<table>
<thead>
<tr>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
</tr>
<tr>
<td>1.1 AIMS OF THE DEVELOPMENT PLAN</td>
</tr>
<tr>
<td>1.2 PROJECT VISION</td>
</tr>
<tr>
<td>2. URBAN CONTEXT AND SITE ANALYSIS</td>
</tr>
<tr>
<td>2.1 REGIONAL AND STRATEGIC CONTEXT</td>
</tr>
<tr>
<td>2.2 ACCESS &amp; MOVEMENT ANALYSIS</td>
</tr>
<tr>
<td>2.3 EXISTING URBAN CHARACTER ANALYSIS</td>
</tr>
<tr>
<td>2.4 VIEWS ANALYSIS</td>
</tr>
<tr>
<td>3. DEVELOPMENT PLAN PRINCIPLES</td>
</tr>
<tr>
<td>4. DEVELOPMENT PLAN COMPONENTS</td>
</tr>
<tr>
<td>4.1 LAND USE</td>
</tr>
<tr>
<td>4.2 BUILT FORM</td>
</tr>
<tr>
<td>4.2.1 PROPOSED ARCHITECTURAL PRINCIPLES</td>
</tr>
<tr>
<td>4.3 MOVEMENT</td>
</tr>
<tr>
<td>4.4 LANDSCAPE AND OPEN SPACE</td>
</tr>
<tr>
<td>4.4.1 THE LANDSCAPE FRAMEWORK</td>
</tr>
<tr>
<td>4.4.2 EXISTING VEGETATION ON SITE</td>
</tr>
<tr>
<td>4.4.3 STREETSCAPE</td>
</tr>
<tr>
<td>4.4.4 WSUD INITIATIVES AND LOW IMPACT LANDSCAPE DESIGN</td>
</tr>
<tr>
<td>4.5 INTERFACE WITH ADJOINING AREAS</td>
</tr>
<tr>
<td>4.6 TRAFFIC</td>
</tr>
<tr>
<td>4.7 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT (ESD) GUIDELINES</td>
</tr>
<tr>
<td>4.8 SUSTAINABLE TRANSPORT</td>
</tr>
<tr>
<td>4.9 ACOUSTIC</td>
</tr>
<tr>
<td>4.10 ENVIRONMENTAL</td>
</tr>
<tr>
<td>4.11 STAGING AND CONTRIBUTIONS</td>
</tr>
<tr>
<td>5. DEVELOPMENT PLAN ASSESSMENT RESPONSE SUMMARY</td>
</tr>
</tbody>
</table>

JACK ROAD DEVELOPMENT PLAN - 3
INTRODUCTION

The Jack Road Development Plan (Development Plan) has been prepared by Urbis Pty Ltd on behalf of Jack Road Investments Pty Ltd in accordance with the requirements of Schedule 1 to the Development Plan Overlay (DPO) at Clause 43 of the Bayside Planning Scheme.

The Development Plan applies to land with a major frontage to Charlton Avenue and a minor frontage to Jack Road, known as the 'Jack Road and Charlton Avenue Development Precinct' (referred to here as the 'Precinct'). The Development Plan provides a planning framework for a mixed use development of the precinct which recognises the prevailing character of the area, contributes to the need for additional housing capacity in the municipality, and provides a design response that promotes sustainable design and flexibility.
The Development Plan provides for:

- The creation of a high quality mixed use environment that features residential, commercial, mixed-use and light industrial activities.
- A development framework that is capable of accommodating a maximum of 250 residential dwellings.
- A flexible and adaptable development scheme which provides for a graduation of building heights across the site, from 1 to 5 storeys.
- A new north-south link road that allows a future connection to Chandos Street.
- The creation of new urban parkland within the site that will support improved access to open space for both existing and future residents of the neighbourhood.

1.2 PROJECT VISION

The overarching vision for this Development Plan is comprised within the following key objectives:

**KEY OBJECTIVES**

- To develop a vibrant mixed use residential community with a distinctly “Bayside” urban character that will add to the diversity of housing opportunities within Bayside.
- To provide for flexible development outcomes with opportunities to enable local employment/home-based business outcomes that contribute to the Bayside Business Employment Area.
- To provide a highly liveable urban environment that is safe, comfortable and sustainable.
- To increase the permeability of the precinct and the wider neighbourhood including improvements to the interface between existing residential and future commercial uses.

The intent of the Development Plan is to inform the future development of the precinct and to introduce an appropriate planning and design framework to guide the detailed design process. The Development Plan enshrines the essential design and development principles for the precinct, and any future planning applications are expected to be generally in accordance with this document (once endorsed by Bayside City Council).

It is anticipated that the development has capacity to accommodate up to 250 dwellings, with varying densities envisaged. It is also intended that the design of a number of the buildings addressing the east side of the link road will be constructed to incorporate small scale commercial/mixed use/home office activities that are compatible with the mixed use nature of the area.

In this regard, the Development Plan adopts a flexible design outcome to ensure that the project can respond to changing market imperatives whilst retaining key design elements that are fundamental to the appropriate development of the precinct.
2 URBAN CONTEXT AND SITE ANALYSIS

The precinct is located at the eastern edge of the Bayside Business Employment Area and is adjoined by conventional density residential areas to the east of Jack Road. This site analysis below identifies the principal issues in the surrounding context that will influence the future development of the precinct.

2.1 REGIONAL AND STRATEGIC CONTEXT

The precinct is located in Cheltenham within the Bayside City Council jurisdiction, and is approximately 20 kilometres south-east of the Melbourne CBD.

The key regional features and connections are indicated in Figure 1. The Southland Shopping Centre, which is the closest Activity Centre, is approximately one kilometre to the east of the precinct adjacent to the Nepean Highway. The precinct has excellent access to public transport, with a bus route travelling along Jack Road and the Cheltenham train station being approximately 1.3km away to the east. The coast (Port Phillip Bay) lies approximately 2.5km to the west.

FIGURE 1 - Regional Context Plan
2.2 ACCESS & MOVEMENT ANALYSIS

VEHICULAR

The precinct has direct access to Jack Road to the east and Charlton Avenue to the south. As part of this Development Plan, provision has been made for a road connection through the precinct that connects to Charlton Avenue to the south, and affords the potential for a future connection to Chandos Street to the north. In the wider context the precinct has good vehicular connections to main roads such as Park and Reserve Roads, as well as Primary Arterial roads such as Nepean Highway and Bay Road (Figure 2). Traffic signals at the intersection of Park Road and Reserve Road enable drivers to easily utilise Reserve Road to travel to and from the north of the precinct, as an alternative to the intersection of Bay Road and Jack Road.

FIGURE 2 - Movement

- Subject Site
- Primary State Arterials
- Major Roads
- Local Roads
PUBLIC TRANSPORT

As illustrated in Figure 3, the precinct has excellent access to public transport. Bus route 822 operates along Jack Road adjacent to the precinct, providing a service connecting Chadstone Shopping Centre and Sandringham, and stopping at Southland Shopping Centre. The route includes a direct connection to Cheltenham Station, approximately one kilometre east of the precinct. In addition, this route provides a connection to the bus interchange at Southland Shopping Centre, linking directly to services running to most areas in the south-eastern metropolitan area. The majority of the precinct is within 300 metres of a bus stop.
2.3 EXISTING URBAN CHARACTER ANALYSIS

A comprehensive Neighbourhood Character Review was carried out by the City of Bayside in 2004 to identify the key valued characteristics and preferred future character of the City’s residential areas. The findings of this review informed the preparation Clause 22.06 Neighbourhood Character Policy which was introduced into the Bayside Planning Scheme in March 2006.

The Development Plan site is located adjacent to Precinct H which includes residential properties between Jack Road to the west, the rail line to the east, and Bay Road and Park Road to the north and south respectively. Excerpts from the study in relation to Precinct H5 are reproduced below.

Valued characteristics of the area include:

- Predominantly single storey 1950s dwellings, with some early 1960s architecture.
- Building materials predominantly a mix of cream brick and timber.
- Front setbacks vary from 6-8m across the area.
- Side setbacks generally 1m on one side with 3-4m setbacks including garages and driveways to the boundary on the other.
- Front fencing is predominantly low with brick materials.
- Gardens are typically well developed with a mixture of low level shrubs, lawn, and native or exotic canopy trees.
- Street trees are either native or exotic in intermittent avenues.

Threats to the characteristics of the area include:

- Large, dominating buildings.
- Poorly articulated dwellings.
- High front fences.

PREFERRED FUTURE CHARACTER

The preferred future character of Precinct H5 as set out in Local Planning Policy 22.06 is of low scale dwellings, with pitched roof forms that sit within established gardens with large native and exotic trees providing a backdrop. Dwellings have a strong horizontality to their form, which ensures buildings do not dominate the streetscape. Consistent front and side setbacks create a cohesiveness, along with the low front fences.

URBAN CHARACTER RESPONSE

As the character assessment is focused only on existing residential areas and does not encompass the Development Plan precinct, the desired future character statement provides little guidance for redevelopment of major post-industrial sites. However, as the precinct borders onto the existing residential area and takes its main connections from this interface, it is appropriate that the new area responds to and evolves from the H5 Precinct character.

The precinct has a unique position in the subject area as it gains influence from both residential and industrial interfaces as indicated in Figure 4. An opportunity exists to derive an innovative design response for the development plan area that articulates this confluence of influences in order to create a transition between the small industrial and business uses and residential uses.

This is a relatively homogeneous area of 1950s–1960s dwellings that has remained relatively unchanged over the years, unlike other parts of Bayside. Street and garden trees have matured in this time, but larger trees tend to occur in groups, rather than spreading continuously across the area. The regular pattern of single story, bungalow-style homes, with setbacks on all sides, is readily apparent from the street. Front garden and front fence styles are becoming increasingly varied, but there are still many original low brick fences and lawn or shrub-based gardens.

The Development Plan seeks to achieve a well-integrated development that improves and complements the existing urban character and surrounding land uses by drawing on the "coastal residential" character of the area east of Jack Road into the precinct, and mixing this with new influences from the industrial character of the precinct's history and continuing the context to the west, north and south. Generally the coastal residential character will dominate from the east, transforming into a diverse mix of uses to the west of the precinct.

FIGURE 4 - Character Influence
2.4 VIEWS ANALYSIS

Figure 1.07 illustrates an analysis of strategic public view corridors to the site. This analysis confirms that principal views to the site will be restricted to the north-east at the new entrance to Jack Road, and from the south at the new entrance from Charlton Avenue. Remaining views to the site will be localised due to the presence of existing built form that adjoins the site, comprising existing residential along Jack Road and commercial development to the north and west. Direct views to the site from the east-west configuration of Charlton Avenue will be restricted to short range views of the proposed streetscape treatment and proposed residential townhouse product adjacent to the southern boundary.

Development of the Jack Road Precinct benefits from three commercial interfaces. The only sensitive interface (existing residential along Jack Road) has informed the built form design response by establishing lower scale (up to two stores) built form in the eastern part of the site, gradually rising up to a maximum of five-stories in the western part of the site. Views into the site from the Jack Road entrance seek to integrate the development with existing character along Jack Road through this approach to built form (with lower buildings adjacent to the eastern boundary) and the introduction of an urban street character (Type 2 Street – North Road).

Figure 1.08 illustrates potential views from upper levels within the site. This analysis confirms that principal views from the site will be from upper levels within the development (i.e. 3–5 storeys), towards key vistas such as Port Philip Bay, Melbourne City and open space/golf courses to the south. Views to existing residential properties located to the east will primarily be long-range due to the distance provided between the higher built form proposed within the site.
3 DEVELOPMENT PLAN PRINCIPLES

The urban framework for the precinct has focused on a range of access and urban design considerations to support a strong integration of the site into the surrounding neighbourhood. Key opportunities to enhance local permeability and amenity that have been embraced by the Development Plan include:

- The provision of a new road link from Charlton Avenue through the precinct in the direction (north) of Chandos Street.
- The creation of a pedestrian and cycle connection to the south-east corner of Charlton Avenue.
- A design approach that allows flexibility and diversity in the future housing product (up to 250 dwellings), so the project can respond to changing market circumstances.
- The potential for activation of ground level uses on the east side of the north-south link road, to help achieve a compatible land use transition to the Commercial 2 zoned land opposite.
- The creation of new parkland space to support improved local access to passive open space and recreational facilities.

The remaining elements of the Development Plan have evolved around these key elements of urban structure to form the key design principles:

- Building massing is designed to promote a gradation of building heights from lower buildings (up to two storeys) in the east, north-east and south-east parts of the precinct, to higher buildings (up to four to five storeys) in the central and western parts of the precinct. This is a direct response to the surrounding built form and character of the Cheltenham neighbourhood.
- Establish a residential community that complements the residential areas to the east and provides for increased housing diversity.
- Utilise an orthogonal primary street grid layout with similar proportions to the local street pattern.
- Establish regular street tree planting in accordance with the City of Bayside's street tree planting guidelines as detailed on the proposed Landscape Master Plan.
- Provide landscape areas for open space and pedestrian amenity.
4 DEVELOPMENT PLAN COMPONENTS

4.1 LAND USE

In order to achieve the mixed use vision for the precinct, a range of land uses are proposed with the urban stratum as illustrated on Plan 1.01 Land Use Plan. The western portion of the precinct will feature light industrial and business uses (within the Commercial 2 Zone), providing a buffer between the surrounding industrial uses and the remainder of the precinct.

The central portion of the precinct (within the Commercial 1 Zone) will support a mixed-use environment with ground level built form constructed in an adaptable format that allows for uses such as, but not limited to small-scale retail, commercial or small office/home office (SOHO) where market viability can be demonstrated. This adaptability seeks to provide an opportunity to introduce active frontages to the new North South Road.

The design and layout of the precinct will facilitate the apartment component of development having vehicular access to the new north south road. Upper levels and parts of the ground level through this central zone will feature more intensive residential (apartments) uses, while the balance of the site will accommodate medium density residential and townhouse style product.

The range and location of land uses across the precinct allow for interaction between uses at the interface between the Commercial 2 and Commercial 1 areas through the introduction of an apartment-style product and opportunities for small-scale commercial uses at the ground level. This provides a buffer between the less-intensive residential product across the bulk of the site and the more intensive future commercial uses in the western portion of the site.

4.2 BUILT FORM

The Development Plan seeks to achieve a well-integrated development that improves and complements the existing urban framework. The general topography of the area is relatively flat, offering limited long distance views. At present there are few vertical landmarks, aside from an industrial chimney to the north-west of the precinct. The surrounding industrial and business uses will have a minimal impact on building heights on the precinct. For these reasons, height can be determined by the capacity of the precinct and its relationship to the surrounding urban character.
4.2.1 PROPOSED ARCHITECTURAL PRINCIPLES

Buildings in the precinct should demonstrate high quality design and architecture to deliver a contemporary vibrant community. Some key built form design objectives have been identified in order to achieve an innovative and aesthetically interesting development. These include:

- An architectural language that to some degree references the local character in both form and material.
- Well detailed and articulated buildings to achieve an appropriate sense of scale in the context.
- An environment where building and landscape design are presented as an integrated solution.
- Grouping crossovers in pairs and use of rear access laneways to minimise visual and amenity impact of car access and parking.
- Building form/elevations composed to generate coherent and well-articulated streetscapes of an appropriate scale.

BUILDING FORM

The form or "envelope character" of buildings should similarly transition from a low scale "house" style to large, more robust building blocks in the centre and west of the precinct. In general, the "house" style is made up of groups of small buildings, whereas the "industrial/contemporary" style is made up of larger buildings that nevertheless incorporate residential uses and domestic appurtenances (i.e., balconies, terraces etc.).

The key design principles are:

- House design to give consideration to:
  - Building form/elevations composed to generate coherent and well-articulated streetscapes of an appropriate scale with modulated setbacks varying between a minimum of 2m and a maximum of 5m at both ground and upper levels. Specifically, forth floor levels are to incorporate additional setbacks to provide a recessed built form.
  - Grouping crossovers in pairs and use of rear access laneways to minimise visual and amenity impact of car access and parking.
  - Articulated roofscape and parapets to add scale and complexity to the urban fabric.

- Larger buildings to give consideration to:
  - Materials and finishes drawn from the local industrial character.
  - Buildings that reference the industrial nature of the context.
  - An appropriate scale and level of articulation that balances the nature of the surrounding industrial context with a human and rich streetscape.

MATERIALITY

The following key design principles address the materials and finishes that may be utilised on the buildings.

- Materials and finishes drawn from the local residential character may include but not be limited to timber cladding, renders, masonry veneers in muted tones with a natural feel.
- Materials and finishes drawn from the local industrial character may include but not be limited to selected metal cladding such as profiled sheet, larger timber members and finishes that are raw or primary in nature such as galvanising.

4.3 MOVEMENT

The precinct will be accessed from Jack Road and a new link road off Charlton Avenue, supported by an internal road network (refer to Plan 1.06 Road Hierarchy Plan). Streetscape sections for Road Types 1, 2 & 3 have been prepared by MDG Landscape Architects. Details of the location and need for footpaths within the cross sections is to be determined through detailed design prior to planning permits for subdivision being granted.

The movement framework also accommodates safe pedestrian and cycle connections through the internal street network to support improved local permeability (refer to Plan 1.04 Pedestrian/Bicycle Path Plan).
4.4 LANDSCAPE AND OPEN SPACE

4.4.1 THE LANDSCAPE FRAMEWORK

The landscape framework makes a significant contribution to the physical and visual amenity of the public realm within the development, which includes streetscape planting and local open spaces that reflect a contemporary interpretation of the existing local landscape.

Streetscapes have been designed to provide an urban character that is in keeping with the proposed density of development for the precinct, while maximising green space within nature strips. The Open Space network features a consolidated parkland space central to the precinct which will provide a focus for passive recreational activity as well as important visual amenity for residents.

4.4.2 EXISTING VEGETATION ON SITE

There are no trees of arboricultural significance on the site and it is not proposed to retain any existing vegetation.

4.4.3 STREETSCAPE

Streetscape treatments respond to the proposed road hierarchy and have been designed to provide an urban character that is in keeping with the proposed density of development. The streetscape design for each street type is described in detail below.

TYPE 1 STREET – NORTH-SOUTH ROAD

This street type extends from Charlton Avenue to the northern site boundary and is the principal road serving the commercial and mixed use precincts. The street also forms an important north-south pedestrian and cycle connection. Medium scale canopy trees within grassed nature strips will create a traditional streetscape character.

TYPE 2A STREET – NORTH ROAD

This local access street forms the principal connection to Jack Road, running east-west at the northern end of the development. An urban street character is proposed with indented car parking bays and planted kerb outstands to physically and visually break up the on-street parking. Green space within the streetscape is incorporated. Medium scale canopy trees will be accommodated within the nature strip widths.

TYPE 2B STREET – ACCESS PLACE

The balance of the local access streets within the development continue the urban street character of indented car parking bays and planted kerb outstands, and green space is again incorporated. Small scale canopy trees will be planted in these streets due to the nature strip widths associated with lower order street types.
Residential lots on the northern boundary to have a minimum 2.4m landscape buffer within the lot to ensure future residential amenity is not adversely impacted by abutting non-residential uses. Proposed treatments to be responsive to the location, nature and amenity of abutting land uses.

LEDGE

- Proposed trees
- Existing street trees
- Indicative electrical substation location
- Indicative Urban Artwork location
- Landscape buffer zone to northern & southern boundary
- Public Open Space:
  - Park 1 - Local Open Space
  - Relaxation Park
- Water Sensitive Urban Design initiatives:
  - Indicative rain garden location within open space
  - Indicative rain garden location within streetscapes
  - Indicative rain garden location within Commercial

Notes:
1. WSUD: Detail and size of rain gardens to be resolved in accordance with stormwater strategy requirements at the Design Development stage.
2. Driveways (not shown on plan): Driveway locations are to be determined in relation to built form typologies at the Design Development stage and are to be in accordance with City of Bayside requirements.

Streetscape treatment to the north side of Charlton Avenue to be determined in consultation with resolution of built form typology at the Design Development Stage; to ensure future residential amenity is not adversely impacted by abutting non-residential uses. Proposed treatments to be responsive to the location, nature and amenity of abutting land uses and may incorporate fencing, landscaping, rear loaded vehicular access and passive surveillance features.
PARK 1 – RELAXATION PARK

Local open space providing the opportunity for passive recreational activity in a local neighbourhood context. The space is intended to provide for community needs such as gathering, relaxation, play and fitness, while acting as a meeting place for local people.

Possible amenity may include:

- Picnic shelter and facilities
- Electric BBQ and picnic tables
- Fitness station/equipment
- Junior Play Space
- Open lawn/kickaround area
- Basketball hoop
- Furniture such as seating, bins, bicycle stands and a drinking fountain
Type 1 – North–South Road (Charlton Avenue Extension) – 16m Road Reserve with 9.5m road and on street car parking

These cross sections are indicative only. Details of cross sections and the level of pedestrian footpath within the cross section is to be determined upon submission of detailed plans for subdivision of lots and/or building envelopes to determine the integration of pedestrian access with lot layout.

Type 4 Laneway – Typical Section – Scale 1:50

Notes:
1. The road cross section are illustrative only and the detailed design of the cross section will be addressed at the permit stage.
2. The design of the on-street parking is illustrative only and the detailed design will be addressed at the planning permit stage.

JACK ROAD CHELTENHAM

Streetscapes Typologies

LEN 06 25.11.2013 SCALE 1:100 M A1

JACK ROAD DEVELOPMENT PLAN – 22
Type 2A – North Road (Jack Road Access) – 16m wide Road Reserve with 5.5m road and indented car parking

These cross sections are indicative only. Details of cross sections and the road for footpaths within the cross sections is to be determined upon submission of detailed plans for subdivision of lots and/or building envelopes to determine the integration of pedestrian access with footpaths.
Type 2B – Access Place – 14m wide Road Reserve with 5.5m road and indented car parking

Notes:
1. The road cross sections are illustrative only and the detailed design of the cross sections will be addressed at the planning permit stage.
2. The design of the on-street parking is illustrative only and the detailed design will be addressed at the planning permit stage.

These cross sections are indicative only. Details of cross sections and the need for footpaths within the cross sections are to be determined upon submission of detailed plans for subdivision of lots and/or building envelopes to determine the integration of pedestrian access with lot layout.
Individual street character and identity will be reinforced through the street tree species selection and the treatment of the nature strips. The street tree planting selections will correspond to the various width of nature strip along each street in accordance with the "Bayside Street Tree Planting Strategy" (December 1997).

The key objectives for street tree species selection are to:

- Establish a tree palette suited to the environmental conditions of the site;
- Reinforce Council’s street tree planting strategy by utilising a strong native and indigenous planting palette as recommended in the strategy; and
- Avoid potential issues such as conflicts with infrastructure by avoiding problematic trees in nature strip and road reserves in general.

Bayside’s street tree strategy sets up a framework for tree selection for the various hierarchies and landscape characteristics of the streets within the development. The indicative tree list nominating possible tree species is also based on:

- Connections to surrounding streets;
- Climatic and physical site conditions;
- Road orientation;
- Road widths and road reserve sizes;
- View lines and sight lines; and
- Proximity and linkages to open space areas.

Specific tree species for each street will be confirmed in consultation with Council at the detailed design stage.

4.4.4 WSUD INITIATIVES AND LOW IMPACT LANDSCAPE DESIGN

The following measures are proposed to incorporate WSUD and low environmental impact design elements into the landscape areas:

Encourage the installation of rain water tanks in the development to collect stormwater and its possible re-use for landscape irrigation so that potable water usage is minimised.

Use locally-sourced durable materials with a low embodied energy including fewer carbon miles when selecting landscape materials.

Use low-maintenance and low water-use landscape and planting styles so less water is utilised for the maximum landscape effect.
4.5 INTERFACE WITH ADJOINING AREAS

Key urban design principles of the Development Plan provide for an attractive transition from the existing residential character of Jack Road and seek to improve the interface between future residential and the northern and southern boundaries by:

- Providing low-scale residential development adjacent to existing residential dwellings along Jack Road. Heights have been constrained and the siting and design of future dwellings will need to comply with ResCode provisions to ensure that amenity of existing residential properties is not adversely impacted upon.
- Providing a landscape gateway on the northern entrance with avenue planting.
- Providing a landscape buffer and acoustic fence to the northern boundary adjacent to future residential dwellings in accordance with the DPO Schedule.
- Providing a streetscape treatment to the north side of Charlton Avenue to ensure future residential amenity is not adversely impacted by non-residential uses located along Charlton Avenue. Detailed design of the specific landscape and acoustic treatments are to be determined in conjunction with the resolution of built form typology at the detailed permit stage and may incorporate fencing, landscaping, rear loaded vehicular access and passive surveillance features.
4.6 TRAFFIC

A traffic report has been prepared by Cardno to address the transportation and traffic issues outlined in Schedule 1 to the Development Plan Overlay. Cardno provide an assessment of the current and future traffic volumes, public transport provision, proposed intersection forms, recommended street types, and recommended parking provision for the proposed development.

4.7 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT (ESD) GUIDELINES

The Development Plan includes the provision of Environmentally Sustainable Development Guidelines prepared by Ark Resources Pty Ltd which seek to ensure that the development achieves industry best practice benchmarks for sustainable design, and achieves the sustainable design objectives enunciated in the Bayside Planning Scheme.

Key environmentally sustainable design principles which have guided the development of the master plan are set out below:

- Minimise greenhouse emissions associated with building energy use
- Minimise greenhouse emissions associated with energy systems and energy supply
- Achieve sustainable water cycle management through
  - Efficient use of potable water supplies
  - Recycling and re-use of alternative water sources
  - Integration of stormwater treatment into the design of urban spaces and landscapes
- Optimise indoor environmental quality in all buildings and structures
- Provide landscaping which enhances amenity and contributes to biodiversity
- Encourage walking and cycling to reduce the extent of private car use.

The initiatives and performance targets selected to deliver the strategic objectives set out above are detailed in the guidelines prepared by Ark Resources.

Any permit for development of the precinct will require a Sustainable Design Statement (SDS) to be submitted demonstrating compliance with these ESD Guidelines. The scope of requirements to be addressed by SDS for various stages of the development should include the following:

- STEPS Assessment (residential development)
- Sustainable Design Scorecard (non-residential development)
- Water Sensitive Urban Design/measures including rainwater tank volumes and locations;
- Measures to reduce or manage car parking demand and encourage sustainable alternative transport modes including public transport and cycling.

The SDS must:
- i. identify key ESD performance outcomes;
- ii. document the means by which the appropriate target or performance will be achieved;
- iii. identify responsibilities and a schedule for implementation, and ongoing management, maintenance and monitoring where relevant;
- iv. demonstrate that the design element, technologies and operational practices that comprise the Environmental Management Plan can be maintained over time.

Any development seeking to vary from the standards set out in these ESD Guidelines must demonstrate how site constraints prohibit the achievement of these standards.

4.8 SUSTAINABLE TRANSPORT

Figure 1.09 illustrates how future development of the site is proposed to integrate with the surrounding area in terms of existing pedestrian and bicycle infrastructure, public transport, and access to nearby key destinations.
4.9 ACOUSTIC

Due to the presence of adjoining industrial and commercial activities, a preliminary noise impact assessment has been prepared by Marshall Day Acoustics to determine appropriate noise attenuation measures for the proposed residential dwellings.

The assessment identifies that there are some existing industrial and commercial activities which have the potential to exceed the State Environment Protection Policy (Control of Noise from Commercial, Industry and Trade) No. N-1 (SEPP N-1) noise limits within close proximity to the precinct boundaries. In order to ensure that the proposed residential activities on the precinct do not adversely restrict the existing adjoining non-residential activities the use of attenuation measures are recommended. The assessment identifies a range of measures which could be utilised including:

- Provision of a landscape buffer and acoustic fence along the northern boundary of the precinct (in accordance with requirements of DPO1).
- On-site design treatments for the proposed residential dwellings such as the use of non-opening windows and ensuring private open spaces such as balconies do not face the industrial and commercial properties.

Traffic noise levels in the immediate vicinity of the precinct are considered low and it is anticipated that the use of standard building envelope constructions will require the appropriate noise standards to be achieved (i.e. AS3671-1989 and AS2107-2000).

The assessment also notes that some of the industrial activities may require further measurement as detailed design of development of the precinct progresses.

4.10 ENVIRONMENTAL

The precinct does not contain any environmental features of note, consisting mainly of buildings, hardstand areas and a vacant parcel of land which generally contains grasses, weeds and trees. In accordance with the requirements of the Environmental Audit Overlay (EAO), an environmental consultant has been appointed to undertake an assessment of the site and will be finalised as part of any future detailed permit application.

4.11 STAGING AND CONTRIBUTIONS

The precinct is likely to be developed in stages, with the sequence and timing of each stage responding to market conditions. An indicative staging plan is provided adjacent which may evolve in response to more detailed development programming. The indicative staging plan indicates that a temporary access to Charlton Avenue may be constructed to provide access to early stages of the development, prior to the construction of the Jack Road access. This access would be removed once construction of the Jack Road access is completed.

Jack Road Investments Pty Ltd may also construct the North-South link road in stages, to meet the access requirements of new commercial/business uses that establish within the Commercial 1 and Commercial 2 zoned land. Once constructed this road will be vested in Council.
The following table identifies the requirements set out in Schedule 1 to the Development Plan Overlay, together with a response explaining how these are fulfilled in the Development Plan.
<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>RESPONSE</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRECINCT OBJECTIVES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To contribute to the Bayside Business Employment Area.</td>
<td>The Development Plan incorporates land uses that contribute to the Bayside Business Employment Area.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To achieve the integrated development of the site.</td>
<td>A number of key urban design principles are included in the Development Plan that seeks to achieve an integrated development with the existing surrounding area.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To prevent industrial and commercial vehicle access onto Jack Road and improve access through the Bayside Business Employment Area through the provision of a new north-south road to connect the southern end of Chandos Avenue to Charlton Avenue.</td>
<td>No vehicular connectivity is proposed between the North-South Road and Jack Road.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To improve the interface between existing residential and commercial uses in the vicinity of Jack Road.</td>
<td>A number of key urban design principles have been prepared to address interface treatments.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To provide appropriate transitions to surrounding properties through the graduation of built form.</td>
<td>Building massing is designed to promote a gradation of building heights from lower buildings (up to two stories) in the east, northeast and southeast parts of the precinct, to higher buildings (up to four to five stories) in the central and western parts of the precinct.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To achieve a high level of contemporary architectural expression and design standards for all development.</td>
<td>A number of key urban design principles have been prepared to address architectural expression.</td>
<td>Section 6.2</td>
</tr>
<tr>
<td>To provide high quality open space network that enhances the amenity of the precinct for residents, businesses and visitors.</td>
<td>A Landscape Master Plan has been prepared by mKg Landscape Architects which sets out the proposed open space network.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To provide an integrated pedestrian and vehicle network that facilitates connectivity and efficient movements throughout the site.</td>
<td>In order to provide a high level of integration with the local movement networks, internal access roads have been designed to discourage high vehicle speeds and create an attractive walking and cycling environment.</td>
<td>Section 4</td>
</tr>
<tr>
<td>To incorporate best practice Environmental Sustainable Design features in the built form and landscape design.</td>
<td>Environmentally Sustainable Development Guidelines have been prepared by Arkr Resources Pty Ltd, the requirements of which have been incorporated into the Development Plan.</td>
<td>Section 4</td>
</tr>
<tr>
<td>URBAN CONTEXT AND SITE ANALYSIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional and strategic context.</td>
<td>The relevant regional and strategic features of the local, regional and metropolitan area are identified. The precinct's proximity to main transport routes, an activity centre and the coastal area suit it for the mixed use development proposed.</td>
<td>Section 2</td>
</tr>
<tr>
<td>Existing urban character analysis, including landscape features, topography and significant vegetation.</td>
<td>The existing urban character consists of a mix of dwelling types and styles. There are no significant landscape features, topographical features or vegetation of note on or in the vicinity of the subject precinct.</td>
<td>Section 2</td>
</tr>
<tr>
<td>Access and movement analysis detailing vehicle (residential, commercial and service vehicle) movements.</td>
<td>The precinct has direct access to Jack Road and Charlton Avenue. Carino's Traffic and Transport Assessment provides details of the existing traffic movements.</td>
<td>Section 2</td>
</tr>
<tr>
<td>View analysis</td>
<td>Principal views to the site will be restricted to the north-east and from the south, with remaining views localised due to presence of existing adjoining built form.</td>
<td>Section 2</td>
</tr>
<tr>
<td>Location of public transport infrastructure.</td>
<td>The precinct has excellent access to a bus service on Jack Road and is within approximately 1.3km of Cheltenham Station.</td>
<td>Section 2</td>
</tr>
<tr>
<td>Details on how an integrated development will be achieved that improves and complements the existing urban character and surrounding land uses.</td>
<td>Key components of the Development Plan seek to achieve an integrated development with the existing surrounding area.</td>
<td>Section 4</td>
</tr>
<tr>
<td>REQUIREMENT</td>
<td>RESPONSE</td>
<td>REFERENCE</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>LAND USE</strong></td>
<td></td>
<td>Section 4</td>
</tr>
<tr>
<td>· The use of the site for residential, home office, small scale retailing, office and other small scale commercial uses that will contribute to the creation of sustainable, active, mixed use environments, generally in line with the Land Use Precinct Plan shown at Figure 1.</td>
<td>The range and location of land uses across the precinct have been set out in the Development Plan.</td>
<td>Section 4</td>
</tr>
<tr>
<td>· A range of small scale retail uses that cater to the needs of new residents on the site and which support the surrounding business precinct.</td>
<td>The range and location of land uses across the precinct as set out in the Development Plan allow for some areas of interaction between uses (at the interface between the Commercial 2 and Commercial 1 areas) and areas of separation primarily to the townhouse area to allow sufficient privacy.</td>
<td>Section 4</td>
</tr>
<tr>
<td>· Active frontages at ground level for office, home office or small scale retailing uses along the new north-south road that will connect the southern end of Chendos Avenue to Charlton Avenue, generally in line with the Land Use Precinct Plan shown at Figure 1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The arrangement of uses across the site should allow for some areas of interaction between uses and some areas of separation.</td>
<td></td>
<td>Section 4</td>
</tr>
<tr>
<td>Residential access along the new north-south road that will connect the southern end of Chendos Avenue to Charlton Avenue should be discouraged.</td>
<td>It is agreed with Council that residential access from the new north-south road is required to allow better distribution of traffic across the site. It is considered unlikely that commercial traffic will traverse the residential component of the site due to the road typology proposed.</td>
<td>Section 4</td>
</tr>
<tr>
<td><strong>BUILT FORM AND PUBLIC REALM</strong></td>
<td></td>
<td>Section 4</td>
</tr>
<tr>
<td>Appropriate landscape buffers and/or transitional treatments along all boundaries to the precinct and where a change in land use occurs. To ensure the future residential amenity on the site is not adversely impacted by the ongoing operation of abutting non-residential uses.</td>
<td>A preliminary noise impact assessment has been prepared by Marshall Day Acoustics which has informed the provision of landscape buffers and/or transitional treatments along all boundaries. The Landscape Master Plan prepared by mgl Landscape Architects identifies the location of boundary treatments.</td>
<td>Section 4</td>
</tr>
<tr>
<td>Conceptual building envelopes and the general layout and height of proposed buildings, showing the gradation of built form from one to two storeys at the residential interface with Jack Road rising to a maximum of five storeys towards the central and western portions of the site.</td>
<td>The Massing Plan (1.02 prepared by Rolfe Lowman Architects) indicates the general layout and building envelopes of development across the precinct.</td>
<td>Section 4</td>
</tr>
<tr>
<td>Detail on the proposed contemporary architectural expression including design philosophy, use of contemporary materials and finishes and building articulation.</td>
<td>A number of key urban design principles have been prepared to address architectural expression.</td>
<td>Section 4</td>
</tr>
<tr>
<td>A contribution of 5% public open space.</td>
<td>The provision of open space exceeds the 5% open space contribution required for the Mixed Use (Residential) and Commercial 1 Zone land under DPO. It is proposed that all parks will ultimately be transferred to Council for ongoing maintenance, to fulfil the required 5% public open space contribution under the DPO.</td>
<td>Section 4</td>
</tr>
<tr>
<td>Design and interface treatments of public open space including the response to surrounding buildings.</td>
<td>A number of key urban design principles have been prepared to address interface treatments.</td>
<td>Section 4</td>
</tr>
<tr>
<td>REQUIREMENT</td>
<td>RESPONSE</td>
<td>REFERENCE</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>BUILT FORM AND PUBLIC REALM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An explanation of how the development will improve the interface with adjoining areas with particular attention given to Jack Road and Charlton Avenue.</td>
<td>A number of key urban design principles have been prepared to address interface treatments.</td>
<td>Section 4</td>
</tr>
<tr>
<td>The proposed design concept for all streetscapes, public realm areas and landscape buffers interfaces with abutting land uses. The proposed treatments must be responsive to the location, nature and amenity of abutting land uses.</td>
<td>Refer to Landscape Master Plan has been prepared by mgd Landscape Architects.</td>
<td>Section 4</td>
</tr>
</tbody>
</table>

<p>| <strong>MOVEMENT AND ACCESS</strong> | | |
| cable traffic report must be prepared by a suitably qualified traffic engineer and include the following: | A Traffic and Transport Assessment has been prepared by Cardno traffic engineers which considers the following: | Section 4 |
| • Proposed road cross-sections. | • Traffic movements to and from the precinct and the impact of traffic on neighbouring streets. | |
| • Traffic movements to and from the site and the impact of traffic on adjoining streets. | • Bicycle and pedestrian links through the precinct. | |
| • Bicycle and pedestrian links through the precinct. | • How new road infrastructure requirements will be delivered. | |
| • On street and off street parking provision. | Proposed road cross-sections have been prepared by mgd Landscape Architects in conjunction with Cardno and Rothe Lowman Architects. | |
| • How new road infrastructure requirements will be delivered. | It is proposed that traffic management plans be prepared in relation to each individual stage of the proposed development at the detailed planning permit stage. | |
| • A traffic management plan for the proposed development. | | |
| The provision of appropriate vehicle and pedestrian linkages that support the development's integration with the surrounding area and local public transport networks. | | |
| Proposed road layout, including a new north-south road through the precinct, and the requirement that commercial and industrial traffic utilise this connection instead of Jack Road. | | |
| The road layout will be designed in a manner that prevents vehicle movement between the new north-south road and Jack Road. | | |
| In addition to the new north-south road that will connect the southern end of Chandos Avenue to Charlton Avenue, vehicular access to the site from Charlton Avenue is to be limited to no more than two access points. | | |
| The provision of functional and safe bicycle and pedestrian linkages through the precinct. | | |
| The provision of convenient lockable bicycle storage facilities. | | |</p>
<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>RESPONSE</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT GUIDELINES</td>
<td>- An assessment of the development against the Sustainable Design Scorecard and/or Sustainable Tools for Environmental Performance (STEPS). The development should achieve compliance with the Sustainable Design Scorecard as expressed within the Sustainable Design Scorecard Tool or meet the STEPS targets (if for residential development). If a designer or developer wishes to go beyond compliance with the Sustainable Design Scorecard/STEPS, alternative industry methodologies, such as GreenStar for office buildings, would be considered by Council in lieu of the Sustainable Design Scorecard/STEPS.</td>
<td>Environmentally Sustainable Development Guidelines have been prepared by Arx Resources Pty. Ltd.</td>
</tr>
<tr>
<td></td>
<td>- How the orientation and layout of the development makes appropriate use of daylight and solar energy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Water sensitive urban design solutions for managing storm water discharge throughout the site including public areas and roads and consideration of the potential for diverting storm water to reuse off-site.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Incorporation of rain water tanks into the design to capture and store rain water for use in private gardens and public open space within the development.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Provision of energy efficient public lighting.</td>
<td></td>
</tr>
<tr>
<td>ADDITIONAL INFORMATION</td>
<td>A landscape concept master plan.</td>
<td>A Landscape Master Plan has been prepared by mtdg Landscape Architects.</td>
</tr>
<tr>
<td></td>
<td>An infrastructure servicing report prepared by a qualified consultant addressing the future servicing and infrastructure requirements for the development.</td>
<td>An Infrastructure and Servicing Assessment has been prepared by Mann Consulting Pty Ltd.</td>
</tr>
<tr>
<td></td>
<td>An acoustic assessment (prepared at the cost of the applicant/land owner) by a qualified acoustic engineer which provides a noise assessment of existing industrial/commercial uses immediately abutting the precinct and recommends appropriate noise attenuation measures for any proposed residential uses.</td>
<td>An Acoustic Report has been prepared by Marshall Day Acoustics (MDA).</td>
</tr>
<tr>
<td></td>
<td>Details of any proposed staging of the development.</td>
<td>An Indicative Staging Plan has been prepared by Rothe Lowman Architects.</td>
</tr>
<tr>
<td></td>
<td>Details on the proposed funding arrangements for the new north-south road.</td>
<td>Jack Road Investments Pty Ltd commit to constructing the North-South link road. Once constructed this road will be vested in Council.</td>
</tr>
</tbody>
</table>