

**Project no.** 230150

**Date** 25/01/2024

**Stawell Growth Area Draft Structure Plan**

**Traffic and Transport Review Memorandum**

**Introduction**

Trafficworks has been engaged to provide strategic level traffic and transport advice to be considered in the draft Stawell Growth Area Structure Plan. Key design parameters and recommendations to be considered in the structure are detailed below.

**Proposed transport network**

The Stawell Growth area is bounded by Sloane Street to the west, Western Highway to the south, London Road to the east and Longfield Street to the north. The proposed transport network and road hierarchy within the Stawell Growth Area is shown in Figure 1.

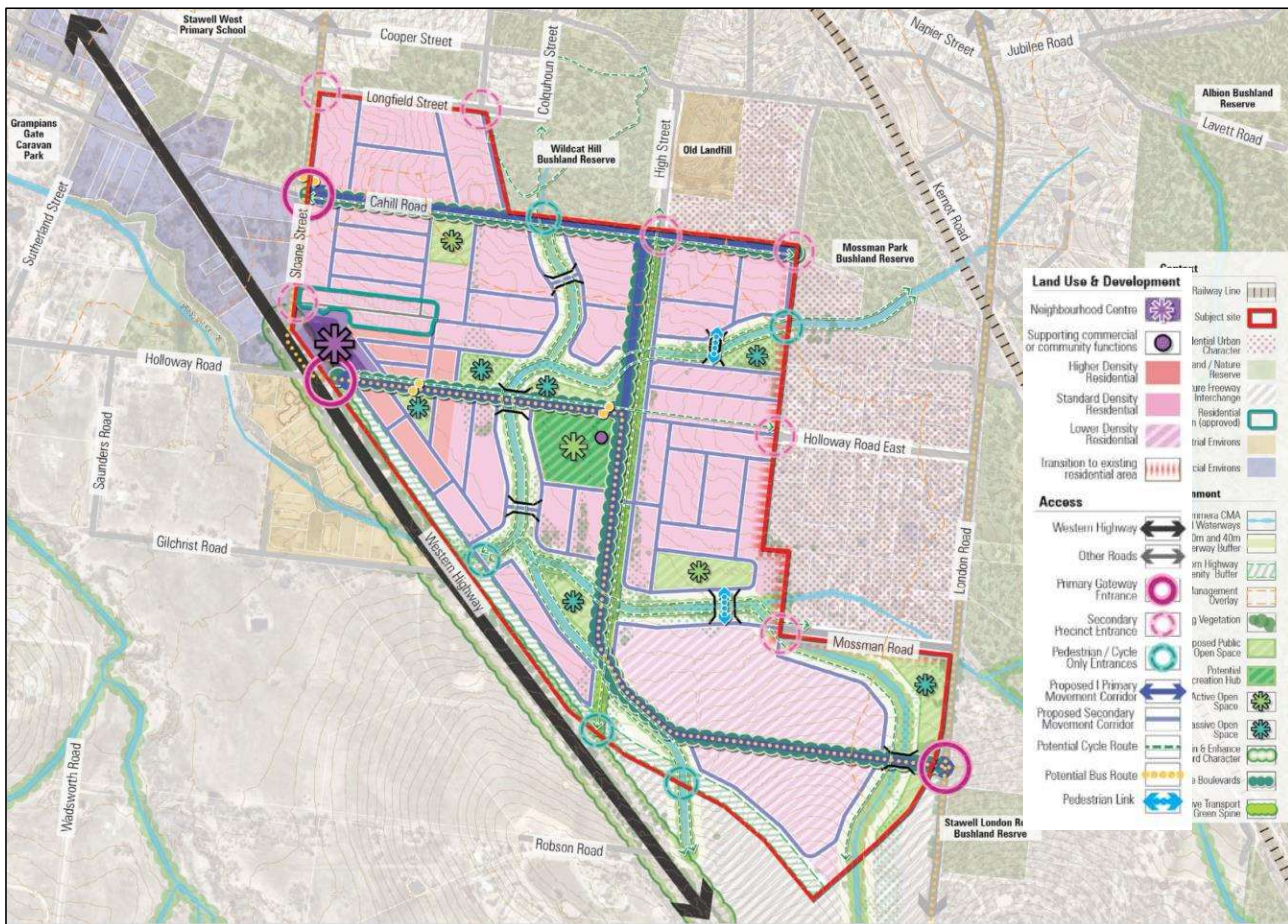


Figure 1: Stawell Growth Area Draft Structure Plan

## **Street Typology**

The draft structure plan provides a high-level road network layout within the site.

Table 1 summarises the aspirational street typologies and objectives for the study area.

Table 1: Street typologies and objectives

Street typology	Objectives	Typical cross section	Traffic management devices	Design speed and vehicle	Access considerations	
Residential connector (Connector Street – Level 1) M3, P4/P5	Access corridor which moves high volumes of people. These are thoroughfares that run alongside residential areas. It provides access to destinations serving people in the local neighbourhood.	3.5 m traffic lanes in each direction of travel	Pedestrian crossings at desire lines, which may include:	40 – 50 km/h	Develop an internal local street network to minimise vehicle access	
	<u>General Traffic and Freight</u>	2.3 m wide parallel parking bays, or indented parking bays where parking is required	zebra crossings	12.5 m bus / truck		
	Truck movements should be infrequent (e.g. only during garbage collection days or occasional deliveries)	1.7 m wide bicycle lanes in each direction	wombat crossings			
	Moderate traffic volumes and speeds.	4.5 m wide verge in each direction	refuge islands			
	<u>Walking</u>		Traffic calming treatments, which may include:			
	Supports local pedestrian movement with footpaths on both sides of the road	1.5 m wide footpath in each direction	raised intersections			
	Crossing facilities at key pedestrian desire lines		raised safety platforms			
	Planting zones and landscape treatments between the footpath and residential areas					
<u>Cycling</u>						
	Facilitate safe, separated cycling movement along the strategic corridors (e.g. off-road shared path)					
<u>Public Transport</u>						
	Street supports the use of public transport, including safe and comfortable stops					
Local Activity Street (Active transport green spine) M4, P3/P4	Mixed-use street providing access to public land uses. There is space allocated for amenities and interaction. It supports access to community facilities and fosters a strong sense of community.	6 m wide carriageway. Seek to limit on-street parking	Traffic calming treatments, which may include:	20 – 30 km/h	Develop an internal local street network to minimise vehicle access	
	<u>General Traffic and Freight</u>	Minimum 7.5 m wide verge in each direction	Chicanes	8.8 m service vehicle (checking vehicle)		
	Low vehicle speeds to improve active transport and amenity	Preferred 3.0 m wide (1.5m minimum) footpath in each direction	raised intersections			
	Truck movements should be infrequent (e.g. only during garbage collection days or occasional deliveries)	Carriageway designed as a shared space with cyclists and appropriately signed and linemarked	raised safety platforms			
	<u>Walking</u>		landscaped islands			
	Wide footpaths provided on both sides of the road and are safe and well connected to walking routes		Pinch points			
	Street furniture and spaces for refuge and respite		Kerb outstands			
	Integrated landscape with setbacks, greenery and open space		Pedestrian crossings at desire lines, which may include:			
	Crossing facilities at key pedestrian desire lines		zebra crossings			
<u>Cycling</u>			wombat crossings			
	Supports safe cycling movements with shared on-road cycling facilities		refuge islands			

Street typology	Objectives	Typical cross section	Traffic management devices	Design speed and vehicle	Access considerations
	<ul style="list-style-type: none"> <li>— Bicycle parking and end of trip facilities</li> </ul>				
	<p><u>Public Transport</u></p> <ul style="list-style-type: none"> <li>— No public transport services. Footpath network to provide connection to public transport facilities</li> </ul>				
	<p>Local streets that support residential land use and social interaction. Provision of safety and amenity of residents and activity.</p> <p><u>General Traffic and Freight</u></p> <ul style="list-style-type: none"> <li>— Low traffic volumes and speeds</li> <li>— Minimal heavy vehicle movement (e.g. only during garbage collection days or occasional small deliveries)</li> </ul> <p><u>Walking</u></p> <ul style="list-style-type: none"> <li>— Supports connections to local destinations and public transport networks with footpaths on both sides of the road.</li> </ul> <p><u>Cycling</u></p> <ul style="list-style-type: none"> <li>— Facilitate safe on-road cycling movement</li> </ul> <p><u>Public Transport</u></p> <ul style="list-style-type: none"> <li>— No public transport services the road. Footpath network to provide connection to public transport facilities on other roads</li> </ul>	<ul style="list-style-type: none"> <li>— 5.5 m wide carriageway with hard standing parking spaces on the verge, or</li> <li>— 7.0 – 7.5 m wide carriageway with parking on both sides</li> <li>— 4.0 - 4.5 m wide verge in each direction</li> <li>— 1.5 m wide footpath in each direction</li> </ul>	<ul style="list-style-type: none"> <li>— Raised intersections</li> <li>— Raised safety platforms</li> <li>— Traffic islands</li> <li>— Kerb outstands</li> <li>— Pinch points</li> </ul>	<ul style="list-style-type: none"> <li>— 30 – 40 km/h</li> <li>— 8.8 m service vehicle</li> </ul>	<ul style="list-style-type: none"> <li>— Provision of vehicle crossovers for private residential access</li> </ul>
Neighbourhood Streets (Access Street Level 1 or 2) M5, P5					



Recommended street typologies along the road network are shown in Figure 2.

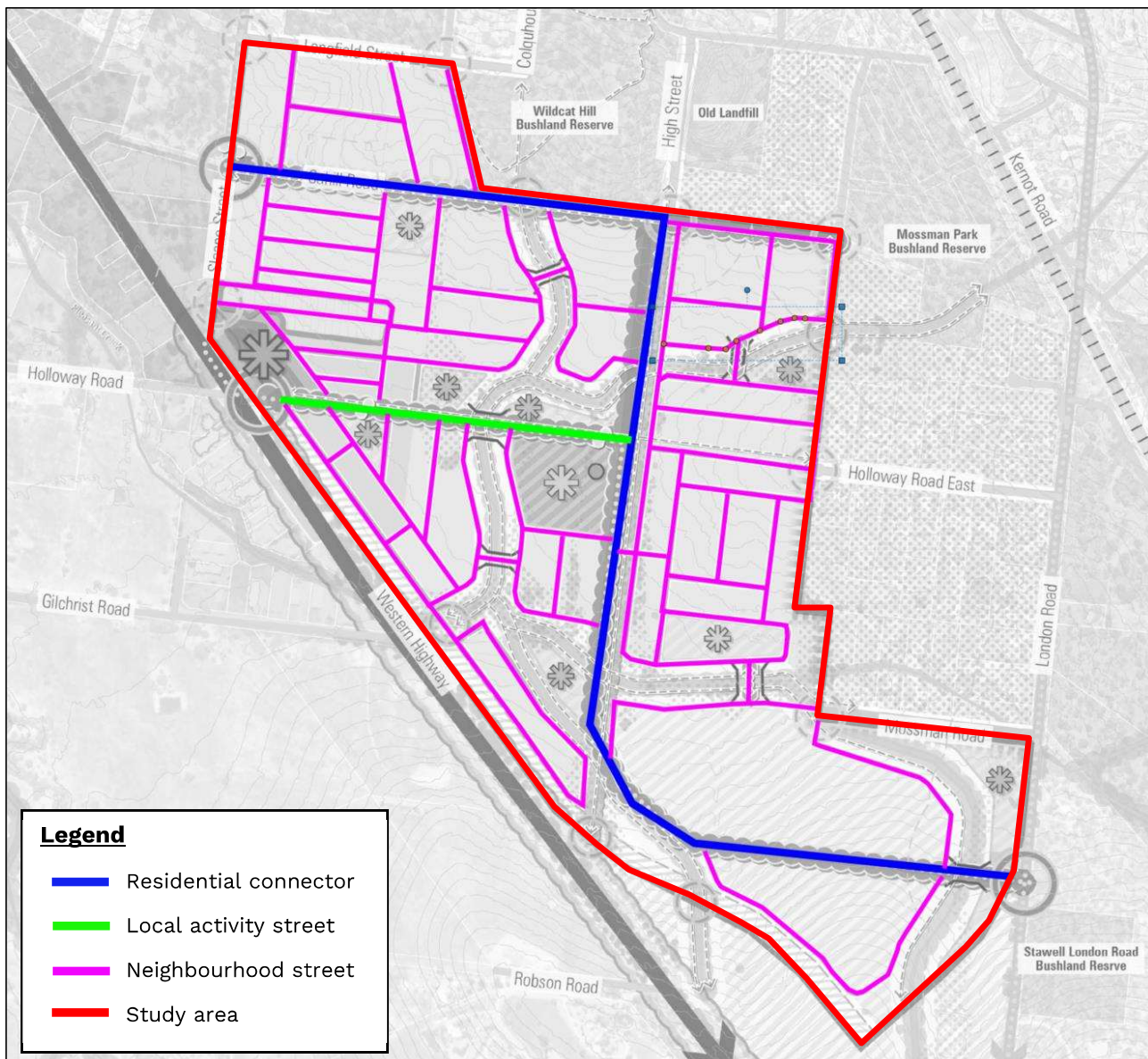


Figure 2: Street typologies

It is suggested to categorise the following streets as residential connectors:

- Cahill Road between Sloane Street and High Street
- High Street extending south of Cahill Road and transitioning east, connecting to London Road

The above streets provide a primary connection to the residential catchment area and is connected to arterial and major roads connecting to the precinct. It also allows for bus services.

The streets connecting between the proposed activity centre and High Street (in green) can be considered as a local activity street and green travel spine.

It provides a key connection between the activity centre and residential areas. The provision of pedestrian and cyclist facilities may encourage the use of active transport between key destinations. They should also be used for green spaces, with a high level of amenity.

## Intersection Treatments

Recommendations are provided for the following intersections, subject to further investigations.

### **Western Highway / Sloane Street**

An increase in traffic volumes associated with the growth area will impact the existing intersection of Western Highway and Sloane Street. Western Highway is a high-speed arterial road. There is a risk of intersection crashes involving through vehicles and vehicles turning out of Sloane Street. A traffic analysis and road safety assessments will need to be undertaken to determine the need for upgrades and intersection controls.

### **Sloane Street / Activity Centre access**

The road built directly north of the proposed activity centre may need to be upgraded to allow truck access if it is to be used to service the new activity centre. Left and right-turn lanes may also be required to allow turning vehicles an opportunity to decelerate safely prior to turning at the intersection.

### **Sloane Street / Cahill Road and Sloane Street / Longfield Street**

Sloane Street is a higher volume connector street. Consideration should be given to determine the required degree of traffic control where Sloane Street intersects other roads. This may include converting the intersections to roundabouts. Left and right-turn lanes should be considered on the major road on approaches to the intersection.

### **London Road / Primary access to precinct**

London Road is a high-speed arterial road. Consideration should be given upgrade the intersections along London Road to the west into the precinct, which could include roundabouts or left and right-turn lanes.

### **Internal intersections**

For local streets within the site, the road layout should seek to avoid creating cross intersections, with side streets in close proximity to one another located with a right to left stagger (i.e. provisions of staggered T-intersections).

Give-way controlled T-intersections are considered an acceptable treatment at minor intersections within the network (i.e. intersections between local, low volumes access roads). Implementing reverse priority T-intersections should also be considered where the higher order road travels around a bend rather than continuing straight.

Where the implementation of cross intersections cannot be avoided, roundabout control should also be considered. It will reduce the number of conflict points at the intersection and helps to reduce confusion for drivers, particularly with right turning vehicles.

A summary of the preliminary recommendations for intersections within the site are shown in Figure 3.



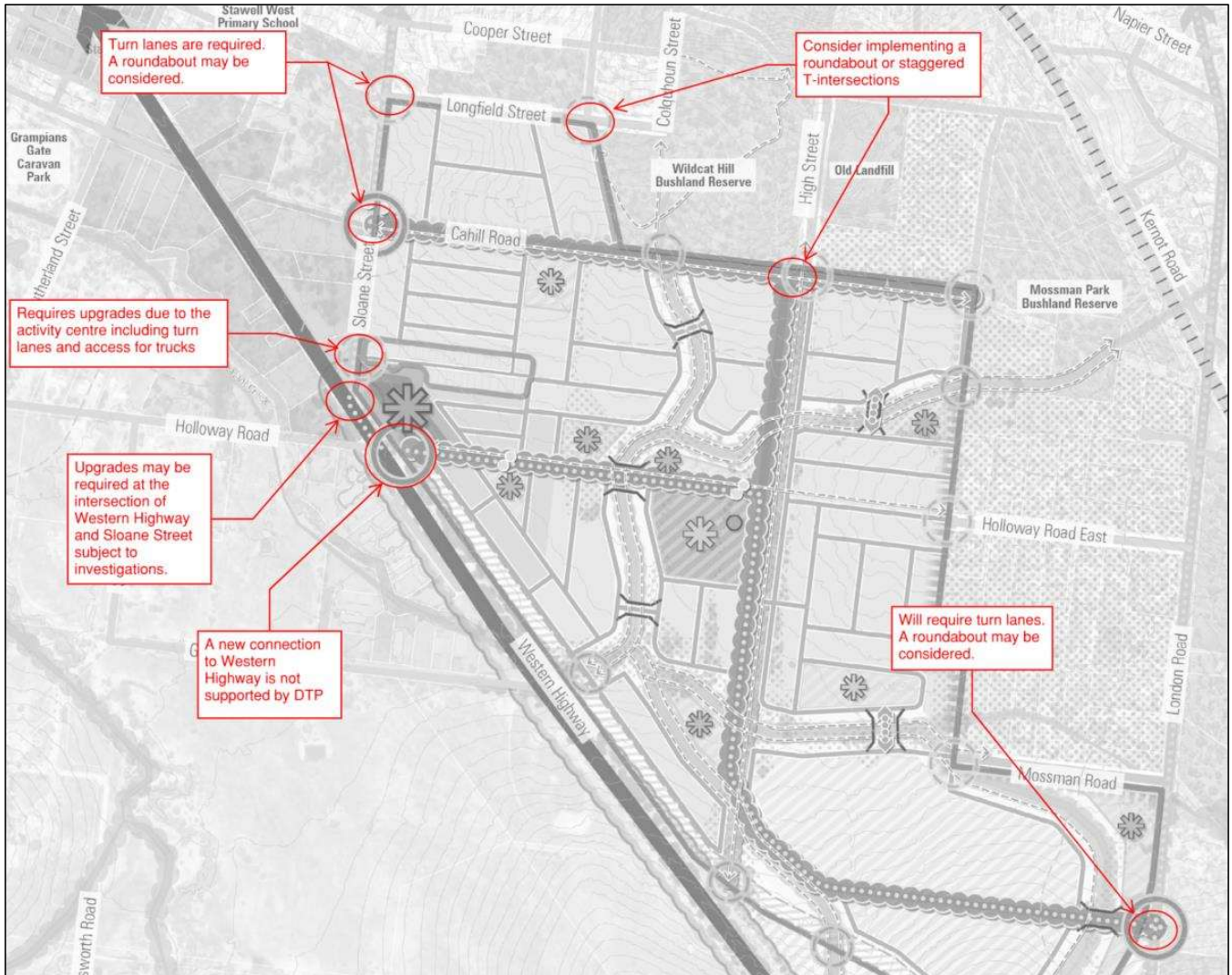


Figure 3: Review of intersections within the study area

## Active transport network

Recommended pedestrian and cycling route classifications that make up the active transport network and infrastructure within the Growth Area are shown in Table 2.

Table 2: Active transport routes

Route classification	Objectives	Active transport infrastructure
Primary active transport corridor	Access corridor which caters for high volumes of pedestrians and cyclists. It provides links between local walking and cycling routes.	<ul style="list-style-type: none"> <li>— 1.7 m minimum width on-road bicycle lanes</li> <li>— Footpath on both sides of the road; or</li> <li>— Off-road shared user paths with a 3.0 m minimum width</li> </ul>
Secondary active transport corridor	Access corridor which caters for moderate volumes of pedestrians and cyclists. It provides links to primary transport corridors from residential catchments and key destinations.	<ul style="list-style-type: none"> <li>— Shared on-road space for cyclists and motor vehicles with appropriate signs and linemarking</li> <li>— Footpath on both sides of the road; or</li> <li>— 2.5 m - 3.0 m wide off-road shared user paths</li> </ul>
Recreational trails	Off-road paths running alongside parks, waterways and areas of greenery. Provides links between residential areas and other active travel routes.	<ul style="list-style-type: none"> <li>— Off-road shared user paths with a 3.0 m minimum width</li> </ul>

All streets should provide footpaths on both sides of the road. This will allow localised pedestrian access as well as connection to key routes.

Recommended active transport route types within the transport network are shown in Figure 4.



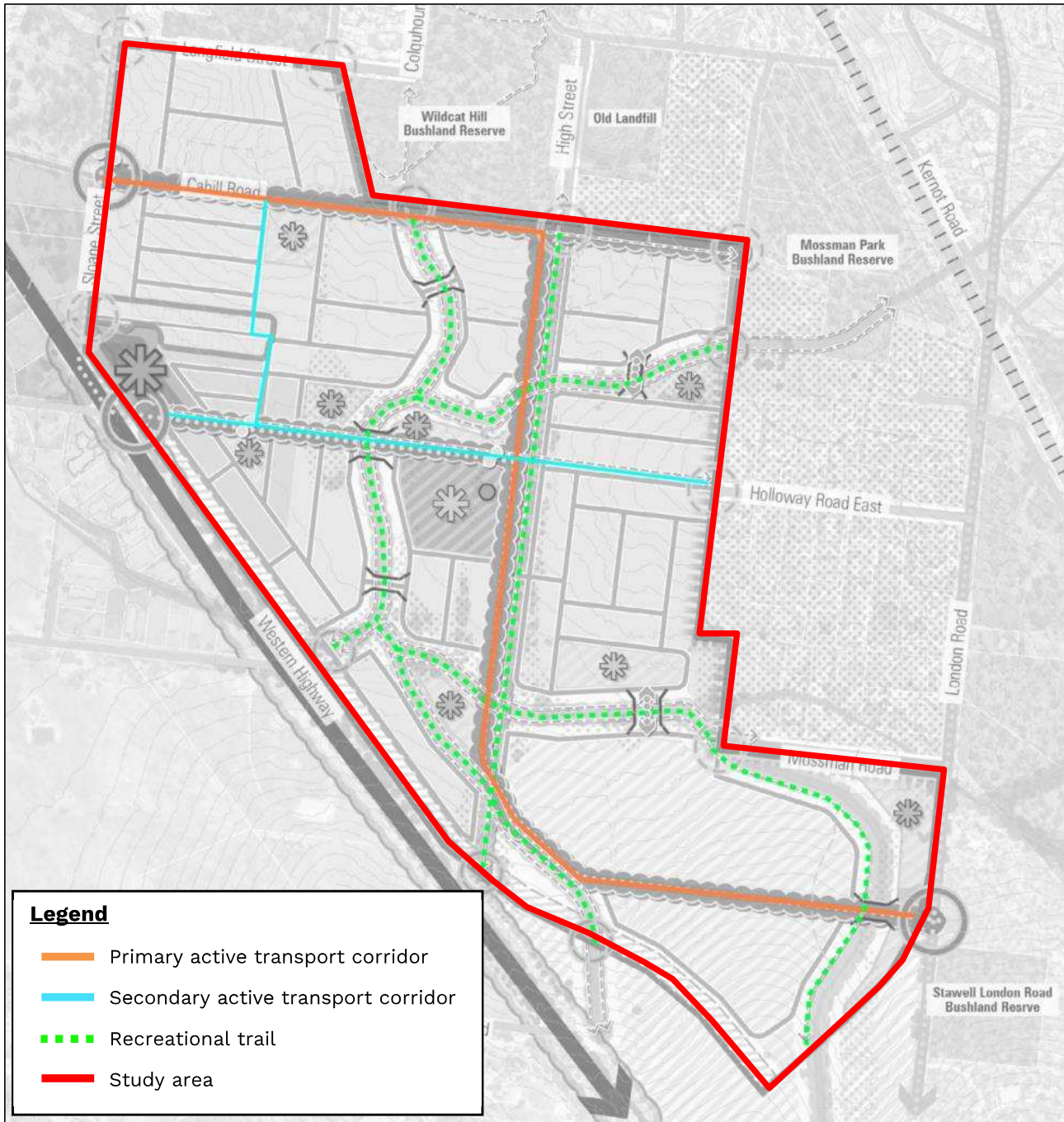


Figure 4: Active transport routes

It is recommended that a primary active transport corridor (in orange) runs along the same route as residential connectors, such as Cahill Road and High Street. This provides a main link between other walking and cycling routes.

The secondary active transport corridors (in blue) marked in Figure 3 provide a connection to the proposed activity centre adjacent to Sloane Street and Western Highway. This promotes the use of walking and cycling to key destinations. It runs along the proposed east-west local activity street with areas of roadside greenery and low vehicle speeds. The route also provides links between residential catchments and other areas of the active transport network.

Trails (in green) that run along creeks and green spaces allow for recreational walking or cycling activity. They should also link to residential areas and key routes along the road network.

## Public transport network

Suggested bus routes within the growth area are shown in Figure 5.

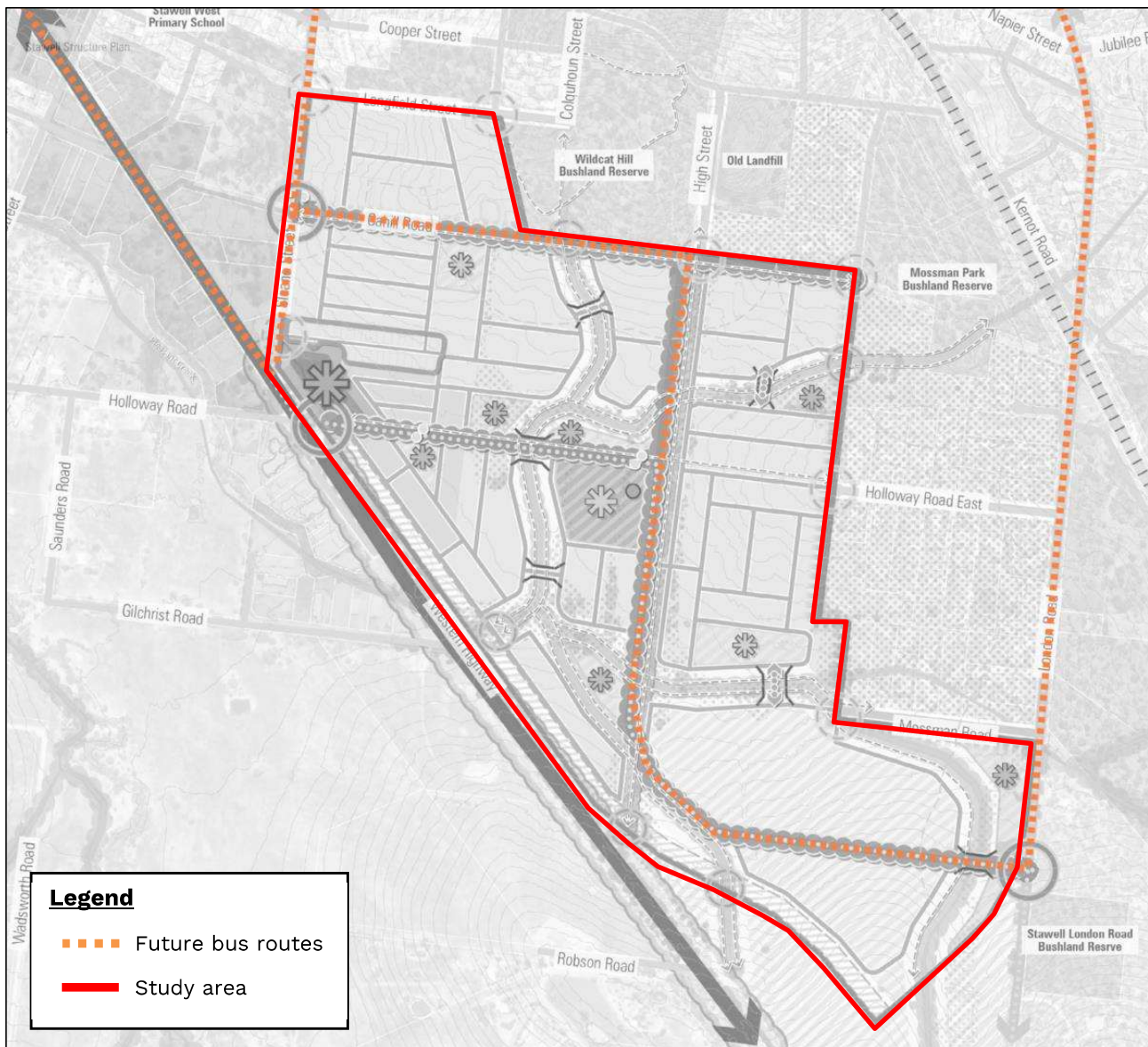


Figure 5: Bus routes

Bus services along residential connectors including Cahill Road and High Street are recommended. They will be within 600 m of all residential areas, making it accessible to local residents. Bus services should connect to the Stawell town centre via Sloane Street or London Road. This will give residents opportunities to travel between precincts via public transport.

A bus service along Sloane Street with a bus stop near the proposed activity centre at the corner of Ararat Road and Sloane Street is recommended. This will provide a public transport connection to the activity centre. This will also allow for multi-modal trips performed by cyclists from the activity centre, provided bicycle parking is present.

## Further recommendations

In addition to the above, the following should be considered in the draft structure plan:

- Construct a secondary neighbourhood activity centre that is central to the growth area. This will reduce the distance of travel from residential areas to other destinations, promoting the use of active transport and decreasing the reliance on motor vehicles
- Investigate opportunities to implement a service road on the north side of Western Highway, to the southwest of Sloane Street to provide a secondary connection to the activity centre. This service road could also facilitate loading requirements for the activity centre to reduce reliance on Sloane Street and internal roads for truck access
- Consider any future cycling connections north of the growth area that can be linked to active transport networks at the site. This will provide opportunities for cycling across precincts.

[REDACTED]  
Yours sincerely,

[REDACTED]

[REDACTED]  
**Associate Director**