

29 August 2018

Mr Shane King MP  
Chair  
Transport and Public Works Committee  
Parliament House  
George Street  
BRISBANE QLD 4000

By Email: TPWC@parliament.qld.gov.au

Dear Mr King

**RE: Inquiry into the operations of toll roads in Queensland- Public Briefing additional questions**

Please find attached Transurban Queensland's responses to questions outlined in your letter dated 22 August 2018.

Should you require any additional information please contact Tony Meredith, Stakeholder Manager, [REDACTED]

Yours sincerely



Sue Johnson  
Group Executive, Queensland

Transport and Public Works  
Committee  
Inquiry into road tolling  
Supplementary questions

## Supplementary question 1

### Question:

Further to the questions asked at the hearing in relation to the debt collection process, can Transurban advise whether there are guidelines in place for determining which cases are pursued in court and which are referred to SPER, and advise the process involved in determining this issue.

### Response:

95% of our customers have arrangements in place to pay for their travel within 3 days. There is then a small group of people who are experiencing financial hardship and are finding it difficult to pay their tolls. We manage these situations on a case-by-case basis taking into account these customers' extenuating circumstances.

Where a customer has made a genuine mistake, for example forgotten to update their details with us, our first time forgiveness program kicks in.

But for the small number of people who travel on the roads without paying and do not engage with our attempts to contact them for payment, we have a multilayered approach to recover their unpaid debt. This is fair to the vast majority of customers who do the right thing and pay within 3 days or on receipt of a notice.

It is Transurban Queensland's (TQ) preference to always resolve matters with customers without the need for legal proceedings or referring unpaid demand notices to government for enforcement. However if customers refuse to engage it's only fair that these options are explored.

Taking a customer to court is absolutely the last resort.

Generally, court action will only be considered if a customer has a significant amount of unpaid trips, refuses to engage with TQ, and has not sought assistance via the hardship policy.

Not paying a demand notice by the due date is an offence under the *Transport infrastructure Act 1994*. Any demand notices not paid by the due date are therefore eligible to be referred to the government for enforcement. It is therefore important that customers engage with Transurban Queensland when they are contacted seeking payment on unpaid notices. Please refer to Section 4 in the Transurban Queensland submission for more detail.

## Supplementary question 2

### Question:

Could you please provide statistics on the number of unpaid tolls which have been pursued through the debt collection process and which have been referred to SPER on an annual basis over the past 3 years?

### Response:

Transurban Queensland does not have visibility of the number of unpaid infringement notices that are referred to the State Penalty Enforcement Register (SPER) by TMR and BCC. However Transurban Queensland can advise the following:

- 95% of customers pay within three days of travel.
- As a result of increased proactive customer communications, around 85% fewer trips now enter the Government led enforcement process than before Transurban acquired Brisbane's toll roads. Less than 0.5 per cent of transactions result in an infringement.
- If a motorist does not pay their toll within three days of passing through a toll point, we will send a Toll Invoice to the vehicle's registered owner. A single Toll Invoice will include all trips made over 3 consecutive days. An administrative fee of \$8.50 will be charged for each Toll Invoice.
- If customers do not pay the Toll Invoice by the due date, Brisbane Linkt will send a subsequent Demand Notice covering this period. An administrative fee of \$23.81 is charged for each Demand Notice that is sent.
- TQ does not make a profit on these fees – they simply recover the costs of collecting the unpaid toll including wages, IT system costs and other administration costs that we incur.
- In fact, we would prefer no one paid a fee.
- If the Demand Notice is not paid by the due date, TQ proactively works to contact the customer and make arrangements for outstanding Demand Notice(s) to be paid. Specifically we will typically seek to contact a customer multiple times via different methods (e.g. email, phone, letter and SMS).
- After 6 months, if the notice(s) hasn't been paid, Transurban Queensland can refer the matter to the Department of Transport and Main Roads (TMR) or Brisbane City Council (BCC).
- Department of Transport and Main Roads or Brisbane City Council may issue a \$182 Infringement Notice for each unpaid Demand Notice. TMR or BCC retain all infringement revenue
- Unpaid Infringement Notices may be referred to SPER.

For clarity, the figure below shows the process for customers who don't pay for their travel within 3 days:



## Supplementary question 3

### Question:

The Queensland Ombudsman advised the committee that the complaints that they see in large part come from people who dispute that they received a notice of the tolling debt. He suggested that it may be that they are not being issued a notice in an effective way. Could you please advise what changes Transurban has made to improve communication of tolling notices since 2014 and whether this has had a positive impact on payment rates?

### Response:

The majority of our customers have payment arrangements in place or pay within 3 days of travel on toll roads. For those customers who don't pay their tolls and receive a Notice of Demand, that notice is sent by post in accordance with the provisions of the *Transport Infrastructure Act 1994* based on information provided by DTMR.

When a customers' account becomes suspended due to insufficient funds to cover travel, TQ has a comprehensive contact campaign which utilises multiple channels (including proactive phone calls by onshore agents) to encourage the customer to bring their account into good order so as to avoid toll notices for future travel.

Additionally, TQ inserts information when notices are issued by post to promote the opening of an account so that the road user can avoid toll notices when travelling in the future.



We'll credit the fee when you open a Linkt account today

Open a Linkt account today and turn the fee on this invoice into a toll credit for your next trip with us. Just use the promo code NOFEEQLD when opening your account.

#### Why open an account?

Having an account is the fastest and easiest way to pay for your tolls. On a Prepaid account all you need to do is top up and go. A Linkt account will also cover your travel on any Australian toll road.

#### Just a reminder

Once you've opened your new account, make sure you still pay your toll invoice (including the fee) in full.

#### How do I get a toll credit?

- 1 Visit [linkt.com.au/nofee](http://linkt.com.au/nofee) and follow the prompts to open a Prepaid account
- 2 Enter the promo code NOFEEQLD (in the payments section) and include the licence plate number listed on the toll invoice
- 3 Pay this toll invoice in full by the due date (including the toll invoice fee)

This offer is only available for new customers who open a Prepaid Linkt account. For full terms and conditions, please visit [linkt.com.au/nofee](http://linkt.com.au/nofee). Only one account can be opened, and only one toll invoice fee can be refunded as a toll credit per licence plate number listed on the toll invoice.

It's better to be **Linkt**

There has been an 85% reduction in the number of customers moving into the infringement process and with recent changes to legislation that now allows for the aggregation of Notices of Demand we anticipate that this rate will continue to decline.

## Supplementary question 4

### Question:

RACQ suggested that Transurban change one of its key performance indicators to measure complaint resolution rather than complaint volume. Could you please provide your response to this suggestion?

### Response:

TQ is committed to addressing and reducing customer complaints and ensuring they are satisfactorily resolved in a timely manner. When a complaint is received by a customer, we respond promptly and work actively with the customer to reach a resolution.

Transurban Queensland's Customer Resolutions team is independently certified as compliant with the AS ISO 10002—2014 Complaint Handling Standard.

A complaint can be lodged with us over the telephone, via email, on our website, or in writing. Upon receipt of the complaint, the Customer Resolutions team will send an acknowledgement to the customer along with an expected time-frame for resolution. A Resolution Advisor will review the complaint and perform a comprehensive investigation.

Transurban Queensland's focus through this process is to resolve the matter in a fair and reasonable way that avoids the need for further escalation of the complaint.

Importantly, as part of the complaint-handling procedure, the resolution team provides feedback to the TQ business around key learnings and insights, ensuring opportunities for continuous improvement are captured and actioned.

Transurban Queensland does not believe it is necessary for a KPI that measures complaint resolution rather than complaint volume, as our processes ensure that every complaint is fully resolved. This does not always mean that the customer is fully satisfied with the outcome, however it is clearly communicated to the customer that the outcome is now finalised, and advised of further external escalation options to the Tolling Customer Ombudsman.

## Supplementary question 5

### Question:

Can you please explain the number plate matching process, why there is a fee for this and how the fee amount is determined?

### Response:

If a vehicle passes through a toll point without a valid tag, or a tag is not detected, TQ use an image of the licence plate to identify the vehicle and charge the appropriate toll. When this happens, a video matching fee of \$0.49 is charged to cover the costs of processing this image. There are significant costs associated with installing, maintaining and operating this specialised infrastructure. Whilst electronic processing is utilised, a significant number of licence plates need to be manually viewed and classified by a team member to enable tolls to be correctly charged.

It should be noted that this fee is set by ministerial declaration and is audited by government to ensure it is consistent with the legislation.

## Supplementary question 6

### Question:

The Queensland Law Society, among other submitters, advised that three days to pay a toll is not long enough. How does Transurban justify this payment period?

### Response:

The overwhelming majority of customers (95%) have a valid account or pass prior to travelling on toll roads. For the small number of people who don't have a valid account or pass, the three day period that follows enables them to make appropriate arrangements for payment.

If no arrangement is made within 3 days, a toll invoice is issued, and the payment terms of the toll invoice are 14 days from date of issue (plus an additional period to allow for payments at offline channels and postage).

TQ's experience shows that providing customers with more time to take action, actually results in lower response rates and this is why 3 days to pay has become industry best practice across Australia. Furthermore, extending the period between date of travel and when a toll notice is issued may result in further debt for those customers with more than three days of travel.

## Supplementary question 7

### Question:

Can you please provide more information about the timeframes around your invoicing as some submitters have said that they received their invoice after the due date?

### Response:

The payment terms of the toll invoice are 14 days from date of issue (plus an additional period to allow for payments at offline channels and postage). This due date incorporates additional time for postage timeframes. Where a customer experiences a delay in their mail delivery, they are encouraged to contact Linkt so payment of the toll invoice can be arranged.

TQ supports delivery via email as an important improvement, however this requires changes to legislation.

## Supplementary question 8

### Question:

Given the changes that have occurred to Australia Post's delivery arrangements over recent years, has Transurban adjusted their payment timeframes to allow for additional time for delivery of toll notices by mail?

### Response:

The payment terms of the toll invoice are 14 days from date of issue (plus an additional period to allow for payments made at offline channels and postage).

This due date incorporates additional time for postage timeframes. Where a customer experiences a delay in their mail delivery, they are encouraged to contact Linkt so payment of the toll invoice can be arranged.

TQ supports delivery via email as an important improvement, however this requires changes to legislation.

## Supplementary question 9

### Question:

Has Transurban done any modelling to determine what impact the Australia Post changes have had on late payment of tolls? If so, what are the results?

### Response:

TQ have observed no discernible differences in payment rates. It is worth noting that the payment terms of the toll invoice are 14 days from date of issue (plus an additional period to allow for payments made at offline channels and postage).

This due date incorporates additional time for postage timeframes. Where a customer experiences a delay in their mail delivery, they are encouraged to contact Linkt so payment of the toll invoice can be arranged. TQ will review the customer's circumstances on a case-by-case basis.

## Supplementary question 10

### Question:

How does Transurban communicate the methods of payments to customers? Do these methods take into account that some customers might not be tech savvy? For example, a number of submitters have commented on the lack of ability to pay in person.

### Response:

TQ proactively communicates the varied range of payment options available to customers, via promotion on statements, toll invoices, emails and the Linkt website. Customers can make payments in person at more than 2000 Queensland retailers including participating 7-Elevens, Puma, newsagents and Australia Post outlets. The Linkt website lists all available retail outlets where customers can pay in person. Customers also have the option of speaking to us directly if they have an enquiry or want to make a payment by calling our call centre on 13 33 31 which is open from 7am-7pm, 7 days a week.

## Supplementary question 11

### Question:

A number of submitters have questioned the reliability of the electronic tags. Has Transurban undertaken any analysis of reliability and if so what were the results?

### Response:

TQ has a comprehensive assurance program to proactively monitor the performance of tags and associated electronic infrastructure that reads the tags at each toll point. Tags are battery operated devices with a finite lifespan. While they are warrantied for five years, they typically last around ten years.

We ensure that our customers are not disadvantaged by a tag reaching its end of life. We will replace a tag for free and waive any video matching fees incurred when a customer contacts us to report that their tag isn't working. We also make contact with customers proactively when we identify their tag may be reaching its end of life or may have been incorrectly fitted. We regularly remind customers of the importance of listening for a beep when travelling under a toll gantry.

## Supplementary question 12

### Question:

How does Transurban deal with issues relating to electronic tag reliability?

### Response:

TQ has a comprehensive assurance program to proactively monitor the performance of tags and associated electronic infrastructure that reads the tags at each toll point. Tags are battery operated devices with a finite lifespan. While they are warrantied for five years, they typically last around 10 years.

We ensure that our customers are not disadvantaged by a tag reaching its end of life. We will replace a tag for free and waive any video matching fees incurred when a customer contacts us to report that their tag isn't working. We also make contact with customers proactively when we identify their tag may be reaching its end of life or may have been incorrectly fitted. We regularly remind customers of the important of listening for a beep when travelling under a toll gantry.

## Supplementary question 13

### Question:

**What are Transurban's dispute resolution processes, and how do you communicate them to customers?**

### Response:

Details about our comprehensive complaints process can be found in Section 4 of TQ's submission.

We are committed to proactively addressing complaints to ensure they are resolved as quickly as possible. Customer complaints are usually received via a phone call, email or the website.

Phone calls and emails typically originate within the Call Centre or Customer Care teams and we aim to resolve the customer complaint at this point. There are escalation processes within both the Call Centre and Customer Care teams, where a Customer Service Officer may escalate to their Team Leader to assist with the complaint resolution.

When the complaint is unable to be resolved within either the Call Centre or the Customer Care team, the complaint is escalated to our Customer Resolutions team via either a phone call transfer or a complaint case raised in the system.

The Customer Resolutions team, who are independently certified as compliant with the AS ISO 10002-2014 Complaint Handling Standard, are empowered to manage the complaint in a variety of ways which can include consulting with the Customer and Communities Advocate or Senior Management, particularly in instances where a complaint is identified as highly complex or involves a customer experiencing hardship.

If the Customer Resolutions team is unable to resolve the concerns raised by the customer to their satisfaction, they will provide the customer with the Tolling Customer Ombudsman (TCO) details. The customer can then decide if they wish to utilise the TCO service.

Details of TQ's complaints process can be found on the Linkt website.

## Supplementary question 14

### Question:

**How does Transurban ensure consistency of advice to customers who contact their call centres?**

### Response:

Our call centre provider, which has been managing calls since June 2017, is an internationally recognised provider who is the partner of choice for leading customer service organisations.

We regularly survey our customers to measure their satisfaction with the call centre experience. Whilst we don't always get it right, the majority of the interactions with our call centre are positive.

We rigorously measure our call centre performance across a range of key metrics, including grade of service (number of calls answered within 30 seconds), customer satisfaction, first call resolution and service availability.

To ensure consistency of service we participate in Mystery Shopper surveys, which provide independent 3rd party benchmarking of call centre service standards. In the most recent survey, we exceeded the industry benchmark (refer to submission). Customer satisfaction surveys are also conducted after a customer contacts our call centre – results are currently around 4.3 out of 5. This was the average satisfaction based on responses from 60,000 customers over FY18.

Any new team member joining the TQ call centre team goes through an intensive 4 week training program which includes significant focus on culture, language, process and product training. Team members are continuously measured and monitored across a number of performance and quality metrics, which are assessed by our call centre provider and by our own quality team. Call recordings are used for quality assessments and we obtain direct feedback from our customers through our Voice of Customer Program.

## Supplementary question 15

### Question:

**How does Transurban ensure the security of customer funds held on deposit?**

### Response:

Transurban, the majority shareholder of TQ, is an ASX top 20 company with market capitalisation of over \$20 billion. Customers can therefore be assured that their pre-paid account balance is secure.

Customer funds or prepaid tolls from customers are held in a non-interest bearing deposit account until the charge is incurred by the road user.

## Supplementary question 16

### Question:

Several submitters advised of issues about being charged incorrect toll fees. For example, when a car that is not linked to them has been added to their account or when they've travelled through a toll point in their car at the same time as a truck and they've been charged for both the truck toll as well as their car toll. What do you do in these types of situations to assess and address these issues quickly?

### Response:

We are measured against a Toll Accuracy KPI with government. In FY18 we met this KPI of having an error rate of less than 0.01%.

If a customer believes that they have been incorrectly tolled we work to rectify the issue as quickly as possible. We always encourage our customers to check their statements and contact us if they have any queries.

## Supplementary question 17

### Question:

Several submitters have advised that they have experienced difficulty in getting through to Transurban's call centre and that they have either had long wait times or the line has been engaged. Do you have any data about wait times for call centre customers, and can you provide this to the committee?

### Response:

The call centre's performance is measured across a range of key metrics, including grade of service, customer satisfaction and first call resolution. During the past financial year our grade of service result (proportion of calls answered within 30 seconds) was 81%, against a target of 70%. Also, 94% of contacts were resolved the first time, and our customer satisfaction rating was 4.3 out of 5. Overall, our average speed of answer for all calls during this period was 27 seconds. These results compare very favourably with other comparable service providers.

## Supplementary question 18

### Question:

How is Transurban improving signage to ensure drivers do not inadvertently enter toll roads?

### Response:

In 2014 TQ worked with the Department of Transport and Main Roads and other stakeholders to improve the guidelines for signage on toll roads.

New directional signage for tolled roads are now predominantly blue and yellow, while directional signage for non-tolled roads remains green and white. In addition, the Department approved the use of blue and yellow on-road markings which give additional guidance to motorists on lane selection when approaching toll roads, particularly the tunnels.

Further details can be found in TMR's *Technical Note TN114 Signing and Pavement Marking for Toll Roads* which is available on the Department's website.

TQ has already begun updating existing signage to the new colour scheme and will continue to replace the signs as they approach end-of-life.

## Supplementary question 19

### Question:

One submitter advised that he had to travel on the Gateway Bridge because the off ramp just before the toll entry had closed down. He then had to pay a toll over and back on the bridge. Are there other situations where off ramps near toll road entry points have been closed, and if so, how are you communicating these changes to drivers?

### Response:

Transurban Queensland have reviewed this submission and can advise that has not been a ramp from the Gateway Motorway southbound to Kingsford Smith Drive since the completion of the bridge duplication and motorway upgrade in 2010.

It is possible that the submitter is mistakenly thinking of the Southern Cross Way (the old Gateway Motorway alignment) which does have both a southbound and northbound connection to Kingsford Smith Drive. Note that Southern Cross Way is managed and operated by the Department of Transport and Main Road and not Transurban Queensland.

There have been no permanent ramp closures since the acquisition of the Queensland business in 2014 and Transurban Queensland is also not aware of any closures before this time.

## Supplementary question 20

### Question:

A number of submitters commented on the impacts of roadworks and maintenance on toll roads. Several suggested that discounts should apply. Can you please comment on how you manage the impacts of roadworks and maintenance?

### Response:

To minimise disruption to customers during important road upgrades and maintenance activities, TQ notifies motorists in advance of their travel to enable them to make a conscious decision whether to use the toll road or not. Email alerts, website updates, on-road signage and even radio and social media advertising can be utilised to communicate with customers in advance of their travel.

Where possible works are scheduled during off-peak periods (at night and on the weekend) to minimise disruption to the majority of motorists.

## Supplementary question 21

### Question:

**What were the outcomes of the Network Pricing Trial in 2017, and have the results been published?**

### Response:

Please refer to the information provided in Section 3 of TQ's submission document.

## Supplementary question 22

### Question:

**What dispute resolution processes are in place for customers who have any issues with bank account direct debits? How does this differ for customers who have issues with credit card direct debit payments?**

### Response:

Please refer to Supplementary Question 13 for our dispute resolution process. Disputes relating to payments, either direct debit or payment card, are managed consistently in line with this framework.

## Supplementary question 23

### Question:

At the hearing, the department advised of the change of process in relation to registration of change of ownership on new vehicles. The committee has noted that the delay in the process has led to vehicle sellers being charged for tolls incurred after purchase. How does Transurban currently deal with this issue, and what can be done to alleviate it?

### Response:

TQ recognises that there can be challenges for customers nominating toll travel in the period between when a vehicle is sold and when the transfer of ownership is completed.

TQ already has arrangements in place to enable customers to nominate the responsible party for tolls in situations where the toll notice has been issued to a previous owner. Last year this nomination process was also made available online, to make it easier for customers.

## Supplementary question 24

### Question:

With regard to the commercial use vehicle charges, could you please advise whether taxis are required to pay the higher fee and whether this is also applicable to vehicles used by other ride sharing services, such as Uber?

### Response:

Taxis and other ride sharing service vehicles are defined as Class 2 (Car) vehicles.

Only commercially registered load carrying vehicles (such as vans and utes) are defined as Class 3 (Light Commercial Vehicles).

# Question on Notice 1

## Question:

Could you please advise the current capacity of existing toll road assets in percentage terms? (Transcript page no reference: 23)

## Response:

Capacity needs to be considered in the context of a range of variables which influence the utilisation of any road asset at a particular point in time. These factors include:

- Roadway design including factors such as the number of lanes, design speed, alignments etc.
- Environmental factors including terrain and grade, adjacent land use development influencing both horizontal and vertical alignment
- Traffic mix, including volume of heavy vehicles
- Control conditions and in particular the entry and exit conditions associated with the motorway network

Provision of capacity utilisation on an asset by asset basis requires disclosure of commercially sensitive information which as an ASX listed company we are restricted in providing. However, currently Brisbane's toll roads are operating at approximately 80% during the morning peak (the time of day with greatest demand). This is in line with TQ's forecasts.

While this level of utilisation demonstrates that Brisbane motorists see the benefits of toll roads today, it also shows that the toll roads have the spare capacity needed to cater for the region's future growth. This contrasts to other Australian cities such as Sydney and Melbourne where billions of dollars are being spent on complex engineering solutions to fix a capacity deficit. Brisbane on the other hand has a road network that will serve it well for years to come.

## BACKGROUND

Others have suggested to the Committee that calculating the capacity of a road is a simple matter multiplying the average number of vehicles in a typical motorway lane by the number of hours in the day. TQ therefore believes it is important to provide the Committee with more detailed information on the factors that influence a road's capacity. These are outlined below.

### Key Factor – Roadway

Prevailing roadway factors that will influence capacity include the following:

- Number of lanes
- The type of system element and its land use environment
- Lane widths
- Shoulder widths and lateral clearances
- Design speed
- Horizontal and vertical alignments
- Availability of exclusive turn lanes at intersections

The horizontal and vertical alignments of a highway depend on the design speed and the topography of the land on which it is constructed. In general, as the severity of the terrain increases, capacity is reduced. Other elements that are influenced by speed and terrain are curve radii, grade and the location of interchanges. Small radii curves have lower speeds which reduce capacity. Grades restrict operation of heavy vehicles and interchange configuration can have a major influence on road capacity.

**Key Factor – Environmental**

Environmental factors include terrain or grade, adjacent land use development influence both horizontal and vertical alignment. Design at times may require compromises such as adopting a smaller radii curves on ramps to limit environmental impact or the need for further compulsory acquisitions. Interchange location may not be ideal due to terrain with ramps having reduced sight distance. Poor sight distance limits a driver's ability to merge safely into the traffic stream which reduces the capacity of the interchange.

The spacing of interchanges is an important element for motorway capacity assessment as poor or restricted merge and weave operations reduce capacity.

**Key Factor – Traffic**

The higher the proportion of heavy vehicles in the traffic stream will reduce capacity, due to the size of the vehicle (consumes greater road space) and heavy vehicle dynamics such as acceleration and deceleration. Vertical alignment, which dictates the grade of the road influences the operations of heavy vehicles as both steep up and down grades require heavy vehicles to engage lower gears thereby reducing the capacity for those sections of the motorway.

The characteristics of the drivers whether they are either passive or infrequent users have an impact on capacity. Infrequent drivers are more likely to be passive due to their lack of awareness of the road and road environment, which will influence capacity. It is known from our customer analysis that the toll roads have a high level of infrequent users.

**Key Factor - Control Conditions**

The entry and exit conditions associated with motorway network also dictate capacity. Many of the entries and exists from the Brisbane toll roads are through controlled intersections. By their nature they limit the flow rate as the intersection facilitates multiple movements not just those onto/ off the toll roads. Inadequate merge lengths have a marked impact on capacity by reducing smooth flow conditions and creating flow breakdown.

For many of the Brisbane toll roads the service flow rates and capacity is limited by control conditions:

- Clem7 capacity is limited by signal controlled intersections on Ipswich Road at O'Keefe St, Shafston Ave at Wellington Road and Lutwyche Road at Northey Street. These intersections are complex, run at least four phases and apart from Lutwyche Road have high pedestrian activity. The Ipswich Road environment near the entry to Clem7 is one of high intensity with the Princess Alexandra Hospital, Buranda Shopping Centre and Boggo Road Busway station generating high levels of pedestrian and general traffic which all contribute to reducing the serviceability of an important feeder route to Clem7.
- Traffic control measures such as traffic signals and managed motorways impact road capacity by restricting the amount of vehicles that can enter or leave the section of road. For Go Between Bridge this is particularly important as the northern traffic signals on Coronation Drive are set to prioritise the dominant traffic flow (i.e. Coronation Drive), leaving very restricted green time for Go Between Bridge.
- AirportLinkM7 similarly has upstream intersections which regulate flow into the tunnel, such as Gympie Road at Sadlier Street, Stafford Road at Richmond St, Lutwyche Road at Butterfield St and Sandgate Road at East West Arterial. Lutwyche Road at Northey Street and Campbell Street at Brookes Street impact on exiting traffic. Apart from the controlled intersection both the Gympie Road and Stafford Road share lanes with non-toll road traffic
- External constraints similarly impact the ability of traffic to get to a section of road. For example, while Legacy Way has two lanes in each direction, at the Western Freeway end one of these lanes is shared with the Western Freeway with a much higher traffic flow. This reduces the ability for Legacy Way traffic to make full use of that lane.

#### **Key factor- Design life**

New road projects are designed to cater for the projected demand in a future year, and not at the time of opening. This is referred to the 'design life' of the asset and is generally two decades post construction for a traditional surface road project. In other words, every new road project should open with spare capacity to cater for network growth.

For the tunnel assets, where widening is unfeasible, the design life will be longer than a traditional surface road and takes into consideration the length of the toll concession. At any point between road opening and the end of the design life, there will be an expected utilisation number.