

# PRECINCT STRUCTURE PLANNING GUIDELINES

## TWO Preparing the Precinct Structure Plan





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# PART TWO

## Preparing the Precinct Structure Plan

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#### PART ONE OVERVIEW OF GROWTH AREA PLANNING

Part One provides an overview of planning in growth areas, including a description of the structure of the Guidelines, an explanation of where the precinct structure plans fit in the planning hierarchy and the objectives for growth area planning.

#### PART TWO PREPARING THE PRECINCT STRUCTURE PLAN

Part Two provides a step-by-step guide to preparing a precinct structure plan in growth areas.

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#### PSP NOTES

This includes a series of documents providing more detailed guidance to planning in growth areas. These are expected to be updated from time to time.

# 1.0 Introduction

Part 2 of these Precinct Structure Planning Guidelines explains how to prepare a precinct structure plan to meet the government’s objectives for growth area communities. The aim is to standardise the format and process for preparing a precinct structure plan, while facilitating innovative and flexible outcomes.

Precinct structure plans would normally be prepared by the planning authority, which would usually be either the Growth Areas Authority or the local council. Precinct structure plans may also be prepared by developers under the direction and coordination of the Growth Areas Authority.

## 1.1 Precinct Structure Planning Stages

Precinct structure planning will generally follow four stages (see figure 1):

- Set the Scene
- Create the Structure
- Make the Place
- Check the Plan

Structure planning is an iterative process, which means that while stages are broadly sequential, decisions made regarding the design of elements in *Make the Place* may refine components of the preferred urban structure determined in *Create the Structure*. Likewise, measuring the delivery of the precinct structure plan as outlined in *Check the Plan* will be a consideration throughout the process.

Figure 1: Approach for preparing a precinct structure plan



## 2.0 Set the Scene

### 1.2 Format of Part Two

#### DESIGN RESPONSE

These are questions that should be answered when designing the precinct structure plan. It is not intended that each question raised requires a detailed response, but that each issue should be addressed in the preparation of precinct structure plans. Demonstrating a response to these questions will explain how the government's objectives for growth area communities will be achieved. The list of questions is not exhaustive; there will be other questions that relate specifically to the local context of a precinct structure plan. The design response is articulated and illustrated by the outputs required in each section.

#### OUTPUTS

The precinct structure plan should include all outputs listed as the plans, tables, designs and statements. Other outputs may be required to suit local circumstances, but the precinct structure plan should be concise.

#### RELEVANT STANDARDS

Relevant standards should be met unless it is demonstrated that an alternative solution can better meet the objectives. References are made to the relevant objectives of the residential subdivision provisions (Clause 56) of all local planning schemes to aid the process of preparing and assessing precinct structure plans.

#### PLANNING PERMIT CONSIDERATIONS

These are design considerations for the planning permit application. These do not normally need to be considered in detail within the precinct structure plan, but the plan should be designed with these factors in mind, to ensure that they can be met later in the planning process. The preparation of a precinct structure plan should facilitate and simplify subsequent planning permit processes.

The first stage in preparing a precinct structure plan is to understand the precinct and how it fits into the surrounding area, and to provide clear direction for what can be developed. This will require:

- Establishing an initial vision for developing the precinct – its unique character and identity.
- Providing sound background technical evidence for preparing the precinct structure plan.
- Providing a strategic context that identifies the key issues and implications derived from the background technical reports.
- Determining how the precinct can be developed in response to the site opportunities and constraints.

### 2.1 Context Analysis

Understanding the precinct's context is crucial to building a robust and effective precinct structure plan. Background technical reports will be produced that contain sound information to guide the drafting of the precinct structure plan including the implementation provisions of the Urban Growth Zone. The reports required will be determined during the 'pre-planning' stage as part of preparing the project management plan.

These reports will provide the basis for making a strategic assessment of competing land use issues and for determining decisions how these issues can be resolved through the planning process in the best interests of future residents and workers.

It will also be important at this stage to consider relevant Council service plans and strategies relating to the provision of services and facilities such as open space and community facilities.

During this stage, conclusions are reached regarding the extent of developable land (taking account of biodiversity and Aboriginal cultural heritage values and other site constraints) and the number and type of dwellings, jobs and community facilities that could be accommodated. Physical infrastructure requirements and the cost of critical items are determined and weighed up against the plan's vision. This will inform the preparation of the precinct infrastructure plan. Some of these initial decisions may need to be refined during the later stages.

The background work should address the following questions:

1. How much land can be developed?
2. How many people and households can be accommodated within the precinct?
3. What size and type of housing will the population need?
4. How many and what type of jobs will these people need?
5. What social infrastructure and services will this community need?
6. What ratio of government to non-government schools will this area require?
7. How much land is encumbered and how can this be used for multiple purposes?
8. How can the precinct integrate with surrounding areas and connect to regional networks?
9. What is the cost and funding arrangements for critical physical infrastructure?
10. How can natural and cultural areas and features be integrated into the plan for the benefit of future residents and workers?

## 2.2 Vision Setting

To create more vibrant suburbs we need to identify how each area is unique and build on its local attributes and opportunities. This avoids new residential areas appearing bland and monotonous.

The vision will explain how the precinct design contributes to neighbourhood character and sense of place. It explains what features will attract residents, workers and visitors to the precinct. It should define the future role, function and composition of the precinct in the short and longer term. It will explain how new urban development will fit within the local context.

The vision should be prepared early on in the process and used as the basis for consultation with land owners/developers, council, service and infrastructure providers and community representatives.

It will be important to test the precinct structure plan against the vision as it evolves to ensure local aspirations are being met. Equally, the vision will be tested and refined throughout the entire process to ensure the aspirations for the precinct are achievable

## OUTPUTS

The precinct structure plan is to include:

- **Location plan**
- **A strategic context** that briefly summarises all relevant background technical reports prepared for the precinct. This summary should be included in the precinct structure plan. In addition to text, the summary would normally include:
  - Regional context plan
  - Local context plan
  - Site features plan (can be combined with local context plan)

*Note: Where necessary, aerial photographs and/or historic plans demonstrating how the area has developed may also be included.*

- **A vision statement**
- **Background technical reports**

The following reports should be produced to inform the precinct structure plan as reference documents:

### General Planning Parameters

- Land use, land ownership and tenure, and subdivision patterns
- Planning policy and strategies (both state and local)
- Past planning approvals

### Environmental

- Aboriginal cultural heritage assessment
- Arboricultural
- Biodiversity assessment (native vegetation, threatened species of flora and fauna)
- Bushfire management (required where Wildfire Management Overlay applies)
- Climate change (any biophysical risks)
- Environmental quality, contamination and uses with adverse amenity potential

- Hydrology (existing drainage and groundwater conditions including salinity and flood risk areas, riparian buffers and existing and proposed drainage channels)
- Land capability and geomorphology (topography and land stability)
- Landscape and visual setting (features, quality, character, views and vistas)
- Post-contact heritage assessment

### Social

- Demographic profile (current and projected – age structure, household size, labour market profile, household income etc.) consistent with current *Victoria in Future* projections
- Housing needs (current and projected)
- Employment needs
- Community facilities and services (existing and proposed local and regional infrastructure)
- Open space (passive and active) needs

### Economic

- Employment and economic development (referring to metropolitan and regional economic strategies)
- Assessment of market demand and supply for retail, employment and housing types

### Physical Infrastructure

- Transport (existing and proposed roads, public transport routes and interchanges, pedestrian and bicycle paths)
- Utilities capacity (existing and proposed infrastructure and services – water, sewerage, electricity, gas, telecommunications)

*Note: It may be necessary to produce reports in addition to these listed to address local site conditions.*



## 3.0 Create the Structure

Once the vision has been set and the precinct's context analysed, urban structure can be established. The urban structure provides the skeleton for arranging land uses, identifying opportunities for efficient use of land and resources and for connecting the precinct to the surrounding area. This will involve:

- Defining the location of networks and landscape features that will be used to structure and connect the precinct and establish the character of the precinct;
- Confirming the location of strategic networks and land uses shown on the growth area framework plan and providing additional detail;
- Determining how the provision of key strategic and local infrastructure will influence the precinct's design;
- Demonstrating how the growth area planning objectives can be met; and
- Establishing a preliminary land budget for the precinct to guide the detailed design of the developable area.

At this stage it is crucial to begin to make many of the key decisions about precinct design, based on sound background reports and detailed discussions with key stakeholders.

The structuring of land uses should be defined by the existing (and proposed) regional networks of arterial roads, principal public transport networks (both rail and bus), bicycle and trail routes, employment areas and activity centres, community facilities, open space and drainage corridors (including retarding basins).

In determining the preferred urban structure, alternative options may be explored with the council, growth areas authority, infrastructure providers, landowners and developers. The options will need to be evaluated against the objectives for planning growth area communities, the emerging vision, state and local planning objectives.

An estimation can be made of:

- The number of dwellings that can be developed within the precinct based on the amount of net residential land available. This should include determining how the precinct will contribute to increasing average housing densities in the growth areas; and
- The number of jobs that could be created within the precinct based on the amount of net employment land available. This may be determined by defining the economic role and function of the employment area and how the precinct will contribute to increasing local employment opportunities and reducing travel time to work.

### DESIGN RESPONSE

Some questions that should be addressed when determining the preferred urban structure are:

#### Transport

1. How does the precinct fit in with Melbourne's freeway system and grid of arterial roads?
2. How will the Principal Public Transport Network (PPTN) defined on the growth area framework plan tie in with land uses? If there is no PPTN defined within the precinct, how can local bus routes feed to the PPTN?

#### Land Uses

3. How much land is available for developing different land uses (including how many estimated dwellings and jobs can be created)?

#### Activity Centres

4. How will the precinct's neighbourhood activity centres support the network of activity centres, minimise driving, cycling and walking distances?
5. How does the spacing of neighbourhood activity centres ensure accessibility and maximise walkability?

#### Open Space and Natural Systems

6. Can active and passive open space areas and pedestrian and cycle networks be linked to encourage walkable neighbourhoods and to protect and enhance regional biodiversity?

#### Character

7. How does the design and layout take into account the existing character and features of the site?

#### Integration, Sharing and Multiple Use

8. What opportunities exist to accommodate sites for adjoining, integrated and/or shared community facilities and how could early delivery of some services be achieved?
9. What has been done to ensure multiple use of open space including native vegetation, heritage protection, sports facilities and stormwater management?

#### Energy and Water Efficiency

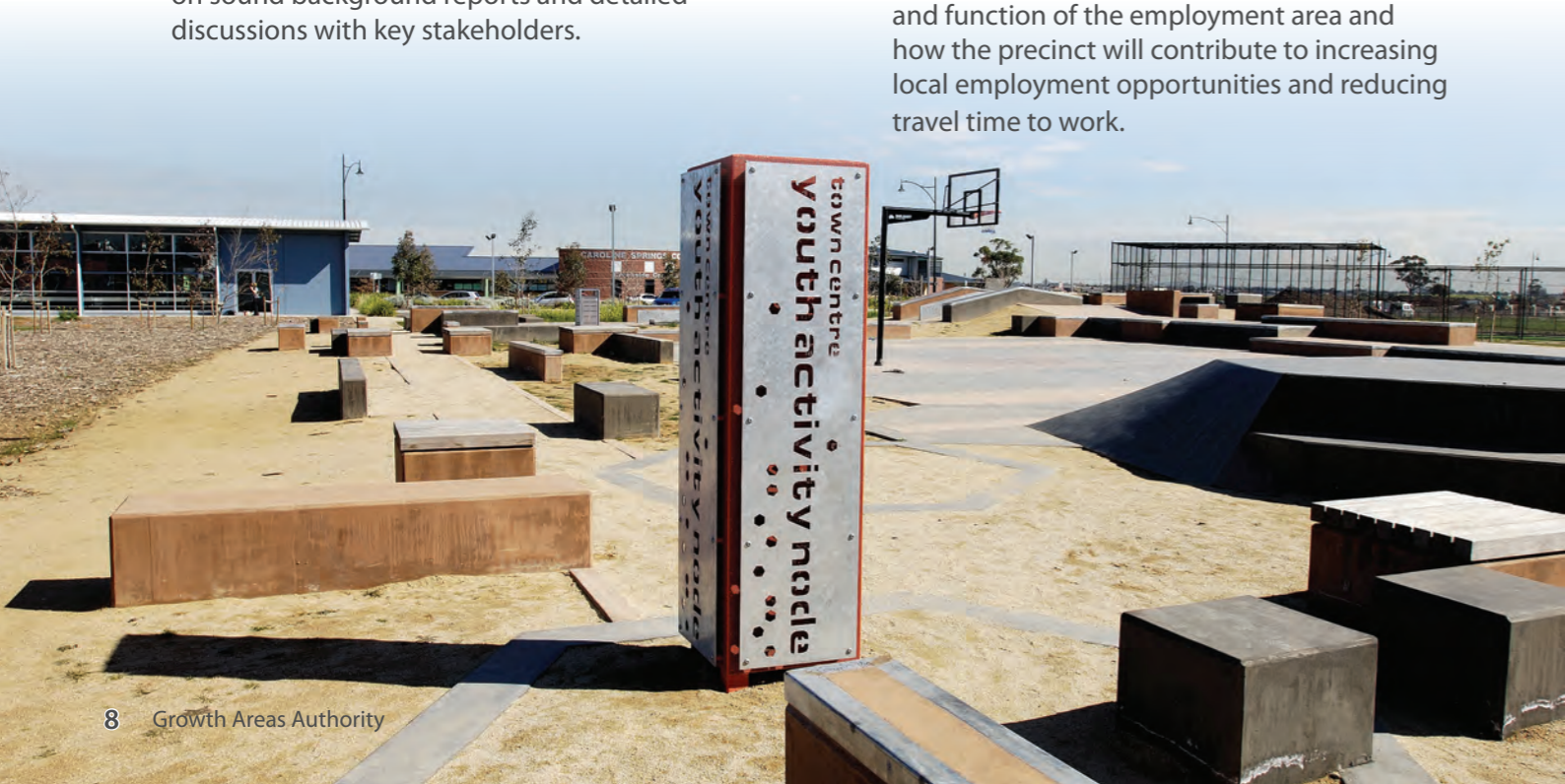
10. What opportunities exist to reduce energy use and to optimise water efficiency across the precinct?

The design response should be demonstrated using the following outputs:

### OUTPUT

The following output will support the preparation of the precinct structure plan:

- **Preliminary urban structure plan** showing the networks of activity centres, open space, community facilities, significant waterways and drainage corridors, arterial roads, strategic pedestrian and cycle paths, the Principal Public Transport Network (PPTN) and local bus routes (where connector streets are identified). (See example in figure 3).

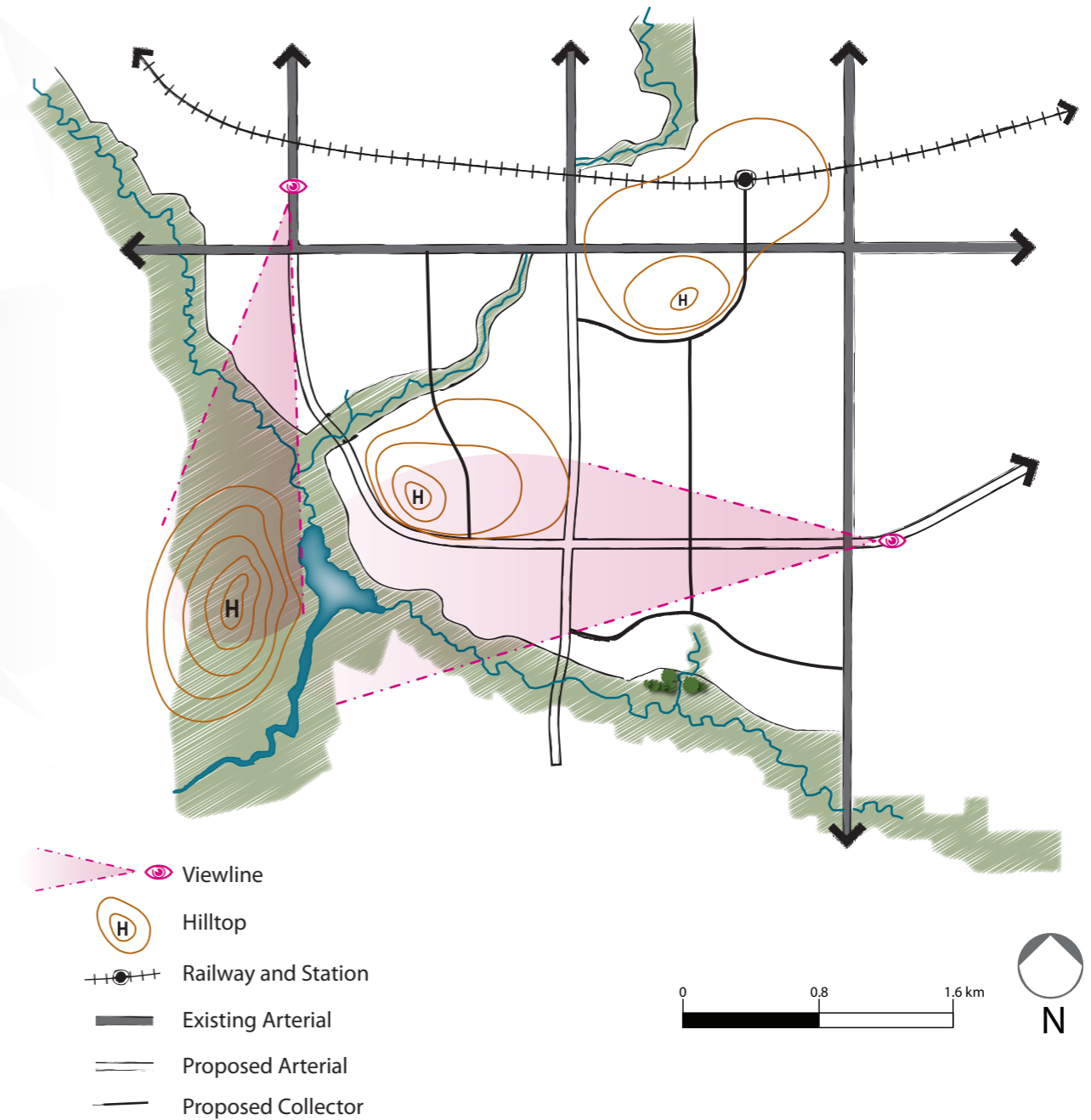


### RELEVANT STANDARDS

The preliminary and future urban structure should respond to the following standards:

<b>S1</b>	1.6 km road grid for arterial roads with safe and efficient connections to the arterial road network, adjusted where necessary to reflect local context (see figure 2). <i>See Clause 56.06-4.</i>
<b>S2</b>	Activity centres and hubs of community facilities are located to maximise access to public transport services. Principal and major activity centres are located on the PPTN (both bus routes and railway stations), and neighbourhood activity centres are served by local bus routes (see figure 3). <i>See Clauses 56.03-2 and 56.03-3.</i>
<b>S3</b>	Neighbourhood activity centres are located on connector streets with direct access to at least one arterial road (see figure 3). <i>See Clause 56.03-2.</i>
<b>S4</b>	A network of open space is provided across the precinct that connects to regional open space networks. <i>See Clause 56.05-2.</i>
<b>S5</b>	The location and scale of open space responds to existing drainage channels, landforms, biodiversity areas and cultural heritage values. <i>See Clause 56.05-1.</i>
<b>S6</b>	Large areas of open space (generally above 1ha, including any co-located with schools) are located outside or towards the edge of the walkable catchment of activity centres (see figure 3). <i>See Clause 56.05-2.</i>
<b>S7</b>	Hubs of community facilities are co-located with district parks (incorporating ovals) in order to enable sharing and integration between schools and active recreation space. <i>See Clause 56.05-2.</i>
<b>S8</b>	Off-road pedestrian and cycle paths are integrated with the open space network and link activity centres, community facilities, employment areas and other destinations within the precinct and surrounding area.

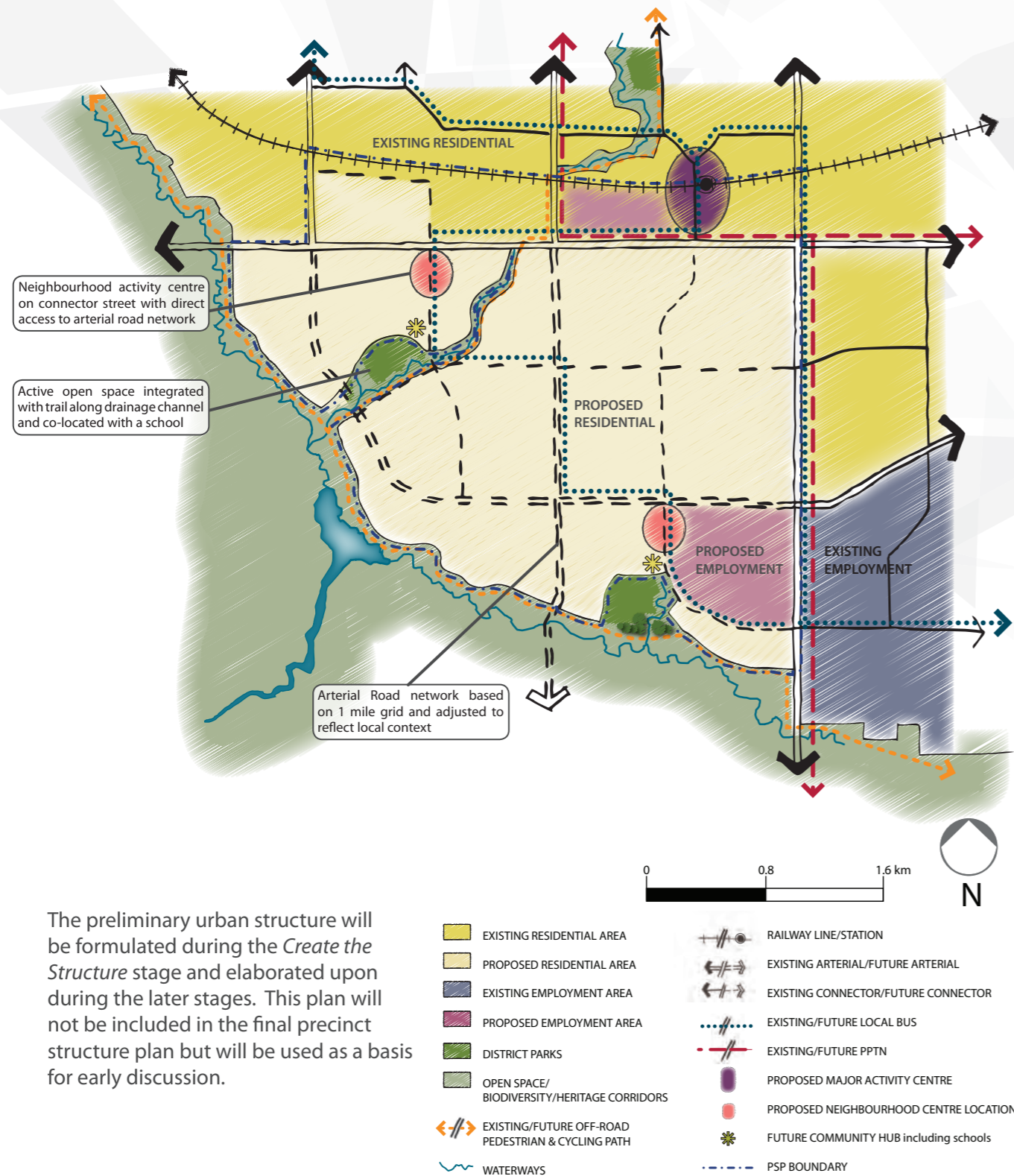
**Figure 2: Road grid adjusted to reflect the local context**



The basic structure of a precinct will be influenced by the arterial road network amongst other things. This should be adjusted to reflect natural features such as drainage channels, hilltops and view points (see standard S1).

## 4.0 Make the Place

**Figure 3: An example of a preliminary urban structure plan**



'Make the Place' clarifies in more detail what is envisaged for the structuring of key land uses described in 'Create the Structure' and arranges residential and commercial development.

This section sets the parameters for more detailed planning to occur at the next stage of preparing planning permit applications that will involve designing street blocks, lots and buildings.

It aims to reinforce an integrated planning approach to designing new neighbourhoods by addressing the interfaces and connections between land uses. This is set out in the **Integrated Precinct Design** section.

The design of the precinct is informed by the following elements:

- Image and character;
- Housing;
- Employment and activity centres;
- Community facilities;
- Open space and natural systems;
- Transport and movement; and
- Utilities and energy.

Responding to each element will require careful consideration due to the nature of their interconnections and competing directions.

Early consideration of the precinct's context may reveal the need for other elements to deal with precinct specific issues.



# integrated precinct design

The detailed design of the precinct will be based upon the integration of the elements brought together in the future urban structure plan.

Integrating the precinct design will be an iterative process, beginning with a plan based vision, going through various options during the create the structure phase and adding greater detail during make the place, culminating with the final future urban structure

## DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How will the precinct's developable area be maximised, while ensuring the highest standards of planning and urban design?
- Q2. How will the precinct structure plan facilitate compact neighbourhoods that are orientated around short and safe walking and cycling routes to activity centres, schools and community facilities, open space and public transport?
- Q3. How will opportunities for a mix of uses and diversity of places and experiences be created?

## OUTPUTS

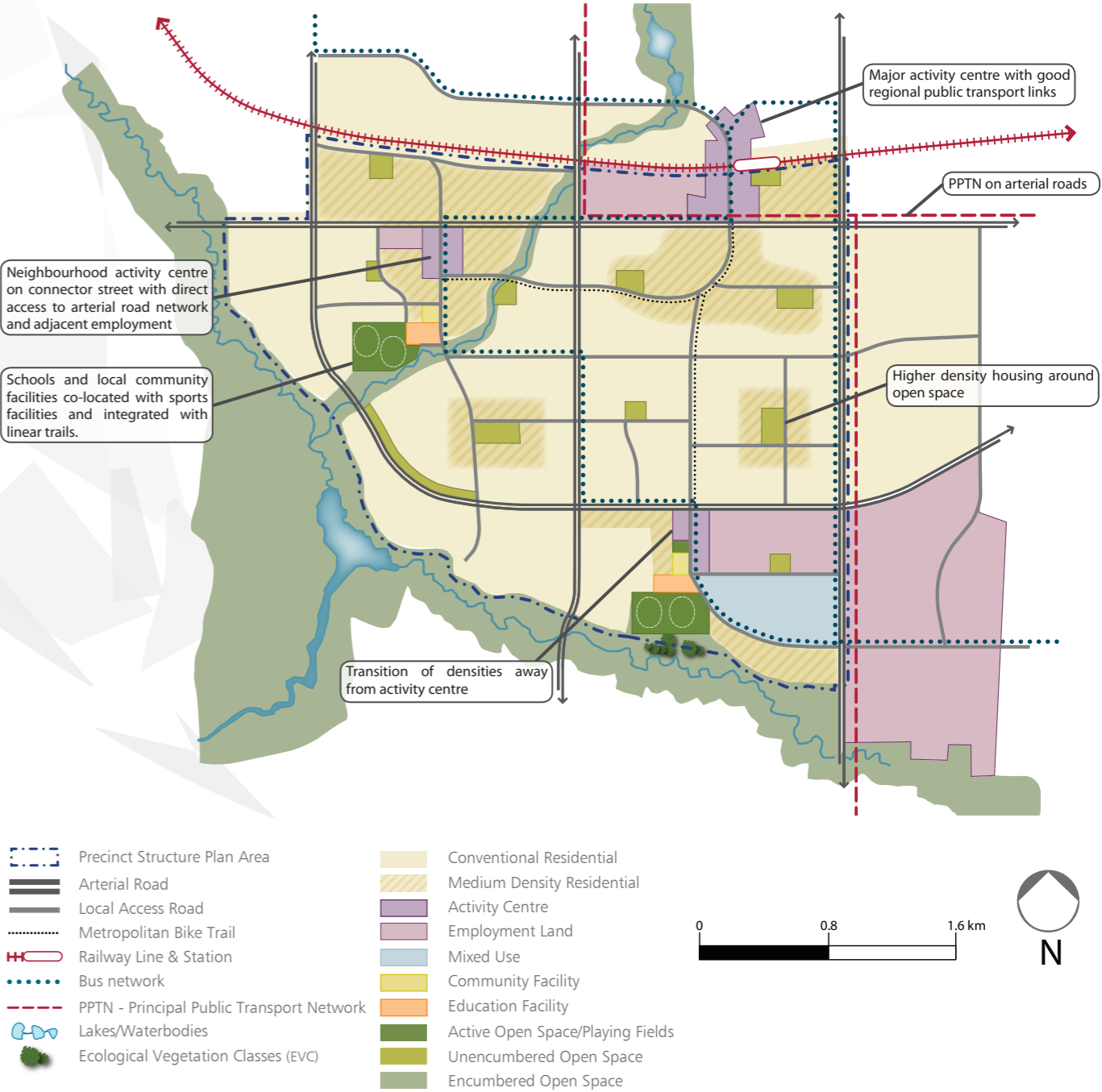
The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **A future urban structure plan** showing the integration of all land uses and the spread of development densities and diversity of uses across the precinct (see figure 4).
- **A land budget** setting out the amount of land to be allocated for each land use. This should be property specific, ie. it should set out the land uses relating to each property.



# integrated precinct design

Figure 4: An example of a future urban structure plan



The future urban structure shows how all of the elements of the precinct design will be integrated.

## IMAGE AND CHARACTER

**Figure 5:** Indicative transition of densities across a precinct

This shows the transition of densities and land use mix from the activity centre outwards across the precinct.



### DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How have local and surrounding topography, distinctive landscape features, water features and views across the precinct been integrated into the precinct design?
- Q2. How has heritage on the site been incorporated and interpreted to provide local character?
- Q3. What will give the precinct its unique identity, sense of place and liveability?
- Q4. How does the location of housing, activity centres, employment, community facilities and open space and the connections between them help to create a sense of place and to facilitate community interaction?
- Q5. How will opportunities for higher densities and a greater mix of land uses in and around activity centres be created, transitioning outwards from activity centres? (see figure 5)
- Q6. Have sites with adverse amenity potential been identified and recommended buffer distances included in consultation with the Environment Protection Authority.

### OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **An image and character plan** showing the way that contextual features are integrated into the precinct design, the way that densities and a mix of land uses transition across the precinct, and any particular character areas.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Landscape and topographical features (including water bodies and waterways) and the visual and historical/cultural characteristics of the precinct are used to guide the pattern of streets and public spaces and incorporated into views where appropriate. <i>See Clauses 56.01-1, 56.03-4 and 56.05-1.</i>
S2	Identify gateways and focal points for future landmark sites, squares, landscape features and/or public art. <i>See Clause 56.03-4.</i>
S3	A range of development densities is provided across the precinct with the majority of highest densities located within and adjacent to an activity centres and along routes of the Principal Public Transport Network (both bus and rail). (see figure 5)
S4	The plan should provide for future redevelopment sites to achieve higher densities in the longer term. In the short term these key strategic sites could be developed for other uses that do not preclude redevelopment for higher densities in the future. <i>See Clause 56.04-1</i>
S5	Homes designed to accommodate working from home are concentrated adjacent to activity centres. <i>See Clause 56.04-1</i>

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- Has a safe, attractive and walkable neighbourhood been created to make the precinct a desirable place for businesses and home buyers to invest in, and for residents to live, work and play?
- How can buildings and the local street network be used to reinforce views and vistas?
- How will surveillance of the public environment be maximised through subdivision design?



HOUSING

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. What opportunities have been taken to maximise the housing yield and increase density and diversity of housing types (for example by applying a variety of residential and mixed use zones)?
- Q2. How has an average of at least 15 dwellings per hectare (net developable area) been planned for?
- Q3. How has provision been made for a variety of housing types, sizes and tenures and for future increases in housing diversity as new communities mature and additional housing choices are required?
- Q4. What opportunities have been taken to maximise higher density housing close to public transport, shops and jobs?
- Q5. How is the delivery of more affordable housing closer to jobs, transport and services implemented?
- Q6. What provisions are included in the schedule to the Urban Growth Zone to facilitate housing diversity?
- Q7. How is consideration of housing provision balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- A **housing plan** that shows where high, medium and conventional density housing will be located in relation to activity centres, public transport, community facilities and open space.
- A **housing table** setting out the intended housing yield, mix of lot sizes and densities.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	<p>Housing across a precinct structure plan should achieve an average density of at least 15 dwellings per net residential hectare, which will be achieved by providing a range of lot sizes. Higher densities should be focused in and around activity centres and public transport based on the following guidelines:</p> <ul style="list-style-type: none"><li>• Within an activity centre, homes should be high density.</li><li>• Within the walkable catchment of an activity centre, homes should be medium or high density.</li><li>• The precinct structure plan should identify opportunities for medium to high density housing close proximity to a PPTN stop or station, a local bus stop, community facilities or open space.</li></ul> <p>The precinct structure plan should accommodate a range of housing products which, when averaged, provide a density of at least that referred to above. <i>See Clause 56.03-1</i></p>
S2	<p>A range of densities that enable a mix of housing types and sizes are provided across the precinct. <i>See Clause 56.04-1</i></p>
S3	<p>The precinct structure plan can identify opportunities for affordable and social housing in and around activity centres. <i>See Clause 16.05</i></p>
S4	<p>Any retirement villages or residential aged care facilities should be located within an activity centre or within 400 metres of an activity centre and public transport stop. Permeability and accessibility through these areas is encouraged. <i>See Clauses 56.03-1 and 56.04-1</i></p>

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- How will the design of housing contribute to a high quality urban environment and a sense of identity?
- How will the subdivision and building development result in a high level of passive surveillance of streets and other public places to maximise actual and perceived community safety?



EMPLOYMENT AND ACTIVITY CENTRES

Employment

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How does the precinct structure plan facilitate employment in the precinct and access to employment in the region?
- Q2. How will employment areas (including activity centres) contribute to the self-containment and diversity of the employment market in the region?
- Q3. How does the precinct structure plan support reduced commuting distances and travel time to work and give priority to commuters using public transport, walking or cycling?
- Q4. How does the employment area connect to the Principal Freight Network?
- Q5. How has the precinct structure plan responded to the needs of home based businesses?
- Q6. How is consideration of employment provision balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **An employment plan** showing the location of employment provided across the precinct, including in activity centres, community hubs and designated employment areas, and referring to employment types and job densities. This should also demonstrate an understanding of relationships to regional employment areas.
- **An employment table** setting out the expected job yield in the precinct, space requirements for different employment types and the number of expected jobs to be generated.
- **A travel to work statement** that explains how residents are likely to travel to work; how the distance and travel time to work is likely to be reduced; and how use of public transport, cycling and/or walking will be encouraged.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Employment uses that have a high employment density and/or frequent visitors (e.g. offices, retailing, and some community facilities) are located in activity centres. The more substantial office developments, retailing and community facilities should be located in principal and major activity centres.
S2	Major employment areas are connected to other employment areas (including activity centres) in the region by arterial roads, public transport and freight networks, as appropriate.
S3	Land shown as employment on the Growth Area Framework Plan is primarily used for commercial and industrial employment uses; however complimentary residential neighbourhoods may also be included where appropriate.
S4	The employment area incorporates open space (that links to the open space network) for the benefit of workers, local residents and visitors to the employment area.
S5	The employment area incorporates services for the benefit of workers, local residents and visitors to the employment area within an activity centre. Service facilities may include education facilities, medical centres, child care facilities, post offices, banks and retail/entertainment services.
S6	Mixed use employment areas that include housing are designed to ensure residents have access to public transport, local community services and open space.

Activity Centre Design

DESIGN RESPONSE

The design response included in the precinct structure plan should meet the objectives set out in the *Activity Centre Design Guidelines (Department of Sustainability and Environment, April 2005)* and should address the following questions:

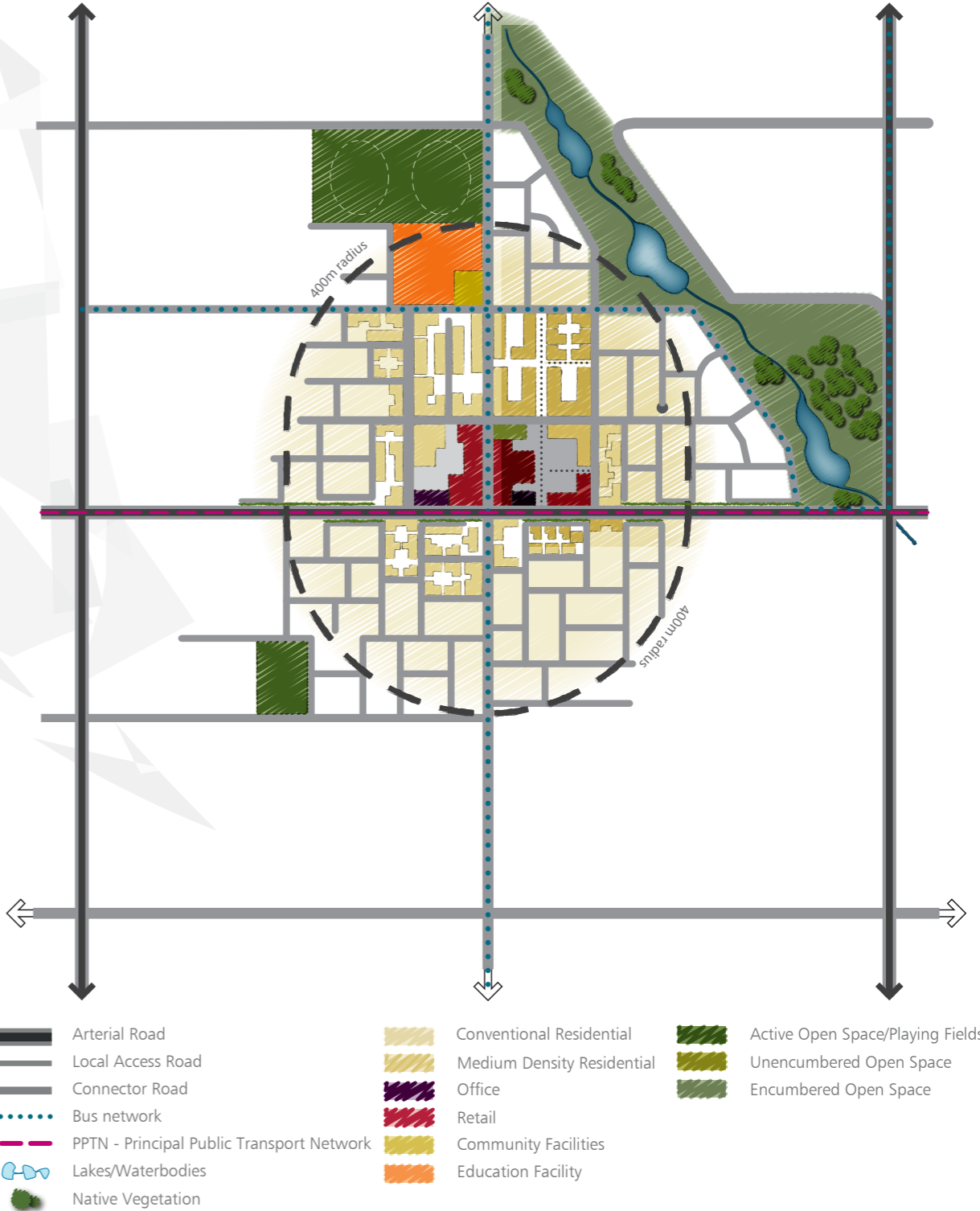
- Q1. Has a viable mix of uses been allowed for in the activity centre?
- Q2. How can the activity centre incorporate active street frontages that maximise pedestrian activity (such as by minimising/excluding internal malls and planning street-based building entries)?
- Q3. How does the design of the activity centre reinforce a unique sense of place and identity?
- Q4. How does the design of the activity centre promote local shopping and reduced car travel?
- Q5. How does the design of the activity centre respond to potential conflicts between residential and commercial uses (e.g. food and drink uses)?
- Q6. Is the layout of uses within the activity centres flexible to change?
- Q7. How has the movement of pedestrians, cyclists and public transport services been prioritised in activity centres?
- Q8. How does the activity centre design provide for a range of business types and sizes?
- Q9. How will the quality, orientation and adaptability of built form contribute to the long term success of the centre?
- Q10. How are amenity and noise impacts that result from a mix of uses, including housing, in the activity centre minimised?
- Q11. How is consideration of activity centre design balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

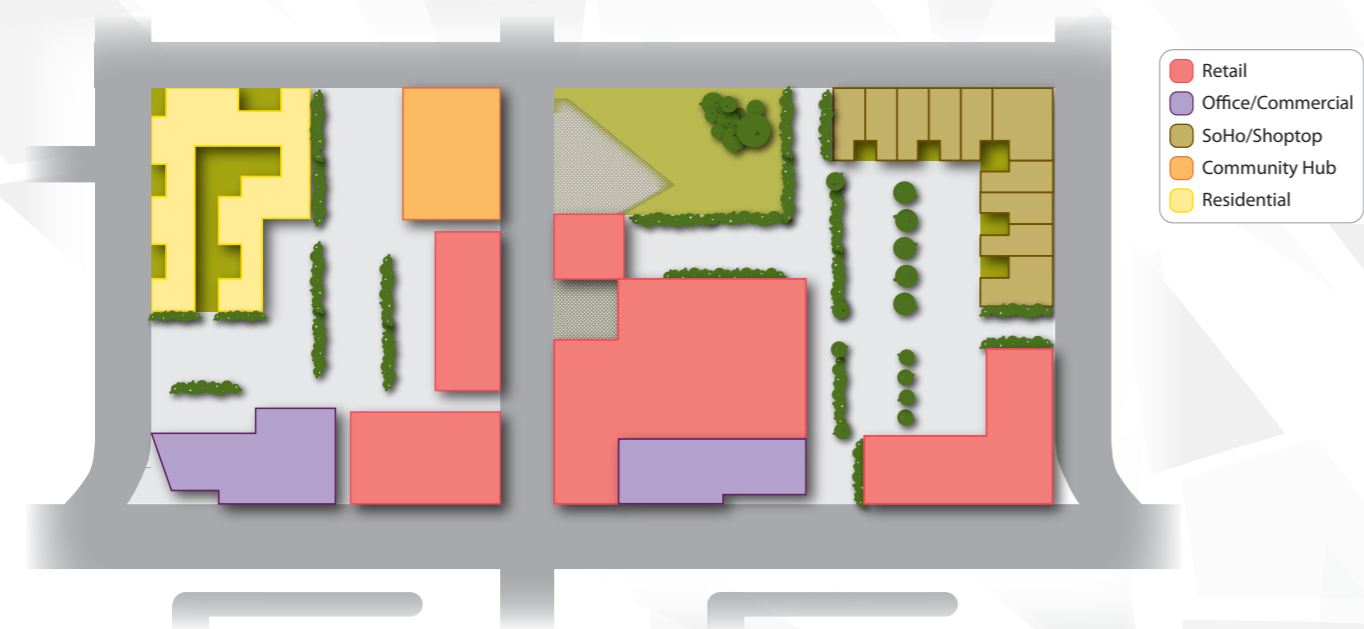
- **An activity centres plan** showing the location of proposed activity centres within the precinct. *This may be shown on the employment plan.*
- **An activity centres table** setting out the type of centre, indicative floor space and role of each activity centre.
- **Activity centre urban design framework requirements** will set out the critical design requirements for neighbourhood activity centres in the precinct, and would normally include a conceptual plan showing the location of key uses (see figure 7). An urban design framework will be required when an application for use and development applies to any part of the land identified as a neighbourhood activity centre. The framework will be assessed against the requirements set out in the precinct structure plan.

Figure 6: Relationship between road grid, activity centre and density



This diagram shows how the activity centre should be located on a connector street with direct access to the arterial road network. It shows the potential inter-relationship between the activity centre and housing density, community facilities and open space.

Figure 7: A conceptual activity centre plan showing the location of key uses



RELEVANT STANDARDS

The precinct structure plan should respond to the following standards in association with the design suggestions set out in the Activity Centre Design Guidelines:

S1	Activity centres and land within the walkable catchment of activity centres incorporate mixed use development. <i>See Clauses 56.03-2 and 56.04-1</i>
S2	Activity centres have a variety of land uses and a range of business sizes that have main street frontage. This includes a mix of retail, office (including home-office and other administration uses), housing, recreation and entertainment, community services and civic uses.
S3	80-90% of households should be within 1km of an activity centre of sufficient size to allow for provision of a supermarket.
S4	Street blocks should be highly permeable and enable people to access goods and services safely. <i>See Clause 56.06-2.</i>
S5	Buildings on landmark sites within activity centres are multi-storey. <i>See Clauses 56.03-4.</i>
S6	Buildings within activity centres address the street and public spaces and have 'active' ground floor uses. <i>See Clause 56.03-2 and Element 3 in the Activity Centre Design Guidelines.</i>
S7	Pedestrian movement is prioritised over vehicle movement within activity centres including along the main street.

S8	All activity centres should contain town parks/squares and multi-purpose urban spaces should be provided for meeting places, local markets and community events or other gatherings. <i>See Clause 56.05-2.</i>
S9	Larger format restricted retail stores are located within activity centres, but away from the highest intensity uses.
S10	Opportunities are provided for small business in and adjacent to activity centres, including in conjunction with a dwelling.
S11	Civic buildings are placed in prominent locations, usually next to town squares.
S12	Local centres are located on connector streets carrying an existing or proposed public transport route, and include a viable convenience store.

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- How will buildings in activity centres be designed to ensure they reflect the significance they have to the broader community?
- How will buildings be designed and constructed so that they are flexible enough to accommodate a range of uses over time, including responding to changing market forces practically and cost effectively?
- How will transport access to major employment areas and activity centres, especially for freight, avoid impacting on the amenity of nearby residential areas?
- How can streets be designed in activity centres to enable comfortable and safe movement by all modes of transport, especially pedestrians and cyclists?
- How can the visual impact of parking and servicing be minimised within activity centres?
- What opportunities have been sought to incorporate high environmental standards into the development? These standards apply to issues such as water conservation, landscaping of streets and public open space, bicycle paths, water sensitive urban design, energy conservation, safety, heat and sun exposure and waste management.
- How are buildings within and adjacent to activity centres designed to facilitate a mix of uses and high development densities? (For example, multi-storey buildings)
- What facilities have been provided for cyclists in the activity centre, community hub or other employment area (including end-of-trip facilities and parking)?
- How does the activity centre design provide for people with disabilities?

COMMUNITY FACILITIES

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. Has an appropriate amount of suitable land been allocated for facilities to meet community needs for growth areas?
- Q2. Has the community facility network responded to adopted council or agency service plans?
- Q3. Has safe and convenient access to community facilities (both local and regional) been provided by walking, cycling, public transport and car?
- Q4. How will the educational, health and cultural needs of the community be met by the provision of foundation, established and enhanced level facilities (both government and non-government) as the community develops, and how will these facilities be delivered? *These facilities should be listed in the precinct infrastructure plan.*
- Q5. How will emergency and justice services be located to minimise journey and response times, in terms of access, distance and congestion?
- Q6. How does the precinct structure plan provide opportunities for shared, co-located and/or integrated facilities to achieve effective and efficient infrastructure and early service delivery?
- Q7. How are school children encouraged to walk or cycle to school?
- Q8. How is consideration of community facilities provision balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **A community facilities plan** setting out the location of facilities (foundation, established and enhanced) within the precinct. It should also identify the residential catchment area that the facility will service. (This can be combined with the open space plan).
- **A community facilities table** setting out what community facilities are to be provided, where they are located and who is responsible for funding and delivery, and potential users. This will inform the preparation of the precinct infrastructure plan. (This can be combined with the open space table).

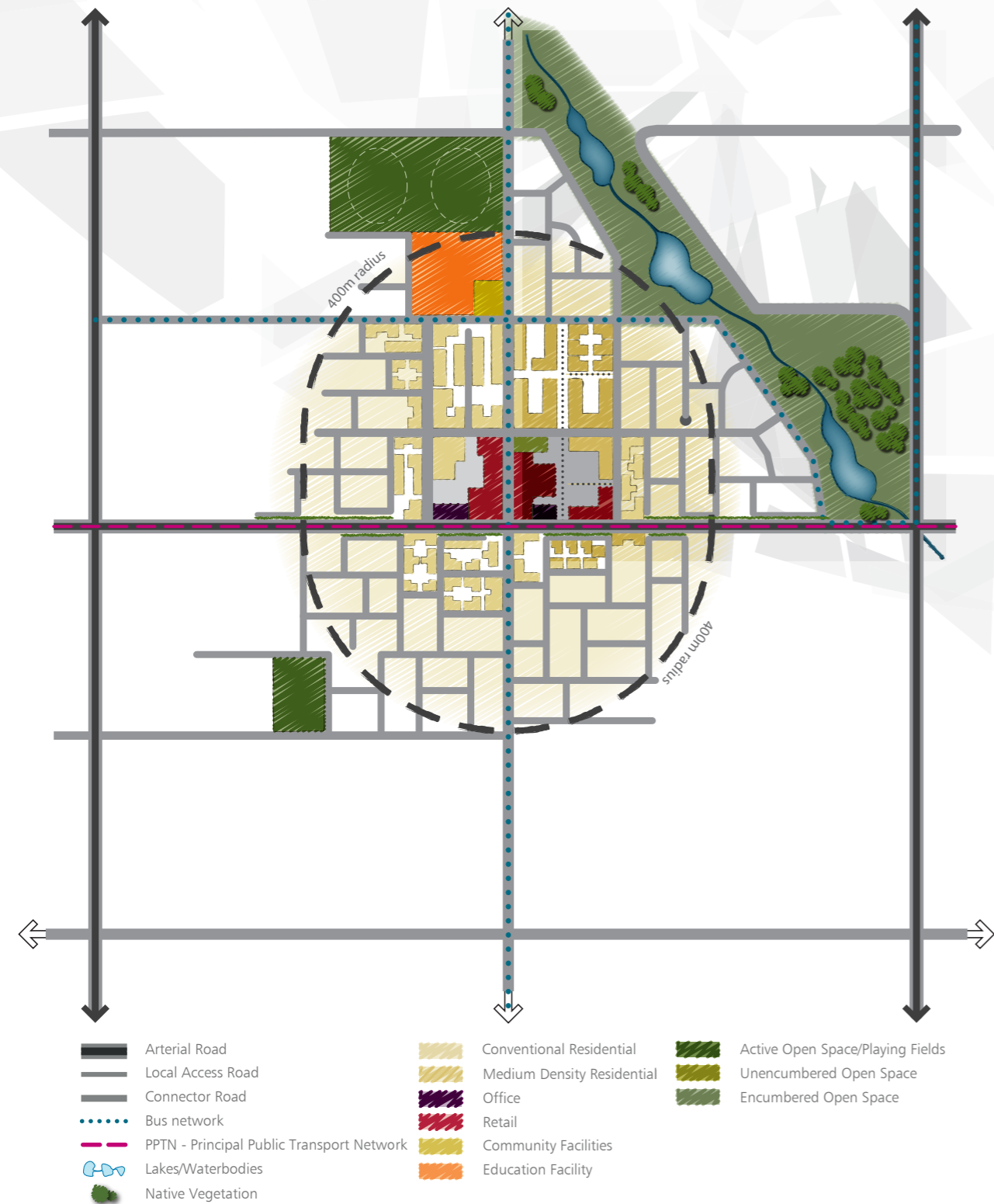
RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Community facilities (e.g. schools, community centres, active open space) are generally co-located with each other, and located either close to a neighbourhood activity centre or with good visual and physical links to a neighbourhood activity centre.  Lower density community uses (e.g. active open space) should generally be further from the activity centre than higher density community uses (e.g. childcare and community centres).  See figure 8. See Clause 56.03-3.
S2	Primary schools (both government and non-government) are located on connector streets carrying a local bus service, with a bus stop at the school boundary. See Clause 56.03-3.
S3	Secondary schools (both government and non-government) are located on connector streets with direct access to the PPTN (rail and/or bus based), where possible. See Clause 56.03-3.
S4	Community facilities, and schools in particular, are linked to the cycling and walking network, and the local and regional public transport network.
S5	Where health services are needed, they are provided as part of either the community hub or activity centre.
S6	Emergency services provided should be located with easy access to the arterial road network. Any justice services provided should be located with easy access to the principal public transport network. These should be provided as part of either the community hub or activity centre where appropriate.



Figure 8: Community facility location and layout



This diagram shows community facilities co-located together, with good links to the activity centre and densities transitioning from higher to lower away from the activity centre.

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

- Questions to be considered in preparing planning permit applications are:
- How will community facilities be designed to provide a community focus and build upon local features to help create a sense of place and community?
  - How does the design of the community precinct provide opportunities for integrated services and shared or joint use between a range of providers to enable efficiency of land use, investment and infrastructure and improved service delivery? How will these integrated community facilities be funded, delivered and managed?
  - How will changing community needs be met over time?
  - How will the design of community facilities encourage walking and cycling?
  - How will the design of the facilities address accessibility for mobility impaired people?
  - How does the community facility design contribute to a high level of community safety, sense of security and passive surveillance?

KEY PRINCIPLES FOR DESIGNING INTEGRATED COMMUNITY FACILITIES

- Schools, sporting facilities and other stand alone facilities that have traditionally had single purpose functions should be planned to respond to a wider range of community needs. For example:
- For a population of 7,000 to 12,000 people, the precinct structure plan should include an integrated community precinct that allows space for a primary school, integrated early childhood services (including child care), health and community service provision, a community centre, active and passive open space and connecting walking, cycling and public transport links. A basic fire station with response specific equipment might also be needed in the precinct, although this will need direct arterial road access.
  - For larger populations up to 30,000 people, the precinct structure plan should provide a more substantial integrated community precinct allowing space for a range of the following: government secondary school; non-government primary school; branch library, arts and culture facilities; community centre; a youth centre; indoor recreation facilities; active and passive open space, as well as additional lower level integrated community facilities as above. A large fire facility including offices, training and meeting facilities, with broader fire prevention and recovery infrastructure might also be needed (with direct arterial road access).
- The exact amount of land to be allocated for integrated community facilities will depend on the local context and type of services needed by the new community. Land requirements should be determined through consultation with service providers.

## OPEN SPACE AND NATURAL SYSTEMS

### *Integrated open space network*

#### DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How have both qualitative and quantitative criteria been used in designing the open space network?
- Q2. How will the natural and cultural attributes of the precinct be protected, managed and enhanced within a network of public open spaces?
- Q3. How have a variety of quality, well distributed and multi-functional public open spaces, including linear trails, been provided to meet the needs of a wide range of future residents and users?
- Q4. How is the open space network linked to neighbourhoods within the precinct to ensure that it is easily accessible to all members of the community?
- Q5. How have opportunities to enable efficient use of active open space land been maximised?
- Q6. How has encumbered land been designed to form part of the open space network where appropriate?
- Q7. How have efficiencies been achieved in the size of retarding basins/wetlands, including by incorporating water sensitive urban design?
- Q8. How does the design of the open space and the development immediately surrounding it provide for community safety and passive surveillance?
- Q9. How is consideration of open space provision balanced with other objectives in favour of net community benefit and sustainable development?
- Q10. How does the location and design of open space and other public space take account of climate change, particularly increased temperatures and extreme weather events?

#### OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **An open space plan** showing active and passive public open space areas on a precinct-wide scale; the integration of different open space types; and how encumbered land has been appropriately used. (This can be combined with the Community Facilities Plan.)
- **An open space table** showing the different types of public open space (including its use as active or passive open space; its character, function, size and scale), use of encumbered land, opportunities taken to integrate open space types, and explanations of how open space (including shared space) will be managed. (This can be combined with the Community Facilities Table)
- **A concept plan for active open space areas** that provides a preliminary indication of the spatial configuration of sporting facilities within active open space areas. Where the active open space is co-located with community facilities, these should be included..



RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	<p>Provide a network of quality, well-distributed, multi-functional and cost effective open space, catering for a broad range of users that includes:</p> <ul style="list-style-type: none"><li>Local parks within 400m safe walking distance of at least 95% of all dwellings;</li><li>Active open space within 1 kilometre of 95% of all dwellings;</li><li>Linear parks and trails, most often along waterways, but also linked to vegetation corridors and road reserves within 1 kilometre of 95% of all dwellings. <i>See Clause 56.05-2</i></li></ul>
S2	<p>In residential areas, approximately 10% of the net developable area as total public open space, of which 6% is active open space.</p> <p>In addition, residential precincts should contain active indoor recreation facilities that are co-located and/or share space with schools and integrated community facilities. This should result in an active indoor sports provision of approximately 5 hectares per 60,000 residents.</p>
S3	<p>In major employment areas, approximately 2% of net developable area as public open space, usually with a passive recreation function.</p>
S4	<p>In meeting standards S2 and S3, encumbered land should be used productively for open space.</p> <p>The network of local and district parks should be efficiently designed to maximise the integration and sharing of space with publicly accessible encumbered land.</p> <p>Encumbered land usually includes land retained for drainage, electricity, biodiversity and cultural heritage purposes.</p> <p>The parkland created by such sharing and integration should be suitable for the intended open space function/s, including maintenance.</p> <p>In this way encumbered land will be well utilised, while the total amount of open space can be optimised without adversely impacting on the quality and functionality of the network.</p>
S5	<p>Active open space should be:</p> <ul style="list-style-type: none"><li>of an appropriate size, i.e. sufficient to incorporate two football/ cricket ovals, but small enough to enable regular spacing of active open space provision across the precinct. This configuration would generally require at least eight hectares;</li><li>appropriate for its intended open space use in terms of quality and orientation;</li><li>located on flat land (which can be cost effectively graded);</li><li>located with access to, or making provision for a recycled or other sustainable water supply;</li><li>designed to achieve sharing of space between sports; and</li><li>linked to pedestrian and cycle paths.</li></ul>

S6	All public open space areas should be designed to maximize passive surveillance. <i>See Clauses 56.04-4 and 56.05-2</i>
S7	The public open space network is combined with techniques for managing urban run-off and biodiversity. <i>See Clauses 56.05-1, 56.04-4, 56.05-2, 56.07-4</i>

KEY PRINCIPLES FOR OPEN SPACE DESIGN

Planning the provision of open space in a precinct structure plan is about quality and quantity.

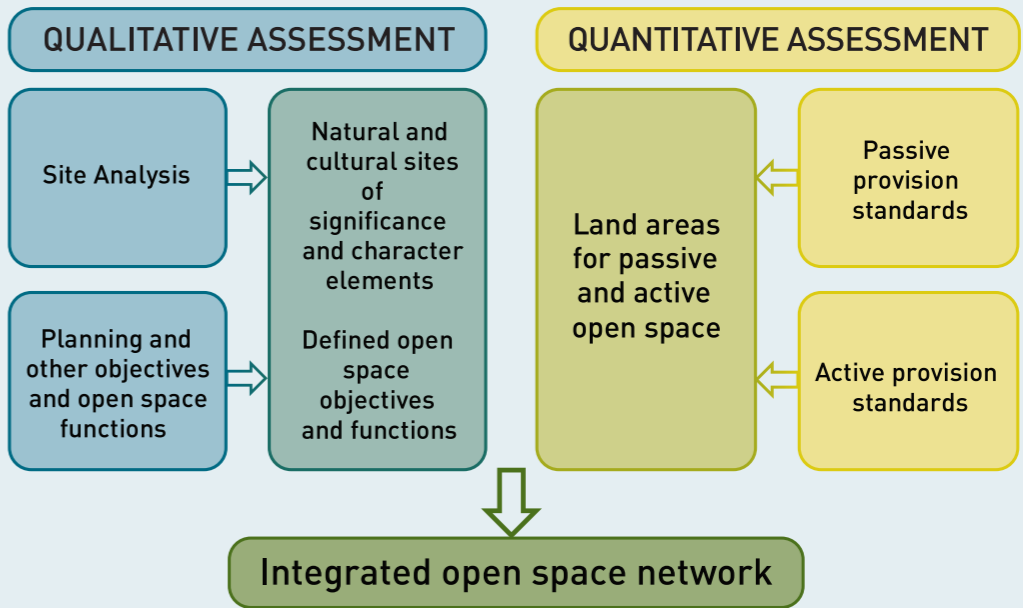
The quantitative assessment is to determine the amount and type of open space to be provided by analysing such factors as:

- the function of parks within the open space network;
- appropriate distribution and proximity to the precinct's population;
- community needs for open space in the anticipated population;
- the amount of existing or planned open space in areas in the vicinity of the precinct.

The qualitative assessment involves taking into account:

- the precinct's physical features such as topography, extent of native vegetation, cultural heritage and drainage reserves and considering how these can be integrated and shared with the open space network;
- the quality of other existing or planned open space in areas in the vicinity of the precinct.

Combining both assessments achieves an integrated open space network



element five

Biodiversity management

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How have biodiversity values been protected and enhanced to address international, commonwealth and state government legislation?
- Q2. How will retained biodiversity values be managed in public or private ownership and where possible, incorporated into the open space network?
- Q3. Has an appropriate balance been struck between public access to open space and protecting biodiversity habitat?
- Q4. How is consideration of native vegetation and other biodiversity values balanced with other objectives in favour of net community benefit and sustainable development?
- Q5. How has the habitat for matters of national environmental significance (NES) eg threatened species and ecological communities, migratory species, Ramsar sites been protected?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **A biodiversity plan** that identifies the implementation provisions for the protection, enhancement and management of biodiversity assets such as waterways, corridors, landscaping and integration with public open space. The plan would include a map showing where significant biodiversity values are located and whether and how these are to be incorporated into the urban area. It lists commitments to protect and enhance biodiversity values and identifies statutory documents for the implementation of biodiversity outcomes (which may or may not be included in the precinct structure plan itself):
  - **A native vegetation precinct plan** that specifies the native vegetation to be protected, removed, destroyed or lopped in accordance with clause 52.16 of the local planning scheme;
  - **A conservation management plan**, or a requirement to prepare one, that specifies protection and management outcomes for threatened species or ecological communities listed under the Environment Protection and Biodiversity Conservation Act 1999 and Flora and Fauna Guarantee Act 1988, where biodiversity assessment\* indicates the presence of populations or important habitats of those species or ecological communities.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	The government’s approach to native vegetation precinct planning and urban development is achieved (refer to PSP Note).
S2	Appropriate transitions and buffers are provided between areas of high conservation value and urban land uses.
S3	Areas set aside for biodiversity protection are planned as part of the precinct’s open space network or otherwise appropriately managed in the long-term in an urban context. <i>See Clauses 56.05-1 and 56.05-2</i>
S4	Areas set aside for biodiversity protection are sustainable for an urban context in the long term in terms of their size and their connection to other natural areas. <i>See Clause 56.05-1</i>
S5	Net impacts on matters of national environmental significance under the EPBC Act are not significant.

\* Biodiversity assessments should be based on the methodology guidelines set out in the Biodiversity Precinct Planning Kit (July 2009)

element five

Heritage management

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How have Aboriginal cultural heritage values been protected and enhanced in accordance with the government’s approach to Aboriginal cultural heritage management planning?
- Q2. How have Aboriginal cultural heritage values been appropriately incorporated into the open space network or otherwise protected?
- Q3. How have heritage buildings, structures, trees, gardens, historical archaeology sites and relics, and other such places been protected and enhanced in accordance with the government’s approach to post-contact heritage management?
- Q4. How is consideration of cultural and post-contact heritage balanced with other objectives in favour of net community benefit and sustainable development?
- Q5. How have the values of any National Commonwealth or World heritage sites in the vicinity been protected to ensure no significant impacts?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **A heritage plan** showing the location and significance of heritage places and features indicating how these are to be integrated into the precinct design.
- **A cultural heritage management plan** for the precinct as defined by the Aboriginal Heritage Act 2006 (where applicable).

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	The government’s approach to heritage planning is achieved. (refer to PSP Note)
S2	Areas set aside for heritage protection are planned as part of the precinct’s open space network or built environment, as appropriate. <i>See Clause 56.05-1</i>
S3	Appropriate transitions and buffers are provided between areas of significant Aboriginal cultural heritage value or, where appropriate, post contact heritage value, and urban land uses.

Integrated Water Management

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How will the management of urban run-off be integrated with open space provision?
- Q2. How will run-off quantity and quality be controlled to meet the requirements of the relevant authorities?
- Q3. How will the impact of development on the waterways be minimised and their existing condition improved?
- Q4. How does the design of waterways allow for their maintenance?
- Q5. How have waterways been designed to protect riparian vegetation, provide fauna habitat and movement corridors and protect water quality?
- Q6. Does the precinct’s urban run-off management system have sufficient capacity to manage additional flows that occur as a result of predicted climate change and passage of peak 100 year flows to meet drainage authority requirements?
- Q7. Are waterways and wetlands created as part of a water sensitive urban design scheme or otherwise designed so that they become a valuable community asset?
- Q8. How will onsite use of stormwater and recycled water minimise the use of potable water?
- Q9. How is consideration of water management balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

An integrated water management plan including:

- A plan that sets out potential water sensitive urban design elements and planned flood capacity and conveyance;
- An estimate of the amount of stormwater that can be harvested for use within the development; and
- Water sensitive urban design options that should apply to the precinct.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Urban run-off management systems are integrated into the overall plan and incorporated into the open space network, ideally by avoiding alteration of the natural drainage network and limiting the amount of cut and fill required. See Clauses 56.05-1 and 56.07-4.
S2	The urban run-off system is designed and managed in accordance with the requirements of the relevant water authority (Melbourne Water for catchments greater than 60 hectares; local council for smaller catchments). See Clause 56.07-4.
S3	Existing natural waterways, wetlands and their riparian vegetation are incorporated into urban run-off systems where appropriate. See Clause 56.05-1 and 56.05-2.
S4	Development is designed to ensure that the health of the downstream waterway does not decline as a result of urban development. See Clause 56.07-4.
S5	Artificial lakes, ponds or other permanent water bodies provide a water management function in an urban context, protect and enhance natural systems and are cost effective.
S6	Development sensitive to flood risk is not sited on significant flood risk areas. Flood storage areas are utilised as features and used for less sensitive uses such as active or passive public open space. See Clause 56.07-4.
S7	Adjustments to the stream or floodway only occur if it is necessary, cost effective, does not increase flood risk elsewhere, and minimises environmental impacts.
S8	Large areas of open space are located where they enable the capture of stormwater for watering.

element five

Fire and Bushfire Management

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. Has the Country Fire Authority been consulted and their requirements incorporated into the plans?
- Q2. How will the risk of wildfire to property and the community be reduced, and will a wildfire management overlay be required?

OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

A **bushfire risk management plan** that describes any potential wildfire risk both when the precinct is fully built-out and during development, and sets out how these risks have been mitigated and how the Country Fire Authority has been involved.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Any fire or bushfire management planning policy of the Victorian State Government is taken into account in planning the precinct. <i>See also Clause 44.06-2.</i>
S2	Buildings should be separated by an appropriate buffer (which could include a roadway) from bushland, grassland or other areas of vegetation that present a fire risk.
S3	Alternative access routes are provided for fire fighters and residents in bushfire prone areas.

element five

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- Is active open space designed to meet current and future needs in a flexible and adaptable manner?
- Is active open space designed to minimise the use of potable water through turf management and irrigation requirements?
- Are all public open space areas fronted by uses designed to provide passive surveillance?
- Is the design of the precinct integrated with the protection and enhancement of any areas of biodiversity or cultural heritage values nearby?
- How can water sensitive urban design features be used to manage urban run-off in streets and public open space?
- What opportunities are there to supply re-used and recycled water to all lots in the subdivision?
- What opportunities have been taken to minimise consumption of potable water in the precinct, during construction and operation?
- Does the development provide access for maintenance to drainage infrastructure?
- How are buildings that accommodate people sited and designed to incorporate bushfire protection measures in areas at risk of bushfire?
- Are firefighting infrastructure and water sources that might be used for fire fighting, including fire hydrants and fire plugs, appropriately located in urban environments?
- Are streets designed, located and connected to allow safe and efficient movement of emergency vehicles?



## element six

### TRANSPORT AND MOVEMENT

#### DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How has a transport network been provided that links people from home to shops, jobs, schools, other community facilities and to other destinations of activity within the precinct and the region safely and efficiently?
- Q2. What opportunities are provided to reduce the number of trips required and to shorten the length of travel?
- Q3. How will the precinct structure plan help to prioritise and increase the proportion of trips made by public transport and to encourage walking and cycling?
- Q4. How will arterial roads and connector streets be designed as safe and attractive places for all transport users (e.g. pedestrian, cyclist, bus, car and emergency vehicles) with regard to their role and function in the movement hierarchy?
- Q5. How does the plan cater for safe and efficient operation of public transport?
- Q6. How does the precinct structure plan help to create a network of linked walking and cycling paths as part of a broader regional network?
- Q7. How is consideration of transport infrastructure balanced with other objectives in favour of net community benefit and sustainable development?

## element six

#### OUTPUTS

The design response should be demonstrated by including the following outputs in the precinct structure plan:

- **A transport plan** showing the hierarchy of streets, pedestrian and cycle paths, public transport and freight routes. This will be updated to form the Integrated Transport Plan at planning permit stage. *Separate plans may be provided to aid legibility.*
- **A transport table** setting out the role and function of different categories of the movement hierarchy.
- **Street cross section drawings** showing how arterial roads, connector streets and local access streets will be designed to cater for multiple transport modes, land uses and trees.

The following output will support the precinct structure plan (including the precinct infrastructure plan):

- **A transport assessment report** that sets out the expected traffic movements on planned roads within the precinct (with reference to VicRoads Network Operating Plans), existing and proposed public transport routes and anticipated public transport patronage.

RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Arterial roads spaced at approximately 1.6 kilometre intervals and connector streets spaced at approximately 800 metre intervals, having regard for existing and proposed land uses, public transport and property access requirements. <i>See Clause 56.06-4</i>
S2	Local feeder bus routes are aligned with connector streets and these connect to the PPTN (both bus and rail) and activity centres and community facilities. <i>See Clauses 56.03-2, 56.03-3 and 56.06-3</i>
S3	Land is set aside to enable grade separation of access crossings of all transport corridors (including roads, pedestrian and bicycle paths) across railways. The precinct structure plan should identify and preserve the land required for grade separation of the existing or proposed crossing.
S4	Land is planned and reserved for the future expansion of streets and railways (as identified by the Transport Assessment Report) to meet movement needs as the precinct or adjoining areas evolve over time.
S5	The most intensive land uses that have a high residential or employment density and/or a large number of frequent visitors are concentrated in or adjacent to activity centres on the PPTN or local bus route. If a railway station and/or public transport interchange facility is proposed, land use and street networks are developed to maximise catchments and accessibility. <i>See Clauses 56.03-2 and 56.06-3</i>
S6	Freight access to and from activity centres and major employment areas minimises any adverse impacts on adjoining land uses.
S7	95% of dwellings are located not more than 400 metres street walking distance from the nearest existing or proposed bus stop. <i>See Clause 56.04-1</i>
S8	Bus interchanges are integrated with railway stations and ‘park and ride’ facilities to enable easy movement of travelling by foot, car, train and bus.
S9	Marked bicycle lanes are provided on all collector streets. On all arterial roads, provide a shared bicycle/footpath (segregated where possible) and on road bicycle lanes wherever possible. <i>See Clause 56.06-2</i>
S10	All streets have footpaths on both sides of the reservation. <i>See Clauses 56.06-5</i>
S11	Avoid the use of slip lanes at locations within activity centres where significant pedestrian flows are expected, although their need will require assessment on a case by case basis.

S12	Pedestrian crossing points are provided along key pedestrian desire lines, on both sides of all legs of signalised intersections in activity centres, and at appropriate bus stops.
S13	Dedicated off-street shared pedestrian and cycle paths are established through open space areas. Where relatively high levels of pedestrians and cyclists are expected, segregated paths exist. <i>See Clause 56.06-2</i>
S14	In areas of anticipated high pedestrian/cyclist demand, and where necessary and appropriate, crossings for these users should be provided across barriers such as railway lines, service easements and watercourses. These should be at a maximum spacing of 400m. Road bridges should be constructed at regular intervals (ideally at about 800 metres spacing and up to a maximum of 1600m spacing) over these barriers.
S15	Reserves along arterial roads and connector streets are made available for treed boulevards (refer to VicRoads clear zone standards).

CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- How does the location of local streets reinforce a permeable street network?
- How will local streets be designed as safe and attractive places for all transport users (e.g. pedestrian, cyclist, bus, car and emergency vehicles), with regard to their role and function in the movement hierarchy?
- Has an appropriate balance been struck between encouraging direct and safe access to shops, schools and services and minimising traffic congestion within activity centres?
- How can the use of public transport be prioritised through the design of spaces and buildings?
- What street landscaping can be used along with other urban design treatments to reinforce the identity of places and legibility of routes?
- Has the location and design of bus stops been determined before subdivision or development?
- How does the design of public transport stops and the surrounding subdivision promote public transport user safety and surveillance?
- What has been done to accommodate bicycle end-of-trip facilities at activity centres and other key destinations?

UTILITIES AND ENERGY

DESIGN RESPONSE

The design response included in the precinct structure plan should address the following questions:

- Q1. How does the precinct design make provisions for the supply of water, electricity, gas, sewerage and telecommunications infrastructure to be provided to all lots and phased in sequence with the development?
- Q2. How does the design and location of physical services infrastructure contribute to a high quality setting for development?
- Q3. How will land efficiencies be achieved for utility easements through multiple land uses?
- Q4. How does the precinct design enable the provision of a cost efficient physical services infrastructure network in both the construction and operation phases?
- Q5. How have opportunities for low carbon generation, renewable energy (such as passive solar gain) tri-generation and co-generation been included?
- Q6. How does the precinct structure plan provide for the full range of telecommunications services, including high speed internet?
- Q7. How has land needed for infrastructure that requires its own site, such as valve farms, pumping stations, telephone exchanges etc, been made available?
- Q8. How will 66kV power lines be provided without losing the opportunity to provide canopy trees along arterial roads?
- Q9. How is consideration of utilities and energy infrastructure balanced with other objectives in favour of net community benefit and sustainable development?

OUTPUTS

The design response should be demonstrated using the following outputs.

- **A utilities plan** showing the location of existing and proposed physical services infrastructure.
- **An energy statement** that briefly explains the principles for enabling development within the precinct to minimise the use of non-renewable/non-sustainable energy.

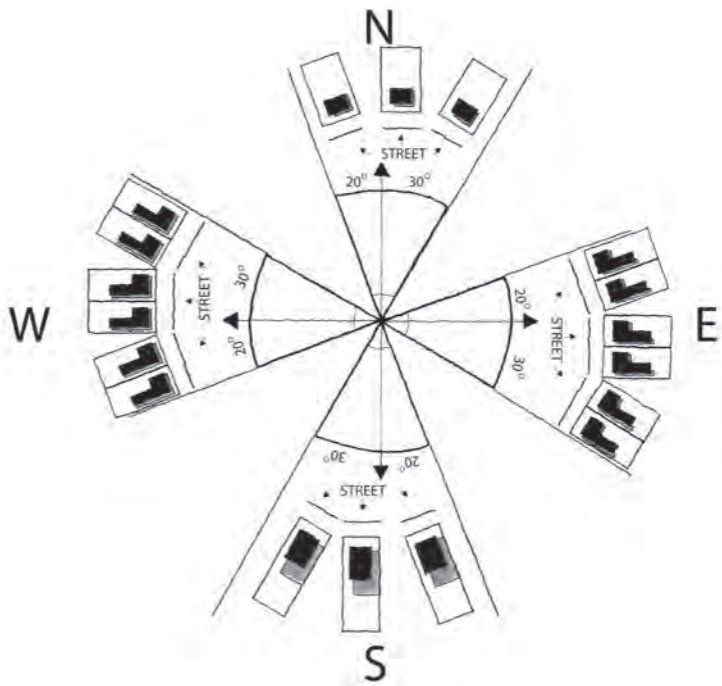
RELEVANT STANDARDS

The precinct structure plan should respond to the following standards:

S1	Water, gas, and electricity supply and sewerage and telecommunications networks are designed to be provided to the boundary of all lots and to the satisfaction of the relevant authority <i>See Clause 56.09-2</i>
S2	All areas identified for employment, including home working, are serviced by telecommunications infrastructure appropriate for business use.

S3	The design of key structural elements allows at least 70% of lots across the precinct to have good solar orientation. <i>See Clause 56.04-3 and figure 9.</i>
S4	Provide for internet broadband via Fibre to the Home to all properties, as proposed by the Commonwealth Government. <i>See Clause 56.09-2.</i>

Figure 9: Lot design to achieve optimum solar orientation



CONSIDERATIONS FOR PLANNING PERMIT APPLICATIONS

Questions to be considered in preparing planning permit applications are:

- What opportunities are there to put reticulated services for water, gas, electricity and telecommunications in shared trenches?
- What opportunities have been taken to minimise, reuse, and/or recycle solid waste produced from construction?
- How can the subdivision support the generation or use of renewable energy at a lot or neighbourhood level?
- Are the government’s energy efficiency standards for the design of new buildings met or exceeded?
- How will Fibre to the Home be provided should land be set aside for any necessary infrastructure including exchanges, and how will all telecommunications providers be able to compete equally in the market?
- How does the referral process and imposition of conditions enable the provision of telecommunications services by a range of providers?

## 5.0 Check the Plan

This section provides guidance on how to produce a precinct structure plan that can be delivered effectively by developers, councils, delivery agencies and service providers.

This will involve:

- Evaluating how well the precinct structure plan meets the objectives for growth area planning;
- Identifying the critical infrastructure projects and funding sources that are vital for creating the new community;
- Drafting implementation provisions to guide decisions about subsequent planning permits and permit conditions;
- Measuring the efficiency of the plan (in order to minimise costs to home-buyers) on matters such as the amount of non-developable land proposed, developer costs per hectare for open space, infrastructure and service items; as well as measuring the overall infrastructure costs; and
- Considering whether the plan provides sufficient flexibility in the way land will be developed over time to avoid as far as possible the need for future planning scheme amendments.

The background technical reports and strategic context should provide a sound basis for testing whether the precinct structure plan will enable development to respond effectively to local conditions and community needs now and in the future.

For instance, the assessment of market and economic conditions should help determine the viability of development, particularly where the outcomes will be driven by actual market demand. Likewise, the transport assessment will be crucial to understanding the cost of new transport infrastructure required and the viability of the proposed arrangement of streets and land uses.

During this final stage it is also important to check how well the design of the precinct responds to the key questions identified in stages 1 to 3. These questions and the 'relevant standards' are intended to provide direction for meeting the objectives for growth area communities.

### 5.1 Infrastructure Delivery

The coordinated and timely delivery of critical infrastructure is key to the successful establishment of the new community. Involving agencies and service providers early and throughout the process will help to resolve any issues that could impact on delivery.

The precinct structure plan must specify the infrastructure and services needed to serve the new community, including where they should be located, who is responsible for leading delivery and identify potential funding sources. The main document that enables this to occur is the **precinct infrastructure plan (PIP)**.

A **development staging plan** should also be provided with the precinct structure plan to give government and the community an indication of how development will be staged with infrastructure and services provision. Potentially, development can be brought forward ahead of the staging indicated in the staging plan, but this would normally require the provision of additional infrastructure to service the land. This could be considered as part of a planning permit.

**Governance statements and memoranda of understanding (MOU)** between agencies may also be required to ensure that the infrastructure items that cannot be fully resolved at the precinct structure planning stage are satisfactorily addressed as the development proceeds.

#### 5.1.1 Precinct Infrastructure Plan

Infrastructure delivery is integral to the design of a precinct structure plan. Key decisions will be made about the provision of infrastructure and services throughout the precinct structure plan design process. The precinct infrastructure plan catalogues those decisions.

The role of the precinct infrastructure plan is to demonstrate that the infrastructure necessary to support an effective and thriving community has been identified. A successful and vibrant community requires a range of community, transport and other infrastructure and services

to allow all members to actively participate in employment, shopping and social, recreation and other activities. Ideally, a full range of services would be provided locally, but if they are not local, they should be readily accessible without long travel times or high costs.

The precinct infrastructure plan seeks to identify what infrastructure and services are needed, where it should be located and which organisations is responsible for funding and providing it. This forms the basis for future planning and funding decisions by developers and all levels of government. In particular, the Precinct Infrastructure Plan identifies the infrastructure that is essential to allow the development to proceed. For instance, if the construction of a road link is a pre-condition to a stage of development proceeding, then this must be identified.

The Precinct Infrastructure Plan considers infrastructure at two levels. Firstly there is the strategic or regional level, where items such as major roads, railways and regional sporting facilities are identified. In some cases these will form the backbone for land use planning and its delivery will usually be critical to progressing development within the precinct.

Secondly, developing the precinct will generate a requirement for a wide range of local infrastructure such as connector streets, kindergartens and ovals. A key part of planning this infrastructure and services requires close collaboration between the planning authority, council and the relevant agencies.

The final precinct infrastructure plan needs to collate and present the full range of infrastructure required. However, it does not need to document the infrastructure normally provided by the developer in the course of constructing a subdivision. For instance, while the PIP should document the arterial and connector street systems, the local roads need to be constructed by the developer as a matter of course and should not be included.

## 5.2 Planning Scheme Implementation Provisions

**The application of the Urban Growth Zone (UGZ) does not, by itself, allow urban use and development to proceed. A precinct structure plan must be prepared and applied to the land before this can occur.**

Before a precinct structure plan is in place, the UGZ applies provisions that are designed to safeguard the land from use or development that could prejudice its long term urban development potential. Once the Minister for Planning approves the precinct structure plan, the entire plan will be incorporated into the planning scheme at Clause 81 and implementation provisions will be included in the schedule to the UGZ at Clause 37.07.

The UGZ is specifically designed to implement a precinct structure plan; however a plan may be prepared for land in any zone. If a precinct structure plan is prepared for land in another zone, the planning authority will need to decide what planning provisions are required to implement the plan. There are a range of tools available, including the Municipal Strategic Statement, local planning policy, and overlays and their associated schedules.

The precinct structure plan drafting must integrate with the specific provisions set out in the planning scheme UGZ. The UGZ provisions will typically set out use and development provisions to be included in the schedule to the UGZ (including permit requirements, permit exemptions, conditions and requirements for granting permits, advertising sign requirements, and decision guidelines).

The planning scheme amendment to incorporate the precinct structure plan will also usually set out:

- requirements for public open space contributions to be included in the schedule to Clause 52.01 of the planning scheme
- requirements to implement a Native Vegetation Precinct Plan
- requirements to manage places of Aboriginal cultural heritage significance.

A native vegetation precinct plan must meet the content requirements set out in Clause 52.16 and be approved by the Department of Sustainability and Environment. It must also be incorporated into the planning scheme as part of the precinct structure plan, which means that the plan can only be changed by a planning scheme amendment.

The implementation of the precinct structure plan will apply use and development controls in one or more of three different ways:

- The schedule can apply existing zones to the land, such as residential or industrial zones.
- Where the desired outcomes will not be achieved by applying an existing zone, the schedule can apply specific provisions to the land. If this approach is used, a table of uses will need to be prepared.
- Where additional provisions are needed to ensure that development conforms to the precinct structure plan, the schedule can apply zones with specific provisions to the land.

*For further information refer to the VPP Practice Note: Urban Growth Zone (June 2008) and the Minister's Direction No.12: Urban Growth Zone (June 2008).*

## 5.3 Development Efficiency Appraisal

A development efficiency appraisal should be completed alongside the precinct structure plan but not included within the plan. This appraisal should give a broad indication of the relative cost of development and the extent to which aims such as walkable neighbourhoods, mixed use development and water efficiency can be achieved given local circumstances. It provides a tool, primarily for the use of the growth areas authority, for comparing precincts and best practice across the growth areas and for suggesting changes needed to the precinct structure plan to improve its performance. Put simply, it will check that the precinct structure plan meets the government's objectives to provide affordable housing and quality neighbourhoods, by using land, water and energy efficiently, and demonstrating housing diversity.

# 6.0 Supporting Information

## 5.4 Monitoring and Review

The precinct structure plan should be written in a flexible manner in order to facilitate innovative development proposals and to avoid as far as possible the need for future planning scheme amendments.

The council will be responsible for monitoring and reviewing the development of the precinct in consultation with the Growth Areas Authority and other agencies such as the Department of Planning and Community Development, the

Department of Transport and the Department of Sustainability and Environment. The development staging plan and infrastructure investment plan will be particularly useful to monitor the plan's success.

Conversion from the urban growth zone to more standard zones will occur as part of fix up amendments resulting from the Council's review of its Municipal Strategic Statement.

## OUTPUTS

The following outputs are to be provided within the precinct structure plan:

- **Precinct infrastructure plan** that sets out how the infrastructure and services necessary to create a liveable community are to be delivered.
- **Development staging plan** that sets out the anticipated staging of development parcels infrastructure across the precinct.
- **Urban Growth Zone Schedule** to be incorporated into the local planning scheme at clause 37.07.

The following outputs are to be provided alongside the precinct structure plan:

- **Governance planning statement or memorandum of understanding (MOU)** that provides assurance that work will continue amongst service providers and agencies to deliver proposed shared or integrated infrastructure items.
- **Development efficiency appraisal table** that provides the results of testing the precinct structure plan against performance measures.

## 6.1 Acronyms

Acronym	Definition
AAV	Aboriginal Affairs Victoria
DCP	Development Contributions Plan
DPCD	Department of Planning and Community Development
DSE	Department of Sustainability and Environment
GAA	Growth Areas Authority
GAFP	Growth Area Framework Plan
MAC	Major Activity Centre
NAC	Neighbourhood Activity Centre
MOU	Momorandum of Understanding
NDA	Net Developable Area
NDHa	Net Developable Hectare
NRA	Net Residential Area
NRHa	Net Residential Hectare
NRHa	Native Vegetation Precinct Plan
PAC	Principal Activity Centre
PIP	Precinct Infrastructure Plan
PPTN	Principal Public Transport Network
PSP	Precinct Structure Plan
SOHO	Small Office Home Office
UGB	Urban Growth Boundary
UGZ	Urban Growth Zone
WSUD	Water Sensitive Urban Design

## 6.2 Glossary of Terms

**Active Open Space** - Land set aside for the specific purpose of formal outdoor sports by the community. **Active Open Space**

**Activity Centre** - Provide the focus for services, employment and social interaction. They are where people shop, work, meet, relax and live. Usually well-served by public transport, they range in size and intensity of use. In the growth areas, these are referred to as principal activity centres, major activity centres, neighbourhood activity centres and local centres. For further information refer to Melbourne 2030.

**Affordable Housing** - Well-located housing, appropriate to the needs of a given household, where the cost (whether mortgage repayment or rent) is no more than 30 per cent of that household's income. Exceeding the mark places one under 'housing stress', particularly in the lower 40 per cent of the income distribution scale.

**Arterial Road** - A higher order road providing for moderate to high volumes at relatively high speeds typically used for inter-suburban journeys and linking to freeways. Declared arterial roads are identified under the Road Management Act 2004 and managed by the State Government.

**Co-location** - Adjoining land uses to enable complementary programs, activities and services and shared use of resources. For example, the co-location of schools and active open space.

**Community Facilities** - Infrastructure provided by government or non-government organisations for accommodating a range of community support services, programs and activities. This includes facilities for education and learning (e.g. government and non-government schools, universities, adult learning centres); early years (e.g. preschool, maternal and child health, childcare); health and community services (e.g. hospitals, aged care, doctors, dentists, family and youth services, specialist health services); community (e.g. civic centres, libraries, neighbourhood houses); arts and culture (e.g. galleries, museums, performance space); sport, recreation and leisure (e.g. swimming pools); justice (e.g. law courts); voluntary and faith (e.g. places of worship) and emergency services (e.g. police, fire and ambulance stations).

**Connector Street** - A lower order street providing for low to moderate volumes and moderate speeds linking local streets to the arterial network. Managed by the relevant local council. (See Table C1 in clause 56)

**Conventional Density Housing** - Housing with an average density of 10 to 15 dwellings per net developable hectare.

**District Park** - An area of open space that incorporates a large area for active open space. This would normally incorporate 2 ovals and be a minimum of 8 hectares in size.



**Encumbered Land** - Land that is constrained for development purposes. Includes easements for power/transmission lines, sewers, gas, waterways/drainage; retarding basins/wetlands; landfill; conservation and heritage areas. This land may be used for a range of activities (e.g. walking trails, sports fields). This is not provided as a credit against public open space requirements. However, regard is taken to the availability of encumbered land when determining the open space requirement.

**Enhanced facilities** - Community facilities required when the precinct is fully built-out. This might include an aquatics centre or a medical centre on land already set aside in the development.

**Established facilities** - Community facilities required during the later stages of the precinct’s development. This might include a fully operational primary school, and the addition of a pavilion on an oval already provided at foundation level.

**Freeway** - A high speed and high volume road with the highest level of access control and typically used for longer distance journeys across the metropolitan area and country Victoria. All freeways are managed by VicRoads.

**Frontage** - The road alignment at the front of a lot. If a lot abuts two or more roads, the one to which the building, or proposed building faces.

**Foundation facilities** - Community facilities required as the precinct is developing. This might include ovals, a community centre, or land for facilities that will be required later in the precinct’s development.

**Green travel plans** - Workplace specific plans that encourage staff and organisations to change their travel behaviour so that less polluting modes of transport are used.

**Gross Developable Area** - Total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.

**Growth Area** - Areas on the fringe of metropolitan Melbourne around major regional transport corridors that are designated for large-scale change, over many years from rural to urban use. Melbourne has five growth areas called Casey-Cardinia; Hume; Melton-Caroline Springs; Whittlesea and Wyndham.

**Growth Area Framework Plan** - Government document that sets long-term strategic planning direction to guide the creation of a more sustainable community in the growth areas.

**High Density Housing** - Housing with an average density of more than 30 dwellings per net developable hectare.

**Housing Density (Gross)** - The number of houses divided by gross developable area.

**Housing Density (Net)** - The number of houses divided by net developable area

**Linear Open Space Network** - Corridors of open space, mainly along waterways that link together forming a network.

**Linear Parks and Trails** - See Linear Open Space Network

**Land Budget Table** - A table setting out the total precinct area, gross developable area, net developable area and constituent land uses proposed within the precinct.

**Local Centre** - An activity centre smaller than a neighbourhood activity centre which may include a small limited line supermarket or convenience store of between 500 square metres and 1,500 square metres, plus non-retail uses.

**Lot** - A part (consisting of one or more pieces) of any land (except a road, a reserve, or common property) shown on a plan, which can be disposed of separately and includes a unit or accessory unit on a registered plan of strata subdivision and a lot or accessory lot on a registered cluster plan.

**Lower Density Housing** - Housing with an average density of less than 10 dwellings per net developable hectare.

**Main Street** - A function of an activity centre, where vitality and activity are created by orienting uses towards the street, and ensuring that the primary address of all retail stores is the street. This would normally be a connector street rather than an arterial road.

**Major Activity Centre** - Activity centres that have similar characteristics to Principal Activity Centres but serve smaller catchment areas. For further information refer to *Melbourne 2030*.

**Strategic Employment Area** - Areas identified on the Growth Area Framework Plan for economic and employment growth. This is as opposed to land identified for employment uses within a residential precinct.

**Medium Density Housing** - Housing with an average density of 16 to 30 dwellings per net developable hectare.

**Native Vegetation** - Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses.

**Native Vegetation Precinct Plan** - A plan, as specified in clause 52.16, relating to native vegetation within a defined area that may form part of the precinct structure plan. Native vegetation precinct plans are incorporated into local planning schemes and listed in the schedule to Clause 52.16. A native vegetation precinct plan can form part of a precinct structure plan.

**Neighbourhood Activity Centre** - Activity centres that are an important community focal point and have a mix of uses to meet local needs. Accessible to a viable user population by walking, cycling and by local bus services and public transport links to one or more principal or major activity centres. This should be of sufficient size to accommodate a supermarket. For further information refer to *Melbourne 2030*.

**Net Developable Area** - Land within a precinct available for development. This excludes encumbered land, arterial roads, railway corridors, government schools and community facilities and public open space. It includes lots, local streets and connector streets. Net Developable Area may be expressed in terms of hectare units (i.e. NDHa).

**Net Residential Area** - As for Net Developable Area but excluding commercial/retail component of activity centres and known non-government school sites and other existing or permitted non-residential land uses (e.g. golf course sites).

**Passive Open Space** - Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.

**Precinct** - An area of land within the Urban Growth Zone for which a precinct structure plan is to be produced. Precincts will be defined by the Growth Areas Authority, in consultation with the relevant growth area council. Their extent will be determined based on a need to create reasonably self contained communities and on an understanding of the strategic level land use and topographical features. They will normally be between 200 hectares and 2000 hectares, but larger or smaller precincts may be defined in specific circumstances.

**Precinct Infrastructure Plan** - Section within the precinct structure plan that defines the priority regional and local infrastructure requirements for future planning and investment by council and government agencies.

**Precinct Structure Plan** - A statutory document that describes how a precinct or series of sites within a growth area will be developed over time. A precinct structure plan sets out the broad environmental, social and economic parameters for the use and development of land within the precinct.

**Principal Activity Centre** - Activity centres that accommodate a mix of activities that generate higher numbers of trips, including business, retail, services and entertainment. Generally well served by multiple public transport routes and on the Principal Public Transport Network or capable of being linked to that network. Has a very large catchment covering several suburbs and attract activities that meet metropolitan needs. For further information refer to Melbourne 2030.

**Principal Public Transport Network** - A high-quality public transport network that connects Principal and Major Activity Centres, and comprises the existing radial fixed-rail network, extensions to this radial network and new cross-town bus routes.

**Public Open Space** - Land that is set aside in the precinct structure plan for public recreation or public resort; or as parklands; or for similar purposes. Incorporates active and passive open space.

**Public Transport Interchange** - Places where people can access or change between multiple public transport routes. For example, between train and bus or a multi-route bus station at a major activity centre

**Ramsar** - The Convention on Wetlands is a global intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. It was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.

**Shared or Joint Use** - When councils, schools and community service organisations come together to plan, build and in some cases jointly manage a single facility to be used by multiple service providers. E.g. Using a school as a facility for wider community utilisation.

**Small Office Home Office** - A small office, which would usually include a home, but where the business is too large to be accommodated within a standard home, perhaps because of parking or storage requirements. Normally employs up to perhaps 10 staff.

**Strategic Employment Area** - Areas identified on the Growth Area Framework Plan for economic and employment growth. This is different to land identified for employment uses within a residential precinct.

**Social Housing** - Non-profit housing owned and managed for the primary purpose of meeting social objectives such as affordable rents, responsible management, security of tenure and good location in relation to employment services. The term encompasses public housing and includes housing owned or managed by housing associations and community housing.

**Social Infrastructure** - Community facilities plus public open space.

**Urban Growth Boundary** - A statutory planning management tool used to set clear limits to metropolitan Melbourne’s urban development.

**Urban Growth Zone** - Statutory zone that applies to land that has been identified for future urban development. The UGZ has four purposes: (1) to manage transition of non-urban land into urban land; (2) to encourage development of well-planned and well-serviced new urban communities in accordance with an overall plan; (3) to reduce the number of development approvals needed in areas where an agreed plan is in place; and (4) to safeguard non-urban land from use and development that could prejudice its future urban development.

**Walkable catchment of an activity centre** - Within 400m of a neighbourhood activity centre, or 800m of a principal or major activity centre

**Water Sensitive Urban Design** - A sustainable water management approach that aims to provide water-quality treatment, flood management and green landscapes. Key principles include minimising water resistant areas; recharging natural groundwater aquifers (where appropriate) by increasing the amount of rain absorbed into the ground; encouraging onsite reuse of rain and incorporation of rain gardens; encouraging onsite treatment to improve water quality and remove pollution, and using temporary rainfall storage (retarding basins/wetlands) to reduce the load on drains.

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