Development Act 1993

CITY OF PLAYFORD - Penfield Intermodal Rail Freight Facility

Development Plan Amendment by the Minister

For Approval

Declared by the Minister for Urban Development and Planning to be an approved amendment under Section 26 (8), Development Act 1993

.....
Signature

07 AUG 2008

Date of Gazette.....

Approval DPA

Background

The Penfield Intermodal Rail Freight Facility Development Plan Amendment (DPA) by the Minister amends the Playford (City) Development Plan.

The DPA was released for public and agency consultation on 14 February 2008 and concluded on 10 April 2008. No public meeting was required as none of the submissions requested to be heard.

Consultation and responses

A total of seven public submissions, two council submissions and seventeen agency submissions were received in relation to the DPA during the consultation period. The key issues raised were:

- Potential noise and traffic impacts to neighbouring properties
- Impact of the intermodal activities on neighbouring horticultural uses
- The use of the site should be 24/7 and that it can accommodate larger vehicles
- Limited information about workers accommodation and storm water management
- The Northern Connector Project may impact on the intermodal site.

Approval Stage

Based on a review of all submissions, DPAC recommends the following changes to the Amendment contained in the DPA document:

- Amend PDC 16 - replacing the words 'environmentally responsible disposal' to 'environmentally responsible management'
- Amend PDC 26(c) - replacing the words 'satisfactory disposal or detention' with 'satisfactory management or detention'
- Insert a new PDC – 'Development should be consistent with the relevant provisions in the current Environmental Protection (Noise) Policy'
- Amend Desired Character Statement to 'Development within the Intermodal Zone should provide for the efficient use of land for intermodal rail freight terminal activities including marshalling yards, railway workshops *including locomotive maintenance activities*, covered loading and unloading areas and warehousing for the storage and handling of shipping containers and goods'.

Development Act 1993

Playford (City) Development Plan

Penfield Intermodal Rail Freight Facility

Approval Development Plan Amendment

ANALYSIS RELEASED FOR CONSULTATION

By the Minister

1. ANALYSIS

1.1 BACKGROUND

Future of the freight transport industry

The freight transport industry is a significant contributor to the South Australian economy, representing 5% of the Gross State Product[1]. The Bureau of Transport and Regional Economics predicts that national freight volumes will double over the next 20 years, with the fastest growing sector being non-bulk freight transport.

Adelaide not only generates significant amounts of intermodal freight of its own but also functions as an important marshalling and freight consolidation point between Melbourne and Perth. The standard gauge railway line from Adelaide (north of Islington) to Perth is generally unencumbered by low bridges and is capable of accommodating double stacked trains 1.8 kilometres long. Adelaide is therefore a strategically important interchange with the potential to provide improved east-west rail freight transport for the benefit of local industries and the state.

Intermodal terminal options

There is no existing intermodal rail freight terminal (IRFT) that is capable of being expanded to adequately accommodate the expected growth in the transport industry in Adelaide.

The critical site selection criteria for a new stand-alone IRFT with potential for operations of optimal efficiency and capacity for growth into the foreseeable future are as follows:

- The site must be adjacent to the national railway line (Melbourne-Adelaide-Perth route) with an ability to be connected to it for direct access by trains approaching from both the east and west.
- There must be sufficient land both on the railway reserve and/or terminal site to accommodate a fully made up train (up to 1.8 kilometres long) plus the required over-run extensions, without interfering with the main 'running line'.
- The site must be of a shape and topography that enable critical railway design criteria to be met (ie: horizontal and vertical curve limitations and a maximum track gradient of 1:200).
- The site must have good access to the arterial road network, and be accessible to other transport hubs (ie: ports and airports) and other major warehousing and distribution centres.
- The site must have sufficient area to accommodate the main access spur line, associated marshalling yards, transit buildings (undercover areas for goods handling and train loading/unloading), storage warehouses, hardstand areas for container storage and handling, and the requisite roads, car parking areas, and landscaped areas.
- The site must be positioned on the standard gauge railway line so as not to be encumbered by overpassing infrastructure (ie: low bridges). In this regard a clear headroom of at least 6.6 metres is required.
- The site must be adjacent to a major urban area.

There are few sites that qualify as candidates in terms of these criteria. Penfield is able to satisfy all of the essential requirements and is therefore of high strategic value from a transport planning point of view.

[1] *The Freight Industry in South Australia,* p.1

Selection of the Penfield site

The Penfield site has been selected because:

- it has a continuous abuttal to the standard gauge railway line of approximately 2.5 kilometres
- it is accessible to the State Highway and the arterial road network (including the proposed Northern Expressway) with direct links north to Port Wakefield and to Port Augusta
- it is large enough to accommodate a wide range of existing and new industry with access to major rail and road transport systems
- it is close to the adjoining Salisbury Region, which has already been established as an industry and warehousing precinct adjacent to the rail corridor
- the main railway line lies within a rail reserve of adequate width to provide opportunities for the construction of further rail tracks and passing loop lines to the standard gauge rail lines
- it is relatively remote from residential uses, which means it can be developed for a large scale transport-based warehouse in a way that would cause minimal impact on the amenity of the local environment. (There are 5 dwellings within 500 metres of the site.)
- it is generally cleared of trees and relatively flat, which makes it suitable for the development of rail infrastructure.

1.2 THE STRATEGIC CONTEXT AND POLICY DIRECTIONS

1.2.1 South Australia's Strategic Plan

The DPA supports the following Strategic Plan targets:

- T1.1 – Exceed the national economic growth rate by 2014.
- T1.5 – Exceed Australia's ratio of business investment (as a percentage of the economy) by 2014.
- T1.10 – Better the Australian average employment growth rate by 2014.
- T1.11 – Maintain equal or lower rates of unemployment than the Australian average through to 2014.
- T1.14 – Treble the value of South Australia's export income by 2014.
- T1.21 – Match the national average in terms of investment in key economic and social infrastructure.
- T2.9 & T2.10 – Reduce road fatalities and injuries by 2010.
- T3.5 – Reduce greenhouse gas emissions by 60% (40% of 1990 levels) by 2050.

1.2.2 Consistency with the Planning Strategy

The Planning Strategy presents current State Government policy for development in South Australia. In particular, it seeks to guide and coordinate State Government activity in the construction and provision of services and infrastructure that influence the development of South Australia. It also indicates directions for future development to the community, the private sector and local government.

The Planning Strategy is divided into three sections — Metropolitan Adelaide, Outer Metropolitan Adelaide and Regional South Australia — and is based on key economic, social and environmental imperatives.

The most pertinent sections in the Planning Strategy that are addressed by these proposed policies are:

- The Economy, Industry Development and Opportunity, under which it is identified that volumes of freight (in South Australia) are expected to double over the next 10 to 15 years and that the freight transport and logistics sector will be a 'major user of industrial land'.
- Land Use and Transport Integration. This chapter contains policies aimed at protecting sites of strategic importance for the future development of the transport system and to identify potential strategic sites for the location of intermodal facilities and terminals for freight rail related activities. It is policy to encourage the development of such facilities in suitable locations.

  This chapter also identifies a site in the vicinity of the RAAF Air Base at Penfield as being suitable for the development of an intermodal terminal.
- Industrial Land, which contains policies aimed at assisting the clustering of complementary businesses to allow more effective industrial activity, and supporting the expansion of existing industries outside industry zones where it is strategically justified and the expansion will not affect surrounding land uses. It is also policy to ensure a net gain in industrial land across metropolitan Adelaide, particularly for sites of strategic significance.

1.2.3 Consistency with other key policy documents

The Metropolitan Adelaide Industrial Land Strategy

This strategy identifies the need for industrial land in strategic locations. The strategy recognises that land abutting railway lines and along arterial road routes is strategically important for transport-based industry. The strategy also highlights the need for an intermodal facility in the northern Adelaide area.

The proposed planning policies accord with the adjacent councils' Development Plans and other relevant strategic documents as outlined below:

Playford (City) Development Plan

The strategic section of the Playford (City) Development Plan contains general and more specific land use policies. The Plan seeks to create an urban area which makes efficient use of existing infrastructure and enable development to be undertaken in appropriate areas in consideration of surrounding land uses.

The plan also aims to provide an adequate supply of industrial land in appropriate locations and highlights the need for new supplies of suitable well-located land for industry across the metropolitan area.

In addition to the above, the plan contains a section on transportation. The key objectives for this section include:

- To provide a comprehensive, integrated, and efficient transport system that supports economic development and sustainable transport technologies.
- To support compatibility between land uses and the transport system in order to protect the amenity of existing and future land uses.
- To encourage the exclusion of through vehicular traffic from residential areas which comprise primarily local streets.

The Playford Plan

The Playford Plan (2002-2012) builds on the Playford (City) Development Plan with several strategies aimed at achieving economic prosperity, including the facilitation of improved transport routes and the development of regional supply chains and networks between industry sectors.

The Playford Economic Prosperity Goal Plan

The Playford Economic Prosperity Goal Plan 2006-2011 identifies an intermodal facility in northern Adelaide as a key to providing ongoing sustainable investment in industry in the municipality (in addition to the recently announced Northern Expressway project).

Salisbury Development Plan

Figure In/4 (Direk Industry Zone Concept Plan) of this plan identifies land to the south east of the affected area (south of the railway line and east of Heaslip Road) zoned for industrial purposes – which is compatible with rezoning of the affected area to an intermodal zone. This figure also identifies the location of a potential intermodal facility in the vicinity of the affected area (west of Heaslip Road).

The Strategic Infrastructure Plan for South Australia

This plan reinforces the need for intermodal facilities at strategic sites to facilitate the rapid transport of goods between road and rail and acknowledges the economic and environmental benefits of increased rail freight transport.

The plan also identifies the development of an intermodal facility in northern Adelaide as a high priority to be undertaken in the period between 2005/6-2009/10.

1.2.4 BDP Policy Library

The Better Development Plan (BDP) project is a Development Plan improvement initiative being undertaken by Planning SA and councils throughout the state to develop a more standardised format and set of planning policies that deal with issues that are common to most councils.

The specific policy required by this DPA has necessitated the creation of a new BDP module to be called 'Intermodal Zone' which, if this DPA is approved, will be included in the Playford (City) Development Plan.

1.3 INVESTIGATIONS PREVIOUSLY UNDERTAKEN

Northern Expressway – Environment Report

The proposed route of the Northern Expressway takes into account the potential intermodal site[2].

National Intermodal Terminal Study (Meyrick and Associates)

This study highlights the important role of Adelaide as a marshalling point for freight transport between Melbourne and Perth. The report reinforces the basic requirements for the success of an intermodal terminal as having a minimum of 2 kilometres clear access to the standard gauge railway line and being well connected to the arterial road network.

Auslink Adelaide Urban Corridors Strategy

This strategy focuses on strategic transport corridors across the country. A key priority for the strategy includes the improved efficiency in the freight transport network by road and rail, central to which is the development of better connections and access to existing and proposed intermodal facilities.

[2] Department for Transport, Energy and Infrastructure, *Environmental Report for the Northern Expressway*, 2006/7

The Future for Freight 2005 (Australasian Railway Association)

This document clearly demonstrates that rail is more economically efficient than road when it comes to the transportation of freight, particularly for intercapital containerised freight movements along the east-west (ie Melbourne to Perth) corridor.

1.4 INVESTIGATIONS INITIATED TO INFORM THIS DPA

A range of specialist consultants were engaged to undertake investigations regarding this DPA. The results of those investigations are included in this section of the report.

1.4.1 Civil Engineering and Service Provision

Tonkin Consulting Group undertook specialist investigations regarding engineering services for the development of the land as an intermodal rail freight facility. Investigations concluded that road infrastructure, water, sewer, electricity and telecoms are all currently adequate, or are capable of adequately servicing the land for the desired land uses resulting from this DPA.

Specifically:

- the terminal's industrial power supply could be gained via the main grid at Pellew Road
- the water requirements could be met from the SA Water main at the intersection of Pellew and Taylor roads. (The train wash facility could use recycled water that has been harvested and retained on site.)
- standard connection to telecoms could occur at Pellew Road; however optic fibre requirements would most likely require an enterprise agreement with Telstra as a new alignment would be needed of approximately 2 to 3km minimum.

Although there are 2 major gas pipelines parallel to Short and Pellew roads, direct connection to these pipelines cannot occur. Preliminary service investigations have not found any smaller underground domestic or light industrial gas reticulation in the immediate vicinity. In any event, it is not expected that access to gas services would be required.

There is also no reticulated sewer within 5km of the proposed facility. There are two options to service the site: (1) connect to the network approximately 5km (minimum) from site or (2) specifically design an aerated system to cater for the 500 maximum person load. Option 2 would require 0.5-1.0ha of irrigation area.

Accordingly, the site can be connected to most required services and is therefore appropriate for industrial use.

In respect to stormwater management, investigations found that there is no natural drainage outfall downstream from the site. Therefore it would be necessary to devote substantial areas within the development for the construction of stormwater retention basins.

The development could be designed to capture and store as much stormwater as possible for treatment and retention to be used for landscape watering, train washing and fire fighting. The volume of runoff from the site greatly exceeds on-site non-potable demand and the basins are therefore likely to be empty for only a short period of time at the end of a dry summer.

The existing rail culverts could be extended to upstream of the new rail lines. The new basins, once full would discharge via these culverts. Detention storage could be incorporated into the top portion of the basins so that the 100-year ARI rainfall event would be managed on site and discharged at the capacity of the existing rail culverts.

Therefore stormwater can be effectively managed and used on site. Policies are included in the proposed Intermodal Zone to promote the capture, storage, treatment and environmentally responsible disposal and/or reuse of stormwater.

1.4.2 Acoustic Impact Assessment

The predicted noise levels from the freight terminal operations have been compared to criteria from the future Environment Protection (Noise) Policy (Noise EPP) based on discussions with the Environment Protection Authority (EPA). Also, the increase in road traffic noise caused by additional truck and light vehicle movements due to the intermodal freight terminal have been compared to the noise level criteria set out in the Department of Transport, Energy and Infrastructure (DTEI) Road Traffic Noise Guidelines (2007). For this assessment, the Road Traffic Noise Guidelines (2007) were used to obtain an indication of acceptable levels only (ie they are not applicable), since Pellew Road is not a new road and it is not undergoing significant upgrade works.

Noise levels from activities undertaken at the existing freight terminal at Regency Park were measured and used to determine expected noise levels from future operation of the proposed terminal at Penfield. In addition, noise levels at the proposed site were measured. The proposed site is characterised by generally low background noise levels, with significant increase in noise levels when nearby aircraft operations at the RAAF Edinburgh base are being performed. In addition the existing noise environment includes passage of freight and (future) grain trains through the area with noise levels predicted to increase during train pass-by events. The area is also adjacent the proposed route for the future Northern Expressway. Opening of the Northern Expressway (scheduled for 2011) is expected to result in an increase in background noise levels for the surrounding environment.

The proposed Development Plan Amendment (DPA) to the City of Playford Development Plan would result in the assessment area being rezoned from the existing Horticulture Zone to accommodate an intermodal facility.

The proposed Noise EPP states an indicative noise factor of 55 dB(A) at night and 65dB(A) during the day for 'General Industry'. Based on the objectives of the DPA, the future noise policy would allow a night time noise criteria of 48dB(A) and daytime criteria of 56dB(A) as an average criteria between 'Rural Industry' and 'General Industry' classifications and adjusted as required for a development application. Noise levels from operations are predicted to comply with the night time noise criteria under the existing Development Plan by treatment of the container forklift to reduce the amplitude modulation and tonality of noise from forklift operations. Under the proposed Development Plan Amendment, day and night time noise is predicted to comply with the Noise EPP for all operations under worst case meteorological conditions.

Predicted noise levels from increased vehicle movements caused by the intermodal freight facility on Pellew Road are predicted to be within the levels specified by DTEI Road Traffic Noise Guidelines (2007).

1.4.3 Economic Impact Assessment

Hudson Howells provided specialist information regarding the potential economic impact of an intermodal facility.

In summary, the modelling undertaken indicates that an intermodal facility in this location will produce the following benefits over a 10-year period:

- construction activity that will create new incomes of $21.8 million
- newly created incomes generated from ongoing operations of the terminal of $56.5 million
- a general economic activity stimulus to incomes in the state over a 10-year period of $2.9 billion.

1.4.4 Arboricultural Assessment

Arborman Tree Solutions conducted an arboricultural assessment, which found that rezoning of the area to allow for the proposed redevelopment would not have a detrimental affect on the tree character of the area nor would it create a conflict with the Principles of Development Control pertaining to Significant Trees.

1.4.5 Workers' Accommodation

Given trends within the industry, there may be a requirement to provide some workers' accommodation on the site for personnel associated with an IRTF. This may be needed to cater for train crews (especially for those arriving in the middle of the night) who have no private transport.

Accordingly, the policies in the proposed Intermodal Zone, will need to provide for this type of development.

1.4.6 Landscaping

To ensure that the site is attractive and the character of the area is maintained, landscape planting should be included along the road frontages, and along the northern and eastern boundaries of the land. Policies will be included in the Intermodal Zone to promote high quality landscaping.

1.4.7 Car Parking

To ensure sufficient car parking is provided for staff and visitors to the facility the Intermodal Zone proposes to include car parking provisions that require:

(a) at least 1 car parking space for every 30 square metres of office space

(b) for non-office space:

  (i) at least 1 car parking space for every 50 square metres up to 200 square metres

  (ii) an additional car parking space for every 75 square metres between 200 and 2000 square metres

  (iii) an additional car parking space for every 150 square metres above 2000 square metres.

1.5 GOVERNMENT AGENCY CONSULTATION

Preliminary consultation has been undertaken with key government and public agencies. Comments and guidelines (particularly on operational matters) have been sought from a variety of agencies, which will inform the preparation of detailed development plans and site management.

2. CONCLUSIONS AND RECOMMENDED POLICY CHANGES

2.1 Current planning policy

The subject area is currently zoned 'Horticulture', in which the primary objectives include:

- To retain the land for horticulture purposes.
- To protect horticulture activities from encroachment by residential development.

- To encourage horticultural industries such as packing sheds, cold storage facilities and small-scale processing facilities, that support horticultural activities.

‘Industry’ that is not associated with the horticultural industry is a non-complying development in the Horticulture Zone.

2.2 Recommended planning policy

It is recommended that the subject land be rezoned from ‘Horticulture’ to an ‘Intermodal Zone’ (refer Attachment A of the Amendment), prepared in keeping with the ‘Better Development Plans’ philosophy.

This zone provides special purpose zoning to accommodate the various components of the IRFT and includes policies to avoid encroachment pressure from other related urban uses. Recommended development plan policies also address a range of site specific issues including stormwater management, vegetation and landscaping of the site, and ensuring the long-term operational and safety requirements associated with the RAAF airfield can be met.

2.3 Assessment matters

All kinds of development except non-complying are assigned as Category 2 Development within the Intermodal Zone.

Development Act 1993

Playford (City) Development Plan

Penfield Intermodal Rail Freight Facility

Approval Development Plan Amendment

THE AMENDMENT

By the Minister

Development Act 1993

Amendment Instructions Table – Development Plan Amendment

Name of Local Government Area: City of Playford

Name of Development Plan(s): Playford (City) Development Plan

Name of PAR: Penfield Intermodal Rail Freight Facility

These amendment instructions are based on the Playford (City) Development Plan *dated* 5 June 2008. *If this Development Plan has been updated in the meantime, it is possible that the numbering cited here does not match the new version.*

Amendment Instruction Number	• **OBJECTIVE (OBJ)** • **PRINCIPLE OF DEVELOPMENT CONTROL (PDC)** • **DESIRED CHARACTER STATEMENT (DCS)** • **MAP/TABLE No** • **OTHER (SPECIFY)**	**Method of change.** • **DELETE** • **REPLACE** • **INSERT**	**Renumbering required (Y/N)**	**Subsequent Policy cross-references requiring update (Y/N) if yes please specify.**
REGIONAL OR METROPOLITAN PROVISIONS (including figures and illustrations contained in the text)				
	N/A			
COUNCIL WIDE PROVISIONS (including figures and illustrations contained in the text)				
	N/A			
ZONE AND/OR POLICY AREA PROVISIONS (including figures and illustrations contained in the text)				
INTERMODAL ZONE				
1	Intermodal Zone	Insert contents of Attachment A immediately after the Extractive Industry Zone	N	N
TABLES				
	N/A			
MAPPING (Structure Plans, Overlays, Enlargements, Zone Maps & Policy Area Maps)				
	Map Play/8	Replace with contents of Attachment B	N	N
	Map Play/9	Replace with contents of Attachment C	N	N
	Structure Plan Map Play/1 (Overlay 1)	Replace with contents of Attachment D	N	N

ATTACHMENT A

Intermodal Zone

Introduction

The Objectives and Principles of Development Control that follow apply in the Intermodal Zone shown on Maps Play/8, 9 and Structure Plan Map Play/1(Overlay 1). They are additional to those expressed for the whole of the council area and, in cases of apparent conflict, take precedence over the more general provisions.

OBJECTIVES

Objective 1: A zone primarily accommodating intermodal rail freight terminal operations and associated activities.

Objective 2: A zone in which commodities are received, stored and dispatched in bulk.

Objective 3: A zone primarily accommodating marshalling yards, covered outdoor goods handling areas, large scale warehousing, railway workshop and road transport terminal associated with road/rail freight terminal operations.

Objective 4: Development sited and designed to minimise adverse impacts on the landscape and on and from surrounding land uses.

Objective 5: Buildings and structures screened from adjoining areas by landscaping using locally indigenous plant species.

Objective 6: Development that contributes to the desired character of the zone.

Objective 7: Development that ensures the long-term operational, safety and aviation requirements of the RAAF airfield continue to be met.

DESIRED CHARACTER

Development within the Intermodal Zone should provide for the efficient use of the land for intermodal rail freight terminal facilities including marshalling yards, railway workshops and locomotive maintenance activities, covered loading and unloading areas and warehousing for the storage and handling of shipping containers and goods.

The intermodal terminal will include an administrative office accessed separately from the transit area to minimise the interface between visitor and office traffic with heavy vehicles.

The intermodal facility will include overnight accommodation, including food preparation facilities to cater for train crew between shifts.

The balance of the land will be developed for warehousing of goods requiring rail and road transport and associated ancillary offices.

The zone will service movement of freight from throughout the state and interstate and is likely to operate on a 24 hour, seven day per week basis.

Agricultural and horticultural uses currently occurring in the zone will gradually be replaced by the uses envisaged in the zone.

The zone will be developed in a way that minimises potential amenity impacts on sensitive land uses through the use of appropriate setbacks from key road frontages such as Pellew Road and Taylors Road.

Warehouses in the zone will generally be large in scale, with buildings ranging in size from 7,000 to 30,000 square metres.

Built form within the zone should comprise quality contemporary architecture; incorporate associated offices to the front of buildings to assist with breaking up the visual bulk of the building; and use a variety of building finishes and materials.

Development will incorporate extensive landscaped areas containing a variety of vegetation, including locally indigenous species which require minimal maintenance, to soften the appearance of the built form.

Setback areas adjacent to principal site boundaries will be planted with tall native trees and other vegetation to help screen the development from external view. Plantings will include a substantial proportion of trees in scale with the main buildings and trees located within and adjacent to parking areas to provide shade.

Storage areas and unsightly activities and structures will be screened from public view, and buildings, parking and driveway areas will be softened or enhanced by landscaping.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following forms of development are envisaged in the zone:

- Intermodal rail freight terminal facilities and associated rail infrastructure
- Office (ancillary to the intermodal rail freight terminal)
- Railway rolling stock servicing facilities
- Temporary/overnight workers' accommodation (ancillary to the intermodal rail freight terminal)
- Warehousing (including associated offices).

2 Development listed as non-complying is generally inappropriate and not acceptable unless it can be demonstrated that it does not undermine the objectives and principles of the Development Plan.

Form and Character

3 Development should not be undertaken unless it is consistent with the desired character for the zone.

4 In areas where a uniform street setback pattern has not been established, buildings should be set back in accordance with the following criteria (subject to adequate provision of car parking spaces and landscaping between buildings and the road):

(a) buildings up to a height of 6 metres should be sited at least 8 metres from the primary street alignment

(b) buildings exceeding a height of 6 metres should be sited at least 10 metres from the primary street alignment

(c) where an allotment has two street frontages, no building should be erected within 5 metres of the secondary street alignment.

5 Facilities for the handling, storage and dispatch of commodities in bulk should be sited, designed and operated to minimise risks of contamination to the environment and adverse impacts on nearby sensitive land uses and from surrounding land uses.

6 Development of facilities for the handling, transportation and storage of bulk commodities should have:

(a) areas set aside on the site of the development for the marshalling and manoeuvring of vehicles attending the site

(b) roadways and parking areas surfaced in a manner sufficient to control dust emissions from the site

(c) vehicle circulation between activity areas contained within the site and without the need to use public roads

(d) a buffer area for the establishment of dense landscaping adjacent road frontages

(e) security fencing around the perimeter of the site.

7 Building facades should:

(a) comprise quality contemporary architecture

(b) use a variety of building finishes

(c) not consist solely of metal cladding

(d) contain materials of low reflectivity

(e) incorporate design elements to add visual interest

(f) avoid large expanses of blank walls.

8 Buildings should not occupy more than 50 percent of the total area of the site upon which they are located.

Access and parking

9 Access to and from the site should be designed to allow simultaneous movement of vehicles entering and exiting in a forward direction to minimise interference to other traffic using adjacent public roads.

10 Development should:

(a) provide for all loading and unloading to take place on the site of the development

(b) separate access, loading and unloading areas from parking areas to avoid conflict

(c) ensure that vehicle movements are safe and convenient.

11 Warehouses, stores and associated industries should be provided with sufficient and convenient parking for staff and visitors based on the following criteria:

(a) for that part of the development used as office space, at least 1 car parking space for every 30 square metres

(b) for that part of the development used as non-office space:

(ii) at least 1 car parking space for every 50 square metres up to 200 square metres

(ii) an additional car parking space for every 75 square metres between 200 and 2000 square metres

(iii) an additional car parking space for every 150 square metres above 2000 square metres.

12 Off-street car parking areas should be surfaced with suitable hard paving and be line marked to indicate car parking spaces.

13 Points of access on sites abutting areas primarily used by rural living activities should be located so that the number of vehicles associated with the development using nearby roads is kept to a minimum.

14 There should be as few points of access across open ‘swale’ stormwater drains as practicable and they should not impede the orderly flow of drainage water.

15 Landscaping should ensure adequate sight lines at vehicle entry and exit points.

Stormwater

16 Provision should be made on the site for the capture, storage, treatment and environmentally responsible management and/or reuse of stormwater.

17 Open 'swale' stormwater drainage should:

(a) be used in conjunction with roadways to cater for major stormwater flows and where practicable, for minor (2 to 10 year) stormwater flows

(b) be designed in an attractive form with grass-lined sides of no more than a 1 in 5 gradient

(c) allow for the planting of trees and shrubs on both sides of the channel.

Hazard risk minimisation

18 Buildings should be established with a sufficient minimum floor level to avoid risk of inundation by the predicted 1 in 100 year flood event, and to minimise property damage within a building in the event of a major stormwater flow which exceeds the predicted 1 in 100 year flood event.

Noise

19 Development should be consistent with the relevant provisions in the current Environmental Protection (Noise) Policy.

Edinburgh Defence Precinct

20 Development should not be located where it will be adversely affected by noise nuisance from aircraft or is likely to detrimentally affect the RAAF airfield and DSTO operations.

21 The height and location of buildings and structures should not adversely affect the long-term operational, safety and aviation requirements of the RAAF airfield.

22 Development within areas affected by aircraft noise should be consistent with Australian Standard AS2021 – Acoustics – Aircraft Noise Intrusion – Building Siting and Construction.

23 Development should not create a risk to public safety and the operations/activities occurring at the Edinburgh Defence Precinct (RAAF Base Edinburgh and the Defence Science and Technology Organisation) through:

(a) lighting glare

(b) smoke, exhaust fumes and plumes

(c) air turbulence

(d) storage of flammable and hazardous materials

(e) radio frequency, electrical or electro-magnetic interference

(f) attraction of birds

(g) structures and materials that affect navigational aids, air traffic control or base communications

(h) use of reflective surfaces.

Advertising & signage

24 Advertisements and advertisement displays should:

(a) not include portable, flashing or moving displays

(b) not include bunting, streamers, flags, or wind vanes

(c) not include roof-mounted advertisements projected above the roofline

(d) not include parapet-mounted advertisements projecting above the top of the parapet

(e) where internally illuminated, be unobtrusive and not be conspicuous from residential properties

(f) be of an appropriate size having regard to the scale of the building or wall and the setback from a public road

(g) not cover more than 10 percent of a total surface area of a wall oriented to a public road or reserve.

25 For sites accommodating a number of tenancies, a single sign designed in a graphically and colour coordinated manner that lists each tenant should be provided at a central location or access point.

26 Freestanding structures should not exceed 6 metres in height.

Land division

27 Land division should be undertaken in a coordinated manner and should ensure that:

(a) development is staged in a sequence which avoids unnecessary cost to public authorities

(b) allotments have an area of at least 1 hectare and frontage to a public road of 60 metres, unless intended for a specific purpose for which a lesser site requirement can be demonstrated

(c) sufficient land is reserved for the satisfactory management or detention of stormwater

(d) roadways are designed to accommodate major stormwater flows in excess of the capacity of the underground drainage system.

Complying Development

28 Complying developments are prescribed in Schedule 4 of the *Development Regulations 1993*.

Non-complying Development

29 The following kinds of development are **non-complying** in the Intermodal Zone:

Amusement machine centre

Boarding house

Caravan park

Cemetery

Community centre

Concert hall

Consulting room

Dwelling

Educational establishment

Fun fair

Golf course/driving range

Gymnasium

Health centre

Hospital

Hotel

Intensive animal keeping

Library

Meeting hall

Motel

Motor race track

Motor repair station

Non-residential club

Nursing home

Office except where it is:

(a) ancillary to, and in association with a, development envisaged in the zone
(b) necessary to support the operation of the development
(c) located on the same allotment as the development.

Petrol filling station

Pre-school

Place of worship

Police station

Prescribed mining operations

Primary school

Private hotel

Recreation area

Residential club

Residential flat building

Retail showroom

Row dwelling

Semi-detached dwelling

Service industry

Shop or group of shops with a gross leasable area greater than 80 square metres

Squash court

Stadium

Stock slaughter works

Timber yard

Theatre

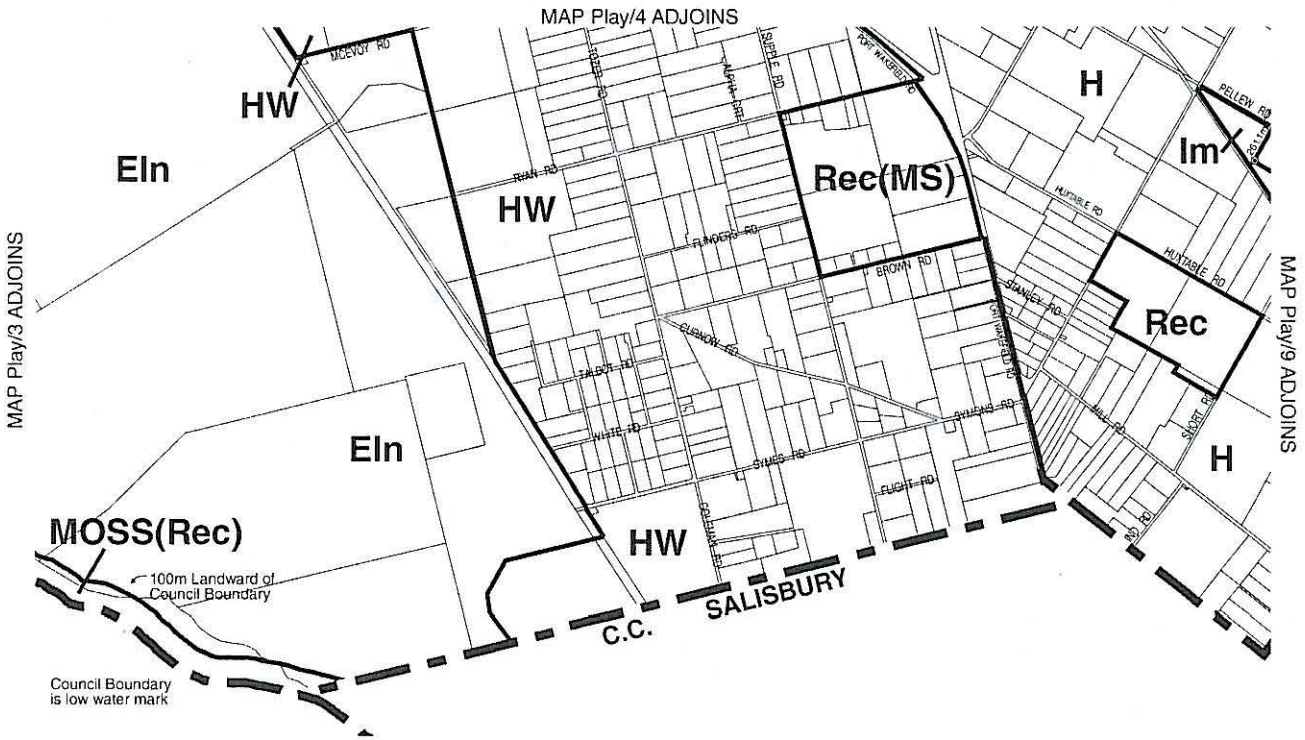
Tourist accommodation

Welfare institution

Public Notification

30 All kinds of development except non-complying are assigned as Category 2 Development.

ATTACHMENT B



NOTE : For Policy Areas see MAP Play/28 & 38

Eln	Extractive Industry
H	Horticulture
HW	Horticulture West
Im	Intermodal
MOSS(Rec)	Metropolitan Open Space System (Recreation)
Rec	Recreation
Rec(MS)	Recreation (Motor Sports)

Scale 1:50000

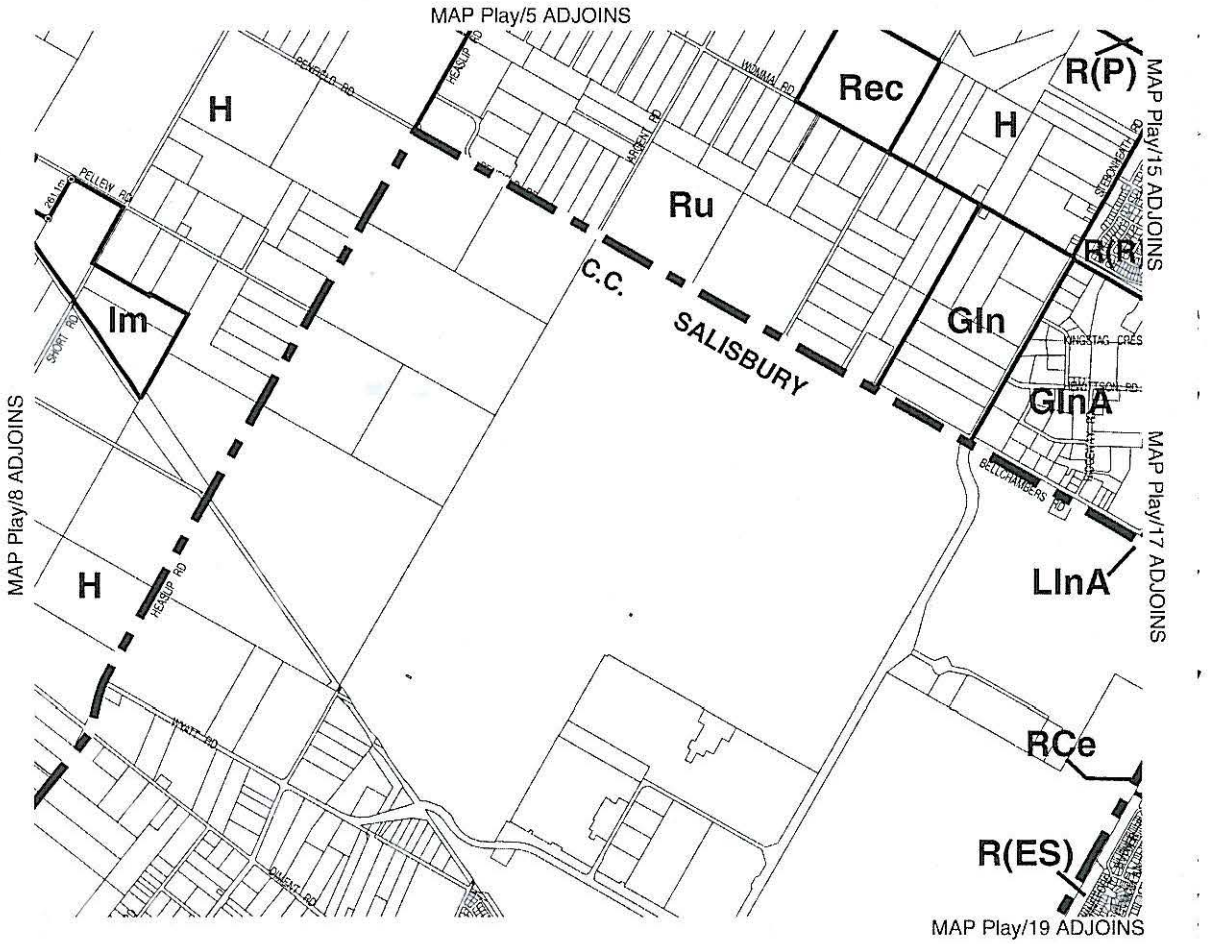
0 2km

Zone Boundary

Development Plan Boundary

C.C. PLAYFORD ZONES MAP Play/8

ATTACHMENT C



NOTE: For Policy Areas see MAP Play/29 and 31

Gln	General Industry
GlnA	General Industry A
H	Horticulture
Im	Intermodal
LInA	Light Industry A
R(P)	Residential (Plains)
R(R)	Residential (Regeneration)
R(ES)	Residential (Elizabeth South)
RCe	Regional Centre
Rec	Recreation
Ru	Rural

Zone Boundary

Development Plan Boundary

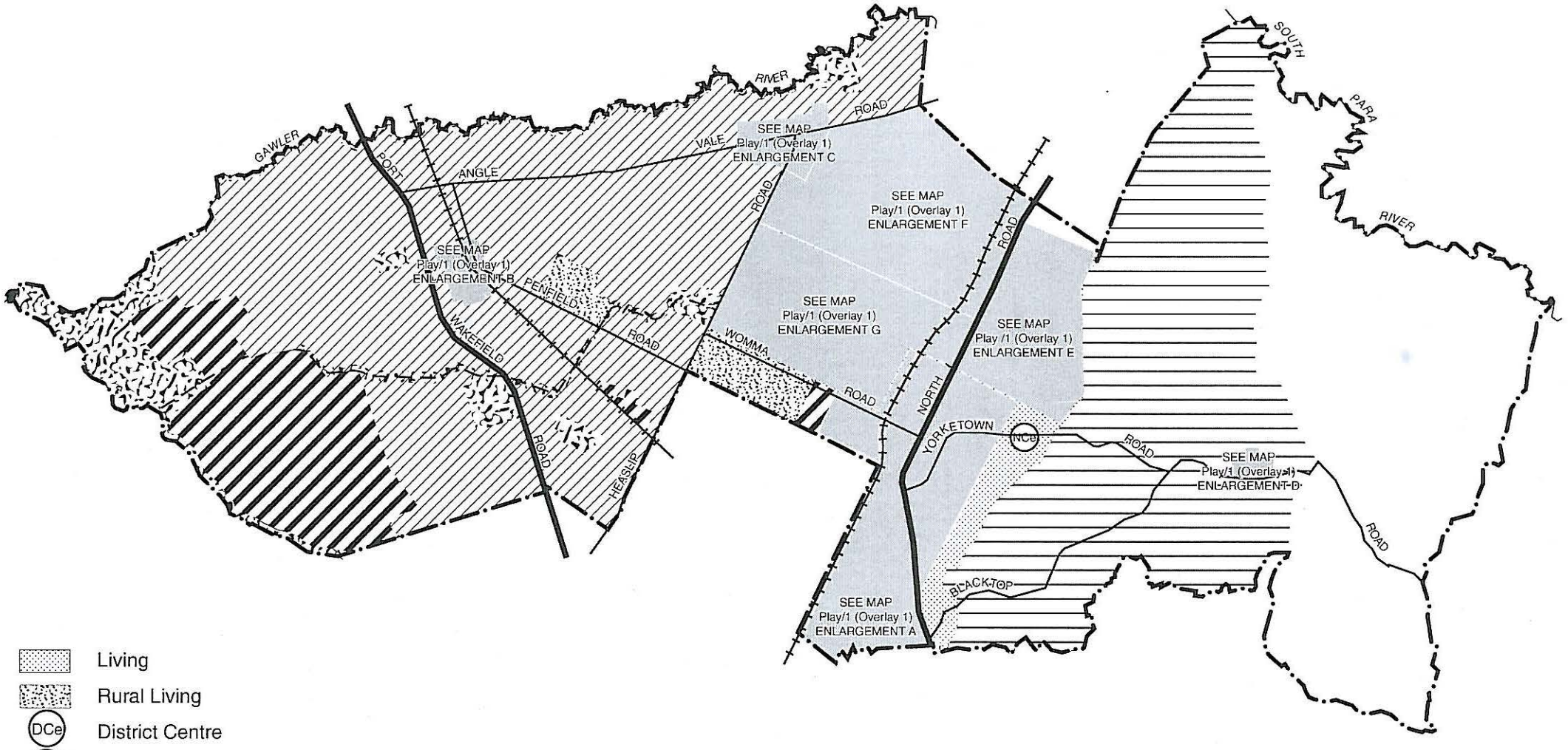
Redevelopment Sites

Scale 1:40000

0 2km

C.C. PLAYFORD ZONES MAP Play/9

ATTACHMENT D



- Living
- Rural Living
- DCe District Centre
- NCe Neighbourhood Centre
- Commercial
- Industrial
- Rural
- Horticulture
- Open Space
- Hills Face

- Smithfield Drain
- Railway
- Secondary Arterial Road
- Primary Arterial Road
- Development Plan Boundary

0km 2 4 6 8 10

PLAYFORD (CITY) STRUCTURE PLAN MAP Play/1 (Overlay 1)