

Contextual Analysis

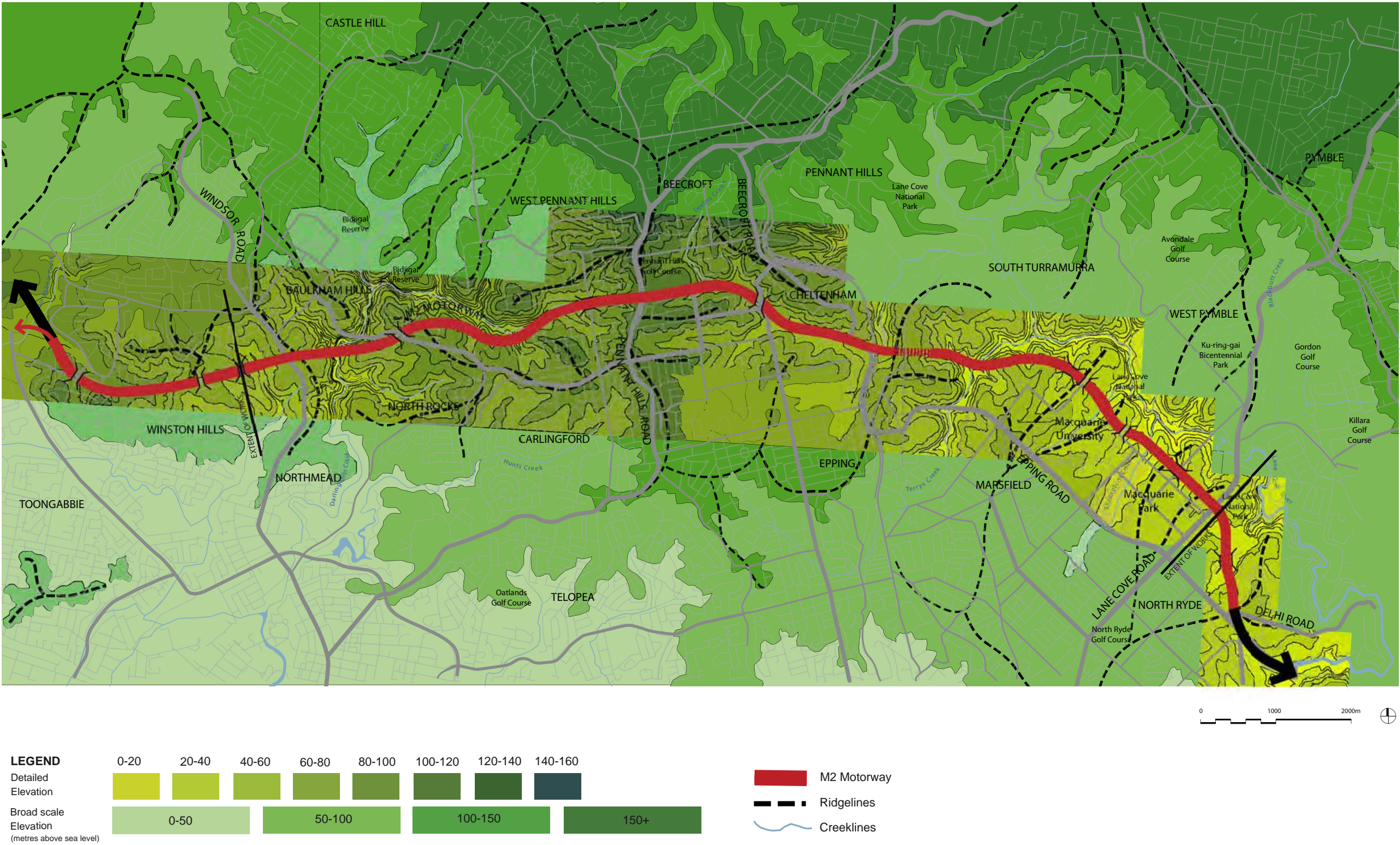


Figure 2.4 Topography

2.3 Topography

Refer to Figure 2.4.

The topography of the site varies as the road traverses both ridges and valleys as the route heads east towards the centre of Sydney.

The current road alignment is generally not responsive to the landform through which it passes, slicing through the landscape, with cuttings, tunnels, high embankments, retaining walls and bridges used to achieve the road design requirements. This to some extent removes the road user from the contextual experience. Despite this there are a number of key topographical characteristics which remain evident and inform the user of their journey progress.

From Abbott Road heading east, the motorway traverses the Cumberland Plain, characterised by flat terrain and few creek lines. Just west of the Windsor Road intersection, the plain is terminated by a valley, Northmead Gully. The creek in the gully flows to the south-east through an adjoining reserve. The road here is located on reinforced earth walls and the road user is unaware of the topography through which they are passing. East of this valley, you move onto the Hornsby Plateau.

Windsor Road straddles the main ridge line of the Hornsby Plateau and is marked by a distinct change in topography as the Motorway heads east. The Motorway crosses the deeply incised Darling Mills Creek as it drains to the south and the Parramatta River system. North of this crossing Darling Mills Creek and the Stevensons Creek system converge. At this point Darling Mills Creek runs east where it joins the Blue Gum Creek system which has its source near Pennant Hills Road. This drainage corridor runs parallel to the M2 corridor, the character of which is defined by the remnant vegetation cover of the Bidjigal Reserve. The Pennant Hills Road Interchange marks the highest point along the corridor, defines the two key drainage catchments of the Parramatta and Lane Cove River systems, and is the edge between two character precincts.

Travelling east, the motorway traverses the Devlins Creek Valley running parallel to the creek line until its approach to Beecroft Road (refer Photos 2.5 and 2.6). The motorway descends from 100 metres at Burns Road, Beecroft, to a low of 60 metres at Beecroft Road. The corridor here is lined both by public open space/reserves and housing.

From Beecroft Road, the motorway cuts deeply into the topography at the edge of the Hornsby Plateau. The motorway alignment avoids traversing this steeper landform by tunnelling beneath Norfolk Road, as illustrated in Photo 2.7. East of Norfolk Tunnel the landform descends towards Terrys Creek.

Between Terrys Creek and Delhi Road the motorway crosses five creek lines including Shrimptons Creek near Alma Road (refer to Photo 2.8), Mars Creek between Culloden Road and Christie Road and three unnamed creeks. The valley of Terrys Creek marks the edge of this first precinct with its incised channel some 30 metres below the adjoining ridge.

In the eastern half of the corridor the motorway is generally located at the edge of a broad flat ridge, as depicted at the toll plaza in Photo 2.9, with an elevation of approximately 50 metres. This ridge line is cut by the natural cross drainage which typically flows to the northeast before entering the adjacent Lane Cove River. The Lane Cove River, runs parallel to the motorway and flows to the south east.



Photo 2.4 The ridgeline prior to Darling Mills Creek valley



Photo 2.5 Devlins Creek runs parallel to the M2 which is constructed on a retaining wall



Photo 2.6 View west over Devlins Creek valley



Photo 2.7 Eastern portal of Norfolk Road Tunnel

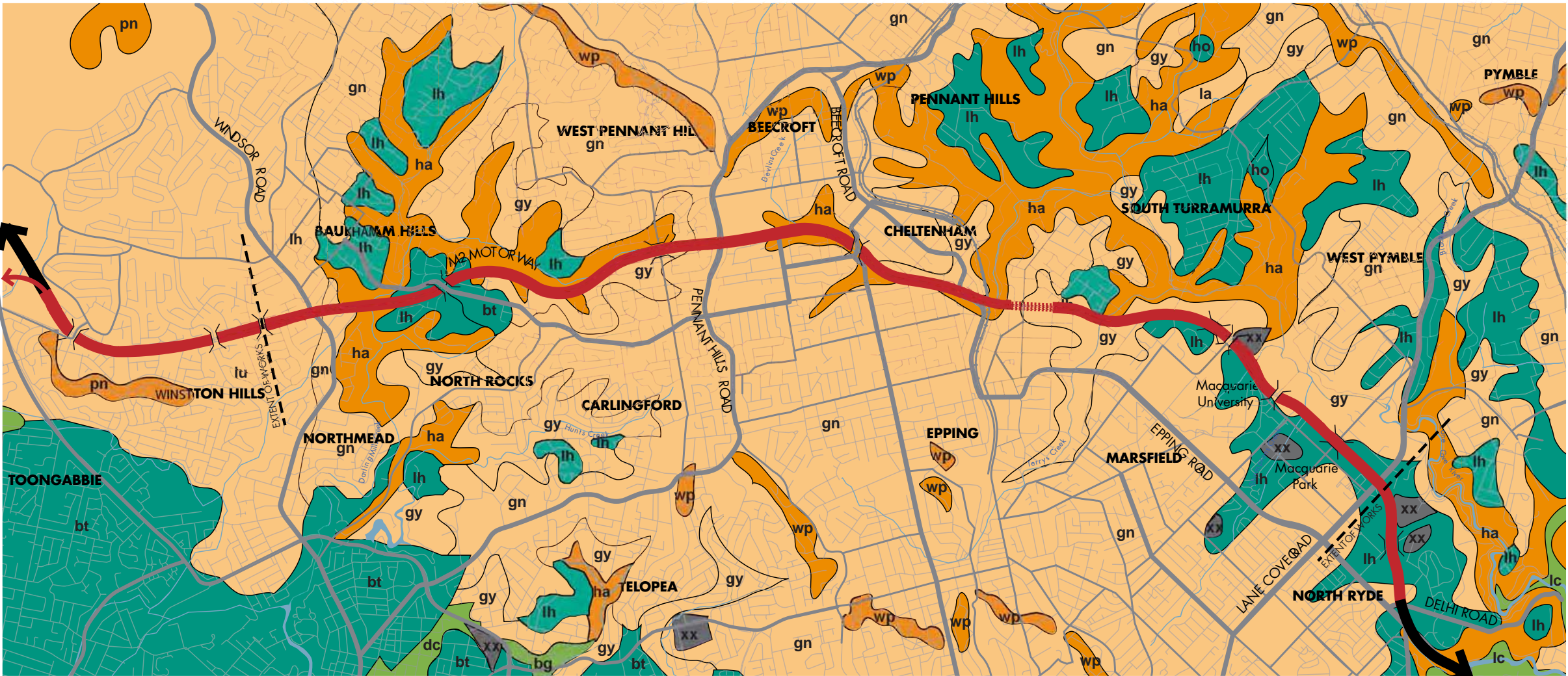


Photo 2.8 Bridge over Shrimptons Creek



Photo 2.9 Toll plaza located on the broad flat ridge

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Source: Soil Landscapes of the Sydney 1:100,000 Sheet, Soil Conservation Service of NSW, Chapman, G.A and Murphy, C.L. (1989) and Soil Landscape of the Penrith 1:100,000 Sheet, Soil Conservation Service of NSW, Bannerman, S.M and Hazelton, P.A (1989).

LEGEND (Soil Landscape Groupings)

Residual		Colluvial		Fluvial		Erosional	
lh	Lucas Heights	ha	Hawkesbury	dc	Deep Creek	gy	Gymea
bt	Blacktown	pn	Picton	bg	Birrong	gn	Glenorie
ho	Hornsby	wp	West Pennant Hills	lc	Lane Cove	la	Lambert
						lu	Luddenham
							Disturbed
						xx	Disturbed Terrain

Figure 2.5 Geology