

CASE STUDY

# Road Surfacing

## RED ASPHALT – HODDLE STREET VICTORIA, 2017 EDITION



### Client/Construction Team

**Product:** Red Road Surfacing

**Client:** VicRoads, North West Metropolitan Region

**Location:** Hoddle Street, (Highway) Collingwood, Victoria

**Construction Team:**  
Boral Asphalt

### Project Impact Statement

To provide a durable, colourfast, deformation resistant red asphalt surfacing for a heavily trafficked bus lane in a CBD environment.

### Project Scope

Part of the VicRoads 2030 plan to improve safety and traffic flow in Melbourne includes the delineation of bus lanes. Several alternatives for colour surfacing were evaluated before VicRoads North West Metropolitan Region selected red asphalt for the bus lane from the exit ramp of the Eastern Freeway to Victoria Parade over a distance of approximately 1.5km. Red asphalt was the preferred treatment for a job of this size based on surface finish, colour, skid resistance and whole of life cost.

Backed by its reputation for innovation and ability to meet a challenge, Boral was engaged to undertake the first large scale coloured asphalt project in metropolitan Melbourne.

Existing asphalt was profiled to a depth of 25mm and replaced with Size 7 Red Stone Mastic Asphalt to match adjacent lane levels.

The paver, paving equipment and trucks were cleaned to avoid contamination with black bitumen. Special processes were adopted at the asphalt plant to accommodate the unique “clear” binder, coloured oxide and selected pink aggregates so that the limited quantities of these high cost materials were managed accurately.

Crews were briefed about the unique needs of making and placing coloured asphalt, especially the need to carefully monitor mix temperatures at every stage because the very stiff mix has a propensity to become hard to work more rapidly than normal asphalt.

Work was carried out on a Saturday to minimize disruption to road users accessing the CBD and entertainment venues like the MCG, Rod Laver Arena and the banks of the Yarra River.

This timing also suited the asphalt plant because specialist mixes of this nature need to have a dedicated facility without alternating with the supply of other mixes.

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## Existing Conditions

The left (slow) lane in the southbound direction in Hoddle Street had a standard black asphalt surfacing and was performing adequately with only minor isolated cracks caused by ageing and oxidation. This affected less than five percent of the pavement.

## Design

There are several innovations, some unique, when dealing with red asphalt. These include:

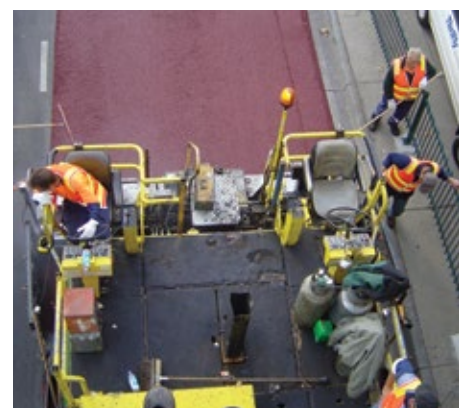
- Special, deformation resistant mix
- Synthetic clear polymer modified binder contributing to durability of colour
- Fuel resistant additive to resist softening in use
- Colored oxide to meet the specific colour prescribed by VicRoads
- Coloured aggregate to create a uniform colour.

## Performance

This project was completed on the 21st of May 2005. Observations in the first six months indicated that all performance expectations were being met, and that bus priority for the AM peak in particular is clearly delineated to allow faster commuter access and savings to the community.

## Acknowledgements

“VicRoads are very happy with the performance of the red asphalt on Hoddle Street so far and this is especially clear by the comments from senior managers who say how effective it is,” says David Simpson, VicRoads Senior Program Delivery Officer.



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## Contact us:

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