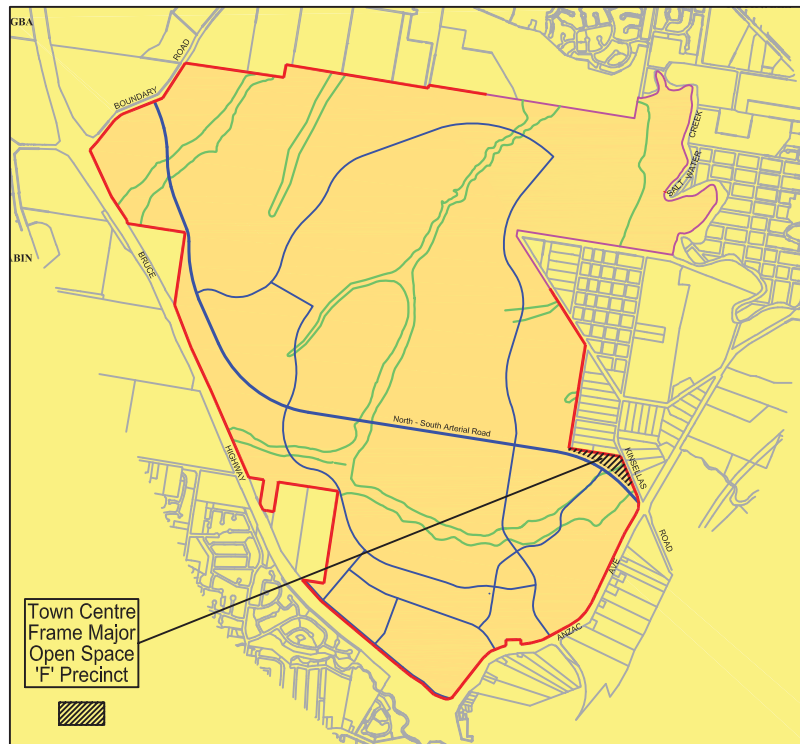


MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN

Precinct Plan 051



Town Centre Frame Major Open Space 'F' Precinct

8 February 2013

**MANGO HILL INFRASTRUCTURE
DEVELOPMENT CONTROL PLAN**

Precinct Plan No. 051

for

Major Open Space 'F' Precinct

North Lakes Development

08 February 2013

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1.0 Introduction

- 1.1 The Mango Hill Infrastructure Development Control Plan (DCP) provides for the creation of a precinct within any part of the DCP area chosen by the principal developer. The principal developer may then prepare a precinct plan and lodge it with Council for approval in accordance with the relevant provisions of the DCP.
- 1.2 The purpose of a precinct plan, as provided for in the DCP, is to show in indicative terms more detail for a planning area within one land use element of the DCP Structure Plan or across a number of elements. This planning area is created to allow for a more detailed interpretation of a part of the structure plan.
- 1.3 The principal developer has created a precinct to be known for planning purposes as the *Major Open Space 'F' Precinct*. This document constitutes the precinct plan for the *Major Open Space 'F' Precinct*, immediately north-east of the North – South Arterial Road.
- 1.4 The location of the precinct within the DCP area is shown on **Figure 1**. The area of the precinct is approximately 2.7ha although, consistent with DCP requirements, the areas and boundaries shown on the plan are only notional.
- 1.5 Where a discrepancy arises between the performance criteria of this precinct plan and the requirements of the DCP or Mango Hill Infrastructure Agreement, the requirements of the DCP or Infrastructure Agreement will prevail.

2.0 Structure Plan Context

The precinct is located in the south-eastern part of the DCP area. The Precinct is bound by the North-South Arterial Road and *Precinct 050 Major Community Facilities 'E' Precinct* to the south, Kinsellas Road to the east and *Residential Sector 5* to the west. The precinct wholly comprises the Major Open Space land use element outlined in the DCP. The location of the precinct and land uses within the Structure Plan is shown on **Figure 1 and Figure 2**.

3.0 General Desired Environmental Outcomes

In relation to the land use element of Major Open Space, the DCP states the following general desired environmental outcome:

DCP, Cl.9.1.1:

“(a) To provide a comprehensive and integrated system of open space fulfilling aesthetic, recreation, conservation, transportation and environmental management functions for the DCP area.”

In relation to the land use element of Major Open Space, the DCP states the following specific desired environmental outcomes that are relevant to the Precinct:

DCP, Cl.9.1.2:

“(b) To provide landscaped buffers between incompatible uses within and bordering the DCP area.

(c) To provide visual relief and aesthetic amenity to the urban landscape as part of the integrated approach to planning, design and development of the DCP area.

(g) To integrate pedestrian and bicycle modes of transport within the open space system, linking urban residential areas with local community facilities, major community facilities, the MIBA and the town centre.

(h) To use the open space system as an effective means for maintaining high levels of environmental quality through water management, habitat protection, wildlife corridors and acoustic buffering.”

DCP, Cl.10.3.3 (derived):

A 20 metre buffer is to be maintained between the southbound lane of the North-South Arterial Road and the DCP boundary. This buffer is intended to be landscaped, including revegetation, to provide a visual screen and provide for mitigation of traffic source effects on air quality and noise levels.

4.0 Planning Intent

Clause 9.2 of the DCP provides an outline of the planning intent for the Open Space Area. The clause relates to the provision and integration of open space to fulfil the aesthetic, conservation and environmental management functions of the DCP area. The intent is summarised as follows:

DCP, Cl.9.2:

“It is intended that a full range of open space opportunities will be conveniently available to the community as it develops.”

Land within the Precinct includes two sections of linear park that have a waterway management function and a pedestrian/bicycle function. The linear open space is intended to serve a part of the broader open space network by providing:

DCP, Cl.9.2.2:

“(a) a network of cycleways, paths and trails allowing movement throughout the DCP area while remaining in a natural or landscaped setting;

(c) inclusion of artificial wetlands and water bodies for water management prior to discharge into Saltwater Creek;

(d) direct connections from urban residential areas to district playing fields, the town centre and community facilities;”

5.0 Development Concept

5.1 Development Context

Figure 3 shows the design concept for the *Major Open Space ‘F’ Precinct* in relation to its wider development context.

The precinct’s location, adjacent to Major Community Facilities (Kinsella’s sporting fields), the Town Centre Frame, major roads and the linear park (Major Open Space on the Structure Plan), as well as its proximity and visibility from Urban Residential areas, have influenced the design concept. Key principles to consider in the wider development context of the precinct are outlined below:

5.1.1 The *Major Open Space “F” Precinct* is set within the wider context of the southern part of the DCP area comprising Town Centre Core and Frame and Urban Residential area. The open space system provides an integrated network of linear park, waterways, water bodies used for environmental and water quality management measures, landscaped areas, buffer areas, pedestrian and bicycle pathways and other open space and recreational areas.

The open space linear park forms an integrated and conveniently accessible link connecting the standard, medium and high density residential areas with the community and commercial services of the mixed use Town Centre Core and Frame areas as well as the diverse range of community services and facilities, recreation and sporting facilities and other types of open space within the Local and Major Community Facilities Areas to the south of the precinct.

- 5.1.2 The proximity of the precinct to the Town Centre Core and Frame, Urban Residential and Major Community Facilities land use elements, together with the precincts location to education facilities (to the north and south) provides for convenient cycle and pedestrian access to a diverse range of surrounding community services and facilities, recreation and sporting facilities and other types of open space.
- 5.1.3 The adjacent *Major Community Facilities and Open Space “E” Precinct*, nearby existing educational facilities, sporting fields and the linear park system in combination with the *Major Open Space “F” Precinct* provides a diverse and comprehensive range of community services and facilities, recreation and sporting facilities and other types of open space conveniently accessible to the local and regional community.

5.2 Concept Overview

The *Major Open Space ‘F’ Precinct* is envisaged to be developed as a high quality open space area consisting of a path network to facilitate passive outdoor recreation activities in a landscaped setting. The existing vegetated areas are to be retained, protected and revegetated where needed.

Figure 3, Precinct Plan Map, allows for a development concept comprising Major Open Space, serving North Lakes residents’ needs and a population residing beyond the DCP area. The provision of the open space will be closely coordinated with other surrounding development in the manner envisaged for the overall North Lakes project in section 8.0 of the DCP.

The Precinct Plan shows the major land uses and structuring elements in sufficient detail to allow for the preparation of more detailed sector plans. The areas and locations of the various land uses, roadways, intersections, open space and the like are indicative only and subject to variation following detailed subdivision and engineering design. Consistent with the DCP, it is important that flexibility be maintained for future planning which needs to be responsive to changing requirements of the community and the market-place. A Sector Plan is to be prepared in the future and will provide more detail on the precise locations of various forms of development.

6.0 Precinct Plan

6.1 Introduction

Figure 3 provides a further detailed interpretation of the land use planning and development intents for a part of the North Lakes Structure Plan. The key principles

which have determined the urban design structure for the precinct plan are explained below.

6.2 Land Use Pattern

6.2.1 Background

In accordance with section 2.3.2(f) of the DCP, the desirable and undesirable land uses are to be identified in generic terms during the preparation of this precinct plan. The desirable land uses are described below. The sector plans stemming from this precinct plan will finalise the specific land use rights as required by section 2.4.9 of the DCP.

6.2.2 Open Space

The open space element across the precinct will comprise, landscaped areas, buffer areas, and linear park open space areas. This area will provide opportunities for pedestrian and bicycle pathways, seating and viewing areas, shelters, and other informal or passive outdoor activities with minimal impact upon the environmental amenity or current function of the area.

6.3 Transport and Circulation System

The road network has been planned so that through traffic will be generally limited to the sub-arterial and arterial roads surrounding the precinct.

The road connections within and external to the precinct are as follows:

Connections via Memorial Drive, the North South Arterial, Kinsella's Rd East and Kinsella's Rd West will connect the precinct to residential villages to the north and west and shopping, recreational and educational facilities to the south. The Precinct is dissected by Kinsella's Rd West, creating east and west sites.

Direct access to the North South Arterial will not be permitted.

Pedestrian and bicycle circulation is a primary function of the precinct, with established paths along all major road frontages. These paths form links to the Town Centre and Residential Villages throughout the DCP area.

6.4 Open Space and Landscape Concept

The landscape setting of the precinct will be established to ensure its integration into the surrounding local and regional landscapes. Open space provisions within the precinct will form part of the comprehensive and integrated system of open space planned for the DCP area, fulfilling aesthetic, recreation, transportation and environmental management functions. The principle spatial elements or key areas of the Landscape Concept Plan for the Precinct area illustrated on **Figure 4** and summarised as follows:

- *Streetscape Planting*: The streetscape treatments of local collector and access streets will create a cohesive and positive impression of the development, with selection of plant materials for roadways based on aesthetic, practical, maintenance and safety considerations, and the intended scale and characteristics of each road.

The resulting open space system and streetscape treatments within and adjacent to the precinct should have diversity and interest for a wide range of users while at the same time serving as a mechanism for restoring the DCP area's degraded landscape environment.

Landscaping of the precinct needs to permit casual, two-way surveillance from external and internal vantage points to promote public safety and crime prevention.

Streetscape treatments of major roads and local streets adjacent to the precinct will create a cohesive and attractive impression for the development, with selection of plant materials for road frontages based on aesthetic, practical, maintenance and safety considerations, and the scale of each reserve width in the hierarchy.

The Landscape Concept Plan (refer **Figure 4**) promotes the planting of predominantly native species to reflect the original natural setting of the DCP area. This planting strategy for the precinct and adjacent roads will establish a landscape framework which provides an attractive setting for the built form in terms of visual integration and reinforces a landscaped environment for residents and visitors. Exotic and flowering species may be used primarily for special colour accents at significant entry points or as feature planting within parks.

6.5 Engineering Services

6.5.1 Water Supply

- (i) Those sections of the mains shown on **Figure 6 – Water Supply Headworks**, necessary to service the anticipated demand in the Precinct.

6.5.2 Sewerage

- (i) Trunk gravity main from the existing Council sewerage infrastructure to connect with each facility in the Precinct as shown on **Figure 7 – Sewerage Headworks**.

6.5.3 Energy and Communications

- (i) Arrange for the provision of underground conduits along all road verges, including the central pedestrian and/or vehicular thoroughfare where appropriate, within the Precinct and adjacent roads to meet the anticipated demands of the DCP area.

7.0 Design Intents and Performance Criteria – Major Open Space Land Use Element

7.1 Major Open Space Land Use Element

7.1.1 Intent

To provide a comprehensive and integrated system of open space fulfilling aesthetic, recreation, conservation, transportation and environmental management functions for the area.

7.1.2 Performance Criteria

The intent may be achieved where:

- (i) A full range of open space opportunities to be conveniently available to the community as it develops;
- (ii) Retention where practicable of continuous corridors of trees, shrubs and grasslands which is subject to minimal maintenance regimes for the purpose of permitting the movement of fauna through the DCP area and providing natural outlooks for residents;
- (iii) Inclusion of artificial wetlands and water bodies for water management prior to discharge into the external creek system; and
- (iv) Enhancement of open spaces by the provision of educational and interpretative facilities.

8.0 Environmental Management Objectives

8.1 Stormwater Discharge

Objectives

To manage the quality and quantity of stormwater so as not to cause a nuisance or annoyance to any person, prevent erosion and flooding, maximise soil infiltration and minimise overland flow.

This Precinct is to function as a key component on meeting the Stormwater Discharge objectives.

Performance Indicators

Water discharged must meet the requirements of Environmental Protection Policy (EPP) Water, and in particular, must be designed to achieve the following Annual Mean Concentrations at Kinsellas Road:

- Total Phosphorous - 0.1 mg/l
- Total Nitrogen - 0.75 mg/l
- Suspended Solids - 50 mg/l

The design parameters for peak flows must not exceed the values in the Stormwater Management Plan approved by Council.

8.2 Flora & Fauna

Objectives

To re-establish fauna habitats and wildlife corridors.

To re-establish stands of native vegetation

Performance Indicators

Retain significant remnant stands of native vegetation in areas of open space where reasonable and practicable.

Establishment of new stands of appropriate native vegetation which incorporates food species for indigenous fauna.

8.3 Lighting

Objectives

To ensure that lighting associated with development does not create a nuisance, particularly at residential properties.

Performance Indicators

No person will cause, carry out or erect a light source in such a manner that light emanating from the source is a nuisance.

All lighting other than public lighting (e.g. road lighting) is to comply with AS42821997

Control of the obtrusive effects of outdoor lighting. The curfew hours applicable to this precinct are to be 10pm - 6am, unless otherwise varied by a sector plan or Council resolution.

9.0 Infrastructure Obligations of the Principal Developer

9.1 Infrastructure to be Provided

The infrastructure required to be provided by the principal developer to serve the Precinct includes internal and external infrastructure provisions in accordance with the Mango Hill Infrastructure Agreement 1999 (MHIA) and agreements made with the State Government in accordance with the DCP. These obligations are summarised as follows:

9.1.1 Roads

Construct the following roads including carriageways, stormwater drainage, verges, bus set-downs, footpaths, bikeways, landscaping, traffic control devices and street lighting as applicable. Any reference to initial construction in this section is a reference to construction approved by Council in accordance with the rezoning conditions and MHIA.

1. All internal collector roads and access streets; and
2. Pathways and bikeways, including commuter and recreational bikeways, in accordance with the MHIA.

The construction of the abovementioned infrastructure to the final standard is to be undertaken in accordance with the staging and timing outlined in the MHIA. The initial standard of construction referred to above will be undertaken to suit the rate of development of the Precinct. Where initial construction is not stated, the road is to be constructed to the standard described above to suit the rate of development of the Precinct.

9.1.2 Water

- .1 If not already constructed, construct a water supply network within the DCP area (including those sections of the mains shown on *Figure 7*), necessary to service the anticipated demand within this Precinct; and
- .2 Make contribution towards water headworks in accordance with the MHIA.

9.1.3 Sewerage

- .1 Trunk gravity main from the existing Council sewerage infrastructure to connect with each lot in the Precinct as shown on *Figure 7 – Sewerage Headworks*.

9.1.4 Park

- .1 The requirements for park provision throughout the DCP area are provided for in the MHIA. This Precinct forms part of the required park provision for the DCP area.

9.1.5 Stormwater

- .1 Stormwater management works progressively in accordance with the Stormwater Management Plan for Tributary C as approved by Council; and
- .2 Stormwater drainage systems to roads and lots, including the central pedestrian and/or vehicular thoroughfare, where appropriate; and
- .3 In addition, the principal developer must construct stormwater drainage systems and stormwater management systems as required by the MHIA and the Environmental Protection (Water) Policy.

9.2 Infrastructure Affected by Development

Without the provision of additional infrastructure, the development of this Precinct may place demands on the following infrastructure:

- .1 roads external to the DCP area and the Precinct; and
- .2 stormwater.

The infrastructure described in clause 10.1, together with the obligations of the principal developer under the MHIA, is required to mitigate the adverse affects on such infrastructure.

9.3 Approval of State Government Infrastructure

No approval of State Government Infrastructure is required for construction of facilities within Major Open Space 'F' Precinct.

9.4 How the Required Infrastructure relates to the Infrastructure Agreement

The MHIA describes the infrastructure which must be provided by the principal developer as part of its obligation to provide infrastructure, as envisaged by chapter 12 of the DCP. The works described in clause 10.1 are the principal developer's obligations under the MHIA in so far as they relate to this Precinct.

Infrastructure Agreements have been entered into by the principal developer with the Department of Main Roads and Queensland Transport. Any infrastructure requirements of those State Government departments relating to this sector will be provided in accordance with the existing agreements.

9.5 Program for Infrastructure Provisions

The principal developer will provide all the infrastructure referred to in clause 10.1 at times to satisfy the requirements of the MHIA which provides for the infrastructure to be constructed to meet the rate of development in the sector. The staging of the roadworks, where approved by Council, will be as described in clause 10.1.1 and the MHIA.

Except as described elsewhere in this Clause, no other works depend on the provision of this infrastructure.

Council is to use its best endeavours, including its powers of resumption if lawful, to obtain all necessary rights to permit the construction of water and sewerage infrastructure if such infrastructure is constructed on land external to the DCP area over which Council does not have such rights.

9.6 Estimated Water and Sewerage Demands

As required by the Infrastructure Agreement, the principal developer states as follows:-

- 9.6.1 For the purpose of assessing water supply capacity, the estimated number of Equivalent Tenements for this precinct is OETs; and
- 9.6.2 For the purpose of assessing sewerage capacity, the estimated number of Equivalent Persons for this precinct is OEPs.