

Precinct 16 West Development Plan

Tract

Northern Sub-Precinct

Volume 1

Prepared by Tract for Newport Townhomes Pty Ltd.

In association with CHT Architects, GTA Consultants, Formium, O'Neill Group, SLR Acoustics and Public Place.

Quality Assurance

Precinct 16 West Development Plan

Northern Sub-Precinct
Volume 1

Prepared for Newport Townhomes Pty Ltd.

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Contents

Introduction

1	Introduction	07
1.1	Overview	07
1.2	Development Plan Structure	07
1.3	Development Plan Content	07
1.4	Project Team	07

Site and Urban Context Analysis

2	Site and Urban Context Analysis	09
2.1	Site Analysis	09
2.2	Location and Strategic Context	10
2.3	Existing Infrastructure Provision	12

Planning Framework

3	Planning Framework	15
3.1	Amendment C114 to the Hobsons Bay Planning Scheme	15
3.2	Zoning	17
3.3	Overlays	19
3.4	Key Planning Policy	21
3.5	Particular Provisions	27
3.6	Other Planning Considerations	29

The Development Plan

4	Design Response	33
4.1	Vision	33

4.2	Key Objectives	33
4.3	Key Elements of the Development Plan	33
4.4	Key Features	34
4.5	Shadow Analysis	36

Built Form Design Guidelines

5	Built Form Design Guidelines	39
5.1	Design Guidelines Objectives	39
5.2	Design Guidelines	39

Staging

6	Indicative Staging	49
6.1	Staging	49

Landscape and Open Space

7	Landscape and Open Space	51
7.1	Landscape Development Plan	51

Traffic Management

8	Traffic Management	55
8.1	Traffic Engineering Assessment	55
8.2	Existing Conditions	55
8.3	Proposed Infrastructure	56
8.4	Traffic Impact Assessment	56
8.5	Other Considerations	56

Waste Management

9	Waste Management	60
9.1	Waste Management Plan	60

Ecologically Sustainable Design Strategy

10	Ecologically Sustainable Design Strategy	62
10.1	ESD Report	62

Amenity and Vibration Impacts

11	Amenity and Vibration Impacts	66
11.1	Noise and Vibration Assessment	66

Major Pipeline Infrastructure

12	Major Pipeline Infrastructure	68
12.1	Pipeline safety Management	68

Site Remediation

13	Site Remediation	70
13.1	Site Remediation	70

Stormwater Management

14	Stormwater Management	72
----	-----------------------	----

Conclusion

15	Conclusion	74
----	------------	----

Figures

Figure 1.	Site Analysis Plan (Source: CHT Architects)	09
Figure 2.	Site Context Plan (Source CHT Architects)	11
Figure 3.	Amendment C114 Zoning Plan	15
Figure 4.	Amendment C114 Overlay Plan (DPO)	16
Figure 5.	Amendment C114 Overlay Plan (EAO)	16
Figure 6.	Amendment C114 Overlay Plan (D-HO274)	16
Figure 7.	Precinct 16 West Framework Plan	20
Figure 8.	Development Plan (Source: CHT Architects)	35
Figure 9.	Shadow Analysis (Source: CHT Architects)	36
Figure 10.	Townhouse Design Principles (Source: CHT Architects)	40
Figure 11.	Townhouse Precedent Images (Source CHT Architects)	41
Figure 12.	Omitted	41
Figure 14.	Indicative concept design (Source: CHT Architects)	42
Figure 15.	Precedent Images (Source: CHT Architects)	42
Figure 13.	Apartment Design Principles (Source: CHT Architects)	42
Figure 16.	Indicative layout of the podium level	43
Figure 17.	3D Perspective - Apartment Interface (without landswap)	44
Figure 18.	3D Perspective - Apartment Interface (with landswap)	44
Figure 19.	Indicative Apartment Acoustic Treatment (north eastern boundary) (Source: CHT Architects)	45
Figure 20.	Indicative northern (above) and eastern (right) elevations	46
Figure 21.	Staging Plan (Source: CHT Architects)	50
Figure 22.	Streetscape Planting Schedule (source Formium)	52
Figure 23.	Indicative Landscape Design Plan (source Formium)	53
Figure 24.	Indicative Typical Stephenson Street Section (Source: Formium)	54
Figure 27.	Secondary Access Road - east (Source: Formium)	54
Figure 25.	Indicative Typical Sutton Street Section (Source: Formium)	54
Figure 28.	Indicative Typical Laneway - west (Source: Formium)	54
Figure 26.	Indicative Typical Secondary Access Road - west (with Shared Path) (Source: Formium)	54
Figure 29.	Indicative Typical Typical Laneway - east (Source: Formium)	54
Figure 30.	Pedestrian Desire Lines to Bus Stops from Site (Source GTA).	58
Figure 31.	Movement Plan.	59

Introduction

Vision:

- *The site will become a sustainable residential community, integrated with Precinct 16 East and complementing the broader existing residential neighbourhood.*
- *The site will be redeveloped to provide a predominantly medium to higher density residential development, providing homes for a diversity of households including affordable housing and incorporating public open space and sustainable movement links.*
- *The development will implement innovative ESD features, provide opportunities for best practice in environmental management.*
- *The development will protect the ongoing operation of industrial land use and infrastructure, incorporating residential amenity protection measures that display a high level of architectural resolution even if temporary in nature.*
- *The stages of the development will be managed to minimise amenity impacts to new residents until industrial uses on the site are discontinued.*

1 Introduction

1.1 Overview

This Development Plan applies to the land at 41-59 Stephenson Street, South Kingsville (‘the Site’) which forms the northern sub-precinct of Precinct 16 West.

The Development Plan provides a framework for the redevelopment of 2.17 hectares of former industrial land with frontages to Sutton Street and Stephenson Street.

Under the Hobsons Bay Planning Scheme Local Planning Policy Framework, Precinct 16 West is identified as a ‘strategic redevelopment site’ to accommodate urban growth and facilitate urban consolidation. Precinct 16 West is subject to Planning Scheme Amendment C114 to the Hobsons Bay Planning Scheme which is currently being considered by Council. Amendment C114 rezoned Precinct 16 West from part Industrial 3 Zone and part General Residential Zone to part General Residential Zone - Schedule 4 (GRZ4) and part Residential Growth Zone - Schedule 2 (RGZ2). The Amendment also applied the Development Plan Overlay - Schedule 2 (DPO2) to the precinct, extended the Environmental Audit Overlay (EAO2) to apply to the entire precinct and removed the Heritage Overlay from the northern sub-precinct.

This Development Plan has been prepared in accordance with the provisions of DPO2- ‘Precinct 16 West’ and provides a framework for the redevelopment of the northern sub-precinct. Specifically, the information that forms part of this Development Plan and development layout has been informed by the requirements of DPO2 and the Precinct 16 West Framework Plan. Separate Development Plans will be submitted in relation to the other two land parcels in Precinct 16 West, being the Central Sub-Precinct (9-9A Sutton Street, South Kingsville) and the Southern Sub-Precinct (5-7 Sutton Street).

The Development Plan also reflects the local planning framework in the Hobsons Bay Planning Scheme which apply to the Precinct.

The land represents a significant opportunity for residential infill development at a variety of densities. This Development Plan facilitates the coordinated redevelopment of the land to enable appropriate infill development to occur.

Development of the Site will be sympathetic to the existing urban fabric and appropriately respond to the surrounding uses. This will be achieved through maintaining appropriate setbacks, ensuring appropriate levels of engagement to the Site’s adjoining interfaces and providing high quality landscaping.

The Development Plan seeks to appropriately locate medium density built form across the majority of the Site, with higher densities located in the north east corner, closer to the Spotswood Maintenance Centre and Sutton Street interface.

The urban form is complementary to the character of the surrounding precinct (i.e. Precinct 16 East) whilst also achieving development consistent with the preferred neighbourhood character of the area, through appropriate scale and built form massing.

Furthermore, the Development Plan ensures an appropriate development response to the Site’s north and north eastern interface to protect the amenity of future residents as well as the ongoing operations of the Spotswood Maintenance Centre, railway line and the Somerton to Altona Petroleum Pipeline.

1.2 Development Plan Structure

The Development Plan implements the objectives and requirements of Schedule 2 to the Development Plan Overlay and it is structured as follows:

- Site and Urban Context Analysis - **Section 2**
- Planning Framework - **Section 3**
- The Development Plan - **Section 4**
- Built Form Design Guidelines - **Section 5**
- Staging - **Section 6**
- Landscape Design Report - **Section 7**
- Traffic Management - **Section 8**
- Waste Management - **Section 9**
- ESD Strategy - **Section 10**
- Amenity and Vibrations- **Section 11**
- Pipeline Safety Management - **Section 12**
- Site Remediation - **Section 13**
- Stormwater Management - **Section 14**
- Conclusion - **Section 15**

1.3 Development Plan Content

This Development Plan comprises two volumes being:

- Volume 1 - Development Plan.
- Volume 2 - Supporting Specialist reports.

The specialist reports contained within Volume 2 have been prepared to respond to the requirements of Section 4 of Schedule 2 to the Development Plan Overlay.

In particular, the specialist reports address the following planning matters:

- Architectural Response
- Traffic management.
- Landscape Design.
- Acoustic and Vibrations
- Waste Management
- ESD Strategy
- Site Remediation Strategy
- Stornwater Management Strategy

Where relevant, extracts of these reports (usually the executive summary and key findings) are included in the text of this document.

Volume 2 should be read in conjunction with this document.

1.4 Project Team

The following consultants were involved in the preparation of Volume 1 and Volume 2 of the Development Plan:

- Tract Consultants
- CHT Architecture
- GTA Consultants
- Formium
- O’Neill Group
- WSP
- SLR Acoustics
- Public Place
- Leigh Design
- Irwin Consult
- Environmental Assessment Services

Site and Urban Context Analysis

2 Site and Urban Context Analysis

2.1 Site Analysis

The northern sub-precinct of Precinct 16 West is located at 41-59 Stephenson Street and is formally known as Cluster Plan 163945.

The Site is irregular in shape with a total area of 2.17 hectares. It has a primary frontage along Stephenson Street 183 metres and a frontage along Sutton Street of approximately 50 metres.

The Site is currently vacant with the former industrial buildings having been demolished under a previous planning permit.

Prior to the clearing of the land, the Site was occupied by the former McKenzie and Holland factory complex, which was identified a site of local historic, social and technical significance to the City of Hobsons Bay.

The McKenzie and Holland factory complex was established on the Site in the nineteenth century and remained through to the late twentieth century. During the Site's long period of operation as an industrial site associated with the railway industry, the former McKenzie and Holland factory complex was a significant source of employment in the local area.

In 1998, the Site was acquired by oil produce manufacturer Lubrimaxx MKTG Pty Ltd which was the most recent company to operate on the Site.

The Site is slightly undulating and is largely cleared of vegetation. There are some limited planted street trees to Stephenson Street and Sutton Street.

Pedestrian and vehicle access to the Site is currently via one existing crossover to Sutton Street and one existing crossover to Stephenson Street.

Refer to Figure 1.



Figure 1. Site Analysis Plan (Source: CHT Architects)

2.2 Location and Strategic Context

The Site is located in South Kingsville, within the City of Hobsons Bay. The Site is located approximately 9 kilometres from the Melbourne Central Business District and 3 kilometres south of the Footscray Central Activities Area.

The Site forms the northern sub-precinct of Precinct 16 West as identified in the Hobsons Bay Industrial Land Management Strategy (ILMS) and as demonstrated at Figure 1.

Precinct 16, as a whole, is isolated from the larger industrial areas to the north-west, adjacent to the West Gate Freeway such as Precinct 15, and in Spotswood to the east. The land to the north of the railway line is occupied by the Spotswood Locomotive Maintenance Centre (SMC).

The land to the north of the SMC is zoned Mixed Use Zone for future commercial and residential development.

A neighbourhood activity centre including two supermarkets, a medical centre, shops and 240 dwellings (ranging in height from 3 to 6 storeys) on the corner of McLister Street and Melbourne Road was recently approved by Council.

2.2.1 Immediate Surrounds

The neighbourhood surrounding the Site is predominantly residential interspersed with large areas of industrial and former industrial land.

North

The Site is bounded by a freight railway line to the north. Beyond the railway line is the Spotswood Maintenance Centre (SMC), a heavy rail workshop for servicing and repairing freight trains.

The SMC facility operates 24 hours a day and primarily provides maintenance services for the intermodel locomotives.

Furthermore, the underground Alton to Somerton Petroleum Pipeline runs parallel to the sub-precinct’s northern boundary, outside the precinct, supplying jet fuel to Melbourne airport. Future development will be setback an appropriate distance

from the pipeline. Section 5 of this Development Plan provides further guidance for development near the pipeline.

East

To the east of the Site is Sutton Street, a largely unsealed road that is expected to change substantially as residential development occurs on both sides.

Further east (across Sutton Street) is Precinct 16 East. Precinct 16 East was rezoned from the Industrial 3 Zone to the General Residential Zone through Amendment C82 on 8 August 2013, to facilitate residential redevelopment of the Site. A Master Plan and Planning Permit were issued for development in 2018 at the direction of the Victorian Civil and Administrative Tribunal (VCAT).

Planning Permit P1910/2017 allows for the use of the land for food and drink premises, the construction of two or more dwellings on a lot, the construction of a building and carrying out of works, the reduction of car parking spaces and creation of access in a road in the Road Zone, Category 1.

The approved Master Plan allows for the provision of up to 420 new dwellings spread across a range of townhouses and apartments. A series of six storey apartment buildings form the northern boundary of Precinct 16 East.

South

The land to the south of the Site makes up the balance of Precinct 16 West. Vacant sheds are located at 9-9A Sutton Street and Brymart Industries is located at 5-7 Sutton Street. It is noted that 9-9A Sutton Street is expected to be developed for residential purposes. Land use south of Precinct 16 (west) is predominately made up of dwellings, except of a small cluster of shops and businesses at 107-115 Blackshaws Road and a childcare centre at 84 Blackshaws Road (Bright Steps Educational Childcare and Kindergarten).

West

The Site is bounded to the west by Stephenson Street, a local street and is aligned in the north-south direction. The land use further west (across Stephenson Street) is made up of dwellings. The properties adjacent to the Site to the west,

fronting Stephenson Street, comprise single and double storey detached dwellings accessed via the street frontage.

2.2.2 Key Services and Facilities

The Site is in close proximity to a number of employment opportunities, open space amenities, transport options and community facilities.

Key sites and land uses in the region close to the Site include:

- 1.2km walking distance to the Spotswood train station
- 1.4km walking distance to the Newport shopping strip and train station
- 750m walking distance to the future neighbourhood activity centre on McLister Street
- 500m walking distance to the Newport Lakes Reserve south of Blackshaws Road

There are a number of schools in the local region. While Newport Lakes Primary School is at capacity, there is ample capacity at Spotswood Primary to meet demand. There are also two catholic primary schools in proximity to the Precinct 16 West; St Margaret’s Primary School in Spotswood, which is located 0.2 kilometres from the Site and Sacred Heart Primary School in Newport, which is located 0.8 kilometres from the Site.

The Site is 1km walking distance to the Spotswood Activity Centre and 1.4km to Newport Neighbourhood Activity Centre which both offer a range of local retail and service needs.

The Site is also in proximity to large retail areas including Altona Gate which is located approximately 4 kilometres to the west of the Site. This retail area includes a wide range of retail and commercial uses and a variety of food and drink premises.

The Site has convenient access to public open space, including the Newport Lakes Reserve located 230 metres south of the Site, Ducrow Reserve located approximately 185 metres south of the Site, Donald Mclean Reserve is located 630 metres north of the Site and Stony Creek which located a further 1 kilometre north of the Site.

2.2.3 Public Transport

The Site is serviced by a range of transport options located within close proximity. The main arterial routes connecting the region of South Kingsville to Melbourne’s CBD are Blackshaws Road and Melbourne Road which provide the Site access to the West Gate Freeway, which is located approximately 600 metres to the north. These roads are easily accessed from the Site and provide a direct and effective link in and out of the City.

The Site is located 1.4 kilometres from the Newport train station and 1.2 kilometre walking distance from the Spotswood train station.

It is noted that the following bus routes are located within walking distance:

- Bus Route 432 which is routed along Blackshaws Road and Stephenson Street.
- Bus Route 472 which is routed along Melbourne Road.

This Bus Routes connect the Site to numerous additional routes and major employment centres including the Melbourne CBD.

Furthermore, the precinct has strong connections to future and existing pedestrian and bicycle links, providing safe access from the Site to surrounding public transport services. Notably, a future pedestrian pathway across the rail line at the northern extent of Stephenson Street is being established, providing the shortest route to Spotswood train station (approximately 1km walking distance).

Public transport and pedestrian and cycling infrastructure is further discussed in Section 8 of this Development Plan.



Figure 2. Site Context Plan (Source CHT Architects)

2.3 Existing Infrastructure Provision

O’Neill Group has investigated Infrastructure Capacity within the existing area. The assessment has found the following:

2.3.1 Water

City West Water is the Responsible Authority for the provision of water in this area. Asset plans from the authority indicate there is an existing 150mm diameter water main in Sutton Street and 100mm diameter water mains Stephenson Street and Blackshaws Road.

It is anticipated that City West Water may require development to upgrade the water mains within Blackshaws Road given the scale of the development of Precinct 16 West.

2.3.2 Gas

Ausnet services is the Responsible Authority for the provision of gas in this area. The Site is located in a high pressure gas area (over 70 kPA). Asset plans from the authority indicate there are existing 40, 50 and 300mm diameter gas distribution mains with Stephenson Street and 63mm diameter gas distribution mains in Blackshaws Road and Sutton Street.

There is sufficient gas infrastructure within the vicinity of the Site to cater for the proposed development.

The development will connect into the existing mains in Stephenson Street and Sutton Street.

2.3.3 Sewer

City West Water is the Responsible Authority for the provision of sewer in this area. Asset plans from the authority indicate there are existing 150 and 225mm diameter sewer mains and easements running through the site.

It is anticipated that the existing sewer mains will have adequate capacity to cater for the development of the Site.

2.3.4 Stormwater

The Hobsons Bay City Council is the Responsible Authority for the provision of stormwater drainage in this area. The council asset plan indicates that there are existing stormwater drains within Stephenson Street and Blackshaws Road. There are no existing stormwater drains with Sutton Street. The existing pavements within Sutton Street are part asphalt to the south and gravel to the north. It is likely council will require that the Sutton Street road surface and drainage is upgraded.

The legal point of discharge is to be provided by council and detention requirements if any is confirmed. The stormwater connection for this site is likely to be to the existing council stormwater drains located near the intersection of Stephenson Street and Moresby Street at the north-west corner of the site.

As part of the development of the former Caltex site to the east a new council stormwater outfall drain and easement is required to be installed along the north boundary of the site adjacent to the VicTrack Reserve connecting to the Melbourne Water main drain in Moresby Street. It may be possible to connect the site to this new outfall drain subject to council requirements and approval.

2.3.5 Telecommunications

Telstra has underground pit and pipe infrastructure within the street frontages to the site. The existing facilities lead in services are off Stephenson Street and Sutton Street.

It is anticipated that both new fibre and copper lead-in services will be required for the new development.

2.3.6 Electricity

Jemena is the responsible authority for the distribution of electricity in this area.

There are existing overhead low voltage and high voltage infrastructure in Stephenson Street and Sutton Street frontages. The site is fed from two existing substations with underground cable easements connected to overhead poles in the Sutton Street frontage. There also a pole mounted substation at the north end of Sutton Street which appears to be supplying the VicTrack site. The existing easements and substations servicing the site can be removed. Two new substations spaced apart and located near the frontages of Stephenson Street and/or Sutton Street will be required.

The electrical demand of the proposed new site development works will exceed that of which can be provided by the existing overhead high voltage service cables. Two kiosk substations will be required on site to cater for the increased electrical demand. The kiosk substations will each require an easement reserve of 7200mm long x 7200mm wide and will need to be located on the Stephenson Street and/or Sutton Street frontages to avoid additional cable easements. A Site Distribution Board will be required within 5000mm of the new kiosk substation location.

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Planning Framework

3 Planning Framework

3.1 Amendment C114 to the Hobsons Bay Planning Scheme

Amendment C114 to the Hobsons Bay Planning Scheme is currently under assessment by Council. The purpose of this rezoning was to facilitate the Site’s redevelopment for residential purposes.

The amendment included the following revisions to the Hobsons Bay Planning Scheme by:

- Rezoning the land from part Industrial 3 Zone and part General Residential Zone to part General Residential Zone - Schedule 4 and part Residential Growth Zone - Schedule 2.
- Applying the Development Plan Overlay - Schedule 2 over the entire precinct.
- Removing the Heritage Overlay (HO247) from the land.
- Amend the existing Environmental Audit Overlay by applying it to the entire precinct.
- Insert a new entry in the Schedule to Clause 53.01 requiring 5 percent of land (or cash equivalent as relevant) to be contributed as public open space at subdivision.

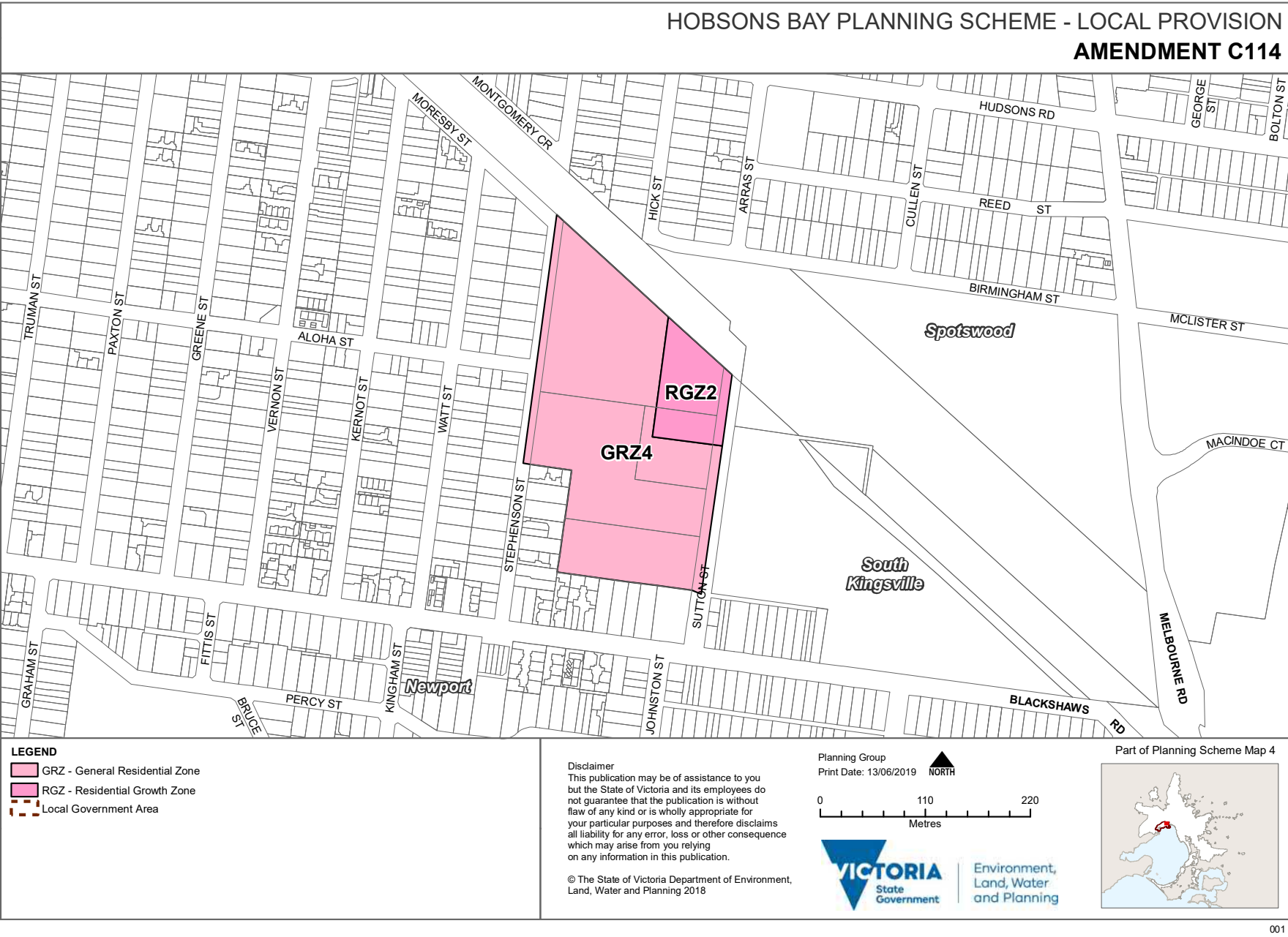


Figure 3. Amendment C114 Zoning Plan

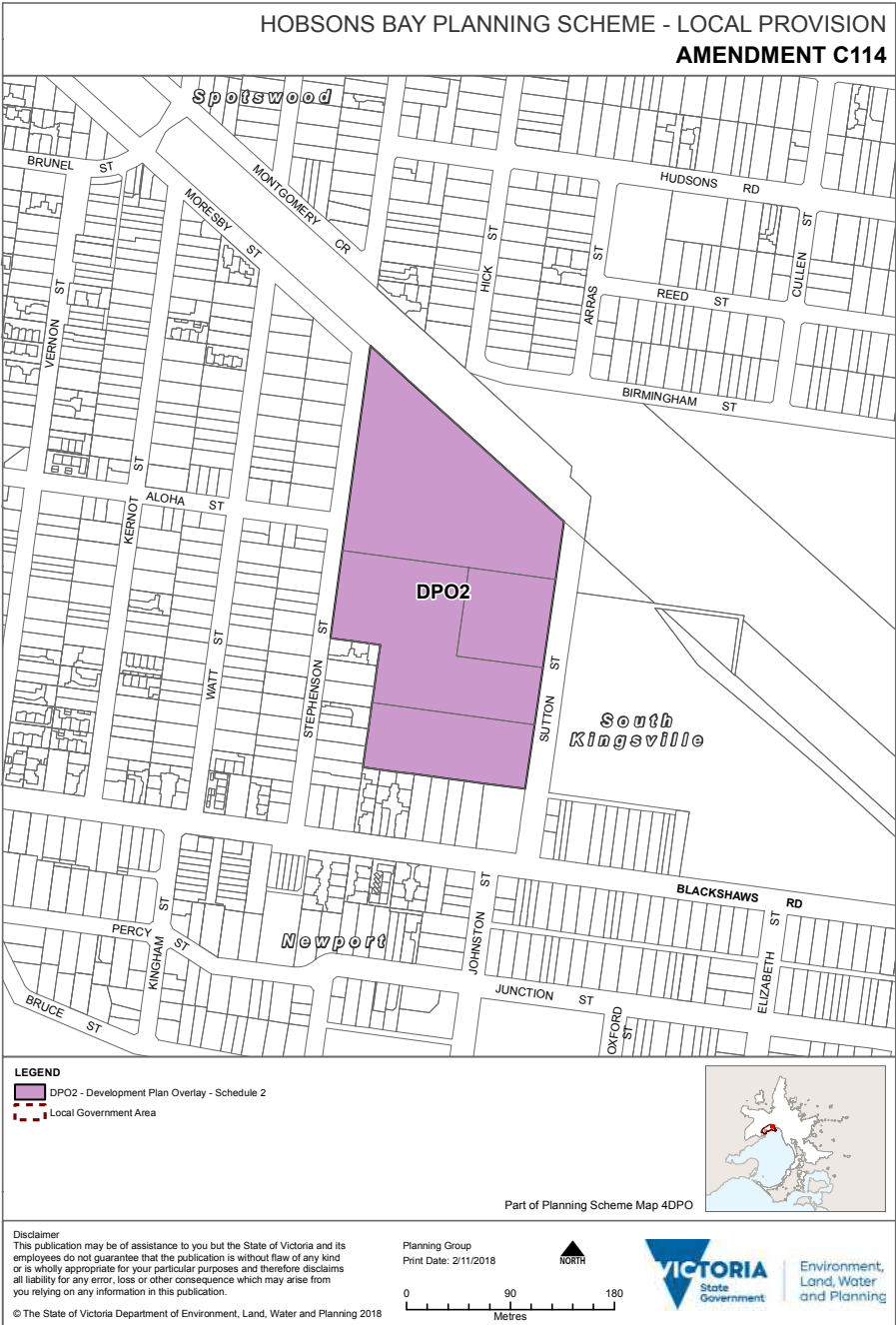


Figure 4. Amendment C114 Overlay Plan (DPO)

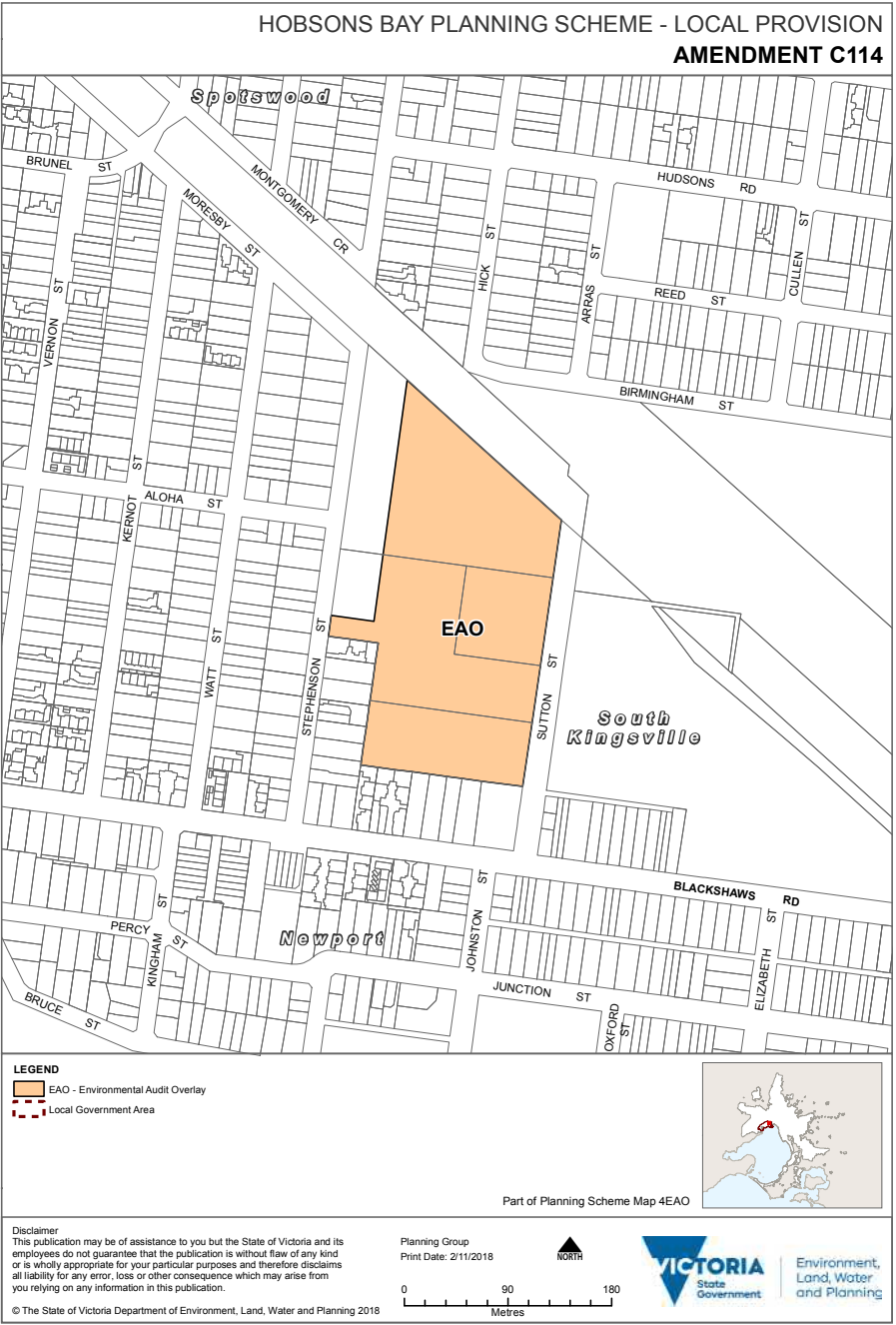


Figure 5. Amendment C114 Overlay Plan (EAO)

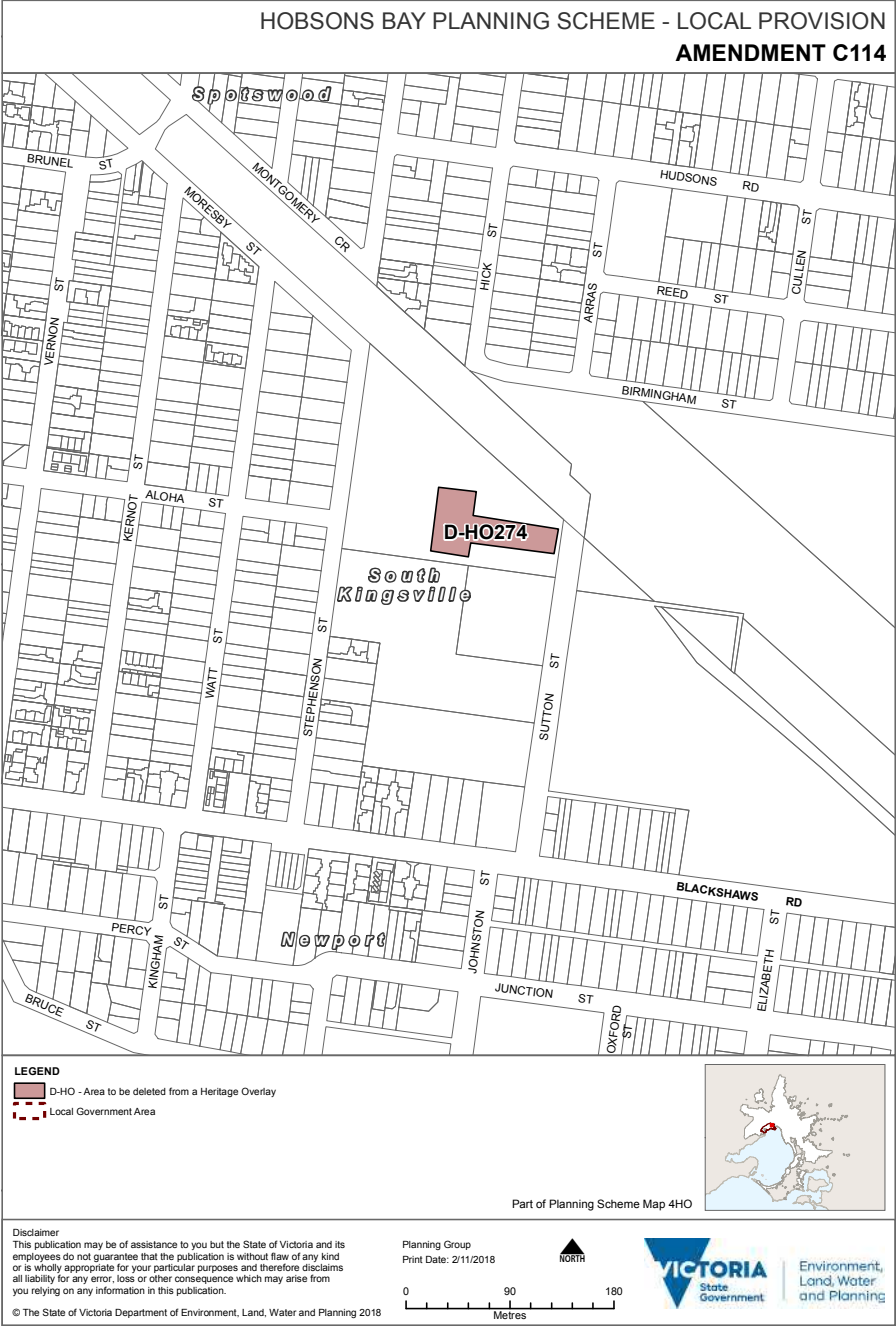


Figure 6. Amendment C114 Overlay Plan (D-HO274)

3.2 Zoning

3.2.1 General Residential Zone - Schedule 4

The majority of the Site is subject to the General Residential Zone - Schedule 4. Refer to Figure 3 - Amendment C114 Zoning Plan for zoning extent.

The purpose of the GRZ is:

‘To implement the Municipal Planning Strategy and the Planning Policy Framework.

To encourage development that respects the neighbourhood character of the area.

To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.

To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.’

Schedule 4 to the GRZ4 sets out the following neighbourhood character objectives:

‘To ensure development on the site is sympathetic to existing interfaces with established residential areas.

To ensure new development provides visual interest, articulation and positive address to public open space.

To encourage a high quality streetscape with tree-lined streets and landscaped front gardens accommodating canopy trees.

To ensure development responds to existing industrial areas by incorporating amenity protection measures that display a high level of architectural resolution, even if temporary in nature.’

The provisions of the GRZ that are most relevant to the Development Plan include:

Clause 32.08-3 (Subdivision). This clause specifies that a planning permit is required to subdivide land.

Clause 32.08-4 (Construction or extension of a dwelling or residential building: Minimum garden area requirement).This Development Plan designates the Site as a medium density housing Site, therefore the garden area requirement will not be applicable to any future planning permit application under this clause. Garden Area is also exempt under the Schedule 4 to the GRZ.

Clause 32.08-6 (Construction and extension of two or more dwellings on a lot, dwellings on common property and residential buildings) states that a permit is required to construct two or more dwellings on a lot. The clause also states that a development must meet the objectives of Clause 55.

Clause 32.08-11 (Application Requirements) states that an application must be accompanied by the following information:

- A Town Planning Report that amongst other things includes an assessment of how the planning permit application is generally in accordance with the approved Development Plan.
- A Landscape Plan, detailing existing vegetation; proposed retention and removal of vegetation; new planting / landscape works; and any fencing or acoustic treatments required within the landscape areas of the site.
- A Transport Impact Assessment Report, detailing the existing and proposed transport arrangements taking into account the Access and transport Plan component of the Development Plan, Clauses 52.06 and 52.34 and other relevant provisions of the scheme.
- A Sustainability Management Plan, unless the proposal relates to minor buildings and works.

- An Acoustic and Vibration Impact Report, detailing the proposed mitigation measures for the development taking into account the acoustic and vibration impacts component of the Development Plan.
- A Waste Management Plan.
- A report that outlines how the pipelines adjacent to the northern sub-precinct are responded to including details of a Pipeline Risk Assessment with relevant stakeholders.

Schedule 4 to the GRZ varies the following requirements of Clause 54/55 as outlined in Table 1.

	Standard	Requirement
Landscaping	B13	New development should provide at least one canopy tree in the front setback of each lot.
Private open space	A17	A dwelling should have an area of secluded private open space at the side or rear of the dwelling or residential building with convenient access from a living room consisting of: <ul style="list-style-type: none">• An area of 12 square metres with a minimum dimension of 2.4 metres, or• A balcony of 8 square metres with a minimum width of 1.6 metres, or• A roof-top area of 10 square metres with a minimum width of 2 metres.
	B28	A dwelling or residential building should have an area of secluded private open space at the side or rear of the dwelling or residential building with convenient access from a living room consisting of: <ul style="list-style-type: none">• An area of 12 square metres with a minimum dimension of 2.4 metres, or• A balcony of 8 square metres with a minimum width of 1.6 metres, or• A roof-top area of 10 square metres with a minimum width of 2 metres. The balcony requirements in Clause 55.05-4 do not apply to an apartment development.
Front Fence	A20 and B32	A front fence within 3 metres of a street should not exceed 1.2 metres.

Table 1. Clause 54/55 Variations

3.2.2 Residential Growth Zone - Schedule 2

The north eastern corner of the Site is subject to the Residential Growth Zone - Schedule 2. Refer to Figure 3 - Amendment C114 Zoning Plan for zoning extent.

The purpose of the RGZ is:

‘To implement the Municipal Planning Strategy and the Planning Policy Framework.

To provide housing at increased densities in buildings up to and including four storey buildings.

To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.

To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.

To ensure residential development achieves design objectives specified in a schedule to this zone.

To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.’

Schedule 2 to the RGZ sets out the following neighbourhood character objectives:

‘To ensure development achieves site responsive architectural and urban design outcomes that provides a positive contribution to the character and amenity of the surrounding area.

To ensure acoustic attenuation measures are incorporated into the building design to protect the amenity of residents from potential noise and vibration impacts.

To ensure development incorporates residential amenity protection measures that display a high level of architectural resolution even if temporary in nature.

To ensure that building heights provide appropriate interface transitions.

To ensure that building heights consider and respond to the overshadowing effects in the site.’

Schedule 2 to the RGZ varies the minimum street setback requirement of Clause 54/55 to:

- Walls of buildings should be set back from a front street at least 3 metres. Side street setbacks as specified in the table to Standards A3 and B6 continue to apply.

It is noted that pursuant to Clause 32.07-5, Clause 55 does not apply to a development of five or more storeys, excluding a basement.

The provisions of the RGZ that are most relevant to the Development Plan include:

Clause 32.07-3 (Subdivision). This clause specifies that a planning permit is required to subdivide land.

Clause 32.07-5 (Construction and extension of two or more dwellings on a lot, dwellings on common property and residential buildings) states that a permit is required to construct two or more dwellings on a lot. It specifies that Clause 55 does not apply to a development of five or more storeys excluding a basement. It also states that an apartment development of five or more storeys, excluding a basement, must meet the requirements of Clause 58.

Clause 32.09-9 (Maximum building height requirements for a dwelling or residential building) states that a building used as a dwelling or residential building must not exceed a height of 22 metres and 6 storeys.

Clause 32.07-11 (Application Requirements) states that an application to use or develop land should be accompanied by the following, as appropriate, to the satisfaction of the Responsible Authority:

- A Town Planning Report that, amongst other things, includes an assessment of how the planning permit application is generally in accordance with the approved Development Plan.
- A Landscape Plan, detailing existing vegetation; proposed retention and removal of vegetation; new planting / landscape works; and any fencing or acoustic treatments required within the landscape areas of the site.
- A Transport Impact Assessment Report, detailing the existing and proposed transport arrangements taking into account the Access and transport Plan component of the Development Plan, clauses 52.06 and 52.34 and other relevant provisions of the scheme.
- A Sustainability Management Plan, unless the proposal relates to minor buildings and works.
- An Acoustic and Vibration Impact Report, detailing the proposed mitigation measures for the development taking into account the acoustic and vibration impacts component of the Development Plan.
- A Waste Management Plan.
- A report that outlines how the pipelines adjacent to the northern sub-precinct are responded to including details of a Pipeline Risk Assessment with relevant stakeholders.

3.3 Overlays

3.3.1 Development Plan Overlay - Schedule 2

The Site is subject to the Development Plan Overlay - Schedule 2 (DPO2) which relates to ‘Precinct West’. The objectives of DPO2 are:

- ‘To create a residential area that is responsive to its context and provides a transition in character at its interfaces with existing adjoining residential areas and industrial operations.*
- To encourage sustainable urban renewal and increased housing affordability, diversity and density within the site.*
- To create varied, engaging and high quality architectural forms, landscaped environment and sustainable movement links.*
- To ensure residential development provides a reasonable level of amenity for future occupiers of the site, including but not limited to protecting future residents from the adverse impacts of industrial and traffic noise, odour, dust, vibration and the visual impact of the railway line and industrial development.*
- To protect the operations of the state and nationally significant Spotswood Locomotive Maintenance Centre from any potentially adverse effects of residential encroachment.’*

The DPO2 specifies that a Development Plan must be prepared for the sub-precinct and must be consistent with the following Vision for the site and be generally in accordance with the Precinct 16 West Framework Plan (refer to Figure 7):

‘The site will become a sustainable residential community, integrated with Precinct 16 East and complementing the broader existing residential neighbourhood.

The site will be redeveloped to provide a predominantly medium to higher density residential development, providing homes for a diversity of households including affordable housing and incorporating public open space and sustainable movement links.

The development will provide a transition in the scale of buildings across sub-precincts and the site.

The development will implement innovative ESD features, provide opportunities for best practice in environmental management.

The development will protect the ongoing operation of industrial land use and infrastructure, incorporating residential amenity protection measures that display a high level of architectural resolution even if temporary in nature.

The stages of the development will be managed to minimise amenity impacts to new residents until industrial uses on the site are discontinued.’

This Development Plan implements the objectives and vision of Schedule 2 to the DPO and associated Framework Plan’.

3.3.2 Environmental Audit Overlay

Following Amendment C114 to the Hobsons Bay Planning Scheme, the whole of Precinct 16 West is now subject to the Environmental Audit Overlay (EAO).

- The purpose of the EAO is:
- ‘To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- To ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination.’*
- Before a sensitive use commences or before the construction of carrying out of building works in association with a sensitive use commences, either:
- A certificate of environmental audit must be issued for the land in accordance with Part IXD of the Environment Protection Act 1970, or
 - An environmental auditor appointed under the Environment Protection Act 1970 must make a statement in accordance with Part IXD of that Act that the environmental conditions of the land are suitable for the sensitive use.

3.3.3 Special Buliding Overlay

- The Site is partially affected by Special Building Overlay, along the north western corner of the Site. The purpose of the Special Building Overlay is as follows:
- *‘To implement the Municipal Planning Strategy and the Planning Policy Framework.*
 - *To identify land in urban areas liable to inundation by overland flows from the urban drainage system as determined by, or in consultation with, the floodplain management authority.*
 - *To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.*
 - *To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).’*
- Pursuant to Clause 44.05-2, a permit is required to construct a building or to carry out works.
- Pursuant to Clause 44.05-6, Melbourne Water is a determining referral authority for any application for buildings and works on Site.



Figure 7. Precinct 16 West Framework Plan

3.4 Key Planning Policy

The Development Plan has been produced in accordance with Schedule 2 to the Development Plan Overlay and has regard to the following key planning policies:

3.4.1 Planning Policy Framework

CLAUSE 9 - PLAN MELBOURNE

This clause sets out a metropolitan wide planning strategy for settlement and growth which has a strong emphasis on well located infill development.

CLAUSE 11.02 -1S - SUPPLY OF URBAN LAND

This clause seeks to ‘ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses’.

Strategies outlined by Clause 11.02-1S and that are relevant to the Development Plan are outlined below.

- ‘Ensure the ongoing provision of land and supporting infrastructure to support sustainable urban development.
- Ensure that sufficient land is available to meet forecast demand.
- Plan to accommodate projected population growth over at least a 15 year period and provide clear direction on locations where growth should occur. Residential land supply will be considered on a municipal basis, rather than a town-by-town basis.
- Planning for urban growth should consider:
 - Opportunities for the consolidation, redevelopment and intensification of existing urban areas.
 - Neighbourhood character and landscape considerations.
 - The limits to land capability and natural hazards and environmental quality.
 - Service limitations and the costs of providing infrastructure.’

CLAUSE 11.02-2S - STRUCTURE PLANNING

This clause seeks to ‘facilitate the orderly development of urban areas’.

Strategies outlined by Clause 11.02-2S and that are relevant to the Development Plan are outlined below.

- ‘Ensure effective planning and management of the land use and development of an area through the preparation of relevant plans.
- Undertake comprehensive planning for new areas as sustainable communities that offer high-quality, frequent and safe local and regional public transport and a range of local activities for living, working and recreation.’

CLAUSE 13.04-1S - CONTAMINATED AND POTENTIALLY CONTAMINATED LAND

The objective of Clause 13.04-1S is ‘to ensure that potentially contaminated land is suitable for its intended future use and development,and that contaminated land is used safely.’

Strategies outlined by Clause 13.04-1S that are relevant to the Development Plan are outlined below.

- ‘Require applicants to provide adequate information on the potential for contamination to have adverse effects on future land use if the subject land is known to have been used for industry,mining or the storage of chemicals, gas, wastes or liquid fuel.
- Facilitate the remediation of contaminated land, particularly on sites in developed areas with potential for residential development.’

CLAUSE 13.05-1S - NOISE ABATEMENT

The objective of Clause 13.05-1S is ‘to assist the control of noise effects on sensitive land use’.

Strategies outlined by Clause 11.02-1S and that are relevant to the Development Plan are outlined below.

- ‘Ensure that development is not prejudiced and community amenity is not reduced by noise emissions, using a range of building design, urban design and land use separation techniques as appropriate to the land use functions and character of the area.’

CLAUSE 13.07-1S - LAND USE COMPATIBILITY

The objective of this Clause is to ‘safeguard community amenity while facilitating appropriate commercial, industrial or other uses with potential off-site effects.’

Strategies outlined by Clause 13.07-1S that are relevant to the Development Plan are outlined below.

- ‘Ensure the compatibility of a use or development as appropriate to the land use functions and character of the area by:
 - Directing land uses to appropriate locations.
 - Using a range of building design, urban design, operational and land use separation measures.’

CLAUSE 15.01-1S - URBAN DESIGN

This clause seeks to ‘create urban environments that are safe, functional and provide good quality environments with a sense of place and cultural identity’.

Strategies outlined by Clause 15.01-1S and that are relevant to the Development Plan are outlined below.

- ‘Requirement development to respond to its context in terms of character, cultural identity, natural features, surrounding landscape and climate.
- Ensure development contributes to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.
- Ensure the interface between the private and public realm protects and enhances personal safety.
- Ensure development supports public realm amenity and

safe access to walking and cycling environments and public transport.

- Ensure that the design and location of publicly accessible private spaces, including car parking areas, forecourts and walkways, is of a high standard, creates a safe environment for users and enables easy and efficient use.
- Ensure that development provides landscaping that supports the amenity, attractiveness and safety of the public realm.
- Ensure that development, including signs, minimises detrimental impacts on amenity, on the natural and built environment and on the safety and efficiency of roads.’

CLAUSE 15.01-1R - URBAN DESIGN - METROPOLITAN MELBOURNE

This clause aims to ‘achieve building design outcomes that contribute positively to the local context and enhance the public realm.’

Strategies outlined in Clause 15.01-1R and that are relevant to the Development Plan are outlined below:

- ‘Support the creation of well-designed places that are memorable, distinctive and liveable.
- Integrate place making practices into road space management.’

CLAUSE 15.01-2S - BUILDING DESIGN

This clause aims to ‘achieve building design outcomes that contribute positively to the local context and enhance the public realm.’

Strategies outlined by Clause 15.01-2S and that are relevant to the Development Plan are outlined below.

- ‘Require a comprehensive site analysis as the starting point of the design process.
- Ensure the site analysis provides the basis for consideration of height, scale and massing of new development.

- *Ensure development responds and contributes to the strategic and cultural context of its location.*
- *Minimise the detrimental impact of development on neighbouring properties, the public realm and the natural environment.*
- *Ensure the form, scale and appearance of development enhances the function and amenity of the public realm.*
- *Ensure buildings and their interface with the public realm support personal safety, perceptions of safety and property security.*
- *Ensure development provides safe access and egress for pedestrians, cyclists and vehicles.*
- *Ensure development provides landscaping that responds to its site context, enhances the built form and creates safe and attractive spaces.'*

CLAUSE 15.01-3S - SUBDIVISION DESIGN

This Clause seeks to *‘ensure the design of subdivisions achieves attractive, safe and accessible, diverse and sustainable neighbourhoods’.*

The Strategy outlined by Clause 15.01-3S states that redevelopment of existing areas should be designed to create liveable and sustainable communities by achieving the following.

- *‘Creating compact neighbourhoods that have walkable distances between activities.*
- *Creating urban places with a strong sense of place that are functional, safe and attractive.*
- *Provide a range of lot sizes to suit a variety of dwelling and household types to meet the needs and aspirations of different groups of people.*
- *Creating landscaped streets and a network of open spaces to meet a variety of needs.*
- *Reduce car dependency by allowing for:*
 - *Convenient and safe public transport;*
 - *Safe and attractive spaces and networks for walking and cycling;*
 - *Subdivision layouts that allow easy movement within and between neighbourhoods;*

- *A convenient and safe road network.*
- *Being accessible to people with disabilities.*
- *Creating an urban structure and providing utilities and services that enable energy efficiency, resource conservation, integrated water management and minimisation of waste and air pollution.'*

CLAUSE 15.01-4S HEALTHY NEIGHBOURHOODS

This clause aims to *‘achieve neighbourhoods that foster healthy interaction and make it easy for people of all ages and abilities to live health lifestyles and engage in regular physical activity through providing the following.*

The Strategy outlined by Clause 15.01-4S states that neighbourhoods should be designed to foster community interaction and make it easy for people of all ages and abilities to live health lifestyles and engage in regular physical activity through providing the following.

- *‘Connected, safe, pleasant and attractive walking and cycling networks that enable and promote walking and cycling as part of daily life.*
- *Streets with direct, safe and convenient access to destinations.*
- *Conveniently located public spaces for active recreation and leisure.*
- *Accessibly located public transport stops.*
- *Amenities and protection to support physical activity in all weather conditions.'*

CLAUSE 15.01-4R HEALTHY NEIGHBOURHOODS - METROPOLITAN MELBOURNE

This clause aims to *‘create a city of 20 minute neighbourhoods, that give people the ability to meet most of their everyday needs within a 20 minute walk, cycle or local public transport trip from their home’.*

CLAUSE 15.01-5S - NEIGHBOURHOOD CHARACTER

This clause aims to *‘recognise, support and protect neighbourhood character, cultural identity, and sense of place’.*

Strategies outlined by Clause 15.01-5S and that are relevant to the Development Plan are outlined below.

- *‘Ensure development responds to cultural identity and contributes to existing or preferred neighbourhood character.*
- *Ensure development responds to its context and reinforces a sense of place and the valued features and characteristics of the local environment and place by emphasising the:*
 - *Pattern of local urban structure and subdivision.*
 - *Heritage values and built form that reflect community identity.'*

CLAUSE 15.02-1S ENERGY AND RESOURCE EFFICIENCY

This clause seeks to *‘encourage land use and development that is energy and resource efficient, supports a cooler environment and minimises greenhouse gas emissions.’*

Strategies outlined by Clause 15.02-1S and that are relevant to the Development Plan are outlined below.

- *‘Improve the energy, water and waste performance of buildings and subdivisions through environmentally sustainable development.*
- *Promote consolidation of urban development and integration of land use and transport.*
- *Improve efficiency in energy use through greater use of renewable energy technologies and other energy efficiency upgrades.*
- *Support low energy forms of transport such as walking and cycling.*
- *Reduce the urban heat island effect by greening urban areas, buildings, transport corridors and open spaces with vegetation.*
- *Encourage retention of existing vegetation and planting of new vegetation as part of development and subdivision proposals.'*

CLAUSE 16.01-1S INTEGRATED HOUSING

This clause seeks to *‘promote a housing market that meets community needs’.*

Strategies outlined by Clause 16.01-1S and that are relevant to the Development Plan are outlined below.

- *‘Increase the supply of housing in existing urban areas by facilitating increased housing yield in appropriate locations, including under-utilised urban land.*
- *Ensure that an appropriate quantity, quality and type of housing is provided, including aged care facilities and other housing suitable for older people, supported accommodation for people with disability, rooming houses, student accommodation and social housing.*
- *Ensure housing developments are integrated with infrastructure and services, whether they are located in existing suburbs, growth areas or regional towns.'*

CLAUSE 16.01-1R - INTEGRATED HOUSING - METROPOLITAN MELBOURNE

This clause aims to *‘provide certainty about the scale of growth by prescribing appropriate height and site coverage provisions for different areas and to ‘allow for a range of minimal, incremental and high change residential areas that balance the need to protect valued areas with the need to ensure choice and growth in housing’.*

CLAUSE 16.01-2S - LOCATION OF RESIDENTIAL DEVELOPMENT

This clause aims to *‘locate new housing in designated locations that offer good access to jobs, services and transport’.*

Strategies outlined by Clause 16.01-2S and that are relevant to the Development Plan are outlined below:

- *‘Increase the proportion of new housing in designated locations within established urban areas and reduce the share of new dwellings in greenfield and dispersed development areas.*
- *Encourage higher density housing development on sites*

- that are well located in relation to jobs,*
- *Services and public transport.*
- *Ensure an adequate supply of redevelopment opportunities within established urban areas to reduce the pressure for fringe development.*
- *Facilitate residential development that is cost effective in infrastructure provision and use, energy efficient, water efficient and encourages public transport use.*
- *Identify opportunities for increased residential densities to help consolidate urban areas.'*

CLAUSE 16.01-2R - HOUSING OPPORTUNITY AREAS - METROPOLITAN MELBOURNE

This clause seeks to *‘Identify areas that offer opportunities for more medium and high density housing near employment and transport in Metropolitan Melbourne’ and to ‘manage the supply of new housing to meet population growth and create a sustainable city by developing housing and mixed use development opportunities in locations that are urban-renewal precincts and sites’*

CLAUSE 16.01-3S - HOUSING DIVERSITY

This clause aims to *‘provide for a range of housing types to meet diverse needs’.*

Strategies outlined by Clause 16.01-4S and that are relevant to the Development Plan are as follows:

- *‘Ensure housing stock matches changing demand by widening housing choice.*
- *Facilitate diverse housing that offers choice and meets the changing household needs through:*
 - *A mix of housing types.*
 - *Adaptable internal dwelling design.*
 - *Universal design.*
- *Encourage the development of well-designed medium-density housing that:*
 - *Respects the neighbourhood character. Improves housing choice.*

- *Makes better use of existing infrastructure.*
- *Improves energy efficiency of housing.*
- *Support opportunities for a range of income groups to choose housing in well-serviced locations.’*

CLAUSE 16.01-3R - HOUSING DIVERSITY - METROPOLITAN MELBOURNE

This clause seeks to *‘create mixed-use neighbourhoods at varying densities that offer more choice in housing’.*

CLAUSE 16.01-4S - HOUSING AFFORDABILITY

This clause aims to *‘deliver more affordable housing closer to jobs, transport and services’.*

Strategies outlined by Clause 16.01-4S and that are relevant to the Development Plan are outlined below.

- *Improve housing affordability by:*
 - *‘Ensuring land supply continues to be sufficient to meet demand.*
 - *Increasing choice in housing type, tenure and cost to meet the needs of households as they move through life cycle changes and to support diverse communities.*
 - *Promoting good housing and urban design to minimise negative environmental impacts and keep costs down for residents and the wider community.*
 - *Encouraging a significant proportion of new development to be affordable for households on very low to moderate incomes.*
- *Increase the supply of well-located affordable housing by facilitating a mix of private, affordable and social housing in suburbs, activity centres and urban renewal precincts.’*

CLAUSE 18.01-1S - LAND USE AND TRANSPORT PLANNING

This clause aims to *‘create a safe and sustainable transport system by integrating land-use and transport’.*

Strategies outlined by Clause 18.01-1S and that are relevant to the Development Plan are outlined below.

- *‘Development integrated and accessible transport networks to connect people to jobs and services and goods to market.*
- *Plan urban development to be more accessible by:*
 - *Ensuring equitable access is provided to developments in accordance with forecast demand, taking advantage of all available modes of transport and to minimise advertise impacts on existing transport networks and the amenity of surrounding areas.*
 - *Coordinating improvements to public transport, walking and cycling networks with the ongoing development and redevelopment of urban areas.*
- *Integrate public transport services and infrastructure into new development.’*

CLAUSE 18.02-1S - SUSTAINABLE PERSONAL TRANSPORT

This clause seeks to *‘promote the use of sustainable personal transport’.*

Strategies outlined by Clause 18.02-1S and that are relevant to the Development Plan are outlined below.

- *‘Ensure development and the planning for new suburbs, urban renewal precincts, greyfield redevelopment areas and transit-oriented development areas (such as railway stations) provide opportunities to promote more walking and cycling.*
- *Encourage the use of walking and cycling by creating environments that are safe and attractive.*
- *Develop high quality pedestrian environments that are accessible to footpath-bound vehicles such as wheelchairs, prams and scooters.*

- *Ensure cycling routes and infrastructure are constructed early in new developments.*
- *Provide direct and connected pedestrian and bicycle infrastructure to and between key destinations including activity centres, public transport interchanges, employment areas, urban renewal precincts and major attractions.*
- *Ensure cycling infrastructure (on-road bicycle lanes and off-road bicycle paths) is planned to provide the most direct route practical and to separate cyclists from other road users, particularly motor vehicles.*
- *Require the provision of adequate bicycle parking and related facilities to meet demand at education, recreation, transport, shopping and community facilities and other major attractions when issuing planning approvals.*
- *Provide improved facilities, particularly storage, for cyclists at public transport interchanges, rail stations and major attractions.*
- *Ensure provision of bicycle end-of-trip facilities in commercial buildings.’*

CLAUSE 18.02-1R - SUSTAINABLE PERSONAL TRANSPORT - METROPOLITAN MELBOURNE

This clause seeks to *‘Improve local travel options for walking and cycling to support 20 minute neighbourhoods’ and ‘develop local cycling networks and new cycling facilities that support the development of 20-minute neighbourhoods and that link to and complement the metropolitan-wide network of bicycle routes - the Principal Bicycle Network.*

CLAUSE 18.02-2S PUBLIC TRANSPORT

This clause aims to *‘facilitate greater use of public transport and promote increased development close to high-quality public transport routes.’*

CLAUSE 18.02-4S CAR PARKING

This clause seeks to *‘ensure an adequate supply of car parking that is appropriately designed and located’*.

Strategies outlined by Clause 18.02-4S and that are relevant to the Development Plan are outlined below.

- *‘Allocate or require land to be set aside for car parking subject to the existing and potential modes of access including public transport, the demand for off-street car parking, road capacity and the potential for demand management of car parking.*
- *Design and locate local car parking to:*
 - *Protect the role and function of nearby roads.*
 - *Enable easy and efficient use.’*

CLAUSE 19.01-2S - RENEWABLE ENERGY

This Clause seeks to *‘promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.’*

The strategies outlined by Clause 19.01-2S that are relevant to the Development Plan are outlined below:

- *‘Facilitate renewable energy development in appropriate locations.*
- *Protect energy infrastructure against competing and incompatible uses.*
- *Develop appropriate infrastructure to meet community demand for energy services.*
- *Set aside suitable land for future energy infrastructure.*
- *Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.*
- *Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.’*

CLAUSE 19.01-3S - PIPELINE INFRASTRUCTURE

This clause seeks to *‘ensure that gas, oil and other substances are safely delivered to users and to and from port terminals at minimal risk to people, other critical infrastructure and the environment.’*

CLAUSE 19.02-6S - OPEN SPACE

This clause seeks to *‘establish, manage and improve a diverse and integrated network of public open space that meets the needs of the community’*.

A key strategy relevant to the Development Plan is to ensure that land is set aside and developed in residential areas for local recreational use and to create pedestrian and bicycle links to commercial and community facilities.

CLAUSE 19.02-6R - OPEN SPACE - METROPOLITAN MELBOURNE

This clause seeks to strengthen the metropolitan open space network through developing a network of local open spaces that are accessible and of high quality and include opportunities for new local open spaces through planning for urban redevelopment projects.

CLAUSE 19.03-3S - INTEGRATED WATER MANAGEMENT

This clause seeks to sustainably manage water supply, water resources, wastewater, drainage and stormwater through an integrated water management approach.

The strategies outlined by Clause 19.03-3S and that are relevant to the Development Plan are outlined below.

- *‘Integrate water into the landscape to facilitate cooling, local habitat improvements and provision of attractive and enjoyable spaces for community use.*
- *Ensure that development protects and improves the health of water bodies including creeks, rivers, wetlands, estuaries and bays.*
- *Manage stormwater quality and quantity through a mix of*

- on-site measures and developer contributions at a scale that will provide greatest net community benefit.*
- *Provide for sewerage at the time of subdivision or ensure lots created by the subdivision are capable of adequately treating and retaining all domestic wastewater within the boundaries of each lot.*
- *Ensure land is set aside for water management infrastructure at the subdivision design stage.*
- *Minimise the potential impacts of water, sewerage and drainage assets on the environment.*
- *Protect significant water, sewerage and drainage assets from encroaching sensitive and incompatible uses.’*

CLAUSE 19.03-4S - TELECOMMUNICATIONS

This clause seeks to facilitate the orderly development, extension and maintenance of telecommunication infrastructure.

CLAUSE 19.03-5S - WASTE AND RESOURCE RECOVERY

Clause 19.03-5S seeks to *‘reduce waste and maximise resource recovery so as to reduce reliance on landfills and minimise environmental, community amenity and public health impacts.’*

The strategies outlined by Clause 19.03-5S that are relevant to the Development Plan are outlined below.

- *‘Ensure future waste and resource recovery infrastructure needs are identified and planned for to safely and sustainably manage all waste and maximise opportunities for resource recovery.*
- *Protect waste and resource recovery infrastructure against encroachment from incompatible land uses by ensuring buffer areas are defined, protected and maintained.*
- *Ensure waste and resource recovery facilities are sited, designed, built and operated so as to minimise impacts on surrounding communities and the environment.*
- *Encourage technologies that increase recovery and treatment of resources to produce energy and other marketable end products.*

- *Enable waste and resource recovery facilities to locate close together in order to share separation distances, reduce the impacts of waste transportation and improve the economic viability of resource recovery.*
- *Site, design, manage and rehabilitate waste disposal facilities in accordance with the Waste Management Policy (Siting, Design and Management of Landfills (Environment Protection Authority, 2004).*
- *Integrate waste and resource recovery infrastructure planning with land use and transport planning.*
- *Encourage development that facilitates sustainable waste and resource recovery.’*

3.4.2 Local Planning Policy Framework

Municipal Strategic Statement (MSS)

CLAUSE 21.02 - HOBSONS BAY KEY ISSUES AND STRATEGIC VISION

The Hobsons Bay Strategic Framework Plan identifies the site as a Strategic Redevelopment Area to accommodate urban growth and facilitate urban consolidation.

Clause 21.02-3 outlines a series of key issues for Strategic Redevelopment Areas, including the following that are relevant to the subject site.

- *‘Protecting the quality and character of existing suburbs from pressure associated with urban consolidation.*
- *Pressure to rezone and develop Strategic Redevelopment Areas prior to completion of a necessary planning framework.*
- *Defining a new neighbourhood character for the Strategic Redevelopment Areas which balances character and costs associated with remediation of former industrial sites.*
- *Accommodating urban growth largely in Strategic Redevelopment Areas to facilitate urban consolidation.*
- *Encouraging environmentally sustainable development.’*

The Development Plan provides an appropriate redevelopment of the Site that will have a significant contribution towards accommodating population and household growth within Hobsons Bay.

CLAUSE 21.03 -SETTLEMENT

Clause 21.03-2 - Strategic Redevelopment Areas seeks to successfully manage the transition and strategic redevelopment of redundant industrial areas identified as Strategic Redevelopment Areas through the development of Outline Development Plans (i.e. a master plan) or other appropriate planning controls to achieve net community benefit’.

The following strategies are outlined by Clause 21.03-2 and are of specific relevance to the subject site.

- ‘Manage change in Strategic Redevelopment Areas carefully; protect the existing and ongoing viable use of existing industries; retain employment generating uses where possible; and subject to appropriate justification, introduce new land uses.
- Require the following matters be addressed, as appropriate, in consideration of applications for change in Strategic Redevelopment Areas:
 - Extent of contamination
 - Range of future uses
 - All infrastructure requirements including community facilities and open space
 - Potential off site impacts, and measures to manage them
 - Traffic management plans which address connectivity within and between sites
 - Staging of development
 - Mechanisms/proposals to protect ongoing viable industries from encroaching sensitive uses such as buffer distances and acoustic measures to attenuate noise levels within the new development
 - Future character of the area and potential impact on neighbouring residential character
 - Measures to protect ongoing viable industry
 - Social Impact Assessment
 - Incorporation of Environmentally Sustainable Design principles
 - Diversity in housing choice including affordable

- housing

 - Appropriate zoning and planning controls to guide future development and manage the potential impact of interface issues on adjoining land uses.
- Require the preparation of an Outline Development Plan (i.e. a master plan), for Strategic Redevelopment Areas that are no longer suitable for traditional industrial uses and are in multiple ownership in consultation with land owners, adjoining land owners, key government stakeholders and the Council to ensure that the Strategic Redevelopment Area as a whole can integrate with its surrounds and address significant interface issues.
- Support applications for site specific rezoning only if the applicant can demonstrate that the proposal will not prejudice the future development of the remainder of the precinct and that it is consistent with an Outline Development Plan or Master Plan that has been prepared to manage overall change in the precinct.
- Ensure that there is an appropriate interface between conflicting land uses when planning for the redevelopment of redundant industrial sites identified as Strategic Redevelopment Areas.
- Require residential and other new sensitive land uses to include appropriate measures to protect residential amenity including noise attenuation within new buildings and appropriate design and siting of private open space to protect occupants’ amenity.
- Ensure that there is an appropriate interface between existing and future land uses within redundant industrial areas identified as Strategic Redevelopment Areas when planning for redevelopment of the precinct.
- Where appropriate, consider the potential for new character in future residential areas of the Strategic Redevelopment Areas.
- Ensure the provision of appropriate community infrastructure or an adequate contribution to support new communities.
- Ensure that the existing road layout and subdivision pattern that defines and characterises the broader neighbourhood is considered and respected by new development..’

The Development Plan provides a clear and holistic framework for the development of the Site as a Strategic Redevelopment Area generally in accordance with the Precinct 16 West Framework Plan.

CLAUSE 21.06 - BUILT ENVIRONMENT AND HERITAGE

This clause specifies that new residential character in Strategic Redevelopment Areas will consider and respect the character of the existing surrounding area. Relevant objectives of this clause include:

- ‘To ensure that new development respects and enhances the preferred neighbourhood character of the existing residential areas of Hobsons Bay.
- To protect and enhance the amenity of residential areas.
- To protect the amenity of residential areas adjacent to land uses with off-site amenity impacts and protect industry and sensitive open space from constraints and adverse impacts caused be the encroachment of residential development.
- To provide landscaping that enhances open space areas and surrounding amenity.’

CLAUSE 21.07 - HOUSING

This Clause seeks to ‘encourage and facilitate the provision of a range of dwelling types to suit the varying needs of the community in a high quality living environment’. The relevant strategies to achieve this include:

- ‘Provide a mix of housing types that better reflects the cross section of household sizes and the provision of housing for people with particular needs.
- Encourage subdivision that provides a range of lot sizes to cater for a diversity of housing stock and a better matching of house size and type with varying community needs.
- Support medium density residential development where it can be accommodated within the capacity of existing infrastructure.
- Support medium density residential development where the character and amenity of the neighbourhood is not prejudiced.

- Encourage higher density residential development in activity centres where it can be accommodated within the capacity of existing infrastructure.
- Support higher density residential development in appropriate locations where there is access to safe, efficient and reliable public transport.
- Provide housing to meet the needs of current and future residents within their local areas by encouraging the incorporation of universal design principles.’

The proposed Development Plan is consistent with this policy as it provides medium and higher density residential development, to cater for a mix of housing types, in an appropriate location for strategic redevelopment.

CLAUSE 21.09 - TRANSPORT AND MOBILITY

This clause specifies the importance of high quality integrated public transport, cycle and pedestrian paths to enhance walkability and safety, and promotes adequate parking in tourist precincts and activity centres. Relevant objectives of this Clause include:

- ‘To provide access to, through and within the municipality by all modes of transport, including walking, cycling, public transport and private and commercial vehicles.
- To protect residential and other sensitive land uses from the adverse effects of vehicular traffic.
- To support increased use of public transport and an efficient network.’

Local Planning Policies

CLAUSE 22.08 - HOBSONS BAY NORTH NEIGHBOURHOOD CHARACTER POLICY

The Site is located to the east of neighbourhood character Precinct 4 - South Kingsville.

This Clause identifies Precinct 4 as a relatively intact 1950s and 1960 neighbourhood with a low scale, modest feel. There is a strong sense of cohesiveness due to the similar building forms, both in plan and elevation, and the consistency in front and side setbacks. Views into established front gardens are available due to the low scale front fences, with the streetscapes being further enhanced by the established street trees and nature strips.

Neighbourhood character should be maintained along the existing residential interfaces of the Site.

As a large Strategic Redevelopment Area of former industrial land, the Development Plan introduces a new character for the Site while having regard to the statement of preferred neighbourhood character of the surrounding established residential area.

CLAUSE 22.13 - ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

This clause aims to ensure that development achieves ‘best practice in environmentally sustainable development from the design stage through to construction and operation.’

This policy requires that planning permit applications be accompanied by a Sustainability Management Plan and Green Travel Plan for applications for 10 or more dwellings.

3.5 Particular Provisions

CLAUSE 52.02 - EASEMENTS, RESTRICTIONS AND RESERVES

As the subject site is affected by a series of easements, Clause 52.02 is relevant to this Development Plan.

The purpose of Clause 52.02 is ‘to enable the removal and variation of an easement or restrictions to enable a use or development that complies with the planning scheme after the interests of affected people are considered’.

Under Clause 52.02 a planning permit is required to remove the easements from the Development Plan area.

CLAUSE 52.06 - CAR PARKING

The purpose of Clause 52.06 is:

- ‘To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use’.

Table 1 at Clause 52.06-5 outlines car parking rates for various uses. A planning permit is required under Clause 52.06-3 should the car parking rates outlined at Table 1 not be provided as part of a new or expanded development.

In relation to this Development Plan it is noted that the following car parking rates are outlined by Table 1 for dwellings.

- 1 car space to each one and two bedroom dwelling.
- 2 car spaces to each three or more bedroom dwelling.
- One visitor car space to every 5 dwellings for developments of 5 dwellings or more.

Clause 52.06 also outlines a detailed set of requirements for the design and layout of car parking areas.

CLAUSE 52.34 - BICYCLE FACILITIES

This clause encourages cycling as a mode of transport and seeks to endure that secure, accessible and convenient bicycle parking spaces and associated shower and change facilities are provided.

Table 1 at Clause 52.34-5 outlines bicycle parking rates for various uses. A planning permit is required under Clause 52.34-2 should bicycle parking not be provided in accordance with Table 1 as part of a new or expanded development.

In relation to this Development Plan it is noted that the following bicycle parking rates are outlined by Table 1 for dwellings.

- In developments of 4 or more storeys, 1 resident bicycle space to every 5 dwellings.
- In developments of 4 or more storeys, 1 visitor bicycle space to every 10 dwellings.
- One visitor car space to every 5 dwellings for developments of 5 dwellings or more.

Clause 52.34-6 outlines detailed requirements for the design of bicycle spaces.

CLAUSE 53.01 - PUBLIC OPEN SPACE CONTRIBUTION AND SUBDIVISION

This clause requires that a proponent seeking to subdivide land must make a contribution to the Council for public open space as required under Section 18 of the Subdivision Act 1988.

More specifically, Clause 53.01 requires that a person who proposes to subdivide land must make a contribution to the council for public open space in an amount specified in the schedule to this clause (being a percentage of the land intended to be used for residential, industrial or commercial purposes, or a percentage of the site value of such land, or a combination of both). If no amount is specified, a contribution open space may still be required under section 18 of the Subdivision Act 1988.

It is noted that the Schedule to Clause 53.01 outlines in relation to the subject site a 5% public open space contribution either as land or a monetary payment in lieu of land.

CLAUSE 54 - ONE DWELLING ON A LOT

Clause 54 applies to applications to construct a building or construct or carry out works associated with one dwelling on a lot under the provisions of the Residential Growth Zone.

The purpose of Clause 54 is as follows:

- ‘To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.
- To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- To encourage residential development that is responsive to the site and the neighbourhood.’

Clause 54 may therefore be applicable to future development on the subject site depending on the nature of future planning permit applications.

Clause 54 outlines a detailed list of objectives that must be met and standards that contain the requirements to meet the relevant objective. Standards should be met but may be varied should the responsible authority be satisfied that an alternative design solution meets the relevant objective.

CLAUSE 55 - TWO OR MORE DWELLINGS ON A LOT AND RESIDENTIAL BUILDINGS

Clause 55 applies to applications for the following:

- ‘Construct a dwelling if there is at least one dwelling existing on the lot,
- Construct two or more dwellings on a lot,
- Extend a dwelling if there are two or more dwellings on the lot,
- Construct or extend a dwelling on common property, or
- Construct or extend a residential building.’

In the Neighbourhood Residential Zone, General Residential Zone, Residential Growth Zone, Mixed Use Zone or Township Zone.

The purpose of Clause 55 is as follows:

- ‘To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.
- To encourage residential development that provides reasonable standards of amenity for existing and new residents.
- To encourage residential development that is responsive to the site and the neighbourhood.’

Clause 55 may therefore be applicable to future development on the subject site depending on the nature of future planning permit applications.

Clause 55 outlines a detailed list of objectives that must be met and standards that contain the requirements to meet the relevant objective. Standards should be met but may be varied should the responsible authority be satisfied that an alternative design solution meets the relevant objective.

CLAUSE 56 - RESIDENTIAL SUBDIVISION

Clause 56 applies to applications to subdivide land in the Neighbourhood Residential Zone, General Residential Zone, Residential Growth Zone, Mixed Use Zone or Township Zone and any Comprehensive Development Zone or Priority Development Zone that provides for residential development.

The purpose of Clause 56 is as follows:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To create liveable and sustainable neighbourhoods and urban places with character and identity.*
- *To achieve residential subdivision outcomes that appropriately respond to the site and its context for:*
 - *Metropolitan Melbourne growth areas.*
 - *Infill sites within established residential areas.*
 - *Regional cities and towns.*
- *To ensure residential subdivision design appropriately provides for:*
 - *Policy implementation.*
 - *Liveable and sustainable communities.*
 - *Residential lot design.*
 - *Urban landscape.*
 - *Access and mobility management.*
 - *Integrated water management.*
 - *Site management.*
 - *Utilities*

Clause 56 outlines a detailed list of objectives that must be met and standards that contain the requirements to meet the relevant objective. Standards should be met but may be varied should the responsible authority be satisfied that an alternative design solution meets the relevant objective

CLAUSE 58 - APARTMENT DEVELOPMENTS

Clause 58 applies to applications to construct or extend an apartment development, or to construct or extend a dwelling or forming part of an apartment development if the apartment development is five or more storeys, excluding a basement.

The purpose of Clause 58 is as follows.

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To encourage apartment development that provides reasonable standards of amenity for existing and new residents.*
- *To encourage apartment development that is responsive to the site and the surrounding area.*

Clause 58 will apply to any future permit application for the apartment building anticipated in this Development Plan.

Clause 58 outlines a detailed list of objectives that must be met and standards that contain the requirements to meet the relevant objective. Standards should be met but may be varied should the responsible authority be satisfied that an alternative design solution meets the relevant objective.

3.6 Other Planning Considerations

3.6.1 Amendment C82 and Precinct 16 East

The planning controls for the land within Precinct 16 East were introduced into the Hobsons Bay Planning Scheme through Amendment C82 on 8 August 2013. The purpose of the amendment was to facilitate the residential redevelopment of the Site.

The amendment changed the Hobsons Bay Planning Scheme as follows:

- Rezoned the Site from Industrial 3 Zone to Residential 1 Zone;
- Applied the Design and Development Overlay - Schedule 10 to the Site;
- Applied the Environmental Audit Overlay to the Site.

3.6.2 Plan Melbourne 2017-2050: Metropolitan Planning Strategy

Plan Melbourne 2017-2050 is the Victorian Government’s metropolitan planning strategy that will guide the city’s growth to 2050 (‘the Strategy’). The strategy is organised under nine principles which underpin a long term vision, six outcomes, 32 directions and 90 policies.

The relevant outcomes set out under this document are as follows:

- Outcome 1- Melbourne is a productive city that attracts investment and creates jobs.
- Outcome 2- Melbourne provides housing choice in location close to jobs and services.
- Outcome 3- Melbourne has an integrated transport system that connects people to jobs and services.
- Outcome 4- Melbourne is a distinctive and liveable city with quality design and amenity.
- Outcome 5- Melbourne is a city of inclusive, vibrant and healthy neighbourhoods.
- Outcome 6- Melbourne is a sustainable and resilient city.

3.6.3 Hobsons Bay Industrial Land Management Strategy

The Hobsons Bay Industrial Land Management Strategy (ILMS) was adopted by Council in 2008 provides key strategic direction for the future use and development of industrial land.

The site forms the northern sub-precinct of ‘Precinct 16’, which is identified as a Strategic Redevelopment Area considered suitable review for alternative land uses.

The ILMS acknowledges that the land is no longer suitable for industrial activity given its poor access for larger transport and sensitive interfaces to the surrounding residential area. Retail or commercial uses are also not considered appropriate given its location.

The ILMS concludes that the precinct should be considered for rezoning from industrial to residential subject to a satisfactory resolution of issues such as contamination and the appropriate management of the precinct’s interface with the Spotswood Maintenance Centre on the opposite side of the freight railway line. This includes both the protection of the ongoing operation of the SMC and the protection of future residents of the precinct from noise, vibration and smoke impacts from the SMC through appropriate mitigation measures.

Importantly, the Hobsons Bay Industrial Land Management Strategy recommends the preparation of an Outline Development Plan (ODP) for these areas.

This ODP forms part of the DPO2 and is provided at Figure 7 of the Development Plan.

3.6.4 Hobsons Bay Housing Strategy 2019

The Housing Strategy is intended to plan for the housing needs of current and future residents of Hobsons Bay over the next 20 years.

It includes a Housing Framework Plan and four Housing Policies relating to population growth, community infrastructure/services, preferred housing locations/typologies and housing affordability.

The Housing Policies can be broadly summarised as follows:

- *Housing Policy One (Population Growth & Change)* seeks to understand levels of population growth and change in the municipality over the next 20 years to plan for appropriate new housing and supporting community infrastructure/services;
- *Housing Policy Two (Housing Location and Housing Type)* aims to direct housing growth to identified Strategic Redevelopment Areas and activity centre catchments, while also providing a diverse range of houses at appropriate locations/densities to meet the needs of current and future residents throughout all life stages;
- *Housing Policy Three (Housing Affordability and Affordable Housing)* seeks to improve housing affordability and increase the supply of affordable housing in the municipality; and
- *Housing Policy Four (Housing Design, Functionality and Sustainability)* encourages housing that fits in with the preferred neighbourhood character, is designed to meet the needs of residents across all life stages, and to increase the energy efficiency of homes to promote sustainable living.

In relation to the Site, the Housing Policies offer commentary as summarised below:

- As per the Housing Framework Plan, the majority of the Site is identified for Moderate Change, with a small portion in the north-eastern corner identified for Substantial Change.
- Moderate Change Areas are where modest growth of additional housing types can be accommodated whilst respecting neighbourhood character.
- Substantial Change Areas are where future housing

- growth and increase densities should be encouraged.
- General support for increased housing diversity across the municipality (to increase supply of affordable housing in the eastern part of Hobsons Bay), by encouraging infill development in well-located areas

The Housing Framework Plan builds on Housing Policy and specifically applies the three new residential zones in Hobsons Bay. As identified above, the Site is identified for moderate to substantial housing change. However, the Site also abuts a Limited Change Area to the west.

3.6.5 Neighbourhood Character Study 2019

The Neighbourhood Character Study 2019 (‘NCS’) has been prepared as part of a routine policy review and seeks to guide residential development in response to existing and preferred character across Hobsons Bay.

The NCS provides commentary on six (6) main character types in relation to building heights, landscaping/vegetation, building siting, front fencing, building height and form, as well as materials and colours.

The NCS is also intended to guide the application of the new residential zones in Hobsons Bay, by guiding future development in accordance with the Housing Framework Plan.

As part of the policy review, the existing character type precincts and their associated boundaries have been revised. As the Site is not currently zoned for residential purposes, it has not been formally designated within any Precinct, although sits directly adjacent to N2 (Garden Suburban).

The Garden Suburban neighbourhood character description is as follows:

Garden Suburban areas are similar to Garden Court as they are spacious residential areas located in a garden setting however, they are based on a grid layout. They were usually developed in the immediate post-war decades, between 1950s-70s. Dwellings are typically double or triple fronted and constructed of brick.

The NCS identifies elements for change/retention for Garden Suburban areas as follows:

- Most important to retain space around dwellings for garden settings, dominant horizontal roof forms.
- Retain space for trees, private open space with space for trees and side setbacks.
- Building height, rhythm of side setbacks, visibility of extensions and upper level setbacks are flexible elements to accommodate housing change.

While adjacent to an area designated Garden Suburban, it is important to note, that the Strategy recognises the Precinct 16 West as a Strategic Redevelopment Site.

3.6.6 Affordable Housing Policy 2016

The Affordable Housing Policy 2016 is intended to ensure all households in the municipality area able to live in affordable, secure and appropriate housing that meets their needs, particularly those with low and moderate incomes.

While the Affordable Housing Policy does not provide direct commentary in relation to the site, Council has committed to negotiate agreements for the inclusion of affordable housing on development sites as part of planning scheme amendments which generate unearned uplift.

3.6.7 Open Space Strategy 2018

The Open Space Strategy is a strategic document which guides the provision, protection, planning, design and management of open space in the municipality. The 2018 iteration of the Strategy has been developed in response to population growth, demographic shifts, recreation trends and climate change impacts.

The Open Space Strategy seeks to apply four key principles summarised below:

- Provide open spaces within a safe, five-minute walk of 95% of residents that are collocated with community infrastructure;
- Provide open space networks that support biodiversity and habitat links, while also responding to climate change adaptation;

- Ensure there is enough open space to cater for a diverse range of community groups, offering different levels of amenity and multi-function; and
- Ensure open spaces are designed to be multi-functional, resilient, accessible, enhance community appreciation and reflect values.

Spotswood – South Kingsville is identified as a residential location with significant open space gaps, characterised by low average cover and walkability/access. Accordingly, the Site and its surrounds have been identified as a ‘priority area’ for the provisions of open space.

In relation to the Site and its surrounds, the following actions are recommended for the Spotswood – South Kingsville Precinct:

- Advocate for east-west off road cycling connection and a large new neighbourhood space as part of Precinct 16 development; and
- Provide open space as part of the former Caltex Terminal on Blackshaws Road (Precinct 16).

In addition to the above, it is also important to note that three Schedule to Clause 53.01 outlines in relation to the subject site a 5% public open space contribution either as land or a monetary payment in lieu of land.

3.6.8 Play Space Strategy 2013-23

The Play Space Strategy 2013-23 provides strategic direction for the provision and management of play spaces in the municipality, referring to playgrounds, skate/BMX facilities and other informal sporting facilities.

In accordance with Map 1 to the Strategy, the Site benefits from a Local Level Play Space (500m catchment) and several Destination Play Spaces (2km catchment).

In proximity to the Site, it is proposed to upgrade Edwards Reserve with high priority, and Ducrow Reserve with low priority.

3.6.9 Activity Centres Strategy 2019-36

The Activity Centres Strategy 2019-36 is intended to provide an overarching framework to inform planning, economic development and decision making in relation to the municipality’s activity centres.

The Site is proximate to a Small Neighbourhood Activity Centre (Challis Street) and an additional Micro Neighbourhood Activity Centre (Blackshaws Road shops). The Strategy states that Small NACs meet only the basic grocery and convenience needs of a localised population.

The Strategy outlines eleven (11) overarching key directions, including (selected for relevance):

- Plan for the growth of existing centres and the development of new centres (D4)
- Provide housing diversity to accommodate population growth in appropriate activity centres (D6)
- The Strategy encourages the consideration of opportunities to increase housing within the Challis Street Small NAC, including the diversification of housing types in accordance with the Housing Strategy.
- The Strategy encourages the consideration of new Micro NACs in association with residential development to support new/surrounding communities.
- The Strategy encourages long-term investment in the Blackshaws Road shops Micro NAC to ensure they retain their convenience retail function/vibrancy.

3.6.10 Community Greenhouse Strategy (2013-2030)

The Hobsons Bay Community Greenhouse Strategy was developed to support the reduction of greenhouse gas emissions within the municipality.

The strategy outlines a series of emission reduction actions that could assist in achieving its ambitious target of becoming a zero net emission community by 2030 and outlines the role of carbon offsets. Strategic to achieve these goals include reducing energy use through sustainable design for new buildings, and utilities conservation and efficiency working in existing buildings.

3.6.11 Integrated Water Management Plan (2014-2019)

The Hobsons Bay integrated Water Management Plan is a key strategic document to guide Council’s water management activities. A key strategy of the Plan is to reduce flooding by increasing stormwater harvesting activities and encouraging best practice stormwater management in new developments.

Detailed consideration of the Integrated Water Management Plan will guide the development of the Site.

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The Development Plan

4 Design Response

This section of Development Plan addresses the following requirement of the DPO2:

The development plan for the site or for any sub-precinct must be consistent with the following Vision for the site, and be generally in accordance with the Precinct 16 West Framework Plan to the satisfaction of the responsible authority.

4.1 Vision

- The site will become a sustainable residential community, integrated with Precinct 16 East and complementing the broader existing residential neighbourhood.
- The site will be redeveloped to provide a predominantly medium to higher density residential development, providing homes for a diversity of households including affordable housing and incorporating public open space and sustainable movement links.
- The development will implement innovative ESD features, provide opportunities for best practice in environmental management.
- The development will protect the ongoing operation of industrial land use and infrastructure, incorporating residential amenity protection measures that display a high level of architectural resolution even if temporary in nature.
- The stages of the development will be managed to minimise amenity impacts to new residents until industrial uses on the site are discontinued.

4.2 Key Objectives

The Development Plan implements the following key objectives for the redevelopment of the northern sub-precinct which are informed by the objectives of DPO2 and the Precinct 16 West Framework Plan.

- Create a residential area that is responsive to its context and provides a transition in character at its interfaces with existing adjoining residential areas and industrial operations.
- Facilitate sustainable urban renewal and provide increased housing affordability, diversity and density within the site.
- Create varied, engaging and high quality architectural forms, landscaped environment and sustainable movement links.
- Ensure residential development provides a reasonable level of amenity for future occupiers of the site, including but not limited to, protecting future residents from the

- adverse impacts of industrial and traffic noise, odour, dust, vibration and the visual impact of the railway line and industrial development.
- Protect the operations of the state and nationally significant Spotswood Locomotive Maintenance Centre from any potentially adverse effects of residential encroachment.
- Create a new and attractive streetscape character in Stephenson Street and Sutton Street.
- Provide an appropriate transition in built form at its interfaces with existing residential areas and industrial operations.
- Provide for extensive landscaping treatments along key streets interfaces to enhance the amenity of the public realm.
- Protect the ongoing operation and maintenance of the Somerton to Altona Petroleum Pipeline.
- Provide safe and convenient vehicular, pedestrian and cycling connections that integrate with the existing transport network.
- Ensure that dwelling density and construction is compatible with the environmental conditions of the Site.
- To protect ongoing access to existing industries along Sutton Street.
- Promote principles of Ecologically Sustainable Development.

4.3 Key Elements of the Development Plan

Under the key objectives, the Development Plan comprises the following key elements:

- In capacity to accomodate up to 200 new dwellings, plus additional dwellings if land is incorporated from the adjoining central sub-precinct generally in accordance with the relevant Development Plan for that property (i.e. in the event of a land swap arrangement, etc.)
- A mix of housing types, including one, two, three and / or four bedroom dwellings.
- An appropriate transition in height and character interfaces:

- Townhouses up to 3 storeys in height will be located internally within the Site, with townhouses facing Stephenson Street having a maximum height of 2 storeys
- Transition to higher built form along the railway interface to the north-east, including an apartment building (up to 6 storeys) as required to provide acoustic protection from the railway and SMC workshop.
- Acoustic attenuation treatments to protect the amenity of new dwellings and ongoing operations of the SMC, including:
 - An ‘Acoustic Corridor’ provided along the north and east of the Site, including specific treatments to limit noise to residents such as:
 - A 4m high acoustic fence to be constructed along part of the northern boundary of the Site (adjoining the railway line),
 - No operable windows or balconies to be provided to the north and east facades of the apartment building. Where windows are provided, they are to corridors and comprise of heavy laminated glazing (10mm-12mm thickness).
 - Masonry materials along the north and east facade.
 - Avoiding north facing balconies for the townhouses closest to the railway corridor
- Temporary shielding barriers in some areas to suit staging requirements, with a five year time frame for replacement with a permanent acoustic shielding building or structure, or as otherwise agreed to by the Responsible Authority.
- Should operating conditions in the SMC substantially vary prior to the construction of any stage, the built form response may be reviewed by the permit applicant.
- A minimum 3 metre setback from the Somerton-Altona Licensed Pipeline.
- A minimum 4 metre setback from Stephenson Street and Sutton Street. The setback to Stephenson Street and Sutton

- Street will incorporate deep soil, canopy tree planting.
- Townhouses frontage setback a minimum of 3m from internal streets with visibility from the street, and apartment building setback by 4m from internal streets (excludes laneways).
 - One vehicle access point to Stephenson Street (northern end).
 - Active and landscaped street frontages typically with rear access to townhouses dwellings.
 - Safe and convenient pedestrian and bicycle connections integrated with the surrounding neighbourhood, including a 2.5 metre shared path.

4.4 Key Features

This section of Development Plan addresses the following requirement of the DPO2:

‘A land use summary including an indicative number or density of dwellings for the site or the sub-precinct.’

4.4.1 Land Use

Residential

The Development Plan anticipates that the northern sub-precinct will be developed for residential purposes in accordance with the Precinct 16 West Framework Plan.

The residential areas contain a mix of dwelling types and densities, including townhouses and apartment style living.

A range of medium density lots will cater for a mix of sizes and layouts.

The higher density residential area will accommodate an apartment building with a mix of dwelling sizes and layouts.

The total yield achieved on the northern sub-precinct will be dependent on the detailed design of the development to ensure all dwellings provide a high quality residential amenity.

The residential uses will be in accordance with the General Residential Zone - Schedule 4 and Residential Growth Zone - Schedule 2.

Table 2 Provides an overview of the indicative typologies proposed by the Development Plan.

The Transport Impact Assessment which accompany this submission anticipate 200 dwellings for this site. The indicative dwelling numbers and typologies may be adjusted up to this upper cap and will be subject to market demand, and any future land swap arrangement whereby the total number of dwellings may increase to accomodate lots from the central precinct development plan.

Table 2. Indicative Townhouses Development Summary

Typology	Indicative No. Of Dwellings	% Breakdown
Two Bedroom	39	46
Three Bedroom	33	39
Four Bedroom	12	15
Indicative Total	84	

Dwelling numbers and typologies are indicative only and subject to change based on market demand and future potential land swap arrangements.

Table 3. Indicative Apartment Development Summary

Typology	Indicative No. Of Dwellings	% Breakdown
One Bedroom	58	50
Two Bedroom / 1 Bathroom	29	25
Two Bedroom / 2 Bathroom	23	20
Three Bedroom	6	5
Indicative Total	116	

Dwelling numbers and typologies are indicative only and subject to change based on market demand and future potential land swap arrangements.

4.4.2 Movement Systems and Access

Pedestrian and Cycling

The local streets will have high quality landscape planting and will provide for a more traditional streetscape feel and provide for safe pedestrian, cycling and vehicle movements. These cycling and pedestrian paths will connect to the existing cycling and pedestrian paths in the established network and in the Master Plan for Precinct 16 East.

Future connectivity will also be provided across the rail line at the northern extent of Stephenson Street.

Road Network

The internal road network has been carefully considered to promote pedestrian and cycling travel. Sensible traffic movement and speeds into and within the site are also proposed. This ensures safe and appropriate vehicle movement is achieved within and surrounding the neighbourhood.

Car Parking

A combination of off-street car parking, rear-loaded garages, basement car parking and/or podium car parking will be integrated into the development for residents, and visitors to the neighbourhood. The Site will accommodate a sufficient number of car parking spaces (in accordance with Clause 52.06) to minimise any adverse off-street parking and traffic management issues.



Figure 8. Development Plan (Source: CHT Architects)

4.5 Shadow Analysis

Indicative shadow diagrams have been prepared in response to the proposed Development Plan depicting shadows at 9am, 12pm and 3pm (at the equinox) for the proposed dwelling typologies in accordance with Section 4.0 of Schedule 2 to the Development Plan Overlay.

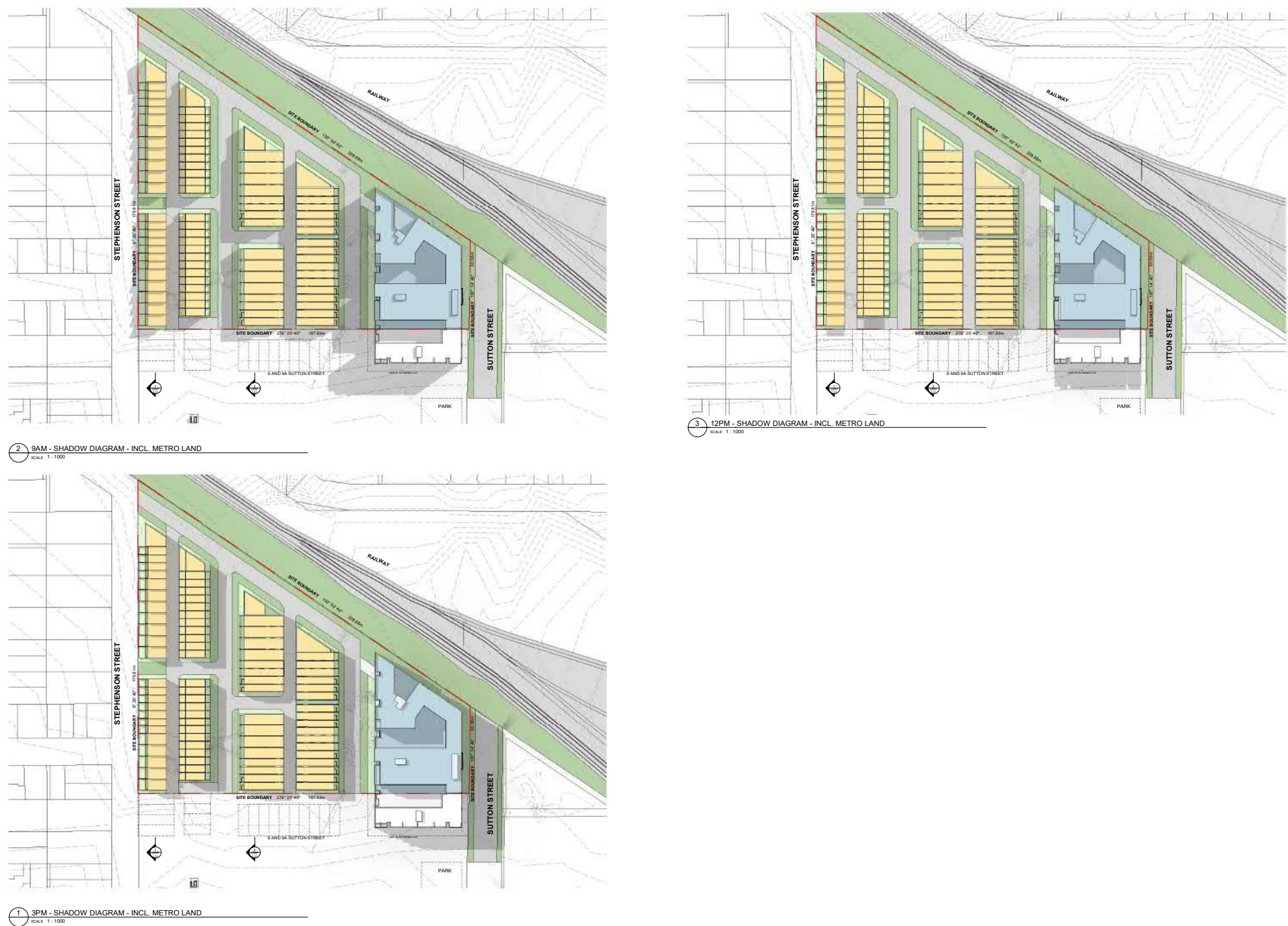


Figure 9. Shadow Analysis (Source: CHT Architects)

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Built Form Design Guidelines

5 Built Form Design Guidelines

This section of the Development Plan addresses the following requirement of the DPO2:

‘Design guidelines and principles for the site (or sub-precinct)’

5.1 Design Guidelines Objectives

These Design Guidelines provide guidance on the siting and built form requirements for various housing types across the Development Plan area.

The built form design guidelines provide direction as to how the proposed apartments and townhouses should be designed to achieve high quality amenity for future residents and to protect the amenity of adjoining uses.

The design guidelines focus on the following objectives

- To promote urban legibility and public access to and through the site;
- To ensure new buildings are designed to distribute access to outlook and sunlight between built forms;
- To provide for diverse built form;
- To demonstrate high quality built form outcomes that contribute to the built form character of the neighbourhood and its surrounds;
- To ensure that building heights consider and respond to the overshadowing effects within the site;
- To ensure that building heights provide an appropriate transition to site interfaces;
- To ensure street level interface treatments contribute to high levels of pedestrian amenity and safety;
- To provide acoustic design treatments that addresses the impact of existing and potential noise particularly from the Spotswood Maintenance Centre;
- To collectively form a coherent and identifiable precinct;
- To provide for safe and convenient vehicular and pedestrian access;
- To ensure that structures to mitigate amenity impacts including acoustic treatments display a high level of architectural resolution;
- To provide for a range of dwelling types to cater for a variety of household needs.
- To incorporate recognised and proven ESD measures to aid in the reduction of energy and water consumption, the generation of waste and greenhouse emissions.
- Sustainable design features to address water management, solar access and energy saving initiatives .

5.2 Design Guidelines

The following Design Guidelines provide further detail as to the form and nature of future development and use within the Development Plan area. These Guidelines are to be considered by the relevant authority in the consideration of any planning permit application for future development.

Where there is no specific design guidance, planning applications will be assessed against the relevant provisions of the Scheme, including the GRZ4 and RGZ2, Clauses 54, 55, 56 and Clause 58, as relevant to the proposal.

The following Design Guidelines seek to ensure that an appropriate built form response is presented to the various site interfaces such that future development will create a high quality urban environment, will provide a high level of amenity for future residents, all the while protecting the amenity of existing dwellings.

The design guidelines are provided for the following key areas as required by DPO2:

- Building heights and setbacks;
- Architecture and building design;
- Site edges and built form transition to protect the amenity of adjoining properties and neighbourhoods where possible;
- Shadowing;
- Internal amenity;
- Waste collection and storage locations;
- Provision of a range of dwelling types as appropriate to cater for a variety of housing needs;
- Active frontages for lots that share an interface with a reserve or street to ensure a quality design, surveillance and permeable outcomes, with the exception of situations where noise attenuation is required;
- Sustainable design features to address water management, solar access and energy saving initiatives, to deliver lower living costs for future residents;
- Out buildings and service areas (e.g. hot water service, gas meters, clothes lines etc.) minimise their visibility from any public open space or street.

5.2.1 Height and Building Envelopes

The Development Plan provides height and built form that is responsive to the context and interfaces of the Site.

The key elements are outlined below:

Townhouses

- All building heights should be generally in accordance with the Framework Plan for Precinct 16 West.
- Townhouses fronting Stephenson Street and internal to the Site should be three storeys in height.
- A minimum 4 metre setback from Stephenson Street should be provided to manage the interface with dwellings on the opposite side of the street. This set back should be utilised for deep soil canopy tree planting.
- A minimum 3 metre setback from Internal Roads should be provided to enable the establishment of canopy trees and landscaping.
- High site coverage (maximum 85%) and low permeability is encouraged in order to realise the development potential of the sub-precinct and to address the conditions of the Environmental Audit.
- Buildings located on key corners designed to ensure articulation to any walls which present to the street.

Apartment

- All building heights should be generally in accordance with the Framework Plan for Precinct 16 West.
- Built form up to 6 storeys in height should be accommodated, including a two storey podium.
- A minimum 4 metre setback should be provided from Sutton Street to accomodate deep soil, canopy tree planting.
- A minimum 3 metre setback should be provided from internal roads.

5.2.2 Architecture and Building Design Guidelines

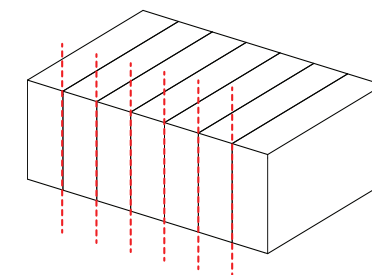
Townhouses

- Townhouses should be designed to respect the surrounding context with reference to the building scale, breakup and materiality.
- The streetscape should be articulated through different townhouse types with a mix of roof forms and massing.
- Simple, contemporary and high quality architecture should be provided.
- Articulation and depth to façades should be achieved through the use of varied materials, balconies, building breaks and other architectural elements.
- Development should incorporate high quality materials and finishes such as masonry and lightweight cladding.
- Townhouses should feature varied roof forms as demonstrated in Figure 10 to provide a diversity of presentation to the street.
- Buildings located on key corners should be designed to ensure articulation to any walls which present to the street and should incorporate 2 metre wide splays to corner allotments and 3m by 3m splays for all other roads.
- Townhouses should provide an active and positive interaction with internal streets through landscaped front setbacks and active and open frontages with a clear sense of address to the street.
- Dwelling types should include the capacity for flexible layouts and internal rearrangement to accommodate future changes in household structure and the requirements of people with additional needs.
- Dwelling layouts should ensure that townhouses meet the Silver Liveable Housing Standards, Liveable Housing Design 2017.
- Buildings should be oriented to maximise outlook and opportunities for public surveillance.
- Front fences should not exceed 1.2 metres in accordance with the General Residential Zone. Where higher fencing is proposed, this should be visually permeable (approximately 50% transparency).
- Side fences along pedestrian links, open space areas and main roads should be visually permeable.

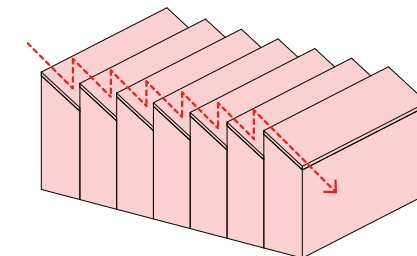
- Buildings should appropriately interact with laneways to ensure the safety and amenity of these spaces.
- Waste management areas should be concealed from public areas and easily accessible for collection services in accordance with the Waste Management Plan.
- Building services such as substations, fire services etc should be appropriately screened and located to the rear or sides of buildings (where possible).
- Clotheslines should be located or screened to ensure they are not visible from the front street.
- Car parking access for all townhouses should be provided via rear laneways to minimise the number of crossovers along the internal roads and enhance pedestrian safety and permeability.
- Vehicle access areas should be designed to prioritise the safety of pedestrian areas and minimise pedestrian-vehicle conflict.
- All future applications will be required to meet the objectives of Clause 54 and 55 of the Hobsons Bay Planning Scheme, as relevant.
- A 9m separation between habitable windows (and private balconies) should be provided where practical to avoid the need for screening devices.
- Whilst it is acknowledged that rear yards will be subject to some overlooking from bedrooms of adjoining properties, there should not be overlooking from upper level living spaces of adjoining dwellings.
- Rows of townhouses should include varied architectural designs, to provide visual articulation when viewed from the street. This may include varied lot depths, materials and colours and roof forms.
- Buildings located on key corners designed to ensure articulation to any walls which present to the street.
- All habitable rooms to include openable windows.
- PV systems for townhouses which have their long axis facing east-west so there is ample roof space available facing the optimum orientation.

Design Principles.

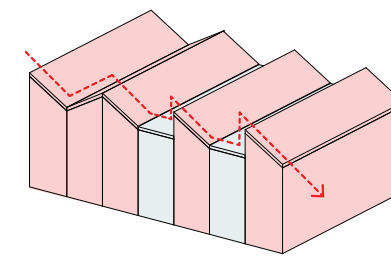
Townhouses



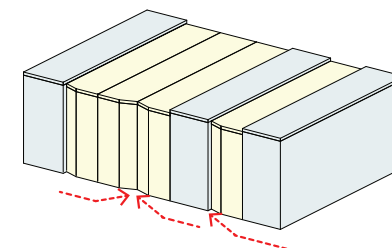
SMALLER SCALE BREAKUP



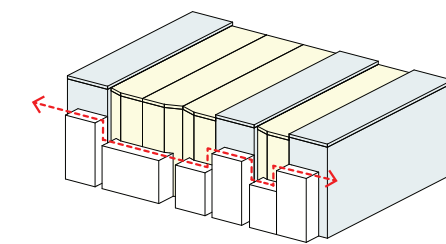
FACADE COMBINATION - TYPE 1



FACADE COMBINATION - TYPE 1+2



FACADE COMBINATION - TYPE 2 +3



ENTRY ARTICULATION / FACADE CONCEPT

Figure 10. Townhouse Design Principles (Source: CHT Architects)



PRECEDENT IMAGES

Figure 11. Townhouse Precedent Images (Source CHT Architects)

Figure 12. Omitted

Apartment

- The apartment development should incorporate a contemporary architectural design with a cohesive variety of materials that respects the residential built form of the Precinct and surrounding streetscape.
- The apartment building should provide a mix of protruding and recessive elements to reduce the building mass and bulk and further articulate the built form.
- The apartment building should provide a dynamic built form characterised by a two level podium. Building breaks in the form of balconies should be provided to create 'movement' along the western and southern facades.
- Above the podium, the upper levels should be articulated to be recessive. Breaks should be provided to the upper levels to provide relief in the built form.
- While the apartment building should be orientated east / west to maximise daylight and sunlight apartments should also be oriented south where this would provide passive surveillance towards and take advantage of views of the future public open space.
- The provision of an internal courtyard at podium level should be encouraged to provide amenity and aspect.
- Corridors should be provided along the northern facade of the development to provide the necessary acoustic barrier to SMC activities in accordance with the recommendations in the Acoustic Review (SLR Consulting Australia) and Figure 16.
- Podium levels directly adjoining the railway line and Sutton street should be utilised for car parking (Ground Level and Level 1) in accordance with the recommendations in the Acoustic Review.
- Car parking areas should be accessed via an internal road.
- Building entrances, internal spaces, hallways, lobby, elevators and car parking areas should cater for people of all abilities and provide adequate space for prams, bicycles and wheelchairs.
- Acoustic attenuation measures should be incorporated into the building design as recommended in the Acoustic

Review (SLR Consulting Australia).

- Apartment layouts should ensure that each unit meets the Silver Liveable Housing Standards, Liveable Housing Design 2017.
- Building services such as substations, fire services etc should be appropriately screened, integrated into the architecture of the building and located to the rear or sides of the building (where possible).
- Development should meet the Apartment Design Guidelines for Victoria and meet the objectives Clause 58 of the Planning Scheme as applicable.
- Whilst it is acknowledged there may be overlooking from apartments above, habitable windows and private balconies will be provided with a 9m separation where practical to avoid the need for screening devices
- All habitable rooms to include openable windows.

Design Principles Apartments

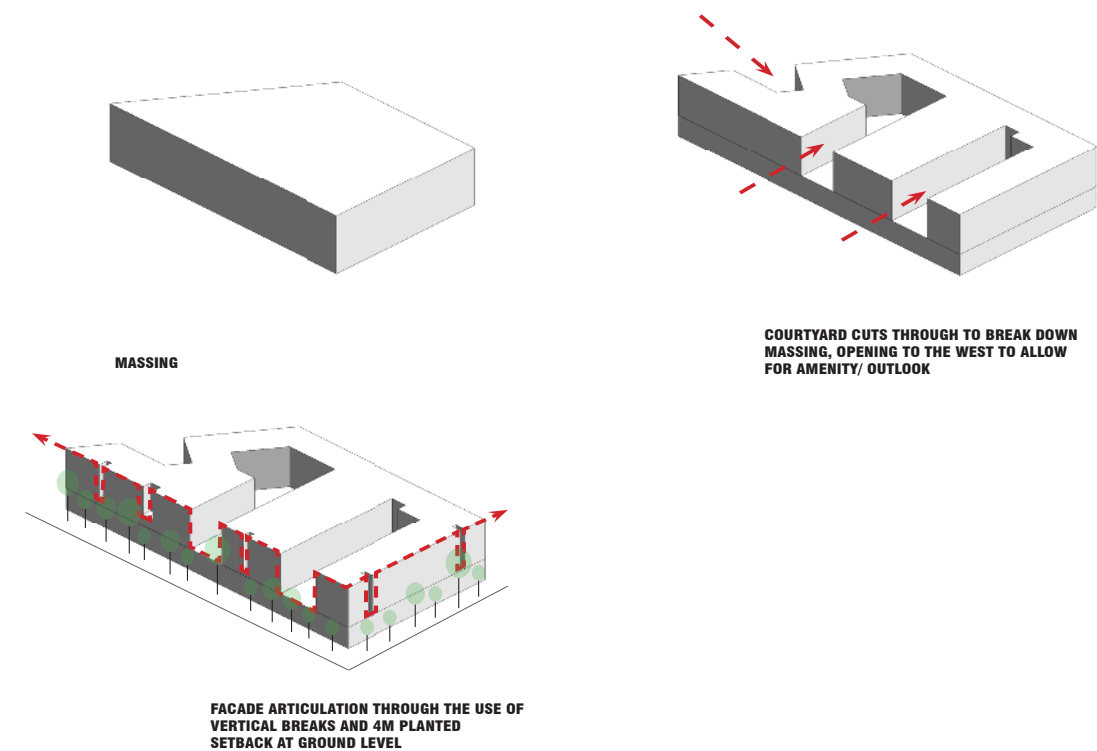


Figure 13. Apartment Design Principles (Source: CHT Architects)



Figure 14. Indicative concept design showing how the facades of the building could be visually articulated. Note that these are indicative only and their final detail and form will be determined during a planning permit application process (Source: CHT Architects)



PRECEDENT IMAGES

Figure 15. Precedent Images (Source: CHT Architects)

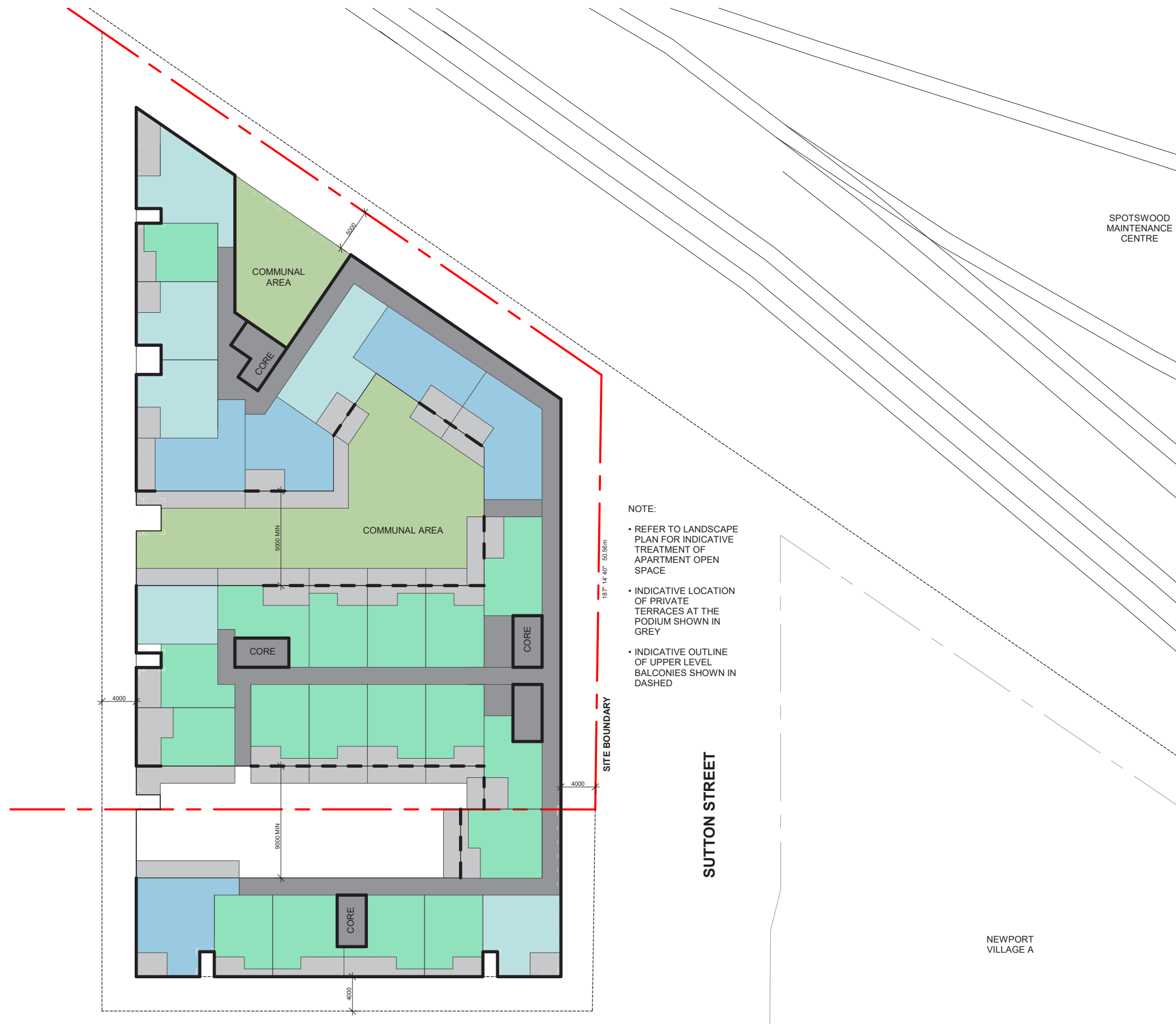


Figure 16. Indicative layout of the podium level, showing the possible layout of apartment balconies and communal open space, as well as separation distances between apartments. This figure is indicative and subject to change, as the final detail of the apartment building will be determined during a future planning permit application.

The apartment building must provide a minimum planted setback of four metres at ground floor is no setback is proposed above level 2.

The apartment building must not unreasonably overshadow any adjoining public open space at any time between 9am and 3pm at the equinox.

5.2.3 Site Edges and Built Form Transition Guidelines

This section provides guidance for site edges and areas where development will transition across ownership boundaries.

- Buildings should provide activity to Stephenson Street, with dwellings fronting the street and accessed via rear/under-croft laneways.
- Buildings should be setback a minimum of 4 metres from Stephenson Street and Sutton Street to accomodate deep soil, canopy tree planting.
- Appropriate landscape treatments should be applied at any interface with non-residential uses on adjoining properties.
- Development must be setback 3 metres from the Altona to Somerton Petroleum Pipeline located along the northern interface of the Site.
- The apartment building at the north eastern corner of the Site should be appropriately sited in accordance with the noise and vibration report prepared by SLR Consultants.
- The built form of the proposed apartment building should be designed to acknowledge any ongoing industrial use of the surrounding properties.
- The apartment interface to the central sub-precinct will be further resolved following a potential land swap between the owners of 41-59 Stephenson Street, South Kingsville and 9-9A Sutton Street, South Kingsville. Refer to Figures 14 and 15 which demonstrate how this site could ultimately be developed.
- Separation between townhouses in the northern and central sub-precincts is to be provided to ensure an appropriate transition in built form is achieved.
- Any buildings adjacent to proposed residential properties as part of the Central Sub-Precinct should limit overshadowing and provide a level of amenity generally consistent with Standard B21 (overshadowing open space).

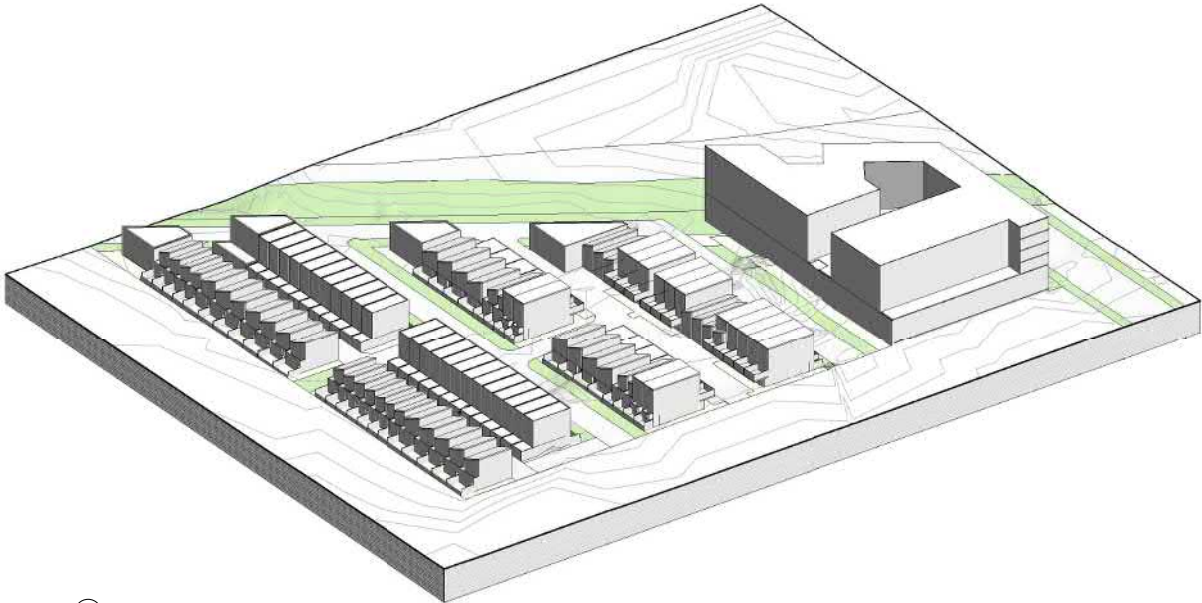
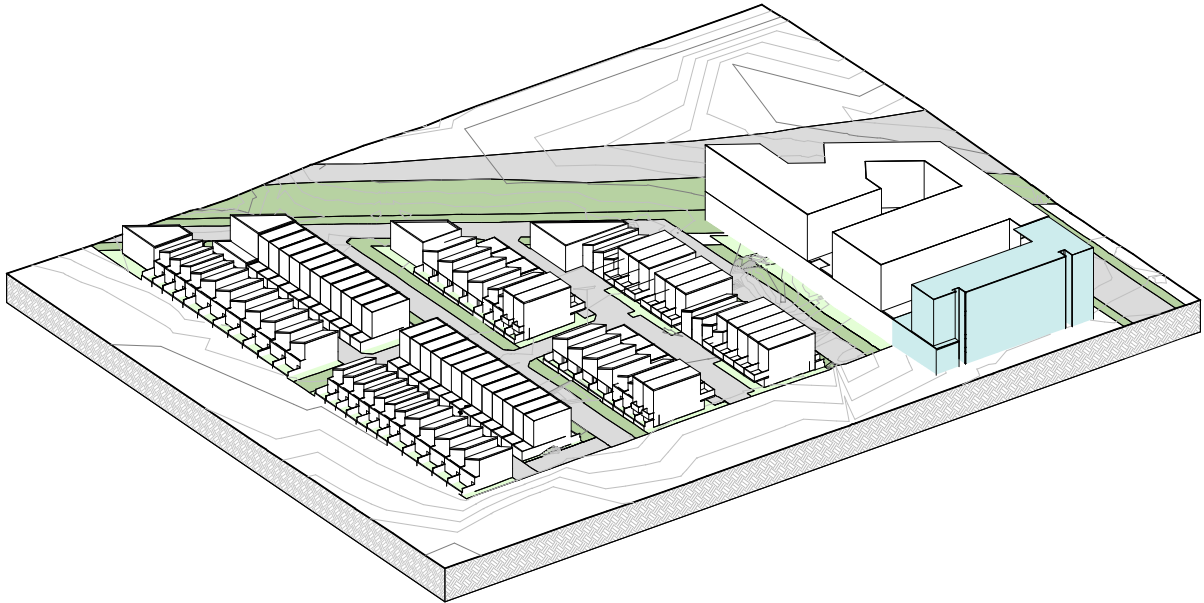


Figure 17. 3D Perspective - Apartment Interface (without landswap)



3D perspectives areindicative only and will be subject to change.

Figure 18. 3D Perspective - Apartment Interface (with landswap)

5.2.4 Noise and Vibration Attenuation Guidelines

The apartment building along the railway interface will form an acoustic barrier protecting the amenity of the dwellings within the site from noise and vibration sources to the north.

The following acoustic measures will be utilised in accordance with the noise and vibration report prepared by SLR Consultants:

- A six storey continuous construction should be provided along the north eastern boundary of the Site.
- An “acoustic corridor” is to be provided along the entire northern and eastern facade of the apartment building which provides the necessary sound attenuation for the apartments (refer to Figure 16 - Indicative Acoustic Treatment Section).
- No openable windows or balconies to be provided to the north and east facades of the buliding. Where windows are provided, they will be constructed with heavy laminated glass (10-12mm).
- The windows along the northern and eastern facade should incorporate thick laminated glass or glazing to achieve adequate noise attenuation.

In addition, the acoustic fence / wall will be designed with the following principles:

- Visual Interest - The acoustic fence / wall should be designed to show visual interest on both the south side and north side (rail corridor).
- Design / Materials - Materials should be selected which minimise future maintenance requirements. The design and / or materials should be either resistant to or to discourage graffiti.

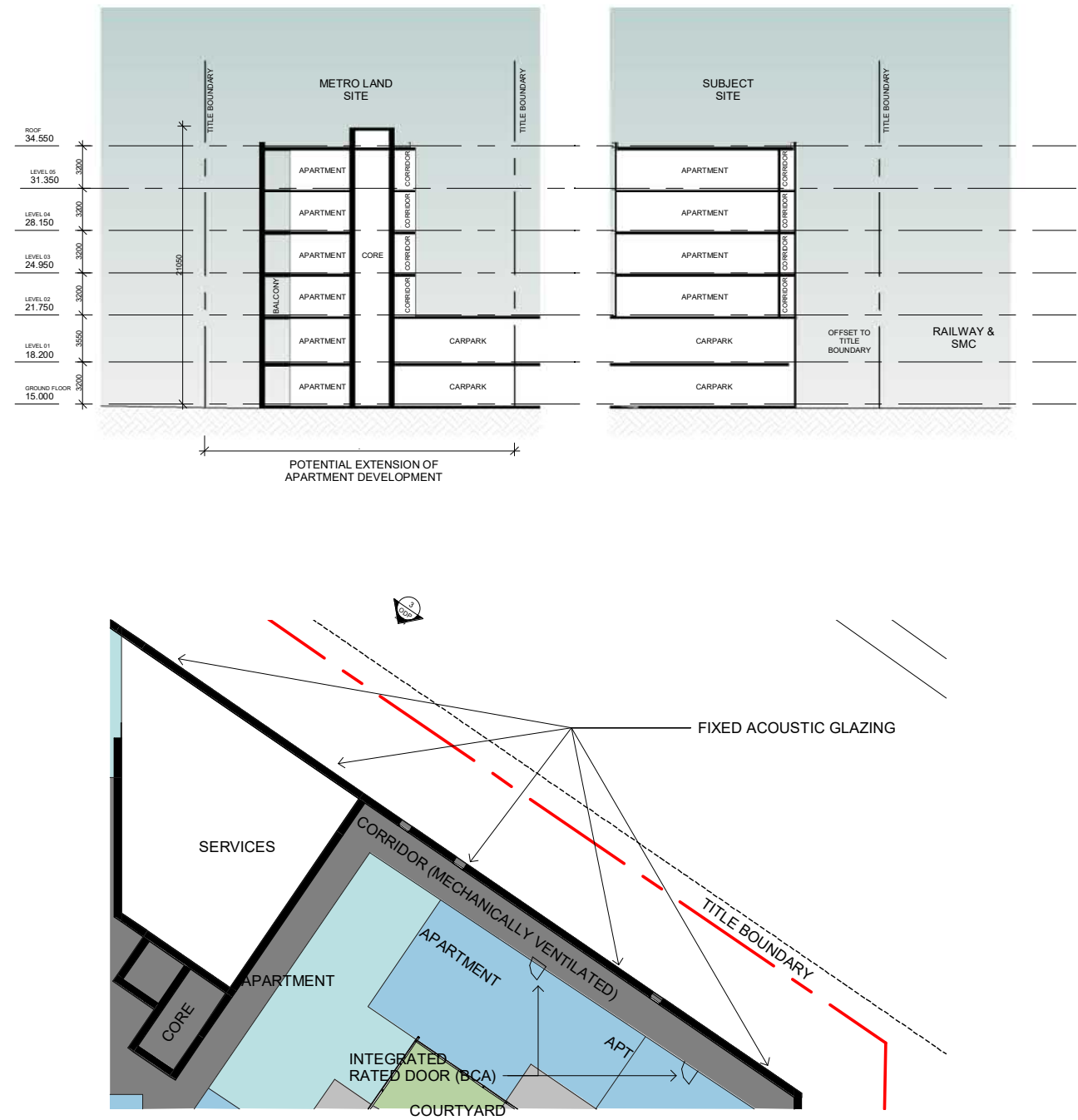


Figure 19. Indicative Apartment Acoustic Treatment (north eastern boundary) (Source: CHT Architects)



Figure 20. Indicative northern (above) and eastern (right) elevations demonstrating how the form in the acoustic corridor could be visually articulate. Note that these are indicative only and their final detail and form will be determined during a planning permit application process.



5.2.5 Internal Amenity Guidelines

- Dwellings should include the potential for flexible internal rearrangements. This includes open plan living, large living spaces and access to natural light.
- Ceiling heights should provide a sense of openness within dwellings and allow opportunities for daylight and natural air flow.
- Dwellings should be designed to provide an appropriate level of internal acoustic amenity.
- Each townhouse should have an area of secluded private open space at the side or rear of the dwelling or residential building with convenient access from a living room consisting of:
 - An area of 12 square metres with a minimum dimension of 2.4 metres; or
 - A balcony of 8 square metres with a minimum width of 1.6 metres; or
 - A roof-top area of 10 square metres with a minimum width of 2 metres.
- Each apartment will have minimum private open space areas and dimensions as outlined by the following table.

Table 4. Private Open Space Requirements for Townhouses

Dwelling Type	Minimum Area	Minimum Dimension
1 Bedroom	8 square metres	1.8 metres
2 Bedroom	8 square metres	2 metres
3 Bedroom	12 square metres	2.4 metres

- Private open space of apartments should be clear of site services.
- Areas of SPOS and habitable room windows should be appropriately screened to manage overlooking between dwellings on the subject site. Louvered screens that allow natural light and circulation of airflow are encouraged.
- All dwellings should meet the requirements of Clause 54, 55 or 58 of the Hobsons Bay Planning Scheme as relevant

5.2.6 Environmental Sustainable Design Guidelines

Building design should:

- Achieve best Practice Environmentally Sustainable Design which will be incorporated into the design phase of any dwelling or residential building.
- Where possible buildings should be orientated to optimise solar access to habitable rooms and private open spaces.
- Be designed to encourage passive heating and cooling throughout different times of the year to reduce reliance on mechanical heating and cooling systems.
- Ensure buildings allow for opportunities for natural ventilation.
- Orientate buildings to allow for solar absorption, where possible.
- Use building materials which avoid or reduce environmental impacts.
- Ensure energy efficient electrical design.
- Apply water sensitive urban design treatments.
- Ensure rainwater collection from roofs to be stored and re-used to offset potable water usage.

5.2.7 Waste Management Guidelines

- Waste management areas should be concealed from public areas and easily accessible for collection services in accordance with the Waste Management Plan.

5.2.8 Housing Diversity and Affordability Guidelines

- A range of dwellings types should be provided to cater for a variety of housing needs and sizes.
- Dwelling layouts should ensure that each unit meets the Silver Liveable Housing Standards.
- 10 per cent of the total dwellings will be provided as affordable housing [Note: this matter is in dispute and will be resolved at panel hearing stage].
- Approximately 14% of townhouses will provide step free access to living areas and one bedroom.

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Staging

6 Indicative Staging

This section of Development Plan addresses the following requirement of the DPO2:

'An indication of staging and anticipated timing of development for the sub-precinct. This should include, but not limited to:

- *Access arrangements into the site while southern sub-precinct continues to operate as an industrial use;*
- *Temporary acoustic attenuation measures.'*

6.1 Staging

The development of the Site, including roads, is envisaged to occur in stages.

The staging of dwellings will be coordinated with the staging of infrastructure to ensure the amenity of early stages is largely unaffected by the construction of the later stages.

- Stage 1 - The western edge of the Site will be developed first. This will consist of medium density townhouses.
- Stage 2 - The second stage to be developed is the central portion of the Site. This will consist of medium density townhouses.
- Stage 3 - The final stage involves the development of the eastern edge. This involves the development of the proposed 6 storey apartment building.
- Temporary barriers may be installed where necessary depending on the status of development in Precinct 16 East.
- As the northern sub-precinct will be accessed via Stephenson Street, there will be no implication on continued industrial operation on the southern sub-precinct. Nonetheless, it is noted that any works to the intersection of Sutton Street generally, must maintain these access rights while the industrial use continues to operate, with the ultimate residential redevelopment of 5 Sutton Street resulting in the construction of the ultimate layout of Sutton Street.



Figure 21. Staging Plan (Source: CHT Architects)

Landscape and Open Space

7 Landscape and Open Space

This section of Development Plan addresses the following requirement of the DPO2:

‘A landscape report, which identifies:

Key measures and objectives to ensure that a high quality public realm is achieved with details of proposed landscaping in streets and public open spaces;

Links to existing and proposed open spaces;

A landscape concept plan for public open space and roads, with indicative themes and planting schedules;

Street and public open space cross sections to demonstrate an appropriate landscape outcome;

Details of any proposed Water Sensitive Design Initiatives.’

7.1 Landscape Development Plan

7.1.1 Landscape Design Overview

The Landscape Development Plan has been prepared by Formium in accordance with the DPO2.

The landscape design intent is to provide a high quality landscape setting, which is integrated with and complementary to the architectural design.

The key features of the landscape treatment for this Site include the following:

- Proposed landscaping and canopy trees within the front setbacks of all townhouses.
- Proposed large canopy street trees along Sutton Street and Stephenson Street.
- Wide grass nature strip with street trees along the secondary access streets, separating the footpath and shared path and access road. The proposed street trees will be evergreen native species. Garden beds are also proposed to be integrated within the nature strip.
- Laneways are proposed to be a charcoal colour concrete. Garden beds are proposed to be planted between lots with vertical ‘form trees’ like *Pyrus calleryana* ‘Capital’. The understorey will be softened with hardy tuft plants.
- Landscape buffer planting is proposed to be located along the northern interface of the Site to ensure a clear line of site to the future pedestrian and cycle link across the railway line to Birmingham Street.
- Fine grain planting will be provided between the roadway and acoustic fence / wall where practicable to ensure good visual amenity for residents.



Figure 22. Streetscape Planting Schedule (source Formium)

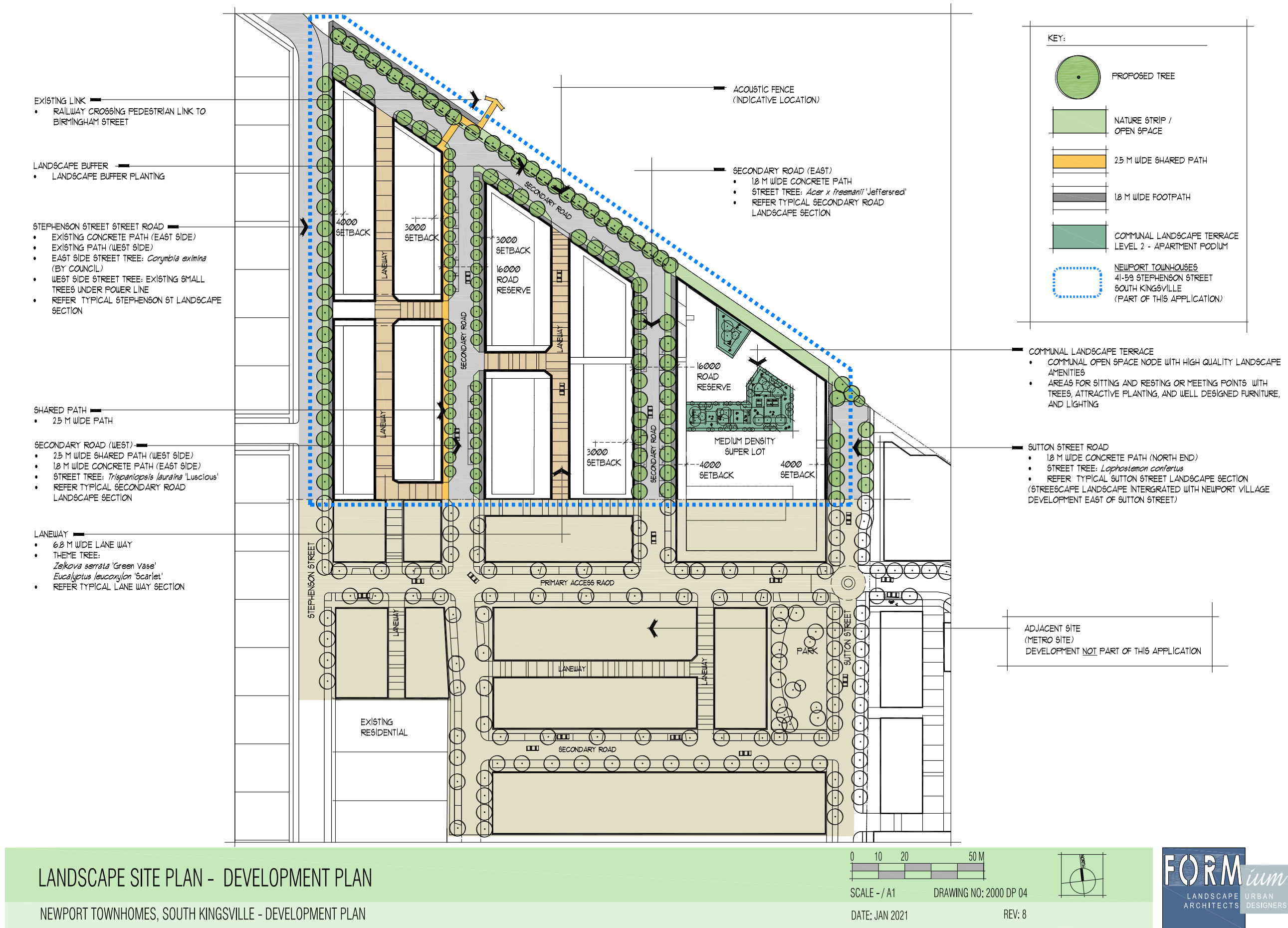


Figure 23. Indicative Landscape Design Plan (source Formium)

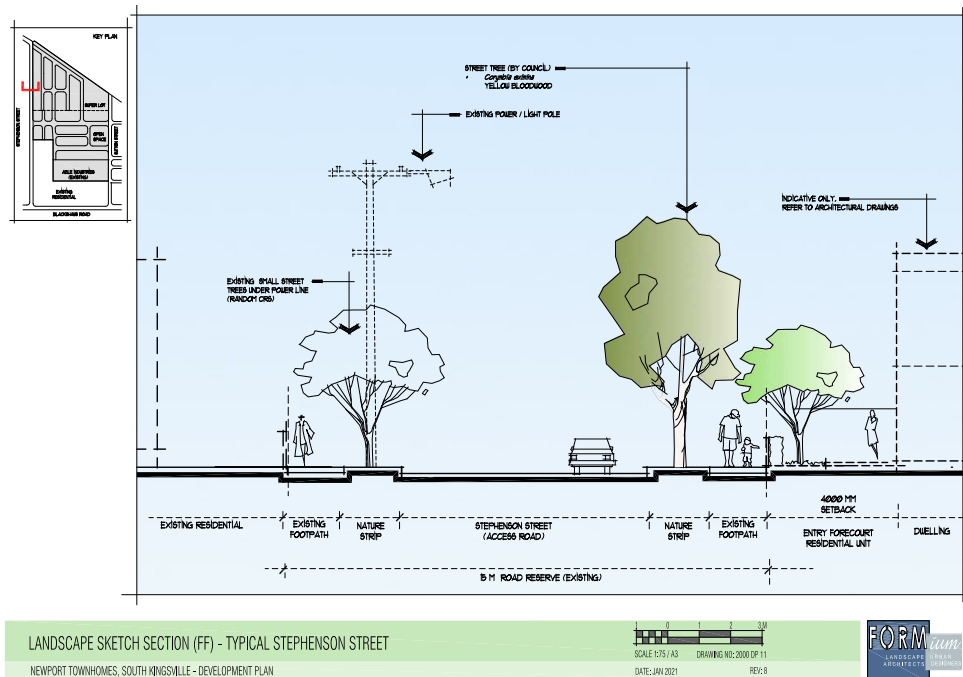


Figure 24. Indicative Typical Stephenson Street Section (Source: Formium)

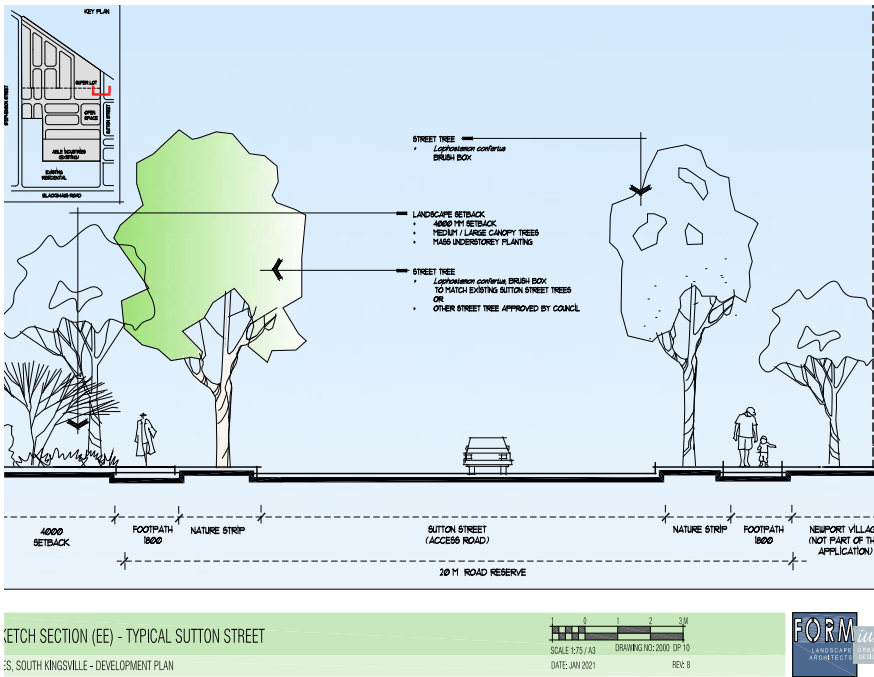


Figure 25. Indicative Typical Sutton Street Section (Source: Formium)

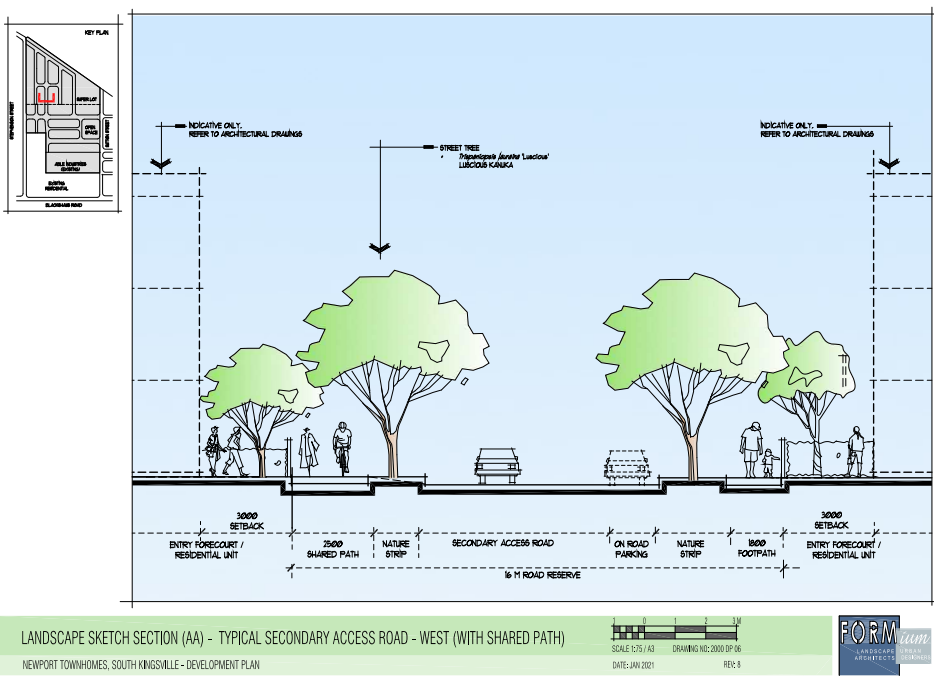


Figure 26. Indicative Typical Secondary Access Road - west (with Shared Path) (Source: Formium)

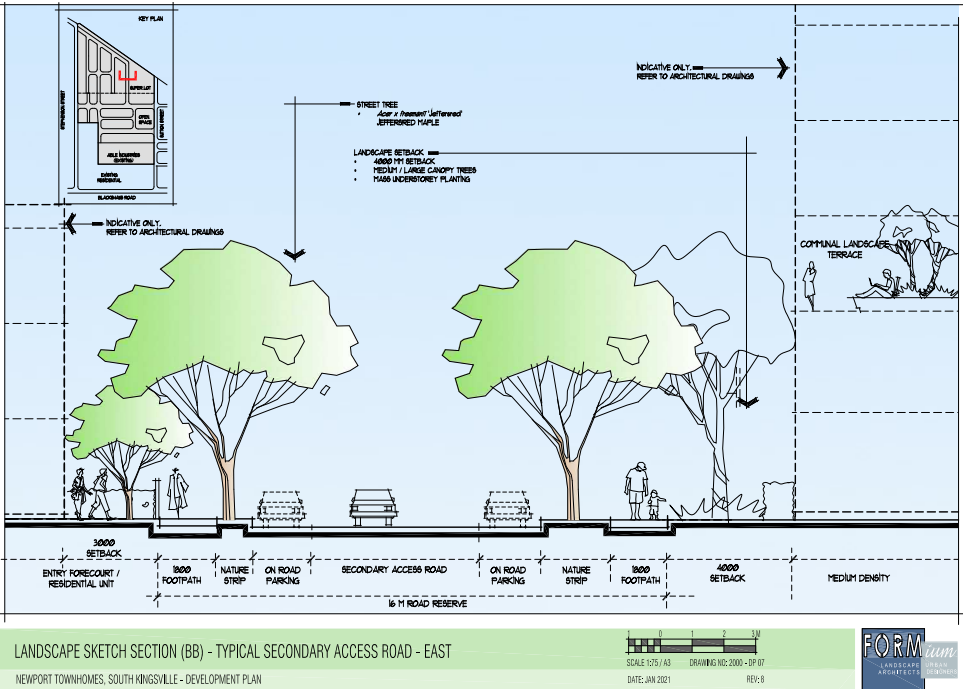


Figure 27. Secondary Access Road - east (Source: Formium)

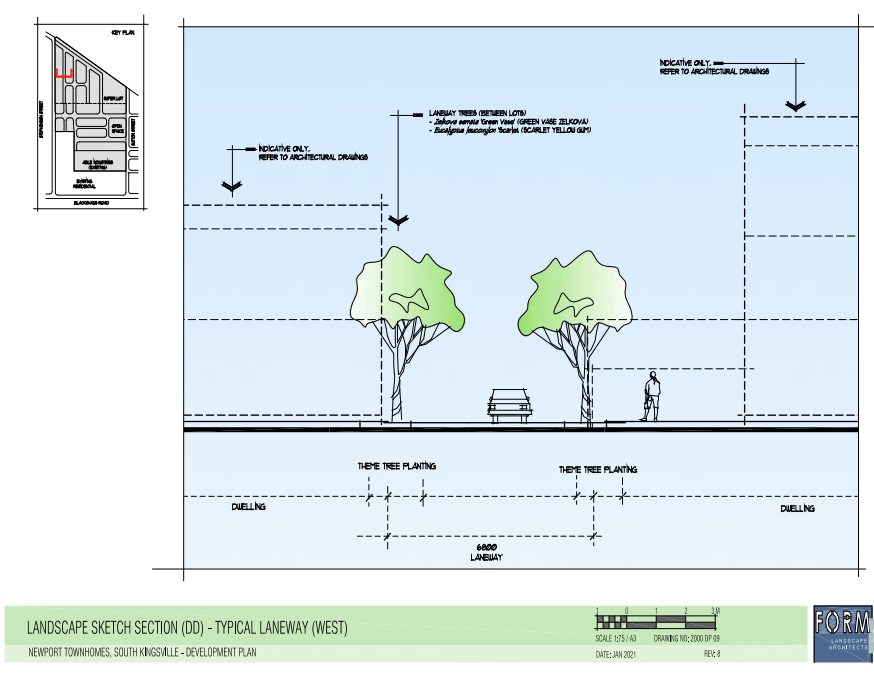


Figure 28. Indicative Typical Laneway - west (Source: Formium)

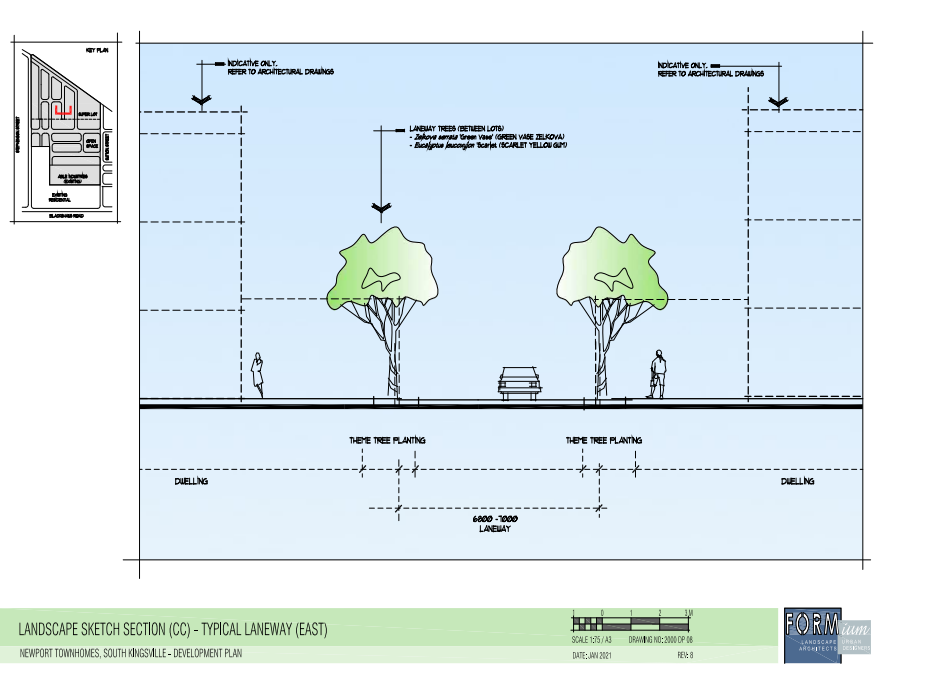


Figure 29. Indicative Typical Typical Laneway - east (Source: Formium)

Traffic Management

8 Traffic Management

This section of Development Plan addresses the following requirement of the DPO2:

‘A traffic management report and car parking plan prepared by a suitably qualified engineering consultant that ensures the creation of a safe and efficient road network within and adjacent to the site’.

The traffic management report should include:

- *The existing capacity of the surrounding road network;*
- *Existing roads, pedestrian, cyclist and vehicle access locations;*
- *An assessment of the impact of traffic and car parking generated by the use and development of the site;*
- *A summary of the internal road network (including street widths and general design) and its appropriateness when considered in relation to clause 56;*
- *Details of proposed car parking;*
- *The design of internal network to encourage cycling and pedestrians to travel through the site;*
- *Reduce impacts of new vehicle access points on pedestrian and bicycle priority routes;*
- *Any proposed traffic management measures within the site or in the surrounding street network;*
- *Location and linkages to the public transport network;*
- *Any necessary transitional arrangements to ensure existing access rights are protected for the industrial operations at 5 Sutton Street, South Kingsville;*
- *No direct access from future dwellings to Stephenson Street;*
- *Proposed staging plan (if relevant);*
- *Measures to ensure development does not compromise the delivery of future public transport including new bus routes.*

8.1 Traffic Engineering Assessment

The Traffic Engineering Assessment prepared by GTA Consultants sets out the anticipated traffic and transport implications of the anticipated development, including consideration of the:

- The acceptability of the traffic impacts of the proposed development.
- The adequacy of the proposed pedestrian, bicycle and public transport access arrangements to the Site.
- The adequacy of the proposed bike and car parking provision/general layout design (including waste and loading collection arrangements).

8.2 Existing Conditions

8.2.1 Road Network

The road network in the vicinity of the site features a traditional hierarchy incorporating primary and secondary arterial roads, collector roads and local streets.

Blackshaws Road

Blackshaws Road functions as a secondary arterial road and is aligned in an east-west direction.

Blackshaws Road is a two-way road configured with a two lane, 12.5 metre wide carriageway set within a 20 metre wide road reserve. Kerbside parking is permitted on both sides of the carriageway although parking on the southern side of Blackshaws Road is restricted to vehicles less than 10 tonne. Blackshaws Road is subject to a speed limit of 60km/hr in the vicinity of the site.

Blackshaws Road carries approximately 6,850 vehicles per day (vpd) immediately west of Elizabeth Street.

Sutton Street

Sutton Street functions as a local street and is aligned in the north-south direction. It is predominately unconstructed, with the exception of a short sealed section adjacent to its intersection with Blackshaws Road. Sutton Street is a two-way road configured with a two-lane, 9.2 metre wide carriageway set within a 20 metre wide road reserve. Kerbside parallel parking is permitted on both sides of the carriageway although it is noted that kerbs are only constructed along the southern section of the street (after which kerbing is not provided and an unsealed carriageway is provided).

Sutton Street is subject to a speed limit of 50km/hr. Sutton Street carries approximately 650 vpd to the immediate north of Blackshaws Road.

Stephenson Street

Stephenson Street functions as a local street and is aligned in the north-south direction. It is constructed with a two-way, 7m wide carriageway set within a 15.5m road reserve (approx.). Bus route 432 operates along Stephenson Street between Aloha Street and Blackshaws Road, along the western frontage of the Site. Kerbside parallel parking is permitted on both sides of the carriageway.

Stephenson Street carries approximately 900 vpd to the immediate north of Blackshaws Road.

Surrounding Intersections

Key intersections in the vicinity of the site include:

- Blackshaws Road/Stephenson Street (‘stop sign’ controlled)
- Blackshaws Road/Sutton Street/Johnston Street (‘stop sign’ controlled)

8.2.2 Public Transport

The Site is services by a number of public transport services, including several bus services located within walking distance of the Site.

Notably, the Spotswood Railway Station, on the Williamstown line, is located approximately 1 kilometre walking distance to the north-east and south-east of the Site.

The key road facilities located within the nearby area include Bus Route 432 (less than 300 metres from the Site) and Bus Route 472 (approximately 1 kilometre from the Site).

The key facilities located within the nearby area include Bus Route 733, Bus Route 903 (SmartBus) and Bus Route 703.

8.2.3 Pedestrian Infrastructure

Sealed pedestrian pathways are generally provided on both sides of the majority of roads within the vicinity of the site, with the noted exception of along Blackshaws Road where the northern pedestrian footpath terminates approximately 200m east of Sutton Street. It is expected that the pedestrian footpath will be extended along Blackshaws Road across the frontage of the Precinct 16 East site as part of the works associated with that site.

Future pedestrian connectivity across the rail line will provided at the northern extent of Stephenson Street providing the shortest route to Spotswood train station (approximately 1km walking distance).

The existing pedestrian infrastructure in the vicinity of the site provides safe pedestrian access from the site to surrounding public transport services discussed above, as well as neighbouring land uses located in the vicinity of the site.

8.2.4 Cycling Infrastructure

The following existing bicycle facilities are currently available:

- Blackshaws Road - Informal cycling route (wide traffic lane/shared bicycle and parking lane)
- Stephenson Street - Informal cycling route (shared motorist/cyclist traffic environment)
- Hudsons Road - Informal cycling route (shared motorist/ cyclist traffic environment)

8.3 Proposed Infrastructure

8.3.1 Internal Road Network

Vehicle access is proposed via Stephenson Street.

A secondary access road will provide the main connection through the Site from the primary access road located on the land at 9-9A Sutton Street and from the primary access point on Stephenson Street. This road provides the primary access movement corridor for vehicles, pedestrians and bicycles through the Site.

Access laneways will provide rear vehicular access to all townhouses dwellings.

On-street parking will be provided along the secondary access roads to accommodate visitor parking.

Adequate splays are provided at all intersections, 2m by 2m splays for the laneways and 3m by 3m splays for all other roads.

Mountable kerb extensions will also be provided as per the comments of Council’s Engineering team

8.3.2 Pedestrian and Bicycle Infrastructure

A 2.5 metre pedestrian shared lane will be provided as indicated within the Development Plan in Figure 8. Additionally, a 1.8 metre footpath will also be provided.

The proposed shared paths will ultimately provide a continued pedestrian and bicycle connection through to Precinct 16 (east) and Stephenson Street. The paths will also provide a connection across the railway line to the north.

8.4 Traffic Impact Assessment

8.4.1 Traffic Generation

The traffic generated by the Precinct 16 West site has been included as part of a cumulative impact assessment undertaken as part of the assessment for Precinct 16 overall.

The GTA Report found that there is adequate capacity in the surrounding road network to cater for the traffic generated by the proposed development.

Council is seeking signalisation of the intersection of Sutton Street and Blackshaws Road to support the development and enable safe vehicular movements onto Blackshaws Road as shown in the DPO2 framework plan, however this is yet to be confirmed as a requirement and the matter will be resolved prior to the approval of the Development Plan.

8.5 Other Considerations

8.5.1 Internal Road Hierarchy

The GTA Report found that the internal road network has the ability to be designed in accordance with the requirements of Clause 56 of the Hobsons Bay Planning Scheme and it is expected that this will be examined in further detail at subsequent planning permit stages.

The Precinct 16 West site can be expected to generate up to approximately 3,250 vehicle movements per day, which is anticipated to be spread between the vehicle access points to the surrounding road network (noting that some access points will be provided directly to Sutton Street).

The report notes that the proposed internal road network is appropriate having regard to the anticipated traffic volumes and the requirements of Clause 56.06-8 of the Hobsons Bay Planning Scheme.

8.5.2 Car Parking Requirements

It is recommended that all resident parking be provided off-street such that the on-street spaces are available for the use of residential visitors. This visitor parking should ideally be provided at a minimum rate of approximately 1 space per 5 dwellings, with resident car parking ideally provided at the following rates (unless otherwise supported by empirical evidence):

- One and two-bedrooms - 1 resident space per dwelling
- Three-or more bedroom - 2 resident spaces per dwelling

Indented parking may have to be provided on south side of the Access Street abutting the rail corridor at a planning permit stage, if required to ensure sight lines to the satisfaction of Council.

8.5.3 Sutton Street Modifications

Should Sutton Street be upgraded while the ‘Brymart Site’ (5-7 Sutton Street) is continuing to operate as an industrial facility, the safe and functional movement of permitted trucks to the site should be maintained in accordance with relevant standard requirements.

Any modifications required to the design of Sutton Street to facilitate the above, beyond those included within the Concept Layout Plan (GTA drawing no. 15M1107000-02 P1), should be negotiated between adjacent land-owners and agreed with the Responsible Authority.

8.5.4 Public Transport

The notable public transport services operating within the vicinity of the site include the Williamstown Rail line is accessible via Spotswood Station approximately 1km from the site.

Additionally, Bus Route 432 operates along Stephenson Street, with the nearest stops on Aloha Street between Stephenson Street and Watt Street, and on Blackshaws Road directly east of Watt Street.

Having regard to the existing bus routes in the area, the development plan indicates that the internal road network will not be designed to accommodate potential future bus routes. It is considered more appropriate that any future services utilise Blackshaws Road, with appropriate pedestrian connectivity provided along Sutton Street and Stephenson Street.

Further, in order to improve the walkability to the surrounding train and bus network, a pedestrian crossing is required to be installed on Blackshaws Road.

8.5.5 Walking and Cycling Network

Internal Network

GTA understand that Council’s transport and planning units have agreed that shared pathways will be provided as indicated within the Development Plan in Figure 8.

It is further recommended that a series of internal pathways be provided to link the dwellings and internal open spaces to pathways external to the site. In particular, a pedestrian and cycling connection is recommended to connect the site to the railway crossing located to the north-west corner of the site.

Access to Public Transport

Access to and from the most proximate bus stops to the Site is indicated in Figure 24.

Figure 24 indicates that cross of Blackshaws Road is not required to access the Route No. 432 bus service. Access, however, to the Route No. 472 bus service may require crossing of Blackshaws Road, however an alternative option is available which requires the crossing of Melbourne Road and these routes are equidistant.

Based on the cumulative transport impact assessments previously completed for the overall Precinct 16 Site, a package of transport improvement works was agreed to as per the VCAT decision for Precinct 16 (east) (P2042/2014). These works highlight that a number of pedestrian refuges are to be provided along Blackshaws Road.

Accordingly, in this instance, the nominated transport infrastructure provisions would accommodate the anticipated local pedestrian demands and moreover are acceptable in facilitating access to proximate bus services as indicated above.



Figure 30. Pedestrian Desire Lines to Bus Stops from Site (Source GTA).

8.5.6 Conclusions of the Traffic Engineering Assessment

In summary, the Traffic Engineering Assessment has found:

- The proposal provides sufficient car parking spaces to meet anticipated demand, meeting the statutory rate of car parking. Visitor car parking will be provided on the street, as per the statutory rate.
- The traffic to be generated by the proposal (which includes up to 100 vehicle movements in peak hour) can be comfortably absorbed into the existing road network.
- The proposal provides appropriate access for sustainable transport methods (such as bicycles and pedestrians), with a primary shared path providing a north – south route to nearby activity nodes and services (such as the Spotswood Railway Station). A secondary pedestrian network will also provide access through and around the Site.
- All proposed roads on Site have been designed with appropriate widths to accommodate future vehicle movements, whilst also providing a pleasant streetscape and experience for pedestrians.
- Opportunities will also be provided on Site for loading and waste collection, commensurate to the demand that will be generated.

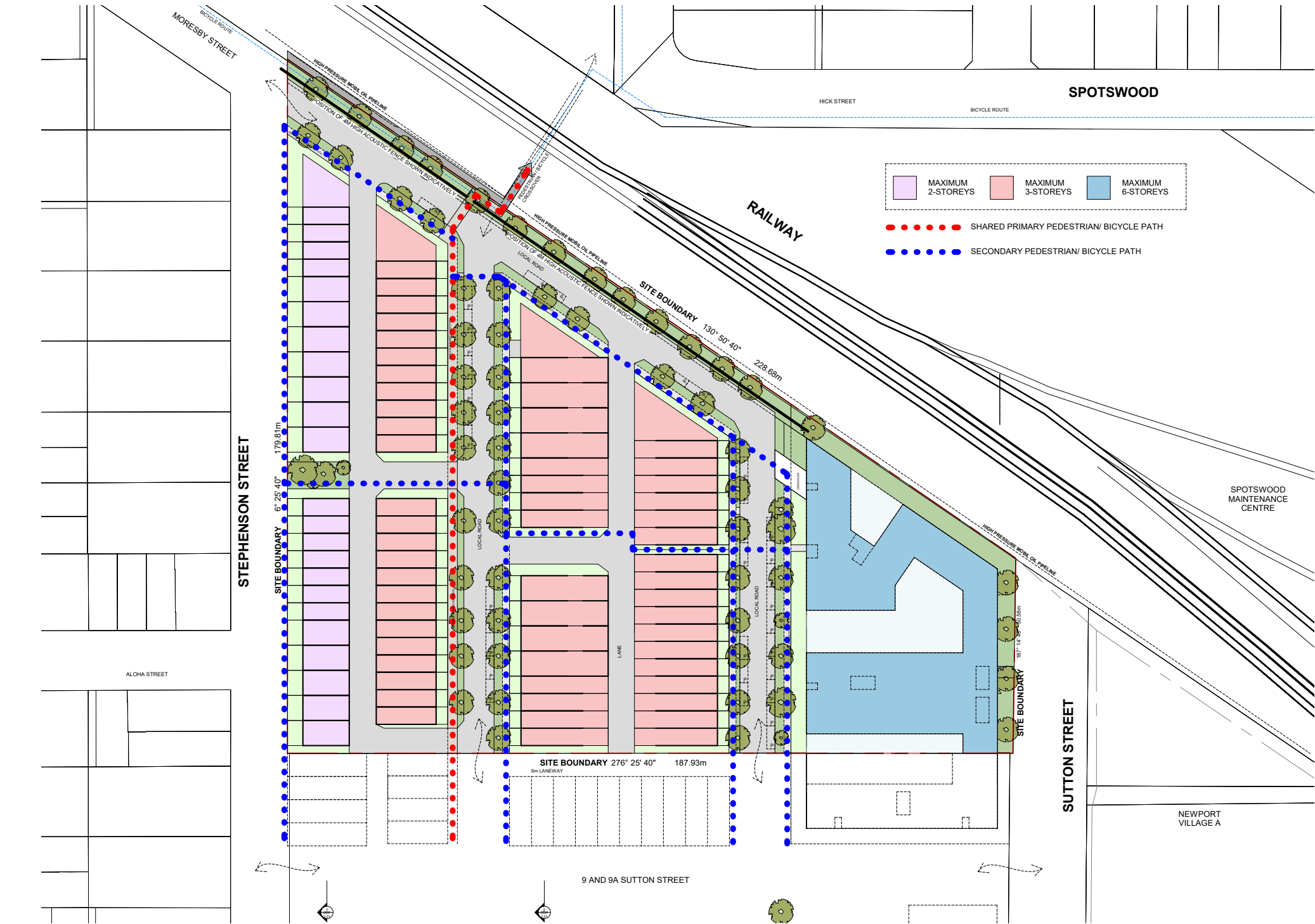


Figure 31. Movement Plan.

Waste Management

9 Waste Management

9.1 Waste Management Plan

The Waste Management Plan (WMP) forms part of Volume 2 of the Development Plan.

The key elements of the WMP are as follows:

- Council shall provide waste collection services for the townhouses. Townhouse residents shall dispose sorted garbage and recyclables into collection bins located within their respective tenements. Council will collect townhouse waste from the development’s internal roads. Prior to the collection, residents shall place their bins at designated bin-holding areas located in close proximity to their respective dwellings. Once collected, residents shall move the bins back into their premises (bins shall not be left-out more than a 24 hour period). Council’s instructions for bin-placement must be followed.
- The apartment component of the development will be controlled by a future Owners Corporation that is to be responsible for all of the high-density elements within the Site. As such private waste collection will be provided to the apartment.
- Waste shall be stored within the development and hidden from external view.

Ecologically Sustainable Design Strategy

10 Ecologically Sustainable Design Strategy

This section of Development Plan addresses the following requirement of the DPO2:

‘An Ecologically Sustainable Design Strategy must be prepared which considers and responds to the proposed development and construction processes’

‘A stormwater management strategy to the satisfaction of Council addressing the requirements for volumes and quality of stormwater runoff, details of on-site stormwater retention and how the development of the Site will meet the requirements of Clause 53.18-Stormwater in Urban Development. ’

10.1 ESD Report

The ESD Report demonstrates the significant regard that the Development Plan pays to ESD by detailing the principles proposed for inclusion in the Scheme. A final detailed ESD response for the Site will be confirmed during the Planning Permit application process, which will guide the development design process.

The development is committed to achieving best practice in relation to sustainable design, including consideration of a wide range of initiatives and adoption of specific principles as detailed below.

10.1.1 Site Master Planning Opportunities

Site Selection

The Site offers a significant reclamation opportunity. Development of this site will assist with minimising urban sprawl through avoidance of building on an equivalent green-field site. Specifically,

- We are re-using land that has been previously developed.
- We have selected a site that has undergone remediation for contamination caused by its previous industrial use, and we will follow best practice recommendations to address the current site conditions.
- The land in its current state has minimal ecological value and this presents significant opportunity for improvement.

The Site planning and layout strive for a balance which best achieves sustainable urbanism and adopting best practice urbanism and adopting best practice urban design principles:

- Higher density living is located at the north east corner of the Site. This massing helps protect and shelter the townhouses from the adjacent noise sources.
- Detailed layout of the apartments and placement of car parks is yet to be determined, but will be designed in a way to address the unique acoustic nature of the Site while prioritising good natural light to all living spaces and bedrooms.

- The new roadways will provide separation between the higher density buildings and townhouses, which will assist in overshadowing.

Liveability

The Site has good access to existing facilities in the locality, including:

- Various amenities (food retail, medical, pharmacy, bottle shop, laundry etc) are located within the Vernon Street shopping strip
- Newport town centre with train station and library
- Spotswood town centre with train station
- Future neighbourhood activity centre on McLister Street
- 2 No. childcare facilities and a pre-school
- 4 No. primary schools
- 3 No. secondary schools
- Various recreational parklands including Newport Lakes and Ducrow Reserve

The Landscape/Urban Design supports social interaction and physical activity by providing:

- Access to nearby public open space
- Improved pedestrian and cyclist links to adjacent precincts and local shops e.g. Vernon Street shopping strip.

In order to create a safe place, the design incorporates:

- All public areas are visible from at least one street.
- Appropriate lighting.

In order to promote dignified access for all persons, the design incorporates:

- Design for universal access to all dwelling entrances.
- Design for adaptable dwellings where practicable. All are accessible to the front door.
- Design for an accessible public domain.

Economic Prosperity

Residents will have access to local and diverse employment opportunities as the site has close proximity to CBD (within 10km) and Williamstown (5km).

Residents will have access to a range of education and skills development opportunities through good proximity to the following higher education facilities:

- Victoria University (<6.5km away).
- Trade Institute of Victoria (<2.5km away).

10 per cent of the total dwellings will be provided as affordable housing [Note: this matter is in dispute and will be resolved at panel hearing stage].

Transport Planning

Integrated transport planning has addressed the following:

- The site has good proximity to mass transport.
- The developer aims to work with transport providers to re-route buses along Blackshaws Road for improved site amenity.
- Provide visitor bicycle racks in convenient locations.
- Provide on-site parking space for car share scheme e.g. go-get / flexi-car (subject to provider agreement).

Landscape Design

The landscape design will aim to incorporate a wide range of ESD and WSUD (Water sensitive Urban Design) elements, with the following preliminary initiatives identified for inclusion where practicable:

- Emphasis is placed on the use of indigenous and native plant species with selected exotic species will be used for special seasonal qualities or ESD values (such as allowing sunlight penetration in winter.)
- Other plants will be hardy attractive species, which are suited to the relatively harsh local growing environment.
- Any automatic irrigation system will use an efficient, in-line drip emitter system, which will utilise rainfall and moisture

- sensors, to control and adjust the use of water.
- The larger portion of the site will rely on natural rainfall regimes, and will survive without supplementary irrigation, once established.
- All garden beds will be fully mulched, to help to retain soil moisture.
- Opportunity would be explored to harvest roof stormwater for irrigation of open space landscape.
- The bicycle trail will link-up to the main pedestrian entry nodes, and bicycle hoops will be provided at key locations.
- Opportunity would be explored to use recycled material e.g. recycled timber or eco wood for decking / park furniture’s, bollards etc.

Environmental

The developer is committed to investigating the feasibility of incorporating the following environmental initiatives within the design of the public realm:

- Offset urban heat island effect through using vegetation and light coloured surfaces.
- Design of external lighting to avoid light spill/pollution.
- Responsible sourcing of materials - options for concrete, steel, asphalt & PVC to be considered. Design to facilitate reduction and enable recycling of operational waste e.g. recycling bins in public areas.
- Best practice stormwater management (management in relation to detention and discharge water quality)
- PV system to be located on apartment building roof.

Project Management and Delivery

The project has been appointed an ESD professional early

in the development process to guide the design, and will consider:

- Environmental Management Plans to be developed by the contractor(s) fr all stages of the works.
- Recycling of construction waste - target minimum 80% diverted from landfill.
- Developing a Residents’ Guide and/or providing interpretation signage to raise awareness of sustainability issues and initiatives.

10.1.2 Built Form Opportunities

The built form of Precinct 16 will be described in further detail in the planning permit application process. The following principles are to be considered for inclusion where practicable. The initiatives listed will be used as a starting point to guide the design and tested for suitability as the design is developed.

This ESD process will culminate with the rating of each dwelling using Green Star as it allows a holistic approach to addressing sustainability in the built environment.

Management

Throughout the project, the following initiatives will be considered to ensure the project achieves its design objectives:

- Engagement of a suitably qualified ESD professional to champion the project’s sustainability targets.
- Commitment to building services design review, commissioning and tuning processes to ensure systems operate as intended by the design.
- Incorporation of suitable metering and monitoring systems to enable all residents understand their own consumption data and make informed decisions.
- Commitment to good environmental practices during construction, including implementation of a site-specific environmental management plan in accordance with ISO 14001, and reduction of construction landfill waste.

Indoor Environment Quality

The following initiatives will be included to improve the overall

indoor environment quality:

- Aim to achieve high indoor air quality through natural ventilation and specification of low emission materials, including low VOC (volatile organic compound) paints/ sealants/adhesives, low formaldehyde timber products, etc.
- Provide natural ventilation, or where not feasible due to acoustic issues associated with the adjacent train lines, aim to provide optimum mechanical ventilation rates as necessary for the same outcome.
- Thermal comfort levels will be optimised wherever possible through measures such as air conditioning, exposed thermal mass, high efficiency glazing and external shading.
- The project will seek to provide an abundance of natural daylight in all living areas through the provision of large high-performance windows with high visible light transmission. As daylight modelling is typically performed using a uniform sky, building orientation is not relevant when determining daylight factor, therefore the design is likely to achieve at least 1 point for Visual Comfort in accordance with Green Star.
- The apartment buliding has been orientated towards the west and the townhouses to maximuse access to the afternoon sun and general interconnectedness between the two dwellings types.
- The placement of the townhouses and the apartment building is such that the overshadowing impact is minimised given the site constraints, and this is demonstrated in sun shading assessments in Appendix B.
- The project will aim to achieve internal noise levels at an appropriate level for occupant comfort through measures such as:
 - Careful specification of mechanical equipment.
 - Integrated design of the building façade, glazing and ventilation systems to minimise break-in of external noise (e.g. freight trains on adjacent rail lines).

Energy

Passive building design measures will assist with compliance and improvement upon the NCC energy efficiency requirements. Passive measures will also minimise peak energy demand by reducing summertime cooling loads. Energy Ratings will be undertaken using FirstRate5 software for all dwellings and Deemed-to-Satisfy Section J analysis for common areas and non-residential components.

Initiatives include:

- Well-designed solar shading which allows for passive solar heat gain in winter. In general, all windows will be shaded where required to provide a good balance between daylighting, energy, comfort and external views.
- Glazing to be sized to provide a good balance between daylighting, external views, energy, comfort and ventilation requirements.
- Natural ventilation to comply with the BCA & building regulation requirements.
- Exposed thermal mass.
- Appropriate site specific response to building orientation.

Energy conscious design to further reduce the CO2 footprint of the development will be adopted wherever possible, including:

- Low lighting power density through selection of efficient lamps / fitting types
- Access to daylight to reduce demand for electric lighting.
- Provision of star-rated (low-energy) appliances.
- Provision of clothes lines for passive drying of clothes.
- Digital smart meter displays.
- Dwelling master shut-down switches.

In addition, the following energy efficiency initiatives (specific to each dwelling type) will be considered where practicable:

Apartments	Townhouses
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The minimum NatHERS energy star rating for the building envelope is to be 5.5 stars minimum (per dwelling) and 6.5 stars minimum (per building). This represents a 0.5 star increase on BCA mandated performance. All apartments modelled in the preliminary analysis demonstrate an annual cooling energy demand of less than 22 MJ/m². Central solar hot water system with gas boost and individual dwelling authority sub-metering. Natural ventilation of carparks, or efficient mechanical ventilation using CO2 monitoring and control. Automated switching of lighting in common and external areas. A substantial solar PV system is proposed for the roof area of the apartment building.	The minimum NatHERS energy star rating of the building envelope is to be 6.5 stars. Gas instantaneous hot water system high efficiency equipment with solar preheat (in some dwellings). Gas ducted heating for each dwelling using high efficiency equipment. Room cooling using high efficiency air-conditioning equipment.
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Transport

The following initiatives (specific to each dwelling type) are proposed:

Apartments	Townhouses
Provide an area for storage of residents’ bicycles. Provide visitor bicycle parking within close proximity to building entrances. Provide EV charging space ‘Spatial and electrical allowances to be made to allow future installation of electric charging facilities to car parks generally	Provide a sufficient number of secure bicycle parking space for each dwelling. Spatial and electrical allowances will be made for future installation of electric charging facilities in the garage

Water

The project aims to select maximum WELS rated water efficient fittings throughout, reducing water demand and flow to sewer.

Star-rated (low-water) appliances will be provided.

In addition, the following water saving initiatives (specific to each dwelling type) will be considered where practicable:

Apartments	Townhouses
All rainwater diverted to central rainwater collection with re-use for irrigation, common areas and other private uses (depending on water balance / volume available). Fire system test water recycling (if required).	Individual dwelling rainwater collection tanks reticulated for various uses e.g. irrigation, toilet flushing and / or clothes washing.

Materials

The following will be considered in relation to specification of materials:

- Material Durability – external/internal materials will be chosen where practicable for their natural durability to minimise the possibility of vandal damage and to reduce the need for on-going maintenance.
- Health Impact – attention will be given to minimise use of PVC and other materials (e.g. PCB’s and mineral fibre) in the development. These and other toxic chemicals can have harmful effects on building occupants and should be avoided where practicable in order to improve occupant health and wellbeing.
- Where practicable, timber is to be sourced from sustainably managed plantations.
- The development aims to avoid use of materials and products that contribute to ozone depletion and/or global warming, including certain refrigerants and insulation.
 - The impact of embodied energy / carbon of materials will be considered. For concrete, the following will be achieved as far as practical:
 - 30% SCM replacement.
 - Maximise use of recycled water.
 - 40% of course aggregates to be manufactured / recycled

Land Use and Ecology

For private open spaces and shared external areas, the project aims to:

- Include Victorian native planting to encourage wildlife diversity.
- Include drought tolerant planting.

Emissions

The following initiatives are considered to reduce general emissions.

- Design and selection of external lighting systems to eliminate all direct light spill to neighbouring properties and towards the night sky.
- All space cooling systems to utilise air-based heat rejection to avoid the risk of Legionella.
- Select refrigerants with low environmental impact, including refrigerants that have low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP) - no CFC or HCFC refrigerants to be used.

Stormwater

The following initiatives are to be considered as a means of managing stormwater flow from site and enabling pollution reduction:

- Permeable surfaces (subject to future geotechnical investigations to determine ground permeability).
- Rainwater collection from roofs to be stored and re-used to offset potable water usage.

Note that the above stormwater management response focuses upon ESD considerations. As the design progresses, the proposed ESD stormwater / WSUD requirements must be further assessed with respect to compliance with the SoEA.

Waste Management

The following initiatives are considered as a means to improve waste management:

- Recycling of household waste will be encouraged through provision of adequate areas for storage of waste and recycling.
- The project will aim to provide space for waste separation at source within the kitchen joinery.

In addition, the following initiatives (specific to each dwelling type) will be considered where practicable:

Apartments	Townhouses
Provide dedicated areas within building basements for co-mingled recycling and waste to landfill. To ensure a high component of recyclables with minimal contamination, provide signage at the recycling areas as well as on the inside of a kitchen cupboard door in each apartment.	Provide adequate space within private garage areas for co-mingled recycling, waste to landfill and green waste.

Innovation

A number of innovative ESD initiatives are currently being investigated for consideration (including the details of the substantial PV system) and will be detailed further as the design progresses.

Amenity and Vibration Impacts

11 Amenity and Vibration Impacts

This section of Development Plan addresses the following requirement of the DPO2:

'An Acoustic Report which addresses the following:

An assessment of acoustic and vibration impacts on the site with reference to the existing Spotswood Maintenance Centre and the adjacent railway line. The assessment must include recommended measures to manage acoustic and vibration impacts at the ultimate developed outcome and also confirm that a reasonable interim arrangement can be achieved during development of the site.

Identification of potential impacts on future development in the site.

The proposed design treatment of the interface with industry, including setbacks, fencing, landscaping, internal building layout, noise attenuation construction measures and any other measures required to minimise impacts.

Consider amenity of future residents in line with Standard D16 at Clause 58 of the Scheme, assuming that the site is located in a 'noise influence area'.

11.1 Noise and Vibration Assessment

11.1.1 Overview

SLR Consulting Australia Pty Ltd (SLR) was engaged to provide a noise and vibration assessment of the proposed rezoning of the land.

The report focuses on the potential noise and vibration impacts to the Site from the existing surrounding land uses and includes:

- Assessment of potential noise impacts from nearby industrial uses.
- Assessment of potential train noise.
- Assessment of potential train vibration impacts.

The report found that the surrounding uses with potential to cause noise and vibration impacts are:

- SMC facility to the north / north-east. The facility operates 24 hours a day. The facility primarily provides maintenance services for the intermodal locomotives.
- Train operations along the freight train lines to the north of the Site. Both a standard (north side) and broad gauge (southern side) line are located in the rail corridor. There is a proposal for future expansion (duplication) of the standard gauge lines which could bring the nearest line closer to the Site. Both noise and vibration impacts require consideration.
- With the appropriate construction of northern boundary barriers and shielding structures, an appropriate amenity outcome will be achieved on Site.
- The proposed development of both this and the adjacent Former Caltex Site, provides for an ultimate SEPP N-1 compliant outcome across both sites. To address potential development staging, some form of interim amenity controls should be considered.

11.1.2 Industrial Noise Impacts

The Assessment indicates that there is a lesser impact to the Site from SMC operations compared to the adjacent Precinct 16 (east) (Former Caltex Site). Noise impacts are generally similar, or less than those to existing residents in the area. As such, the development of this site does not present any additional obligations on the operations of SMC.

The future asserted SMC external notch 8 testing at Loco Pos 3 (south of the Test Cell), represents the worst case noise impacts to the Site and also results in increased noise to existing residents to the north-west and south-west of SMC.

With the construction of the adjacent Former Caltex Site northern boundary buildings, together with the proposed north-eastern corner 6 storey building and 4m high northern interface barrier, SEPP N-1 noise compliant levels can generally be achieved throughout the Site, in all Loco test positions and scenarios. BADS targets (Clause 58.04-3) would also be readily achieved. In addition, noise to all existing residents to the south and south-west of SMC would be significantly reduced.

In considering any interim stages (where the Former Caltex Site northern boundary building may not be complete) provision of temporary barriers in the form of shipping container-type constructions along the north and eastern boundaries of the site can be implemented to provide improved amenity. These are considered a reasonable short term approach to minimising amenity impacts in the context of staging construction of the two sites.

Further, it has been recommended that the north and east facades do not contain openable windows or balconies and are constructed with masonry materials. The proposal has adopted this recommendation in order to achieve compliance with the Better Apartment Design Standards (BADs) targets and SEPP N-1 internal based noise limits.

11.1.3 Train Noise and Vibration Impacts and Potential Controls

Train Pass-by Noise

Train noise levels can practically be controlled to satisfactory internal design levels with appropriate implementation of building siting, shielding and construction materials.

The provision of an acoustic barrier along the northern boundary will result in significant shielding to any ground and first floor receivers. Provision of additional acoustic treatments to the building façades can be provided to achieve the internal design levels where necessary.

The BADS based train criteria, or the DDO requirements on the adjacent site would be readily achievable with available facade upgrades and glazing design.

Train Vibration

The closest townhouses are approximately 35 metres from the nearest rail track, and the north east corner six storey building approximately 24 metres from the nearest train line. Vibration testing conducted at 25 metres and 35 metres on the Site confirmed that there are acceptable vibration levels at these distances.

If a future new track is to be provided, it is likely to be constructed using the latest track design and technology and so would be expected to generate less train vibration. The train line currently has existing residents within 25 metres. Any significant increase in train traffic would affect those residents equally or more than occupants of buildings in the Site. New train lines can be installed with better track isolation which would provide a benefit to existing and future residents.

The Report found that the Site can be developed to achieve appropriate internal vibration levels.

Major Pipeline Infrastructure

12 Major Pipeline Infrastructure

This section of Development Plan addresses the following requirements of the DPO2:

‘A report that outlines, as necessary, measures to ensure that the high pressure gas pipelines adjacent to Precinct 16 West are responded to appropriately, including details of a safety management study workshop with the relevant stakeholders and subsequent recommendations for the future development in the Precinct. ’

12.1 Pipeline Safety Management

12.1.1 Pipelines

41-59 Stephenson Street is within the vicinity of three existing pipelines:

- Somerton Pipeline (Licensed Pipeline No. 118).
- West Footscray to Williamstown Pipelines (Licensed Pipeline No. 19).
- South Melbourne to Brooklyn Pipeline (Licensed Pipeline No. 108).

12.1.2 Pipeline Safety Management Study 2013

In 2013 Sherpa conducted a Pipeline Safety Management Study. The Study was a risk assessment to identify threats to the pipeline associated with the construction and operation of future residential development.

A revised Pipeline Safety Management Plan must be prepared in conjunction with relevant authorities and stakeholders at the planning permit application stage to the satisfaction of the Responsible Authority.

This report would specify appropriate setbacks from pipelines and appropriate construction management considerations to minimise threats to the pipeline associated with construction and operation of residential development.

Site Remediation

13 Site Remediation

13.1 Site Remediation

This Section of the Development Plan addresses the following requirement of DPO2:

‘A Site Remediation Strategy must be prepared to the satisfaction of the responsible authority to address and make recommendations in relation to:

- Potential impacts of any land or ground water contamination on the proposed land use;*
- The proposed pattern, siting and arrangement of land uses across the site or sub-precinct (including residential, public and community uses) and any particular design requirement the development may be subject to;*
- Options and a preferred approach to the testing and clean up activities;*
- An indicative site map showing locations across the site or sub-precinct of any identified contamination and any proposed clean up activities;*
- A schedule of proposed clean up activities.’*

Overview

Environmental Assessment Services P/L was engaged to prepare a Site Remediation Strategy.

The assessment found that over 75% of the site has completed its required remediation and received a Statement of Environmental Audit. Further actions are required to remediate the remainder of the Site (less than 25%), which includes the removal of several stockpiles that remain on Site, backfilling excavated areas and completing groundwater monitoring.

It has been outlined however that there are several actions to fully remediate the Site still pending – including removal several stockpiles that remain on Sie, as well as backfilling excavated areas.

Remediation Actions

In order to ensure the Site is capable of a residential land use, the report outlines of a series of actions. These include the following:

- Filling the excavated area with new soil.
- Disposing of the existing stockpiles on Site.
- Undertaking a further groundwater and vapour assessment.
- Undertaking a Statutory Environment Audit across part of the Site (with this detail to accompany a future planning permit application).
- Constructing a proposal generally in accordance with the Development Plan (prepared by Tract Consultants), which proposes an apartment building, road network and townhouses which act as a ‘hard cap’ on the Site, with no public or community uses proposed beyond the use of the road reserves and path networks for general access and circulation purposes.

Stormwater Management

14 Stormwater Management

This Section of the Development Plan addresses the following requirement of the DPO2:

‘A stormwater management strategy to the satisfaction of Council addressing the requirements for volumes and quality of stormwater runoff, details of on site stormwater retention (if required) and how the development of the site will meet the requirements of Clause 53.18 – Stormwater Management in Urban Development.’

Overview

As part of the preparation of a Development Plan for the Site, a Stormwater Drainage Strategy Report has been prepared by the O’Neil Group.

The strategy seeks to ensure that large stormwater events can be accommodated, whilst also not unreasonably impacting other properties in the area. It also aims to ensure that stormwater can be appropriately treated on Site and minimises impacts to the local drainage system.

The report addresses the advice from Melbourne Water that indicates that the north western portion of the Site is subject to flooding in a 1 in 100 year storm event, with the flood level at 13.86m AHD.

Floor Level Requirements

In order to minimise the impacts of any potential flooding events, all dwellings within the area subject to flooding will require minimum finished floor levels to be set 300mm above the flood level (which results in a minimum floor level of 14.16m AHD). It is noted that this is between 500mm to 600mm above the Natural Ground Level at the northern portion of the Site (where the flood levels are applicable).

Stormwater Drainage Strategy

As part of the management of stormwater on Site, the following measures are proposed:

- Providing stormwater tanks which can harvest rainwater from the roof of each dwelling and then re-use this water for landscape irrigation and toilet flushing (where space permits).
- Installation of a SPEL Pty Ltd of similar gross pollutant trap to treat stormwater discharge from the Site (as per Council, Melbourne Water and USIC Requirements).
- Provision of on-site stormwater detention systems to minimise flows of water into the local drainage system. The detention system will comprise of oversized pipes within the roads on Site, as well as underneath the apartment building.

Conclusion

15 Conclusion

The Development Plan for 41-59 Stephenson Street, South Kingsville is consistent with the planning policy framework which supports infill residential redevelopment and urban consolidation of a Strategic Redevelopment Site.

The Development Plan provides design guidance for future development of the Site.

The Development Plan has also taken into consideration the immediate context and accommodates requirements of surrounding pipelines and operation of ongoing industrial uses.

The development will offer a vibrant and sustainable residential community that will integrate with the existing urban environment, while providing a unique landscape outcome.

The development will deliver a well structured street network that integrates with the broader precinct and existing surrounding roads and bicycle paths.

The land represents a significant opportunity for infill residential development that will deliver additional infrastructure and provide a unique neighbourhood identity.

Development generally in accordance with this Development Plan ensures that the potential of the Site is realised in a manner which respects the existing character of the area whilst setting a new benchmark for infill development.

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