#### **REPUBLIC OF KENYA**



# PARLIAMENT MINISTRY OF ROADS AND PUBLIC WORKSEN YA ROADS DEPARTMENT LIBRARY

### CONTRACT FOR THE REINSTATEMENT OF BONDO – USENGE – OSIEKO (C27) ROAD PROJECT

CONTRACT No. RD. 0414

Brief for the Visiting Parliamentary Committee on Infrastructure

15th August 2006

Chief Engineer (Roads) Ministry of Roads & Public Works P.O. Box 30260 - 00100 NAIROBI.

The Permanent Secretary Ministry of Roads & Public Works P.O. Box 30260 - 00100 NAIROBI.

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# TABLE OF CONTENTS

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1.0	Page 1
1.1	History of the Project Road1
1.2	Location and Extent of Works
1.3	Contract Details
1.4	Scope of Works
1.5	Instructed Intervention Measures for the Pavement
2.0	FINANCIAL REPORT

2.1	Contract Provisions & Interim Payments	.3
2.2	Variation of Prices (VoPs)	.4

3.0	PROJECT SUBSTANTIAL COMPLETION4
3.1	Substantial Completion for Km 0 + 000 – Km 26 + 300 (Main Road C27)4
3.2 Kms	Substantial Completion for Km 26 + 300 – Km 33 + 263 (Main Road C27), Nyamira Spur Road - 4.2 , Maranda Spur Road - 1.2 Kms & Usenge Spur Road – 1.5 Kms

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# 1.0 INTRODUCTION

## 1.1 History of the Project Road

The road was constructed between 1982 and 1984 to the following pavement details;

- 75mm thick Neat Gravel subbase
- 130mm thick Cement Stabilized Gravel base
- Double Seal Surface Dressing

Since then, no major maintenance exercise has ever been carried out and by the time of the commencement of the current contract for the reinstatement of the road, the above pavement had existed for about 21 years.

According to the Project's Material Report of March 2003, about 80% of the road had failed.

### **1.2** Location and Extent of Works

The works are located along the existing Bondo – Usenge – Osieko Road (C27) in Bondo District of Nyanza Province. The road starts in Bondo Town at 1256.7 m above sea level, runs to the west through Nyamonye, Usigu and Usenge centres, crosses the estuary of River Yala into Lake Victoria over a causeway, and ends at Osieko Beach on the shores of Lake Victoria at about 1140 m above sea level.

The works involved:

- Reinstatement of 26.3 Kms of the main road between Bondo and Usenge
- Upgrading to bitumen standards of;
  - The 7.0 Kms section of the main road between Usenge and Osieko,
  - 4.2 Kms of the Nyamira spur road
  - 1.2 Kms of the Maranda spur road.
  - 1.5 Kms of the Usenge Beach spur road
  - 0.36 Kms of Nambo Beach spur road.

Thus a total of 40.6 Kms of road length has been reinstated as required under this contract.

### 1.3 Contract Details

a.	Project Title	:	Reinstatement of Bondo – Usenge – Osieko Road (C27)
b.	Employer	:	Government of Kenya, (GOK), represented by, Permanent Secretary, Ministry of Roads and Public Works (MORPW)
Ċ.	Financier	:	GOK, using proceeds of Road Maintenance Levy Fund
d.	Contractor	:	Kundan Singh Construction Ltd.
e.	Date of Tender	:	28 August 2003
f.	Date of Award	:	3 November 2003
g. h.	Tender Sum Contract Period	:	Kshs. 647,624,460.00 18 Months
i.	Defects Liability Period	:	24 Months

j.	Amount of Advance Payment:	5 % of the Contract Sum
k.	Engineer :	Chief Engineer (Roads), MORPW
<b>l.</b> m.	Supervision : Date of Engineer's	Chief Engineer (Roads), MORPW
	Order to Commence :	5 March 2004
n.	Period of Commencement:	28 days
0. D	Date of Commencement : Extension of Time Awarded: Revised Contract Period :	01 April 2004 6 Months 24 Months
р. <b>а</b>		
q.	Revised Completion Date:	31⁵t March 2006
r.	Period Elapsed : Further Extension of Time applied	24 months (100%) d for: 4 Months
s.	Work Done To Date :	97.00% of the contract
t.	Amount Certified to Date :	97.57%
u.	Date of this Report :	15 <sup>th</sup> August 2006

### 1.4 Scope of Works

The works to be executed under the contract comprises mainly but are not limited to the following:

- a) Site clearance
- b) Earthworks
- c) Pavement repairs, overlay and resealing as follows:
  - i) <u>Bondo Osieko (Km 0 + 000 Km 35 + 000)</u>
    - Rip existing bituminous surfacing and cart to spoil
    - Scarify 100 mm depth, reprocess, water, shape and compact existing base to serve as sub-grade to the required vertical alignment and cross- section profiles.
    - Provide cement improved gravel, add water, process and compact to achieve 200 mm thickness to standard specification, to serve as subbase.
    - Provide a 150 mm layer of gravel improved with cement to obtain minimum CBR of 160%, process and compact to standard specification to serve as base.
    - Apply double seal surface dressing of 14/20 mm and 6/10 pre-coated chippings.

#### ii) <u>Spur Roads</u>

- Scarify and reprocess the wearing course together with base material, add new gravel material improved with cement to obtain minimum CBR of 80% and compact to form 150 mm thick base.
- Apply double seal surface dressing of 14/20 mm and 6/10 mm pre-coated chippings.

#### d) Edge Repairs

 Edge failure shall where necessary, be repaired with Asphalt Premix Type 1 (0/20)

### e) <u>Shoulders</u>

- Reinstate existing shoulders to a width of 1.5 m using natural gravel compacted in layers not more than 150 mm thick.
- Apply single seal surface dressing of 6/10 mm pre-coated chippings on all shoulders
- f) Drainage and other Ancillary Works

Other ancillary works to the main works are as follows:

- De-silt and unblock cross and access culverts, inlets, outlets, outfalls and side drains as to free flowing conditions
- Remove existing defective or other culverts and replace as directed
- Carry out protection works as directed
- Repair and reinstatement of road furniture
- g) Maintenance of the works during the construction period. The defects liability period shall be 24 months.

### **1.5** Instructed Intervention Measures for the Pavement

The following intervention measures were instructed for the main road pavement instead of the specified works under the contract as per items 1.3 (c) (i) and (e) above.

- Rehabilitation of existing base to form 150 mm thick cement/lime improved gravel subbase on carriageway and shoulders.
- Construction of a new 150 mm thick cement and lime improved gravel base on carriageway and shoulders.
- Application of a double seal surface dressing of 80/100 penetration grade bitumen and 14/20 mm and 6/10 mm precoated chippings on first and second seal respectively, on carriageway and shoulders.

## 2.0 FINANCIAL REPORT

## 2.1 Contract Provisions & Interim Payments

A summary of the contract's provision and interim payments certified of the works is presented below:

	Description	Contract Amount (KShs)	Interim Payments Certified (KShs.)
A	Total for Works	539,687,050	524,950,858.80
В	Contingencies	53,968,705	0.00
С	Variation of Price (VOP)	53,968,705	106,937,108.03
D	Totals	647,624,460	631,887,966.83

# 2.2 Variation of Prices (VoPs)

To date the contract has experienced a percentage increase in prices for the various items as indicated in the schedule below.

No.	ltem	Percentage increase to date
1	Labour	7.00%
2	MC 30 Cutback bitumen	74.73%
3	80/100 Penetration grade bitumen	50.24%
4	Petrol	49.40%
5	Automotive diesel	70.16%
6	Kerosene	94.90%
7	Cement	23.83%
8	Transport of cement	22.86%
9	Lime	40.35%

# 3.0 PROJECT SUBSTANTIAL COMPLETION

### 3.1 Substantial Completion for Km 0 + 000 – Km 26 + 300 (Main Road C27)

The Contractor requested, vide their letter Ref. No. C27/018/JAC/06 dated 28<sup>th</sup> February 2006 to the Engineer, for inspection for substantial completion, in accordance with clauses 48.1 and 107 of the General Conditions of Contract & Special Specifications respectively, for the road section Km 0+000 – Km 26+300 which had most of the works completed. A Committee appointed by the Engineer carried out an inspection on 28<sup>th</sup> April 2006, certified the section as having been substantially completed and recommended the section be taken over by the Employer with effect from 28<sup>th</sup> February 2006.

### 3.2 Substantial Completion for Km 26 + 300 – Km 33 + 263 (Main Road C27), Nyamira Spur Road - 4.2 Kms, Maranda Spur Road - 1.2 Kms & Usenge Spur Road – 1.5 Kms

The Contractor requested, vide their letter Ref. No. C27/023/JAC/06 dated 30<sup>th</sup> June 2006 to the Engineer, for inspection for substantial completion, in accordance with clauses 48.1 and 107 of the General Conditions of Contract & Special Specifications respectively, for the remainder main road section (C27) Km 26+300 – Km 33+263 and spur roads namely; Nyamira (4.2 Kms), Maranda (1.2 Kms), Usenge Beach (1.5 Kms) & Nambo Beach (0.36 Kms). A Committee appointed by the Engineer carried out an inspection on 4<sup>th</sup> August 2006, certified the section as having been substantially completed and recommended the section be taken over by the Employer with effect from 31<sup>st</sup> July 2006.