

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

King Street Flinders Pavement Rehabilitation, Mornington Peninsula Shire Council

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Downer EDI Works



2021 AustStab Awards of Excellence

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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

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Initiative Undertaken



Pulverize
and shape
Existing
Pavement



Installation
of SSD



In-situ
Material
and
Regulation
to 250mm
depth



Prepped
Pavement
ready for
seal



Application
of 10mm
Seal



New
asphalt
kerb and
layback to
all
driveways

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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

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Challenges

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

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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

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Evidence of Success

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

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

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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

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Practical Application



Finished road being used by locals



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

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Supporting Visual Content



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