

SH1 PAPAURA TO DRURY PROJECT



The replacement Park Estate Road bridge and road approaches nearing completion.

Hanga ana ngā piriti | Building bridges

This first stage of the SH1 Papakura to Drury project includes the replacement of the Park Estate Road bridge, which was needed to fit the new motorway lanes we're building underneath.

When Auckland's Southern Motorway was extended southwards from Takaanini to Drury in the mid-1960s, Park Estate Road was going to be cut in two, creating the need to build the original Park Estate Road overbridge. At that time, housing developments were continuing to grow on the eastern side of the motorway and around Great South Road, while the western side of the new motorway remained mostly farmland. Jump forward 50+ years and things have changed a lot!

Construction of the new Park Estate Road bridge began in April 2021 with a longer, wider and slightly higher bridge being built to cater for both the current and future needs of motorway users passing under it and also the needs of local motorists, pedestrians and cyclists travelling over it. The bridge needed to be built in two halves to maintain continuous access to the western end of the 'no-exit' road and the old bridge was demolished in May 2022.

The new bridge is on target for completion in June and has a shared footpath and bike path on its southern side and a new footpath on the northern side. In the future, we will also connect this shared path on Park Estate Road to the 'Southern Path' - which will be extended from Papakura down to Drury and provide a continuous pathway alongside the motorway from Takaanini to Drury.

When designing the Papakura to Drury project, the team engaged with utility services companies to identify where utility upgrades might need to be built into our design, and then collaborated to make that happen. An example of this is the addition of a new watermain pipe on the southern side of the Park Estate Road bridge that will, in future, supply drinking water to the now fast-growing communities on the western side of the motorway. Another example of this 'future-proofing' is the addition of new service ducts in the new bridge not only for existing utilities but also to meet future growth needs.

It's been quite a journey for the bridge's closest neighbours including:

- Park Estate Road residents and neighbours in nearby streets
- the community of Park Estate School (which relocated across the bridge in 2022 and became Mangapikopiko School)
- land and housing developers building new subdivisions on the western side of the bridge
- three church congregations
- the Early Learning Centre Manukau's Park Estate Road community (who have plans to relocate soon across to a new campus beside Mangapikopiko School).

Strong relationships have been built between our construction team and the local

community, particularly between the traffic management crew and residents. The project team would like to thank everyone affected for their patience while we have completed rebuilding the Park Estate Road bridge and the road approaches either side.


For the construction team, there is a real sense of satisfaction seeing what they've built and when two lanes open on the bridge this month, there are sure to be hearty cheers from both the construction team and local residents.


NAU MAI HAERE MAI | COME AND SEE US

Come along to our next community open day on Saturday 17 June 2023 to find out more about current construction progress and the latest news on our plans to come for the rest of the project between Papakura and Drury.

We look forward to seeing you there!

 Saturday 17 June

 10am - 1pm

 Drury Hall
10 Tui Street
Drury, 2113



The original Park Estate Road bridge under construction in May 1964

Credit: Construction on Southern Motorway extension near Drury, Papakura, Auckland. Ref: WA-61832-G. Alexander Turnbull Library, Wellington, New Zealand. /records/23037317

Mahi toi | Bridge artwork

The bridge façade has been designed by Zaelene Maxwell-Butler of Ngāi Tai ki Tāmaki on behalf of the iwi working group; Ngāti Tamaoho, Ngaati Te Ata Waiohua, Te Ākitai Waiohua, Ngāi Tai ki Tāmaki, Ngaati Whanaunga, and Ngāti Maru.

The panels have been designed to mimic the weaving of a flax basket and the colours have been chosen to reflect the elements of the Māori world.

The distinct triangle patterns in straight lines resemble maunga/mountains, which references 'ngā rārangi maunga/line of

mountains', a metaphor for our many maunga/mountains and the many rangatira/chiefs of Tāmaki Makaurau/Auckland.

The colours have been deliberately chosen each representing an element of the natural world:

- Black - Te Pō / The night - Te Pō reflects Mana Whenua ancestral origins, both physical and spiritual
- White - Harakeke Horomata / Te Ao Mārama - represents the world of light
- Red - Kōkōwai / Maunga - represents whenua/land.



Façade panels on the new Park Estate Road bridge.

Whakarongo ki te hāpori | Listening to our community

It is important for us to listen and understand community thoughts, concerns, and feedback so we can address it as part of our work. During our engagement over the past few years a few key themes have emerged, that have guided some of our activities.

We've outlined the concerns we've heard and listed the work and activities that have been/are being implemented to address those concerns. You can find out more by clicking [here](#).



Whakapai te interchange | Drury Interchange Upgrade

The next stage of the SH1 Papakura to Drury project includes the complete rebuilding and upgrade of Drury Interchange. This will enable the electrification of the North Island Main Trunk (NIMT) railway between Papakura and Pukekohe as there is not enough clearance height between the rail lines and the existing motorway bridges for this to occur.

We will also take the opportunity to improve other issues with the existing interchange when we replace it, including the lack of clearance between Great South Road and the motorway above it for over-dimension vehicles and the lack of walking and cycling facilities on this road under the interchange. Addressing all these issues and also adding additional lanes on Great South Road at the interchange will improve public transport, safety and access for all those in the wider community passing through the area.

Ahead of the main Drury Interchange Upgrade, we are currently building three replacement motorway bridges over the NIMT railway as it is much safer to complete the bridges before the electrification 'goes live'. Two of these bridges are being built 'offline' (away from) and slightly east of the existing interchange between Karaka Reserve and Flanagan Road because we will be realigning and moving the whole interchange eastwards. This realignment will allow us to build as much of the replacement interchange as we can away from existing traffic lanes on the motorway and Great South Road, minimising traffic disruption as much as possible. The third bridge is being built in the narrow gap between the northbound motorway lanes and the northbound off-ramp.

The abutments for two of these three bridges have been completed and final works are being carried out in preparation for lifting steel girders onto them beginning



Near Drury Interchange in September 1965, with construction already underway on the motorway extension and the Bremner Road bridge. The Takaanini to Drury section of the motorway officially opened in December 1965, and Drury Interchange was completed in 1967.

Credit: Southern motorway, Auckland, between Takanini and Runciman. Ref: WA-65025-F. Alexander Turnbull Library, Wellington, New Zealand. /records/23106686

in June. Including the third bridge also under construction, twelve girders will form ultimately the platforms of the new and higher motorway bridges spanning the railway lines.

While the abutments were being built, Eastbridge Ltd in Napier has fabricated the 46-metre girders which will be transported north to site one at a time. For trucking fans, factoring in the tractor unit hauling the girders and a jinker unit on the back to get around any tight corners, the over-dimension loads will measure around 56m in length.

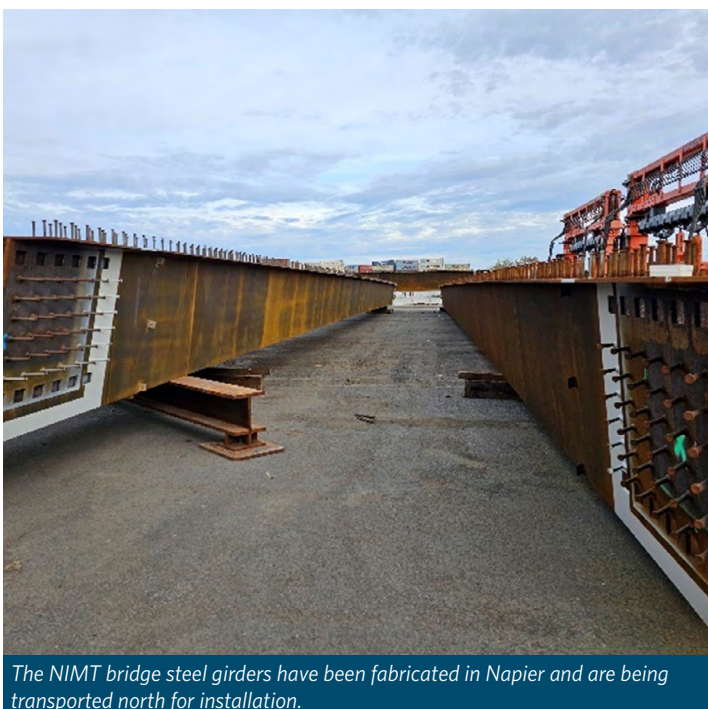
Lifting 46m steel girders weighing up to 75T (tonnes) will be a precise art with the tiniest of margins in play with when landing them onto the abutments. Every step of the

way, the surveyors work with the engineers and site team and together all involved will ensure the girders are landed exactly where required.

A large 600T crane will be used to carry out the girder lifts, and we expect to place one girder per night. For safety reasons, the lifts must be done at night when both the motorway and railway lines can be closed.

The final two girders that will form the overbridge for the realigned northbound on-ramp are expected to be lifted into place in August. We look forward to sharing photos of the girder lifts in a future publication.

The main Drury Interchange Upgrade works are expected to begin late this year and we are looking to appoint a contractor shortly.



The NIMT bridge steel girders have been fabricated in Napier and are being transported north for installation.



The bridge abutments sit close to the railway lines and are anchored/supported by piles 25m deep.

Mahi mō te hapori | Employing locals

We love supporting the local community and employing locals on the job whenever we can. Project staff who live locally provide invaluable local knowledge and understanding and also share what they're doing with neighbours, friends and the communities they live in.

The people building the Papakura to Drury project travel to work from dozens of different Auckland suburbs and we even have a few from the Waikato region. Here we highlight three locals on the project who are enjoying the benefits of relatively short journeys to and from work and the better work-life balance that living locally gives to them and their families.

Site supervisor Hugh Carter describes it like winning Lotto. Hugh started working over 40 years ago as a 16-year-old driving mining trucks in Kalgoorlie, Western Australia. More recently, he has lived for the past ten years "smack on the Papakura-Drury boundary" on a block of land where he has horses and a very productive vegetable garden.

When Hugh isn't working onsite he enjoys propagating seeds using local manure and regularly shares seedlings with the project team. His great success with propagating and growing Italian fire chillies from seeds provided by a Michelin star chef is a story for another day.

Maxine is another team member who prefers open spaces, living in Mangatawhiri on a farm with her husband. She describes herself as a "Franklin lifer" and when not building bridges by the Drury Interchange, she is out on the farm, playing sports and working as a volunteer firefighter.

Maxine is really proud of being a structures engineer working on the replacing the North Island Main Trunk railway bridges at Drury. She loves telling friends and neighbours about the progress on her part of the job while admitting being asked "when are you going to stop shutting the motorway?" comes as part of the package.



Papakura to Drury project locals - engineers Ronaldo Jambalos and Maxine Conaglen with site supervisor Hugh Carter

She says that most people understand why the motorway needs to be shut at night after she explains the safety reasons.

For senior project engineer Ronaldo and his family moving into a new housing development in Pukekohe five years ago was "life-changing." He worked on several water infrastructure projects in Pukekohe and loved being so close to work. His family settled into the local community and Ronaldo speaks highly of Pukekohe High School and the way his children with special learning needs have been supported and integrated into mainstream classes. Prior to joining this project, Ronaldo's skills and experience were needed on a project in Glen Innes and he is honest about the toll the long daily commute took on him and his family.

Now working on the Papakura to Drury project, his commute is 20 minutes and he can spend more time with his boys and wife, which matters tremendously

to him. Like Maxine and Hugh, Ronaldo feels personally invested in infrastructure growth in South Auckland - both in relation to work opportunities and, all importantly, improvements for the community his family is part of.

MŌ ĒTAHI ATU KORERO | FOR MORE INFORMATION

Visit our website to subscribe for our regular e-newsletter project updates or traffic notices and to find out more about the project.

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

Visit www.nzta.govt.nz/p2b

WHAKAPĀ MAI | CONTACT US

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

Phone:

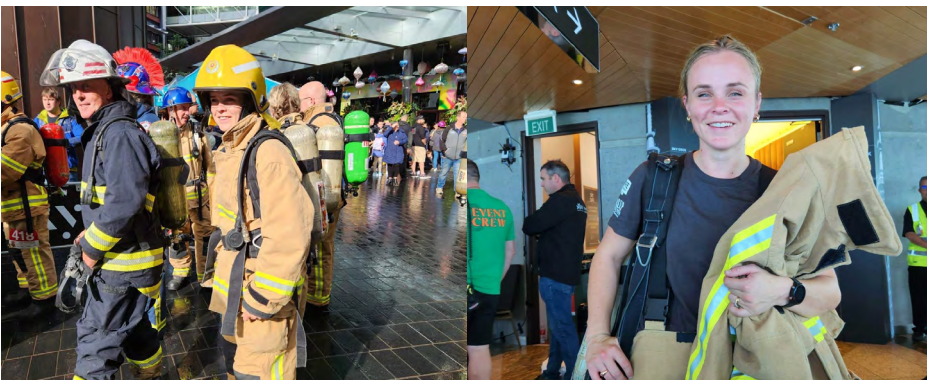
0800 796 796 - for construction-related enquiries

0800 741 722 - for general project enquiries

Email: p2b@nzta.govt.nz

Website: www.nzta.govt.nz/p2b

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



Maxine participated in the recent Firefighter Sky Tower Stair Challenge, carrying half her body weight on her back up 1,103 steps and raising close to \$4,000 for the Blood and Leukaemia Foundation.