Berry Bypass Urban Design Strategy

Berry Bridge and Northern Interchange

7 March 2012
Contents

- Precincts
- Setting
- North Approach
- Community Feedback
- Design Principles
- Design Response
Exhibited Design

Prestressed concrete bridge option – view from Woodhill Mountain Rd
Prestressed concrete bridge option – typical cross section
Super T concrete bridge option – view from Woodhill Mountain Rd
Super T concrete bridge option – typical cross section
Exhibited Design

Woodhill Mountain Road crossing bridge height comparison
Figure 6-10 Artist's impression from viewpoint S - Bypass of Berry
### Berry Bridge

*Summary of Berry Bypass Alignment Issues Report, Jan 2012*

<table>
<thead>
<tr>
<th>Issues</th>
<th>Design Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Impact</td>
<td>Develop urban and landscape reference design, and bridge architecture.</td>
</tr>
<tr>
<td>Noise Mitigation</td>
<td>Minimise expansion joints and adopt low noise pavement.</td>
</tr>
<tr>
<td>Design Process</td>
<td>Involve NSW Government Architect in design review process.</td>
</tr>
<tr>
<td>Heritage Response</td>
<td>Develop design options to clarify preferred community design direction.</td>
</tr>
</tbody>
</table>
Overall Objective

*Integrate the Berry Bridge and Northern Interchange structures and earthworks within the landscape of northeast Berry.*

**Berry Bridge - Urban Design Principles**

- Develop bridge architecture that complements the pastoral setting.
- Maximise retention of existing screen landscape.
- Minimise bridge piers and profile.
- Keep undercroft areas open, ventilated and with access to light.
- Maintain a consistent bridge profile without awkward junctions, steps or faceting.
- Explore opportunities to reflect the unique character of Berry and the Shoalhaven.
- Utilise locally sourced stone for abutment linings and scour protection.
Berry Bridge Sketch Alternative 1

- Prestressed concrete planks (15m span)
- Integrated headstocks
- Cost effective rectilinear frame support.
Advantages:

• Smoother vertical curve/less faceted
• Thin profile
• Attractive integrated support piers
• Cost competitive overall

Disadvantages:

• More columns, closer together
Berry Bridge Sketch Alternative 2

- Super ‘T’ concrete beams (35m span)
- Integrated headstocks
- Headstock recessed in depth of beams
- Cost effective rectilinear frame support
Advantages:

- Attractive integrated/recessed support piers
- Less columns than with Planks

Disadvantages:

- Less columns than with Planks
- Faceting of vertical curve may cause difficult junctions
## Northern Interchange

*Summary of Berry Bypass Alignment Issues Report, Jan 2012*

<table>
<thead>
<tr>
<th>Issues</th>
<th>Design Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second North Bound Off Ramp</td>
<td>Investigate traffic demand for second north bound off ramp.</td>
</tr>
<tr>
<td>Truck Noise Impact</td>
<td>Road design optimised to reduce heavy vehicle braking.</td>
</tr>
</tbody>
</table>
Northern Interchange - Urban Design Principles

- Minimise the visual presence of interchange structures.
- Minimise impacts on existing properties and access.
- Minimise the interchange footprint.
- Retain mature trees along the highway.
- Consider the sequential views on the northern approach.
- Contribute to the township arrival/departure experience and to legibility.
- Develop Berry township entry signage strategy.
- Frame rural and township views from elevated vantage points.
- Relocate Berry Memorial sculptures.
Section A
CM^+
+ Architecture
+ Urban Design
+ Masterplanning
+ Heritage
+ Interiors
+ Industrial Design
+ Graphics
+ Landscape
+ Animations
+ Sustainability