

18 September 2020

Green Bridges Program
City Projects Office
Brisbane City Council
GPO Box 1434
Brisbane Qld 4001.

Submitted via email: GreenBridges@brisbane.qld.gov.au

Dear Program Manager

RE: Draft Reference Design for the Kangaroo Point Green Bridge and the Concept Design for the Breakfast Creek Green Bridge

Engineers Australia and its members have an interest in improving the effectiveness and efficiency in the planning, construction and ongoing management of the state's assets. Engineers Australia welcomes the opportunity to provide this submission to Brisbane City Council ('Council') for the draft Reference Design for the Kangaroo Point Green Bridge and the concept design for the Breakfast Creek Green Bridge. It is understood that these two bridges are part of Councils' plan to deliver five new green bridges for Brisbane city as part of its Green Bridges Program.

About Engineers Australia

Engineers Australia is the peak body for the engineering profession. We are a member-based professional association with over 100,000 individual members. Established in 1919, Engineers Australia is a not-for-profit organisation, constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

This submission has been informed by members of Engineers Australia drawn from a range of Engineers Australia Colleges, Committees and Learned Societies, to provide representative perspectives from their technical disciplines and industries.

The Green Bridges Program Initiative

Engineers Australia supports Council's initiative to invest in more active transport infrastructure, including the Green Bridges Program, which will provide the city with significant environmental benefits along with health and accessibility benefits for the city's residents. The hastening of the investment in this program in part in response to the coronavirus impact on the increased take-up of active transport, particularly cycling, is a positive step for the city's liveability.

Engineers Australia encourages Council to broaden the program to include planning for a network of Green Bridges to service the inner city and connect the radial cycling corridors that service the wider city catchment.

Funding should not be solely the responsibility of Council, particularly given the well documented health benefits of increased walking and cycling, which would contribute to reducing the increasing public health cost burden on Federal and State governments. In its Discussion Paper on Active Transport, Engineers Australia's Transport Australia Society recommended the Federal Government establish a national active transport infrastructure funding mechanism, similar to the well-established Black Spot Program, which would provide grant funding to State and Local governments specifically to finance active transport infrastructure that encourages the uptake of walking and

cycling to key employment nodes and public transport hubs, particularly from outer suburban areas. This funding mechanism should complement existing State and Local council walking and cycling strategies.

Coupled with targeted federal and state government funding for an expanded Green Bridge Program, the COVID-19 pandemic provides the opportunity for Council to review its transport infrastructure investment priorities. The COVID pandemic has changed transport patterns which are having a direct effect on public transport patronage. While bus and rail patronage levels in urban area appears to be slowly starting to increase, they remain well below pre-COVID levels. Notably the proportion of trips by an active transport mode are increasing.

Once public transport patronage demand stabilizes there will be a need to recalibrate prior assumptions which have underpinned transport investment decisions. Stability may not occur for some time. If the change being experienced is sustained, a flattening of peak demand profile is a potential outcome. This flattening of demand will need investment in lower capacity, higher frequency services operating across the entire day and consequently this may affect infrastructure design decisions. In addition to the uncertainty of long-term daily transport demand profile, Infrastructure Australia¹ has highlighted significant spare capacity will exist within the rail network beyond 2031 with the Cross River Rail operational. In this context a complete overhaul of the bus service design, prior to progressing with further investment in public transport infrastructure, should be considered.

A service redesign that reduces the number of bus services traveling to, and terminating within, the central business area has the potential to free up limited kerbside space which could be reallocated for pedestrian and/or cyclists. Deferment of investment in bus infrastructure and fleet for a short period (e.g. 2 -3 years) to allow implementation of the service design overhaul, commissioning of the Cross River Rail and stabilisation of daily patronage demand provides an opportunity to reallocate funding to the Green Bridge Program to bring forward investment in this initiative.

Engineers Australia would welcome more engagement regarding route options connecting all future bridges within the Green Bridges Program. Consideration of the connection to the broader cycling network and how the bridges can be located to maximise the available catchment and therefore increase the take-up of active transport as an alternative transport mode to private vehicle is crucial. The catchment assessment for such infrastructure should account for the increase in the average trip length for commuters, and recreational users, as a result of the rise of attractiveness and affordability of e-bikes. Further, advancement in engineering design and technology means the length of a bridge no longer needs to be the primary driving criteria in option selection.

Governance of a multi-level government funded program, which will extend over many years, assists with program implementation continuity. The newly formed Transport Committee, jointly chaired by the Transport Minister and Cr Murphy, should be considered as a governance structure to ensure the continuity of the expansion of the active transport network, including the contemplation of an expanded Green Bridge Program and expedition of a central city cycle network.

Kangaroo Point Green Bridge, Draft Reference Design – Consultation Comments

Connectivity to a wider walking and cycling network is key to the success of this bridge.

With regard to the draft reference design for Kangaroo Point Green Bridge it is unclear how the bridge connects into the existing street network within Kangaroo Point, specifically beyond Scott Street and it is unclear how the bridge will connect to other Green Bridges on the other side of the CBD. Within the CBD there is currently limited connection to safe cycling infrastructure making trips to, from and within the CBD undesirable, particularly for those who are new or concerned with safely riding a bicycle. In order to make the best use of the investment in the Green Bridges Program, particularly the Kangaroo Point Green Bridge, it is imperative that the provision of a safe and legible network on the approaches to the bridge is also expedited.

¹ *Urban Transport Crowding and Congestion, The Australian Infrastructure Audit 2109, Supplementary Report*, Infrastructure Australia, June 2019

Accordingly, Engineers Australia recommends that connection is made to the walking and cycling network through Kangaroo Point, and that an on-street cycle network through the CBD is established in concert with the bridge connecting the Kangaroo Point Green Bridge to the Goodwill, Victoria and the Kurilpa Bridges.

Breakfast Creek Green Bridge, Concept Design – Consultation Comments

With regard to the concept design for the Breakfast Creek Green Bridge the bridge will complement the significant investment in walking and cycling infrastructure associated with the Kingsford Smith Drive upgrade project on the northern approach of the bridge. However, there appears to be a lack of clarity, and of a more direct connection, on the southern approach of the bridge which connects directly to Fortitude Valley and the CBD along Breakfast Creek Road and Ann Street and Wickham Street, which is safe for cyclists. Engineers Australia recommends planning and implementation of infrastructure on the southern approach be expedited including consideration of on-road cycle lanes.

Engineers Australia looks forward to continuing to work with Council to address the transport challenges facing Brisbane.

Regards



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