

Development of the New Zealand Supplement to Austroads Guide to Traffic Engineering Part 14 - Bicycles

David McGonigal, Transit NZ

Andrew Macbeth, MWH



Presentation Content

- **Background to Project**
- **Progress to Date**
- **Proposed Completion Date**
- **Key Technical Issues in Supplement**



Background to Project

- **Austrroads GTEP Part 14 most widely used cycling design guide**
- **Content not compatible with NZ road signing and marking regime**
- **TNZ agreed at RCA Forum to review GTEP Part 14**
- **Project started September 2002**



Work Done to Date

- Reviewed GTEP Part 14 to identify issues where advice specific to NZ is required
- Prepared a draft document titled “Cycling Design Guide”
- Draft circulated for consultation July 2003
- Currently completing document

Proposed Completion Date

- Expected release on TNZ website (www.transit.govt.nz) November 2003

- Document title:

**New Zealand Supplement to Austroads
Guide to Traffic Engineering Practice
Part 14 - Bicycles**



Key Technical Issues

- **Facility Selection Tools**
- **Kinds of Cycle Lanes**
- **Cycle Lane Dimensions**
- **Signs and Pavement Markings**

Facility Selection Tools

- **GTEP uses complicated flow charts**
- **Supplement follows Dutch and UK guide style**
- **Supplement uses graph of speed limit versus motor vehicle traffic volume**



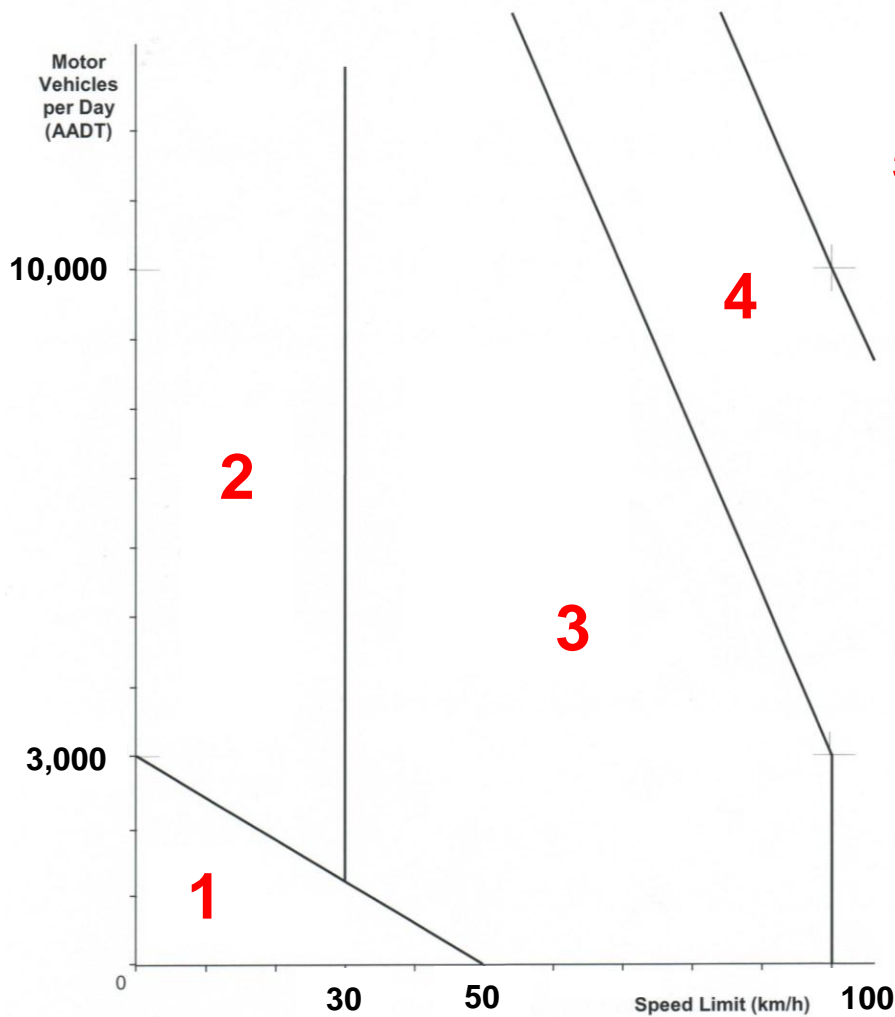


Figure 2-1

- 1 Shared quiet street**
- 2 Unlikely to exist**
- 3 On-road**
- 4 On-road or off-road**
- 5 Off-road**

*Figure 2-4: Guide to Choice of Type of Facility for Cyclists – Overview
(See accompanying notes)*

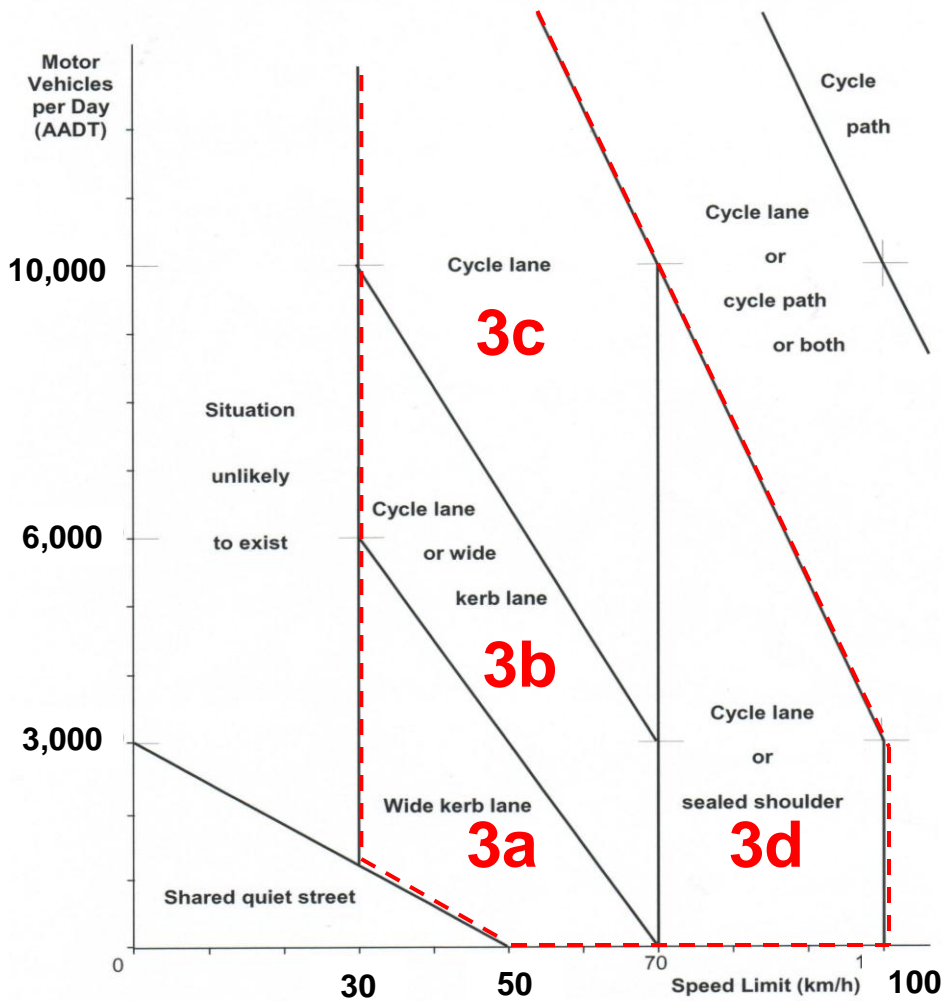


Figure 4-1: Guide to Choice of Type of Facility for Cyclists – Detailed
(See accompanying notes)

Figure 4-2

3a Wide kerb lane

3b CL or WKL

3c Cycle lane

3d CL or sealed shoulder



Cycle path - off-road

Cycle lane - on-road





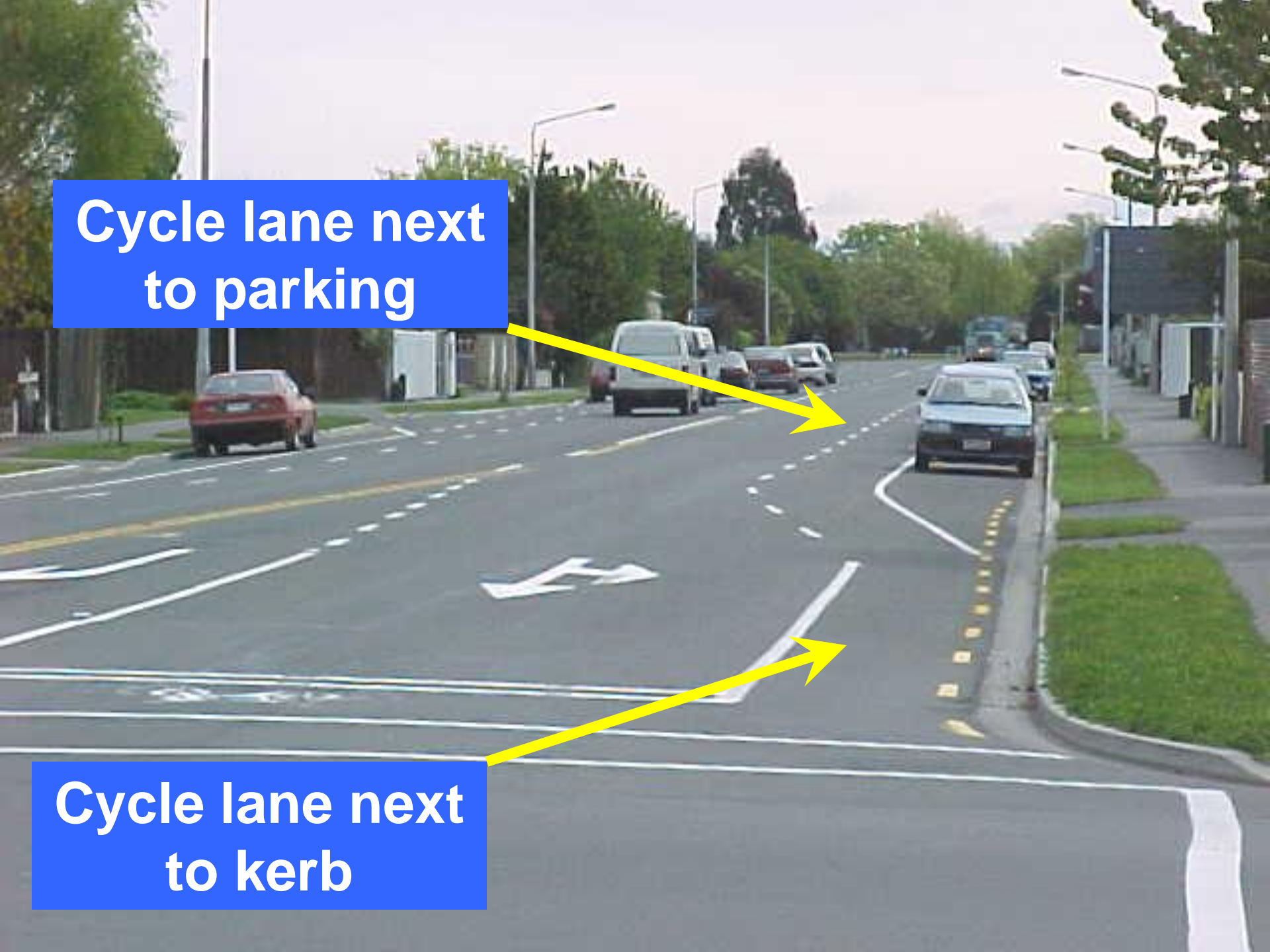
Sealed shoulder

Kinds of Cycle Lanes

- **GTEP uses :**
 - Exclusive bicycle lanes
 - Bicycle/car parking lanes
- **Supplement uses:**
 - Cycle lanes next to kerb or road edge
 - Cycle lanes next to parking

Cycle lane next to parking

Cycle lane next to kerb



Cycle Lane Dimensions

Comparison of GTEP and Supplement

GTEP	Lane Width (m)		
	60 km/h	80 km/h	100 km/h
Road Speed			
Desirable	1.5	2.0	2.5
Acceptable Range	1.2 - 2.5	1.8 - 2.7	2.0 - 3.0

Supplement

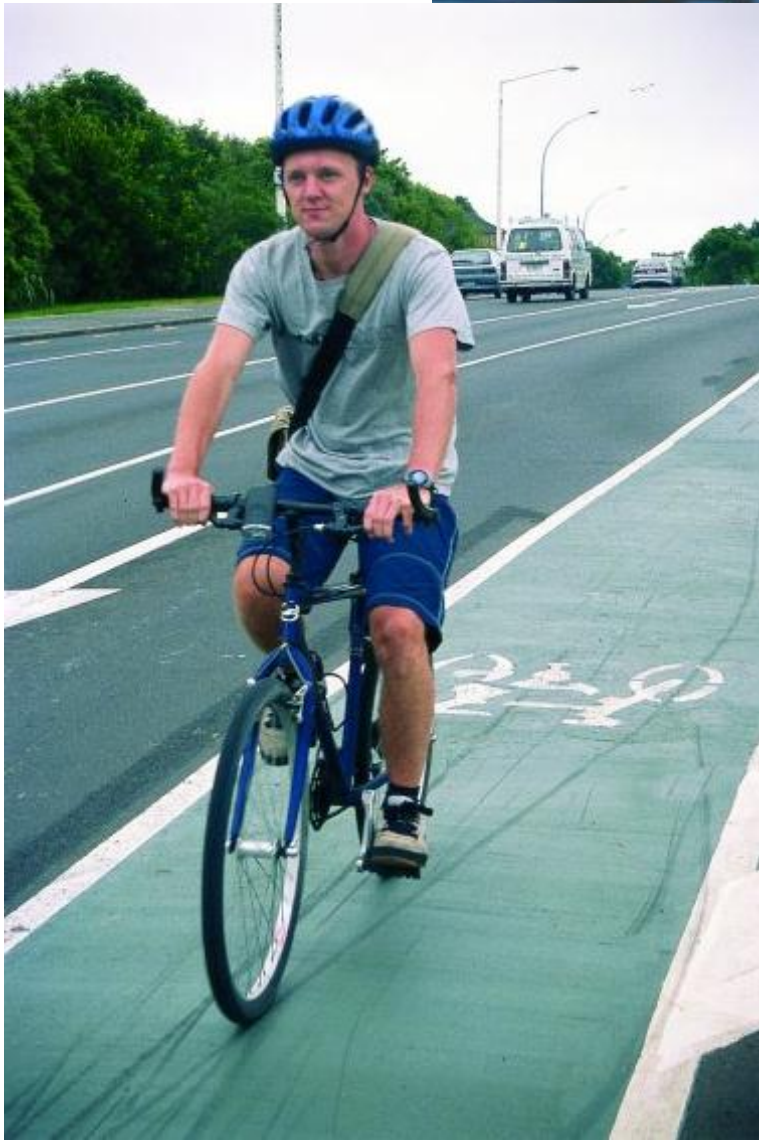
Speed Limit	≤ 50 km/h	70 km/h	100 km/h
Desirable Minimum	1.5	1.9	2.5
Acceptable Range	1.2 - 2.2	1.6 - 2.5	2.0 - 2.5

Signs and Pavement Markings

- **Blue cycle route disk (RG-26) now superseded by black and white regulatory sign**
- **Pavement marking symbol bigger, bolder**
- **Solid edge line instead of dashed**
- **Coloured surfacing (green) at stress areas**



**Weak edge line
and bike symbol**



**Coloured surfacing;
green recommended**

**Coloured surface;
hook turn**





Advance stop line



Advance stop box



Buffer strip not recommended

Conclusions

- **The Supplement modifies GTEP for NZ conditions; updates best practice**
- **Will be available on Transit website November 2003**
- **Consequential changes are being made to MOTSAM**