

### 3 Project development process

#### 3.1 Project announcement

In August 2010 the Federal Minister for Infrastructure and Transport, the Hon Anthony Albanese MP, announced that the Australian Government would initiate planning work to address congestion at Richmond Bridge and its approach roads.

In April 2011, the Australian Government allocated \$2 million to investigate congestion issues across Richmond Bridge and its approach roads from East Market Street, Richmond to Grose Vale Road, North Richmond.

The project has been developed in two stages, Stage 1 (short term proposals) and Stage 2 (long term proposals).

Stage 1 proposals have been developed and a report, Richmond Bridge and Approaches Congestion Study-Stage 1 Summary Report, has been produced. This report is now available on the RMS' project website as part of the community consultation associated with the release of the report in July 2012 and discussion about potential long term proposals (Stage 2).

#### 3.2 Connection with other local strategic projects

The timeframe to implement a long term preferred option for the Stage 2 study is 2021 to 2036. In parallel to this study is a separate planning investigation into the long term upgrade of the Bells Line of Road corridor.

The implementation of a Stage 2 preferred option and its relationship to the potential future upgrades to the Bells Line of Road have been considered as part of this study.

From the traffic modelling presented in Section 6 of this report it is clear that even with a future Bells Line of Road upgrade or a developer funded Grose River Bridge crossing it would still be necessary to upgrade the corridor between Richmond and North Richmond as identified in the Stage 2 study.

Figure 3 illustrates the context of the Richmond Bridge and the possible future Grose River Bridge crossing.

#### 3.3 Strategic option development process

The strategic option development process is defined by Figure 3.

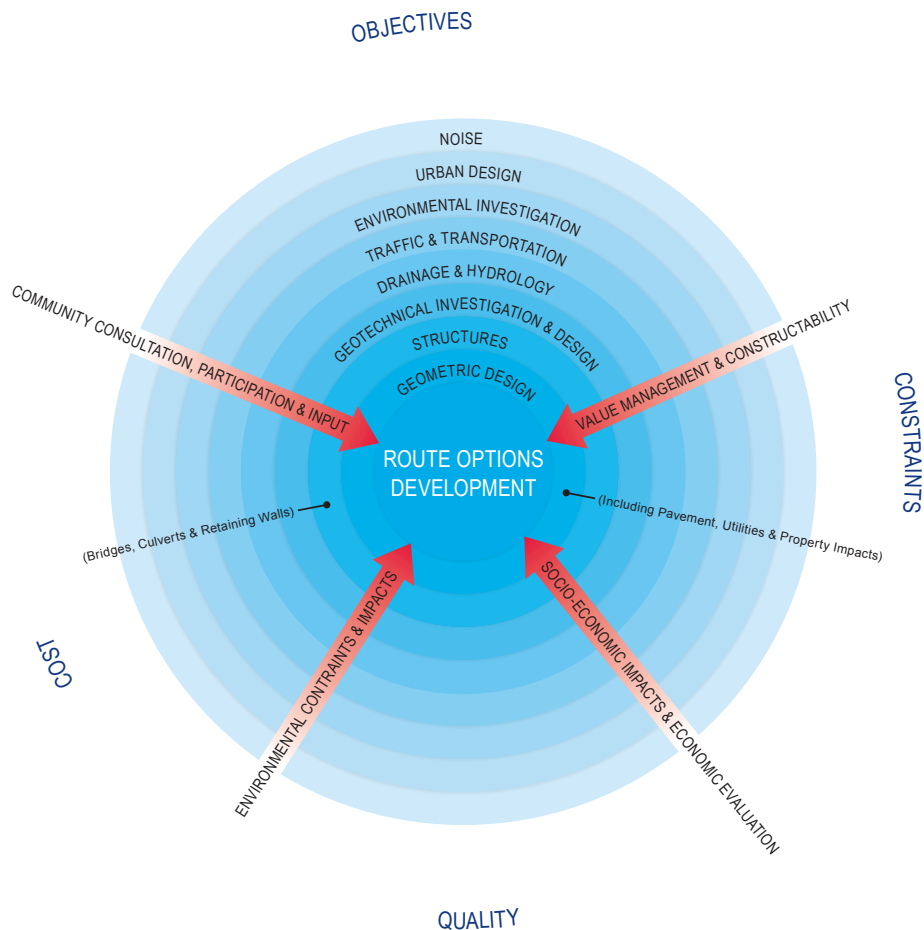


Figure 3 - Strategic option development process

The information collected in the process of identifying the constraints associated with the corridor allowed a number of road and bridge alignment options to be identified. These included:

- Contra flow traffic management options.
- Widening the existing carriageway and the existing bridge by two lanes.
- New bridges at higher elevations to improve flood immunity.
- Additional lanes on the eastbound carriageway, and or, additional lanes on the westbound carriageway.
- Options that bypass the townships of Richmond and North Richmond were not considered as these would be examined as part of the overall transport planning for the north-west region of Sydney.

These options were further refined to six strategic concept options by identifying the most viable options presented. The six options selected were:

- **Option 1** - A Contra flow traffic management option which included an additional lane from Yarramundi Lane to Grose Vale Road, and associated widening of the existing bridge to accommodate the Contra flow arrangement. Minor intersections adjustments (widening) in the Richmond and North Richmond precincts were also proposed as part of this option.
- **Option 2** - Widening of the existing bridge to provide two additional lanes and a shared user path. This option also proposed two additional lanes for the eastbound carriageway, and minor intersections adjustments (widening) in the Richmond and North Richmond precincts.
- **Option 3** - A new bridge five metres downstream of, and at the same level as, the existing bridge. This option also proposed two additional lanes for the eastbound carriageway and minor intersections adjustments (widening) in the Richmond and North Richmond precincts.
- **Option 4** - A new bridge 25-50 metres downstream of the existing bridge, constructed at a 1:5 year ARI flood level. This option also proposed two additional lanes for the eastbound carriageway, provided a 1:5 year ARI flood immunity for the road formation and included minor intersections adjustments (widening) in the North Richmond and Richmond precincts.
- **Option 5** - A new bridge 25-50 metres downstream of the existing bridge constructed at a 1:20 year ARI flood level. This option proposed two additional lanes for the eastbound carriageway, also providing a 1:20 year ARI flood immunity for the road formation and minor intersections adjustments (widening) in the Richmond and North Richmond precincts.
- **Option 6** - A new bridge 25-50m downstream of the existing bridge constructed at a 1:100 year ARI flood level. This option proposed two additional lanes for the eastbound carriageway, aiming to provide a 1:100 year ARI flood immunity to the road formation and minor intersections adjustments (widening) in the North Richmond and Richmond precincts.

Options 2 and 6 were not selected as part of the short listing process. These two options were considered less desirable on the basis of:

- The impacts on the heritage value of the existing bridge.
- The structural limitations of the existing bridge.
- The severity of impacts on properties on the North Richmond side of the bridge.
- The impacts on the high voltage power assets within the corridor.
- The requirement to widen on both sides of Kurrajong Road which would have involved complex staging and worsened the existing traffic issues during construction.

Consultation with the State Emergency Service (SES) and Hawkesbury City Council (HCC) considered the impacts of a 1:5 year, 1:10 year and 1:20 year ARI flood event and the flood access issues that need to be addressed with regard to the bridge and approaches. Through this process it was established that the routes considered are not flood evacuation routes for either the SES or HCC.

Options that involved full grade separation of the existing intersections such as Grose Vale Road/Bells Line of Road were not considered further due to the following issues:

- Traffic volumes were capable of being catered for by at grade intersections and can still provide an adequate level of service.
- The preliminary economic assessment of the capital cost of grade separation interchanges indicated that these options were not economically justifiable.

The final short list of strategic options for the Richmond Bridge discussed in more detail in Section 4 of this report are:

- **Option A** (previously **Option 1**)
- **Option B** (previously **Option 3**)
- **Option C** (previously **Option 4**)
- **Option D** (previously **Option 5**)