

29. Actions arising from value engineering workshop

A value engineering workshop for the project was held on 16 July 2007. The workshop brought together a range of stakeholders to review the concept design and highlight issues, concerns, potential improvements and risks associated with various aspects of the project.

A summary of the actions arising from the value engineering workshop is provided in Table 29-1 below.

A copy of the value engineering workshop report is included in the Value Engineering and Risk Management Workshop Reports working paper.

Table 29-1 Summary of actions arising from value engineering workshop

| Issue No. | Location | Issue description | Proposed resolution |
|------------------|-----------------------------------|--|--|
| 1 | Section A Ch 1000 | Resolve how the connection of Sherwood Creek Road and Nash Road to the interchange at Arrawarra should work. | RTA to resolve internally. RTA has resolved by providing connection to Nash road to Sherwood Creek Road. Access to the Highway would then be via Kangaroo Trail Road |
| 2 | Section A Ch 1500 – Ch 3500 | Amend the concept design plans to indicate a “possible shared pedestrian and cycleway path supplied by others” for pedestrian/cyclist provisions adjacent to Darlington Beach Resort/Lorikeet Tourist Park. Incorporate pedestrian/cycleway provisions in the shoulder of the old highway. | Note added to drawings. |
| 3 | Section B Ch 5500 – Ch 7000 | Adopt the current vertical alignment across the floodplain. However allow for a flatter batter in the land corridor footprint (to keep future options open). | Property boundary adjustments include allowance for flatter batter. |
| 4 | General | Continue with combining (where appropriate) fauna crossings with drainage structures. Document using performance based criteria rather than specifying actual sizes as well as documenting minimum drainage requirements. | Drainage requirements included in design. Fauna crossings retained. |
| 5 | Section A Ch 3500 – Ch 4000 | Connect Red Rock Road using a parallel road along the existing highway as an interim solution to eventually connecting the road to the Arrawarra interchange. | Under investigation as a separate work package. |
| 6 | General | RTA to negotiate with councils at earliest opportune time to address the handover of the old highway and associated maintenance issues (overall highway strategy). | RTA to action during the future phases of the project. |

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|------------------|---------------------------------------|---|---|
| 7 | General | A notation is required in the Concept Design Report covering landscaping maintenance issues. | Notation included. Refer Section 12 – Urban Design. |
| 8 | Section C Ch 11,400 | Adopt the current design for the Range Road Bridge/Underpass structure. However investigate an alternative design standard on the old highway (ie speed – 60 km/h as against 80 km/h and the amount of bridge skew required). Cost alternatives for presentation and review in relation to the long term strategy and access. | 80 km/h design speed for Range Road Underpass retained. 60 km/h design speed investigated but the benefits were not deemed to be significant. |
| 9 | Section C Ch 11,600 | Confirm the intersection layout has adequate separation for the intersections near Range Road and review the priority of the intersecting roads. | Intersection layout reviewed. Adequacy of separation confirmed. |
| 10 | Section C Ch 11,600 – Ch 12,500 | Build the access to Dundoo Reach to service road standard for that part of the road required for construction of the side track and build the rest of the road to access road standard (ie driveway rather than road). | Design changes made. |
| 11 | Section D Ch 17,800 | Adopt the proposed retention of a 4-way intersection at Grays Road. However document an extra (alternative) option for the intersection treatment in the Concept Design Report. | Workshop recommendation to retain 4-way intersection, however an alternative intersection layout has been adopted as discussed in Section 3.4.2 of this report. |
| 12 | Section E Ch 22,400 | Adopt the current strategy for truck rest areas for the project. However note the Kungala Road truck rest area option in the Concept Design Report. | Description of truck rest areas included in Section 4.3.8. Truck rest areas to be provided for north and southbound vehicles at Lemon Tree Road. |
| 13 | Section D Ch 19,500 | Adopt the current design for the Lemon Tree Road intersection treatment noting in the Concept Design Report that there is no impact to current service station arrangements. | Design adopted. Refer Section 3.3 – At Grade Intersections. |
| 14 | Section D Ch 19,500 | Further consultation is required with Rural Fire Service on the location of their Station on Lemon Tree Road to determine an agreeable outcome. | Consultation with Rural Fire Service is ongoing. |
| 15 | General | Consider and review bus stop locations in the area in the detail design stage. | To be actioned in Detail Design stage. |

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| 16 | Section E Ch 24,500 – Ch 27,400 | Adopt the current design for the reuse of the existing highway north of Wells Crossing bridge. However there is a need to keep the opportunity open to construct the alternative (ie dual carriageway from the outset with the existing highway as the service road). Include in the Concept Design Report, the cost of both options and reasons for doing either option (ie safety aspects, etc). | Current design for highway north of Wells Crossing retained. Information regarding this decision is provided in Section 3.4.3. |
| 17 | Section E – Ch 22,800 | Examine and consider shifting the road slightly to the west in the location of Halfway Creek Bridge. Document findings and process. | The possibility of shifting the highway further west in the vicinity of halfway creek was considered. However, this would cause impacts on the service station and rose farm. Moving the highway further west would also push the highway outside the designated preferred route corridor. Also, the bridge at Halfway Creek is not considered suitable for reuse. As such there were no significant benefits to moving the highway west. |
| 18 | Section E – Ch 25,500- Ch 27,400 | Amend the concept design to reflect the alternative solution to the Parker Road access treatment (ie left in/ left out with u-turn facility). | Design amended. |
| 19 | Ch 27,400+ | Resolve how the project connection to the Wells Crossing to Iluka Road project will work and access to Bald Knob Tick Gate Road will occur. Also consider removing the reverse curve at the southern end of the Wells Crossing to Iluka Road project. | The Concept Design alignment documents a tie-in to the existing highway north of Bald Knob Tick Gate Road. Design for the Wells Crossing to Iluka Road Project is to include a tie-in to the straight on the proposed highway at approximately Ch 27,000. |
| 20 | General | Adopt the current design for fauna crossing in the area and refine during detail design. Ensure performance requirements for fauna crossings (as at this point in time) are documented. | Current design adopted. |