



# Portland Industrial Land Strategy

GLENELG SHIRE COUNCIL  
AND THE VICTORIAN  
GOVERNMENT



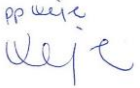


# Portland Industrial Land Strategy

Glenelg Shire Council and Victorian Government

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The Portland Industrial Land Strategy *Framework Plan* was prepared by WSP | Parsons Brinckerhoff, on behalf of the Glenelg Shire Council, with the assistance of the Victorian Government.



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# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>ii</b>	<b>4</b>	<b>URBAN DESIGN DIRECTION</b>	<b>36</b>
<b>1 INTRODUCTION AND CONTEXT</b>	<b>1</b>	<b>4.1</b>	<b>Precinct 1– North Portland Industrial Precinct</b>	<b>36</b>
1.1 Study area context	1	<b>4.2</b>	<b>Precinct 3 – Central Portland Employment Precinct</b>	<b>39</b>
1.2 Introduction	2	<b>4.3</b>	<b>Precinct 4 – Madeira-Packet Employment Precinct</b>	<b>41</b>
1.3 Purpose of the Portland Industrial Land Strategy	3	<b>5</b>	<b>URBAN DESIGN GUIDELINES</b>	<b>44</b>
1.4 Strategic context (regional role)	3	<b>5.1</b>	<b>Precinct 1 – North Portland Industrial Precinct</b>	<b>44</b>
1.5 Summary of issues and opportunities	4	<b>5.2</b>	<b>Precinct 3 – Central Portland Employment Precinct</b>	<b>44</b>
1.6 Consultation outcomes	9	<b>5.3</b>	<b>Precinct 4 – Madeira-Packet Employment Precinct</b>	<b>45</b>
1.7 Current Industrial Land Supply	11	<b>5.4</b>	<b>Industrial Allotment Requirements</b>	<b>46</b>
1.8 Projected Industrial Land Demand	12	<b>6</b>	<b>IMPLEMENTATION</b>	<b>56</b>
<b>2 FRAMEWORK PLAN</b>	<b>13</b>	<b>6.1</b>	<b>Strategies and actions</b>	<b>56</b>
2.1 Vision	13			
2.2 Key directions	13			
<b>3 PRECINCT MASTER PLANS</b>	<b>20</b>			
3.1 Introduction	20			
3.2 Precinct 1 – North Portland Industrial Precinct	23			
3.3 Precinct 3 – Central Portland Employment Precinct	27			
3.4 Precinct 4 – Madeira-Packet Employment Precinct	31			



## EXECUTIVE SUMMARY

The Glenelg Shire Council has clearly identified the purpose of this strategy:

*The Portland industrial Strategy will strategically identify the location and attributes of industrial land to meet the long term needs of industry. This will be achieved by:*

- *considering current and forecast industry trends*
- *understanding land supply that is fit for purpose; and*
- *identifying and advancing solutions to land use and servicing constraints.*

*This will result in new and modified land use controls including rezoning, local policies, framework and precinct plans together with design guidelines for all industrial development and guidance for interface areas. The scope will cover the City of Portland, its immediate surrounds and Portland-Heywood corridor.*

(Glenelg Shire Council January 2015)

The Portland Industrial Land Use Strategy is based on a strategic platform of comprehensive background investigations, including the regulatory framework; planning and environmental assessment; sensitive land uses; ecological assessment; cultural heritage assessment; potential soil contamination; and geotechnical assessment and an industrial land inventory. These are indicated in the project methodology which follows.

This Strategy is also supported by an Industrial Development Prospectus, which identifies future industrial potential and provides the mechanisms for reinforcing existing industrial activities and attracting new industrial development to the City of Portland.

The Portland Industrial Land Strategy contains a summary of the key issues and opportunities that were identified in the Needs, Demand & Gap Analysis completed by WSP | Parsons Brinckerhoff in October 2015.

It consistently examines the current and projected industrial development requirements of Portland based on its economic context, land use, urban design, transportation, and natural environment.

Because of the comprehensive investigations completed, and the duration of the project, stakeholder engagement has been completed during 2015 and 2016, and will continue following the exhibition of this Strategy Plan.

Reference groups from the Community, Industry and Technical Reference, representing agencies and government departments have directly contributed to the content of this Strategy.

A Vision for the Portland Industrial Strategy has been formulated as follows:

*To ensure Portland has a coordinated supply of industrial land which provides choice for business investment and achieves a net-community benefit.*

Implementation of the vision is outlined in the Framework Plan which provides objectives and strategies that respond to the economic context, land use, urban design, transportation, and natural

environment, and which are illustrated in the plans for the precinct.

The key directions for each of the precincts responds to the scale of existing industrial developments, site characteristics, the predominant allotment size and the adjacent land use. The more prominent precincts have been given an identity to recognise a particular theme or create a brand, to form a unified character to associate with that precinct.

Urban Design directions at a precinct level provide for a range of allotments within an attractive rural city context that features environmental areas, and through the treatment of road reserves, frontages and setbacks provides an attractive setting for these important enterprises. The robust nature of the site design also has the capability to absorb more intensive industries which require acoustic protection, extensive outdoor storage, and heavy vehicle access and circulation.

These directions provide practical and achievable outcomes which will increase the visual and environmental quality of future developments.

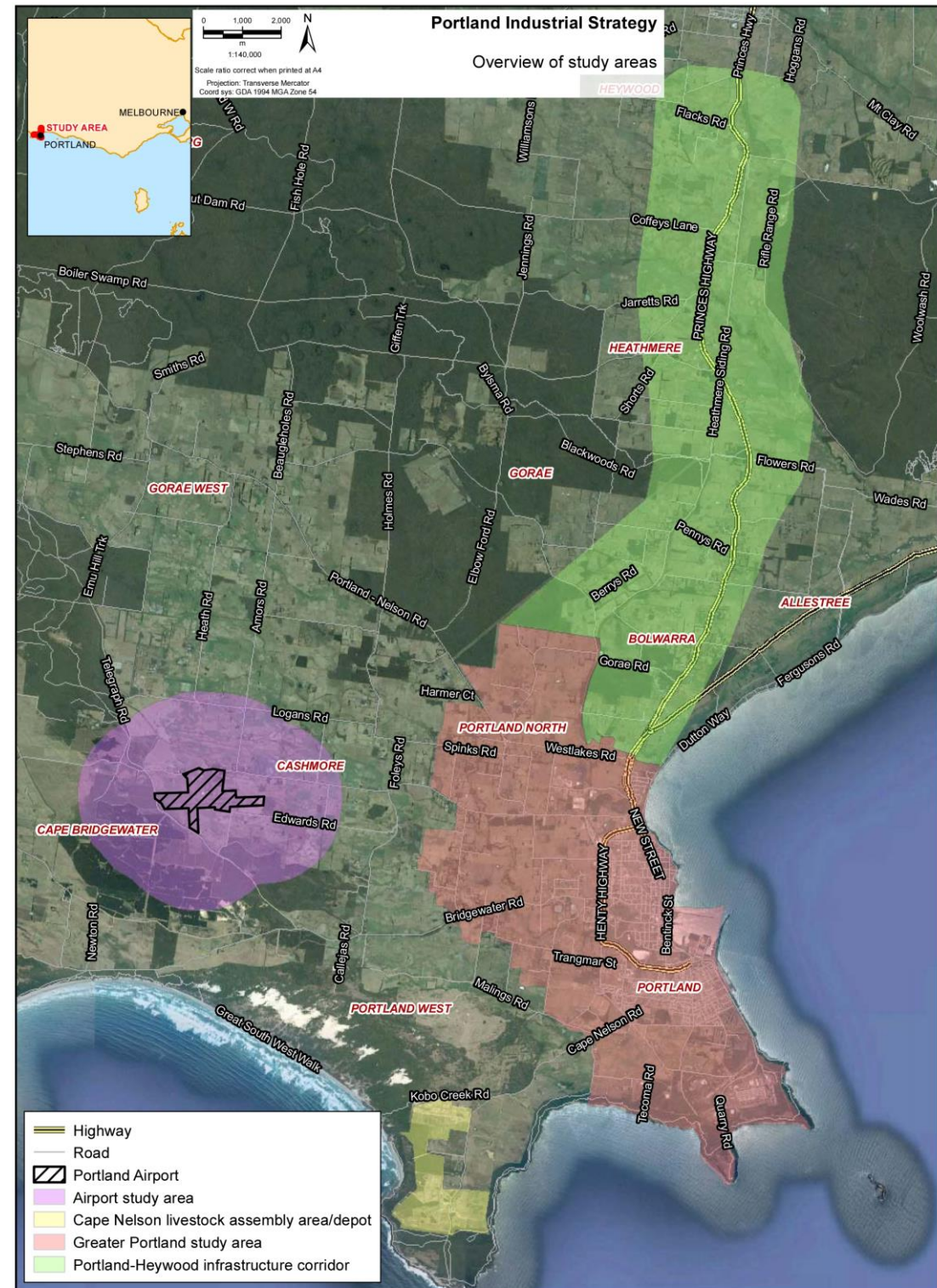
Design and development guidelines are provided to supplement these directions, and respond to the different requirements of each precinct.



# 1 INTRODUCTION AND CONTEXT

## 1.1 Study area context

Portland, located along the southern coast of south-western Victoria, approximately 325 km west of Melbourne, is strategically positioned with access to well-established infrastructure including sea, road, rail and air. It is connected to Hamilton and northern Victoria via the Henty Highway and to Warrnambool and further east via the Princes Highway. The Maroona-Portland rail line, which runs from Maroona to Portland, connects to the Western standard gauge and provides for intra and interstate freight traffic directly to the Port of Portland. The existing port provides national and international trade links. This positioning, together with careful planning, can lead to significant economic and employment opportunities for the region. As a key location for the manufacture and use of renewable energy products, bulk handling and shipping of timber and agricultural related products, Portland has substantial and untapped potential for further expansion of its industrial sector. The following map shows the Portland study area in relation to the regional and local context.







**Figure 1.1** Aerial view of the Portland Port with Precinct 3 in the foreground

Source: Glenelg Shire Council

## 1.2 Introduction

Portland is experiencing a substantial challenge in addressing the decline in the industrial business and employment sector. While the industrial sector is projected to experience modest growth, there is substantial opportunity to reposition this employment and investment sector. A key step in this process is to establish a new vision and mechanisms for the delivery of twenty first century industrial development.

Portland Industrial Land Strategy (PILS) provides a realistic and achievable approach to the delivery of new industrial development with improved standards of industrial park presentation and operation. If Portland is to facilitate the growth of existing industrial operations and importantly attract a wider range of new entrant industries, a strategy which is both visionary and comprehensive is required. The background reports and investigations upon which this strategy is based are comprehensive. These have built on previous policy documents, most notably *The Glenelg Industrial Land Use Plan 2007*. The PILS has been prepared in consultation with key reference groups from the community, industry, authorities and technical agencies, and under the close direction of Council through a dedicated project control group.

PILS responds to the increasing expectations of improved environmental quality, operational efficiency, and the key issues, opportunities and missing elements for effective use of industrial land within Portland. Evaluation has been completed of the economic context and drivers for future development, current and required land use allocations, improved urban design, the requirements of transport, access and infrastructure and environmental context.

Portland has substantial land supply for industrial land use, including strategically positioned generous land parcels with access to road and rail networks and port facilities. It is an attractive investment location, which is highlighted by the Investment Attraction Prospectus which supports the PILS. Through the application of a strategic framework for each of the selected industrial development precincts, and improved performance guidelines for new development, the overall standard of existing industrial areas will be substantially enhanced. This will add further to the attraction of these areas for additional investment in renewable energy and agricultural and forestry related industries.

### 1.3 Purpose of the Portland Industrial Land Strategy

The Portland Industrial Land Strategy (PILS) has been completed to provide direction for future growth and development within the industrial areas of Portland.

The outcomes of the Project will provide the tools to manage change in industrial precincts and will provide a foundation for preparing detailed plans for any rezoning of land or potential subdivision to facilitate growth in industrial sectors.

The Portland Industrial Land Strategy comprises a summary of the issues and opportunities, a framework for the future development of all industrial areas within Portland, Masterplans for the precincts which comprise the preferred option for growth, urban design strategies and guidelines to achieve these identified strategic outcomes.

The process for completing the PILS is indicated within the diagram below. Currently the project is at the stage of providing a Final Strategy.

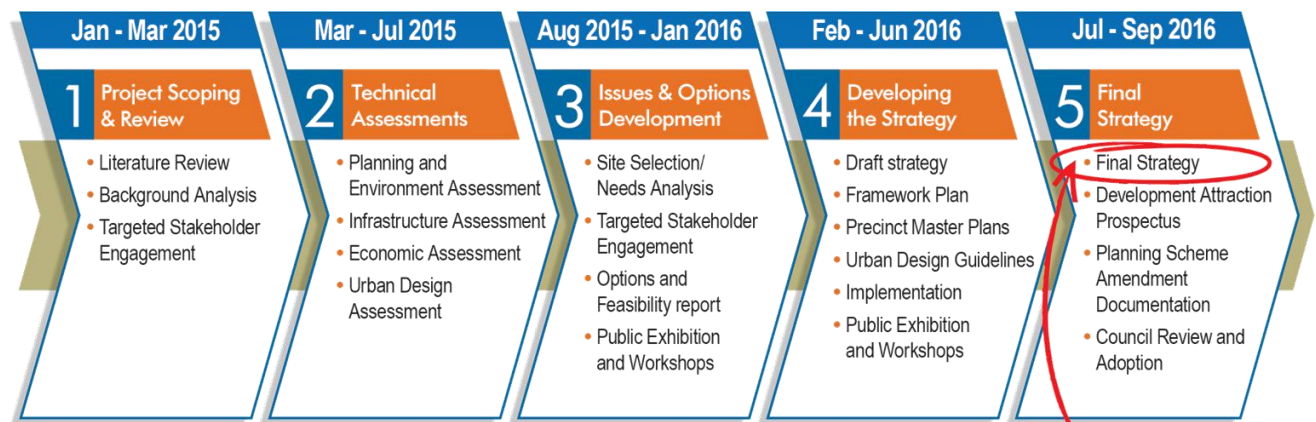
### 1.4 Strategic context (regional role)

Key considerations in the development of industry within Portland include:

- The need to acknowledge the direction of the Great South Coast Regional Growth Plan that identifies Portland as likely to support “Medium growth” and is both an important regional centre and a nationally significant port, with an expectation that the town will continue to grow over the next 30 years.
- The Great South Coast Regional Growth Plan also notes that growth is to be achieved through further development of the Port of Portland and energy wave energy technology.
- Tourism growth will be encouraged with a focus

- on nature-based tourism and utilisation of the port facilities for a cruise ship terminal.
- As a regional centre, Portland will continue to service the network of surrounding towns. Housing diversity and central business district expansion will be encouraged.
- The following key sectors of Portland: the Port of Portland (exporting nationally and internationally), the Portland Aluminium Smelter (of state importance), renewable energy, timber production and processing, commercial fishing, agribusiness and tourism will continue to provide an economic foundation for future development.
- Significant commercial fishing industry which operates from Portland Bay with lobster, squid, deep sea trawling and abalone fleets will continue to provide a contribution to the local economy.

Portland is also a significant service sector, which provides a range of services to residents in the city.



*We are here*



## 1.5 Summary of issues and opportunities

### 1.5.1 Economic context

The *Portland Industrial Land Strategy Economic Assessment* shows that historically the uptake of industrial land has been low and there is no evident change in industrial land consumption within the Portland study area over the last decade. If this trend is to continue, industrial land occupation is expected to only increase very slightly over the next 25 years from 508 ha to 515 ha, to 2040. However, if the rate of industrial land consumption reverts back to the projected 3.6 ha per annum rate found in the *2013 Urban Development Program Regional Industrial Report for the Shire of Glenelg* (2013 UDP), then industrial land occupation is expected to increase to 602 ha in 2040 (increase of 94 ha). Other factors such as the stimulus provided by improved infrastructure, including the upgrading of rail access to Portland, increased investment in the renewable energy industry and agribusiness within the Portland region can potentially impact on this level of demand. This will also stimulate the requirement for increased investment in transport and logistics.

Issues and opportunities associated with the economic context have been summarised as follows:

***Portland Aluminium Smelter and the Port of Portland will continue to be catalysts for industrial growth.***

→ Key industries and operations require protection during strategic planning of the area. Investigate economic opportunities (expansion of new and existing) related to the Port and identify infrastructure and land requirements to make this happen.

→ Increase the range and depth of industrial land use to address the potential scaling down or closure of existing industry over the next 25 years.

***Whilst demand for industrial land across regional Victoria is generally strong, the 'take-up' of industrial land in Portland is low.***

→ Investigate incentive schemes to promote development in Portland.

→ Undertake a proactive approach to promoting the area and its profile.

→ Continue to strengthen relationships between businesses, industry bodies and government.

→ Build on Portland's existing strengths and competitive advantages.

→ Gain a comprehensive understanding of the industrial land stock, taking into account key constraints, to determine the actual 'developable' land and undertake analysis through the PILS to align this with market demands.

→ More appropriately align the supply and demand of industrial land – ensuring that industrial land supply appropriately meets the needs of industry.

→ Investigate incentive schemes to enable investment in the future including rate reduction incentives or start-up funding programs.

***Lack of 'shovel ready' land for industrial development (i.e. infrastructure still needs to be provided, land use conflicts, rezoning requirements, land not suitably positioned etc.).***

→ Marrying of State and Council economic development and planning expectations.

→ Provide a set of directions required to implement the recommendations of the PILS that will facilitate the process for the development industry.

***Economic opportunities identified in a number of sectors including warehouse and distribution, bulky goods handling, manufacturing, light industry and marine.***

→ Provide key directions and locations to allow the facilitation of growth sectors in Portland.

→ Ensure that the distribution and range of allotment size within Portland industrial areas continue to provide for a range of industrial premises.

→ Feasibility of these opportunities needs to be further investigated, to determine whether these are likely to be 'real' opportunities for Portland. PILS to provide direction on appropriate areas for location of such activities.

→ Identify the infrastructural, land requirements and policy directions necessary to see these opportunities come to fruition.

### **Potential impact of the renewable energy market.**

- Ensure that PILS provides opportunities for diversification and is responsive to changes in market conditions over the long term.
- Need to provide opportunities for the widest possible range of industrial development including downstream renewable energy activities, and a development framework which is able to accommodate substantial changes in this sector.

### **Acknowledgement of demographic change and the need to maximise jobs and economic output and the continued development of a skilled workforce.**

- Ensure that PILS positions the Portland industrial areas to adapt to broader economic trends.
- Investigate opportunities to actively target growth industries and work to facilitate their location within Portland.
- Access to local jobs is essential for the effective economic and social development of the Portland community, and particularly for young people, who underpin its future prosperity.

## **1.5.2 Land use**

Within Portland industrial areas there is a combination of Port related industries, retail and commercial land uses, heavy industry (for example the Portland Aluminium smelter, fertiliser manufacturing, timber processing) light industry (vehicle servicing, storage facilities etc.) as well as

residential land uses, rural residential land uses, farming activities, community facilities and reserve land. Refer to the *Preliminary Planning and Environmental Analysis – Portland Industrial Areas*, prepared by WSP | Parsons Brinckerhoff, dated 15 May 2015 for a detailed analysis of the land use in Portland's industrial areas.

Issues and opportunities associated with the land use context are summarised as follows:

**Significant supply of vacant industrial land in Portland, however, the 'feasibility' of development of some is questionable given constraints.**

**Oversupply of land in some locations (including potential land banking). While there is underutilised industrial land, there is also a shortage of land for port facilities and expansion.**

- A robust understanding of industrial land stock in Portland has been achieved and an investigation of the need to maintain the existing industrial land stock. An investigation of the incentives to lease, sell or develop land has been completed, and assessment of potential for consolidation and/or colocation of industrial land uses.
- A comprehensive 'industrial land inventory' with up to date information on vacant land, which considers factors such as size, locations, constraints, access to infrastructure etc. will be prepared. This will allow the full appreciation of the land development feasibility during the site selection phase of a project.

**Legacy issues restrict the development potential (including expansion) of some industrial land (i.e. conflicts between residential land uses). There has been limited policy direction to resolve these conflicts, and particularly, buffer issues to sensitive land uses.**

- Maintain the recommended industrial areas primary focus as employment precincts and avoid encroachment of sensitive uses which may impact on this function.
- Investigate appropriate planning tools (including rezoning and policy tools or directions) to reflect the specific mix of uses that will support increased employment densities whilst protecting the industrial areas primary function.
- Consider whether rezoning of areas in close proximity to residential land uses is needed to reduce land use conflicts.
- The PILS is to provide a clear direction for the future to address and minimise conflicts. This should be taken into account during site selection.
- Review the provision and performance of appropriate buffers and setbacks from industrial land/activities.
- Consider rezoning and/or other planning controls such as policy or Design and Development Overlay's (DDO's) for areas in close proximity to sensitive uses to provide a better interface.
- Consider rezoning of industrial areas currently occupied by residential land uses.

- Consider the long term relocation of other sensitive land uses which may jeopardise the long term development potential of an industrial area (e.g. Portland North Primary School).
- Build criteria into the site selection tool which allows buffer issues to be highlighted to reduce feasibility of the land.

***Lack of direction for industrial land in Portland and the need to balance industry expectations and/or needs versus planning controls and approvals processes. Industry expectations and requirements in terms of location and site requirements need to be met.***

- Clear policy to direct certain types of industrial activity to appropriate locations which will permit the industry to operate in an efficient and effective manner.
- Consultation with industry during the PILS development has assisted in understanding the current and forecast needs of different types of industry.
- Understanding the reasons for Portland not being selected as a preferred location for new industrial development is useful in addressing potential impediments to candidate industries.
- Criteria has been built into the site selection tool which address industry expectations and requirements.
- Identify recommended sites for key land uses through consultation with community and other stakeholders (e.g. an intermodal facility, business park development).

***Integration with national and state-based strategic planning objectives and projects of significance (i.e. strategic priorities identified through Infrastructure Victoria, Regional development strategies, new Ports Strategy and the revised Victorian Freight and Logistics Plan).***

- Provide recommendations for viability and/or appropriate locations for key land use developments.
- Align objectives across various strategic planning documents. Identify key developments to be addressed during PILS and build criteria into the site selection tool and options feasibility assessment.

***Managing community and stakeholder expectations on land use changes.***

- Complete robust consultation with the community and stakeholders during the preparation of the PILS.
- Provide opportunities for input by key stakeholders such as industries, authorities and community, into the process at appropriate stages of the PILS development process.

***Monitoring development over time to ensure that the industrial areas stock fits with industrial expectations.***

- Retain large lot subdivision patterns to ensure a variety and range of industry can locate in the industrial areas.
- Set up a monitoring framework for development activity to understand and establish trends to

enable informed decisions about the future directions for the industrial areas.

- Ensure the PILS includes monitoring mechanisms.

### 1.5.3 Urban design

The *Portland Industrial Land Strategy Urban Design Assessment*, prepared by MacroPlan Dimasi, dated 29 May 2015 identifies, documents and assesses the implications of individual site and precinct characteristics from an urban design aspect. The assessment included reviewing physical features and developing descriptions of the interactions between identified industrial areas within their context, and the interrelationships between precincts and sites, with an examination of internal and external interfaces to key areas. The results have been synthesized with the industrial land demand and supply assessment to illustrate the suitability of land for industrial development and other uses. A list of recommendations concerning constraints, issues and opportunities for land use and development in Portland is presented reflecting the above synthesis.

Issues and opportunities associated with the urban design context have been summarised as follows.

***Achieve a high quality urban design outcome with practical and achievable standards and effective management of interfaces between industrial and non-industrial land uses. Improve the standard of site presentation of existing and new industrial sites.***

- Develop Urban Design Guidelines for the Portland industrial areas that will provide



guidance on the desired development outcomes including functionality and attractiveness of developments.

- Building setbacks to be used for improved presentation of built form and external storage of materials and waste.
- Urban design performance requirements will be different for each of the precincts based on the different size of the allotments and the nature of the industrial activity.
- Within each of the precincts, opportunities exist to enhance streetscapes, which will be effective in the improvement of existing and future industrial sites.

***In some cases, land is zoned but not subdivided to appropriate sized lots. Lot sizes / layouts dimensions not appropriate to industry needs. Large lots in some cases only occupy part of the site.***

- Prioritise subdivisions of zoned land where appropriate to consolidate industrial use and development.
- Expedite consolidation of small lots in existing zoned areas where appropriate, based on precinct requirements and demand.
- There are limitations to implementation on private land. Further consultation with land owners by Council may be required.
- Implement on an as-needs basis.

***Minimal consideration to sustainable design of new developments has been given to date.***

- Include sustainable design provisions as part of design guidelines for industrial areas.
- Sustainable design can provide benefits in terms of environmental performance, reduced operational costs, improved comfort for occupiers and the ability to attract quality tenants.

***Very little visual identity to Portland industrial areas.***

- Gateway treatments could include signage, built form, landscaping or public art and could be implemented as part of an overall enhancement scheme.
- Need for practical, implementable treatments which can be effectively maintained.

***The quality and availability of open space and linkages between precincts is limited. Potential urban renewal opportunities within Portland's industrial areas, including Precinct 3.***

- As a priority the key access roads and available drainage/open space networks are to be targeted for establishment of pedestrian/cycle links.
- Consider high amenity open space opportunities within the Urban Design Guidelines.
- Explore opportunities for greater intensity of development and employment uses in appropriate locations.
- The planning of Portland's industrial areas should consider options to increase amenity

and wellbeing of Portland's community. This is to be achieved by the allocation of industrial activity more specifically to the size of available allotments, its context and required urban design improvements.

#### 1.5.4 Transportation

The *Portland Industrial Land Strategy Traffic and Transport Assessment*, Parsons Brinckerhoff, (August 2015) and *The Portland Industrial Land Strategy Desktop Infrastructure Assessment*, Parsons Brinckerhoff, (March 2015), provides context on the existing and proposed utilities infrastructure for the Portland industrial areas.

These include water and sewer reticulation, stormwater drainage, gas, electricity and also telecommunications. Both Reports included substantial consultation with relevant service Authorities and provide key development requirements which need to be considered when planning for Portland's industrial areas.

Issues and opportunities associated with the transport, access and infrastructure context have been summarised as follows:

***A key strength of Portland is its access to arterial road networks which are well suited to freight. There is adequate capacity on the road and rail networks.***

- Provide strategic directions that ensure Portland industrial areas continue to be well connected and accessed by well-constructed

and maintained roads, intersections and where possible access to the rail network.

- Explore opportunities to further enhance connectivity to and throughout Portland's industrial areas. This includes traffic, cycling and walking. Additional access roads are proposed within Precinct 1.
- Incorporate location and access criteria within the site selection tool.
- Discussions with agencies /authorities regarding specific upgrades and developments.

**Key access upgrades and developments identified in and around Portland's industrial areas, including:**

- Required upgrades include Cashmore Road.
- Construction to permit access by heavy vehicles.
- Widening and strengthening of Wilsons and Lightbody's Roads, repairs to bridge on Heaths Road, upgrading of the intersections of Westlakes, Darts and Cashmore Road with the Henty Highway, and of the intersection of Portland Nelson Road and School Road.
- Additional connections to access Precincts may be required.
- Council and VicRoads to prioritise improvements on routes to existing and preferred industrial areas.
- Investigate RDV infrastructure funding mechanisms.
- Identify key recommendations within PILS.

- Identify high-level transport connections within PILS.
- Review transport and access arrangements.
- Discussions with agencies / authorities regarding specific upgrades and developments.

**Growth in timber industry may generate issues including additional pressure on roads, amenity issues, and access issues.**

- Traffic conflict with residential land use.
- Lack of heavy vehicle access on Wilsons Road to significant amount of industrial land.
- Ensure that PILS and/or guidelines for Portland's industrial areas have regard to the relationship between land use, urban design and transport in the precincts.
- Explore opportunities for innovative treatments for roads, intersections and the public realm to address traffic conflicts.
- Implement recommendations to improve transport and road safety.
- Strategic assessment is required for all proposed treatments.

**Rail considerations include the opportunity to transfer timber onto rail; rail capacity constraints; rail shunting issues at port; provision for intermodal activities and other land uses within the rail corridor.**

- Identify rail opportunities and treatments to capitalise on rail infrastructure, including the potential benefits of the upgrade of the Maroona to Portland line.

- Investigate appropriate locations for intermodal activities.
- Review and consider long term future of rail line spur into Precinct 3.
- Consider the appropriateness of other land use within existing rail corridors.
- Review rail arrangements and treatments.
- Discussions with agencies / authorities who have an interest.

**Public transport connectivity to and from Portland is limited. Public transport accessibility within the Portland industrial areas is varied. Portland Airport infrastructure and development opportunities.**

- Investigate opportunities to improve servicing of Portland's industrial areas.
- Provide employment / travel opportunities to people without drivers' licenses, such as young people.
- Investigate development considerations associated with Portland Airport (i.e. enhanced frequency or locations for flights and logistics based development in proximity to the Airport).
- Explore / encourage other transport modes i.e. local bus networks or cycling opportunities.

**Portland industrial areas have good access to road and rail infrastructure services.**

- Need to direct new development into areas that are adequately serviced in accordance with industry requirements.

### 1.5.5 Natural environment

A desktop assessment of some of the natural environment features within Portland's industrial areas was completed as part of the *Preliminary Planning and Environmental Analysis – Portland Industrial Areas*, Parsons Brinckerhoff, and (May 2015). Issues and opportunities associated with the natural environment context may be summarised as follows:

***Physical constraints including native vegetation, wetlands, slope, flooding and bushfire risks impacting on the usability of industrial zoned land.***

- Identify all areas which are subject to physical constraints or risks.
- Ensure that environmental considerations are taken into account when considering options for the future development of Portland's industrial areas.
- Identify locations and criteria as part of the site selection tool.

***Need to protect significant environmental features including watercourses, wetlands and areas of ecological and heritage significance***

- Identify all areas to be investigated for protection.
- Complete detailed environmental assessments where required.
- Minimise impacts on the environment through business activities in Portland's industrial areas.

- Investigate opportunities for mitigating stormwater runoff and pollution by applying water sensitive urban design and integrated water management principles to building design.
- Consider working with industry to promote business efficiency opportunities.
- Ensure PILS provides protection measures/ recommendations.
- Discussions with agencies / authorities who have an interest.

***Climate change impacts.***

- Include aspects and recommendations to reduce climate change impacts.
- Factor climate change data / modelling into planning of industrial sites and precincts.

***Renewable energy initiatives.***

- Investigate opportunities to promote renewable energy initiatives or industry.
- Discussions with agencies / authorities who have an interest.

## 1.6 Consultation outcomes

The Portland Industrial Land Strategy has been developed in close consultation with key stakeholders and the community. Through all stages of the project – from inception to the final strategy – community feedback has informed and strengthened the outcomes.

Working closely with the community has helped frame the project, identify issues and options and shape the vision, directions and strategies. For most participants it was their first engagement with a strategic planning project.

Consultation has taken the form of small focus-group meetings, surveys, public workshops and web-based forums. At stages of the project community bulletins, questionnaires and media releases via local newspapers and Council's website have been distributed.

The **inception stage** of the project involved meetings with a focus group of landowners and developers, to provide early quantitative data and issues identification.

Three key stakeholder groups were formed to provide feedback at stages of the project:

- **Community Reference Group:** Formed via a public Expressions of Interest process, the group of ten represents a cross-section of the community.
- **Industry Reference Group:** The group comprises local business people from a range of industries, representing some of Portland's largest employers.
- **Technical Reference Group:** The group comprises a number of agencies and government departments with direct input to the strategy.



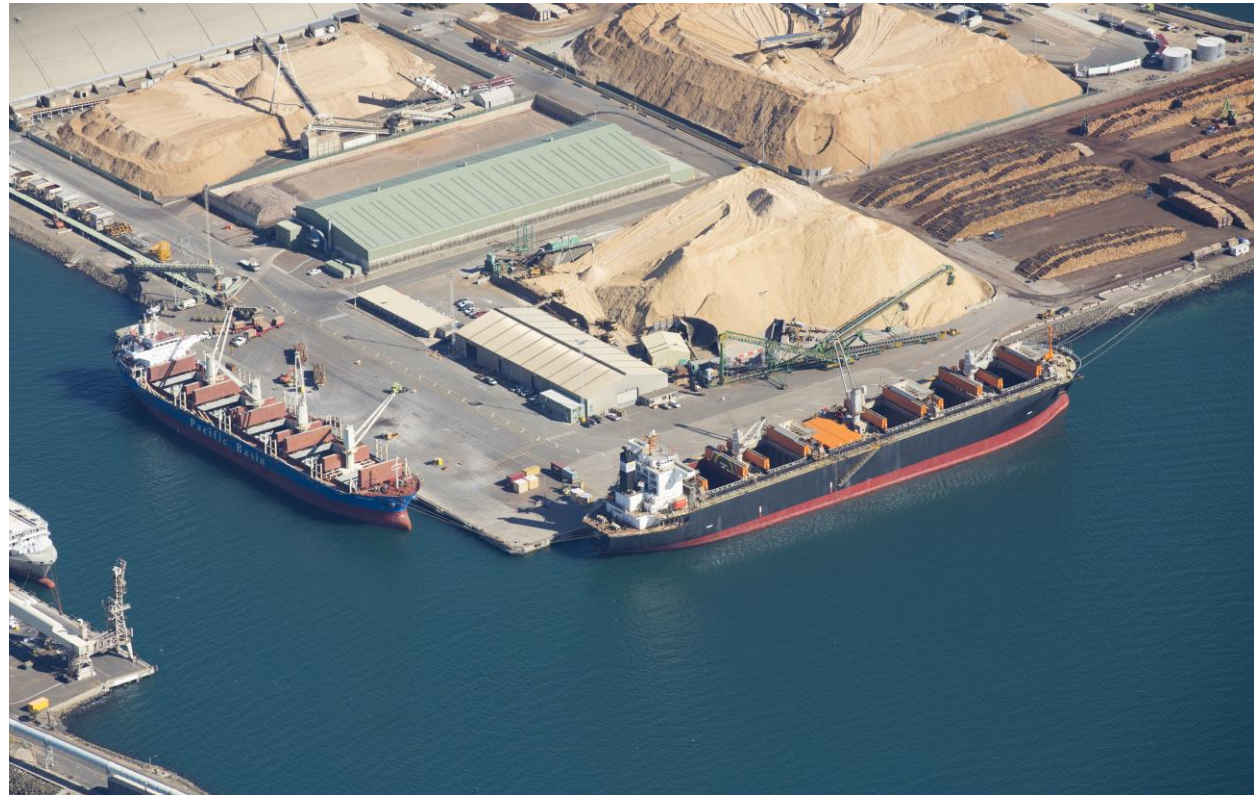
The first broad public consultation was during the **Draft Options stage**. Feedback was sought on the identified issues, vision, key directions, objectives and options. The month long consultation was advertised widely and involved:

- bulletin and questionnaire mail-out to over 1000 addresses (also available online)
- two public workshops; and
- a number of face-to-face and phone interviews.

The two reports 'Needs, Demand & Gap Analysis' and 'Draft Options & Feasibility Report' were available online. Feedback was provided via the questionnaires, verbally at meetings and interviews, and through written submissions. With over seventy completed, the questionnaire was a particularly successful way to engage landowners.

Feedback received covered a wide variety of issues and helped inform refinement of the broad Draft Options. This feedback was summarised and included in the revised 'Draft Options & Feasibility Report', which was adopted by Council on 22 March 2016.

A further broad public consultation – including reference groups – was completed for the Draft Strategy. Feedback from consultation has assisted to further shape the outcome.



**Figure 1.2** Portland Port

Source: Glenelg Shire Council (2015)

**Table 1.1 Land supply**

Source: MacroPlan Dimasi (2015)

## 1.7 Current Industrial Land Supply

There are 1,092 hectares of industrial zoned land within the Greater Portland Study Area and 39 hectares in the designated Portland-Heywood Infrastructure Corridor (Macroplan 2015).

The amount of industrial land within each precinct has been analysed extensively through a site selection and needs analysis, *Portland Industrial Land Strategy Needs, Demand and Gap Analysis*, prepared by WSP | Parsons Brinckerhoff, dated 16 November 2015. The following table summarises the amount of 'developable' land supply and how much is unavailable, by precinct and zones.

**Figure 1.3 Areal image of Portland Port**

Source: Glenelg Shire Council (2015)

PRECINCT	IN1Z	IN2Z	IN3Z	Total Industrial	PZ	C2Z
<b>Precinct 1</b>						
Unavailable	0.00	167.05	0.00	167.05	0.00	0.00
Supply	0.00	273.98	0.00	273.98	0.00	0.00
Total	0.00	441.03	0.00	441.03	0.00	0.00
<b>Precinct 2</b>						
Unavailable	35.13	2.52	0.00	37.65	0.00	0.00
Supply	2.80	1.31	0.00	4.11	0.00	0.00
Total	37.93	3.83	0.00	41.76	0.00	0.00
<b>Precinct 3</b>						
Unavailable	0.00	0.00	23.21	23.21	0.00	0.82
Supply	0.00	0.00	15.11	15.11	0.00	0.00
Total	0.00	0.00	38.31	38.31	0.00	0.82
<b>Precinct 4</b>						
Unavailable	5.72	0.00	0.52	6.24	0.00	0.00
Supply	4.24	0.00	7.68	11.92	0.00	0.00
Total	9.97	0.00	8.20	18.17	0.00	0.00
<b>Precinct 5</b>						
Unavailable	0.00	247.23	0.00	247.23	37.67	0.00
Supply	0.00	267.47	0.00	267.47	0.00	0.00
Total	0.00	514.69	0.00	514.69	37.67	0.00
<b>Precinct 6</b>						
Unavailable	0.00	0.00	22.00	22.00	0.00	0.00
Supply	0.00	0.00	10.71	10.71	0.00	0.00
Total	0.00	0.00	32.71	32.71	0.00	0.00
<b>Precinct 7</b>						
Unavailable	7.05	0.00	1.76	8.81	0.00	0.00
Supply	17.21	0.00	12.56	29.77	0.00	0.00
Total	24.25	0.00	14.32	38.57	0.00	0.00
<b>Precinct 8</b>						
Unavailable	0.00	0.00	0.00	0.00	0.00	0.00
Supply	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00
<b>Precinct 9</b>						
Unavailable	0.00	0.00	0.00	0.00	0.00	0.00
Supply	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00
<b>Precinct 10</b>						
Unavailable	4.78	0.00	0.00	4.78	0.00	0.00
Supply	0.92	0.00	0.00	0.92	0.00	0.00
Total	5.70	0.00	0.00	5.70	0.00	0.00
<b>All Precincts</b>						
Unavailable	52.68	416.80	47.49	516.97	37.67	0.82
Supply	25.17	542.76	46.06	613.99	0.00	0.00
Total	77.85	959.55	93.54	1130.94	37.67	0.82





**Figure 1.4** Aerial image of Portland

Source: Glenelg Shire Council (2015)

## 1.8 Projected Industrial Land Demand

Assessment of the projected demand for industrial land within Portland (Macroplan 2015) indicates the following:

- The baseline trend used for this forecasting analysis is the net consumption rate over the last three years (0.25 ha per annum). If this trend is to continue, industrial land occupation is expected to only increase very slightly over the next 25 years from 508 hectares to 515 hectares in 2040 (517 in 2050). This slight increase would put no pressure on the industrial land stocks within Portland at this current time.
- If the rate of industrial land consumption is to revert back to the 3.6 hectares per annum as found in the 2013 Urban Development Program, industrial land occupation is expected to increase to 602 hectares in 2040 and 638 hectares in 2050.
- Without any changes to the land zoning in Portland, or any external shocks to the economy, industrial land consumption in Portland is likely to flat line, as has been evident over the last three years.

An assessment of various options for the optimal distribution of future industrial land was completed in the Portland Industrial Land Strategy – Draft Options and Feasibility Report (2015). The recommended distribution of heavy and light industrial development is provided in the following section.



## 2 FRAMEWORK PLAN

### 2.1 Vision

*To ensure Portland has a coordinated supply of industrial land which provides choice for business investment and achieves a net-community benefit.*

### 2.2 Key directions

The PILS Vision and Framework Plan are supported by a series of objectives and strategies, grouped under the headings of Economic context, Land use, Urban design, Transport access and Infrastructure and Natural environment. The Objectives and Strategies are supported by statements which provide a focus for the consideration of land use options and the appropriateness of development; and secondly provide a basis for directing land use, strategic policy and infrastructure and service investment decisions.

#### 2.2.1 Economic context

Industrial development, should be delivered that provides employment opportunities and/or access to goods and services for communities and contributes to sustainable economic development. It should also support a competitive land supply market by ensuring multiple 'targeted' development fronts proximate to major infrastructure and industry supply

chains, which will enable market choices and provide for employment diversity.

#### OBJECTIVE 1

To develop Portland as a regional centre for transport, logistics, manufacturing and processing industries and employment in south eastern Australia.

##### Strategies:

- Support the development of transport, logistics, manufacturing and processing facilities as vital industries supporting the local agricultural and industrial sectors.
- Maintain the viability and purpose of industrial areas by minimising land use conflicts and encroachment from non-industrial uses.
- Encourage industries that require intermodal transport connectivity to locate around existing rail facilities.
- Implement the Framework Plan included in this Clause.
- Council to advocate for the establishment of business park sites within Portland, where coordination is required to facilitate enabling infrastructure.

#### OBJECTIVE 2

To develop Portland as a hub for renewable energy research, design and manufacturing in Victoria.

##### Strategies:

- Support the transition to a broader range of employment generating uses including a mix of industry and other compatible commercial uses, as permitted within the relevant zone.
- Support the development of education and training facilities with a link to existing and emerging industries within Portland.

#### OBJECTIVE 3

To support the growth and development of the Port of Portland as a key economic resource for Victoria.

##### Strategies:

- Facilitate and advocate for growth of the development of the port.
- Support the implementation of effective land use buffers to protect the future of the Port.
- Discourage further fragmentation of land holdings in the port area where this threatens to close off strategic development options for the port.

## OBJECTIVE 4

To ensure the availability of land for employment generating developments.

### Strategies:

- Direct industries which require substantial buffer zones from sensitive land uses to the core of the Industrial 2 Zone.
- Protect industrial land of State significance.
- Develop an Industrial Investment Attraction Prospectus to assist new industrial and related businesses wishing to locate in Portland to find suitable sites.
- Monitor development to ensure that there is an adequate supply of industrial land in appropriate locations.
- Support the continued operation of existing businesses wishing to remain and invest in upgrading and growing their business in-situ.

### 2.2.2 Land use

Initially, there is a need to develop a complete understanding of industrial land availability (industry land inventory) that will assist Council and developers in making informed decisions on the future development of industrial land. This should capitalise on the existing strengths of Portland and provide for appropriate emerging opportunities, rather than providing unrealistic perceptions of demand.

This will provide certainty to the local community, Council and future developers by identifying those

areas suitable for future industrial development, taking into account the short, medium and long term demand for industrial land. There is recognition that the private sector will be the main driver for industrial development and Council should engage with them as a partner along with regional partners, government agencies and regulatory bodies, in order to collaboratively guide industrial development in appropriate directions.

PILS should be fully integrated with the support of other Council strategies and policies, in order to achieve common and complementary objectives. Policy should provide for a range of industrial development opportunities as well as resolving legacy issues. This may include the rezoning of land to reflect established or identified land use changes. Opportunities need to be translated into the Glenelg Planning Scheme. This includes identifying and prioritising areas within supporting policies including the PILS. The colocation of industry to make efficient use of infrastructure and connections is desired.

## OBJECTIVE 5

To provide planning certainty to guide long term business investment decisions in Portland.

### Strategies:

- Include the relevant planning directions of the PILS in the Glenelg Planning Scheme as a Planning Scheme Amendment to give effect to the PILS Vision, Framework.
- Discourage the encroachment of new residential uses in and adjacent industrial zoned land.

- Encourage non-conforming uses, particularly residential uses, to convert to industrial or business uses.
- Ensure that the amenity expectations for residential or other sensitive uses within or adjacent to industrial areas is reflective of the industrial nature of the area.
- Manage stakeholder and community expectations in regards to preferred land use and any changes.
- Support the rezoning of surplus land to more appropriate planning zones.

## OBJECTIVE 6

To protect the amenity of residential areas from the effects of industrial activity, while not impeding the productivity of industrial enterprises.

### Strategies:

- Support new development that does not limit existing industry or community land uses.
- Manage the interface between industrial and residential activities, particularly in regard to heavy vehicle traffic, industrial emissions, noise and visual setting.
- Minimise land use conflicts by applying the State Government guidelines on separation distances.
- Require new industrial development to meet urban design guidelines, to be suitably buffered from residential development and to be presented in an attractive landscaped setting.

- Support the location of new industries within existing and planned industrial precincts.

### 2.2.3 Urban design

Industrial development opportunities should be directed to Precincts which have been identified as preferred locations. These are generally located (including existing brownfield sites) taking into account environmental, infrastructural and land use constraints at the same time as considering the spatial distribution of industrial land, access to markets and proximity to supply and distribution chains. Development should be designed so as to produce a high quality form which contributes to the overall direction of the Portland industrial areas. It should also contribute in resolving existing and potential buffer and interface issues and minimising adverse amenity and environmental impacts. Developments should be designed to respond to the existing environmental fabric.

#### OBJECTIVE 7

To encourage well planned industrial development with high standards of amenity, *siting and design*, particularly along major routes.

#### Strategies:

- Encourage development to be of a high quality to contribute to an overall improvement in the amenity of the Portland industrial areas, including low maintenance landscape treatments and upgrades to adjoining streetscapes.

- Ensure development meets the requirements of the Urban Design Guidelines relative to the Portland industrial areas.
- Encourage building design and site layout of new industrial and commercial developments to minimise the potential for adverse amenity and environmental impacts.

### 2.2.4 Transport, access and infrastructure

Opportunities need to complement rather than compete with the Glenelg region and Victorian State industrial strategies to utilise resources and infrastructure in the most sustainable way. Industrial development should protect existing assets and infrastructure which is required to service the wider population of Portland.

Precinct level planning should be encouraged to ensure the efficient allocation and funding of infrastructure throughout developments.

#### OBJECTIVE 8

To maintain good transport access to Portland's industrial areas.

#### Strategies:

- Support rail infrastructure upgrades, including the Maroona to Portland railway.

- Encourage the continued upgrade and development of key infrastructure as identified within the PILS.
- Consider appropriate opportunities to leverage the existing rail infrastructure within Portland.

### 2.2.5 Natural environment

Development should be managed in a way which respects environmental and cultural heritage values and contributes to a respectful and sustainable Portland. Environmental features should be clearly understood prior to formulating development applications.

#### OBJECTIVE 9

To maximise contribution to the public realm.

#### Strategies:

- Ensure large sites or precincts provide a network of public streets, footpaths and lanes connecting through the area into the surrounding street and pedestrian network.
- Encourage development to contribute to the upgrade of existing streets adjoining the site and undergrounding of powerlines and other utilities, as appropriate.
- Investigate opportunities to improve public transport services to Portland's industrial areas.

## OBJECTIVE 10

To ensure industrial development responds to environmental features and values.

### *Strategies:*

Minimise impacts on the environment during development.

- Support innovative and emerging industries which provide opportunities for environmental sustainability and apply best practice technologies.
- Ongoing enforcement action for environmental breaches or non-compliance with amenity conditions.
- Protect and improve wetland and other environmental features within industrial areas.

- Ensure the development of industrial sites minimises the loss of native vegetation.

*All precincts within the Portland Industrial Land Strategy are represented in the following Framework Plan diagram:*

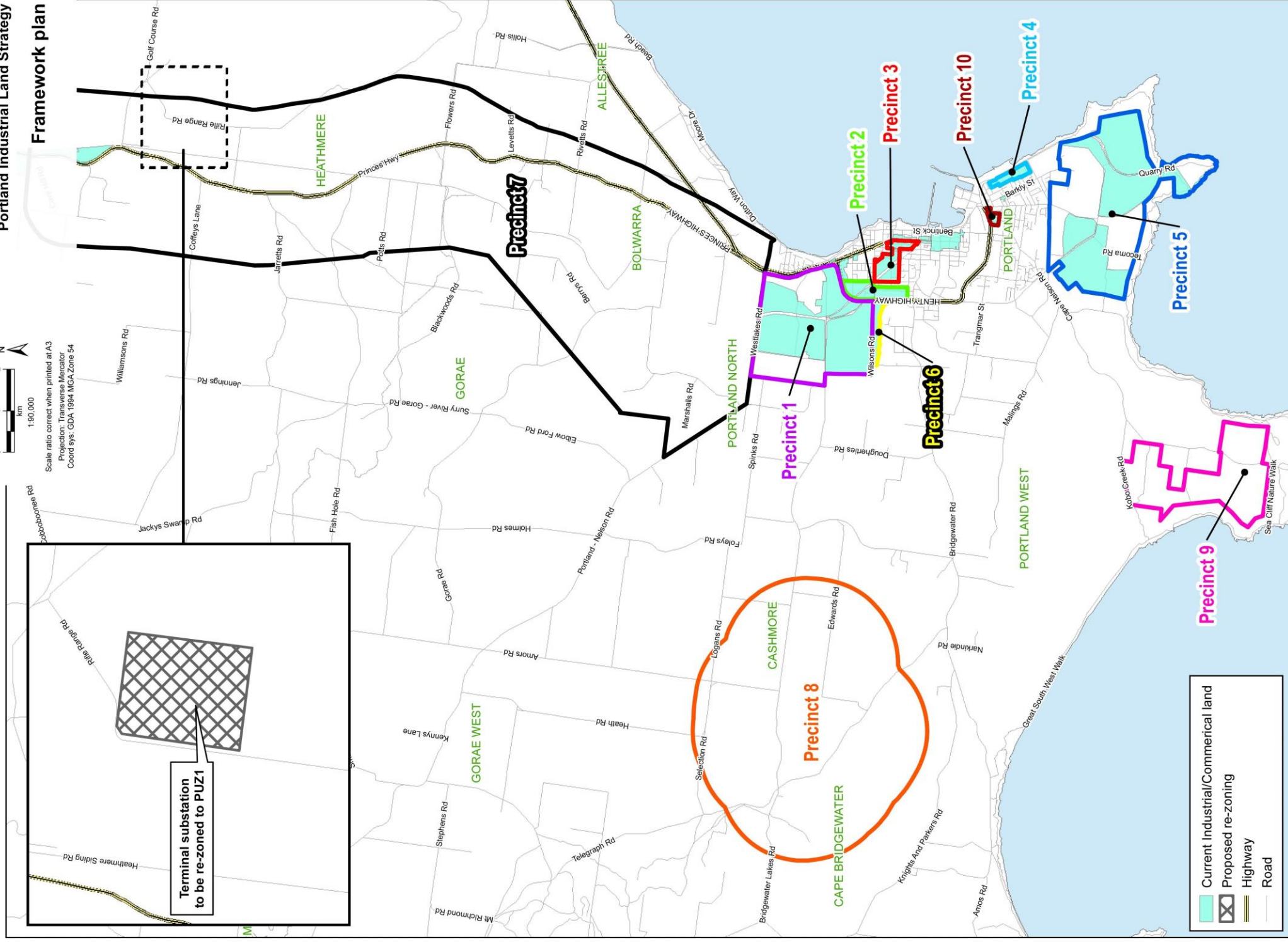
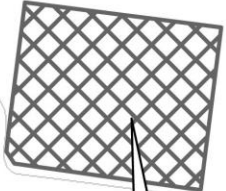


Framework plan



Scale ratio correct when printed at A3  
Projection: Transverse Mercator  
Coord sys: GDA 1984 MGA Zone 54

Terminal substation  
to be re-zoned to PUZ1



	Current Industrial/Commercial land
	Proposed re-zoning
	Highway
	Road



# Portland Industrial Land Strategy

## Framework Plan - Precincts 1 and 3

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Scale ratio correct when printed at A3  
Projection: Transverse Mercator  
Coord sys: GDA 1984 MGA Zone 54

### Precinct 1 Economic Context

Immediate capability for INZ development. 441.03 ha of vacant and unoccupied land provides for approx. 15 years land supply.

### Land Use

Appropriate for large scale industrial uses requiring large lot sizes, heavy vehicle access and on-site loading/unloading. Adjacent RCZ development to be limited, as not to compromise effective use of this industrial area.

### Urban Design

Site scale to accommodate heavy industry buffer requirements and perimeter acoustic protection (walls/mounds). Landscaping to enhance frontages and screen external storage areas. Create a brand/theme and unified character to Precinct.

### Transport

Maintain road corridor along Westlakes Road to retain capability for future intermodal access to railway. Road upgrades identified to facilitate B-Double access. Protect amenity of school by limiting heavy vehicle movement west side of Precinct.

### Natural Environment

Protect environmental/biodiversity values of wetlands through improved drainage and ESO2 application. Broad scale planting program to be implemented along roadside (particularly arterial road) to reflect rural context of Precinct and create attractive street character

### Precinct 3 Economic Context

Immediate capability for INZ development. 40.3 ha of vacant and unoccupied land provides for approx. 15 years land supply. Appropriate for mixed use development (total of 17.2 ha) to contribute to available supply of employment land, as close to educational facilities and industrial/commercial area.

### Land Use

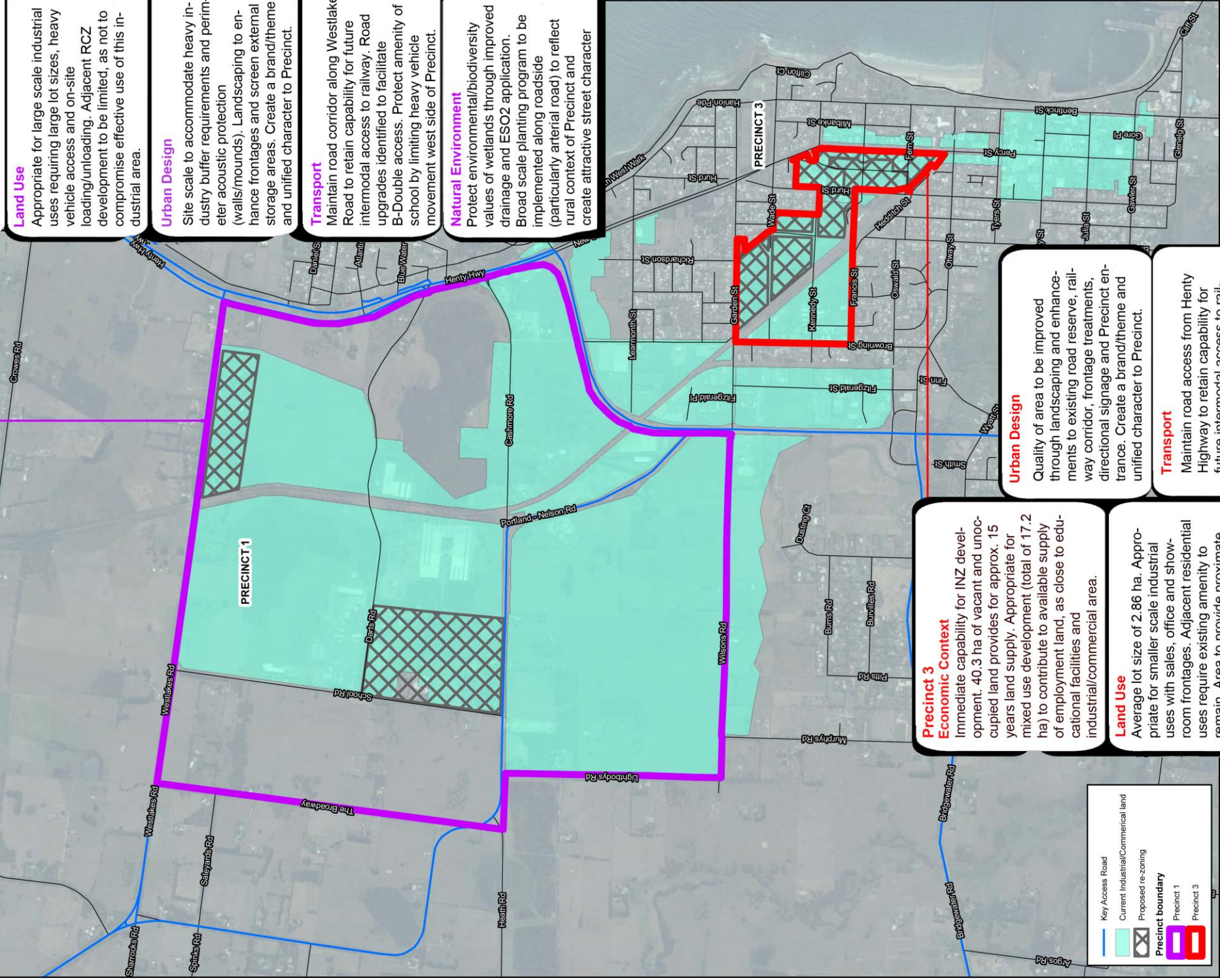
Average lot size of 2.86 ha. Appropriate for smaller scale industrial uses with sales, office and showroom frontages. Adjacent residential uses require existing amenity to remain. Area to provide proximate employment within industrial and mixed use zones.

### Urban Design

Quality of area to be improved through landscaping and enhancements to existing road reserve, railway corridor, frontage treatments, directional signage and Precinct entrance. Create a brand/theme and unified character to Precinct.

### Transport

Maintain road access from Henty Highway to retain capability for future intermodal access to railway. Restrict heavy vehicle access to adjacent residential area.

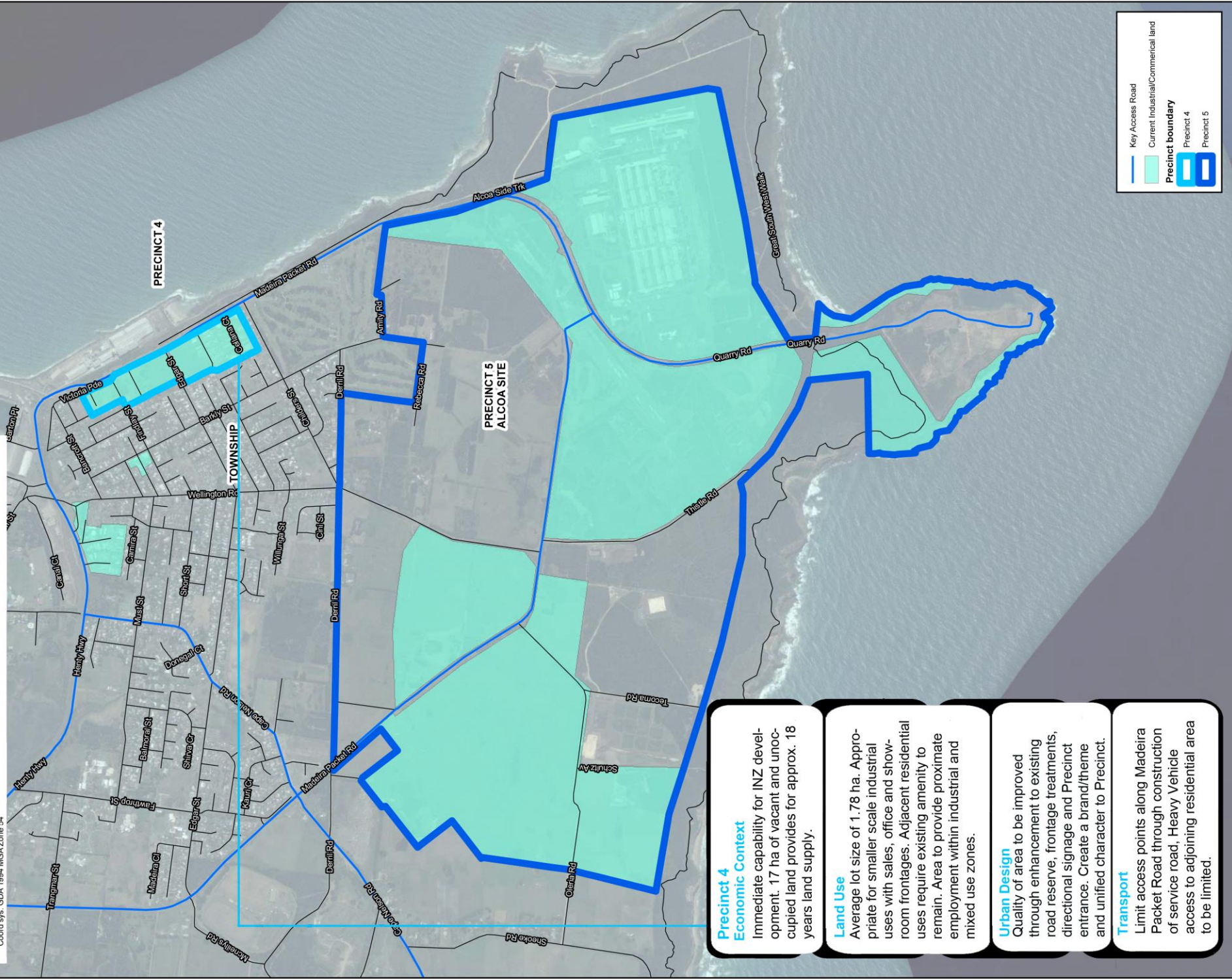
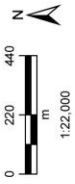




# Portland Industrial Land Strategy

## Framework Plan - Precincts 4 and 5

Scale ratio correct when printed at A3  
 Projection: Transverse Mercator  
 Coord sys: GDA 1984 MGA Zone 54  
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**Precinct 4 Economic Context**  
 Immediate capability for INZ development. 17 ha of vacant and unoccupied land provides for approx. 18 years land supply.

**Land Use**  
 Average lot size of 1.78 ha. Appropriate for smaller scale industrial uses with sales, office and showroom frontages. Adjacent residential uses require existing amenity to remain. Area to provide proximate employment within industrial and mixed use zones.

**Urban Design**  
 Quality of area to be improved through enhancement to existing road reserve, frontage treatments, directional signage and Precinct entrance. Create a brand/theme and unified character to Precinct.

**Transport**  
 Limit access points along Madeira Packet Road through construction of service road, Heavy Vehicle access to adjoining residential area to be limited.

# 3 PRECINCT MASTER PLANS

## 3.1 Introduction

The Portland Industrial Land Strategy has examined the potential for industrial development within all existing precincts of Portland. The use of a multi-criteria site selection tool which is explained in the diagram on the right has allowed the identification of the sites which are most appropriate for immediate development for heavy and light industry.

Each precinct, shown previously within the *Framework Plan* Maps in Section 2.2.5 is discussed within the following table.

Precinct 1, Precinct 3 and Precinct 4 each have a specific master plan in order to illustrate the proposed actions for that area. These areas were chosen due to the significant amount of actions relative to their area. There is a total of 127.58 ha of land that is suggested to be rezoned within Precinct 1, 3 and 7.

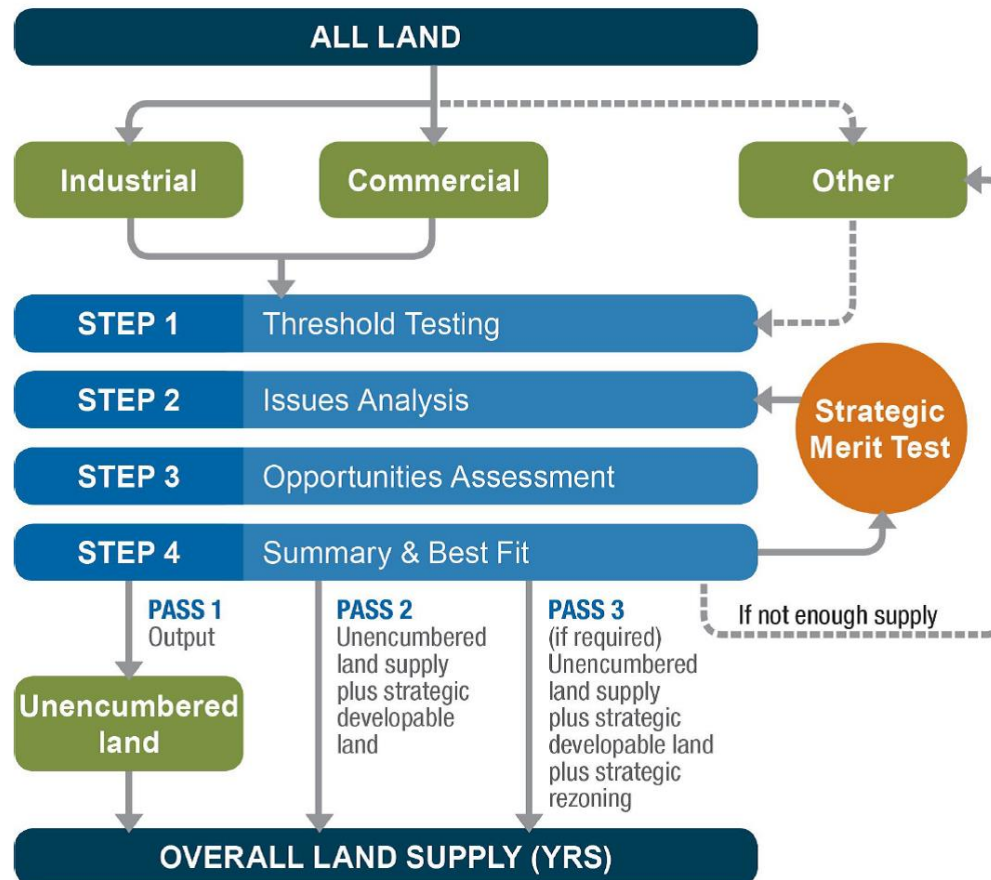


Figure 3.1 Multi-criteria site selection tool



## PRECINCT OVERVIEW

PRECINCT	SUITABILITY FOR INDUSTRIAL DEVELOPMENT	IMPLICATIONS FOR FUTURE DEVELOPMENT AND DELIVERY OF INDUSTRIAL LAND MARKET	ACTIONS
<b>Precinct 1 (North Portland Industrial Precinct)</b>	The majority of land within the precinct is well suited to industrial development. Some localised interface issues currently exist, however the precinct contains sufficient developable land to cater for the majority of the industrial land requirement of Portland.	This precinct is likely to continue to be the focus of new industrial development for the foreseeable future. It is the preferred focus of industrial development as it is of state significance.	<ul style="list-style-type: none"> <li>→ Encourage precinct for heavy industry growth.</li> <li>→ Maintain capability for large scale fully integrated industrial developments</li> <li>→ Protect amenity of sensitive uses outside of the industrial zones, through consideration of interface and buffer provisions.</li> <li>→ Upgrade access for B-double plus vehicles and provide for future intermodal capability.</li> <li>→ Provide direction on required road, drainage infrastructure and services provision.</li> </ul>
<b>Precinct 2</b>	This precinct is largely established on the ring road entrance to Portland. Some interface issues exist within the precinct and with adjacent residential development.	This precinct provides a desirable location for industry, however is largely established and occupied, with the exception of some older buildings located in the northern end of the precinct. With the availability of land in nearby Precinct 1, redevelopment of sites within Precinct 2 is considered unlikely.	<ul style="list-style-type: none"> <li>→ Encourage precinct for heavy industry growth and leveraging of road and rail access.</li> <li>→ Protect amenity of sensitive uses through the containment of off-site amenity impacts and through the consideration of interface and buffer provisions.</li> </ul>
<b>Precinct 3 (Central Portland Employment Precinct)</b>	Land use conflicts exist between the existing industrial land and surrounding residential areas.	Given existing land use conflicts, it is unlikely that this land will be attractive to the heavy industrial land market in the future, however it could be open to further light industrial development that is more compatible with existing, surrounding residential uses.	<ul style="list-style-type: none"> <li>→ Encourage consolidation and continuation of light industry west of the rail spur.</li> <li>→ Protect amenity of sensitive uses through interface and buffer considerations.</li> <li>→ Provide direction on appropriate uses within the precinct.</li> <li>→ Maintain capability for intermodal and required heavy vehicle access.</li> <li>→ Rezoning for a residential/mixed use redevelopment east of the railway spur whilst managing light industrial and rail spur interface. Rezone the eastern area to reflect existing residential and commercial character.</li> </ul>

PRECINCT	SUITABILITY FOR INDUSTRIAL DEVELOPMENT	IMPLICATIONS FOR FUTURE DEVELOPMENT AND DELIVERY OF INDUSTRIAL LAND MARKET	ACTIONS
<b>Precinct 4 (Madeira- Packet Employment Precinct)</b>	Over 50% of the established industrial precinct serves an important role for businesses seeking to locate close to the Port and Portland.	Future development of the vacant land within this precinct is constrained by adjacent residential development to the west. Availability of alternative industrial land in proximity to this precinct (e.g. Portland Aluminium buffer land to the south) would likely alleviate any requirement for this land to be developed.	<ul style="list-style-type: none"> <li>→ Encourage consolidation and continuation of light industry.</li> <li>→ Provide direction on staging of development and infrastructure provision to support long term industrial and port related use.</li> <li>→ Protect amenity of sensitive uses through interface and buffer considerations.</li> </ul>
<b>Precinct 5 (Smelter Industrial Precinct)</b>	Precinct is ideally suited to major/heavy industry that require a significant buffer to residential, as this area already exists for the Portland Aluminium Smelter.	Large, vacant industrial land parcels in this precinct could be set aside for specific industrial uses that are land intensive and require significant buffers (both on and off their site).	<ul style="list-style-type: none"> <li>→ Retain existing separation to sensitive uses and support continuing industrial uses.</li> <li>→ Allow flexibility to consider heavy industrial uses requiring large separation buffers.</li> </ul>
<b>Precinct 6</b>	Land is generally unconstrained for light industrial uses, consistent with the IN3Z that applies to this precinct.	This precinct is unlikely to be required until significant development occurs in the large Precinct 1 to the north.	<ul style="list-style-type: none"> <li>→ Encourage precinct for light industry growth.</li> <li>→ Retain precinct as a buffer between heavy industry and residential areas</li> </ul>
<b>Precinct 7</b>	Potential opportunities for localised expansion at Heywood. It has been recognised that there is a terminal electrical substation, connected to the national grid, currently located within the PCRZ.	No foreseeable impact.	<ul style="list-style-type: none"> <li>→ Continue existing situation.</li> <li>→ Allow future consideration of industry requiring large buffer or separation distances.</li> <li>→ Rezone the terminal substation to PUZ1.</li> </ul>
<b>Precinct 8</b>	Land surrounding the Portland Airport is generally unconstrained for industrial uses subject to appropriate safeguarding of future airport operations.	Industrial development within this precinct is likely to suit unique/specific industries that would benefit from proximity to both an airport and a port.	<ul style="list-style-type: none"> <li>→ Provide support for airport-related uses and allied industries within airport land.</li> <li>→ Allow future consideration for industry requiring large buffer or separation distances related to airport use.</li> </ul>
<b>Precinct 9</b>	Precinct 9 has no relation to existing pattern of industrial precincts or existing freight routes.	Existing intensive animal husbandry can continue.	<ul style="list-style-type: none"> <li>→ Continue existing situation.</li> </ul>
<b>Precinct 10</b>	Industrial uses are directly related to the Port of Portland.	Precinct is largely established and complements the Port of Portland.	<ul style="list-style-type: none"> <li>→ Encourage consolidation and continuation of light industry and port related uses.</li> <li>→ Protect amenity of sensitive uses considering interface provisions.</li> </ul>

## 3.2 Precinct 1 – North Portland Industrial Precinct

The following general principles are to guide the future development of the North Portland Industrial Precinct – Precinct 1. Realistic and achievable standards will deliver an acceptable development quality for the overall estate and individual allotments. The North Portland Industrial Precinct is to become a recognised employment and economic activity area, and integral part of Portland. By effective integration with its environmental setting, through the treatment of its perimeter, streetscapes and frontages, and open space areas, North Portland Industrial Precinct – Precinct 1 is to provide for large scale integrated industrial plants on large allotments. It is recommended that 46.5 ha of land within Precinct 1 be rezoned (see Section 6.1.2).

### LOCATION

**Precinct 1** – Includes Industrial 2 Zone (IN2Z) land west and east of the railway line, north of Wilsons Road and south of Westlakes Road.

### KEY STRATEGIC DIRECTIONS

*Encourage precinct for heavy industry growth. Protect amenity of sensitive uses, considering interface and buffer provisions. Provide direction on required road, drainage infrastructure and services provision.*



Figure 3.2 Aerial image of Precinct 1



## LAND SUPPLY

**This precinct has a total of 441.03 hectares of industrial land, which is zoned Industrial 2 Zone. Of this land supply 273.98 hectares of Industrial 2 Zoned land is available for development.**

Based on the results of the options assessment, this precinct was selected as the most appropriate to meet the needs of heavy industry over the short, medium, and long term. This would provide approximately 157.78 hectare of developable land, which would be sufficient to meet the 2013 UDP growth expectations, while also provide a range of development sites that have the potential for various types of heavy industry.

## ECONOMIC CONTEXT

### Objective

To develop the precinct with a focus on the delivery of innovative and environmentally sustainable industries that achieve best practice and have strong regional economic links.

### Strategies

- Encourage the location of heavy industries including bulk good processing, storage, transport and materials processing.
- Ensure industries with off-site amenity impacts consider location of sensitive uses (accommodation and education facilities)
- Encourage large scale integrated processing and distribution industries, intermodal

operations and storage with a requirement to locate proximate to the railway line.

- Promote the adaptation of existing industrial sites and redevelopment of existing underutilised sites

## LAND USE

### Objective

To effectively manage the interface between industrial and sensitive uses and surrounding rural zones.

### Strategies

- Improve the efficiency of use of industrial allotments through the effective delivery of infrastructure and the staging of new development.
- The precinct is to be a focus for heavy industry, bulk good processing, storage, transport and materials processing.
- Require the use of acoustic barriers and berms for industries which require extended hours of operation and the containment of off-site amenity impacts.
- Discourage accommodation and sensitive uses within rural zones interfacing the precinct (along Lightbody's, School, Westlakes and Darts Roads).
- Support relocation of Portland North Primary School if and when a suitable alternative site is provided.

## URBAN DESIGN

### Objective 1

To create an identifiable and attractive character for the industrial precinct.

### Strategy

- Encourage urban design enhancement, including streetscape and site landscape treatment, and gateways and interfaces.

### Objective 2

To improve the visual quality of the precinct that complements the business activities and adds to the value of these enterprises.

### Strategies

- Promote robust and effective landscape treatment of road reserves, frontages and where appropriate side and rear boundaries.
- Encourage industries to create a strong design theme and treatment in site developments in both the built and landscape treatments.
- Promote the use of energy conservation and production in the selection of building materials and use of solar voltaic panels, and drainage management.
- Ensure appropriate landscape buffers are provided between industrial and sensitive uses.
- Stockpiling and external storage area are to be fully enclosed by screen fences, barrier or berms with associated planting.

## TRANSPORTATION

### Objectives

- To maximise the available access to existing major transport infrastructure of road, rail 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.

### Strategies

- The upgrading of the key arterial roads and intersections is a key requirement of the strategy which included the intersections of the Henty Highway with Westlakes Road, Darts Road and Cashmore Road for improved access by b-doubles.
- Upgrade Cashmore Rd to accommodate heavy vehicles between the railway line and the Henty Highway.
- Upgrade the condition and maintenance of the arterial roads within Precinct 1.
- Improve the safety of the intersection of Portland Nelson Road and School Road.
- Require access roads in the southern area of the precinct (area bounded by Wilsons Rd, Portland-Nelson Rd Lightbody's Rd).
- Maintain the capability for intermodal freight terminals or other rail and freight goods movement by providing access from Westlakes Road.
- Require all road upgrades to provide for pedestrian and cycle access.

## NATURAL ENVIRONMENT

### Objective 1

To improve the overall quality and management of stormwater and environmental quality of all future drainage mechanisms.

### Strategy

Require application of water sensitive urban design practice.

### Objective 2

To Maintain and enhance the environmental values of the wetlands.

### Strategy

Encourage supplementary revegetation and weed management of the wetland areas.

### Objective 3

To ameliorate the effects of any potential site degradation, contamination or inappropriate site use.

### Strategy

Require site landscape treatment to comprise locally indigenous plant material.

## INFRASTRUCTURE AND STAGING

Precinct 1 is larger and more remote than Precincts 3 and 4, sitting on the edge of the

township and just outside the extents of most existing infrastructure networks making it potentially the most complex in terms of future development and subsequently should be staged for development following the other two Precincts.

Elements of key infrastructure exist in the vicinity of the site, for example a 525mm diameter trunk water main situated on Portland-Nelson Road, however significant upgrades and extensions of services are anticipated to be required in development of the site. However the need to augment any of these existing services will be dependent on detailed plans for development on this site.

The scale of the site and of the vacant parcels of land available for development requires that staging of development should occur from the south and extend to the north.





Scale ratio correct when printed at A3  
 Projection: Transverse Mercator  
 Coord sys: GDA 1994 MGA Zone 54

**Intermodal Access**  
 Preserve route for heavy vehicle access along rail corridor for future intermodal facility incorporated in adjacent site

**Highway Intersections**  
 Upgrade vehicle safety at key intersections with Westlakes, Darts and Cashmore Road

**Perimeter Landscape**  
 Outer boundary of industrial precinct to be subject of comprehensive tree planting program

**Rural Conservation Zone**  
 Land to west of School Road to be protected from future industrial development through the containment of off-site amenity impacts

**Re-align Arterial Road**  
 Long term potential to re-route main entry road from Portland-Nelson Road to Westlakes Road, as prime arterial bypass

**Primary School Surrounds**  
 Area surrounding primary school to be rezoned to IN3Z to provide more effective buffer to IN2Z.

**Proposed Industrial 3 Zone**  
 Rezoning the land from IN2Z to IN3Z will reduce the speed of hectare consumption from 2.7Ha/pa to 0.1Ha/p and provide a buffer to RCZ and INZ, whilst allowing for limited retail

**Primary School**  
 Maintain restriction of access by B-Doubles between Darts Road and Portland-Nelson Road in front of school

**Intersection**  
 Improve safety of access from Portland-Nelson Road to School Road

**Gateway**  
 Gateway to be subject to urban design treatments and will provide precinct identity

**Highway Frontage - Portland Gateway**  
 Existing Rural Conservation Zone to maintain rural quality and character of Portland Gateway from the North

**Henty Highway**  
 Limit access to highway for future industrial development

**Dwelling Exclusion**  
 Future subdivision and development within the Rural Conservation Zone should not further constrain the industrial potential of Precinct 1

**Wetland Areas**  
 Substantial area within PPRZ to be protected and enhanced. Apply ESO2 to un-named lagoon south of Westlakes Road. Establish integrated drainage linking wetlands with bay outfall

**Eastern Channel**  
 Future upgrade of existing drainage channel subject to detailed design

**Cashmore Road**  
 Upgrade road to Henty Highway to allow use by heavy vehicles

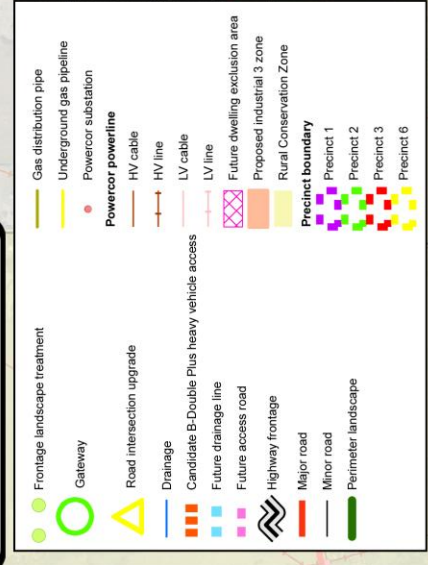
**Western Channel**  
 Future retarding basin subject to detailed design. Possible culvert to pass in 1 in 100yr flow

**Lagoon Overflow**  
 Future alignment of constructed drainage channel with accompanying landscape treatment subject to detailed design

**Future Access Roads**  
 Provide for staged release of allotments to access Portland-Nelson Road

**Sensitive Uses**  
 Apply ESO to whole of Precinct 1, relative to merged buffer area to protect against encroachment of sensitive uses

- Key land uses:**
- 1. Engineering factory
  - 2. Woodchipping
  - 3. Log storage





### 3.3 Precinct 3 – Central Portland Employment Precinct

#### LOCATION

Industrial 3 Zone (IN3Z) land east and west of the railway line, north of Francis Street and including IN3Z land between Percy Street and Otway Street. It is recommended that 28.75 ha of land within Precinct 3 be rezoned (see Section 6.1.2).

#### KEY STRATEGIC DIRECTIONS

*Encourage consolidation and continuation of light industry west of the rail spur. Protect amenity of sensitive uses through interface and buffer considerations. Provide direction on appropriate uses within the precinct. Investigate potential of rezoning for a residential/mixed use redevelopment east of the railway spur whilst managing light industrial and rail spur interface. Investigate rezoning of eastern area to reflect existing residential and commercial character.*



Figure 3.3 Aerial image of Precinct 3

## LAND SUPPLY

**This precinct has a total of 38.31 hectares of industrial land and 0.82 hectares of commercial land, of which 38.31 hectares is zoned Industrial 3 Zone and 0.82 hectares is zoned Commercial Zone 2. Of this land supply 15.11 hectares of Industrial 3 Zone is available for development.**

Based on the results of the options assessment, this precinct was selected as the most appropriate to meet the needs of light industry over the short, medium, and long term. This would provide part of the approximately 47.15 hectare of developable land, which would be sufficient to meet the 2013 UDP growth expectations. While also providing a range of development sites proximate to existing industrial operations and with the potential for intermodal access.

**Land to the east of the railway spur, currently zoned Industrial 3 Zone should be rezoned for mixed use. This area is an isolated precinct which is surrounded by residential land use, is at the fringe of industrial land use and proximate to the Portland Town Centre. The land will be the subject of an urban renewal project which will deliver residential and employment uses.**

## ECONOMIC CONTEXT

### Objective 1

To achieve full utilisation of preferred industrial land.

### Strategies

- Encourage small scale environmentally sustainable industries that achieve best practice and benefit from the established range of uses.
- Promote the adaptation of existing industrial sites and redevelopment of existing underutilised sites.

### Objective 2

To rationalise the extent of industrial land. .

### Strategy

- Provide for mixed use development east of the railway spur by rezoning surplus industrial land.

## LAND USE

### Objective

To improve the efficiency of use of industrial allotments.

### Strategies

- Promote effective, shared delivery of infrastructure.
- Encourage the continued focus for small scale manufacturing, building services, storage and supplies which may include small office/showrooms.

## URBAN DESIGN

### Objective 1

To create an identifiable attractive character for the industrial precinct.

### Strategies

- Encourage urban design treatments, including streetscape and site landscape treatment, to gateways and interfaces.
- Promote open space and landscaped links within the railway spur reserve.

### Objective 2

To improve the visual quality of the precinct.

### Strategies

- Promote robust and effective landscape treatment of road reserves, frontages and where appropriate side and rear boundaries.
- Promote the use of energy conservation and production in the selection of building materials and use of solar voltaic panels, and drainage management.

## TRANSPORTATION

### Objective 1

To maximise the available access to existing major transport infrastructure of rail, road and port facilities.

### Strategies

- Capability is to be maintained for intermodal freight terminals or other rail and freight goods movement by providing access from the Henty Highway.

- Improvements to road traffic operation for b-doubles to accompany a future intermodal facility.

### *Objective 2*

To improve the safety and efficiency of the internal road traffic system that also increases the safety for pedestrian and cycle use.

### *Strategies*

- Improve the safety and efficiency of the internal road traffic system that also increases the safety for pedestrian and cycle use.
- Upgrade the condition and maintenance of the access roads within Precinct 3.
- Require all road upgrades to provide for pedestrian and cycle access.

## NATURAL ENVIRONMENT

### *Objective*

To improve the overall quality and management of stormwater and environmental values.

### *Strategies*

- Encourage landscape treatment in the rail corridor, existing streets, and future development frontages.
- Site landscape treatment is to comprise locally indigenous plant material.

## INFRASTRUCTURE AND STAGING

Precinct 3 is generally well located in terms of infrastructure servicing, however the development

planning process is likely to take longer than that of Precinct 4 due to the larger size of Precinct 3.

These transport pressure issues will likely require augmentation of the surrounding network to facilitate further development. Early consultation with Wannon Water is recommended as plans for stormwater and drainage development in this area progress.

A logical staging sequence would be to develop Precinct 3 following the development of Precinct 4. However the need to augment any of these existing services will be dependent on detailed plans for development on this site.



**Portland Industrial Land Strategy  
Master Plan - Precinct 3**

Scale: ratio correct when printed at A3  
1:5,000  
Projection: Transverse Mercator  
Coord sys: GDA, 1994 MGA Zone 54

**Heavy Vehicle Route**  
Possible short-term route to provide heavy vehicle access to rail yard and Browning street. To reduce impact from trucks and protect amenity of residential areas

**Mixed Use Zone**  
East side of railway line to provide for mixed use development compatible with existing residential use to north and east

**Existing Employment Uses**  
Integrate new industry with established employment and educational uses

Streetscape enhancement to include constructed drainage, footpaths and street tree planting

**Environmental Audit Overlay**  
Apply Environmental Audit Overlay to all proposed MUZ and GRZ1 to ensure that potentially contaminated land is suitable for residential use

**Road Network**  
Maintain existing road network pattern and progressively upgrade key access and road treatments of road reserves and intersections

**Intermodal Operations**  
Maintain capability for future transport and reserve for potential to link road and rail freight services

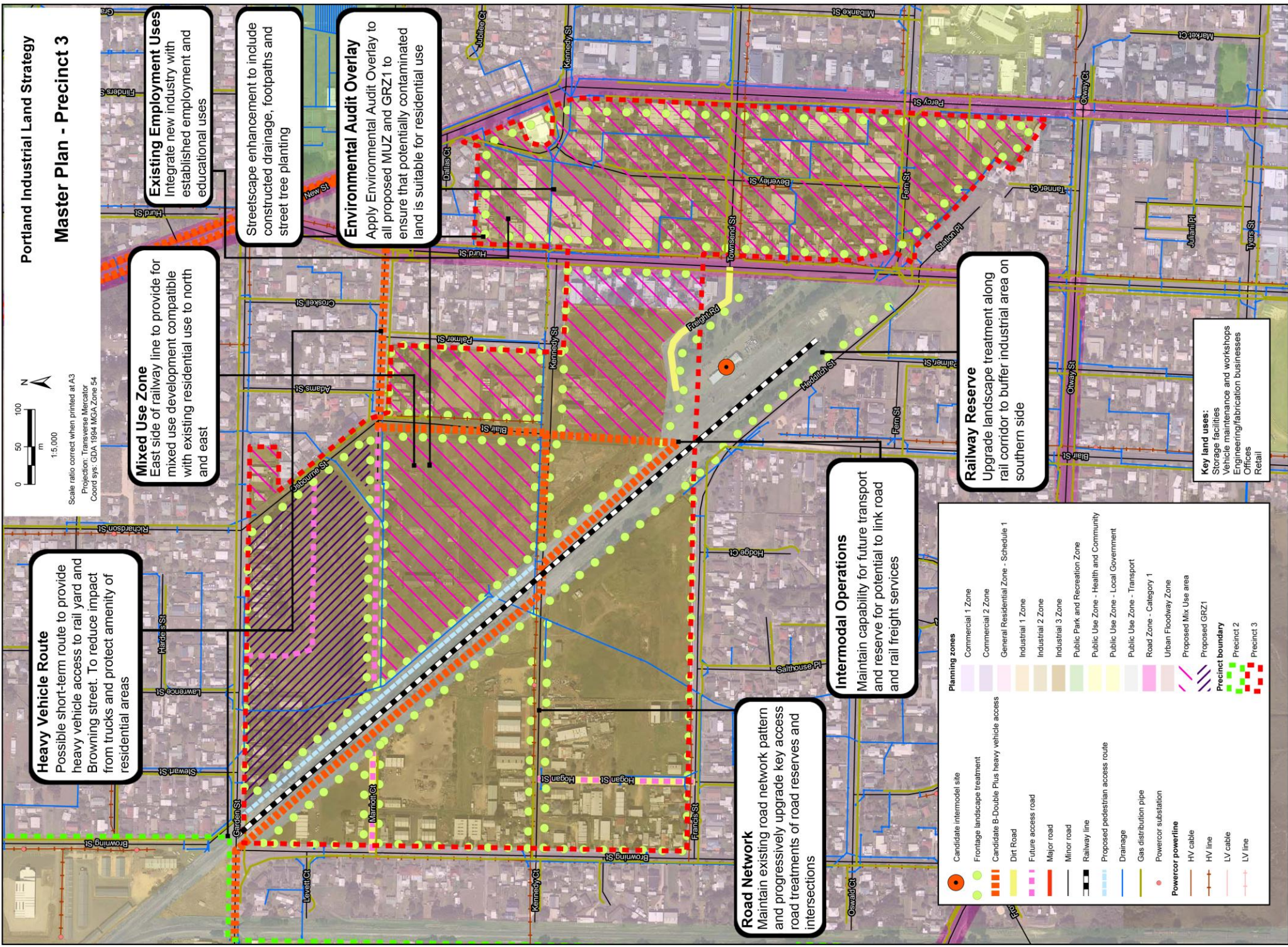
**Railway Reserve**  
Upgrade landscape treatment along rail corridor to buffer industrial area on southern side

**Key land uses:**  
Storage facilities  
Vehicle maintenance and workshops  
Engineering/fabrication businesses  
Offices  
Retail

Planning zones	
	Commercial 1 Zone
	Commercial 2 Zone
	General Residential Zone - Schedule 1
	Industrial 1 Zone
	Industrial 2 Zone
	Industrial 3 Zone
	Public Park and Recreation Zone
	Public Use Zone - Health and Community
	Public Use Zone - Local Government
	Public Use Zone - Transport
	Road Zone - Category 1
	Urban Floodway Zone
	Proposed Mix Use area
	Proposed GRZ1
Precinct boundary	
	Precinct 2
	Precinct 3

	Candidate intermodel site
	Frontage landscape treatment
	Candidate B-Double Plus heavy vehicle access
	Dirt Road
	Future access road
	Major road
	Minor road
	Railway/line
	Proposed pedestrian access route
	Drainage
	Gas distribution pipe
	Powercor substation
Powercor powerline	
	HV cable
	HV line
	LV cable
	LV line





### 3.4 Precinct 4 – Madeira- Packet Employment Precinct

#### LOCATION

Industrial 3 Zoned and Industrial 1 Zoned land west of Madeira Packet Road.

#### KEY STRATEGIC DIRECTIONS:

*Encourage consolidation and continuation of light industry and commercial. Provide direction on staging of development and infrastructure provision to support long term industrial and port related use. Protect amenity of sensitive uses through interface and buffer considerations.*



Figure 3.4 Aerial image of Precinct 4

## LAND SUPPLY

**This precinct has a total of 18.16 hectares of industrial land, of which 9.97 hectares is zoned Industrial 1 Zone and 8.2 hectares is zoned Industrial 3 Zone. Of this land supply 4.24 hectares of Industrial 1 Zone and 7.68 hectares of Industrial 1 Zone zoned land is available for development.**

Based on the results of the options assessment, this precinct was selected as the most suited to meet the future needs of light industry over the short, medium, and long term. It would provide part of the approximately 47.15 hectare of developable land, which would be sufficient to meet the 2013 UDP growth expectations. While also providing a range of development sites proximate to existing industrial operations and within a key port related location. It also has the capability to provide for heavy industry in the long term if required.

## ECONOMIC CONTEXT

### Objective 1

To maintain and strengthen the economic role of the Industrial development sector within Portland as a key port related and regionally significant focus for industrial activity.

### Strategy

Encourage port-related industry and commercial development as well as small scale manufacturing, building services, storage and supplies which may include small office/showrooms.

### Objective 2

To achieve full utilisation of industrial land.

### Strategy

Encourage small scale environmentally sustainable industries that achieve best practice and benefit from the established range of uses.

## LAND USE

### Objective 1

To improve the efficiency of use of industrial allotments.

### Strategy

Encourage the staged delivery of infrastructure.

### Objective 2

To manage the interface between industrial and sensitive uses.

### Strategies

- Limit the industrial through-traffic to residential areas to the west.
- Require open space and/or landscape buffers for industrial development abutting residential zoned land.

## URBAN DESIGN

### Objective 1

To create an identifiable attractive character for the industrial precinct.

### Strategies

- Encourage urban design treatments, including streetscape and site landscape treatment, to gateways and interfaces.

### Objective 2

To improve the visual quality of the precinct.

### Strategies

- Promote robust and effective landscape treatment of road reserves, frontages and where appropriate side and rear boundaries.
- Promote the use of energy conservation and production in the selection of building materials and use of solar voltaic panels, and drainage management.
- The presentation of the existing site is to be maintained and enhanced.

## TRANSPORTATION

### Objective 1

To protect and maximise the available access to existing major transport infrastructure of road and port facilities.

### Strategies

- Require construction of a new service road for Madeira Packet Road to limit the requirement for additional intersections to this road.



### Objective 2

To improve the safety and efficiency of the internal road traffic system, that also increases the safety for pedestrian and cycle use.

#### Strategies

- Upgrade the condition and maintenance of the access roads within Precinct 4.
- Require all road upgrades to provide for pedestrian and cycle access.

## NATURAL ENVIRONMENT

### Objective

To improve the overall quality and management of stormwater and environmental quality of all future drainage mechanisms.

#### Strategies

- Enhance the adjacent open space along the western boundary, existing streets, and future development frontages is proposed.
- Site landscape treatment is to comprise locally indigenous plant material.
- Application of water sensitive urban design practice.

## INFRASTRUCTURE AND STAGING

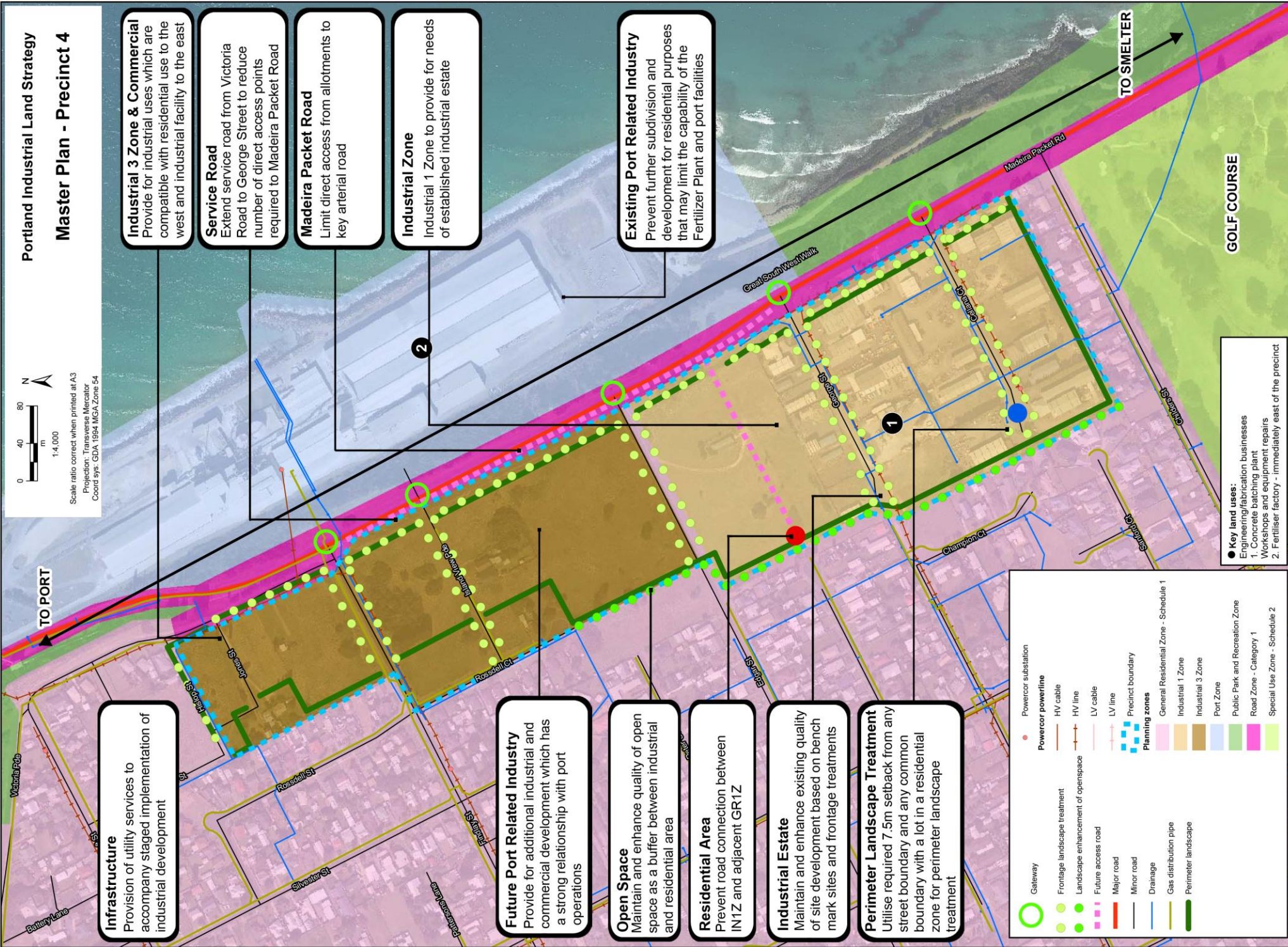
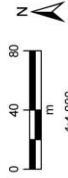
Centrally located and surrounded by existing utility infrastructure, Precinct 4 would be considered the most logical first stage of development due to its size and as it could potentially be developed while

arrangements for infrastructure upgrade/extension are put in place for Precincts 1 and 3.

Precinct 4 is well located in terms of its proximity to water and sewer reticulation, drainage infrastructure as well as electricity, gas and telecommunications services. However the need to augment any of these existing services will be dependent on detailed plans for development on this site.

# Portland Industrial Land Strategy Master Plan - Precinct 4

Scale ratio correct when printed at A3  
Projection: Transverse Mercator  
Coord sys: GDA 1994 MGA Zone 54



**Infrastructure**  
Provision of utility services to accompany staged implementation of industrial development

**Industrial 3 Zone & Commercial**  
Provide for industrial uses which are compatible with residential use to the west and industrial facility to the east

**Service Road**  
Extend service road from Victoria Road to George Street to reduce number of direct access points required to Madeira Packet Road

**Madeira Packet Road**  
Limit direct access from allotments to key arterial road

**Industrial Zone**  
Industrial 1 Zone to provide for needs of established industrial estate

**Existing Port Related Industry**  
Prevent further subdivision and development for residential purposes that may limit the capability of the Fertiliser Plant and port facilities

**Future Port Related Industry**  
Provide for additional industrial and commercial development which has a strong relationship with port operations

**Open Space**  
Maintain and enhance quality of open space as a buffer between industrial and residential area

**Residential Area**  
Prevent road connection between IN1Z and adjacent GR1Z

**Industrial Estate**  
Maintain and enhance existing quality of site development based on bench mark sites and frontage treatments

**Perimeter Landscape Treatment**  
Utilise required 7.5m setback from any street boundary and any common boundary with a lot in a residential zone for perimeter landscape treatment

	Gateway		Powercor substation
	Frontage landscape treatment		HV cable
	Landscape enhancement or openspace		HV line
	Future access road		LV cable
	Major road		LV line
	Minor road		Precinct boundary
	Drainage		General Residential Zone - Schedule 1
	Gas distribution pipe		Industrial 1 Zone
	Perimeter landscape		Industrial 3 Zone
			Port Zone
			Public Park and Recreation Zone
			Road Zone - Category 1
			Special Use Zone - Schedule 2

**Key land uses:**  
Engineering/fabrication businesses  
1. Concrete batching plant  
Workshops and equipment repairs  
2. Fertiliser factory - immediately east of the precinct

GOLF COURSE

TO SMELTER

TO PORT



*In addition to the precincts which have been identified as priority areas for industrial development, the Portland Industrial Land Strategy has established the following directions for existing Industrial zoned land within Portland. These are summarised in the diagram following:*

#### REGIONAL ECONOMIC CONTEXT

- Acknowledge the directions of the Great South Coast Regional Growth Plan that Portland is identified as likely to support “Medium growth” and is both an important regional centre and a nationally significant port, with expectations that the town will continue to grow over the next 30 years.
  - Great South Coast Regional Growth Plan also notes that growth is to be achieved through further development of the Port of Portland and emerging wave energy technology.
  - Tourism growth will be encouraged with a focus on nature-based tourism and utilisation of the port facilities for the development of a cruise ship terminal.
  - As a regional centre, Portland will continue to service the network of surrounding towns. Housing diversity and central business district expansion will be encouraged.
  - The key sectors in Portland of the Port of Portland, the Portland Aluminium Smelter, renewable energy, timber production and processing, commercial fishing, agribusiness and tourism will continue to provide an economic foundation for future development.
- Significant commercial fishing industry which operates from Portland Bay with lobster, squid, deep sea trawling and abalone fleets will continue to provide a contribution to the local economy.
  - Portland also has a significant service sector, which provides a range of services to residents in the city.



## 4 URBAN DESIGN DIRECTION

### 4.1 Precinct 1– North Portland Industrial Precinct

#### PRECINCT FOCUS

This precinct will provide for larger scale industries requiring one or more sites. It will include industrial uses with the requirement for buffer distances, heavy vehicle access and extended hours of operation. The preference for this form of industrial activity in this location is already evident, with large scale agricultural related, and metal fabrication plants established.



#### BOUNDARIES AND GATEWAYS

The identity and status of this industrial precinct, which has frontage to key regional access roads is significant and can be further strengthened. The streetscape treatment of the roads which form a

boundary to the precinct along Henty Highway, Westlakes Road, Lightbody's Road, Wilsons Road is to create a unified character for the precinct. Appropriate treatment of the entry points to these roads, of the industries which flank these entry points, and into the precinct internal roads, will emphasise the significance of this site. Effective landscape frontage treatments, including the integration of site security requirements, appropriate building setbacks, clearly defined access and well located parking will showcase each enterprise. A robust and effective landscape treatment supplemented by acoustic protection, where appropriate, will facilitate the effective operation of the industrial site, particularly in regard to external storage areas.



#### GATEWAY POINTS

The intersection of Henty Highway and Westlakes Road, and Henty Highway and Wilson Road are to

emphasise the gateway to this important industrial precinct. This will be achieved using avenue planting and lighting, gateway elements such as walling or place-making and site identification signs. Intersection treatment will facilitate access by heavy vehicles.



#### ACCESS ROADS

The general condition of key access roads and intersections will require improvement. Roadside vegetation is a positive feature of the precinct and provides the basis for further enhancement.

#### ADJACENT RURAL LAND USE

At the perimeter of the industrial precinct along its northern and western boundaries, are larger rural allotments. Dwellings within these areas along the northern boundary generally have a limited setback from Westlakes Road. Along the western boundary

there are a limited number of allotments occupied by dwellings, and where this occurs they are located a substantial distance from School Road and Lightbody's Road, and also positioned below the level of these two roads. This provides visual separation. It is anticipated that the extent of subdivision within these areas will be limited by the current zoning, and siting and design on these rural allotments should not encroach on the potential capability the precinct.

### SITE TOPOGRAPHY

There is some significant variations in the topography of the allotments, and while this has implications for drainage management, together with existing vegetation this provides for the visual absorption of new development, particularly when viewed from outside the precinct.

### DRAINAGE AREAS AND REMNANT PLANTING

There are specific sites with biodiversity values within and adjacent to the precinct that have been identified, which will require effective management. Together with drainage areas and remnant planting, these areas can be used to create an attractive landscape setting, opportunities for passive recreation for employees and contribute to environmental health. The environmental features of this precinct are to contribute to the overall character and quality of the industrial precinct.



### PRIMARY SCHOOL

The proximity of this facility to the industrial precinct is to be a positive characteristic, and provides convenience for employees, when their children attend this school. The environmental quality of the school is to be protected, including noise and air quality, and the safety of access for pedestrians, cyclists and motor vehicles. This is to be maximised in the treatment of the access routes to the school, and in the treatment of the industrial sites immediately adjacent to this site.



### FLEXIBILITY IN ALLOTMENT SIZE

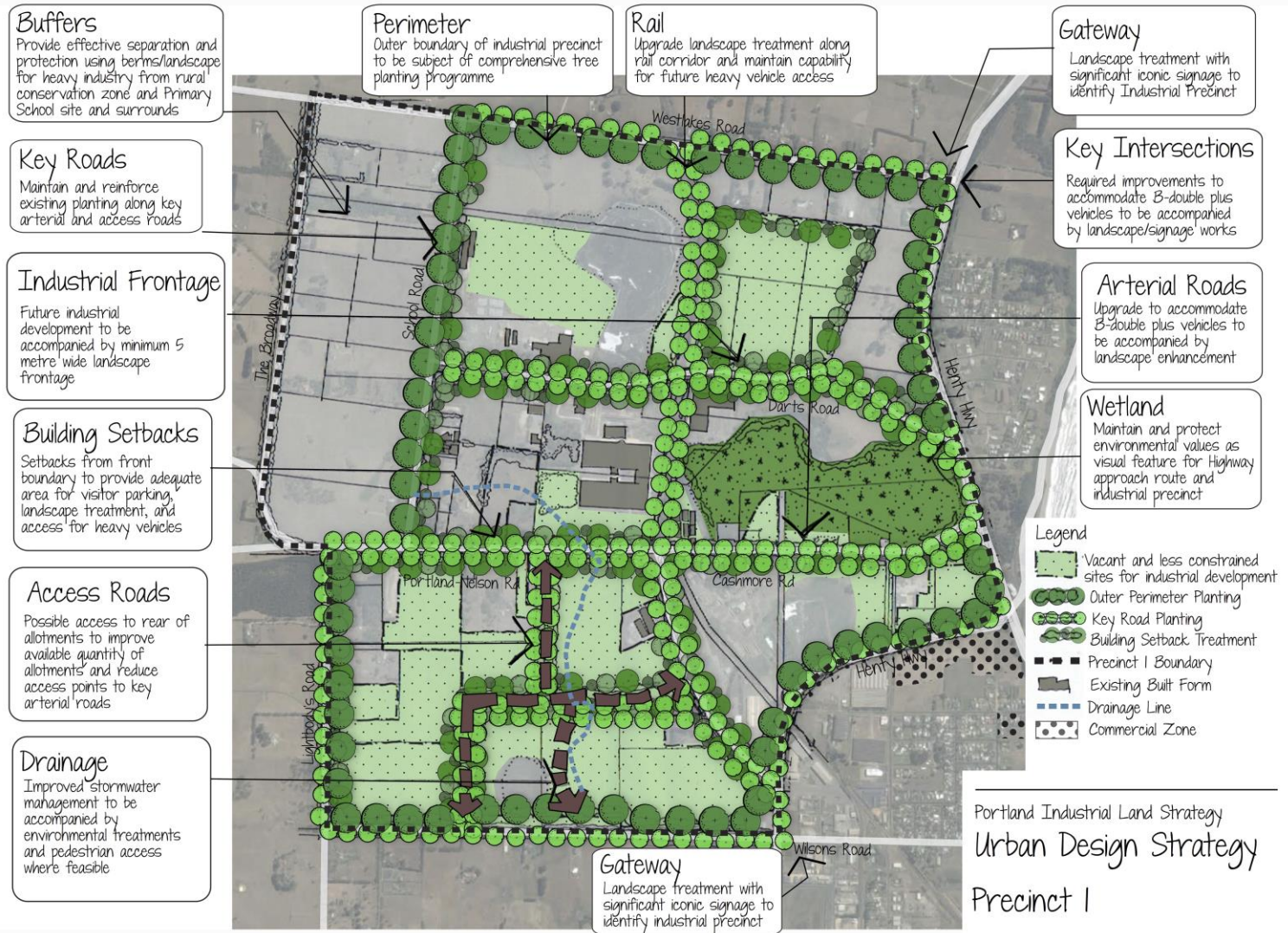
This precinct is to meet the needs of large scale industrial enterprises which require large indoor and external operational areas, and the capability if possible for future expansion. The larger site size will also provide for effective on site vehicle circulation. This should also accommodate industrial uses with buffer distances to residential sites.

### RAILWAY LINE INTERFACE

The existing railway alignment will provide potential opportunities for freight and logistics/port related uses and the development of intermodal infrastructure. For this to occur the design of the industrial precinct and allotment size will need to maintain the capability for future access to the railway line.



**PRECINCT 1: URBAN DESIGN STRATEGY PLAN**





## EXISTING INDUSTRIAL SITES

There are existing industrial sites within the precinct which have been established for some time, and have not been required to meet high standards of site presentation, particularly in regard to outdoor storage and operational areas. At a minimum, improvements in the quality of the urban design of the streetscape, and the encouragement of the site owners/operators to complete site landscape works, particularly along the boundaries of the site, are worthwhile. There are a number of vacant industrial premises, which have the capability for improved site presentation, to assist with future re-use.



### SITE SECURITY

Larger industrial sites with higher levels of site activity require increased site management and security. Currently the use of site security fencing, gates and site offices is not consistent. Where security fencing has been integrated with perimeter landscape treatment the presentation of the sites has been improved.



## 4.2 Precinct 3 – Central Portland Employment Precinct

### PRECINCT FOCUS

Smaller sized allotments are to be provided for a range of industrial uses within this precinct. Its relationship to the nearby educational facilities is to be reinforced. Because of the availability of rail access it has a capability for an intermodal facility and this will require access on a selected route for heavy vehicles. Proximity to residential areas requires that substantial improvement in the quality of the streetscapes, and in the contribution made by open space within the precinct to the recreation and open space network.

### BOUNDARIES AND GATEWAYS

The industrial precinct is to be strengthened by the streetscape treatment along its perimeter and internal roads. Percy Street, Garden Street, Browning Street, Francis Street, Hurd Street, Kennedy Street, Osbourne Street, and Palmer

Street are to more strongly define the boundary of the precinct. Appropriate treatment of building setback, landscape frontage, access and site security is to increase the overall presentation and status of this industrial precinct.



### RESIDENTIAL INTERFACE

This precinct is surrounded by residential development, and the area on the north side of the railway line is to be investigated for rezoning to mixed use. To the east of this area and bounded by Hurd and Percy Street, is an area which is largely occupied by a mix of industrial and residential development. The focus of the industrial strategy is to therefore be the industrial zoned land on the west side of the railway line, on the north side of Francis Street and east of Browning Street.

PRECINCT 3: URBAN DESIGN STRATEGY PLAN



Portland Industrial Land Strategy  
 Urban Design Strategy  
 Precinct 3



## GATEWAY POINTS

The intersection of Garden Street and Browning Street, and Francis Street and Hedditch Street are to emphasise the gateway to this industrial precinct. This will be achieved using avenue planting and lighting, gateway elements such as walling or place-making and site identification signs. Intersection treatment will facilitate access by heavy vehicles. Provision is to be made for access by b-double trucks from Percy Street along Wade Street and Blair Street.

## STREETSCAPES

Because Browning Street and Francis Street are the boundary between the Industrial 3 Zone and the General Residential Zone 1, the treatment of these roads is critical in maintaining the amenity of the residential properties and the capability to operate the industrial premises.

## EXISTING DEVELOPMENT

Because a significant number of sites have been developed for industrial enterprises, the only real capability for improvement in the presentation of these sites is through an upgrade of the roads to which they have a frontage. This could include improvements to pedestrian pathways and crossing points, and safety at existing intersections. There are some sites which require immediate improvement, and the poor management of which is impacting on the surrounding area.

## 4.3 Precinct 4 – Madeira- Packet Employment Precinct

### PRECINCT FOCUS

This unique location would provide for a range of industrial and commercial activities, in an attractive setting overlooking Portland Harbour. They would also provide an effective transition between the residential area to the west and the port-related uses to the east. Recent site development within this precinct demonstrates a higher standard of design and siting and presentation than is found in other industrial precincts of Portland.



### BOUNDARIES AND GATEWAYS

Strengthening of this precinct is to be achieved by effective streetscape treatment along Madeira Packet Road, Hislop Street and Rossdell Court. Appropriate treatment of building setback, landscape frontage to streets and boundaries is required. A robust and effective landscape treatment supplemented by acoustic protection where

appropriate, will permit the operation of industrial sites, particularly in regard to external storage areas. This is particularly in regard to the Industrial Zone 1, which has a capability for more intensive forms of industrial activity.

### RESIDENTIAL AND INDUSTRIAL INTERFACE

This precinct shares a western boundary with established residential development, and an eastern boundary with the Incitec Pivot bulk handling industry. There is a requirement for a comprehensive buffer along the western edge of the site to the immediately adjacent residential area. Further refinement of the planning for this precinct should include consideration of the establishment of residential allotments on the east side of Rossdell Court with a buffer provided at the rear of these allotments.

## GATEWAY POINTS

The intersection of Madeira Packet Road and Hislop Street and Childers Street are to emphasise the gateway to this industrial precinct. This will be achieved using avenue planting and lighting, gateway elements such as walling or place-making and site identification signs. Intersection treatment will facilitate access by heavy vehicles.

## STREETSCAPES

Because Madeira Packet Road forms the boundary between the Industrial 3 Zone and the existing Incitec Pivot facility, the treatment of this road is critical in maintaining the amenity of the industrial



area and its capability to operate effectively. The more recently established industrial development in Cellana Court demonstrates the capability of this area to achieve a higher standard of siting, design and presentation.

### EXISTING DEVELOPMENT

Because a significant number of sites have been developed for industrial enterprises, particularly within the Industrial 1 Zone, the only real capability for improvement in the presentation of these sites is through an upgrade of the roads to which they have a frontage. This could include improvements to pedestrian pathways and crossing points, and intersection treatments.

### INFRASTRUCTURE SERVICES

There is an absence of key infrastructure facilities to this area which will add to the cost of development.

### TRAFFIC MOVEMENT

Entry from Madeira Packet Road is provided by a number of cul-de-sacs, which although restrict access to a single direction, protect the adjacent residential area from additional through traffic. The overall level of traffic movement is reduced because of the isolation of this area from through movement of vehicles and from key regional access roads. It does however have strategic significance due to its proximity to the port.

PRECINCT 4: URBAN DESIGN STRATEGY PLAN



Portland Industrial Land Strategy  
Urban Design Strategy  
Precinct 4

## 5 URBAN DESIGN GUIDELINES

### 5.1 Precinct 1 – North Portland Industrial Precinct

The following general principles are to guide the future development of Portland Industrial Park- Precinct 1. Realistic and achievable standards will deliver an acceptable development quality for the overall estate and individual allotments. Portland Industrial Park is to become a recognised employment and economic activity area, and integral part of Portland. By effective integration with its environmental setting, through the treatment of its perimeter, streetscapes and frontages, and open space areas, Portland Industrial Park – Precinct 1 is to provide for large scale integrated industrial plants on large allotments.

#### INDUSTRIAL SUBDIVISION REQUIREMENTS

Individual allotments can contribute to the quality and performance of the Portland Industrial Park – Precinct 1. Each allotment if well designed and presented will add value to the Portland Industrial Park. The following are considerations which apply to the overall precinct and which are supported by the guidelines which apply to individual allotments.

#### ALLOTMENT SIZE

Heavy Industries need larger sites, for internal and external storage, for internal circulation of heavy

vehicles, and to provide for effective landscape treatment of the site boundary. A range of allotment size is required. There are already fully integrated plants for agricultural related products and metal fabrication which demonstrate this requirement.



#### GATEWAYS AND ENTRY POINTS

At the gateway to the Portland Industrial Park- Precinct 1 site identification signs within an attractive landscape setting is to establish a specific character for the site. It is important that the boundary and entry point to the Portland Industrial Park, strongly define it from other existing adjacent land uses.

#### BUFFER DISTANCES

Buffer distances may apply to particular uses within the Portland Industrial Park- Precinct 1, and this provides an opportunity for complementary industrial

uses with similar buffer requirements to overlap these areas.

#### SITE CONTEXT

The overall context of the Portland Industrial Estate – Precinct 1 is important in giving it identity, and allowing it to become part of the city as an important source of economic development and employment. The Portland Industrial Estate- Precinct 1 has attractive wetland areas adjacent which can form part of the overall allotment landscape treatment. There will be opportunities to integrate the landscape areas such as wetlands with the industrial sites to supplement the recreation and open space network.

### 5.2 Precinct 3 – Central Portland Employment Precinct

The following general principles are to guide the future development of Portland Industrial Park- Precinct 3. Realistic and achievable standards will deliver an acceptable development quality for the overall estate and individual allotments. Portland Industrial Park – Precinct 3 is to become a recognised employment and economic activity area, and integral part of the City of Portland. By effective integration with the surrounding area, through the treatment of its perimeter, streetscapes and frontages, and open space areas, Portland Industrial



Park – Precinct 3 is to provide for a range of allotments for smaller scale industrial uses. The availability of access to the railway line will also facilitate its use as an intermodal transit facility.

### INDUSTRIAL SUBDIVISION REQUIREMENTS

Individual allotments can contribute to the quality and performance of the Portland Industrial Park – Precinct 3. Each allotment if well designed and presented will add value to the Industrial Park. The following are considerations which apply to the overall precinct and which are supported by the guidelines which apply to individual allotments.

### ALLOTMENT SIZE

Smaller industrial allotments require the efficient use of access, parking areas, goods loading and external storage areas. The site scale restricts the use of buffer treatments, and requires that fencing, screening and landscape performance be highly effective. The quality of the existing development can be substantially improved, and some sites will require complete redevelopment to an acceptable standard.

### GATEWAYS AND ENTRY POINTS

At the gateway to the Portland Industrial Park – Precinct 3 site identification signs within an attractive landscape setting are to establish a specific character for the precinct. It is important that the boundary and entry point to the Portland Industrial Park – Precinct 3, strongly define it from other existing adjacent land uses.

### SITE CONTEXT

The overall context of the Portland Industrial Estate – Precinct 3 is important in giving it identity, and allowing it to become part of the city as an important source of economic development and employment. The Portland Industrial Estate – Precinct 3 has a strong relationship with the educational campus to the east, and other employment uses along Percy Street.



## 5.3 Precinct 4 – Madeira- Packet Employment Precinct

The following general principles are to guide the future development of Portland Industrial Park – Precinct 4. Realistic and achievable standards will deliver an acceptable development quality for the overall estate and individual allotments. Portland Industrial Park is to become a recognised employment and economic activity area, and integral part of the City of Portland. By effective integration with its environmental setting, through the treatment of its perimeter, streetscapes and

frontages, and open space areas, Portland Industrial Park – Precinct 4 is to provide a range of allotments for different forms of industrial use. The most recent examples of development within Cellana Court provide a benchmark for future site development within this industrial precinct.

### INDUSTRIAL SUBDIVISION REQUIREMENTS

Individual allotments can contribute to the quality and performance of the Portland Industrial Park – Precinct 4. Each allotment if well designed and presented will add value to the Portland Industrial Park. The following are considerations which apply to the overall precinct and which are supported by the guidelines which apply to individual allotments.

### ALLOTMENT SIZE

Smaller industrial allotments require the efficient use of access, parking areas, goods loading and external storage areas. The site scale restricts the use of buffer treatments, and requires that fencing, screening and landscape performance be highly effective.

### GATEWAYS AND ENTRY POINTS

At the gateway to the Portland Industrial Park – Precinct 4 site identification signs within an attractive landscape setting is to establish a specific character for the site. It is important that the boundary and entry point to the Portland Industrial Park, strongly define it from other existing adjacent land uses.

## SITE CONTEXT

The overall context of the Portland Industrial Estate – Precinct 4 is important in giving it identity, and allowing it to become part of the city as an important source of economic development and employment. The Portland Industrial Estate – Precinct 4 has attractive views over the top of the Incitec Pivot bulk handling industry towards Portland harbour. There is capability to provide a more effective landscape and acoustic buffer between the industrial sites and the residential area to the west.



## 5.4 Industrial Allotment Requirements

### 5.4.1 Economic context

#### SITE PRESENTATION

- The presentation of the industrial area will be a positive feature in the uptake of sites and investment in the city.
- The entrance and main access roads are to be attractively designed and presented.
- Maintenance of the perimeter of the site including landscape treatment and signage is to be of a high standard.



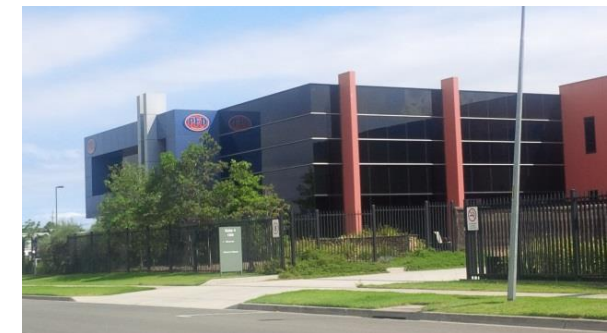
### 5.4.2 Land use

#### LIGHTING

- Large sites require effective lighting for night-time operation and security.
- Light spillage needs to be contained on the site, using baffling and effective alignment.

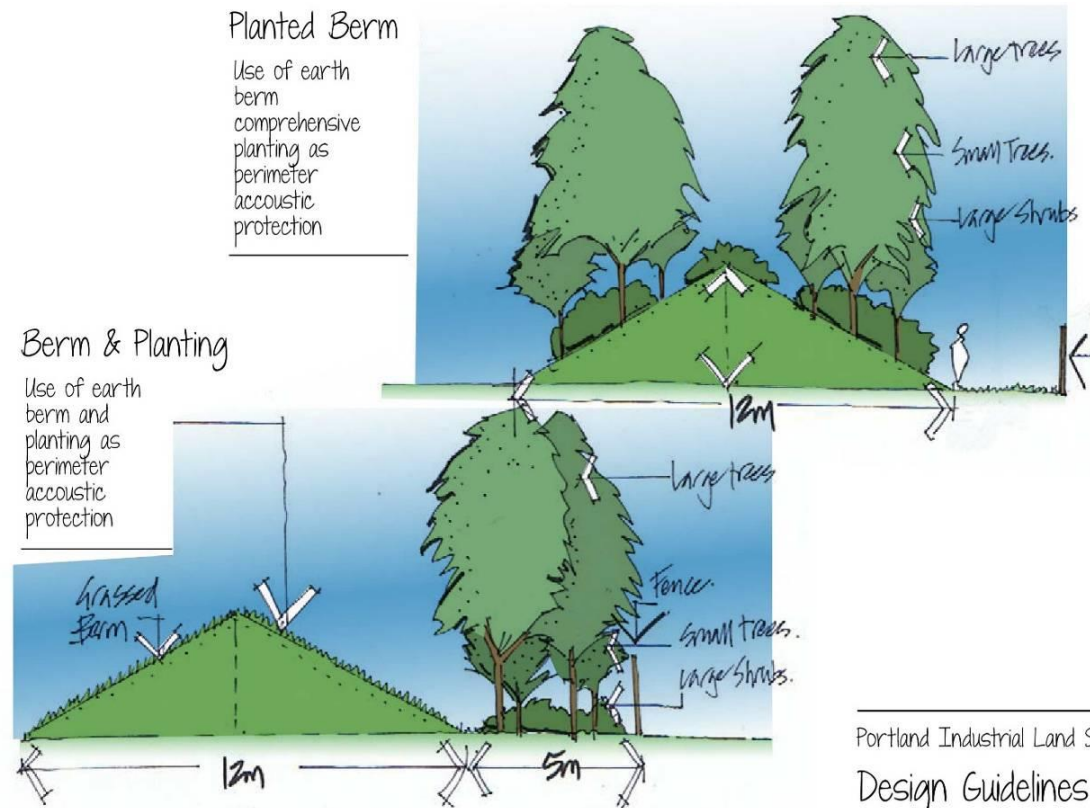
#### SITE SECURITY

- When site security is required in the form of chainmesh fencing and security gates, fencing should be incorporated in the landscape treatment.
- The use of barbed wire is not appropriate for front fences.
- Location of access gates is to provide for sufficient storage of vehicles without blocking access along arterial roads.



## EXTERNAL STORAGE

- If the industrial activity does not require internal storage or a high profile presentation, such as materials recycling, and agricultural machinery wrecking, extra attention to the landscape treatment is required.
- Within Precinct 1 if there is potential emission of dust or noise, an earth berm of a minimum 3.0 metres is required at the perimeter of the allotment.
- Along or adjacent to the berm comprehensive planting of trees and shrubs are required.



Portland Industrial Land Strategy  
Design Guidelines

Precinct 1



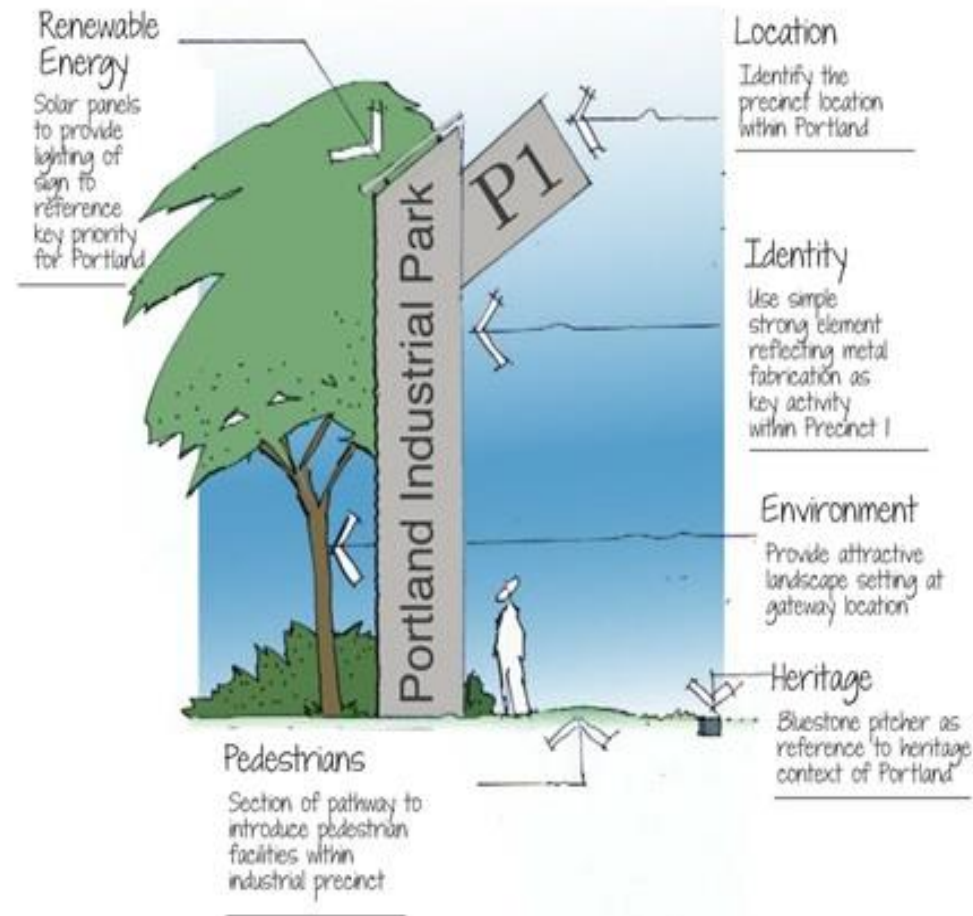
### 5.4.3 Urban design

#### STREET LANDSCAPE CHARACTER

- Demarcation for safe separation of vehicles, parking, access, loading and pedestrian and cycle areas is required.
- Pedestrian/cycle access is to be provided along all arterial and access roads.
- Remnant roadside planting is to be retained and supplemented where necessary.
- Species selection for roadside planting to include fast growing, hardy, drought tolerant that will not interfere with underground or overhead utilities.
- The number of required vehicle cross-overs should be limited where possible.
- Within the road reserve water sensitive urban design treatments are to be used to improve the quality of infiltration and runoff.

#### PLACEMAKING AND IDENTITY

- The rural context of the Portland Industrial Park is to be expressed in the materials and scale of identification signs, fencing and gates.
- Site which have been used previously for significant industries, or which are occupied by large scale enterprises that have a recognised relationship with the City of Portland may be referenced in the site design treatment.



Portland Industrial Land Strategy

Gateways

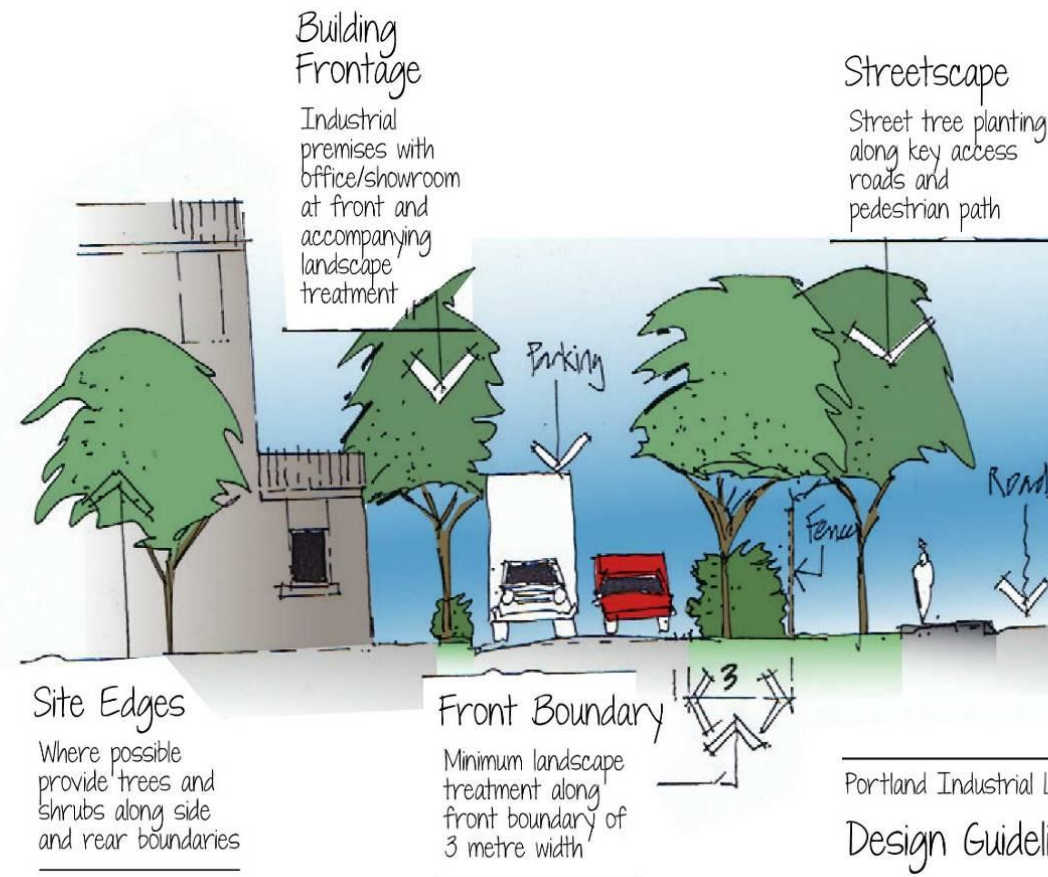
## BUILT FORM CHARACTER

- The presentation of the industrial premises increases the significance of the enterprise, and can add value for marketing and brand recognition.
- While the large shed can be used for processing, storage and dispatch, the office/showroom can be located at the front of the shed and enhance the presentation of the building.
- A consistent design theme for external finishes and roof forms of these office/showrooms is also useful in unifying the Portland Industrial Park.
- Building height should be more carefully considered when proximate to adjacent sensitive land uses to avoid overshadowing.
- The maximum height is not specified, however this will be determined by the size of the allotment. The use of elevated hoppers, storage tanks, and towers would for example be appropriate for larger allotments.
- To reflect the rural context of the Portland Industrial Park the use of materials which are characteristic of this context such as corrugated iron, steel, and large timber forms are appropriate.



## SUSTAINABLE BUILDING DESIGN

- Orientation of buildings to maximise northern exposure, and shade for east and west facing windows and openings.
- Openings and windows to maximise cross ventilation.
- External building treatments such as awnings and shutters to protect north, east and west facing windows from summer sun.
- Use tree planting to provide shade to building and roof areas.
- Where possible use skylights and light domes to transmit light to internal areas to reduce energy consumption.



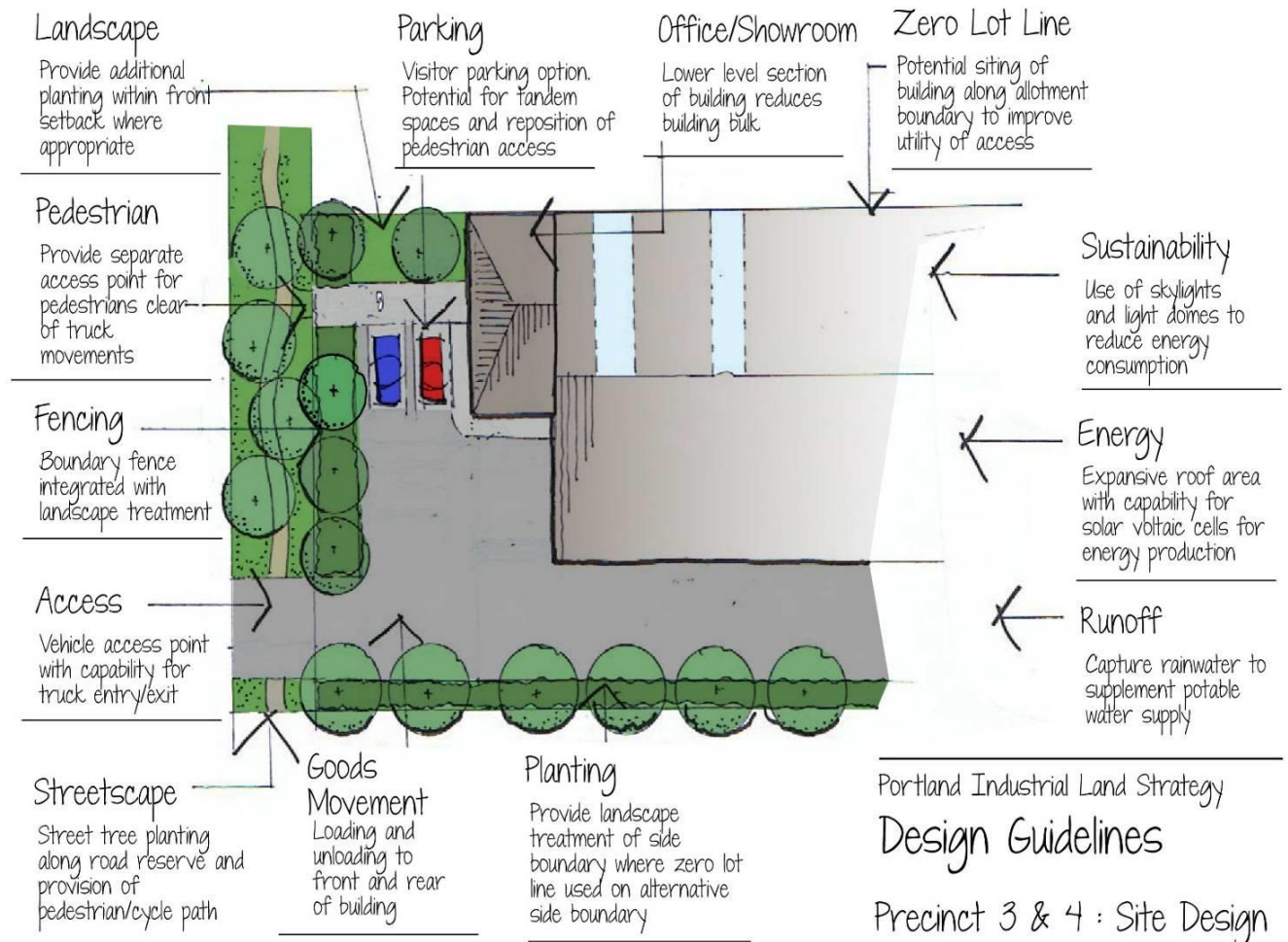
Portland Industrial Land Strategy

Design Guidelines

Precinct 3 & 4 Frontage

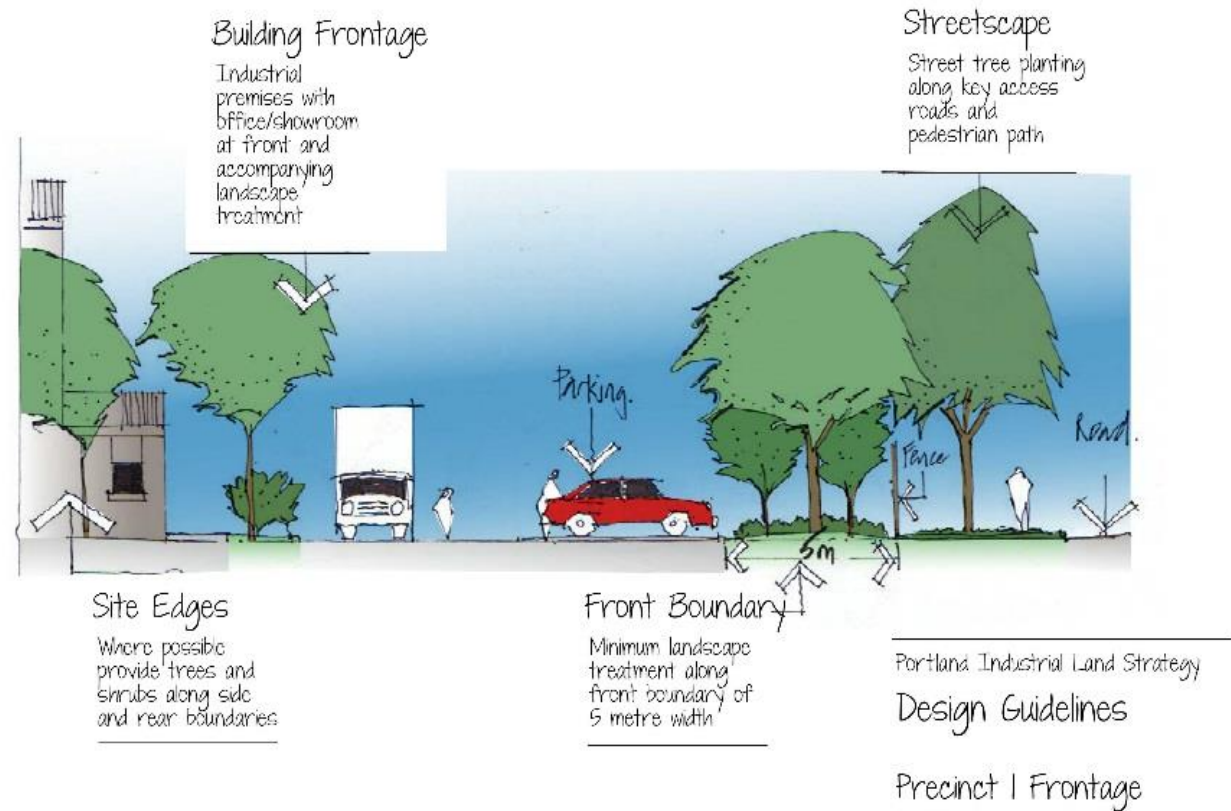


- Effectively insulate and maximise thermal mass to control building temperatures.
- Maximise capture of rainwater from roof areas to supplement potable water supply.
- Drain hardstand areas to stormwater treatment devices, prior to controlled discharge from the site.
- The use of environmentally sustainable materials is encouraged, including recycled materials, certified plantation or engineered timber materials.
- Large internal storage buildings provide expansive roof areas for solar voltaic cells that can be positioned to provide substantial sources of renewable energy.

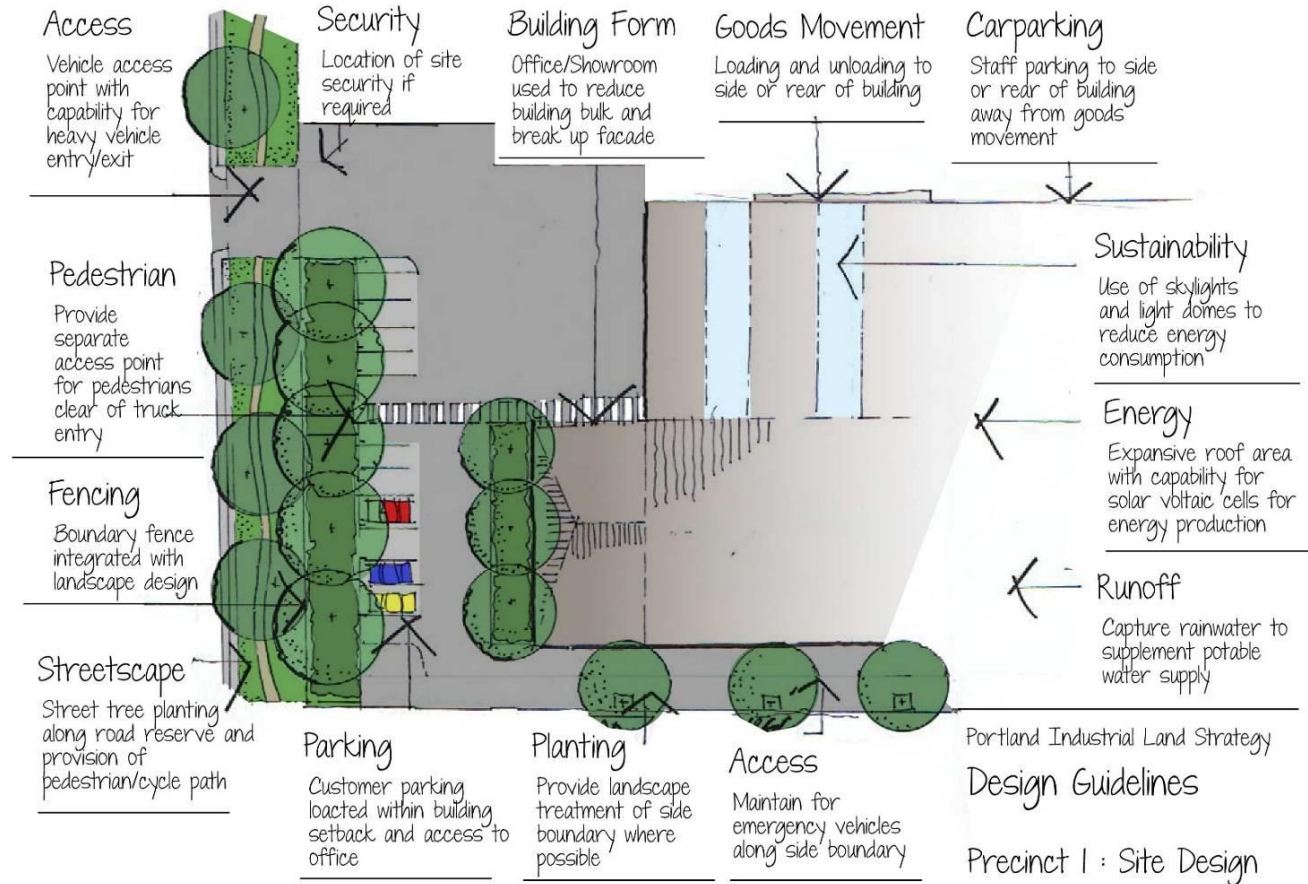


## LANDSCAPE FRONTAGE

- Setbacks from the frontage of the allotments is to provide adequate area for visitor parking, landscape treatment and access for heavy vehicles.
- The landscape frontage of at least 5 metres within precinct 1, and at least 3 metres in Precinct 3 and 4 will be comprised of large and small trees and large shrubs.



→ The plant material will be locally indigenous and drought tolerant. Replanting of fast growing species will be required.





## SITE SETBACKS

- Within Precinct 1 building setbacks from collector and access roads are to be a minimum of 20 metres. Within this setback area a minimum width of landscape treatment of 5 metres.
- Within Precinct 3 and 4 building setbacks from collector and access roads are to be a minimum of 10 metres within this setback area a minimum width of landscape of 3 metres is to be provided.

## OPEN SPACE INTERFACE

- Where allotments abut or include a drainage reserve the treatment of the boundary to this element is to be protected from access by pedestrians and vehicles.
- Landscape treatment at the perimeter of the allotment is to complement and reinforce the environment of the drainage line.
- Opportunities may exist for the utilisation of some of the drainage reserve for passive recreation.



## 5.4.4 Transport, access and infrastructure

### VEHICLE ACCESS

- Access to the sites needs to be efficient and safe.
- Larger vehicle access including B-Doubles may be required to access the allotments.
- All vehicles must be able to enter and leave the site in a forward direction.
- On larger sites the separation of truck and small vehicle access points would be useful.
- Truck access, manoeuvring and loading areas are to be separated from car parking areas.



## CARPARKING AREAS

- Sufficient car parking is to be provided on each allotment to meet with the anticipated peak parking demands.
- There is no advantage to the operator of the industrial enterprise to be underprovided with conveniently located parking.
- All car parking spaces are to be constructed of hard stand, all weather material, which is adequately drained and demarcated.
- Parking is to be provided for mobility impaired.
- Car parking should be located behind the required front setback area, however visitor parking may be provided within this setback if the required minimum width of landscape treatment of 5.0 metres is effectively designed and implemented.



## PEDESTRIAN ACCESS

- Vehicle and pedestrian movements needs to be clearly defined. This can be done using different paving materials, line-marking or barriers.

## SURFACE TREATMENTS

- Internal access and parking areas may be constructed using crushed rock and gravel finish for low traffic areas, to maximise on site infiltration of stormwater.
- High traffic areas may be constructed using spray-seal or bitumen surfaces.

## WATER SENSITIVE URBAN DESIGN

- Where impervious surfaces are required water gardens and bio-filters should be used to improve the quality of the intercepted drainage before discharge to existing drainage lines and retarding basins.

## 5.4.5 Natural environment

### LANDSCAPE TREATMENT

- Large heavy industry sites require heavy duty landscape treatment.
- Medium- large trees, and large shrubs are required for site boundaries, and this may be supplemented at the frontage with ground covers and grasses.
- Planting needs to be hardy, drought tolerant and preferably locally indigenous.



# 6 IMPLEMENTATION

## 6.1 Strategies and actions

The Implementation Plan identifies the priority projects and key land use and infrastructure actions to implement the overall vision for the Portland Industrial Land Strategy. These directions are practical and achievable over the available time-frame for the Plan and acknowledge the resource capability of Council, and the projected scope and realistic contribution of new industrial development.

Implementation actions are identified which are to be achieved through planning scheme amendments and associated actions, and other actions of a non-statutory nature. The overall scope of the actions include:

- Statutory implementation
- Infrastructure Projects
- Urban and Landscape Design Projects
- Economic Development Facilitation
- Monitoring and Enforcement
- Leadership and Governance Structures
- Further Studies and Investigations.



**Figure 6.1** Aerial Image of the Alcoa Site

Source: Glenelg Shire Council (2015)



### 6.1.1 Planning Scheme Policy and Controls

The planning policy framework and planning provisions of the Glenelg Planning Scheme will be amended as outlined in the following table.

#### PLANNING POLICY FRAMEWORK AND PLANNING PROVISIONS

ACTION	PRIORITY	RESPONSIBILITY	COMMENT
Amend the Local Planning Policy Framework of the Glenelg Planning Scheme to include a revised policy 'Industrial interface areas' as a new policy Clause 22.04 Include the Precinct Framework Plan under Clause 21.11-1 Local Areas (Portland) Include the Urban Design Strategy Plan under Clause 21.11-1 Local Areas (Portland)	Immediate	GSC	To provide increased statutory significance for PILS, the inclusion of the key policies and directions of the plan and the precinct framework plans should be referenced in the local planning policy section of the Glenelg Planning Scheme.
Include the objectives and strategies provided in PILS which specifically apply to the ongoing expansion of the port facilities under Clause 21.09	Immediate	GSC	Review Municipal Strategic Statement (MSS) Clause 21.03 Vision
Include specific reference to the locations now preferred for Industrial development as indicated in PILS under Clause 21.11-1 (Portland)	Immediate	GSC	Review Clause 21.07 Key issues facing the municipality
Specifically reference the directions of PILS in the priority given to the staging of heavy industry and port-related industries under Clause 21.11-1 (Portland)	Immediate	GSC	Review Clause 21.09 Objectives and strategies
Include objectives and strategies relating to industrial development within Portland under Clause 21.11-1 (Portland)	Immediate	GSC	Review Clause 22.03-2 Industrial Development.
Include objectives and strategies related to the Port and the potential for intermodal activities under Clause 21.09 (Transport)	Immediate	GSC	Review Clause 22.03-3 Port of Portland

## 6.1.2 Zones and Overlays Controls

There is a total of 127.58 ha of land that is suggested to be rezoned within Precinct 1, 3 and 7. The following rezoning and overlay controls are proposed to implement the recommendations of the Portland Industrial Land Strategy.

### REZONING

SITE LOCATION	EXISTING ZONE	PROPOSED ZONE	PRIORITY	RESPONSIBILITY	COMMENT
<b>Precinct 1</b>					
Rezone allotments on the south side of Westlakes Road between the railway line and the Henty Highway	Industrial 2 Zone	Industrial 3 Zone	Immediate	GSC	While there is sufficient Industrial 3 zoned land in Precincts 3 and 4, this part of Precinct 1 provides a transition to the Rural Conservation Zone to the north, and may be more appropriate for Industrial 3 Zone land use. This rezoning will provide for uses where special consideration of the nature and impacts is required. This rezoning will provide a buffer to other INZ, and allows for limited retail. It will provide a reduced speed of hectare consumption from 2.7 ha/pa to 0.1 ha/pa. This will have the effect of substantially increasing the years of land supply.
Rezone allotments surrounding the Portland North Primary School	Industrial 2 Zone	Industrial 3 Zone	Immediate	GSC	Need to provide a more appropriate interface between the IN2 zoned land to the east and the site occupied by Portland North Primary School. This will create an effective buffer to the IN2 Zone. The relocation of the school will be supported, if and when an alternative site is provided. This rezoning will provide for uses where special consideration of the nature and impacts is required. It will provide for the highest level of protection of sensitive uses, appropriate considering the location of the school.
<b>Precinct 3</b>					
Land on the south side of Wade Street, east of the railway line and generally west of Palmer Street. Land South of Kennedy Street and west of Hurd Street.	Industrial 3 Zone	Mixed Use Zone	Immediate	GSC	<p>The proximity of the potential intermodal location with the proposed MUZ land south of Kennedy Street is a consideration as there is the potential for a conflict of uses. The potential residential uses could be negatively impacted by light and noise from heavy vehicles, if operating hours allowed. A frontage landscape treatment has been applied along Freight Road as a buffer, however further design considerations could be included within the DPO for this precinct to address acoustic and light amenity issues around the potential intermodal site. The General Residential 1 Zone is currently within close proximity to the potential intermodal site.</p> <p>The proximity to the potential intermodal site conversely provides an opportune mixed use area, which allows for a higher density and 24 hour passive surveillance associated with a range of different activities occurring at various times throughout the day and night, as a result of residential and business uses being co-located. It is considered that the MUZ can fit within the context of both the surrounding residential and industrial zones.</p>

SITE LOCATION	EXISTING ZONE	PROPOSED ZONE	PRIORITY	RESPONSIBILITY	COMMENT
Land south of Garden Street, east of the railway line, west of Osbourne Street	Industrial 3 Zone	General Residential 1 Zone	Immediate	GSC	Continue the adjacent residential use from north of Garden Street and recognise the existing residential uses. The amenity of the residential area is suggested to be enhanced and slightly protected from heavy vehicles travelling along arterial roads through the streetscape treatment. A future access road has been proposed through the large area of vacant land to provide for potential lot yield.
Existing industrial zoned land south of Garden Street, to the east side of Osbourne Street.	Industrial 3 Zone	Mixed Use Zone	Immediate	GSC	This land is currently Industrial 3 zoned land and is proposed to change to Mixed Use Zone. This area was previously used for local retail, however it is now being used for a mix of residential and commercial purposes. The mixed use zone will allow for both of these uses to continue.
<b>Precinct 7</b>					
Terminal substation at 79 Rifle Range Rd, Heywood	Public Conservation and Resource Zone	Public Use – Service and Utility 1 Zone	Immediate	GSC	There is a terminal electrical substation, connected to the national grid, currently located within the Public Conservation and Resource Zone. This PCRZ covers a much broader area than just the substation. It is considered that the terminal substation should be included within the PUZ1. This proposed PUZ1 will be applied to the whole of the cadastral parcel (approx. 52 ha) relating to the terminal substation.

## OVERLAYS

SITE LOCATION	ACTION	PRIORITY	RESPONSIBILITY	COMMENT
<b>Precinct 1</b>				
Industrial Zoned land which surrounds the Portland North Primary School, Land to the north of Portland Precinct 1 Masterplan. Includes Industrial 2 Zone land west and east of the railway line, north of Wilsons Road and Rural Conservation Zone – Schedule 2 west of School Road.	Apply a Development Plan Overlay.	Immediate	GSC	Need to address the interface with the Portland North Primary School. The area immediately surrounding this site within the Industrial 2 Zone is to achieve higher standards of site design. The DPO will include provisions that set out site layout and urban design requirements. Provisions to address interface treatments need to be developed.
Un-named lagoon south of Westlakes Road.	Apply an Environmental Significance 2 Overlay.	Immediate	GSC	Following from the environmental assessment completed as part of the Preliminary Environment and Planning Assessment that informed the Portland Industrial Land Strategy, it is considered that an Environmental Significance Overlay should be applied to the wetland areas within Precinct 1 in order to protect biodiversity and environmental values.



SITE LOCATION	ACTION	PRIORITY	RESPONSIBILITY	COMMENT
Whole Precinct 1 area, relative to the merged buffer area relating to Acoustic Report and existing rural industry buffer.	Apply an Environmental Significance Overlay.	Immediate	GSC	The merged buffer area, of which this ESO will be applied to, relates to the existing RAZ Schedule for rural industry and the noise buffer and existing EPA buffers. A new ESO is to be applied with a schedule to provide protection for the industrial precinct from encroaching sensitive development and to flag the existing environmental issues to any new developer. ESO will protect existing major industry from the encroachment of sensitive uses.
<b>Precinct 3</b>				
Land as identified in Portland Industrial Strategy-Precinct 3 Masterplan to be rezoned for MUZ, south of Kennedy Street.	Apply a Development Plan Overlay.	Immediate	GSC	The proximity of the potential intermodal location with the proposed MUZ land south of Kennedy Street is a consideration as there is the potential for a conflict of uses. The potential residential uses could be negatively impacted by light and noise from heavy vehicles, if operating hours allowed. Provisions need to be developed within a DPO to guide future development.
Industrial 3 zoned land east of Browning Street, west of the railway line and north of Francis Street.	Apply a Development Plan Overlay.	Immediate	GSC	The proximity of this area to the General Residential Zone 1 land to the west requires that a higher standard of site design be achieved. Overlay to implement the setback requirements, frontage landscape treatments and rear boundary treatments of the Urban Design Guidelines.
Land as identified in Portland Industrial Strategy-Precinct 3 Masterplan to be rezoned for MUZ and GR1Z.	Apply an Environmental Audit Overlay.	Immediate	GSC	Based on the assessment of potential contamination and the intended use of this area for mixed use, including residential purposes. This is particularly relative to land east of the railway line, west of Hurd Street and south of Osbourne Street as these areas were of high potential for soil contamination. The areas east of Hurd Street had fewer, interspersed pockets of high potential for soil contamination.
<b>Precinct 4</b>				
Industrial zoned land, identified within Portland Industrial Strategy-Precinct 4 Masterplan.	Apply a Development Plan Overlay.	Immediate	GSC	A Masterplan has been prepared for the Industrial land <b>Precinct 4</b> – Industrial 3 Zone and Industrial 1 Zoned land west of Madeira Packet Road. The purpose of the overlay is to address the proximity of this precinct to the General Residential Zone 1 land to the west, which requires a higher standard of site design be achieved.

The following Infrastructure, urban design and place-making developments, and other actions are recommended to further implement the Portland Industrial Land Strategy. (Reference to Rail Reserve Road is the proposed prime arterial bypass from Portland-Nelson Road to Westlakes Road, along the existing rail reserve.)

## INFRASTRUCTURE PROJECTS

PROJECT	DESCRIPTION/ACTION	RESPONSIBILITY	COST	PRIORITY
<b>Precinct 1</b>				
Road Upgrade	Upgrade Westlakes Rd and construct road in railway reserve between Westlakes Road and Cashmore Road (approximately 3.7km).	VicRoads	H	Medium
Cashmore Road Upgrade	Upgrade Cashmore between rail corridor and Henty Highway and construct road to standard to accommodate b-double plus vehicles, with WSUD drainage (approximately 1.3km).	VicRoads	H	Short term
Intersection Upgrade	Upgrade intersection of Portland-Nelson Rd and Cashmore Road (Option 1: re-align right of way. Option 2: new arterial road in rail reserve and construct roundabout).	VicRoads	H	Medium
Intersection Upgrade	Upgrade intersection of Henty Highway and Westlake Road.	VicRoads	M	Short term
Intersection Upgrade	Upgrade intersection of Henty Highway and Darts Road.	VicRoads	M	Short term
Intersection Upgrade	Upgrade intersection of Henty Highway and Cashmore Road.	VicRoads	M	Short term
Intersection Upgrade	Upgrade intersection of Portland Nelson Road and School Road.	VicRoads	M	Short term
Intersection Upgrade	Upgrade intersection of Westlakes Road and Railway Reserve Road.	VicRoads	M	Medium
Intersection Upgrade	Upgrade intersection of Railway Reserve Road and Darts Road.	VicRoads	M	Medium
Drainage Works	Drainage channel from School Road to Wilsons Road to accommodate one in 100 year flow. See North Portland Industrial Precinct Stormwater Management Strategy (written by Spiire, July 2016).	Owner/Developer	L	Medium
Drainage Works	Drainage retarding basin required north of Wilsons Road, to accommodate one in 100 year flood. See North Portland Industrial Precinct Stormwater Management Strategy (written by Spiire, July 2016).	Owner/Developer	L	Medium
Drainage Works	Between Cashmore Road and Henty Highway upgrade of existing drainage channel is required to accommodate one in 100 year flow. See North Portland Industrial Precinct Stormwater Management Strategy (written by Spiire, July 2016).	Owner/Developer	L	Medium
Drainage Works	Construct pipe between un-named lagoon and Walook Swamp.	Developer/GSC	L	Medium
<b>Precinct 3</b>				
Provide for b-double access	Route from Percy Street along Wade Street, Blair Street, and Kennedy Street. Alternative in railway spur.	Developer/GSC	M	Medium
<b>Precinct 4</b>				
Construction of Service Road	Along west side of Madeira Packet Road between Findlay Street and north of George Street.	Owner/Developer	M	Medium

In regards to cost implications, each project has been ranked on a scale of High, Medium or Low in terms of the expected planning and development costs relative to the other projects considered. It includes the costs to developers, Council and other government departments. Costs associated with the upgrading of infrastructure can rely on variables such as existing infrastructure condition, ground/soil conditions and environmental factors. The cost rankings have been weighted in relation to the following indicative costs table. Road intersection upgrades may be triggered by new development and become the responsibility of the developer, while cost-sharing schemes can be investigated.

#### IMPLEMENTATION TABLE – INDICATIVE COSTS

INFRASTRUCTURE DESCRIPTION	COMMENT	APPROX. COST
Two-Lane Arterial Road Construction***	Construct a two-lane arterial road.	\$2000 - \$6000 per metre
Arterial Roundabout Construction***	Construct a new roundabout.	\$4M
Single Lane Arterial Road Construction***	Construct a one –lane arterial road.	\$1200 per metre
Upgrade Intersection***	Upgrade to intersection - major turn lanes.	\$1500 - \$2000 per metre
Suburban road with in situ concrete kerbs**	ADD extra for paved footpath: → 1200mm wide: \$60 - \$75 per metre → 1500mm wide: \$75 – \$90 per metre	6m wide: \$250 - \$400 per metre 8m wide: \$300 - \$550 per metre
Power*	Cost based on high voltage 33kV cable.	\$2300 per metre
Drainage*	Costs based on pipe sizes from 300mm diameter to 900mm diameter.	\$300 - \$650 per metre
Sewer*	Costs based on pipe sizes from 225mm diameter to 375mm diameter.	\$300 - \$350 per metre
Water*	Cost based on extension of 525 mm diameter pipe.	\$350 per metre
Gas pipeline*	Order of magnitude cost based on high pressure 180mm polyethylene diameter pipe.	\$550 per metre

\*Costs referred to above are indicative rates only based on the expected ranges of pipe sizes that could be anticipated being required for new development in the study area (*Portland Industrial Land Strategy – Desktop Infrastructure Assessment*, March 2015, WSP | Parsons Brinckerhoff).

\*\* Costs referred to above are indicative rates only and prices include minimal cut and fill but exclude lighting and drainage (*Rawlinsons Construction Handbook*, 2015, Edition 34, page 683).

\*\*\* Costs referred to above are indicative rates only based on advice from VicRoads (August 2016).



The responsibility of cost can be addressed through a range of mechanisms. There are a number of infrastructure cost allocation options as follows:

- Direct funding by the relevant public authority.
- At the developer's cost.
- Infrastructure grant (Federal and/or State).
- Under Part 8 of the Local Government Act:
  - A differential rate.
  - A special rate or charge.
- Other instruments available may include:
  - A Development Contributions Plan (DCP)/Scheme.
  - Specified Area Infrastructure Rate / Charge.
  - An Infrastructure Levy.

#### URBAN DESIGN AND PLACE-MAKING PROJECTS

PROJECT	DESCRIPTION/ACTION	RESPONSIBILITY	PRIORITY
<b>All Precincts</b>			
Way finding and Signage	Install signage throughout the identified Portland industrial precincts.	GSC	Immediate
Branding and Identity	Use a branding identity for the Portland industrial precincts which is consistently used throughout Precincts 1, 3 and 4. These are the North Portland Industrial Precinct (Precinct 1), Central Portland Employment Precinct (Precinct 3), Madeira-Packet Employment Precinct (Precinct 4) and Smelter Industrial Precinct (precinct 5).	Developer/Owners/ GSC/Landcare Groups	Immediate
<b>Precinct 1</b>			
Gateway Treatment	Installation of iconic signage/landscape treatment at entry point to precinct from Westlakes Road, Portland Nelson Road and Cashmore Road.	GSC	Medium
Wetland Areas	Ongoing management of wetland areas including weed control, revegetation and installation of passive recreation facilities.	GSC	Medium
Perimeter Landscape Treatment	Comprehensive planting along rear boundary of allotments when development/redevelopment occurs.	Owners/Developers	Medium
<b>Precinct 3</b>			
Railway Reserve Improvement	Upgrade landscape treatment and management along rail corridor.	VicTrack/GSC	Immediate
Gateway Treatment	Installation of iconic signage/landscape treatment at entry point to precinct from Percy Street.	GSC	Immediate

PROJECT	DESCRIPTION/ACTION	RESPONSIBILITY	PRIORITY
Perimeter Landscape Treatment	Comprehensive planting along rear boundary of allotments when development/redevelopment occurs.	Owners	Medium
<b>Precinct 4</b>			
Western Edge Landscape	Landscape improvement project along the western boundary of the site within the existing open space areas.	GSC/Developer	Medium
Gateway Treatment	Installation of iconic signage/landscape treatment at entry point to precinct from north and south along Madeira Packet Road	GSC	Medium
Perimeter Landscape Treatment	Comprehensive planting along rear boundary of allotments when development/redevelopment occurs.	Owners	Immediate

### RECOMMENDED ACTIONS

PROJECT	DESCRIPTION/ACTION	RESPONSIBILITY	PRIORITY
<b>All Precincts</b>			
Industrial Prospectus	Preparation of marketing for the Portland Industrial Development / Investment Attraction Prospectus to promote future industrial development within Portland, and focus on the delivery within Precincts 1, 3 and 4.	GSC	Immediate
Acoustic Assessment	Application of the findings of the Acoustic Assessment of the industrial development areas within Portland to future site developments through the application of recommended overlays.	GSC	Immediate
Industrial Land Inventory	Update the information regarding the available site inventory on an ongoing basis and provide for access by the public.	GSC	Immediate
Compliance	Improve enforcement of non-compliant site activities on existing industrial sites	GSC	Immediate
<b>Precinct 1</b>			
Water Sensitive Urban Design	Implement the directions of the Portland North Industrial Area Drainage Management Strategy (2016) within Precinct 1.	GSC	Immediate
Eco-Hydrology Study	Undertake an eco-hydrology study for end flows of Walook Lagoon and the un-named Lagoon (under \$20,000).	GSC	Immediate
Intermodal Facility	Promote the establishment of an intermodal facility within Precinct 1.	GSC	Medium
<b>Precinct 4</b>			
Infrastructure	Investigate infrastructure servicing requirements for this precinct	GSC	Immediate

