

New Grafton bridge project update

The NSW Government is funding the new \$240 million Grafton bridge. This update outlines progress being made on the project and upcoming work.

Progress continues to be made on the project, with all marine piles completed as well as a number of piers and pier skirts. Since the previous project update in October a number of project milestones have been achieved.

Bridge segment construction starts

A temporary pre-cast concrete facility has been established in the industrial area at Through Street, South Grafton. The facility is making the concrete segments which will be used to build the new bridge. A total of 176 segments will be built at this facility. The first segment was poured in January and the facility will be decommissioned when casting work is complete.

The finished segments will be stored at the temporary pre-cast facility until the bridge piers are completed. From mid-2018, weather permitting, they will begin to be installed over the Clarence River from a barge on alternating sides of the bridge piers to balance the load to the pier. The segments will be tied together using multiple 36 mm diameter steel bars and then stressing cables between adjoining sections.

The completed segments vary in weight from about 61-77 tonnes, are 16 metres wide and 2.4 metres long and vary in height from 3-4.5 metres.



First concrete bridge segment poured at the pre-cast facility in January

Kent Street pump station

Work on the Kent Street pump station is progressing. In January, the large pre-cast structure was lifted into place by a 450 tonne crane. Part of the crane arrived on a float while the remaining pieces of the crane were delivered by 10 semi-trailers. Grouting of the pre-cast structure base and curing is complete and the base structure backfilled. The main walls were poured and cured in February. Remaining work includes installing the pumps, switchboard and generator. This is expected to be completed by mid-2018.

Pound Street rail bridge

The new rail bridge will increase the clearance height over Pound Street to 5.3 metres and will allow for Pound Street to be upgraded, becoming the approach road to the new bridge. The new rail bridge will be 42 metres long.

A piling rig will be brought to the site to start foundation work on the new Pound Street rail bridge later this year. Two piles (about 1.2 metres wide) will be bored up to 27 metres deep on the northern and southern side of the Pound Street rail bridge. Each pile will involve a concrete pour, which will take up to four hours each. This foundation work is required to allow ground beams and columns to be constructed ahead of a rail possession. During the possession, the existing concrete bridge will be demolished and a new single span steel bridge will be installed. The commemorative plaque on the existing bridge has been removed and will be reinstated when work is complete.

The project is limited in the amount of time we can possess the rail track in order to minimise disruption on the rail network and we will have to work throughout a weekend to ensure we complete the necessary work in the limited time available to us. We are currently finalising plans for when this will be and residents will be notified and consulted before the work happens.

Utilities and services

Utilities relocation is progressing well. Telstra work was largely completed last year with final work to be done in late 2018. Water, sewer and stormwater main relocation as well as power relocation will be ongoing in Grafton and South Grafton until about October.

Paving work

A paving trial was completed in January in South Grafton, with the roundabout near the intersection of Iolanthe and Through streets expected to be open to Butters Lane traffic in the near future, weather permitting.

A total of 3200 cubic metres of concrete will be laid on the project involving 1200 tonnes of cement material and 6000 tonne of aggregate to make it. The finished concrete will use seven tonnes of mesh reinforcement, 100 tonnes of steel fibres mixed in the base and four kilometres of joint tie bars.

It will take about 450 hours or 45 days of work to place the concrete and about 230 cores will be taken from the finished concrete for testing. About 1.7km of saw cutting will be required for the project.

Out of hours work will be required to complete saw cutting on the new road surface. Saw cutting of the top layer of concrete is an essential activity needed to manage contraction of the concrete. We will notify impacted residents before work starts in each area.

Out of hours work

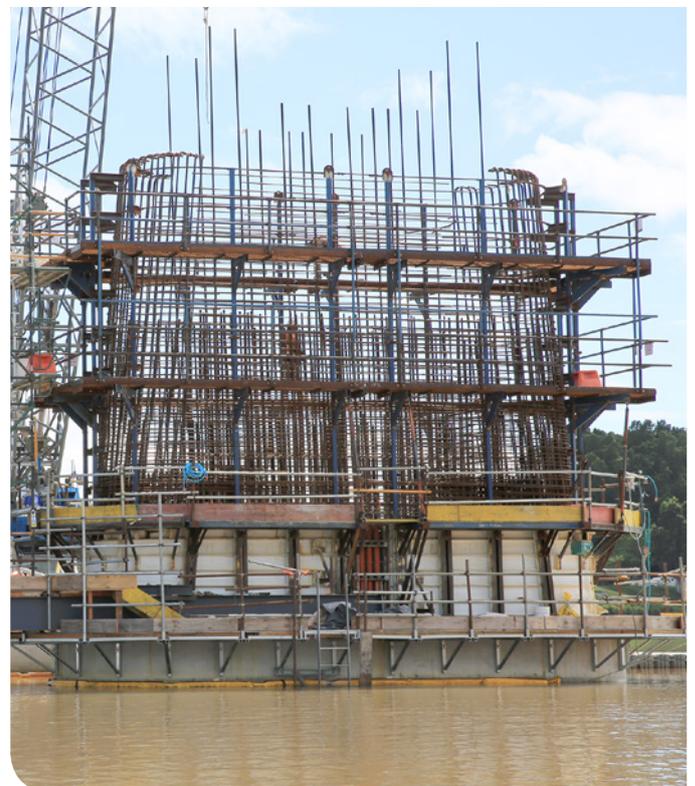
The project has been working out of hours over recent months because we were pouring concrete to make the piles and piers for the new bridge. For these large structures, we needed to pour concrete during cooler periods, which are generally in the early morning. We appreciate the patience and understanding of nearby residents while we get this work done.

Tree stump removal in Pound Street

As part of the project, tree stumps adjacent to the North Coast TAFE were removed in Pound Street in February.

The work was necessary to enable the installation of essential services such as water. The stumps were ground, rather than removed as whole stumps, to ensure existing services were not disrupted through pipe damage.

As part of the project, more than 8000 trees and shrubs will be planted across the project corridor in Grafton and South Grafton to offset vegetation removed for construction. Landscaping and plantings will include jacaranda avenues, indigenous riparian forest trees and native shrubs.



Steel reinforcement for concrete pier (March 2018)

Business Liaison Groups

The project team met with Grafton business owners in February to discuss proposed work to Clarence and Pound streets. A number of issues were raised which the team will address and we will continue to liaise with various stakeholders to reduce impacts during construction. Significant work is required in Clarence and Pound streets and we are committed to ensuring this work is done as quickly as possible. The work is likely to be done in stages, and with some out of hours work, to ensure we minimise impacts to businesses and the community as much as possible.

A similar meeting was held on 10 April with South Grafton businesses directly affected by our work. This meeting discussed the work required for the Iolanthe, Spring and Through streets precinct, as well as changes to the Pacific and Gwydir highways. We will talk to businesses to ensure we are doing all we can to reduce construction impacts.

Local traffic changes

Grafton

The redevelopment of Pound and Clarence Streets has started with work underway on the residential side of Clarence Street between Craig and Pound Streets. Excavation, foundation treatment and backfilling have been completed on the driveways. Subsoil drainage work and kerb construction started in April. Foundation work is underway in Pound Street between Clarence Street and the Pound Street rail viaduct.

South Grafton

In South Grafton work continues on the new roundabout near Bunnings. The concrete paving for the roundabout is half complete, Through Street has been realigned and asphaltting work is scheduled within the 2nd quarter of 2018. In the second quarter of 2018, weather permitting, Butters Lane traffic will be switched onto part of the roundabout to enable the other half of the roundabout to be built.

The Pacific Highway tie-in just north of Bunnings will open to traffic in the 3rd quarter of 2018, weather permitting, after the roundabout is complete. This will allow traffic to access the Iolanthe Street business precinct via the new intersection with the Pacific Highway.

After the intersection and link road near Bunnings is open work will start on the redevelopment of the Iolanthe and Spring Streets intersection later this year.

Marine pier construction

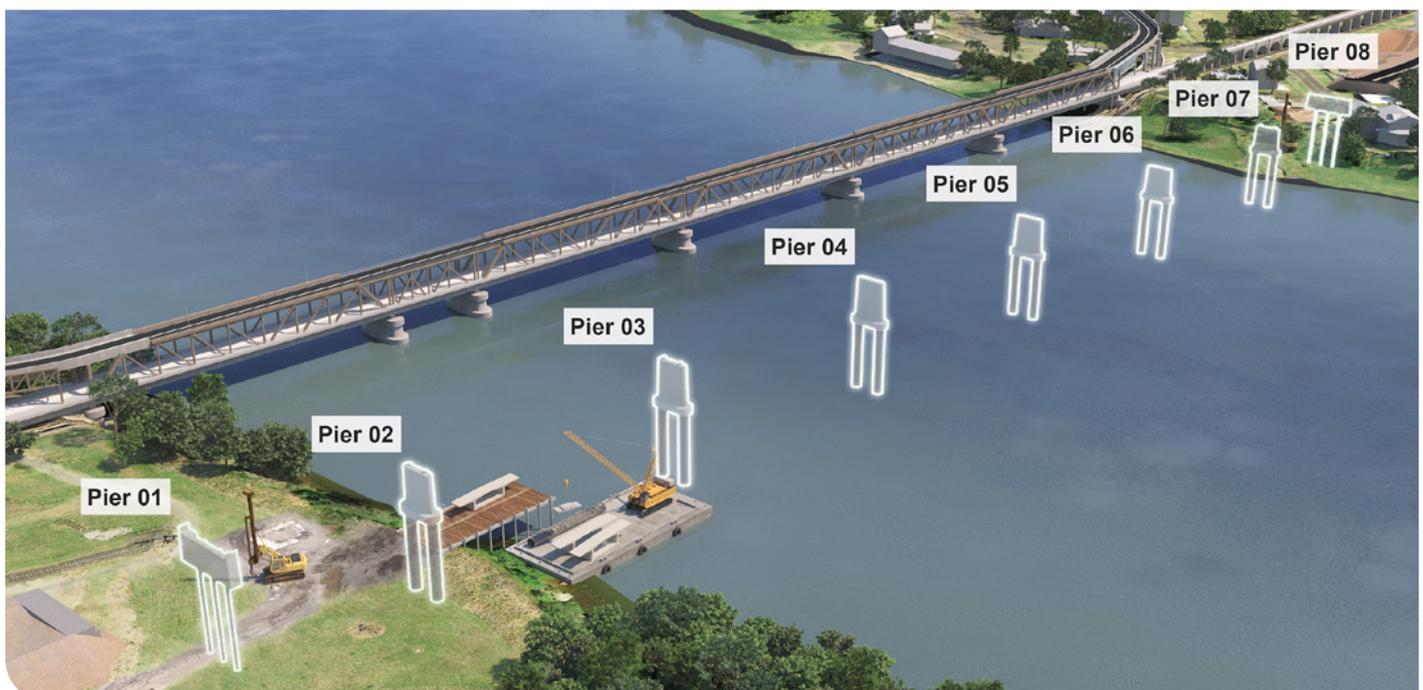
Marine pier construction started in February 2018, with five river piers in total to be built. There are two stages in pier construction. In the first stage, a two-metre beam at the bottom of the pier is poured to lock the pre-cast skirt to the pier piles. The second stage involves a larger pier pour to support the bridge segments. We have started work on piers two, three, four and five, with pier skirts in place. The pier skirt for pier six is scheduled to be lifted into place before the end of March.

Piers 7 and 8

Following completion of piling at piers 7 and 8, quality testing has identified some issues within the piles which may reduce the overall durability and strength of the pier foundations.

Roads and Maritime Services' contractor has agreed to construct additional piles at piers 7 and 8 to ensure the highest level of strength and durability are achieved. It is proposed to construct new piles in between the existing piles.

Preparation work has started, including the design work for the additional piles. Although the pile issue has caused delay in the work on the northern side of the river, it is not expected to delay the project as a whole. Land piling work on the north side of the river is planned to start again in June and we will let the community know before the work starts.



Artist impression of current pier locations

Earthwork settlement and abutment work

The southern abutment pre-load soil settlement work is complete and the pre-load soil is being removed. The three-month pre-load period for the northern abutment started at the beginning of February. Soil settlement south and north of the levee in South Grafton is complete. Pre-loading of the fill section north of the levee is underway and due for completion in March.

Community group presentations and school tours

The project team gave a presentation about the project to the Grafton Probus Club in November, attended by about 40 members, and also gave club members a site tour in December.

Students studying engineering at the Clarence Valley Anglican School were given a site tour in October and had the chance to talk to managers and engineers overseeing the project. The students enjoyed it so much they have asked for another tour this year.

A community group presentation was also given to the South Grafton CWA Evening branch. In April we will be holding further presentations for the Grafton Chamber of Commerce and Grafton Senior Citizens Group.

Project team fundraising

A charity fundraising ride by workers on the new Grafton bridge raised more than \$10,000 to help fight kids' cancer during the Great Cycle Challenge late last year. The team were among more than 31,000 riders across Australia and raised the seventh most amount of money.

The project team and its contractors also undertook a toy and fundraising drive for the Salvation Army for families in need in Grafton at Christmas. Salvation Army officer Martin Herring said: "The gifts and donations were an amazing contribution to helping us have enough assistance packages for those who sought assistance at Christmas time.

In the end, 95 Christmas assistance packages were distributed to families and individuals in need of assistance for Christmas 2017. It was humbling and inspiring to partner with the team in the lead-up to Christmas."



Working with local communities

Community information session

Members of the project team were at Grafton Shoppingworld on 12 April from 3.30 - 6.30pm to talk about the project. This was a great opportunity to provide an update on construction activities and to answer any questions about the progress of the bridge.

Upcoming activities

Key construction activities planned for the next three months include:

- continuing utility relocation
- continuing drainage work
- continue manufacture of bridge segments
- start piling for additional piles at piers 7 and 8
- continue building the Kent Street pump station
- start upgrade of Pound and Clarence streets
- continuing pier construction in the river
- start foundation work for the new Pound Street rail viaduct
- continue construction of the northern approach embankment
- continue building the new road behind Bunnings.

Where do I find out more information?

For more information about the project, please contact us:

 1800 918 759 (toll free)

 griftonbridgecommunity@fultonhogan.com.au

 PO Box 546 Grafton, NSW 2460

 rms.nsw.gov.au/griftonbridge



If you need help understanding the information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 918 759**

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