Coburg Principle Activity Centre Zone
Moreland Planning Scheme
Amendment C123
Transport Evidence Statement

transportation planning, design and delivery

Ms. Kate Partenio (GTA - Director)

Prepared for Moreland City Council

Instructed by Michelle Breslin,
Moreland City Council

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GTAconsultants

Coburg Principle Activity Centre Zone

Moreland Planning Scheme, Amendment C123

Transport Evidence Statement

Issue: Final 01/07/14

Client: Moreland City Council
Reference: 14M2109000

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Table of Contents

1. Introduction

1.1 Background

The planning scheme amendment seeks to consolidate the planning controls that apply to the Coburg Principal Activity Centre (refer Figure 1.1) by replacing the various existing zone provisions with one control: Schedule 1 to the Activity Centre Zone (ACZ) at Clause 37.08 of the Moreland Planning Scheme, with the exception of some existing land in the Public Use Zone, Public Park and Recreation Zone (e.g. Bridges Reserve) and Road Zone. The application of the ACZ also necessitates other changes to the planning scheme.

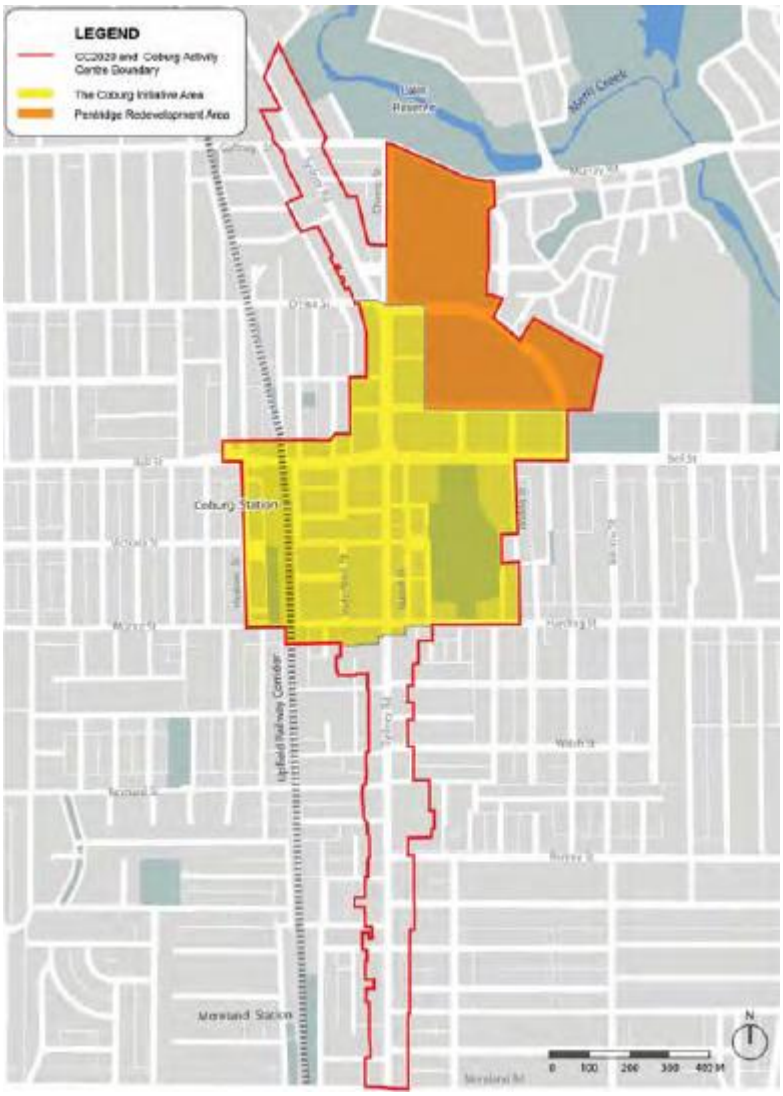
This amendment is required in order to give effect to the objectives and strategies contained within the:

- Central Coburg 2020 Structure Plan (2006) and
- Colours of Coburg Place Framework (The Coburg Initiative (2010))

The proposed new Clause 37.08 and Schedule 1 incorporates the relevant sections of the

- Local Planning Policies:
  - Clause 22.06 (Developments within the Pentridge Prison)
  - Clause 22.12 (Coburg Activity Centre) – interim local planning policy
- Schedule 2 to the Special Use Zone at Clause 37.01.
- Comprehensive Development Zone at Clause 37.02.
- Schedule 1 to the Comprehensive Development Zone at Clause 37.02 (Pentridge Coburg & Pentridge Village).
- Schedule 14 to the Design and Development Overlay at Clause 43.02 (511-537 Sydney Road, Coburg).

Figure 1.1: Fig 1 Coburg Principal Activity Centre Boundary



1.2 Instructions & Scope of Evidence

Council has sought to engage a specialist consultant with expertise in transportation planning to provide expert evidence at the forthcoming Panel Hearing for the Amendment on the transport elements and has approached GTA Consultants having regard to the quantum of work completed by our office for Council in this area over the past three years. That work has been completed by other principals of our office, namely Tim De Young, Reece Humphreys and Chris Coath.

This report focusses on:

- How existing infrastructure and services influenced the formation of the planning policy.
- The robustness of the methodology used to establish the transportation planning rationale.
- The projected impact which implementation of the Amendment will have on traffic flows and car parking within the Activity Centre.
- Any recommended changes to the proposed clause.

My previous involvement in work in Coburg is limited to providing assistance to the developer in relation to a planning permit application for 511-537 Sydney Road, Coburg - Schedule 14 to the Design and Development Overlay at Clause 43.02.

1.3 Expert Witness Details

Kate Partenio Grad Dip Trans & Traff Eng, BE (Civil) (Hons), MIEAust, MAITPM, MVPELA
Director (National) - GTA Consultants
L25, 55 Collins Street, Melbourne
Areas of Expertise: Traffic Engineering & Transport Planning

I have been awarded both a Bachelor of Engineering with Honours (Civil) degree from The University of Melbourne and a Graduate Diploma in Transport and Traffic Engineering from Monash University. I am a member of The Institute of Engineers Australia, a member of the Australian Institute of Traffic Planning and Management and a member of the Victorian Planning and Environmental Law Association.

I have over 20 years of experience in traffic engineering and transport planning in both the public and private sector. I am an experienced expert witness, presenting testimony on traffic engineering and transport planning matters at Panel hearings, Victorian Civil and Administrative Tribunal, Supreme Court and the Coroner's Court, along with expertise in land use planning, strategic planning, master planning, traffic impact assessments, car parking, design and road safety.

Further details of my experience are provided in Appendix A.

1.4 Relationship to Applicant

I have no ongoing private or business relationship with the Applicant, and have been retained to provide expert witness services at this hearing for a mutually agreed fee.

1.5 References

In preparing this evidence, reference has been made to the following:

- Moreland Planning Scheme
- Amendment C123 documentation
- Colours of Coburg Built Form and Land Use Strategy 'The Coburg Initiative' (December 2010)
- Central Coburg 2020 (August 2006)
- GTA Consultants: The Coburg Initiative (TCI) Transport and Access Modelling (2012 Options Report, Issue B 13/10/13
- GTA Consultants: Central Coburg Car Parking Strategy, Issue C 7/6/13
- Other documents as referenced.

1.6 Tests, Experiments & Assistance

In preparing this evidence, I received assistance from the following people:

Alexander Connell	Project Manager	BEng (Civil) (Hons), MIEAust

2. Infrastructure and Services

The Coburg Principal Activity Centre is based around the Coburg Train Station and the Bell Street/Sydney Road junction. The transport hierarchy is to be as follows:

(0 - Emergency Services)
1. Pedestrians
2. Cyclists
3. Public Transport
4. Delivery Vehicles
5. Private cars

2.1 Pedestrians

In order to get an understanding of the current attractiveness of the activity centre for local residents to walk reference is made to the website Walk Score. Walk Score measures walkability based on distances to nearby restaurants, grocery stores and other amenities, plus other analysis of pedestrian friendliness.

90–100 **Walker's Paradise**
Daily errands do not require a car

70–89 **Very Walkable**
Most errands can be accomplished on foot

50–69 **Somewhat Walkable**
Some errands can be accomplished on foot

25–49 **Car-Dependent**
Most errands require a car

0–24 **Car-Dependent**
Almost all errands require a car

The suburb of Coburg is categorised by *Walk Score* as being "Very Walkable" with a walk score rating of 71 out of 100 - Most errands being able to be accommodated on foot. By comparison Brunswick is given a rating of 84.

The following table drills down to the 10 precincts within the Coburg Activity Centre. With the exception of Precinct 10 all precincts are well above the suburb average and highlight the present attractiveness of the centre for residents to undertake regular journeys by foot.

Table 2.1: Coburg Activity Centre – Walk Score Rating

Precinct	Walkscore	Category	Location used
1	92	Walker's Paradise	451 Sydney Road
2	90	Walker's Paradise	547 Sydney Road
3	78	Very Walkable	520 Sydney Road
4	85	Very Walkable	42 Rodda Street
5	80	Very Walkable	48 Urquhart Street
6	95	Walker's Paradise	259 Sydney Road
7	92	Walker's Paradise	120 Sydney Road
8	80	Very Walkable	629 Sydney Road
9	72	Very Walkable	Industry Lane
10	78	Very Walkable	Wardens Lane South

[Source: Walk Score®]

The proposed new clause (refer Section 2.0 Circulation, Transport and Parking) seeks to prioritise pedestrian movement above other forms of transport (except emergency services). This is a reflection of the transport hierarchy set out in the Colours of Coburg Public Realm and Infrastructure Framework.

The 'primary pedestrian movement spine' identified in Figure 4 of the Colours of Coburg is reflected in Precinct Maps 1, 4, 5 and 10. This spine (which will be a shared path for pedestrians and cyclists) links from Coburg Station across Sydney Road via Victoria Street to Bridges Reserve and turns north across Bell Street via Elm Grove into Pentridge Village via Wardens Walk.

Precinct 1 Map also includes the a public square on the north side of the Victoria Street/Louisa Street intersection supplementing the existing mall on Victoria Street to the east of Louisa Street. This new public square will remove through traffic from the heart of the retail centre pushing it to the borders. This is supplemented by a preference to locate car park entries away from Victoria Street and Waterfield Street.

These are sound principles to support a high dominance of pedestrians in the activity zone.

The primary pedestrian zone as well as future retail and commercial uses in Precinct 10 will assist in improving the Walk Score rating of the precincts to the north east of the Bell Street and Sydney Road.

2.2 Cyclists

Cyclists are proposed to have a priority 2 in the road network. This is a sound principal to encourage active travel for health benefits and to minimise the amount of private vehicle transport that significantly adds to road congestion in the area and greenhouse gas emissions.

The City of Moreland has for a long time attracted a significant number of cyclists, with the municipality scoring highly in journey to work by bicycle statistics.

Cycling routes in Coburg are currently limited; with the principal bicycle network picking up the following routes (refer Figure 2.1):

- a shared path along the rail line
- Bell Street east of Sydney Road
- Harding Street at the southern edge of the activity zone
- O'Hea St/Pentridge Boulevard linking to Merri Creek to the east

Cycling infrastructure within the separate activity centre precincts is a significant consideration in The Colours of Coburg Place Framework and Strategies (refer Bicycle and Pedestrian Network Map in Figure 2.2 below), which is proposed for Precincts 1,2,3,4 and 5 and Central Coburg 2020 Structure Plan (refer Bicycle Network Map in Figure 2.3), which is proposed to be a reference document for Precincts 6, 7 and 8. Of particular note on the difference between the Structure Plan bicycle network map and The Colours of Coburg map is the loss in the latter of the north south bike route running through the heart of the retail centre along Louisa, Waterfield and Ross Streets in The Colours of Coburg framework. This is also missing from the Precinct maps as discussed below.

The amendment seeks to encourage cyclists through the consideration of priority as well as requirements for end of trip parking (this is discussed further in Section 3) and facilities.

Precinct Map 1

Precinct Map 1 shows the bike path along the rail line.

It also refers to a "shared space" along the western end of Victoria Street, the new east west street link to the north of Victoria Street and a small section of Sydney Road. However there is no definition of what shared space is to mean and whether this includes a specific focus on bicycles. By comparison a section of road designated as "shared space" in Precinct Map 2 also has carries an additional designation as an off-road bicycle path.

Waterfield Street is not shown as a bicycle route and the text in the following sub clauses does not refer to bicycles.

In order to give action to the priority hierarchy for cyclists it is recommended that Precinct Map 1 references both the east-west and north-south bike routes through the heart of the precinct and that the Colours of Coburg Bicycle and Pedestrian Network Map be modified to include the Waterfield Street route.

Precinct Map 2

Precinct Map 2 shows an off-road bike path along the rail line and also the Urquhart Street extension as a bike route but omits Ross Street.

Precinct Map 3

Precinct Map 3 includes reference to off-road bike paths on Urquhart Street and Pentridge Boulevard.

Precinct Map 4

Precinct Map 4 includes reference to off-road bike paths link along the western side of Bridges Reserve towards Sydney Road.

Precinct Map 5

Precinct Map 5 includes reference to off-road bike paths link along the Elm Grove and Urquhart Street.

Precinct Maps 6, 7 & 8

Whilst none of these precinct maps reference bikes, these Sydney Road based precincts are covered by the Principal Bicycle Network.

Precinct Map 9

Precinct Map 9 contains a comprehensive bicycle network.

Precinct Map 10

Precinct Map 10 does not indicate any bike routes, however an appropriate network is picked up in the Structure Plan and this area has been planned to encourage active travel.

Figure 2.1: Principal Bike Network (Source: VicRoads)

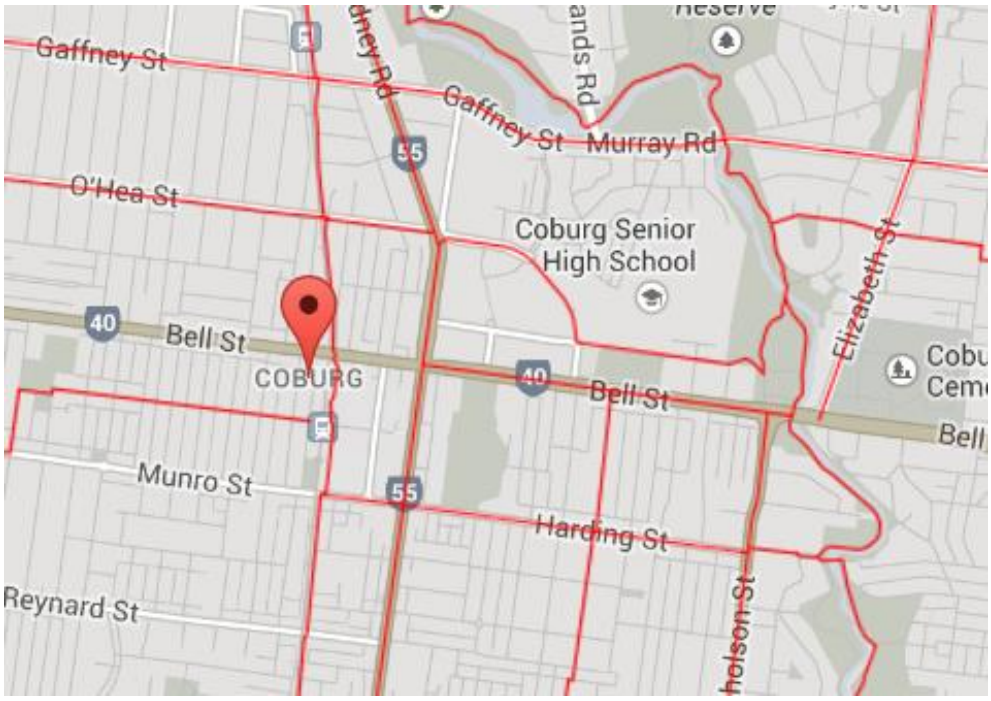


Figure 2.2: Coburg Initiative Bicycle and Pedestrian Network Map

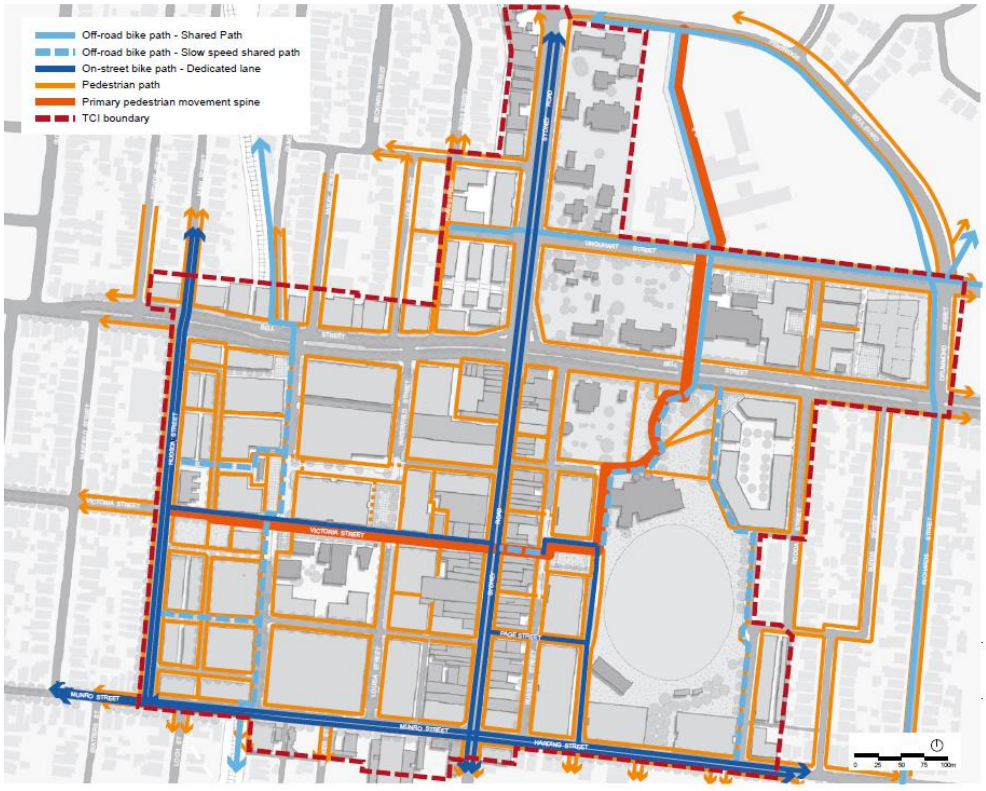
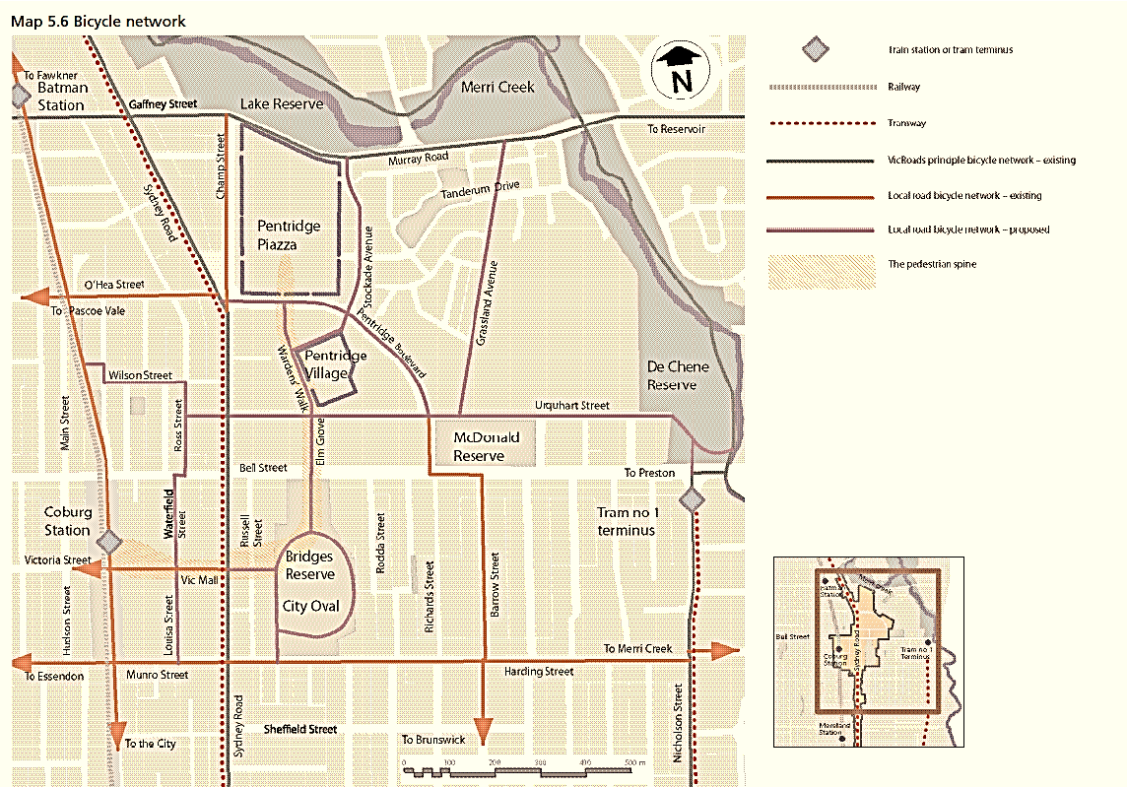


Figure 4 Pedestrian and Cycle Network

Figure 2.3: Coburg 2020 Bicycle Network Map



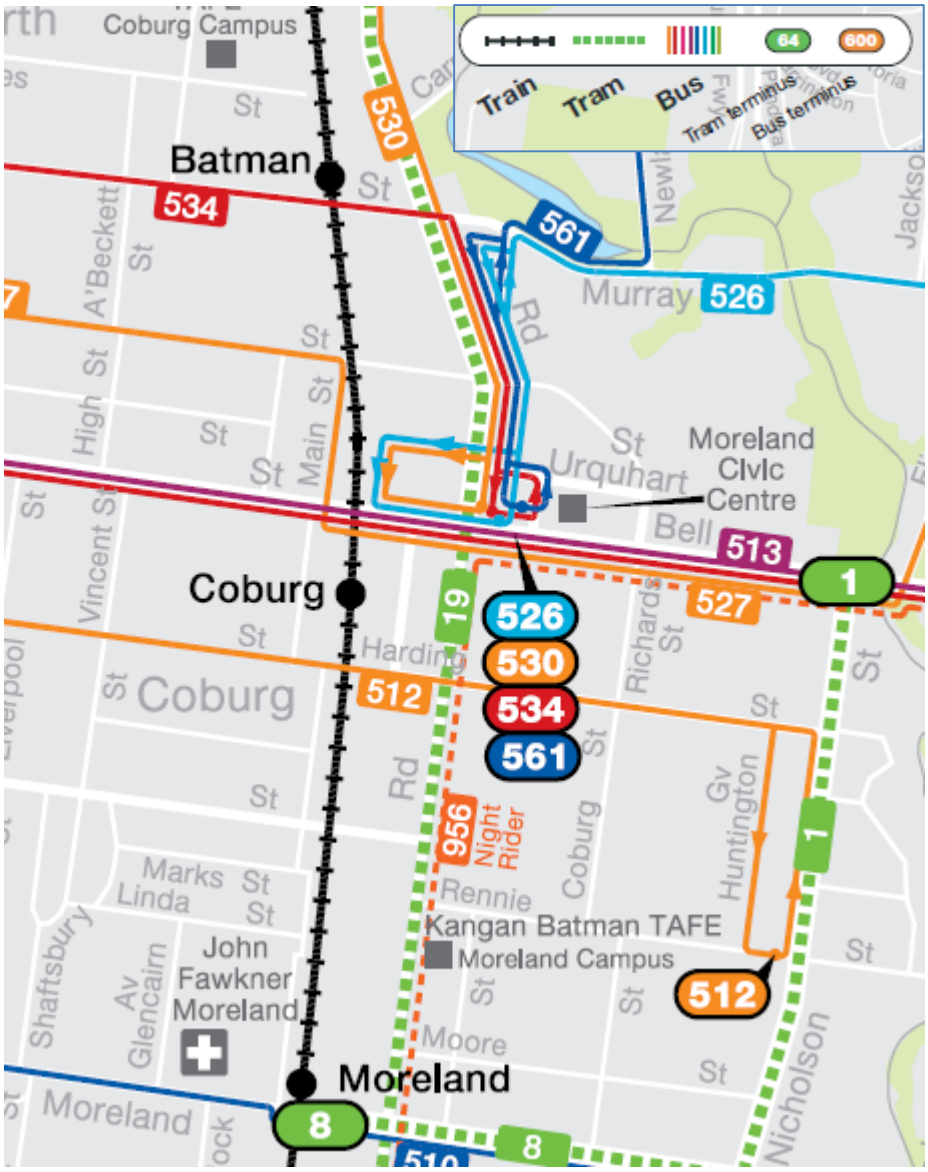
Recommendations

That Precinct Map 1 include both an east-west (Victoria Street) and a north-south (Louisa/Waterfield/Ross Street) bike route through the heart of the precinct and that the Colours of Coburg Bicycle and Pedestrian Network Map be modified to include the north-south route.

2.3 Public Transport

Coburg is served by trains, trams and buses as shown on the map below. This makes the activity centre easily accessed by public transport. Providing good pedestrian and cyclist access to the train station and bus stops is a further key to encouraging the use of public transport and the proposed pedestrian and bicycle network will appropriately support this aim.

Figure 2.4: Public Transport Map (Source: Public Transport Victoria)



2.4 Delivery Vehicles

The amendment seeks:

- to create new streets to improve circulation through the Centres, and
- to ensure a connected and well signed network and laneways and streets is created.

This is reflected principally in Precinct Map 1 with the creation of new streets to improve circulation opportunities which will aid delivery access.

2.5 Private Cars

Located at the junction of two primary arterial roads, there is significant road infrastructure in place and plans to upgrade or create new roads (Bell Street widening and new roads within Precinct 1).

Private cars are to be given the lowest priority on the transport network. This is consistent with plans to encourage active travel which is a more sustainable outcome.

The requirement for a green travel plan to accompany permit applications will support this lower level of hierarchy.

Notwithstanding, the provision of a well-connected road network and the specification of access to parking (precinct Map 1) will ensure that the area is accessible by private vehicles.

Road Capacity

Refer Section 5 Traffic Impacts of the Amendment for discussion of road infrastructure.

Car Parking Requirements

The precinct is well served by car parking, but there is an opportunity to reduce the visual imposition of car parking and also to control car park access locations to improve pedestrian and cyclist amenity.

The amendment will facilitate the replacement of large open space car parks with basement and or 'sleeved' car parking that will maximise the potential development of the area.

The objective to facilitate the flexible use of car parking spaces, particularly after normal business hours and weekends will assist in maximising the utilisation of spaces by encouraging parking to be made available to allow the shared use of space by uses that have different operating peaks such as office and residential and restaurants.

Specific parking supply requirements are not included as a part of this amendment. Council is proposing a separate amendment process to consider a parking overlay for this activity centre and has commenced work towards that goal.

Until full consultation and consideration is given to a parking overlay, Clause 52.06 will continue to apply.

3. Precinct Requirements

Issue 1

Precinct 1 is the heart of the activity centre, containing most of the retail land use.

The Precinct Map at Clause 5.1-1 includes some new streets to facilitate movement and offset the impact of a proposed closure of Waterfield Street just north of Victoria Street for a public square. The new east west streets will allow for circulation around the precinct and delivery to car park access points from Waterfield Street, Louisa Street and Victoria Street, where possible away.

To minimise acquisition requirements for the new streets some have been identified (as per the Colours of Coburg cross-sections) as being one way (10.5m street width).

Whilst it is not shown on the map, the transport modelling has assumed that the proposed new east-west street between Sydney Road and Waterfield Street operate as one way eastbound and the proposed new east-west street between Sydney Road and Louisa Street (to the south of Victoria Street) operate as one way westbound. The northern street is to assist vehicles reach Sydney Road noting that the right turn movement from Waterfield Street into Bell Street is prohibited.

However, given that Sydney Road is a busy primary arterial road it would be appropriate to also allow motorists that are exiting car parks off this new east-west street to be able to return to Waterford Street to reach Bell Street to the north or Munro Street to the south particularly if they wish to head west on departure.

Issue 2

Precinct 2 includes a precinct guideline at Clause 5.2.-4 to make provision for:

- *A pedestrian crossing at Bell Street in the vicinity of Ross Street and Waterfield Street.*

This is not indicated in the Precinct 2 map and more importantly is not identified in Precinct 1 guidelines, or map, noting the two precincts overlap on Bell Street.

The location of a pedestrian crossing at this location is not identified in the Colours of Coburg Place framework. However Central Coburg 2020 Structure Plan, at Map 5.3 and Map 5.5, identifies both Waterford Street and Ross Street as proposed bicycle links and major pedestrian links respectively, providing an important connection to the Urquhart Street path.

Accordingly it would follow that a safe crossing point on Bell Street in their vicinity would assist in linking these routes as well as providing a crossing point between Sydney Road and the rail line to the west.

<u>Recommendations:</u>

i The Precinct 1 map at Clause 5.1-1be modified to show two-way movement at the western end of the proposed new east-west street between Sydney Road and Waterfield Street.

ii The Precinct 1 guidelines at Clause 5.1-4 be amended to include a requirement that:
The design and siting of any development within the precinct should make provision for:

- A pedestrian crossing at Bell Street in the vicinity of Ross Street and Waterfield Street.

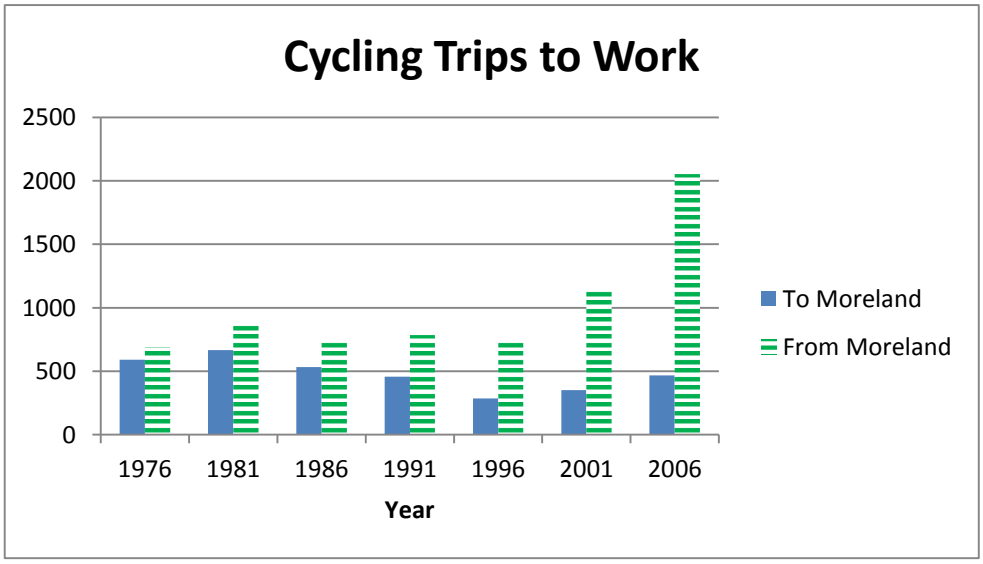
4. Clause 9 – Other Provisions of the Scheme – Bicycle Facilities

Clause 9 of Schedule 1 outlines specific rates for bicycle parking which would supersede the requirements outlined in Clause 52.34-3 of the Planning Scheme. The proposed bicycle parking rates will apply to dwelling, office and shop uses within the Coburg Activity Centre.

The rates have been set at a level to represent best practice, noting that the municipality of Moreland has a high cycling population (2006 ABS Journey to Work data lists Moreland second only to Yarra for mode share of cycling to work from the municipality). Figure 4.1 shows that there is an increasing popularity for journey to work trips by bicycle both for trips to work in Moreland and trips to work originating from Moreland.

As discussed earlier encouraging cycling has health and environmental benefits as well as reducing road congestion where the trip may otherwise be by private car. Bicycle parking also takes up significantly less space than car parking.

Figure 4.1: Cycling Trip: Journey to Work to and from Moreland



Source: VicRoads "Cycling to Work in Melbourne 1976-2006" (ABS data)

Table 4.1 outlines the proposed bicycle parking rates and compares them to the current statutory requirement as well as various other requirements from around Australia. Each use is discussed in the following pages.

Table 4.1: Bicycle Parking Rates

Source	RATE (Highest rate per use bolded)		
	Apartment	**Office**	**Retail/Shop**
C123 proposed rate	**1 space per studio and 1 bedroom dwellings** **2 spaces per 2+ bedroom dwelling** **(Studies or studios that are separate rooms must be counted as bedrooms)**	1 employee space per 200 sqm gross floor area 1 visitor space per 750 sqm over 1,000 sqm	1 employee space per 300 sqm gross floor area 1 visitor space per 500 sqm over 1,000 sqm
Moreland Planning Scheme Clause 52.34	1 resident space per 5 dwellings 1 visitor space to each 10 dwellings, in developments of four or more storeys	1 employee space per 300 sqm of net floor area if the net floor area exceeds 1,000 sqm 1 visitor space per 1,000 sqm of net floor area if the net floor area exceeds 1000 sqm	1 employee space per 600 sqm of leasable floor area if the leasable area exceeds 1000 sqm 1 visitor space per 500 sqm of leasable floor area if the leasable area exceeds 1000 sqm
Green Star rating tool * 1pt for lower no. of spaces, 2pts for higher	1 resident space per dwelling 1 visitor space per 4 dwellings	**1 employee space per 150 sqm – 300 sqm** **(1 space per 5-10% * of staff based on 1 staff per 15 sqm NLA)** 1 visitor space per 750 sqm	1 employee space per 600 sqm – 1,200 sqm (1 space per 5-10% *of staff based on 1 staff per 60 sqm GFA) 1 visitor space per 500 sqm (lower for retail centres over 30,000 sqm)
ACT	1 resident space per dwelling 1 visitor space per 12 dwellings for 12 or more dwellings	1 employee space per 250 sqm after 250 sqm 1 visitor space per 950 sqm after the first 400 sqm	1 employee space per 500 sqm after the first 500 sqm 1 visitor space per 300 sqm, minimum of 2 spaces
Rockingham WA	1 resident space per 3 dwellings 1 visitor space per 10 dwellings (WA standard)	1 employee space per 200 sqm **1 visitor space per 500 sqm**	District Centre – 1 employee space /500 sqm NLA (min 4) 1 visitor space /750 sqm of NLA (min 16) Neighbourhood Centre – 1 employee space /500 sqm (min 4) 1 visitor space/300 sqm (min 6) **Local Shops –** **1 employee space /250 sqm** **1 visitor space/150 sqm (min 2)**
Austroads	1 resident space per 4 habitable rooms [approx.: 1bed = 0.5/apt, 2bed = 0.75/apt, 3 bed =1.25/apt] 1 visitor space to every 10 habitable rooms	Not specified	Not specified

Residential Bicycle Parking Rate

The residential bicycle parking rate is approximately double the standard requirement in the Moreland Planning Scheme. The proposed rate of 1 bicycle space per bedroom (maximum 2 spaces) is taken from the Environmentally Sustainable Development section of Central Coburg 2020 Structure Plan (Part 6).

This rate reflects the desire to strongly encourage cycling as a mode of travel in lieu of private transport.

In considering the appropriateness of this rate the following items must be taken into account:

- 1 resident space per dwelling plus 0.25 visitor spaces per dwelling is best practice
- The aim is to prioritise bicycle use above public transport and private car travel
- A 2009 ABS report[1] found that 52% of Victorian homes own at least one bicycle with 36% owning two or more
- The proposed rate includes visitor parking
- Moreland has traditionally been a municipality that attracts cyclists willing to commute to work, residential parking rates should support and encourage this
- It is expected that car parking rates within the Activity Centre will be reduced below the standard requirement (GTA's Central Coburg Car Parking Strategy (June 2013), which is yet to go to public consultation, suggests a 20-50% reduction in residential parking rates, depending on location and size of dwelling.
- Dwellings with no car parking are often recommended to provide a bicycle space in lieu.

Having consideration to the above a best practice rate is considered appropriate.

In relation to the location of bicycle parking Clause 52.34-3 of the Moreland Planning Scheme states that residential bicycle parking must be provided either in a bicycle locker or at a bicycle rail in a lockable compound. This is typically within a car parking area but many bicycle owners prefer to store their bicycles within their own dwelling or individual locker for added security.

Figure 4.2 shows some ways that bicycles can be stored within dwellings. These options can provide residents with more flexibility should they not require the provided storage allocation for bicycles.

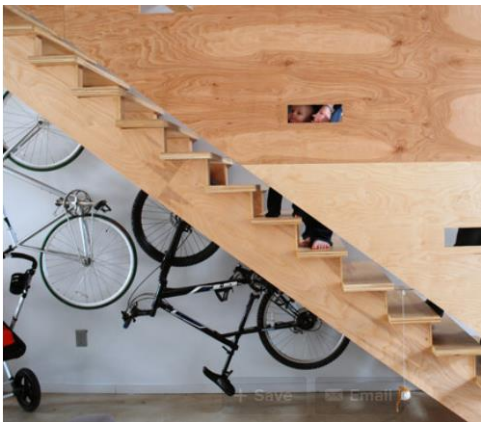
It would however require the building to be designed to facilitate bicycle access into the dwellings (e.g. suitable lift dimension).

In order to adopt a higher statutory bicycle parking rate adequate infrastructure needs to be allowed for to cater for this use throughout the activity centre. A strong commitment to cyclist infrastructure would support this.

The proposed rate per bedroom should, if adopted, include allowance for bicycle parking within the dwelling be provided in lieu of parking within a bicycle locker or compound. Bicycle storage within a dwelling can be repurposed by the resident if needed increasing the flexibility of the space.

[1] ABS "*Environmental Issues Waste Management + Transport Use*" 2009.

Figure 4.2: Examples of Bicycle Storage within Dwellings



[Source: Houzz.com]

Office Bicycle Parking Rate

Firstly, it is noted that the wording of the visitor rate suggests that visitor parking would only apply to the floor area above 1,000 sqm. To be consistent with the planning scheme the wording should be amended to refer to application if the floor area exceeds 1,000 sqm. Furthermore the wording refers to gross floor area (GFA) rather than net floor area (NFA). To be consistent with Clause 52.34 and 52.06 the calculation should be based on NFA. The following discussion assumes these changes.

The selected Office parking rate is higher than the standard requirement in Clause 52.34 of the Moreland Planning Scheme and just slightly below the best practice rate recommended by Green Star.

The staff requirement would be triggered for every office regardless of size, compared to the current trigger of 1000 sqm, which would remain applicable for visitor spaces. The staff rate of 1 space per 200 sqm is consistent with the rate applicable in Rockingham, WA and just below Green Star. The visitor rate sits slightly below best practice.

The staff rate reflects the strong commitment to minimising private trips to work in the activity centre and reflects best practice. With an average rate of 4.75 employees per 100sqm GFA of

office space2, a rate of 1 space per 300 sqm equates to a ridership target of 7%. This is in line with the 2011 ABS journey to work census data for workplaces in Carlton (7.2%).

The visitor rate, whilst not best practice, recognises that for small sites, the small requirement for visitor parking can best be accommodated within the public domain, using public bicycle racks or other physical infrastructure such as poles and trees for short periods.

Like with residential parking, consideration could be given for small developments to incorporate bicycle parking within the tenancies, say <1000 sqm NFA)

Shop Bicycle Parking Rate

The shop staff parking rate is effectively double the standard requirement, whilst the visitor rate is consistent with the standard requirement, albeit with the same wording change as per the office rate discussed above, with retail measured on leasable floor area.

The holding of the visitor parking rate at the standard rate is inconsistent with the increase in residential bicycle parking requirement. However, visitor parking can be supplemented by the Council in the public domain where a greater use of shared parking can be achieved.

Like with residential parking, consideration could be given for small developments to incorporate bicycle parking within the tenancies, say <1000 sqm NFA)

Recommendation

i That the wording of the Office bicycle parking rates to be modified to refer to a net floor area basis to be consistent with Clause 52.34.
ii That the wording of the Shop bicycle parking rates to be modified to refer to a leasable floor area basis to be consistent with Clause 52.34.
iii That the references to floor areas over 1,000 sqm be changed to require visitor parking "if the (relevant) floor area exceeds 1,000 sqm.
iv The provision of bicycle parking for residents be allowed to be located within dwellings, subject to suitable bicycle access, as well as in lockers or compounds
v The provision of bicycle parking for staff be allowed to be located within tenancies where the total floor area for the use is less than 1000 sqm NFA office, GLA shop), subject to suitable bicycle access, as well as in lockers or compounds.

[2] RTANSW Guide to Traffic Generating Developments, October 2002

5. Traffic Impacts of the Amendment

5.1 Government Strategy

Plan Melbourne

The Melbourne metropolitan planning strategy Plan Melbourne (2013) has been prepared by the state government to help shape Melbourne's future population growth. Key principles include:

- Protecting the suburbs by delivering density in defined locations
- Better use of existing assets
- 20-minute neighbourhoods

A more intensive development of the Coburg Activity Centre fits in with these principles. Coburg Activity Centre is located on the Upfield Rail Corridor and served by Coburg Station, and to a lesser extent Batman station to the north. The Sydney Road tram line runs through the Activity Centre as well as several bus services, combining with rail to make the centre easy to reach by public transport and also easy to travel from. This will be further supported by a strong pedestrian and cycling network. These elements make it an ideal node for intensive employment, retail and residential use to help achieve a 20-minute neighbourhood.

Using existing public transport assets is vital to a sustainable future that is less dependent on private cars. The alternative to higher development of activity centres at key transport nodes would be to spread housing across a wider area of the municipality, or into our green wedges.

'20-minute neighbourhoods' are places where you have access to local shops, schools, parks, jobs and a range of community services within a 20-minute trip from your front door. Creating a city of 20-minute neighbourhoods relies on creating the market size and concentration that can support a broad range of local services and facilities.

Some areas in Melbourne already deliver a 20-minute neighbourhood experience. In many inner suburbs, for instance, residents are within walking distance of many services and have good access to public transport.

Current initiatives that are assisting to achieve a city of 20-minute neighbourhoods include:

- introducing reformed commercial and residential zones
- updating *Precinct Structure Planning Guidelines* to increase activity centres in growth areas.

In addition to current initiatives, Plan Melbourne provides a number of additional actions including:

- making neighbourhoods pedestrian-friendly
- supporting local governments to plan and manage their neighbourhoods
- accommodating the majority of new dwellings in established areas within walking distance to the public transport network.

These actions are being actively pursued by the proposed amendment.

Network Development Plan – Metropolitan Rail

In 2012 Public Transport Victoria (PTV) release the Network Development Plan – Metropolitan Rail. That plan includes an upgrade to the Upfield Rail line to increase rail services. In 2010 this rail corridor carried just 3 services per hour. By 2020 this will be doubled in peak hours and then

doubled again by 2030, with the Upfield rail line to have daily service frequencies of 10 minutes of better within 20 years (5 minutes in peak)

The overall Metropolitan rail plan is to service train boardings across the network more than double within the next twenty years. A four-fold increase in rail service through Coburg will transform accessibility of the activity centre.

5.2 Traffic Analysis

GTA Consultants, in 2006, provided an initial assessment of the traffic impact of the Central Coburg 2020 Structure Plan. That work found strong support for the widening, and hence PAO, of Bell Street to the west of Sydney Road. Other transport network recommendations in that report are no longer relevant.

Following the development of the Colours of Coburg, GTA Consultants was engaged by Moreland City Council (initially jointly with Equiset) to assess the adequacy of the proposed road infrastructure changes to accommodate with the planned growth and in particular the impact of various road network streetscape options. This work is documented in the GTA Consultants report titles "*The Coburg Initiative (TCI) Transport and Access Modelling (2012) Options Report*", Issue B, 13/10/2013.

That assessment was carried out using the micro-simulation Q-Paramics, with some input from the strategic VITM model. The tested years were 2011 (existing) and 2022 (future). Analysing a local area beyond a 10 year horizon is not appropriate as wider network and development assumptions can have a significant impact on the results.

The aim of the option modelling completed was to provide a broad level assessment of the transport and access arrangements of the TCI and should not be viewed as providing definitive results with respect to individual intersection treatments, their warrants or their specific timing. Rather the modelling should be viewed as providing a test of the general feasibility of the Colours of Coburg in terms of its scale and intensity to understand the impacts of road network options. Further work in this area will be needed as development plans progress with certainty.

The option modelling does indicate that with the projected growth of the activity centre, some through traffic along Sydney Road and Bell Street will need to be diverted onto other arterial routes to ensure sufficient capacity.

The option modelling found that the proposed reduction in traffic lanes on Sydney Road to one lane in each direction (as indicated in the Main Street cross-section in the Colours of Coburg) is not supportable, indeed counter peak clearways are expected to be required in the future to provide two lanes of traffic in each direction during peak periods.

Whilst the option modelling did not include it in a scenario, ultimately it is expected that Pentridge Boulevard would need to be upgraded to four traffic lanes to accommodate through traffic. This has already been allowed for in the design of the road, by the removal of on-street parking in the future.

The option modelling had also included a closure of Urquhart Street west of Pentridge Boulevard, and whilst agreement to this was given by VicRoads, it is not contemplated in the current Amendment.

The conclusion of the options modelling is set out below:

Conclusion- Options Modelling report (GTA 13/10/2013)

The microsimulation modelling assessment undertaken has been a broad level review of the transport and access arrangements of TCI and does not consider definitive outcomes with respect to individual intersection treatments, their warrants or their specific timing, but rather it is a test of the general feasibility of TCI in terms of its scale and intensity as well as highlighting any potential transport issues.

Notwithstanding, on the basis of the modelling and discussions presented in this report, the following implications are noted with respect to The Coburg Initiative:

i *Additional mitigating road works over and above those currently anticipated with the TCI documentation are likely to be ultimately required to facilitate the long-term development of the area (to the density proposed). The recommended traffic management measures include:*

- *optimising traffic signal operations with bus and tram priority*
- *introducing additional right turn bans during peak hours at key intersections*
- *clearway restrictions on both sides of Sydney Road*
- *review public transport stop locations with a view to potentially rationalising these.*

It is recommended that the impacts the above traffic management measures have on the road network be assessed prior to committing to infrastructure works. However, having consideration to the above, some infrastructure works worth considering include:

- *increase capacity at the Bell Street / Sydney Road, Sydney Road / O'Hea Street / Pentridge Boulevard intersections*
- *detailed investigation on intersection configurations at new localised TCI intersections and the surround major intersections*
- *duplication of Pentridge Boulevard*
- *upgrade of roads surrounding the study area to reduce the number of 'through' trips*
- *Bell Street railway level crossing upgrade or grade separation*
- *implementing the Bell Street PAO to accommodate its widening.*

ii *As the principal north-south route through the study area, Sydney Road requires additional capacity in order to accommodate expected future growth. It is considered that additional 'clearway' parking restrictions may be required on both sides of the carriageway to improve traffic flow and throughput during both the weekday AM and PM peak hours.*

iii *Additional traffic capacity, and associated land acquisitions/development setbacks, may be required at all access points into and out of the area onto main roads such as Sydney Road, Bell Street, Harding Street and Munro Street. It is envisaged that this could be achieved by providing (for example) multiple exit lanes onto the main roads and/or left-turn slip lanes into and out of the minor access streets. Initial observations suggest that additional turn lanes can be accommodated within the current road reserve on Munro Street and Harding Street, however these should be confirmed as part of the design development.*

iv *The location of the proposed TCI car parks and its access points somewhat determines the distribution of traffic from the local TCI road network to external areas. As such, it is recommended that detail analysis be undertaken when the time comes to ensure that the proportion of car parking spaces across the TCI precincts considers the likely traffic*

routes vehicles will utilise to access the main roads. This is considered important in order to minimise overloading some access points more than others.

v *Further to the above, it is also evident that increased investment in public transport, walking and cycling will be required to reduce the dependency on the use of the private motor vehicle for travel to, from and within the study area. The VITM model suggest an increase in headway (or frequency) of public transport services in the future which has been reflected in the microsimulation model. However, further encouragement for active travel is required in order to reduce private vehicle usage and thus congestion on the roads.*

vi *In light of the fact that the development of TCI is likely to disperse non-local through traffic to alternative east-west and north-south roads within the vicinity of the TCI area, it is recommended that Moreland City Council and VicRoads broadly consider the traffic capacity of the road network within the municipality (rather than solely within the TCI area).*

vii *The undergrounding of the rail line through the study area cannot be committed to at this time (principally due to uncertainty regarding its funding) and it should therefore be considered to represent a long-term aspiration of the TCI (as opposed to a likely outcome). It is recognised that this subtlety is currently specified in the TCI documentation but it is strongly recommended that this be further clarified.*

viii *In regards to the impacts of the PAO on Bell Street, the modelling indicates that the widening of Bell Street and inclusion of bus lanes increases the throughput of traffic west of Sydney Road, with decreases in queue lengths and congestion when compared to Option 1. Further, the introduction of kerbside bus lanes improves travel times for the SmartBus route 903 in both directions during the AM and PM peak with reductions of approximately 40 to 50% in the eastbound direction and up to 8% reduction in the westbound direction.*

ix *The streetscape options assessed alternative arrangements for the local road network and it was found that:*

- *The provision of a two way road on Victoria Street and Louisa Street, per Streetscape Option 3, reduces congestion at the access points to Bell Street.*
- *Removing the one-way road connections west of Sydney Road, per Streetscape Option 4, would result in a slight increase in queues exiting TCI during the PM peak at the Bell Street access points when compared to the other Streetscape Options. However, this is not considered to significantly impact the operation of the local road network and the network will function without the connections.*
- *The removal of the one-way road connection east of Sydney Road, per Streetscape Option 5, showed little or no impact to the operation of the network as there are suitable alternate access points to these precincts.*

Overall the transport modelling is showing that the arterial road network will be under greater strain as the local and indeed regional population contains to grow demand for travel.

It is not the case that we can simply shift the growth away from activity centres and expect a different outcome. By contrast, it is only by concentrating growth in those locations that have the necessary attributes to encourage more sustainable modes of transport that we can accommodate any growth.

We have long recognised that simply providing more capacity for private travel simply induces travel. By not including both residential and employment within an activity centre we risk failing to capitalise on a range of benefits that this presents, including safety in numbers.

There is a long term state government plan to add rail capacity on the Upfield line, and this will only be pushed forward in priority if development intensifies to justify its early provision.

In relation to specific traffic assessments, clause 6.0 of Schedule 1 includes a requirement that applications for development be accommodated by both a Green Travel Plan and a Traffic Report and Management Plan.

These requirements will ensure that local traffic issues will be investigated as plans for development become more detailed.

Council will also have a role with VicRoads to look at the major council roads, including O'Hea Road, Pentridge Boulevard, Harding and Munroe Streets, as well as Sydney Road and Bell Street in more detail.

Recommendation

i It is recommended that the Council modify the Colours of Coburg to remove the reference to a downgrading of Sydney Road to two through lanes (main street cross section).

6. Summary of Opinion & Other Statements

Based on the analysis and discussions presented within this evidence, the following is a summary of my recommendations for change:

i The Precinct 1 map at Clause 5.1-1be modified to show two way movements at the western end of the proposed new east-west street between Sydney Road and Waterfield Street.

ii The Precinct 1 guidelines at Clause 5.1-4 be amended to include a requirement that: The design and siting of any development within the precinct should make provision for:

- A pedestrian crossing at Bell Street in the vicinity of Ross Street and Waterfield Street.

iii Precinct Map 1 include both an east-west (Victoria Street) and a north-south (Louisa/Waterfield/Ross Street) bike route through the heart of the precinct and that the Colours of Coburg Bicycle and Pedestrian Network Map be modified to include the north-south route.

iv The Council modify the Colours of Coburg to remove the reference to a downgrading of Sydney Road to two through lanes (main street cross section).

v The wording of the Office bicycle parking rates to be modified to refer to a net floor area basis to be consistent with Clause 52.34.

vi The wording of the Shop bicycle parking rates to be modified to refer to a leasable floor area basis to be consistent with Clause 52.34.

vii The references to floor areas over 1,000 sqm be changed to require visitor parking "if the (relevant) floor area exceeds 1,000 sqm.

viii The provision of bicycle parking for residents be allowed to be located within dwellings, subject to suitable bicycle access, as well as lockers or compounds.

ix The provision of bicycle parking for staff be allowed to be located within tenancies where the total floor area for the use is less than 1000 sqm NFA office, GLA shop), subject to suitable bicycle access, as well as in lockers or compounds.

Subject to these changes I support the proposed Amendment.

Other Statements

i No opinion provided in this evidence is provisional.

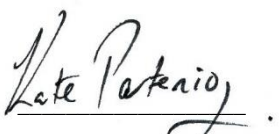
ii No questions or statements outside of my expertise have been addressed in this evidence.

iii This evidence is not incomplete or inaccurate.

Declaration

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the tribunal.

GTA CONSULTANTS



Ms. Kate Partenio
Director (National)

1st July 2014

Appendix A

Appendix A

Ms. Kate Partenio – Curriculum Vitae

Kate Partenio

Director (National)

GTAconsultants
transportation planning, design and delivery

Kate is a traffic engineer and transport planner with over 20 years of experience spanning both the local government and private sectors. She is an experienced expert witness, presenting testimony on traffic and transport matters at Panel hearings, Victorian Civil and Administrative Tribunal, Supreme Court and Coroners' Court.

Along with expertise in land use planning, strategic planning, master planning, traffic impact assessments, car parking, design and road safety, Kate has extensive understanding of successful client communication, managing project teams, and coordinating operational and technical aspects of projects within prescribed time and cost constraints.

— Expert Witness

— Transport Impact Appraisals

— Road Safety and Transport Design

Office

Melbourne

Qualifications

BEng(Hons)(Civil) GDipTrans&TrafEng: Monash University

Memberships and Affiliations

Engineers Australia

Australian Institute of Traffic Planning and Management (AITPM)

Victorian Planning & Environmental Law Association (VPELA)

Industry Roles

Monash University Institute of Transport Studies: Industry Advisory Committee

Victorian Planning & Environmental Law Association (VPELA): Planning Interest Group

Key Projects

Melbourne Convention Centre Development & South Wharf, Vic

Southern Cross Station, Vic

Westfield Southland, Vic

Specialist Skills

Expert Witness

Transport Impact Appraisals

Transport Design

- Roads
- Car Parks and Loading Docks
- Bus Interchanges

Project Experience

Expert Evidence

Kimberley Drive, Chirnside Park, Residential – VCAT

Chambers Road, Altona North, Industrial - VCAT

Hume Freeway Land Acquisition Compensation Claims, Transport - Supreme Court

Greenvale Central PSP, Residential - Panel Hearing

Pearcedale, Road Safety – Coroners Court

Transport Impact Appraisals

Melbourne Convention Centre Development, Conference Centre & Retail

Southern Cross Station, Transport Interchange

Knox Private Hospital, Health

685 La Trobe Street Docklands, Residential

Aldi Monbulk, Retail

601 Victoria Street Abbottsford, Residential

Guardian Storage, Store

Road Safety and Transport Design

Melbourne Convention Centre, Loading and Access Design

Eynesbury Road, Eynesbury, Safety Review

Mt Mercer Wind Farm, Traffic Management Plan

Westfield Southland and Fountain Gate Bus Interchanges

Dandenong Plaza Safety & Signage Reviews

Policy Review

PTW Guidelines Review, VicRoads

Professional Background

1996 – Present: GTA Consultants

As first a senior consultant and later as a director, Kate has been responsible for the delivery of a number of high profile transport planning and design projects, including the Southern Cross Station, Melbourne Convention Centre and South Wharf developments, and many of Melbourne's major shopping centres.

Kate regularly appears as an expert witness providing transport planning and traffic engineering evidence at VCAT, Panel Hearings and the Supreme Court of Victoria.

She has worked on a wide range of land use and development types including: residential and industrial subdivisions, child care, schools, industrial developments, residential developments, self-storage facilities, retail developments, road designs, bus interchange designs, local area traffic management, master plans, and urban design frameworks.

1991-1996 – City of Keilor (Brimbank)

As a traffic engineer for Brimbank City Council and its predecessor Keilor City Council, Kate gained valuable experience in all aspects of municipal traffic engineering and transport management.

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