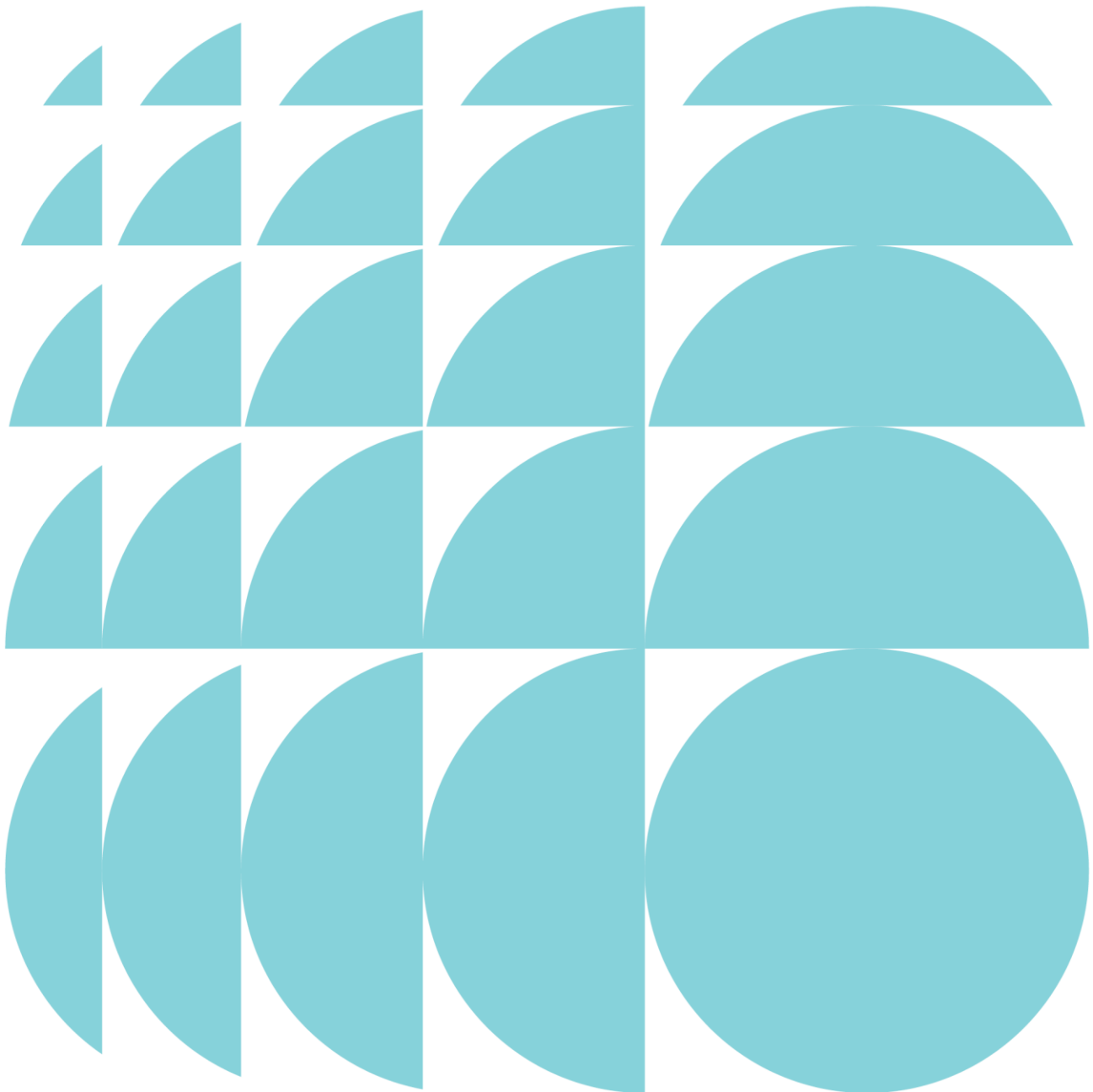


Liverpool Civic Place
52 Scott Street and 306-310 Macquarie Street, Liverpool

Submitted to Liverpool City Council
On behalf of Built Development Group

16 September 2019 | 2190157



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16 September 2019

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16 September 2019

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- F** Site Survey
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- H** Geotechnical and Environmental Investigation Report
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Wood & Grieve Engineers
- K** Clause 4.6 Variation Request
Ethos Urban
- L** Heritage Impact Statement
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- M** Preliminary Site Investigation
Douglas Partners
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1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Liverpool City Council (Council) in support of a Concept Proposal for a new mixed use precinct known as Liverpool Civic Place at 52 Scott Street and 306-310 Macquarie Street, Liverpool (the site). This application comprises a Concept Development Application under Section 4.22 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and is hereafter referred to as the 'Concept Proposal'.

This Concept Proposal seeks approval for various uses within proposed building envelopes. Specifically:

- A building envelope with a maximum height of RL 43.45 for the purpose of an information and education facility (public library) use.
- A building envelope with a maximum height of RL 84.25 for the purpose of a public administration building use, and either (or a combination of) commercial premises or child-care centre uses.
- A building envelope with a maximum height of RL 118.85 which will accommodate either (or a combination of) commercial premises, educational establishments, tourist and visitor accommodation or boarding house (student accommodation) uses.
- A landscaping and public domain concept including the provision of a public through-site link running north to south through the site, connecting Scott Street to the north through to Terminus Street to the south; and
- A building envelope for a three-level shared basement car park across the entire site to accommodate parking for all future uses (approximately 413 spaces, to be determined as part of future detailed DAs) and accommodating a public car park to be owned by Council.

This SEE has been prepared by Ethos Urban on behalf of Built Development Group (Built), and is based on the Building Envelope Plans provided by FJMT (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs and the proposed concept, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment.

2.0 Background

2.1 Planning Framework

Clause 7.5A of the *Liverpool Local Environmental Plan 2008* (Liverpool LEP 2008) relates to certain land within the Liverpool City Centre which is provided incentive planning controls (FSR and height) if certain criteria within the clause are met. Pursuant to Clause 7.5A(3) of the Liverpool LEP 2008, in order to realise the incentives within the clause, a site must be located within 'Area 8' on the Floor Space Ratio (FSR) map, have a lot size exceeding 1,500m² and have two or more street frontages, and at least 20% of the proposed GFA must be used for the purposes of business premises, centre-based child care facilities, community facilities, educational establishments, entertainment facilities, food and drink premises, functions centres, information and education facilities, medical centres, public administration buildings or retail premises.

Furthermore, development consent must not be provided in accordance with the clause unless:

- a development control plan that provides for various matters within the Clause has been prepared; and
- the site also includes recreation areas, recreation facilities (indoor), community facilities, information and education facilities, through site links or public car parks.

The site is located within Area 8 on the FSR, comprises a total site area of 9,189.5m² and has two street frontages. Accordingly, the Clause is applicable to the site and necessitates the preparation of a Development Control Plan (DCP) in accordance with the clause. Section 4.23 of the EP&A Act identifies that if an environmental planning instrument requires the preparation of a development control plan before any particular or kind of development is carried out on any land, that obligation may be satisfied by the making and approval of a concept development application in respect of that land.

A Concept Development Application made under Section 4.22 of the EP&A Act is one that sets out concept proposals for the development of a site, and for which detailed proposals for separate parts of the site are to be the subject of subsequent development applications. In accordance with Section 4.22 of the EP&A Act, this concept development application sets out a Concept Proposal for the future development of the site, and seeks approval for land uses, building envelopes, an expanse of public domain and a three level common basement as detailed in **Section 4.0**.

Furthermore, the Concept Proposal seeks approval for the strategic land uses nominated within the Clause (specifically, a public administration building and an information and education facility), and the proposal incorporates a through site link and public car park, satisfying the various requirements of the Clause.

A reference design has also been prepared by FJMT for the site (**Appendix B**), showing an indicative design concept. This material does not form part of the documentation sought for approval under this Concept Proposal, however is provided to assist in the assessment and determination of the Concept Proposal. The reference design demonstrates a built form option within the proposed building envelopes that supports the vision for the Liverpool Civic Place project. The final design will be resolved in subsequent detailed DAs, in conjunction with Council's Design Excellence Advisory Panel. Following this, future individual tenants will seek development consent for the fit out and use of their respective tenancy.

For absolute clarity, no physical works are proposed under this application.

2.1.1 Liverpool LEP 2008 Amendment No. 52

In May 2015, Council prepared a Planning Proposal in relation to approximately 70 hectares of urban land within the Liverpool City Centre, which includes the site. The Planning Proposal was prepared as Council considered that the historic zoning of Liverpool City Centre would not lead to development of a viable centre as envisaged by the *Revitalising Liverpool City Centre Plan 2006*. In the 10 years since the adoption of the City Centre Plan, the commercial core of Liverpool City Centre largely failed to develop. As such, the Planning Proposal sought to:

- rezone B3 Commercial Core zoned lands to B4 Mixed Use increase the development potential in parts of the existing B4 Mixed Use zone;

- change development standards to correspond to the proposed changes in land use to be principally controlled through built form; and
- allow for greater development potential and increased heights on larger sites, identified as 'key sites', that satisfy a range of criteria and are able to contribute to the public domain, facilities or amenity.

The Planning Proposal received a revised Gateway Determination from the NSW Department of Planning, Industry and Environment (the Department) on 24 September 2015, with the Department noting that:

'It is recommended that the delegate of the Greater Sydney Commission determine to make the draft LEP to Liverpool City Centre by facilitating up to 10,000 dwellings and approximately 22,000 jobs in the city centre. These developments will be in proximity of public transport infrastructure and will support Liverpool to meet the dwelling and job targets as identified in the Draft Western City District Plan'.

The Planning Proposal was finalised and Liverpool LEP 2008 Amendment No. 52 (Amendment 52) was gazetted on 5 September 2018. As such, the amended controls are now embedded within the Liverpool LEP 2008 and the new controls facilitate the Concept Proposal.

2.2 Withdrawn Liverpool Civic Place Development Application

On 21 December 2016, the proponent lodged a Concept Development Application for the Liverpool Civic Place project. This application related to a smaller site (refer to **Figure 1**) that did not include the three eastern lots identified as Lot 11 in DP 522284, Lot 100 in DP 877435 and Lot 12 in DP 657056 as these sites had not been procured by Council. The application sought approval for a concept illustrated in **Figure 2**, consisting of:

- a new four storey information and education facility (public library);
- eleven storey public administration building (Council office);
- two x thirty one (31) storey mixed use residential towers; and
- basement and above ground parking, site links and public open space.

This application was subsequently withdrawn following the procurement of the three eastern sites.



Figure 1: Withdrawn Concept DA site and layout

Source: FJMT



Figure 2: Indicative Photomontage of the withdrawn Concept Proposal

Source: FJMT

2.3 Pre-DA Consultation

Architectus has been engaged by Council to undertake an independent assessment of the Concept Proposal. Accordingly, a pre-lodgement meeting was held with Council and Architectus staff on Friday 14 June 2019. Architectus provided written feedback on 21 June 2019 regarding specific variations to development standards as well as other design considerations.

On 31 July 2018, a second pre-lodgement meeting was held with Council and Architectus at Council's offices. The purpose of the meeting was to seek technical feedback from Council's officers to accompany the planning and design feedback received in Architectus letter dated 21 June 2019. Whilst the Applicant was determined to respond to all pre-DA feedback, the meeting minutes were only received on the 11 September 2019 just prior to lodgement.

This feedback has been addressed in the design where possible, however given the timing of the second pre-DA feedback, a full response has only been provided to the original pre-DA feedback (refer to **Appendix E**). The Applicant is committed to working with Architectus and Council throughout the assessment to resolve the concerns identified in the pre-DA feedback received on 11 September 2019.

3.0 Site Analysis

3.1 Site Location and Context

The site is located at 52 Scott Street and 306-310 Macquarie Street, Liverpool within the Liverpool City Council Local Government Area, as illustrated in **Figure 3**.

The site is located approximately 300m south west of Liverpool Railway Station and is also in the vicinity of a number of regionally significant land uses and features including Liverpool Hospital, Westfield Liverpool, Western Sydney University Liverpool Campus, the Georges River and Biggie Park public open space as illustrated in **Figure 3**.

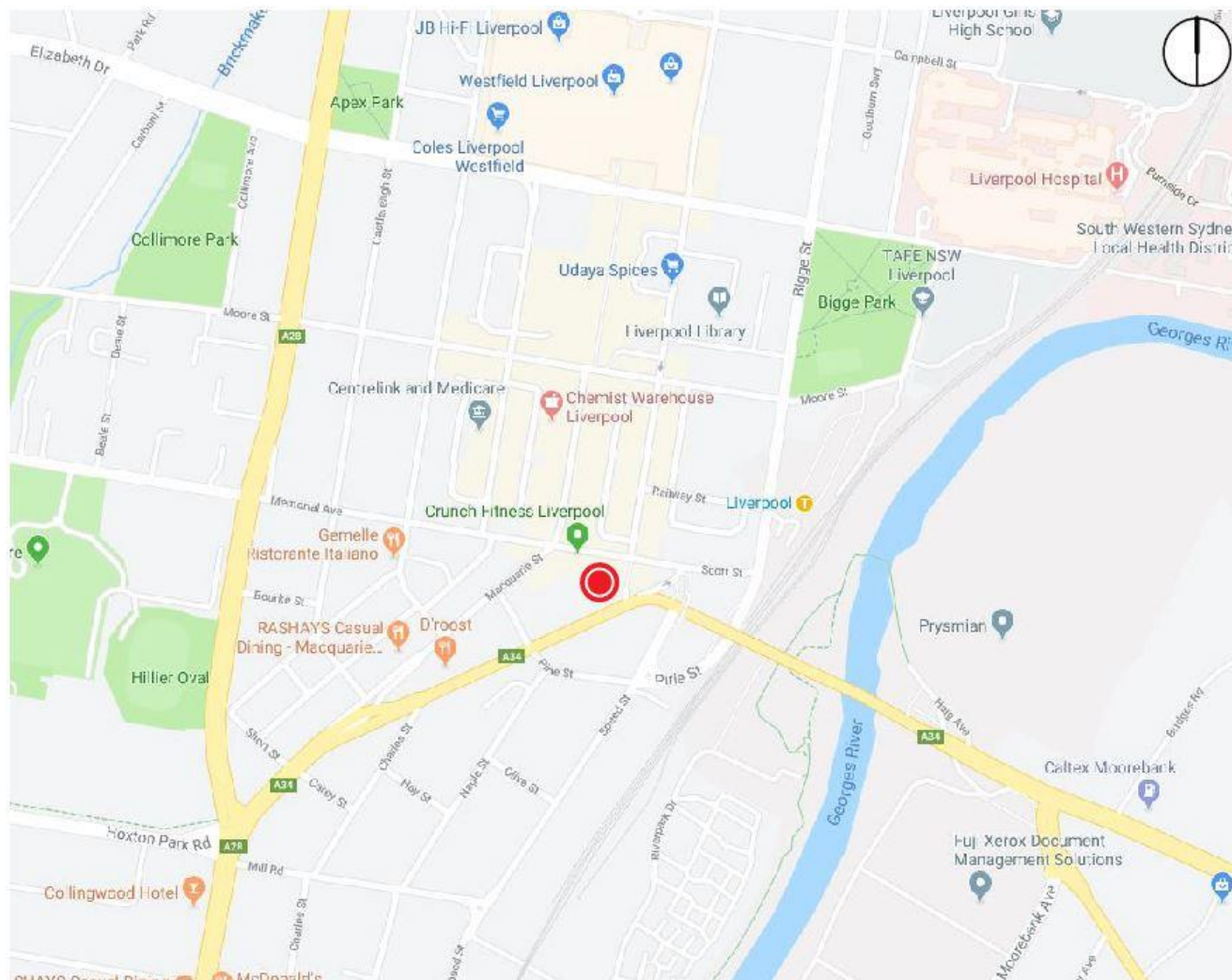


Figure 3: Site Location

Source: Google Maps and Ethos Urban



Figure 5: Site aerial

Source: Nearmap and Ethos Urban

3.2.1 Existing Development

The site is largely occupied by a two-storey commercial building with a large frontage to Scott Street (**Figure 6** and **Figure 7**). The commercial building is provided with an above ground car parking structure at the rear with a frontage to Terminus Street (**Figure 8**). The eastern portion of the site is occupied by a two storey retail building (**Figure 7**) with an adjoining car park at the rear (**Figure 10**). The two existing buildings are divided by a central vacant lot. The heritage listed Memorial Arts Building is also located on the site fronting Macquarie Street (**Figure 11**). Photographs of the existing development are provided at **Figure 6** to **Figure 11** below.



Figure 6: Commercial building occupying the site as viewed from Scott Street (north east)



Figure 7: Commercial building occupying the site as viewed from Scott Street (north west)



Figure 8: Above ground car parking structure as viewed from Terminus Street (south east)



Figure 9: Commercial building occupying the site as viewed from Scott Street (north east)



Figure 10: Rear car park of the commercial building as viewed from Terminus Street (south east)



Figure 11: Memorial Arts Building

3.2.2 Topography and Vegetation

A Site Survey has been prepared by Veris is provided at **Appendix F**. The survey illustrates that the site slopes to north with a fall of approximately 3.5m from its Terminus Street frontage (RL 25.95) to its Scott Street frontage (RL 22.74). The site is largely free of vegetation, with scattered grass cover present within the eastern vacant lots and street trees lining the Terminus Street boundary.

3.2.3 Access and Connectivity

Vehicular Access and Parking

The site has three street frontages, with Scott Street and Terminus Street being the primary street frontages. The site also has a frontage to Macquarie Street. Scott Street functions as a collector road connecting Memorial Avenue through to Bigge Street and is aligned in an east-west direction. Scott Street is a two-way, two lane road within a 12m wide carriageway with no vehicle access points to the site. Terminus Street is a classified RMS road including a two-way, two lane road within a 13m carriageway. The site is currently provided with two left in/left out vehicle access points off Terminus Street (**Figure 12** and **Figure 13**).



Figure 12: Existing development from the south



Figure 13: Existing development from the south east

Surrounding the site, on-street parking is generally paid and subject to a one hour time restriction. The western side of Macquarie Street has approximately four kerbside spaces. The northern side of Scott Street has approximately nine kerbside spaces and the southern side has approximately three kerbside parking spaces. The following off-street carparking is available within a short walking distance from the site:

- Northumberland Street Car Park – 440 spaces
- Bathurst Street South Car Park – 49 spaces
- Speed Street Car Park – 87 spaces
- Warren Service Way Car Park – 704 spaces

Pedestrian Access

Scott Street, Terminus Street and Macquarie Street are well-established pedestrian routes, with Liverpool Railway Station and the Liverpool retail precinct to the north being major generators of footfall traffic around the site. The site's eastern boundary fronts the George Street pedestrian access way which links Scott Street to Terminus Street.

Public Transport

The site is well serviced by public transport with the Liverpool Rail Station located approximately 300m to the north west of the site. Liverpool Station can be accessed via the T3 Bankstown Line, the T2 Inner West and Leppington Line and the T5 Cumberland Line.

Bus services are active along George Street to the north of the site. Specifically, George Street is serviced by five bus routes, linking Liverpool to Casula, Moorebank, Holsworthy, Chipping Norton, Burwood.

3.2.4 Heritage

Part of the site (Lot 201 DP 1224084, 306-310 Macquarie Street) contains a heritage item, being the Memorial School of Arts building (I99). However, the site is not located within a heritage conservation area, as illustrated in **Figure 14** below. The site is in the vicinity of several heritage items identified within the Liverpool LEP 2008. Notable amongst these heritage items includes:

- I89 – Plan of Town of Liverpool (Early town centre street layout – Hoddle 1827);
- I91 – Commercial Building (formerly Rural bank and State bank);
- I92 – Boer War Memorial, including memorial to Private A.E Smith;
- I93 – Macquarie Monument;
- I94 – Row of 3 palm trees;
- I109 – Liverpool Fire Station.

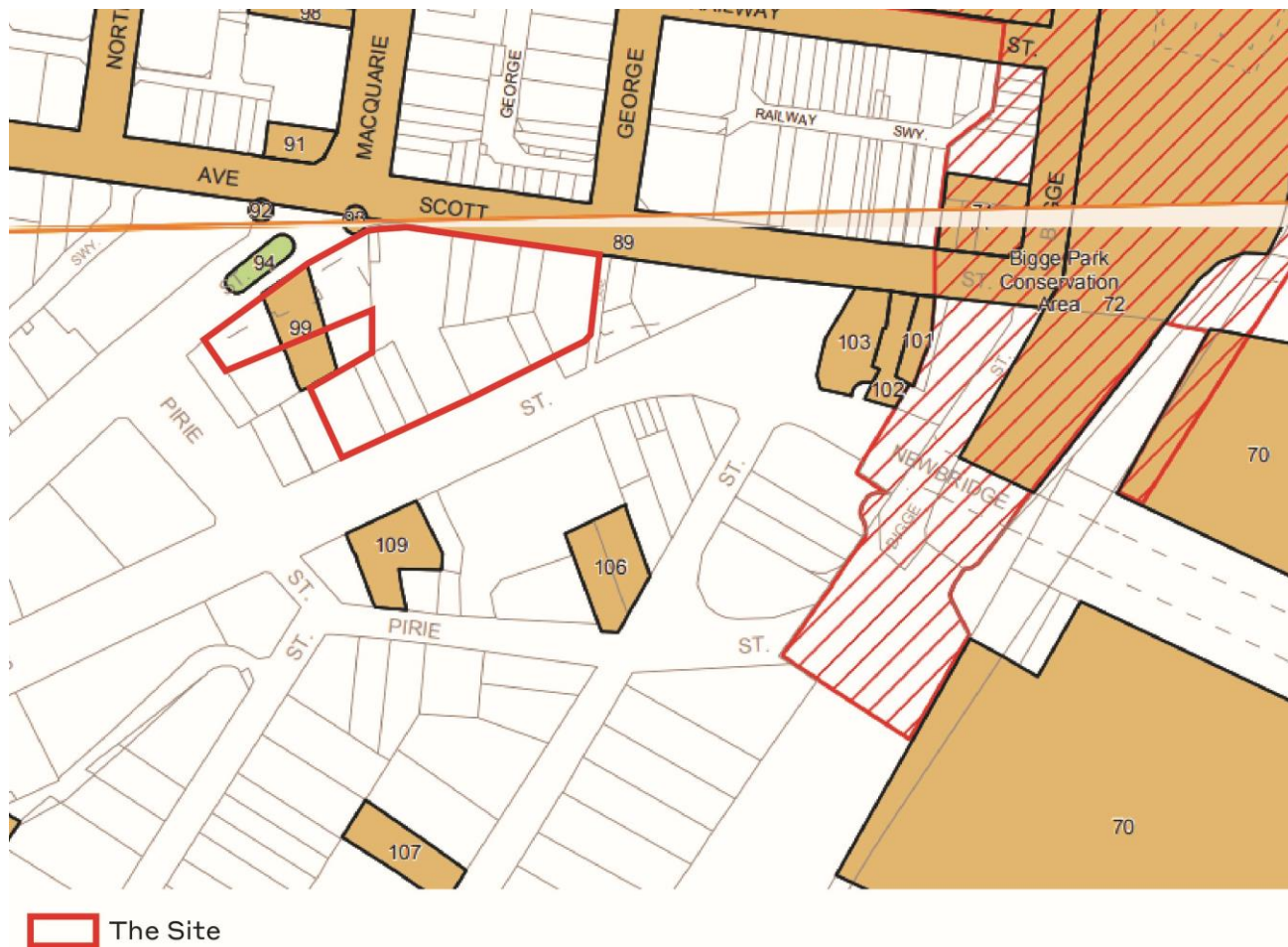


Figure 14: Heritage items in the vicinity of the site

Source: Liverpool LEP 2008 with additions

3.3 Surrounding Development

The Liverpool CBD is a growing strategic centre within Greater Western Sydney, comprising a true mixed use character. The Liverpool CBD is currently presented with opportunities for renewal and urban transformation which reflects the precinct's strategic positioning between Parramatta as Sydney's Central CBD and the future Badgerys Creek Aerotropolis. Key land uses within the surrounding area are illustrated in **Figure 15**, and the site's immediate surrounding context is outlined below.



Figure 15: Site context

Source: FJMT

North

Development to the north of the site, on the opposite side of Scott Street, includes retail and commercial buildings of two to three storeys, primarily containing retail and commercial uses (**Figure 16**). To the north east, the street block contains higher density commercial and service apartment uses (**Figure 17**). Further north, this development transitions into the Liverpool civic and retail centre bound by Macquarie Street (**Figure 18**) and George Street (**Figure 19**).



Figure 16: Retail and commercial buildings to the north



Figure 17: Higher density development to the north east

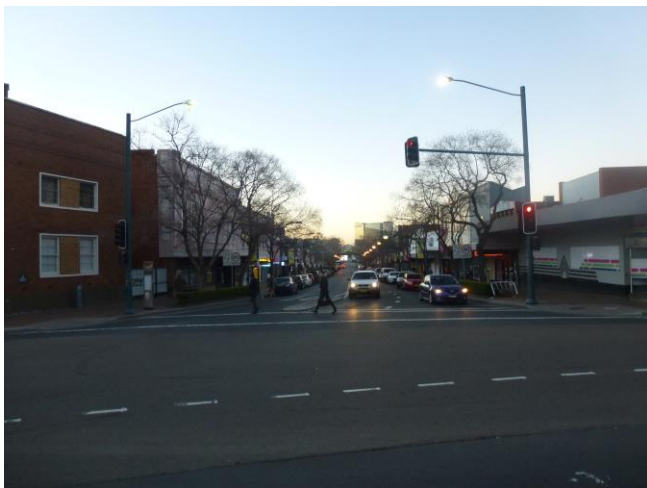


Figure 18: Macquarie Street to the north



Figure 19: George Street to the north

East

Development to the east of the site, on the opposite side of the eastern through site link, is a two storey commercial building (**Figure 20**). This building is not listed as a heritage significant item. To the east of this building is a larger two storey commercial building (**Figure 21**), which extends to the Scott Street and Terminus Street intersection. The Georges River and Liverpool Railway Station are a further 300m from the site and effectively mark the eastern boundary of the Liverpool CBD.



Figure 20: Two storey commercial building to the east of the George Street through site link



Figure 21: Two storey commercial building at the intersection of Scott and Terminus Street

South

To the south of the site, and on the opposite side of Terminus Street, is the Telstra Exchange building that has a height of approximately four storeys (**Figure 22**). As well as this, various retail stores front Terminus Street. Further south of the commercial Terminus Street strip the area transitions to a residential character with a number of four to five storey residential flat buildings (**Figure 23**).



Figure 22: Telstra Exchange building and adjoining retail tenancies to the south



Figure 23: Retail and medium density residential uses fronting Terminus Street to the south

West

Immediately to the west is a nine-storey mixed use development at 300 Macquarie Street (**Figure 24**). The mixed-use building presents a partial blank party wall to the site at the rear (**Figure 25**) and contains ground floor retail uses which are set back from the Memorial Arts Building and Macquarie Street. This adjoins a consolidation of low scale automotive service tenancies to the west (**Figure 26**).



Figure 24: Nine storey mixed use residential building to the west



Figure 25: Rear party wall presented to the site



Figure 26: Consolidated automotive service tenancies to the west

4.0 Description of Proposed Development

Section 4.23 of the EP&A Act relates to Concept Development Applications. A Concept Development Application is one that sets out a Concept Proposal for the development of a site, and for which detailed proposals for separate components of the development or parts of the site are the subject of subsequent development applications.

The Concept Proposal the subject of this application establishes the planning and development framework as the basis for the design of the future buildings, and against which to assess the future detailed, detailed development applications. This Concept Proposal articulates what the proponent is seeking to achieve for future development and sets the broad parameters for the redevelopment of the site.

This Concept Proposal seeks approval for various uses within proposed building envelopes. Specifically:

- A building envelope with a maximum height of RL 43.45 for the purpose of an information and education facility (public library) use.
- A building envelope with a maximum height of RL 84.25 for the purpose of a public administration building use, and either (or a combination of) commercial premises or child-care centre uses.
- A building envelope with a maximum height of RL 118.85 which will accommodate either (or a combination of) commercial premises, educational establishments, tourist and visitor accommodation or boarding house (student accommodation) uses.
- A landscaping and public domain concept including the provision of a public through-site link running north to south through the site, connecting Scott Street to the north through to Terminus Street to the south; and
- A building envelope for a three-level shared basement car park across the entire site to accommodate parking for all future uses (approximately 413 spaces, to be determined as part of future detailed DAs) and accommodating a public car park to be owned by Council.

Building Envelope Plans illustrating the proposal are included in **Appendix A** and an indicative massing diagram is provided below.



Figure 27: Indicative view of Liverpool Civic Place concept (reference design)

Source: FJMT

4.1 Numerical Overview

The key numeric development information is summarised in **Table 1**.

Table 1: Key development information

Component	Proposal
Concept Proposal total	
Site area	9,189.5m ²
Indicative GFA and FSR of Reference Design (Appendix B)	50,034m ² (5.44:1) Final GFA/FSR to be determined in subsequent detailed design applications
Maximum height	RL 118.850 (94.7m) to top of building envelope
Parking Spaces (indicative)	413 spaces (indicative – subject to change with detailed design applications)
- Car - Motorbike - Bicycle	- To be determined in subsequent detailed design applications - To be determined in subsequent detailed design applications
Landscaping and Public Domain of Reference Design (Appendix B)	Approximately 4,100m ² (44%) Final landscaping and public domain % and design to be determined in subsequent detailed design applications
North western building envelope	
Use	Information and education facility (public library)
Indicative GFA of Reference Design	5,059m ² Final GFA to be determined in subsequent detailed design applications.
Maximum height	RL 42.85
Setbacks and separation	0m setback to Scott Street 8.7m separation from the south western envelope 20m separation from the eastern envelope - Approximately 23m separation from the School of Arts Building
- North - South - East - West	
South western building envelope	
Use(s)	Public administration building and commercial and / or child care uses
Indicative GFA of Reference Design	17,014m ² Final GFA to be determined in subsequent detailed design applications
Maximum height	- RL 56.7 - RL 84.25
Podium setbacks and separation	37.2m front setback to Scott Street
North	

Component	Proposal
• South • East • West	• 8.7m separation from north western envelope • 0m rear setback to Terminus Street • 12m separation from the eastern envelope • 0m separation to adjacent site
Tower setbacks and separation • North • South • East • West	• Approximately 41.8m setback to Scott and 49.2m setback to Macquarie Street • 2.5m setback from Terminus Street • 12m separation from eastern envelope • 6m-12m separation from adjacent site
Eastern building envelope	
Use(s)	Either (or a combination of) commercial premises, educational establishment, tourist and visitor accommodation or boarding house (student accommodation) uses
Indicative GFA of Reference Design	27,961m ² Final GFA to be determined in subsequent detailed design applications
Maximum height	RL 118.85
Boundary setbacks and separation • North • South • East • West	• 0m front setback to Scott Street • 0m rear setback to Terminus Street • 0m side setback to laneway • 12m separation from south western envelope and 20m separation from north western envelope
Tower setbacks and separation • North • South • East • West	• 15.9m front setback from Scott Street • 2.5m rear setback from Terminus Street • 4.5m side setback to laneway • 12m separation from south western envelope and 20m separation from north western envelope

4.2 Development and Urban Design Principles

The planning and design principles adopted for the proposed development of the site are as follows:

- Promote the positioning of Liverpool Civic Place in the context of Global Sydney, and the specific urban conditions which would influence the design of this significant CBD site.
- Set overall design objectives relating to movement, open space and future built form, in order to guide the development of building envelopes and the initial design options analysis.
- Identify key heritage, urban design, built form, civic, public domain and transport opportunities and constraints throughout the wider precinct.
- Create a next generation workplace environment that realises the opportunities that are emerging in future work practice, wellbeing and sustainability, communication and digital technologies, security and mixed-use development.
- Be designed to allow flexibility of uses within the building (long life/loose fit) that can change over time.
- Generate flexible building envelopes to allow distinct detailed developments to emerge with design excellence.
- Create a development that is consistent with transit-oriented development principles, to reflect the scale and density appropriate for a site within the Liverpool CBD and proximity to the railway station.
- Make an outstanding contribution to Liverpool's urban realm both in terms of its fit into the existing and emerging built fabric, and in terms of its public experience.
- Create a visible gateway precinct at the southern end of Liverpool's CBD which will be highly visible from arterial roads, Liverpool Railway Station and main civic streets including Macquarie Street and George Street.

For further details refer to the Design Report prepared by FJMT provided in **Appendix C**.

4.3 Site Layout and Building Envelopes

The proposed building envelopes set the maximum vertical and horizontal parameters for the future buildings and are detailed within the Building Envelope Drawings prepared by FJMT (refer to **Appendix A**). As these building envelopes set the physical parameters within which the detailed building designs will be designed, it is necessary that they provide a degree of flexibility for the design development process, in order to facilitate design excellence.

The detailed design buildings within the prescribed building envelopes will be subject to future detailed development application(s). These future DAs will seek approval for the design, construction and fit out of the buildings on the site. The overall building envelopes sought to be approved through this Concept Proposal are articulated into five main components, being the:

- north western building envelope containing the information and education facility use (public library) (**Section 4.3.1**);
- south western envelope containing the public administration use and either (or a combination of) commercial premises or child-care centre uses (**Section 4.3.2**);
- eastern building envelope containing either (or a combination of) commercial premises, retail premises, educational establishments, tourist and visitor accommodation or boarding house (student accommodation) uses (**Section 4.3.3**);
- central building envelope containing the large expanse of public domain and service area (**Section 4.3.4**); and
- common three level basement servicing all uses contained on the site (**Section 4.3.5**).

The site layout is illustrated in **Figure 28** below.

It is emphasised that the proposed building envelopes set the maximum vertical and horizontal parameters of building lines. The building envelopes are designed as a 'loose fit' with sufficient excess volume to allow for design excellence to be achieved through the detailed building design and articulation.

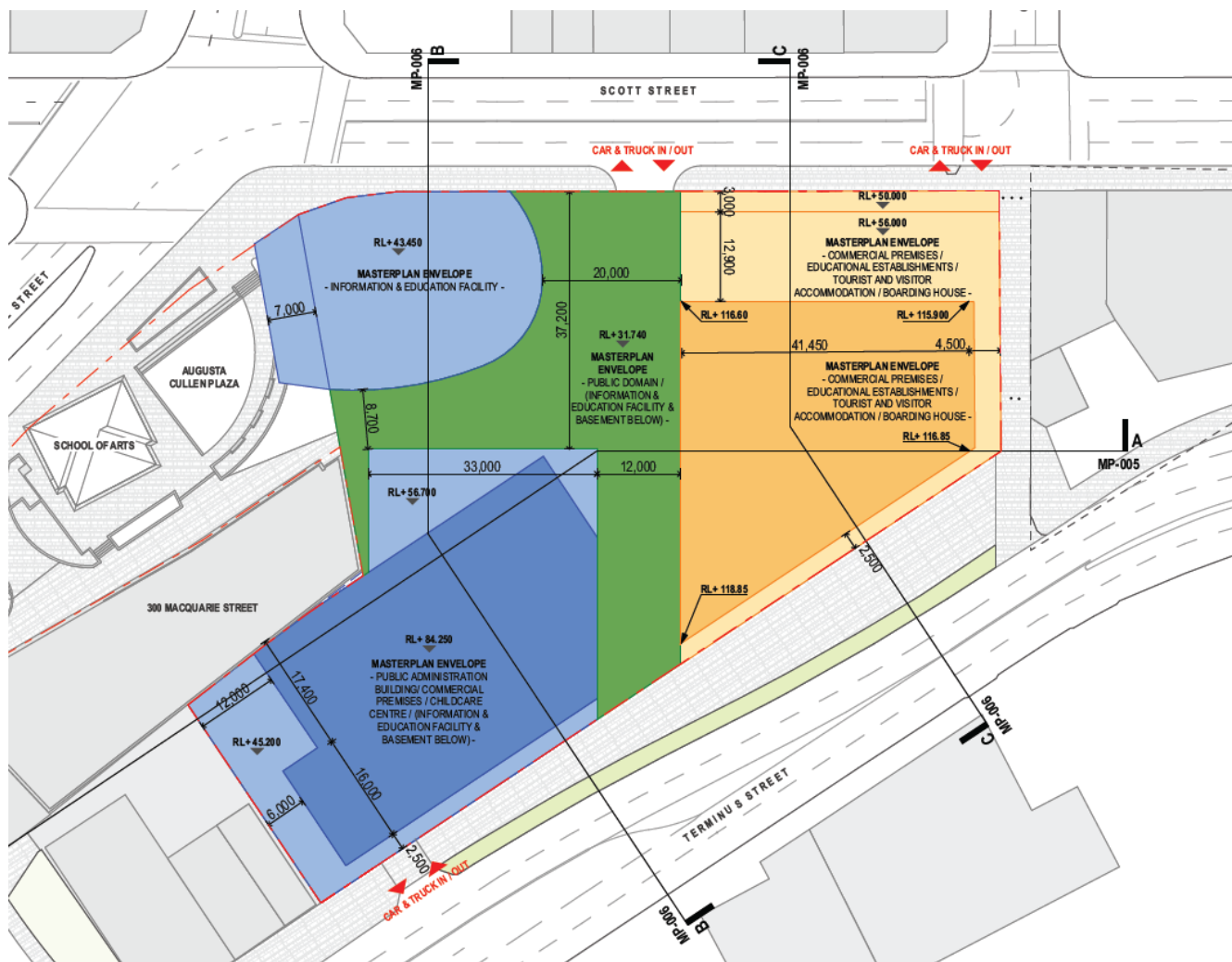


Figure 28: Proposed site layout

Source: FJMT

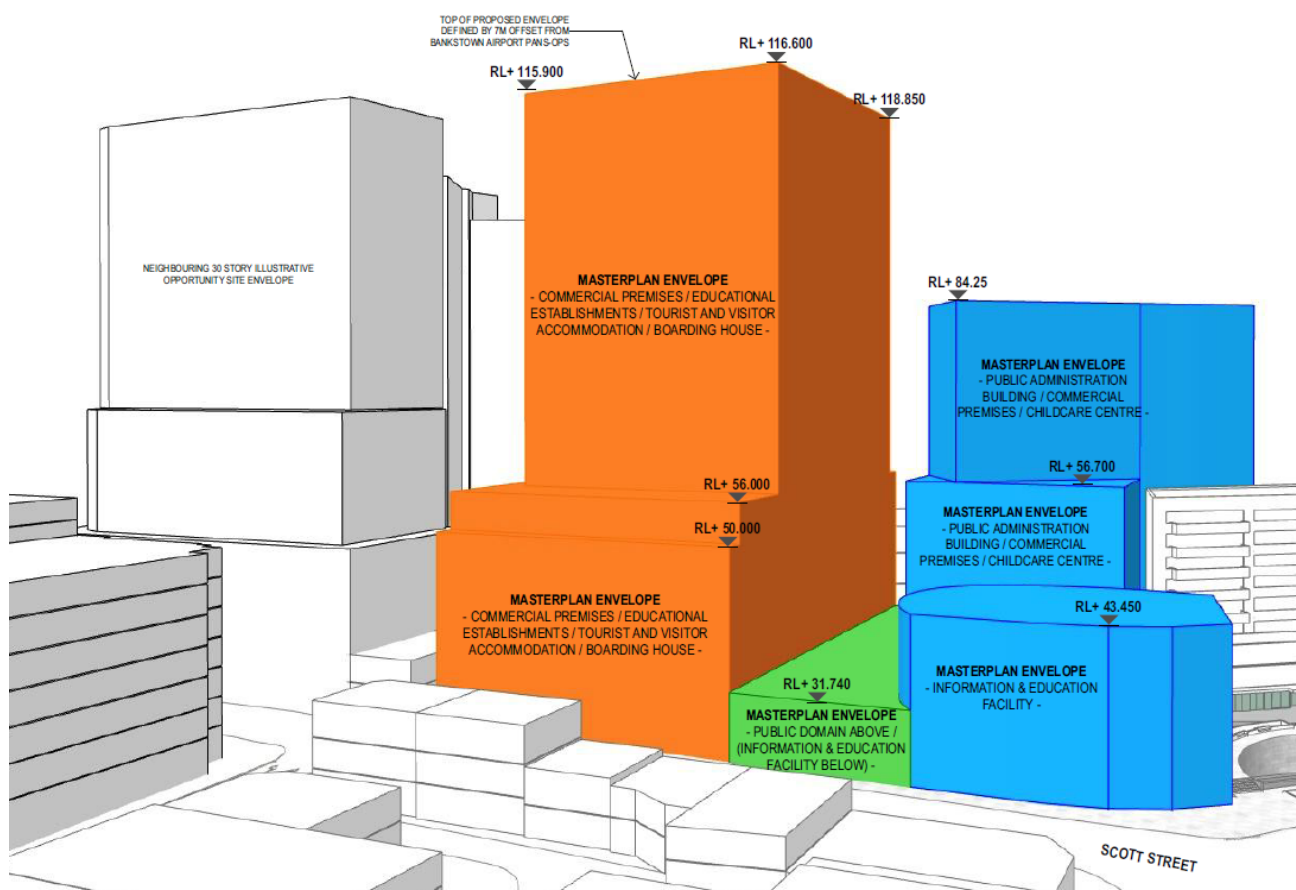


Figure 29: Proposed building envelopes

Source: FJMT

4.3.1 North western building envelope

The north western building envelope will contain the proposed information and education facility (public library). The public library concept building envelope extends to the Scott Street boundary. The massing of the building envelope will allow for a highly distinct round architectural form to emerge. The indicative GFA of the reference design in **Appendix B** is 5,059m². The maximum height of the building envelope will be RL 43.45. As illustrated in the reference design in **Appendix B**, the site's topography allows for the library to potentially incorporate a lower ground level that transitions into the centre of the site. This will be tested at the detailed design stage. Accordingly, allowance has been made in the design for part of the library to be accommodated within the upper ground level, lower ground level and the basement.

4.3.2 South western building envelope

The south western building envelope will contain the public administration building use and is setback 8.7m to the rear of the library envelope. The concept comprises a unique podium and tower design with varying orientation that visually breaks the built form and is highly responsive to the existing and future surrounding development. The podium is irregular in shape and is stepped from RL 56.7 to the north down to RL. 45.2 at the rear which provides a softer transition to the low scale site to the south west. The podium partially abuts the rear party wall of the mixed-use building at 300 Macquarie Street and then extends to the Terminus Street boundary and the boundary at the south western corner shared with the site at 81-83 Terminus Street.

The tower component of the building envelope extends to a maximum of RL 84.25 as illustrated in **Figure 30**. Consistent with the podium, the tower partially abuts the party wall to the north west up to its maximum height and is oriented in this direction to benefit from views over the Liverpool CBD. The tower envelope is set back 2.5m off the Terminus Street boundary and ranges from 6m-12m off the south western boundary.

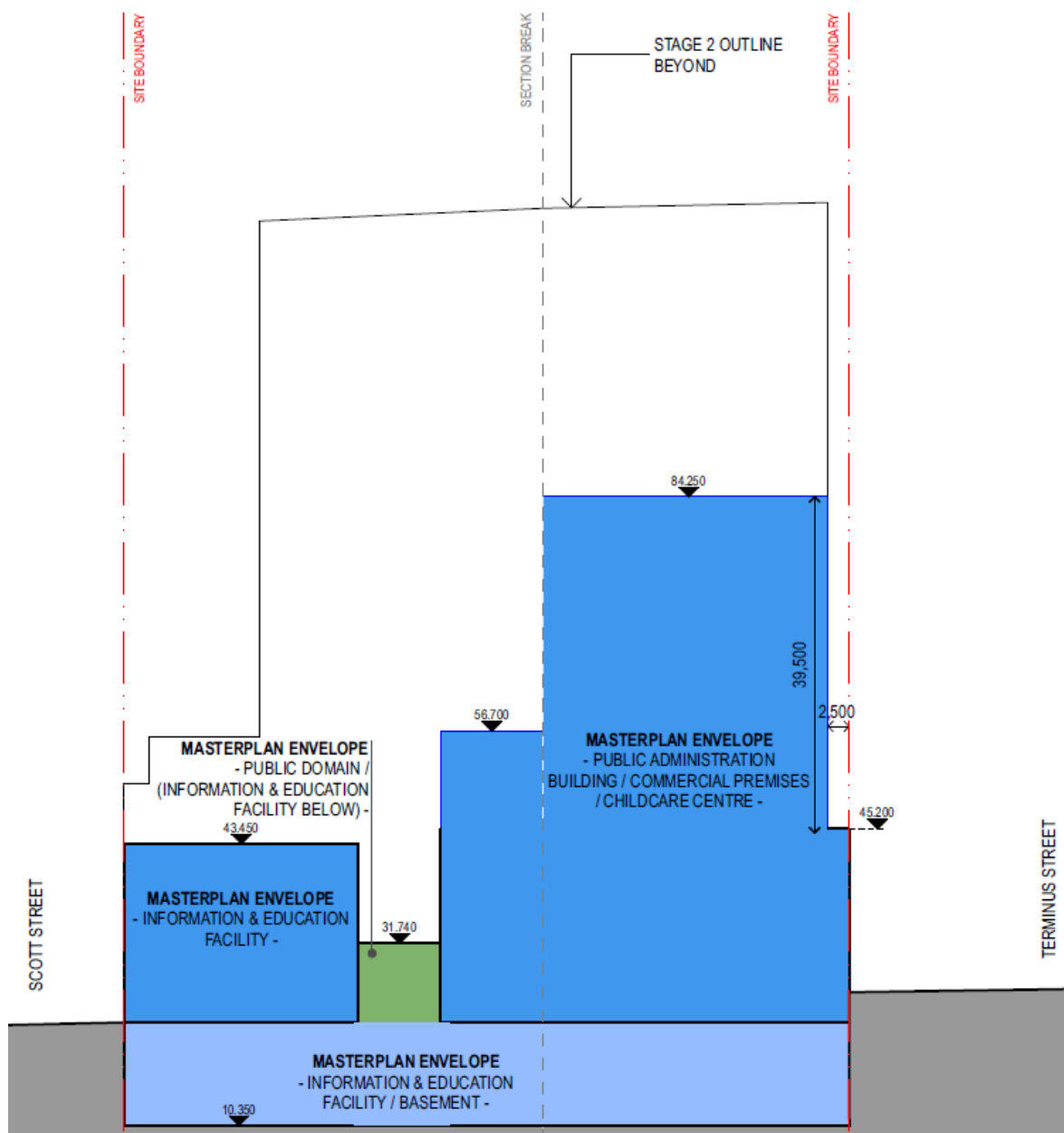


Figure 30: Proposed western building envelope (section)

Source: FJMT

4.3.3 Eastern building envelope

The eastern building envelope will accommodate either:

- Commercial premises;
- Retail premises;
- Educational establishments;
- Tourist and visitor accommodation;
- Boarding houses (student accommodation); or
- A combination of the above uses.

The northern component of this building envelope will accommodate a lower building form, either in the form of a building podium, or a smaller building fronting Scott Street. The maximum height will therefore be governed by the height of the building envelope in this portion of the site, being RL 56.00.

The tower component of the building envelope is designed with a maximum height of RL 118.85 and is set back 15.9m from the Scott Street boundary and 2.5m from the Terminus Street boundary. The envelope is set back 4.5m from the eastern boundary. A section through the proposed building envelope is shown in **Figure 31**.

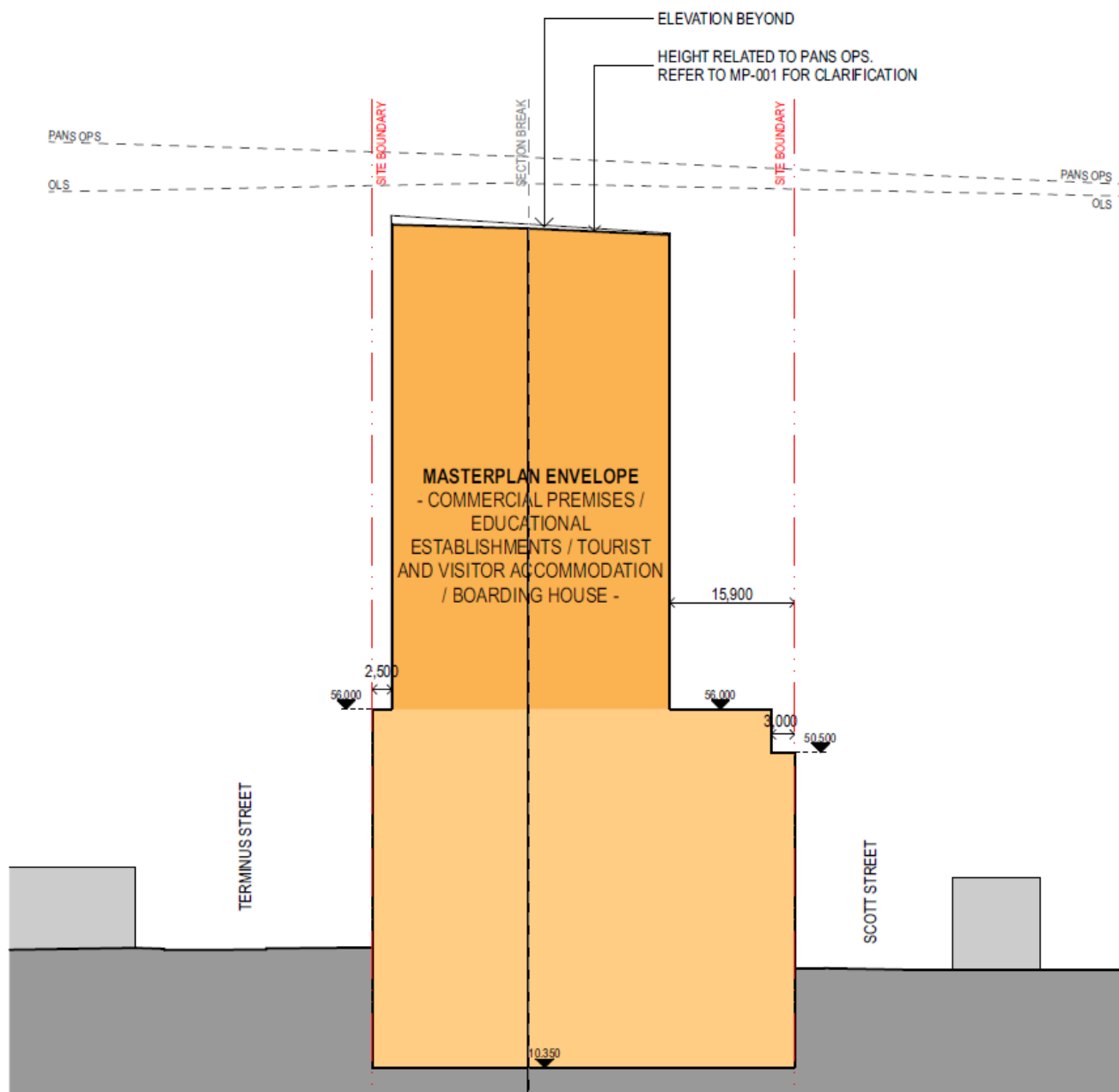


Figure 31: Proposed eastern building envelope

Source: FJMT

4.3.4 Landscaping and public domain concept

A landscape concept has been developed by FJMT and is provided in **Appendix D**, which effectively forms an extension of the reference design for information purposes. The provision of a large expanse of public domain has been a key consideration in the Concept Proposal, with the reference design demonstrating that the building envelopes can facilitate a future proposal achieving approximately 4,100m² of landscaping and public domain area across the site (44% of the site area). A significant through-site link features in the Concept Proposal linking Scott Street to the north to Terminus Street to the south via the upper ground floor. The link also includes a western wing connecting through to the existing Augusta Cullen Plaza public domain. The through site link is approximately 25m wide at the Scott Street entry, tapering to 12m at the southern entry and 8.7m at the western wing.

The location of the landscaping and public domain is responsive to the existing site conditions and will be integrated with the new site enhancements. As the site contains an approximate cross fall of 3.5m to the north, the level change has been identified as an opportunity to provide a unique public domain and landscape design solution. As illustrated in **Figure 32**, the landscape concept makes provision for a raised ground plane, to a maximum RL 31.74. This approach allows flexibility for the detailed design to explore a raised or folded ground plane as illustrated within the Design Report in **Appendix C**. This has been considered as one solution to address Council's spatial requirements for the library as well as the site's topographical conditions.

It is noted that landscaping will not be limited to the zone identified in the building envelope plans. The detailed design will explore further opportunities for landscape integration within the site, as supported by the indicative landscaped areas illustrated in the reference design in **Appendix B**.

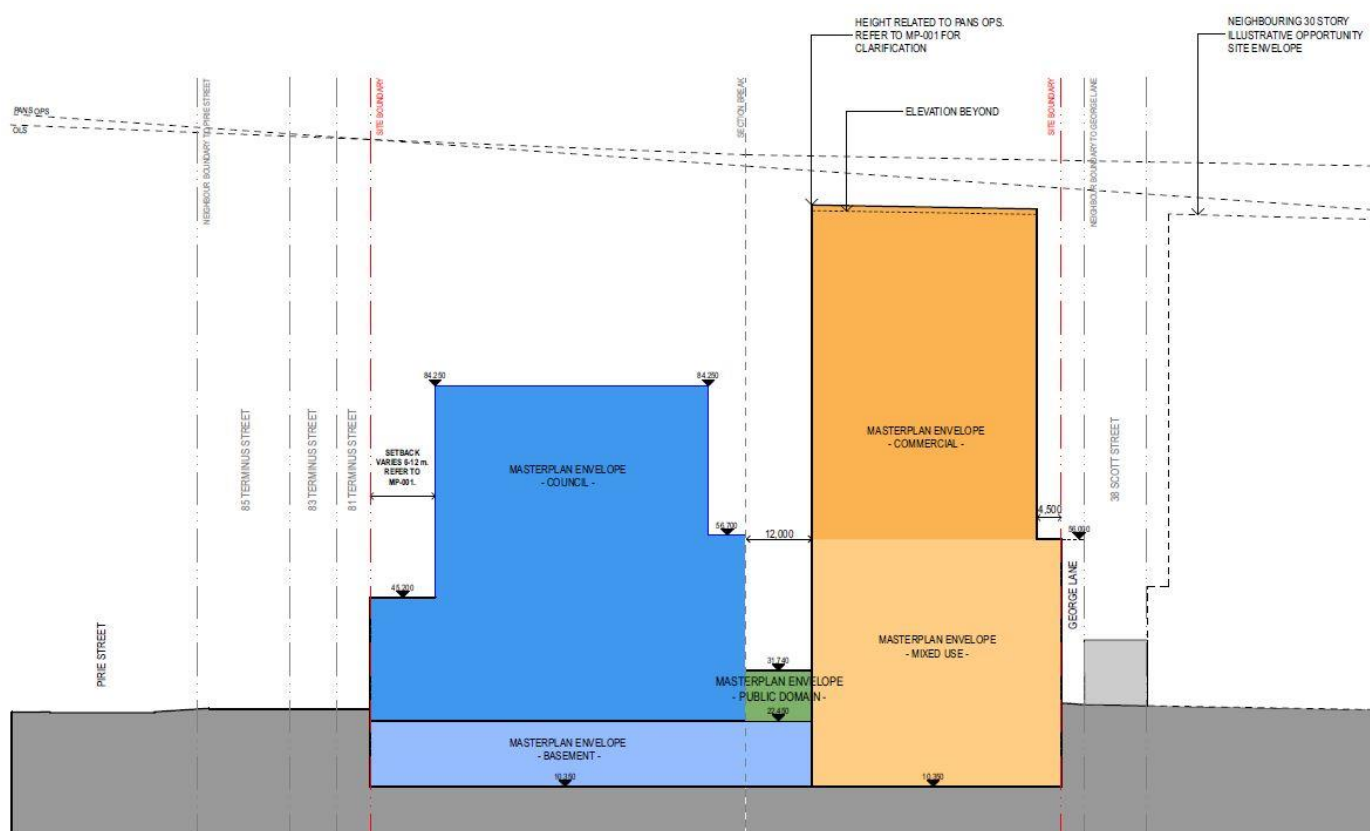


Figure 32: Proposed raised landscaping and public domain concept

Source: FJMT

4.3.5 Basement envelope

The proposed Concept Proposal contains a three-level basement across the entire site. It is to cater for the parking needs of all the future uses, along with a public car park, to be owned by Council. The basement will accommodate approximately 413 car parking spaces, to be determined as part of future detailed DAs.

4.4 Reference Design

Reference design material, showing an indicative design concept has been prepared by FJMT and is available in **Appendix B**. This material does not form part of the documentation sought for approval under this Concept Proposal, but rather is provided for information purposes only, to assist in the assessment and determination of the Concept Proposal.

The illustrative design demonstrates a built form option within the proposed building envelopes that supports the vision for the Liverpool Civic Place redevelopment and aligns with the urban design principles established by the FJMT Design Report. Future detailed DAs will provide detailed designs for built forms within the building envelopes once they are approved.

An illustration of a potential detailed development within the proposed building envelopes is provided in **Figure 33**.



Figure 33: Photomontage of an indicative reference design

Source: FJMT

4.5 Transport, access and parking

4.5.1 Pedestrian Access

The proposed concept allows future detailed development applications to provide multiple pedestrian access points to the site via Scott Street and Terminus Street, with exact locations to be determined. The proposed concept comprises a vision of activating the southern portion of Liverpool's CBD and integral to doing so is the provision of a through-site link. This is critical in the activation of this part of the Liverpool City Centre, as it provides a permeable open space area, allowing for pedestrian movement through Terminus Street to Scott Street. Future detailed development applications will be able to harness and expand on the pedestrian access that is facilitated through the Concept Proposal.

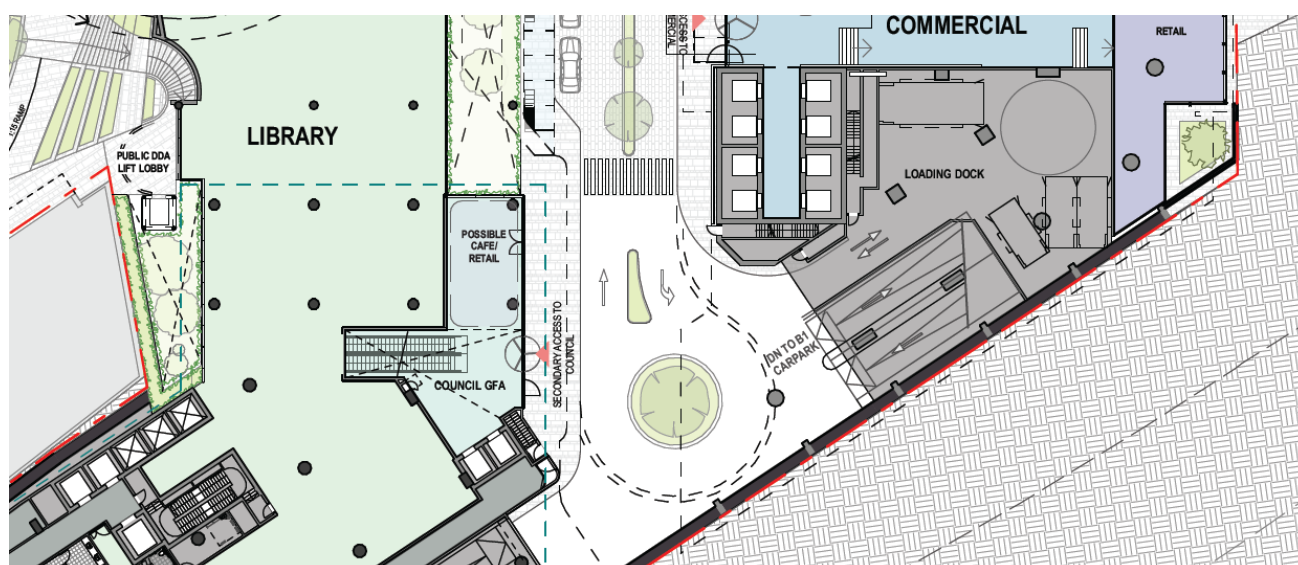
4.5.2 Vehicular Access and Parking

The proposed concept includes a vehicular access point on Scott Street, which continues through to the basement car park. It is proposed that this be the primary vehicular access and egress point for cars to and from the site. It will accommodate one travel lane in each direction for vehicle arrival and departure. Right turn movements to exit the site via Scott Street will be prohibited, as a result of the heavy right turn movements from George Street during peak periods.

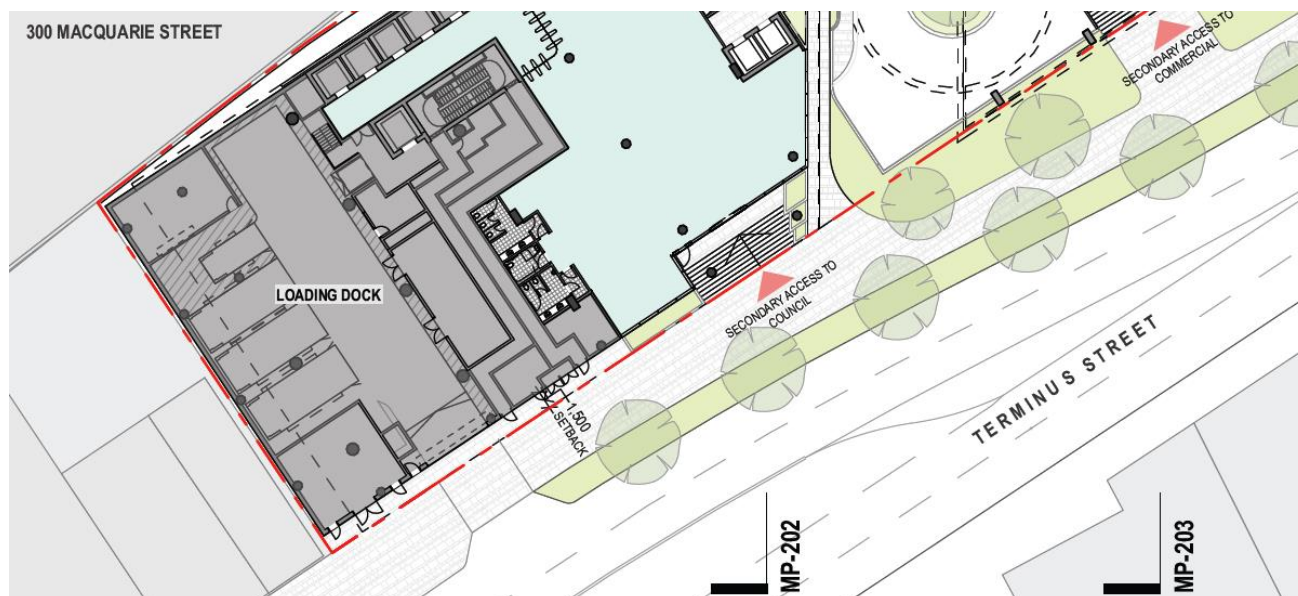
As discussed in **Section 4.3.5**, car parking will all be located within the basement, with approximately 413 car parking spaces to be provided, to be determined as part of future detailed DAs. The Traffic Impact Assessment prepared by PTC (**Appendix G**) notes that while a quantum of bicycle and motorcycle parking is required, these will be addressed as part of subsequent detailed development applications.

4.5.3 Loading and Servicing

The reference design in **Appendix B** provides two loading docks, one within the eastern building basement envelope and one beneath the south-western building basement envelope with entry points separate entry point for cars discussed above. These loading docks will be capable of accommodating a total of four medium rigid vehicles. The loading docks will be accessible via Terminus Street at the south-western corner of the site (western dock) and from Scott Street (eastern dock). Images sourced from the Reference Design identify the locations of these loading docks (**Figure 34**). Further to this, the proposed concept comprises four service bays which can accommodate smaller maintenance vehicles (i.e. utes and vans).



Lower Ground Floor (eastern) loading dock, accessible from Scott Street



Upper Ground Floor (western) loading dock, accessible from Terminus Street

Figure 34: Proposed loading dock locations

Source: FJMT

4.6 Development Staging

The Concept Proposal is intended to be delivered in two stages, as follows:

Stage 1 (north-west and south-west building envelopes)

- Information and education facility;
- Public administration building use, and either (or a combination of) commercial premises or child care centre.
- Landscaping and public domain; and
- Stage 1 Basement.

Stage 2 (eastern building envelope)

- Either (or a combination of) commercial premises, educational establishments, tourist and visitor accommodation or boarding house (student accommodation).
- Stage 2 basement

An indicative staging plan has been prepared by FJMT and is illustrated in **Figure 35** below.

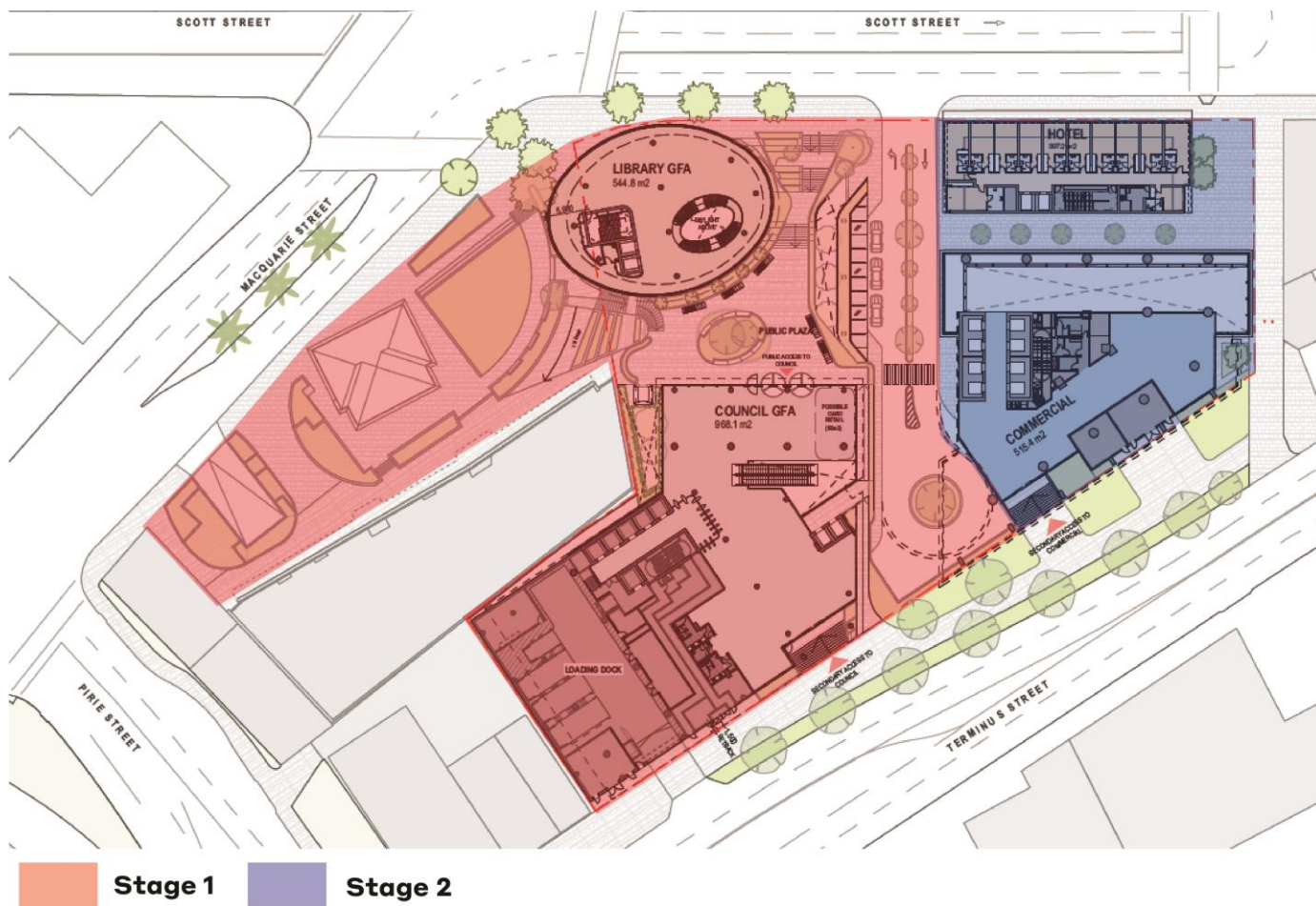


Figure 35: Indicative development staging

Source: FJMT & Ethos Urban

5.0 Assessment of environmental impacts

This section considers the planning issues relevant to the proposed development and provides an assessment of the relevant matters prescribed in section 4.15(1) of the EP&A Act.

5.1 Environmental planning instruments

The DA's consistency and compliance with the relevant statutory plans and policies is assessed in **Table 2** below. Variations to, and non-compliances with, the key standards and guidelines highlighted in the table are discussed in the following sections of this environmental assessment.

Table 2: Summary of consistency with State Environmental Planning Policies

Plan	Comments
Strategic Plans and Instruments	
The Greater Sydney Region Plan 'A Metropolis of Three Cities'	The Greater Sydney Region Plan is the current metropolitan strategy that establishes a vision for the future growth of Sydney to 2056. The proposal broadly supports the ten directions and objectives outlined in the Strategy in that it: • Supports the aim of Liverpool, as an established centre, being a critical location for commercial and retail businesses. • Provides high quality commercial floor space and public domain. • Co-locates employment generating uses with public transport. • Supports the economic sectors that contribute to investment and business.
Western City District Plan	The vision for Greater Sydney envisages Sydney as a metropolis of three cities, including the Western Parkland City, the Central River City and the Eastern Harbour City, comprising five more refined districts. Of these, the proposal is located within the Western City District. The proposal supports the objectives of the Western City District in that it: • Protect and develop the Liverpool CBD commercial core as a key component of the Western Metropolitan Cluster. • Revitalise the southern end of the Liverpool CBD, with activated uses and public domain. • Supports employment growth in proximity to existing transport infrastructure and builds on the centre's administrative and civic role. • Provides a community facility in the form of library use that caters to the community's needs. • Enrich unique places and connections through facilitating a network of attractive, liveable centres and community hubs connected by convenient transport links.
<i>State Environmental Planning Policy No 55 – Remediation of Land</i>	A consent authority must not consent to the carrying out of any development on land unless it has considered whether land is contaminated and if the land is contaminated, it is satisfied that the land is/can be suitable for the proposed development. A Preliminary Site Investigation (PSI) has been prepared by Douglas Partners at Appendix M. Douglas Partners consider that the site is/can be made suitable for council offices, library, community space, hotel, retail and commercial uses, consistent with the requirements of SEPP 55. Further discussion is provided in Section 5.11.
<i>State Environmental Planning Policy (Infrastructure) 2007</i>	The proposed development is deemed to be 'Traffic-generating' development under Clause 104 of the Infrastructure SEPP as it seeks approval for commercial premises greater than 10,000m² in area. The application must therefore be referred to Roads and Maritime Services (RMS) for comment.
<i>State Environmental Planning Policy (State and Regional Development) 2011</i>	As the proposal is a class of development described in Schedule 7 of <i>State Environmental Planning Policy (State and Regional Development) 2011</i>, being a Council related development that has a capital investment value (CIV) over \$5 million and a CIV over \$30 million (see Appendix I), Part 4 of the State and Regional Development SEPP applies to the DA. Under Part 4 of the SEPP, the Council's consent function is exercised by the Sydney Western City Joint Regional Planning Panel.
<i>Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment</i>	The GMREP No. 2 is a regional environmental plan which was established to guide developments and land use activities within the Georges River catchment areas. The GMREP No. 2 sets out a series of principles developed to protect the environmental

Plan	Comments
	sustainability and natural processes associated with the catchment areas from impacts arising from new developments. The proposal does not seek approval for any physical works. The Stormwater Management Plan prepared by Wood Grieve Engineers (Appendix J) illustrates the typical arrangements which will be adopted across the site, to ensure the future development does not adversely impact upon the health, quality and sustainability of the river and its tributaries and ecosystems.
Liverpool Local Environmental Plan 2008	
<i>Clause 2.3 – Zone Objectives and Land Use Table</i>	The site is zoned B4 Mixed Use under Liverpool LEP 2008. The Concept Proposal proposes a number of land uses including an information and education facility, public administration building and either (or a combination of) tourist and visitor accommodation, commercial, child care centre, educational establishment and retail land uses. All proposed uses are permissible with consent in the B4 Mixed Use zone. The Concept Proposal is consistent with the objectives of the zone as it: • Provides a mixture of compatible land uses in a highly serviced and CBD location. • Supports increased employment opportunities in proximity to existing and planned transport infrastructure. • Provides short term accommodation to support visitors in the Liverpool CBD. • Facilitates a high standard of urban design, convenient urban living and exceptional public amenity.
<i>Clause 4.3 – Height of Buildings</i>	The maximum building height for the site under the height of buildings map is 28m. However, this is superseded by clause 7.5A which allows the maximum height for 'opportunity sites' to exceed the mapped maximum building height (with no maximum height limit set under the clause). The Concept Proposal proposes a building envelope with a maximum height of RL 118.85, which is compliant with Clause 7.5A.
<i>Clause 4.4 – Floor Space Ratio</i>	The maximum permissible FSR for the site under the FSR map is 3:1. However, similar to the above, clause 7.5A increases the maximum permissible FSR for 'opportunity sites' to 10:1, subject to meeting the requirements of the Clause. The Concept Proposal does not seek approval for a specific quantum of floor space. However, the reference design in Appendix B demonstrates that the building envelopes are capable of accommodating a future proposal of approximately 50,034m², which constitutes an indicative FSR of 5.44:1. Accordingly, future detailed proposals are capable of complying with the incentive FSR controls established under Clause 7.5A.
<i>Clause 4.6 – Exemptions to development standards</i>	A request under Cause 4.6 to vary the development standards relating to building separation in Clause 7.4 of the LEP has been prepared (Appendix K). This variation is further explained in Section 5.3.5
<i>Clause 5.10 – Heritage Conservation</i>	Part of the site (Lot 201 DP 1224084, 306-310 Macquarie Street) contains a heritage item, being the Memorial School of Arts building (199). However, the site is not located within a heritage conservation area. The site is also proximate to a number of local heritage items as identified at Section 3.2.4 . Accordingly, a Heritage Impact Statement has been prepared by NBRS (Appendix L), which assesses the potential impacts of the proposal in the context of the surrounding heritage listed items. Further discussion is provided at Section 5.5 .
<i>Clause 7.1 – Objectives for development in Liverpool City Centre</i>	The Concept Proposal is consistent with the objectives for development in the Liverpool City Centre as it will facilitate a future development which: • Preserves the existing street layout, and enhances the CBD connectivity by providing a large through site link; • Modulates the envelope massing to ensure sunlight is maximised to the proposed public domain; • Contributes a large expanse of public domain to the southern portion of the Liverpool CBD; • Co-locates employment generating uses in proximity to the Liverpool Rail Station; • It preserves the existing street layout and provides a consistent building layout to those located north east of the site; and. • Does not diminish significant view lines to natural river foreshore and places of heritage significance.

Plan	Comments
<i>Clause 7.2 – Sun access in Liverpool city centre</i>	The proposal does not create additional overshadowing to any of the areas nominated under this clause.
<i>Clause 7.3 – Car parking in Liverpool city centre</i>	Clause 7.3 requires that: - at least one car parking space is provided for every 200m² of any new GFA that is on the ground floor level of the building - at least one car parking space is provided for every 100m² of any new GFA that is to be used for the purposes of retail premises - at least one car parking space is provided for every 150m² of any new GFA that is to be used for any other purpose. Based on the indicative GFA shown in the reference design (Appendix B), a future detailed proposal would need to provide at least 329 car parking spaces. However, the reference design illustrates that the proposed basement envelope is capable of accommodating approximately 413 car parking spaces. Accordingly, future detailed proposals are capable of complying with the car parking rates in the LEP within the basement envelope proposed.
<i>Clause 7.4 – Building separation in Liverpool city centre</i>	The proposed building envelopes vary the building separation requirements of Clause 7.4. Refer to Section 5.3.5 and the Clause 4.6 Variation Request at Appendix K .
<i>Clause 7.5 – Design excellence in Liverpool city centre</i>	While no physical works or detailed designs are proposed under this application, the Concept Proposal will provide a framework for the delivery of development which is capable of achieving the highest standard of architectural, urban, landscape, and environmental design, and therefore, design excellence. In addition, the Concept Proposal will be reviewed by Council's Design Excellence Advisory Panel as part of the assessment of the DA (and future detailed DAs). Refer to Section 5.1.1 below.
<i>Clause – 7.5A Additional provisions relating to certain land at Liverpool city centre</i>	The Concept Proposal complies with the requirements of Clause 7.5A. Refer to Section 5.1.2 below.
<i>Clause 7.7 – Acid sulfate soils</i>	The site is mapped as Class 5 under the Acid Sulfate Soils Map of the LEP. However, no works are proposed as part of the Concept Proposal. As such, Acid Sulfate Soils will be considered as part of future detailed development applications.
<i>Clause 7.8 – Flood planning</i>	Council has confirmed that the proposed concept is not impacted by flood waters. As such, there are no flood planning requirements imposed on the development. Refer to Section 5.12 below.
<i>Clause 7.16 – Ground floor development in Zones B1, B2 and B4</i>	In accordance with Clause 7.16, the ground floor of the buildings will not be used for the purposes of residential accommodation, and the Concept Proposal makes provision for the detailed design of the buildings to have least one entrance and at least one other door or window on the front of the building facing a street other than a service lane.
<i>Clause 7.17 – Airspace operations</i>	The proposed concept is not a 'controlled activity' pursuant to this clause. Future detailed development applications relating to the site will be assessed to determine whether the approval of cranes will result in these being regarded controlled activities. Refer to Section 5.9

5.1.1 Design Excellence

Clause 7.5 of the Liverpool LEP 2008 requires that the consent authority consider whether a proposed development exhibits design excellence. The Applicant is committed to working with Council's Design Excellence Advisory Panel on the Concept Proposal and the future detailed DA's to ensure all buildings and public domain elements exhibit design excellence.

Table 3 below provides an itemised assessment of the Concept Proposal against the design excellence provisions contained in clause 7.5 of the Liverpool LEP 2008, with a further detailed assessment to be provided with subsequent Stage 2 DA's.

Table 3: Compliance with the Liverpool LEP 2008 Design Excellence Provisions

Controls	Comments
<i>In considering whether development exhibits design excellence, the consent authority must have regard to the following matters:</i>	
Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	This matter will be addressed with future detailed DA's. The Concept Proposal does not preclude subsequent detailed designs from achieving a high standard of architectural design. As noted above, the Applicant is committed to working with Council's Design Excellence Advisory Panel so that the future detailed building and public domain elements exhibit design excellence.
Whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain	The proposed concept includes a dedicated public domain, including a through-site link which will considerably improve the quality and amenity of the public domain. Furthermore, the proposed envelope allows for future detailed DA's to make a quality contribution to improve the amenity of the public domain.
Whether the proposed development detrimentally impacts on view corridors	No significant view corridors from surrounding buildings or public places have been identified that would be impacted by the proposal. The Concept Proposal facilitates a high quality urban environment and does not unreasonably impede on views from the public domain to highly utilised parks or public parks in the vicinity of the site. Refer to Section 5.4.3 .
Whether the proposed development detrimentally overshadows Bigge Park, Liverpool Pioneers' Memorial Park, Apex Park, St Luke's Church Grounds and Macquarie Street Mall (between Elizabeth Street and Memorial Avenue)	The Concept Proposal will not overshadow any of these sites as illustrated on the overshadowing diagrams prepared by FJMT at Appendix C and discussed at Section 5.4.2 .
Any relevant requirements of applicable development control plans	Clause 7.5A(3) requires the preparation of a site-specific DCP. This is satisfied by virtue of this Concept Development Application and Concept Proposal, pursuant to Section 4.23 of the EP&A Act. Furthermore, the applicable current and draft provisions contained within the Liverpool DCP 2008 are addressed at Section 5.2 below.
How the proposed development addresses the following matters: (a) the suitability of the site for development (b) existing and proposed uses and use mix, (c) heritage issues and streetscape constraints, (d) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,	These provisions are mirrored in the clause 7.5A of the Liverpool LEP 2008 and are addressed within Table 4 below.

Controls	Comments
(e) bulk, massing and modulation of buildings, (f) street frontage heights, (g) environmental impacts such as sustainable design, overshadowing, wind and reflectivity (h) the achievement of the principles of ecologically sustainable development (i) pedestrian, cycle, vehicular and service access, circulation and requirements (j) the impact on, and any proposed improvements to, the public domain	

5.1.2 Additional provisions relating to certain land at Liverpool city centre

Clause 7.5A of the Liverpool LEP 2008 relates to certain land within the Liverpool City Centre which is provided incentive planning controls if certain criteria within the clause are met. These sites are herein referred to as 'opportunity sites'. **Table 4** below sets out the Concept Proposal's compliance with the clause.

Table 4: Assessment of the Concept Proposal against Clause 7.5A of Liverpool LEP 2008

Control	Comments
(1) <i>This clause applies to land development on land that:</i> (a) <i>is identified as "Area 8", "Area 9" or "Area 10" on the Floor Space Ratio Map, and</i> (b) <i>has a lot size exceeding 1,500m², and</i> (c) <i>has two or more street frontages.</i>	The site is mapped as 'Area 8' on the FSR map, has a combined lot size exceeding 1,500m² (9,189.5m²) and has at least two road frontages. Accordingly, Clause 7.5A applies to the Concept Proposal and the site qualifies as an opportunity site.
(2) <i>Despite clauses 4.3 and 4.4, if at least 20% of the gross floor area of a building is used for the purposes of business premises, centre-based child care facilities, community facilities, educational establishments, entertainment facilities, food and drink premises, functions centres, information and education facilities, medical centres, public administration buildings or retail premises—</i> (a) <i>the height of the building may exceed the maximum height shown for the land on the Height of Buildings Map, and</i> (b) <i>the maximum floor space ratio of the building may exceed the maximum floor space ratio shown for the land on the Floor</i>	The Concept Proposal seeks approval for various land uses and building envelopes (refer to Section 4.0). It does not seek approval for a specific quantum of floor space. However, the reference design in Appendix B demonstrates that the building envelopes are capable of accommodating a future proposal of approximately 50,034m², which constitutes an indicative FSR of 5.44:1. It is noted that of the total indicative GFA shown in the reference design, 5,059m² could be accommodated by an information and education facility (library). It is also noted that the south-western building envelope can accommodate approximately 17,014m² GFA for the purposes of a public administration building (final GFA number to be determined as part of a future detailed development application). Accordingly, future detailed proposal(s) are capable of complying with the minimum 20% GFA requirement to realise the FSR and height incentives within Clause 7.5A. The building envelopes proposed will allow future detailed proposals to realise the incentive controls of the Clause.

Control	Comments
<i>Space Ratio Map but must not exceed—</i> (i) <i>in relation to a building on land identified as “Area 8” or “Area 10” on the map—10:1</i> (ii) <i>in relation to a building on land identified as “Area 9” on the map—7:1.</i>	
(3) <i>Development consent must not be granted under this clause unless—</i> (a) <i>a development control plan that provides for the matters specified in subclause (4) has been prepared for the land, and</i> (b) <i>the site on which the building is located also includes recreation areas, recreation facilities (indoor), community facilities, information and education facilities, through site links or public car parks.</i>	Clause 7.5A(3) requires the preparation of a site-specific DCP. This is satisfied by virtue of this Concept Development Application and Concept Proposal, pursuant to Section 4.23 of the EP&A Act. Furthermore, the proposed concept seeks approval for an information and education facility (public library) use, and also envisages a through site link and a public car park. As such, the Concept Proposal satisfies both these requirements.
(4) <i>The development control plan must include provision for how proposed development is to address the following matters:</i>	See below.
(a) <i>the suitability of the land for development</i>	This is addressed in Section 5.14.
(b) <i>existing and proposed uses and use mix</i>	This Concept Proposal describes the existing use of the site and sets out a number of proposed land uses which will be developed on the site, the detail of which will be subject to future detailed proposals which will be consistent with the Concept Proposal once approved.
(c) <i>heritage issues and streetscape constraints</i>	This Concept Proposal assesses the impact of the proposal on heritage items on the site and in proximity and has determined that the proposal is appropriate from a heritage and streetscape perspective (refer to Section 5.5). Further assessment is contained within the Heritage Impact Statement at Appendix L.
(d) <i>The impact on any conservation area</i>	The site is not located within or immediately adjacent to a heritage conservation area.
(e) <i>the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form</i>	The Concept Proposal seeks approval for building envelopes on the site, which will set the maximum building parameters for future development on the site. The Concept Proposal sets out proposed locations of podiums and towers, with the proposed building envelopes designed having regard to the existing and future surrounding built form. Further discussion regarding the proposed building separation, setbacks, amenity and urban form is provided in Section 5.3 below.
(f) <i>bulk, massing and modulation of buildings</i>	The Concept Proposal sets out how the bulk, massing and modulation of the building envelopes are designed. Refer to Section 5.3.

Control	Comments
(g) <i>street frontage heights</i>	Refer to Section 5.3.2 below.
(h) <i>environmental impacts such as sustainable design, overshadowing, wind and reflectivity</i>	Overshadowing is addressed in Section 5.4.2 and wind in Section 5.7 . Sustainable design and reflectivity are matters that will be addressed in subsequent detailed design development applications.
(i) <i>the achievement of the principles of ecologically sustainable development</i>	ESD features will be integrated into the detailed designs and will be proposed as part of future development applications on site.
(j) <i>encouraging sustainable transport, including increased use of public transport, walking and cycling, road access and the circulation network and car parking provision, including integrated options to reduce car use</i>	Refer to Section 5.6 below.
(k) <i>the impact on, and any proposed improvements to, the public domain</i>	The Concept Proposal will facilitate significant improvements to the public domain, through the allowance of significant space for public domain areas. This can be harnessed and further expanded upon in subsequent detailed development applications.
(l) <i>achieving appropriate interface at ground level between buildings and the public domain</i>	The Concept Proposal achieves activation of the public domain, by providing a new open space and a large through site link which can be utilised by the general public. In addition, a landscaped through site link creates a walkable space connecting Terminus Street at the south to Scott Street at the north. Refer to the Design Report prepared by FJMT at Appendix C .
(m) <i>the excellence and integration of landscape design</i>	The Concept Proposal will facilitate a significant public domain area which will accommodate a landscaping strategy. The design of a potential landscaping solution is provided in Appendix D .

5.2 Development Control Plans

The Liverpool Development Control Plan 2008 (Liverpool DCP 2008) is the relevant DCP for the site. The Concept Proposal is consistent with the objectives of the Liverpool DCP 2008 for the following reasons:

- The preparation of this concept development application in lieu of a site-specific DCP for the site is made pursuant to Section 4.23 of the EP&A Act, thereby providing more detailed provisions for future detailed development applications;
- It earmarks a portion of the overall concept for the purposes of a landscaped through-site link, which will enhance the natural environment contained within the Liverpool City Centre;
- The proposed concept will provide a significant and transformative benefit to the amenity and urban and environmental design of the City of Liverpool;
- It respects the environmental heritage of Liverpool, with the orientation of the proposed building envelopes set back considerably from the nearest heritage items; and
- The Concept Proposal sets the appropriate parameters to enable future detailed development to be environmentally sustainable.

An assessment of the proposal against the provisions of the Liverpool DCP 2008 is provided in **Table 5**.

Council has exhibited a draft Part 4 of the DCP in relation to development within the Liverpool City Centre. As this draft section has been publicly exhibited, an assessment of the Concept Proposal has been undertaken of this Draft DCP in addition to the currently applicable DCP as a matter of public interest. Accordingly, an assessment of the proposal against the draft provisions contained under Part 4 is provided in **Table 6**. The Liverpool DCP 2008 notes that Part 4 must be read in conjunction with Part 1 which is also addressed in **Table 5**.

Under Section 4.15(3A) of the EP&A Act, a consent authority is required to apply DCP provisions flexibly and allow reasonable alternative solutions that achieve the objects of those standards. Where alternate solutions to the standard Liverpool DCP provisions are proposed, they are identified below and discussed in the following sections of this environmental assessment where necessary.

Table 5: Summary of consistency with Liverpool DCP 2008

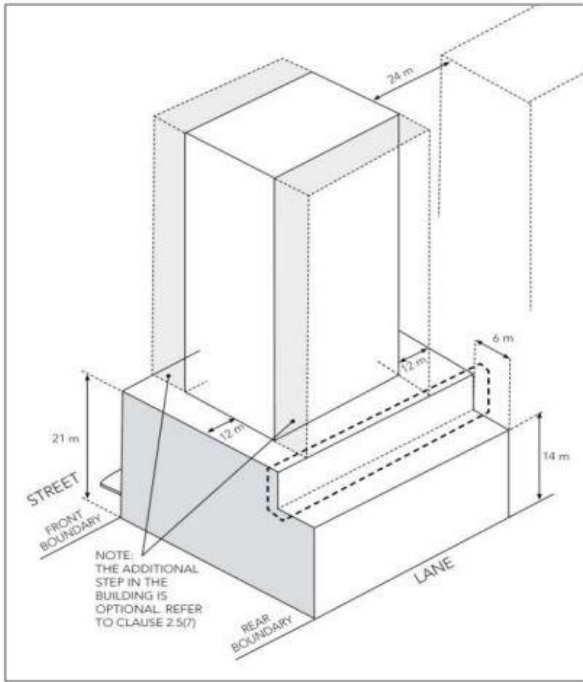
DCP Section	Control	Comment
Part 1 – General Controls for all Development		
2. Tree Preservation	<i>Any approvals to remove or prune trees issued with a development consent shall lapse when the development consent lapses or becomes invalid or void.</i>	No physical works including tree removal is proposed under this application.
4. Bushland and Fauna Habitat Preservation	<i>Bushland, particularly that identified as a threatened community or habitat for a threatened species shall be substantially retained and incorporated within a development. Clearing of bushland in association with any development shall be limited to the extent necessary to facilitate the safe and orderly use of the land</i>	The site does not contain bushland, threatened community or habitat.
5. Bush Fire Risk	<i>All development shall comply with provisions of the Rural Fires and Assessment Act 2002 and Planning for Bushfire Protection 2006.</i>	The site is not on or located in the immediate vicinity of bushfire prone land.
6. Water Cycle Management	<i>Stormwater runoff shall be connected to Council's drainage system by gravity means. Mechanical means (i.e. pump) for disposal of stormwater runoff will not be permitted except for basement car parks. Charged systems will not be permitted.</i>	Stormwater quantity, Stormwater quality (WSUD) and Erosion & sediment control has been discussed within the Stormwater Management Plan at Appendix J .
9. Flooding Risk	<i>The controls vary depending on:</i> 1. <i>Sensitivity of a land use to flooding</i> 2. <i>Severity of flood impact on site</i> 3. <i>Specific Floodplain in which a site is located</i>	As set out within the Stormwater Management Plan at Appendix J , during discussions with Council it was confirmed by the Stormwater Team

DCP Section	Control	Comment
		that the site is not flood affected and as a result would not be subject to the Flood Planning Control requirements of Council's DCP.
10. Contaminated Land Risk	<i>If the initial evaluation by Council finds insufficient information available, or sufficient information is available, which indicates that contamination is an issue for the site, a Preliminary Contamination Investigation (Stage 1) shall be undertaken.</i>	A Preliminary Site Investigation has been prepared by Douglas and is provided at Appendix P . Refer to Section 5.11 .
12. Acid Sulfate Soils Risk	<i>If acid sulfate soils are present and not likely to be disturbed, best practice measures employed to manage the quality of water leaving the site shall be detailed in the SEE or equivalent.</i>	The site is mapped as Class 5 under the Acid Sulfate Soils Map of the LEP. However, no works are proposed as part of the Concept Proposal. As such, Acid Sulfate Soils will be considered as part of future detailed development applications.
16. Aboriginal Archaeology	<i>An initial investigation must be carried out to determine if the proposed development or activity occurs on land potentially containing an item of aboriginal archaeology. If any of the above features apply then the relevant Aboriginal community must be consulted, as part of the initial investigation to ensure that the potential for the land to contain Aboriginal sites, places or relics has not been overlooked by previous studies.</i>	No physical works including site disturbance and excavation is proposed as part of this application. Archaeological Investigations will be considered as part of future DA's that involve bulk earth works.
17. Heritage and Archaeological Sites	<i>A Statement of Heritage Impact must be submitted with any applications for development to:</i> • <i>Heritage items;</i> • <i>Properties in the vicinity of heritage items where the works may impact upon the item;</i> • <i>Properties within heritage conservation areas, including applications for demolition; and</i> • <i>Fire upgrading of heritage items and buildings in heritage conservation areas.</i>	
20.2 Car Parking	<i>Car Parking in Liverpool City Centre:</i> • <i>1 space per 100sqm of floor area</i> <i>Sufficient service and delivery vehicle parking adequate to provide for the needs of the development</i>	Future detailed DAs are capable of complying.
	<i>Motorcycle parking for all development:</i> • <i>Provision is to be made for motorcycle parking at the rate of 1 motorcycle space per 20 car spaces</i>	Future detailed DAs are capable of complying.
	<i>Minimum Car parking requirements for people with disabilities</i> • <i>Provide 2% of the total demand generated by a development, for parking spaces accessible, designed and appropriately signposted for use by persons with disabilities.</i>	Future detailed DAs are capable of complying.
	<i>Bicycle parking for all development</i> • <i>1 bicycle space per 200sqm of leasable floor area. 15% of this requirement is to be accessible to visitors.</i>	Future detailed DAs are capable of complying.

DCP Section	Control		Comment
Part 4 Liverpool City Centre			
Building to Street Alignment and Street Setbacks	Street building alignment and street setbacks are to comply with Figure 3. (0m Scott Street and 2-2.5m Terminus Street)		The Concept Proposal complies with the nil Scott Street setback, however an alternate solution to the Terminus Street setback is proposed as discussed in Section 5.3.2 of this report.
Street Frontage Heights	The street frontage height of buildings must comply with the minimum and maximum heights above mean ground level on the street front as shown in Figure 5. (16m-26m or 4-6 storeys)		The Concept Proposal partially complies at the Scott Street frontage, however the street frontage heights vary to Scott and Terminus Street, as discussed at Section 5.3.2
Building Depth and Bulk	The maximum floor plate sizes and depth of buildings are specified and illustrated in Figure 6 and Table 1. (900m²)		The site is in a mixed use zone, however, does not propose a residential use. As such, more appropriate floor plate controls would be the 1,200m² applicable to commercial core zoned land. Specific floor plate sizes and efficiencies will be developed in the detailed designs, however the floor plates will be targeted at approximately 1,200m² as market driven floor plates.
Boundary Setbacks and Building Depth and Bulk	The minimum building setbacks from the front, side and rear property boundaries are specified below		The proposal seeks to vary the DCP setback and separation controls. The proposed building separations and setbacks associated with the proposed building envelopes are discussed in Section 5.3.5 and Section 5.3.2 respectively
	Up to 45m: 6m street frontage height 6m side setback 6m rear setback	Over 45m: 6m street frontage height 14m side setback 14m rear setback	
Mixed Use Buildings	The ground floor component of a mixed-use building is to be used for a permitted non-residential use.		No residential uses are proposed.
Site Cover and Deep Soil Zones	The maximum permitted site coverage for development: (a) Commercial and mixed use: Up to 100%		Complies.
Amenity	Through site links are to be provided as shown in Figure 11.		The Concept Proposal includes a through-site link connecting Scott Street and Terminus Street, however it is located further to the east than indicated in the DCP. This is discussed at Section 5.3.4 .
Active Street Frontages and Address	In the commercial core, mixed use and enterprise corridor zones, active street fronts are required in the form of non-residential uses on ground level.		The Concept Proposal includes active ground level uses, with no residential development proposed.
Safety and Security	Address ‘Safer-by-Design’ principles to the design of public and private domain, and in all developments (including the NSW Police ‘Safer by Design’ crime prevention through environmental design (CPTED) principles).		Refer to the CPTED Assessment provided at Appendix Q .
Awnings	Street frontage awnings are to be provided for all new developments as indicated in Figure 16.		Any future detailed development application will provide street frontage awnings, in line with this control.

DCP Section	Control	Comment
Vehicle Footpath Crossings	<i>Wherever practicable, vehicle access is to be a single lane crossing with a maximum width of 2.7m over the footpath, and perpendicular to the kerb alignment. In exceptional circumstances, a double lane crossing with a maximum width of 6m may be permitted for safety reasons</i>	As indicated on the reference design, vehicle access has been nominated off Scott Street.
Public Artworks	<i>Public art is to respond to the particular site of the development as well as the city as a whole.</i>	Public art will be considered as part of the detailed design.
Pedestrian Access and Mobility	<i>Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity.</i>	The Concept Proposal presents envelopes whereby future detailed designs can present main access points off Scott Street or the internal road.
On Site Parking	<i>Car Parking in Liverpool City Centre:</i> • 1 space per 100sqm of floor area <i>Sufficient service and delivery vehicle parking adequate to provide for the needs of the development</i>	Future detailed DAs are capable of complying. Refer to Section 5.6.4 .
Energy Efficiency and Conservation	<i>All Class 5 to 9 non-residential development is to comply with the Building Code of Australia energy efficiency provisions.</i>	The detailed designs will incorporate ESD features to ensure the relevant targets are met.
Reflectivity	<i>New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.</i>	Building façade materiality is not proposed under the Concept Proposal. External materials and façade expression will be considered as part of future detailed applications.
Wind Mitigation	<i>A Wind Effects Report is to be submitted with the DA for all buildings greater than 35m in height.</i>	Refer to the Wind Impact Assessment at Appendix N . Refer to Section 5.7 below.
Noise	<i>An acoustic report is required for all noise affected locations, as identified in Figure 25. This report is to demonstrate that appropriate noise attenuation and barrier planning is to be implemented</i>	An Acoustic Impact Assessment is provided at Appendix O . Refer to Section 5.8 below.
Waste	<i>Development applications for all non-residential development must be accompanied by a waste management plan</i>	Waste generation and management will be assessed as part of future detailed applications.
Design Excellence	<i>In determining a development application the Liverpool LEP 2008 requires the consent authority to consider whether the proposed development exhibits design excellence</i>	Refer to Table 3 above.

Table 6: Summary of consistency with Draft Liverpool DCP 2008 (Part 4 Liverpool City Centre)

DCP Section	Control	Comment
Draft Part 4 – Development in Liverpool City Centre		
4.2.1 Building Form	Develop new buildings in Liverpool City Centre using the following building typologies: <i>Perimeter block typology for Mid Rise Sites with the exception of those Mid Rise Sites developed as Opportunity sites, which may also be developed with a tower on podium typology.</i>	The site qualifies as an Opportunity Site pursuant to the Liverpool DCP 2008. Therefore, the podium tower-built form provisions outlined below are applicable.
4.2.2 Building Envelopes	Design tower on podium buildings for Opportunity Sites and Long Term Civic Sites to comply with the building envelopes as illustrated below: Figure 4-7: Tower on a Podium/Mid-Block 	The subject Concept Proposal has had regard to the prescribed building envelope controls. However, the site has been amalgamated in a way that has warranted the development of envelopes that depart from those prescribed in draft Part 4 in order to achieve the optimal built form and urban design outcome for the site. Refer to Section 5.3 and Section 5.4.1
4.2.5 Additional controls for 'master planned' sites	1. A 'Master Plan' DA is to be submitted to Council for approval. The "Master Plan" is to meet the objectives of LLEP 2008, LDCP 2008 and other relevant policies for any development application on any of the following sites: a) Long Term Civic Sites as defined by Clause 7.5A of LLEP 2008; b) Any site in the proximity of a heritage item or located within the Bigge Park Conservation Area. 2. As defined in LLEP2008 a "Master Plan" must: (a) Be based on an analysis of the characteristics and the local context of the land to which it applies (b) Articulate planning and design principles relating to development of the land and explain how these address Part 4 of Liverpool Development Control Plan 2008 and any other relevant documents or plans	This Concept Development Application for a Concept Proposal satisfies this requirement. Complies. Refer to the Design Report prepared by FJMT in Appendix C for a detailed site analysis. Design Principles relating to the development of the land have been outlined in Section 0 of this report. The design principles have informed the building envelopes on the site, as discussed in Section 5.3 of this report in greater detail.

DCP Section	Control	Comment
	(c) <i>Conceptually outline and show graphically the proposed site layout and planning for the development of the land, including the conceptual vertical and horizontal distribution of activities, arrangement, footprint, envelopes and mix of types of buildings, heritage and conservation considerations, pedestrian and vehicular access and movements, parking and open space arrangements, and ways by which the development proposed maximises ecological sustainability and contributes to public domain enhancement</i> (d) <i>Illustrate a number of options for redevelopment of the land to which it applies</i>	The Building Envelope Drawings in Appendix A effectively set the proposed 'layout' of the scheme. Future detailed proposals will be consistent with these envelopes and will provide further detail in relation to those matters identified in the control. The reference scheme in Appendix B demonstrates how the building envelopes can accommodate a detailed proposal which considers all the matters within the control. In developing the reference scheme and building envelope design the subject of this Concept Proposal, a number of alternatives were considered. These alternatives are set out in Section 11 of the Design Report in Appendix C. The design has evolved through a number of iterations where a number of different envelope configurations were considered. Pre-DA feedback has been taken into account in developing the proposed building envelopes, as well as feedback from Council's Design Excellence Panel.
4.2.6 Additional controls for Opportunity Sites	1. <i>Meet the requirements of those specified in LLEP 2008 for a site to be developed as an "Opportunity Site".</i> 2. <i>Residential or commercial tower is consistent with ADG separation and side setback distances.</i> 3. <i>Locate non-residential uses at ground level that address all road frontages</i>	The site is mapped as 'Area 8' on the FSR map, has a combined lot size exceeding 1,500m² (9,189.5m²) and has at least two road frontages. Accordingly, the site qualifies as an Opportunity Site. No residential uses are proposed as part of this Concept Proposal. Building separations and setbacks associated with the proposed building envelopes are discussed in Section 5.3.5 and Section 5.3.2 respectively. Complies. The ground floor of the buildings that make up the Concept Proposal will not be used for the purposes of residential accommodation. The Concept Proposal makes provision for the detailed design of the buildings to have least one entrance and at least one other door or window on the front of the building facing a street other than a service lane.

DCP Section	Control	Comment
	4. Locate a minimum of two levels above ground that are either developed for commercial uses or are constructed in a manner that can be easily adapted to commercial uses 5. Develop a maximum of two levels of above-ground car parking, provided it is sleeved by other uses on street frontages and appropriately screened or sleeved by other uses on lane/serviceway frontages 6. Design a tower on podium building form so that the podium is: (a) four to six storeys in height at the primary street frontage; (b) four storeys in height to the lanes and/or serviceways; and (c) includes a 6 metre setback from a side/rear boundary if the site is adjoining a property that is not zoned B4 – Mixed Use or contains a stand-alone building. The setback should be in accordance with the ADG 7. Design a tower building that may be integrated with the podium and not set back from the podium. This is most likely to occur in a corner condition where there is a generous street setback or where a public plaza is to be located. 8. Identify public benefits provided by the development to the satisfaction of Council and formalise in an approved planning agreement pursuant to Section 93F of the Environmental Planning and Assessment Act 1979 (Planning Agreements).	Complies. The proposed concept allows the flexibility for any future detailed development application to easily adapt the envelope to accommodate commercial uses in the two levels above ground level. Not applicable – basement car parking is provided. An alternate solution is proposed, in accordance with draft Section 4.2.5 of Liverpool DCP 2008, which requires a master plan or Concept Proposal to be prepared for ‘master planned’ sites. This is discussed in Section 5.3 of this report. No VPA is proposed.
4.2.7 Building Floor Plates	1. Design the floor plate sizes and depth of buildings for Fine Grain and Mid Rise sites as indicated in the building envelopes.	Refer to Section 5.3 of this report.
	2. Provide a maximum GFA of 700m ² per level for residential towers with maximum length of elevation of 45m.	Not applicable as no residential development is proposed.
	3. Comply with ADG standards for building depth and number of apartments.	
	4. Provide a maximum GFA of 1,000m ² per level for commercial towers with maximum length of elevation of 45m. Where sites are greater than 2,000m ² a proportionally larger GFA may be considered.	This control provides an opportunity for larger floor plates to be provided on the site, as proposed.
4.2.8 Street Alignments and Street Setbacks	Buildings to comply with the front setbacks: • 3m Scott Street • 2.5m Terminus Street • Upper level frontages to a lane/serviceway must be setback 6 metres from the centre line of the lane/serviceway	The Concept Proposal (prepared pursuant to Section 4.2.5 of the DCP) provides an alternative solution to setbacks. Building separations and setbacks associated with the proposed building envelopes are discussed in Section 5.3.5 and Section 5.3.2 respectively.
4.2.9 Side and rear boundary setbacks	1. All residential and commercial buildings to comply with the separation distances in SEPP 65 and the ADG unless otherwise agreed with Council in an approved master plan.	For further discussion regarding separation distances, refer to the Clause 4.6 Variation prepared by Ethos Urban in Appendix K and Section 5.3.5 of this report.
	5. Construct buildings across the site facing the street and the rear boundaries rather than facing side boundaries.	Complies.

DCP Section	Control	Comment
4.2.10 Minimum Floor to Ceiling Heights	The minimum floor to ceiling heights are: (a) Ground floor: 3.6m. (b) Above ground level: - Commercial office 3.3m. - Capable of adaptation to commercial uses 3.3m - Active public uses, such as retail and restaurants 3.6m (c) Car Parks: Sufficient to cater to the needs of all vehicles that will access the car park	Capable of complying.
4.2.12 Deep Soil Zones and Site Cover	The maximum permitted site coverage for development: (a) Commercial Core, Fine Grain and Mid Rise: Up to 100%	Complies.
4.2.13 Public Open Space and Communal Open Space	New Public Open Space 2. Dedicate open space to Council, where required, as part of an approved Master Plan DA if the space meets the requirements of Council in terms of: • location; • aspect; • accessibility; • safety; and • solar access. The open space must be located and designed so that at least 50% of the open space provided has a minimum of 3 hours of sunlight between 10am and 3pm on 21 June (Winter Solstice).	To be resolved as part of a future detailed proposal.
4.3.1 Pedestrian Permeability	1. Design through-site links to have direct sight lines	Complies. Refer to the Design Report prepared by FJMT in Appendix C .
	2. Locate through-site links as shown in Figure 4-12.	The Concept Proposal provides an alternate location for a through-site link. Refer to Section 5.3.4 .
	3. Locate through-site links within "through site link encouragement areas" (as identified in Figure 4-12) opposite other through site links.	
	4. Extend existing dead end lanes (as identified in in Figure 4-12) through to the next street as redevelopment occurs.	Not applicable.
	5. Connect new through site links with existing and proposed through site links, serviceways, shared zones, arcades and pedestrian ways.	Not applicable.
	6. Introduce alternative sites with similar connections where new links cannot be directly aligned with existing links.	The Concept Proposal is consistent with this control, envisaging a through site link in an alternate location.
	7. Retain existing publicly and privately owned through-site links	Not applicable.
	8. Locate active uses on through site links where possible	Future detailed proposals will be capable of complying.
	9. Nominate sites for through-site links, shared zones etc. that may be acquired by Council or may be considered as a public benefit in a redevelopment of an Opportunity site.	Not applicable.
	10. Vehicular access shall be provided from secondary streets or laneways only. Vehicular access will not be allowed from the primary street frontage unless there are no other alternative accesses available	There are no other alternative access points available on the site. Therefore, vehicular access will be via Scott Street. Vehicular access is discussed in detail within the Traffic Impact Assessment prepared by PTC Consultants in Appendix G and the associated discussion in Section 5.6 of this report.

DCP Section	Control	Comment
	<u>Specific Controls for Different Link Typologies</u> 3. Pedestrian Arcades and Through Site Links must: a) Be a minimum width of 5m clear of all obstructions (including columns, stairs, and escalators). b) Provide public access at all business trading times. c) Be at least 2 storeys high. d) Have access to natural light for at least 50% of their length, where appropriate. e) Incorporate clear glazed entry doors comprising at least 50% of the entrance where air conditioned, and to be accessible 18/7 (18 hours per day, 7 days per week). f) Display signage at street entries indicating public accessibility and the street to which the through site link connects	The Concept Proposal includes a reference scheme which demonstrates one potential solution for a through site link which is generally capable of complying with the DCP control.
4.3.3 Active Street Frontages	1. Locate active street frontages on ground level of all areas identified on the Active Street Frontages Map in LLEP 2008 Maps including adjacent through-site links. 2. Locate active street frontages in the existing Mixed Use, Commercial Core, Enterprise Corridor and Neighbourhood zones (as identified in Figure 4-2), on ground level. This does not preclude servicing activities particularly in the serviceways. 3. Locate active street frontages at first floor level in addition to ground for sites addressing major roads as depicted in Figure 4-16. 4. Locate street fronts at the same level as the footpath and with direct access from the street. 5. Use only open grill or transparent security (at least 50% visually transparent) shutters to retail frontages.	The Concept Proposal provides the flexibility for future detailed proposals to achieve the active street frontage control objectives, as illustrated in the Reference Design in Appendix B .
4.3.4 Street Address	1. Provide a clear street address and direct pedestrian access off the primary street frontage in mixed use and residential developments. 2. Provide multiple entrances to large developments on all street frontages. 3. Provide direct 'front door' and/or garden access to the street in ground floor residential units.	The Concept Proposal provides the flexibility for future detailed proposals to achieve the active street frontage control objectives, as illustrated in the Reference Design in Appendix B .
4.3.7 Awnings	Provide street frontage awnings for all new developments on streets: • Scott Street and • Terminus Street	Any future detailed development application will provide street frontage awnings, in line with this control.
4.5.1 Wind Mitigation	1. Design all new buildings to meet the following maximum wind criteria: (a) 10m/second in retail streets; (b) 3m/second along major pedestrian streets, parks and public places; and (c) 16m/second in all other streets. 2. Submit a Wind Effects Report with the DA for all buildings greater than 35m in height 3. Submit results of a Wind Tunnel Testing report for buildings over 48m in height	The proposed concept involves a building envelope that is capable of accommodating buildings that will meet all the relevant criteria. A Wind Impact Assessment has been prepared by Windtech at Appendix O which satisfies this requirement. Wind impact is further discussed in Section 5.7 of this report. Wind tunnel testing will be undertaken as part of future detailed development proposals.

5.3 Built Form

The Concept Proposal has been designed to respond to the current and desired future built form of the Liverpool CBD as a key strategic centre within Greater Western Sydney. The relevant built form controls are outlined within draft Part 4 of the DCP (draft Part 4). This part sets out the general built form controls for new development within the Liverpool City Centre, as well as additional controls for master planned sites and opportunity sites. Draft Part 4 acknowledges that opportunity sites are required to prepare a Concept DA pursuant to Section 4.23 of the EP&A Act. Specifically, it is noted that:

“The Master Planned DA process is used to ensure flexibility related to building type where appropriate and an ability to respond to the differing subdivision patterns”.

Whilst this is noted, draft Part 4 also prescribes building envelope, street frontage height and setback controls to inform the development of an opportunity site. The subject Concept Proposal has had regard for the draft Part 4 controls addressed in **Table 4** above, however site has been amalgamated in a way that has warranted the design of building envelopes that depart from those prescribed in draft Part 4 in order to achieve the optimal built form and urban design outcome for the site.

The following sections demonstrate that the proposed development employs a reasonable alternative solution to the street frontage height and setback provisions, that achieves the relevant objectives of the draft Part 4 of the DCP and is appropriate in the circumstances of this particular site and Concept Proposal.

5.3.1 Building Envelope Massing / Design

The proposed building envelope massing of the Concept Proposal has been designed to provide a gradation in scale from the existing development to the north to sites in close proximity to the CBD core and Liverpool station which benefit from opportunity site provisions.

Fundamental to the massing of the scheme is the provision of a new public domain at the ‘heart’ of the site to crown and terminate Macquarie street. This provision of this space in the Concept Proposal will allow for a flexible and vibrant public venue forming an extension of Augusta Cullen Plaza which will be activated by retail, a new public library and Council chambers, and links through the site. With the significant public library area, the public domain proposed is made possible by locating almost half of the library underground, where it is naturally suited to lower light spaces. The design maximises sunlight to the plaza as its central feature. The Reference Design in **Appendix B** demonstrates that a sequence of light voids and sunken gardens to animate the subterranean levels could animate this space.

The proposed building envelopes have also been designed to respond to the unique block and site arrangement and existing development located within the wider block, in particular the existing mixed-use building at 300 Macquarie Street and August Cullen Plaza. There is a clear logic in the stepping of heights from Pirie Street in the south-west to Scott Street in the north-east and continuing on to the CBD grid. Ensuring other sites within the wider block can benefit from the opportunity site provisions under Clause 7.5A of the LEP has been an important consideration in the development of the building envelopes, ensuring the orderly and economic development of the wider block into the future.

Finally, the proposed continuation of the ‘Hoddle Grid’ (in the form of the recognition of the George Lane service way) has also informed the location of building envelopes on the site. This alignment divides the otherwise broad north facade of the sites envelope mass resulting in two slender proportioned tower envelopes, complementary in composition and spacing to other opportunity tower sites in the precinct.

Other key drivers informing the layout, general arrangement, height and massing of the building envelopes include:

- Heritage sensitivity with a buffer of public space around the School of Arts heritage building and a careful composition of complementary height and scale stepping up toward the west;
- The development of building envelopes which provide enough flexibility for future detailed proposals to respond to market conditions in design terms;

- The massing facing Terminus Street is divided into two distinct volumes subdivided by a proposed through-site link. The volumes, housing public administration and mixed-uses, are further divided into low, mid and tower forms.
- The public library, setback public administration building, and mixed-use building volumes face Scott Street and Augusta Cullen Plaza. Their heights provide transitions from the Memorial School of Arts building to a contemporary street wall in line with other recent buildings on Scott Street.
- The library volume is separated from the other volumes to reinforce a distinctly civic quality and return to a street pattern of freestanding buildings which were once located on this site.

5.3.2 Street Frontage Height and Setbacks

The relevant street frontage and setback controls are outlined within draft Part 4 of the DCP (draft Part 4). This part sets out the general built form controls for new development within the Liverpool City Centre, as well as additional controls for master planned sites and opportunity sites. Draft Part 4 acknowledges that opportunity sites are required to prepare a Concept DA pursuant to Section 4.23 of the EP&A Act, noting specifically:

“The Master Planned DA process is used to ensure flexibility related to building type where appropriate and an ability to respond to the differing subdivision patterns”.

Draft Part 4 also prescribes building envelope, street frontage height and setback controls to inform the development of a Concept Proposal. The subject Concept Proposal has had regard to the draft Part 4 controls addressed in **Table 6**, however the site has been amalgamated in a way that has warranted the development of building envelopes that depart from those prescribed in draft Part 4 in order to achieve the optimal built form an urban design outcome for the site.

The following sections demonstrate that the proposed development employs a reasonable alternative solution to the street frontage height and setback provisions, that achieves the relevant objectives of the draft Part 4 of the DCP and is appropriate in the circumstances of this particular site and Concept Proposal.

Scott Street Setback and Street Frontage Height

Under draft Part 4, the proposal is required to be set back 3m from the Scott Street boundary (Clause 4.2.8) with a four to six storeys podium or street frontage height (Clause 4.2.6). The Concept Proposal extends the building envelopes to the Scott Street boundary and presents a stepped street wall from four storeys up to approximately eight storeys with a large break in the street wall created by the through-site link, as illustrated in Figure 41. The Concept Proposal extends the envelopes to the Scott Street boundary to create a strong and consistent CBD street definition, consistent with the pattern of development to the north-east.

The library building envelope reinforces the zero setback to Scott Street, however, its location, form and volume are distinct and separated from the other volumes to reinforce a distinctly civic quality and return to a street pattern of freestanding buildings which were once located on this site.

The street frontage height of the eastern building envelope rises to 7 storeys and includes a considerable tower setback to Scott Street (15.9m). This street wall height and tower setback is a conscious design move to create the gradation of scale from the School of Arts building, and to create a relationship to the datum of the existing building at 300 Macquarie Street. This design move is in keeping with the new Scott Street datum with height and status to reflect its important southern gateway intent. As illustrated in Figure 41, it is clear the Concept Proposal has taken cues from the existing and emerging development on Scott Street to facilitate street presentation with height and status to reflect its important southern gateway intent.

The proposed street frontage heights and setbacks have been selected having regard to current and emerging height datums along Macquarie Street and Scott Street. 7-12 storeys generally typifies the established street frontage height in this regard. Peaking in height toward the train station and the Bigge Street intersection, the emerging streetwall of Scott street is set first by 21 Scott street at 12 commercial storeys, which 277 Bigge St is corresponding to in its approved DA.

Continuing west along Scott street, the Quest hotel is a 10 storey building, and 45-47 Scott St constitutes 7 commercial levels. Lastly, 300 Macquarie Street, whilst not fronting Macquarie Street, does not include a setback and rises directly from Augusta Cullen Plaza to 9 storeys. This is best illustrated in **Figure 37** and **Figure 38** below.

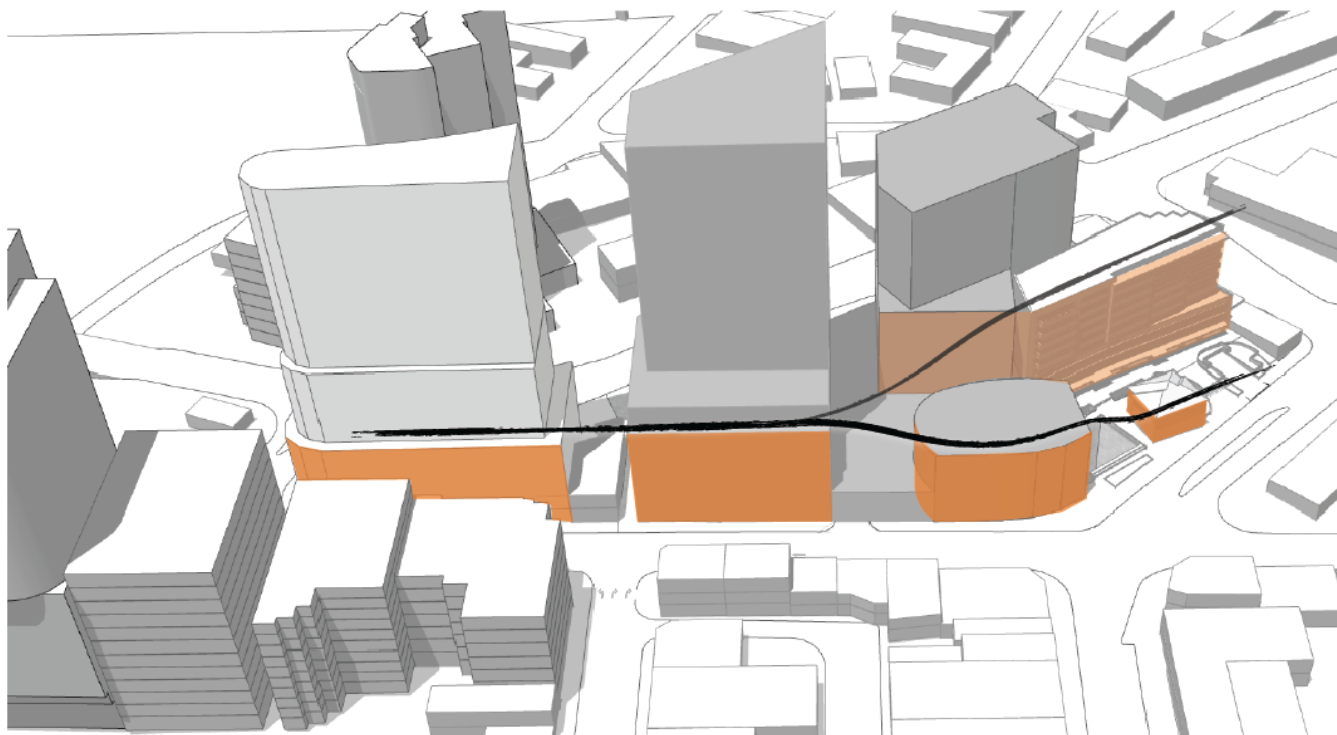


Figure 36: Scott Street frontage emerging height datum (including indicative future surrounding development)

Source: FJMT

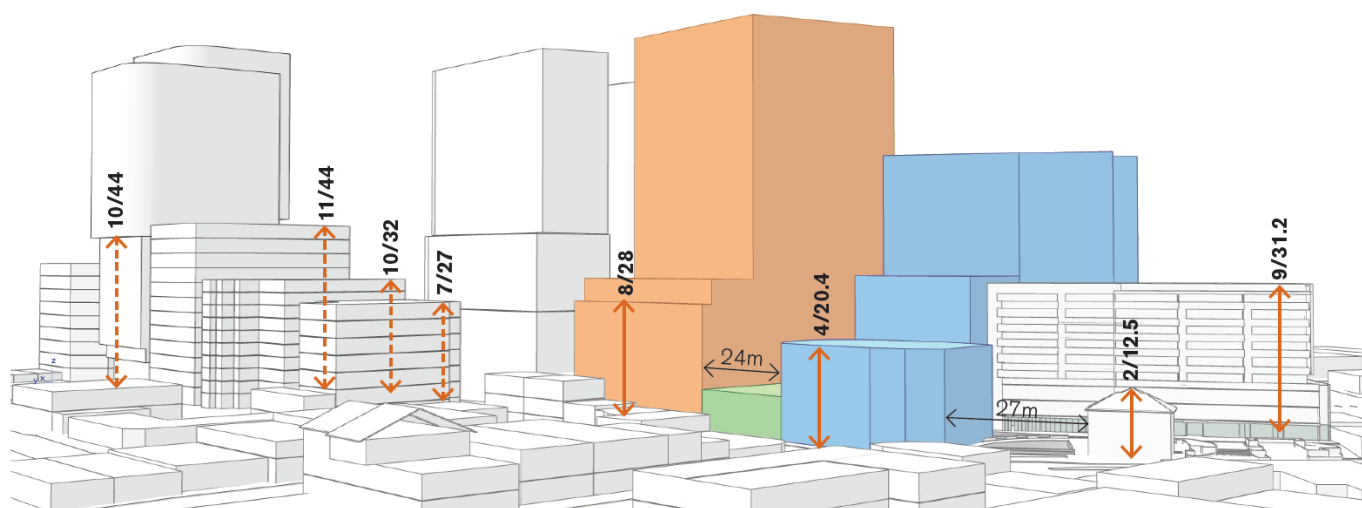


Figure 37: Scott Street frontage heights (including indicative future surrounding development)

Source: FJMT

Terminus Street Setback and Street Frontage Height

Under draft Part 4 of the DCP, the proposal is required to be setback 2.5m from Terminus Street boundary (clause 4.2.8). The Concept Proposal extends the public administration and mixed use building envelopes to the Terminus Street boundary, with 2.5m tower setbacks on both the south-western and eastern building envelope.

The reduced setback to Terminus Street is considered appropriate as this frontage is provided with a large setback from the Terminus Street kerb line which accommodates a pedestrian path and landscape buffering, with significant building separation across to the south and a set back ground level facade with awning provision for wind amelioration and pedestrian comfort at future building entries.

Furthermore, reducing the setback to Terminus Street allows the two tower volumes to be placed at the southern end of the site, reducing overshadowing of the more sensitive future public domain spaces proposed for the site. Shadows from the proposal will predominantly be cast over Terminus Street and the commercial zone to the south in an appropriate manner.

The proposed street frontage heights and setbacks have been selected having regard to current and emerging height datums along Terminus Street. Terminus Street does not have a well-defined street wall, with 4 storeys to the south and east, and 1-4 storeys to the west until the recent 168 Terminus St with a 9 storey street frontage. Terminus Street itself is a wide, 5 lane arterial road and the southern vegetated verge of The Site is from 8-14m wide. The result is a considerable 30-45m separation between the proposed envelopes and sites opposite to the south. The proposed envelopes attempt to mimic the character of Scott Street where street frontage heights ascend toward the train station, reflective of the increased density inherent to the large number of opportunity site developments. This is best illustrated in **Figure 38** below.

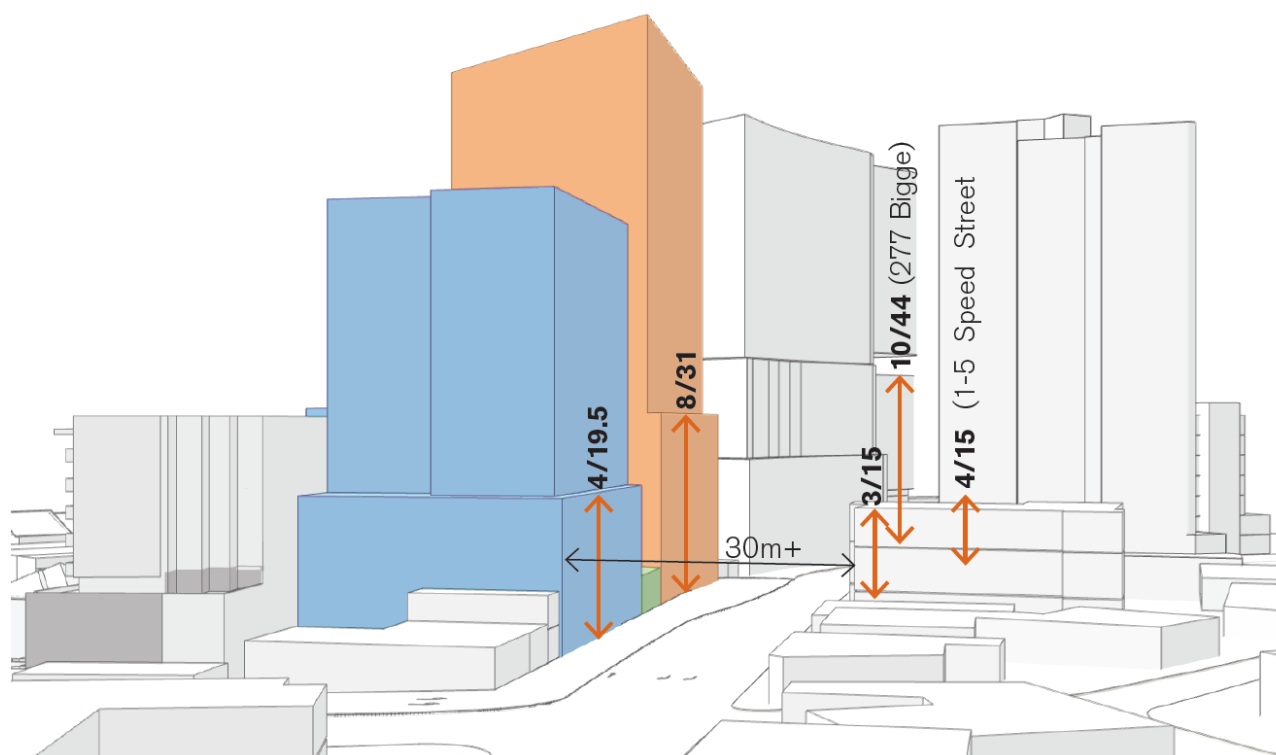


Figure 38: Terminus frontage heights (including indicative future surrounding development)

Source: FJMT

5.3.3 Proposed towers

A number of volumes and locations were considered for the towers on this large site including locations further north. The rationale for the location of the proposed towers considered the importance of scale transition from low (Macquarie Street) to high (Terminus Street), so that the towers could become a secondary backdrop to the Civic precinct rather than in the foreground.

The volumes of the towers have been carefully considered to provide for internal amenity and functionality required as well as considering privacy / overlooking issues with towers which might be developed to the east and west. Slim edges are presented to the eastern and western sides reducing the potential for overlooking and orienting views to the north and ideal south.

The towers will also act as a distinct gateway marker into the southern end of Liverpool's CBD highlighting the entry into Liverpool Civic Space, as illustrated in **Figure 39**.



Figure 39: Proposed towers as gateway buildings as illustrated in the reference design

Source: FJMT

5.3.4 Through-site link

Under clause 4.3.1 of draft Part 4 of the DCP, the site is required to facilitate a through-site link joining Scott Street to Terminus Street with a western link to Macquarie Street. As shown on the Concept Plans at **Appendix A**, a through-site link has been facilitated on the site, however it is located further east than the location prescribed by the DCP. This has been a conscious design move to ensure the through-site link aligns with George Street serviceway as an urban design gesture to the historic 'hoddle grid' layout in the Liverpool CBD. Notwithstanding the variation, the Concept Proposal facilitates a large and highly legible through-site link with a potential western connection through via Augusta Cullen Plaza to Macquarie Street.

5.3.5 Building Separation

Clause 7.4 of the LEP requires that the separation distance from neighbouring buildings and between separate towers, or other separate raised parts, of the same building is at least:

- 12m for parts of buildings between 25m and 45m above ground level (finished) on land in Zone B3 Commercial Core or B4 Mixed Use, and
- 28m for parts of buildings 45m or more above ground level (finished) on land in Zone B3 Commercial Core or B4 Mixed Use.

The building separation development standards within clause 7.4 have been embedded in the Liverpool LEP 2008 for over a decade. In the time since, the strategic vision for Liverpool has evolved which is supported by key strategic plans prepared by the NSW State Government, including the Greater Sydney Region Plan 'A Metropolis of Three Cities' and the Western City District Plan. Specifically, the NSW State Government has identified Liverpool as a Metropolitan Centre within the Western Parkland City (the third city in the Three Cities vision) identifying that:

The established centres of Liverpool, Greater Penrith and Campbelltown-Macarthur will be critical locations for commercial and retail businesses and health, education and other services as the city grows.

Given the location of the site within the Liverpool Metropolitan Centre and the strategic objectives for Liverpool as set out in the Greater Sydney Region Plan and the Western City District Plan, the current statutory building separation controls are not considered to be conducive to growing a strong and competitive CBD.

As illustrated in the Building Envelope Drawings in **Appendix A** and identified in **Figure 41** below, the proposed internal separation between the south western building envelope and the eastern building envelope is 12m above 45m in height. Furthermore, a nil separation from the south western envelope is provided to the existing mixed use development at 300 Macquarie Street. Accordingly, a request under Clause 4.6 of the LEP to vary the building separation development standards has been provided in **Appendix K**, and the justification contained within is outlined below.

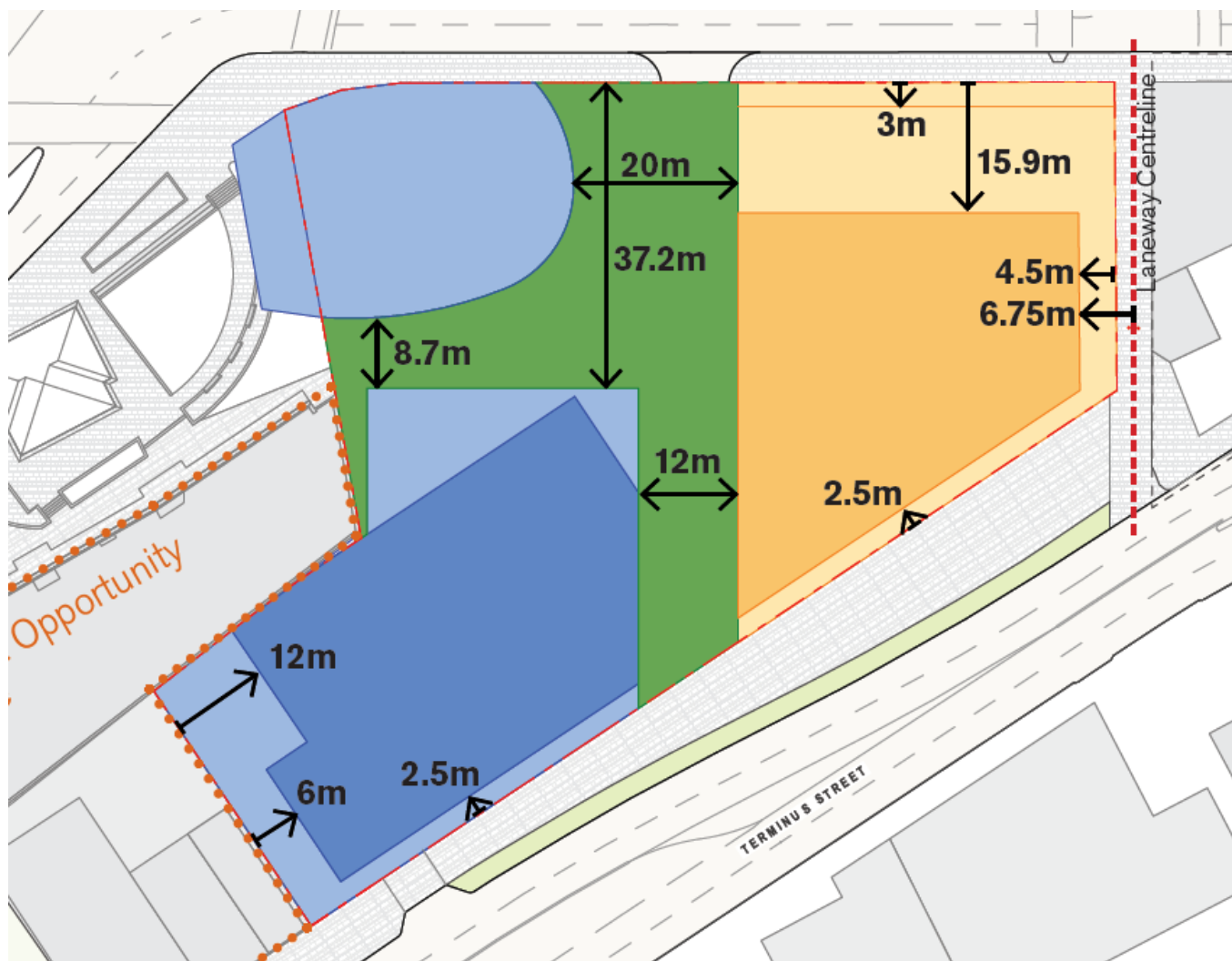


Figure 40: Building setbacks and separations

Source: FJMT

The clause 4.6 variation request details that the objective of the building separation development standard is achieved notwithstanding non-compliance with the standard. Specifically, the single objective of the development standard contained in Clause 7.4 of the Liverpool LEP 2008 is:

“to ensure minimum sufficient separation of buildings for reasons of visual appearance, privacy and solar access”

The objective places an emphasis on visual appearance, privacy and solar access. The clause 4.6 request at **Appendix K** provides a detailed assessment of the three components and in summary it finds that:

Visual Appearance

- The separation distance between the western public administration building envelope and the eastern building envelope has been informed by the spatial characteristics of the George Lane service grid. This is a visual gesture to the heritage significant ‘Hoddle grid’ (refer to **Figure 41**).
- The rear elevation of the building at 300 Macquarie Street presents a blank party wall, as such it is visually appropriate to conceal this from the public domain (refer to **Figure 47**).
- The podium of the public administration building envelope has been informed by the datum of the existing mixed use building at 300 Macquarie Street (refer to **Figure 47**).

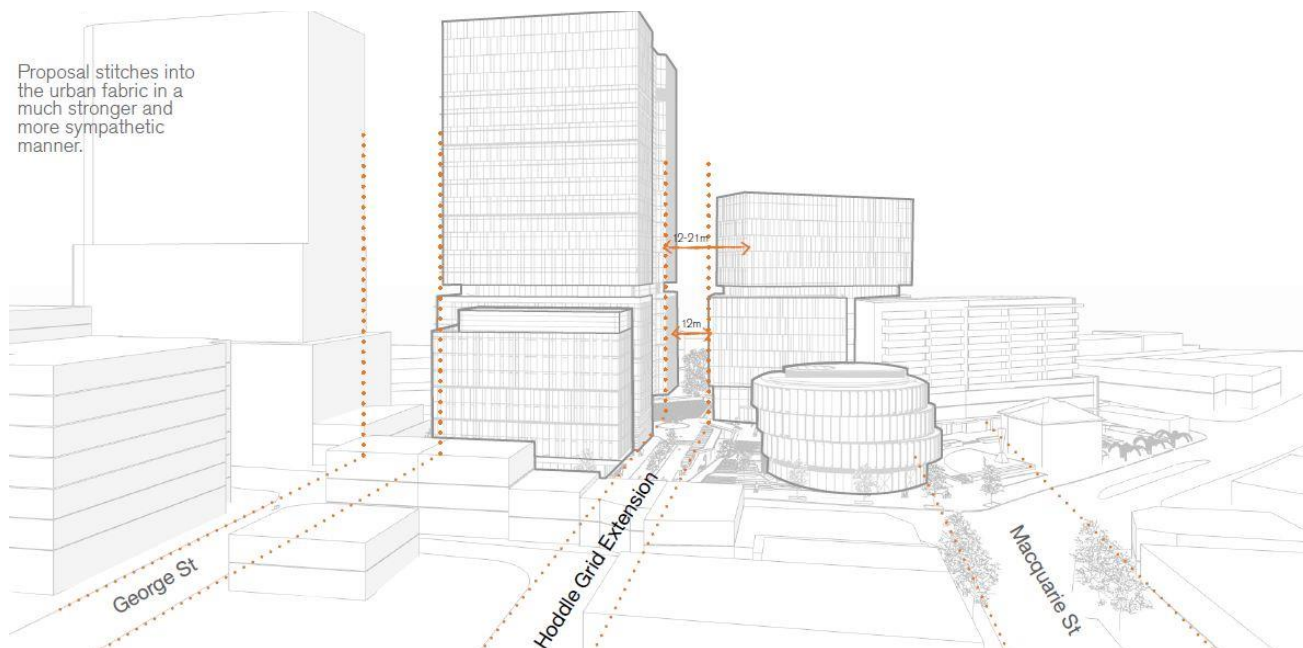


Figure 41: Hoddle grid informed building separation (indicative building massing)

Source: FJMT



Figure 42: Rear Party wall of the mixed use building located at 300 Macquarie Street

Source: Ethos Urban

Privacy

- The central separation is dividing commercial and public administration uses. As such, privacy impacts internal to the site are considered negligible.
- Apartments and tenancies within the building at 300 Macquarie Street are oriented to the north west and the building contains no rooftop uses, as such the variations will not generate any privacy impact to this building.
- Privacy is discussed further at **Section 5.4.3**.

Solar Access

- The shadow cast by the Concept Proposal allows the new public domain area to the east of the library to be provided with substantial solar access throughout the day.
- The majority of the central through site link receives over direct sunlight between 11am and 1pm in midwinter. Whilst some overshadowing is proposed this is appropriate within an urbanised and growing metropolitan centre.
- The 12m central separation does not unreasonably stifle sky views from key locations within the public domain.
- The nil separation to the 300 Macquarie Street building is at the southern interface, as such there is a negligible impact on solar access to this building.
- Solar Access is discussed further in **Section 5.4.2**.

5.4 Impacts on Adjoining Properties

5.4.1 Opportunity Sites Development Potential

As illustrated in **Figure 43** below, there are two other potential opportunity sites within the street block, however site amalgamation is required to achieve the development uplift pursuant to clause 7.5A of the Liverpool LEP 2008 on these sites (above the mapped 3:1 FSR and 28m height controls). The two potential opportunity sites, their indicative development potential and how the Concept Proposal respects this development potential is discussed below.



Figure 43: Potential Opportunity Sites within the street block

Source: FJMT

Eastern Opportunity Site

The potential opportunity site to the east of the site is separated from the site by the George Street laneway (approximately 4.5m wide) connecting Scott Street and Terminus Street. The eastern site currently contains three lots.

The development analysis in the Design Report **Appendix C** has contemplated a development scenarios on this eastern site where it is amalgamated with the two smaller lots adjoining George Street Lane. The development analysis in **Appendix C** assumes that all sites to the east are amalgamated and a sensitive residential use emerges on this site, in which SEPP 65 and the *Apartment Design Guide* (ADG) will dictate building separations.

Specifically, the ADG under Design Criteria 3F requires the following minimum building separations:

- up to 25m in height (5-8 storeys): 9m separation for habitable rooms and balconies and 4.5m separation to non-habitable rooms.
- over 25m in height (9+ storeys): 12m separation for habitable rooms and balconies and 6m separation to non-habitable rooms.

Indicative urban design testing on this site has demonstrated that the eastern tower of the Concept Proposal would be separated a minimum of 18m from the tower to a potential residential development on the adjacent site. This would extend to over 28m at the tower levels should the corner site be developed as an opportunity site in isolation as illustrated in **Figure 44**. **Figure 45** demonstrates this in plan form.

In any case, the physical separation created from the two towers coupled with any screening to the eastern façade of the proposal would achieve reasonable levels of external and internal visual privacy to both sites. Importantly, the analysis at **Appendix C** demonstrates that the Concept Proposal does not stifle the development potential of the eastern opportunity site, should either of the development scenarios explored be pursued by the adjacent owners.

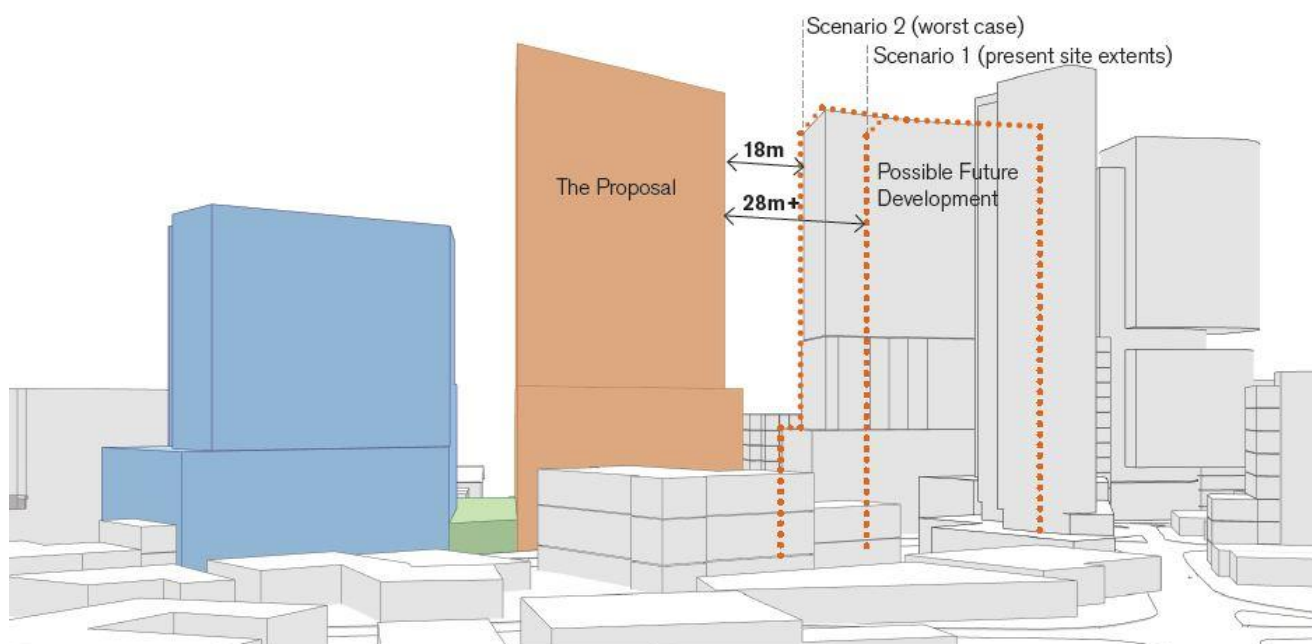


Figure 44: Future separation between eastern opportunity site

Source: FJMT

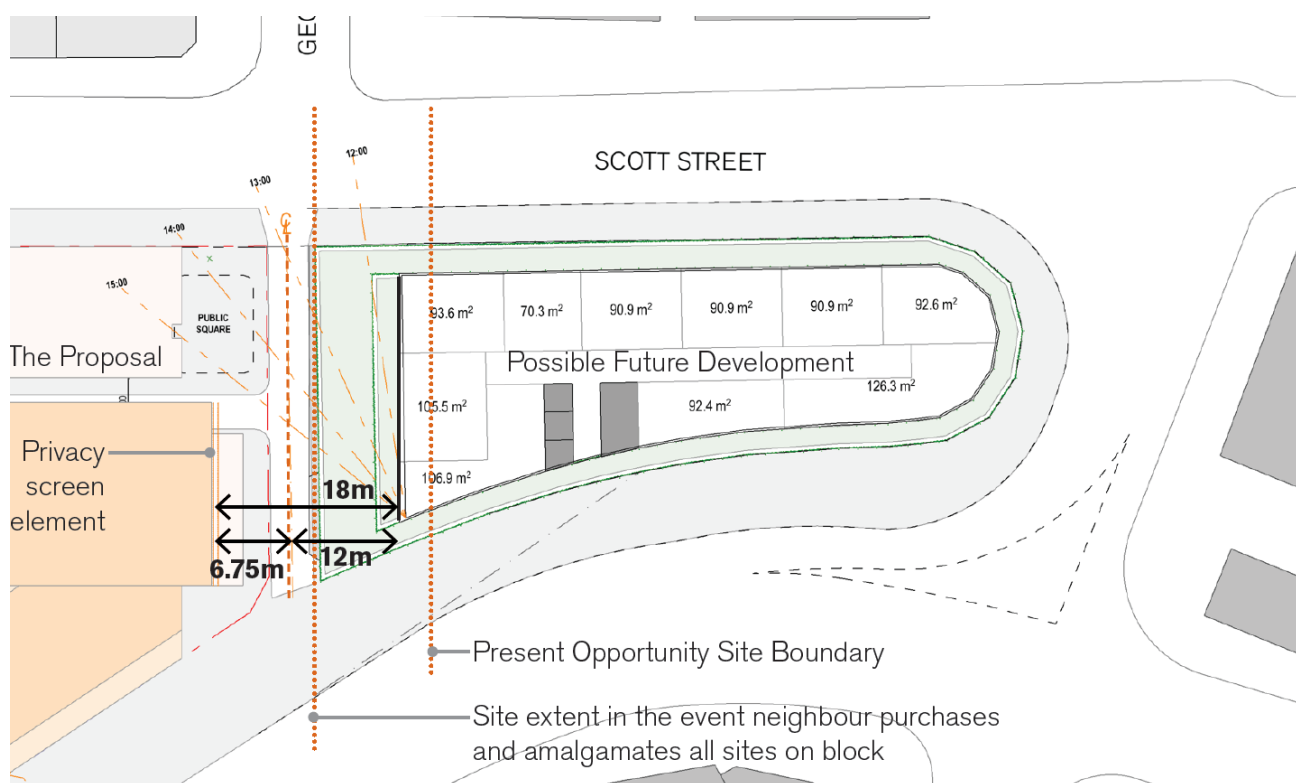


Figure 45: Indicative residential development on the eastern opportunity site

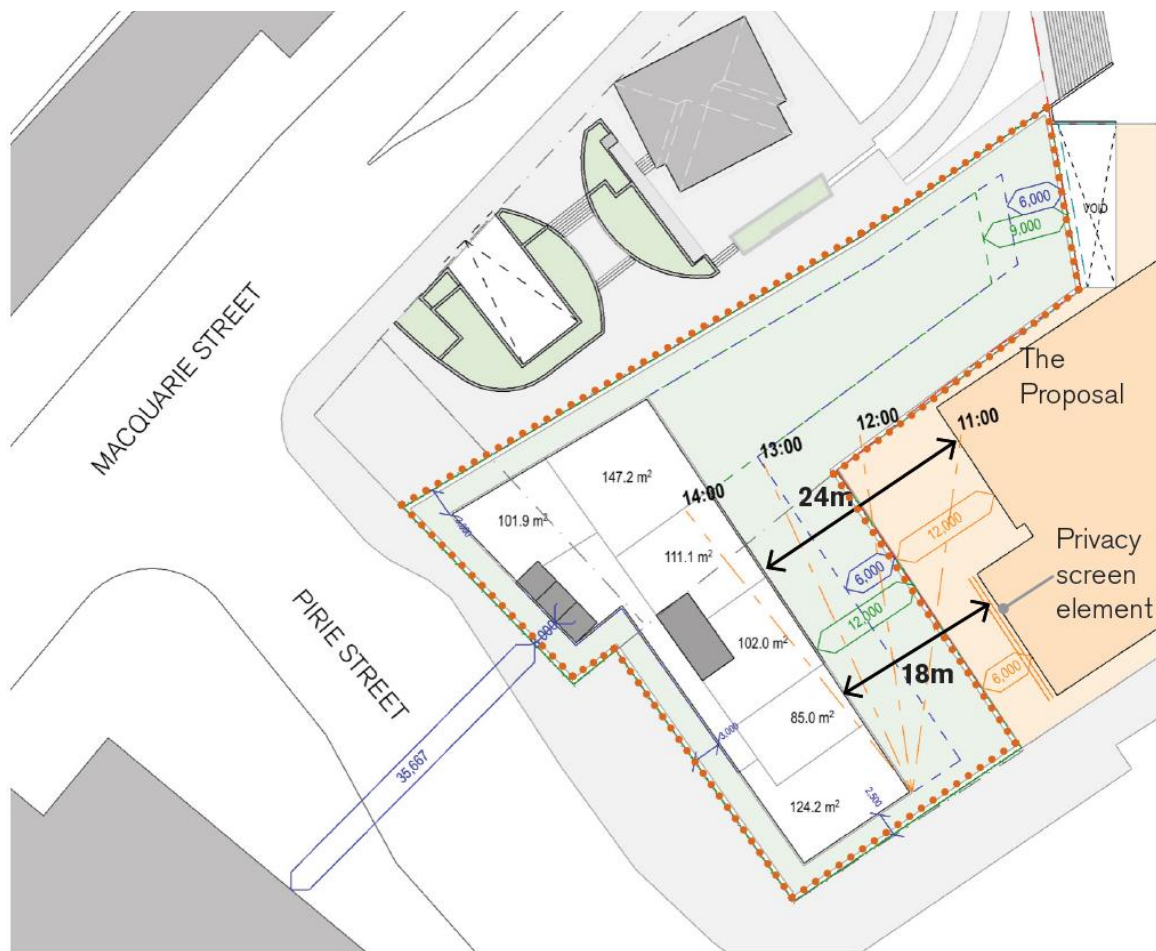
Source: FJMT

Western Opportunity Site

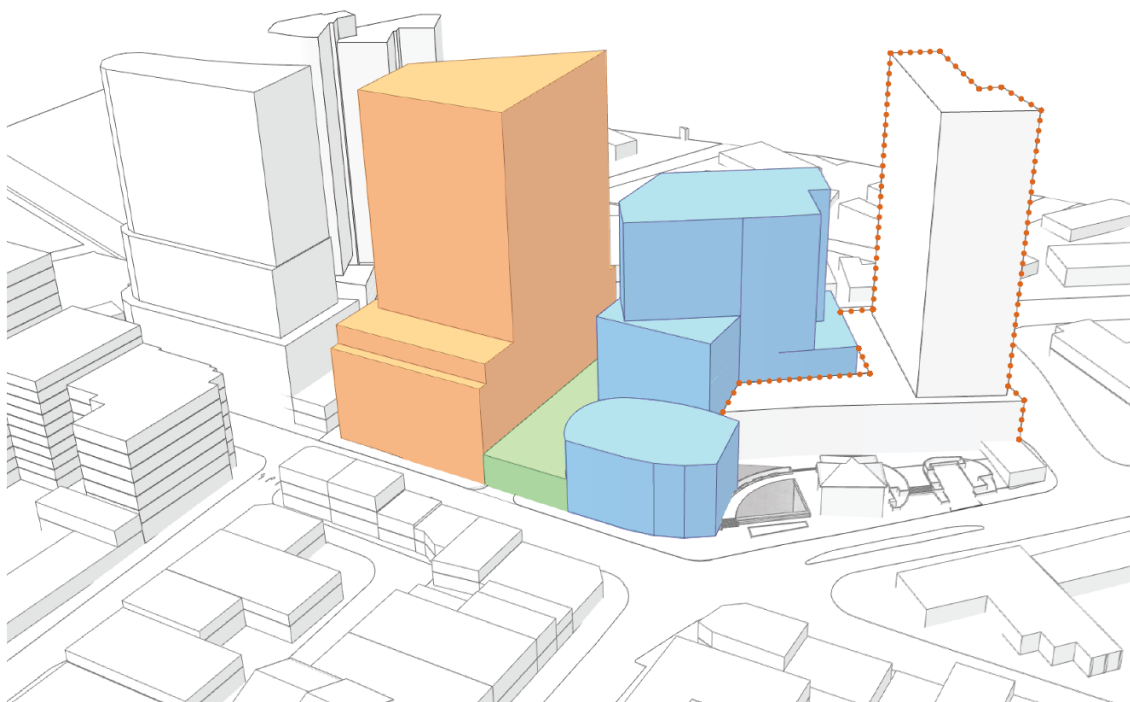
There are currently four lots to the west of the site and a specific amalgamation pattern is required to achieve the minimum opportunity site area test of 1,500m². Specifically, the site at 300 Macquarie Street is required which is currently occupied by the recently completed nine storey mixed use development as detailed in **Section 3.3**. As such, the opportunity site development potential is considered to be significantly diminished by the presence of this development. Notwithstanding this, the analysis in **Appendix C** considers the worst case scenario and tests the residential development potential of two amalgamation options.

The first option is illustrated in **Figure 46** and involves demolishing the existing buildings at 300 and 312 Macquarie Street and erecting a new north-south oriented tower with a mixed use podium. The Concept Proposal proposes a 12m and 6m side boundary setback, configured to ensure minimal impact to 2 hour mid-winter sun access, with an ADG compliant 24m tower separation to northern edge, and 18m tower separation to the narrow southern edge.

As identified in **Appendix C**, the 18m separation presents a variation to the 24m numerical ADG design criteria, however a future detailed design would be able to achieve consistency with the ADG visual privacy objective by integrating a privacy screen into the facade design. This is considered the best outcome as it would have the additional benefit of orienting views from the public administration building south over the Georges River and National Park and preserve privacy to future residential development to the east.



Indicative residential tower floor plan for west opportunity site configuration 1



Indicative residential massing for west opportunity site configuration 2

Figure 46: Indicative Option 1 development on the western opportunity site

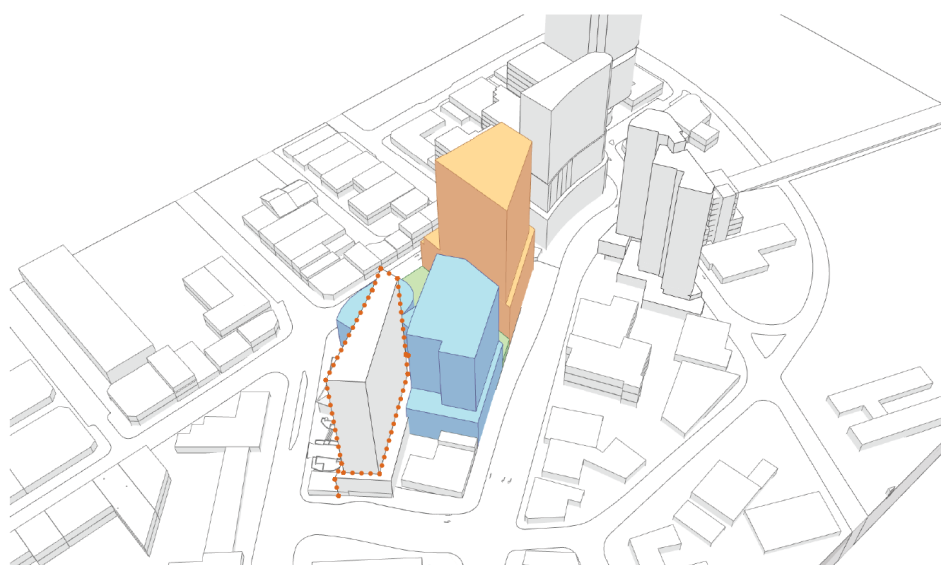
Source: FJMT

The second option illustrated in **Figure 47** also involves demolishing the existing buildings at 300 and 312 Macquarie Street, however the podium and tower design varies with an east-west orientation. Similar to the design of the existing building at 300 Macquarie Street, the tower would comprise apartments with a single orientation to the north west which maximises solar access and avoids a southern aspect to the Concept Proposal site. The design analysis in **Appendix C** confirms that this development outcome is considered highly unlikely as the viability of the development is challenged by the narrow tower footprint. The tower footprint is considered too shallow to achieve double loaded corridors, as such the single loaded apartments are undesirably deep.

Furthermore, it is also noted that the Memorial Arts Building heritage item (and its curtilage as mapped) extends through the site at 300 Macquarie Street, further impacting its potential to redevelop in the manner envisaged above.



Indicative residential tower floor plan for west opportunity site configuration 2



Indicative residential massing for west opportunity site configuration 2

Figure 47: Indicative Option 2 development on the western opportunity site

Source: FJMT

5.4.2 Overshadowing

FJMT has prepared a Design Report that incorporates a shadow analysis of the Concept Proposal, which is provided at **Appendix C**. It is also emphasised that the envelopes contained in the proposed concept constitute the maximum possible impact and a detailed design will result in less of an overshadowing impact as the buildings will be articulated within the concept envelopes.

This detailed analysis illustrates the shadow cast by the proposal at hourly intervals between 9am-3pm at the September equinox, summer solstice and winter solstice. For the purposes of this assessment, the winter solstice diagrams have been analysed as they demonstrate the worst-case scenario.

It is noted that the site is not affected by the Liverpool City Centre Sun Access provisions set out in Clause 7.3 of the Liverpool LEP 2008. Further to this, it will not produce any overshadowing to Bigge Park, Liverpool Pioneers' Memorial Park, Apex Park, St Luke's Church Grounds and Macquarie Street Mall (between Elizabeth Street and Memorial Avenue).

As can be seen on the shadow diagrams, the shadow cast by the proposed development on the winter solstice will reach south of Pirie Street but pass over residential blocks allowing over 3 hours sunlight between 9am and 3pm. The primary open space on Scott / Macquarie Streets receives over 5 hours of sun, from 11 am till the afternoon. Council's main facade receives sunlight during the early morning, between 9 am to 12 pm. The two tower volumes are placed at the southern end of the site to reduce overshadowing of public space. Shadows are predominantly cast over Terminus Street and the commercial zone to the south.

Considering the site's CBD context and the absence of additional overshadowing to significant public places, the proposed concept is considered appropriate from an overshadowing perspective. Further to this, it is emphasised that the envelopes contained in the proposed concept constitute the maximum possible impact and detailed design will result in less of an overshadowing impact as the buildings are articulated within the concept envelopes.

5.4.3 Privacy and Views

Privacy

The Concept Proposal has been carefully designed to create appropriate building separations and avoid direct view lines into surrounding buildings. With regard to internal privacy, the central separation is dividing non-residential uses. By virtue of the proposed uses, the privacy impacts internal to the site are considered negligible.

Currently the nearest sensitive residential use is located at 300 Macquarie Street. As detailed in the Clause 4.6 at **Appendix K** the rear elevation of the building at 300 Macquarie Street presents a blank party wall. Apartments and tenancies within this building are oriented to the north west and the building contains no rooftop uses, as such the Concept Proposal will have no impact on the privacy to this building.

Views

No significant view corridors from surrounding buildings or public places have been identified that would be impacted by the proposal. The Concept Proposal facilitates a high quality urban environment and does not unreasonably impede on views from the public domain to highly utilised parks or public parks in the vicinity of the site.

A fundamental urban design principle to enhance the site's visual appearance is to recognise the historic Liverpool 'Hoddle grid', with an extension of the George Street service way, as illustrated in **Figure 45**. Unlike George Street Macquarie Street and Scott Street, the service way is not itself heritage listed, however, recognising the alignment of the serviceway through the site is a conscious urban design gesture to enhance the visual appearance of the Concept Proposal.

The separation distance between the western public administration building envelope and the eastern commercial building envelope has been informed by the spatial characteristics of the service grid. In this regard, the central separation is predominantly 12m and extends to 21m due to the orientation of the public south-western building envelope as illustrated at **Figure 46**. This massing is considered to stitch into the urban fabric in a much stronger and more sympathetic manner, creating a superior visual appearance outcome for the site.

Whilst the site currently contains a low scale development, it is not reasonable nor the intent of the applicable planning controls for opportunity sites for this site to remain at this scale and therefore allowing views across the site. It is considered that the Concept Proposal will stimulate an overall positive visual impact on the locality, providing a vibrant mixed-use precinct, of high urban design quality, thereby contributing to the Liverpool urban transformation. Furthermore, the proposal is a significant visual improvement on the current site situation which includes ageing buildings with minimal public domain.

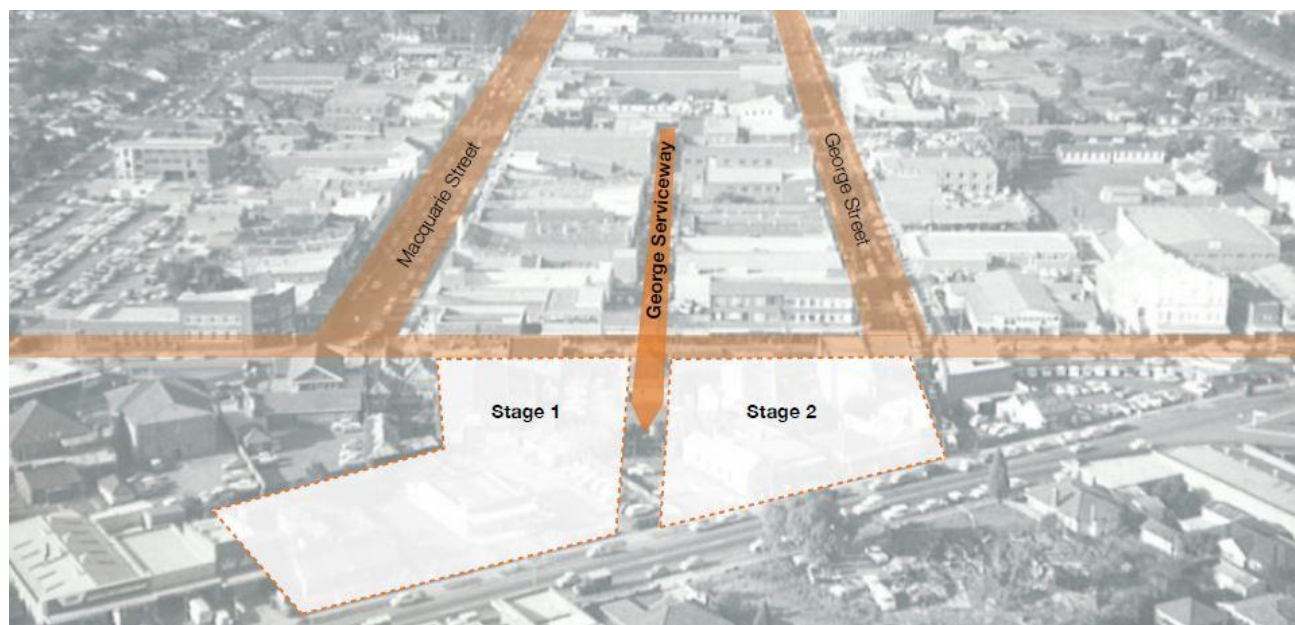


Figure 48: Hoddle grid characteristic

Source: FJMT

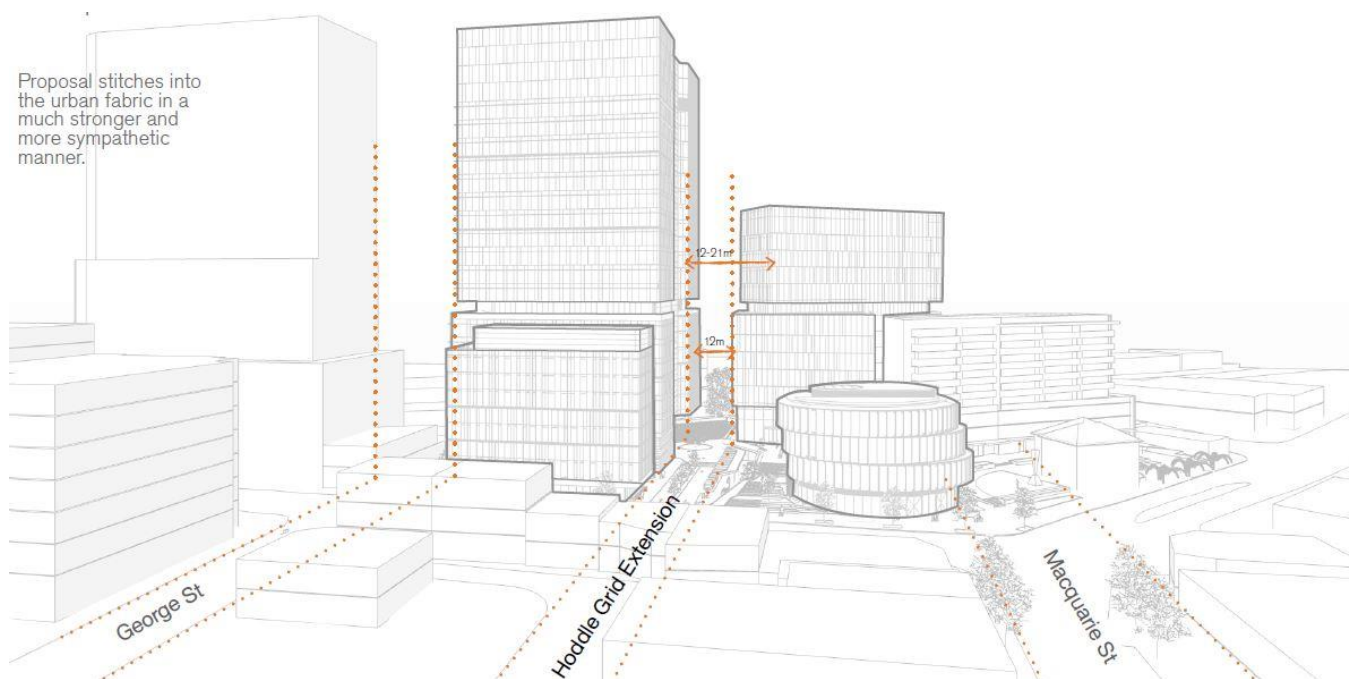


Figure 49: Hoddle grid informed building separation

Source: FJMT

5.5 Heritage

A Heritage Impact Statement (HIS) has been prepared by NBRS and is provided at **Appendix L**. The HIS includes a description of the history of the site, the established significance of the locality and important heritage items and an assessment of the potential heritage impact of the proposal on surrounding items of heritage significance that have been identified at **Section 3.2.4**.

NBRS's assessment has determined that the Concept Proposal will not result in any adverse impacts to the heritage significance of the surrounding heritage context and will in fact provide ongoing benefits to the setting, particularly considering the current site situation. Specifically, NBRS has determined that the proposal will have an acceptable impact for the following reasons:

- The stepped and curved composition of the envelopes across the site act in concert as a transitional form between adjoining high-rise development contemplated in the building controls to the east and the heritage significant Memorial Arts School building to the west.
- The placement of the curved four storey library building where the site returns into Macquarie Street provides a visual focus well in front of the high rise buildings. This action, and the decision to provide a distinctly curved character to the building envelope, positively supports a softening of the street edge adjacent the southern edge of the historic early town centre street layout.
- The internal building separation has been informed by the spatial characteristics of the heritage significant 'huddle grid' network.
- The stepping down and curving of the building envelope is most pronounced to the west of the site, where the design of the building envelopes are mindful of the heritage significant Memorial School of Arts, which forms part of the site area.
- The proposed range of uses, namely commercial, mixed use and community, support activity on the site across a wide variety of people. In bringing more people to the site the opportunity for increased engagement with the heritage items in the vicinity is encouraged.

Additional detailed heritage studies will be carried out and submitted with a future application for a Stage 2 DA's. The HIS concludes that the level of detail in the indicative concept is appropriate to demonstrate the suitability for redevelopment in the Concept DA process and identifies that more specific details are to be addressed in the Stage 2 detailed design including fenestration design, materiality and colour palettes.

5.6 Transport and Accessibility

A Traffic Impact Assessment has been undertaken by PTC and is included at **Appendix G**. The report assesses the impact of the proposed concept on the surrounding area. The key findings of this report are detailed in the following sections.

5.6.1 Existing Traffic Conditions

Key intersections within the surrounding road network comprise:

- Scott Street / George Street;
- Scott Street / Macquarie Street / Memorial Avenue;
- Macquarie Street / Pirie Street;
- Terminus Street / Pirie Street; and
- Terminus Street / Scott Street.

These intersections were selected based on proximity to the site and as they form the intended route of vehicle travel to and from the site. The operational performance of the key surrounding intersections under the existing traffic flows, geometry and traffic signal phasing circumstances has been assessed using SIDRA modelling and **Table 7** below summarises the results of the modelling.

Table 7: Results Summary of Intersection Performance (Existing)

Intersection	Period (peak)	Level of Service	Degree of Saturation	Average Delay (sec)	95% Que Length (m)
Scott Street / George Street	AM	B - Acceptable delays & spare capacity	0.241	27.7	48.0
	PM		0.342	24.3	78.3
Macquarie Street/ Memorial Avenue/ Scott Street	AM	B - Acceptable delays & spare capacity	0.350	23.5	75.4
	PM		0.677	19.7	49.6
Macquarie Street / Pirie Street	AM	B - Acceptable delays & spare capacity	0.375	19.7	78.7
	PM		0.547	25.0	114.2
Terminus Street / Newbridge Road/ Speed Street	AM	B - Acceptable delays & spare capacity	0.827	18.5	298.8
	PM	D - Operating near capacity	0.934	45.4	460.0
Terminus Street / Pirie Street	AM	C - Satisfactory, but accident study required	0.870	29.9	171.4
	PM	B - Acceptable delays & spare capacity	0.451	25.2	91.7
Terminus Street/ Scott Street	AM	A - Good operation	0.106	2.7	2.8
	PM	A - Good operation	0.095	2.2	1.4

Source: PTC

The results of the SIDRA assessment indicate that these intersections generally operate satisfactorily level of service at present, with lower levels of performance maintained at the Terminus Street / Newbridge Road / Speed Street intersection during the afternoon peaks.

5.6.2 Traffic Generation

The Concept Proposal's traffic generation has been reviewed having regard to the RMS Guide to Traffic Generating Developments Updated Traffic Surveys (2013). In addition, PTC has drawn on the Warren Serviceway Car Park has a comparable car park for the purposes of forecasting the traffic generation associated with the Concept Proposal.

PTC has determined that this car park is currently operated by the Council and accommodates various users in dedicated areas with separate access control, including a nested area for Council staff, police station staff and employees of the adjacent businesses in the City Centre, as well as casual parking area for public parking. This is a similar range of user groups that would be utilising the Liverpool Civic Place Car Park. As such, the Warren Serviceway Car Park is considered an appropriate site to determine the trip generation rates for its close proximity and similar function to the Concept Proposal site.

The RMS Guide to Traffic Generating Development v2.2 (2002) and the subsequent technical direction TDT2013/04a (2013) sets out the vehicle trip generation rates for particular land uses. When RMS undertook Traffic Generation and Parking Generation Survey study in 2010 for updating the Guide to Traffic Generating Development v2.2 (2002), the suggested vehicle trip generation rates were derived from ten sites within both Sydney Urban area and regional areas, which largely have unconstrained parking provision. Therefore, for the purpose of determining more suitable trip generation rate, the data collected from the Warren Serviceway Car Park has also been integrated into this analysis.

Based on PTC's calculations, the future generation of the proposed site during the morning and evening peak periods is summarised in **Table 8** below:

Table 8: Traffic generation

Land Use	Parking	Trip Rate AM	Trip Rate PM	Trip Generation AM	Trip Generation PM
Information and education facility (public library)	31	0.56	0.48	17	15
Public administration building use	113	0.56	0.48	63	54
Mixed Use/ Commercial	184	0.56	0.48	103	88
Public Car Park	101	0.8	0.56	81	214
Total:	413			264	214

Source: PTC

The projected traffic generations and distribution have been applied to the surveyed intersections identified in **Table 6** above and intersection modelling has been undertaken using SIDRA modelling which concludes that during both the morning and afternoon peak periods, the key intersections identified above will continue to operate similar to the existing situation, whereby the level of service typically remain at B rating Level of Service (good operation, with acceptable delays and spare capacity). The Terminus Street / Newbridge Road / Speed Street intersection will operate in similar level of delay and queuing as the existing conditions.

PTC conclude that Concept Proposal is not expected to generate any significant adverse impacts on the operation of the road network in the context of the existing and proposed traffic activity.

5.6.3 Access

As no physical works have been proposed as part of the Concept Proposal, PTC has undertaken an access analysis of the proposed reference design. The reference design indicates that there will be a vehicular access point on Scott Street, which continues through to the basement car park. It is proposed that this be the primary vehicular access and egress point for cars to and from the site. It will accommodate one travel lane in each direction for vehicle arrival and departure. Right turn movements to exit the site via Scott Street will be prohibited, as a result of the heavy right turn movements from George Street during peak periods. Access to the eastern loading dock will be obtained from this access point.

Service vehicles accessing the south west loading dock will access the site via a separate dedicated service vehicle entrance located on Terminus Street, at the south-western corner of the site. It is noted that the site is currently provided with two separate access points off Terminus Street. The location of this loading dock is indicatively illustrated in the reference scheme. This loading and servicing area will be capable of accommodating up to four garbage trucks and four smaller maintenance vehicles including utes and vans that are required to service the varying uses contained in the Concept Proposal.

PTC's access review has been undertaken to determine if the concept access and parking layout is capable of being designed to comply with relevant Australian Standards. The high-level assessment indicates that the Concept Proposal will be capable to meet compliance. PTC concludes that compliance with the relevant standards will need to be assessed during the preparation of the future development application. This would involve swept path assessments of B85/B99 vehicles entering and exiting the car parks as well as internal circulation. Swept path assessments of the largest vehicle accessing and exiting the loading docks will also need to be undertaken during the detailed design stage to ensure the feasibility of the design. Access control for the parking facilities will also be explored during the detailed design stage.

5.6.4 Parking

The Liverpool LEP 2008 provides criteria for parking provision in Liverpool City Centre in Clause 7.3. Based on the indicative floor space and uses proposed in the reference design, it stipulates a minimum parking provision of 329 spaces in total. Although the total parking quantum will be confirmed in subsequent DAs, the reference scheme confirms that the Concept Proposal is capable of compliance with the minimum LEP rates, through provision of 413 car parking spaces. All car parking spaces would be located in the shared basement.

Part 4 of Liverpool DCP 2008 establishes the minimum rate for motorcycle and bicycle parking. These require that one motorcycle space is provided per 20 cars and one bicycle space is provided per 200m². Motorcycle and bicycle parking provision will be subject to detailed design at Stage 2 DAs, however, the proposed concept is capable of complying with the relevant Liverpool DCP 2008 rates.

5.7 Wind Impact

A Wind Impact Assessment has been prepared by Windtech and is provided at **Appendix N**. This assessment has studied the existing wind conditions in the locality and the potential effect of the Concept Proposal. In particular, Windtech has examined the likely effect of wind on the various trafficable outdoor areas within and surrounding the site. Windtech has conducted this assessment based on their extensive experience in this field and are based on an examination of the conceptual building massing drawings. No wind tunnel testing has been undertaken at this stage.

The results of the wind analysis have confirmed that the envelope scheme of the subject development is relatively exposed to the three prevailing wind directions affecting the site. As a result, there is a possible slight impact on the wind comfort within certain areas within the through-site link plaza and Terminus Street ground floor areas, in addition to some areas of the building terraces. Notwithstanding this, as no physical works are proposed, Windtech has recommended a number of wind mitigation features to be considered in the development of the detailed design and analysed with wind tunnel testing. This includes:

- Ground Level:
 - The inclusion of awnings along the Terminus Street frontage of the council and commercial buildings.
 - Impermeable screens along the eastern and western perimeters of the public plaza located between the public library and the public administration building.
- Levels 1, 2 and 7 of the public administration building
 - The inclusion of impermeable screens at strategic corner terrace locations.
- Level 4 of public administration building
 - The deepening of the planter area at the southern corner of the terrace.
- Level 7 of mixed use building
 - The inclusion of impermeable screens at the western edges of the terrace.

Windtech concludes that the Concept Proposal is capable of accommodating a development that can achieve suitable wind conditions for pedestrians in and around the site. Wind tunnel testing is recommended to ensure the appropriate wind mitigation features are integrated into the detailed design.

5.8 Acoustic Impact

An Acoustic Impact Assessment (AIA) has been prepared by Wood and Grieve and is provided at **Appendix O**. The AIA has been prepared having regard to the nature of the Concept DA, being a Concept Proposal (i.e. no physical works are proposed). It outlines the relevant considerations for future Stage 2 application(s) including the relevant criteria and assessment methods.

Wood and Grieve conducted attended and unattended noise measurements to gain an understanding of the existing noise levels emanating in the locality. Unattended noise loggers were placed near noise generating sources and sensitive receivers from 28 June to 4 July 2019. This determined the loudest noises produced near the site and the extent of impact on sensitive receivers. In addition to analysing the data for background noise, a traffic noise analysis was conducted to establish the noise impacts of the surrounding road network.

The AIA details that the existing background noise is typical of an urban area and has continuous traffic flows, is within close proximity to commercial districts and exudes a continuous “urban hum” as defined in the NSW Environment Protection Authority (EPA) Noise Policy for Industry, 2016 (NPI 2016).

It was established that the major acoustic issues affecting the site include the volume of vehicle movements on the surrounding roads. In addition, Wood and Grieve identify potential environmental noise emission sources may be generated by the operation of plant equipment.

The AIA concludes that the noise impacts produced by the surrounded environment, particularly from high volumes of vehicular traffic can be managed by using a specific laminated glazing system or a double-glazed system which will be explored in the design submitted with future Stage 2 application(s). Furthermore, the noise emission of mechanical plant and equipment associated with the future development will be controlled so that the operation of such plant does not adversely impact nearby noise sensitive receivers including those within the proposed development. At this stage of the project the location and selection of mechanical plant and equipment has not been finalised. A detailed review of all mechanical plant and equipment will be undertaken during the design development of the project as is standard.

5.9 Aeronautical Impact

A Preliminary Aeronautical Impact Assessment has been prepared by Avlaw Consulting and is provided at **Appendix P**. This assessment examines the proposed concept against necessary safety clearances mandated in legislation that must be provided between an aircraft and an obstacle such as a building or crane. The following key findings are derived from the assessment:

- The maximum height of the proposed concept envelope of RL 118.85m is below the Obstacle Limitation Surface (OLS), which is 124-129m.
- The PANS OPS surface for Bankstown Airport is distanced 17.05m from the maximum building height of the proposed concept envelope;
- With respect to helicopter operations, Avlaw has determined that the airspace protected under National Airport Safeguarding Framework – Guideline H for strategically important helicopter landing sites does not limit the currently proposed height of the building envelopes as approaches and departures are clear of the site.
- Crane approvals will be dealt with as part of the Stage 2 Detailed Development Applications.

5.10 Geotechnical

A Geotechnical Investigation has been carried out by Golder Associates and is included as **Appendix H**. The Report presents the findings of the likely geotechnical, soil and groundwater characteristics of the site. This would determine if there are any potential ground related risks to support the design of three level common basement and foundations for the development.

Golder Associates has identified that the base of the basement will be approximately 7m below the current static groundwater level. Consequently, groundwater will flow into the excavation from the bulk rock and more importantly from the fractured rock. As such, Golder has proposed a number of detailed design parameters based on an understanding of a typical retention system and foundation. These parameters will be considered in the detailed design of the basement structure and into the detailed construction documentation.

5.11 Contamination

A Preliminary Site Investigation (PSI) has been prepared by Douglas Partners and is available at **Appendix M**. The PSI has sought to identify and potential contamination on the site and determine the suitability of the site for the proposed uses.

The PSI identifies that the main contamination risks from the site are the north-eastern corner of the site's previous use as a fire station and furthermore the spreading of potentially hazardous building materials, namely asbestos, sourced from demolition of former structures. Notwithstanding these potential contaminants, sampling results of the soils reported low contaminant concentrations, below the site assessment criteria. In turn, remediation is not required for the soil to remain on site, or prior to earthworks, apart from Lot 12 DP657056, where asbestos was present.

It is noted that as building rubble has been observed on the surface and in the fill in other parts of the site, there is potential for further asbestos to be encountered during excavation of fill in other parts of the site which have not been tested. Nevertheless, the results of the field observations and laboratory results indicate no significant widespread chemical contamination of the soil and groundwater and that the risks of on-site or off-site impacts are therefore considered minimal.

In summary, it is considered that the site is/can be made suitable for the proposed development and future uses, consistent with the requirements of SEPP 55

5.12 Stormwater Management and Flooding

A Stormwater Management Plan has been prepared by Wood and Grieve Engineers and is included at **Appendix J**. The Stormwater Management Plan concludes that since the site is not subjected to flooding, the proposed concept and future detailed development applications will not impact on flood storage within the CBD area. The site is currently fully developed, therefore stormwater discharge from the Concept Proposal and future detailed development application will not impact on existing flooding through the catchment.

Drainage associated with the proposed concept and future detailed development applications will accord with the requirements set out in Council's standards and AS3500.3. The design of the proposed off-site connections into the Sydney Water System will be undertaken in the future stages of the design development in conjunction with a Sydney Water Coordinator and in consultation with Council.

The Stormwater Management Plan acknowledges that a number of stormwater pollutants emanate from urbanised catchments. In turn, it advises that the stormwater treatment measures that are recommended within the Plan will assist in reducing these pollutants.

5.13 Crime and Public Safety

The proposed concept is supported by a Crime Prevention Through Environmental Design (CPTED) Assessment, which has been prepared by Ethos Urban and is included at **Appendix Q**. The CPTED Assessment considers the proposed development in the context of CPTED principles, including:

- Surveillance;
- Lighting and technical supervision;
- Territorial reinforcement;
- Environmental maintenance;
- Management of activity and space;
- Access control; and
- Design, definition and designation.

The CPTED Assessment finds that the site and its surrounds are considered to have a 'medium' risk of crime. Acknowledging the site and the CPTED principles listed above, the proposed development has the potential to be reduced to a 'low' risk of crime through the implementation of the recommendations contained in the CPTED Assessment. The Concept Proposal is supportable from a crime and safety perspective and importantly accords with the CPTED principles. However, it is emphasised that these recommendations may be subject to change owing to further design development and assessment at the Stage 2 application stage.

5.14 Site Suitability

Having regard to the characteristics of the site and its location, the Concept Proposal is considered suitable for the site as it:

- Facilitates the renewal of the site with considerable benefits associated with the activated commercial and civic precinct offering a wide variety of amenities and services to the local community and visitors in line with global best practice.
- Delivers a significant amount of mixed use floor space in the commercial core of Liverpool, contributing to the long-term viability and competitive edge of the Liverpool City Centre.
- Provides for a future built form outcome that will positively respond to the streetscape and be compatible in size and siting with surrounding (existing and future) development.
- Facilitates a significant improvement to the public domain and will improve the quality of the pedestrian environment within and surrounding the site.
- Retains and responds respectfully to the heritage significant Memorial Arts Building on site and other heritage items surrounding the site.
- Contributes to the urban regeneration of a highly underutilised strategic site.
- Is capable of being developed in a manner that will minimise impacts or improve the natural, historical, and environmental qualities of the site.
- Will result in only minor environmental impacts that can be appropriately managed and mitigated.

Conversely, the site is considered suitable for the Concept Proposal in that:

- It is zoned B4 Mixed use in which all the proposed uses are permissible;
- Is in a location and of a size that qualifies it to be an opportunity site capable of accommodating significant development uplift.
- It is located within the Liverpool CBD which has been identified for civic, educational and commercial development growth.
- It is highly serviced by existing and future transport infrastructure including the Liverpool Rail Station to the north east.
- The current development on site is in poor condition and is not commensurate with the site's strategic and locational attributes;
- It is in proximity to high quality public open space to encourage a healthy environment for tenants, occupants and visitors.

5.15 Public Interest

The Concept Proposal is in the public interest in that it:

- Provides a mixture of uses, including commercial, information and education, public administration, retail and tourist and visitor accommodation uses, all of which will contribute to improving the vibrancy and amenity of Liverpool's City Centre.
- Facilitates a development that that will support numerous jobs during the construction phase and full-time equivalent (FTE) jobs on an ongoing basis during the operational phase.
- Demonstrates high-quality urban design that is capable of producing design excellence with respect to future detailed development applications.
- Enhances connectivity around and through the precinct and optimise the quality of the public domain.
- Provides capacity for future detailed development applications to accommodate appropriate end-of-trip facilities, thereby facilitating increased visitation by non-car travel modes.

- Contributes to the development of Liverpool CBD as a key component of the Western Parkland City Metropolitan Cluster.
- Delivers a rejuvenated civic precinct that preserves and embraces the adjoining rich heritage.
- Contributes towards the diversity of uses in the area through providing a mixed use concept that supports the aim of Liverpool, as an established centre, being a critical location for commercial and retail businesses.

6.0 Conclusion

This SEE has provided a detailed assessment of the proposal against the relevant matters under section 4.15(1) of the EP&A Act. The application is recommended for approval given the following reasons:

- The Concept Proposal is permissible with consent and meets the requirements of the relevant statutory planning controls;
- The area and shape of the site allows for the provision of the proposed Concept Proposal whilst not resulting in any unacceptable adverse impacts on surrounding buildings and uses.
- The proposal has been carefully tested and designed to consider important public view corridors, and to minimise shadows cast by the proposal, to reinforce the precinct's suitability to accommodate additional employment generating floor space.
- The land is extremely well served by public infrastructure, particularly public transport infrastructure, and other utilities and public infrastructure are readily available and can be augmented to meet the needs of the additional business activities and population arising from the increased density.
- The Concept Proposal is capable of achieving design excellence which will be sought in consultation with the Liverpool Design Excellence Advisory Panel.
- The Concept Proposal will revitalise the Precinct in a manner that respects the cultural significance of the area and accommodates the various user groups forming its future community.
- A significant portion of the site has been allocated to public domain and landscaping which will make a substantial contribution to the quality of the public domain within the Liverpool City Centre.
- It generates a significant public benefit through the provision of a large through-site link strong visual connection to the site's rich heritage context.
- It generates market appropriate floor plates to encourage tenants to locate within the Liverpool City Centre.
- It will contribute to the on-going redevelopment of the Liverpool CBD commensurate with the strategic vision identified under the Greater Sydney Region Plan and the Western City District Plan.

In light of the merits of the proposed development and in the absence of any significant environmental impacts, it is without hesitation that we respectfully recommend this application for development consent.