Berry Bypass Urban Design Strategy

North Street Precinct – Community Working Group

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Arc of Green Space/Residual Lands

Potential land uses for residual open space:
- Adjustment
- Riding school land swap
- Public park
- Special event/overflow/coach parking
- Limited residential development?

Interconnected green spaces

Berry Oval/sports precinct to new retirement communities
Pedestrian/Cyclist/Scooter Circuit

Legend:
- New Shared Path (2.5m Wide) (Potentially as part of Bypass works)
- Future Potential Township
- Recreational Circuit (Pedestrian, Cyclist, Scooters)
- Key Destinations
- National Fitness Circuit
Pedestrian/Cyclist Links

Connection from Kangaroo Valley Road to North Street

Recreational shared path along north side of North Street

Connect to future recreational walk along Town Creek

Connection from Queen Street to Mark Radium Park

Long term recreational circuit around township
North Street Pedestrian Overbridge

Issues Identified:

1. Significant visual impact, residential privacy issues and impact on the North Street streetscape.

2. Duplication of pedestrian access across the Bypass would result in significant and unnecessary addition project cost.

3. The walking time would only be marginally shorter: currently 500m from KV Rd/North St intersection to Nth St/George St intersection, with new link across the KV Rd Int the distance would be 600m. The average pedestrian can walk 400m in 5 mins - therefore additional time taken would be 1.25 minutes.

For the above reasons, on cost-benefit terms, the additional expense is not warranted. The RMS will therefore not pursue this additional crossing.
Proposed Landscaping Strategy

- Establish grasses and shrubs to screen the noise barriers, from both North St and Bypass sides.
- Establish informal stands of tree planting and understorey to screen carriageways from rural properties and to provide intermittent views of pastoral vistas for travellers.
- Build up existing ground level with fill to create Ha-ha slope effect and re-establish top soil and pastures grasses.
- Post construction, re-establish riparian planting and habitat along creek lines.
- Re-establish Riding School Competition green.
- Coach and overflow parking area - establish suitable, durable ‘green’ parking surface and shade trees. Screen parking and toilet facilities from North St residents.
- Establish attractive landscaped walk/cycle from park to Queen St, Kangaroo Valley Rd. Screen noise barrier.
- Establish attractive landscaped walk along Town Creek alignment.
- Establish avenue planting in N-S streets, coordinate with street car parking.
- Provide 2.5m wide concrete shared pathway along north side of North St. Connect into existing path of recreational precinct.
- Consolidate North Street avenue tree planting.
Cross Sections
Noise barrier Design Option
Precast Wall

- 6000 min. landscaped buffer zone
- 1200 high balustrade for pedestrian safety
- Landscaped batter to screen noise wall
- Sloped fill to create 'Ha ha' effect
- 1200 High stock fence
- Precast concrete wall with high quality paint finish to all visible faces (Charcoal / green colour)
- Continuous raised planter bed with screen planting 2.0m wide
- Type F safety barrier
- 1 in 20 slope
- Existing Ground Line
- Shoulder and Drainage
- Berry Bypass South Bound Carriageway
CONCEPT DESIGN SUBJECT TO CHANGE

Northern Route - Noise Barrier Design

Berry Bypass Urban Design Strategy
Option 1 - Precast Wall 3D View

April 2012
Dwg. No: 12001-SK04
Ha-Ha Noise Barrier Option 1
(Precast Wall) – Typical Cross Section

Pros
• Durable
• Low maintenance
• Doubles as balustrade

Cons
• Maintenance of planter required from bypass side
• Some reflected noise possible
• Constrained soil mass
Noise barrier Design Option
Planted Reinforced Mound

- 6000: Landscaped buffer zone
- 2000: Clearance for maintenance vehicle
- 3000: Clearance for maintenance vehicle
- 1 in 2 Landscaped slope
- Sloped fill to create 'Ha ha' effect
- 1200: High stock fence
- Vegetated by hydroseeding
- 30.0°
- Planted soil reinforced noise barrier to engineer’s / manufacturer’s details
- Wire rope safety barrier
- Existing Ground Line
- Shoulder and Drainage
- Berry Bypass South Bound Carriageway

(cm+ logo)
The reinforcement: solutions

4.1. Slope stabilization with geogrids, Taipei, Taiwan.

4.3. Rock embankment and rock protection works, Tibetan highway, and dam.

04.01.00.00, Reinforcement works on a road in Sardinia, Italy.

04.01.01.02, Reinforcement work along the coastal road by using soil type reinforcement, Genoa, Italy.
Ha-Ha Noise Barrier Option 2
(Planted Reinforced Mound) – Typical Cross Section

Pros

• Good north aspect
• ‘Green’/sustainable solution
• Sound absorbing
• Dedicated 3.0m maintenance access

Cons

• Maintenance still required
• Risks of new technology
Noise barrier Design Option
Mound & Dual Wall

Timber noise wall with access gates
Landscaped batter to screen noise wall

Continuous dish drain
Palisade safety fence
Locally sourced stone retaining wall in 300mm blocks
Wire rope safety barrier

1 in 20 slope
Existing Ground Line
Shoulder and Drainage
Berry Bypass South Bound Carriageway
Ha-Ha Noise Barrier Option 3
(Mound & Dual Walls)- Typical Cross Section

Pros
• Reduces apparent height
• Breaks height down into landscaped steps
• All maintenance possible from south – no lane closures
• More opportunity for screen landscaping
• Local natural stone incorporated

Cons
• Acoustic performance to be confirmed
• Risk of increased height necessary
• Retaining structure will change at pinch points/interchange
• Two wall systems necessary
+ Architecture
+ Urban Design
+ Masterplanning
+ Heritage
+ Interiors
+ Industrial Design
+ Graphics
+ Landscape
+ Animations
+ Sustainability