



SH20 - SH1 MANUKAU EXTENSION

LINKING SH1 AND SH20

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Key Milestones - Summer 2009

A key milestone achieved on the project was recognised in February by the ceremonial opening of Lambie Drive Bridge by Manukau City Mayor Len Brown and NZTA Regional Director Wayne McDonald, one of several achievements that highlight the project's significant progress.

Great South Road and Wiri Station Road Bridges have also been opened to traffic and the Puhinui twin culverts, located between Plunket Avenue and Lambie Drive, were also commissioned. Combined these structures' completion has a greater significance as together they provide improved access for the team along the eastern half of the new motorway corridor.

For over two kilometres between State Highway 1 and Plunket Avenue the sections of the project site are now physically connected, improving site access and reducing the number of project vehicles using the local roads.

Other activity taking place over the last three months includes:-

- Traffic shifts on SH20 south of the Puhinui Road Interchange
- Relocation of a large sewer line at the Nesdale Avenue interchange
- Construction of piers for SH20 bridge over the Puhinui Stream



Pavement construction by the Pacific Events Centre.



Manukau City Mayor Len Brown opens up Lambie Drive, assisted by Cr David Collings (right) and Wayne McDonald, Regional Director for NZTA (left).

- Structural completion of Roscommon Road overbridge
- Power and Gas services relocations on Plunket Avenue
- Opening of the new SH1 Redoubt Road southbound on-ramp
- Construction of new off-ramp to Great South Road
- Completion of over 170,000 cubic metres of earthworks
- Extensive drainage works

Also, at the pre-cast yard in Takanini, the team manufactured the final beam for the project's 12 bridges. The pre-cast team have produced 345 beams for the project and have made a significant contribution to the project.

Not all precast operations have been completed as now the team's efforts turn to the remaining bridge barriers and manufacturing 500 retaining wall panels.

Project delivery by



Challenging bridges feature in work ahead

Construction of four of the project's major structures will feature significantly this Autumn, and all of them present the team with different sets of challenges.



Beams will soon be installed for the SH1-SH20 Flyover.

Two of the structures, the SH1-SH20 flyover and the SH20-SH1 underpass, cross the Southern Motorway. This location presents significant logistical and traffic management challenges, as well as requiring the team to deviate traffic around a large section of the motorway's median.

In the central median, piling for the mid section of the substantial SH20-SH1 underpass has begun, and the team expect to have completed the mid-section's structure by the end of winter.

The eagerly anticipated central pier for the SH1-SH20 flyover will be constructed during April and installation of the two spans over the motorway is to be performed during an overnight closure of the Southern Motorway. This will provide the final link over SH1 for the bridge, which at 340m long is the longest on the project.

Approximately 3km west of SH1 is the North Island Main Trunk Railway (NIMTR) Bridge. Although only 124m long it is actually the largest structure on the project, as the bridge is 34 metres wide, has five large piers and requires



Constructing a bridge across the Puhinui Stream requires high standards of environmental management.

70 concrete beams to complete the six spans that will cross the railway line.

Constructing this bridge over an active railway presents a new set of construction challenges and safety is an absolute priority, so the team will carefully plan and coordinate work with rail authorities to avoid any impacts to services. Preliminary works have started and beam installation is scheduled for June.

Away from public view, the team is constructing piers twelve metres high either side of the Puhinui Stream to support what will be the tallest bridge on the project. Performing works so close to a stream requires special care to prevent sediment run-off entering waterways and consequently the Manukau Harbour. One of the crossheads to this structure has already been constructed and bridge beams are due to be installed in April.

Throughout the project the team is working to complete earthworks before the onset of winter. Pavement construction has also commenced and landscaping is also scheduled to begin over the coming months.

For more information about the SH20 Manukau Extension, please call:

0800 SH20-2-1 (0800 742 021)

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Contact Us:

For more information

NZTA Project Manager Simon Paton

Phone (09) 368 2000

www.nzta.govt.nz/manukauextension

Community Contact Line 0800 SH20-2-1 (0800 742 021)

Email info@leightonworks.co.nz

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