

BALLARAT WEST EMPLOYMENT ZONE

URBAN AND LANDSCAPE DESIGN GUIDELINES

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1 INTRODUCTION

The Ballarat West Employment Zone (BWEZ) is an innovative new industrial estate located adjacent to the Ballarat airfield, to the west of Ballarat CBD. The development is expected to occur over many years and will be guided by the BWEZ Masterplan, which is incorporated within the Ballarat Planning Scheme. Supporting the Masterplan is a Development Plan, a Landscape Concept Plan and these Urban Design and Landscape Guidelines. The Guidelines take into account the other documents, however applicants are encouraged to review all of the documents when preparing a design proposal.

The Ballarat West Employment Zone Masterplan established the following vision:

The BWEZ is an employment precinct which is coherent and connected with exceptional access, service and infrastructure. BWEZ delivers development opportunities for small and large industry and business. It combines timeless and sustainable design with entrepreneurial spirit. It enhances environmental features to create a sense of place.

The BWEZ Development Plan provides a long term framework for this vision to be realised.

The principal infrastructure and development opportunities set out in the BWEZ Masterplan include:

- Efficient access to the Western Freeway and Glenelg Highway, via the Ballarat Western Link Road;
- Direct access to the Ballarat Aerodrome;
- An intermodal (road/rail) freight terminal;
- Access to reliable and competitive development infrastructure including water, sewer, gas, electricity, telecommunications and recycled water;
- An estate design that can accommodate high productivity freight vehicles (HPFV);
- A dedicated research and development precincts, where industry, government and researchers collaborate to create new products and services.
- A high amenity business address, including not only excellent access to a range of local business support services, but also well landscaped streetscapes, signature architecture and quality public open spaces;
- A 'clean and green' business location, where environmentally sustainable design is a feature;
- A flexible development approach, where the land, infrastructure and access requirement of each business can be customised.

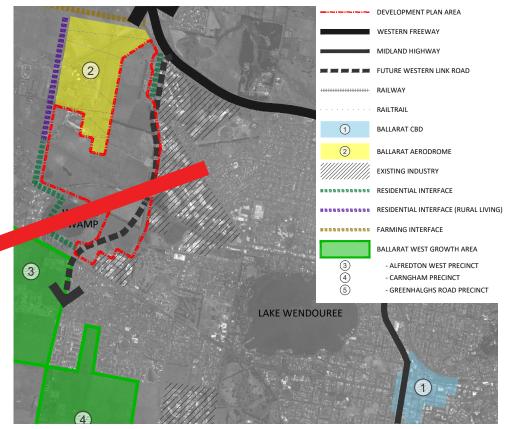
These Guidelines set out how the BWEZ vision and Development Plan should be implemented through the future developments on industrial lots across the precinct.

1.1 APPLICATION OF THE GUIDELINES

1.1.1 SCOPE

These Guidelines apply to the land defined as the Ballarat West Employment Zone within the Ballarat Planning Scheme. This is generally the land presently associated with the Ballarat Airfield, as illustrated in Figure 1.

FIGURE 1 SITE CONTEXT



1.2 USING THE GUIDELINES

These Guidelines are an appendix to the BWEZ Development Plan. They have been prepared as a practical reference for businesses seeking to establish operations at the BWEZ precinct. Compliance with these guidelines will simplify the planning permit application and assessment process and ensure developments present a high level of design, which as a whole provides an attractive precinct.

Part One of the Guidelines outline General Provisions that apply to all development sites, and Part Two deals with specific issues that apply to particular sites that are identified as either having a Key Frontage or Strategic Development potential that requires a tailored design response.

The Guidelines set out specific Design Requirements (that must be satisfied) as well as Design Suggestions (that desirably should be satisfied, but are not mandatory).

1.2.1 GRAPHICS NOTE

The Guidelines contain a series of illustrations, which indicate how the Design Requirements and Suggestions might generally apply to the siting and design of developments. These illustrations should not be interpreted as a literal design solution for all sites - each site presents its own opportunities and constraints that require careful consideration by the developer and designers.

1.2.2 ASSESSMENT PROCESS

Applicants are encouraged to seek a pre-application meeting with the City of Ballarat Planning Department as early as possible.

Pre-application discussions do not require extensive documentation, and will ideally commence around a draft site and context analysis prior to carrying out extensive design work. A summary of Submission Requirements and a Development Checklist to assist in the preparation of applications are in Appendix A.

1.3 DEVELOPMENT PLAN - IN SUMMARY

The BWEZ Development Plan sets out a clear framework for the future urban development of the precinct. It sets out the following:

- a land use framework;
- a transport and access network/hierarchy (roads, freight access, public transport, walking & cycling);
- an open space network;
- an urban design framework (key frontages, signature sites, strategic development sites).

The Development Plan seeks to facilitate a high standard of amenity in the public environment. This is reflected in a generous street tree provision with the main boulevard featuring avenue style planting to announce its role as the primary address of the development.

The roads and interchanges have been designed to facilitate articulated vehicles, with a designated route for HPFV (high performance freight vehicles) to serve many of the sites.

Sustainable transport modes are encouraged including public transport and cycling through the integration of safe pedestrian and cycling pathways between key destinations. Individual developments are encouraged to include safe access for pedestrians and cycles and storage facilities for bicycles on site.

There is generous access to public open space with several ecologically significant areas retained and enhanced. This is augmented with new open spaces to provide amenity convenient to precincts.

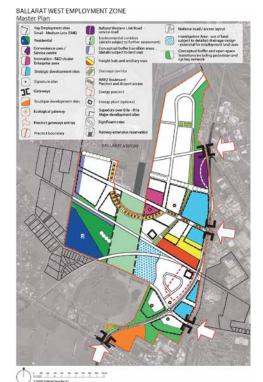
A key aspect is the retention of the former World War II runway alignment as a central open space and focal point from the main boulevard.

The site has no immediate built form context and therefore key signature sites and strategic developments have the opportunity to instil robust and contemporary architectural form within a high quality landscape setting.

Future development should seek to introduce an innovative development model that creates a distinctive character in response to contextual and site attributes, taking advantage of the excellent visual exposure of the site.

The following Design Guidelines are intended to guide the future development of BWEZ in a manner that is sympathetic to site constraints, consistent with existing development and surrounding environments, and importantly consistent with delivering the vision for the BWEZ.

FIGURE 2 MASTER PLAN



Extract: Ballarat Planing Schemes online (Adopted May 2012)

2 GENERAL PROVISIONS

The following information is applicable to all development in the BWEZ.

2.1 SUBDIVISION LAYOUT

Desired Outcome

The Development Plan defines the overall layout of roads and development parcels that can be developed or further subdivided into separate industrial lots. In some locations, additional access roads may be required to achieve an effective variety of development parcels.

The overall vision and detail of the Development Plan must be taken into consideration in relation to such proposal, particularly with respect to Strategic Developments and Signature Sites. The following Design Requirements and Design Suggestions apply to such proposals:

Design Requirements

Any further subdivision proposal must demonstrate how it responds to the guidelines for frontage to public open space and environmental areas (refer Section 4), as appropriate.

New access roads must respond to the road and landscape design standards applying across similar such access roads.

The majority of lots must be able to address the street.

Where additional access roads are required, they must provide for the efficient movement of articulated vehicles and generally avoid cul-de-sac arrangements.

Design Suggestions

Where smaller lots (generally under 5000msq) are proposed, shared access lanes should be considered as a means of facilitating through truck movement and an efficient site layout for parking and services.

Lot design should facilitate the visual surveillance of public open space. One method to achieve this is by locating roads adjacent to the public space so that there is a public interface and not a private interface with the open space. Developments will front the road as well as open space.

2.2 SITE LAYOUT

2.2.1 FRONT SETBACKS

Desired Outcome

Consistent setbacks with sufficient space for landscape planting to compliment the street planting will ensure a consistently high standard of appearance and amenity across BWEZ.

Design Requirement

All lots must have a minimum front setback of 5.0m and must include a landscaped area that addresses the landscape requirements outlined in Section 3 of these guidelines

For small lots (under 1500 m2) a reduced front setback of 3.5m may be considered and must include a landscaped area that addresses the landscape requirements outlined in Section 3.3 of these guidelines.

FIGURE 3 EXAMPLE - LANDSCAPED FRONT SETBACK

2.2.2 SIDE AND REAR SETBACKS

Design Requirements

Side and rear building setbacks must satisfy the following design standards:

- To optimise the developable area, building to the boundary (or zero lot lines) should be considered (noting the requirement of the Building Code of Australia must still be satisfied).
- Alternatively, buildings should be set back from the side boundary a minimum of 3m.
- On corner lots a minimum 1.5m building setback to the side street must be provided in accordance with the Landscape section in Section 3 of these guidelines.

FIGURE 5 EXAMPLE OF SETBACK DESIGN CONCEPT

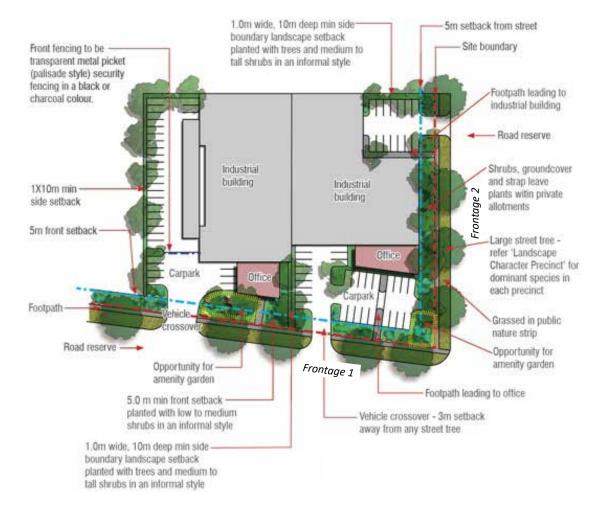
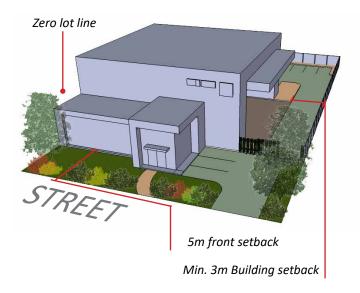


FIGURE 6 FRONT SETBACK WITH LANDSCAPING



2.3 ACCESS AND MOVEMENT

Desired Outcome

Access and manoeuvring arrangements to/ from and within sites at BWEZ cater for large vehicles, are safe and do not cause detriment to other road users.

Design Requirements

Site layouts must provide adequate space for truck and vehicle movements and parking.

Access and parking must not dominate the presentation of development when viewed from the street.

Separate access should be provided for pedestrians and cyclists, unless it can be demonstrated that it is impractical to do so.

Truck access, manoeuvring and loading areas must to be separated from car parking areas.

Where not subdivided, all driveways must satisfy the relevant regulations and standards.

Cars and small commercial vehicles must be able to enter and leave the site in a forward direction wherever possible. On smaller lots this requirement may be waivered if it can be demonstrated that it is impractical to achieve this outcome.

Design Suggestions

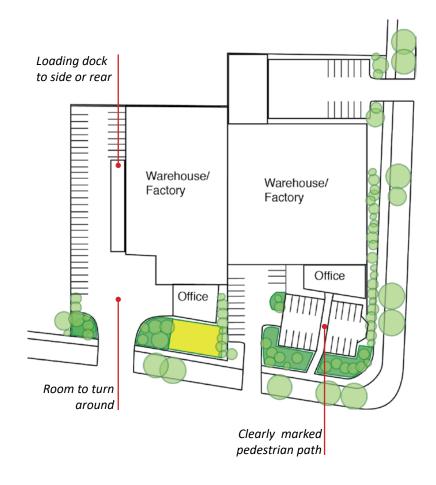
Loading docks should be preferably situated to the side or rear of building.

Pedestrian access through car parking areas should be clearly marked, and where possible emphasised by the use of raised and textured surfaces and articulated through landscaping.

On smaller and constricted sites, consider the use of turntables in order to achieve forward-in forward-out movement of trucks, without the need for full turning areas

Buildings should be designed to allow loading / unloading of vehicles within the building.

FIGURE 7 EXAMPLE OF ACCESS/LAYOUT DESIGN REQUIREMENTS



2.4 CAR PARKING

Desired Outcome

Site layouts provide for parking that is efficient, convenient and safe while not dominating the image of the development from the street.

Design Requirements:

The layout of parking areas must be well integrated with the landscape plan and use planting to provide shade and visual interest.

Car parking must be located behind the required minimum building front setback. Visitor car parking may be permitted forward of the building line where it can be demonstrated that the landscape quality of the streetscape can be maintained.

Access routes to car parking areas for each lot must be clearly signposted.

All car parking spaces must be constructed of hardstand, all weather material, adequately drained, marked and designated.

Sufficient spaces must be provided for disabled car parking.

Wherever possible, parking should be provided to the side or rear of lots. On smaller lots this requirement may be waivered if it can be demonstrated that it is impractical to achieve this outcome.

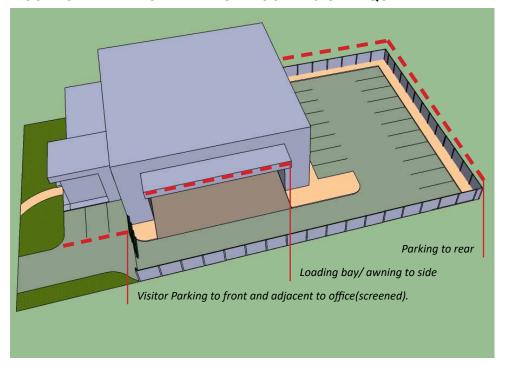
Water sensitive urban design must be incorporated in the design of car parks. This can include the use of rain garden arrangements and permeable paving.

Design Suggestions:

On smaller lots, if it has been be demonstrated that it is impractical to provide parking to the side or rear of lots, consideration should be given to providing shared access way arrangements with adjoining lots to permit the majority of parking to be located behind the building line.

Where the majority of parking has to be provided in front of the buildings because of the smaller lot size, additional landscape including canopy trees should be provided to soften the visual impact of car parking on the street.

FIGURE 8 EXAMPLE OF PARKING LAYOUT DESIGN REQUIREMENT



2.5 BUILDING DESIGN STANDARDS

Desired Outcome

Buildings proposed for each site achieve a high standard of design that reflects the overall BWEZ vision and image.

2.5.1 ARCHITECTURE

Design Requirements

The preference is for contemporary and innovative architecture. Themes compatible with and inspired by aviation, emerging technologies and environmental sustainability are encouraged.

The office component of a development must be given additional design emphasis and must form the primary address to the street.

The design of out buildings and/or ancillary installations must be compatible with the design theme established by the primary buildings on each site.

Building entrances should address/open out to the street so as to ensure passive surveillance to the public domain.

Plant and equipment must be concealed from the street and any screening must be integrated with the architectural design. This also applies to items such as water tanks and related pumping stations, etc.

Design Suggestions

Applicants are encouraged to seek the advice of suitably qualified designers in the preparation of their proposals. The use of registered architects and landscape architects with relevant experience is highly recommended.

The following table (Figure 10, overleaf) is a quick-reference guide to re-enforce individual precinct character.

FIGURE 9 LANDSCAPE CHARACTER PRECINCTS

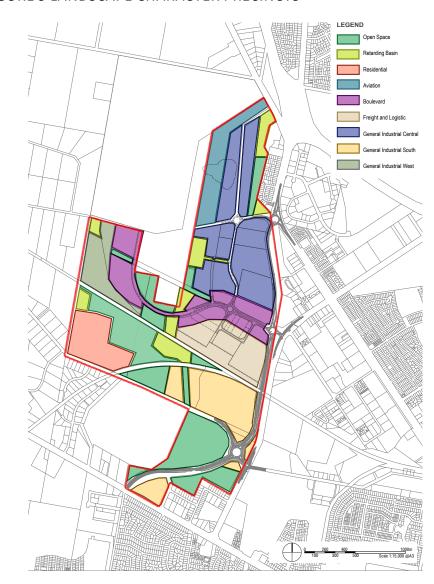


FIGURE 10 COLOUR PALATE TABLE (REFER FIGURE 9)

Location Based on Landscape Character Precincts (Figure 9)	Colour Theme Building features or accents;	Tree species Selected from Council's recommended indigenous or suitable species	Architectural design directions For the "office" component
General Industrial - Central Precinct	Light grey and white	Acacia melanoxylon (Blackwood) and Banksia integrifolia (Coast Banksia)	High quality industrial buildings
General Industrial - South Precinct	Grey and light yellow	Eucalyptus viminalis (Manna Gum) and Eucalyptus melliodora (Yellow Box)	High quality industrial buildings
General Industrial - West Precinct	Light grey and brown	Eucalyptus baxteri (Black Stringybark) and Eucalyptus radiata (Narrow-leaf Peppermint)	High quality industrial buildings
Freight and Logistics Precinct	Dark green and cream	Acacia melanoxylon (Blackwood) and Allocasurina littoralis (Black Sheoak)	Well designed storage and logistic services buildings
Aviation Precinct	Dark grey and yellow	Eucalyptus triacarpa (Red Ironbark cultivar) and Eucalyptus rubida (Candlebark)	Hangar-style buildings or similar aviation heritage-inspired response Curved roofs; large glazed doors
Boulevard Precinct	Grey-green and white with touch of red (leaves and flower pods)	Eucalyptus triacarpa (Red Ironbark cultivar) and Eucalyptus pauciflora sub sp. pauciflora (White Sallee)	Control Tower-style; aviation inspired buildings particularly to corner. Glazing angled down and multi-surfaced (polygonal) glass with metal frames Integrated landscape- greenwalls, amenity garden

2.5.2 BUILDING MATERIAL AND FINISHES

Design Requirements

Buildings proposed for each site may be constructed in brick, concrete masonry, architectural metal panels or other material suited to the type of building and its use.

Except where face brickwork is integral to the overall design and appearance of buildings, external walls must be painted or finished with a quality textured coating.

The use of timber as a dominant building material is not encouraged.

The use of uncoloured steel cladding must not be used except where it not the dominant streetscape element and it is well integrated with a contemporary architectural design.

2.5.3 BUILDING HEIGHTS

Design Requirements

Buildings must not have an overall height exceeding 15 metres as measured from the average ground level, unless specifically approved by the Ballarat City Council.

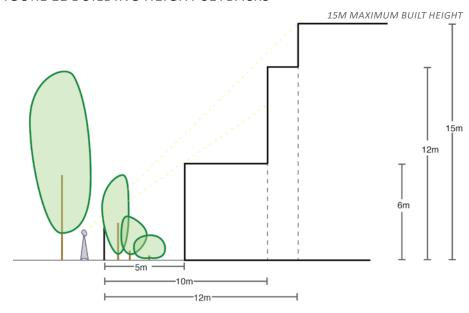
Building height must be consistent with the height restrictions set out in the Ballarat Airport Masterplan.

The office component when located closest to the street must be designed so as to be a dominant architectural element in the streetscape.

Design Suggestions

In general, the height of the office component when located closest to the street should be at least 6 meters to give appropriate emphasis to this part of the development.

FIGURE 11 BUILDING HEIGHT SETBACKS



2.5.4 FENCES

Design Requirements

Fences and gates should not dominate the streetscape and should allow the landscaping and buildings to be the primary focus.

Front and side fences and gates must be integrated with the design of the buildings and the landscape and must be visually permeable.

Where a fence is placed in front of the building line, it must be visually permeable for the whole extent of the front boundary, and must also be visually permeable (at least 50% permeable) to the side boundaries along the landscape buffer- extending at least 10 meters into the plot.

Fences and gates in front of the building must use black or charcoal finished steel palisade style fencing not higher than 1.8 metres.

Chain mesh, solid slab, cyclone and similar types of fences must not be used in front of the building line.

Security fencing must be as unobtrusive as possible to encourage a welcoming street environment.

Design Suggestions

Generally, fences and gates should be behind the building line so that the building itself becomes part of the security solution along the street frontage.

The maximum height of fencing on any boundary should not exceed 2.5m.

FIGURE 12 EXAMPLE OF FENCING LAYOUT DESIGN REQUIREMENT

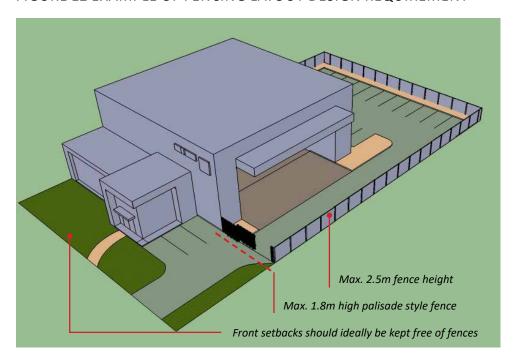




FIGURE 13 EXAMPLE OF LANDSCAPE AND FENCING SET BACK

2.5.5 SIGNS AND NUMBERING

LOT NUMBER

Design Requirements

Lot numbers on buildings must be clearly legible from the street, in a consistent standard location.

Developers must choose a location for the building number that is in the corner of the building, near the roof line, in line with the main driveway.

BUILDING SIGNAGE

Design Requirements

The signage on buildings must primarily be for the purpose of identity and information and not for advertising.

Any company signage on a building must be located alongside the building numbering and in proportion with the size of the building number,

Building numbering must be no less than 1 meter by 1 meter- between 8-12% of the building façade, whichever is the greater.

On smaller lots (i.e. <1500m²) the street signage can be smaller where it can be demonstrated that such signage is not necessary.

Design Requirements

In addition to building signage, lots with street frontage exceeding 50m must have a kerb-side numbering plinth $(2m \times 0.6m \times 0.8m)$, refer *figure 14*) to be located in association with the main driveway and within the lot in the front landscape buffer.

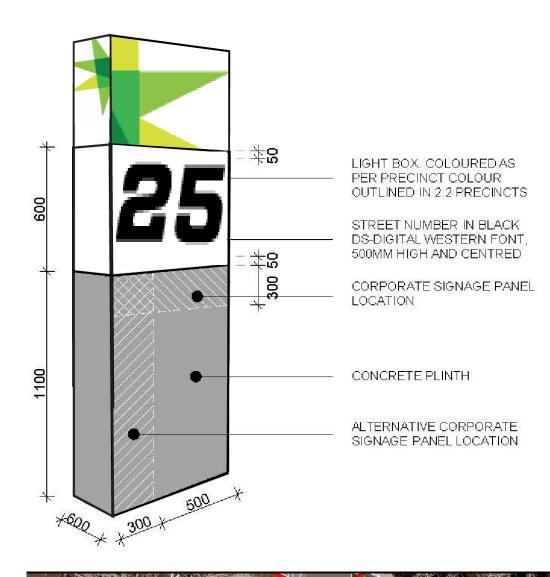
Lots with street frontage exceeding 50m must have company signage in two locations, in proportion with building numbering

Street numbers in the BWEZ must use the preferred font for the BWEZ signage - Girard Sky. http://www.houseind.com

Design Suggestion

Company signage could, instead of being co-located with building numbering, be represented through artistic interpretation or super-graphics- in this case, the signage may take up to 50% of the façade, and be integrated with image and architectural elements. Consistent building numbering still applies.

STREET SIGNAGE



GIRARD SKY

ABCDEFGHIJKL MNOPQRSTUVWXYZ abcdefghijklmnopqrs 1234567890 Flight Schedule

2.5.6 EXTERNAL LIGHTING

Design Requirements:

All premises must provide external lighting to ensure adequate site security.

All car parking and pedestrian areas must be provided with suitable lighting to ensure safety and security of users after dark.

All lighting must be located, directed and baffled to limit light spill beyond the site boundaries.

Lighting location, height and lux must avoid interference with airport operations.

Design Suggestions:

Generally Building Lighting should be focused to illuminate key features rather than a whole façade.

LED strip lighting is encouraged as a feature to emphasise a building line or shape.

Subtle, low-lux level lighting is encouraged beneath trees to illuminate foliage.

FIGURE 16 & 17 EXAMPLES OF GOOD EXTERNAL LIGHTING





FIGURE 19 EXAMPLE OF CORNER LOT LAYOUT DESIGN REQUIREMENT

2.5.7 CORNER LOTS

Design Requirements:

Splays on the property line (at intersections) will need to be provided in accordance with the City of Ballarat Infrastructure Design Manual (IDM) guidelines.

The Office component of buildings must be located at the corner and should address both streets with a well articulated three-dimensional architectural form.

The elevation to the secondary street must include sufficient detail, articulation and decoration to avoid a "long blank wall" for example, through architectural/ façade detail such as windows or recessed "false windows".

Landscape along long secondary side addresses of buildings must be designed to partially mask and soften the solidity of the built form.

Design Suggestions:

The side setback to the secondary street could be reduced to 1 metre provided that adequate architectural detail together with an integrated landscape design is provided.

Building elements such as towers could be included in the design of the office component to increase the building's presence on the corner.



FIGURE 18 EXAMPLE LANDSCAPED CORNER

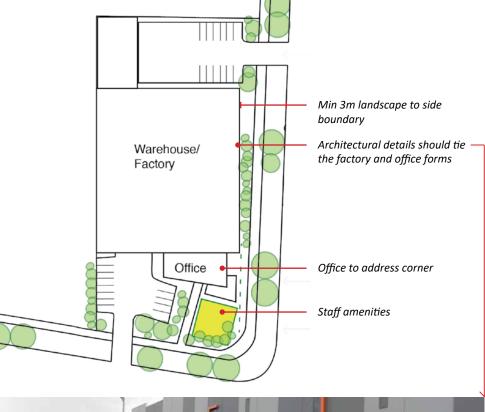




FIGURE 20 EXAMPLE SECONDARY FRONTAGE

3 LANDSCAPE DESIGN

This chapter sets out the landscape design standards and requirements that apply to lots on the BWEZ precinct. The overall landscape design standards for roads and public space is set out in the Landscape Concept Plan and should be referred to when reading these the guidelines below.

3.1 DESIRED LANDSCAPE OUTCOMES

BWEZ will have an integrated landscape character with a high level of coordination between the landscaping in the public realm and the private allotments.

The concept for the public realm is guided by the Landscape Concept Plan. This defines a series of precincts each with an individual landscape character.

A key feature of the Landscape Concept Plan is the selection of two dominant native and indigenous tree species that will set a character image for the precinct.

These guidelines propose an extensive use of native vegetation in private allotments to provide an attractive and sustainable setting for the development. Individual developments must respond to the landscape theme for each designated precinct and generally provide a high quality landscape setting that is integrated with the building design and incorporates amenity garden space for the workforce.

Landscape Plans for each allotment must be in accordance with the following guidelines plans and strategies:

Landscape Guidelines for Development in the City of Ballarat, April 1999

Landscape Design Manual, August 20, 2012: Version 5

City of Ballarat Infrastructure Design Manual (IDM)

Any proposed landscape design that differs from Council's implementation practices as set out in the above guidelines/manuals must be discussed further with Council.

Landscape plans for each allotment must be prepared by a suitably qualified landscape architect or experienced landscape designers.

The landscape concept for each allotment must address the following, where possible:

- Whether existing trees can be retained in the siting, design and future management of the development;
- How landscaping has been used to reduce the visual bulk of new development and/ or to enhance the appearance of new buildings;
- How landscaping has been selected to minimise surface run-off and promote passive irrigation of landscapes by directing nearby hardstand areas to vegetated areas;
- How WSUD features such as rainwater collection tanks, and stormwater detention and treatment areas have been integrated into the landscape design;
- How canopy trees have been used to provide shade for car parking and private courtyards;
- Use native grasses and groundcovers as lawn alternatives to reduce irrigation demands;
- Use side and front boundary landscape setbacks to create windbreaks and provide shade to westerly sun and winter winds;
- Use species suited to the environment that have low water requirements and are low maintenance;
- Use light coloured paving materials and surfaces to reduce heat absorption;
- Locate hardstand areas within the southerly side of lots to reduce their heat absorption.

3.2 LANDSCAPE SPECIES

The preferred dominant species for each precinct are set out in the Landscape Concept Plan and should be selected to minimize long term watering requirements.

Design Requirements

Trees in the front landscape setback must be selected primarily from the precinct landscape theme – species list in the Landscape Concept Plan.

In developing a design response for a particular allotment, the character of any existing or approved developments must be taken into account.

Design Suggestions

Trees and plantings for the remainder of the lot should be selected from the Common Plant Species list in the Landscape Concept Plan.

Fast growing screening species are preferred between properties (along side boundaries). Species with a reputation for short lifespan, unstable structure or unruly habitat are not preferred.

Massed plantings of single species are preferred rather than a mixture of single species.

3.4 LANDSCAPE OF THE ALLOTMENT

3.4.1 FRONT SETBACKS

Design Requirements

Front setback areas must be predominantly planted with the species set out in the Landscape Concept Plan (Chapter 6) in an informal layout to minimise the visual intrusion of parked vehicles and vehicle paving where viewed from the street. Low to medium shrubs are recommended to provide softening and screening of car parks and paved area to the front. The use of planting within landscape setbacks will assist in reducing the visual impact of any fencing.

3.4.2 SIDE SETBACKS

Design Requirements

Side setback areas must be planted with the species set out in the Landscape Concept Plan. Side setback areas are to be planted for a minimum 1 metre wide to a length of 10 metres deep into the private allotments on at least one side of the side boundary.

Design Suggestion

Trees and shrubs of various heights are encouraged to provide a clear division between lots and to provide shade to car park areas.

3.4.3 VEHICLE CROSS OVER

Design Requirements

Must be set back at least 3 metres from any street trees to minimise potential damage to street trees and to ensure sight line safety.

3.4.4 FRONT FENCING

See Section 2.5.4

FIGURE 21 EXAMPLE OF A LANDSCAPE PLAN DESIGN REQUIREMENTS

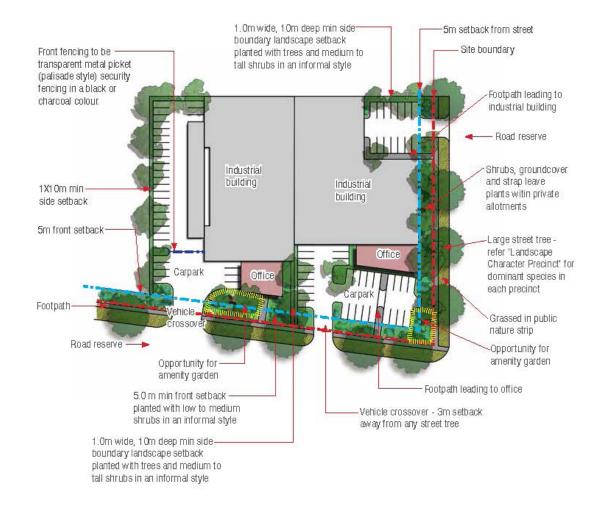
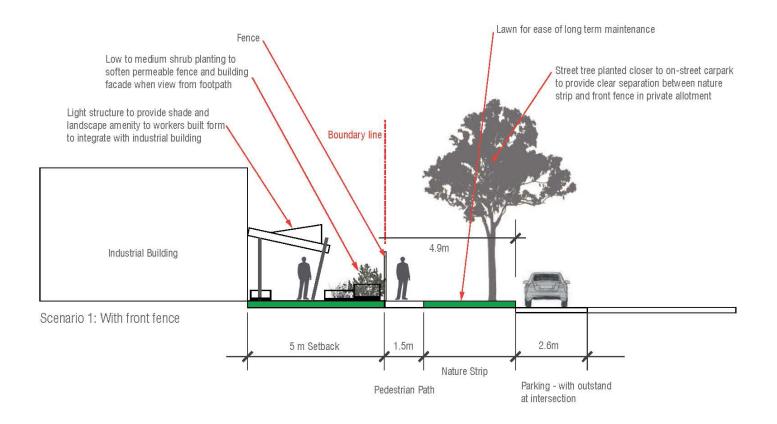
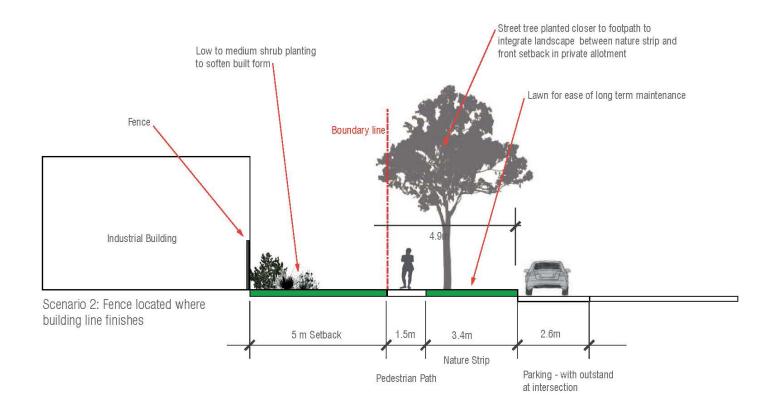


FIGURE 22 SECTION - SETBACK LAYOUT WHERE FENCE ON BOUNDARY IS POSSIBLE



Note: A fence should only be used in this situation when absolutely necessary, fences should be transparent.

FIGURE 23 SECTION - SETBACK LAYOUT WHERE FENCE IS PROPOSED ALONG BUILDING LINE



3.5 SITE TOPOGRAPHY AND LEVEL CHANGE MANAGEMENT

Design Requirements:

Site planning must minimise cut and fill requirements and ensure that they do not adversely impact upon adjoining land uses.

Landscaped batters, rather than retaining walls, should be considered where space permits. Slopes should be no greater than 1:4 and suitably planted to provide screening or buffer as required.

Retaining walls and batters must be well integrated into the design of the building and its envelope.

3.6 STORMWATER MANAGEMENT

Design Requirements:

Landscape design should consider the possibilities to maximise on-lot Water Sensitive Urban Design (WSUD) to minimise run-off and to reduce potable water use.

Techniques that should be considered include:

- Utilise localised bioretention systems to improve the quality of stormwater that is discharged from the site;
- Attenuate the velocity and magnitude of flows that is discharged from the site;
- Encourage the integration of water reuse opportunities, including rainwater and stormwater harvesting;
- Install rain garden details to direct run-off from paved areas into appropriate treatment beds.

4 KEY FRONTAGES

The BWEZ Development Plan identifies a number of important frontages between development and site features such as the Boulevard, Ballarat Airport, the Mullawallah Wetlands, Ballarat to Skipton Rail Trail and associated open spaces, etc.

The urban design response to these frontages will play a major role in creating a sense of place for BWEZ.

Design proposals for sites with identified frontages must include an urban context report that analyses the special site conditions and explains how the design responds to this context.

Category of Frontages

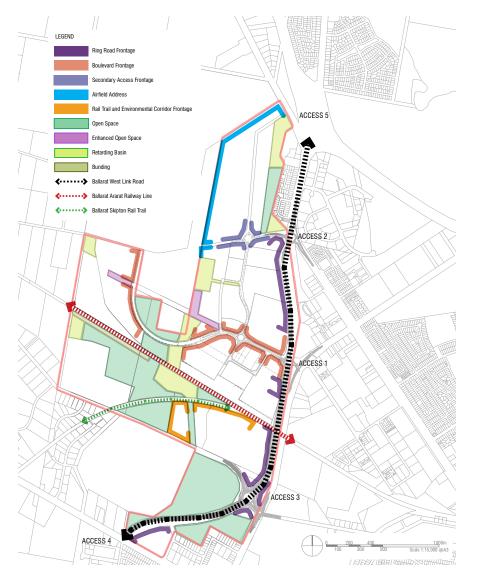
The following five frontages have been identified, and a specific Frontage Guideline will apply to each:

- Boulevard Frontages
- Secondary Access Frontages
- Rail Trail and Environmental Corridor Frontages
- Link Road Frontages
- Airfield Address Frontages

These frontages are identified on the following site plan

Note: the Avenue of Honour on Remembrance Drive is also a significant frontage as part of the Southern Gateway, see 5.2.1

FIGURE 24 FRONTAGES PLAN



4.1 BOULEVARD FRONTAGE

Desired outcome

The boulevard will be the focal point for the entire development; it will have the highest quality built form.

Development along the boulevard will present a cohesive streetscape with showcase frontages and landmark buildings; and project an image of high environmental and landscape qualities with an attractive pedestrian environment and workplace amenity.

Design Requirement

Motor vehicle parking must not be placed in front of the building line except for limited visitor parking.

All lots (including small lots) must have a minimum landscape front setback of 5m.

As the focal point for the site, building designs that reflect the aviation history, emerging technologies and environmental sustainability are encouraged.

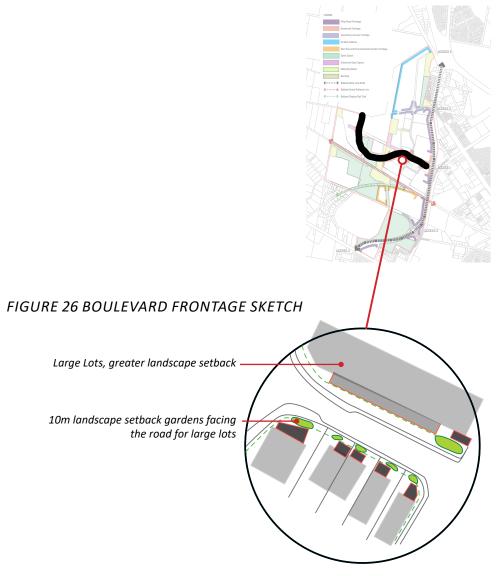
Fences should not be located in front of the building line so that the front garden provides a key aspect of the boulevard frontage.

For larger development lots (generally in excess of 5,000sqm) a landscape setback of 10m is required.

Design Suggestions

The integration of the building and landscape design is encouraged, for example by the introduction of areas of vertical garden and the inclusion of indoor/outdoor spaces that will assist to project an image as a workplace with high amenity standards.

FIGURE 25 BOULEVARD FRONTAGE LOCATION



4.2 SECONDARY ACCESS FRONTAGE

Desired Outcome

Development addressing these locations will take advantage of the strategic position as the entry experience from Access points 2 and 3 and reinforce the different roles that each access plays.

Access point 2 has a visual link to the airport and leads to the sites with Aviation Frontage and businesses connected to the airfield.

Access point 3 leads to natural open spaces associated with the Mullawallah Wetlands and is also an area designated as suitable for energy related uses.

Design Requirements

Frontages to Access 2 should consider architectural treatments that respond to the aviation theme, for example through incorporating aviation themes in detailing or choice of materials.

Frontages to Access 3 should consider architectural treatments that reflect the potential role of the energy precinct and the links to the natural environmental features.

For example, features such as solar panels, shades, or wind generators could be integrated with the architecture; the nature theme could be expressed through emphasising the front landscape treatment and integrating this with the architectural response.

FIGURE 27 SECONDARY ACCESS FRONTAGE LOCATION FIGURE 28 SECONDARY ACCESS SKETCHES Energy and sustainability-Aviation related themes in frontage related themes in architecture frontage architecture

4.3 RAIL TRAIL/ ENVIRON. CORRIDOR FRONTAGE

Sites in this location interact with the Ballarat to Skipton Rail Trail or the natural grasslands associated with the Winter Swamp. Development should enhance the experience of these sensitive environments.

Design Requirements

In order to minimise building bulk dominating the open space visually, building form interfacing with open spaces including the rail trail and green corridors must have:

- a 5m setback for buildings up to 6m in height; and
- a 10m minimum setback for buildings up to the 12m height, with a 12m setback for buildings up to 15 m in height.

Design Suggestions

Wherever development interfaces with open space, the preferred arrangement is to locate a road at the interface to act as a buffer and to allow the office component of buildings to face out onto the open space across the road.

If this is not possible then:

Developments addressing natural open spaces should be designed to provide passive surveillance of the open space, for example by including visually permeable fencing associated with amenity gardens and/or windows looking out.

Where a solid wall or building edge is required, allowance should be made for an appropriate landscape treatment to the side addressing the natural open space, as shown in the landscape guidelines in Section 3.

FIGURE 29 RAIL TRAIL/ENVIRONMENT FRONTAGE LOCATION

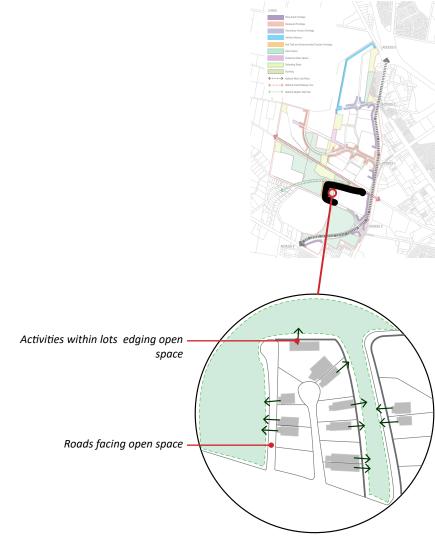


FIGURE 30 ENVIRONMENTAL FRONTAGE SKETCH

4.4 WESTERN LINK ROAD FRONTAGE

The Development Plan provides for a new major north-south Western Link Road with a bridge crossing over the rail line and high quality landscape settings. It is an opportunity to locate high profile and large-scale commercial and industrial facilities at BWEZ.

Design requirements

Sites abutting the Western Link Road must provide a landscape frontage of a minimum 5m depth

The planting plan for this frontage must take into account the Landscape Concept Plan and Western Link Road Landscape Plan.

No motor vehicle parking should be located in front of the building line on the BWLR frontage except for limited visitor parking.

Buildings on lots facing the Link Road should where possible give prominence to office components of a development (or be at least designed to look like office components) in order to present an attractive image towards the Western Link Road.

FIGURE 31 WESTERN LINK ROAD FRONTAGE LOCATION

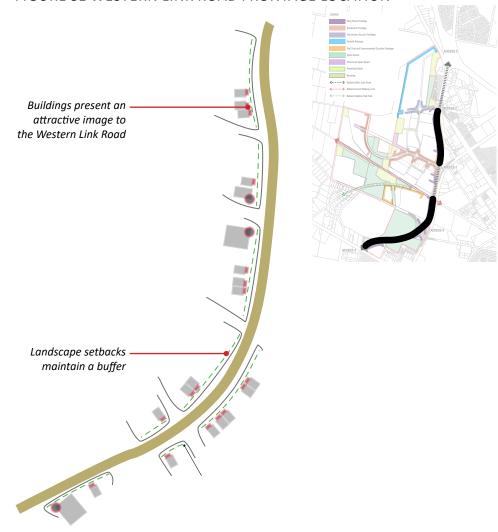


FIGURE 32 WESTERN LINK ROAD SKETCH

4.5 AVIATION FRONTAGE

A number of sites have a direct interface with the airport, offering access to the airfield, including potential taxiways. Sites may be suitable for activities that can exploit this dual frontage, such as aviation businesses, airfreight, etc.

A key objective for this area is to enhance the sense of connection to the airfield along major road alignments by maintaining long views to the airport activity and the surrounding landscape; and to generally enhance relationship to the airfield.

Design requirements

Vehicle movements and parking must be restricted to the development site; only aircraft and approved service vehicles may access the airfield side. No access to the airport is allowed, without permission and correct infrastructure in place.

For sites aligning with the east-west roads leading to potential airport views as indicated on the following site plan, building form must be placed so that a view corridor is maintained to the airport.

Parking and vehicle loading is permitted within this view corridor, generally as indicated in the associated diagram.

Note: development in this location may be required to contribute towards airfield infrastructure such as an appropriate apron or taxiway - subject to further investigation and master planning.

FIGURE 33 AVIATION FRONTAGE LOCATION

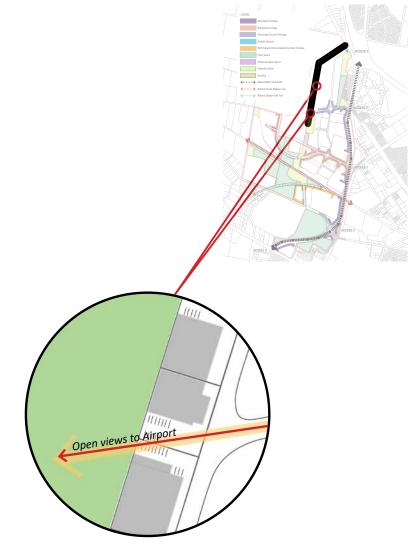


FIGURE 34 AVIATION VIEW-LINES SKETCH

5 SIGNATURE SITES AND STRATEGIC DEVELOPMENT SITES

5.1 SIGNATURE SITES

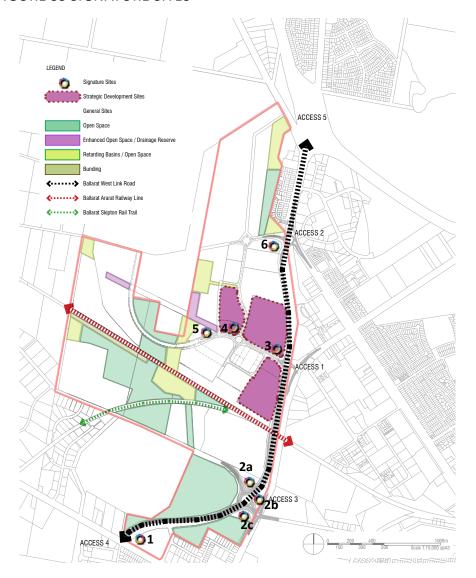
The signature sites are identified by the Development Plan and offer premium locations, with a view to attracting prestige development and the highest standards of architectural and landscape design.

There are six locations nominated with one of the locations (the intersection of Blind Creek Road and the Link Road) having 3 individual sites.

The Signature Sites are located on the following site plan

- 1. "Southern Gateway"
- 2. "Mullawallah Wetlands Intersection" (2a, 2b, 2c)
- 3. "Boulevard Entry"
- 4. "Boulevard Showcase"
- 5. "Boulevard Central"
- 6. "Northern Gateway"

FIGURE 35 SIGNATURE SITES



5.2 SIGNATURE SITES PRINCIPLES

The purpose of Signature Sites is to indicate those that require a higher standard of architectural design and 'address' to signify their location. Signature Sites may be at a gateway (access point), at the termination of a vista or in a high amenity location.

Developments on these sites will be expected to:

- Create a sense of arrival and identity to the BWEZ Precinct;
- Enhance the image of BWEZ as an innovative, creative business park;
- Capitalise on the address of the precinct as the gateway to the Ballarat Aerodrome and Freight Hub.

5.2.1 GENERAL DESIGN REQUIREMENTS FOR SIGNATURE SITES

Developments on these sites must provide an urban context and design response report that demonstrates how the development will provide a landmark design that meets the requirements of the BWEZ Development Plan.

Parking for workers and visitors must be located along the side or to the rear of the building.

Hardstand and loading areas must be located to the side or rear of the building and adequately screened from the street.

Design suggestions

Buildings on signature sites should be architecturally designed, and of a size and scale to reflect the importance of the location.

Large buildings or industrial forms should include colour, super-graphics, installations, artworks and/or lighting into the building design.

Landmark locations could be emphasised through architectural features, artworks or interpretive creative signage.

5.2.2 BLIND CREEK ROAD INTERSECTION

A secondary gateway to the BWEZ development, this key intersection has the railway bridge of the new Link Road to its north; while Blind Creek Road provides key access to the industrial areas south of the railway land and to the Mullawallah Wetlands and associated open space. There are three parts to this intersection:

2a (N corner)

2b (E corner)

2c (S corner)

Design requirements

2a (N corner)

A prominent corner particularly visible from approaches from the south.

Development on the signature site is within the energy precinct, and should include solar collectors, wind turbines or other energy-production mechanism in the visible architecture of the buildings

2b (E corner)

A prominent site on the northeast corner of the Link Road/Blind Creek Road intersection, this site is also identified as a strategic opportunity for premium developments.

The office component should be designed and located to address both the intersection and the road to the south connecting to Gregory St West

The main access to this site will be from the east-west link, connecting to Gregory St West

FIGURE 37 BLIND CREEK ROAD INTERSECTION LOCATION

2d (S corner)

A prominent corner site for approaches from the north.

The office component should be designed and located to address the intersection as its primary orientation and turn the corner of the intersection

Development should also address the environmental open space corridor to the south, creating an interesting aspect for the approach from Ballarat, and taking advantage of the proximity to this amenity. See Section 4.3 for Environmental Corridor Frontage guidelines.

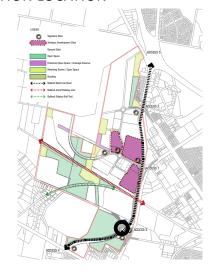
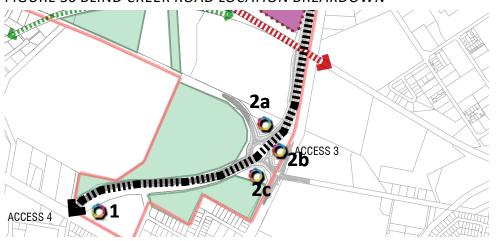
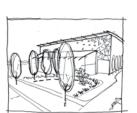


FIGURE 38 INDICATIVE DESIGN CONCEPTS

FIGURE 36 BLIND CREEK ROAD LOCATION BREAKDOWN

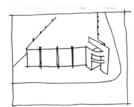




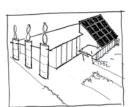
Integrating landscape themes and colours



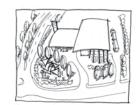
Sign/artwork inspired by aviation themes, Art as identity



Architectural elements to address corner



ESD innovation as architectural elements



Garden setting and large setback

FIGURE 39 BOULEVARD ENTRY LOCATION

5.2.3 BOULEVARD ENTRY

This site is at the primary entry to the BWEZ precinct and so it requires the highest quality of built form outcome. The following design outcomes must be achieved:

Design requirements

The primary address of the development including pedestrian access must be from the boulevard.

Landscape setback at the corner must coordinate with the landscape design of the intersection (including the roundabout) as set out in the BWLR landscape concept design.

An area of landscape amenity must be included in the design of the street frontage – this can include staff amenity garden and breakout area, which must address the street.

Architectural form and character should incorporate features that express the vision of the Development Plan including the use of high technology, innovation and creativity.

Design Suggestions

The office component should be higher and more prominent than any warehouse component- the office being a minimum of 2 stories, preferably 3 for its location.

Built form should respond to the aviation context and history of the site.

Innovation could be expressed through architectural elements, creative lighting arrangements, integrated public art, interpretive super-graphics signage and incorporating innovative technology.

Building details could also consider materials, finishes and details that are inspired by aviation techniques, such as highly finished metal panelling; lightweight frame structures; etc.: forms inspired by aviation-related buildings such as control towers.

See 2.5.1- architectural character table. (refer also to the design requirements and suggestions from section 4.1)

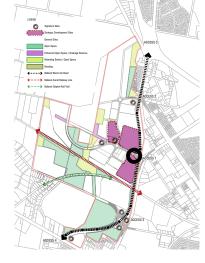
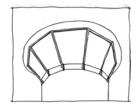


FIGURE 40 INDICATIVE DESIGN CONCEPTS



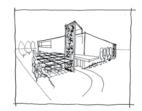
Control Tower



Sign/artwork inspired by aviation themes, Art as identity



Integrating landscape themes and colours

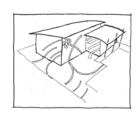


Integrate landscape with buildings

- vertical gardens
- outside meeting spaces



Airline-type Font



Supergraphics e.g. apron and runway markings

FIGURE 41 BOULEVARD SHOWCASE LOCATION

5.2.4 BOULEVARD SHOWCASE

A key site addressing the boulevard, it will "frame" the approach view to the historic runway precinct; it has also been identified as a site suitable for larger footprint developments.

Design requirements

The primary address of the development must be to the Boulevard.

The building form must address the corner and both street frontages in a creative way, making the most of its prominent location.

Façade and landscape should be well integrated with the potential for vertical garden elements considered.

The location of an amenity garden for staff to the front should be considered to assist expressing the theme of workplace amenity along the Boulevard approach.

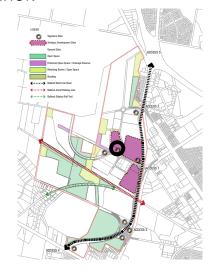
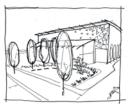


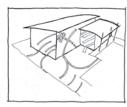
FIGURE 42 INDICATIVE DESIGN CONCEPTS



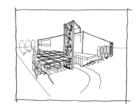
Office forms to be dominant and address the street



Integrating landscape themes and colours



Supergraphics e.g. apron and runway markings



Integrate landscape with buildings

- vertical gardens
- outside meeting spaces

FIGURE 43 SOUTHERN GATEWAY LOCATION

5.2.5 SOUTHERN GATEWAY

The first entry point to BWEZ from the south, this site addresses both the Western Link Road and Remembrance Drive and the Avenue of Honour. It has existing well-established housing to the south, as well as an already established industrial area to the east with deep landscape buffers to Remembrance Drive.

Design requirements

Landscape setback to Remembrance Drive must follow the *Ballarat West Growth Areas* - *Avenue of Honour Urban Design Guidelines, November 2010* planting and setback development guidelines.

Design suggestions

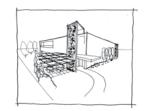
There should be no direct access to sites from Remembrance Drive and the Avenue of Honour.

The office component should be located to address both the Link Road and Remembrance Drive.

The edge of development along Remembrance Drive should respond to this existing residential context and provide detailed architectural articulation of the façade to maintain a varied street character.

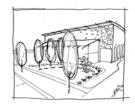
Transport State Transp

FIGURE 44 INDICATIVE DESIGN CONCEPTS

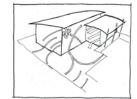


Integrate landscape with buildings - vertical gardens

- outside meeting spaces



Integrating landscape themes and colours



Supergraphics e.g. apron and runway markings

FIGURE 45 BOULEVARD CENTRAL LOCATION

5.2.6 BOULEVARD CENTRAL

This site is at the centre of the BWEZ precinct and is expected to offer high levels of amenity for workers and visitors to the precinct. As such it requires the high quality of building and landscape design.

The Boulevard Central site has two important interfaces, the eastern end, aligning with the Boulevard that will frame views along the historic Runway and the northern edge adjoining the Historic Runway open space.

The objective is to reinforce the special relationship to the Ballarat aerodrome and its historic context. The development surrounding the historic runway alignment will both take advantage of the heritage space, and contribute to its sense as a special place with links to aviation and technology. See 2.5.1 architectural character table.

Design requirements

The architectural style should reflect the aviation heritage and technology themes of the Development Plan; this could be in the form of buildings that are an interpretation of airport terminal buildings, for example with the use of lightweight-framed glazing, angled roofs, innovative lighting to emphasise a soaring roofline.

Development addressing the historic runway space must take into account the design concept incorporated in the Landscape Concept Plan and provide innovative designs that respond to the historic setting and contribute towards the overall design concept.

Development addressing the runway alignment could be in the form of an interpretation of aviation structures.

Development should have a plaza forecourt that is in keeping with the image of "runway" and "apron", for example by keeping front garden planting low and replacing shade trees with shade structures - thus maintaining an open appearance to the runway axis, (trees being inappropriate to a "runway" setting).

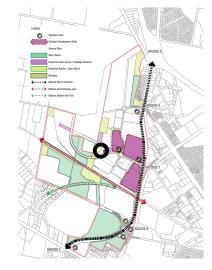
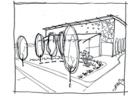


FIGURE 46 INDICATIVE DESIGN CONCEPTS



Sign/artwork inspired by aviation themes, Art as identity



Integrating landscape themes and colours



Supergraphics e.g. apron and runway markings

FIGURE 47 NORTHERN GATEWAY LOCATION

5.2.7 NORTHERN GATEWAY

The first entry point from the Northern approach and the Western Freeway, this site also addresses a pocket of existing residential to its north and a substantial industrial estate to its east.

Design requirements

Any development on this site must be designed so as to positively mark the entry to the BWEZ precinct, and to integrate with the landscaped open space areas adjoining it.

Because of the prominence of this location as an entry to the BWEZ precinct, a high standard of architectural and landscape design is expected for development on this site. Development should include a significant landscaped element at the corner.

This could comprise a mix of landscaped mounding and a local open space for workers and visitors to sit and relax. It should include a mix of outdoor seating, shade structures and tree planting and landscaping to complement the park to the north.

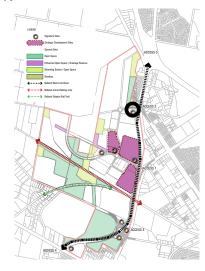
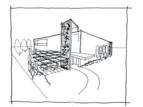


FIGURE 48 INDICATIVE DESIGN CONCEPTS

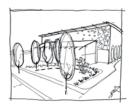


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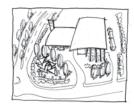


Integrate landscape with buildings - vertical gardens

- outside meeting spaces



Integrating landscape themes and colours



Garden setting and large setback

5.3 STRATEGIC DEVELOPMENT SITES

A number of sites have been identified in the Development Plan as being strategic sites suitable for large footprint uses and high profile tenants needing high exposure. In addition, a number of sites have been identified as suitable for larger footprint developments.

Strategic development sites are located on the following site plan

- A. "Boulevard Entry, South"
- B. "Boulevard Entry, North"
- C. "Boulevard Showcase"

The objective for Strategic Development Sites is to provide high-profile locations for larger scale premium tenants or uses.

Design requirements

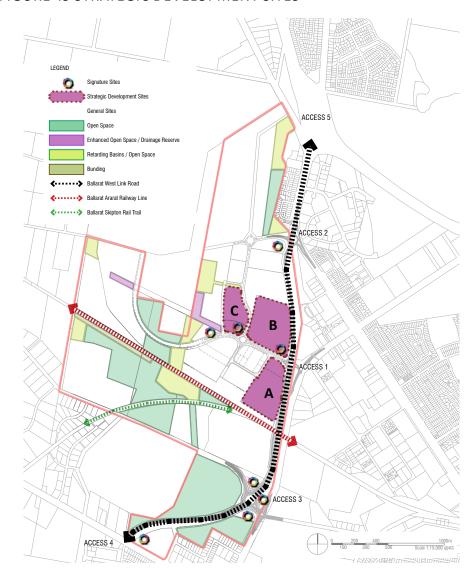
Developments on large lots should provide a landscape treatment to the main frontage that is appropriate to the size of the development and with a setback generally not less than 10m.

Subdivision into a large number of small lots is discouraged unless it is part of an integrated land and building development, designed as a whole.

Design suggestions

Where integrated land and building development is proposed, consideration should be given to making use of two road frontages or the development of an internal road network that permits though movement of heavy vehicles.

FIGURE 49 STRATEGIC DEVELOPMENT SITES



6 ESD AND CPTED

6.1 ECOLOGICALLY SUSTAINABLE DESIGN

Developments are encouraged to build on the high quality public environment with environmentally efficient buildings and site works.

Offices, factories and warehouses present a significant opportunity to save energy through well-considered building design. All developments should contribute towards the overall image as an efficient and environmentally sensitive development.

An architect or appropriate building design consultant with demonstrated passive design and ESD skills could provide further advice on the below points.

6.1.2 ESD PRINCIPLES

Issues that should be considered during design include:

- Use of low-impact materials
- Energy efficiency
- Passive design principles
- Quality and durability of materials
- Water saving initiatives
- Design for re-use and recycling
- Life-cycle assessment of construction materials
- WSUD principles
- Service substitution
- Renewability of materials

Design Requirements

All developments must meet current Building Code of Australia standards for lighting, insulation and natural ventilation.

Design suggestions

Collection and re-use of storm water through tanks and rain gardens should be incorporated wherever possible.

The use of solar panels to supplement water and power requirements as an integrated part of the building design is encouraged.

6.2 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN: PRINCIPLES

Site layout and design should conform to the principles of the Victorian Department of Planning and Community Development Safer Design Guidelines or the Crime Prevention Through Environmental Design (CPTED) principles.

Safer Design Guidelines

The Safer Design Guidelines for Victoria provides practical design suggestions for achieving development that is safer and feels safer for the community using it. The guidelines have been prepared to provide government authorities, public and private developers, designers and property owners with assistance to help reduce the opportunity for crime and improve perceptions of safety in our streets and public spaces.

Well designed and maintained urban environments are essential for improved safety in the community. The key to safer places is to improve the quality of the environment, minimise the opportunity for crime and promote accessible and liveable places that encourage a feeling of safety and community participation.

The Safer Design Guidelines are based on the following set of principles:

- Surveillance
- Access, movement and sightlines
- Activity
- Ownership
- Management and maintenance

There are three basic strategies in CPTED:

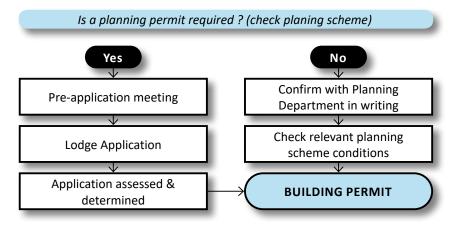
- Natural access control
- Natural surveillance
- Territorial reinforcement

CPTED Initiatives to consider

- Clear sightlines;
- Safe movement, good connections and access;
- Active and passive surveillance of the public realm from private property;
- Neck to knee clearance zones in landscaped car park areas for better surveillance;
- Lighting of car parks and pedestrian routes;
- Visually permeable fencing along open space edges to sites;
- Clear signage;
- Vandal-proof fittings on furniture or other items;
- Use of robust, durable materials;
- CCTV cameras may be used;
- Consider gating driveways to prevent after-hours access to side and rear.

7 PLANNING APPLICATION SUBMISSION REQUIREMENTS

Applicants are to provide as much information as possible about the proposed use and development in the form of plans, elevations, site surveys, illustrative and written descriptions. Applicants should note the further information may be requested as part of the assessment process. All applications should comply with the requirements of the Ballarat Planning Scheme, including the Special Use Zone schedule 14 and the Development Plan Overlay schedule 10.



Applications may be submitted in hardcopy or electronically; however, electronically is preferred. If submissions are being provided in hardcopy, up to 3 A3 copies are to be supplied. Information and drawings that must be supplied with the planning permit approved include:

- Copy of Certificate of Title/ Plan of Subdivision;
- Location Plan (showing site within BWEZ);
- Existing Conditions Plan (showing adjoining developments and infrastructure, including rail);
- Context Analysis Plan (required for all Key Interfaces and Signature Sites; encouraged for all other sites);
- Plans and Diagrams illustrating how the proposed development will respond to the local context, including any existing buildings or structures, and the heritage values of

the site including its World War 2 history;

- Site Layout Plan at a scale of 1:500 or as agreed, including:
 - » Relevant ground levels
 - » Boundaries and dimensions of the site, including setbacks,
 - » Adjoining land from boundary to kerb detailing public realm treatment
 - » Loading areas, crossover locations, driveways and drainage works (with construction details)
 - » Building envelopes (proposed)
 - » Surface treatments and construction detail (extent of car parks, hardstand, pathways and paved areas)
 - » External storage and waste treatment/ management areas
- Building elevations at a scale of 1:100 (prepared by qualified architect/ building designer);
- Materials and finishes schedule for building elements and any external finish including pathways and fencing;
- Landscape plan at a scale of 1:200 or as otherwise agreed (prepared by qualified landscape designer), which includes the following:
 - » Layout of all external site facilities including surface treatments (hard or soft)
 - » Outdoor amenity areas including seating, bins, bicycle racks and other site furniture (if any)
 - » Fencing, retaining walls, stairs and other level change treatments including information on the type, dimensions, materials and colours
 - » Plant Schedule from the Urban and Landscape Design Guidelines and Landscape Concept Plan including plant size and spacing, which is referenced back to the landscape plan and precinct planting theme
- Lighting as per the guidelines requirements;
- A site works specification including the method of preparing, watering and maintaining landscaped areas;
- Numbering and Signage;
- A completed Development Checklist;
- An assessment addressing any potential amenity impact on nearby areas.

