

REPUBLIC OF TANZANIA



PRIME MINISTERS OFFICE

STRATION LOCAL GOVERNMENT

CONTRACT NO. BDC/WD/R/31/2009/2010/8

DEMONSTRATION SITES ALONG BAGO – TALAWANDA ROAD(20.26km)

QUARTERLY PROGRESS REPORT

DECEMBER 2010 – FEBRUARY 2011



EMPLOYER

Bagamoyo District
Council,

P.O. Box 59, Bagamoyo,
Tanzania

**PROJECT TECHNICAL
ASSISTANCE**



A2 Omega Park, Electron way
Chandlers Ford; Hampshire
SO53 4SE – United Kingdom

CONTRACTOR

Del Monte (T) Ltd.

P.O. Box 8877, Dar Es
Salaam, Tanzania

KEY ORGANISATIONS

EMPLOYER:	EXECUTIVE DIRECTOR, BAGAMOYO DISTRICT COUNCIL, P.O. BOX 59, BAGAMOYO, TANZANIA
PROJECT TECHNICAL ASSISTANCE :	ROUGHTON INTERNATIONAL A2 OMEGA PARK, ELECTRON WAY CHANDLERS FORD; HAMPSHIRE SO53 4SE UNITED KINGDOM
CONTRACTOR:	DEL MONTE (T) LTD. P.O. BOX 8877 DAR ES SALAAM TANZANIA
PROJECT ENGINEER:	DISTRICT ENGINEER, BAGAMOYO DISTRICT COUNCIL, P.O. BOX 59, BAGAMOYO, TANZANIA
FINANCER:	ROAD FUND – Government of Tanzania

THE AFRICAN COMMUNITY ACCESS PROGRAMME (AFCAP 8)

Research Consultant to Support the Design, Construction and Monitoring or Demonstration Sites for District Road Improvement in Tanzania

Project Reference: AFCAP/TAN/008

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1. EXECUTIVE SUMMARY

Summary		Physical Progress (Estimate)
(Series)	(Description)	
2000	Drainage	~65%
3000	Earthworks and Pavement Layers of Gravel and Crushed Stone	~35%
4000	Bituminous Layers and Seals	-
8000	Concrete and Alternative Pavements	~20%

OVERALL PROGRESS:	Contract Period Completion - original	67%
	Contract Works Completion (physical)	<25%
	Contract Works completion (main BOQ items)	<20%

PROBLEMS:

- The most pressing concern is that the Contractor is behind schedule and it could lead to 2-3 months of delays on completion of the project.
- During this quarter the Contractor failed to provide the required thickness of the improved sub-grade material of 150mm G7 for most of the sections along the road. This had implications of scarifying of these sections, adding G7 material, spreading and compacting.
- There is likely a shortage of suitable material for G60 base material. The Contractor has been reminded to make an effort to search area as none of the currently locally tested borrow pits meet that specification.
- There is continuation of the disrupting constrictions of mitre drains along the road by the villagers.

COMMENTS: The Contractor has been reminded in many occasions to follow the site procedures and avoid the shortcuts which could unnecessarily take more of time by correcting defaults. He was strongly advised / instructed to engage the full time presence of Project Engineer at the site in order to improve quality control and enhance the workmanship. The Contractor's persistence to utilise junior site staff in site management will further slow already delayed progress.

2. INTRODUCTION

2.1 Project Background and Location of Road



The aim of the AFCAP project is to improve sustainable access to economic and social opportunities for poor rural communities.

The largely earth and gravel based rural networks in Africa are imposing huge maintenance burdens on poorly resourced authorities and governments. This is particularly true in Tanzania, which has a large earth and gravel road network. The resultant maintenance demand is high, threatening the future sustainability of the entire network. Gravel is becoming increasingly scarce or available only at long haulage distances, thus further increasing the cost of gravelling and regravelling.

A further aim of the project is to provide all weather access to district roads using environmentally optimised design. Environmentally optimised design involves applying robust pavements at specific problematic locations along the road and applying less expensive and less wasteful designs in areas which are perfectly satisfactory all year round. The problematic sections along the roads will provide the locations of different trial sections using different sustainable solutions.

These pavements will dramatically reduce the demand for gravel, provide a smoother running surface to reduce vehicle operating costs, reduce travel times and dust pollution. The project focuses on demonstrating different low cost solutions that once demonstrated, can be repeated across Africa.

The road is located in the coastal region in the Bagamoyo District, which shares the typical problems of the coastal regions such as sandy subgrades and flat marshy areas containing black cotton soil.

The project is also focused on using locally available materials. Substantial effort was made to use the local knowledge of the District Engineer's and the stakeholders in order to locate suitable gravel material. A number of borrow pits were located in the vicinity of the road.

The construction period for the road projects is eight months and the roads will be monitored thereafter for a further 2 years. Monitoring beacons will be constructed as reference points along the trial sections. The monitoring phase will include dipped levels and rut measurement, surface roughness, surface texture and traffic counts. After the completion of the project, we will have the knowledge to be able to select viable surface options and recommend design guidelines and specifications for each of the individual solutions that has performed well over the monitoring period. Furthermore, a whole life cost analysis will highlight the benefits of each of the different options and help in the selection of an appropriate solution.

2.2 Scope of Works

The objective of the contract is to:

- i. The rehabilitation of the Bago to Talawanda road using an environmentally optimised design/spot improvement design approach to provide basic access to rural poor
- ii. The construction of various different pavement options that once constructed can be viewed by the local District Councils and practitioners
- iii. The contractor is to use local materials as much is practically possible during construction
- iv. To build district level capacity to undertake durable and cost effective improvement to District Roads using local resource based solutions

The work shall comprise, in particular:

- i. The construction of an Otta Seal with a sand seal, a double sand seal, hand packed stone, concrete strips, double surface dressing, slurry seal and concrete geocells pavements using natural gravel pavement layers
- ii. To provide an adequate drainage system for the road using small culvert and drift structures

Cross-section of the road

The standard cross-sections shall have the following characteristics in straight alignment:

- Width of the roadway 3m throughout
- Width of the shoulders 1m long throughout
- Roadway super-elevation 4%
- Shoulder super elevation 4%

2.3 Contract Documents

Outlined below is the general layout of the Contract Documents:

Section 1: Contract Agreement

Section 2: Letter of Acceptance

Section 3: Contractor's Bid

Section 4: Special Conditions of Contract

Section 5: General Conditions of Contract

Section 6: Specifications

Section 6 B: Special Specifications

Section 7: Drawings

Section 8: Bill of Quantities

Section 9: Any other documents

3. CONTRACT DATA

Project Title	:	Implementation of demonstration sites along Bago – Talawanda Road
Project Funding:		Road Fund of Government of Tanzania
Employer	:	<u>Executive Director</u> Bagamoyo District Council P. O. Box 59, Bagamoyo Tanzania
Project Technical:		<u>Roughton International</u>
Assistance		A2 Omega Park, Electron Way Chandlers Ford; Hampshire SO53 4SE United Kingdom
Contractor	:	<u>Del Monte (T) Ltd.</u> P.O.Box 8877, Dar Es Salaam Tanzania
Site Handing Over	:	18 August 2010 (Del Monte)
Date of Commencement	:	23 August 2010 (Del Monte)
Original Completion Date	:	20 April 2011
Extended Completion Date	:	
Tender Sum	:	TZS 1, 294, 954, 336
Variation Orders	:	TZS
Estimated Final Contract Price	:	TZS 1, 294, 954, 336
Amount Certified to date	:	TZS 222, 412, 791
Amount Certified this quarter	:	TZS 106, 996, 131
Date of this Report	:	28 th February 2011

4. PROGRESS OF THE WORKS

4.1 Mobilisation

- **Camp site** – Established

- **Equipment on site**
 - Motor Grader (1 no.)
 - Vibrating Roller (1 no.) 6 tonnes
 - Excavator (1 no.)
 - Water Bowser (2 no.) 8000 litres
 - Large Trucks (5 no.) 18 tonnes
 - Small Trucks (3 no.) 3 tonnes
 - Concrete Mixer (2 no.)
 - Poker vibrator (1 no.)
 - Tamping rammer (1 no.)
 - Dumpy Level (1 no.)
 - Theodolite (1 no.)
 - Total Station (1 no.)
 - Camber Board (1 no.)

- **Personnel – Project Technical Assistance**
 - Field Engineer, Mr. Stephen Conlon, mobilised from 1st of September 2010
 - The Contract Specialist, Mr. Mile Butkovic, was in Tanzania between the 11th and the 15th of December 2010 and the 31st and 3rd of February 2011.

- **Personnel – The District Engineer’s Office**
 - District Engineer, Mr. Samson Kalesi, visits the site on a regular basis
 - Civil Technician, Moses Masambo, full time supervisor

- **Personnel – PMO-RALG**
 - There is still no sign of the engineer that PMO-RALG was going to assign to the project.
 - Engineer Nyiti visited the site with the District Engineer and Field Engineer on the 5th of January 2011 to see site progress.

- Niels Kofoed came to the site meeting on the 1st of February 2011 to see the progress of the work and to share knowledge and experience on the project.

- **Personnel – The Contractor**

- A full list of the Contractor's staff is included as Appendix A.
- There were discussions held with the Contractor in regard to provide the qualified (Registered) Engineer at the site with full time involvement. The Contractor has kept promising qualified Engineer to come to the site since September. There has been some improvement but not to the satisfaction of the Engineer.

4.2 Physical Progress of the Works (as at 28th of February 2011)

- **Site Clearance**

Site clearance including clearing and grubbing, removal of large trees and tree stumps and removal of top soil has been fully completed

- **Traffic Counts**

2 no. 7 day traffic counts were completed at the beginning of the project and submitted to the District Engineer

- **Heavy Grading and Compaction**

Formation of the road, heavy grading and compaction of the road bed is fully completed. Field density of the road bed has been taken and passed specification requirements.

- **Culvert Works**

There has been a re-scoping of the drainage structures along the road by the District Engineer and the Field Engineer, where some drift structures were changed to culverts and also, additional access culverts were added to the project road. By mid-January the contractor had completed all originally allocated culverts except these changes made in the re-scoping. Works on the remaining culverts began at the beginning of February and are still ongoing.

- **Drift Works**

7 no. drifts have been installed, as of the 28th of February; with the exception of the gabion mattress for these drift structures. The remaining 7 no. drifts will be installed after the first improved subgrade layer is spread and compacted.

- **Improved Subgrade**

The first improved subgrade layer, G7, has not been completed to the satisfaction of the engineer. The G7 material of required thickness has not met the required specification. The contractor was requested to rectify failed sections on 24/02/2011.

Section	Chainage	Conclusion	Action
1	0.02 - 0.220	G7-Passed	Test field density
2	5.340 - 5.520	G7-Passed	Test field density
3	5.560 - 6.080	G7-Fail	Scarify, add material, spread and compact
4	6.080 - 7.750	G7-Fail	Scarify, add material, spread and compact
5	8.000 - 8.200	G7-Fail	Scarify, add material, spread and compact
6	8.320 - 8.820	G7-Fail	Scarify, add material, spread and compact
10	16.240 - 17.100	G7-Fail	Scarify, add material, spread and compact
11	18.480 - 19.000	G7-Fail	Scarify, add material, spread and compact
14	20.040 - 20.260	G7-Fail	Scarify, add material, spread and compact

The Contractor has spread and compacted the G15 improved subgrade layer (as the first layer) for demonstration section located between 9+980 - 10+670, 11+200 - 11+400. These two sections do not require a G7 improved subgrade layer. The material has not yet been tested for layer thickness.

- **Pavement Layers**

There has not yet been pavement layer work carried out during this quarter. The Contractor has been requested to produce test results for the natural gravel material that they propose to use for the G45 and G60 subbase and base material. Test results were received from the Contractor on the 25/02/2011.

- **Bitumen**

There has not yet been bitumen work carried out during this quarter. The Contractor has been formally requested, to submit the status of all bitumen products and to submit samples to allow the Field Team to test the material. In addition, the Contractor has been requested to produce his own test results for the bitumen. The Contractor has not yet submitted any test results or samples.

- **Concrete Pavements**

There has not yet been concrete pavement work carried out during this quarter. The Contractor has been formally requested, to submit the status of the geocell material.

- **Stockpiling and testing of material**

Borrow pits		
Chainage (km)	Description	Status
2+700	Quartzitic Gravel	Stockpiled and samples taken
8+030	Soft Limestone Gravel	Trial Pits and samples taken
13+860	Soft Limestone Gravel	Trial Pits and samples taken
15+330	Decomposed Granite Gravel	Trial Pits and samples taken

The Contractor has used material from the borrow pit at chainage 2+700 km for the G7 improved subgrade layer. The material at this location failed requirements for G15 as the plasticity index and the swell were both too high.

Test results were received from the Contractor for the borrow pit at location 13+860 km, borrow pit 3. This material satisfies the requirements for G45 sub base material. The material is marginal for G60, failing the CBR requirement with a CBR value of 54% at 98% compaction. This material also meets the requirements for a gravel wearing course. Test results are available in Appendix B.

Test results were received from the Contractor for the borrow pit at location 8+030 km, borrow pit 4. The material satisfies the G45 sub base material requirements. The material is marginal for G60, failing the CBR requirement with a CBR value of 51% at 98% compaction. This material also meets the requirements for a gravel wearing course. Test results are available in Appendix B.

The Contractor has used material from the borrow pit at chainage 13+860 km for G15 improved subgrade layer. The Contractor has also used this material for G7 improved subgrade layers for demonstration sections 10, 11 and 14.

Section	Chainage		Length (km)	Surfacing Type	Pavement Layers (mm)				
	Start	End			G7	G15	G45	G60	GWC
1	0.020	0.220	0.200	Single Otta seal with a sand seal	150	150	100	150	-
2	5.340	5.520	0.180	Hand Packed Stone	150	100	150	-	-
3	5.560	6.080	0.520	Concrete Strips	150	100	150	-	-
4	6.080	7.750	1.670	Geocells	150	100	150	-	-
5	8.000	8.200	0.200	Double Surface Dressing	150	150	100	150	-
6	8.320	8.820	0.500	Geocells	150	100	150	-	-
7	9.980	10.670	0.690	Concrete Strips	-	100	150	-	-
8	11.200	11.400	0.200	Double Sand Seal	-	150	100	150	-
9	12.200	12.580	0.380	Gravel Wearing Course	-	-	-	-	150
10	16.240	17.100	0.860	Concrete Strips	150	100	150	-	-
11	18.480	19.000	0.520	Concrete Strips	150	100	150	-	-
12	19.000	19.200	0.200	Gravel Wearing Course	-	-	-	-	150
13	19.480	20.040	0.560	Gravel Wearing Course	-	-	-	-	150
14	20.040	20.260	0.220	Slurry Seal	150	150	100	150	-
	Total Length		6.900						

- **Work Programme**

Due to the fact that the contractor is behind schedule, they have submitted a new work programme utilising the remaining time available in the contract. This was submitted at the last site meeting on the 1st of February 2011. This Contractor has not been able to continue his work in accordance with the revised work programme. The Contractor has not requested any nor indicated his intention for any extension of time. The revised programme is shown in Table 1.

Table 1 – Contractor’s Work Programme (Submitted 01/02/2011)

Task Name	Duration (days)	Start	Finish
Mobilisation	5	19/08/2010	25/08/2010
Detailed Road Survey	184	26/08/2010	20/04/2011
Road alignment	23	26/08/2010	23/09/2010
Road levels	159	28/09/2010	20/04/2011
Traffic counts	5	03/09/2010	09/09/2010
Site Clearance	46	29/08/2010	29/10/2010
Clearing and grubbing	16	29/08/2010	17/09/2010
Removal of large trees and tree stumps	11	03/09/2010	17/09/2010
Removal of top soil	3	17/09/2010	21/09/2010
Light grading and Establish Drainage	28	22/09/2010	29/10/2010
Drainage Structures	126	08/11/2010	16/04/2011
Culvert works (PHASE 1)	52	09/11/2010	15/01/2010
Drifts works (PHASE 1)	20	28/12/2010	20/01/2010
Culvert works (PHASE 2)	30	31/01/2010	26/01/2011
Drift works (PHASE 2)	20	12/03/2011	02/04/2011
Stone pitching and scour checks	30	16/03/2011	16/04/2011
Heavy Grading	43	18/10/2010	15/12/2010
Heavy grading and compaction of existing road subgrade	43	18/10/2010	15/12/2010
Improvement of Subgrade	31	22/11/2010	07/01/2011
Dumping, spreading and compaction of G7 material	17	15/01/2011	07/02/2011
Dumping, spreading and compaction of G15 material	14	08/02/2011	25/02/2011
Pavement Layers	23	28/02/2011	26/03/2011
Dumping, spreading and compaction of subbase	14	28/02/2011	16/03/2011
Dumping, spreading and compaction of base course	8	18/03/2011	26/03/2011
Wearing Course	24	27/03/2011	20/04/2011
Natural gravel wearing course	6	27/03/2011	01/04/2011
Hand packed stone pavement	14	28/03/2011	11/04/2011
Otta seal	3	04/02/2011	04/04/2011
Sand seal	3	05/04/2011	07/04/2011
Double surface dressing	3	08/04/2011	11/04/2011
Slurry seal	3	12/04/2011	14/04/2011
Concrete geocells	24	27/03/2011	20/04/2011
Concrete strips	24	27/03/2011	20/04/2011

4.3 Analysis of Progress as at 28th February 2011 (major BOQ items)

Item	Description	Unit	Original Qty	Period		Sept - Feb 2010	
				Revised Qty	Accumulated Progress Qty	progress %	
21.00	Drains						
22.00 (a)	Prefabricated Culverts: Pipes (600mm) laid on On Class A bedding	m	270.00	340.30	206.81	61%	
22.07 (a)	Cast in-situ concrete and formwork: In Class A	m ³	28.00	170.95	103.53	61%	
25.03 (b)	Stone masonry walls: Cement-mortared stone walls	m ³	210.00	242.07	0	0%	
27.02	Drifts: Concrete (Class 30/38, including all necessary formwork)	m ³	304.39	186.62	0	0%	
36.00	Earthworks					30%	
31.01 (a)	Clearing and grubbing	ha	10.33	10.33	10.33	100%	
31.02 (a)	Girth exceeding 1.0 m up to including 2.0 m	No.	20.00	149	149	100%	
36.02 (a)	Improved subgrade layer to require minimum G15 quality material	m ³	8,579.15	4,096	0	0%	
36.02 (b)	Fill to require minimum G7 quality material	m ³	6,526.00	4,913	0	0%	
37.00	Pavement Layers of Natural Gravel Materials						
37.01 (b)	Base course: Natural gravel, class G60	m ³	1,210.47	450	0	0%	
37.02 (a)	Sub-base: Natural gravel, class G45	m ³	3,371.70	5,878	0	0%	
37.03 (b)	Natural Gravel class GW used for gravel wearing course	m ³	1,033.85	1,142	0	0%	
						33%	
41.01 (c)	Prime coat: MC-3000 cutback bitumen	l	2,001.00	2,740	0	0%	
45.01 (a)	Double surface dressing: 80/100 Penetration grade bitumen	l	1,716.00	1,976	0	0%	
4600	Otta Seals						
46.01 (b)	Single Otta Seal: Bitumenous binder MC 3000 grade	l	1,914.00	1600	0	0%	
4700	Sand Seals and Slurry						
47.01	Application of binder for sand seal (MC 3000 cutback bitumen)	l	1,584.00	1,536	0	0%	
8200	Concrete Geocells					0	
82.02	75 mm thick flexible cell mat, Geocell Pavement	m ²	2,310.00	7,647	0	0%	
8300	Concrete Strips						
83.01	Concrete strips including intermittent concrete median strips	m ³	133.63	425	0	0%	
8400	Hand Packed Stone Block Pavements						
84.02	Stone packing	m ³	62.10	122	0	0%	
8600	Grading and Reshaping						
86.01	Grading and Reshaping of the Existing Road	m	15,650.00	20,260	11,400	56%	
						14%	

Series	Description	[%]
2000	Drainage	30%
3000	Earthworks and Pavement Layers of Gravel or Crushed Stone	33%
4000	Bituminous Layers and Seals	0%
8000	Concrete and Alternative Pavements	17%
	Average progress for the main BOQ items [%]	19%

4.4 Activities Planned for the Next Month

Activity	Planned According to Work Programme	Works Anticipated
Testing field density of improved subgrade material	No	Testing field density of improved subgrade material
Remaining Culvert works	Yes	Remaining Culvert works to be completed
Heavy grading and compaction of existing road subgrade	Yes	Heavy grading and compaction of existing road subgrade
Drifts works	Yes	Remaining Drift to be partially completed
Spreading and compaction of G15 fill materials	Yes	Spreading and compaction of G7 and G15 fill materials to be partially completed
Spreading and compaction of G45 sub-base material	Yes	Will not be completed by programme date
Spreading and compaction of G60 base material	Yes	Will not be completed by programme date
Natural Gravel Wearing Course	Yes	Natural Gravel Wearing Course

5. FINANCIAL STATUS

5.1 Payments Certified to Date

To the Contractor:

Contract Period Lapsed	:	6 months and 9 days
Valuation as at	:	28 th February 2011
Certificate Amount (Advance)	:	TZS 129, 495, 434
	:	USD 86, 330
Certificate Amount - No. 1	:	TZS 115, 416, 660
	:	USD 76, 944
Certificate Amount – No. 2	:	TZS 106, 996, 131
	:	USD 71, 331
Total Certified to Date	:	TZS 351, 908, 225
	:	USD 234, 605

Payments Certified to date are as detailed below:-

Interim Certificate No.	Date	Net Amount Certified		Retention	Advance Loan Deduction
		TZS	USD		
Advance	04/11/2010	129, 495, 434	86, 330		
1	02/11/2010	115, 416, 660	76, 944	11, 541, 666	-
2	04/01/2011	115, 416, 660	76, 944	10, 699, 613	16, 049, 420
Total		351, 908, 225	234, 605	22, 241, 279	16, 049, 420

5.2 Contractor's Cash Flow Forecasts

The Contractor has not submitted yet the cash-flow forecast.

5.3 Variation Orders

There has not been any variation order up to this point in the project

6. EXTENSION OF TIME

Despite the current delays of civil works, the contractor has not presented any evidence, neither any intention for a request of extension of time.

7. CONTRACTUAL CLAIMS

There has not been any contractual claim up to this period.

8. SUPERVISION ACTIVITIES

- The Engineer's activities on site during this period have been to supervise the carrying out of compaction and installation of concrete pipe culverts and concrete drift structures and the stockpiling of the project relevant borrow pit material.
- Site meetings – Two Progress Site Meetings were held in this Quarter on 14/12/2010, 01/02/2011 and the minutes are contained in Appendix F.
- Visitors to site:
 - Mr. Mile Butkovic (RI) Contract Specialist visited the project from the 13th of December 2010 to the 15th of December 2010 and attended the site meeting on the 14th of December 2010
 - Eng. Nyiti (PMO-RALG) visited the site with the Field Engineer and the District Engineer on the 5th of January 2011
 - Mr. Mile Butkovic (RI) Contract Specialist and Niels Kofoed (PMO-RALG) attended the site meeting on the 1st of February

9. QUALITY CONTROL

The Field Engineer has taken numerous samples from each of the different borrow pits to the Central Materials Lab in Dar es Salaam. Tests indicate that the borrow pit at 2+700 km is suitable for G7 material, borrow pit at 13+860 km is suitable for G15 material and the borrow pit at 8+100 km is suitable for G45. No material has met requirements for G60 material. The results are available in Appendix B.

Material from borrow pits at location 2+700 km and 15+330 km has been taken to test its suitability for use in an Otta seal. These results together with a visual inspection from our material engineer's in March will determine their suitability for use in an Otta seal. The results are available in Appendix B.

The Contractor has been requested to produce test results for the material which they propose for subbase and base course material. Test results were received from the Contractor and are available in Appendix B.

The field density of the roadbed was tested over a two day period. The first 11.4 km's of the road were tested on the 4th of December. The remainder of the road was tested on the 22 of January. The method The Troxiler was the preferred method for the testing of the field density. All demonstration sections met the required field density. The results of the field density testing are available in Appendix B.

The Contractor was requested, by letter, to take one set of concrete cubes for each of the drift structures to make sure that they meet the required 30 Mpa requirements. Where one cube is to be tested after 7 days and the remaining 2 cubes are to be tested after 28 days. The Contractor has taken cubes accordingly for each of the drift structures but the results have still not been presented to the District Engineer for approval.

The field engineer spot checked the invert levels of the pipe culverts. All spot checks met required levels and slope.

Levels of the first improved subgrade layer were taken by the field engineer and indicated that the roadbed did not meet specified layer thickness. The Contractor then requested that the layer thickness be taken by means of core drilling. Only two sections passed the required layer thickness as indicated in section 4.2 of the report. The Contractor has been requested to correct the works accordingly. This will lead to further delays in completing the Contract.

10. CONTRACTOR'S PERSONNEL, LABOUR AND PLANT RETURNS

A summary of the Contractor's management staff, skilled staff, semi skilled staff and labour force is included in Appendix A. A breakdown of the Contractor's plant and equipment so far brought to the site is also included in Appendix A.

11. WEATHER

The Contractor was unable to work for three days in the month of December due to heavy rain between the 8th and the 10th of December. Also, the temporary diversion was washed away at the Uswiga bridge stopping the Contractor from having access to the equipment and materials. The field engineer's record of weather is given in Appendix C.

12. REMARKS/RECOMMENDATIONS

The most pressing concern at this stage in the project is the slow progress of the works.

- We recommend that representatives from PMO-RALG come to the site on the 3rd of March to share project knowledge, experience and challenges.
- We recommend that the Contractor attends the Consultant's bitumen workshop on the 4th of March 2011 in order to prepare themselves for the difficult works ahead.
- We recommend that the Contractor deploy the qualified Engineer who will be based at the site in order to avoid sub-standard works and enhance the quality on site procedures at the critical stage of placing appropriate selected material for various sealed sections.


Appendix A – Contractor’s Personnel, Labour and Plant Returns

Together with key staff, the Contractor has employed an average of 34 workers, including skilled, semi-skilled and unskilled labour; this figure varies depending on the site operations.



- Project Manager - Eng. Filemon Martin (yet to be mobilised)
- Site Agent - Salutari Mushi (as Technical Director from Dar)
- Site Engineer - Leonard Magayane
- Quantity Surveyor - Dickson Mwasemele
- Site Technician - Athuman Rajabu
- Land Surveyor - Raphael Mwailuka
- Land Surveyor - Baraka Mnasi
- Plant Operators - 6 no.
- Drivers - 9 no.
- Mason - 1 no.
- Carpenter - 2 no.
- Store Keeper - 1 no.
- Security Guard - 2 no.
- Unskilled Labour - 15 no.

- **Equipment on site**
 - Motor Grader (1 no.)
 - Vibrating Roller (1 no.) 6 tonnes.
 - Excavator (1 no.)
 - Water Bowser (2 no.) 8000 litres
 - Large Trucks (5 no.) 18 tonnes
 - Small Trucks (3 no.) 3 tonnes
 - Concrete Mixer (2 no.)
 - Poker vibrator (1 no.)
 - Tamping rammer (1 no.)
 - Dumpy Level (1 no.)
 - Theodolite (1 no.)
 - Total Station (1 no.)
 - Camber Board (1 no.)



Appendix B – Laboratory Testing
Otta Seal Aggregate – Borrow Pit 2 – 2+700 km

TANZANIA NATIONAL ROADS AGENCY		SUMMARY SHEET			CML					
		SOIL TESTS			CENTRAL MATERIALS LABORATORY					
Project: Bagamoyo - Talawanda road		Date: 02/09/2011			Date: 02/09/2011					
Client: M/s AFCAP		Checked			Approved					
Contract No.										
Responsible Technician:										
Location		2+700	2+700	2+700						
Sample No.		RED 1	RED 2	RED 3						
Borrow Pit		Borrow Pit 2								
Grading	75mm									
	63mm									
	50mm		100	100						
	37.5mm	100	96	96						
	20mm	94	86	79						
	10mm	72	74	64						
	5mm	61	56	48						
	2mm	31	25	20						
	1.18mm	22	17	12						
	600µm	19	15	10						
	425µm	18	14	9						
	212 µm	16	12	8						
	Atterberg Limits	150µm	15	11	7					
75µm		13	10	6						
LL (%)		48	52	51						
PL (%)		22	29	25						
	PI (%)	26	23	26						
	LS (%)	14	11	14						
Moisture Content	%									
Particle Density	kg/m ³									
Bulk Density	kg/m ³									
Soil classification	BSCS									
Compactoin	MDD (kg/m ³)									
BS Light / Heavy	OMC (%)									
Field Density	FDD (kg/m ³)									
	FMC (%)									
CBR (%) (Unsoaked)	95 % heavy DD									
	98 % heavy DD									
CBR (%) (4 days soaked)	100 % light DD									
	Swell (%)									
	95 % heavy DD									
	100 % heavy DD									
	Swell (%)									



Ota Seal Aggregate – Borrow Pit 3 – 15+330 km

 TANZANIA NATIONAL ROADS AGENCY TANROADS Good roads for national development		SUMMARY SHEET SOIL TESTS				 CENTRAL MATERIALS LABORATORY			
Project: Bagamoyo - Talawanda road		Date: 02/09/2011		Date: 02/09/2011					
Client: M/s AFCAP		Checked		Approved					
Contract No.									
Responsible Technician:									
Location				15+330	15+330				
Sample No.				GREY 1	GREY 2				
Borrow Pit				Borrow Pit 1					
Grading	75mm								
	63mm								
	50mm			100					
	37.5mm			88	100				
	20mm			75	85				
	10mm			53	56				
	5mm			40	40				
	2mm			17	19				
	1.18mm			9	12				
	600µm			5	8				
	425µm			4	7				
	212 µm			3	6				
150µm			2	5					
75µm			2	4					
Atterberg Limits	LL (%)			36	36				
	PL (%)			23	22				
	PI (%)			13	14				
	LS (%)			7	7				
Moisture Content	%								
Particle Density	kg/m ³								
Bulk Density	kg/m ³								
Soil classification	BSCS								
Compactoin	MDD (kg/m ³)								
BS Light / Heavy	OMC (%)								
Field	FDD (kg/m ³)								
Density	FMC (%)								
CBR (%)	95 % heavy DD								
(Unsoaked)	98 % heavy DD								
CBR (%)	100 % light DD								
	Swell (%)								
	95 % heavy DD								
	100 % heavy DD								
(4 days soaked)	Swell (%)								



Borrow Pit 2 – 2+700 km



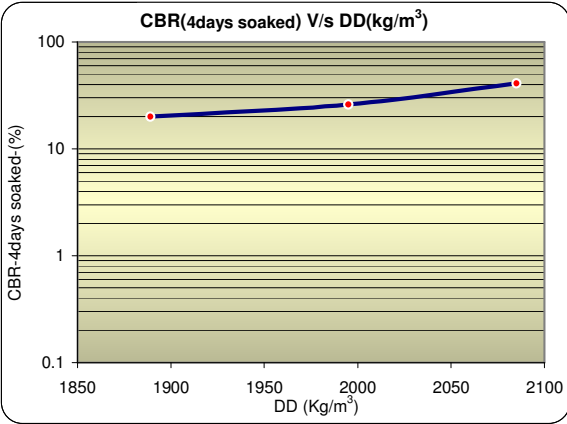
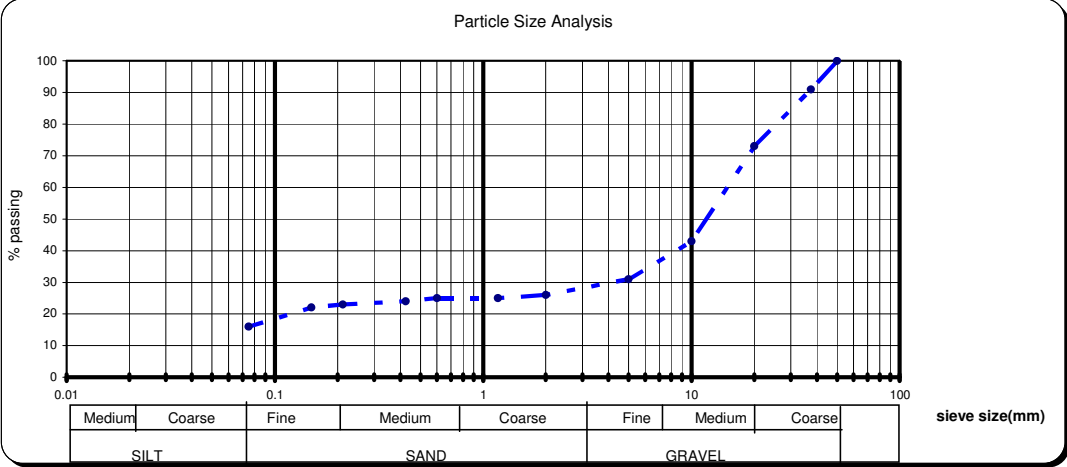
		SUMMARY SHEET SOIL TESTS							
Project: Bagamoyo - Talawanda road		Date: 01/03/2011		Date: 3/1/2011					
Client:		Checked		Approved					
Contract No. 2010/2011/									
Responsible Technician:									
Location (km)				2+700					
Sample No.				S - 4					
Borrow Pit				Borrow Pit 2					
Grading	75mm								
	63mm								
	50mm								
	37.5mm				100				
	20mm				91				
	10mm				77				
	5mm				60				
	2mm				21				
	1.18mm				13				
	600µm				12				
	425µm				11				
	212 µm				10				
Atterberg Limits	LL (%)				54				
	PL (%)				24				
	PI (%)				30				
	LS (%)				14				
Moisture Content	%								
Particle Density	kg/m ³								
Bulk Density	kg/m ³								
Soil classification	BSCS								
Compactoin	MDD (kg/m ³)				2140				
BS Heavy	MDD 95% (kg/m ³)				2033				
BS Heavy	OMC (%)				6.8				
CBR (%) (Unsoaked)	95 % heavy DD								
	98 % heavy DD								
CBR (%) (4 days soaked)	100 % light DD								
	Swell (%)								
	95 % heavy DD				20				
	100 % heavy DD								
	Swell (%)				1.79				



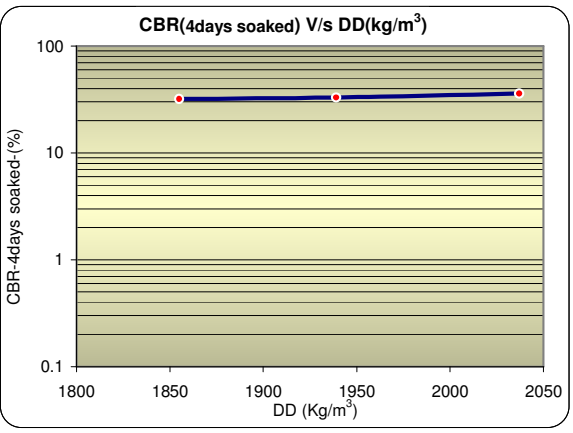
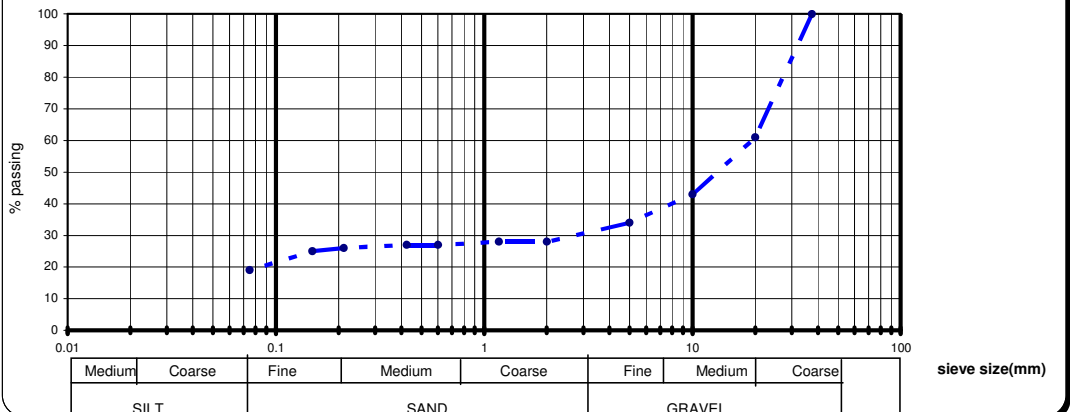
Black Cotton Soil

		SUMMARY SHEET SOIL TESTS							
Project: Bagamoyo - Talawanda road			Date: 02/09/2011			Date: 02/09/2011			
Client: M/s AFCAP			Checked			Approved			
Contract No.									
Responsible Technician:									
Location							8+100		
Sample No.							Sec.5		
Depth (m)									
Grading	75mm								
	63mm								
	50mm								
	37.5mm								
	20mm								
	10mm								
	5mm							100	
	2mm							99	
	1.18mm							98	
	600µm							97	
	425µm							97	
	212 µm							96	
	150µm							95	
75µm							86		
Atterberg Limits	LL (%)							47	
	PL (%)							19	
	PI (%)							28	
	LS (%)							14	
Moisture Content	%								
Particle Density	kg/m ³								
Bulk Density	kg/m ³								
Soil classification	BSCS								
Compaction	MDD (kg/m ³)								
BS Light / Heavy	OMC (%)								
Field	FDD (kg/m ³)								
Density	FMC (%)								
CBR (%)	95 % heavy DD								
(Unsoaked)	98 % heavy DD								
CBR (%)	100 % light DD								
(4 days soaked)	Swell (%)								
	95 % heavy DD								
	100 % heavy DD								
	Swell (%)							3.6	



Borrow Pit 3 – 13+860

 TANZANIA NATIONAL ROADS AGENCY Good roads for national development		SUMMARY SHEET SOIL TESTS			 CENTRAL MATERIALS LABORATORY				
Project: Bagamoyo - Talawanda road		Date: 01/03/2011			Date: 3/1/2011				
Client:		Checked			Approved				
Contract No. 2010/2011/									
Responsible Technician:									
Location (km)		13+860	13+860	13+860					
Sample No.		S - 1	S - 2	S - 3					
Borrow Pit		Borrow Pit 3							
Grading	75mm								
	63mm	100	100						
	50mm	88	94	100					
	37.5mm	76	72	87					
	20mm	59	54	79					
	10mm	50	47	58					
	5mm	42	38	48					
	2mm	33	32	41					
	1.18mm	31	31	40					
	600µm	30	30	39					
	425µm	30	30	39					
	212 µm	30	29	39					
	150µm	29	29	38					
75µm	27	25	36						
Atterberg Limits	LL (%)	35	32	33					
	PL (%)	19	16	18					
	PI (%)	16	16	15					
	LS (%)	9	9	7					
Moisture Content	%								
Particle Density	kg/m ³								
Bulk Density	kg/m ³								
Soil classification	BSCS								
Compactoin	MDD (kg/m ³)	1913	2045	2012					
BS Heavy	MDD 95% (kg/m ³)	1817	1943	1911					
BS Heavy	OMC (%)	11.7	9.6	7.8					
CBR (%) (Unsoaked)	95 % heavy DD								
	98 % heavy DD								
CBR (%) (4 days soaked)	100 % light DD								
	Swell (%)								
	95 % heavy DD	21	14	16					
	100 % heavy DD								
	Swell (%)	0.01	0.01	0.02					

 TANZANIA NATIONAL ROADS AGENCY TANROADS Good roads for national development	<h2 style="margin:0;">SUMMARY SHEET</h2> <h3 style="margin:0;">Project: Bagamoyo - Talawanda road</h3>	 CENTRAL MATERIALS LABORATORY																																													
CH (km): 13+860 Borrow Pit 3	Sample No. S 5	Offset: 0+000																																													
Client :	TP	Depth (m)																																													
Contract No. 2010/2011/	Date: 3/2/2011	Date: 3/2/2011																																													
Responsible Technician:	Checked	Approved																																													
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CH (km): 13+860 Borrow Pit 3	Sample No. S 6	Offset: 0+000																																													
Client :	TP	Depth (m)																																													
Contract No. 2010/2011/	Date: 3/2/2011	Date: 3/2/2011																																													
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Plasticity Index (%)	14																																														
Linear Shrinkage (%)	9																																														
GM	2.26																																														
MDD (Kg/m ³)	2067																																														
OMC (%)	8.8																																														
Field Moisture (%)																																															
	Data entry	autocalc																																													
Three Point CBR Values	DD (kg/m ³)	CBR (%)	%MDD	Swell (%)																																											
(2.5 kg) 3 layers/62 blows	1855	32	90																																												
(4.5 kg) 5 layers/30 blows	1939	33	94																																												
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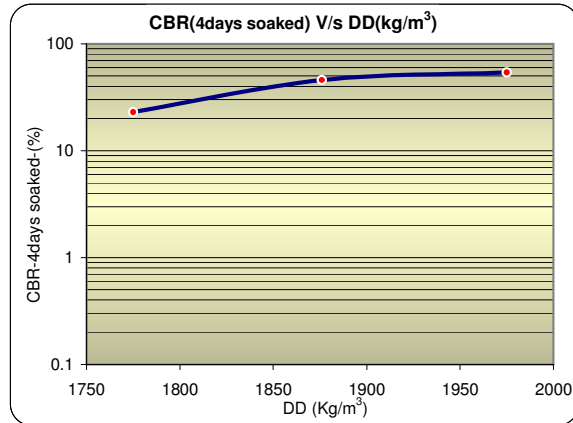
Borrow Pit 4 – 8+100 km

 TANZANIA NATIONAL ROADS AGENCY TANROADS Good roads for national development	SUMMARY SHEET Project: Bagamoyo - Talawanda road	 CML CENTRAL MATERIALS LABORATORY
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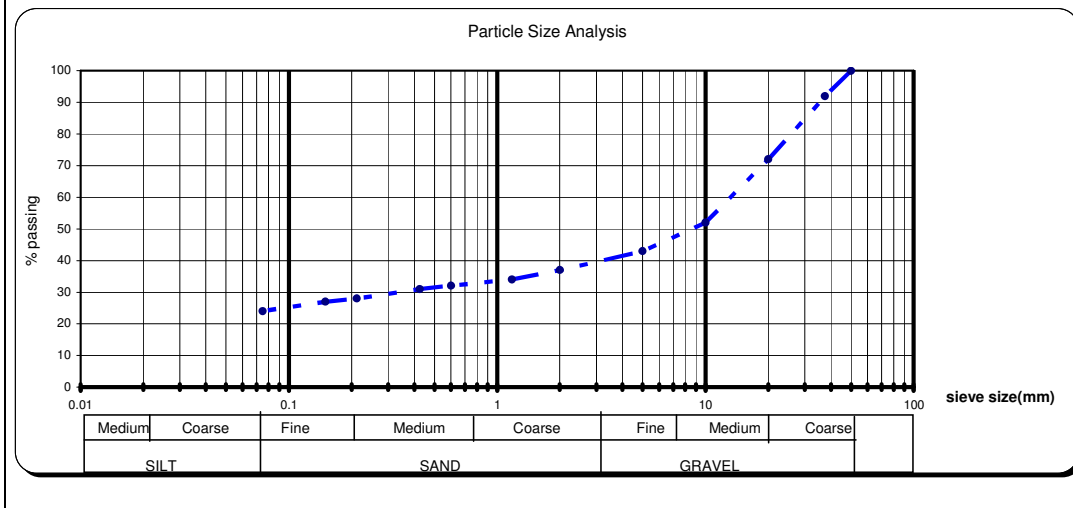
CH (km): Borrow Pit 4 - 8+000km	Sample No. S 7	Offset:
Client :	8+000	Depth (m)
Contract No. 2010/2011/	Date: 18/2/2011	Date: 18/2/2011
Responsible Technician:	Checked	Approved

sieve size(mm)	%passing	
75		
63		
50	100	
37.5	92	
20	72	
10	52	
5	43	
2	37	
1.18	34	
0.600	32	
0.425	31	
0.212	28	
0.150	27	
0.075	24	

Atterberg Limits		
Liquid Limit (%)	30	
Plastic Limit (%)	19	
Plasticity Index (%)	11	
Linear Shrinkage (%)	6	
GM	2.08	
MDD (Kg/m ³)	1980	
OMC (%)	11.5	
Field Moisture (%)		



Three Point CBR Values	Data entry autocalc			
	DD (kg/m ³)	CBR (%)	%MDD	Swell (%)
(2,5 kg) 3 layers/62 blows	1775	23	90	
(4,5 kg) 5 layers/30 blows	1876	46	95	
(4,5 kg) 5 layers/62 blows	1975	54	100	0.1





**REGIONAL MANAGER'S OFFICE
TANROADS DER ES SALAAM
MATERIALS TESTING LABORATORY SECTION**

FIELD COMPACTION TEST (NUCLEAER METHOD- TROXILER)



Project: DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD
 Contractor: M/S DEL MONTE ITI LTD
 Source of Materials: EXISTING MATERIAL
 Location: 5+340 - 5+800 BLACK COTTON SOIL
 Layer: ROADBED
 Date: 4-Dec-10

S/N	STATION/ CHAINAGE (Km)	OFFSET/ POSITION	LABORATORY		NUCLEAR FIELD DENSITY			REQUIRED		DEPTH (mm)
			COMPACTION		WET	DRY	FMC	COMP.	COMP.	
			ONC (%)	MOD kg/m ³	DENSITY kg/m ³	DENSITY kg/m ³	(%)	(%)	(%)	
1	5 + 340	CENTER	15.7	1708	1585	1464	12.8	87.5	93	150
2	5 + 390	RHS	15.7	1708	1598	1423	12.3	83.3	93	150
3	5 + 440	LHS	15.7	1708	1652	1427	15.8	83.5	93	150
4	5 + 470	CENTER	15.7	1708	1695	1463	14.3	86.8	93	150
5	5+ 800	LHS	15.7	1708	1710	1516	12.8	88.8	93	150
MINIMUM AVERAGE VALUE (%)								86.0	93.6	
MINIMUM - SINGLE TEST								83.3	87.6	

Tested By: ELISONY M  Date: 4-Dec-10

Checked By:  Date: 10/12/10

Approved by: _____ Date: _____


REGIONAL MANAGER'S OFFICE TANROADS DER ES SALAAM MATERIALS TESTING LABORATORY SECTION										
FIELD COMPACTION TEST (NUCLEAER METHOD- TROXILER)										
Project:		DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD								
Contractor:		M/S DEL MONTE (T) LTD								
Source of Materials:		EXISTING MATERIAL								
Location:		6 + 800 - 6 + 820								
Layer:		ROADBED								
Date:		4-Dec-10								
S/N	STATION/ CHAINAGE	OFFSET/ POSITION	LABORATORY		NUCLEAR FIELD DENSITY				REQUIRED	DEPTH
			OMC	MDD	WET	DRY	FMC	COMP.	COMP.	
	(Km)		(%)	kg/m ³	DENSITY	DENSITY	(%)	(%)	(%)	(mm)
1	6 + 880	CENTER	18	1688	1858	1613	15.2	95.5	93	150
2	6 + 980	RHS	18	1588	1810	1602	13.0	94.9	93	150
3	7 + 010	LHS	18	1588	1814	1605	13	95.1	93	150
4	7 + 100	CENTER	18	1688	1896	1693	12.0	100.3	93	150
5	7 + 200	RHS	18	1688	1875	1656	13.2	98.1	93	150
6	7 + 300	LHS	18	1688	1945	1788	8.9	105.8	93	150
7	7 + 400	CENTER	18	1688	1786	1596	12.1	94.5	93	150
8	7 + 540	RHS	18	1688	1790	1581	13.2	93.7	93	150
9	7 + 680	LHS	18	1688	1885	1601	16.5	94.8	93	150
10	7 + 800	CENTER	18	1688	1801	1597	12.3	94.6	93	150
11	8 + 000	RHS	18	1688	1902	1577	14.3	93.4	93	150
12	8 + 100	LHS	18	1688	1789	1580	13.2	93.6	93	150
13	8 + 200	CENTER	18	1688	1812	1572	15.3	93.1	93	150
14	8 + 300	RHS	18	1688	1955	1654	15.4	100.4	93	150
15	8 + 400	CENTER	18	1688	1902	1683	13	99.7	93	150
16	8 + 520	CENTER	18	1688	1898	1718	10.6	101.7	93	150
17	8 + 620	RHS	18	1688	1910	1673	14.2	99.1	93	150
18	8 + 720	CENTER	18	1688	1872	1648	13.6	97.6	93	150
19	8 + 820	CENTER	18	1688	1935	1722	12.4	102.0	93	150
MINIMUM AVERAGE VALUE (%)								97.3	94.3	
MINIMUM - SINGLE TEST								93.1	86.9	
Tested By:		EL SOVY M. 				Date: 4-Dec-10				
Checked By:						Date: 10/Dec/2010				
Approved by:					Date:				


**REGIONAL MANAGER'S OFFICE
TANROADS DER ES SALAAM
MATERIALS TESTING LABORATORY SECTION**


FIELD COMPACTION TEST (NUCLEAER METHOD- TROXILER)


Project: DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD
 Contractor: M/S DEL MONTE (T) LTD
 Source of Materials: EXISTING MATERIAL
 Location: 11+200 - 11+400
 Layer: ROADBED
 Date: 4-Dec-10


S/N	STATION/ CHAINAGE (Km)	OFFSET/ POSITION	LABORATORY		NUCLEAR FIELD DENSITY				REQUIRED	DEPTH (mm)
			COMPACTION		WET	DRY	FMC	COMP.	COMP.	
			OMC (%)	MDD kg/m ³	DENSITY kg/m ³	DENSITY kg/m ³	(%)	(%)	(%)	
1	11 + 200	CENTER	9	2040	2038	1941	5.0	95.1	93	150
2	11 + 250	RHS	9	2040	2024	1942	4.2	95.2	93	150
3	11 + 300	LHS	9	2040	1942	1876	3.5	92.0	93	150
4	11 + 350	CENTER	9	2040	1927	1871	3.0	91.7	93	150
5	11 + 400	RHS	9	2040	2041	1981	4.1	96.1	93	150
MINIMUM AVERAGE VALUE (%)								94.0	93.8	
MINIMUM - SINGLE TEST								91.7	87.6	

Tested By: ELISONY M.  Date: 4-Dec-10

Checked By:  Date: 10/12/2010

Approved by:  Date: _____



REGIONAL MANAGER'S OFFICE TANROADS DER ES SALAAM MATERIALS TESTING LABORATORY SECTION											
FIELD COMPACTION TEST (NUCLEAER METHOD- TROXILER)											
Project:		DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD									
Contractor:		M/S DEL MONTE (T) LTD									
Source of Materials:		EXISTING MATERIAL									
Location:		BAGO - TALAWANDA (CH: 12 + 200 - 17 + 100)									
Layer:		ROADBED									
Date:		22-Jan-11									
S/N	STATION/ CHAINAGE	OFFSET/ POSITION	LABORATORY		NUCLEAR FIELD DENSITY				REQUIRED	DEPTH	
			COMPACTION		WET	DRY	FMC	COMP.	COMP.		
	(Km)		OMC (%)	MDD kg/m3	DENSITY kg/m3	DENSITY kg/m3		(%)	(%)	(%)	(mm)
1	12 + 200	CENTER	15.7	1708	1768	1626	8.7	95.2	93	150	
2	12 + 300	RHS	15.7	1708	1798	1613	11.6	94.4	93	150	
3	12 + 400	LHS	15.7	1708	1822	1661	9.7	97.2	93	150	
4	12 + 520	CENTER	15.7	1708	1801	1645	9.5	96.3	93	150	
5	16 + 240	RHS	15.7	1708	1737	1599	8.6	93.6	93	150	
6	16 + 300	LHS	15.7	1708	1714	1587	8.0	92.9	93	150	
7	16 + 400	CENTER	15.7	1708	1766	1620	9.0	94.9	93	150	
8	16 + 500	RHS	15.7	1708	1792	1662	7.8	97.3	93	150	
9	16 + 600	LHS	15.7	1708	1784	1677	8.4	98.2	93	150	
10	16 + 700	CENTER	15.7	1708	1646	1524	8	89.2	93	150	
11	16 + 820	RHS	15.7	1708	1656	1571	5.4	92.0	93	150	
12	16 + 900	LHS	15.7	1708	1747	1642	8.4	96.1	93	150	
13	17 + 000	CENTER	15.7	1708	1743	1649	5.7	96.5	93	150	
14	17 + 100	RHS	15.7	1708	1811	1710	5.9	100.1	93	150	
MINIMUM AVERAGE VALUE (%)								95.3	94.3		
MINIMUM - SINGLE TEST								89.2	86.9		
Tested By:		ADAM.M				Date: 22-Jan-11					
Checked By:						Date: 24/01/2011					
Approved by:						Date:					

Appendix C – Weather Monthly Returns

Records are from Site Technician and Field Engineer

Date	Morning	Afternoon	Comments	Date	Morning	Afternoon	Comments
01/12/2010	Dry/Sunny	Dry/Sunny	Passable	01/01/2011	Dry/Sunny	Dry/Sunny	Passable
02/12/2010	Dry/Sunny	Dry/Sunny	Passable	02/01/2011	Dry/Sunny	Dry/Sunny	Passable
03/12/2010	Dry/Sunny	Dry/Sunny	Passable	03/01/2011	Dry/Sunny	Dry/Sunny	Passable
04/12/2010	Dry/Sunny	Dry/Sunny	Passable	04/01/2011	Dry/Sunny	Dry/Sunny	Passable
05/12/2010	Dry/Sunny	Dry/Sunny	Passable	05/01/2011	Dry/Sunny	Light Rain	Passable
06/12/2010	Dry/Sunny	Dry/Sunny	Passable	06/01/2011	Dry/Sunny	Dry/Sunny	Passable
07/12/2010	Wet	Mild rain	Passable	07/01/2011	Rain	Wet	Passable
08/12/2010	Wet	Wet	Impassable	08/01/2011	Wet	Wet	Passable
09/12/2010	Wet	Wet	Impassable	09/01/2011	Rain	Wet	Impassable
10/12/2010	Wet	Wet	Impassable	10/01/2011	Wet	Wet	Passable
11/12/2010	Dry/Sunny	Dry/Sunny	Passable	11/01/2011	Wet	Wet	Passable
12/12/2010	Light Rains	Dry/Sunny	Passable	12/01/2011	Wet	Wet	Passable
13/12/2010	Dry/Sunny	Dry/Sunny	Passable	13/01/2011	Heavy Rain	Wet	Impassable
14/12/2010	Dry/Sunny	Dry/Sunny	Passable	14/01/2011	Wet	Wet	Passable
15/12/2010	Dry/Sunny	Dry/Sunny	Passable	15/01/2011	Dry/Sunny	Dry/Sunny	Passable
16/12/2010	Dry/Sunny	Dry/Sunny	Passable	16/01/2011	Dry/Sunny	Dry/Sunny	Passable
17/12/2010	Dry/Sunny	Dry/Sunny	Passable	17/01/2011	Dry/Sunny	Dry/Sunny	Passable
18/12/2010	Dry/Sunny	Dry/Sunny	Passable	18/01/2011	Dry/Sunny	Dry/Sunny	Passable
19/12/2010	Dry/Sunny	Dry/Sunny	Passable	19/01/2011	Dry/Sunny	Dry/Sunny	Passable
20/12/2010	Dry/Sunny	Dry/Sunny	Passable	20/01/2011	Dry/Sunny	Dry/Sunny	Passable
21/12/2010	Rain	Dry/Sunny	Passable	21/01/2011	Dry/Sunny	Dry/Sunny	Passable
22/12/2010	Dry/Sunny	Dry/Sunny	Passable	22/01/2011	Dry/Sunny	Dry/Sunny	Passable
23/12/2010	Dry/Sunny	Dry/Sunny	Passable	23/01/2011	Dry/Sunny	Dry/Sunny	Passable
24/12/2010	Dry/Sunny	Dry/Sunny	Passable	24/01/2011	Dry/Sunny	Dry/Sunny	Passable
25/12/2010	Dry/Sunny	Dry/Sunny	Passable	25/01/2011	Dry/Sunny	Dry/Sunny	Passable
26/12/2010	Dry/Sunny	Dry/Sunny	Passable	26/01/2011	Dry/Sunny	Dry/Sunny	Passable
27/12/2010	Dry/Sunny	Dry/Sunny	Passable	27/01/2011	Dry/Sunny	Dry/Sunny	Passable
28/12/2010	Dry/Sunny	Dry/Sunny	Passable	28/01/2011	Dry/Sunny	Dry/Sunny	Passable
29/12/2010	Dry/Sunny	Dry/Sunny	Passable	29/01/2011	Dry/Sunny	Dry/Sunny	Passable
30/12/2010	Dry/Sunny	Dry/Sunny	Passable	30/01/2011	Dry/Sunny	Dry/Sunny	Passable
31/12/2010	Dry/Sunny	Dry/Sunny	Passable	31/01/2011	Dry/Sunny	Dry/Sunny	Passable

Date	Morning	Afternoon	Comments
01/02/2011	Dry/Sunny	Dry/Sunny	Passable
02/02/2011	Dry/Sunny	Dry/Sunny	Passable
03/02/2011	Dry/Sunny	Dry/Sunny	Passable
04/02/2011	Dry/Sunny	Dry/Sunny	Passable
05/02/2011	Dry/Sunny	Dry/Sunny	Passable
06/02/2011	Dry/Sunny	Dry/Sunny	Passable
07/02/2011	Dry/Sunny	Dry/Sunny	Passable
08/02/2011	Dry/Sunny	Dry/Sunny	Passable
09/02/2011	Dry/Sunny	Heavy Rain	Impassable
10/02/2011	Wet	Wet	Impassable
11/02/2011	Wet	Wet	Passable
12/02/2011	Dry/Sunny	Dry/Sunny	Passable
13/02/2011	Heavy Rain	Heavy Rain	Impassable
14/02/2011	Wet	Wet	Impassable
15/02/2011	Heavy Rain	Heavy Rain	Impassable
16/02/2011	Heavy Rain	Heavy Rain	Impassable
17/02/2011	Wet	Wet	Impassable
18/02/2011	Wet	Wet	Impassable
19/02/2011	Wet	Wet	Passable
20/02/2011	Wet	Wet	Passable
21/02/2011	Wet	Wet	Passable
22/02/2011	Wet	Wet	Passable
23/02/2011	Wet	Wet	Passable
24/02/2011	Wet	Wet	Passable
25/02/2011	Dry/Sunny	Dry/Sunny	Passable
26/02/2011	Dry/Sunny	Dry/Sunny	Passable
27/02/2011	Dry/Sunny	Dry/Sunny	Passable
28/02/2011	Dry/Sunny	Dry/Sunny	Passable

Appendix D – Site Progress Pictures

Checking Invert Levels of Culvert Pipes – 01/12/2010



Testing Field Density of the Roadbed – 04/12/2010



Concrete Bed for Culvert – 14/12/2010



Concrete Encasing for Culvert – 14/12/2010



Plant on Site – 14/12/2010



Excavation for Drift Works – 31/12/2010



Concrete Pour for Drift – 05/01/2011



Curing Concrete Drift – 20/01/2011



Roadbed for Demonstration Section 1 (Single Otta Seal with a Sand Seal)– 08/01/2011



Demonstration Section 1 after Spreading and Compaction of G7 Improved Subgrade Material – 20/01/2011



Roadbed for Demonstration Section 2 (Hand Packed Stone) – 22/12/2010



Demonstration Section 2 after Spreading and Compaction of G7 Improved Subgrade Material – 20/01/2011



Demonstration Section 2 after Spreading and Compaction of G7 Material – 02/02/2011



Core Digging to Measure G7 Layer Thickness – 11/02/2011



Appendix E – Key Correspondence

Del Monte (T) Limited ⁽⁷⁹⁾

Building, Civil and Electrical Contractors

P. O. Box 8877
Msimbazi Mission Centre No. 28
Dar es Salaam
Tanzania

Tel: +255 22 2864500
Fax: +255 22 2861221
Mobile: +255 754 279783
Email: delmontetz@yahoo.com/grupia@yahoo.com

Our Ref: DM/380/2010

Date: 16th December, 2010

District Executive Director,
Bagamoyo District Council,
P.O. Box 59,
BAGAMOYO

DE



FAO: The District Engineer,

Dear Sir,

**RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
CONTRACT No. BDC WD/R/31/2009/2010/8**

Sub: Field/ Laboratory Compaction Test Results

Further to the advance copy of the Compaction Test Results sent to you electronically on 10th December 2010.

We are pleased to enclose herewith a copy of the test result for various sections along the Project Road for your necessary review and approval as appropriate for proceeding with the subsequent stage of construction.

However, we wish to note the following important information from the Ministry's of Works, Pavement and Materials Design Manual – 1999 in respect of construction on expansive soils.

'The roadbed of expansive soil shall be kept moist and covered with earthworks fill without due delay. Attempts to densify expansive soils by processing and compaction are not required. Processing and compaction does not improve swell properties neither is their strength significantly increased. Nominal rolling of the bed is optional to provide a working surface for construction of subsequent layers.'

We await your approval/ guidance,

Regards,

Del Monte (T) Ltd


Martin Filemon

Project Manager

Del Monte (T) Limited 80

Building, Civil and Electrical Contractors

P. O. Box 8877
Msimbazi Mission Centre No. 28
Dar es Salaam
Tanzania

Tel: +255 22 2864500
Fax: +255 22 2861221
Mobile: +255 754 279783
Email: delmontetz@yahoo.com/grupia@yahoo.com

Our Ref No: DM/383/2010

Date: 20th Dec 2010

District Executive Director,
Bagamoyo District Council,
P.O.Box 59,
BAGAMOYO.

Dear Sir/Madam,

**RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
CONTRACT No. BDC WD/R/31/2009/2010/8**

Sub: Submission of Roadbed Levels

Reference is made to the subject above

We are pleased to submit herewith a copy of the roadbed levels taken after compaction for your approval before proceeding with the next stage of construction

We await your approval

Regards;
Del Monte (T) Ltd


Martin Filemon
Project Manager

Del Monte (T) Limited ⁷⁸

Building, Civil and Electrical Contractors

P. O. Box 8877
Msimbazi Mission Centre No. 28
Dar es Salaam
Tanzania

Tel: +255 22 2864500
Fax: +255 22 2861221
Mobile: +255 754 279783
Email: delmontetz@yahoo.com/grupia@yahoo.com

Our Ref No: DM/384/2010



Date: 20th Dec 2010

District Executive Director,
Bagamoyo District Council,
P.O.Box 59,
BAGAMOYO.

Dear Sir/Madam,

**RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
CONTRACT No. BDC WD/R/31/2009/2010/8**

Sub: Early Warning

Pursuant to clause 35 of the General Conditions of contract, we wish to bring to your attention of the following events which may adversely delay the completion of the works:

- **Access to the site:** During the execution of works we have noted that the existing Usigwa Bridge is structurally inadequate for our heavy construction equipment and trucks to across the river. As the results from 8th December 2010 to-date we have been unable to move our equipment across the river, consequently the progress of Works has been adversely affected
- **Impending rains:** We were unable to work completely for three (3) days from 08th Dec 2010 to 10th Dec 2010 due to rains

Further, we wish to request you to timely issue approvals for borrow pit materials and field compaction tests results to avoid delay in execution of the works

We hope to receive positive consideration toward this matter

Regards,
Del Monte (T) Ltd


Eng. Martin Filemon
Project Manager

BAGAMOYO DISTRICT COUNCIL

Tel. No.. 023 2440338
FAX No. 023 2440338



District Executive
Director's Office,
P.O. Box 59,
BAGAMOYO.

Ref. No.
BG/UJ/S.6/VOL.I/57

Date 04th January, 2011

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

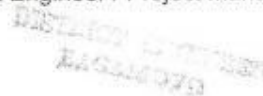
Subject: Compaction of the roadbed

I am writing to confirm that the roadbed between chainage 11+400 and 20+260 has passed required field density.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

A circular official seal of the District Engineer, Bagamoyo. The text "DISTRICT ENGINEER" and "BAGAMOYO" is visible on the seal.

BAGAMOYO DISTRICT COUNCIL

Tel. No., 023 2440338
FAX No. 023 2440338

District Executive Director's Office,
P.O. Box 59,
BAGAMOYO.

Ref. No.
HWB/R.IO/6/VOL.II/47

Date 04 January, 2011

Managing Director
Del Monte (T) Limited
P.O.Box 8877


DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: Cube Tests

The Contractor is requested to take concrete cube tests for each of the drifts. It is important that the Contractor take one set of 3 no. moulds for each of the drifts in order to prove that the concrete for the drifts is meeting the 30 MPa requirements. One cube should be tested at 7 days and the two remaining cubes should be tested at their 28 day strength.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

BAGAMOYO DISTRICT COUNCIL

Tel. No. 023 2440338
FAX No. 023 2440338

District Executive Director's Office,
P.O. Box 59,
BAGAMOYO.

Ref. No.
HWB/R.IO/6/VOL.II/46

Date 04 January, 2011

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: Geocells Order

Reference is made to your request for the final order quantity for the geocell materials. The final order shall be 7647m². Please be advised that the thickness of the geocell material shall be 75mm and that the width shall be the 3m carriageway plus 0.225m either side to allow the geocell mattress to be tucked into the pavement layer as shown in the drawings. So the total width of the geocell material shall be 3.45m.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

BAGAMOYO DISTRICT COUNCIL

Tel. No. 023 2440338
FAX No. 023 2440338



District Executive Director's
Office,
P.O. Box 59,
BAGAMOYO.

Ref.
NoBG/DC/W.D/R.I/VOL.IV/51

Date 11TH January. 2011

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: G7 Material and Testing

Reference is made to test results received by the District Engineer that the material from borrow pit number 2, chainage 2+700 km, is suitable for G7 improved subgrade layer and the Contractor is requested to begin spreading and compaction of the material as soon as possible up to chainage 11+400, where the roadbed has passed the compaction tests up to this location. The suitability of this material was also conveyed to the site engineer, Leonard Magayane, verbally on the 3rd of January when test results were received to speed up the process. The Contractor is requested to test any material you wish to use for other pavement layers and to submit the test results to the District Engineer for approval. It is suggested that the material should be taken by the Contractor for testing as soon as possible as testing may take some time. Furthermore, we request that the remainder of the roadbed be tested soon and that the Contractor propose a date.

Regards,



Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

DISTRICT ENGINEER
BAGAMOYO

BAGAMOYO DISTRICT COUNCIL

Tel. No.. 023 2440338
FAX No. 023 2440338



District Executive

Director's Office,

P.O. Box 59,

BAGAMOYO.

Date 04th January 2011

February

Ref. No.
BG/UJ/S.6/VOL.I/56

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: G7 Levels


The level of G7 material for Section 1(Single Otta Seal with a Sand Seal) and Section 2(Hand Packed Stone) are inadequate and do not meet specification. The levels of the G7 material were checked by Field Engineer, Stephen Conlon and District Technician, Moses Masambo with the Contractor's surveyor.

The required level of G7 material is 150mm. The Tanzanian Standard Specification states that the average value must 150mm, no one point must be less than 115mm and that 90% of points must be 130mm or greater.

Please find attached the current road levels for these sections. You are requested to add more G7 material to these sections to meet the required specification before any field density tests are carried out.

Though the levels of the remaining section have not been checked, due to the failure to meet requirements of the first two sections it is suspected that the other sections will fail necessary requirements and we request that you take necessary measures to make sure that all sections meet the specification.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer





Del Monte (T) Limited

Building, Civil and Electrical Contractors

P. O. Box 8877
Msimbazi Mission Centre No. 28
Dar es Salaam
Tanzania

Tel: +255 22 2864500
Fax: +255 22 2861221
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Email: delmontetz@yahoo.com/grupia@yahoo.com

Our Ref No: DM/037/2011

Date: 08/02/2011

District Executive Director,
Bagamoyo District Council,
P.O.Box 59,
BAGAMOYO.

Dear Sir/Madam,

**RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
CONTRACT No. BDC WD/R/31/2009/2010/8**

Sub: G7 Levels.

We acknowledge receipt of your letter with Ref No. BG/UJ/S.6/VOL.1/56 dated **04th January 2011** and received by us on **04th February 2011**. We note that there might be a typographical error on the date of the letter. We are inclined to believe that the date should read **04th February 2011**.

We wish to respond to your letter as follows:

We acknowledge that during the process of checking levels jointly by the Field Engineer, District Technician and our Surveyor it was found that on some sections especially the edges the levels were lower than anticipated. The consistently observed lower level on the edges is attributed to the following:

- i) There was a significant time lag between completion of heavy grading (sub-grade) and covering with G7 material.
- ii) The existing soils along the project road among other properties have naturally low bearing capacity characterized by high rate of wear under traffic movement/ loading. As the result of time lag, there was a significant surface wear which lead into sub-grade levels lowering. This is evidenced by variation of sub-grade levels taken on demonstration Section 7 and 8 in November 2010 and on 05th February 2011. (attached herewith for your easy reference)

Based on the above, we request that completed layers thickness be determined as stipulated in the Tanzanian Standard Specifications under Section 7200,

QUALITY CONTROL, Clause 7205, procedures, Sub clause (c) which states among others that, *"Layers thickness may NOT be determined by means of level measurement but shall be measured by core drilling or excavation of sample pits at locations approved by the Engineer."*

This Sub Clause is consistent with Clause 7115, Sub clause (c) which states that *"The final compacted layer thickness measured by excavating trial pits or core drilling shall not be less than the maximum deviations shown in TABLE 7111/4."*

(TABLE 7111/4 provides limits for acceptance of layer thickness)

It is our expectation that our request will be accorded urgent consideration to facilitate timely proceeding with next stages.

We submit.

Yours faithfully;

Regards;
Del Monte (T) Ltd



Martin Filemon
Project Manager

BAGAMOYO DISTRICT COUNCIL

Tel. No.. 023 2440338
FAX No. 023 2440338



District Executive

Director's Office,

P.O. Box 59,

BAGAMOYO.

Date 14 February, 2011

Ref. No.
BG/UJ/S.6/VOL.I/59

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: Material Status


I am writing to follow up on some of the issues that were brought up in the last site meeting, held on the 1st of February.

Firstly I would like to know the status of all bitumen products. The bitumen products required for this project are MC-30 for the prime coat, MC-3000 for the Otta seals and the sand seals, and 80/100 penetration grade bitumen for the double surface dressing, bitumen emulsion for the slurry seal. I request that you submit test results for the bitumen. I would also request that you submit samples of the bitumen as soon as possible for our own testing to see if the bitumen may need any additives.

Secondly, I would like to know which materials you are proposing for the Otta seal, sand seal and the double surface dressing. I request relevant test results for any material that you are proposing, also we request samples of sand, aggregate and gravel for our own testing to see if the material satisfactory. In the case of the Otta seal and the sand seal the material may need to be screened to meet the specification.

Finally, I would like to know the status of the geocells.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

BAGAMOYO DISTRICT COUNCIL

Tel. No.. 023 2440338
FAX No. 023 2440338



District Executive
Director's Office,
P.O. Box 59,
BAGAMOYO.

Ref. No.
BG/UJ/S.6/VOL.I/58

Date 14February, 2011

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
– CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: Spacing of mitre drains

The contractor is requested to cut mitre drains using the guidelines set out in the following table:

Gradient of Side Drain (%)	Spacing of mitre drains (m)
< 2	100
2-5	60
5-8	40
8-10	20
> 10	10

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

BAGAMOYO DISTRICT COUNCIL

Tel. No. 023 2440338
FAX No. 023 2440338



District Executive Director's
Office,
P.O. Box 59,
BAGAMOYO.

Ref. No.
BG/UJ/S.6/VOL.II/57

Date 14 February, 2011

Managing Director
Del Monte (T) Limited
P.O.Box 8877
DAR ES SALAAM

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
- CONTRACT NO. BDC/WD/R/31/2009/2010/8

Subject: Road Levels

Please note that the levels of G7 material for the following sections do not meet specification:

Section	Chainage		Length (km)	Surfacing Type	Pavement Layers (mm)				GWC
	Start	End			G7	G15	G45	G80	
3	5.550	6.080	0.520	Concrete Strips	150	100	150	-	-
4	6.080	7.750	1.670	Geocells	150	100	150	-	-
5	8.000	8.200	0.200	Double Surface Dressing	150	150	100	150	-
6	8.320	8.820	0.500	Geocells	150	100	150	-	-
10	16.240	17.100	0.860	Concrete Strips	150	100	150	-	-
11	19.460	19.800	0.320	Concrete Strips	150	100	150	-	-
14	20.040	20.260	0.220	Slurry Seal	150	150	100	150	-

The levels were checked by core drilling as requested by the Contractor. The levels were checked by Stephen Conlon, Leonard Magayane and Moses Masambo on the 11/02/2011. You are therefore asked to spread and compact additional G7 material in order for the sections to meet the specification.

Regards,


Samson Kalesi
District Engineer / Project Manager

CC: Field Engineer

Del Monte (T) Limited

Building, Civil and Electrical Contractors

P. O. Box 8877
Msimbazi Mission Centre No. 28
Dar es Salaam
Tanzania

Tel: +255 22 2864500
Fax: +255 22 2861221
Mobile: +255 754 279783
Email: delmontetz@yahoo.com/grupia@yahoo.com

Ref No: DM/045/2011

Date: 17th February 2011

District Executive Director,
Bagamoyo District Council,
P. O. Box 59,
BAGAMOYO.

Dear, Sir/Madam,

RE: DEMONSTRATION SITE ALONG BAGO – TALAWANDA ROAD
CONTRACT No. BDC WD/R/31/2009/2010/8

Sub: Road Levels

Reference is made to your letter Ref No. BG/UJ/S.6/VOL.I/57 DATED 14th February 2011 in respect of G7 layer thickness of various demonstration sections.

We have analyzed the results of core drilling and herewith are our findings:

Section	Chainage	Mean thickness	90% compliant	Conclusion	Measure
1	0.02 – 0.220	178	100	passed	Request for testing
2	5.340 – 5.520	168	90	passed	Request for testing
3	5.560 – 6.080	128	50	Fail	Rectify
4	6.080 – 7.750	143	64	Fail	Rectify
5	8.000 – 8.200	153	80	Fail	Only 2 points failed, however they are above the absolute minimum thickness of 115mm, Request to proceed with next stage
6	8.320 – 8.820	151	64	Fail	Rectify
10	16.240 – 17.100	151	64	Fail	Rectify
11	18.480-19.000	179	90	Pass	Request for testing
14	20.040-20.260	12	80	Fail	Two failed points are at the respective ends where the layers are merged to the existing road. Request to proceed with next stage.

Rectification of failed sections may be accomplished by either of the following methods:

- Scarify the failed sections, add more materials, spread and compact
- Rectify in the next layer by increasing the thickness of G15 material to correct the failed thickness

We proposed to use method (b) above to correct the failed layers thickness.

We submit for your consideration and your timely decision on the method of rectification and instruction to proceed with the next stage for passed sections.

Regards:
Del Monte (T) Ltd



Martin Filemon
Project Manager

Encl. Core Drilling Test Results

CC: Field Engineer

Appendix F – Minutes of Site Meetings
BAGAMOYO DISTRICT COUNCIL

Tel. No. 023 2440338
FAX No. 023 2440338

District Executive Director's
Office,
 P.O. Box 59,
 BAGAMOYO.

MINUTES OF MEETING No.4 HELD ON 14th DEC. 2010 AT PROJECT SITE
1.0 PROJECT DETAILS

1	Project name	DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD
2	Employer	BAGAMOYO DISTRICT COUNCIL, BOX 59 BAGAMOYO
3	Project Manager (The Engineer)	DISTRICT ENGINEER - BAGAMOYO
4	Main Contractor	DELMONTE (T) LTD, P.O.BOX 8877 DAR ES SALAAM
5	Contract No.	BDC/WD/R/31/2009/2010/8
6	Commencement date	23/08/2010
7	Contract Period	240 CALENDER DAYS
8	Contract Period elapsed	113 CALENDAR DAYS (47%)
9	Progress achieved (accumulative)	~20% (estimate)
10	Original Completion date	20/04/2011
11	Contract Sum	1,294,954,336/=

2.0: ATTENDANCE:

S/N	Name	Designation	Mobile e-mail
1	Eng. SAMSON KALESI	ENGINEER BAGAMOYO DC	Sam_kalesi@yahoo.com
2	MOSES MASAMBO	CIVIL-TECH. BAGAMOYO DC	masambotz@yahoo.com
3	Eng. MILE BUTKOVIC	CONTRACT SPECIALIST (RI-Kenya)	roughtonken@iconnect.co
4	Eng. STEPHEN CONLON	FIELD ENGINEER (RI)	conlonsh@gmail.com
5	Eng. JOHN MALISA	RESEARCH STUDENT (UDSM)	malisajt@yahoo.com
6	Eng. SALEH JUMA	RESEARCH STUDENT (UDSM - COET)	sajuny@yahoo.com.uk
7	Eng. FJL MARTIN	PROJECT MANAGER - DELMONTE	Filemonmartin@yahoo.com
8	SALUTARI K. MUSHI	TECHNICAL DIRECTOR DELMONTE (T) LTD	delmontetz@yahoo.com, info@delmonte.co.tz
9	LEONARD MAGAYANE	SITE ENGINEER DELMONTE (T) LTD	delmontetz@yahoo.com,

		info@delmonte.co.tz
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AGENDA:

1. Opening of the Meeting
2. Site Inspection
3. Preview Minutes from previous meeting
4. Matter arising from previous meeting
5. Contractor's Works Progress and Program
6. Technical and Contractual issues
7. Administration/Financial Status
8. AOB
9. Closing of the Meeting

Item	Subject	Action
3.1	<p>OPENING OF THE MEETING</p> <p>The District Engineer as the chairperson opened the meeting after site Inspection at 01:20hrs He welcomed the members of the meeting. Thereafter there was self introduction and the meeting was declared open.</p>	DE
3.2	<p>SITE INSPECTION</p> <p>Site visit inspection was conducted before the meeting and the following observations were noted</p> <ul style="list-style-type: none"> i) The borrow pit at ch.13+800 was inspected and the borrow pit has been stockpiled into separate piles. The meeting advised the contractor to give names for each separate sample by erecting small and very neat signboards showing the name of each sample so as to avoid confusions on materials testing and for which pavement layer it can be used for. Also the meeting advised the contractor to remove any oversized stones or boulders from the stockpiled borrow pit material before hauling it from the borrow pit to allocated road sections. ii) Constructed culvert lines were inspected and found that the road width is larger than culvert length, due to overwidening the road formation which never was trimmed to appropriate / standard road profile. The contractor was 	Contractor

	<p>accepted the request.</p> <ul style="list-style-type: none"> • It was noted that since the beginning of the Project, the Contractor keeps re-submitting work programme with not much attending seriousness of works delays. This time the Contractor was requested to present the actual achieved works against the works planned and it should be printed on A3 sheets. • The Contractor was asked if they keep site records of weather conditions and as response to that the Contractor confirmed they do so and that in fact they lost three days on previous week when heavy rains stopped their operation. The meeting advised the Contractor to formally inform the DE's office (copy to Field Engineer) about any weather disruption at site but not later than a week since occurs. This will enable DE office to verify information from site and have a record for potential extension of time due to weather condition. The Contractor was advised that any site weather records submitted to DE office later than one week since occurred shall not be accepted. 	<p>Contractor</p>
<p>3.6</p>	<p>TECHNICAL AND CONTRACTUAL ISSUES</p> <ul style="list-style-type: none"> i) The Contractor was requested to increase number of mitre drain to unpaved sections, the contractor claims that most of the mitre drain go to the farms and houses, the meeting requested the constructor to find possible locations for mitre drains, and if problems continue the District Engineer should be informed to resolve the problem. ii) The Contractor was advised urgently to treat the sections which have poor soil bearing capacity (black cotton soil) before the rain season to enable the contractor to work during the rain season, the contractor accepted the advice. iii) The Contractor requested that the District Engineer submit the final order of Geocells iv) The Contractor was requested by the meeting to submit the TBM (temporary bench mark) levels along the road. v) The Contractor was informed by the meeting that there was a typing error in the BOQ. Item No. 41.01(c) should read MC-30, rather than MC-3000. <p>The Contractor informed the meeting that they have already some quantities of MC-30 and they wanted to use it rather than MC-3000 also for item no. 47.01.</p>	<p>Contractor/DE</p> <p>Contractor</p> <p>DE</p> <p>Contractor</p> <p>INFO</p> <p>INFO</p>

	<p>The meeting explains that MC-3000 is specifically for use on sand seal and cannot be changed by MC-30.</p> <p>vi) As the tested materials got (from various unmarked stock piles) and as this has confused the outcome of recent results the testing had to be repeated and Contractor was requested to wait until test results are received for the G7 improved subgrade material before proceeding with the layer. The Material Engineer has promised that in 2-3 weeks' time the results shall be available</p>	<p>Contractor</p> <p>Eng. Malisa</p>
3.7	<p>Administration/Financial Status</p> <p>The Contractor was paid advance payment and certificate No.1 while Certificate No.2 is expected for submission before Christmas.</p>	<p>INFO</p>
3.8	<p>AOB</p> <ul style="list-style-type: none"> The contractor raised an issue of diversion at Usigwa Bridge where they constructed a temporary embankment after knowing that heavy plant can not pass through Usigwa Bridge, meanwhile, rain washed out the temporary embankment, and the contractor wanted to be paid on the reconstruction of the diversion at Usigwa Bridge. The District Engineer informed the Contractor that the contract has no provisions for payment of any diversions especially these which are fully the responsibility of the Contractor. District Engineer made further clarifications that District (DE office) has procured separate contractor for the construction of the Usigwa Bridge and that in the new contract BOQ there is an item to build a diversion, which will be assisting the Contractors' query in the coming two weeks. At Usigwa Bridge the contractor was requested to provide warning / reflecting tapes at the width as a safety measure, the contractor agreed and promised to take an action. 	<p>INFO</p> <p>Contractor / DE</p> <p>Contractor</p>
3.9	<p>Closing the meeting</p> <p>The meeting was closed at 02:42hrs local time, the next meeting was scheduled to be held on 01st February 2011 at 10:00hrs local time.</p>	<p>DE</p>

.....
For Contractor

.....
District Engineer/ Project Manger

Date:

3.4 MATTERS ARISING FROM PREVIOUS MEETING

Item	Subject	Action by	Action taken
1.1	Provision of organization chart	Contractor	submitted
1.2	Awareness Creation on other diseases like malaria etc	Contractor	
1.3	Submissions of Detailed survey data to DE for verification and approval	Contractor	Submitted but requested submit survey data after road formation
1.4	Submissions of concrete mix designs for concrete cube for testing	Contractor	submitted
1.5	Submissions of traffic counts data to DE	Contractor	submitted
1.6	Submissions of Survey equipments to the DE for approval and be available to the supervision team whatever it is required.	Contractor	submitted

BAGAMOYO DISTRICT COUNCIL

Tel. No. 023 2440338 FAX No. 023 2440338		District Executive Director's Office, P.O. Box 59, BAGAMOYO.
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MINUTES OF MEETING No.5 HELD ON 01ST FEBRUARY 2011 AT PROJECT SITE
1.0 PROJECT DETAILS

1	Project name	DEMONSTRATION SITE ALONG BAGO - TALAWANDA ROAD
2	Employer	BAGAMOYO DISTRICT COUNCIL, BOX 59 BAGAMOYO
3	Project Manager (The Engineer)	DISTRICT ENGINEER - BAGAMOYO
4	Main Contractor	DELMONTE (T) LTD, P.O.BOX 8877 DAR ES SALAAM
5	Contract No.	BDC/WD/R/31/2009/2010/8
6	Commencement date	23/08/2010
7	Contract Period	240 CALENDER DAYS
8	Contract Period elapsed	162 CALENDAR DAYS (67%)
9	Progress achieved (accumulative)	30% (estimate)
10	Original Completion date	20/04/2011
11	Contract Sum	1,294,954,336/=

2.0: ATTENDANCE:

S/N	Name	Designation	Mobile e-mail
1	Eng. SAMSON KALESI	ENGINEER BAGAMOYO D C	sam_kalesi@yahoo.com
2	MOSES MASAMBO	CIVIL-TECH. BAGAMOYO DC	masambotz@yahoo.com
3	NIELS KOFOED	TA - PMO - RALG	kofoed.niels@yahoo.com
4	Eng. MILE BUTKOVIC	CONTRACT SPECIALIST (RI-Kenya)	roughtonken@iconnect.co.
5	Eng. STEPHEN CONLON	FIELD ENGINEER (RI)	conlonsh@gmail.com
6	Eng. JOHN MALISA	RESEARCH STUDENT (UDSM)	malisajt@yahoo.com
7	Eng. SALEH JUMA	RESEARCH STUDENT (UDSM - COET)	sajumy@yahoo.com.uk
8	Eng. FJL MARTIN	PROJECT ENGINEER - DELMONTE	filemonmartin@yahoo.com
9	LEONARD MAGAYANE	SITE ENGINEER DELMONTE (T) LTD	l_magayane@yahoo.co.uk

AGENDA:

- 10. Opening of the Meeting
- 11. Site Inspection
- 12. Preview Minutes from previous meeting
- 13. Matter arising from previous meeting
- 14. Contractor's Works Progress and Program
- 15. Technical and Contractual issues
- 16. Administration/Financial Status
- 17. AOB
- 18. Closing of the Meeting

Item	Subject	Action
3.1	<p>OPENING OF THE MEETING The District Engineer as the chairperson opened the meeting after site inspection at 11:20hrs. He welcomed the members of the meeting. Thereafter there was self introduction and the meeting was declared open.</p>	DE
3.2	<p>SITE INSPECTION Site visit inspection was conducted before the meeting and the following observations were noted</p> <ul style="list-style-type: none"> v) During site inspection, the contractor was reminded to make sure that all borrow pits are labelled correctly (stock piles indicates appropriate improved subgrades or base) for easy distribution of gravel material to correct sealed section. The contractor was further advised to investigate other borrow pits (along the road) to avoid possible deficiencies of materials for pavement layers during construction stages . vi) The contractor was reminded to remove all oversize boulders from all gravel material and that any cobbles and boulders removed should be taken far away from the road reserve. vii) The construction of access culvert lines at ch.1+170 and 1+620 were inspected and it was found that the trench for access culverts were excavated at a considerable distance from the road side drain and with too dip inlet level . The contractor was advised to rectify the position of access trench excavated and identify the correct of level of culvert's inlet/outlet to avoid silting of culvert. 	<p>Contractor</p> <p>Contractor</p>

	<p>viii) The contractor was requested to have inspection forms on site which can enable the approval of works, so that the contractor can proceed with other stages of construction once the inspection form is completed by a member of the District Engineer's office.</p> <p>ix) The contractor was requested to avoid arranging any compaction tests on Sundays. Any testing of compaction should be done between Monday and Saturday to allow the Field Engineer and a member from the District Engineer's office to be present for the testing. The contractor agreed to this request. The contractor informed the group that Tanroads (Regional Lab, Dar es Salaam) could only work on this job on a Saturday or Sunday. Eng. Malisa informed the contractor that there are numerous other laboratories that would be able to carry out compaction testing during the week and that they would be available at short notice. Eng. Malisa suggested the Central Materials Laboratory or the University of Dar es Salaam.</p> <p>x) It was noted that soil was stockpiled at the inlets and outlets of drifts and culverts. The contractor was advised to clean the inlets and outlets of all culverts as soon as possible and the contractor was informed that they would not be paid for any drainage structures until this task had been completed.</p> <p>xi) The contractor was requested to submit cube test results for drifts and culverts to the District Engineer's office before claiming payment for certificate no. 3.</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p> <p>Contractor</p>
<p>3.3</p>	<p>MATTERS ARISING FROM PREVIOUS MEETING The minutes of the previous meeting were read and no corrections were made on them and it was agreed that these were the true documents of the meeting.</p>	
<p>3.5</p>	<p>CONTRACTOR'S WORKS PROGRESS AND PROGRAM During the meeting the Contractor distributed the following:</p> <ul style="list-style-type: none"> ▪ Site Progress report ▪ Work programme & ▪ Site Organization Structure. 	

	<p>The members of the meeting expressed concerns on Contractor's delayed progress of works and reviewed the submitted documents and the following were observed:</p> <ul style="list-style-type: none"> The meeting brought it to the contractor's attention that Project Engineer Martin Filemon has not been present at site as early agreed (2-3 days per week). <p>The DE explained the necessity of having qualified (Registered) Engineer while works are on-going to prevent sub-standard works, enhance the implementation of correct site procedures and to speed up the slow progress of the works. Due to current increased workload at the site the meeting strongly requested that the Project Engineer be on site on a full time basis from this point forward. In this regard, DE shall officially communicate to the DELMONTE Ltd management to fulfil the contractual obligations.</p> <ul style="list-style-type: none"> It was debated between the members of the meeting over which method was the best for proceeding with the remaining drift works. Whether the remaining drifts should be constructed before or after pavement layers had been laid. The members came up with arguments for both procedures but no conclusion was agreed over which was the best method. In the end, the contractor was told that the decision was to be made by the contractor over which was their preferred procedure, but despite which method they chose, they would be held responsible for any poor workmanship resulting from their preferred method. The contractor was again reminded to submit evidence of any disruption events from weather disruption directly to the District Engineer or Moses Masambo (Civil Engineer. Bagamoyo DC) not later than a week after occurrence. This will enable the DE's office to verify information directly from site and have a record for potential extension of time due to adverse weather conditions. It was noted by the Field Engineer that the contractors work programme for the Otta seal and the sand seal did not take into account the need for 8 weeks of trafficking of the first layer of each of the seals before the second layer could be installed. The contractor was instructed to take this into account in his revised programme. The contractor was requested to break the tasks for each of the different seals into separate tasks. The contractor needs to include procurement of material, testing and acceptance of bitumen and aggregate. The contractor was informed of the importance of these procedures in order to conclude if any additives are needed to be added the bitumen etc. Any machinery, such as bitumen distributors will need to be assessed by the DE's office and excepted before works were undertaken. The contractor could not give any information 	<p>Contractor</p> <p>DE</p> <p>Contractor</p> <p>Contractor</p> <p>Contractor</p>
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3.7	<p>Administration/Financial Status</p> <p>The Contractor was paid advance payment and certificate No.1 and Certificate No.2. Certificate No.3 will not be released until the levels and the compaction testing of G7 improved sub grade material has been verified by the District Engineer. The contractor will not be paid for any more culvert or drift works until the inlets and outlets have been cleaned to the District Engineer's satisfaction.</p>	INFO
3.8	<p>AOB</p> <ul style="list-style-type: none"> • The District Engineer informed the meeting that the construction of the diversion at Usigwa Bridge has started. The contractor has brought concrete pipes of 90cm diameter to site and the construction of the diversion will take place soon and that the diversion will be completed over the next two weeks. • Niels Kofoed informed the contractor that there will be a one day workshop held for the contractor during the first week of March to discuss the construction of the various seals. The contractor will be informed by the Field Engineer who is invited to the workshop over the coming weeks. 	<p>DE</p> <p>Niels Kofoed Stephen Conlon</p>
3.9	<p><u>Closing the meeting</u></p> <p>The meeting was closed at 03:51hrs local time, the next meeting was scheduled to be held on 01st March 2011 at 10:00hrs local time.</p>	DE

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For Contractor

.....
District Engineer/ Project Manger

Date: