Site Development Guidelines

Lot 5 DP 262213, Ropes Creek Industrial Estate

Concept Plan and Concurrent Project Application for
Employment Lands and Stage 1 Industrial Development

Submitted to
Department of Planning
On Behalf of Jacfin Pty Ltd

August 2010 ■ 10318

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1.0 INTRODUCTION

This Site Development Guidelines document has been prepared by JBA Planning as part of a Concept Plan Application for the proposed Ropes Creek Employment Precinct located at Lot 5 DP 262213, Ropes Creek. This document has been prepared on behalf of the Proponent Jacfin Pty Ltd and is based on Concept Plans dated 6 August 2010 prepared by JBA Planning.

This report is structured as follows:

Section 2 provides Urban Design Guidelines, including:

- Lot Subdivision,
- Setbacks,
- Site Coverage,
- Built Form and Design,
- External Building Materials and Colours,
- Entrance Treatment,
- Ancillary Buildings, Storage and Service Areas
- Fencing,
- Signage and Lighting,
- Landscaping, and

Section 3 provides Traffic and Parking Guidelines, including:

- Local Road Network
- Site Access and Movement
- Public Transport
- Pedestrians and Cycle
- On-site Parking

Section 4 provides Environmental Management Guidelines for the proposed project, including:

- Storm Water Management and Flooding
- Energy and Water Efficiency
- Air Quality
- Waste Management
- Noise

1.1 The Purpose of this Document

The purpose of this document is to provide guidance in the design and assessment of future roads and buildings within Precinct 6 (Ropes Creek) of the WSEA.

These guidelines seek to encourage high quality, innovative development which meets the needs of future occupants, facilitates the efficient and orderly development of the employment/industrial land, maintains sufficient flexibility to meet market demand, and provides for the environmental amenity of the Precinct.

2.0 URBAN DESIGN GUIDELINES

2.1 Subdivision

Objectives:

1. To ensure that lots are of a shape and size that enables the permissible industrial development in a variety of formats.

Controls:

1. Allotment sizes should be guided by the following requirements:
    - The minimum lot size for all industrial/warehouse allotments in a Torrens Title subdivision shall be 1,500m^2;
    - The minimum allotment size for Strata Title subdivision of a single development or industrial unit, or the gross floor area of any industrial unit that forms part of a multi-tenanted industrial development, shall be 150m^2;
    - Smaller lot sizes may be considered for ancillary development, such as for the purpose of a shop, drainage, public utility undertakings and the like.
2. Where possible, irregular shaped lots and narrow frontages should be avoided.
3. The minimum width at the building line for all allotments in a Torrens Title subdivision is 30m.
4. Lots should be designed so that they provide a legible street address and visually attractive street frontage.
5. Battle-axe shaped allotments comply with the minimum land areas and widths stipulated above, exclusive of the area taken up by the battle-axe handle.
6. Battle-axe handles should have a minimum width of 8m. Where 2 battle-axe handles adjoin and provide a shared driveway, the minimum width of the shared driveway may be 10m.
7. Where a Strata or Community Title subdivision is proposed, any space for parking or other purposes forming part of a sole occupancy unit required by Council must be included in the same strata lot as the unit. All landscaping, access areas and directory board signs not forming part of an individual unit will be required by Council to be included in any strata plan of subdivision as common property.

2.2 Setbacks

Objectives:

1. To achieve the appropriate minimum building line setbacks to ensure integration with the streetscape and with neighbouring uses.

2. To ensure the provision of appropriate buffers to the Regional Road and local roads to soften the visual impact of the development whilst allowing visibility to development.

Controls:

1. Buildings are to be set back by:
    - 20m from the North South Regional Road and the Erskine Park Link Road;
    - 7.5m from Local Roads;
    - 5m for a secondary setback to a Local Road on a corner allotment; and
    - 15m from electricity pylons.

2. At least 50% of the above road setbacks are to be landscaped. The non landscaping component of the setback may be used for access driveways and car parking.

3. Storage of any kind is not permitted within the setback area.

4. Water tanks and temporary structures are not permitted within the front setback area.

5. Zero side and rear setbacks are permitted between allotments subject to meeting fire rating requirements.

6. Pedestrian access should be provided to all landscaped setback areas for maintenance and security purposes.

2.3 Site Coverage

Objectives:

1. To ensure that adequate area is available to accommodate landscaping, open space for employees and screening of loading and storage areas.
2. To ensure that adequate area is available for driveways and access, onsite parking and manoeuvring of vehicles.
3. To achieve appropriate building setbacks that are landscaped to ensure integration with streetscape and street tree planting.

Controls:

1. Site coverage is not to exceed 65%. Site coverage includes the footprint of all buildings and canopy areas (excluding hard stand areas), but does not include any area used for parking, vehicular access or manoeuvring.
2. Truck loading, storage (subject to the type of materials to be stored), parking and access may be undertaken within the electricity easements, subject to approval by the relevant electricity authority.

2.4 Built Form and Design

Objectives:

1. To encourage buildings that exhibit architectural merit, diversity of design, environmental sustainability and quality of materials.
2. To encourage a built form that contributes to the visual amenity of the area.

Controls:

1. Applicants must give consideration to the following:
   - Integration of building design with landscape elements;
   - The impact of buildings on views, and to and from the Blue Mountains escarpment;
   - Optimising building orientation and siting to natural elements such as topography, wind and sunlight, and to mazimise energy efficiency.
2. Articulation of building facades is encouraged particularly for those facades facing public roadways through the use of elements such as:
   - External structures, finishes, recessed patterns and varying wall alignments;
   - Decorative features, textures and colours; and
   - Locating offices and highlighting entries within front facades to reduce the apparent bulk and scale of the structure.
3. Applicants are to consider a range of fascia treatments, facade treatments, rooflines and building materials to reduce the impact of walls facing the street.
4. All roofing must be provided with adequate gutter and downpipes connected to the roof water drainage system.

2.5 External Building Materials and Colours

Objectives:

1. To provide an appropriate, good quality building appearance from public domain areas.

2. To ensure that selected building materials minimise reflection and will not adversely affect adjacent development, vehicular traffic and public domain areas.

Controls:

1. External finishes should be constructed of durable, high-quality and low maintenance materials.

2. All external walls of buildings used for office/showroom purposes should be constructed of two or more the following:

- brick or other masonry;
- concrete;
- glass,
- steel,
- pre-cast exposed aggregate panels; or
- any other material deemed acceptable by Council.

3. The extensive use of one material or one colour scheme across the façade of a building adjacent to a public road will not be permitted unless major openings, such as doors and windows, or other measures, are incorporated into the design to limit building bulk and improve the visual appearance of the building.

2.6 Entrance Treatment

Objectives:

1. To provide an active frontage and level of surveillance to the street.

2. To ensure an identifiable entrance point to the property and building.

Controls:

1. Entries to buildings should be clearly visible to pedestrians and motorists and be integrated into the form of the building.

2. Architectural features are to be provided at ground level and are to address the primary street frontage.

3. All entrance treatments, such as directory boards, must be located on private property, with appropriate management arrangements to ensure that the ongoing maintenance of such treatments.

4. Entries should be articulated through the use of colour, signage, lighting, material change and texture, and strengthened through landscape design.

2.7 Ancillary Buildings, Storage and Service Areas

Objectives:

1. To provide cohesion to the appearance of the development, ancillary buildings and storage sheds are to be located behind front setback lines and be consistent with the design of the main building.

Controls:

1. Storage areas located within the confines of the primary industrial building are encouraged. Open storage areas should be screened from the public domain.
2. Open storage areas should not compromise truck or vehicle manoeuvring and car parking areas.
3. Details of any proposed ancillary buildings, open storage and services areas must be submitted with all development applications.
4. Hardstand, storage, rubbish disposal, plant and equipment areas are to be softened from the front, side and rear boundaries through landscaping or integrated building form.

2.8 Staff Amenities

Objectives:

1. To provide facilities for workers.

Controls:

1. Outdoor spaces should be provided for staff. The spaces should be easily accessible from the buildings and should maximise site opportunities such as views and solar access.
2. Within each development shower and change facilities shall be provided for staff. This is designed especially to encourage employees to access the site by bicycle or on foot.

2.9 Fencing and Walls

Objectives:

1. To provide an appropriate level of security for property owners and contribute to the amenity of the Precinct.
2. To encourage pedestrian access to businesses from the street.
3. To ensure that fences and walls respond to the topography, streetscape and landscape.

Controls:

1. Low feature walls are encouraged at entry driveways. These walls should be used for retaining purposes, as garden beds or as landscaped

features and should be integrated into the overall design of the development.

2. Pre-painted solid metal fencing and other solid fencing is not permitted to any public area.

3. Fencing of the primary lot frontage shall generally be open styled except where solid fencing is required behind the building line between common (side) lot boundaries or for screening or security purposes.

4. Details of all on-site fencing shall be submitted for approval prior to erection.

2.10 Signage and Lighting

Objectives:

1. Ensure that signs contribute to the safety, legibility and amenity of the development's environment by both day and night.

2. Ensure that signage is of a high quality of design and construction and integral of the built environment and landscape setting.

Controls:

1. Signage is to relate to the use occurring on the respective property, and should identify the relevant business name or owner. Signage is not to have a detrimental impact on the visual character of the site and surrounding area.

2. Directional signs for car parking areas, loading docks, delivery areas and the like should be located close to the main access to the development site. The design, colouring, type and scale of signage within individual properties should be consistent with the design of the building.

3. Signage is to be designed to reduce visual clutter within the front setback and encourage well integrated site language that is in keeping with the scale and visual quality of the development. Unnecessary duplication of signage is to be avoided.

4. Signage is to be located so as to not obstruct the sightlines of truck and car drivers, or impede pedestrian movement.

5. Vehicular street lighting is to be mast top lighting to meet relevant RTA and Australian Standards.

2.11 Landscaping

Objectives:

1. To encourage a well designed, legible and cohesive landscape framework for development/project application.

2. To encourage a relationship between public and private landscape through a language of planting.

3. To encourage and build upon the landscape of the E2 Environmental Conservation Zone and existing vegetation.

4. To encourage the use of both hard and soft landscape to assist in creating comfortable micro climate conditions, and enhancing the environmental amenity of the development and the Precinct.

Controls:

1. Development should include landscaped setback frontages that are distinctive but well integrated with, and contribute positively to the public streetscape character.

2. Undeveloped areas are to be stabilised to prevent soil erosion.

3. All landscaped areas are to be separated from vehicular areas by means of a kerb, dwarf wall or other effective physical barrier.

4. Trees are to have a minimum height if 1m at the time of planting.

5. Native species should be used due to their low maintenance, relative fast growth, aesthetic appeal and suitability to the natural habitat.

6. The landscape may reflect the former rural character of the site and surrounds. That is, large swathes of grasses should be used, and trees only placed as feature elements, screen elements or to delineate specific areas, such as car parks.

7. Copse of trees should be planted within the dedicated landscape areas in front of the building where large areas of the building facade are exposed to the street.

8. Landscaping directly adjacent to any E2 Environmental Conservation Zone should be non-invasive, low in height and not include any species nominated for the E2 Corridor so as to clearly delineate the boundary of the E2 Corridor. Low native grasses are recommended.

3.0 TRAFFIC AND PARKING

3.1 Local Road Network

Objectives:

1. To provide adequate vehicular entrance to and exit from the development in a manner that is safe for pedestrians and vehicles using the site and adjacent roadways.

2. To incorporate a road layout that is well connected, displays a legible street hierarchy that will accommodate anticipated traffic volumes and vehicle types, and permits access to allotments via roads other than the main regional link roads.

3. To incorporate a road layout that provides safe access for the needs of all users including large trucks, pedestrians and cyclists.

Controls:

1. All developments shall be accessed from a local road.
2. Development should comply with the road design principles identified in Roads and Traffic Authority, *Road Design Guidelines*; and Roads and Traffic Authority, *Guide to Traffic Generating Development* (1993) in relation to the number, locations and design of any vehicular entry and exit points and/or certain road construction works.
3. Road widths should provide sufficient space to allow heavy vehicles to enter and individual lots safely in a forward direction.

4. The design of Local Roads is to adhere to the local council guidelines, as illustrated in **Figure 1**.

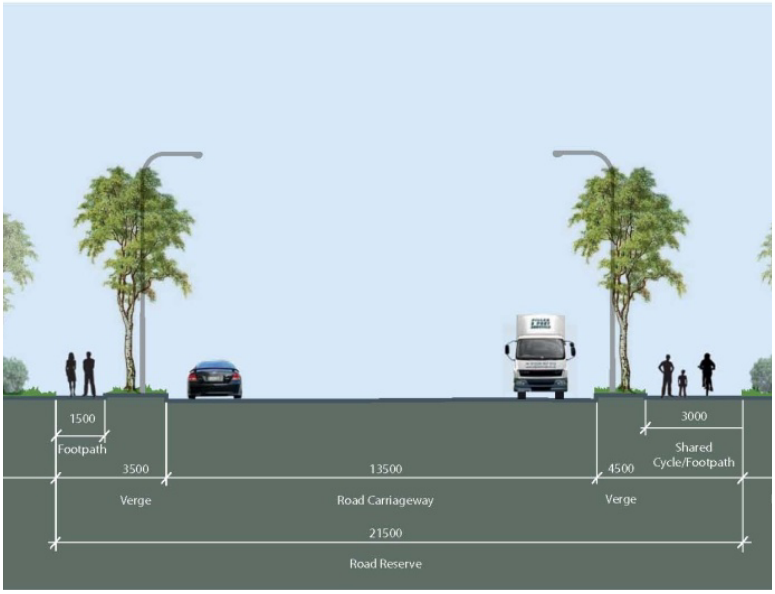

Figure 1 - Typical Local Road Section.
Source: JBA Planning in compliance with Blacktown City Council Road Standards.

3.2 Site Access and Movement

Objectives:

1. To ensure the safe and efficient movement of vehicles and pedestrians within a development site.

Controls:

1. Truck access, manoeuvring and loading areas are to be separated from car parking areas.
2. All loading and unloading must take place on-site.
3. All vehicles must be able to enter and leave the site in a forward direction.
4. All internal two-way roadways are to have a minimum width of 7m. Lesser widths may be considered for one-way internal access roads. All internal roadways, circulation and parking areas are to be sealed with a hard-standing, all-weather material.
5. Direction arrows are to be shown on all internal roadways in order to satisfactorily facilitate the movement of vehicles.
6. Pedestrian access through car parking areas should be clearly marked.
7. All developments must be designed so that a standard truck may complete a 3-point turn on the site without interfering with parked vehicles, buildings, landscaping or outdoor storage and work areas.
8. Adequate space is to be provided within the site for the loading, unloading and fuelling (if applicable) of vehicles. These areas may need to be screened from the road.

3.3 Public Transport

Objectives:

1. To integrate Precinct with the existing public transport system where appropriate.

Controls

1. Bus stops, on any designated bus routes, are to be provided at appropriate intervals and locations.
2. The bus shelters shall be provided within the road reserve on any designated bus route.

3.4 Pedestrians and Cycles

Objectives:

1. To provide for safe and attractive walking and cycling environments.
2. To encourage the use of travel by means of cycling and walking.

Controls:

1. Combined pedestrian/cycle links pavements shall be provided in accordance with **Figure 2** below on a 3m wide shared pedestrian/cycleway on one side of the road.
2. Additional pedestrian only paths may be provided on the other side of any Local Road (as illustrated in Figure 1) and shall be provided on the other side of any Regional Road.

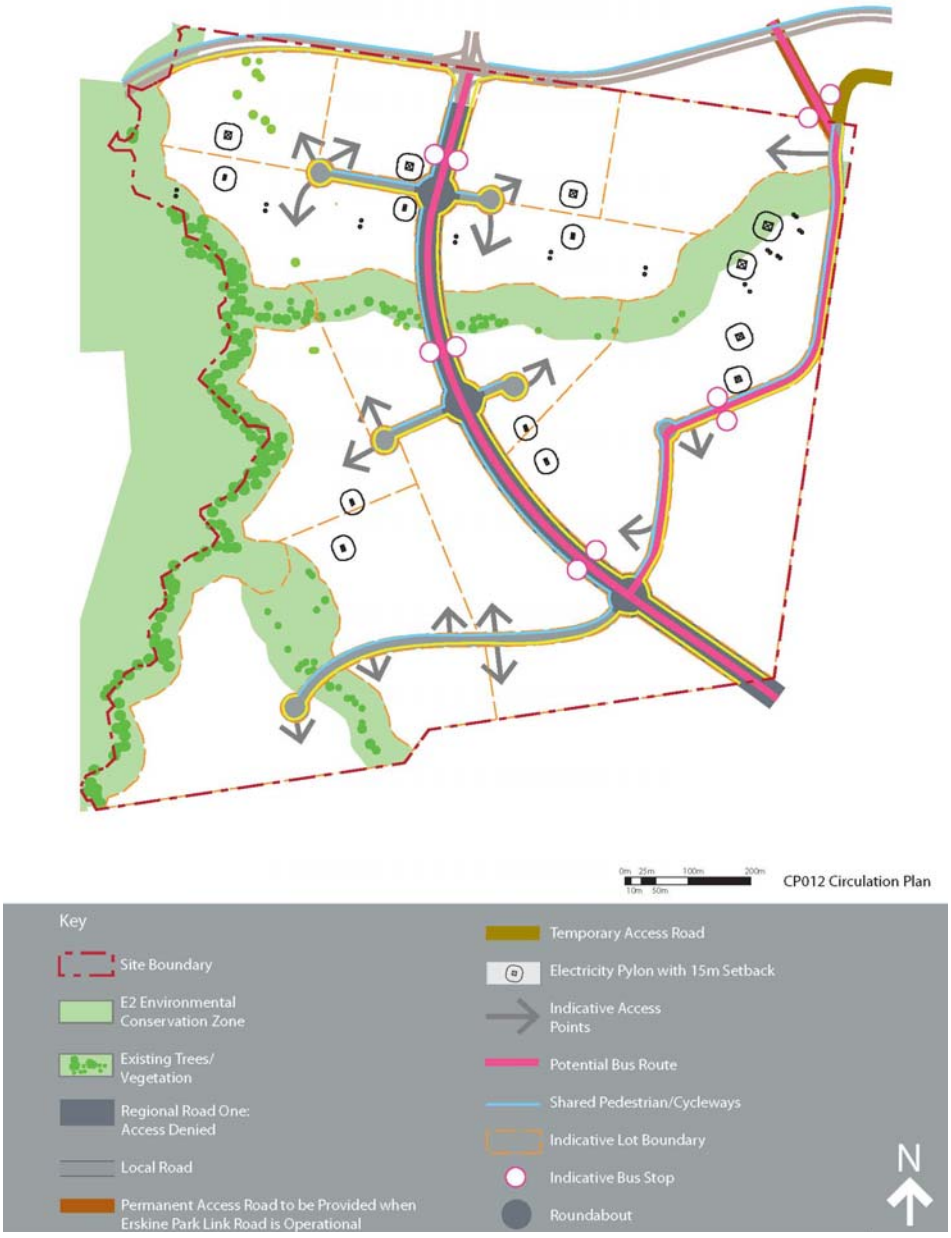

Figure 2 – Circulation Plan

3.5 On-site Parking

Objectives:

1. To ensure that safe and sufficient car parking shall be provided on each lot to satisfy the likely peak parking demands of the development.

Controls:

1. Parking is to be provided in accordance with **Table 1** which sets out minimum requirements.
2. One bicycle parking space shall be provided per 10 car spaces.
3. The internal design must comply with the requirements of AS 2890.1, Off-street parking and AS 2890.2, Off-street parking - Commercial vehicle facilities.
4. The parking bays and aisles must comply with the requirements of AS 2890.1 and 2890.6, Off-street parking for people with disabilities.
5. Parking facilities for commercial vehicles should be designed to accommodate the largest type of truck which could be reasonably expected to park on the site.
6. All parking areas shall be constructed of hard-standing, all-weather material, with parking bays and circulation aisles clearly delineated.

Table 1 – Car parking requirements

Land Use	Minimum car parking requirements
Industrial/ Warehouse	• Office: 1/40m^2 GFA • Factory: 1/100 GFA first 100m^2 then 1/200m^2 GFA (includes office component) • Warehouse: 1/300m^2 GFA + 1/40m^2 office

*GFA (Gross Floor Area) as defined in the Standard LEP template.

4.0 ENVIRONMENTAL MANAGEMENT

4.1 Stormwater Management and Flooding

Objectives:

1. To effectively manage the effects of stormwater.
2. To mitigate any risk of flooding.
3. To maintain existing flows within Ropes Creek.

Controls:

1. Each development site should incorporate rainwater storage tanks.
2. All floor levels of buildings should be a minimum of 500mm above the 100 year ARI flood level. All of the proposed roads should be above the 100 year ARI level.
3. Peak flow rates should be the same or less than that currently existing for the 100 year ARI storm.
4. Stormwater quality should be managed in each Project Application to demonstrate compliance with the targets provided in **Table 2**

Table 2 – Water Quality Targets for the Precinct

Water Quality Pollutant Removal	Target (%)
Gross Pollutants	90
Total Suspended Solids	85
Total Phosphorous	65
Total Nitrogen	45

Source: Brown Consulting Engineer

5. A Storm Management and Flooding assessment report where any new building or earthworks proposed shall be prepared by a suitably qualified engineer. Schedule 4 of the WSEA SEPP requires the DCP to make provision for appropriate stormwater management systems and flooding.

4.2 Energy and Water Efficiency

Objectives:

1. To promote energy efficiency and reduce potable water consumption.

Controls:

1. Developments should incorporate rainwater harvesting and re-use for irrigation and/or other purposes.
2. The insulation of buildings, where relevant and the installation of energy efficient fixtures and fittings is encouraged.
3. Design should maximise natural light and ventilation in all buildings to minimize the use of mechanical systems.
4. Planting of native vegetation that has low water requirements are encouraged.

4.3 Air Quality

Objectives:

1. To reduce detrimental impacts of the development on the condition of air quality.

Controls:

1. The emission of air impurities, as defined under the *Protection of the Environment Operations Act 1997*, are to be controlled at all times.
2. Suitable dust control measures are to be employed during construction.
3. Implement odour control measures are to be employed where required.

4.4 Waste Management

Objectives:

1. To reduce the adverse impact of waste disposal and encourage waste minimization and recycling.

Controls:

1. Incinerators are not permitted for waste disposal.
2. Waste separation, recycling and reuse facilities are to be provided on site and any such waste must be removed at regular intervals as required.

4.5 Noise

Objectives:

1. To control levels of noise across the development site and to minimise the impacts of any noise generated beyond the site.

Controls:

1. Noise impact assessments must be submitted with applications demonstrating compliance with the noise goals established as set out in **Table 3**.

Table 3 – Noise criteria for the project

Receiver Area	Time Period	RBL (dBA)	Intrusiveness Criterion $L_{Aeq,15min}$ (dBA)	Project-Specific Amenity Criterion
A	Daytime (7am – 6pm)	34	39	55
	Evening (6pm – 10pm)	36	41	45
	Night time (10pm to 7am)	34	39	40
B & C	Daytime (7am – 6pm)	33	38	50
	Evening (6pm – 10pm)	34	39	45
	Night time (10pm to 7am)	33	38	40
D & E	Daytime (7am – 6pm)	32	37	50
	Evening (6pm – 10pm)	32	37	45
	Night time (10pm to 7am)	31	36	40

Source: Wilkinson Murray, August 2010 "Noise Impact Assessment Report."