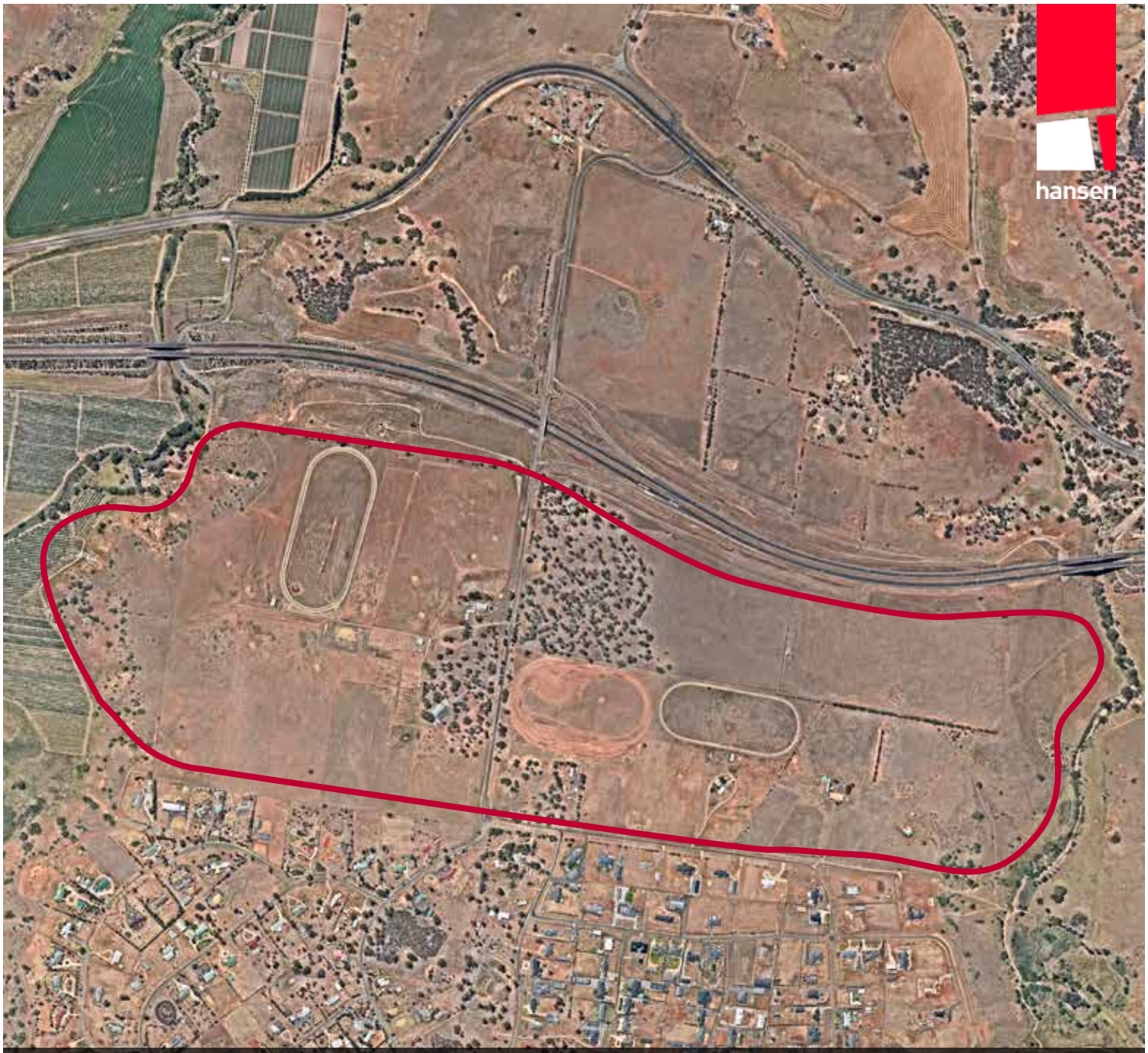

hansen

Neighbourhood Character Assessment | Hopetoun Park
Landscape & Visual Amenity | Hopetoun Park North
Design Guidelines | Hopetoun Park North

April 2020

urban planning | urban design | landscape architecture

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Appendices

Appendix 1 – Photos of Hopetoun Park neighbourhood character elements

Appendix 2 – Landscape & visual amenity mapping

1 Introduction

Hansen Partnership (Hansen) has been commissioned by Bacchus March Property Group to undertaken three components of work, including:

- A neighbourhood character assessment of the existing development within Hopetoun Park;
- A visual landscape analysis of Hopetoun Park North urban growth area; &
- High-level design guidelines for the Hopetoun Park North urban growth area.

The *first phase* of the project involved undertaking a high-level character assessment of the existing Low Density Residential Zone) (LDRZ) development of Hopetoun Park. The purpose of this phase was to identify character elements which could potentially be reflected within the future development of the Hopetoun Park North area.

The *second phase* of the project involved the completion of a visual landscape analysis of the Hopetoun Park North urban growth area, with a view to this work informing the appropriate design response for future urban development, with a particular focus on the eastern and western escarpments.

The *third phase* of the project involved building upon the first two phases and preparing high level design guidelines for Hopetoun Park North, with a view to informing and influencing the future rezoning and later development of the land.

1.1 Updated guidelines

A Neighbourhood Character Assessment for Hopetoun Park was completed in February, 2019 and included both the Landscape & Visual Amenity and Design Guidelines, in addition to an overarching report. The suite of reports and guidelines made a range of specific recommendations relating to: road treatment and design, future allotment size/s, building siting/setbacks and interface treatments.

We understand that these recommendations have been discussed at length with Council. However, Council officers have advised that they have different point of view on a number of matters relating to: road design; minimum building setbacks; and interface treatments. We further appreciated that Bacchus March Property Group has conducted extensive discussions and negotiations with Council on these matters throughout 2019, where an agreement has been reached with Council in relation to a number of these matters, including: increased minimum setbacks and revisions to select interface treatments. Furthermore it is understood that during initial consultation Council's engineering department advise that the use of swale drains was not supported, and these should be removed from the design guidelines.

The increases in setbacks which have been agreed with Council are reflected within this report. Hansen notes that such increases in setbacks can be supported, but in our professional view were not required or warranted for an urban/neighbourhood character perspective.

Likewise, in light of open swale drains not being supported, we have reviewed the proposed road profile width to make new recommendations regarding the minimum road width required where a curb and channel treatment is proposed.

1.2 Overview

Hopetoun Park North has been identified as a future residential growth area by the *Bacchus March Urban Growth Framework (BMUGF)*, prepared by the VPA. The BMUGF sets out a range of planning precinct principles for the future rezoning and development of the Hopetoun Park North, while further relevant commentary was also made by the Planning Panel for Amendment C81, which has sought to implement the broader findings and recommendations of the BMUGF. Amendment C81 was formally adopted into the Planning Scheme on 6 December, 2018.

Hansen have been commissioned to undertake preliminary investigations into the existing character of the established residential areas of Hopetoun Park, located immediately south of the Hopetoun Park North area, and to make initial high-level recommendations on potential design guidelines and treatments to ensure that the future residential development within Hopetoun Park North appropriately integrates within its immediate surrounds.

The purpose of this work is to also establish with a higher degree of certainly, the number of future allotments which can be accommodated within Hopetoun Park North, which a view to this assisting early discussions and negotiations with servicing authorities.

It is also anticipated that the high level finding and recommendations of this would be utilised in due course to inform the future rezoning of the land and the form and content of the likely Development Plan Overlay to be applied to the land as part of any rezoning.

1.3 Study Area

The study area involves all land between the Western Freeway to the north and Hopetoun Park Road to the south, and extending to the escarpment edges to the east and west. The Bacchus Marsh Urban Growth Framework October, 2017, specifically refers to the area as Hopetoun Park North. Refer to Figure 1 for the extent of the study area and its immediate surrounds.

Figure 1. Study Area

2 Relevant Background Information

Following below is a short summary of relevant background information, including existing planning controls (zoning and overlays etc), as well as relevant strategic planning documents and associated policy implementation processes.

2.1 Summary of Existing Planning Controls

Following below is a high-level summary of existing applicable planning controls within the Moorabool Planning Scheme.

2.1.1 Existing Zoning

The entirety of the subject land is within the Farming Zone (FZ). However this existing zoning of the land is deemed to be essentially redundant, as the findings and analysis of the Bacchus March Urban Growth Framework recommends the VPA UGF which recommended rezoning of the subject land for residential purposes. The study area abuts the existing Hopetoun Park subdivision to the south which is within the Low Density Residential Zone (LDRZ).

Refer to Figure 2 - Zoning Map of the study area and surrounds.

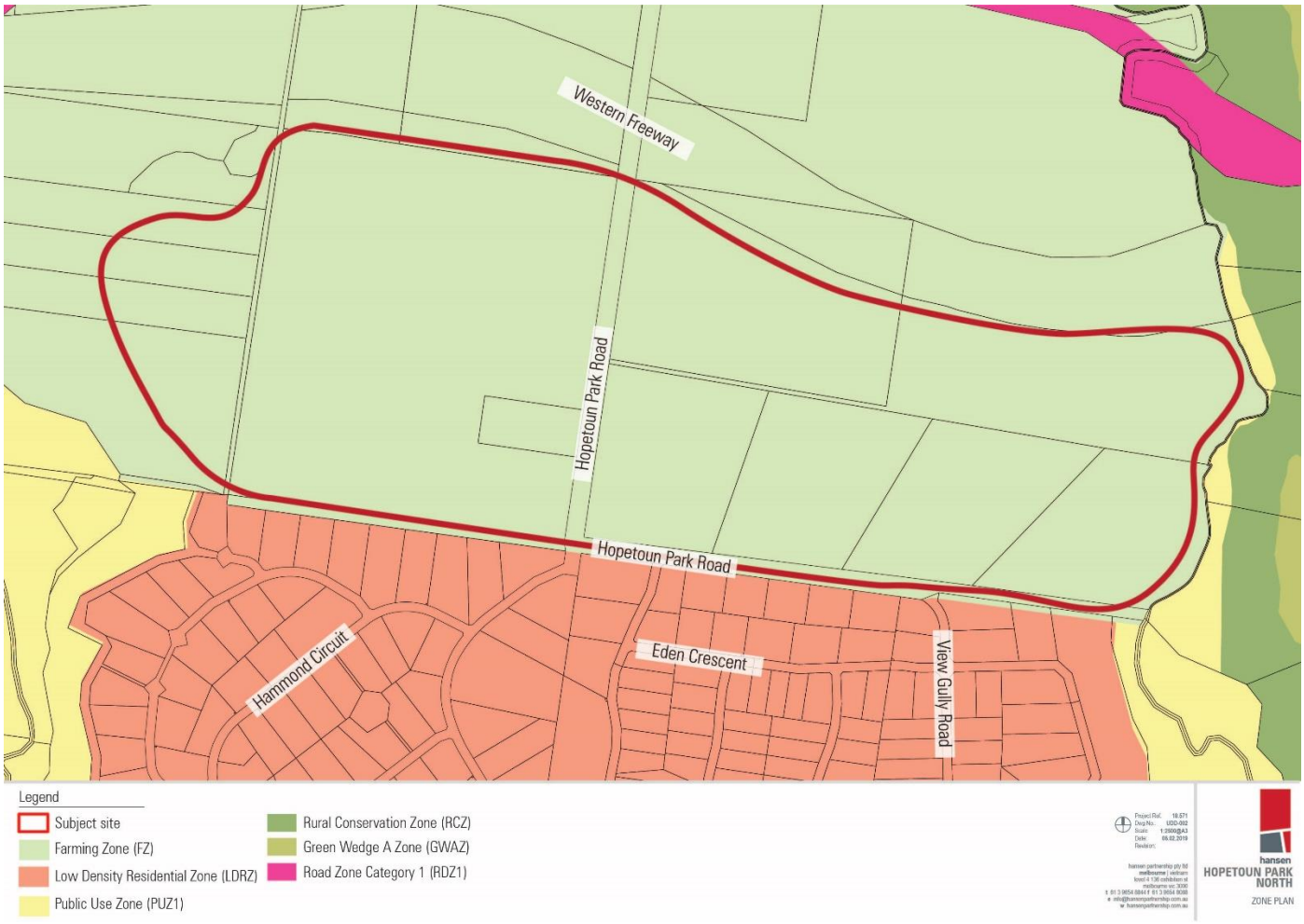

Figure 2. Zoning Map

2.1.2 Existing Overlays

A number of overlays currently apply to, or are within proximity of the subject land, including

- Design & Development Overlay – Schedule 2 (DDO2)
- Significant Landscape Overlay – Schedule 1 (SLO1)
- Environmental Sensitive Overlay – Schedule 3 (ESO3) – abuts the subject site to the north
- Environmental Sensitive Overlay – Schedule 8 (ESO8)

Refer to Figure 3 – Overlay Map of the study area and surrounds

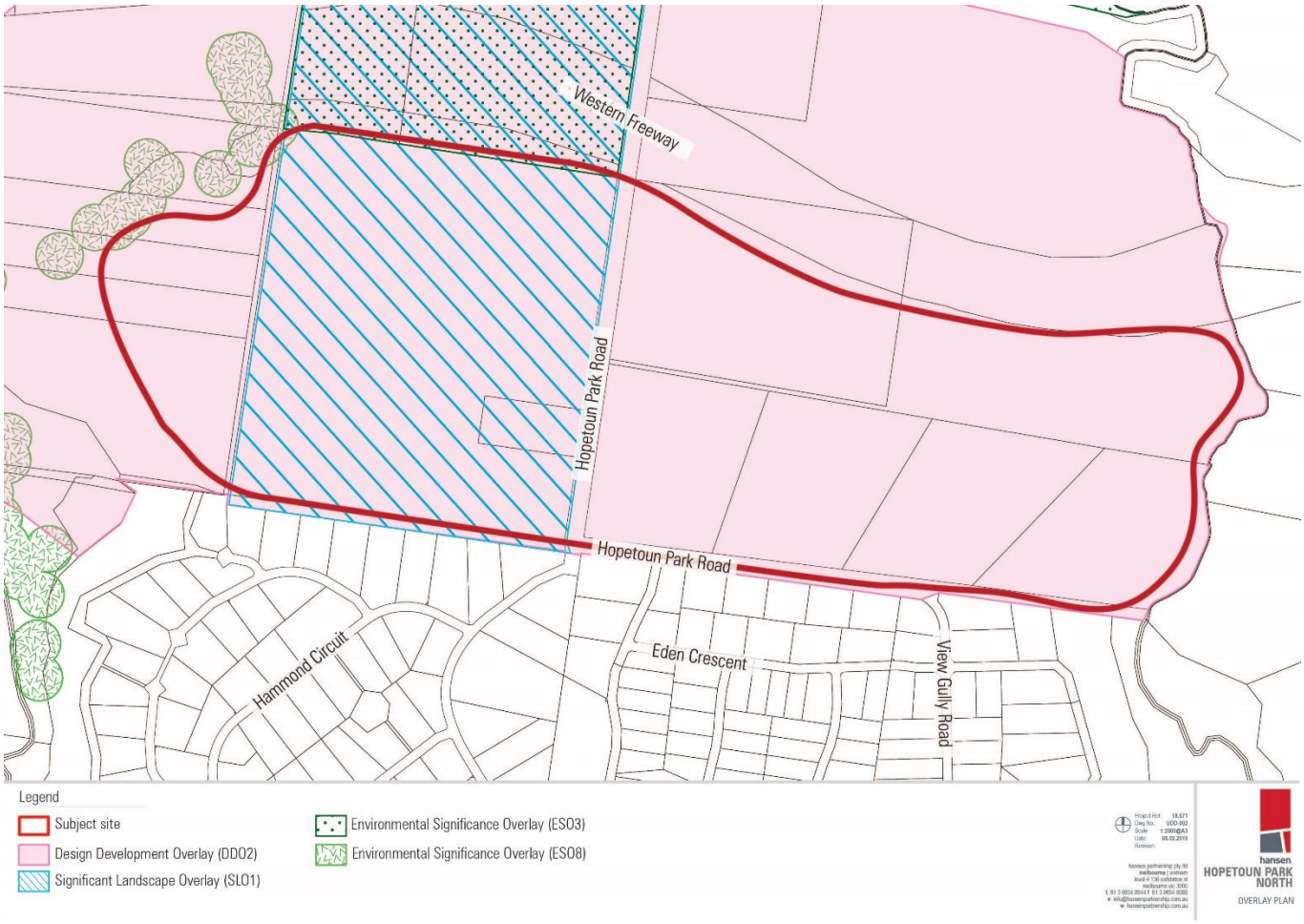

Figure 3. Overlay Map

Each are briefly summarised and analysis below.

2.1.2.1 Design & Development Overlay – Schedule 2 (DDO2)

The existing Design & Development Overlay – Schedule 2 (DDO2) applies to the entirety of Hopetoun Park North. As a planning overlay control, it is seeks to enhance visual amenity and ensure appropriate cladding is used.

While this overlay currently applies to the land, it is not known whether Council would seek to require it retention as part of any future rezoning. However, there is potential for key aspects of the overlay to be incorporated into a future Development Plan Overlay (DPO) or Design & Development Overlay (DDO) as part of any future rezoning process.

2.1.2.2 Significant Landscape Overlay – Schedule 1 (SLO1)

The Significant Landscape Overlay – Schedule 1 (SLO1) applies to approximately one third of the Hopetoun Park North area, and specifically west of Hopetoun Park Road. Schedule 1 relates to Scenic Hilltops and Ridge Line Areas, where the relevant statement highlights: *"The hilltops and ridge lines encircling the township of Bacchus Marsh provide significant scenic views and are a significant contributor to the valued rural town ambience".*

The intent of SLO1 has been broadly considered through this process, noting that specific visual landscape analysis has been undertaken. The ongoing application of the SLO1 to the land can be further considered as part of any future rezoning process.

2.1.2.3 Environmental Sensitive Overlay – Schedule 3 (ESO3)

The Environmental Sensitive Overlay – Schedule 3 (ESO3) applies to a small section of land to the south of the freeway alignment, where Schedule 3 relates to Long Forest and Werribee Gorge, and seeks to project environmental and scientific significance of vegetation.

It appears that this overlay was originally applied on a wider precinct basis and may be partly redundant due to alignment of Freeway. The intent of SLO3 has been broadly considered through this process, noting that specific visual landscape analysis has been undertaken. The ongoing application of the SLO3 to the land can be further considered as part of any future rezoning process.

2.1.2.4 Environmental Sensitive Overlay – Schedule 8 (ESO8)

The Environmental Sensitive Overlay – Schedule 8 (ESO8) applies to a few scattered patches of land to the west of the Hopetoun Park North area where Schedule 8 relates to River Red Gums in the Bacchus Marsh Valley. It is anticipated this overlay would be retained as part of any proposed future rezoning.

2.2 Summary of Relevant Strategic Documents

Following below is a high-level summary of relevant commentary contained in the BMUGF and the associated Planning Panel for Amendment C81. Particularly relevant sections are text are underlined.

2.2.1 Bacchus March Urban Growth Framework, October, 2017

- *'The UGF identifies four Strategic Outcome Areas to support the growth of Bacchus Marsh: Parwan Employment, Merrimu, Parwan Station and Hopetoun Park North. The latter three areas are expected to accommodate significant new residential development. Detailed planning will be required for each of the Strategic Outcome Areas (including the preparation of PSPs, or other planning projects as appropriate), which will determine the extent and form of future residential development in each, and include more specific population projections. However, preliminary growth estimates for the three Strategic Outcome Areas are:*
  - *Merrimu – between 13,400–20,000 people (4,800–7,200 households)*
  - *Parwan Station – between 9,000–13,000 people (3,200–4,700 households)*
  - *Hopetoun Park North – between 1,900–3,200 people (700–1,100 households)'* (page 47)

Following below are relevant comments quoted directly from the BMUGF (page 79-80):

> *Precinct description*
>
> *Hopetoun Park is an existing low-density residential community. The area to the north has potential for a greenfield expansion at more conventional (i.e. smaller) lot sizes than the existing lots to the south. This would create three to five years' land supply.*
>
> *Hopetoun Park is located at the eastern edge of the Bacchus Marsh District, in a relatively isolated area with limited local community facilities. Residential expansion can be leveraged to deliver new local-level community facilities. Future development applications will need to consider improving the existing road connection from Hopetoun Park to the arterial network.*
>
> *The development of the potential Hopetoun Park expansion area is primarily expected to deliver local level infrastructure and its timing is therefore not dependent on sequencing within the wider Bacchus Marsh District. When planned, early precinct development should deliver the local centre. Built form considerations during precinct planning will need to protect the green break between Melton and Bacchus Marsh that contributes to gateway views to the centre and wider Central Highlands region.*
>
> *Preconditions*
>
> *The following strategic work will need to be undertaken by Council and/or other agencies for the whole Bacchus Marsh district, prior to the authorisation of any future planning scheme amendment for Hopetoun Park North precinct:*
>
> - Integrated infrastructure delivery framework which addresses all higher order infrastructure needs and means of delivery, and includes integrated water management principles.
> - District Open Space Framework, to address key principles to ensure an integrated network of parks, open space and trails, protect escarpments, achieve biolinks, and integrate open space outcomes with waterway management.
> - Bacchus Marsh Irrigation District planning study: review zones, overlays, policy statements and buffers to inform a set of principles to protect and facilitate investment in the agricultural sector and address opportunities to facilitate value adding enterprises.

Precinct planning principles

- *Plan for a small town expansion integrated with the established neighbourhood that provides new local-level community infrastructure.*
- *Consider opportunities to improve road connectivity with the Western Freeway to and from the west, and with the Old Western Highway from Hopetoun Park Road.*
- *Identify and define the existing character of Hopetoun Park and establish principles for a preferred character.*
- *Ensure that development is set back from the top of the escarpment, to minimise impacts on landscape based on appropriate landscape sensitivity analysis as well as to limit interface issues with agricultural land use (i.e. to avoid land use conflict).*
- *Ensure protection and appropriate management of any significant habitat values.*
- *Identify new public open space networks (incorporating environmental values/features, biolinks and cycling/walking trail networks), and show how these integrate with existing/ proposed networks beyond the precinct.*
- *Respond to bushfire risk by undertaking a detailed assessment of bushfire risk, in Bushfire Prone Areas and Bushfire Management Overlay areas, in accordance with State Planning Policy Framework Clause 13.05.*
- *Provide for sustainable water management in accordance with an Integrated Water Management Plan.*
- *Undertake, as part of a land capability study, an assessment of land that has an interface with the Bacchus Marsh Irrigation District (BMID) to determine if there are any potential impacts on land within strategic outcome areas associated with the ongoing operations within the BMID, and likewise the impact of this future development on land within the BMID.*

Detailed planning considerations

- *Consider applying the Low Density Residential Zone to the periphery of the precinct, at the interface with the existing LDRZ and the surrounding rural landscape and freeway*
- *Consider applying the Neighbourhood Residential Zone to the inner core of the precinct, in order to support a small activity centre or community facilities.*
- *Ensure that development is set back from the top of the escarpment, to minimise landscape and environmental impacts.*
- *Investigate the extractive industry potential of the sand and gravel resources located within Extractive Industry Interest Area 884023 to the north of the Western Freeway, in consultation with the Resources Division of DEDJTR, and establish an appropriate non sensitive use buffer to protect the resources.*
- *Consider interfaces with environmental assets such as Djerriwarrh Creek and BMID, to protect and enhance biodiversity values and agricultural land uses, and to achieve attractive development for local residents.*

Define the eastern and western edges with the escarpment:

- *Provide a perimeter road along the top edge of the escarpment with pedestrian and cycling trails on the outer edge of the road cross-section.*
- *Establish building envelope limits to manage gateway views when arriving in Bacchus Marsh.*

Define the northern edge with the Western Freeway:

• Establish building envelope limits to manage views from the Western Freeway and Avenue of Honour.

2.2.2 Planning Panel Report: Amendment C81

Following below are relevant summary commentary made within the Planning Panel Report for Amendment C81, which sought to implement the broader findings and recommendations of the BMUGF. Of note Amendment C81 was formally adopted into the Planning Scheme on 6 December, 2018:

Section 3.3 Discussion

- *'The Panel considers that the UGF is a well-researched and appropriate document to provide a high level framework for growth in the Bacchus Marsh district. The Panel congratulates the VPA and Council on preparing a robust and comprehensive document that identifies a wide range of further issues to be addressed in a logical and co-ordinated plan for the area'* (page 19).
- *'The Panel accepts the submissions from Council that there is an adequate supply of residential land currently available and that the UGF will provide sufficient land in the long'* (page 19).
- *'The Panel is satisfied with the assurances from Council that the UGF provides sufficient flexibility in the timing of the future planning of the Bacchus Marsh district. As Council noted, however, this needs to be within the context of ensuring that the important district wide overarching strategic planning issues will be addressed'* (page 20).
- *The Panel supports the idea of landowners 'bringing forward' the timing of the precondition investigations subject to an appropriate funding arrangement with Council and any other relevant agencies. This approach provides reasonable flexibility for landowners'* (page 20).

Section 3.4 Conclusions

'The Panel concludes:

- *The post hearing version of the UGF is a comprehensive document that will assist in guiding the future strategic planning for the Bacchus Marsh district and the Panel supports its inclusion as a reference document in the planning scheme.*
- *The timing and sequencing of the actions in the UGF as per Council's post hearing version of the Document are appropriate and balances the need for comprehensive planning of the district with the expectations of landowners.*
- *The UGF has been appropriately translated into Council post hearing version the LPPF'* (page 20).

Section 8 Hopetoun Park North residential growth precinct

- *'The Hopetoun Park North residential growth precinct (Hopetoun Park North) attracted a wide range of submissions. Many existing residents in Hopetoun Park were concerned about the impact of future development on the character of the area. On the other hand, land owners in Hopetoun Park North were supportive of the UGF and one land owner wanted the growth precinct to extend even further'* (page 65).
- *'Council submitted that a mix of densities was appropriate in this area and suggested that the LDRZ was most likely to be applied to any interface boundaries with the existing Hopetoun Park development, Western Freeway and escarpments. It said the balance of the site was most likely to be within the NRZ. Council submitted:*

- *lots in Hopetoun Park to the south are typically 8,000 square metres.*
- *abrupt differences in density between existing and new areas should be avoided.*
- *densities should be lower than for other poorly serviced parts of Bacchus Marsh (lots larger than 700 square metres).*
- *there is a need for sufficient lot yield to ensure the provision of basic retail and community facilities.*
- *TfV does not support growth of this area at conventional or higher densities due to poor transport connectivity'* (page 68).

- *'Through the course of the Hearing, Council submitted an extensive update of the Hopetoun Park North 'precinct planning principles' in section 10.4.3 in the UGF. Modified or additional planning principles proposed by Council include:*
  - *Consider opportunities to improve road connectivity with the Western Freeway to and from the west, and with the Old Western Highway from Hopetoun Park Road.*
  - *Ensure that development is set back from the top of the escarpment, to minimise impacts on landscape based on appropriate landscape sensitivity analysis as well as to limit interface issues with agricultural land use (i.e. to avoid land use conflict).*
  - *Ensure protection and appropriate management of any significant habitat values.*
  - *Identify new public open space networks (incorporating environmental values/features, biolinks and cycling/walking trail networks), and show how these integrate with existing/proposed networks beyond the precinct.*
  - *Respond to bushfire risk by undertaking a detailed assessment of bushfire risk, in Bushfire Prone Areas and Bushfire Management Overlay areas, in accordance with State Planning Policy Framework Clause 13.05.*
  - *Provide for sustainable water management in accordance with an Integrated Water Management Plan.*
  - *Undertake, as part of a land capability study, an assessment of land that has an interface with the Bacchus Marsh Irrigation District (BMID) to determine if there are any potential impacts on land within strategic outcome areas associated with the ongoing operations within the BMID, and likewise the impact of this future development on land within the BMID'* (page 68 & 69).
- *'Council also proposed a number of new 'detailed planning considerations' in section 10.4.4 of the UGF:*
  - *Consider applying the Low Density Residential Zone to the periphery of the precinct, at the interface with the existing LDRZ and the surrounding rural landscape and freeway*
  - *Consider applying the Neighbourhood Residential Zone to the inner core of the precinct, in order to support a small activity centre or community facilities.*
  - *Ensure that development is set back from the top of the escarpment, to minimise landscape and environmental impacts'* (page 69).

Section 8.3 Discussion

- *'The Panel generally supports the Amendment with respect to the Hopetoun Park North growth precinct and acknowledges that the extensive revisions proposed by Council prior to and during the Hearing process has significantly improved the content of the UGF and the LPPF. These changes have clarified and enhanced the proposed provisions without transforming the Amendment and have been made in direct response to submissions'* (page 69).
- *'The Panel agrees with Mr McGurn that there is sound strategic justification for the extension of Hopetoun Park as proposed and that this is expected to result in a net community benefit through the provision of local community facilities to existing and future residents. The Panel believes that many of the concerns expressed by existing residents in Hopetoun Park can be managed through good planning and design of the future development area'* (page 70).
- *'The Panel notes that many of the submissions were concerned about the future zoning of the land. The Amendment does not rezone any land; this is a matter that will be dealt with at a later stage'* (page 70).
- *'The Panel agrees with BMPG and Mr McGurn that the detailed planning for the Hopetoun Park North area will help determine the appropriate planning controls for the area. The DPO has potential to play a significant role in the control of lot sizes and ensuring appropriate interface treatments. In this respect, the DPO may be of more importance than the zoning of the land. In any event, what is most important is getting the overall form of urban development right and then organising the specific planning controls to achieve that outcome'* (page 70).
- *'The Panel considers that the UGF and LPPF provide sufficient guidance and direction regarding the intent of development in Hopetoun Park North without being overly prescriptive about the precise future zones. The Panel appreciates the concerns expressed by BMPG, however it believes that the modifications to the UGF and LPPF proposed by Council should provide appropriate flexibility for the future zoning of Hopetoun Park North'* (page 70).

Section 8.4 Conclusions

- *'The Panel concludes:*
  - *The extension of Hopetoun Park as proposed in the Amendment is supported.*
  - *The future zoning of the Hopetoun Park North precinct should be determined following more detailed planning for the area, however it is appropriate to consider use of the LDRZ and NRZ.*
  - *A DPO is an appropriate tool to guide the future urban form of the area and will be able to address a range of lot size and interface issues'* (page 70 & 71).

2.2.3 Local Planning Policy Framework

The proposed modifications of Amendment C81 was formally adopted into the Planning Scheme on 6 December, 2018. Following below is a brief summary of the relevant clauses within the Local Planning Policy Framework.

2.2.3.1 Clause 21.03: Settlement & Housing

Following below is relevant content of Clause 21.03:

Local policy and exercise of discretion

- *Where relevant require a report to accompany planning applications that explains how the siting and design of the proposal has responded to objectives and strategies of this MSS, the topography, environmental constraints, and the landscape significance and character of the area.*
- *Ensure that new buildings and works are sited, designed and constructed to:*
  - *minimise the removal and disturbance of native vegetation;*
  - *avoid protruding above ridgelines, hill tops and tree canopies;*
  - *avoid construction on slopes greater than 20%;*
  - *minimise soil disturbance and levels of excavation and fill;*
  - *avoid the use of reflective building materials such as zincalume; and*
  - *use external colours, materials and finishes of subdued tones that blend with the surrounding landscape and vegetation.*
- *Prevent the construction of buildings that create an appearance of bulk, scale and size in visually prominent and significant landscape areas.*
- *Encourage the planting of indigenous native vegetation to assist in screening new development.*
- *Require the design and construction of all weather access roads and driveways that traverse slopes and minimise visual intrusion and soil erosion.*
- *Require applications for buildings and works to be accompanied by a report that explains how the proposal has been sited and designed to respond to the topography, landscape significance and character of the surrounding area and achieve the objectives and performance criteria of this policy*.

2.2.3.2 Clause 21.05: Development & Community Infrastructure

Following below is relevant content of Clause 21.05:

21.05-2 Objective—Open space and recreation

To provide high quality, equitable and integrated open space and recreation facilities.

Strategies

- *Provide and locate open space areas and recreation facilities in relation to other major land uses and ensure they are designed to be safe and easily maintained.*
- *Encourage co-location of community facilities and open space areas that maximise access, surveillance, and safety.*
- *Provide pedestrian links that connect with existing foot paths and integrate with the Tracks and Trails Master Plan.*
- *Encourage and facilitate functional open space networks connecting waterways, State parks/reserves and identified growth investigation areas at Parwan Station, Merrimu and Hopetoun Park North.*

'21.05-6 Further Strategic Work

- *Prepare an Open Space Framework for the Bacchus Marsh district, to identify opportunities to create more functional open space networks connecting waterways, State parks/ reserves and identified growth investigation areas at Parwan Station, Merrimu and Hopetoun Park North'.*

2.2.3.3 Clause 21.07: Bacchus Marsh

Following below is relevant content of Clause 21.07:

21.07-1 Key Issues and Influences

Bacchus Marsh is identified as a regional growth centre in Plan Melbourne as well as the Central Highlands Regional Growth Plan. In order to respond to metropolitan growth pressures and to meet the strategic goals set out in these plans, Bacchus Marsh will need to provide for more than 20,000 additional residents by 2041. Some of this growth will be accommodated within the existing urban area, while the balance will be accommodated within the adjoining growth precincts of Merrimu, Hopetoun Park and Parwan Station (as inter-connected, masterplanned urban components of the wider Bacchus Marsh valley).

The town is defined by the following character elements:

- *Topography defined by the Lerderderg State Park and sand mines to the north, the Merrimu and Hopetoun Park plateau.*

However opportunities for long-term growth outside of the existing settlement boundary require further investigation. Urban growth investigation areas are located at Merrimu, Parwan Station and Hopetoun Park, as shown on the Bacchus Marsh Urban Growth Framework Plan. Urban growth at Hopetoun Park will provide potential for a local activity centre which is a key missing element in the existing settlement. Ultimately, it is envisaged that Bacchus Marsh will comprise a multi-nodal settlement with a core area (Bacchus Marsh, Darley and Maddingley) together with new fully

integrated and functional high quality 'master-planned' precincts which provide for diversity of urban living choices.

21.07-2 Objective—Managing urban growth

- *To accommodate medium to long term residential growth within the investigation areas at Merrimu, Parwan Station and Hopetoun Park.*

Strategies

- *Provide for medium term residential growth within the investigation area at Hopetoun Park, subject to demonstrating how the precinct will facilitate improved connectivity with the Western Freeway, to and from the west along with an acceptable level of community facilities/amenities in accordance with Council's Community Infrastructure Framework.*
- *Require the provision of sound strategic justification for any urban growth precincts at Merrimu, Parwan Station, or Hopetoun Park, including detailed technical assessments such as environmental, cultural heritage, landscape, infrastructure, transport and economics.*
- *Require and implement precinct structure plans for any urban growth precincts at Merrimu and Parwan Station, and a development plan for any growth precinct at Hopetoun Park, and ensure that such plans provide for early delivery of appropriate community and social infrastructure, activity centres, schools, integrated transport, reticulated services and local job opportunities.*

21.07-7 Implementation

Zones and Overlays

Specific application of zones and overlays to achieve the strategic objectives includes:

- *Consider applying either the Low Density Residential Zone or the Neighbourhood Residential Zone to any urban growth precinct at Hopetoun Park.*
- *Apply the Development Plan Overlay to any urban growth precinct at Hopetoun Park.*

3 Hopetoun Park Character Assessment

The first phase of the project involved undertaking a high-level character assessment of the existing Low Density Residential Zone) (LDRZ) development of Hopetoun Park. The purpose of this phase was to identify character elements which could potentially be reflected within the future development of the Hopetoun Park North area.

The Character Assessment of Hopetoun Park involved a fieldtrip and photographic analysis of the existing developed area, which is located south of the east/west aligned Hopetoun Park Road and extending to the escarpment edges to the west, west and south.

The entirety of Hopetoun Park is noted to be within the Low Density Residential Zone (LDRZ). Although a Development Plan Overlay Schedule 2 (DPO2) applies to the land, this overlay functioned to require the preparation of a Development Plan which has since been prepared and endorsed, thereby influencing the development of the Hopetoun Park Estate.

3.1 Assessment of Character Elements

The individually identified character elements which combine to create the holistic character of the Hopetoun Park Estate are each described below, with photographic examples included in **Appendix 1**.

Character elements	Detailed Description
Topography	Gently sloping from the south to the north with a significant fall (between 1:2 and 1:5) to the western, southern and eastern edges of the precinct. Views are available across the valley to the west, south and east.
Road reserve	Road widths are 20m.
Road surface treatment	Roads are asphalt sealed with concrete edging in the order of 6-6.5m wide.
Road verge treatment	Road verge treatments are open grass swale drains (on both sides) with no footpaths. It appears to have scattered native trees (varying ages) throughout the precinct.
Road alignment	The road pattern displays a strong curvilinear alignment throughout the precinct. A number of cul-de-sac arrangements are noticeable at the edges.
Lot sizes	Lot size are between 4,000-13,000m^2 ▪ There is a pocket of smaller lots (4,000-7,000m^2) to the eastern side of the centre with significantly larger lots to the western side (due to vegetation constraints). ▪ The majority of the west is typified by lots between 6000-10,000m^2.

	▪ A consistent pattern of 6000-8000m^2 lots with wide frontages extend along the north-east of the precinct. ▪ Towards the edge of the escarpment to the south and east are around the 10,000-13,000m^2 range.
Building type	Buildings are from 1980+ era with more recent construction (2010+) to the north-east of the precinct. Generally constructed with brick, weatherboard and masonry/render finish and single storey in scale. There are some examples of double storey dwellings, particularly at the edges of the precinct to take advantage of views. Roofs are pitched with colourbond material. Garages are generally in line or behind the front wall of the dwelling. Dwellings often have a shed(s) to the rear.
Building siting	Dwellings are regularly sited to the street with examples sited away from the street towards the escarpment. The front setback varies but as an average is between 20m-30m throughout the precinct. Notably, the portion of the site to the west has greater setbacks (average 40m) when compared to the east (average 22m). Setbacks generally match the setbacks within the street, including side street setbacks of corner sites. Front setbacks are generally proportionate the size of the lots. The side setbacks are considerably varied with the central pocket of smaller lots between 4-6m, and the western portion around 15-25m. The remainder of the precinct generally has side setbacks around 10-15m. Majority of dwellings are orientated with a horizontal position to the street.
Front fence treatment	Consistently open front boundary treatment with either no fencing, open post/wire, railing fencing, or demarcated with landscape beds.
Side rear fence treatment	A consistent post & wire fence for side boundaries.
Landscaping private realm	Some instances of establishing front and side boundary tree plantings, otherwise generally open landscaping with low level shrubs and scattered trees. There is a general absence of trees to the north-east of the precinct.
Public open space	There is public open space and parklands are located at the edges of the escarpment and to the centre of the precinct.
Any noted anomalies	No major anomalies noted.

3.2 Identification of Key Character Elements

Following a review of the individually identified key character outlined in the section above, it is noted that some character elements can be identified as being of greater importance to overall character. These key character elements could then be applied to the future development of the Hopetoun Park North area, thereby being able to achieve a degree of consistency in neighbourhood character with the existing Hopetoun Park Estate.

The character elements of Hopetoun Park which can be considered key character elements include:

- Road reserve: overall width in the order of 20m.
- Road surface treatment: surface width the order of 6-6.5m, including asphalt surface and concrete edging.
- Road verge treatment: open grass swale drains, with inconsistent street tree planting (the lack of any pedestrian pathway or footpaths is a noted character element, but not one encouraged to be replicated).
- Road alignment: meandering road alignment which avoids a 'suburban grid' format. To a section of the eastern escarpment, the road is aligned at the edge of the public open space, thereby allowing long range views from the public realm at the top of the escarpment.
- Building Type: buildings are mostly single storey in scale with pitched roofs.
- Building siting: buildings are sited with reasonable setbacks to all external boundaries.
- Front fence treatment: fencing is characterised by being predominantly open and transparent with either no fencing, open post/wire or railing fencing, or demarcated with landscape beds.
- Landscaping private realm: landscaping is varied throughout in type and style, but predominantly involves spare tree and shrub planting.
- Public open space: open space reserves are located along the edges of the external escarpments and to the centre.

It is considered that the above key character elements contribute the greatest to the overall character of the existing Hopetoun Park Estate, and should be appropriately translated in 'design guidelines' to inform the design, layout and type of development to be facilitated in future in the Hopetoun Park North area.

The development of design guidelines for the Hopetoun Park North area are addressed in detail in the following Sections 4, 5 & 6.

4 Landscape & visual amenity

An assessment of landscape and visual amenity has been undertaken to better interpret the relevant planning objectives and ensure that future development responds appropriately to its landscape and visual context and does not result in adverse visual impacts on the locality.

4.1 Site context

4.1.1 Topography

The study area comprises three quite distinctive topographical conditions, described as follows:

- Relatively level ground across the majority of the study area, consistent with the Volcanic Plain landscape within which it is located. The highest point of the study area is located in the north near the intersection of Hopetoun Park Road with the Western Freeway. The landform falls very gently in both a south-westerly and south-easterly direction from this local high point, with typical gradients in the order of 1 in 100;
- Very steep escarpments at the eastern and western ends of the study area, associated with the deeply-incised waterways of Djerriwarrh Creek and Pyrites Creek, which whilst not within the study area, essentially define its eastern and western extents. Typical gradients of these escarpments are between 1 in 2 and 1 in 5, with the overall level change from top of escarpment to creek valley floor being up to 50m, and
- Artificially-created 'cuttings' associated with the Western Freeway. Whilst not within the study area, the Western Freeway corridor abuts its northern boundary and is an important viewpoint given its significance a major road with relatively high traffic volumes. The freeway cuttings are not continuous along the interface with the study area, which results in differing levels of visual exposure along the extent of the study area's northern interface.

4.1.2 Vegetation

Existing significant vegetation within the study area is limited to a contiguous stand of remnant indigenous trees – consistent with a '*Plains Woodland*' vegetation community – in the central part of the study area generally within the vicinity of Hopetoun Park Road. The trees provide an attractive open woodland setting in the context of the northern 'entry' to the study area via the Western Freeway off-ramp. The trees appear to be in relatively good condition, however there appears to be little if any intact indigenous understory species and the land has been heavily grazed for many years.

The eastern and western escarpments are noted to be heavily weed-infested, while windrow planting of native (primarily Eucalypt) species is evident along a number of fence-lines in the eastern part of the study area.

4.1.3 Built form

The study area itself is largely undeveloped, with a small number of existing dwellings on large rural allotments, along with associated outbuildings, sheds and other farming-related infrastructure.

Land to the south of the study area is developed as the existing Hopetoun Park settlement, and comprises a very low density 'suburban' built form character, with mostly single-storey dwellings on very large residential allotments (4,000 to 13,000m^2).

Land to the east, west and north of the study area is undeveloped agricultural land. The valley floor to the west (across Pyrite Creek) comprises orchards, whereas land to the north (across the Western Freeway) and to the east (across Djerriwarrh Creek) comprises a pastoral landscape.

4.1.4 Landscape character

The study area is located within the broad landscape character typology of the Victorian Volcanic Plain, which extends from the western edge of Metropolitan Melbourne almost to the South Australian border. This ubiquitous landscape is described within the State Government's *South West Victoria Landscape Assessment Study – Regional Overview Report* (2013) as follows:

> *"Volcanic activity has shaped much of South West Victoria's landscape. This extensive Character Type is formed by a flat to undulating basaltic plain scattered with volcanic features including stony rises, old lava flows, numerous volcanic cones and old eruption points which together create a unique visual landscape". (p.24)*

4.2 Planning scheme context

A detailed description of relevant Planning Controls and related Strategic Documents is provided in Section 2 of this report. The following are considered to be of particular relevance to a consideration of the visual landscape analysis:

- *Significant Landscape Overlay* (*SLO1*), which includes the following statement of nature and key elements of landscape:

  The hilltops and ridge lines encircling the township of Bacchus Marsh provide significant scenic views and are a significant contributor to the valued rural town ambience.

The landscape character objectives of SLO1 are:

- *To protect the natural scenic qualities of the hilltops and ridge line areas.*
- *To minimise the visual impact of development.*

- *Bacchus Marsh Urban Growth Framework*, which describes the development potential of the study area and observes that:

  Built form considerations during precinct planning will need to protect the green break between Melton and Bacchus Marsh that contributes to gateway views to the centre and wider Central Highlands region.

4.3 Visual sensitivity

4.3.1 Viewshed assessment

In order to determine appropriate planning and design parameters for future development of land within the study area relative to considerations of visual amenity, it is important to analyse and describe the relative visual sensitivity of the landscape.

The manner in which this is done involves a process of viewshed assessment, whereby the extent of land potentially visible from pre-determined vantage points is measured using 3D computer modelling software.

4.3.1.1 Viewshed definition

A viewshed is defined as the surface area visible from a given viewpoint or series of viewpoints. It is also the area from which that viewpoint or series of viewpoints may be seen. This is referred to as the 'intervisibility' relation. The visibility between two points depends upon the presence of obstacles, such as hills, trees and buildings along the path of the visual ray that connects the two points. Such obstacles may obstruct or reduce the reciprocal vision of the same two points. The approach is to identify this broader extent as a basis for ground proofing the results through fieldwork.

It is important to emphasise that the viewshed analysis will typically yield a much broader extent of visual exposure as the study is based on topography only and does not take into consideration the restrictive impact on visual exposure resulting from the presence of built form and existing vegetation.

4.3.1.2 Viewshed methodology

The following describes the methodology used to develop the 'Viewshed Assessment' mapping. It is important to emphasise that the viewshed assessment process undertaken is a 'virtual' exercise, which utilises only topographical data to generate viewshed assessment mapping. It does not take into account 'real world' obstacles such as buildings and vegetation, which obstruct or reduce views. In this regard, it presents what can be described as a 'worst case scenario', as the presence of existing buildings and vegetation almost always results in a 'real' viewshed being less extensive than a virtual viewshed, for any given point.

Viewshed assessment mapping involves the use of computer software packages to translate topographical data (i.e. contour lines) into a 3-dimensional digital terrain model.

Following development of the terrain model, virtual points were identified at 200m intervals along the Western Freeway, from which a viewshed projection was generated for each point, which provides an illustrative description of the extent of the viewshed from each point, with potentially visible terrain shown coloured, and non-visible areas shown white. The individual viewed projections from each point were subsequently overlaid to provide a cumulative representation of the potential visual exposure of the study area. This is illustrated on Figure 4 over the page (Drawing LVIA-001 is also provided in Appendix 2).

This mapping is a digitally-produced graphic representation of areas on and surrounding the subject site from which the study area will potentially be visible. The viewshed modelling confirms that the eastern and western escarpments within the study area have the highest level of visual exposure, and are hence the most visible parts of the study area relative to the Western Freeway.

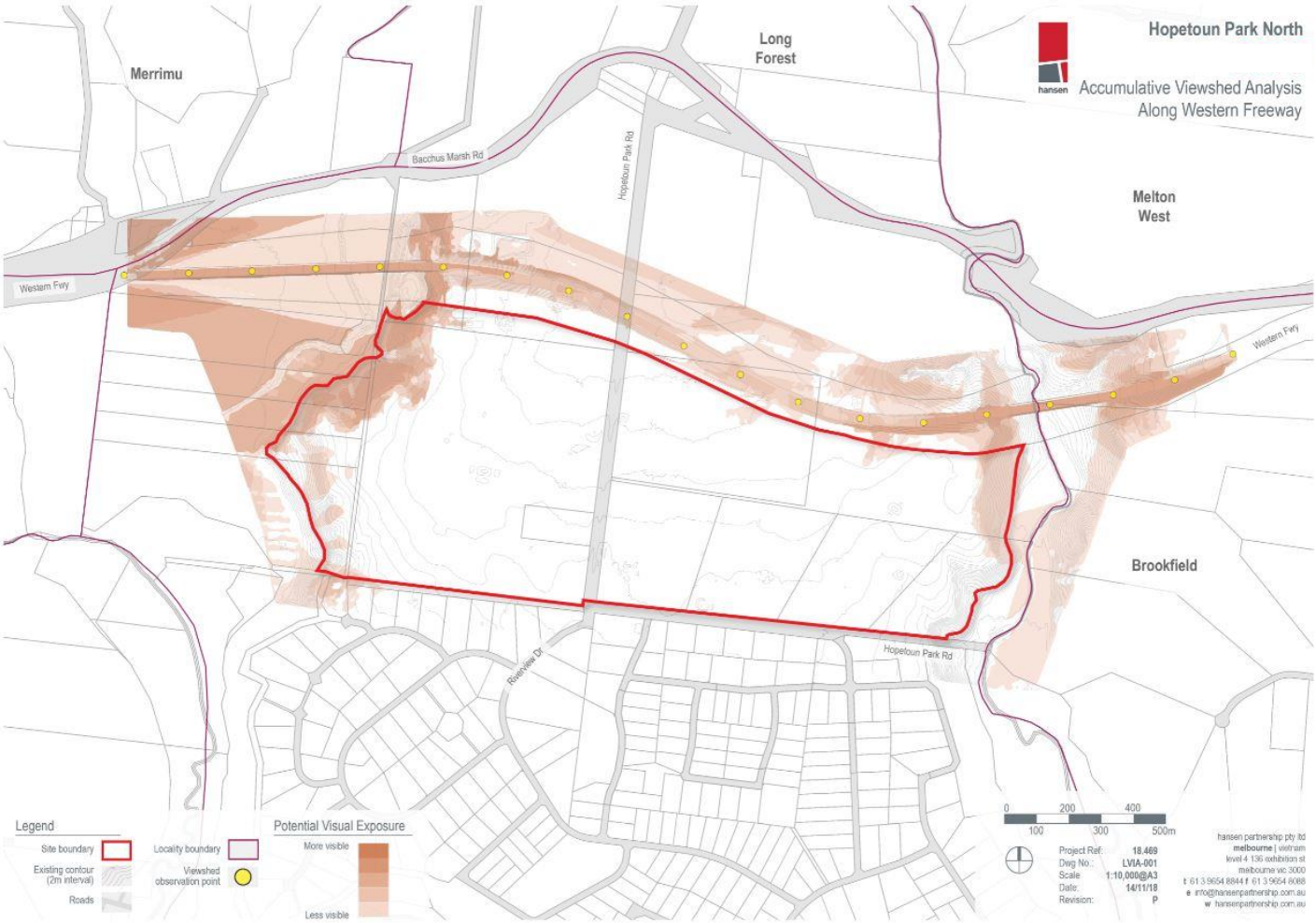

Figure 4. Viewshed Analysis

4.3.2 Design parameters for future development

Utilising the 3D digital terrain model and the virtual viewpoints contained within it, a series of virtual views were generated and used as the basis to test the relative visibility of potential future built form envelopes.

The generated virtual views have analysed the visual impact of a single storey dwelling (5m ridge height), as well as a double storey dwelling (7.5m ridge height). Due to the long-range nature of these views, tested building heights have been illustrated as an overall horizontal line. However, this visual representation does not take into account pitches roof forms, or the space and separation between dwellings, which would further reduce the visibility of buildings.

Likewise, the virtual views illustrate there is a negligible difference in visual impact between built form of buildings of either 5m or 7.5m in height, when viewed in isolation, and that both scales of buildings would be fully screened by canopy vegetation to be established over time. Furthermore, it is highlighted that due to the larger allotment sizes to be provided within Hopetoun Park North, that it is more likely for single storey dwellings to be developed, due to larger areas of available land and cheaper construction costs for single storey buildings.

In building upon the visual analysis, and through a process of further testing and review, a suite of design parameters were determined to be appropriate, as a way to ensure development can occur in a manner which is consistent with relevant planning considerations. Those design parameters are summarised as follows, and reflected in Section 5 of this report.

4.3.2.1 Eastern and western escarpment interfaces

The following design requirements are recommended to be applied to the eastern and western escarpment interfaces:

- 10m (typical) width linear open space corridor along the top of the escarpment, with 2.5m shared path and planting of indigenous trees/ understorey planting;
- 17.3m width road reserve, with curb and channel treatment, footpath along dwelling frontage, and indigenous street tree planting to both sides, and
- 10m front setback (front garden) to residential allotments (of typically 1,500m^2 area).

In this regard, built form will be set back a minimum of 40m from the top of the escarpment. This configuration is illustrated in Figures 5 & 6 below (Section C-C and Section D-D also shown on drawing VIA-43 provided in **Appendix 2).** This provide a diagrammatic representation of views from points along the Western Freeway and a series of typical cross-sections.

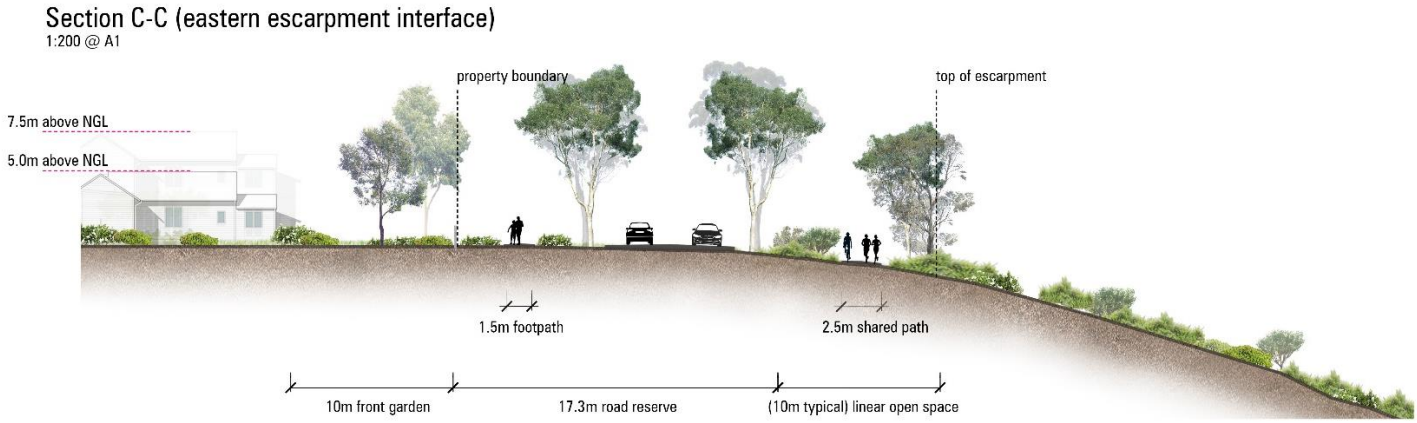

Figure 5. Recommended design requirements for eastern escarpment interfaces

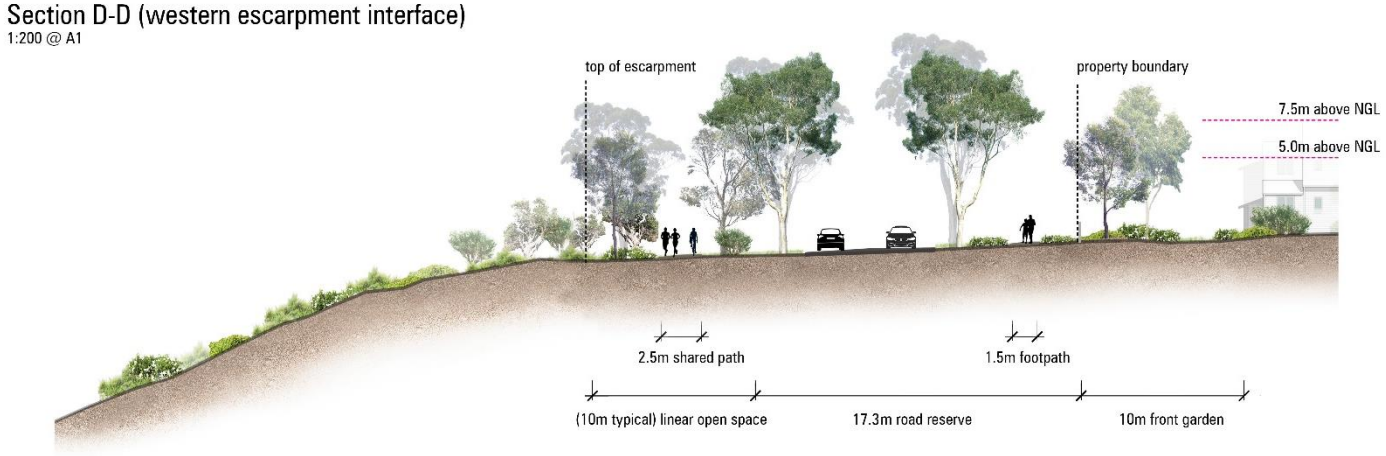

Figure 6. Recommended design requirements for western escarpment interfaces

4.3.2.2 Northern interface (Western Freeway)

Two alternate configurations are proposed for the Western Freeway interface, reflecting the two conditions; firstly where the freeway is located within a cutting and secondly where the freeway is at grade and at a similar level to adjacent land within the study area.

Western Freeway interface (road in cutting)

The following interface treatment has been devised from visibility and visual amenity analysis, as well as achieving acoustic compliance:

- 10m rear garden setback to residential allotments (of typically 800m^2 area) and
- Typical residential fencing to rear boundary.

This configuration is illustrated in Figures 7 below (Section A-A also shown on drawing VIA-42 provided in Appendix 2). This provide a diagrammatic representation of a typical cross-section.

Figure 7. Recommended design requirements for western freeway interface (road in cutting)

Western Freeway interface (road at or near study area level)

The following interface treatment has been devised from visibility and visual amenity analysis, as well as achieving acoustic compliance:

- 1m high (6m wide) earth bund within road reserve to be planted with indigenous trees and understorey planting;
- Acoustic fence with minimum height of 500mm (Subject to Arup advice), and
- 20m rear garden setback to residential allotments (of typically 1,500m^2 area).

This configuration is illustrated in Figures 8 below (Section B-B also shown on drawing VIA-42 provided in **Appendix 2**). This provide a diagrammatic representation of a typical cross-section.

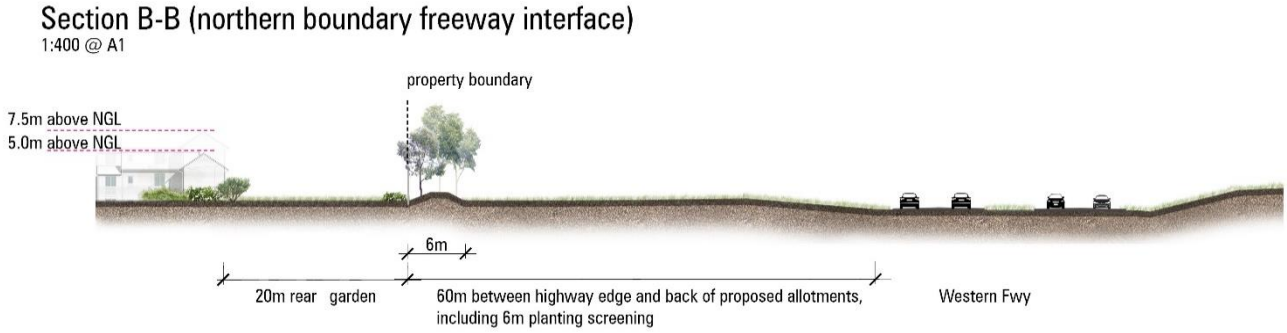

Figure 8. Revised 2020 design requirements for western freeway interface (road at or near study area level)

5 Scenario testing

Apart from how the key character elements can potentially be applied to the Hopetoun Park North Area though appropriate design guidelines, this needs to be considered in associated with potential future allotment sizes.

5.1 Guiding commentary

A summary of critically influential commentary from early strategic planning processes includes:

Bacchus March Urban Growth Framework, October, 2017)

- Hopetoun Park North is anticipated to accommodate between 1,900–3,200 people (700–1,100 households)'.
- Identify and define the existing character of Hopetoun Park and establish principles for a preferred character.
- Ensure that development is set back from the top of the escarpment, to minimise impacts on landscape based on appropriate landscape sensitivity analysis…
- Consider applying the Low Density Residential Zone to the periphery of the precinct, at the interface with the existing LDRZ and the surrounding rural landscape and freeway.
- Consider applying the Neighbourhood Residential Zone to the inner core of the precinct, in order to support a small activity centre or community facilities.
- Ensure that development is set back from the top of the escarpment, to minimise landscape and environmental impacts.
- Define the eastern and western edges with the escarpment:
    - Provide a perimeter road along the top edge of the escarpment with pedestrian and cycling trails on the outer edge of the road cross-section.
    - Establish building envelope limits to manage gateway views when arriving in Bacchus Marsh.
- Define the northern edge with the Western Freeway:
    - Establish building envelope limits to manage views from the Western Freeway and Avenue of Honour.

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- Abrupt differences in density between existing and new areas should be avoided.
- Densities should be lower than for other poorly serviced parts of Bacchus Marsh (lots larger than 700m^2).
- There is a need for sufficient lot yield to ensure the provision of basic retail and community facilities.

Planning Panel conclusions on Amendment C81

- The future zoning of the Hopetoun Park North precinct should be determined following more detailed planning for the area, however it is appropriate to consider use of the LDRZ and NRZ.
- A DPO is an appropriate tool to guide the future urban form of the area and will be able to address a range of lot size and interface issues.

In considering the above guiding commentary, some brief analysis of potential zones is provided.

5.2 Subdivision Layout & Design

Following the earlier analysis of the existing character of the Hopetoun Park Estate, a range of recommendations were made regarding subdivision layout and design. A key element in seeking to tie in with the existing character of development of Hopetoun Park South was proposing a minimum carriageway width of 20m and the use of the open grass swale drains throughout future development in Hopetoun Park North. However, following ongoing discussions between Council and the client group, Council have advised that they will only accept the use of open swale drains along the eastern and western escarpments.

This advice has necessitated a 'rethink' of the subdivision layout and design recommendations, and particularly what should be the minimum road profile for streets which do not propose open swales as a character feature element.

On behalf of the client group traffic consultants Canrdo have prepared a traffic and transport assessment for the proposed subdivision of Hopetoun Park North. Their report of March, 2020 made the following recommendation:

> *The road network for the subdivision is recommended to comprise of Access Streets and a Connector Road. The indicative road hierarchy proposed road cross sections are shown in Table 4-1. The internal access street for the residential subdivision is recommended to be designed generally in accordance with the requirements Clause 56 of the Moorabool Planning Scheme and/or the Infrastructure Design Manual. The site will provide a number of connections for pedestrians and cyclists, additional to the road connections.*

Table 4-1 Internal Road Network Street Types

Type	Road Reserve	Indicative Capacity	Carriageway	Cyclists / Pedestrians
Level 2 Access Street (Adjacent Open Space)	13.5m	2,000-3,000 vpd	7.3m	1 x 1.5m wide footpath within road reserve 1 x 1.5m wide footpath within open space
Level 2 Access Street	16.0m	2,000-3,000 vpd	7.3m	2 x 1.5m wide footpath
Level 1 Connector Street	20.0m-24.0m	3,000 vpd-7,000vpd	3.5m lane in each direction plus parking lane	1 x 2.5m wide shared path 1 x 1.5m footpath

We note that the above recommendations relates to the minimum standards and requirements relating to the appropriate management of future traffic volumes. Accordingly we have adopted these minimum standards as part of our work.

However following below, we have made a separate urban design assessment of what should be the minimum road reserve widths to achieve an appropriate residential character outcome for the future development of Hopetoun Park North.

The 2019 Design Guidelines recommended a minimum road carriageway width of 20m which includes 3m to each side of the roadway to accommodate the open swales (i.e. a total of 6m). It was further recommended that local access streets have a footpath to one side, and a footpath to both sides for connector streets.

In noting Council's advice that they would not accept swale drains, the minimum road carriageway width has been considered. Our design consideration has still embraced the principle of ensuring the future subdivision of Hopetoun Park North can provide open and spacious streetscapes, with ample space for the planting of canopy trees within naturestrips.

Based on this broader design principle and considered alongside the generous minimum allotment sizes, and generous minimum front and side setback, it is recommend that the following road design elements are adopted as part of the future subdivision layout and design of the Hopetoun Park North Area:

Road reserves:

- 17.3m width for Level 2 Access Streets (7.3m carriageway + 5m nature strip to either side)
- 21.6m width for Level 1 Connector Streets (11.6m carriageway + 5m nature strip to either side)

Road surface treatment:

- Minimum carriageway surface width of 7.3m for Level 2 Access Streets, including asphalt surface.
- Minimum carriageway surface width of 11.6m for Level 1 Connector Street, including asphalt surface (3.5m in each direction +2.3m for parking bay either side).

Road alignment:

- Locate public road to edges of escarpments to the east and west.

Road verge treatment:

- Curb and channel to new streets.
- Nature strips of 5m to either side of the roadways to accommodate canopy planting.
- Pedestrian footpath to one side for access streets and both sides for collector roads.

10m (typical) width linear open space corridor along the top of the escarpment, with 2.5m shared path and planting of indigenous trees/ understorey planting.

It is highlighted that the recommended total carriageway widths for access and connectors streets substantially exceeds the minimum carriage widths and dimensions outlined in Clause 56.06. Such increases to minimum carriageway widths when coupled with increases in minimum allotment sizes and front and side setbacks, will allow the future development of the Hopetoun Park North Area to create an open and spacious streetscape character which will function to create a more low density outcome than a typical urban subdivision. This accordingly will allow the future subdivision of Hopetoun Park North to appropriately integrate with existing development to the south.

In noting that the above broad level design guidelines will set the wider format and layout of development, it is important for an analysis of lot sizes to be undertaken to determine design guidelines to address such matters as:

- Minimum allotment size and dimension
- Building siting and setbacks
- Fencing treatments
- Landscaping (buffers and private realm)

Each of these elements are analysed within the following sections, including conclusions and recommendations.

Figures 9 & 10 below illustrates the future street layout recommendations. These diagrams are also replicated in Section 6 Design Guidelines.

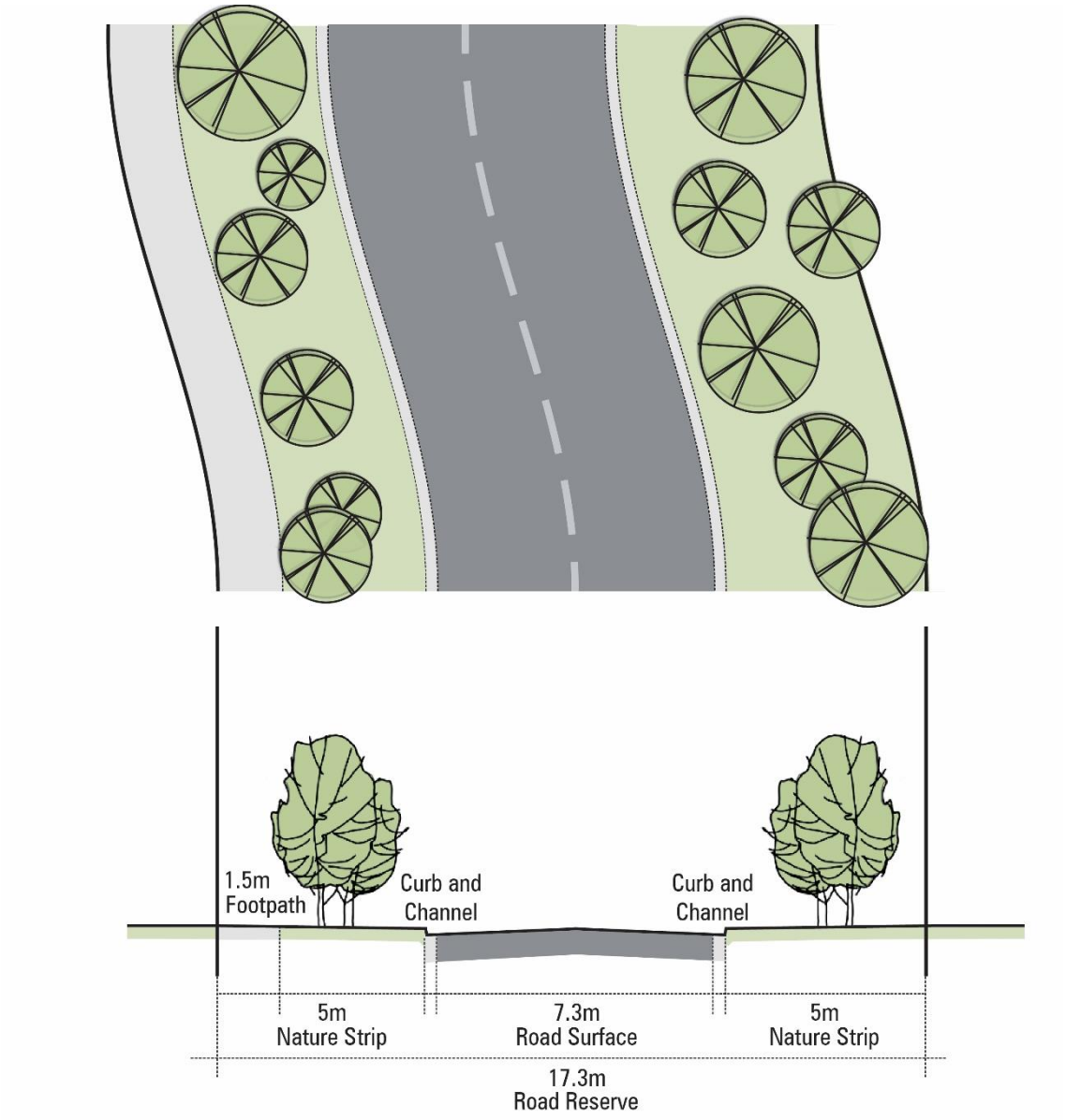

Figure 9. Street Layout Plan: Level 2 Access Street

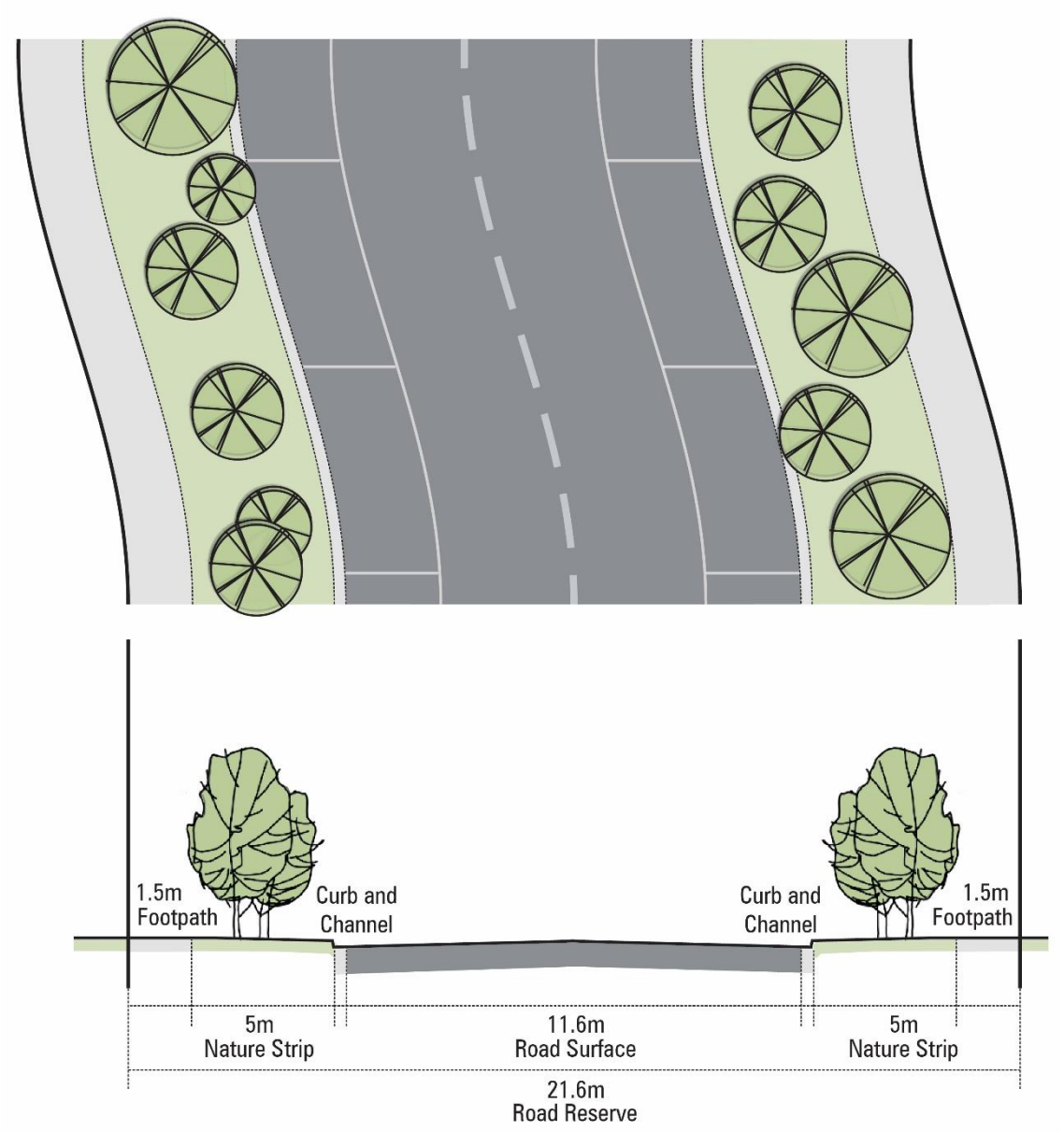

Figure 10. Street Layout Plan: Level 1 Connector Street

5.3 Analysis Building Siting & Lot Size

Following below is an analysis of minimum lot sizes and building siting requirements for both interface allotments and typical allotments within the Hopetoun Park North.

5.3.1 Interface Allotments

The interface allotments have been nominated through fieldwork investigations and desktop analysis in line with the issues raised within the Bacchus March Urban Growth Framework, October 2017. There are two interface types that can be identified with different development outcomes:

- Escarpment Interfaces (eastern and western edges of the escarpment);
- Southern Interface (southern boundary of the precinct); and
- North Eastern Freeway Interface (north eastern boundary of the precinct)

Envelope testing for escarpment & southern interfaces

In undertaking testing for interface allotments at the escarpment and southern interfaces, the standard large dwelling footprint of 15m x 24m was utilised, but with the building envelope sited horizontal to the street, which reflect this strong siting characteristic from Hopetoun Park. In noting the larger sizes for interface allotment sizes the following setback ranges were tested:

- Front setback – a range of 7m-28m
- Side setback – a range of 1m-3m (minimum 3m to one side boundary)
- Rear setback – a range of 18m-44m

The 'testing' conducted on these parameters to determine more specific siting controls. The outcomes for each interface is outlined in the following sections.

Escarpment interfaces

Design guidance for the escarpment interfaces has been nominated to specifically define the eastern and western edges within the escarpment. In broad terms, the setbacks will need to consider the impacts on landscape and manage views when arriving in Bacchus Marsh and from the Western Freeway and Avenue of Honour.

The design guidance for the escarpment interfaces is based on lot sizes between 1,500m^2-2,000m^2, which has been broadly guided by the Bacchus March Urban Growth Framework, August 2018, as well as siting testing.

The siting 'testing' has then been based on a large standard building envelope containing a rectangle measuring 15m by 24m, but with the building envelope sited horizontal to the street, which reflect this strong siting characteristic from Hopetoun Park.

The siting testing was able to establish a recommendation for a minimum front setback of 10m and a rear setback of 15m, which would results in a built form that fits within the context of the surrounding area.

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Despite the above conclusions and recommendations, it is acknowledged that the client group has negotiated some in principle agreements with Council around minimum side setbacks which are in excess of those recommended. This increase in side setbacks was negotiated in combination with an allowable reduction in rear setback from 15m to 10m.

Following our review of these revised setbacks, we have formed a view that it would still result in a built form that fits within the context of the surrounding area. The siting controls which have been negotiated with Council for escarpment allotments lots of 1,5000m^2 or above are summarised in the following table.

1,500m²-2,000m² allotments – escarpment interfaces		
	ResCode	Escarpment Interfaces
Front setback	Standard B6 (6m minimum where no adjoining buildings)	Standard B6 or 10m, whichever is greater
Side setback	0 or 1m	Minimum setback of 5m to one side boundary and 3m to the other side boundary
Rear setback	0 or 1m	Minimum 10m for dwellings

Figure 11 below illustrates the above siting recommendations which can be achieved on a 1,500m^2 escarpment allotment. This diagram is also replicated with additional detail in Section 6 Design Guidelines.

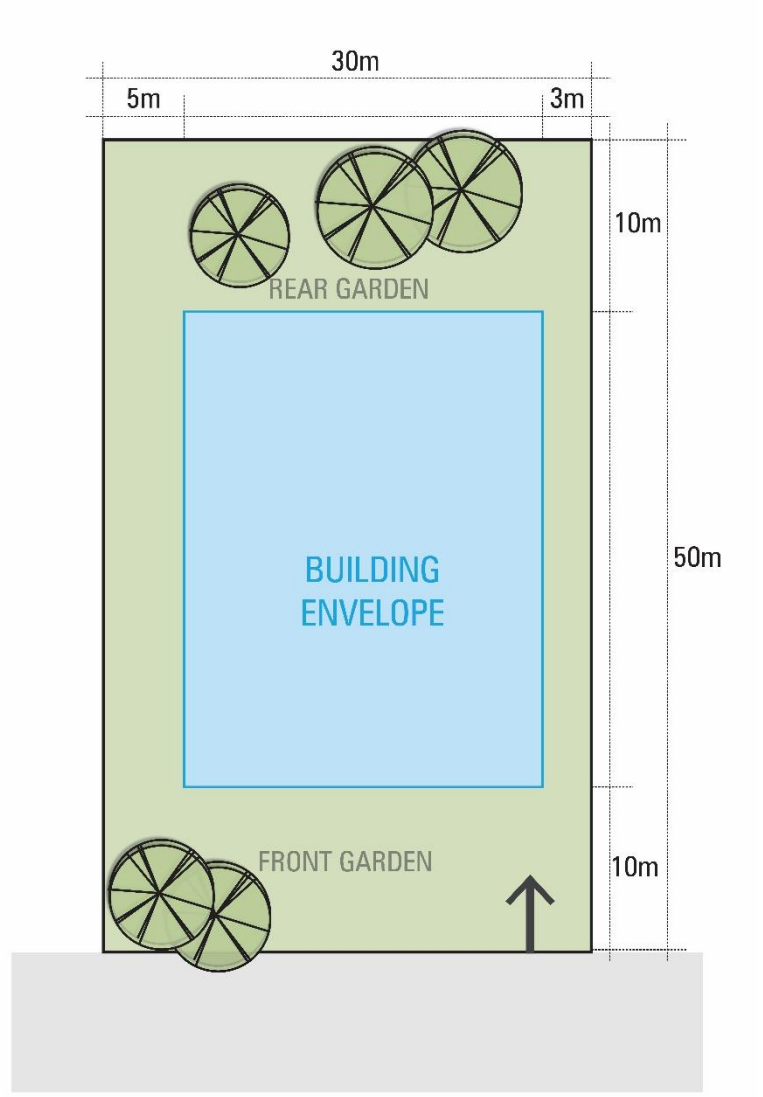

Figure 11. Escarpment interface 1,500m^2 allotment with recommended siting controls

Southern Interface

The southern interface has been nominated to provide design guidance to deal with the shift in lot sizes from existing development in Hopetoun Park. The conducted analysis has devised some specific siting controls to effectively deal with the treatment of the differing interfaces found to the south-east and south-west. The siting controls (i.e. setbacks) has been 'tested' against lot sizes of 1,500m^2-2,000m^2. The tests involved in putting a range of setbacks and applying relevant design principles to the dwelling design and layout to generate an approximate footprint.

The design guidance for the southern interface has demonstrates that lot sizes between 1,500m^2-2,000m^2 can achieve an appropriate transition between existing development in Hopetoun Park and future development in Hopetoun Park North.

Similar to the typical allotments, the 'testing' has been based on a large building envelope containing a rectangle measuring 15m by 24m. However, the building envelope has been sited horizontal (parallel) to the street, which strongly reflects the siting of existing dwellings within Hopetoun Park. The 'testing' has considered the appropriate siting of a large building envelope to achieve space around and separation between buildings.

Of note, the relevant standard of ResCode requires a minimum of 6m from the street. However, in order to provide greater space and separation between streetscapes and buildings at sensitive rear interfaces, it is considered that building siting and associated development outcomes should extend beyond the minimum design controls within ResCode. Similar to the typical allotments, a range of 'testing' was undertaken which found that there needs to be a suitable balance between front and rear setback depending on the interface.

While in its overall context the southern interface deals with the shift in lot sizes from the existing development in Hopetoun Park, there is a different interface treatment required for the south-west and south-east interfaces. Specifically, west of Hopetoun Park Road the south-west interface is characterised by the rear of existing property boundaries within Hopetoun Park. However for the south-east interface, it is characterised by the frontages of existing properties within Hopetoun Park which fronts Hopetoun Park Road (the east-west aligned section). The siting controls for the southern interfaces have been tailored accordingly to reflect the most appropriate future built form.

South-East Interface

In order to achieve a more suitable transition in lot sizes and building setbacks from Hopetoun Park and future development in Hopetoun Park North, a view has been formed that the allotments should have a wider frontage to create additional landscaping and space around the building. Accordingly, the minimum recommended frontage width is 35m, and when coupled within a depth of 43m, would create an allotment with a minimum size of 1,500m^2.

As the south-east interface fronts onto an existing road (refer to Figure 12), it is proposed that dwellings should provide a minimum front setback of 15m, and a minimum rear setback of 10m in order to soften the appearance of new development and retain the existing open streetscape character of Hopetoun Park Road. This setback will further ensure more than sufficient space is retained in front gardens to accommodate large aesthetic tree planting. Furthermore, front and side boundary fencing on the interface allotments should be limited to post and wire only to reflect the openness of existing development to the south.

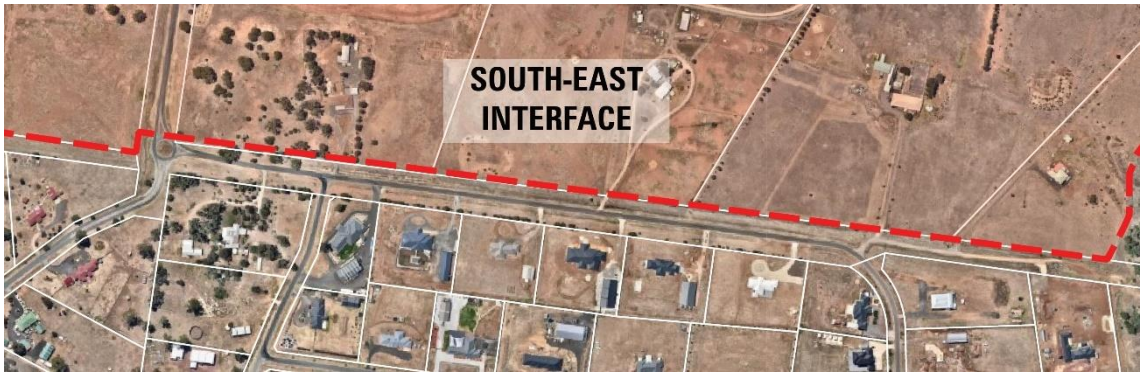

Figure 12. south-east interface with Hopetoun Park Road

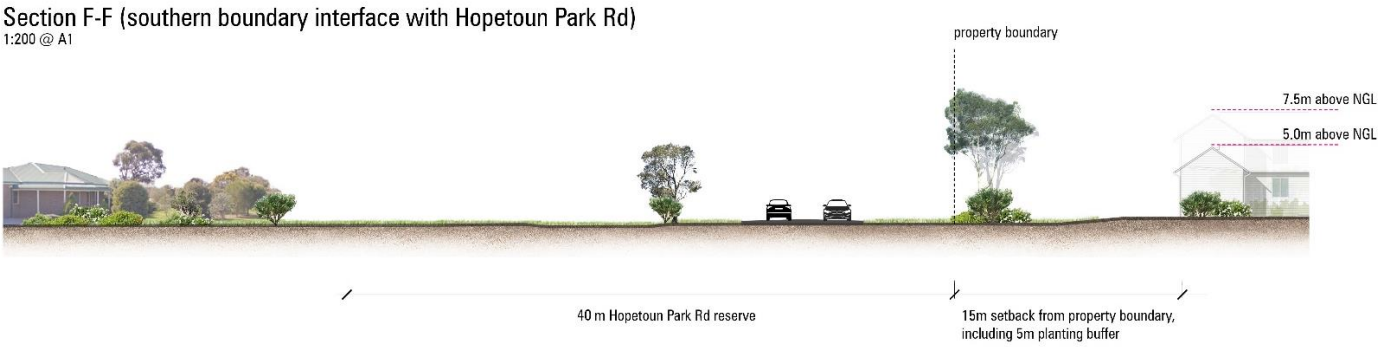

Figure 13. Sectional diagram of south-east interface with Hopetoun Park Road

South-West Interface

The south-west interfaced is illustrated on Figure 14 below. The proposed siting controls for the south-west interface seek a front setback of 10m and rear setback of 20m. However, it is further recommended that a mandatory 5m landscape buffer is required to be implemented along the rear boundaries of future allotments, so as to address the interface with the rear boundaries of existing allotments within Hopetoun Park. It should be a requirement of subdivision that the buffer area is planted with species to in time establish and grow to become substantial canopy trees.

This proposed combination of building siting and planted landscape buffer would provide for: larger allotments at the interface with existing residential properties; allow ample front setback; creating spacious rear backyard for future allotments; and ensure future buildings are sited so as to be separated an ample distance from existing dwellings in Hopetoun Park. Refer to Figure 15.

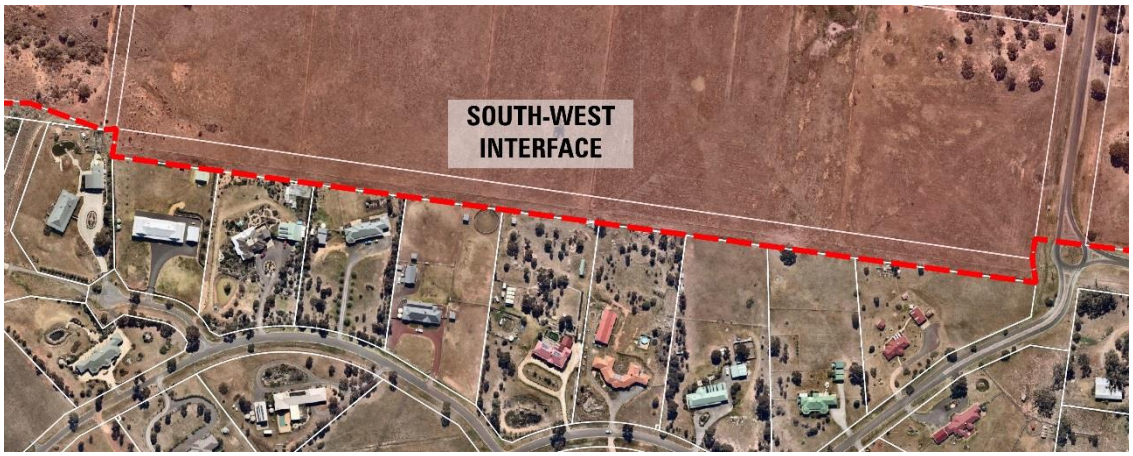

Figure 14. south-west interface with existing dwellings in Hopetoun Park

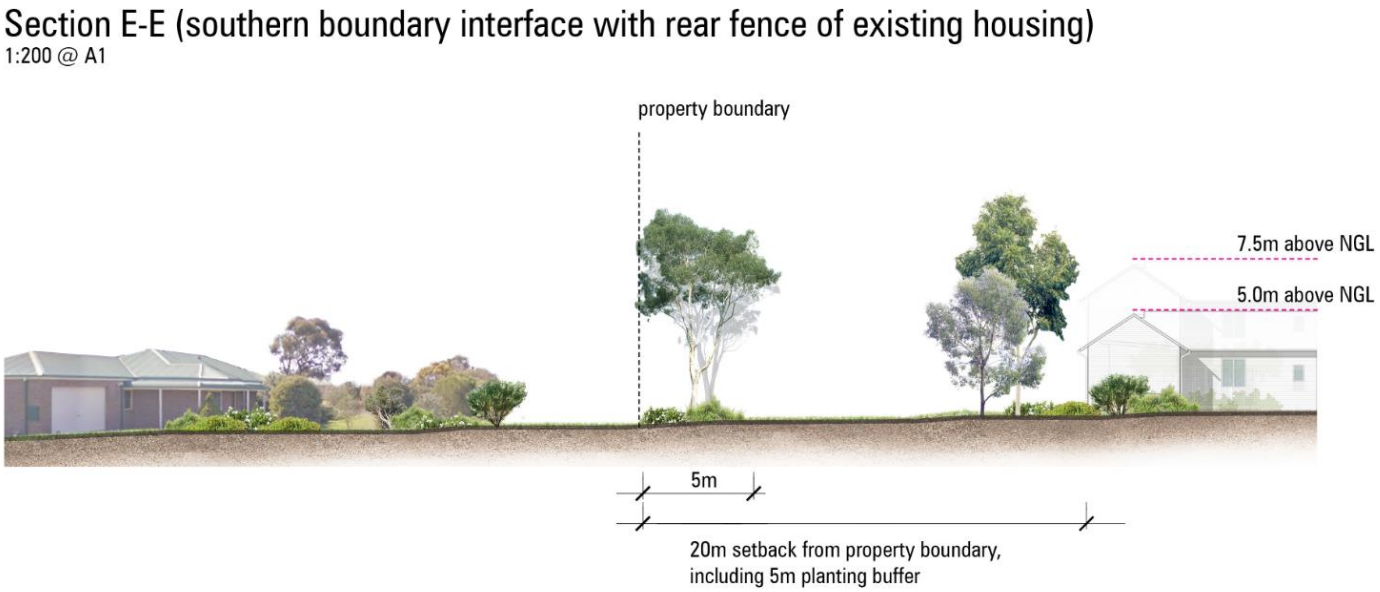

Figure 15. Sectional diagram of south-west interface with existing dwellings in Hopetoun Park

In relation to side setbacks, the minimum requirement 'tested' was 3m from both sides, which follows the analysis carried out for the typical allotments. This has resulted in a recommendation for a 3m setback from both sides, with attached garages encroaching up to 1.5m into the side setback, to be applied for all southern interface allotments. It is considered that the greater side setbacks will provide a sense of spaciousness and openness for future development, which will achieve the desired design outcomes, particularly given the additional setback from the street.

2020 report update

Despite the above conclusions and recommendations, it is acknowledged that the client group has negotiated some in principle agreements with Council around minimum side setbacks which are in excess of those recommended.

Following our review of these revised setbacks, we have formed a view that it would still result in a built form that fits within the context of the surrounding area, particularly as the minimum side setbacks are in excess of those previously recommended. The siting controls which have been negotiated with Council for the southern interface allotments lots of 1,5000m^2 or above are outlined in the table below.

1,500m^2-2,000m^2 allotment - southen interfaces			
	ResCode	South-West Interface	South-East Interface
Front setback	Standard B6 (6m minimum where no adjoining buildings)	Standard B6 or 10m, whichever is greater	Standard B6 or 15m, whichever is greater
Side setback	0 or 1m	Minimum setback of 5m to one side boundary and 3m to the other side boundary.	Minimum setback of 5m to one side boundary and 3m to the other side boundary.
Rear setback	0 or 1m	Minimum 20m for dwellings, incorporating a mandatory 5m landscape buffer to be provided along the rear boundary of allotments.	Minimum 10m for dwellings

Figure 16 on the following page illustrates the above siting recommendations which can be achieved on a 1,500m^2 south-east interface allotment. This diagram is also replicated with additional detail in Section 6 Design Guidelines.

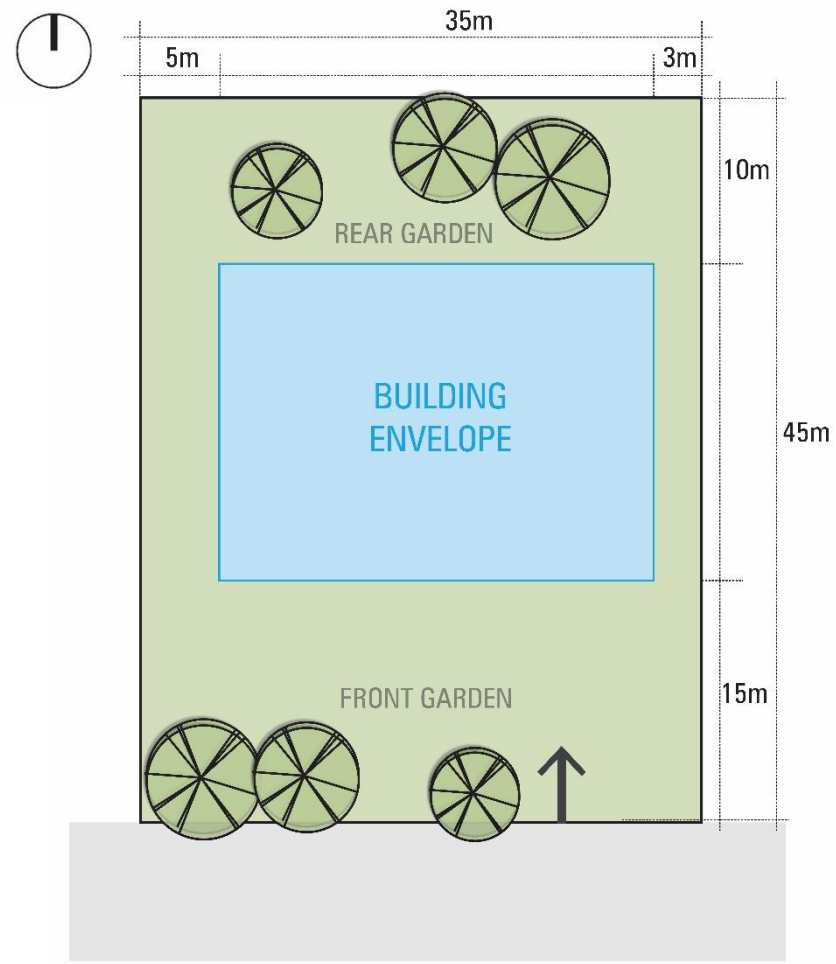

Figure 16. south-east interface 1,500m^2 allotment with recommended siting controls

Figure 17 below illustrates the above siting recommendations which can be achieved on a 1,500m^2 south-west allotment. This diagram is also replicated with additional detail in Section 6 Design Guidelines.

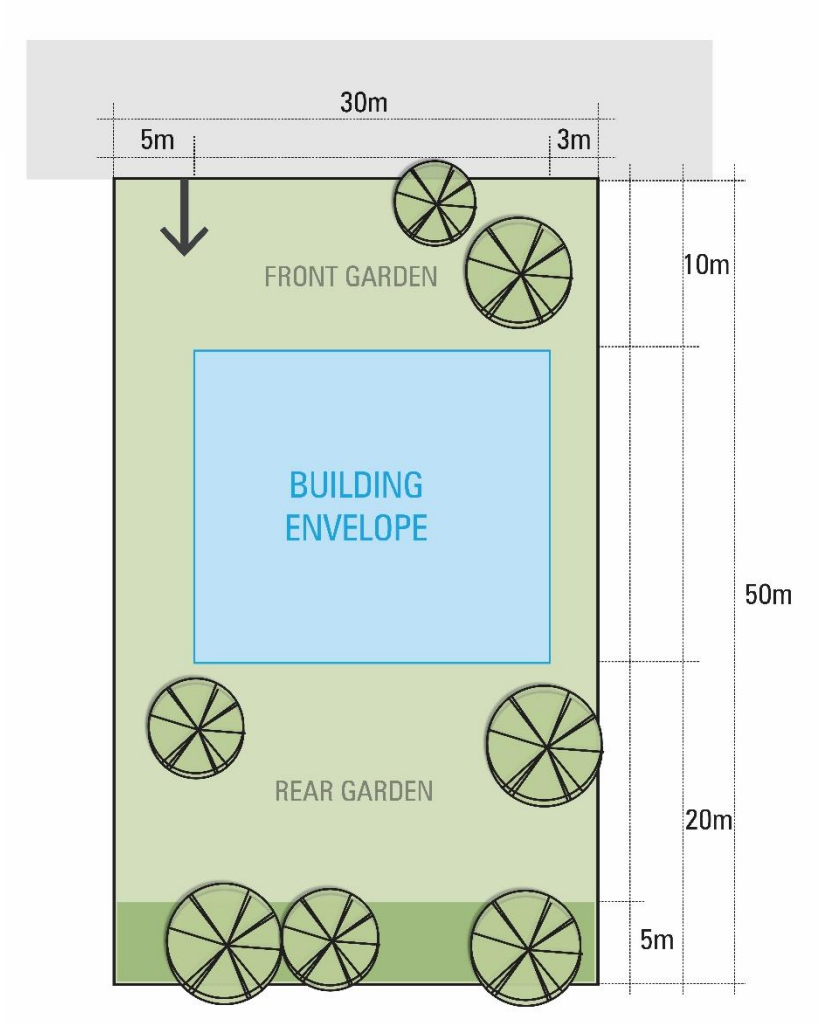

Figure 17. south-west interface 1,500m^2 allotment with recommended siting controls

North Eastern Freeway interface

Based on the finding of the visual analysis, the February, 2019 determined that the highway interface could accommodate the rear boundaries of typical allotments (approx. 800m^2). Furthermore, it was concluded that no landscape buffer would be required for the highway interface located west of Hopetoun Park Road as the road level is located within a deep cutting. However, for the highway interface located east of Hopetoun Park Road, it was recommended for a 1m high (6m wide) earth bund (within road reserve) to be planted with indigenous trees and understorey planting to provide for buffer screening. Refer to Section 4.3.2.2 for further details.

However we appreciated the technical advice regarding acoustic compliance has necessitated a 'rethink' of the highway interface treatment to the north-eastern boundary of the precinct.

Following discussion between Bacchus March Property Group, we understand that the following allotment size and dwelling setbacks has been agreed with Council for the North Eastern Freeway interface:

- Allotment size of 1,500m^2
- 10 metre minimum front setback
- 20 metre minimum rear setback
- 5 metre setback to one side boundary, & 3 metre setback to the other side boundary.

Although the professional view is that the above setbacks and allotment sizes are not required or justified on the basis of visibility and visual sensitivity, nor are needed to achieve an appropriate future urban character, they nevertheless have been adopted within this report as they have been previously agreed between the client group and Council. These agreed allotment size and setbacks significantly exceed the recommendations of February, 2019 report. Therefore they will provide a neighbourhood character outcome well in excess of the minimums that previously recommended.

1,500m^2-2,000m^2 allotments – North Eastern Freeway interfaces		
	ResCode	Escarpment Interfaces
Front setback	Standard B6 (6m minimum where no adjoining buildings)	Standard B6 or 10m, whichever is greater
Side setback	0 or 1m	Minimum setback of 5m to one side boundary and 3m to the other side boundary
Rear setback	0 or 1m	Minimum 20m for dwellings

Figure 18 below illustrates the above siting recommendations which can be achieved on a 1,500m2 south-east interface allotment. This diagram is also replicated with additional detail in Section 6 Design Guidelines.

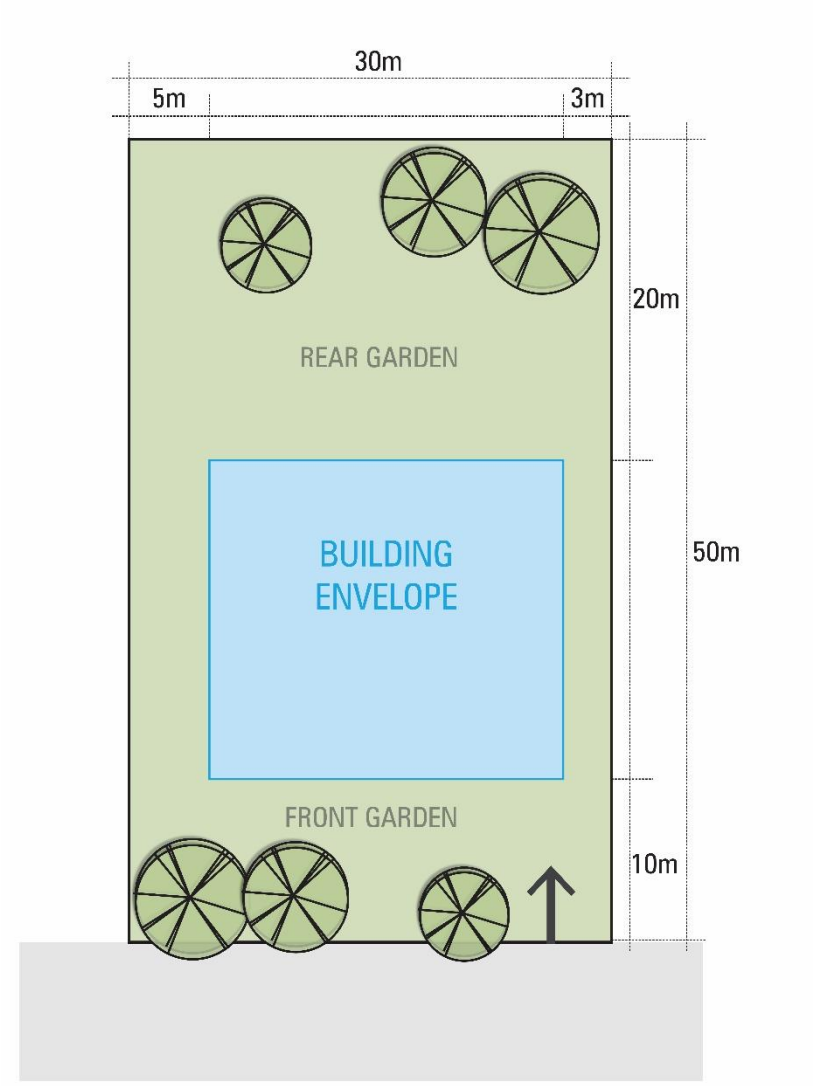

Figure 18. North Eastern Freeway interface 1,500m^2 allotment with recommended siting controls

5.3.2 Typical allotments

'Typical allotments' are those allotments within Hopetoun Park North which are not located at an interface where a difference design outcome is recommended. They are effectively the standard type allotment type to be developed through the core of Hopetoun Park North.

In approaching design guidance for typical allotments, testing has been undertaken to ensure that large standard building envelopment with appropriate setbacks can be reasonably accommodated on an allotment. The testing has been based on a standard large building envelope containing a rectangle measuring 15m by 24m. Undertaken testing established that the front setback requirement of 6m and rear setback of 10m, with a side setback of 3m on both sides (with garages allowed to encroach by 1.5m), requires typical allotments to be a minimum of 800m2 with a frontage of 20m, and depth of 40m to provide an appropriate building envelope.

To arrive at the above recommendations, the siting controls (i.e. setbacks) has been 'tested' against lot sizes of 700m^2, 800m^2 and 900m^2. The tests involved in putting a range of setbacks and applying relevant design principles to the dwelling design and layout to generate an approximate footprint. This has been done to be more reflective and respective to the key character elements from Hopetoun Park, and particularly to reflect dwellings with large setbacks and a high degree of spaciousness surrounding them.

As stated, the 'testing' has been based on a large standard building envelope containing a rectangle measuring 15m by 24m. The application of this building envelope will allow for a large standard dwelling on a lot. This assessment methodology will allow smaller standard dwelling types to also be achieved within this envelope.

In broad terms, the setbacks to the front and rear boundary has been 'tested' so as to maintain a sense of openness to the front and rear of dwelling. The tests involved in putting a range of setbacks that would work with lots between 700m^2-900m^2.

In applying a standard dwelling footprint of 15m x 24m, the following setback ranges were tested:

- Front setback – a range of 6m-14m
- Side setback – a range of 1m-3m (minimum 3m to one side boundary)
- Rear setback – a range of 6m-21m

It should be understood that the development outcomes sought meet or extend well beyond the minimum design controls contained within ResCode, which is proposed so as to result in a built form that fits within the context of surrounding development.

The following 'testing' has been based on these parameters to determine more specific siting controls. The preferred siting controls were established following the realisation of a range of setbacks that result in an appropriate relationship between front and rear gardens. The recommended minimum front setback of 6m and a rear setback of 10m is considered to best reflect the general siting proportions of front/backyards within Hopetoun Park. This requirement is considered appropriate and conducive to maintain a spacious feel with front and back gardens.

With regard to dimensions for side setbacks, the minimum requirement 'tested' was 3m from side boundaries. This greater than minimum ResCode standard is considered to be an important design guideline as it provide for views between buildings within the streetscape, and functions to create a greater degree of separation and spaciousness of dwelling on an allotment.

Although a 3m dwelling setback from side boundaries side boundaries is proposed to ensure buildings are not dominating within the detached streetscape rhythm, it is however accepted that attached garages encroaching up to 1.5m into the side setback is a reasonable outcome to maintain visibility and spaciousness between dwellings.

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2020 report update

Despite the above conclusions and recommendations, it is acknowledged that the client group has negotiated some in principle agreements with Council around minimum side setbacks which are in excess of those recommended. The siting controls which have been negotiated with Council for lots of 800m^2 or above are outlined in the table below.

800 m^2 (or above) – typical allotments		
	ResCode	**Typical Allotments**
Front setback	Standard B6 (6m minimum where no adjoining buildings)	Standard B6 or 6m, whichever is greater
Side setback	0 or 1m	Minimum setback of 3m to both boundaries. \
Rear setback	0 or 1m	Minimum 10m for dwellings

Figure 19 below illustrates the above siting recommendations which can be achieved on an 800m^2 allotment. This diagram is also replicated with additional detail in Section 6 Design Guidelines.

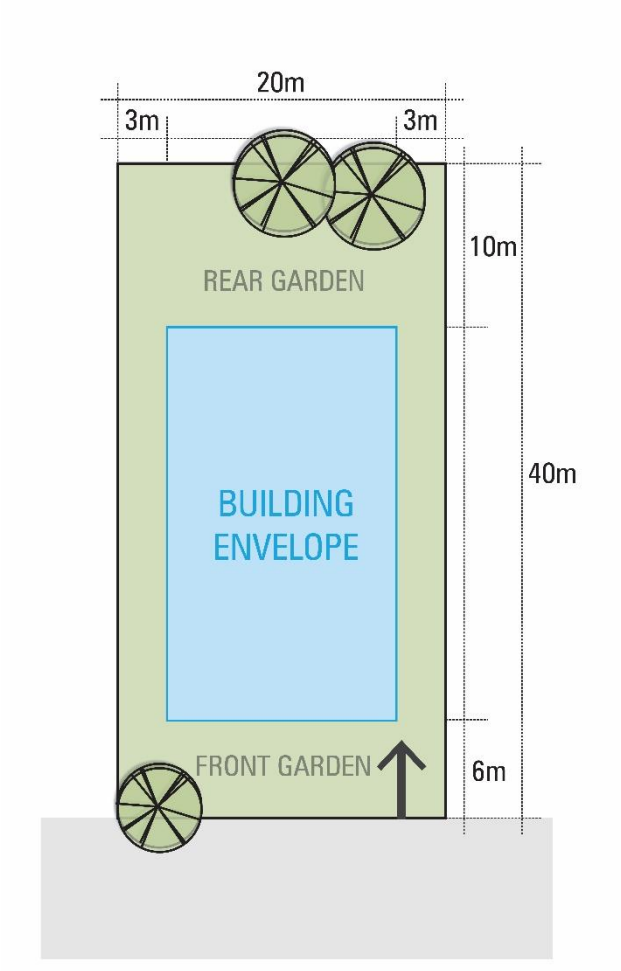


Figure 19. Typical 800m^2 allotment with recommended siting controls

5.4 Analysis of Fencing Treatments

The preferred character of Hopetoun South is characterised by open and transparent with either no fencing, open post/wire or railing fencing, or demarcated with landscape beds. It is important to retain the open landscape character of Hopetoun South through either no or open post/wire or railing fencing. The need for high impervious fencing to the street should be discouraged.

To the side and rear boundaries, it is accepted that standard residential fencing can be applied in order to provide security and safety from abutting properties. However, the side fencing sited forwards of the dwelling (including corner allotments), to be a maximum height of 1.2m.

Along the south-western interface it is suggested that the fencing backing onto existing dwellings in Hopetoun Park to be open and transparent fencing, either open post/wire or railing fencing. It is considered this design guidance will ensure future development aligns with the existing characteristics of these adjoining properties.

5.5 Analysis of Landscaping

5.5.1 Landscape Buffers

With regard to landscape buffers for the precinct, it is deemed necessary for a 10m wide linear open space to be located at the top of the eastern and western escarpments, followed by a 20 metre road reserve with street tree planting. The linear open space will support a continuous run of large canopy vegetation in order to 'soften' the built form and influence the green framing of the precinct when viewed from Bacchus Marsh and from the Western Freeway and Avenue of Honour. Such a linear open space is of a sufficient width to allow for a pedestrian path, large canopy vegetation, landscaping and planting. This will also provide a usable open space while making a positive contribution to the sense of place, in both overall and local terms.

Further landscape buffers have been recommended as a consequence of the visual analysis. This assessment determined that a separate interface allotment treatment was not required at the highway interface and that rear boundaries of typical allotments (approx. 800m^2) could be proposed along the highway. No landscape buffer would be required for the highway interface west of Hopetoun Park Road as the road level is located within a deep cutting. However, for the highway interface east of Hopetoun Park Road, it is recommended for a 1m high (6m wide) earth bund (within road reserve) to be planted with indigenous trees and understorey planting to provide for buffer screening.

It is also important for new development to appropriately manage the south-east interface when viewed along Hopetoun Park Road. It is suggested that a 5m landscaping area should be established within the front setback along Hopetoun Park Road, and to be encouraged by having a larger front setback in the area. The siting of these dwellings (i.e. 15m from the street) have been arranged so as to allow a reasonable landscape regime with notable canopy vegetation in the frontage. This 5m landscaping area will function maintain an attractive landscape to the street, and importantly will ensure the appropriate transition to the adjacent development to the south.

5.5.2 Private Realm Landscaping

The proposed lots sizes and siting controls presents the opportunity for substantial landscaping and 'openness' to be realised within the precinct. The minimum siting dimensions for each allotment type provides a high degree of flexibility for future occupants with the opportunity to establish canopy trees around buildings. This is considered to be appropriate to ensuring a neighbourhood character sensitive response.

5.6 Analysis of Appropriate Zone

With reference to the suggested zones for consideration, a brief analysis of each is provided below:

5.6.1 Neighbourhood Residential Zone (NRZ)

With regard to the scope of the current project work, two nominated purposes of the zone are specifically relevant, including:

- To recognise areas of predominantly single and double storey residential development.
- To manage and ensure that development respects the identified neighbourhood character, heritage, environmental or landscape characteristics.

In noting that the Neighbourhood Residential Zone (NRZ) can facilitate a wide variety of potential allotment sizes, it is important that the later scenario testing informs an appropriately minimum allotment size to allow future development of the Hopetoun Park North area to respect existing neighbourhood character and landscape characteristics of its location.

5.6.2 Low Density Residential Zone (LDRZ)

With regard to the scope of the current project work one of the nominated purposes of the zone is partially relevant, noting that it states:

- To provide for low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater.

In its broadest terms, the Low Density Residential Zone (LDRZ) allow for lots of 2,000m^2 where sewerage is available, and increases minimum lot sizes to 4,000m^2 where reticulated sewerage is not available.

As Hopetoun Park North will have benefit of future lots being connected to reticulated sewerage, this means that if this zone were utilised, proposed allotments would be in the order of 2,000m^2.

However, it is considered that the use of the Low Density Residential Zone (LDRZ) to achieve a specific interface design treatment outcome is an awkward use of the VPP's when the same sort of outcome could be achieved through other planning mechanisms.

Furthermore it is considered that to achieve a good strategic planning outcome, in the first instance an analysis of existing character and visual landscape analysis should be undertaken, followed by which design guidelines of the preferred or desired development outcomes devised. Once that is completed, the most appropriate planning tools to achieve the desired outcome should be determined, and not the other way around of picking the zone in first instance.

5.7 Recommendations on appropriate zone

The scenario analysis and landscape assessment outlined within this report has sought to determine the optimal design parameters for the future development of Hopetoun Park North, including within designated the residential interface areas as well as the residential core areas.

Following the conclusions of the design analysis, it is considered that the application of the Low Density Residential Zone (LDRZ) is not warranted. The visual landscape analysis, in addition to the character assessment and urban design analysis has demonstrated that an appropriate design outcome can be achieved within both the residential interface and urban core areas with lot sizes ranging from a minimum of 1,500m^2 in the residential interface area, and a minimum of 800m^2 in the residential core. In noting this range of allotment sizes, the future development of the Hopetoun Park North area can be facilitated through the application of the Neighbourhood Residential Zone (NRZ) along with either a Development Plan Overlay (DPO) and Design and Development Overlay (DDO) which formally implements the broader recommendations of this work.

As a further comment to the earlier suggestions of Council and the Planning Panel to consider the potential use of the Low Density Residential Zone (LDRZ), if this zone were hypothetically used, it would allow allotments of 2,000m^2 as the area will be serviced by reticulated sewerage. However it is also highlighted that the minimum allotment size of 1,500m^2 for the residential interface areas, is not significantly lower than then minimum 2,000m^2 allowable under the Low Density Residential Zone (LDRZ). Likewise, the minimum allotment size of 1,500m^2 for the residential interface areas has been reached following detailed visual landscape analysis, existing character assessment and urban design analysis.

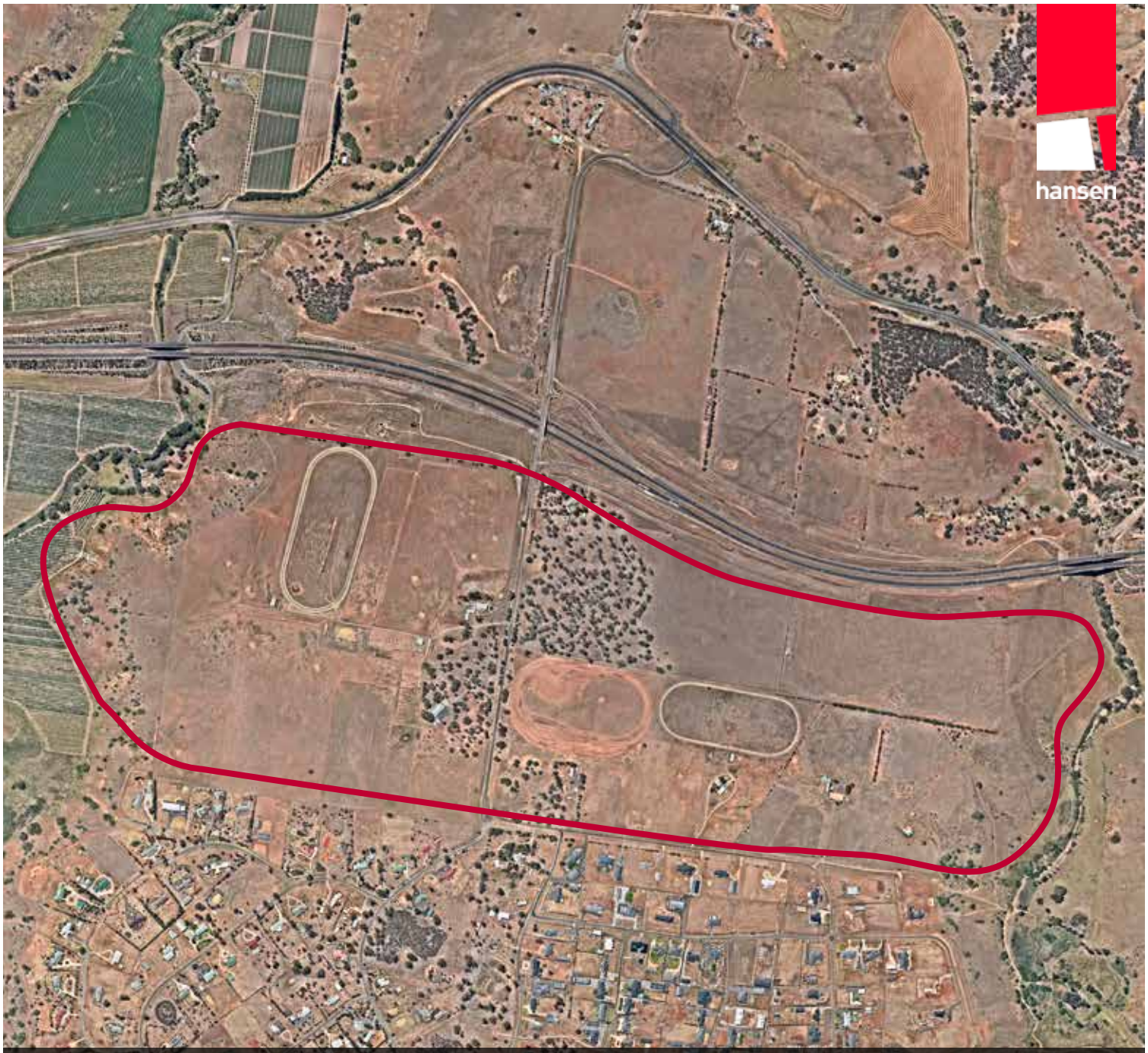
On the basis of the above, and particularly that the minimum lot size in the residential interface areas has been reached through specific design analysis, there is no strategic basis or logic to seek to apply the Low Density Residential Zone (LDRZ) to the Hopetoun Park North area, provided the recommended design guidance is formally applied through other appropriate planning scheme mechanisms.

6 Design Guidelines

Following the range of material considered and analysed above, the broader findings, conclusions and recommendations have been summarised and synthesised into the graphically presented 'lift out' design guidelines located on the following pages. These design guidelines form the key conclusions and recommendations of the three components of work Hansen have been commission to complete.

The preparation of the design guidelines have considered, been informed and built upon all relevant strategic commentary and guidance provided during earlier phases. It is recommended that the design guidelines are utilised to inform any future rezoning process for Hopetoun Park North to allow them to be applied to the future development of the Hopetoun Park North area.

Furthermore, it is acknowledged that refinement of the high-level recommendations is likely to made through later detailed design phases, which would occur during the preparation of Framework Plans and/or Precinct Structure Plans.



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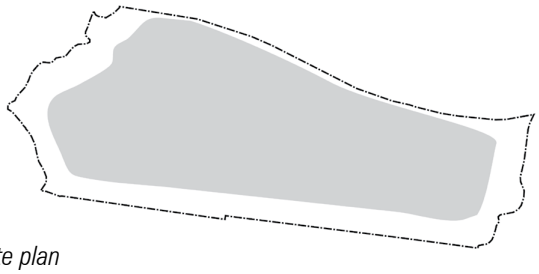
HOPETOUN PARK NORTH | Design Guidelines

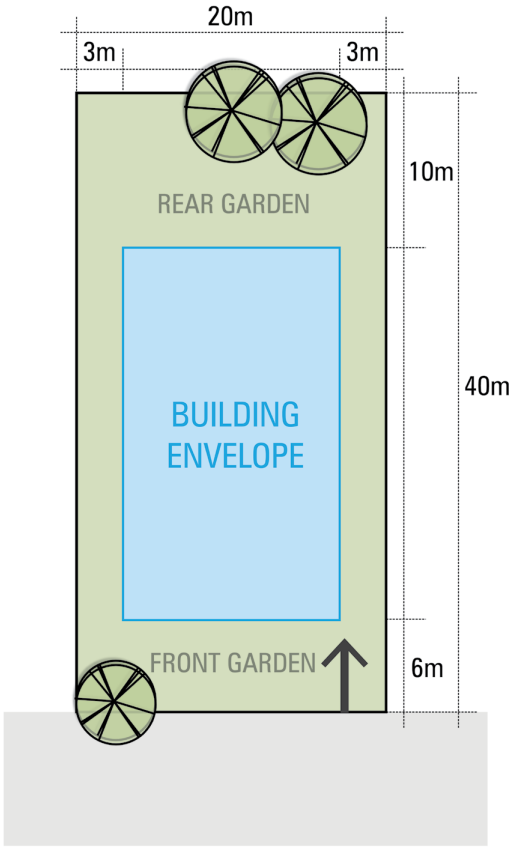
April 2020

urban planning | urban design | landscape architecture

Typical Allotments



Site plan

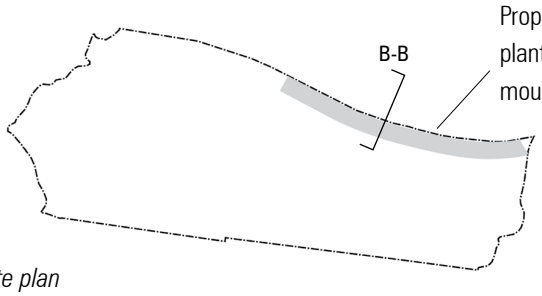


DESIGN GUIDELINES

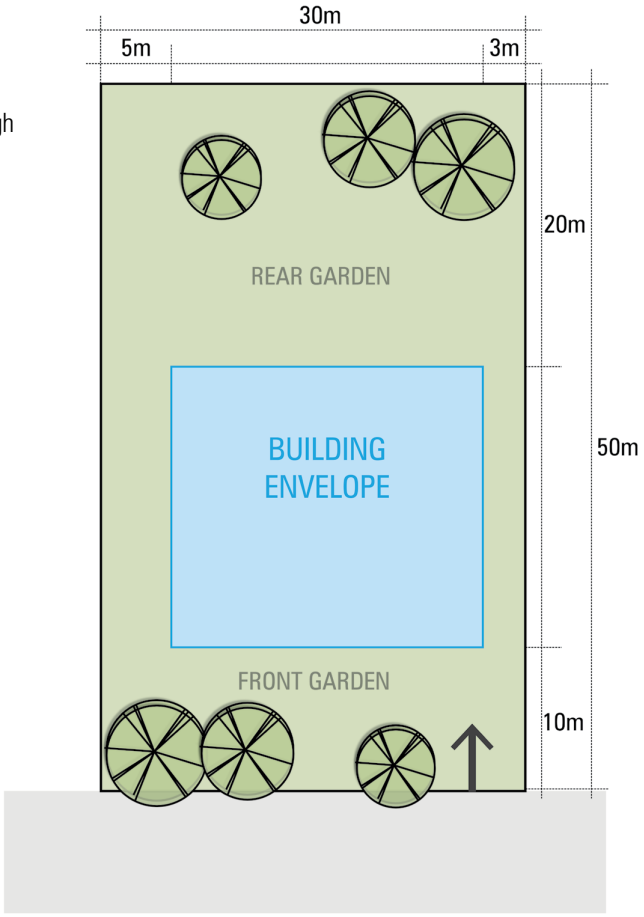
Minimum allotment size: 800m2*
Minimum frontage width: 20m
Minimum front setback: 6m
Minimum side setbacks: 3m
Minimum rear setbacks: 10m
Fencing: No front fencing. Standard fencing to side and rear boundaries, except reduced to 1.2m high in front of dwelling
Landscaping: Encourage planting surrounding buildings.

*Allotments which are larger than the minimum nominated size, the minimum setbacks still apply.

North East Freeway Interface Allotments



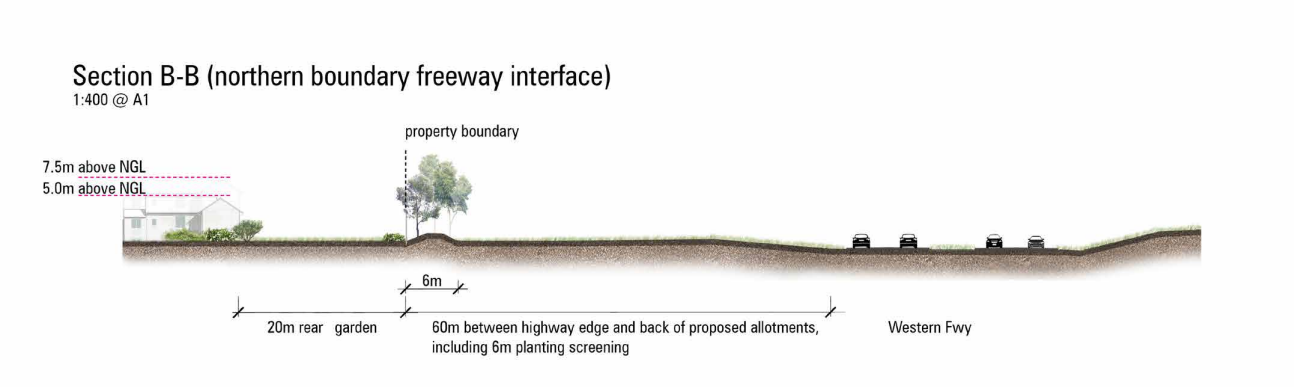
Site plan



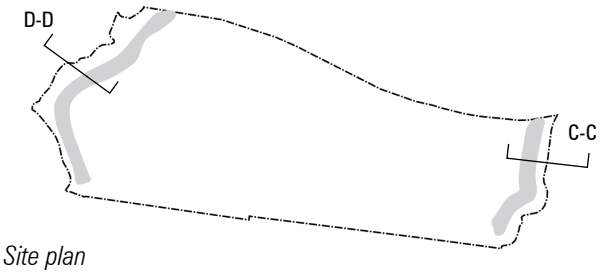
DESIGN GUIDELINES

Minimum allotment size: 1500m2*
Minimum frontage width: 30 m
Minimum front setback: 10m
Minimum side setbacks: 5m to one side boundary and 3m to the other side boundary
Minimum rear setbacks: 20m (required to address acoustic treatment to freeway interface).
Fencing: No front fencing or otherwise post and wire or railing fence with minimum 50% visual permeability. Standard fencing to side and rear boundaries, except reduced to 1.2m high in front of dwelling
Landscaping: To address acoustic treatment to freeway interface, implement screen planting on a 1.5m high earth mound.

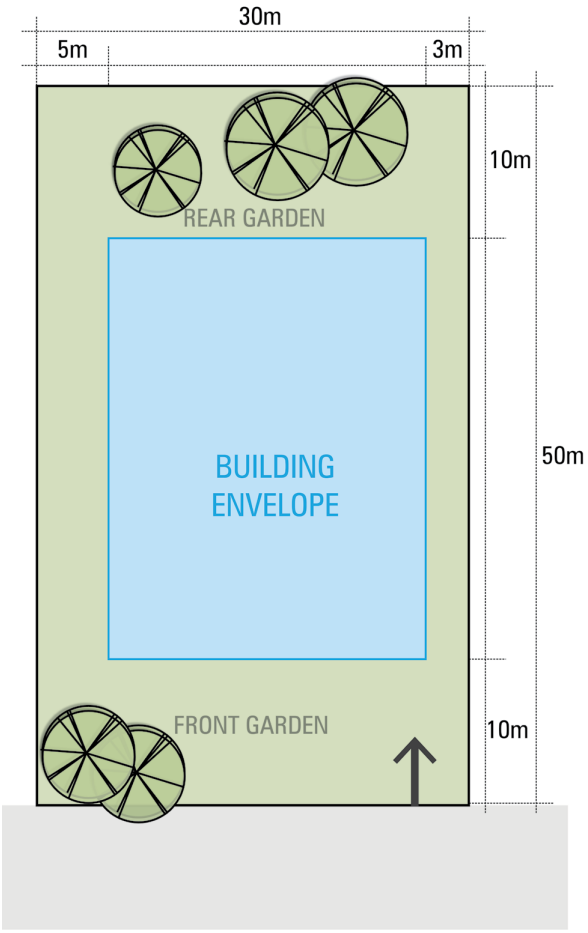
*Allotments which are larger than the minimum nominated size, the minimum setbacks still apply.



Escarpment Allotments



Site plan

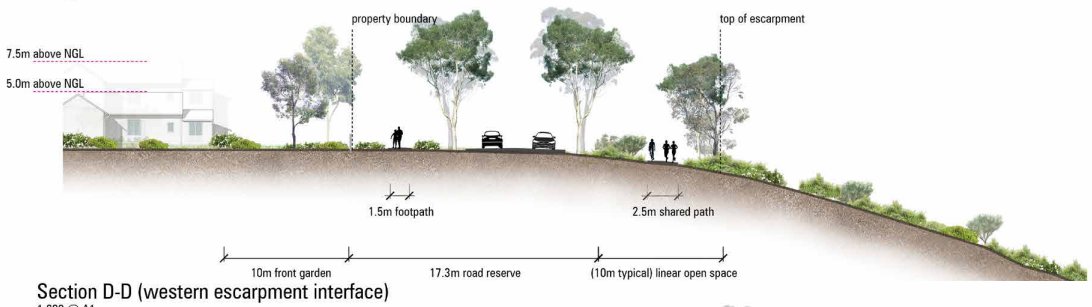


DESIGN GUIDELINES

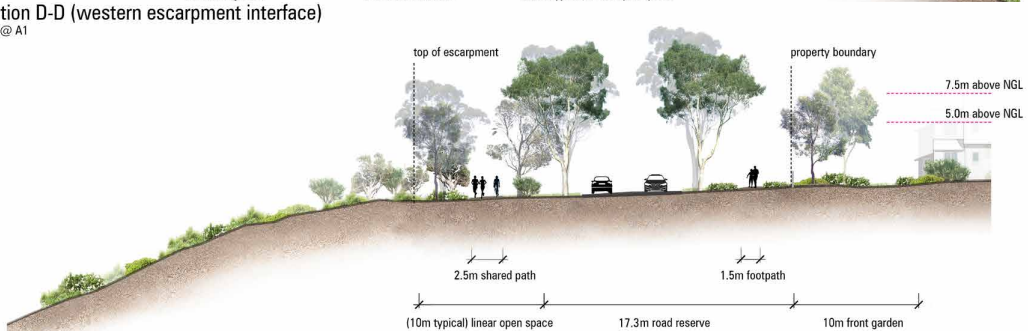
Minimum allotment size: 1,500m2*
Minimum frontage width: 30m
Minimum front setback: 10m
Minimum side setbacks: 5m to one side boundary and 3m to the other side boundary.
Minimum rear setbacks: 10m
Fencing: No front fencing or otherwise post and wire or railing fence with minimum 50% visual permeability. Standard fencing to side and rear boundaries, except reduced to 1.2m high in front of dwelling
Landscaping: Encourage planting surrounding buildings.

* Allotments which are larger than the minimum nominated size, the minimum setbacks still apply.

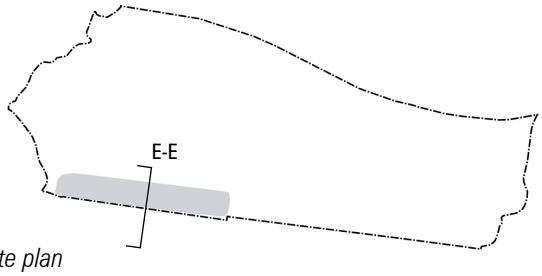
Section C-C (eastern escarpment interface)
1:200 @ A1



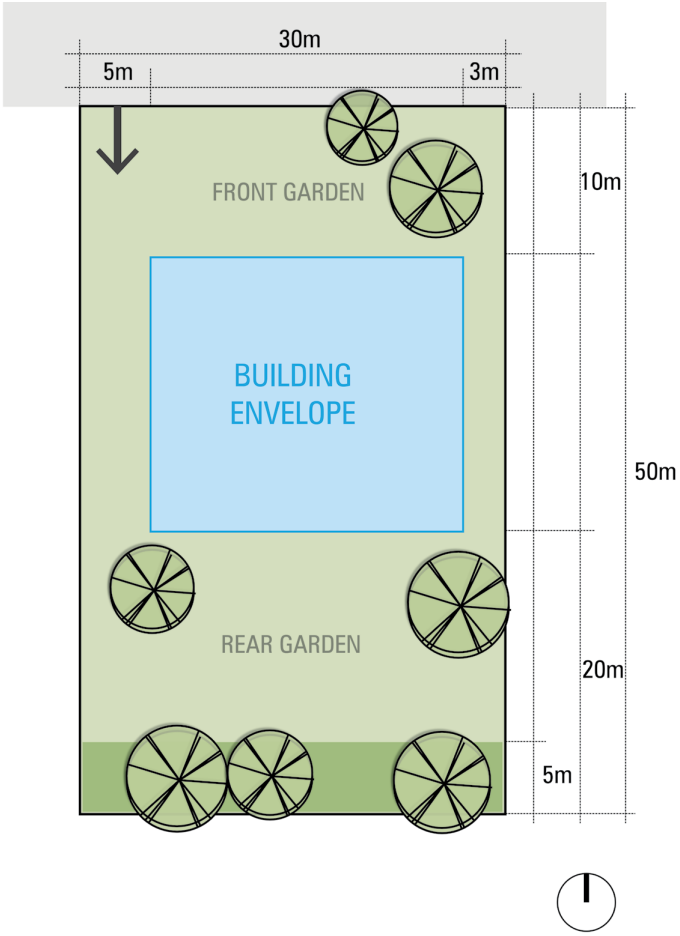
Section D-D (western escarpment interface)
1:200 @ A1



South-West Allotments



Site plan

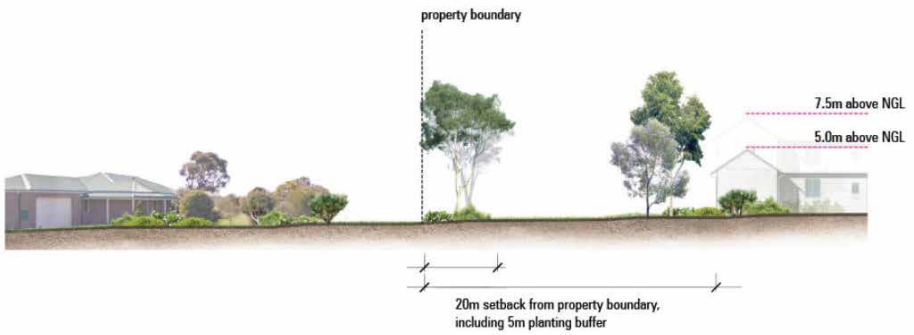


DESIGN GUIDELINES

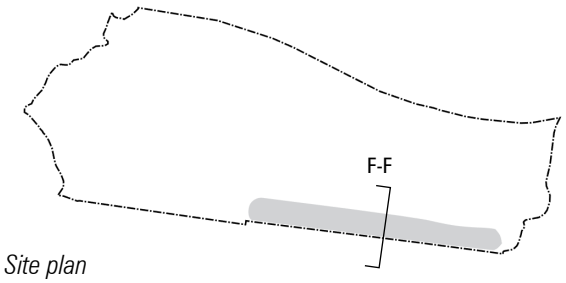
Minimum allotment size: 1,500m2*
Minimum frontage width: 30m
Minimum front setback: 10m
Minimum side setbacks: 5m to one side boundary and 3m to the other side boundary
Minimum rear setbacks: 20m, incorporating a 5m landscape buffer
Fencing: No front fencing or otherwise post and wire or railing fence with minimum 50% visual permeability. Standard fencing to side and rear boundaries, except reduced to 1.2m high in front of dwelling
Landscaping: Encourage planting surrounding buildings. Require 5m planting buffer to rear of allotments.

* Allotments which are larger than the minimum nominated size, the minimum setbacks still apply.

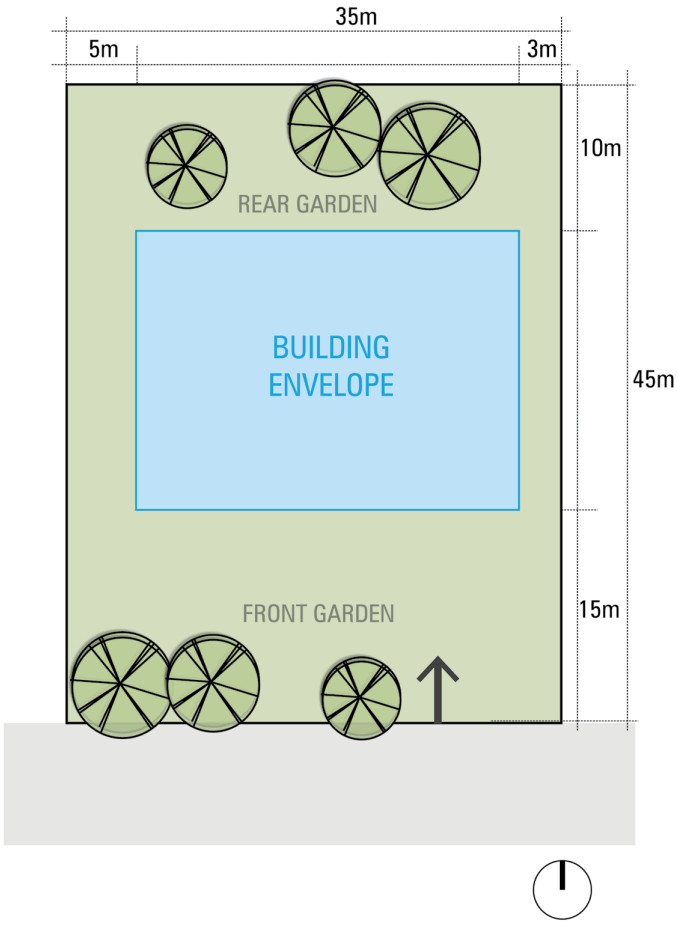
Section E-E (southern boundary interface with rear fence of existing housing)
1:200 @ A1



South-East Allotments



Site plan

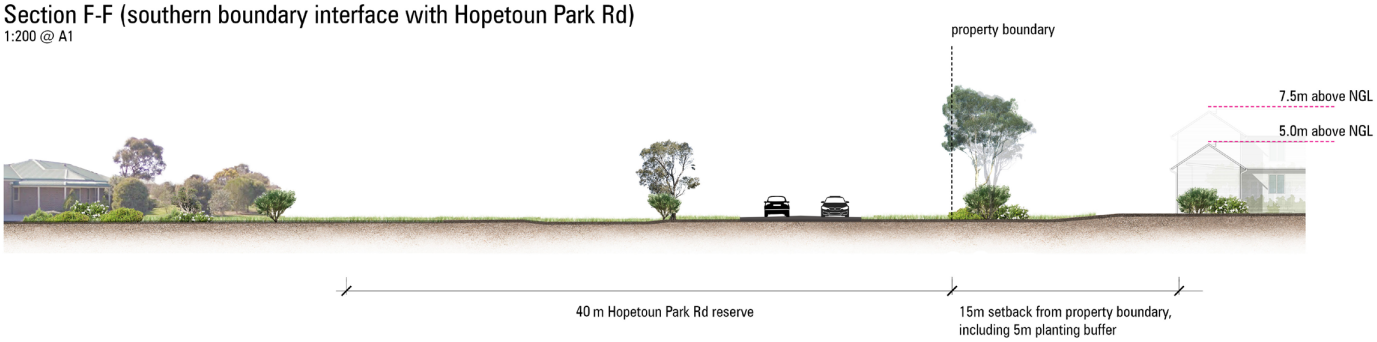


DESIGN GUIDELINES

Minimum allotment size: 1,500m2*
Minimum frontage width: 35m
Minimum front setback: 15m
Minimum side setbacks: 5m to one side boundary and 3m to the other side boundary
Minimum rear setbacks: 10m
Fencing: No front fencing or otherwise post and wire or railing fence with minimum 50% visual permeability. Post and wire or railing fence with minimum 50% visual permeability to side boundaries. Standard fencing to rear boundaries.
Landscaping: Encourage planting surrounding buildings.

* Allotments which are larger than the minimum nominated size, the minimum setbacks still apply.

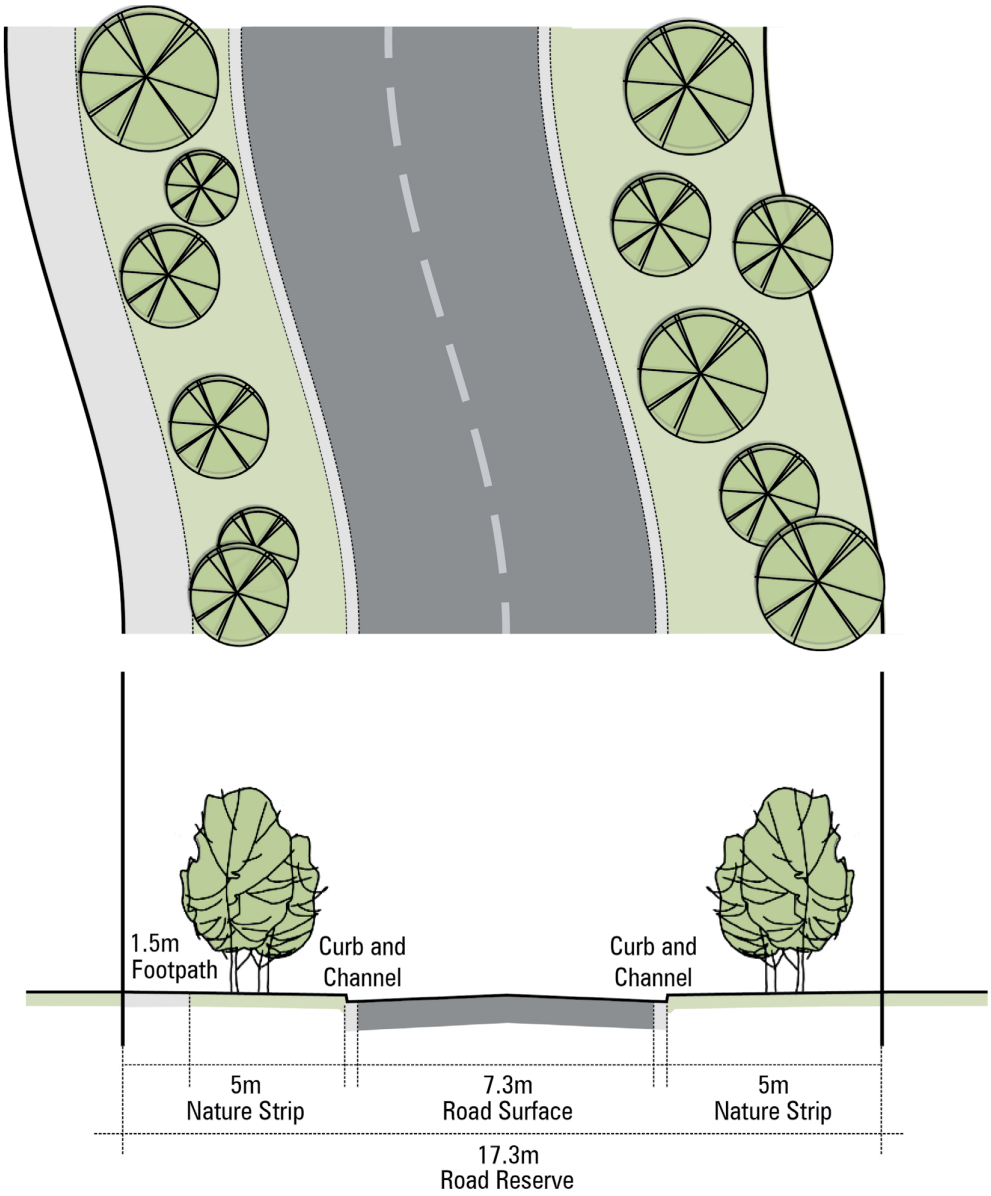
Section F-F (southern boundary interface with Hopetoun Park Rd)
1:200 @ A1



Street Layout Plan: Level 2 Access Street

DESIGN GUIDELINES

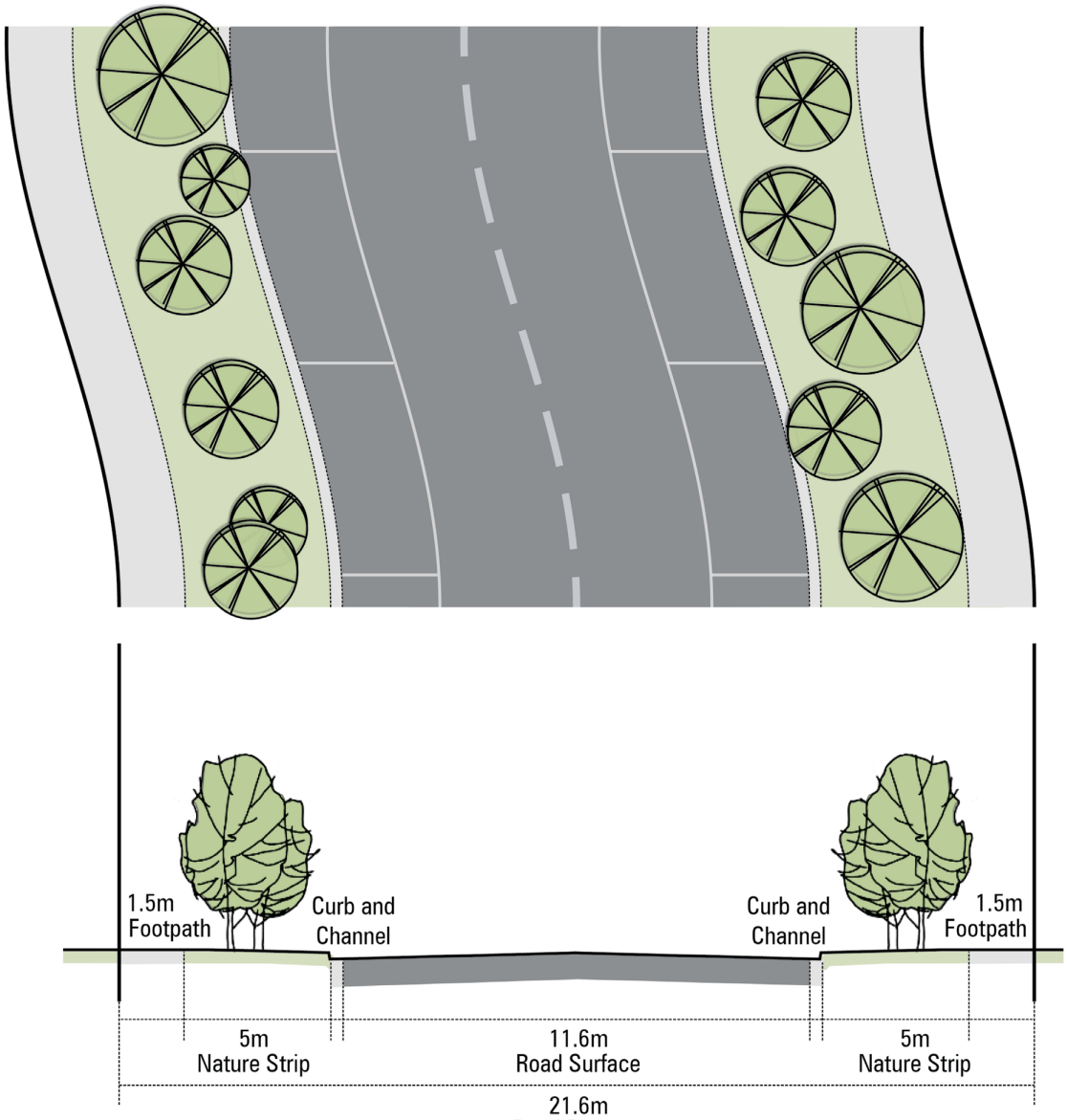
Road reserves: 17.3 metres in width (7.3m carriageway + 5m nature strip to either side)
Road surface treatment: Surface width of 7.3 metres, including asphalt surface
Road verge treatment: Curb and channel with nature strips of 5m to either side of the roadway to accommodate canopy planting. Pedestrian footpath to one side.
Road alignment: Locate public road to edges of escarpments to the east and west
Public open space: Locate open space reserves along the edges of the escarpments to the east and west, including shared path within open spare reserve.



Street Layout Plan: Level 1 Connector Street

DESIGN GUIDELINES

Road reserves: 21.6 metres in width (11.6m carriageway + 5m nature strip to either side)
Road surface treatment: Surface width of 11.6 metres, including asphalt surface (3.5m in each direction +2.3m for parking bay either side).
Road verge treatment: Curb and channel with nature strips of 5m to either side of the roadway to accommodate canopy planting. Pedestrian footpath to both sides.



Appendix 1

Photos of Hopetoun Park neighbourhood character elements

1. Views to the west from Hopetoun Park Road

2. Views to the east from Hopetoun Park Road

3. Existing road reserve of Hopetoun Park Road, including drainage swales

4. Example of railing fencing

5. Open swales and retarding basin

6. Post and wire fencing

7. Existing single storey housing with pitched roof

8. Existing single storey housing with pitched roof

9. Existing single storey housing with pitched roof

10. Existing single storey housing with pitched roof

11. Landscaping and fencing

12. Entrance to Hopetoun Park through the overpass

13. Scattered vegetation

14. Escarpment to the east

15. Views from the escarpment to the east

16. Road reserve along Thomas Drive

Appendix 2

Landscape & visual amenity mapping