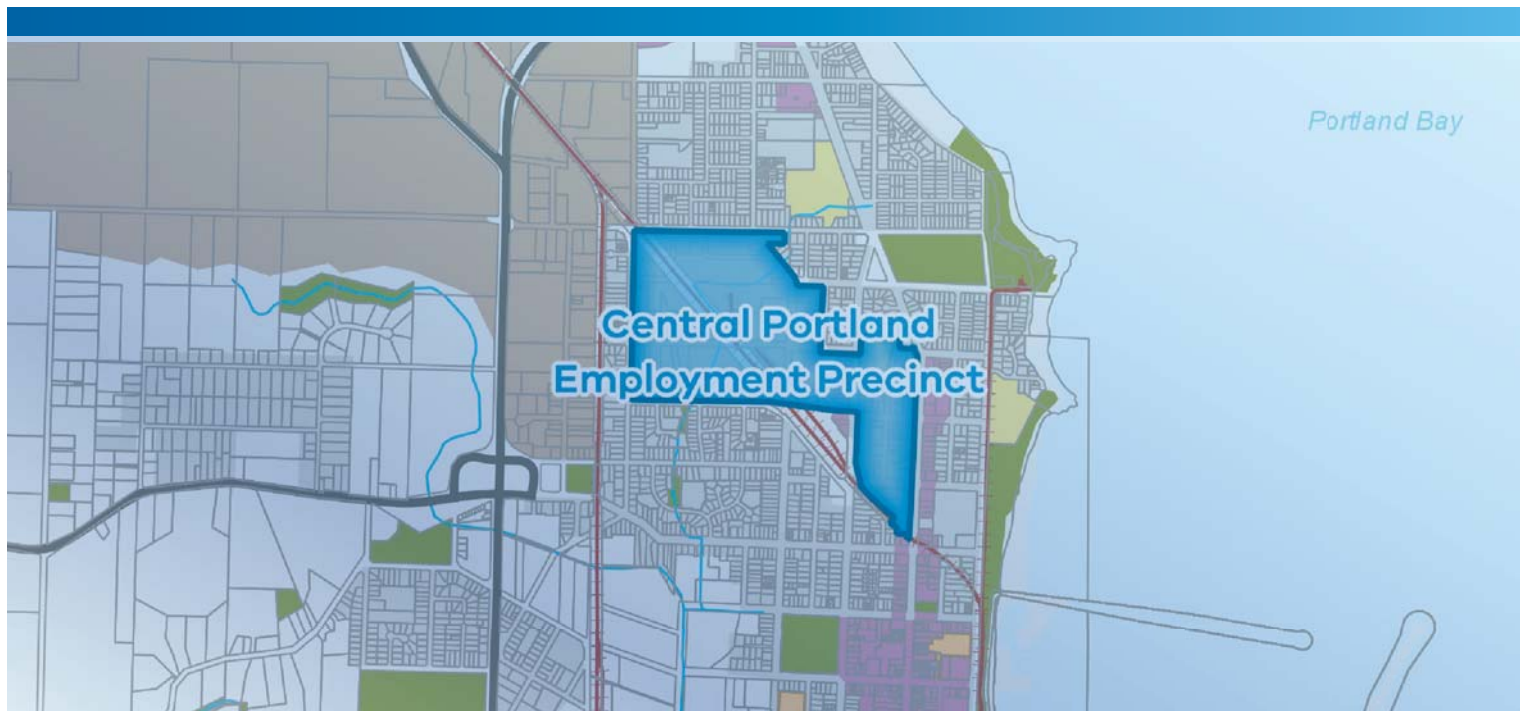


# Central Portland Employment Precinct

## Development Plan



#### **Disclaimer**

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

This plan was prepared by the Glenelg Shire Council with funding and assistance from the Victorian Planning Authority. The Glenelg Shire Council is the planning authority for this plan and the content of this plan has been at the direction of the Council.

## CONTENTS

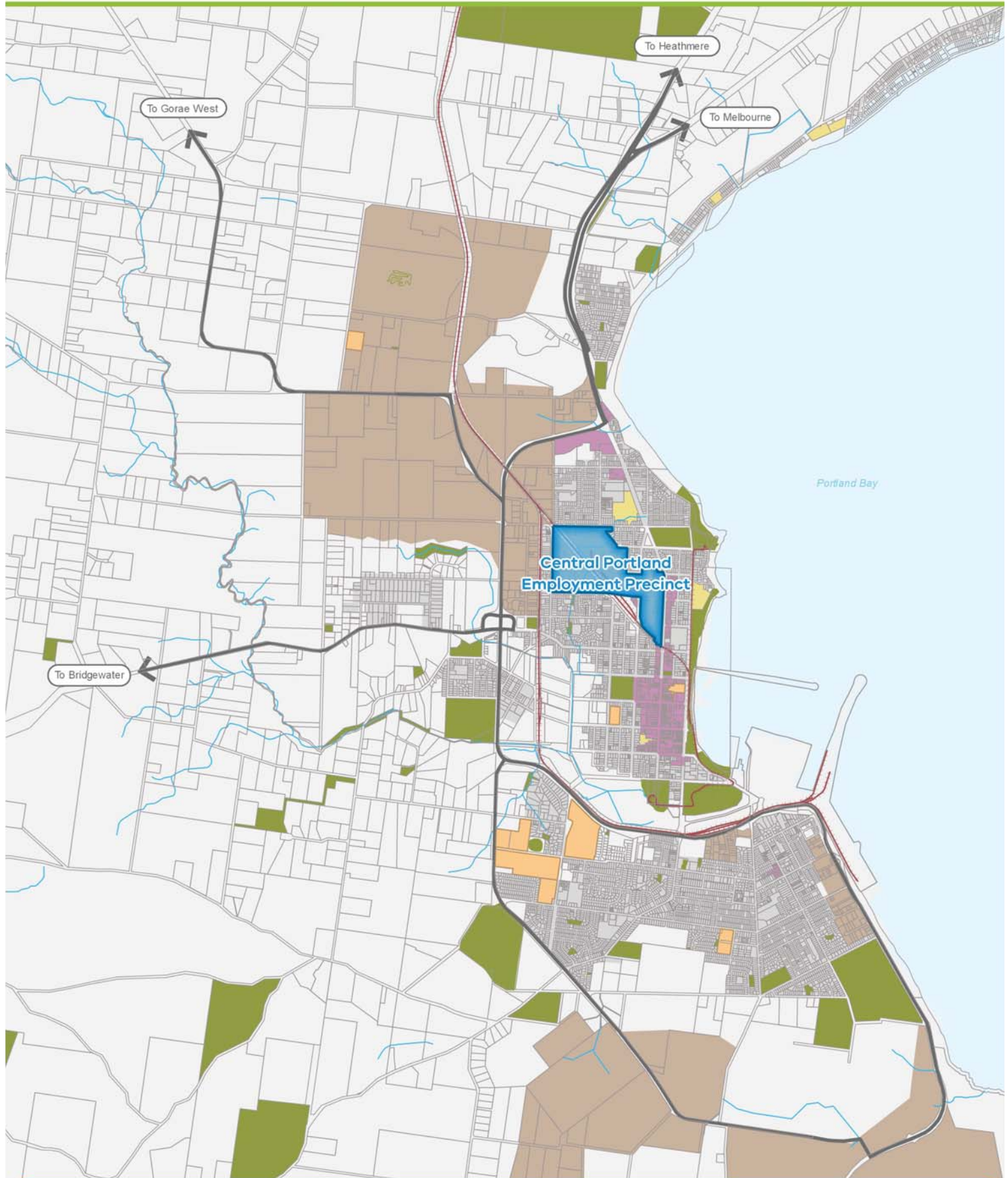
<b>1.0 INTRODUCTION</b>	<b>5</b>
1.1 How to read this document	5
1.2 Land to which the Plan applies	7
<b>2.0 OUTCOMES</b>	<b>9</b>
2.1 Vision	9
2.2 Objectives	9
<b>3.0 IMPLEMENTATION</b>	<b>11</b>
3.1 Image and character, open space, land use and built form	11
3.1.1 Image and character	11
3.2 Land use and built form	13
3.3 Open Space	17
3.4 Integrated transport & movement	24
3.4.1 Public transport	24
3.4.2 Walking & cycling	24
3.4.3 Road network	24
3.5 Integrated water management, sustainability & utilities servicing	26
3.5.1 Integrated water management & sustainability	26
3.5.2 Utilities	28
3.6 Infrastructure delivery & development staging	29
3.6.1 Development staging	29
3.6.2 Subdivision	29
3.7 Open space delivery	30
<b>4.0 APPENDIX</b>	<b>31</b>
4.1 Property specific land budget	31
4.2 Service placement guidelines	39

## PLANS

Plan 1 Local Context	4
Plan 2 Precinct Features	6
Plan 3 Future Urban Structure	8
Plan 4 Landscape Use Budget	10
Plan 5 Interfaces	12
Plan 6 Open Space	16
Plan 7 Street Network & Movement	23
Plan 8 Utilities	27

## FIGURES

Figure 1 Design Guidelines: Industrial Development Allotment Layout	14
Figure 2 Design Guidelines: Industrial Development Allotment Treatment	15
Figure 3 Commercial Street – Mixed Use	18
Figure 4 Local Access Street Level 1 (16.0m)	19
Figure 5 Local Access Street – Residential (16.0m)	20
Figure 6 Industrial Street – Railway Interface	21
Figure 7 Wade Street Interface (East view)	22



- precinct boundary
- non urban area
- existing urban area
- existing retail

- industrial area
- education
- community
- open space

- railway line
- waterway & drainage
- existing road network

## 1.0 INTRODUCTION

The Portland Employment Precinct Development Plan (“the DP”) is a long term plan to facilitate the redevelopment of one of a number of industrial precincts identified in the *Portland Industrial Land Strategy* (Glenelg Shire Council, 2016). It describes the future layout and use of the partially vacant precinct as a consolidated light industry precinct to the west, a portion of residential to the north, and commercial to the east.

The DP is informed by the State and Local Planning Policy Framework set out in the Glenelg Shire Council Planning Scheme, including the *Portland Industrial Land Strategy 2016* and other relevant adopted policies of the Glenelg Shire Council.

This DP responds to the requirements of the Development Plan Overlay, Schedule 8 (DPO8) as found in the Glenelg Planning Scheme.

Generally, the DP guides the layout and form of land use and development in the DP area and sets out requirements that must be met by development.

### 1.1 How to read this document

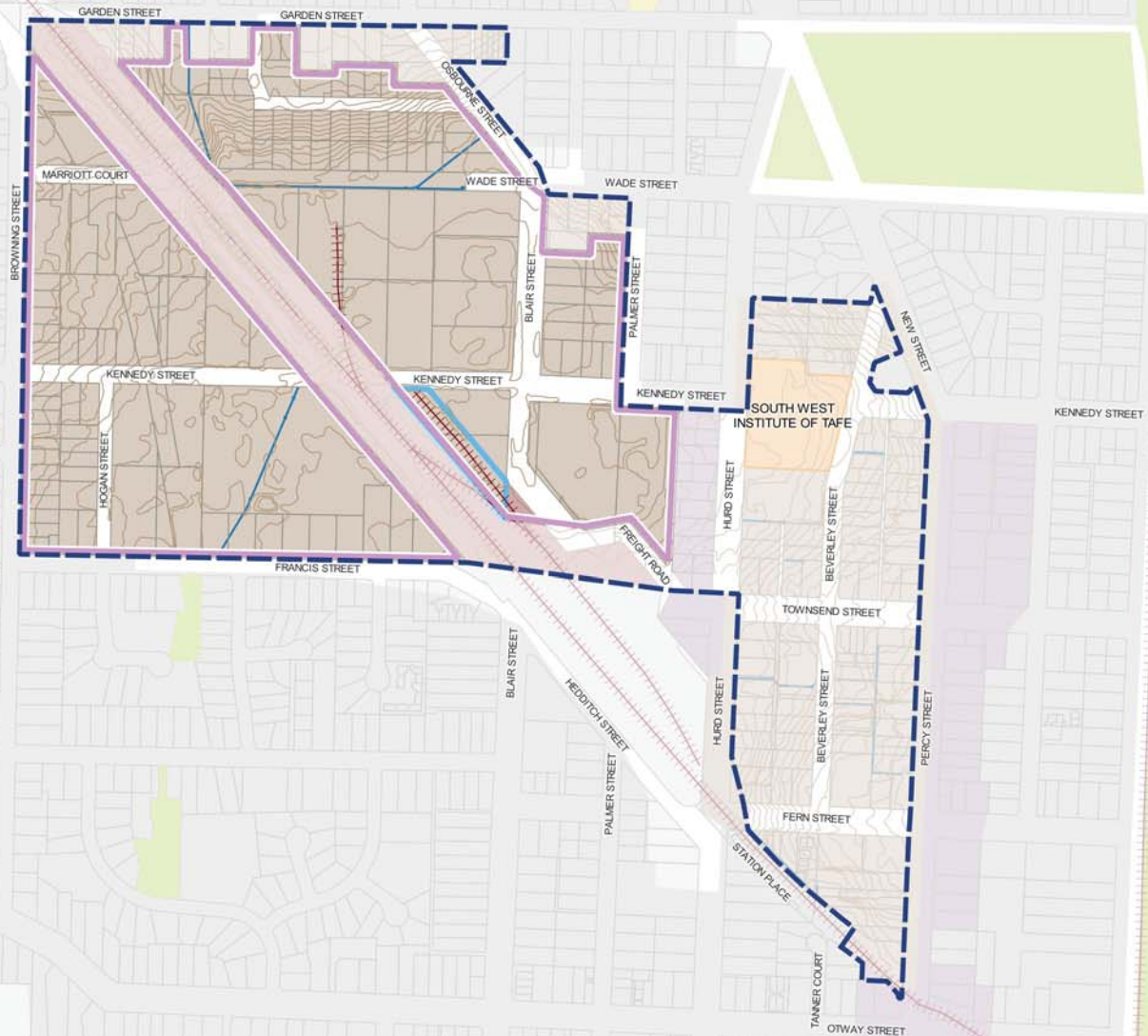
The DP comprises a number of components including a vision, objectives, plans, diagrams, tables, illustrations, requirements and guidelines. The planning scheme, including the DPO8 schedule, directs when and how the DP is to be taken into account in making a planning decision. When the planning scheme directs this, all of these components of the DP should be considered as relevant to the decision at hand and in the manner that the scheme directs.

It is intended by the DP vision, objectives and future urban structure, collectively the DP ‘outcomes’ are achieved by all applications and permits. Requirements in the DP must be met as per the requirement in the controlling schedule to the Development Plan Overlay. The remainder of the content describes how the outcomes can be achieved; this content is not intended to exclude the possibility of a proposal achieving the outcomes of the DP in a different way.

The DP is not an exhaustive planning control; it does not address every aspect of the land’s use and development. A responsible authority must manage development and issue permits as relevant with reference to the broad range of matters it is required to consider when making a decision under the *Planning and Environment Act 1987* and the planning scheme.



Portland Bay



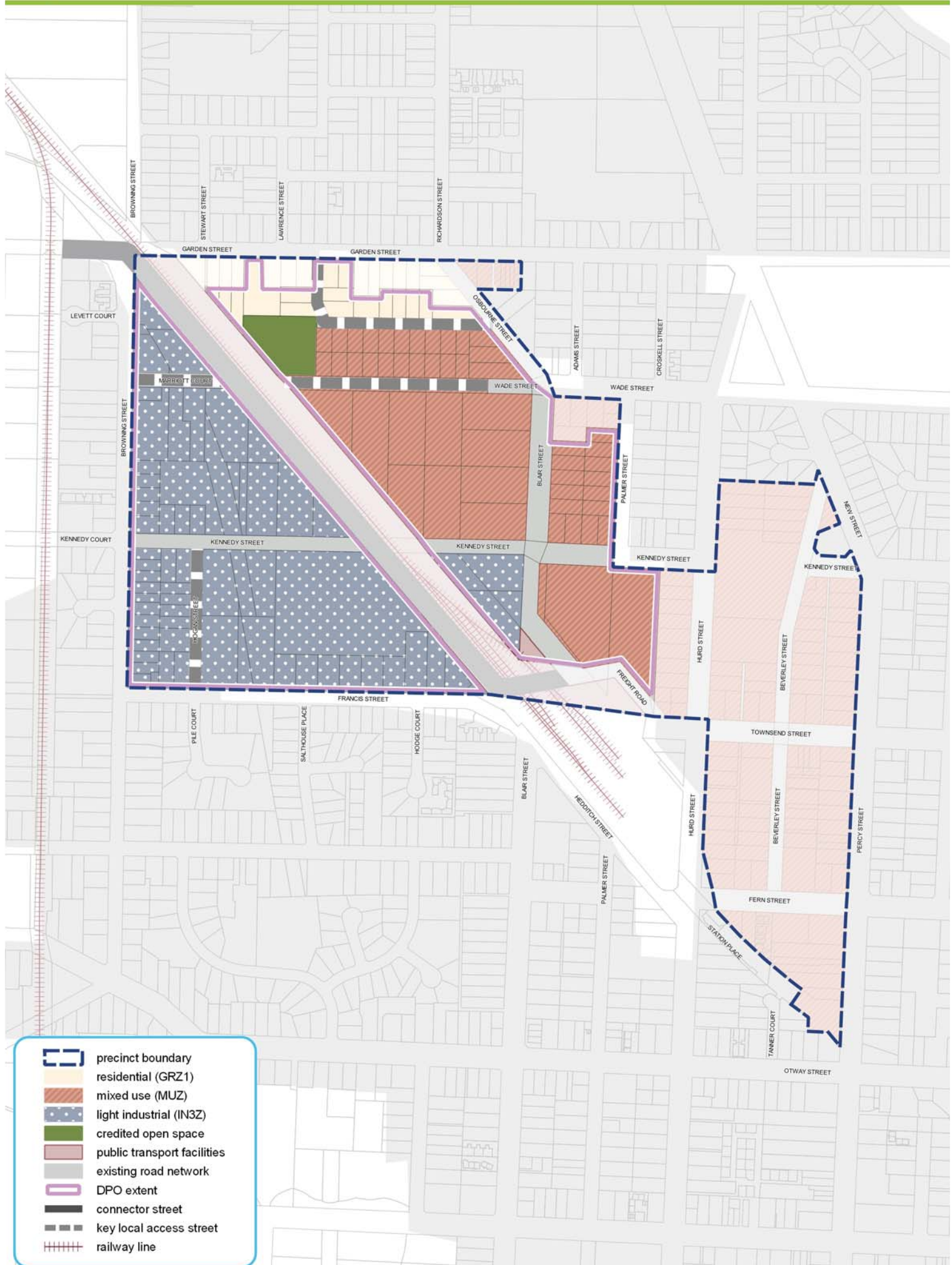
## 1.2 Land to which the Plan applies

The DP applies to approximately 38.31 hectares of land in the town of Portland, within the municipality of Glenelg Shire Council. Portland is located in the south-west of Victoria, approximately 350kms from Melbourne and approximately 57kms east of the South Australia–Victoria state border.

The precinct is generally bounded to the north, south and west by land zoned for residential purposes (GRZ) and to the far east by New Street. An existing unused rail line traverses the site from the north west corner to Hurd Street in the south east of the site.

The precinct is generally flat with a large portion of it currently vacant land. Some industrial development exists to the south west of the rail line and a mix of residential dwellings to the north east as well as some commercial buildings.

Existing conditions of the precinct are as shown in Plan 2.





## 2.0 OUTCOMES

### 2.1 Vision

This precinct will facilitate the development of both the existing industrial and commercial areas which sensitively responds and provides connections to the existing surrounding residential areas.

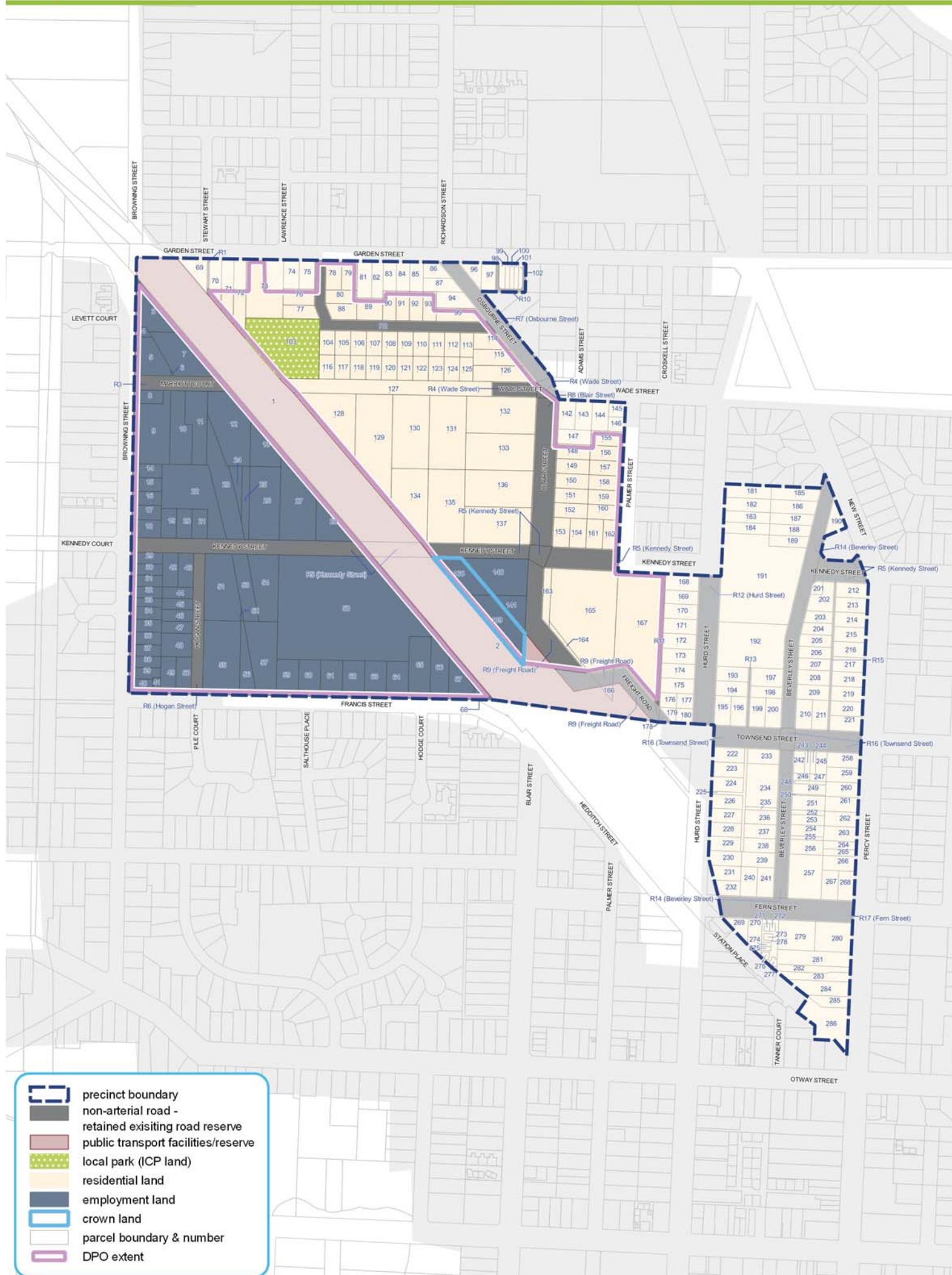
The industrial area of the precinct will ensure expansion of this area will be done in an efficient manner which improves the visual quality of the precinct through public realm improvements, building and lot design.

The mixed use portion of the precinct will provide additional employment and commercial opportunities for the town, expanding on the existing uses within the area.

The existing residential area to the north of the precinct will be improved through improved access and the addition of open space for use by existing and future residents whilst also providing open space opportunities for employees of surrounding businesses.

### 2.2 Objectives

- To achieve full utilisation of preferred industrial land.
- To rationalise the extent of industrial land.
- To improve the efficiency of use of industrial allotments.
- To create an identifiable attractive character for the industrial precinct.
- To improve the visual quality of the precinct.
- To maximise the available access to existing major transport infrastructure of rail, road and port facilities.
- To improve the safety and efficiency of the internal road traffic system that also increases the safety for pedestrian and cycle use.
- To improve the overall quality and management of stormwater and environmental values.
- To encourage well-designed mixed use developments incorporating uses such as general commercial, storage, and residential in the MUZ areas.
- To provide infrastructure for residential uses including constructed access, open space and utilities through appropriate staging.



- precinct boundary
- non-arterial road - retained existing road reserve
- public transport facilities/reserve
- local park (ICP land)
- residential land
- employment land
- crown land
- parcel boundary & number
- DPO extent

## 3.0 IMPLEMENTATION

### 3.1 Image and character, open space, land use and built form

#### 3.1.1 Image and character

REQUIREMENTS									
<b>R1</b>	All public landscaped areas must be planted and designed to the satisfaction of the responsible authority.								
<b>R2</b>	Street tree planting must use species suitable for local conditions which are fast growing, hardy, drought tolerant and will not interfere with underground or overhead utilities and are to the satisfaction of the responsible authority.								
<b>R3</b>	<p>Street trees must be planted on both sides of all roads and streets at regular intervals appropriate to tree size at maturity, unless otherwise agreed by the responsible authority, at an average of:</p> <table> <tr> <th>Average Interval</th><th>Tree size (in height)</th></tr> <tr> <td>5–7 metres</td><td>Small trees (less than 10 metres)</td></tr> <tr> <td>7–10 metres</td><td>Medium trees (10–15 metres)</td></tr> <tr> <td>10–15 metres</td><td>Large trees (15 metres or greater)</td></tr> </table>	Average Interval	Tree size (in height)	5–7 metres	Small trees (less than 10 metres)	7–10 metres	Medium trees (10–15 metres)	10–15 metres	Large trees (15 metres or greater)
Average Interval	Tree size (in height)								
5–7 metres	Small trees (less than 10 metres)								
7–10 metres	Medium trees (10–15 metres)								
10–15 metres	Large trees (15 metres or greater)								
<b>R4</b>	<p>Trees in parks and streets must be:</p> <ul style="list-style-type: none"> <li>• Larger species wherever space allows (to facilitate continuous canopy cover);</li> <li>• Planted in modified and improved soil to support tree establishment;</li> <li>• Appropriate in size to nature strips, nearby utilities and built form;</li> <li>• Used consistently across the precinct to reinforce movement hierarchy and local character; and</li> <li>• Consistent with any guidance provided on the relevant cross section within this CDP unless otherwise approved by the responsible authority.</li> </ul>								
<b>R5</b>	Site landscape treatment must comprise hardy, locally indigenous plant material.								
<b>R6</b>	All landscaped areas to be designed in accordance with relevant Council guidelines and to the satisfaction of the responsible authority, including the use of recycled water and storm water where possible.								
<b>R7</b>	A consistent suite of lighting and furniture must be used across the Precinct, as approved by the responsible authority.								
<b>R8</b>	Key locations such as gateway points must incorporate features of interest, clear signage and landscape features.								
GUIDELINES									
<b>G1</b>	High quality and cohesive landscape treatments should be provided throughout the precinct, within the streetscape and in local open spaces, particularly along at key interfaces.								
<b>G2</b>	Variations in street tree species should be used to reinforce and support the road hierarchy or create visual cues in appropriate locations such as gateway points								
<b>G3</b>	Significant trees, where possible, should be retained and located within the public domain, including parks and road reserves, unless otherwise agreed by the responsible authority.								
<b>G4</b>	Subdivision design should preserve the opportunity for additional landscaping in existing road reserves.								



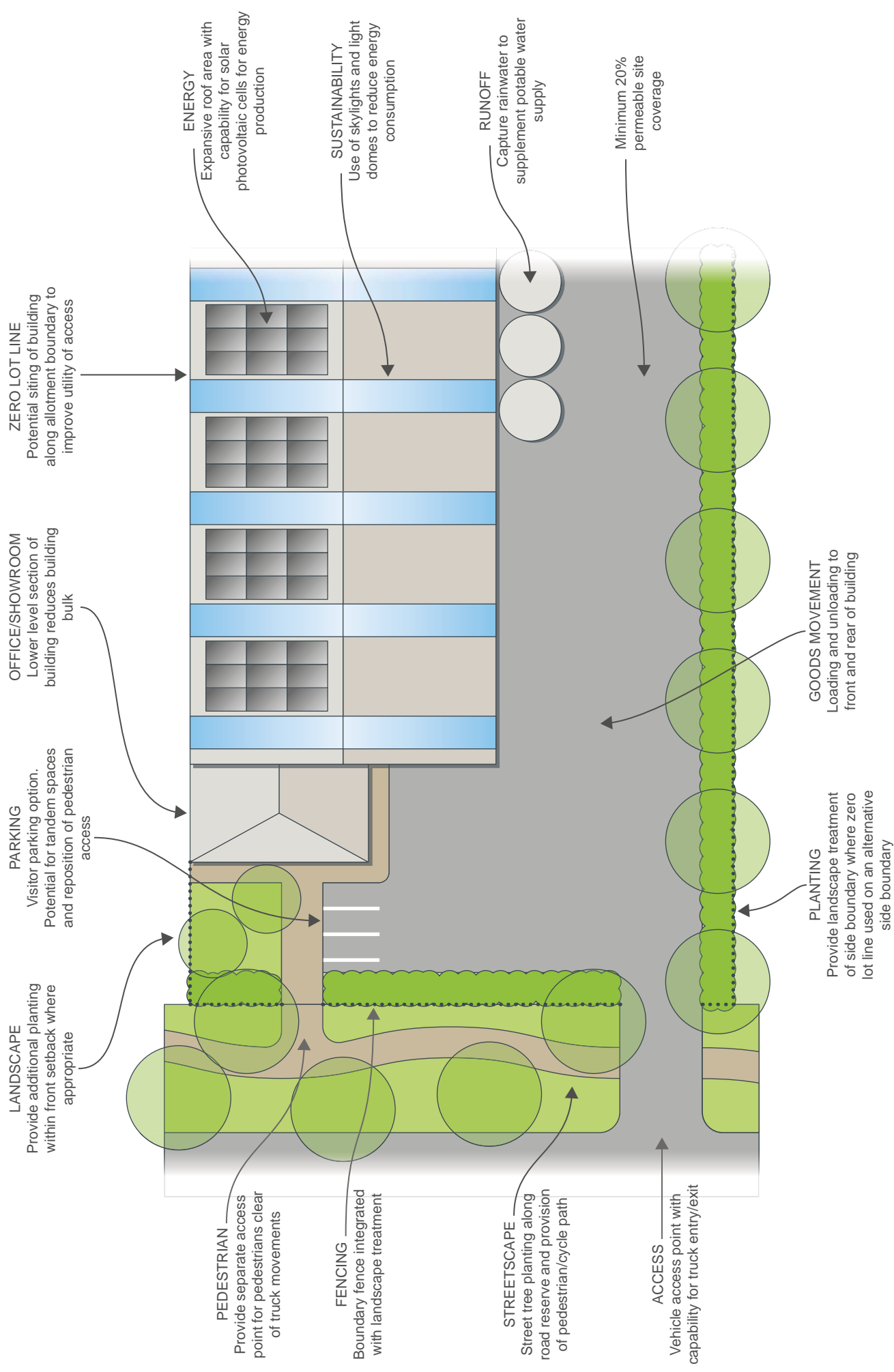


- frontage landscape treatment
- DPO extent

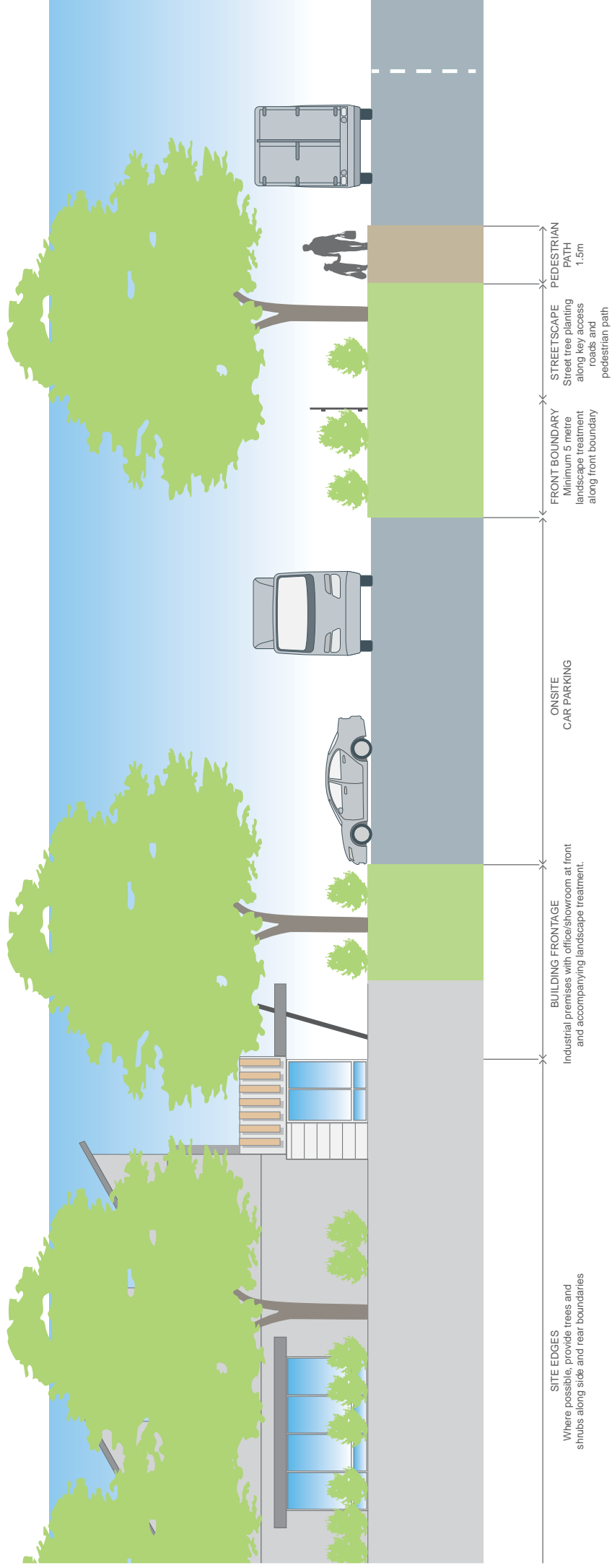


### 3.2 Land use and built form

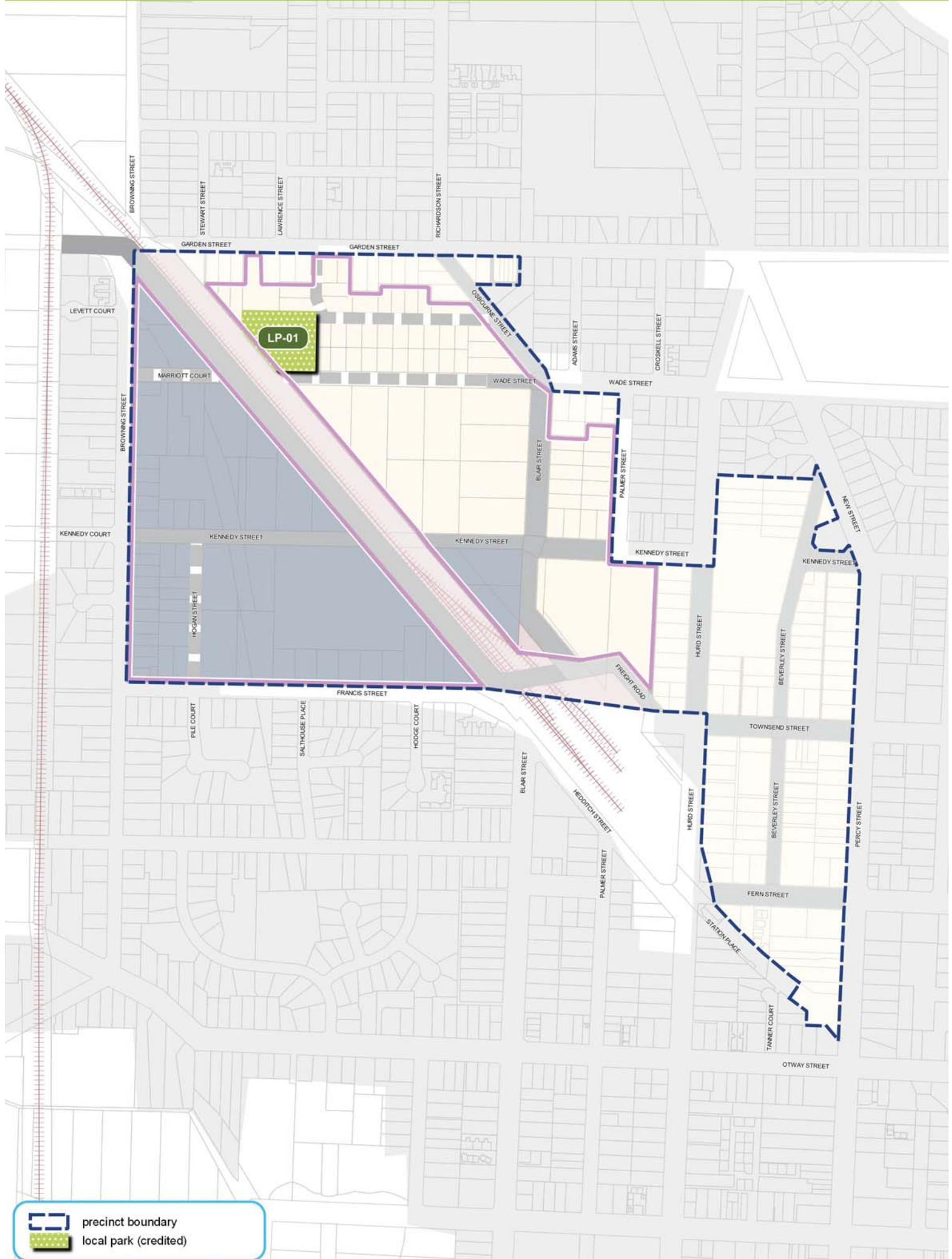
REQUIREMENTS	
<b>R9</b>	Industrial lot and building design should conform with guidance provided in Figures 1 and 2 to the satisfaction of the responsible authority.
<b>R10</b>	The location of land uses, building design, and interface treatment within the precinct must minimise negative impacts on the amenity of nearby residents.
<b>R11</b>	Development which fronts Browning and Francis Streets must incorporate features of interest into the built form, including: <ul style="list-style-type: none"> <li>• Variations in built form elements (such as building heights, use of parapets, awnings and roof elements);</li> <li>• Articulation of building facades; and</li> <li>• Feature colours and materials.</li> </ul>
<b>R12</b>	Goods and materials storage areas and refuse areas must not be visible from public areas.
<b>R13</b>	Development proposals within the precinct must take into account CPTED principles.
<b>R14</b>	Buildings or other areas of development proposals must be set back a minimum of 10 metres from the street within INZ1 areas and setback 20 metres within INZ3 areas. Landscaping for a depth of at least 5 metres must be provided within both setbacks to ensure an attractive interface to surrounding areas
<b>R15</b>	The ancillary offices of development proposals in the industrial areas are to be located at the front of buildings; must include a façade addressing the frontage of the lot; and provide for improved pedestrian access and engagement with the public domain.
<b>R16</b>	Any development in the mixed use areas must be located near the front of any site to present an attractive address to the street.
<b>R17</b>	Any visitor car parking and access areas in the front setback area of any development must be setback a minimum of 5 metres from the street frontage to enable the provision of sufficient landscape strips at the street frontage.
<b>R18</b>	All vehicles must be able to enter and exit the site in a forward direction.
<b>R19</b>	All development must have a minimum of 20% site coverage.
GUIDELINES	
<b>G5</b>	Building heights should be carefully considered when proximate to adjacent sensitive land uses to avoid overshadowing.
<b>G6</b>	External finishes and roof forms of any office/showroom elements of development should be selected to ensure a consistent design theme of the Portland Industrial Park.
<b>G7</b>	Building materials such as corrugated iron, steel and large timber forms which are characteristic of the rural context of the Portland Industrial Park should be used.
<b>G8</b>	Where fencing is required forward of the building lines and along public streets, it should be visually permeable and not greater than 1.8m in height.
<b>G9</b>	Large expanse of continuous wall visible to the street should have appropriate articulation, landscaping and other elements to provide relief and visual interest.
<b>G10</b>	Buildings should be designed to have an integrated appearance so as to avoid the appearance of clutter.



**Figure 1 – Design Guidelines: Industrial Development Allotment Layout**



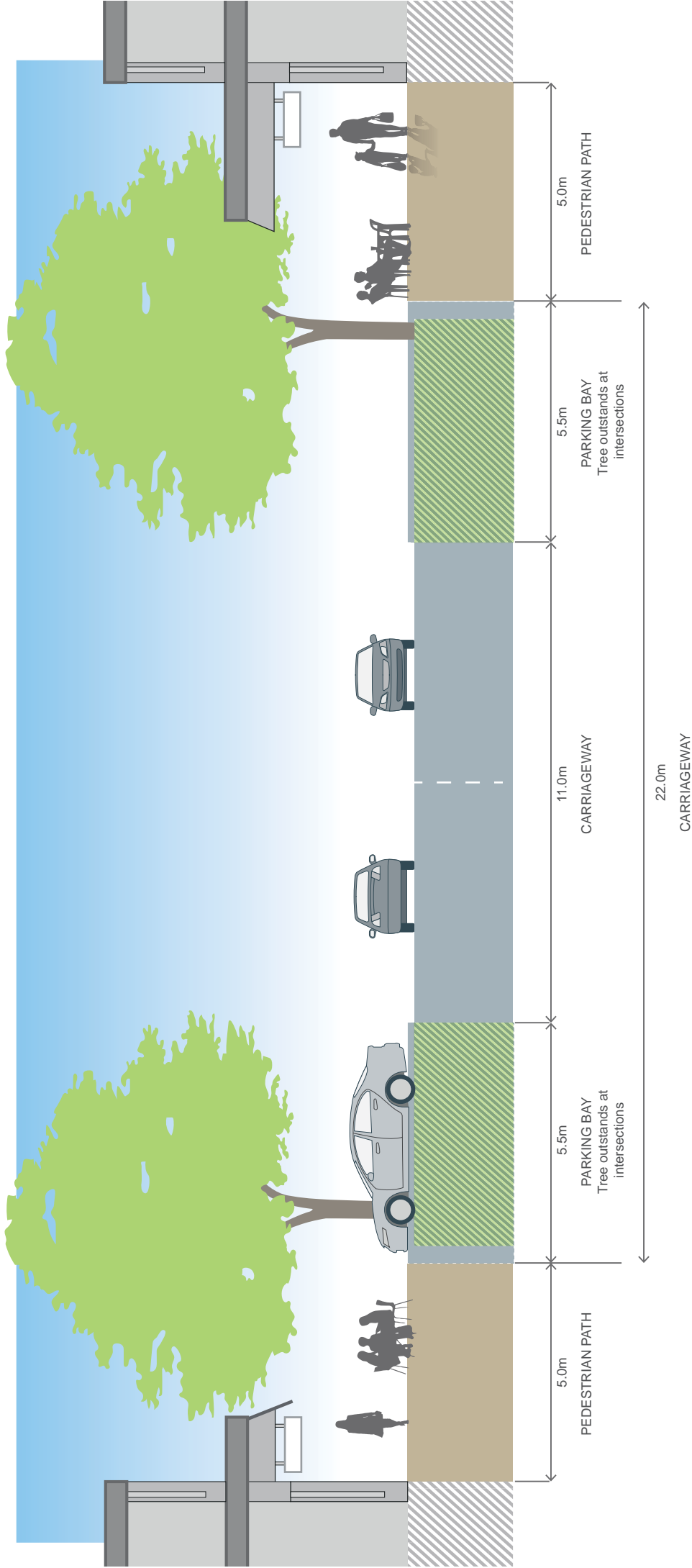
**Figure 2 – Design Guidelines: Industrial Development Allotment Treatment**





### 3.3 Open space

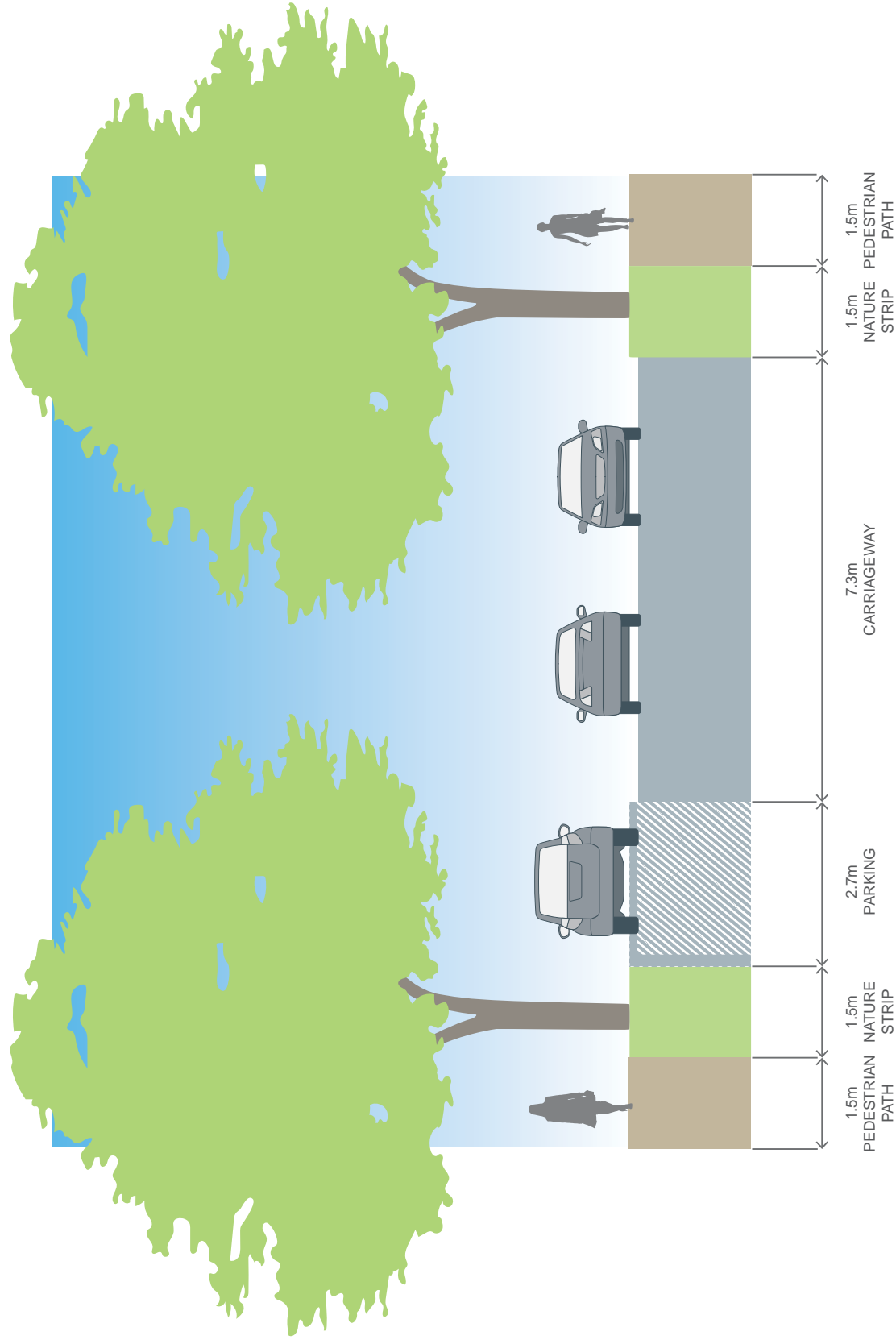
REQUIREMENTS	
<b>R20</b>	The park must be designed and developed to enable practical maintenance.
<b>R21</b>	The park is to be located, designed and developed generally in accordance with the sizes set out in this DP.
<b>R22</b>	The local park should act as a focal point for the precinct and must demonstrate its distinct function and character.
<b>R23</b>	Any development must be designed to avoid casting shadows on two-thirds of the local park between 11:00am and 2:00pm on 22 September.
<b>R24</b>	Any fencing abutting the local park not adjacent to the rail line, whether encumbered or unencumbered, must be visually permeable to facilitate public safety and surveillance and where practical it should also be low scale.
GUIDELINES	
<b>G11</b>	Subject to being compatible with Table 2, parks and open space should seek to maximise retention of existing trees and road frontage should be provided to at least three sides of parks and open space, where practicable.
<b>G12</b>	Local parks should be designed to cater for a broad range of users by providing a mix of spaces and planting to support both structured and unstructured recreational activities and play opportunities for all ages and abilities.
<b>G13</b>	Crime Prevention Through Environmental Design principles (CPTED) should guide the design of open spaces and associated infrastructure.
<b>G14</b>	All local parks should respond appropriately to the design for access and mobility standards (AS 1428).



NOTE:

- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcomes. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority

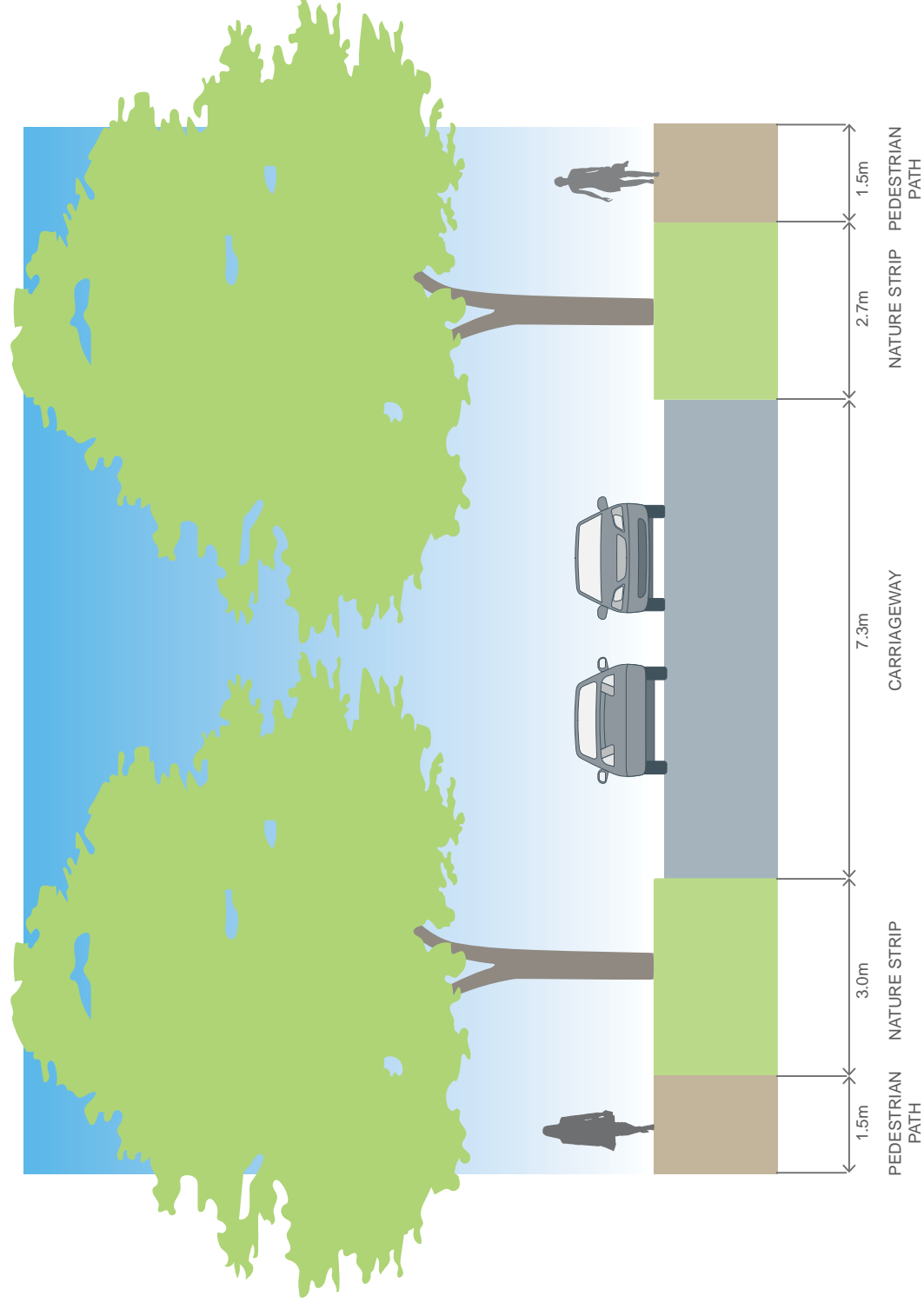
**Figure 3 - Commercial Street – Mixed Use**



NOTES:

- Minimum street tree mature height 15 metres
- All kerbs are to be B2 Barrier Kerb

**Figure 4 - Local Access Street Level 1 (16.0m)**

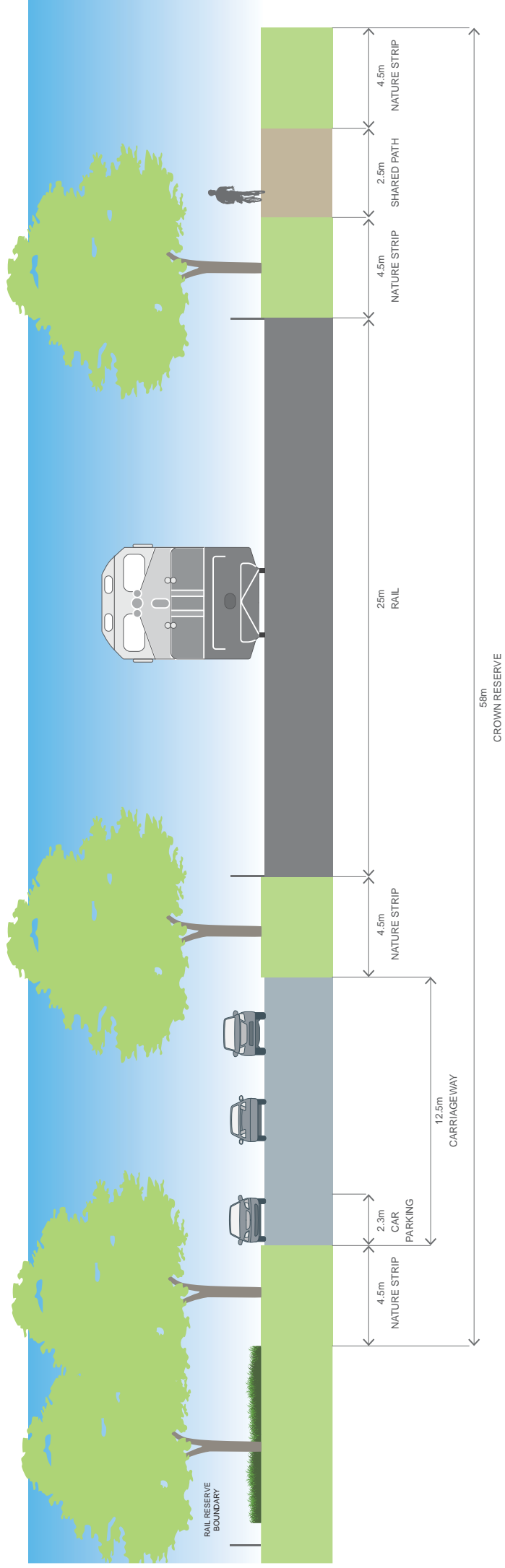


NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2, SM2 or modified SM2 Barrier Kerb (refer Local Government Infrastructure Design Manual, January 2017)

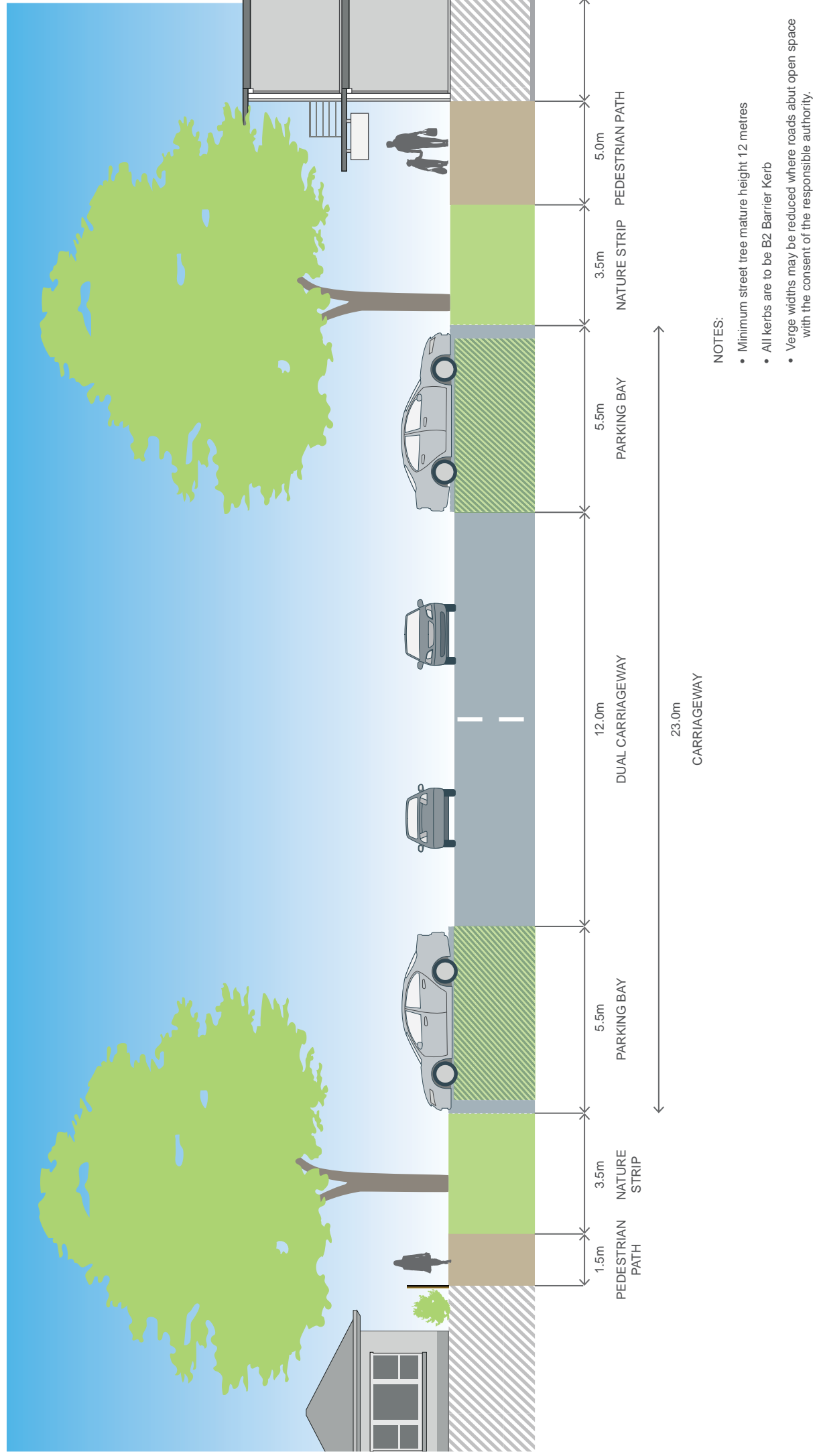
**Figure 5 - Local Access Street – Residential (16.0m)**



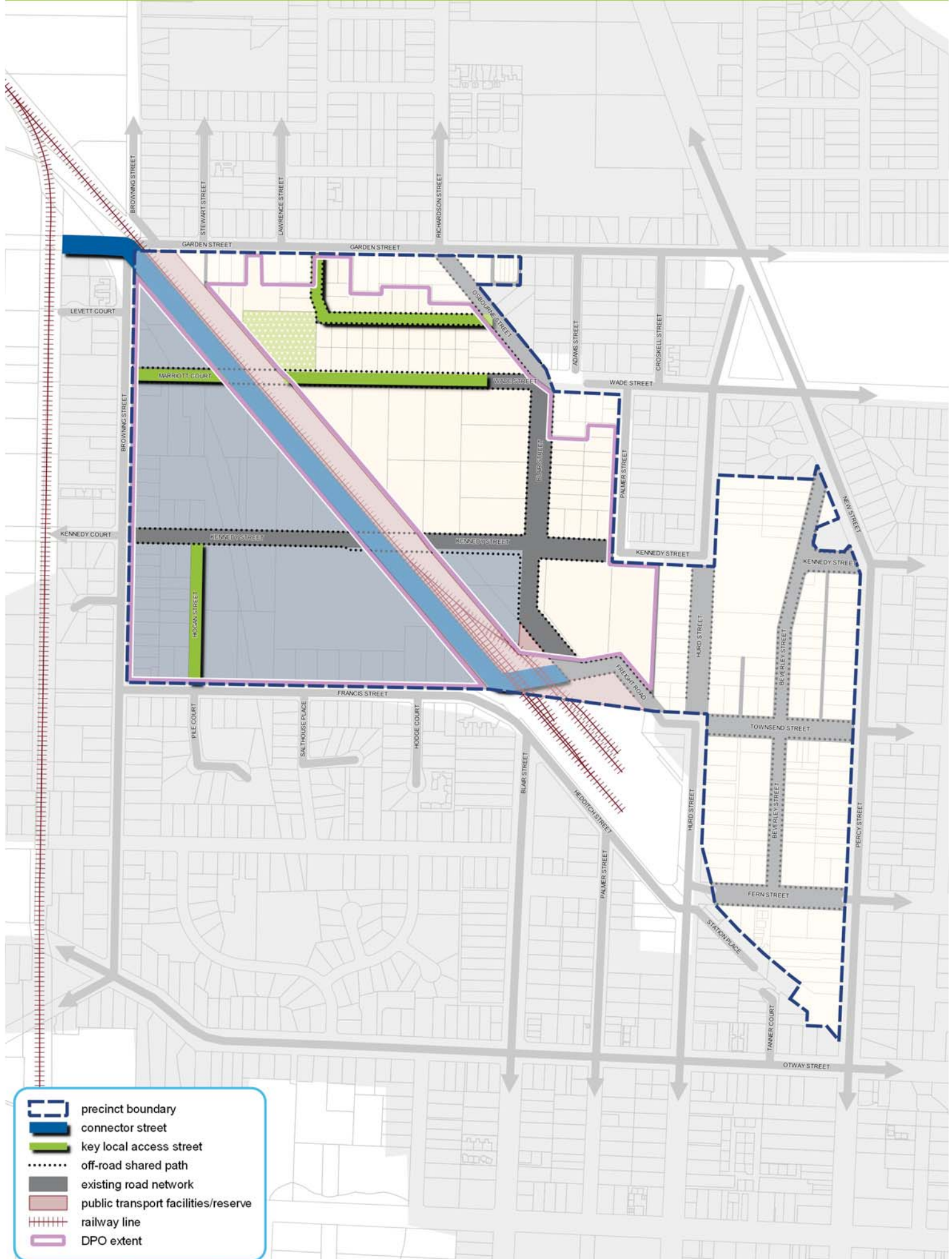


**Figure 6 - Industrial Street – Railway Interface**

(North west view between Francis & Kennedy Streets and south east view between Kennedy and Garden Streets)



**Figure 7 - Wade Street Interface (East view)**



### 3.4 Integrated transport & movement

#### 3.4.1 Public transport

##### REQUIREMENTS

- R25** Bus stop facilities must be designed to the satisfaction of Public Transport Victoria (PTV).

#### 3.4.2 Walking & cycling

##### REQUIREMENTS

- R26** Design of all roads must give priority to the requirements of pedestrians and cyclists by providing:
- Footpaths of at least 1.5 metres on both sides of all streets and roads unless otherwise specified by the DP;
  - Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines;
  - Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision; and
  - Safe pedestrian crossings of roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision.
- All to the satisfaction of the coordinating roads authority and the responsible authority.

##### GUIDELINES

- G15** Lighting should be installed along shared, pedestrian, and cycle paths linking to key destinations, unless otherwise agreed by the responsible authority.

#### 3.4.3 Road network

##### REQUIREMENTS

- R27** Staging of subdivisions must provide for the timely connection of:
- Road links between properties.
  - Road links to the connector and arterial road network.
- R28** All existing local roads within the precinct associated with any development proposal must be upgraded to the satisfaction of the responsible authority.
- R29** Subdivision layouts must provide:
- A permeable, safe and low speed street network that encourages walking and cycling;
  - Convenient access to local points of interest and destinations; and
  - For the effective integration with neighbouring properties.

##### GUIDELINES

- G16** Vehicle crossovers should be provided so as not to dominate the streetscape and provide the opportunity for nature strip landscaping.



**THIS PAGE IS  
DELIBERATELY LEFT  
BLANK**

### 3.5 Integrated water management, sustainability & utilities servicing

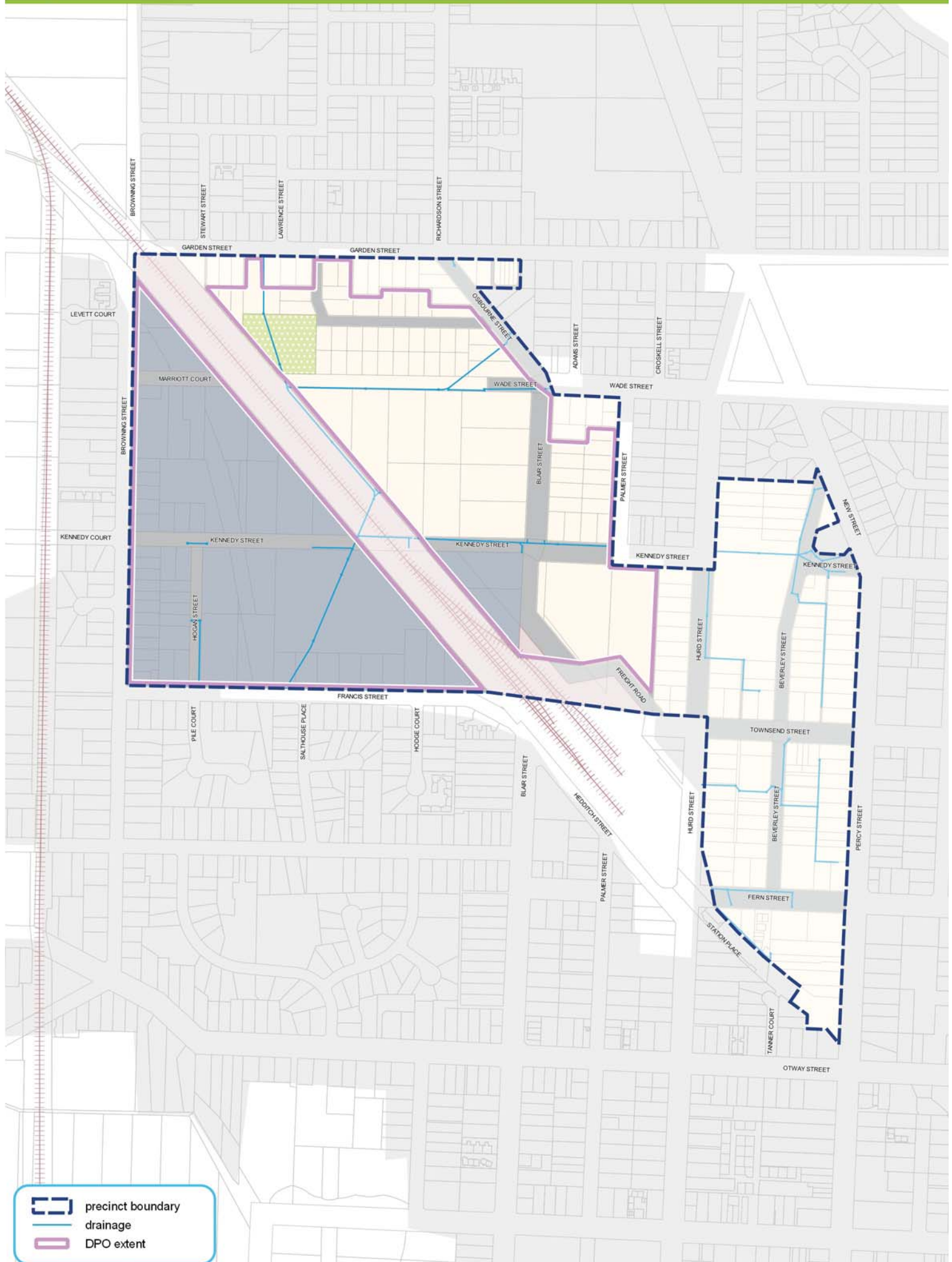
#### 3.5.1 Integrated water management & sustainability

##### REQUIREMENTS

<b>R30</b>	Stormwater runoff from new development must meet or exceed the performance objectives of the Infrastructure Design Manual (IDM) prior to discharge to receiving waterways, unless otherwise approved by the responsible authority.
<b>R31</b>	Quantity of stormwater runoff from development must not exceed the runoff generated from the pre-developed site, to the satisfaction of the responsible authority.
<b>R32</b>	<p>Development applications must demonstrate how:</p> <ul style="list-style-type: none"> <li>• Overland flow paths and piping within road or other reserves will be connected and integrated across property/parcel boundaries;</li> <li>• The responsible authority freeboard requirements for overland flow paths will be adequately contained within road or other reserves;</li> <li>• The development will deliver Integrated Water Management requirements of any approved Integrated Water Management Plan or Strategy;</li> <li>• Development will prevent litter from entering the downstream drainage system through the use of litter traps, as required by the drainage authorities.</li> </ul>
<b>R33</b>	Environmentally sustainable principles and initiatives should be considered in the design of buildings, such as solar aspect, cross-flow ventilation, materials and finishes, embodied energy, use of solar hot water and on-site collection and reuse of stormwater.

##### GUIDELINES

<b>G17</b>	Development should support and facilitate the use of alternative water supplies.
<b>G18</b>	Development should have regard to relevant policies and strategies being implemented by the responsible authority, Wannon Water and water retail authority, including any approved Integrated Water Management Plan.
<b>G19</b>	The design and layout of roads, road reserves, and public open space should optimise water use efficiency and long-term viability of vegetation and public uses through the use of overland flow paths, Water Sensitive Urban Design initiatives such as rain gardens and/or locally treated storm water for irrigation, where practical.
<b>G20</b>	Where practical, development should include integrated water management initiatives to reduce reliance on potable water and increase utilization of storm and waste water, contributing to a sustainable and green urban environment.



### 3.5.2 Utilities

#### REQUIREMENTS

<b>R34</b>	Delivery of underground services must be coordinated, located, and bundled (using common trenching) to facilitate the planting of trees and other vegetation within road verges.
<b>R35</b>	All existing above ground electricity cables of less than 66kV voltage must be placed underground as part of the upgrade of existing roads.
<b>R36</b>	All new electricity supply infrastructure (excluding substations and cables of a voltage greater than 66kV) must be provided underground.
<b>R37</b>	Where existing above ground electricity cables of 66kV voltage are retained along road ways, underground conduits are to be provided as part of the upgrade of these roads to allow for future undergrounding of the electricity supply.
<b>R38</b>	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding area and to minimise amenity impacts, and be designed to the satisfaction of the relevant authority.
<b>R39</b>	All lots must be provided with potable water, electricity, reticulated sewerage, drainage, gas and telecommunications to the satisfaction of the relevant servicing authority.
<b>R40</b>	Any plan of subdivision must contain a restriction which provides that no dwelling or commercial building may be constructed on any allotment unless the building incorporates dual plumbing for recycled water supply for toilet flushing and garden watering use should it become available.

#### GUIDELINES

<b>G21</b>	Above ground utilities should be screened with vegetation, as appropriate.
<b>G22</b>	Existing above ground 66kV electricity cables should be removed and placed underground as part of the upgrade of existing roads.
<b>G23</b>	Design and placement of underground services in new or upgraded streets should use the service placement guidelines outlined in Appendix 4.2.
<b>G24</b>	Utility easements to the rear of lots should only be provided where there is no practical alternative.

### 3.6 Infrastructure delivery & development staging

#### 3.6.1 Development staging

REQUIREMENTS	
<b>R41</b>	<p>Development staging must provide for the timely provision and delivery of:</p> <ul style="list-style-type: none"> <li>• Street links between properties, constructed to the property boundary; and</li> <li>• Connection of the on-road pedestrian and bicycle network.</li> </ul>
<b>R42</b>	<p>Development viability and staging in this precinct will be determined largely through the availability and provision of infrastructure in order to access and service each development site. Within this context, development must:</p> <ul style="list-style-type: none"> <li>• Ensure the safe and orderly vehicular access to the existing arterial network; and</li> <li>• Provide access to each lot via a sealed road constructed to service the development, at a standard to the satisfaction of the responsible authority.</li> </ul>
<b>R43</b>	<p>Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the DP, by any date or stage of development required or approved by the responsible authority.</p>

#### 3.6.2 Subdivision

REQUIREMENTS	
<b>R44</b>	<p>Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure:</p> <ul style="list-style-type: none"> <li>• Upgrade of local streets;</li> <li>• Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria);</li> <li>• Landscaping of all existing and future roads and local streets</li> <li>• Intersection works and traffic management measures along arterial roads, connector streets, and local streets;</li> <li>• Landscaping of all existing and future roads and local streets;</li> <li>• Council approved fencing and landscaping (where required) along Browning and Francis Streets;</li> <li>• Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points;</li> <li>• Appropriately scaled lighting along all roads, major shared and pedestrian paths, and traversing public open space;</li> <li>• Basic improvements to local parks and other open space;</li> <li>• Local drainage system; and</li> <li>• Infrastructure as required by utility service providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas and telecommunications.</li> </ul>
GUIDELINES	
<b>G25</b>	<p>Subdivision should provide for a range of lot sizes to cater for a diversity of industrial and commercial uses.</p>



### 3.7 Open space delivery

#### REQUIREMENTS

<b>R45</b>	<p>All public open space must be finished to a standard to the satisfaction of the responsible authority prior to the transfer of the public open space, including:</p> <ul style="list-style-type: none"> <li>• Removal of all existing and disused structures, foundations, pipelines, and stockpiles;</li> <li>• Clearing of rubbish and weeds, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise);</li> <li>• Provision of water tapping, potable and recycled water connection points. Sewer and gas connection points must also be provided to land identified as a sports reserve and community facility;</li> <li>• Planting of trees and shrubs;</li> <li>• Provision of vehicular exclusion devices (fence, bollards, or other suitable method); and</li> <li>• Maintenance access points.</li> </ul>
<b>R46</b>	<p>Installation of park furniture including barbeques, shelters, furniture, rubbish bins, local scale playground equipment, local scale play areas, drinking fountains and kickabout spaces and appropriate paving to support these facilities consistent with local parks.</p>
<b>R47</b>	<p>Include boundary fencing where the public open space abuts private land, or as required by the responsible authority.</p>
<b>R48</b>	<p>Remediation of any contamination.</p>

#### GUIDELINES

<b>G26</b>	<p>Subdivision should provide for a range of lot sizes to cater for a diversity of industrial and commercial uses.</p>
------------	--

## 4.0 APPENDIX

### 4.1 Property specific land budget (Refer Plan 4)

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
PROPERTY						
1	3.04	-	3.04	-	0.00	0.00%
2	2.20	-	2.20	-	0.00	0.00%
3	0.24	-	-	-	0.24	100.00%
4	0.02	-	-	-	0.02	100.00%
5	0.20	-	-	-	0.20	100.00%
6	0.00	-	-	-	0.00	100.00%
7	0.33	-	-	-	0.33	100.00%
8	0.07	-	-	-	0.07	100.00%
9	0.43	-	-	-	0.43	100.00%
10	0.26	-	-	-	0.26	100.00%
11	0.25	-	-	-	0.25	100.00%
12	0.47	-	-	-	0.47	100.00%
13	0.21	-	-	-	0.21	100.00%
14	0.08	-	-	-	0.08	100.00%
15	0.08	-	-	-	0.08	100.00%
16	0.08	-	-	-	0.08	100.00%
17	0.08	-	-	-	0.08	100.00%
18	0.10	-	-	-	0.10	100.00%
19	0.08	-	-	-	0.08	100.00%
20	0.08	-	-	-	0.08	100.00%
21	0.08	-	-	-	0.08	100.00%
22	0.52	-	-	-	0.52	100.00%
23	0.37	-	-	-	0.37	100.00%
24	0.07	-	-	-	0.07	100.00%
25	0.10	-	-	-	0.10	100.00%
26	0.42	-	-	-	0.42	100.00%
27	0.48	-	-	-	0.48	100.00%
28	0.21	-	-	-	0.21	100.00%
29	0.07	-	-	-	0.07	100.00%
30	0.07	-	-	-	0.07	100.00%
31	0.07	-	-	-	0.07	100.00%
32	0.07	-	-	-	0.07	100.00%
33	0.05	-	-	-	0.05	100.00%
34	0.07	-	-	-	0.07	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
35	0.07	-	-	-	0.07	100.00%
36	0.07	-	-	-	0.07	100.00%
37	0.07	-	-	-	0.07	100.00%
38	0.07	-	-	-	0.07	100.00%
39	0.06	-	-	-	0.06	100.00%
40	0.06	-	-	-	0.06	100.00%
41	0.02	-	-	-	0.02	100.00%
42	0.10	-	-	-	0.10	100.00%
43	0.10	-	-	-	0.10	100.00%
44	0.06	-	-	-	0.06	100.00%
45	0.06	-	-	-	0.06	100.00%
46	0.07	-	-	-	0.07	100.00%
47	0.07	-	-	-	0.07	100.00%
48	0.13	-	-	-	0.13	100.00%
49	0.11	-	-	-	0.11	100.00%
50	0.11	-	-	-	0.11	100.00%
51	0.41	-	-	-	0.41	100.00%
52	0.00	-	-	-	0.00	100.00%
53	0.19	-	-	-	0.19	100.00%
54	0.31	-	-	-	0.31	100.00%
55	0.51	-	-	-	0.51	100.00%
56	0.14	-	-	-	0.14	100.00%
57	0.37	-	-	-	0.37	100.00%
58	2.50	-	-	-	2.50	100.00%
59	0.15	-	-	-	0.15	100.00%
60	0.15	-	-	-	0.15	100.00%
61	0.15	-	-	-	0.15	100.00%
62	0.15	-	-	-	0.15	100.00%
63	0.15	-	-	-	0.15	100.00%
64	0.15	-	-	-	0.15	100.00%
65	0.25	-	-	-	0.25	100.00%
66	0.19	-	-	-	0.19	100.00%
67	0.13	-	-	-	0.13	100.00%
68	0.10	-	-	-	0.10	100.00%
69	0.10	-	-	-	0.10	100.00%
70	0.10	-	-	-	0.10	100.00%
71	0.13	-	-	-	0.13	100.00%
72	0.17	-	-	-	0.17	100.00%
73	0.41	-	-	-	0.41	100.00%
74	0.08	-	-	-	0.08	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
75	0.08	-	-	-	0.08	100.00%
76	0.09	-	-	-	0.09	100.00%
77	0.09	-	-	-	0.09	100.00%
78	0.09	-	-	-	0.09	100.00%
79	0.09	-	-	-	0.09	100.00%
80	0.08	-	-	-	0.08	100.00%
81	0.10	-	-	-	0.10	100.00%
82	0.08	-	-	-	0.08	100.00%
83	0.07	-	-	-	0.07	100.00%
84	0.07	-	-	-	0.07	100.00%
85	0.07	-	-	-	0.07	100.00%
86	0.07	-	-	-	0.07	100.00%
87	0.09	-	-	-	0.09	100.00%
88	0.08	-	-	-	0.08	100.00%
89	0.11	-	-	-	0.11	100.00%
90	0.07	-	-	-	0.07	100.00%
91	0.07	-	-	-	0.07	100.00%
92	0.07	-	-	-	0.07	100.00%
93	0.07	-	-	-	0.07	100.00%
94	0.10	-	-	-	0.10	100.00%
95	0.11	-	-	-	0.11	100.00%
96	0.06	-	-	-	0.06	100.00%
97	0.08	-	-	-	0.08	100.00%
98	0.03	-	-	-	0.03	100.00%
99	0.02	-	-	-	0.02	100.00%
100	0.02	-	-	-	0.02	100.00%
101	0.02	-	-	-	0.02	100.00%
102	0.02	-	-	-	0.02	100.00%
103	0.70	-	-	0.70	0.00	0.00%
104	0.07	-	-	-	0.07	100.00%
105	0.07	-	-	-	0.07	100.00%
106	0.07	-	-	-	0.07	100.00%
107	0.07	-	-	-	0.07	100.00%
108	0.07	-	-	-	0.07	100.00%
109	0.07	-	-	-	0.07	100.00%
110	0.07	-	-	-	0.07	100.00%
111	0.07	-	-	-	0.07	100.00%
112	0.07	-	-	-	0.07	100.00%
113	0.06	-	-	-	0.06	100.00%
114	0.09	-	-	-	0.09	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
115	0.13	-	-	-	0.13	100.00%
116	0.07	-	-	-	0.07	100.00%
117	0.07	-	-	-	0.07	100.00%
118	0.07	-	-	-	0.07	100.00%
119	0.07	-	-	-	0.07	100.00%
120	0.07	-	-	-	0.07	100.00%
121	0.07	-	-	-	0.07	100.00%
122	0.07	-	-	-	0.07	100.00%
123	0.07	-	-	-	0.07	100.00%
124	0.07	-	-	-	0.07	100.00%
125	0.06	-	-	-	0.06	100.00%
126	0.17	-	-	-	0.17	100.00%
127	0.56	-	-	-	0.56	100.00%
128	0.42	-	-	-	0.42	100.00%
129	0.63	-	-	-	0.63	100.00%
130	0.51	-	-	-	0.51	100.00%
131	0.51	-	-	-	0.51	100.00%
132	0.48	-	-	-	0.48	100.00%
133	0.47	-	-	-	0.47	100.00%
134	0.41	-	-	-	0.41	100.00%
135	0.51	-	-	-	0.51	100.00%
136	0.46	-	-	-	0.46	100.00%
137	0.46	-	-	-	0.46	100.00%
138	0.20	-	-	-	0.20	100.00%
139	0.29	-	-	-	0.29	100.00%
140	0.34	-	-	-	0.34	100.00%
141	0.11	-	-	-	0.11	100.00%
142	0.09	-	-	-	0.09	100.00%
143	0.09	-	-	-	0.09	100.00%
144	0.09	-	-	-	0.09	100.00%
145	0.05	-	-	-	0.05	100.00%
146	0.05	-	-	-	0.05	100.00%
147	0.09	-	-	-	0.09	100.00%
148	0.09	-	-	-	0.09	100.00%
149	0.09	-	-	-	0.09	100.00%
150	0.09	-	-	-	0.09	100.00%
151	0.09	-	-	-	0.09	100.00%
152	0.09	-	-	-	0.09	100.00%
153	0.09	-	-	-	0.09	100.00%
154	0.09	-	-	-	0.09	100.00%



PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
155	0.09	-	-	-	0.09	100.00%
156	0.09	-	-	-	0.09	100.00%
157	0.09	-	-	-	0.09	100.00%
158	0.09	-	-	-	0.09	100.00%
159	0.09	-	-	-	0.09	100.00%
160	0.09	-	-	-	0.09	100.00%
161	0.09	-	-	-	0.09	100.00%
162	0.09	-	-	-	0.09	100.00%
163	0.08	-	-	-	0.08	100.00%
164	0.03	-	-	-	0.03	100.00%
165	1.06	-	-	-	1.06	100.00%
166	0.02	-	0.02	-	0.00	0.00%
167	0.85	-	-	-	0.85	100.00%
168	0.10	-	-	-	0.10	100.00%
169	0.08	-	-	-	0.08	100.00%
170	0.09	-	-	-	0.09	100.00%
171	0.09	-	-	-	0.09	100.00%
172	0.09	-	-	-	0.09	100.00%
173	0.09	-	-	-	0.09	100.00%
174	0.09	-	-	-	0.09	100.00%
175	0.09	-	-	-	0.09	100.00%
176	0.05	-	-	-	0.05	100.00%
177	0.05	-	-	-	0.05	100.00%
178	0.02	-	-	-	0.02	100.00%
179	0.03	-	-	-	0.03	100.00%
180	0.05	-	-	-	0.05	100.00%
181	0.12	-	-	-	0.12	100.00%
182	0.12	-	-	-	0.12	100.00%
183	0.10	-	-	-	0.10	100.00%
184	0.10	-	-	-	0.10	100.00%
185	0.12	-	-	-	0.12	100.00%
186	0.11	-	-	-	0.11	100.00%
187	0.09	-	-	-	0.09	100.00%
188	0.09	-	-	-	0.09	100.00%
189	0.08	-	-	-	0.08	100.00%
190	0.07	-	-	-	0.07	100.00%
191	1.21	-	-	-	1.21	100.00%
192	0.55	-	-	-	0.55	100.00%
193	0.09	-	-	-	0.09	100.00%
194	0.09	-	-	-	0.09	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
195	0.09	–	–	–	0.09	100.00%
196	0.09	–	–	–	0.09	100.00%
197	0.11	–	–	–	0.11	100.00%
198	0.07	–	–	–	0.07	100.00%
199	0.09	–	–	–	0.09	100.00%
200	0.09	–	–	–	0.09	100.00%
201	0.02	–	–	–	0.02	100.00%
202	0.11	–	–	–	0.11	100.00%
203	0.06	–	–	–	0.06	100.00%
204	0.07	–	–	–	0.07	100.00%
205	0.07	–	–	–	0.07	100.00%
206	0.07	–	–	–	0.07	100.00%
207	0.07	–	–	–	0.07	100.00%
208	0.09	–	–	–	0.09	100.00%
209	0.09	–	–	–	0.09	100.00%
210	0.09	–	–	–	0.09	100.00%
211	0.09	–	–	–	0.09	100.00%
212	0.09	–	–	–	0.09	100.00%
213	0.09	–	–	–	0.09	100.00%
214	0.09	–	–	–	0.09	100.00%
215	0.09	–	–	–	0.09	100.00%
216	0.09	–	–	–	0.09	100.00%
217	0.09	–	–	–	0.09	100.00%
218	0.09	–	–	–	0.09	100.00%
219	0.09	–	–	–	0.09	100.00%
220	0.09	–	–	–	0.09	100.00%
221	0.09	–	–	–	0.09	100.00%
222	0.09	–	–	–	0.09	100.00%
223	0.09	–	–	–	0.09	100.00%
224	0.09	–	–	–	0.09	100.00%
225	0.07	–	–	–	0.07	100.00%
226	0.08	–	–	–	0.08	100.00%
227	0.08	–	–	–	0.08	100.00%
228	0.08	–	–	–	0.08	100.00%
229	0.08	–	–	–	0.08	100.00%
230	0.09	–	–	–	0.09	100.00%
231	0.08	–	–	–	0.08	100.00%
232	0.07	–	–	–	0.07	100.00%
233	0.09	–	–	–	0.09	100.00%
234	0.26	–	–	–	0.26	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
235	0.02	–	–		0.02	100.00%
236	0.08	–	–	–	0.08	100.00%
237	0.08	–	–	–	0.08	100.00%
238	0.08	–	–	–	0.08	100.00%
239	0.09	–	–	–	0.09	100.00%
240	0.09	–	–	–	0.09	100.00%
241	0.09	–	–	–	0.09	100.00%
242	0.05	–	–	–	0.05	100.00%
243	0.02	–	–	–	0.02	100.00%
244	0.02	–	–	–	0.02	100.00%
245	0.05	–	–	–	0.05	100.00%
246	0.02	–	–	–	0.02	100.00%
247	0.02	–	–	–	0.02	100.00%
248	0.02	–	–	–	0.02	100.00%
249	0.06	–	–	–	0.06	100.00%
250	0.01	–	–	–	0.01	100.00%
251	0.09	–	–	–	0.09	100.00%
252	0.03	–	–	–	0.03	100.00%
253	0.06	–	–	–	0.06	100.00%
254	0.07	–	–	–	0.07	100.00%
255	0.02	–	–	–	0.02	100.00%
256	0.09	–	–	–	0.09	100.00%
257	0.27	–	–	–	0.27	100.00%
258	0.09	–	–	–	0.09	100.00%
259	0.09	–	–	–	0.09	100.00%
260	0.09	–	–	–	0.09	100.00%
261	0.09	–	–	–	0.09	100.00%
262	0.09	–	–	–	0.09	100.00%
263	0.09	–	–	–	0.09	100.00%
264	0.05	–	–	–	0.05	100.00%
265	0.04	–	–	–	0.04	100.00%
266	0.09	–	–	–	0.09	100.00%
267	0.09	–	–	–	0.09	100.00%
268	0.09	–	–	–	0.09	100.00%
269	0.07	–	–	–	0.07	100.00%
270	0.08	–	–	–	0.08	100.00%
271	0.01	–	–	–	0.01	100.00%
272	0.01	–	–	–	0.01	100.00%
273	0.01	–	–	–	0.01	100.00%
274	0.01	–	–	–	0.01	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT		LOCAL NETWORK PARK	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		NON-ARTERIAL ROAD – RETAINED EXISTING ROAD RESERVE	PUBLIC TRANSPORT FACILITIES / RESERVE			
275	0.01	–	–	–	0.01	100.00%
276	0.01	–	–	–	0.01	100.00%
277	0.01	–	–	–	0.01	100.00%
278	0.08	–	–	–	0.08	100.00%
279	0.20	–	–	–	0.20	100.00%
280	0.20	–	–	–	0.20	100.00%
281	0.20	–	–	–	0.20	100.00%
282	0.09	–	–	–	0.09	100.00%
283	0.11	–	–	–	0.11	100.00%
284	0.15	–	–	–	0.15	100.00%
285	0.08	–	–	–	0.08	100.00%
286	0.28	–	–	–	0.28	100.00%
<b>SUB-TOTAL</b>	<b>45.15</b>	<b>–</b>	<b>5.25</b>	<b>0.70</b>	<b>39.20</b>	<b>86.82%</b>

ROAD RESERVE						
RD1	0.02	0.02	–	–	0.00	0.00%
RD2	0.48	0.48	–	–	0.00	0.00%
RD3	0.26	0.26	–	–	0.00	0.00%
RD4 (Wade Street)	0.19	0.19	–	–	0.00	0.00%
RD5 (Kennedy Street)	1.65	1.49	0.16	–	0.00	0.00%
RD6 (Hogan Street)	0.30	0.30	–	–	0.00	0.00%
RD7 (Osbourne Street)	0.42	0.42	–	–	0.00	0.00%
RD8 (Blair Street)	0.63	0.63	–	–	0.00	0.00%
RD9 (Freight Road)	0.75	0.75	–	–	0.00	0.00%
RD10	0.04	0.04	–	–	0.00	0.00%
RD11	0.14	0.14	–	–	0.00	0.00%
RD12 (Hurd Street)	0.61	0.61	–	–	0.00	0.00%
RD13	0.03	0.03	–	–	0.00	0.00%
RD14 (Beverley Street)	1.09	1.09	–	–	0.00	0.00%
RD15	0.06	0.06	–	–	0.00	0.00%
RD16 (Townsend Street)	0.61	0.61	–	–	0.00	0.00%
RD17 (Fern Street)	0.55	0.55	–	–	0.00	0.00%
<b>SUB-TOTAL</b>	<b>7.83</b>	<b>7.66</b>	<b>0.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00%</b>

<b>TOTALS PSP</b>	<b>52.97</b>	<b>7.66</b>	<b>5.41</b>	<b>0.70</b>	<b>39.20</b>	<b>74.00%</b>
-------------------	--------------	-------------	-------------	-------------	--------------	---------------

## 4.2 Service placement guidelines

### ROAD CROSS SECTIONS

The Engineering Design and Construction Manual outlines placement of services for a typical street environment. This approach is appropriate for the road cross sections outlined in this DP containing grassed nature strips, footpaths and road pavements.

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES <sup>1</sup>	UNDER KERB	UNDER ROAD PAVEMENT <sup>2</sup>	WITHIN ALLOTMENTS	NOTES
SEWER	Possible	Preferred	Possible	No	Possible	Possible <sup>3</sup>	
POTABLE WATER	Possible <sup>4</sup>	Preferred	Possible	No	Possible	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible <sup>4</sup>	Preferred	Preferred	No	Possible	No	
RETICULATED GAS	Possible <sup>4</sup>	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred <sup>4</sup>	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH / TELCO	Preferred <sup>4</sup>	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Possible	Possible <sup>3</sup>	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Possible	No	

### GENERAL PRINCIPLES FOR SERVICE PLACEMENT

- Place gas and water on one side of road, electricity on the opposite side
- Place water supply on the high side of road
- Place services that need connection to adjacent properties closer to these properties
- Place trunk services further away from adjacent properties
- Place services that relate to the road carriageway (e.g. drainage, street light electricity supply) closer to the road carriageway
- Maintain appropriate services clearances and overlap these clearances wherever possible
- Services must be placed outside of natural waterway corridors or on the outer edges of these corridors to avoid disturbance to existing waterway values.

#### TABLE NOTES

1. Trees are not to be placed directly over property service connections.
2. Placement of services under road pavement is to be considered when service cannot be accommodated elsewhere in road reserve. Placement of services beneath edge of road pavement/parking bays is preferable to within traffic lanes.
3. Where allotment size/frontage width allows adequate room to access and work on a pipe.
4. Where connections to properties are within a pit in the pedestrian pavement/ footpath.



