

Table of Contents

E2 CLAREMONT MEADOWS STAGE 2	2
2.1. INTRODUCTION	2
2.1.1. AREA COVERED BY THIS SECTION	2
2.1.2. AIMS OF THIS SECTION	6
2.2. RESIDENTIAL DEVELOPMENT	7
2.2.1. MULTI DWELLING HOUSING	7
2.2.2. TRADITIONAL RESIDENTIAL	7
2.2.3. LARGE LOT RESIDENTIAL ADJACENT TO THE M4 MOTORWAY	9
2.2.4. GATEWAY SITE ON THE GREAT WESTERN HIGHWAY	9
2.2.5. HOME-BASED BUSINESS ACTIVITIES	9
2.3. AREAS OF ECOLOGICAL SENSITIVITY	10
2.3.1. REMNANT BUSHLAND	10
2.3.2. WATERCOURSE AND RIPARIAN CORRIDORS	11
2.3.3. WATER CYCLE	11
2.3.4. SALINITY	13
2.3.5. CONTAMINATED LAND	14
2.3.6. BUSHFIRE HAZARD	15
2.3.7. AIR QUALITY	16
2.4. COMMUNITY SERVICES AND RECREATION	17
2.4.1. NEIGHBOURHOOD PARKS	17
2.5. RECOGNITION OF SURROUNDING LAND USES	17
2.5.1. MAJOR ROADS (WERRINGTON ARTERIAL, GREAT WESTERN HIGHWAY AND THE M4 MOTORWAY)	17
2.5.2. INTEGRATION WITH CLAREMONT MEADOWS STAGE 1	27
2.5.3. SOUTH CREEK CORRIDOR	27
2.5.4. FORMER GIPPS STREET LANDFILL SITE	28
2.6. PUBLIC DOMAIN	28
2.6.1. MANAGEMENT OF THE PUBLIC DOMAIN	28
2.6.2. LANDSCAPE DESIGN	29
2.7. INFRASTRUCTURE	29
2.7.1. STREETS AND ACCESS	29
2.7.2. SEWER AND WATER	31
2.7.3. ENERGY SUPPLIES	31
2.7.4. TELECOMMUNICATIONS	31

E2 Claremont Meadows Stage 2

2.1. Introduction

2.1.1. Area Covered by this Section

The Claremont Meadows Stage 2 (Figure E2.1) area covers land bounded by:

- The M4 Motorway to the south;
- The South Creek Corridor to the east;
- The Caddens Release Area and Orchard Hills to the west; and
- The existing Claremont Meadows Estate (Figure E2.1) and the Great Western Highway to the north.

Claremont Meadows Stage 2 is separated into two distinct precincts and a Gateway Site:

a) Eastern Precinct (Figure E2.2), which covers land bounded by:

- The M4 Motorway to the south;
- The South Creek Corridor to the east;
- Gipps Street to the west; and
- The former Council tip site to the north.

b) South Western Precinct (Figure E2.3), which covers land bounded by:

- The M4 Motorway to the south;
- Gipps Street to the east;
- Existing rural residential development to the west; and
- Caddens Road (and the existing Claremont Meadows estate) to the north.

c) The Gateway Site (Figure E2.1) is located on the corner of Gipps Street and the Great Western Highway.

Figure E2.1 – Land to which this Section applies

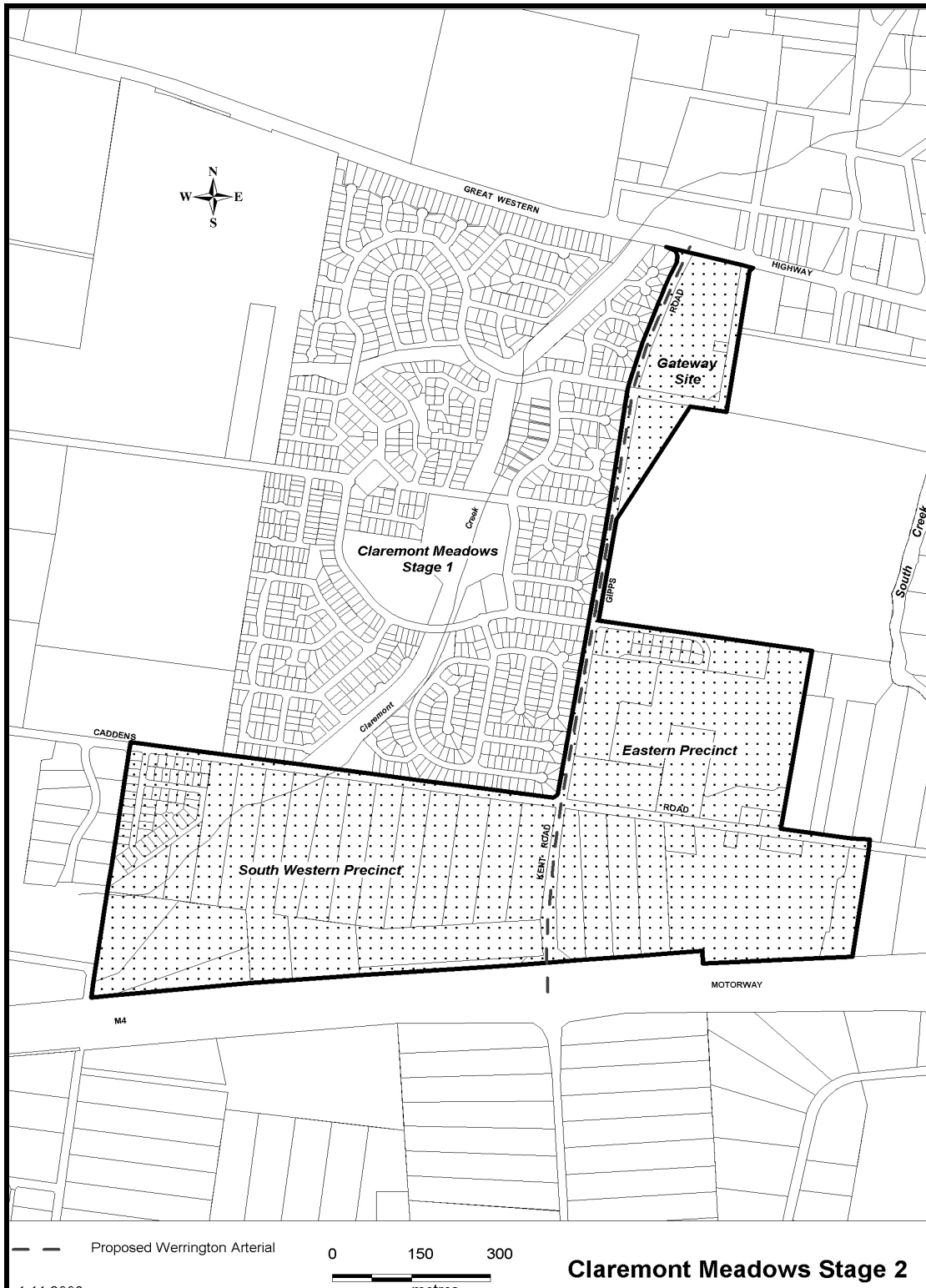


Figure E2.2 – Eastern Precinct

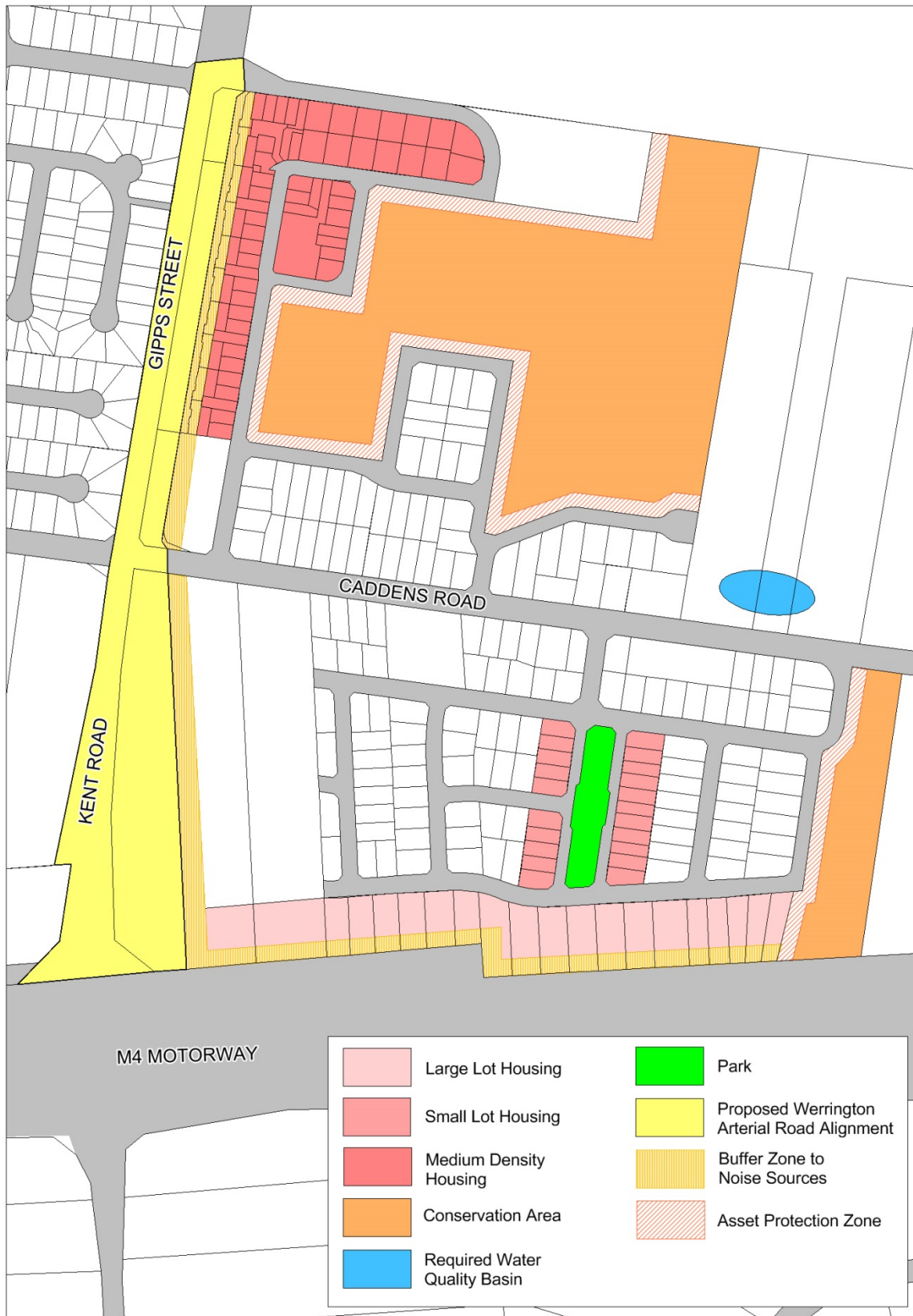
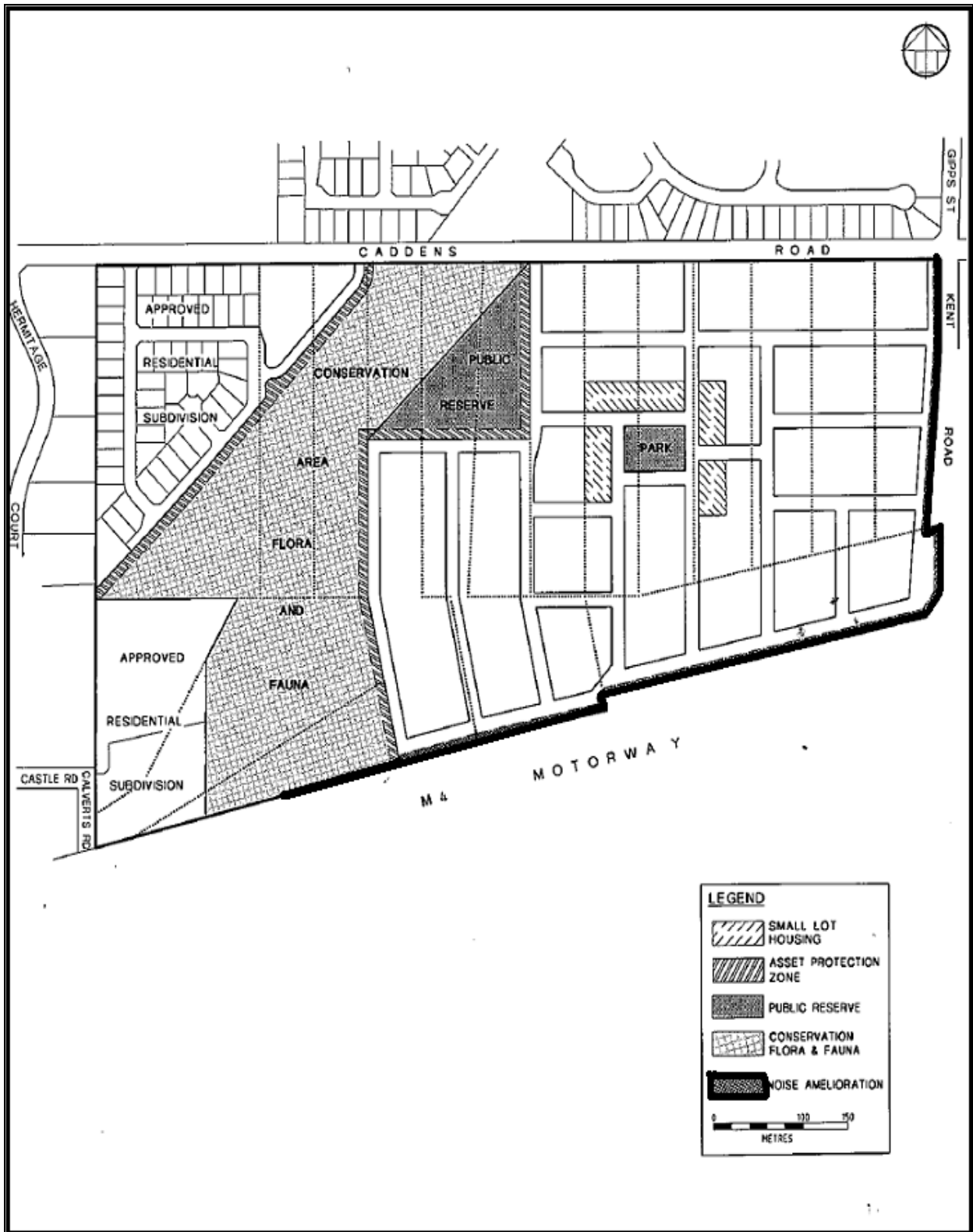


Figure E2.3 – South Western Precinct



2.1.2 Aims of this Section

- a) To provide specific guidelines for the preparation and assessment of applications for development in Claremont Meadows Stage 2.
- b) To provide opportunity for a range of housing sizes and types to provide housing choice for future residents;
- c) To ensure buildings have a high level of environmental performance consistent with Penrith City Council requirements, particularly with regard to energy efficiency, water management and the control of noise;
- d) To retain, protect and rehabilitate areas of high conservation value;
- e) To promote development that achieves best practice in ecologically sustainable development and enhances the natural values of the site;
- f) To require the consideration of social and economic aspects of sustainable development;
- g) To provide a public domain with landscaping which contribute to biodiversity by using local native species wherever possible and which has high aesthetic quality and is appropriate for its use and location;
- h) To mitigate the potential impact of the M4 Motorway, Gipps Street and the Great Western Highway on the proposed development;
- i) To mitigate the visual impact of the development on the M4 Motorway;
- j) To ensure that the Gateway site on the corner of the Great Western Highway and the current alignment of Gipps Street is developed appropriately as an entrance to Claremont Meadows;
- k) To ensure that surrounding land uses are given due attention in the planning and design of Stage 2, including the:
 - i) South Creek corridor;
 - ii) Former tip site;
 - iii) Adjacent rural residential development;
 - iv) Claremont Creek and the riparian corridor; and
 - v) Conservation areas.

2.2 Residential Development

2.2.1 Multi Dwelling Housing

This section applies to the eastern precinct only on land zoned R3 Medium Density Residential under the LEP. This is to:

- a) Take advantage of the proximity to Sunflower Drive, which provides access to the existing estate and associated facilities;
- b) Recognise that the form of the developable area has been designed to conserve remnant Cumberland Plain Woodland in the east of the precinct; and
- c) Recognise that the impact of the proposed Werrington Arterial and the limited dimensions of the developable area requires additional attention to design to obtain a high residential amenity.

A. Objectives

- a) To ensure that the areas set aside for multi dwelling housing achieve a substantially higher density than 'traditional' residential areas;
- b) To ensure that multi dwelling housing is well designed, energy efficient and takes account of surrounding land uses; and
- c) To protect the amenity and quality of life of future residents.

B. Controls – Eastern Precinct

- 1) Development applications must demonstrate that:
 - a) Multi dwelling housing incorporates the principles of water sensitive urban design, including measures to conserve rainwater and measures to minimise the need for potable water;
 - b) Development has been designed to maximize the number of dwellings with north facing living areas and private open space areas;
 - c) Communal outdoor recreation areas are north facing; and
 - d) Development in the north of the precinct recognises the former tip site as a future recreational resource (both passive and active).

2.2.2 Traditional Residential

This section applies to land zoned R2 Low Density Residential under the LEP which is **not** within 50m of the road reserve for the M4 Motorway.

A. Objectives

- a) To ensure that a variety of lot sizes are provided.
- b) To ensure that traditional lots provide opportunity for well designed, energy efficient housing.
- c) To ensure that dual occupancy development is designed cognisant of the amenity of adjacent blocks.

B. Controls

General

- 1) These provisions will encourage a variety of lot sizes, while still protecting residential amenity.
- 2) Smaller lots around an area of public open space must:
 - a) Clearly indicate both the proposed public reserve and the area to be developed with smaller lot sizes; and
 - b) Locate and size the public reserve so that it provides utility and amenity to the entire precinct. Public reserves shall have a minimum site area of 2,500m².
- 3) Development applications submitted for smaller lot housing around an area of public open space must be integrated (subdivision and building development considered and lodged concurrently);
- 4) Residential Development adjacent to Gipps Street/Kent Road shall provide articulation to building facades and varying setbacks;
- 5) All other residential development applications will be assessed against the standards specified in the Residential Development section of this Plan.

Eastern Precinct

- 1) Residential development in this precinct must be set out in accordance with the indicative layout illustrated in Figure E2.2.
 - a) Medium density housing (e.g. multi dwelling housing) in the land zoned R3 Medium Density Residential on Gipps St, near the intersection with Sunflower Drive;
 - b) 550m² – 800 m² – provided in the bulk of the precinct;
 - c) Small lot housing (250m² – 400m²) – provided immediately around the proposed neighbourhood park; and
 - d) Large lot housing (over 1,000m²) – provided adjacent to the M4 Motorway.
- 2) The controls specified in the Residential Development section of this Plan apply.

South Western Precinct

- 1) Residential development in this precinct must be set out in accordance with the indicative layout illustrated in Figure E2.3.
- 2) In general:
 - a) Small lot housing around the central park with lot sizes ranging from 250m² – 400m² (to be submitted as integrated housing for development application purposes);
 - b) Conventional lots with a minimum area of 550m² and minimum width of 15m; and
 - c) Large lot residential to the south west off Castle Road; and
 - d) The controls specified in the Residential Development section of this Plan apply for all other requirements.

2.2.3 Large Lot Residential Adjacent to the M4 Motorway

This section applies to land zoned R2 Low Density Residential under the LEP and which is **within 50m** of the M4 Motorway road reserve.

A. Objectives

- a) To ensure that there remains a visual buffer between residential development associated with Claremont Meadows Stage 2 and the M4 Motorway; and
- b) To provide opportunity for a vegetated link between bushland on Claremont Creek and bushland in the South Creek corridor. Such a link will have both biodiversity and habitat value.

B. Controls

- 1) Development Applications will be assessed against the standards specified in the Residential Development section of this Plan.
- 2) That vegetated buffer of 20m depth shall:
 - a) be maintained along the boundary of lots parallel to the M4 Motorway and be vegetated with regard to the requirements for an Asset Protection Zone;
 - b) be planted with species appropriate to the area given the presence of Cumberland Plain Woodland; and
 - c) remain free of all structures including garages, carports, swimming pools, tennis courts, gazebos and the like.
- 3) Lot layouts within the 20m buffer area shall allow for a sufficient building envelope clear. It is expected that to achieve this lots will generally require a minimum depth of 50m; and
- 4) Building setbacks from the street in this area may be reduced to recognise the impact that the buffer may have on private open space to the rear of the dwelling, which can accommodate recreational structures.

2.2.4 Gateway Site on the Great Western Highway

This section applies to the site on the south eastern corner of the Great Western Highway and Gipps Street; and as indicated in Figure E2.1.

A. Objective

- a) To ensure that this high profile site that will act as a gateway to Claremont Meadows is appropriately developed.

B. Controls

- 1) Development on this site shall recognise its visual prominence to the Great Western Highway and role as an entry point to Claremont Meadows.
- 2) Residential development shall be in accordance with the Residential Development section of this Plan.

2.2.5 Home-Based Business Activities

A. Objective

- a) To maximise opportunities for residents to establish and operate small-scale business activities from home.

B. Controls

- 1) Development Applications for dwellings with home based businesses shall give consideration to the site planning, housing designs and other physical measures which support home-based business activities, consideration may include:
 - a) Dedicated rooms for business activities;
 - b) Separate entrances for the residences and for business rooms;
 - c) Flexible parking and vehicle access for visitors and/or residents – subject to the scale of activity;
 - d) Buildings designed according to traditional residential scale and appearance when viewed from the street; and
 - e) ‘Smart wiring’ of homes to enable consumers to access multi telecommunications facilities (broadband capacity internet, e-commerce, cable TV, lighting, audio, security), and
 - f) Building orientation.

2.3 Areas of Ecological Sensitivity

Claremont Meadows Stage 2 has two major areas of ecological sensitivity:

- 1) The remnant Cumberland Plain Woodland (endangered ecological community) in the eastern precinct, immediately adjacent to the South Creek corridor, and
- 2) The bushland surrounding Claremont Creek in the south western precinct. Claremont Creek and the riparian corridor in the south western precinct is also considered to be an area of ecological sensitivity.

It is important that development in the vicinity of these areas recognises and minimises the potential for impact on their biodiversity values and ecological integrity. Respect for the ecological sensitivity of these areas is a key part of an overall sustainable development outcome for Claremont Meadows Stage 2.

2.3.1 Remnant Bushland

A. Objectives

- a) To conserve wildlife habitat and indigenous plant species;
- b) To ensure that development adjacent to areas of existing vegetation identified for preservation is designed to minimise impact;
- c) To ensure appropriate buffer zone edge treatment between development and any adjacent Cumberland Plain Woodland and associated large land snails; and
- d) To ensure that the local community is provided with information about the value of the bushland, to help foster a spirit of caring for it.

B. Controls

- 1) The proposal shall demonstrate compliance with the Vegetation Management Plan for the specific precinct area;
- 2) A Biodiversity Management Plan, which includes an interpretation strategy shall be prepared for the proposed development. Examples of items which could be included in a Biodiversity Management Plan and Interpretation Strategy include (and not limited to):

- a) Signage;
 - b) Fencing
 - c) Walking tracks;
 - d) Street layout; and
 - e) Street names.
- 3) Development Applications shall demonstrate that the Biodiversity Management Plan and its principles have been addressed.

2.3.2 Watercourse and Riparian Corridors

Claremont Meadows Stage 2 is part of the Claremont Creek and South Creek Catchments, so it is important to ensure that these catchments and also the riparian corridor of Claremont Creek traversing the south western precinct are protected, enhanced and managed adequately.

A. Objectives

- a) To protect and rehabilitate Claremont Creek as a natural system;
- b) To protect and rehabilitate a minimum 20m wide riparian corridor along either side of Claremont Creek;
- c) To provide a vegetated link between bushland on Claremont Creek and bushland in the South Creek corridor;
- d) To ensure that the local community is provided with information about the value of Claremont Creek, South Creek and riparian corridors to help foster a need to care for these environmentally sensitive areas.

B. Controls

- 1) Development Applications shall:
- a) Ensure that remnant native vegetation within the riparian corridor is protected and rehabilitated with local provenance species at a density that would occur naturally;
 - b) Ensure there is to be no development within the riparian corridor unless works include:
 - i) The rehabilitation of aquatic and riparian vegetation and habitat;
 - ii) Demolition and removal of existing structures or works;
 - iii) Crossings for roads, pedestrian pathways, easement services, sewer, utility installation;
 - iv) Stormwater outlets.

Such development should be designed and constructed so that ecological connectivity values are not compromised. All other development is to be excluded from within the riparian corridor.

- c) Treat all stormwater discharge outside of the riparian corridor before it enters the watercourse.

2.3.3 Water Cycle

The eastern precinct of Claremont Meadows Stage 2 drains directly to South Creek, while the south western precinct drains to Claremont Creek. The water quality in both of these watercourses is significantly impacted by urban runoff, making it vital that development in

Stage 2 employ best practice in water sensitive urban design. Minimising the pollution contained in urban runoff from this site will have a beneficial impact on the water quality in South Creek and ultimately the Hawkesbury River.

A. Objectives

- a) To achieve an integrated approach to water cycle management on the site;
- b) To control the quantity and quality of runoff from the site to maximise the improvements to downstream receiving waters and minimise the impact on the downstream catchment;
- c) To investigate innovative approaches to water supply to minimise water wastage and reduce the demand for potable water; and
- d) To maximise the ecological and visual benefits gained from Claremont Creek.

B. Controls

1) Development Applications shall:

- a) Demonstrate that future development will not generate undesirable environmental impacts on receiving waters, in terms of quantity and quality. Modelling shall be done on a catchment basis, rather than lot by lot;
- b) Identify and incorporate best management practices to control runoff quantity and quality;
- c) Include a stormwater management plan which conforms with the EPA guidelines – ‘Managing Urban Stormwater’, applicable development guidelines from Penrith City Council and the Storm Water Management Plans for South Creek;
- d) Adopt an integrated approach to the management of wastewater, consistent with:
 - i) Water-sensitive urban design practices, including options for the reuse of stormwater;
 - ii) Capacity of site soils to absorb run-off;
 - iii) Existing levels of soil salinity and minimises extent and frequency of perched watertable; and
 - iv) Local climate and likely rates of evaporation from open ponds.
- e) Demonstrate drainage solutions that shall embody appropriate catchment management principles;
- f) Include a surface drainage design which:
 - i) Includes any runoff detention and water quality control ponds, swales and channels;
 - ii) Minimises land-take;
 - iii) Minimises potential breeding areas for mosquitoes;
 - iv) Limits disturbance to the ground whenever possible;
 - v) Utilises landscaped, open space and passive recreational features which contributes to the local amenity;
 - vi) Ensures engineered structures are integrated with the configuration and character of the wider development and its public domain; and
 - vii) In the case of Claremont Creek, takes the form of a planted banks with water on the surface and incorporates ecological habitats in a minimum 20m wide riparian corridor (measured from top of bank) either side of the creek;

- g) Take account of the influence of the former tip site, including the possibility of subsurface water movement;
 - h) Shall evaluate opportunities for the integration of water supply and re-use of stormwater, grey water and treated effluent:
 - i) In consultation with authorities such as Sydney Water, NSW Office of Environment and Heritage, NSW Ministry of Health and Penrith City Council;
 - ii) Through investigation of opportunities for the reuse on-site of grey water and treated effluent and recycled stormwater, noting:
 - Rainfall patterns and the assimilative capacity of the site's soils;
 - Landscaped areas available for irrigation with treated effluent; and
 - Impacts of irrigation volumes and salt loads on existing salinity.
- 2) A water quality plan and maintenance plan shall be submitted to Council with applications for subdivision. This plan shall cover all elements of the proposed drainage system that will ultimately be transferred to Council, and shall outline the maintenance schedule to ensure that the system operates at the required standard.

2.3.4 Salinity

Urban development in salinity prone environments must consider the potential for salt damage. Salt is soluble in water and if water gains access to buildings and infrastructure salt can be carried with it.

The entire Penrith LGA landform is subject to areas of either:

- a) Known salinity;
- b) High salinity potential;
- c) Moderate potential; and / or
- d) Associated with drainage lines identified as having high salinity potential.

A. Objectives

- a) To ensure that saline soils, groundwater levels and salinity processes are identified, prior to finalisation of development form; and
- b) To ensure that appropriate measures are taken to protect buildings, infrastructure and the natural environment from deterioration associated with salt attack.

B. Controls

- 1) Development Applications for subdivision shall include a preliminary site investigation, which identifies areas of potential salinity;
- 2) A Salinity Site Investigation must include:
 - a) Initial site walkover, observations and field tests as well as a desktop review;
 - b) Site specific soil and groundwater investigations;
 - c) Clear presentation and Interpretation of all results in terms of the impact of the site salinity processes on the proposed development and, the impact of the development on salinity processes on the site and in the catchment; and
 - d) Management options to be undertaken by the developer to minimise these onsite and offsite, present and future impacts.

- 3) A remedial action plan must be submitted with any Development Application on land where there is an identified salinity hazard. The plan must contain the following information:
 - a) Remedial objectives;
 - b) Details of the process and standards by which the land will be remediate;
 - c) Specific measures that will be undertaken to reduce the risk of salinity to property and structures, vegetation and the environment; and
 - d) A statement that the implementation of these specific measures will ensure minimal salinity risk to man-made and natural environment in the short and long term on and off the site.
- 4) In identified salinity hazard areas the following measures must be used for house slabs and other concrete work:
 - a) A layer of sand at least 50mm deep under the slab must be provided;
 - b) A damp proof membrane (rather than vapour proof membrane) must be laid under the slab;
 - c) Normal Class 32 Mpa (N32) concrete or sulphate resisting Type SR cement with a water cement ratio of 0.5 must be used;
 - d) The minimum cover to reinforcement must be 30mm from a membrane in contact with the ground;
 - e) The minimum cover to reinforcement must be 20mm from an internal surface;
 - f) The minimum cover to reinforcement must be 50mm for strip footings and beams irrespective of whether a damp proof membrane is used; and
 - g) Admixtures for waterproofing and/or corrosion prevention may be used.
- 5) In identified salinity hazard areas the following measures must be used for brickwork:
 - a) The damp proof course must be correctly placed to prevent moisture movement;
 - b) The use of 'exposure clast bricks';
 - c) Manufacturer's recommendations regarding suitability for use in saline environments for all bricks and concrete blocks should be followed; and
 - d) Appropriate mortar must be used and waterproofing may be added below the damp proof course
- 6) Salt and drought tolerant plant species must be used in the landscaping within the site and should be identified in any landscape plans for the site. This also includes appropriate hard landscaping materials and practice.

2.3.5 Contaminated Land

Although the majority of Claremont Meadows Stage 2 has been used for rural purposes, there is still the possibility that some areas may be contaminated.

A. Objectives

- a) To ensure that contaminated land is identified, prior to finalisation of development form; and
- b) To ensure that a remedial action plan is prepared for any identified areas of contamination.

B. Controls

- 1) Development Applications for subdivision shall include an assessment of possible contamination prepared by a suitably qualified person, which covers the following:
 - a) Likelihood of contamination over the subject area, based on previous land uses; and
 - b) Assessment of the nature and extent of contamination in areas identified as likely to be contaminated.
- 2) For those areas not yet tested, Development Applications shall include a contamination assessment and remedial action plan. This plan shall conform to the provisions of State Environmental Planning Policy No. 55 – Contaminated Land;
- 3) All identified works in the remedial action plan shall be completed and certified prior to linen plan release;
- 4) Sydney Water has advised that infrastructure cannot be permitted in contaminated ground or in ground that may become contaminated by groundwater or contaminant vapour migration because of possible:
 - a) Breaches of Work, Health and Safety (WHS) obligations to employees during maintenance excavation;
 - b) Breaches of WHS obligations to employees during maintenance of sewers containing contaminated flows;
 - c) Contaminant degradation of sewage treatment processes, particularly biological processes;
 - d) Contamination of the drinking water supply from contaminants diffusing through plastic water mains;
 - e) Contamination of the drinking water supply from contaminants being sucked through rubber ring pipe joints during passage of low pressure transients;
 - f) Contaminant corrosion or weakening of concrete infrastructure; and
 - g) Contaminant corrosion of rubber rings in pipe joints effecting joint tightness.

Hence, Sydney Water requests that arrangements to investigate, remediate and audit infrastructure trench soils both within and beyond development boundaries and to prevent recontamination be put in place before and during infrastructure installation.

2.3.6 Bushfire Hazard

The remnant bushland in both the eastern and south western precinct presents a bushfire hazard, as does the M4 Motorway road reserve. Applicants should refer to relevant documents when preparing Development Applications. These include the NSW Rural Fire Service requirements in '*Planning for Bushfire Protection*', which is available on the NSW Rural Fire Service website (www.bushfire.nsw.gov.au) and Australian Standard 3959.

A. Objective

- a) To ensure that dwellings are adequately protected from bushfire risk.

B. Controls

General

- 1) Development applications shall clearly identify all bush fire prone land and shall include a bushfire hazard assessment, prepared by a suitably experienced person;

- 2) Development applications shall demonstrate how bushfire hazard assessment has been taken into account. This may include design features, asset protection zones or similar. This may include hazard presented by adjacent undeveloped lots;
- 3) Development applications are to be consistent with '*Planning for Bushfire Protection*' and Australian Standard 3959.
- 4) Some level of bushfire protection must also be provided between residential dwellings and the M4 Motorway reserve. This may be incorporated into the vegetated buffer required to attenuate noise and visual impact, however this buffer will need to be managed to minimise bushfire risk. Details shall be provided in the subdivision application;
- 5) Roads are to separate all vegetated areas from houses;
- 6) Main through and perimeter roads to have minimum 8m sealed surface plus footpaths, other roads to have minimum 7m wide sealed surface;
- 7) Roads beside significant vegetation to be set within a 20m wide road reserve, located within the APZ; and
- 8) Fire hydrants to be provided to normal urban standards, without on-site supplementary water storage;

Eastern Precinct

- 1) An Asset Protection Zone shall be provided between remnant bushland and residential buildings. There may also be a need to consider hazard presented by adjacent undeveloped lots;
- 2) The Asset Protection Zone is likely to be required to be 35m wide. There may, however, be circumstances in which the Rural Fire Service will reduce the Asset Protection Zone to 30 m. All applications for subdivision will be referred to the Rural Fire Service and applicants should NOT assume that 30m will be sufficient. Reference should be made to '*Planning for Bushfire Protection*' when proposing an appropriate width for the Asset Protection Zone; and
- 3) This Asset Protection Zone may include:
 - a) A 10m fuel reduced zone within the Conservation Area;
 - b) The width of the adjacent road reserve; and
 - c) Front setbacks to dwellings.

South Western precinct

- 1) The creation of Outer Protection Areas 10m in width within the Flora and Fauna Conservation Areas;
- 2) Inner Protection Areas 25m in width be maintained within residential areas adjoining the Flora and Fauna Conservation areas; and
- 3) The creation of Inner Protection Areas 20m in width beside the M4 Motorway and the Public Recreation area adjoining the Flora and Fauna Conservation area and be maintained by property owners.

2.3.7 Air Quality

A. Objectives

- a) To ensure that development does not have an undue adverse effect on air quality; and

- b) To identify appropriate compensatory measures that can be taken to help improve air quality in general.

B. Controls

- 1) Use of solid fuel heaters is prohibited; and
- 2) The area of land available for soft landscaping should be maximised.

2.4 Community Services and Recreation

2.4.1 Neighbourhood Parks

A. Objective

- a) To ensure that parks are adequately sized, located and equipped to meet the needs of the anticipated population of the precinct.

B. Controls

- 1) Each precinct shall provide an appropriate area for a neighbourhood park; and
- 2) Neighbourhood parks shall have the following features:
 - a) A minimum area 2,500 m²;
 - b) A central location, accessible to the majority of the population of the precinct;
 - c) Surrounded by a logical road pattern, which provides a safe direct and legible route to the neighbourhood park from the majority of the precinct;
 - d) Suitable embellishment with play equipment, seating, lighting, landscaping and pathways (details to be provided at Development Application stage); and
 - e) Shall not be used as detention basins.

2.5 Recognition of Surrounding Land Uses

2.5.1 Major Roads (Werrington Arterial, Great Western Highway and the M4 Motorway)

A number of major roads surround and intersect Claremont Meadows Stage 2:

- 1) The M4 Motorway provides a boundary to the south;
- 2) The new alignment for the Werrington Arterial along Gipps St separates the eastern and south western precincts; and
- 3) The Great Western Highway adjoins the gateway site in the north.

These roads will have an acoustic, visual and social impact on development and must be considered in all stages of planning.

A. Objectives

- a) To ensure that the negative impact of the roads surrounding and transecting Claremont Meadows Stage 2 is minimised;
- b) To ensure that planning for Claremont Meadows Stage 2 takes account of the noise and vibration associated with major roads; and

- c) To ensure that the visual impact of Claremont Meadows Stage 2 from major roads, particularly the M4 Motorway, is minimised.

B. Controls

General

- 1) Residential development affected by traffic noise associated with Gipps Street, Kent Road, the M4 Motorway, or the Great Western Highway must comply with the NSW Road Noise Policy (Environment Protection Authority);
- 2) A visual and acoustic protection zone shall be provided along the southern boundary of Stage 2, where it adjoins the M4 Motorway. This protection is to be provided within a 20m landscaped buffer zone and may also include a road, and designed such that it does not have a visual impact on the M4 motorway;
- 3) Noise solutions must have appropriate regard for urban design outcomes. It is considered that a combination of distance, landscaped mounding/barriers, and dwelling treatment should be used to obtain appropriate protection from noise. Noise solutions shall be developed in conjunction with the Roads and Maritime Services (RMS). The treatment of all interfaces with major roads shall be negotiated with the RMS as part of the preparation of applications for development;
- 4) Development applications for residential development within 50m of Gipps Street, Kent Road, the M4 Motorway or the Great Western Highway shall include a noise study to demonstrate that the relevant noise standards can be complied with;
- 5) Development applications, which include creation of lots adjoining the M4 Motorway, shall include details of the visual and acoustic barrier, which is to be provided along the southern boundary of Claremont Meadows Stage 2, where it adjoins the M4 Motorway. This barrier is to be provided within a landscaped buffer zone and screened from view from the M4 Motorway (Refer Figure E2.8a and E2.8b), Noise barriers shall demonstrate visual consistency with other noise barriers along the M4 within the Penrith LGA;
- 6) Development applications for residential development along Gipps Street and Kent Road shall include details of the noise treatment along Gipps Street and Kent Road (Refer Figures E2.5 and E2.6). Noise attenuation measures shall integrate with and compliment the design and siting of the proposed residential development; and
- 7) Full details of construction type, colours, materials and maintenance requirements for any acoustic barriers must be submitted to Council.

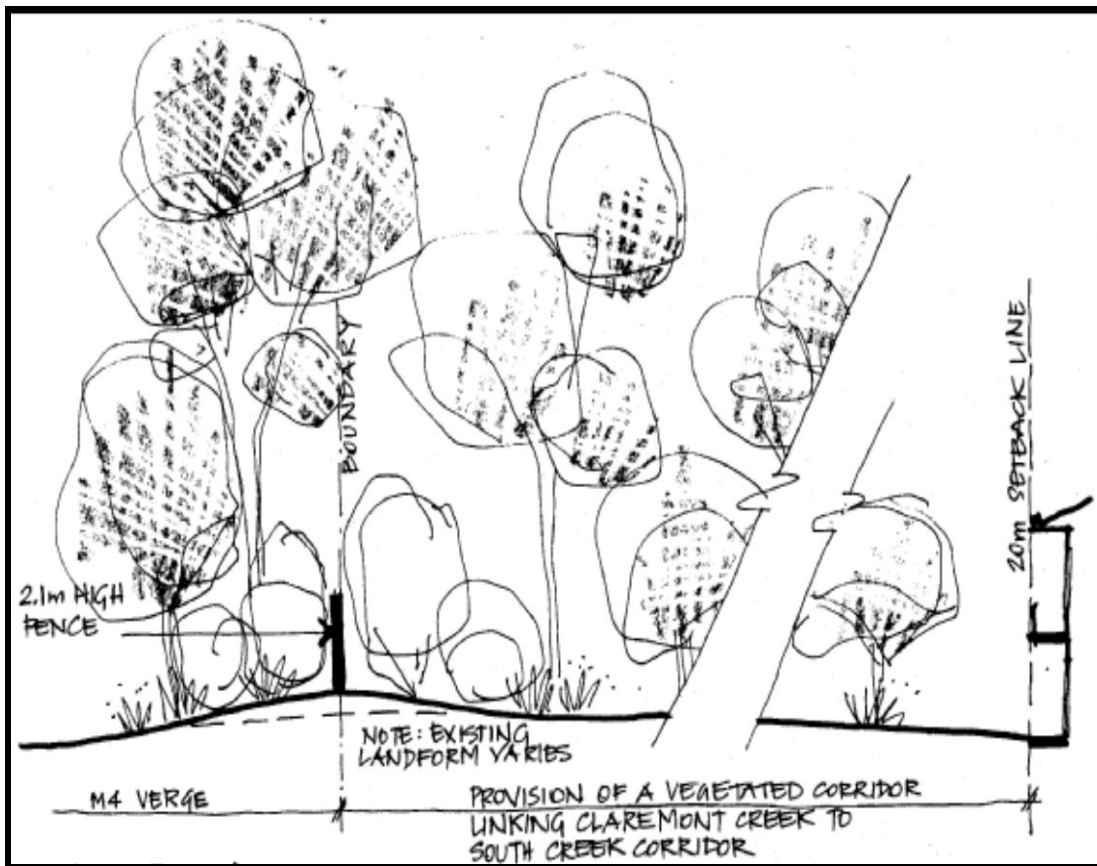
Eastern Precinct

- 1) A 15m wide buffer is required along Gipps St (north of Caddens Road) and as detailed in Figure E2.5. The purpose of this buffer is to minimise the impact of the adjacent road on residential development, and to ensure that acoustic barriers do not dominate the residential character of this road. This buffer will be in addition to the road reserve and will provide the opportunity for landscaping, access and acoustic protection. Landscaping is to be undertaken in such a manner that it can accommodate future road widening, consultation with RMS is required to determine the most current road widening map. Council may consider a reduced buffer area if it can be demonstrated that these objectives can be achieved in a lesser area;
- 2) A minimum 20m buffer is required along Kent Road (south of Caddens Road) as detailed in Figure E2.6. This buffer shall include, but is not limited to, a landscaped verge, road reserve, footpath and building setback. This measurement is to be taken from the noise wall. In addition to this buffer a minimum 5m landscape strip is required on the other side of the noise wall in accordance with Control (4) below.

- 3) Any application received for subdivision shall include details in relation to the acoustic treatment and should include:
 - a) Cross-sections of the acoustic treatment including landscaping and shall include one section for each different condition.
 - b) A View Analysis of the acoustic treatment including landscaping looking from the road (both internal and external road), this should include a photo montage of any acoustic barriers and proposed development in the background;
 - c) Details of the construction type, colours, materials (minimum masonry) and maintenance of acoustic treatment;
 - d) Landscaping plan including location of acoustic treatment and maintenance schedule; and
 - e) Stepping and variation in the location of the acoustic barrier with opportunity to provide design elements.
- 4) A minimum 5m landscape strip is required along the eastern side of Kent Road in front of any acoustic barriers; this landscape strip is exclusive of any pedestrian/cycleways and the road reserve. The purpose of this landscape strip is to minimise the visual impact of the acoustic barrier on residential development, and to ensure that acoustic barriers do not dominate the residential landscape along this road.

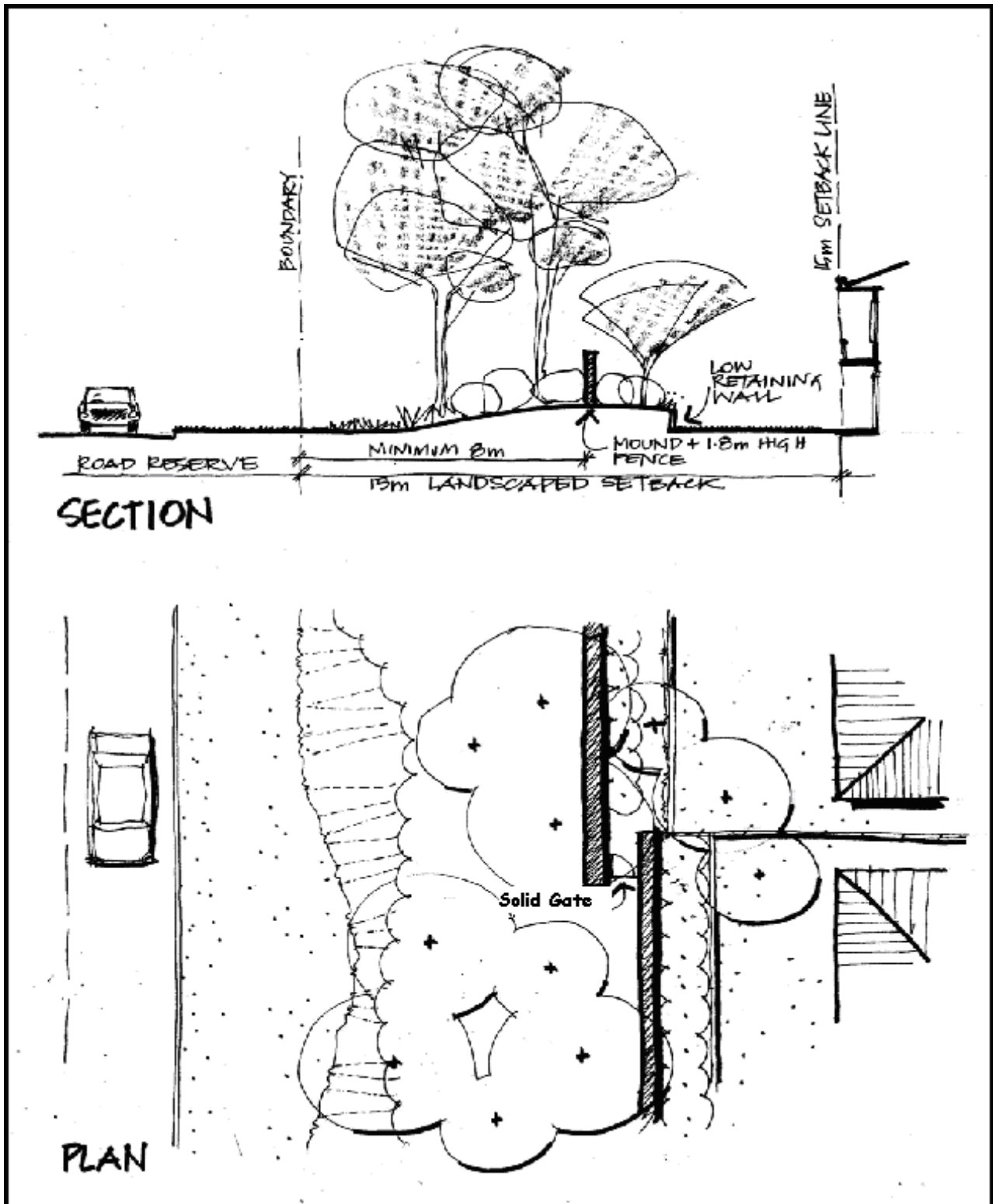
Eastern Precinct – M4 Streetscape

Figure E2.4 – Typical M4 frontage cross-section within the south eastern precinct



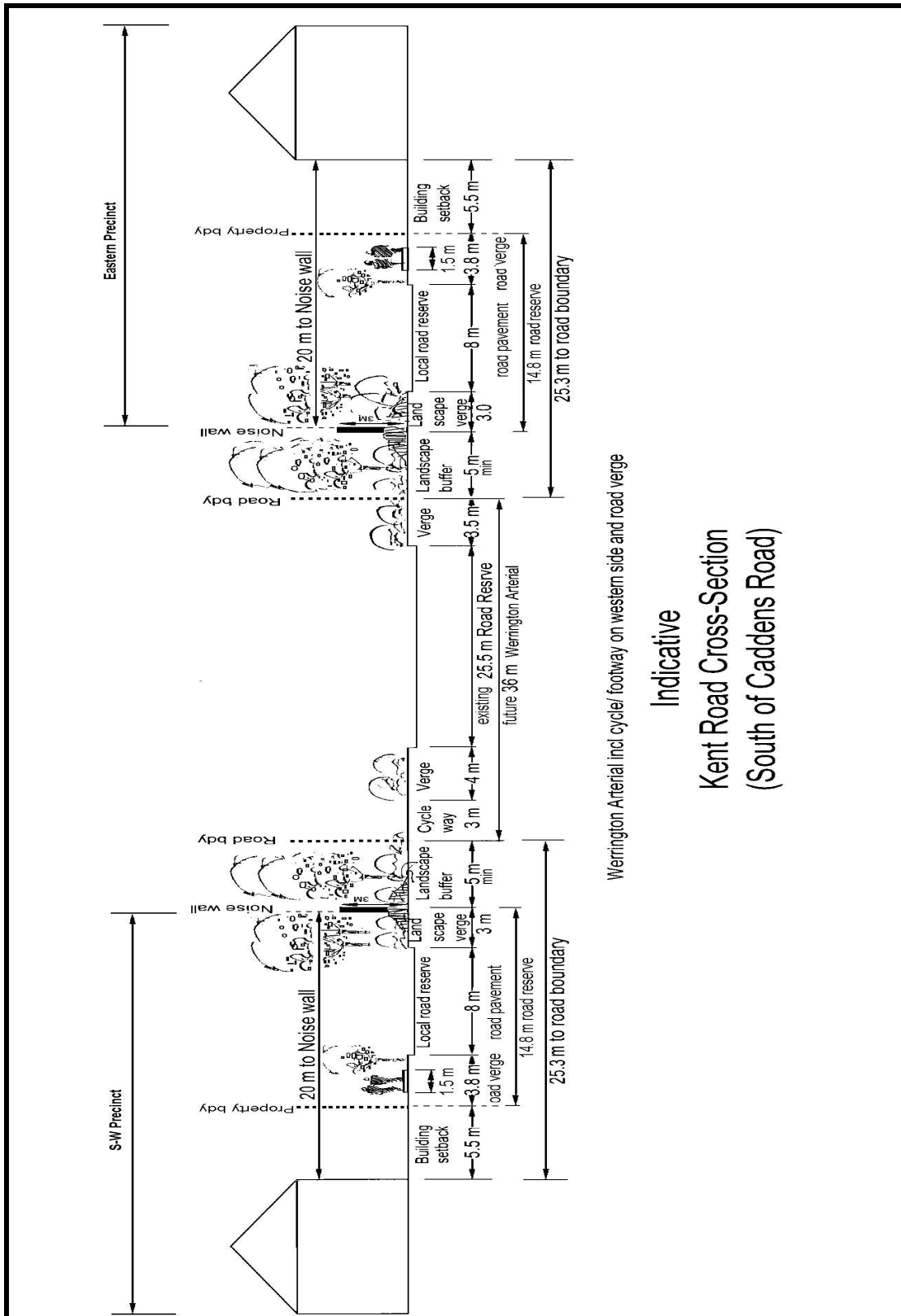
Gipps Street Streetscape

Figure E2.5 – Cross-Section Gipps Street Eastern Precinct North of Caddens Road



Kent Road Streetscape (South of Caddens Road)

Figure E2.6 – Typical Cross-Section Kent Road South of Caddens Road



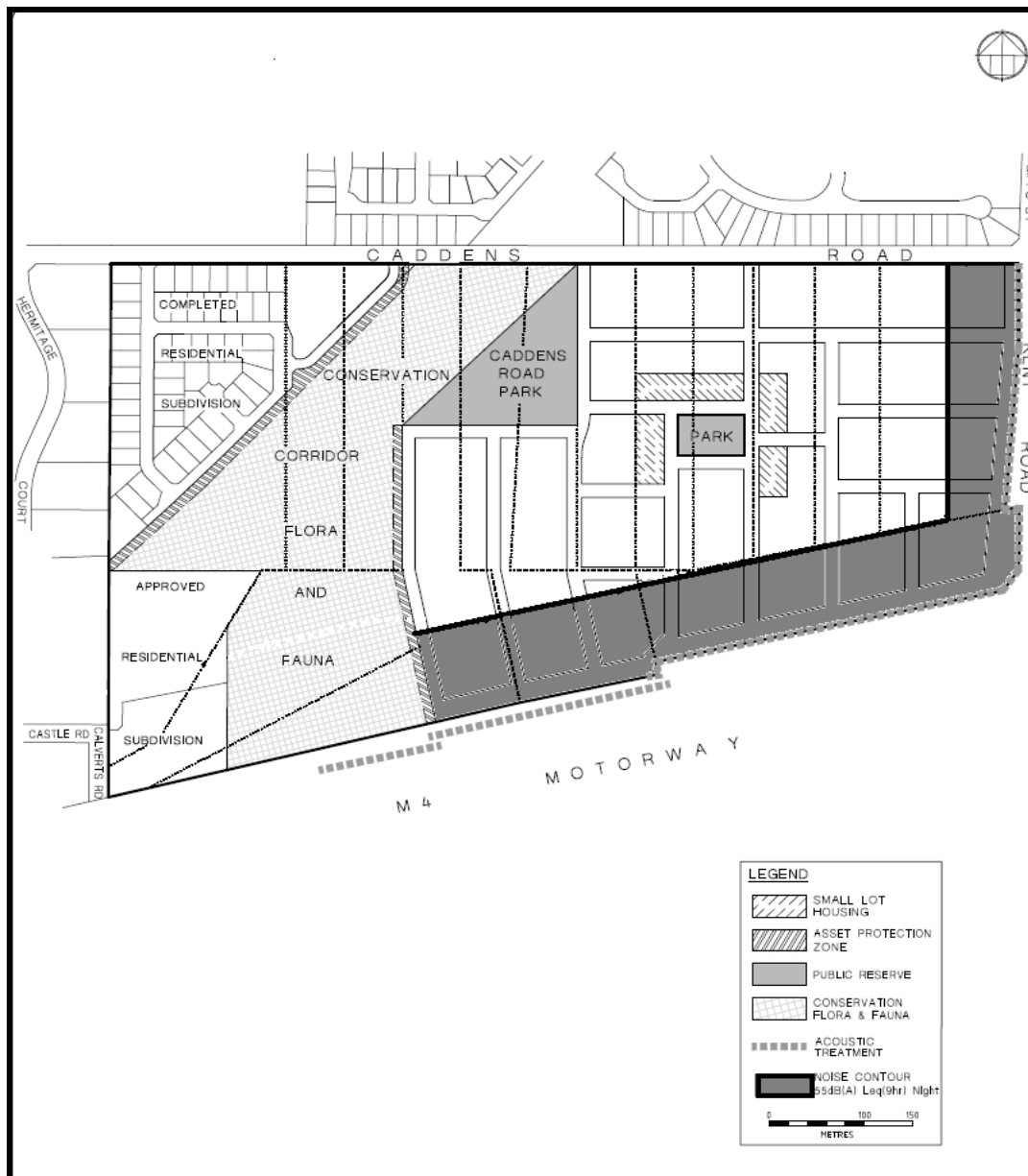
Werrington Arterial incl cycle/footway on western side and road verge

Indicative
Kent Road Cross-Section
(South of Caddens Road)

South Western Precinct

- 1) Acoustic barriers/treatment including landscaping along the M4 and Kent Road within the south western precinct shall be constructed prior to subdivision commencing on land within the shaded area as indicated on the map (Figure E2.7) below:

Figure E2.7 – Area of Restricted Development due to traffic noise



- 2) A minimum 20m buffer is required along Kent Road as detailed in Figure E2.6. This buffer shall include, but is not limited to, a landscaped verge, road reserve, footpath and building setback. This measurement is to be taken from the noise wall. In addition to this buffer, a minimum 5m landscape strip is required on the other side of the noise wall in accordance with Control (4) below; and

- 3) Any application received for subdivision within the area shaded in Figure E2.7 shall include details in relation to the acoustic treatment and shall include:
 - a) Cross-sections of the acoustic treatment including landscaping and shall include one section for each different condition.
 - b) A View Analysis of the acoustic treatment including landscaping looking from the road (internal and external road), this should include a photo montage of any acoustic barriers and proposed development in the background
 - c) Details of the construction type, colours, materials (minimum masonry) and maintenance of acoustic treatment;
 - d) Landscaping plan including location of acoustic treatment and maintenance schedule; and
 - e) Stepping and variation in the location of the acoustic barrier with opportunity to provide design motif treatment.
- 4) A minimum 5m wide landscape strip is required along the western side of Kent Road in front of any acoustic barrier; this landscape strip is to be exclusive of any pedestrian/cycleways and the road reserve. The purpose of this landscape strip is to minimise the visual impact of the acoustic barrier on residential development, and to ensure that acoustic barriers do not dominate the residential landscape along this road;
- 5) Noise Walls shall be constructed in accordance with the traffic noise assessment prepared by PKA Acoustic Consulting dated June 2006 submitted for the south west precinct.

South Western Precinct

Figure E2.8a – Interface Treatment with M4 and Kent Road South Western Precinct

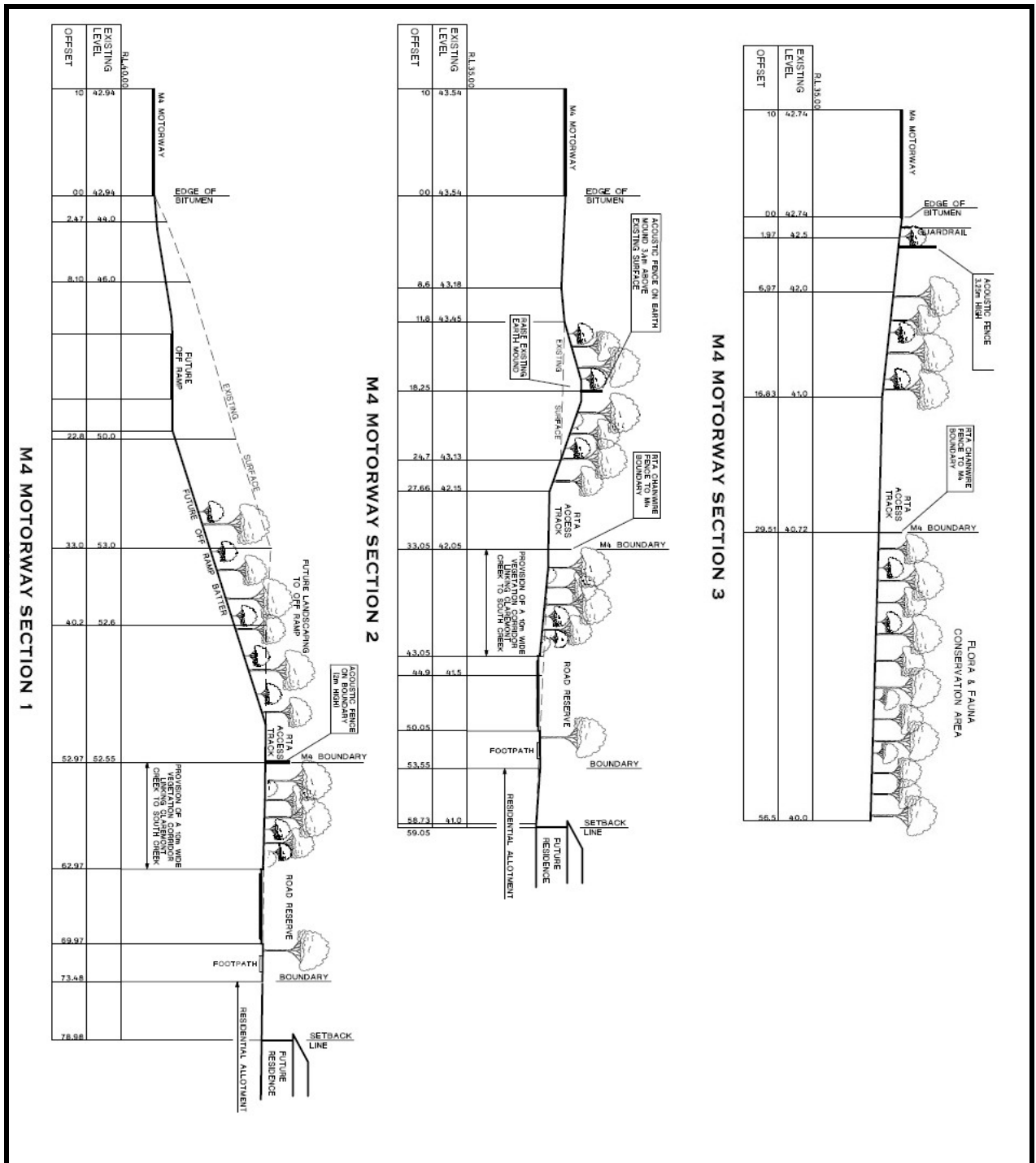
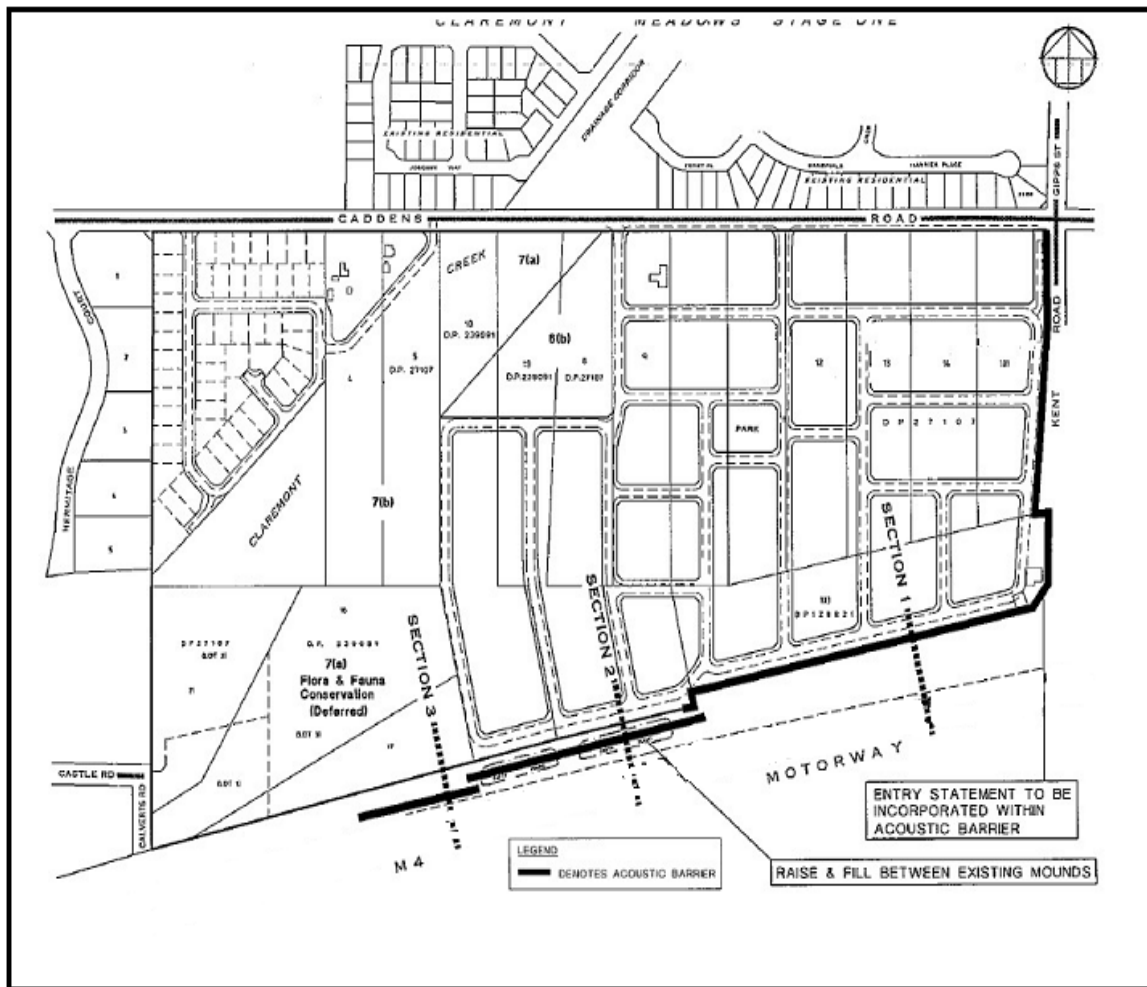


Figure E2.8b – Sections relating to Interface Treatment with M4 detailed in Figure 8a.



2.5.2 Integration with Claremont Meadows Stage 1

Integration on Stage 2 with Stage 1 is essential to allow future residents adequate access to services located in the existing estate. As a result it is important that adequate pedestrian, cycle, public transport and motor vehicle access is provided.

A. Objectives

- a) To ensure that adequate pedestrian and cycle linkages are provided between Claremont Meadows Stage 2 and the existing estate; and
- b) To ensure that planning for Claremont Meadows Stage 2 maximises the benefit of those locations closest to accessing the services in the existing estate.

B. Controls

- 1) The area immediately south of the former tip site should be developed to an appropriate density given its location and zone;
- 2) Development applications shall demonstrate an appropriate road layout for public transport, by ensuring that there is a loop road within the proposed subdivision layout capable of acting as a bus route;
- 3) Development applications shall indicate location for a cycle way which connects to existing facilities outside the precinct, including shops, schools and community facilities in the existing Claremont Meadows Stage 1; and
- 4) Development Applications shall make provision for a pedestrian / cycle link in the south western precinct to link with the open space / drainage corridor in the existing estate.

2.5.3 South Creek Corridor

A. Objective

- a) To ensure that there is recognition of the South Creek corridor as an environmental asset.

B. Controls – Eastern Precinct

- 1) Development Applications for subdivision for the Eastern Precinct shall take account of the presence of the South Creek Corridor as the eastern boundary of Claremont Meadows Stage 2. Particular consideration shall be given when preparing information in the following areas:
 - a) Drainage, particularly water quality and the treatment of all stormwater discharge outside of the riparian corridor before it enters South Creek;
 - b) Appropriate edge treatments are in place and that pedestrian pathway systems are located outside the riparian corridor;
 - c) Biodiversity management and the linkage of remnant vegetation to the riparian corridors;
 - d) Views and vistas; and
 - e) The locating of water quality treatment measures outside the riparian corridor.

2.5.4 Former Gipps Street Landfill Site

A. Objective

- a) To ensure that development takes account of the recreational opportunities of the former Gipps St Landfill site, as well as minimising any negative impacts this site may have.

B. Controls – Eastern Precinct

- 1) Drainage solutions for the eastern precinct shall take account of the possibility of sub surface water movement associated with the former tip site; and
- 2) Development of sites immediately to the north and south of the former tip site should be designed to maximise opportunities for access to future recreational areas and provide appropriately landscaped edges and footpath treatment.

2.6 Public Domain

Council aims to establish a high quality and vibrant urban environment, creating a high level of amenity, convenient access to facilities and services and a feeling of safety and wellbeing for the community.

The public domain is to incorporate design and management requirements for streets, open spaces and parks, drainage and water quality infrastructure, and is to include design and character statements, a schedule of works, delivery timeframes and maintenance requirements for each element.

2.6.1 Management of the Public Domain

A. Objectives

- a) To ensure that facilities provided in the public domain can be effectively managed and maintained.

B. Controls

- 1) The nature of facilities to be provided in the public domain shall be shall include but not limited to:
 - a) Seating;
 - b) Bins;
 - c) Lighting;
 - d) Signage;
 - e) Drainage facilities;
 - f) Shade Structures;
 - g) Public Art; and
 - h) Fencing.
- 2) Development Applications shall include detailed designs and a management and maintenance plan for all facilities proposed for the public domain. This plan shall include a suggested maintenance schedule, outlining the nature and frequency of works required. The purpose of the maintenance plan is to enable Council to properly assess the future maintenance burden of proposed public domain infrastructure.

2.6.2 Landscape Design

A. Objectives

- a) To integrate landscaping in the planning and design of buildings; and
- b) To enhance biodiversity within the precinct by using a diversity of appropriate local native plant species in landscaping design.

B. Controls

- 1) Landscape strategies and design shall be prepared by a suitably qualified person for each precinct;
- 2) Landscapes shall be designed to achieve the amenity, environmental, recreational and townscape objectives of this section and the Landscape Design section of this DCP;
- 3) Design of landscapes shall use a diversity of local native species to minimise need for water and nutrients;
- 4) Mature vegetation that has habitat, civic or heritage values shall be conserved;
- 5) Plant species to take account of remnant Cumberland Plain Woodland in the conservation areas;
- 6) Paving material, lighting, signage and street furniture shall be in accordance with Council guidelines;
- 7) Existing habitat shall be expanded with new plantings configured to provide continuous corridors;
- 8) The design of public streets and parks shall:
 - a) Facilitate multiple uses;
 - b) Be consistent with Council's current management policies and practices;
 - c) Ensure that landmark locations, key thoroughfares and vistas are complemented and reinforced;
 - d) Ensure that drainage reserves are embellished as attractive components within the public domain, as effective adjuncts to wastewater management and as habitat for bird life;
 - e) Provide for the identification of individual neighbourhoods and precincts; and
 - f) Incorporate appropriate local native plant species in the street tree planting.
- 9) Shelter and shade should be provided for buildings and open spaces, moderating the site's natural microclimate.

2.7 Infrastructure

Council has a long term goal of delivering quality assets which meet the needs of the community in a sustainable manner. Infrastructure shall comply with the provisions of Australian Standard 1428 – Design for Access and Mobility, wherever relevant.

2.7.1 Streets and Access

Streets perform a number of functions, including transport, service corridors, and contribution to energy efficiency (through lot orientation) and neighbourhood legibility and amenity. It is important that a proposed road layout take these multiple functions into consideration.

A. Objectives

- a) To provide a street network that is appropriate to environmental design objectives and is economically efficient; and
- b) To provide safe and effective access to individual properties which contribute to a distinctive neighbourhood character and provide high standards of amenity.

B. Controls

- 1) Refer to the Transport, Access and Parking section of this Plan for the various road types.
- 2) The road network shall be designed to accommodate multiple purposes, including:
 - a) Safe and efficient access for pedestrians (including alternative forms of pedestrian activity), cyclists and vehicles which links existing and new infrastructure, public transport services, shopping centres, community facilities and recreation areas. Footpath gradient, safety and surface material must be considered when developing the street pattern;
 - b) Underground routing of service infrastructure;
 - c) Appropriate access for emergency vehicles;
 - d) Contribution to traditional townscape character via street tree amenity including shade to footpaths;
 - e) Provision of vistas to landmarks within the precinct and beyond; and
 - f) Establishment of appropriate solar access for lots, open spaces and buildings.
- 3) Roads shall be designed:
 - a) In accordance with relevant Council policy and design standards and be based on forecast traffic flows (refer to the Transport, Access and Parking section of this Plan);
 - b) To facilitate a configuration of neighbourhood streets appropriate to the desired solar orientation of dwellings;
 - c) To provide safe pedestrian access, and vistas towards landmarks and central destinations within the precinct and beyond, including identification of possible future pedestrian facilities;
 - d) To limit the number of four-way intersections and where they occur, indicate their management;
 - e) To control traffic speeds, incorporating safe pedestrian crossings to central destinations; and
 - f) To incorporate designated pedestrian footpaths, dimensioned and finished to service each precinct according to its desired function and character.
- 4) The streets around the conservation areas and the proposed neighbourhood parks within each sub precinct shall be two way low speed environments. Development Applications shall include details on the measures proposed to achieve this;
- 5) Development Applications shall include cross sections for each type of road proposed in the master plan, including:
 - a) Residential streets;
 - b) The possible future bus route;
 - c) The low speed environment surrounding the park; and

- d) Perimeter roads adjacent to conservation areas and the incorporation of the Asset Protection Zones in the perimeter road.

Cross sections shall indicate overall road reserve, carriageway width, footpath width, location of parking, proposed street tree planting and lighting;

- 6) Road widths shall comply with relevant Council policy;
- 7) A physical barrier is to be provided along the edge of the conservation areas and the proposed neighbourhood park to prevent vehicle access;
- 8) Street trees shall not be planted in the road carriageway. Street tree species selected shall respect the scale and development in the street and not compromise services including lighting; and
- 9) Provision shall be made for any road features (including pedestrian crossings, traffic calming, bus shelters and intersection treatment) anticipated to be needed in the future, when Claremont Meadows Stage 2 has been fully developed.

2.7.2 Sewer and Water

A. Objective

- a) To ensure that development is adequately supplied with sewer and water services.

B. Controls

- 1) Evidence that the precinct can be adequately serviced shall be provided;
- 2) Services shall be planned and designed in conjunction with Sydney Water, including:
 - a) A Section 73 Certificate be obtained from Sydney Water; and
 - b) Compliance with build-over easement restrictions.
- 3) Consultation with the Office of Environment and Heritage is required prior to locating sewer and water utilities in and adjoining riparian corridors for their requirements.

2.7.3 Energy Supplies

A. Objective

- a) To ensure that the site is adequately supplied with energy.

B. Controls

- 1) Evidence that the precinct can be adequately serviced;
- 2) Prior to the submission of an application for development of the site, the owner / applicant shall negotiate the planning and design of services with relevant gas and electricity service providers; and
- 3) Consultation with the Department of Environment and Heritage is required prior to locating gas and electricity utilities in and adjoining riparian corridors for their requirements.

2.7.4 Telecommunications

A. Objective

- a) To incorporate contemporary telecommunications infrastructure that provides access to broadband services to residents and facilitate home businesses.

B. Controls

- 1) Demonstrate that the precinct can be adequately serviced with telecommunications infrastructure;
- 2) Information on contemporary telecommunications services shall be provided, including availability and location of service corridors. Shared service corridors shall have the capacity to accommodate technology advances and any increases in demand;
- 3) Modern telecommunications infrastructure shall be provided with the capacity to support multiple telecommunications services, such as high speed internet (including broad band); voice and data systems; and community intranet; and
- 4) Prior to the submission of a development application, the developer shall negotiate the planning and design of services with Telstra and any other key providers.
- 5) Consultation with the Department of Environment and Heritage is required prior to locating telecommunications infrastructure in and adjoining riparian corridors for their requirements.