

# **MANGO HILL INFRASTRUCTURE DEVELOPMENT CONTROL PLAN**

**Sector Plan No. 003-1000**

**for**

**Central Open Space Sector**

**Central Open Space Precinct**

**North Lakes Development**

**28 March 2001**

(Approved subject to conditions by Council on 19 October 2000 (MP00/3582 and incorporating amendments approved under delegated authority of the 28 March 2001)

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## Annexures

- A. Proposed Metes and Bounds Description of Sector
- B. Supplementary Table of Development (Open Space) for this Sector.

## **1.0 Introduction**

- 1.1 The Mango Hill Infrastructure Development Control Plan (DCP) provides for the creation of a sector within a precinct. The area of the sector may be chosen by the principal developer. The principal developer must then prepare a sector plan and lodge it with Council for approval in accordance with the relevant provisions of the DCP.
- 1.2 A sector plan is the final plan in the plan making process. Its purpose is to provide the code of development for the land in the sector. It will form the basis for assessment of development applications.
- 1.3 To the extent this sector plan provides development requirements which are inconsistent with those in the planning scheme, local laws, policies and codes, the standards in this sector plan prevail as provided by clause 1.11 of the DCP.
- 1.4 To the extent this sector plan does not provide development requirements, then the provisions of the planning scheme relevant to the particular form of development will apply as also provided by clause 1.11 of the DCP.
- 1.5 The principal developer has created a sector to be known for planning purposes as the *Central Open Space Sector*. This document constitutes the sector plan for the Central Open Space Sector.
- 1.6 The location of the sector within the DCP area is shown in Figure 1.

## **2.0 Sector Plan Context**

- 2.1 The Central Open Space Sector forms part of the linear Open Space system extending from the Saltwater Creek drainage system on the northern boundary of the DCP area, through the centre of the DCP area to join with the Town Park and the Hays Inlet drainage system. As shown on the DCP Structure Plan, the Central Open Space Sector broadly corresponds with the major open space system on a roughly north-south alignment through the centre of the DCP area.
- 2.2 Figure 2 shows the Central Open Space Sector, the boundaries of which generally correspond with the boundaries of the Central Open Space Precinct. The area of the sector is 69.0 hectares.
- 2.3 The plan in Figure 3 shows the final boundaries of the Central Open Space Sector. The proposed Metes and Bounds Description of the sector is provided in Annexure A.

## **3.0 General Desired Environmental Outcomes**

### **3.1 General**

In relation to the predominant land use element of Open Space, the DCP provides for the following general desired environmental outcome.

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

The development of the DCP area will recognise ecologically sustainable development (ESD) principles. This sector plan, like the precinct plan, pursues a number of environmental objectives as outlined in section 11.1.2 of the DCP:

- “(c) To adopt appropriate environmental management practises to avoid, or mitigate and manage the potential adverse impacts of development and environmental harm as required by the Environmental Protection Act 1994(EPA).*
- (d) To reduce resource and energy requirements for the Mango Hill development (North Lakes) through providing opportunities for walking and cycling and the establishment of a viable public transport system, innovative building designs, shared use of public facilities and spaces, and the extensive use of low maintenance landscapes in open spaces.*
- (f) To provide the means for the establishment or enhancement of habitat areas and wildlife corridors primarily along the linear parks through the DCP area connecting with the regional open space network.*
- (g) To minimise the loss of remaining stands of native vegetation when undertaking development wherever practicable.”*

### **3.2 Specific**

The DCP provides a number of specific desired environmental outcomes of which the following are relevant to this sector:

- “(a) To integrate the open space system, as a key structural element, with other elements of the DCP area such as the transport network and the community facilities network.*
- (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.*

- (d) *To provide a wide range of satisfying, structured and unstructured recreation opportunities for residents.*
- (e) *To ensure that, through integrated planning and good design, recreation opportunities offered in the open space system will be rewarding and can be pursued safely by the public.*
- (f) *To conserve and protect land of local and wider conservation value within the open space system for the enjoyment of present and future generations.*
- (g) *To integrate pedestrian and bicycle modes of transport within the open space system, linking urban residential areas with local 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”.*

## **4.0 Planning Intent**

4.1 Clause 9.2 of the DCP provides an outline of the planning intent for the Open Space land use element.

*“It is intended that a full range of open space opportunities will be conveniently available to the community as it develops. Open Spaces include land designated for public park purposes, unallocated land held by the Council or the Crown as well as areas of private recreational open space. Examples of open space are:*

- a) enlarged areas of roadways used for open space;*
- b) golf course, including practice areas and buffer areas*
- c) landscaped areas, including landscaping for visual or acoustic screening or buffering;*
- d) pedestrian and bicycle pathways;*
- e) waterways;*
- f) water bodies used for environmental management purposes; and*
- g) other outdoor recreation areas.”*

4.2 Development of the sector for open space will form a major element of the linear park system within the DCP area. As outlined in Section 9.2.2 of the DCP, the linear park system is intended to serve open space, recreational and environmental needs at the district level and to achieve this through:

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

- (b) *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 lookouts for residents...*
- (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;*
- (e) *enhancement of open spaces by the provision of educational and interpretive facilities.*
- (f) *control over the design and siting of public facilities such as clubhouses, amenities, car parking areas, furnishing and lighting”.*

4.3 Development of the Central Open Space Sector and its integration as part of the linear park system will be one of the first major stages of environmental protection and regeneration. However, few areas of environmental value remain undisturbed as a result of the previous use of the land for a commercial pine plantation. Patches of melaleuca and eucalypts can be found in the low lying drainage lines, however, these areas require considerable rehabilitation in order to provide open space links, habitat corridors and adequate stormwater retention.

4.4 The open space pattern has been aligned with the DCP area’s natural drainage pattern of gullies, which drain the bulk of stormwater flows into Saltwater Creek. The positioning of the linear park system has been undertaken for a number of sound environmental reasons. As outlined in relation to the “linear park” within Table 9.1 of the DCP, these include:

- “(2) *A significant area of linear park lies below the Q2 floodline (i.e. within waterway corridor).*
- (3) *May be maintained in a natural condition or rehabilitated to reflect the natural condition of the bushland in the locality.*
- (4) *May include environmental management features such as wetlands and waterbodies where considered appropriate following detailed design.*
- (5) *May include various forms of commercial recreation such as a golf course.*
- (6) *Will be developed to replicate the natural landscape to the fullest extent possible while maintaining its recreational and engineering functions.*
- (7) *To be developed with a network of paths providing linkages between residential areas and community facilities, town park and employment centres”*

4.5 Development within this sector must contribute to the environmental management of the DCP area by providing opportunities for mitigating and managing the potential stormwater drainage effects of urban development.

4.6 The environmental objectives, as stated in section 3.1, must be achieved through the environmental management of development which must preserve and rehabilitate,

where practicable, significant stands of remnant vegetation and provide habitats and corridors for fauna. This should include measures to preserve the local conditions and natural systems which are important to the survival of those stands of vegetation and any identified habitat areas, including that of the Vulnerable Species, the *Crinia tinnula* (Wallum Froglet) and any other identified vulnerable species.

- 4.7 If the Central Open Space Sector is developed for an outdoor recreation use such as a golf course, clubhouse, maintenance facility and associated uses it would be expected that the golf clubhouse be developed to cater for a range of end users. It may include a full range of facilities normally associated with a golf course.

## **5.0 Development and Landscape Concept**

### **5.1 Development Concept**

Figure 4 shows in notional terms a layout of the sector in relation to its wider development context.

The development of the sector will provide open space and/or outdoor recreations uses of district and potentially regional significance. It will form part of one of the principal open space features of the DCP area, forming a major link in the linear park system which will “tie” the individual residential villages and a range of non-residential land use elements together. This sector will also maintain open space connectivity with the district open space network at Saltwater Creek and Hays Inlet on the northern and eastern boundaries of the DCP area.

The layout of the open space must utilise, where practicable, the significant natural features of the sector, including topography, ridge and gully formations and remnant stands of indigenous vegetation.

The layout of development in this sector and the surrounding road and open space patterns will be influenced by the desire to provide view and vista opportunities for residents. Public visibility of the major open space will have an important influence on the overall ambience of the community and the sense of community “ownership” of any open space. A more community orientated design of the open space and surrounding roads, parks and urban development as proposed for the DCP area will allow all residents to appreciate it, rather than only those with direct open space frontage.

Recreation and leisure play a leading role in the image of the community. The open space within this sector will fulfil an important function within the wider community realm. In addition to its benefits as a major visual feature, it will provide a valuable and prominent district leisure and recreational resource.



The major road network for the DCP area has been designed to minimise road crossings of the open space for motor vehicles while ensuring a good standard of overall connectivity. If only one major road crossing for motor vehicles of the sector will be provided, additional crossings for pedestrians and cyclists must be provided.

Any future clubhouse and related facilities will be situated in close proximity to the major road extension of Discovery Drive. Local community facilities may be located in proximity to these activities. The possible proximity of these two recreational / community related land use areas will offer convenience for future residents and patrons, as well as possible opportunities for the sharing of facilities.

If the sector is developed as an outdoor recreation use, the pedestrian and cyclist pathways will not be located within this sector plan, with the exception of cross links. However, as acknowledged by the Precinct Plan, a parallel system for reasonable proportion adjacent to this sector will provide a level of amenity comparable to a linear park system. This parallel system will be located preferably along the edge of the open space within adjacent open space and road networks. However, the location of pedestrian / cyclist pathways must minimise conflicts between the end use in this sector and the adjoining sectors.

Key principles of the open space development include:

- (i) A strong visual identity and an appearance of high landscape quality, including substantial landscape beautification of a currently degraded environment.
- (ii) Provision of open vistas from a number of vantagepoints along the major road network and from various local roads and parks surrounding the open space.
- (iii) Provision of a varied range of functions within the clubhouse, which may include casual and formal food and beverage facilities, to serve the open space patrons as well as offering a wider community benefit.
- (iv) Opportunities to protect and manage identified significant vegetated areas and wildlife habitat, including the *Crinia Tinnula* (Wallum Froglet) habitat and any other identified vulnerable species.
- (v) Integration of the stormwater management system within the open space.
- (vi) Convenient road access from the major road network to the clubhouse which does not cause adverse impact on adjoining uses.
- (vii) High quality and safe pedestrian and cyclist access through and peripheral to the open space.
- (viii) Development of a coherent sense of place through site planning and landscaping – using edges, linkages, focal points and strong environmental imagery.

The development within this sector will be managed during the construction and operational phases, to ensure that peak discharges and water quality into the adjoining

creek systems are controlled by means of lakes, retention basins and artificial wetlands.

## 5.2 Landscape Concept

The landscape design of the Central Open Space Sector will emphasise the re-establishment and management of corridors of trees, shrubs and grassland which will encourage the reintroduction of fauna and flora ecosystems, and provide open space outlooks from surrounding urban residential development.

The landscape concept will be drawn from the landscape character of the surrounding region. It will also reflect the landscape concepts adopted for the balance of the DCP area and will be consistent with the desired image of the development.

The broad intents and objectives of the landscape concept plan contained within the Central Open Space Precinct will be achieved in this sector by:

- (i) creating areas of grassland, shrubs and trees which merge with one another much as they do in nature as part of the environmental rehabilitation for the DCP area and to improve the microclimate;
- (ii) treating sympathetically the natural undulating topography;
- (iii) utilising existing natural drainage patterns for the creation of the water bodies and wetlands within the open space and for water quality treatment purposes;
- (iv) with the exception of the Generalised Building and Car Parking Area, planting will consist of indigenous trees and shrubs primarily of local or South-East Queensland indigenous species so as to recreate to the extent possible the natural environment before the commercial pine forest activities began;
- (v) within the Generalised Building and Car Parking Area, planting will predominantly consist of indigenous trees and shrubs primarily of local or South-East Queensland indigenous species so as to recreate to the extent possible the natural environment before the commercial pine forest activities began;
- (vi) incorporating the remnant plant communities into the open space areas where practicable;
- (vii) utilising form, texture and colour of planting within the open space layout so as to create interest, contrast, mood, transitional space and framed and screened views; and
- (viii) utilising landscape to establish an impressive open space area.

## **6.0 Land Use Rights**

6.1 Clause 2.4.9 of the DCP requires the final specification of land use rights for land in a sector chosen from the supplementary table of development in the DCP for the particular land use element. If a purpose set out in column B of that supplementary table of development is not nominated for land in the sector, then that purpose thereafter for that land becomes permissible development (column C).

6.2 Land within the sector may be used for the purposes specified in column A of the supplementary table of development for the Open Space land use element.

6.3 The following purposes in column B of the supplementary table of development for the Open Space land use element are nominated for the land in this sector:

- *outdoor recreation*

The other purposes set out in column B of the supplementary table of development are permissible purposes for land in this sector which is within the Open Space land use element (i.e. they become column C purposes).

6.4 The Supplementary Table of Development (Open Space Element) setting out the final specification of land use rights for land in this sector is contained in Annexure B.

## **7.0 Development Requirements**

### **7.1 Introduction**

Clause 2.4.2 of the DCP requires a sector plan to specify development requirements for land in the sector. Clause 1.11 of the DCP provides that to the extent a sector plan does not provide these provisions, then the provisions of the planning scheme relevant to the particular form of development will prevail.

### **7.2 General Requirements**

The requirements for development specified in the planning scheme apply to development in this sector, except where inconsistent with requirements specified in clause 7.3 or the design and siting guidelines in Section 8 or where alternative acceptable solutions are granted in accordance with Section 11 of this sector plan.

For the purposes of this clause, where relevant, references in the planning scheme to a zone are to be taken as a reference to the Special Development Zone.

### 7.3 Specific Requirements

The following specific requirements apply to any development within this sector:

#### 7.3.1 Subdivision Requirements

- .1 As a consequence of the major road crossing and a number of public pedestrian / cyclist thoroughfares to be created across the open space, it is anticipated that this sector will be subdivided. It is expected that the subdivision will be reasonably complex to ensure all interests of satisfied, in particular, if the major portion of the sector is retained in private ownership.
- .2 At any time in the future, if the sector is to be further subdivided, then the minimum area and dimensions of proposed lots and the land titling arrangements are to be to the satisfaction of Council having regard to the intended use of the proposed lot(s).

#### 7.3.2 Vehicular and Pedestrian Access

- .1 Vehicular access to any part of the Central Open Space Sector other than the clubhouse and maintenance facility area is limited to maintenance and emergency vehicles and if developed as a golf course, motorised golf carts.
- .2 External pedestrian and cycleway access will be located within parkland areas running alongside a reasonable proportion of open space as the preferred option or within the nearby road network.
- .3 In addition to the North-South Arterial Road crossing of the open space, four dedicated pedestrian/cyclist path crossings will be incorporated.
- .4 If the sector is developed for an outdoor recreation use such as a golf course, the design must not permit informal paths across the course.

#### 7.3.3 Building Locations and Setbacks

- .1 Any clubhouse, maintenance facility and related buildings are to be developed within the Generalised Building and Carparking Area shown on the Sector Plan Map. (refer Figure 4)
- .2 The design of any clubhouse, maintenance facility and related uses must take into consideration the topography, drainage, services, orientation, microclimate considerations, vehicular access, amenity considerations, pedestrian movement pattern, streetscape and

landscape design and neighbouring site development when implementing the design and siting guidelines as detailed in Section 8.

- .3 The design, location and extent of buildings within the Generalised Building and Carparking Area must respect the overall intent and landscape character of the Central Open Space Sector and make appropriate allowances for landscape, pedestrian and carparking areas.
- .4 The design and location of buildings and related facilities within this Generalised Building and Carpark Area must maximise the opportunity for surveillance of public pathways using the principles of Crime Prevention through Environmental Design.

#### 7.3.4 Building Height

- .1 The maximum permissible number of storeys for any building in this sector is two (2).
- .2 The maximum wall height of any building above natural ground level must not exceed 10 metres. Architectural feature elements, which enhance the visual qualities of the development and establish landmark elements, may extend above the building(s), provided they are in scale with the overall development within the Generalised Building and Carparking Area.

#### 7.3.5 Lighting Glare Management

- .1 Other than for the areas occupied by the clubhouse, maintenance facility and related activities, the only other components of the open space where night lighting may be acceptable are a practice range, if the sector was developed as a golf course, and the pedestrian and cyclist linkages crossing the open space. Night lighting of a practice range will only be permitted where it can be demonstrated to the satisfaction of Council that a nuisance or glare hazard will not be created for nearby residents or passing motorists.
- .2 All lighting other than public lighting (eg. road lighting, pedestrian/cycle crossings) is to comply with AS 4282 – 1997 *Control of the obtrusive effects of outdoor lighting*. The curfew hours applicable to the Generalised Building and Carparking Area as shown on Figure 4, is 12 midnight to 6am, unless otherwise varied by Council and 8 pm to 6 am for the balance of this sector (excluding public lighting). However, the curfew hours for the practice range will be established as part of the demonstration required in Section 7.3.5.1.

## **8.0 Design and Siting Guidelines**

Clause 2.4.2 of the DCP requires a sector plan to specify for land in the sector design and siting guidelines, landscape requirements and signage guidelines. The following guidelines relating to buildings, structures and landscaping apply to all development within the sector:

### **8.1 Buildings and Structures**

#### **8.1.1 Design Theme**

The buildings and other architectural elements within this sector must:

- .1 Achieve a site design which provides a sense of identity for the sector.
- .2 Reflect a low rise character in keeping with the landscape setting, with an emphasis on a predominantly horizontal building mass and architectural features and only limited use of vertical elements integrated into the design as special features.
- .3 Establish a harmonious, high quality and legible built environment to complement the desired urban character of the nearby urban residential and local community facilities.
- .4 In the case of the maintenance facility recognising its more subordinate and primarily functional role in relation to the clubhouse and environs, incorporate building elements, façade treatments, materials and colours which complement the built environment component of the sector, as well as soften the visual impact of the building and screen outdoor storage and maintenance areas.
- .5 Promote wider community interaction and integration with the clubhouse facilities through the use of pedestrian friendly building treatments and urban design solutions, easily identifiable entry areas, and the like.

#### **8.1.2 Building Materials, Types , Colours and Quality**

- .1 Consistent with the intended landscape characters of the sector, the incorporation of predominantly natural and visually recessive materials, such as painted or natural timbers, clay tiles and pavers, terracotta, natural sandstone, split faced masonry, exposed aggregate concrete and masonry walls rendered and coloured to be visually recessive, are the preferred materials for buildings and structures. Limited use of other materials for practical reasons (eg. for the maintenance facility) or to provide contrasting effects is acceptable. Promotional and other display advertising features are not considered to be building materials for the purposes of this sector plan.
- .2 Consistent with the preferred materials range, natural and recessive

colours which are sympathetic to the textures of the landscape are the preferred major roof colours. Major wall colours may incorporate a broader palette of colours, including light colours. Brighter colour accents are permitted for minor detailed elements such as tower elements, window and door frames, columns, handrails and ornamental features, primarily to provide increased visual interest and variety, and to enhance the architectural and landmark qualities of the clubhouse and environs.

- .3 In order to avoid unreasonable glare nuisance to surrounding development, the major materials and colours selected for any buildings and structures in this sector must not be highly reflective.
- .4 The design, appearance, materials and colours of other structures such as shelters, storage sheds, covered carpark structures and the like must complement the appearance of the main building.
- .5 All materials must be clean and free from defects, except where recycled materials or natural materials with roughened surfaces form an integral part of the design philosophy.
- .6 Any security fencing, e.g. surrounding the maintenance facility, must be subordinate to, and incorporated with, the perimeter landscape planting.

### 8.1.3 Plant and Equipment

Plant and equipment must comply with the following requirements:

- .1 All air conditioning/ventilation plant and other equipment located on the roof or located externally around any buildings must be treated as an integral part of the building form. Such services are to be screened from view from external roads and the balance of the sector by metal fences or louvre panels coloured to match the roof (if on the roof) or otherwise to match with surrounding materials.
- .2 If located externally around the building, it must be positioned and housed so as not to cause nuisance or disturbance to persons or property not connected with the development and to the reasonable satisfaction of the Council.
- .3 If satellite dishes are installed, they must be located in visually unobtrusive locations, preferably near screens to plant or service areas. Where located on roofs, satellite dishes must be positioned to reduce visibility from the adjacent roads or public open space, and where practicable, located away from the side walls, parapets or eave lines of

the building.

#### 8.1.4 Building Design for Climate

- .1 The clubhouse building within the Central Open Space Sector is encouraged to incorporate appropriate responses to the South-East Queensland climate. This may include the use of decks, pergolas, overhangs, screens, shade structures and semi-enclosed outdoor spaces, to allow enjoyment of the outdoors while providing relief from the sun, wind and rain.
- .2 Suitable landscape elements must be incorporated to enhance the building design's response to the climate by providing further sun protection and to minimise the impact of strong winds.
- .3 The incorporation of energy efficiency measures in the design of buildings is encouraged, and may include the following:
  - (i) Siting of the building(s) to avoid summer heat, capture winter warmth and maximise natural lighting.
  - (ii) Ventilation of building(s) to take advantage of prevailing breezes.
  - (iii) Use of insulation in the ceiling-roof area, walls and floor.
  - (iv) Consideration of the positioning and size of windows to control the amount of heat entering the building.
  - (v) Incorporation of gas or solar hot water heaters and other solar energy devices.

## 8.2 Landscaping

### 8.2.1 Design Strategy

- .1 Landscaping is an integral part of the total design of the DCP area. The landscape elements and building forms within this sector must be harmonious and visually unifying. Landscape treatments must also blend with the intended indigenous vegetation of the adjacent parks and streetscapes, and be generally consistent with the broad design strategy reflected in the Landscape Concept Plan of the Central Open Space Precinct.
- .2 Landscaping within the sector must:
  - (i) unify the sector through planting type, texture, colour and hard landscape elements;
  - (ii) within the Generalised Building and Carparking Area, be in scale with the buildings and outdoor spaces and, where



required, mitigate the visual impact of buildings and structures (e.g. maintenance areas) on the open space and adjacent urban residential development;

- (iii) create a comfortable and attractive environment;
- (iv) ensure that planting effects are contextually appropriate within the broader landscape strategy for the DCP area;
- (v) achieve an aesthetic balance of en masse groundcover planting, shrub planting and canopy tree planting;
- (vi) ensure that plant species are chosen which are compatible aesthetically and ecologically with each of the other species chosen for the various areas;
- (vi) promote the protection / re-introduction of fauna habitats and movement corridors, including the *Crinia Trinnula* (Wallum Froglet) habitat;
- (vii) if the sector is developed for an outdoor recreation use such as a golf course, enhance the safety clearances required to be incorporated into the golf course design by providing landscape buffers in appropriate locations as a further protective measure for motorists, pedestrians, cyclists and residents;
- (viii) establish appropriate screening of obtrusive uses (eg. outdoor storage areas associated with the maintenance facility) in order to protect visual amenity; and
- (ix) promote water quality management throughout the sector.

.3 The plant species used within the sector must be selected from local indigenous species. In addition, the selective use of other compatible species may be acceptable subject to the approval of Council.

#### 8.2.2 Carparking Areas

Landscaping of the carparking areas within the Generalised Building and Carparking Area must include advanced shade trees planted at a rate not less than one tree per six vehicle spaces. Pergola or shade structures may be constructed in carparking areas provided they blend with the built form and landscaping of the sector.

#### 8.2.3 Landscape Frontage Area

The frontage area along the sector boundary of the Generalised Building and Carparking Area must be turfed and planted for a minimum width of three (3) metres so as to create a high degree of presentation and a permeable landscape setting which blends with the streetscape and / or local parkland landscaping of the adjacent urban residential area. The landscaping of these areas must soften, enhance and provide scale to the built form of the clubhouse and related buildings.

#### 8.2.4 Internal Landscape Areas

The sector must be landscaped generally in accordance with the design principles reflected on the Sector Landscape Plan (refer Figure 5).

In overall terms and irrespective of the final end use, landscaping is to consist of a combination of naturally re-vegetated buffer areas along the edges of the drainage paths through the middle of the sector (Indigenous Landscape Planting Areas on the Sector Landscape Plan), protected existing vegetation in the core of the sector (Retained Vegetation Areas), open grass areas together with stands of trees and shrubs (Open Grassed Areas), and water bodies and wetland planting areas (Indicative Water Bodies, Wetlands and Drainage Channels). Landscape areas must be planted in accordance with the following requirements:

##### .1 Planting Design and Layout

- (i) In overall terms, the planting design for the sector must reinforce the distinctive indigenous vegetation character intended for the DCP area, as well as re-establishing landscaped corridors and creating pre-determined effects in support of the outdoor recreational use of the sector. Design elements may be aesthetic in their function, or include landscape treatments to frame or screen views or draw attention to features within the sector such as the water bodies and wetlands. The form, texture and colour of planting is to be widely used to create interest and contrast. In terms of functional effects, planting may also be utilised to create enclosure and assist in microclimate and environmental management.
- (ii) In order to assist appreciation of the context, setting and function of the various elements of the open space, the buildings, structures and planting qualities must be planned to provide compatibility in form and scale. The sensitive combination of vertical and horizontal elements, light and shade, colour and texture must ensure that the landscape and architectural aspects of the development create a cohesive and harmonious environment.

## .2 Plant Selection and Integration

- (i) As indicated by Section 8.2.1.3 above, selection from a wide range of planting will be appropriate depending upon the particular characteristics and site conditions of each part of the sector and the need to express special interest features related to the buildings and landscape design and the various outdoor recreation uses. In particular, the edge planting treatments at the urban residential interfaces must achieve softening of the built form and integration of adjacent development frontages, roads, pathways/cycleways and parkland. Planting effects generally must be practical, aesthetically appealing and ecologically suitable. To this end, the use of indigenous plant species is preferred.
- (ii) The selective use of other compatible exotic species may be appropriate in the Generalised Building and Carparking Area provided they offer distinct practical and/or amenity advantages, such as soil binding properties, speed of growth or to provide appropriate accents of colour, form and texture within the framework of indigenous plant material.
- (iii) Landscape works which require a high degree of attention to maintain appearance may only be utilised where cost and setting warrant or in order to attain a community benefit. In general, however, the preference is for low maintenance, natural landscapes, evocative of the natural qualities of the region.

### 8.2.5 Water Body and Wetland Edge Treatments

- .1 Edges to water bodies may utilise a variety of treatments and plant materials that vary in character to reflect different waterway locations. These treatments must be integrated into the natural context of the open space system
- .2 Ponds and artificial wetlands which intercept run-off prior to entering the water bodies and drainage system, must have a predominantly natural appearance with a combination of natural rock edges and undefined soft edges. Once established, these water bodies and wetlands will support wildlife and blend with the landscape character of the open space. The design of the water body, wetland and edge treatments must be responsive to ongoing management and maintenance requirements.

- .3 Boardwalks and bridges provided as part of water body or wetland edge treatments should incorporate rock or timber materials or concrete revetments to maintain a visually recessive appearance.

#### 8.2.6 Hard Surface Treatments

- .1 Surface treatments must be consistent with the user type, activity and location. Furthermore, the selection of surface materials must complement the setting, whether as hard paving surfaces in a more formal area adjacent to the clubhouse or possibly more informal natural trails as part of pathways through the Retained Vegetation Area. The selection of any surface material must be based upon safety, durability, cost effectiveness, location and visual impact considerations.
- .2 Where practicable, preference must be given to materials which have compatible natural finishes and textures to proposed indigenous planting within the development. This includes the selection of robust treatments such as rock or timber materials or concrete revetments for pedestrian / cyclist bridges crossing the sector in order to maintain a visually recessive appearance.

#### 8.2.7 Management and Maintenance Practices

- .1 Management and maintenance practices must be durable with due consideration given to simplicity and speed of maintenance requirements and the aesthetics and practicality of the end result. Maintenance and management measures must be in accordance with the provisions of any Environmental Management Plan, any Environmental Management System, and any maintenance schedules which may form part of subsequent development application for any outdoor recreation use of the sector.
- .2 Within and adjacent to areas of existing vegetation, maintenance and management practices must include the careful monitoring of development activities, especially clearing of areas of vegetation and earthworks, to ensure the actions are preventative as well as restorative.

#### 8.2.8 Landscaping and Planting Plan

The final landscape works and planting within the sector, including details on planting size, layout and density, must be carried out and maintained in conformity with Landscape and Planting Plans prepared in accordance with the requirements of this sector plan by a qualified Landscape Architect with proven experience in large scale vegetation rehabilitation works including

wetlands. These plans must be submitted to, and approved by, the Council prior to commencement of any development for material change in use, operational works or building works.

The landscape architect must certify that the landscape works have been undertaken in accordance with the approved plans.

### **8.3 Environmental Management**

Development of the sector necessitates careful planning and management of a wide range of environmental issues during the construction and operational phases. These issues must be addressed in Environmental Management Plans (EMP) to be submitted with subsequent development applications. The EMP(s) must take account of the environmental management objectives and performance indicators of the Central Open Space Precinct and the following environmental guidelines and requirements:

#### **8.3.1 Earthworks Management**

Earthworks management, which is to include clearing operations must address erosion and sediment control, topsoil management, bulk earthworks and fine shaping in relation to development of the Central Open Space Sector.

##### **.1 Erosion and Sediment Control**

Erosion and sediment control must be maximised by planning and undertaking construction and maintenance activities in accordance with Best Management Practices outlined in Council's Design Manual and the Institution of Engineers Australia Queensland Division's Erosion and Sediment Control Engineering Guidelines for Queensland Construction Sites, in particular:

- (i) Implementation of a site erosion and sedimentation control plan which has to be submitted to and approved by Council, prior to commencement of any operational or building works.
- (ii) Erection and maintenance of sediment control devices throughout the full period of the construction and maintenance phases and until the works are stabilised.
- (iii) Stabilisation erosion protection and sediment control measures at drain outlet and pump-out points.
- (iv) Regular inspection and maintenance of all structures and control measures to ensure design performance.
- (v) Where soil is to be stockpiled within the sector for a period greater than three months the soil must be stabilised with a fast growing grass in order to minimise erosion and dust generation.

## .2 Topsoil Management

The following methodology must be implemented to ensure maximum benefit is derived from existing topsoils:

- (i) Implementation of site sampling and testing program as required to ensure topsoil quantities and qualities are identified for reuse.
- (ii) Topsoil stockpiles must be located to minimise the risk of erosion and sedimentation of drainage lines.
- (iii) Where stockpiles are to stand for periods exceeding one month, they must be seeded with appropriate grass species to minimise erosion and dust nuisance.
- (iv) Prior to spreading, stockpiled material may be treated to remove sticks and other debris and treated with nutrient material to improve qualities as a growing medium.
- (v) Topsoils must not be exported from the DCP area.
- (vi) High quality, specially graded topsoils may be imported for selected areas subject to Council further consideration at the time of lodgement of the necessary development applications.

## .3 Bulk Earthworks

The finished surface profile must be designed taking into account the following criteria in order to minimise the impact of construction:

- (i) Earthworks material must not be imported or exported from the DCP area.
- (ii) A site sampling and testing program must be undertaken to identify location, quantity and qualities of insitu soils to determine their optimum reuse within this sector.
- (iii) Excavation and filling must be undertaken in the dry using conventional earth moving equipment and conventional construction methods.
- (iv) All filling must be undertaken in accordance with Council approved specifications, particularly in relation to structural fill which may impact on foundations of planned building works.

## .4 Fine Shaping

The finished shape must be created to achieve the overall landscape design philosophy and undertaken in conjunction with irrigation construction to allow grassing operations to follow promptly in order to minimise the potential for erosion and sediment transportation.

### 8.3.2 Site Contamination

In the event contaminated materials are exposed they must be controlled by:

- (i) Barricading the areas of exposure, where practicable.
- (ii) Ensuring site personnel are made aware of constraints in these areas.
- (iii) Clear designation of the areas.
- (iv) Landscaping of these areas, where practicable.
- (v) Implementing erosion control measures.

The Environmental Management Plan (EMP) must address the possibility for discovery of site contamination.

### 8.3.3 Acid Sulfate Soils

Acid sulfate soils may exist. While it is anticipated that all development within the Central Open Space Sector will not affect acid sulfate soils (including the water bodies within the sector), investigations in accordance with the relevant State Government guidelines must be undertaken to determine if these soil types exist.

### 8.3.4 Air Quality Control

In order to minimise the amount of dust generated during the construction phase and to protect the air from smoke, dust, odour, fume and gas emissions, the following measures must be implemented:

- (i) Use of a water tanker to reduce dust during construction activities.
- (ii) Grassing of all stockpiles of soil which will stand longer than three months.
- (iii) Watering of all construction roads when in use.
- (iv) Compliance with Council's Policy LP32 and the Subdivision of Land Provisions of the Town Planning Scheme in relation to construction activities.
- (v) Undertake clearing operations in a manner which maximises wood chipping rather than pit burning of cleared vegetation.

### 8.3.5 Management of Dirt/Mud on Public Roads

In order to minimise site generated dirt/mud being deposited on public roads (particularly after rain periods), the following measures must be implemented:

- (i) Provision of a truck shake down and purpose built washdown facility adjacent to the exit from the construction site.
- (ii) Erection of signage on the main exit roads instructing all vehicle operators to wash down vehicles prior to leaving the construction site.

- (iii) Provision of all weather and adequately drained construction roads in the sector.

### 8.3.6 Chemical Management

The EMP(s) must address the construction and operation phases for the storage, transportation, application of chemicals, including pesticides, herbicides and fuel. Chemical use must be undertaken in a manner which will not cause environmental harm. Impacts are to be assessed at the development application stage and methods of control recommended.

In order to prevent contamination of work areas in the sector and adjoining property, including drains and sedimentation ponds, by chemicals and fuel and oils used during construction, the following measures must be implemented:

- (i) If required, provision of a designated refuelling area which is:-
  - (a) totally bunded so that the volume of the bunded area is greater than the volume of the largest storage tank;
  - (b) has an all weather surface with adequate drainage;
  - (c) is adequately fenced and signposted; and
  - (d) is located away from major drainage lines and waterways.
- (ii) Provision of a supply of oil/fuel absorbent material for use on minor spills.

### 8.3.7 Noise and Vibration

The following measures must be implemented in order to minimise noise generated by development within the sector:

- (i) Noise generated from development must be reasonable as provided by the Environmental Protection Policy (EPP) Noise.
- (ii) Noise generated from development which is unreasonable must be abated as required by EPP (Noise).
- (iii) Working hours during the construction phase must be restricted to the following:
  - 7am to 6pm Monday to Friday
  - 7am to 12noon SaturdayOutside of these working hours, eg. working on Sundays and public holidays, may only be allowed with the approval of Council.
- (iv) All plant and equipment must be maintained to the manufacturers' specifications, including maintenance of mufflers.
- (v) Vibrating machinery must not be utilised immediately adjacent to neighbouring residential buildings.
- (vi) A complaints register must be maintained and regularly updated.
- (vii) During construction of development in the sector, complaints in excess of one per week may indicate unacceptable work practices. For the



purposes of this clause a complaint is one resulting in the issue of a noise abatement notice under EPP (Noise).

#### 8.3.8 Stormwater Management

Stormwater must be managed through the preparation and implementation of Stormwater Management Plans and EMP(s) for both the construction and operation phases, which must control volumes and flows for all storm events so as not to cause nuisance or annoyance to any person and which must control the quality of surface water in compliance with:

- (a) The Environmental Protection Act 1994 and the Environmental Protection (Water) Policy and other relevant legislation from time to time;
- (b) The planning scheme, local laws, the Design Manual and policies except where Clause 2.6 of the Mango Hill Infrastructure Agreement applies;
- (c) The Mango Hill Infrastructure Agreement; and
- (d) The performance objectives of the Saltwater Creek Catchment Management Plan.
- (e) The approved Stormwater Management Plans for Tributary B and Tributary C, as amended from time to time.

The EMP(s) must also address erosion and run-off control techniques which must include:

- (i) Revegetation with indigenous plants with soil stabilising root systems.
- (ii) Construction of surface drainage swales and detention basins to reduce run-off velocity and provide temporary storage for eroded sediment and nutrients.
- (iii) Controlled irrigation, related to climate and actual soil moisture requirements.
- (iv) Maintenance of vegetated margins to water body edges and drainage channels.
- (v) Vegetated buffer strips around sensitive environments which are intended to be conserved and enhanced.
- (vi) Utilisation of stabilisation control devices.

#### 8.3.9 Nutrient Application

Nutrients must be managed in a manner which will not cause environmental harm as well as ensuring that the Stormwater Management Plans for Tributaries B and C are complied with. Impacts are to be assessed at the development application stage and methods of control recommended.

The EMP(s) for the construction and operation phases must be prepared and implemented for the storage, transport and application of nutrients. The following measures must be included in the design, construction and operation phases:

- (i) Management and maintenance of the golf course must be carried out to limit potential impacts on the natural environment.
- (ii) Stormwater wetlands must be incorporated into the design in order to treat and ameliorate peak flows from the upstream urban catchment.
- (iii) Use of chemicals such as fertilisers, herbicides and pesticides and runoff from the sector must be managed and controlled to ensure water quality objectives are achieved in Tributaries B & C.
- (iv) If the sector is to be used for an Outdoor Recreation use such as a golf course, the greens' growing medium must be coarse sand with natural organic material incorporated to increase moisture and nutrient retention. Under-greens drainage must be provided to capture water which filters through the greens, and this potentially contaminated water must be diverted to nutrient stripping ponds and wooded wetland / riparian rainforest areas. Where necessary, greens must be raised in level above the surrounding areas to enable this drainage to occur.
- (v) Odorous chemicals, fertilisers, soil conditioners or mulches must not be used unless specifically approved by Council.
- (vi) Fertiliser types must be combined to achieve balanced plant nutrition. Phosphate based chemicals must be used sparingly, with slow release nitrogen sources used wherever possible.
- (vii) Specific monitoring measures must be implemented to ensure nutrient application and runoff from irrigation and storm events are controlled.
- (viii) If recycled water is to be used, the management systems for the control of nutrients must take account of the quantities and types of nutrients in the water. Specific monitoring measures must be implemented to prevent runoff of recycled water into Tributaries B and C when irrigating.
- (ix) Contingency plans must be prepared to address actions required in the event of a nutrient outbreak in any of the ponds, wetlands or drainage paths in the sector.

#### 8.3.10 Use of Recycled Water for Irrigation

The following measures must be implemented where recycled water is used for irrigation:

- (i) Recycled water must be sourced from Murrumba Downs Sewerage Treatment Plant, pumped to the sector by underground rising main and stored temporarily on-site prior to controlled distribution and spraying of internal open space areas.

- (ii) In order to prevent runoff of recycled water into drainage paths, management systems must be implemented to prevent storage ponds from overtopping and to prevent irrigation runoff into drainage paths.
- (iii) Storage ponds must be designed and located to minimise the risk of impact on surrounding urban residential areas and the risk of uncontrolled mixing in the event of major storm events.
- (iv) Storage dams must typically be bunded with the top of the bund level being above the Q<sub>20</sub> flood level subject to provision of supporting information to Council that demonstrates that unacceptable impacts to water quality will not occur.
- (v) Irrigation must be strictly controlled to ensure efficient usage by:
  - (a) use of appropriate monitoring devices;
  - (b) use of organic material to retain nutrients and moisture within the soil profile;
  - (c) determination of infiltration rates before, during and after watering; and
  - (d) use of appropriate sprinkler heads.

#### 8.3.11 Use of Potable Water for Irrigation

Should recycled water not be available for landscape irrigation purposes, application for use of potable water from Council may be sought. In this case, the irrigation system will be designed so that only high profile areas will be automatically irrigated and use of potable water will be minimised and optimised.

#### 8.3.12 Flora and Fauna

Significant remnant stands of indigenous vegetation and remnant fauna habitats, in particular the Retained Vegetation Area shown on the Sector Plan Map, must be identified and protected where reasonable and practicable. This includes the protection and management of the habitat of the Vulnerable species, the *Crinia tinnula* (Wallum Froglet) and any other vulnerable species. In addition, new stands of vegetation which incorporate food species for indigenous fauna must be established within the major landscape areas of the sector.

All development applications for material change in use, operational works and building works must include EMP(s) for the protection of fauna and for the protection, establishment and rehabilitation of flora, as well as landscape plans in accordance with the provisions of Section 8.2 of this sector plan. The design and construction of all landscape works must be certified by a landscape architect with proven experience in large-scale revegetation works, utilising locally indigenous species, including wetlands, as being in accordance with this sector plan and the EMP(s).

### 8.3.12 Lighting

To ensure that lighting associated with development, eg. night lighting of the clubhouse, car park and possibly a night driving range, does not create a nuisance, all lighting other than public lighting (eg. road and pathway lighting) must comply with AS4282-1997 *Control of the obtrusive effects of outdoor lighting*. The curfew hours applicable to this sector are to be 12 midnight – 6am, unless otherwise varied by Council resolution. However, the curfew hours for the practice range will be established as part of the demonstration required in Section 7.3.5.1.

### 8.3.13 Environmental Management Systems

If any part of the Central Open Space Sector is used as an outdoor recreation use, the owner of the land must implement and maintain an Environmental Management System which must address the provisions of this sector plan for all aspects of operation and maintenance, excluding construction, in relation to the following environmental aspects:

- Stormwater Management
- Earthworks Management
- Chemical Management
- Nutrient Management
- Recycled Water Management
- Flora Management
- Fauna Management

Where any development application identifies a need for additional environmental control measures, the development approval may require the Environmental Management System to cover additional environmental aspects.

Implementation of this Environmental Management System is to ensure that a structured management system is continuously applied to those environmental aspects and integrated with the overall management activity. It is to be used to assure interested parties that an appropriate Environmental Management System is in place.

The Environmental Management System must comply with the following standards or any superceding standards:

*AS/NZS ISO 14001:1996 Environmental Management Systems – specification with guidance for use.*

|                              |   |
|------------------------------|---|
| <i>AS/NZS ISO 14004:1996</i> | <i>Environmental Management Systems – general guidelines on principles, systems and supporting techniques.</i>  |
| <i>AS/NZS ISO 14010:1996</i> | <i>Guidelines for environmental auditing – general principles.</i>  |
| <i>AS/NZS ISO 14011:1996</i> | <i>Guidelines for environmental auditing – audit procedures – auditing of environmental management systems.</i> |
| <i>AS/NZS ISO 14012:1996</i> | <i>Guidelines for environmental auditing – qualification criteria for environmental auditors.</i>               |

The Environmental Management System must be certified as complying with AS/NZS ISO 14001:1996 or relevant superceding standard by a third party certifier acceptable to Council. Independent audits of the Environmental Management System shall be undertaken by a third party auditor acceptable to Council at six (6) monthly intervals. A copy of this auditor’s report shall be forwarded to Council within one (1) month of its completion.

The initial Environmental Management System and any substantial changes thereto must be submitted for approval by Council.

All nonconformances under the Environmental Management System shall be reported to Council within one (1) month. Corrective and preventative actions must also be reported to Council within one (1) month.

If Council requests copies of records to demonstrate compliance with the Environmental Management System, this information must be provided within one (1) month of this request.

Failure to implement the third party certified Environmental Management System within one (1) month of commencement of the outdoor recreation operations or failure to maintain the Environmental Management System in accordance with this sector plan will be a breach of the planning scheme.

## **8.4 Safety Design Parameters**

8.4.1 Safety design parameters to protect adjacent motorists, pedestrians, cyclists and residents are to be incorporated into the layout of any development.

8.4.2 The design of the Central Open Space Sector, if proposed as an outdoor recreation use being a golf course is to generally conform with the safety guidelines detailed in the following publication:

Desmond Muirhead and Guy L. Rando, *Golf Course Development and Real Estate*, Washington, D.C: ULI – the Urban Land Institute, 1994.

A suitably competent person must undertake the design of the golf course.

- 8.4.3 The location and alignment of Major Pedestrian/Cyclist Access shown on Figure 4 is indicative. The linkages are to form part of the pedestrian and cycle network of the DCP area. The final location, alignment and design standard must comply with the convenience and functional needs of local residents and nearby community centres. The safety of users, having regard to the potential for crime, as well as traffic safety and safety from activities being conducted within the sector, will be a paramount consideration in the location, alignment and design of these accesses.

## **8.5 Signage and Artworks**

- 8.5.1 Signage within this sector must provide:

- (i) visible and legible signs;
- (ii) an uncluttered outdoor recreational environment (including any signage associated with the clubhouse and maintenance facility);
- (iii) professional and co-ordinated graphics for the identification of different uses within the sector; and
- (iv) signs compatible with their surroundings.

- 8.5.2 The location, form, scale, materials and colour selection of signage must be in keeping with the architecture and landscape setting. Furthermore, it must not dominate the landscape when viewed at ground level.

- 8.5.3 Signs must be only for providing direction or information, or identifying component areas and intended uses. Interpretive signage may also be strategically located, where practicable, within the sector (eg. along environmental boardwalks through the Retained Vegetation Area). These interpretive signs may indicate ecological values, as well as identifying various types of planting.

A hierarchy in signage size, materials and placement must be utilised to ensure uniformity in style and character. The preferred materials are to be natural in appearance and colour. Maintenance requirements must be carefully considered as durability will be a major consideration.

- 8.5.4 Signage must not extend above the walls or roof fascia lines of buildings within the sector, and no signs are permitted on the roof of buildings or on the roof surfaces.

- 8.5.5 Signage must be designed to prevent confusion to visitors or users of facilities within the sector.
- 8.5.6 All forms of signage other than those permitted by this sector plan are not permitted, except where temporary signs are required for marketing and promotional purposes. Any temporary signs must be compatible with their surrounds and not create confusion or obstructions for visitors to the development.
- 8.5.7 Works of high quality urban art, including paving patterns, water features and sculptures are encouraged within the Generalised Building and Carparking Area. These artworks should contribute strongly to enhancing the architecture and landscape, and achieve humanising elements.

## **9.0 Car Parking**

Clause 2.4.2 of the DCP requires a sector plan to specify car parking requirements for land in the sector. Clause 1.11 of the DCP provides that to the extent a sector plan does not provide these provisions, then the provisions of the planning scheme will prevail. No special provision for car parking is made by this sector plan and, as such, the relevant car parking requirements of the planning scheme for uses developed within the sector are to be applied.

## **10.0 Infrastructure Obligations of the Principal Developer**

### **10.1 Infrastructure to be Provided**

The infrastructure items required to be provided by the principal developer to serve this sector are roads, water, sewerage, stormwater, parks, electricity and communications as required by the MHIA. State infrastructure which will be affected by development in this sector is the North-South Arterial Road as to which the provisions of the MHIA - Main Roads and MHIA - Queensland Transport are to be referred. The infrastructure to be provided in the sector may be summarised as follows:

#### **10.1.1 Roads**

Road access to this sector will ultimately be provided by a number of roads, which will be constructed as part of the final form of development of the DCP area. In particular, a road of at least collector standard running from the Generalised Building and Carparking Area in the northern part of the DCP area will connect with the extension of Discovery Drive. In the interim, pending development of the urban residential areas in the northern part of the DCP area, a road connecting from the Generalised Building and Carparking

Area to the extension of Discovery Drive further to the south may be provided, as shown indicatively on Figure 4. The alignment and design standard for the ultimate road system will be dependent on the final form of development to be serviced by these roads. The alignments and design standards for all roads accessing the Generalised Building and Carparking Area are to be located so as to not cause any environmental harm.

The principal developer's obligations for road construction will be (unless already constructed) to construct the following roads, including carriageways, stormwater drainage, verges, bus setdowns, footpaths, bikeways, landscaping, traffic control devices and street lighting. Any reference to initial construction in this section is a reference to construction approved by Council in accordance with the rezoning conditions and the MHIA. The principal developer is to construct:-

- .1 An extension of Discovery Drive north to the proposed intersection with the road in 10.1.1.2.
- .2 A road of at least collector standard from Discovery Drive to the Generalised Building and Carparking Area, as shown indicatively on Figure 4, Sector Plan Map.
- .3 That part of the North-South Arterial Road which crosses the sector, being a four lane median divided road with provision for a public transport corridor in accordance with the MHIA. It is intended to create a legal access lot below the proposed level of the road for use as a tunnel for access between lots forming part of development of the sector. The tunnel is to be constructed by the principal developer to accommodate the final standard for the North-South Arterial Road. The intermediate standard of construction of the North-South Arterial Road and associated tunnel will be a two lane standard road.
- .4 An intersection at the point where Discovery Drive crosses the North-South Arterial Road to be developed at the time of construction of the North-South Arterial Road and in accordance with the MHIA.
- .5 Roadways and pathways under the North-South Arterial Road to permit vehicular/pedestrian /cyclist access with provision for the extension of Copeland Drive.
- .6 Bikeways and pathways in accordance with the MHIA.

The abovementioned infrastructure is to be constructed to the standard required by the MHIA. Construction of the initial access road to the Generalised Building and Carparking Area must be undertaken prior to the operational phase of the development in the sector commencing. Construction of the road further to the north is dependent on the rate of



development of precincts to the north of North-South Arterial Road and subject to the MHIA. Construction of the North-South Arterial Road must be undertaken when the roads of which they form part are constructed in accordance with the MHIA. However earthworks for the intermediate standard of the North-South Arterial Road through the Sector is to be constructed prior to the operational phase of the development in the sector commencing.

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 sector. 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 sector.

#### 10.1.2 Water

The Principal Developer must:

- .1 Construct an internal reticulation system to service the development within the Generalised Building and Carparking Area.
- .2 If not already constructed, construct a connection at Node 89 as shown on Figure 8.
- .3 Construct trunk main sections 89 to 83C to 83E and 83E to 83D and connect to section 83D to 83H in a staged manner to suit the rate of development, all as shown on Plan 5/2 in the MHIA.
- .4 Provide contributions towards water headworks and bulk water supply in accordance with the MHIA.
- .5 If available and appropriate, use recycled water supplied by Council.

#### 10.1.3 Sewerage

The Principal Developer must:

- .1 As an interim measure, construct a Temporary Pump Station (TPS) approximately at the junction of TM4A and TM4B as shown on Plan 6/1 of the MHIA.
- .2 Construct a temporary rising main from the TPS to connect to TM1.
- .3 Prior to the capacity of TM1 reaching 11976EP, construct TM4, GTS4, PS2 and RM2 and connect the sector to this network.
- .4 Construct internal sewerage systems to service the sector.

- .5 Construct or make provision for the future construction of all trunk mains and sewers required to be installed in the sector.
- .6 Make contributions towards sewerage headworks in accordance with the MHIA.

#### 10.1.4 Stormwater

The Principal Developer must:

- .1 Comply with the provisions of the Stormwater Management Plans for Tributary B and Tributary C as approved by council, and construct stormwater management works so far as they relate to this sector.
- .2 Construct stormwater drainage systems as required by the MHIA to access roads and development in the sector.

#### 10.1.5 Park

The Principal Developer must:

- .1 Provide park throughout the DCP area are set out in the DCP and the MHIA, and those areas of the sector to be transferred to the Crown for use as park must be shown on the Proposed Plan of Subdivision to be submitted with a subsequent Development Application for Reconfiguration of a Lot.
- .2 Undertake Park Enhancement works in the land transferred to the Crown for use as park in accordance with the relevant provisions of the MHIA.

#### 10.1.6 Electricity Supply and Lighting

The Principal Developer must:

- .1 Provide underground electricity distribution as required to development within the sector to Energex or another authorised supplier of electricity and Council standards.
- .2 Provide external lighting to access roads and facilities within the Generalised Building and Carparking Area of the sector to Energex or another authorised supplier of electricity and Council standards.
- .3 Provide high voltage electricity services to service the sector to Energex or another authorised supplier of electricity and Council standards.

- .4 Provide lighting to public footpaths, bikeways and roads within the Sector to Energex or another authorised supplier of electricity and Council standards.

#### 10.1.7 Communications

##### The Principal Developer must:

- .1 Arrange for the installation of underground telephone and broadband communications services as required for development within the sector.

### **10.2 State Government Infrastructure Requirements**

10.2.1 State Government Infrastructure to be provided by the principal developer in conjunction with the development of the sector includes any aspects of construction on the North-South Arterial Road provided for in Infrastructure Agreements with the Department of Main Roads and Queensland Transport.

### **10.3 Infrastructure Affected by Development**

10.3.1 The development of this sector may place demands on the following infrastructure:-

- .1 Roads external to the DCP area and accessing the sector;
- .2 Water supply infrastructure;
- .3 Sewerage infrastructure;
- .4 Stormwater infrastructure;
- .5 Parks;
- .6 Community facilities;
- .7 Electricity supply;
- .8 Communication systems; and
- .9 State Government Infrastructure.

10.3.2 The infrastructure items described in clause 10.1, together with the obligations of the principal developer under the MHIA, are required to mitigate the adverse affect on those items of infrastructure which are affected by, or required as a result of, the development of the sector.

### **10.4 How the Required Infrastructure Relates to the Infrastructure Agreements**

10.4.1 The MHIA describes the infrastructure which must be provided by the principal developer in accordance with its obligations 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 sector.

10.4.2 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 will be imposed as conditions of relevant development approvals relating to this sector.

## **10.5 Preliminary Program for Infrastructure Provisions**

10.5.1 The principal developer will provide all the infrastructure referred to in clause 10.1 generally in accordance with the following timetable:-

- .1 The extension of Discovery Drive and the road referred to in Clause 10.1.1.2 will be constructed at or about the same time as development in the sector occurs which is anticipated in December 2001.
- .2 Completion of the construction of that part of the North-South Arterial Road crossing the sector will be constructed at the time when adjoining sections of the road are constructed which is anticipated in June 2004 or as required by the MHIA.
- .3 Construction of trunk water mains as necessary to service the development within the sector are anticipated to be completed by December 2001. Construction of the remaining referred trunk mains in a staged manner are anticipated to be completed by December 2004.
- .4 Internal water reticulation is to be provided at the time development commences in the sector which is anticipated by June 2002.
- .5 The temporary sewerage system is to be provided in conjunction with commencement of the operational phase of the development within the sector which is anticipated by June 2002.
- .6 Construction of the permanent sewerage system which is anticipated by June 2006.
- .7 Construction of stormwater works provided in conjunction with the development within the sector which is anticipated by June 2002.

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

10.5.3 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.

## **10.6 Water and Sewerage Demands**

10.6.1 As required by the MHIA, the principal developer states as follows:-

- .1 For the purpose of assessing water supply capacity, the estimated number of Equivalent Tenements for this sector is 14 ET.
  - .2 For the purpose of assessing sewerage capacity, the estimated number of Equivalent Persons for this sector is 33 EP.
- 10.6.2 The estimated ET in Clause 10.6.1.1 is based on all irrigation in the sector except for the Generalised Building and Carpark Area being undertaken using recycled water. In the event that the use in the sector except for the Generalised Building and Carpark Area includes irrigation by potable water, the estimated ET's for the sector must be reassessed based on the usage of potable water for irrigation.

## **11.0 Alternative Acceptable Solution**

Council may approve an alternative acceptable solution than that contained in this sector plan or the planning scheme if the Council or its delegated officer forms the view that an alternative acceptable solution being sought :-

- .1 is minor in nature;
- .2 is unlikely to unduly affect the amenity of adjoining or adjacent properties having due regard to the character of the area and the nature of land use in the vicinity;
- .3 is unlikely to place additional demands of any significance on infrastructure;
- .4 is unlikely to give rise to any additional traffic hazard or parking requirement; and
- .5 is in accordance with the relevant intents and performance criteria contained in the sector plan and the precinct plan.

## **12.0 Definitions**

If a term used in this sector plan is defined by the DCP or the Mango Hill Infrastructure Agreement then that term or expression has the meaning given to it by the DCP or the Infrastructure Agreement unless the context otherwise requires.

# **ANNEXURE A**

## **PROPOSED METES AND BOUNDS DESCRIPTION OF THE SECTOR**

**METEŚ & BOUNDS**  
**NORTH LAKES – GOLF COURSE**

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FROM THE POINT OF COMMENCEMENT BEING ON AMG COORDINATES  
EASTING – 502174.304 METRES, NORTHING – 6989946.426 METRES, THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 209°40'05"  
FOR A DISTANCE OF 25.868 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 231°06'00"  
FOR A DISTANCE OF 98.199 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 240°46'35"  
FOR A DISTANCE OF 123.918 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 225°12'35"  
FOR A DISTANCE OF 291.676 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 211°31'50"  
FOR A DISTANCE OF 129.003 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 226°42'10"  
FOR A DISTANCE OF 55.437 METRES (MORE OR LESS), THENCE  
IN A WESTERLY DIRECTION AT A BEARING OF 267°14'30"  
FOR A DISTANCE OF 63.614 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 206°46'45"  
FOR A DISTANCE OF 15.943 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 135°22'05"  
FOR A DISTANCE OF 36.439 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 114°57'25"  
FOR A DISTANCE OF 80.972 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 164°42'55"

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FOR A DISTANCE OF 52.403 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 199°38'20"  
FOR A DISTANCE OF 328.698 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 196°28'35"  
FOR A DISTANCE OF 49.433 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 257°03'20"  
FOR A DISTANCE OF 111.774 METRES (MORE OR LESS), THENCE  
IN A SOUTHERLY DIRECTION AT A BEARING OF 176°34'15"  
FOR A DISTANCE OF 129.925 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 185°52'25"  
FOR A DISTANCE OF 28.444 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 205°59'05"  
FOR A DISTANCE OF 133.685 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 220°07'25"  
FOR A DISTANCE OF 116.304 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 207°14'00"  
FOR A DISTANCE OF 15.279 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 119°35'00"  
FOR A DISTANCE OF 17.981 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 150°58'40"  
FOR A DISTANCE OF 16.354 METRES (MORE OR LESS), THENCE  
IN A SOUTHERLY DIRECTION AT A BEARING OF 177°17'50"  
FOR A DISTANCE OF 17.942 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 190°06'35"  
FOR A DISTANCE OF 145.324 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 197°12'30"

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FOR A DISTANCE OF 22.302 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 206°33'20"  
FOR A DISTANCE OF 133.916 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 223°14'25"  
FOR A DISTANCE OF 116.425 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 279°10'55"  
FOR A DISTANCE OF 29.931 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 244°33'35"  
FOR A DISTANCE OF 34.357 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 204°10'45"  
FOR A DISTANCE OF 58.637 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 189°00'00"  
FOR A DISTANCE OF 123.666 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 205°00'00"  
FOR A DISTANCE OF 70.608 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 190°00'00"  
FOR A DISTANCE OF 77.169 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 212°00'00"  
FOR A DISTANCE OF 24.597 METRES (MORE OR LESS), THENCE  
IN A SOUTHERLY DIRECTION AT A BEARING OF 181°00'00"  
FOR A DISTANCE OF 120.662 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 118°00'00"  
FOR A DISTANCE OF 326.935 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 121°19'40"  
FOR A DISTANCE OF 63.714 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 149°07'55"

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FOR A DISTANCE OF 33.711 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 197°00'00"  
FOR A DISTANCE OF 105.584 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 276°44'30"  
FOR A DISTANCE OF 102.584 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 287°11'40"  
FOR A DISTANCE OF 31.825 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 296°08'15"  
FOR A DISTANCE OF 139.274 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 318°40'05"  
FOR A DISTANCE OF 124.037 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 10°03'40"  
FOR A DISTANCE OF 30.431 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 280°03'40"  
FOR A DISTANCE OF 15 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 201°55'00"  
FOR A DISTANCE OF 96.343 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 284°43'35"  
FOR A DISTANCE OF 8.86 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 286°26'55"  
FOR A DISTANCE OF 31.098 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 345°21'45"  
FOR A DISTANCE OF 73.099 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 8°41'15"  
FOR A DISTANCE OF 20.241 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 6°00'05"

FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 0°37'40"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 355°15'15"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 349°52'50"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 344°30'25"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 339°35'25"  
FOR A DISTANCE OF 24.902 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 337°21'40"  
FOR A DISTANCE OF 102.379 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 339°58'00"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 345°10'35"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 350°23'15"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 355°35'50"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 0°48'30"  
FOR A DISTANCE OF 30 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 5°00'00"  
FOR A DISTANCE OF 13.76 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 21°17'10"

FOR A DISTANCE OF 29.123 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 52°22'20"  
FOR A DISTANCE OF 29.475 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 83°27'25"  
FOR A DISTANCE OF 29.475 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 99°00'00"  
FOR A DISTANCE OF 141.131 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 9°00'00"  
FOR A DISTANCE OF 56.5 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 279°00'00"  
FOR A DISTANCE OF 76.266 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 359°12'45"  
FOR A DISTANCE OF 46.046 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 13°53'20"  
FOR A DISTANCE OF 33.723 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 26°40'30"  
FOR A DISTANCE OF 49.901 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 46°24'15"  
FOR A DISTANCE OF 207.622 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 21°24'20"  
FOR A DISTANCE OF 120.907 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 30°50'55"  
FOR A DISTANCE OF 113.667 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 106°15'35"  
FOR A DISTANCE OF 22.993 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 20°18'45"

FOR A DISTANCE OF 15.038 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 286°15'40"  
FOR A DISTANCE OF 21.31 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 336°45'15"  
FOR A DISTANCE OF 48.402 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 7°37'35"  
FOR A DISTANCE OF 254.48 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 21°31'55"  
FOR A DISTANCE OF 59.362 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 291°31'55"  
FOR A DISTANCE OF 14.828 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 251°47'55"  
FOR A DISTANCE OF 141.83 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 241°35'40"  
FOR A DISTANCE OF 128.565 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 253°48'50"  
FOR A DISTANCE OF 110.297 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 291°27'15"  
FOR A DISTANCE OF 21.935 METRES (MORE OR LESS), THENCE  
IN A SOUTH WESTERLY DIRECTION AT A BEARING OF 237°50'55"  
FOR A DISTANCE OF 114.301 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 321°50'25"  
FOR A DISTANCE OF 93.01 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 1°50'25"  
FOR A DISTANCE OF 38.21 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 24°22'40"

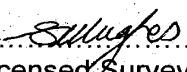
FOR A DISTANCE OF 73.986 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 41°02'20"  
FOR A DISTANCE OF 23.081 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 59°13'05"  
FOR A DISTANCE OF 231.205 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 80°22'25"  
FOR A DISTANCE OF 154.673 METRES (MORE OR LESS), THENCE  
IN A EASTERLY DIRECTION AT A BEARING OF 93°22'35"  
FOR A DISTANCE OF 105.056 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 26°28'10"  
FOR A DISTANCE OF 15.62 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 312°40'00"  
FOR A DISTANCE OF 1.889 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 332°25'10"  
FOR A DISTANCE OF 20 METRES (MORE OR LESS), THENCE  
IN A NORTHERLY DIRECTION AT A BEARING OF 1°41'10"  
FOR A DISTANCE OF 20 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 32°17'55"  
FOR A DISTANCE OF 24.484 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 43°45'20"  
FOR A DISTANCE OF 148.126 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 39°12'05"  
FOR A DISTANCE OF 136.778 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 48°34'55"  
FOR A DISTANCE OF 109.151 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 115°14'25"

FOR A DISTANCE OF 28.079 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 25°14'25"  
FOR A DISTANCE OF 15 METRES (MORE OR LESS), THENCE  
IN A NORTH WESTERLY DIRECTION AT A BEARING OF 295°14'25"  
FOR A DISTANCE OF 23.569 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 16°24'15"  
FOR A DISTANCE OF 117.79 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 30°23'15"  
FOR A DISTANCE OF 144.755 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 43°53'35"  
FOR A DISTANCE OF 140.394 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 65°44'25"  
FOR A DISTANCE OF 41.964 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 29°50'00"  
FOR A DISTANCE OF 102.519 METRES (MORE OR LESS), THENCE  
IN A NORTH EASTERLY DIRECTION AT A BEARING OF 42°40'10"  
FOR A DISTANCE OF 167.878 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 104°58'05"  
FOR A DISTANCE OF 40 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 107°54'45"  
FOR A DISTANCE OF 40 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 110°51'20"  
FOR A DISTANCE OF 40 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 113°47'55"  
FOR A DISTANCE OF 40 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 117°02'30"

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FOR A DISTANCE OF 48.148 METRES (MORE OR LESS), THENCE  
IN A SOUTH EASTERLY DIRECTION AT A BEARING OF 120°27'25"  
FOR A DISTANCE OF 31.732 METRES (MORE OR LESS),  
TO THE POINT OF COMMENCEMENT AND CONTAINING AN AREA OF  
69.0224 HECTARES (MORE OR LESS).

We, Pike Miris McKnoulty Pty Ltd A.C.N. 010 370 448 hereby certify that the  
Metes and Bounds description contained herein has been prepared by the  
company and the AMG connection used for the commencement point has  
been determined by field survey.

  
.....  
Licensed Surveyor/Director

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# **ANNEXURE B**

## **SUPPLEMENTARY TABLE OF DEVELOPMENT (OPEN SPACE ELEMENT) FOR THIS SECTOR**

**Supplementary Table of Development (Open Space Element)  
for Central Open Space Sector**

| <p>Purposes for which premises may be erected or used without the consent of Council (Permitted Development)</p> <p><b>COLUMN A</b></p> | <p>Purposes for which premises may be erected or used without the consent of Council subject to conditions (Permitted Development subject to conditions)</p> <p><b>COLUMN B</b></p>   | <p>Purposes for which premises may be erected or used only with the consent of Council (Permissible Development)</p> <p><b>COLUMN C</b></p>                 | <p>Purposes for which premises may not be erected or used (Prohibited Development)</p> <p><b>COLUMN D</b></p>   |
|---|---|---|---|
| <p>Park<br/>Local utilities</p>   | <p><b>Any one or more of the following purposes on land nominated for that purpose or purposes on an approved sector plan.</b></p> <p>Outdoor recreation</p> <p><b>Any purpose in this column not nominated for land by the sector plan becomes for that land a permissible development</b></p> | <p><b>For land in a sector any purpose not listed in Column A, D or included in Column B but not nominated for that land in an approved sector plan</b></p> | <p>Accommodation units<br/>Adult product shop<br/>Air strip<br/>Amusement premises<br/>Animal husbandry<br/>Apartments<br/>Aquaculture<br/>Associated unit<br/>Bulk garden supplies<br/>Car park<br/>Car wash<br/>Caravan Park<br/>Casino<br/>Cattery<br/>Cemetery<br/>Commercial services<br/>Communication station<br/>Community dwelling<br/>Concrete batching plant<br/>Contractor's depot<br/>Convention centre<br/>Correctional institution<br/>Crematorium<br/>Dairy<br/>Detached house<br/>Display home<br/>Domestic storage and recreation structures<br/>Duplex dwelling<br/>Entertainment library<br/>Extractive industry<br/>Family day care centre<br/>Fuel depot<br/>Funeral parlor<br/>General industry<br/>Hardware centre<br/>Hazardous industry<br/>Heavy vehicle parking</p> |

| <b>Purposes for which premises may be erected or used without the consent of Council (Permitted Development)</b><br><br><b>COLUMN A</b> | <b>Purposes for which premises may be erected or used without the consent of Council subject to conditions (Permitted Development subject to conditions)</b><br><br><b>COLUMN B</b> | <b>Purposes for which premises may be erected or used only with the consent of Council (Permissible Development)</b><br><br><b>COLUMN C</b> | <b>Purposes for which premises may not be erected or used (Prohibited Development)</b><br><br><b>COLUMN D</b>  |
|---|---|---|--|
|   |   |   | Heavy vehicle sales<br>Helicopter landing site<br>Home occupation<br>Hospital<br>Host farm<br>Hotel<br>Institution<br>Junk yard<br>Kennels<br>Licenced club<br>Lot feeding<br>Mini-Brewery<br>Motel<br>Motor sport or shooting<br>Office<br>Outdoor Sales<br>Passenger terminal<br>Piggery<br>Place of worship<br>Poultry farm<br>Retail nursery<br>Retail showroom<br>Retirement village<br>Rural industry<br>Service industry<br>Service station<br>Shop<br>Shopping centre<br>Simulated conflict<br>Stable<br>Stock sales yard<br>Technology industry<br>Townhouse units<br>Transport terminal<br>Transportable home village<br>Turf farming<br>Vehicle hire depot<br>Vehicle sales yard<br>Veterinary clinic<br>Veterinary hospital<br>Warehouse |

The provisions of the Supplementary Table of Development are subject to section 2.4.9 of the DCP.