Category 4: Excellence in Pavement Recycling and Stabilisation in Local Government

King Street Flinders Pavement Rehabilitation, Mornington Peninsula Shire Council

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2021 AustStab Awards of Excellence





Initiative Objectives

- Pavement Rehabilitation of 700m of King Street, Flinders
- Existing pavement was showing
 - Signs of fatigue
 - Block cracking
 - Multiple asphalt patches throughout
- 3% Roadmaker 2/6/2 stabilisation undertaken
- Conforming subgrade compaction results achieved
- No Granular Pavement Layers to be constructed above





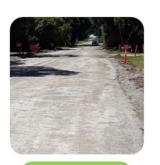
Initiative Undertaken













Pulverize and shape Existing Pavement

Installation of SSD

Material and Regulatior to 250mm

Prepped Pavement ready for seal

Application of 10mm Seal asphalt kerb and layback to all driveways





Operating Environment

- Residential area
- Popular location with tourists
- Environmentally sensitive area
- Proximity of site to construction resources
- Unable to change the level of the road due to existing infrastructure





Challenges

- Working around existing drainage infrastructure
- Working with Live Traffic
- High volume of tourist busses
- Maintaining access to all residential properties





Points of Interest

- Initial design
 - Stabilise with 3% lime and 2% cement
 - 150mm rock overlay
- In situ material had high PI
- Time and budget constraints
 - Revised design Roadmaker 2/6/2





Evidence of Success

Cost Difference Roadmaker V Lime and Cement							
Item	Description Readmaker V Line at	Quantity	Unit	Rate	Total cost		
	Stabilise with Roadmaker, shape and compact the top 250mm of existing granular 1 pavement	2450	sq.m	\$ 7.50	\$18,375.00		
	Stabilise with lime and cement, shape and compact the top 200mm of existing granular 2 pavement	2450	sq.m	\$ 14.50	\$35,525.00		

 Cost saving realised by using Roadmaker binder blend instead of lime and cement

Time Saving Roadmaker V Lime and Cement						
Item		Description	Estimated Duration			
		Stabilise with Roadmaker, shape and				
		compact the top 250mm of existing granular				
	1	pavement	1 Day			
		Stabilise with lime and cement, shape and				
		compact the top 200mm of existing granular				
	2	pavement	2 Days			

 Time saving as a result of using Roadmaker instead of lime and cement





Evidence of Success

- Existing road
 - Block cracking and asphalt patches through out
 - Poor ride quality
 - No layback for driveways

- Finished Product
 - No patches or cracking
 - Smooth finish and improved ride quality
 - New asphalt kerb installed and all driveways have laybacks





Practical Application



Finished road being used by locals



New kerb finished with layback making it easier for people to use their driveway





Supporting Visual Content

