

Southern Highway Mile 14 to Jalacte Junction Road Upgrading Project

Progress Report

For the Period Ending January 2014

Project Owner and Employer: Government of Belize, Ministry of Works

Contract Supervision: Beca International Consulting Limited

Construction Contractor: Cisco Construction Limited

Current Expected Completion: June 2014

Funding: Kuwait Fund for Arab Economic Development

OPEC Fund for International Development

Central American Bank for Integration

Government of Belize

Introduction

Wet site conditions during January continued to slow productivity. Bulk earthworks were ongoing with the focus on works between Ch 28300 & 29200m and borrow to fill works between Ch 28880 & 29080.

Nominal pavement construction work was undertaken, limited to topping up areas of established sub-base and base. 300 lineal meters of first coat was completed. No Second coat seal was completed.

The production of aggregate continued at Pueblo Viejo quarry with two crushers in operation. Aggregate production needs to increase significantly to meet pavement construction needs. The contractor is now looking at ways to increase aggregate production and is in discussions with some other parties regarding assistance.

Progress continued with drainage works with a focus on access culverts.

Bridge structures work continued at Rio Blanco Bridge beams were placed and framework is being installed for the casting of diaphragms. Bridge barriers were installed at Jalacte 1.

1.0 Package B- Progress for the month of January 2014.

Description	Benchmark Quality		Quality Complete	% Complete
Clearing	32800	Lm	32800	100.0%
Stripping	51000	m	48750	93.8%
Gross Cut (exclusive of Stripping)	489138	m3	460,000	94.0%
Gross Fill (inclusive of cut & borrow to fill)	599400	m3	507,000	84.6%
Waste	195000	m3	203,000	88.3%
Cross Road Culverts	114	No	96	84.2%
Kerb, Channel and Under Drain	7000	m	4750	67.9%
Catch Pits	56	No	37	66.1%
Subgrade Completion*	32800	Lm	23840	72.7%
Sub-base Layer Completion*	32800	Lm	22600	68.9%
Base Layers Completion*	32800	Lm	21640	66.5%
First Coat Seal Completion	32800	Lm	21060	64.2%
Second Coat Seal Completion	32800	Lm	16600	50.6%
Line marking	32800	Lm	9000	27.4%

1.1 Property Issues:

The Contractor is continuing to liaise with individual landowners and local village representatives with respect to obtaining access and permission to dump waste material.

The Ministry of Works (MoW) liaises with landowners and Village representatives when required regarding:

- Location of farm roads
- Provision of temporary and permanent access ways
- Removal of crops and advice regarding risk associated with crop planting.
- Removal or relocation of structures.

1.2 Material:

Summary of the origin of materials and the issues associated with incorporating them into the Works:

A) Borrow Materials

- **Columbia Quarry** – Quarried limestone rock. Borrow material used for capping.
- **Ch12500m Slip Site** – Interbedded silt and sandstone (weathered). Bulk borrow material.
- **Ch20200m and 20460m Cutting** - Interbedded silt and sandstone(weathered). Bulks borrow material.
- **Ch22720m (cutting)** – Interbedded slit and sandstone (weathered). Bulk borrow material.
- **Ch27600m-** Borrow pit on the access road to Peblo Vejo Quarry. Siltry gravel. Bulk borrow material
- **Ch32160m (cutting)**- Interbedded silt and sandstone(weathered). Bulk borrow material.

B) Cut to Fill:

Earthworks are currently concentrated between Ch24000m - 27000m, 28300m- 29400m and Ch29900– 32350m.

C) Pavement Aggregates:

Aggregate production was ongoing during January at the pueblo Viejo Quarry.

1.3 Utilities:

It was established early on that watermain relocation works were required in San Antonio and Santa Cruz Villages, as existing watermains were built from poor quality materials not constructed to best practice and conflicted with the road construction works.

- **San Antonio Village** -substantially complete.
- **Santa Cruz Village** – substantially complete.
- **Santa Elena Village** - Future proofing duct installations complete.
- **Pueblo Viejo Village** - has a piped watermain reticulation which is located far from the road. Road crossing have been located by pot holding Discussion have been held with village Reps re providing some future proofing duct crossing.

1.4 Drainage:

A review of the drainage design in all Villages other than Pueblo Viejo has been completed. All cross road culverts between Ch 0m -20660m and Ch21130 m - 24828m have been completed and 14 of the 25 culverts between 24828m have been completed.

1.5 Earthwork and Pavement Construction

A) Cut to Fill

All cut sites between 60m and 22820 - 100% complete.

- Ch24660 to 24800m is 90% complete.
- Ch 28320m to 28460m is approximately 80% complete
- Ch 28680m to 28880m is approximately 100% complete.
- Ch 29960m to 30080m is approximately 80% complete.
- Ch 31140m to 31240m is approximately 80% complete.
- Ch 31400m to 31520m is approximately 80% complete.
- Ch32120 to 32200m is approximately 40% complete.

B) Subgrade Completion:

Subgrade is substantially complete between:

- Ch 80m to 20200m.
- Ch 21000m to approx 23600m.

1.6 Pavement Construction:

A) Subbase:

Some sub-base construction was undertaken during the month. At the end of January sub-base construction progress was substantially complete between:

- Ch 100m to 20180m.
- Ch 21040m to 23560m

B) Base:

The extent of base laid was not increased over the month. The following areas are substantially complete:

- Ch 80m to 20160m.
- Ch 21120m to 22840m.
- Ch 23300m to 23460m

C) First and Second Coat Seal:

First coat chip seal (300 lineal meters) was completed during the month. The following lengths of road have first coat chip surfacing completed:

- Ch 80m to 20140m.
- Ch 21680m to 22600m.

No second coat chip seal was completed during the month. The following lengths of road have second coat chip surfacing completed:

- Ch 80m to 10331m.

- Ch 12440m to 17320m.
- Ch 18190m to 19980m.

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A copy of the EIA Mitigation Plan and the measures being undertaken by the project to meet the intent of this plan is appended in Appendix 5.

1.8 Structure:

One headwalls was completed during the month- 94 completed. Currently 96 cross road culverts structures have completed. Five access culverts were completed- 74 completed.

Bridge construction work is progressing as follows:

- San Antonio 3 – complete with exception of approach railing and riparian works. Work on approach railings 70% completed.
- Santa Cruz – complete with exception of approach railings.
- Rio Blanco Bridge- Abutments complete to bearing shelf level. Plinths cast. Beams placed, Diaphragms being formed and cast. End wall to be completed then deck to be cast.
- Santa Elena – complete with exception of approach railings and riparian works.
- Pueblo Viejo – Structure complete. Back filling on east side is complete. Riparian works and approach barriers to be completed.
- Jalacte 1 – Bridge railing installed. Awaiting backfill of approaches, , installation of approach railings and completion of riparian works.
- Jalacte 2 – Settlement slabs, backfilling, riparian works and barriers to be completed.

1.9 Road Furniture:

Guardrail installation was ongoing at four sites. One sets of rumble strips were completed. No speed humps or pedestrian ramps were installed. Sign manufacture and installation is ongoing. Approximately 9000m of road has edge line and centreline is complete. Line marking at all intersection between Dump and San Antonio were completed.

Photographs: Progress performed for Package B for the month of January 2014.

Photo 1: Earthworks at Ch26400m - Pueblo Viejo Village.



Photo 2: Earthworks at Ch 26700m- pueblo Viejo Village



Photo 3: Subgrade nearing completion Ch 28500m (approx.)



Photo 4: Broken Rio Blanco Bridge beam



Photo 5: Placement of Rio Blanco Bridge beam showing incorrect skew that was cast into the end of the beams. Design has made amendments to beam base plants and abutment back will accommodate to construction error.



Photo 6: -Rio Blanco Bridge - All beam in place. Formwork being installed for diaphragms.

