

TRANSURBAN QUEENSLAND'S INNOVATIVE
PROPOSAL: ASSESSMENT REPORT
MARCH 2017

INNER CITY BYPASS UPGRADE



Dedicated to a better Brisbane

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Following Brisbane City Council's budget commitment in June 2015 to deliver the Inner City Bypass (ICB) upgrade, Transurban Queensland approached Council in late 2015 with an innovative proposal to fund and deliver the upgrade and provide ongoing incident response, routine maintenance and operational support. The proposal has been assessed in accordance with Council's SP105 Innovative Proposals Policy.

This Assessment Report includes:

- » an overview of the ICB and why an upgrade is needed
- » key features and benefits of Transurban Queensland's proposal
- » Council's Innovative Proposals Policy and key assessment criteria
- » how the proposal represents value for money for Council and Brisbane's ratepayers.

OVERVIEW



In June 2015, the Lord Mayor announced \$80 million in funding would be allocated to upgrade the Inner City Bypass (ICB) to ensure the ongoing efficiency of this important piece of infrastructure and its connecting roads and tunnels. This vital upgrade is part of Brisbane City Council's \$1.3 billion investment in projects attacking congestion, which will see 90 road projects delivered across Brisbane over the next four years. In December 2016, following a competitive tender process, Council engaged BMD Constructions under a Design and Construct contract to complete the project by 30 June 2018.

Transurban Queensland is responsible for the management and operations of Legacy Way, Clem7 and the Go Between Bridge. Following the Lord Mayor's Budget announcement, Transurban Queensland submitted a proposal in October 2015 under Council's Innovative Proposals Policy, outlining its plan to fund and deliver the ICB upgrade, and manage the ICB for up to 20 years. A Detailed Proposal followed in October 2016, with a view to then negotiate a final offer and contract documentation for Council's consideration.

With the support of expert legal, financial and commercial advice, Council has now finalised negotiations and reached an agreement with Transurban Queensland to take on the responsibility to deliver the ICB upgrade and associated enhancements, as well as provide ongoing incident response, routine maintenance and operational support on the ICB. This agreement will help Council ensure the ICB upgrade delivers maximum benefit for the community and that Brisbane's road and public transport systems will cater for future demands as our city grows. The proposal will see significant enhancements to the ICB's management and operations, and provides motorists with a seamless and consistent journey between the Legacy Way, AirportlinkM7 and Clem7 tunnels through a managed motorways approach.

Transurban Queensland's proposal is based on a similar model used to deliver multiple successful infrastructure projects around Australia. Transurban Queensland will use two funding streams to provide a holistic, complete solution for the delivery of the ICB upgrade and its ongoing maintenance, incident response and operational needs.

Toll increases provided for under Legacy Way's existing tollway declaration will fund the project's delivery, covering the cost of design and construction of the ICB upgrade. Transurban Queensland's proposal also incorporates increases to Heavy Commercial Vehicle (HCV) tolls on the Go Between Bridge, Clem7 and Legacy Way to fund current and future maintenance, operational and incident response costs on the ICB.

Examples of this approach include Melbourne's CityLink Tulla Widening, Sydney's NorthConnex and M5 widening projects and Brisbane's Logan Enhancement Project. Following the success of these examples, Council is confident Transurban Queensland's proposal will deliver significant savings and service improvements for both Council and Brisbane as a whole.

Transurban Queensland's Innovative Proposal provides substantial benefits and savings to Brisbane ratepayers by offering a holistic funding and operating solution for the ICB.

WHY THE UPGRADE IS NEEDED

The ICB is designated as a motorway and primary freight route under the Brisbane City Plan’s road hierarchy, and is part of the intra-state road network in the Transport Plan for Brisbane 2008–2026.

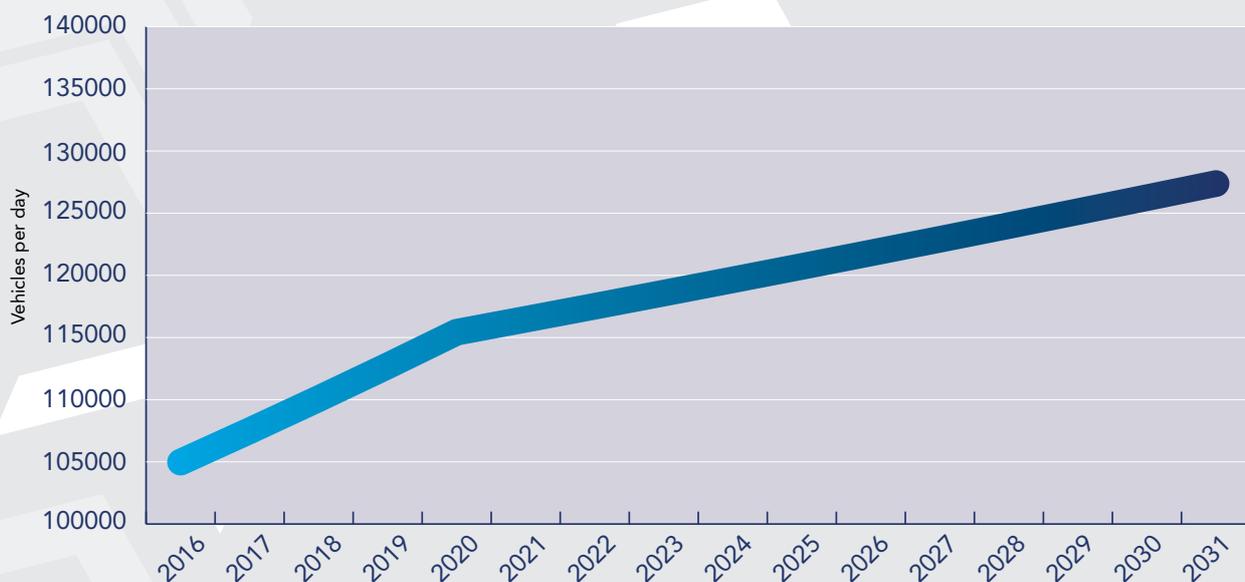
It is a critical corridor in the inner-city road network, providing a vital and convenient connection between Legacy Way, AirportlinkM7, Clem7, Sandgate Road, the Go Between Bridge via Hale Street, Kingsford Smith Drive and Lutwyche Road.



Congestion

- » The existing three lane configuration of the ICB currently experiences high levels of congestion during the morning and evening peaks.
- » Following the opening of Legacy Way, the existing configuration of the ICB is operating at up to 90% capacity, but will be severely over capacity by 2021. Traffic volumes have increased from 92,000 vehicles per weekday in May 2015 to more than 100,000 vehicles per weekday in 2016, and are expected to reach 128,000 per weekday in 2031 – an increase of 28%.
- » As a primary link between the CBD and the northern suburbs for commuters and businesses, the efficient functioning of the ICB is vital to Brisbane’s economic progress.
- » In addition, the ICB has the potential to be a bottleneck in the road network which could significantly reduce the effectiveness and viability of other transport infrastructure including AirportlinkM7, Clem 7 and Legacy Way.
- » The ICB upgrade will provide travel time savings of up to 25% in 2031 for an inbound trip in the AM peak on the ICB between Kingsford Smith Drive and Kelvin Grove Road, saving motorists up to 1 minute 25 seconds.

Forecast traffic volumes





Bus services

- » A number of inbound bus services have already been re-routed to take advantage of Legacy Way since the tunnel opened in 2015, with bus users experiencing journey time savings of up to 13 minutes with patronage also increasing by up to 40% on inbound bus services.
- » The construction of a new westbound ramp from Bowen Bridge Road and the Inner Northern Busway onto the ICB will allow bus services to connect to Legacy Way, reinforcing the ICB as a key link for future public transport routes.
- » The new westbound on-ramp will provide similar travel time savings for buses heading towards the western suburbs and will allow buses to interchange with the Inner Northern Busway.
- » With a westbound ramp in place, there is potential to re-route a number of services on the outbound PM peak trips via Legacy Way. These services currently utilise the surface network to access the western suburbs via Milton Road and Coronation Drive.
- » In addition, providing a new dedicated bus priority lane at the Herston Road exit off the ICB will allow bus travellers in the AM peak period between the western suburbs and the CBD using Legacy Way to benefit from the additional capacity at the Herston Road exit connection to the Inner Northern Busway.



Freight movement

- » The ICB is currently designated as a primary freight route under the Brisbane City Council Transport Plan's road hierarchy. The results of recent traffic counts indicate the road currently has a 5.1% proportion of commercial vehicles. In terms of relevant connectivity, the ICB currently provides linkages between:
 - the CBD and northern business centre (i.e. Chermshire)
 - the Pacific Motorway (via Coronation Drive), AirportlinkM7/Kingsford Smith Drive and the Gateway Motorway
 - the Western Freeway (via Milton Road or Legacy Way) to AirportlinkM7/Kingsford Smith Drive and the Gateway Motorway.
- » The opening of Legacy Way has seen a HCV traffic count share of 4.5%. As a result of widening the ICB and improving the Herston Road exit to minimise congestion of the ICB, a more efficient linkage is provided between the Western Freeway, Legacy Way and AirportlinkM7. It is expected the ICB on-ramp at Bowen Bridge Road and the Inner Northern Busway will provide an improvement to freight movements in the CBD area for vehicles accessing the western regions.

TRANSURBAN QUEENSLAND'S INNOVATIVE PROPOSAL

Delivery of the Design and Construct contract and enhancements

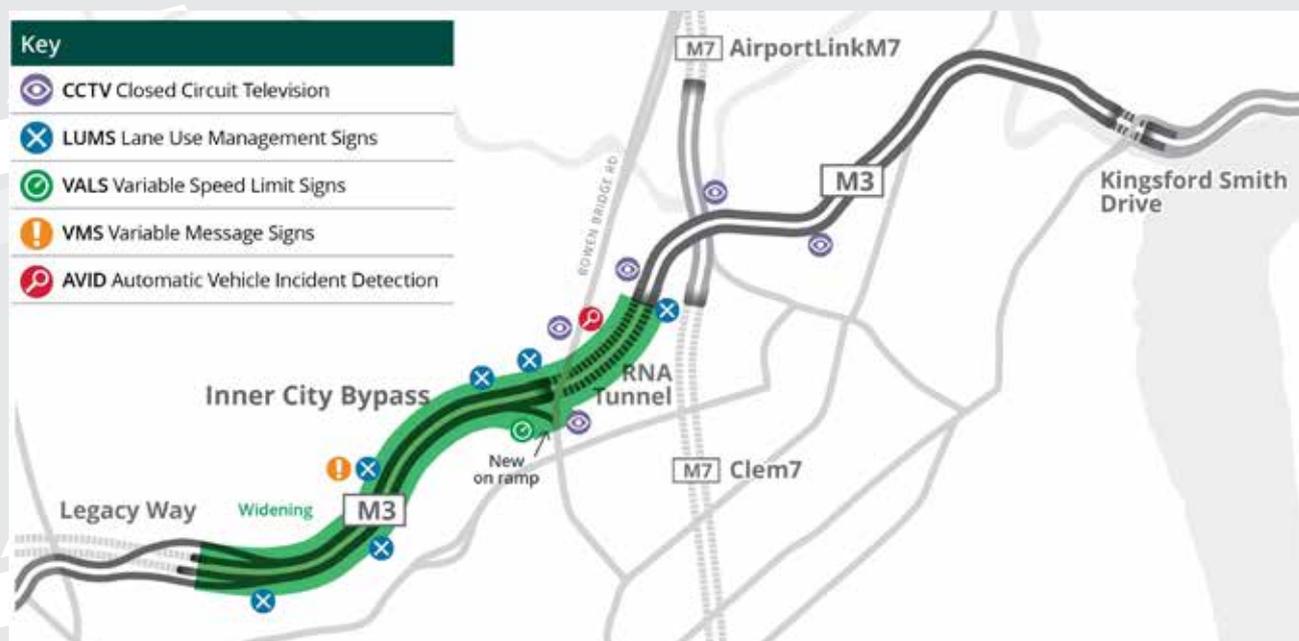
Transurban Queensland will fund and deliver the ICB upgrade by taking over Council's existing Design and Construct contract with BMD Constructions. Transurban Queensland will take full responsibility for the successful delivery of the project.

Transurban Queensland will also fund and implement improved intelligent traffic management systems along the ICB corridor to address safety concerns and increase network intelligence. This will allow greater insight into the performance of the roadway, and provide the opportunity to improve incident detection and response services for the ICB's growing traffic volume.

Transurban Queensland's managed motorway solution will provide maximum safe lane availability and network integration for informed travel decisions.

Key features of Transurban Queensland's proposed managed motorway include:

- » lane use management systems
- » full CCTV coverage
- » variable speed limit for the new westbound on-ramp
- » Variable Message Systems in both directions
- » Automatic Vehicle Incident Detection in the RNA tunnel
- » improved wayfinding.



Operations, maintenance and incident response

Transurban Queensland will extend Legacy Way and Clem7 operational standards to the full ICB corridor, providing 24/7 network operational coverage.

Transurban Queensland will be responsible for ongoing operations and incident response, Intelligent Transport Systems (ITS) support and maintenance, and ongoing costs on the ICB for the remainder of the Legacy Way concession period to 2065.

Routine maintenance activities will be undertaken by Transurban Queensland for an initial 10 year period with an option for another 10 years after that.

Transurban Queensland's experience in maintaining and operating the ICB's surrounding network of roads and tunnels means it is uniquely positioned to improve traffic flow and safety outcomes on the ICB.

ICB operations will be integrated into the existing Legacy Way Tunnel Control Centre allowing Transurban Queensland to provide:

- » 24/7 operational coverage for the entire ICB corridor, including the RNA tunnel and the new westbound on-ramp at Bowen Bridge Road
- » integration of operations and incident response across the entire ICB corridor
- » a higher standard of incident response, routine road maintenance and asset condition reporting
- » a reduction in the impact of incident severity through significant improvements in incident response.

SAFETY

- » 24/7 network operational coverage
- » Resources available to attend to all planned and unplanned events impacting on safety or network performance
- » Extended ITS and managed motorways infrastructure to achieve maximum safe lane availability
- » Enhanced network based on road communication with motorists to ensure informed travel decisions

NETWORK RESILIENCE

- » Improvement of 20-30 minutes in incident clearance times
- » Addresses peak period congestion hot spots
- » Network operations and travel time certainty will provide benefit to the freight industry and motorists
- » Network operations provided at lower cost benefiting rate payers

Funding arrangements

Under its proposal, Transurban Queensland is offering Council a significantly higher share of increased revenue than could be achieved under the existing concession arrangements. Transurban Queensland will take on the traffic volume and revenue risks associated with making funding available.

Transurban Queensland's proposal is based on a similar model used to deliver multiple successful infrastructure projects around Australia. Transurban Queensland will use two funding streams to provide a holistic, complete solution for both delivery of the ICB upgrade, and its ongoing maintenance, incident response and operational needs.

Toll increases provided for under Legacy Way's tollway declaration will fund the project's delivery, covering the cost of design and construction of the ICB upgrade. From July 2020, toll charges on Legacy Way will be increased to the maximum allowable toll under the existing State approval, in line with current AirportlinkM7 toll charges. Under the existing Legacy Way concession arrangement, a further payment to Council is due on 30 June 2020. This payment is based on the actual traffic volume over the first five years of Legacy Way operations and associated toll revenue through this period. The proposed toll changes under Transurban Queensland's proposal have been timed to ensure the calculation on this payment is not adversely impacted.

Transurban Queensland's proposal also incorporates increased HCV tolls on the Go Between Bridge, Clem7 and Legacy Way to fund current and future maintenance, operational and incident response costs on the ICB.

HCV toll changes, subject to State approval, will include:

- » from 1 July 2018 (in line with the expected completion of the ICB upgrade), increasing toll charges for HCV on the Go Between Bridge and Clem7 to approximately 3.0 times the car toll (currently approximately 2.65 times car toll)
- » the same toll increase will also be applied to Legacy Way for HCV, from 1 July 2020.

Toll increases to fund the ICB upgrade will be modest and will not come into effect until the ICB upgrade has been fully delivered. No toll will be considered on new or existing ICB infrastructure.

Following the success of similar Australian examples, Council is confident Transurban Queensland's Innovative Proposal will deliver significant benefits to Brisbane, and an efficient, universal approach to both construction and maintenance of the ICB. Successful examples include:

- » New South Wales – HCV tolls will increase from 1.0 to 3.0 times the car toll on the Westlink M7, and from 2.0 times to 3.0 times the car toll in the Lane Cove tunnel, to fund the NorthConnex project
- » Queensland – the Logan Enhancement Project will be funded through annual toll increases for HCV from 2.65 times to 3.0 times the car tolls on the Logan Motorway, Gateway Extension Motorway and Gateway Motorway
- » Victoria – increases to both day and night HCV (1.3 times to 3.0 times during the day) and LCV tolls are resourcing the CityLink Tulla Widening.

COUNCIL'S INNOVATIVE PROPOSALS POLICY



Transurban Queensland's proposal was assessed under Council's Innovative Proposals Policy.

Council is eager to work with the private sector to explore unique and innovative proposals that provide improved services for Brisbane ratepayers, reduce Council's delivery costs and align with its corporate vision.

To encourage the best ideas and solutions, Council has established a transparent and streamlined approach to cater for innovative proposals.

As part of the assessment of innovative proposals, this policy consists of the following elements:

- » Stage One – an optional, initial, pre-lodgement meeting between the proponent and Council. The purpose of the meeting is to discuss the key attributes, benefits, requirements and assumptions underlying the potential proposal
- » Stage Two – a preliminary assessment of the proposal is undertaken in accordance with the Innovative Proposal Policy to determine if the proposal has sufficient merit to warrant progression to Stage Three, and further consideration for a direct engagement with the proponent.
- » Stage Three – the proponent submits a detailed proposal, subject to Council's approval of Stage Two, whereby Council will ascertain if sufficient value can be achieved for ratepayers through a direct engagement.
- » Stage Four – a negotiation of the final binding offer with a view of entering into binding agreement, should Council accept the final offer.

TRANSURBAN'S PROPOSAL ASSESSMENT PROCESS

Timing	Milestone
August 2015	Stage 1 – Pre-lodgement meeting
October – November 2015	Stage 2 – Indicative Proposal and preliminary assessment
October – November 2016	Stage 3 – Detailed Proposal and detailed assessment
November 2016 – March 2017	Stage 4 – Final Binding Offer

Stage One – Pre-lodgement meeting

Under the Legacy Way Concession Deed, Council was required to notify Transurban Queensland as the concessionaire prior to approaching any other person that it intended to upgrade the ICB or outsource the operations and/or maintenance services in relation to the ICB.

In August 2015, Council formally advised Transurban Queensland it was proposing an upgrade to the ICB. Following this notice, Transurban Queensland confirmed its interest in engaging in good faith negotiations to deliver the project.

Stage Two – Initial proposal and preliminary assessment

In October 2015, Transurban Queensland provided a proposal in accordance with Council's Innovative Proposals Policy to upgrade the ICB.

Key features of the proposal included:

- » a funding solution that was flexible and allowed part or all of Council's funding for the ICB to be reallocated to other Council priorities, depending on the final scope and design and construct procurement outcomes
- » the provision of road operations, incident response and maintenance, delivering improved network reliability and safety, through operating the ICB as part of an integrated corridor
- » additional scope options, including further enhancements to improve flows at the Herston Road exit and the installation of ITS equipment to complete the network of managed lanes between Legacy Way, the ICB, Clem7 and AirportlinkM7.

The preliminary assessment of the proposal, in conjunction with financial and commercial advice provided by Ernst & Young and legal advice by Clayton Utz, established the proposal met the key criteria under Stage Two of the Innovative Proposals Policy, in particular that it:

- » was unique and innovative
- » solved a problem of Council's, addressed an opportunity for Council, or enhanced services Council provides to rate payers
- » represented value for money for Council.

In November 2015, Council's Oversight of Consultancies Special Committee endorsed the proposal from Transurban Queensland as having sufficient merit to warrant progression to Stage Three of Council's Innovative Proposals Policy.

Stage Three – Detailed proposal and detailed assessment

Transurban Queensland provided its Detailed Proposal including traffic forecasts and financial model in October 2016. A detailed assessment of the proposal and financial model was carried out in accordance with Council's SP105 Innovative Proposals Policy.

An in-principle agreement was able to be reached in December 2016 on the financial terms of the proposed arrangements.

Stage Four – Final Binding Offer

Since reaching in-principle agreement in December 2016, Council and Transurban Queensland developed the required detailed contract documents that reflected the Final Binding Offer for final Council consideration.



ASSESSMENT CRITERIA

Community need/Council priority

The community need and Council priority to undertake the ICB upgrade has already been outlined in this report. In addition to the upgrade works undertaken by Council, the importance of the ICB as a strategic link in the road network requires further improvement to the level of operational service experienced by road-users through enhanced ITS, incident response management and operations and maintenance of the ICB.

The Transurban Queensland proposal provides an infrastructure solution that incorporates the delivery of the ICB upgrade and operational performance improvements as a complete service offering. This offer provides value to the community through optimising the synergies provided by Transurban Queensland's existing operations with those of the ICB upgrade and operational improvements. The benefits derived by the community (particularly users of the ICB) include improved travel time performance and reliability for public transport (bus) users and improved freight route connectivity.

Uniqueness and intellectual property

Transurban Queensland's position as the operator of Legacy Way makes it the only company able to deliver the ICB upgrade under the proposed managed motorway model.

The proposal is unique in that it:

- » provides funding for the project through changes to current tolling arrangements and changes to the revenue sharing mechanisms under existing concession deeds, which can only be achieved through a special agreement with Transurban Queensland
- » de-risks construction with Transurban Queensland liable for the design and construct contractor
- » drives innovation in Brisbane by offering a low-risk opportunity for Council to partner with private enterprise
- » offers a holistic solution to the ICB upgrade including design and construction, operations and maintenance and ITS enhancements
- » provides operational efficiencies via network synergies
- » enables incident response services as a package across assets
- » provides greater network reliability and resilience through improved road safety and integrated operations to improve incident response
- » provides value for money by consolidating Transurban Queensland's tunnel control rooms and operations/maintenance structures
- » provides substantial value to Council at financial close
- » enables Council to reallocate its project budget to other Council priorities.

Capacity and capability of Transurban Queensland

Transurban Queensland's majority shareholder, The Transurban Group was established in Melbourne in 1996 with the construction and opening of City Link. The group has expanded nationally and internationally, becoming a world leading developer, operator and long-term concessionaire of toll roads. Transurban has developed advanced systems and technologies for effective road management, ITS such as electronic speed and lane control, tunnel safety systems and automatic incident detection.

Transurban has 13 roads in its Australian portfolio and two roads in the state of Virginia in the United States of America, both in the Washington DC area.

A Top 20 company on the Australian Securities Exchange (ASX), Transurban employs approximately 1000 employees in Australia and the US.

Its core capabilities include:

- » network planning and forecasting
- » operations and maintenance
- » customer management
- » project development and delivery
- » technology application.

Transurban Queensland plays a critical role in the ICB's associated road networks, including Legacy Way, Clem7 and the Go Between Bridge. Transurban Queensland is in an ideal position to remove duplicated costs associated with operating individual roads in the corridor. As operators of the ICB corridor, Transurban Queensland plans to consolidate traffic control centres and systems to improve efficiency, safety and reliability of the entire network, and the installation and upgrade of ITS would complete a network of managed lanes between Legacy Way, Clem7, AirportlinkM7 and the ICB onto Hale Street and the Go Between Bridge.

Financial capability

Transurban Queensland is owned by three stakeholder/unit holders:

- » Transurban owns 62.5%
- » AustralianSuper owns 25%
- » Tawreed Investments Limited, a wholly-owned subsidiary of the Abu Dhabi Investment Authority, holds the remaining 12.5% interest

Since 2008, Transurban has funded new and existing projects through market capital raising of its securities and debt totalling \$13 billion.

Feasibility

Transurban Queensland has made this offer to Council with the capacity to fund and deliver the project. The Project Deed between Council and BMD Constructions enables a clean transition to Transurban Queensland. Transurban Queensland have been involved where appropriate in the procurement and design stages of the ICB upgrade, and have the resources in place to continue to deliver the project once it has taken responsibility for the Project Deed.

Benefits of the Proposal

The proposal will provide significant benefits for Queensland business and industry through reduced congestion and improved road safety, improving productivity and supporting Queensland's economic growth.

The ICB upgrade will deliver significant improvements to Brisbane's public transport network. New and improved ICB entry and exit points will reduce travel times for buses and provide opportunities for new bus services to and from the western suburbs using Legacy Way.

The construction of a westbound ramp from Bowen Bridge Road and the Inner Northern Busway onto the ICB will allow bus services to use Legacy Way in both directions. A number of inbound bus services have already been re-routed to take advantage of Legacy Way.

Since the tunnel opened in 2015, bus users have experienced average journey time savings of up to 13 minutes and patronage has also increased by 40% on inbound bus services.

The new westbound on-ramp will provide similar travel time savings for buses heading towards the western suburbs, allowing buses to interchange with the Inner Northern Busway and planned Brisbane Metro.

The offer from Transurban Queensland to deliver the upgrade is based on the contract sum to design and construct the project achieved under a competitive tender process, and includes operations and maintenance, ITS enhancements and maintenance, Council's project and project management costs, and an upgrade of the Light Emitting Diode (LED) system on the ICB.

The competitive tender process undertaken in accordance with Council's procurement policies and procedures ensures delivery of the project by BMD Constructions is in the public interest.

Transurban Queensland will aid Council's long-term management of its ICB asset by delivering both the ICB upgrade works and operations, incident response and maintenance services that will provide significant benefits to Council throughout the project life.

Transurban Queensland's proposal will see an improvement in incident response clearance times of between 20 and 30 minutes.

In addition, Transurban Queensland's proposal offers broader network benefits including improved connectivity and enhanced safety. Transurban Queensland will apply Legacy Way operating standards to the entire ICB corridor and utilise its existing control room and incident response process, resulting in a lower cost and benefitting ratepayers.

Network operations and travel time certainty will also provide benefits to the freight industry and motorists.

Upon completion of the ICB upgrade, Transurban Queensland will be responsible for a large, connected portion of Brisbane's road network, allowing them to efficiently and coherently roll out technological advancements to improve Brisbane's road network in the future.

Value for money

At the start of the 2016/17 financial year, Council's ICB upgrade project budget was \$80.5 million.

On completion of a successful design and construction procurement process, Council was able to reduce the ICB upgrade project budget to \$57.8 million and realise over \$20 million in savings.

Council's ICB upgrade budget will be further reduced through Transurban Queensland's proposal, depending on Queensland Government approval of the HCV toll changes.

Under Transurban Queensland's proposal, Council's ICB upgrade project budget will immediately be reduced from \$57.8 million to \$35.1million. If HCV toll changes are approved, Council's project budget will be reduced even further to \$3.3 million, producing overall budget savings to Council of between \$22.7 million and \$54.5 million.

In addition Council will save over \$1 million annually through reduced maintenance costs of the ICB.

Transurban Queensland is taking on the traffic volume and revenue risks associated with making this funding available. Transurban Queensland has offered to allocate these funds to deliver the ICB upgrade works and provide ongoing incident response, routine maintenance and operational support on the ICB to improve travel times and safety for all road users.

Council engaged an independent financial advisor to review Transurban Queensland's offer and financial model, and provide independent market valuation advice regarding the proposal. Council was advised Transurban Queensland's proposed financial arrangements are consistent with market precedent transactions, demonstrating value to Council.

Transurban Queensland's funding solution enables Council's project budget to be allocated to other Council priorities.

CONCLUSION



Transurban Queensland's Innovative Proposal provides substantial benefits and savings to Brisbane ratepayers by offering a holistic funding and operating solution for the ICB.

The benefits of the proposal extend beyond purely commercial benefits to Council, encompassing reduced risk associated with the ICB upgrade, and significant savings in relation to operations, incident response and maintenance on the ICB. In addition, it will lead to improved traffic management and safety outcomes across the ICB, and increase connectivity across Brisbane's road network.



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