

INTEGRATED TRANSPORT STRATEGY TRANSPORT CORRIDOR ANALYSIS

JANUARY 2018



GLEN EIRA
CITY COUNCIL

Executive Summary

Council owns and manages most of the street network within the municipality with some exceptions, namely the arterial roads of which are owned and maintained by VicRoads.

Council has a core responsibility to manage and allocate road space for transport and movements purposes within the roads that it owns and manages.

The longheld road management approach has sought to balance the needs of all users on all streets, while maintaining a focus to vehicular movement and parking.

To address concerns regarding greater congestion, the draft *Integrated Transport Strategy* seeks to prioritise travel modes on identified routes to create more efficient peak time trips through the City.

This paper seeks to interpret the existing street network and to determine a preferred priority to be used to guide future investment on the network. This report details the methodology and assessment used to produce the preferred priorities.

The following four mode based route types have been developed:



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Assessment Methodology

To understand the most appropriate route type for each road or street the following processes were undertaken.

BENCHMARKING AGAINST IDEAL STREET MAKEUP

The first step is identifying what elements or conditions of a street would be required to develop a high quality and successful premium transit corridor for each mode type.

I. EFFICIENT CAR ROUTES

Purpose

An efficient car route is a road or street that aims to ensure the movement of private vehicle traffic is effective as possible.

Key conditions for a successful efficient car routes

- Provides direct connections to high order arterial roads or highways.
- Has adequate width to accommodate four or more trafficable lanes.
- Has limited traffic movement impediments (a frequent stopping public transport service or a level crossing).
- Does not pass through school zones that require a reduction in vehicle speeds.
- Does not pass through retail strips with active commercial frontages.

2. EXPRESS PUBLIC TRANSPORT ROUTES

Purpose

An express public transport route is a road or street that aims to prioritise the movement trams or buses, these modes are the most efficient at moving large amounts of people quickly within limited road space.

Key conditions for a successful express public transport route:

- Provides direct connections to key destinations including train stations and retail strips.
- Has adequate width to accommodate four or more trafficable lanes, to allow for separation of services.
- Should already be utilised by high quality and frequency tram and bus services
- The route has limited on street parking or existing on street parking is underutilised.
- The route does not seek to duplicate the existing train lines.

3. SAFE CYCLING STREETS

Purpose

A safe cycling street is a road or street that aims to enable cycling as a legitimate transport mode choice. These streets foster a safe environment for people of all abilities to safely cycling between destinations.

Key conditions for a successful safe cycling street

- Provides direct connections to key regional cycling networks.
- Provides direct connections to highly desirable destinations, including train stations and retail strips.
- Has adequate width to accommodate a fully protected bike path.
- Does not pass through key commercial precincts where on-street parking is highly valued.
- Connection between residential hubs and school precincts.

4. GREAT WALKING AND SHOPPING STREETS

Purpose

A great walking and shopping street is a road or street that aims to enable the movement people for the purpose of walking, shopping and experiencing our activity centres and public places.

Key conditions for a successful great walking and shopping street

- Provides direct connections between residential hubs and key destinations, including train stations and retail strips.
- Provides links between residential hubs and school precincts.
- Aligns with express public transport routes and safe cycling streets.
- High quality footpaths on both sides of the street.
- Minimal traffic lanes with slow vehicle speeds.

Assessment of street type matrix

These elements/conditions are used to develop a matrix by which each major road / street is measured against. We have developed individual matrixes for each of the route types below.

	Efficient car routes						
Street name	Provides direct connections to high order arterial roads or highways.	Has adequate width to accommodate four or more trafficable lanes.	Has limited traffic movement impediments (frequently stopping public transport service or a level crossing).	Does not pass through school zones that require a reduction in vehicle speeds.	Does not pass through retail strips with active commercial frontages.	Assessment	
STREET	X	X	X	X	X	TOTAL	

Express public transport routes						
Street name	Provides direct connections to key destinations including train stations and retail strips.	Has adequate width to accommodate four or more trafficable lanes, to allow for separation of services.	Should already be utilised by high quality and frequent tram and bus services.	The route has limited on-street parking or existing street parking is underutilised.	The route does not seek to duplicate the existing train lines.	Assessment
STREET	X	X	X	X	X	TOTAL

Safe cycling streets						
Street name	Provides direct connections to key regional cycling networks.	Provides direct connections to key destinations including train stations and retail strips.	Connectio n between residential hubs and school precincts.	Does not pass through key commercial precincts where on street parking is highly valued.	Has adequate width to accommodate a fully protected bike path.	Assessment
STREET	X	X	X	X	X	TOTAL

Great walking and shopping streets						
Street name	Provides direct connections between residential hubs and highly desirable destinations, including train stations and retail strips.	Provides links between residential hubs and school precincts.	connects to or passes through retail strips.	Aligns with express public transport routes and safe cycling streets.	Minimal traffic lanes with slow speed vehicles.	Assessment
STREET	X	X	X	X	X	TOTAL

Each street is scored across the relevant criteria from 5-1 as below.

Scoring	5 Excellent	4	3 Acceptable	2	1 Poor
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This is then totaled to determine the most appropriate mode types for each of the streets, the below tables details the range of scores between 25-0.

25-20 Excellent	19-13 Acceptable	12-0 Poor
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Assessment Matrix Results

The detailed assessment results of each primary street and the four alternate street types.

Efficient Car Routes						
Street name	Provides direct connections to high order arterial roads or highways.	Has adequate width to accommodate four or more trafficable lanes.	Has limited traffic movement impediments (frequent stopping public transport service or a level crossing).	Does not pass through school zones that require a reduction in vehicle speeds.	Does not pass through retail strips with active commercial frontages.	Assessment
Nepean Highway	5	5	5	5	5	25
South Road	5	5	5	5	5	25
Dandenong Road	5	5	5	5	5	25
Warrigal Road	5	5	5	4	5	24
North Road	5	5	5	5	4	24
East Boundary	5	5	5	4	4	23
Jasper Road	5	3	5	5	4	22
Hotham Street	5	5	5	1	5	21
Centre Road	5	4	5	3	2	19
Kooyong Road	4	3	4	4	4	19
Poath Road	4	4	4	4	3	19
Glen Eira Road	5	3	5	1	4	18

Murrumbeena Road	4	3	4	1	4	17
Hawthorn Road	5	5	1	3	2	16
Alma Road	3	3	4	3	3	16
Grange Road	4	3	4	1	4	16
Inkerman Road	3	3	4	3	3	16
Neerim Road	4	4	2	1	4	15
Orrong Road	3	3	3	1	4	14
Mackie Road	3	3	4	1	3	14
Patterson Road	4	3	4	1	2	14
Thomas Street	2	3	3	3	3	14
Bambra Road	2	3	3	3	3	14
Booran Road	2	3	4	1	3	13
Brewer Road	3	2	4	1	3	13
Koornang Road	4	3	2	3	1	13
Tucker Road	2	3	3	1	3	12
McKinnon Road	2	2	4	1	2	11
Balaclava Road	2	1	1	1	3	8
Glenhuntly Road	2	2	1	1	1	7

Express public transport routes						
Street name	Provides direct connections to key destinations, including train stations and retail strips.	Has adequate width to accommodate four or more trafficable lanes, to allow for separation of services.	Should already be utilised by high quality and frequent tram and bus services.	The route has limited on-street parking or existing on street parking is underutilised.	The route does not seek to duplicate the existing train lines.	Assessment
Warrigal Road	4	5	5	3	5	22
Hawthorn Road	4	5	4	3	5	21
Balaclava Road	4	4	5	3	5	21
Nepean Highway	5	5	5	4	1	20
East Boundary	4	5	2	4	5	20
North Road	4	5	3	3	5	20
South Road	3	5	3	4	5	20
Glen Huntly Road	5	4	5	1	4	19
Centre Road	4	4	3	3	5	19
Murrumbeena Road	5	4	3	4	3	19
Neerim Road	3	4	3	3	5	18
Glen Eira Road	5	2	2	3	5	17
Dandenong Road	3	5	3	5	1	17

Hotham Street	3	5	4	2	2	16
Poath Road	4	4	3	3	2	16
McKinnon Road	4	2	3	3	4	16
Koornang Road	5	3	4	1	2	15
Tucker Road	3	3	4	3	2	15
Mackie Road	3	3	3	3	3	15
Patterson Road	4	3	1	3	4	15
Orrong Road	3	3	3	3	2	14
Inkerman Road	3	3	1	3	4	14
Alma Road	3	3	1	3	4	14
Kooyong Road	2	3	3	3	3	14
Jasper Road	3	3	2	3	2	13
Bambra Road	4	3	1	3	2	13
Booran Road	4	3	1	3	2	13
Grange Road	4	3	1	3	2	13
Brewer Road	2	2	1	3	4	12
Thomas Street	3	3	1	3	2	12

Safe Bike Streets						
Street name	Provides direct connections to key regional cycling networks.	Provides direct connection to key destinations including train stations and retail strips.	Connection between residential hubs and school precincts.	Does not pass through key commercial precincts where on street parking is highly valued.	Has adequate width to accommodate a fully protected bike path.	Assessment
Balaclava Road	4	3	5	5	4	21
Tucker Road	4	4	4	4	4	20
Grange Road	4	4	4	4	4	20
Orrong Road	4	4	4	4	4	20
Murrumbeena Road	4	5	5	2	4	20
Inkerman Road	5	3	4	4	4	20
Patterson Road	3	5	5	3	3	19
Nepean Highway	4	4	1	5	5	19
Koorngang Road	5	4	4	1	4	18
East Boundary Road	4	3	2	4	5	18
McKinnon Road	3	5	4	2	4	18
Booran Road	3	4	3	4	4	18
Thomas Street	2	3	3	5	4	17

Hotham Street	3	2	3	5	4	17
Bambra Road	3	3	4	4	3	17
Neerim Road	3	3	4	4	3	17
Brewer Road	3	2	5	4	3	17
Poath Road	4	3	3	3	3	16
Alma Road	4	3	2	4	3	16
Hawthorn Road	3	3	4	3	3	16
North Road	2	4	2	3	4	15
South Road	3	2	1	4	5	15
Glenhuntly Road	4	5	3	1	2	15
Centre Road	3	4	2	2	4	15
Glen Eira Road	2	4	3	3	3	15
Jasper Road	2	3	2	5	3	15
Warrigal Road	2	2	3	4	4	15
Dandenong Road	3	1	1	5	4	14
Mackie Road	2	3	2	4	3	14
Kooyong Road	2	3	1	4	3	13

Great walking and shopping streets						
Street name	Provides direct connections between residential hubs and highly desirable destinations including train stations and retail strips.	Provides links between residential hubs and school precincts.	Connects to or passes through retail strips.	Aligns with express public transport routes and safe cycling streets.	Minimal traffic lanes with slow vehicle speeds.	Assessment
Koorng Road	5	4	5	4	4	22
Glenhuntly Road	5	3	5	4	5	22
Patterson Road	5	5	3	4	4	21
Centre Road	5	4	4	4	3	20
Balaclava Road	3	5	4	3	4	19
Murrumbeena Road	5	5	3	3	2	18
Hawthorn Road	4	3	3	4	4	18
McKinnon Road	4	4	4	3	3	18
Glen Eira Road	4	3	3	3	4	17
Orrong Road	3	4	2	4	4	17

Tucker Road	3	4	2	4	4	17
Bambra Road	3	4	2	3	4	16
Poath Road	4	3	3	3	3	16
Brewer Road	2	5	2	3	4	16
Inkerman Road	3	2	2	4	4	15
Alma Road	3	2	2	4	4	15
Grange Road	4	4	2	3	2	15
Booran Road	2	3	2	4	3	14
Mackie Road	3	2	2	3	4	14
Hotham Street	4	3	1	3	2	13
Jasper Road	3	2	1	3	3	12
Nepean Highway	1	1	5	4	1	12
North Road	3	3	3	2	1	12
Neerim Road	2	4	2	2	2	12
Kooyong Road	2	1	2	3	3	11
Thomas Street	2	2	2	2	3	11
East Boundary Road	2	2	2	3	1	10
Warrigal Road	2	3	2	2	1	10
South Road	2	1	2	1	1	7
Dandenong Road	1	1	1	1	1	5

Premium Corridors Network

The map below illustrates the complete City of Glen Eira network as a result of the assessment.



PREMIUM CORRIDORS NETWORK RESULTS

The following four mode based route types have been developed:

- Efficient Driving Route
- Express Public Transport Route
- Safe Bike Street
- Great Walking and Shopping Street

Each of these mode based street types are detailed below with a purpose, set of conditions for success and potential interventions and an individual network map based on the assessment.

Efficient Car Routes

An efficient car route is a road or street that aims to ensure the movement of private vehicle traffic is effective as possible.



Key Streets

- Nepean Highway
- Dandenong Road
- South Road
- North Road
- Warrigal Road
- Murrumbeena Road
- Kooyong Road
- Glen Eira Road
- Poath Road
- East Boundary Road
- Neerim Road
- Hotham Street
- Grange Road
- Jasper Road

Potential interventions/ improvements

To increase the effectiveness of the Efficient Car Route interventions and possible improvement may include:

- Creation of clearways to enable multiple trafficable lanes in peak hours
- Removal of level crossings
- Banning or reducing right hand turns
- Creation of turning only-lanes
- Consistent sign posted speed limits
- Better phased traffic signals for free flow of traffic
- Exploring the reinstatement of lost street parking where required

Express Public Transport Routes

An Express Public Transport Route is a road or street that aims to prioritise the movement of trams or buses, these modes are the most efficient at moving large amounts of people quickly within limited road space



Key Streets

- Balaclava Road
- Hawthorn Road
- North Road
- East Boundary Road
- Murrumbidgee Road
- South Road

Potential interventions/ improvements

To increase the effectiveness of the Express Public Transport Route interventions and possible improvement may include:

- Separation of the service for example: Bus Only lane or a removal of cars from the tram lane
- Prioritisation of the service for example: creation of clearways in peak hours
- Program traffic signals to prioritise bus movements through intersections
- Construct accessible tram and bus stops with high quality shelters and signage
- Improved connection with train stations and interchange facilities
- Exploring the reinstatement of lost street parking where required

Safe Bike Street

A Safe Bike Street is a road or street that aims to enable cycling as a legitimate transport mode choice. These streets foster a safe environment for people of all abilities to safely cycling between destinations.



Key Streets

- Inkerman Road
- Orrong Road
- Bamba Road
- Koornang Road
- Tucker Road
- Nepean Highway
- Riddle Parade
- McKinnon Road
- Thomas Street

Potential interventions/ improvements

To increase the effectiveness of the Safe Bike Street interventions and possible improvement could include:

- Construction of permanent separated safe bike paths
- Continue all bike lanes through intersections
- Minimise car movements across bike lanes at traffic signals.
- Consistently reduce vehicle speeds along the route
- Ensure lighting is of a high standard along whole route
- Exploring the reinstatement of lost street parking where required

Great Walking / Shopping Streets

A Great Walking / Shopping Street is a road or street that aims to enable the movement people for the purpose of walking, shopping and experiencing our activity centres and public places.



Key Streets

- Centre Road
- Glen Huntly Road
- McKinnon Road
- Paterson Road
- Neerim Road
- Balaclava Road
- Hawthorn Road
- Koorang Road

Potential interventions/ improvements

To increase the effectiveness of the Great Walking/ Shopping Street interventions and possible improvement may include:

- Pedestrian priority at all side street intersections
- Consider road closures and shared zones
- Plant high quality canopy trees along route
- Ensure high quality lighting along length of the route
- Improved traffic signals to prioritise pedestrians
- Develop destination high value public spaces
- Provide adequate parking in locations that do not affect the walkability of the street.