Good Practices for Improved Drainage and Surfaces on Unsealed Roads

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Area 8,646 Sq Kms

- Roads Maintained - 1450 kms
- Sealed - 600 kms (42%)
- Unsealed - 850 kms (58%)
Unsealed Roads

- Drainage
- Shape
- Carriageway Surface
- Management Systems
Drainage

- High Shoulders
- Surface Channels
- Road Drains
- Cut-Off Drains
Storm Water Control

- Water By-Passing Culvert
- The Results
The Shape

- Too Flat
- Much Better
The Surface

Metal Surface
- Aggregate;
- Size
- Type for Site
- Blend
The Shape on Curves

- Incorrect Camber
- Poor Drainage
- Better Camber
Grading

- Maintain Shape
- Moisture Content
- Cutting Edges
Drainage, Shape & Surface Upgrades

- Work In Progress
- Reclaimed Material to Centre
- Milling Windrow

- 2 Weeks After Flanking/Reshape
Before & After

- Before

- 18 Months on
Traction Seals & Transition Points

- Intersections
- Bridge Approaches
- Seal/Metal Interface
- Steep Grades
Unsealed Roads Management Systems

- Unsealed Road Condition Rating Standards

RAMM Standards and Guidelines

Part II:

UNSEALED ROAD CONDITION RATING STANDARDS

Prepared by
Beca Carter Hollings & Fener Ltd

for
Transit New Zealand
More Road Management systems;

- Hierarchy System for Unsealed Roads
- Average Grading Frequencies
- Length of Network per Grader
- Service Levels - AMP
Management Continued;

Metalling Programme

- Ensure metalling is well controlled

- Use weather and road conditions wisely

Develop Unsealed Roads upgrade programme

- Drainage, flanking & shaping
The Grader Driver

- The grader driver/s are a key part of a successful Rural Road Maintenance Contract

- The maintenance grader driver is expected to:
  - Have an intimate knowledge of his/her roads
  - Be able to read the weather & road conditions
  - Understand all types of road metal & their characteristics
  - Be an expert in PR skills, often under trying circumstances
The End
Questions