

28 Shepherd Street, Liverpool

DA-612/2015

Amended Statement of Environmental Effects

Coronation Property
December 2016





Suite 1204B, Level 12, 179 Elizabeth Street
Sydney, New South Wales 2000

info@mecone.com.au
mecone.com.au

Project Director

Adam Coburn

Signed*



.....

Date

Project Manager

Kate Bartlett

Joseph Bell

* This document is for discussion purposes only unless signed and dated by the persons identified. This document has been reviewed by the Project Director.

Contact

Mecone

Suite 1204B, Level 12, 179 Elizabeth Street
Sydney, New South Wales 2000

info@mecone.com.au
mecone.com.au

© Mecone

All Rights Reserved. No part of this document may be reproduced, transmitted, stored in a retrieval system, or translated into any language in any form by any means without the written permission of Mecone.

All Rights Reserved. All methods, processes, commercial proposals and other contents described in this document are the confidential intellectual property of Mecone and may not be used or disclosed to any party without the written permission of Mecone.



Table of Contents

1	Executive Summary	1
2	Introduction	1
2.1	Proponent and Project Team	2
2.2	Background	2
2.3	Pre-lodgement Advice	4
2.4	Design Excellence Panel Meeting and Council Feedback	7
2.5	DPI Water Feedback	8
3	The Site	9
3.1	Site Location	9
3.2	Site Description	10
4	The Proposal	14
4.1	Development Summary	14
4.2	Access and Parking Provisions	16
4.3	Landscaping	17
5	Planning and Environmental Assessment	19
5.1	Assessment of Planning Controls	19
5.1.1	Water Management Act 2000	19
5.1.2	State Environmental Planning Policies (SEPPs)	19
5.1.3	Local Environmental Plans (LEPs)	25
5.1.4	Development Control Plans (DCPs)	32
5.2	Environmental Assessment	34
5.2.1	Urban Design Assessment	34
5.2.2	Heritage and Aboriginal Heritage Assessment	35
5.2.3	Amenity and Solar Access	38
5.2.4	Traffic and Transport Assessment	39
5.2.5	Stormwater Provisions	41
5.2.6	Landscaping and Georges River Foreshore	42
5.2.7	BCA and Access Requirements	43
5.2.8	Waste Management Provisions	44
5.3	Section 79C Compliance Table	46
6	Conclusion	48

Schedule of Figures and Tables

Figure 1 – Existing building on site – 20 Shepherd Street	3
Figure 2 – Photomontage of approved development – 20 Shepherd Street	4
Figure 3 – Subject site	9
Figure 4 – Regional context diagram.....	9
Figure 5 – Local context diagram.....	10
Figure 3 – Aerial Image of site	11
Figure 7 – Existing structure on site	12
Figure 8 – Shed Interior	12
Figure 9 – Looking north along Shepherd Street	13
Figure 10 – Looking south along Shepherd Street.....	13
Figure 11 – Site Plan and contextual analysis.....	15
Figure 12 – Photomontage of development from Georges River	16
Figure 13 – Photomontage of development from Shepherd Street.....	16
Figure 14 – Car parking layout—Level B1	17
Figure 15 – Proposed ground-floor and rooftop landscaping	18
Figure 16 – Northern elevation of proposed development.....	32
Figure 17 – Render of proposed developments at 20 and 28 Shepherd Street. -	35
Figure 18 – Survey zones for Aboriginal Cultural Heritage	37
Figure 19 – Photomontage of full-height glazing of living areas to balconies	39
Figure 20 – Overview of landscaped areas throughout the development	42
Table 1. Summary of Proposed Development.....	1
Table 2. Project team	2
Table 3. October 22, 2015 DEP Minutes	7
Table 4. Site Description—28 Shepherd Street, Liverpool	10
Table 5. Summary of Proposed Development.....	14
Table 6. Summary of Proposed Development.....	17
Table 7. Summary of Proposed Development.....	18
Table 8. Liverpool Local Environmental Plan 2012	25
Table 9. Apartment Mix	33
Table 10. Summary of Proposed Development.....	40
Table 11. Section 79C Assessment Summary	46

1 Executive Summary

Overview

This amended Statement of Environmental Effects (SEE) report supports a development application (DA-612/2015) to Liverpool City Council for the proposed residential flat building development located at 28 Shepherd Street, Liverpool (the site). The preparation of the SEE and lodgement of the development application has been undertaken on behalf of Coronation Property Co Pty Ltd.

The application was originally lodged with Liverpool Council on 3 July 2015. An amended scheme has been prepared for the development following feedback from the Department of Primary Industries – Water.

This statement describes the proposed amended development of the site and surrounding area in the context of relevant planning controls and policies applicable to the form of the development proposed. In addition, the statement provides an assessment of those relevant heads of consideration pursuant to section 79C of the *Environmental Planning and Assessment Act 1979* (EPAA).

The amended SEE is also supported by the following reports and plans which have been amended since lodgement or previous SEE amendments:

- Appendix 1: Architectural Plans;
- Appendix 2: Landscape Plans
- Appendix 3: Design Verification Statement;
- Appendix 4: DCP and ADG Compliance Tables;
- Appendix 5: BASIX Report; and
- Appendix 6: Stormwater Plan;

Other reports referenced within this amended SEE have already been provided to Council and have not been amended as a part of this resubmission.

Proposed Development

This application seeks approval for the development of a multi-unit residential development including associated landscaping and civil works.

The estimated cost of development for the proposal is approximately \$48,235,927.00 including GST.

The summary of the proposal is provided in Table 1 below.

Table 1. Summary of Proposed Development	
Item	Total
Zoning	R4 – High Density Residential
Number of dwellings	140
Site Area	5887m ²
FSR	2.03:1

Table 1. Summary of Proposed Development	
Item	Total
Height	C1 – 23.56m to top of parapet, 27.26 to top of lift overrun, 31m to top of architectural roof feature C2 – 24m to top of lift overrun
Parking	161
Gross Floor Area	11,968m ²
Solar Access	64% achieve 2 hours between 9.00am and 3.00pm at June 21
Cross-Ventilation	61% of units are naturally cross-ventilated
Unit Mix	2 x studio apartments (1%) 53 x 1-br units (38%) 78 x 2-br units (56%) 7 x 3-br units (5%)
Communal Open Space	66% of site area including roof terraces
Deep Soil	23.4% of site area

Planning and Environmental Assessment

A planning assessment has been undertaken in Section 4.1 and an Environmental Assessment has been undertaken in Section 4.2 of this report, supported by additional consultant studies as per the requirements of Council. The planning and environmental assessments found the proposal is generally consistent with the state and local planning controls and that associated impacts of the proposal are considered to be minimal and manageable. Hence, the proposal:

- Will provide a high-quality residential flat development that respects its historic setting and complies with key planning standards including in the Liverpool LEP 2008 and SEPP 65, such as land use, Height, FSR, setbacks, design excellence, site coverage, communal open space and public domain improvements;
- Will contribute 140 new dwellings towards Liverpool Council's housing targets and will assist with housing affordability by providing a range of housing types, sizes and mix;
- Will provide substantial landscaping and public access to the Georges River foreshore while managing impacts surrounding the Foreshore Building Line and Riparian Corridor;
- Will provide dwellings with significant amenity in terms of unit size, storage, private open space, layout, outlook, solar access, communal facilities and parking;

- Will minimise any adverse impacts on surrounding development with respect to privacy, traffic, noise or overshadowing;
- Will conserve and enhance surrounding heritage matters including aboriginal cultural heritage;
- Responds to the street alignment and future desired built form;
- Is BASIX compliant and seeks to provide a high level of sustainability through management of stormwater runoff and provision of WSUD; and
- Is a suitable development for the site and is considered to be in the public interest.

Therefore, it is considered that the proposal is within the public interest, based on the above outcomes and a high quality outcome for the site and the Liverpool area.

2 Introduction

This amended Statement of Environmental Effects (SEE) report has been prepared on behalf of Coronation Property Co Pty Ltd to support a Development Application (DA) to Liverpool City Council (Council) for a residential flat building development on the site located at 28 Shepherd Street Liverpool (the site).

The application was originally lodged with Liverpool Council on 3 July 2015 (DA-612/2015). An amended scheme has been prepared for the development following ongoing discussions with the Department of Primary Industries – Water (DPI Water). This amended scheme increases the setback of Building C1, which fronts the Georges River, to ensure there is no encroachment within the Inner 50% Vegetated Riparian Zone.

The SEE includes an assessment of the proposed works in terms of the matters for consideration as listed under Section 79C of the *Environmental Planning and Assessment Act 1979* (EPAA) and should be read in conjunction with information annexed to this report as outlined in the Table of Contents.

Specifically, the SEE includes the following information:

- Description of the site in its local and regional context;
- Identifies the proposed works;
- Identifies and addresses all relevant Council's controls and policies;
- Identifies and addresses all potential environmental impacts of the proposal; and
- Provides potential measures for minimising or managing the potential environmental impacts.

The amended DA seeks approval for demolition of existing structures on site and construction of a 140 unit residential development across two buildings, with three levels of basement car parking and communal open space at ground-level and on roof terraces.

The proposed development will generally include the following works:

- Demolition of existing structures on site;
- Excavation, remediation and early works;
- Construction of a three-level basement with vehicle egress and driveway off Shepherd Street;
- Construction of a 6-storey residential flat building (C2) facing Shepherd Street with 65 apartments and roof terraces;
- Construction of a 7-storey residential flat building (C1) facing Georges River with 75 apartments and roof terraces; and
- Construction of Communal and Private Open Space at ground level, including public pedestrian access to the Georges River foreshore.

Napier & Blakeley has calculated the cost of development for the proposal to be \$48,235,927 (including GST).

A planning and environmental assessment of the proposal is provided in Section 4 of this report.

2.1 Proponent and Project Team

The Development Application and SEE Report have been prepared on behalf of the applicant, Coronation Property Co Pty Ltd. The expert consultant team is listed in Table 2 below.

Table 2. Project team	
Specialist Area	Consultant
Urban Planning Assessment	Mecone
Architectural Plans and Design Report	Woods Bagot
Landscape Plans and Design Report	Aspect Studios Pty Ltd
Geotechnical/ Acid Sulfate Soils/ Salinity Report	Asset Geotechnical Engineering Pty Ltd
BCA Report	Certified Building Specialists Pty Ltd
Heritage Report and Aboriginal Heritage Report	City Plan Heritage Pty Ltd
Remediation Action Plan	Environmental Investigations Australia Pty Ltd
Waste Management Plan	MRA Consulting Group
Flora and Fauna Report	ACS Environmental Pty Ltd
Arborist Report	Naturally Trees Pty Ltd
Traffic Impact Assessment	In Roads Group
Acoustic Report	Wood & Grieve Engineers
BASIX Assessment	Wood & Grieve Engineers
Survey	SDG Land Development Solutions Pty Ltd
Access Report	Accessibility Solutions (NSW) Pty Ltd
Stormwater Management Plan	Wood & Grieve Engineers
Social Impact Assessment	Cred Community Planning

2.2 Background

Relevant Development Proposals

In considering this development application it is relevant to consider the development history of this site and adjacent development.

DA – 557/1997

This application was approved on 28 May 1997 for the erection of 6 new factories on site.

DA – 1010/2014 – 20 Shepherd Street, Liverpool

On 17 November 2014 Coronation Property Co Pty Ltd lodged a development application at 20 Shepherd Street Liverpool (an adjacent site) for:

- Demolition of a portion of existing heritage building 'former Challenge Woollen Mills';
- Removal of existing car park and 14 trees;
- Remediation of site;
- Erection of two residential flat buildings;
- Two levels of basement parking; and
- Landscaping and associated site works.

This development application was under assessment at the time of preparing the Statement of Environmental Effects at 28 Shepherd Street. Since lodgement of the subject DA, the development application at 20 Shepherd Street has been granted approval on 27 October 2015.



Figure 1 – Existing building on site – 20 Shepherd Street

Source: Architectus



Figure 2 – Photomontage of approved development – 20 Shepherd Street
Source: Woods Bagot

2.3 Pre-lodgement Advice

On Wednesday 8 April, a pre-lodgement meeting was held between Liverpool City Council staff and representatives of the applicant. The applicant presented a draft scheme prepared by Woods Bagot along with a compliance assessment. Council officers provided the following feedback to the draft scheme:

- OSD will be required with the proposed development and the proposal is to connect into the existing Shepherd Street drainage system. Stormwater drainage must be in accordance with the Council's Development Control Plan;
- Although the proposal exceeds the height control for Building C1, Council's Strategic Planning notes that:
 - Constructing Building C1 to a height of 27.9 metres is likely to have minimal additional impact on overshadowing to the adjacent property to the south; and
 - The proposed height of Building C1 would be consistent with that of the 20 Shepherd Street proposal nearby.
- The architectural roof feature on Building C1 adds substantial height to the proposed development. Strategic Planning proposes that the applicant amend the design of the architectural roof feature to reduce the impact of the blank wall and provide shadow diagrams to show hourly impact of overshadowing on the adjacent site to the south at the winter solstice and the equinox;
- The additional basement car parking spaces result in a non-compliance with the FSR control. Strategic Planning notes that this additional GFA would be located entirely below ground and would therefore not add to the

visible bulk of the development. Further comment on car parking and floor space controls is to be withheld until the basement design is finalised by the applicant;

- Foreshore Access: Strategic Planning is concerned that the proposed 'townhome'-style development opening out towards the reserve will blur the line between private and public open space on the foreshore and give the non-residents a sense of intruding into private open space when visiting the public reserve;
- Strategic Planning notes that the applicant has proposed a shared space driveway along the southern boundary of the site to provide public pedestrian access to the reserve; however, Strategic Planning does not consider this a satisfactory measure;
- Building C1 encroaches on the foreshore building line and the proposed residential uses of C1 are not among permissible uses in foreshore areas and the subject site does not possess exceptional features which make it appropriate to develop on this part of the site;
- The encroachment of the foreshore building line by the basement car parking levels does not affect the amenity of the foreshore area and is supported, subject to consideration of the impact on natural foreshore processes. If the encroachment is to be pursued then concurrence is required from the relevant external authority prior to DA lodgement;
- The applicant will need to submit Clause 4.6 variations to address non-compliances with height, floor space and the foreshore building line;
- The proposal shows buildings that are simple, regular with a well-proportioned space between them. It is considered advantageous that there are no brightly-coloured feature walls, framing elements or elliptical features;
- The site is in the immediate vicinity of the listed McGrath Services Centre Building. Any development application must include a Statement of Heritage Impact, an Aboriginal cultural heritage assessment, a Photographic Archival Recording and an Interpretation Strategy;
- Flooding and water quality must be addressed; and
- The proposal is to consider Council's boardwalk master plan along the Georges River.

Council's feedback from the pre-lodgement meeting has been considered and addressed as part of the final proposal submitted. A copy of Council's minutes for this meeting was submitted with the original SEE.

A further pre-lodgement meeting was held on Monday 4 May 2015 to update Council officers on progress with the application and to discuss the key remaining design and development matters. An overview of the issues discussed and feedback from Council is provided below.

Front setback to the street

1. An additional 1.5m front setback has been proposed over the DCP required 4m to better align the front of the building with the heritage item at 20 Shepherd Street. This creates a reduced building separation between the two buildings internally due to the restrictions at the rear with the Foreshore Building Line;
2. City Architect advised that if party walls and balconies protruded within the setback area it would not achieve the objective. Additionally, there may be

design merit in reducing the front setback to provide a sharper, urban edge and street-wall to reflect the likely future 'urban' nature of the area rather than 'suburban'.

3. This would also resolve the issue of internal building separation for the development.
4. The City Architect advised she would discuss the setback issue with Council's Heritage Planner and provide advice as to whether a reduced front setback would be acceptable from a heritage and urban design perspective.

Foreshore Building Line

5. The design has been amended to reduce the extent of protrusion of the above ground building into the Foreshore Building Line.
6. Council advised that any encroachment into the Foreshore Building Line would have to demonstrate how the development meets the objectives of the development standard and would have to be supported by technical reports and the Statement of Environment Effects.
7. A Clause 4.6 Variation could be submitted to request a variation to the standard. Council officers would be guided by technical advice such as the Ecology Study and Office of Water advice and the intent of the Clause as outlined in the Objectives.

Solar Access and Overshadowing

8. The design achieves 63% of dwellings with 2 hours of solar access between 9am and 3pm.
9. Council officers were concerned by this and suggested that the development try to get to 70% if possible, particularly if it is using the 2 hour test rather than 3 hours outlined in the RFDC.
10. Alternatively the development application should be accompanied by a solar access test for extended hours, such as 8am to 5pm and a daylight study demonstrating that the development achieves acceptable daylight.
11. The application should be accompanied by a strong justification of the proposed solar access including justifying the additional amenity from facing the River.
12. Coronation outlined the importance of providing strong solar access to the communal roof space as all residents can take advantage of the additional amenity, rather than just some apartments.

Connection to Georges River

13. City Architect strongly advocated for a road connection to the Georges River. She noted that the existing industrial subdivision pattern did not provide an adequate street and block outline for high density residential.
14. Coronation and Mecone advised that a road could be considered as part of a Planning Proposal, but was not a requirement under current planning controls and could not be incorporated into the development application.

Council officers requested that Coronation submit an Urban Design Report outlining their vision for the Shepherd Street precinct to help guide assessment of the current DA at 20 Shepherd Street and future DAs at 28 and 33 Shepherd Street.

2.4 Design Excellence Panel Meeting and Council Feedback

Post lodgement on 20 August 2015, the originally submitted scheme was presented to the Design Excellence Panel, who provided the following feedback:

- The development exceeds the maximum height controls and should be considered;
- Building Separation and encroachment in the Foreshore Building Line should be considered;
- The lack of soft landscaping in the proposed through-site-link is undesirable and a potential safety issue;
- Solar access is not compliant;
- Inadequate deep soil has been provided for;
- Inboard habitable rooms are not acceptable; and
- An amended design should be provided to address non-compliances with the LLEP and SEPP 65.

Based on this feedback and the feedback from Council in their letter dated 9 October 2015, an amended scheme has been proposed, which is the subject of this amended SEE. A specific response to the Design Excellence Panel Comments is provided in **Appendix 11**.

A further meeting was held with the Design Excellence Panel on 22 October 2015 – the minutes of this meeting can also be found in **Appendix 11**. Table 3 below outlines the DEP's further comments in this meeting and the proponent's response.

Table 3. October 22, 2015 DEP Minutes	
Comment	Applicant Response
Building Separation does not comply with the ADG on levels 5 and 6.	The amended scheme ensures a compliant building separation for the entire development.
The development only achieves 62% solar access, which does not comply with the ADG.	<p>The development has been amended to increase solar provision from 60% to 62%. The site was deliberately oriented towards the Georges River to provide residents with improved amenity with respect to outlook and daylight. In addition, the proposal includes roof gardens, which over 70% of this space achieves 2 hours solar access at the winter solstice.</p> <p>The orientation of the site, to take advantage of the important river outlook, makes strict compliance with the solar provisions in the ADG difficult. However, the river orientation will guarantee significant daylight and natural ventilation.</p>

Table 3. October 22, 2015 DEP Minutes	
Comment	Applicant Response
Deep soil should be provided in the podium courtyard so trees can be planted.	The development already significantly exceeds the minimum deep soil requirements under the ADG. The soil depth in the courtyard is over 1000mm, which will still permit mature trees to be planted.
Landscaping against the walkway should be upgraded.	The amended drawings have provided additional landscaping against the walkway.
Could the parking access and loading zone be co-located.	The applicant's BCA and Traffic consultants have advised that co-locating these entrances would create BCA and traffic impacts with respect to turning circles and space location.
The car parking basement including the loading dock and waste collection should be accessed directly under the building from Shepherd Street.	Accessing the basement directly from Shepherd Street would result in an area that is de-activated along the Shepherd Street frontage and would create a poorer design outcome.

2.5 DPI Water Feedback

The scheme has been amended following ongoing negotiation with DPI Water, related to the Vegetated Riparian Zone (VRZ). This has resulted in the building being stepped in on the lower levels fronting the Georges River, to ensure that there is no construction work within the inner 50% VRZ. DPI Water has accepted the latest amendments and recently issued general terms of approval.

3 The Site

3.1 Site Location

The site is located at 28 Shepherd Street and is bounded by Shepherd Street to the west and the Georges River to the east as identified below.



Figure 3 – Subject site

Source: SixMaps

The site is located in southwest Sydney within the Liverpool Local Government Area. It lies 27 kilometres to the southwest of Central Sydney and is located within the Liverpool City Centre precinct. The Liverpool City Centre is identified as a Regional City under the *Draft Metropolitan Plan for Sydney 2031*.

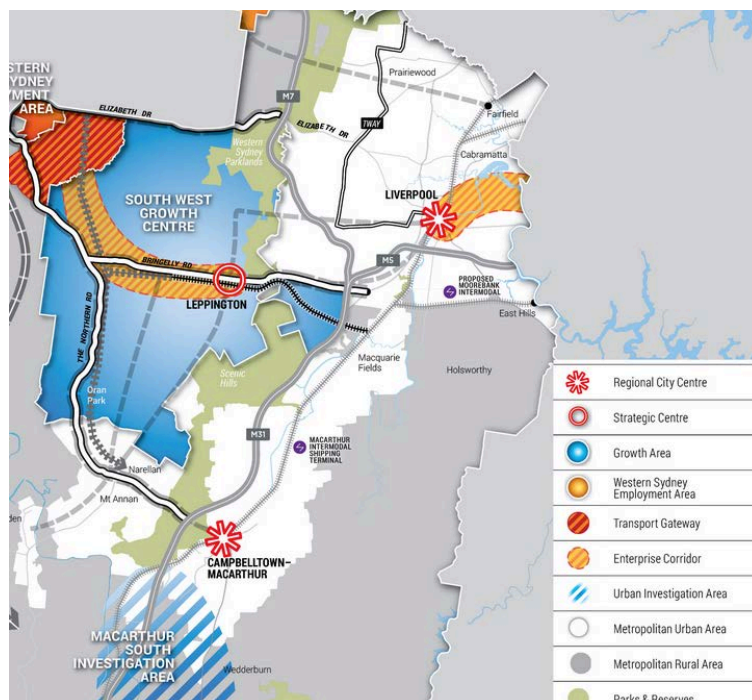


Figure 4 – Regional context diagram

Source: NSW Government – A Plan for Growing Sydney

The site is located within the Liverpool City Centre, approximately 1km south of Liverpool Train Station. Shepherd Street also connects the site with the Casula Powerhouse and the Casula Train Station approximately 2km to the south of the site.

The site is located within an existing industrial area, which has been rezoned to High Density Residential and is undergoing urban transformation. Low density residential development is located to the west of the site past the rail line to Casula Station. The Georges River is located directly to the east of the site, with further industrial development located on the opposite side of the river.



Figure 5 – Local context diagram
Source: Coronation Property Co

3.2 Site Description

Table 4 provides a brief summary of the site and surrounding context. A survey of the site was provided with the original SEE.

Table 4. Site Description—28 Shepherd Street, Liverpool	
Item	Description
Legal Description	Lot 22, DP 859055
Total Area	5887 m ²
Location	Shepherd Street and Georges River
Street Frontage	72 metres to Shepherd Street
Site Description	Industrial site with single large warehouse surrounded by open space with small ancillary buildings and remnant vegetation.

Table 4. Site Description—28 Shepherd Street, Liverpool	
Item	Description
Previous uses	Industrial
Surrounding Context	<ul style="list-style-type: none"> • Site to the north is subject to high density residential development application currently before Council. • Liverpool Smash Repairs adjoins site to the south. • Georges River is to the east with the MFive Industry Park located on the opposite side of the river. • Train line and low density residential located to the west of the site.
Public Transport	<ul style="list-style-type: none"> • Approximately 1km to Liverpool Train Station • Approximately 2km to Casula Train Station

A detailed site analysis plan is provided at **Appendix 1** within the architectural design plans.

The site's surrounding development context is presented in the following figures.



Figure 3 – Aerial Image of site
Source: Aspect Studios



Figure 7 – Existing structure on site
Source: Coronation Property Co



Figure 8 – Shed Interior
Source: Coronation Property Co



Figure 9 – Looking north along Shepherd Street
Source: Google Maps



Figure 10 – Looking south along Shepherd Street
Source: Google Maps

4 The Proposal

4.1 Development Summary

Woods Bagot have provided the design for the proposed amended development. The relevant architectural plans prepared by Woods Bagot are found at **Appendix 1**.

The proposed development will generally include the works identified below and in Table 5:

- Demolition of existing structures on site;
- Excavation, remediation and early works;
- Construction of a three level basement with vehicle egress and driveway off Shepherd Street;
- Construction of a 6-storey residential flat building (C2) facing Shepherd Street with 65 apartments and roof terraces;
- Construction of a 7-storey residential flat building (C1) facing Georges River with 75 apartments and roof terraces; and

Construction of Communal and Private Open Space at ground level including public pedestrian access to the Georges River foreshore.

Table 5. Summary of Proposed Development	
Item	Total
Zoning	R4 – High Density Residential
Number of dwellings	140
Site Area	5887m ²
FSR	2.03:1
Height	C1 – 23.56m to top of parapet, 27.26 to top of lift overrun, 31m to top of architectural roof feature C2 – 24m to top of lift overrun
Parking	161
Gross Floor Area	11,968m ²
Solar Access	64% achieve 2 hours between 9.00am and 3.00pm at June 21
Cross-Ventilation	61% of units are naturally cross-ventilated

Table 5. Summary of Proposed Development	
Item	Total
Unit Mix	2 x studio apartments (1%) 53 x 1-br units (38%) 78 x 2-br units (56%) 7 x 3-br units (5%)
Communal Open Space	66% of site area including roof terraces
Deep Soil	23.4% of site area

Figure 11 provides a site plan and contextual analysis of the development. Figures 12 and 13 provide photomontages of the proposal, which are also found at **Appendix 1**.

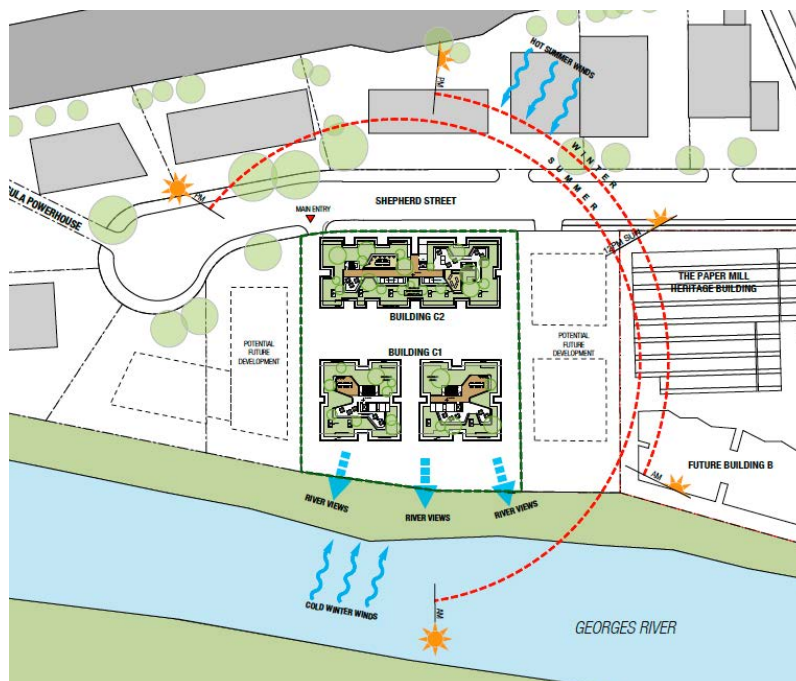


Figure 11 – Site Plan and contextual analysis
Source: Woods Bagot



Figure 12 – Photomontage of development from Georges River
Source: Woods Bagot



Figure 13 – Photomontage of development from Shepherd Street
Source: Woods Bagot

4.2 Access and Parking Provisions

Vehicular access to the site is provided from Shepherd Street via a driveway on the south-west corner of the site. The proposal provides for a total of 161 parking

Table 6. Summary of Proposed Development			
Type	Parking Rate	Spaces Required	Proposed Spaces
Residential	<ul style="list-style-type: none"> 1 space per two studio units 1 space per 1 or 2br unit 1.5 spaces per 3br unit 	143	143
Visitors	1 space per 10 units	14	14
Service	1 space per 40 units	4	4
Total		161*	161*

* includes 14 accessible spaces



Figure 14 – Car parking layout—Level B1
Source: Woods Bagot

4.3 Landscaping

The development proposes a significant amount of landscaped area, including publicly accessible open space adjacent the river, communal open space comprised both deep soil areas and permeable landscaping at ground and roof level as shown in Figure 15.

Refer to Table 7 for the proposed landscaping areas.

comprised both deep soil areas and permeable landscaping at ground and roof level as shown in Figure 15.

Refer to Table 7 for the proposed landscaping areas.

Table 7. Summary of Proposed Development		
Type	Required	Proposed
Deep soil	412sqm	1,379sqm
Treated podium and Communal Roof Space	1471sqm	3,865sqm
Publicly accessible open space	N/A	1960sqm

This represents a substantial improvement over the existing site landscaping, which is in poor condition, and will improve landscape appeal through the creative use of tree canopy, shrub and groundcover layers in accordance with Council provisions. The development proposes significant landscaped communal areas that will provide high-quality amenity for future residents and visitors.

Revised landscape plans have been submitted alongside this SEE.



Figure 15 – Proposed rooftop landscaping
Source: Aspect Studios

5 Planning and Environmental Assessment

Mecone has undertaken an assessment of the amended proposal against the relevant planning and environmental legislation and guidelines to identify potential environmental impacts and mitigation measures. The potential environmental impacts and their mitigation measures are discussed below.

5.1 Assessment of Planning Controls

The SEE includes an assessment of the proposed works in terms of the matters for consideration as listed under Section 79C of the *Environmental Planning and Assessment Act 1979* (EPAA) and should be read in conjunction with information annexed to this report as outlined in the Table of Contents.

5.1.1 Water Management Act 2000

The development is integrated development under the Water Management Act 2000. The application has been referred to DPI Water for their Terms of Approval in accordance with the requirements of the EP&A Act 1979. These were issued on 5 December 2016.

5.1.2 State Environmental Planning Policies (SEPPs)

5.1.2.1 SEPP 65 Assessment

SEPP 65 states that a consent authority is to give consideration to the following matters in determining a DA for a residential flat building:

- 9 design quality principles; and
- the Apartment Design Guide (ADG).

Refer to **Appendix 3** for an amended Design Verification Statement prepared by Woods Bagot. Refer to **Appendix 4** for an amended Apartment Design Guide Compliance Assessment.

Principle 1: Context and Neighbourhood Character

The subject site is located in the Shepherd Street neighbourhood in the Liverpool City Centre Locality. The locality comprises of a number of industrial and commercial uses, with low-density residential development to the west on the opposite side of the train tracks. The area is in a period of transition to a desired character of primarily high density residential development, which is reflected in its R4 zoning and the recent lodgement of a high-density residential development at 20 Shepherd Street. The proposal is for residential development and is consistent with the desired uses anticipated for the area.

The development addresses the need for public domain upgrades by proposing to contribute to community infrastructure on site and adjacent to the Georges River frontage through the provision of a public-access through-site connection from the Shepherd Street boundary, across the site to the Georges River foreshore.

The proposed development supports the vision by the Liverpool Council to improve the quality of architecture and design in the area and specifically sets out to meet the stated objectives contained within the Liverpool Council Planning Controls and SEPP 65. The design aims to build upon those objectives in order to make a key contribution in this significant sector of Liverpool by providing a new high quality residential development integrated within the existing urban fabric. The two

proposed new residential buildings have been configured to provide a strong street frontage to Shepherd Street and a generous setback from the Georges River.

Principle 2: Built Form and Scale

The development comprises two buildings of 6 and 7 storeys with roof terraces, and is consistent with the height controls for the area. The 6-storey building complies with the height requirement at the site, and, while the 7-storey building exceeds the height requirement, this excess consists of an architectural roof feature justified under Clause 5.6 of the LEP. The proposed buildings are of a higher scale than the existing warehouses in the vicinity of the site, but this is considered appropriate given that the area is in transition to higher density built form.

The development includes multiple cores, ground-floor deep soil and communal open space, along with roof terraces and landscaping for both buildings. The building facades have been designed to provide articulation and variety to break up the building in order to reduce the scale. The design strategy for Building C2 is to mediate the scale between the lower height of the industrial warehouse buildings and the taller height of Building C1. Building C2 is a brick building that relates to the brick textures and colours of the Paper Mills Heritage building. Balcony expressions are modulated by a series of full height vertical slots; a rhythm of large openings and slim bands of glass balustrades and a toothing effect at the ends of each alternating floor to reduce the solidity of the edges.

The building parallel to the Georges River is 7 storeys in height and also includes two storey townhouses facing the river. The townhouses are framed by a strong stone articulation and deep recessed glass façade lines. This building is referred to as Building C1 and has a generous landscape setback from the river foreshore area. This landscaped setback has been increased at the lower levels to respond to concerns from DPI Water, revealing a slight cantilever in the building design.

Privacy is provided by the landscape setback filled with hedges and plantings as well as a private terrace. The generous landscape setbacks are tiered as terraces before an additional landscaping verge gently slopes to meet the existing ground levels. Building C1 is a slightly taller form in comparison to Building C2 to allow residents' expansive views of the river to the west and views towards the CBD to the east.

The amended development proposal exceeds the minimum building separation requirement of 12 metres from levels 1-4 and complies with the minimum separation requirement of 18m on levels 5 and 6.

Principle 3: Density

The amended development has a FSR of 2.03:1, which is less than the maximum FSR control of 2.5:1 of the site and is consistent with the objectives of the FSR development standard.

Principle 4: Sustainability

The application has been accompanied by a BASIX Certificate. In addition, the development satisfied the principles of passive solar design by ensuring that 64% of apartment living spaces achieve 2 hours solar access at the winter solstice. The lobbies and corridors obtain natural sunlight and ventilation.

The project adopts passive environmental design solutions and appropriate use of materials to provide a simple yet effective response to the environmental requirements. A balance of solidity in concrete and brick materials for good thermal performance and glazing for natural daylight is inherent to all facades,

whilst deep balcony reveals and side walls provide passive shading and privacy where appropriate.

Operable windows are provided to all living and bedrooms. 61% of the total apartments including the living, dining and kitchen achieve natural cross ventilation with operable windows at either end of the space. This is achieved with ventilation slots in the façades and corner apartments. Also, each living area and a majority of bedrooms have full height sliding glass panels.

Principle 5: Landscape

Substantial landscaping is provided on the ground plane with a significant 23.4% of the site allocated for deep soil to allow for mature planting. 66% of the site area is provided as communal open space, which includes both ground floor and rooftop communal space. The landscape species are appropriate to the locality and have been designed to meet minimal water requirements. The landscaping on the rooftops also assists in urban heat mitigation and thermal performance. Communal outdoor amenities are located on the rooftops of both buildings. The apartments will benefit from year-round outdoor access to large balconies. New street trees will be planted along Shepherd Street in accordance with council's landscape strategy and type.

Principle 6: Amenity

Apart from achieving the required mix and compliance with much of the SEPP 65 guidelines, the fundamental design goals of this proposal have been:

- To maximise access to river and city views;
- Prioritise the living rooms for amenity;
- Ensure fresh air and daylight to common areas; and
- Create memorable experiences in the entry sequence to the development and building lobbies.

The proposal includes efficient and spacious apartment layouts, access to sunlight, natural ventilation, visual and acoustic privacy, storage, double storey indoor sky bridge recreation spaces, outdoor roof gardens, efficient layouts and service areas and outlook and ease of access for all age groups and degrees of mobility where required.

The residential levels are provided 3.1m floor to floor heights to enable delivery of a 2.7m floor to ceiling height during construction and compliance with the ADG. The proposed apartment sizes comply with and generally exceed the minimums recommended and the layouts are reasonably efficient and functional. 64% of apartments receive a minimum of 2 hours of direct sunlight between 9am and 3pm on June 21 onto at least 1sqm of living room windows and a minimum 50% of each balcony. Although this percentage is not strictly in accordance with the Design Criteria, the amended scheme has improved solar access by 4% compared with the scheme originally lodged in July 2015.

The site has been deliberately oriented to take advantage of the riverfront and provide significant outlook to the riverfront, which makes strict compliance with the Criteria difficult. However, the riverfront will bring additional amenity in the form of daylight and outlook that could not otherwise be achieved, which is promoted within the relevant Design Guidance in the ADG.

The development also provides roof communal spaces, which will receive 2 hours sunlight to over 70% of these spaces at mid-winter, providing additional solar amenity. 61% of apartments are naturally cross ventilated. In addition, the proposed development ensures that surrounding future residential development will

be able to receive the required solar access to living room areas and private open space.

The development has been designed so that it complies with the minimum building separation requirements. Visual privacy has been addressed through building separation, apartment layout, offsetting of openings and screening devices. Each apartment contains private open space and an outlook to either the Georges River or local views. The acoustic privacy within the apartments can achieve an acceptable level. The proposal provides storage facilities within the car parking area and within each apartment.

Principle 7: Safety

The proposed residential lobby and balconies will provide improved casual surveillance of the public domain. The main pedestrian entrance to Building C2 is located on Shepherd Street, and the main pedestrian entrance to Building C1 is via the courtyard. Both building entries will operate using secure key card controlled glazed door access. The main vehicular access to the residential car park is located off the driveway on the south of the site and via a secure card access control to operate the roller shutter. Sight lines from the apartments provide visibility for safe and secure access to the lobbies, courtyard and car park entry.

Additional security will be provided by a fence located at the entry of the courtyard and will operate via secure card access control. Security will be maintained via a secure lobby entrance off Shepherd Street with a monitored security room, CCTV surveillance and key card access to lift cores. Lighting along boundaries, in lobbies and communal areas to maximise sight will be provided. The vehicular access is concentrated to a single cross over to reduce potential conflicts between vehicles and pedestrians.

Principle 8: Housing Diversity and Social Interaction

The proposal caters for a cross section of the suburban demographic in terms of density and affordability with the provision of 39% x studios and 1 Bedroom apartments, 56% x 2-Bed apartments, and 5% x 3 Bedroom apartments. The amended scheme has slightly decreased the number of 2 bedroom apartments, increasing the 1 x bedroom and studio numbers. The unit mix is considered appropriate for the area and enables a choice of housing types.

Double storey townhouses are located on the ground floor on Shepherd Street and the riverside to also add diversity to the residential typology.

The development also provides a mix of private open space in the form of large terraces and balconies and a communal rooftop terraces with substantial planting catering for both formal and informal recreational activities. The inclusion of accessibility features such as level footpaths and disability access at ground level caters for the varying degrees of accessibility in the general population. BCA and Access reports are attached with the development application and the design reflects these reports.

Principle 9: Aesthetics

The development has been designed utilising a range of high-quality traditional and contemporary materials, with articulation and variety to create visual interest and complement the surrounding environment. The architectural articulation, scale, mass, built form and materiality of the development are a direct response to the archaeology of the existing site, specifically the site's association with the paper mill factory founded in 1865. The design adopts a narrative that embeds the patina and history of the contextual materials and highlights an emergent urban grain in a new residential precinct.

5.1.2.2 SEPP 55 (Remediation of Land)

The aim of SEPP 55 is to ensure that a change of land use will not increase the risk to health, particularly in circumstances where a more sensitive land use is proposed. Refer to the original SEE for a Remediation Action Plan prepared by Environmental Investigations,

The site has been subject to previous environmental assessments including a Preliminary Investigation by Analchem Environmental Resources in 1996, a Detailed Site Investigation also by Analchem in 1998 and a Phase 2 Environmental Site Assessment by Environmental Strategies in 2014. The 2014 report identified the presence of two underground storage tanks (USTs) and accordingly further investigations were required. These reports have already been provided to Council.

The objectives of the RAP are to:

- Provide further investigations comprising a hazardous materials survey and location of known potential Underground Petroleum Storage Systems (UPSSs);
- UPSS removal and remediation of impacted fill/soil materials; and
- Validation of remediated areas to a standard that is acceptable for the intended residential land use, with minimal soil access.

Subject to compliance with the measures in the RAP, the site will be able to be made suitable for the proposed development.

5.1.2.3 SEPP (Building Sustainability Index: BASIX 2004)

The application has been accompanied by revised BASIX Certificates, which are provided in **Appendix 5**. The BASIX certificates list measures to satisfy BASIX requirements, which have been incorporated in the proposal.

5.1.2.4 Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment

This SREP must be addressed and complied with whenever a consent authority determines a development application, which has the potential to adversely affect the water quality, river flows, flood regime or ecosystems within the Georges River Catchment.

As such, the cumulative impact of the proposed development or activity on the Georges River or its tributaries must be considered and mitigated in such a way that there will be no overall detrimental impact of wastewater or stormwater entering the river at Shepherd Street, Liverpool.

The application was accompanied by a Riparian Report that assessed the proposal against the principles of the SREP, previously provided to Council. In particular, the SREP requires that the development take in to account the following environmental issues:

- Minimising disturbance to acid sulfate soils;
- Avoiding bank disturbance;
- Managing flood impacts;
- Avoiding industrial discharges into the River or its tributaries;
- Avoiding and minimising land degradation;
- Ensuring on-site sewage management to prevent sewer overflows;
- Minimising and mitigating stormwater runoff; and

- Providing appropriate vegetated buffer areas.

The development has been sensitively designed to ensure it meets the requirements of the principles in the SREP. Sediment and erosion plan has been prepared to ensure acid sulfate soil risks are minimised. The development has been set back from the river bank per LEP requirements in order to prevent bank disturbance, provide appropriate vegetated buffer areas in accordance with the Riparian corridor and avoid land degradation. The stormwater management plan addresses impacts of stormwater runoff, and the site will be appropriately connected to local sewerage infrastructure. The change of use from industrial to residential will prevent any industrial discharges into the river or its tributaries.

5.1.3 Local Environmental Plans (LEPs)

5.1.3.1 Liverpool Local Environmental Plan 2008

The Liverpool Local Environmental Plan 2008 (LLEP2008) is the primary local planning instrument applying to the site. The table below provides a summary of the key development standards that apply to the site under the LLEP2008.

Table 8. Liverpool Local Environmental Plan 2012		
Clause	Provision	Assessment
Land Use Zones (2.1) – Zone R4 – High Density Residential	1 Objectives of zone <ul style="list-style-type: none"> To provide for the housing needs of the community within a high density residential environment. To provide a variety of housing types within a high density residential environment. To enable other land uses that provide facilities or services to meet the day to day needs of residents. To provide for a high concentration of housing with good access to transport, services and facilities. To minimise the fragmentation of land that would prevent the achievement of high density residential development. <ul style="list-style-type: none"> 	<p>Yes. The proposal is consistent with the zone objectives as it will:</p> <ul style="list-style-type: none"> Provide housing needs of the community within a high-density residential environment; Will provide a variety of housing types including 2-level townhouses and 1, 2 and 3br units; Will not restrict other land uses that provide facilities or services within the local community; Will provide a high concentration of housing with good access to transport including local bus routes and Liverpool and Casula train stations; and <p>Will not create fragmentation of land that would prevent the achievement of high-density residential development.</p>

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
Land Use Zones (2.1) – Zone R4 – High Density Residential	<p>2 Permitted without consent</p> <p>Home-based child care; Home occupations</p> <p>3 Permitted with consent</p> <p>Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; Dwelling houses; Educational establishments; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Home businesses; Home industries; Hostels; Hotel or motel accommodation; Kiosks; Multi dwelling housing; Neighbourhood shops; Places of public worship; Public administration buildings; Recreation areas; Residential care facilities; Residential flat buildings; Respite day care centres; Roads; Secondary dwellings; Serviced apartments; Shop top housing</p> <p>4 Prohibited</p> <p>Any development not specified in item 2 or 3</p>	<p>Yes. Residential Flat Buildings are permitted with consent.</p>
Minimum Subdivision lot size (4.1)	The minimum lot size for the subject site is 1,000sqm.	<p>Yes. The proposed development has a lot size of over 1,000sqm.</p>

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
Height of Buildings (4.3)	<ol style="list-style-type: none"> 1. The objectives of this clause are as follows: <ol style="list-style-type: none"> a. to establish the maximum height limit in which buildings can be designed and floor space can be achieved, b. to permit building heights that encourage high quality urban form, c. to ensure buildings and public areas continue to receive satisfactory exposure to the sky and sunlight, d. to nominate heights that will provide an appropriate transition in built form and land use intensity. 2. The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map. 	<p>Yes. There is no change to the height of building as a result of the revised scheme. The site is subject to a maximum building height of 24m on the HOB Map (Sheet HOB_0012). Building C2 is 24m high and therefore complies. Building C1 is 23.56m at the top of its parapet and also features an architectural roof feature that reaches 31m. This additional height is consistent with LEP Cl. 5.6 Architectural roof features (refer to relevant item in this table) and therefore the proposal complies with the height control.</p>
Floor Space Ratio (4.4)	<ol style="list-style-type: none"> 1. The objectives of this clause are as follows: <ol style="list-style-type: none"> a. to establish standards for the maximum development density and intensity of land use, taking into account the availability of infrastructure and the generation of vehicle and pedestrian traffic, b. to control building density and bulk in relation to the site area in order to achieve the desired future character for different locations, c. to minimise adverse environmental effects on the use or enjoyment of adjoining properties and the public domain, d. to maintain an appropriate visual relationship between new development and the existing character of areas or locations that are not undergoing, and are not likely to undergo, a substantial transformation, e. to provide an appropriate correlation between the size of a site and the extent of any development on that site, f. to facilitate design excellence in the Liverpool city centre by ensuring the extent of floor space in building envelopes leaves 	<p>Yes. The proposed development achieves an FSR of 2.03:1, which is less than the maximum permitted FSR of 2.5:1 as per the FSR Map (Sheet FSR_0012) and Clause 4.4(2C).</p>

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
	generous space for the articulation and modulation of design.	
Architectural Roof Features (5.6)	<ol style="list-style-type: none"> 1. Development that includes an architectural roof feature that exceeds, or causes a building to exceed, the height limits set by clause 4.3 may be carried out, but only with development consent. 2. Development consent must not be granted to any such development unless the consent authority is satisfied that: <ol style="list-style-type: none"> (a) the architectural roof feature: <ol style="list-style-type: none"> i. comprises a decorative element on the uppermost portion of a building, and ii. is not an advertising structure, and iii. does not include floor space area and is not reasonably capable of modification to include floor space area, and iv. will cause minimal overshadowing, and (b) any building identification signage or equipment for servicing the building (such as plant, lift motor rooms, fire stairs and the like) contained in or supported by the roof feature is fully integrated into the design of the roof feature. 	<p>Yes. Building C1 proposes architectural roof features that exceed the height limit of 24m. These roof features meet the definition under this clause as they are decorative elements, are not advertising structures, do not include floor space, will cause minimal overshadowing and fully integrate the lift overrun. Importantly, in accordance with 5.6(b) the plant and lift overruns contained in the architectural roof feature are fully integrated into the design of the feature.</p>
Preservation of trees or vegetation (5.9)	The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.	<p>Yes. The original application was accompanied by an Arborist Report, which was provided with the original application. As discussed in the report, the proposed development will necessitate the removal of eleven trees of low and very-low retention value. None of the trees are considered significant or worthy of special measures to protect them and 4 are exempt from</p>

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
		Council's Tree Preservation Order.
Heritage Conservation (5.10.5)	<p>Heritage assessment The consent authority may, before granting consent to any development:</p> <ul style="list-style-type: none"> a) on land on which a heritage item is located, or b) on land that is within a heritage conservation area, or c) on land that is within the vicinity of land referred to in paragraph (a) or (b), <p>require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned</p>	<p>Yes. The site is in proximity to the former Paper Mill building at 20 Shepherd Street, which is a heritage item. Accordingly, a Heritage Impact Statement has been prepared by City Plan and was provided with the original application. An Aboriginal Heritage Assessment has also been prepared by City Plan and was also submitted with the original application.</p>
Objectives for development in Liverpool City Centre (7.1)	<p>Before granting consent for development on land in the Liverpool city centre, the consent authority must be satisfied that the proposed development is consistent with such of the following objectives for the redevelopment of the city centre as are relevant to that development:</p> <ul style="list-style-type: none"> a) to preserve the existing street layout and reinforce the street character through consistent building alignments, b) to allow sunlight to reach buildings and areas of high pedestrian activity, c) to reduce the potential for pedestrian and traffic conflicts on the Hume Highway, d) to improve the quality of public spaces in the city centre, e) to reinforce Liverpool railway station and interchange as a major 	<p>Yes. The proposed development meets the objectives for development in Liverpool City Centre. The development will improve the quality of surrounding public spaces and will enhance the natural river foreshore and provide safe pedestrian links to the Georges River foreshore.</p>

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
	<p>passenger transport facility, including by the visual enhancement of the surrounding environment and the development of a public plaza at the station entry,</p> <p>f) to enhance the natural river foreshore and places of heritage significance,</p> <p>to provide direct, convenient and safe pedestrian links between the city centre (west of the rail line) and the Georges River foreshore</p>	
Building Separation in Liverpool City Centre (7.4)	<p>1. Development consent must not be granted to development for the purposes of a building on land in Liverpool city centre unless the separation distance from neighbouring buildings and between separate towers, or other separate raised parts, of the same building is at least:</p> <p>a) 9 metres for parts of buildings between 12 metres and 25 metres above ground level (finished) on land in Zone R4 High Density Residential, and</p> <p>b) 12 metres for parts of buildings between 25 metres and 35 metres above ground level (finished) on land in Zone R4 High Density Residential, and</p> <p>c) 18 metres for parts of buildings above 35 metres on land in Zone R4 High Density Residential and</p>	<p>Yes. It is noted that there is no tall development on the neighbouring sites, and these sites will soon redevelop. As such the subject development incorporates setbacks along side boundaries to ensure these building separations can be met.</p> <p>The roof of the building does not exceed 25m in height, as such a building separation of 9m is required, above 12m (4 storeys). This would necessitate equal setbacks of 4.5m.</p> <p>As shown on the plans, at no point do the side setbacks fall below 4.5m, above the fourth storey (Level 3). The minimum setback is 5.2m to the northern boundary (26 Shepherd Street) and 6m at the southern boundary (32 Shepherd Street). Assuming the adjoining sites provide equal setbacks, this allows for a 9m building separation to be achieved. 18m is provided between Buildings C1 and C2. The development is therefore compliant.</p>
Design Excellence in Liverpool City Centre (7.5)	<p>Development consent must not be granted to development involving the construction of a new building or external alterations to an existing building in the Liverpool city centre unless the consent authority considers that the development exhibits design excellence.</p> <p>The consent authority may grant consent to the erection or</p>	<p>Yes. The proposed development is considered to meet the requirements of 'Design Excellence' in accordance with the provisions in Clause 7.5(3):</p> <ul style="list-style-type: none"> The development exhibits a high standard of design, materials and detailing appropriate to the

Table 8. Liverpool Local Environmental Plan 2012

Clause	Provision	Assessment
	<p>alteration of a building in the Liverpool city centre that has a floor space ratio of up to 10% greater than that allowed by clause 4.4 or a height of up to 10% greater than that allowed by clause 4.3 (or both), but only if:</p> <p>a) the design of the building or alteration is the result of an architectural design competition, and</p> <p>b) the concurrence of the Director-General has been obtained to the granting of consent.</p>	<p>local context including former industrial uses and surrounding heritage items such as the Paper Mill. The design provides a strong street edge to Shepherd Street and transitions to a higher building adjacent the Georges River to maximise views and amenity to this important local asset. The development utilises an appropriate mix of traditional and contemporary materials to reflect the changing nature of the area.</p> <ul style="list-style-type: none"> • The form and external appearance of the development will improve the quality of the public domain by providing additional views and public access to the riverfront and providing a strong street edge and passive surveillance to Shepherd Street. • The proposed development does not detrimentally impact on view corridors nor does it overshadow any key local parks. <p>The development has been sensitively designed to provide appropriate residential land uses within a residential zone; to provide an appropriate massing, modulation and bulk of buildings; and to provide a sustainable design that also provides improvements to the public domain.</p>
Acid Sulfate Soils (7.7)	The site is within a Class 5 Acid Sulfate Soil zone.	<p>Yes. A Geotechnical Report has been provided previously. The Geotechnical Report assessed that an Acid Sulfate Soils Management Plan is not required.</p>

5.1.4 Development Control Plans (DCPs)

The *Liverpool Development Control Plan 2008 (LDCP2008)* is the primary Development Control Plan that applies to the site and sets out the core controls for the site.

The site is identified as part of the Liverpool City Centre Precinct and as a residential precinct. The DCP specifically identifies Shepherd Street as transitioning from industrial to residential development. The aim of the Liverpool City Centre DCP provisions are to improve access between residential areas and the Liverpool City Centre. The relevant DCP controls, both general ones and those that apply to the Liverpool City Centre, have been addressed in the updated table that can be found at **Appendix 4**.

An assessment of the key controls and issues identified from the DCP is provided below.

Key DCP Issues

Building Setbacks

The development has habitable frontages from the front and rear setbacks and non-habitable frontages from the side setbacks. In accordance with Part 4 Section 2.1 of the LDCP2008, the required development setbacks are as follows:

- 3m side setback and 6m rear setback up to 12m height;
- 4.5m side setback and 9m rear setback between 12m and 25m height; and
- 6m side setback and 6m rear setback above 25m height (roof of C1 only).

The development has an average rear setback in excess of 15m from habitable rooms, which significantly exceeds the required setback controls. The side setbacks meet and exceed all the minimum setback requirements. As shown in Figure 16 below, the buildings' sides are blank facades and are therefore treated as 'non-habitable' rooms. However, Building C1 has a number of small windows to the living rooms on the northern boundary. These are provided in order to maximise solar access of the development and, importantly, are fixed with opaque glazing in order to prevent any privacy impacts. A reduced front setback is provided, of 600mm to balconies and 3m to the building façade line, however this does not have any unreasonable streetscape amenity impacts. Given the compliance and exceedance of most other setback controls, this is considered acceptable.



Figure 16 – Northern elevation of proposed development
Source: Woods Bagot

Dwelling Mix, Housing Choices and Adaptable Units

The development proposes 1% (2) studio dwellings, 38% (53) 1-bedroom dwellings, 56% (78) 2-dwellings units and 5% (7) 3-bedroom dwellings. This mix complies with the minimum requirement of 10% 1-bedroom dwellings. The development proposes 14 adaptable units (and associated accessible parking spaces), which complies with the DCP's requirement for 10% adaptable units.

The development proposes 5% 3-bedroom units, which is less than the required 10% but is considered acceptable as the development proposes a significant mix of housing types and sizes, including townhouses (on Shepherd Street and the riverfront) and units, in order to provide appropriate and affordable dwelling types for the market.

Council's development control plan is dated 2008 and as such does not properly reflect the market demands in terms of apartment mix. Coronation has undertaken market led research in the Liverpool area to determine the most appropriate mix, which leans more towards 2 bedroom apartments and does not provide as many 3 bedroom apartments as required by the DCP. Nevertheless the apartment mix is appropriately varied, allowing for a good mix of housing types. There is also further apartment type variation, with the 1 and 2 bedroom units broken up into types with-and-without studies, thereby extending the mix of dwelling types even further. This is additional break up is outlined below:

Table 9. Apartment Mix		
Type	Number	Percentage
Studio	2	1%
1 bedroom	4	3%
1 bedroom + media room	25	18%
1 bedroom + study	25	18%
2 bedroom	8	6%
2 bedroom + media room	45	32%
2 bedroom + study	24	17%
3 bedroom	6	4%
3 bedroom + media room	1	1%
TOTAL	140	100%

The objective of the DCP control in terms of providing housing choice is being met through the delivery of a variety of dwelling types and positively responds to market conditions.

5.2 Environmental Assessment

In addition to the detailed planning assessment provided above, Mecone has undertaken an assessment of the proposed development against the potential environmental impacts in accordance with Section 79C of the EPAA. The environmental issues are discussed below.

5.2.1 Urban Design Assessment

Under Clause 7.5 of the Liverpool LEP 2008, the proposed development is required to exhibit 'design excellence' in order to have consent granted. The development has been designed sensitively to achieve a *'high standard of architectural design, materials and detailing appropriate to the building type and location.'* The design incorporates key features to complement and conserve the area's industrial heritage including reusing elements of the existing industrial building on site in the landscape design of the ground-floor communal courtyard.

Building C2 fronting Shepherd Street has been designed to have a strong edge to the street front and is a brick building that relates to the brick textures and colours of the nearby Heritage Mill building. Balcony expressions are modulated by a series of full height vertical slots; a rhythm of large openings and slim bands of glass balustrades; and a tothing effect at the ends of each alternating floor to reduce the solidity of the edges.

The building parallel the Georges River has a substantial setback from the river and is seven stores in height, which includes double height townhouses facing the river. The two storey townhouses are framed by strong stone articulation and deep recessed glass façade lines. Building C1 is a slightly taller form to allow residents' expansive views of the river and the CBD.

Situated between Buildings C1 and C2 is a spacious residential courtyard with a landscape design inspired by the geometry of the existing industrial structure. The structural truss and beam members are inlaid into the ground plane to stitch or "bind" the two buildings together. The shapes captured within the inlaid structural elements reveal a variety of uses – outdoor seating areas and weathered steel and brick planter boxes with plantings of various heights and colours. Privacy is provided for the single storey apartments facing the courtyard with landscape setbacks in the form of these planter boxes filled with hedges and plantings as well as 2m deep private terraces. Figure 18 below provides a high-quality render of the overall proposed development as well as its context with 20 Shepherd Street.

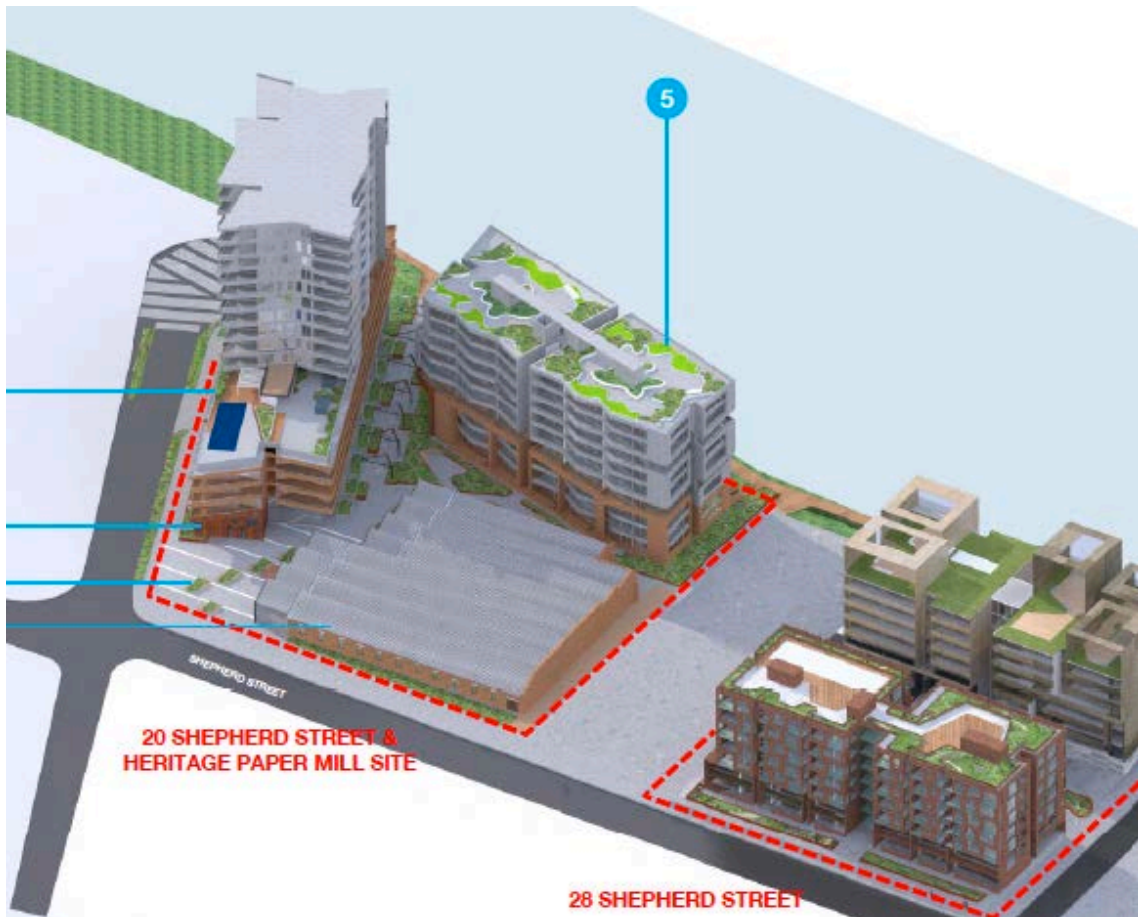


Figure 17 – Render of proposed developments at 20 and 28 Shepherd Street. -
Source: Woods Bagot

The external appearance of the development will improve the quality and amenity of the public domain by providing an active, strong edge to Shepherd Street with improved passive surveillance. The development adjacent the riverfront will provide new linkages to the foreshore for the public from a previously locked industrial site, as well as substantial public domain improvements.

Both buildings have a palette of materials inspired by the archaeology of the contextual site. A language of material weathering is adopted. Brick and weathered steel are inspired by the materials of the Heritage Mill Building located at 20 Shepherd Street. Stone and metal panels are introduced to this palette to strengthen a concept of materials that provide a rich vocabulary of larger and finer grain colours of bronzes and golds and variation in patterns as well as materials that strengthen building colour identity and materiality.

The architectural articulation, scale, mass, built form and materiality of the development is a direct response to the archaeology of the existing site, specifically the site's association with the paper mill factory founded in 1865. The design appraises a narrative that embeds the patina and history of the contextual materials and highlights an emergent urban grain in a new residential precinct.

5.2.2 Heritage and Aboriginal Heritage Assessment

As discussed earlier in the report, both buildings have been designed to have respect for and conserve the heritage significance of the traditional industrial uses in the area and to complement the Heritage Mill building located at 20 Shepherd

Street. Refer to the original SEE for a Heritage Impact Statement and Aboriginal Cultural Heritage Due Diligence by City Plan.

European Heritage

The site is not a heritage item but has an historical association with the Mill Building at 20 Shepherd Street and Lighthorse Park to the north of the site, both of which are locally listed heritage items. The subject site, 28 Shepherd Street, Liverpool, was part of the original land grant of Captain Ebenezer Bunker (1761-1836) on which the Collingwood Estate was established. The succession of owners following Bunker were all closely tied to the development and growth of the suburb of Liverpool.

Subdivision of the site in the 1970s and demolition of the original mill buildings connecting the two sites at 20 and 28 Shepherd Street has, however, reduced the significance of the site. It remains as an isolated steel shed structure in a poor condition making it difficult to interpret its association with the former Challenge Woollen Mill buildings. The existing large shed is somewhat demonstrative of typical 20th century industrial simple storage sheds with rusted corrugated iron roofing. Demolition of the adjoining mill buildings has diminished its ability to represent the principal characteristics of the industrial site.

No objection is raised by City Plan to the proposed demolition of the structures. It is noted that many of the existing materials on site are to be reused throughout the development at 20 and 28 Shepherd Street as part of an interpretation strategy. Although the subject site, 28 Shepherd Street was part of the former mill site that comprised a large area up to Atkinson Street to the north, the existing steel shed has been the only structure since the development of the site. The shed occupies most of the allotment and as such the archaeological potential within this site is considered low. Notwithstanding, City Plan recommend that should any unexpected archaeological finding be uncovered during construction, a stop-work provision should be applied and exposed finds will be assessed in accordance with the provisions of the *NSW Heritage Act, 1977*.

Aboriginal Cultural Heritage

The Liverpool area is within Cabrogal land. The Cabrogal were Darug language speakers. Aboriginal people were quickly disenfranchised from their traditional territories as colonists appropriated land and resources. The smallpox epidemics of 1789 killed a large portion of Aboriginal people of the Sydney region, even those who had not yet come into contact with Europeans. Despite this fragmentation of their culture Aboriginal people have continued to live along the Georges River to the present day.

Basic searches of the Aboriginal Heritage Information System (AHIMS) database were undertaken in June 2015 within 0m to 200m buffer. No identified sites were located within the vicinity of the subject site. Based on the AHIMS data, there is little potential for Aboriginal sites to occur within the study area.

City Plan undertook an inspection of the site and divided the site into areas of high and low disturbance. These boundaries were created utilising readily identifiable features, generally the existing structures, to establish their limits. The survey zones were as follows:

- Zone 1: Western boundary of site to remnant mill structure (Heavy disturbance)
- Zone 2: Southern boundary of site to remnant mill structure (Medium disturbance)
- Zone 3: Interior of remnant mill structure (Heavy disturbance)

- Zone 4: Northern boundary to remnant mill structure (Heavy disturbance)
- Zone 5: Eastern boundary to remnant mill structure (Light-Medium disturbance)

These zones are shown below in Figure 18. The main area for investigation was Zone 5. The key area surveyed for Aboriginal Heritage was the eastern portion of the site, adjacent to the riverbank, where disturbance was minimal.

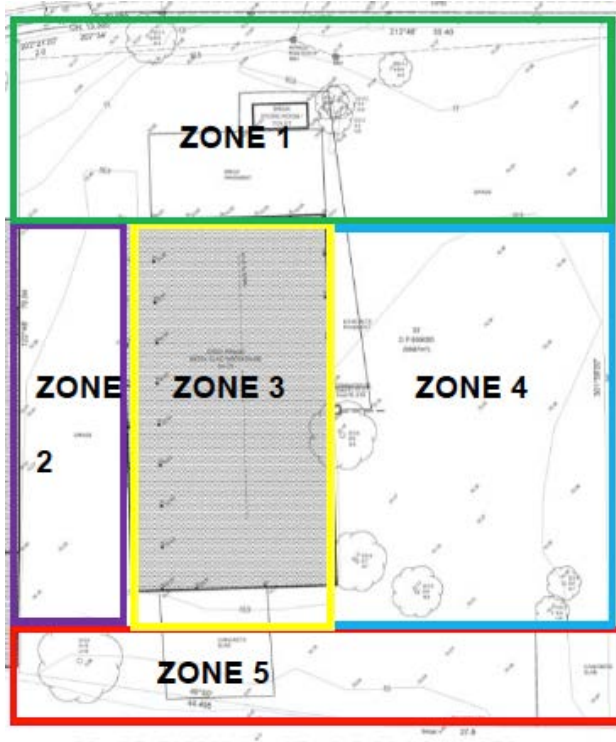


Figure 18 – Survey zones for Aboriginal Cultural Heritage
Source: City Plan

Overall City Plan's assessment has the following considerations with respect to Aboriginal Archaeological potential:

- The development area itself would have contained significant natural resources (water sources) and use by Aboriginal people is likely. However, the level of disturbance to the development site is such that any evidence of this activity would have been at least partially destroyed.
- No Aboriginal archaeological sites were located during the site survey.
- In areas of high disturbance, there is low likelihood that the proposal will impact any unidentified Archaeological deposits.
- Zone 5 appears less disturbed than other areas within the subject site. It is considered likely that unidentified Aboriginal Cultural Heritage may remain within the vegetated portions of this area.

Within the wider site, City Plan considers that the proposed works will have no adverse impact on any unidentified Aboriginal Heritage. Most areas where excavation is proposed have been previously disturbed as part of the previous development and are no longer considered to have any potential for Aboriginal Archaeology.

The results of the City Plan survey confirm that the area has been heavily impacted by past development of the Paper Mill. The examination of the environmental contexts indicated that the effects of clearing and development throughout the

site is likely to mean that Aboriginal objects if found will not be in situ, nor will they be associated with significant archaeological deposits over the majority of the site.

However, due to limited subsurface disturbance and proximity to the river, the eastern portion of the site (Zone 5) retains some potential for Aboriginal Cultural Heritage. As such, City Plan has made the following recommendations:

- Pending Council approval, further archaeological investigations should be undertaken as a condition of consent for the DA and final management outcomes will be lodged with the Council as soon as archaeological investigations have been completed. This may include a need for test excavation which should be undertaken in accordance with the NSW Office of Environment and Heritage (OEH) Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW.

If unforeseen Aboriginal objects are uncovered during development, work should cease and a heritage consultant, OEH and the Darkinjung Local Aboriginal Land Council should be informed. If human remains are found, work should cease, the site should be secured and the NSW Police and the OEH should be notified.

5.2.3 Amenity and Solar Access

The development has been carefully designed to ensure general compliance with the residential amenity controls in SEPP 65, the Apartment Design Guide and the Liverpool DCP 2008. In particular, the proposal is compliant with the private and communal open space provisions, unit size and ceiling height requirements in the Apartment Design Guide.

Apart from achieving much of the SEPP 65 guidelines, the fundamental design goals of this proposal have been:

- To maximise access to river and city views;
- Prioritise the living rooms for amenity;
- Ensure fresh air and daylight to common areas; and
- Create memorable experiences in the entry sequence to the development and building lobbies.

The proposal includes efficient and spacious apartment layouts, access to sunlight, natural ventilation, visual and acoustic privacy, storage, double storey indoor sky bridge recreation spaces, outdoor roof gardens, efficient layouts and service areas and outlook and ease of access for all age groups and degrees of mobility where required.

Common area corridors and lift lobbies have been designed with access to natural daylight and fresh air. Lift lobbies are double storey in height and fully glazed to enhance views through the ground plane. Building C1 also provides a unique amenity called "sky bridges" that will be used as indoor but fully ventilated residential recreation spaces with expansive views to the courtyards and river.

Each apartment has been designed with modern open plan living areas comprising of the kitchen, dining and living areas. Each living space has direct access to full height and full width clear glass sliding door panels and windows, with the majority of apartments also having direct access to outdoor balconies or terraces – see photomontage in Figure 19 below.



Figure 19 – Photomontage of full-height glazing of living areas to balconies
Source: Woods Bagot

The development has been designed to maximise views and outlook to the Georges River, and therefore the orientation of the site has meant that the Apartment Design Guide of 70% of units achieving 2 hours of solar access between 9.00am and 3.00pm at June 21 is not quite achieved, with the development achieving 64%.

In order to maximise amenity, with respect to solar access and daylight, the development has implemented a number of strategies. Each living area and a majority of bedrooms have full height sliding glass panels, which will maximise daylight to even south-facing apartments looking over the River. This also encourages enjoyment of the alternative amenity source provided by the visual outlook to the river and the vegetated corridor. The development includes substantial communal roof terraces on each of the buildings that achieve solar access of 2 hours or more on 70% of their surface areas.

The design also ensures adequate protection to the units from overheating and glare in the warmer months by orienting them in a way that maximises daylight and outlook over the river without having to manage the harsher glare of direct sunlight in summer months.

5.2.4 Traffic and Transport Assessment

This application has previously been accompanied by a Traffic Letter prepared by InRoads Group. This addressed the interaction between pedestrians and vehicular traffic on the private access way connecting from Shepherd Street to the river foreshore.

Public Transport Access

The site is located approximately 1km south-west of the Liverpool Railway Station. Pedestrian and cycle paths link the site from Lighthorse Park to the Railway Station via Newbridge Road.

Car Parking Provisions

In accordance with the Liverpool DCP 2008 Clause 4.3 requires parking for residential dwellings to be determined at the rates shown in the table below.

Table 10. Summary of Proposed Development				
Type	No. Units	Parking Rate	Required Spaces	Proposed Spaces
Studio	2	1 per 2 units	1	1
1-bedroom	53	1 space per unit	53	53
2-bedroom	78	1 space per unit	78	78
3-bedroom	7	1.5 spaces per unit	11	11
Visitors		1 space per 10 units	14	14
Total	140		157*	157*

* includes accessible car spaces, excludes 4 service vehicle spaces

As shown in the plans included in **Appendix 1**, a total of 161 car parking spaces are proposed over three basement levels. The proposal therefore meets Council's requirement in this regard and is considered to be appropriate given the nature, scale, and the location of the development. In addition, there is space for 8 motorcycle spaces which is in excess of the Council requirement of 1 space per 20 units (7). 14 accessible spaces are also proposed to match Council's requirements. There is allocation for 73 bicycle parking spaces are proposed, exceeding the 60 required in accordance with Council's requirements for 1 bicycle space per 200sqm of GFA.

Access Arrangements

Vehicular access will be from a driveway off Shepherd Street on the south-west corner of the site. All traffic will enter and exit in a forward direction and has been designed in accordance with the Australian Standards.

The traffic report indicates that given the nature of the development, servicing requirements (for larger vehicles) would be limited to regular refuse collection, and the occasional removalist or delivery vehicle.

As shown in the plans included in Appendix 1, a service vehicle bay is proposed on the ground level of Building C1 across the inner courtyard from the basement access point. It is proposed that this service vehicle bay be used by refuse collection vehicles, as well as other service vehicles (i.e. removalist or delivery vehicles) up to medium rigid vehicle (MRV) size (8.8m in length), of up to approximately 3.4m in height.

The traffic report indicates that given the frequency with which these vehicles are expected to service the development, as well as the times that that are expected to do so, it is considered reasonable that a single service vehicle bay be provided for the use of these vehicles. Swept path analyses have been undertaken to ensure that a 9.9m long refuse collection vehicle is able to service the proposed development.

Traffic Generation

In order to address the impacts of the development, surveys were undertaken at the intersection of Shepherd Street and Riverpark Drive during the AM and PM peak periods. Analyses were undertaken using the SIDRA computer program to determine the intersection performance characteristics under the 'base-case' scenario (i.e. existing traffic volumes plus the traffic expected to be generated by the proposed development at 28 Shepherd Street). The surveys indicated that the intersection of Shepherd Street with Riverpark Drive is expected to operate well within acceptable capacity limits under the 'base case' scenario, at Level of Service A, with minimal vehicle delays.

5.2.5 Stormwater Provisions

Revised stormwater plans have been prepared by Wood & Grieve, which can be found in **Appendix 6**. The Plan specifically addresses the following for both construction and operation of the development:

- Flooding;
- Stormwater runoff volumes and detention (Stormwater Quantity); and
- WSUD.

Key statutory requirements for the proposed development in relation to stormwater include the following:

- Whenever land is developed a duty of care is owed to any property owners who receive stormwater flows which may be altered by the development, to ensure that such properties are not adversely affected by hydraulic or water quality impacts during the construction, maintenance and operational phase of the development,
- Stormwater discharging from the site is to be at an acceptable discharge standard with respect to water quality,
- Reasonable and practical measures must be implemented to avoid inappropriate use of any floodway or waterway,
- All reasonable and practical measures must be taken to minimise or prevent environmental harm,
- All proposed stormwater infrastructure design must have due regard for public safety.

The report also advises that Council's Flood mapping indicates that part of the site is not affected by Flooding during a 100 ARI storm event. A flood impact statement has been obtained from Council and this is included in the report's Appendix. This shows that the 1% AEP flood level for the site is RL9.9. Council controls require a free board of at least 500mm to proposed finished floor levels and to basement entries. Submitted architectural plans for the development demonstrate compliance with these controls.

The report advises that in order to comply with Council's Development requirements, treatment of the run-off is proposed to improve the quality of

stormwater discharged from the site. The proposed treatment in the form of rainwater re-use and a bio-retention basin will achieve the treatments targets specified in Council's DCP documents. As such, from a stormwater management perspective, Wood & Grieve Engineers believes the development can be undertaken in accordance with Council's guidelines and requirements.

5.2.6 Landscaping and Georges River Foreshore

Landscaping and Deep Soil

ESD Synergy has prepared a Stage 1 DA Sustainability Report to accompany the proposal (previously provided to Council). The report concludes that the proposal will be able to meet BASIX requirements in relation to water, energy and thermal comfort. A final BASIX report will be submitted with a Stage 2 DA.

The development has extensive landscaping both at ground-level and on the roof terraces. Figure 20 below demonstrates the extensive public, private and communal open space throughout the development.

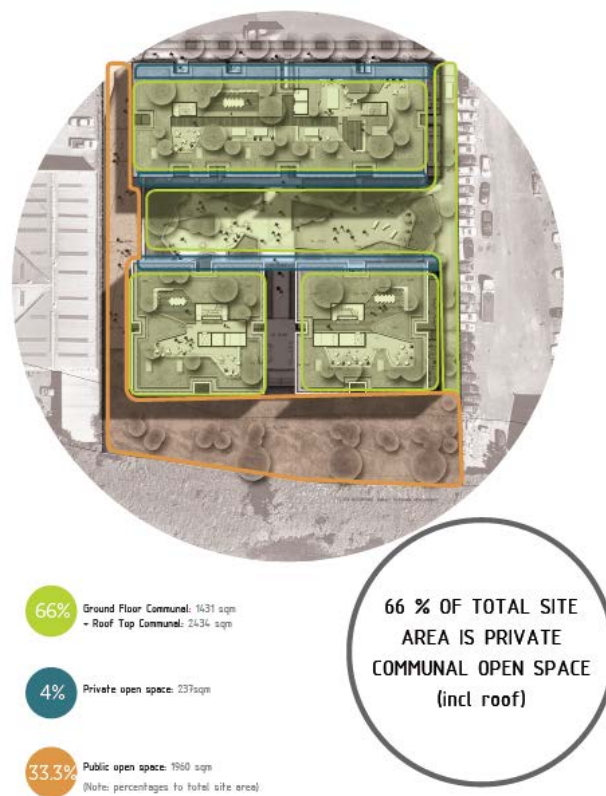


Figure 20 – Overview of landscaped areas throughout the development
Source: Aspect Studios

The amended proposal ensures that 23.4% of the site is deep soil, which allows for the extensive planting of mature trees. The landscape design strategy was guided by the following design principles:

- Interpret the site's heritage;
- Generous communal open spaces; and
- Clear public links.

The open spaces have been designed to be functional, safe and highly accessible. The design utilises a palette of materials sympathetic and relevant to the site's history and the Paper Mills Precinct. Landscape setbacks, generous private courtyards, suspended planter boxes throughout the building, and communal gardens on the ground floor and the roofs ensures that all residents enjoy a green outlook and have the opportunity for accessing, and engaging with green space.

The landscape spaces will make a significant contribution to improving riverfront riparian zones and managing storm water runoff and water quality through imbedded water sensitive urban design (WSUD) measures.

A bioswale to collect and treat stormwater, definition of a riparian protection zone, along with the careful selection of planting species, ensures that the best outcomes for WSUD and vegetation management for the site are achieved. A 2.2m wide bioswale is provided along the riverfront boundary, with appropriate swale planting of sedges, native grasses and tree planting, to collect and filter stormwater prior to discharge into the George's River. (Refer Wood and Grieve Engineers Stormwater plans).

Materials and planting within all landscaped areas have been selected to weather the test of time, and where possible, will be sourced locally. On the south-western boundary, a new shared laneway provides both vehicular access to the loading zone and basement parking, as well as pedestrian access to the riverfront. The laneway is paved in granite cobble providing a welcoming environment as a shared access way to the future public riverfront.

Riparian Corridor

A Riparian Report has been prepared and previously submitted by ACS Environmental. The section of the Georges River that forms the eastern boundary of the site is a 3rd Order watercourse; as such, a riparian setback (VRZ) of 30m from the riverbank is taken as a guideline to the distance incorporated as a vegetated buffer zone to the development (NSW Office of Water 2012). This is also reflected in the Liverpool LEP 2008, which identifies area in the Riparian Corridor as 'Environmentally Significant Land'.

ACS Environmental has undertaken a survey of the land and advises that the vegetation comprising the current foreshore plant assemblage is comprised solely of noxious and environmentally invasive woody weeds and vines, such as Privet, Morning Glory and Balloon Vine.

Following negotiation with the DPI Water, it has been confirmed that the amended proposed building construction does not encroach into the inner 50% of the VRZ.

ACS' report states that according to the guidelines given by the NSW Office of Water, certain controlled activities are allowable within particularly the outer 50% of the VRZ (from 15 - 30m from the edge of the river embankment), with consideration given to offsetting an equal area of land within the development that has been given to a prescribed use within the riparian zone (NSW Office of Water 2012). These generally consist of cycleways and other elements such public infrastructure.

5.2.7 BCA and Access Requirements

A BCA Compliance Assessment Report prepared by Certified Building Specialists in and an Access Report prepared by Accessibility Solutions have previously been provided to Council.

The Access Report advises that:

- All apartments have wheelchair accessible paths of travel to enter the site and access the two principal entrance lobbies;
- The internal foyers, corridor accessways and lifts facilitate universal access to all storeys and apartment entrance doorway entrances satisfy the BCA and Council's DCP;
- The communal ground-floor area and roof terraces can provide wheelchair accessible path of travel to comply with the BCA and Australian Standard;
- The required number of adaptable units and accessible parking spaces have been provided; and
- 20% of apartments can provide design features that comply with Silver Level Livable Housing Guidelines to satisfy the Apartment Design Guide.

Overall the Access Report considers that the proposed development demonstrates compliance with the relevant objectives and design code requirements of BCA 2015/DDA Premises Standard pertaining to accessible common domain areas and access to all apartments and the Adaptable Housing standard AS4299 in terms of adaptable units for people with disabilities.

The BCA report indicates that a number of BCA Deemed-To-Satisfy (DTS) non-compliances have been identified in relation to travel distances in the basement car park, provision of smoke doors within corridors exceeding a length of 40m, protection of openings on external path of travel, distance between alternative exits in Tower C1 and travel distance to an exit for the northern and southern units of Tower C1 as highlighted within the report.

The report considers that these BCA DTS departures may be addressed via a combination of redesign and/or obtaining fire engineering alternative solutions as required, to achieve compliance with the BCA and applicable codes and standards. The report considers that the proposed designs may be modified and further detailed prior to the issue of a Construction Certificate as required, to achieve compliance with the BCA and applicable codes and standards.

The outcomes of the BCA compliance assessment conclude that the proposed design will be capable of achieving compliance subject to the implementation of the requirements detailed in the report, in accordance with the BCA and applicable codes and standards.

5.2.8 Waste Management Provisions

A Waste Management Plan has been prepared by MRA Consulting Group and has previously been provided to Council. A Waste Management Plan has three overarching goals:

- Reduce waste to landfill by providing adequate recycling and waste facilities to residents within the dwelling and in outside receptacles, as well as by displaying signage to remind and encourage better recycling practices.
- Reuse, recovery and recycling of the waste generated by tenants where possible.
- Compliance with council regulations, policies and laws.

The Waste Management Plan is guided by Council's requirements including recent changes to the *Waste Management Services for Residential Flat Buildings* provide that Council will now service residential flat buildings up to twice a week including collection of 660L Mobile Garbage Bins.

The Waste Management Plan outlines management of waste both during construction and operation of the development. The Waste Management Plan fully complies with Council's design requirements in the Liverpool DCP 2008.

5.3 Section 79C Compliance Table

In summary, Table 10 provides an assessment of the proposal against the provisions identified under Section 79C of the EP&A Act 1979.

Table 11. Section 79C Assessment Summary		
Clause No.	Clause	Assessment
(1)	Matters for consideration – general In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:	
(a)(i)	The provision of: Any environmental planning instrument, and	The proposal has been assessed against and found to be generally consistent with the provisions in the relevant SEPPs and the LLEP2008. Any variations to development standards are sufficiently justified.
(ii)	Any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	The Shepherd Street Planning Proposal relates to the site and the development is consistent with this proposal.
(iii)	Any development control plan, and	The proposal has been assessed against and found to be generally consistent with the provisions in the LDGP2008.
(iiia)	Any planning agreement that has been entered into under Section 93F, or any draft planning agreement that a developer has offered to enter into under Section 93F, and	N/A
(iv)	The regulations (to the extent that they prescribe matters for the purposes of this paragraph), and	The proposal is consistent with the Regulations.
(v)	Any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which the development application relates,	N/A
(b)	The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	A comprehensive assessment of the social, economic and environmental impacts of the development is provided in this SEE.

Table 11. Section 79C Assessment Summary

Clause No.	Clause	Assessment
(c)	The suitability of the site for the development,	The site is considered to be suitable for the proposed development as it is broadly consistent with the relevant planning controls and will not have unacceptable social, economic or environmental impacts on the surrounding locality.
(d)	Any submissions made in accordance with this Act or the regulations,	N/A. This is a matter for the consent authority as part of their assessment process.
(e)	The public interest.	The proposal is considered to be in the public interest.

6

Conclusion

This amended Statement of Environmental Effects (SEE) report supports a modified development application to Liverpool City Council for the proposed multi-unit residential development located at 28 Shepherd Street, Liverpool (the site). The preparation of the SEE and lodgement of the development application has been undertaken on behalf of Coronation Property Co Pty Ltd.

This statement describes the proposed works in the context of relevant planning controls and policies applicable to the form of the development proposed. In addition, the statement provides an assessment of those relevant heads of consideration pursuant to section 79C of the *Environmental Planning and Assessment Act 1979* (EPAA).

A planning assessment has been undertaken in Section 4.1 and an Environmental Assessment has been undertaken in Section 4.2 of this report, supported by additional consultant studies as per the requirements of Council. The planning and environmental assessments found the proposal is generally consistent with the state and local planning controls and that associated impacts of the proposal are considered to be minimal and manageable. Hence, the proposal:

- Will provide a high-quality residential flat development that respects its historic setting and complies with key planning standards including in the Liverpool LEP 2008, SEPP 65, such as land use, Height, FSR, setbacks, design excellence, site coverage, communal open space and public domain improvements;
- Will contribute 140 new dwellings towards Liverpool Council's housing targets and will assist with housing affordability by providing a range of housing types, sizes and mix;
- Will provide substantial landscaping and public access to the river foreshore while managing impacts surrounding the Foreshore Building Line and Riparian Corridor;
- Will provide dwellings with significant amenity with respect to unit size, storage, private open space, layout, outlook, solar access, communal facilities and parking;
- Will minimise any adverse impacts on surrounding development with respect to privacy, traffic, noise or overshadowing;
- Will conserve and enhance surrounding heritage matters including aboriginal cultural heritage;
- Responds to the street alignment and future desired built form;
- Is BASIX compliant and seeks to provide a high level of sustainability including through management of stormwater runoff and provision of WSUD; and
- Is a suitable development for the site and is considered to be in the public interest.

Therefore, we request that Council recommend that the proposed development be granted development approval.

Appendix 1

Architectural Package



Appendix 2

Landscape Plans



Appendix 3

Design Verification Statement



Appendix 4

DCP/ADG Table



Appendix 5

BASIX

Appendix 6

Stormwater Plans

