

Unsealed Road Strategy

Where it all Began

- 2015 KDC and BRS began trialing new approaches
 - Blended Aggregates
 - Better crossfalls
 - Better Drainage
 - Pavements with wearing course
- Presented to RIMS in 2017
- Putting Practice into a strategy

Where we are today

- CoE almost completed
- Change in AMP from CoE
- MMP Strategy for unsealed roads developed
- MIS and MIG almost complete
- Development of a renewals model
- Leading the industry
- Real world implementation
 - Less distress
 - Less grading
 - FWP for renewals

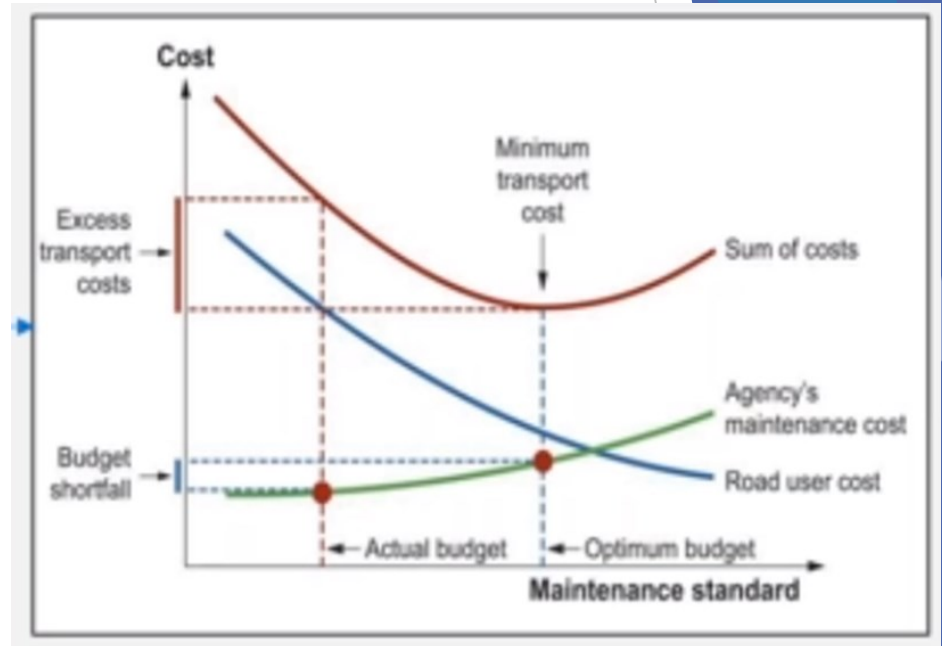
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- The Road Template
 - Crossfall
 - Drainage
- Forestry, Dairy and Freight Traffic
- Effective roadside drainage – where does the water go?
- What purpose does the road serve to communities?



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- Demand based approach
- Normative Cost analysis
- Timing and type of intervention
 - Wearing Course
 - Pavement Rehab



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- Network Analysis – What impacts the unsealed roading networks?

Parameter/Trigger	Sub Parameter/Trigger	Sub-Weighting	Weighting
Iwi – Cultural Significance, Marae etc			1
ADT			4
% HCV			5
Horizontal Geometry			3
Vertical Geometry			4
Use	Forestry – collector	10	4
	Tourist/Holiday	4	
	Dairy	4	
	Lifestyle	2	
	Quarry	3	
	School/Community Hall	3	
Width			2
Remoteness			2
Resilience/Detour Routes			3
Change – PGF – Marae, Wharf, Kai, Economic Improvement, Developments			1

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	Unsealed Roading Potential Treatment					
	Band	Treatment	Length (KMs)	WDC (Kms)	KDC (KMs)	FNDC (KMs)
	1	Do Minimum	2008	387	667	955
Non Forestry	2	Overlay 100mm	782	221	325	236
Forestry	2	Rebuild	444	18	50	376
	3	Rebuild	223	66	79	78

One size doesn't fit all



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 RAILWAY
 CAPITAL
 WHEATLAND
 Northland 12
 TRANSPORT



Centre of Excellence Renewals vs Maintenance

Grading

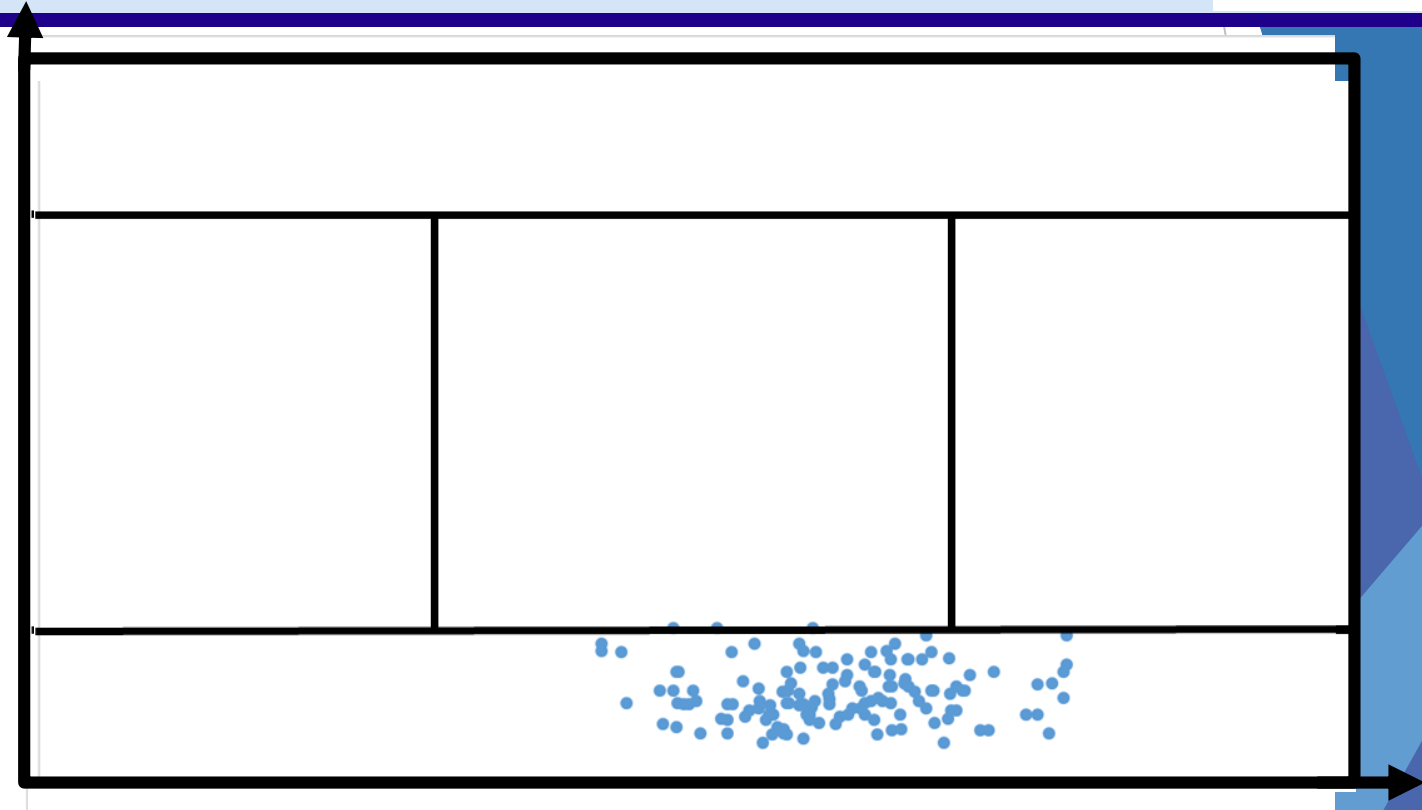
- Done on an inspection lead basis – Contract LS
- dTIMS
 - Resetting the grading frequency to reduce damage and gravel loss
 - Incorporation of the NTA model
- Less Maintenance Metalling

Rehab

- Rehabbing is more effective than maintenance metalling
- Paige–Green Wearing Course to preserve built pavements
- Right treatment at the right place at the right time



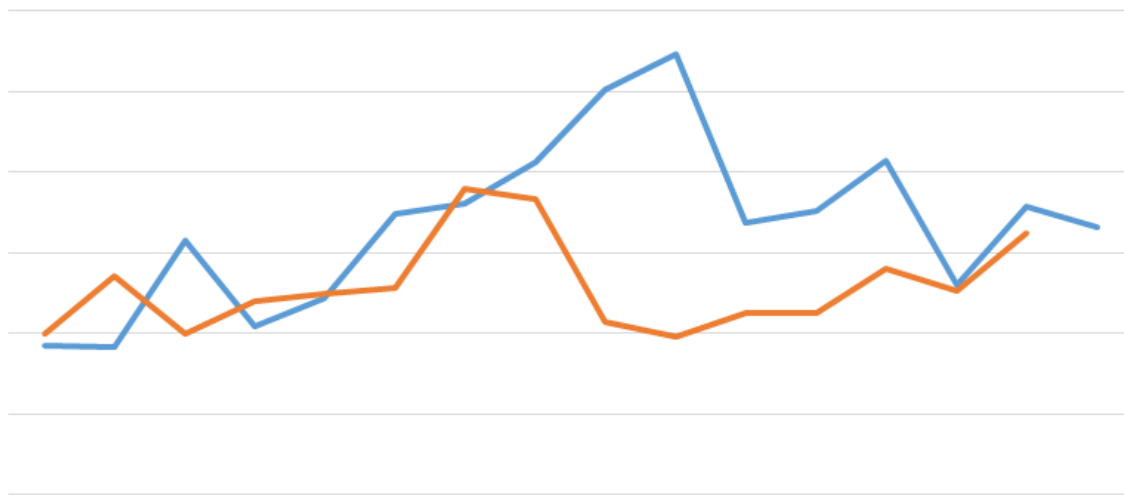
Spec vs Paige-Green




Material Spec on Trial Sites



Intervention on Trial Sites



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- arrb
- # UNSEALED ROADS
- BEST PRACTICE GUIDE
- # 2

Questions

Questions?

Thank you.

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“MOVING NORTHLAND FORWARD”