



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**FACE SHEET TO ACCOMPANY THE TENDER DOCUMENTS**

- A. 1. Name and full address of the Contractor  
to whom the Tender Documents are issued. :
2. Whether registered with Engineering (Civil)  
Department, if so, class of registration. :
3. If not registered, reference to the letter of the Chief  
Engineer authorising issue of the tender Documents. :
4. Date of issue of Tender Documents. :

\_\_\_\_\_  
**Assistant Exec. Engineer (Acct.)**

- B. 1. Name of work: **PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**
2. Cost of each set of Tender Documents : Rs. 10,000/-
3. Date of Sale of Tender Documents : From : 04/08/2016  
To 01/09/2016 upto  
15.00hrs.
4. Date of receipt of tender and time : 02/09/2016 Upto 15.00hrs.
5. Amount of E.M.D. : Rs.16,46,800/-
6. Date of opening of tender and time : On 02/09/2016  
at 15.30 hours.
- 7 a) Whether E..M.D. received : Yes/No.  
b) if so, in which shape : Demand Draft
8. Form of contract : Item Rate
9. Whether tender received in duplicate : Yes/No
10. Whether rates have been quoted in : Yes/No.  
the tenders both in words and figures.
11. Total No. of Tenders received for the work :

\_\_\_\_\_  
Assistant Exec. Engineer (Acct.)

\_\_\_\_\_  
EXECUTIVE ENGINEER (P&C)



**MORMUGAO PORT TRUST  
CIVIL ENGINEERING DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

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An ISO 9001-2000 PORT

**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**F I R S T C O V E R**

**(TO BE SUBMITTED IN SEPARATE SEALED ENVELOPE / COVER)**



An ISO 9001:2000 PORT

**MORMUGAO PORT TRUST**  
**SERVING THE NATION SINCE 1885**

**ENGINEERING (CIVIL) DEPARTMENT**  
**[www.mptgoa.com](http://www.mptgoa.com)**

**NOTICE INVITING TENDER**

**TENDER NOTICE NO.CE/N-56/2016**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

Tenders in the prescribed form in sealed covers superscribing the Tender No. and due date and time are invited by the Chief Engineer for the above work as per the details given in the table below:

Cost of tender document	Estimated Cost	Tender Sale From/To	Submission on	Opening on
EMD	Completion Time	Pre-Bid Meeting		
Rs.10,000/- (Rupees Ten thousand only)	Rs. 16,46,73,500/- (Rupees Sixteen crores forty six lakhs seventy three thousand five hundred only)	04.08.2016 To 01.09.2016 Upto 15.00 hrs.	02.09.2016 Upto 15.00 hrs.	02.09.2016 At 15.30 hrs. Technical Bid (Cover No.1)
Rs. 16,46,800/- (Rupees Sixteen lakhs forty six thousand eight hundred only)	Nine (9) Months	12.08.2016 Upto 15.30 hrs.		

Detailed tender notice along with complete tender documents can be downloaded from our website **[www.mptgoa.com](http://www.mptgoa.com)** on or before the last date of sale of tender document. Tenders are also available for sale at the Civil Engineering Department of Mormugao Port Trust.

For further details and general enquiries, prospective bidders may contact the Executive Engineer (Planning), telephone no. 0832 2594611, mobile 09764006075, during working hours before the last date and time of sale of tender document.

**Chief Engineer**



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART – I (i) - UNDERTAKING BY THE TENDERER**

To,  
The Trustees of the PORT OF MORMUGAO,

I/We, M/s \_\_\_\_\_ have gone through the tender document carefully and hereby confirm as under:

The complete tender set i.e. First Cover and Second Cover in sealed cover separately and together in a separate cover is returned WITHOUT any defacement, addition, alternation or interpolation. All such addition or alteration has been indicated separately in our tender covering letter with all the relevant Annexures and Proformae duly filled in.

I/We have submitted our tender alongwith Earnest Money Deposit separately enclosed in the Envelop. I/We have not indicated anywhere in the first cover the amount of our price bid.

I/We have not made any counter stipulation and conditions and I/We agree that in the event of any such counter conditions my/our tender will be summarily rejected and such offer will not be evaluated and considered at all by you. Rate quoted by me/us in the schedule of quantities along with other submission will remain valid for the period of 180 days from the submission of the tender.

I/We hereby declare that, all information furnished by me/us with this tender is true to best of my/our knowledge, belief and in case, if it is found that, the information furnished is not true or partially true or incorrect, I/We agree that, my/our tender shall be summarily rejected without prejudice to the right of the Board of Trustees of PORT OF THE MORMUGAO to take further action into the matter.

Witness's : \_\_\_\_\_  
Signature : \_\_\_\_\_  
Name : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Address : \_\_\_\_\_  
\_\_\_\_\_

Tel. No. : \_\_\_\_\_  
Date : \_\_\_\_\_

Tenderer's : \_\_\_\_\_  
Signature : \_\_\_\_\_  
Name : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Address : \_\_\_\_\_  
\_\_\_\_\_

Tel. No. : \_\_\_\_\_  
Date : \_\_\_\_\_



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**PART I (ii) DETAIL NOTICE INVITING TENDER**

**TENDER NOTICE NO.CE/N-56/2016**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

1. SALE OF TENDER COMMENCES : **On all working days between 04/08/2016  
to 01/09/2016 from 9.30 hrs. to 12.00 hrs.  
and 14.00 hrs. to 15.00 hrs.**
2. LAST DATE FOR SALE : **Upto 15.00 hrs. on 01/09/2016**
3. PRE-BID CLARIFICATION MEETING : **On 12.08.2016 at 15.30hrs**
4. LAST DATE FOR SUBMISSION OF TENDER (DUE DATE) : **Upto 15:00 hrs. on 01/09/2016**
5. OPENING DATE FOR FIRST COVER (Technical Bid) : **At 15:30 hrs. on 01/09/2016**

Note: Any clarification on the bid document bidders may contact the Executive Engineer (Planning), telephone no. 0832 2594611, mobile 09764006075, during working hours before the last date and time of sale of tender document. Port's website [www.mptgoa.com](http://www.mptgoa.com).

MORMUGAO PORT TRUST  
Civil Engineering Department,  
Administrative Office Building  
Headland – Sada. 403804,  
Tel: 0832 252 1160

CHIEF ENGINEER  
MORMUGAO PORT TRUST

Tender submitted by : \_\_\_\_\_

Tender submitted against

\* Earnest Money Deposited with this tender

- Delete whichever is not applicable



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**ii - TENDER NOTICE**

**1. INVITATION**

1.1 Mormugao Port Trust (MPT) invites \*sealed tenders in original under two cover bidding procedure and to the MPT's designs, drawings, relevant I.S. codes and specifications contained and referred directly/indirectly in this tender document and on Item rate basis for the work of "**PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH PAVING 30M WIDE AT MORMUGAO PORT, GOA**".

\* "Sealed" shall means sealed with wax or closed with gum, to the satisfaction of authority opening the tender.

1.2. **Eligibility Criteria for tendering will be as follows:**

**(A) Financial Criteria :**

i) The average annual financial turnover during the last three years ending 31<sup>st</sup> March 2015 of the tenderer should be at least **Rs.4.94Crores.**

Note: **The above information shall be submitted along with documentary proof i.e. Income Tax Returns, Audited Statement of Accounts duly certified by the Statutory Auditors of the firm. Copy of Appointment Order/ Resolution in respect of Statutory Auditors also to be submitted.**

**(B) Technical Criteria**

(ii) The firm shall have experience of successfully completing the "similar works" during last seven years ending 31<sup>st</sup> March, 2016, in either of the following:

(a) **Three similar works each costing not less than Rs.6.59Crores.**

OR

(b) **Two similar works each costing not less than Rs.8.24Crores.**

OR

(c) **One similar work costing not less than Rs.13.18Cr.**

Note : (i) “**Similar Works**” means the works INVOLVING RAILWAY WORKS, LIKE LAYING AND LINKING PERMANENT WAY MORE THAN 3KMS. IN LENGTH INCLUDING SUPPLY OF MATERIAL SUCH AS RAILS, PSC SLEEPER, BALLAST POINTS & CROSSINGS / TURNOUTS ETC.

1.2.1 The Tenderer should have executed works in the Railways/ Public Sector Govt. Undertakings/ State Governments / Private Sector/ Port Authorities.

**1.2.2 Mode of Selection of Contractor:**

Tenderer shall have to satisfy minimum Financial and Technical eligibility Criteria mentioned in the tender at 1.2 above. Tenderers who satisfy criteria mentioned in 1.2 and 1.2.1 above will be qualified for opening of Cover No.2 (Price Bid). Lowest Price offer is the sole criteria for award of work among qualified tenderers. In Bill of Quantities, tenderer shall have to quote unit Price in words and figures as per details. In case of difference in value of unit rate in words and figures, the lowest rate will be considered.

1.2.3 The contractor shall submit the techniques and methodology for the construction in Proforma 2 in case of routine work and also considering block work.

1.2.4 The tenderer shall furnish relevant information in respect of their firm etc. to ascertain their financial and technical capabilities and work experience in Proformae 1 to 6, except Proforma 2.

1.2.5 Offers received from the tenderer with counter stipulation and conditions will be summarily rejected and such offers will not be evaluated and considered at all.

1.2.6 Unregistered contractors can submit the tender provided, the firm fulfils minimum eligibility criteria specified in the tender. Successful tenderer shall have to register with the Department in due course of time.

**1.3 Scope of the work :**

The proposed work broadly comprises of:

- a) Earth work in filling with ordinary soil/murrum.
- b) Murrum Blanketing on the Railway formation with blanket material viz. murrum, quarry/ crusher grit, etc
- c) Earthwork in cutting in formation and side & catch water drains, etc. In Ordinary/ Hard Soil and In Soft Rock (RNRB).
- d) Supplying, transporting and handling machine crushed stone ballast of 50mm size clean angular, hard and durable track ballast.
- e) Laying and linking Permanent way on straight /curve with 60 Kg rails on 60 kg PSC sleepers with elastic fastenings fish plated tracks.
- f) Assembling and Insertion of 1 in 8 1/2 Turnouts 60 kg with curved switch and CMS crossing on Fan shaped PSC sleepers.



- g) Assembling & fixing of Spring Loaded hand operated Lever boxes to the Turnouts.
- h) Through packing of newly laid tracks 1<sup>st</sup> packing ,II<sup>nd</sup> packing and Final packing on straight or curve with any sleeper density to a good and acceptable geometry to conform to specified alignment & level and other track parameters
- i) Through packing of newly laid 1 in 8 1/2 turnouts/points and crossing 1<sup>st</sup> packing ,II<sup>nd</sup> packing and Final packing to bring them to a good and acceptable geometry to conform to specified line, and levels and parameters
- j) Fixing check rails with complete fittings on PSC sleepers at level crossings, curves, etc., as per the specification and drawings
- k) Erection of prefabricated Buffer stop.
- l) Erection of level crossings.
- m) Supplying of 60kg Track rails flat bottom T-12 as per IR specification T-12/96 including transportation and handling
- n) Supplying of 52kg rails for Check Rails purpose at level crossings and curves on PSC sleepers including transportation and handling
- o) Supplying of 60kg PSC Mono Block Sleepers as per IRS specification T-39/1993 Cor.4 of October 2003 for Plain and Curved Tracks including transportation and handling
- p) Supplying of Fish Plates, 60kg as per RDSO Drg No T-1898 with bolts as per drg. No T-1899
- q) Supplying of Check Blocks, Bolts, Nuts as per approved design and drawings
- r) Supplying of Grooved rubber pads as per Drg No RDSO/T-3711
- s) Supplying of GFN Liners to RDSO Drg No T-3706
- t) Supplying of Elastic Rail Clips as per Drg No RDSO/T-3701
- u) Supplying of Junction Fish Plates to match 52kg/60 kg rail section as per latest approved RDSO Drgs.
- v) Supply of 1 in 8 1/2 Turnouts (L.H. = 2 & RH = 2) 60kg with curved switch and CMS crossing suitable to 60 kg on Fan shaped PSC sleepers including transportation and handling
- w) Supply of buffer stop as per approved design and drawing and Supply of Level Crossing Material.
- x) Providing Soling for storm water drain and paving area to the required thickness.
- y) Providing & fixing shuttering /formwork, concrete of (1:2:4) grade, for storm water/service trenches, M25 grade in retaining walls and M30 grade for pre-cast drain cover slabs.
- z) Providing water bound macadam road having a consolidated thickness of 7.5cm.
- aa) Manufacturing, supplying and laying of Precast concrete interlocking Paver blocks, 100mm thick (Heavy duty) of grade M50, of approved make & pattern,

laying over a coarse sand bed of 50-80mm average thickness.

The work is required to be carried out strictly as per relevant Indian Standard Specification; the Drawings and as described in Specifications and Schedule of Quantities and Rates contained in this tender document with approved quality of materials.

- 1.4 The estimated cost of the work is **Rs.16,46,73,500/-**. The estimated cost of work is furnished herewith for the guidance of the tenderer and they are advised to make their own estimate for the same.  
The tenderers are required to offer their item rate for each and every item in figures as well as in words at the space provided in the Schedule of Quantities and Rates.
- 1.5 The tenderer will have to work in close co-ordination with the other contractors employed, if any.
- 1.6 The quantities provided in the tender are approximate and may vary. The tenderers are strongly advised to inspect the site of work and acquaint themselves with the site conditions and quantum of works involved etc. so that they are fully aware of the nature and scope of the works to be carried out before tendering. No claim will be entertained due to variations in the quantities.
- 1.7 **The tenderers will be prequalified based on the information furnished by them. The Second Cover of the only those qualified tenderers will be opened on the date which will be intimated to them.**

## **2. PROCEDURE FOR OBTAINING TENDER DOCUMENTS**

- 2.1 The tender documents can be obtained in person from the Office of the Chief Engineer, Mormugao Port Trust, Administrative Office Building, Headland Sada, Mormugao, 403804. Telephone No.0832 2594628 during working hours from 9.30 hours to 12.00 hours & 14.00 hours to 15.00 hours on any working day upto the last day stipulated for the sale of tender documents, on submission of an application in writing on the firm's letterhead and on payment of the prescribed charges set out below:

a ) for the complete set including drawings : **Rs.10,000/- per set**

The above charges are NON-REFUNDABLE.

- 2.2 The interested firms may alternatively download the tender documents from the Mormugao Port Trust web site [www.mptgoa.com](http://www.mptgoa.com). The payment of Rs.10,000 /- ( Rupees Ten Thousand only ) will have to be made in that case, before the time of submission of the offers or during opening of Technical cover. **Volume I containing the General Conditions of Contract can also be downloaded from the Port's website. Volume – I shall also form the part of Cover No. I.**
- 2.3 The above prescribed charges should be paid in cash or by Demand Draft

drawn in favour of "**FA&CAO**", **M P T** on any branch of a Scheduled Bank within the jurisdiction of State of Goa.

2.4 Tender sets will not be sent by Post OR Courier Service.

2.5 The tender documents are NOT TRANSFERABLE.

3. **EARNEST MONEY TO BE DEPOSITED FOR THIS TENDER:**

The Earnest Money to be deposited in respect of this tender is **Rs.16,46,800/-** (Rupees Sixteen Lakhs forty six thousand eight hundred only) shall be in the form of Demand draft of any Nationalised or Scheduled Bank within the jurisdiction of State of Goa payable at Vasco - Da - Gama.

4. **NUMBER OF COPIES OF TENDER TO BE SUBMITTED:**

The tenderer shall submit one copy (original) each of First cover and Second cover separately as indicated in Clause No. 4 & 5 of Instructions for Preparations and Submissions of Tenders.

5. **RELEASE OF SITE:**

The site is available and will be released in parts to the contractor as per the site condition after the work is awarded. Contractor shall commence the work immediately. It shall be the responsibility of the contractor not to cause any hindrance to the existing rail traffic and shall not obstruct the daily routine works in the vicinity. The dust, dirt and debris resulted at the site shall be controlled properly and removed daily. The complaints received in this respect will be viewed seriously and the cost of resulted damages, if any will be recovered without any reference. The Tenderer should take all these aspect into account while quoting the tender and to complete the work within stipulated completion period.

6. **TIME FOR COMPLETION OF THE WORK:**

The total completion period for the work is **Nine (9) months** including monsoon from the date of receipt of acceptance letter. Site will be released in parts. The entire site will be handed over to contractor within 6weeks from the acceptance of work order. If site is handed over to contractor later than 6weeks then the same will be taken into consideration in granting extension of time. The contractors are required to plan their construction activities accordingly without causing any hindrances to the navigational traffic and also routine navigational movements and other activities of MPT contractor operating / working in the area.

Time is essence of the contract. If the tenderer stipulates a completion period longer than the one stipulated above, the same is liable for rejection.

See Clause No.40 of the General Conditions of contract.

7. **LIQUIDATED DAMAGES:**

Liquidated damages for delay in completion of the works are 1/2 percent (0.5 %) of the Contract Price of work for delay of each week or part of a week subject to a maximum ceiling of 5 percent of the Contract Price. However, if the work is delayed by more than 25% of the contracted completion period, the contract is liable to be terminated and the balance works are liable to be got completed by Mormugao Port Trust through some other agency at the risk and cost of the defaulting Contractor.

8. **PROGRAMME OF WORKS:**

Every tenderer must prepare and submit with his tender a detailed CPM network based programme and bar chart and list of control milestones for the execution of the work, keeping in mind the site conditions and the possible hindrances due to monsoon, existing rail traffic, etc duly signed and dated in accordance with Clause 15 of General Conditions of Contract & the Instructions for Preparation and Submission of Tenders. The bar chart and list of control milestones will form part of the tender. Wherever necessary work shall be taken up on traffic block condition with prior permission in writing to the Chief Engineer, in such circumstances all the items required for the traffic block condition shall be procured and stacked at site.

9. **MAINTENANCE PERIOD:**

The free maintenance period is 1 (one) year for all the works covered under this contract from date of completion of the entire work as certified by the Chief Engineer.

10. **FACILITIES TO THE CONTRACTOR:**

Tenderers are advised to price their bids after taking into account, among other provisions of the tender documents:

- a) Secured advance against materials brought to site for Permanent Works, will be paid to the contractor. (Refer Clause No. 54 (1) (b) of (G.C.C)
- b) **MPT may supply Permanent Way material for the work if available in stock and same shall be informed to successful contractor during execution of work within one month from acceptance of work.**
- c) MPT will supply water for construction purpose subject to availability as per the Special Condition of Vol .I Clause No. 9.19 on payment of applicable charges. In the event water is not supplied by MPT, the contractor will have to make his own arrangements for water which shall be from an approved source.
- d) It is possible to give electric supply subject to availability from the MPT as per Special Conditions of contract Vol. I Clause No. 9.20 on payment of applicable charges. The contractor will have to make his own arrangements for drawing the electricity which shall be approved by MPT. Contractor has to maintain generator set of the adequate capacity for the electrical supply.

11. **FACILITIES NEED TO BE PROVIDED BY THE CONTRACTOR:**

Tenderer's are advised to price their bids after taking into account the facilities need to be provided by them free of cost to the Employer, which shall include following facilities.

- a) The contractor should install a laboratory consisting of, concrete cube testing machine, dry density of soil under compacted condition and testing of material at his cost at site or has to conduct all the required tests from reputed laboratory as directed by Chief Engineer or his representative. No payment for testing of cubes at site/reputed laboratory will be made to the contractor.
- b) Contractor shall at his cost obtain all necessary permissions/clearances of statutory/non-statutory authorities, test certificates alongwith inspection report of the railway materials brought to site, for successful completion of the work.
- c) Stamp Duty on the Contract Agreement (Rupees One thousand only Rs.1,000/-) will be borne by the contractor.

12. **EXPENSES INCURRED BY THE TENDERER:**

Mormugao Port Trust will not reimburse any costs or expenses incurred by the tenderer in connection with the preparation or delivery of this tender, including costs and expenses related to visit the site.

13. **INSPECTION OF SITE:**

Tenderers are strongly advised to inspect the site of work and acquaint themselves with the site conditions and quantum of work involved etc. before tendering. Access to the site for inspection will be arranged by Executive Engineer, Civil Engineering Department, Mormugao Port Trust, Administrative Office Building ,Headland Sada, Mormugao Vasco, Goa - 403804, Telephone No. 0832 2594611. Mobile: 09764006075.

14. **RIGHT OF ACCEPTANCE / REJECTION OF ANY TENDER :**

The Board of Trustees of the Port of Mormugao reserves the right to reject any or all tenders without assigning any reason or to accept any tender in part or whole and does not bind itself to accept the lowest or any tender.

15. **DEADLINE FOR RECEIPT AND OPENING OF TENDER:**

- 15.1. The tenders duly completed in accordance with the "Instructions for preparation and submission of tenders" contained in this tender document should be placed in the tender box (marked "Tender No. **CE/56/2016**") kept outside the cabin of the Asst. Exec. Engineer (Accts), Engineering Civil Department, Mormugao Port Trust, upto due date as indicated in face sheet.

The First Cover – Technical Cover will be opened at 15.30 hrs. on the due date in the presence of such of the tenderers who may wish to remain present.

15.2 The tenders whether sent by post or by hand delivery must reach this office on or before the due date and time. OFFERS RECEIVED LATE WILL NOT BE CONSIDERED EVEN THOUGH POSTED BEFORE THE DUE DATE AND TIME.

15.3 Offers sent by telex/telegram/fax will not be considered.

15.4 Unsigned tenders will not be considered.

16. **PROCEDURE FOR SUBMISSION OF TENDERS:**

The tenders are required to be submitted in accordance with procedure set out at Clause No.4 of Instructions for Preparation and Submission of tenders.

17. Further to provision to this contract the other recoveries shall also include deduction of Income Tax at source, works contract tax, cess, etc. as may be applicable as per the prevailing rules and regulations.

18. Tax at source as applicable on the value of works contract in terms of Section 28 of Goa Value Added tax (Act) 2005. The present rate of such tax is 5% on the value of the work contract will be deducted from the bill(s) payable to the contractor. The contractor should indicate the registration number with all the applicable statutory authorities regarding service tax VAT, Sale tax (LST & CST).

19. The tenderers are requested to obtain Certificate of Registration under Rule No.24 of the Building and other Construction Workers Central Rules, 1998 from the office of the Dy. Chief Labour Commissioner, Mormugao.

20. The contractor should comply the provisions of the Building and Construction Workers (Regulations of Employment and Conditions of Services) Act, 1996. The Act envisages that every Contractor shall obtain registration certificate from the Registering Officer, if he engages 10 or more workers for the work.

21. Tenderers are requested to submit Audited Balance sheets along with their tender and quote their Permanent Account Number (PAN) / Employment Provident Fund No (EPF). In the absence of this information, The Board of Trustees of the Port of Mormugao will be at the liberty not to consider their tender, which will be deemed to be void.

22. **VALIDITY OF THE TENDER:**

The tenders shall remain valid for a period of 180 days from the date of submission of Bid offer.

CHIEF ENGINEER  
MORMUGAO PORT TRUST  
MORMUGAO – GOA

Mormugao, Headland Sada.  
Dated: 04.08.2016



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART I (iii) - FORM OF TENDER**

**The Chief Engineer,  
Mormugao Port Trust,  
MORMUGAO HEADLAND SADA (GOA).**

I/We \_\_\_\_\_ do hereby offer to execute the work comprised in the annexed Tender Notice “**PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH PAVING 30M WIDE AT MORMUGAO PORT, GOA**” in strict accordance with the Instructions to Tenderers, General Conditions of Contract (GCC), Specifications, etc. at the rate entered in the attached Schedule of Quantities and Rates.

2. I/We undertake to complete the work included in the Schedule of Quantities and Rates within **Nine months** from the date receipt of work order or date of release of site whichever is later. I/We also agree that this tender will remain open for acceptance until disposed off by the Trustees of Port Mormugao. I/We have independently considered the question of the amount of loss or damage likely to result to the Trustees from the delay on my/our part in the performance of the contract and I/We agree that the Liquidated damages at the rate of 0.5% of the contract price per week or part thereof's delay in work subject to a maximum ceiling at 5% of the contract price represents a fair estimate of the loss likely to result from the delay.

3. I/We enclose herewith a sum of **Rs.16,46,800/- (Rupees Sixteen lakhs forty six thousand eight hundred Only) towards earnest money deposit** in the form of Demand draft as proof of my/our willingness to enter into the contract if my/our tender is accepted.

4. In the event of my/our tender being accepted, I/We agree to enter into a contract in the prescribed form with such alterations or additions thereto which may be necessary to give effect to the acceptance of this tender and such contract shall contain and give full effect to the specifications, Schedule of Quantities and Rates attached to this tender.

5. I/We also agree, if awarded the contract that the earnest money lodged with this tender will be retained by the Trustees towards part of the Security Deposit and to make further deposit by cheque/demand draft of a Bank Guarantee, within fourteen days or such extension of the period permitted by the Chief Engineer, in writing, after receipt of information that my/our tender has been accepted by the Port Trust.

6. I/We further agree, if awarded the contract, to lodge the Retention Money equivalent to 5% of the contract price of my/our tender by way of deductions from my/our bills at the rate of 10% of the gross value of work certified in each bill till the amount of 5% of the contract price is accumulated.

7. Should this tender be accepted, I/we hereby agree to abide by and fulfil all the terms and conditions of the said tender annexed hereto, so far as applicable or in default thereof to forfeit and pay the Board of Trustees and/or its assignees, the sum of money mentioned in the said conditions and to execute and agreement in the prescribed form with the Mormugao Port Trust within 30 days of the award of the contract, or in default thereof, to forfeit the Earnest Money deposited by me/us. Unless and until, a formal agreement is prepared and executed, this tender together with your written acceptance thereof shall constitute a binding contract between us.

8. I/we undertake, if our tender is accepted, to commence the work within 15 days of receipt of the Chief Engineer's orders to commence and to complete and deliver the whole of the work comprised in the contract within the time allowed for the work.

9. A sum of **Rs.16,46,800/-** has been deposited by me/us with the Financial Adviser and Chief Accounts Officer of Mormugao Port Trust as Earnest Money, the full value of which is to be absolutely forfeited to the Board of Trustees without prejudice to any other rights or remedies of the said Board, should I/we fail to commence the work specified in the above mentioned memorandum, otherwise the said sum of **Rs.16,46,800/-** shall be detained by the Port Trust as a part of the Security Deposit as aforesaid.

10. I/we agree to abide by this tender to be valid for the period of six months from the date fixed for receiving/opening the same and it shall remain binding upon me/us and may be accepted any time before the expiration of that period.

11. I/we further agree that if I/we withdraw the tender before the expiration of this period of six months, or fail to execute an agreement in the form aforesaid within 30 days from the date of award of contract, the Earnest Money deposited shall be forfeited to the Board.

12. I/we understand that the Board is not bound to accept the lowest or any tender you may receive and may reject the same (the lowest) or any other tender without assigning any reason therefore.



13 "I have read and understood the General conditions and specification of the work which are printed in Volume – I supplied to me by the Department which will form a part of tender and this shall remain binding on me".

14. I /we have enclosed herewith the following documents as required under instructions to tenderers:-

- a) Organisation Chart.
- b) List of similar works carried out by me/us.
- c) Bar Chart.
- d) List and description of main plant and equipments proposed to be used on this work and Proforma 1 to 6.

15. I/We have inspected the site and I am /we are fully aware of the work to be carried out while tendering for the contract.

16. (A) Mine is a proprietary firm and I am sole proprietor of the firm. My firm is/is not registered with Registrar of firms.

Name : \_\_\_\_\_

Age \_\_\_\_\_ Years

(B) Ours is a partnership firm and the names of all major partners are given below:

	NAME	AGE
1.	_____	_____ Years
2.	_____	_____ Years
3.	_____	_____ Years
4.	_____	_____ Years

We understand and confirm that if our offer is accepted, the contract will be entered into with the above mentioned partners only and the Trustees will not recognize or deal with any minor partners of their guardians.

(C) Ours in a company with liability and a copy of our Memorandum and Articles of Association will be sent for perusal upon acceptance of our offer.

Proposed contract is intended to be signed by a duly constituted Attorney and original power of Attorney in his favour will be submitted for perusal immediately on acceptance of the tender.

17. The name and address of our Banker is \*\* \_\_\_\_\_  
\_\_\_\_\_

18. My/our permanent Income Tax Accountant No. is \_\_\_\_\_.

Witness's

Tenderer's

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tel. No. \_\_\_\_\_

Tel No. \_\_\_\_\_

Hand Phone (Mobile) No. \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

N. B. : Strike out whichever is not applicable.

Here the Name of the Bank should be stated.

NAME AND ADDRESS OF TENDERER:-

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF TENDERER

Witness: - \_\_\_\_\_

Date: \_\_\_\_\_ Day of \_\_\_\_\_ 2016

Witness: - \_\_\_\_\_

Witness: - \_\_\_\_\_



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**PART I (iv) APPENDIX- I**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**APPENDIX TO THE TENDER NOTICE - I**

The following Clauses shall be read in conjunction with respective Clauses of  
General Conditions of Contract (GCC)

Sr. No.	Particulars	Clause of G. C. C.	
1.	Amount of initial security and time	11(1)	Five percent of the contract price and 27 months.
2.	Period for commencement from the Chief Engineer's orders to commence.	38	15 days
3.	Period of Completion	40	9 (Nine) months
4.	Amount of liquidated damages.	43	Calculated at 0.5% value of the contract per week of seven days, or part thereof subject to a ceiling of 5% value of the contract.
5.	Free maintenance period.	45(1)	One Year
6.	Percentage of retention from each running account bill	54(1)	10%.
7.	Limit of Retention Money	54(1)	5% of value of the contract.
8.	Total initial Security Deposit and Retention Money.	11(1) 54(1)	10% of value of the contract.
9.	Minimum amount of interim Certificate.	54(1)	Rs. 50,00,000/-.
10.	Time within which payment to be made after contractor's submission of the bill based on the joint measurement.	54(1)	100 % within 15 working days

11.	Mobilisation Advance	N.A	N.A
12.	Interest rate on mobilization advance.	N.A	N.A
13.	Mode of recovery of Mobilisation Advance	N.A	N.A
14.	Variation in price of labour and materials.	70	Not Applicable to this contract.
15.	Arbitration Clause	66	Not Applicable to this contract.
16.	Minimum amount of third party Insurance.	Cl. No.13 to 15 of Special Instructions of Volume-I	5% of the tendered amount.
17.	Lease rent.	Cl. No.9 to 11 of Special Instructions of Volume-I	Refer Appendix III

Dated this ----- day of ----- 2016

Signature ----- in the capacity of \_\_\_\_\_

----- duly authorised to sign tender for and

on behalf of -----.

( IN BLOCK LETTERS )

ADDRESS : -----

-----

-----

Witness : \_\_\_\_\_

\_\_\_\_\_

Occupation : \_\_\_\_\_

\_\_\_\_\_



**APPENDIX- II**

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**MATERIALS TO BE SUPPLIED BY THE DEPARTMENT FOR THE WORK**

Sr. No.	Description of materials	Approx. qty. to be supplied	Unit	Rate in Figures/Words	Place of Delivery
1.	Water	--	Cubic Metre	Rs.40/m3 (Rupees Forty only)	Ref. Clause No.9.19 of Special Conditions – Vol.I
2.	Electric Power	----	KWH	Electric supply as per the relevant rate applicable and supply point will be indicated by the CME's Department.	Ref.Clause No.9.20 of Special Conditions – Vol.I
3.	Harbour Entry Permit (HEP)	--	--	As applicable	To be Collected from Traffic Department

\_\_\_\_\_  
SIGNATURE OF THE TENDERER



**APPENDIX- III**

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**ESTATE RENTAL CHARGES**

Sr. No.	Description	<u>Rate*</u> Rs.	Remarks
1.	Licence fees on Port land for maintenance office buildings and other structures.	Rate will be charged as per scale of rates prevailing during period of contract.	Payment shall be made in advance to CDC Section, Finance Dept.

NOTE : Location of suitable area subject to the availability shall be decided by the Chief Engineer.

\* Rate per 10 sq. m. or part thereof per calendar month or part thereof.  
-----

\_\_\_\_\_  
SIGNATURE OF THE TENDERER



PROFORMA 1

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**AVERAGE ANNUAL TURN OVER CARRIED OUT AS PRINCIPAL  
CONTRACTOR DURING EACH OF LAST THREE YEARS ENDING 31<sup>ST</sup> MARCH  
2015.**

( Ref : 1.2A of the Tender Notice )

(Rs. in lakhs)

Sr.No.	Tender No.	Name of the work	Employer	Amount received
1	2	3	4	5

A)Make separate statement for each of the three years

B)Use continuation sheet for each year if required

NAME, SIGNATURE & SEAL OF  
CHARTERED ACCOUNTANT

NAME, SIGNATURE  
& SEAL OF TENDERER :

TELEPHONE NO. :

DATE :

DATE :



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**METHOD STATEMENT**

(The tenderer shall submit Method Statement i.e. a write up with full technical particulars and explanatory drawings indicating the method of construction as required under Clause No.1.2.2 of eligibility criteria stipulated in Tender Notice).





PROFORMA 3

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**LIST OF MAJOR TOOLS, PLANT AND MACHINERY, SURVEY EQUIPMENTS,  
TESTING APPARATUS IN WORKING CONDITION AND  
OWNED BY THE TENDERER  
(USE CONTINUATION SHEET IF REQUIRED)**

SR. NO.	DESCRIPTION	NO. OF UNITS	YEAR OF PURCHASE	PRESENT CONDITION	PRESENT LOCATION
	MAKE				
	CAPACITY				
1	2	3	4	5	6

CERTIFIED THAT THE ABOVE  
INFORMATION IS TRUE AND CORRECT

NAME, SIGNATURE & SEAL OF  
CHARTERED ACCOUNTANT

NAME, SIGNATURE  
& SEAL OF TENDERER :

DATE :

DATE :





**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**QUALIFICATION AND EXPERIENCE OF LEADING EMPLOYEES OF THE FIRM**  
(USE CONTINUATION SHEET IF REQUIRED)

SR. NO.	NAME OF PERSON	AGE	PROFESSIONAL EXPERIENCE DETAILS	POSITION HELD IN THE FIRM	SINCE WHEN
		QUALIFICATION			
1	2	3	4	5	6

NAME, SIGNATURE & SEAL OF  
CHARTERED ACCOUNTANT

NAME, SIGNATURE  
& SEAL OF TENDERER :

TELEPHONE NO. :

DATE :

DATE :



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**EXPERIENCE TO WORK IN TRAFFIC BLOCK CONDITIONS**  
(USE CONTINUATION SHEET IF REQUERUIRED)

Sr. No.	Name of the Work	Client	Details, Period, etc.	Documentary Evidence if any

NAME, SIGNATURE  
& SEAL OF TENDERER



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART II (i) - INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF  
TENDER**

1. **EARNEST MONEY DEPOSIT (EMD) :**
  - 1.1 The Earnest Money shall be lodged by the tenderer on the understanding that in the event of the tenderer withdrawing his tender before the expiry of the tender validity period stipulated in the Tender Notice, the Earnest Money deposited by the tenderer shall be forfeited.
  - 1.2 Earnest Money Deposit will be accepted only in the form of Demand Draft issued from any Nationalised or Scheduled Banks having office in the State of Goa. The same shall be drawn in favour of "FA&CAO/MPT" and payable at Vasco -de- Gama. EMD in cash or in the form of Bank Guarantee will not be accepted.
  - 1.3 For Two cover bidding procedure i.e. one is Technical Bid and other is Financial Bid, the E.M.D. should be placed in a third cover. All the three covers shall be placed in fourth cover properly sealed. The inner envelopes should be separately marked "EMD", "Technical bid" and "Financial Bid". The outer envelope should bear identifications such as (i) Tender No., (ii) Description of work, (iii) Bidders Name and Address and (iv) Time and Date of Bid opening.
  - 1.4 Bids if not accompanied by the requisite Earnest Money Deposit (EMD) and in the manner described at 1.2 and 1.3 above is liable to be rejected at the discretion of the Port.
  - 1.5 Tenderers exempted from depositing Earnest Money Deposit (EMD) by the Competent Authority shall attach with the tender, a copy of the letter exempting him/them from lodging the Earnest Money Deposit (EMD). This letter should be placed in a separate cover marked as E.M.D. as indicated at 1.3 above.
  - 1.6 Proper receipt for having received the Earnest Money Deposit (EMD) shall be issued to the bidders after opening the bids.

1.7 **Refund of Earnest Money Deposit:**

Mormugao Port Trust will return, generally within 10 days of the opening of the price covers of the tenders; the Earnest Money Deposits lodged by all tenderers except for those whose offers are ranked as the first three lowest acceptable tenders. Such tenderers are requested to contact the Sr. Asst. Secretary, Engineering (Civil) Department in the Head Office for claiming.

1.8 E.M.D. of other tenderers, i.e. any two among the first three lowest tenderers will be refunded to them only after acceptance of work order by successful tenderer. E.M.D. of successful Contractor will be retained as part of Initial Security Deposit (I.S.D.)

1.9 The return of Earnest Money will be effected either by way of returning the Banker's cheque lodged by the tenderers or by issuing a cheque drawn on the State Bank of India. The Mormugao Port Trust will not be responsible for reimbursing to the tenderers the Banker's commission for en-cashing the cheque.

2. **INSPECTION OF SITE**

Tenderers are advised to inspect the site before tendering and fully acquaint themselves about the nature and scope of the works to be carried out and other factors relating to the performance of the contract as no claims or complaint/s will be entertained after award of the contract in this context.

3. **DECLARATION AS REGARDS EMPLOYMENT OF MPT'S FORMER CLASS- I OFFICERS**

The tenderer should furnish information before the award of the contract, whether he himself or any of his partners, Directors, or employees had held a Class I post in the Mormugao Port Trust within the period of last two years.

4. **PROCEDURE FOR PREPARATION OF TENDERS BY TENDERERS:**

4.1 The tenderer shall complete the annexed Tender, Schedule of Quantities and Rates and insert all the information called for therein, sign and date them. Unsigned tenders will not be considered. The tenderer shall furnish with the tender a xerox copy of the Power of Attorney, or other acceptable authorisation of the person/s signing the tender, unless such copy is already registered with the Mormugao Port Trust.

4.2 Tenderers must return the complete tender set. The tender documents shall not be defaced or detached. Additions and alterations or interpolations shall not be made in the tender document.

4.3 The prices and amounts quoted by the tenderer shall allow for all costs including, labour, material, equipment, transport.

- 4.4 Unless otherwise stipulated in the Tender Notice, the tenderer shall submit his tender strictly based on the official design and specifications.
- 4.5 All the tenderer shall submit/ furnish along with the tender the followings:-
- (a) Method Statement giving write-up with full technical particulars indicating the methods of construction, having regard to all reasonable contingencies that may arise in the nature of work put to tender. The purpose of the Method Statement is limited to assess the tenderer's technical capabilities and the acceptance of a tender does not imply the Mormugao Port Trust's concurrence to the Method Statement.
  - (b) Detailed CPM network based programme for execution of the work. The network chart shall show the various identifiable activities, their logical inter-dependencies, the duration of each activity, backed up by break-up of the resources based on which the duration has been estimated, the source (owned/ to be purchased/ hired) of the envisaged resources. The network shall show earliest and latest week number of commencement and completion of each activity. Based on an analysis of such a network programme/bar chart and a list of control milestones shall also be submitted. The network, bar chart and list of milestones shall be signed and dated by the tenderer and shall be treated as an integral part of his tender. The starting point of time of such network and bar chart shall be the date of receipt of the acceptance letter by the successful tenderer or handing over of the site or part thereof by the Mormugao Port Trust to the Contractor. The tenderer should note that though the completion period includes monsoon and it is possible that works may be affected by monsoon. However he has to plan all his activities in such a manner that work will be completed in the stipulated period.
  - (c) All tenderers must furnish complete information in accordance with Part I of this document alongwith Proformae 1 to 6.

## 5. **SUBMISSION OF TENDER:**

The tenderer is required to submit his tender in the manner described below.

### 5.1 **Tenders invited under Two Cover System:**

- 5.1.1 The tender is required to be submitted in Two Cover System and First cover shall contain:
- (a) All the tender document i.e. Part I to Part III including the required information of the tenderer's along with the Proformae duly filled in excluding Preamble to Schedule of Quantities and Rates, Schedule of Quantities and Rates and Form of Tender i.e. Part IV which is required to be sealed separately in second cover.

- (b) All the accompaniments set out in Clause 4.5 above
  - (c) The First sealed cover shall be superscribed with the Tender Number, Name of Work, Due Date and with the words “TECHNICAL BID (Cover No.1)–To Chief Engineer” and should bear in the bottom left corner, the Name of Tenderer.
  - (d) Duly executed power of attorney in the name of Bidders authorised representatives to act on behalf of Bidder in case of Firms/ Partnership duly authenticated by a Notary Public.
  - (e) **All Technical Certificates and Financial Statements shall be certified by the Statutory Auditors of the firm. Copy of Appointment Order/ Resolution in respect of Statutory Auditors also to be submitted.**
- 5.1.2 The Second sealed cover shall contain Preamble to Schedule of Quantities and Rates, Schedule of Quantities and Rates and Form of Tender i.e. Part IV in the form as described in Clause No.5.1.1(a) above as the case may be. The Second sealed cover shall be superscribed with the Tender Number, Name of the work, Due date and with the words “FINANCIAL BID– (Cover No.2)” and should bear in the bottom left corner, the Name of the Tenderer.
- 5.1.3 The Tenderer must ensure that his tendered amount or rates are not mentioned, either directly or indirectly in any of the papers enclosed in the First cover. If any such mention is made there, the tender is liable to be treated as invalid and will not be considered.
- 5.1.4 The EMD shall be placed in “Third cover” marked as “EMD” and all the three covers shall be placed in “Fourth cover” properly sealed which shall be superscribed with the Tender Number, Name of the work, Due date and with the words “Complete Tender” and shall be addressed to the Chief Engineer, Mormugao Port Trust. The Name of Tenderer shall appear in the bottom left corner of the cover. Tenderer should also write on this cover whether the tender is submitted against EMD lodged with the tender or against Permanent Earnest Money Deposit.
- 5.2 **Delivery of Tenders**
- 5.2.1 The tenders duly completed in accordance with the "Instructions for preparation and submission of tender" contained in this tender document should be placed in the Tender Box (marked “**Tender No. CE/56/2016**”) kept outside the cabin of the Asst. Exe. Engineer (Accts), Civil Engineering Department, Administrative Office Building, Mormugao Port Trust, Headland Sada, Mormugao, 403804, Tel: 0832 2594628. upto 3.00 pm on due date as indicated in face sheet and First cover Chief Engineer, Mormugao Port Trust offers will be opened at 3.30 p.m. on the same date in the presence of such of the tenderers who may wish to be present.
- 5.2.2. The tenders addressed to the Chief Engineer/MPT whether sent by post or by hand delivery must reach the office of the Asst. Exe. Engineer (Accts), Civil Engineering Department, Mormugao Port Trust, Administrative Office



Building ,Headland Sada , Mormugao ,403804, on or before the due date and time. **OFFERS RECEIVED LATE WILL NOT BE CONSIDERED EVEN THOUGH POSTED BEFORE THE DUE DATE AND TIME.**

5.2.3. Offers sent by Telex/Telegram/FAX will **not** be considered.

5.2.4. Unsigned tenders will not be considered.

6. **OPENING OF TENDERS:**

6.1 The tender will be opened at the time and date notified in the Tender Notice, in the presence of such of the tenderers who may wish to be present.

6.2 In the case of Two cover tenders, only the First cover marked to Chief Engineer, (MPT) will be opened at the time and date notified in the Tender Notice.

6.3 The Second cover i.e. **“Financial Bid”** of non-qualified bidders will be retained unopened and no correspondence on this decision will be entertained. The Second covers of only those tenderers, who are found to be eligible, will be opened later. The date and the time of opening the Second cover will be notified to the concerned tenderers and the Second cover will be opened in the presence of such of those tenderers who may wish to be present.

7. **VALIDITY PERIOD OF TENDERS**

The validity period of the tender shall be 180 days after the submission of the Bid Offer. Tenders with a shorter validity period shall be rejected.

8. Tenderers should not send revised or amended offer after the closing day and the time of tender.

9. The contractor shall take special care to protect and support at their own cost the underground service like electrical cables, telephone cables, water-mains, drainage pipelines and other services lines etc. coming in the way of works.

10. Further clarification, if any, can be obtained from the Executive Engineer, (P&C Section) Engineering Civil Department, Mormugao Port Trust or by contacting the officer designated in the Tender Notice.

11. The tenderers are not allowed to fill in the tender or seal the tender in the MPT premises.

CHIEF ENGINEER  
MORMUGAO PORT TRUST  
MORMUGAO – GOA

Mormugao, Headland Sada.  
Dated: 04.08.2016



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART II (ii) - JOINT VENTURE**

- 1 The number of members in the Joint Venture (JV) shall be restricted to two.
- 2 Lead member of the JV shall have equity share of minimum 51% and maximum 74%. Lead member shall satisfy Financial and Technical criteria specified in the tender.
- 3 Other member of JV shall satisfy Financial criteria specified in the tender. Other member of JV shall execute similar work not less than 15% of the estimated cost of put to tender.
- 4 All the members of the joint venture shall be, jointly raise the finance whenever required and jointly responsible for the liability, during the bidding process and for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization or memorandum of understanding or joint venture Agreement. The bid shall be signed so as to legally bind all the members, jointly or severally.
- 5 Bids submitted by a joint venture (JV) shall comply with the following requirements:
  - a) A copy of the Joint Venture Agreement (JVA) entered into by the partners shall be submitted with the bid. JVA shall include among other things, the Joint Venture's objectives, the proposed management structure, the contribution of each partner to the Joint Venture operation, the commitment of the partners to joint and several liability for due performance, recourse / sanctions within the Joint Venture in the event of default or withdrawal of any partner and arrangements for providing the required indemnities.
  - b) The most experienced partner will be the Lead Partner and nominated as the partner- in-charge; in pursuance to Clause 2 and this authorisation shall be evidenced by submitting a power of attorney signed by the legally authorised signatories of all the partners. The most experienced partner (Lead Partner) will be the one defined as such in the communication approved the pre-qualification.

- c) The most experienced partner (Lead Partner) of the joint venture will provide suitable experienced personnel at site for the purpose of general planning, site management and plant operations, during the whole period of contract execution and a statement to this effect should be included in the Joint Venture Agreement.
- d) The bid, and in the case of the successful bidder, the Form of Agreement shall be signed and / or executed in such a manner as may be required for making it legally binding on all partners (including operative parts of the ensuing Contract in respect of Arbitration Agreement etc.)
- e) The partner-in-charge shall be authorised to incur liabilities and to receive instructions for and on behalf of all partners of the Joint Venture and the entire execution of the Contract including payment shall be carried out exclusively through the partner-in-charge. A statement to this effect should be included in the joint venture agreement.
- f) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a statement to this effect shall be included in the joint venture agreement.
- g) Bid Security (EMD) as required can be furnished by any partner but it should be in the name of joint venture.
- h) Performance guarantee, as required, will be furnished by all partner(s), out of their accounts, in proportion to their participation in Joint Venture.
- i) Joint Venture Agreement shall contain a clause to the effect that there shall be a separate JV Bank Account (distinct from the Bank Accounts of the individual partners) to which the individual partner shall contribute their share capital and / or working capital.
- j) Joint Venture Agreement shall also contain a clause to the effect that the financial obligations of the JV shall be discharged through the said JV Bank Account only and also all the payments received by the JV from the Employer shall be through that account alone.
- k) In the event of default by the most experienced partner (lead Partner), it shall be constructed as default of the Contractor; and Employer will take action under Conditions of Contract.
- l) In the event of any other partner leaving the JV, it shall be intimated to the Employer within 30 days by the other partner(s). Failure to do so

shall be construed as default of the Contractor and the Employer may take action under the Conditions of Contract.

- m) In case the joint venture agreement is not acceptable to the Employer, the joint venture will modify the agreement so as to be acceptable to the Employer.
- n) The bid submitted shall include all the information as per the PROFORMA in the bid document and furnished separately for each partner.
- o) In case of withdrawal of any partner from the JV the following shall be applicable:
  - i) Stepping into the shoes of the existing partners of JV with all the liabilities of the existing partners from the beginning of the Contract;
  - ii) With the prior approval of the Employer;
  - iii) Notwithstanding demarcation or allotment of work between two JV partners, JV shall be liable for non-performance of the whole contract irrespective of their demarcation or share of work; and
  - iv) The payments under the contract will only be made to the JV and not to the individual partners.

## JOINT VENTURE PARTNER INFORMATION FORM

[The Tenderer shall fill in this Form in accordance with the instructions indicated below].

Date: insert date (as day, month and year) of Tender Submission].

Tender No.: [insert number of Tendering process]

1. Tenderer's Legal Name: [insert <i>Tenderer's legal name</i> ]
2. JV's Party Legal name: [ <i>insert JV's Party legal name</i> ]
3. JV's Party Country of Registration: [ <i>insert JV's Party country of registration and details of registration</i> ]
4. JV's Party Year of Registration: <i>Insert JV's Party year of registration</i>
5. JV's Party Legal Address in Country/ of Registration: [ <i>insert JV's Party legal address in country of registration</i> ] JV's Party Authorized Representative Information Name: [insert name of JV's Party authorized representative]
6 Address: [insert address of JV's Party authorized representative] Telephone/Fax numbers: [insert telephone/fax numbers of JV's Party authorized representative] Attached are copies of original documents of: [ <i>check the box(es) of the attached original documents</i> ] <ul style="list-style-type: none"><li>○ Articles of Incorporation or Registration of firm named in 2, above, in accordance with Tender Document</li><li>○ In case of government owned entity from India, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with Tender Document</li><li>○ PAN Number</li><li>○ Sales Tax / VAT registration Number</li><li>○ Service Tax Registration Number</li><li>○ Any other documents required for statutory compliance</li></ul>

Duly authorized to sign this Authorization on behalf of : [*Insert complete name of Tenderer*]

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ [*insert date of signing*]



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART II (iii) a FORM OF AGREEMENT**

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ two thousand six BETWEEN the Board of Trustees of the Port of Mormugao, a body corporate under the Major Port Trusts Act. 1963 (herein under referred to as “the Board” which expression shall unless repugnant to the context or meaning thereof mean and include their successors and assigns) of the ONE PART of M/s. \_\_\_\_\_, having their registered office at \_\_\_\_\_ (hereinafter referred to as “the contractor”, which expression shall unless repugnant to the context or meaning thereof, mean and include their heirs, executors, administrators, representatives and assignees or successors in office) of the OTHER PART.

WHEREAS the Board is desirous of executing the work of “**PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH PAVING 30M WIDE AT MORMUGAO PORT, GOA**” on the terms and conditions stipulated in the contractor’s tender dated \_\_\_\_\_ and read with the conditions contained in the tender documents attached to the above mentioned tender.

AND WHEREAS the contractor by their above mentioned tender has offered to execute, complete and maintain such work, which tender has been accepted by the Board and such tender with correspondence, specifications, schedule. Amendments and acceptance thereof will constitute abiding contract between the Board and the contractor.

AND WHEREAS the contractor has furnished to the Board, a Bank Guarantee No. \_\_\_\_\_ dated \_\_\_\_\_ for a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as Initial Security for the due performance and observance by the contractor of the terms and conditions of this Agreement.

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

01. In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract herein after referred to.
02. The following documents shall be deemed to form and be read and construed as part of this agreement.

(A) **COVER No. - I**

- a. Contents of Tender Document
- b. Undertaking by the Tenderer
- c. Tender Notice
- d. Clause of General Conditions of Contract.
- e. Appendix I
- f. Appendix II (Materials to be supplied by Department)
- g. Appendix III (Estate rental)
- h. Proforma 1, 2, 3, 4, 5 & 6
- i. Instructions for preparation and submission of tender.
- j. Joint Ventures
- k. Additional special instructions.
- l. Scope of Work
- m. Form of Bank Guarantee for EMD and Security Deposit and Form of Agreement (Annexures I & II)
- n. Indicative Drawing No.H/841 R1
- o. A printed set containing Instructions to tenderers, General and special conditions of contract. (VOLUME –I)

(B) **COVER No. II**

- i) Preamble to Schedule of Quantities and Rates
- ii) Schedule of quantities and rates
- iii) Tender Form
- iv) Contractor's acceptance letter No. \_\_\_\_\_ dated \_\_\_\_\_.
- iv) Any other relevant correspondence exchanged upto the issue of work order which has not been specifically mentioned above.

- v) All additional drawings, specifications and written Instructions when issued by or approved in writing by the Chief Engineer as per clause No.9 of the General Conditions.
03. The contractor hereby covenants with the Board to construct, complete and maintain the work in conformity in all respects with the provisions of the contract.
04. The Board hereby covenants to pay to the contractor the contract price in consideration of the construction, completion and maintenance of the work, at the times and in the manner prescribed by the contract.
05. IN WITNESS WHEREOF THE PARTIES HAVE placed their hand and seals, the day, month, year first above written

THE COMMON SEAL OF THE TRUSTEES OF

THE PORT OF MORMUGAO HAS HEREUNTO  
AFFIXED AND THE CHAIRMAN THEREOF CHIEF ENGINEER  
HAS HEREUNTO SET HIS HAND IN THE  
PRESENCE OF

- 1.
- 2.

SIGNED AND SEALED BY THE CONTRACTOR  
IN THE PRESENCE OF

- 1.
- 2.





**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART II (iii) b FORM OF BANK GUARANTEE FOR SECURITY DEPOSIT**

1. In consideration of the Board of Trustees of the Mormugao Port Trust (hereinafter called "The Board") having offered to accept the terms and conditions of the proposed agreement between \_\_\_\_\_ and \_\_\_\_\_ (hereinafter called "the said Contractor(s)" for the work \_\_\_\_\_(hereinafter called "the said agreement") having agreed to production of an irrevocable Bank guarantee for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as a security/guarantee from the Contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.
  
2. We \_\_\_\_\_ (hereinafter referred to as the "Bank") hereby undertake to (indicate the name of the Bank) pay to the Board an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) on demand by the Board.
  
3. We \_\_\_\_\_ do hereby undertake to pay the amounts due and payable (indicate the name of the Bank) under this Guarantee without any demur, merely on a demand from the Board stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only).

4. We, the said Bank, further undertake to pay to the Board any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder, and the Contractor(s) shall have no claim against us for making such payment.
5. We \_\_\_\_\_ further agrees that the Guarantee herein contained shall (indicate the name of the Bank) remain in full force and effect during the period that would be taken for the performance of the said agreement, and it shall continue to be enforceable till all the dues of the Board under or by virtue of the said agreement have been fully paid, and its claims satisfied or discharged, or till the Engineer-In-Charge, on behalf of the Board, certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s), and accordingly discharges this Guarantee.
6. We \_\_\_\_\_ further agree with the Board that the Board (indicate the name of the bank) shall have the fullest liberty without our consent, and without effecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Board against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement, and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Board or any indulgence by the Board to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
7. This guarantee will not be discharged due to the change in the Constitution of
8. the Bank or the Contractor(s).

9. We \_\_\_\_\_ lastly undertake not to revoke this Guarantee except with (indicate the name of the Bank) the previous consent of the Board in writing.

10. This Guarantee shall be valid upto \_\_\_\_\_ unless extended on demand by the Board. Notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only), and unless a claim in writing is lodged with us within six months of the date of expiry or extended date of expiry of this Guarantee all our liabilities under this Guarantee shall stand discharged.

Dated the \_\_\_\_\_ day of \_\_\_\_\_ For \_\_\_\_\_

(indicate the name of the Bank)



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART II (iv) PROFORMA OF PRE CONTRACT INTEGRITY PACT**

**General**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on \_\_\_\_\_ day of the month of \_\_\_\_\_ 2014, between, on one hand, the Board of Trustees of Mormugao Port Trust acting through Shri. \_\_\_\_\_, (Designation of the Officer), Mormugao Port Trust (hereinafter called the 'EMPLOYER', which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s. \_\_\_\_\_ represented by Shri. \_\_\_\_\_, Chief Executive Officer (hereinafter called the "BIDDER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the 'EMPLOYER' has invited bids for the project of **“Providing Full Rake Handling Railway Line with Paving 30m Wide at Mormugao Port, Goa”** (hereinafter referred to as the **“Project”**) and the BIDDER is submitting his bid for the project and WHEREAS the BIDDER is a Private Limited company/Public Limited company/Government undertaking/registered partnership firm/ constituted in accordance with the relevant law in the matter and the 'EMPLOYER' is Mormugao Port Trust.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the EMPLOYER to obtain the desired said stores/equipment/ services/works at a competitive price in conformity with the defined specifications by

avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the 'EMPLOYER' will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

**Commitments of the 'EMPLOYER'**

- 1.1 The 'EMPLOYER' undertakes that no official of the 'EMPLOYER', connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The 'EMPLOYER' will, during the pre-contract stage, treat all BIDDERS alike and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the 'EMPLOYER' will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the 'EMPLOYER' with full and verifiable facts and the same is prima facie found to be correct by the 'EMPLOYER' necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings

may be initiated by the 'EMPLOYER' and such a person shall be debarred from further dealings related-to the contract process. In such a case while an enquiry is being conducted by the 'EMPLOYER' the proceedings under the contract would not be stalled.

### **Commitments of BIDDERS**

3.0 The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the 'EMPLOYER' connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the 'EMPLOYER' or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.

3.3\* BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.

3.4\* BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

3.5\* The BIDDER further confirms and declares to the 'EMPLOYER' that the

- BIDDER has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the EMPLOYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the 'EMPLOYER' or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
  - 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
  - 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
  - 3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the 'EMPLOYER' as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
  - 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
  - 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the 'EMPLOYER' or alternatively, if any relative of an officer of the 'EMPLOYER' has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the 'EMPLOYER'.

#### **4. Previous Transgression**

4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify bidder's exclusion from the tender process.

4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

#### **5. Earnest Money (Security Deposit)**

5.1 While submitting commercial bid, the BIDDER shall deposit an amount \_\_\_\_\_ (to be specified in Bid Document) as Earnest Money/Security Deposit, with the 'EMPLOYER' through any of the following instruments:

- (i) Bank Draft or a Pay Order in favour of \_\_\_\_\_
- (ii) A confirmed guarantee by an Indian Nationalised Bank, promising payment of the guaranteed sum to the 'EMPLOYER' on demand within 3 working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the



'EMPLOYER' shall be treated as conclusive proof of payment.

(iii) Any other mode or through any other instrument (to be specified in the Bid Document).

5.2 The Earnest Money/Security Deposit shall be valid upto a period of \_\_\_\_\_ months or the complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the EMPLOYER, including warranty period, whichever is later.

5.3 In case of the successful BIDDER, a clause would also be incorporated in the Article pertaining to Performance Security in the Project Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Security in case of a decision by the EMPLOYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.4 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.5 No interest shall be payable by the 'EMPLOYER' to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

## **6. Sanctions for Violations**

6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the 'EMPLOYER' to take all or any one of the following actions, wherever required:-

(i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

(ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the 'EMPLOYER' and the 'EMPLOYER' shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

(iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the EMPLOYER, alongwith interest.

(vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall, be liable to pay compensation for any loss or damage to the 'EMPLOYER' resulting from such cancellation/rescission and the 'EMPLOYER' shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

(vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the 'EMPLOYER' or take action as per the procedure mentioned in the "Guidelines on Banning of Business dealings." Copy of the Guidelines on Banning of business dealings" is annexed and marked as Annexure.

(viii) In cases where irrevocable Letters of Credit have been received in

respect of any contract signed by the EMPLOYER with the BIDDER, the same shall not be opened.

(ix) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

(x) Forfeiture of Performance Guarantee in case of a decision by the 'EMPLOYER' to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2 The 'EMPLOYER' will be entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3 The decision of the 'EMPLOYER' to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

## **7. Failure Clause**

7.1 The BIDDER undertakes that it has not performed/is not performing similar project at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar project was performed by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the 'EMPLOYER', if the contract has already been concluded.

## **8. Independent Monitors**

8.1 The 'EMPLOYER' has appointed the following Independent Monitors

(hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission.

**SHRI AJIT RAIZAD, Retd. IAS**

- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/bidding, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the EMPLOYER,
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the EMPLOYER, including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7 The EMPLOYER, will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of EMPLOYER within 8 to 10 weeks from the date of reference or intimation to him by the EMPLOYER/ BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

## **6. Facilitation of Investigation**

In case of any allegation of violation of any provisions of this pact or payment of commission, the EMPLOYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

## **10. Law and Place of Jurisdiction**

This Pact is subject to Indian Law.' The place of performance and jurisdiction is the seat of the EMPLOYER

## **11. Other Legal Actions**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

## **12. Validity**

- 12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the EMPLOYER and the BIDDER, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 12.3 If the BIDDER is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

13. The parties hereby sign this Integrity Pact at \_\_\_\_\_ on \_\_\_\_\_

EMPLOYER

BIDDER.

Name of the Officer.

CHIEF EXECUTIVE OFFICER

Designation

Deptt./MINISTRY/PSU

Witness

1. \_\_\_\_\_
2. \_\_\_\_\_

Witness

1. \_\_\_\_\_
2. \_\_\_\_\_,

\* Provisions of these clauses would need to be amended/ deleted in line with the policy of the EMPLOYER in regard to involvement of Indian agents of foreign bidders.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART – III (i) SCOPE OF WORK**

1. The proposed work comprises of:
  - a) Earth work in filling with ordinary soil/murum.
  - b) Murum Blanketing on the Railway formation with blanket material viz murum, quarry/ crusher grit etc
  - c) Earthwork in cutting in formation and side & catch water drains etc. In Ordinary/ Hard Soil and In Soft Rock ( RNRB )
  - d) Supplying transporting and handling machine crushed stone ballast of 50mm size clean angular, hard and durable track ballast
  - e) Laying and linking Permanent way on straight /curve with 60 Kg rails on 60 kg PSC sleepers with elastic fastenings fish plated tracks
  - f) Assembling and Insertion of 1 in 8 1/2 Turnouts 60 kg with curved switch and CMS crossing on Fan shaped PSC sleepers
  - g) Assembling & fixing of Spring Loaded hand operated Lever boxes to the Turnouts
  - h) Through packing of newly laid tracks I<sup>st</sup> packing, II<sup>nd</sup> packing and Final packing on straight or curve with any sleeper density to a good and acceptable geometry to conform to specified alignment & level and other track parameters
  - i) Through packing of newly laid 1 in 8 1/2 turnouts/points and crossing I<sup>st</sup> packing, II<sup>nd</sup> packing and Final packing to bring them to a good and acceptable geometry to conform to specified line, and levels and parameters
  - j) Fixing check rails with complete fittings on PSC sleepers at level crossings, curves, etc., as per the specification and drawings
  - k) Erection of prefabricated Buffer stop.
  - l) Erection of level crossings.
  - m) Supplying of 60kg Track rails flat bottom T-12 as per I-R specification T-12/96 including transportation and handling
  - n) Supplying of 52kg rails for Check Rails purpose at level crossings and curves on PSC sleepers including transportation and handling

- o) Supplying of 60kg PSC Mono Block Sleepers as per IRS specification T-39/1993 Cor.4 of October 2003 for Plain and Curved Tracks including transportation and handling
- p) Supplying of Fish Plates, 60kg as per RDSO Drg No T-1898 with bolts as per drg. No T-1899
- q) Supplying of Check Blocks, Bolts, Nuts as per approved design and drawings
- r) Supplying of Grooved rubber pads as per Drg No RDSO/T-3711
- s) Supplying of GFN Liners to RDSO Drg No T-3706
- t) Supplying of Elastic Rail Clips as per Drg no RDSO/T-3701
- u) Supplying of Junction Fish Plates to match 52kg/60 kg rail section as per latest approved RDSO Drgs.
- v) Supply of 1 in 81/2 Turnouts (L.H. = 2 & RH = 2) 60kg with curved switch and CMS crossing suitable to 60 kg on Fan shaped PSC sleepers including transportation and handling
- w) Supply of Spring loaded Hand lever boxes as per approved design and drgs including transportation and handling
- x) Supply of buffer stop as per approved design and drg. and Supply of Level Crossing Material.
- y) Providing Soling for storm water drain and paving area to the required thickness.
- z) Plain Cement Concrete (1:3:6) for drain and paving area using 20mm graded black trap stone metal as coarse aggregate.
- aa) Providing and placing in position RCC Precast drain cover slabs of grade M30 for covering the drains of size 75x45x20cm, 60x45x20cm & 60x30x10cm thick.
- bb) Providing & fixing shuttering /formwork, concrete of (1:2:4) grade, for storm water/service trenches, M25 grade in retaining walls and M30 grade for pre-cast drain cover slabs.
- cc) Providing & fixing reinforcement for Precast drain cover slabs.
- dd) Providing water bound macadam road having a consolidated thickness of 7.5cm.
- ee) Providing and laying Non pressure NP-4 Class (Heavy Duty) RCC hume pipes of size 450mm dia.
- ff) Providing and fixing of G.I pipes, B class, 80mm dia complete with all fittings.
- gg) Manufacturing, supplying and laying of Precast concrete interlocking Paver blocks, 100mm thick (Heavy duty) of grade M50, of approved make & pattern, laying over a coarse sand bed of 50-80mm average thickness.
- hh)Transporting and dumping surplus excavated material/dismantled material in the low lying areas within a lead of 5Kms., including loading,



unloading, transporting, rough levelling etc.

The work is required to be carried out strictly as per relevant Indian Standard Specification; the Drawings and as described in Specifications and Schedule of Quantities and Rates contained in this tender document with approved quality of materials.

2. The above works shall be carried out under the supervision and to the entire satisfaction of the Chief Engineer or his representative.
3. The work is required to be carried out strictly as per relevant Indian Railway Standard Specification and complying ISPS requirements, and Drawings and as described in specifications are standard as per Indian Railways and Schedule of Quantities and Rates contained in this tender document with approved quality of materials.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART III (ii) ADDITIONAL SPECIAL INSTRUCTIONS**

1. Tenderers are required to sign with date the Schedule of Quantities and Rates and the form of tender and fill in all the particulars and details called for therein. Unsigned tenders, without the details called for are liable for rejection.
2. **Measurements**  
The quantities provided for in the Schedule of Quantities and Rates are only approximate and are given to provide a common basis for tendering. The actual quantity may differ from those provided for in the Schedule in view of the special and complex nature of the work. Payments will be made according to the actual quantities of work ordered and carried out, jointly measured by the representative of Chief Engineer and the contractor.
3. **Rates and Prices to be inclusive.**  
The rates entered in the Schedule of Quantities by the tenderer shall include the provision of all supporting special equipment, labour of required skill, supervision, materials, overheads and profits, watch and ward, insurance charges, during execution and every incidental and contingent costs and charges, whatsoever, including sales tax on works contracts, Entry tax, etc. if any, for compliance with conditions of contract and specification. **Service tax is applicable as per relevant provisions of the act time to time and shall be paid extra.**
4. The tenderer shall inspect the site and fully study the work involved vis-à-vis the specifications etc. before tendering for the work.
5. Any damage to the property of Port should be made good or compensated by the contractor.
6. After completion of the days, work / contract period the contractor shall clean, clear the work site to the satisfaction of the Chief Engineer or his site representative.
7. Permission for working beyond the normal working hours of the Port or on Sundays and Public Holidays as stipulated under clause no.43 of the General Conditions of Contract, volume – I of the tender document will be given to the

contractor subject to his agreeing to bear the cost of overtime, if any, which may have to be paid to the Port's supervisory staff.

8. The contractor and his workers / agents shall be required to obtain from MPT and display a Photo Identity Card during entry, stay and exit from the Port security areas guarded by CISF personnel.
9. All applications for issuance of Photo Identity cards shall be routed through the Chief Engineer, who shall forward the same to the Port's Traffic Department, whose pass section will issue the Photo Identity Card to the contractor or his agents on payment of necessary fees as prescribed from time to time and the same shall be valid for the duration of the contract or a period of one year, whichever is less. Application form and prescribed fees for Harbour Entry Permit (HEP) as indicated in **Annexure 'B'**.
10. Subject to the availability, land for construction of temporary sheds/stores/labour hutments, etc. will be given to the contractor in Port areas at Headland. The contractor shall clear away all the temporary structures built within a period of fourteen days after completion of the work and leave the whole of the site clean to the satisfaction of the Chief Engineer. In case the contractor fails to vacate the Port area / premises allotted to him for site office / store within the stipulated period after the completion of the work, the Board shall have the right to debar such defaulting contractors for future contracts of the Board by blacklisting him and shall also be charged penal lease rental at the prescribed rates.
11. Lease rent shall be charged to the contractors for the area allotted for construction of their temporary sheds for site office/store/labour hutments required in the contract works. The licence fee shall be as per Port's scale of Rates vide item (i) and (ii) of Part-I (Appendix-III).
12. No temporary structures/sheds which are constructed to house the contractor's office/store/labour hutments shall be permitted to be retained during the period of maintenance.
13. All the materials to be used in the structure shall be conforming to relevant ISI specifications or as specified in the Tender Schedule. Contractor shall undertake laboratory test as specified in the relevant I.S.I. at the discretion of Chief Engineer and only approved materials/approved brand of materials shall be used.
14. Electrical power and water required for the work shall be supplied as per the availability at the Port's Scale of Rates vide Item No. I & II of Part - I (Appendix - II).
15. The contractor shall have EPF Registration No. of the firm and shall contribute towards Employees Provident Fund (EPF) and submit the copy of the same along with the details in prescribed format while submitting bills.
16. The contractor shall register with E.S.I. and should submit the copy of the minimum amount of insurance (ESI) etc. obtained before the commencement of the work.

17. Contractor may submit the following information in order to refund the EMD'S, BG'S/SECURITY DEPOSITS/ RETENTION MONEY, payment of bill's etc.
- a. NAME OF BANK
  - b. PLACE
  - c. ACCOUNT No.
  - d. TYPE OF A/C No.
  - e. MICR / RTGS / IFS No.
  - f. Permanent Account Number

18. SITE REGISTERS:-

The contractor shall maintain following registered at Site, which shall be entered on day to day basis and produced on demand.

1. Cement Register ( Starting total received, daily consumption and balance on each day.)
2. Steel Register (Starting total received, consumption, balance and rolling margin on each day)
3. Sand Register
4. Aggregate Register
5. Concrete Cube Register (Testing 7 days and 28 days)
6. Test Register (Performed on Cement, Steel, Sand, Aggregate and other Construction Material)
7. Hindrance Register
8. Site Instruction Book
9. Joint Record / Measurement Register.
10. Pour Card Register
11. Labour Register
12. Any other register required by the Chief Engineer or his representative.

The Contractor shall keep all registers in safe custody.

19. Contractor shall have to survey the proposed alignment as per the drawing issued and prepare detailed drawing of cross sections at every 20 mtrs. interval, longitudinal section for each railway line as per CSR, drawing of services such as cross drainage work, details drawing of curves and any other working drawing required, if any, for the execution of work as directed by the Chief Engineer or his representative. Approval of all such drawings shall be obtained before commencement of the work.

20. Contractor shall consider 'Phase working of MPT Railway expansion works and Traffic block stagewise' as a reference. However, during execution of work for each Traffic block condition, contractor shall submit detailed program of traffic block conditions, alongwith the details as per Clause No.1.2.10 and 4.0 of the Additional General Specification for the approval of the Chief Engineer.
21. On completion of the work, 'As MADE DRAWINGS' shall be submitted in soft form on Compact Disk (CD) and also in hard copy on tracing paper.
22. Contractor shall also liaison with South Western Railway Officials as and when required.
23. The Additional Special Instructions given above shall prevail over those stipulated elsewhere in the tender documents forming part of the contract. The volume containing the Instructions of Tenderers, the General conditions, Special conditions and Specifications forms an integral part of the tender document and the same shall be submitted along with the Volume-I of the tender documents all duly signed by the tenderer.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART – III (iii) – ADDITIONAL GENERAL SPECIFICATIONS**

**1.0 WORKS IN TRAFFIC BLOCK CONDITIONS**

1.1 Track on diversions and in yards, wherever space is available, shall be laid prior to block. The connection to railway track is to be done under traffic block as per railways requirements. however, some work are required to be done under running traffic conditions (Pre- Block activities) and some works are to be done after completion of Block period works.

**1.2 Pre Block Activities**

1.2.1 Contractor shall make a complete foot to foot survey of site of track work, terrain, approach roads accessibility for road cranes, vehicles etc., locations of ballast stacks or plot where ballast supply is in progress, PRC sleepers stacks, new rails lying along the track, etc. so as to have a complete idea of the section before quoting the rates.

1.2.2 Based on L-section, yard plans and LWR plans, which are available in the office of Chief Engineer and can be seen during working hours of the office, contractor shall arrange for fixing of reference pegs of centre lines of tracks in main line and loop lines, location of stock, rail joints of different points, traps, dead ends, SEJ, Glued joints, etc. Central line peg shall be fixed (by steel flat or angles, tie bars 5mm thick and 1.0 meter length) on the line at 3 M away from the central line or at suitable locations as decided by Chief Engineer or his representative at an interval of 100 meters in straight and 20m in curved track besides at every change of grade, beginning of transition of curve, beginning of circular curve, other obligatory points such as bridges, level crossing, points and crossing. Formation level, rail level, ballast level are to be marked on these iron pegs (Fixed in cement concrete) by water level tube. No extra payment will be made for the same.

1.2.3 Released tie bars may be utilized as reference pegs. The reference pegs shall indicates its distance from existing and proposed central line of track as well as proposed formation level and rail level. No extra payment will be made for fixing of reference pegs being preparatory work for linking of track.

- 1.2.4 The PRC sleepers shall be lying along the track. These shall be uniformly spread, so that during block period track linking work can progress expeditiously. For spreading of PRC sleepers, no dragging shall be permitted. Sleepers are to be handled with the help of cranes. Where accessibility of crane is not possible, manual handling shall be permitted. If the cess of formation gets disturbed while placing the sleepers, the contractor shall make good the same at his own cost.
- 1.2.5 The contractor shall arrange for transportation, end cropping, pairing, pulling back, and drilling of holes etc. in rails/ rail panels, by machine by his own equipments, wherever required.
- 1.2.6 The contractor shall identify all obstructions and infringements coming in the linking of BG track. Such obstructions wherever feasible, shall be removed in pre block period. The obstructions include C.C. foundations of signal posts/ electrical posts/ rails posts, water columns and its foundations, masonry walls, curbing stones, ash pits, etc.
- 1.2.7 The contractor shall also identify locations where there is any deficiency or excess of earthwork in the alignment of BG tracks. The contractor shall arrange for execution of such earthworks before stacking of Permanent Way materials on the cess and also before linking gets underway.
- 1.2.8 Advance work for linking of track in diversions, loops, points and crossings etc. where space is available, shall be completed in pre block period.
- 1.2.9 The contractor shall arrange for sufficient numbers of supervisors and labours, plants, equipments such as crane, tractors, Permanent Way tools and small machines etc. before commencements of any operations to suit the Stage Target specified by the Chief Engineer or his representative.
- 1.2.10 The contractor shall arrange to submit at the time of taking the block work Tools, Plant and machine as per the broad list given below before the start of the block period. These plants/ equipment and tools are to be kept in good serviceable order as and when required during the progress of work. Contractor may add tools if he wishes so:

Tentative list of tools & plants required.

1	JCB/Loader	
2	Truck/ Tractor.	
3	Road Crane	
4	Rail tongs	
5	Crow Bar	
6	Rake ballast	
7	Phawrah	
8	Tagari	

9	Cane basket	
10	Spanners D/E	
11	Hammer 4 lbs	
12	Jim Crows	
13	Roller ( 2 to 8 Tone)	
14	Cutting Blades	
15	Drilling bits for 20mm, 28mm & 32mm dia.	
16	Beater	
17	Version measuring kit.	
18	Roller for de Stressing	
19	ERC Applicators.	
20	Chamfering equipments.	
21	Rail drilling machines.	
22	Rail cutting machines.	
23	Track lifting jack.	
24	Box spanners for P&C	
25	Gauge Cum Level	

1.2.11 This list of machines, Tools and Plant is for guidance and making advance actions for arrangements of the same. However, any other tools and plants, equipments, machinery etc. required for linking of track, shall also be arranged by him. It is the responsibility of the contractor to keep all P. Way tools and plants in safe custody after days work. Mormugao Port shall not be responsible at all for loss or theft.

## **2.0 Activities of Block Period.**

- 2.1.1 With the start of block, the contractor shall arrange for dismantling of existing BG track. At locations, where earthwork is to be done to achieve the desired formation level, track is to be dismantled first as directed by Chief Engineer or his representative. Such locations shall be identified by contractor in advance in consultation with Chief Engineer or his representative.
- 2.1.2 The released materials shall be properly shifted and stacked so that space can be made available for linking of new BG track. Transportation and stacking of released Permanent Way materials shall also be organized simultaneously as per details given in special conditions of the relevant item.
- 2.1.3 After dismantling of the BG track, formation shall be prepared as specified.
- 2.1.4 Spreading of PRC sleepers for linking of track on rolled ballast bed shall be permitted by the Chief Engineer or his representative after verifying the quality of scarifying, sorting/ shifting, spreading and rolling of old/new ballast bed.
- 2.1.5 The PRC sleepers shall be laid on the approved ballast bed with the help of road cranes. Manual laying of sleepers shall be permitted by Chief Engineer or his representative where accessibility of such cranes is not possible. No dragging of sleepers shall be permitted.



- 2.1.6 Linking of BG track in mid section and linking / insertion of P&C, loop lines shall progress simultaneously and separate teams shall work for these activities.
- 2.1.7 The contractor shall do linking of track on curves, culverts etc. including fixing of guard rails and check rails along with insertion of SEJs and Glued Joints.
- 2.1.8 During the course of linking of BG track, any earthwork in cutting or filling with depth more than 150mm shall have to be done by the contractor for which payment shall be made under relevant items.

**3.0 Activities of Post Block Period:**

- 3.1.1 Post Block period starts after completion of inspection Chief Engineer or his representative.
- 3.1.2 All the deficiencies noted during inspection pertaining to this contract shall be make good.

**4.0 Stage Target: Before taking up Block work contractor shall submit following time schedule:**

Sr. No.	Details of activity	Duration ( Days)
<b>Pre Block Period.</b>		
1	Foot to foot survey of the section for getting acquainted with the section i.e. terrain, accessibility to the approach road, locations of ballast stacks, PSC Sleepers, rails, construction of site office (Temporary Shed), Inventory of materials required.	
2	Thorough study of "L" section, yard plans and LWR plans etc. and clarifications, if any, from the Chief Engineer or his representative.	
3	Assessment of materials and carting them to respective locations.	
4	Linking of BG track on already prepared formation in lead lines, railways premises, in-plant yards, points & crossings, cross over's, etc..	
5	Fixing of reference pegs, setting out of curves, fixing of various boards for LCs etc., which do not infringe with the running traffic.	
6	Carting and pairing of rails panels, spreading of sleepers etc.	
7	Any other works such that assembly/ hiring of tools and plants, arrangement of consumable items for tamping etc., in consultation with Chief	

	Engineer or his representative.	
<b>Block period.</b>		
1	Dismantling of BG track and stacking as directed by Chief Engineer or his representative.	
2	Dismantling of P&C	
3	Picking up ballast	
4	Laying of BG track including preparing ballast bed and other associated activities.	
5	Assembly and fixing of turn outs.	
6	Tamping of track.	
7	Track at LCs to suit BG standard.	
8	Opening of section for BG Power/ Track Machines / goods trains for a minimum speed of 20 KMPH.	
9	Opening of section for BG (Goods) trains.	
10	Any other work as directed by Chief Engineer or his representative.	
<b>Post Block period.</b>		
1	Compliance of observations raised by Chief Engineer or his representative.	
2	Fixing of Hectometer, KM, gradient posts, fouling marks etc.	
3	De stressing of track.	
4	Any other work as directed by Chief Engineer or his representative.	



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART III (iv) - TECHNICAL SPECIFICATIONS**

**I) TECHNICAL SPECIFICATION FOR EARTHWORK**

**1.0 EARTHWORK**

**1.1 Specifications**

The work will be carried out as per Railway Standard Specifications with up to date errata and as per RDSO "Guide lines for Earthwork in Railway Projects" Guideline no GE-G-1, July, 2003.

1.1.1 Earthwork in filling on the approaches of road over bridges will be carried out as per Indian roads congress publication 58" guidelines for use of fly ash in road embankments.

**1.2 Introduction**

The following IS codes shall be followed for classification of soils, and for conducting various tests on soils where required.

- i) **IS-2720 Part-II 1973** Method of tests for soil determination of water contents (II Edition)
- ii) **IS-2720 Part-III Section-I of 1980**  
Method of test for soil determination of specific gravity.
- iii) **IS-2720 Part-IV 1975**  
Method of test for soil grain size analysis
- iv) **IS-2720 Part-V 1974**  
Determination of liquid and plastic limit.
- v) **IS-2720 Part-VIII 1983** Determination of moisture contents dry density using heavy compaction.
- vi) **IS-2720 Part-XIV 1985** Determination of density index (relative density) of cohesion less soil.

- vii) **IS-2720 Part-XVIII 1964 (reprint in Jan. 1980)** Method of test for soil determination of field moisture equivalent.
- viii) **IS-2720 Part-XXIX** Determination of dry density of soil in place by Core cutter methods.
- ix) **IS-1798-1970** Classification and identification of soils for General Engineering purpose.
- x) **IS-1037-1982** Method of field test for soil being taken from the borrow pits.

1.2.1 The earthwork in filling over existing bank will be done with contractor's own earth as per approved profile by borrowing the earth from outside the MPT premises and the rate quoted will be deemed to be inclusive of all taxes, royalty, loading, unloading, leading, handling and re-handling of earth, lifts, ascents, descents, crossing of nallahs, streams, tracks, levelling, dressing spreading in layers as a complete work in all respects as per specifications indicated in succeeding paras.

#### 1.2.2 **Embankment**

Before taking up embankment work:

- i) All vegetation shall be uprooted and taken away from the site of work.
- ii) All big size of boulders and other items not related to the work should be removed.
- iii) Earthwork shall be carried out in layers, each layer sloping out 1:30 and compacting it mechanically using vibratory rollers to provide the compaction to the specified level.
- iv) The width of each layer of earthwork shall be in excess by 500 mm on either side of the designed profile to enable compaction near the edges. The excess width, thereafter, cut and dressed, so as to achieve the required bank profile.
- v) Earthwork shall be completed up to designed formation level keeping due allowance for the blanket; if need be.

1.3 The earth filling shall be compacted mechanically using heavy roller to 98% MDD at OMC or 70% of Relative density, layer by layer as per specification. Compaction of earth filling to be paid under respective items.

1.4 The soil has to conform to specifications as mentioned under Para 3.14 "Suitability of soils for Railway Formations". The Chief Engineer or his representative may ask the contractor/s to get the soils samples tested as per specifications. It may please be noted that under no circumstances, the contractors will be allowed to form the bank with unapproved earth. Such tests may be repeated by the Chief Engineer or his representative during the execution of the work. If the soil samples are found not conforming to the required specifications the contractors may have to bring earth from other approved sources. The cost of all tests will have to be borne by the contractor/s.

- 1.5 The contractor/s shall, set out and provide all stakes, ballies, bamboo, strings, pegs and labour for setting out profiles, of embankment required for the correct execution of the work and shall also be responsible to maintain the same in proper order. This is deemed to be included in the item rate for the earthwork. The contractor/s shall take necessary precautions to prevent their being removed, altered and disturbed and shall be responsible for the consequences of such removal, alterations and disturbance and will take action for their proper re-instatement.
- 1.6 Before the earthwork is started by the contractor, the ground between the lines where filling is to be done for embankments at site of work shall be cleared of all trees along with their roots, shrubs, heavy grass and undergrowth of every kind. None of the items of work mentioned in this Para will entitle the contractor/s to any extra payment except cutting of trees which shall be paid separately as per relevant item of schedule. All trees so removed by the contractor will be the property of MPT. No trees falling outside the Toe of the bank shall be allowed to be cut. All trees having girth above 30cm (measured at 1m above GL) shall be cut of trunks and branches. Digging and removing of roots up to a depth of 1m below the ground, filling the same cavity with good earth, transporting the tree duly cut into standard log size to store shall be ensured by the contractor at its own cost.
  - 1.6.1 The contractor/s should commence the work systematically at one or more points in consultation with the Chief Engineer or his representative should maintain continuous and steady progress to complete the work in continuous lengths including levelling and dressing.
- 1.7 The payment shall be made for as per designed cross section only.
  - 1.7.1 It must be clearly understood that the rates are intended to cover the full cost of the finished works. The banks and cutting are to be correctly dressed, to profile with such slopes as specified in each case by the Chief Engineer or his representative. The rates for earthwork shall also include the site clearances and breaking of clods as per specifications.
  - 1.7.2 The rates also include maintenance of the banks to correct profile including repairs of all rain cuts, making good earth work due to base settlement natural or otherwise due to rains etc. until the final measurements have been recorded and banks taken over by the Chief Engineer or his representative. The item rates of Schedule of rates and quantities will cover the full cost of finished work of cuttings and embankments.
- 1.8 For the earthwork in embankment the toes of the slopes of bank (with 500mm extra width in on either side) on both sides of the centre line and also lines parallel to and 60 cm outside the toes of slopes of banks should be demarcated by the contractor with a deep borrow at least 15 cm deep. This is to be considered as a part of setting out the work and preliminary to his being allowed to break ground. This lock spitting is to be executed, maintained and renewed by him without any payment when necessary or/and when ordered by the Chief Engineer or his representative.

- 1.8.1 Centre line pillars in masonry shall be provided by the contractor in banks more than 1 m high the same should however, be made in stages as the work progresses. Pillars shall be provided at every 20 m or as directed by the Chief Engineer or his representative. The centre line pillars shall not be paid for separately and deemed to be included in the item rates.
- 1.8.2 The item rate quoted by the contractor shall include the provision of benching in the side long ground or side slopes in the existing bank where the earthwork joins old embankments. This aspect should be taken into consideration while quoting the rates.
- 1.8.3 The breaking of all clods shall be strictly insisted upon for all earthworks in embankment and the contractors must take special care to ensure this.
- 1.9 Extra bank width of 500 mm on either side shall be rolled to ensure proper compaction at the edges. The extra soil would be cut and dressed to avoid any loose earth at the slopes. This should preferably be done with help of grade cutter.
- 1.9.1 The top of the formation shall be finished with 60cm thick murrum blanket to a slope of 1 in 40 as per approved profile as per guide line for **“Earthwork in Railway project, “ Guide Line no. GE: G-1 July 2003”**.
- 1.9.2 Both the Up stream & Down stream side slope of the bank shall be protected by providing stone pitching up to 30 cm above HFL as per South Western Railway Standard Specification. The same shall be required to be done by the contractor/s under this contract for which extra payment shall be made under respective item.

#### **1.10 SPECIFICATION FOR MECHANICAL COMPACTION OF EARTHWORK & MOORUM BLANKETING**

- 1.10.1 After site clearance all pockets and depression left in the soil, if any, shall be made good and compacted.
- 1.10.2 Earthwork shall be done in layers not exceeding 300 mm thick.
- i. Earthwork shall be compacted with suitable rollers to obtain the density specified as per IS 10379-1982 and RDSO's guidelines for **“Earthwork in Railway Project GC: G-1, July 2003”** with up to date amendments.
  - ii. Cohesionless soils and pond ashes shall be compacted to get a minimum density index (related to density of 70 percent as obtained in accordance with IS 2720 (Pt. XIV) 1985.
  - iii. All other types of soils if dry density as found out from the random samples works out to less than 98% of the maximum dry density at optimum moisture content further rolling shall have to be done by the contractor till such time the required density is obtained as confirmed

from subsequent tests.

- iv. Each layer shall be compacted to the specified density over its entire width commencing from the two sides, before another layer is started.
- v. While compacting, it shall be ensured that there is a minimum overlap of 150 mm between each run of the rollers.
- vi. Care should be taken during the compaction operation to slope the surface of the bank to facilitate the shedding and to minimize the absorption of rain water, particular attention being given to the prevention of pounding.
- vii. The density of each layer of compacted soil shall be ascertained by the Chief Engineer or his representative by testing of adequate number of soil samples at the site lab provided by contractor.
- viii. The contractor shall be allowed to lay a further layer of soil/Pond ash only after the compaction of particular layer has been found satisfactory.
- ix. Where the moisture content of the earth in any layer is above OMC, it shall be left for drying for a suitable period to bring down moisture content very near to OMC before rolling is commenced. If the soil is dry, water shall be sprinkled either in the borrow pit or even on the spread layer, as convenient in order to obtain a moisture content near to OMC before rolling is commenced. The contractor shall make his own arrangement of water and nothing extra will be paid for water used. To control moisture at which soil is compacted and to find out the dry density of the soil the moisture content of the soil in borrow pits and in the embankment after compaction will be determined.
- x. The optimum moisture content and the maximum dry density of the soil shall be determined by Standard proctor compaction test as per IS-2720 (Pt. VIII) 1983 followed by field trial as per IS-10379-1982. This test shall be conducted for the soil taken in the borrow pits at least every 100 meters and whenever there is a change in the nature of soil met with.
- xi. The site tests data and results shall be maintained in a Register as per the following Proforma:
  - 1) Serial No.
  - 2) Location
  - 3) Layer No.
  - 4) Laboratory Test results.
  - 5)
    - a) Maximum dry density in gm / CC or relative Density (%)
    - b) Optimum moisture content expressed as percentage of the dry weight of the soil

- 6) Field Test Results:
  - a) Dry density in Grams, CC or Relative Density (%) Field moisture content expressed as the percentage of the dry weight of the soil.
- 7) Degree of compaction expressed as percentage of the density
- 8) Remarks.

1.11. The payment for the quantity of earthwork will be made on cross sectional measurement. The existing ground/bank profile will be taken and plotted by the Chief Engineer or his representative in the presence of the contractor or his authorised agent before commencement of the work. The profile of the bank required to be provided will also be plotted on the same sheets. The levels and cross Sections shall be signed by both the Chief Engineer or his representative and the contractor/s or his/their authorized agent. The profiles of the bank as required to be provided are for the guidance of the contractor and not for the purpose of measurement/payment.

1.12. The profiles of the finished and completed bank first with extra width and subsequently after dressing will likewise be taken in the presence of the contractor or his/their authorised agent and superimposed on the original ground profile. The contractor shall be allowed to dress the bank to form finished profile only after the bank with wider width duly compact has been checked to the satisfaction of the Chief Engineer or his representative. The gross value of earth work in filling will be calculated from the original and finally finished profile for the purpose of payment.

1.13. Final measurements will be taken only after the bank has been completed to the required profile irrespective of the prolongation of period of completion and number of monsoon that may pass during execution.

#### **1.14 SUITABILITY OF SOILS FOR RAILWAY FORMATIONS**

Source of soil for embankments

1.14.1 No borrow pits shall be allowed within right of way and contractor shall bring the embankment material from his own resources outside the right of way.

The Characteristics of soils to be used and prohibited are:

- a) Soil having following characteristics should be used:
  - Soils with fine particles (i.e. particles finer than 75 microns) not more than 50%
  - Soil with liquid limits less than 35% and plasticity index less than 15%
  - Soils having uniformity co-efficient preferably above 7.



- a) Following soils should not be used:
- Soils having 10 to 15% clay and silt greater than 50% exhibiting dispersive nature.
  - Soils having maximum dry density less than 1.5 gm/cc by light compaction.
  - Peat and organic soils, Marine clay.
  - Soils likely to disintegrate early, like chalk with maximum dry density less than 1.7 gm/cc.
  - Poorly graded sand with co-efficient of uniformity less than 2.

1.14.2 However, in practice it is seldom that exclusively coarse grained soils are available at site for use in embankments, and for practical reasons, and consideration of cost, other than good soils may have also to be used in embankments. In such cases, the Railway embankments should desirably have a top layer of about 450 mm to 1000 mm thickness, as mentioned in Para 4.1 (b,c,d) known as blanket to be provided with coarse grained material like murrum. In any case, unsuitable material as indicated in Para 3.14 (b) above should not be used in embankment. For formation, a 600mm thick blanket shall be used.

1.14.3 Expansive clay like black cotton soils exhibiting marked swell and shrinkage properties shall be avoided. Clays that have a "Free swelling index" exceeding 50% when tested as per IS 2720-Part 40 shall not be used as a fill material.

## **2.0 SPECIFICATION FOR BLANKETING MATERIAL**

2.1 The blanket should generally cover the entire width of the formation from shoulder to shoulder, materials on both edges. The depth of blanket shall be as follows as per RDSO no. RS/G/18 Vol-VII dtd 4.9.01

a) Following soils shall not need any blanket:

- Rocky beds except those consisting of shales and other soft rocks which become muddy after coming into contact with water.
- Well graded Gravel (GW)
- Well graded Sand (SW)
- Soils conforming to specifications of blanket material.
- Soils having grain size analysis curve lying on the right side of the enveloping curves for blanket material.

b) Following soils shall need minimum 45 cm thick Blanket:

- Poorly graded Gravel (GP) having Uniformity Co-efficient more than 2.
- Poorly graded sand (SP) having Uniformity Co-efficient more than 2.
- Silty Gravel (GM).
- Silty Gravel - Clayey Gravel (GM-GC).

c) Following soils shall need minimum 60 cm thick Blanket:

- Clayey Gravel (GC).
- Silty Sand (SM).
- Clayey Sand (SC).
- Clayey Silty Sand (SM-GC).

d) Following soils shall need minimum 1 m thick Blanket

- Silt with low plasticity (ML).
- Silty clay of low plasticity (ML-CL).
- Clay of low plasticity (CL).
- Silt of medium plasticity (ML).
- Clay of medium plasticity (CL). Note: The classification and nomenclature of soils given above is as per IS-1498-1970 Table -2 (Annexure 'A').

2.2 The blanket can be coarse-grained material like murrum which has inherent cohesive properties, or it may be manufactured out of non-cohesive materials.

2.3 The murrum blanket shall have following properties:

(a) The liquid limit shall not exceed 35 and Plasticity Index shall be below 10.

(b) Uniformity co-efficient  $\frac{d_{60}}{d_{10}}$  should be above 4 and preferably above 7.

(c) Co-efficient of curvature  $\frac{d_{30}^2}{d_{60} \times d_{10}}$  should be between 1 & 3.

Note: d60 is sieve size through which 60% of blanket material passes and d10 is the sieve size through which 10% of the blanket material passes and 80 so on. The enveloping curve for the Blanketing Material recommended by RDSO is shown in the Diagram at Annexure B of Guideline no. GE-G-1 of RDSO for Earthwork in Railway Project.

2.4 In case of mechanically produced blanket material, RDSO Guide lines (GE: C-2) shall be followed.

## **II ) TECHNICAL SPECIFICATION FOR PERMANENT WAY MATERIAL**

### **1.1 Rails:**

60 Kg Rails Flat bottom (1st quality) as per I.R. Specification T-12/96 RITES Certified.

### **1.2 Rail Fittings & Fastenings:**

- a. 60 Kg Fish Plates to RDSO Drg. No. T-1898 conforming to IRS Specifications No. T. 1-1966.
- b. Fish Bolts 25 mm dia with nuts to RDSO Drg. No. 1899-IRS Specification T-23/67.
- c. Combination Fish Plates to suit the following rail sections including bolts and nuts complete as per relevant RDSO Drawing-52 Kg to 60 Kg (RDSO Drg. No. T-696 to T-699) and IRS Specification T-6 (Set Consists of 2 RH and 2 LH Fish Plates with nuts, bolts and single coil spring washer complete).
- d. Double coil spring washer as per RDSO Drg. No. EDO/R-1214, conforming to IRS specification for Spring Washer-1980.
- e. Single coil spring washer as per RDSO Drg. No. T-10773 conforming to IRS Specification for Spring Washer RS T-1988

### **1.3 Mono Block Pre-stressed Concrete Sleepers (Pre-tensioned Type, Category-I) as per IRS Specification T-39/1996:**

- a. For Plain track on straight to Drg. No. T-2496.
- b. For Curve track having Radius 20 to Drg. No. T-4183
- c. For Curve track having Radius 40 to Drg. No. T-4184
- d. For Curve track having Radius 60 to Drg. No. T-4185
- e. For Curve track having Radius 80 to Drg. No. T-4186
- f. For level crossing to RDSO Drg. No. T-4148.

### **1.4 PSC Sleeper Fittings:**

The sleepers shall be 60 kg as per RDSO Drg. No. T-2496 and sleeper fittings shall be for 60 Kg Rail Section on 60 Kg Sleepers as per specifications and drawings.

- a. Grooved Rubber Sole plate 6 mm thick to RDSO Drg. No. T-3711/ALT-1 conforming to IRS Specification for 6 mm thick grooved rubber sole plates (Provisional) 1987 revised 2000

- b. Elastic Rail Clips to RDSO Drg. No. T-3701, IRS Specification T-31/1992.
- c. Glass Filled Nylon (GFN) Liners (For 60 Kg Rails on 60 Kg Sleepers) as per RDSO Drg. No. T- 3706 conforming to IR Specifications T-44/95.
- d. Check Rail C.I. Bracket to RDSO Drg. T-4917 to IS: 210-1962 (Grade 20, IRS / T-10) Elastic Rail Clips for 60 Kg Rail Section to RDSO Drg. No. T- 3701 conforming to IRS Specifications T-31/92.
- e. Elastic Rail Clips type 'J' for use at fish plated joints as per RDSO Drg. No. T- 4158 conforming to IRS Specification.

**1.5 Points & Crossings:**

60 Kg 1 in 8 ½ Turnout shall conform to RDSO Drg. No. T- 4865, Switch sub assembly Drg. No. T- 4966 & CMS sub assembly drawing no. T-4967 with all parts, fittings and fastenings complete in all respect.

**1.6 Turnout Sleepers:**

1 in 8 ½ Fan Shaped Turnout Sleepers shall conform to Indian Railway Standard Specification for pre-tensioned concrete sleepers serial T-45-96 as per RDSO Drawings.

**1.7 Fan Shape Layout Assembly:**

1 in 8 ½ Turnout Main Drawing of Turnout 60 Kg RDSO T-4865, Switch Sub Assembly RDSO/T-4966, Crossing Sub-Assembly RDSO/T-4967.

## **V ) TECHNICAL SPECIFICATION FOR PERMANENT WAY LINKING WORKS MATERIAL**

### **(A) Technical Specifications for laying of Permanent Way**

#### **1.0 Track Structure**

##### **1.1 Components:**

The track shall consist of the following elements.

- i. Rails 60 kg/T-12, 90 UTS flat bottom (1st quality)
- ii. Rail fastenings – Fish plates 60 kg, with bolts and nuts.
- iii. Mono block pre-stressed concrete sleepers for plain tracks, level crossings, bridges, and fish plated joints, girder bridge approaches, fan shaped turnouts.
- iv. Guard rails on bridges, check rail on level crossings.
- v. Fittings for sleepers – grooved rubber sole plates, elastic rail clip Mark – III (RDSO drawing no. T- 3701) for normal track and Elastic rail – J-clips for fish plated rail joints to RDSO Drg No. T- 4158, GFN liners, metal liners.
- vi. Track Ballast as per RDSO Specifications of June 2004
- vii. Gradient posts, KM posts, curve monuments, curve boards, whistle boards, W/L boards, creep posts and other boards and indicators etc., as per IRPWM.
- viii. Points and crossings.
- ix. Steel Channel sleepers for girder bridges and track fittings.
- x. Glued Joints.

1.2 The track will be laid on mono block PSC Sleeper as specified in Schedule of Quantities. The ballast cushion will consist of Track ballast as per RDSO specifications to a depth of 250mm below the bottom of sleepers as measured under the rail seat.

1.3 The mono block PSC sleepers shall be laid @ 1540 nos/km as specified in IRPWM for main line and for loops and sidings in yards.

1.4 Guard rail to be provided at all major bridges as per Para 275 of IRPWM.

1.5 Check Rail at level crossings.

#### **2.0 Procurement of Materials:**

2.1 All the materials and equipment required for track construction shall be procured from the suppliers/manufactures approved by Rly/RDSO duly inspected by RITES/RDSO/Zonal Railways.

2.2 Other track materials for which approved manufacturers/suppliers are not available, shall be procured from sources after getting them approved/inspected from RITES.

2.3 All the materials shall be got inspected and passed from the Railway's authorized inspecting agencies such as RDSO/Rly/RITES etc. and certificates obtained to this effect which will be submitted to site Engineer-in-charge.

## 2.4 Ballast

The Contractor shall procure, at his own cost, track ballast conforming to RDSO's specifications for Track Ballast, June 2004 with up to date correction slips, of approved quality for use on all lines with 250mm cushion. The test reports for the ballast for quality as required should be submitted to Railway consultant for approval before ballast is brought to site. Ballast should be supplied in stacks on levelled ground along the proposed alignment.

## 3.0 Linking

The formation shall be constructed and mechanical compaction shall be done as per RDSO 'Guidelines for Earthwork in Railway Projects' Guideline no.GE:G-1, July 2003. Track ballast is then compacted by at least 2 passes of 5 to 10 t roller before laying the PSC sleepers and rails.

## 3.2 Curves

- i. The alignment of track on certain locations is on curved alignment as per index plan. While laying track on such locations, the layout of the curve shall be done accurately with deflection angle, degree of curvature, transition length and curve length and laid to required super elevation for each curve as directed by Chief Engineer or his representative.
- ii. The design of curves specifying all parameters (transition length, total length of curve, super elevation etc.) shall be done by Chief Engineer or his representative and advised to the contractor who shall then lay the curves accordingly as indicated in the above Para so that it conforms to the designed parameters.
- iii. The station numbers shall be marked, starting from zero at TP (i.e. from the start of curve) at 10 meter interval on the inside web of outer rail of the curve and shall be continued over the entire length of the curve with figures in white paint over black back ground and the super elevation at each station shall be indicated just opposite to the station number on inside web of inner rail with black back ground and figures with white paint.
- iv. Curve posts as per Railway's design shall be fixed at both ends of curves, at TP (Transition Point) and TTP (Transition Tangent Point), and the details of the curve shall be written on TP post of both ends mentioning curve no: degree of curvature, transition length, curve length and super elevation with appropriate painting scheme as followed by Railways.

**3.3 Longitudinal level of Track** The longitudinal level of the track shall be in accordance with the gradients as indicated in L-Section supplied by Chief Engineer or his representative Gradient posts at each change of gradient shall be provided as per approved design and shall be engraved with the values and arrow indicating rise, fall or level as the case may be, on both faces with figures in black on white back ground.

\* The gradient post shall be provided as per L-Section.

\* Sketch of gradient post and km post is placed as Annexure PW-VI.

**3.4 Kilometer & Gradient Posts** RCC kilometer and gradient posts as per drawing, (Annexure PW-VI) shall be cast and fixed at each kilometer / Point of change of gradient on cess and number engraved on both faces and surface painted with white and engraved figure written with black.

### **3.5 Ballasting**

- i) Once the central line and level pegs have been provided, the ballast should, on clearance by the Chief Engineer or his representative in charge/his authorized representative, be lead out from the stacks and spread on the track formation. The ballast layer shall be consolidated by running of heavy rollers (5-10 ton). The ballast cushion which is to be finally achieved shall be 250mm. Hence about 8% more cushion shall be provided initially, which on consolidation, shall come down to the required dimensions. The profile of ballast, finally to be provided shall be as per IRPWM Para 263, for SWR.
- ii) On all flat top, arch and pre-stressed concrete girder bridges with deck slab, where guard rails are not provided, the whole width of the bridge between the parapet walls shall be filled with ballast up to the top of the sleeper level.
- iii) The payment for supply of ballast will be made on the basis of stack measurement of ballast without deduction for any shrinkage, as laid down in RDSO specifications, June 2004. The measurement and passing of ballast in stacks shall be done by Chief Engineer or his representative.

### **3.6 Concrete Sleepers**

- i. Concrete sleepers are very heavy and prone to develop cracks/ chipping, if handled roughly. Manual handling of these sleepers is, therefore, not desirable. The sleepers directly received at site through road trucks shall be unloaded using mechanical gantries/cranes; whereas those received on railway BFRS shall be unloaded through cranes/mechanical unloading equipment. One such device is Jib crane attachable to BFR/BRH for handling concrete sleepers. The shifting of sleepers shall be done using slings which should lift the sleepers through hooks fixed to inserts.
- ii. Unloaded sleepers shall be kept at site of placement, properly supported underneath.

- iii. On the ballast already laid and consolidated, PSC sleepers 60 kg to RDSO drg no. T-2496 shall be laid at specified spacing. All care should be taken in handling the sleepers so as to avoid breakage. The sleepers shall be laid to a density of 1540 nos/km/or as specified. For fish plated joints, the spacing shall be 40 cms (centre to centre) at joint. The sleeper spacing at welded joints shall be the same as intermediate sleeper spacing as per Para 244 (h) of IRPWM. No damaged sleepers will be accepted. The spacing of sleepers shall be done as specified in the list.
- iv. To get proper track alignment, it is necessary that the centre line of the sleepers coincides with the centre line of the alignment marked.
- v. **Greasing of Elastic rail clips and SGCI Inserts:** All the Elastic rail clips and inserts fixed in the concrete sleepers shall be thoroughly cleaned and greased to IS specification IS 15:408 – 1981 (Specification for Grease No. “O” Graphited) should then be applied on the central leg of ERC and eye of the insert and then the clip be driven at the time of assembly of the rail with the sleeper as per provisions of Para 1411 (5) (a) of IRPWM. ERCs shall be provided with anticorrosive treatment before putting in track. Nothing extra shall be payable for any of the elements stated above.

### 3.7 Rail

#### 3.7.1 Rails will not be supplied by the employer.

- a. The contractor at its own cost shall lead the same to site for use on the work.
- b. The rails and other fittings from depot area/complex to be lead to site of actual laying in track by any means convenient to the contractor depending upon the site conditions and be placed at places where these are to be laid. The rails shall be adjusted in pairs along the alignment on the cess. The contractor will remove kinks from each rail, if any, with the help of jim crow, etc. Handling of rails shall be done as per instructions issued by RDSO.
- c. The cutting of rails, where required shall be done using Abrasive rail cutting Machines and the holes drilled with rail drilling machines approved by Railways. All the holes drilled in rails shall be chamfered using approved chamfering kit in terms of Para 251 (5) of IRPWM (CS No. 51 dated 21.4.00)
- d. All rails to be ultrasonically tested by the contractor at his own cost and only defect free rails cost to be used. The contractor shall submit the test report to the Engineer-in-charge.



### **3.7.2 Bridges**

- a) The rail joints on bridges with opening less than 6.1m shall be avoided. For other spans, the preferred position of rail joints is at 1/3rd of span from either end as per Para 272(3) of IRPWM.
- b) Guard rails shall be provided on bridges as per Para 275 of IRPWM.
- c) The design of guard rails on the bridge and its approaches shall be as per Para 275(2) of IRPWM.
- d) PSC sleepers to RDSO drg. No. T- 4089 to Drg. No. T- 4097 with complete fittings as shown in the drawings shall be used on ballasted deck bridges with guard rails and their approaches. The fixing of guard rails shall be done as per RDSO drg. No. T- 4088 to Drg. No. T- 4097 as per Para 275(3) of IRPWM, CS no. 63 dated 27.1.2003 M.S. flat/tie bars for tying PSC sleepers together at ends is not required. (CS 63 dated 27.1.2003 to IRPWM).

### **3.7.3 Level Crossings**

- i) Asphaltting of road surface between gate posts to full width of road on level crossings shall be provided by the contractor at his cost. The road shall be provided complying with instructions contained in items 12 to 15, of Annexure 9/1 Para 904, Chapter IX of IRPWM.
- ii) Gate posts made out of 60 kg rails shall be provided at the level crossing to hold the chain as per sketch, Annexure – PW-VIII chain shall also be provided by the contractor.
- iii) Whistle boards (W/L), Stop boards shall be provided for the approaching trains at a distance of 600m and 30m from the level crossing respectively (as per Annexure-PW-IX). Similarly, Level Crossing indicator boards and Speed breaker indicator boards (as per Annexure – PW-IX) shall be fixed on the road approaches as per IRPWM Para 916.

### **3.7.4 Points and Crossings**

- (i) Points and crossings shall conform to RDSO Drawings and specifications and shall be procured from manufactures / vendors approved by RDSO duly inspected by RDSO/RITES as per direction of Engineer-in-charge.
- (ii) 60 kg 1 in 8 ½ turnout shall conform to RDSO Drg. No. T- 4965, Switch sub assembly drg. No. T- 4966 and crossing sub assembly drg. No. T 4967 with all parts, fittings and fastenings complete.
- (iii) 60 kg 1 in 12 turnout shall conform to RDSO Drg. No. T- 4218, Switch sub-assembly drg. No. T- 4219 and crossing sub-assembly drg. No. T - 4220 with all parts, fittings and fastenings complete.

### 3.7.5. Turnout Sleepers

Turnout sleepers shall conform to Indian Railway Standard Specification for pre tensioned concrete sleepers serial no. T-45-96 (latest revision) as per RDSO Drawings. The same shall be procured from RDSO approved manufacturers / vendors duly inspected by Railway Consultant as per direction of the Engineer-in-charge.

Salient aspects of fan shape layout are:

- i. The sleepers under switch portion are having dowels in which slide chairs are fixed with the help of screws. These sleepers are laid perpendicular to the main line and therefore, can be used for left hand and right hand turnouts.
- ii. The sleepers between the switch and the crossing (lead portion) are designed and laid at an angle of  $Q/2$  with respect to main line where  $Q$  is the angle between the main line and the lead rail at that particular location. The same sleeper of left hand turnout rail at that particular hand turnout by laterally shifting the sleepers by an angle of  $Q$ .
- iii. The sleepers under crossing are laid perpendicular to the center line of the crossing and as such the same sleeper can be used for left hand and right hand by lateral shifting.
- iv. For laying sleepers in the lead portion correctly, spacing of sleepers on left rail seat and right rail seat on main straight track are given which define the center line of the sleepers.

PRC fan shape layouts have curved switches. Before laying the turnouts, the correctness of the switch as well as its curvature should be checked in advance by pre-assembling and then once again after laying it in track.

This layout needs efficient drainage and adequate ballast cushion.

A mark 'RE' is provided on fan shape PRC turnout sleepers at one end. The sleepers should be laid in a manner that the end having the mark 'RE' is always laid on the right hand side.

The dowel fixed in the PRC sleepers should be cleared with the help of a suitable diameter soft brush so that all dirt/muck is removed. All the screws required to be fixed in the dowels should be greased before being put in.

### Fan Shape Layout Assembly

	Main drg. Turnout	of	Switch sub-Assembly	Crossing sub - Assembly
(A) 1 in 8 ½ Turnout				
60 Kg	RDSO/T-4965		RDSO/T-4966	RDSO/T-4967
(B) 1 in 12 Turnout				
52 Kg	RDSO/T-4218		RDSO/T-4219	RDSO/T-4220

### Disposition of Sleepers

Type of layout	Sleeper under switch which are to be perpendicular to main line	Sleeper Nos. which are to be laid at angle Q/2 where Q is inclination of outer lead rail with respect to main line at that location	Sleeper Nos. to laid perpendicular to centre line of crossing
1 in 12	1 to 20	21 to 64	65 to 83
1 in 8 ½	1 to 13	14 to 41	42 to 54

### Approach sleepers

Type of layout	Entry	Exit
1 in 8 ½	5 Nos. : 60-S, 60-4A, 60-3A, 60 2AS & 60-1AS	8 Nos. : (4 sleepers on main line and 4 on turnout side.)
1 in 12	5 Nos. : 60-S, 60-4A, 60-3A, 60-2AS & 60-1AS	8 Nos. : (4 sleepers on main line and 4 on turnout side.)

Long sleepers shall be provided for point machines to meet the requirement of S&T.

It shall be ensured that the turnout is perfectly in line and duly packed both for the main lines as well as the siding served/connected by the turnout. Any adjustments as required shall be carried out by the contractor so that the layout and the connections meet the standard requirements. Nothing extra shall be payable for the same.

**Fouling Marks** made out of Cement concrete shall be provided as per approved drawing at locations as required as per directions of the Chief Engineer or his representative.

#### **4.0 Follow up Packings**

- i) The track shall be lifted to the correct profile as directed by the Chief Engineer or his representative.
- ii) The sleepers shall be well packed with the ballast under them taking care that the ballast shall be worked under throughout the length of the sleepers without damaging the bottom edges of the sleepers and sleepers repacked till no more ballast can be packed in and or as directed by Chief Engineer or his representative.
- iii) Stone ballast from the stacks along the alignment shall be lead and dumped over the track to correct profile as indicated in Para 263 of Indian railway permanent way manual 1986 reprint to 1999 and as directed by the Chief Engineer or his representative.
- iv) Correct track parameters i.e. Gauge, alignment of rails, square ness of the sleepers, longitudinal and cross levels, expansion gaps at rail joints etc. shall be achieved as directed by the Chief Engineer or his representative.

#### **5.0 Final Adjustment and Packing**

- i) Any sleeper which has been shifted from correct spacing or gone out of square shall be moved back and squared after loosening the fastenings, care being taken not to cause damage to PRC Sleepers while slewing the sleeper. The fastenings shall be tightened again after squaring.
- ii) The track shall be slewed to correct alignment by sighting along the rail head of the base rail. It should be ensured that track does not get lifted in the process of slewing. Any defects developed in gauge shall be rectified by adjusting the liners.
- iii) The track shall then be given a final packing. For this, sighting shall be done along the base rail and any dip or low joint lifted correctly and packed, attending the adjacent sleepers also. After the base rail is thus packed for 2 or 3 rail lengths, the cross levels should be checked and the opposite rail lifted wherever necessary and sleepers under the rail seat packed.
- iv) The joint and shoulder sleepers shall be repacked and cross levels adjusted. The ballast section shall be dressed neatly as directed by Chief Engineer or his representative to uniform height and width with correct side slopes.
- v) Testing – The track completed as above will be rolled with a light, diesel engine for rolling complete with fuel. After 4 such movements of the engine, the contractor will attend to the defects developed, by packing, aligning, leveling and gauging the track. No extra payment will be made for this.

## 6.0 Specifications for Finished Work

### a) Ballast Profile

- i) The ballast profile should be in conformity with Para 263 of IRPWM and brought to specified section, as directed by the Engineer-in-charge.
- ii) The ballast cushion shall be checked at three places in each km at random locations (these locations shall be recorded) and the average value shall be considered for acceptance.
- iii) The expression “Ballast Cushion” wherever used in these specifications, shall mean depth of clean layer of ballast below the bottom of sleepers and above the finished top of formation, measured under the rail seat of the sleeper.

### b) New Track Tolerances

The new track shall conform to the following track standards. The track measurements should be taken in floating conditions.

S. No.	Track Parameter	Items for Measurement	Value
1	Gauge	Gauge Sleeper to Sleeper variation	1673 + 3mm + 2mm
2	Expansion Gap	Maximum deviation from the prescribed gap (Average gap worked out by recording 20 successive gaps)	+ 2mm
3	Joints	<ul style="list-style-type: none"> <li>• Low joints not permitted</li> <li>• High joints not more than</li> <li>• Maximum out of squareness of joints on straight</li> <li>• Maximum out of squareness of joints on curves</li> </ul>	--- 2mm + 10mm ½ pitch of fish bolts holes
4	Spacing of sleeper	With respect to theoretical spacing	+ 20mm
5	Cross level	To be recorded on every 4th sleeper	+ 20 mm
6	Alignment	<ul style="list-style-type: none"> <li>• On straight on 7.5m chord</li> <li>• On curves – variation over theoretical versions.</li> </ul> (on curves station to station variation in versine shall not be more than 10mm)	+ 5mm* + 5mm** * Values up to 10mm can be accepted at few isolated locations ** Values up to 7mm can be accepted at few isolated locations

7	Longitudinal level	<ul style="list-style-type: none"> <li>• Variation in longitudinal level with reference to approved longitudinal sections</li> <li>• Unevenness (variation in longitudinal profile of track as measured on 3.5m chord at the centre.</li> </ul>	<p>50mm</p> <p>Not more than 6mm values of 10mm can be tolerated at few locations</p>
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## 7.0 Maintenance /Defect liability period

- i) The maintenance of all assets / works of the project handed over to the contractor by client/constructed by the contractor will be the responsibility of the contractor, during the period of construction. Defect liability period shall be 12 months from the date of issue of completion certificate/commissioning of the works, whichever is earlier.
- ii) The contractor shall be responsible for rectification of defects arising out of defective work man-ship/defective materials for this period of twelve months from the date of commissioning of the work and shall be responsible for replacement of all defective materials and for rectification of all defects at his own cost. The assets shall be handed over to **MPT** at the end of the defect liability period as per stipulations given below.

## 8.0 Handing over of track by the contractor to MPT

- 8.1 On completion & commissioning of work, the contractor shall handover the track to **MPT** for operation and maintenance after rectification of defects noticed during the joint inspection by the Chief Engineer or his representative.
- 8.2 Performance security shall be released to the contractor on expiry of defect liability period and rectification of defects, if any.

### **III ) TECHNICAL SPECIFICATION FOR TRACK BALLAST**

#### **Special conditions and Specification for Supply of Ballast**

#### **1.0 Ballast Supply:**

- 1.1 This specification will be applicable for stone ballast to be used for all types of sleepers on normal track, turn-outs etc.
- 1.2 The rates, as per the Schedule, are inclusive of all taxes viz. commercial sales tax, Octroi etc. and other charges levied by the State/Central government. The rate also includes all lead, lift, ascent, descent, loading, unloading, royalty etc. and all other incidental charges.
- 1.3 The contractor shall stack the ballast, normally over the entire length of the section at specified locations duly certified by the Chief Engineer or his representative except at those certain locations which are found to be inaccessible for certain reasons. The decision of Chief Engineer or his representative at site will be final and binding on the contract for the locations, inaccessible for supply of ballast.
- 1.4 The ballast shall be supplied as per the requirement given by the Chief Engineer or his representative at site.
- 1.5 The ballast shall be in conformity with "Specifications for Track Ballast" issued by RDSO in January, 1999 with latest correction slips, However, the Chief Engineer or his representative administration may alter these conditions of technical nature, which do not have bearing on rates.
- 1.6 The tenderer must submit the test report of impact value, Abrasion values and water absorption value.
- 1.7 The tenderer/contractor undertakes that the ballast supply at all times shall conform to Specifications for track ballast as specified by Railway.
- 1.8 The contractor shall make his own arrangement at his own cost for the construction of service roads within the **MPT** as well as outside **MPT** land, for transportation of ballast, if required. No separate payment shall be admissible to the contractor for the construction of such roads and its repairs and maintenance.
- 1.9 The contractor shall have to make necessary arrangement for levelling the nominated grounds for stacking of ballast at cess, as per the direction and to the satisfaction of Chief Engineer or his representative, without any additional claim of payment.
- 1.10 The cost of routine testing of ballast, as per RDSO guidelines shall be payable by the contractor. However, the **MPT** is at liberty to collect the ballast sample as and when, required and send the same for testing at the cost of Contractor.

- 1.11 The quantities of ballast mentioned in the schedule are approximate. **MPT** reserves the right to alter the quantity as per the actual requirement and nothing extra will be payable over and above the accepted rates. However, for increase in agree mental value beyond 25%, clause 35 of General Conditions of Contract will be applicable.
- 1.12 The contractor shall make necessary arrangement for the security of the ballast supplied during the progress of the work till final bill is paid. No separate payment shall be admissible to the contractor for guarding the ballast.
- 1.13 The ballast shall be supplied as per the requirement given by the Chief Engineer or his representative. Quantity supplied extra over the required quantity may not paid.
- 1.14 Safety of ballast against any theft or loss remains solely with the contractor during the entire period of the contract agreement and the same has to be made good by contractor. This responsibility of the contractor remains even if the ballast stacks are measured and paid for, unless Chief Engineer or his representative takes over measured ballast stacks from the contractor with a clear taking over certificate.

## **2.0 Quality of Stone ballast in General:**

- 2.1 The Stone ballast should be machine crushed and shall consist of hard and durable stone and conform to the approved sample.
- 2.2 The stone ballast should be got inspected by the Chief Engineer or his representative at regular intervals to ensure quality and samples tested for physical properties (abrasion test, impact test and water absorption test values)
- 2.3 Attempts should be made to have ballast of the best available quality. For approving the ballast quarry, the following norms will be adopted.

**Basic Quality:** Ballast should be hard durable and as far as possible angular along edges/corners, free from weathered portions of parent rock, organic impurities and inorganic residues.

**Particle Shape:** Ballast should be cubical in shape as far as possible. Individual pieces should not be flaky and should have generally flat faces with not more than two rounded/sub-rounded faces.

**Mode of Manufacture:** The ballast shall be machine crushed and conforming to the Railway Specifications for machine crushed ballast.

**Physical Properties:** The ballast samples when tested for physical properties (abrasion and impact) in accordance with IS:2386 (part-IV)-1963 should have the under mentioned values:



- i. Aggregate Abrasion Test (Using 105 Angles Abrasion Testing Machine) Aggregate Abrasion Value (percent) – Maximum 30%
  - ii. Aggregate Impact Test.
  - iii. Impact Values (Percent) - Maximum 20%
- 2.4 The water absorption tested as per IS: 2386, Part-III-1963, which should not be more than 1%

**Note: The specification of Track Ballast However should be as per Railway Board’s letter No. 94/CE-II/HB/2, dated 22.04.1997**

- 2.5 Track ballast should be obtained from good quality stones/boulder; and top layer, if weathered, must not be used.

**3.0 Size and Gradation of ballast:**

3.1 The track ballast shall be well graded of the following size:-

- a) Retained on 65mm square mesh sieve - Nil
- b) Retained on 40mm square mesh sieve - 40% to 60%
- c) Retained on 20mm square mesh sieve - not less than 98%

**4.0 Over-Size and under-Size ballast:**

- 4.1.1 Over-size ballast: if ballast is retained on 65mm square mesh, the stack shall be rejected.
- 4.1.2 In case ballast retained on 40mm square mesh sieve exceeds 60% limit prescribed in 3.1 (b) above, payment at following reduced rates shall be made for the full stack.

Retained on 40mm Square Mesh	Rate for the whole stack as the percentage of accepted rate of supply.
Between 40% (including) and 60% (including)	100%
Between 60% (excluding) and 65% (including)	95%
Between 65% (excluding) and 70% (including)	90%

In case retention on 40mm square mesh sieve exceeds 70%, the stack shall be rejected.

**4.2 Under-size ballast-Tolerances:**

The ballast shall be treated as under-sized and shall be rejected if-

- 4.2.1 Retention on 40mm Sq. Mesh Sieves less than 40%
- 4.2.2 Retention on 20mm Sq. Mesh Sieves is less than 98%

## 5.0 Sieve analysis for size and gradation:

5.1 The screens for testing ballast shall be square mesh and shall not be less than 100 cm in length, 70cm in breadth and 10 cm in height on the sides. The squareness of the individual hole in the sieves viz. 65,40 and 20mm should be ensured. The sieves to be used for the sieve analysis and ballast measurement should be of approved quality.

5.2 Sieve Sizes mentioned above are the nominal sizes. However the following tolerance in the sizes of holes for 65, 40 and 20mm nominal sizes are permitted.

- \* 65mm Square mesh sieve plus minus (+) 1.5mm
- \* 40mm square mesh sieve plus minus (+) 1.5mm
- \* 20mm Square mesh sieve plus minus (+) 1.0mm

5.3 When carrying out sieve analysis, the screen shall not be kept inclined, but held horizontally, and shaken vigorously. The pieces of ballast retained on the Screen shall not be pushed through the screen openings.

5.4 The percentage of ballast passing through or retained on the sieve shall be determined by volume and not by weight.

## 6.0 Sampling of ballast:

6.1 In order to ensure supply of uniform quality of ballast, the following norms shall be followed in respect of sampling, testing and acceptance. Minimum of 3(Three) samples of ballast for sieve analysis shall be taken for measurement done on any particular date even if the number of stakes to be measures are less than 3(three).

6.2.1 On supply of first 100 cum. The test for size, Gradation, Abrasion value, Impact value and water absorption (if prescribed) shall be carried out. Further supply shall be accepted only after this ballast satisfied the specification for these test. Chief Engineer or his representative reserves the right to terminate the contract at this stage itself in case the ballast supply fails to conform with any of these specifications. All costs towards the laboratory test should be borne by the contractor.

6.2.2 Subsequent tests shall be carried out as follows:

S.No.		Supply in stacks	
		For each stack of volume less than 100 cum	For each stack of volume more than 100 cum
a	Size & Gradation Test: Testing Frequency----- Size of Sample ----	One for each stack * 0.027 cum	One for each stack *0.027 cum. For ever 100 cum or part thereof.

b	Abrasion Value, Impact Value and Water absorption Tests**:- Testing Frequency:--- Weight of Sample-----	One for every 2000 cum 45 KG.
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\* This sample should be collected using a wooden box of internal dimension 0.3m x 0.3m from different parts of the stack.

\*\* These tests shall be done for the purpose of maintaining quality during supply. In case of the test results not being as per the prescribed specifications at any stage, further supplies shall be suspended till suitable corrective action is taken and supplies ensured as per the Specifications.

The above tests may be carried out more frequently if warranted at the discretion of Chief Engineer or his representative.

6.2.3 The ballast should be PURE, i.e it should not contain inorganic or organic residues, and must be free from inferior or harmful substance.

6.2.4 Contamination of ballast with the ground soil etc. of stacking area should be minimized by providing neat stacking areas with good drainage.

6.3 In the event of the ballst being rejected the Contractor/Agency will have to remove the rejected ballast from the work-site expeditiously at his own cost.

6.4 The Chief Engineer or his representative shall mark all rejected ballast in any manner he considers fit to prevent them from being removed and mixed with good/accepted ballast and the Contractor shall within a fortnight from the date of the order of removal, remove the rejected ballast to such place as may be directed by the Chief Engineer or his representative and, in the event of contractor's failure to do so the Chief Engineer or his representative may cause it to be removed and all costs of such removal shall be payable on demand by the Contractor to Chief Engineer or his representative and without prejudice to any other mode of recovery, may be deducted from any money, that may be due or may become due to the contractor or from the Contractor's bill for any other works executed for Chief Engineer or his representative on behalf of Client.

6.5 Should Chief Engineer or his representative, under any special circumstances, agree to take over all or part of the rejected ballast, the same will be paid for at rats to be fixed by the authority accepting the tender and agreed to by the contractor in writing.

7.0 The screen for sieve analysis as specified in specification as also the standard box for measuring volume should be kept available at site by the contractor at his own cost, for use by the Chief Engineer or his representative or his representative after proper check, in carrying out sieve analysis. Labours required for doing sieve analysis will be supplied by the Contractor free of cost. The contractor must also accept the results of such analysis in writing.

- 8.0 Each stack of ballast shall be serially numbered and may be as long and broad as possible. After the stacks are measured, they should be sprinkled with lime in the form of cross on all the sides of the stack at the contractors own cost to the satisfaction of the Chief Engineer or his representative. Suitable space should be left in between stacks in adjacent zones so that there is no possibility of materials of fresh stacks in one zone mixing with stacks already measured in the adjacent zone.
- 9.0 Entries in the ballast measurement register should not be over written. If any correction is required the same should be done by striking off the old entry by drawing a line and showing proper entry by its side.
- 10.0 Ballast is to be stacked proper trapezoidal section on the cess or berms, or on the line or in depots as may be ordered by the engineer concerned, in stacks as large as possible and ordinarily not less than 1/0 metre. Top of stack shall be kept parallel to the ground plane. The side slopes of stack should not be flatter than 1.5:1 (Horizontal: Vertical). Cubical content of each stack shall normally be not less than 30(thirty) cum in plain areas. The Chief Engineer or his representative should, as far as possible, set out the sites for ballast stacks. Stacking ground must be fairly dressed to a proper plane by the contractor at his own cost before stacking is started. Completed stacks must be properly finished before being offered for acceptance and measurement. It must be distinctly understood that the accepted rate is for ballast which conforms in all particulars of quality, stack measurements, gauge, completion with in time limit and delivery at site fixed upon, with the specification and conditions of contract. If, therefore, the officer deputed to measures up a Contractor's ballast is not satisfied that the above conditions and specifications have been complied with, he is at liberty to take either of the following course.
- i. To refuse to measure up such ballast at all giving his reasons in writing for so doing to the Contractor.
  - ii. To call upon the contractor in writing to screen his ballast of dirt and admixtures beyond the specified limit or to break it to gauge, or to re-stack it to proper dimensions, or all three as may be required, prior to further inspection an measurement by a fixed date, within the time limit imposed in the agreement.
- 11.0 The contractor shall provide at his own cost adequate labour and tools for opening out stacks for inspection and for carrying out screening test.
- 12.0 The contractor shall supply all necessary tools for the work and also bamboos, pegs, strings etc., necessary for measurement of ballast.
- 13.0 The quantity shall be calculated as per the following formula for the ballast supplied.

$$Q = \frac{LB+LT}{2} \times \frac{WB+WT}{2} \times H$$

When, LB = Average length of the stack at the bottom  
LT = Average length of the stack at the top  
WB = Average width of the stack at the bottom  
WT = Average width of the stack at the top  
H = Average height of the stack

The plan of the stack should be either square or rectangular. Payment shall be made for the gross measurement in stacks without any deduction for shrinkage/voids. 90% of the payment will be paid in R.A. bills prepared against supply of ballast duly certified by Chief Engineer or his representative supported with measurement details, test Certificates, royalties and all other necessary statutory taxes clearance certificates. Balance 10% shall be released after spreading the same in to the track.

- 14.0 The rates in this schedule are entirely inclusive so as to cover any purchase and/or royalties and/or compensation for surface charges incurred by him whatsoever. The accepted rate includes all quarry charges Sales Tax monopoly fee and other charges if any and tools and plants for clearing site for stacking, test and testing screens, carriage of materials to the site of stacking and removal of any material rejected by the Chief Engineer or his representative to any site when the rejected materials are to be thrown.
- 15.0 The rates quoted are inclusive of all charges including all taxes levied by Union of India or State Government or local bodies and includes Sales Tax, Royalty, Octroi duties etc.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART III (v). CHECK LIST FOR SUBMISSION OF TENDER**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Yes</b>	<b>No</b>
1	Have you purchased / downloaded the tender document from internet for submission by your firm?		
2	Have you submitted cost of tender document in the form of DD or cash receipt, in case you have downloaded from internet?		
3	Have you submitted the tender in the Mormugao Port Trust's Form?		
4	Have you furnished full postal address, telephone number/Fax number, email?		
5	Have you kept your offer valid for 180 days as specified?		
6	Have you attended Pre-Bid meeting?		
7	Have you downloaded Pre-bid clarifications from Port web site?		
8	Have you submitted Demand Draft pertaining to Earnest Money? i. DD No. _____ dated drawn on bank _____ payable at _----- amounting to Rs.16,46,800/-		
9	Have you submitted documents pertaining to status/ contribution of the firm, partnership deed and power of attorney?		
10	Have you submitted Audited Statement of Accounts for last three (3) years ending 31.03.2015?		
11	Have you submitted Copy of current Income Tax Return Acknowledgment?		
12	Have you submitted document in support of the Technical System Qualifying Criteria (Eligibility Criteria)?		

<b>Sr. No.</b>	<b>Particulars</b>	<b>Yes</b>	<b>No</b>
13	Have you submitted list of works in progress along with copy of work orders?		
14	Have you submitted Bar Chart/CPM chart?		
15	Have you submitted Performa 1 to 6?		
16	Have you submitted tender as Joint Venture with other Party?		
17	Have you submitted signed copy of Integrity Pact and enclosed in Technical Bid (Cover No.1)?		
18	Have you submitted EPF Number issued by Provident Fund Department?		
19	Have you submitted ESI Number issued by Employees State Insurance Department?		
20	Have you submitted Permanent Account Number issued by Income Tax Department?		
21	Have you Signed and seal on every page of tender document submitted?		
22	Have you attested all the corrections?		
23	Have you signed and filled details in Vendor Registration Form		
24	Have you submitted Price Bid in separate Cover?		

**NOTE:**

The above Checklist is not exhaustive. The tenderer must go through carefully the entire Booklet and submit the tender compliance of all the conditions/ provisions instructions mentioned therein irrespective of the fact that they have been highlighted in the Check list or not.

Signature \_\_\_\_\_

Name of the Tenderer

Seal:

Date:



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/56/2016**

**Name of Work: PROVIDING FULL RAKE HANDLING RAILWAY LINE WITH  
PAVING 30M WIDE AT MORMUGAO PORT, GOA.**

**PART III (vi) VENDOR REGISTRATION FORM**

1. Name of the Organization : \_\_\_\_\_
2. Address (In Detail) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Telephone Number : \_\_\_\_\_
4. E-Mail Id : \_\_\_\_\_
5. Permanent Account Number (PAN) : \_\_\_\_\_
6. Bank Name : \_\_\_\_\_
7. Bank Branch Address ( In Detail) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Bank Branch Code : \_\_\_\_\_
9. Bank Account Number : \_\_\_\_\_
10. Bank Account Type : \_\_\_\_\_



- 
11. Magnetic Ink Character Recognizer (MICR) :
- 
12. Tax Identification Number (TIN) :
- 
13. Service Tax Registration Number :
- 
14. Service Tax Registration Code :
- 
15. CST Registration Number :
- 
16. Employee Provident Fund (EPF) Registration Number :
- 
17. Employee State Insurance Scheme (ESIS) Registration Number :
- 
18. IFSC Code :
-