



# **JAIPUR DEVELOPMENT AUTHORITY, JAIPUR**

## **BID DOCUMENTS**

### **TECHNICAL BID**

**(POST QUALIFICATION)**

**Envelope – 1**

**FOR THE WORK OF**

**Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech , Zone-BRTS (Project-I ) JDA Jaipur (Only bituminous related works)**

Period of Download	:	From 28.09.2016 to 02.11.2016 upto 6:00 PM.
Period of Upload	:	From 28.09.2016 to 02.11.2016 upto 6:00 PM.
Date of opening of technical bid	:	07.11.2016 at 11:00AM In Room No. CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur-302004 ( Rajasthan)
Cost of Bid	:	Rs. 1000.00 payable on line only
Bid processing Fee	:	Rs. 1000.00 payable online only.
Completion period	:	O6 Months

**Executive Engineer  
ROB/RUB-III, JDA, Jaipur**

## **जयपुर विकास प्राधिकरण, जयपुर**

**इन्दिरा सर्किल जे.एल.एन. मार्ग, जयपुर**

क्रमांक : जविप्रा / EE/ ROB RUB-III/ 2016 / डी-

दिनांक:

**बिड सूचना सं० EE/ROB RUB-III /NIB No- 04/ 2016-17**

जयपुर विकास प्राधिकरण के जोन प्रोजेक्ट-1 के अन्तर्गत सी-जोन बाई पास से पानीपेच, सीकर रोड पर स्थित बी.आर.टी.एस. कोरिडोर के रिपेयर एवं रिन्यूवल का कार्य हेतु दिनांक 02.11.2016 सॉय 6.00 बजे तक ऑन लाइन निविदा आमंत्रित की जाती है।

विस्तृत विवरण को, जो कि निविदा प्रपत्र में उपलब्ध है, अद्योहस्ताक्षरकर्ता के कार्यालय में अथवा राजस्थान सरकार के उपापन पोर्टल, [www.sppp.raj.gov.in](http://www.sppp.raj.gov.in) व [www.eproc.rajesthan.gov.in](http://www.eproc.rajesthan.gov.in) एवं जयपुर विकास प्राधिकरण की वेब साइट [www.jad.urban.rajesthan.gov.in](http://www.jad.urban.rajesthan.gov.in) पर देखी जा सकती है।

निविदा दाता को निविदा में भाग लेने हेतु आवश्यक है कि :-

1. जयपुर विकास प्राधिकरण की वेब साइट [www.jad.urban.rajesthan.gov.in](http://www.jad.urban.rajesthan.gov.in) पर पंजीकृत हो। निविदा शुल्क व आर.आई.एस.एल प्रक्रिया शुल्क केवल ऑन लाइन ही देय होगी। बोली प्रतिभूति ऑन लाइन अथवा बैंक गारंटी के द्वारा दी जा सकती है।
2. ऑन लाइन निविदा में भाग लेने हेतु राजस्थान सरकार के पोर्टल [www.eproc.rajesthan.gov.in](http://www.eproc.rajesthan.gov.in) पर पंजीकृत हो।
3. जयपुर विकास प्राधिकरण अथवा केन्द्र सरकार/राज्य सरकार के विभाग/स्थानीय निकाय/रेलवे अथवा कॉरपोरेशन में उचित श्रेणी में पंजीकृत हो।

अधिशायी अभियन्ता ROB RUB-III,  
जविप्रा जयपुर।

**Template of NIB for Publication in News Paper**

**JAIPUR DEVELOPMENT AUTHORITY**

**Office of Executive Engineer (ROB/RUB-III), Room No. 305, Citizen Care Centre Building, JDA  
Campus, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004**

Telephone : + 91-141-2569696 e.mail :

**No: JDA/EE-ROB/RUB-III /2016-17/D-**

**Dated:**

**NOTICE INVITING BID**

**NIB NO: EE ROB/RUB-III/ 04/2016-17**

Bids are invited up-to 6.00 PM of 02.11.2016 for the work of “Renewal and repairing of BRTS corridor on Sikar Road, from C-Zone bye pass to Panipech, zone- BRTS (Project-1), JDA, Jaipur (only Bituminous related works)".

Details may be seen in the Bidding document available at our office during working hours or State Public Procurement Portal website [www.sppp.rajasthan.gov.in](http://www.sppp.rajasthan.gov.in) , [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) and [www.jda.urban.rajasthan.gov.in](http://www.jda.urban.rajasthan.gov.in)

To participate in the bid, the bidder should be:

1. Registered on JDA website [www.jda.urban.rajasthan.gov.in](http://www.jda.urban.rajasthan.gov.in)  
For participating in the Bid, the bidder has to apply for the bid and pay the bidding document Fee, RISL processing Fee online only and bid security deposit either online or in the form of Bank Guarantee.
2. Registered on e-Procurement Portal of Government of Rajasthan [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) for online e-Bid submission.
3. Registered in "AA" class contractor category in JDA or any Central Government Department /State Government Department/local body/ Railways or Corporations.

Executive Engineer (ROB/RUB-III)  
JDA, Jaipur

**Template of detail NIB for uploading on SPP Portal, e-Procurement, JDA portal  
& as part of NIB document**

**JAIPUR DEVELOPMENT AUTHORITY**

Office of Executive Engineer (ROB/RUB-III), Room No. 305, Citizen Care Centre Building, JDA  
Campus, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004

Telephone : + 91-141-2569696 e.mail :

**No : JDA/EE-ROB/RUB-III /2016-17/D-**

**Dated :**

**NOTICE INVITING BID**

**NIB No. : EE-(ROB/RUB-III)/03/2016-17**

<b>Name &amp; Address of the Procuring Entity</b>	<ul style="list-style-type: none"> <li>➤ Name : Executive Engineer(ROB/RUB-III), Jaipur Development Authority</li> <li>➤ Address : Room No. 305, 3<sup>rd</sup> floor, Citizen Care Centre Building, JDA Campus, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004 (Rajasthan).</li> <li>➤ Email :</li> </ul>
<b>Subject Matter of Procurement</b>	<b>Renewal and repairing of BRTS corridor on Sikar Road, from C-Zone bye pass to Panipech, zone- BRTS (Project-1), JDA, Jaipur (only Bituminous related works)</b>
<b>Bid Procedure</b>	<b>Post qualification open competitive bidding as per e-Bid procedure at <a href="http://eproc.rajastha.gov.in">http://eproc.rajastha.gov.in</a></b>
<b>Bid evaluation Criteria (Selection Method)</b>	<b>L1 (e.g. Least Cost based Selection ( LCBS)-L1)</b>
<b>Websites for downloading Bidding Document, Corrigendum's, Addendums, etc.</b>	Websites : <a href="http://www.sppp.rajasthan.gov.in">www.sppp.rajasthan.gov.in</a> , <a href="http://www.eproc.rajasthan.gov.in">www.eproc.rajasthan.gov.in</a> , <a href="http://www.jda.urban.rajasthan.gov.in">www.jda.urban.rajasthan.gov.in</a>
<b>Estimated Procurement Cost</b>	<b>INR 1285.00 Lacs ( Rupees One Thousand Two Hundred Eighty Five Lacs only)</b>
<b>Website for online Bid application and payments.</b>	<p>Website : <a href="http://www.jda.urban.rajasthan.gov.in">www.jda.urban.rajasthan.gov.in</a> (for online payments)</p> <p>The Bidder if apply for this Bid, has to pay the following Fees, Online only :-</p> <p>(i) Bidding Document fee : Rs 1000.00/-Rupees (One Thousands only)</p> <p>(ii) RISL Processing Fee : Rs 1000.00 ( Rupees One Thousand only)</p> <p>Online/Bank Guarantee:-</p> <p>(iii) Bid Security Deposit (BSD) :- As detailed below</p>
<b>Bid Security Deposit</b>	<ul style="list-style-type: none"> <li>➤ Amount (INR): 2 % (Rs 2570000.00) (For AA class contractor registered in other department),</li> <li>➤ 0.5 % (Rs 642500.00) for Bidder registered as contractor in JDA.</li> <li>➤ BSD can be deposited either Online or in the form of Bank Guarantee. The bidder will provide details of BG viz No., Issue date, Expiring date etc. on Online tendering system of JDA.</li> <li>➤ The original BG will be physically handed over in JDA as detailed below.</li> </ul>

	➤ A copy of this BG is to be attached with the document during uploading.
Bank details for Online/RTGS/NEFT	➤ ICICI Bank Ltd. A/C No 675401700586 IFSC Code ICIC0006754
Publishing date on SPP Portal	28.09.2016
Start Date:- On JDA Portal Document sale/Download/Bid participation amount deposit	28.09.2016
Start Date :- On eProc Portal of GoR for Bid submission	28.09.2016
End date :- on JDA Portal Document sale/Download/Bid participation amount deposit	02.11.2016
End Date :- On eProc Portal of GoR for Bid submission	02.11.2016 at 6:00 PM
Pre-Bid meeting	➤ N/A
Physical BG submission Start date	03.11.2016 at 10:00 AM
Physical BG submission End date	04.11.2016 up to 5:00 PM
Place of submission of Physical BG	➤ Nodal officer (Tendering)/ Sr Accounts Officer, Room No MB-SF-225A of main building JDA, Jaipur
Date/Time Place of Technical Bid Opening	➤ 07.11.2016 at 11.00 AM in Room No CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur- 302004 ( Rajasthan)
Date/Time/Place of Financial Bid Opening	➤ Date will be informed on E Proc portal after evaluation of Technical Bids. Room No CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur- 302004 ( Rajasthan)
Bid Validity	120 days from the bid submission deadline
Time period of completion of work	6 months
Job No.	JDA/EE Project 01/A & F/2015-16/Aug/182 dated 14.07.2015
<ul style="list-style-type: none"> <li>The amount is to be deposited online by bidder. In case the amount exceeds the online Payment limit the payment may be made through RTGS/NEFT in ICICI Bank Account Number 675401700586 IFSC Code ICIC0006754. After Successful payment, update the UTR/Instrument number on JDA tender portal against the tender you want to participate. The amount deposited will be confirmed by JDA and will be updated online.</li> <li>The bidder has a choice for depositing total amount (100%) of the Bid Security either through "On Line Payment" mode or total amount (100%) in the form of Bank Guarantee from any nationalized / Scheduled Bank, valid up to period of 6 (six) months from the date / extended date of opening of bid whichever is later.</li> <li>The BG should be in standard format available in bid documents which should be cashable at respective branch of the bank in the Jaipur City.</li> <li>The bidder has to submit the original BG physically as detailed in NIB to Nodal officer (Tendering)/ Sr Accounts Officer, Room No MB-SF-225A of main building JDA, Jaipur, failing which bid will be rejected.</li> <li>In case BG is submitted by post or courier, JDA will not own responsibility of delay or</li> </ul>	

lost of instrument and in such a case the bid will be rejected.

- The bidders should also note that the tender fee Rs. 1000/- and RISL fee Rs. 1000/- will be accepted through "on-line payment" mode only as already mentioned in the bid documents.

**Note :-**

1. Bidder (authorized Signatory) shall submit their offer on-line in Electronic formats both for technical and financial proposal.
2. In case, any of the bidders fails to pay tender Fee, RISL Processing Fee through Online mode only and Bid Security Deposit either On Line or in the form of BG (Subject to Confirmation) his Bid shall not be accepted.
3. To participate in online bidding process, bidders must procure a digital signature Certificate (Type III) as per information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCs safecrypt, Ncode etc. Bidders who already have a valid Digital signature Certificate (DSC) need not procure a new DSC. Also bidders must register on <http://eproc.rajasthan.gov.in> (Bidders already registered on <http://eproc.rajasthan.gov.in> before 30.09.2011 must register again).
4. JDA will not be responsible for delay in online submission due to any reason. For this, bidders are in their own interest requested to upload the complete bid well in advance in time so as to avoid 11<sup>th</sup> hour issues like slow speed: chocking of web site due to heavy load or any other unforeseen problems.
5. Bidders are also advised to refer "Bidders Manual Kit" available at eproc website for further details about the e-tendering process.
6. Training for the bidders on the usage of e-tendering system (e-procurement) is also being arranged by DoIT & C, GoR on a regular basis. Bidders interested for training may contact e-procurement Cell, DoIT & C for booking the training slot.  
Contact No. : 0141-4022688 (Help desk 10 am to 6 pm on all working days) e-mail: [eproc@rajasthan.gov.in](mailto:eproc@rajasthan.gov.in) .  
Address : E-Procurement Cell, JDA Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur.
7. The procuring entity reserves the complete right to cancel the bid process and reject any or all of the bids.
8. No contractual obligation whatsoever shall arise from the bidding document/ bidding process unless and until a formal contract is signed and executed between the procuring entity and the successful bidder.
9. Procurement entity disclaims any factual/ or other errors in the bidding documents (the onus is purely on the individual bidders to verify such information) and the information provided therein are intended only to help the bidders to prepare a logical bid-proposal.
10. The provisions of RTPP Act 2012 and Rules thereto shall be applicable for this procurement. Furthermore, in case of any inconsistency in any of the provisions of this bidding document with the RTPP Act 2012 and Rules thereto, the later shall prevail.

Executive Engineer (ROB/RUB-III),  
JDA, Jaipur.

## **Part of NIB Document**

### **Process for participation & Depositing Payment Online**

Jaipur Development Authority has decided to receive Bidding document fee, RISL Processing Fee through online mode only and Bid Security Deposit (BSD) either through online mode or in the form of Bank Guarantee. The bidder has to get registered himself on JDA portal [www.jda.urban.rajasthan.gov.in](http://www.jda.urban.rajasthan.gov.in)

To participate in the bid, bidder has to be:

1. Registered on JDA website [www.jda.urban.rajasthan.gov.in](http://www.jda.urban.rajasthan.gov.in) (by depositing Rs 500.00 online, the validity of which remains 3 (three) years.  
For participating in the Bid, the Bidder has to apply for this Bid and pay the bid Document Fee, RISL Processing Fee online only and Bid Security Deposit either online only or in the form of Bank Guarantee.
2. Registered on e-Procurement Portal of Government of Rajasthan [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) for online e-Bid submission.

Methods for depositing online amount

- Online through internet Banking, Debit card or Credit Card.
- In case the amount exceeds the online payment limit, the payment may be made through RTGS/NEFT/Transfer in Bank Account Number 675401700586 IFSC Code ICIC0006754 of ICICI Bank limited, JDA Campus Jaipur.

In Case of RTGS/NEFT/Transfer the bidder is required to deposit the requisite amount in the dedicated bank account number as mentioned above and has to get the UTR/ Reference number from the bank. This number is to be updated while applying the bid on JDA portal.

While participation in the bid a receipt will be generated through the system showing the submission details as per Annexure-4. The bidder is required to fill the instrument numbers for various heads on e-procurement portal [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) as mentioned in the receipt.

More details about Registration Process, Terms and Conditions and FAQ along with contact details is available on JDA website [www.jda.urban.rajasthan.gov.in](http://www.jda.urban.rajasthan.gov.in) under e-Services>>JDA tender.

**Template of Online Receipt as part of NIB Document**

**JIPUR DEVELOPMENT AUTHORITY**

**Bid Participation Receipt**

**Date & Time: .....**

**Bid Detail**

<b>Bid ID :</b> EE-ROB-RUB-III/04/2016-17	<b>Procurement Entity</b>	<b>Executive Engineer-ROB-RUB-III, JDA, Jaipur.</b>
<b>Bid Title :</b>	Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech , Zone- BRTS (Project-I ) JDA Jaipur (Only bituminous related works)	
<b>Bid Value-1285.00 Lacs</b>	<b>Tech Bid Opening Place :</b>	Room No CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur- 302004 ( Rajasthan)

**Bidder Detail**

<b>Name of Entity</b>	.....	<b>Mobile :</b>
<b>Registration Type :</b>		<b>Instrument Amount : .....</b>
<b>Payment Mode :</b>	Online / UTR	<b>Payment Channel : Payment Gateway/ ICICI Branch - JDA</b>
<b>Instrument No.</b>		<b>Instrument date : .....</b>

**Dates Detail**

<b>Sr. No.</b>	<b>Event Name</b>	<b>Event Date</b>
<b>1</b>	Publishing date/On line start date for bid applying	28.09.2016
<b>2</b>	Bid Opening Date	07.11.2016 at 11.00 AM

**Specific Instrument detail for e Proc Rajasthan**

<b>Instrument Type : DD</b>			
<b>Instrument Number</b>	<b>Head Name</b>	<b>Amount</b>	<b>Date</b>
<b>10000</b>	<b>Tender Fee</b>	<b>1000.00</b>	.....
<b>10001</b>	<b>RISL Processing Fee</b>	<b>1000.00</b>	.....
<b>10002</b>	<b>Bid Security Deposit</b>	<b>Rs. 2570000.00 (for other bidders) &amp; Rs. 642500.00 (for bidders registered in JDA)</b>	.....

Issuer Detail: Jaipur Development Authority    Challan Number: .....



**JAIPUR DEVELOPMENT AUTHORITY, JAIPUR****GENERAL DETAILS OF BID:**

1.	NIB No.	EE-(ROB/RUB-III)/04/2016-17
2.	Name of the work	<b>Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech , Zone-BRTS (Project-I ) JDA Jaipur (Only bituminous related works)</b>
3.	Estimated Cost	<b>INR 1285.00 Lacs ( Rupees One Thousand Two hundred Eighty five Lacs only)</b>
4.	Cost of the Bid Document	Rs. 1000.00 ( Rs. One Thousand only).
5.	Bid Processing fees	Rs. 1000.00 ( Rs. One Thousand only).
5.	Earnest Money	Rs 2570000.00 - for other than JDA Contractors Rs 642500.00 - for JDA Contractors (In Favour of Secretary, JDA, Jaipur.)
6.	Completion Period	06 Months
7.	Start/ End Date for Bid Applying, Online Payment and Bid Submission	Start Date: 28.9.2016 End Date: 02.11.2016 up to 06.00 PM
8	Date of submission of D.D./Pay order of Bid security deposit,	<b>03.11.2016 10.00 AM to 04.11.2016 up to 5:0 PM</b>
9.	Date & Time of opening technical bid	<b>07.11.2016 at 11:00 AM. in in Room No CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur- 302004 ( Rajasthan)</b>
10.	Bid Document issued to	M/s -----
11.	Bid cost deposit	Receipt No. ----- Dated -----

**SCHEDULE – A: INFORMATION USEFUL FOR THE CONTRACTORS:**

The Bidder should see the site and fully understand the conditions of the site before bidding and include all leads, lift etc for the material in his item rate/percentage to be quoted on the rates give in the Schedule ‘G’.

The work shall be carried out in accordance with the relevant BIS/IRC/MoRTH /Rajasthan PWD detailed specification and to the entire satisfaction of the Engineer-In-Charge of the work.

**SCHEDULE – B: LIST OF THE DRAWING TO BE SUPPLIED BY THE DEPARTMENT**

The drawing may be seen in office of the undersigned.

**SCHEDULE – C: LIST OF THE DRAWING TO BE SUPPLIED BY THE CONTRACTOR:** List of the drawing to be supplied by the contractor NIL.

But the contractor shall have to arrange at his own cost drawings required for the work after deposition necessary cost with JDA.

**SCHEDULE - D: TEST OF THE MATERIALS:**

The test of the materials and workmanship shall be conducted by the JDA staff as necessary. The result of such tests should confirm to the standards laid down in the Indian standard & other standards laid down in the detailed specification of the work. Qualified personnel as required under the contractor enlistment rules duly approved by the Deptt. Shall have to be engaged at site by the Contractor. The deptt. Reserves the right to engage such staff and recover the expenses from the contractor on such account in case of his failure to do so.

**SCHEDULE – E: SAMPLES OF THE MATERIALS:**

The sample of the materials to be used by the contractor shall be deposited 15 days In advance with the Engineer In charge (EIC) and to be got approval by him before use.

**SCHEDULE - F: TIME OF COMPLETION:**

The work should start within 10 days of issue of work order and complete within times limits.

**SCHEDULE – G: ATTACHED SEPARATELY BASED ON BSRS OF JDA/PWD/RUIDP , JAIPUR.**

**SCHEDULE – H: SPECIAL CONDITION:** Attached Separately.

**SCHEDULE – I: LIST OF MATERIAL TO BE SUPPLIED BY THE DEPARTMENT: NIL**

**SCHEDULE – J: COST OF BID DOCUMENTS, PROCESSING FEES & EARNEST MONEY.**

Bid processing fees, RISL fees, Bid security deposit is payable as mentioned above.

Signature of the Contractor

With full Address

**EXECUTIVE ENGINEER-ROB/RUB-III**

**JDA, Jaipur.**

## **SPECIAL CONDITIONS**

### **SCHEDULE 'H'**

01. Use of Bitumen mixture, mechanical lime grinder, cement concrete mixer & vibrator Tripod wrench machine, Truck mounted rotary machine is essential for the work. Which shall have to be arranged by the contractor at his own level/cost?
02. If there is any typographical error or otherwise in the 'G' Schedule the rates given in the relevant BSR on which schedule 'G' has been prepared, shall prevail.
03. The contractor shall follow the contractor labour regulation and abolition Act 1970 & Rule 1971.
04. The JDA shall have right to cause on audit and technical examination of the work and the final bills of the contractor including all supporting vouchers, abstract etc. to be made within two years after payment of the final bills and if as a result such audit any amount is found to have been over paid/excess in respect of any work done by the contractor under the contract or any work claimed by him to have been done under this contract and found not to have been executed the contractor shall be liable to refund such amount and it shall be lawful ;for the JDA to recover such sum from him in the manner prescribed in special condition no. 8 or any other manner legally permissible and if it is found that the contractor was paid less then that was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be paid by the JDA to the contractor.
05. The contractor shall not work after the sunset and before sunrise without specific permission of the authority Engineer.
06. Whenever any claim against the contractor for the payment of a sum of money arises out or under the contracts, the JDA shall be entered to recover the sum by appropriating in part or whole of the security deposit of the contractor. In the event of the security being insufficient or if no security has been taken from the contractor then the balance of the total sum recoverable as the case may shall be deducted from any sum then due or which a any time there contract with the JDA should this sum be sufficient to recover the full amount recoverable, the contractor shall pay to JDA on demand the balance remaining due. The JDA shall further have the right to affect such recoveries under P.D.R. Act.
07. The rate quoted by the contractor shall remain valid for a period of 4(four) months from the date of opening of the tenders.
08. By submission of this tender the contractor agree to abide with all printed conditions provided in the PWD manual from 64 (Chapter 3-para 36) and subsequent modification.
09. No conditions are to be added by the contractor and conditional tender is liable to be rejected.
10. All transaction in the execution of this work and this tender will be liable to sale-tax vide section 2(B) read with sub clause (4) Sale-tax Rule, 1954.
11. If any tenderer withdraws his tender prior to expiry of said validity period given at S.No. 7 or mutually extended prior or makes modifications in the rates, terms and conditions of the tender within the said period which are not acceptable to the department or fails to commence the work in the specified period, fails to execute the agreement the department shall without prejudice to any, other right or remedy, be at liberty to forfeit the amount of Bid Security (EMD) given in any form absolutely. If any contractor, who having submitted a tender does not execute the agreement or start the work or dose not complete the work and the work has to be put to retendering, he shall stand debarred for six months from participating of tendering in JDA in addition to forfeiture of Bid Security (EMD) / Security Deposit and other action under agreement
12. The contractor shall arrange his own machinery required for the work such as Tripod wrench machine, Truck mounted rotary machine, Bitumen Mixer, Hot Mix plants and paver road roller, Tar boiler, sprayer etc.
13. The contractor shall arrange his own storage tanks upto 10 Tones capacity for storing bulk bitumen wherever supplied by the department.
14. Rules regarding enlistment of contractors provide that work up to five times limit for which they are qualified for tendering can be allotted to them Therefore, before tender the contractors will keep this in mind, and submit the details of work. Tenders with incomplete or incorrect information are liable to be rejected.
15. Any material not conforming to the specifications collected at site shall have to be removed by the contractor within a period of 3 days of the instructions, issued by the Engineer-In charge in writing. Failing which, such material shall be removed by the Engineer-In charge at risk and the contractor after expiry of 3 days period.

16. The material collected at site and paid provisionally shall remain under the watch and ward of the contractor till it is consumed, fully on the work.
17. The rates provided in tender documents are inclusive of all Taxes royalty etc.
18. For paver work at least 3 road rollers shall be simultaneously deployed.
19. Bitumen for tack coat or any other purposes, shall be applied only is a bitumen sprayer of a mechanical pressure.
20. No extra lead of earth/material shall be paid over and above as specified in 'G' schedule. Source/borrow pit area for earth shall have to be arranged by the Contractor at his own cost.
21. Undersigned has full right to reject any or all tenders without given any reasons.
22. Mortar of Masonry work and lean concrete will be permitted mixer with hopper.
23. As per Supreme Court decision "All contracts with Governments shall require registration of workers under the building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 and extension of benefits to such workers under the act."
24. Special Conditions of Contract regarding Defect Liability Period (DLP) for Roads works costing Rs. 25.00 lacs and more shall be applicable.
25. The tender are required to submit copy of their enlistment as contractor.
26. Conditions of RPWA-100 will be mandatory & acceptable to the contractor.
27. Any tender received with unattested cutting/overwriting in rates shall be rejected and such bidder will be debarred from tendering for three months in JDA.
28. All the provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and Rules, 2013 will be applicable. If there is any contradictions in existing special conditions and provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and RULES, 2013, provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and RULES 2013 shall be applicable.
29. The Contractor will have to install display boards at site of work as directed by Engineer in charge. Failing which penalty of Rs. 5000.00 per day will be imposed.

**Signature of Contractor  
with full address & Mobile No.**

**Executive Engineer-ROB/RUB-III  
JDA, Jaipur.**

## **Special Conditions of Contract regarding Defect Liability Period (DLP) for Various works costing Rs. 25.00 Lacs and more**

### **1. ROAD WORKS**

1.1 The Defect Liability Period (DLP) for all Road works excluding patch repair work shall be as per table-1. Road works executed by the Contracting agency shall be maintained by them at their own cost for Schedule as per table-1 (DLP) from the actual date of completion of work as per the clause in the Contract Agreement and Special Condition of Contract.

1.2 No extra payment shall be made to the contracting agency on account of maintenance of Road works and removal of defect during Defect Liability Period.

1.3 The word "Road Works" means all new Road Works construction, strengthening and renewal works.

1.4 The word "Maintenance of Road Works during Defect Liability Period" means

- (i) Routine maintenance of Road Works,
- (ii) To remove the defect as & when appear in part and entire structure of Road Works, in specified time

And keeping the Road Surface with good riding quality and

- (iii) Damages due to improper drainage / drains, local flooding, depressions on roads etc.

1.5 The contracting agency shall do the routine maintenance of Road works, including pavement, road side and cross drains including surface drains to the required standards and keep the entire road surface and structure in Defect free conditions during the entire period of routine maintenance, which begins at completion of the construction work and ends after Schedule as per table-1.

1.6 The routine maintenance shall consist of the routine maintenance operation defined in manual for Maintenance of roads of MoRTH and shall be carried out accordingly.

### **1.7 (a) The routine maintenance activities and their periodicity as per JDA Office order no: JDA/Ex.En.(TAto Dir Engg.-I)/2016/D-29 dated 11.03.2016**

**Table-I**

<b>S.No.</b>	<b>Type of work</b>	<b>DLP Period</b>
1	Bridge work	5 Years
2	CD work	5 Years
3	CC road, PQC work	5 Years
4	CC tiles/Kerb/ Medians	5 Years
5	Drains	3 Years
6	Roads	
	(i) Two Layer WBM/GSB	6 Months or one full rainy season whichever is later
	(ii) For Renewal/Strengthening	
	(a) BT up to 30 mm thickness	1 Year
	(b) BT above 30 mm to up to 40 mm	2 Year
	(c) BT above 40 mm to up to 90 mm	3 Years
	(d) BT above 90 mm	5 Years
	(iii) New road	
	(a) BT up to 90 mm	3 Years
	(b) BT more than 90 mm	5 Years
7	Compound wall	3 Years
8	Building work	
	(i) Work pertaining to sanitary works electrical Works, Joinery works and painting works.	2 Years
	(ii) Work pertaining to building structure and Other civil works.	5 Years

<b>9</b>	Electric work except maintenance	3 Years
<b>10</b>	Sewer/ water supply all including STP and water supply related work except maintenance works	3 Years

### **1.7 (b) The routine maintenance activities and their periodicity**

<b>S.No.</b>	<b>Name of Item/Activity</b>	<b>Frequency of operations in one year</b>
<b>1</b>	Restoration of rain cuts and dressing of berms	Once in a year, generally after rains.
<b>2</b>	Making up of shoulders.	As and when required.
<b>3</b>	Maintenance of Bituminous surface road and/or gravel road/WBM road including filling pot holes and patch repairs etc.	As and when required.
<b>4</b>	Insurance of proper functioning of drains including civil maintenance and desilting of drains. (If constructed by the same Road agency or not)	As and when required.
<b>5</b>	Maintenance of road signs. (If installed by the same Road agency)	Maintenance as and when required. Repainting <b>once in every one and half years</b>
<b>6</b>	Road Marking, Kerb Stone/Dand. (If done by the same Road agency)	<b>Thermoplastic Paint</b> Maintenance as and when required. Repainting <b>Once in every one and half years.</b> <b>Ordinary Paint</b> Maintenance as and when required. Repainting <b>thrice in every years.</b>
<b>7</b>	Damages beyond control of agency.	Road cuts made by various agencies for utility, duly permitted by JDA / JNN will have to be repaired by agency on the same rates of the contract agreement till DLP.

## **2. General**

### **2.1 Inspection of works during Defect Liability Period**

2.1.1 The contracting agency shall undertake joint detailed inspection along with Engineer-in-charge/ A.En.,

At least once in three months in case of all Road works. The Engineer-in-charge can reduce this frequency in case of emergency. The Contracting agency shall forward to the Engineer-in-charge the record of inspection and rectification immediately after the joint inspection. The Contracting agency shall pay particulars attention on those road sections, which are likely to be damaged during rainy season.

2.1.2 One register has to be maintained by every A.En for recording the inspection details of works in his Jurisdiction under defect liability period.

### **2.2 Conditions regarding Security Deposit**

#### **2.2.1 Security for DLP**

The contracting agency shall have to furnish security deposit (SD) in the form of Bank Guarantee valid from the actual date of completion, which shall be assigned by the Engineer-in-charge.

### 2.2.2 Refund of SD –

The release of SD amount shall be as following table:-

S.No.	Released SD DLP period	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	5 <sup>th</sup> year
1	Up to 1 year	100 %	40 %	20 %	10 %
2	Up to 2 year		60 %	20 %	10 %
3	Up to 3 year			60 %	10 %
4	Up to 4 year				20 %
5	Up to 5 year				50 %

Various conditions for managing DLP are as under:-

- (i) At the time of completion of work, final component shall be worked out for each individual item like BT/CC /tiles/drains etc. ( as per different categories in Table I), DLP shall be operative based upon type of individual item ex:- CC-5 years, BT- 1/2/3/5 years, Drain- 3 years etc.
- (ii) Similarly for all new works, these components should be calculated at the time of TS itself, which should be made part of BID document.
- (iii) If any work, amount is less than Rs. 25 lakhs but later on due to extra/excess work, if amount of final work crosses more than Rs. 25 lakhs, DLP shall be operative as per rule for each individual item.
- (i) Similarly if any work is more than Rs. 25 lakhs but later finalization amount of work is less than Rs. 25 lakhs, DLP should be operative for six months or rainy season whichever is late.
- (v) During DLP period if contractor fails to repair any work even after issue of 7 days written notice, same work shall be got executed by respective Executive Engineer at the contractor's risk and cost. This process shall be applicable throughout the DLP period. After completion of DLP period in such works contractor should be debarred and blacklisted from JDA for three years as per RTPP Rule 2012 and 2013 where he defaults twice in a single agreement or in two different works.
- (vi) Quarterly inspection as per rules shall be carried out and DLP registers shall be maintained by respective Executive Engineers to monitor the DLP repairs.
- (vii) Special and regular inspection shall also be carried out as per order no. JDA/Ex.En & TA to DE-I/ 2014- 15/D-223 dated 12.03.2015 and order no. SE ( PMGSY) CIRCULAR 2006/D-115 dated 04.05.2006 point no. 3
- (viii) In case JDA feels to take up work on any existing DLP road due to any reason, following procedure should be adopted.
  - (a) At the time of withdrawal total liability of repairs as per DLP conditions to be carried out and contractor shall be asked to complete the same. After completion of assessed repairs DLP period shall be released after deduction amt. as per table III.

S.No.	% recovery on withdrawal of DLP of work DLP period	1 year	2 year	3 year	4 year	5 year
1	1 year	1.12	-	-	-	-
2	2 year	2.55	1.43	-	-	-
3	3 year	4.38	3.26	1.83	-	-
4	5 year	9.00	7.88	6.45	4.62	2.47

Note :- Calculation is to be done on quarterly basis.

- (b) In case Contractor fails to carry out these repairs, same shall be carried out at his risk and cost. If the total amt. of such repairs works out to be more than total retained amt. of SD, same shall be recovered from other works and as per PDR rules. The amount as per Table-III is also to be deducted in addition to this amount.
- (C) Based upon type of work, DLP conditions for works to be carried out during DLP period with their frequency of respective type of work shall be prepared by respective SE"s after approval of these Periods.

### **2.2.3 Force Majeure**

The defect arises due to earthquake, cyclone, and natural calamities shall not be the responsibly of contracting agency.

**Signature of Bidder  
with full address :**

**Executive Engineer (ROB/RUB-III)  
JDA, Jaipur**



### **RTPP Annexure A: Compliance with the Code of Integrity and No Conflict of Interest**

Any person participating in a procurement process shall-

- (a) Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- (b) Not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (c) Not indulge in any collusion, Bid rigging or anticompetitive behavior to impair the transparency, fairness and progress of the procurement process;
- (d) Not misuse any information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process;
- (e) Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (f) Not obstruct any investigation or audit of a procurement process;
- (g) Disclose conflict of interest, if any; and
- (h) Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity.

#### **Conflict of interest:-**

The Bidder participating in a bidding process must not have a Conflict of Interest.

A Conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- (i) A bidder may be considered to be in conflict of interest with one or more parties in the bidding process if, including but not limited to:
  - (a) Have controlling partners/shareholders in common; or
  - (b) Receive or have received any direct or indirect subsidy from any of them; or
  - (c) Have the same legal representative for purposes of the bid; or
  - (d) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the procuring Entity regarding the bidding process; or
- (e) The bidder participates in more than one bid in a bidding process. Participation by a bidder in more than one bid will result in the disqualification of all bids in which the bidder is involved. However, this does not limit the inclusion of the same sub bidder, not otherwise participating as a bidder, in more than one bid; or
- (f) The bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods, works or services that are the subject of the Bid; or
- (g) Bidder or any of its affiliates has been hired (or proposed to be hired) by the procuring entity as engineer-in-charge/consultant for the contract.

Date :

Place :

Signature of Bidder

Name:-.....

Designation:-.....

Address:- .....

**RTPP Annexure B: Declaration by the Bidder regarding Qualifications**

**Declaration by the Bidder**

In relation to my/our Bid submitted to .....for procurement of .....in response to their Notice inviting Bids No.....Dated..... I/we .....hereby declare under Section 7 of Rajasthan Transparency in Public Procurement Act, 2012 that :

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entry;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the union and the state government or any local authority as specified in the Bidding Document.
3. I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons.
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;

Date :

Signature of Bidder

Place :

Name:-.....

Designation:-.....

Address:- .....

### **RTPP Annexure C: Grievance Redress during Procurement Process**

The designation and address of the First Appellate Authority is Executive Committee of JDA.

The designation and address of the Second Appellate Authority is **ACS/Principal Secretary UDH. Govt. of Rajasthan.**

#### **(1) Filing an appeal:-**

- a) if any bidder or prospective bidder is aggrieved that any decision, action or omission of the procuring entity is in contravention to the provisions of the Act or the rules or the guidelines issued there under, he may file an appeal to First Appellate authority, as specified in the Bidding document within a period of **ten days** from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved:

Provided that after the declaration of a bidder as successful the appeal may be filed only by a bidder who has participated in procurement proceedings:

Provided further that in case a procuring entity evaluates the technical bids before the Opening of the financial bids, an appeal related to the matter of financial bids may be filed only by a bidder whose technical bid is found to be acceptable.

- b) The officer to whom an appeal is filed under Para (1) shall deal with the appeal as expeditiously as possible and shall endeavor to dispose it of within **thirty days** from the date of the appeal.
- c) If the officer designated under Para (1) fails to dispose of the appeal filed within the period specified in Para (2), or if the bidder or prospective bidder or the procuring entity is aggrieved by the order passed by the first appellate authority, the bidder or prospective bidder or the procuring entity, as the case may be, may file a second appeal to second appellate authority specified in the bidding document in this behalf within fifteen days from the expiry of the period specified in Para (2) or of the date of receipt of the order passed by the first appellate authority, as the case may be.

#### **(2) Appeals not to lie in certain cases:-**

No appeal shall lie against any decision of the procuring entity relating to the following matters, namely:-

- (a) Determination of need of procurement
- (b) Provisions limiting participation of bidders in the bid process
- (c) The decision of whether or not to enter into negotiations
- (d) Cancellation of a procurement process
- (e) Applicability of the provisions of confidentiality

#### **(3) Form of Appeals:-**

- (a) An appeal under Para (1) or (3) above shall be in the annexed form along with as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.

(c) Every appeal may be presented to first appellate authority or second appellate authority, as the case may be, in person or through registered post or authorized representative.

**(4) Fee for filing Appeal:-**

(a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.

(b) The fee shall be paid in the form of bank demand draft or banker's cheque of a scheduled bank in India payable in the name of appellate authority concerned.

**(5) Procedure for disposal of Appeal:-**

(a) The first appellate authority or second appellate authority as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing

(b) On the date fixed for hearing, the first appellate authority or second appellate authority, as the case may be shall-

(i) Hear all the parties to appeal present before him; and

(ii) Peruse or inspect documents, relevant records or copies thereof relating to the matter.

(c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the appellate authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.

(d) The order passed under sub-clause (c) above shall also be placed on the state public procurement portal.

Date :

Signature of Bidder

Place :

Name:-.....

Designation:-.....

Address:- .....

**FORM No. 1**

[see rule 83]

**Memorandum of Appeal under the Rajasthan  
Transparency in Public procurement Act, 2012**

Appeal No..... of ..... Before  
the..... (First/Second Appellate authority)

- 1- Particulars of appellant :
  - (i) Name of the appellant:
  - (ii) Official address, if any:
  - (iii) Residential address:
- 2- Name and address of the respondent(s):
  - (i)
  - (ii)
  - (iii)
- 3- Number and date of the order appealed against and name and designation of the Office/authority who passed the order (enclose copy), or a statement of a decision, action or omission of the procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:
- 4- If the Appellant propose to be represented by a representative the name and postal address of the representative:
- 5- Number of affidavits and documents enclosed  
With the appeal:
- 6- Grounds of appeal: .....  
(Supported by an affidavit)
- 7- Prayer: .....

Place: .....

Date: .....

**Appellant's Signature**

**RTPP Annexure D: Additional Conditions of Contract**

**1. Correction of arithmetical errors:-**

Provided that a financial bid is substantially responsive, the procuring entity will correct arithmetical errors during evaluation of financial Bids on the following basis:

- (i) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the procuring entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited or its bid securing declaration shall be executed.

**2. Procuring Entity's Right to Vary Quantities:-**

- (i) At the time of award of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased or decreased, by a specified percentage, but such increase or decrease shall not exceed twenty percent, of the quantity specified in the bidding documents. It shall be without any change in the unit prices or other terms and conditions of the bid and the conditions of contract.
- (ii) If the Procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the bidding document due to change circumstances, the bidder shall not be entitled to any claim or compensation except otherwise provide in the conditions of contract.
- (iii) In case of procurement of goods or services, additional quantity may be procured by placing a repeat order on the rates and conditions of the original order. However, the additional quantity shall not be more than 50% of the value of goods of the original contract and shall be within one month from the date of expiry of last supply. If the supplier fails to do so, the procuring entity shall be free to arrange for the balance supply by limited bidding or otherwise and the extra cost incurred shall be recovered from the supplier.

**3. Dividing quantities among more than one bidder at the time of award (In case of procurement of Goods):-**

As a general rule all the quantities of the subject matter of procurement shall be procured from the Bidder, whose Bid accepted. However, when it is considered that the quantity of the subject matter of procurement to be procured is very large and it may not be in the capacity of the Bidder, whose Bid is accepted, to deliver the entire quantity or when it is considered that the subject matter of procurement to be procured is of critical and vital nature, then in such cases, the quantity may be divided between the Bidder, whose Bid is accepted and the second lowest Bidder or even more Bidder in that order, in a fair, transparent and equitable manner at the rates of the Bidder, whose Bid is accepted.

Date :

Signature of Bidder

Place :

Name:-.....

Designation:-.....

Address:- .....

**JAIPUR DEVELOPMENT AUTHORITY JAIPUR**

**SPECIAL CONDITION OF THE CONTRACT FOR POST QUALIFICATION OF  
CONTRACTORS**

**Name of work: Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech, Zone- BRTS (Project-I ) JDA Jaipur (Only bituminous related works)**

Special conditions of contract for **POST-QUALIFICATION** as detailed here under, shall be applicable in addition to all other terms and condition already prescribed under standard agreement forms/rules and regulations to contract. These conditions are over and above all the conditions.

**1. Procedure for Post Qualification:-**

- (a) Bid document shall be submitted on line through E-procurement website **[http:// www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in)** with Digital Signature Certificate (DSC). The bid is to be submitted in **3 envelopes** which shall comprise of-

**Envelop-1:-** Being for Registration, Bid fee, Bid Processing Fee, Bid Security, Tax/VAT Clearance Certificates.

**Envelop-2:-** Being for Technical Bid.

**Envelope-3:-** Being for Financial Bid.

- (b) The technical bid will be opened only of those bidders who deposit Cost of Bid, Bid processing fee and Bid Security, VAT clearance certificate ( Valid up to Six months back from the opening of Technical Bid) and copy of registration of contractor in required category are found to be in order. All the payments will be accepted through on line process only.
- (c) The Technical Bid envelope would be opened on the date **07.11.2016 at 11.00 AM** in the Room No CCC-TF-309, third floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Negru Marg, Jaipur- 302004 (Rajasthan).
- (d) The Financial Bid envelope would be opened only of those bidders who fulfill all the POST QUALIFICATION criteria:--
- (e) The bidder should be registered in "AA" class in JDA/ Any Central Government Department/State Government Department/local body/railways or Corporations, If VAT clearance certificate is not applicable in any State then appropriate proof is to be enclosed by bidder with certificate which is applicable in place of VAT.

**Note:-**

- (i) **If VAT clearance certificate is not applicable in any State then appropriate proof is to be enclosed by bidder with certificate which is applicable in place of VAT.**

2. **Criteria:**

Criteria for POST QUALIFICATION would be as follows:-

- (a) The bidder should have executed following quantities of work in any one financial year of the last five financial years. However the bidder may opt current year in the said financial assessment period.

S. No.	Item	Quantity
A	Earth Work	5413.00 Cum.
B	GSB/WMM/WBM	1809.00 Cum.
C	BT work by Paver	15005.00 MT.

**Note :-**

- (i) The Bidder should enclose the certificate having quantities Financial year wise otherwise the certificate will not be considered.
- (ii) Quantities of all the items mentioned in criteria 2 (a) should be executed in one financial year.
- (iii) Certificate issued by Govt. of India, State Govts., Union Territory, Govt. Undertakings, Autonomous Bodies shall only be considered.
- (b) The bidder should have completed at least one similar nature of work in last Three financial year (including current year, if opted by the bidder) of value not less than 50 % (Rs. 642.50 Lacs) of the Estimated Cost of the work (Bid cost) updated to present price level.

**Note:-**

- (ii) The starting & completion date of the work is to be in between above said financial year. If no then maximum work (70%) is to be completed in above said financial year.
- (iii) If bidder is submitted certificate having different components / nature of work then proper completion certificate of required similar nature component is to be enclosed.
- (c) The bidder should have achieved an annual financial turnover of at least 60% of the Estimated Cost of the work (Rs. 771.00 Lacs) in any one of last Three years (including current year, if opted by the bidder)

**Note:-**

- (i) The bidder should enclose certificate of Turn over from Chartered Accountant for last five financial years & audited balance sheet of the year which is considered by the bidder in criteria 2 (c).
- (ii) If current year or last year has been opted by bidder whose balance sheet is not submitted till the submission of bid then certificate from Chartered Accountant should be enclosed.
- (d) The bidder should give Affidavit to deploy the machinery and equipment as specified in Schedule – III, for the execution of this work.
- (e) **Bid Capacity:** Bidders who meet the minimum qualification criteria will be qualified only if available bid capacity is equal to or more than the total Bid value.  
The available bid capacity will be calculated as under:

$$\text{Bid Capacity} = (A \times N \times 3 - B)$$

Where A = Maximum value of civil engineering work executed in any one year during the last 5 financial years (updated to present Price level) taking in to account the completed as well as works in progress. However, the bidder may opt current year in the five year assessment period

N = Number of year prescribed for completion of the work for which bids are invited. In present case value of N shall be 0.50



B = Value, at present price level of existing commitments and on going Works to be executed during 'N' period (period prescribed for Completion of the works for which the bids are invited)

**Note:-**

(i) **Certificate from Chartered Accountant should be enclosed by bidder clearly indicated maximum value of Bridge work in one Financial Year.**

(f) **Litigation History:** - Bidder should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years. The maximum value ( updated at the present price level) of disputed amount claimed in the litigation / arbitration resulting from contracts executed in last five years shall be deducted from the calculated Bid Capacity of the bidder. The details shall be furnished in Schedule VI.

**Note:-**

**((i) The present price level for turnover, cost of completed work & disputed amount Of similar nature, the previous year's value shall be given weightage of 10% per Year as follows:-**

(a) For Current Year-	2016-17	1.00
(b) For last year -	2015-16	1.00
(c) For one year before –	2014-15	1.10
(d) For two years before –	2013-14	1.21
(e) For three years before –	2012-13	1.33
(f) For four years before –	2011-12	1.46

**3. Documentation :**

The bidder should furnish the following documents along with the technical bid:

- Information regarding financial resources and capability in Schedule –I.
- Information regarding works executed in the last five years in Schedule–II
- Certificates from the concerned Engineer-In-Charge in support and verification of the information furnished in Schedule–II
- Affidavit regarding machinery and equipment required for deployment, as detailed in scheduled – III.
- Information regarding details of maximum value of civil engineering works executed in any one year during the last five years taking into account the completed as well as works in progress in schedule – IV.
- Information regarding existing commitments and ongoing works to be completed in schedule – V.
- Information regarding details of litigation or arbitration contracts to be furnished in schedule – VI.
- Calculation of Bid capacity in schedule – VII.
- Affidavit as per Annexure- I.

**4. Important:**

- The bidder must ensure that all the information required in the Documents is furnished by him complete in all respects. He would not be allowed to withdraw any document, or to rectify any information furnished therein, after submitting of the bid.
- The bidder should give an affidavit that the information furnished in schedule I, to VII is correct. If any information is found incorrect, the offer of the bidder shall be rejected and action be taken as per rules.
- Bidders must do paging of all enclosure of bid documents.

**5. Rejection of bids**

The department reserves the rights to reject any bid or to disqualify any or all the bidders, without assigning any reasons at any stage.

- (i) If Bid is not accompanied with the requisite documents mentioned in clauses 3 ( a ) to 3 ( i ) or is not in accordance with procedure specified in Para 1, or is not accompanied with earnest money & VAT clearance Certificate and registration of contractor in required category it would be liable for rejection
- (ii) Furnishing of incorrect or incomplete or concealment of any information required in the bid documents would render the bid liable for rejection.
- (iii) If all the copies enclosed in support or affidavit are not duly attested by Bidder him self then bid of the bidder is to be rejected.
- (iv) If RTTP Annexure A, B, C, D not duly signed and uploaded by bidder.

## **6. Eligibility**

- a) The bid for this contract will be considered only from those bidders (proprietorship firms, partnership firms, companies, corporations,) who meet requisite qualification criteria prescribed.
- b) Bidders shall not have conflict of interest. All bidders to have a conflict of interest in this bid shall be disqualified. Bidders shall be considered to have a conflict of interest if:
  - (i) One firm applies for bid both as an individual firm and in a group.
  - (ii) If bidders in two different applications have controlling shareholders in common.
  - (iii) Submit more than one application in this bid process.
  - (iv) If the bidder has participated as a consultant or it has more than 50% stake in consultant engaged in the preparation of the design or technical specification of the works that are subject to this bid.
  - (v) Bidders must not have been black listed or de registered by any Central/ State Government department or Public Sector Undertaking during last 10 years. The bidder should submit undertaking on Non Judicial stamp of Rs.50/- to this effect in the Performa of **Annexure 2.**
- c) A firm shall submit only one bid either by himself. If a firm submits more than one bid by himself, all the bids in which he has participated shall be considered invalid.
- d) All bids submitted shall include the following information.
  - 1. All the bidders shall submit with his bid, general information about the bidder in prescribed Performa of ( **Annexure 3, page 1 of 2**) with full details of his ownership and control and, if the bidder is joint venture or consortium , full details of ownership and control of each member thereof (**Annexure 3, page 2 of 2**)
  - 2. In case the bidder comprises a **joint venture or consortium**, following requirements shall also be complied with:
    - i) The JV will have to be formed before submission of the tender and total number of JV partners shall not exceed 2 (Two).
    - ii) They must designate lead partner duly authorized by all the members who will represent the J.V. Any of the two partners can be a lead partner. The lead partner shall be nominated as being partner-in-charge and this authorization shall be evidenced by submitting power of attorney signed by the legally authorized signatories of all the partners.

- iii) The partner-in- charge (or, the lead partner) shall be authorized to incur liabilities and to receive instructions on the behalf of the partners of the Joint Venture, whether jointly or severely, and entire execution of the contract (including payment) shall be carried out exclusively through the partner- in- charge.
- iv) The share of one of the two partners shall not be less than 26% and rest of the share shall be held by other partner (For example if share of one partner is 26% then for other partner it will be 74%.) The JDA will only send communication to the lead partner, which will be deemed to have been sent to all the J.V. partners. Similarly, any negotiation and / or agreement with the lead partner shall be deemed to have been concluded with all the J.V. partners. All the members of J.V. shall be bound by the said communication and all acts/ deeds of the lead member.
- v) Any one of the two partners, alone, should fulfill the Technical Criteria laid down in clause 2a & 2b of Special Conditions. Similarly, any one of the two partners, alone, should fulfill the Financial Criteria laid down in clause 2c of Special Conditions. For rest of the eligibility criteria, qualifications of the two partners may be clubbed together.
- vi) The individual partner of J.V. alone or with other partners cannot participate in the same bid.
- vii) Bid capacity is to be calculated by clubbing turn over and work in hand of all the firms of joint venture.
- viii) Attested copy of the MoU / Agreement/ Power of attorney entered into by the joint venture / consortium members duly notarized, shall be submitted along with the Technical Bid with intended percentage participation nomination of lead member and division of responsibility to clearly define the work of each member etc.
- ix) All the members of the joint venture/ consortium shall be jointly and severally liable for the execution of the Contract.
- x) In the event of default by any member of the joint venture/ consortium in the execution of his part of the contract, the partner-in-charge will have the authority to assign the work to any other party acceptable to the employer to ensure the execution of the part of contract.
- xi) In case J.V. bidder is given the work order, the bidder will submit details of JV bank account to which payment is to be deposited by JDA.
- xii) The experience certificate will be issued as per percentage of the shareholders defined in JV agreement of the two partners.
- e) To qualify for award of contract, the bidders shall submit a written power of attorney authorizing the signatory (ies) of the bid to commit the bidder or each member of the joint venture/ consortium. In case of foreign members, power of attorney(s) and board resolution confirming authority on the persons issuing the power of attorney for such actions, shall be submitted duly notarized by the notary public in the country of origin and stamped by the Indian Embassy/ High Commission.
- f) Cancellation, modification or creation of a document such as power of attorney, partnership deed, constitution of firm etc., which may have bearing on the bid / contract,

shall be communicated forthwith in writing by the bidder to the Engineer-in-charge or Employer.

- g) The bidder should confirm and declare that in the bid submitted that they, or any associate have not engaged in any fraudulent and corrupt practice and that no agent, middleman, or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award of this contract.

#### **7. Bid Evaluation Sheet :--**

The contractor has to submit on line, duly filled Bid Evaluation Sheet in the prescribed form given as **Annexure 4**. For this purpose the bidder should mark page numbers on all the documents being uploaded by him in support of the bid and mention carefully the relevant page number in the Bid Evaluation Sheet. Any unwanted pages should not be uploaded. Only the page number mentioned by the bidder in the respective column No 5 of the Bid Evaluation sheet will be considered for evaluation of the bid.

#### **8. General Condition for site work**

1. The contractor shall establish fully functional site office at site location.
2. HSD Steel Fe 500 and Fe 500d must be from primary producers like SAIL, TATA Steel, and JSW shall only be used.
3. Only OPC cement shall be used for RCC work.
4. Only RMC shall be used for RCC work with batch mix report.
5. All the structural drawings shall be got vetted from MNIT/IIT at the cost of contractor.
6. Only potable water shall be used for construction work.
7. A laboratory shall be established of testing of material with relevant apparatus as directed by EIC and samples, other wise 5000/- penalty amount per day shall be imposed.
8. All the safety measures must be taken as per relevant code.
9. Samples for testing shall be send to NABL accredited lab as directed by EIC at the cost of contractor.
10. All formwork and concreting work shall be checked by the JDA officials before 24hr. prior to execution.
11. Only steel formwork for RCC work shall be allowed.
12. The work shall be carried out as per Standard latest recommendation of IRC/MORTH/BIS.
13. All necessary traffic arrangement/ traffic diversion permission from local traffic police will be managed by the bidder at his own cost along with necessary diversion boards with guards however local assistance shall be provided by JDA authorities.
14. No delay shall be expectable on account of traffic management or weather condition.
15. Working site should be well illuminated during nights.
16. The boards of "J.D.A. at work" and showing the information regarding the work shall be installed at the site of work by the contractor at his own cost during the execution work as directed by Engineer-In-Charge without fail.
17. Two Boards of suitable size (Approximately 3'x4') one at each end, indicating details of the works /official / agency should be displayed at site.
18. For any damage to the Structure (i.e. Deck slab, Piers, Abutments, Girder, Crash barrier, footpath and median etc.) of bridge, the bidder will be held responsible.
19. The contractor shall inform the Engineer in writing before the start of work of the job mix formula proposed to be used by him for the work, indicating the source and location of all materials, proportion of all materials such as binder and aggregate, single definite percentage passing each sieve for the mixed aggregate and result of the tests recommended.

20. All relevant tests should be got done from authorized testing NABL approved lab as directed by site/Engineer in charge.
21. Safety:-
- I. No work shall be executed in night if any other circumstance during working in night the all necessary precautions and safety arrangement along with safety engineer including appropriate capacity of D.G. set for lighting shall be arranged by the agency.
  - II. All labor at site must have safety equipments like Helmet, Jackets, safety shoes, safety gloves, safety belt, reflecting jackets etc as per codal provisions.
  - III. The bidder has to deploy well equipped safety guards for 24 hours as per requirement/ direction or Engineer in-Charge

**Signature of Contractor**  
**With full address & Mobile No.**

**Executive Engineer ROB/RUB-III**  
**JDA, Jaipur.**

**Schedule – I**  
**FINANCIAL RESOURCES AND CAPABILITY**

[Reference clause 3 (a)]

1. Name of Bidder
2. Total financial turnover achieved by the bidder in the last five financial years:

S.No	Year	Turnover
(a) For Current Year-	2016-17	
(b) For last year -	2015-16	
(c) For one year before –	2014-15	
(d) For two years before –	2013-14	
(e) For three years before –	2012-13	
(f) For four years before –	2011-12	

**Note:** Balance Sheets and Profit & Loss Accounts is to be enclosed by the bidder which is considered by him as per criteria 2 (a).

3. Total financial Turnover projected in the current financial year
4. Has the bidder ever been debarred from bidding for Central Government / State Government / any Government undertaking?  
Yes / No, if yes give details.
5. Has bidder ever been declared insolvent?  
Yes/No, if yes give details.
6. Name(s) and Address of Branch/(s) for bidder's Bankers.

I/We hereby certify that the above information is correct to the best of my/our knowledge and belief.

**Signature of Bidder**

**Date :** **(With Seal wherever applicable)**

SCHEDULE – II  
[Reference clause 3(b)]

**DETAILS OF QUANTITIES OF WORKS EXECUTED DURING LAST FIVE FINANCIAL YEARS**

	Name of Works (with agreement No. & Date)	Client	Place (District/State)	Financial Year	Principal items of work			Page No.
					Earth work	GSB/ WBM/ WMM	BT work by paver	

**Note:** Certificate from concerned Engineer-in-Charge should be enclosed in support and verification of the above statement.

**Signature of Bidder**

**SCHEDULE - III**  
**[Reference Clause 3(d)]**

**AFFIDAVIT**

I/We..... Proprietor/Partner/Authorized signatory of M/s  
..... under take the oath that I/We will deploy the machinery and  
equipment listed below as and when required in the execution of this work.

S. No.	Name of Machinery	Minimum Requirement	availability	
			Owned	Leased
1	Fully Automatic Batch Mix Computerize Plant (Owned/Lease)	1 No.		
2	Vibratory Roller (Owned/Lease)	2 No.		
3	Sensor paver (Owned/Lease)	1 No.		
4	Static Roller (Owned/Lease)	4 No.		
5	Compressor (Owned/Lease)	2. No.		
6	JCB (Owned/Lease)	1 No.		
7	Dumper (Owned/Lease)	10 No.		
8	Vibrator (Needle, Plate & screed) (Owned/Lease)	2 No.		
9	Pneumatic Tyre Roller (PTR) (Owned/Lease)	1 No		
10	Concrete Mixer (Owned/Lease)	1 No		
11	Auto level (Owned/Lease)	1 No		
12	Bitumen sprayer (Owned/Lease)	1 No		

I/We hereby certify that the above information is correct to the best of my/our knowledge and belief.

Date:

**Signature of Bidder**  
(With seal)



**SCHEDULE – IV**  
Reference Clause 3 (e)

**DETAILS OF MAXIMUM VALUE OF CIVIL ENGINEERING WORKS EXECUTED IN ANY ONE YEAR DURING THE LAST FIVE YEARS  
TAKING INTO ACCOUNT THE COMPLETED AS WELL AS WORKS IN PROGRESS**

<b>S. No.</b>	<b>Name of Works (with agreement No. &amp; Date)</b>	<b>Client</b>	<b>Place (district / state)</b>	<b>Financial Year</b>	<b>Cost of Work as per Work Order</b>	<b>Stipulated date of commencement</b>	<b>Stipulated date of completion</b>	<b>Value of work done during the year</b>	<b>Page No.</b>

**Signature of Bidder**

**SCHEDULE - V**  
**[Reference Clause 3(f)]**

**DETAILS OF EXISTING COMMITMENTS & ON GOING WORKS TO BE COMPLETED**

<b>S. No.</b>	<b>Name of Works (with agreement No. &amp; Date)</b>	<b>Client</b>	<b>Cost of Work as per Work Order</b>	<b>Stipulated date of commencement</b>	<b>Stipulated date of completion</b>	<b>Value of balance work on date of bid</b>	<b>Likely date of completion of balance work</b>	<b>Page No.</b>

**Signature of Bidder**

**SCHEDULE - VI**  
**[Reference Clause 3(g)]**

**DETAILS OF LITIGATION OR ARBITRATION CONTRACTS**

<b>S. No.</b>	<b>Name of Works (with agreement No. &amp; Date)</b>	<b>Client</b>	<b>Work Order Amount</b>	<b>Disputed Amount Claimed in Litigation / Arbitration</b>	<b>Date of Raising Disputed Amount</b>	<b>Actual Award Amount, if the case is Decided</b>	<b>Cause of Litigation &amp; matter in Dispute</b>

**Signature of Bidder**

**SCHEDULE – VII**

**[Reference clause 3(h)]**

**BID CAPACITY**

Name of Bidder : -----

1	A = Maximum value of Civil engineering works executed in any one year during the last Five year (updated to present price level)	.....Lacs.	Certified details enclosed at Page No. ....
2	N = Number of years prescribed for completion of the work for which bids area invited	0.50	
3	B= Value at present price level of existing commitments and on going works to be completed during next N period	.....Lacs.	Certified details enclosed at Page No. ....

BID CAPACITY        =        {(A x N x 3) – B}  
                              =        .....Lacs.

**Signature of Bidder**

**ANNEXURE- I**

**(Reference Clause 3(i))**

To be given on Non-Judicial stamp  
Paper of Rs. 50/- only, duly Self Attested

**AFFIDAVIT**

I/We..... Proprietor/ Partner/ Authorized signatory  
of M/s ..... under take the oath that the information furnished  
by me/us in schedule I to VII of the Technical Bid for : **“Renewal and repairing of BRTS  
corridor on Sikar road, from C-Zone bye pass to Panipech , Zone- BRTS (Project-I ) JDA  
Jaipur (Only bituminous related works) ”** is correct to the best of my/our knowledge. If any  
information is found to be incorrect JDA has right to reject the Bid and to take action against  
me/us as per rules.

.....

Proprietor/ Partner/ Authorized signatory

M/s .....

**Note : The applicant has to enclosed a Self Attested Photo Identity Card with the above affidavit.**

**(Refer clause 6(b)(v) of Special Conditions of Contract for Post-Qualification)**

## **UNDERTAKING FOR NOT BLACKLISTED**

**(On a Non Judicial Stamp of Rs 50/-)**

We do hereby undertake that we have not been Blacklisted or Deregistered by any Central/ State Government or Public Sector Undertaking, Autonomous Bodies etc. during last 10 years.

Stamp and Signature of Authorized Signatory

-----

Note:

1. The undertaking shall be signed by authorized signatory of the bidder.

## GENERAL INFORMATION OF TENDERER

ANNEXURE 3

page 1 of 2

Refer clause 6(d) (1) of Special Conditions of Contract for Post-qualification of contractors.

<b>A. BIDDER INFORMATION SHEET</b>		
BIDDER's Legal Name	Sole Proprietorship Firm/Partnership Firm /Private Limited Company/Public Limited Company/ Joint Venture/Consortium	
In case of single entity, ownership & control of the Tenderer		
In case of JV/Consortium, Legal name of each partner with percentage participation (also Provide information of each member in separate sheet (page 2 of 2))	Legal Name of JV/Consortium member	% participation
Lead member of JV/Consortium,		
Bidder's actual or intended country of constitution		
Bidder's legal address, telephone numbers, fax numbers, e-mail address.		
Bidder's authorized representative or person-in-charge in case of JV/Consortium, (name, designation address)		

SIGNATURE OF AUTHORIZED SIGNATORY  
ON BEHALF OF BIDDER

<b>B. JV/CONSORTIUM MEMBER INFORMATION</b>	
JV/Consortium Member of Legal Name	
Legal status of the JV/Consortium Member	Sole Proprietorship Firm/Partnership Firm /Private Limited Company/Public Limited Company
Ownership & control of the JV/Consortium Member	
JV/Consortium Member country of constitution	
JV/Consortium Member of legal address, telephone numbers, fax numbers, e-mail address)	
JV/Consortium Member's authorized representative (name, designation address)	

**ATTACH ATTESTED COPIES OF FOLLOWING ORIGINAL DOCUMENTS**

- Document in support of legal status and ownership & control of the bidder or each member in case of JV/Consortium (undertaking for sole proprietorship/ partnership deed/ Memorandum & Articles of Association
- In case JV/Consortium, submit MoU/Agreement (duly notarized) entered into by the joint venture/consortium members, containing intended percentage participation, nomination of Lead Member and division of responsibility to clearly define the work of each member etc.
- Authorization/POA in favour of authorized representative of tenderer to represent the bidder and also in favour of authorized representative of each member in case of JV/Consortium

SIGNATURE OF AUTHORIZED SIGNATORY  
ON BEHALF OF BIDDER



## Bid Evaluation Sheet

**Name of Work: - Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech , Zone- BRTS (Project-I ) JDA Jaipur (Only bituminous related works)**

S.No.	Criteria	Required Qualification	Bidders qualification	Bidders uploaded document Page No. in support of qualification.	Remark
1	2	3	4	5	6
1	Registration Certificate - As required in NIB	The bidder should have a valid Registration Certificate in AA Category as specified.			
2	VAT Clearance Certificate- As per Clause 1(b) of Special Conditions of Contract for Post Qualification.	Should be Valid up to Six Months back from the opening of Technical Bid			
3	Fee Payment Details ( Please enclose copy of electronic receipt)				
(i)	Bid Fee	Rs.			
(ii)	Bid Processing Fee	Rs.			
(iii)	Bid Security	Rs.			
4	The bidder should have executed following quantities of work as per Clause 2a of Special Conditions of Contract for Post Qualification.				
i	Earth Work				
(a)	Year of execution				
(b)	Quantity executed				
ii	GSB/WBM/WMM				
(a)	Year of execution				
(b)	Quantity executed				
iii	B.T. Work by Paver				
(a)	Year of execution				
(b)	Quantity executed				

5	The bidder should have completed at least ONE work of similar nature (Bridge work) in last Three financial years (including current year, if opted by the bidder) of value not less than 50% (642.50 lacs) of the estimated cost of the work (updated to present price level) as per Clause 2(b) of Special Conditions for Post-Qualification.				
(a)	Value of work executed				
(b)	Financial year				
6	The bidder should have achieved an annual financial turnover of at least 60% (771.00 lacs.) of the estimated cost of the work in any one of last Three financial years (including current year, if opted by the bidder) as per Clause 2(c) of Special Conditions for Post-Qualification.				
(a)	Annual Turn over				
(b)	Financial Year				
7	Affidavit to deploy machinery and equipment as specified in Schedule -III, As per Clause 2 (d) of Special Conditions for Post-Qualification.				
8	Bid Capacity=(A x N x 3 - B) As per Clause 2e of Special Conditions for Post-Qualification.				
(i)	A= Maximum value(at present price level) of Civil Engineering work executed in any one year during last five financial years.				
(ii)	N= 0.50				
(iii)	B=Value at present price level of existing				

	commitments and on going works to be executed during "N" period.				
9	Litigation History- As per Clause 2f of Special Conditions for Pre-Qualification. (Schedule-VI)				
10	Affidavit for Correctness of documents. (Annexure-I)				
11	Declaration by bidder under RTTP Act. (Annexure A, B, C, D)				
12	Undertaking for not being blacklisted. (Annexure-II)				

Signature of Bidder with Seal



# **Jaipur Development Authority Jaipur**

## **FINANCIAL BID DOCUMENT**

**Name of Work :-“ Renewal and repairing of BRTS corridor on Sikar road , from C-Zone bye pass to Panipech, zone - BRTS (Project-1),JDA, Jaipur (only Bituminous related works)."**

## **GENERAL INFORMATION**

**Executive Engineer  
(ROB, RUB-III)  
Jaipur Development Authority,  
Jaipur**



# **JAIPUR DEVELOPMENT AUTHORITY, JAIPUR**

**Ram Kishor Vyas Bhawan, J.L.N. Marg, Near Indra Circle, Jaipur (Raj.) 302015**

## **FINANCIAL BID**

### **FOR**

**Envelope – B**

**NAME OF WORK:-** Renewal and repairing of BRTS corridor on Sikar road , from C-Zone bye pass to Panipech, zone - BRTS (Project-1),JDA, Jaipur (only Bituminous related works)

<b>Estimate cost of NIB</b>	:	Rs. 1285.00 Lacs
<b>Period of Sale &amp; Download</b>	:	From 28.09.2016 onwards to 02.11.2016 up to 6.00 PM
<b>Period of Uploading of the tender</b>	:	From 28.09.2016 to 02.11.2016 up to 6:0PM
<b>Date of opening of technical bid</b>	:	07.11.2016 at 11.00 A.M. in Room No.-CCC-TF-309, Third Floor, Customer Care Building, Ram Kishore Vyas Bhawan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur-302015 (Raj.)
<b>Cost of Tender Document</b>	:	1000.00 (Online Only)
<b>Bid processing Fee</b>	:	Rs. 1000.00 (Online Only)
<b>Completion period</b>	:	06 ( Six) Months
<b>Name of Agency</b>	:	M/s .....

**Executive Engineer-ROB/RUB-III  
JDA, Jaipur.**



# **TECHNICAL SPECIFICATIONS**

## **PREAMBLE**



## TECHNICAL SPECIFICATIONS.

### 1.1.1 General

The Technical specifications covering the materials and the workmanship aspects as well as method of measurements and payments are included in this section. These specifications cover the items of civil and non-civil works coming under scope of this document. All work shall be carried out in conformity with the same. These specifications are not intended to cover the minute details. The works shall be executed in accordance with good practices followed for achieving high standards of workmanship, thus ensuring safety and durability of the construction. All codes and standards referred to in these specifications shall be the latest thereof, unless otherwise stated.

### 1.1.2 Inclusive Documents

The provisions of special conditions of contract, those specified elsewhere in the bid document, as well as execution drawings and notes, or other specifications issued in writing by the Engineer shall form part of the technical specifications of this project.

The attention of the contractor is drawn to those clauses of codes which require supporting specification by the Engineer. In such cases, it is the responsibility of the bidder /contractor to seek clarification on any uncertainty and obtain prior approval of the Engineer before taking up the supply/construction. In absence of such prior clarification, the Engineer's choice/design will be final and binding on the contractor without involving separately any additional payment.

### 1.1.3 Measurement and Payment

The methods of measurement and payment shall be as described under various items and in the Bill of Quantities. Where specific definitions are not given, the methods described in B.I.S. Code/MoRTH/IRC will be followed. Should there be any detail of construction or materials which has not been referred to in the Specification or in the Bill of Quantities and Drawings but the necessity for which may be implied or inferred there from, or which is usual or essential to the completion of the work in the trades, the same shall be deemed to be included in the rates and prices entered by the contractor in the Bill of Quantities.

### 1.1.4 Defective Works

All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost. In the event of such works being accepted by carrying out repairs etc., as specified by the Engineer, the cost of repairs will be borne by the contractor.

In the event of the work being accepted by a given 'Design Concession' arising out of but not limited by a given under sizing, under strength, shift in location and alignment etc., and accepting design stress in members which are higher than those provided for in the original design or by accepting materials not fully meeting the



specifications etc., the bidder will be paid for the works actually carried out by him at suitably reduced rate of the bid rates for the portion of the work thus accepted.

Summary of Work The work under construction package involves, “Renewal and repairing of BRTS corridor on Sikar road , from C-Zone bye pass to Panipech, zone - BRTS (Project-1),JDA, Jaipur (only Bituminous related works)” including its approaches, service road, limited height subway and other ancillary works.

## 2.1 Scope of Work

The work under this contract shall be carried out in accordance with the document constituting the contract and shall consist of various salient items as generally described below.

### 2.1.1 Road Work

The roadwork to be carried out under the contract consists of the following:

- Site Clearance
- True and proper setting out and layout of the works, providing location marks, benchmarks, preparation of report and plans.
- Construction of road including excavation, construction of embankment and sub-grade, construction of carriage way, service road, shoulders and medians, provision of drainage, turfing and retaining walls.
- Dismantling of existing flexible pavement up to sub-grade/ embankment level and construction of new pavements or constructing overlay over the existing pavements as shown in drawings.
- Improvements of existing junctions and construction of new junctions , if any, as per drawings.
- Provision of road signs, markings, delineators, kilometer stones, hectometer stones boundary stones, railings, etc. on road.
- Provision of road markings with Thermoplastic paint as shown in drawings.
- Maintenance of existing Works
- Any other item of work as may be required for completing the road works including all incidental works in all respects in accordance with the provisions of the contract.
- Providing suitable drainage in service roads .
- Electrification on service on service road as well as on new bridge and Limited Height Subways.
- Kerbs shall be casted cast in situ by using arrow/ equivalent machine

### 2.1.2 Bridge works

- Site clearance
- True and proper setting out and layout of the work, providing location marks, bench marks, preparation of reports and plans





- Providing bored cast-in-situ piles including test piles.
- Providing piers, abutments and RCC retaining walls or RE wall.
- Providing Kerbs, railings and drainage spouts.
- Providing expansion joints and construction joint,
- Providing bituminous wearing coat/ mastic wearing coat
- Any other item of work as may be required to be carried out for completing the bridge works including all incidental works in all respects in accordance with the provisions of the contract.
- Constructing new six Lane Bridge on pile foundation, RCC substructure and composite steel and PSC superstructure as decided by the Engineer In charge with bottom of the superstructure nearly up to 6-8 m height.
- Prestressed Superstructure as directed by Engineer Incharge and all specification shall followed as MORTH / IRC and accepted international practice.

Brief information on Bridge included in contract Package is given below.

### **2.1.3 Others - General**

- All aspects of quality control and quality assurance of Works including documentation.
- Providing measures for prevention or mitigation of negative environmental impacts due to construction activities.
- Provision and maintenance of fully furnished and equipped site offices for Engineer; Employer and their staff as per provisions of Contract.
- Provision of laboratory for testing, including the supply of equipment and consumables;
- Supply of colour record photographs and video cassettes of important activities of the work;
- Handing over of the works on completion after due site clearance
- Submission of As Built Drawings and other related documents in six copies (hard and soft).
- Rectification of the defects in the completed works during the defect liability period;
- Execution of any other item of work for the construction and completion of the Works in accordance with the provisions of Contract including all incidental items as well as preparation and submittal of reports, plans as required.
- During the period of the contract the right of way and all existing roads shall be kept open for traffic and maintained in a safe and usable condition.



Residents along and adjacent to the works are to be provided with safe convenient access to their properties at all times. Traffic control and traffic diversions shall be used as necessary to protect the works and maintenance will be carried out as directed by the Engineer and provided in the contract.

- Construction of service roads improvement junction, electrification and shifting of utilities, provision signal and sign boards.
- Construction of diversion and its maintenance of the diversion as per the direction of the Engineer in Charge at the cost of the contractor.

## 2.2 Site Information

### 2.2.1 Location

The project site is located in the city of Jaipur, Rajasthan.

The proposed Construction of Four lane ROB with LHS in lieu of L.C. 200 Bassi Town, Jaipur

### 2.2.2 Geotechnical Information

More detailed information can be referred in the offices of Engineer/Employer

### 2.2.3 Seismic Zone

Project area is in the seismic zone II as per IRC:6.

### 2.2.4 Climate

Maximum temperature is 47 degree centigrade in summer season while minimum temperature is around 8 degrees centigrade in winter season.

Site information given above and provided elsewhere is given in good faith by the employer. The contractor shall satisfy himself regarding all aspects of site conditions and collect all site information necessary for the construction and completion of the works.

## 2.3 Survey and Investigations

As part of the planning and design carried out in connection with production of these bid documents comprehensive topographical field surveys and geotechnical investigations were carried out.

The geotechnical investigations are completed. The geotechnical results from the geotechnical investigations are presented in the geotechnical report. This report will provide information about the existing soil conditions.

The topographic survey report and geotechnical report can be referred to in the office of the executive engineer.

Any additional survey and soil investigation required for any purpose shall be done without any extra cost.



#### 2.4 Land for Contractor's facilities

The employer shall provide the right of way of the road works and other appurtenant works to the contractor. However, the contractor shall have to make his own arrangements for the land required by him for borrow areas, quarries, site offices, testing labs, labour camps, stores, plants and casting yards etc.

#### 2.5 Safety of the existing structure and water supply/drainage work/ electric/ telephone line/ sewerage lines.

The contractor shall have the full responsibility to ensure the safety of the existing structures. Contractor shall be fully responsible and liable to repair any damaged caused to the existing structures (existing bridge foundation) during the execution of construction work for new bridge at his own cost and no amount shall be paid extra. The rates quoted by the contractor shall be deemed included in the unit price of the respective items.

The contractor shall identify the supplier of the propriety items such as bearings, RE wall panels expansion joints, water bars for construction joint etc of any international proven quality at the time of the bidding.

List of suppliers as submitted to the engineer shall be approved by the Engineer In charge after award of work. However, the supplier may be liable to be changed if engineer feels necessary at any later stage.

The contractor shall submit the work methodology to the Engineer Incharge. Contractor shall not be allowed to change construction methodology as suggested in the contract drawing. However, if contractor feels or like to change the construction methodology, it shall be done by the contractor at his own cost.

### 3 GENERAL REQUIREMENTS

The specification for works shall be in two parts, Technical Specifications and Supplementary Technical Specifications, which shall be read together:

In the absence of any definite provision on any particular issue in the Specifications, the work shall be carried out in accordance with Special Specifications to be prepared by Contractor and approved by Engineer. Such Special Specification shall be based on technical literature comprising national MoRTH/(IRC and IS) and international specifications and good engineering practice. In case of any dispute, the decision of the Engineer shall be final and binding on the Contractor.

#### 3.1 GENERAL TECHNICAL SPECIFICATIONS

##### **Part I - General Technical Specifications**

This part shall comprise the “Specifications for Road and Bridge Works” (Fifth Revision), 2013 along with other addendum Corrigendum issued up to 28 days before the final dated of submission of the bid, issued by the Ministry of Road



Transport & Highways, Government of India, and published by the Indian Road Congress (IRC), Jamnagar House, New Delhi - 110 011, with a cross reference to relevant Bureau of Indian Standards (BIS) for materials for other aspects not covered by the IRC, all deemed to be bound into this document.

## **Part II - Supplementary Technical Specifications**

The Supplementary Technical Specifications shall comprise various Amendments/ Modification/ Additions to the “SPECIFICATION FOR ROAD AND BRIDGE WORKS” referred to in Part I above and additional specifications for particular items of work not already covered in Part I.

If a particular clause or a part thereof in "SPECIFICATION FOR ROAD AND BRIDGE WORKS" referred to under Part I above, is amended/modified/ substituted/added upon, and incorporated under Part II, referred to above, the Amendment/Modification/ Substitution/Addition to the relevant Clause or part of the Clause shall prevail.

When an amended/modified/substituted/added clause supersedes a Clause or part thereof in the said Specifications, then any reference to the Clause shall be deemed to refer to the amended/modified/substituted/added Clause or part thereof.

Insofar as amended/modified/substituted/added Clause may come in conflict or be inconsistent with any of the provisions of the said Specifications under reference, the amended/modified/ substituted/added Clause shall always prevail.

The Additional Specifications shall comprise specifications for particular item of works not already covered in Part I.

Amendments, modifications, substitutions, additions have been made to the following clauses of specifications for Road and Bridge Works (Fourth Revision).

### **3.2 Specifications for Road & Bridge Works by Ministry of Surface Transport (MOST), Govt. of India**

Unless specifically mentioned otherwise hereafter or/and directed by the Engineer-in-charge to do so, all the civil engineering works shall be carried out in accordance with the provisions of the "Specifications for Road and Bridge Works (Fifth Revision), called MOST Specifications hereinafter published at New Delhi in 2013, or the latest version available, by Indian Roads Congress on behalf of MOST.

#### **3.3.1 MATERIALS AND TEST STANDARDS**

##### **3.3.1 Testing**

The Contractor shall set up a field laboratory with necessary equipments for testing of water, aggregates, cement and concrete used in the construction as per



requirements of the relevant specifications. The testing of all materials shall be carried out by the Engineer-in-charge or his representative for which the contractor shall make all the necessary arrangements and bear the entire cost.

Tests which cannot be carried out in the field laboratory shall be sent for testing by the contractor to any NABL accredited or recognized laboratory/testing establishment approved by the Engineer-in-charge.

The cost of making any and all the Tests shall be borne by the Contractor if such Test is clearly intended by or provided for in the Contract.

The following instruments / apparatus (but not the least), are required in the field laboratory.

1. Digital Compression testing Machine 2000 KN Capacity, electrically operated.
2. Vicat Needle Apparatus with dashpot.
3. Concrete soundness test hammer.
4. Cement autoclave.
5. Cube Moulds (ISI Marked) of different sizes.
6. Aggregate Crushing Value.
7. Aggregate impact value test apparatus.
8. Sieve Shaker.
9. Sieves of different sizes (ISI Marked).
10. Flakiness index test apparatus.
11. Proctor Compaction Apparatus.
12. Bitumen extraction test.

However, as per the site requirement EIC may direct the contractor to arrange some additional testing apparatus required in the field laboratory which are not included in the above mentioned list, at his own cost. Then the cost of such Test shall be borne by the Employer. If, however, the Test shows the workmanship or Materials not to be in accordance with the Contract, then the cost of such Test will be borne by the Contractor

The contractor shall appoint separate engineer (Degree holder) of experience not less than 5 years for quality control and site laboratory who shall provide all assistance to JDA to conduct such tests. The salary/ waged of such engineer shall be deemed to be included in the cost of work and no extra payment shall be made on this account. In case of not appointing separate engineer by the contractor the JDA may appoint such engineer at its own and actual wages/ salary be deducted from the due payments of contractor

### **3.3.2 Sampling of Materials**

Samples provided to the Engineer-in-charge for retention are to be in labeled boxes suitable for storage. Materials or workmanship not corresponding in character and



quality with the approved samples will be rejected by the Engineer-in-charge or his representative and shall be removed from site as directed by the Engineer-in-charge or his representative at the contractor's cost.

Samples required for approval and testing must be supplied well in advance to allow for testing and approval. Delay to works arising from the late submission of samples will not be acceptable as a reason for delay in the completion of the work.

### 3.4 CONSTRUCTION EQUIPMENT

#### 3.4.1 Tolerance

The contractor shall ensure that the major plant and equipment proposed to be deployed on the work shall meet the performance criteria specified herein. The contractor shall be required to give trial runs of these equipments for establishing their capabilities to achieve the laid down specification and tolerance to the satisfaction of the Engineer-in-charge before commencement of the work. All these equipments provided shall be of proven efficiency and shall be maintained at all time.

#### 3.4.2 Batching Equipment

For individual batches the following tolerances shall apply based on the required weight of material.

Material	Percentage
Cement	: $\pm 1$
Aggregate	: $\pm 2$
Water	: $\pm 1$

Notwithstanding above tolerances the construction and accuracy of equipment shall conform to IS:2722, except that an accuracy off 0.4% over the entire range of equipment will be required.

#### 3.4.3 Batch Type Concrete Mixer

The mixer shall be tested under normal working conditions in accordance with the method specified in IS: 4634 with a view to checking its ability to mix the ingredients to obtain a concrete of desired uniformity. The conformity of mixed concrete shall be evaluated by fixing the percentage variation in quantity of cement, fine aggregate and coarse aggregate in a freshly mixed batch of concrete. The percentage variation between the quantities of cement, fine aggregate and coarse aggregates ( as found by weighing in water) in the two halves of a batch and the average of the two halves of the batch shall not be more than the following limits:

Cement	:	8%
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Fine Aggregate	:	6%
Coarse aggregate	:	5%

#### **3.4.4 Concrete Transit Mixers**

The mixer shall conform to IS: 5892 and be tested under normal working condition in accordance with the method specified in IS:4634. The tolerance limits for the variation between quantities of cement, fine aggregate and coarse aggregates shall be same as for batch type concrete mixer.

Competent authority shall have the right to determine whether all or any of the materials offered or delivered for use in the works are suitable for the purpose.

#### **3.5 SETTING OUT**

The works unless otherwise specified, shall be set symmetrical to the centre line of the bridge as shown on the drawings and design.

Reference pillars shall be established by the contractor at his own cost after carrying out the necessary survey with reference to the said drawings.

The centre line of the bridge shall be extended on both ends to at least 60.0 m and the centre line pillars located not less than 3.0 m from the two ends of the bridge. These shall be so located that they are in no way disturbed during flood or during the period of construction.

The reference pillars shall be connected with some permanent features on the site that they can be correctly relocated in case they get disturbed during the construction period.

For the layout work and establishing the centre line of the bridge, only steel tape shall be utilised throughout the work and where work is done by traversing, the traverse shall be closed. In case of minor errors these shall be corrected by interpolation of the layout and the centre line pillars got approved by the Engineer-in-charge.

#### **3.6 MATERIALS FOR STRUCTURE**

##### **General**

All the basic construction materials viz. cement, aggregates (coarse and fine both), reinforcement and water to be used in works shall be procured from sources approved by the Engineer-in-charge. Unless otherwise mentioned in these specifications the contractor shall identify the sources of basic materials and propose the same for approval after satisfying himself about the quality and quantity required for the work.

##### **3.6.2 Cement**

Ordinary Portland Cement (OPC) 43 grade or 53 grade as the case may be conforming to IS: 8112 shall be used throughout construction. Cement shall be procured from reputed manufacturers who have requisite infrastructure for conducting various tests for the conformance to chemical and physical requirements specified in IS: 269. The frequency of such tests in manufacturer's laboratory shall be as per IS: 3535. Since a very good degree of quality control is desired at works, fresh cement from a single source shall be procured unless alternative source is approved by the Engineer-in-charge in writing. The



make and quality of cement to be used in the work shall be subject to the approval of Engineer-in-Charge. Along with each lot of cement delivered to site a certificate from the manufacturer shall be forwarded, to the effect that the cement was tested and analysed in accordance with the methods given in IS:4031 and IS:4032. The test results shall be included in the manufacturer's certificate.

Notwithstanding manufacturer's certificate the Engineer-in-charge if so desired may ask for retesting of cement at site or through any other recognised and approved laboratory. The cost of additional tests and samples shall be borne by the contractor.

### 3.6.3 Coarse Aggregate

Coarse aggregates shall consist of naturally occurring crushed stones. The aggregates shall be hard, strong, dense, durable, clear and free from veins and adherent coating, and free from injurious amounts of disintegrated pieces, alkali, vegetable matter and other deleterious substances. The presence of flaky, scoriaceous and elongated pieces shall be avoided. The coarse aggregates which conform to the following requirement may only be considered for approval by the Engineer-in-charge:

Deleterious materials	Refer to Table 1 of IS:383
Aggregate Crushing Value	30%
Aggregate Abrasion Value	30%

Aggregate shall be supplied in single sizes. The nominal maximum size of aggregate to be used in work shall be 20mm. The other requirements for coarse aggregates shall be as per IS:383.

While submitting samples of aggregates for approval the contractor shall furnish following information pertaining to the aggregates:

Source of supply, that is, precise location of source from where the materials were procured.

Trade group of principal rock type present.

Presence of reactive minerals.

Physical characteristics.

Specific gravity.

Moisture content

Absorption value.

Aggregate crushing value.

Abrasion value

Presence of deleterious materials.

Potential reactivity of aggregate.

The tests carried out for the above shall be done in accordance with the methods specified in IS:2386.

The contractor shall satisfy himself that the material complies with the requirement of IS:383 and shall furnish a certificate to this effect to the Engineer-in-charge whenever asked





for. In case the aggregates tested do not comply with any requirement of the IS standards the source for the same shall be rejected. No further samples from the rejected source shall be considered for approval. The Engineer-in-charge shall have full liberty of getting the material tested independently through recognised agency. The Contractor shall supply free of charge the material required for tests and bear all expenses for such tests.

### 3.6.4 Fine Aggregate

The quality, tests and acceptance criteria for fine aggregates shall be same as mentioned for the coarse aggregates. The fine aggregates shall conform to Zone II of Table 4 of IS:383.

## 3.7 STEEL

### 3.7.1 Steel reinforcement

Steel shall be procured from primary manufacturers only.

High strength deformed steel bars of TMT500D grade shall be used and shall comply with the provisions of IS: 1786 ( Latest revision) For each batch of steel delivered to site the contractor shall supply the Engineer-in-charge with manufacturer's certificate stating the process of manufacture and also the test sheets signed by the manufacturer giving the result of each mechanical test and the chemical composition.

Steel / Strands shall be manufactured by the open hearth, electric, duplex, basic oxygen process or a combination of these processes like TATA (Mumbai), SAIL or equivalent as approved by EIC. In case any other process is employed by the manufacturer, prior approval of the purchaser from EIC should be obtained.

## 3.8 WATER

Water to be used for mixing and curing shall be clear and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other substances that may be deleterious to concrete or steel. Potable water is generally considered satisfactory for mixing concrete. The maximum permissible limits for solids shall be as given below:

- Organic : 300 mg/1
- Inorganic : 3000 mg/1
- Sulphates ( as SO<sub>4</sub>) : 500 mg/1
- Chlorides (as Cl) : 1000 mg/1 for reinforced concrete  
250 mg/1 for pre stressed concrete
- Suspended matter : 2000 mg/1
- pH : < 6

## 3.9 STORAGE OF MATERIALS

All materials shall be placed at site in a proper way so as to prevent their deterioration or intrusion of foreign matter and to ensure their satisfactory quality and fitness for the work. The storage space must also permit easy inspection, removal and re-storage of the materials. Materials though stored in approved godown must be subjected to acceptance test prior to their immediate use.



The cement shall be stored in a suitable weather-tight building to protect it from dampness and minimise warehouse deterioration. Each consignment of cement shall be stored separately so that it may be readily identified and inspected. Cement shall be used in the sequence in which it is delivered at site.

The contractor shall prepare and maintain proper records on site in respect of the delivery, handling, storage and use of cement and shall be made available for inspection by Engineer-in-charge at any time.

The cement more than 3 to 4 months old shall invariably be tested at contractor's cost to ascertain that it satisfies the acceptability requirements.

### 3.10 FORMWORK AND SURFACE FINISH FOR STRUCTURES

#### 3.10.1 Construction Operation

Only rigid steel forms shall be used unless otherwise approved by the Engineer-in-charge. Formwork shall include all temporary or permanent forms of moulds required for forming the concrete which is cast-in-situ, together with all temporary construction required for their support.

The chamfers, beveled edges and mouldings shall be made in the formwork itself. Opening for fixtures and other fittings connected with services shall be provided in the shuttering as directed by the Engineer-in-charge.

#### 3.10.2 Formed surfaces and finish

The formwork shall be made as to produce a finished concrete true to shape, lines, levels, plumb and dimensions as shown on the drawings, subject to the following tolerances unless otherwise specified in these documents or drawings or as directed by the Engineer-in-charge.

- |    |                     |   |
|----|---------------------|---|
| a) | Sectional dimension | + 5 mm  |
| b) | Plumb               | + 1 in 1000 of height                         |
| c) | Levels              | + 3 mm before any deflection has taken place. |

Tolerances given above are specified for local aberrations in the finished concrete surface and should not be taken as tolerance for the entire structure taken as a whole or for the setting and alignment of formwork, which should be as accurate as possible to the entire satisfaction of the Engineer-in-charge. Errors if noticed in any lift/tilt of the structure after stripping of forms, shall be corrected in the subsequent work to bring back the surface of the structure to its true alignment.

### 3.11 PREPARATION OF FORMWORK BEFORE CONCRETING

#### 3.11.1 Special Provisions

Wherever the concreting in narrow members is required to be carried out within shutters of considerable depth, temporary openings in the sides of the shutters shall, if so directed by the Engineer-in-charge, be provided to facilitate the pouring and consolidation of the



concrete. Small temporary openings shall be provided as necessary at the bottom of shutters of walls and deep beams to permit the expulsion of rubbish etc.

Formation of blotches and stains due to detachment of formwork panel from the concrete when adjacent portion in the same lift is still adhering, shall not be allowed to occur, and for this purpose, all shutters shall be struck off at the same time.

### 3.12 STEEL REINFORCEMENT FOR STRUCTURE

#### 3.12.1 General

Steel reinforcement shall be stored in such a way as to avoid distortion and to prevent deterioration by corrosion. When directed by the Engineer-in-charge, the reinforcing bars shall be given a cement wash before stacking to prevent scales and rust.

The reinforcement bars bent and fixed in position shall be free from rust or scales, chloride contamination and other corrosion products. Effective methods of cleaning such as sand blasting will have to be used so that the steel is free from rust, scales and contamination.

Steel / Strands shall be manufactured by primary manufacturers like TATA, SAIL or equivalent shall be used. In case any other process is employed by the manufacturer, prior approval of the purchaser should be obtained.

#### 3.12.2 Bending of Reinforcement

Bending of reinforcement shall be done as per Bar Bending Schedule to be prepared and got approved by the contractor prior to commencement of work.

#### 3.12.3 Placing of reinforcement

Reinforcement left projecting from newly placed concrete shall be supported in such a way that there is no sag or risk or damage to the newly placed concrete. The projecting bars which are likely to be exposed for a long time shall be protected by a thick coat of neat cement grout. These shall be thoroughly cleaned and wire brushed before depositing fresh concrete around it.

### 3.13 CEMENT CONCRETE FOR STRUCTURES

#### 3.13.1 Grade of concrete

Only design mix concrete shall be used in the work. The design mix concrete shall have the minimum compressive strength of 150 mm cubes at 28 days according to the denomination of the grade the concrete e.g. M 35 grade concrete shall have the minimum characteristic compressive strength of 35 Mpa.

#### 3.13.2 Design mix concrete

The determination of the cement, aggregates and water to attain the required strength shall be made by designing the concrete mix in accordance with IS: 10262. The trial mixes for mix design shall be prepared with approved aggregates, cement and water.

Coarse aggregates of different sizes shall be combined in suitable proportion so as to result in an overall grading conforming to IS : 383.

Minimum six cubes shall be prepared from each trial mix for testing compressive strength at 28 days. Based upon the successful preliminary crushing and workability tests, the



contractor shall submit mix proposals to the Engineer-in-charge who will have the right to accept any trial mix. The strength tests for concrete shall be done in accordance with IS : 516. All preliminary tests, approval, etc. shall be got done in advance by the contractor prior to commencement of actual work at site. Failure on the part of the contractor to do so and consequent delay in completion of the works will not entitle him for any compensation whatsoever, either financially or by way of extension of time.

### **3.13.3 General**

In proportioning concrete the quantity of both cement and aggregates shall be determined by weight. The cement shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean and serviceable condition. The amount of mixing water shall be adjusted to compensate for moisture content in both coarse and fine aggregates. The moisture content in both coarse and fine aggregates shall be determined in accordance with IS : 2386(Part-III). Suitable adjustments shall also be made in the weights of aggregates to allow for the variation in weight of aggregates due to variation in moisture content.

### **3.13.4 Production of concrete**

The concrete shall be produced in a central batching and mixing plant producing at least 30 cum mixed concrete per hour. The batching plant shall be either fully or semi-automatic type. A semi-automatic batcher shall be charged by devices which are separately actuated manually to allow the material to be weighed but which are actuated automatically when the designated weight of each material has been reached. Automatic batcher shall be charged by devices which, when actuated by a single starter switch will automatically started when the designated weight of each material has been reached inter locked. A batching plant essentially consists of the following components.

- Storage bins for different sizes of aggregates and cement.
- Batching equipment
- Mixers
- Central panels
- Material feeding and elevating arrangements.

The compartments of storage bins shall be approximately of equal size. The cement compartment shall be centrally located in the batching plant. It shall be water-tight and provided with necessary air vent, aeration fittings for proper flow of cement, emergency cement cut off gate. The aggregate and sand shall be charged by power operated centrally revolving chute. The entire plant from mixer floor upward shall be enclosed and insulated. The batch bins shall be constructed so as to be self cleansing during drawdown. The batch bins shall be general conform to the requirement of clause 4.0 of IS: 4925.

The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, sand, individual size of coarse aggregates, etc.



### **3.13.5 Mixing concrete**

The concrete shall be mixed in power driven free fall tilting type mixer fitted with abrasion resistant replaceable liners and blades. The concrete shall be mixed for 1½ to 2½ minutes in the mixer depending upon the capacity of mixer. These mixing periods are based on standard speed of rotation of mixer and of the introduction of materials including water into the mixer. Mixing time shall be increased if and when charging and mixing operations fail to produce a concrete batch of uniform composition and consistency. The mixer in the batching plant shall be so arranged that mixing action in the mixers can be observed from the operator's station. The mixer shall be equipped with a mechanically or electrically operated timing, signaling and metering device which will indicate and assure completion of the required mixing period. The mixer shall have all other components as specified in IS:4925.

### **3.13.6 Transportation, placing and compaction of concrete**

Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps. In case the concrete is proposed to be transported by transit mixer it shall not be less than 4 rev/min of the drum or greater than a speed resulting in a peripheral velocity of the drum 70 m/min at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev/min nor more than 6 rev/min of the drum. The number of revolution of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev/min and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirement shall conform to IS:5892. In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.

Except where otherwise agreed to by the Engineer-in-charge, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450 mm. Unless agreed to by the Engineer, concrete shall not be dropped into place from a height exceeding 2 m. In order to avoid such situations chutes shall be used. The chutes shall be kept clean and used in such a way as to avoid segregation. Slope of the chute shall be so adjusted that concrete flows without the use of excessive quantity of water. The delivery end of chute shall be as close as possible to the point of deposit. The chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside the formwork. The concrete shall be compacted by using immersion type vibrators. When the concrete is being continuously deposited to a uniform depth along a member, vibrator shall not be operated within one meter of free end of the advancing concrete. Every effort shall be made to keep the surface of the previously placed layer of concrete alive so that the succeeding layer can be amalgamated with it by the vibration process. In case the concrete in underlying layer has hardened to such an extent that it cannot be penetrated by the vibrator but is still fresh (that is, just after initial



set), an imposed bond shall be achieved between the top and underlying layer by first satisfying the lower layer before the new concrete is placed by systematically and thoroughly vibrating the new concrete. The points of insertion of vibrator in the concrete shall be so spaced that the range of action overlap to some extent and the freshly filled concrete is sufficiently consolidated at all locations. The spacing between the dipping positions of vibrator shall be maintained uniformly throughout the surface of concrete so that concrete is uniformly vibrated. The vibrating head shall be regularly and uniformly inserted in the concrete so that it penetrates of its own accord and shall be withdrawn slowly whilst running so as to allow redistribution of concrete in its way and allow the concrete to flow back into the hole behind the vibrator. The vibrator head shall be kept in one position till the concrete within its influence is completely consolidated. Vibration shall be continued until the coarse aggregate particles have blended into the surface but have not disappeared. The contractor shall keep one additional vibrator in serviceable condition to be used in the event of breakdowns.

The vibrator head shall not be brought more than 200 mm near to the formwork as this may cause formation of water stagnations. The formwork shall be strong and great care shall be exercised in its assembly. It shall be designed to take up increased pressure of concrete and pressure variations caused in the neighbourhood of vibrating head which may result in excessive local stress on the formwork. The joints of the formwork shall be made and maintained tight and close enough to prevent the squeezing out of grout or sucking in of air during vibration. The formwork to receive concrete shall be cleaned and made free from standing water, dust, etc.

In case the reinforcement has mild scales or dirt the same shall be cleaned by wire brushes. No concrete shall be placed in any part of the structure until the approval of Engineer-in-charge has been obtained. If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again from the Engineer-in-charge. Concreting shall be done continuously over the area between construction joints. Fresh concrete shall not be placed against concrete which has been in position for more than 30 minutes unless a proper construction joint is formed. When concreting has to be resumed on a surface which has hardened, it shall be roughened, swept, clean, thoroughly wetted and covered with a 13 mm thick layer of mortar composed of cement and sand in same ratio as in the concrete mix itself. This 13 mm layer of mortar shall be freshly mixed and placed immediately before placing of new concrete.

Where concrete has not fully hardened, all laitance shall be removed by scrubbing the net surface with wire or bristle brushes. Care shall be taken to avoid dislodgement of particles of coarse aggregate. The surface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. The first layer of concrete to be placed on this surface shall not exceed 150 mm in thickness and shall be well rammed against old work. Particular attention shall be given to corners and close spots.



Sl. Nr.	Section Nr.	Section Title	Clause (Morth V <sup>TH</sup> Revision)
1.	100	General	102, 105, 106, 107, 108, 111, 112, 114, 115, 121, and 126
2.	200	Site Clearance	201 and 202
3.	300	Earthwork, Erosion Control and drainage.	301, 305, 306 and 309
4.	400	Granular Sub-Bases	401
5.	600	Concrete Pavement	601,602and 603.
6.	800	Traffic Signs, Markings and other Road Appurtenances	801, 803 and 804
7.	900	Quality Control for Road works	901, 903
8.	1000	Materials for Structures	1002, 1006, 1007, 1008, 1009, 1012, 1013, 1014 and 1015
9.	1100	Pile Foundations	1101, 1103, 1104, 1107, 1113, 1115, 1118 & 1119
10.	1500	Form work	1501, 1502, 1503, 1504, 1506, 1508, 1509, 1510 & 1513
11.	1600	Steel Reinforcement (untensioned)	1602, 1604, 1605, 1606 & 1607
12.	1700	Structural Concrete	1703, 1704, 1705, 1707, 1709, 1710, 1712, 1713 & 1715
13.	2200	Substructure	2204, 2210
14.	2300	Superstructure	2305, 2306
15.	2600	Expansion Joints	2601, 2606 and 2609
16.	2700	Wearing Coat & Appurtenances	2702, 2703,2706 and 2709
17.	3000	Maintenance of roads	3001,3002, 3004 and 3005
18.	2000	Bearings	2005



Sl. Nr.	Section Nr.	Section Title	Clause (Morth V <sup>TH</sup> Revision)
19.	1800	Prestressing	1801,1802, 1803,18041805, 18061807, 1808

#### Additional Specifications

The Clauses A-1 to A-7 have been added to the "SPECIFICATIONS FOR ROAD AND BRIDGE WORKS" - 2013.

<b>CLAUSE A-1</b>	<b>PLANTATION OF TREES AND HEDGES</b>
<b>CLAUSE A-2</b>	<b>LEVELLING AND GRADING ROAD SIDE LAND</b>
<b>CLAUSE A-3</b>	<b>UTILITY DUCTS</b>
<b>CLAUSE A-4</b>	<b>SPECIFICATIONS FOR SCARIFICATION OF EXISTING PAVEMENT AND PROVIDING OVERLAY WITH GRANULAR BASE/DBM.</b>
<b>CLAUSE A-5</b>	<b>REFLECTIVE PAVEMENT MARKERS (ROAD STUDS)</b>
<b>CLAUSE A-6</b>	<b>CURING USING LIQUID MEMBRANE FORMING COMPOUND</b>
<b>CLAUSE A-7</b>	<b>PAVEMENT QUALITY CONCRETE</b>

In the absence of any definite provisions on any particular issue in the aforesaid Specifications, reference may be made to the latest codes and specifications of IRC and BIS in that order. Where even these are silent, the construction and completion of the works shall conform to sound engineering practice as approved by the Engineer and in case of any dispute arising out of the interpretation of the above, the decision of the Engineer shall be final and binding on the Contractor.

However, work shall be executed as per latest edition of MoRTH/MoST. Where any specification of MORTH/ IRC/ BIS are silent then best international practice shall be followed including BRITISH / AASTHO Standards.





## FORM OF AGREEMENT



## FORM OF AGREEMENT

This AGREEMENT is made on ..... day of ..... 2016 between (Name of Employer ..... ) (Mailing Address of Employer ..... ) hereinafter called "the Employer", of the one part (Name of Contractor ..... ) (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed viz. (brief description work)..... and has by Letter of Acceptance dated (Date of letter of acceptance ) ..... accepted Bid by the Contractor for the execution completion and maintenance of such works. NOW THIS AGREEMENT WITNESSETH AS FOLLOWS.

In this Agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.

The following documents shall be deemed to form and be read and construed as parts of the agreement viz:

- a) The Letter of Acceptance.
  - b) The said Bid with Schedule of information of bid documents.
  - c) Technical Specification.
  - d) Form of Agreement
  - e) Bank Guarantee
  - f) Conditions of Contract on Safety, Health and Environment.
  - g) Bill of Quantities
3. The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies shall take precedence in the order set out above.
4. In consideration of the payment to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute, complete and maintain the works in conformity in all respects with the provisions of the Contract.
5. The employer thereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the work of Contract Price at the time and in the manner prescribed by the Contract.

IN WITNESS whereof the parties have caused their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year first above written, SIGNED SEALED AND DELIVERED by the.

Said .....  
(Name .....)  
on behalf of the Contractor

Said .....  
(Name .....)  
on behalf of the Contractor

In the presence of :

In the presence of :

Name:

Name:

Address

Address

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This form is included in the bid documents only for the information of the bidders. Only the successful bids will in due course be required to complete the form.



## Form of Bank Guarantee



Form of (Bank Guarantee) -En cashable at branch of the bank in Jaipur City.

To  
Secretary,  
Jaipur Development Authority,  
Jaipur

Sub:

Bank Guarantee No. \_\_\_\_\_ dated \_\_\_\_\_ for [amount of Security in figures] [in words] on behalf of \_\_\_\_\_ [Name of the Bidder] against the Bid Security for Bid for **Renewal and reparing of BRTS corridor on Sikar road , from C-Zone bye pass to Panipech, zone - BRTS (Project-1),JDA, Jaipur (only Bituminous related works**

WHEREAS, \_\_\_\_\_ [name of Bidder with address] (**hereinafter called “the Bidder”**) has submitted his Bid dated ..... For the work of **Renewal and reparing of BRTS corridor on Sikar road , from C-Zone bye pass to Panipech, zone - BRTS (Project-1),JDA, Jaipur (only Bituminous related works** (Name of Work) (**hereinafter called “the Bid”**).

KNOW ALL PEOPLE by these presents that we \_\_\_\_\_  
\_\_\_\_\_ (Name of Bank) of having our registered office at \_\_\_\_\_ [name of country] having our registered office at \_\_\_\_\_ (hereinafter called “the Bank”) are bound unto Secretary, Jaipur Development Authority. (Hereinafter called “the Employer”) in the sum of Rupees \_\_\_\_\_ [**Amount of Security in figures**] \_\_\_\_\_ (in words) only for which payment will and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

That on demand of JDA, this Bank Guarantee is encashable at following branch in Jaipur City.

1. Name of Bank:
2. Name of the branch with branch code:
3. Address:
4. E-Mail Id:
5. Telephone No.
6. Fax No.:

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ of 20\_\_\_\_.

THE CONDITIONS of this obligation are:

- (1) If the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid;
- (2) If the Bidder refuses to accept the correction of errors in his bid;
- (3) If the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity;



(a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, or

(b) Fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or more of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 30 days after the date of expiration of the Bid Validity, as stated in the Instructions to Bidders, or any such extension thereto as may be agreed by the Bidder, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

The amount covered under the above Bank Guarantee shall be automatically be credited in the accounts of JDA in ICICI Bank, JDA Campus, Jaipur through **ISFC code No ICIC0006754. Bank Account No. 675401700518** on the date of expiry or its validity, unless the agencies get it re-validated well before its expiry date or produce NOC from JDA in written for its release.

Date \_\_\_\_\_ Signature of the Bank \_\_\_\_\_

Witness \_\_\_\_\_ Seal \_\_\_\_\_  
[Signature, Name and Address]

[Note: To be furnished on appropriate non-judicial stamps.]



<b>Tender Inviting Authority: JAIPUR DEVELOPMENT AUTHORITY, JAIPUR</b>			
<b>Name of Work : Renewal and repairing of BRTS corridor on Sikar road, from C-Zone bye pass to Panipech , Zone-BRTS (Project-I ) JDA Jaipur (Only bituminous related works)</b>			
<b>Contract No: ROB/RUB-III/NIB NO.-04/2015-16</b>			
<b>Bidder Name:</b>		<b>Excess ( + )</b>	%
<b><u>SCHEDULE - G (SCHEDULE OF WORKS/ BILL OF QUANTITY)</u></b> <b>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)</b>			

Sl. No.	Description of work	No. or Qty.	Unit	Estimated Rate		AMOUNT Rs. P
				Figure	Words	
1	Construction of granular sub-base by providing well graded material, spreading in uniform layers with Tractor Mount Grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per MoRD Specification Clause 401. For Grading I Material	1607.500	Cum.	400.50	Rupees Four Hundred and Paise Fifty Only	643803.75
2	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and MoRD Specification Clause 406. By mechanical Means with 1 km lead	2009.375	Cum.	1071.00	Rupees One Thousand & Seventy One Only	2152040.63
3	Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per MoRD Specification Clause 502, Low porosity .	8037.500	Sqm.	31.50	Rupees Thirty One and Paise Fifty Only	253181.25
4	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.20 to 0.25 kg per sqm on the prepared bituminous surface cleaned with Hydraulic broom as per MoRD Specification Clause 503.	290176.250	Sqm.	9.00	Rupees Nine Only	2611586.25



5	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & cleaned with Hydraulic broom as per MoRD Specification Clause 503.	7287.500	Sqm.	10.80	Rupees Ten and Paise Eighty Only	78705.00
6	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H Specifications Clause 507 complete in all respects. for Grading I ( 40 mm nominal size ).	3268.875	MT	2511.00	Rupees Two Thousand Five Hundred & Eleven Only	8208145.13
7	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT & H Specifications Clause 509 complete in all respects. For Grading-II (13 mm nominal size) Bitumen PMB-40	18284.175	MT	3510.00	Rupees Three Thousand Five Hundred & Ten Only	64177454.25
8	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT & H Specifications Clause 509 complete in all respects. For Grading-II (13 mm nominal size) Bitumen (VG-30)	8456.416	MT	2934.00	Rupees Two Thousand Nine Hundred & Thirty Four Only	24811124.54
9	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and MoRD specifications Clause 802, 803, 1202 & 1203, P.C.C. grade M 20, Nominal mix (1:2:4).	135.000	Cum.	3136.50	Rupees Three Thousand One Hundred & Thirty Six and Paise Fifty Only	423427.50



10	Providing and fixing steel gate, grating , and grills made of angles, tees, square bars, flats, or black pipe with holdfast and fittings complete as per design and drawing including cutting welding and fabrication with priming coat of red oxide	8400.000	Kg.	66.60	Rupees Sixty Six and Paise Sixty Only	559440.00
11	Raising / lowering of R.C.C. cast in situ manhole chambers of sewer system including lifting the R.C.C. roof slab, dismentling the R.C.C. wall to required in lowering the height of R.C.C. wall of manhole, placing back the displaced R.C.C. roof slab in position, including repairing of joint of R.C.C. roof slab and Manhole wall to the entire satisfaction of Engineer -In-Charge. The work includes. Providing barricading during construction, putting sign board/ caution board for safety purpose, providing all material like cement, sand, grit and steel etc. required for cement concreting including centring & shuttering for raising of R.C.C. wall etc. The work also includes providing all machinery like crane, tools and plants such as vibrator, mixer required for the job in all respect. Work also includes curing, where ever required and site clearance. (Dir. Engg. /D-143 dt. 28.02.2011)	50.000	Nos.	2000.00	Rupees Two Thousand Only	100000.00
12	Supplying and fixing Ferro-cement cover with C.I. Frame & CI ring of 33 kg for chambers & manholes of size 560mm dia . To withstand 22 MT centre point load (Heavy duty). (D-755 dt. 13.12.05)	30.000	Each	1775.00	Rupees One Thousand Seven Hundred & Seventy Five Only	53250.00
13	Providing and fixing of Reinforced Ferro cement Drain cover designed for class "AA" loading duly marked on cover with adequate steel reinforcement having thickness 75 mm to 150 mm anti- corrosive bitumen painted M.S. plate Rim and on M.S. lifting hooks admixture like plasticizer bond improving compound shrinkage resistance compound abrasion resistant complete as per approved design etc. for drain Opening Size 701 to 1200 mm Standard Drain Cover. Size 1500mm x 600mm x 125mm	180.000	Sqm.	2011.50	Rupees Two Thousand & Eleven and Paise Fifty Only	362070.00
14	Dismantling of Flexible Pavements and disposal of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per MoRD Specification Clause 202 By Manual Means Granular Courses.	1815.000	Cum	198.00	Rupees One Hundred & Ninety Eight Only	359370.00





15	Providing and laying 25 mm thick mastic asphalt wearingcourse with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing anti-skid surface with bitumen precoated fine grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005 cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces is not less than 100 C protruding 1 mm to 4 mm over mastic surface, all complete as per Clause 515.	5700.000	Sqm.	382.50	Rupees Three Hundred & Eighty Two and Paise Fifty Only	2180250.00
16	Providing and fixing reinforced concrete precast kerb stone ordand R.Mtr of M-20 grade cement concrete 120 cm long having 4 Nos. bars of 8 mm dia hysd and stirrups 6 Nos of 6 mm dia as per IS with in built provision of interlocking of jointing and lifting compaction of reinforced concrete by mechanical and table vibrators jointing at site with cement mortar 1:4 complete in all respect as directed by Engineer incharge on: 100 mm thick cement concrete 1:4:8 (1 Cement : 4 Coarse sand : 8 stone aggregate 20 mm thick nominal size) including excavation of earth and cutting of BT road cutting of WBM road etc. and disposal of surplus material with all lead and lift. The size of kerb shall be (11.5 16.5)/2*30 (16.5*7.5)	2100.000	P.Rmt	617.00	Rupees Six Hundred & Seventeen Only	1295700.00
17	Sludge clearance of drains, channels and canals with lift 1.5 Mtr and lead up to 50 Mtr.	5400.000	Cum	196.00	Rupees One Hundred & Ninety Six Only	1058400.00
18	Providing and laying Precast reinforced cement concrete Box culvert section of M-40 grade designed for 'AA' class loading as per IRC specifications including to effect of impact, EQ etc. complete on form base of 200mm thick lean concrete of M-10 grade with aggregate of size 40mm nominal of following internal size the work includes required safety measures construction of drain for diversion of flowing water cost of design of RCC Precast Box and its proof checking from IIT/MNIT Jaipur complete in all respect as per specifications Size 1.25 M x 1.25 M	840.000	Rmtr	19906.00	Rupees Nineteen Thousand Nine Hundred & Six Only	16721040.00



19	Earthwork in excavation for structures as per drawing and MoRD specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of sides and bottom and backfilling in trenches with excavated suitable material. Ordinary Soil , Up to 3 m depth	2475.602	Cum	111.60	Rupees One Hundred & Eleven and Paise Sixty Only	276277.18
20	Construction of solid block masonry of M20 grade solid concrete block having nominal size 400 mm x 200 mm x 200 mm in cement mortar 1:3 upto plinth level with all lead & lift.	166.320	Cum	6291.00	Rupees Six Thousand Two Hundred & Ninety One Only	1046319.12
21	Direction and Place Identification signs with size more than 0.9 sqm size board Retro-reflectorised Traffic Signs Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminium sheeting, 2 mm thick with area exceeding 0.9 sqm supported on dia GI Pipe firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per approved drawing and MoRD Specification Clause 1701	30.000	Sqm	9180.00	Rupees Nine Thousand One Hundred & Eighty Only	275400.00
22	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per MoRD Specification Clause 302.3	2950.000	Cum	26.10	Rupees Twenty Six and Paise Ten Only	76995.00
23	Earth, Sand, Lime, Morrum manure or sludge For 20 Km.	7612.500	Cum	91.35	Rupees Ninety One and Paise Thirty Five Only	695401.88
Total Estimated Cost in Figures						128419381.47
Quoted Amount					128419381.47	128419381.00
Quoted Rate in Words		Rupees Twelve Crore Eighty Four Lakh Nineteen Thousand Three Hundred & Eighty One Only				
Tender Inviting Authority: JAIPUR DEVELOPMENT AUTHORITY, JAIPUR						