B.1.2.3 Neighbourhood Park 2 – Indicative Design

(Minmi East – High Street Mixed Use Precinct)

Urban Design Character
Lake Side

Landscape Character
Material selection responds to Hexham Swamp Edge Character. Water related activities and planting.

User Group
Neighbourhood community, families with children.

Amenities
Water play, boardwalks, terraces and out-looks with shelter and BBQ facilities.

Sustainability
The design is sensitive to wildlife, creating habitat and retaining existing trees where possible. New tree plants are to be endemic and endangered species to the region and recycled materials are to be used in creating passive recreation opportunities.

Figure B.1.7. Indicative Design - Neighbourhood Park 2

B.1.2.4 Neighbourhood Park 3 – Indicative Design

(Link Road South Precinct – Traditional Character)

Urban Design Character
Parkside and Traditional Character

Landscape Character
The character of Link Road South is one of smaller neighbourhood pockets set amongst tree lined gullies and defined by undulating terrain. These pockets range in character from traditional sub-urban to more informal, secluded bushland settings. The proposed park has a more suburban character but is informal in its design with a strong presence of native planting to perimeter areas to integrate with this setting.

User Group
Local community of the Link Road South Precinct, young and older families, extended families, single and couple households. Informal play, community events, social gathering.

Amenities
Walking paths, shelters, outdoor dining, playground, kick 'n' throw area.

Sustainability
Native planting of endemic species, permeable paving, recycled materials.


KEY MAP

1_Open lawn kick around area
2_Playground
3_BBQ facilities
4_Shelter
5_Regrading to form even grass bank
6_Park entry
7_Proposed native trees
8_Proposed street trees
9_Native grasses and shrub planting
10_Seat/ table seat
11_Picnic setting
12_Exsiting contours
13_Proposed contours
14_Footpath in street verge
15_Local road type B
16_Access way
17_Lot boundary
18_Seating wall
19_Shade trees outside fallzones


SHELTER

CONCRETE PATH

SEATING WALLS

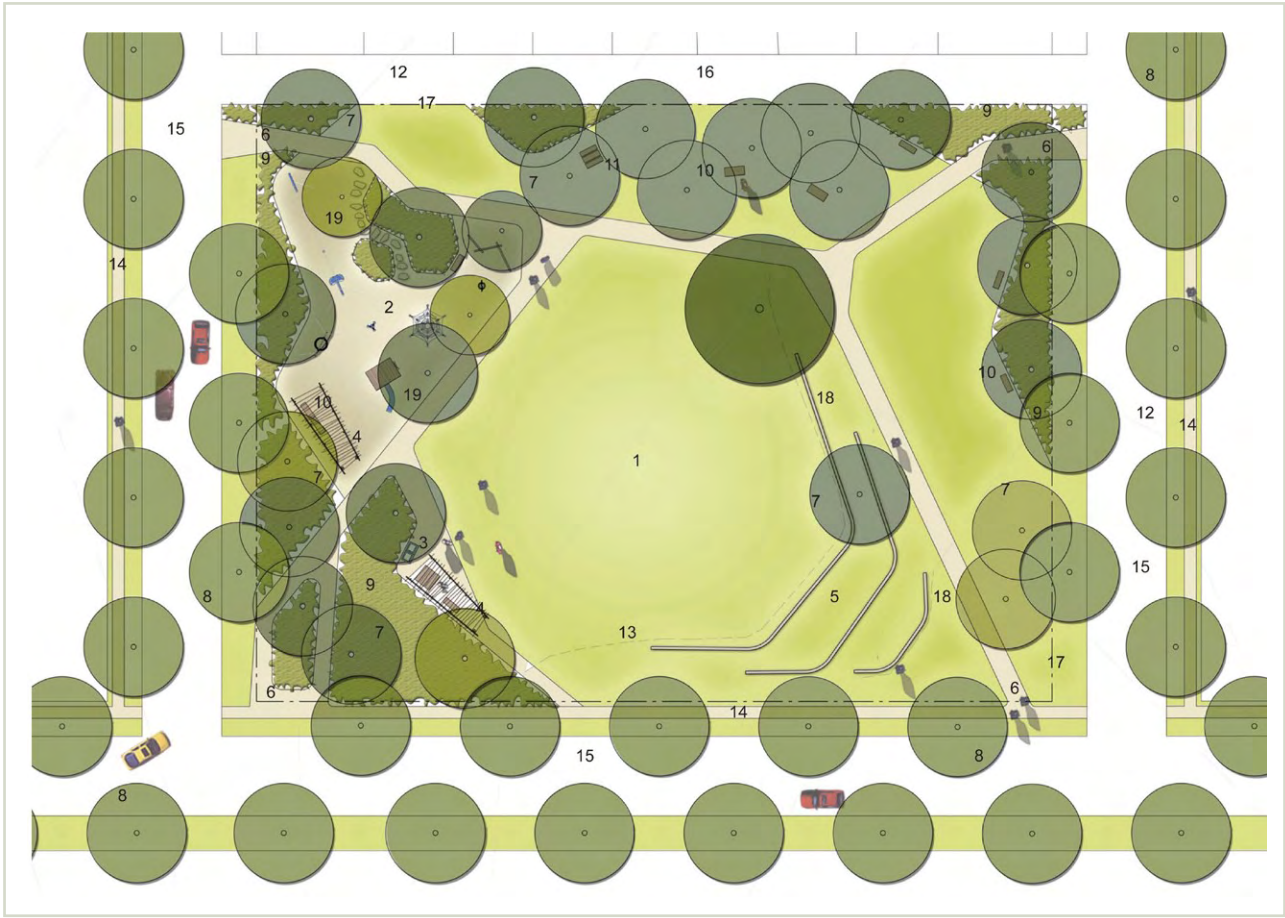


Figure B.1.8. Indicative Design - Neighbourhood Park 3

B.1.3 Road Hierarchy

The proposed street network will be linked to the existing road network. The current road hierarchy consists of Newcastle Link Road (arterial), F3, local roads – Woodford Street and Minmi Road, and local minor roads within the Minmi township. The proposed street network consists of nine road types:

- Minmi Boulevard (including buses) – 27m wide road reserve;
- Minmi Boulevard in village area (including buses) - 26m wide road reserve
- Collector Road A (including buses) – 24m wide road reserve;
- Collector Road B (including buses) - 20m wide;
- Local road with bus route – 18.6m wide road reserve;
- Local Road A – 17m wide road reserve;
- Local Road B – 15m wide road reserve;
- Local Road C – 13m wide road reserve; and
- Access Way – 8m wide road reserve.

The proposed street hierarchy will create a diversity and richness that responds to the differing conditions around the site, without being constrained by unnecessary complexity.

The road types refer to:

- The entry road, Minmi Boulevard, running through the heart of the proposed township and linking with the new village centre, existing village and surrounding suburbs and supporting a bus route;
- Collector Road that runs through the Link Road South Precinct – (as a bus route to support the school precinct and local neighbourhoods), Woodford Street and the proposed High Street in Minmi East Precinct;
- Local street with a bus route to allow more extensive access to local bus services;
- Local streets that form the neighbourhood grid; and
- Laneways that service areas of higher density.

Three cross-sections through the Newcastle Link Road show the interface of the development with the Link Road corridor.

Road Grades

In adressing topography, local roads have been limited to a longitudinal grade of 1 in 6 or 16.7%, when running across the contour. Shared driveways providing access to lots are limited to 1 in 5 or 20%. These design grades are to be achieved after earthworks.

Where roads run along the contour they are located to reduce cross-fall on the road reserve, and therefore level changes at the reserve boundaries.

The preferred aproach to dealing with roads and lots in steeper areas is shown in the following figure: Preferred options for roads and lots on steeper land.

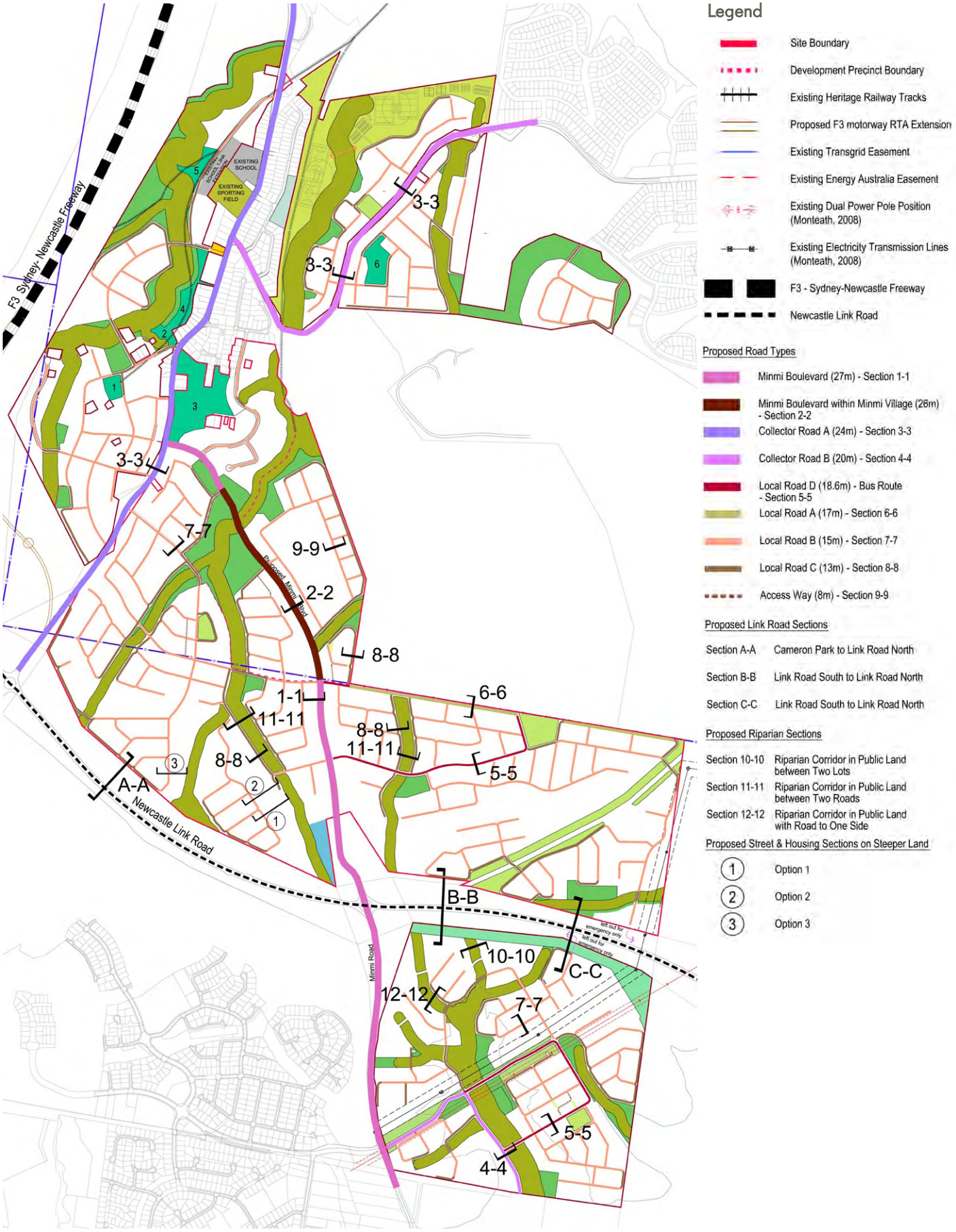
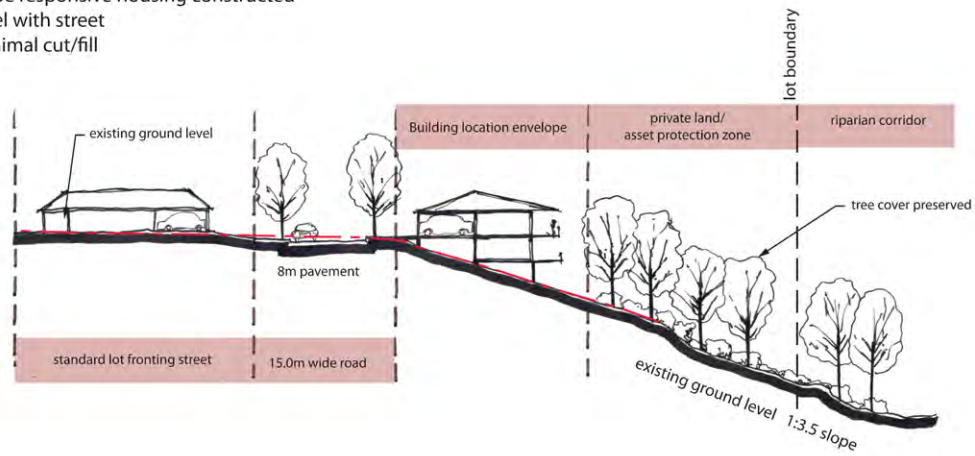
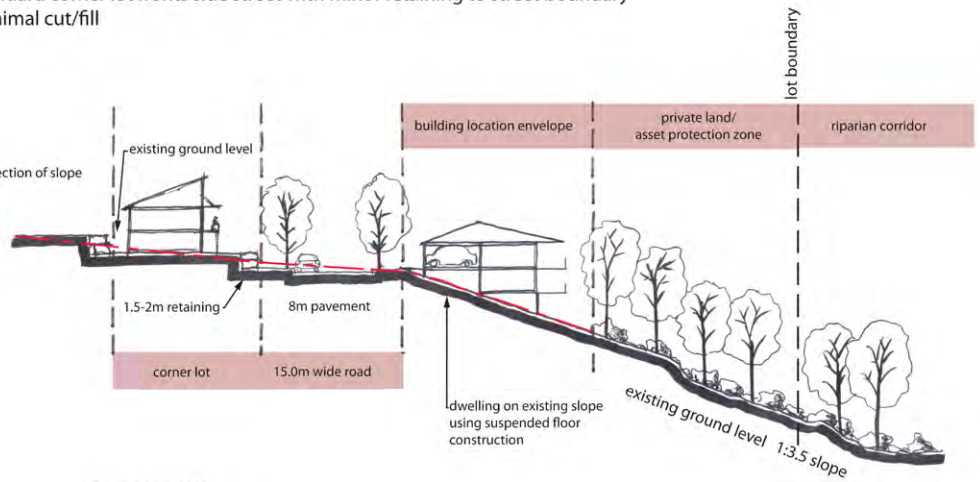


Figure B.1.9. Conceptual Road Hierarchy

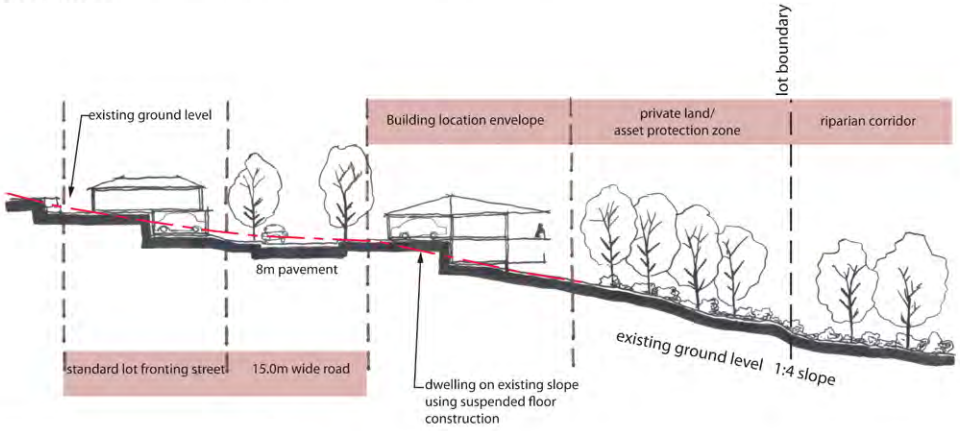
OPTION ONE : slope 1:3.5
road constructed above steeper slope
slope responsive housing constructed level with street
minimal cut/fill



OPTION TWO: slope 1:3.5
road constructed above steeper slope
slope responsive housing constructed level with street
standard corner lot fronts side street with minor retaining to street boundary
minimal cut/fill



OPTION THREE: slope 1:4
road cut into existing slope
house on high side of street constructed to absorb level change
house on low side of street constructed partly into slope
minimal retaining walls as level change contained in house construction
moderate cut/fill



OPTION FOUR

dwelling responsive to slope
wide, shallow dwelling
carport (poles) & single garage
reduced front setbacks
utilise front verandahs to front lot boundary

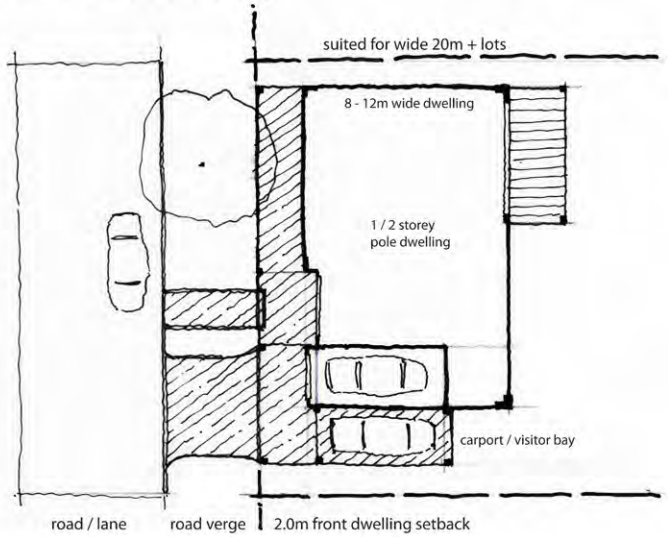


Figure B.1.10. Preferred options for roads and lots on steeper land

B.1.3.1 Typical Road Sections

The road types and their respective character areas are described below:

Minmi Boulevard – 27m – reducing to 26m in the village centre

- Proposed Minmi Boulevard is to act as a spine road for the development, given its central location, through the Village Centre precinct. It will accommodate a bus route;
- This is to be a wide street with a shared path 2.5m wide on both sides and a median strip of 3m in all areas, except the village centre;
- Paving within the village centre will differ from other areas. The lack of median strip in this area will encourage pedestrian access to both sides of the street;
- Street trees and heath planting will supplement the existing bushland character;
- This street will provide for moderate volumes of through traffic, with parallel parking on both sides (within the village centre and where townhouses front the collector road only), street lighting and landscaping;
- Bioswales will be located according to detailed design parameters;
- Outside the village centre, earth mounding and acoustic fencing will mitigate noise impacts from road traffic.

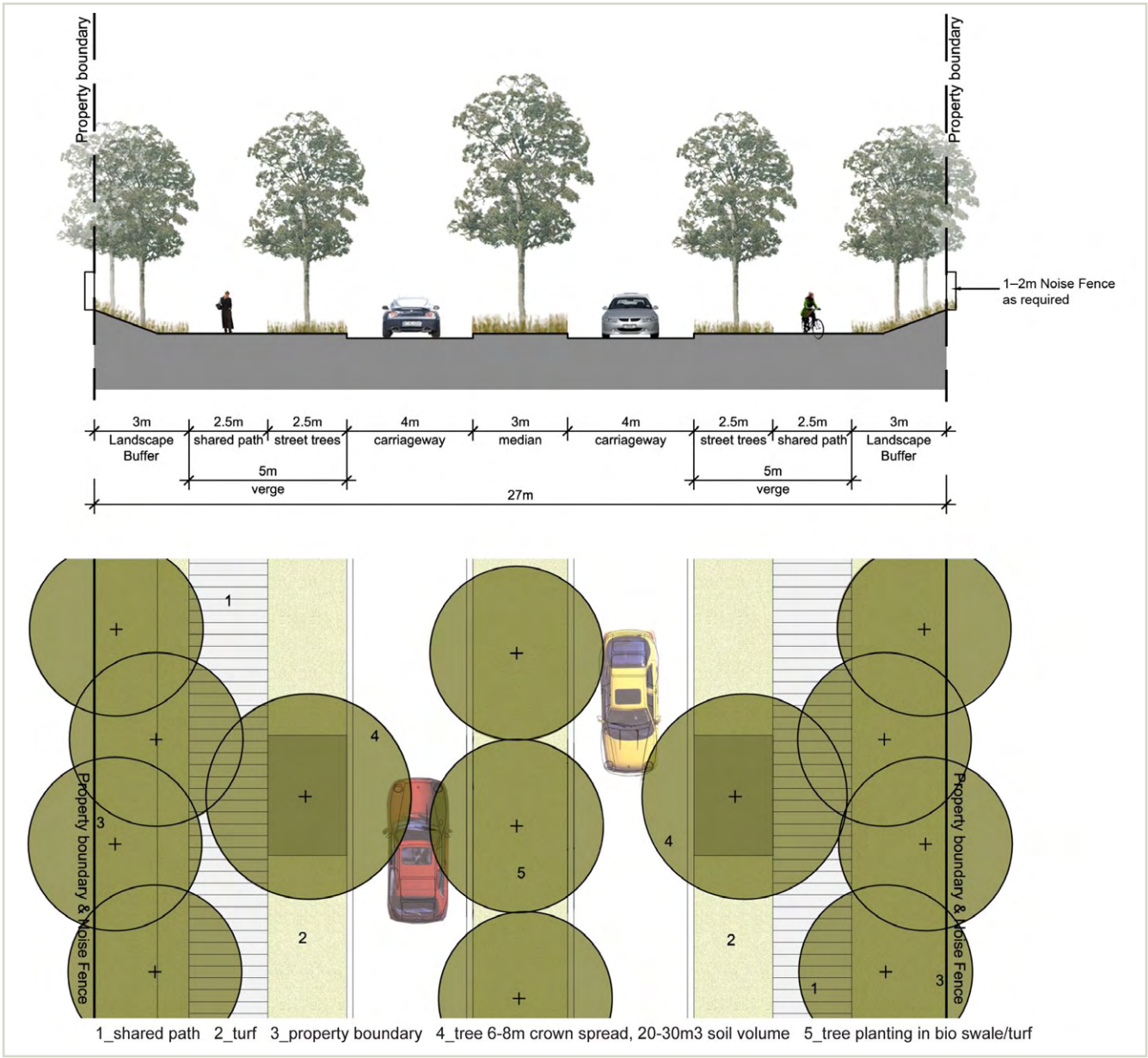


Figure B.1.11. Minmi Boulevard - 27m (Section 1-1)

Minmi Boulevard Within Proposed Village - 26m (Section 2-2)

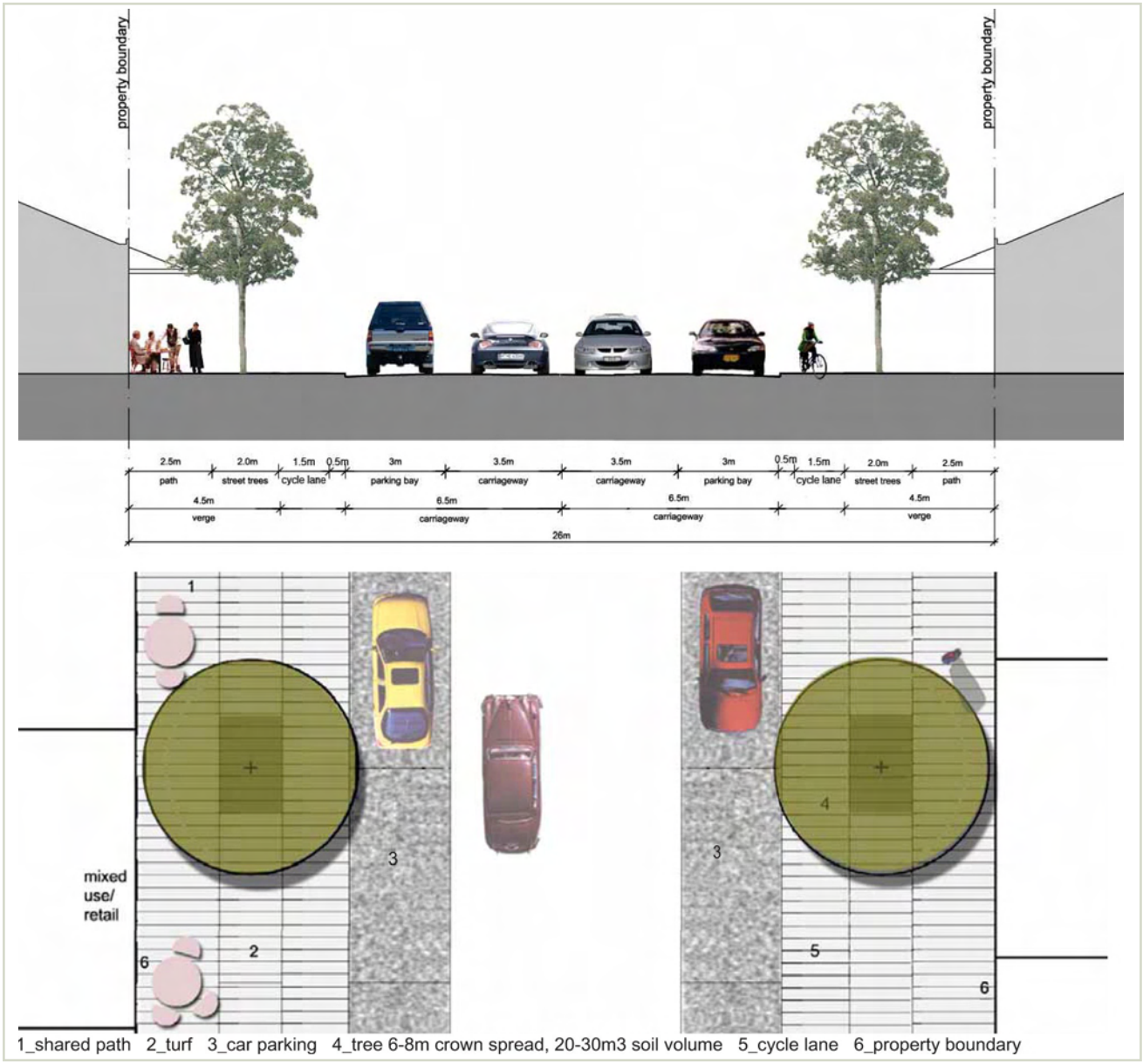


Figure B.1.12. Minmi Boulevard Within Proposed Village - 26m (Section 2-2)

Collector Road A - 24m

- Collector Road A (Woodford Street and Minmi Road will provide the major thoroughfare for traffic through the new development and will accommodate a bus route;
- This road is to be a broad street with a shared path 2.5m wide on both sides and an 8m wide carriageway. A 3m wide vegetated buffer and street tree planting (2.5m) will also be accommodated on both sides of this street;
- Street trees and heath planting will complement the existing bushland character;
- This street will provide for moderate volumes of through traffic with parallel parking on both sides (Minmi East Village only), street lighting and shared pedestrian cycle paths;
- Bioswales will be located according to detailed design parameters;
- Outside of the Minmi East village, earth mounding and acoustic fencing will mitigate noise impacts from road traffic.

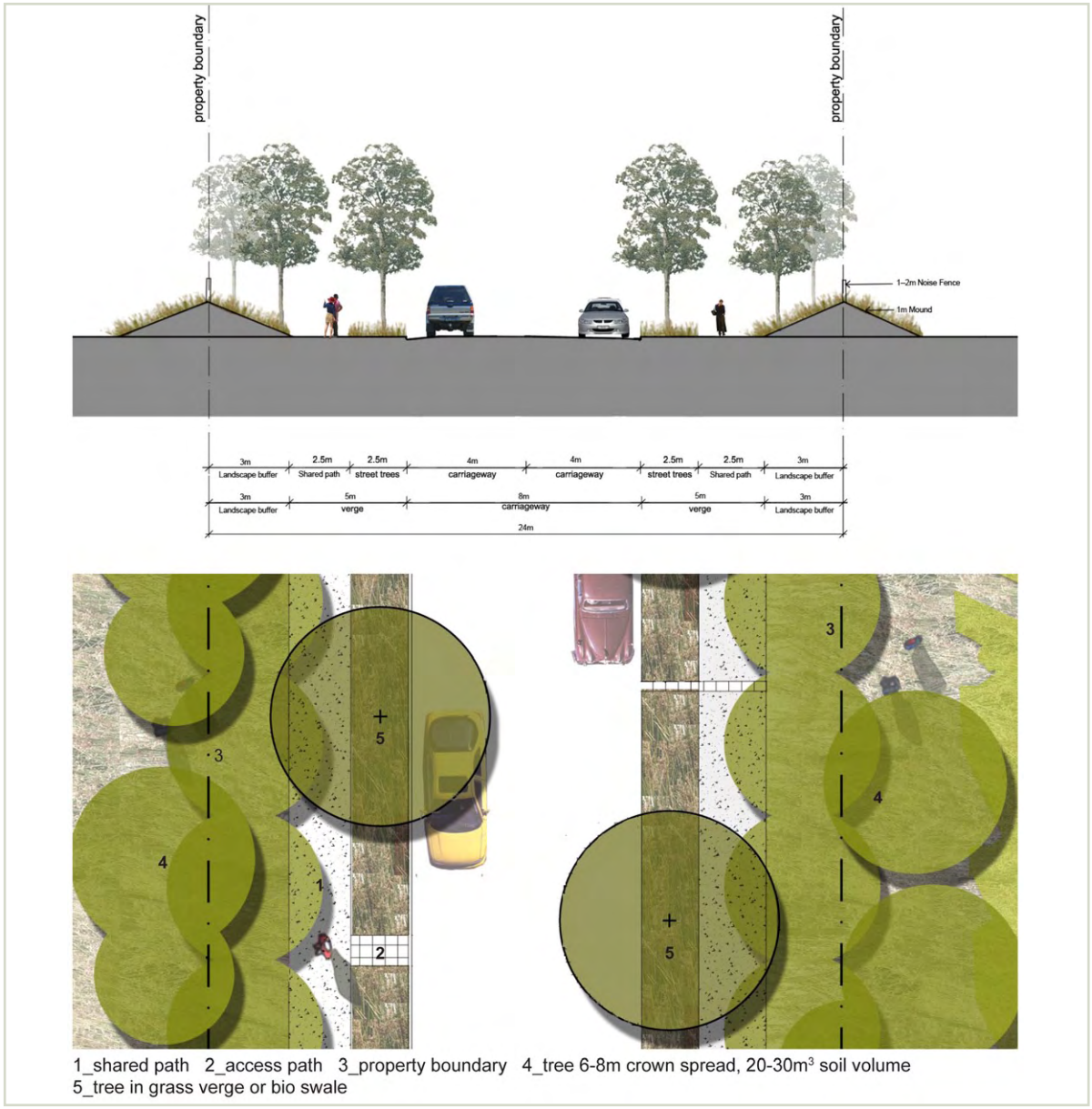


Figure B.1.13 Collector Road A - 24m (Section 3-3)

Collector Road B - 20m

- Collector Road B will provide the major thoroughfare for traffic through the Link Road South Precinct and will accommodate a bus route;
- This road is to be a broad street with a shared path 2.5m wide on both sides and an 11m wide carriageway comprised of two 3.0m moving lanes and parking lanes on either side. A wide 4.5m verge allows space for larger street trees to create a boulevard effect. Street trees and heath planting will complement the existing bushland character;
- This street will provide for moderate volumes of through traffic and a road connection south into the future residential areas of Cameron Park;
- Bio-swales will be located according to detailed design.

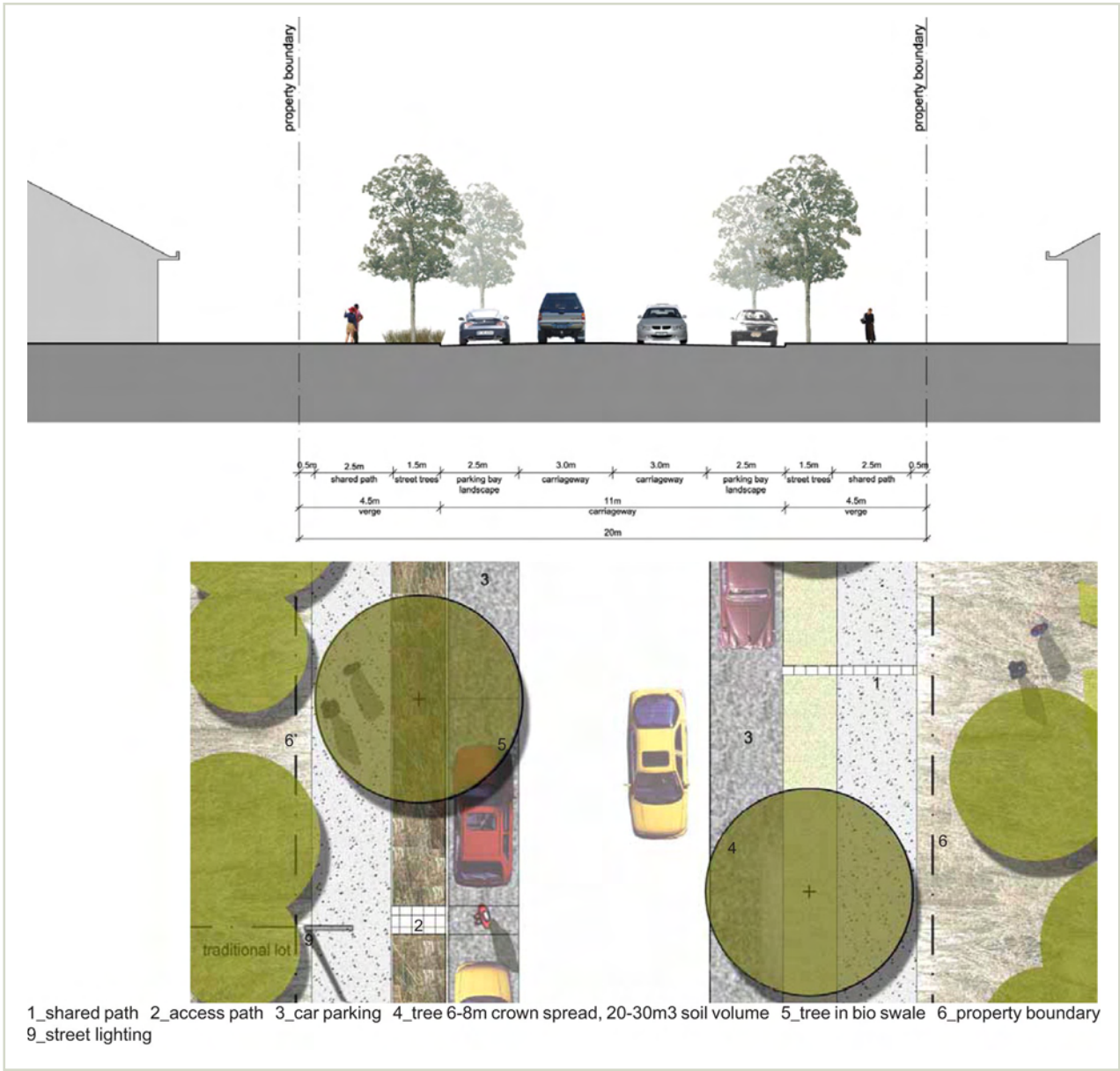


Figure B.1.14. Collector Road B - 20m (Section 4-4)

Local Road with Bus Route 18.6m

- Provides a wider pavement and wider footpaths to both sides of the street to cater for bus access and higher volumes of pedestrian traffic.
- Parallel on-street parking is also to be provided on both sides of the street, with dedicated zones between for bus stops;
- Heath planting will complement the existing native vegetation; and
- Bioswales will be located according to detailed design parameters.

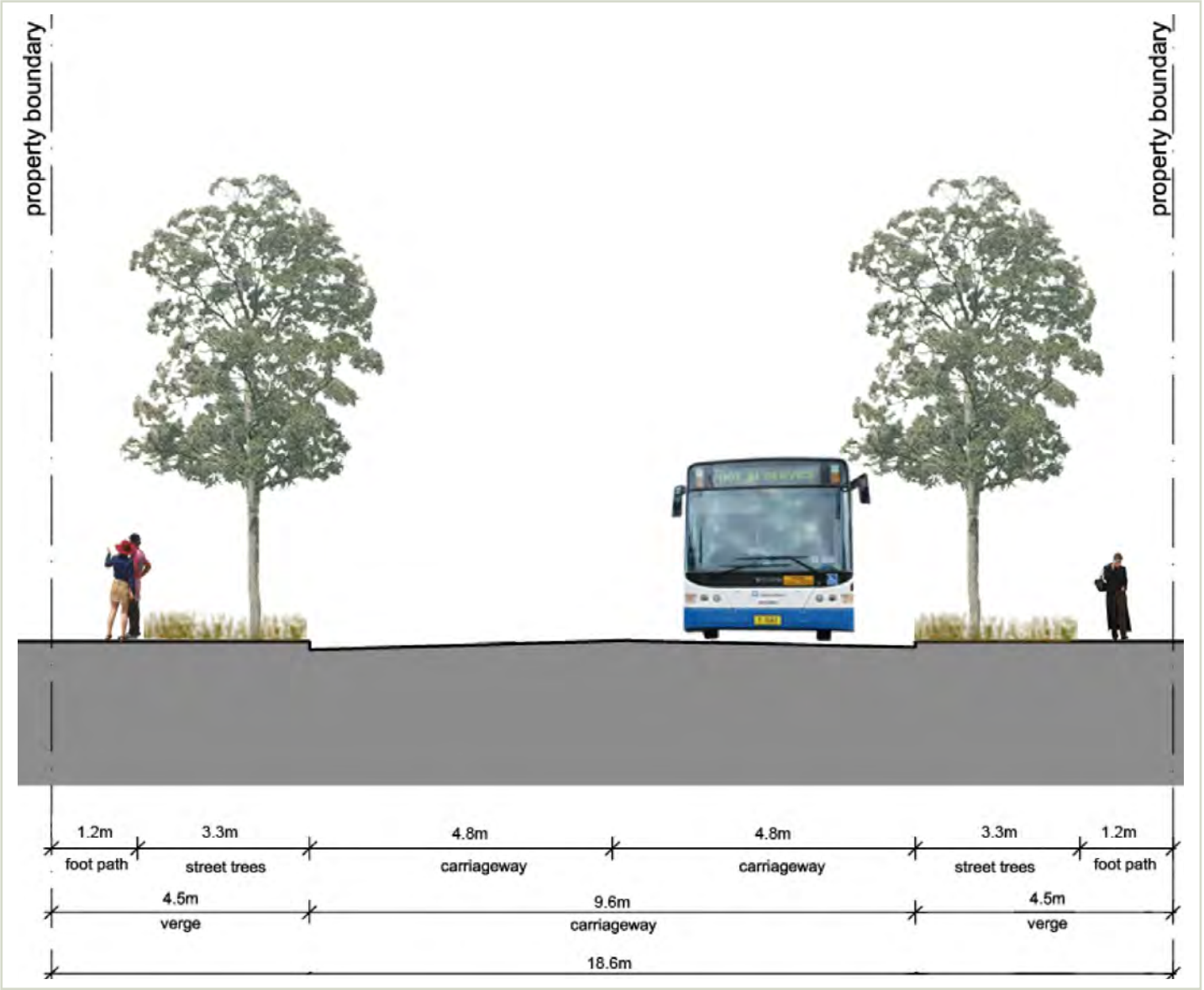


Figure B.1.15. Local Road with Bus Route 18.6m (Section 5-5)

Local Road A - 17m

- Local Road A is to be located along the southern boundary of Blue Gum Hills Regional Park;
- It will include on-street parallel parking on the housing side and one verge will be dedicated to a swale and buffer planting to filter stormwater and protect Blue Gum Hills Regional Park;
- Some sections with have a wider pavement and footpaths to cater for a bus route;
- Surface stormwater will be directed to swales on the bushland verges. Swales will be planted with native grasses and swale tree species that are smaller and denser, providing a layer of vegetation in front of the adjoining bushland;
- New heath planting will complement the existing native vegetation; and
- Bioswales will be located according to detailed design parameters.

Figure B.1.16. Local Road A - 17m (Section 6-6)

Local Road B - 15m

- These local streets form the majority of the streets within the development and will consist of 8m carriageways and smaller verges;
- A footpath (1.2m) is to be located on one side only, with street tree planting on both sides;
- Parallel on-street parking is also to be provided on one side of the street;
- Heath planting will complement the existing native vegetation; and
- Bioswales will be located according to detailed design parameters.

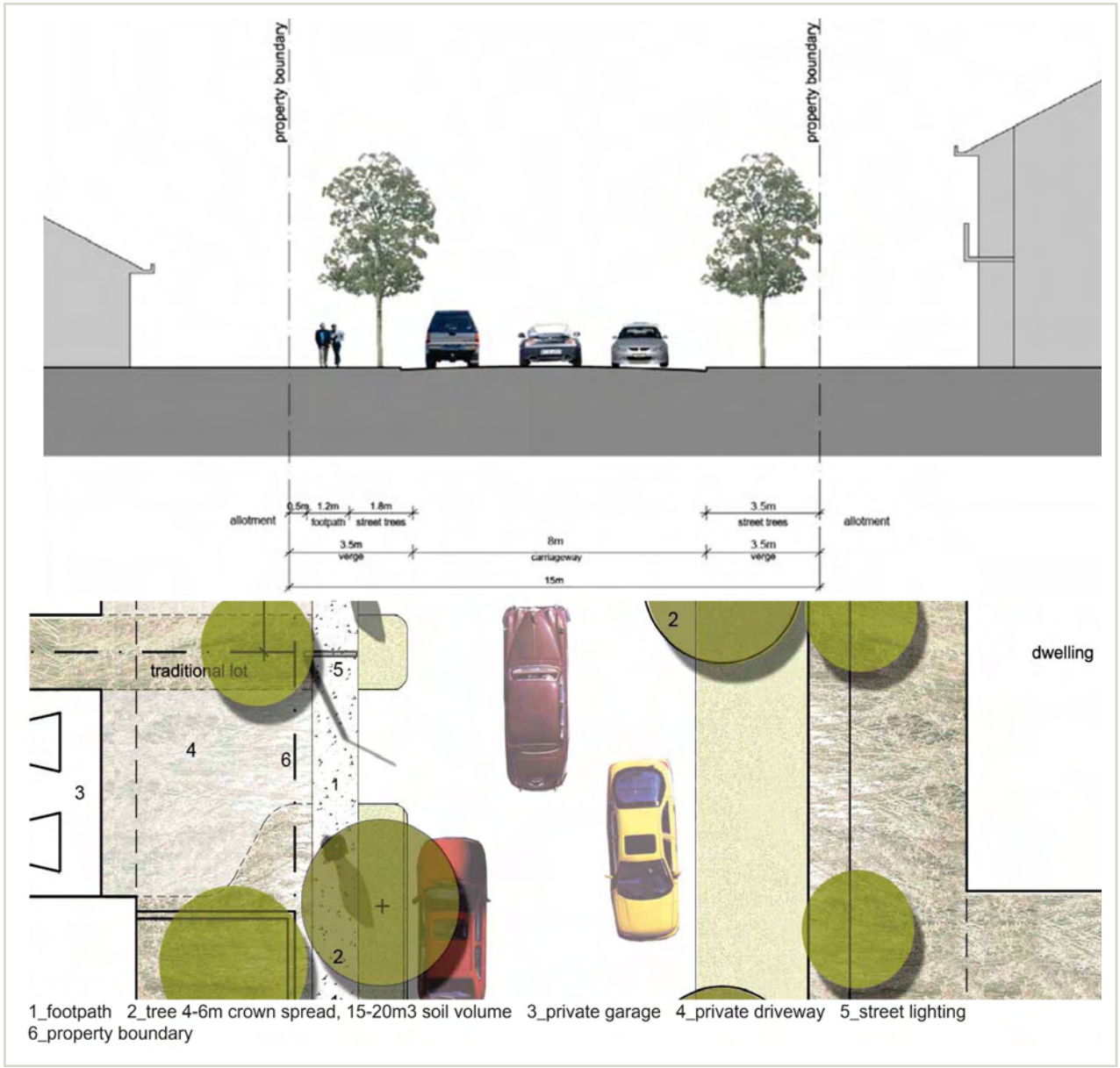


Figure B.1.17. Local Road B - 15m (Section 7-7)

Local Road C - 13m

- These roads form the edge streets; distinctive because they will have parkland or creek on one side and residential housing development on the other;
- Carriageways of these streets will be 8m wide including on-street parking;
- A 1.2m wide footpath is to be located on the housing verge; and
- Bioswales will be located according to detailed design parameters.

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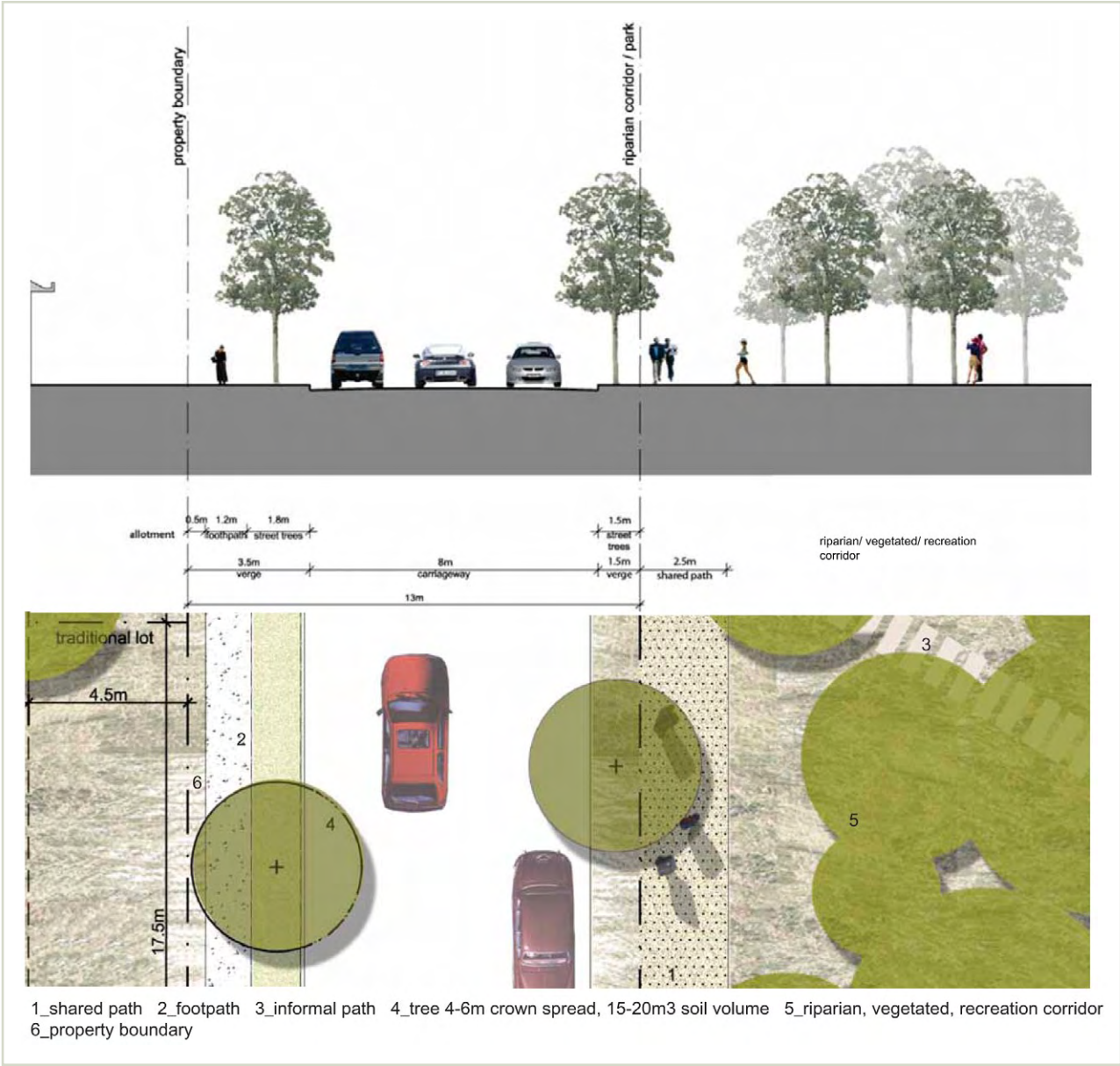

Figure B.1.18. Local Road C - 13m (Section 8-8)

Access Way - 8m

- Access ways or laneways service the higher density areas. They allow the garage to adress a laneway at the rear of the lot, thus freeing the front facade (now without garage) to adress the primary street or adjoinging parkland;
- They are intended to be low speed shared access ways with small pedestrian footpaths; and
- A footpath and smaller street trees is to be provided on one side of the access way.

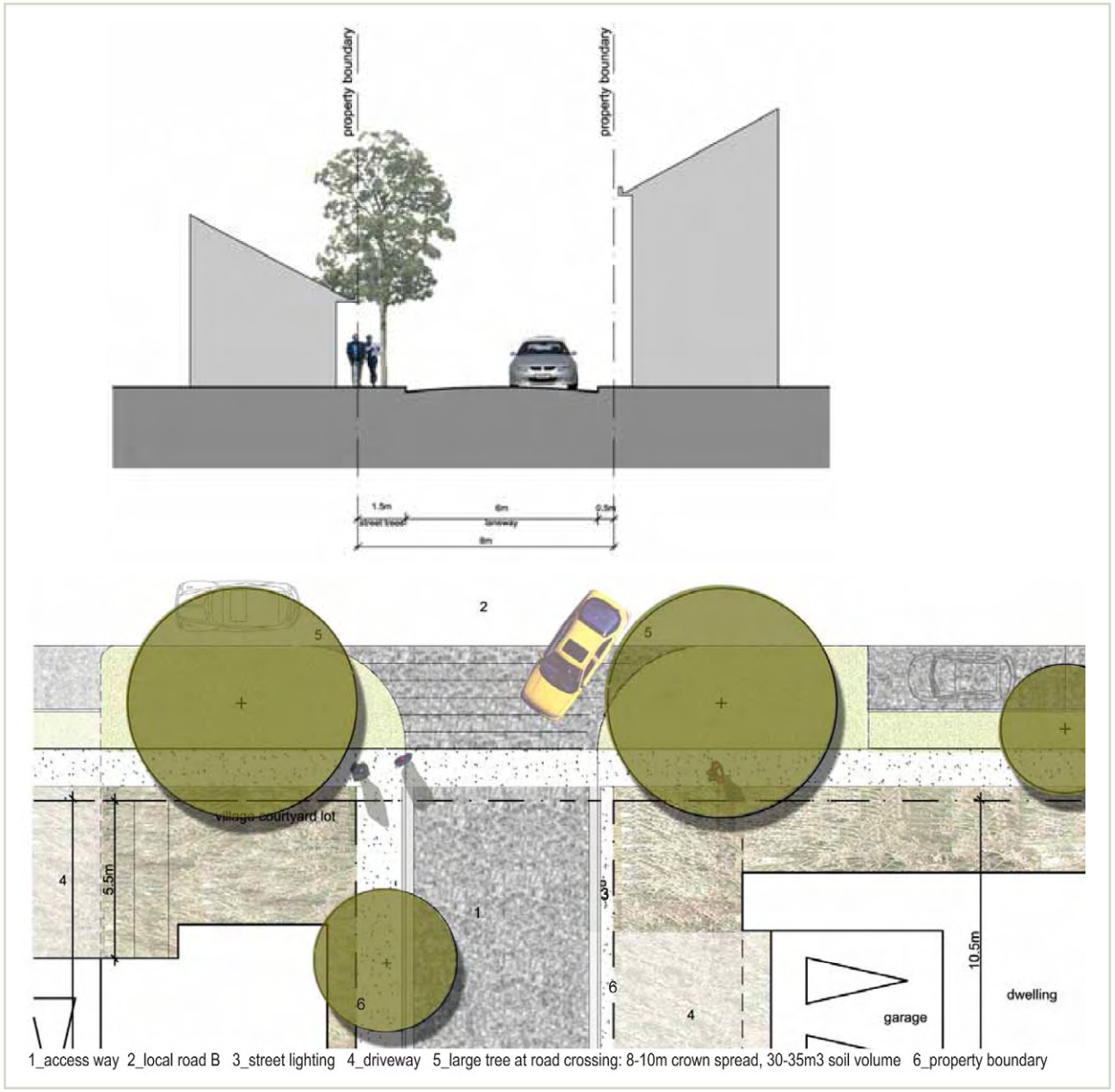

Figure B.1.19. Accessway - 8m (Section 9-9)

Newcastle Link Road - Cameron Park to Link Road North

Figures B1.18 to 20 show the Link Road corridor, after upgrading, and its relationship to the proposed development, including the buffer of retained vegetation and the location of sound attenuation walls, Asset Protectoin Zones (APZs), and house platforms.

The cross-sections demonstrate the effect of the existing landform, combined with retained vegetation, in mitigating views from the Link Road into the proposed development. The impact of the development upon views downward along creek lines, where the road is placed higher than the subject site, are adressed in Appendix A.

Figure B.1.20. Newcastle Link Road - Cameron Park to Link Road North (Section A-A)