1 Purpose of Paper

This paper is about public transport. Its purpose is to establish desired standards of service, DSS, for public transport serving Logan City and to specify infrastructure works required to deliver the DSS. Those works on the trunk road network before 2031 will be included in the roads’ Plan For Trunk Infrastructure, PFTI.

2 Background

The Planning Scheme’s Strategic Framework sets out Council’s vision for transport to serve the City into the future. The vision recognises the very high community and household costs associated with a high dependence on private car travel and seeks to encourage more sustainable transport modes. The vision for public transport is that it will have a very much increased role in serving the passenger transport needs of the future City. Public transport has a broader role than private car travel. Not everybody has access to a car; indeed, at any one time up to 40% of the population must turn to alternative modes if they need to travel. Many trip purposes are satisfied on foot and cycle, but for longer trips, those without access to a car must use taxis or public transport. Public transport has an equity role as well as being significantly more efficient and sustainable than private transport.

The delivery and management of public transport services is a state government responsibility and it is to be expected that the state government will continue to foster improved services. However, there are opportunities for improving public transport’s role within and across Logan through judicious investment in Council’s infrastructure; access to park’n’ride stations, pedestrian and cycle access to rail and bus stations and stops and through the application of bus priority treatments to the road network buses must use.

It is not anticipated that the quantum of increased patronage, the DSS, and investment program set out in following sections, will represent a significant saving in the investment required to maintain a congestion-free road network but it may delay the need for some upgrades and new links.

In the main, the proposed investments in public transport infrastructure set out below are justified not only by the superior reliability and travel time savings they will bring to public transport passengers, but also by the significant operational savings that will be delivered for the service provider.

3 Desired Standards of Service for Public Transport

Service standards govern the planning and design of the public transport system. Improving the quality and efficiency of public transport is important if travel behaviour is to be changed to increase public transport mode share. The attractiveness of public transport involves many factors; comfort and safety, seamless interchanging, automated ticketing, good information, waiting and in-vehicle travel time and supporting infrastructure, such as bus shelters.

The concept of 'desired standard' is dictated by what public transport users want to be fully satisfied with the service offered. This varies for different users. It reflects the maximum level
of utility to which the users and potential users of public transport aspire. Having said that, it is important to be realistic. For example, a zero waiting time might be desirable, but not feasible.

### 3.1 Strategic Public Transport Network Plan

The South East Queensland (SEQ) Regional Plan places great emphasis on more efficient land use/transport integration. This represents a key challenge to local government to develop a Strategic Public Transport Network Plan (SPTNP), to inform the Planning Scheme.

Logan City Council commissioned public transport specialist consultants, McCormick Rankin Cagney (MRC) in 2010 to develop a SPTNP. MRC identified thirteen "High Frequency Priority" (HFP) routes/corridors classified as Primary, Secondary and Tertiary routes. This plan was endorsed by Council in June 2010.

#### 3.1.1 Primary Network

The Primary Network comprises region-wide, higher-order corridors, where services are required to be especially fast, frequent and include higher-order elements such as right-of-way separation, transit priority, and potential for different vehicle technology including light rail.

These corridors connect Principal Activity Centres and major transit supportive developments across the region. The importance of these higher order transit corridors cannot be understated, particularly in the context of seamless transportation connections reflecting where the people of Logan travel.

The Primary routes identified in the SPTNP are as follows;

- Salisbury to Flagstone Passenger Railway
- Brisbane to Varsity Lakes Railway
- South East Busway (south to the Hyperdome with bus services extending to Beenleigh)

#### 3.1.2 Secondary Network

The Secondary network comprises the corridors and services necessary to meet the key demands identified in the SPTNP. The network links numerous transport hubs across Logan; (Springwood, Logan Central, Browns Plains, Meadowbrook, Beenleigh, Park Ridge, Flagstone and Yarrabilba), by high quality, fast, frequent, reliable and potentially high volume, bus services. These services provide for cross-city movements and are at the centre of Council’s strategic intentions for the City’s transport system.

A big challenge is making secondary network services relatively more contestable with the private car. They will need to have priority over cars on congested roads and short cuts provided by ‘green’ or bus-only roads.

Some critical gaps in current services identified in the SPTNP include, inter alia:

- The lack of a north-south link between Park Ridge, Crestmead, South West One and Logan Central.
- There are no direct east-west public transport routes between Park Ridge and Beenleigh, a 'Principal Activity Centre'..
- The heavily trafficked public transport route between Meadowbrook/Loganlea and the Logan Hyperdome is very indirect.

The ‘Secondary routes’ identified in the SPTNP are as follows;

- Springwood to Browns Plains via IKEA, Logan Central and Berrinba MIBA
• Shailer Park (Hyperdome) to Yarrabilba via Meadowbrook and Logan Village
• Beenleigh to Springfield via Bahrs Scrub, Park Ridge and Greenbank
• Shailer Park to Browns Plains via Meadowbrook and Marsden
• Springwood to Flagstone via Logan Central, Crestmead, Park Ridge and Greenbank

3.1.3 Tertiary Network

Tertiary routes identified in the SPTNP include local routes serving new development areas of Flagstone and Yarrabilba, and long distance routes destined for Brisbane.

Tertiary local routes will also continue to serve both existing urban areas and new growth areas. In the greenfield areas of Flagstone and Yarrabilba, new local services are to be introduced as early as possible to establish public transport travel patterns and reducing dependency of private cars.

The tertiary routes are as follows;

• Springwood to Beenleigh via Kingston Road, Meadowbrook and Logan River Road
• Flagstone to Yarrabilba via Jimboomba
• Beenleigh to Yarrabilba via Bahrs Scrub and the Beenleigh-Beaudesert Road

Long distance routes through Logan and destined for Brisbane include;

• Beaudesert via Jimboomba, Mt Lindesay Highway and Gateway Motorway
• Flagstone via Teviot road, Middle Road and Gateway Motorway
• Yarrabilba via Chambers Flat Road, Park Ridge, Mt Lindesay Highway and Beaudesert Road.

3.1.4 Flexible transport

Fixed route, scheduled services do not meet the needs of all residents. Typically, they do not serve shift workers, or people with disabilities, or seniors who find it difficult to get to bus stops. As well, residents of rural and remote areas in Logan have a need for public transport providing an acceptable minimum level of service that offers travel choices. Low patronage bases for these purposes mean that fixed-route, scheduled bus services are costly and strain the public purse. There is a place for flexible transport services (also known as "demand responsive transport"), bridging a social equity and accessibility gap.

Demand responsive transport is an intermediate form of transport, somewhere between bus and taxi and covers a wide range of transport services ranging from less formal community transport through to area-wide networks.

As and example, Logan City Council began a subsidised, shared taxi service to local shopping centres, for aged pensioners, in November 2005 in all Logan suburbs. Service users can travel for $2 each way on a designated day, usually Tuesday or Wednesday.

3.2 Draft SEQ Integrated Regional Transport Plan (Connecting SEQ2031)

The Draft SEQ Integrated Regional Transport Plan (Connecting SEQ2031) establishes an overall target to change the way the region moves during the next 20 years by doubling the public transport mode share from 7 to 14%.

The draft IRTP notes that bus services will be provided in line with four service categories:

• UrbanLink bus services on strategic routes, many using busways
• **Local bus services** as the fine fabric of public transport
• **Peak-only services** on major commuter corridors
• **Inter-regional links** providing long distance bus services where rail services are not viable.

There is a strong consistency between the draft IRTP and Council's Public Transport Network Plan

### 3.3 TransLink Service Standards

The TransLink Network Plan establishes public transport services under the following four broad categories:

- **High-frequency priority (HFP):** service every 15 minutes or better all day, provided by both bus and rail (and ferry in Brisbane).
- **Local:** primarily bus services, generally every 30-60 min, designed for coverage to low density areas with lower expectations for patronage.
- **Peak only:** extra bus and rail services to boost capacity and provide direct trips for commuters.
- **Regional links:** chiefly provided by inter-city rail services on the Ipswich, Gold Coast and Sunshine Coast rail lines.

Furthermore, TransLink has developed a desired match between land use and the type and frequency of public transport that can reasonably be provided as shown in Table 8.1. This initiative is intended to encourage forms of urban development which improve the ability of public transport to deliver high quality service economically, thus improving land use and transport integration.

### Table 8.1 : TransLink Service Standards by Development Type

<table>
<thead>
<tr>
<th>Density</th>
<th>Development Type</th>
<th>Standard of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-density</td>
<td>Multi-storey (5+)</td>
<td>High Frequency Priority (HFP) Service: “Turn up and go”</td>
</tr>
<tr>
<td>50 dwellings/ha</td>
<td>Brisbane CBD and regional centres</td>
<td>15 minutes frequency or better</td>
</tr>
<tr>
<td>100 residents or jobs/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium density</td>
<td>Small lots mixed with apartments</td>
<td>HFP services on major corridors Infill by local services</td>
</tr>
<tr>
<td>20-25 dwellings/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 residents or jobs/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low density</td>
<td>Newer subdivisions Business parks</td>
<td>Local services on hourly frequency Some access to HFP and peak only services.</td>
</tr>
<tr>
<td>7-15 dwellings/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 residents or 10 jobs/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-urban</td>
<td>Acreage subdivisions Rural towns Isolated villages</td>
<td>Does not generally support public transport service Inter-regional service may connect to centres Park ‘n’ ride to facilitate access to the public transport network</td>
</tr>
<tr>
<td>Fewer than 7 dwellings/ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As low as one dwelling/ha</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4 Outline Desired Standards of Service

Public transport services are contracted for, and almost wholly funded by the State government. As such, Logan City Council has relatively little direct impact on operational service standards. However, there is a place in the Planning Scheme and the Priority infrastructure Plan, for Council to support the state government's aspirations in enhancing public transport through judicious investment in various supporting infrastructure. This applies particularly in the upgrading of the road network, not only in respect to the roads that Council itself constructs, but also in the management of developmental roads.

Table 8.2 below summarises outline operational standards of service:

Table 8.2 Desired Standards of Service for Public Transport

<table>
<thead>
<tr>
<th>Typical service characteristics</th>
<th>Primary routes</th>
<th>Secondary routes</th>
<th>Tertiary routes</th>
<th>Flexible transport routes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode(s)</strong></td>
<td>Bus or Rail</td>
<td>Bus</td>
<td>Bus</td>
<td>Taxi-cab, bus</td>
</tr>
<tr>
<td><strong>Core attribute</strong></td>
<td>'Turn up and go' high frequency all day. Sometimes with limited stops for express service</td>
<td>Turn up and go high frequency at peak times (Mon-Friday)</td>
<td>Provides access to HFP network and local attractors.</td>
<td>Unscheduled 'demand responsive’ transport.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Minimum 10 minutes or better all day</td>
<td>Minimum 15 minutes or better all day</td>
<td>Peak - 15 minutes Off Peak - 30 minutes Long distance: 30-60 minutes peak time</td>
<td>As warranted by demand</td>
</tr>
<tr>
<td><strong>Minimum span of hours</strong></td>
<td>6am – 9pm, seven days</td>
<td>6am – 9pm, seven days</td>
<td>7am – 7pm, weekdays 9am – 6pm, weekends Long distance - Peak only</td>
<td>Local shopping hours</td>
</tr>
<tr>
<td><strong>Average stop spacing</strong></td>
<td>400m to 1.6 km</td>
<td>400m to 800m</td>
<td>400m to 800m Long distance - 3km to 10km</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Table 8.3 summarises infrastructure required to deliver the DSS

Table 8.3 Infrastructure needed to support operational public transport DSS

<table>
<thead>
<tr>
<th>Typical service characteristics</th>
<th>Primary routes</th>
<th>Secondary routes</th>
<th>Tertiary routes</th>
<th>Flexible transport routes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Route</strong></td>
<td>Dedicated 'right of way' - Busway, rail.</td>
<td>HOV lanes, Bus priority lanes, Green links</td>
<td>Queue jumps, bus priority</td>
<td></td>
</tr>
<tr>
<td><strong>At Nodes</strong></td>
<td>Inter-modal</td>
<td>Inter-modal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Typical service characteristics

<table>
<thead>
<tr>
<th>Primary routes</th>
<th>Secondary routes</th>
<th>Tertiary routes</th>
<th>Flexible transport routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>interchange facilities at Transport Hubs and Busway and rail stations. Park’n’ride, Kiss’n’ride</td>
<td>interchange facilities at Transport Hubs. Park’n’ride, Kiss’n’ride</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Access provisions

<table>
<thead>
<tr>
<th>Primary routes</th>
<th>Secondary routes</th>
<th>Tertiary routes</th>
<th>Flexible transport routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality pedestrian and cycle connections</td>
<td>Quality pedestrian and cycle connections</td>
<td>Quality pedestrian and cycle connections</td>
<td>Taxi-cabs must meet minimum safety standards and have facilities for disabled access</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Roadside Furniture

<table>
<thead>
<tr>
<th>Primary routes</th>
<th>Secondary routes</th>
<th>Tertiary routes</th>
<th>Flexible transport routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boarding points with quality seating and waiting facilities (shelters, station, kiss and ride).</td>
<td>Bus stops/shelters and adequate waiting and seating facilities.</td>
<td>Development provided shelters</td>
<td></td>
</tr>
</tbody>
</table>

## 4 Plan For Trunk Public Transport Infrastructure

Table 8.3 above summarises infrastructure investments that can assist the performance and deliverability of quality public transport services.

The Primary Network comprises the rail and busway services to Brisbane City and the sub-region and investment in this network is generally beyond the range of local government.

However, Council does have a responsibility for land-use integration around Primary Routes as Transit Oriented Development and Transit Oriented Corridors. Council also has a role in making provision for access to park’n’ride and kiss’n’ride facilities at the busway and rail stations and for interchanging local bus services at the 15 or so existing or planned stations and Transport Hubs across Logan City.

But Council’s core responsibility in respect to public transport infrastructure and in delivery of its vision for public transport for the City lies with the Secondary Network of bus services. Making the Secondary Network successful depends on ensuring that travel on the bus services it serves is reliable, seamless, as fast, convenient and as efficient as possible and offering real value for money. It also depends on passengers perceiving that public transport is a real choice and that it has been given priority by Council and the State Government.

There are a number of changes to land-use, access and interchange facilities and the roads carrying the Secondary Network that can support these aspirations.

### 4.1 Land-Use Integration

There is symbiotic relationship between public transport and the land uses it serves. All journeys start on foot. The closer the origin and destination of a journey are to the bus stop the more likely travellers will choose public transport. This is the underlying principle underpinning Transit Oriented Development, TOD. Whether it is an origin-based TOD, ie passengers walk from the place of residence to the bus or train, or a destination-based TOD, where walking to the place of work is the main driver, TOD works better with higher density development.
Logan’s new planning scheme places strong emphasis on achieving this land-use/public transport integration. Centre’s planning of Logan Central, Springwood and Beenleigh and local area plans at Jimboomba and Logan Village are all directed at maximising pedestrian, cycling and public transport serviceability and choice.

4.2 Transport Hubs and Stations

The draft IRTP identifies hierarchy of transport hubs across the region. In Logan, Logan Central is designated the highest order transport hub outside Brisbane CBD, and Springwood, Browns Plains, Meadowbrook the Hyperdome, Beenleigh, Flagstone and Yarrabilba as the second order.

Transport hubs are where public transport services, all bus to bus, but also rail to bus at some locations, interchange seamlessly. Because they are so well served they typically co-locate with urban centres, which provide higher density residential, mixed-use and commercial activity.

Park’n’ride facilities are not located at Transport hubs. Land values are too high to be given over to commuter car parking and motorists prefer to drive to more accessible parking than in busy centres.

4.3 Pedestrian and Cycling Access to Public Transport

The planning scheme will incorporate measures; structure plans, general planning layouts, codes and planning scheme policies, to control development to deliver improved active transport outcomes. A strong focus will be ensuring that pedestrian and cycle access to and from bus stops and rail stations will be direct, convenient, safe, and comfortable.

4.4 Park’n’Ride and Kiss’n’Ride Facilities

Car access to public transport is the predominant mode of access for the Logan to Brisbane commute. There is not the same impetus for this form of access for the Secondary Network serving cross-city traffic and Council has no plans to provide them. Council will continue to lobby for the provision of more park’n’ride facilities to serve the South East busway, because of spillover into residential areas which is already evident. There is also an urgent need to plan new stations and their park’n’ride facilities along the Salisbury to Beaudesert Rail Corridor.

4.5 Priority-Controlled Intersections

Buses share the road with general traffic. When the road is congested bus passengers suffer the same delay as motorists. The first location on the road network where this occurs is at intersections. The PIP Plan for Trunk Infrastructure will address this by upgrading intersections before the mid-block sections and providing for bus priority before adding new approach lanes. The primary criteria for selecting intersections to be given priority-controlled treatment are:

- The intersection is on a Secondary Public Transport Route and
- the intersection is, or will soon, exhibit congestion and
- the planned upgrade of the mid-block sections of the road is still 10 years further away

Attached in Appendix 8.1 is a list of Priority-controlled Intersections required by 2031 to be included in the roads’ PFTI.
4.6 Multi-modal Roads

After upgrading intersections, a second intervention to give additional priority to public transport is to construct multi-modal roads. These can take various form, including dedicated bus lanes in the median of a dual carriageway road, but the most common form is as wide outside lanes (4m) designed to carry buses and bicycles only. These are known as ‘transit’ lanes. Resident parking must be banned, at least in peak periods.

Most urban arterial and collector roads already have a parking or break-down lane of around 2.5m wide. Achieving the 4m transit lanes (replacing parking and break-down lanes), may require widening of 3m at most, but could be accommodated partly into the median (if turning movements permit), or by reducing the width of general traffic lanes. Encroachment into abutting properties could be managed without imposing severe hardship or resumption costs.

The primary criteria for introducing multi-modal roads are:

- They serve Primary or Secondary Public Transport Routes,
- The road suffers regular, or intermittent, congestion.
- Bus services are regularly, or intermittently, delayed.
- Road widening to accommodate additional traffic lanes is not cost-effective.

Attached in Appendix 8.2 is a list of Multi-modal roads required by 2031

4.7 Transit Roads

Also known as ‘green’ roads, transit roads serve public transport, walking and cycling (ie green modes), but not cars or trucks. They are much more acceptable to residents of abutting properties and cause much less impact on the natural environment.

They typically deliver sizeable benefits to both bus and to the providers of bus services.

The University to Hyperdome transit route is an excellent example of this. It will take 3 km each way off travel between Meadowbrook and the Busway interchange at the Hyperdome and 4km off travel between the University and the Hyperdome. This will reduce in-vehicle travel time and greater reliability for users and significant operating cost savings to the Contractor (TransLink).

The route traverses the environmentally-sensitive Murray’s Road parkland, (which was the main reason why there is no road between the University and the M1), but buses at 5 minute intervals at most, should be found acceptable by those opposed to a road carrying general traffic.

Attached in Appendix 8.3 is a list of possible Transit roads required by 2031.

4.8 Roadside Furniture

Council has been installing bus shelters across the network since 1992. Council’s target would be to install shelters at busier, in-bound, stops, ie., to around 40% of stops. Council will work closely with TransLink to meet its obligations under the Disability Discrimination Act, DDA, over coming years to ensure all public transport is DDA compliant.

5 Summary

Appendix 8.5 provides a map of the Public Transport Plan for Trunk Infrastructure.
Numerous other land-use and off-road investments will be required to encourage public transport, but these will be the subject of other Council programs.

6 Recommendations

The NAT recommends that the Coordination and Leadership Team endorse Paper # 8; Plan For Trunk Public Transport Infrastructure, for consideration and approval of the Partnership Group.
Appendix 8.1 Schedule of Priority-Controlled Intersections

1. Middle Road / Teviot Road
2. Mount Lindesay Highway / Park Ridge Road
3. Park Ridge Road / Chambers Flat Road
4. Waterford Tamborine Road / Albert Street / Anzac Avenue
5. Chambers Flat Road / Waratah Drive
6. Chambers Flat Road / Browns Plains Road
7. Browns Plains Road / Third Avenue / Trulson Drive
8. Browns Plains Road / Magnesium Drive
9. Browns Plains Road / Scrubby Creek Road
10. Browns Plains Road / Wembley Road
11. Browns Plains Road / Waller Drive
12. Mount Lindesay Highway / Browns Plains Road
13. Mount Lindesay Highway / Grand Plaza Drive
14. Johnson Road / Peverell Street
15. Johnson Road / Paradise Road
16. Johnson Road / Forestdale Drive
17. Wembley Road / Bardon Road
18. Wembley Road / Station Road / Jacaranda Avenue
19. Kingston Road / Wembley Road
20. Kingston Road / Smith Road
21. Kingston Road / Compton Road
22. Loganlea Road / University Drive
## Appendix 8.2 Schedule of Multi-Modal Roads

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Ridge Road</td>
<td>Mount Lindesay Highway</td>
<td>Chambers Flat Road</td>
</tr>
<tr>
<td>Browns Plains Road</td>
<td>Mount Lindesay Highway</td>
<td>Chambers Flat Road</td>
</tr>
<tr>
<td>Chambers Flat Road</td>
<td>Browns Plains Road</td>
<td>Kingston Road</td>
</tr>
<tr>
<td>Kingston Road</td>
<td>Chambers Flat Road</td>
<td>Wembly Road</td>
</tr>
<tr>
<td>Scrubby Creek Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anderson Street</td>
<td>Browns Plains Road</td>
<td>Wembly Road</td>
</tr>
<tr>
<td>Gilmore Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bardon Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wembly Road</td>
<td>Bardon Road</td>
<td>Kingston Road</td>
</tr>
<tr>
<td>Station Road</td>
<td>Kingston Road</td>
<td>Loganlea Road</td>
</tr>
<tr>
<td>Loganlea Road</td>
<td>Station Road</td>
<td>University Drive</td>
</tr>
<tr>
<td>University Drive</td>
<td>Loganlea Road</td>
<td>Griffith University</td>
</tr>
</tbody>
</table>
## Appendix 8.3 Schedule of Transit Roads

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Link</td>
<td>Wembley Road</td>
<td>Pacific Motorway Service Road / Paradise Road</td>
</tr>
<tr>
<td>New Link</td>
<td>Future Industrial Area</td>
<td>Leatrice Street</td>
</tr>
<tr>
<td>New Link</td>
<td>University Drive</td>
<td>Murrays Road</td>
</tr>
<tr>
<td>New Link</td>
<td>Anderson Street</td>
<td>Gilmore Road</td>
</tr>
<tr>
<td>New Link</td>
<td>Anzac Avenue</td>
<td>UDA Boundary</td>
</tr>
<tr>
<td>Gilmore Road</td>
<td>New Link</td>
<td>Bardon Road</td>
</tr>
</tbody>
</table>
Appendix 8.4 Map of Trunk Public Transport Infrastructure