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Papakura to Drury



The SH1 Papakura to Drury project provided the backdrop for the Prime Minister's announcement on 20 July of \$6 billion in government-funded infrastructure projects expected to begin construction this year.

More bridges to come - He pereti anō kei te haere

The SH1 Papakura and Drury project includes building several new bridges – all to replace existing bridges. Four bridges have already been built during the project, but another 5 bridges are still to come. These new bridges will be integral to increasing the capacity and resilience of the Southern Motorway, improving safety and keeping the community connected.

The 5 new bridges are numbered on the map to the right. Bridges 1 to 3 are motorway bridges (2 over Slippery Creek and one over Great South Road at Drury Interchange) and bridges 4 and 5 are on local Bremner Road – one of which crosses over the motorway. Also shown on the map (A to C) are 3 new and higher bridges over the North Island Main Trunk (NIMT) railway, which we built early in advance of the electrification of the railway line for practical and safety reasons.

At Slippery Creek (also named Otuuwairoa Stream), the 2 bridges that carry the motorway lanes were built in the mid-1960s and have served for 60 years.

But these bridges are too narrow to carry more motorway lanes, so must be replaced. To handle 100-year flood events and provide resilience for climate change, we'll also be raising the height of these bridges

by approximately 1.5m – starting with a new bridge in the southbound direction.

The word 'staging' is often used in construction and replacing all 5 bridges will involve a lot of working in stages.

To enable our construction works, we've already built a temporary 'haul' road between Great South Road and the motorway on the northern side of the stream, and another down the side of the motorway from the north.

Replacing these 2 bridges while keeping 2 motorway lanes open for motorists in each direction during the day will require a lot of staging – and includes realigning the motorway slightly eastwards.

But before we begin that, we need to strengthen the soft and marshy ground so it can take the weight of the new motorway alignment.



Passing motorists will notice large cranes at Slippery Creek. We're using these to drive around 2800 'ground improvement' piles into the ground either side of the stream to strengthen it, starting on the southeastern bank.

We're using UC (universal column) piles which vary in length between 6.5m and 10.7m and the pile number and depth on either side of the stream will depend on the ground's capacity.

The staging needed to replace the bridges at Slippery Creek will see 3 separate bridges built, though 2 will be joined together to form a single bridge. After we finish the first new bridge in the southbound direction, southbound traffic will be moved onto it before we demolish the existing one.

But there's a lot of water to go under these bridges before we get to that point! The first bridge isn't expected to be completed until the end of 2026/early 2027, so we have plenty of time to explain our staging for replacing the bridges in future updates.

At Drury Interchange, we must raise and relocate the whole interchange. This is because of the safety clearances required between the newly electrified railway lines and the underside of bridges crossing over them. Existing flood plains in the Drury area meant we had to build the new NIMT bridges higher instead of lowering the railway tracks, which is why those new structures are much higher than the existing motorway. They're hard to miss when you're driving past!

We'll soon start building a new motorway bridge over Great South Road, in the triangle 'gore' area between the southbound off-ramp and motorway lanes, near the existing bridge. It'll also be around 2m higher. In this gore, we're also using cranes to drive sheet piles hard up against the southbound motorway lanes to support them before digging the triangle area out further.

Our piling works for the new bridge are scheduled to begin at the end of 2025/early 2026. However, it will be some time before motorway lanes are expected to move over onto the new motorway alignment and bridge – not until around late 2028/early 2029 for the southbound motorway lanes and end of 2029 for northbound motorway lanes. Again, we'll explain how we plan to stage moving the motorway lanes across in future updates.

Two local road bridges cross the Southern Motorway between Papakura and Drury Interchanges. In 2021/22, we replaced the overbridge at Park Estate Road because its abutments were too narrow to fit extra motorway lanes underneath.



Driving UC piles to strengthen the ground south of Slippery Creek/Otuuwairoa Stream.

We must also replace the Bremner Road overbridge for the same reason but, unlike Park Estate Road, we won't be building the new bridge before demolishing the old one. As Bremner Road has other access points available, we plan to demolish the motorway overbridge before building a new one in the same place. Demolition of the old bridge is scheduled for late 2025/early 2026 and we plan to remove it in a single night.

Demolishing and rebuilding this bridge also requires a lot of staging – the first of which has nothing to do with bridges. Rather, because demolishing the bridge will remove one important link that connects residents, visitors and community facilities on both sides of the motorway, improvements to a nearby alternative access are required first.

The Auranga community on the western side of SH1 is growing fast and the Drury Sports Complex on Victoria Street is a hive of activity, used by residents and visitors coming from both sides of the motorway. The project is upgrading the Victoria Street intersection at SH22/Great South Road with traffic lights before the bridge across the motorway is demolished. This will provide much safer access than the existing intersection for both Auranga community and the Drury Sports Complex after the motorway overbridge is gone.

We must also replace a second bridge on Bremner Road, which crosses the Ngaakooroa Stream and leads into the Auranga community. This existing bridge doesn't meet current road safety standards for visibility, being too low in relation to the nearby motorway overbridge.

Because we're replacing (and slightly raising) the motorway overbridge, we must replace and raise the bridge across the stream too.

To enable us to do this, we've built a temporary steel truss bridge over Ngaakoora Stream beside the existing bridge and are now working on the roading approaches each side. A temporary bridge will allow us to move local traffic onto it before demolishing the existing bridge and rebuilding it in the same location. We must also raise the level of Bremner Road between the 2 new bridges.

As luck would have it, the bridge over the Ngaakoora Stream is directly under the lowest point of overhead power transmission lines. This has required us to find alternative and innovative methods for building both the temporary bridge and the future permanent bridge other than cranes alone. Cranes must not be used within a rigid safety exclusion zone around Transpower pylons and live overhead lines. This is just one of the many challenges our team must work through in order to deliver this project.

Progress updates on our project works appear in our regular construction updates issued every month. If you don't already subscribe to receive these by email, you can visit www.nzta.govt.nz/p2b to sign up.



Earthworks are underway in the northeastern gore at Drury Interchange ahead of piling works for the new motorway bridge across Great South Road, scheduled to begin in late 2025/early 2026.

Inspiring the next generation – Kua whakakipakipa ngā rangatira o āpōpō

The Girls in Infrastructure initiative is all about broadening horizons and sparking interest among Year 12 and 13 students in the wide range of career opportunities available in the infrastructure industry. Recently, our team was thrilled to welcome a group of enthusiastic students to site.

Despite a winter marked by wet weather, the skies cleared just in time for a successful site visit in mid-June. Two large groups of senior secondary students had the chance to get up close to a major construction project and meet some of the incredible women working on it.

From truck drivers and engineers to STMS (Site Traffic Management Supervisors), construction contract managers, excavator operators, traffic managers and community relations managers – our team shared their stories, insights, and plenty of encouragement.

Kirsty, our Structures Construction Manager, summed it up perfectly:

'It was a fantastic and extremely well-run day. It was great to see so many engaged and enthusiastic students – with many commenting to me that this event had really opened their eyes to the wide range of possibilities within the industry.'

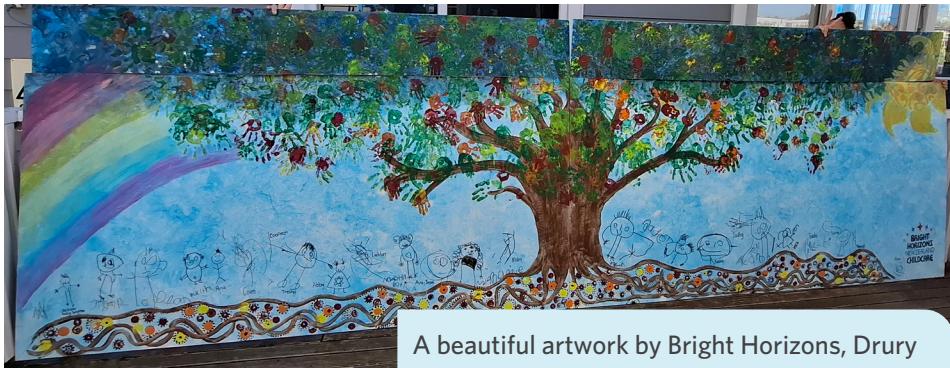


Structures Construction Manager Kirsty (second from left) with staff accompanying Girls in Infrastructure students visiting the project.



Students and staff from ACG Strathallan, McAuley High School, Mt Albert Grammar School, Pukekohe High School and Wesley College on site beside the motorway bridges already built over the North Island Main Trunk railway lines at Drury Interchange.

Art and more - Mahi toi



A beautiful artwork by Bright Horizons, Drury

Large infrastructure projects can have a big impact on road users and local communities – sometimes for quite a while. So we're committed to being a good neighbour, minimising disruption wherever possible and staying connected with those around us.

Community engagement plays a key role in helping our team understand the people who live and work nearby and it also gives our neighbours a chance to learn more about the project.

Recently, tamariki (children) from BestStart Drury and Bright Horizons Drury childcare centres teamed up with staff and parents to decorate large plywood panels with their artwork. These colourful hoardings will soon be installed on the temporary steel truss bridge over Ngaakooroa Stream on Bremner Road, ahead of local traffic being redirected onto it. It's a wonderful way to bring a splash of creativity to the construction site – and showcase the talents of some of our younger community members.

We also provided both centres with outdoor wooden stepping-stones, stools, and smaller rounds for painting – salvaged from a large pine tree that was in poor condition and had to be felled to make way for project works on Victoria Street. It's great to see it given a second life in a way that encourages play, learning, and imagination.



Hand-painting a hoarding at BestStart, Bremner Road.

More information – Mō ētahi atu korero

Visit nzta.govt.nz/p2b to subscribe for our regular e-newsletter project updates (monthly) or traffic notices (a weekly summary of the project's motorway closures at night) to find out more about the project.

You can also view our monthly progress by checking out our photo gallery.

Contact us – Whakapā mai

For further information about the project, please contact our team on:

Phone: **0800 796 796** for construction enquiries or **0800 741 722** for other project enquiries.

Email: p2b@nzta.govt.nz

Website: nzta.govt.nz/p2b

In person: Papakura to Drury Project site office, 25 Tegal Road, Drury (open 8am to 5pm on normal business days).