



Australian Government



# Barton Highway upgrade

Community update | Autumn 2023

nswroads.work/barton



The Australian Government and NSW Government have together committed \$200 million towards the upgrade of the Barton Highway, with \$150 million provided by the Australian Government and \$50 million by the NSW Government. This work will improve road safety while enhancing tourism, driving economic growth and creating vibrant regional spaces. The Barton Highway Upgrade is currently progressing on a number of fronts. From laying the road surface on the first stage of duplication, carrying out detailed planning on the next stage, and border tie-in work, it's all systems go.

#### **Project benefits include**





Reduced fatalities and serious injury



Increased overtaking opportunities



## The end is in sight for the first stage

After a difficult few years for road building thanks to La Nina conditions dumping higher-than-average rainfall, the weather has finally been kind. Since late last year, we have:

- carried out 196,000 cubic metres of earthworks
- rolled 6.6 kilometres of road
- completed 10.8 kilometres of drainage work
- laid 38,500 tonnes of road base (heavily bound base)
- laid 13,500 tonnes of 20mm asphalt concrete and 5000 tonnes of 14mm asphalt concrete
- placed 51,700m2 of spray seal
- sprayed 128,400m2 of hydroseed, a spray-on planting mix using native seeds.

At this stage, we have laid 57,000 tonnes of new road. To put that into perspective - that's heavier than the fully-laden Titanic!

#### This work has included



# Road building 101

Rolling out the road surface layers represents a huge milestone for the project and signals to our transport customers travelling past site every day that the end is in sight.

The "black stuff" making up the new Barton Highway lanes is actually three layers of Ashphaltic Concrete (AC), which is batched at Hume in the ACT.

AC results in a smoother and more durable road surface than a bitumen-sealed road, and is quieter and more skid-resistant than concrete.

The first layer, a 100mm-thick sheet of AC20, has been delivered at a toasty 170-degrees Celsius, and rolled out by the paver at 145-degrees Celsius.

The "20" in AC20 refers to the size of the individual aggregate particles in the asphalt.

The paver slowly makes its way along the length, fed by a Material Transfer Vehicle which is in turn fed by delivery trucks full of asphalt. This convoy is followed on foot by a crew who are constantly checking levels, temperature

18,500 tonnes of

and depth of the AC.

Over 284,000 work

Steel double-drum rollers then compact the layers to ensure a strong and stable surface.

These double-drum rollers include a flow of water moving over the front drum to cool the steel drum. A multi-tyred roller then comes in at a slightly cooler road temperature to ensure density and smoothness. A minor flow of soapy water stops the rubber tyres from sticking to or lifting up the shiny new road surface.

When the 100mm layer of AC20 is absolutely spot-on, the crew goes back and repeats the whole process again with a finer AC14 asphalt layer.



A coring machine drills out an AC sample from the first layer of the new road surface which is then sent off for density testing.



The paver is followed by a crew constantly checking levels, temperature and depth of the AC.

To make sure the quality is second to none, coring is carried out at various random locations. A coring machine drills out a sample containing each layer which is then sent off for density testing.

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#### What's left on the first stage of duplication

Over the next few months, steps will include laying out and compacting one more final wearing course to make the highway strong, smooth and provide better ride quality.

Warm weather is key to providing a strong and resilient road surface, so during the colder months we will be progressing with other work, installation of guardrails and signposts, topsoiling and seeding.

As we emerge from winter and the road surface is finalised, we will then install line-marking along with reflectors.

We are expecting to open the new lanes to traffic by the end of this year, and then a small amount of work will be required to retrofit the existing lanes in readiness for southbound traffic only.

#### Southern tie-in is progressing



Steel drum rollers continue with road compacting.

While our delivery team is carrying out construction on the first stage of duplication, our development team is cracking on with design and investigations for the southern permanent tie-in, which connects the existing ACT carriageway with the duplicated carriageway.

A temporary measure is being constructed in this location following community feedback and we have since been busily working on new designs and consulting with key stakeholders.

Meanwhile, we have installed a one metre high, 36-metre long retaining wall to protect two cultural trees in the area. With the completion of the retaining wall, the temporary tie-in is now ready for asphalt with linemarking and guardrail to follow.

#### Huge amount of work happening behind the scenes on second stage of duplication

Early investigation work has been completed along the second stage of duplication, which begins at Kaveneys Road and continues towards Gooda Creek Road.

The work completed includes geotechnical investigations, where samples of ground materials were collected by excavating small holes with a five-tonne excavator. The collected samples were used to identify the geotechnical properties in the project area, to help inform the concept design.

We have also carried out investigations locating underground utility services with a non-destructive vacuum excavator. The purpose of this work is to locate service assets to help inform the new road design and determine if relocation is needed. There are a huge amount of utilities to take into account in this area, including the main Sydney to Melbourne fibre optic cable enabling internet connections to millions of Australians.



Field investigators carry out utility investigations to locate underground services.

Meanwhile, our Aboriginal knowledge holders and Registered Aboriginal Parties have helped us complete archaeological assessment field work on the second stage of duplication study area, with our project development team identifying any artefacts or areas of cultural significance.

The Barton Highway corridor follows songlines Aboriginal people have followed for tens of thousands of years so is rich in history. The field work involved collecting samples and analysing them for artefacts. Similar to other environmental investigations, this assessment will help inform the project design and decision-making process about the protection and management of culturally significant sites and objects.

### A Making the new highway more efficient

Traffic modelling has also started for the second stage of duplication to help the project development team understand how traffic flow will change with the duplicated carriageways. This process will help our team evaluate the effectiveness of the proposed changes and determine where traffic flow needs to be optimised for road safety and network efficiency.



Trucks, a Material Transfer Vehicle, paver, steel drum rollers and the paving crew perform a well-orchestrated program carrying out AC work.



The new northbound lanes are continuing to take shape.



Road grader levelling out the base for the new road.

### We'll be sharing our concept design soon

One of our most exciting next steps is sharing the concept design of the second stage of duplication with the community.

Our project designers are currently working on developing and finalising the concept design and we will share it with you later in the year.

We look forward to hearing your informal feedback before we progress to the Review of Environmental Factors stage later this year, where you will be asked to submit formal feedback into the design and environmental mitigation measures.

# **Contact us**

If you have any questions or require any further information on the Barton Highway, please contact our project team on:

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