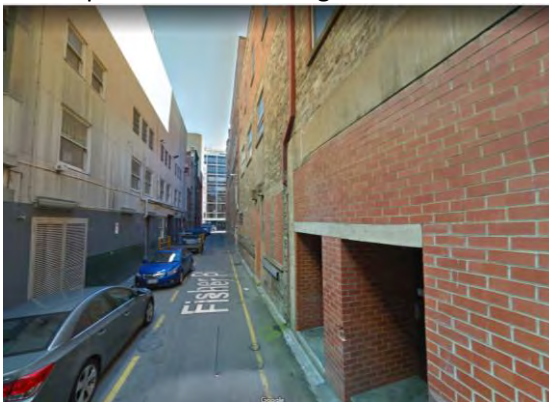
Development Site – looking east



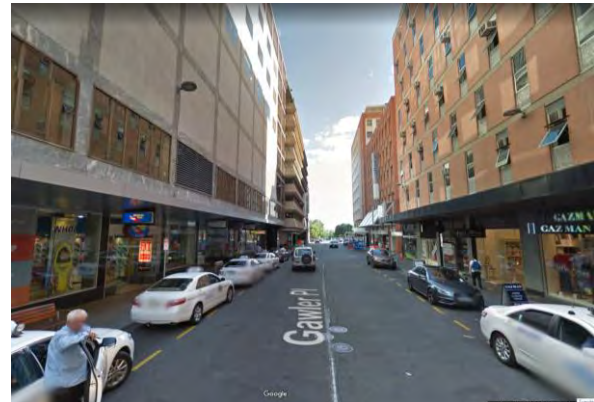
Development Site – looking west



Fisher Place - looking east



Fisher Lane – looking west towards Gawler Place



Gawler Place – looking north towards North Terrace



Kintore Ave – looking southeast to development site



North Terrace – looking south to development site

3.2 Locality

The immediate locality is generally characterised by a wide range of uses from commercial offices, retail tenancies, cafés and residential apartments. The built form within the locality ranges from low scale two storey buildings through to buildings over 10 storeys. It is noted however that the general built scale within the immediate locality is typically higher in scale.

The State Library and the Museum of South Australia are located to the north across North Terrace and are identified as significant State Heritage Places in the locality. As previously noted there is State Heritage Place to the east of the subject land (second portion of the former G&R Willis & Co warehouse) as well as a State Heritage Place located further to the east (204 North Terrace) and Tobin House (196 North Terrace) which is a Local Heritage building located to the west.

4. COUNCIL COMMENTS

4.1 Adelaide City Council

Advice was sought from Council administration regarding technical matters. The following points were raised for consideration:

- The proposed canopy to extend west over Gawler Place does not meet the City of Adelaide Encroachment Policy.
- Subject land does not appear to have any legal entitlement to use the eastern portion of Fisher Place.
- Concerns were raised by the lack of disability parking.
- **The consultant's** traffic report did not reasonable consider the potential impact the future tram stop and Gawler Place upgrade will have on car queuing.
- Public laneway surface, lighting and some form of surveillance will need to be provided to support proposed bicycle parking area.
- Council reviewed the waste management report and is satisfied waste operation functional requirements have been met.

In response to the above, the applicant amended the proposed canopy over Gawler Place to meet the Council's Encroachment Policy. The applicant confirmed the proposed car parking will include disability parking spaces in accordance with the AS/NZS2890.6. The proposal also includes streetscape improvements in the public laneway, which should provide suitable access to the end of trip facilities for cyclist.

Certificate of titles and a detailed explanation was provided demonstrating the free and unrestricted right of way that exist within Fisher Place (however these are not specific to the allotments associated with this proposal. Whilst there are free and unrestricted right of ways, it was unclear whether the development can legally get access to the proposed service area and carpark. A Reserved Matter has been applied to ensure appropriate access arrangements are formalised, either via seeking legal rights of way or via reconfiguring a portion of the building.

The Adelaide City Council referral response is contained in the ATTACHMENTS and are further discussed in the planning assessment.

5. STATUTORY REFERRAL BODY COMMENTS

5.1 State Heritage Unit, DEWNR

The State Heritage Unit is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must have regard to this advice. The State Heritage Unit responded to the referral and expressed that the proposed development is considered to be acceptable for the following reasons:

- The proposed partial demolition of external walls and demolition of all the internal floor structure, stairs and roof does not adversely directly affect the heritage fabric of the place, as these elements are contemporary in construction, or their heritage integrity is low.
- The proposed entry lobby building facing North Terrace is compatible in scale and form and features recessed wall junctions abutting the State Heritage place, resulting in a compatible development within the streetscape of North Terrace.
- The proposed tower building behind is of sufficient setback to not interrupt or visually dominate the historic and consistent roof line of State Heritage places and other adjacent building along North Terrace, maintaining the scale of streetscape, supporting the setting of the State Heritage Places.

State Heritage provided seven (7) conditions that were recommended to be attached to any planning consent. **The State Heritage's statutory referral response** is contained in the ATTACHMENTS and are further discussed in the Planning Assessment.

5.2 Government Architect

The Government Architect is a mandatory referral in accordance with Schedule 8 of the *Development Regulation 2008*. The Panel must have regard to this advice. The Government Architect responded to the referral and expressed general support for the proposed development but suggested several elements of the proposed development that would benefit from protection as part of the planning consent. These elements are:

- Provision of a greater setback of the newly built form and generosity of space at the ground level to further reinforce the prominence of the new development and maximise visibility of the heritage fabric of the G & R Willis & Co building.
- Further consideration of the location of the lift cores at the southern portion of the development. Potential opportunities for further pedestrian connections to Fisher Place directly from North Terrace.
- Further consideration of the vertical void spaces **as 'winter gardens' with indoor/outdoor qualities** to continue the spatial sequence and experience from ground plan to the tower with the view to strengthening the visual simplicity of the link.
- Further consideration of a greater open space provision and reduction of building mass to the rooftop of the heritage building.
- Development of a signage strategy that is an integral element of the overall architectural expression and also considers its night time presentation.
- A high quality of external materials supported by the provision of a materials sample board.

The AGA's statutory referral response is contained in the ATTACHMENTS and are further discussed in the Planning Assessment.

5.3 Adelaide Airport

The Adelaide Airport is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must have regard to this advice. The application has been assessed at the height of RL 129.6m AHD. As a result the application will penetrate the Adelaide Airport Obstacle Limitation Surface (OLS) which is a protected airspace for aircraft operation. It is noted that the development will penetrate the OLS by approximately 3m.

The application will require approval in accordance with the Airports Act 1996 and the Airports (protection of Airspace) Regulation 1996 and therefore will be forwarded to the Department of Infrastructure and Regional Development for their approval.

Crane operations associated with construction, if approved, will also be subject to a separate application.

The Adelaide Airport's statutory referral response is contained in the ATTACHMENTS and are further discussed in the Planning Assessment.

6. PUBLIC NOTIFICATION

The application is a Category 1 development pursuant to Capital City Zone Principle of Development Control 40(a). No public notification was required.

7. POLICY OVERVIEW

The subject site is located in the Central Business Policy Area of the Capital Zone as described within the Adelaide City Development Plan [Consolidated 20 June 2017]. Relevant planning policies are contained in ATTACHMENTS and summarised below.

7.1 Policy Area

The Policy Area is highlighted in the Development Plan as the pre-eminent economic, governance and cultural hub for the State. Buildings within the Policy Area should exhibit innovative design approaches which produce stylish and evocative architecture. The Policy Area anticipates tall and imposing buildings that provide a hard edge to the street, which should be of the highest design quality.

7.2 Zone

The Zone encourages a diverse range of land uses with non-residential land uses at ground floor level to achieve greater activation of street frontages. It is anticipated that developments fronting North Terrace will reflect their importance through highly contextual design that reflect and responds to their setting and role.

It is noted that there is no prescribed height limit for this particular part of the Capital City Zone. The Zoning seeks a high standard of architectural design and finish that is **appropriate to the City's role and image as the capital of the State.**

The Zone recognises the importance of boulevards and it is envisaged that development along North Terrace will reinforce the important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile.

7.3 Council Wide

The Council Wide provisions provide direction on the desire for increased levels of activity and interest at ground level; the safe and convenient servicing of sites; a high standard of design and appropriate bulk and scale of buildings and contribution to streetscape.

7.4 Overlays

7.4.1 Adelaide City Airport Building Heights

The proposed development exceeds the OLS Values set out in Airport Building Heights MAP/1 (Overlay5)

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the Adelaide (City) Development Plan [Consolidated 20 June 2017], which are contained in ATTACHMENTS.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	Capital City Zone does not have prescribed maximum height for site	85.4m	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓
Land Use	Zone and Policy area envisages office and retail uses	Mix-use commercial building – retail and office space	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓
Car Parking	No minimal parking requirements in Capital City	73 car parks	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓
Bicycle Parking	Office 1 per 200m ² * 2 plus 1 per 1000m ² * (visitor) Retail 1 per 300m ² * 1 per 600m ² * (visitor) *gross leasable floor area	100 Bicycle parks and associated end of trip facilities	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> PARTIAL <input type="checkbox"/>	Development Plan seeks 175 bicycle parks. The proposal includes appropriate EOT facilities
Front Setback	Zone seeks buildings built to the street frontage	Lobby/entrance abuts (North Terrace) site boundary, State Heritage Place setback to be retained	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓
Rear Setback	Zone and policy area generally silent on rear setbacks	Building lift core abuts rear boundary, loading zone	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓
Side Setback	Zone and policy area generally silent on side setbacks	Building generally fronts Gawler Place	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>	✓

8.2 Land Use and Character

The proposal involves the development of commercial office spaces and several ancillary tenancies in the form of a café/restaurant and retail spaces. The proposal is consistent with PDC 1 which seeks this form of land-use within the Capital City Zone.

8.3 Building Height

The proposed development is approximately 85.4m in height to the top of the parapet. It is noted that the development site is not subject to a prescribed maximum building height, however relevant airport heights still apply to the development site.

Adelaide Airport have confirmed that the proposed development will penetrate the Adelaide Airport Obstacle Limitation Surface (OLS) airspace by approximately 3m. As such the application will require approval from the Department of Infrastructure and Regional Development.

8.4 Setback

The Capital City Zone seeks high street walls that frame the city streets, which is further strengthened by the Central Business Policy Area that supports tall and imposing buildings that provide a hard edge to the street. The ground floor of the proposed development is generally built to all boundaries, with the exception of the State Heritage Place that will be retained and is setback approximately 3.5m from the North Terrace frontage.

On balance the proposed development is generally consistent with the Development Plan policy provisions.

8.5 Design and Appearance

The Capital City Zone seeks buildings to reflect innovative design approaches and contemporary architecture that responds appropriately to the locality and context. There is a strong emphasis placed on creating interesting pedestrian environments and ground floor activation through careful building articulation and fenestration, frequent openings in building facades and other features.

The Development Plan identifies North Terrace as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile. The intent of the boulevard is to provide a clear sense of arrival into the City.

The proposed development is for a 19 to 20 storey tall building comprising of a fully glazed commercial office tower which has been setback from North Terrace and sits above the retail podium that fronts onto North Terrace. There is support from the Government Architect for the use of high quality materials within the façades. The applicant has indicated that further material development will occur in the design documentation stage, however it is generally consistent with PDC 7 (CC) which seeks buildings to achieve a high standard of external appearance through the use of high appropriate materials and finishes.

The Government Architect and State Heritage support the scale and setback of the tower elements from North Terrace and the resultant generosity of space provided to the G & R Wills & Co building (State Heritage Place).

The Government Architect has suggested that a greater setback of the lobby fronting North Terrace should be considered to reinforce the prominence of the new development. The applicant indicated that the proposed new lobby fronting North Terrace is aligned with the adjacent Bagot House to the immediate west, which is generally consistent with PDC 20 (CC) which seeks developments along North Terrace **to reinforce the predominant scale and 'City wall' character of the Terrace frontage.**

The proposed development provides a pedestrian orientated frontage along Gawler Place that is complimented by a canopy over the footpath consistent with PDC 10 (CC) which seeks developments to positively contribute to the public realm and the comfort of pedestrians. It is noted that the canopy has been amended to comply with **Council's Encroachment Policies.**

The ground floor plan of the proposed development provides an internal forecourt that services the retail tenancies and is linked to the commercial foyer space servicing the office spaces in the upper towers. Council and Government Architect suggested further consideration of the lift cores at the southern portion of the site to maximise opportunities for any further pedestrian connections to Fisher Place direct from North Terrace. In response the applicant indicated the permeability of the lobby is constrained by security requirements. It is also noted that Fisher Place is used by the adjacent buildings for waste pickup, loading and unloading of goods and vehicle access. Whilst the connection through the proposed development could be beneficial, Fisher Place is unlikely to provide an appropriate pedestrian experience given the existing use as a service laneway.

The rooftop terrace and retail space on top of the Heritage Building is proposed to be a publicly accessible space. The retail structure has been setback approximately 4.3 metres from the State Heritage façade. The applicant noted that the final design and ratio of indoor/outdoor area on this roof terrace area is dependent on the tenant requirements. The Government Architect suggested further consideration for a greater open space provision and reduction of building mass to the rooftop. State Heritage did not provide any objections to the proposed roof top terrace. A condition has been provided by State Heritage to ensure final design details of the proposed roof top structure is to the satisfaction of the SCAP and State Heritage.

The tower element of the building utilises extensive glazing and attempts to break the solid mass of the tower by providing a visual relief in the form of a vertical void. As a result the relief reduces the overall perceived bulk of the building and creates the perception of two tower elements that is in principle supported by the Government Architect.

The Government Architect however encourages the applicant to consider further articulation of the south facade of the west tower element, which may assist in mitigating the scale of the development and reinforce the overall build form composition and proportions. The applicant responded to this feedback and indicated that **the Government Architect's suggestion to refine the façade articulation** to break down the scale of the western tower will be further developed and incorporated into the designed detail stage. It is recommended that a condition seeking further detail of the façade treatment and materiality is attached to any consent granted this application. The built form of the towers generally reflects the desired character of the Central Business Policy Area which seeks tall and imposing buildings.

The proposed tower elements provides the development with large office floor plates with expansive views and interconnecting void spaces. It is noted that the large floor plates have access to natural light from all elevations which should result in a high standard of workplace amenity and reduction on artificial lighting

The Government Architect recommended that a signage strategy is developed to ensure it appropriately integrates into the overall architectural expression and considers the night-time presentation. The applicant acknowledged the recommendation and invites a Planning Condition, to ensure a signage strategy is developed to the satisfaction of SCAP.

On balance the design strategies are considered appropriate in the Central Business Policy Area of the Capital City Zone. The design appropriately responds to the immediate locality and State Heritage Places.

8.6 Heritage

Capital City Zone

Desired Character

Contemporary juxtapositions will provide new settings for heritage places. Innovative design is expected in areas of identified street character with an emphasis on contemporary architecture that responds to site context and broader streetscape, while supporting optimal site development.

Council Wide

PDC 140 Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

- (a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and*
- (b) is located no closer to the primary street frontage than the adjacent heritage place.*

PDC 142 Development that abuts the built form/fabric of a heritage place should be carefully integrated, generally being located behind or at the side of the heritage place and without necessarily replicating historic detailing, so as to retain the heritage value of the heritage place.

The prevailing built form along the southern end of North Terrace exhibits buildings that are predominately built to the North Terrace frontages. The State Heritage G&R Wills & Co building (200 North Terrace) is setback approximately 3.5m from North Terrace. The proposed entry lobby fronting to North Terrace is built forward of the State Heritage Place and is at odds with PDC 140(b) which seeks development to be located no closer to the primary street frontage than the adjacent heritage place. It is noted that the entry lobby is consistent with the desire character of the Zone which envisages buildings with high street walls that frame the streets.

State Heritage are of the opinion that the proposed entry lobby fronting North Terrace is compatible in scale and form. The proposed entry lobby also features recessed wall junctions abutting the State Heritage Place, resulting in a compatible development within the streetscape of North Terrace. On balance the proposed entry lobby is unlikely to detract from the State Heritage Place and appropriately responds to the built form in the immediate locality.

The proposal includes the partial demolition of external and the demolition of all the internal floor structure, stairs and roof. The heritage **consultant's report** suggested that whilst the loss of heritage fabric is not ideal, it is however minor in nature. State Heritage are also of the opinion that the loss of the heritage fabric does not adversely affect the heritage fabric as the elements removed from the State Heritage Place are contemporary in construction, or their historic integrity is low.

State Heritage support the setback of the proposed towers and are of the opinion that it should not interrupt or visually dominate the historic and consistent roof line of the State Heritage Place and adjacent buildings along North Terrace. As noted in the above section the Government Architect supports the setback of the proposed towers.

The proposed adaptive reuse of the State Heritage Place along with the new built form displays a design response that is generally compatible with the streetscape and generally consistent with the Development Plan policies.

8.7 Traffic Impact, Access and Parking

8.7.1 Vehicle Access

Proposed tenant and service vehicle access is from Fisher Place, which will provide access to/from the proposed parking levels within the building and to the separate waste collection area on ground level. Fisher Place currently operates as a Public Road, with car and loading movements traversing the multiple Rights of Ways

Council raised concerns that the proposed development did not have free and unrestricted access over the eastern part of Fisher Place which is privately owned by the adjacent allotments to the south.

The applicant outlined in their correspondence that access is gained through the public section of Fisher Place and exclusive northern portion of Fisher Place. It is noted the entire southern extent of Fisher Place is subject to a Free and Unrestricted Right of Way to the benefit of the allotments to the south. Adelaide Central Plaza the most eastern allotment holds a Free and Unrestricted Right of Ways over the entirety of Fisher Place including a portion

of the subject land. As such the southern portion of Fisher Place must be free for traffic at all times for the whole length.

The concern around access to the subject site is that the proposed development would have to use the southern portion of Fisher Place to gain access to the car parking and waste collection area, which it does not have legal access rights to use.



The applicant suggested a Reserve Matter be placed on any planning consent to ensure access arrangements within Fisher Place is resolved appropriately prior to the use or occupation of the carpark.

The applicant indicated the following approaches can be used to resolve the access issues

- 1) Design Amendment to
 - a. Remove the car park and loading area, whilst proposing an alternative waste management strategy; OR
 - b. Provide setback of the southern elevation at ground level, for the (partial) extent of Fisher Place to enable direct vehicle access. The length of the building to be setback would be around 8m in length. Adjustment of central core configuration to accommodate the setback and cantilever of commercial office floor above to minimise floorplate lost.; OR
- 2) Amending and/or formalising further access agreements over Fisher Place, to the collective benefit of all adjoining land owners. Such an agreement could provide further clarity for use of Fisher Place as a Public Road.

As a result a Reserve Matter has been placed on the application to ensure access arrangements are resolved prior to occupation.

8.7.2 Traffic Assessment

MFY traffic consultants provided a traffic assessment on the potential impact on Kintore Avenue / Gawler Place / North Terrace intersection. The **consultant's** traffic report forecast that the proposed development will generate approximately 73 trips in the am and pm hours in Gawler Place, assuming that

all the occupants of the parking facility arrived during the am peak and left during the pm peak.

It was concluded in the consultant's report that there will not be a significant impact on the operation of the Kintore Avenue/ Gawler Place / North Terrace intersection. It is also noted in the report that the service vehicles will be able to enter and exit Gawler Place and its intersection with Fisher Place in a forward direction

Council raised concerns that the **consultant's** report does not reasonably consider the impact of the tram and future upgrades on Gawler Place. The applicant responded suggesting that any traffic associated with this development is likely to be negligible compared with the broader changes to the network associated with the Tram extension and other major public transport areas.

On balance the potential traffic generated by the proposed development is likely to be minor and should not unduly impact Gawler Place or the operation of the Kintore Avenue/ Gawler Place / North Terrace intersection.

8.7.3 Car parking

The Capital City Zone does not prescribe a minimum or maximum parking requirement. The proposal includes a total of 73 car parks within the development from levels 1 to 3 which are access from Fisher Place. The car parking will not be visible from North Terrace or Gawler Place and is appropriately screened

The applicant has confirmed the car parking will be in accordance with AS/NZS2890.6, as such parking for disabled persons will be readily provided and invites a condition being placed on the application to ensure compliance with this standard. As such the proposed car parking is generally consistent with the parking policies within PDC 251 Council Wide.

8.7.4 Bicycle Parking

The Adelaide City Council Development Plan Table Adel/6 anticipates the following bicycle parking rates:

- Office one bicycle park per 200m² of gross leasable floor area for employees and two plus one per 1000m² of gross leasable floor for visitors
- Retail one bicycle park per 300m² of gross leasable floor area for employees and one per 600m² of gross leasable floor area for visitors.

Based on these bicycle parking rates the proposed development will require approximately 156 bicycle parks for the commercial use and 19 bicycle parks for the retail development.

The proposed development provides 100 bicycle parking spaces and associated end of trip facilities, which is accessed from the Public Laneway. The traffic **consultant's report** anticipates the proposed development will require approximately 73 bicycle parks which was based on previous census data and considers that the proposed provisions exceeds the anticipated demand.

Whilst the proposed development does not meet the bicycle parking provisions set out in the Development Plan, it is worth noting the **proposal's** close vicinity to a number public transport options. The proposed development will directly connect to the future tram stop on North Terrace as well as several high frequency bus stops on North Terrace and Grenfell Street.

The proposed bicycle parking is located at ground level within the development ensuring appropriate passive surveillance generally satisfying PDC 235 in the Development Plan. Whilst there is a shortfall in the quantitative bicycle provisions, the proposed development generally meets the qualitative requirements and is not at significant odds with the Development Plan policies.

8.8 Environmental Factors

8.8.1 Crime Prevention

The Development Plan generally seeks developments to integrate and attempt to facilitate natural passive surveillance, clear lines of sight and appropriate lighting within the design of the building to reduce potential crime.

The facades at ground level along North Terrace, Gawler Place and the public laneway are predominately glazed ensuring there are views in and out of the development resulting in passive surveillance. The proposed development offers direct views into and over public areas, lobby and forecourt from the upper levels further extending the passive surveillance opportunities. The office and retail uses should create a complimentary mix of day and night activities that is likely to extend the duration and level of public activation at ground level.

Access into the office tower/ workspace element of the proposal will be clearly identified in the lobby and will be accessed with a security badge / swiping card. The proposed development demonstrates appropriate crime prevention considerations and generally satisfies the Crime Prevention policies contained in the Development Plan

8.8.2 Noise Emissions

Council Wide PDC 93 seeks mechanical or plant equipment to be designed, sited and screened to minimise noise impacts on adjacent premises and properties in accordance with the provisions set out within the Development Plan

The plant equipment located on levels 1-3 have been screened and located to the rear of the development along Fisher Place that will operate predominately as a service lane. The plant equipment located on levels 19 have been screened with a curtain wall. The applicant confirmed that the development will comply with the noise level criteria specified in Environment Protection (Noise) Policy 2007 (under the Environment Protection Act) and that sound attenuation devices and visual screening will be implemented as necessary.

8.8.3 Waste Management

Council Wide Waste Management policies and objectives collectively encourages the use of a dedicated area for on-site waste collection and sorting of recyclable materials, that does not create unacceptable levels of smell and odour or detrimentally affect amenity.

The proposed development includes a storage room large enough to accommodate 9x660 litres organic waste bins, 4x1100 litre recycling bins, 4x1100 litre cardboard bins and 12x 1100 litre general waste bins. The Waste Management System does not take into account E-Waste and Hard Waste, it is noted that there is a storage cage within the waste room that can be used for temporary storage of e-waste.

The **consultant's** report highlighted that staff/cleaners would manage waste and recyclables in each tenancy and transfer the material from tenancies to the bin

storeroom when required. Waste Collection will occur on property off Fisher Place (which is supported by the Council) and is consistent with PDC 242 Council Wide which seeks on-site facilities for the loading and unloading of service vehicles that are screened from public view.

The collection vehicles expected for waste collection at the proposed development will consist of Rear-lift trucks – for collection of routine waste, Pan-tech or flatbed trucks for collection of at call waste streams. The consultant estimated that there would be 22 collections vehicle movements per week at the site. Council reviewed the proposed waste management plan and are satisfied that the functional requirements of the development will be met. The waste management of the proposed development is generally consistent with the Development Plan policies.

8.8.4 Energy Efficiency

The Energy Efficiency policies and objectives seeks developments to be compatible with long term sustainability of the environment and minimise consumption of non-renewal resources and utilities. PDC 115 Energy Efficiency seeks office developments to minimise energy consumption and limit gas emissions by utilising various design approaches some of which are:

- passive solar consideration in the design, planning and placement of buildings;
- re-using and/or improving existing structures or buildings;
- designing for the life-cycle of the development to allow for future adaptation;
- considering low levels of embodied energy in the selection and use of materials;
- developing energy efficiency solutions including passive designs using natural light, solar control, air movement and thermal mass. Systems should be zoned to minimise use of energy;
- using low carbon and renewable energy sources, such as Combined Heat and Power (CHP) systems and photovoltaics; and
- preserving and enhancing local biodiversity, such as by incorporating roof top gardens.

The applicant provided a Statement of Energy Efficiency which outlines the intent of achieving the 5 Green Star as well as a 5 Star NABERS Energy Rating. The applicant indicated that the energy efficiency within the proposed development has been driven by reducing energy consumption, rather than generating small amounts of energy on site.

The proposed development utilises double glazing for all vision glazing with the intent to minimise air conditioning load from solar heat gain and thermal conduction. It is noted in the Energy Efficiency Statement that the northern glazing during the detailed design will receive further consideration. The design team wants to maintain clear views over the parklands whilst minimising heat loading associated with northern aspects.

Passive Chilled Beam cooling systems will be utilised within the proposed development which is considered to be highly energy efficient. All lifts proposed within the development are A Class energy rated lifts and the High Rise / Low Rise Lift configuration which will service the towers with greater efficiency. The proposed hot water system used within the development will be generated using a solar-boosted system to reduce Natural Gas consumption.

Energy Efficient LED lighting technology will be used throughout the proposed development in lieu of fluorescent or incandescent lighting, while a Digital

Lighting Control System will be utilised in the building that will control lighting and monitored in a structured fashion.

The proposed development demonstrates appropriate energy efficiency considerations and generally satisfies Council Wide Energy Efficiency policies and objectives and is considered acceptable.

8.8.5 Wind Analysis

The Development Plan provisions encourages developments over 21 metres in building height to be designed to reduce potential wind impacts on adjacent properties and pedestrian environment. The policy provisions in the Development Plan encourages the use of podiums, verandas, and placement of building as design initiatives that could mitigate potential wind impacts.

The applicant engaged Aurecon to conduct an Environmental Wind Report. The report determined there were no regions where wind safety was a concern and the wind environment for the lower terrace is suitable for the intended usage. The report indicated that there would be some downwash that crosses a small strip of sidewalk at the North West corner of the proposed tower, it was concluded that the addition of street trees in the anticipated Gawler Place North upgrade should reduce this downwash and no further wind mitigation is recommended. The proposed development therefore generally satisfies the provisions set out in the Development Plan and is deemed acceptable.

8.8.6 Stormwater Management

The applicant engaged Aurecon to conduct a Site Stormwater Management Plan. The report noted that the existing site is 100% impervious which consist of roof and asphalt and drains into the existing Council stormwater system. The report confirmed that there will be no change to catchment areas between pre-construction and post construction works.

The report included provisions for rainwater tanks which will allow for water re-use either for toilet flushing or landscape watering. This should result in a reduction of stormwater flow into the existing Council stormwater catchment system. It is acknowledged that further consultation with Council will be required during the detailed design of 200 North Terrace to confirm interface impacts with the Gawler Place upgrade, particularly around any changes to road levels.

8.8.7 Site Contamination

The development site prior to 1979 was primarily utilised for warehouse uses, housing general goods and trade in the Adelaide CBD. Post 1979, the development site was utilised as a **retail complex known as the 'Gallerie'**.

Due to the historical warehouse / retail uses of the development site, it is not considered that there are any notable risk of potential contaminates which may affect the proposal. It is noted that the proposed use should not be considered sensitive and generally consistent with the previous uses on the site.

8.9 Landscaping

The applicant provided a landscape concept for the proposed development. Whilst the Policy Area and Zone is generally silent on landscaping, Council Wide policies generally encourages landscaping to be incorporated within any new development.

The proposed planting and green walls provided throughout the ground floor and the roof terrace is consistent with PDC 209 which encourages landscaping in be provided to communal spaces. The Government Architect has suggested **further consideration of 'winter gardens' within the vertical void spaces.** The

applicant has indicated that these winter gardens will be explored but ultimately the form and function of these spaces will respond to tenant requirements.

The proposed landscaping has been integrated into the design of the building and should result in a higher level of public/private amenity and is generally consistent with the Development Plan provisions.

8.10 Signage

The applicant has indicated that the signage will eventually be affixed to the building. A separate development application for this advertisement will be lodged once the application has gone through the development approval process.

The applicant invites a condition to be placed on any planning consent to ensure the signage strategy is appropriately integrated into the overall architectural expression.

9. CONCLUSION

The applicant seeks Development Plan Consent for the partial demolition of existing buildings and structures. The construction of a multi storey commercial building consisting of retail, restaurant/cafe and office tenancy, associated car parking, landscaping and building works in the Central Business Policy Area of the Capital City Zone at 12-20 Gawler Place, 199-200 North Terrace, Adelaide.

The proposed development is considered acceptable in scale and height for the locality. It is noted that the development site is not subject to a prescribed maximum building height however relevant airport heights still apply to the development site. The proposed retail, restaurant/cafe and office tenancy land use is consistent with the Policy Area and Zoning policy provisions.

The design and appearance of the proposed development contextually responds to the immediate State Heritage Places and the locality. The Government Architect in principle supports the proposed built form, scale, articulation and materials. State Heritage does not have any objections to the proposed adaptive reuse of 200 North Terrace and considers the proposed development unlikely to detrimentally detract from the State Heritage Places present within the immediate locality.

On balance the proposed development is unlikely to significantly increase vehicle traffic within Gawler Place / North Terrace. Notwithstanding the further resolution on the access arrangements for Fisher Place, the proposed development generally provides appropriate bicycle parking, end of trip facilities and pedestrian linkages. Council are satisfied the proposed waste management provisions encompassed within the service area are of appropriate size and scale.

The proposal utilises passive energy efficiency techniques to address the long term sustainability of the development, which are generally consistent with the Development Plan policies. This is evident by the **applicant's** intent of achieving the 5 Green Star as well as a 5 Star NABERS Energy Rating. The proposal includes provisions for stormwater catchment that has been proposed to be reused throughout the building during occupation, further reducing the consumption of natural resources.

When assessed against the relevant Development Plan policies the proposal generally satisfies the relevant policy provisions. The proposal is consistent with the desired character of the Central Business Policy Area and Capital City Zone. The proposal should not result in or cause unacceptable impacts on the State Heritage Places or locality. Accordingly, the proposal warrants Development Plan consent subject to conditions.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

- 1) RESOLVE that the proposed development is NOT seriously at variance with the policies in the Development Plan.
- 2) RESOLVE that the State Commission Assessment Panel is satisfied that the proposal generally accords with the key objectives of the Central Business Policy Area and the Capital City Zone
- 3) RESOLVE to grant Development Plan Consent to the proposal by Commercial & General for DA 020/A055/17 at 12-20 Gawler Place and 199-200 North Terrace, Adelaide subject to the following reserved matters and conditions of consent:

RESERVED MATTERS

1. Pursuant to Section 33(3) of the *Development Act 1993*, the following matters shall be reserved for further assessment, to the satisfaction of the Development Assessment Commission, prior to the granting of Development Approval:

1.1 Legal Access to Fisher Place and the south eastern land for car parking access arrangements and loading must be resolved to the satisfaction of SCAP prior to superstructure works occurring.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 020/A055/17.

Plans by Woods Bagot

Sheet Title	Project Number	Drawing No.	Revision	Date
Locality Plan	140273	SK-1000	A	09/08/2017
Site Plan – Demolition	140273	SK-1001	A	09/08/2017
Site Plan	140273	SK-1002	B	09/10/2017
Basement Floor Plan	140273	SK-22B1	A	09/08/2017
Ground Floor Plan	140273	SK-2200	A	09/08/2017
Level 1 Floor Plan	140273	SK-2201	B	09/10/2017
Level 2 Flor Plan	140273	SK-2202	A	09/08/2017
Level 3 Floor Plan	140273	SK-2203	A	09/08/2017
Level 4 Floor Plan	140273	SK-2204	A	09/08/2017
Level 5 Floor Plan	140273	SK-2205	A	09/08/2017
Typical Low Rise Floor Plan Type 01 Levels 06/09	140273	SK-2206	A	09/08/2017
Typical Low Rise Floor Plan Type 02 Levels 07/08	140273	SK-2207	A	09/08/2017
Level 10 Floor Plan	140273	SK-2210	A	09/08/2017
Typical High Rise Floor Plan Type 01 Levels 11/13/14/16/17	140273	SK-2211	A	09/08/2017
Typical High Rise Floor Plan Type 02 Levels 12/15/18	140273	SK-2212	A	09/08/2017
Indicative Test Fit – Full Level	140273	SK-2615	A	09/08/2017
Indicative Test Fit – Void Level	140273	SK-2616	A	09/08/2017
Typical Car Parking Plan	140273	SK-2801	A	09/08/2017

Building Elevations - North	140273	SK-3200	A	09/08/2017
Building Elevation - West	140273	SK-3201	B	09/10/2017
Building Elevations - South	140273	SK-3202	A	09/08/2017
Building Elevations - East	140273	SK-3203	A	09/08/2017
Streetscape Elevation - North Terrace	140273	SK-3204	A	09/08/2017
Street Level Elevation - North Terrace	140273	SK-3205	A	09/08/2017
Street Level Elevation - Forecourt	140273	SK-3306	A	09/08/2017
Street Level Elevation - Laneway & Gawler Place	140273	SK-3307	B	09/10/2017
Street Level Elevation - Fisher Place	140273	SK-3208	B	09/10/2017
Building Section - North/South	140273	SK-3300	A	09/08/2017
Building Section - East/West	140273	SK-3301	A	09/08/2017
CU01 Facade	140273	SK-5200	A	09/08/2017
CU02 Facade	140273	SK-5201	A	09/08/2017
18.10.17 Heritage Plans		Heritage Section		20/10/2017

Reports / Correspondence

- Planning statement by Fyfe, dated 11 August 2017
 - Traffic and Parking Report by MFY, dated 9 August 2017
 - Site Stormwater Management Plan by Aurecon, dated 1 August 2017
 - Waste Management Plan by Rawtec, dated 9 August 2017
 - Environmental Wind Report by Aurecon, dated 4 August 2017
 - Statement of Energy Efficiency by C&G, dated August 2017
 - Infrastructure Summary by C&G, dated 24 July 2017
2. Prior to Development Approval, the applicant shall submit a final detailed schedule of external materials and finishes in consultation with the Government Architect, and to the reasonable satisfaction of the State Commission Assessment Panel.
 3. The applicant shall submit, for approval by the State Commission Assessment Panel, final details of a signage strategy for the site, which also considers night-time presentation, prior to final Development Approval being granted.
 4. All vehicle car parks, driveways and vehicle entry and manoeuvring areas shall be designed and constructed in accordance with Australian Standards (AS/NZS 2890.1:2004 and AS/NZS 2890.6.2009) and be constructed, drained and paved with bitumen, concrete or paving bricks in accordance with sound engineering practice and appropriately line marked to the reasonable satisfaction of the State Commission Assessment Panel prior to the occupation or use of the development.
 5. All bicycle parks shall be designed and constructed in accordance with Australian Standard 2890.3-2015 and shall be located to ensure ease of access to users.
 6. The development will comply with noise level criteria specified in Environment Protection (Noise) Policy 2007 (under the Environment Protection Act). This includes noise from roof-level plant and equipment relative to adjacent properties, which will also comply with PDC 93 of the Adelaide (City) Development Plan. Sound attenuation devices and visual screening will be implemented as necessary.
 7. All external lighting on the subject land shall be designed and constructed to conform to Australian Standard (AS 4282-1997). The lighting shall be designed and operated with CPTED practices in mind in order to maximise pedestrian amenity and safety 24 hours, 7 days a week.

8. All stormwater design and construction shall be in accordance with Australian Standard AS/NZS 3500.3:2015 (Part 3) to ensure that stormwater does not adversely affect any adjoining property or public road.
9. A Construction Environment Management Plan (CEMP) shall be prepared and implemented in accordance with current industry standards – including the EPA publications **“Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition”** and **“Environmental Management of On-site Remediation”** – to minimise environmental harm and disturbance during construction.

The management plan must incorporate, without being limited to, the following matters:

- a) Air quality, including odour and dust;
- b) Surface water including erosion and sediment control;
- c) Soils, including fill importation, stockpile management and prevention of soil contamination;
- d) Groundwater, including prevention of groundwater contamination;
- e) Noise;
- f) Construction traffic; and
- g) Occupational health and safety.

A copy of the CEMP shall be provided to the State Commission Assessment Panel prior to the commencement of site works. For further information relating to what Site Contamination is, refer to the EPA Guideline: 'Site Contamination – what is site contamination?' accessible at www.epa.sa.gov.au/pdfs/guide_sc_what.pdf

10. All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc.) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.
11. The proposed development will penetrate the Adelaide Airport Obstacle Limitation surface (OLS) which is in protected airspace for aircraft operations. The application will require approval in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996 and will be forwarded to the Department of Infrastructure and Regional Development for their approval. If the development is approved by the Department of Infrastructure and Regional Development any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.
12. Crane operations associated with construction, if approved, shall be the subject to a separate application to the Department of Infrastructure and Regional Development.

State Heritage Conditions

13. A detailed photographic survey cross referenced to drawings shall be undertaken of the interior, roof and southern façade of the State heritage place, after the stripping out and demolition of non-historic fabric and before the demolition of any historic fabric of the place. The survey shall be submitted to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources. A separate copy shall be provided to the Department of Environment, Water and Natural Resources.

14. Details and conservation methodology for the conservation of the remaining north and west facades of the State heritage place to be provided and details of proposed window and doors to be provided, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.
15. Details of the new openings (arrangement and extent of openings and details of trimming of openings) proposed in the western wall of the State heritage place to be provided, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.
16. Details of the excavation/ construction methodology of the proposed lowered basement construction, especially at the interface with existing footings of the State heritage place, to be provided to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.
17. Design details of the proposed roof top structure on the roof of the State heritage place to be resolved (including an appropriate height, plan footprint, balustrading and materials) to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources. Documentation should include plans, detailed elevations and a streetscape view from the north side of North Terrace.
18. A construction vibration management plan is to be submitted for approval, showing how risks to the State heritage places will be managed, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.
19. Design details of the proposed fixing of support framing and floor slabs to the rear of the State heritage place's facades required, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.

ADVISORY NOTES

- a. This Development Plan Consent will expire after 12 months from the date of this Notification, unless final Development Approval from Council has been received within that period or this Consent has been extended by the Development Assessment Commission.
- b. The applicant is also advised that any act or work authorised or required by this Notification must be substantially commenced within 1 year of the final Development Approval issued by Council and substantially completed within 3 years of the date of final Development Approval issued by Council, unless that Development Approval is extended by the Council.
- c. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).
- d. No additional advertising signage shall be displayed upon the subject land other than those identifying the parking area access points and those shown on the approved plans. If any further signs are required, these shall be the subject of a separate application.

- e. The applicant must ensure there is no objection from any of the public utilities in respect of underground or overhead services and any alterations that may be **required are to be at the applicant's expense.**
- f. As work is being undertaken on or near the boundary, the applicant should ensure that the boundaries are clearly defined, by a Licensed Surveyor, prior to the commencement of any building work.
- g. Council approval is required before undertaking any works within the public realm. Any proposed works including landscaping with the public realm adjacent to the site shall be undertaken in consultation with the City of Adelaide. Improvements to the adjacent public realm areas are not part of this planning consent.

State Heritage Notes

- h. Should Council not adopt the above recommendation in full, it will be necessary to obtain the concurrence of the Development Assessment Commission before a decision is conveyed to the applicant.
- i. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department of Environment, Water and Natural Resources, or an additional referral to the Minister for Sustainability, Environment and Conservation. Such changes would include for example (a) an application to vary the planning consent, or (b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.
- j. To ensure a satisfactory heritage outcome, Council is requested to consult the Department of Environment, Water and Natural Resources in finalising any conditions or reserved matters above.
- k. In accordance with Regulation 43 of the Development Regulations 2008, please send the Department of Environment, Water and Natural Resources a copy of the Decision Notification.
- l. Council is requested to inform the applicant of the following requirements of the Heritage Places Act 1993.
 - (a) If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified.
 - (b) Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

For further information, contact the Department of Environment, Water and Natural Resources.

- m. Council is requested to inform the applicant of the following requirements of the Aboriginal Heritage Act 1988.
 - (a) If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the Aboriginal Heritage Act 1988.



Karl Woehle
Planning Officer
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

200 North Terrace

9th of August - Development Application



Design Statement

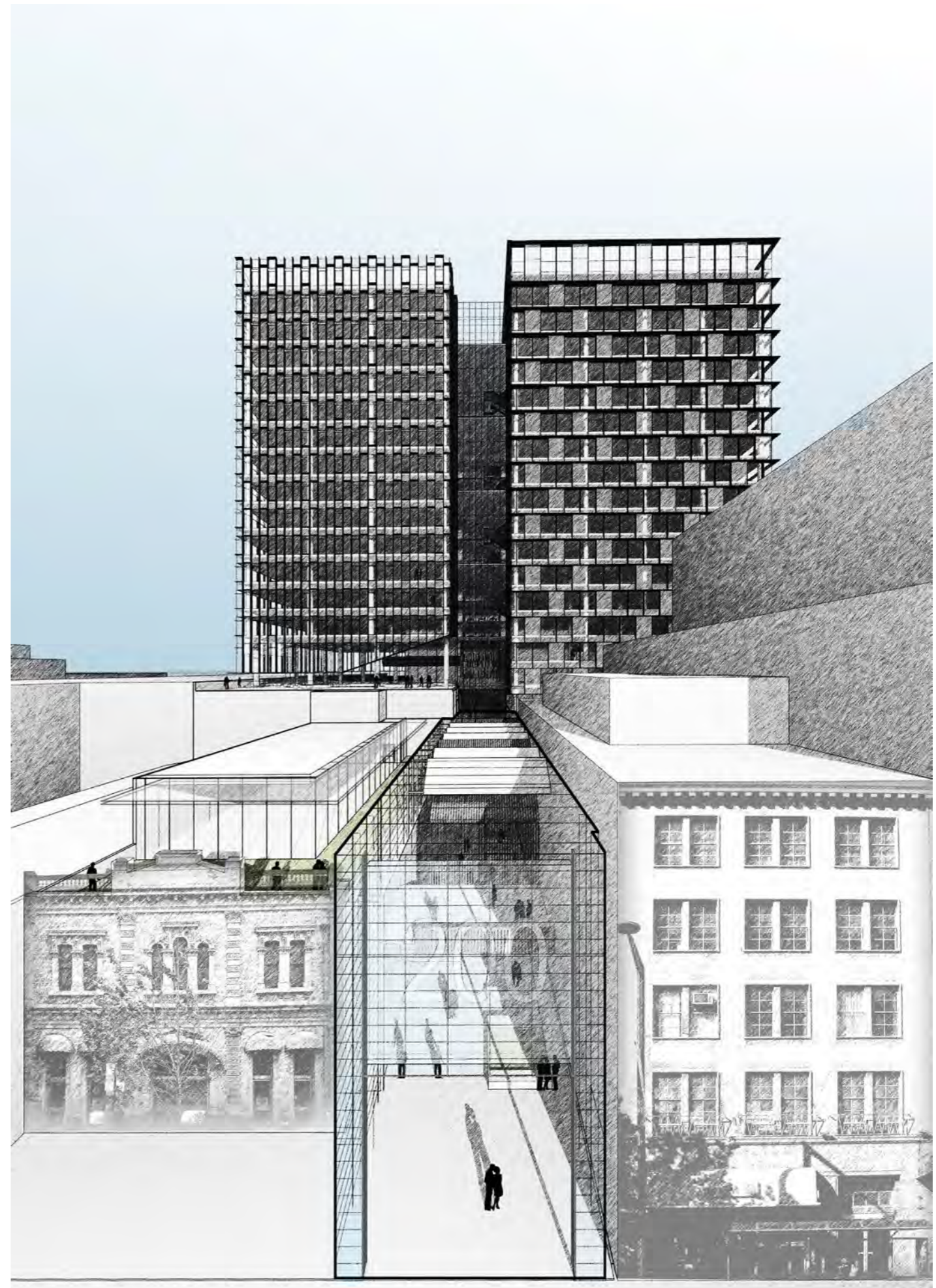
200 North Terrace is an integrated commercial and retail precinct designed to meet contemporary workplace needs with a focus on active spaces from the entry forecourt up through the atrium/void spaces within the building.

The design generally consists of a fully glazed commercial office tower above a retail podium. The tower is set back from North Terrace, and is articulated externally as two distinct elements. This allows the internal voids to be expressed in the external form and for activity within the voids to be perceived from street level. The forecourt, lobby void and office level voids provide a visual link from North terrace through to the upper floors.

Primary pedestrian access to the site is from North Terrace, via the forecourt into retail tenancies or the commercial lobby. One's experience of the commercial lobby begins upon entry into the forecourt, which is also accessible to the public during building operating hours and secure at other times. Secondary access is provided along the small un-named laneway, and will be used for cyclist access to EoT facilities. The Gawler Place retail component creates an additional public frontage that forms an extension of the adjacent Rundle Mall shopping precinct.

Vehicle access (passenger and service) is via Fisher Place to the south, separated from pedestrian and bicycle access. The design incorporates a generous sheltered forecourt adjacent North Terrace, which will provide a seamless extension of public realm into the site.

200 North Terrace will provide a high quality workplace, retail and lifestyle precinct on a key CBD site.



Area Summary

GROSS BUILDING AREA	
LEVEL	AREA
BOH	1802 m ²
CARPARK	2576 m ² (73 Car Parks)
COMMERCIAL	25635 m ²
RETAIL	3770 m ²
CORE	5597 m ²
EOT	346 m ²
LOBBY	755 m ²
PLANT	1385 m ²
SKY LOBBY	532 m ²
TERRACE	930 m ²
WASTE	89 m ²
TOTAL GBA	43416 m²

NET LETTABLE AREA		
LEVEL	RETAIL	COMMERCIAL
B1	1467 m ²	-
GROUND	1010 m ²	-
LEVEL 01	1098 m ²	-
LEVEL 02	195 m ²	550 m ²
LEVEL 03	-	843 m ²
LEVEL 04	-	867 m ²
LEVEL 05	-	867 m ²
LEVEL 06	-	1757 m ²
LEVEL 07	-	1672 m ²
LEVEL 08	-	1672 m ²
LEVEL 09	-	1757 m ²
LEVEL 10	-	1672 m ²
LEVEL 11	-	1716 m ²
LEVEL 12	-	1800 m ²
LEVEL 13	-	1716 m ²
LEVEL 14	-	1716 m ²
LEVEL 15	-	1800 m ²
LEVEL 16	-	1716 m ²
LEVEL 17	-	1716 m ²
LEVEL 18	-	1800 m ²
TOTALS	3770 m²	25635 m²
TOTAL NLA		29405m²

+ SKY LOBBY (532 m²)

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01 Development Application Site Location



200 North Terrace

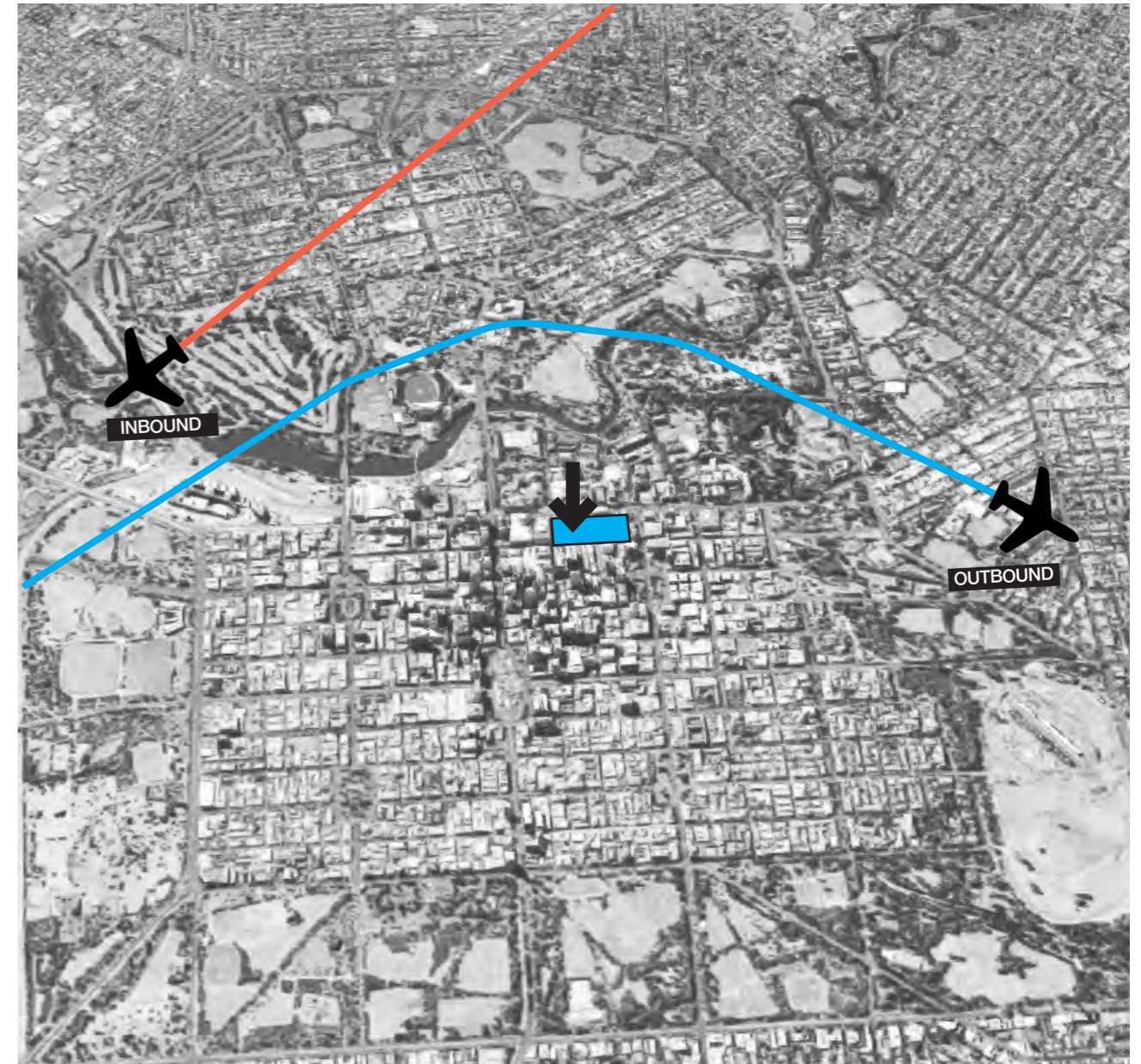
The 200 North Terrace site within the city context

A shift to the North

In recent times, Adelaide has witnessed strong development in the city's north.

- Adelaide Oval \$610 million upgrade
- Health Precinct \$2.7 billion
- ORAH Mixed Use \$2 billion
- Rundle Mall Upgrade

01 Development Application Site Location



Major Links

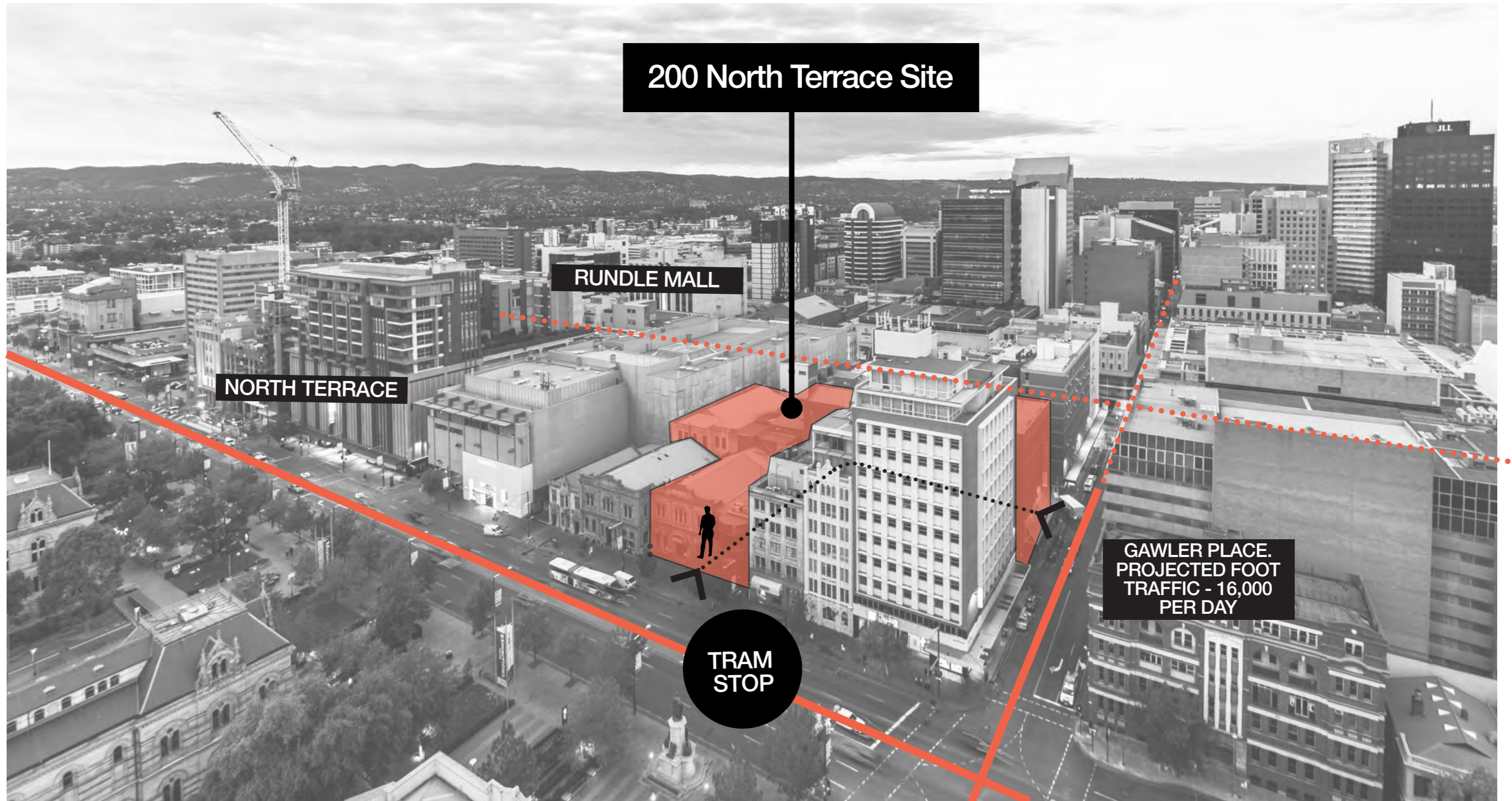
200 North Terrace is located at the intersection of Adelaide's Major Links. The Tram network is set to undergo a \$50million North Terrace extension.

View from Above

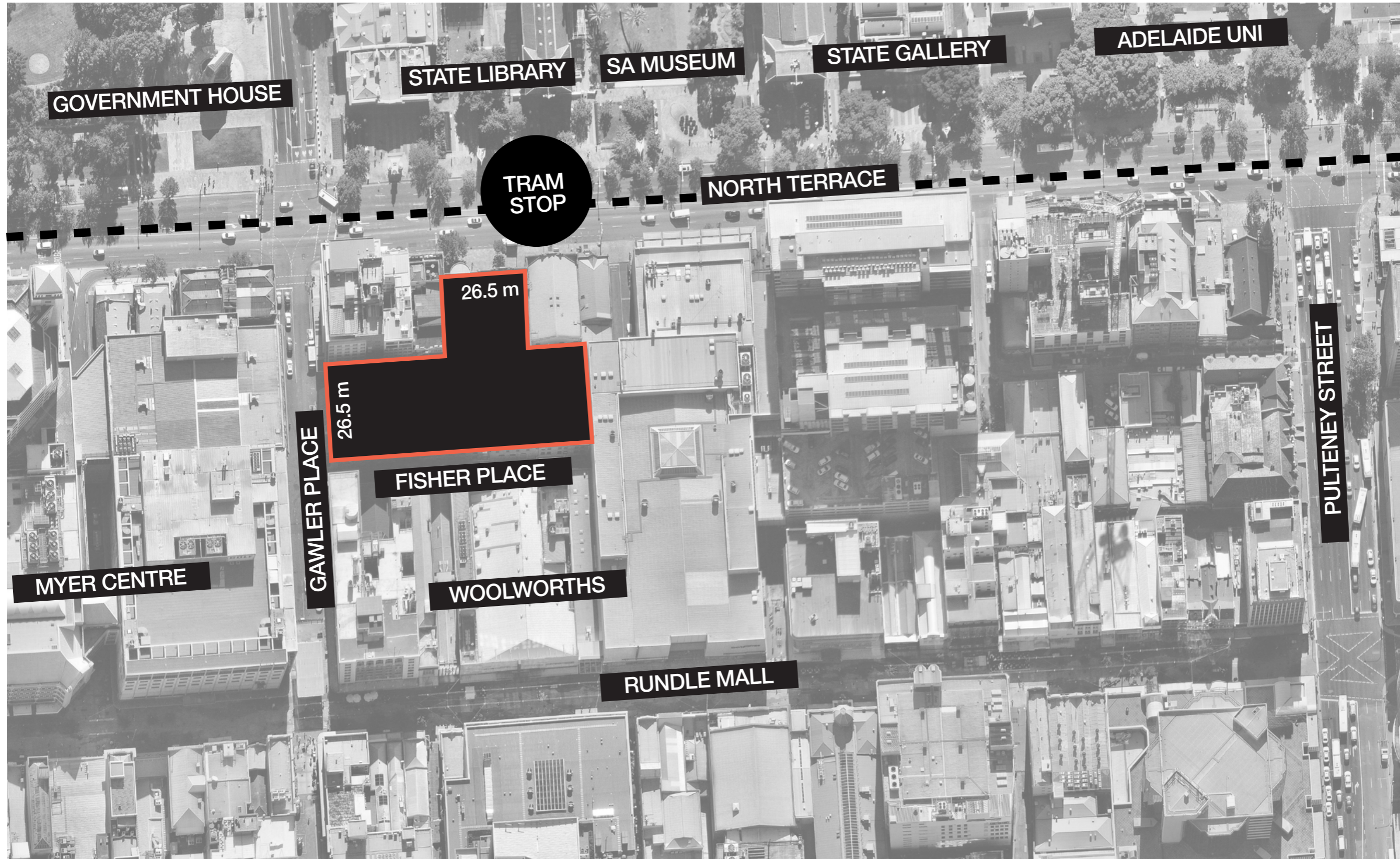
When arriving in Adelaide by aeroplane, 200 North Terrace will have a strong presence. The inbound viewing height is 1,300 feet and the outbound viewing height is 2,600 feet.

- Daily aircraft movements: 281
- Daily passenger movements: 22,064

01 Development Application Site Location



01 Development Application Site Location



01 Development Application Site Heritage



- LOCAL HERITAGE
- STATE HERITAGE

01 Development Application Site Photos



HERITAGE PHOTOS



CURRENT PHOTOS

01 Development Application Northern Views



01 Development Application Eastern Views



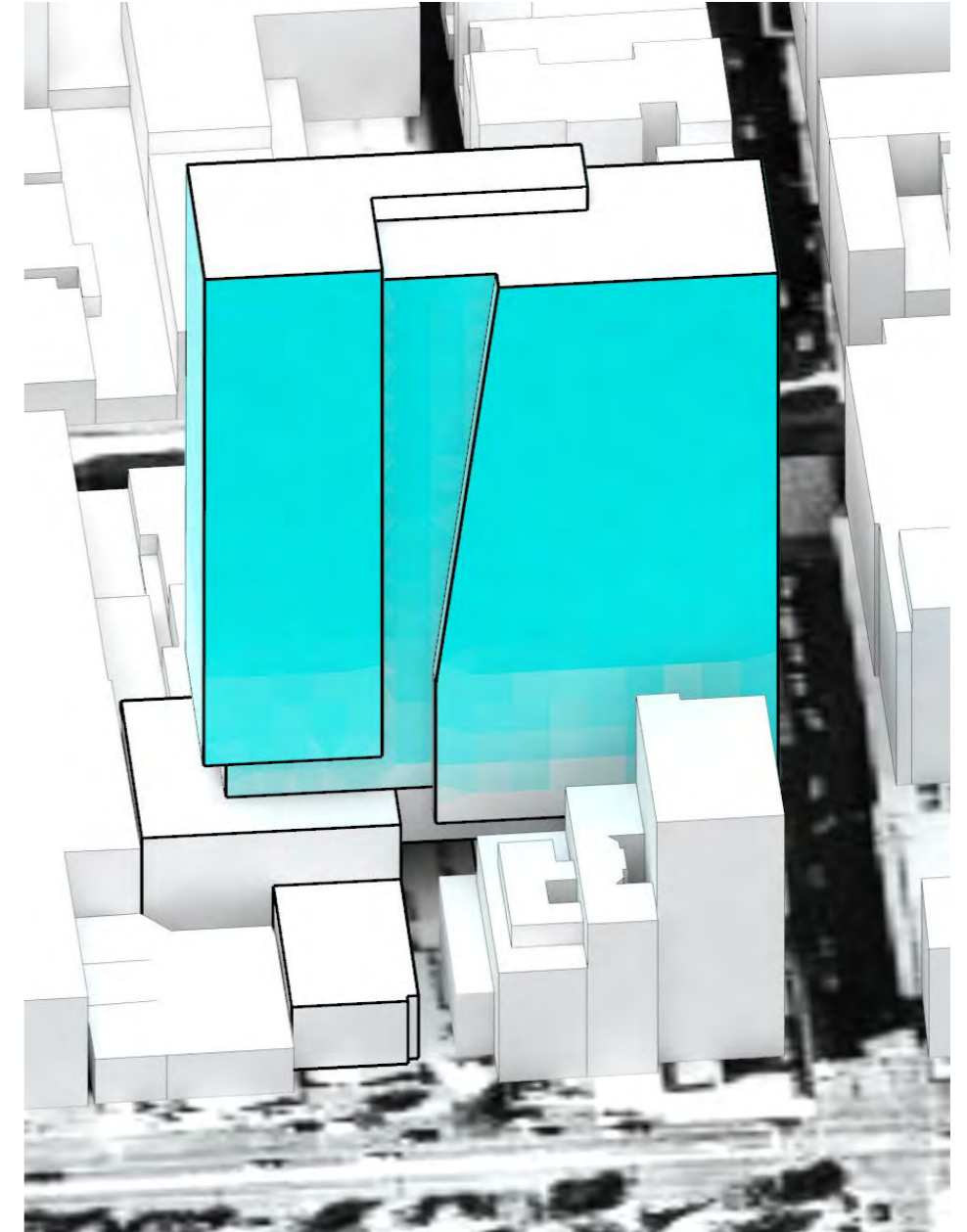
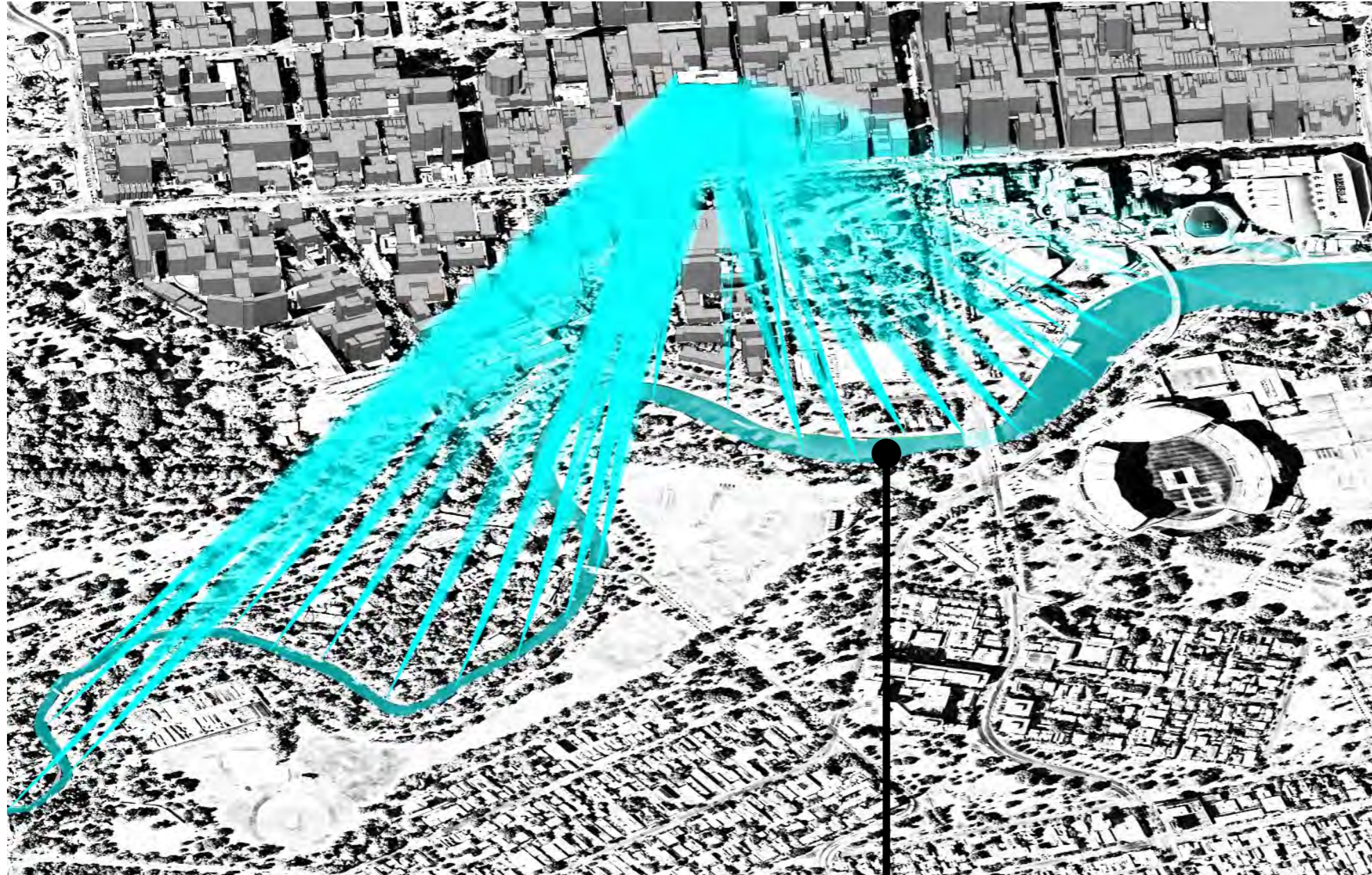
01 Development Application Southern Views



01 Development Application Western Views



01 Development Application River Torrens Views

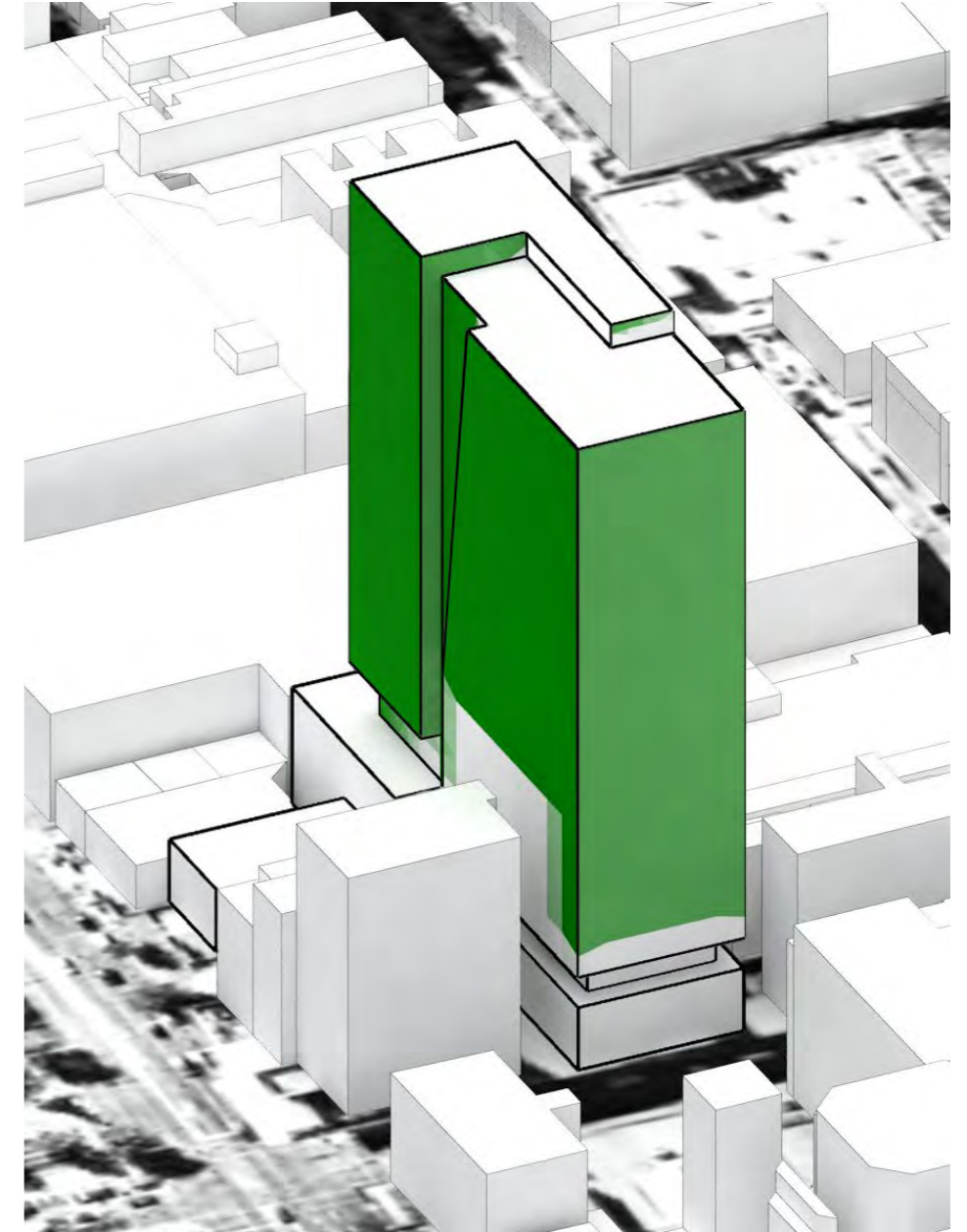


The River Torrens

01 Development Application Adelaide Oval Views

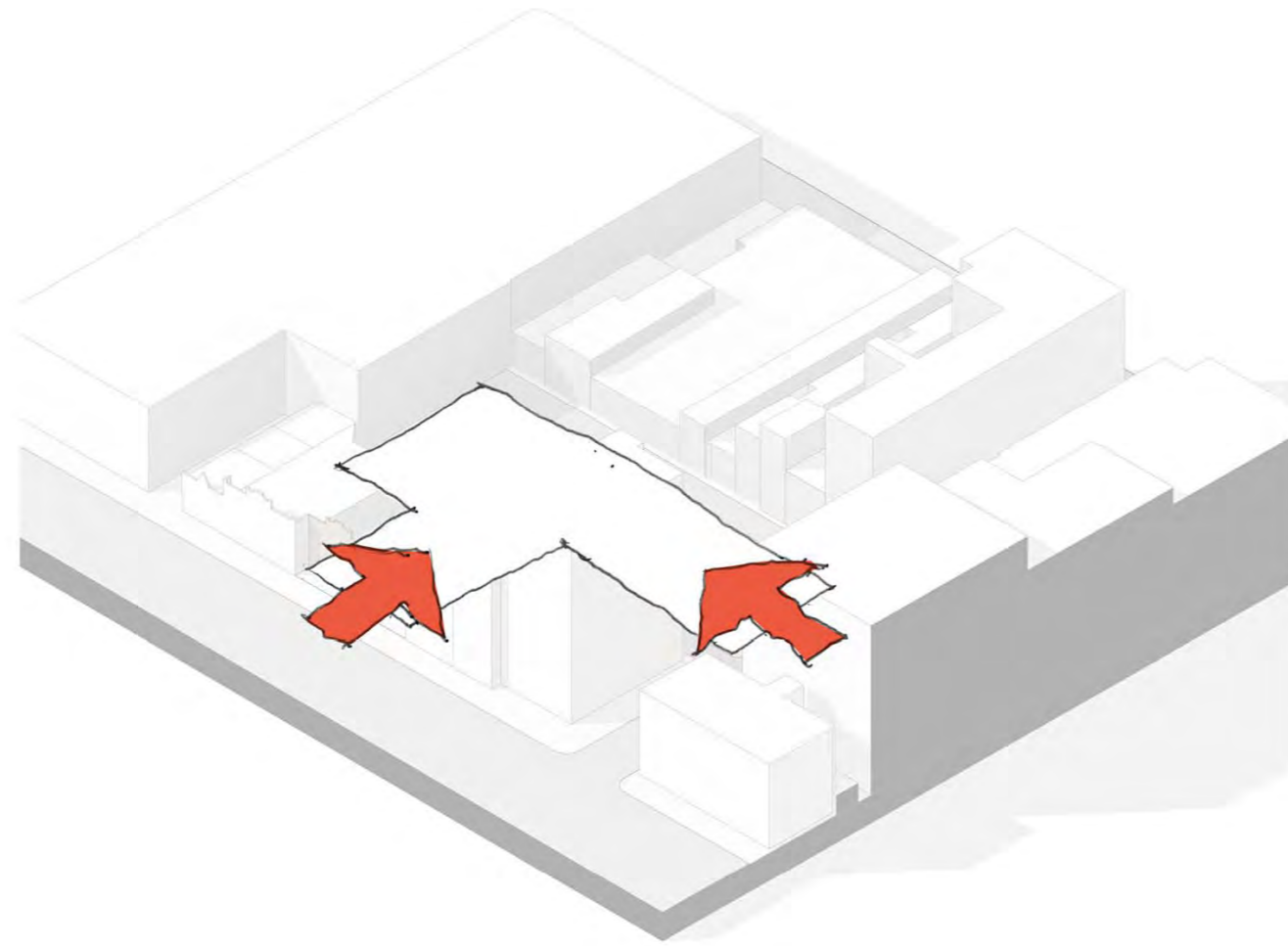


Adelaide Oval



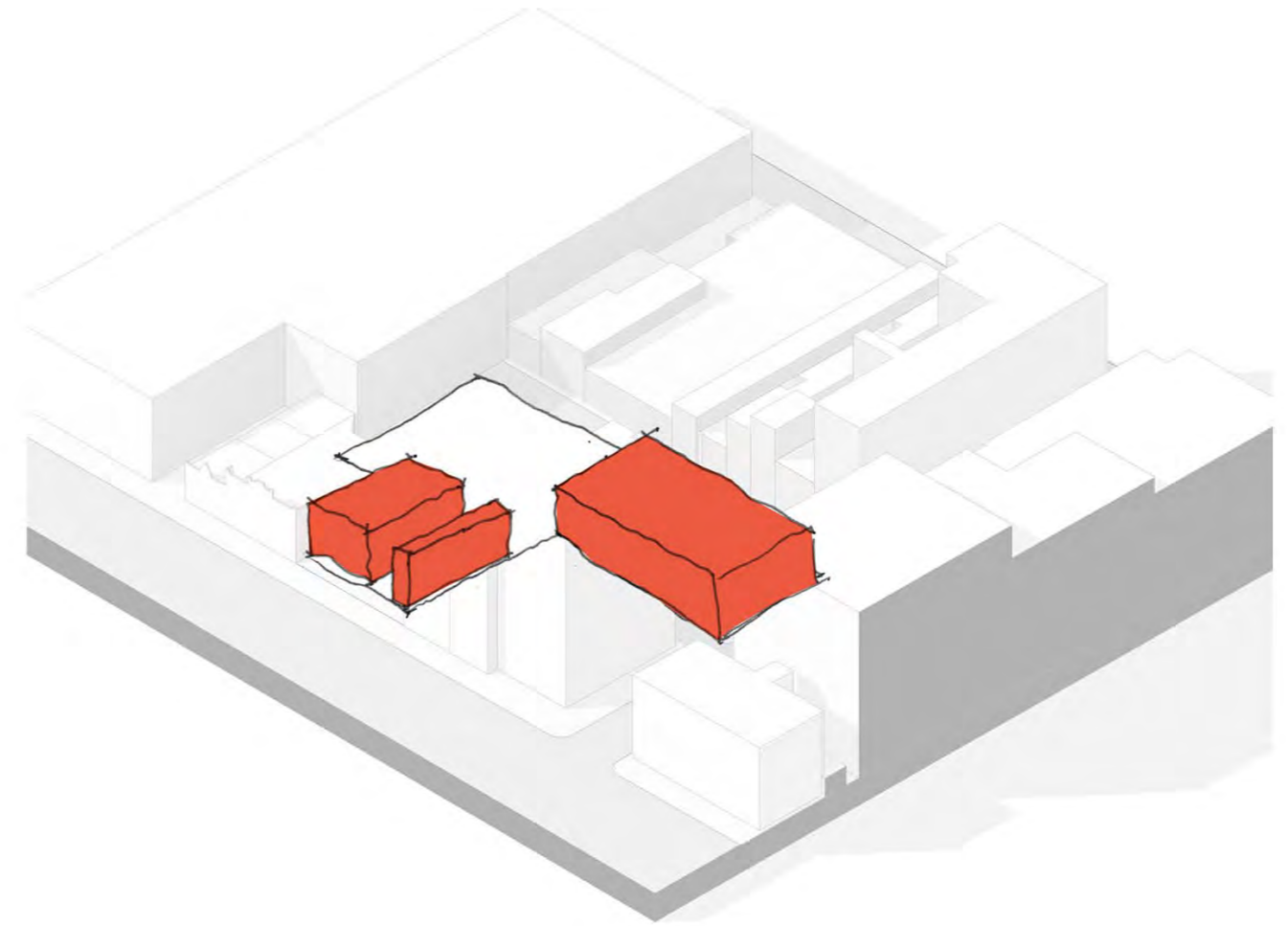
Design Principles

02 Development Application Design Principles



Clear Entries

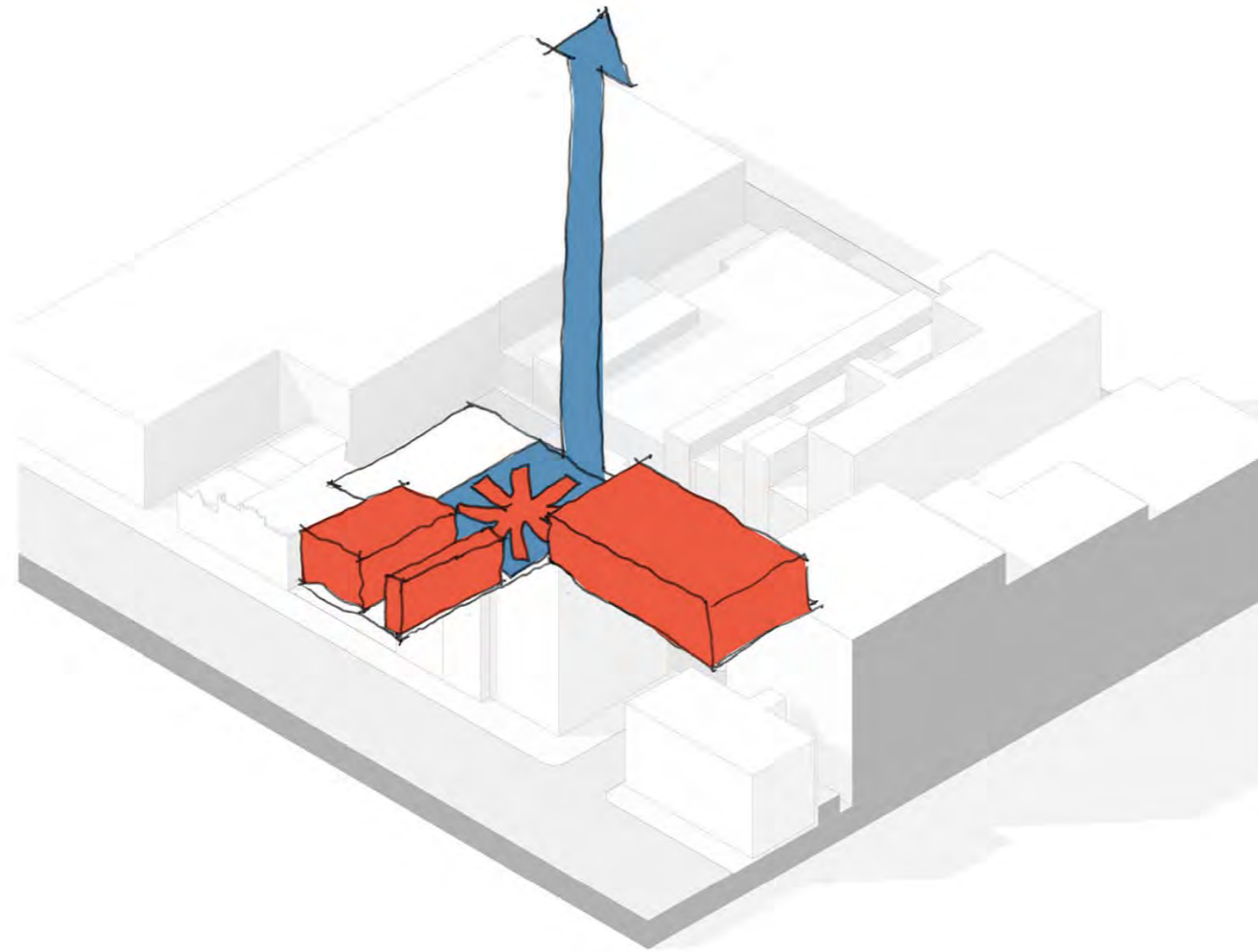
Utilise the full extent of the site and create clearly identifiable entries.



Retail Gateways

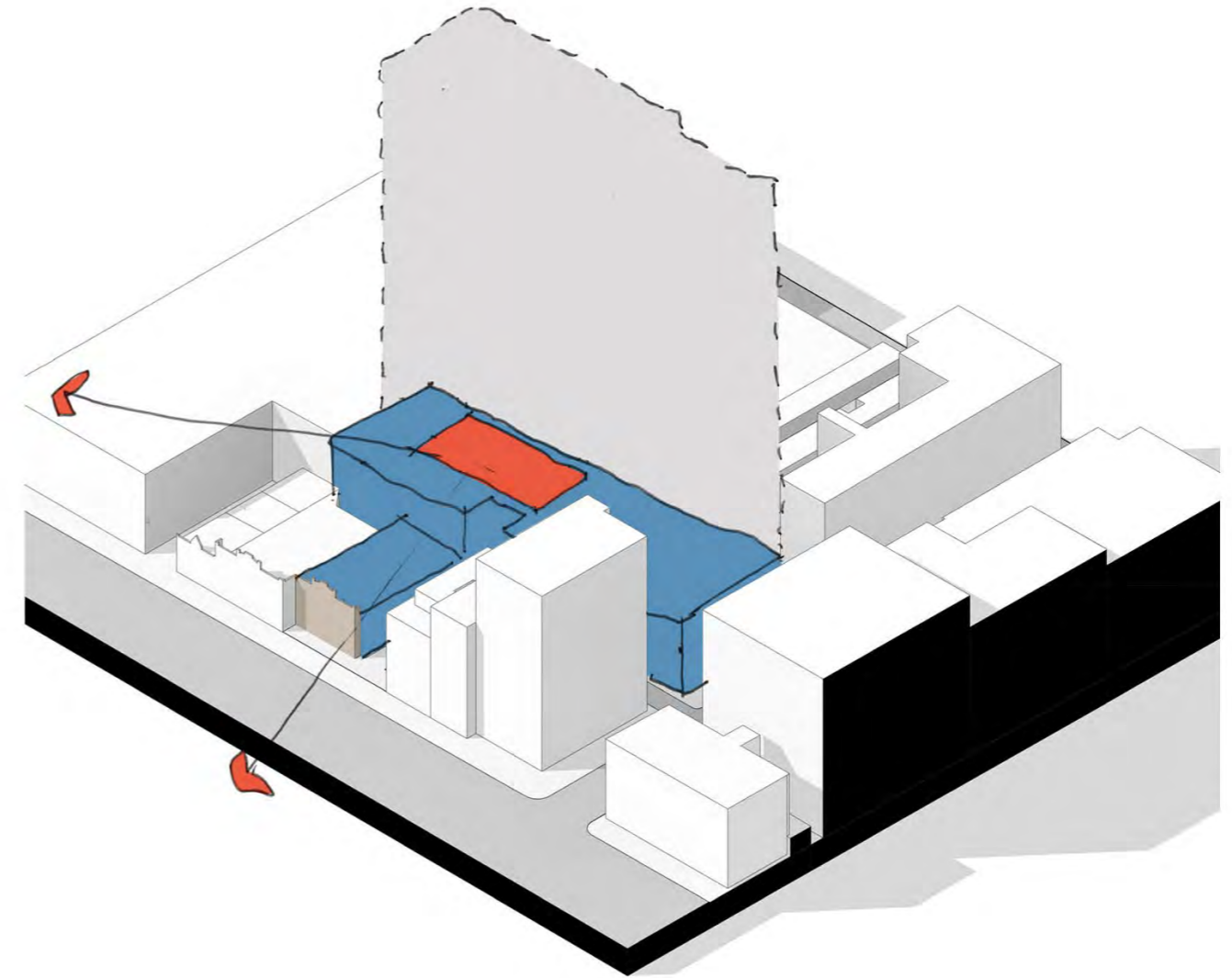
Maximise activity at the site entries through the creation of retail gateways.

02 Development Application Design Principles



A Central Node

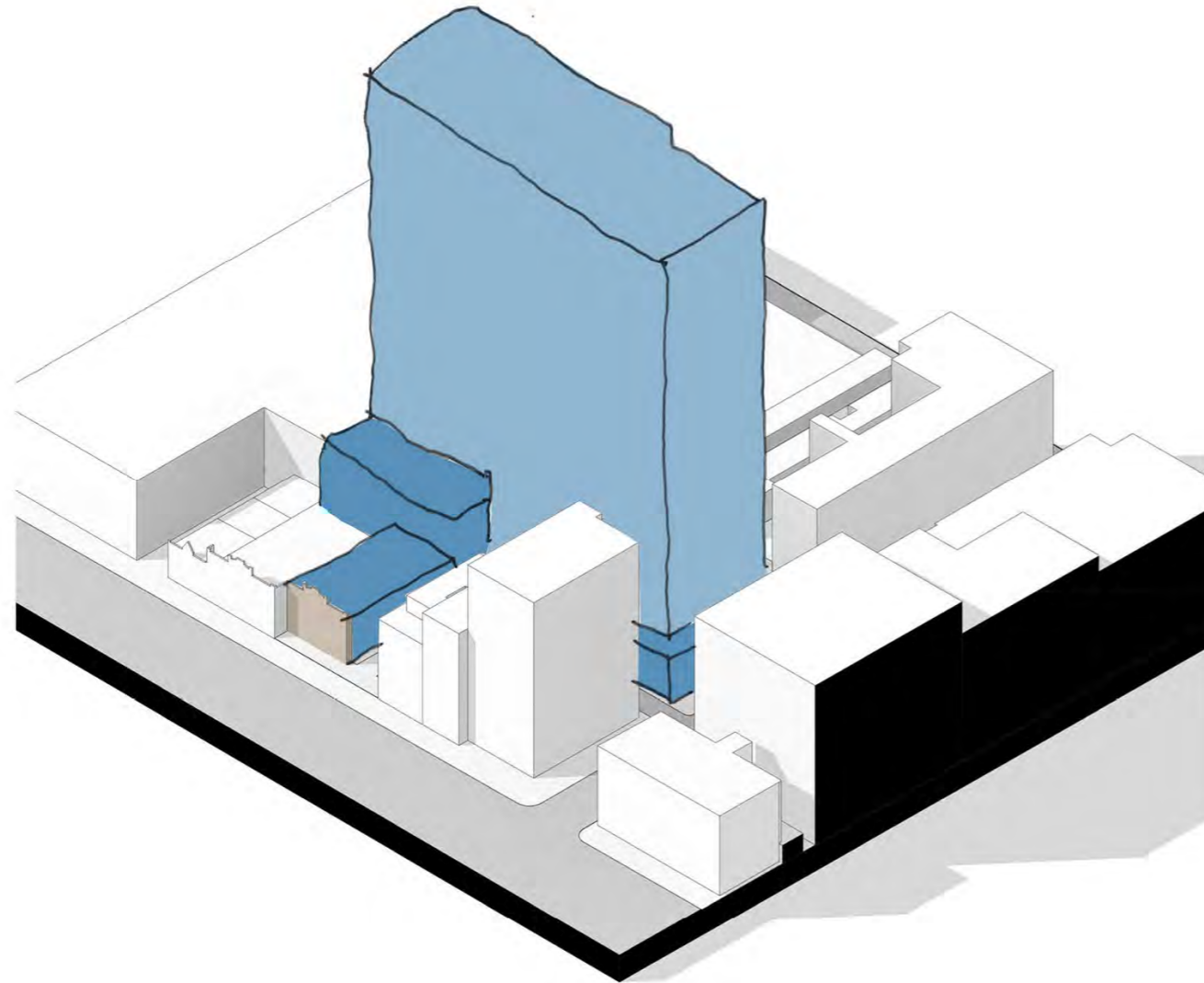
Define a strong central node within the development



Sky Lobby

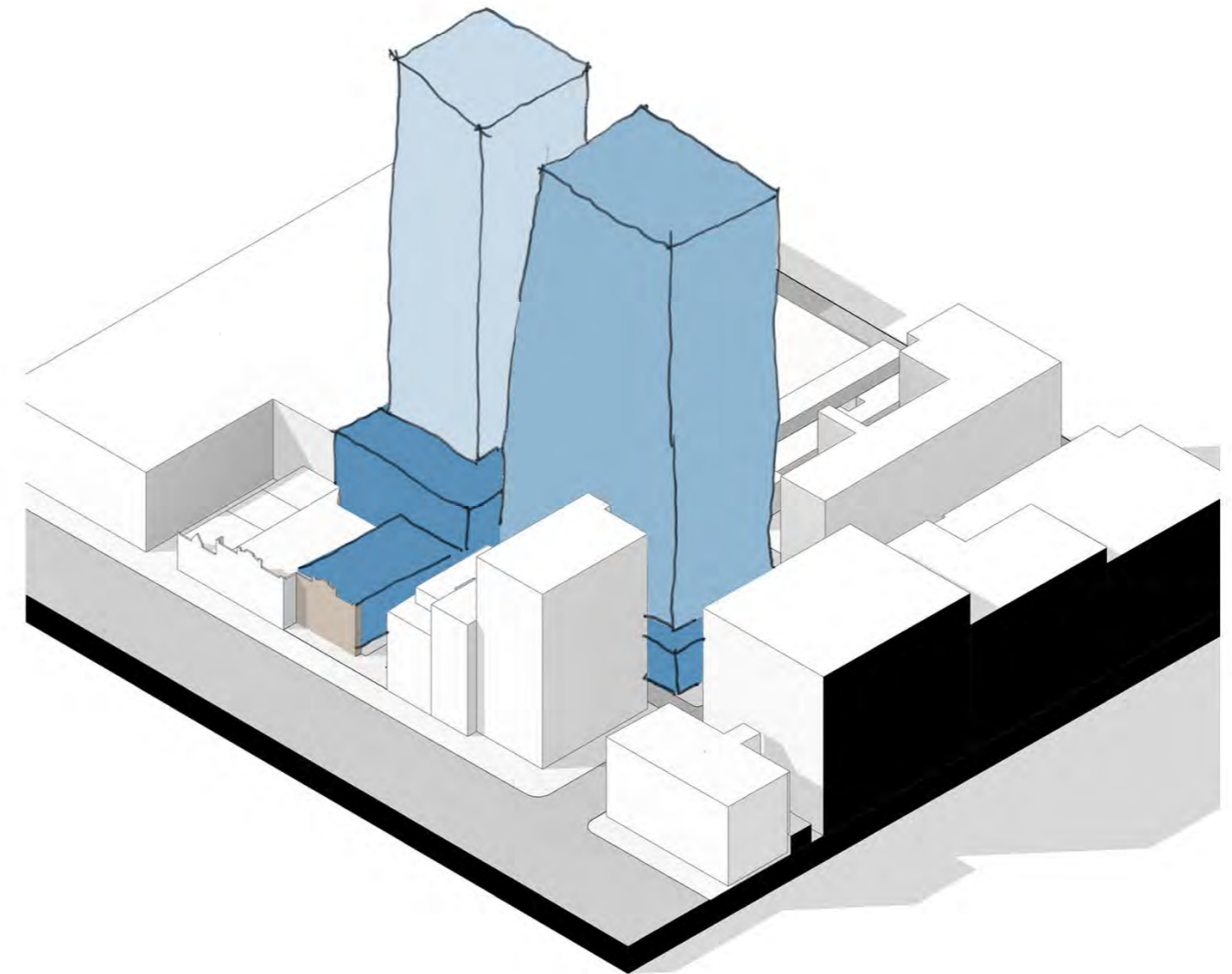
Create flexibility for multiple tenants with the combination of ground and sky lobbies.

02 Development Application Design Principles



Building Mass

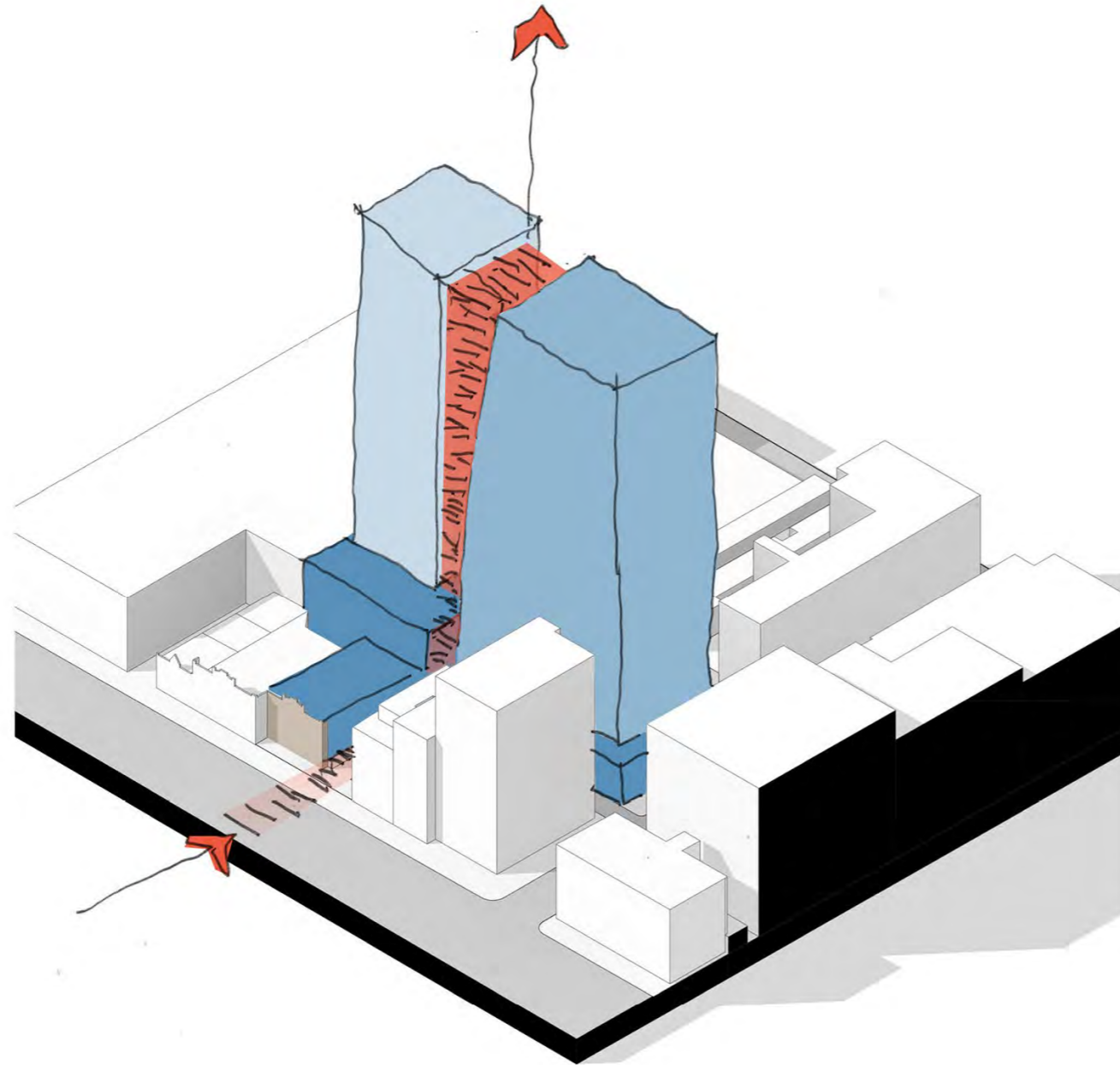
Look to explore the full development envelope



Scale and Identity

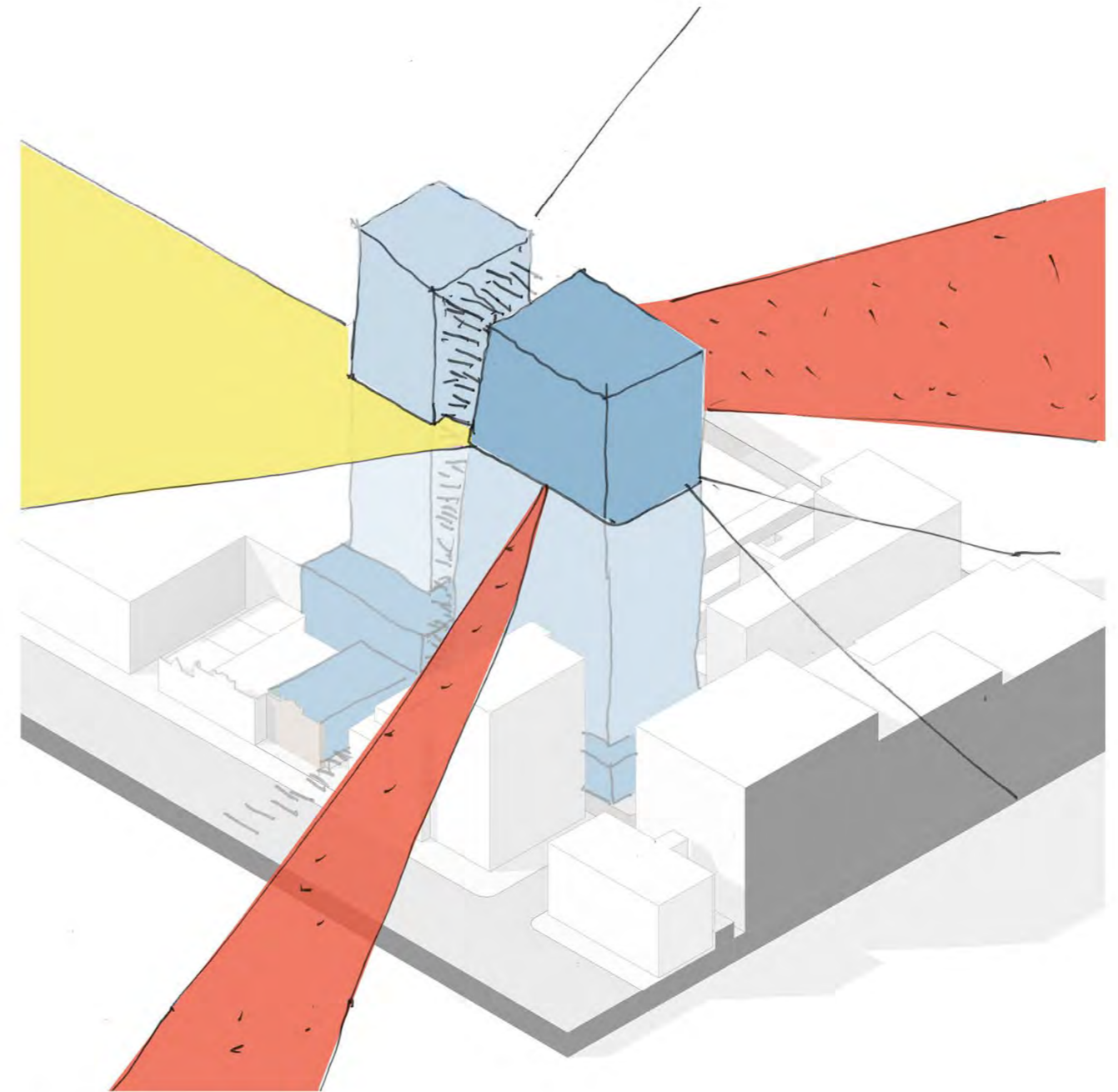
Enhance the ability to create multiple identities for the tenants and break up the scale of the development.

02 Development Application Design Principles



Extending Public Life

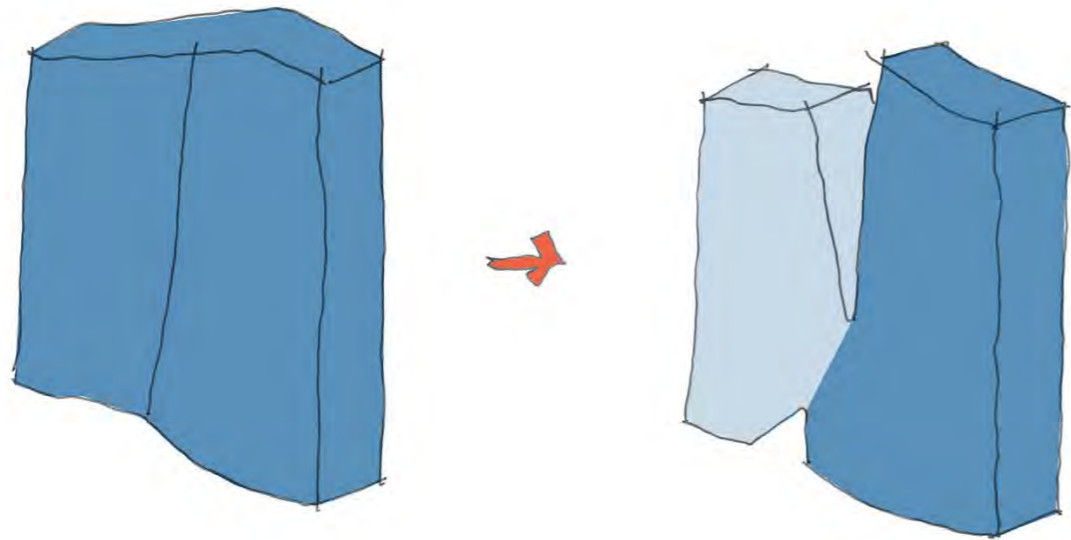
Explore every opportunity to connect people vertically throughout the building.



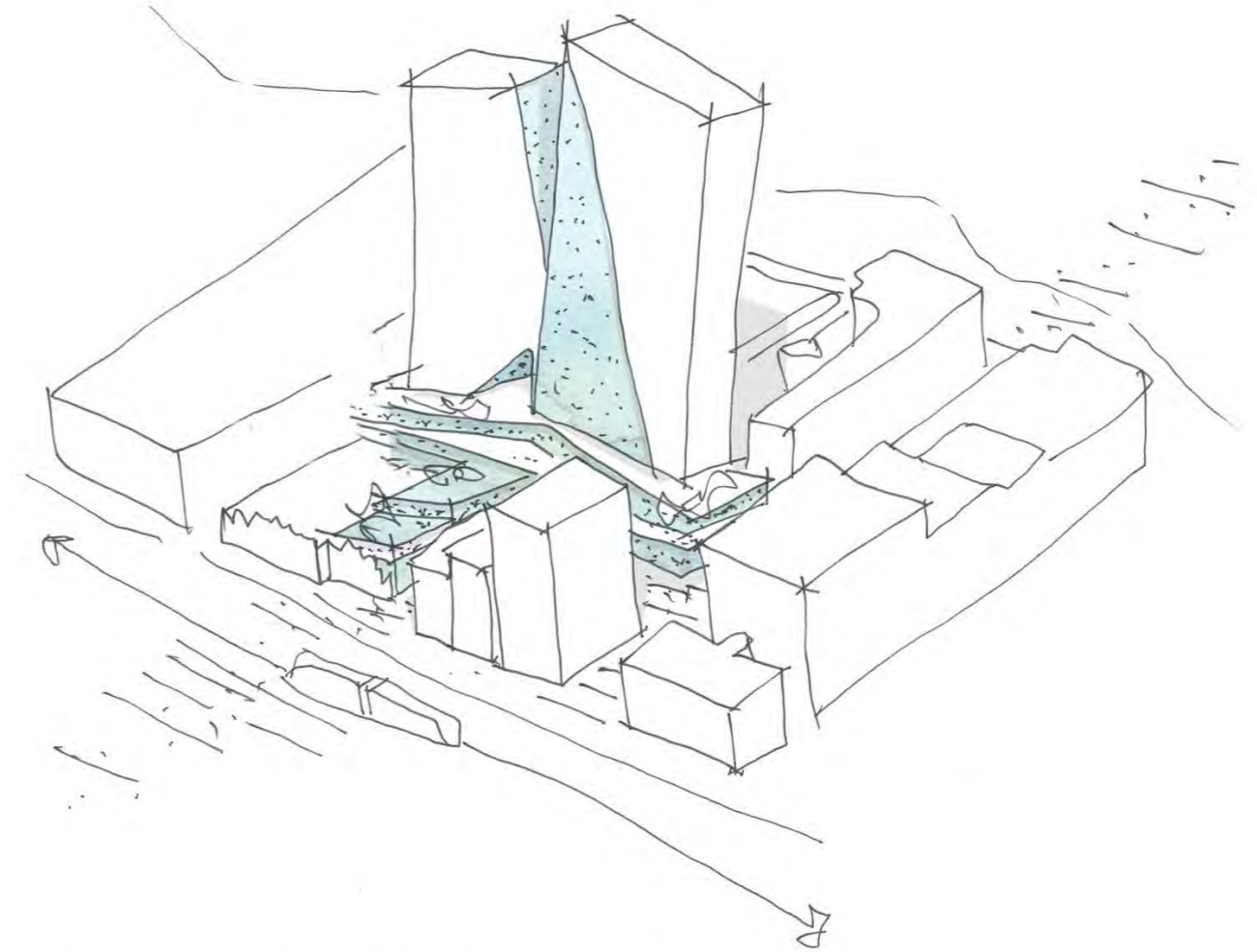
Vista

Truely understand and communicate views of adjacent landmarks.

02 Development Application Design Principles



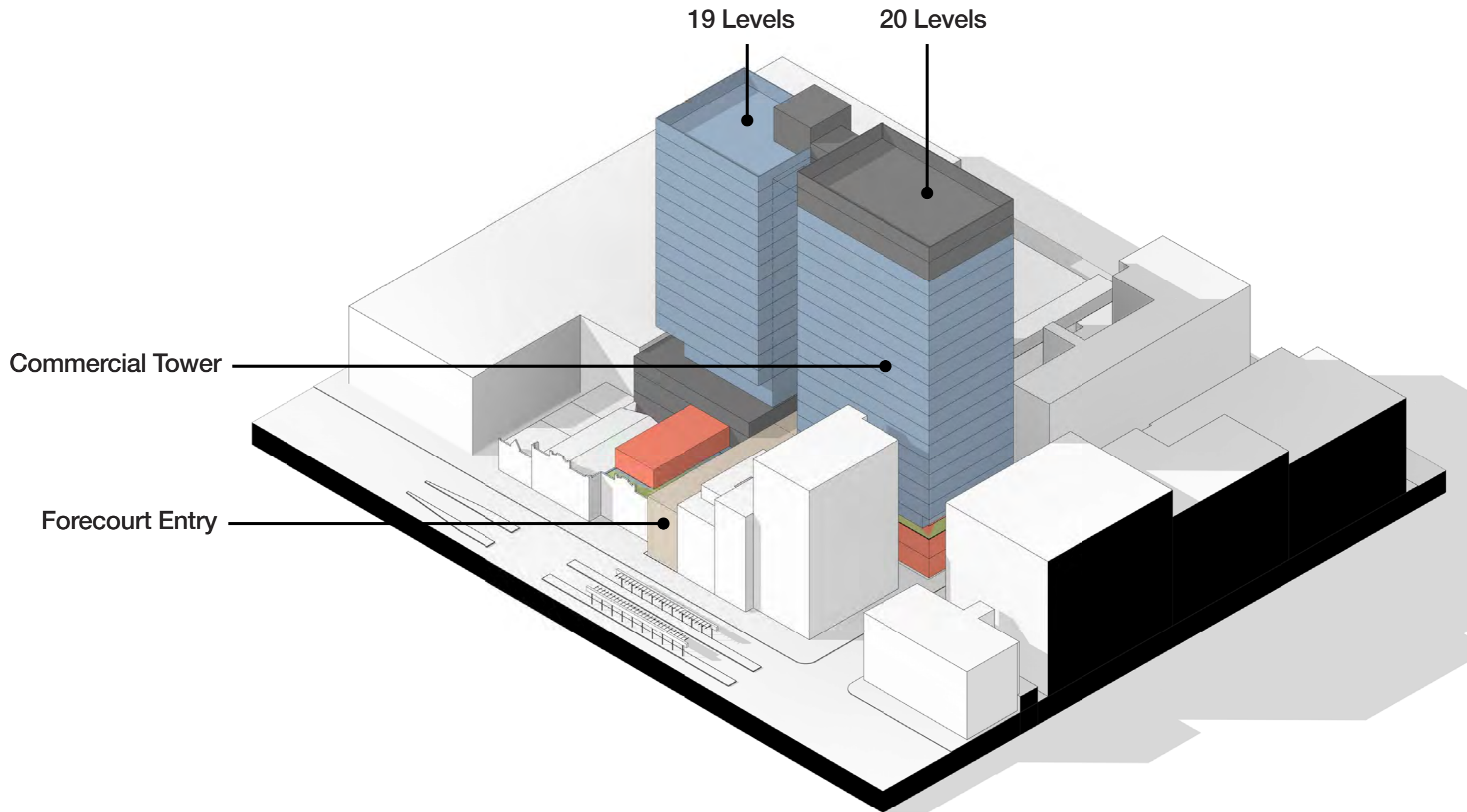
Breaking down the mass of the building to reduce scale and create multiple identities.



Result - Extended public realm to the podium and towers with unique identity.

02 Development Application Building Massing

- Legend**
- Retail
 - Commercial
 - Carparking/BOH
 - Landscape

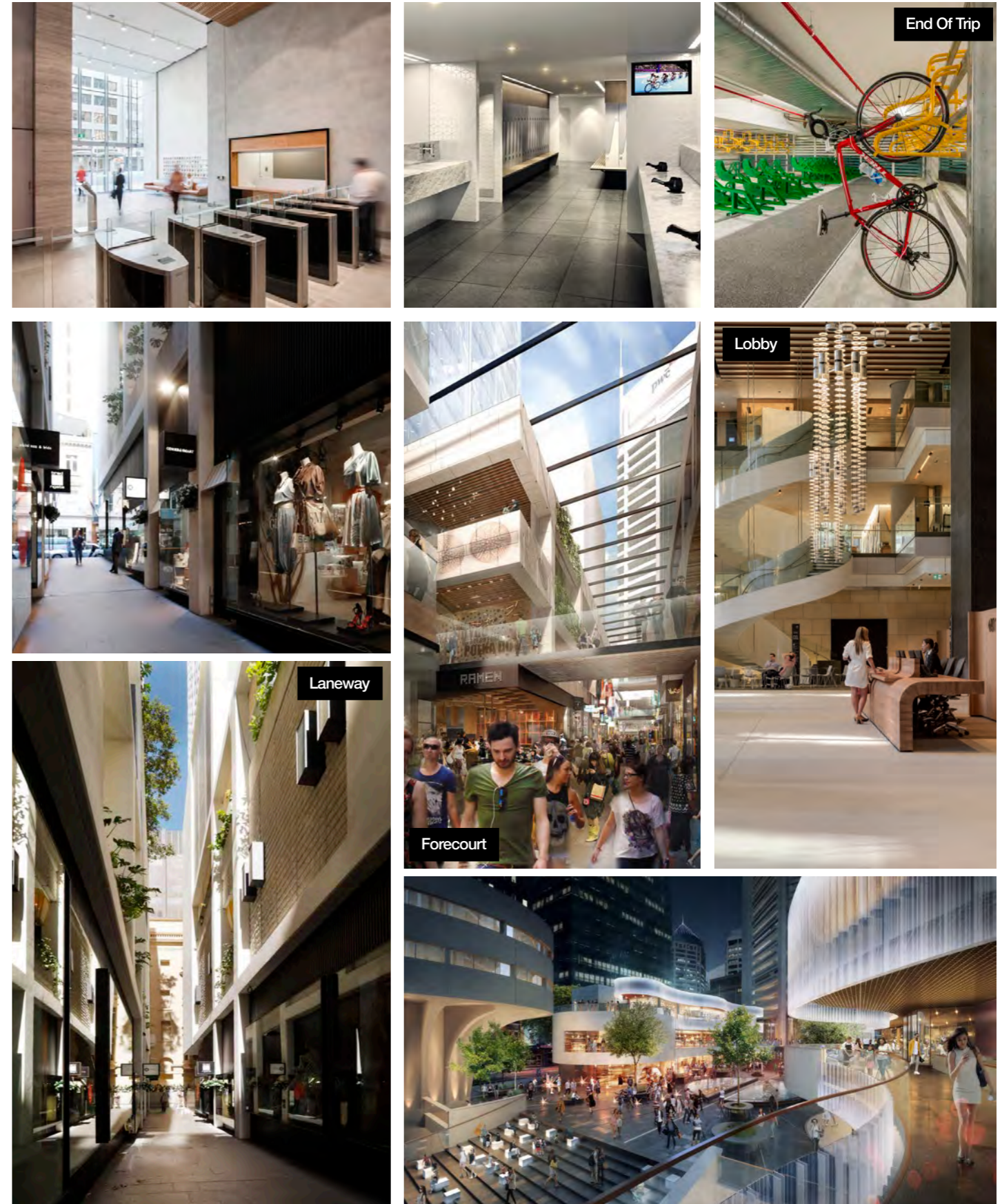


Design Response

03 Development Application Public Realm

Public Realm

200 North Terrace provides a range of opportunities for retailers small and large. With 2 distinct street frontages, the ability to create distinct brand separation for retailers is a unique aspect for this site. With the look and feel of Rundle mall extending into Gawler Place, the building ground plane will remain highly visible and directly connected to 16,000 pedestrians walking past per day. Both entries into the site will be designed to encourage people to spend time with excellent public realm and intimate laneways supporting the retail and lifestyle experience.



03 Development Application Public Realm



GAWLER PLACE RETAIL ENTRY



NORTH TERRACE ENTRY



SECTION **NORTH SOUTH**

03 Development Application Public Realm



FORECOURT **ENTRY VIEW**

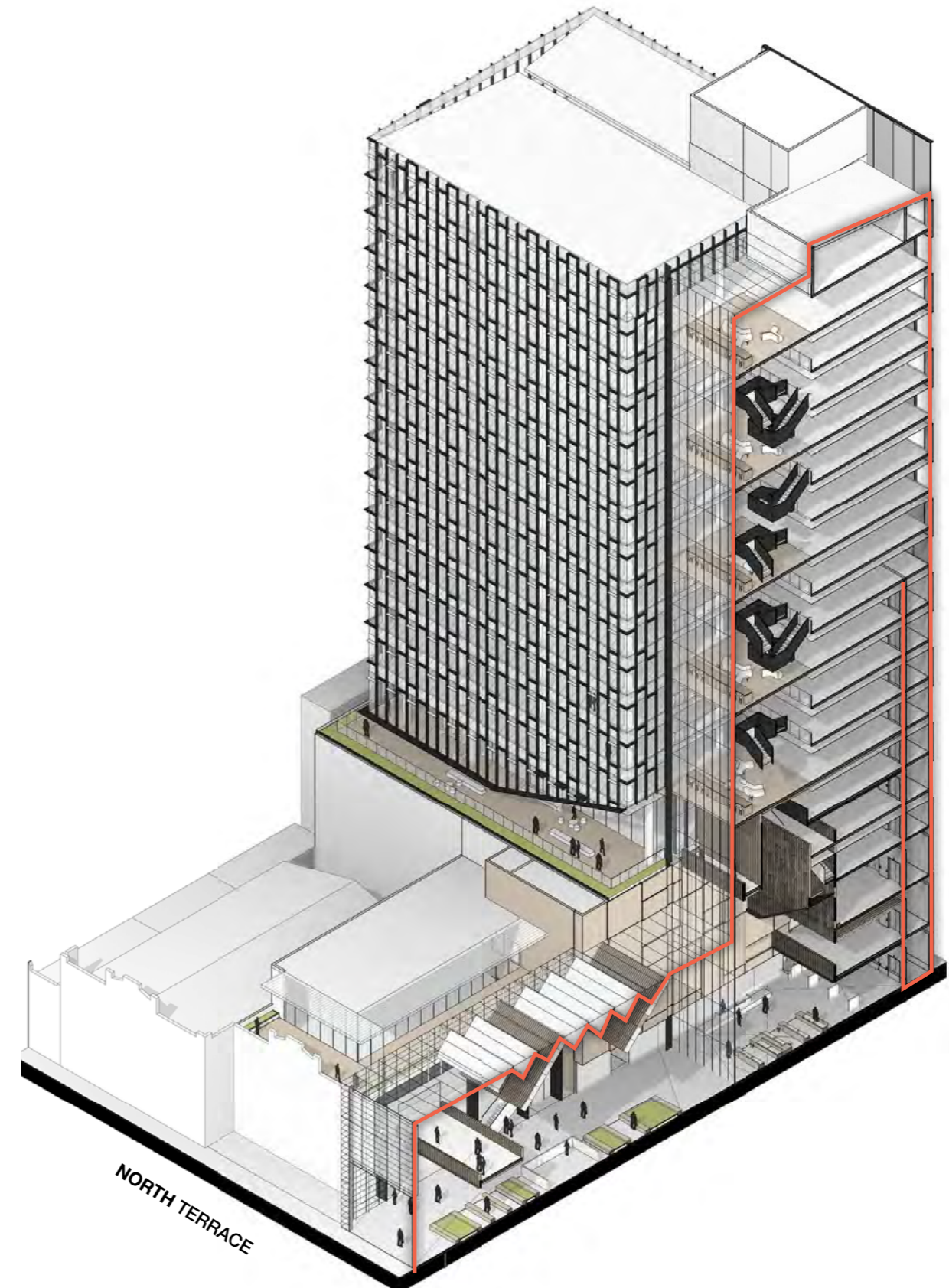


FORECOURT **EXIT VIEW**

03 Development Application Public Realm

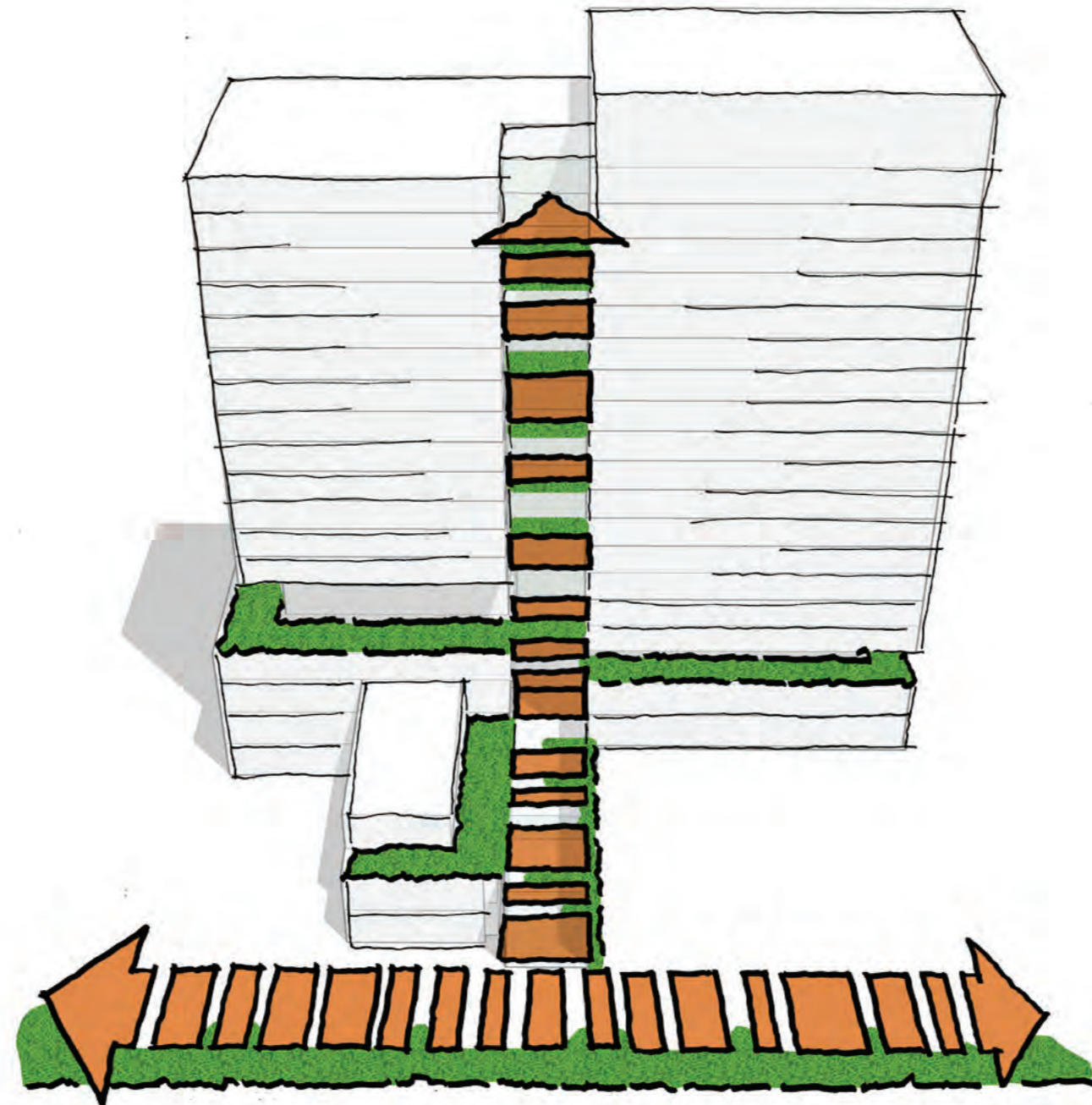


LOBBY **ENTRY VIEW**



DIAGRAMMATIC SECTION | NORTH - SOUTH

03 Development Application Landscape Design Concept

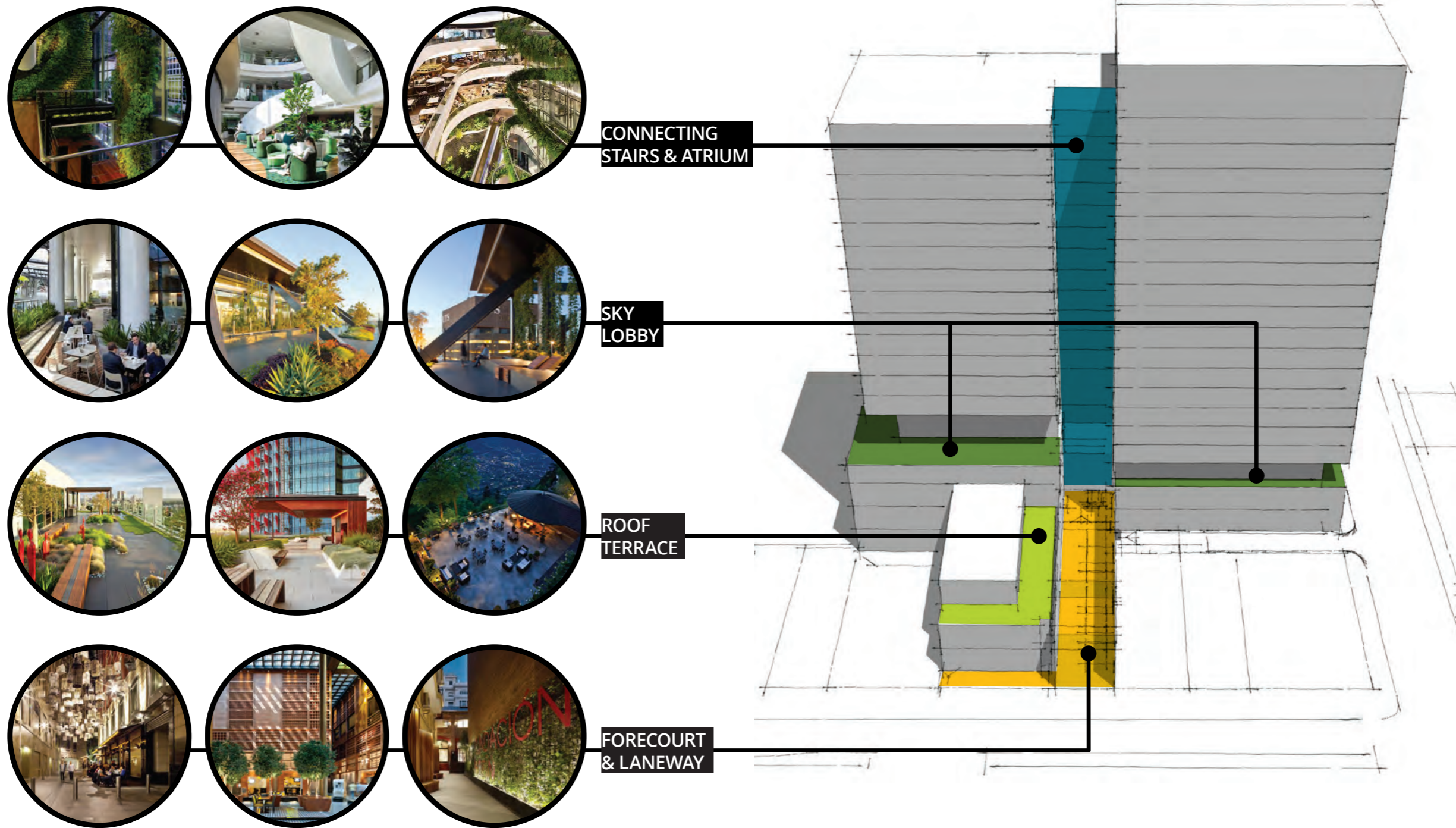


Extending the North Terrace Rhythm
and Layering the Landscape

03 Development Application Strategic Context Plan

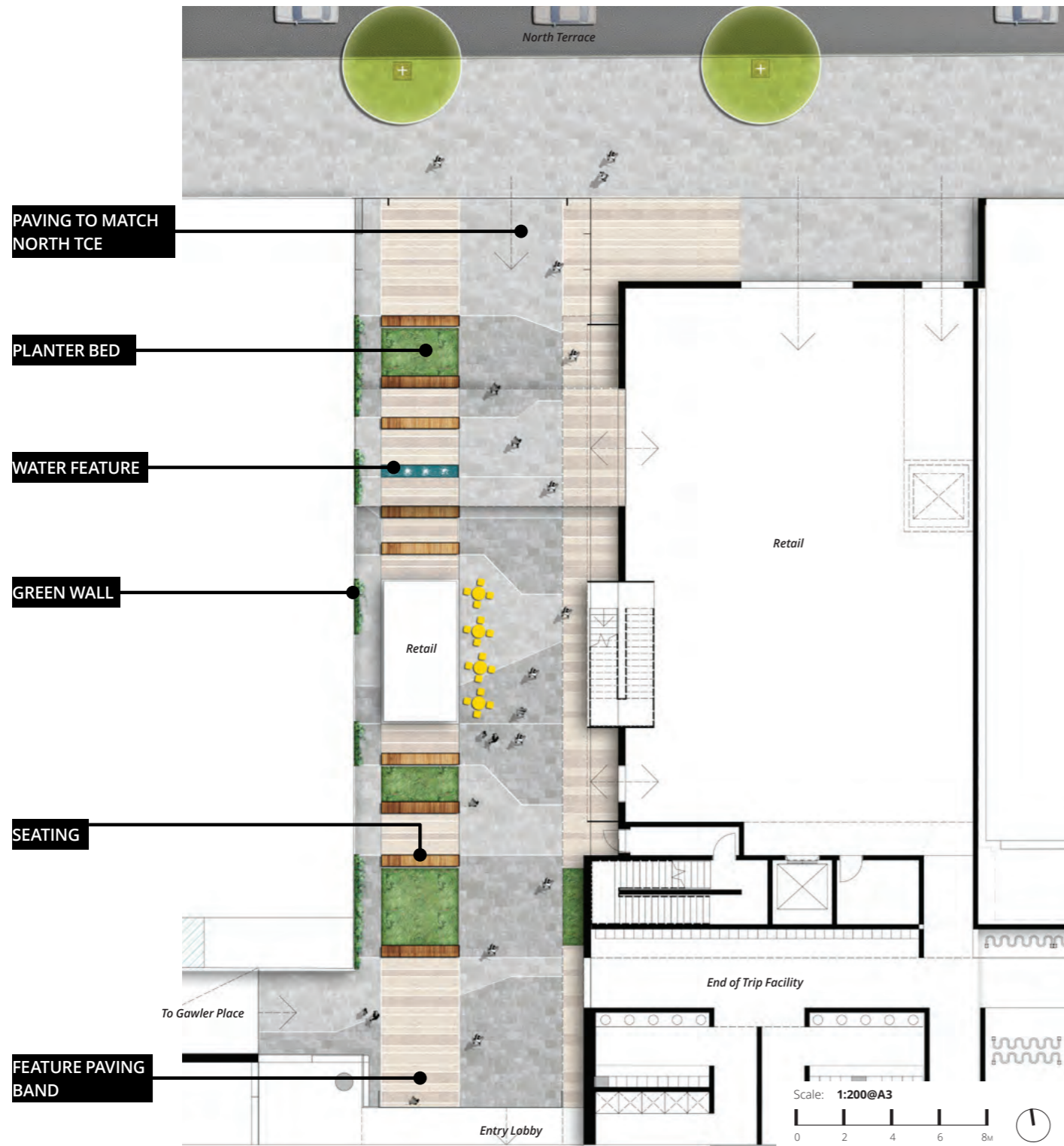


03 Development Application Landscape Areas

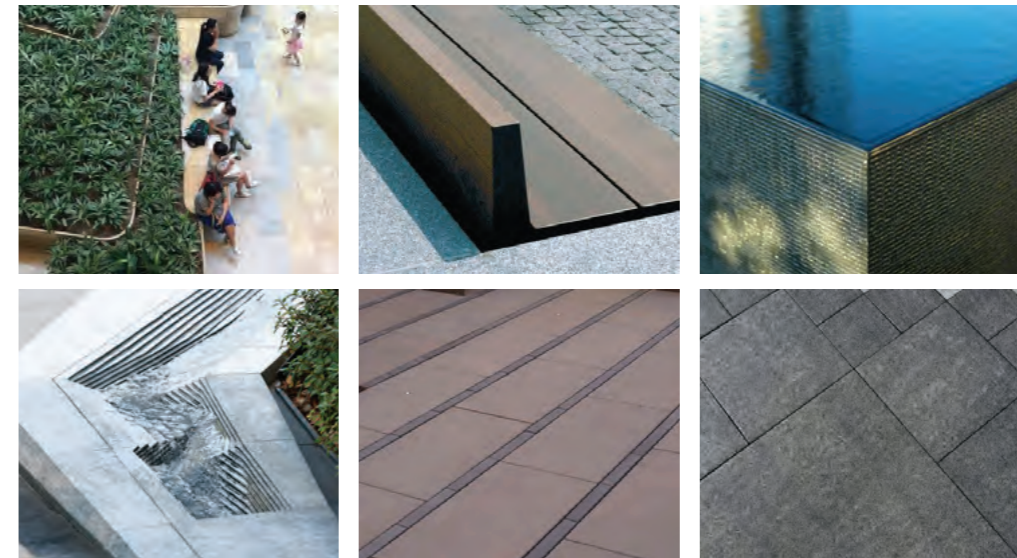


03 Development Application

Landscape Ground Floor Concept Plan



Materials Palette



Planting Palette

Understorey Planting



Green Wall



03 Development Application Workplace Design

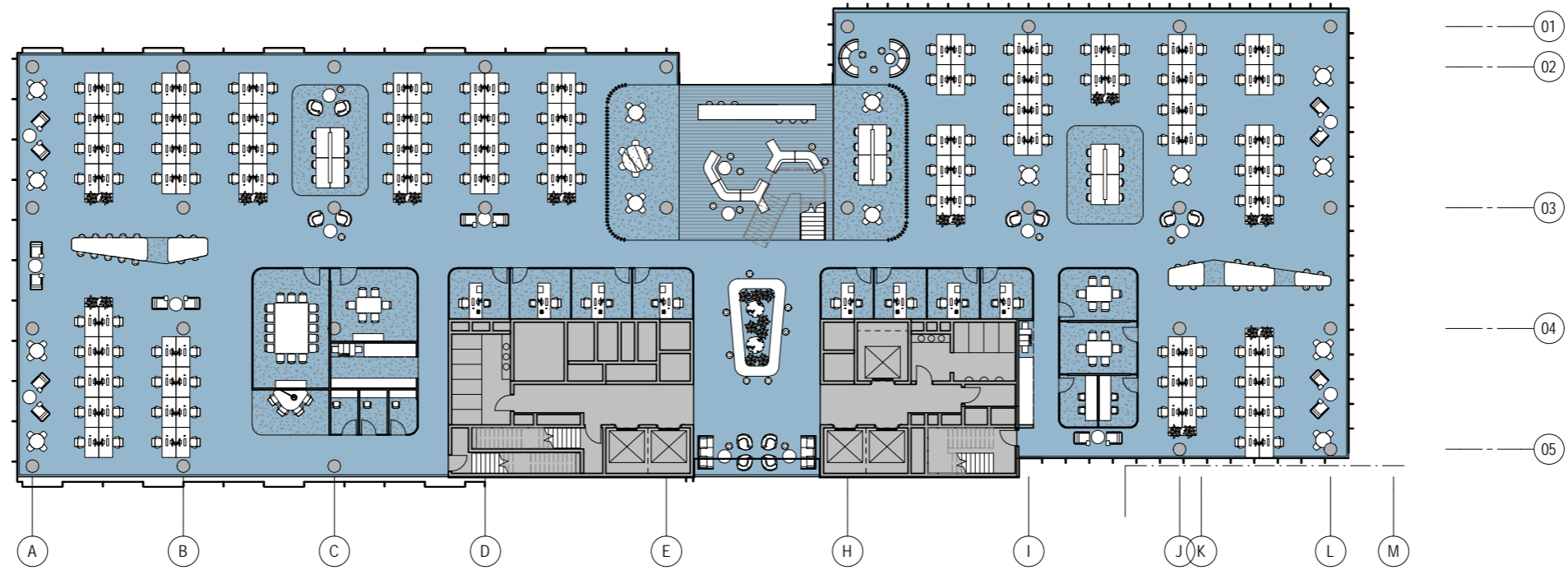
Workplace

200 North Terrace provides a premium environment that offers an agile and contemporary workplace. Floor plate sizes range from 1715sqm to 1800sqm NLA with interconnecting stairs and winter gardens animating the workplace. Inherent in the design is the ability to also sub tenant spaces on any given floor and the flexibility to incorporate sky lobbies. In addition to the extensive retail opportunities on ground and within Rundle Mall, 200 North Terrace will provide a high level of amenity ranging from sky lobbies and garden terraces to End Of Trip facilities and car parking.

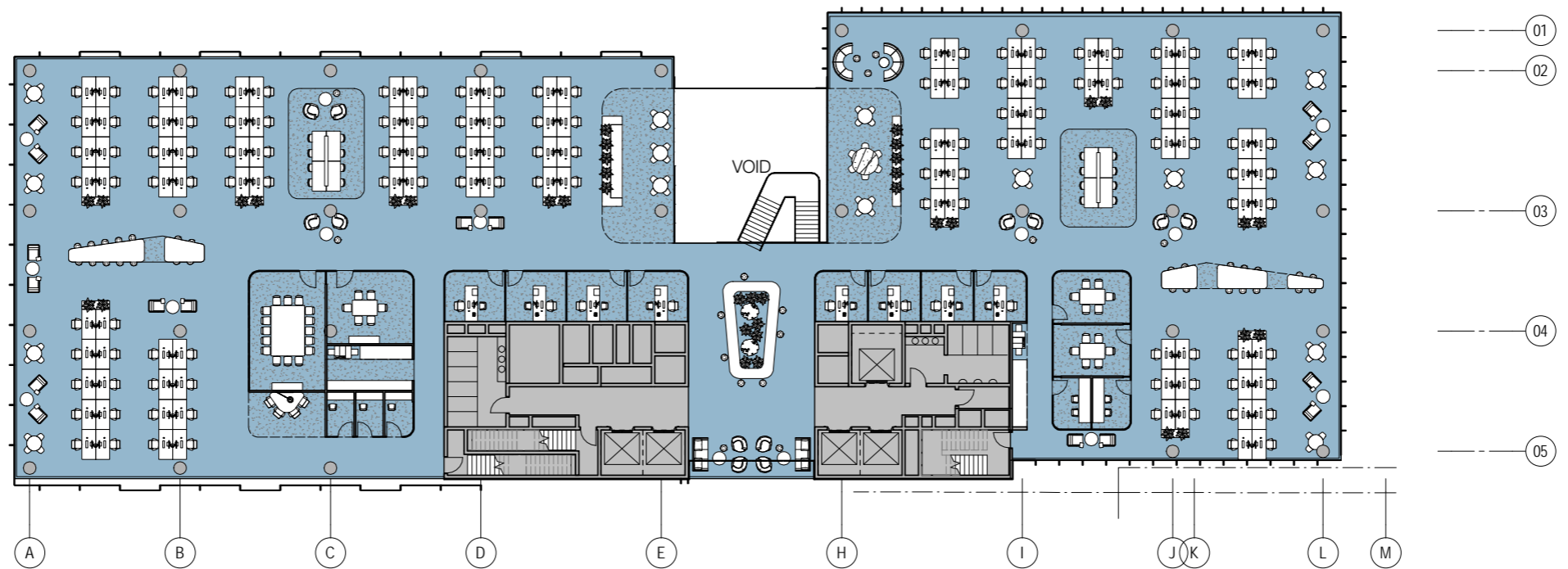


VIEW TO THE NORTH **TOWER LEVELS**

03 Development Application Workplace Design



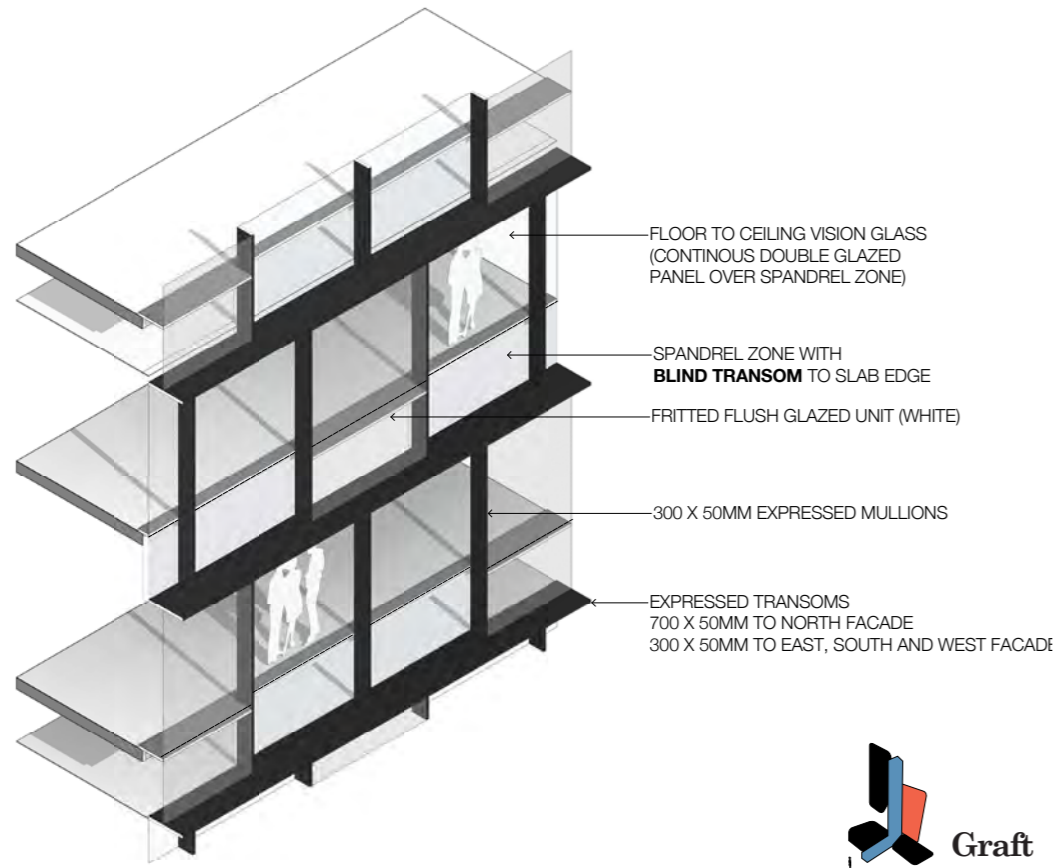
INDICATIVE TEST FIT | UPPER LEVEL (FULL)



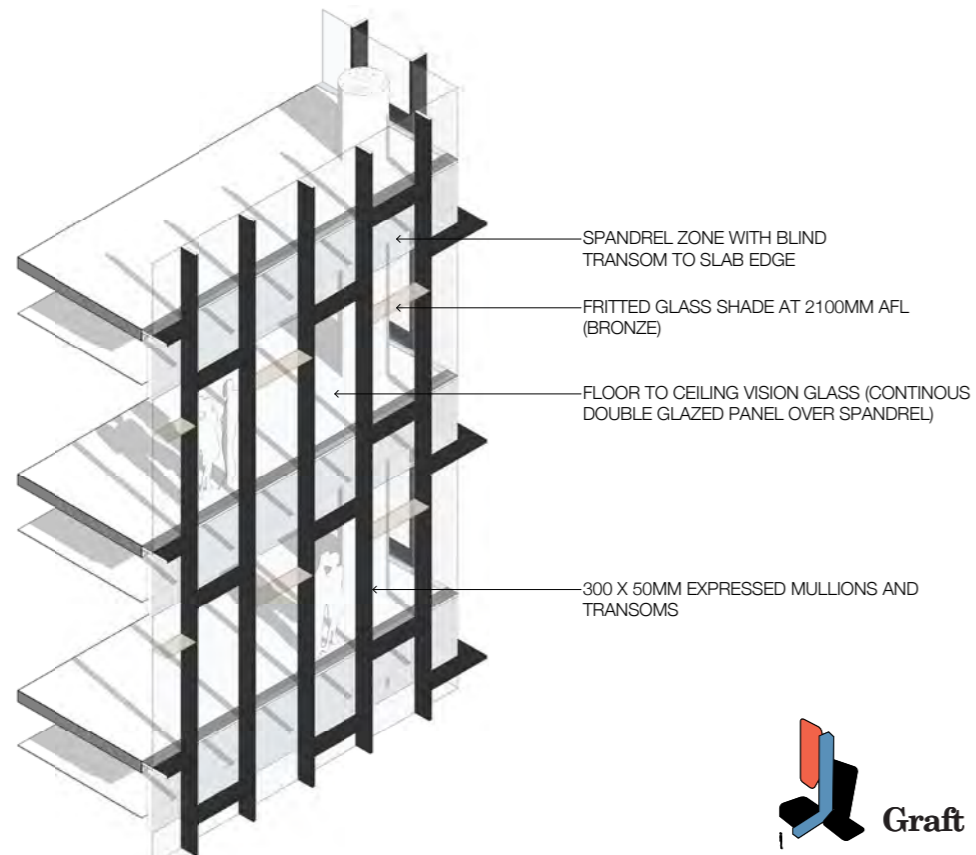
INDICATIVE TEST FIT | UPPER LEVEL (WITH VOID)

03 Development Application

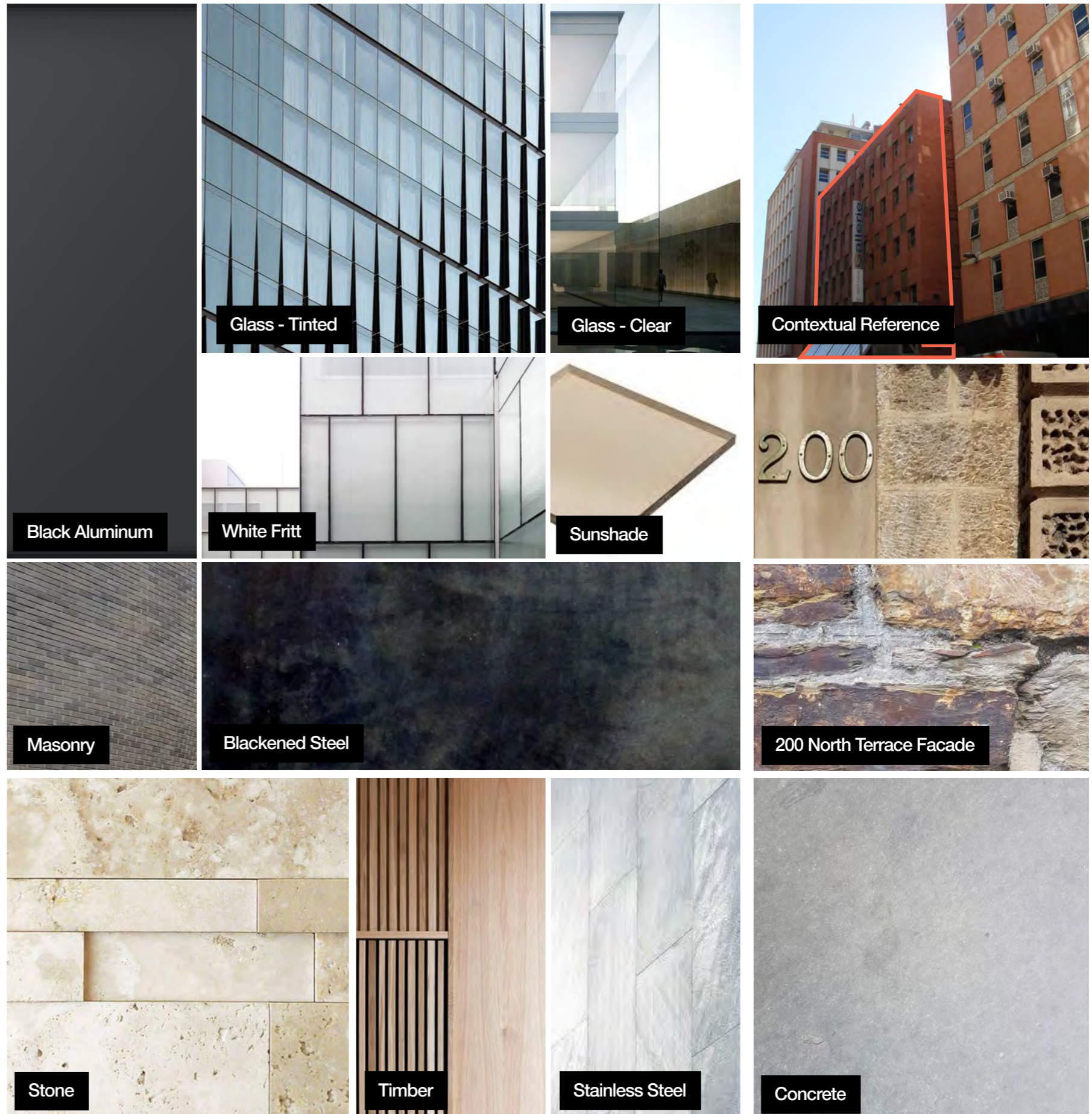
Building Materials



CU:01 CURTAIN WALL

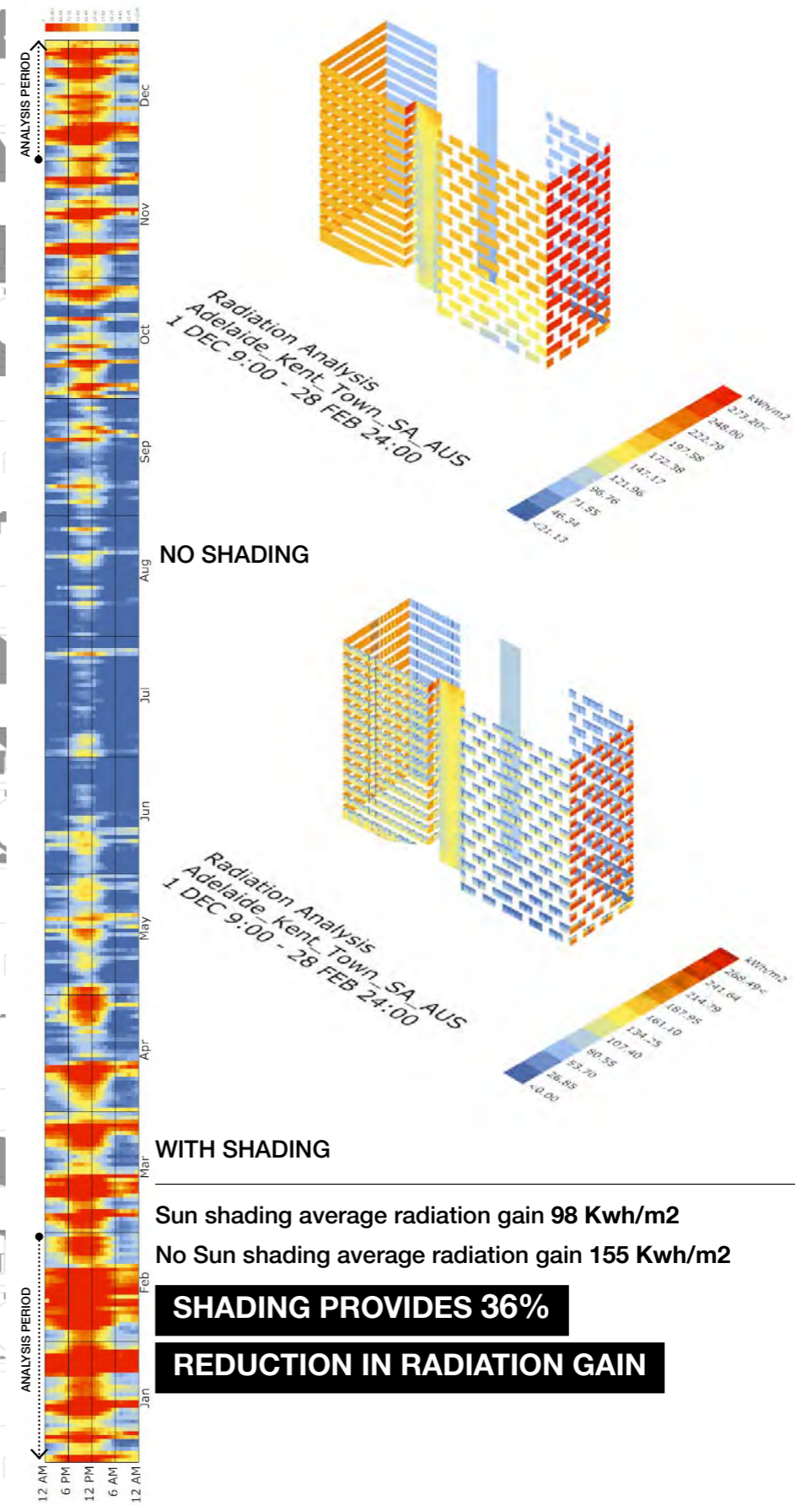
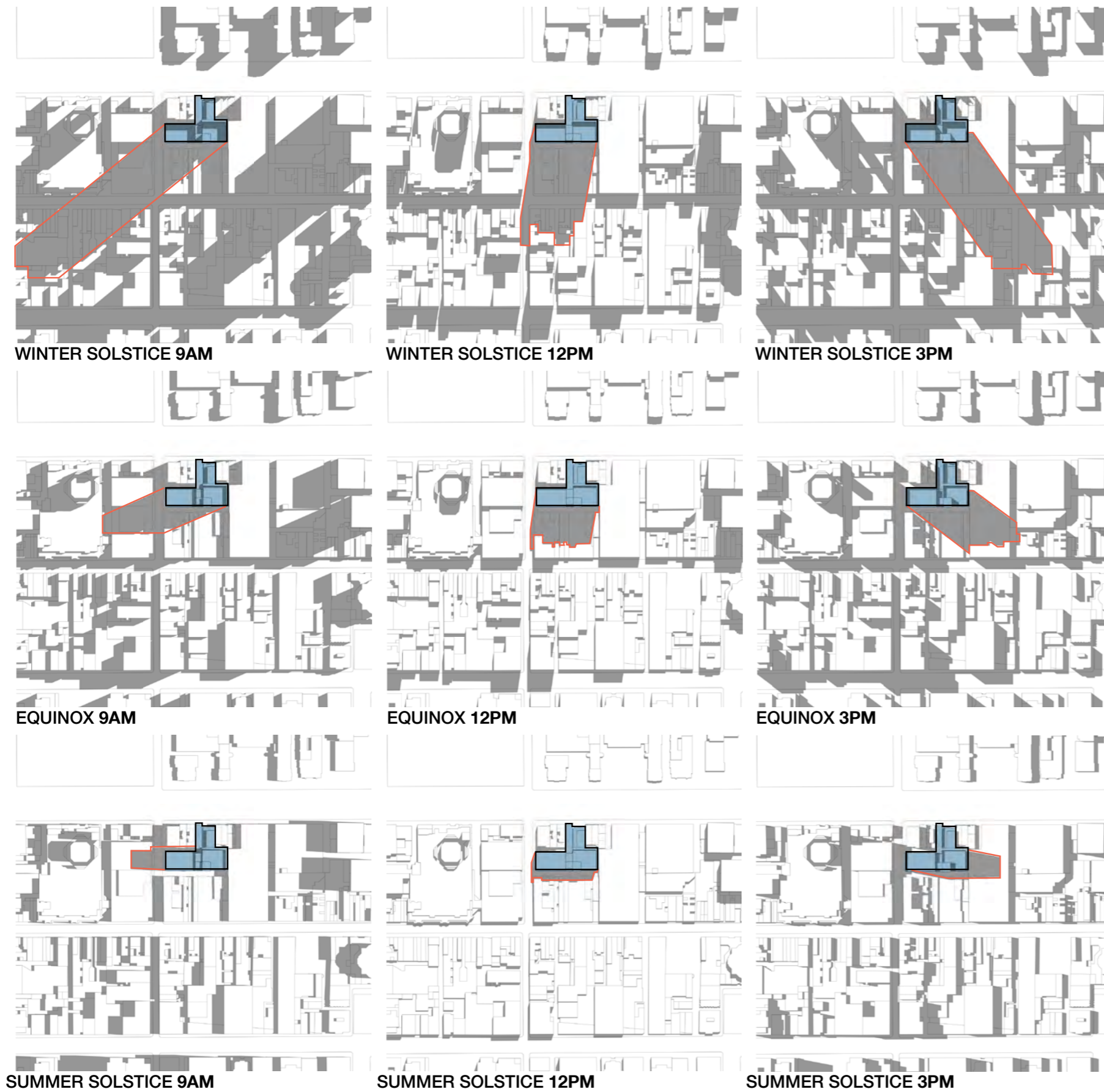


CU:02 CURTAIN WALL



03 Development Application

Shadow Diagrams and Thermal Performance

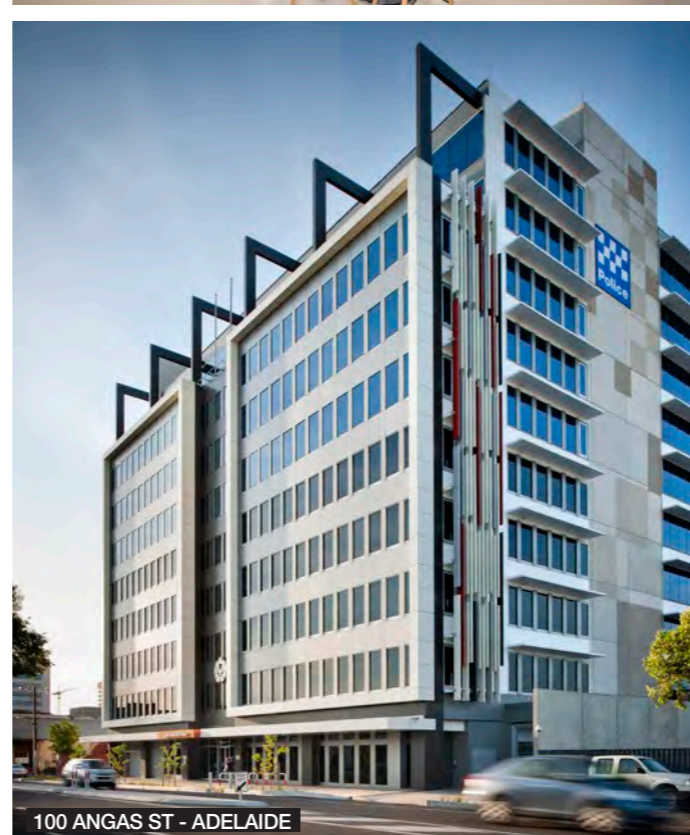


CAPABILITY



Commercial & General (C&G) commenced operations in 1997 and is now a vertically integrated property group that develops, constructs, manages and invests, together with its investor clients, in high quality real estate assets. The C&G Group has a highly experienced, multi-disciplinary team of 46 people with offices in Adelaide, Melbourne and Sydney and have a successful track record of major projects across a wide spectrum of industrial, office, residential and social infrastructure projects.

Built on traditional values, C&G takes a pragmatic approach, working closely with occupier clients to achieve the best possible outcome for their business and operations. C&G are thoughtful, collaborative and have a highly skilled team that is able to deliver projects that knit people together through clever design, personal understanding and a long term perspective. These values have resulted in strong customer relationships which is reflected in referred and repeat business.

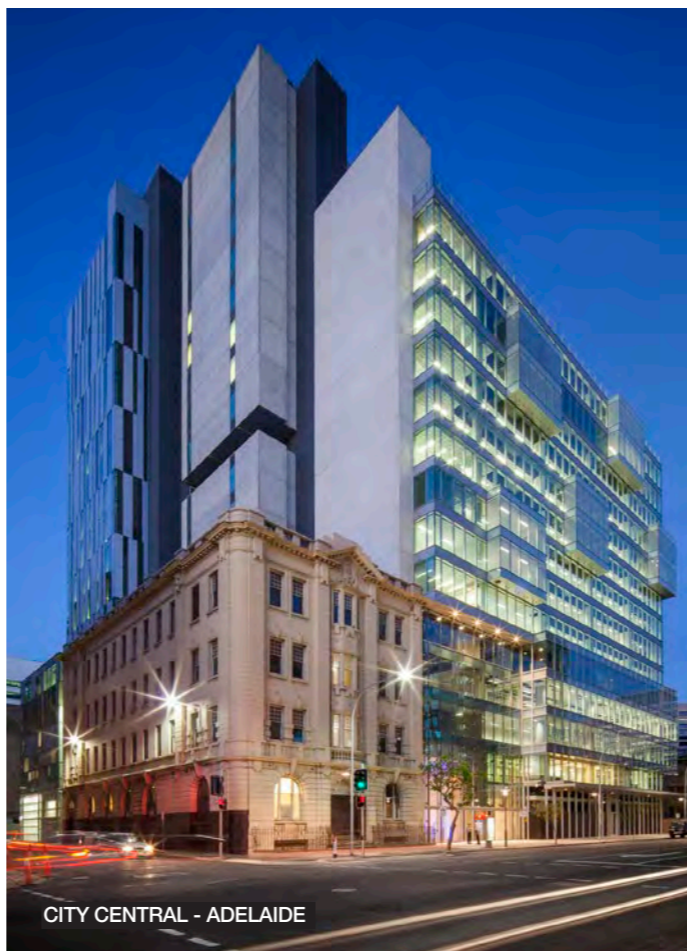


CAPABILITY

WOODS BAGOT™

Woods Bagot is a global design and consulting practice with a diverse portfolio of excellence in Briefing, Urban Design, Architecture and Interior Design spanning almost 150 years.

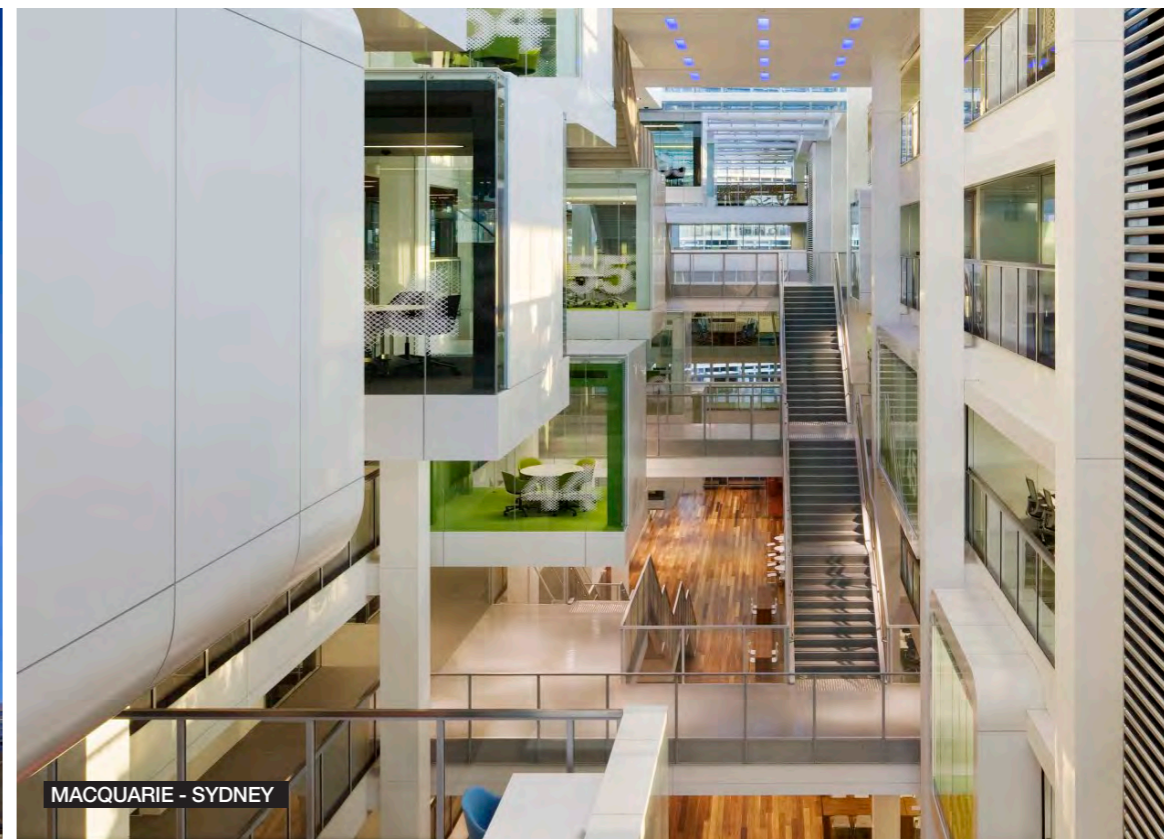
We place human experience at the centre of our design process in order to deliver engaging, future-oriented projects that are underpinned by Limitless Curiosity and Computational design centred on user experience. We do this as a global design and consulting studio with a team of over 900 experts working across 17 studios in Australia, Asia, the Middle East, Europe and North America. We often collaborate with our clients at the inception and formulation of the project brief to develop a strategy that is clear and able to be easily translated by our clients. We are committed to bringing evidence to our design and utilise computation tools to help explore and demonstrate the outcomes from our design.



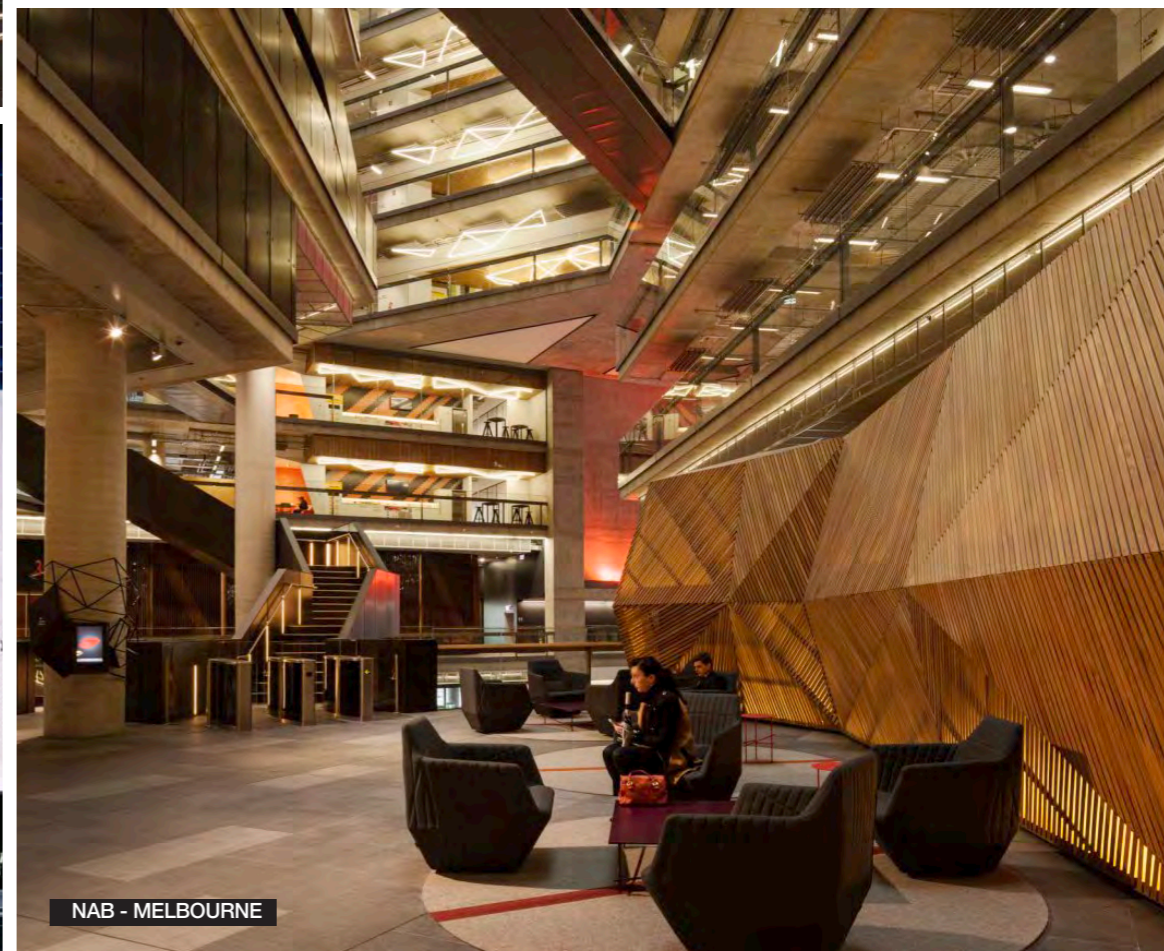
CITY CENTRAL - ADELAIDE



IVY - SYDNEY



MACQUARIE - SYDNEY



NAB - MELBOURNE

Drawings

MYER CENTRE
14 LEVELS ABOVE GROUND
75 METRES HIGH

GOVERNMENT HOUSE GROUNDS

CARPARK
10 LEVELS

EXISTING BUILDING
5 LEVELS

ROYAL GEOGRAPHICAL SOCIETY
OF SOUTH AUSTRALIA

STATE LIBRARY OF SOUTH AUSTRALIA
FORECOURT

SOUTH AUSTRALIAN MUSEUM
FORECOURT

CARPARK AND APARTMENTS
APPROX. 14 LEVELS

URBANEAST STUDENT ACCOMODATION
21 LEVELS (UNDER CONSTRUCTION)

EXISTING BUILDING
11 LEVELS

EXISTING BUILDING
9 LEVELS

203 NORTH TERRACE
2 LEVELS

ADELAIDE CENTRAL PLAZA
3 LEVELS ABOVE GROUND

ART GALLERY OF SOUTH AUSTRALIA

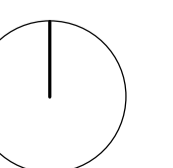
UNIVERSITY OF ADELAIDE
FORECOURT



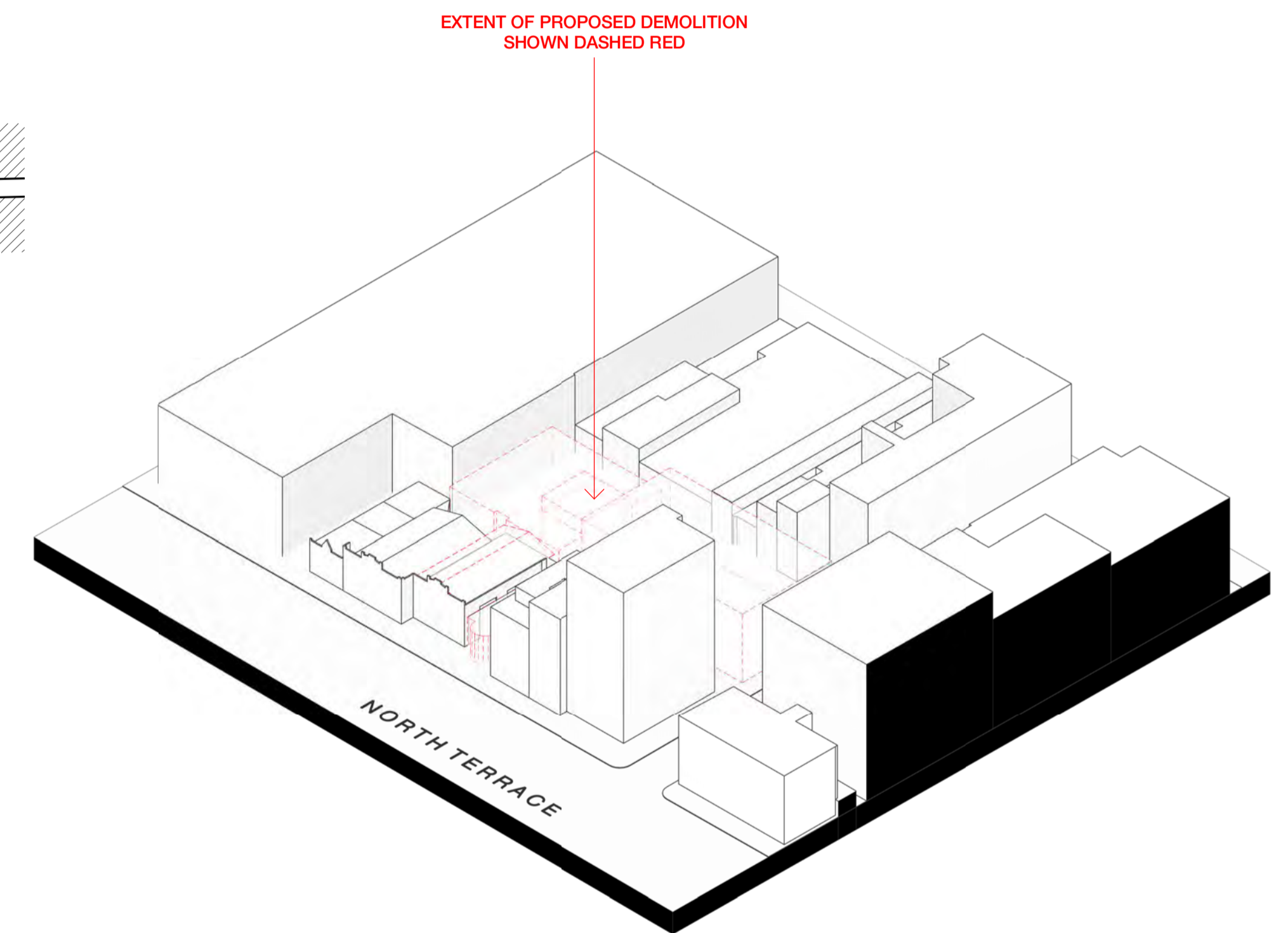
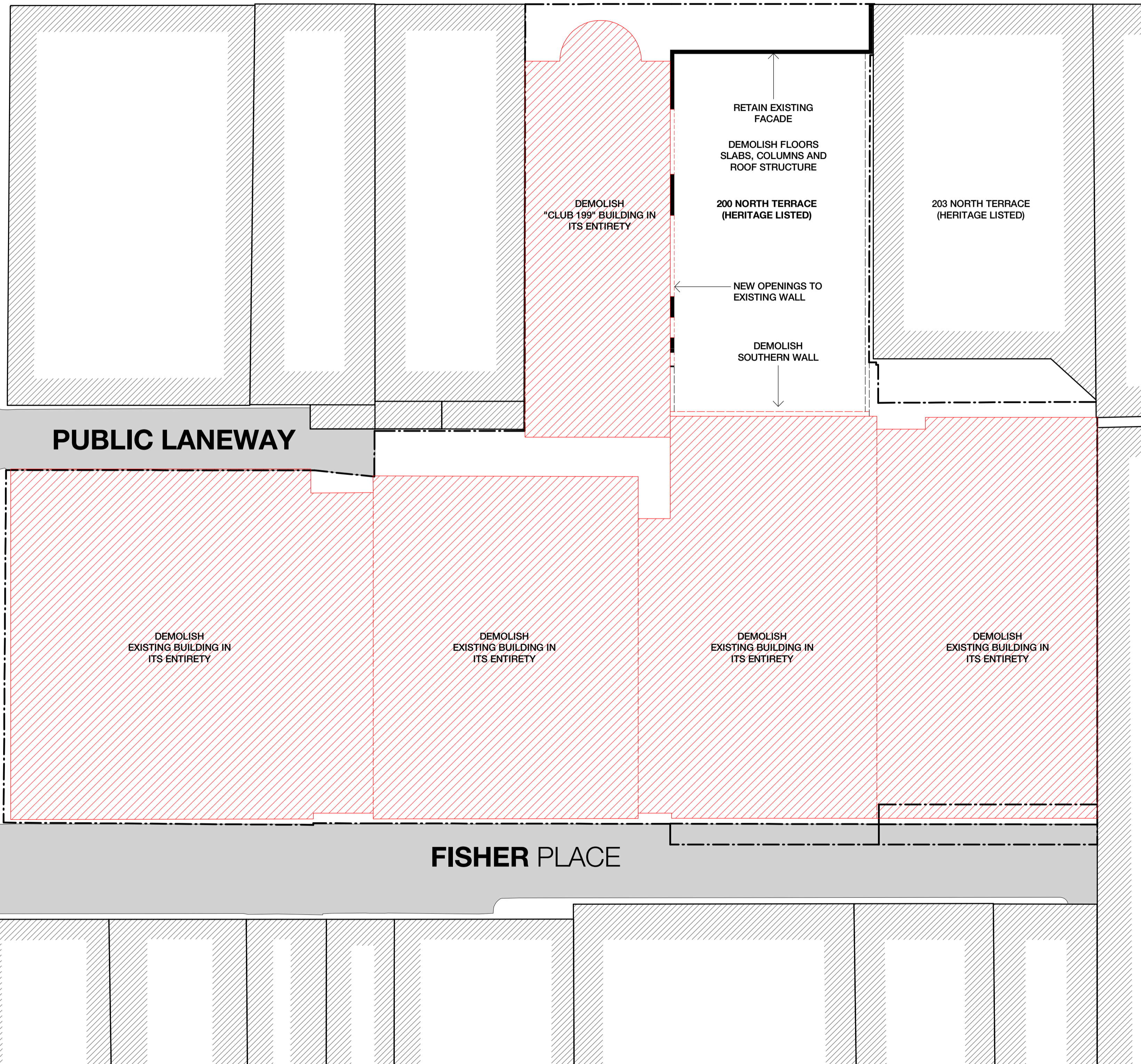
RUNDLE MALL PLAZA
9 LEVELS

EXISTING BUILDING
8 LEVELS

WOOLWORTHS
APPROX. 4 LEVELS

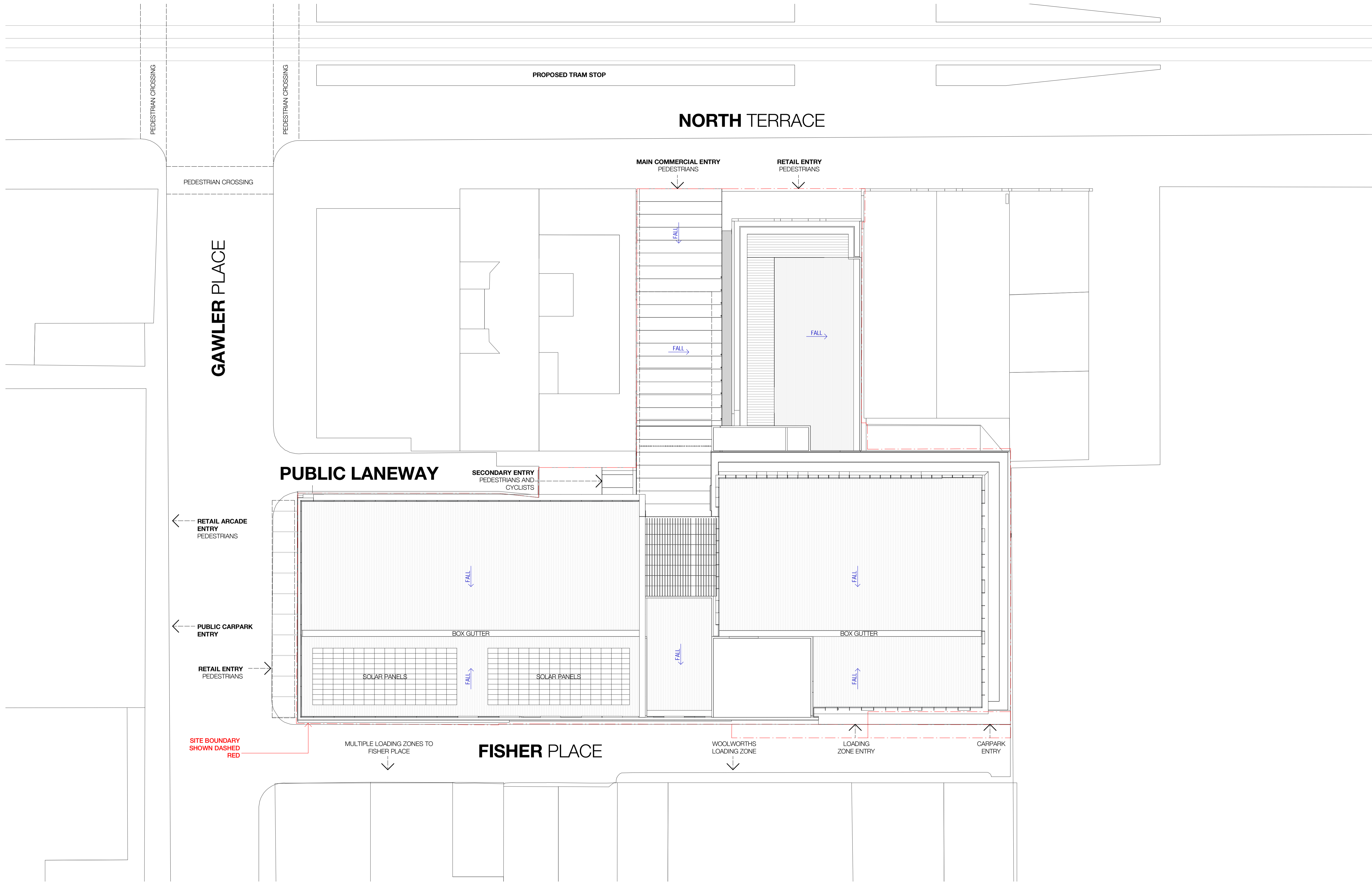


NORTH TERRACE

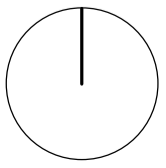
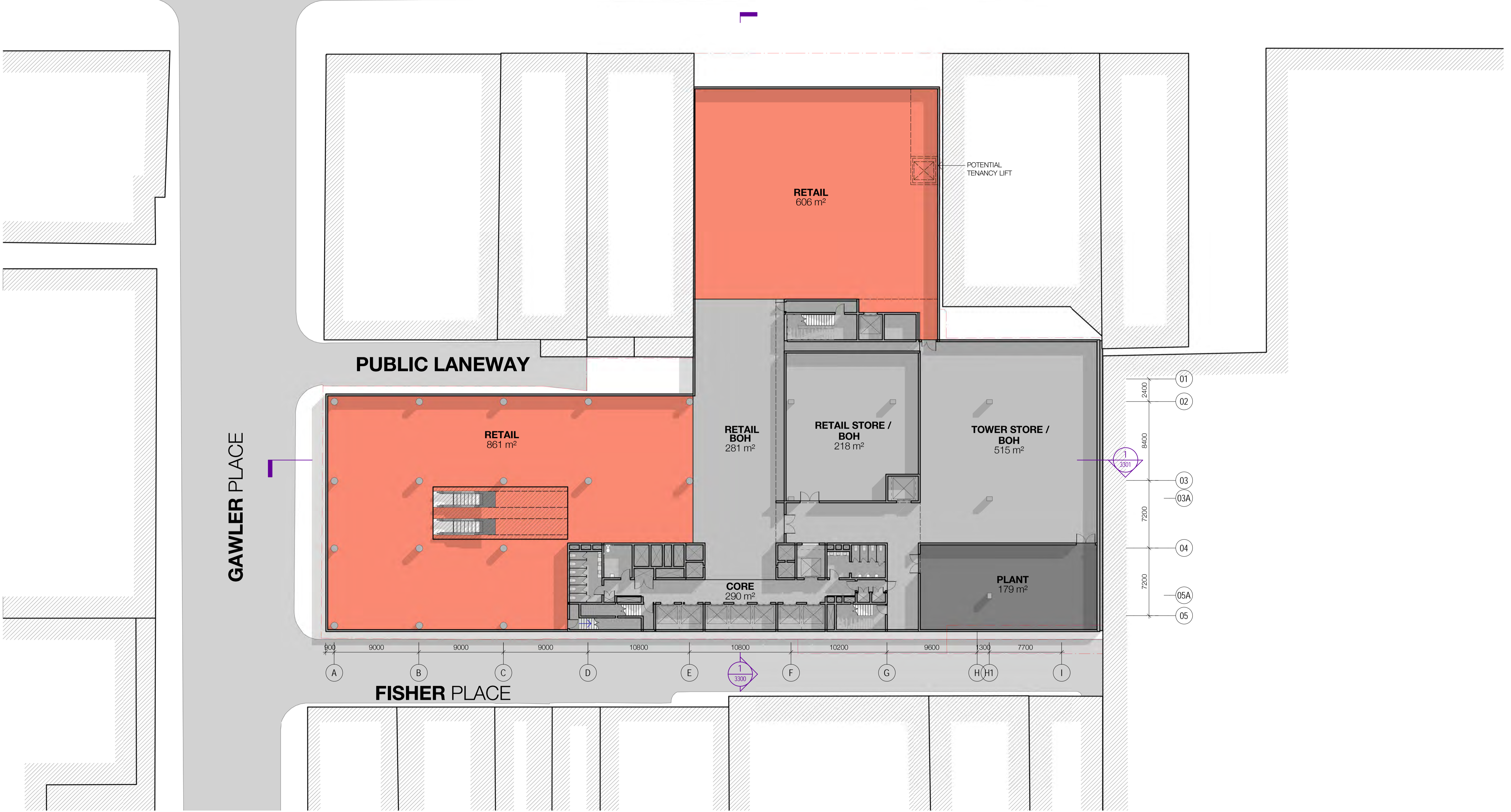


1 SITE PLAN - DEMOLITION
SCALE 1 : 200

2 Existing Massing - Proposed Demolition

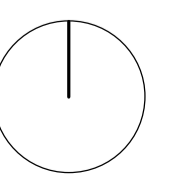
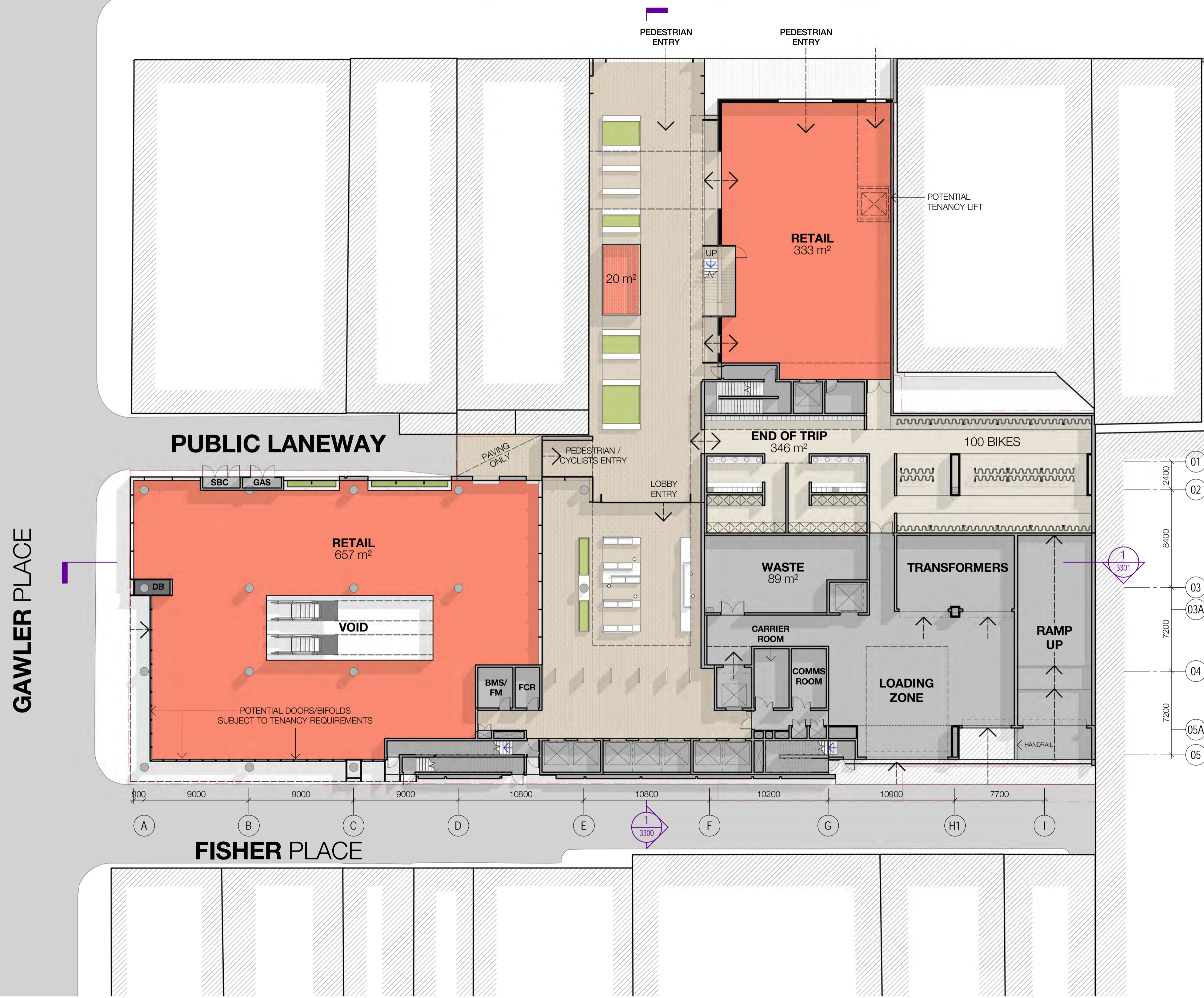


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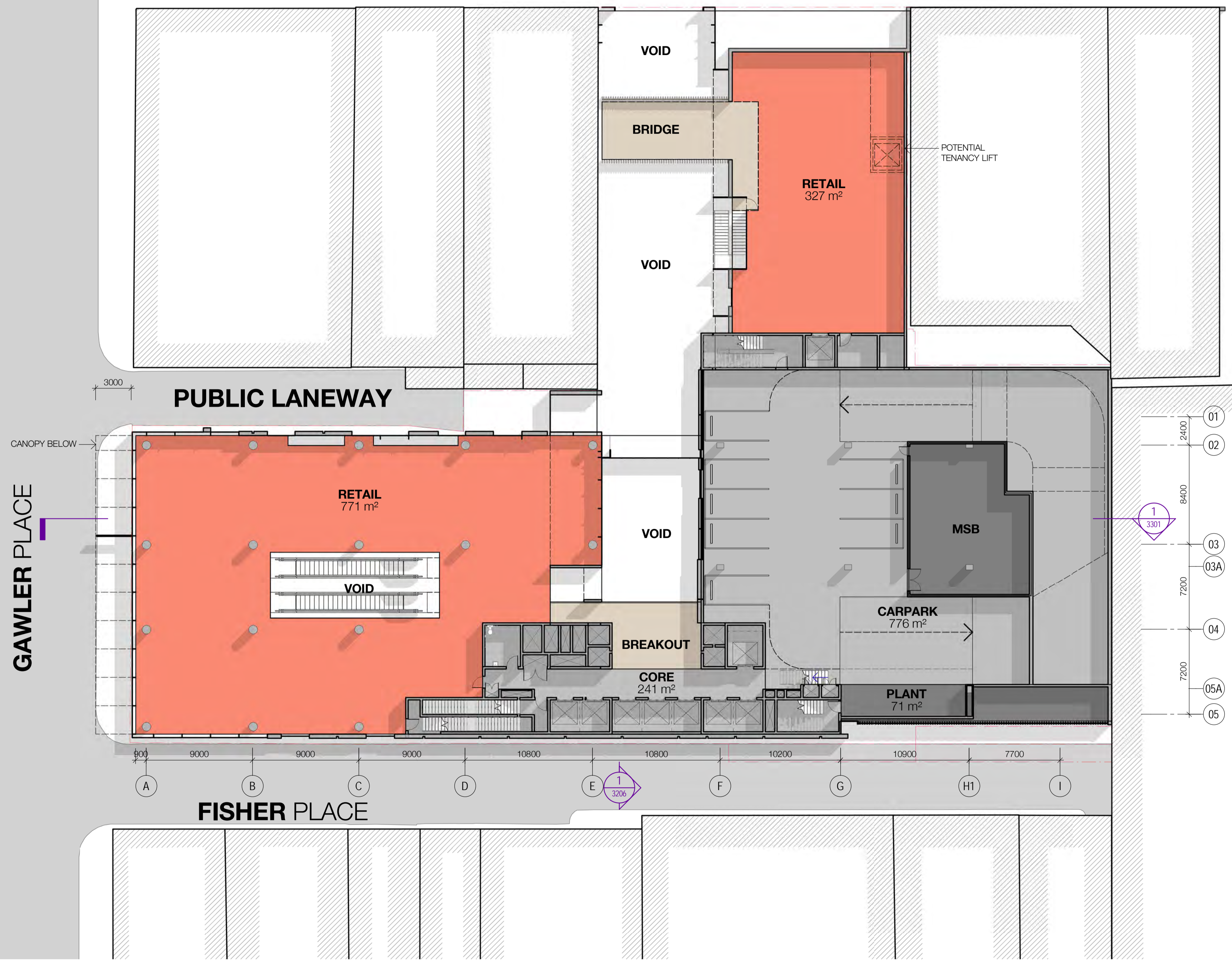


PROPOSED TRAM STOP

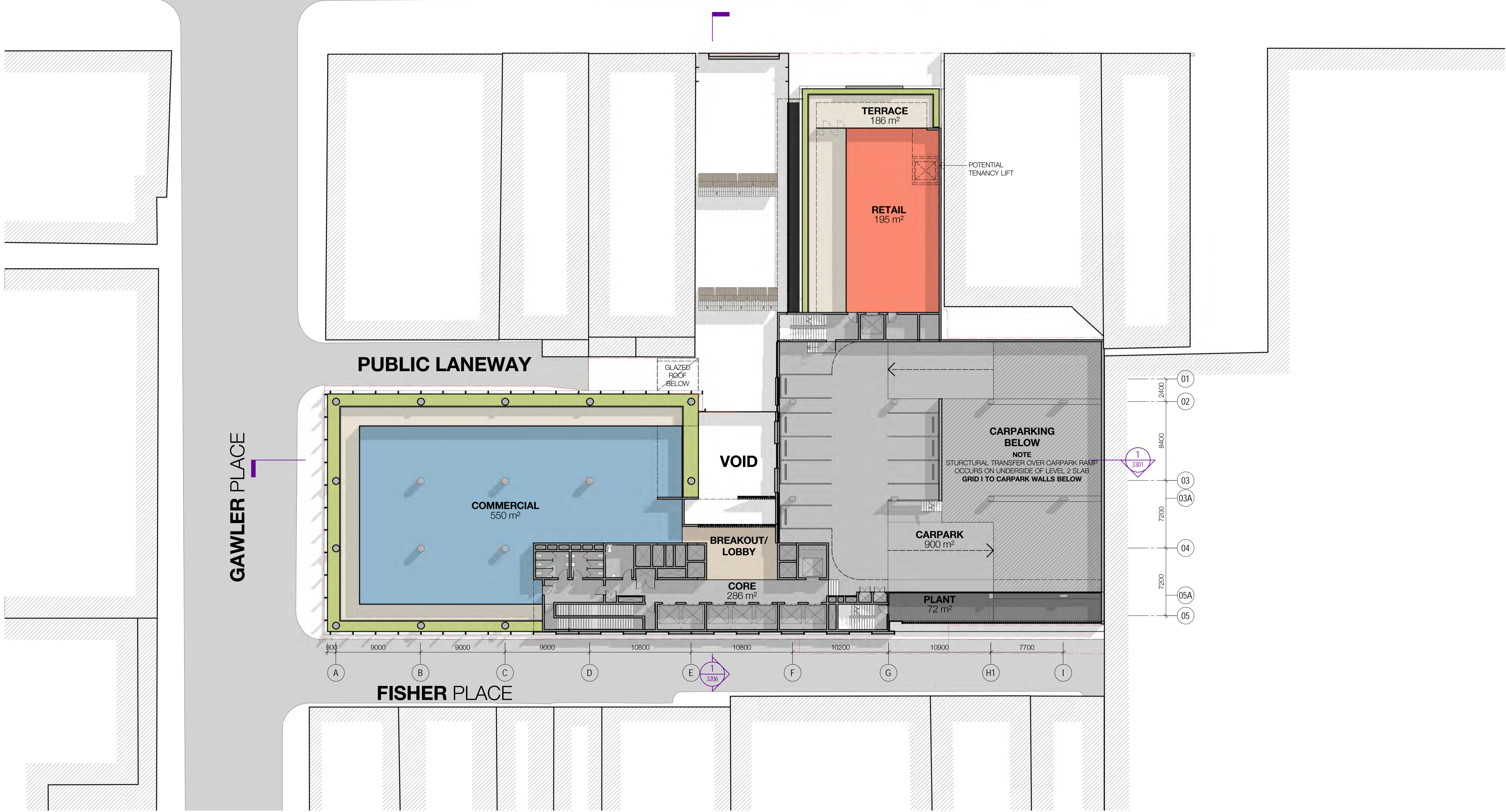
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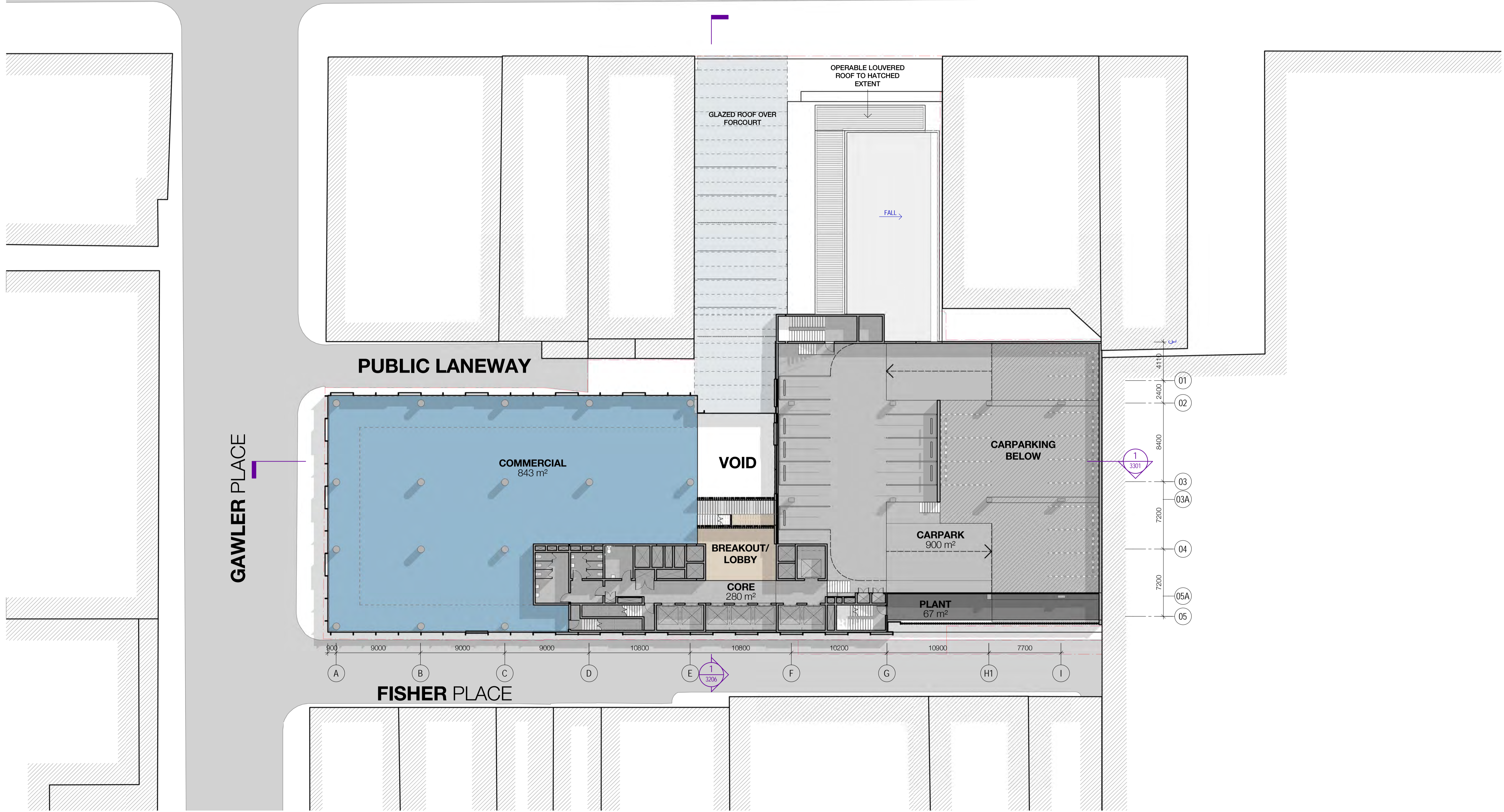
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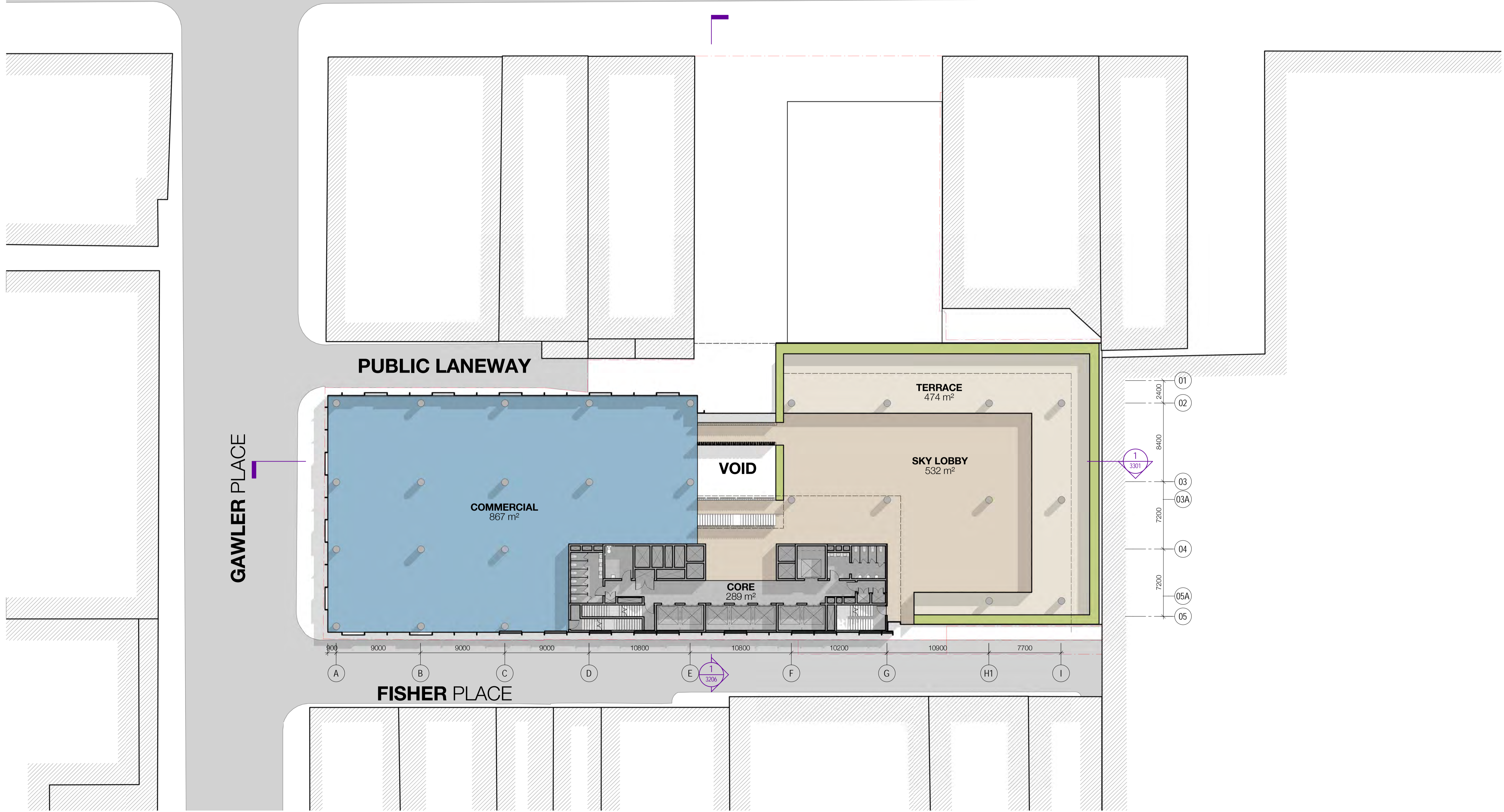
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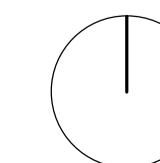
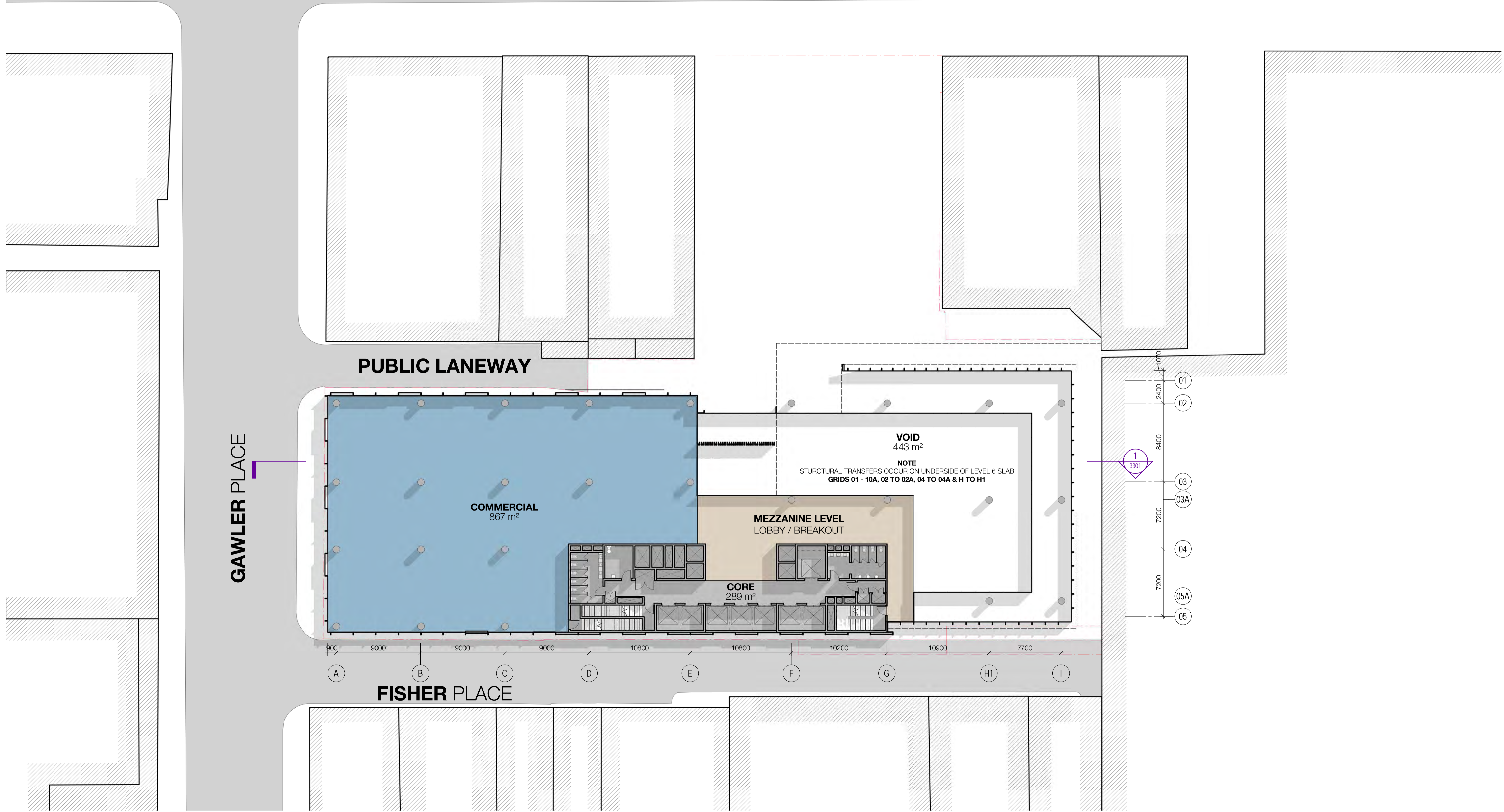
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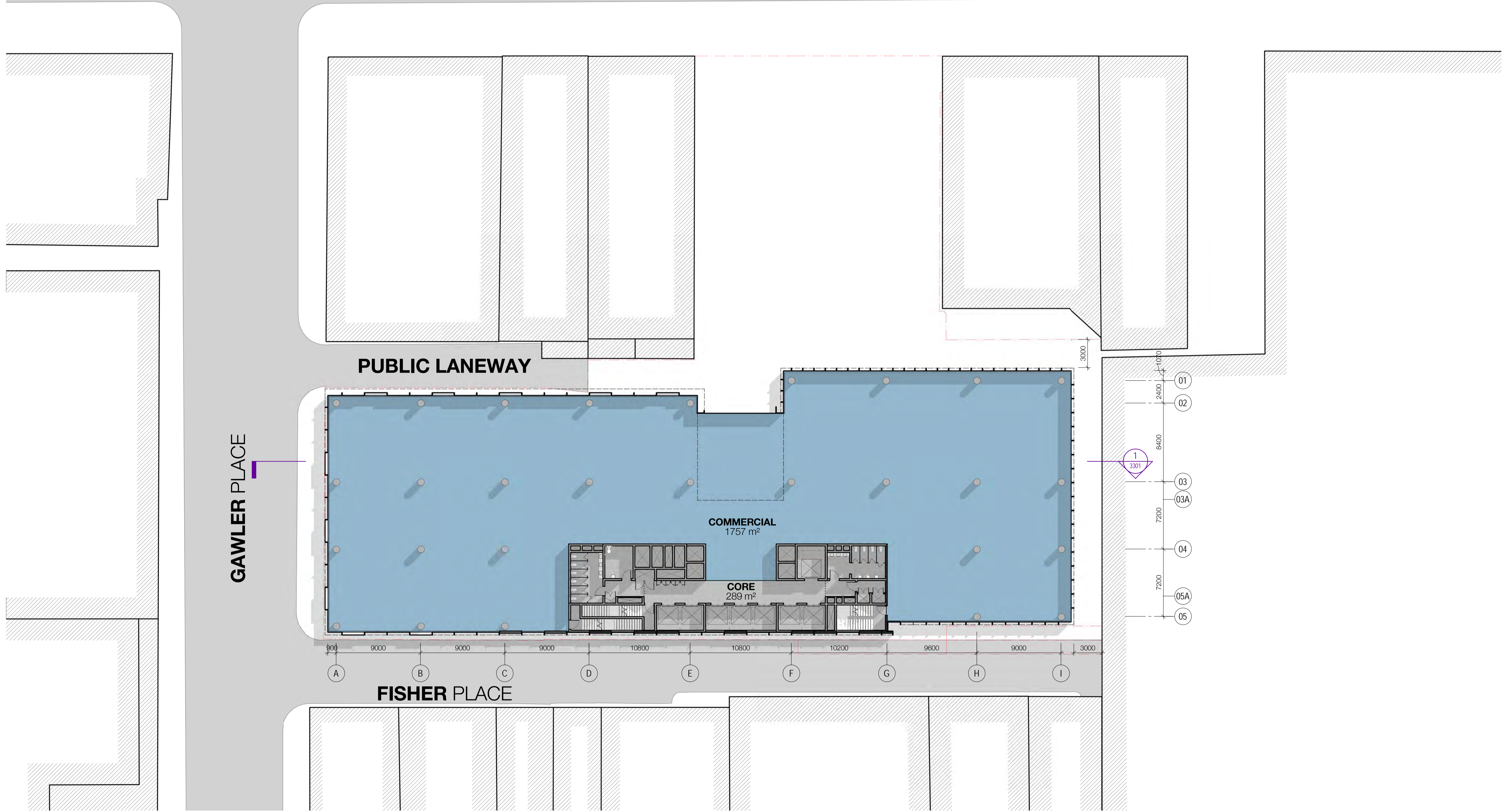
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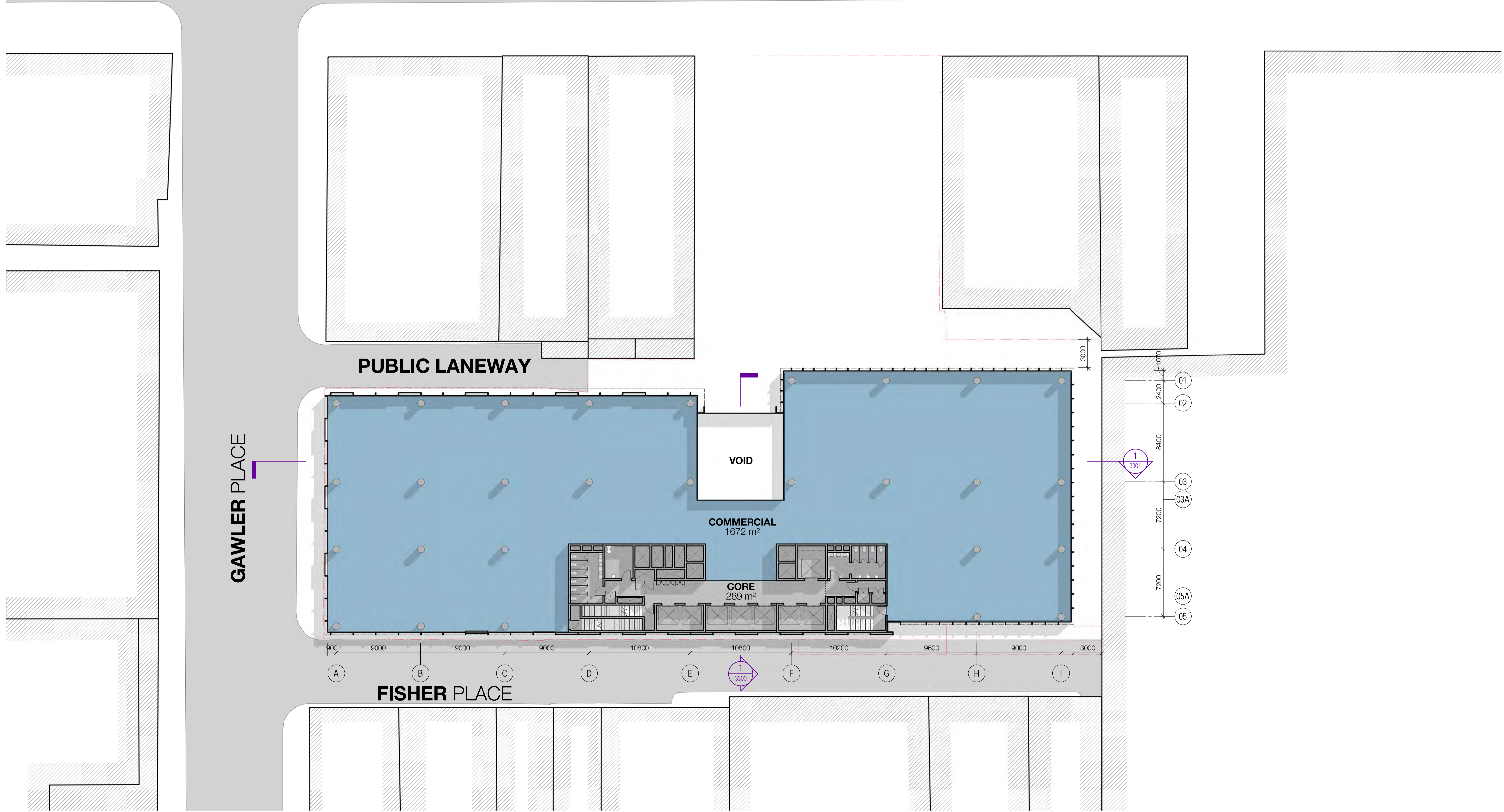
NORTH TERRACE



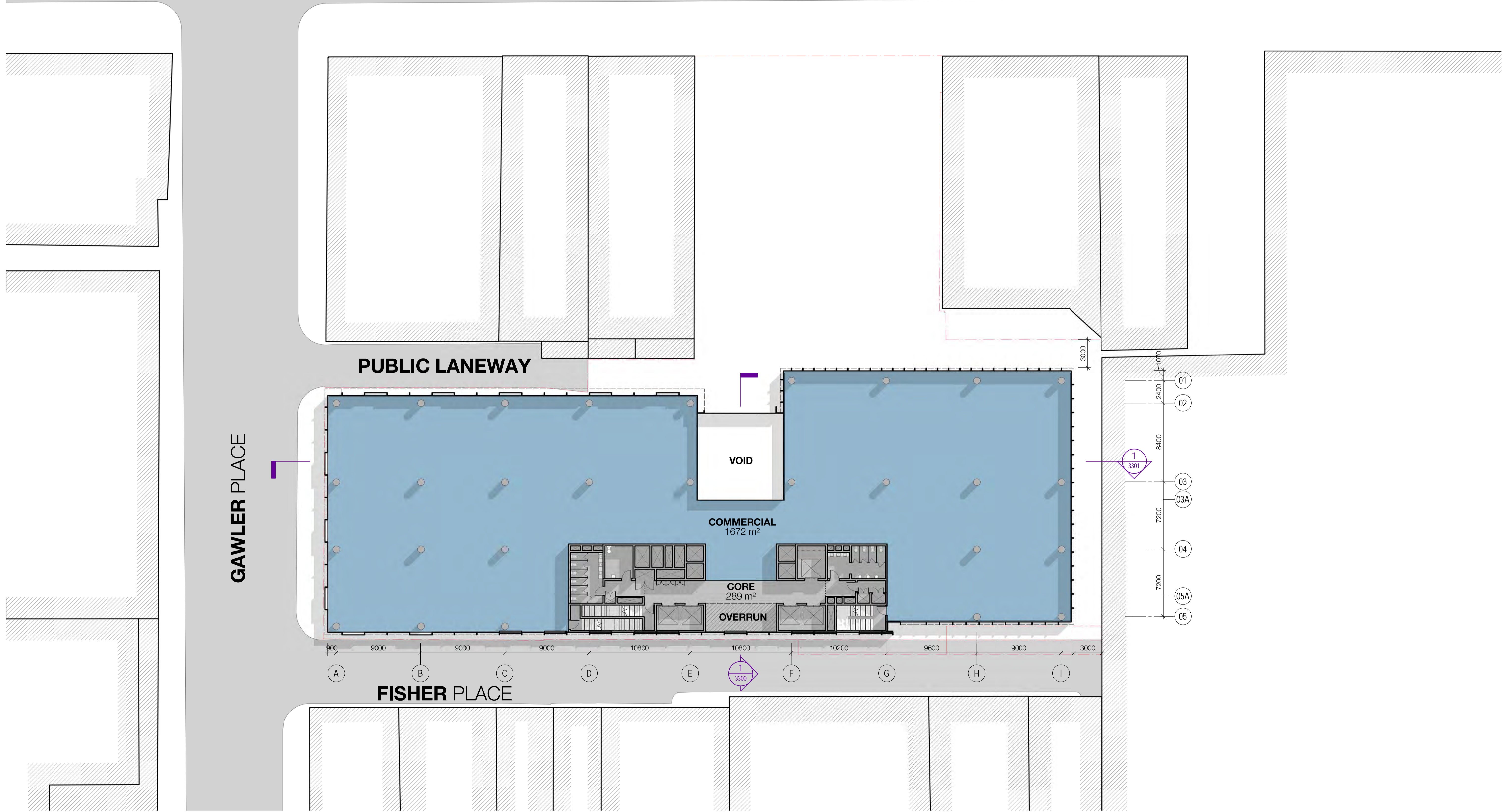
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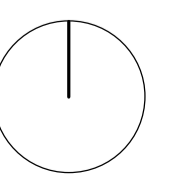
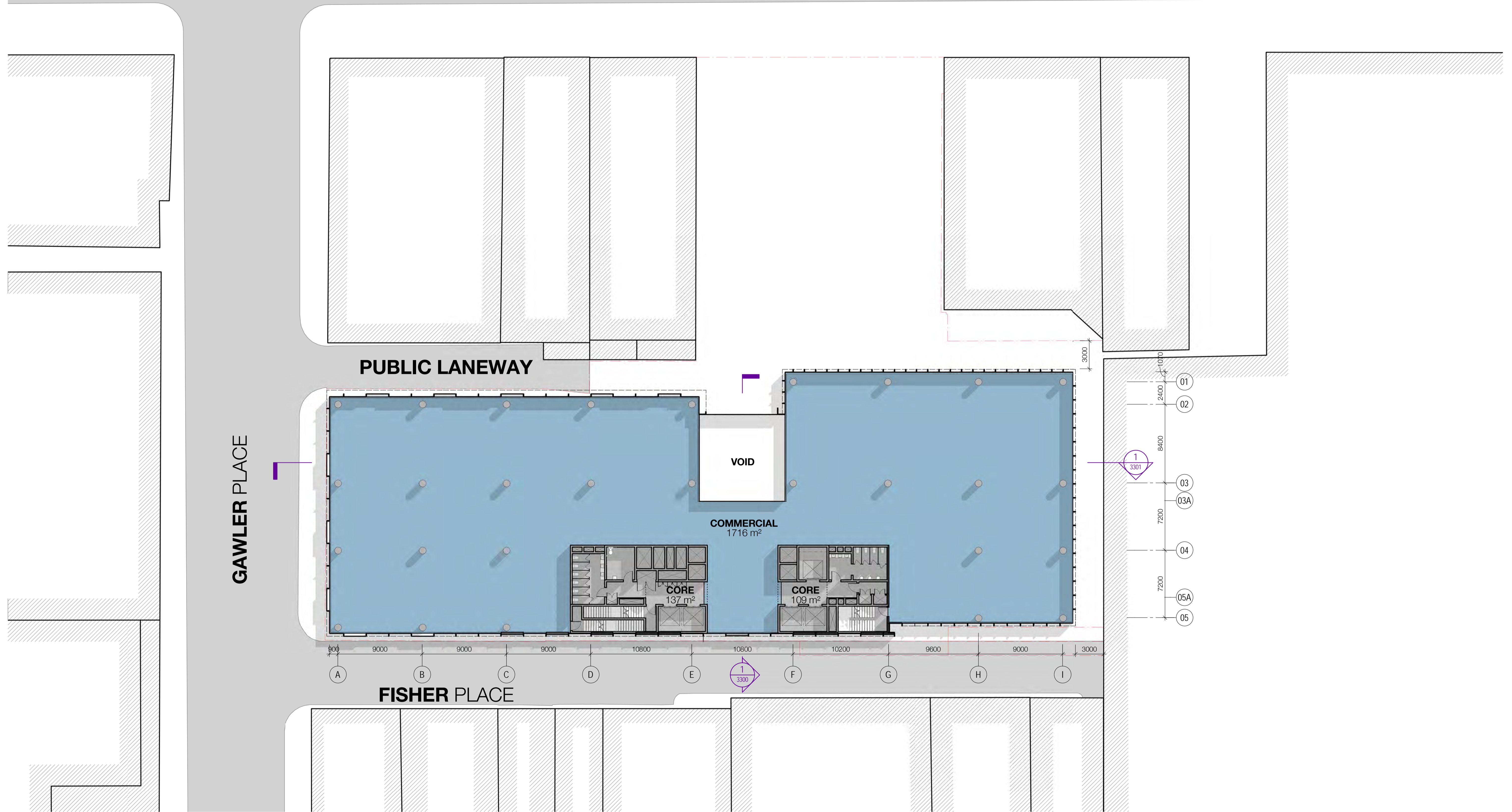
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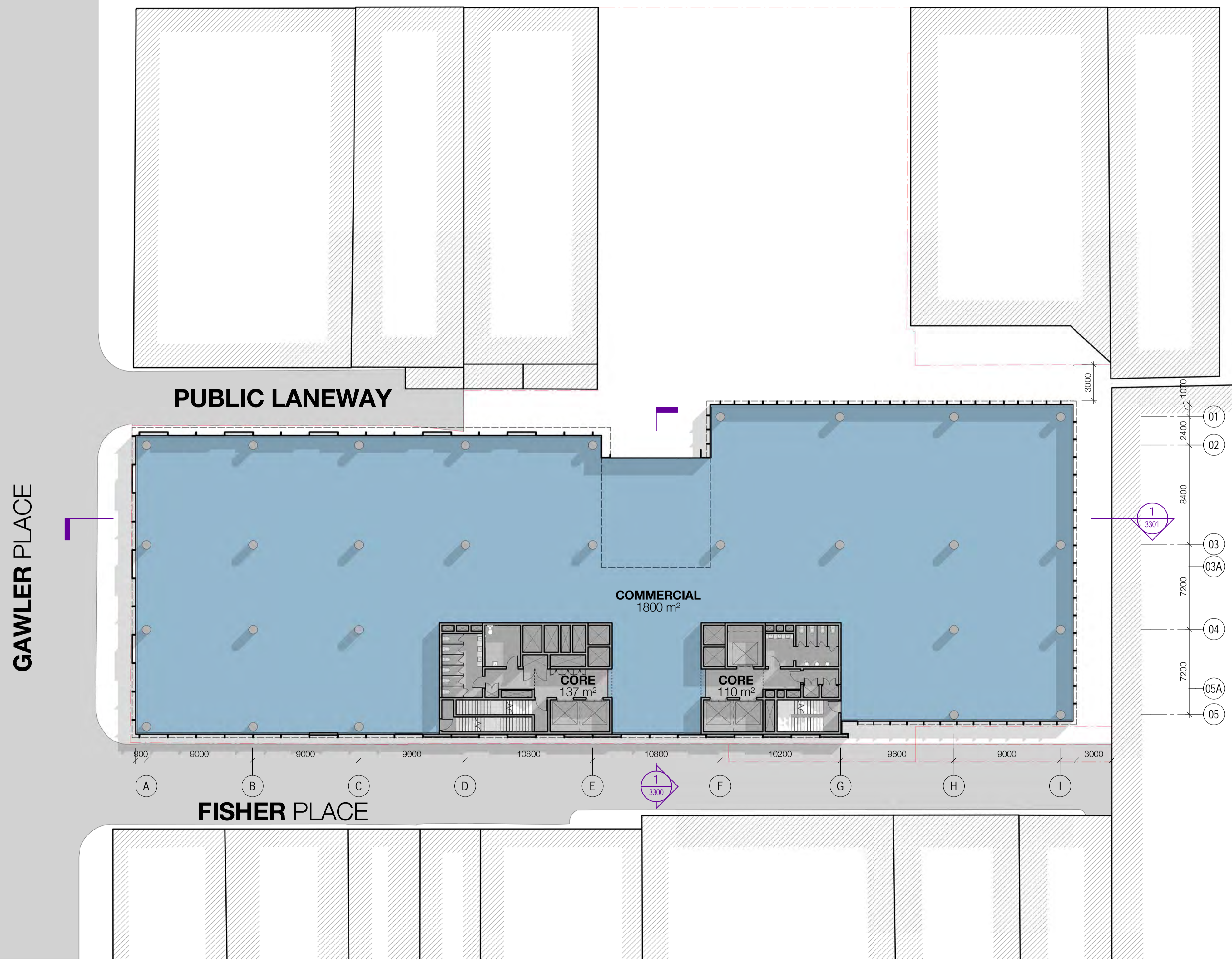
NORTH TERRACE



NORTH TERRACE



NORTH TERRACE

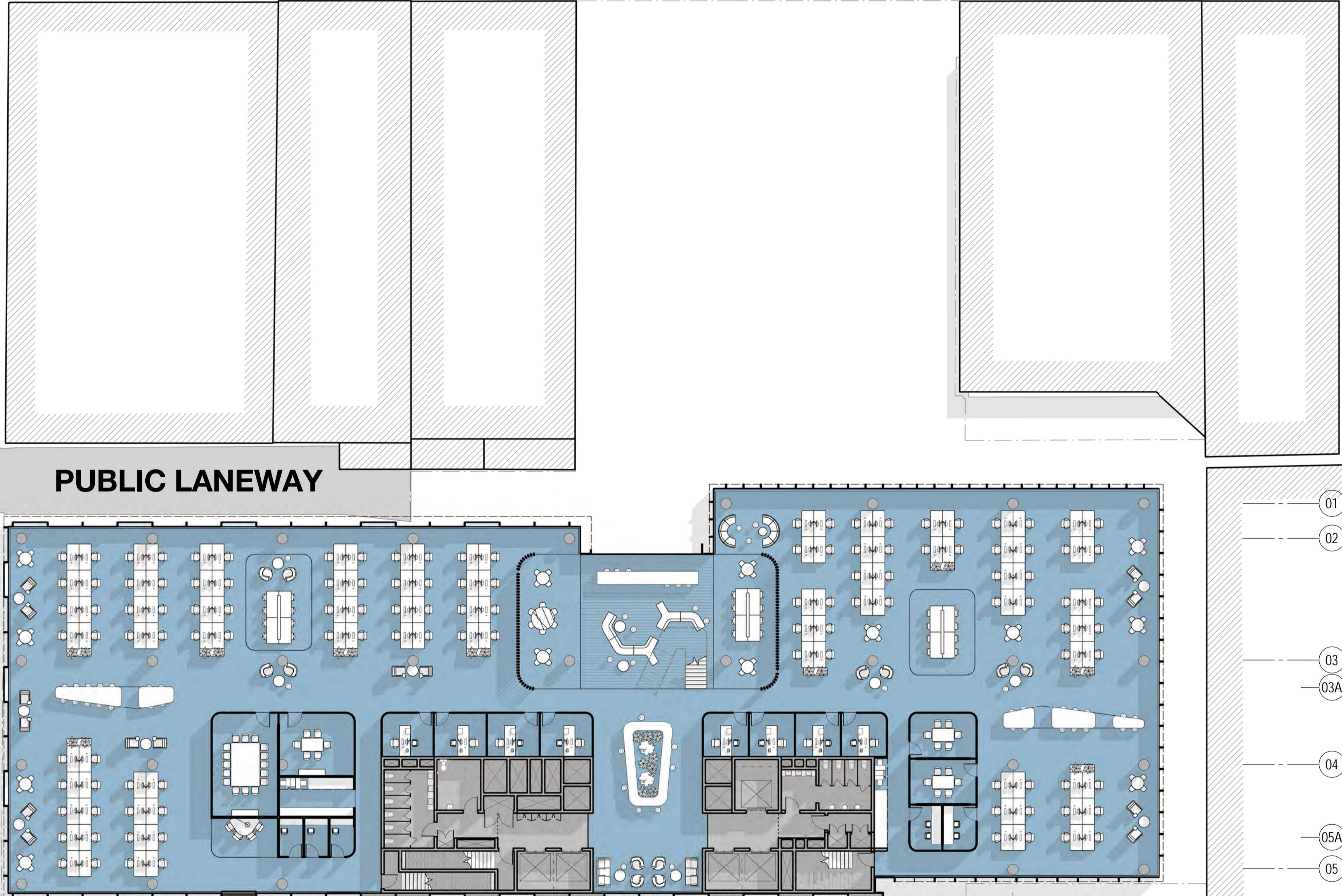


NORTH TERRACE

PUBLIC LANEWAY

GAWLER PLACE

FISHER PLACE



A B C D E F G H I

01
02
03
03A
04
05A
05

NORTH TERRACE

PUBLIC LANEWAY

GAWLER PLACE

FISHER PLACE

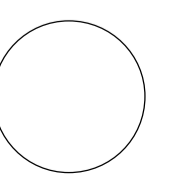
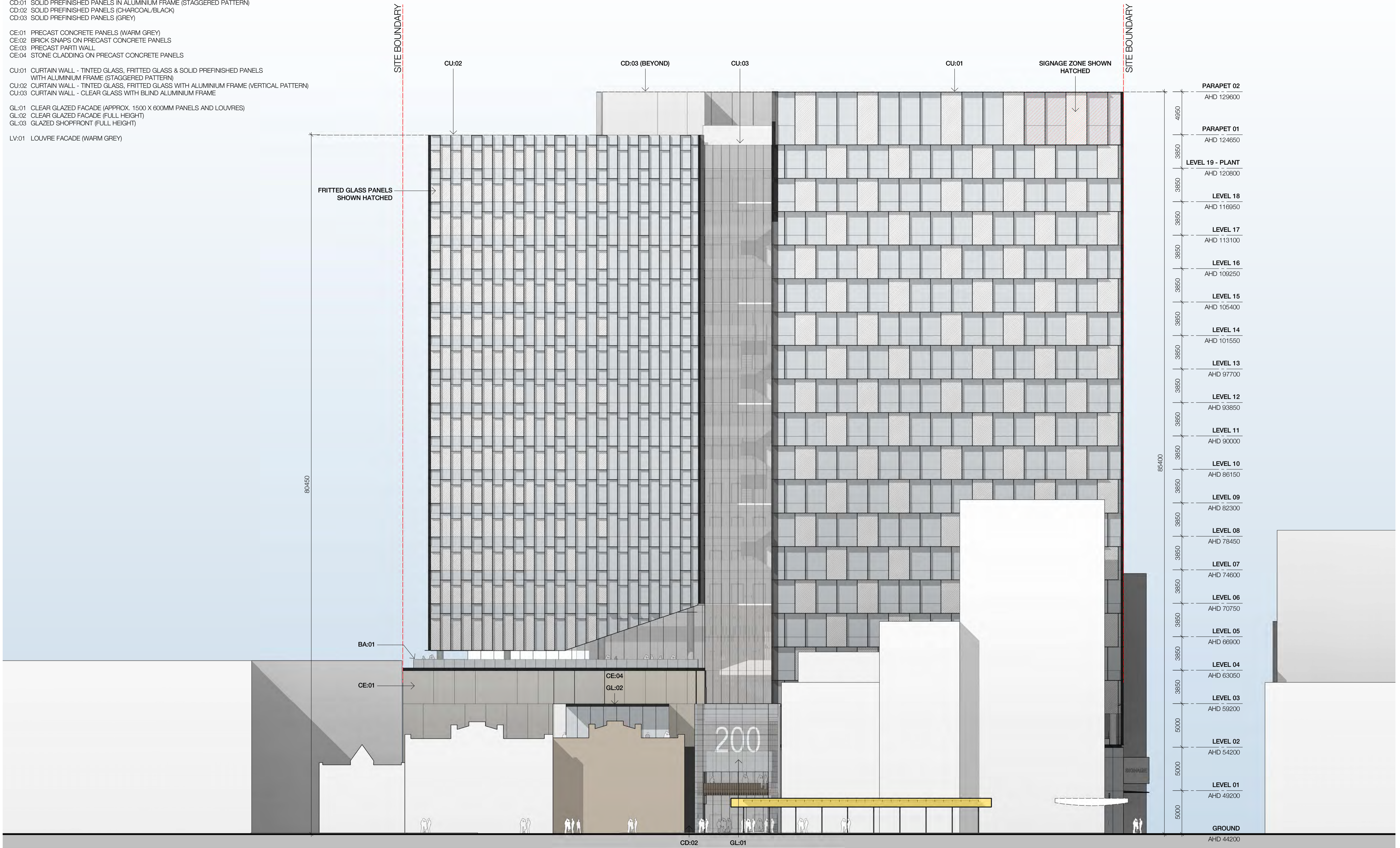


- 01
- 02
- 03
- 03A
- 04
- 05A
- 05

- A
- B
- C
- D
- E
- F
- G
- H
- I

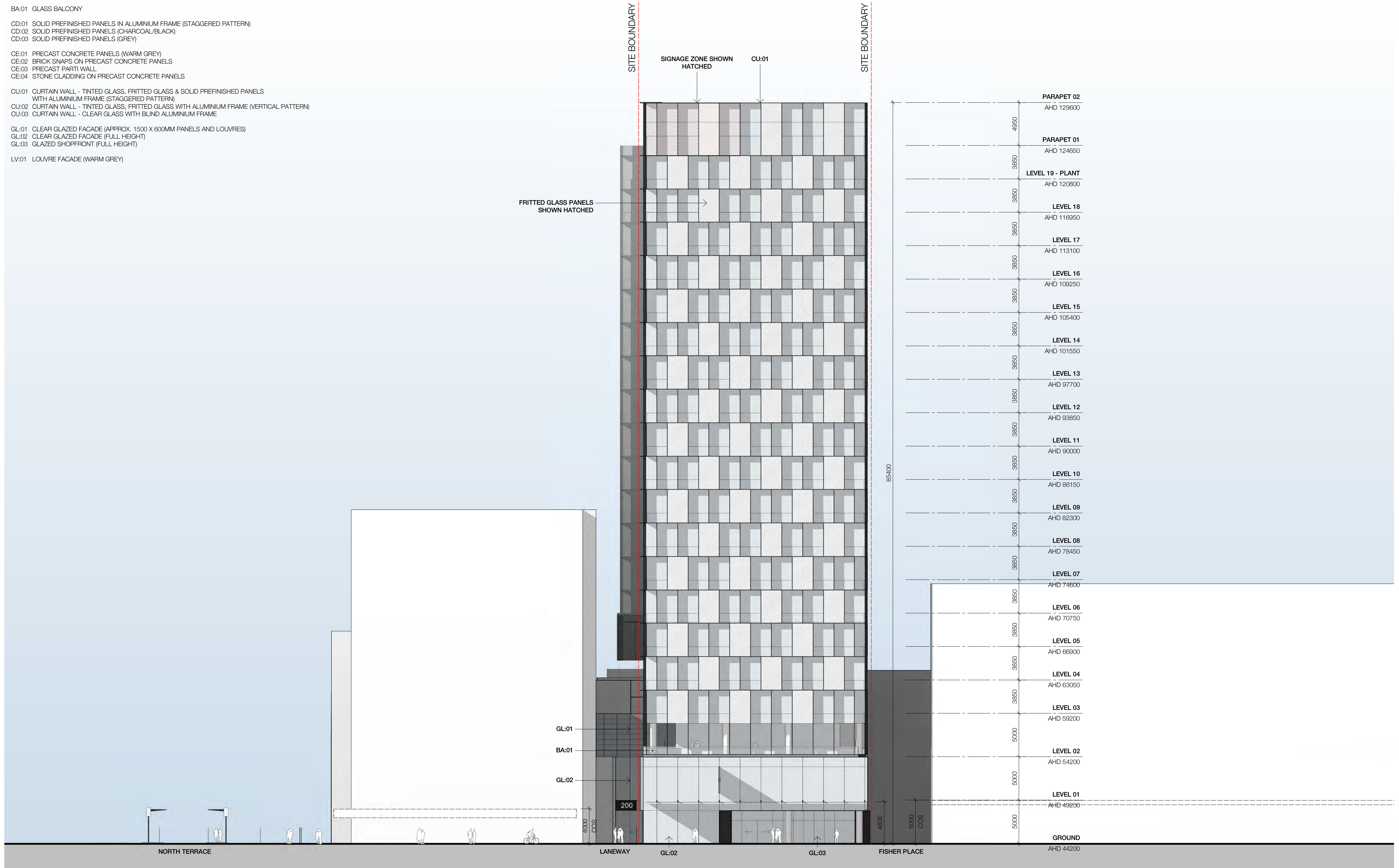
FACADE SCHEDULE

- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
- CD:02 SOLID PREFINISHED PANELS (CHARCOAL/BLACK)
- CD:03 SOLID PREFINISHED PANELS (GREY)
- CE:01 PRECAST CONCRETE PANELS (WARM GREY)
- CE:02 BRICK SNAPS ON PRECAST CONCRETE PANELS
- CE:03 PRECAST PARTI WALL
- CE:04 STONE CLADDING ON PRECAST CONCRETE PANELS
- CU:01 CURTAIN WALL - TINTED GLASS, FRITTED GLASS & SOLID PREFINISHED PANELS WITH ALUMINIUM FRAME (STAGGERED PATTERN)
- CU:02 CURTAIN WALL - TINTED GLASS, FRITTED GLASS WITH ALUMINIUM FRAME (VERTICAL PATTERN)
- CU:03 CURTAIN WALL - CLEAR GLASS WITH BLIND ALUMINIUM FRAME
- GL:01 CLEAR GLAZED FACADE (APPROX. 1500 X 600MM PANELS AND LOUVRES)
- GL:02 CLEAR GLAZED FACADE (FULL HEIGHT)
- GL:03 GLAZED SHOPFRONT (FULL HEIGHT)
- LV:01 LOUVRE FACADE (WARM GREY)



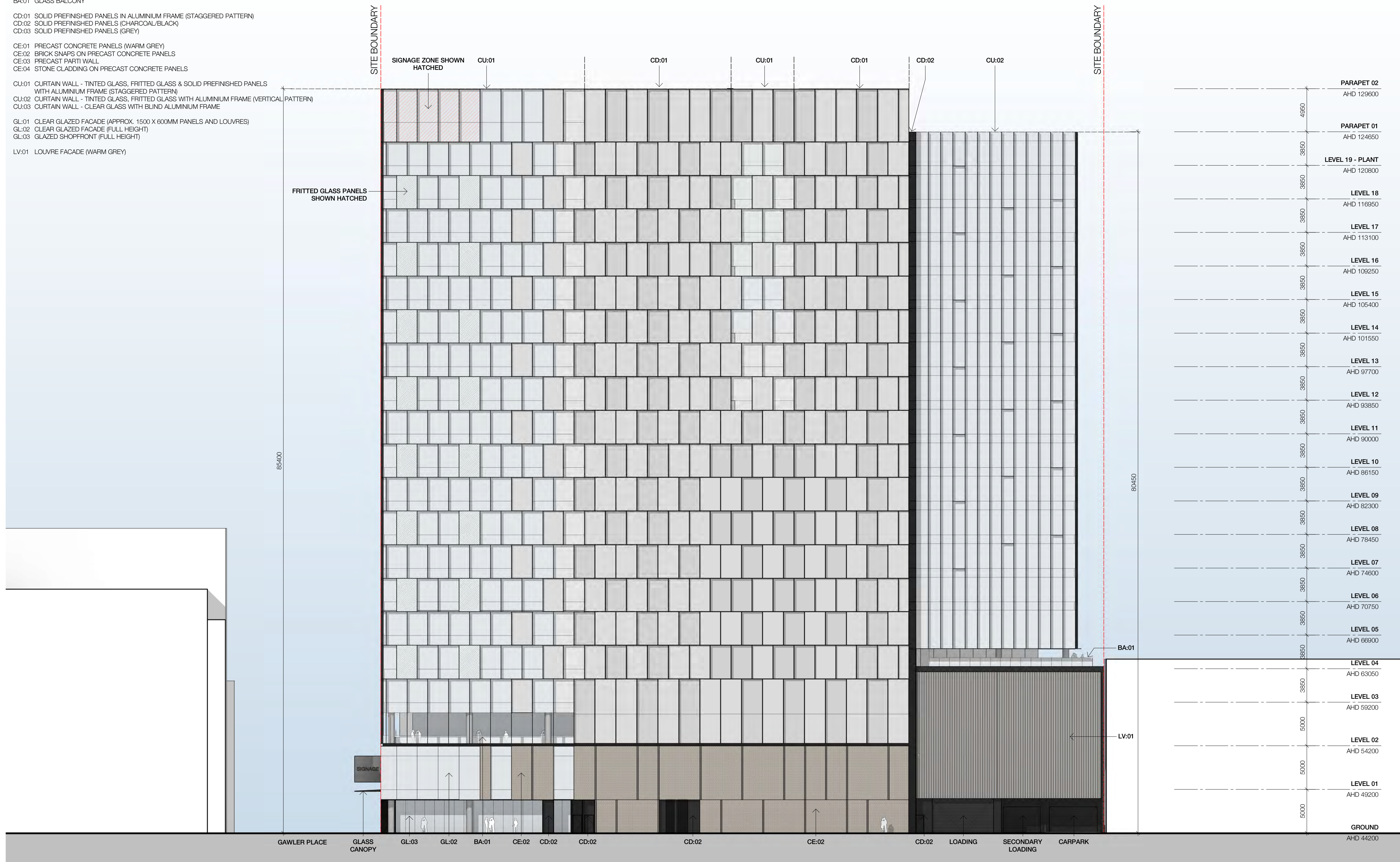
FACADE SCHEDULE

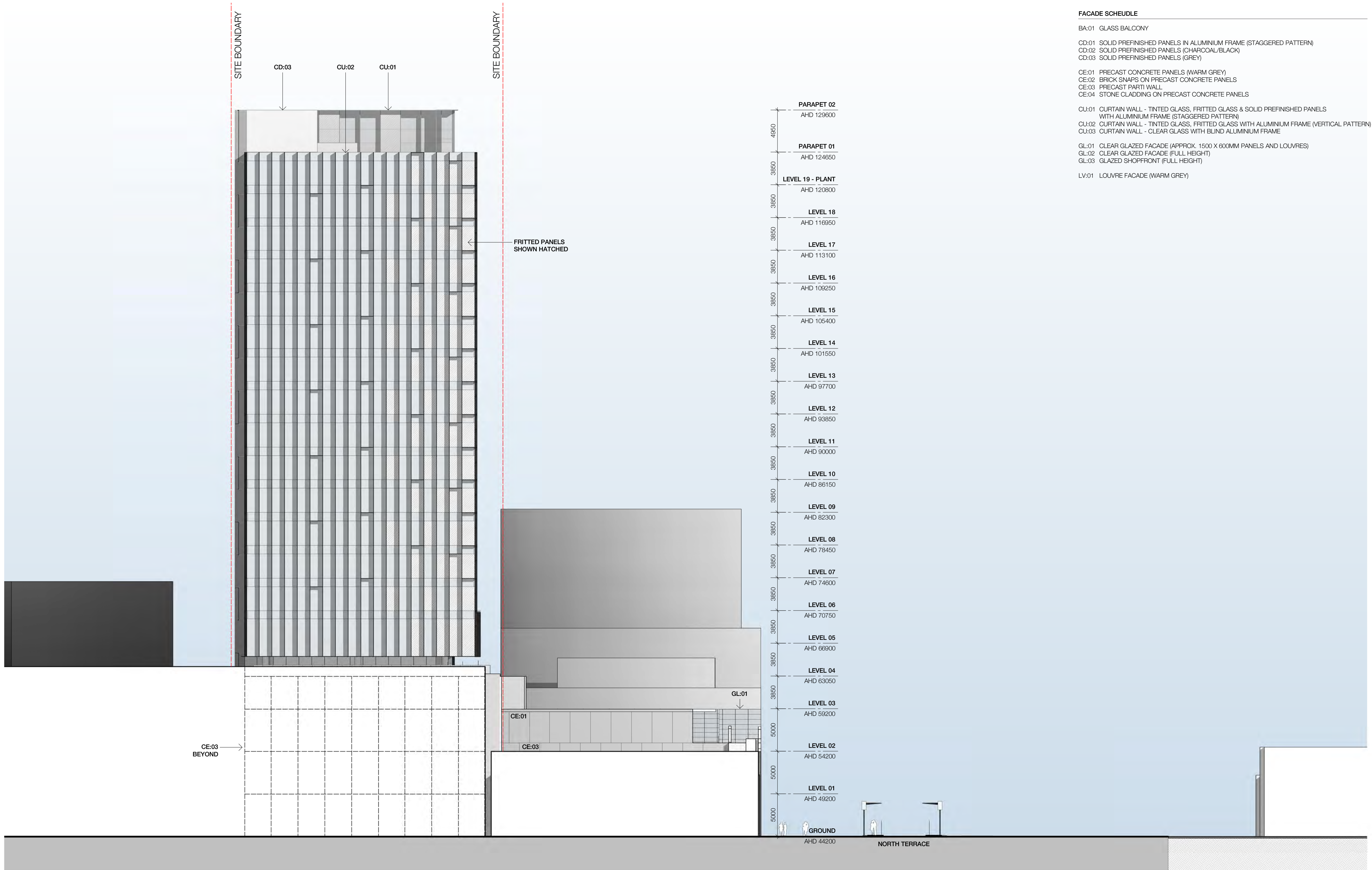
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- GL:03 GLAZED SHOPFRONT (FULL HEIGHT)
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FACADE SCHEDULE

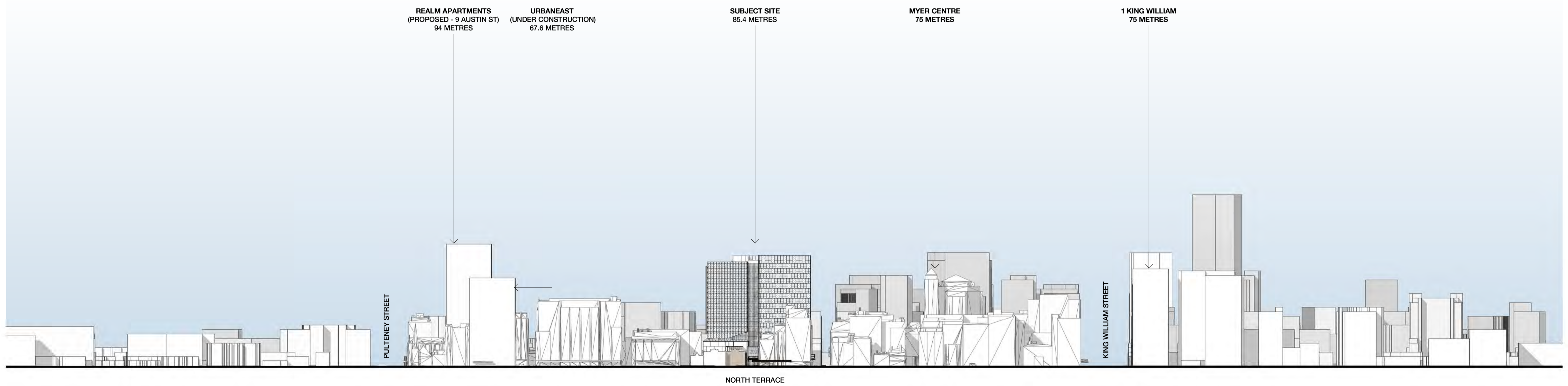
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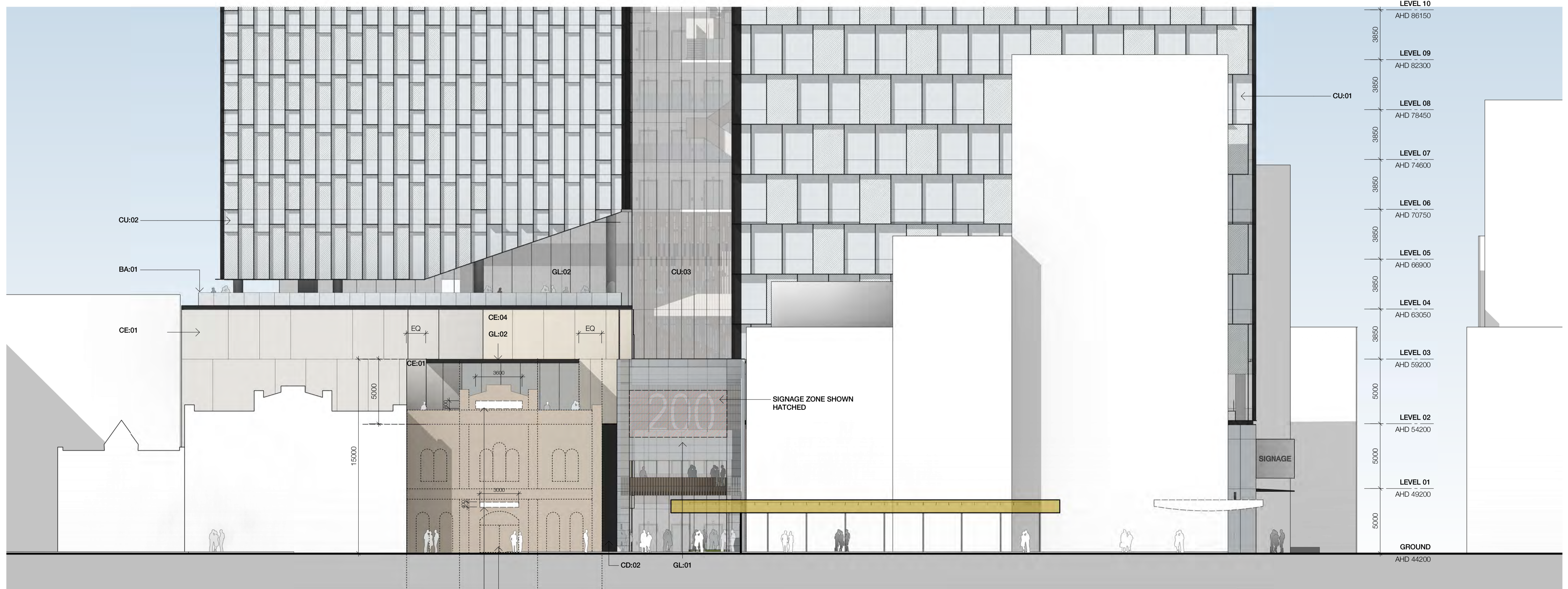




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- LV:01 LOUVRE FACADE (WARM GREY)



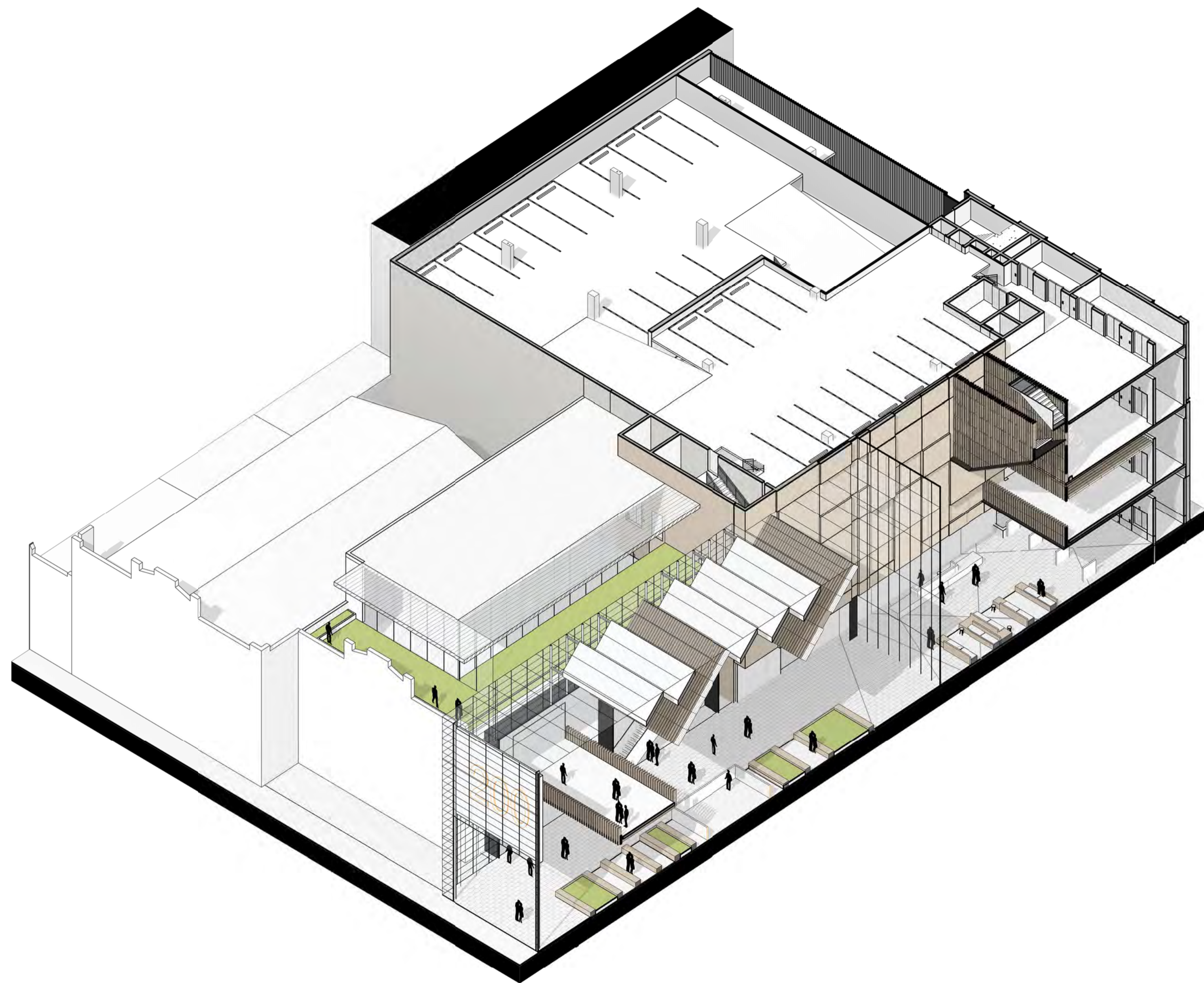


PROPOSED RETAIL SIGNAGE

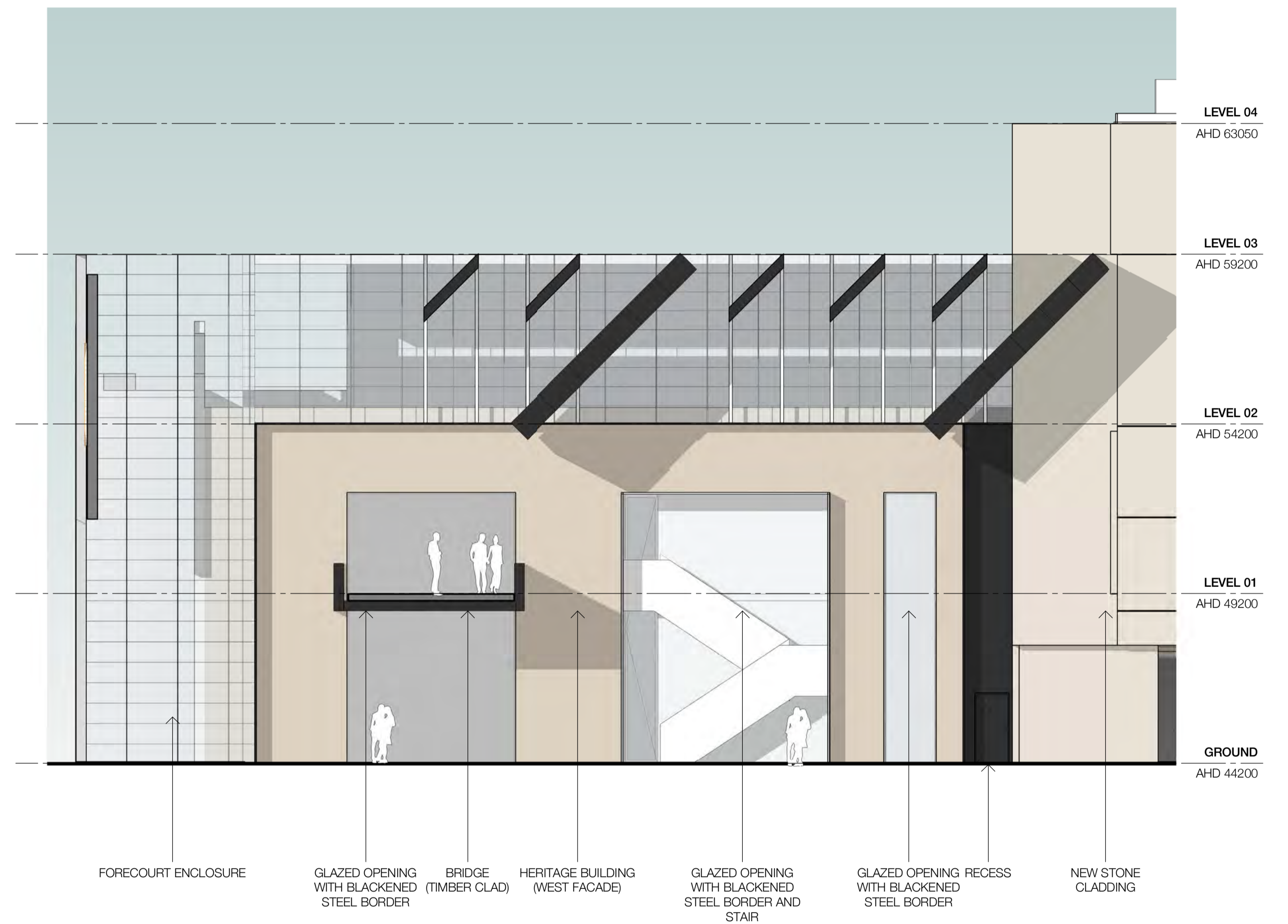
PROPOSED RESTORATION WORKS TO HERITAGE FACADE INCLUDE -
 -REPLACEMENT OF WINDOWS AND DOORS
 -REMOVAL OF SHADE STRUCTURES AND MAKE GOOD
 -GENERAL CLEANING
 -REMOVAL OF REDUNDANT BOOSTER CABINET

FACADE SCHEDULE

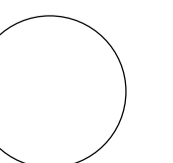
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GL:03	GLAZED SHOPFRONT (FULL HEIGHT)
LV:01	LOUVRE FACADE (WARM GREY)

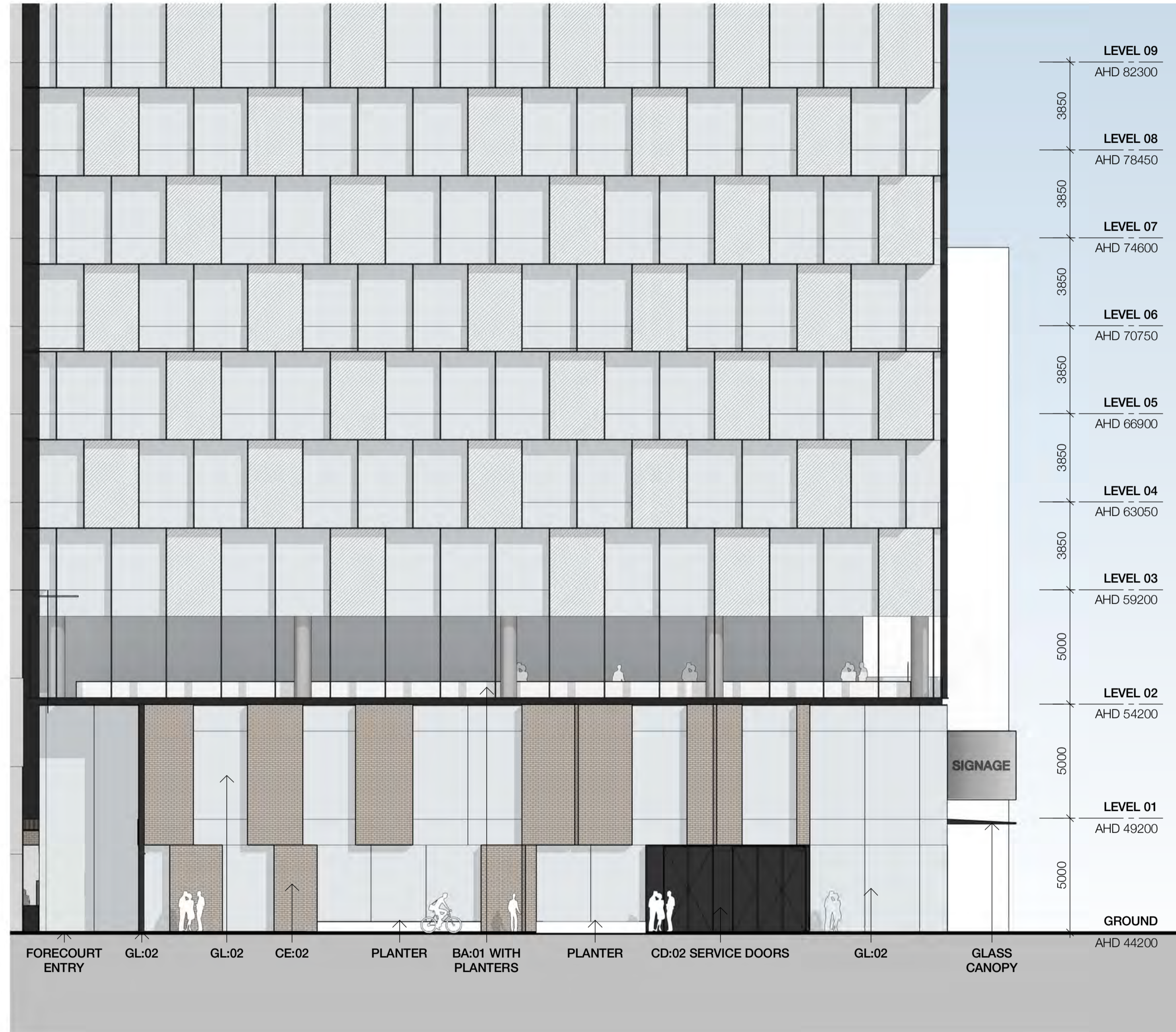


2 FORECOURT ISOMETRIC SECTION
SCALE

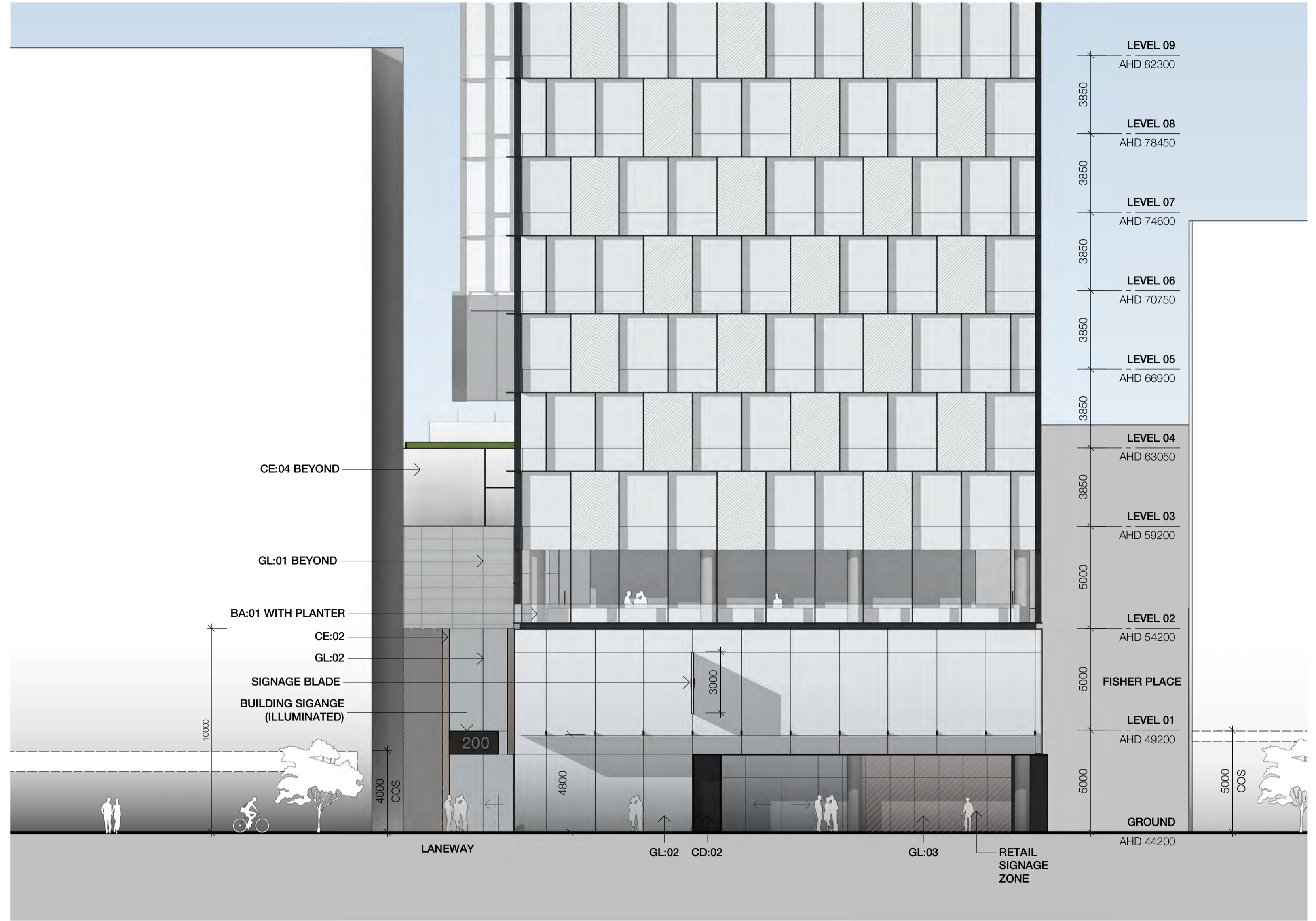


1 FORECOURT - SECTION NORTH/SOUTH





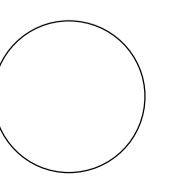
1 LANEWAY ELEVATION
SCALE 1:150

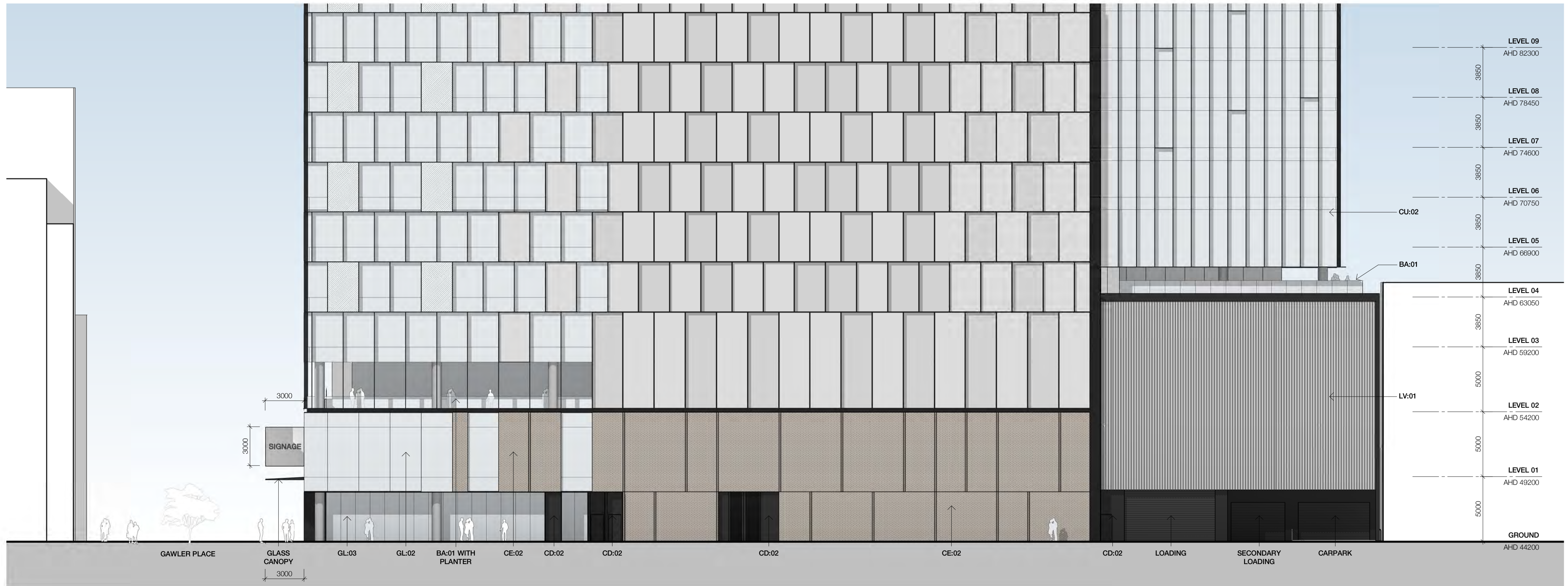


2 GAWLER PLACE ELEVATION
SCALE 1:150

FACADE SCHEDULE

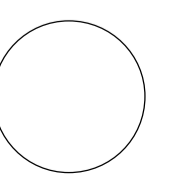
- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
- CD:02 SOLID PREFINISHED PANELS (CHARCOAL/BLACK)
- CD:03 SOLID PREFINISHED PANELS (GREY)
- CE:01 PRECAST CONCRETE PANELS (WARM GREY)
- CE:02 BRICK SNAPS ON PRECAST CONCRETE PANELS
- CE:03 PRECAST PARTI WALL
- CE:04 STONE CLADDING ON PRECAST CONCRETE PANELS
- CU:01 CURTAIN WALL - TINTED GLASS, FRITTED GLASS & SOLID PREFINISHED PANELS WITH ALUMINIUM FRAME (STAGGERED PATTERN)
- CU:02 CURTAIN WALL - TINTED GLASS, FRITTED GLASS WITH ALUMINIUM FRAME (VERTICAL PATTERN)
- CU:03 CURTAIN WALL - CLEAR GLASS WITH BLIND ALUMINIUM FRAME
- GL:01 CLEAR GLAZED FACADE (APPROX. 1500 X 600MM PANELS AND LOUVRES)
- GL:02 CLEAR GLAZED FACADE (FULL HEIGHT)
- GL:03 GLAZED SHOPFRONT (FULL HEIGHT)
- LV:01 LOUVRE FACADE (WARM GREY)

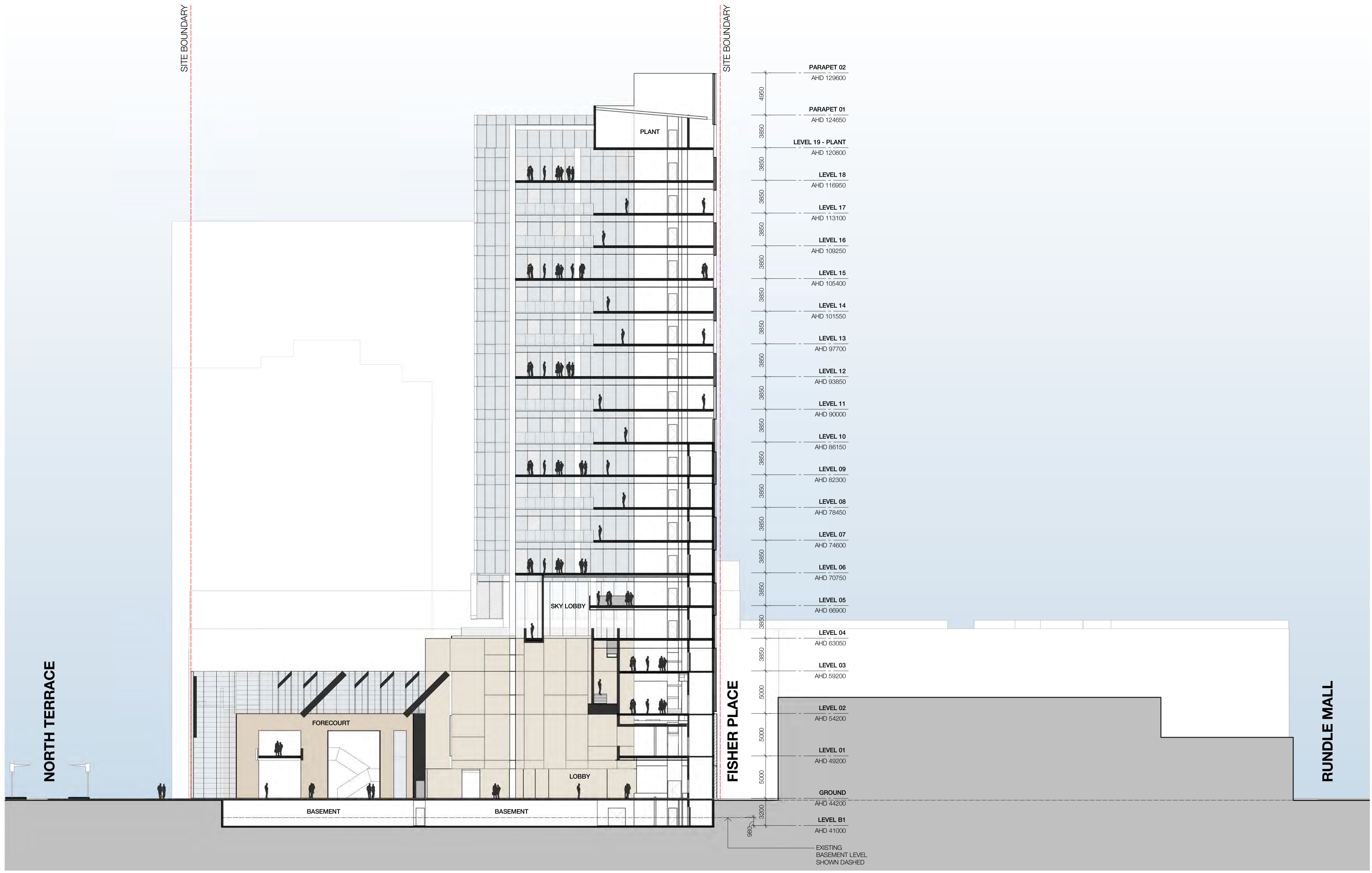




FACADE SCHEDULE

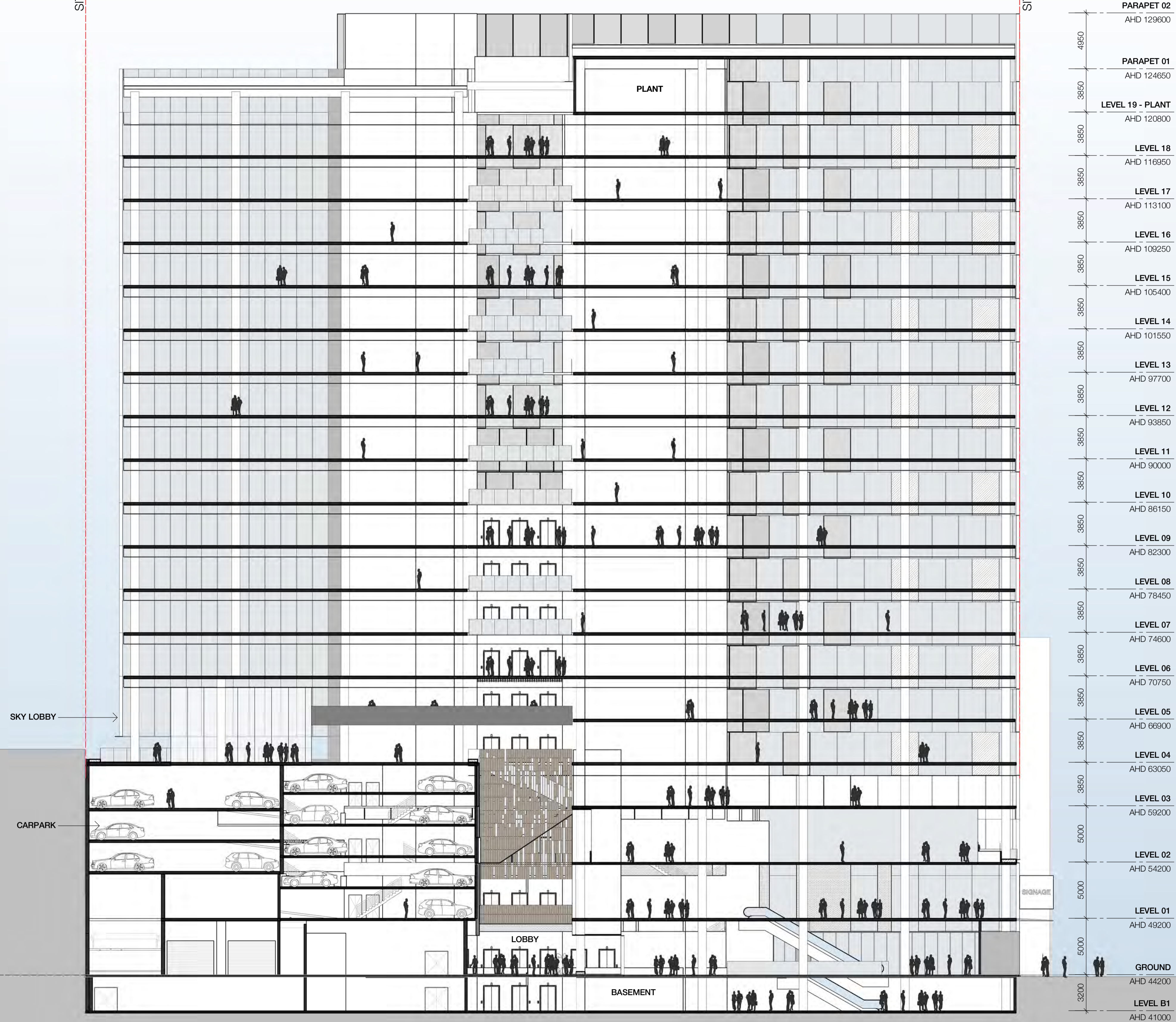
- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
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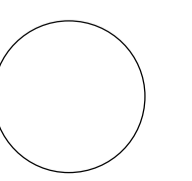


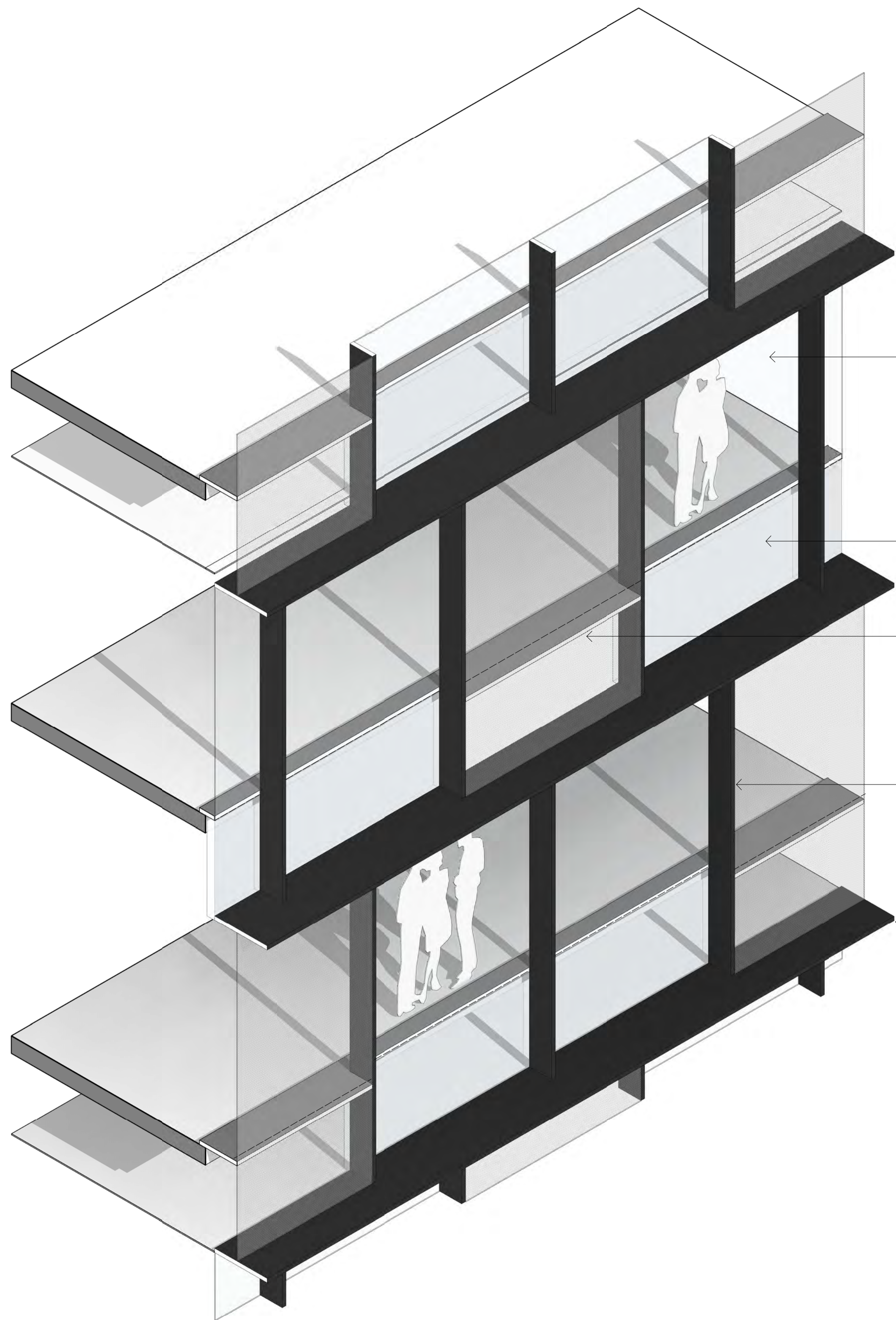
SITE BOUNDARY

SITE BOUNDARY



GAWLER PLACE





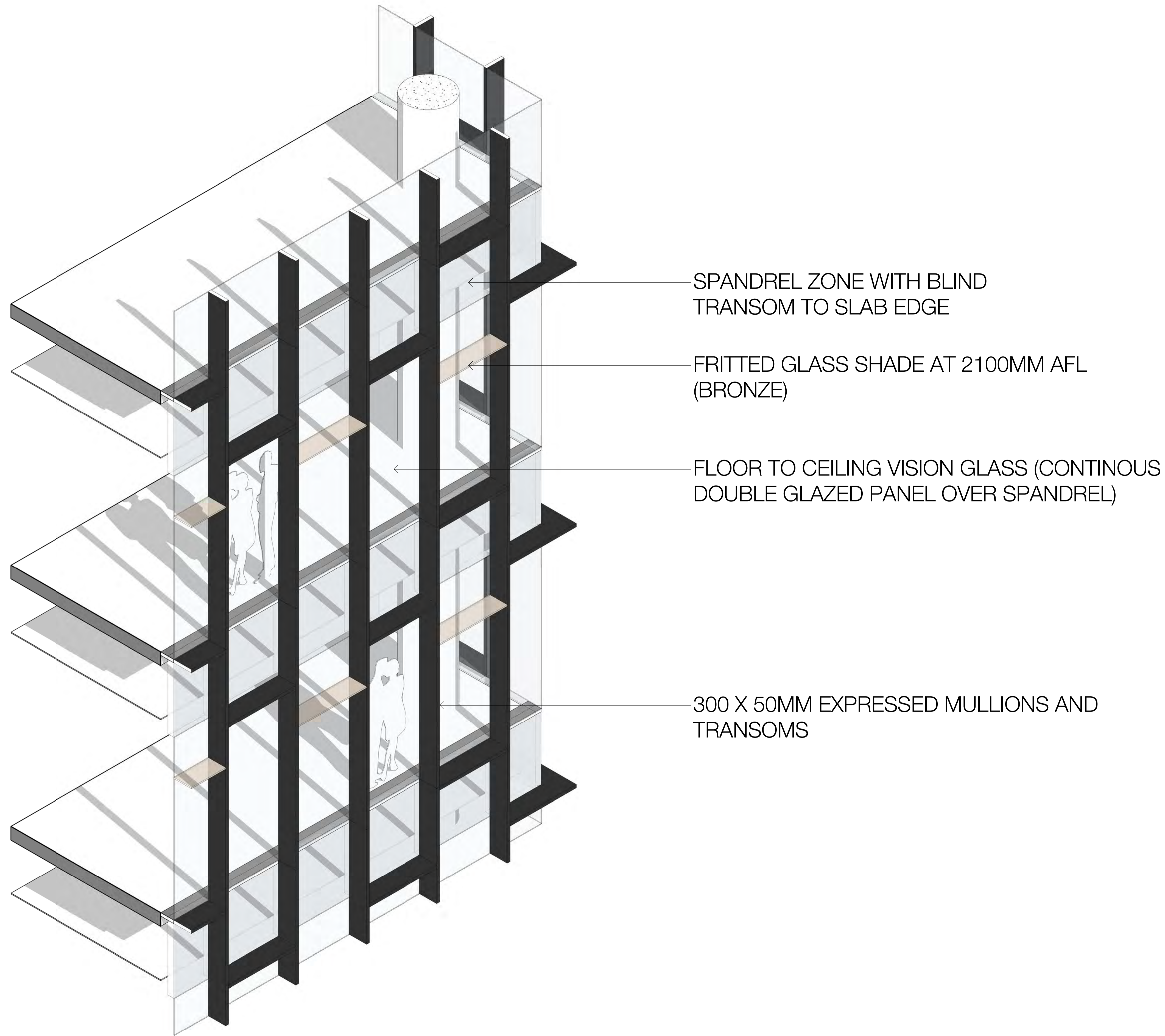
FLOOR TO CEILING VISION GLASS
(CONTINUOUS DOUBLE GLAZED
PANEL OVER SPANDREL ZONE)

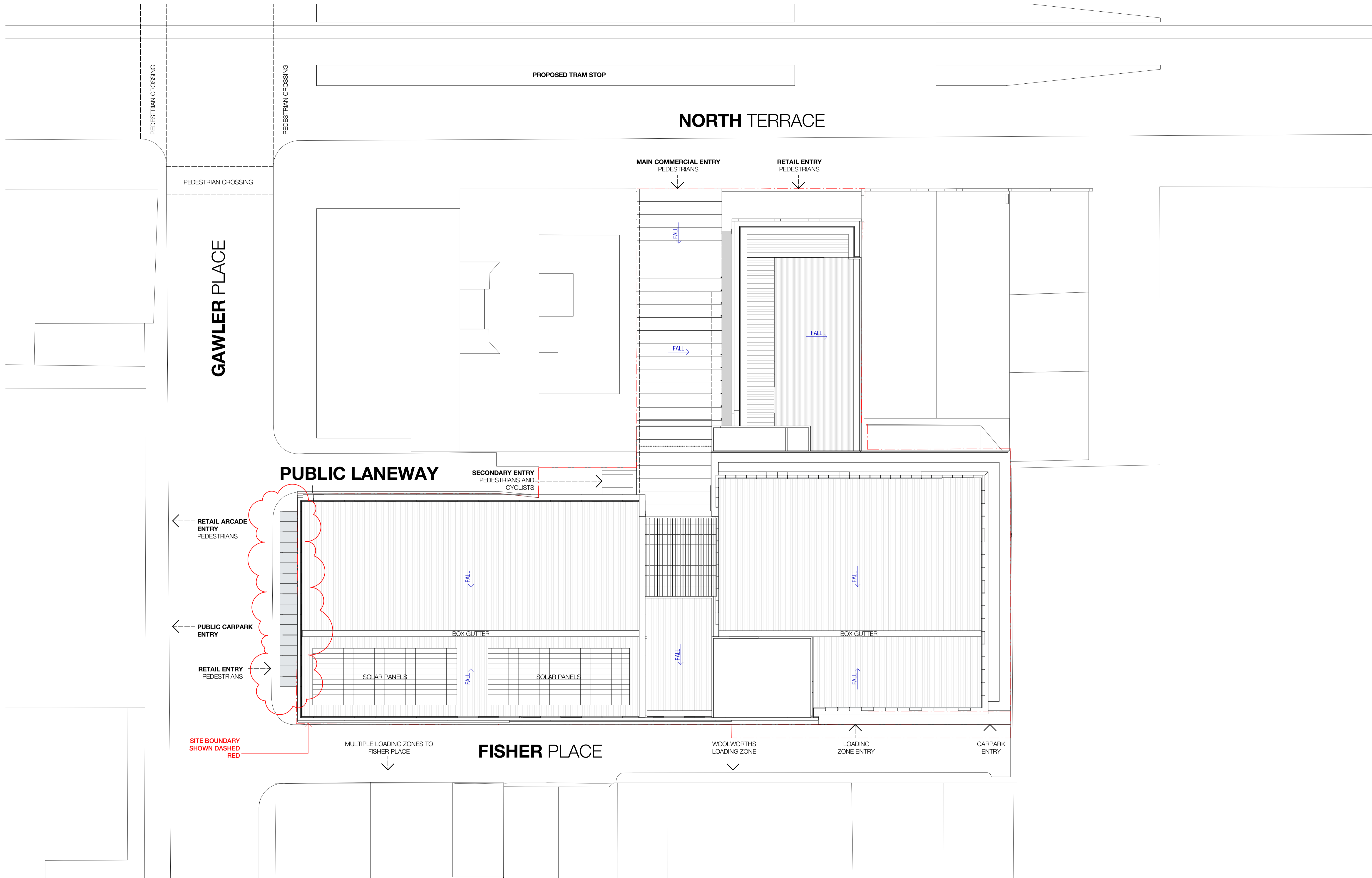
SPANDREL ZONE WITH
BLIND TRANSOM TO SLAB EDGE

FRITTED FLUSH GLAZED UNIT (WHITE)

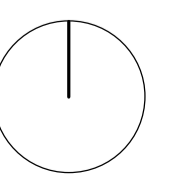
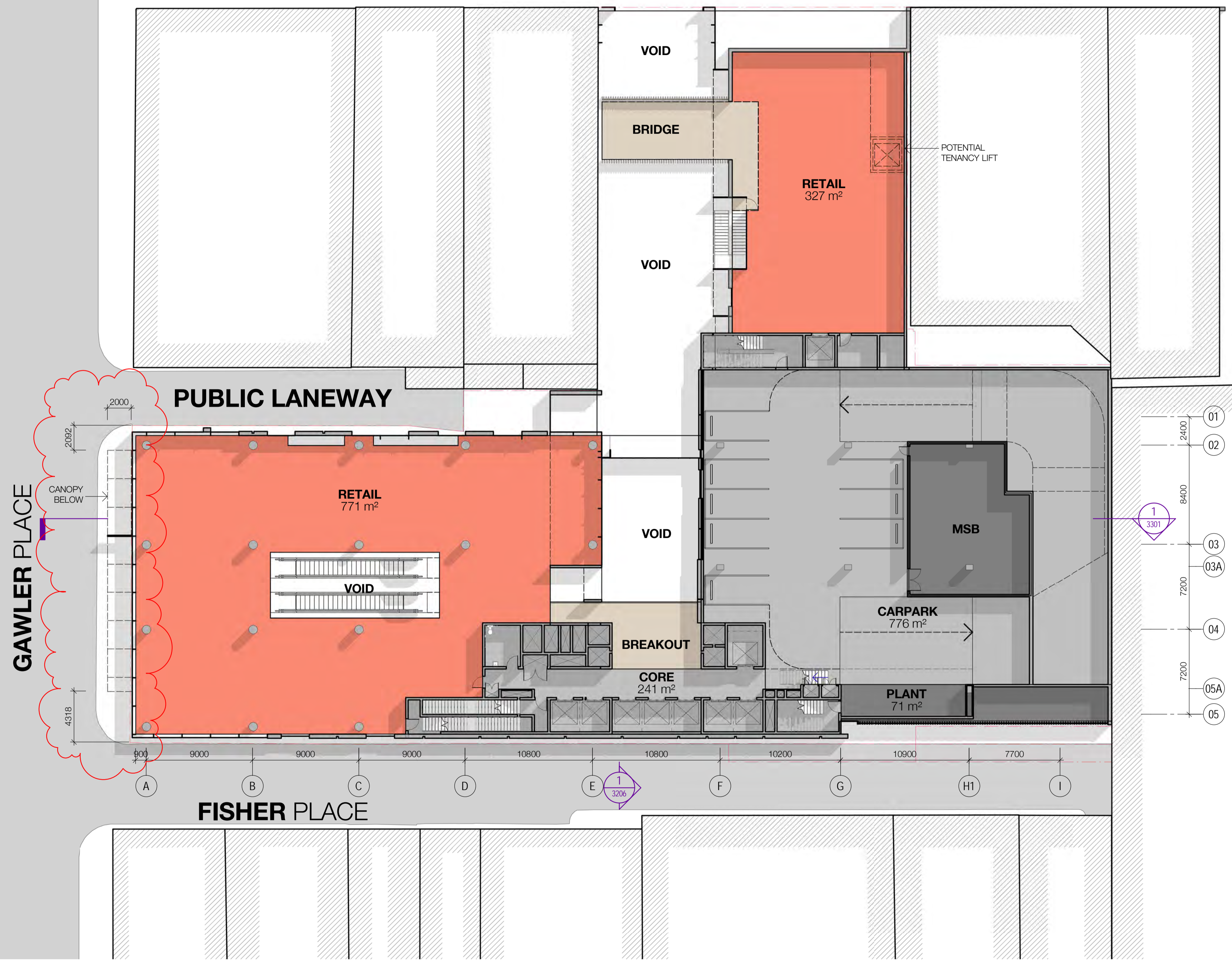
300 X 50MM EXPRESSED MULLIONS

EXPRESSED TRANSOMS
700 X 50MM TO NORTH FACADE
300 X 50MM TO EAST, SOUTH AND WEST FACADES



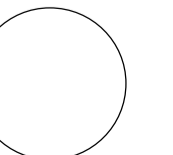
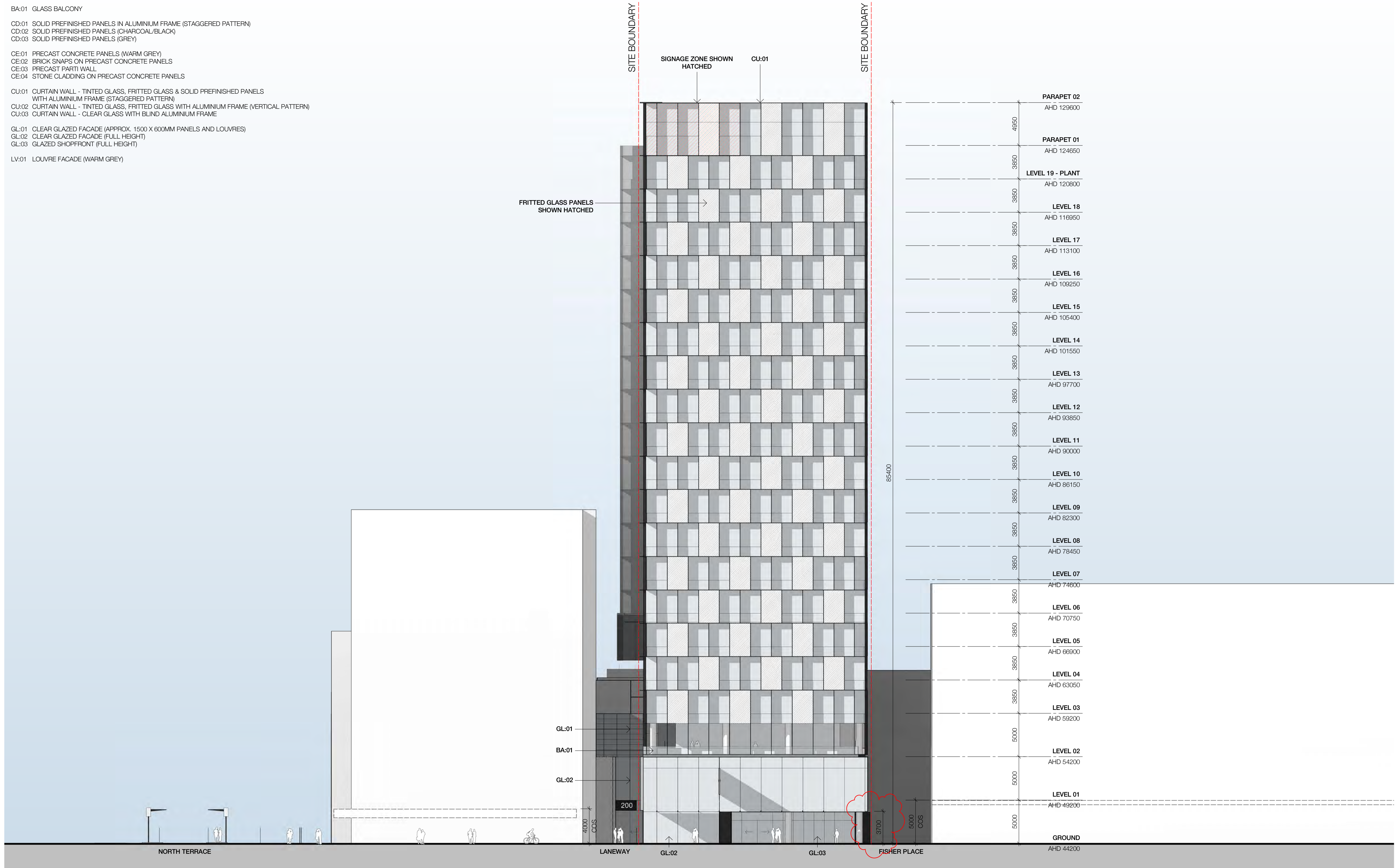


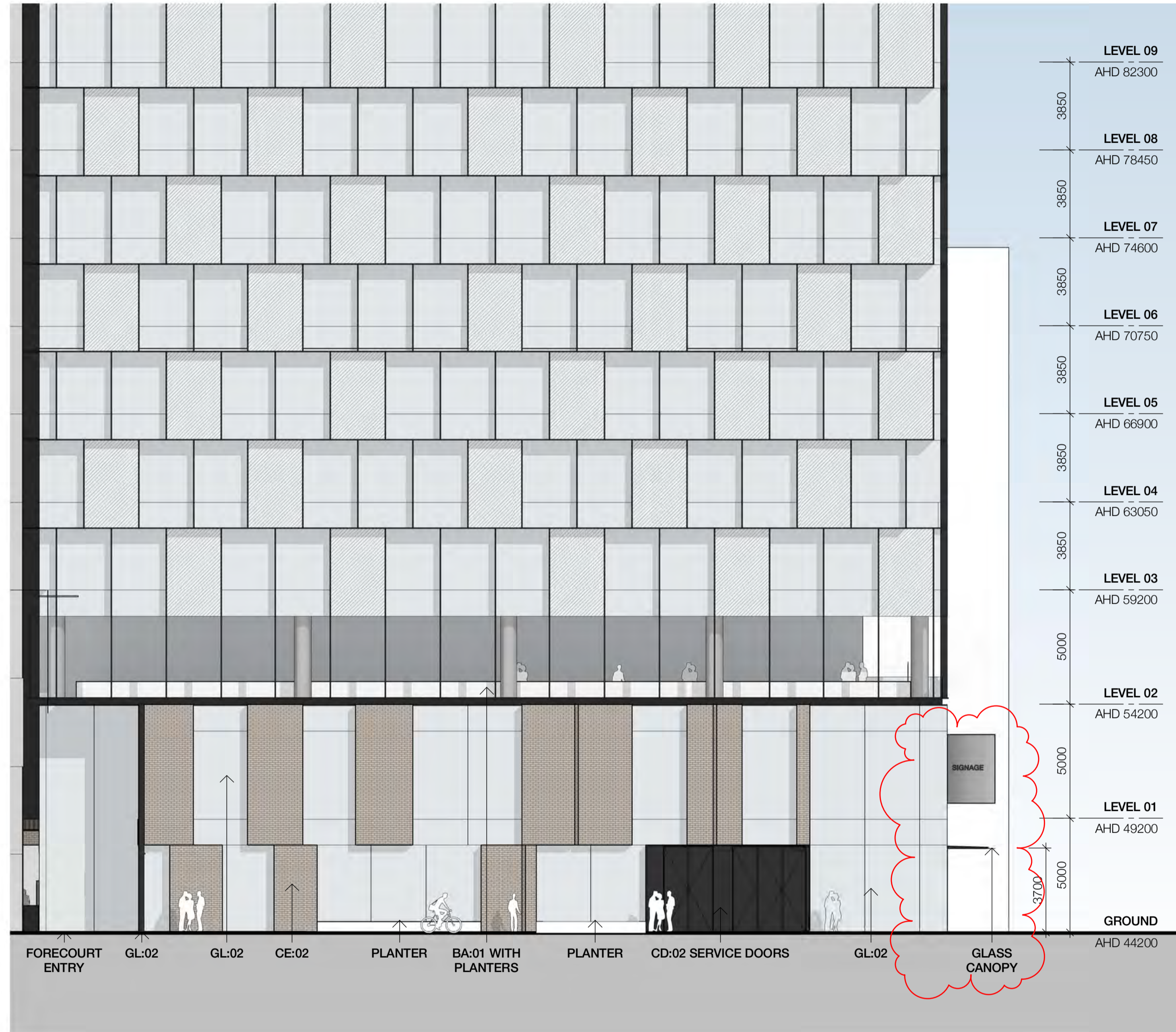
NORTH TERRACE



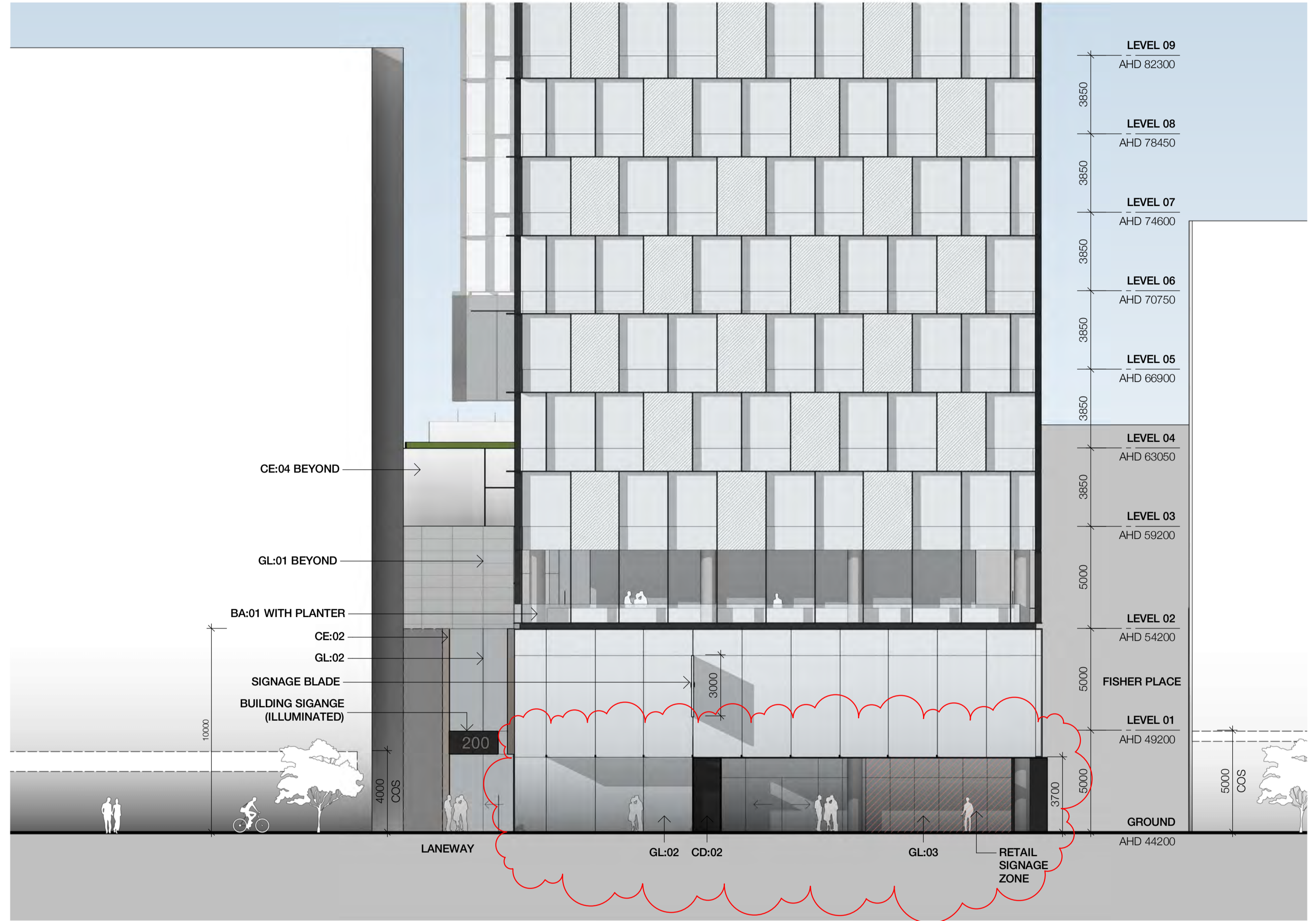
FACADE SCHEDULE

- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
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- GL:03 GLAZED SHOPFRONT (FULL HEIGHT)
- LV:01 LOUVRE FACADE (WARM GREY)





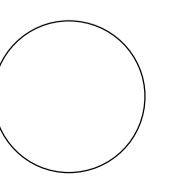
1 LANEWAY ELEVATION
SCALE 1:150

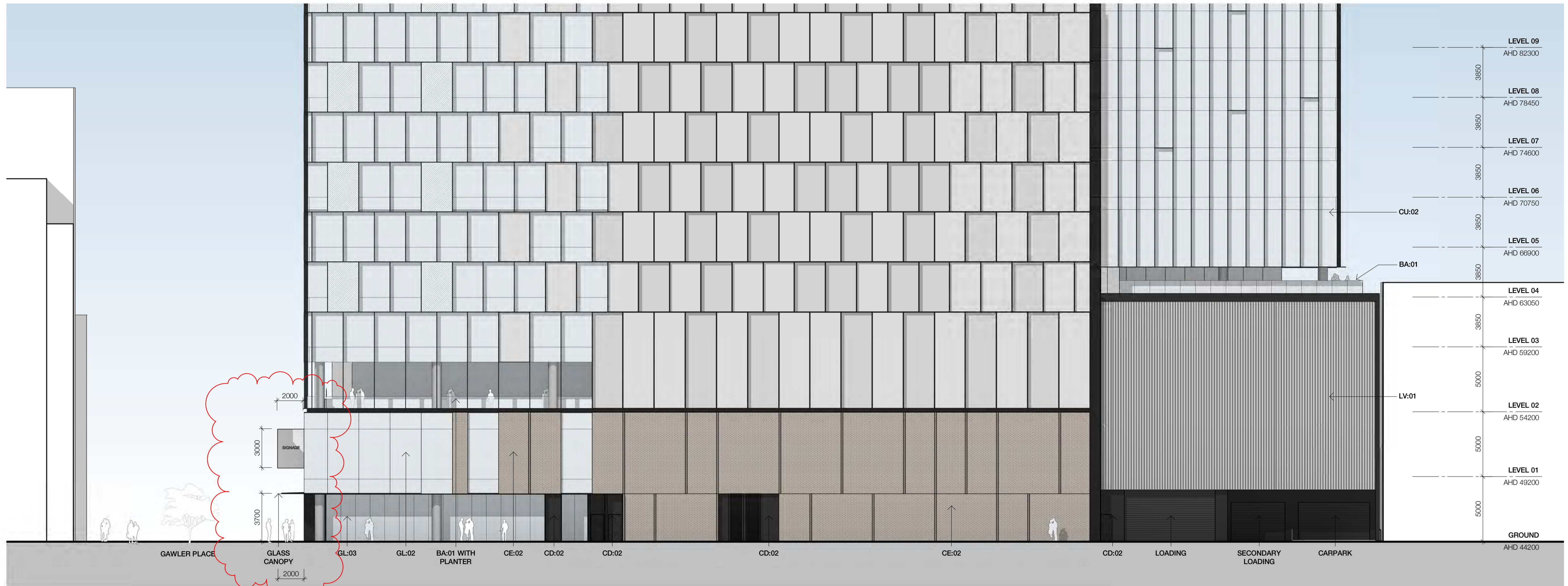


2 GAWLER PLACE ELEVATION
SCALE 1:150

FACADE SCHEDULE

- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
- CD:02 SOLID PREFINISHED PANELS (CHARCOAL/BLACK)
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FACADE SCHEDULE

- BA:01 GLASS BALCONY
- CD:01 SOLID PREFINISHED PANELS IN ALUMINIUM FRAME (STAGGERED PATTERN)
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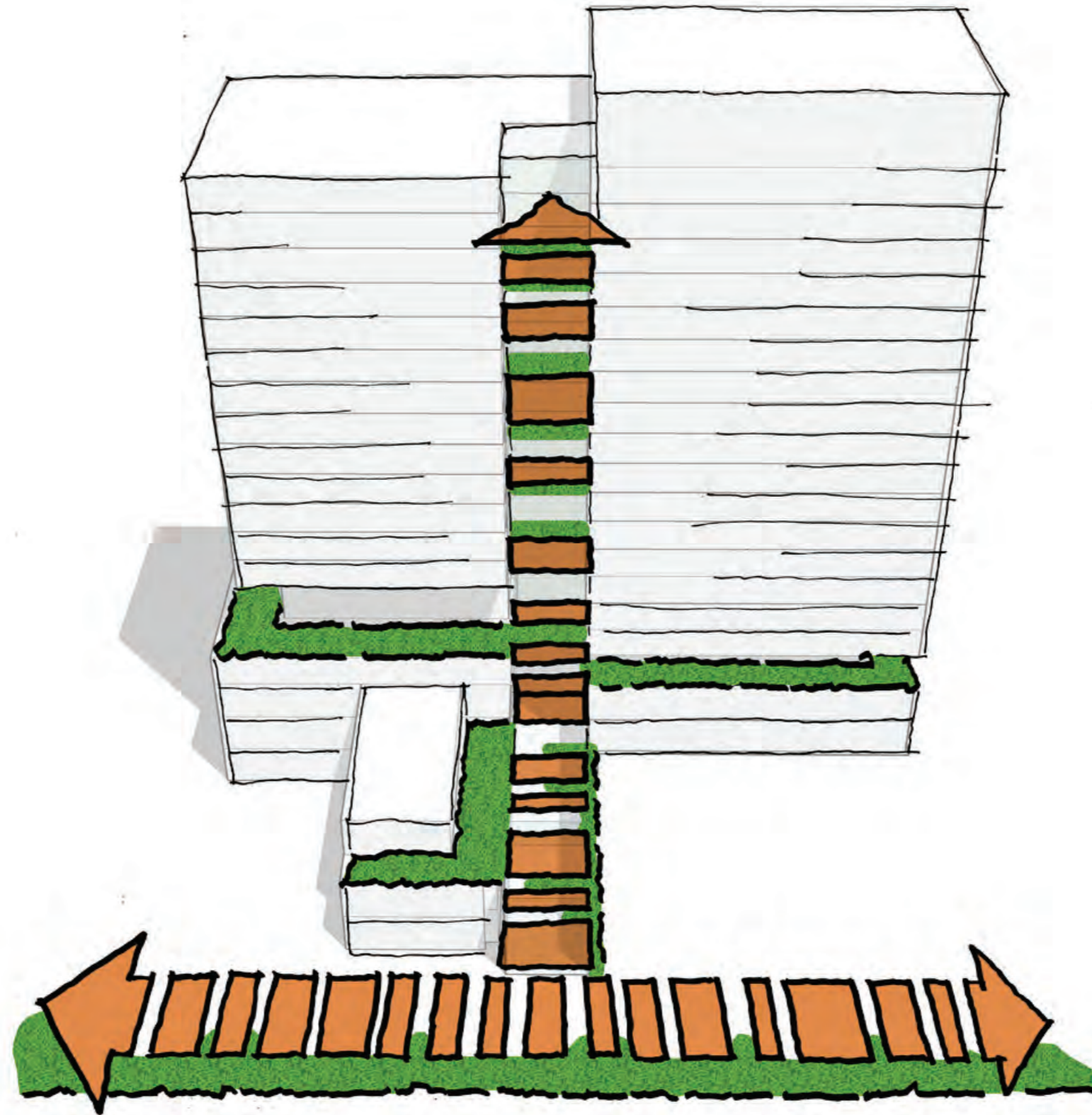
200 North Terrace Landscape Concept

07 August 2017

Prepared for:

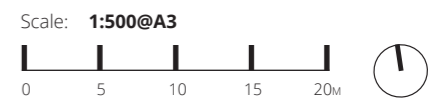
Commercial & General

**WOODS
BAGOT**

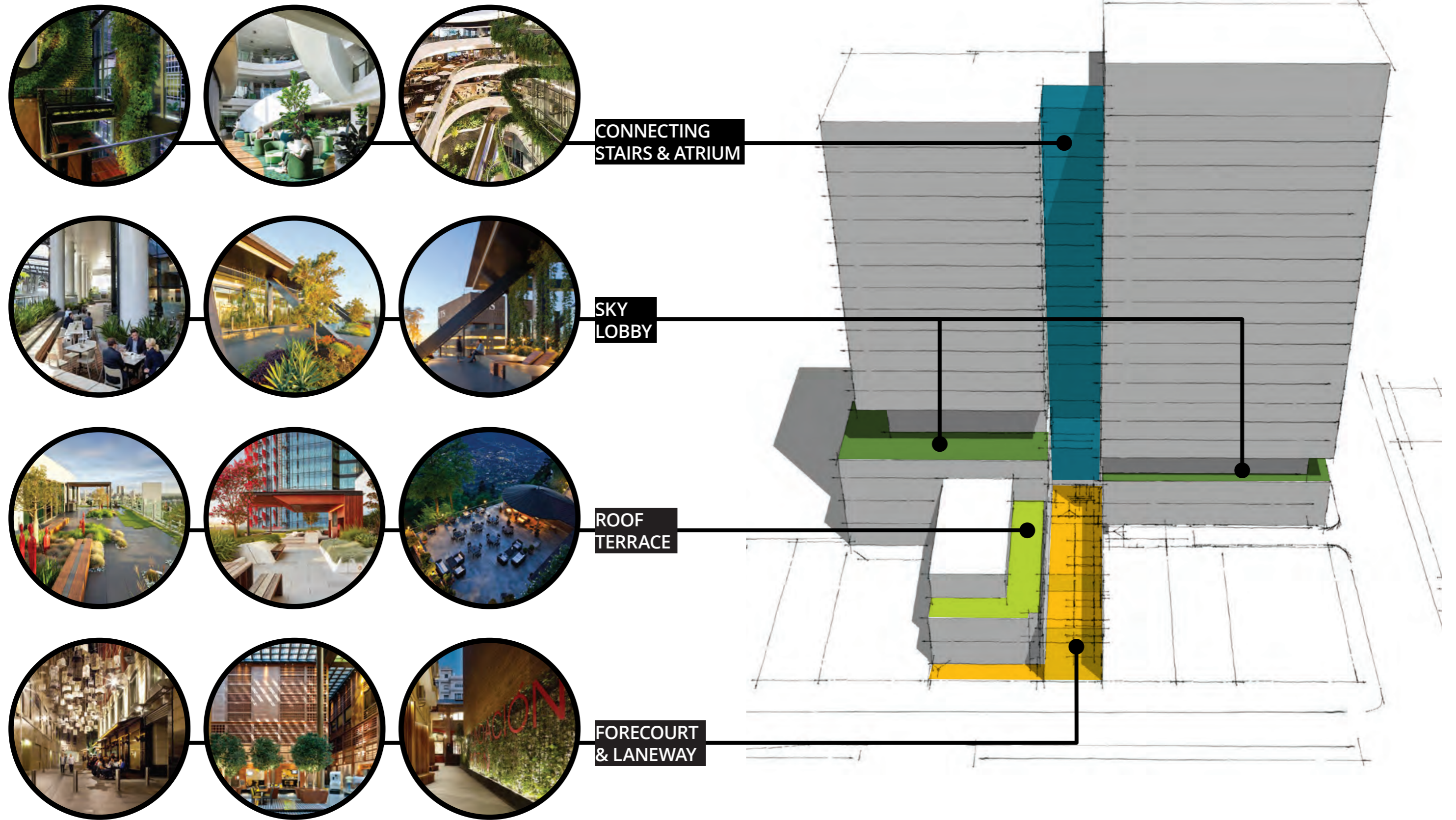


Extending the North Terrace Rhythm
and Layering the Landscape

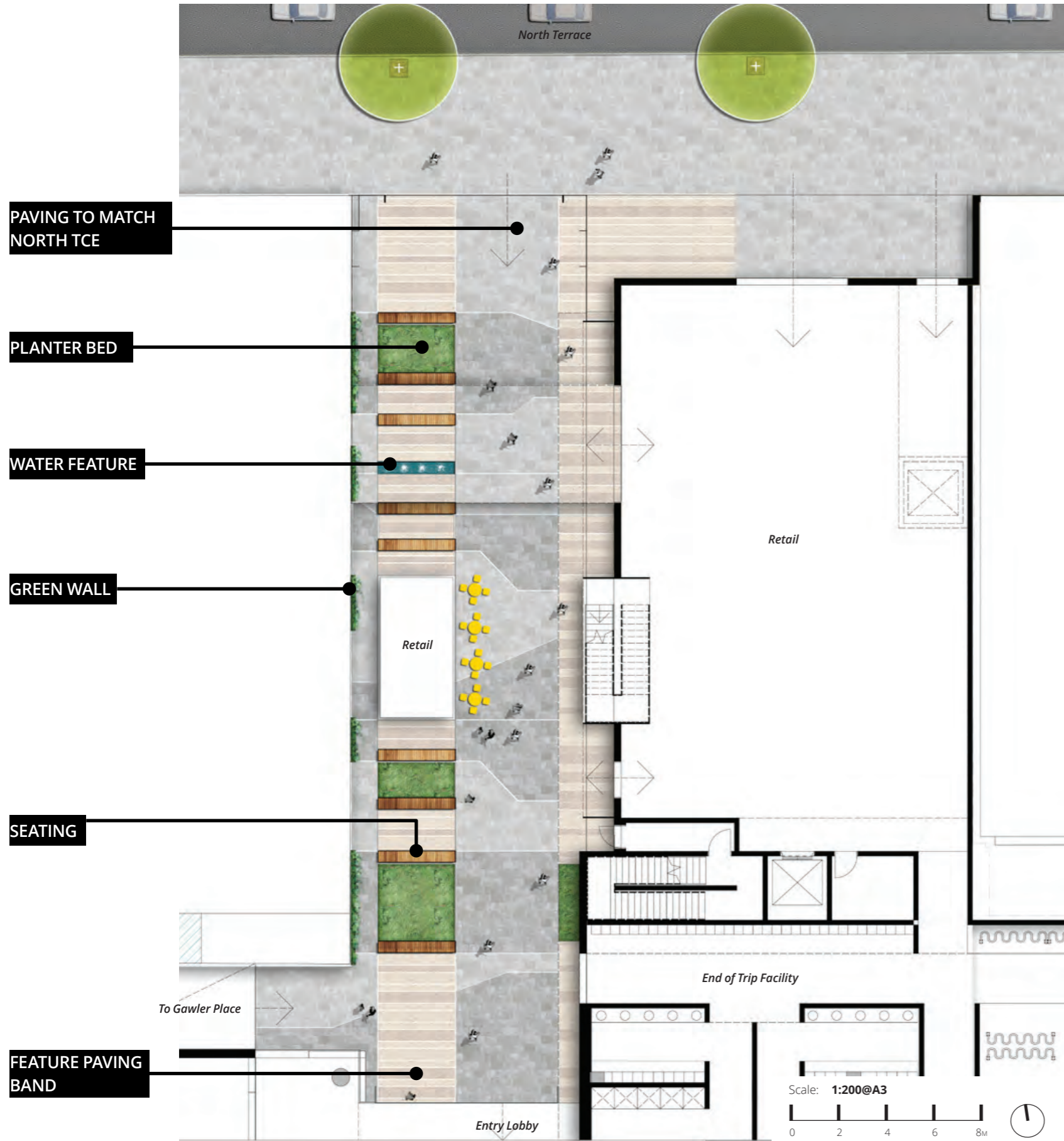
Strategic Context Plan



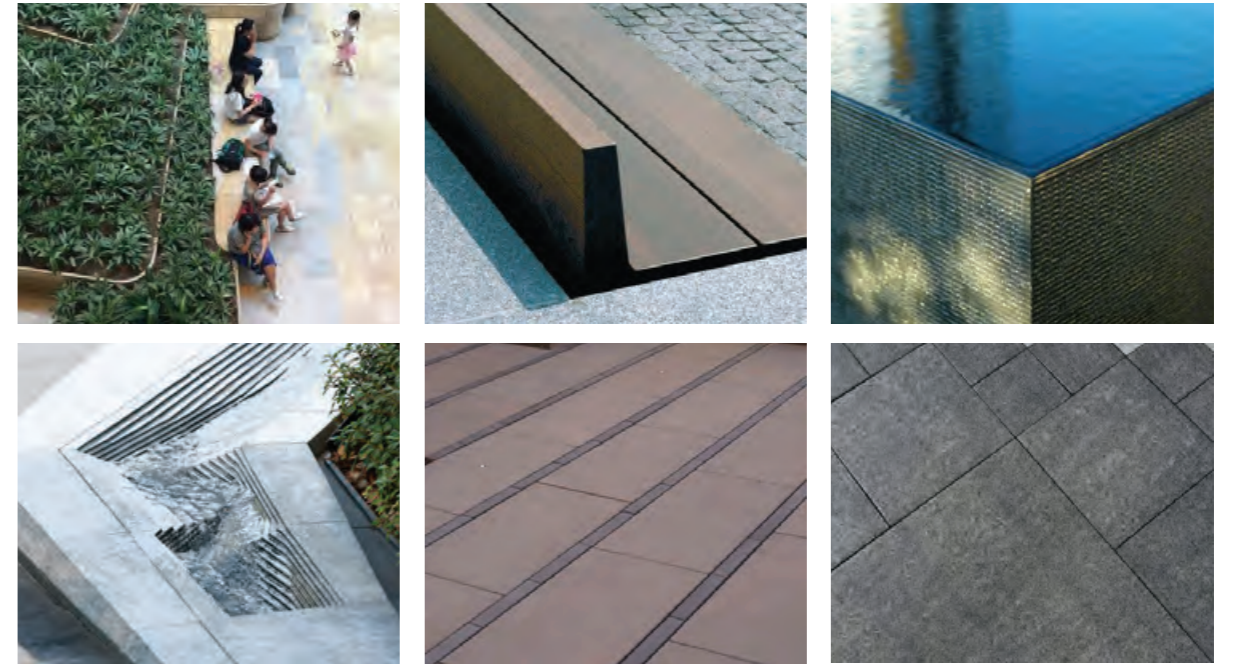
Landscape Areas



Ground Floor Concept Plan



Materials Palette



Planting Palette

Understorey Planting



Aglaonema

Anthurium andraeanum

Aspidistra elatior



Curculigo latifolia

Liliope muscari

Green Wall

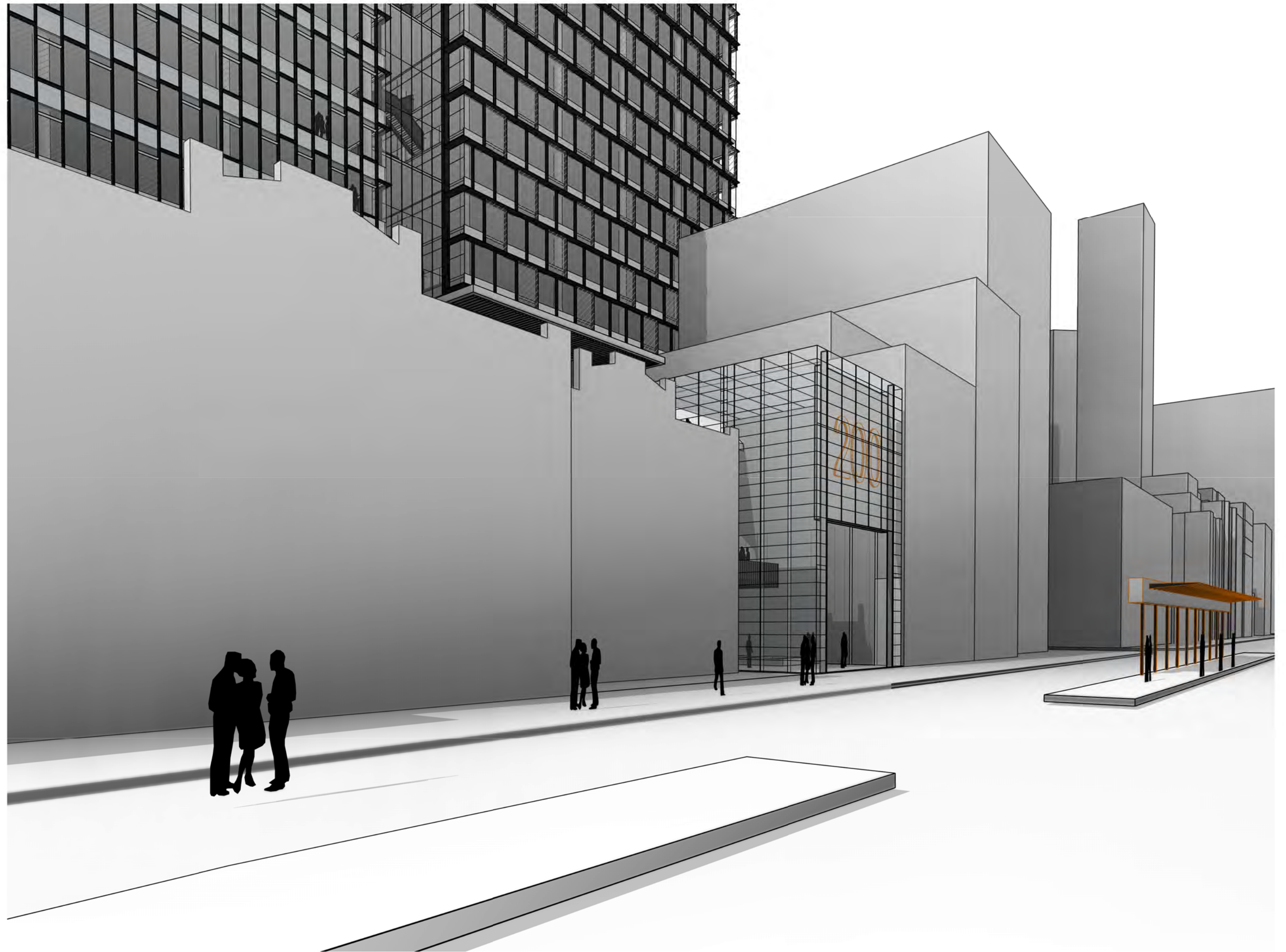


Epipremnum aureum

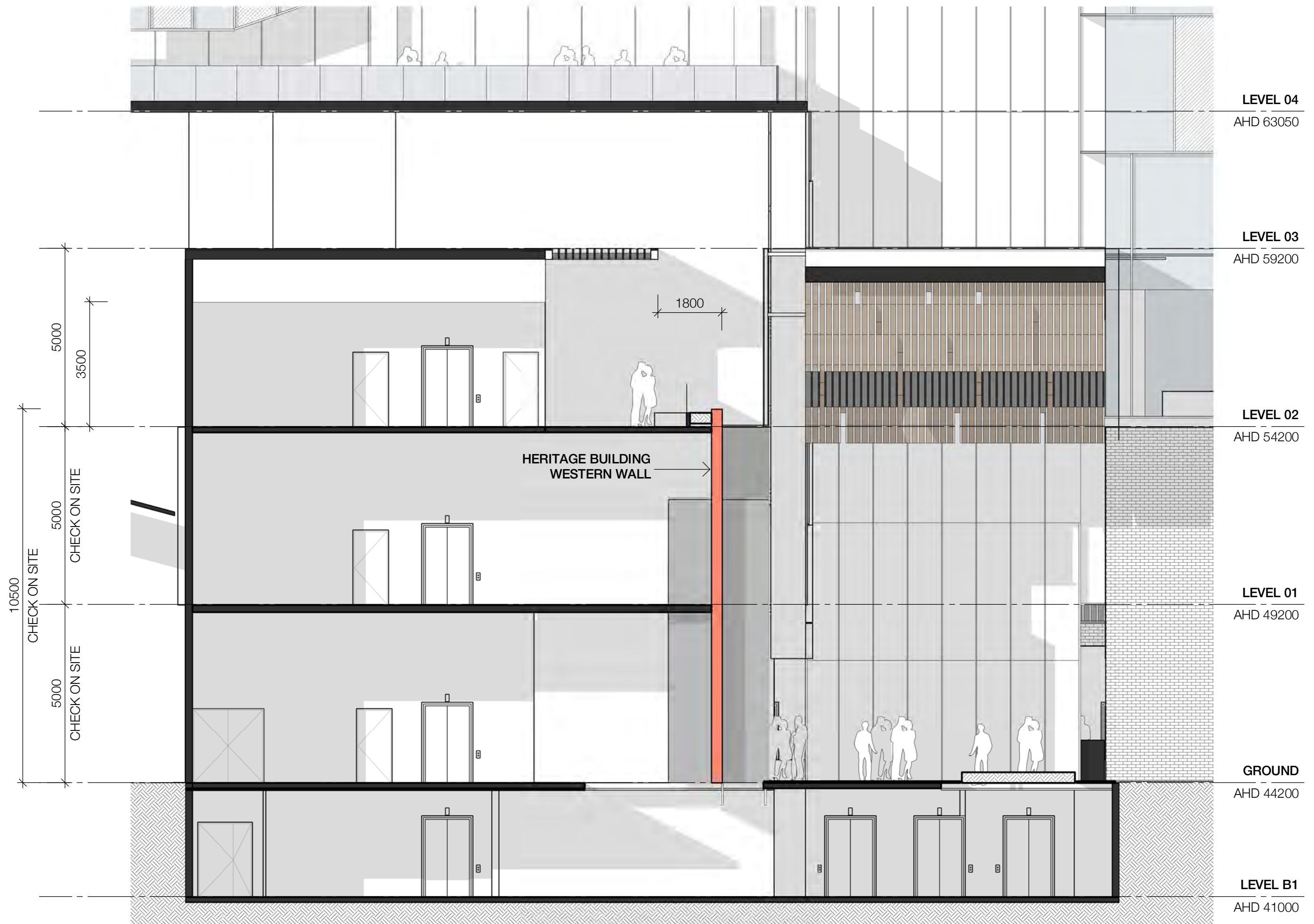
Philodendron scandens

Phlebodium aureum

Caladium













NOTE : For Policy Areas See MAP Adel/50

- CC Capital City Zone
- I2 Institutional (Government House) Zone
- I3 Institutional (University/Hospital) Zone
- PL Park Lands Zone

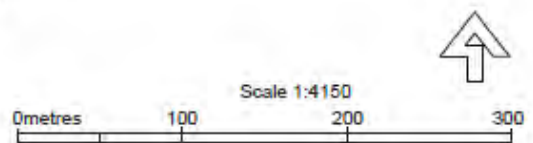
-  Zone Boundary
-  Development Plan Boundary

ADELAIDE (CITY) ZONES MAP Adel/19



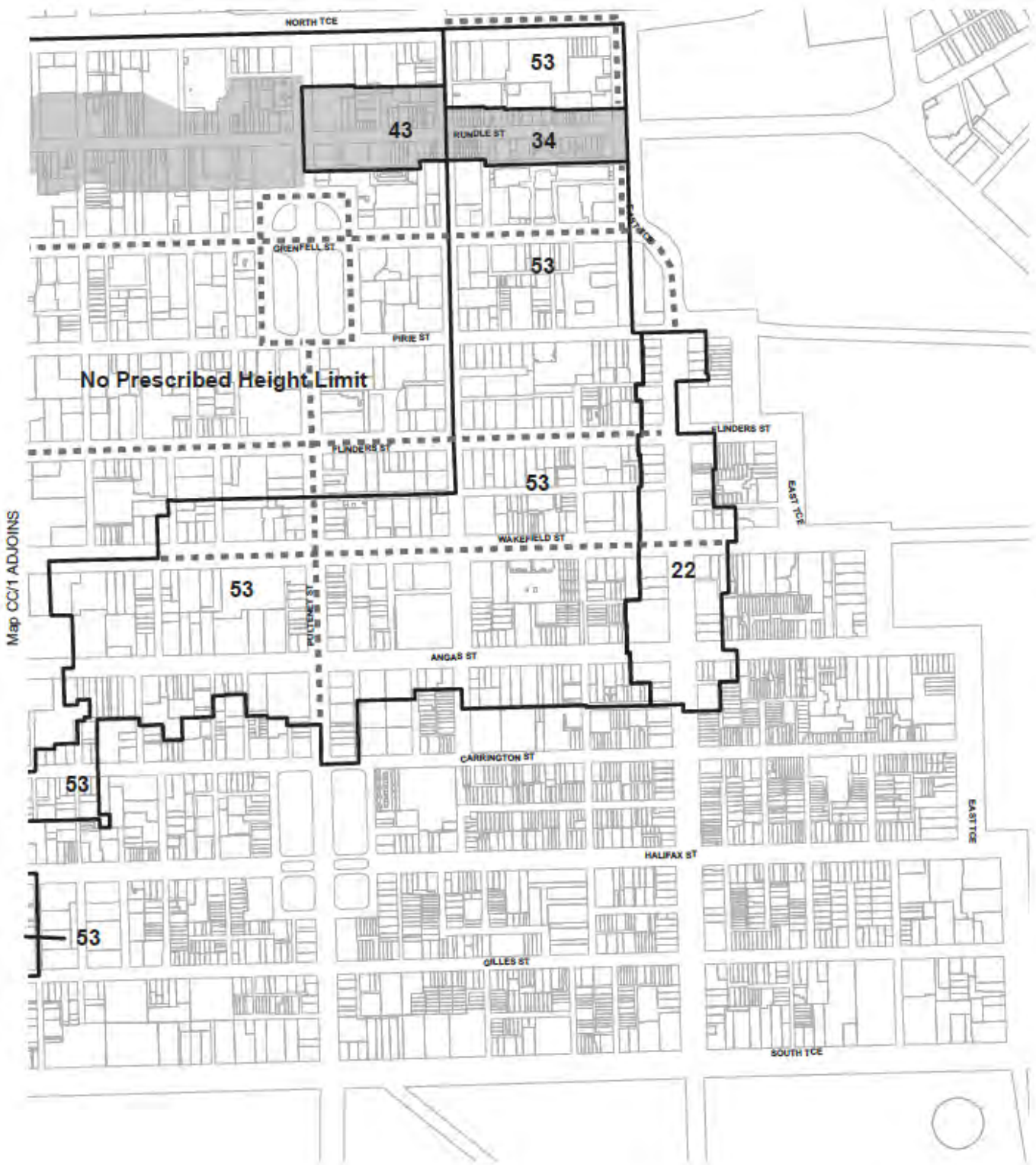
- 13 Central Business Policy Area
- 14 Main Street Policy Area
- 19 Botanic Park Policy Area
- 25 Adelaide Oval Policy Area
- State Heritage Place
- Local Heritage Place
- ▲ Significant Tree

- Existing Pedestrian Link
- Proposed Pedestrian Link
- Policy Area Boundary






ADELAIDE (CITY) POLICY AREAS MAP Adel/50

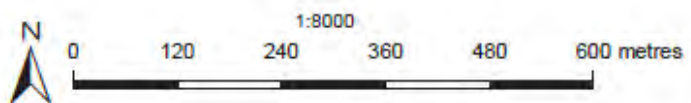
Consolidated - 20 June 2017



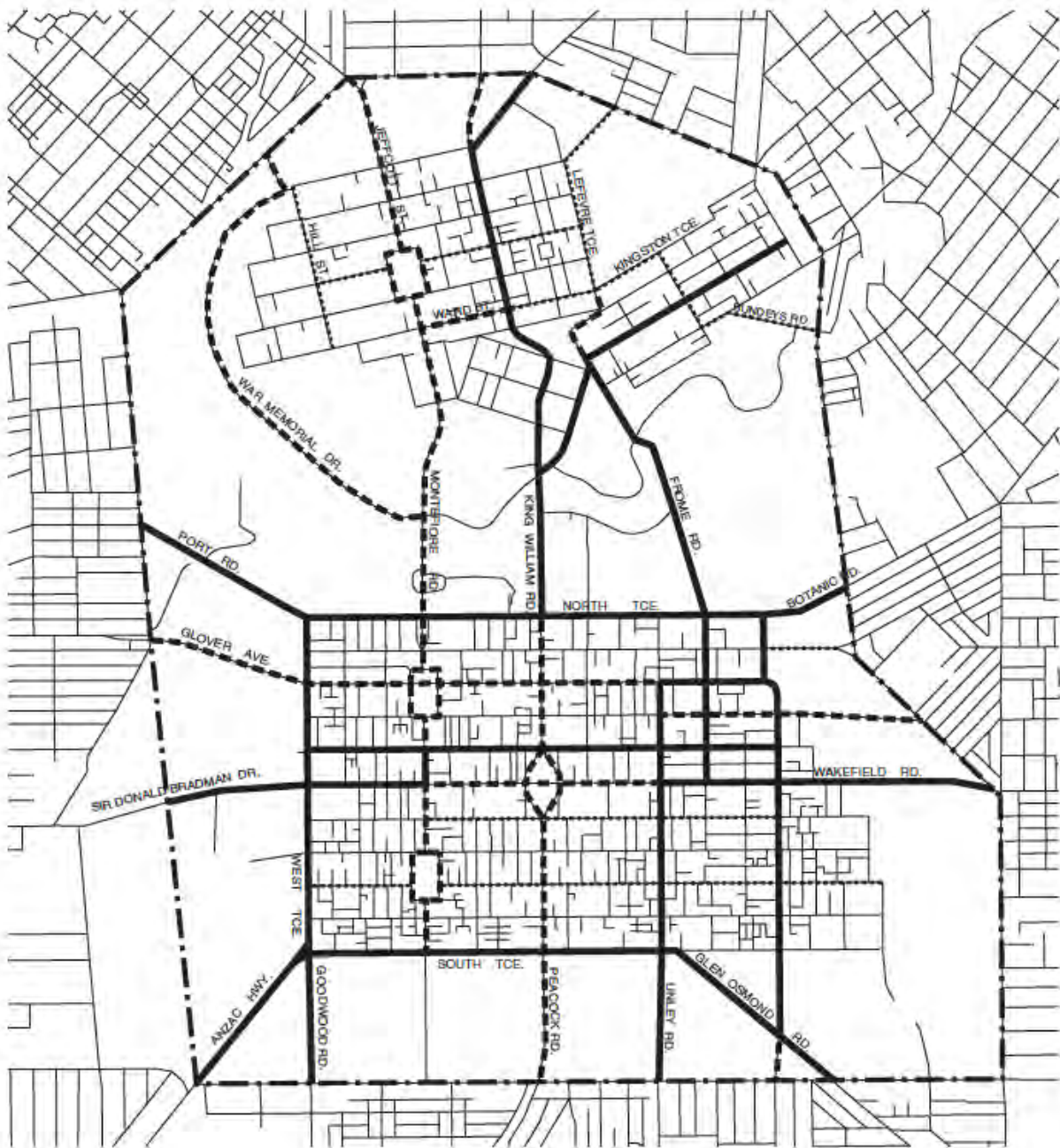
Map CC/1 ADJOINS

No Prescribed Height Limit

-  Maximum Building Height (Metres) within Capital City Zoned land
Note: Airport Building Height Restrictions Apply. Refer Map Adel/1 (Overlay 5).
-  City Boulevards and Terraces
-  Policy Areas of a 'main Street' type



ADELAIDE (CITY) BUILDING HEIGHTS Concept Plan Figure CC/2



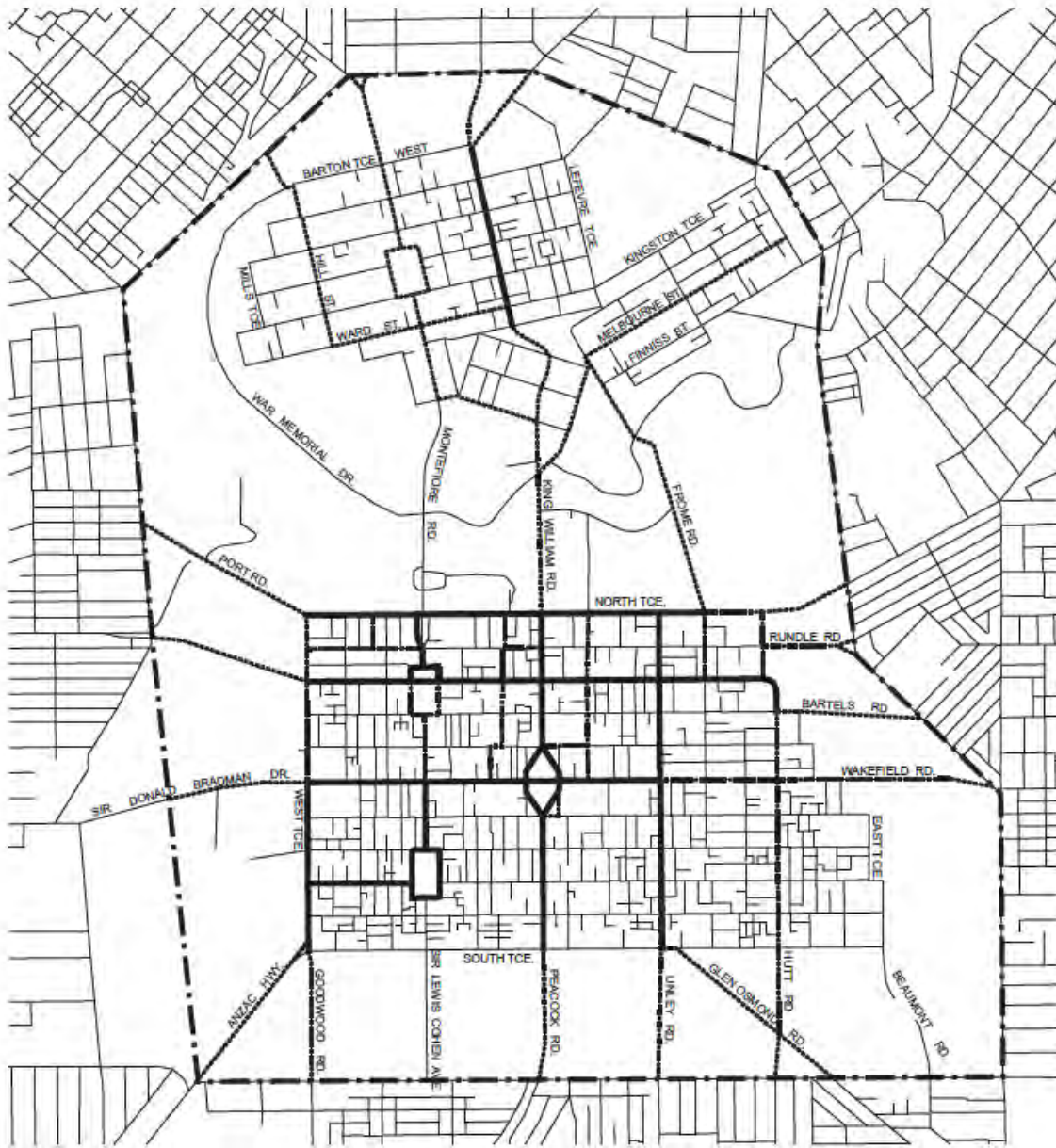
- Primary City Access
- - -** Secondary City Access
-** Local Connector
- - - -** Development Plan Boundary







Scale 1:26,000
 0metres 500 1000

ADELAIDE (CITY) CITY ROAD NETWORK MAP Adel/1 (Overlay 1)

Consolidated - 20 June 2017



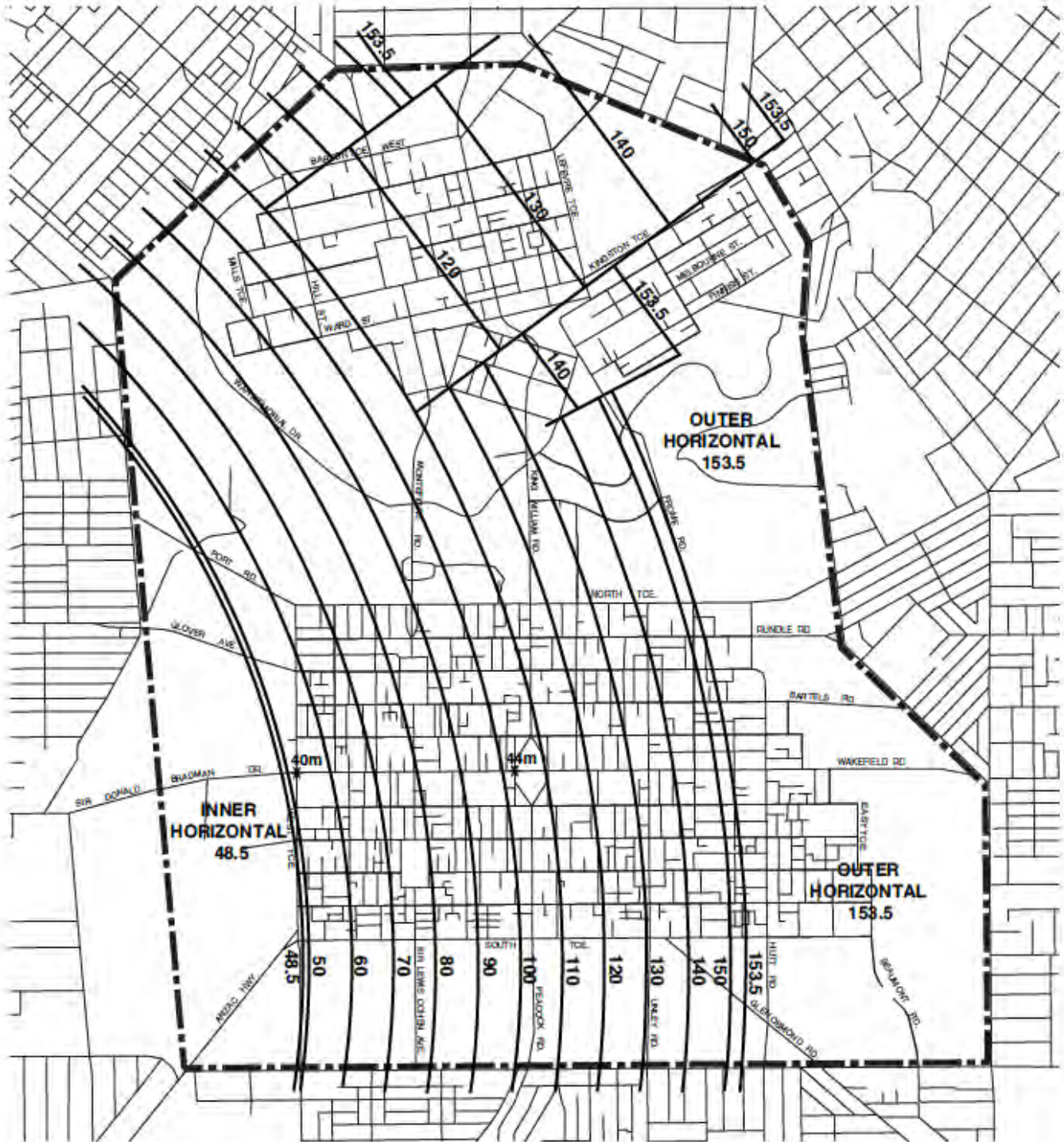
-  High Concentration Public Transport Route
-  Public Transport Pedestrian Route
-  Bus Route
-  Development Plan Boundary



Scale 1:26,000
 0metres 500 1000

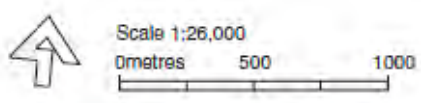
ADELAIDE (CITY) PUBLIC TRANSPORT NETWORK MAP Adel/1 (Overlay 4)

Consolidated - 20 June 2017



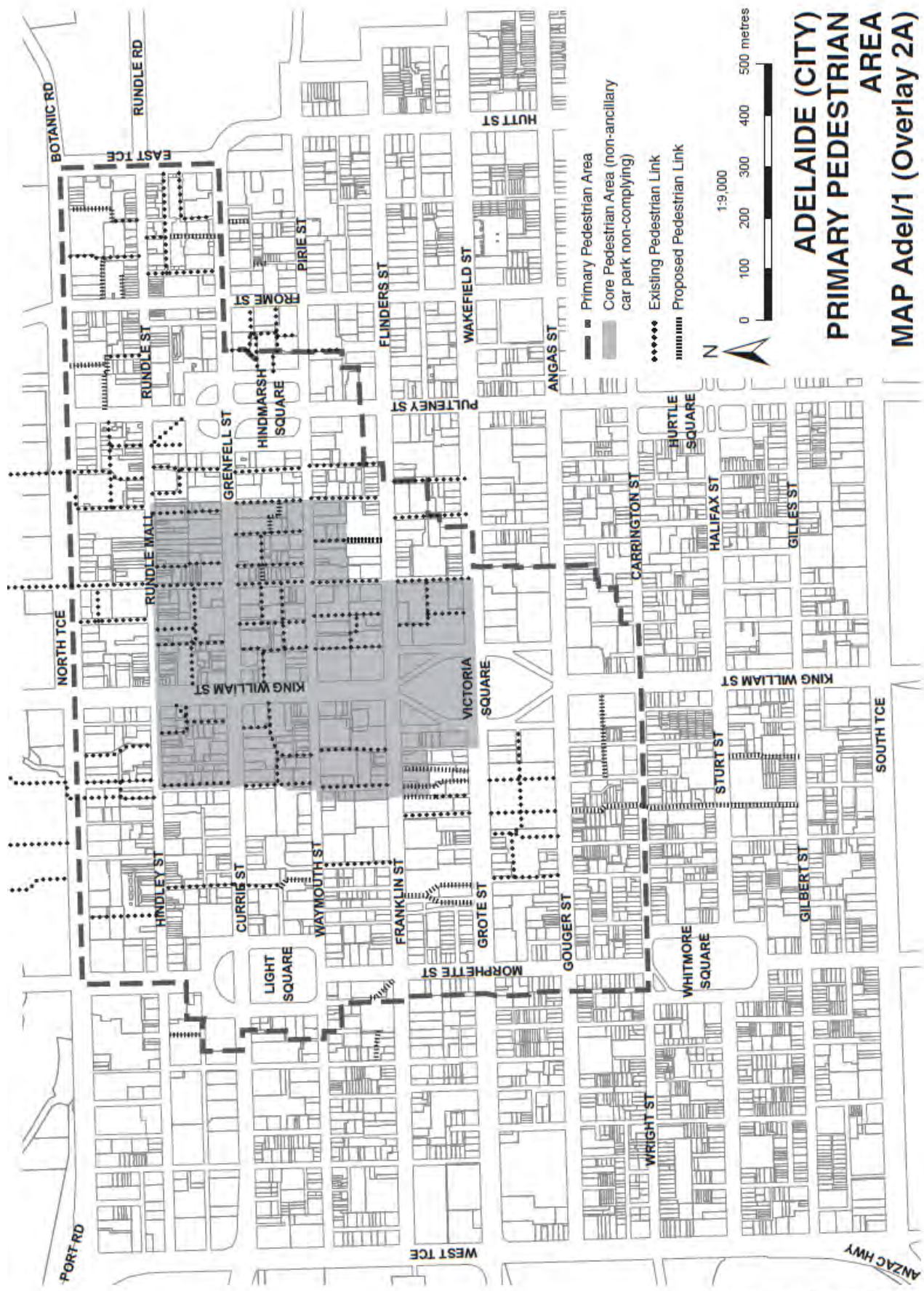
Referral to the Department of Transport and Regional Services through Adelaide Airport Limited is required where a development would exceed the Obstacle Limitation Surface (OLS) contours on this map.

- 100** OLS Values in Australian Height Datum (AHD)
- OLS Contour Boundary
- * 40m** Indicative ground level in AHD. Note: Ground level varies throughout the Council area and accurate ground level in AHD would need to be confirmed
- - -** Development Plan Boundary



ADELAIDE (CITY) AIRPORT BUILDING HEIGHTS MAP Adel/1 (Overlay 5)

Note: Approval is required under the Commonwealth Airports Act 1996 for structures and the like that penetrate prescribed air space (as defined in the Airports Act 1996)



- ▬ Primary Pedestrian Area
- ▬ Core Pedestrian Area (non-ancillary car park non-complying)
- ⋯ Existing Pedestrian Link
- ▬ Proposed Pedestrian Link



ADELAIDE (CITY)
PRIMARY PEDESTRIAN
AREA
MAP Adel/1 (Overlay 2A)

200 North Terrace: Site Photographs



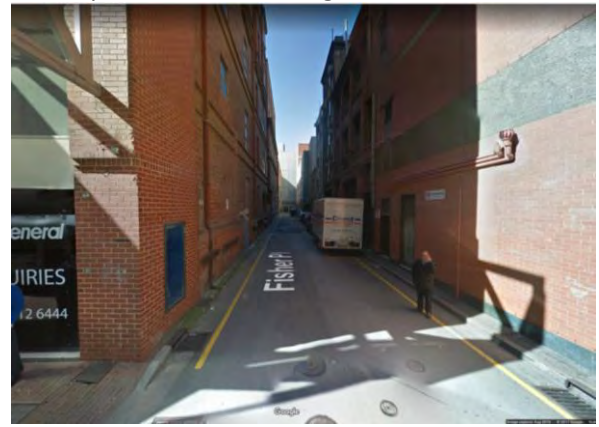
Development Site – looking north



Development Site – looking east



Development Site – looking west



Fisher Place - looking east



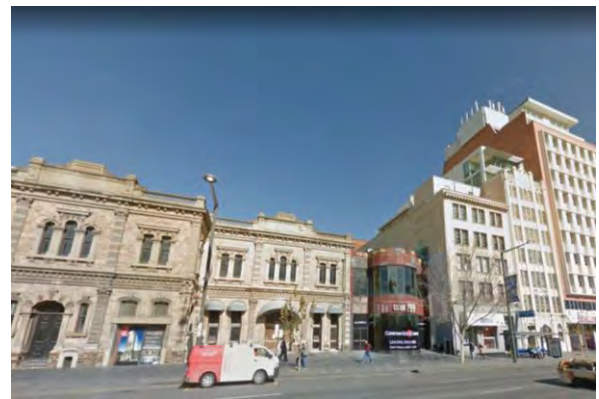
Fisher Lane – looking west towards Gawler Place



Gawler Place – looking north towards North Terrace



Kintore Ave – looking southeast to development site



North Terrace – looking south to development site

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5848 Folio 482

Parent Title(s) CT 5200/523
Creating Dealing(s) PS 9020586
Title Issued 31/05/2001 **Edition** 2 **Edition Issued** 18/06/2002

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 1 FILED PLAN 112515
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

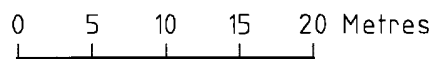
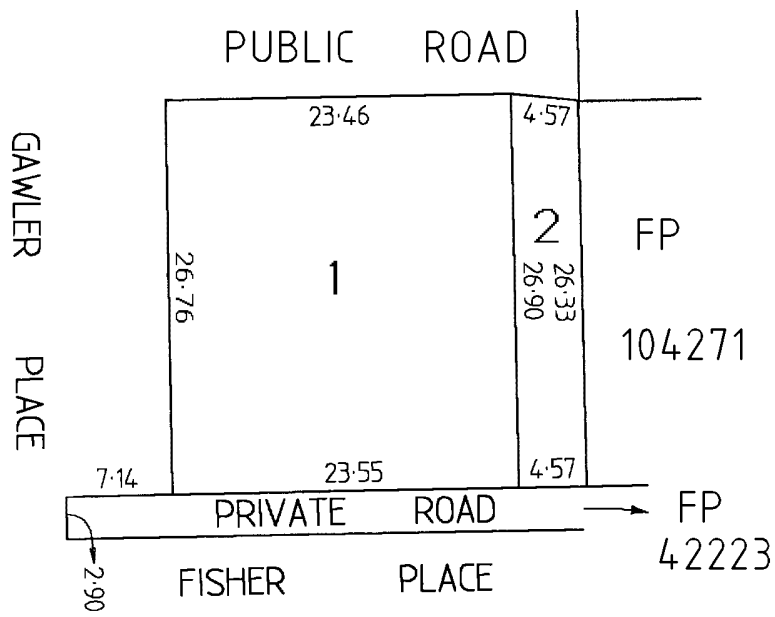
Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G52/1998
AMENDMENT TO DIAGRAM VIDE 11562311
UNAPPROVED FX28822

Administrative Interests NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5848 Folio 483

Parent Title(s) CT 5200/524

Creating Dealing(s) PS 9020586

Title Issued 31/05/2001 **Edition** 2 **Edition Issued** 18/06/2002

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 1 FILED PLAN 2373
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

SUBJECT TO PARTY WALL RIGHT(S) OVER THE LAND MARKED A (T 4434570)

TOGETHER WITH THE EASEMENT(S) FOR LIGHT AND AIR WITH LIMITATIONS OVER THE LAND MARKED C (T 1709549)

TOGETHER WITH PARTY WALL RIGHT(S) OVER THE LAND MARKED B (T 4434570)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

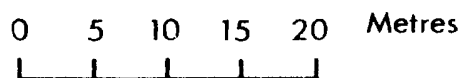
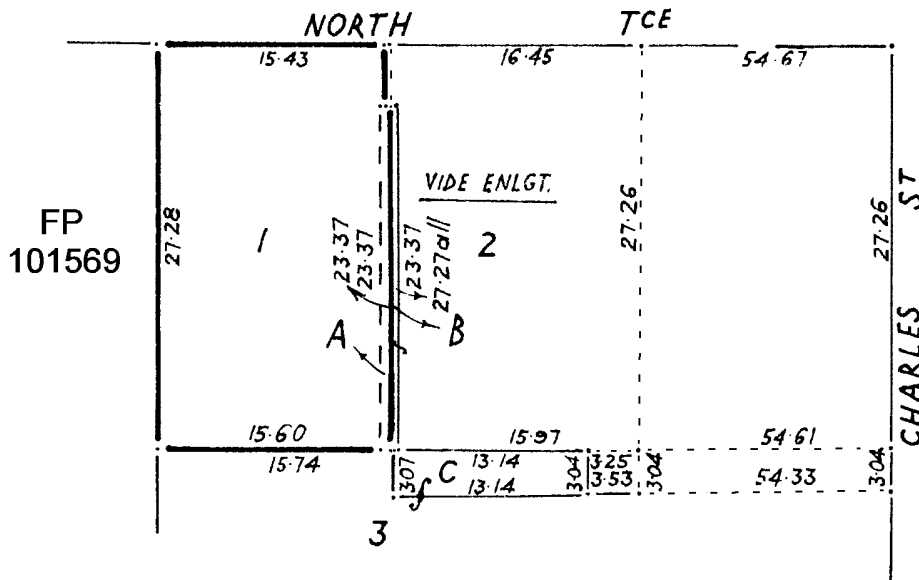
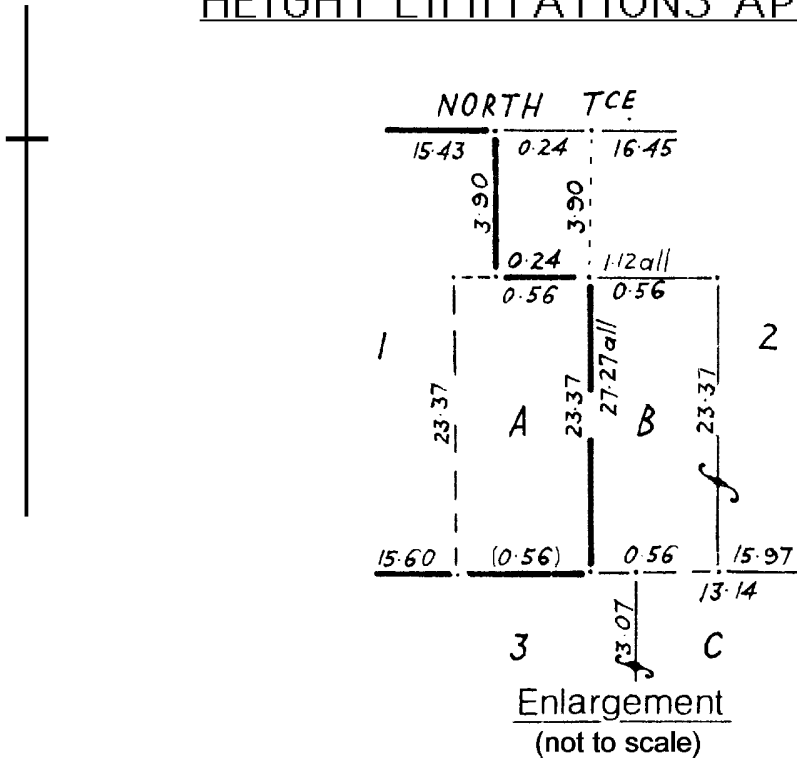
Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G52/1998
UNAPPROVED FX28822

Administrative Interests

CONFIRMED IN SA HERITAGE REGISTER 11/09/1986

HEIGHT LIMITATIONS APPLY



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5848 Folio 486

Parent Title(s) CT 5200/527
Creating Dealing(s) PS 9020586
Title Issued 31/05/2001 **Edition** 2 **Edition Issued** 18/06/2002

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 2 FILED PLAN 112515
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

SUBJECT TO RIGHT(S) OF WAY OVER THE WITHIN LAND (GRO NO.219 BOOK 52)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

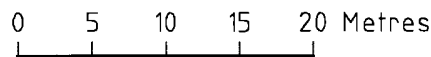
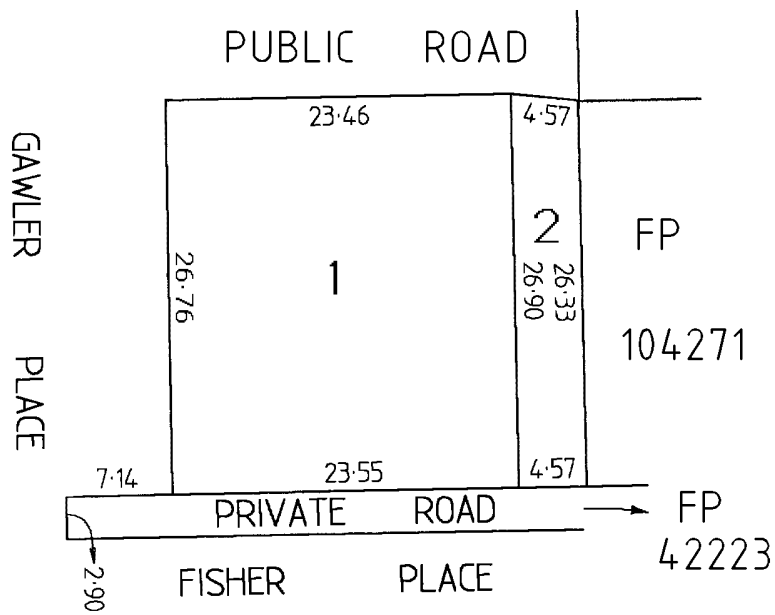
Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G52/1998
AMENDMENT TO DIAGRAM VIDE 11562311
UNAPPROVED FX28822

Administrative Interests NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6079 Folio 186

Parent Title(s) CT 5110/512
Creating Dealing(s) RT 11562383
Title Issued 24/06/2011 **Edition** 1 **Edition Issued** 24/06/2011

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF C/- LE CORDON BLEU AUSTRALIA PTY LTD DAYS ROAD REGENCY PARK SA 5010

Description of Land

ALLOTMENT 10 FILED PLAN 101569
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

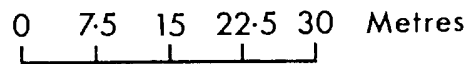
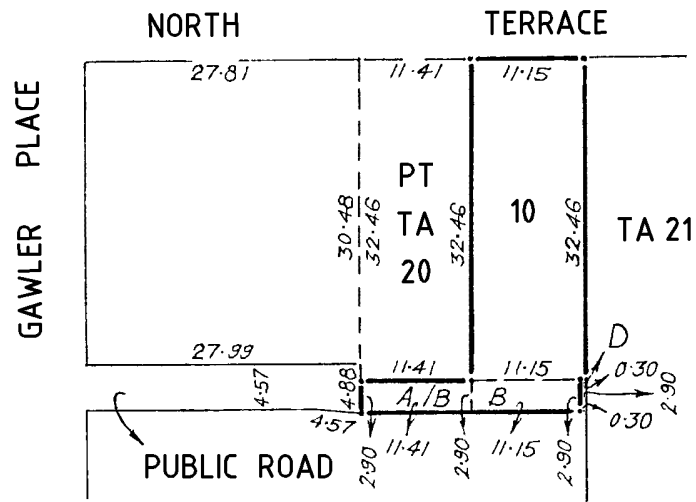
SUBJECT TO RIGHT(S) OF WAY OVER THE LAND MARKED B (T 1299479)
SUBJECT TO FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED A
TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED D (T 1299479)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6079 Folio 188

Parent Title(s) CT 5848/484
Creating Dealing(s) RT 11562383
Title Issued 24/06/2011 **Edition** 1 **Edition Issued** 24/06/2011

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 3 FILED PLAN 2373
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

SUBJECT TO THE EASEMENT(S) FOR LIGHT AND AIR WITH LIMITATIONS OVER THE LAND MARKED C (T 1709549)
SUBJECT TO RIGHT(S) OF WAY OVER THE LAND MARKED E AND F (T 106453 AND T 1299479 RESPECTIVELY)
SUBJECT TO FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED J
TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED G APPURTENANT ONLY TO THE LAND MARKED X (T 1299479)

Schedule of Dealings

NIL

Notations

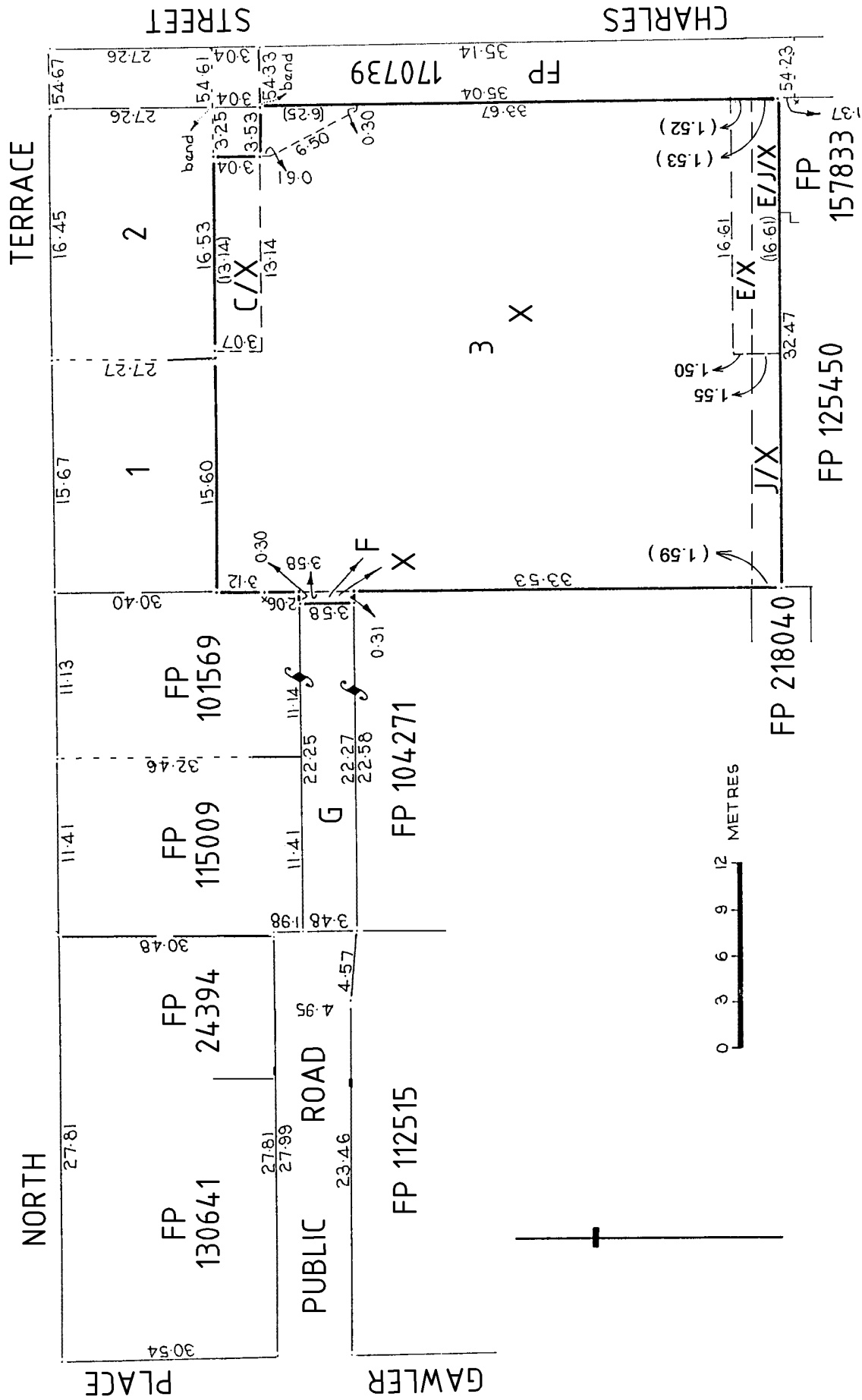
Dealings Affecting Title NIL
Priority Notices NIL
Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G199/1988
PLAN FOR LEASE PURPOSES VIDE G240/1988
PLAN FOR LEASE PURPOSES VIDE G52/1998
APPROVED FX42224

Administrative Interests NIL

HEIGHT LIMITATIONS APPLY



REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6079 Folio 189

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Creating Dealing(s) RT 11562383
Title Issued 24/06/2011 **Edition** 1 **Edition Issued** 24/06/2011

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 1 FILED PLAN 104271
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED B AND C (GRO NO.219 BOOK 52)
TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED A (T 1299479)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL
Priority Notices NIL
Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G199/1988
PLAN FOR LEASE PURPOSES VIDE G52/1998
UNAPPROVED FX28822

Administrative Interests NIL



**MIXED USE COMMERCIAL BUILDING – 200 NORTH
TERRACE
PLANNING STATEMENT**

Final

PREPARED FOR | Commercial & General

PREPARED BY | Fyfe Pty Ltd

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DATE | 11/08/2017

REFERENCE | 65101-001



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1. INTRODUCTION

This planning statement has been prepared in relation to a development application by Commercial & General, for the establishment of a mixed use commercial building located at 200 North Terrace, with a dual frontage to North Terrace and Gawler Place, in the City of Adelaide.

The proposed building is of 19-20 storeys in height, and will provide office and retail floor space with associated active, communal and landscaped areas, car and bicycle parking, and signage.

The subject land is located within the Capital City Zone, as identified by the Adelaide (City) Development Plan.

The proposed building is not identified as either a complying or non-complying form of development in the Zone, and must therefore be assessed on its merit.

Pursuant to the Development Regulations 2008, the State Commission Assessment Panel is the relevant planning authority.

Pre-lodgement consultation with the Office for Design + Architecture (ODASA) has occurred in the form of a pre-lodgement panel meeting, a site visit and a design review which took place on 26 July 2017. It is noted that the Government Architect commends the quality of the proposal and contribution to the public realm.

In preparing this planning statement we have reviewed the following plans and documents which form part of the application and are appended to this report:

- Certificates of Title (Appendix A);
- Heritage Impact Statement prepared by DASH Architects (Appendix B);
- Landscape Concept prepared by Aspect Studios (Appendix C);
- Traffic and Parking Report prepared by MFY (Appendix D);
- Site Stormwater Management Plan prepared by Aurecon (Appendix E);
- Waste Management Plan prepared by Rawtec (Appendix F);
- Advice received by the Office of Design + Architecture (Appendix G);
- Environmental Wind Report prepared by Aurecon (Appendix H);
- Statement of Energy Efficiency prepared by Commercial & General (Appendix I); and
- Infrastructure Summary prepared by Commercial & General (Appendix J).

Design documentation, including a design statement, floor plans, elevations and overshadowing diagrams prepared by Woods Bagot also accompany this application in a separate document.



Following our site and locality inspection, our review of the application documents and our assessment of the relevant provisions of the Development Plan, we have formed the opinion that the proposal warrants Development Plan Consent.



2. THE SUBJECT LAND AND LOCALITY

The subject land is located at 200 North Terrace and is identified as:

- Allotment 1 in Filed Plan 104271 (CT 6079/189);
- Allotment 1 in Filed Plan 2373 (CT 5848/483);
- Allotment 3 in Filed Plan 2373 (CT 6079/188);
- Allotment 1 in Filed Plan 112515 (CT 5848/482);
- Allotment 2 in Filed Plan 112515 (CT 5848/486); and
- Allotment 10 in Filed Plan 101569 (CT 6079/186).

A copy of the Certificates of Title is included as **Appendix A**.

Easements and rights of way exist over Allotment 3, Allotment 1 (CT 6079/189), Allotment 1 (CT 5848/483), Allotment 2 and Allotment 10, which are shown on the Certificates of Title.

The subject land has an area of approximately 3,300 square metres.

As shown by Figure 2.1, the subject land has frontage to:

- North Terrace, to the north (approximately 26.5 metres);
- Gawler Place and a public laneway, to the west (approximately 26.5 metres); and
- Fisher Place, to the south (approximately 29.8 metres).

The land is therefore of significance both in terms of size and location.

Existing buildings on the subject land are presently vacant.

The subject land incorporates a State Heritage building (former G&R Wills & Co warehouse). It is also noted that a State Heritage Place exists to the east of the subject land (second portion of the former G&R Wills & Co warehouse), and a Local Heritage Place to the west.

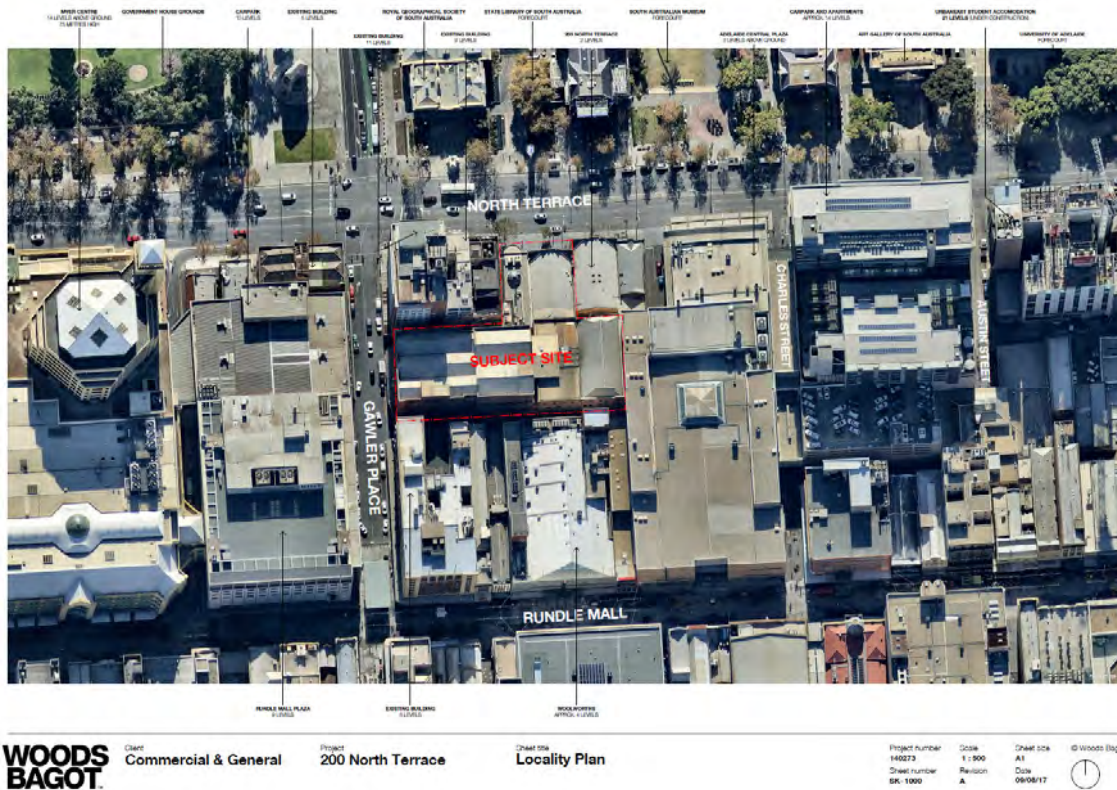


Figure 2.1 Subject site

Directly adjoining buildings, and the wider locality in general to the west, east and south are typically used for commercial and retail purposes, in the form of high scale buildings of a height ranging between two to in excess of 10 storeys.

The State Library and the Museum of South Australia are located further to the north, across North Terrace.

The land is therefore located in a mixed environment blending a heritage context, institutional buildings and intense retail and commercial uses.

It is noted that a DA (DA 020/0003/14A) has been granted Planning Consent on adjacent land known as 203 North Terrace, for the construction of a /19-storey mixed use building, including commercial, retail and residential uses and associated car parking.

It should also be noted that a tram stop will be established adjacent to the North Terrace frontage of the building, as part of the tram extension along North Terrace. This is likely to occur by early 2018.



It is also noted that the Adelaide City Council is currently planning to upgrade Gawler Place in order to establish a contemporary and pedestrian-focused connection to Rundle Mall. Concept designs indicate new paving, lighting, tree planting and seating. Private and service vehicle access into Fisher Place will be retained at all times.

The character of the locality is therefore likely to evolve in the near future into a more modern, connected and higher scale environment.



3. DESCRIPTION OF THE PROPOSAL

3.1 Land Use and Key Features

Commercial & General proposes to redevelop the existing buildings with a multi-storey mixed-use building, together with associated signage, car parking and landscaping.

While the building is proposed to primarily consist of office floor space, retail will be provided in the basement, at ground level and on Levels 1 and 2. While the final tenancy mix is unknown at this stage, it is anticipated that retail could potentially include general and food and beverage tenancies. Commercial and retail areas will respond to tenant/leasing requirements.

The proposal plans, prepared by Woods Bagot are provided in a separate document which accompanies this application, and include:

- Site plan;
- Context analysis;
- Floor plans;
- Elevations,
- 3D overviews;
- Sections;
- Details of materials;
- Overshadowing diagrams; and
- Artist impressions.

Overall, the proposed development will establish a mixed-use building of a contemporary form and design.

With a total of 19-20 levels and a basement level, the proposal will create a new landmark building and will add to the existing fabric in the locality.

The following gross floor areas are proposed at each floor level:

- Basement level: retail (1,467sqm), back of house/storage (1,014sqm), plant and core zone (469sqm);
- Ground floor: retail (1,010sqm), end of trip facilities (346sqm), waste storage (89sqm), loading zone, covered forecourt and lobby;
- Level 1: retail (1,098sqm), car parking (776sqm), bridge, core/plant;



- Level 2: retail (195sqm including terrace), offices (550sqm), terrace (186sqm), car parking (900sqm), lobby/core/plant; and
- Level 3: offices (843sqm), car parking (900sqm), lobby/core/plant.

While those elements of the proposal that have a frontage to North Terrace will be limited to a height of 3 levels or equivalent, the main tower building is proposed to be of a maximum height of 20 levels, with:

- Level 4: offices (867sqm), Sky Lobby (532sqm), terrace (474sqm), core;
- Level 5: offices (867sqm), mezzanine/lobby/core;
- Levels 6-18: offices with areas per floor ranging between 1,672sqm and 1,800sqm, core;
- Plant and equipment located at Level 19.

The existing State heritage building will be renovated in order to accommodate retail tenancies over three levels (ground level, Levels 1 and 2).

A covered forecourt will be established to provide a link from North Terrace to the main tower. A bridge will be established over the forecourt.

Entrance into the main office tower will be clearly identified with a security/badge swiping area at ground level.

Escalators will connect retail levels in that portion of the development fronting Gawler Place.

3.2 Proposed Demolition

It is proposed to demolish the majority of the existing buildings, including buildings contained within:

- Allotment 1 in Filed Plan 104271 (CT 6079/189);
- Allotment 3 in Filed Plan 2373 (CT 6079/188);
- Allotment 1 in Filed Plan 112515 (CT 5848/482);
- Allotment 2 in Filed Plan 112515 (CT 5848/486); and
- Allotment 10 in Filed Plan 101569 (CT 6079/186).

This is shown by Figure 3.1 below.



3.3 Design Vision

As described by Woods Bagot, “the design generally consists of a commercial office tower above a retail podium. The tower is articulated externally as two distinct elements” and set back from North Terrace.

Rather than a building, the intention is to create an “integrated commercial and retail precinct” which will provide a place to work, but also retail tenancies and public spaces during daytime contributing to the active lifestyle that is anticipated in the City.

The focus of the proposal is on pedestrian entry points and connections to public transport opportunities, with limited and separated vehicle access.

The Design Vision is further described in the Woods Bagot design statement.

It is also noted that the proposal will allow the State Heritage building contained within the site to “reengage with the public” through an adaptive reuse, as described by DASH Architects in their Statement.

3.4 Built Form

3.4.1 Proposed Height

The proposed building will be of a total maximum height of 85.4 metres above ground level. In addition, a basement is provided for retail and storage purposes.

The eastern portion of the proposed building will be of a height of 80.45 metres.

The entrance to the covered forecourt will be of a height of 15 metres. An additional structure is proposed on top of the heritage building, which will result in a total height of 15 metres. This will provide consistency with the existing buildings located to the east.

The retail podium/ground level will be of a height of 4.8 metres.

3.4.2 Setbacks

The tower itself will be set back from North Terrace, and will generally be built to the other boundaries, including:

- Portion of the western façade fronting Gawler Place;
- A majority of the southern façade fronting Fisher Place, with the exception of approximately 20 metres adjacent the corner of Gawler Place and Fisher Place; and
- The whole of the eastern façade at podium/car parking level, with a setback introduced at Level 5.

The existing setback between the State Heritage building and North Terrace will be retained.



The ground level retail tenancies fronting Gawler Place and Fisher Place will incorporate a colonnade, establishing a setback of approximately 1 metre from the edge of the building.

The vertical structure of the building will remain relatively linear, yet it is noted that:

- The colonnade proposed at the corner of Gawler Place and Fisher Place will be established at ground level only, with upper levels extending to the boundary; and
- A 3 metre setback will be established on the eastern façade of the building, from Level 5 through to the top of the building, above the terrace that is proposed on Level 4.

3.4.3 Schedule of materials, finishes and colours

Details of materials and finishes are described in the Woods Bagot design documentation.

3.5 Landscaping and Public Realm

Aspect Studios have prepared a landscape concept provided at **Appendix C**.

Landscaping will be established:

- At ground level, in the proposed covered forecourt and laneway;
- On the roof terrace atop the renovated State Heritage building; and
- On terraces.

Vertical greening along stairs and the atrium will be established as required as part of future tenancy fitouts (i.e. this is not proposed as part of works undertaken by Commercial & General).

Landscaping at ground level will include various forms of paving, plants, green walls, seating and a water feature.

A canopy will be established along the Gawler Place frontage.

3.6 Signage

Signage will be provided at the very top of the building, on the northern, southern and western elevations.

Primary identification of the building will also be provided with signage to be established at ground level on the northern façade fronting North Terrace (refer drawing SK-3205 in Wood Bagot's design documentation). Other small signs will be provided in the laneway and Gawler Place to improve identification of entry points.

Further smaller scale signage will be established on ground level façades for each tenancy in order to identify the nature of the associated business.



3.7 Access and Parking

Access and parking configuration is described in the report prepared by MFY (**Appendix D**).

A main pedestrian covered forecourt will create an iconic entrance via North Terrace (over Allotment 10) and provide access into the building.

Other pedestrian entries to the building will be provided via North Terrace, Gawler Place and the public laneway.

Access for tenant and service vehicles will be via Fisher Place, with two separate entries for:

- Tenants, with a ramp up to car parking areas located at levels 1-3; and
- Service vehicles, with the loading zone located at ground level.

A total of 73 car parks will be provided within the development between Level 1 and Level 3 included.

Access to end-of-trip facilities for cyclists will be provided via the public laneway.

3.8 Stormwater Management

Aurecon have prepared a Site Stormwater Management Plan in relation to the proposed development (**Appendix E**).

Aurecon estimate that “there will be no change to catchment areas between pre-construction and post-construction works”.

It is proposed to provide rainwater tank(s) which will result in “a reduction of stormwater flow into the existing CoA [City of Adelaide] stormwater system in the adjacent roads”.

In relation to WSUD, Aurecon advise that “given the minimal extent of landscaping, WSUD are not likely to be incorporated into the landscaping design”.

Further consultation will occur with the City of Adelaide during the detailed design phase in relation to stormwater management.

3.9 Waste Management

A separate waste storage area will be provided at ground level. This will be used by all tenancies. Waste collection will occur via Fisher Place, using the loading zone provided on site.

Rawtec have prepared a Waste Management Plan (**Appendix F**). The Plan identifies that adequate management of waste can be achieved.

Swept paths for vehicles entering and exiting Fisher Place are provided MFY’s report (**Appendix D**).



3.10 Hours of Operation/Operational Management

The office floors are proposed to be open between the hours of 7am to 6pm, albeit staff will be able to access the premises on a 24 hour basis.

Retail tenancies will be operated in accordance with the Shop Trading Act.



4. PROCEDURAL MATTERS

4.1 Relevant Planning Authority

Pursuant to Schedule 10 of the *Development Regulations 2008*, the State Commission Assessment Panel is the planning authority, with the Adelaide (City) Development Plan (Consolidated 20 June 2017) the relevant planning instrument.

4.2 Public Notification

Having regard to the procedural matters for the Capital City Zone, the proposed mixed use building is considered to be a Category 1 form of development for the purposes of public notification.

4.3 Referrals

Pursuant to Schedule 8 of the *Development Regulations 2008*, the proposal is to be referred to the Commissioner of Highways, the Government Architect and the State Heritage Unit.

Pursuant to *The Commonwealth Airports Act 1996*, the proposal is to be referred to the Department of Transport and Regional Services through Adelaide Airport Limited, as the proposed height will exceed the Obstacle Limitation Surface (OLS) shown on Map Adel/1 (Overlay 5) of the Adelaide (City) Development Plan.

4.4 Design Reviews

Design Reviews have occurred with the Office for Design + Architecture (ODASA), with advice received from the Government Architect appended to this report (refer **Appendix G**).



5. DEVELOPMENT PLAN CONSIDERATIONS

5.1 Relevant Policies

The subject land is located within the City of Adelaide, with the Adelaide (City) Development Plan, consolidated on 20 June 2017, the relevant planning instrument.

The land is located within the Capital City Zone of the Adelaide (City) Development Plan. It is also within the Central Business Policy Area 13, with the Main Street Policy Area 14 adjacent the subject land to the south.

The relevant provisions of the Adelaide (City) Development Plan are discussed in this section. Our assessment of the proposal first focuses on the more detailed policies contained within the Capital City Zone, and then the most relevant Council-wide policies.

5.2 Capital City Zone

5.2.1 Zone Objectives and Desired Character

Objectives: 1, 2, 4, 5, 6, 7

The Capital City Zone objectives, and the Development Plan in general, seek to encourage the growth in economic activities with a varied mixed use environment that will enhance the character and function of the City.

The proposed development will provide a commercial and retail mixed use building designed in an innovative and contemporary manner which will respond to the two-fold context of North Terrace, the main pedestrian and cultural boulevard; and the Rundle Mall area, a key high level activity area in the City.

The Desired Character Statement for the Zone further characterises the form of envisaged development in the Zone:

High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building façades, verandahs, balconies, awnings and other features that provide weather protection.

In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment. In narrow streets and laneways the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure. In the Central Business Policy Areas, upper level setbacks are not envisaged.



Non-residential land uses at ground floor level that generate high levels of pedestrian activity such as shops, cafés and restaurants will occur throughout the Zone. Within the Central Business Policy Area, residential land uses at ground level are discouraged. At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters. Non-residential and / or residential land uses will face the street at the first floor level to contribute to street vibrancy.

New development in the Capital City Zone is sought to be high in scale, contemporary and innovative in design, and to provide a pedestrian-friendly environment with ground level activation through non-residential uses.

The development is located within the Primary Pedestrian Area of the City. It provides a canopy and a colonnade along the main pedestrian frontage (Gawler Place) in order to ensure the human scale of ground level activation and ultimately pedestrian interest.

New development in the Zone is encouraged to achieve the following high quality design criteria, which the proposal will respond to in the following manner:

- **Contextual**

As described in Wood Bagot’s design documentation, the building will be set back from North Terrace and limited in height along the North Terrace frontage in order to respond to the character of the North Terrace boulevard and particularly the heritage fabric within and adjoining the site.

As such, the proposed covered forecourt will further highlight the role of North Terrace as a pedestrian promenade and create a new pedestrian connection within the City’s Primary Pedestrian Area.

In further respect to the heritage context, it is noted that juxtaposition with heritage places is encouraged in the Zone through innovative design which will respond to the site context and form of the heritage place. In their Heritage Impact Statement (**Appendix B**), DASH Architects consider that:

The adaptive reuse proposed for the building is entirely appropriate to both the building and the precinct. Further, if successful it will allow the building to reengage with the public and will ensure its ongoing viability and contribution to the City.

- **Durable**

The materials that are proposed to be used during the construction of the building will be respectful of the surrounding environment, and of a high and durable quality. Materials are described in Wood Bagot’s design documentation.

The proposal is intended to become a new long-lasting iconic building in the City’s skyline.



- **Inclusive**

The development will provide access to all modes of transportation including private cars, bicycles, public transport and pedestrians. Emphasis is placed on pedestrian entry points, links and connections within and out of the site.

- **Sustainable**

The development promotes the use of public and soft transportation, as well as recycling of waste and reuse of stormwater on site. All of these characteristics will maximise the environmental performance of the development.

- **Amenable**

The proposed building will provide retail tenancies, a high quality workplace and active and green spaces which will all contribute to the creation of an integrated commercial, retail and lifestyle precinct. Natural ventilation and light will be maximised throughout the development with the provision of open spaces and extended use of clear and tinted glass.

In all of these key elements, the proposal is consistent with the desired character for the Zone.

5.2.2 Policy Area 13

Objectives: 1, 2, 3 Principles of Development Control: 1, 2, 3

The objectives and Desired Character Statement for the Policy Area reiterates the key elements contained within the Statement for the Zone:

Buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality. A wide variety of design outcomes of enduring appeal are expected. Complementary and harmonious buildings in individual streets will create localised character and legible differences between streets, founded on the existing activity focus, building and settlement patterns, and street widths.

A high standard of design and integration with the public realm are anticipated in the Policy Area, which will be achieved through the proposed design. This is further described in Section 5.2.3.

The Policy Area seeks to ensure that buildings are of a height that ensures airport operational safety is not adversely affected. The proposed development will reach a total height of 129.6 AHD. This triggers the need for a referral to Adelaide Airport Limited, which applies to the site for developments that exceed 120 metres AHD.



5.2.3 Design and Appearance

Principles of Development Control: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

The development is of a high standard of architectural design which is appropriate in its location. This will be achieved with:

- The use of high quality materials as described in Wood Bagot's design documentation;
- An integrated and active ground level connecting the covered forecourt, laneway, retail tenancies, lobby to the upper levels of the building, to North Terrace and Gawler Place;
- An iconic pedestrian entrance via North Terrace which will respond to the character of the institutional boulevard;
- A pedestrian-oriented frontage along Gawler Place, with a colonnade proposed at the corner with Fisher Place, and a canopy proposed along the western elevation;
- The podium along Gawler Place will be of a height of 4.8 metres which will provide human scale and definition to the ground level and will be consistent with the anticipated height of between 4 and 6 metres;
- A covered forecourt accessible to the public during operating hours of the tower, creating a pedestrian connection between North Terrace and Gawler Place and an active space that will contribute to a vibrant public realm. This forecourt will provide a sense of openness to the sky for pedestrians and enable natural light throughout;
- Terraces, the Sky Lobby and voids throughout the building will further emphasise this sense of openness and natural lighting;
- Car parking areas that are screened and not located at ground level;
- Aurecon's Environmental Wind Report (**Appendix H**) concludes that there were no regions where wind safety was a concern and that no further wind mitigation is recommended, other than that provided through the design and further detailed in the Report. This will achieve pedestrian comfort; and
- An integrated approach has been taken during the design phase, which ensures a cohesive appearance of the building and associated landscaping and signage. This has also included consideration of ongoing projects by the State Government (particularly the tram extension along North Terrace) and the City of Adelaide (upgrade of Gawler Place).

Copy of the advice received from the Government Architect, following these meetings are included as **Appendix G**. The advice reinstates the significance of the location of the site, and the necessity to provide a high quality design, contribution to the public realm, workplace amenity.



5.2.4 Height

Principles of Development Control: 21, 22

There are no prescribed height limits within the Capital City Zone.

As previously noted, referral to Adelaide Airport Limited will apply to the proposal as the proposed height is in excess of 120 metres AHD.

5.2.5 Movement

Principles of Development Control: 26, 27, 28, 29, 30, 31, 32

These principles will predominantly be addressed in the Transport and Access Section 5.12. However some of the Zone principles are particularly relevant in the context of the subject land and should be addressed in this section.

It is noted that the development is within the Primary Pedestrian Area of the City, and as such should maintain and develop pedestrian links that will encourage pedestrian movements.

This will be achieved with the proposed design further enhancing the Gawler Place streetscape, and creating an additional link between North Terrace and Gawler Place in the form of a covered forecourt.

Access points to the car parking and loading areas will be located away from the North Terrace frontage and will minimise the likelihood of conflict with any pedestrian access point, as anticipated by the Zone provisions.

There will not be car parking areas provided at ground level, which is also anticipated in the Zone.

5.2.6 Advertising

Principles of Development Control: 33, 34, 35

As previously described, identification of the building will be provided with corporate signage to be established:

- At the top of the building, on the northern, southern and western elevations;
- At ground level on the northern façade of the covered forecourt fronting North Terrace (refer drawing SK-3205 in Wood Bagot's design documentation);
- In the laneway and Gawler Place to improve identification of entry points.

It is anticipated that this signage will be designed in a simple and concise manner, as shown by SK-3205.



Additional smaller scale signage will be established on ground level façades for each tenancy in order to identify the nature of the associated business. This is anticipated in an area of high retail activity.

5.3 Crime Prevention through Urban Design

Objectives: 24
Principles of Development Control: 82, 85

Principles of Crime Prevention through Environmental Design (CPTED) have been integrated in the overall design of the proposal, which will result in:

- No blank façades ensuring passive surveillance of the public realm;
- Extended hours of operation and mixed-use activities;
- Direct views into open and/or public areas including terraces, lobbies and the covered forecourt from upper levels;
- The bridge provided over the forecourt providing additional passive surveillance opportunities;
- Clear and legible wayfinding throughout the site and legible connections within and out of the site.

Landscaping will also ensure that sight lines are maintained throughout the site.

Entrance into the office tower itself/workspace element of the proposal will be clearly identified with a security/badge swiping area at ground level.

5.4 Waste Management

Objectives: 28
Principles of Development Control: 101, 102, 103, 104

The Waste Management Plan prepared by Rawtec (**Appendix F**) provides a summary of the waste management methods that could be implemented to service the proposed development.

In summary, the proposed waste management system will achieve a successful management of waste on site.

As anticipated by the Development Plan for development greater than 2,000 square metres of total floor area, the Waste Management Plan includes:

- An on-site dedicated area for the collection and sorting of waste;
- The promotion of recycling.

It is noted that the Waste Management Plan does not include E-waste and hard waste.



In addition, the Site Stormwater Management Plan (**Appendix E**) prepared by Aurecon describes how recycled water will be used on site.

5.5 Energy Efficiency, Micro-Climate and Sunlight

Objectives: 30, 33, 34

Principles of Development Control: 106, 107, 108, 115, 119, 122, 123, 125

The Development Plan seeks to ensure that proposed developments minimise the consumption of non-renewable energy, maximise energy reduction and are adaptable to future alternative uses.

Policies exist for office development in relation to energy efficiency and in particular solar exposure, materials, designs that maximise natural lighting and ventilation, use of renewable energy and use of landscaping.

A Statement of Energy Efficiency has been prepared by Commercial & General (**Appendix I**).

As stated in the report, the proposed development will be designed to achieve both 5 Star Green Star and 5 Star NABERS Energy ratings, which are the recognised frameworks. The design features that have particular implications on energy efficiency are described in the Statement. These will result in:

- A tempered covered forecourt, instead of a fully air conditioned space;
- Mitigation of direct solar gain;
- Mitigation of use of mechanical services including heating, ventilation and air conditioning, including in car parking areas;
- Energy efficiency in artificial lighting;
- Reduction in energy usage attributed to lift systems;
- Monitoring on energy usage;
- Use of solar system for hot water.

The location and design of the development also encourage the use of public and soft transportation.

A canopy will be established along the Gawler Place frontage which will provide weather protection to pedestrians. The covered forecourt will provide space which will be accessible to the public during operating hours.



In respect to overshadowing, shadow diagrams are provided in the design documentation prepared by Woods Bagot. Considering the nature of adjoining buildings and of the wider locality, the shadowing impacts on adjoining buildings is considered acceptable. It is also noted that such will provide shading which will result in reductions in radiation gains.

It is noted that development over 21 metres and built on the street frontage should minimise wind tunnel effect. This is addressed in Aurecon’s Environmental Wind Report (**Appendix H**).

5.6 Stormwater Management

Objectives: 35, 36
Principles of Development Control: 126, 127, 128, 129, 131

The Site Stormwater Management Plan prepared by Aurecon (**Appendix E**) addresses the relevant provisions of the Development Plan, noting that further consultation will be required with the City of Adelaide during the detailed design phase.

The Site Stormwater Management Plan recommends:

- The provision of rainwater tank(s) to allow for stormwater re-use;
- Stormwater to be gravity fed or pumped into the existing stormwater system.

This will allow a reduction of stormwater flow into the existing stormwater system.

5.7 Infrastructure

Objectives: 40, 41
Principles of Development Control: 133, 135

The proposed building will involve the redevelopment of existing buildings on land that is connected to adequate utilities and services, as anticipated by Principle 135.

A summary of infrastructure requirements is provided at **Appendix J**.

Plant and equipment areas will be located in the basement or in areas within the building screened from public view.



5.8 Heritage and Conservation

Objectives: 43, 44

Principles of Development Control: 136, 137, 140, 142, 144, 162

Development Plan policies seek to ensure that:

- Elements of heritage value are conserved;
- The heritage value of a place is generally protected; and
- The reuse of a State Heritage place utilises materials, finishes, setbacks, scale, and signage that are complementary.

DASH Architects have prepared a Heritage Impact Statement (**Appendix B**) which assesses the potential impact of the proposed development on the heritage value of the State Heritage place contained within the site.

The Statement concludes that the proposed reuse of the State Heritage place is “entirely appropriate to both the building and the precinct”, and that the “work proposed, including the conservation works, achieves an appropriate balance [which] should be supported from a heritage point of view”.

DASH Architects form the opinion that “the application meets the intent of the Development Plan from a heritage point of view”. They further suggest that conditions be attached to Planning Consent should the application be approved, in relation to:

- *“External signage;*
- *Basement level;*
- *Detail of the ‘pop top’ extension; and*
- *The proposed conservation works to the main façade”.*

This is due to the fact that additional detail should be provided, yet DASH Architects are confident that such details can be provided in a satisfactory manner and affirm that the above elements do not form major issues.

The Statement also assesses the potential impact of the proposal on other heritage places in the locality, and concludes that the proposed works are unlikely to have “any material impact on the heritage value of these places”.



5.9 Built Form and Townscape

Objectives: 46, 47, 49, 50, 51

Principles of Development Control: 168-172, 177, 179, 180, 182, 185-190, 192-194, 196-198

The proposal is of a height, bulk and scale that are consistent with the size of the subject land and its primary location with a dual frontage to a primary city access and a key pedestrian link, and respectful of the existing heritage fabric, as previously discussed.

The following matters have also been addressed in previous sections:

- Provision of human scale at ground level and of pedestrian connections;
- Implications of height for airport operations;
- Materials and finishes; and
- Provision of an active street frontage.

The design approach has considered the visual appearance of elements such as car park entry doors or ventilation louvres, as detailed in Wood Bagot's design documentation.

5.10 Landscaping

Objectives: 55

Principles of Development Control: 207, 208, 209

Aspect Studios have prepared a landscape concept provided at **Appendix C**.

Understorey planting and green walls will be provided throughout the ground level and the roof terrace on top of the State Heritage building, which will result in a high level of public amenity.

Such will also be provided in the work spaces, on terraces and Sky Lobby.

We consider that landscaping has been successfully integrated as an inherent part of the overall design and will create multiple open and landscaped space opportunities for the public and workers.



5.11 Advertising

Objectives: 56
Principles of Development Control: 211, 217

As previously described, identification of the building will be provided with corporate signage to be established:

- At the top of the building, on the northern, southern and western elevations;
- At ground level on the northern façade fronting North Terrace (refer drawing SK-3205 in Wood Bagot's design documentation);
- In the laneway and Gawler Place to improve identification of entry points.

It is anticipated that this signage will be designed in a simple and concise manner, for the purpose of building identification.

Additional small scale signage will be provided to improve the legibility and identification of retail tenancies. This includes signage affixed to the façade of the renovated State Heritage place, which will be designed in a manner that is respectful of the heritage fabric.

None of the proposed signs are likely to represent a hazard to traffic or public safety.

5.12 Transport and Access

Objectives: 60-72
Principles of Development Control: 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 239-244, 246-248, 251-252, 259-262

This section should be read in conjunction with MFY's Traffic and Parking Report contained at **Appendix D** of this report.

5.12.1 Access and Movement

The proposal creates a focus on pedestrian entry points and linkages within the proposal itself and connections with the locality in general. Access to public transport opportunities and provision of bicycle parking facilities will also be a key aspect of the proposal.



5.12.2 Pedestrian Access

Multiple pedestrian access points are provided via North Terrace and Gawler Place.

The covered forecourt and the laneway provide direct access into the tower itself, with separate entries into the multiple retail tenancies at ground level.

The proposed connections will contribute to the existing pedestrian links networks that exist in the locality, which is consistent with the location of the site within the Primary Pedestrian Area as identified in the Development Plan.

A canopy along the Gawler Place frontage will provide weather protection to pedestrians. The covered forecourt will provide a space accessible to the public during operating hours of the building.

5.12.3 Bicycle Access

Bicycle access is provided via the laneway, with end of trip facilities located at ground level. A total of 100 bicycle parks are proposed as part of the development. MFY have assessed the provision of bicycle parking in their report, and consider that the proposed provision of bicycle parks exceeds the anticipated demand for such parking on site.

We note that the proposal is consistent with the general policy intent to encourage the use of bicycles within the City. The end-of-trip facilities will also be designed and sited in a manner that is consistent with the provisions of the Development Plan.

5.12.4 Public Transport

As described by MFY, a number of public transport options exist in the locality.

The proposed development will directly connect to the future tram stop which will be part of the tram extension along North Terrace. The proposal provides adequate ground level activation and pedestrian links to existing and future public transport opportunities, including weather protection provided through the design of canopies and a covered forecourt.

5.12.5 Traffic and Vehicle Access

As previously described, vehicle access will be provided via Fisher Place, with two separate access points for service vehicles and customers.

These access points will be located away from North Terrace, as anticipated in the Development Plan.

In their Report, MFY have assessed access points and provide swept paths diagrams which show that vehicles including MRV will be able to enter and exit the site in accordance with the relevant standards. HRV will also be able to access the site albeit “may need to execute a multi-point turn when exiting”, noting that “it is not unusual for commercial vehicles to execute three point turns when existing loading facilities”.



MFY have also assessed likely future traffic distribution and impact on the road network, and have prepared a SIDRA analysis detailed in their Report. MFY consider that “there will be minimal impact to the existing situation at the North Terrace/Gawler Place/Kintore Avenue intersection”.

MFY also note the additional traffic generated by movements such as taxis and car pickups through a “sensitivity analysis”. The proposal is considered to have a minimal impact on these.

5.12.6 Car Parking

As previously mentioned, a total of 73 car parks will be provided. As explained by MFY, there is no provision rate for car parking in the Development Plan. The car parks will be allocated to commercial tenancies of the development. Alternative options for parking also exist in the locality.

Given the absence of provision rates in the Development Plan, and further noting the wide range of public transport options in the locality, the proposed provision of car parking is considered to be sufficient.

In terms of design, car parking will be provided on multiple levels which do not include ground level, and will be fully screened from public view, as anticipated in the Development Plan. This will ensure the provision of active street frontages.

Car parking areas will be designed in a manner that is consistent with the relevant standards, as described by MFY.



6. CONCLUSION

The applicant, Commercial & General, is proposing a mixed use building with a dual frontage to North Terrace and Gawler Place in the City of Adelaide. The proposed building will provide retail tenancies, a high quality workplace, and active and green spaces which will all contribute to the creation of an integrated commercial, retail and lifestyle precinct.

The design of the building will result in two distinct elements, of a maximum height of respectively 19 and 20 levels.

The building will provide:

- A total of 3,770 square metres of retail floor space and a total of 25,635 square metres of commercial floor space;
- Active and open spaces including a covered forecourt, Sky Lobby and terraces; and
- 73 car parks and 100 bicycle car parks.

The building will be of a high standard contemporary design that is commensurate of the size and location of the site and create a new iconic visual element in the skyline. This can be summarised as follows:

- Adaptive and innovative reuse of a State Heritage building that is respectful of and enhances the heritage fabric;
- Retail gateways will provide a high activity and lifestyle opportunities;
- High standards of workplace amenity;
- Active and open spaces will contribute to and improve the public realm, and to the amenity of the work environment;
- Pedestrian links will support the focus on pedestrian movements in this area of the CBD;
- End of trip facilities for cyclists and connections to public transportation will help to discourage the use of private vehicles; and
- Separate access points for customer and service vehicles, located away from North Terrace, will ensure a minimised impact on main traffic.

It is also acknowledged that the proposal is within an area of very high activity, which will also evolve in the short term with the tram extension along North Terrace and the Gawler Place upgrade. The proposal will provide opportunities for various forms of transportation, with a particular focus on pedestrians, cyclists and connections to public transport opportunities.



While we consider that the proposal is consistent with the relevant provisions of the Adelaide (City) Development Plan, we also note that it is in line with the State Government’s vision for the precinct and the City of Adelaide in general, and with the ongoing and future city projects including tram extension, Gawler Place upgrade.

For these reasons, the proposal in our opinion warrants Planning Consent to be granted by the State Commission Assessment Panel.



Commercial and General

PROPOSED COMMERCIAL DEVELOPMENT 200 NORTH TERRACE, ADELAIDE

TRAFFIC AND PARKING REPORT

August 2017

17-0085

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1.0 INTRODUCTION

This report assesses the traffic and parking aspects associated with the proposed construction of a mixed-use development at 199-200 North Terrace, Adelaide. The subject proposal will include retail and commercial areas and will have frontage to North Terrace and Gawler Place.

Parking for the proposal will be provided on a number of levels within the proposed development. There will be 73 parking spaces provided in the facility and they will be allocated for executives of the commercial tenancies.

Access to the proposed development will be provided via Fisher Place. It will provide for access to/from the proposed parking levels within the building and to separate refuse collection areas on the ground level. In reviewing the access, consideration has been given to the pending upgrade of Gawler Place.

A traffic analysis has been undertaken at the North Terrace/Gawler Place/Kintore Avenue intersection. The assessment considered the traffic demand associated with vehicles accessing the car park. The analyses and results are summarised in the report. In addition, an assessment of alternative travel models has also been included in this report. Importantly, the location of the future tram stop on North Terrace has been considered in this review.

2.0 EXISTING SITUATION

The subject site is 199 - 200 North Terrace, Adelaide. It has frontage to North Terrace and is bound by Gawler Place to the west, Fisher Place to the south and other commercial developments to the east. Figure 1 identifies the subject site.



Figure 1: Locality Map

2.1 ROAD NETWORK

North Terrace is major arterial road with a daily traffic volume in the order of 29,900 vehicles per day. The urban default speed limit of 50 km/h applies on this road. It has a six lane divided carriageway for the majority of its length but widens to seven lanes adjacent the subject site to provide for turning lanes at the North Terrace/Kintore Avenue/Gawler Place signalised intersection. North Terrace is a bus route with bus stop T2 located in close proximity to the site.

Gawler Place is a dead-end road with a daily traffic volume in the order of 4,500 vehicles per day. The urban default speed limit of 50 km/h applies on this road. Vehicle parking is provided on either side of the road for taxis and loading. This section of Gawler Place forms a signalised intersection with North Terrace and Kintore Avenue at its northern end and terminates at the Rundle Mall intersection at its southern end.

Fisher Place is a minor lane which services the adjacent commercial developments. Parking controls are in operation on the southern side of Fisher Place. Loading and refuse collection for adjacent commercial establishments occur on this road.

3.0 PROPOSAL

It is proposed to construct a multi-storey commercial development as illustrated on Woods Bagot’s drawings 140273, SK2201 to SK 2212, dated 9 August 2017. The proposal will include the following components:

- retail areas of 3,848 m²;
- commercial areas of 25,678 m²;
- a 100-space bicycle parking facility accessed from North Terrace; and
- parking levels within the building with provision for 73 parking spaces accessed via Fisher Place.

Vehicle access to the subject site will be provided via Fisher Place. A ramp will be constructed at the existing access point to provide for simultaneous movements to/from the car park. A roller-door will be provided to control access to the proposed car park. Figure 2 identifies the turning movements of vehicles entering and exiting the subject site via this access point.

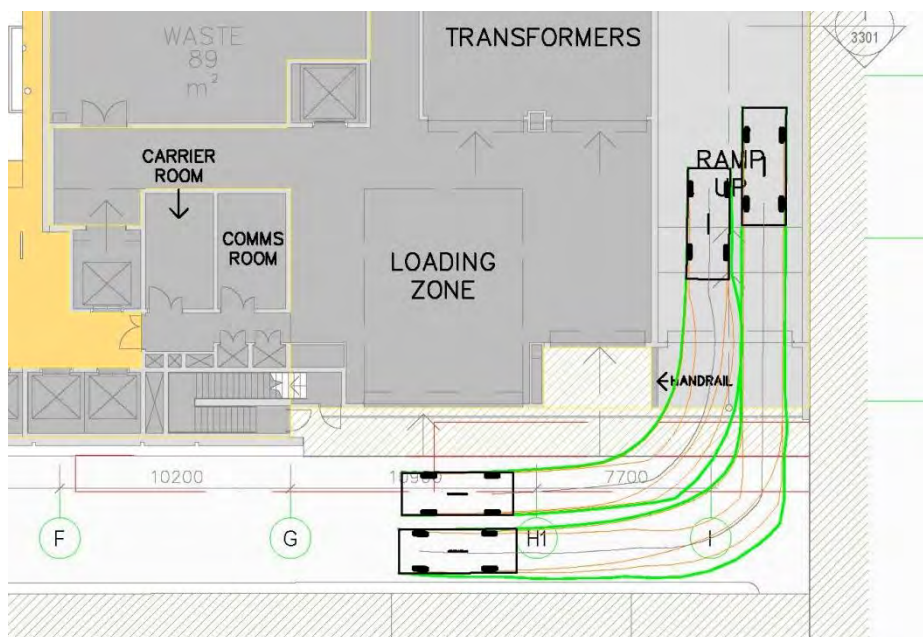


Figure 2: Movements of vehicles entering/exiting the site

The proposed parking areas will comply with the requirements of the Australian/New Zealand Standard, *Parking Facilities Part 1: Off-street car parking (AS/NZS 2890.1:2004)* in that:

- right angled spaces will meet the recommended width requirement of 2.4 m;
- adjacent aisles will meet the recommended width of 5.8 m identified for a Class 1A development (employee parking);

- spaces will be at least 5.4 m long;
- end aisle extensions of at least 1.0 m will be provided in dead-end aisles;
- 300 mm clearance will be provided to obstructions; and
- the vehicular ramps within the site will comply with the grade requirements and will incorporate appropriate transitions for ground clearance.

Additional access points will be created for servicing and refuse vehicles. The access will allow for an MRV to reverse into the site and exit in a forward direction in accordance with *Australian Standard, Parking Facilities Part 2: Off-street commercial vehicle facilities (AS 2890.2–2002)*. Figure 3 illustrate the swept path of a MRV entering and exiting the loading facility.

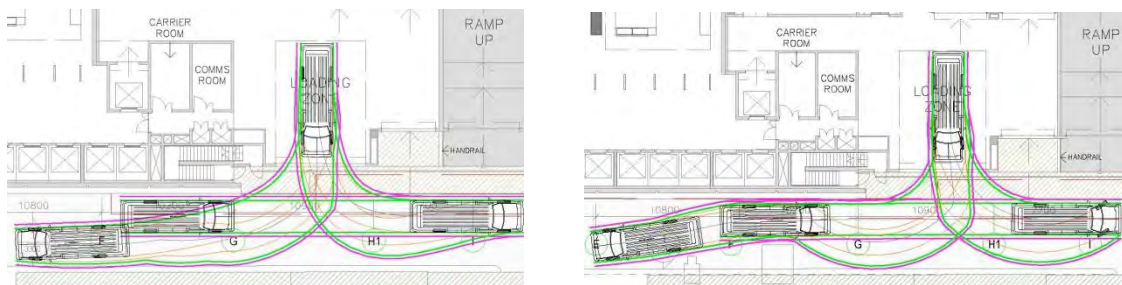


Figure 3: Swept path of a MRV entering and exiting loading facility.

A Heavy Rigid Vehicle (HRV) will also be able to access the site, albeit this vehicle may need to execute a multi-point turn when exiting the site until the loading structure adjacent the Woolworths development is removed or modified. It is not unusual for commercial vehicles to execute three point turns when exiting loading facilities. Figure 4 illustrates the turning path of a HRV.

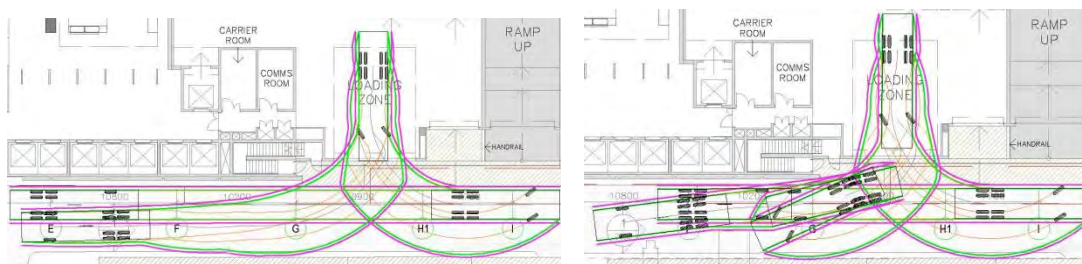


Figure 4: Swept path of an HRV turning movement

The design of the loading facilities will mean that drivers can enter and exit Fisher Place, at Gawler Place, in a forward direction. Appropriate sightlines will be maintained for drivers entering and exiting both the car park access and the delivery area.

4.0 PARKING ASSESSMENT

The subject site is zoned as 'Capital City' in Adelaide City Council's Development Plan (Consolidated 20 June 2017). The Development Plan does not state a vehicle parking provision rate for developments located in this zone. Notwithstanding this, the proposal includes a number of levels dedicated for parking within the subject site which will provide 73 parking spaces. These spaces will be allocated to commercial tenancies of the development.

Other users of the facility who wish to drive to the CBD have the alternative of parking at public parking facilities which provide permanent parking option. Facilities located in close proximity to the site include:

- UPark on Gawler Place;
- Wilson Parking on North Terrace; and
- Secure Parking – Rundle Place.

4.1 BICYCLE PARKING

Council's Development Plan states the following requirement for bicycle provision:

- office: one per 200m² of gross leasable floor area (GLFA) for employees and two plus one per 1,000m² of GLFA for visitors; and
- retail: one per 300m² of GLFA for employees and one per 600m² of GLFA for visitors.

Adopting these rates will require a provision of 156 bicycle parks for the commercial development and 19 bicycle parks for the retail development. Whilst the provision for the retail component is considered appropriate, the provision for office is higher than would be expected. As such, a first principle analysis was undertaken to determine the bicycle parking demand for the commercial component of the proposed development.

Assuming a rate of one employee per 12m² GLFA, the commercial development will generate, in the order of, 2,140 employees. 2011 Census noted that 2.5% of employed persons in City of Adelaide rode a bicycle to work. If the same proportion is adopted, then there would be a requirement for 54 parking spaces for the commercial component. This would result in a total requirement of 73 bicycle parking spaces within the subject site.

The development provides for 100 bicycle parking spaces, as such, exceed the anticipated demand for bicycle parking spaces at the site.

4.2 PUBLIC TRANSPORT

Access to public transport can be considered a major reason for the exclusion of vehicle parking in developments located in the ‘Capital Zone’. Further, the Council’s Development Plan has clearly defined pedestrian links which provide connectivity between the subject site and the public transport station. Key public transport modes include:

- Taxi

Dedicated taxi stopping zones are located site on North Terrace and Gawler Place in close proximity to the subject.

- Bus Routes

There are approximately 30 bus routes which operate adjacent the subject site on North Terrace and King William Street. Table 1 identifies that the bus services provide access to/from the site in all directions.

Table 1: Bus services to/from the subject site

Coverage	Bus Services
North-western suburbs	150, 155, 157, 286, 287, 288
North-eastern suburbs	174, 176, 178, 528, 548, G40, 222, 224, 225F, 228, 229F, 975, N224, T228
South-eastern suburbs	170, 172, 173, 144, 171
South-western suburbs	G40, 719, 720, 721, 722, N721, T721, T722

- Train

The Adelaide Train Station is located approximately 500 metres from the subject site. All the train routes operating in South Australia terminate at the Adelaide Station which provides for connectivity to/from the proposed development.

- Tram

The Glenelg Tram service is a high frequency service that travels between Glenelg and Adelaide. The route stops at a total of 17 stops. The subject site will be serviced by the Rundle Mall tram stop which is located approximately 300 metres from the subject site. The service operates at a frequency of 5 minutes during the weekday peak periods and 10 minutes during the weekday off-peak and weekend peak periods. It is of relevance that the trams are presently operating at capacity during the peak periods.

Further, as part of the State Government’s AdeLINK tram network plan, a one-kilometre extension along North Terrace towards the eastern suburbs will be constructed. It is proposed that there will be a tram stop located at the frontage of the



proposed development. When the tram stop is realised, it will provide very convenient access to the subject site.

5.0 TRAFFIC ASSESSMENT

This section of the report relates to the potential traffic impact associated with the proposed development, specifically the North Terrace/Gawler Place/Kintore Avenue intersection. Whilst the creation of a tram stop adjacent the subject site will influence the design and operation of the intersection, the relative impact as a result of the proposed development will remain consistent. That is, if the queues and delays at the intersection are informal by the redesign associated with the Tram extension, the subject proposal will have no greater impact to the intersection as a whole, when compared to the impact it will have based on its current operation. Accordingly, this assessment has been based on current data.

5.1 EXISTING SITUATION

The existing turning movements at the subject intersection were obtained from DPTI's manual turning survey conducted on Wednesday, 5 April 2017. Figure 5 identifies the turning movements at the intersection.

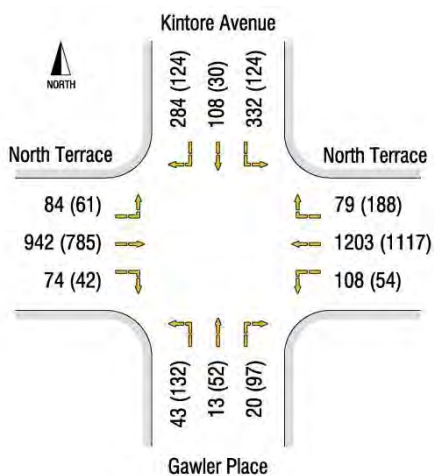


Figure 5: Existing turning movements am(pm)

5.2 TRAFFIC FORECAST

Table 2 represents traffic generation rates adopted for this assessment. Such rates are consistent with previous traffic assessments undertaken by this firm for similar developments.

Table 2: Traffic generation rates

Development Type	Trip Generation Rates		Units
	am peak	pm peak	
Retail	2.0	9.0	Per 100 m ²
Commercial	2.0	2.0	Per 100 m ²

As such, the forecast trip generation for the subject site is:

- 590 trips in the am peak hour; and
- 860 trips in the pm peak hour.

However, traffic accessing the subject site via the intersection will only be vehicles entering and exiting the parking facility. The remaining traffic will either utilise to the broader road network to access the CBD and then walk to the site or use an alternative mode of transport.

Given that the parking facility has a provision for 73 spaces and only caters to the commercial development, the following two scenarios were considered to ascertain the trips generated by the development:

- if the development was considered in isolation, it would generate a theoretical parking demand of approximately 1,100 vehicles to service the facility (based on a parking generation rate for commercial facilities of four spaces/100m²). The actual provision is 73 spaces which equates to approximately 6.6% of the theoretical demand. If 6.6% of vehicles are considered as having an origin or destination at the proposed parking levels, the development would generate approximately 40 trips in the am peak and 55 trips in the pm peak on Gawler Place; and
- if all the occupants of the parking facility arrived during the am peak hour and left during the pm peak hour (which will rarely occur), the facility will generate approximately 75 trips in the am and pm peak hours.

In assessing the two scenarios, it is evident that second scenario presents a greater demand situation. As such, the traffic assessment has been based on 75 trips generated in the am and pm peak hours in Gawler Place.

5.3 TRAFFIC DISTRIBUTIONS

The following traffic distributions were considered for the development:

- 80% in and 20% out for the commercial developments during the am peak and the reverse during the pm peak;
- 25% access the site to/from the north on Kintore Avenue;
- 35% access the site to/from the east on North Terrace; and
- 40% access the site to/from the west on North Terrace.

On this basis, Figure 6 identifies the traffic movements at the North Terrace/Gawler Place/Kintore Avenue with the development volumes.

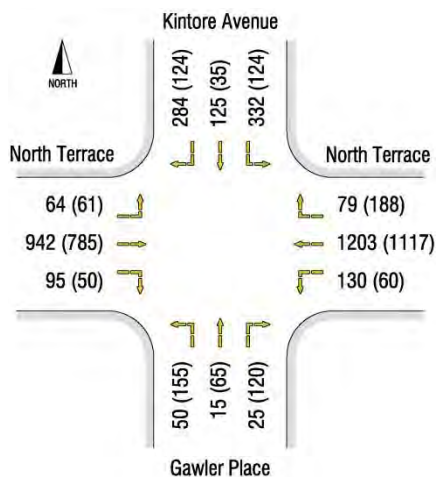


Figure 6: Existing with development forecast traffic volumes am(pm)

5.4 TRAFFIC IMPACTS

SIDRA Intersection 6.1 software has been used to analyse the potential impact on the subject intersection. Table 3 summarises the analysis and the detailed SIDRA outputs are provided in Appendix A.

Table 3: SIDRA analysis summary am(pm)

Road	Turning Movement	DOS		Queue Length	
		Existing	Existing + Dev	Existing	Existing + Dev
Kintore Ave	Left	0.33 (0.13)	0.32 (0.13)	74 (26)	73 (25)
	Through	0.80 (0.66)	0.85 (0.68)	142 (65)	164 (68)
	Right	0.80 (0.66)	0.85 (0.68)	142 (65)	164 (68)
North Terrace (e)	Left	0.82 (0.66)	0.86 (0.70)	202 (158)	220 (164)
	Through	0.82 (0.66)	0.86 (0.70)	205 (159)	224 (165)
	Right	0.80 (0.67)	0.70 (0.70)	39 (71)	38 (72)
Gawler Place	Left	0.06 (0.35)	0.07 (0.41)	12 (63)	14 (78)
	Through	0.06 (0.35)	0.07 (0.41)	12 (63)	14 (78)
	Right	0.06 (0.43)	0.09 (0.57)	5 (39)	8 (51)
North Terrace (w)	Left	0.63 (0.44)	0.65 (0.47)	136 (97)	140 (100)
	Through	0.63 (0.44)	0.65 (0.47)	136 (98)	142 (101)
	Right	0.72 (0.10)	0.85 (0.12)	34 (14)	48 (17)

The analysis identifies that there will be minimal impact to the existing situation at the North Terrace/Gawler Place/Kintore Avenue intersection. The intersection will operate within capacity and the increase in queue lengths will be minimal.

In addition to the above, a sensitivity analysis was undertaken to understand the implications of additional traffic generated on Gawler Place in a 'pick-up/set-down' situation (taxi, carpool etc.). Additional traffic in the order of 5%, 10% and 15% was

considered for this exercise. It was assumed that in/out traffic movements will be 50/50. Table 4 summarises the results of the sensitivity analysis.

Table 4: Degree of saturation (DOS) of sensitivity analysis

	Existing	Existing + Dev	+ 5% pick-up/set-down	+ 10% pick-up/set-down	+ 15% pick-up/set-down
DOS – am Peak	0.82	+ 0.04	+ 0.06	+ 0.09	+ 0.10
DOS – pm Peak	0.66	+ 0.04	+ 0.06	+ 0.08	+ 0.09

The sensitivity analysis identifies that the impact of the development will be minimal on the adjacent road network.

In regard to the broader road network, traffic associated with the facility will occur to/from other locations during the commuter periods. This generation in traffic relates to the development of the CBD and will be distributed amongst the road network, thus minimising any impact. Further, the pending Tram project, with a stop adjacent the subject development, is ideally placed to maximise public transport use for partners of the subject site.

6.0 SUMMARY

This traffic assessment has reviewed access, traffic and parking aspects of the proposed mixed-use development on North Terrace. A number of levels of parking will be incorporated into the development parking spaces and ramps will be designed in accordance with the relevant Australian Standards.

The proposal includes 73 parking spaces to cater for executive requirements, notwithstanding that Council's Development Plan does not state a parking requirement for development in the 'Capital City' zone.

In reality, employees and visitors to the site will utilise various forms of transport to access the CBD. This includes public transport, cycling, shared vehicles, and private car, consistent with similar developments within Adelaide City. This will mean that traffic associated with the development of the site will be distributed so that there will be no significant impact at any one location. Of relevance is the future Tram stop which will be provided opposite the subject site on North Terrace, which will result in very convenient public transport accessibility.

Traffic analysis of the Kintore Avenue/Gawler Place/North Terrace intersection identified that there will not be a significant impact on the operation of this intersection as a result of the traffic accessing the on-site parking spaces on the site. Servicing of the proposal will be via Fisher Place and drivers will be able to enter and exit Gawler Place, at its intersection with Fisher Place, in a forward direction.

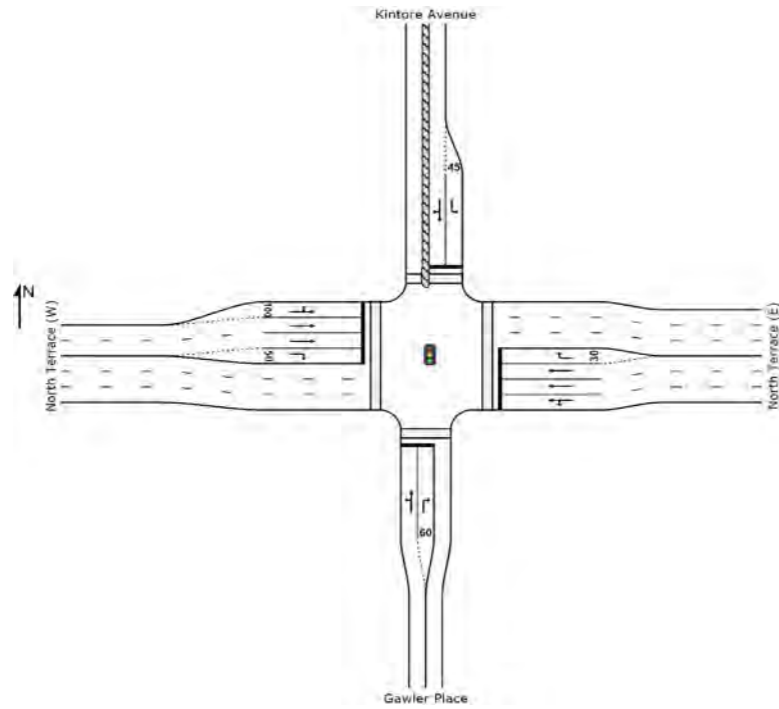
In summary, therefore, the development of this proposal has considered access and traffic requirements and will comply with appropriate Australian Standards. The proposal will provide good accessibility to and convenient facilities to encourage use of alternative transport modes. This will ensure minimal impact on the broader road network.



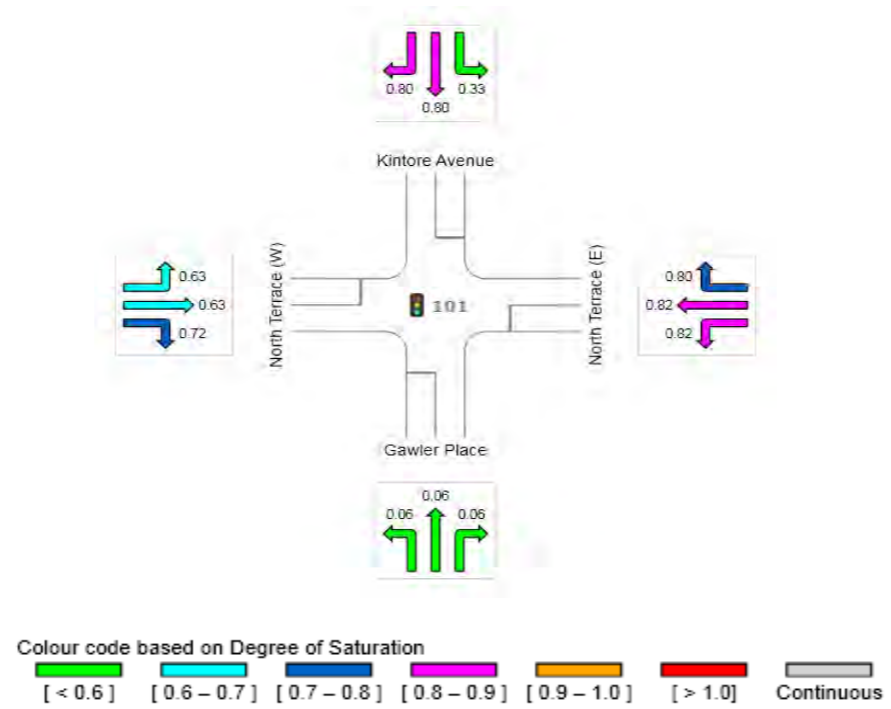
APPENDIX A

SIDRA OUTPUTS

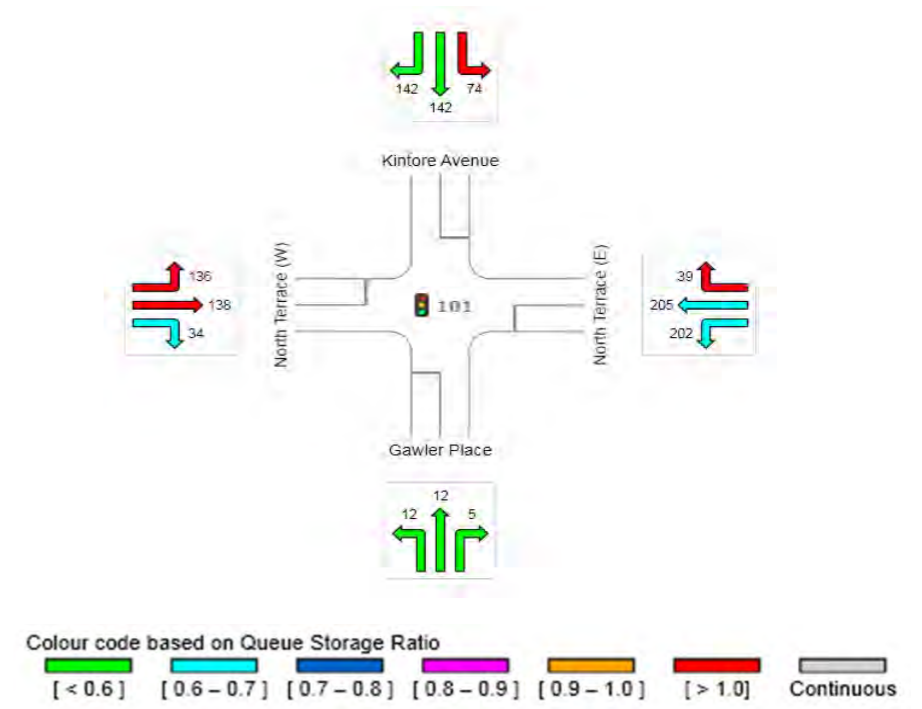
INTERSECTION LAYOUT



DEGREE OF SATURATION



95%ile QUEUE DISTANCE (metres)

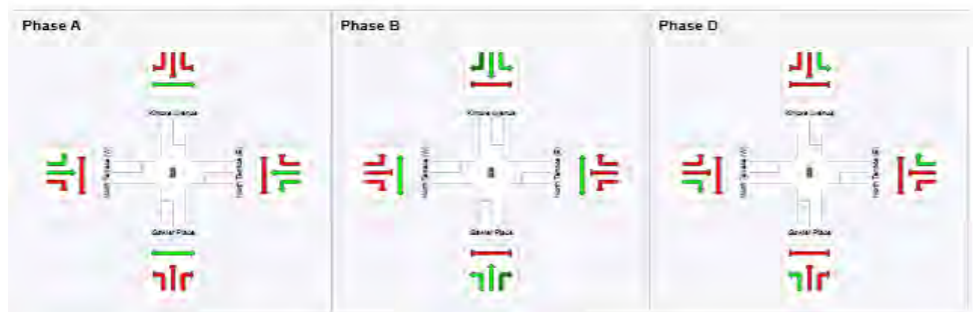


PHASING SUMMARY

Phase times determined by the program
 Sequence: MFY - Copy
 Movement Class: All Movement Classes
 Input Sequence: A, B, D
 Output Sequence: A, B, D

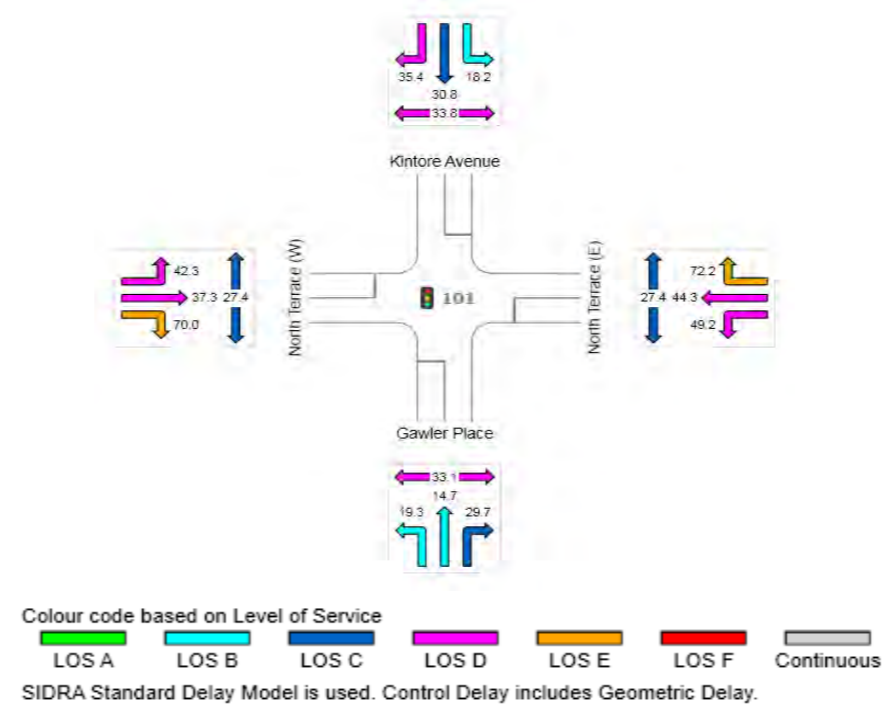
Phase Timing Results

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	44	107
Green Time (sec)	38	57	7
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	44	63	13
Phase Split	37 %	53 %	11 %

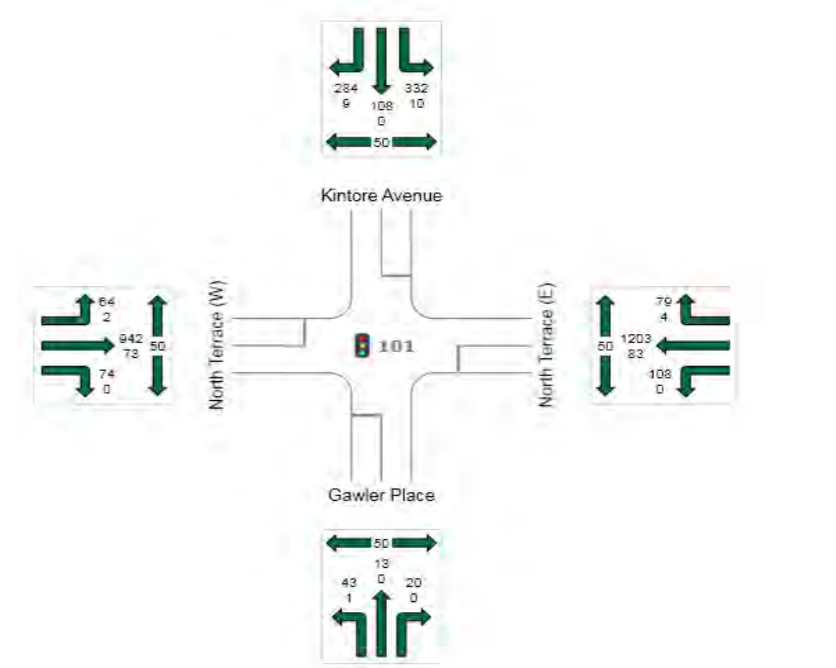


- Normal Movement
- Slip/Bypass-Lane Movement
- Stopped Movement
- Other Movement Class Running
- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
- Turn On Red
- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

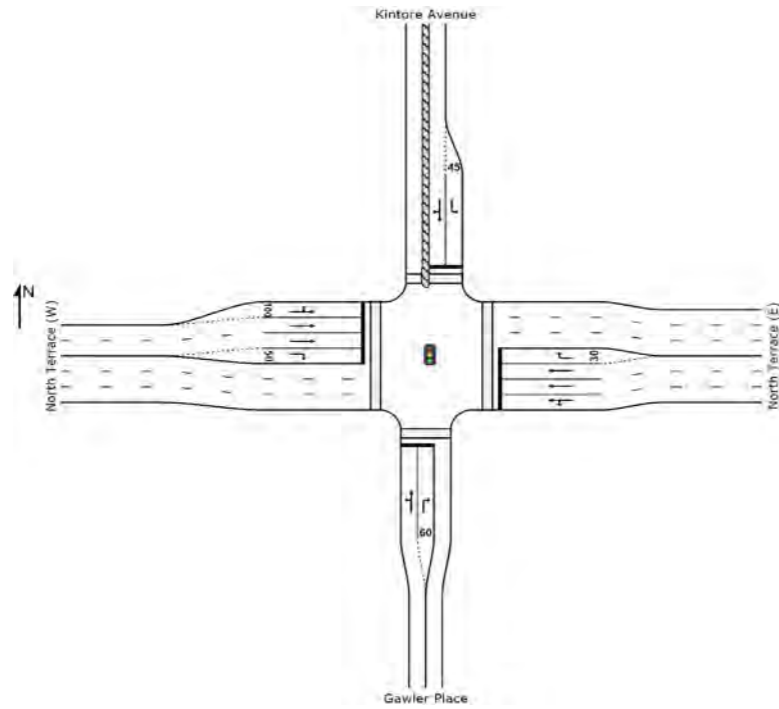
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
 200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

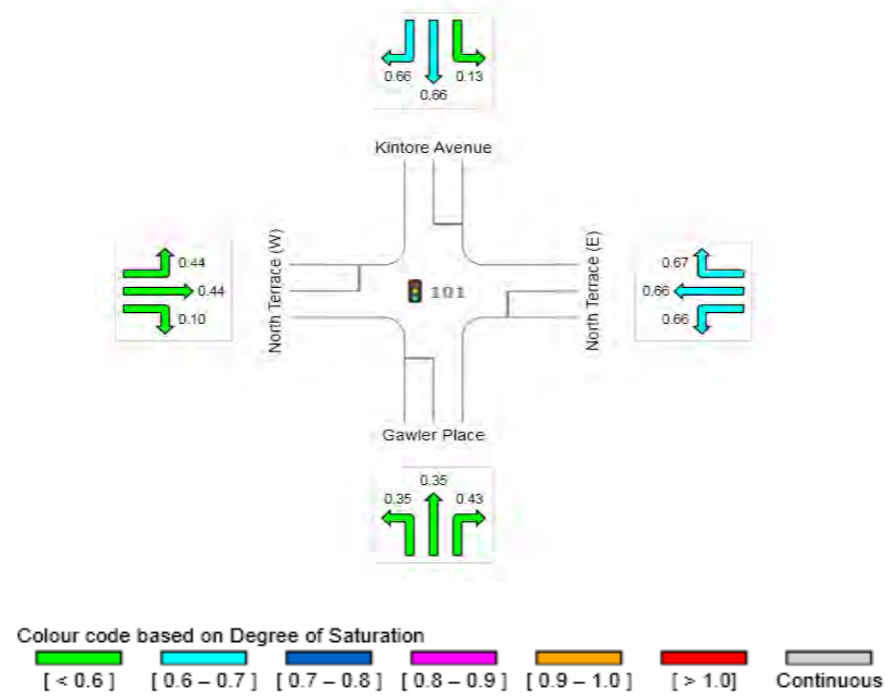
SCENARIO: EXISTING AM PEAK



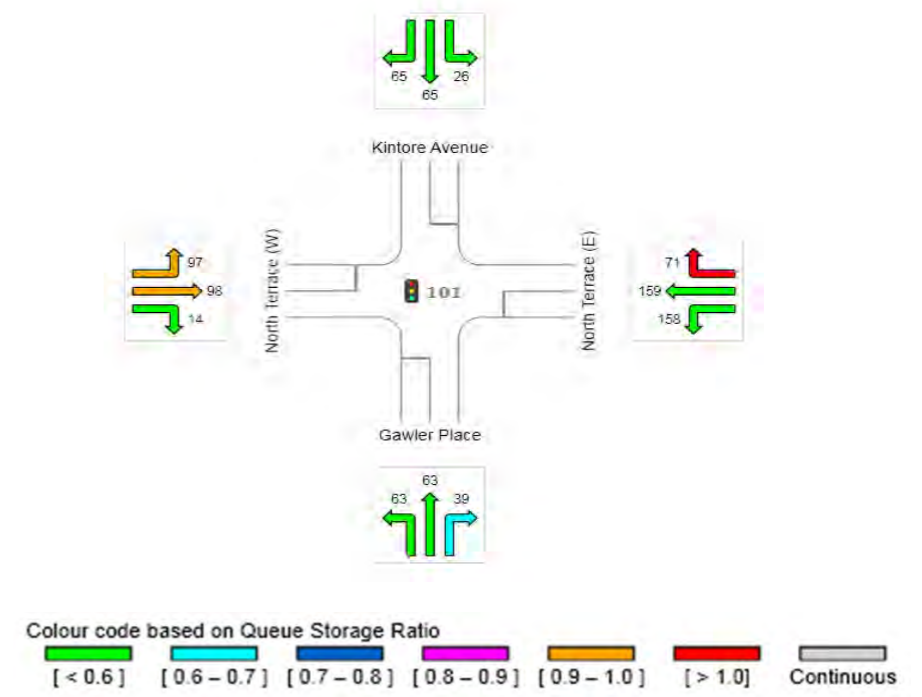
INTERSECTION LAYOUT



DEGREE OF SATURATION

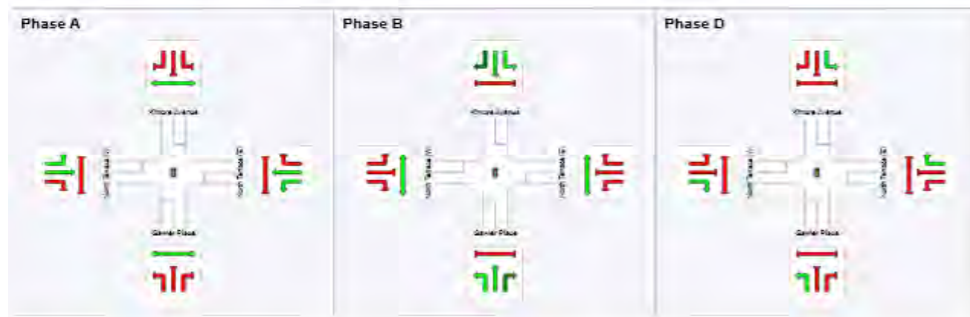


95%ile QUEUE DISTANCE (metres)



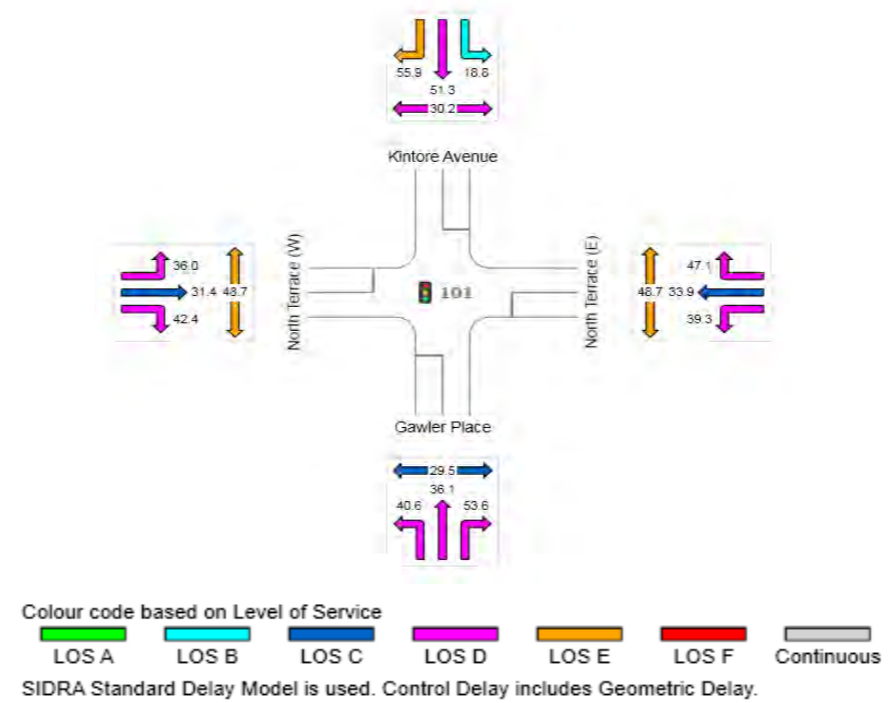
PHASING SUMMARY

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	49	65
Green Time (sec)	43	30	29
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	49	36	35
Phase Split	41 %	30 %	29 %

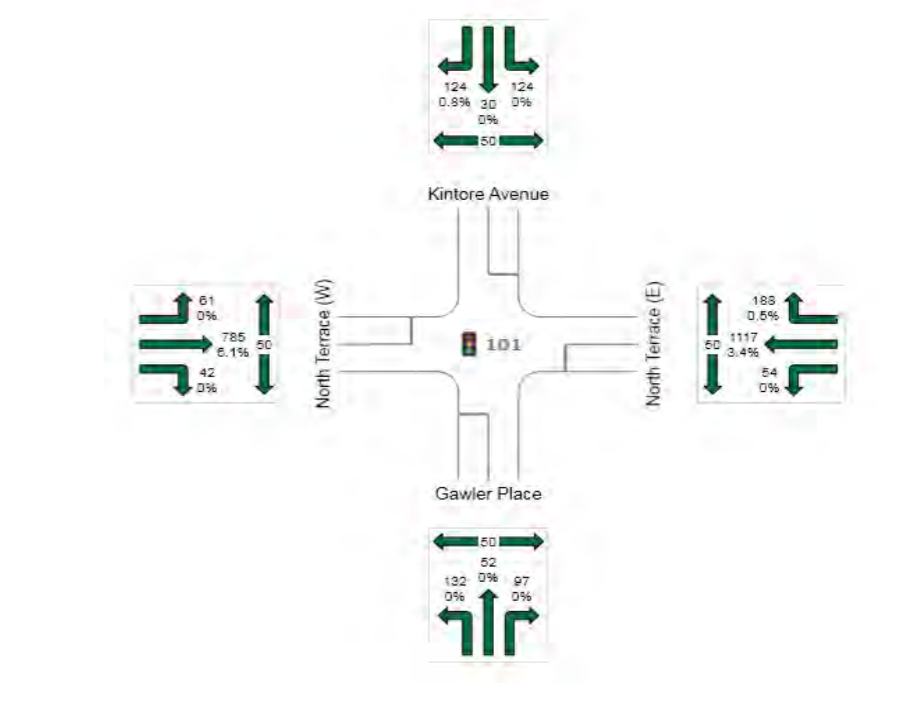


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- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
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- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

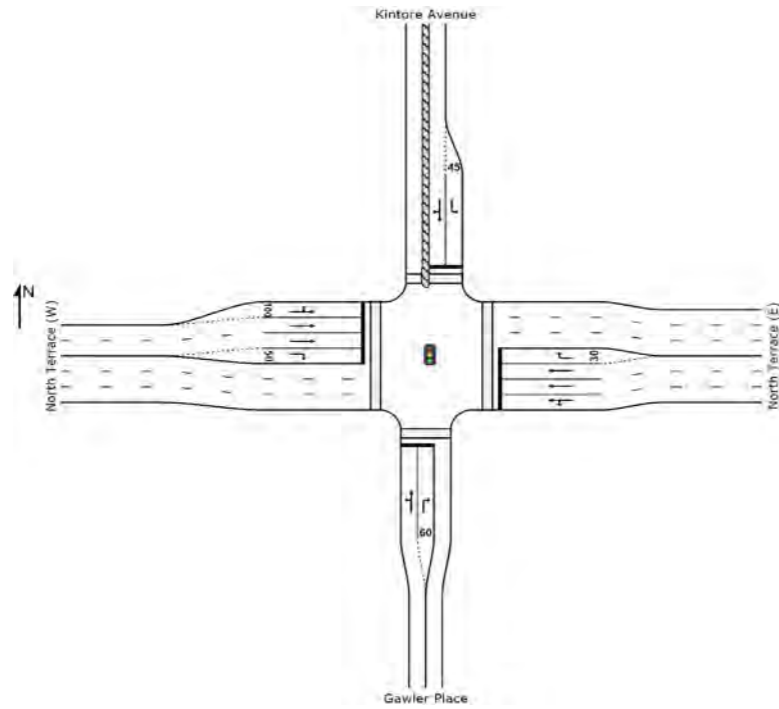
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
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INTERSECTION: NORTH TERRACE/GAWLER PLACE

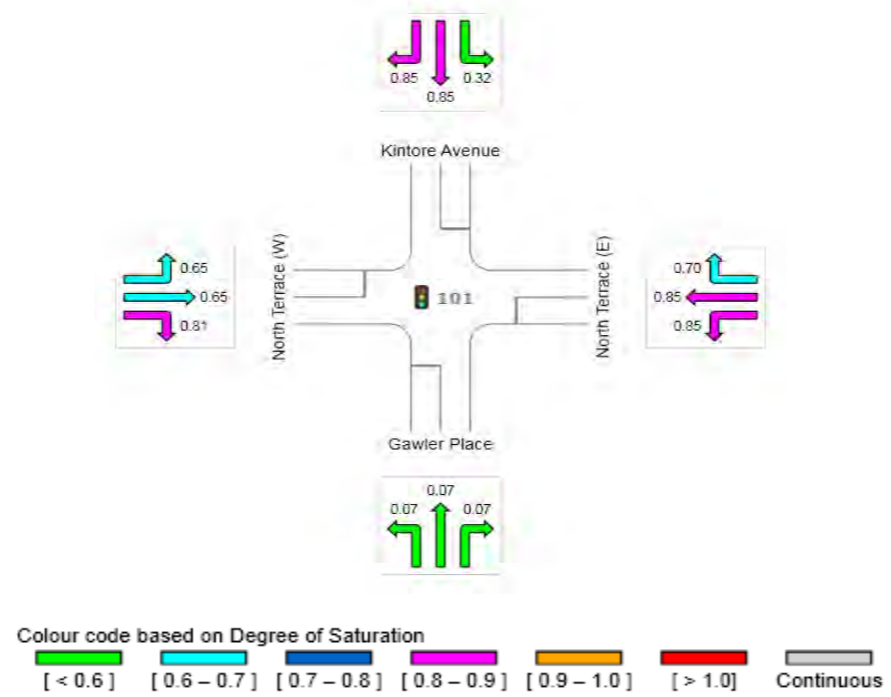
SCENARIO: EXISTING PM PEAK



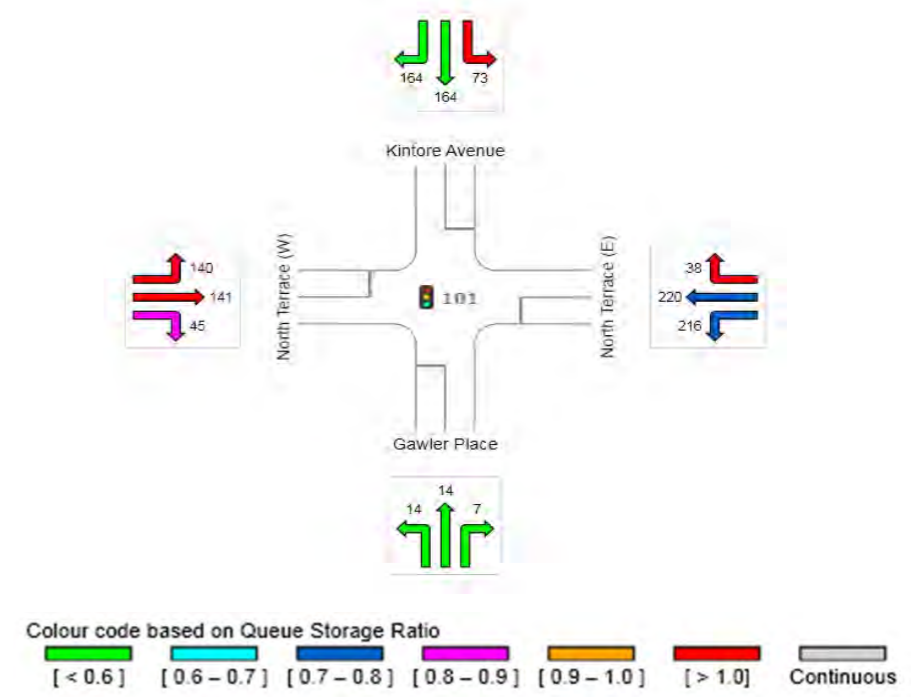
INTERSECTION LAYOUT



DEGREE OF SATURATION

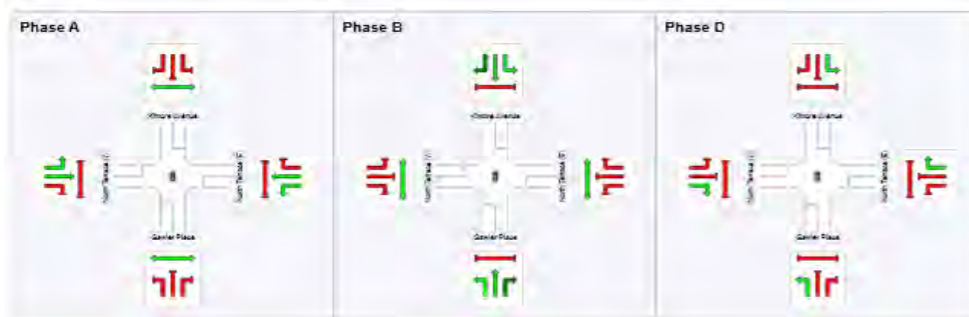


95%ile QUEUE DISTANCE (metres)



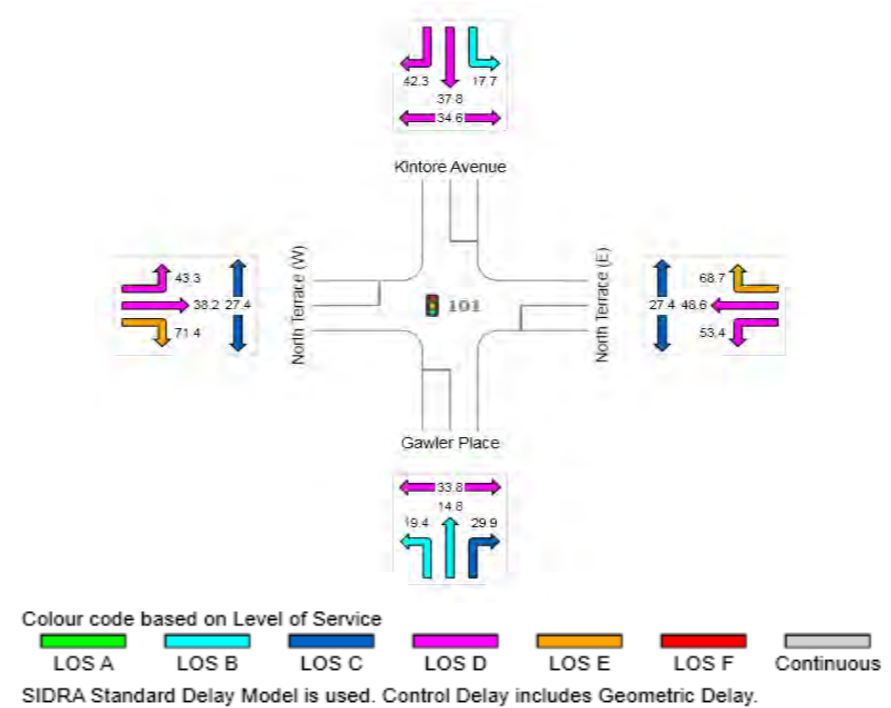
PHASING SUMMARY

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	43	106
Green Time (sec)	37	57	8
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	43	63	14
Phase Split	36 %	53 %	12 %

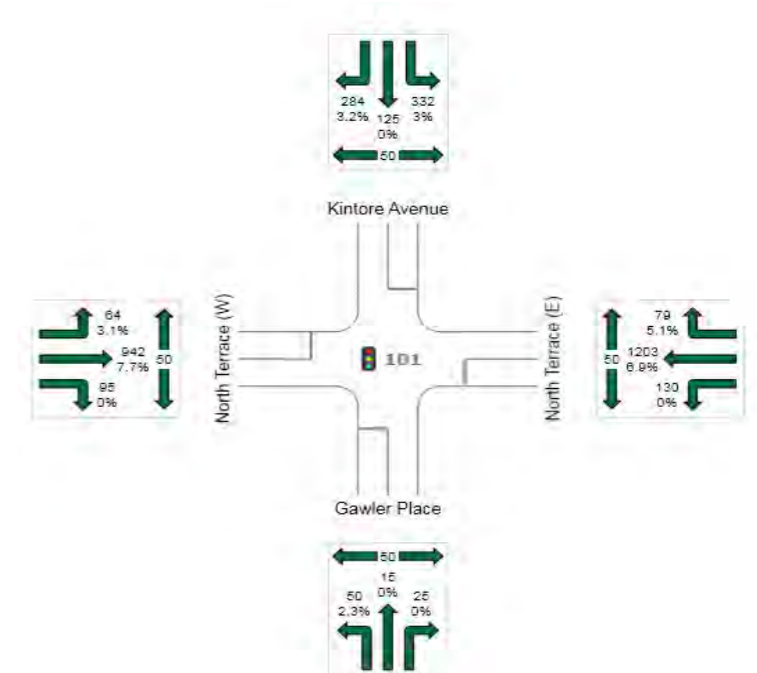


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- Other Movement Class Running
- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
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- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

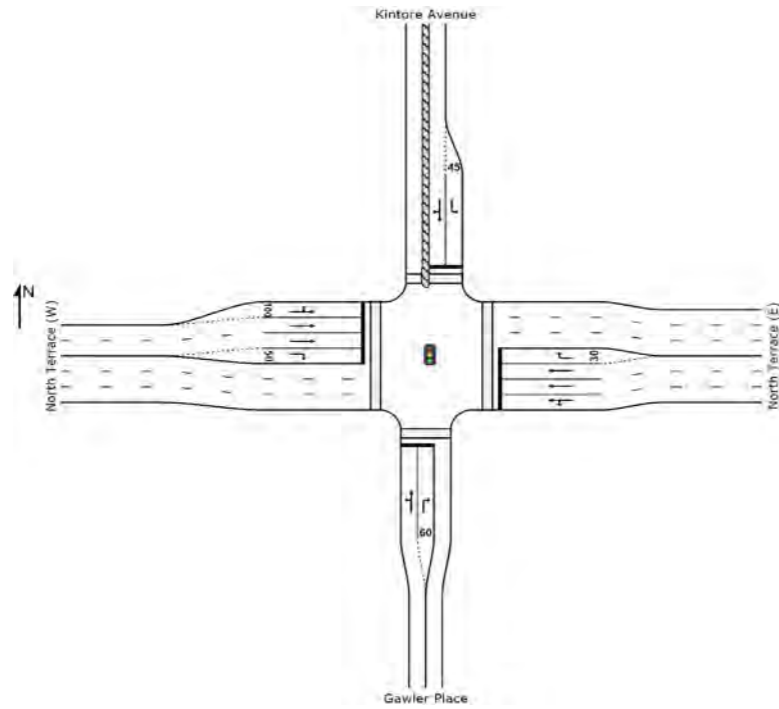
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

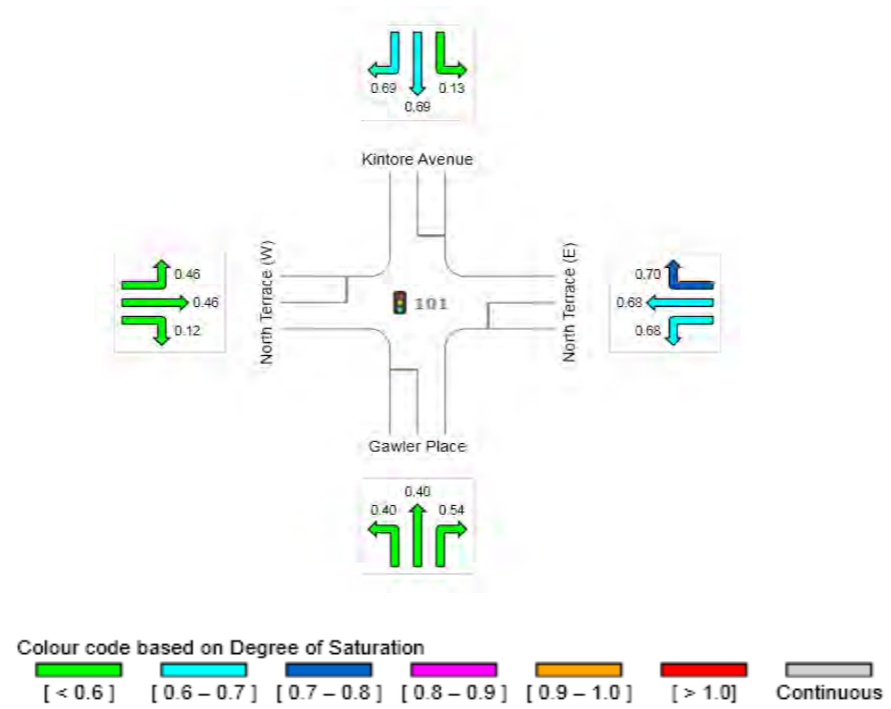
SCENARIO: EXISTING AM PEAK + DEVELOPMENT VOLUMES



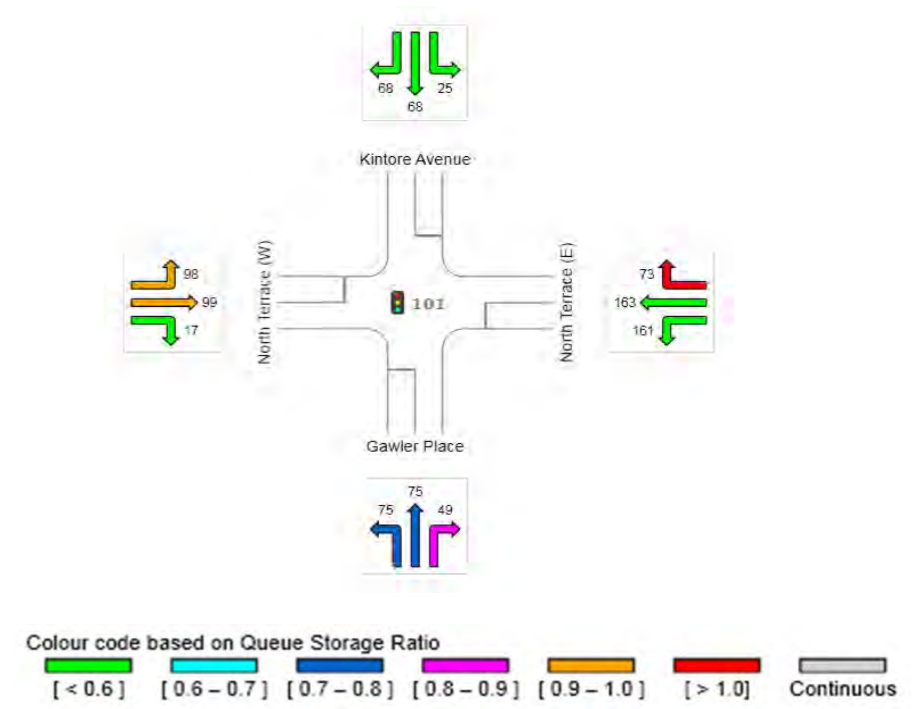
INTERSECTION LAYOUT



DEGREE OF SATURATION



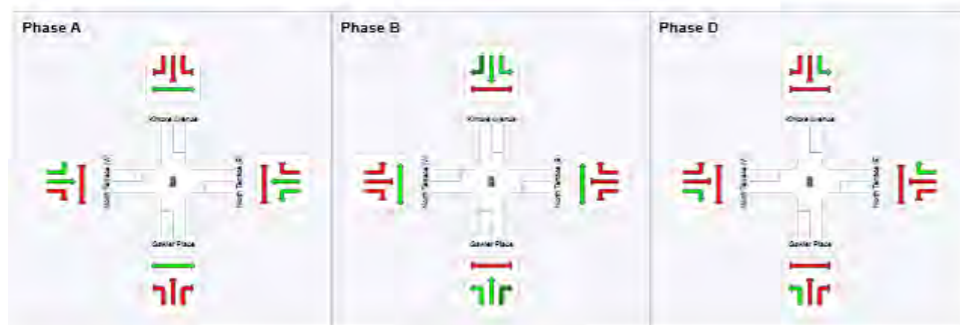
95%ile QUEUE DISTANCE (metres)



PHASING SUMMARY

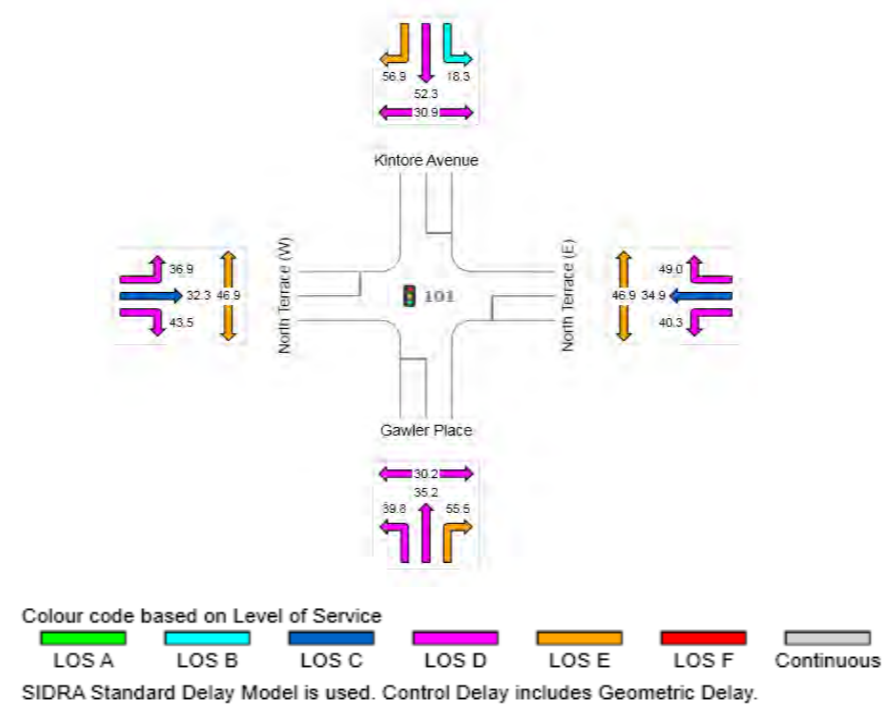
Phase Timing Results

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	48	86
Green Time (sec)	42	32	28
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	48	38	34
Phase Split	40 %	32 %	28 %

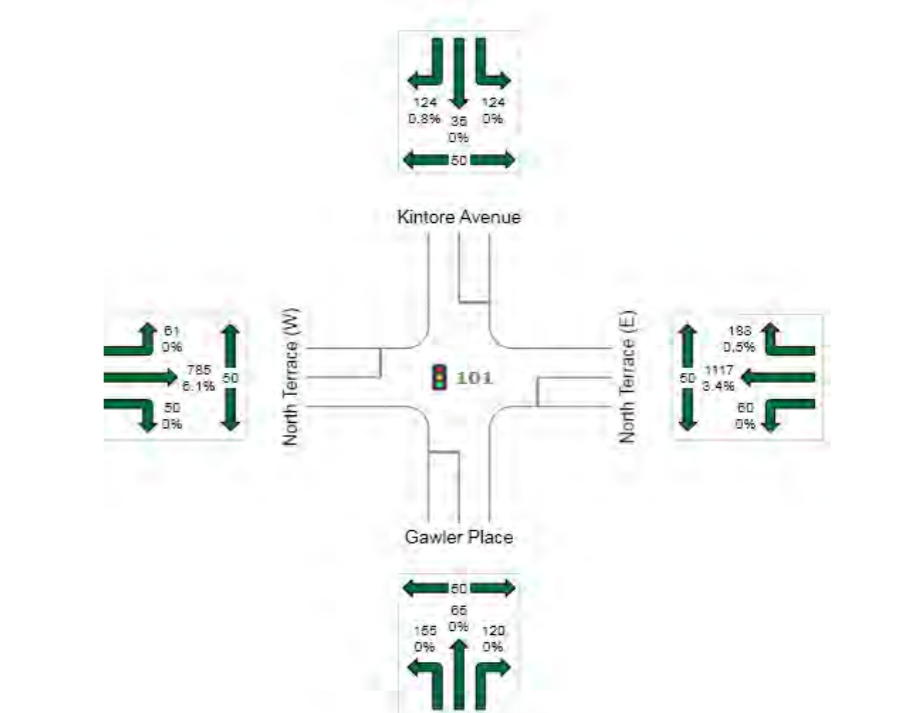


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- Slip/Bypass-Lane Movement
- Stopped Movement
- Other Movement Class Running
- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
- Turn On Red
- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

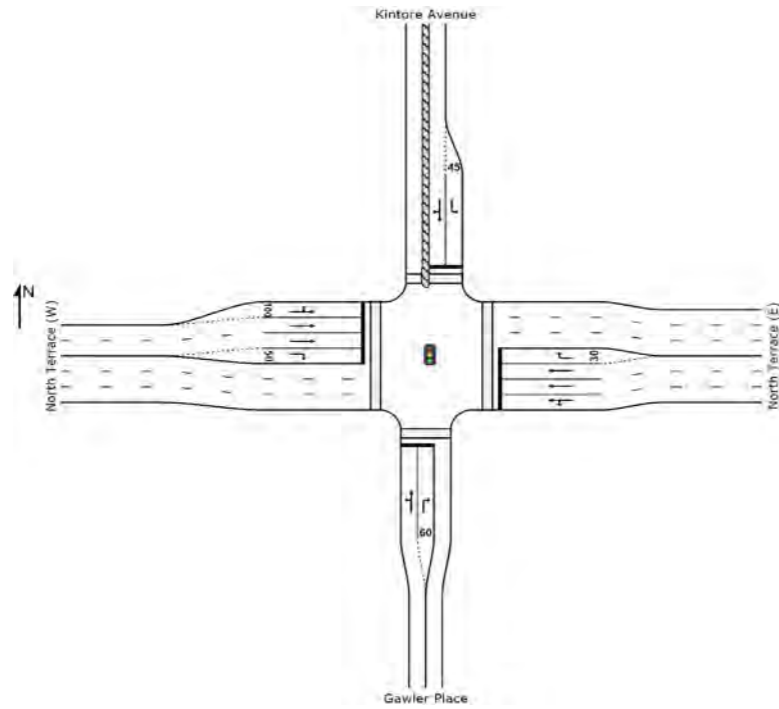
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

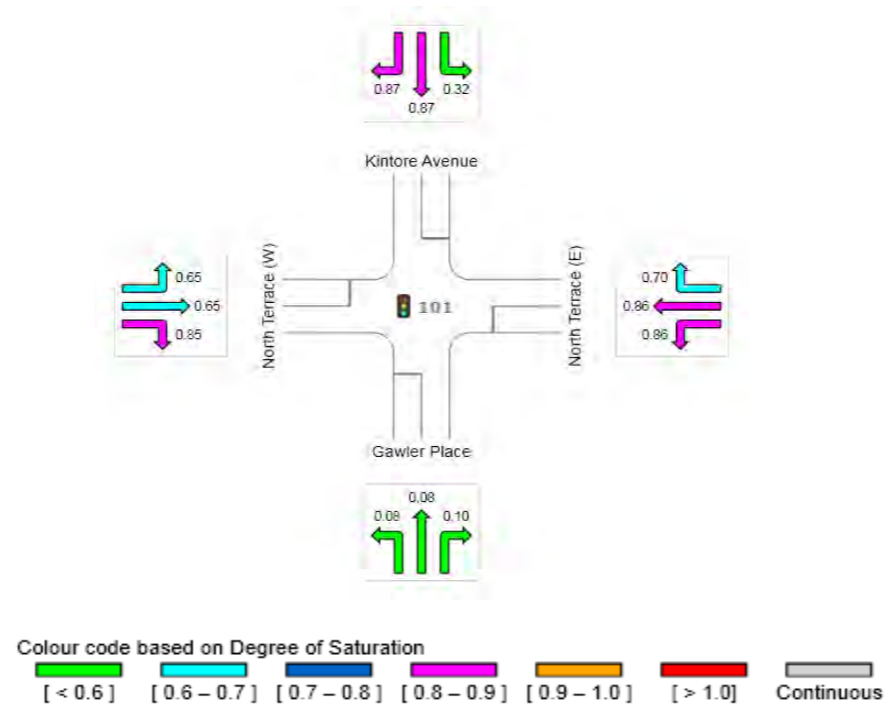
SCENARIO: EXISTING PM PEAK + DEVELOPMENT VOLUMES



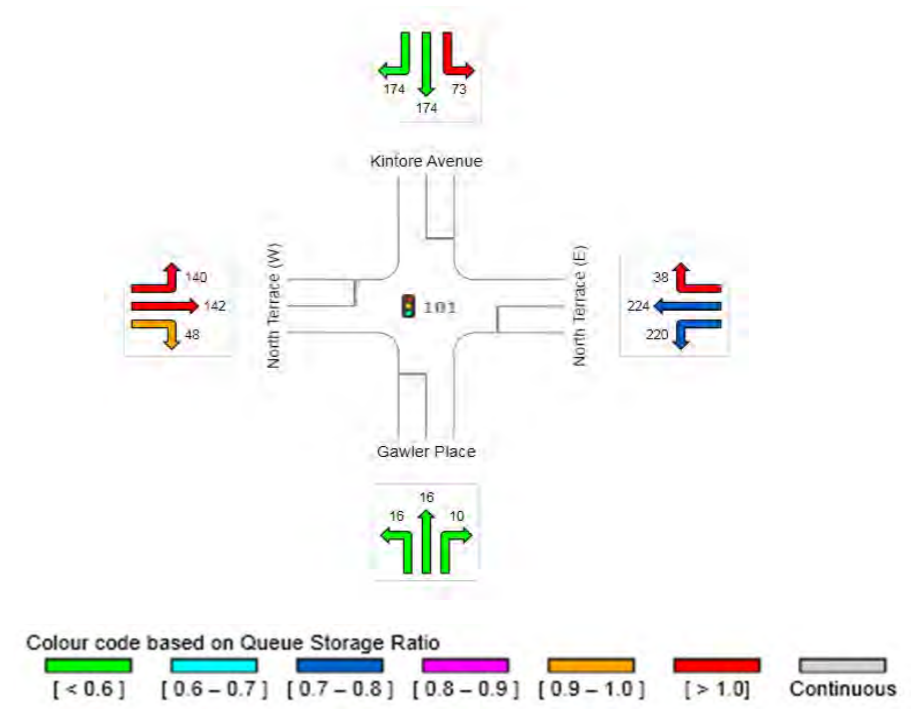
INTERSECTION LAYOUT



DEGREE OF SATURATION



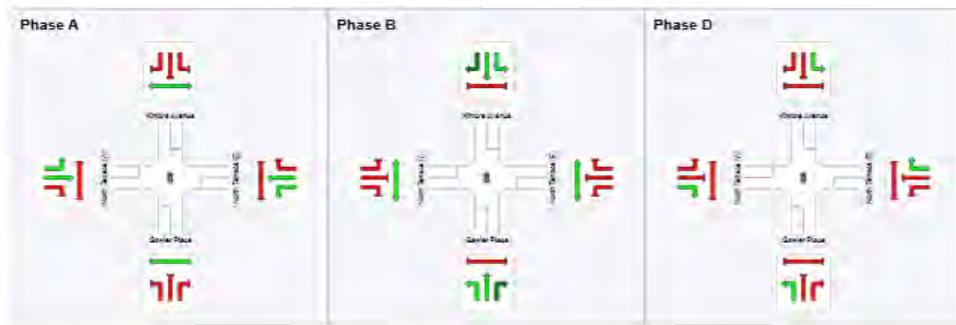
95%ile QUEUE DISTANCE (metres)



PHASING SUMMARY

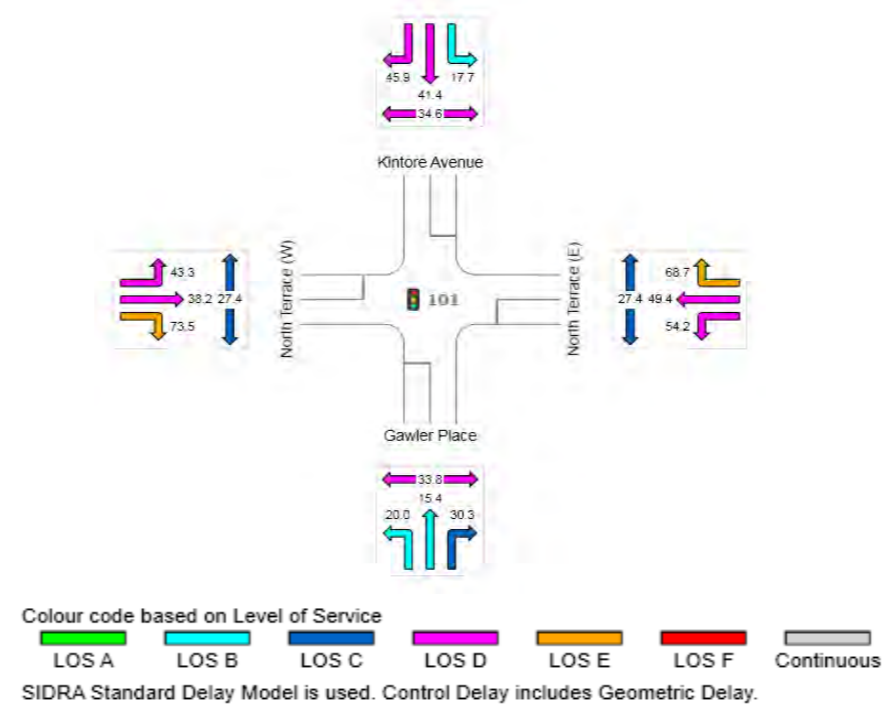
Phase Timing Results

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	43	106
Green Time (sec)	37	57	8
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	43	63	14
Phase Split	36 %	53 %	12 %

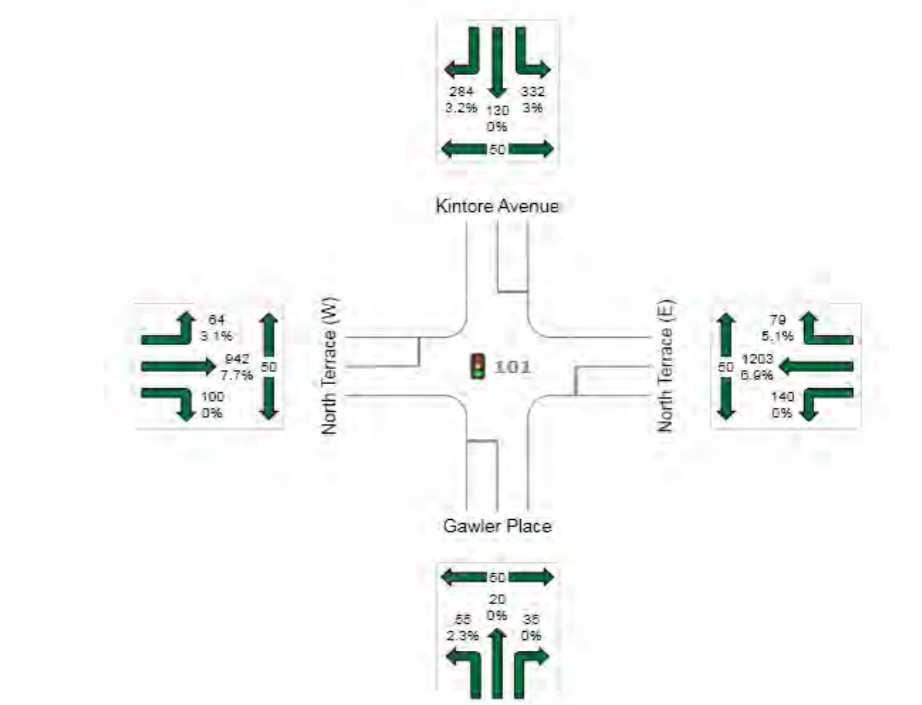


- Normal Movement
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- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
- Turn On Red
- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

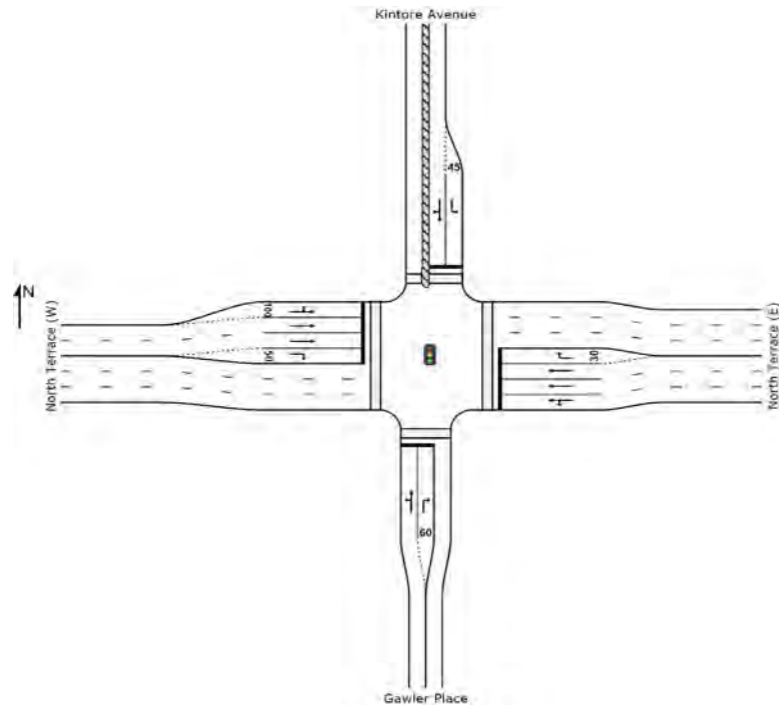
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

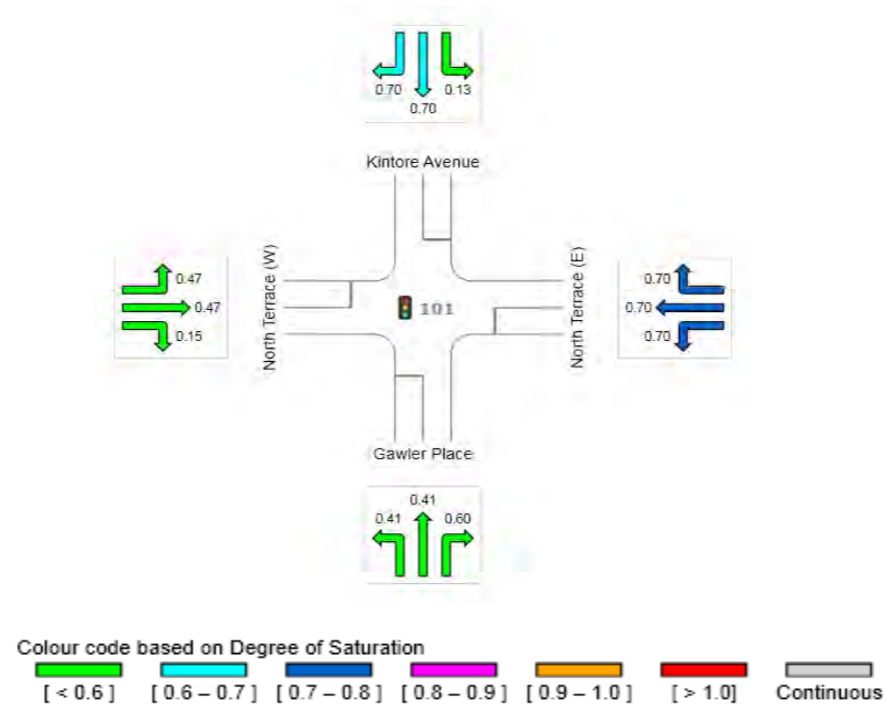
SCENARIO: EXISTING AM PEAK + DEVELOPMENT VOLUMES
SENSITIVITY ANALYSIS - 5%



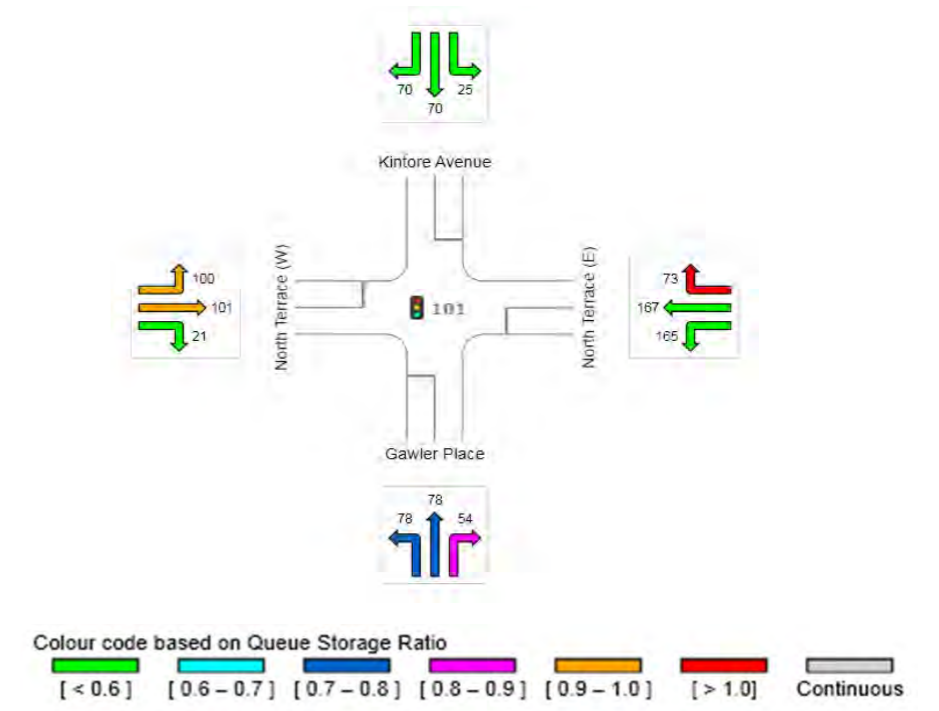
INTERSECTION LAYOUT



DEGREE OF SATURATION

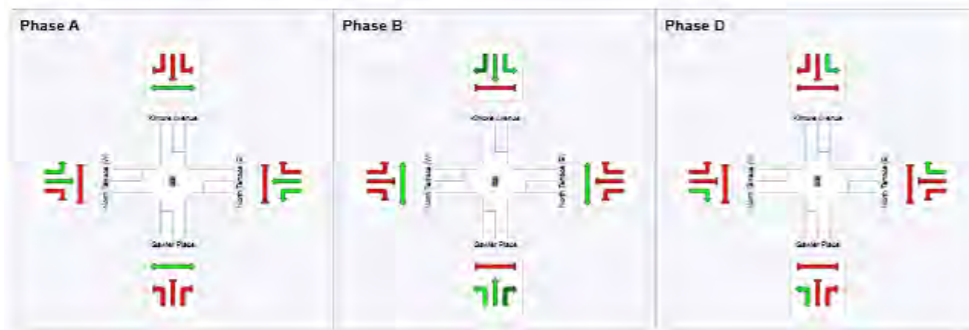


95%ile QUEUE DISTANCE (metres)



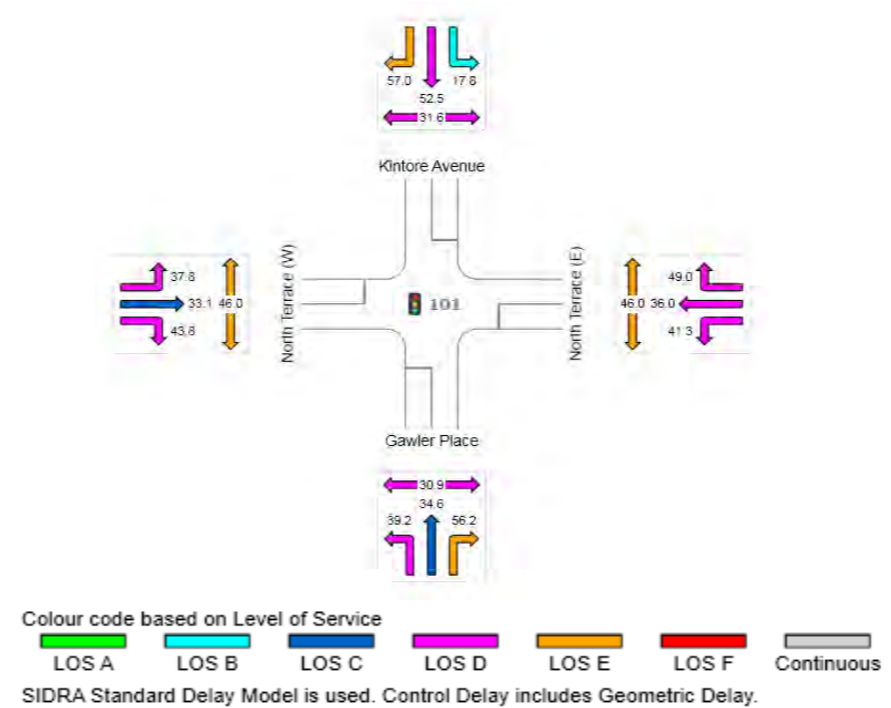
PHASING SUMMARY

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	47	66
Green Time (sec)	41	33	28
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	47	39	34
Phase Split	39 %	33 %	28 %

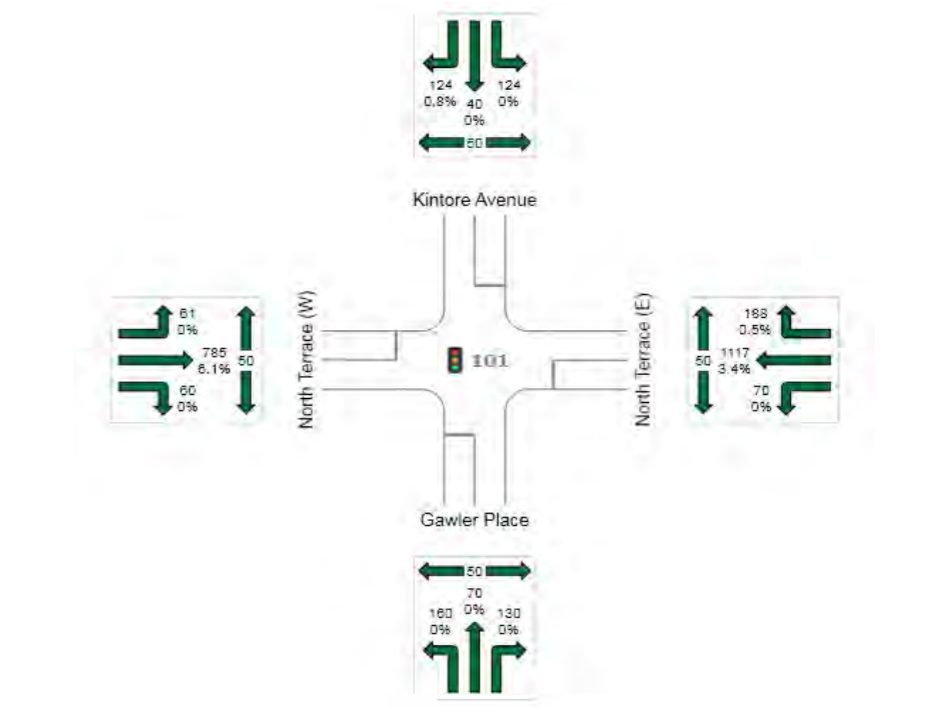


- Normal Movement
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- Other Movement Class Running
- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
- Turn On Red
- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

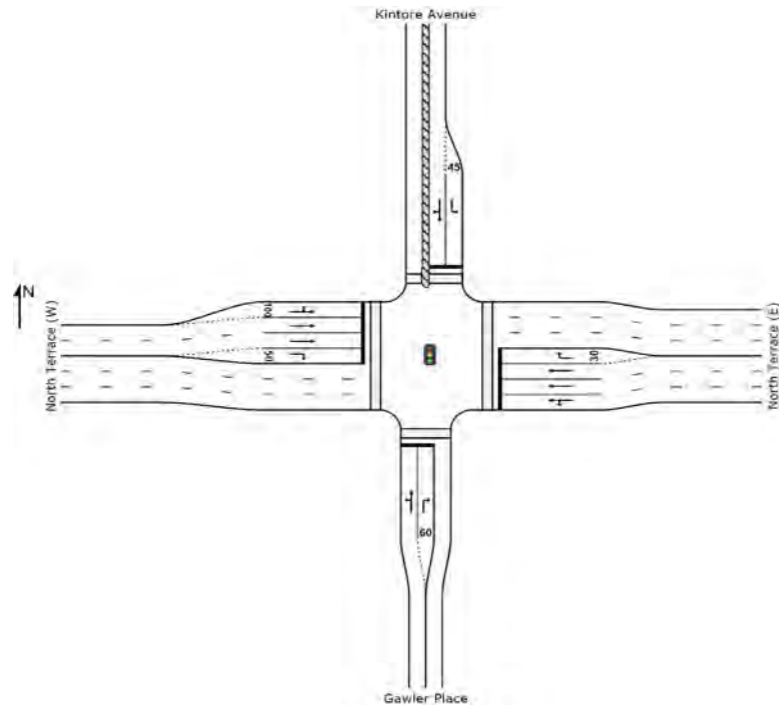
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

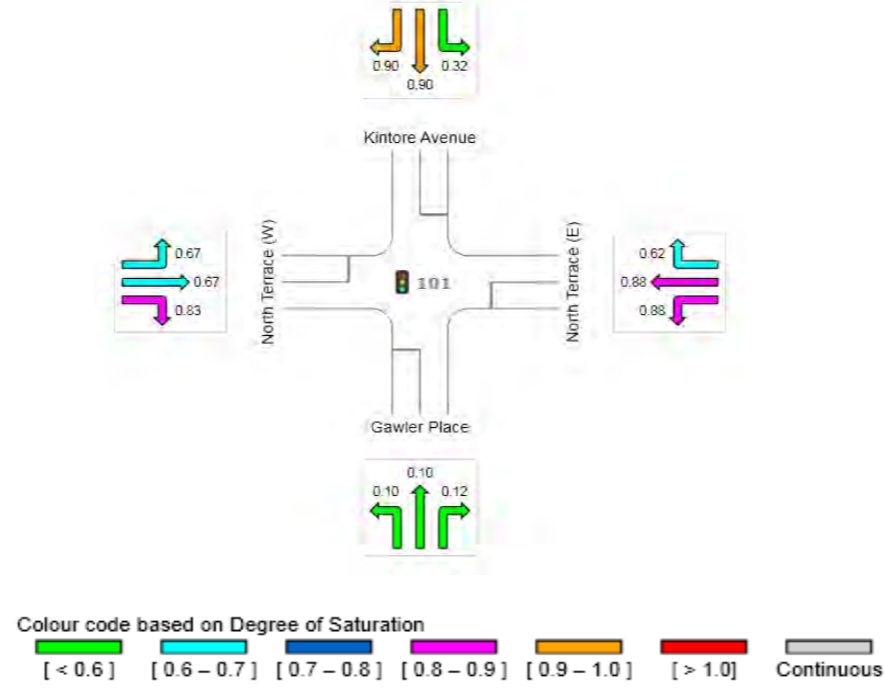
SCENARIO: EXISTING PM PEAK + DEVELOPMENT VOLUMES
SENSITIVITY ANALYSIS - 5%



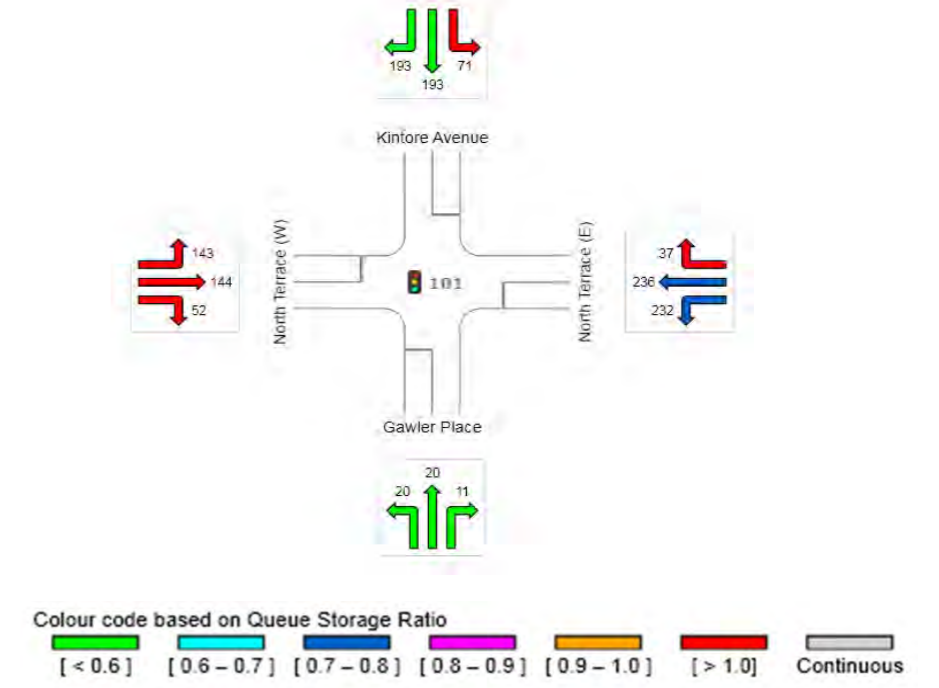
INTERSECTION LAYOUT



DEGREE OF SATURATION

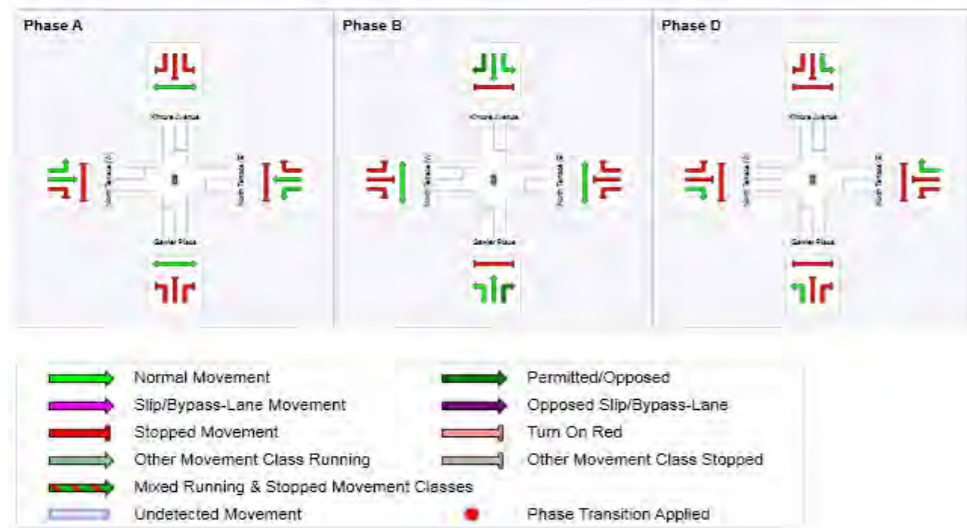


95%ile QUEUE DISTANCE (metres)

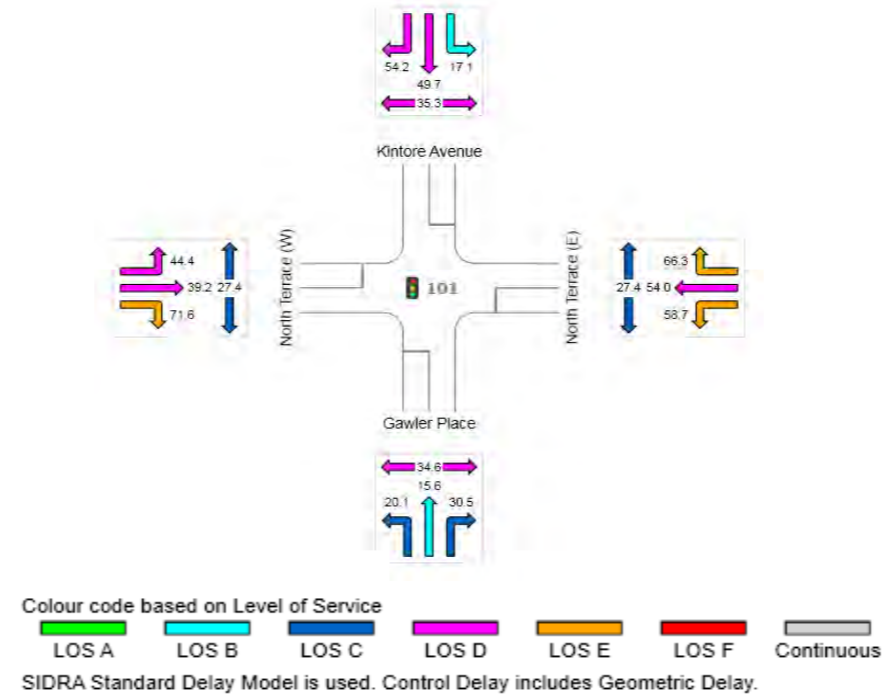


PHASING SUMMARY

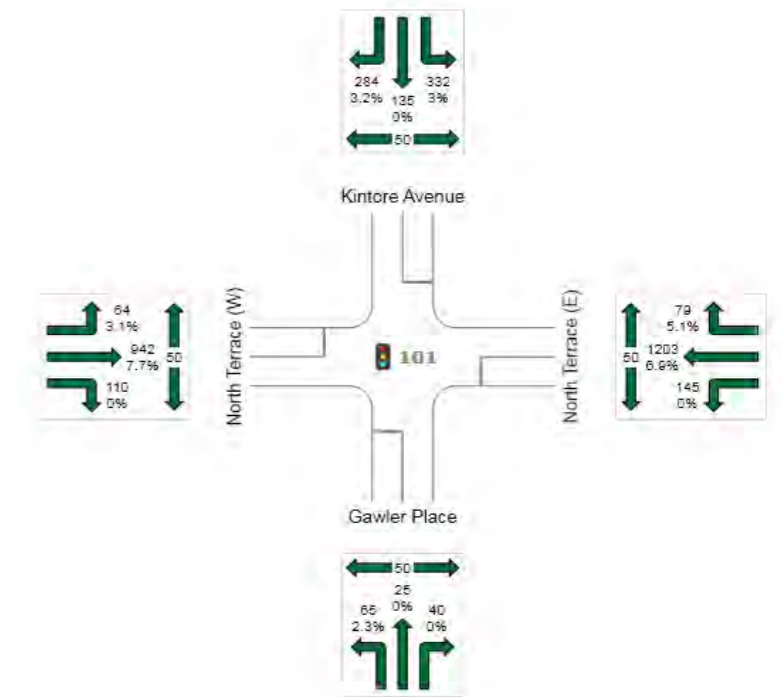
Phase Timing Results			
Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	42	105
Green Time (sec)	36	57	9
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	42	63	15
Phase Split	35 %	53 %	13 %



DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

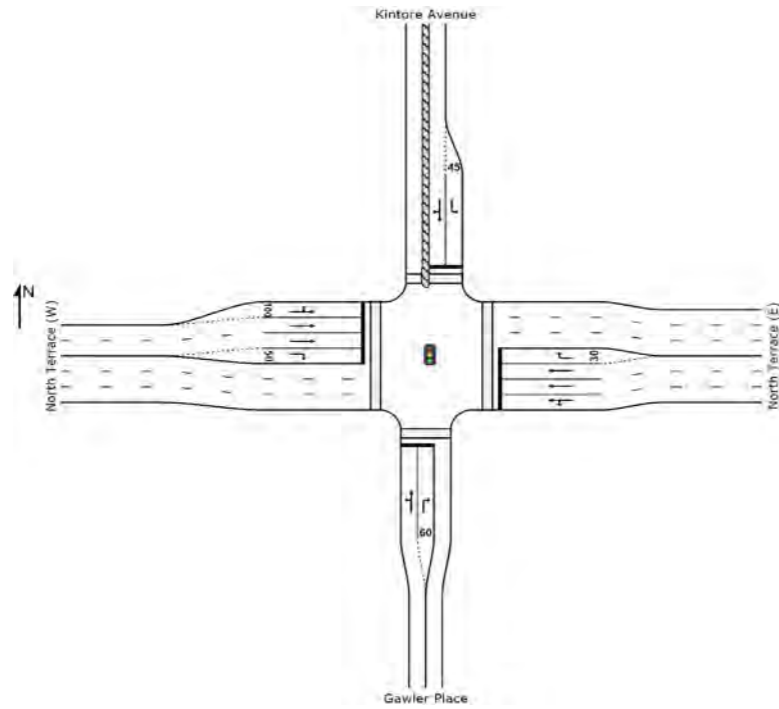
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

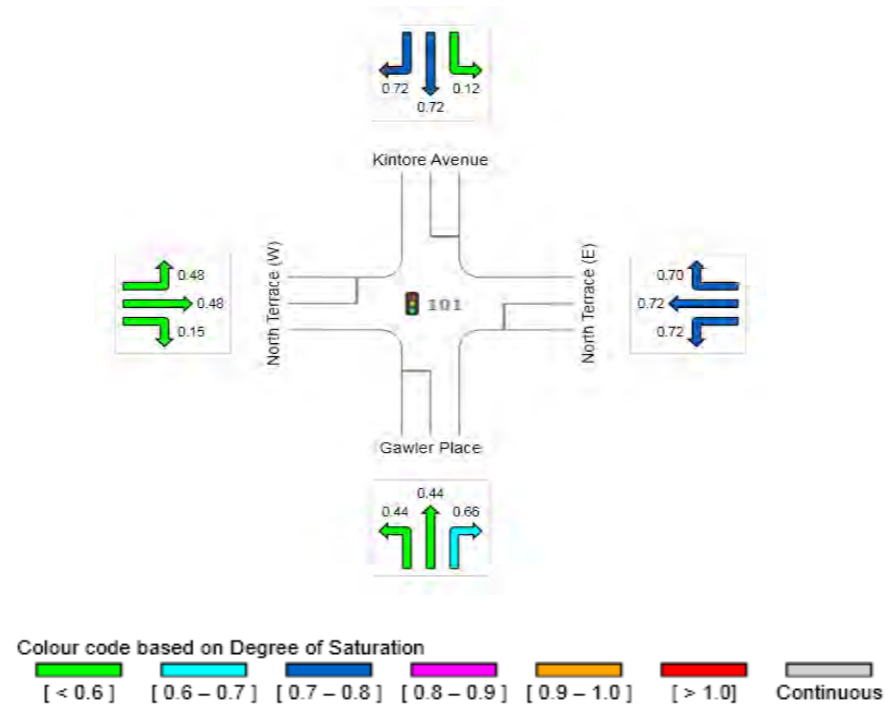
SCENARIO: EXISTING AM PEAK + DEVELOPMENT VOLUMES
SENSITIVITY ANALYSIS - 10%



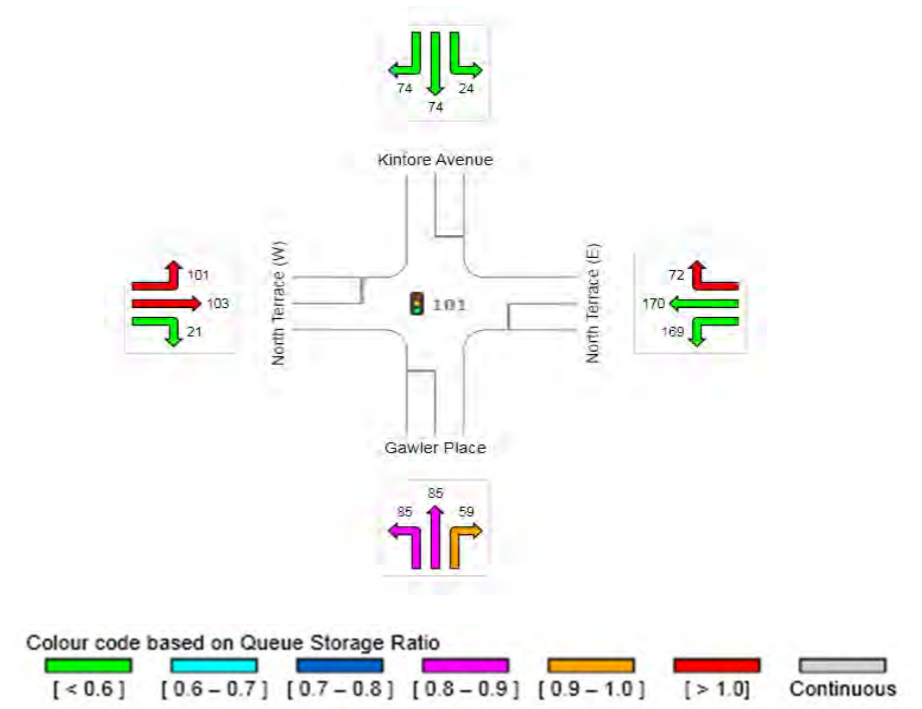
INTERSECTION LAYOUT



DEGREE OF SATURATION



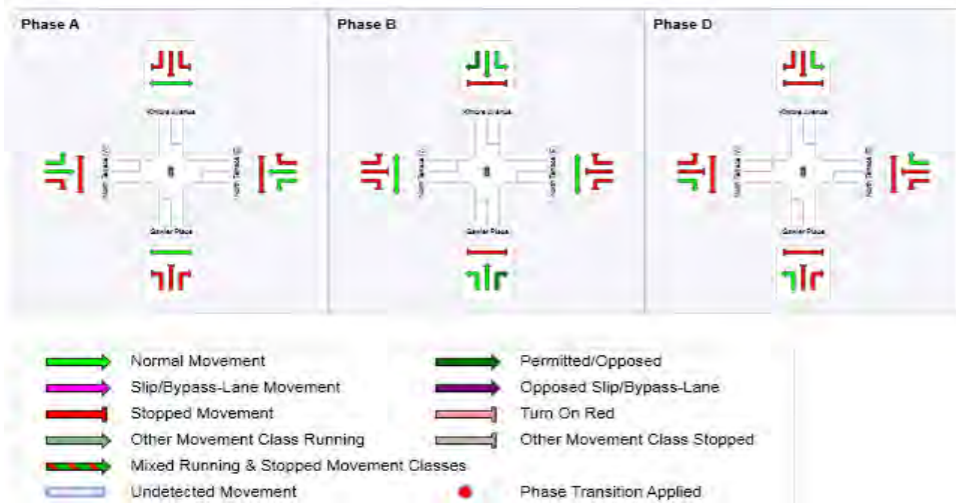
95%ile QUEUE DISTANCE (metres)



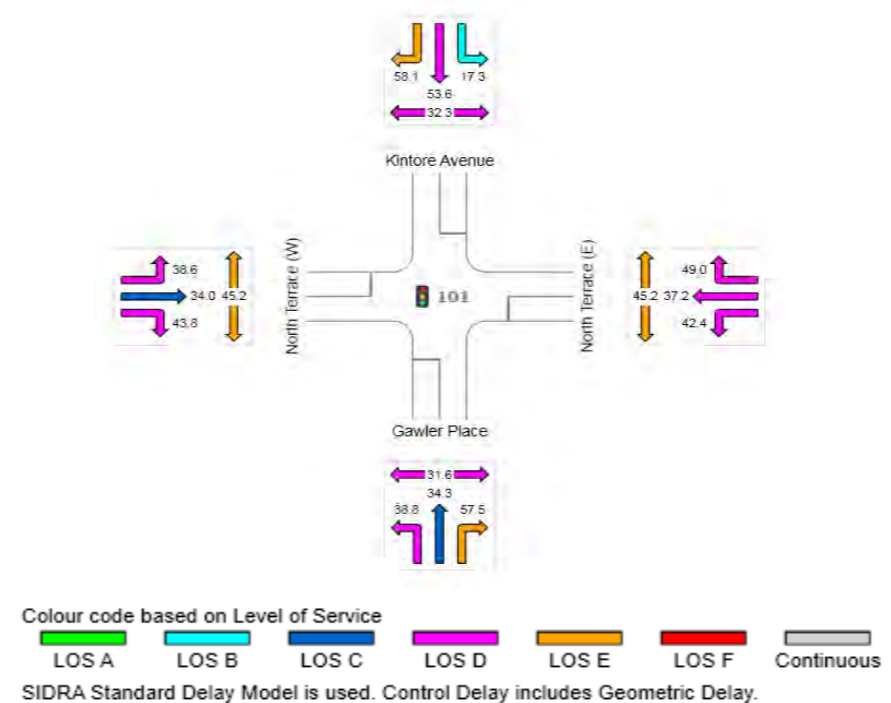
PHASING SUMMARY

Phase Timing Results

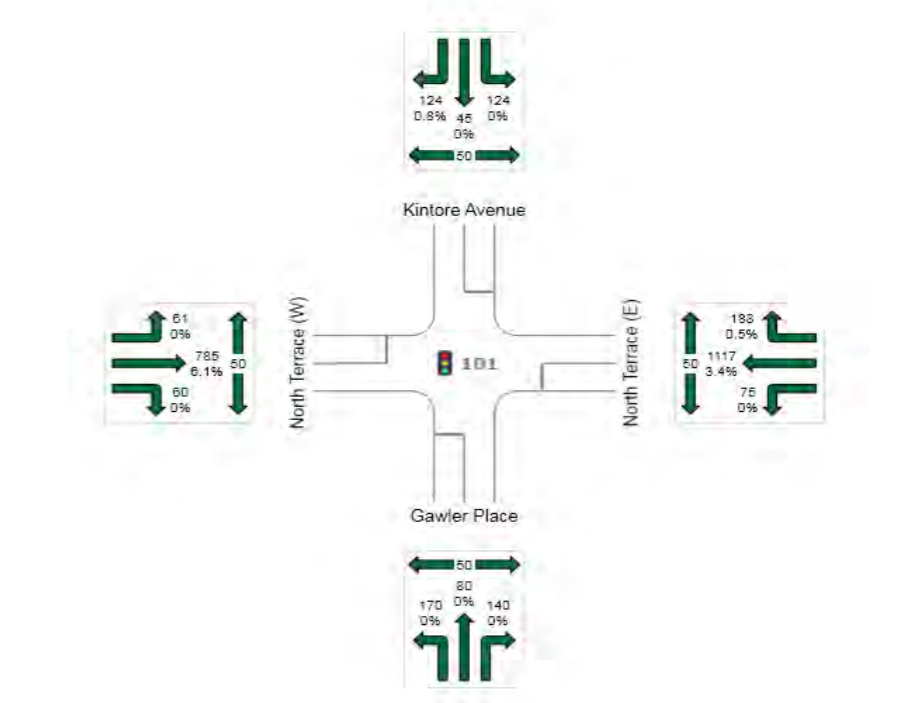
Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	46	86
Green Time (sec)	40	34	28
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	46	40	34
Phase Split	36 %	33 %	26 %



DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

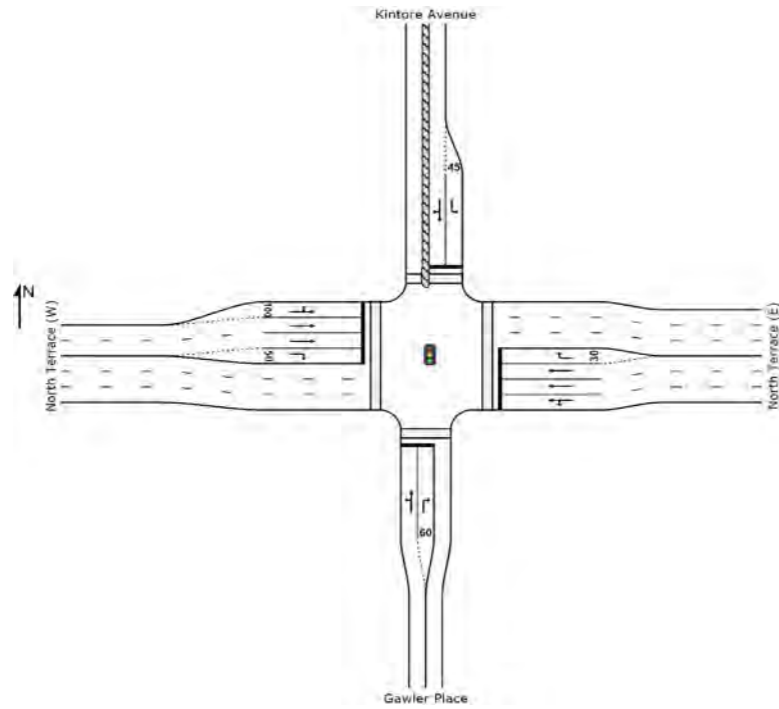
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

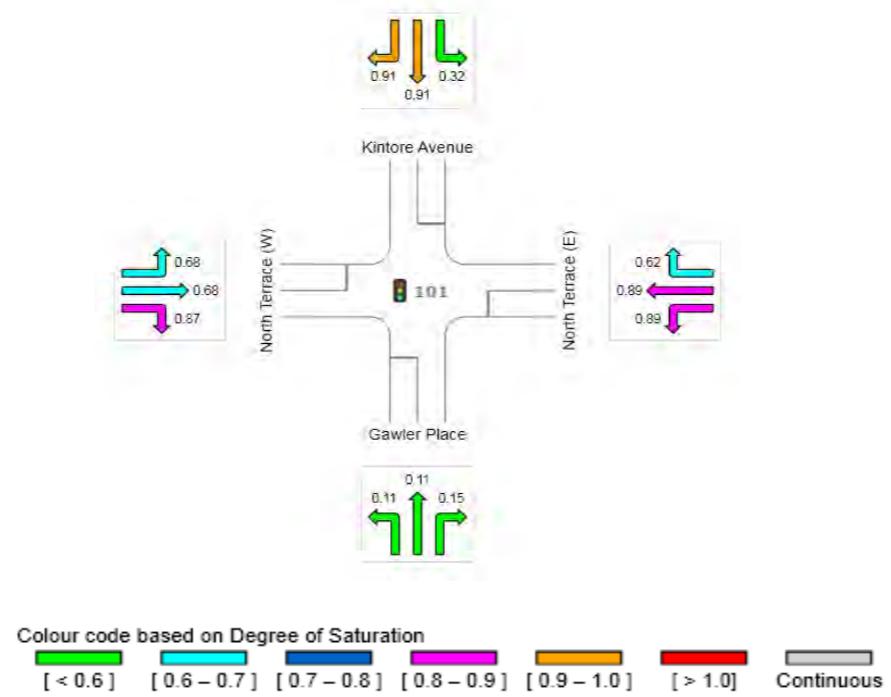
SCENARIO: EXISTING PM PEAK + DEVELOPMENT VOLUMES
SENSITIVITY ANALYSIS - 10%



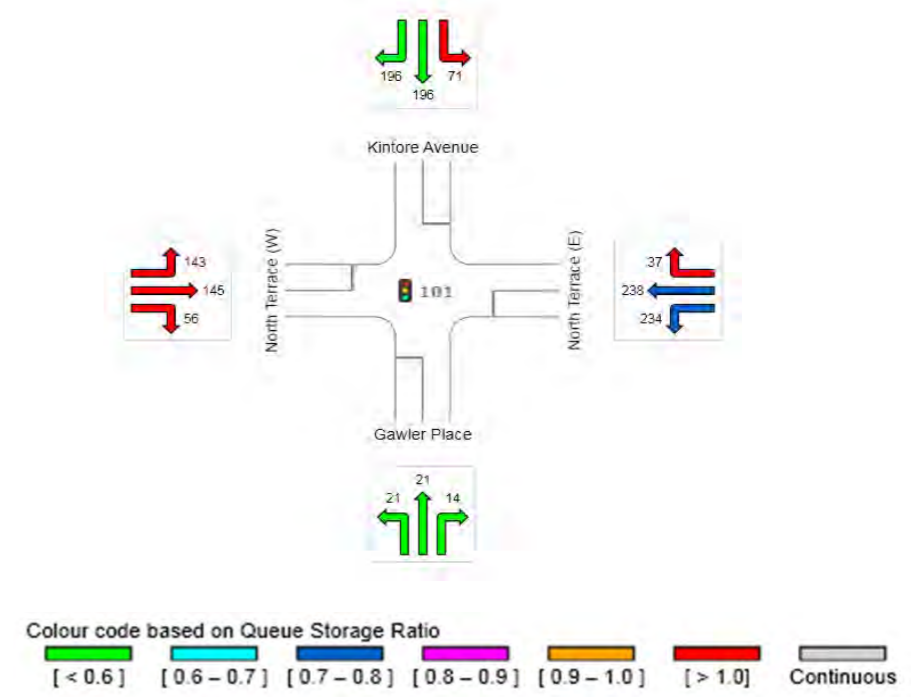
INTERSECTION LAYOUT



DEGREE OF SATURATION



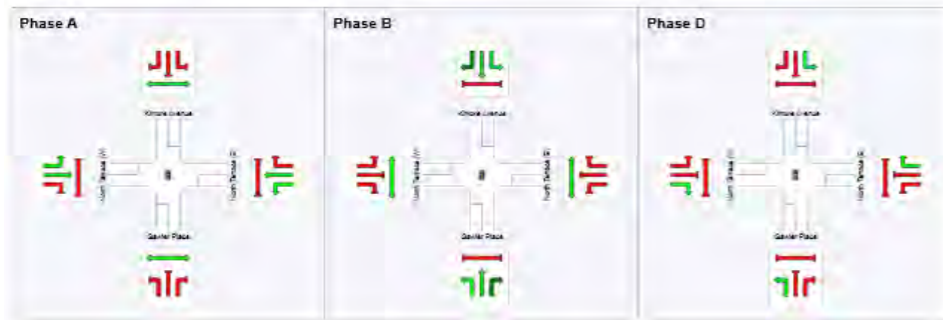
95%ile QUEUE DISTANCE (metres)



PHASING SUMMARY

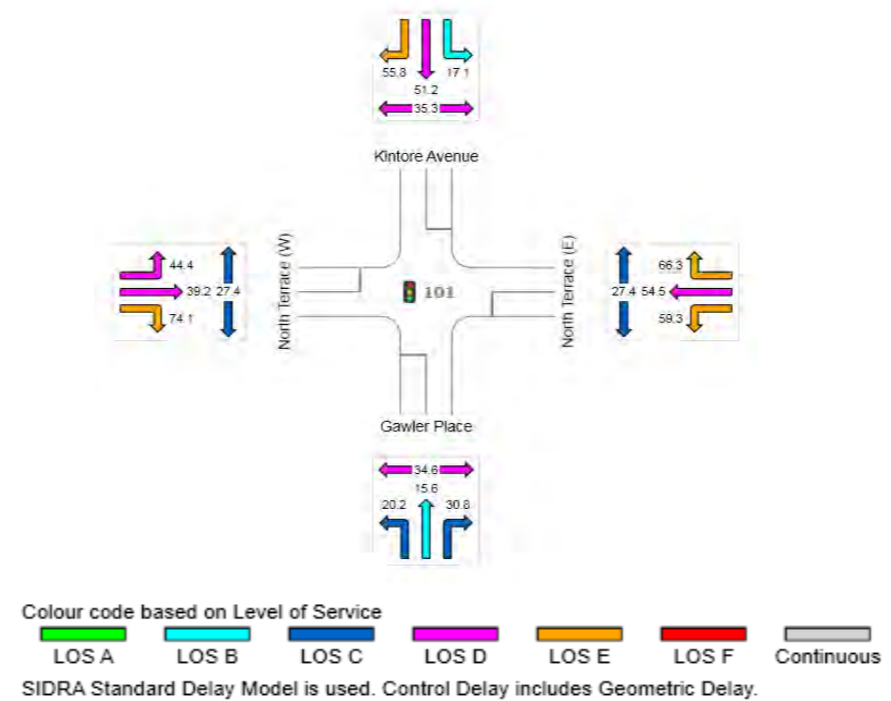
Phase Timing Results

Phase	A	B	D
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	42	105
Green Time (sec)	36	57	9
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	42	63	15
Phase Split	35 %	53 %	13 %

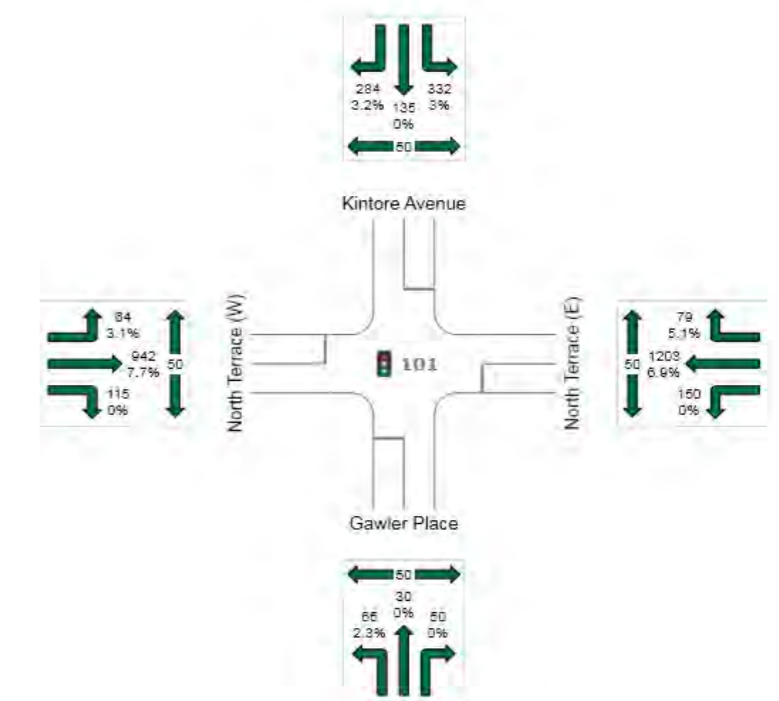


- Normal Movement
- Slip/Bypass-Lane Movement
- Stopped Movement
- Other Movement Class Running
- Mixed Running & Stopped Movement Classes
- Undetected Movement
- Permitted/Opposed
- Opposed Slip/Bypass-Lane
- Turn On Red
- Other Movement Class Stopped
- Phase Transition Applied

DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER: 17-0085

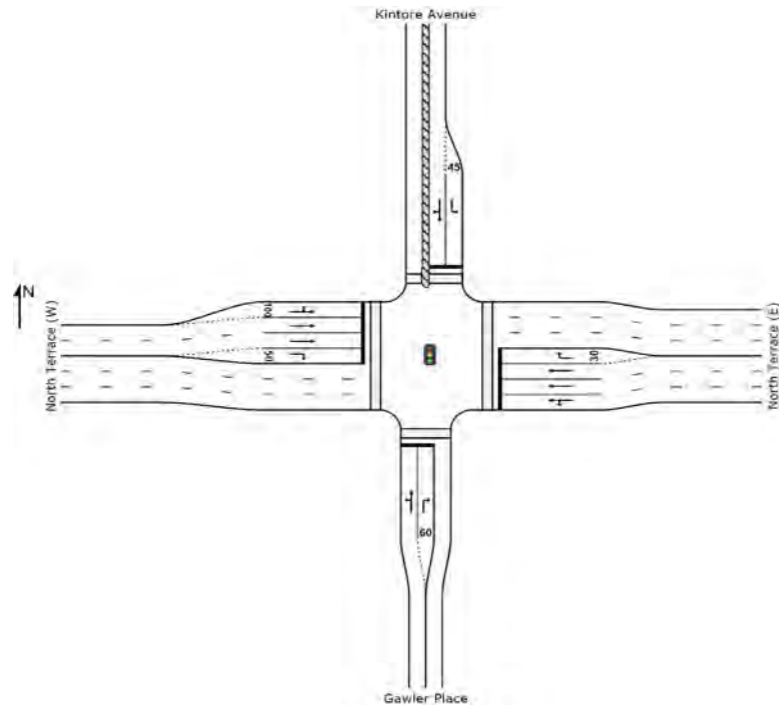
PROJECT NAME: PROPOSED COMMERCIAL DEVELOPMENT
200 NORTH TERRACE, ADELAIDE

INTERSECTION: NORTH TERRACE/GAWLER PLACE

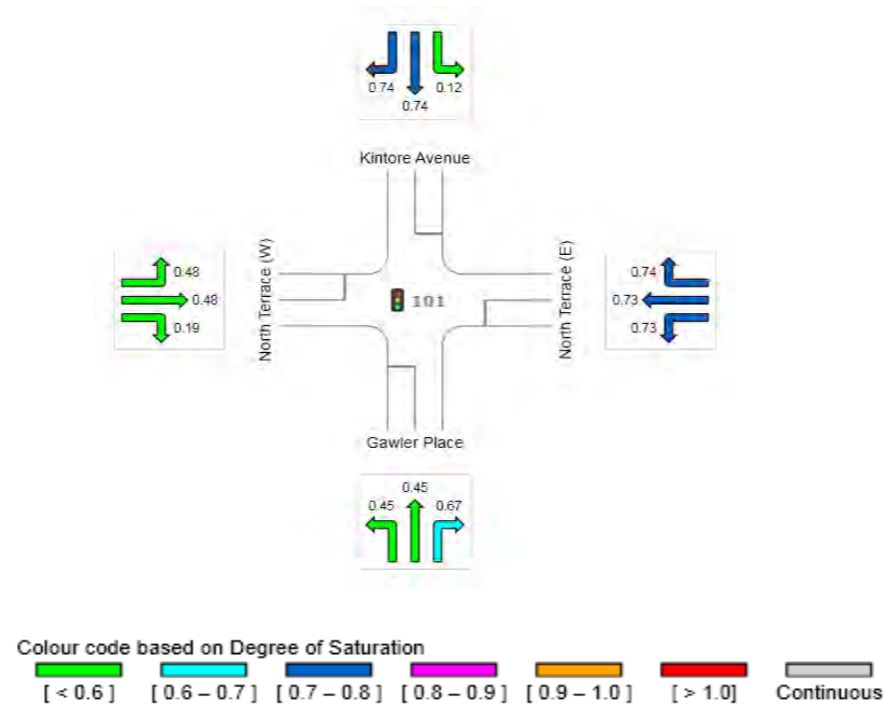
SCENARIO: EXISTING AM PEAK + DEVELOPMENT VOLUMES
SENSITIVITY ANALYSIS - 15%



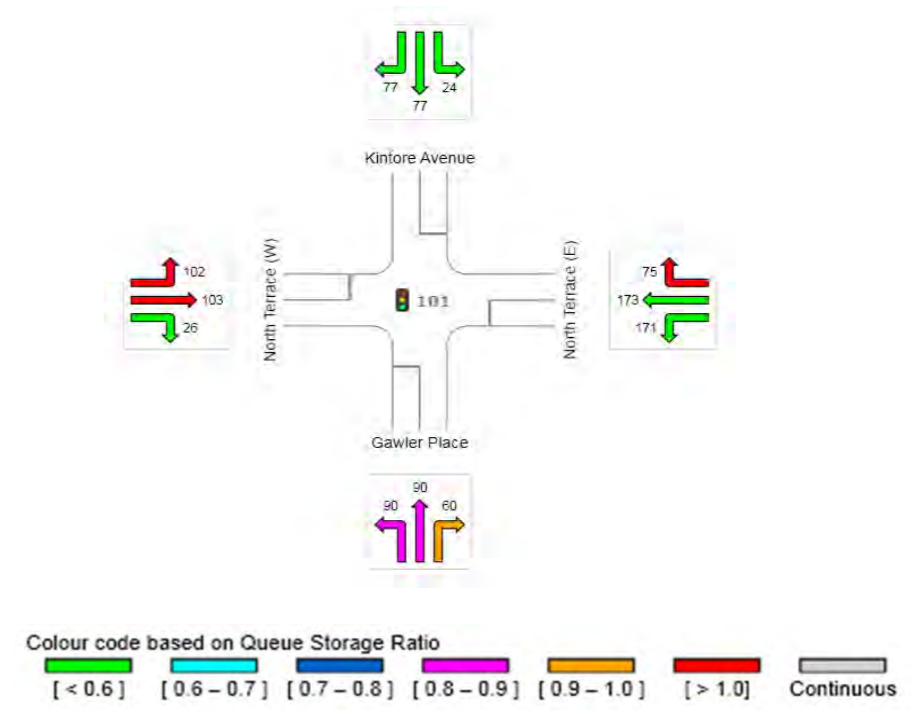
INTERSECTION LAYOUT



DEGREE OF SATURATION

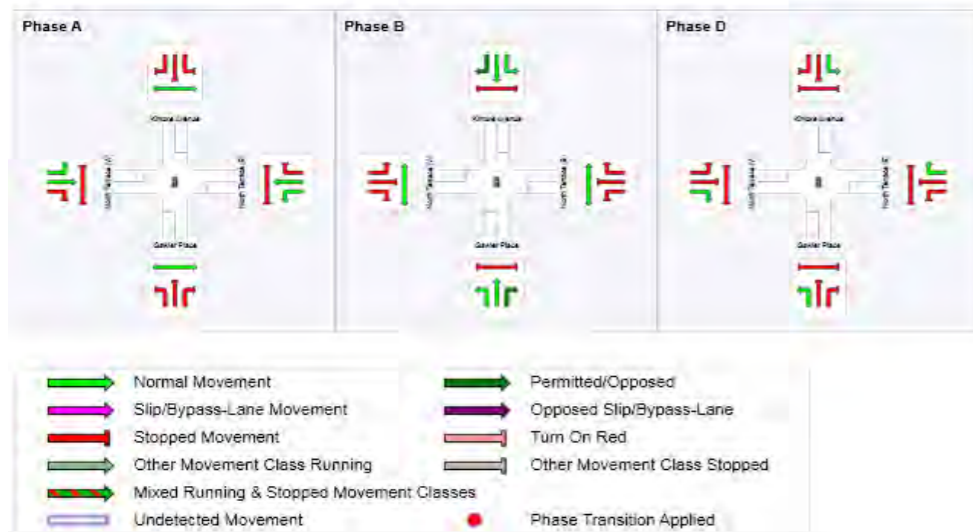


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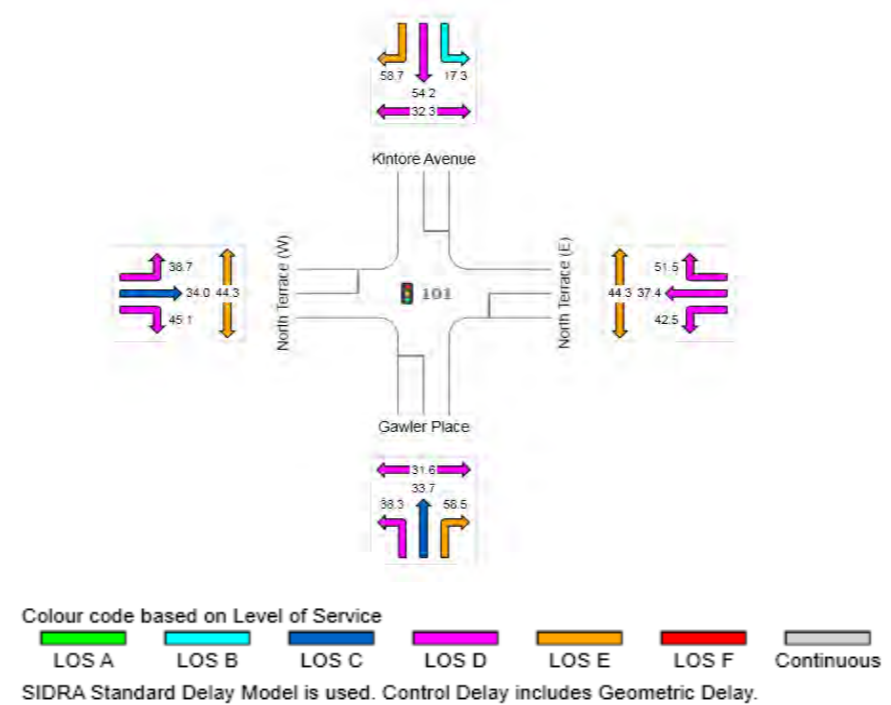


PHASING SUMMARY

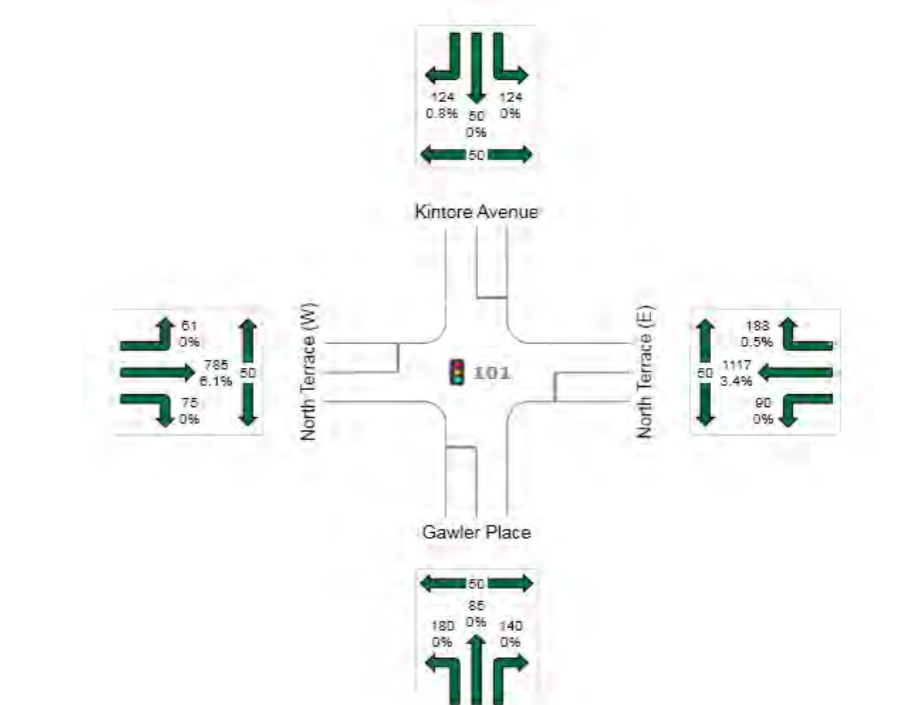
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Reference Phase	Yes	No	No
Phase Change Time (sec)	0	46	87
Green Time (sec)	40	35	27
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	46	41	33
Phase Split	38 %	34 %	28 %



DELAY (CONTROL) & LEVEL OF SERVICE



INPUT VOLUMES



JOB NUMBER:	17-0085
PROJECT NAME:	PROPOSED COMMERCIAL DEVELOPMENT 200 NORTH TERRACE, ADELAIDE

INTERSECTION:	NORTH TERRACE/GAWLER PLACE
SCENARIO:	EXISTING PM PEAK + DEVELOPMENT VOLUMES SENSITIVITY ANALYSIS - 15%



200 North Terrace

Environmental Wind Report

Commercial & General

Reference: 500044

Revision: 0

4 August 2017

aurecon

*Bringing ideas
to life*

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1 Introduction

Commercial & General (C&G) are proposing to develop the existing buildings on 200 North Terrace and the buildings at the rear which are located between Fisher Place and a private laneway off Gawler Place. The proposed development is located in Figure 1.



Figure 1: Existing Location Plan

Aurecon has been engaged by C&G to provide structural, civil and wind engineering services for the development of 200 North Terrace. The purpose of this wind engineering report is to provide an overview of environmental wind effects introduced by the proposed development, in order to achieve Development Approval (DA) and to inform subsequent phases of engineering design.

1.1 Site Description

The existing project site comprises of existing multi-storey buildings in the area bordered by North Terrace, Fisher Place to the south and Gawler Place to the west.

The proposed building will have retail and commercial uses, with some areas of above ground car parking within the building footprint. The approximate footprint of the new building is around 3,100m², shown in the green shaded area in Figure 2.



Figure 2: Enlarged View of the 200 North Terrace site and the Proposed Extent of the new development

1.2 Assessment Scope

Assessment of pedestrian-level wind comfort and safety was based on the following scope of works:

- Obtain and analyse hourly meteorological data from the closest/most representative Bureau of Meteorology (BOM) station
- Complete an 8-directional wind frequency analysis
- Create 3D model of the existing building(s) at 200 North Terrace from drawings and site measurements
- Create 3D model of the proposed development at 200 North Terrace from drawings and site measurements
- Create 3D model of relevant and significant surrounding structures and terrain of Adelaide CBD
- Use computational fluid dynamics (CFD) to establish wind speeds across patron locations for an environmental wind speed of 10m/s at 10m height above ground level (AGL)
- Identify appropriate patron wind comfort and safety classifications, based on the intended use of the area
- Combine wind speeds obtained from CFD modelling with the 8-directional wind frequency analysis to determine patron wind comfort and safety classifications.
- Assess patron comfort and safety classifications against relevant criteria
- Assess the difference in environmental wind for the existing and proposed developments
- Provide mitigation advice based on CFD/statistical results.

1.3 Architectural Sources

A 3D digital model (170726_SAT Export to Aurecon.sat) of the proposed development at 200 North Terrace was provided by Woods-Bagot on 26th July 2017. To enable CFD analysis this model was remodelled and exported in the triangulated obj format. An image of the proposed development is shown in Figure 3.

A 3D digital model of the Adelaide CBD is provided by the City of Adelaide through the South Australian State Government (DataSA, 2015). These building models were numerically cleaned and a 3D model of the CBD terrain constructed to match. Images of the existing buildings at 200 North Tce and the cleaned CBD model used in this work are shown in Figure 4 and Figure 5, respectively.

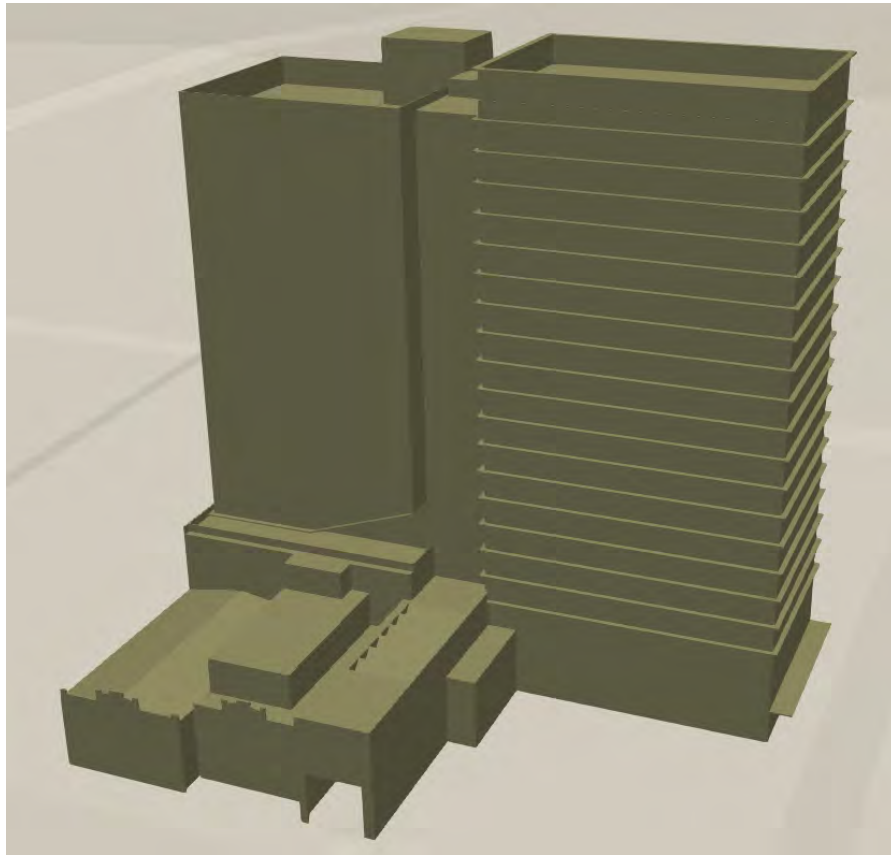


Figure 3: 3D digital model of the proposed development at 200 North Terrace, viewed from North North East.

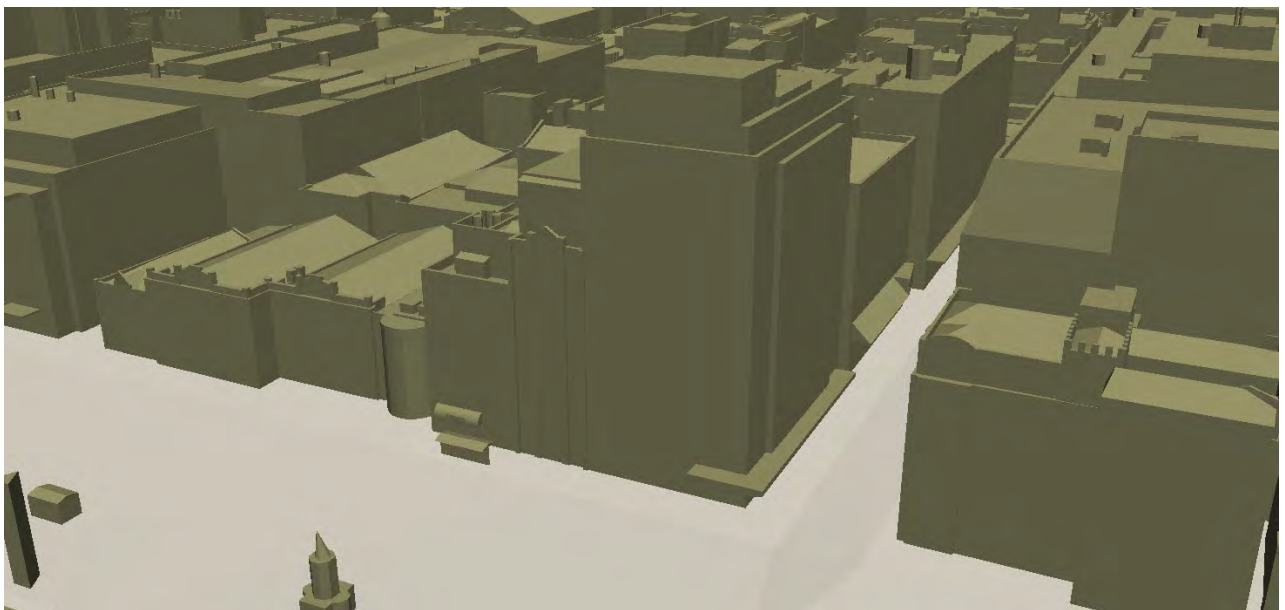


Figure 4: 3D digital model of the existing buildings at 200 North Terrace, viewed from the North West.

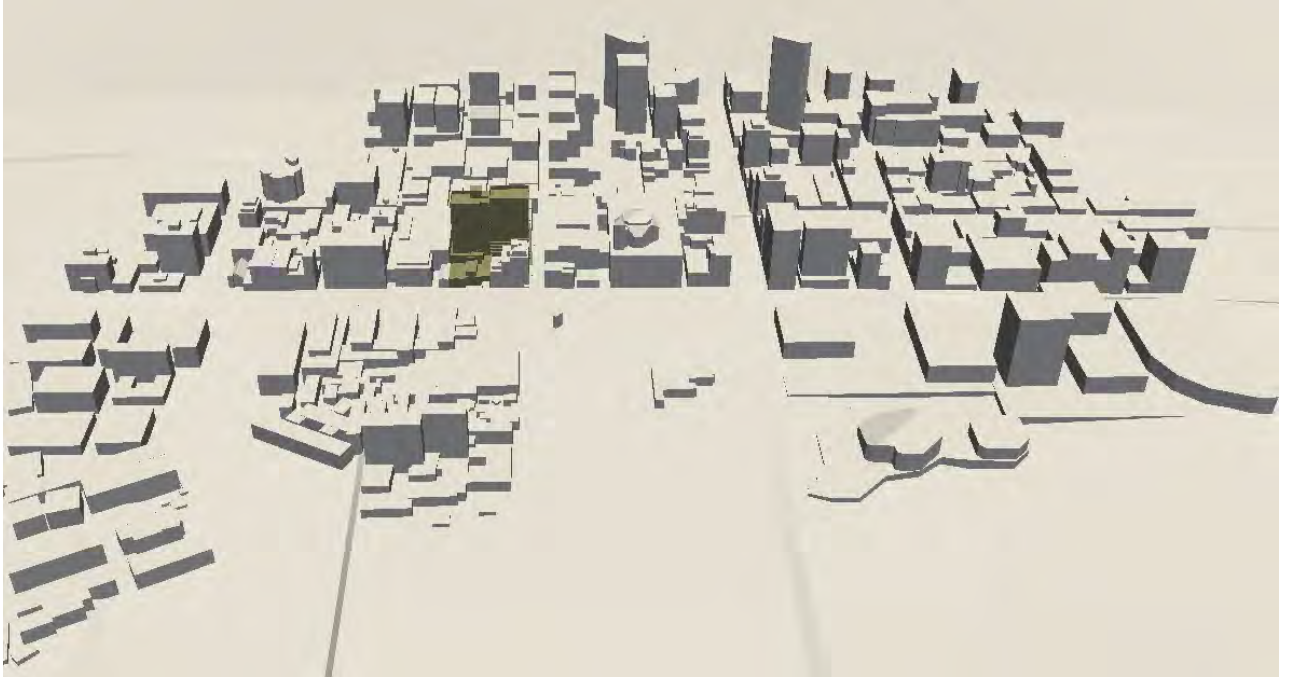


Figure 5: 3D digital model of the Adelaide CBD including all structures within 400m of 200 North Terrace, viewed from the North. Note the proposed development (green).

2 Wind environment

2.1 Weather Station Data

Meteorology statistics described in this report were obtained from analysis of observations measured by the Bureau of Meteorology. Two measurement sites were considered, Adelaide Airport and Kent Town AWS stations with locations shown in Figure 6.

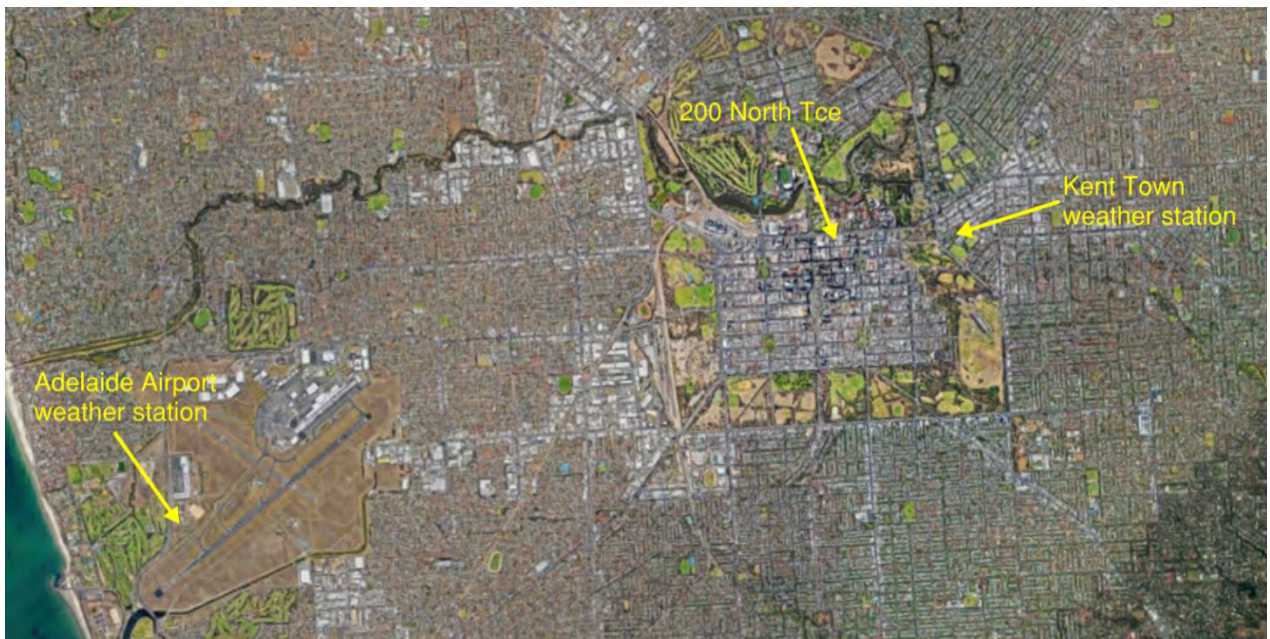


Figure 6: Satellite image showing relative locations of 200 North Tce, Adelaide Airport and Kent Town weather stations (image source Google maps).

The Adelaide Airport weather station is situated approximately 6km west of the CBD and data was obtained for 2011 and 2017 at 10-minute intervals (in excess of 820,000 observations). The Adelaide CBD is surrounded by predominantly suburban housing with terrain category 3 (discussed further in Section 4.2 below). Adelaide Airport is also surrounded by suburban housing on all sides, except the Western and South Western directions which consists of a golf course and sea front (TC 2). Further, the open grassland across the airport site itself will have a somewhat conservative influence on the predicted results.

For comparison, the measurement data for the Kent Town weather station was also obtained for 2011-2017 at 10-minute intervals. Here the surrounding terrain is suburban housing (TC 3) however, on close inspection of the Bureau of Meteorology report, the measurement location at Kent Town is located between several structures which has a local shielding effect.

For the purpose of wind analysis in this report the Adelaide Airport meteorological data has been employed.

2.2 Climatic Wind conditions

2.2.1 Weibull Distribution

The relative frequency of mean hourly wind speed and wind direction can be represented by a Weibull distribution, where the probability of the wind speed exceeding a speed, V , for any given direction, θ , is given by:

$$P(V, \theta) = A(\theta) \exp \left[- \left(\frac{V}{C(\theta)} \right)^{k(\theta)} \right]$$

Where $k(\theta)$ and $C(\theta)$ are Weibull coefficients for the azimuth sector, θ , with $A(\theta)$ the marginal probability of the wind direction being within the azimuth sector, θ .

$$\sum_{\text{all sectors}} A(\theta) = 1 \quad (\text{including calms})$$

And

$$P(> V) = \sum_{\text{all sectors}} A(\theta) e^{-\left[\frac{V}{c(\theta)}\right]^{k(\theta)}}$$

Weibull distribution coefficients were fitted to the reliability function. Wind roses for the Adelaide Airport and Kent Town weather stations are shown in Figure 7 and the corresponding Weibull coefficients are shown in Table 1. Note the values for the 'A' coefficient are lower for all Kent Town directions compared with Adelaide Airport. When summing A across all azimuths (excluding calms) the result is the percentage time that any wind is recorded. At Adelaide Airport winds are present 96.5% of the time, while Kent Town is 88%. Clearly the Kent Town data has more calms, which is likely a result of the protected locale of the wind anemometer.

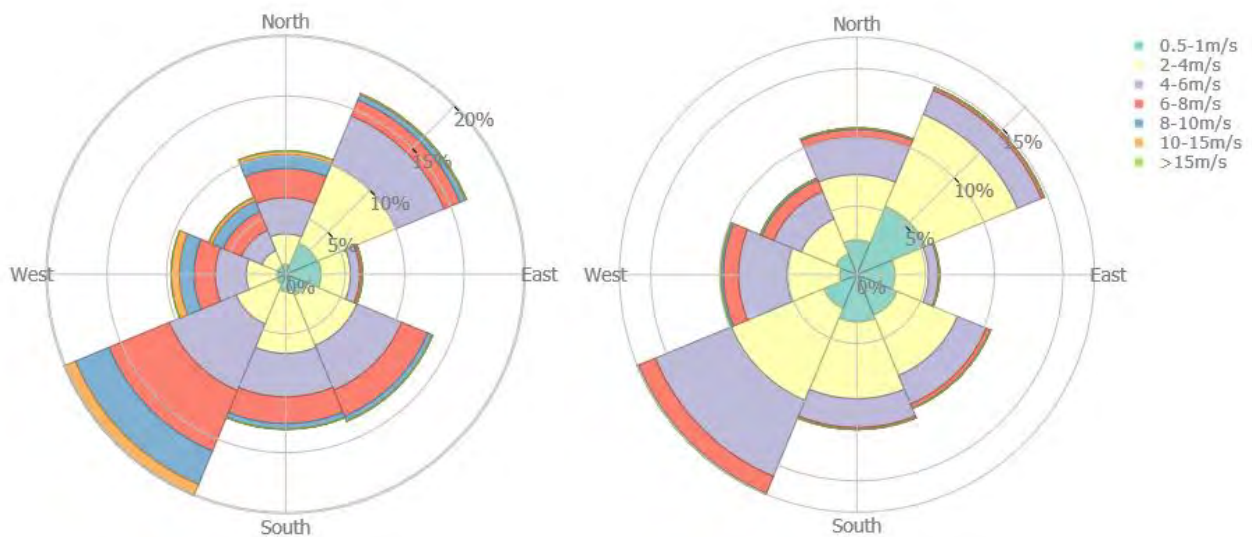


Figure 7: Wind roses for the Adelaide Airport (left) and Kent Town (right) weather stations.

Table 1: Weibull coefficients for the Adelaide Airport and Kent Town weather stations

Wind Direction	Adelaide Airport			Kent Town		
	A	C	K	A	C	K
N	0.10	5.80	2.26	0.11	3.69	2.03
NE	0.16	4.41	2.00	0.15	2.91	1.92
E	0.06	2.91	1.60	0.06	2.59	1.66
SE	0.13	4.64	2.24	0.11	3.26	1.97
S	0.13	4.73	2.38	0.11	3.07	2.24
SW	0.20	6.59	2.49	0.17	4.06	2.44
W	0.10	6.21	2.11	0.10	4.41	2.33
NW	0.07	5.92	2.10	0.08	4.05	2.02

2.2.2 Extreme Value Analysis

The extreme value analysis was completed to describe events of infrequently high wind speeds for assessment of pedestrian safety. From all hourly observation data, the daily maximum hourly wind speed was identified and the ten highest values for each year of data selected from these. A Gumbel/Type I analysis (with Gringorten correction) was completed using the yearly ten highest values to establish the probability distribution function which describes likely exceedances of high wind speeds as follows:

$$F(U, \theta) = A(\theta) \exp\left(-\exp\left[-\frac{(U - u(\theta))}{a(\theta)}\right]\right)$$

Where $u(\theta)$ and $a(\theta)$ are Gumbel coefficients for the azimuth sector θ . The coefficients for each wind direction are shown in Table 2. Since the analysis uses the ten highest values for each year a probability of occurrence of 1/10 necessarily corresponds to a once per year event.

Table 2: Extreme value coefficients for the Adelaide Airport and Kent Town weather stations

Wind Direction	Adelaide Airport			Kent Town		
	A	u	a	A	u	a
N	0.10	10.76	0.84	0.11	7.19	0.86
NE	0.16	9.16	0.91	0.15	5.92	0.74
E	0.06	6.51	1.02	0.06	5.32	0.76
SE	0.13	8.57	0.67	0.11	6.40	0.87
S	0.13	8.70	0.56	0.11	5.71	0.44
SW	0.20	11.94	0.98	0.17	7.49	0.51
W	0.10	11.61	1.17	0.10	7.61	0.71
NW	0.07	10.66	0.96	0.08	7.70	0.71

2.3 Local Wind Effects

A schematic illustration of the wind flow pattern around a single wide high rise building is presented in Figure 8.

As the wind flow approaches the building, it gradually diverges. Part of the flow is deviated over the building (1) and part of it flows around the building (2). At the windward facade, a stagnation point with maximum pressure is situated at approximately 70% of the building height. From this point, the flow is deviated to the lower pressure zones of the facade: upwards (3), side-wards (4) and downwards (5).

The considerable amount of air flowing downwards produces a vortex at ground level (6) called standing vortex, frontal vortex or horseshoe vortex. The main flow direction of the standing vortex near ground level is opposite to the direction of the approach flow. Where both flows meet, a stagnation point with low wind speed values is created at the ground in front of the building (7). The standing vortex stretches out sideways and sweeps around the building corners where flow separation occurs and corner streams with high wind speed values are created (8). The corner streams subsequently merge into the general flow around the corners (9).

At the leeward side of the building, an under-pressure zone is created. As a result, backflow or recirculation flow occurs (10,13). A stagnation zone is marked downstream of the building at ground level where the flow directions are opposite and low wind speeds exist (11; end of the recirculation zone). Beyond the stagnation zone, the flow resumes its normal direction but wind speeds stay low for a considerable distance behind the building (i.e. the far wake) (12).

The backflow is also responsible for the creation of slow rotating vortices behind the building (13). Between these vortices and the corner streams (9), a zone with a high velocity gradient exists (the shear layer) that comprises small, fast rotating vortices (16). The shear layers originate at the building corners where flow separation occurs (Blocken and Carmeliet, 2004).

Wind effects, particularly downwash, are worsened with increased surface area exposed to incident winds.

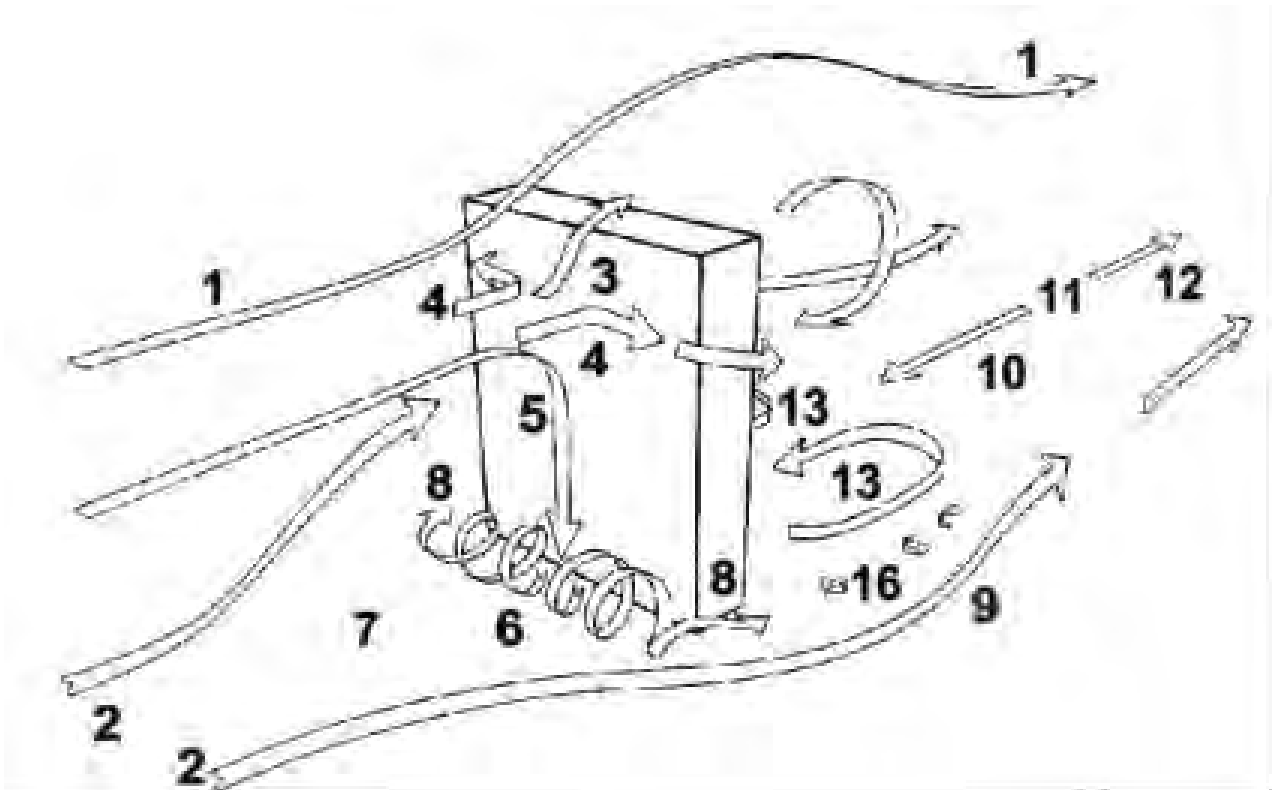


Figure 8: Wind effects around a building (Blocken and Carmeliet, 2004)

3 Assessment Criteria

A variety of wind assessment criteria have been proposed (Penwarden 1973, Davenport 1972, Isymov and Davenport 1975, Lawson and Penwarden 1975, Penwarden and Wise 1975, Gandemer 1975, Hunt, Poulton and Mumford 1976, Melbourne 1978, Murakami, Iwasa and Morikawa 1986, Durgin, 1997, Soligo, Irwin, Williams and Schuyler 1997, Durgin 2002). Each of these is typically derived from subjective testing of human response to wind conditions. Each assessment criteria is generally a relationship between a series of velocity thresholds, their probability of occurrence and the human physical response.

Both wind comfort and safety are a result of force felt on the body, where aerodynamic force is proportional to the dynamic pressure and thus velocity squared. In the case of pedestrian safety, the maximum dynamic pressure due to gusts is most likely to lead to people losing their balance and should be used for wind safety assessment criteria (Melbourne, 1977). Furthermore, gusty wind conditions are felt as fluctuating forces on the body leading to misplaced footing while walking, or a generally uncomfortable feeling. Clearly then a measure of gusts should also be included in wind comfort assessment criteria in addition to mean velocity.

Each of the wind assessment criteria listed below are described in terms of gust equivalent mean velocity. The gust equivalent mean (GEM) wind speed is calculated as

$$U_{GEM} = \frac{\bar{U}}{G}$$

Where $G = 1.85$ is typically taken (ASCE, 2004), but is subject to variation. In the remainder of this work $G = 2$ has been employed.

3.1 Pedestrian Comfort

The Lawson wind comfort criteria (Lawson and Penwarden, 1975 amended with input from Isyumov and Davenport, 1975) are defined in Table 3. The Beaufort scale is also provided for comparison in Table 4. The Lawson criteria are used to assess wind force only and do not allow for variations in ambient temperature, solar radiation, and other environmental variables.

The comfort criteria (Lawson, 1978) are based on the exceedance of the threshold wind speeds occurring less than 5% of the time (approximately once per month during daylight hours). The value of 5% has been established as giving a reasonable allowance for extreme and relatively infrequent winds that are tolerable within each category. For example, if the mean hourly wind speed at a particular location is less than 4 m/s for 95% of the time then that location is classified as C4. On the Beaufort scale, 4 m/s is described as a gentle breeze.

Table 3: Lawson/Davenport wind comfort criteria

Comfort rating	Description	Mean hourly wind speed	Appropriate Area Usage	Description of Wind Effects
C1+	Uncomfortable for all users	>10 m/s	Uncomfortable for all uses	<ul style="list-style-type: none"> ■ Umbrellas difficult to use ■ Hair blown straight
C1	Fast or business walking	10 m/s	Areas where people are not expected to linger	<ul style="list-style-type: none"> ■ Force of wind felt on body
C2	Leisurely walking	8 m/s	General walking or sightseeing	<ul style="list-style-type: none"> ■ Dust and papers raised ■ Hair disarranged
C3	Short period sitting/standing	6 m/s	Bus stops, building entrances	<ul style="list-style-type: none"> ■ Light leaves and twigs in motion ■ Lightweight flags extend
C4	Long period sitting/standing	4 m/s	Reading a newspaper, eating and drinking	<ul style="list-style-type: none"> ■ Light wind felt on face ■ Leaves rustle

Table 4: Beaufort wind assessment scale

Beaufort Number	Description	Mean Hourly Wind Speed [m/s]	Effect
0	Calm	0 - 0.3	Smoke rises vertically
1	Light air	0.3 – 1.6	No noticeable wind
2	Light breeze	1.6 – 3.6	Wind felt on face
3	Gentle breeze	3.6 – 5.5	Hair disturbed, clothing flaps, newspaper difficult to read
4	Moderate breeze	5.5 – 8.0	Raises dust and loose paper. Hair disarranged
5	Fresh breeze	8.0 – 10.8	Force of wind felt on body, danger of stumbling
6	Strong breeze	10.8 – 13.9	Umbrellas difficult to use, difficult to walk steadily, wind noise unpleasant
7	Near gale	13.9 – 17.2	Inconvenient to walk
8	Gale	17.2 – 20.8	Impedes pedestrian progress, difficult balancing in gusts
9	Strong Gale	20.8 – 24.5	People blown over

3.2 Pedestrian Safety

The pedestrian wind safety criteria is based on an exceedance once per annum during daylight hours. A mean hourly wind speed (as GEM) which is greater than 15 m/s but less than 20 m/s which occurs once a year is classified as unsuitable for general public which includes elderly, cyclists and children. Able bodied users are those determined to experience distress when the wind speed exceeds 20 m/s once per year. Such safety criteria indicate the potential for danger during normal pedestrian activity, for example, a pedestrian crossing on a busy road, where the consequences of being blown over would be very serious. Other examples include access ways to hospitals and schools where the local pedestrian population is unlikely to cope safely with extreme winds. Referring again to the Beaufort scale, S2 would be classified as gale force, S1 as strong gale force. Note that mean hourly wind speed is in terms of gust equivalent mean (GEM).

Table 5: Pedestrian wind safety criteria.

Safety rating	Description	Mean hourly wind speed
S1	Unsuitable for able bodied	20 m/s
S2	Unsuitable for general public	15 m/s

3.3 Assessment Areas

The areas being assessed include the pedestrian level (1.5m above ground level) in the immediate vicinity of the proposed development, as shown in Figure 9. The two terraces in the proposed development, shown in Figure 10, are also assessed at 1.5m above terrace floor level.



Figure 9: Markup of wind assessment areas at ground level.

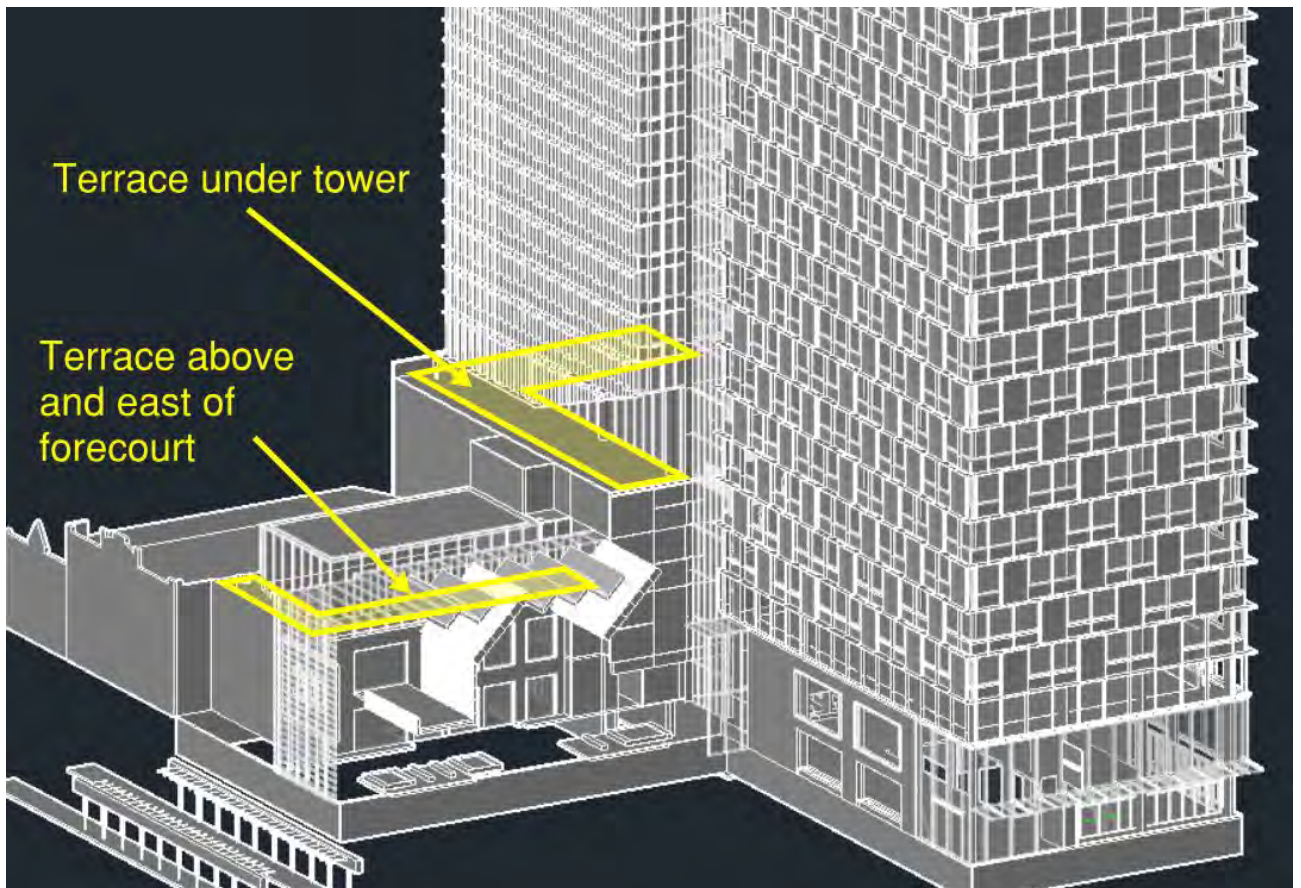


Figure 10: Markup of wind assessment areas on terraces of proposed development.

4 Modelling Methods

4.1 Geometry and Meshing

A 3D model of 200 North Tce was created from a number of sources including Google maps, Google Earth, site measurements and design drawings, as described in Section 1.3 above.

CFD divides (meshes) the volume surrounding all modelled geometry into discrete 3D elements (cells), over which the governing equations of fluid motion are solved. Smaller cell sizing is required in regions of expected flow field variation and where there are areas of complex geometry. To keep calculation time to a manageable level cell count must be judiciously managed. Therefore, geometry was simplified and fine details removed where appropriate.

The computational domain dimensions were chosen as a compromise between establishment of adequate free-field atmospheric boundary layer flow, resolution of surrounding structures and a manageable cell count. The final domain was set to an octagon shape of 1.2km diameter and 700m height, centred on 200 North Tce as shown in Figure 11. The domain was meshed using the hexahedral dominant meshing tool, snappyHexMesh. Maximum cell sizes were 20m cubes in the far-field, while the smallest cells of approximately 150mm cubes were placed within 2m of ground level in the areas immediately adjacent to 200 North Tce. Total cell count was over 7.7 million cells. Images of the mesh refinement are shown in Figure 12 and Figure 13. Approximately 10 cells were placed between the ground level and pedestrian level measurement locations.

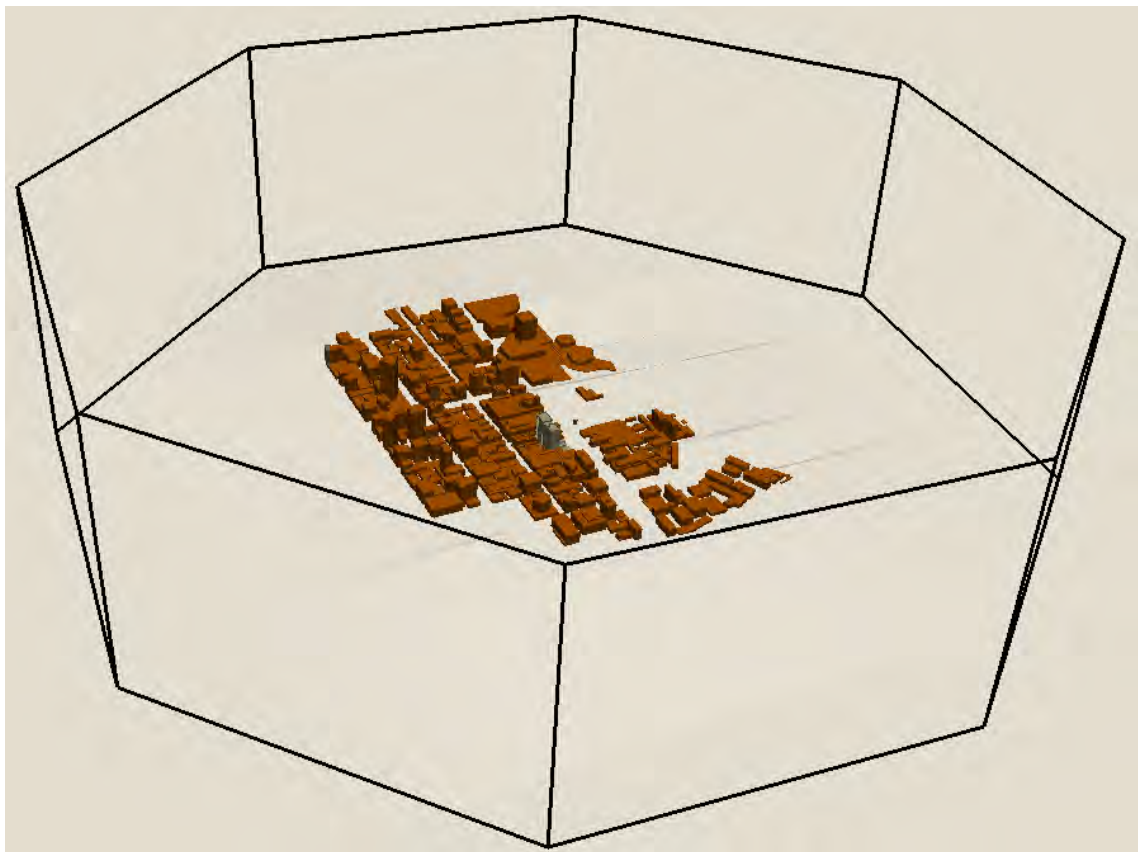


Figure 11: Image of the octagonal domain surrounding the proposed development at 200 North Terrace (green), viewed from east south east. Also shown is the surrounding CBD built environment (brown).

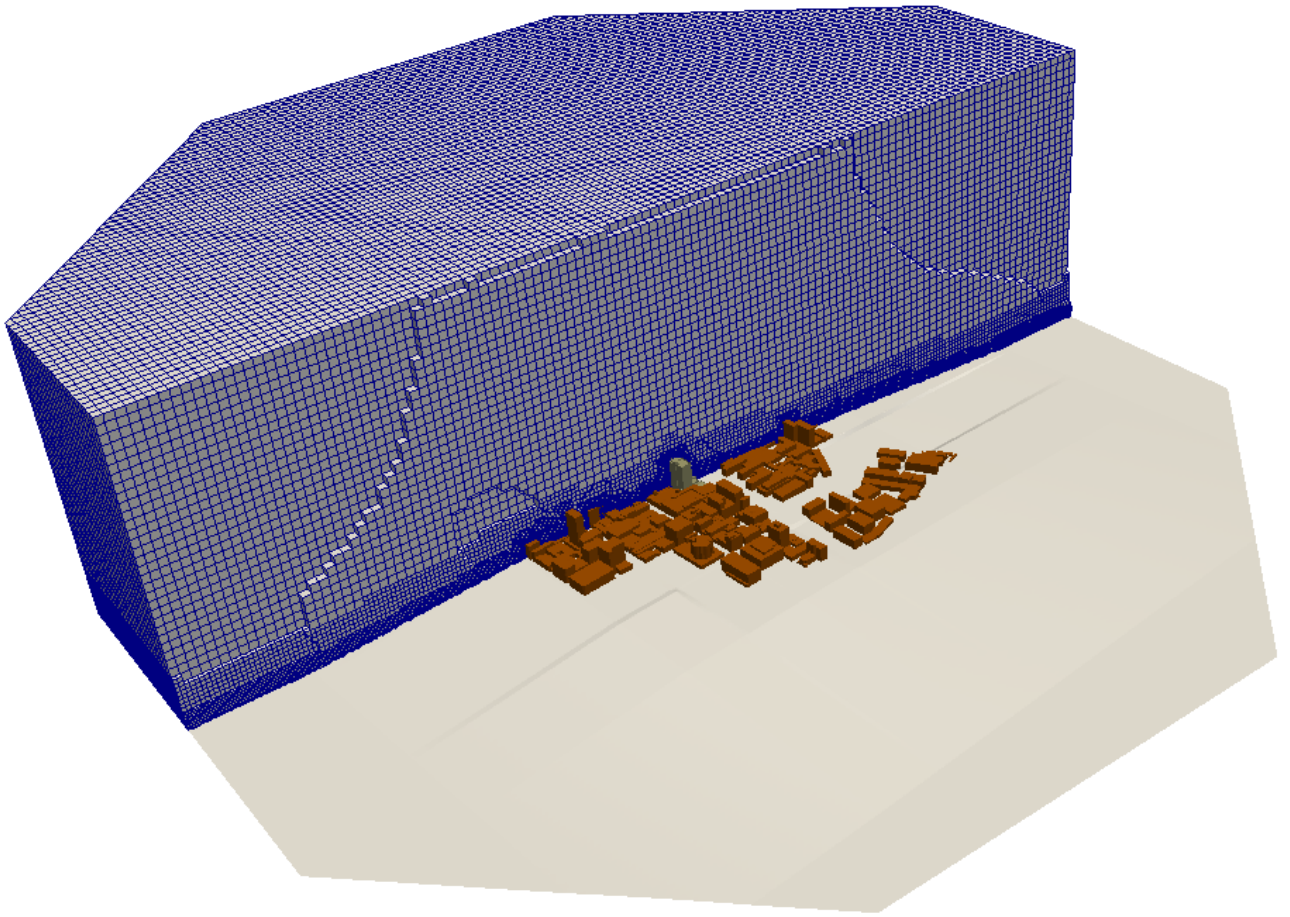


Figure 12: Image of far field mesh and refinement pattern towards the ground plane.

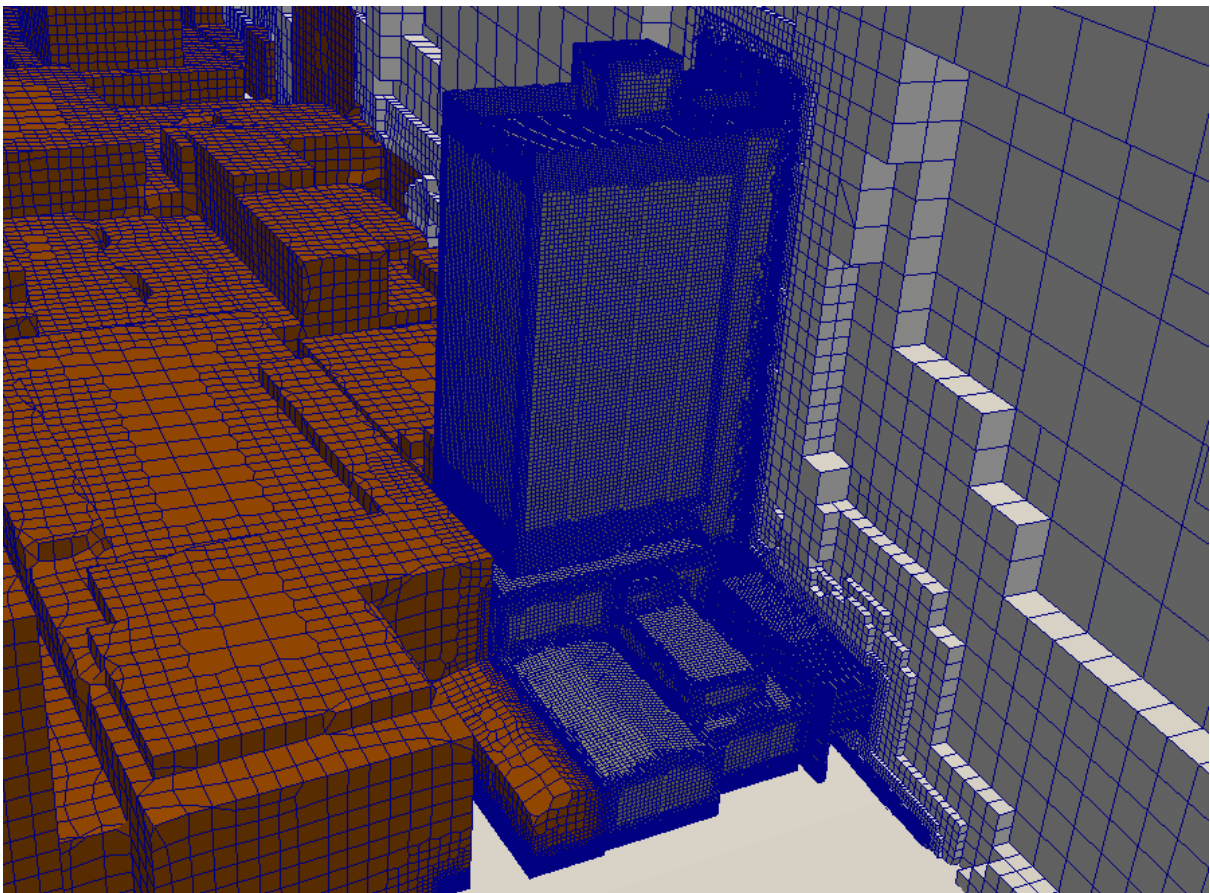


Figure 13: Image of mesh in the near field and on the surface of the proposed development.

4.2 Wind Modelling

Simulation of the Atmospheric Boundary Layer (ABL) requires the basic characteristics of the natural wind to be modelled. A suitable model of the atmospheric boundary layer is incorporated in the Australian Wind Actions Standard, AS 1170.2 (Standards Australia, 1989 and 2011) based on the work of Melbourne (1981) and Deaves and Harris (1978). This model uses a logarithmic law to describe the mean wind speed profile as a function of the aerodynamic roughness length which, in turn, is related to the surrounding terrain category (TC). Terrain categories and associated roughness lengths are defined in Table 6.

Table 6: Terrain categories used to simulate approach flows (Standards Australia, 2011)

Terrain Category	Definition	Aerodynamic Roughness Length [m]
1	Very exposed open terrain such as treeless flat plains, rivers, canals and lakes	0.002
2	Open grassland with no more than two well scattered obstructions per hectare of height generally 1.5 to 5m. Includes farmland and clear land with isolated trees.	0.02
3	Numerous closely spaced obstructions with heights generally 3 to 10m, such as suburban housing.	0.2
4	Numerous large, high (10-30m) closely spaced obstructions. Includes large city centres and well-developed industrial complexes.	2

Figure 14 shows a mark-up of the city scape surrounding 200 North Terrace. Since the proposed development is approximately 85m in height the terrain between the outer radius ($40 \times 85\text{m} = 3.4\text{km}$) and inner lag region ($20 \times 85\text{m} = 1.7\text{km}$). The bounded area is largely suburban regions, densely populated with housing which is defined as terrain category 3 (TC3) per AS1170.2. Buildings in the near vicinity of 200 North Terrace leaves the area susceptible to effects including channelling, recirculation and downwash. Therefore, all major structures within 400m of the proposed development have been included in the simulations as mentioned in Section 1.3.

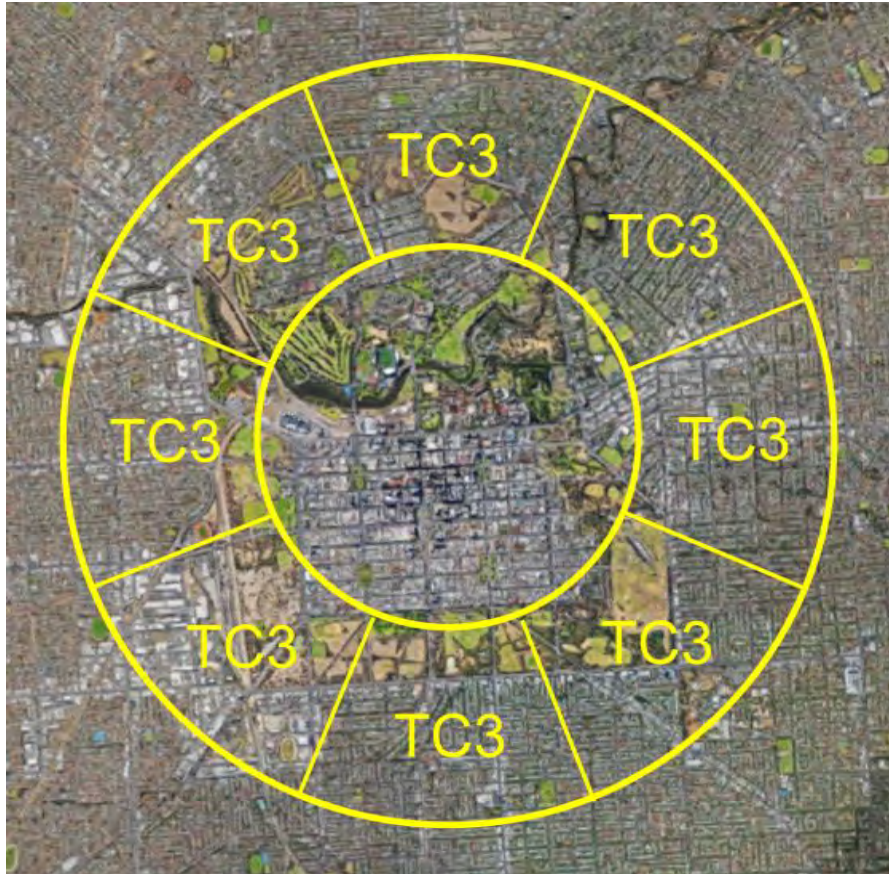


Figure 14: Map of Adelaide showing terrain categories specified for each cardinal direction. Inner radius is 1.7km and outer radius is 3.4km centred on 200 North Terrace.

Aurecon have implemented the Deaves and Harris ABL model in OpenFOAM, closely following all recommendations of Richards and Hoxey (1993) including upper boundary shear stress. The upper boundary turbulent gradients are also defined following the equations outlined in Sumner and Masson (2012). These equations were implemented for the k-epsilon class of turbulence models, with the realizable k-epsilon model (Shih et. al. 1994) used for the wind simulation.

A steady Reynolds averaged simulation was then conducted for all eight cardinal directions. The atmospheric boundary layer reference velocity was set to 10m/s at a 10m height for all directions. Simulations were run to convergence where three sampled velocity points distributed throughout the domain converged to steady state, while all momentum and turbulent equation residuals were less than 1×10^{-4} and the pressure equation residual less than 4×10^{-2} . Local and global continuity errors were less than 1×10^{-7} and 5×10^{-10} respectively.

4.3 Environmental Wind Statistics

In this analysis the mean velocity and turbulent kinetic energy from the steady CFD results are used to calculate the gust equivalent mean (GEM) velocity. Here the formula for gust equivalent mean (U_{GEM}) takes the form of (Bottema 2000),

$$U_{GEM} = \max\{\bar{U}, (\bar{U} + GF\sqrt{k})/2\}$$

Where \bar{U} is the mean velocity field, k is the turbulent kinetic energy field and $GF = 5$ is the gust factor, calibrated for on-site experiences of pedestrian winds around various sites.

The GEM field values for all cardinal directions were then scaled by the reference velocity and the probability of exceedance for each Davenport velocity criteria (Section 3.1) calculated across the computational domain using the corresponding Weibull probability coefficients (Section 2.2.1). The contribution to probability of exceedance is summed for each direction, giving an overall probability of exceedance. Where this probability exceeds 5% the corresponding comfort criteria is applied. A similar procedure is followed for the Davenport safety criteria (Section 3.2), where the probability of occurrence is provided by the extreme value analysis (Section 2.2.2).

5 Results and Assessment

5.1 Existing Buildings

Computational wind analysis was conducted for the existing buildings using the Adelaide Airport wind statistics. Results are shown in Figure 15, Figure 16 and Figure 17

Figure 15 and Figure 16 both display wind comfort assessments, where all sidewalks are seen as suitable for long or short period sitting or standing. A region of higher probability wind speed exists in the middle of Gawler Place which is deemed suitable for leisurely walking. This category would be suitable for shopfronts and poses no concerns in the centre of a road. Figure 17 shows there are no safety issues for the existing buildings.

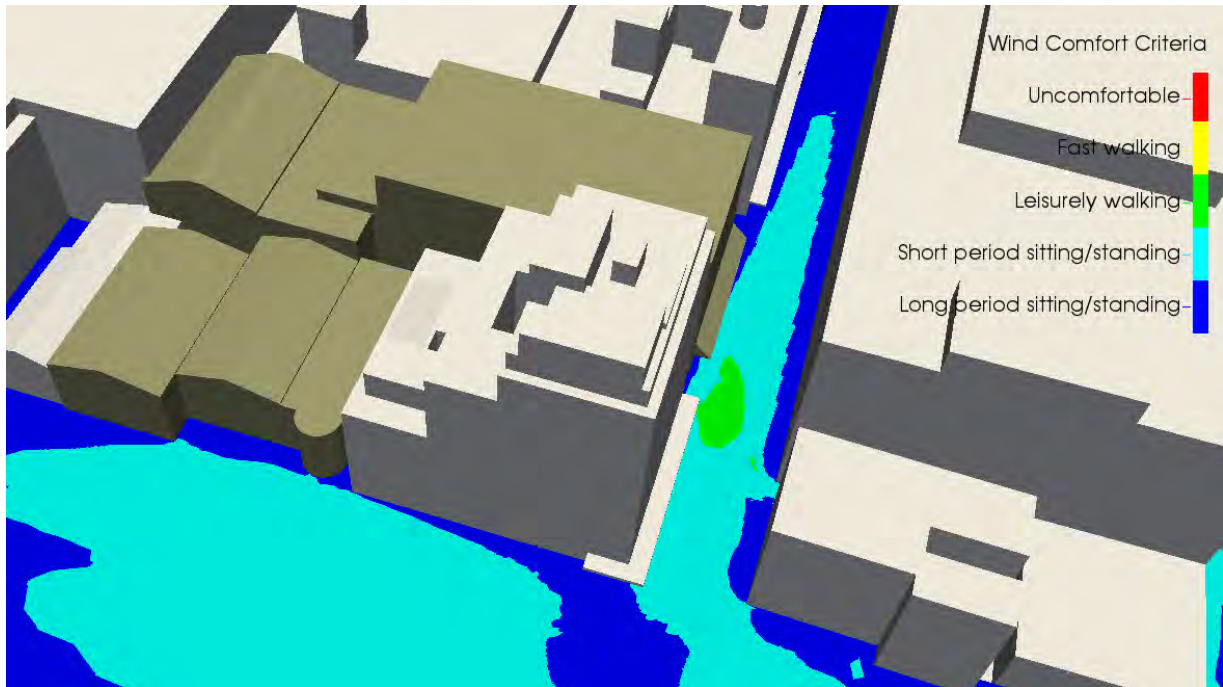


Figure 15: 3D view of pedestrian level comfort assessment contours for the existing buildings.



Figure 16: Pedestrian level wind comfort assessment contours for the existing buildings, viewed from above.



Figure 17: Pedestrian level wind safety assessment contours for the existing buildings, viewed from above.

5.2 Proposed Development

Wind comfort results for the proposed development using the Adelaide Airport wind statistics are shown in Figure 18, Figure 19 and Figure 20. The following observations can be made

- Compared with results for the existing buildings there is no significant change in the assessment contours for North Terrace.
- The forecourt of the proposed development is seen to be suitable for long period sitting or standing.
- The terrace immediately above and to the east of the forecourt is classified as suitable for long period sitting or standing nearer the tower, changing to short period sitting or standing toward the North Terrace end.
- The terrace under the façade of the main tower is seen to be primarily categorised as suitable for long or short period sitting or standing. There is a region, marked in Figure 20, is more suitable for leisurely walking. This is not a significant departure from the intended usage for this terrace and any mitigation should be subject to a cost-benefit analysis.
- On Gawler Place, however there is a noticeable increase in wind speed compared with the existing buildings. This is discussed further below.

The region classified as suitable for fast walking (yellow) is primarily located in the centre of Gawler Place where it poses no concern for pedestrian comfort as it is a vehicular road.

This same fast walking contour extends from the middle of Gawler Place over a small strip of sidewalk toward the North West corner of the proposed tower (refer mark-up in Figure 19). In this small strip past the tower corner it is likely the pedestrian activity is fast walking. Figure 23 displays streamlines for North Easterly winds clearly demonstrating that this effect is caused by downwash from the Northern façade during North Easterly wind events.

Since the proposed development is over 21m in height, Principle 125 of the Adelaide City Development Plan (2017) applies. Here the wind tunnel effect, specifically downwash, should be minimised through mitigation such as substantial verandas around the building. While the predicted impact is limited in both severity and extent, a selection of mitigation options have been suggested and analysed in the following section.

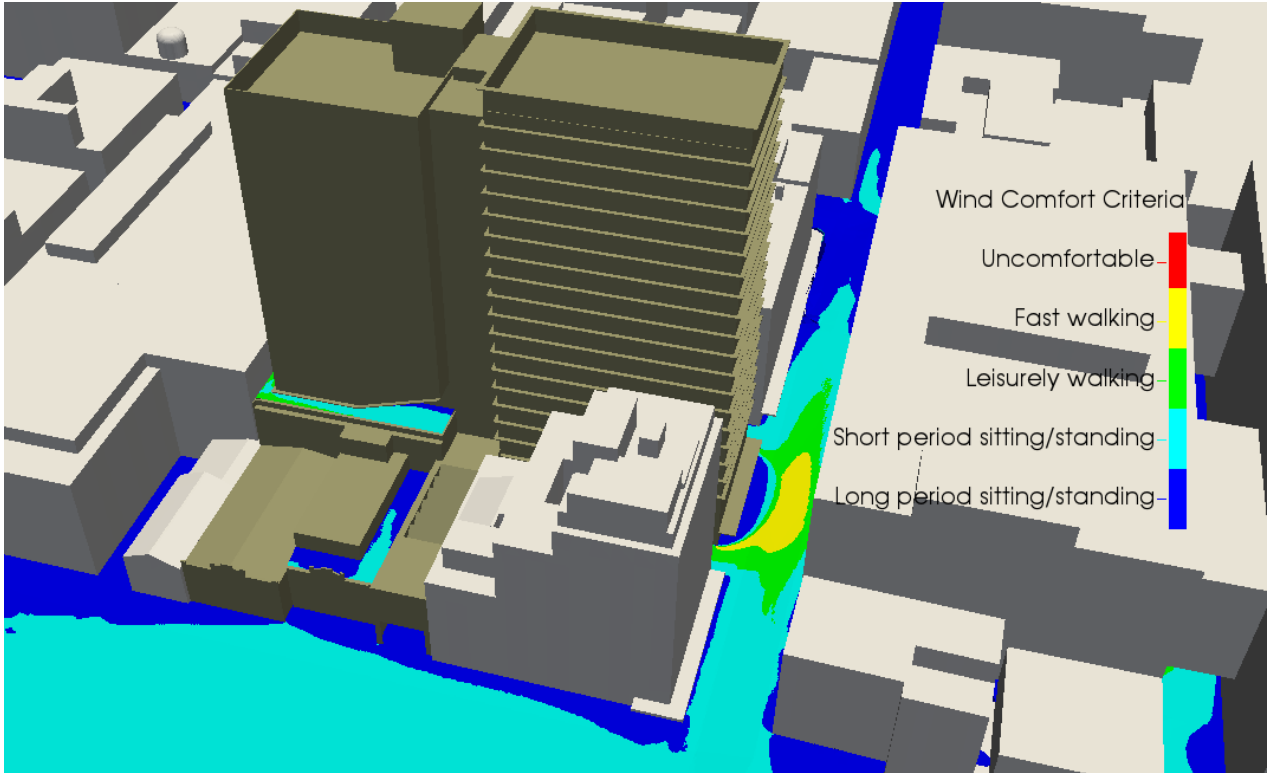


Figure 18: 3D view of pedestrian level and terrace level comfort assessment contours for the proposed development



Figure 19: Pedestrian level wind comfort assessment contours for the proposed development, viewed from above.

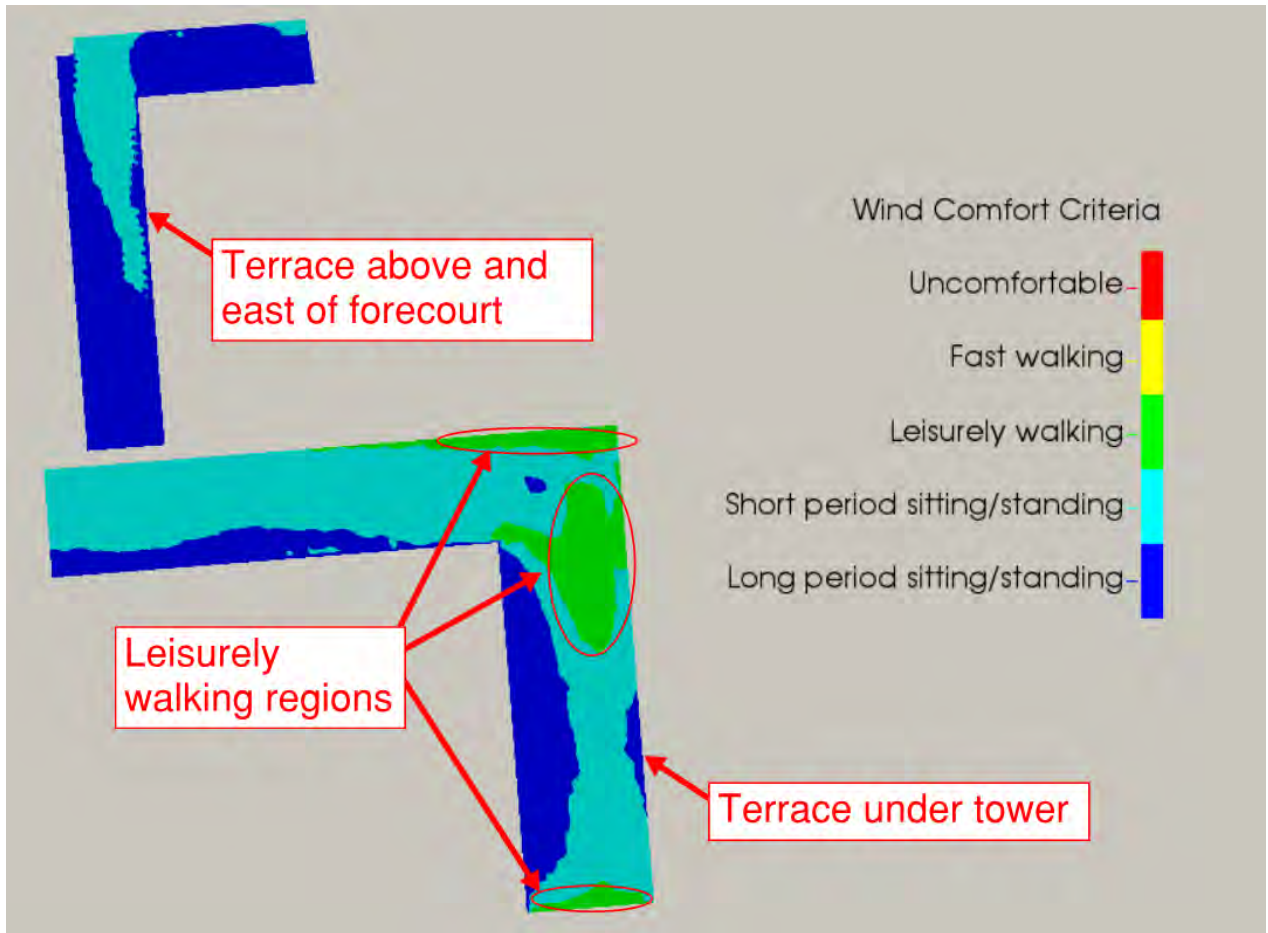


Figure 20: Wind comfort assessment contours for the proposed development terrace levels, viewed from above.

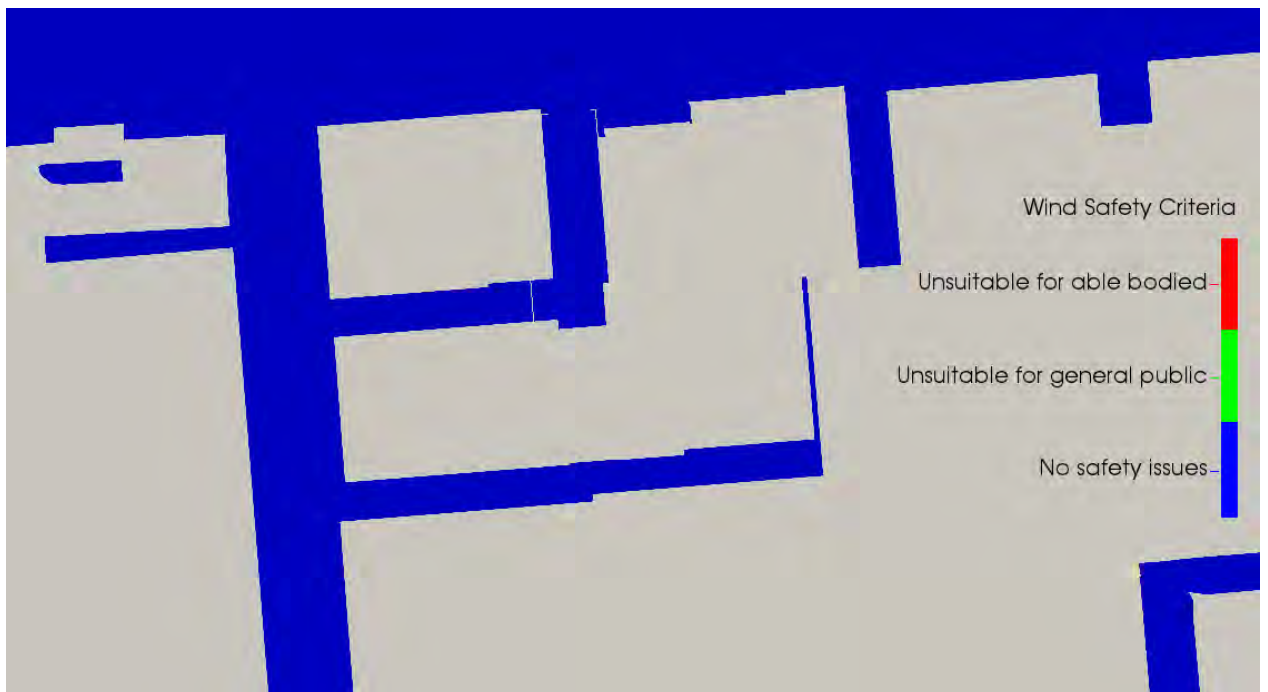


Figure 21: Pedestrian level wind safety assessment contours for the proposed development, viewed from above.

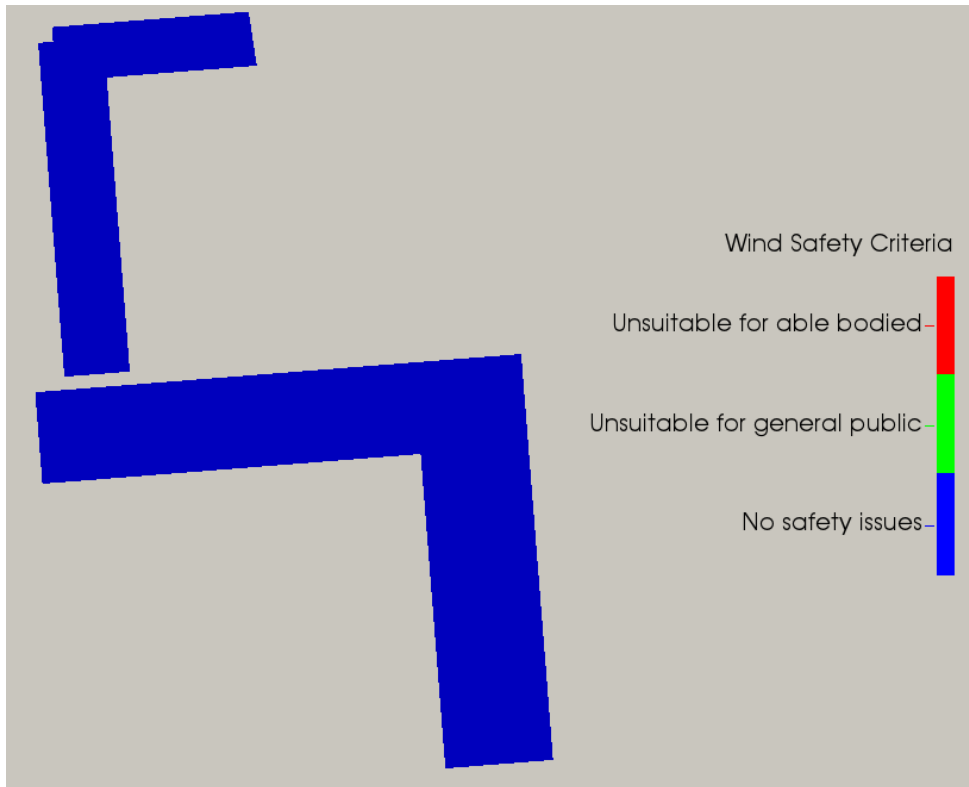


Figure 22: Wind safety assessment contours for the proposed development terrace levels, viewed from above.

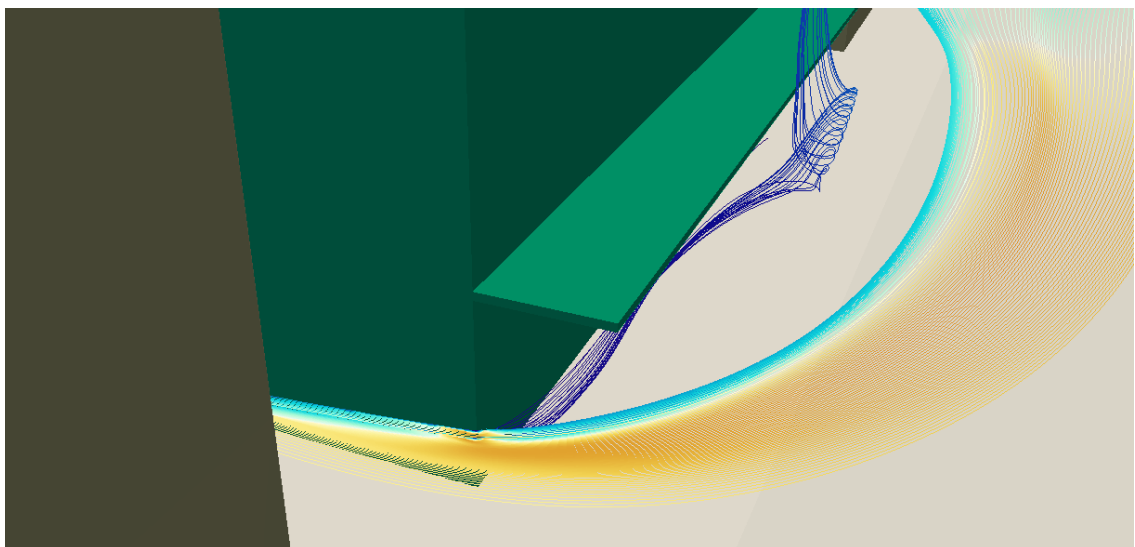
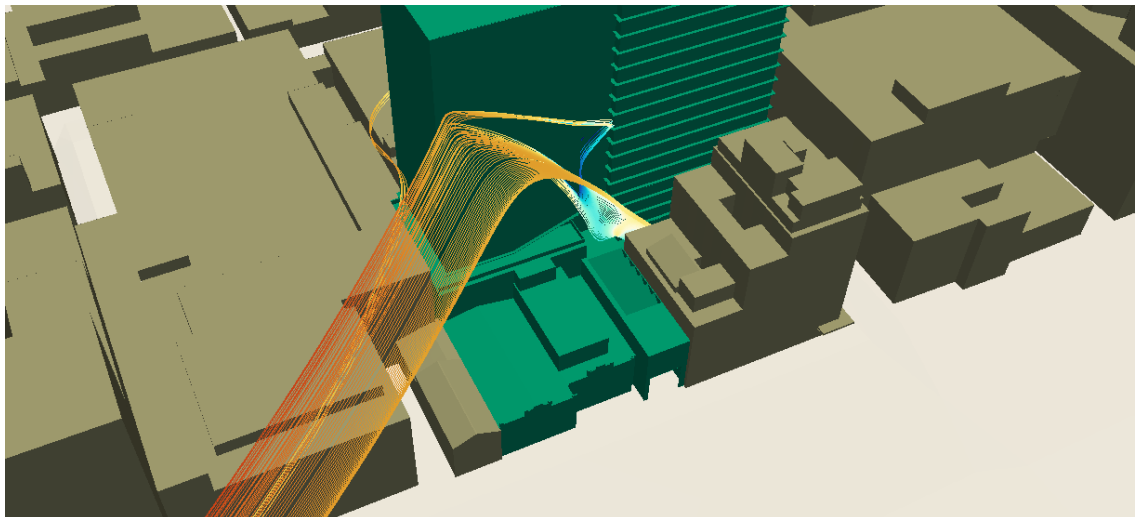


Figure 23: Streamlines showing downwash during North Easterly winds from the facade (top) being redirected toward the corner of the private laneway and Gawler Place (bottom).

5.3 Mitigation Measures

Two areas of potential improvements to the environmental wind environment were identified in Section 5.2, namely the terrace underneath the main tower and the corner of the private laneway and Gawler Place.

5.3.1 Terrace Level

The comfort of patrons on the terrace under the tower was identified above as an area for mild potential improvement. A cost-effective mitigation strategy was tested where the awnings at the bottom edge of the façade were increased from 700mm overhang to 2000mm (refer Figure 24). The resulting comfort assessment fields at pedestrian height (1.5m) above terrace level are shown in Figure 25. A minimal reduction in the extent of the leisurely walking contour can be seen.

The ineffective awning extension is due to the redirection of wind down the ‘spine’ of the Northern facade and through the angled opening underneath the façade overhang. These are key architectural features and mitigation of this flow effect would require significant compromise to the design. Given the mild anticipated discomfort on terrace level, such drastic design change is not justified. Furthermore a North Easterly wind is more likely to occur during the warm summer months where an increased wind may be desired by patrons on terrace level.

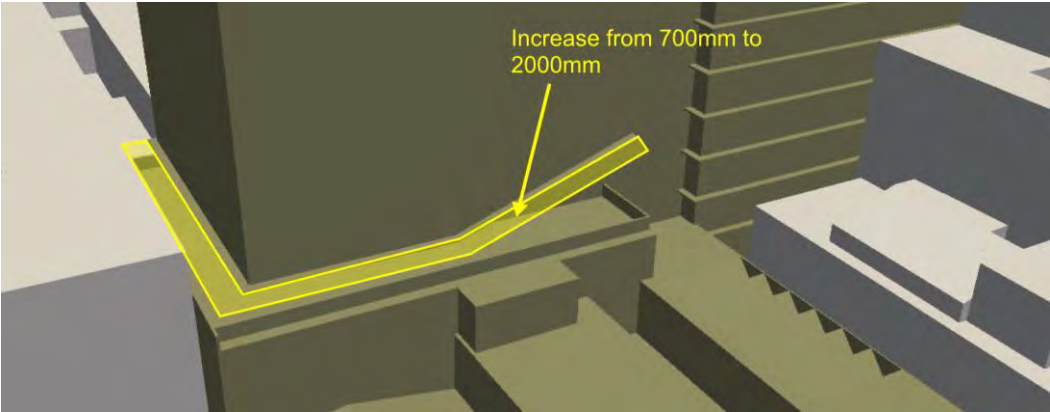


Figure 24: Proposed extension to facade awnings

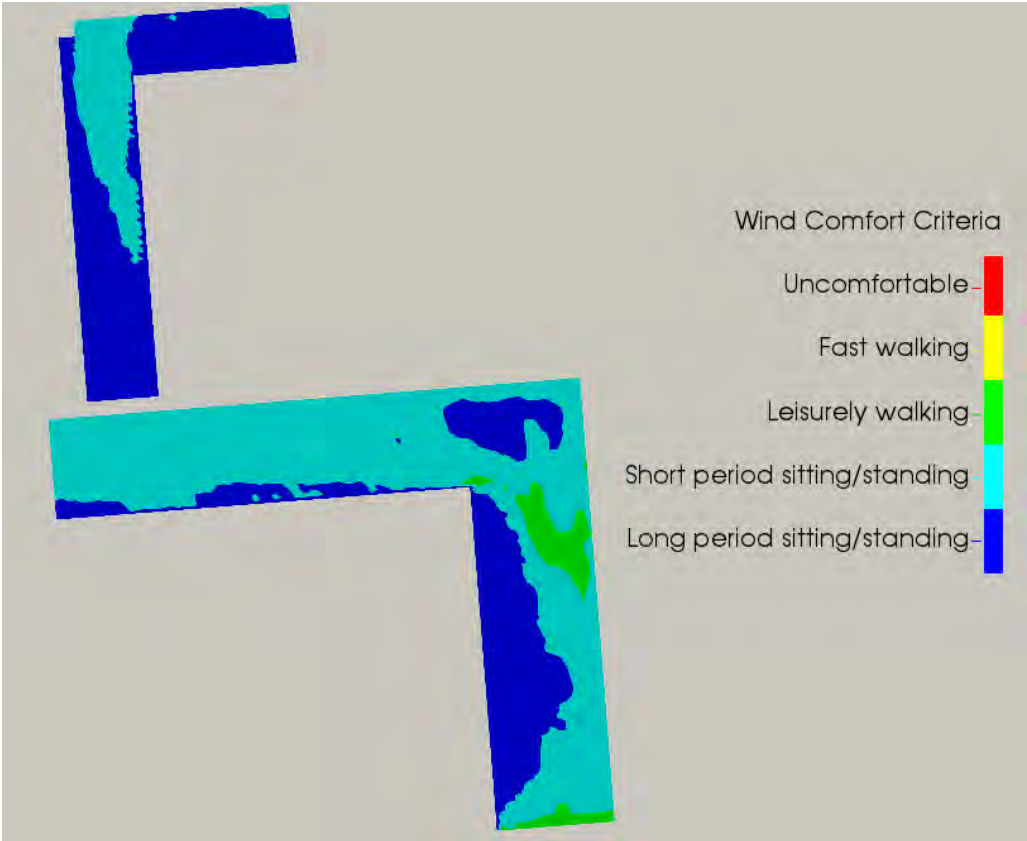


Figure 25: Wind comfort assessment contours for terraces with awning extension.

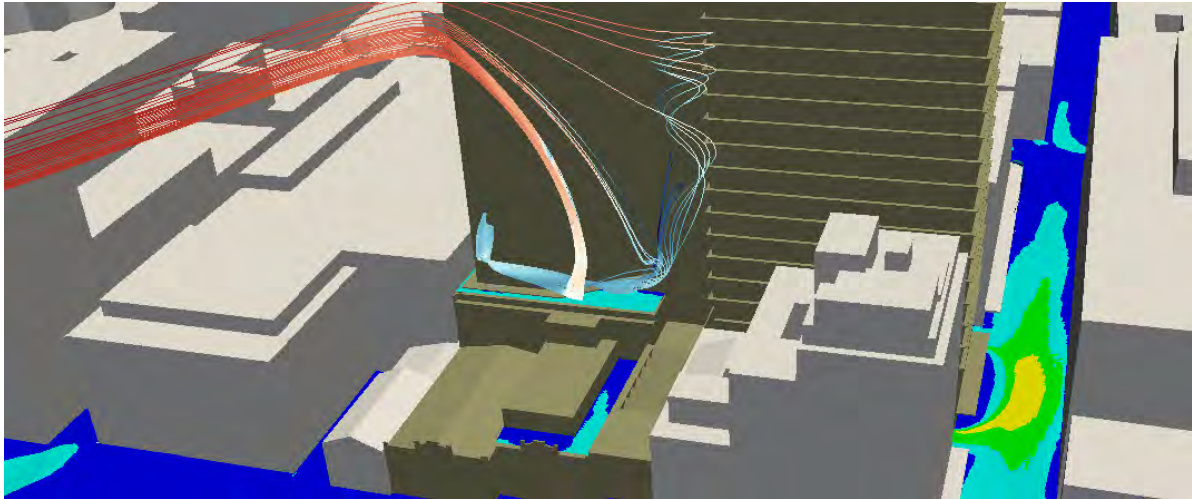


Figure 26: Streamlines generated by downwash during North Easterly winds, sweeping under the facade to terrace level.

5.3.2 Private Laneway to Gawler Place

The small strip of sidewalk at the North West corner of the tower was identified above as an area of potential improvement. Assessment of several mitigation options are outlined below.

Heritage Façade Extension

In an effort to provide a cost effective mitigation strategy it was proposed that the heritage façade be extended over the edge of the forecourt to the façade of the main tower (refer Figure 27). It was hoped this option would interrupt the downwash flow path during north easterly wind events, pushing higher speed winds above ground level. Results for the wind comfort criteria are shown in Figure 27 where little effect on pedestrian level comfort is realised.

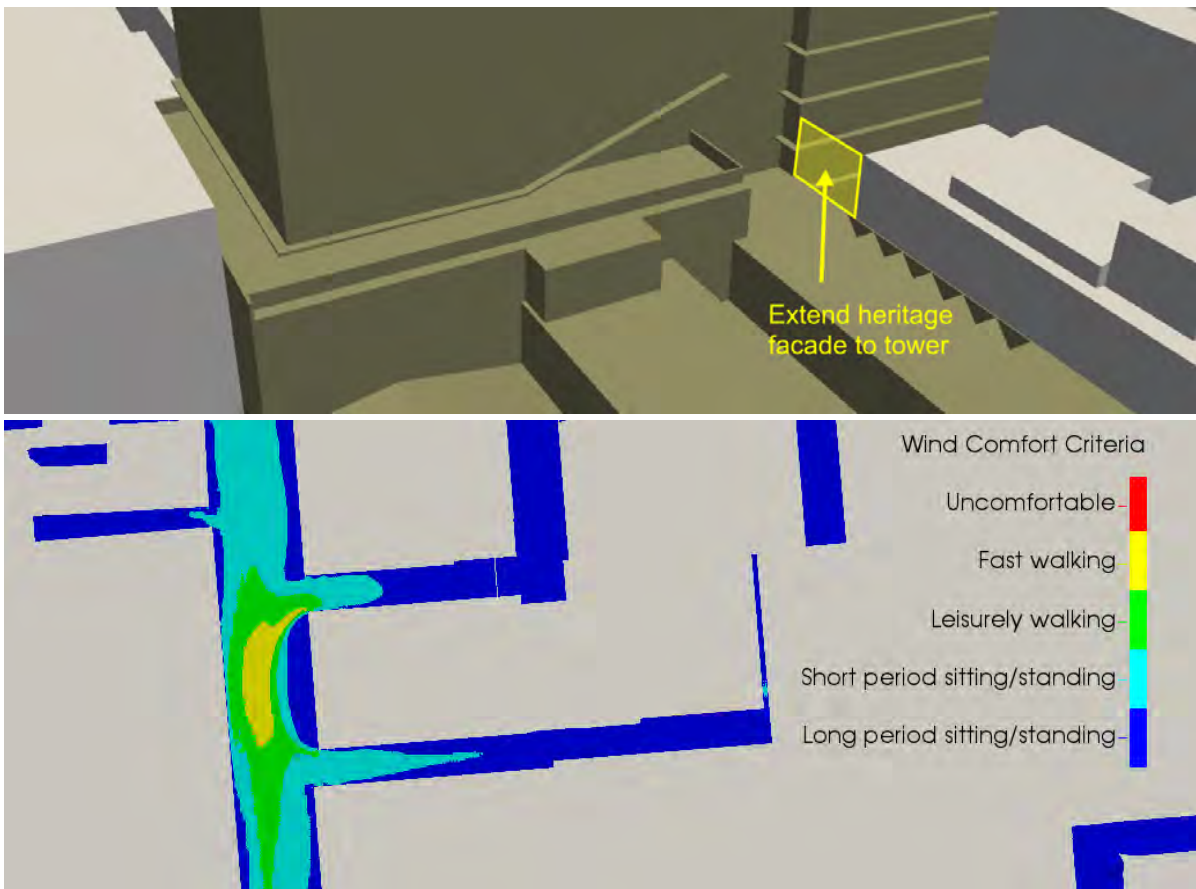


Figure 27: Proposed extension between tower and heritage facades (upper image) and resulting wind comfort at pedestrian level (lower lower).

Private Laneway Awning Extension

The addition of substantial verandas to the northern face of the tower (along the private laneway) was investigated. This geometry is shown in Figure 28 where the proposed veranda overhang is 3000mm. Figure 29 shows this mitigation strategy also has little effect on the downwash flow path.

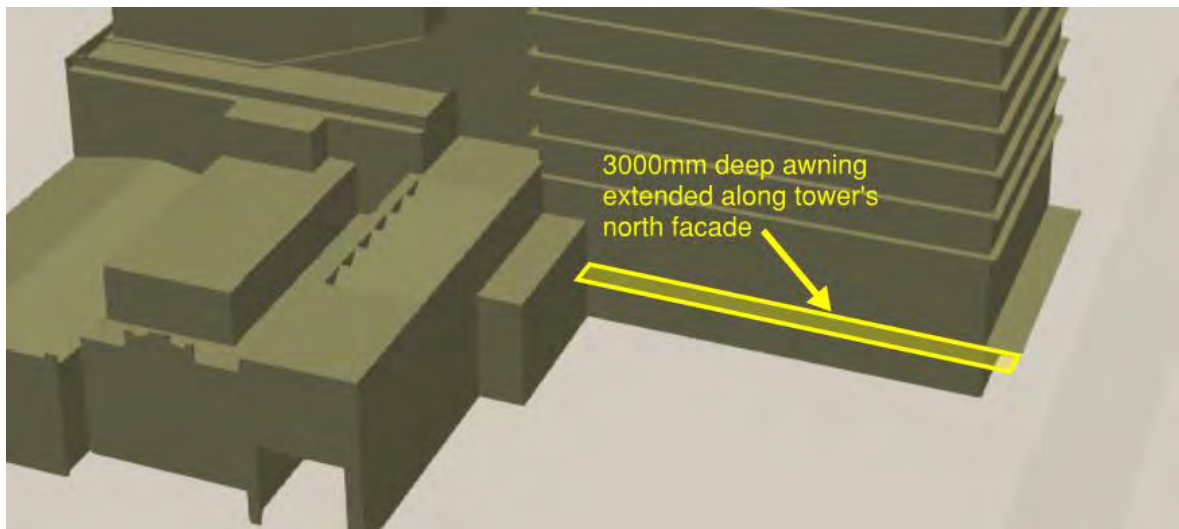


Figure 28: Proposed awning extension along proposed tower north facade

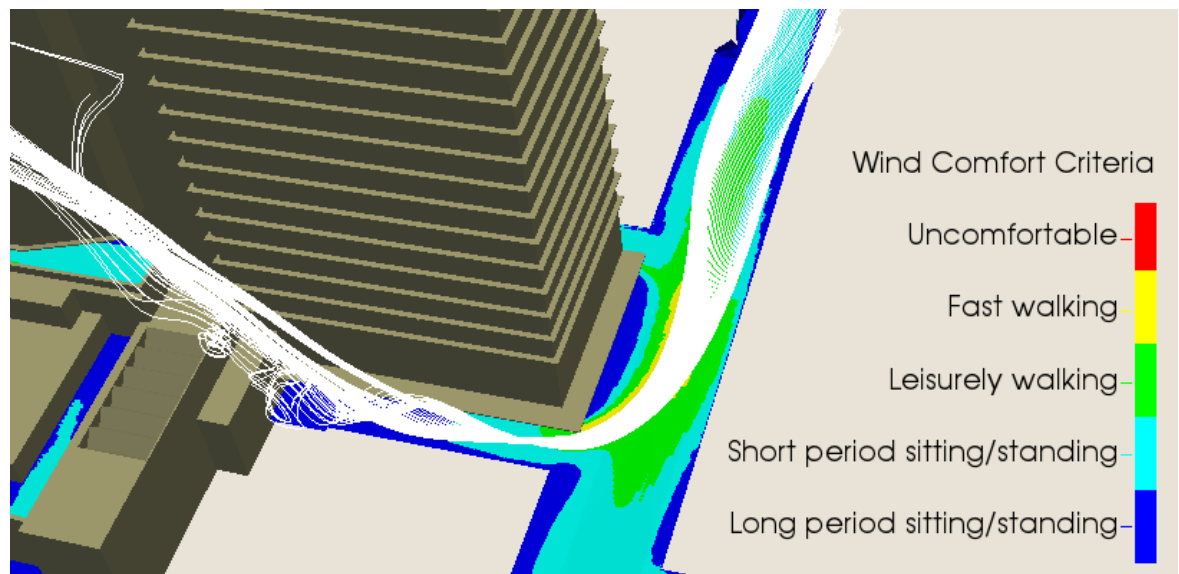


Figure 29: North easterly wind downwash streamlines showing the ineffective nature of a 3m deep awning extension along the tower's north facade. The surrounding buildings are hidden for clarity.

Private Laneway Canopy

The above results demonstrate that the downwash effect for the proposed development cannot be altered by unobtrusive means. A final mitigation strategy is suggested where a canopy is erected above the entirety of the private laneway (refer Figure 30). While minimisation of downwash effects (principle 125) would be assured by this option, compromise between competing principles in the Adelaide City Development Plan (2017) must be sought. A substantial canopy would provide pedestrians with weather protection from rain, wind and sun (principle 123); however such a canopy is likely to:

- Adversely affect solar access and daylight in this private laneway (principles 119 and 120)
- Likely incompatible in scale with the adjoining building (principle 123)
- Possibly be a detriment to the heritage value of adjacent buildings (objective 34)

Given these competing objectives and the limited extent to which comfort is affected on pedestrian thoroughfares, it is not unreasonable to omit mitigation of downwash effects for the proposed development.

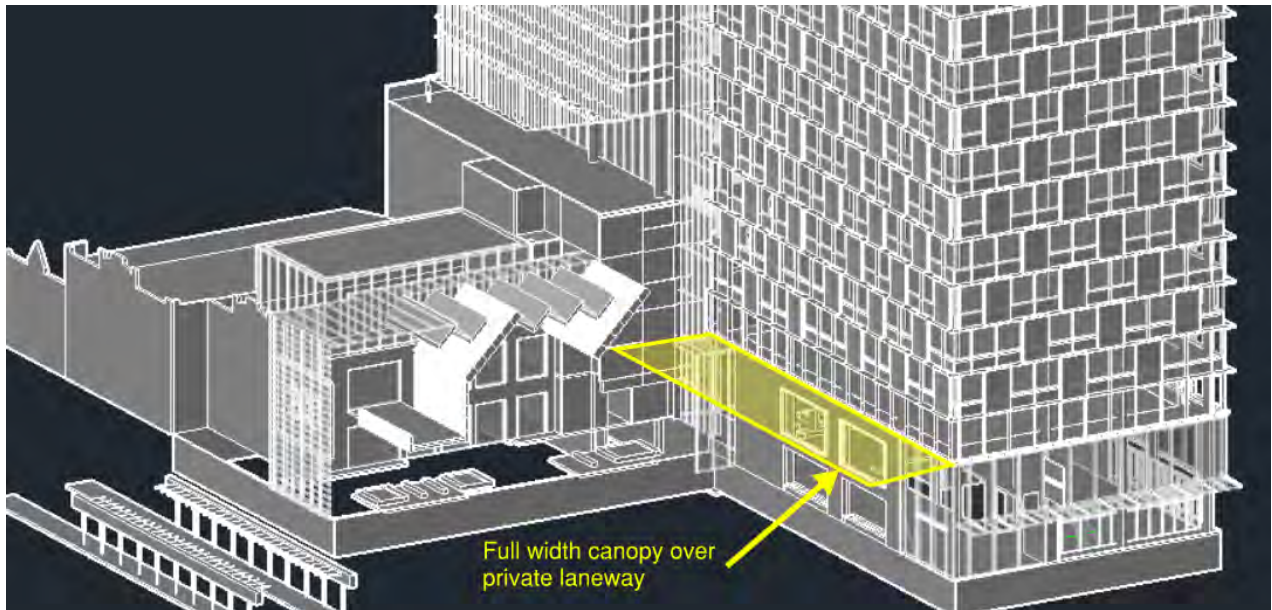


Figure 30: Proposed full-width canopy over the private laneway.

Landscaping

As part of the anticipated Gawler Place North upgrade there are several street trees to be added. An image of the intended upgrade is shown in Figure 31 where a tree is located directly where the downwash is expected to cross the sidewalk. This tree is expected to provide a natural method of dissipating wind and improve the local environmental wind. Given the limited impact of the downwash, it is anticipated that no further wind mitigation is recommended.

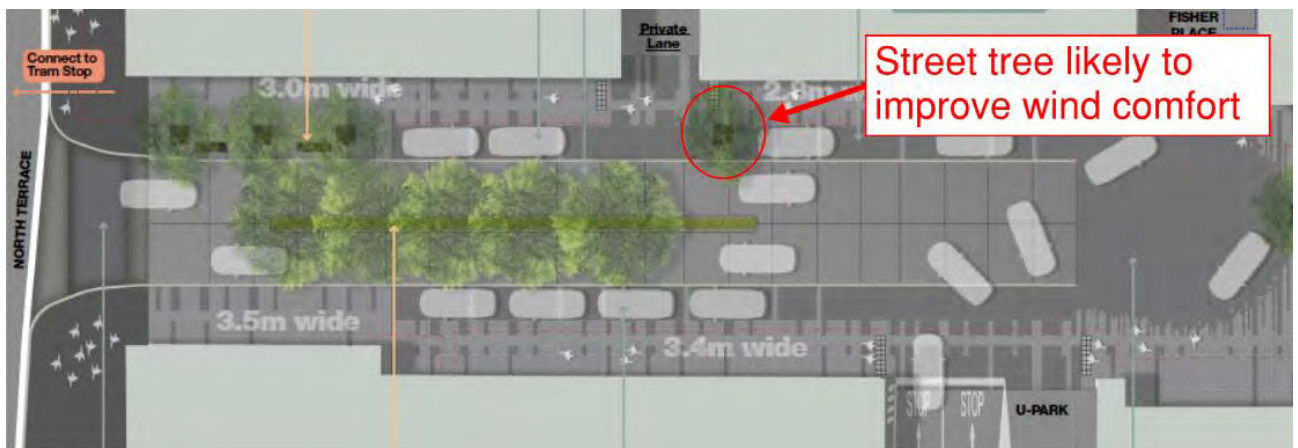


Figure 31: Image of Gawler Place North upgrade and associated street trees.

6 Conclusion

A study of environmental wind conditions for the existing buildings at 200 North Tce was conducted to establish pedestrian wind comfort and safety conditions. Meteorological observations from the nearest BOM stations (Adelaide Airport and Kent Town) were obtained and a statistical analysis of wind speed and wind direction completed. North Easterly and South Westerly winds were identified as the prevailing wind directions.

CFD modelling of the proposed development at 200 North Tce and the surrounding city scape was conducted and conservative assumptions made regarding 3D geometry simplifications. Results were scaled to account for the statistical wind behaviour in this locale. The street level environmental wind was assessed together with both terraces.

Based on this analysis the following conclusions were drawn

- There were no regions where wind safety was a concern.
- The wind environment for the lower terrace is suitable for the intended usage.
- The terrace under the tower façade was shown to include local regions suitable for leisurely walking, in addition short and long period sitting or standing. Mitigation was shown to conflict with primary architectural features of the design with only limited benefit to patron experience.
- Downwash during North Easterly wind events was shown to follow the tower façade down the private laneway and onto Gawler Place
 - Downwash was shown to flow across the sidewalk at the North West corner of the tower onto Gawler Place
 - A region in the centre of Gawler Place North, trafficked by vehicles, is categorised as suitable for fast walking. There is no impact on pedestrian comfort for this region.
 - Pedestrian activity is expected to match the fast walking category where downwash crosses a small strip of sidewalk at the North West corner of the proposed tower.
 - Several mitigation options were investigated. It was concluded that the addition of street trees in the anticipated Gawler Place North upgrade will provide for any wind mitigation needs

Based on these results no further wind mitigation is recommended.

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200 North Terrace

Statement of Energy Efficiency

August 2017



1 Introduction

Energy efficiency is a key design requirement for the 200 North Terrace project, and is also an explicit requirement under the Adelaide (City) Development Plan.

As developers and building owners we are committed to delivering Environmentally Sustainable developments that provide real and measurable long-term benefits for our tenants and for the environment. We also believe that it is important for the Environmental Sustainability outcomes of the building to be developed within recognised frameworks, such as Green Star and NABERS.

This report outlines the Energy Efficiency measures, in addition to some general Sustainable Development initiatives, which are incorporated in the design for 200 North Terrace.

The approach for this project is to target a broad base of genuine (if not highly visible) energy efficiency measures rather than jumping to tokenistic outcomes. For example, a drive to significantly reduce energy consumption, rather than generating small amounts of energy onsite.

Energy efficiency measures will be balanced with other considerations in relation to an overall Sustainable Development focus. This includes a strong emphasis on Indoor Environment Quality (IEQ), which is particularly relevant for a project that is aiming to promote a high quality working environment. IEQ measures are also discussed in brief at the conclusion of this document.

2 Rating Tools

We believe that it is important for the Environmental Sustainability outcomes of the building to be developed within recognised frameworks (such as Green Star and NABERS) which are the result of ongoing research and which provide quantifiable outcomes that are independently validated.

The 200 North Terrace development will be designed to achieve both 5 Star Green Star and 5 Star NABERS Energy ratings.

2.1 Green Star

200 North Terrace will be rated under the Green Star Design & As Built tool, which provides a holistic benchmark for sustainability both in terms of the ecological footprint of the building and the quality of environment provided for occupants within the building.

The 5 Star Green Star rating is characterised by the Green Building Council Australia (GBCA) as representing “Australian Excellence” in sustainable building; a step beyond the 4 Star benchmark of “Best Practice”.

2.2 NABERS Energy

200 North Terrace will be rated under the NABERS Energy Tool, which evaluates the energy efficiency of the building based on Greenhouse gas emissions per area of lettable office space (arising from Electricity and Gas consumption).

The 5 Star NABERS rating is characterised as representing “Excellent” performance, and represents Greenhouse gas emissions at a rate approximately *half* that of an “average” building.

Extensive Energy Modelling will be undertaken during the design process, including simulation of building systems, construction materials (including glazing) and climate conditions, to ensure that these elements are designed in harmony to achieve the targeted efficiency benchmark. On completion and occupation of the building, the actual electricity and gas consumption will be monitored for a 12 month period in order to achieve the formal rating.

3 Energy Efficiency Measures

A description of key Energy Efficiency measures is provided below, in a series of broad categories.

It should be noted that the Energy Efficiency measures are heavily focussed on management and reduction in demand rather than onsite energy generation, which is considered the best approach for this facility.

3.1 Building Fabric / Envelope

The design of the building envelope is strongly influenced by Energy Efficiency considerations. The challenge is to provide a façade system that provides a high degree of occupant amenity (e.g. daylight and views) whilst minimising thermal loads on the building.

The 200 North Terrace façade is comprised primarily of a unitised curtain wall system with a high degree of vision glazing, to maximise sweeping views over the parklands and the city.

The following design features have been employed to reduce heat load on the building via the façade system (commercial office floors):

- Double-glazed units (DGU’s) for all vision glazing, which provides significantly lower thermal conductance relative to single glazing;
- *Low-e* coatings to all vision glazing, to minimise solar heat gain;
- Air infiltration of less than 1.0L/s/m² for all fixed elements.

The design features described above are predominantly intended to minimise Air Conditioning load from solar heat gain and thermal conduction, noting again that Air Conditioning is the largest consumer of energy for a building of this type.

Glazing to the northern elevation in particular will be given careful attention during the detailed design phase, due to its relatively large extent, and desire to maintain clear views over the parklands to the north. The following considerations will be explored:

- Fixed shading devices to mitigate direct solar gain;
- Exploring glass selections with a lower VLT (Visual Light Transmittance) to find the best balance of view quality and solar performance;
- Design features to minimise thermal conduction through aluminium framing;

During the preliminary design phase, radiation modelling has been utilised to demonstrate a 36% decrease in solar heat gain as a result of sun shading design.

3.2 Mechanical Services

Mechanical Services (Heating, Ventilation and Air Conditioning) represent the largest energy consumption *End Use Category* for a facility of this type, and for this reason receive a strong focus with respect to Energy Efficiency measures.

In addition to reducing external heat loads on the Mechanical Services systems, as described in the previous section, measures have been taken to greatly enhance the Energy Efficiency of these system. Examples of these measures are outlined below:

- Passive Chilled Beam cooling system, which is highly energy efficient due to the convective mode of cooling, i.e. no mechanical air movement required;
- Implementation of “*Cooling-Tower Cooling*” mode whereby air conditioning is active without the operation of chillers, under favourable ambient conditions;
- Use of Thermal Reclaim systems to re-capture “coolness” from conditioned air as it is expelled from the building;
- Use of central thermal plant (chillers) with multiple stages, in order to achieve economy of scale and maintain efficient operation across a wide range of load conditions (e.g. varying occupancy and ambient temperatures);
- Consolidation of central thermal plant between commercial and retail uses, for economy of scale. I.e. avoid using small localised cooling systems for retail tenancies, which offer far lower Coefficient of Performance (energy efficiency);
- Efficient forms of heat rejection for all major cooling systems, namely Cooling Towers;
- Use of “condensing” type gas boilers for heating requirements, which achieve very high efficiency by extracting energy from exhaust flue gases;
- Implementation of an advanced Building Management System (BMS) with high-level control over all HVAC systems in the building;
- Fine-grained zoning of HVAC systems, to ensure that conditioned spaces are controlled closely to set point rather than being over-heated or over-cooled.

Detailed energy modelling will be undertaken during the next design phase, including a sophisticated computer model of the building and Mechanical Services systems. This model will be used to fine-tune the above design initiatives to maximise energy efficiency benefits.

3.3 Lighting

Artificial Lighting is another very significant energy use, and has also been a strong focus for Energy Efficiency measures including:

- The use of LED technology throughout in lieu of fluorescent or incandescent lighting (inclusive of carpark levels and emergency stairwells);

- Lighting designs which result in improved (lower) Lighting Power Density as compared with the Building Code of Australia Energy Efficiency Requirements;
- A Digital Lighting Control System throughout the entire facility, in order that lighting can be controlled and monitored in a structured fashion;
- Occupancy detection in transient spaces such as amenities and Back of House areas;
- Fine-grained zoning and associated user controls, which allow lighting to be adjusted dynamically rather than “all on” to a department or area;
- Designing to exploit availability of natural light, including automatic dimming of internal lighting to office perimeter zones;
- Separate energy metering of lighting to enable ongoing monitoring and identification of anomalous energy consumption due to overuse of lighting.

3.4 Lifts

The third major *End Use Category* for energy consumption is Lifts. The following measures have been implemented to manage and reduce energy usage attributed to the lift systems:

- All lifts are A Class energy rated;
- Use of a Destination Control System, which groups passengers into lifts based on their selected destination floor. This results in fewer lift journeys, and lessens the “start-stop” nature of lift journeys, noting that significant energy is utilised in accelerating lift cars from standstill;
- High Rise / Low Rise lift configuration, which allows the upper levels to be serviced more efficiently (as lift cars bypass the lower floors);
- The design also promotes the use of stairs for short vertical journeys, particularly the inclusion of voids on the northern perimeter which are intended to include tenancy inter-floor stairs (fitout). Base building fire stairs are also available for inter-floor travel, via swipe card access.

3.5 Sub-metering

An important aspect of Energy Efficient design is the ability to monitor energy usage, and drill down to investigate anomalies or variations from expected use or annual trends (in future years). For this reason, the design incorporates a proprietary Energy Monitoring System (EMS) which will monitor and report energy usage for all *End Use Categories* and broken-down by building area or item of plant where appropriate.

The EMS will also report on energy usage by level of the building, separated into lighting and general power.

In addition to electrical energy, the EMS system will also report on Natural Gas and Water usage, and will incorporate a “dashboard” front end with advanced reporting capability, so that consumption data can be monitored on an ongoing basis and acted upon as required.

The Energy Monitoring System will also provide a “NABERS Dashboard”, in order to dynamically track the performance against the 5 Star NABERS target. The ESD consultant will provide a month-by-month estimate of energy use for the building, based on the energy model including variable ambient

conditions throughout the year, and the EMS will allow actual energy consumption to be compared with this target data in a clear and visual manner.

3.6 Car park Ventilation

Due to site constraints, it is not possible to use natural ventilation exclusively (always be the first preference from an energy perspective).

However, the mechanical car park ventilation system is designed to utilise Carbon Monoxide (CO) monitoring in order that the system will only operate to the degree required to maintain contaminants below a safe level, rather than operating continuously at full capacity.

Natural ventilation will be utilised to the greatest extent possible, e.g. passive air intake (makeup) louvres on the southern façade adjacent Fischer Place.

3.7 Semi-outdoor Forecourt

The forecourt at the northern extent of the site was originally conceived as a conditioned indoor space, to maximise retail opportunities in this area.

Throughout design development, the decision was taken to treat this as a semi-outdoor area, with a sheltered roof and “tempering” of conditions, but not fully air conditioned.

It is proposed that the forecourt space will be “tempered” by radiant gas heating and evaporative air conditioning. The target conditions for this space will be far more relaxed than indoor spaces, meaning that these systems will only operate during extreme ambient conditions.

3.8 Water

Hot water used within the facility (for handbasins and the like) will be generated using a solar-boosted system to reduce the consumption of Natural Gas.

3.9 Transport

Whilst transportation energy use is not directly attributed to the building’s energy profile, it is worthwhile to note the features of the facility which will encourage the use of energy efficient modes of transport.

The selected site is very well served by Public Transport, which provides an alternative to the use of personal vehicles for both occupants and visitors.

In particular, the proposed North Terrace tram extension will feature a new stop directly adjacent the site, which provides a free service to the western CBD and beyond. Approximately 300 metres from the site are a number of bus stops in King William St, serving major bus routes north and south of the CBD. Finally, the Adelaide Railway Station is approximately 500 metres from the site.

To encourage cycling and other alternative commuting modes, a high quality End of Trip facility will be provided at Ground Level, complete with secure bike storage, shower and locker facilities. Bicycle parking will also be provided for visitor use.

4 Indoor Environment Quality

Whilst this document is primarily concerned with Energy Efficiency, it should be noted that Indoor Environment Quality (IEQ) is also a key sustainability focus for the facility. In some cases, IEQ initiatives do have an associated energy impost, hence it is necessary to seek a balance rather than attempt to minimise energy use at all costs.

The aim of targeting IEQ initiatives is to provide an Indoor Environment that promotes wellness for building occupants.

4.1 Natural light and external views

The design of the commercial office floor plates has been heavily driven by the requirement to provide natural light and views to building occupants. This includes the design of the services core and structural column grid, which have resulted in a balanced approach between structural simplicity and occupant amenity.

For example, the structural bays at the northern side of the floorplate have been maximised.

4.2 Indoor Air Quality

The quality of indoor air is a key factor in occupant comfort and wellbeing. Studies have shown significant increase in productivity and alertness, as well as reduction in absenteeism due to sickness, in buildings where indoor air quality is improved over minimum compliance levels.

For 200 North Terrace, outside air will be supplied at twice the rate required by code.

The system will be configured as a “single pass” system, meaning that air supplied into the occupied space is 100% outside air and is not recycled through the air conditioning systems. This approach has an energy impost associated; although to minimise this a thermal reclaim system is used.

Stringent filtering criteria are also applied, and locations of air intakes carefully selected, to ensure that outside air brought into the occupied spaces is as clean as possible.

4.3 Lighting Levels and Control

The user experience of an indoor environment can be enhanced by providing occupant control over the environment; however this ability needs to be carefully balanced with other considerations such as energy usage.

A digital lighting control will be installed throughout the building, to enable extensive user lighting control to be implemented. The final implementation of this control will be defined by tenancy fitout designs.

All office area lighting will be DALI addressable type, meaning that lighting zoning can be reconfigured by programming rather than re-wiring. This allows lighting zones to be easily customised to suit the fitout configuration, and to be modified based on user feedback.

4.4 Volatile Organic Compounds

Volatile Organic Compounds (VOC's) are organic chemical compounds which easily turn to vapour at normal room temperatures. Whilst not considered highly toxic, long term exposure to VOC's has been shown to have negative health effects.

In a building context, the primary sources of VOC's are paints, adhesives and sealers used during the construction process. Paints, adhesives and sealers used on the 200 North Terrace project will be of "low VOC" type wherever practical, to avoid the presence of VOC's (Volatile Organic Compounds) in the internal environment.

4.5 Noise control

Noise can be a significant cause of occupant discomfort within a building, and excess noise has been shown to have long term negative health effects.

For the 200 North Terrace project, background noise within office areas will be limited to 40dB maximum, which is considered to be on the lower end of ambient noise levels for an office environment.

A number of measures have been taken in the design which minimise internal ambient noise, including:

- Centralised air conditioning plant (roof level) rather than floor-by-floor;
- Passive chilled beam air conditioning system;
- Acoustic treatment to building services systems, as specified by an acoustic specialist;
- Double glazing throughout, to minimise the impact of street noise and other external noise.

5 Summary

This report has outlined the key Energy Efficiency features of the 200 North Terrace project, which are complemented with (and in some cases balanced by) Indoor Environment Quality features.

The project will achieve Green Star and NABERS Energy ratings consistent with best practice within the industry, to ensure that the initiatives implemented are genuine and measurable.

Further detail on the initiatives mentioned within this report will be developed as the building design is refined, and we will remain open to innovative strategies to enhance or build on these initiatives.

Fundamentally, 200 North Terrace will be a highly efficient and "healthy" building, expanding on Commercial & General's portfolio of sustainable developments such as SA Police Headquarters and 50 Flinders Street.

DASH Architects is one of the State's leading practices in the provision of specialist heritage services. Over the past 45 years it has helped establish benchmarks for the approach to management, refurbishment and redevelopment of heritage assets in South Australia.

Operating across the full range of the architectural disciplines enables DASH Architects an appreciation of the role of cultural heritage within the broader design process, as one of many factors that influence project outcomes.

This flexible and integrated approach is based primarily on contemporary community values and traditions. Within this framework there is an acknowledgement that while the preservation of heritage fabric is important, it is only one of many considerations when assessing the cultural significance of a place.

Heritage Impact Statement

Proposed Redevelopment of 200 North Terrace, Adelaide

DA173432 – 10.8.2017

1.0 Introduction

DASH Architects has been engaged by Commercial and General (C&G, or the Applicant) to provide heritage advice and to prepare this Heritage Impact Statement (HIS) in relation to the proposed Redevelopment of 200 North Terrace, Adelaide (the Site).

Specifically, this report has been prepared by David Holland, Director of DASH Architects. I have also provided advice to the Design Team as it prepared the Application. Details of my qualifications and experience are set out below.

In preparing this Heritage Impact Statement, I have:

- Visited the site and locality;
- Attended various meetings with the Applicant and its Architects Woods Bagot (the Design Architects);
- Attended a meeting on site with Michael Queale, Senior Conservation Architect, of the DEWNR State Heritage Unit;
- Reviewed various source documents including:
 - Files held by the DEWNR State Heritage Unit;
 - Extracts from the SA Heritage Places database; and
 - A Conservation Management Plan (CMP) of the 203-205 North Terrace (the adjoining property), prepared by DASH Architects in 2013.
- Reviewed Adelaide City Council's Development Plan (consolidated 20 June 2017);
- Reviewed various iterations of design proposals; and
- Reviewed the final documents to be lodged for Development Plan Consent generally (170809_200NT_DA_ARCHITECTURAL - Final Architectural Submission).

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2.0 About the Author

I am an architect and heritage consultant with over 20 years of consulting experience. Since 2000, I have been a Director of DASH Architects (Danvers Schulz Holland Architects Pty Ltd), a multi-disciplinary practice providing professional services in the fields of Architecture & Interiors, Heritage, and Urban Design. Of the professional services it offers, DASH Architects specialise in contextual architecture and urban design within zones of heritage significance, adjoining heritage items or as extensions and modifications to heritage items themselves.

As part of DASH Architects, I have been responsible for, or overseen, numerous significant heritage projects (including multiple award winners), significant architectural projects, Conservation Management Plans and conservation projects.

As part of Local Heritage PARs/DPAs, or as part of Development Applications or appeals, I have prepared numerous Heritage Significance Reports, assessing properties against the relevant listing criteria and Development Plan provisions, and Heritage Impact Statements, assessing the impact of proposed Development on the heritage values of Places.

I am also regularly asked to provide expert heritage and design advice to other architects, designers and applicants in relation to proposed developments.

I am Fellow of the Australian Institute of Architects (RAIA). I have previously been its State President, a National Director, and a member of the National Practice Committee. I was also a Chapter Councillor and chair of the State Practice Committee. I have sat on the Architectural Practice Board of South Australia. My practice is a member of the Association of Consulting Architects - Australia and I have been a member of its SA Branch Committee.

I have also been, and continue to be, a member of various State and National Visiting Panels responsible for the accreditation of the Architectural courses at the University of Adelaide and at the University of South Australia.

3.0 Background

3.1 The Site

The Site of the proposed development is shown on the image below (IMAGE 01). The Design Architects and Consulting Planner will, no doubt, describe it in detail as part of their submissions. For the purposes of this HIS, it is important to note that it contains a State Heritage Place, 200 North Terrace.



IMAGE 01 - Site plan (taken from Woods Bagot drawings)

The State Heritage Place within the Site is highlighted on Image 02 below (the development site is shown in green and the State Heritage listed component of it is shown in red). The image also shows the nearby and adjacent Heritage Places. These are discussed in more detail later in this Statement.



IMAGE 02 – Site (in green) showing heritage listed component (in red).

3.1.1 Heritage Listing

The SA Heritage Places database describes this section of the Site as:

- The Gallerie Shopping Centre (former G & R Wills Warehouse), 201-202 North Terrace, Adelaide.

For the purposes of this report I have referred to it as 200 North Terrace or the Heritage Building.

It was 'Gazetted' as a State Heritage Place in September 1986, prior to the current legislation. Within the timeframe available, we were not able to locate either an assessment against the current criteria for listing, nor a Conservation Management Plan (CMP), or similar, for the site. That said, DASH Architects prepared a CMP, and undertook an assessment against the current criteria, for the adjacent and related property at 203 North Terrace (IMAGE 03 below).

This CMP, the DEWNR State Heritage Files (and most notably extracts from the City of Adelaide Heritage Survey, 1982), and observations made on site, have been used to understand the specific significance of 200 North Terrace and of its fabric.



IMAGE 03 – Historical image (State Library of South Australia (SLSA)) showing 200 North Terrace (to the right of the photo) and 203 North Terrace (set forward and the left of the photo).



IMAGE 04 – Historical image (State Library of South Australia (SLSA))

The City of Adelaide Heritage Survey, 1982 describes the building (along with its related neighbour at 203 North Terrace) as follows:

"This item is historically significant because of its identification with the merchant firm of G. & R. Wills which played a large part in the commercial development of South Australia. George Wills established the firm in small premises in Rundle Street. In 1859, he found it necessary to open a buying-house in London. The firm prospered, moving into these premises in 1867 by which time Wills' premises extended from Rundle Street to North Terrace. The firm had a clothing factory in Pulteney Street and a shoe factory in Pirie Street, becoming one of the largest soft-goods businesses in South Australia. G. & R. Wills traded throughout Australia, with branches being established at Broken Hill, Melbourne, Fremantle and Kalgoorlie. The extent of the trade of the firm illustrated the extent of South Australian commercial influence in Australia. These buildings are historically significant because of these associations.

The architectural importance of these substantial warehouses appears to begin in 1865 when Wright Woods & Hamilton, Architects, were engaged to supervise the erection of a store for G. & R. Wills at a cost of £2,600 by the contractors English and Brown. By February 1867, the cost of construction had risen to £3,890, its dimensions then being given as 90' x 100' with a lofty cellar. "At one side is a paved roadway, running through the store from end to end, built to such a height as will admit the entrance of drays on North Terrace In the centre of the building is a well-hole from top to bottom, lighted by a skylight the full size of the opening to light and ventilate all floors with external windows." Just how much remains of this initial enterprise is difficult to ascertain however, as the complex was re-faced and substantially extended to the design of Daniel Garlick and constructed by Brown and Thompson in the 1870s. By the time of the 1880 Smith Survey the complex had certainly reached its present form. The additions to this building are reflected by increasing Annual Values; 1872, J220; 1873, ~450; 1877, J450 for one warehouse and an additional /400 for an unfurnished warehouse. In 1881, the whole complex was given an Annual Value of L800, this reflecting

the expansion and prosperity of G. & R. Wills' operation in Adelaide.

The present character of the buildings, (the western-half occupied by a portion of the Gallerie Complex, the eastern half still occupied by John Martins) is marked by the separate nature of the two sections each, however, being of similar design. This duality is emphasised by the set-back of the western structure and the originally symmetrical design of each elevation. Both facades are notable for sandstone ashlar walling and cement dressings. Enrichment to Corinthian pilasters, quoins, string courses, surrounds to openings and parapets are particularly well executed, the ensemble being fortunate to remain unpainted and remarkably intact. Detailing is derived from Renaissance design elements with additional Italianate flourishes."

3.1.2 1970s Redevelopment

200 North terrace was significantly redeveloped in the late 1970s to form the Gallerie Complex (1970s Redevelopment). The works were such that essentially only the facades were retained (extract from "New Uses for Old Buildings in Australia" held within the DEWNR SHU file). My observations from site are consistent with this.

From these observations, I note that 'original fabric' appears to be limited to:

- North Tce Façade (noting that the lower level windows and doors have been replaced by a series of aluminium framed doors);
- The Eastern wall (a 'party wall' shared with 203 North Tce (also a State Heritage Place)); and
- The Western wall.

The original internal walls and floor structures, and the rear wall appear to have been completely removed.

I am unsure from my observations whether the original roof retains much 'original fabric'. The roof sheeting, purlins, ceilings and ceiling joists appear to have been replaced and there have been major changes to the trusses (I am not sure whether this was due to damage or capacity shortfall). IMAGES 05, 06 & 07 below illustrate this. I suspect that these changes date from the 1970s Redevelopment (although I have not had cause as part of this assessment to confirm this). It is likely however that the current roof reflects its original form.



IMAGE 05 – aerial view of current roof showing continuous corrugated iron sheeting (image courtesy of Near Map)



IMAGES 06 & 07 – Photos taken within roof space showing altered trusses, 'new' purlins and 'new' ceiling joists (C&G).

3.2 Other Heritage Places in Locality

The image below, taken from the viewer within the Location SA website (IMAGE 08), shows the Site (in green) and other State Heritage Places (in red) and Local Heritage Places (in blue) in its Locality.



IMAGE 08– extract of broader locality around the site (taken from the viewer within the Location SA website)

Amongst the other Heritage Places in the locality, I consider that there are several that are sufficiently close to the Site to warrant a detailed review of the impact of the works proposed as part of the Application on their Heritage values. These are shown on Image 09 below and include:

- 203-207 North Terrace - Office (former Consulting Rooms) and former G & R Wills Warehouse (State);
- 196 North Terrace - Tobin House (Local); and
- 74 Rundle Mall - Shops (former Balfour's Shop and Cafe) (State).

I consider that the other places in the locality are sufficiently distant from the site such that the work proposed on it will not have an adverse impact on either their physical fabric or their settings. As such I have not considered them further in this Statement.



IMAGE 09— extent of locality around the site (from the viewer within the Location SA website)

4.0 Proposed Work

Having reviewed the documents prepared by the Design Architects, I note that the following components of the Application have the potential to affect the Heritage Values of the State Heritage Place on the site.

1. Demolition

- Demolition of Demolition of internal walls and floor slabs to Heritage Building (installed as part of the 1970s Redevelopment);
- Removal of canopies and aluminium frames doors and windows to lower floor of North Tce façade;
- Demolition of sections of the western wall of the Heritage Building;
- Demolition of the roof of the Heritage Building;
- Demolition of 'Gallerie' Building, to West of Heritage Building; and
- Demolition of external Fire Services Box, sitting in Front of the Heritage Building (at the north-east corner of site).

2. Conservation works

- Cleaning of North Tce Façade;
- Making good of façade exposed because of the demolition of external Fire Services box noted above;
- New doors and windows to lower level opening of the North Tce façade;

3. New Works

- New signage to lower and upper sections of the North Tce Façade;
- Construction of new 4-storey built form (basement and 3 above ground), within the walls of the Heritage Building;
- Construction of 'atrium' building to the west of Heritage Building;
- Construction of a hi-rise tower building to the rear of the Heritage Building.

I have assessed the potential impact of these components in more detail below.

5.0 Assessment

Following is an assessment of the potential impact of the Application.

5.1 200 North Terrace

Following is an assessment of the potential impact of the various components of the Application on the Heritage values of the Heritage Building on the Site.

5.1.1 Proposed Demolition Works

5.1.1.1 Internal walls and floor slabs

Given the 1970s Redevelopment of the site (when it was converted to the Gallerie complex) only retained (effectively) the main facade and side walls of the building, the removal of the current interior (walls, floors and ceilings), that was installed as part of the 1970s Redevelopment, will not diminish the heritage values of the Place.

5.1.1.2 Roof

Likewise, while the roof appears to retain the original form, a significant proportion of its elements have been replaced (either as part of the 1970s Redevelopment, or at other times). Given this, and given that the roof form (set, as it is, behind the parapet) is not a significant visual feature of the building, I believe that while the loss of the roof form and the limited remaining fabric will have some negative impact on the heritage of the place, this loss is not significant.

5.1.1.3 Fire booster box, canopies and lower levels windows and doors

The fire booster box, canopies and lower level windows (see IMAGE 10 & 11) are all elements that were added as part of the 1970s Redevelopment and that detract from the main façade of the building. Their removal will be a positive contribution to the heritage values of the Place.

Indeed, the removal of the Fire Booster Box will also significantly enhance the heritage value of the adjacent, and related, Heritage Place (203 North Terrace).



IMAGE 10 – North Facade showing Fire booster box, canopies and lower levels windows and doors.



IMAGE 11 – Fire Booster Box.

5.1.1.4 Sections of the Western Wall

Although I have been able to observe most of the inside face of this wall, I am unsure of the construction or detail of its exterior face as it is currently almost entirely concealed by the Building to its west, on the same site. Having reviewed various photographs, I was unable to locate one that showed the full extent of this wall. The City of Adelaide Heritage Survey (1982), notes the wall

as Bluestone Rubble. Based on this and 'on site' observations (including invasive investigations undertaken by C&G), and, given the nature of the building and its design (this wall is a side wall built to what would have been the boundary at the time), I have assumed that the wall is random bluestone rubble. I am not sure however whether it was or has been rendered (as the 'same sections uncovered appear to be) or remains 'raw', as older photos suggest. Ultimately this may not be known until, assuming the project is approved and proceeds, the adjoining building is demolished.

The Application proposes that the detailed return (that is visible) be retained but that: the extreme southern end be demolished (to allow a new stair to be constructed); and there be several new openings broken through the remainder of the wall (see IMAGE 12). I understand that the design intent behind this is to better integrate the retail space proposed for within the Heritage Building with the new buildings by allowing access into the Heritage building (both pedestrian and visual).

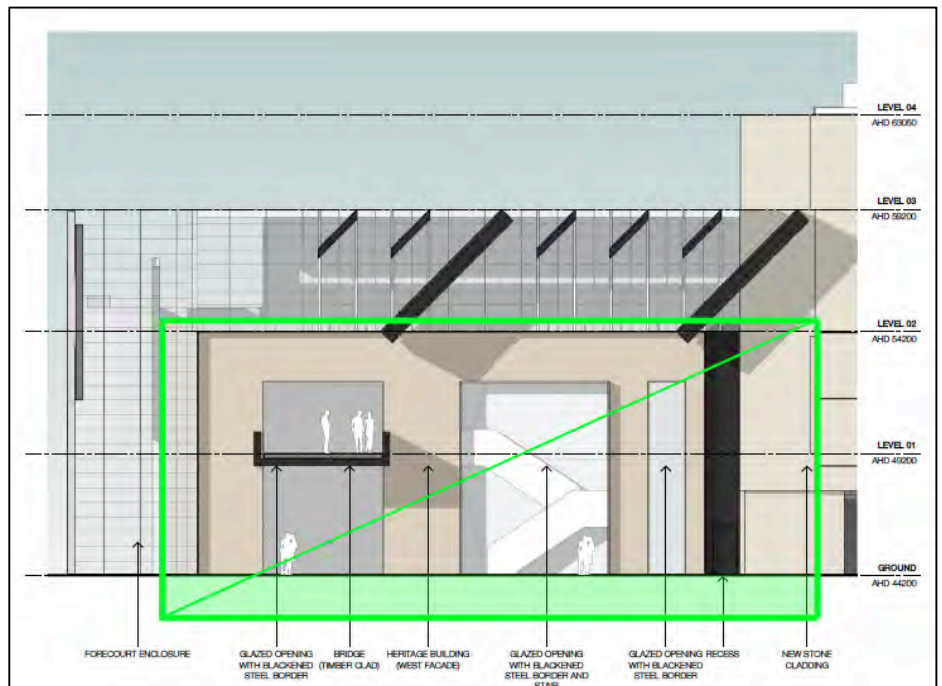


IMAGE 12 – Image of proposed treatment of Western wall of heritage building (Woods Bagot) with annotation added by author (green lines showing approximate extent of existing wall, and shading where it is below ground level).

While the Application does propose the loss of Heritage Fabric, the wall itself is architecturally significant in and of itself (it was, and remains, a side wall), and its overall form remains interpretable within the proposal.

I also believe, based on experience, that this type of integration between old and new, is critical for the success of the retail space within the Heritage Building.

Based on this, while the loss of remaining fabric will have some negative

impact on the heritage of the place, I do not believe this loss is not significant.

5.1.2 Proposed works directly affecting the Heritage Place

5.1.2.1 Conservation works

As noted above, the conservation works proposed as part of the Application include:

- Cleaning of North Tce Façade;
- Making good of façade exposed because of the demolition of external Fire Services box; and
- New framed doors and windows to lower level opening of the North Tce façade¹.

As the Application does not provide further details around these works, we suggest that, assuming Development Plan Consent is granted, the provision of this detail be made a condition of that Approval.

Having said that, I do not consider these to be major issues and am confident, based on discussions with the Design Architects and the Applicants, that appropriate details can be provided.

Having reviewed the works proposed however I have formed a view that they would make a positive contribution to the heritage values of the Place.

5.1.2.2 East 'Party Wall'

The East wall is shared with the adjacent building (203 North Terrace – also a State Heritage Place). The wall is of stone construction (rendered in parts) and appears to 'straddle' the boundary. While no works are specifically proposed to this wall, given the age and condition of both buildings, it is likely that some conservation works will ultimately be required. We suggest that Approval be sought for such works as, and when, the requirements for them are identified (likely to be at the completion of the demolition works).

5.1.2.3 New signage to lower and upper sections of the North Tce Façade

The Application proposes new signage on the northern façade in two locations: centrally over the upper windows (where the original building signage was (IMAGE 03 & 04) and centrally over the lower level entrance door. The location of this signage is appropriate and sympathetic with the Building.

As the Application has not provide detail around these signs, we suggest that, assuming Development Plan Consent is granted, the provision of this detail be made a condition of that Approval.

¹ The historic photos of the site (IMAGES 03 & 04) show that the original configuration of the façade was (loosely speaking) a large central door with loading dock, and a pair on windows each side. The current configuration however has also extended the large door to ground floor, and converted the windows to doors and extended them to ground level. The proposal to replace the aluminum doors and windows with new doors and windows, in the same configuration, will make a positive contribution to the heritage value of the Place, in that it is an improvement on the current situation, albeit it is not as great an improvement as if the original configuration was restored. In the context of the revised internal floor level and modern use, in my view this original configuration is no longer functional and is not likely to be restored.

I do not consider this to be a major issue and am confident, based on discussions with the Design Architects and the Applicants, that appropriate details will be provided.

5.1.2.4 4 storey built form within the Heritage Building

The Application proposes a new 4-storey building within the walls of the Heritage Place. The ground floor level is to be established, at, or near, ground level of the street. This will allow direct access from the street as well as enabling links to the other new buildings (that will also be aligned with this level). The changes made to the Northern facade as part of the 1970s Redevelopment, make this change very straight forward as they have already been extended to the ground level.

The basement level, particularly around the Heritage Building, appears to have been shown on the drawings indicatively. The final design, again particularly around the Heritage building, will need to consider both the height of the current basement within that building (that is a half-floor' below ground level) and the location and construction of the eastern, northern and western walls of the Heritage Building. Based on experience, I believe it likely that the full extent show on the plans will not be achievable.

Given this area is still to be resolved, I suggest that a condition be applied the Development Plan Consent, should the Application be successful, to the effect that final detail (including construction cross sections) should be provided to the satisfaction of DAC (with likely reference to the DEWNR State Heritage Unit as part of that satisfaction).

Again, I do not consider this to be a major issue and am confident, based on discussions with the Design Architects and the Applicants, that appropriate details will be provided.

The first floor will be new and is readily accommodated.

In lieu of the current roof, the Application proposes a further storey and roof top deck area. The construction of this storey is an a 'pop top' style. The built form of this is setback from the northern and western facades. There is also a 'solar pergola' style canopy to these sides.

I am comfortable with the set out, form, height and materials proposed are compatible with the heritage values of the place.

As this area has been shown indicatively, I suggest that a condition also be applied the Development Plan Consent, should the Application be successful, to the effect that final detail (including construction cross sections) should be provided to the satisfaction of DAC (with likely reference to the DEWNR State Heritage Unit as part of that satisfaction).

Again, I do not consider this to be a major issue and am confident, based on discussions with the Design Architects and the Applicants, that appropriate details will be provided.

5.1.3 Other proposed works affecting the setting of the Heritage Place

The other elements of the Application have the potential to affect the heritage values of the heritage place either through damage to its fabric or its setting. These elements are:

- Construction of 'atrium' building to the west of Heritage Building;
- Construction of a hi-rise tower building to the rear of the Heritage Building.

The Heritage Building is a prominent building facing onto Adelaide premier boulevard. It has a primary façade (north) that returns slightly around to the western façade. As noted above, we are not sure of the nature of condition of the western façade (although it is likely that it is bluestone rubble).

The Heritage Building's setting is as part of series of buildings (along with 203 North Terrace and to a lesser extent 205 North Terrace), and is within a densely developed, urban environment.

The Design Architects have respected these elements of the heritage building and have proposed that the 'atrium' building to its west be 'offset' from it by a negative joint. This 'atrium' building is also a largely transparent and creates an internal environment that will still express the external wall of the heritage building.

The hi-rise tower is also set back behind the Heritage Building and uses a transition element between the forms. The image below (IMAGE 13) shows this clearly.

Having reviewed the drawings, I have concluded that the other works proposed as part of this Application, namely the new 'atrium' building and hi-rise tower, do not affect either the prominence of the Heritage Building, or its setting, and will not affect this aspect of its heritage values.



IMAGE 13 - Artist's perspective of proposed Development (Woods Bagot).

5.1.4 Adaptive Reuse of the Heritage Place

The adaptive reuse proposed for the building is entirely appropriate to both the building and the precinct. Further, if successful it will allow the building to reengage with the public (it has been 'boarded over' for many years), and will ensure its ongoing viability and contribution to the City.

Within this context, I have formed a view that 'overall', despite individual elements potentially resulting in the loss of heritage fabric and a subsequent loss of heritage value, the package of work proposed, including the conservation works, achieves an appropriate balance and, I believe, it should be supported from a heritage point of view.

5.2 Other Heritage Places in Locality

The image below, taken from the viewer within the Location SA website (IMAGE 14), shows the Site (in green) and other State Heritage Places (in red) and Local Heritage Places (in blue) in its Locality.



IMAGE 14– extract of broader locality around the site (taken from the viewer within the Location SA website)

Amongst the other Heritage Places in the locality, I consider that there are several that are sufficiently close to the Site to warrant a detailed review of the impact of the works proposed as part of the Application on their Heritage values. These are shown on Image 15 below and include:

- Office (former Consulting Rooms) and former G & R Wills Warehouse 203-207 North Terrace (State);
- Tobin House, 196 North Terrace (Local); and
- Shops (former Balfour's Shop and Cafe), 74 Rundle Mall (State).

I consider that the other places in the locality are sufficiently distant from the site such that the work proposed on it will not have an adverse impact on either their physical fabric or their settings. As such I have not considered them further in this Statement.



IMAGE 15– extract of locality around the site (taken from the viewer within the Location SA website)

Following is my assessment of the potential impact of the proposed works on the Heritage Places identified above as being within the immediate locality of the site.

5.2.1 203-207 North Terrace

The relationship between this building and the Heritage Place on the site will not be affected by the proposed works, nor will its setting along North Terrace. Although the Application proposes a hi-rise tower to the rear of this place it is separated from it (through the shared light well) and will act as a backdrop. The Application does not propose any physical intervention into this site.

Given the proximity of this Heritage Place to the Site, the management of construction vibration throughout the process will be critical to avoiding damage to it. I suggest that the preparation of a Vibration Management Plan, to the approval of DAC (and likely with referral to the DEWNR SHU as part of that) be made a condition of the Approval.

Given the above, and assuming vibration is managed, I do not believe that the proposed works will have any material impact on the heritage value of these places.

5.2.2 74 Rundle Mall & 196 North Terrace

As the impact on these places will be similar, I have assessed them together.

There are existing laneways between the Site and these two Places. This physical separation mean that there would be no physical interfaces between the buildings and the physical fabric on either site will not be altered.

The setting of each of these Places is such that they are elements within dense urban setting. Each has a have primary facades facing away from the site, to North Terrace and Rundle Mall respectively, with secondary frontages to the rear lanes (and the site). The proposed development does not alter either the settings or 'visual access' to the primary frontages of either building.

Given this, and again assuming vibration is managed, I do not believe that the proposed works will have any material impact on the heritage value of these places.

5.3 Assessment against Development Plan Provisions

The site is in the Central Business Policy Area within the Capital City Zone.

The Consulting Planner for the Project will undertake a detailed assessment of the Application against the provisions of the Development Plan. For the purposes of the Statement however I have reviewed the above Zone and Policy Area provisions, as well as those within the "Heritage and Conservation" sections of the Development Plan.

Having done so, I have not identified any areas of significant variance and have formed a view that the Application meets the intent of the Development Plan from a heritage point of view.

6.0 Conclusion

I have formed a view that the demolition, and new construction works proposed as part of this Application, would not result in the substantial loss of heritage fabric, nor would it substantially affect its setting. Further, any minor loss of fabric is offset by the conservation works proposed as part of the Application and by the Adaptive Reuse of the Building itself.

I have suggested that, assuming a Development Plan Consent is granted, additional detail be sought and reviewed by DAC (and by inference the DEWNR SHU), using Conditions of the Consent, in relation to:

- External signage;
- The basement level;
- The detail of the 'pop top' extension;
- The proposed conservation works to the main façade.

I do not however consider these to be major issues and am confident, based on discussion with the Design Architects and Applicant, that appropriate design solutions can be proposed.

Having assessed the potential impact that the new works proposed as part of this application would have on the other Heritage places in the locality, I have formed a view that they will not have a significant detrimental impact on the heritage values of them.

Within this context, I have formed a view that 'overall', the package of work proposed should be supported from a heritage point of view.

7.0 Sign off

This report has been prepared for and on behalf of DASH Architects.



David Holland
Architect
Director, DASH Architects

Commercial & General

200 North Tce Development

Waste Management Plan

August 2017





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Document verification

Date	Version	Title	Prepared by	Approved by
31/07/17	Draft	200 North Tce Waste Management Plan	Jarvis Webb & Matthew Allan	Kat Heinrich
07/08/17	Final V1	200 North Tce Waste Management Plan	Jarvis Webb & Matthew Allan	Mark Rawson
09/08/17	Final for submission	200 North Tce Waste Management Plan	Jarvis Webb & Matthew Allan	Mark Rawson

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1. Introduction

1.1. About this WMP and the proposed development

This document provides a waste management plan (WMP), for the proposed development identified in Table 1 below. This WMP will be included with building plans for the development lodged with the Development Assessment Commission (DAC) to obtain Development Approval. The WMP outlines the proposed waste management system (WMS) for the development at high-level, which demonstrate that successful management of waste can be achieved at the site.

Table 1: Proposed development's details

Site Location	200 North Tce, Adelaide SA 5000
Development Project	200 North Tce Development
Client	Commercial & General
Project Architect	Woods Bagot

1.2. Purpose and scope of WMP

This WMP has been developed for the planning stage of this development. It provides a preliminary design for the WMS for this site and is intended to demonstrate that successful management of waste can be achieved at the site. To support this WMP, the Client will need to provide the additional documentation or details on their plans as listed in Section 1.3 below.

The WMP has been prepared with the policy and requirements for waste management (identified in Appendix 1), as well as, in conjunction with the Client, Project Architects, and Traffic Consultant, who have indicated the intended site uses of the development, occupancy data, and requirements for how waste should be managed. If future land uses and waste management arrangements for the development are altered, the WMP may need to be updated.

The suggested arrangements in this WMP are preliminary and reflect one possible configuration for the waste management system at this site. These arrangements could evolve and be refined (during detailed building design) before the construction takes place. This may affect the WMP for the site, which should be updated accordingly.

1.3. Required supporting documentation and design details

The following information is required to support this WMP and will be included in the overall development application submission:

1. Building plans confirming:
 - The size and layout of the waste rooms.
 - Transfer pathways for safe and efficient movement of bins/waste between waste rooms and locations for collection.
2. Traffic Consultant report confirming:
 - Parking, loading, unloading and manoeuvring for collection vehicles servicing the development in the loading zone and along Fisher Place.

1.4. What this WMP contains

Table 2 below outlines what is contained in the waste management plan (WMP).

Table 2: What this WMP contains

Section 2 – Description of Development	Provides details of the development relevant to the WMP preparation and indicates the waste and recycling collection services proposed for the development.
Section 3 – Outcomes from the Analysis on Waste and Recycling Requirements at the Development	Provides estimates of the waste and recycling volumes likely to be generated at the site which will require storage, collection and disposal. This included the recommended size and layout of the development waste and recycling storage locations.
Section 4 – Proposed Waste Management System (WMS)	Provides an overview of the proposed WMS for the development, including the main elements and important design requirements, and how these systems should operate. The WMS outlines how waste would be stored, transferred and collected at the site.
Section 5 – Collection Vehicle Requirements	Includes relevant information on collection requirements, including number of collections per week and provision for access and maneuverability for waste collection vehicles.
Appendix 1: Policy, Design and Operational Waste Management Requirements for the Development	This Appendix identifies the policy, design, and/or operational requirements for waste management that have been used in relation to the development of the WMP.
Appendix 2: Methodology for Estimating Waste & Recycling Volumes and Sizing Storage Areas	This Appendix sets out the design approach and assumptions that have been used in the estimation of waste and recycling volumes contained in this plan:
Appendix 3 – Additional Waste Management Design Advice	This Appendix provides better practice design advice and other waste management design considerations for the development, based on the South Australia Better Practice Waste Management Guide for Residential and Mixed Use Developments.

2. Description of the Development

2.1. Land uses and occupancy data

The Client has provided Rawtec with a description of the development and plans showing the proposed layout of the site, buildings and land uses. A breakdown of the land use and tenancy assumptions used for estimating waste and recycling volumes for the development, can be found in Table 3 below.

Table 3: Land use and occupancy overview

Land Use Type Per Plans	Land Use Type (for waste generation calculation)	Occupancy Data (m2)
Retail (proportion non-café)	Retail (>100m2)	3,426*
Retail (proportion assumed café)	Café/restaurant	531*
Commercial	Offices or consulting rooms	25,635

* Note that this includes the terrace on level 2, which is 186 m²

2.2. Site waste management requirements

The following waste management and operational arrangements were identified as preferred for the site by the Client and Project Architect (Table 4 below). These arrangements have been considered when developing the design of the proposed waste management system and the information contained in the waste management plan.

Table 4: Site waste management requirements

Waste Management Requirement	Description
Waste Storage	<ul style="list-style-type: none"> Residual waste, co-mingled recycling, organics recycling and cardboard material would be stored within the bin storage room on the Ground Floor. Paper and confidential paper recycling would be stored within each of the commercial/office tenancies.
Building Services	<ul style="list-style-type: none"> Staff/cleaners would move waste from tenancies to the larger bins in the bin storage room.
Collection point(s)	<ul style="list-style-type: none"> Residual waste, co-mingled recycling, organics recycling and cardboard material would be collected directly from the bin storage room on the Ground Floor. Paper and confidential paper recycling would be collected directly from within each of the commercial/office tenancies, via a pull-in/pull-out service.

2.3. Recommended waste and recycling services

To achieve effective waste and recycling management at the site, Table 5 below outlines the recommended waste and recycling services that should be collected from the development as outlined in the *SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments* (Green Industries SA, 2014).

Table 5: Proposed waste and recycling streams servicing the development on identified land uses

Service type	Required/Desired Waste and Recycling Collection Services			
	Land Use	Retail (Café)	Retail (Merchandise)	Commercial
Routine Collection (Rear-Lift Vehicle Collection)	Waste and Recycling Stream			
	General Waste	X	X	X
	Co-mingled Recycling	X	X	X
	Organics (Food) Recycling	X	X	X
	Cardboard Recycling	X	X	NS
	Paper Recycling	NS	NS	X
*On-Call Collection or External Drop-Off	Confidential Paper Recycling	NS	NS	X
	Hard Waste	X	X	X
	E-waste	X	X	X

X = Required/Desired

Note: 'X' indicates required/desired as per *The SA Better Practice Guide – Waste Management in Residential or Mixed Use Developments* (Green Industries SA, 2014).

The following waste and recycling streams will not be included within the waste management system (WMS) outlined in this WMP:

- E-waste (batteries and printer cartridges, lighting etc.) – These waste streams would be either be temporarily stored within tenancies or within the cage in the bin storage room, before being dropped off at an appropriate external location (e.g. local recycling depot or office supply store) or collected by an appropriate collection company. Some items may be managed through an external collection contractor (e.g. for carpark lighting replacement).
- Hard waste – Hard waste would be temporarily stored within tenancies, and be managed per tenancy via a pull-in/pull-out collection service. This would be arranged by the tenants in conjunction with building services, to ensure that collection via the loading zone, is undertaken at an appropriate time.

3. Outcomes from the Analysis on Waste and Recycling Requirements at the Development

3.1. Estimated waste and recycling volumes by land use

Table 6 details the estimated waste and recycling volumes by land use for the development.

Table 6: Estimated waste and recycling volumes by land use

Estimated Waste Generation Volumes (Litres Per Week) by Land Use & Waste Stream (All Land Uses)					
Development Land Use		Retail (Café)	Retail (Merchandise)	Commercial	Totals
WRGR Classification		Café/Restaurant	Retail (Greater than 100m2)	Offices or Consulting Rooms	(Litres Per Week)
Waste or Recycling Stream	General Waste	11,100	14,400	38,500	64,000
	Co-mingled Recycling	1,900	3,600	16,600	22,100
	Organics (Food) Recycling	14,900	700	6,400	22,000
	Cardboard Recycling	5,600	10,800	NE	16,400
	Paper Recycling	NE	NE	19,500	19,500
	Confidential Paper Recycling	NE	NE	2,300	2,300
Total Site Volume (Litres per Week)		33,500	29,500	83,300	146,300

*Note: Totals have been rounded to better reflect estimates and may not equate

NE = Not Estimated as Not Required

3.2. Waste and recycling stream volumes, bin sizes and collection details by commercial/residential tenancies

Table 7 below identifies estimates for the total waste and recycling volumes generated, nominated bin sizes for each waste stream, proposed collection, number of bins required, proposed waste collection service provider, and the location where bins are presented for collection.

Table 7: Estimates of waste and recycling volumes (litres/week) for commercial tenancies, with proposed services and collection frequency

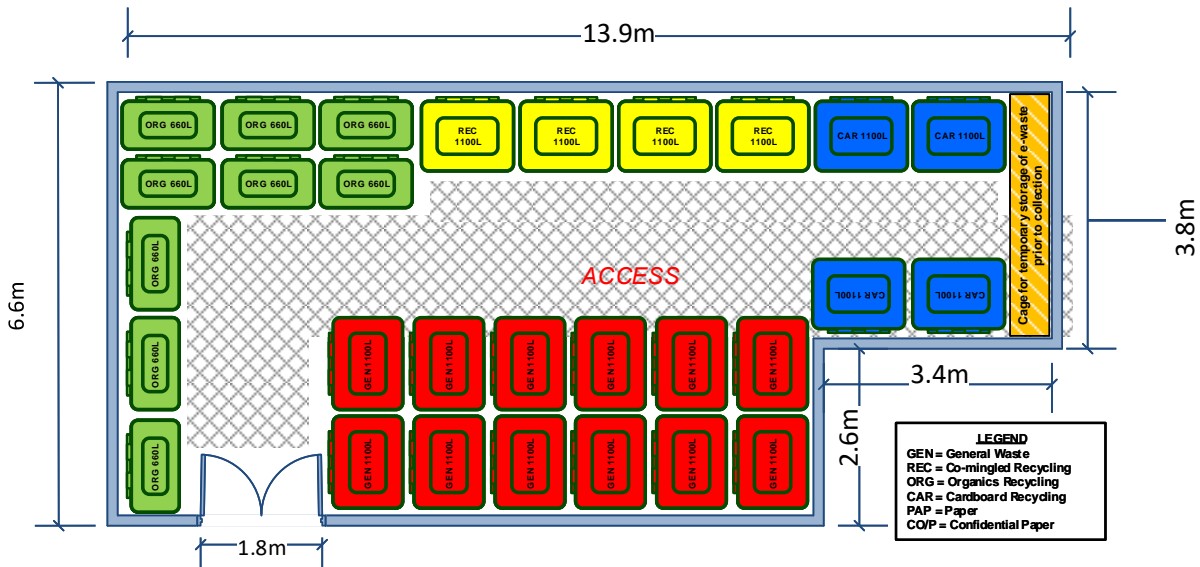
Waste stream	Estimated Waste Volume (Litres Per Week)*	Proposed Services			Proposed waste collection service provider	Proposed location where bins/ waste is presented for collection
		Bin Size (Litres)	Collection Frequency	Est. no. of bins required		
General Waste	64,000	1100	5 x Week	12	Commercial contractor (all tenancies to use same contractor)	Presentation within the bin storage room on the ground floor
Co-mingled Recycling	22,100	1100	5 x Week	4		
Organics (Food) Recycling	22,000	660	4 x Week	9		
Cardboard Recycling	16,400	1100	4 x Week	4		
Paper Recycling	19,500	240	3 x Week	1 Per Office Tenancy		
Confidential Paper Recycling	2,300	240	Fortnightly	1 Per Office Tenancy		
Totals	146,300	-	22 Per Week	-	-	-

*Note: Totals have been rounded to better reflect estimation of the volumes and may not equate

3.3. Recommended waste storage areas

An indicative drawing of the development's bin storage room on the ground floor containing the required number of bins, which includes one example of bin configuration, can be found in Figure 1 below.

Figure 1: Preliminary drawing showing the estimated size (min. 82m²) and layout of the development's bin storage and required no. bins



Note: These bin sizes are for illustration purpose only and are based on the standard MASTEC Australia bin sizes (<http://www.mastec.com.au>). Bin sizes and shapes may differ depending on manufacturer, collection contractor or local waste authority. Please allow extra room (e.g. >10%) for differences in bin sizes, bin access, opening and closing and manoeuvring etc.

4. Proposed Waste Management System (WMS)

4.1. Overview of the WMS

To effectively manage the waste generated at the site, an appropriate Waste Management System (WMS) is required. The WMS consists of:

- User storage of waste
- Waste transfer to common disposal area
- Aggregation and storage of this waste
- Waste/bin collection.

The table below provides an outline of the waste management system for each land use. This is based on the waste management steps recommended in the *South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments* (Green Industries SA, 2014) and the City of Adelaide’s recommended approach, summarised in Appendix 3.

4.2. WMS for all commercial properties

	WMS step	WMS Notes
Storage, transfer pathways and collection details for: <ul style="list-style-type: none"> • General waste • Co-mingled recycling • Organics (food) recycling • Cardboard recycling (café) • Paper Recycling • Confidential Paper Recycling 	1 – User disposal and storage	<ul style="list-style-type: none"> • Each commercial tenancy would have its own bin station to store waste and recyclables (e.g. 60-120L bins). • Office tenancies would each have a 240L paper recycling bin and a 240L confidential paper recycling bin, which would be managed via pull-in/pull-out paper recycling collection service.
	2 – Transfer pathway to common disposal area	<ul style="list-style-type: none"> • Staff/cleaners would manage waste and recyclables within each tenancy, and transfer material from the tenancies to the bin storage room when required. • It is recommended that a doorway be installed on the eastern wall of the ground floor western retail area to allow internal access to the waste room through the lift lobby.
	3 – Aggregation and storage	<ul style="list-style-type: none"> • Waste and recyclables would be aggregated and stored within the larger bins in the bin storage room. • See Appendix 3 for recommendations on pathways (width, slope etc.) from storage to collection point.
	4 – Waste Collection	<ul style="list-style-type: none"> • Collection contractors would park their vehicles in the on-property loading zone off Fisher Place • Waste and recycling bins would be collected (and returned) from the bin storage room (see Section 5 for details on collection vehicle access requirements). • Collection vehicle swept paths and parking maneuverers in the loading zone and along Fisher Place are to be confirmed by the Traffic Consultant.

5. Collection Vehicle Requirements

5.1. Collection vehicle requirements

The collection vehicles expected for waste collection at this development would generally be:

- Rear-lift trucks – for collection of routine waste, comingled recycling and food organics streams;
- Pan-tech or flat-bed trucks – for collection of at-call waste streams, if required.

Examples of the likely truck dimensions are provided in the below to assist the Traffic Engineer/Consultant in ensuring that the loading zone can accommodate the waste and recycling collection vehicles, and that vehicles can enter and exit the area safely along Fisher Place. In addition to the truck length, the waste truck parking area will need to accommodate at least 2m behind collection vehicles for waste bin loading.

Collection vehicle dimensions and operating requirements vary between waste collection contractors. The client would be required to ensure that the collection vehicle used by the waste collection contractor servicing the development is able to accommodate for the loading zone and other requirements before collection can begin.

Table 8: Likely dimensions and turning circles of waste collection vehicles that would be required to access the loading zone and Fisher Place

Likely dimensions and turning circles of waste collection trucks		
	Rear-lift truck (to collect bins up to 1100L)	Pan-tech/flat-bed* (to collect hard waste/E-waste)
Dimensions	3.4m (h) x 2.5m (w) x 8.8m (l) plus 2m space at the rear to load bins	Up to 4.5m (h) x 2.5m (w) x 8.8m (l)
Vehicle height in operation	Up to 4m	Up to 4.5m
Vehicle turning circle	18-25m	10m

**Note: Pantech/flatbed vehicle dimensions are based on Australian MRV standard specifications - AS 2890.2-2002*

5.2. Estimated number of waste vehicle movements per week

We have estimated that there would be 22 collection vehicle movements per week at the site. This is based on the estimated waste and recycling volumes and service frequency described above and assumes collection is undertaken by the same contractor for each land use. These estimated vehicle movements do not include an on-call of infrequent services such as hard waste/E-waste collection.

Appendix 1: Policy, Design and Operational Waste Management Requirements for the Development

This WMP has been prepared with the following policy, design, and/or operational requirements for waste management in mind:

- *The South Australian Environment Protection (Waste to Resources) Policy 2010 (W2REPP) (Government of South Australia, 2011):*
 - This Policy requires that waste is subject to resource recovery processes, which can include source separation, before disposal to landfill.
- *South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA (previously Zero Waste SA), 2014):*
 - Identifies need for areas to store waste and recyclable materials, appropriate to the size and type of development, screened from public, which minimises disturbance to residents and provides for service vehicle access.
 - Provides guidance on design of waste management systems for medium to high density residential and mixed use developments.
- *Adelaide City Council Design Guide for Residential Recycling (City of Adelaide (Previously Adelaide City Council), 2013)*
 - Similar to the Better Practice Guide above, but with some slightly different design requirements.
- *The City of Adelaide Operating Guideline – Waste & Recycling Services (The City of Adelaide, previously Adelaide City Council, 2014)*
 - Set outs Council’s proposed basic and enhanced services for collection of waste and recycling from high density and mixed use developments and businesses, which are expected to be introduced in the near future (e.g. next 12-18 months).
- *Adelaide (City) Development Plan (Department of Planning, Transport & Infrastructure, 2014)*
 - Identifies that each dwelling/serviced apartment should include areas for the storage and collection of goods, materials, refuse and waste including facilities to enable the separation of recyclable materials as appropriate to the size and nature of the development and screened from public view.
 - Reinforces the City’s credentials for biodiversity protection, energy and water conservation and waste minimisation.

Appendix 2: Methodology for Estimating Waste & Recycling Volumes and Sizing Storage Areas

The estimation of waste and recycling volumes contained in this waste management plan, is based on:

- The proposed land use data;
- Client and regulatory expected services for different land uses in the development;
and
- Waste generation metrics found in:
 - The South Australian Better Guide Practice Guide – Waste Management in Residential or Mixed Use Developments (Green Industries SA (previously Zero Waste SA), 2014)
 - Waste and recycling metrics developed by Rawtec, which are based on industry knowledge and experience.

Appendix 3: Additional Waste Management Design Advice

The below table provides design advice and other considerations based on the *South Australia Better Practice Waste Management Guide for Residential and Mixed Use Developments*. For further recommendations and information from this guide, please visit the [Green Industries SA](http://www.greenindustries.sa.gov.au) website.

Area	Recommendation/ Consideration
Access and distance to disposal point	<ul style="list-style-type: none"> • Better practice recommends this distance from tenancies to disposal points (e.g. chutes or waste aggregation areas), be no greater than 30 metres. • This reduces the likelihood of spillage and increases convenience for tenants.
Bin transfer routes	<ul style="list-style-type: none"> • The Better Practice Guide recommends transfer routes be free of obstructions and steps, at least 1.25m wide and a slope of no more than 1:10. • These should also not pass through other retail areas (e.g. cafes, living areas, dwellings).
Bin washing	<ul style="list-style-type: none"> • It is recommended that a bin wash area be installed that: <ul style="list-style-type: none"> ○ Is sloped to a drain leading to the sewer, ○ Has an installed tap with mains supply and a hose nearby, ○ Is at least 2m x 2m, and ○ Is slip resistant to prevent slippage during washing. <p><i>Note that line marking and bunding is not required around the bin wash area, and bins can be stored on top of the bin wash area in the waste room. During washing, other bins can be placed outside the waste collection room while bins are washed. Alternatively, it is possible for the bin wash area to be installed outside the waste room or waste contractor can also be contracted to provide this service (either on-site or off-site).</i></p>

200 North Terrace

Site Stormwater Management
Plan

Commercial & General

Reference: 500044

Revision: 1

1 August 2017

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Appendices

Appendix A

- Existing Stormwater Infrastructure
- City of Adelaide Stormwater Drawings

Figures

- Figure 1 Existing Location Plan
- Figure 2 Enlarged View of the 200 North Terrace site and the Proposed Extent of the new development
- Figure 3 Existing Drainage Infrastructure in the Surrounding Roads
- Figure 4 Proposed Site Layout

1 Introduction

Commercial & General (C&G) are proposing to develop the existing buildings on 200 North Terrace and the buildings at the rear which are located between Fisher Place and a private laneway off Gawler Place. The proposed development is located in Figure 1.



Figure 1 Existing Location Plan

Aurecon has been engaged by C&G to provide structural and civil engineering services for the development of 200 North Terrace. The purpose of this Site Stormwater Management Plan (SSMP) is to provide an overview of the stormwater works as part of the proposed development, in order to achieve Development Approval (DA) and to inform subsequent phases of engineering design.

1.1 Site Description

The existing project site comprises of existing multi-storey buildings in the area bordered by North Terrace, Fisher Place to the south and Gawler Place to the west.

The proposed building will have retail and commercial uses, with some areas of above ground car parking within the building footprint. The approximate footprint of the new building is around 3,100m², shown in the green shaded area in Figure 2.



Figure 2 Enlarged View of the 200 North Terrace site and the Proposed Extent of the new development

The existing site is 100% impervious ie roof and asphalt surface. The existing site area drains into the external Council storm water system which will be discussed in further detail in Section 2.

2 Existing Conditions

2.1 Stormwater Network

An assessment of the existing building stormwater infrastructure has been undertaken using City of Adelaide (CoA) supplied drawings and a site inspection. The two buildings fronting North Terrace have downpipes connecting underground to the CoA stormwater culvert adjacent the North Terrace southern kerbline. Given the age of the buildings, all downpipes are presumed to be traditional downpipes rather than siphonic systems.

The three buildings at the rear have downpipes which discharge water to the Fisher Place road surface where is captured by a series of catchpits and a 300 mm pipe which is then connected to a 450 mm stormwater pipe in Gawler Place. The private lane consists of a kerb and gutter / spoon drain along the northern edge with building downpipes discharging to the road surface. The water is captured by a catchpit adjacent Gawler Place.

The building drainage system and adjacent road network is shown in Figure 3.

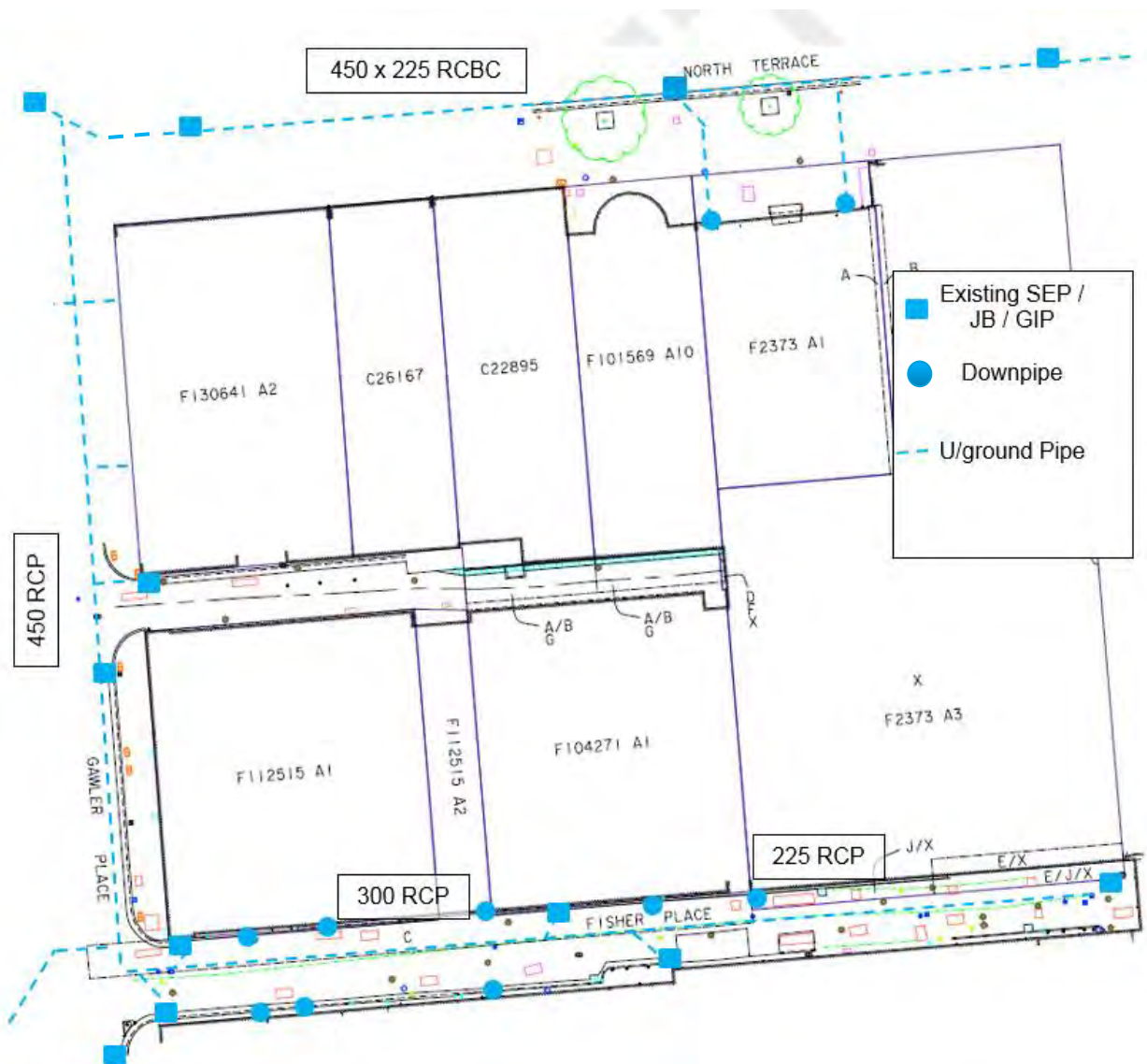


Figure 3 Existing Drainage Infrastructure in the Surrounding Roads

The existing external storm water infrastructure surrounding the 200 North Terrace site forms part of CoA assets, and connects to Kintore Avenue via stormwater pipes on Gawler Place and North Terrace and then northward to the River Torrens.

2.2 Adjacent Projects

There are two public realm projects in the design phase that are adjacent to the 200 North Terrace development site.

The first project is the City Tramline Extension project which involves an extension of the existing tram line along North Terrace from King William Street to East Terrace. A tram stop will be incorporated just to the east of Gawler Place intersection and this will require widening of North Terrace southern kerblines to the south by around 1.8 m – this widening is adjacent the proposed development. The changes to the existing stormwater system are minimal and will not impact any future stormwater connectivity related to the development.

The second project is a CoA project to improve the amenity of Gawler Place from Rundle Mall to North Terrace by making it more pedestrian friendly and removing the existing kerblines. The kerb and gutters will be replaced with a central spoon drain for drainage purposes. It is presumed that the new roadway will be built up to match the existing footpath levels which will mean the Fisher Place road approach will be lifted accordingly. On this basis, it is presumed that a ramp back down to existing Fisher Place levels will be provided. Further consultation with CoA will need to occur with respect to interfaces between the Gawler Place works and the 200 North Terrace development if the development requires any change to Fisher Place / private lane road levels.

3 Proposed Conditions

3.1 Proposed Site Layout

The proposed ground level site layout for 200 North Terrace development is shown in Figure 4. There are two levels above the North Terrace fronting buildings with the buildings adjacent Fisher Place will have 18 levels above ground level. There is also a basement level across all buildings.

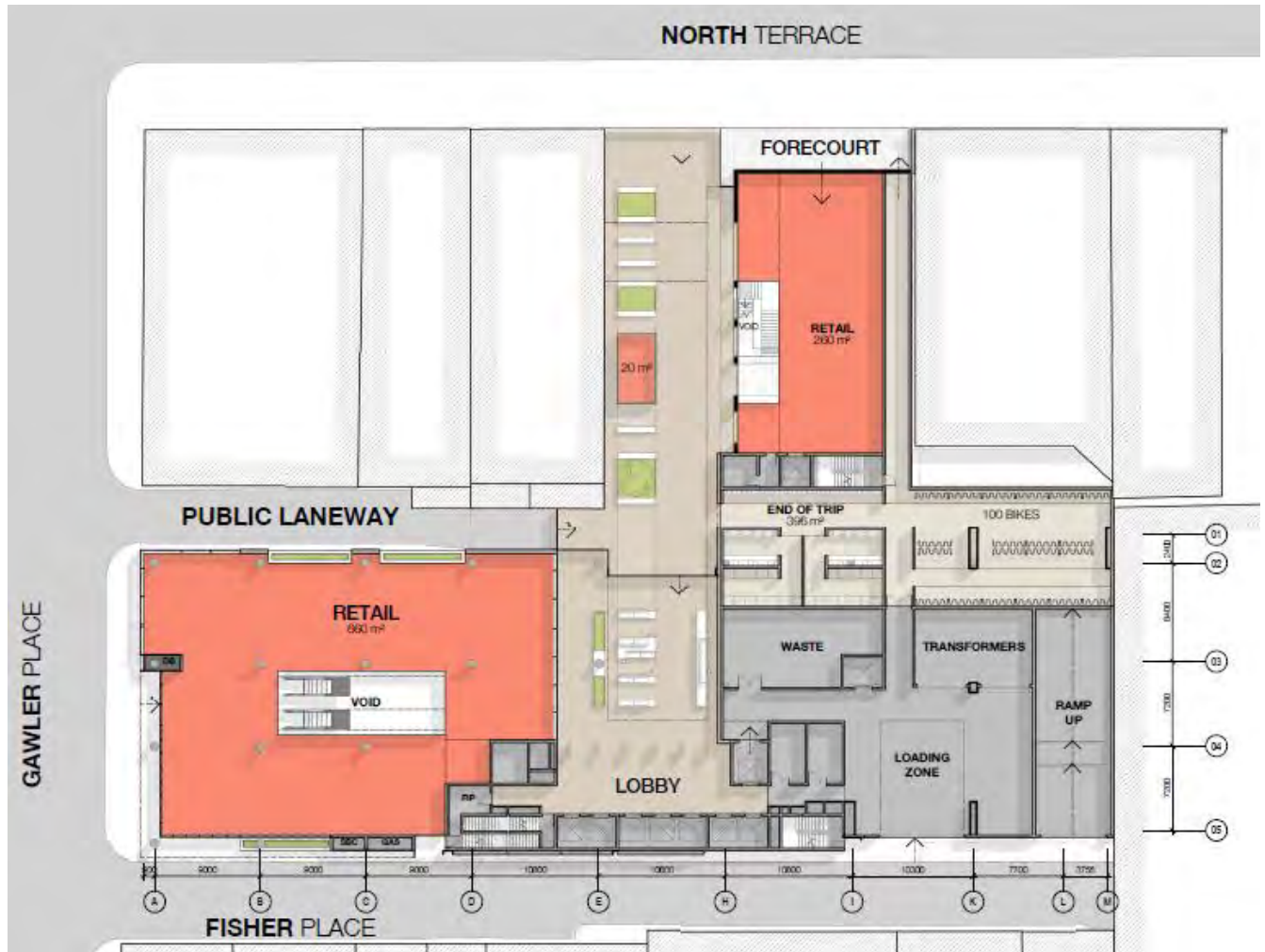


Figure 4 Proposed Site Layout

3.2 Potential Drainage Options

The building stormwater drainage will continue to use traditional downpipes, rather than siphonic, however these downpipes will connect into a proposed detention / retention tank. Two options are being considered for the tank being:

- Option 1 - A roof top rainwater tank; or
- Option 2 - A basement rainwater tank.

With both options, it is proposed to re-use the captured water for toilet flushing and landscaping. A tank overflow pipe will be required and depending on the location of the tank, the pipe will be connected to either the existing North Terrace, Gawler Place or Fisher Place stormwater system.

With Option 1, the roof top rainwater tank will capture the rain water via a roof top drainage system and then gravity feed the water for toilet flushing purposes. The rainwater tank is proposed located on top of the 18 storey building at the rear then it would not be possible to capture the smaller building (3 storey) roof water without pumping. As a result, the roof water of the buildings fronting North Terrace (about 700 m²) will continue to discharge to the North Terrace stormwater system via the existing downpipes.

With Option 2, the basement rainwater tank will capture the roof water via traditional downpipes and then captured water will be pumped up for toilet flushing purposes. A secondary water supply will be required for toilets flushing during drier months and where there is insufficient rain water captured for the toilet requirements. As can be seen from Figure 4, there are only small areas of landscaping at ground level but given that these are covered by buildings, the landscaping will require a water supply.

As part of separate discussions with CoA staff regarding the adjacent City Tram Line Extension project, no advice has been received about storm water flooding resulting from inadequate capacity of the CoA storm water system. Council's underground storm water system is typically designed for the CBD catchment area being 90% impervious.

The pre-construction water flows for the existing building footprint based on a 50 year ARI with a 10 minute intensity (114 mm/h) is 35.34 L/s which is distributed across multiple downpipes and discharging into North Terrace and Fisher Place and a private lane which connect into Gawler Place. With the use of a rainwater tank (capacity / size to be determined from spatial layout assessment with both options), this will reduce the post-construction water flows for the same intensity event to 7.98 L/s which will be the same discharge to North Terrace as currently occurs. The post-construction flows to Fisher Place, the private lane and Gawler Place will substantially reduce but there will occasionally be tank overflow to one of these systems – this will require more detailed analysis with the size of the tank, number of employees within the building and landscaping demand.

3.3 Quality of Outlet Water

As the proposed building footprint will essentially replace the existing building footprint, there will be no change in quality of outlet water however as roof water will be captured by tank(s) and re-used in toilets and for landscaping, there would be an improvement as any re-used water will go to the sewer system. Any overflow roof water from the tank(s), will return to the stormwater system.

Water Sensitive Urban Design (WSUD) may be contemplated for the landscaping elements at ground floor, however given there are only small landscaping areas WSUD measures are not likely to be beneficial in terms of improving water quality.

4 Summary

The proposed 200 North Terrace development will involve replacing the existing buildings fronting North Terrace and Fisher Place with new buildings including an 18 storey office and commercial building at the rear of the development. As such, there will be no change to catchment areas between pre-construction and post-construction works.

The provision of rainwater tank(s) will allow for water re-use either for toilet flushing or landscape watering. The rainwater tank will require an overflow pipe which depending on the location of the tank will either need to be gravity fed or pumped into the existing stormwater system in the adjacent streets. Regardless of which tank option is selected, there will be a reduction of stormwater flow into the existing CoA stormwater system in the adjacent roads.

Given the minimal extent of landscaping, WSUD are not likely to be incorporated into the landscaping design.

Further consultation with CoA will be required during detailed design of 200 North Terrace to confirm the interface impacts with the Gawler Place redevelopment, in particular to any changes to road levels in Fisher Place and the private lane as well as the existing stormwater infrastructure.



A

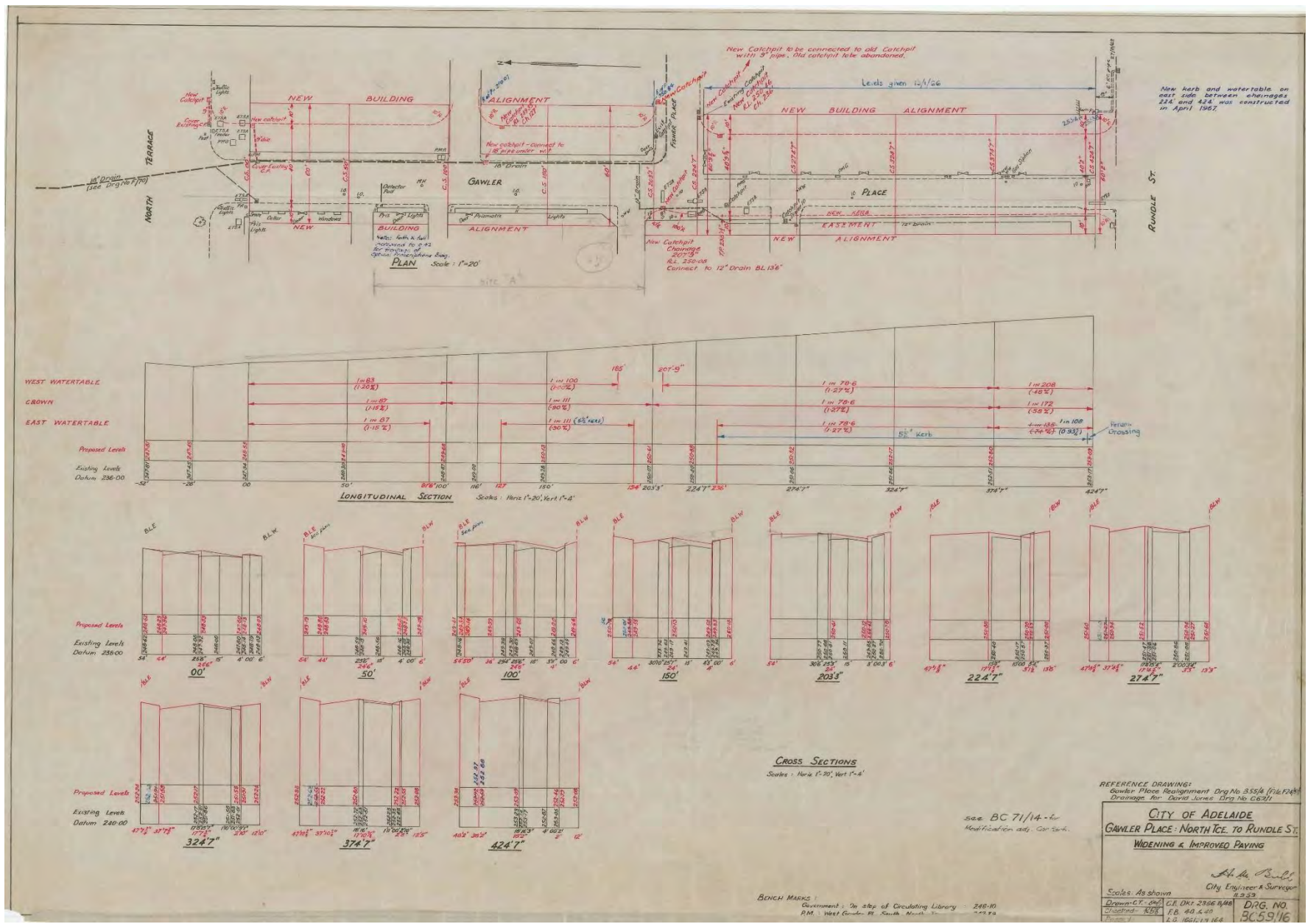
Existing Stormwater
Infrastructure

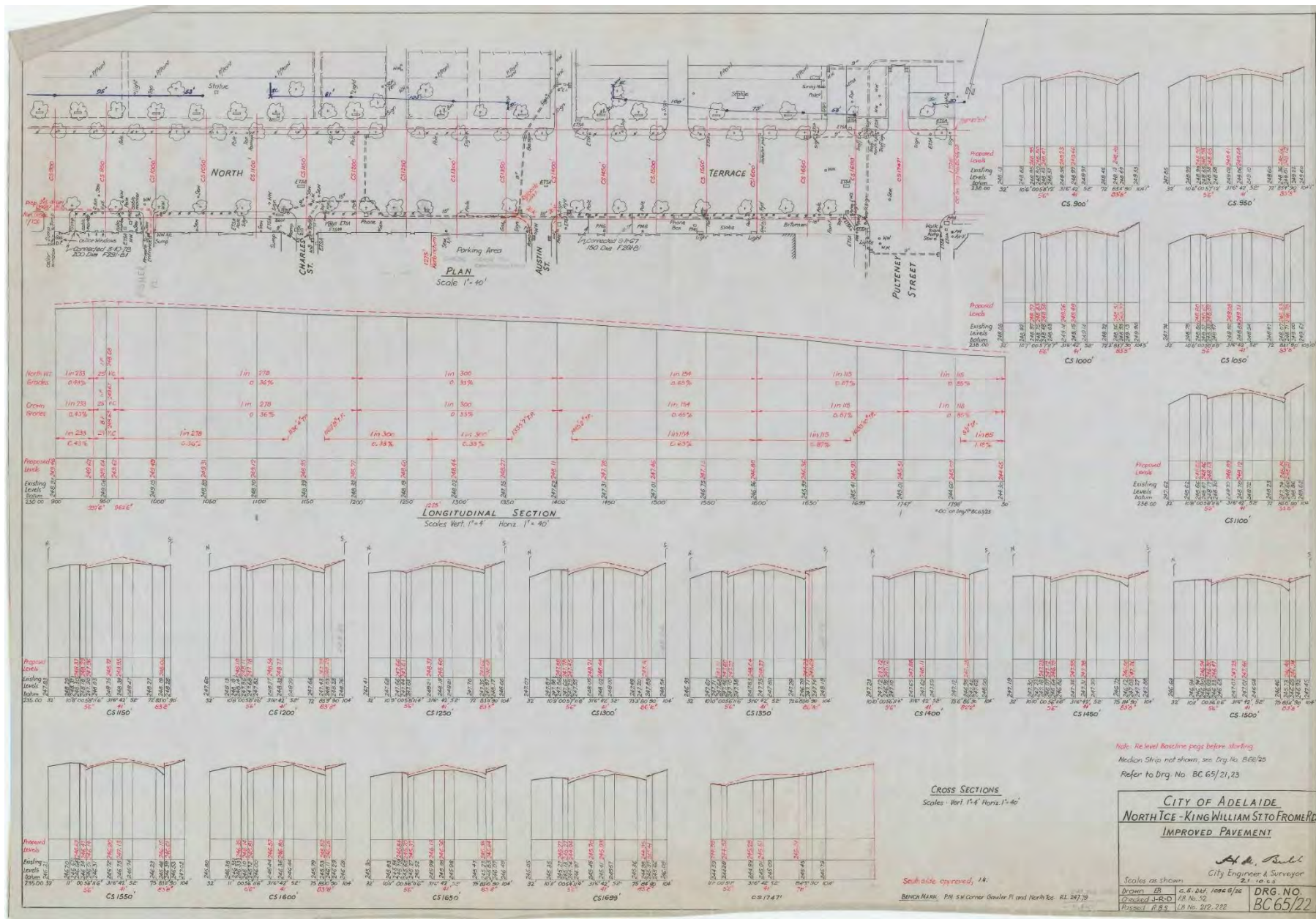
Appendix A

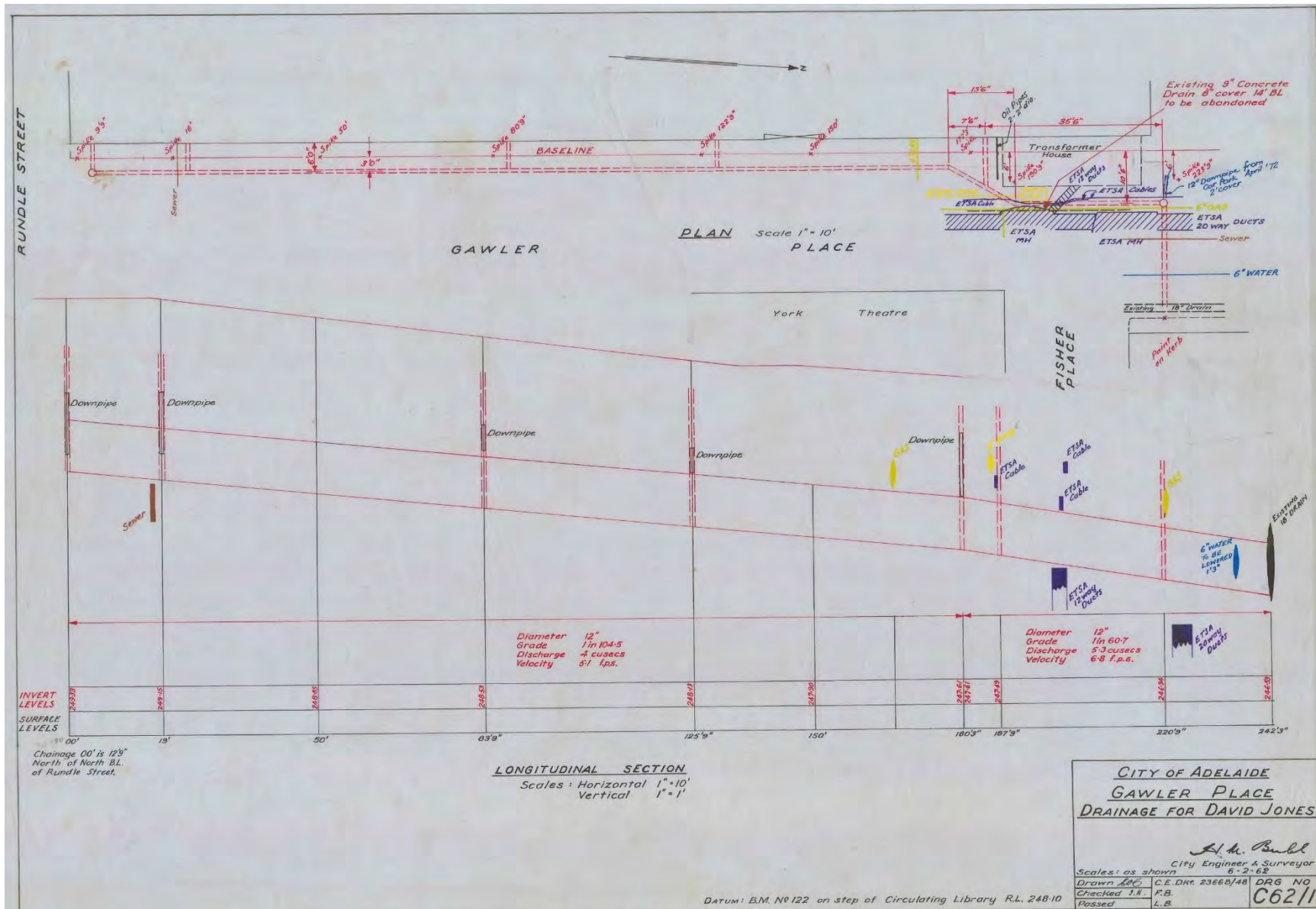
Existing Stormwater Infrastructure

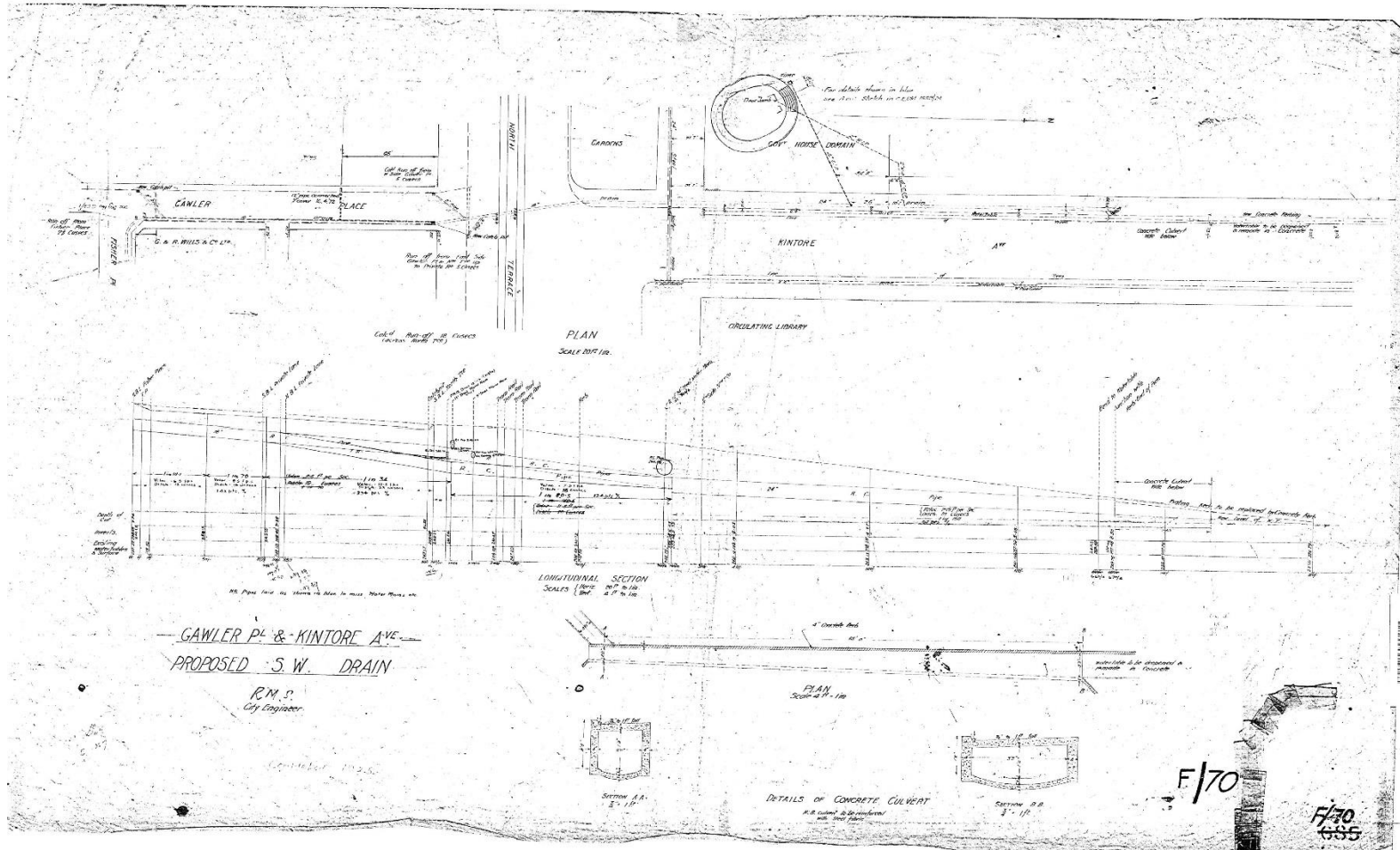
City of Adelaide Stormwater Drawings

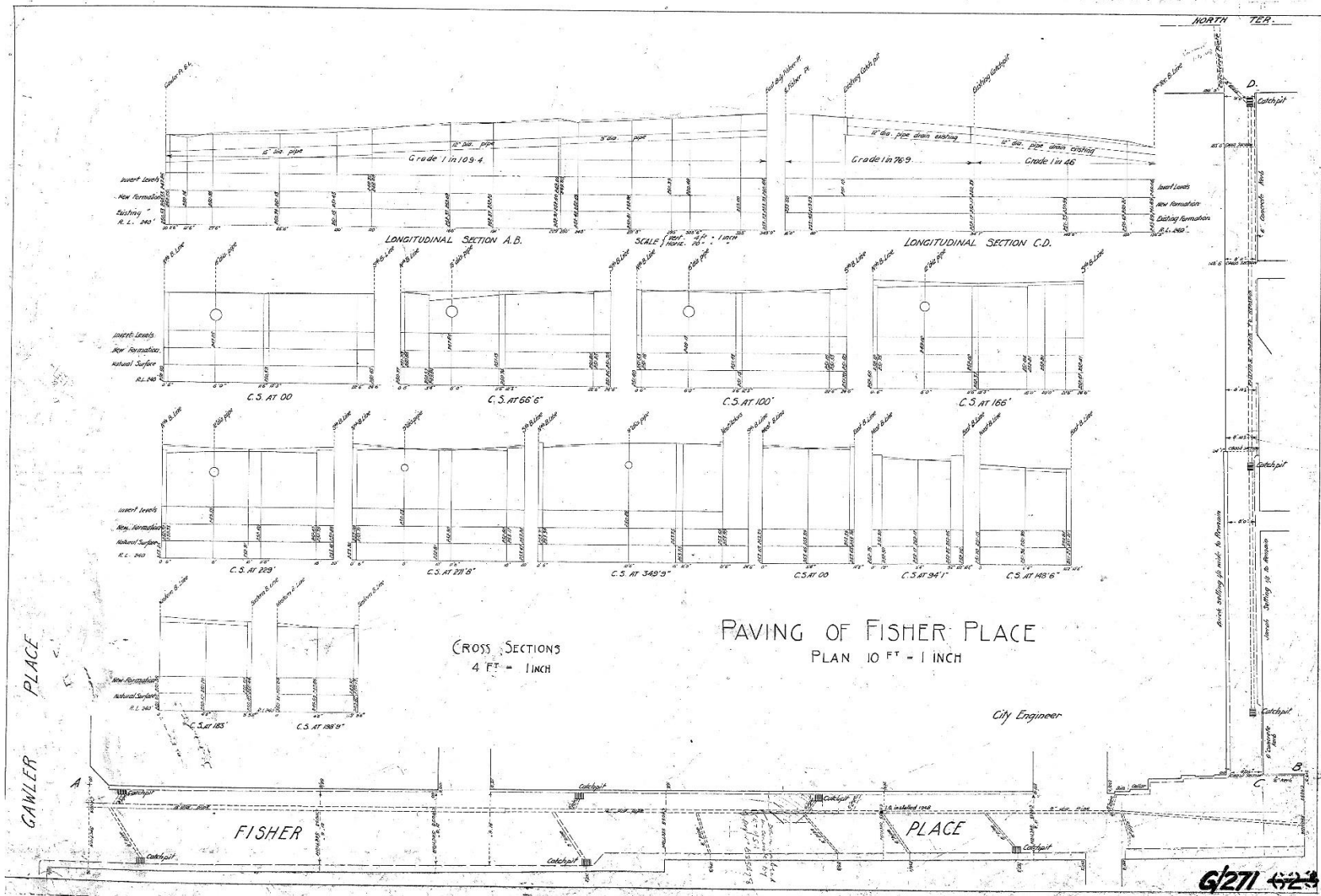












CITY ADELAIDE

PAVING OF FISHER PLACE

61270
6224

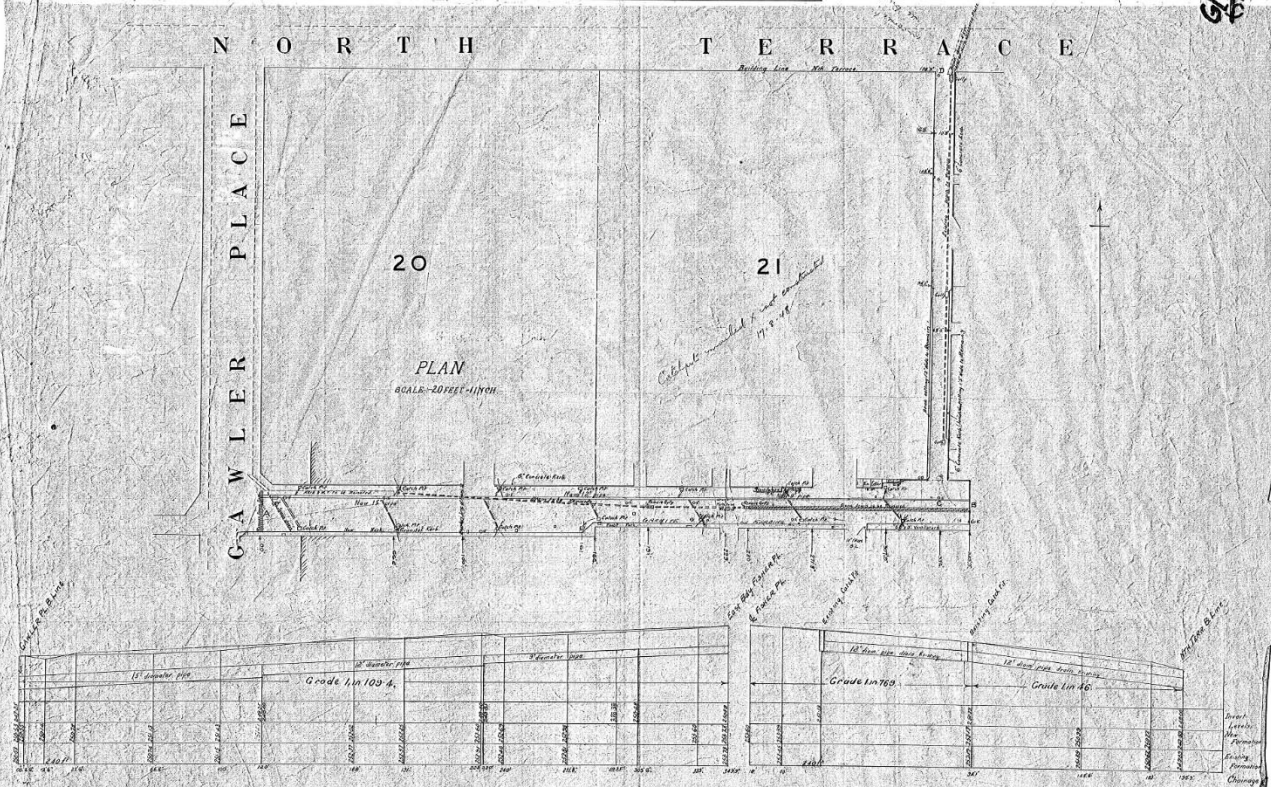
N O R T H T E R R A C E

C A W L E R P L A C E

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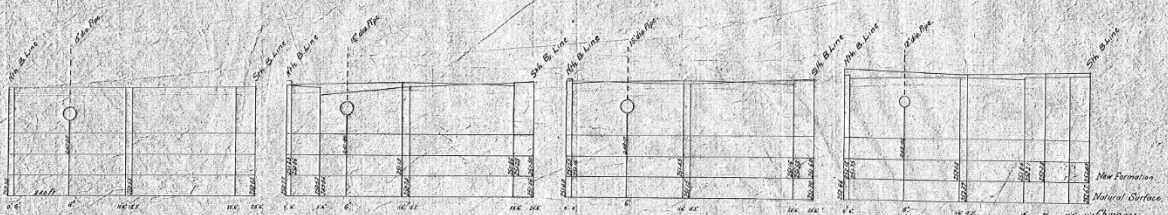
PLAN
SCALE - 20 FEET = 1 INCH



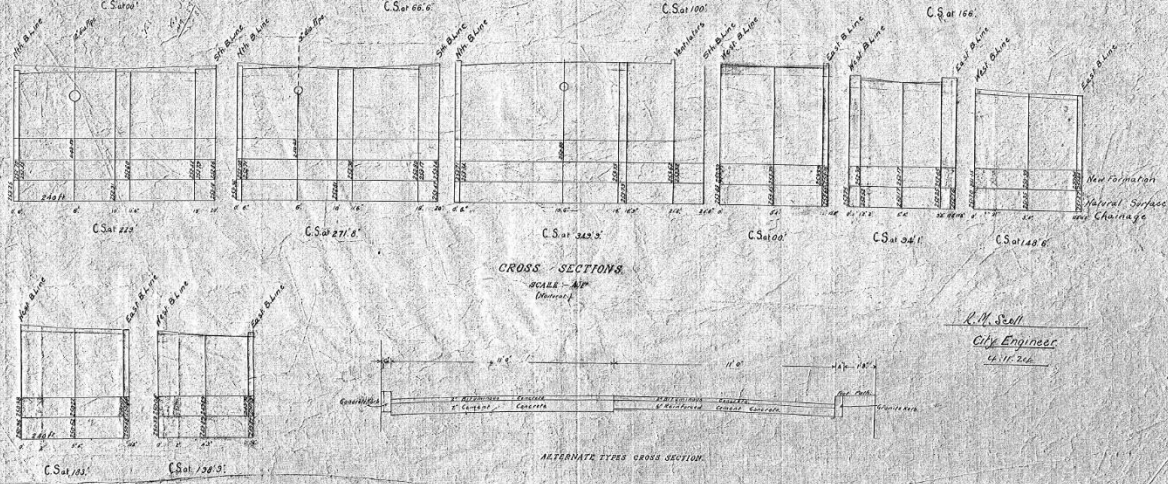
LONGITUDINAL SECTION A-B

LONGITUDINAL SECTION C-D

SCALE - VERTICAL 4" = 10 FEET
HORIZONTAL 1" = 10 FEET



CROSS SECTIONS
SCALE - 4" = 10 FEET



R. M. Scott
City Engineer
62,117, 246

Document prepared by

Aurecon Australasia Pty Ltd

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aurecon

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to life*

Aurecon offices are located in:

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United Arab Emirates, Vietnam.



Infrastructure Summary

Service	Infrastructure Authority	Infrastructure Type and Location	Plant/Enclosure Type	Plant/Enclosure Location
Power	SA Power Networks (SAPN)	New 11kV High Voltage Feeder via Fisher Place.	Transformer Room (to SAPN requirements)	Ground Level within Loading Dock.
Domestic Water	SA Water	Water Main in North Terrace	Water Meter / RPZ Enclosure	Adjacent North property boundary per authority requirements, proposed recessed in ground.
Fire Water	SA Water / SAMFS	Towns Mains in Fisher Place	Booster Enclosure	Recessed into building at Ground Level, facing public laneway.
Sewer	SA Water	Sewer Mains in North Terrace, Gawler Place and Fisher Place.	-	-
Trade Waste	SA Water	Sewer Mains in North Terrace, Gawler Place and Fisher Place.	Grease Arrestor or DAF plant (TBC)	Basement
Stormwater	Adelaide City Council (ACC)	Stormwater Infrastructure in North Terrace, Gawler Place and Fisher Place	Retention Tank(s)	Basement or Level 19 Roof (TBC)
Telephone	Telstra	Telstra cabling Infrastructure in Fisher Place	Carrier Entry Room	Ground Level
Gas	APA	Gas Main in Fisher Place	Gas Meter Enclosure	Recessed into building at Ground Level, facing Fisher Place.

DEVELOPMENT APPLICATION FORM

PLEASE USE BLOCK LETTERS

COUNCIL: ADELAIDE CITY

APPLICANT: C&G DEVELOPMENT MANAGEMENT PTY. LTD.

Postal Address: LEVEL 7, 2 KING WILLIAM STREET, ADELAIDE 5000

Owner: ANDRE J.M. COINTREAU

Postal Address: _____

BUILDER: TBC

Postal Address: _____

Licence No: _____

CONTACT PERSON FOR FURTHER INFORMATION

Name: MITCHELL HARRINGTON

Telephone: 8112 6444 [work] _____ [Ah]

Fax: NIL [work] _____ [Ah]

EXISTING USE: VACANT BUILDING

FOR OFFICE USE

Development No: _____

Previous Development No: _____

Assessment No: _____

- Complying
- Non Complying
- Notification Cat 2
- Notification Cat 3
- Referrals/Concurrences
- DA Commission

Application forwarded to DA

Commission/Council on

/ /

Decision: _____

Type: _____

Date: / /

	Decision required	Fees	Receipt No	Date
Planning:	_____	_____	_____	_____
Building:	_____	_____	_____	_____
Land Division:	_____	_____	_____	_____
Additional:	_____	_____	_____	_____
Development Approval	_____	_____	_____	_____

DESCRIPTION OF PROPOSED DEVELOPMENT: OFFICE BUILDING + ANCILLARY RETAIL

LOCATION OF PROPOSED DEVELOPMENT: 12-20 GAWLER PLACE, 199-200 NORTH TERRACE

House No: _____ Lot No: _____ Street: _____ Town/Suburb: _____

Section No [full/part] _____ Hundred: _____ Volume: 5848 Folio: 483

Section No [full/part] _____ Hundred: _____ Volume: 6079 Folio: 188

Section No [full/part] _____ Hundred: _____ Volume: 6079 Folio: 189

Section No [full/part] _____ Hundred: _____ Volume: 5848 Folio: 483

LAND DIVISION:

Site Area [m²] _____ Reserve Area [m²] _____ No of existing allotments _____

Number of additional allotments [excluding road and reserve]: _____ Lease: YES NO

BUILDING RULES CLASSIFICATION SOUGHT: 5 & 6 Present classification: 6

If Class 5,6,7,8 or 9 classification is sought, state the proposed number of employees: 2,200 Male: 1,100 Female: 1,100

If Class 9a classification is sought, state the number of persons for whom accommodation is provided: _____

If Class 9b classification is sought, state the proposed number of occupants of the various spaces at the premises: _____

DOES EITHER SCHEDULE 21 OR 22 OF THE DEVELOPMENT REGULATIONS 2008 APPLY? YES NO

HAS THE CONSTRUCTION INDUSTRY TRAINING FUND ACT 2008 LEVY BEEN PAID? YES NO

DEVELOPMENT COST [do not include any fit-out costs]: \$ 110,000,000

I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Development Regulations 2008.

SIGNATURE: [Signature]

Dated: 7 / 7 / 17



Government of South Australia

DEVELOPMENT REGULATIONS 2008
Form of Declaration (Schedule 5 clause 2A)

To: Development Assessment Commission

From: C&A Development Management Pty. Ltd.

Date of Application: 11 / 8 / 17

Location of Proposed Development: 200 North Terrace

House No: _____ Lot No: _____ Street: _____

Town/Suburb: ADELAIDE

Section No (full/part): _____ Hundred: _____

Volume: → Folio: →
5848/482 6079/186
5848/483 6079/188
5848/486 6079/189

Nature of Proposed Development:

Commercial Office & Retail Precinct

I Tony Perrin being the applicant/ a person acting on behalf of the applicant (delete the inapplicable statement) for the development described above declare that the proposed development will involve the construction of a building which would, if constructed in accordance with the plans submitted, not be contrary to the regulations prescribed for the purposes of section 86 of the Electricity Act 1996. I make this declaration under clause 2A(1) of Schedule 5 of the Development Regulations 2008.

Signed: [Signature]

Date: 9 / 8 / 17

Our Reference: 26672-1-4

8 October 2017

Mitchell Harrington

Acquisitions & Development Manager
Commercial & General
Level 7, 2 King William Street
ADELAIDE SA 5000

Email : Mitchell.harrington@c-g.com.au

Dear Mitchell,

RE: 200 North Terrace

In relation to the above site and legal access for the associated Certificates of Title, I provide the following advice;

The western end of the laneway called Fisher Place:

1. Certificate of Title Vol 6079 Folio 189, which forms part of the proposed development site, incorporates an easement as follows;

TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED B AND C (GRO NO.219 BOOK 52) – (see attachment 1: CT 6079/189)

The GRO, which was the document used at the time, describes the land as “the south side (of the title) being next to a certain private road”;
2. Therefore this title holds a right of way over the land marked C as shown on the title diagram, however C is not part of the title land itself but is an easement over adjoining land that allows access to the title;
3. On “Property Location Browser” (PLB) the state governments official property website which is used by the Lands Titles Office for checking of survey plans, the area C is shown as a separate piece of land, this being Allotment 22 in F42223 (see attachment 2: Extract from Property Location Browser);
4. This land was previously known as Allotment 500 in F218040 (see attachment 3: F218040) but was redesignated in survey plan F42223, where it was verified as a separate piece of land;
5. Gawler Place has been declared public, however Allotment 22 in F42223 remains as shown on PLB and F42223;
6. In summary, my opinion is that there is no issue with the access held by Certificate of Title Vol 6079 Folio 189 over Right of Way C, which leads to a public road, Gawler Place.

The eastern end of the laneway:

7. All allotments comprising the subject land have legal access to a public road
8. The whole of the laneway is covered by multiple “ FREE AND UNRESTRICTED RIGHT(S) OF WAY” which legally means that the laneway must be free for traffic to access at all times for the whole length



ENVIRONMENT
DEVELOPMENT
RESOURCES

Level 1, 124 South Terrace
Adelaide SA 5000

GPO Box 2450
Adelaide SA 5001
Telephone 61 8 8201 9600
Facsimile 61 8 8201 9650
www.fyfe.com.au

FYFE PTY LTD
ABN 57 008 116 130



9. The multiple “ FREE AND UNRESTRICTED RIGHT(S) OF WAY” result in the laneway being used by multiple parties as a common access and is effectively and also in obvious practice open to the public with no restrictions on entry to the whole of the laneway
10. The whole of the laneway therefore functions as a Public area, and more specifically has been used historically by the subject land at the eastern end (CT 6079/188) for access to load and unload, waste management and for internal car parking access.



Photo 1. Eastern End of Fisher Place



Photo 2. Existing loading and car parking access into subject site.



We trust that this information is satisfactory, however should you wish to discuss any of the above please do not hesitate to contact the undersigned.



Yours sincerely

A handwritten signature in blue ink, appearing to read 'Chris Millett', with a long horizontal stroke extending to the right.

Chris Millett, Licensed Surveyor
P: (08) 8201 9690, 0419 839 957

Attachment 1: CT 6079/189

Attachment 2: Extract from Property Location Browser

Attachment 3: F218040

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 6079 Folio 189

Parent Title(s) CT 5848/485
Creating Dealing(s) RT 11562383
Title Issued 24/06/2011 **Edition** 1 **Edition Issued** 24/06/2011

Estate Type

FEE SIMPLE

Registered Proprietor

ANDRE JEAN-MARIE COINTREAU
OF 18 BROMPTON SQUARE LONDON SW3 2AD ENGLAND
HEDWIGE MARIE LOUISE COINTREAU
OF 4 AVENUE SAINT HONORE D'EYLAU 75016 PARIS FRANCE
AS JOINT TENANTS

Description of Land

ALLOTMENT 1 FILED PLAN 104271
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED B AND C (GRO NO.219 BOOK 52)
TOGETHER WITH RIGHT(S) OF WAY OVER THE LAND MARKED A (T 1299479)

Schedule of Dealings

NIL

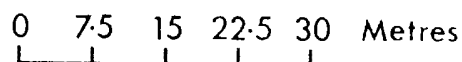
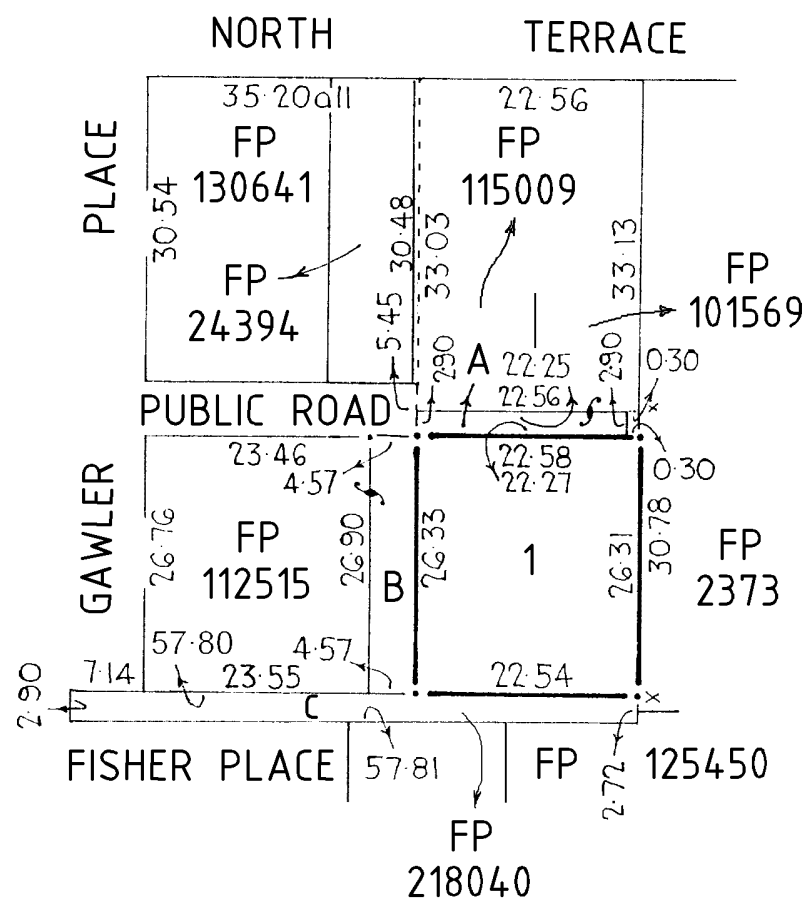
Notations

Dealings Affecting Title NIL
Priority Notices NIL
Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G199/1988
PLAN FOR LEASE PURPOSES VIDE G52/1998
UNAPPROVED FX28822

Administrative Interests NIL







S.A. LANDS TITLES OFFICE RE-IDENTIFICATION PLAN

PLAN NUMBER

FP 218040

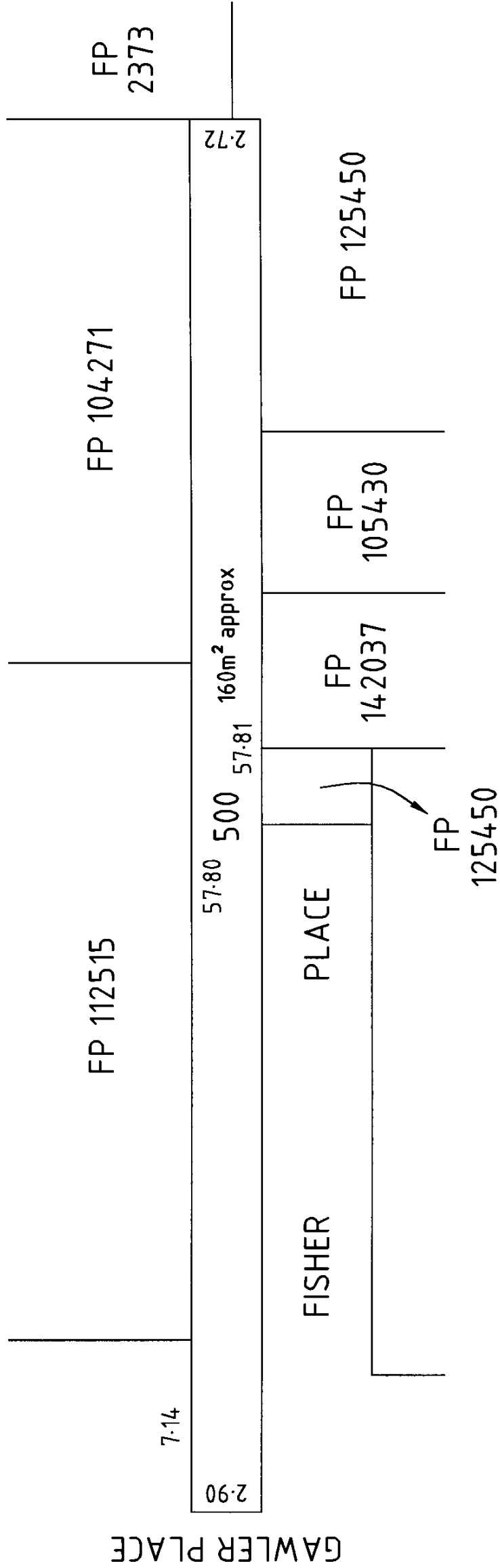
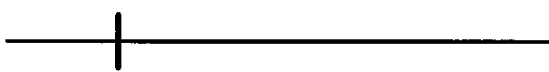
SHEET 1 OF 1

ACCEPTED FOR FILING
14/09/2000

REGISTRAR-GENERAL

AREA : ADELAIDE
LGA : CORP OF THE CITY OF ADELAIDE
HUNDRED : ADELAIDE
SECTION : P T 20

THIS PLAN IS SCANNED FOR GM NO 251 BOOK 42



NOTE: SUBJECT TO ALL LAWFULLY EXISTING PLANS OF DIVISION

18 October 2017

Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment - Planning and Development
Department of Planning, Transport and Infrastructure

Brett Miller
Team Leader – CBD & Inner Metro - Development Division
Department of Planning, Transport and Infrastructure

Dear Karl & Brett,

RE: State Commission Assessment Panel – 200 North Terrace, Adelaide

We provide the following additional response to the State Commission Assessment Panel (SCAP) regarding the planning application S10/27/2017. **C&G's** response more specifically relates to Access and Heritage matters raised by associated referral agencies, and includes the following:

Access Entitlement

The subject land has legal access rights to the proposed car park and loading entry. Further to the Public Road and exclusive northern portion of Fisher Place, the entire southern extent of Fisher Place is subject to a Free and Unrestricted Right of Way (FURW), including to the most eastern allotment being Adelaide Central Plaza (Please see Further Information attached). Adelaide Central Plaza holds a FURW over the entirety of Fisher Place including a portion of the subject land.

In practice, Fisher Place operates as a Public Road, with car and loading movements traversing multiple Rights of Ways, including over the northern portion of Fisher Place, which is exclusively the subject land and not to the benefit of the southern allotments. Please see the indicative summary map of Fisher Place access rights below:



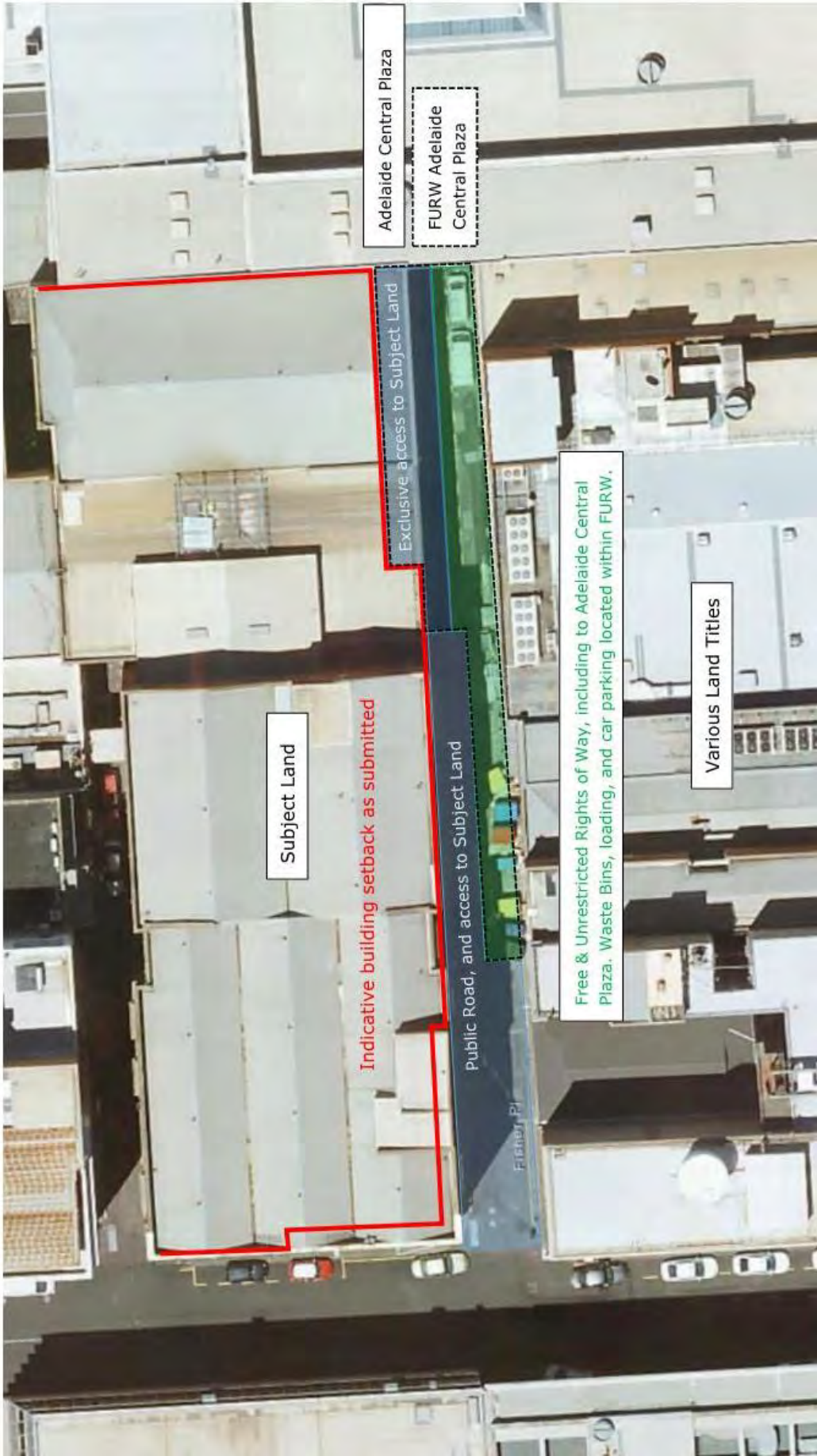


Photo 1: Indicative summary of the Fisher Place access rights.



Photo 2: Existing use as a public road including parking and loading to the subject land. The Free and Unrestricted Rights of Way exist to the most eastern allotment, being Adelaide Central Plaza.

We have alternative options in place should the access matter be cited as a Reserved Matter. Any such Reserved Matter can be resolved by the either of the following approaches, as elected by C&G:

- 1) Design Amendment to:
 - a. Remove the car park and loading area, whilst proposing an alternative waste management strategy; OR
 - b. Additionally setback the building to allow access over the subject land, in addition to Fisher Place access; OR
- 2) Amending and/or formalising further access agreements over Fisher Place, to the collective benefit of all adjoining land owners. Such an agreement could provide future clarity for use of Fisher Place as a Public Road.

We would accept a Reserved Matter framed in the following form:

Reserved Matter: Legal Access to Fisher Place and eastern land for car parking access arrangements and loading must be resolved to the satisfaction of SCAP prior to use or occupation of the car park.

Heritage Comments

We provide the following response regarding the Heritage queries for the subject land. We trust that our response will satisfy SCAP, with any outstanding matters being placed as Planning Conditions. The wording of such Planning Conditions would be agreed with DEWNR, and provided to SCAP on completion.

1. We require details of proposed conservation works to SHP facades – including extent, methodology of repairs and proposed finishes – none provided on drawings. Further, details of

'reinstatement' works required to front façade – it is currently unclear as to whether ground floor windows are to be reinstated.

The current heritage façade is in good condition, and requires limited re-instatement works. C&G proposes a Planning Condition with respect to the methodology of repairs, proposed finishes, and reinstatement works. Any such Planning Condition can be agreed with Heritage and provided to SCAP.

2. A section drawing is requested showing the west façade of the State Heritage Place, without the glazed entry building in view, showing intended openings and treatment of openings in wall

This section was provided within C&G's Planning Application (SK3206). C&G proposes a Planning Condition with respect to the intended openings and treatment of openings. Such information would be provided as part of the detailed design process. Any such Planning Condition can be agreed with Heritage and provided to SCAP.

3. A section through the State Heritage Place is also required, to understand the proposed floor levels, roof deck arrangement and rooftop structure.

Please see Further Information attached, which includes the abovementioned section.

4. A streetscape drawing (eye height) is required, from the north side of North Terrace, west of the site, to show the potential visual impact of the rooftop structure on the State Heritage Place.

Please see Further Information attached, which includes the abovementioned section. A North Terrace elevation was provided within C&G's Planning Application (SK3205).

5. The rooftop pavilion is 5m in height. As this is so high, there may be adverse visual impact on the setting of the SHP façades. We consider that lowering of the roof and/ or further setback of the form may assist to alleviate adverse visual impact on the SHP.

The 5m rooftop pavilion matches the glass atrium height. C&G have partially setback portions of the built form to alleviate any suggested adverse visual impact to the SHP. C&G believes that the current design is sympathetic to the adjoining built form and enhances the SHP. Please see Further Information attached, which shows the amended drawings.

A schedule of materials and the arrangement of fenestration forming the rooftop pavilion are required. Further detail of the proposed form, window arrangement and finishes is required.

C&G proposes a Planning Condition with respect to the schedule of materials and finishes. These would be consistent with the schedule of materials provided by Woods Bagot throughout C&G's planning application. Any such Planning Condition can be agreed with Heritage and provided to SCAP.

6. The roof of the SHP is shown as a terrace on one plan and as a louvre roof on another. Please clarify.

C&G confirms the use of louvres.

7. The alignment of the entry façade may adversely visually dominate the SHP within the North Terrace streetscape. The partial setback of the façade, allowing a transition in setback between the neighbouring building to the west and the SHP may assist in alleviating any adverse visual dominance and will also complement the façade setback of the remainder of the heritage place - can this be considered/ modelled.

C&G believes the design is sympathetic in height and scale to the surrounding built-form, including the SHP. Further to this, the site holds a 200 North Terrace address. It must present

correctly to the street holistically, and not solely considering the SHP. As such, the proposed frontage should be maintained.

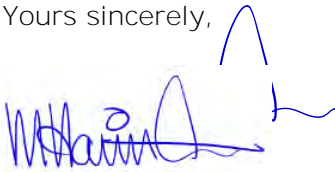
Development Assessment Commission

Thank you for your assistance and confirmation that the Planning Application will be assessed at the SCAP hearing dated 9/10/17. We believe we have provided enough information for SCAP to form an opinion and determine the project at that meeting.

The project is of significant merit and should be approved.

If you have any immediate queries to discuss, please contact either Michael Osborn (0408 808 143) or myself (0439 826 788).

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Mitchell Harrington', with a large, stylized flourish above it.

Mitchell Harrington
Acquisitions & Development Manager
Commercial & General

11 October 2017

Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment - Planning and Development
Department of Planning, Transport and Infrastructure

Dear Karl,

RE: State Commission Assessment Panel – 200 North Terrace, Adelaide

Commercial & General (C&G) provides the following response to the State Commission Assessment Panel regarding the planning application S10/27/2017, and feedback received from referral agencies.

Planning Comments

We have amended our design to incorporate the requested changes to the proposed retail canopy, in accordance with the current City of Adelaide Encroachment Policy. C&G is also aware that the Encroachment Policy is currently being reviewed by Council, and is to be finalised by December 2017. Please see attached the amended plans.

Traffic Comments

Specific responses to queries from ACC:

"Access to the bicycle parking area is proposed solely from the small laneway between Fisher Place and North Terrace. The laneway will require improvements to road surface, lighting and some form of surveillance for this to be a successful connection. Otherwise, cyclists are likely to enter from the main North Terrace entrance as a safer alternative."

It is proposed to include streetscape improvements in the subject lane. This will not only provide for a suitable cyclist access to the end of trip facilities but also connectivity and amenity for pedestrians within the development.

"The traffic report does not reasonably consider impacts with the implementation of the tram and future upgrades to Gawler Place. It attempts to argue some level of proportionality, but level of impact is highly dependent on available capacity, which will be reduced substantially due to lane reductions, increased pedestrian demands and signalling impacts of the tram, as well as a proposed lane reduction on Gawler Place. Intersections operating at close to capacity do not react in a linear nature to additional traffic. The applicant should be made aware of potential long delays for drivers entering and exiting the site."

C&G is aware of the potential delays for traffic movements, and accepts this outcome. Please see the detailed response from MFY (Traffic Engineering) regarding each specific traffic query:

The traffic impacts of the Tram extension on North Terrace and resultant lane/intersection modifications would have presumably been completed as part of the assessment of this project. These analysis, however, were not available to the project team.

While plans have been provided, the traffic impact assessment (TIA) associated with the Tram extension was not. In the absence of this information, the most appropriate mechanism to identify the relativity of any impact associated with the subject development was to use a **comparative model of the intersection with 'existing' volumes and those associated with the development**. Of note is that the impact associated with the proposed upgrade of Gawler Place being completed by Council was also not available at the time of the assessment and this is also relevant to consider in the context of the tram extension analysis.

Capacity and queuing analysis is logarithmic based. There was no suggestion in the report that it has a linear relationship. What the modelling shows is that the forecast volumes associated with the development will be low and the relative impact will be low. These analysis were provided not to predict what the queues and delays will be (because this will be obsolete given the tram extension project) but rather to illustrate the relativity of the increase in volumes. It is acknowledged that the reduced capacity at the intersection will decrease capacity and therefore reduce queues and delays (it was clearly stated in the report that the Tram project will influence the operation of the intersection and that the subject project will therefore be inconsequential in respect to the traffic impact on the road), however it still provides a relative measure to understand that the project will not significantly impact the intersection operation.

The primary issue in respect to traffic generation and capacity will relate to the U-Park facility in Gawler Place. The peak operation of this facility will not simultaneously occur with the peak volumes associated with the development (which will be executive employee based). Accordingly, any impact associated with the development relative to the reduced capacity which will be created by the trams will be less than the existing peak movements associated with the car park.

The increase in queues and delays within the Adelaide CBD will need to be accepted by commuters more widely than in specific locations such as Gawler Place. The increase in public transport will decrease capacity for private vehicles and therefore increase queues and delays. The objective is to provide more public transport options for commuters to then reduce the reliance on private vehicles. Until this balance is achieved there will be some congestion but it is a necessary transition to achieve this goal. The same situation occurred on North Terrace (west of King William Street). Importantly, any traffic associated with this development will be negligible compared with the broader changes to the network associated with the Tram extension and other major public transport works currently being finalised.

"Phase D in the phase diagram used to model the existing arrangement is incorrect."

The model did not utilise the existing phasing as this will be obsolete following completion of the Tram extension project. In the absence of details as to what the phasing will be post these works, the model simply compared a generic intersection phasing pre and post development to understand the relative impacts associated with the small increase in traffic volumes.

"The proposed car park does not provide parking for people with disabilities. Provision of such parking is a requirement under Table Adel/2 in the Development Plan and the Disability (Access to Premises Buildings) Standards 2010."

Provision for parking for disabled persons will readily be provided for in accordance with the requirements of AS/NZS2890.6. This would simply require that a shared area be identified between two spaces. Such a requirement could be facilitated by condition.

"The position of the lift core and stairs should be reviewed to consider potential future opportunities for pedestrian and cyclist access via Fisher Place."

Fisher Place is not a desirable access point for pedestrians or cyclists. It is currently used to service a number of premises and requires that vehicles are reversed along this road. Such a situation is hazardous for vulnerable road users. While the proposal has been designed to provide for turning movements to and from the site in a forward direction, existing retail

tenancies on the southern side of the road do not facilitate such an arrangement and therefore create traffic movements by commercial vehicles that are not safe for pedestrians. The Australian Standard does allow for commercial vehicles to reverse when accessing a loading facility where low traffic movements exist. However, this is not appropriate where there are pedestrian or cyclist movements. Accordingly, it would not be a desirable or safe option to encourage pedestrian or cyclist access along this route, except in emergency situations.

For further clarity on this item, please refer to C&G's ODASA response letter attached.

Survey/Land Tenure Comments

Please refer to the Fyfe advice letter attached.

Waste Comments

Nil

Adelaide Airport Limited Comments

C&G confirm that the development will comply with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996.

Heritage Comments

C&G has not yet received Heritage comments from ACC, and therefore cannot provide feedback. C&G looks forward to receiving this referral advice.

Acoustics Comments

C&G confirm that the development will comply with noise level criteria specified in Environment Protection (Noise) Policy 2007 (under the Environment Protection Act). This includes noise from roof-level plant and equipment relative to adjacent properties, which will also comply with PDC 93 of the Adelaide (City) Development Plan. Sound attenuation devices and visual screening will be implemented as necessary.

Historic Use Comments

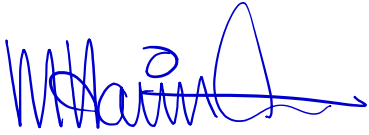
Prior to 1979, the subject land was primarily utilised for warehousing uses, incorporating general goods and trade in the Adelaide Central Business District. Post 1979, the subject land was utilised as a retail complex **known as 'The Gallerie'**. This major commercial precinct was similar in nature **to Melbourne's Jam Factory and Sydney's Birkenhead Point**. The site included upper level office space, fast food outlets, eating areas, gourmet shops, high end fashion, and included direct access to the well-known adjoining emporium John Martins.

In recent years, portions of the subject land have been utilised for uses such as art installations, fringe events, retail stores, and licenced venues. The site currently remains vacant in preparation for Planning Approval and construction commencement.

The proposed land use within application S10/27/2017 is similar in nature to the historic uses being retail and commercial. Given the site and location context, the proposed use should therefore not be considered sensitive in light of the previous uses on the site.

If you have any immediate queries, please contact either Michael Osborn (0408 808 143) or myself (0439 826 788).

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Mitchell Harrington', with a stylized flourish extending to the right.

Mitchell Harrington
Acquisitions & Development Manager
Commercial & General

11 October, 2017

Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street, Adelaide SA 5000

Dear Karl,

200 North Terrace Project – Response to ODASA Recommendations Letter

I am writing in relation to the above project and the associated ODASA Recommendations Letter dated 21 September 2017.

The intent of this letter is to provide a response to seven key items in the closing paragraph of the Recommendations Letter, for which ODASA suggest consideration is warranted.

The proponent accepts the use of planning conditions where viewpoints are aligned and further design development required. However we believe that first two points below are fundamental to the design and should be resolved accordingly.

We note that at the time of writing this letter we have not received comments from the State Heritage branch referral; hence for items pertaining to heritage considerations the comments below refer to ODASA feedback only.

ODASA comments with Commercial & General responses are as follows:

- Provision of a greater setback of the new built form and generosity of space at the ground level to further reinforce the prominence of the new development and maximise visibility of the heritage fabric of the G & R Wills & Co building including the 3D form to North Terrace.

This comment refers to the line of the forecourt canopy relative to the North Terrace site boundary. As the primary commercial identity at street level, we feel that it is appropriate for the canopy and entry experience to address North Terrace at the site boundary and to align with the existing commercial building (Bagot House) to the immediate west. We note that the entire tower form of the 200 North Terrace development will be set back significantly within the site, and that the canopy will provide amenity to the public along a boulevard which is largely devoid of shelter from the weather.

We also note that the proposed canopy and entry occupies the footprint of the existing building at 199 North Terrace. The proposed design represents a significant improvement over the existing condition, both in terms of visibility of the heritage building from North Terrace and meaningful interaction along its eastern elevation (which is currently inaccessible).

Furthermore, we note that the Adelaide (City) Development Plan contains many principles which reinforce an expectation for a built form edge to North Terrace. For example:

20 Development along North Terrace should reinforce the predominant scale and 'City wall' character of the Terrace frontage.

179 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

- Further consideration of the location of the lift cores at the southern portion of the site to maximise opportunities for any future pedestrian connections to Fisher Place direct from North Terrace.

We have considered the suggestion to provide pedestrian flow-through from North Terrace to Fisher Place, utilising separate lift cores aligned with the external two-tower form, but have found that the compromises introduced outweigh the potential benefit.

A key element of the design is the compact lift core which enables large contiguous floor plates, including views to north and south, which are a response to tenant demand and required to achieve a commercial outcome for the site. Splitting the lift core will compromise this outcome, as well as creating issues for wayfinding and lift waiting times.

Given that the forecourt entry (from North Terrace) is associated with the commercial identity of the building, we believe it is fitting for the commercial lobby to be an intermediate destination rather than a thoroughfare. The permeability of the lobby is also constrained by security requirements, and the notion of accessing the commercial lift core from a secondary entrance to Fisher Place is not supported from this perspective.

We note that Fisher Place – and particularly the eastern end (dead-end) – is expected to carry vehicular traffic rather than pedestrian activity, given the carparking and servicing requirements for both 200 North Terrace and the rear of Rundle Mall retail tenancies. The Design Review Panel generally supported the philosophy of vehicle access via Fisher Place, separate from pedestrian and bicycle access to the site.

Notwithstanding the above, the design has evolved to enable the Retail Tenancy on the Gawler Place frontage to also address the western end of Fisher Place, which is expected to be the activated portion of this laneway.

- Further consideration of the vertical void spaces as 'winter gardens' with indoor/outdoor qualities to continue the spatial sequence and experience from the ground plane to the tower with the view to strengthening the visual simplicity of the link.

The possibility of indoor/outdoor or naturally ventilated voids will be explored with potential tenants as leasing and detailed design progresses. Ultimately the form and function of these

spaces will respond to tenant requirements, although we are committed to retaining the design principle of a continuous activated link from the forecourt up through the tower.

- Further consideration of a greater open space provision and reduction of building mass to the rooftop of the heritage building.

The rooftop area of the heritage building is proposed as a publicly-accessible retail space, and the ratio of indoor/outdoor area at this level will also respond to tenant considerations, noting that a level of amenity will be required i.e. weather protection. The design will ensure that the character of the heritage building, as perceived from street level, is not negatively impacted.

- Design development of the south facade of the west tower to assist in mitigating the scale of the development and reinforcing the overall built form composition and proportions.

The façade detailing and articulation will be developed through further design, and the project team will incorporate the Government Architect's suggestion to refine the façade articulation to break down the scale of the western tower and to reinforce the composition and proportions of the built form.

- Development of a signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation.

This point is agreed, and we are not averse to a Planning Condition to this effect.

- A high quality of external materials supported by the provision of a materials samples board.

The use of high quality external materials is agreed and entirely consistent with the objectives of this project.

We note that a preliminary materials palette has been provided as part of the planning submission, and that the Design Review Panel were supportive of the quality of materials proposed.

Yours sincerely



Tony Perrin
Design Manager

CC - Michael Osborn, Fyfe
Thomas Masullo, Woods Bagot



File No:
2014/11234/01

21 September 2017

Ref No:
11916102

Mr Karl Woehle
Planning Officer
Development Division
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

For the attention of the State Commission Assessment Panel

200 North Terrace, Adelaide

Further to the referral DA 020/A055/17 received 24 August 2017 and additional information provided on 8 September 2017 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I would like to offer the following comments for your consideration.

The project was presented to the Design Review panel on one occasion prior to lodgement.

I support the proposal for a mixed use development on this site and the ambition of the project team to positively contribute to the streetscape, pedestrian experience and city amenity. Development of this site presents a rare opportunity due to the site's central location within the city of Adelaide. Given the site's location and the scale of the development, the proposal will become a significant backdrop to North Terrace. I am of the opinion that any development on this site has a responsibility to deliver a high benchmark for design. Fulfilling this responsibility will be contingent on achieving a high quality design outcome particularly in terms of the massing, architectural expression, materiality, contribution to the public realm, workplace amenity and expression of the proposed building relative to its current and future context.

The subject site is located on the south side of North Terrace, addressing the North Terrace cultural boulevard and Gawler Place, and is proximate to Rundle Mall. The subject site is T-shaped, and includes a 28 metre frontage comprising two existing buildings to North Terrace and extends to Fisher Place to the south, and Gawler Place to the west. The east building on the site fronting to North Terrace is the State heritage listed former G & R Wills & Co warehouse located at 201-202 North Terrace. This building was constructed in 1865 and is the west portion of a pair of buildings. The east portion of the pair of buildings located at 203 North Terrace was completed in 1878. This portion has an existing planning consent for adaptive reuse of the State heritage listed building and construction of a 19 storey tall (73 metre) mixed use tower for retail, commercial and residential uses with above ground car parking accessed from North Terrace. An existing easement is located to the rear of the 203 North Terrace site.

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File No:
2014/11234/01

Ref No:
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The pair of G & R Wills & Co buildings are stepped in plan along the North Terrace frontage, with the west portion recessed by approximately four metres. An existing disused nightclub, built in the 1980s, is located on the western side of the G & R Wills & Co buildings and is proposed to be demolished to provide a new entrance to the development addressing North Terrace. To the west of the subject site at 198 North Terrace is a five storey office building named Bagot House. The site also includes the former Gallerie Shopping Centre at 20 Gawler Place that extends between an unnamed laneway to the north and Fisher Place to the south. The building is predominantly five storeys tall with a patterned and articulated red brick facade. This brick building and the rear of the Rundle Mall State heritage listed Balfours building contribute to the fine grain character of Fisher Place.

The project interfaces with two city projects, Adelaide City Council's Gawler Place Upgrade and the State Government's City Tram extension project. Adelaide City Council plans to upgrade Gawler Place to establish a 'contemporary, pedestrian-focused link connecting to the heart of the Rundle Mall Precinct'. The upgrade aims to reinforce Gawler Place as a smart, green and safe destination that reinforces the link between the Riverbank, the cultural precinct of North Terrace, the transport corridor of Grenfell Street and the wider CBD. The concept design proposes new paving, lighting, tree planting and seating. Fisher Place to the south of the subject site is outside the scope of the upgrade, however the Gawler Place Upgrade concept design includes private vehicle access to the laneway at all times. The subject site is served well by public transport, with a tram stop to be constructed on North Terrace as part of the City Tram extension project. Bus stops are also located on North Terrace, and the Adelaide Railway Station is located approximately 500 metres to the west of the site.

I strongly support the project team's approach to consider the site as a precinct and the unique opportunities that a project of this scale and significance can offer this part of the city. The proposal includes an activated link insertion at the ground plane between the G & R Wills & Co building and Bagot House. This link also extends vertically to separate the building into two tower elements. In my view, the simplicity and clarity of the urban strategy of the activated link insertion is critical to the success of the project and requires detailed consideration of the pedestrian experience in terms of scale, environment, materiality and visual perception of movement in the upper storeys.

The project proposes primary pedestrian access to the site from North Terrace and secondary access provided along a small public unnamed laneway between North Terrace and Fisher Place. This laneway will also be used for cyclist access to End of Trip facilities and secure bicycle storage. Vehicle access is separated from the primary pedestrian and bicycle access routes and provided via Fisher Place located to the south of the subject site. Fisher Place is a two way laneway with a dead end and provides service access to several businesses fronting to Rundle Mall. I support the separation between the pedestrian and cyclist access from vehicle access, and acknowledge the extension of the Gawler Place retail frontage to Fisher Place to provide additional activation. However I remain of the view that further consideration of the location of the lift cores at the southern portion of the site will assist in maximising opportunities for any future pedestrian connections to Fisher Place direct from North Terrace.

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I encourage the design team to continue discussions with Adelaide City Council with the view to achieving mutually appropriate connections to Gawler Place and implementation of landscaping to assist with wind mitigation as detailed in the wind assessment report. In my view, the revitalisation of the laneways as safe and welcoming public spaces and provision of meaningful connections to the wider Rundle Mall precinct should reinforce the existing fine grain character of the laneways, and be informed by building management, traffic, lighting and landscaping strategies.

The north facade of the new built form to North Terrace is proposed to align in plan with the adjacent Bagot House. In my view, the opportunity exists to further reinforce the prominence of the new development on North Terrace by provision of a greater setback of the new built form and generosity of space at the ground level. The proposed height of the new forecourt built form is 15 metres with the intent to transition between the height of the G & R Wills & Co building and adjacent Bagot House. The ground plane is proposed as an internal forecourt that expresses the commercial identity and is integrally linked to the commercial foyer serving the tower elements. In my view, an opportunity exists on this unique site to deliver a forecourt that is a seamless extension of the public realm into the site and maximises active, visible and physical connections from North Terrace to Gawler Place. The ceiling of the internal forecourt is proposed to include a lowered section at the entrance, allowing for a first floor level balcony fronting to North Terrace. In my view, the lowered ceiling at this location has the potential to create a threshold experience and preclude legibility of the extension of the public realm into the site. I recommend further consideration of the scale and volume of the internal forecourt with the view to developing a space that affords meaningful and unobstructed engagement between the internal forecourt and the public realm. I also recommend further consideration of the environmental quality of the internal forecourt as an indoor/outdoor space, to assist in delivery of the project ambition. As the activated link progresses to the upper levels, I also recommend consideration of the vertical void spaces as 'winter gardens' with indoor/outdoor qualities to continue the spatial sequence and experience from the ground plane to the tower with the view to strengthening the visual simplicity of the link. In my view, the materiality and crafting of the space and scale of the inner forecourt and foyer, and the visibility of movement in the upper storeys, are critical to the success of the link insertion, and have the potential to provide a rich experience and strong identity for the building within the city.

Acknowledging the publicly accessible rooftop to the G & R Wills & Co building, and the perceived security and public safety considerations expressed by the project team, I remain of the view that a sky garden within the tower elements as a further extension of the activated link, and gesture to the public given the unique and rare opportunity for expansive views to the north of the city from a high level should be considered.

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The proposal includes retention of the north, east and part west facades of the State heritage listed former G & R Wills & Co warehouse. I recommend further consideration to maximise visibility of the heritage fabric of the building including the 3D form to North Terrace.



File No:
2014/11234/01

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11916102

The proposal includes a publicly accessible rooftop to the heritage building with a new retail pavilion. I support the provision of a public open space and pavilion at this location however I recommend further consideration of a greater open space provision and reduction of building mass at this level.

The proposal is for a 19-20 storey tall building comprising a fully glazed commercial office tower above a retail podium. The tower is set back from North Terrace and limited to the southern portion of the site. It is expressed externally as two elements, with the east element proposed as 19 levels with an above ground height of 80.45 metres and the west element proposed as 20 levels with an above ground height of 85.4 metres. I acknowledge the subject site is in an area where there is no height limit envisaged in the Development Plan and support the proposed height in principle. I support the setback of the tower elements from North Terrace and the resultant generosity of space provided to the G & R Wills & Co building. I also support the massing strategy that articulates the tower as two elements with a view to reducing the overall perceived bulk of the building and providing opportunities for the activated link insertion that provides connectivity from the ground plane up to the vertical void between the two tower elements.

The design intent is to express the towers as two elements that vary in height and facade articulation. I acknowledge the tenant demands for contiguous floor plates, and the height differentiation provided through the allocation of roof space, however, I recommend further consideration of a greater variance between the two towers in height and articulation to further reinforce the design intent. The facade of the west tower intends to reference the existing brick building fronting to Gawler Place that is proposed to be demolished. I support the design approach to reference the pattern and facade articulation of this building. I also support the project team's commitment to use high quality materials for performance driven facades. I anticipate as the design progresses, further consideration will be given to the thermal modelling, and management of solar loads with solar shading and facade materiality. I also anticipate the articulation of the northern facade will respond to the planning consent for 203 North Terrace with the view to mitigate potential overlooking. The proposed scale of the towers will result in a high degree of visibility in 360 degrees. I encourage the design team to further consider the development as a building in the round. I acknowledge the design development to simplify the built form to present as two elements. In my view, further articulation of the south facade of the west tower may assist in mitigating the scale of the development and reinforcing the overall built form composition and proportions. I also recommend development of a signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation.

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The proposal includes office space with large floor plates, expansive views and interconnecting void spaces throughout the building. I support the three storey voids within the office floors and the contribution they provide in activating the link when viewed from street level. I acknowledge ongoing discussions with workplace tenants and recommend consideration of future adaptability for the office floors that may include stair connections between multi-level spaces to support communication between floors.



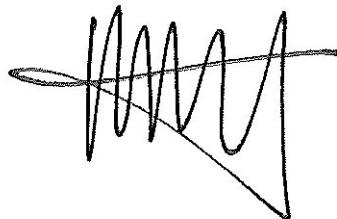
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2014/11234/01

Ref No:
11916102

To ensure the most successful design outcome is achieved, the State Commission Assessment Panel may wish to consider particular aspects of the project that would benefit from protection as part of the planning permission such as:

- Provision of a greater setback of the new built form and generosity of space at the ground level to further reinforce the prominence of the new development and maximise visibility of the heritage fabric of the G & R Wills & Co building including the 3D form to North Terrace.
- Further consideration of the location of the lift cores at the southern portion of the site to maximise opportunities for any future pedestrian connections to Fisher Place direct from North Terrace.
- Further consideration of the vertical void spaces as 'winter gardens' with indoor/outdoor qualities to continue the spatial sequence and experience from the ground plane to the tower with the view to strengthening the visual simplicity of the link.
- Further consideration of a greater open space provision and reduction of building mass to the rooftop of the heritage building.
- Design development of the south facade of the west tower to assist in mitigating the scale of the development and reinforcing the overall built form composition and proportions.
- Development of a signage strategy that is an integral element of the overall architectural expression and also considers its night-time presentation.
- A high quality of external materials supported by the provision of a materials samples board.

Yours sincerely



Kirsteen Mackay
South Australian Government Architect

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Ref: SH/13365D
Date: 30 October 2017

Secretary - Ms Alison Gill
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Attention: Karl Woehle

Dear Mr Woehle

DESCRIPTION: DEMOLITION NON-HERITAGE BUILDINGS, ADDITIONS TO RETAINED BUILDINGS AND CONSTRUCTION OF A MULTI-STOREY MIXED USE BUILDING AT 200 NORTH TERRACE, ADELAIDE

Application number: 020/A055/17
Referral received: 24/08/2017
State heritage place: SH/13365—The Gallerie Shopping Centre (former G & R Wills Warehouse), 201-202 North Terrace ADELAIDE
SH/13367—Office (former Consulting Rooms) and former G & R Wills Warehouse, 203-207 North Terrace ADELAIDE

The above application has been referred to the Minister for Sustainability, Environment and Conservation in accordance with Section 37 of the *Development Act 1993* as development that directly affects a State heritage place or, in the opinion of the relevant authority, materially affects the context within which a State heritage place is situated.

Subject to the recommendation set out below, the proposed development is considered to be acceptable in relation to the above State heritage places for the following reason/s.

- The proposed partial demolition of external walls and the demolition of all the internal floor structure, stairs and roof does not adversely directly affect the heritage fabric of the place, as these elements are contemporary in construction, or their historic integrity is low, having been significantly altered over time.
- The proposed entry lobby building facing North Terrace is compatible in scale and form, and features recessed wall junctions abutting the State heritage place, resulting in a compatible development within the streetscape of North Terrace.
- The proposed tower building behind is of sufficient setback to not interrupt or visually dominate the historic and consistent roof line of State Heritage places and other adjacent buildings along North Terrace, maintaining the scale of streetscape, supporting the setting of the State heritage places.

Recommendation

A. The following condition/s should be incorporated into any consent or approval.

Condition 1: A detailed photographic survey cross referenced to drawings shall be undertaken of the interior, roof and southern façade of the State heritage place, after the stripping out and demolition of non-historic fabric and before the demolition of any historic fabric of the place. The survey shall be submitted to the satisfaction of the planning authority in consultation with the Department of Environment, Water and

Natural Resources. A separate copy shall be provided to the Department of Environment, Water and Natural Resources.

Reason for condition: The information will be valuable as a historic record to assist the future understanding of the State heritage place.

Condition 2: Details and conservation methodology for the conservation of the remaining north and west facades of the State heritage place to be provided and details of proposed window and doors to be provided, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.

Reason for condition: To ensure appropriate conservation practice is followed and to ensure detailing of reinstated elements is appropriate to the heritage values of the State heritage place. Details not provided in submitted documentation.

Condition 3: Details of the new openings (arrangement and extent of openings and details of trimming of openings) proposed in the western wall of the State heritage place to be provided, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.

Reason for condition: To confirm opening sizes, extent and detailing – yet to be resolved on submitted documentation.

Condition 4: Details of the excavation/ construction methodology of the proposed lowered basement construction, especially at the interface with existing footings of the State heritage place, to be provided to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.

Reason for condition: Details of proposed basement lowering work not provided in submitted documentation.

Condition 5: Design details of the proposed roof top structure on the roof of the State heritage place to be resolved (including an appropriate height, plan footprint, balustrading and materials) to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources. Documentation should include plans, detailed elevations and a streetscape view from the north side of North Terrace.

Reason for condition: Insufficient detail provided on submitted documentation and proposed height considered potentially dominant when viewed from the streetscape, but visual impact difficult to assess without better resolved design intent and documentation.

Condition 6: A construction vibration management plan is to be submitted for approval, showing how risks to the State heritage places will be managed, to the satisfaction of the planning authority in consultation with the Department of Environment, Water and Natural Resources.

Reason for condition: No vibration management plan submitted and there are reasonable risks to the remaining building fabric of the State heritage places during construction.

Condition 7: Design details of the proposed fixing of support framing and floor slabs to **the rear of the State heritage place's facades required, to the satisfaction of** the planning authority in consultation with the Department of Environment, Water and Natural Resources.

Reason for condition: Insufficient detail provided on submitted documentation and detailing may pose a risk to heritage fabric.

General notes

1. Should Council not adopt the above recommendation in full, it will be necessary to obtain the concurrence of the Development Assessment Commission before a decision is conveyed to the applicant.
2. Any changes to the proposal for which planning consent is sought or granted may give rise to heritage impacts requiring further consultation with the Department of Environment, Water and Natural Resources, or an additional referral to the Minister for Sustainability, Environment and Conservation. Such changes would include for example (a) an application to vary the planning consent, or (b) Building Rules documentation that incorporates differences from the proposal as documented in the planning application.
3. To ensure a satisfactory heritage outcome, Council is requested to consult the Department of Environment, Water and Natural Resources in finalising any conditions or reserved matters above.
4. In accordance with Regulation 43 of the *Development Regulations 2008*, please send the Department of Environment, Water and Natural Resources a copy of the Decision Notification.
5. Council is requested to inform the applicant of the following requirements of the *Heritage Places Act 1993*.
 - (a) If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified.
 - (b) Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

For further information, contact the Department of Environment, Water and Natural Resources.
6. Council is requested to inform the applicant of the following requirements of the *Aboriginal Heritage Act 1988*.
 - (a) If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the *Aboriginal Heritage Act 1988*.

Any enquiries in relation to this application should be directed to Michael Queale on telephone (08) 8207 7711 or e-mail michael.queale@sa.gov.au.

Yours sincerely



Michael Queale
 Senior Heritage Conservation Architect
 Department of Environment, Water and Natural Resources
as delegate of the
 MINISTER FOR SUSTAINABILITY, ENVIRONMENT AND CONSERVATION

22 September 2017

Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

To Whom It May Concern,

DEVELOPMENT NUMBER: DA 020/A055/17
APPLICANT: C and G Development Management Pty Ltd
NATURE OF DEVELOPMENT: Multi Story Mixed Use Building
SUBJECT LAND: 12-20 Gawler Place and 199-200 North Terrace Adelaide SA 5000

The application has been assessed and at a height of RL 129.6m AHD the application **will** penetrate the Adelaide Airport Obstacle Limitation surfaces (OLS) which is protected airspace for aircraft operations.

The application will require approval in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996 and therefore will be forwarded to the Department of Infrastructure and Regional Development for their approval.

The developments will penetrate the OLS by approximately 3metres.

If the development is approved by the Department of Infrastructure and Regional Development any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.

Crane operations associated with construction, if approved, will also be subject to a separate application.

Should you require any additional information or wish to discuss this matter further please contact the undersigned on 8308 9245.

Yours sincerely,



Brett Eaton
Airside Operations Manager

Enquiries: **Seb Grose 8203 7195**
Reference: **F/S10/0027/2017**

29 September 2017

State Commission Assessment Panel
By email: scapadmin@sa.gov.au

Attention: Mr Robert Kleeman

Dear Mr Kleeman

Application: S10/27/2017

Applicant: Mr A J Cointreau and Ms H M L Cointreau

Address: 12-20 Gawler Place, ADELAIDE SA 5000

Description: Demolish existing building structures and redevelop existing state heritage buildings and construct a 20 storey mixed used building comprising of retail and commercial space with car and bike parking, signage and landscaping with entrance foyer from North Terrace and Gawler Place.

Council has the following comments to make regarding the above application:

Planning Comments

- The canopy proposed to extend west over Gawler Place does not meet the City of Adelaide Encroachment Policy as follows:
 - Is not setback at least 600mm from all kerbs. For Gawler Place this means from the line of paving that differentiates the eastern portion of the loading area from the footpath. The footpath will have a width of 2.6 metres as shown on Figures 1 and 2.
 - Is not setback at least 600mm behind the tactile pavers for Fisher Place and the laneway to the north as shown in Figures 1 and 2; and
 - Is proposed with a height of 4.8 metres above footpath level. This is well above the maximum 3.7 metre requirement.
- Further to a meeting held with Council Administration on 18 September 2017, the applicant has been advised, by email also dated 18 September 2017, to review the proposal with a view to ensuring the canopy satisfies the Encroachment Policy.

- The above is particularly relevant considering the Encroachment Policy is currently being reviewed by Council. The amended Encroachment Policy is not expected to be finalised until at least December 2017. In the meantime, waivers to the Policy are not being considered by Council during the review process. Therefore, it is imperative that the proposal is amended to satisfy the Policy.

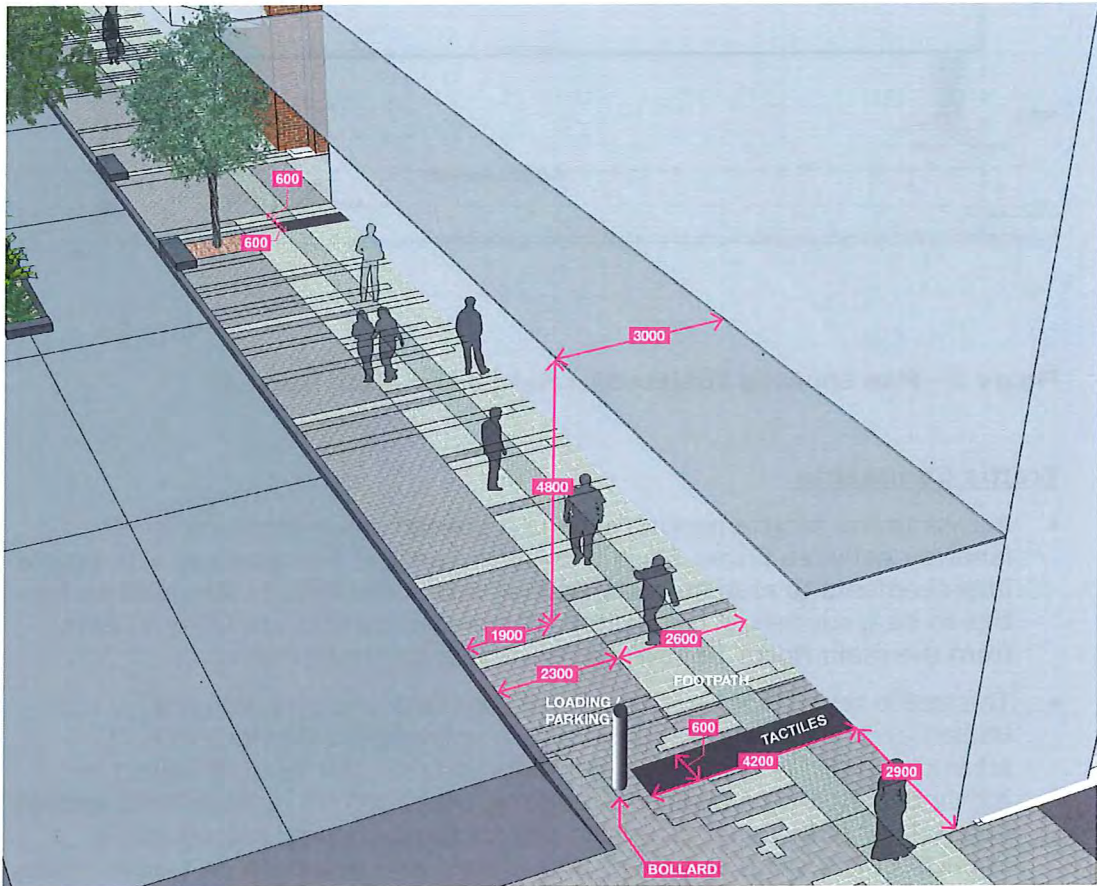


Figure 1 - 3D Perspective of Proposal & Gawler Place Upgrade

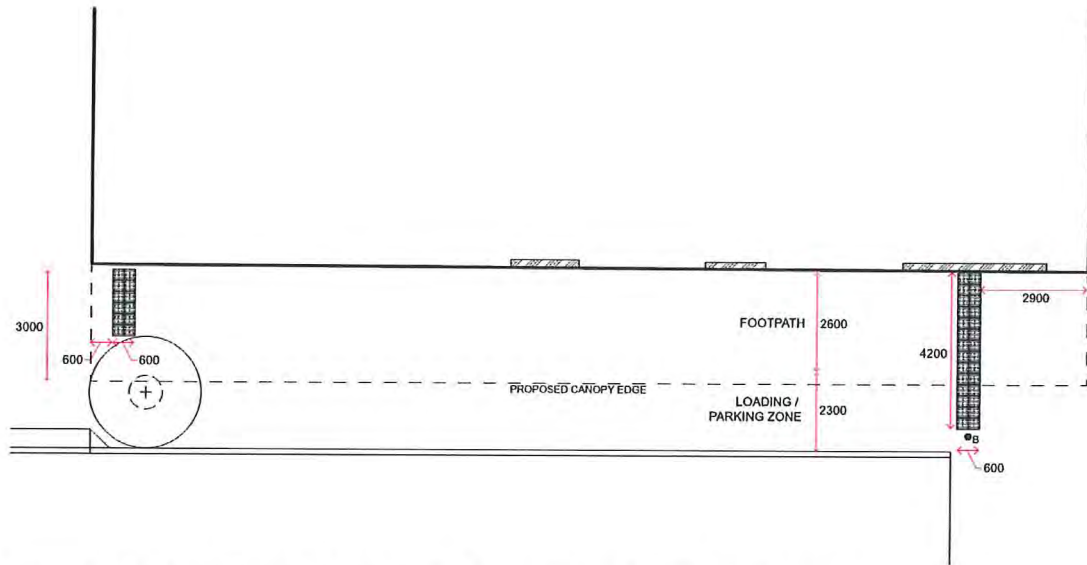


Figure 2 - Plan Showing Subject Site and Gawler Place Upgrade

Traffic Comments

- Access to the bicycle parking area is proposed solely from the small laneway between Fisher Place and North Terrace. The laneway will require improvements to road surface, lighting and some form of surveillance for this to be a successful connection. Otherwise, cyclists are likely to enter from the main North Terrace entrance as a safer alternative.
- The traffic report does not reasonably consider impacts with the implementation of the tram and future upgrades to Gawler Place. It attempts to argue some level of proportionality, but level of impact is highly dependent on available capacity, which will be reduced substantially due to lane reductions, increased pedestrian demands and signalling impacts of the tram, as well as a proposed lane reduction on Gawler Place. Intersections operating at close to capacity do not react in a linear nature to additional traffic. The applicant should be made aware of potential long delays for drivers entering and exiting the site.
- Phase D in the phase diagram used to model the existing arrangement is incorrect.
- The proposed car park does not provide parking for people with disabilities. Provision of such parking is a requirement under Table Adel/2 in the Development Plan and the Disability (Access to Premises – Buildings) Standards 2010.
- The position of the lift core and stairs should be reviewed to consider potential future opportunities for pedestrian and cyclist access via Fisher Place.

Survey/Land Tenure Comments

- The western portion of Fisher Place is a public road. The eastern portion is a private road. The proposed development relies on access to the eastern portion of Fisher Place. However, according to the Certificates of Title for the subject land it appears there is no legal entitlement to use the eastern portion of Fisher Place.

Waste Comments

- From a review of the plans and consultancy reports, it appears the functional requirements have been met for the waste operations of the proposed development.

Yours faithfully



Rebecca Rutschack

TEAM LEADER - PLANNING ASSESSMENT

Central Business Policy Area 13

Introduction

The Objectives and Principles of Development Control that follow apply to the Policy Area as shown on [Maps Adel/49, 50, 55 and 56](#). They are additional to those expressed for the Zone and, in cases of apparent conflict, take precedence over the Zone provisions. In the assessment of development, the greatest weight is to be applied to satisfying the Desired Character for the Policy Area.

DESIRED CHARACTER

The Central Business Policy Area is the pre-eminent economic, governance and cultural hub for the State. This role will be supported by educational, hospitality and entertainment activities and increased opportunities for residential, student and tourist accommodation.

Buildings will exhibit innovative design approaches and produce stylish and evocative architecture, including tall and imposing buildings that provide a hard edge to the street and are of the highest design quality. A wide variety of design outcomes of enduring appeal are expected. Complementary and harmonious buildings in individual streets will create localised character and legible differences between streets, founded on the existing activity focus, building and settlement patterns, and street widths.

OBJECTIVES

- Objective 1:** A concentration of employment, governance, entertainment and residential land uses that form the heart of the City and central place for the State.
- Objective 2:** Development of a high standard of design and external appearance that integrates with the public realm.
- Objective 3:** Development that contributes to the Desired Character of the Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 Development should contribute to the area's role and function as the State's premier business district, having the highest concentration of office, retail, mixed business, cultural, public administration, hospitality, educational and tourist activities.
- 2 Buildings should be of a height that ensures airport operational safety is not adversely affected.
- 3 To enable an activated street level, residential development or similar should be located above ground floor level.

CAPITAL CITY ZONE

Introduction

The Desired Character, Objectives and Principles of Development Control that follow apply in the whole of the Capital City Zone shown on [Maps Adel/17 to 20, 23 to 26 and 29 to 31](#). They are additional to those expressed for the whole of the Council area and in cases of apparent conflict, take precedence over the more general provisions. In the assessment of development, the greatest weight is to be applied to satisfying the Desired Character for the Zone.

DESIRED CHARACTER

This Zone is the economic and cultural focus of the State and includes a range of employment, community, educational, tourism and entertainment facilities. It is anticipated that an increased population within the Zone will complement the range of opportunities and experiences provided in the City and increase its vibrancy.

The Zone will be active during the day, evening and late night. Licensed entertainment premises, nightclubs and bars are encouraged throughout the Zone, particularly where they are located above or below ground floor level to maintain street level activation during the day and evening.

High-scale development is envisaged in the Zone with high street walls that frame the streets. However an interesting pedestrian environment and human scale will be created at ground floor levels through careful building articulation and fenestration, frequent openings in building façades, verandahs, balconies, awnings and other features that provide weather protection.

In important pedestrian areas, buildings will be set back at higher levels above the street wall to provide views to the sky and create a comfortable pedestrian environment. In narrow streets and laneways the street setback above the street wall may be relatively shallow or non-existent to create intimate spaces through a greater sense of enclosure. In the Central Business Policy Areas, upper level setbacks are not envisaged.

Non-residential land uses at ground floor level that generate high levels of pedestrian activity such as shops, cafés and restaurants will occur throughout the Zone. Within the Central Business Policy Area, residential land uses at ground level are discouraged. At ground level, development will continue to provide visual interest after hours by being well lit and having no external shutters. Non-residential and / or residential land uses will face the street at the first floor level to contribute to street vibrancy.

New development will achieve high design quality by being:

- (a) **Contextual** – so that it responds to its surroundings, recognises and carefully considers the adjacent built form, and positively contributes to the character of the immediate area.
- (b) **Durable** – by being fit for purpose, adaptable and long lasting, and carefully considers the existing development around it.
- (c) **Inclusive** – by integrating landscape design to optimize pedestrian and cyclist usability, privacy, and equitable access, and also promote the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimize security and safety both internally and into the public realm, for occupants and visitors alike.
- (d) **Sustainable** – by integrating sustainable systems into new buildings and the surrounding landscape design to improve environmental performance and minimise energy consumption.
- (e) **Amenable** – by providing natural light and ventilation to habitable spaces.

Contemporary juxtapositions will provide new settings for heritage places. Innovative design is expected in areas of identified street character with an emphasis on contemporary architecture that responds to site context and broader streetscape, while supporting optimal site development. The addition of height, bulk and massing of new form should be given due consideration in the wider context of the proposed development.

There will also be a rich display of art that is accessible to the public and contextually relevant.

Adelaide's pattern of streets and squares

The distinctive grid pattern of Adelaide will be reinforced through the creation of a series of attractive boulevards as shown on Concept Plan [Figures CC/1 and 2](#). These boulevards will provide a clear sense of arrival into the City and be characterised by buildings that are aligned to the street pattern, particularly at ground level.

Views to important civic landmarks, the Park Lands and the Adelaide Hills will be retained as an important part of the City's charm and character.

The City's boulevards, terraces and Squares will be developed as follows:

- (a) North Terrace will be reinforced as an important pedestrian promenade and cultural boulevard that provides an important northern edge to the City square mile.
- (b) King William Street will be enhanced as the City's principal north-south boulevard and will be reinforced as the City's commercial spine.
- (c) Grote Street-Wakefield Street will be enhanced as the City's principal east-west boulevard and will be developed to provide a strong frame that presents a sense of enclosure to the street.
- (d) East Terrace will be characterised by buildings that maximise views through to the Park Lands and provide a distinct City edge.
- (e) West Terrace will be reinforced as the western 'gateway' to the City centre and will form an imposing frontage to the western City edge. Buildings will be constructed to the front and side boundaries, and designed to maximise views through to the Park Lands. Corner sites at the junctions of West Terrace and the major east-west streets will be developed as strongly defined visual gateways to the City. This will provide an imposing frontage to the western edge of the City, which comprises a mixture of commercial, showroom and residential development.
- (f) Pulteney and Morphet streets are key north-south boulevards. A sense of activation and enclosure of these streets will be enhanced through mixed use development with a strong built form edge. Pulteney Street will include residential, office and institutional uses, and retail activities. These boulevards will become important tree-lined commercial corridors.
- (g) Currie, Grenfell, Franklin and Flinders streets, as wider east-west boulevards provide important entry points to the City. Currie and Grenfell streets will become a key focus for pedestrians, cycling and public transport. These streets also provide long views to the hills as their closing vistas and these view corridors should remain uncluttered.
- (h) Victoria, Hindmarsh and Light Squares will have a continuous edge of medium to high-scale development that frames the Squares and increases ground level activity.

The Zone also includes a number of Main Street areas, encompassing Rundle Mall, Rundle Street, Hindley Street and Gouger Street, which are envisaged to have a wide range of retail, commercial and community uses that generate high levels of activity. These areas will have an intimately scaled built form with narrow and frequent building frontages. These areas are shown on Concept Plan [Figures CC/1 and 2](#).

Development fronting North Terrace, King William Street, Wakefield Street, Grote Street, the Squares, and in the Main Street Policy Area, will reflect their importance through highly contextual design that reflects and responds to their setting and role.

Minor streets and laneways will have a sense of enclosure (a tall street wall compared to street width) and an intimate, welcoming and comfortable pedestrian environment with buildings sited and composed in a way that responds to the buildings' context. There will be a strong emphasis on ground level activation through frequent window openings, land uses that spill out onto the footpath, and control of wind impacts.

Development in minor streets and laneways with a high value character will respond to important character elements and provide a comfortable pedestrian environment, particularly in the following streets: Gray, Leigh, Union, Chesser, Coromandel, Tucker, Cardwell, Kenton, Market, Ruthven, Cannon, Tatham, Bentham streets, Murrays Lane and Wright Court.

A comprehensive, safe and convenient movement network throughout the City will develop, focusing on the provision of linkages on both public and private land between important destinations and public

transport. A high quality system of bicycle or shared pedestrian and bicycle routes will be established within the Zone.

OBJECTIVES

General

- Objective 1:** The principal focus for the economic, social and political life of metropolitan Adelaide and the State.
- Objective 2:** A vibrant mix of commercial, retail, professional services, hospitality, entertainment, educational facilities, and medium and high density living.
- Objective 3:** Design and management of City living to ensure the compatibility of residential amenity with the essential commercial and leisure functions of the Zone.
- Objective 4:** City streets that provide a comfortable pedestrian environment.
- Objective 5:** Innovative design approaches and contemporary architecture that respond to a building's context.
- Objective 6:** Buildings that reinforce the gridded layout of Adelaide's streets and respond to the underlying built-form framework of the City.
- Objective 7:** Large sites developed to their full potential while ensuring a cohesive scale of development and responding to a building's context.
- Objective 8:** Development that contributes to the Desired Character of the Zone.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following types of development, or combinations thereof, are envisaged:

Affordable housing
Aged persons accommodation
Community centre
Consulting room
Convention centre
Dwelling
Educational establishment
Emergency services facility
Hospital
Hotel
Indoor recreation centre
Licensed entertainment premises
Library
Motel
Office
Pre-school
Personal service establishment
Place of worship
Serviced apartment
Restaurant
Residential flat building
Student accommodation
Shop or group of shops
Tourist accommodation

- 2 Land uses that are typically closed during the day should be designed to maximise daytime and evening activation at street level and be compatible with surrounding land uses, in particular residential development.
- 3 Low impact industries should be located outside the Central Business Policy Area and have minimal off-site impacts with respect to noise, air, water and waste emissions, traffic generation and movement.
- 4 Development listed as non-complying is generally inappropriate.

Form and Character

- 5 Development should be consistent with the Desired Character for the Zone.

Design and Appearance

- 6 Development should be of a high standard of architectural design and finish which is appropriate to the City's role and image as the capital of the State.
- 7 Buildings should achieve a high standard of external appearance by:
 - (a) the use of high quality materials and finishes. This may be achieved through the use of materials such as masonry, natural stone, prefinished materials that minimise staining, discolouring or deterioration, and avoiding painted surfaces particularly above ground level;
 - (b) providing a high degree of visual interest through articulation, avoiding any large blank facades, and incorporating design features within blank walls on side boundaries which have the potential to be built out;
 - (c) ensuring lower levels are well integrated with, and contribute to a vibrant public realm; and
 - (d) ensuring any ground and first floor level car parking elements are sleeved by residential or non-residential land uses (such as shops, offices and consulting rooms) to ensure an activated street frontage.
- 8 Buildings should present an attractive pedestrian-oriented frontage that adds interest and vitality to City streets and laneways.
- 9 The finished ground floor level of buildings should be at grade and/or level with the footpath to provide direct pedestrian access and street level activation.
- 10 Providing footpath widths and street tree growth permit, development should contribute to the comfort of pedestrians through the incorporation of verandahs, balconies, awnings and/or canopies that provide pedestrian shelter.
- 11 Buildings should be positioned regularly on the site and built to the street frontage, except where a setback is required to accommodate outdoor dining or provide a contextual response to a heritage place.
- 12 Buildings should be designed to include a podium/street wall height and upper level setback (in the order of 3-6 metres) that:
 - (a) relates to the scale and context of adjoining built form;
 - (b) provides a human scale at street level;
 - (c) creates a well-defined and continuity of frontage;
 - (d) gives emphasis and definition to street corners to clearly define the street grid;
 - (e) contributes to the interest, vitality and security of the pedestrian environment;

- (f) maintains a sense of openness to the sky for pedestrians and brings daylight to the street; and
- (g) achieves pedestrian comfort by minimising micro climatic impacts (particularly shade/shelter, wind tunnelling and downward drafts);

other than (h) or (i):

- (h) in the Central Business Policy Area;
- (i) where a lesser (or zero) upper level setback and/or podium height is warranted to correspond with and complement the form of adjacent development, in which case alternative design solutions should be included to achieve a cohesive streetscape, provided parts (b) to (g) are still achieved.

- 13** Buildings north of Rundle Mall, Rundle Street, Hindley Street and Gouger Street should have a built form that incorporates slender tower elements, spaces between buildings or other design techniques that enable sunlight access to the southern footpath.
- 14** Buildings, advertisements, site landscaping, street planting and paving should have an integrated, coordinated appearance and should enhance the urban environment.
- 15** Building façades should be strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.
- 16** Development that exceeds the maximum building height shown in Concept Plan [Figures CC/1 and 2](#), and meets the relevant quantitative provisions should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including site configuration that acknowledges and responds to the desired future character of an area but that also responds to adjacent conditions (including any special qualities of a locality), pedestrian and cyclist amenity, activation, sustainability, and public realm and streetscape contribution.

The Squares (Victoria, Hindmarsh and Light)

- 17** Outdoor eating and drinking facilities associated with cafés and restaurants are appropriate ground floor uses and should contribute to the vitality of the Squares and create a focus for leisure.
- 18** Buildings fronting the Squares should:
 - (a) provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a minimum of 75 percent of the landscaped part of each Square at the September equinox; and
 - (b) reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.

The Terraces (North, East and West)

- 19** Development along the terraces should contribute to a continuous built form to frame the City edge and activate the Park Lands.
- 20** Development along North Terrace should reinforce the predominant scale and 'City wall' character of the Terrace frontage.

Building Height

- 21** Development should not exceed the maximum building height shown in Concept Plan [Figures CC/1 and 2](#) unless;

(a) it is demonstrated that the development reinforces the anticipated city form in Concept Plan [Figures CC/1 and 2](#), and

(b) only if:

(i) at least two of the following features are provided:

- (1) the development provides an orderly transition up to an existing taller building or prescribed maximum building height in an adjoining Zone or Policy Area;
- (2) the development incorporates the retention, conservation and reuse of a building which is a listed heritage place;
- (3) high quality universally accessible open space that is directly connected to, and well integrated with, public realm areas of the street;
- (4) universally accessible, safe and secure pedestrian linkages that connect through the development site as part of the cities pedestrian network on [Map Adel/1 \(Overlay 2A\)](#);
- (5) on site car parking does not exceed a rate of 0.5 spaces per dwelling, car parking areas are adaptable to future uses or all car parking is provided underground;
- (6) residential, office or any other actively occupied use is located on all of the street facing side of the building, with any above ground car parking located behind;
- (7) a range of dwelling types that includes at least 10% of 3+ bedroom apartments;
- (8) more than 15 per cent of dwellings as affordable housing.

(ii) plus all of the following sustainable design measures are provided:

- (1) a rooftop garden covering a majority of the available roof area supported by services that ensure ongoing maintenance;
- (2) a greenroof, or greenwalls / façades supported by services that ensure ongoing maintenance;
- (3) innovative external shading devices on all of the western side of a street facing façade; and
- (4) higher amenity through provision of private open space in excess of minimum requirements, access to natural light and ventilation to all habitable spaces and common circulation areas.

22 Development should have optimal height and floor space yields to take advantage of the premium City location and should have a building height no less than half the maximum shown on Concept Plan [Figures CC/1 and 2](#), or 28 metres in the Central Business Policy Area, except where one or more of the following applies:

- (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations;
- (b) the site is adjacent to the City Living Zone or the Adelaide Historic (Conservation) Zone and a lesser building height is required to manage the interface with low-rise residential development;
- (c) the site is adjacent to a heritage place, or includes a heritage place;

- (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event, within the previous 3 years where the new building has the same, or substantially the same, layout and external appearance as the previous building.

Interface

- 23** Development should manage the interface with the City Living Zone or the Adelaide Historic (Conservation) Zone in relation to building height, overshadowing, massing, building proportions and traffic impacts and should avoid land uses, or intensity of land uses, that adversely affect residential amenity.
- 24** Development on all sites on the southern side of Gouger Street - Angus Street and adjacent to a northern boundary of the City Living Zone or the Adelaide Historic (Conservation) Zone should not exceed 22 metres in building height unless the Council Wide overshadowing Principles of Development Control are met.
- 25** Parts of a development that exceed the prescribed maximum building height shown on Concept Plan [Figures CC/1 and 2](#) that are directly adjacent to the City Living, Main Street (Adelaide) and Adelaide Historic (Conservation) Zone boundaries should be designed to minimise visual impacts on sensitive uses in the adjoining zones and to maintain the established or desired future character of the area. This may be achieved through a number of techniques such as additional setback, avoiding tall sheer walls, centrally locating taller elements, providing variation of light and shadow through articulation to provide a sense of depth and create visual interest, and the like.

Movement

- 26** Pedestrian movement should be based on a network of pedestrian malls, arcades and lanes, linking the surrounding Zones and giving a variety of north-south and east-west links.
- 27** Development should provide pedestrian linkages for safe and convenient movement with arcades and lanes clearly designated and well-lit to encourage pedestrian access to public transport and areas of activity. Blank surfaces, shutters and solid infills lining such routes should be avoided.
- 28** Development should ensure existing through-site and on-street pedestrian links are maintained and new pedestrian links are developed in accordance with [Map Adel/1 \(Overlay 2A\)](#).
- 29** Car parking should be provided in accordance with [Table Adel/7](#).
- 30** Multi-level car parks should locate vehicle access points away from the primary street frontage wherever possible and should not be located:
- (a) within any of the following areas:
 - (i) the Core Pedestrian Area identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#)
 - (ii) on frontages to North Terrace, East Terrace, Rundle Street, Hindley Street, Currie Street, Waymouth Street (east of Light Square), Victoria Square or King William Street;
 - (b) where they conflict with existing or projected pedestrian movement and/or activity;
 - (c) where they would cause undue disruption to traffic flow; and
 - (d) where it involves creating new crossovers in North Terrace, Rundle Street, Hindley Street, Currie Street and Waymouth Street (east of Light Square), Grenfell Street and Pirie Street (west of Pulteney Street), Victoria Square, Light Square, Hindmarsh Square, Gawler Place and King William Street or access across primary City access and secondary City access roads identified in [Map Adel/1 \(Overlay 1\)](#).

- 31 Multi-level, non-ancillary car parks are inappropriate within the Core Pedestrian Area as shown on [Map Adel/1 \(Overlays 2, 2A and 3\)](#).
- 32 Vehicle parking spaces and multi-level vehicle parking structures within buildings should:
- (a) enhance active street frontages by providing land uses such as commercial, retail or other non-car park uses along ground floor street frontages;
 - (b) complement the surrounding built form in terms of height, massing and scale; and
 - (c) incorporate façade treatments along major street frontages that are sufficiently enclosed and detailed to complement neighbouring buildings consistent with the Desired Character of the locality.

Advertising

- 33 Other than signs along Hindley Street, advertisements should use simple graphics and be restrained in their size, design and colour.
- 34 In minor streets and laneways, a greater diversity of type, shape, numbers and design of advertisements are appropriate provided they are of a small-scale and located to present a consistent message band to pedestrians.
- 35 There should be an overall consistency achieved by advertisements along individual street frontages.
- 36 In Chesser Street, French Street and Coromandel Place advertisements should be small and preferably square and should not be located more than 3.7 metres above natural ground level or an abutting footpath or street. However, advertisements in these streets may be considered above 3.7 metres at locations near the intersections with major streets.
- 37 Advertisements on the Currie Street frontages between Topham Mall and Gilbert Place and its north-south prolongation should be of a size, shape and location complementary to the desired townscape character, with particular regard to the following:
- (a) On the southern side of Currie Street, advertisements should be fixed with their underside at a common height, except where the architectural detailing of building façades precludes it. At this 'canopy' level advertisements should be of a uniform size and fixed without the support of guy wires. Where architectural detailing permits, advertisements may mark the major entrances to buildings along the southern side of Currie Street with vertical projecting advertisements 1.5 metres high by 1.2 metres wide at, or marginally above, the existing canopy level. Painted wall or window signs should be restrained.
 - (b) On the northern side of Currie Street, advertisements should be of a uniform fixing height and consistent dimensions to match those prevailing in the area.

PROCEDURAL MATTERS

Complying Development

- 38 Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

In addition, the following forms of development are assigned as **complying**:

- (a) Other than in relation to a State heritage place, Local heritage place (City Significance), or Local heritage place, work undertaken within a building which does not involve a change of use or affect the external appearance of the building;
- (b) Temporary depot for Council for a period of no more than 3 months where it can be demonstrated that appropriate provision has been made for:

- (i) dust control;
 - (ii) screening, including landscaping;
 - (iii) containment of litter and water; and
 - (iv) securing of the site.
- (c) Change in the use of land from a non-residential use to an office, shop or consulting room (excluding any retail showroom, adult entertainment premises, adult products and services premises or licensed premises).

Non-complying Development

39 The following kinds of development are **non-complying**:

A change in use of land to any of the following:

Amusement machine centre

Advertisements involving any of the following:

- (a) third party advertising except on Hindley Street, Rundle Mall or on allotments at the intersection of Rundle Street and Pulteney Street, or temporary advertisements on construction sites;
- (b) advertisements located at roof level where the sky or another building forms the background when viewed from ground level;
- (c) advertisements in the area bounded by West Terrace, Grote Street, Franklin Street and Gray Street;
- (d) animation of advertisements along and adjacent to the North Terrace, King William Street and Victoria Square frontages.

Total demolition of a State Heritage Place (as identified in [Table Adel/1](#)).

Vehicle parking except:

- (a) where it is ancillary to an approved or existing use;
- (b) it is a multi-level car park located outside the Core Pedestrian Area as indicated on [Map Adel/1 \(Overlay 2, 2A and 3\)](#); or
- (c) it is within an existing building located outside the Core Pedestrian Area as indicated on [Map Adel/1 \(Overlay 2, 2A and 3\)](#).

Public Notification

40 Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

In addition, the following forms of development, or any combination of (except where the development is non-complying), are assigned:

- (a) **Category 1**, public notification not required:

All forms of development other than where it is assigned Category 2.

- (b) **Category 2**, public notification required. Third parties do not have any appeal rights.

Any development where the site of the development is adjacent land to land in the City Living Zone or Adelaide Historic (Conservation) Zone and it exceeds 22 metres in building height.

Note: For Category 3 development, public notification is required. Third parties may make written representations, appear before the relevant authority on the matter, and may appeal against a development consent. This includes any development not classified as either Category 1 or Category 2.

Council Wide

Environmental

Crime Prevention Through Urban Design

OBJECTIVES

Objective 24: A safe and secure, crime resistant environment that:

- (a) ensures that land uses are integrated and designed to facilitate natural surveillance;
- (b) promotes building and site security; and
- (c) promotes visibility through the incorporation of clear lines of sight and appropriate lighting.

PRINCIPLES OF DEVELOPMENT CONTROL

82. Development should promote the safety and security of the community in the public realm and within development. Development should:

- (a) promote natural surveillance of the public realm, including open space, car parks, pedestrian routes, service lanes, public transport stops and residential areas, through the design and location of physical features, electrical and mechanical devices, activities and people to maximise visibility by:
 - (i) orientating windows, doors and building entrances towards the street, open spaces, car parks, pedestrian routes and public transport stops;
 - (ii) avoiding high walls, blank facades, carports and landscaping that obscures direct views to public areas;
 - (iii) arranging living areas, windows, pedestrian paths and balconies to overlook recreation areas, entrances and car parks;
 - (iv) positioning recreational and public space areas so they are bound by roads on at least two road frontages or overlooked by development;
 - (v) creating a complementary mix of day and night-time activities, such as residential, commercial, recreational and community uses, that extend the duration and level of intensity of public activity;
 - (vi) locating public toilets, telephones and other public facilities with direct access and good visibility from well-trafficked public spaces;
 - (vii) ensuring that rear service areas and access lanes are either secured or exposed to surveillance; and
 - (viii) ensuring the surveillance of isolated locations through the use of audio monitors, emergency telephones or alarms, video cameras or staff eg by surveillance of lift and toilet areas within car parks.

- (b) provide access control by facilitating communication, escape and path finding within development through legible design by:
 - (i) incorporating clear directional devices;
 - (ii) avoiding opportunities for concealment near well travelled routes;
 - (iii) closing off or locking areas during off-peak hours, such as stairwells, to concentrate access/exit points to a particular route;
 - (iv) use of devices such as stainless steel mirrors where a passage has a bend;
 - (v) locating main entrances and exits at the front of a site and in view of a street;
 - (vi) providing open space and pedestrian routes which are clearly defined and have clear and direct sightlines for the users; and
 - (vii) locating elevators and stairwells where they can be viewed by a maximum number of people, near the edge of buildings where there is a glass wall at the entrance.
- (c) promote territoriality or sense of ownership through physical features that express ownership and control over the environment and provide a clear delineation of public and private space by:
 - (i) clear delineation of boundaries marking public, private and semi-private space, such as by paving, lighting, walls and planting;
 - (ii) dividing large development sites into territorial zones to create a sense of ownership of common space by smaller groups of dwellings; and
 - (iii) locating main entrances and exits at the front of a site and in view of a street.
- (d) provide awareness through design of what is around and what is ahead so that legitimate users and observers can make an accurate assessment of the safety of a locality and site and plan their behaviour accordingly by:
 - (i) avoiding blind sharp corners, pillars, tall solid fences and a sudden change in grade of pathways, stairs or corridors so that movement can be predicted;
 - (ii) using devices such as convex security mirrors or reflective surfaces where lines of sight are impeded;
 - (iii) ensuring barriers along pathways such as landscaping, fencing and walls are permeable;
 - (iv) planting shrubs that have a mature height less than one metre and trees with a canopy that begins at two metres;
 - (v) adequate and consistent lighting of open spaces, building entrances, parking and pedestrian areas to avoid the creation of shadowed areas; and
 - (vi) use of robust and durable design features to discourage vandalism.

83 Residential development should be designed to overlook streets, public and communal open space to allow casual surveillance.

To maximise security and safety, buildings should be designed to minimise access between roofs, balconies and windows of adjacent buildings.

85 Security features should be incorporated within the design of shop fronts to complement the design of the frontage and allow window shopping out of hours. If security grilles are provided, these should:

- (a) be transparent and illuminated to complement the appearance of the frontage;
- (b) provide for window shopping; and
- (c) allow for the spill of light from the shop front onto the street.

Solid shutters with less than 75 percent permeability are not acceptable.

86 Public toilets should be designed and located to:

- (a) promote the visibility of people entering and exiting the facility by avoiding recessed entrances and dense shrubbery which obstructs passive surveillance;
- (b) limit opportunities for vandalism through the use of vandal proof lighting on the public toilet buildings and nearby;
- (c) avoid features which facilitate loitering, such as seating or telephones immediately adjacent the structure; and
- (d) maximise surveillance through location near public transport links, pedestrian and cyclist networks.

Noise Emissions

OBJECTIVES

Objective 26: Development that does not unreasonably interfere with the desired character of the locality by generating unduly annoying or disturbing noise.

Objective 27: Noise sensitive development designed to protect its occupants from existing noise sources and from noise sources contemplated within the relevant Zone or Policy Area and that does not unreasonably interfere with the operation of non-residential uses contemplated within the relevant Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

Noise Sources

89 Development with potential to emit significant noise (including licensed entertainment premises and licensed premises) should incorporate appropriate noise attenuation measures in to their design to prevent noise from causing unreasonable interference with the amenity and desired character of the locality, as contemplated in the relevant Zone and Policy Area.

93 Mechanical plant or equipment should be designed, sited and screened to minimise noise impact on adjacent premises or properties. The noise level associated with the combined operation of plant and equipment such as air conditioning, ventilation and refrigeration systems when assessed at the nearest existing or envisaged noise sensitive location in or adjacent to the site should not exceed

- (a) 55 dB(A) during daytime (7.00am to 10.00pm) and 45 dB(A) during night time (10.00pm to 7.00am) when measured and adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.
- (b) 50 dB(A) during daytime (7.00am to 10.00pm) and 40 dB(A) during night time (10.00pm to 7.00am) in or adjacent to a City Living Zone, the Adelaide Historic (Conservation) Zone, the North Adelaide Historic (Conservation) Zone or the Park Lands Zone when measured and

adjusted in accordance with the relevant environmental noise legislation except where it can be demonstrated that a high background noise exists.

94 To ensure minimal disturbance to residents:

- (a) ancillary activities such as deliveries, collection, movement of private waste bins, goods, empty bottles and the like should not occur:
 - (i) after 10.00pm; and
 - (ii) before 7.00am Monday to Saturday or before 9.00am on a Sunday or Public Holiday.
- (b) typical activity within any car park area including vehicles being started, doors closing and vehicles moving away from the premises should not result in sleep disturbance when proposed for use after 10.00pm as defined by the limits recommended by the World Health Organisation.

Noise Receivers

95 Noise sensitive development should incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity when exposed to noise sources such as major transport corridors (road, rail, tram and aircraft), commercial centres, entertainment premises and the like, and from activities and land uses contemplated in the relevant Zone and Policy Area provisions.

96 Noise sensitive development in mixed use areas should not unreasonably interfere with the operation of surrounding non-residential uses that generate noise levels that are commensurate with the envisaged amenity of the locality.

Waste Management

OBJECTIVE

Objective 28: Development which supports high local environmental quality, promotes waste minimisation, re-use and recycling, encourages waste water, grey water and stormwater re-use and does not generate unacceptable levels of air, liquid or solid pollution.

PRINCIPLES OF DEVELOPMENT CONTROL

101 A dedicated area for on-site collection and sorting of recyclable materials and refuse should be provided within all new development.

102 A dedicated area for the collection and sorting of construction waste and the recycling of building materials during construction as appropriate to the size and nature of the development should be provided and screened from public view.

103 Development greater than 2 000 square metres of total floor area should manage waste by:

- (a) containing a dedicated area for the collection and sorting of construction waste and recyclable building materials;
- (b) on-site storage and management of waste;
- (c) disposal of non-recyclable waste; and
- (d) incorporating waste water and stormwater re-use including the treatment and re-use of grey water.

104 Development should not result in emission of atmospheric, liquid or other pollutants, or cause unacceptable levels of smell and odour which would detrimentally affect the amenity of adjacent properties or its locality. Land uses such as restaurants, shops, cafés or other uses that generate smell and odour should:

- (a) ensure extraction flues, ventilation and plant equipment are located in appropriate locations that will not detrimentally affect the amenity of adjacent occupiers in terms of noise, odours and the appearance of the equipment;
- (b) ensure ventilation and extraction equipment and ducting have the capacity to clean and filter the air before being released into the atmosphere; and
- (c) ensure the size of the ventilation and extraction equipment is suitable and has the capacity to adequately cater for the demand generated by the potential number of patrons.

Energy Efficiency

OBJECTIVE

Objective 30: Development which is compatible with the long term sustainability of the environment, minimises consumption of non-renewable resources and utilises alternative energy generation systems.

PRINCIPLES OF DEVELOPMENT CONTROL

All Development

106 Buildings should provide adequate thermal comfort for occupants and minimise the need for energy use for heating, cooling and lighting by:

- (a) providing an internal day living area with a north-facing window, other than for minor additions*, by:
 - (i) arranging and concentrating main activity areas of a building to the north for solar penetration; and
 - (ii) placing buildings on east-west allotments against or close to the southern boundary to maximise northern solar access and separation to other buildings to the north.
- (b) efficient layout, such as zoning house layout to enable main living areas to be separately heated and cooled, other than for minor additions;
- (c) locating, sizing and shading windows to reduce summer heat loads and permit entry of winter sun;
- (d) allowing for natural cross ventilation to enable cooling breezes to reduce internal temperatures in summer;
- (e) including thermal insulation of roof, walls, floors and ceilings and by draught proofing doors, windows and openings;
- (f) ensuring light colours are applied to external surfaces that receive a high degree of sun exposure, but not to an extent that will cause glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles;
- (g) providing an external clothes line for residential development; and

* Minor additions have a floor area less than 50 percent of the existing dwelling and do not include a day living area.

- (h) use of landscaping.
- 107** All development should be designed to promote naturally ventilated and day lit buildings to minimise the need for mechanical ventilation and lighting systems.
- 108** Energy reductions should, where possible, be achieved by the following:
- (a) appropriate orientation of the building by:
 - (i) maximising north/south facing facades;
 - (ii) designing and locating the building so the north facade receives good direct solar radiation;
 - (iii) minimising east/west facades to protect the building from summer sun and winter winds;
 - (iv) narrow floor plates to maximise the amount of floor area receiving good daylight; and/or
 - (v) minimising the ratio of wall surface to floor area.
 - (b) window orientation and shading;
 - (c) adequate thermal mass including night time purging to cool thermal mass;
 - (d) appropriate insulation by:
 - (i) insulating windows, walls, floors and roofs; and
 - (ii) sealing of external openings to minimise infiltration.
 - (e) maximising natural ventilation including the provision of openable windows;
 - (f) appropriate selection of materials, colours and finishes; and
 - (g) introduction of efficient energy use technologies such as geo-exchange and embedded, distributed energy generation systems such as cogeneration*, wind power, fuel cells and solar photovoltaic panels that supplement the energy needs of the building and in some cases, export surplus energy to the electricity grid.
- 109** Orientation and pitch of the roof should facilitate the efficient use of solar collectors and photovoltaic cells.
- 110** Buildings, where practical, should be refurbished, adapted and reused to ensure an efficient use of resources.
- 111** New buildings should be readily adaptable to future alternative uses.
- 112** Selection of internal materials for all buildings should be made with regard to internal air quality and ensure low toxic emissions, particularly with respect to paint and joinery products.

Office Development

- 115** The following principles of sustainable design and construction are required for new office development, and additions and refurbishments to existing office development, to minimise energy consumption and limit greenhouse gas emissions:
- (a) passive solar consideration in the design, planning and placement of buildings;
 - (b) re-using and/or improving existing structures or buildings;

- (c) designing for the life-cycle of the development to allow for future adaptation;
- (d) considering low levels of embodied energy in the selection and use of materials;
- (e) developing energy efficiency solutions including passive designs using natural light, solar control, air movement and thermal mass. Systems should be zoned to minimise use of energy;
- (f) using low carbon and renewable energy sources, such as Combined Heat and Power (CHP) systems and photovoltaics; and
- (g) preserving and enhancing local biodiversity, such as by incorporating roof top gardens.

Renewable Energy

OBJECTIVES

Objective 31: The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

Objective 32: Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

116 Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.

117 Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.

118 Renewable energy facilities, including wind farms, and ancillary development such as substations, maintenance sheds, access roads and connecting power-lines (including to the National Electricity Grid) should be located, sited, designed and operated in a manner which:

- (a) avoids or minimises detracting from the character, landscape quality, visual significance or amenity of the area;
- (b) utilises elements of the landscape, materials and finishes to minimise visual impact;
- (c) avoids or minimises adverse impact on areas of native vegetation, conservation, environmental, geological, tourism or built or natural heritage value;
- (d) does not impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips;
- (e) avoids or minimises nuisance or hazard to nearby property owners/occupiers, road users and wildlife by way of:
 - (i) shadowing, flickering, reflection and blade glint impacts;
 - (ii) noise;
 - (iii) interference to television and radio signals;
 - (iv) modification to vegetation, soils and habitats; and
 - (v) bird and bat strike.

Micro-climate and Sunlight

OBJECTIVES

Objective 33: Buildings which are designed and sited to be energy efficient and to minimise micro-climatic and solar access impacts on land or other buildings.

Objective 34: Protection from rain, wind and sun without causing detriment to heritage places, street trees or the integrity of the streetscape.

PRINCIPLES OF DEVELOPMENT CONTROL

- 119** Development should be designed and sited to minimise micro-climatic and solar access impact on adjacent land or buildings, including effects of patterns of wind, temperature, daylight, sunlight, glare and shadow.
- 120** Development should be designed and sited to ensure an adequate level of daylight, minimise overshadowing of buildings, and public and private outdoor spaces, particularly during the lunch time hours.
- 121** Development should not significantly reduce daylight to private open space, communal open space, where such communal open space provides the primary private open space, and habitable rooms in adjacent City Living Zone, Adelaide Historic (Conservation) Zone and North Adelaide Historic (Conservation) Zone.
- 122** Glazing on building facades should not result in glare which produces discomfort or danger to pedestrians, occupants of adjacent buildings and users of vehicles.
- 123** Buildings within the Core and Primary Pedestrian Areas identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#), unless specified otherwise within the relevant Zone or Policy Area, should be designed to provide weather protection for pedestrians against rain, wind and sun. The design of canopies, verandahs and awnings should be compatible with the style and character of the building and adjoining buildings, as well as the desired character, both in scale and detail.
- 124** Weather protection should not be introduced where it would interfere with the integrity or heritage value of heritage places or unduly affect street trees.
- 125** Development that is over 21 metres in building height and is to be built at or on the street frontage should minimise wind tunnel effect.

Stormwater Management

OBJECTIVES

Objective 35: Development which maximises the use of stormwater.

Objective 36: Development designed and located to protect stormwater from pollution sources.

Surface water (inland, marine, estuarine) and ground water has the potential to be detrimentally affected by water run-off from development containing solid and liquid wastes. Minimising and possibly eliminating sources of pollution will reduce the potential for degrading water quality and enable increased use of stormwater for a range of applications with environmental, economic and social benefits.

Objective 37: Development designed and located to protect or enhance the environmental values of receiving waters.

Objective 38: Development designed and located to prevent erosion.

Development involving soil disturbance may result in erosion and subsequently sedimentation and pollutants entering receiving waters. Design techniques should be incorporated during both the construction and operation phases of development to minimise the transportation of sediment and pollutants off-site.

Objective 39: Development designed and located to prevent or minimise the risk of downstream flooding.

PRINCIPLES OF DEVELOPMENT CONTROL

- 126** Development of stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.
- 127** Development affecting existing stormwater management systems should be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters, and protect downstream receiving waters from high levels of flow.
- 128** Development should incorporate appropriate measures to minimise any concentrated stormwater discharge from the site.
- 129** Development should incorporate appropriate measures to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria and litter and other contaminants to the stormwater system and may incorporate systems for treatment or use on site.
- 130** Development should not cause deleterious affect on the quality or hydrology of groundwater.
- 131** Development should manage stormwater to ensure that the design capacity of existing or planned downstream systems are not exceeded, and other property or environments are not adversely affected as a result of any concentrated stormwater discharge from the site.

Infrastructure

OBJECTIVES

Objective 40: Minimisation of the visual impact of infrastructure facilities.

Objective 41: Provision of services and infrastructure that are appropriate for the intended development and the desired character of the Zone or Policy Area.

PRINCIPLES OF DEVELOPMENT CONTROL

- 132** Provision should be made for utility services to the site of a development, including provision for the supply of water, gas and electricity and for the satisfactory disposal and potential re-use of sewage and waste water, drainage and storm water from the site of the development.
- 133** Service structures, plant and equipment within a site should be designed to be an integral part of the development and should be suitably screened from public spaces or streets.
- 134** Infrastructure and utility services, including provision for the supply of water, gas and electricity should be put in common trenches or conduits.
- 135** Development should only occur where it has access to adequate utilities and services, including:
- (a) electricity supply;
 - (b) water supply;
 - (c) drainage and stormwater systems;

- (d) effluent disposal systems;
- (e) formed all-weather public roads;
- (f) telecommunications services; and
- (g) gas services.

Heritage and Conservation

OBJECTIVES

- Objective 42:** Acknowledge the diversity of Adelaide's cultural heritage from pre-European occupation to current time through the conservation of heritage places and retention of their heritage value.
- Objective 43:** Development that retains the heritage value and setting of a heritage place and its built form contribution to the locality.
- Objective 44:** Continued use or adaptive reuse of the land, buildings and structures comprising a heritage place.
- Objective 45:** Recognition of Aboriginal sites, items and areas which are of social, archaeological, cultural, mythological or anthropological significance.

PRINCIPLES OF DEVELOPMENT CONTROL

General

- 136** Development of a heritage place should conserve the elements of heritage value as identified in the relevant Tables.
- 137** Development affecting a State heritage place ([Table Adel/1](#)), Local heritage place ([Table Adel/2](#)), Local heritage place (Townscape) ([Table Adel/3](#)) or Local heritage place (City Significance) ([Table Adel/4](#)), including:
- (a) adaptation to a new use;
 - (b) additional construction;
 - (c) part demolition;
 - (d) alterations; or
 - (e) conservation works;
- should facilitate its continued or adaptive use, and utilise materials, finishes, setbacks, scale and other built form qualities that are complementary to the heritage place.
- 138** A local heritage place (as identified in [Tables Adel/2, 3 or 4](#)) or the Elements of Heritage Value (as identified in [Table Adel/2](#)) should not be demolished unless it can be demonstrated that the place, or those Elements of Heritage Value that are proposed to be demolished, have become so distressed in condition or diminished in integrity that the remaining fabric is no longer capable of adequately representing its heritage value as a local heritage place.
- 140** Development on land adjacent to a heritage place in non-residential Zones or Policy Areas should incorporate design elements, including where it comprises an innovative contemporary design, that:

- (a) utilise materials, finishes, and other built form qualities that complement the adjacent heritage place; and
- (b) is located no closer to the primary street frontage than the adjacent heritage place.

142 Development that abuts the built form/fabric of a heritage place should be carefully integrated, generally being located behind or at the side of the heritage place and without necessarily replicating historic detailing, so as to retain the heritage value of the heritage place.

Advertising

144 Advertisements or signs on the site of a heritage place should be located to complement, rather than dominate or conceal, the appearance and detailing of the heritage place by being:

- (a) integrated with architectural elements of the heritage place, including within parapets or wall panels, and at canopy level or within fascias, end panels or windows; and
- (b) below the silhouette of the heritage place.

Built Form and Townscape

OBJECTIVES

Objective 46: Reinforcement of the city's grid pattern of streets through:

- (a) high rise development framing city boulevards, the Squares and Park Lands
- (b) vibrant main streets of a more intimate scale that help bring the city to life
- (c) unique and interesting laneways that provide a sense of enclosure and intimacy.

Objective 47: Buildings should be designed to:

- (a) reinforce the desired character of the area as contemplated by the minimum and maximum building heights in the Zone and Policy Area provisions;
- (b) maintain a sense of openness to the sky and daylight to public spaces, open space areas and existing buildings;
- (c) contribute to pedestrian safety and comfort; and
- (d) provide for a transition of building heights between Zone and Policy Areas where building height guidelines differ.

Objective 48: Development which incorporates a high level of design excellence in terms of scale, bulk, massing, materials, finishes, colours and architectural treatment.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Where development significantly exceeds quantitative policy provisions, it should demonstrate a significantly higher standard of design outcome in relation to qualitative policy provisions including pedestrian and cyclist amenity, activation, sustainability and public realm and streetscape contribution.

Height, Bulk and Scale

PRINCIPLES OF DEVELOPMENT CONTROL

- 2 Development should be of a high standard of design and should reinforce the grid layout and distinctive urban character of the City by maintaining a clear distinction between the following:
 - (a) the intense urban development and built-form of the town acres in the Capital City, Main Street, Mixed Use, City Frame and City Living Zones;
 - (b) the less intense and more informal groupings of buildings set within the landscaped environment of the Institutional Zones;
 - (c) the historic character of the Adelaide and North Adelaide Historic (Conservation) Zones and groups of historic housing within the City Living Zone; and
 - (d) the open landscape of the Park Lands Zone.
- 3 The height and scale of development and the type of land use should reflect and respond to the role of the street it fronts as illustrated on [Map Adel/1 \(Overlay 1\)](#).
- 4 The height, scale and massing of buildings should reinforce:
 - (a) the desired character, built form, public environment and scale of the streetscape as contemplated within the Zone and Policy Area, and have regard to:
 - (i) maintaining consistent parapet lines, floor levels, height and massing with existing buildings consistent with the areas desired character;
 - (ii) reflecting the prevailing pattern of visual sub-division of neighbouring building frontages where frontages display a character pattern of vertical and horizontal sub-divisions; and
 - (iii) avoiding massive unbroken facades.
 - (b) a comfortable proportion of human scale at street level by:
 - (i) building ground level to the street frontage where zero set-backs prevail;
 - (ii) breaking up the building facade into distinct elements;
 - (iii) incorporating art work and wall and window detailing; and
 - (iv) including attractive planting, seating and pedestrian shelter.
- 5 Where possible, large sites should incorporate pedestrian links and combine them with publicly accessible open space.
- 6 Buildings and structures should not adversely affect by way of their height and location the long-term operational, safety and commercial requirements of Adelaide International Airport. Buildings and structures which exceed the heights shown in [Map Adel/1 \(Overlay 5\)](#) and which penetrate the Obstacle Limitation Surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport.
- 7 Buildings within the Capital City Zone should be built to the street edge to reinforce the grid pattern, create a continuity of frontage and provide definition and enclosure to the public realm whilst contributing to the interest, vitality and security of the pedestrian environment.

Composition and Proportion

- 8 Development should respect the composition and proportion of architectural elements of building facades that form an important pattern which contributes to the streetscape's distinctive character in a manner consistent with the desired character of a locality by:
 - (a) establishing visual links with neighbouring buildings by reflecting and reinforcing the prevailing pattern of visual sub-division in building facades where a pattern of vertical and/or horizontal sub-divisions is evident and desirable, for example, there may be strong horizontal lines of verandahs, masonry courses, podia or openings, or there may be vertical proportions in the divisions of facades or windows; and
 - (b) clearly defining ground, middle and roof top levels.
- 9 Where there is little or no established building pattern, new buildings should create new features which contribute to an areas desired character and the way the urban environment is understood by:
 - (a) frontages creating clearly defined edges;
 - (b) generating new compositions and points of interest;
 - (c) introducing elements for future neighbouring buildings; and
 - (d) emphasising the importance of the building according to the street hierarchy.

Articulation and Modelling

- 10 Building facades fronting street frontages, access ways, driveways or public spaces should be composed with an appropriate scale, rhythm and proportion which responds to the use of the building, the desired character of the locality and the modelling and proportions of adjacent buildings.
- 11 Building services such as drainage pipes together with security grills/screens, ventilation louvres and car park entry doors, should be coordinated and integrated with the overall facade design.

Materials, Colours and Finishes

- 12 The design, external materials, colours and finishes of buildings should have regard to their surrounding townscape context, built form and public environment, consistent with the desired character of the relevant Zone and Policy Area.
- 13 Development should be finished with materials that are sympathetic to the design and setting of the new building and which incorporate recycled or low embodied energy materials. The form, colour, texture and quality of materials should be of high quality, durable and contribute to the desired character of the locality. Materials, colours and finishes should not necessarily imitate materials and colours of an existing streetscape
- 14 Materials and finishes that are easily maintained and do not readily stain, discolour or deteriorate should be utilised.
- 15 Development should avoid the use of large expanses of highly reflective materials and large areas of monotonous, sheer materials (such as polished granite and curtained wall glazing).

Sky and Roof Lines

OBJECTIVE

- Objective 49:** Innovative and interesting skylines which contribute to the overall design and performance of the building.

PRINCIPLES OF DEVELOPMENT CONTROL

- 16** Where a prevailing pattern of roof form assists in establishing the desired character of the locality, new roof forms should be complementary to the shape, pitch, angle and materials of adjacent building roofs.
- 17** Buildings should be designed to incorporate well designed roof tops that:
- (a) reinforce the desired character of the locality, as expressed in the relevant Zone or Policy Area;
 - (b) enhance the skyline and local views;
 - (c) contribute to the architectural quality of the building;
 - (d) provide a compositional relationship between the upper-most levels and the lower portions of the building;
 - (e) provide an expression of identity;
 - (f) articulate the roof, breaking down its massing on large buildings to minimise apparent bulk;
 - (g) respond to the orientation of the site; and
 - (h) create minimal glare.
- 18** Roof top plant and ancillary equipment that projects above the ceiling of the top storey should:
- (a) be designed to minimise the visual impact; and
 - (b) be screened from view, including the potential view looking down or across from existing or possible higher buildings, or be included in a decorative roof form that is integrated into the design of the building.
- 19** Roof design should facilitate future use for sustainable functions such as:
- (a) rainwater tanks for water conservation;
 - (b) roof surfaces orientated, angled and of suitable material for photovoltaic applications; and/or
 - (c) “green” roofs (ie roof top gardens structurally capable of supporting vegetation) or water features.

Active Street Frontages

OBJECTIVES

- Objective 50:** Development that enhances the public environment and, where appropriate provides activity and interest at street level, reinforcing a locality’s desired character.
- Objective 51:** Development designed to promote pedestrian activity and provide a high quality experience for City residents, workers and visitors by:
- (a) enlivening building edges;
 - (b) creating welcoming, safe and vibrant spaces;
 - (c) improving perceptions of public safety through passive surveillance; and

- (d) creating interesting and lively pedestrian environments.

PRINCIPLES OF DEVELOPMENT CONTROL

- 20** Development should be designed to create active street frontages that provide activity and interest to passing pedestrians and contribute to the liveliness, vitality and security of the public realm.
- 21** Commercial buildings should be designed to ensure that ground floor facades are rich in detail so they are exciting to walk by, interesting to look at and to stand beside.

Landscaping

OBJECTIVE

Objective 55: Water conserving landscaping that enhances the local landscape character and creates a pleasant, safe and attractive living environment.

PRINCIPLES OF DEVELOPMENT CONTROL

- 22** Landscaping should:
 - (a) be selected and designed for water conservation;
 - (b) form an integral part of the design of development; and
 - (c) be used to foster human scale, define spaces, reinforce paths and edges, screen utility areas and enhance the visual amenity of the area.
- 23** Landscaping should incorporate local indigenous species suited to the site and development, provided such landscaping is consistent with the desired character of the locality and any heritage place.
- 24** Landscaping should be provided to all areas of communal space, driveways and shared car parking areas.
- 25** Landscaping between the road and dwellings should be provided to screen and protect the dwellings from dust and visual impacts of the road.

Advertising

OBJECTIVE

Objective 56: Outdoor advertisements that are designed and located to:

- (a) reinforce the desired character and amenity of the locality within which it is located and rectify existing unsatisfactory situations;
- (b) be concise and efficient in communicating with the public, avoiding a proliferation of confusing and cluttered displays or a large number of advertisements; and
- (c) not create a hazard.

PRINCIPLES OF DEVELOPMENT CONTROL

- 26** Advertisements should be designed to respect and enhance the desired character and amenity of the locality by the means listed below:
 - (a) the scale, type, design, location, materials, colour, style and illumination of any advertisements should be compatible with the design and character of the buildings and

land to which it is related, and should be in accordance with provisions for the Zone and Policy Area in which it is situated and any relevant adjacent Zones or Policy Areas;

- (b) advertisements should be integrated with the architectural form, style and colour of buildings and wherever possible, requirements for advertisements should be considered in the design of new buildings;
- (c) advertisements should be artistically interesting in terms of graphics and construction with intricacy and individuality in design encouraged while maintaining consistency in design and style where co-ordinated advertisements are appropriate;
- (d) structural supports should be concealed from public view or of minimal visual impact;
- (e) advertisements on individual premises should be co-ordinated in terms of type and design and should be limited in number to minimize visual clutter;
- (f) advertisements should be displayed on fascia signs or located below canopy level;
- (g) advertisements on buildings or sites occupied by a number of tenants should be co-ordinated, complementary and the number kept to a minimum; and
- (h) advertisements on or adjacent to a heritage place should be designed and located to respect the heritage value of the heritage place.

Transport and Access

Access and Movement

OBJECTIVE

Objective 60: Access to and movement within the City that is easy, safe, comfortable and convenient with priority given to pedestrian and cyclist safety and access.

PRINCIPLES OF DEVELOPMENT CONTROL

224 Development should provide safe, convenient and comfortable access and movement.

225 Vehicle access points along primary and secondary city access roads and local connector roads, as shown on [Map Adel/1 \(Overlay 1\)](#) should be restricted.

Pedestrian Access

OBJECTIVES

Objective 61: Development that promotes the comfort, enjoyment and security of pedestrians by providing shelter and reducing conflict with motor vehicles.

Objective 62: Development that contributes to the quality of the public realm as a safe, secure and attractive environment for pedestrian movement and social interaction.

Objective 63: Safe and convenient design of and access to buildings and public spaces, particularly for people with disabilities.

PRINCIPLES OF DEVELOPMENT CONTROL

226 Development should reflect the significance of the paths and increase the permeability of the pedestrian network identified within [Map Adel/1 \(Overlay 2\)](#) by ensuring:

- (a) pedestrians are not disrupted or inconvenienced by badly designed or located vehicle access ramps in footpaths or streets; and

(b) vehicle and service entry points are kept to a minimum to avoid adverse impact on pedestrian amenity.

- 224** Within the Core, Primary and Secondary Pedestrian Areas identified within [Map Adel/1 \(Overlays 2, 2A and 3\)](#), development should be designed to support the establishment and maintenance of continuous footpaths so that pedestrian flow is free and uninterrupted. Pedestrian access should be provided at ground level mid-block between all streets.
- 228** Development should provide and maintain pedestrian shelter, access and through-site links in accordance with the walking routes identified within [Map Adel/1 \(Overlays 2, 2A and 3\)](#) and the provisions of the Zone or Policy Area in which it is located. Such facilities should be appropriately designed and detailed to enhance the pedestrian environment, have regard to the mobility needs of people with disabilities, and be safe, suitable and accessible.
- 229** Corner buildings in the Central Business Policy Area of the Capital City Zone, buildings adjacent to street intersections and buildings along a high concentration public transport route or along public transport pedestrian routes identified within [Map Adel/1 \(Overlay 4\)](#) should provide weather protection for pedestrians in the form of verandahs, awnings or canopies. Where verandahs or awnings are provided which block street lighting, they should include additional lighting beneath the canopy.
- 230** Permanent structures over a footpath should have a minimum clearance of 3.0 metres above the existing footpath level, except for advertisements which should have a minimum clearance of 2.5 metres and temporary structures and retractable canopies which should have a minimum clearance of 2.3 metres above the existing footpath level.
- 231** Where posts are required to support permanent structures, they should be located at least 600 millimetres from the kerb line.
- 232** Access for people with disabilities should be provided to and within all buildings to which members of the public have access in accordance with the relevant Australian Standards. Such access should be provided through the principal entrance, subject to heritage considerations and for exemptions under the relevant legislation.

Bicycle Access

OBJECTIVES

- Objective 64:** Greater use of bicycles for travel to and within the City and the improvement of conditions, safety and facilities for cyclists.
- Objective 65:** Adequate supply of secure, short stay and long stay bicycle parking to support desired growth in City activities.

PRINCIPLES OF DEVELOPMENT CONTROL

- 233** Development should have regard to the bicycle routes identified within [Map Adel/1 \(Overlay 3\)](#) by:
- (a) limiting vehicular access points; and
 - (b) ensuring that vehicles can enter and leave the site in a forward direction, thereby avoiding reverse manoeuvres.
- 234** An adequate supply of on-site secure bicycle parking should be provided to meet the demand generated by the development within the site area of the development. Bicycle parking should be provided in accordance with the requirements set out in [Table Adel/6](#).
- 235** Onsite secure bicycle parking facilities for residents and employees (long stay) should be:

- (a) located in a prominent place;
- (b) located at ground floor level;
- (c) located undercover;
- (d) located where passive surveillance is possible, or covered by CCTV;
- (e) well lit and well signed;
- (f) close to well used entrances;
- (g) accessible by cycling along a safe, well lit route;
- (h) take the form of a secure cage with locking rails inside or individual bicycle lockers; and
- (i) in the case of a cage have an access key/pass common to the building access key/pass.

236 Onsite secure bicycle parking facilities for short stay users (i.e. bicycle rails) should be:

- (a) directly associated with the main entrance;
- (b) located at ground floor level;
- (c) located undercover;
- (d) well lit and well signed;
- (e) located where passive surveillance is possible, or covered by CCTV; and
- (f) accessible by cycling along a safe, well lit route.

237 Access to bicycle parking should be designed to:

- (a) minimise conflict with motor vehicles and pedestrians;
- (b) ensure the route is well signed and well lit including the use of road markings such as a bicycle logo if appropriate to help guide cyclists; and
- (c) ensure the route is unhindered by low roof heights.

238 To facilitate and encourage the use of bicycles and walking as a means of travel to and from the place of work, commercial and institutional development should provide on-site shower and changing facilities.

Public Transport

OBJECTIVES

Objective 66: Development that promotes the use of sustainable transport consistent with State Government objectives and initiatives.

Objective 67: Accessible public transport for all metropolitan residents and visitors and safe and attractive facilities for public transport users.

PRINCIPLES OF DEVELOPMENT CONTROL

239 Development along a high concentration public transport route should be designed to ensure that activity and interest for public transport passengers is maximised through the incorporation of active street frontages.

- 234** Development along high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#) should:
- (a) ensure there are pedestrian links through the site if needed to provide access to public transport;
 - (b) provide shelter (e.g. verandahs) for pedestrians against wind, sun and rain;
 - (c) provide interest and activity at street level; and
 - (d) where possible, avoid vehicle access across high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#). Where unavoidable, vehicle access should be integrated into the design of the development whilst retaining active street frontages.

Traffic and Vehicle Access

OBJECTIVES

- Objective 68:** Development that supports a shift toward active and sustainable transport modes (i.e. public transport, cycling and walking).
- Objective 69:** An enhanced City environment and the maintenance of an appropriate hierarchy of roads to distribute traffic into the City to serve development in preference to through traffic.
- Objective 70:** Adequate off-street facilities for loading and unloading of courier, delivery and service vehicles and access for emergency vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

- 241** Development should be designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise traffic hazards and vehicle queuing on public roads. Access should be safe, convenient and suitable for the development on the site, and should be obtained from minor streets and lanes unless otherwise stated in the provisions for the relevant Zone or Policy Area and provided residential amenity is not unreasonably affected.
- 242** Facilities for the loading and unloading of courier, delivery and service vehicles and access for emergency vehicles should be provided on-site as appropriate to the size and nature of the development. Such facilities should be screened from public view and designed, where possible, so that vehicles may enter and leave in a forward direction.
- 243** Where practicable, development sites should contain sufficient space for the location of construction equipment during the course of building construction, so that development does not rely on the use of Council road reserves to locate such equipment.
- 244** Vehicular access to development located within the Core and Primary Pedestrian Areas identified in [Map Adel/1 \(Overlay 2A\)](#) should be limited and designed to minimise interruption to street frontages.
- 245** Where vehicular access to a development is gained by an existing crossing in the Core Pedestrian Area identified in [Map Adel/1 \(Overlay 2A\)](#), there should be no increase in the number of parking spaces served by the crossing, nor any increase in the number of existing crossings serving that development.
- 246** There is no minimum setback required from a rear access way where the access way is wider than 6.5 metres. Where the access way is less than 6.5 metres in width, a setback distance equal to the additional width required to make the access way 6.5 metres or more, is required to provide adequate manoeuvrability for vehicles.

- 247** The number of access points on primary city access roads identified in [Map Adel/1 \(Overlay 1\)](#) should be limited to minimise traffic and pedestrian inconvenience, interference with public transport facilities and adverse effects on the environment.
- 248** Buildings located along primary and secondary access roads should be sited to avoid the need for vehicles to reverse on to the road (unless the dimensions of the site make this impractical).

Car Parking

OBJECTIVES

- Objective 71:** To meet community expectation for parking supply while supporting a shift toward active and sustainable transport modes.
- Objective 72:** An adequate supply of short-stay and long-stay parking to support desired growth in City activities without detrimental affect on traffic and pedestrian flows.

PRINCIPLES OF DEVELOPMENT CONTROL

251 Car parking areas should be located and designed to:

- (a) ensure safe and convenient pedestrian movement and traffic circulation through and within the car parking area;
- (b) include adequate provision for manoeuvring and individually accessible car standing areas;
- (c) enable, where practical, vehicles to enter and leave the site in a forward direction;
- (d) minimise interruption to the pattern of built form along street frontages;
- (e) provide for access off minor streets and for the screening from public view of such car parking areas by buildings on the site wherever possible;
- (f) minimise adverse impacts on adjoining residential properties in relation to noise and access and egress;
- (g) minimise loss of existing on-street parking spaces arising through crossovers and access;
- (h) incorporate secure bicycle parking spaces and facilitate convenient, safe and comfortable access to these spaces by cyclists; and
- (i) provide landscaping, such as semi-mature trees, to shade parked vehicles and reduce the visual impact of the car parking area while maintaining direct sight lines and informal visual surveillance.

252 All development should provide car parking spaces for people with disabilities in accordance with the requirements in the Building Code of Australia (BCA). For classes of buildings not covered by the requirements of the BCA, the number of spaces should be provided in accordance with [Table Adel/7](#) and such car parking spaces should comply with Australian Standard 2890.1: 'Parking Facilities - Off-street Car Parking'.

254 Off-street parking should:

- (a) be controlled in accordance with the provisions for the relevant Policy Area;
- (b) be located away from street frontages or designed as an integral part of buildings on the site. Provision of parking at basement level is encouraged; and
- (c) not include separate garages or carports in front of buildings within front set-backs.

- 258** Off-street parking in the Core Pedestrian Area identified in [Map Adel/1 \(Overlay 2A\)](#) will only be appropriate where:
- (a) parking is ancillary to another activity carried out on the land;
 - (b) it can be provided without loss of pedestrian amenity; and
 - (c) it is not separately created on a strata title or community title basis (unless in association with another title held on the site).
- 259** Multi-level car parks or non-ancillary car parking use of an existing building should only be established where it can be demonstrated that there is a need which is not adequately satisfied by other parking facilities in the locality.
- 260** Multi-level car parks and short stay public use of ancillary car parking spaces are discouraged at ground floor street frontages in the Primary Pedestrian Area identified in [Map Adel/1 \(Overlays 2, 2A and 3\)](#). Multi-level car parks, short stay public use of ancillary car parking spaces or non-ancillary car parking use of an existing building may be appropriate where it:
- (a) is located away from ground floor street frontages to major streets;
 - (b) ensures vehicle access is from the road with less pedestrian activity in instances where a site has access to more than one road frontage;
 - (c) has no more than one entry lane and one exit lane;
 - (d) has a controlled exit at the property boundary to stop vehicles before travelling across the footpath;
 - (e) has no more than one left in and one left out access point;
 - (f) avoids access points along high concentration public transport routes identified in [Map Adel/1 \(Overlay 4\)](#); and
 - (g) with respect to ancillary parking, is provided at basement level, or undercroft if located behind other uses which provide activity on the street frontage.
- 261** Multi-level car parks should be designed to:
- (a) provide active street frontages and land uses such as commercial, retail or other non-car park uses, along ground floor street frontages to maintain pedestrian interest and activity at street level;
 - (b) be of a high quality design and complement the surrounding built form in terms of height, bulk and scale;
 - (c) provide surveillance, lighting and direct sightlines along clearly defined and direct walkways, through and within car parking areas and to lift and toilet areas;
 - (d) on a corner site with two major street frontages, be set back from the major street frontages, with commercial or other non-car park floor space in front of and screening the car parking building;
 - (e) on a site with only one major street frontage, include screening so that any car parking is not visible from the public realm either day or night, and detailed to complement neighbouring buildings in a manner consistent with desired character in the relevant Zone and Policy Area;
 - (f) incorporate treatments to manage the interface with adjacent housing, such as careful use of siting and use of materials and landscaping;

- (g) not have vehicle access points across major walking routes identified in [Map Adel/1 \(Overlay 2\)](#); and
- (h) provide safe and secure bicycle parking spaces in accordance with the requirements of [Table Adel/6](#).

Economic Growth and Land Use

OBJECTIVES

Objective 73: The role of the City enhanced as:

- (a) the community, civic and cultural heart of South Australia and as a driving force in the prosperity of the State;
- (b) the State centre for business, administration, services, employment, education, political and cultural activities, government and public administration;
- (c) a welcoming, secure, attractive and accessible meeting place for the people of metropolitan Adelaide and beyond for leisure, entertainment, civic and cultural activity, specialty shopping, personal and community services;
- (d) a centre for education and research built on key academic strengths and on the excellent learning environment and student accommodation available in the City;
- (e) a supportive environment for the development of new enterprises drawing on the cultural, educational, research, commercial and information technology strengths of the City centre;
- (f) the gateway to the attractions of South Australia for international and interstate visitors by developing a wide range of visitor accommodation, facilities and attractions, particularly attractions which showcase the particular strengths of South Australia; and
- (g) a great place to live, with a growing diversity of accommodation for different incomes and lifestyles.

Objective 74: A business environment which encourages investment from domestic and foreign sources, business development and employment.

Objective 75: Development which reinforces clusters and nodes of activity and distinctive local character.

Objective 76: A diverse mix of commercial, community, civic and residential activities to meet the future needs of the Capital City of South Australia.

PRINCIPLES OF DEVELOPMENT CONTROL

266 Development, particularly within the Capital City and Institutional Zones, is encouraged to:

- (a) provide a range of shopping facilities in locations that are readily accessible;
- (b) provide for the growth in economic activities that sustain and enhance the variety and mix of land uses and the character and function of the City;
- (c) maximise opportunities for co-location, multiple use and sharing of facilities;
- (d) be accessible to all modes of transport (particularly public transport) and safe pedestrian and cycling routes; and
- (e) have minimal impact on the amenity of residential areas.

- 268** Development is encouraged to develop and expand upon the existing or create new tourism activities to maximise employment and the long-term economic, social and cultural benefits of developing the City as a competitive domestic and international tourist destination.
- 269** Tourist facilities should be compatible with the prevailing character of the area, within close proximity to public transport facilities and well designed and sited.
- 270** Development located either abutting, straddling or within 20 metres of a Zone or Policy Area boundary should provide for a transition and reasonable gradation from the character desired from one to the other.
- 271** Development should not unreasonably restrict the development potential of adjacent sites, and should have regard to possible future impacts such as loss of daylight/sunlight access, privacy and outlook.