

2012-2013 Assessment Brief

Recommended rating:	Threshold
Status in 2012 report to COAG:	Real potential
Initiative Name:	Northern Connector stages 1 and 2
Geography:	Adelaide, South Australia
Proponent:	Department of Planning, Transport and Infrastructure, South Australian Government
Project description:	
<p>The South Australian Government is seeking \$552 million in Commonwealth funding to construct a 15.6 kilometre road (the Northern Connector), and preserve an adjacent freight rail track corridor, between Port Adelaide and the area north of Adelaide.</p> <p>The project was included on the 2012 Infrastructure Priority List at Real Potential, as part of improvements to freight access to Port Adelaide. A range of infrastructure upgrades has been completed that have improved access at the entrance to the port. The current proposal is to deliver the Northern Connector in two stages, and to include the rail solution as corridor preservation only.</p> <p>Objective:</p> <p>The objective is to construct the Northern Connector road between Port Adelaide and the Northern Expressway. This will form part of an intended non-stop north-south corridor aimed at improving freight access and linking the port to employment hubs and the resource production regions of South Australia. In doing so, it also aims to alleviate congestion and remove freight vehicles from the existing Port Wakefield Road.</p> <p>Problem:</p> <p>The stated problem is that current road configuration inhibits freight access and movements to the Port of Adelaide, between Adelaide's Northern and North-Western industrial regions, and within Adelaide's Northern region. In particular, increasing congestion levels mean that most sections of Port Wakefield Road are forecast to have reached capacity at peak times by 2021.</p> <p>Solution:</p> <p>The proposed solution is a 15.6 kilometre six lane road connecting the recently completed Northern Expressway and a system interchange at South Road Superway/Salisbury Highway/Port River Expressway. It is proposed to construct the Northern Connector in two stages: Stage 1 south of Bolivar Road to meet congestion modelled from 2016, and Stage 2 north of Bolivar Road to meet congestion modelled from 2021.</p> <p>The proponent also proposes land acquisition to preserve the future option of re-routing the interstate rail line to the west of Port Wakefield Road. The cost of the land acquisition is included in the proponent's capital cost estimate.</p>	
Proponent's capital cost estimate (\$M, nominal):	\$1,104 million
Contribution sought by Proponent including requests for project development funding (\$M):	\$552 million
Project timing Start/Completion by Proponent (month/year):	2017/18 to 2020/21.
BCR stated by proponent:	8.5

Strategic alignment summary

Alignment with Infrastructure Australia's strategic priorities:

Port Wakefield Road and the Northern Expressway are part of the National Land Transport Network. The objective to improve the efficiency of the freight network while separating freight from passenger traffic is aligned with a number of Infrastructure Australia's strategic priorities, including: to 'increase productivity' with a more efficient freight network and to 'expand Australia's productive capacity'.

Major beneficiaries of the project are expected to be private car users and therefore it is likely that the project will have a detrimental impact on the theme of 'transforming our cities'.

Alignment with state strategies:

The South Australian Government's strategic infrastructure plans identify the need to protect and develop freight corridors, while also supporting higher public transport use with targeted capital investment. Aligned with this, land use plans for Adelaide target 70 per cent of growth to be accommodated with infill development.

The 30 Year Plan for Greater Adelaide identifies specific goals for the north-south corridor. One of the transport policies is to 'provide for non-stop travel along the strategic north-south corridor linking the Northern Expressway, proposed Northern Connector, Port River Expressway, non-stop South Road corridor and Southern Expressway'.

The objective to improve road transport does not appear to align with the 30 Year Plan's principle of 'a compact and carbon-efficient city', or the goal within Tackling Climate Change 2007-2020 'to reduce trip lengths and the need for motorised travel through integrated land use and transport planning'. Specifically, the project may cause a decrease in public transport patronage along the northern Adelaide corridor.

Problem assessment summary

The problem identified by the proponent is that the current road configuration is inhibiting freight movement between Port Adelaide and northern regions of Adelaide, and constraining population and industry growth in the region.

In particular, the completion of the Northern Expressway has increased the volume of traffic on Port Wakefield Road. Average speeds on Port Wakefield Road are considered reasonable, however it is stated that expected growth in traffic will result in operating conditions worsening considerably, particularly at signalized intersections, starting within the next 5-10 years. Most sections of Port Wakefield Road are forecast to have reached capacity by 2021.

In 2011, around 22 percent of the traffic on the Port Wakefield Road / Salisbury Highway Extension route was for business/commercial travel - around 11 percent being medium and heavy trucks.

The submission identifies the root cause of the problem as increased demand for passenger and freight trips, driven by industry and population growth in northern Adelaide and the completion of the Northern Expressway, which feeds traffic onto Port Wakefield Road.

Solution assessment summary

The proposed solution is a new expressway-standard highway to cater for future freight movements and accommodate projected population increases in two stages. The proponent also proposes land acquisition to preserve the future option of re-routing the interstate rail line to the west of Port Wakefield Road.

The solution has been developed over time to address many concerns of the Office of the Infrastructure Coordinator, including staging and timing of the road and rail components and deterring short trips by reducing the number of on and off access ramps. However the submission does not provide adequate consideration of the impact on public transport use.

The current submission includes an extended analysis of options. The proponent has also indicated that a number of non-infrastructure options will be considered in the detailed design, including: priority access for freight vehicles; and encouraging commuter traffic to use alternative routes in critical times will improve travel times.

BCR appraisal conclusion

A detailed BCR of 8.5 was provided in August 2012. This was based on the 2011 proposal that did not include staging or the deferral of the rail option and is most likely to be significantly overstated. The key issue is whether or not the base case is realistic as a 'do minimum scenario' or whether it may be more relevant as an alternate option. The base case being applied has capital costs that are close to half of the project costs.

A revised BCR of 6.1 was provided by the proponent in December 2012, however insufficient detail has been provided to adequately assess it at this stage.

Also of note, the residual value calculation method is not in line with 2012-13 Infrastructure Australia guidance so is overstating the BCR. The proponent provided high level sensitivity testing in previous submissions, which indicates that removing investment from the base case and amending the residual value approach would reduce the BCR.

Given the scale of the BCR and the benefits it is expected to deliver, it is likely to still result in a BCR greater than 1.0.

Infrastructure Australia Priority List Recommendation

The Office of the Infrastructure Coordinator recognises the importance of ensuring that there is an efficient freight network to and from Port Adelaide.

It is recommended that the project be included at **Threshold** on the 2013 Infrastructure Priority List with the following conditions:

- Any project funding is subject to the provision of an updated, detailed cost benefit analysis;
- The proponent provides an updated, detailed economic analysis, which:
 - Incorporates demand models to determine whether the project would still be economically viable in the presence of efficient road pricing, and include user charging at a rate that reflects efficient pricing as part of any road based solution;
 - Represents the revised project scope, staging and timeframes in order to align the BCR with funding requested; and
 - Incorporates revised heavy vehicle transport modeling, applying a do minimum base case, including the current base case as an alternative option and applying a straightline depreciation approach to estimate the residual value.

Attachments

Figure 1: Northern Connector study area

