Green Travel Plan

48-54 Beecroft Road & 52-54 Rawson Street,
Epping

PDS Australia

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1 Background

The proposed development is located at 48-54 Beecroft Road with a dual frontage at 52-54 Rawson Street, Epping.

The proposed development will include demolition of the existing buildings and construction of a 21 storey mixed use development with ground floor retail, residential above and three basement levels for car and bicycle parking, and other associated building infrastructure such as storage, fire and life safety requirements and lift cores.

Figure 1 - Artist impression of proposed development

1.1 Site and Context

The site is located at 48-54 Beecroft Road & 52-54 Rawson Street, Epping within the Parramatta Local Government Area (LGA), approximately 15 kilometres north-west of the Sydney CBD and 9 kilometres north-east of the Parramatta CBD. The site is within walking distance from the Epping Railway Station and lies within the Epping Town Centre. The Epping Town Centre is located adjacent to the Epping railway station and provides a range of local amenities including retail, open space and entertainment and recreational facilities.

The Epping Town Centre is strategically located with access to high capacity public transport, including the soon to open Sydney Metro line. It is within close proximity to major strategic centres including Chatswood and Parramatta, which are easily accessible via the Sydney Trains and Sydney Metro networks. The Epping Town Centre has been identified for higher density development within close proximity to public transport infrastructure.

1.2 Consultation

This Green Travel Plan was developed in consultation with the City of Parramatta Council.

On 15 April 2019, TTM met with two officers from Council's Traffic and Transport until to discuss the Green Travel Plan.

As a result of that meeting, this plan has been updated to include the following:

- A Monitoring Plan for the first three (3) years that the site is completed and occupied;
- Additional car share spaces in the development; and
- Some additional wording around some actions in the Action Plan.

2 Role of a Green Travel Plan

The primary purpose of a Green Travel Plan (GTP) is to encourage people who will live, work or travel to a place to use more sustainable means of transport. This generally means reducing the reliance on private vehicle travel and shifting travel choice behaviour to public and active transport.

From a road network perspective, the main benefit is reduced congestion. From a societal perspective, a major benefit is improved health outcomes due to incidental exercise and reductions in the impacts of traffic air and noise pollution.

A Green Travel Plan uses economic tools such as incentives and penalties to encourage behavioural shifts toward preferred travel choices.

In terms of sustainability, shifts towards active and public transport are preferred due to their high travel efficiency (i.e. they do not take up much space) and high social benefits (i.e. improved health outcomes and improved social connections).

2.1 Objectives

The GTP is prepared with the objectives to over a progressive period:

- Reduce impacts on the road network;
- Improve travel choice through knowledge about services; and
- Achieve long-term behaviour change towards sustainable modes.

2.2 Why is a Green Travel Plan required?

The development of a GTP is widely accepted as one of the best ways to increase active travel around the site. A successful GTP offers many benefits for residents and visitors, including:

- Reduces traffic and local road congestion with Epping;
- Building confidence and improving social interaction by walking and/or cycling;
- Improving the environment by reducing air pollution from private vehicles; and
- Making the most of the investment in public transport infrastructure.

As a result, it is likely that residents and visitors with a good understanding of an active and sustainable mode of transport will follow a healthy and active lifestyle, care about the environment and prioritise location and lifestyle over car ownership.

3 Factors influencing a Green Travel Plan

Several factors have a high level of influence on the travel choices of individuals and groups and are discussed in more detail below.

3.1 Availability and pricing of car parking

Access to car parking, particularly parking that has no time or pricing restriction, has an incredible influence on travel behaviour. Shopping complexes are a key demonstration of this situation; they are designed to encourage people to drive and are supported by an abundance of parking that is essentially free.

In developments where parking is adequate but not abundant, people can make informed choices about their travel needs and the locational choice for their journeys (e.g. a person may choose to walk to the local shops instead of drive or may forgo a car entirely if a parking space is not available and use other means of transport).

3.2 Accessibility to public transport and frequency

Similarly, having good access to public transport services is a significant factor for the success of a Green Travel Plan. However, it is not enough that a public transport service exists, it must be useful in order to make it an appealing offer.

In the case of a city context, useful means it must have services or connections to meaningful destinations and have a level of frequency that is attractive and convenient. It must also be accessible to all members of the community, including people with limited mobility or who may have specific needs (e.g. wheelchair users).

3.3 Active transport infrastructure and access to end of trip facilities

Active transport is any mode of travel under human-generated power. Most commonly it refers to walking and cycling, but can include skateboarding, rollerblading, scootering and other forms of human-powered travel.

Active transport is the most spatially efficient of all transport modes and is given preference where there is limited physical space for movement (e.g. within city centres). Active transport is also preferred as a means to reduce congestion, particularly through the use of cycling as it offers people the capability to travel a reasonable distance (5-10 kilometres) to most destinations within cities with a relative degree of speed.

3.4 Available incentives/penalties

Behaviour change does not occur without a compelling personal need for change or the right incentives and penalties in place to influence a change in travel choice.

The success of a Green Travel Plan is to balance incentives and penalties to achieve the desired outcomes.

3.5 Knowledge of options and their convenience relative to travel needs

A major barrier to converting people from car travel to public and active transport is often knowledge of available services and learning how to navigate the task of journey planning. It is not possible for a person to use a public transport service if they do not know it exists, or they are confused by how to gain access to a service or perform an interchange.

Therefore, it is important that a Green Travel Plan includes communications that are kept relevant about transport services and how to access them, including Opal services. The rise of app technology and Transport for NSW's Open Data portal has greatly improved the availability of information to remove these barriers.

4 Context

All Green Travel Plans must consider their context in order to achieve success. Key contextual factors influencing effective outcomes and proposed actions are outlines below.

4.1 Epping Town Centre Traffic Study

The *Epping Town Centre Traffic Study* (EMM, May 2018) was commissioned by Parramatta City Council to review the traffic networks in and around the Epping Town Centre in the context of current and future land use scenarios.

The key assumptions used in the modelling are an additional 5,000 dwellings by 2026 and an additional 10,000 by 2036. A key objective of the study is to identify through and local traffic in the modelling.

The study finds that given the significantly higher forecast growth of the Town Centre, there is additional pressure on the road network, primarily attributable to regional traffic in a north-south direction, and by the 2036 scenario includes pressure on the east-west journeys.

5 Objectives of the Green Travel Plan

The objectives of this Green Travel Plan are as follows:

5.1 Reduce impacts on road network

In the case of the proposed development, a major objective is to reduce impacts on the road network generated by the development.

The proposed development will deliver a significant uplift in density compared to the existing land use but will also deliver improved quality of built form and amenity in the Epping Town Centre. The expected traffic generation is small. Its location on Beecroft Road, which is operating at a poor service level, increases the level of urgency by the respective road authorities to shift demand to public and active transport to reduce congestion on this road.

However, it is important that there is adequate recognition that the location of Epping Town Centre being a short distance from the M2 motorway plays a significant role in the congestion impacts which is supported by the *Epping Town Centre Traffic Study*.

It is also important in terms of broad collective responsibility to reduce the cumulative impact from developments in the Town Centre to a reasonable the extent that still maintains amenity and commercial viability for the development itself.

5.2 Improve travel choice through knowledge about services

A second major objective of this Plan is to empower people to make informed travel choices by understanding the alternatives available to them. Alternatives travel choices may include modes such as car share, public transport and active transport.

The following are *examples* of tools and actions to assist residents or employees to be aware of the availability of public transport options in the area (for a list of actions relevant to this Green Travel Plan, please refer to Section 8.1):

- Provision of a Transport Access Guide (TAG) which would be given to every new occupant of the dwellings. This document would be based upon facilities currently available at the site and would be updated regularly to reflect the changes in public transport service, active travel facilities and other relevant pieces of information. The TAG would include public transport timetables, stop/station locations, walking times/distances etc;
- Provide real time information on public transport arrival/departure times by providing information screens in the lifts showing train departure times from Epping, the bus schedules servicing the bus stops along with the local weather;
- A half year newsletter could be provided to every household for up to two years after occupation bringing the latest news on sustainable travel initiatives in the area. This newsletter could incorporate events occurring from the pedestrian generators; and

- Provision of good quality, accurate and useful directional signage to promote walking and cycling in essential and it is proposed that this is provided stating times to destination in minutes taken as well as distances in half kilometres.

Technology is playing a major role in keeping people informed about their travel choices and how that influences their own convenience (e.g. journey time, cost).

5.3 Achieve long-term behaviour change toward sustainable modes

The long-term objective is to influence people's travel behaviours so positively that they make a genuine and lasting decision to choose public and active transport for most of their journeys, rather than a private car.

This shift towards public and active transport would have major benefits in terms of personal health and pollution reduction.

6 Green Travel Plan Framework

The following framework outlines the functional flow of this Green Travel Plan and how it will use levers to influence behaviours and travel choices.

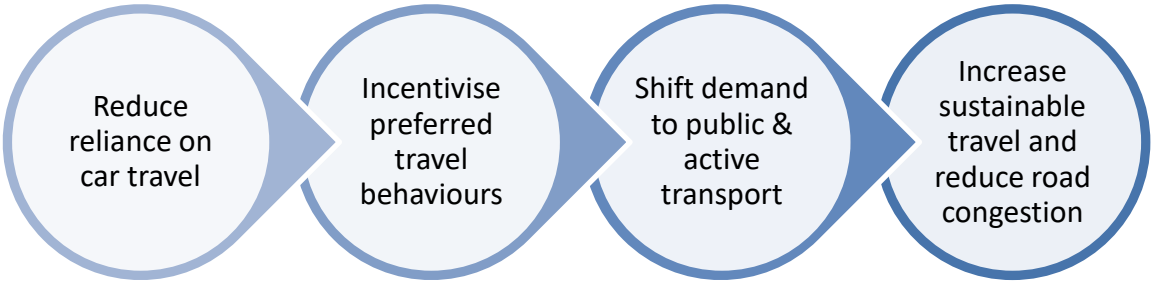

Figure 2 – Framework of this Green Travel Plan

7 Existing Conditions

7.1 Key services

The proposed development has good access to local services as shown in the diagram below. This includes access to medical, a supermarket and food and beverage options all within easy walking distance.

Figure 3 - Epping Town Centre local services

7.2 Sydney Metro / Sydney Trains

Directly opposite the proposed development is the existing Epping rail station that is in the process of being converted to a Sydney Metro service. Epping will be one of 13 new stations for the Sydney Metro North

West line. The Metro service for Epping is due to start operations in 2019, so will be fully active by the time the proposed development is completed.

Sydney Metro North West line will connect with the City and Southwest line which is under construction and is due to open in 2024.

Figure 4 - Sydney Metro North West alignment

A key benefit of Metro compared to Sydney's existing heavy rail is Metro offers both higher capacity and higher frequency services. Metro trains will be able to carry an additional 15,000 people per hour on each line, compared to existing train capacity. Metro trains will run every four minutes in the peak, providing 15 services per hour.

This capacity will be very welcome at Epping station, where train loads currently exceed 135% (this means that all seats are taken, people are standing in the aisle on each level of the train and the vestibule of the train is full and crowded). The existing Central Coast and Newcastle line alternate stopping patterns between Epping and Eastwood.

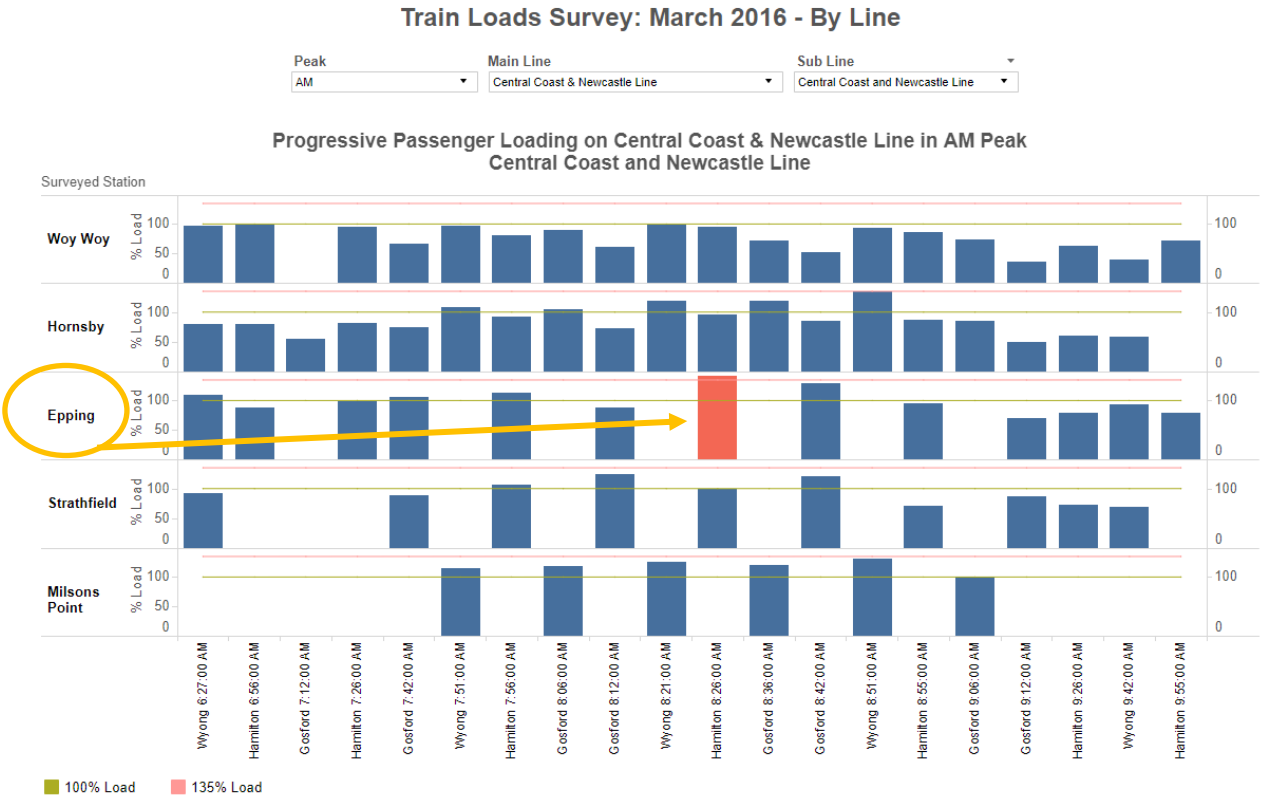

Figure 5 - Train loads at Epping exceeding capacity (2016 Transport for NSW)

The additional train capacity delivered by Metro is highly likely have a significant impact on mode choice given it will connect to all major services, particularly in 2024 when Metro City and Southwest opens and no interchange will be required to travel into the Sydney city centre.

7.3 Bus

The Epping Town Centre is currently well-serviced by buses, providing strong interchange between bus and rail.

Bus stops are located on Beecroft Road and Rawson Street. There is also a bus stop on Cambridge Street opposite Epping station. In total, nine bus routes operate and service both north-south and east-west trips for both regional and local connections.

Service frequency varies for each route, and time of day, however on average, a service is due to arrive every 10 minutes in the peak.

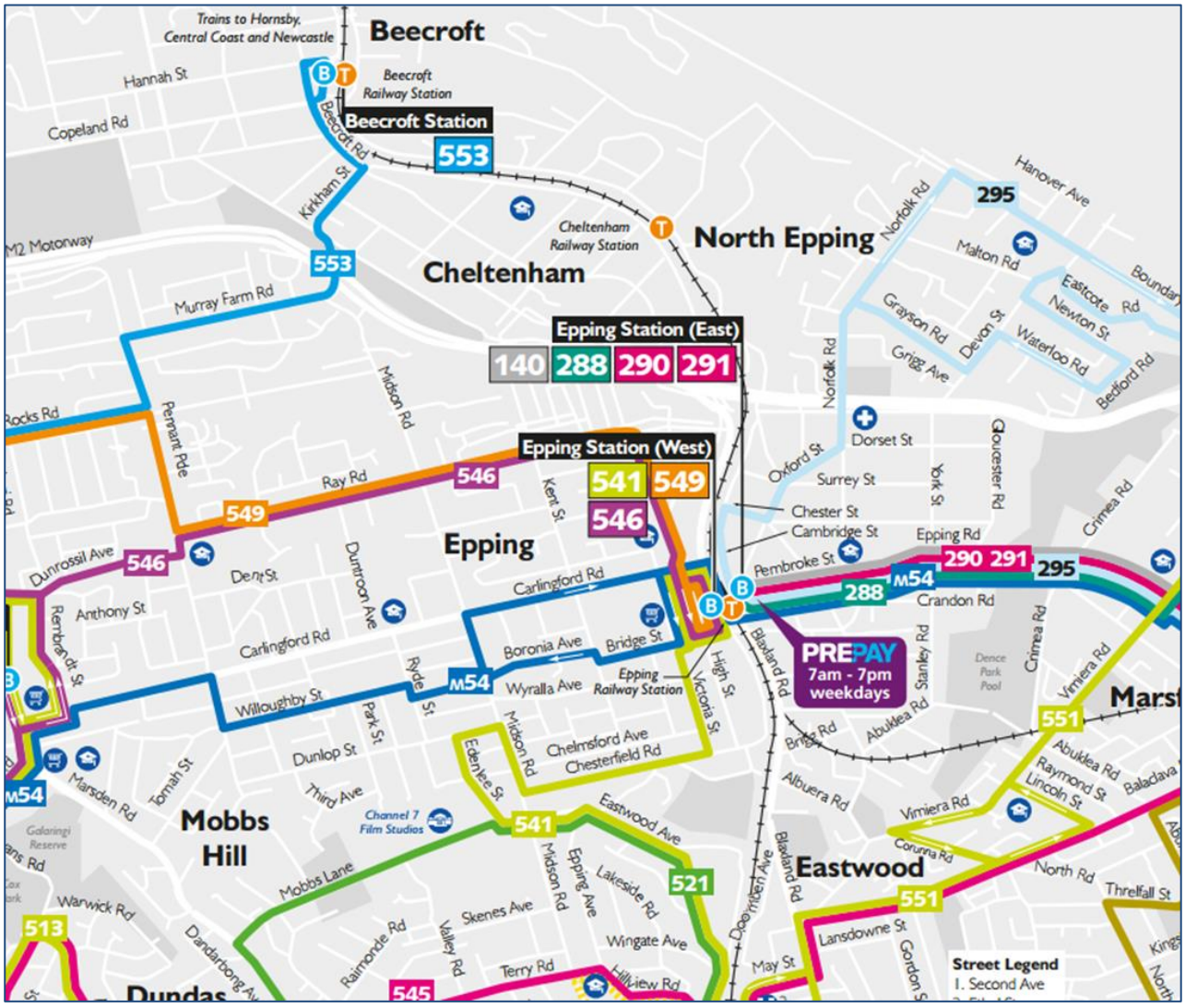

Figure 6 - Sydney Buses network servicing Epping Town Centre

Bus services via Beecroft Road/Rawson Street include:

- Route 541 – Eastwood to Epping
- Route 546 – Parramatta to Epping via Oatlands and North Rocks
- Route 549 – Parramatta to Epping via North Rocks
- Route 630 – Blacktown to Macquarie Park via Carlingford
- Route M54 – Parramatta to Macquarie Park via Epping

Bus Services via Cambridge Street include:

- Route 288 – Epping to City Erskine Street
- Route 290 – Epping to City King Street Wharf via Macquarie University and North Sydney
- Route 291 – Epping to McMahons Point
- Route 295 – North Epping to Macquarie Centre

Buses have a lower capacity than rail services but provide an important role in trunk-and-feeder service models, which is what the development of the current Sydney transport network is based on.

These models work by concentrating high-capacity, frequent services along a spine or "trunk" and just like the branches of a tree, these trunks are connected to lower-capacity service types that connect people via "feeder" services from more diverse origins to the trunk services.

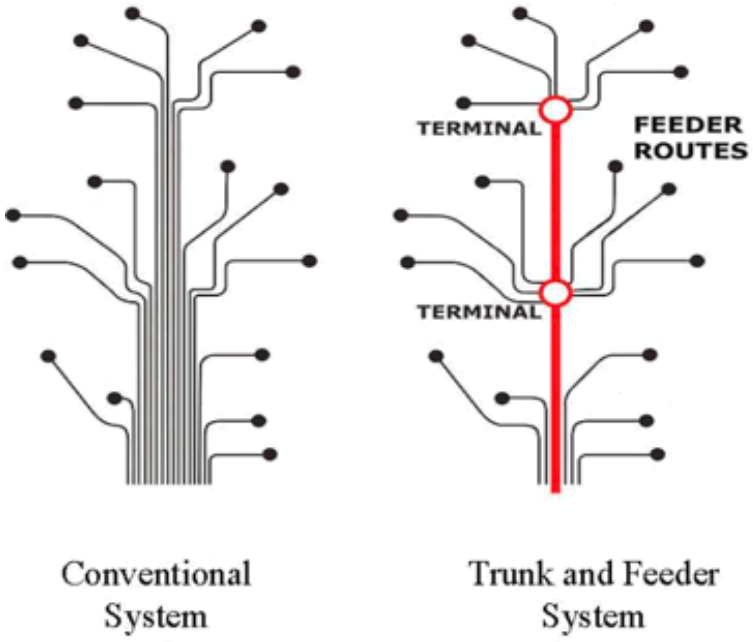

Figure 7 - Illustration of a Trunk and Feeder model compared to a conventional/ Direct service model

7.4 Active transport

Walking and cycling are ideal mode choices for relatively short trips (less than 5 kilometres).

7.4.1 Walking

Epping Town Centre has well-maintained footpaths on both sides of its main streets (Beecroft Road and Rawson Street). Rawson Street has mid-block marked and raised pedestrian crossings to access key destinations such as the Epping Centre and the Coles supermarket. Pedestrian access over Beecroft Road is limited to a pedestrian bridge at the train station. The bridge includes both full lift access and stairs enabling full accessibility to Epping station.

Figure 8 - Accessible Pedestrian Bridge over Beecroft Road

There are no other pedestrian crossing opportunities to the north of Beecroft Road, as this leads to the M2 motorway, and the next crossing opportunity to the south is around a 200m walk to the intersection of Beecroft/Blaxland/Epping/Langston. A three-leg pedestrian facility is provided here which is satisfactory given then are no active land uses on the missing leg.

A publicly accessible through site link has been provided within the site as part of the development. The link will be publicly accessible at all times and provides a link from Rawson Street to Beecroft Road and the Epping Train Station. The link is provided along the southern boundary of the site and will form one of several new pedestrian linkages that will facilitate improved pedestrian access throughout the Epping Town Centre.

7.4.2 Cycling

Cycling routes servicing the Epping Town Centre are generally of medium difficulty on on-street. This indicates that cycling is a low priority, which is supported by a very low mode share of 0.4% at the 2011 Census (EMM, 2018, *Epping Town Centre Traffic Study).*

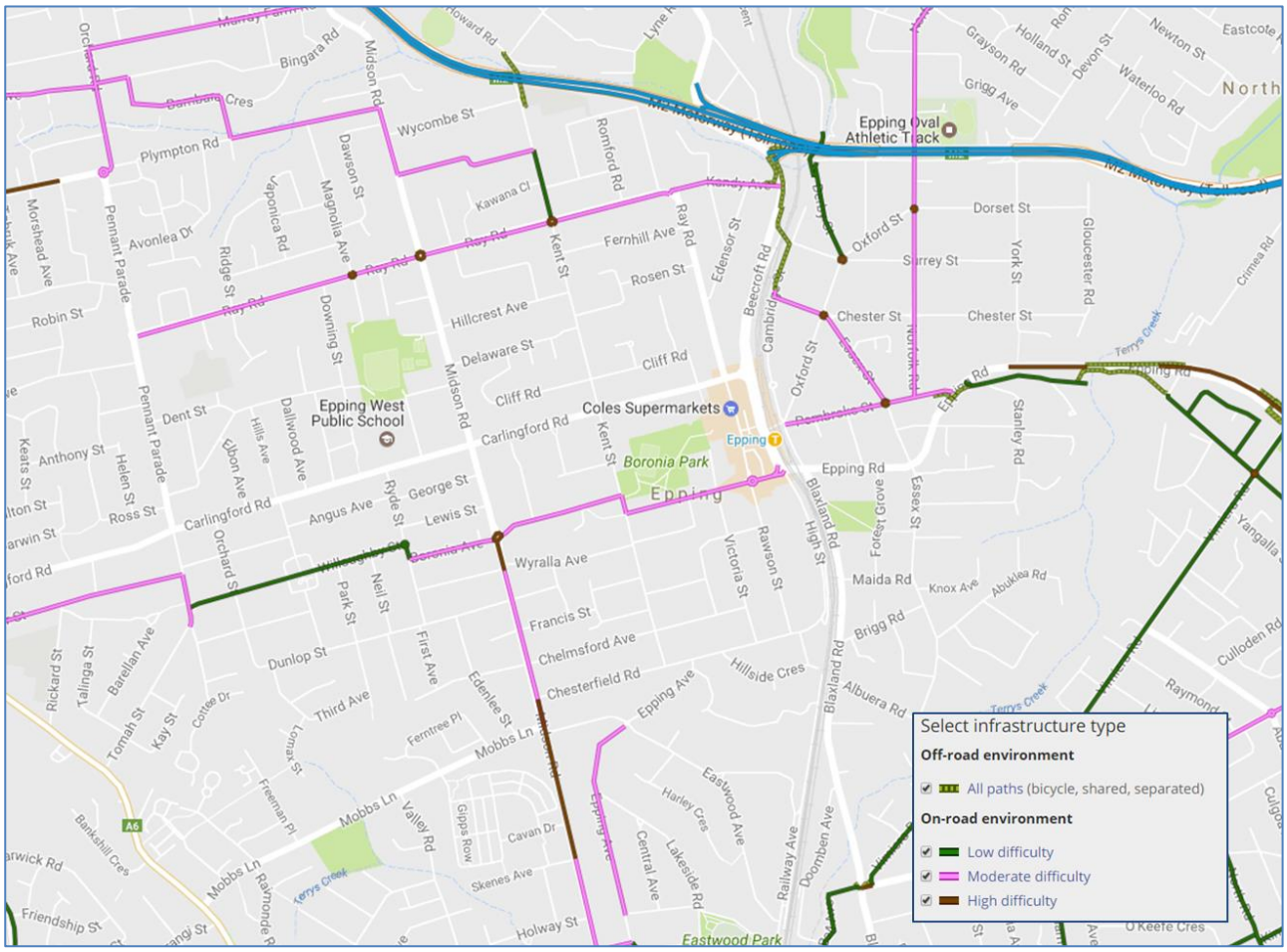

Figure 9 - Regional Cycle Network (RMS)

Investment in cycling infrastructure could significantly increase the mode share for cycling to reduce impact on the road network.

7.5 Car share

There are currently nine car share vehicles available for rent in and nearby the Epping Town Centre. Go Get is currently the only operator in the area with a dominant market position.

Flexicar and Hertz 24/7 are potential future operators in the area.

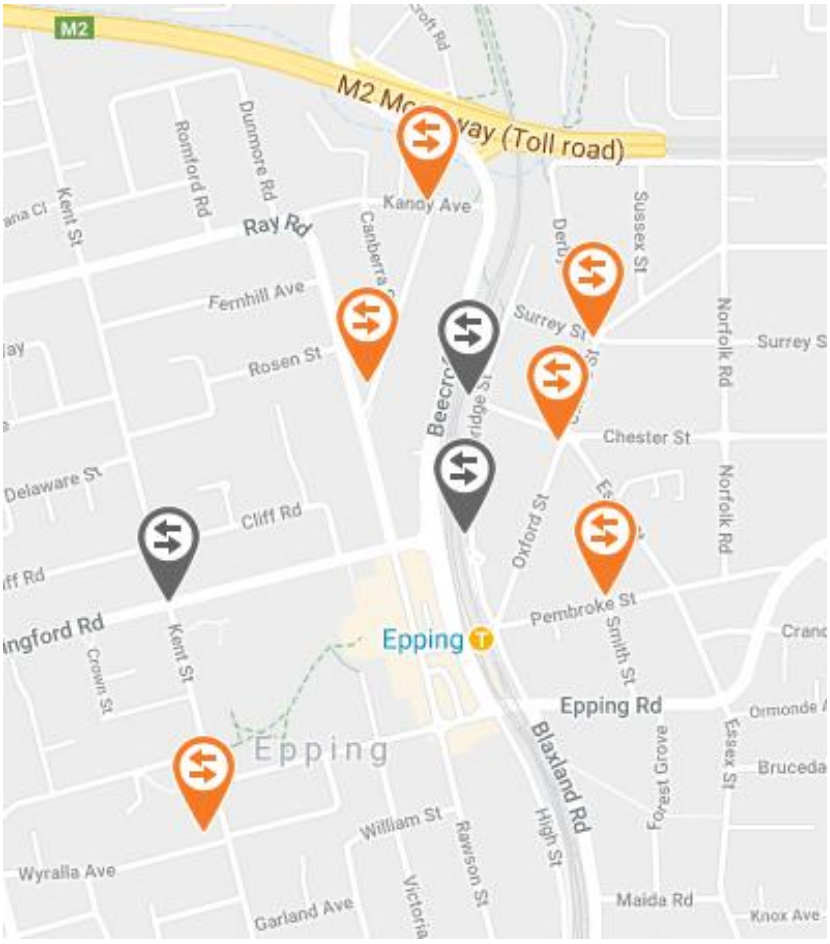

Figure 10 - Go Get vehicles near Epping Town Centre

Car share is an excellent option for people who may not want the expense of purchasing maintaining their own car, may not have parking available at their residence, or who may want the diversity of different vehicle options including luxury cars, vans or utility vehicles.

The proposed development includes four car share parking spaces which will be available for use by residents and the general public.

7.6 Road network

The road network characteristics are as shown in Table 1 - Characteristics of Epping Town Centre road network below.

Road	Speed Limit	Lanes	Road Authority
Beecroft Road	60kph	6 (divided, plus time restricted parking)	RMS
Rawson Street	50kph	2 (undivided, plus time restricted parking)	Council
Bridge Street	50kph	2 (undivided, plus parking)	Council

Carlingford Road	60kph	4 (undivided)	RMS
Ray Road	50kph	2 (undivided, plus parking)	Council

Table 1 - Characteristics of Epping Town Centre road network

The area is dominated by regional through traffic accessing the M2 motorway and east-west movements between Macquarie Park and the Parramatta area (as shown by the black arrows in Figure 11 - Through-traffic movements in Epping Town Centrebelow).

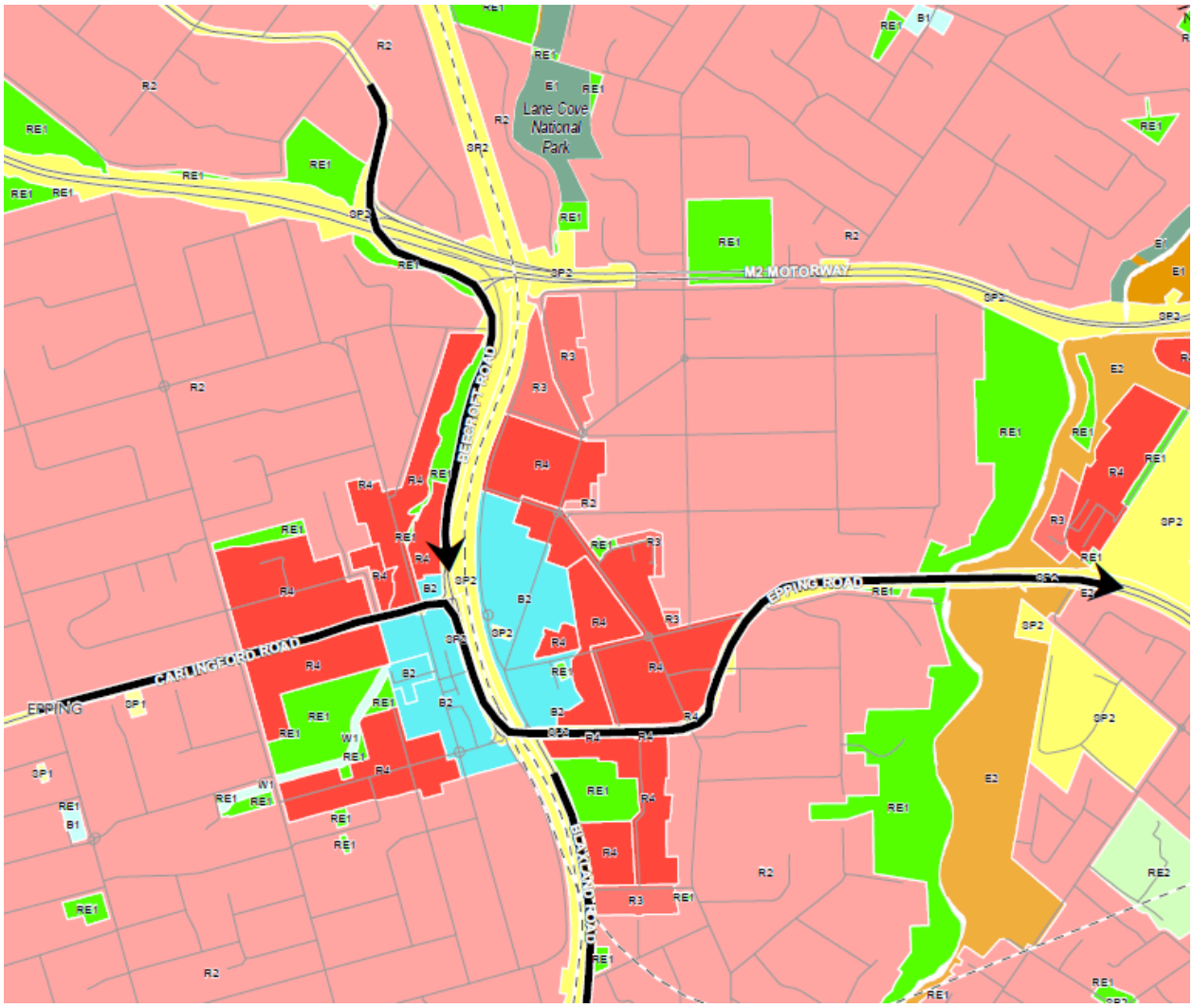

Figure 11 - Through-traffic movements in Epping Town Centre (EMM, 2018)

The *Epping Town Centre Traffic Study* does not make clear, despite its objectives, to what extent local traffic is impacting on the road network performance including that generated by the subject site.

The proposed development will provide 85 car parking spaces in line with Roads and Maritime Services (RMS) CBD rates, and these rates are lower than the maximum parking rates allowed in Parramatta DCP 2011.

8 Site-specific actions

The following actions are recommended to deliver on the Green Travel Plan Framework for this proposed development.

8.1 Action Plan

Item	Description	Beneficiary	Timeframe	Implementer
1. Reduce car parking on site	Reduce total number of car parking spaces to RMS CBD rates (this is included in the proposed development).	Residents Road network users	At design stage	Architect (complete)
2. Car parks only sold within the development	A suitable restriction will be implemented to restrict the use of any residential car space to an owner or occupier of the building	Road network users	At design stage	Legal
3. Car share (x4)	Provide for four (4) car share spaces within the proposed development. Enter into an agreement with a car share operator.	Residents Local residents and businesses	Prior to occupation	Body Corporate Car share operator
4. Create a resident-focussed social media community (for example, Facebook)	Create a social media community for residents (for example, setting up a Facebook page or other similar platform) within the development on a relevant social media platform. Provides a low-effort, high efficacy tool for building management to communicate with resident group in real time.	Residents and building management	Prior to occupation	Body Corporate

Item	Description	Beneficiary	Timeframe	Implementer
	Resident-led activities may include creation of a 'bike bus' or 'walk bus' to assist children to attend school by active transport methods.			
5. Resident Welcome Pack	Pack to include: • Information about social media group • Information about the bike or walk bus (if implemented at that stage) • Other relevant travel information • Transport Access Guide Information to be placed in an accessible place for all residents (e.g. resident noticeboard) and updated as necessary.	Residents	Moving in day	Body Corporate
6. End-of Trip facilities (only if there is a conversion to a commercial use in the future)	To encourage physical activity, including riding a bike to work, end-of-trip facilities should be fitted into the development to meet this need. Residents do not require end-of-trip facilities (apart from bike parking which is included) as they can freshen up at home.	(Potential future) commercial tenants	As required should use be converted	Architect (future)

8.2 Monitoring Plan

Following completion of the building and after occupation, the Body Corporate may undertake monitoring of the plan annually for the first three (3) years.

The Monitoring may include the following actions:

- Using the social media group or other method, survey residents to identify their travel behaviours, including mode of travel to work; and
- Undertake traffic counts at the basement entry/exit over two consecutive days at the AM and PM peak to identify the volume of traffic movements in and out.

8.3 Management and implementation

The success of a Green Travel Plan relies partly on the actions identified, but also with the willingness and capacity to implement them. The other key elements in the development and implementation of a successful GTP include:

- Communications – Good communications are an essential part of the GTP. It will be necessary to explain the reason for adopting the plan, promote the benefits available and provide information about the alternatives to reliance on private car travel;
- Commitment – GTPs involve changing established habits and providing the impetus for occupants in new developments to choose a travel mode other than private car use. To achieve co–operation, it is essential to promote positively the wider objectives and benefits of the Plan. This commitment includes the provision of the necessary resources to implement the Plan, beginning with the introduction of encouragement for changing travel modes upon occupation; and
- Consensus – It will be necessary to obtain broad support for the introduction of the Plan.

Once the Plan has been adopted it will be essential to maintain interest in the scheme and any new initiative in the Plan will need to be publicised and marketed. At all stages, residents should be consulted on any new initiatives to ensure that they are tailored to their needs, if they are in keeping with the Green Travel Plan Framework and the objectives of this plan.

At a development of this scale, it would be unreasonable to require the employment of a dedicated Green Travel Coordinator, however, with the right tools to maximise reach to residents (e.g. social media), this role could be included in the building manager's portfolio.

9 Conclusion

A Green Travel Plan is a useful tool to manage the culminative impacts of developments by enabling each developer to put in place tools to reduce reliance on private car travel and increase public and active transport use.

The proposed development at Beecroft Road is ideally located across from a major train station, offering frequent, high capacity services on Sydney Metro and Sydney Trains services to the Central Coast and Newcastle. These services offer connections to local destinations to the north and south, and access to the Hunter region and beyond. The development is also well serviced by multiple bus services that provide both local and regional connections.

Cycling routes are available in the local region and walking infrastructure is generally good with a fully accessible pedestrian bridge connection between the development and Epping station, and well-maintained footpaths with kerb ramps on the main streets. A through-site link will improve connectivity between Rawson Street and Beecroft Road.

The area is well serviced by local amenities, again decreasing the need to travel by means other than active transport for general food shopping, restaurants and medical needs.

Successful implementation of a Green Travel Plan will require commitment, communication and consensus to achieve the desired outcomes.