

Impacts of Coroners Court Findings on Low Volume Roads



Presented to: Low Volume Roads Workshop, Nelson
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Date: 19 June 2007

Introduction

“..Although the report found subsidence of the shoulder of the road was one of the causes of the accident, the road complied with Transit New Zealand’s maintenance standards

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Dr M

policy

Peninsula’s

those standards

Bossu Road

us

Pe

kil

Banks Peninsula’s roads were audited by Transit NZ in March 2004 they complied with those standards

Bossu Road is a high altitude, predominantly single lane country road with low usage

Extract from CCC Media Release

30 August 2006

- Presentation in 2 parts:
 - Experiences from the Coroner’s Court for Bossu Road Army Unimog accident on Banks Peninsula in August 2004
 - Considerations for Road Controlling Authorities from the Bossu Road Coroners Court ruling



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MWH



To Little River & direction of convoy

Accident Vehicle wheel track

NZ army Unimog Truck

To Wainui

Site 11th August 2004 @ 2:20pm accident. Second in convoy of five NZ army Unimog Truck leaves Bossu Rd & rolls down steep bank. Convoy speed 20km/hr

Third vehicle in convoy wheel track in board bank site to clear accident site

First lead vehicle in convoy of five wheel tracks

Road lightly snow covered

Culvert No 105





Banks Peninsula
Ward

BOSSU RD NZ ARMY UNIMOG TRUCK
FATAL ACCIDENT 11.08.'04

Photo Date:
12.08.'04

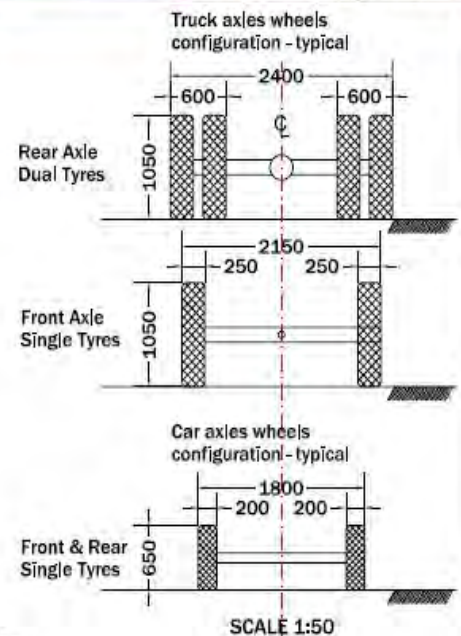
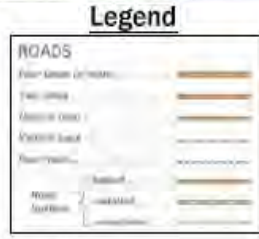
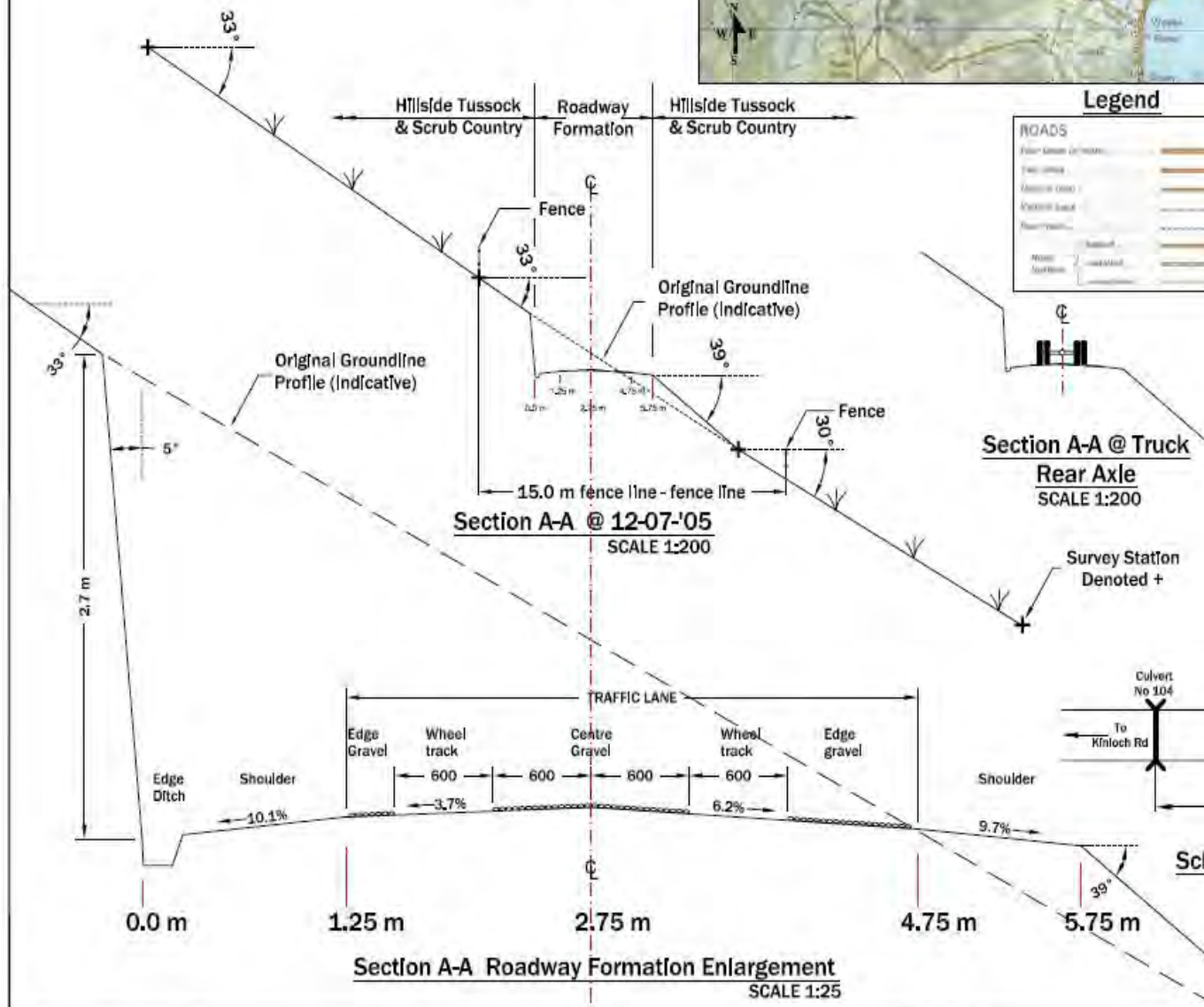
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MAP 260 - N36 & N37
EDITION 2 1998



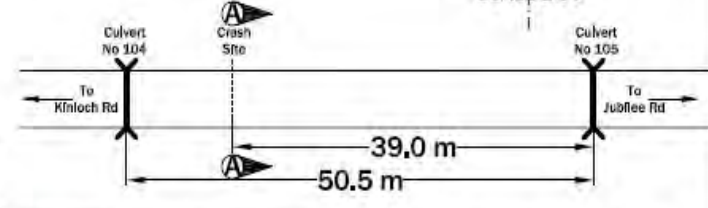
Location Plan 1 : 50,000



Section A-A @ Truck
Rear Axle
SCALE 1:200

Section A-A @ 12-07-'05
SCALE 1:200

Section A-A Roadway Formation Enlargement
SCALE 1:25



Schematic Location of NZ Army Unimog Truck
Crash Site @ 11-08-'04
SCALE 1:500

ANNEX C



**CORONERS INQUEST @ BPDC
BOSSU RD NZ ARMY UNIMOG TRUCK
11-08-'04 CRASH**

| | | |
|-------------------------------|--------------------|-----------------------------|
| Scale: As shown on drawing | Job No: A.B.R.1 | Date: 15-09-05 |
| Design: B.P.D.C. | Sheet No: A | DWG: 01 |
| Drawn: G.R.Cassidy | Ref File: RD 1 | Checked: D.J. McNaughton |

Bossu Road Accident Coroners Court Ruling

- Ruling released 29 August 2006
- NZ Defence Force Court of Inquiry previously said driver inattention resulted in the accident
- Coroners findings did not attribute the cause of the accident to the Unimog driver
- Ruling questioned level of delineation required and inspection procedures on unsealed low volume roads

Delineation Standards

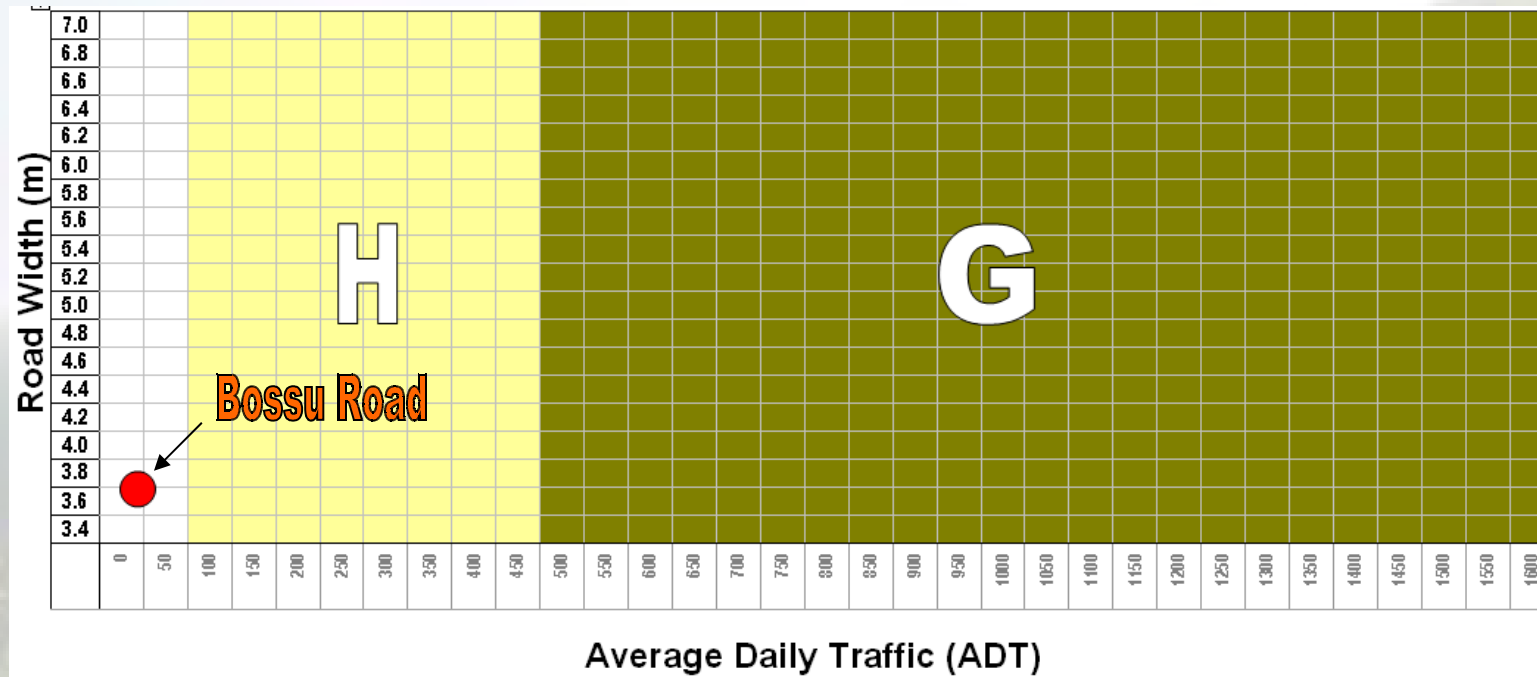
What is required?

What is practical?

- Two Guiding documents in NZ
 - RTS-5
 - MOTSAM
- RTS-5 considers delineation levels as a function of ADT and road width while MOTSAM provides the detail
- This approach is route length based, but also identifies treatment for isolated curves
- Rural delineation is enhanced with the use of other traffic control devices i.e. signs, RRPM (sealed) etc

Delineation Standard RTS-5

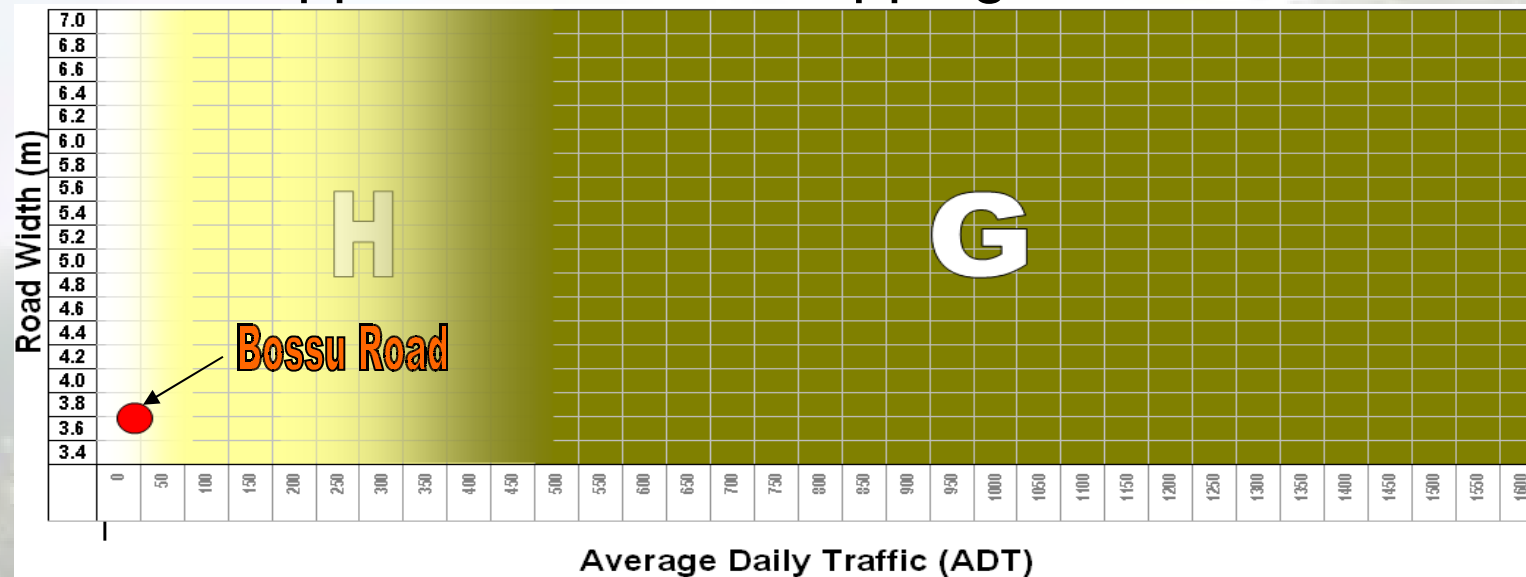
Standard approach with rigid boundaries



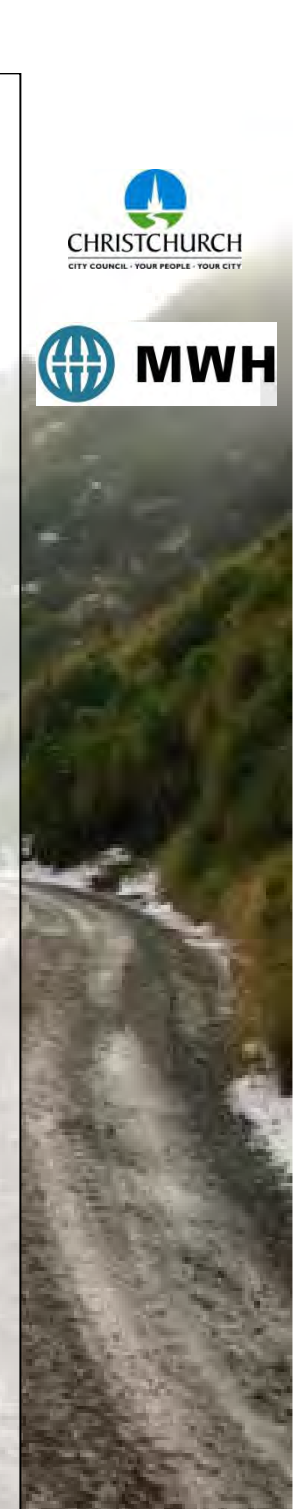
- The standard approach uses defined vehicle count boundaries.
- The selection method makes no allowance for other influencing factors such as terrain, road width, risk.

Delineation Standard RTS-5 (Modified)

Modified approach with overlapping boundaries



- The boundaries are transitional at the 100 ADT and 500 ADT limits
- Selection is integrated with other influencing factors such as terrain, average down slope, road width as a decision tree
- Ranking for treatment is required – an example ranking treatment is presented



Where to from here.....

- Based on RTS-5, Bossu Road does not require delineation
- Would we do anything different on this road?
- Is a straight road with moderate volume a greater risk than a winding road with low volume?
- Would a Ranking Method to select the most appropriate treatment be worthwhile developing?
- If so, what selection criteria should be used?
- Would this approach have made the difference, what do you think?