

NorthLink WA—Northern Section

Ellenbrook to Muchea — Frequently Asked Questions

Driving on Tonkin Highway between Ellenbrook and Muchea

Is the road safe to drive on?

Yes, the road between Ellenbrook and Muchea is finished and safe to drive on.

While the surface is settling, it is recommended you reduce your speed and keep a good distance away from the vehicle in front of you. We will continue to monitor the performance and condition of the road.

Why are there loose stones?

It is normal for a sprayed or 'chip' seal to have loose stones on the road when it is new. Over time, the stones become embedded in the road surface.

In warmer weather, this happens quite quickly as the sun heats up the bitumen and the stones can bed down. In the meantime, we will continue to sweep stones as required.

Why was this type of surface chosen?

The northern section of NorthLink WA between Ellenbrook and Muchea is finished with a chip seal.

This is a sprayed seal on granular pavement, a method used across all Main Roads rural highway network.

Chip seal on granular pavement is the most cost effective, and the most sustainable road construction option for rural roads.

How is a chip seal road constructed?

Sprayed seal surfacing is a thin application of bitumen sprayed onto the road pavement on which

a layer of stone is spread.

It bonds to the bituminous binder to provide texture that improves the skid resistance of a road surface and creates a durable, abrasion resistant surface that will withstand traffic and weathering.

The loose, unbonded aggregate is then swept clear from the surface prior to line-marking.

The first traffic loads can cause some stone to become loose, and the aggregate reorientates itself under the increased frequency of loading. This also improves the seal by creating further interlock between the aggregate and the sprayed seal. This is typical in this type of road surface.

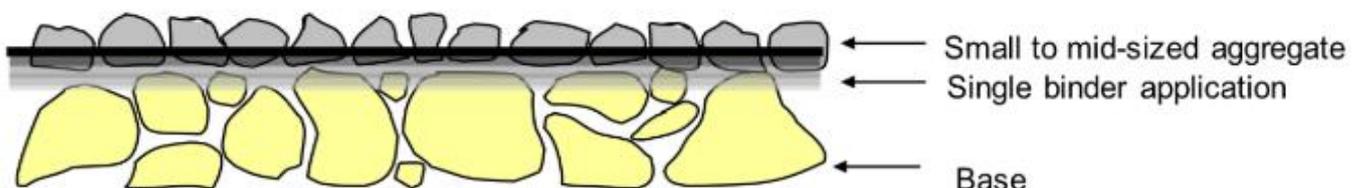
On NorthLink WA northern section, the granular pavement is about 200mm of crushed granite over 150mm of crushed limestone. The surface is a heavy duty sprayed seal comprising not one, but multiple layers of bitumen and stone of different sizes that interlock together.

The sprayed seal is a blend of 85 per cent bitumen and 15 per cent crumbed scrap rubber that provides extra durability and other sustainability benefits.

The shared path has stones as well.

Some stones from the road have been flicked onto the shared path. We will monitor the path to make sure it is safe.

Temporary shade cloth has been placed at sections close to the road to protect cyclists and pedestrians.



Road construction works at Muchea



Why does the road surface change north of Ellenbrook?

The road surface on the other sections of Tonkin Highway is asphalt on a full-depth asphalt pavement as required on high volume urban freeways to cater for the traffic volumes.

Low traffic roads such as local roads typically have 30mm of asphalt on the road. On a heavy-duty freight route like NorthLink WA, the highway requires about 300mm of asphalt to carry the traffic loading. This creates a much higher carbon footprint and at a much higher cost.

Using a chip seal in the rural areas has allowed a dual carriageway with grade-separated interchanges and a high standard Principal Shared Path to be constructed within the project budget.

Has chip seal been used for the whole length of the road?

No, only the main alignment and on and off ramps. The roundabouts at interchanges have been constructed using full depth asphalt to accommodate the volume of turning traffic.

NorthLink WA central and southern sections are full depth asphalt because they have much higher volumes of traffic.

How can i get more information?

For more information about NorthLink WA or the pavement surfaces used on Tonkin Highway call Main Roads on 138 138 or email: enquiries@mainroads.wa.gov.au



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