

MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN

Precinct Plan No. 039

for

**Town Centre Frame “M” Precinct -
Endeavour Boulevard Southern Frontage**

North Lakes Development

5 May 2009

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1.0 Introduction and Statutory Context

- 1.1** The Mango Hill Infrastructure Development Control Plan (DCP) provides a process for development of land in the DCP area and for the creation of a Precinct within any part of the DCP area chosen by the Principal Developer.
- 1.2** The Principal Developer must prepare and lodge a Precinct Plan with Council for approval in accordance with the relevant provisions of the DCP.
- 1.3** This document constitutes the Precinct Plan for the **Town Centre Frame “K” Precinct – Endeavour Boulevard Frontage** (Precinct Plan).
- 1.4** The area and boundaries of this Precinct are notional only. The general location of the Precinct within the DCP Structure Plan is shown on *Figure 1 – Planning Context*. The Precinct is bounded by:
- (i) Endeavour Boulevard and Residential Sector 004-2000 to the north;
 - (ii) Unnamed Road to the east;
 - (iii) Environmental Area outside of the DCP to the west; and
 - (iv) Balance of Town Centre Frame to the south.
- 1.5** This Precinct Plan must be read together with and in the context of the DCP.
- 1.6** The DCP, approved precinct plans and approved sector plans are to be read in conjunction with the planning scheme and Council’s local laws, policies and codes and to the extent the DCP, precinct plans and sector plans do not modify provisions of the Council’s planning scheme, local laws, policies and codes they will apply to the DCP area.
- 1.7** To the extent the provisions of the Council’s planning scheme, local laws, policies or codes are modified by the DCP, precinct plans or sector plans, then the provisions of the DCP, the precinct plans or sector plans will prevail.
- 1.8** Development in the precinct must comply with the provisions of the Precinct Plan.

2.0 DCP Interpretation

2.1 STRUCTURE PLAN

The Precinct is located within the Town Centre Frame area of the DCP as depicted on *Figure 2 – Structure Plan Context*.

Figure 3 – Precinct Plan Map and the associated text, provide a more detailed interpretation of the Structure Plan by providing information about the general location and interrelationship of structural elements such as land uses, major roads and open space for the Precinct. The Precinct Plan illustrates the generalised design intent and development layout of the Precinct in accordance with the planning framework set out in the DCP.

2.2 DESIRED ENVIRONMENTAL OUTCOMES (DEOS)

The DEOS of relevance to the Precinct are outlined in the following sections of the DCP:

- Section 5.1 (Town Centre Frame) - section 5.1.1 (a), (b) and (c) and section 5.1.2 (a), (b), (c), (d), (e), (f), (g) and (h);
- Section 10.1 (Transport and Circulation) – section 10.1.2 (a), (b),(d), (e) and (f); and
- Section 11.1 (Environmental Protection) – section 11.1.2 (a), (c), (d) and (e).

This Precinct Plan satisfies the relevant DEOs by providing-

- (i) a range of medium density accommodation opportunities that are not provided for in the Town Centre Core, as well as a gradual transition in land use and intensity from the Town Centre Core to the edge of the Town Centre Frame, to reinforce the role of the Core;
- (ii) a high standard of urban amenity through quality siting, design and finish of buildings and structures, suitable advertising signage and extensive landscaping;
- (iii) a high level of flexibility in planning for future development within the Precinct via development which is designed to be easily adapted for a range of alternative uses as circumstances change over time;
- (iv) opportunities to diversify housing in the DCP area by allowing some mixed use development in the Precinct;
- (v) a high degree of accessibility to road networks, public transport corridors and pedestrian and cycle networks; and
- (vi) sustainable development initiatives for the management of environmental risks within the Precinct.

2.3 PLANNING INTENT

The Planning Intent of the Town Centre Frame is set out in Section 5.2 of the DCP. This Precinct is intended to provide lower density development than in other areas of the Town Centre Frame and the Town Centre Core. In order to maintain amenity and avoid conflict between uses, consideration is to be given to the transitional role of the Precinct between the predominantly commercial environment of the Town Centre Frame and the lower order residential development to the north of the Precinct.

Land uses are to generally complement the uses within the Town Centre Core and should be integrated in functional and urban design terms with adjacent Precincts. The emphasis of the Precinct is to provide a range of medium density housing options. Small scale retail/commercial uses on ground floor level may be considered if such uses are compatible with the proposed built form.

This Precinct contains Endeavour Boulevard and an Unnamed Road which intersects with Endeavour Boulevard. These roads have different streetscapes, character and traffic function. The planning intent of each of these roads is dealt with in turn below:

(i) Endeavour Boulevard Frontage

The Endeavour Boulevard frontage of the Precinct forms a gateway to the Town Centre Frame as well as transitioning in scale and intensity between the Core and the lower intensity residential Precinct and MIBA to the north. It is envisaged that the predominant land uses along Endeavour Boulevard include medium density residential and may include small scale retail.

(ii) Unnamed Major Road Frontage

The Unnamed Major Road forms the eastern boundary of the Precinct and provides a link between Endeavour Boulevard and the proposed Bruce Highway exit ramp and service road. Medium density residential and some small scale retail and office are envisaged.

3.0 Development, Planning and Design Principles

3.1 GENERAL FORM OF DEVELOPMENT WITHIN PRECINCT

The architecture of any development within the Precinct should be contemporary with variations in building form achieved by the use of rooflines, shading and other features. Where possible, indoor and outdoor spaces should be linked by transition areas. A consistent and modern overall design character is required within the Precinct and is to be achieved through, the integration of building design and urban spaces as well as the use of high quality materials, finishes, colours and details.

Buildings within the Precinct are to exhibit architecture in keeping with the town centre frame location.

In order to strengthen the urban form of the Precinct, buildings located on corner allotments, along Endeavour Drive should define the street environment by presenting an alternative façade to each frontage. Corner buildings should have an outward orientated building design and a high quality streetscape urban design character. Unsightly functional elements, including loading docks, waste storage, collection areas, air conditioning, roof plants and plant and building service areas require appropriate screening measures and are to be incorporated into overall building design.

Shared vehicular access is to be encouraged between neighbouring sites within the Precinct and may be achieved via easement arrangements, if required. Direct vehicular access is to be restricted to the roundabout at the northern end of Endeavour Boulevard so as to minimise interruptions to traffic flow and maximise vehicular, bicycle and pedestrian safety.

Car parking areas should be designed as an attractive setting which integrates paving, landscaping, shading, shade trees and car parking spaces. Car parking is to be unobtrusive and is intended to create minimal interruption to the streetscape and pedestrian routes through siting, landscaping and/or screening. Where car parking areas are located to the rear of buildings, the rear façade must present an attractive interface to the car parking area. Where surface car parks are located adjacent to the street, these areas are to be screened, where possible, with vegetation including canopy shade trees. Any planting adjacent to vehicular and pedestrian access points is to ensure vehicle drivers' sightlines are maintained.

Canopy shade trees are to be provided through any open hardstand area at a rate of one (1) tree per six (6) car park spaces on an open grid pattern. Undercroft car parking should, where possible, be screened from view if visible from the street or residential areas.

Where possible, buildings should incorporate sustainable development initiatives. Buildings are generally to be orientated to maximise energy efficiency and outdoor areas shall be located to receive adequate exposure to sunlight.

Consistent with the DCP, it is important that flexibility be maintained in order to enable future planning to respond to changing requirements of the community and the marketplace. Unless otherwise explicit in the Precinct Plan’s text, the Precinct Plan does not necessarily define the final nature or location of specific land uses, nor does it show the final location and extent of road networks.

3.2 ENDEAVOUR BOULEVARD & UNNAMED MAJOR ROAD FRONTAGES

Both Endeavour Boulevard and the Unnamed Major Road are to be characterised by their traffic role serving the town centre, the Mixed Industry and Business Area (MIBA) and the residential area to the north of the Precinct. The through-route nature of Endeavour Boulevard and the Unnamed Major Road is to be emphasised through street treatments including the use of open landscaping along the verges and median strips, which allow visual exposure of the buildings from the road.

Development along the Endeavour Boulevard frontage of the Precinct must provide a defined edge and a transition between the predominantly medium density residential and mixed use activities of the Precinct and the residential areas to the north of Endeavour Boulevard. This is to be achieved by providing a scale, density and level of activity that is appropriate to the proposed setting and use, whilst ensuring that development also has a complementary interface with the retirement village (Southern Residential Precinct 004) to the north. The transitional nature of the Precinct may also be emphasised through the use of architectural features and building designs that are compatible with the adjoining retirement village development such as the use of similar building materials, building height, building scale and roof pitch.

Where commercial or retail uses are proposed, they need to provide active street frontages and contained edge to the streetscape. Residential units may be setback within the landscape interface to the road.

Both Endeavour Boulevard and the Unnamed Major Road are anticipated to be high traffic roads but consistent with the general amenity and safety standards expected in an urban area. No vehicular access to the Precinct is permitted from these roads other than from the existing roundabout off Endeavour Boulevard at the northern end. However, in order to clearly define the through-route nature of both Endeavour Boulevard and the Unnamed Major Road, pedestrian crossings are to be limited to intersections. Landscaping should be integrated with the design of the building to provide screening or relief to retaining walls or long flat building walls.

Some car parking is permitted between Endeavour Boulevard, the Unnamed Major Road and any building fronting these alignments, however, further car parking shall generally be located behind the building. Where public car parking areas (not staff parking) are located to the rear of buildings, the rear façade must be well-presented to the car parking area. Where surface car parks are located adjacent to the street, these areas are to be screened, where possible, with vegetation including canopy shade trees. Any planting adjacent to vehicular and pedestrian access points is to ensure vehicle drivers’ sightlines are maintained. Pedestrian safety is to be paramount through the use of paving treatments to define and encourage the use of pedestrian movement areas.

4.0 Landscape Concept

4.1 LANDSCAPE CONCEPT PLAN MAP

Figure 4 – Landscape Concept Plan provides a diagrammatic framework for the creation of a distinctive urban setting and character for the Precinct.

4.2 CONCEPT OVERVIEW

The landscape concept for this Precinct can generally be described as having an informal planting character, incorporating distinctive key character elements already established in the DCP area. These key character elements include predominantly native planting and the use of natural materials such as stone and wood within the landscape and streetscape elements.

The streetscape character of the Precinct should reflect the through-route nature of Endeavour Boulevard and the changes in land-use, character and traffic level between the balance of the Town Centre Frame and the residential development to the north.

Landscaping within the Precinct should be used to soften the edge of built form and to disguise the anticipated building bulk, scale and mass of uses within the Precinct. Planting species should be selected to achieve this purpose.

Landscaping should enhance public comfort in all publicly accessible areas, through the provision of shade trees, adequate seating, appropriate paving and lighting treatments and where possible, segregation of the vehicle and pedestrian environments.

Hard landscape elements are to be constructed of high quality materials and designs and coordinated with the architectural design and landscape. Lighting is to be used to accentuate entries to buildings and car parking areas. Lighting of other facades is to be subdued. All pedestrian areas and paths must be provided with a safe level of lighting.

Footpath paving treatments within the road reserve are to achieve a consistent theme between adjacent and surrounding development and require continuity of materials and elements while permitting easy and even-surfaces for desirable walking conditions for pedestrians.

4.2.1 Frontage to Endeavour Boulevard and Unnamed Road

The streetscape and planting theme along Endeavour Boulevard and Unnamed Road should be distinct from other streets within the Town Centre Frame. Streetscape treatments and landscaping should clearly indicate the through-route nature of these roads and give views to the parking entrances of development. As such, Endeavour Boulevard is envisaged as wide streetscapes with a very open character.

Landscaping is to include planting along the median strip of Endeavour Boulevard and along the verges. Landscaping should reflect the major traffic role and function of the roads, filter the impacts of the anticipated traffic flows and recognise the transition in development scale and intensity between the predominantly commercial environment of the Town Centre Frame, the residential development to the north of the Precinct and the MIBA likely to be established to the north-west of the Precinct.

Any plantings adjacent to vehicular and pedestrian access points within the Precinct must address the transitional nature of proposed secondary access roads to the through-route nature of Endeavour Boulevard. Landscaping shall promote safety and low speeds but with due concern for maintaining sightlines.

Planting should be selected to provide shade and should be of sufficient height and density to mitigate the potential visual impact of the building bulk within the Precinct. Landscaping may be required to buffer and screen functional elements along these frontages to reduce impacts upon the amenity and visual character of the Precinct.

Landscaping at the corner of Endeavour Boulevard and the Unnamed Major Road should reflect the importance of this intersection as the western entry to the North Lakes Town Centre.

4.2.2 Pedestrian Linkages and Plazas

Pedestrian connectivity within the Precinct is to be provided through the built form. Where pedestrian links are identified as serving an overall purpose to assist pedestrian connectivity, provision is to be made to create an interconnected landscaped, open space and pedestrian system.

Subsequent Sector Plan(s) and applications for Material Change of Use will specify how this shall occur in particular circumstances but it may be for example, by common pedestrian pavement surfaces, special treatment of roadway surfaces, or a particular integrated style of landscaping for pedestrian legibility.

4.2.5 Landscaped Car Park Areas

Landscaping within car parking areas is to be provided in accordance with the DCP provisions and to define pedestrian connections between car parking areas, the streetscape and buildings. Landscaping of car parking areas is to be varied and interesting through the use of different landscape treatments, to contribute to the visual interest and character of the Precinct and minimise the potentially negative appearance of the car parking facilities. Car parking aisles should also be landscaped with low planting to enhance the appearance of car parking areas, while seeking to avoid reducing visibility. Outdoor areas such as surface car parking must be planted with canopy shade trees and integrated with the planned network of landscaped pedestrian and road frontage treatments.

The use of shade trees and screening through car parking areas must provide visual and physical relief from heat and glare, as well as contribute to the creation of an attractive urban landscape setting for all roads surrounding the Precinct. Shade trees are to be provided at the rate of not less than one (1) tree per six (6) parking spaces in all car park areas. Car park areas are encouraged to include appropriate shade structures integrated within the overall development, if appropriate. Undercroft car parking is to be screened from street and residential vistas.

4.2.6 Landscape Buffer Planting

Unightly functional elements, including loading docks, waste storage, collection areas and plant and building services areas require appropriate screening measures. These should be incorporated into overall building design and integrated with appropriate landscaping.

5.0 Environmental Management

The following objectives and performance criteria provide a summary of the environmental issues that will need to be considered as part of the detailed planning and design for development within the Precinct, particularly at the Sector Plan stage.

5.1 ENVIRONMENTAL MANAGEMENT OBJECTIVES

5.1.1 Objectives

- (i) To encourage energy efficiency in order to minimise greenhouse gas generation;
- (ii) To encourage development which incorporates environmentally sustainable initiatives; and
- (iii) To manage and mitigate environmental risk.

5.1.2 Performance Indicators

For all development within this Precinct, environmental management during the design phase, construction and post-construction phases, should:

- (i) implement energy efficient design elements in buildings, including overall building design, building orientation to maximise use of positive climatic conditions such as access to sunlight and prevailing breezes, shading including overhangs, skylights and non-reflective materials, building materials and mechanical and electrical plants to improve energy efficiency;
- (ii) implement building energy management systems which contribute to overall building energy efficiency;
- (iii) adopt effective air pollution mitigation measures to comply with the Environmental Protection Act, Environmental Protection Policy (Air) and other relevant legislation in relation to dust, smoke, fumes and gases, where necessary;
- (iv) ensure construction activities comply with Council’s Policy LP32;
- (v) implement effective noise mitigation measures to comply with the Environmental Protection Act, Environmental Protection Policy (Noise) and other relevant legislation where necessary;
- (vi) ensure high levels of environmental quality are achieved through water management for example in the maintenance of landscaped areas;
- (vii) ensure noise generated from development is reasonable for the type of use;
- (viii) ensure buildings used for purposes that require low noise intrusion, including residential uses, are designed to adequately ameliorate noise from external sources within and external to the Precinct;
- (ix) implement suitable waste storage and disposal measures in accordance with Council regulations;

- (x) implement design elements and buffer treatments to control the obtrusive effects of outdoor lighting where it is likely to adversely affect residential amenity and traffic safety;
- (xi) implement management and maintenance actions in accordance with Best Management Practice to minimise site-generated dirt/mud on public roads, particularly after rain periods; and
- (xii) ensure environmental management structures or control devices, such as gross pollutant traps, waste disposal bins, flues and the like, do not detract from the overall visual character of the Town Centre Frame or the immediate locality.

5.2 STORMWATER MANAGEMENT OBJECTIVES

5.2.1 Objective

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

5.2.2 Performance Indicators

Implement management systems which seek to control the quality and quantity of surface water in compliance with the:

- (i) *Environmental Protection Act 1994* and the *Environmental Protection Policy (Water)* and other relevant legislation;
- (ii) Planning Scheme, Local Laws, the Design Manual and policies except where Clause 2.6 of the Mango Hill Infrastructure Agreement applies;
- (iii) Mango Hill Infrastructure Agreement;
- (iv) Performance objectives of both the Freshwater Creek Catchment Management Plan and the Saltwater Creek Catchment Management Plan;
- (v) Stormwater Management Plan for Freshwater Creek; and
- (vi) Stormwater Management Plan for Tributary C.

5.3 EARTHWORKS MANAGEMENT OBJECTIVES

5.3.1 Objective

To adopt appropriate environmental management practices to avoid, or mitigate and manage, the potential adverse affects of earthworks and related land development activities.

5.3.2 Performance Indicators

For all development within this Precinct, earthworks management during construction and post-construction should:

- (i) identify the extent of acceptable earthworks activities consistent with the protection of overall environmental values and prepare designs complying with these limitations;
- (ii) implement appropriate soil erosion and sediment control protection measures and monitor and maintain these;
- (iii) manage the excavation and reshaping (bulk earthworks) to establish a finished surface profile that seeks to minimise the environmental impact of the earthworks on the surrounding environment; and
- (iv) comply with the Environmental Protection Act 1994, Environmental Protection Policies and other relevant legislation, as necessary.

6.0 Generic Land Uses

As required by Section 2.3.2 (f) of the DCP, the intended desirable and undesirable generic land uses for the Precinct are:

6.1 DESIRABLE LAND USES

- (i) car park;
- (ii) commercial services;
- (iii) community infrastructure such as emergency services facilities and civic and cultural uses;
- (iv) educational establishment;
- (v) hotel / motel;
- (vi) office;
- (vii) medical;
- (viii) medium to high density residential (above ground level);
- (ix) mixed use development;
- (x) recreation and leisure facilities;
- (xi) restaurant and café; and
- (xii) retail.

6.2 UNDESIRABLE LAND USES

- (i) recycling depot where not associated with an existing building; and
- (ii) display home.

7.0 Infrastructure

7.1 INFRASTRUCTURE TO BE PROVIDED

The following infrastructure is to be provided in the Precinct in accordance with the Mango Hill Infrastructure Agreement (MHIA), the Mango Hill Infrastructure Agreement – Main Roads (MHIA-MR), the Mango Hill Infrastructure Agreement (Queensland Transport) and the rezoning conditions.

7.1.1 Roads

- (i) All internal public roads; and
 - (ii) Pathways and bikeways.
- (refer to *Figure 5 – Road Layout*)

7.1.2 Water Supply

- (i) Reticulation systems along all internal roads to service all properties in the Precinct;
- (ii) Those sections of the mains shown on *Figure 6 – Water Supply Headworks*, necessary to service the anticipated demand in the Precinct; and
- (iii) Water headworks contributions.

7.1.3 Sewerage

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

7.1.4 Stormwater

- (i) Stormwater management works progressively in accordance with the Stormwater Management Plan for Tributary C and the Stormwater Management Plan for Freshwater Creek as approved by Council; and
- (ii) Stormwater drainage systems to roads and lots.

7.1.5 Open Space

Provide open space for the purposes of a detention basin in accordance with *Figure 3 – Precinct Plan Map*.

7.1.6 Electricity Supply and Communications

- (i) Allow for underground electricity distribution to all properties within the Precinct, by Energex or another appropriate supplier of electricity; and
- (ii) Arrange for the provision of underground conduits along all road verges within the Precinct and adjacent roads to meet the anticipated demands of the DCP area.

7.2 INFRASTRUCTURE AFFECTED OR REQUIRED BY PRECINCT DEVELOPMENT

- (i) The development of the Precinct may place demands on the following infrastructure:
 - Roads external to the DCP area and the Precinct;
 - Water supply infrastructure;
 - Sewerage infrastructure;
 - Stormwater infrastructure;
 - Parks;
 - Community facilities;
 - Electricity and gas supply;
 - Communications systems; and
 - State Government Infrastructure.
- (ii) The infrastructure described in clause 7.1 above, together with the obligations of the Principal Developer under infrastructure agreements will mitigate the adverse affects on the above infrastructure.

7.3 HOW THE REQUIRED INFRASTRUCTURE RELATES TO THE INFRASTRUCTURE AGREEMENTS

The infrastructure agreements describe the infrastructure that must be provided by the Principal Developer as part of its obligations to provide infrastructure, as envisaged by Chapter 12 of the DCP. The works described in clause 7.1 of this document are the Principal Developer's obligations under the rezoning conditions and the infrastructure agreements.

8.0 Preliminary Infrastructure Program

8.1 PRELIMINARY PROGRAM FOR INFRASTRUCTURE PROVISION

- (i) The Principal Developer will provide all the infrastructure referred to in clause 7.1 of this document at times to satisfy the requirements of the MHIA. Initial infrastructure works are estimated to be constructed by December 2010;
- (ii) The local bus service will be provided in accordance with clause 8.2 (i) of this document; and
- (iii) The public transport interchange and provision of land for park and ride facilities within the Town Centre Frame will be provided in accordance with clause 8.2 (ii) of this document.

8.2 INFRASTRUCTURE TO BE PROVIDED AND THE INTENDED PROVIDER

The following items of State Government infrastructure are to be provided by the Principal Developer in conjunction with the development of the Precinct in accordance with Infrastructure Agreements with the State Government. These include the provision of works to State-Controlled Roads.

- (i) A local bus service will service the Precinct in accordance with the Infrastructure Agreement with Queensland Transport;
- (ii) A public transport interchange and park and ride facilities are to be provided in accordance with the Infrastructure Agreement with Queensland Transport; and
- (iii) The Principal Developer must contribute towards the cost of providing kerbside infrastructure associated with the public transport system. Such contribution is to be in accordance with the Infrastructure Agreement with the State Government.

8.3 OTHER WORKS DEPENDENT ON INFRASTRUCTURE PROVISION

There are no other works necessary to ensure the infrastructure required to service the development of this Precinct is provided.

8.4 ESTIMATES OF WHEN OTHER WORKS DEPENDENT ON INFRASTRUCTURE PROVISION WILL NEED TO BE PROVIDED

Not applicable – refer to Section 8.3 above.

8.5 OTHER RELEVANT INFORMATION

8.5.1 Estimated Water and Sewerage Demands

As required by the MHIA, the Principal Developer states as follows:

- (i) For the purpose of assessing water supply capacity, the estimated number of equivalent Tenements for this Precinct is 39.6 ET; and
- (ii) For the purpose of assessing sewerage capacity, the estimated number of Equivalent Persons for this Precinct is 158.4 EP.