



SCOPE OF WORK

From : Minas de Benga, Limitada

Department Maintenance, Engineering and Capital

To Service Provider

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Reference Rebuilding of Haul Road and One Year Services
Maintenance

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Number of pages 9

1. Introduction

Minas de Benga is the concessionaire of Benga Coal Mine with its mine operations based in Tete-Moatize. Within its operations, there is a logistic of cocking coal final product and thermal from CHPP to Benga Rail Siding which involves a distance covering almost 18Km.

And, to access the mine area and CHPP there is a road which is the main road of access to these sites with a length of approximately 13 km starting from the Core Yard.

Both roads are vital for Benga Mine operations as they represent the main corridors within the operations for different types of logistics hence the mandatory need of having these roads in conditions to attend operations demand.

Based on above statement and ever since the beginning of the operations it was established services contract to maintain the roads at good desired quality hence this Scope of Work to establish the limits of liability and expectation of this service contract.

2. Location

The Haul road is located in Moatize, near Benga Village, within the lease 3365C of Benga Coal Mine Operation which directs links CHPP and Rail Siding in length about for about 18 KM or hauling of coal produced at CHPP, In Moatize District.

The Benga Coal Mine Operations is located in District of Moatize, Tete Provice, Mozambique.

3. Objective of Scope of Work

The objective of this scope of work is to establish the maintenance services parameters and rules of haul road which links CHPP and Rail Siding.

The Haul road to rail siding was constructed to connect CHPP to Rail Siding for hauling of coal through heavy trucks and in order to maintain the road at desired quality, the services must be executed with a reputable company, duly licensed in Mozambique with proven evidence of similar executed services by using proper required equipment, material and skilled and qualified manpower.

4. Road Specification

The existing roads at MBL have ben threaten with a bitumen based emulsion (BBE – SS60), with proper Chemical composition, in water which have shown good results when applied correctly and properly maintained, the plan is to

continue using similar type of product, due to its good capacity of dust suppression, surface stabilization, decrease of friction of the road surface, reduced fuel consumption and saving on tire as example of using of the product. But keeping in mind that if the same kind of product is to bring the existing road to standard but also looking into economical savings, so, it is advised to use the same product (BBE) instead of looking of for a completely new product, a part of this, hauling will be affected if road is ripped off on sections as indicated to mix it with BBE.

5. The Work

The works will basically be the reconstruction and provide maintenance of the haul road as it is totally damaged and shall address the following issues classified as distresses, as described below:

1. Rebuild the road base - (provide, haul mix and compact to 95% modified AASHTO) appropriate soil suitable for roads making and stabilize with bitumen based emulsion (BBE) on a mixture of 2L/m² of bitumen to remake the road shape and allow water drainage, considering 200mm minimum thickness; and guarantee and approximated 100mm thickness of stabilized wearing course, including cleaning of the road berms.
 2. Maintain the road surface by Spraying Bitumen based emulsion (BBE) on road, based on a mixture of 3L/m² of bitumen.
 3. Sweep the Haul Road with mechanical broom every two weeks including berms of the road.
 4. Dustiness: Mainly due to spillage that occurs during coal transportation,
 5. Stoniness: loose material on the road surface (typically +25mm) due to poor compaction and segregation,
 6. Corrugation: formation of ripples along width road;
 7. Rutting: formation of longitudinal depression, as result of consolidation or lateral movement;
 8. Ravelling: losing of surface material due to the traffic, when aggregate particles dislodged or loss/decrease of binding property;
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9. Reworking and compaction: works related to breaking down and removal and remake of the road pavement to restore road condition as per required road standards

The road reconstruction will comprise the haul road and the internal roads at rail siding which will be made with placement of bitumen based Emulsion mixed with soil, refill of base with suitable material such as gravel soil in areas that are required to lift and re-shape, to facilitate the BBE to bind.

5.1.Safety, Record Keeping and Reporting

The contractor shall be responsible to comply with ICVL Health, Safety and Environment policy and procedures at all times. Adding to this, the contractor shall be required to:

- Manage all engineering aspects and inform ICVL representative,
- Record keeping either for repairs or reconstruction;
- Controls Management: Scope, Schedule and Costs;
- Risk Management, register and reporting;
- Minuting of site meetings should a meeting is required;
- Equipment availability and availability report;
- Ensure compliance with ICVL HSE and road safety;
- Technical interpretation and quality control of the works and record, etc.

Note: All relevant technical details will be as per BOQ, scope of work and any other issue regarding this work will be discussed and agreed with the responsible civil engineer, prior to execution and records must be signed and kept by the parties.

6. Responsibilities

9.1 Contractor Responsibility

1. Before an intervention for specific zone, the contractor must arise the proposal, specifying the required material, manpower and equipment including schedule of activity as well as plan of attack considering the fact that any intervention must not block the operation at a moment to get it approved by the designed contract owner from the contracting party.
 2. Supply all necessary material, equipment (including fuel), manpower and staff transport, irrespectively of where to get and level of required intervention;
 3. Execute he work ate desired quality as indicated on point 7 and present good level of project management;
 4. Keep the road maintenance operation sustainable in safety wise and environmental;
 5. Communicate to the contracting party an incident that happen during the operation;
 6. Any deviation plan, must be prior get it cleared and approved prior execution by the contracting party;
 7. All-time assure the security of manpower, material and equipment during the all phases of operations;
 8. Supply water, food and PPE to the assigned workers;
 9. Re-do all works again under its own cost in case of the proposed works to be cleared for payment purpose be rejected.
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9.2 Contracting Party Responsibility

1. Approve or reject the execution plan presented the contractor prior execution;
2. Assure a laydown area for the material and equipment;
3. Assure an office for service contract management with minimum conditions (all extra needs will be under contractor responsibility);
4. Clear the request for medicals and induction and test driving sections;
5. Indicate a water catchment point;
6. Clear the inspection of equipment to be deployed on the project
7. Approve or reject the measurement sheet according to the point;
8. Supervising the progress of work and quality;
9. Pay the contractors per MBL payment standards;
10. Issue verbal or writing warning to the contractor in case of deviation;
11. Support the contractor for any matter related to the contractor to ensure a good execution progress.

7. Payments

The contractor will issue a monthly measurement sheet claiming the amount related to the executed works of respective month for payment purpose which will be subjected for approval by MBL based on achievements of Milestone as per point 8 of this scope of work.

Only if the executed works be in accordance with milestones and desired quality, will be accepted for subsequent payment, and, the contracting party will issue its financial certificate (SRV) form which will enable the contractor to issue the final invoice.

In case of rejection of measurement sheet due to the failure to comply with the milestone, the contractor will take all the responsibility to correct the works.

The invoice will be paid as per MBL standard payment terms and conditions.

Any cost that the contracting party might be subjected due to noncompliance of the contractor with respect, but no limited, to safety or environmental aspect that can expose negatively the contracting party before the government authorities or surrounding communities it will be directly deducted from the subsequent invoices prior a full background writing notice.

8. Mile Stones & Quality and Measurement

During the execution of the road and for zones that the potential contractor will intervene the following milestone must be accomplished:

- a) Section without dust;
- b) No ripples on the road;
- c) Road shape;
- d) Pot holes;
- e) No gravels;
- f) Road Smooth Surface;
- g) Road berms, well-shaped for water drainage and clean.

The contractor will issue a monthly measurement sheet for the works which will be complying with above stated milestone & quality and submit for approval prior issuing of invoice.

In turn, the contracting party can approve or reject the measurement sheet if the executed works are not in accordance with above milestone & quality.

9. Price Schedule

- The price must be quote as per the BoQ only;
 - All cost which are not visible on the BoQ must be dissolved throughout the given items;
 - The rates must fixe during the contracting execution and no variance of prices will allowed;
 - The quote must be valid for 30 days.
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10. Evaluation Criteria

The evaluation criteria will be as follow:

Part A: Technical Evaluation

All documents requested on the tender documents will be scrutinized and checked to qualify technically the bidders. It is important for the bidder submit all documents requested on tender document for better assessment of its own capability of execute the works.

The bidder will be technically qualified if they accumulate above 80% of total score otherwise will be disqualified.

Part B: Financial Evaluation

In its turn, the bidders will be financially evaluated in order to check if financially they are able to run the project as per ICVL terms and conditions. All relevant documents for such access are requested as per the tender document.

The bidders which will not be financially qualified as per the tender documents will be automatically disqualified despite technically qualified.

Note that the designated committee for this tender will open the financial proposal for those bidders that are technically qualified.

11. Project Duration

The project is set to last 12 continuous months. Beyond this limit of time, the contractor will assume all costs involving the operation, including those which might be under MBL, to hold the continuity of the project until its total completion as per the contract terms and current law in Mozambique for such kind of project.

12. Site Visit

The site visit of the project is mandatory and all involved cost must be fall under potential bidder's responsibility.

In case of attend the site visit the bidder will automatically be disqualified.

The day and time and starting point of site visit will be specified on the tender documents and the bidders are requested to show up their representatives equipped with full PPE.
