



## 9 and 9A Sutton Street Development Plan Masterplanning ESD Report

Prepared in accordance with Clause 22.13 of the Hobson Bay Planning Scheme

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## 1 Introduction

9 and 9A Sutton Street (i.e. Precinct 16) is proposed to be a multi-residential development located on an ex-industrial site in Newport (Hobsons Bay City Council). The site is approximately 21,500m<sup>2</sup> and is proposed to include the following:

- 130 dwellings over:
  - A majority townhouses
  - One 'superlot' with the potential for a taller apartment building (up to 6 storeys)

This document outlines the proposed Environmentally Sustainable Development (ESD) strategy in response to Council's requirements. It is intended to form part of the Development Plan, outlining general ESD targets for any future specific planning permit. Any future development on-site is to be generally consistent with the Development Plan, including this report.

### 1.1 Town Planning Requirements

Clause 22.13 of the Hobson's Bay outlines Council's requirements for sustainability. The Section outlines specific objectives in the following areas:

- Energy Performance
- Water Resources
- Indoor Environment Quality
- Stormwater Management
- Transport
- Waste Management
- Urban Ecology

For project of this type (Residential with over 10 dwellings) Clause 22.13-17 requires a suitably qualified professional to prepare:

- A Sustainability Management Plan (SMP)

BESS, Green Star, MUSIC and STORM are nominated as appropriate tools to meet the intent of the Clause.

This document is intended to outline the general ESD principles for the project that will be carried forward into a specific SMP to be developed in the future.

### 1.2 Targets

In order to meet the intent of town planning sustainability requirements, the following sustainability targets are proposed for the development:

- Townhouses: aim to achieve a 50% score under the Built Environment Sustainability Scorecard (BESS)
- Apartments, either:
  - Aim to achieve a 50% score under BESS
  - Aim to achieve design performance equivalent to achieving 4 stars in the Green Building Council of Australia's Design and As Built v1.2 tool

Compliance with either tool is to be based on a benchmark assessment only, administered internally by the project team. There is no commitment to undertake any third party certified sustainability rating of the project.

A detailed assessment of the project's compliance will be undertaken against the nominated tool prior to the submittal of a specific planning permit.

## 2 ESD Strategy

This section outlines how the proposed scheme specifically responds to the requirements of Clause 22.13-2 Objectives of the planning scheme. The initiatives outlined here are split by their relevance to the different typologies, as outlined below.

Aspect	Description
All Typologies	Both apartments and townhouses, and (as appropriate) all associated common and private landscape space.
Townhouses	Townhouse buildings and (as appropriate) all private outdoor space
Apartment	Apartment building and (as appropriate) all associated common and landscape areas
Site Only	All common external spaces including roads, shared facilities etc.

**All items outlined in this section are to be included, as far as feasible, in the detailed design of each element of the precinct.**

### 2.1 Energy Performance

This section outlines the proposed inclusions in design of the precinct to address the total energy use, greenhouse gas (GHG) emissions and peak power use of the precinct.

#### 2.1.1 All Typologies

Passive Design initiatives

- Optimised glazing extents and solar shading achieving the following:
  - minimise summertime insolation
  - maximise passive winter heating
  - maximise daylight access
  - maximise high quality views
- Residences to be naturally ventilated (complying with NCC 2016 requirements)

All passive design measures will, as far as feasible within site constraints, be designed with reference to the orientation of each individual residence.

Active Design initiatives

- Low lighting power density through selection of efficient lamps / fitting types (e.g. LED)
- Access to daylight to reduce demand for electric lighting
- Developer supplied appliances to be high efficiency (high MEPS rating)
- Provision of clothes lines for passive drying of clothes

Domestic hot water, heating and cooling systems will be within one star of the best available in the market (as far as feasible, noting that not all applicable systems fall under the MEPS scheme and hence receive a star rating).

Select refrigerants with low environmental impact, including refrigerants that have low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP) - no CFC or HCFC refrigerants to be used.

#### 2.1.2 Townhouses

Minimum NatHERS requirements in accordance with NCC requirements (min. 6 stars)

High efficiency split systems throughout. Zoning to allow for high levels of occupant control.

Gas instantaneous hot water system high efficiency equipment with solar preheat (in some dwellings).

Each townhouse will include a minimum 2kW rooftop mounted PV system.

### 2.1.3 Apartments

Minimum NatHERS requirement in accordance with NCC requirements, i.e.:

- Minimum: 5.5 stars
- Average (per building): 6.5 stars

Either solar PV panels serving apartment common areas or solar hot water systems for domestic hot water use to be included on apartment roof.

Natural ventilation of carpark, or efficient mechanical ventilation using CO monitoring and control.

Automated (occupancy) switching of lighting in common and external areas.

### 2.1.4 Site Only

N/A

## 2.2 Water Resources

This section outlines the proposed initiatives to reduce potable water use. See Section 2.4 for inclusions that specifically address stormwater volumes and quality.

### 2.2.1 All Typologies

High efficiency fittings and fixtures, including all:

- Toilets
- Showers
- Taps

All planting installed by the Contractor is to be low irrigation demand / drought tolerant, including consideration for all native planting.

### 2.2.2 Townhouses

Individual rainwater tanks per home will be provided (subject to space being available within the design for the tank) . Tanks will be connected to irrigation and/or toilet flushing.

Where individual tanks are not provided, the development will consider alternative options for providing rainwater retention and reuse. That may include an option for centralised collection by way of water storage under the public open space connected to irrigation uses (subject to environmental findings).

### 2.2.3 Apartments

Rainwater tank will be provided (subject to spatial consideration) serving:

- Landscaped areas
- Common internal areas (including toilets)

Connection to internal demand will be subject to sufficient availability of water to meet demand, TBC following a water demand assessment.

### 2.2.4 Site Only

None additional.

## 2.3 Indoor Environment Quality (IEQ)

This section outlines the proposed inclusions to improve human health and wellbeing in the internal environment.

### 2.3.1 All Typologies

Low/no volatile organic compound (VOC) emitting paints, adhesives, sealants and carpets.

Natural ventilation compliant with NCC requirements. Where not feasible due to local noise sources (e.g. the adjacent train yard/line), consideration to be given to mechanical systems achieving equivalent intent.

High levels of natural light to all main living spaces.

### **2.3.2 Townhouses**

None additional.

### **2.3.3 Apartments**

None additional.

### **2.3.4 Site Only**

N/A

## **2.4 Stormwater Management**

This section outlines the proposed inclusions to address stormwater quantity and quality. Please refer to the Civil Engineering design for details of the proposed stormwater management system.

### **2.4.1 All Typologies**

Maximisation of permeable surfaces, where considered feasible given the remediated nature of the site.

Rainwater capture and re-use in townhouses and apartments and noted in Section 2.2

Consideration of further Water Sensitive Urban Design (WSUD) principles including the possible use of the below (subject to spatial considerations):

- passive irrigation
- swales
- raingardens
- bio-retention ponds

### **2.4.2 Townhouses**

None additional.

### **2.4.3 Apartments**

None additional.

### **2.4.4 Site Only**

None additional.

## **2.5 Transport**

This section outlined the proposed inclusions to encourage active transport, minimise car dependency and promote low emission vehicle technologies.

### **2.5.1 All Typologies**

N/A

### **2.5.2 Townhouses**

Provide, as far as feasible, space on-site) for the parking of one (1) bicycle.

### **2.5.3 Apartments**

Dedicated secure parking for resident bicycles (one bike per dwelling)

Dedicated visitor bicycle parking located conveniently for the entrance of the building.

Provision of electric vehicle infrastructure to be considered.

#### **2.5.4 Site Only**

Provide visitor parking in convenient locations within the precinct.

### **2.6 Waste Management**

The following is to be considered in order to maximise construction and operation recycling rates; and improve durability and reusability of buildings materials.

#### **2.6.1 All Typologies**

Contractor is to commit to a minimum 80% recycling rate during construction.

Materials throughout to be selected for inherent durability, subject to architectural/other appropriateness.

Provide space in kitchen joinery for appropriate waste separation (min. co-mingled recycling and landfill).

Provide signage on the interior of kitchen joinery door and area of bin-storage outlining guidelines for waste separation (including guidance on what can and can't be recycled).

#### **2.6.2 Townhouses**

Provide adequate space in private garages (or otherwise on-site) for storage of appropriate bins for waste separation (min. co-mingled recycling and landfill).

#### **2.6.3 Apartments**

Provide infrastructure (bin areas for three separate streams being general waste, recycling and food waste).

#### **2.6.4 Site Only**

Provide adequate public bins on site at convenient locations to allow for waste separation (min. co-mingled recycling and landfill).

### **2.7 Urban Ecology**

This section outlines the proposed project inclusions to enhance biodiversity, minimise heat island effect, encourage indigenous planting and allow for provision of productive gardens.

#### **2.7.1 All Typologies**

Extent of landscaping to be maximised throughout (including increase tree cover, extent of grass area and landscaping in the street-scape).

All planting installed by the Contractor is to consist, as far as feasible, of appropriate native plant species.

#### **2.7.2 Townhouses**

Sufficient outdoor planting space is to be allowed for within the Developer delivered landscape design to allow for the Townhouse residents to plant a productive garden

As far as feasible (within the design intent and other requirements of the building), the townhouses will be designed to ensure that private open space achieves a minimum of 3hrs of direct sunlight access per day in winter.

#### **2.7.3 Apartments**

A dedicated outdoor space is to be provided, as feasible, to allow for apartment residents to grow their own produce.

#### **2.7.4 Site Only**

None additional.

### **2.8 Materials**

The section outlines the proposed inclusions addressing embodied energy/water/material use of nominated materials.



### 2.8.1 All Typologies

Concrete is used on site is, in as far as feasible, meet the following requirements (averaged over all mixes in the precinct):

- Minimum 30% replacement of cement with SCMs (such as flyash and slag)
- Minimum 25% recycled sand fine aggregate or 40% recycles coarse aggregate

The above commitment is made:

- Subject to approval by the structural engineer
- Only insofar as it does not create delivery/practicality issues for the contractor (i.e. with respect to timing)

### 2.8.2 Townhouses

None additional.

### 2.8.3 Apartments

None additional.

### 2.8.4 Site Only

None additional.

## 3 Conclusion

This project has demonstrating compliance with Clause 22.13 of the code through:

- Aiming to achieve an appropriate benchmark performance against BESS and/or Green Star
- Outlining specific responses to each objective identified in Clause 22.13-2 of the Hobson Bay planning scheme.

This document has outlined the general ESD principles for the project that will be carried forward into a specific SMP to be developed in the future.

At the time that specific SMP is prepared, a detailed assessment under either BESS or Green Star will be conducted.