FIJI ROADS

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ISSUE 5

THE OFFICIAL NEWSLETTER OF FIJI ROADS AUTHORITY

Nadi Suva Roads Upgrade Project about to start



WORK will be starting soon on the first sections of the Nadi Suva Roads Upgrade project (NASRUP) that will significantly widen roads between the Nadi and Nausori International Airports and the nearby cities and tourist destinations.

FRA Capital Projects Manager, Mr Ian Hunter, said that contractors China Railway Fifth Group are in the process of establishing themselves in preparation for the renewals work to be completed in Nadi from the Queens Road - Denarau Roundabout to Votualevu Roundabout (section 1C of the project) and the construction of a new road from Wailoaloa Road to the Narewa-Denarau Road (section

1D). See Fiji Roads Issue 3 for section details. In Suva, the same company will begin the widening work on the Wainibokasi Road, from the Wainibokasi Roundabout to the Nausori Airport (Section 2C) under a separate contract. In all, 45 million dollars worth of work will be completed under these two contracts.

Mr Hunter said that contracts will soon be awarded to contractors for sections of the project in Suva: 2A-1, Kings Road from Caqiri Road, Valelevu to Pilling Road, Laqere Bridge and for 2A-2 on Kings Road from Makoi Road to Omkar Road.

The remaining Nadi sections 1A and 1B on Queens Road from Naisoso Junction to Wailoaloa Road, and Suva section 2B on Kings Road from Nakasi Junction to Davuilevu Roundabout, will be tendered later this year.

Commitment to the North continues

JANUARY/FEBRUARY, 2014

iii Roads Authority

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Knowledge transfer in the North includes training in international standard safe practices.

THE Fiji Roads Authority (FRA) commitment to the North continues with a \$30 million budget for the rehabilitation and maintenance of 250 kilometres of sealed and 1,400 kilometres of unsealed roads in the Division.

"This does not include the road projects that are already under way between Dreketi and Nabouwalu and the Savusavu Buca Bay highways," said FRA CEO Mr Neil Cook.

"Government is focused on improving the infrastructure in the North and FRA will ensure that these objectives are met."

Fulton Hogan Hiways Joint Venture (FFHJV) has taken over the contract in the North, and is honouring all of the previous contractor's existing subcontract agreements, and providing employment to all of their employees.

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Improved roads for Nasinu residents

Residents in the Nasinu area are about to benefit as the Fiji Roads Authority (FRA) embarks on a two-year road upgrade programme that will concentrate on improving the condition of roads and target some streets to have footpaths.

"Nasinu has become an area of focus as it is densely populated and as there is not a high percentage of private car ownership, a lot of people rely on buses, taxis and walking as their means of transport," said Mr Dale Nicholls, FRA Maintenance Works Manager.

He said that because of the size of the population the greater Suva area has the greatest sealed network with the greatest backlog of maintenance issues but FRA



is also concentrating on sealed road maintenance across the whole of Fiji's road network.

In urban areas, whether it is Nadi, Savusavu, Labasa, or Lautoka, the priority starts with the most heavily trafficked roads.

"There is probably at least a five year backlog, in terms of getting on top of the lack of maintenance on the sealed roads network in the urban areas. The problem is we cannot do the 'right' piece of road for people if their road is not programmed for this year or next, but their turn will come," said Mr Nicholls.

Planning the schedule for urban and rural road maintenance throughout Fiji is not a simple process. In general, FRA prioritises the most heavily trafficked areas the roads that take the buses, then side roads that would restore bus routes to service schools, churches and health centres.

"The aim of the FRA maintenance programme is to change for the better the lives of as many people as possible, while getting the best possible value for the money spent," said Mr Nicholls.

Bridges to be rebuilt and repaired

AN outline plan for the design and construction of safe, built-to-last bridges is the major outcome from the investigations and preliminary assessments of 850 bridges carried out by Fiji Roads Authority (FRA) last year.

Mr Ian Hunter, FRA Capital Works Manager, said that the inspections had revealed that many of the bridges are substandard and in need of replacement, a problem that the bridge renewals programme for 2014 will start to address.

While it is not possible to replace all bridges immediately, every effort is made by FRA to keep the bridges open without reducing the safety of the travelling public.

For example, the repairs in



January to the Korovula and Vesidrua bridges in Seaqaqa have kept normal traffic flowing. In the interests of safety, a maximum vehicle weight limit of three tonnes has been imposed on the Vuci Irrigation bridge until new beams are installed.

The Vunidilo bridge, Wailoku, was closed, repaired as quickly as possible, then opened to vehicles weighing up to five tonnes and pedestrian traffic. With further repairs, the vehicle limit has been increased to 14 tonne gross weight or nine tonne axle weight.

As well as the bridge repairs taking place throughout the country, the renewals programme for new bridge construction is under way. For example, the new Moto bridge was opened last year and investigations for a new Stinson bridge in the Suva central business district have been started.

Work on the redesigned Rakiraki bridge construction is expected to begin in February this year, and the bridges on the Nabouwalu-Dreketi highway construction are being redesigned for a longer minimum life span.

Although \$33 million from the 2014 budget has been earmarked for the bridge renewals, Mr Hunter believes that there is a case for allocating significantly more funds in order to make all bridges safe for the traveling public, "so we don't spend 20 years trying to repair very outof-condition bridges."

Better service for customers



Ms Letticia Ratulele, the face of FRA Customer Care.

MEMBERS of the public who contact the Fiji Roads Authority (FRA) can expect an even better service now that the new customer care services system has been launched.

Ms Letticia Ratulele, FRA Customer Services Officer, who trained in the use of the system with the consulting software developers HINDIN Solutions, said the new system provides an improved response time as well as a record of queries and complaints received from the public.

"Already we have received emails and phone calls from the public expressing appreciation for the prompt response to their requests or complaints, which are acknowledged, categorised and logged into the system then assigned to the appropriate person to action," said Ms Ratulele.

She is then advised of what action has been taken or if she should contact the customer with the necessary information to answer the query or respond to a complaint or suggestion.

To keep herself and the public informed and the system updated, Ms Ratulele liaises with the contractors working on the roads.

The customer service system is a valuable tool for logging all requests, complaints, queries made to FRA by the public and stakeholders. It provides a database for FRA and assists in improving service delivery. It is easy to keep track of the progress of all requests logged and provides feedback to the person or organisation that submitted the service request.

One of the important functions of this application is to ensure that all complaints received are attended within the specified days in the service level agreement.

"Having a schedule of the work planned for the coming month means we can reply immediately and accurately to queries from the public," said Ms Ratulele.

NASRUP-risk and value assessed



Assessing potential risks and having plans for their mitigation is an essential part of all FRA project planning.

THE safety of the public and the people working on-site is of paramount importance to the Fiji Roads Authority (FRA). Accordingly, a two-day Risk Management and Value Engineering Workshop was held in advance of construction works starting on Nadi and Suva Road Upgrading Project (NASRUP).

Such workshops are standard practice throughout the various stages of any large FRA project, particularly before the start of construction work. In this instance, one day was dedicated to Risk Management and the other day to Value Engineering.

During the Risk Management discussions, an assessment was made of the impact the work will have on both pedestrian and vehicular traffic, of everything that could potentially go wrong, and how these identified risks should be addressed or their impact minimized if they could not be mitigated entirely.

The Value Engineering day involved discussions between experts in areas such as technical delivery, contracting, safety auditing, designing, design checking and maintenance to review the plans to find more efficient and cost effective ways to carry out the proposed work. Furthermore, these discussions reviewed how construction methods and materials would impact the future maintenance of the completed roads.

Nabukavesi slip repaired

AFTER months of intensive work the flow of two-lane traffic has been restored at the Nabukavesi slip site on the Queens Highway.

"Every effort was made by Fiji Roads Authority (FRA) to keep the road open. Had the slip grown larger, Queens Highway would have been closed, with a detour via Kings Road," said Mr Don Clifford, MWH Technical Delivery Manager.

"There is still some tidyingup to do, but this will largely be unnoticed by the road users."

MWH provides the FRA with professional engineering services.

After the slip occurred last year a geotechnical expert was flown in from Australia to assess the situation and to determine options for a solution.

His investigations found that the inlet ends of the culvert pipes crossing beneath the road were crushed by soil. This had resulted in water backing up and eroding the soil at the bottom of the slope supporting the road and causing the slope to slip.

The traffic flow was reduced to a single lane, with a 24-hour traffic management schedule in place. Three traffic management controllers were on-site at a time, making it possible to roster their time on duty within each 12-hour shift.

Working from the bottom of the slip up, the face of the slip has been benched and reconstructed with reinforced gravel layers.



(Inset) Geotextiles help support the bank and allow for drainage.

The three new pipes that have been installed under the road are large enough to ensure that the stream and any storm water will flow under the road, "significantly reducing the risk of future slips."

Mr Clifford said that some of the contractors worked very long hours, missing out on their holidays, and extra staff were flown in from New Zealand to work over the festive season.

Jetty programme under way



WITH eight jetties surveyed and a further 45 to be assessed there has been no delay getting the Fiji Roads Authority (FRA)

2014 Jetty Renewals Programme under way. "There is a mixture of

renewal and maintenance

involved in bringing jetties up to the required standard, and it is expensive," said FRA Capital Works Manager, Mr Ian Hunter.

Usually built in remote places, jetty construction needs to be strong enough to withstand cyclone conditions. These factors contribute to the cost of repairing or replacing jetties that were originally built in inappropriate locations, with inadequate designs, and that have been neglected over the years.

More work is taking place on the Savusavu jetty and work is about to start on the Natovi jetty. The Nabouwalu jetty needs attention, while the planned new jetty for Qarani has to go through the design process.

Mr Hunter said that the Oinafa wharf on Rotuma is in "reasonably good shape," and the plan for this year is to dredge the sand that has silted up badly since the previous dredging, 38 years ago. Expressions of interest have been called for this project.

"We hope to have the jetty working by the time everyone goes home for Rotuma Day," said Mr Hunter.

Six month strategy study for Suva

THE first stage in a six-month study of the Greater Suva Transportation Strategy was introduced to approximately 70 stakeholders who deal both directly and indirectly with the Suva roading network, at a workshop held at the University of the South Pacific Marine Campus.

"This will consolidate past studies, the most recent one being in 2001, and combine these with the collected thoughts and current views of the relevant stakeholders to produce a robust report with clear options for the future," said Ms Christine Serreyn, FRA Strategy Planning and Performance Manager. Predict Consulting is joining forces with GTA Consulting and SCOPE Pacific Ltd to help develop the study that is expected to set the benchmark for a safe and efficient city roading network that would serve all vehicular traffic, cyclists and pedestrians.



The six month consolidation of past studies and current thought gets under we

Outer island roads maintained



WHILE Fiji Roads Authority (FRA) reached major milestones in 2013 in the implementation of major, high profile Maintenance and Renewals Works programmes

Resilience for rural roads

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THE ultimate goal for Fiji Roads Authority is to build resilience to the impact of poor weather across all rural roads in Fiji, whether they are on the outer islands or on the main islands,

"During a period of heavy rain as experienced in the first months of this year, it might take a week before the road is back in condition. If the time can be reduced to two days before the road can be used again after heavy rain, that is an improvement," said FRA Maintenance Works Manager Mr Dale Nicholls.

As in 2013, the rural programme for 2014 focuses on unsealed roads with bus routes being the priority. First priority is given to existing bus routes followed by roads that have had a bus service, but where none now exists because of the condition of the road.

"We would like to do more, if we had the budget and the manpower. We are trying to claw back at least two decades of neglect," said Mr Nicholls. such as the Nabouwalu -Dreketi highway, the Moto bridge, and repairs to the Nabukavesi slip, work also took place on the islands of Kadavu, Moala, Koro and Vanuabalavu.

An intensive upgrade programme took place on Kadavu, with resheeting and grading 30 kilometres of the unsealed Nabukelevu-i-Ra and Tavuki Roads, accompanied by extensive drainage works as drainage was nonexistent in many places with culverts and sections of the road washed away.

On Moala Island a three kilometre stretch of the very old Keteira - Nasoki Road had been reduced to a walking track, with trees had growing into the road reserve area. This road was cleared, stabilised, trimmed to subgrade, and drainage and resheeting took place.

Spot metalling and drainage maintenance works were completed on Koro Island's 60.3 kilometre perimeter road, and the 11 kilometre transisland road, and has also been carried out on the 30 kilometre road that circles the island

Not only do the contractors need to travel to the work sites, but they need to ship all essential items with them such as all machinery, fuel, spare parts, safety signage, and traffic management gear.



Recognise the sign

This means men are at work on the road ahead. Be alert and slow down.

Definitions

Risk Management: An undertaking by relevant stakeholders to foresee risks in a project and to create response plans to mitigate them.

Value engineering:

A systematic, functionoriented, team approach and study to provide value in a product, system or service, or to provide the necessary functions in a project at the lowest cost.

Geotechnical: Practical

applications of geological science in civil engineering such as drilling for rock samples in order to determine the type of construction needed for a new bridge.

Bench: A ledge on a natural slope to assist with drainage and provide greater security against slips. **Permeable:** Allowing liquids to

pass through. Geotextiles: Permeable fabrics,

typically made from polypropylene or polyester that separate, filter, reinforce, protect, and/or drain when used in association with soils.

Commonly asked questions

How do I find out which roads and bridges to avoid when there is heavy rain? FRA works closely with the Fiji Meteorological Office, the Commissioners' Offices and the Ministry of Information when there is a heavy rain warning, and also with DISMAC (the Disaster Management Committee) during cyclone warnings, to keep the public informed as to which roads and bridges have been closed because of flooding.

• Use common sense and local knowledge to avoid roads, bridges and crossings that are known to flood.

For advisories and updates:

- Listen to the radio.
- Read the newspapers.
- Visit the following websites: www.fijiroads.org, www.met.gov.fj or

www.ndmo.gov.fj

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