

Echuca-Moama Bridge EES

Landscape & Visual Impact Assessment

Volume 2





Legend

Project Area

 Scale 1:15000

Figure 1 - Project Area

Echuca - Moama Bridge EES |
Landscape and Visual Impact Assessment

Client	VicRoads				
Drawing No	300931 LMP 001	Revision	REV A	Date	January 2015
Drawn By	FJS	Checked by	FMS	Approved by	FMS





Legend

Project Area

Indicative Study Area Boundary

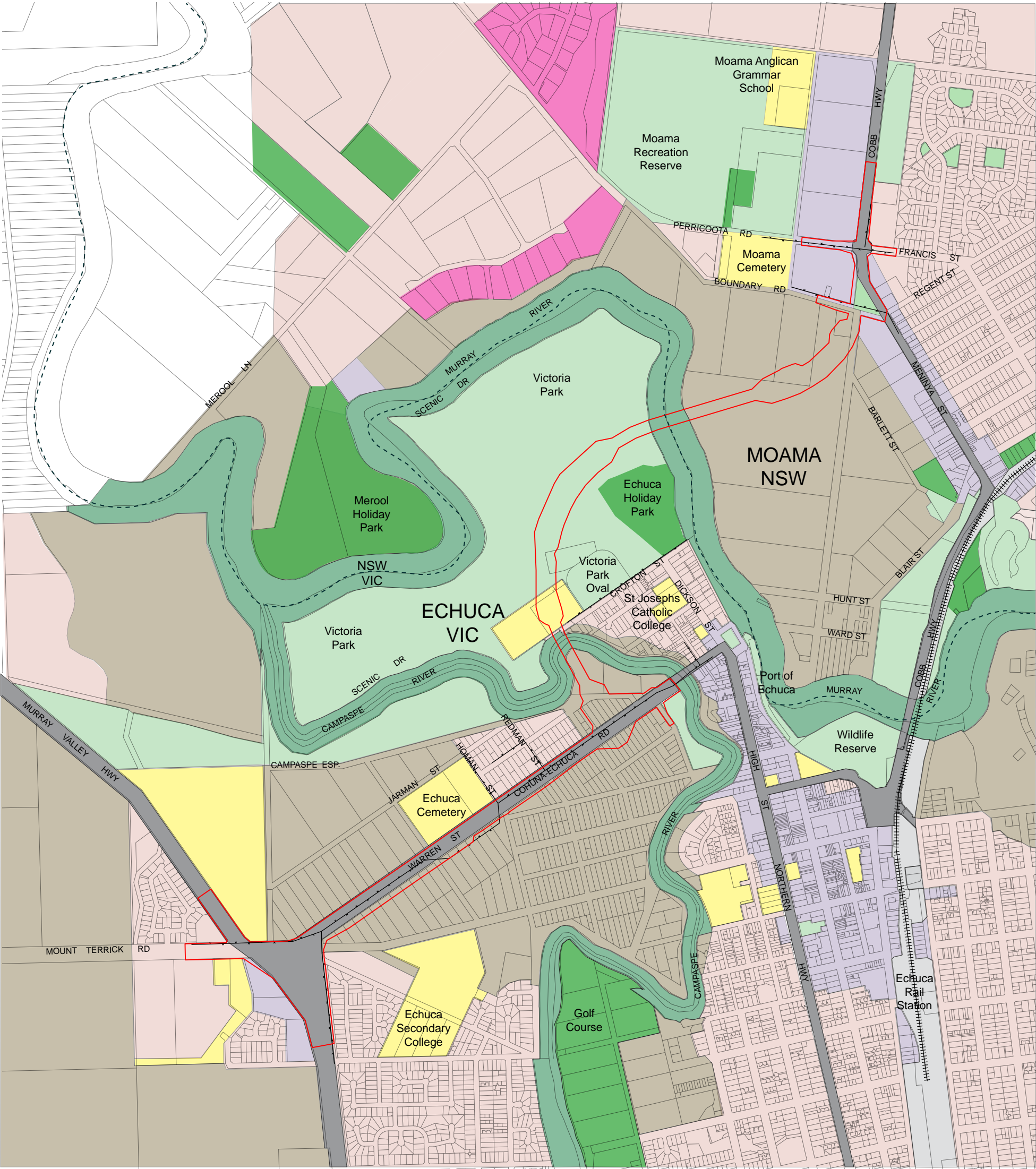
Scale 1:15000

Figure 2 - Study Area

Echuca - Moama Bridge EES |
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Client	VicRoads				
Drawing No	300931 LMP 002	Revision	REV A	Date	November 2014
Drawn By	FJS	Checked by	FMS	Approved by	FMS





Legend

- | | | |
|---|---|---------------------|
| Commercial | Public Conservation & Resource
(Campaspe River & Murray River) | Transport (Railway) |
| Industrial | Public Parks and Recreation | Major Road |
| Residential | Private Recreation | Project Area |
| Large Lot Residential | Rural / Floodway | |
| Public Use
(Education, Services, Cemeteries) | Overhead Powerlines | |

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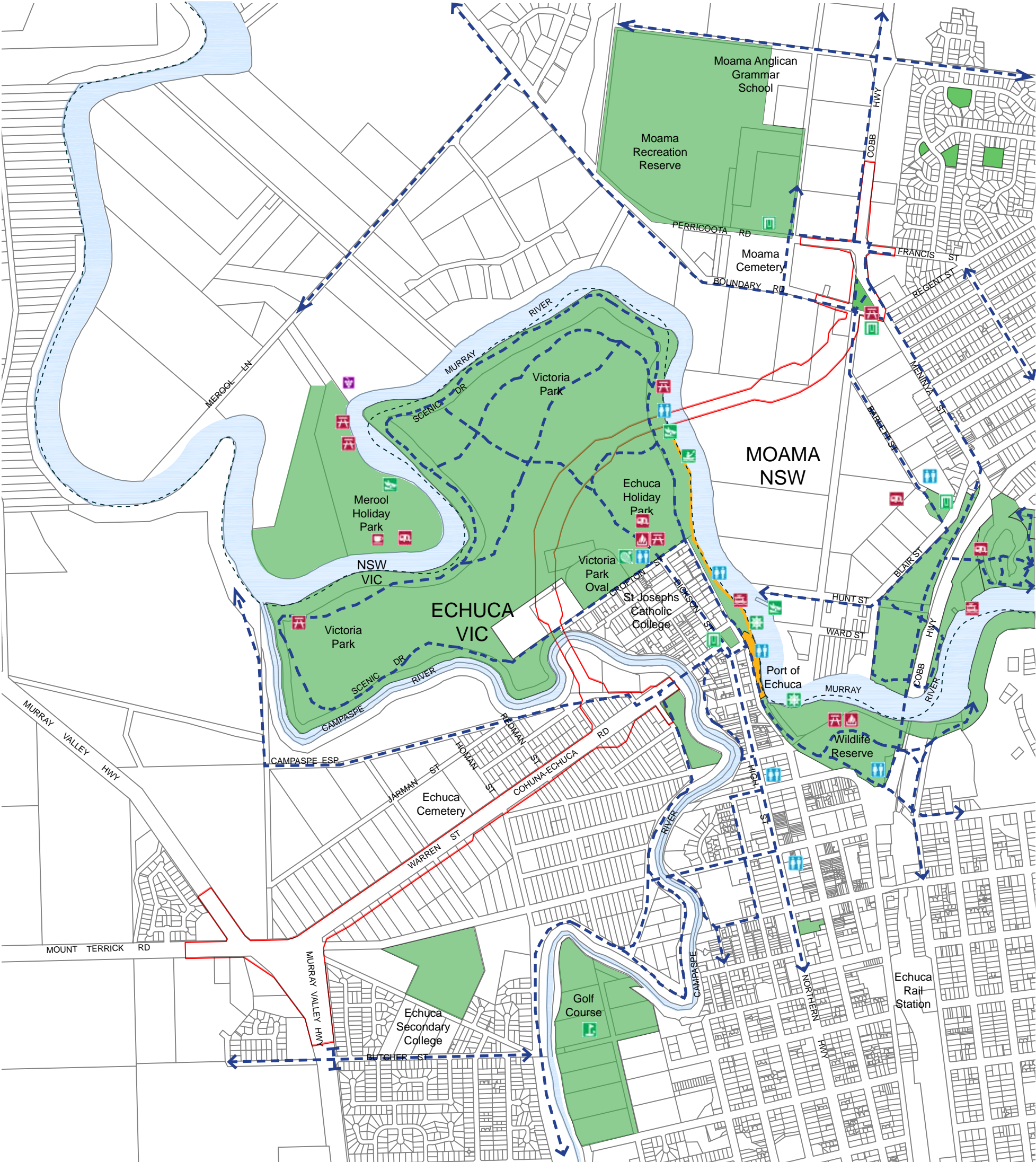
Client	VicRoads			
Drawing No	300931 LMP 003	Revision	REV A	Date November 2014
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Figure 3 - Land Use Plan



Legend

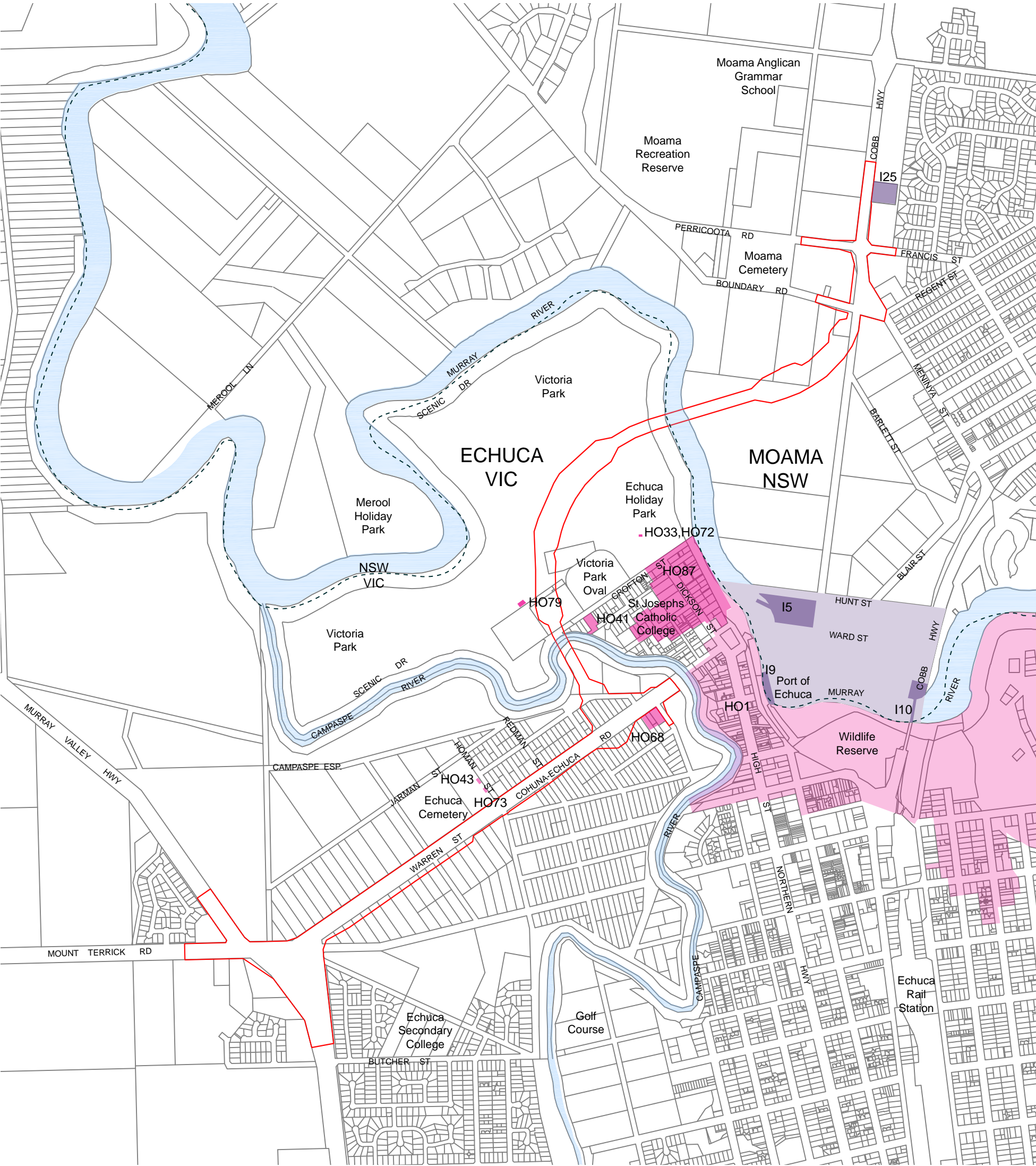
- Public Open Space or Recreational Reserve
- Tourist Precinct
- Bicycle/Walking Route
- Project Area
- Toilets
- Boat Ramp
- Canoe Hire
- Golf
- Paddlesteamers
- Playground
- Swimming Pool
- Tennis Courts
- BBQ
- Caravan Park
- Picnic Table
- Houseboats
- Kiosk
- Winery

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Figure 4 - Recreational Facilities Plan



Legend

- HO1

Old Echuca Township Precinct
- HO43

Site of Historical Value - Cemetery
- HO73

Site of Historical Value - Cemetery Gates
- HO41

Site of Historical Value - Crofton Street Dwelling
- HO79

Site of Historic Value - Stand of Murray Pine
- HO72

Site of Historic Value - Red Gum Memorial Archway
- HO33

Site of Historical Value - Fountain and Statuary
- HO87

Echuca North Residential Precinct
- HO68

Dwelling 279 - 281 Campaspe Esplanade

C1

Heritage Conservation Area - Moama Historic Precinct

I25

Heritage Item - Cranford House

I10

Heritage Item - Echuca/ Moama Road and Former Rail Bridge

I9

Heritage Item - Echuca Wharf

I5

Heritage Item - Moama Slipway and BargesProject Area

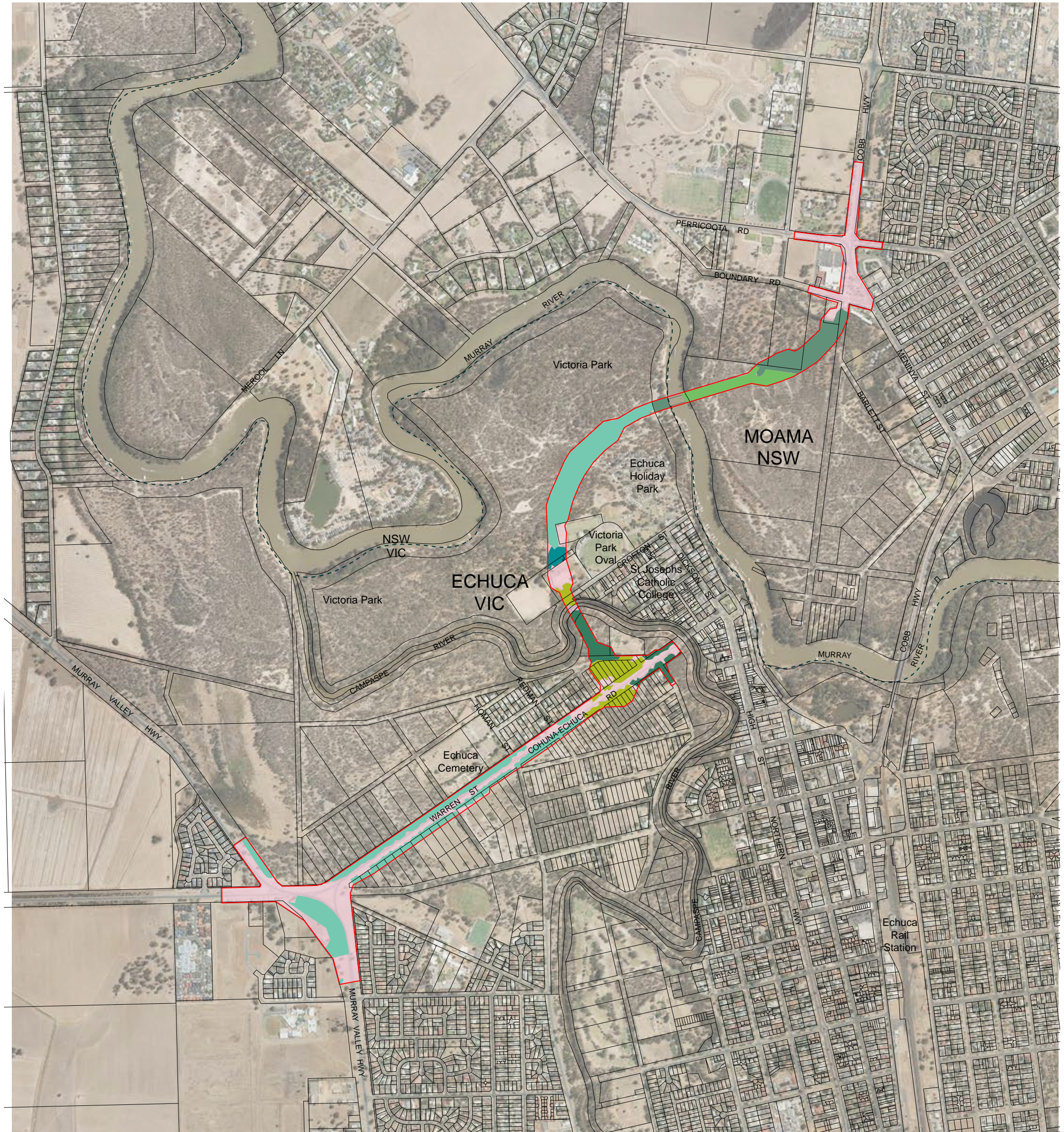
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Figure 5 - Cultural Heritage Plan



Legend

- River Red Gum dominated Forest
- Black Box dominated Woodland
- River Red Gum dominated Woodland
- Murray Pines dominated Woodland
- River Red Gum - Black Box Woodland
- Roadside and other vegetation
- Project Area

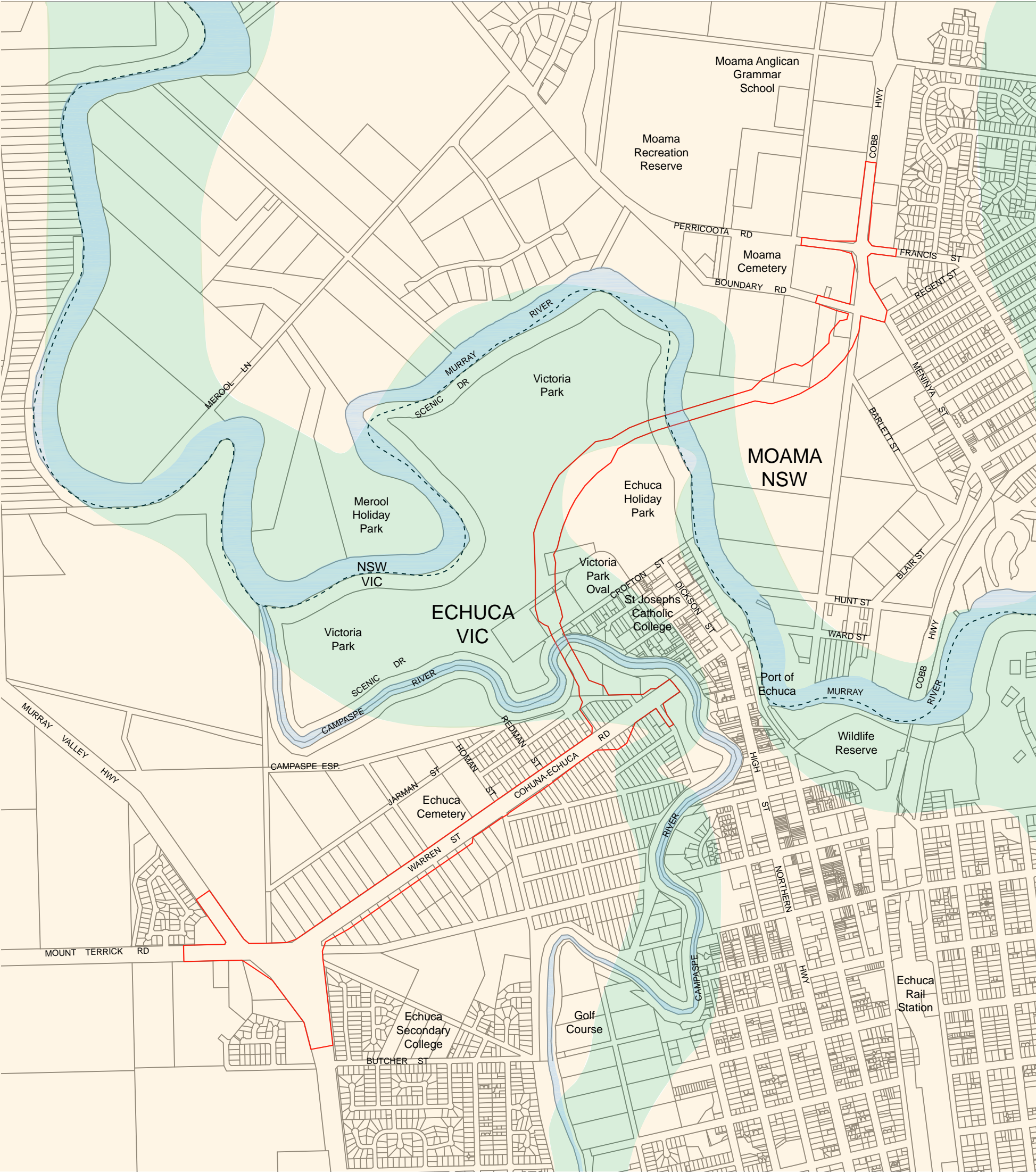
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Scale 1:15000

Figure 6 - Vegetation Plan

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Legend

- QUATERNARY: MOSTLY HOLOCENE - Fluvial, lacustrine: clay, sand, sandy clay
- QUATERNARY: PLEISTOCENE - Fluvial: silt, sand, minor gravel
- Project Area

 Scale 1:15000

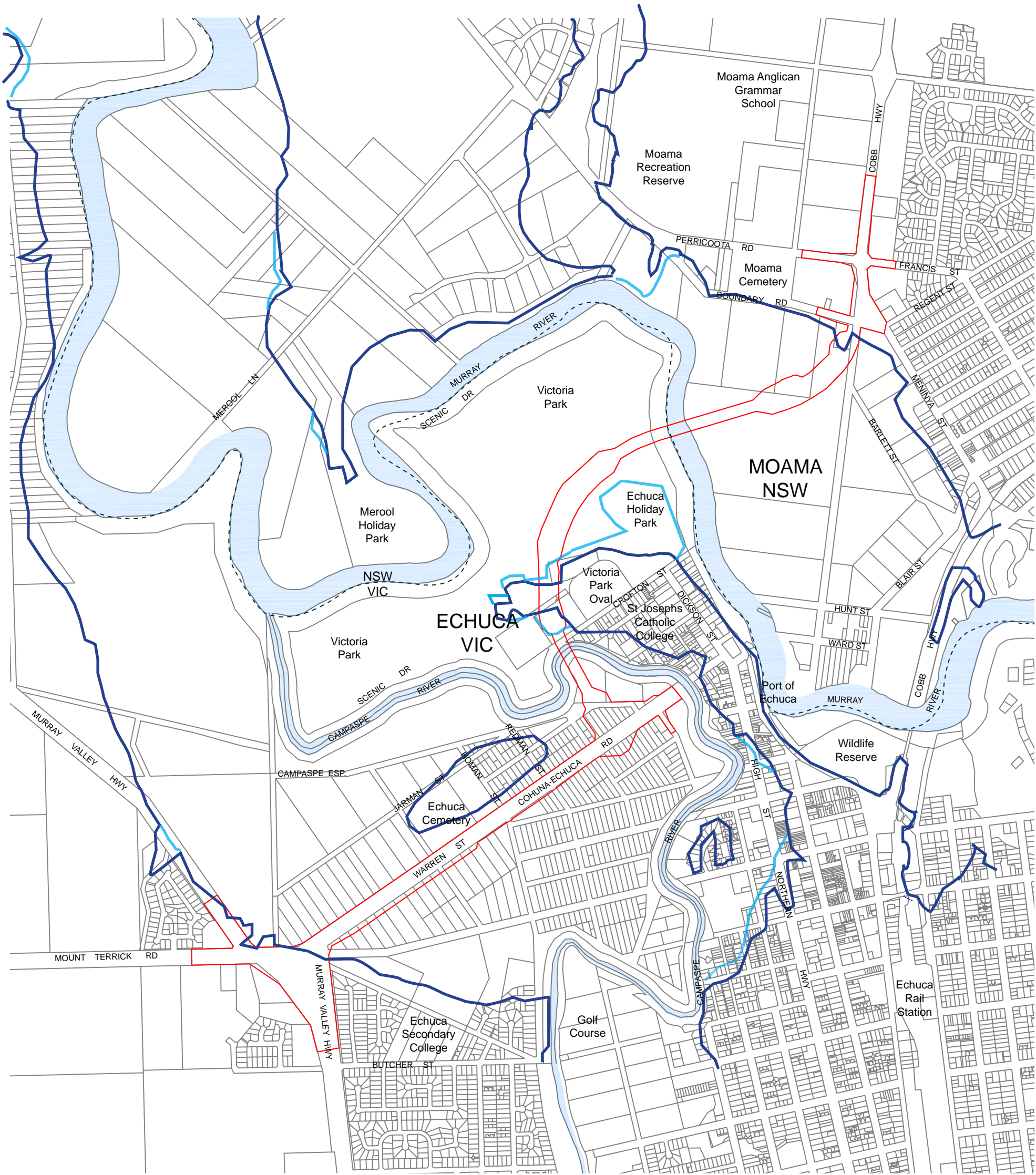
Figure 7 - Surface Geology Plan

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Legend

-  RIVER
-  100 yr DRAFT ARI FLOOD EVENT, as per Cardno Report 2014
-  20 yr DRAFT ARI FLOOD EVENT, as per Cadno Report 2014
-  Project Area

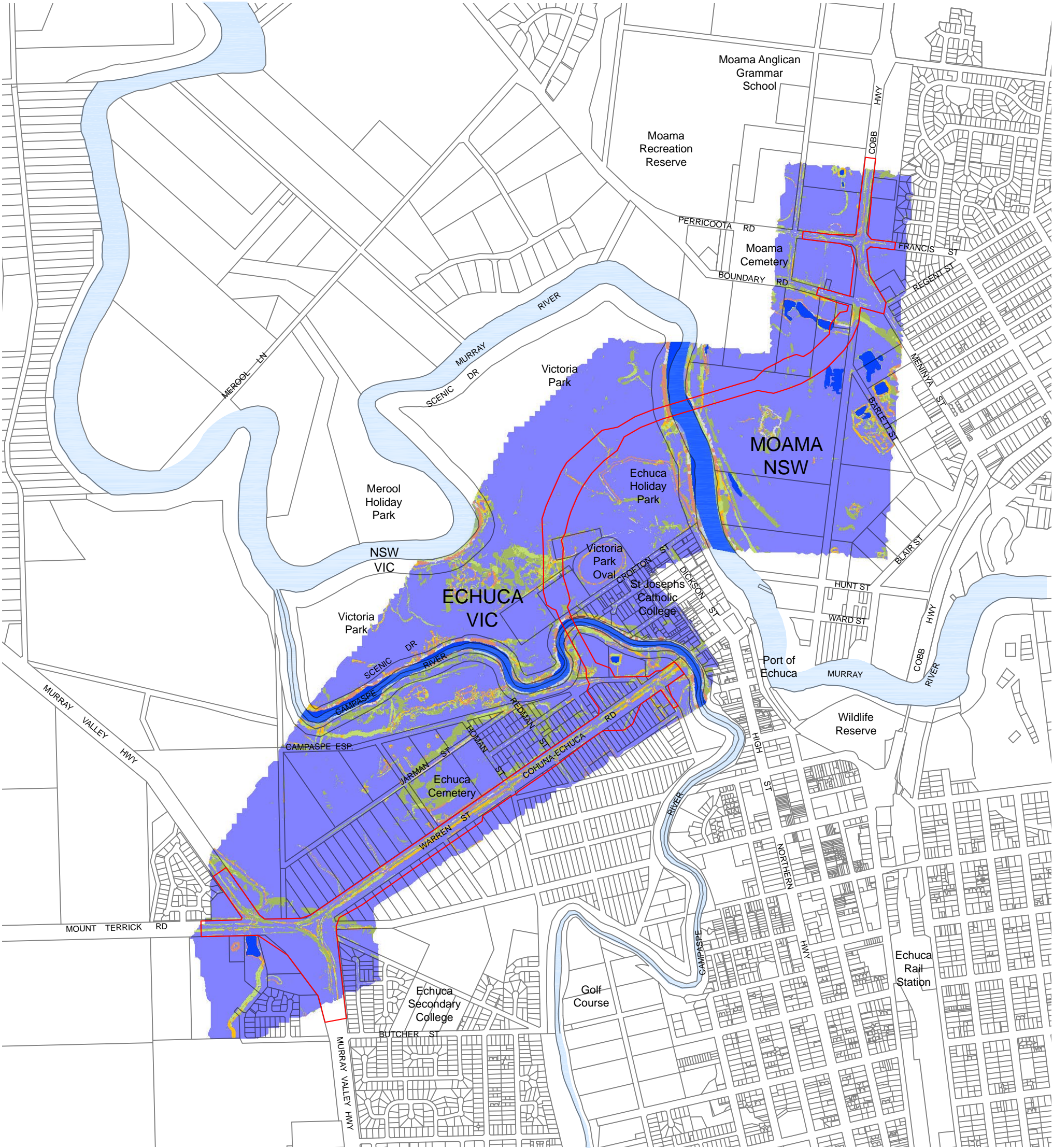
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Scale 1:15000

Figure 8 - Hydrology Plan

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Legend

- Project Area
- 0-5% Slope
- 5-10% Slope
- 10-20% Slope
- 20-30% Slope
- 30-60% Slope
- > 60% Slope
- Waterbody (no level information)

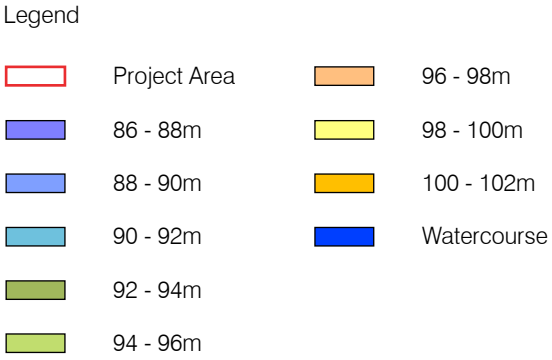
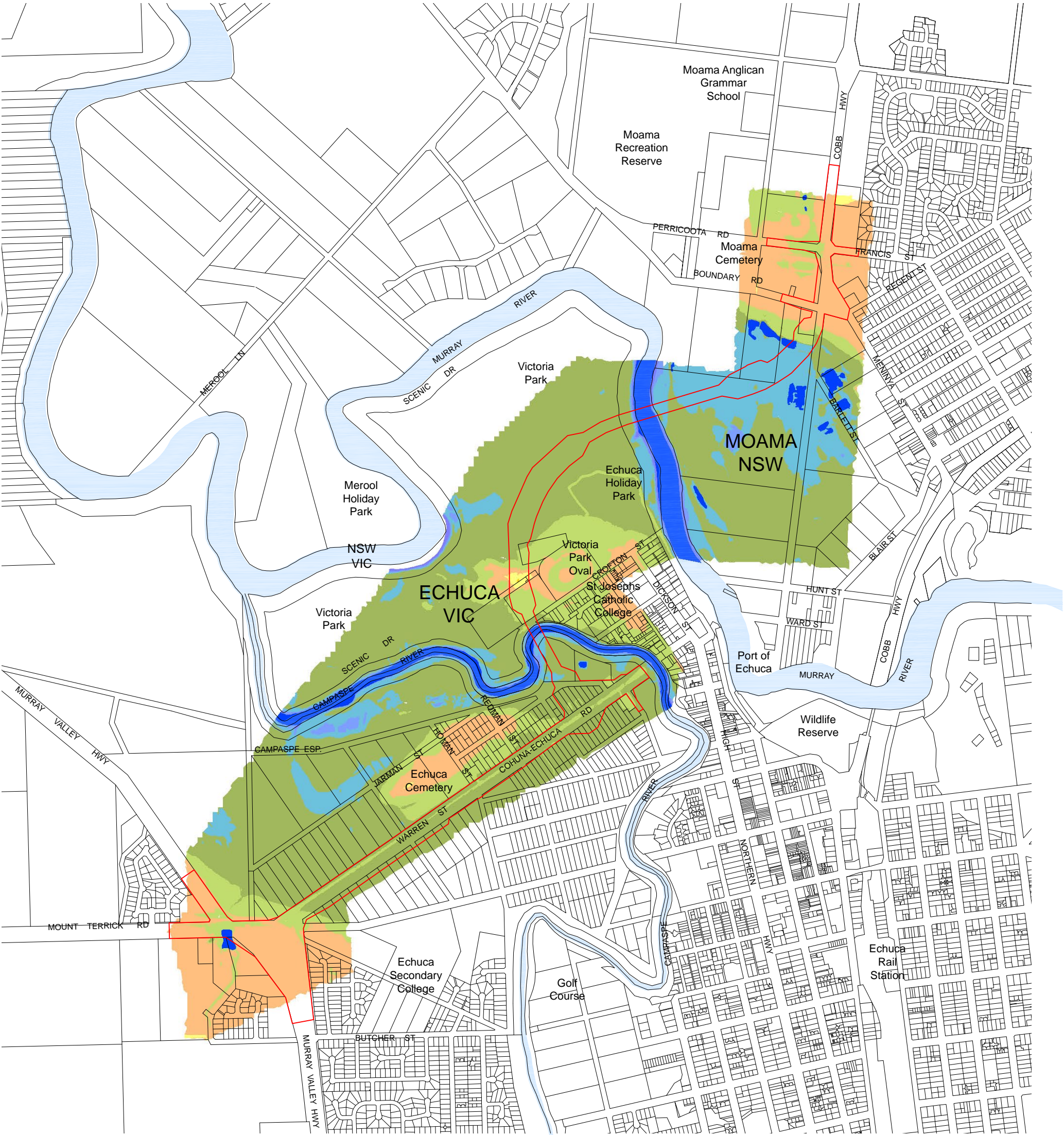
Scale 1:15000

Figure 9 - Slope Analysis Plan

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Figure 10 - Elevation Analysis Plan

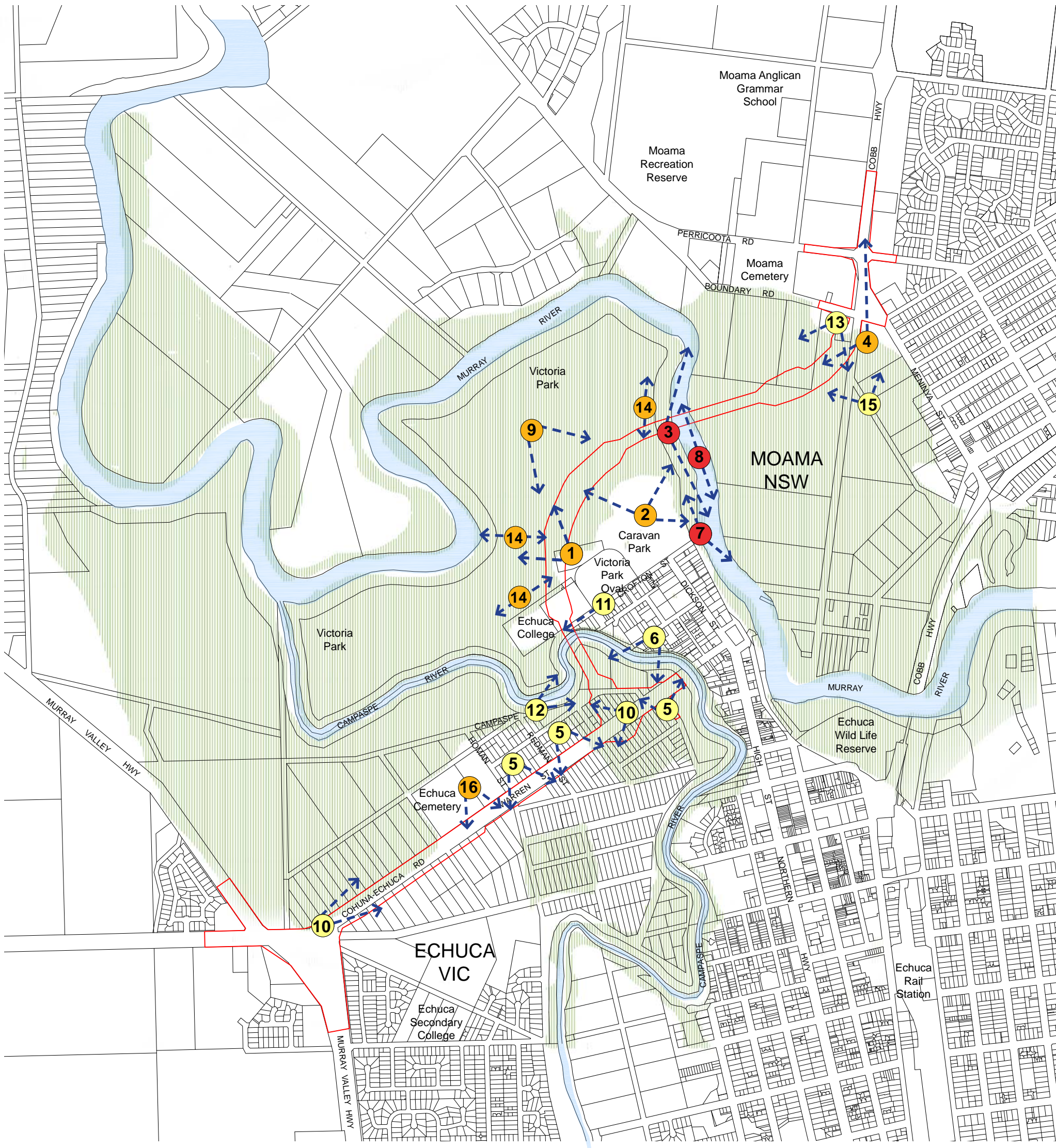
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- Legend

 - Views of High Importance
 - Views of Medium Importance
 - Views of Low Importance
 - Tree Cover
 - Study Area
- 1 Views from Echuca Tennis Club & Victoria Park Oval
 - 2 Views from Echuca Caravan Park
 - 3 Views from Boat Ramp & Picnic Area
 - 4 Views from Madison Spa Resort
 - 5 Views from Residential Properties on Warren St
 - 6 Views from Residential Properties on Campaspe River
- 7 Views from Houseboats
 - 8 Views from Paddlesteamers
 - 9 Views from Victoria Park Users
 - 10 Views along Warren St
 - 11 Views along Crofton Street
 - 12 Views from Campaspe Esplanade
 - 13 View from Boundary Rd Property
 - 14 Views from Scenic Drive
 - 15 View from Forbes Street
 - 16 View from Echuca Cemetery

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Figure 11 - Views and Tree Cover Plan



Legend

Project Area

Visual Envelope

N

Scale 1:15000

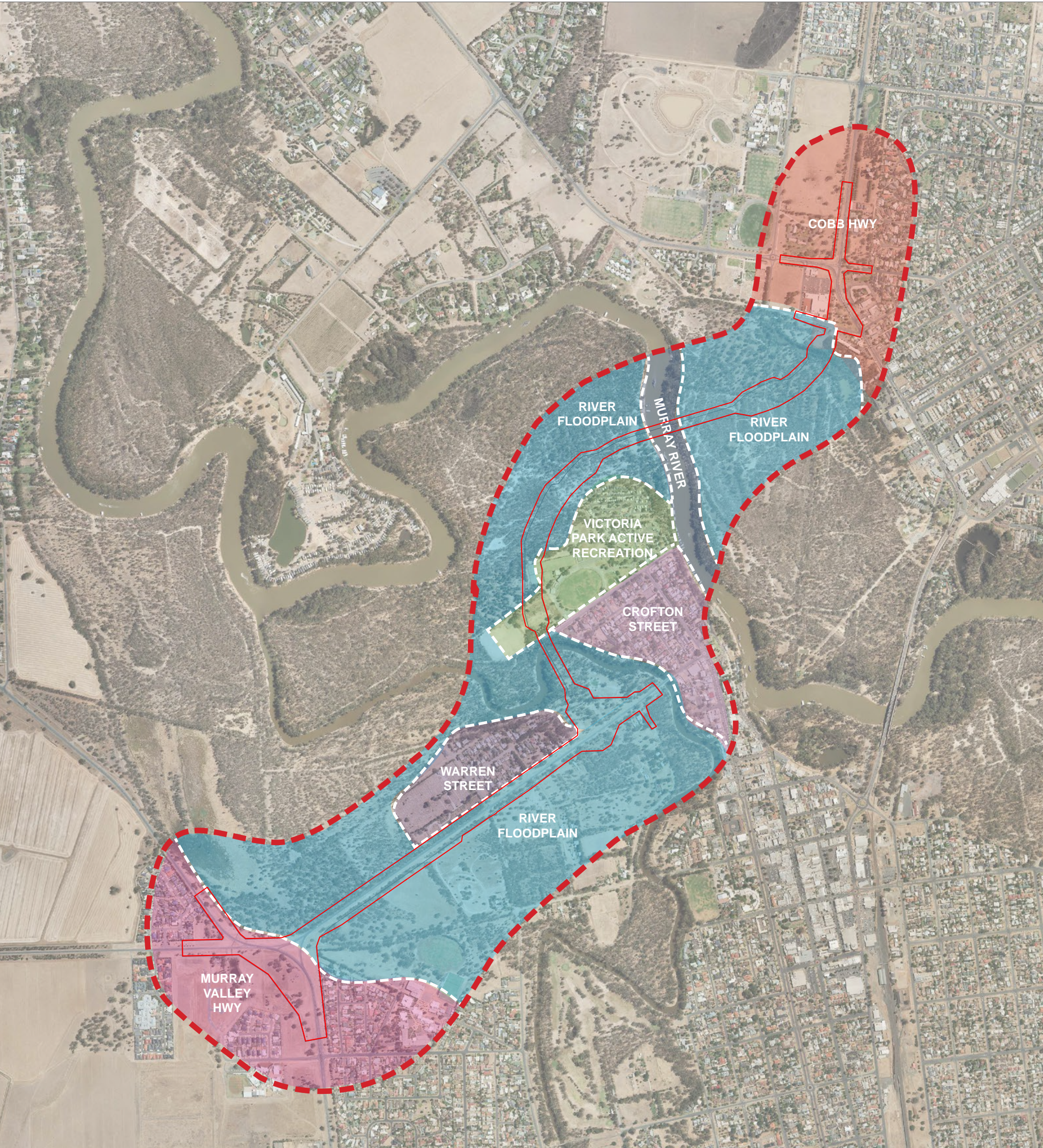
Figure 12 - Visual Envelope Plan

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Drawing No	300931 LMP 012	Revision	REV A	Date	November 2014
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Legend

Project Area

Study Area Boundary

Landscape Character Types:

River Floodplain

Murray River

Victoria Park Active Recreation

Cobb Highway

Crofton Street

Warren Street

Murray Valley Highway

 Scale 1:15000

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Drawing No	300931 LMP 013	Revision	REV A	Date
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				FMS

Figure 13 - Landscape Character Plan



Existing view



Proposed view - unmitigated



Proposed view - mitigated



Location and direction of photomontage view 1

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Landscape and Visual Impact Assessment

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Drawing No	300931 LMP 014	Revision	REV B	Date	January 2015
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Figure 14 - Photomontage View 1: view from Crofton Street looking south west



Existing view



Proposed view - unmitigated



Proposed view - mitigated



Location and direction of photomontage view 2

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Client	VicRoads				
Drawing No	300931 LMP 015	Revision	REV A	Date	January 2015
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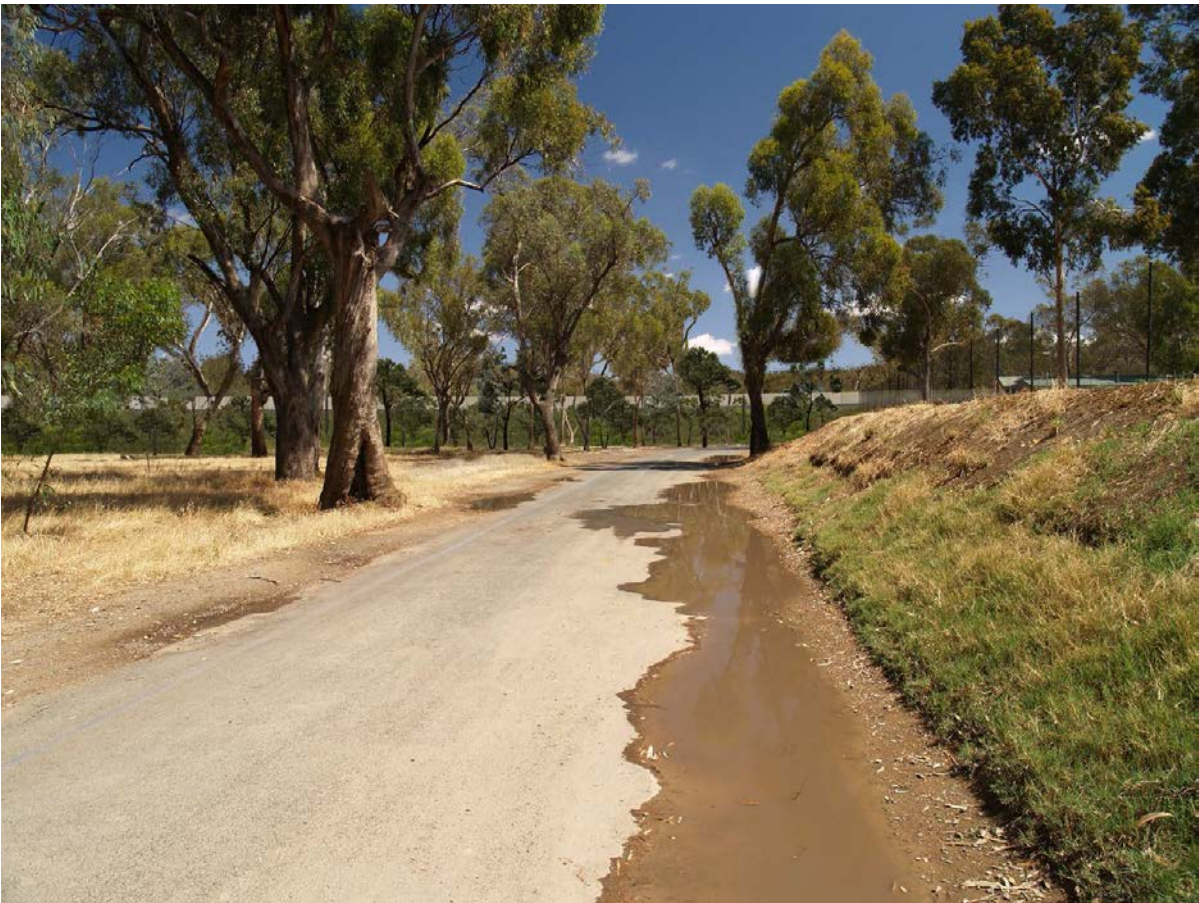
Figure 15 - Photomontage View 2: view from Victoria Park netball court looking west



Existing view



Proposed view - unmitigated



Proposed view - mitigated



Location and direction of photomontage view 3

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Client	VicRoads				
Drawing No	300931 LMP 016	Revision	REV A	Date	January 2015
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Figure 16 - Photomontage View 3: view from outside Echuca caravan park looking north west



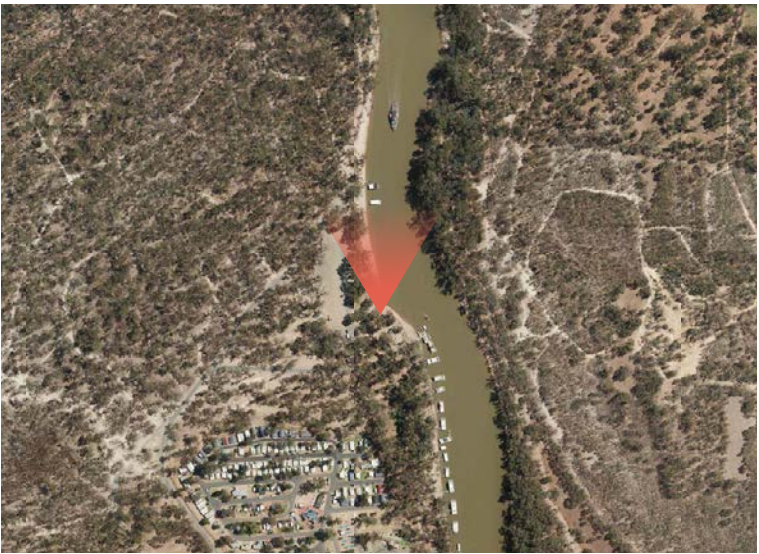
Existing view



Proposed view - unmitigated



Proposed view - mitigated



Location and direction of photomontage view 4

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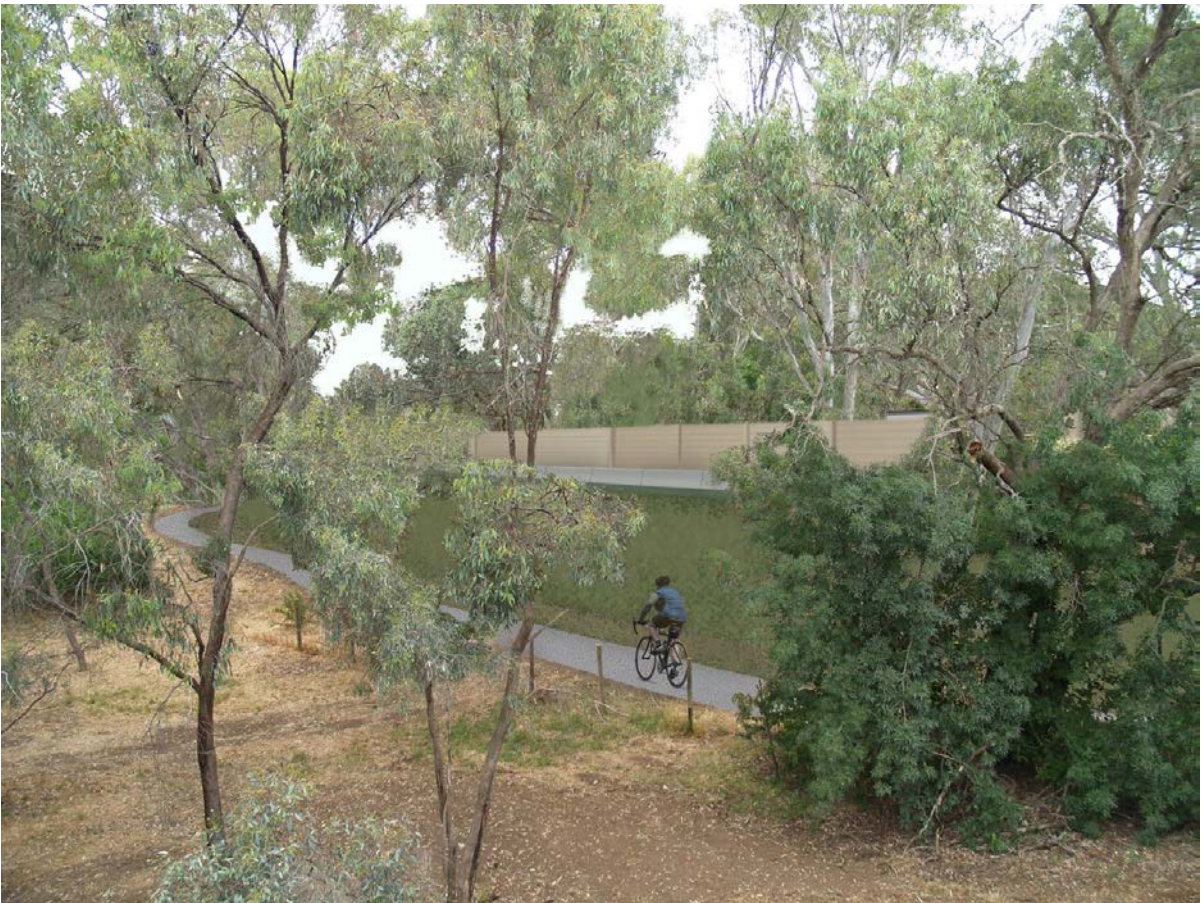
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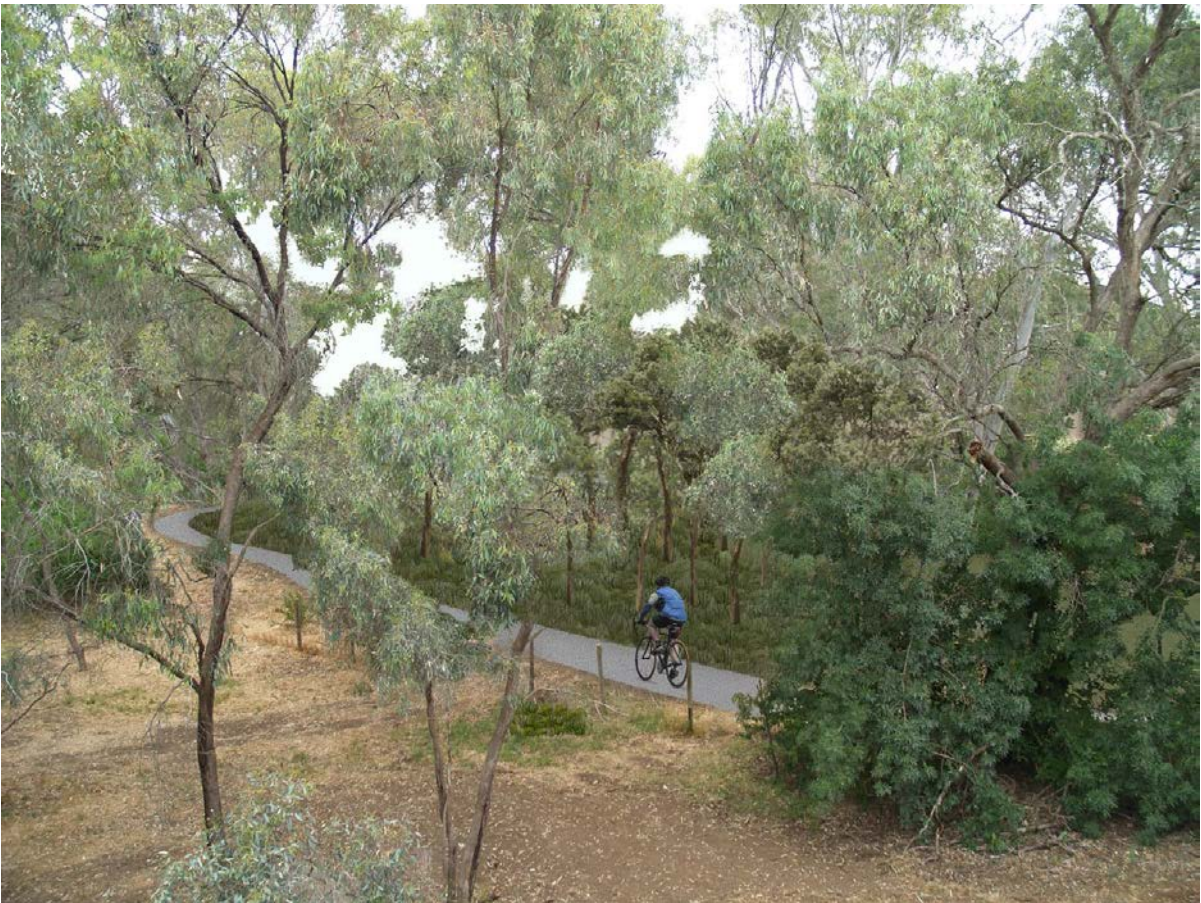
Figure 17 - Photomontage View 4: view from Victoria Park boat ramp looking north



Existing view



Proposed view - unmitigated



Proposed view - mitigated



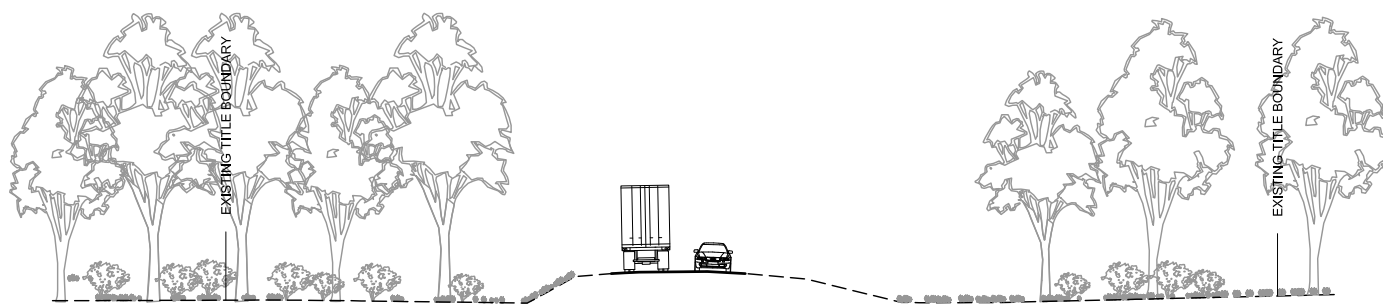
Location and direction of photomontage view 5

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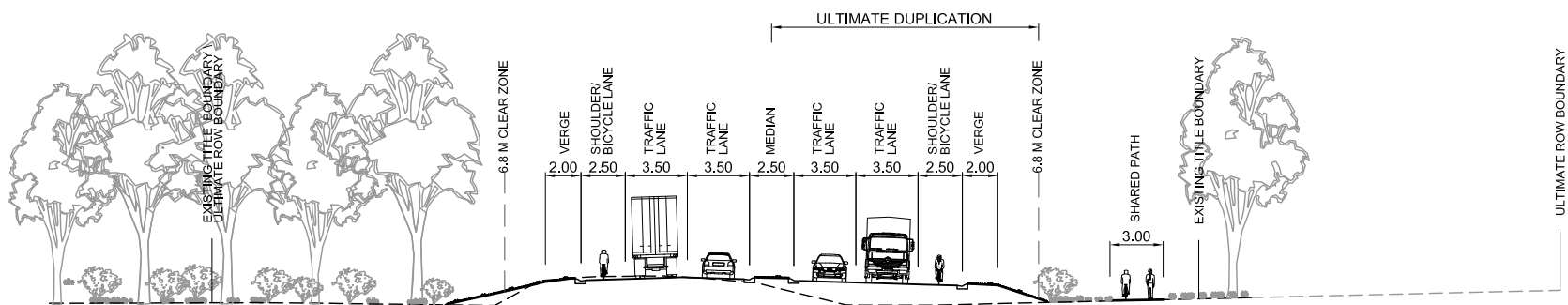
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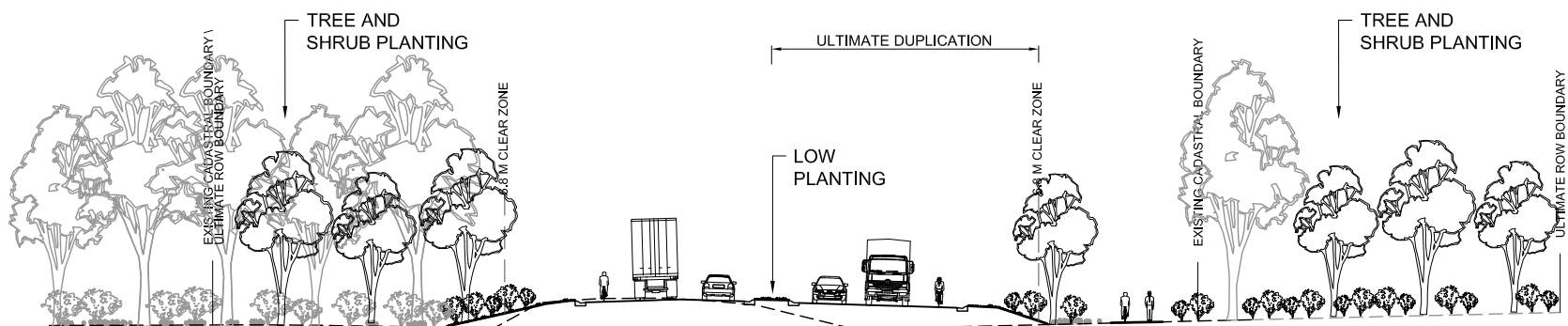
Figure 18 - Photomontage View 5: view from Madison Spa Resort looking south west



EXISTING CONDITIONS



PROPOSED UNMITIGATED CONDITIONS



PROPOSED MITIGATED CONDITIONS

Scale 1:400

Figure 19 - Cross section at Chainage 500 (Warren Street) Ultimate Duplication

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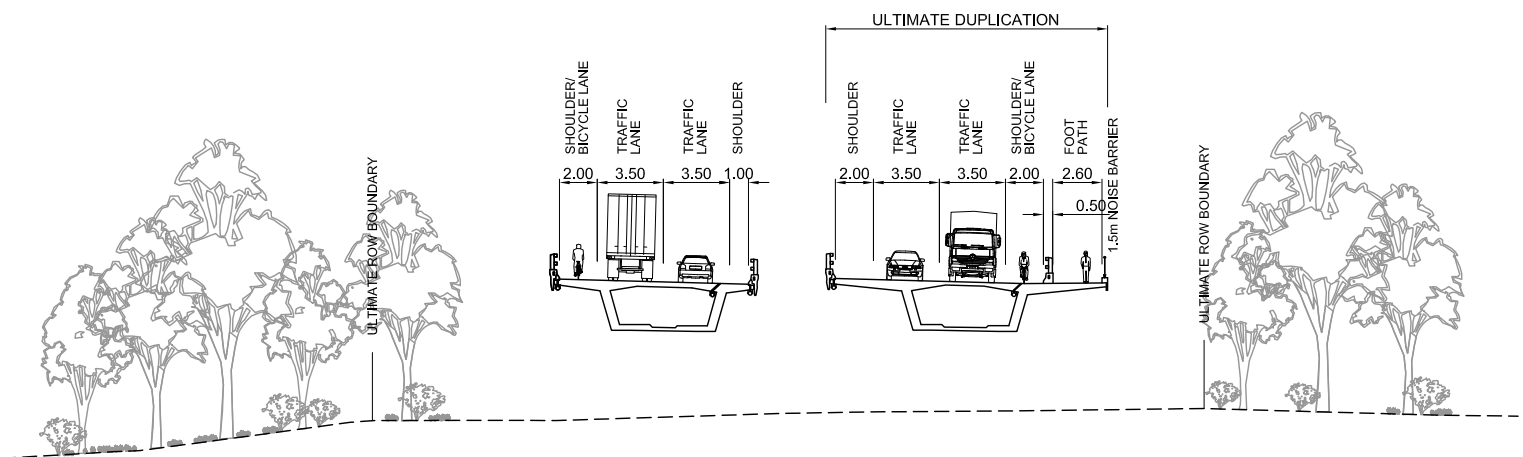
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Drawing No	300931 LMP 019	Revision	REV B	Date	January 2015
Drawn By	FJS	Checked by	FMS	Approved by	FMS



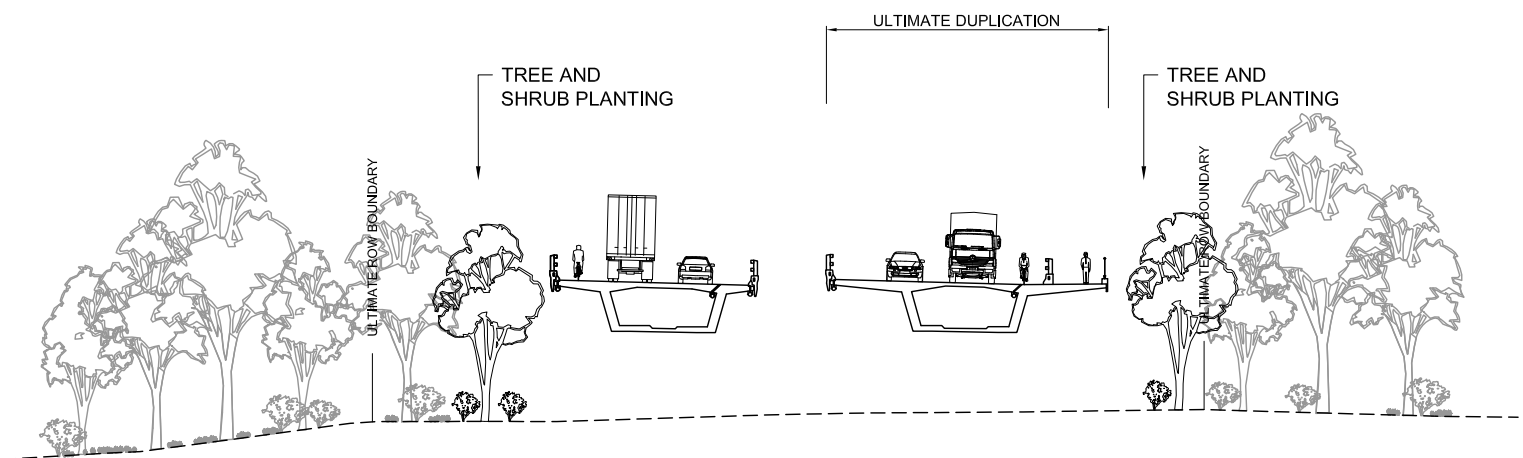
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EXISTING CONDITIONS



PROPOSED UNMITIGATED CONDITIONS



PROPOSED MITIGATED CONDITIONS

Scale 1:400

Figure 20 - Cross section at Chainage 10,300 (New Road) Ultimate Duplication

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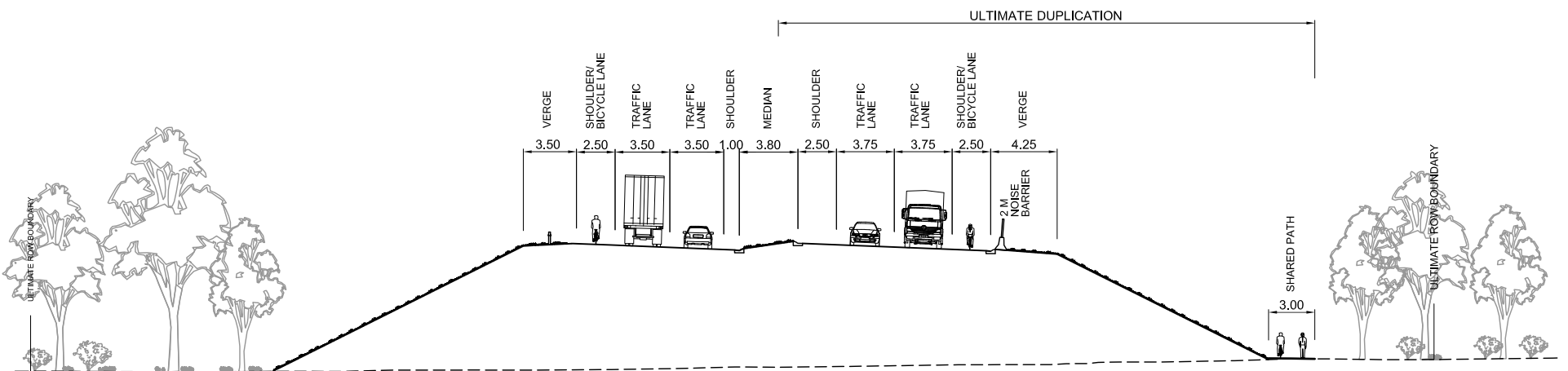
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Drawing No	300931 LMP 020	Revision	REV B	Date	January 2015
Drawn By	FJS	Checked by	FMS	Approved by	FMS



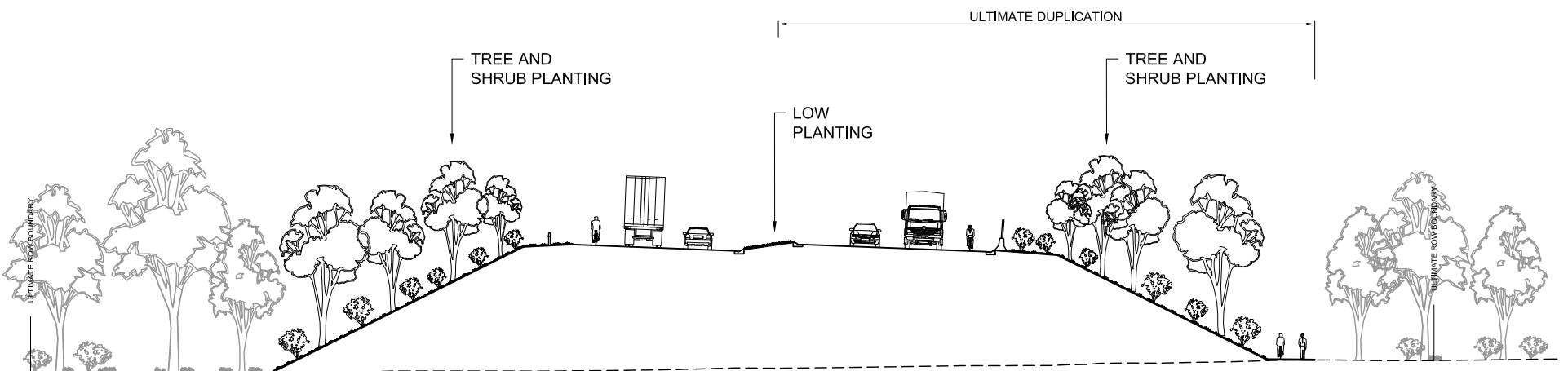
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EXISTING CONDITIONS



PROPOSED UNMITIGATED CONDITIONS



PROPOSED MITIGATED CONDITIONS

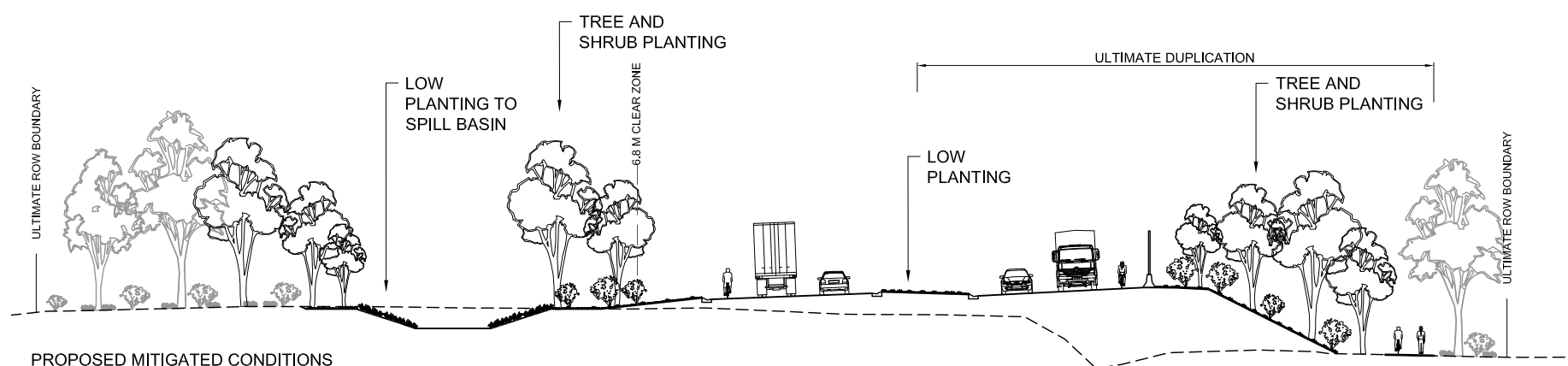
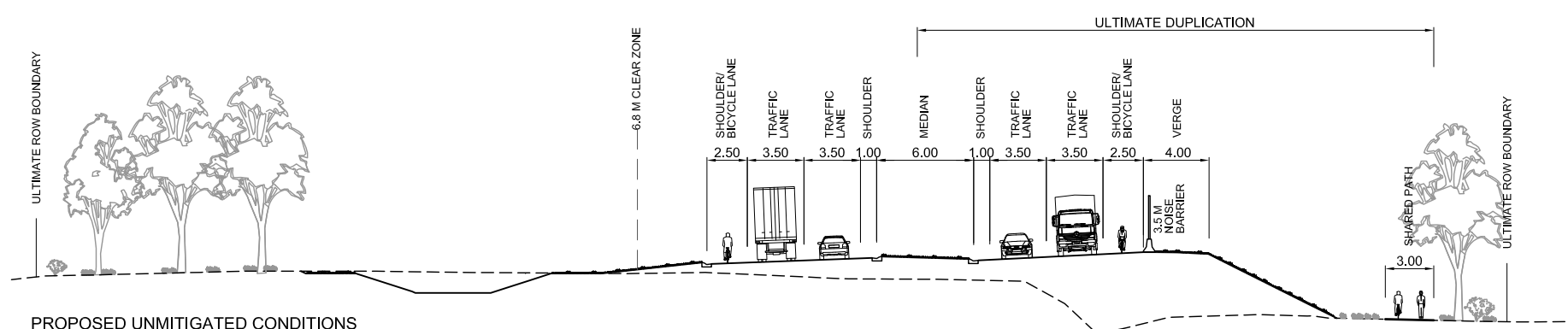
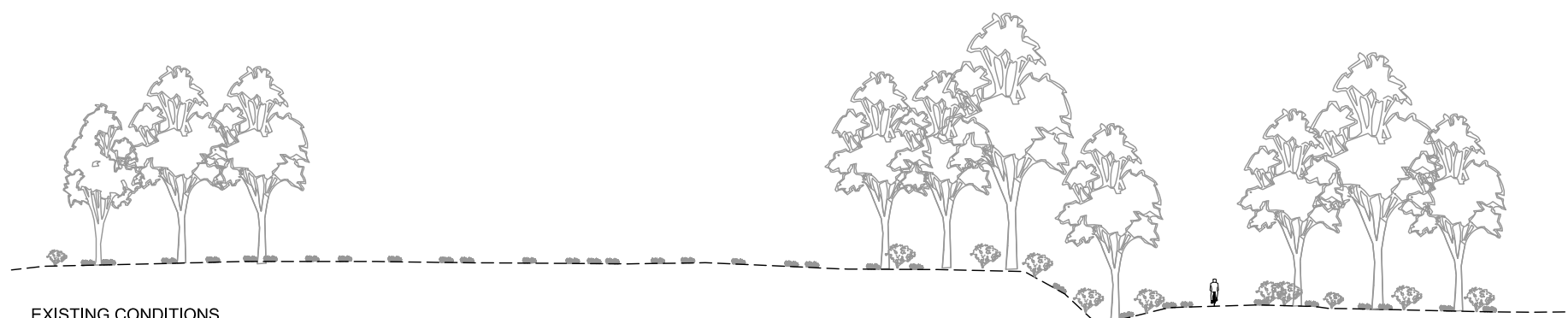
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Client	VicRoads				
Drawing No	300931 LMP 021	Revision	REV B	Date	January 2015
Drawn By	FJS	Checked by	FMS	Approved by	FMS



Scale 1:400

Figure 21 - Cross section at Chainage 11,100 (New Road) Ultimate Duplication



Scale 1:400

Figure 22 - Cross section at Chainage 12,240 (New Road) Ultimate Duplication

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