

The Victorian Bicycle Strategy

10 YEARS ON

VicRoads has failed to deliver, writes **Alan Parker**.

Some ten years ago VicRoads assumed responsibility for making main roads safe for cyclists throughout the metropolitan area and became host to the Victorian State Bicycle Committee (now the Bicycle Advisory Committee). It was entrusted with the job of ensuring the bikelane network would link up with an off-road network of shared footways for cyclists and pedestrians planned and built by other agencies of government. Launched in 1991 the 10 year Victorian Bicycle Strategy (VBS) planned for the creation of an integrated 3420 km network of bikelanes and shared bicycle/footway networks known as the Principal Bicycle Network (PBN).

VicRoads was to provide 2000km of bikelanes, but is estimated to have only lane-marked 23 per cent of them to date. Its funding since 1991 has been totally inadequate for constructing the bikelane network and still is, despite the recent increase for the years 2000 to 2003.

VicRoads "bikelanes" were supposed to be linked to a network of 1370km off-road "shared footways" provided by Melbourne Water (now Parks Victoria) and local governments; only 640km or 47 per cent of the off-road network has been constructed. Overall, only 34 per cent of the network, or about

1100km, has been completed. The result has been massive discontinuities in the bicycle route network.

A FLAWED STRATEGY

The VicRoads strategy rests on the assumption that the "bikelane network" can actually be implemented and that all the dangerous main road intersections can be improved. It is relatively easy to complete the off-road shared paths with the necessary funding, but the provision of on-road bike lanes faces the more intractable problems of heavy and fast traffic on arterial roads.

The Dutch experience indicates that the way to make four lane main roads safer for cyclists is to reduce the traffic lanes to two and use the space for bikeways. VicRoads faces two problems. First, it has to plan for a population growth and the consequent

demand for road space; reducing traffic lanes can only happen on a few main roads. Secondly, it has only lane-marked the easy wide sections of main road with bikelanes and faces the reality that over 1000 km of existing main roads are not wide enough to provide bikelanes. There are just too many four lane main roads 13.2 metres wide or less to provide bikelanes given VicRoads standards of 3.15m minimum width for traffic lanes (it rarely allows the centre lanes to be less than 3.15 metres) and its desirable standards for bikelanes of 1.5m on new 60 km/h main roads and 2.0m on 80 km/h roads. As the table below shows there are limited options for the provision of safe bikelanes and widened kerb lanes on four lane main roads less than 15.0 metres wide.

Even with central lane widths of

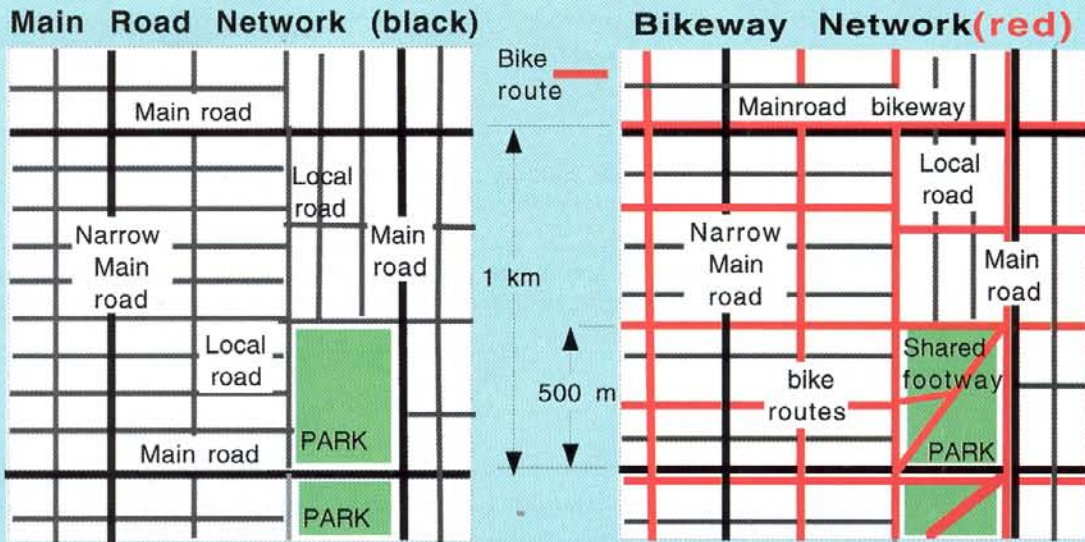
Table 1

| Road width (m) between kerbs | Lane Widths(m) Kerb Centre | | Lane Widths (m) Bikelane Traffic | |
|---------------------------------|-------------------------------|--------|-------------------------------------|-------|
| | 12.8 | 3.25 * | 3.15 | 0.1 * |
| 13.6 | 3.65 * | 3.15 | 0.5 * | 3.15 |
| 13.8 | 3.75 | 3.15 | 0.6 * | 3.15 |
| 14.4 | 4.05 | 3.15 | 0.9 * | 3.15 |
| 14.8 | 4.20+ | 3.20 | 1.1 * | 3.15 |

* Standard widths for bikelanes and kerblanes.

+ VicRoads desirable widths on new 60 km/h main roads.

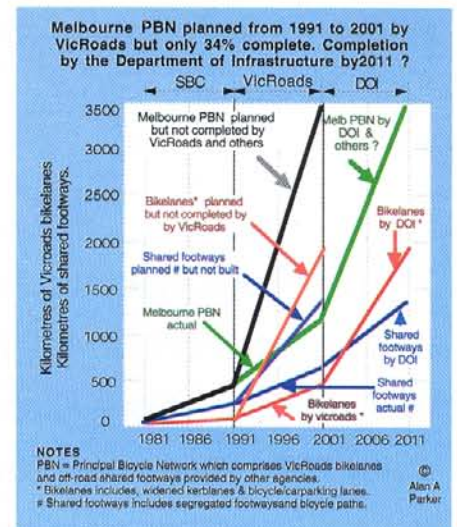
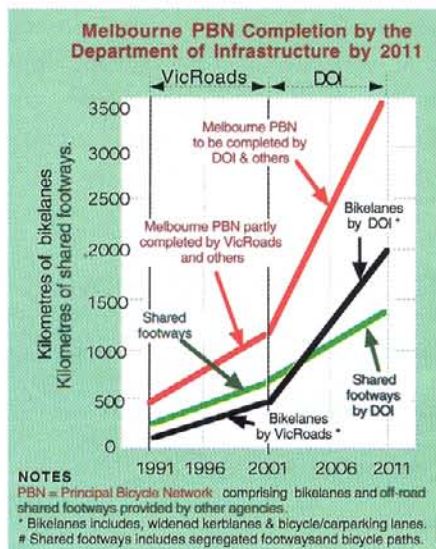
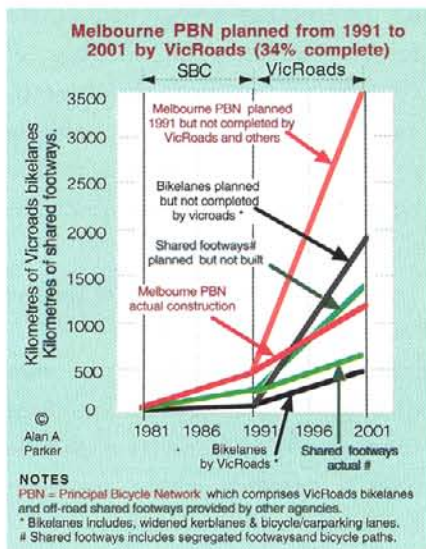
A "bicycle arterial network" that provides alternative local road routes to many main roads because which are too narrow and carry a high proportion of truck traffic. This "bicycle arterial network" needs to have a fine mesh size of around by 500 metres by 500 metres and be recognised as a legitimate part of the hierarchy of roads in urban areas.



Typical Melbourne middle suburb on rectangular road grid.

Main arterial road networks have a coarse mesh as shown on the left map above. The arterial bikeway network has to be a much finer mesh so that for most short car trips it is more direct and quicker to get from A to B by bicycle as the map on the right map shows in red. The proposed "principal bicycle network" in Melbourne is far too coarse, with too many breaks in the network and too few shortcuts to encourage bicycle use. What is needed are arterial bicycle networks to provide short cuts for cyclists and pedestrians over and under freeways, railway lines, rivers and other barriers to motor vehicle travel. Bikeways on or alongside main roads need to be linked up with traffic calmed local streets and off-road shared footways. Also most one way streets for cars should be two way for bicycles and roads with bikelanes should have a speed limit of 50kph.

Drawn; Alan A Parker 1995



only 2.8 metres (as in much of Sydney) it is impossible to provide for anything other than sub-standard widths for bikelanes and kerblanes on roads less than 13.6 m wide. See table 2.

Currently there is a lack of VicRoads data on which main roads are wide enough to accommodate widened kerb lanes, bikelanes, shared car parking/bike lanes or have road reserves with enough space for new shared footways or widening existing footpaths and making them shared footways.

The VicRoads theoretical notion of bikelane network on main roads is flawed. It is impractical to create a PBN network unless alternative bicycle routes to many main roads are provided and speed limits reduced on other main roads. The majority of cyclists are not happy using the main roads as so few of them have bikelanes or shared kerbside lanes and where the speed of passing traffic is too high. The solution is to cater for the silent majority by developing parallel back routes that by-pass the most dangerous sections of main roads and connect to the off-road shared footways and local government traffic managed residential streets which now have a 50 km/h speed limit.

The VicRoads theoretical notion of bikelane network on main roads is flawed. It is impractical to create a PBN network unless alternative bicycle routes to many main roads are provided and speed limits reduced on other main roads.

Table 2

| Road width (m) between kerbs | Lane Widths (m) | | Lane Widths (m) | |
|---------------------------------|-----------------|----------|-----------------|-----------|
| | Kerblane | Centre L | Bikelane | Traffic L |
| 12.8 | 3.6* | 2.8 | 0.8* | 2.8 |
| 13.0 | 3.7 | 2.8 | 0.9* | 2.8 |
| 13.2 | 3.8 | 2.8 | 1.0* | 2.8 |
| 13.4 | 3.9 | 2.8 | 1.1* | 2.8 |
| 13.6 | 4.0 | 2.8 | 1.2 | 2.8 |

See *VicRoads 2001* for the widths of bikelanes and kerblanes.

* Substandard widths for bikelanes and kerblanes.

TABLE 2. shows how few options there are for the provision of bikelanes and widened kerb lanes on old 12.8 m to 13.6 wide four lane main roads.

Dutch bicycle planning assumes that there should be two bike routes to every destination and one of them must be socially secure (well lit and perceived as safe). A useable and convenient "bikeway network" should be at least 5000 to 7500km long to create the necessary shortcuts and to significantly reduce the trip lengths of cyclists. The VicRoads concept of a PBN with a mesh of 1.5km is inadequate. Dutch experience shows that a 500 metres mesh size is necessary to provide the shortcuts and convenience that will greatly encourage bicycle use. This is clearly shown on my bicycle route network map. The problem is that VicRoads will not accept the responsibility of creating a fine grained arterial bicycle route network.

THE CHALLENGE FOR THE METROPOLITAN STRATEGY

Under VicRoads planning the number of bicycle trips in Melbourne has actually decreased by 20 per cent over the five years from 161,900 in 1995 to 128,600 in 1999 (Victoria Activity Travel Survey data). It is only in the CBD and some inner suburban areas that cycling has increased where local councils have done a lot to enable cyclists to either bypass main roads or to traffic calm them.

There remains a lack of effective co-ordination of bicycle planning, no government agency responsible for co-ordination and the cost of completing the local connections, and a lack of up-to-date bicycle route maps documenting what has been provided and what new connections are needed.

Perhaps now is the time for the Victorian Department of Infrastructure to take over the provision of bicycle planning with sufficient funding to create a real bicycle arterial network within the next ten years. 