

## 21.04 URBAN DESIGN

17/03/2016  
C131

### 21.04-1 Urban Design Overview

28/03/2013  
C110

The Urban Design theme relates to the design of the built environment and supports the land use themes described under Housing, Environment, Economic Development and Infrastructure. The key Urban Design themes are shown on the Urban Design Strategic Framework Plan included in this Clause.

#### Urban Form

The *Knox Urban Design Framework 2020* (2003) provides a point of reference through a ‘whole of city’ vision and framework. This Framework embodies community values, whilst being based within a thorough contextual understanding of Knox’s landscape, population, economic, housing, environmental, and transport characteristics. The six urban design elements identified within the Knox Urban Design Framework include:

- The Dandenong Creek Valley;
- The Edge of the Suburbs;
- Creek Corridors;
- Activity Centres and Working Environments;
- Transport Corridors; and
- Residential Environments.

Through the six design elements, there are many opportunities to enhance Knox’s social, economic and environmental resources. There is potential for Knox’s activity centres to accommodate more mixed uses, in a way that contributes to the economic and cultural vitality of the centres. The distinctive landscape setting of Knox and in particular its closeness to the Dandenong Ranges provides long term potential for attracting growing numbers of tourists, visitors, businesses and residents to the municipality. Further, the City’s future urban form will need to play a much stronger role in developing and presenting its preferred green, leafy image to the outside world.

#### Ecologically Sustainable Design

More responsive urban development patterns and built form can lead to greater sustainable outcomes. The way that land use and development is managed will be important in achieving long-term sustainability goals for Knox. The spatial form of land development of Knox over the last three decades has given rise to a low-density form of urban development that has led to a dependence on cars for mobility. This has led to increasing usage of resources, air pollution and reduced amenity levels for Knox residents.

Sustainable urban design outcomes are a central concern to Knox, both in the way land use is managed and in the built form. Sustainable land use is critical in achieving long term environmental sustainability goals underpinning the basis for directing and locating different types of activities to preferred locations. The built form can be a major contributor to long-term sustainability objectives through the use of ecologically sustainable design (ESD) principles.

Key urban design and built environment challenges facing Knox, contained within the *2008/2018 Sustainable Environment Strategy* (2008), include:

- *Declining biodiversity in Knox:* Threats to Knox’s biodiversity include direct destruction and modification of habitat for residential and commercial land uses, weeds and alteration of vegetation structure, pollution and siltation of waterways and drainage lines, and fragmentation of remnant vegetation.

- *Water (Conservation and Quality):* In addition to broader issues of water consumption and conservation, the pollution of creeks and waterways through urban stormwater runoff, silting from building sites and impermeable surfaces increasing stormwater discharge present challenges.
- *Waste:* Building materials being used that have a high environmental impact over their lifecycle.
- *Integrated Transport:* The current spatial arrangement of buildings, roads and the urban structure of Knox do not support sustainable living. A major challenge will be providing and supporting an integrated and sustainable transport system that provides realistic transport choices.
- *Climate change:* With a change of climatic conditions there is a need that building design and infrastructure adapt appropriately to these changes.
- *Sustainable Planning and Development:* Planning and development that occurs without giving the necessary consideration to such matters as managing population growth, encouraging sustainable development and influencing the urban form so that Knox itself becomes more sustainable is a major threat to the municipality achieving its long-term sustainability objectives. The challenge will involve such matters as defining the preferred urban character of Knox; considering sustainability in all developments; creating a city where people can live, work and recreate locally; considering the implications of climate change on the built form of Knox; and, encouraging, attracting and retaining sustainable businesses in Knox.

There are some areas in Knox identified as being susceptible to bushfire risk that also have vegetation particularly important for biological and landscape purposes. Protection of this vegetation because of its significance may limit development potential. Development in these areas must be designed to minimise bushfire risk.

Water Sensitive Urban Design (WSUD) aims to optimise and integrate urban planning with the management of the urban water systems. WSUD incorporates water related social and ecological objectives into designs that optimise the urban water balance and improve the quality of stormwater entering waterways. It is the intent of WSUD to encourage innovation in technology and practices for implementation in managing water systems.

Given the interrelated nature and application of urban design and ESD principles within land use planning and development, reference is made to the above six urban design elements, within the following Clauses that address Housing, Environment, Economic Development and Infrastructure themes.

### **Public Realm**

The public realm is also recognised as an important contributor to the local character and image of Knox and can contribute to enhancing the image of Knox through installation of art and vegetation planting programs.

## **21.04-2 Urban Design Objectives and Strategies**

28/03/2013  
C110

### **Objective 1 (Urban Form)**

To ensure that all development responds positively to the existing patterns of urban form and character, the landscape qualities, historic and cultural elements and social dimensions and aspirations of the Knox community.

#### **Strategies**

- Require that development applications commence with a contextual understanding of local area characteristics based on context analysis to inform design proposals.

- Require that development proposals consider and address perceived constraints and improve the quality of the urban environment, not only within the site, but as it interfaces with the wider area.
- Encourage the articulation and use of building materials to present an appropriate scale and detail to the street frontage and local context of the area.
- Ensure development is reflective of, respects and builds upon the valued characteristics and cultural aspects of the local environment.
- Encourage appropriate new development to illustrate flexible and adaptable building forms that can accommodate a variety of uses through a building's lifespan and reflect the changing community's needs.
- Encourage the provision of public art in public spaces in nodes of activity, activity centres and along major road networks including EastLink.
- Encourage planning of new development to provide opportunities for the expression of visual art.
- Encourage development to be designed for visitability by all members of the community.
- Encourage opportunities for social interaction at interfaces between the public and private areas, spaces and facilities within multi storey residential and mixed use developments.
- Use local indigenous species when undertaking planting on publicly owned or managed land (i.e. roadsides, along creeks, in parks/reserves/gardens).

#### **Objective 2 (Urban Form)**

To reinforce the structure and image of Knox as an attractive place to live, do business, recreate and as a tourist attraction.

#### **Strategies**

- Protect and enhance the aesthetic, environmental and landscape values and vistas of the Dandenong Foothills, Dandenong Creek Valley, local and national parklands.
- Limit urban development within the Dandenong Foothills, Dandenong Creek Valley, local and national parklands.
- Strengthen the identifiable landscape characteristics of the city, particularly along transport corridors and creeks.
- Ensure planning for new development provides accessible, linked open space and protects natural values.
- Encourage innovative and architecturally designed development that incorporates sustainable values and principles inherent in the City's image, at identified points of entry into the city, and adjacent to intersections near or within major activity centres and working environments.
- Require new residential development along public spaces and creek corridors to front those public areas.
- Require new commercial and industrial development along public spaces and creek corridors to front those public areas or to provide high quality facades with integrated landscaping that provides visual interest and where possible provides passive surveillance of public spaces.
- Ensure that at industrial, business and residential interfaces, residential amenity is protected.

### **Objective 3 (Urban Form)**

To ensure that the declared arterial network of transport and movement corridors makes a positive contribution to Knox's image.

#### **Strategies**

- Provide a strong landscape character with attractive tree lined avenues, bush landscapes and urban design treatments.
- Encourage development along road corridors that emphasise views to the Dandenong Ranges, provides opportunities for passive surveillance to the road frontage and incorporates landscaping that will contribute to the "bush boulevard" character.
- Incorporate informal and intermittent extensive native canopy tree planting.
- Establish contiguous roadside pedestrian networks.
- Relate the landscape of declared arterial roads to the topographic and landscape character of the area through which they pass.
- Maintain a consistent planting type within single landscape character areas.
- Ensure that advertising signage makes a positive contribution to the landscape theme of transport corridors, and does not detract from views.
- Ensure future residential development provides a sense of address to declared arterial roads, creek corridors and pedestrian pathways.
- Transform the east-west declared arterial roads and Stud Road into "bush boulevards" with extensive native planting as a way of expressing the landscape transition between the edge of the suburbs and the Dandenong Foothills.
- Improve the avenue planting of roads such as Kelletts, Napoleon, Lysterfield, Albert, Miller, Liverpool and Scoresby Roads by introducing greater consistency of siting, spacing and species selection of vegetation, and greater continuity of treatment.
- Achieve consistency and continuity of tree size, species and spacing by reviewing the physical route characteristics and traffic patterns of complete corridors.
- Implement consistent planting to help diminish the dominance of the built form and power lines.

### **Objective 4 (Urban Form)**

To enhance and protect the landscape qualities of the Dandenong Creek Valley.

#### **Strategies**

- Minimise the visual dominance of development.
- Ensure an appropriate design response for signage, buildings and structures, and screen unattractive buildings and developments through planting.
- Protect the landscape quality and role of the Dandenong Creek Valley as a wide, green pastoral break separating Knox from the suburban character of the balance of the eastern suburbs of Melbourne.
- Protect the rural views along the floodplain of the Dandenong Creek that identify the remnant grazing and horticultural landscapes that once separated Melbourne from the Dandenong Ranges.

### **Objective 5 (Urban Form)**

To enrich the distinct topographic and landscape qualities and characteristics of Knox.

### **Strategies**

- Ensure that future planning and development works creatively with Knox's unique natural and man made characteristics, in particular, landform and landscape, ecology, orientation, and climatic conditions.
- Enable stormwater runoff and drainage to form key environmental features within the urban environment.

### **Objective 6 (Fire safe development for buildings)**

To ensure that new development makes a positive contribution to fire safety in Knox.

### **Strategies**

- Require all development to meet the requirements of the relevant fire authority in respect to firefighting water supply and emergency vehicle access.

### **Objective 7 (Fire safe development in areas of bushfire risk)**

To ensure that new development responds to bushfire risk.

### **Strategies**

- Require all development proposals in areas which are of high bushfire risk to be sited, designed, constructed and managed to meet the requirements of the relevant fire authority in respect to minimising the impact of ember attack, radiant heat and direct flame contact from a bushfire.
- Limit further subdivision and rezoning of land for urban purposes where there is a high risk of bushfire.
- Limit development where the extent of vegetation removal that would be required for bushfire management would adversely impact on environmental or significant landscape values.

### **Objective 8 (Ecologically Sustainable Design)**

To ensure that new development makes a positive contribution to sustainability and the urban fabric of Knox.

### **Strategies**

- Ensure that the design of new development is of a high standard and incorporates passive solar design, energy and water conservation, building materials conservation and waste minimisation.
- Consolidate urban development around nodes of activity and public transport to reduce the level of car dependency and increase pedestrian activity.
- Ensure that new development incorporates Ecologically Sustainable Design (ESD) principles, Safer Design Principles and Crime Prevention Through Environmental Design (CPTED).
- Encourage best practice approaches to water conservation and management techniques within new development.
- Incorporate water sensitive urban design principles and techniques within new development.
- Encourage and incorporate where reasonably practical, the use of technologies and practices, which recycle water, minimise water consumption and utilise stormwater.
- Encourage opportunities for on-site treatment and reuse of grey water.
- Promote the installation of water tanks and water saving devices in all new buildings, conversion of existing buildings, and where appropriate renovations and building extensions.

- Encourage new development to sensitively site and design plumbing and servicing equipment to be as visually unobtrusive as possible.
- Require development proposals to address how their design enables flexibility for future uses, to address changing market or social dimensions of Knox.

**21.04-3**

17/03/2016  
C131

**Urban Design Implementation**

These strategies will be implemented by:

**Using zones, overlays, policy and the exercise of discretion**

- Applying appropriate zones and overlays.
- Applying the *Dandenong Foothills* local policy at Clause 22.01.
- Applying the *Industrial and Restricted Retail Sales Area Design* local policy at Clause 22.02.
- Applying the *Knox Central Principal Activity Centre* local policy at Clause 22.04.
- Applying the *Neighbourhood Character* local policy at Clause 22.07.
- Applying the *Scoresby-Rowville Employment Precinct* local policy at Clause 22.08
- Applying the *Knox Urban Design Framework 2020* (2003).
- Applying the *Knox City Council: 2008/2018 Sustainable Environment Strategy* (2008).
- Adopt the principles of integrated fire management planning to inform land use planning and development in areas of bushfire risk.

**Undertaking further strategic work**

- Prepare a road corridor master plan for the declared arterial road network in the City.
- Continue to develop structure plans for all activity centres.
- Prepare an Urban Design Guidelines local policy for incorporation into the planning scheme.

URBAN DESIGN FRAMEWORK

