

Tender Document

For

Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.

K. K. Vasani



The tender document comprises of various parts and contains as under.

INDEX

Sr. No.	Description	Page Number	
		From	To
1.	Tender Notice No. NHRCL(ADI)/CE02/USML/2018-19/10	03	04
2.	Tender form – first sheet	05	06
3.	Instruction to Tenderers and Conditions of tender	07	14
4.	Special Conditions/Specifications of Contract (PART-I)	15	23
5.	Declaration	24	24
6.	Details about Name of work, Cost of work and EMD	25	25
7.	Deviation/special Condition quoted by the tenderers.	26	26
8.	Performa for Performance Guarantee Bond.	27	28
9.	Special Conditions & Specification of Contract (PART II)	29	39
10.	Annexure – A	40	40
11.	Goods & Service Tax (GST) Act – 2017.	41	44
12.	Technical Specification	45	55
13.	Tender Schedule	56	64
14.	Offer sheet	65	65



K. K. S. M. S.

Tender No: NHRCL(ADI)/CE02/USML/2018-19/12

Name of work -:	Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.
Tender value -:	Rs. 2,61,52,087.92/- (Inclusive of GST)
Earnest money Deposit -:	Rs. 2,80,800/- (Rs. Two Lakh Eighty thousand eight hundred only)
Cost of Tender Document:-	Rs. 11,800/-
Completion period -:	30 Months (Overall), Phase-I in Eight Months
Validity of offer -:	90 Days
Type of Tender -:	Open Tender
Tender closing date -:	26/06/2019 @ 15:00 hrs
Tender opening date -:	26/06/2019 @ 15:30 hrs
Place of submission & opening of Tender -:	Office of Chief Project Manager, National High Speed Rail Corporation Ltd, 3 rd floor, Riverfront House, Ahmedabad. 380009

- (a) You may also note that the end of the document is marked as "**END OF DOCUMENT**". The total document is to be downloaded for submission of the offer otherwise the document will be treated as incomplete and therefore invalid.
- (b) Tenderer(s) may please also note that if any change/addition/deletion with mala-fide intention is made by the bidder and the same is detected at any stage even after award of the tender, all necessary action including banning of business may be taken against the bidder.
- (c) The NHRCL before the due date & time of closure of issue of tender documents on its own or in response to any clarification requested or suggested by any person including that of the tenderer may modified the tender document at its sole discretion. **It will be the responsibility of the tenderers** who had downloaded the documents from the website to submit offer in the updated copy of the tender documents and NHRCL may not consider the offers downloaded from website if offer is not submitted in updated tender documents.

K. K. Singh



**NATIONAL HIGH-SPEED RAIL CORPORATION LIMITED
AHMEDABAD**

Tenders are invited by National High Speed Rail Corporation Ltd (NHSRCL), 3rd floor, Riverfront House, Ahmedabad. 380009 for the following work -:

Sr. No.	Name of Work & Tender No.	Tender value (in Rs.)	Earnest money to be deposited (In Rs.)	Date and time for submission of tender and opening of tender	Web side particulars and notice for location where complete details can be seen etc.
1	NHSRCL(ADI)/CE02/USML/2018-19/12 Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.	Rs.2,61,52,087.92/- (Inclusive of GST)	Rs.2,80,800/-	Tender closing: - 26/06/2019 @ 15:00 hrs Tender opening: - 26/06/2019 @ 15:30 hrs	Tender documents can be downloaded from www.nhsrcl.in Office of Chief Project Manager, National High Speed Rail Corporation Ltd, 3 rd floor, Riverfront House, Ahmedabad. 380009



K. K. Vasani

**NATIONAL HIGH-SPEED RAIL CORPORATION LIMITED
AHMEDABAD**

TENDER FORM

First sheet

Name of work: Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.

To,
The Chief Project Manager,
NATIONAL HIGH-SPEED RAIL CORPORATION LIMITED,
3rd, Riverfront House, AHMEDABAD-380009.

1. I/We _____, have read the various conditions to the Tender attached hereto and hereby agree to abide by the said conditions. I/We also to keep this tender **open for acceptance for a period of 90 days** from the date fixed for opening the same and in default there of I/We will be liable for forfeiture of my/our earnest money deposit. I/We offer to do the work for Chief Project Manager, National High Speed Rail Corporation Limited (NHSRCL), Ahmedabad at the rates quoted in the attached Schedule and hereby bind myself/ourselves to complete the work in all respect **within Thirty months (overall), Phase-I in Eight months** from the date of issue of letter of acceptance of the Tender.
2. I/We also hereby agree to abide by the General Conditions of Contract July'14 edition corrected up to latest correction slip and to carry out the work according to Unified Standard Schedule of Rates 2011 (Works & Materials) for Western Railway & Unified Standard Specifications (Works & Materials) Vol. I & II of 2010 with latest amendments, Special Conditions of Contract and Specification of materials and work laid down by the Railway in the annexed special conditions/specifications corrected up to latest correction slip up to date for the present contract.
3. Bid must be accompanied by an Earnest Money Deposit of **Rs. 2,80,800/- (Rs. Two Lakh Eighty Thousand Eight Hundred only)** by a crossed Demand Draft/Banker's Cheque/Fixed Deposit Receipt drawn by State Bank of India or any nationalized bank or Scheduled Bank of India in favour of NATIONAL HIGHSPEED RAIL CORPORATION LIMITED, payable at New Delhi. Please note that no interest is payable on EMD so long retained in NHSRCL and Fixed Deposit Receipt should be from Scheduled Bank endorsed in the favour of the client/Employer i.e. NATIONAL HIGH-SPEED RAIL CORPORATION LIMITED, payable at New Delhi. **Bid received without Full Earnest Money shall be summarily rejected.**
4. The full value of the Earnest Money shall stand forfeited without prejudice to any other right or remedies in case my/our tender accepted and if.

(A) I/We do not execute the contract documents within Seven days after receipt of notice issued by the NHSRCL that such documents are ready and

(B) I/We do not commence the work within Ten days after receipt of orders to that effect.

K. V. V. V.



5. Until a formal agreement is prepared and executed, acceptance of this Tender shall constitute a binding Contract between us subject to modifications as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

6. If, I/We do not execute the contract agreement, the NHRCL may determine such Tenders has abandoned the contract, and there upon my/our Tender and acceptance thereof shall be treated as cancelled and the NHRCL be entitled to forfeit full amount of Earnest Money Deposit and to recover the liquidated damages for such default.

Signature of Witness: -

1).....

.....

2)

Signature of Tenderer(s)

Date: -

Tenderer's Address: -

.....

.....

.....

National High Speed Rail Corporation Ltd,
3rd floor, Riverfront House, (SRFDCL)
Ahmedabad. 380009.



Handwritten signature in blue ink with an arrow pointing to the right.

TENDER FORM

Second Sheet

1. INSTRUCTIONS TO TENDERERS AND CONDITION OF TENDER.

The following documents form part of Tender/ Contract: -

- a) Tender form – First sheet and second sheet.
- b) Special Conditions/ Specification (enclosed).
- c) Schedule of approximate quantities (enclosed).
- d) Instructions to tenderers and condition of tender.
- e) Western Railway General Conditions of Contract (G.C.C.) July 14 edition corrected up to latest Correction slip. Copy of General Conditions of Contract can be obtained from the office of The Chief Engineer, Western Railway on prescribed payment.
- f) Unified Standard Schedule of Rates 2011 (Works & Materials) for Western Railway & Unified Standard Specifications (Works & Materials) Vol. I & II of 2010 with latest amendments. Copy can be obtained on prescribed payment, from the office of the Chief Engineer, Western Railway Church gate- Mumbai 400020.
- g) Track Manual, Indian Railway P. Way Manual & Western Railway Safety circulars with latest amendments.
- h) All General and detailed drawings pertaining to this work will be issued by the Engineer or representative (from time to time) with all changes and modifications

2. DRAWING FOR THE WORK:

Drawing for the work can be seen in the office of the Chief Project Manager, National High Speed Rail Corporation Limited (NHSRCL), Ahmedabad at any time during the office hours. These drawings are only for the guidance of contractors. Design and Detailed working drawings will be given by the successful contractor or his representative from time to time.

2.1 The Rates mentioned in Tender schedules are inclusive of GST.

- 3 The Tenderer(s) shall quote his /their rates as a percentage above or below the schedule of Rates of the NHSRCL as applicable, except where he/they are required to quote item rates further tenderer must quote rates for all the items shown in the schedule of approximate quantities attached. The quantities shown in the attached schedule are given as a guide and are approximate only and are subject to variation according to the needs of the NHSRCL. The NHSRCL does not guarantee work under each item of the schedule.
4. Tenders containing erasures and/ or alternations of the tender documents are liable to be rejected. Any correction made by the Tenderer(s) in his/their entries must be attested by him /them.

K. K. Sharma



5. INSPECTION OF SITE BEFORE TENDERING ETC.

The Tenderer (s) shall inspect the proposed site of work and acquaint/themselves with the conditions, working hours, layout of land trees and shrub that he/they will have to cut, type of soil likely to be met within the borrow pits, stacking space for materials, approach road, pathways available, etc. and all relevant items connected with the execution of work. No claim shall be entertained for the contractor(s) making his/their own arrangements for approaches/approach road from outside NHSRCL land and contractor(s) will bear entire expenses such as road taxes, payment for right of way etc. to outsiders and for construction of approaches/approach roads etc.

6. The works are required to be completed within the period stipulated in the tender document, from the date of issue of acceptance letter.

7. TENDER FEES

(a) The tender documents to be downloaded from the official website of National High Speed Rail Corporation Limited www.nhsrcl.in for submitting the tender. The Tender fees (non-refundable & non-transferable) will have to be submitted in form of a demand draft (Separate demand draft other than that of Earnest Money) in favour of National High Speed Rail Corporation Limited payable at New Delhi to be enclosed with the tender documents along with required DD towards Earnest Money Deposit of National High Speed Rail Corporation Limited, New Delhi.

In case, the offer is not accompanied with the valid tender fees, the tender will be summarily rejected.

(b) You may please note that the documents being allowed to be downloaded with that he/they agree to abide by the conditions laid down hereinafter in tender documents, before submitting his/their tender

8. EARNEST MONEY AND SECURITY DEPOSIT: -

(A) EARNEST MONEY:

(a) Bid must be accompanied by an Earnest Money **Rs. 2,80,800/- (Rs. Two Lakh Eighty Thousand Eight Hundred only)** by a crossed Demand Draft/Banker's Cheque/Fixed Deposit Receipt drawn by State Bank of India or any nationalized bank or Scheduled Bank of India in favour of **NATIONAL HIGH SPEED RAIL CORPORATION LIMITED**, payable at New Delhi. Please note that no interest is payable on EMD for long retained with NHSRCL. **Bid received without Full Earnest Money shall be summarily rejected.**

(b) The Tenderer shall hold the offer open for the **period of 90 days** from the date fixed for opening the same. It is understood that the Tender documents have been sold/issued to the Tenderer and the Tenderer is being permitted to tender in consideration of the stipulation on his part that after submitting his/their tender, subject to the period being extended further if required by mutual agreement from time to time, he will not withdraw from his offer or modify the terms and conditions thereof in manner not acceptable to the NHSRCL should the Tenderer fails to



PK Sharma

observe or comply with the foregoing stipulation, the aforesaid amount shall be liable to be forfeited to the NHRCL.

- (c) The Earnest Money of the unsuccessful tenderer(s) will, save as here-in-before provided, be returned to the unsuccessful tender(s) within a reasonable time but the NHRCL shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the stipulation to keep the offer open for the period specified in the tender documents or to the Earnest Money while in their possession nor be liable to pay interest thereon.
- (d) The Earnest Money deposited by the successful Tenderer(s) will be retained towards the security deposit for the due and faithful fulfilment of the contract but shall be forfeited if the contractor fail/contractors fail to execute Agreement Bond within seven days after receipt of notice issued by the NHRCL that such documents are ready or to commence the work within Ten (10) days after receipt of orders to that effect
- (e) **Releasing of EMD**

Following procedure shall be applicable for releasing of EMD.

- (i) In case of single packet system of tendering, the Earnest Money submitted by all the tenderers except L1, may be released after the acceptance of the offer of L1.
- (ii) In case negotiations are proposed to be held, the Earnest Money submitted by all the tenderers other than the tenderers with whom negotiation has been proposed, may be released after the acceptance of the recommendations of the tender committee by the accepting authority for holding negotiations.
- (iii) If the tender is not finalized within the original validity period, the EMD of the tenderers who do not agree to extend the validity of their offers may be released. This may, however, be done only after the receipt of refusal from the tenderers for any further extension, in writing.

(B) SECURITY DEPOSIT: -

- (1) The Earnest Money deposited by the Contractor with his tender will be retained by the NHRCL as part of security for the due and faithful fulfilment of the contract by the contractor. The balance to make up the security deposit, the rates for which are given below, may be deposited by the contractor in cash or may be recovered by percentage deduction from the contractor's "on account" bills. Provided also that in case of defaulting contractor the NHRCL may retain any amount due for payment to the contractor on the pending "on account bills" so that the amounts so retained may not exceed 10% of the total value of the contract.
- (2) Unless otherwise specified in the special conditions, if any the Security Deposit/rate of recovery/mode of recovery shall be as under: -
- (a) Security Deposit for each work should be 5% of the contract value.**
- (b) The rate of recovery should be at the rate of 10% of the bill amount till the full security deposit is recovered.

K. Vasu



- (c) Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG etc. shall be accepted towards Security Deposit.

Security Deposit shall be returned to the contractor after the physical completion of the work as certified by the competent Authority. The Competent Authority shall normally be the authority who is competent to sign the contract. The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the contractors and that there is no due from the contractor to NHSRCL against the contract concerned. Before releasing the SD, an unconditional and unequivocal no claim certificate from the contractor concerned should be obtained.

- (3) No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the contract, but Government Securities deposited in terms of sub Clause (1) of this clause will be payable with interest accrued thereon.

NOTE: -

- (i) After the work is physically completed, Security Deposit received from the running bills of a contractor can be refunded to him if he so desire, in lieu of FDR/irrevocable Bank Guarantee for equivalent amount to be submitted by him.
- (ii) In case of contracts of value Rs.50 Crore and above, irrevocable Bank Guarantee can also be accepted as a mode of obtaining Security Deposit.
- (iii) No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the contract, but Government Securities deposited in terms of sub Clause (1) of this clause will be payable with interest accrued thereon.

9 RIGHTS OF NHSRCL TO DEAL WITH TENDERS: -The authority for the acceptance of the Tender will rest with the NHSRCL it shall not be obligatory on the said authority to accept the lowest tender or any other tender and no tenderers shall demand neither any explanations for the cause of rejection of his/their tender nor the NHSRCL to assign reasons for declining to consider or reject any particular tender or tenders.

10 If the Tenderer(s) deliberately gives/ give wrong information in his/their Tender or creates/create circumstances for the acceptance of his/their Tender, the acceptance of his/the NHSRCL reserves the right to reject such Tender at any stage.

11 If the Tenderer(s) expires after the submission of his/their Tender or after the acceptance of his/their tender, the NHSRCL shall deem such Tender as cancelled. If a partner of a firm expires after the submission of their Tender or after acceptance of their Tender, the NHSRCL shall deem such Tender as cancelled, unless the firm retains its character.



K. H. S. M. G.

12 TENDERER'S CREDENTIALS:

Tenderer(s) who has/have carried out any work so far with Central Govt./State Govt./ PSU's and who is/are required to submit in duplicate particulars regarding his/their financial position commensurate with amount of contracting supported by a Bank reference and credentials certificates duly attested by a Gazetted Officer and testimonials regarding experience for the type of job which this tender is invited with list of works giving cost thereof, carried out in the part along with the tender. Para regarding Eligibility criteria applicable for all open tenders costing Rs. 50 Lakhs and above given here in after may be referred in this regard.

Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

13 EXECUTION OF CONTRACT DOCUMENTS: -

The successful Tenderer(s) shall be required to execute an agreement with NHSRCL for carrying out the work according to 'General Conditions of Contract', Special Conditions/Specifications annexed to the tender and the documents as mentioned in Tender form (First Sheet & second sheet)

14. PARTNERSHIP DEEDS, POWER OF ATTORNEY ETC.

The Tenderer shall clearly specify whether the tender is submitted on his own behalf or on behalf of partnership concern, if the tender is submitted on behalf of partnership concern he should submit partnership deed along with the Tender and authorization to sign the tender document on behalf of partnership concern. The NHSRCL will not be bound by any power of Attorney granted by the Tenderer or by changes in the composition of the firm made subsequent of the execution of the contract. It may however recognize such power of attorney and changes after obtaining legal advice the cost of which will be chargeable to the contractor.

The Tenderer whether a sole proprietor or a limited company or a partnership firm if they want to act through agent or individual partner/partners should submit the Tender or at a later stage a power of attorney duly stamped and authenticated by a Notary public or by Magistrate in favour of the specific person whether he/they be partners of the firm or any other person specifically authorizing him/them to submit the Tender, sign the agreements, receive money, witness measurements, sign measurement books, compromise, settle, relinquish any claim or claims preferred by the firm and sign 'No Claim Certificate' and refer all or any disputes to arbitration.

15. PERFORMANCE GUARANTEE (Performa attached): -

As per the Railway board's letter Revised Clause 16(4) to Indian Railways General Conditions Contract (Ref.: Item-I to Railway Boards Letter No. 2007/CE. I/CT/18 Pt. XII, dated: -31.12.2010)

"Clause 16(4). Performance Guarantee"

The procedure for obtaining Performance Guarantee is outlined below:

- (a) The successful bidder shall have to submit a Performance Guarantee (PG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 30 (thirty) days and up to 60 days from the date of issue of LOA may be given by

[Handwritten signature]



the Authority who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e. from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.

(b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to **5% of the contract value**:

- (i) Irrevocable Bank Guarantee;
- (ii) Government Securities including State Loan Bonds at 5% below the market value;
- (iii) Deposit Receipts, Pay Orders, Demand Drafts and Guarantee Bonds. These forms of Performance Guarantee could be either of the State Bank of India or of any of the Nationalized Banks;
- (iv) Guarantee Bonds executed or Deposits Receipts tendered by all Scheduled Banks;
- (v) A Deposit in the Post Office Saving Bank;
- (vi) A Deposit in the National Savings Certificates;
- (vii) Twelve years National Defence Certificates;
- (viii) Ten years Defence Deposits;
- (ix) National Defence Bonds and
- (x) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of M/S National High Speed Rail Corporation New Delhi (free from any encumbrance) may be accepted.

NOTE: The instruments as listed above will also be acceptable for Guarantees in case of Mobilization Advance.

(c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid up to the stipulated date of completion plus **60 days** beyond that. In case, the time for completion of work gets extended, the contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus **60 days**.

(d) (i) The value of PG to be submitted by the contractor will not change for variation up to 25% (either increase or decrease).

In case during the course of execution, value of the contract increases by more than 25% of the original contract value, additional Performance Guarantee amounting to 5% (Five percent) for the excess value over the original contract value shall be deposited by the contractor.

On the other hand, if the value of the contract decreases by more than 25% of the original contract value, Performance Guarantee amounting to 5% (Five percent) of the decreases in the contract value shall be returned to the contractor. The PG amount in excess of required PG for decreased contract value, available with NHSRCL, shall be returned to contractor as per their request duly safeguarding the interest of NHSRCL.



[Handwritten signature]

(ii) The procedure to release "Excess PG available with NHSRCL with respect to required PG for decreased contract value" will be as under:

- (a). Contractor shall submit his request to release current PG, along with submission of a revised PG of requisite amount as notified / communicated by NHSRCL, in any of the forms as per clause 16 (4) except in cases where earlier PG has been submitted in Demand draft.
- (b). NHSRCL shall duly verify and confirm the genuinely of revised PG as per concurrent guidelines.
- (c). After conformation regarding genuinely of revised PG of requisite value, earlier PG can be released.
- (d). In cases where current PG is in Demand draft, the "Excess PG available with NHSRCL with respect to required PG for decreased contract value" shall be released duly considering the request of contractor.
- (e). The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the contractor has completed the work in all respects satisfactorily. The Security Deposit shall, however, be released only after expiry of the maintenance period and after passing the final bill based on 'No Claim Certificate' from the contractor.
- (f). Whenever the contract is rescinded, the Security Deposit shall be forfeited and the Performance Guarantee shall be encashed. The balance work shall be got done independently without risk & cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV/partnership firm.
- (g). NHSRCL shall not make a claim under the Performance Guarantee except for amounts to which it is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i). Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the NHSRCL may claim the full amount of the Performance Guarantee.
 - (ii). Failure by the contractor to pay to NHSRCL any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by NHSRCL.
 - (iii). The Contract being determined or rescinded under provision of the GCC, the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of the NHSRCL.

K. K. Vaswani



16. DOCUMENTS TESTIFYING FINANCIAL STATUS.

In support of financial status, the tenderers should submit attested certificate from employer/ Client, audited balance sheet duly certified by Chartered Accountant etc.

17. TENDER DOCUMENTS ARE NOT TRANSFERABLE.

18. The tender will be governed with General Conditions of Contract July 2014 edition corrected up to latest correction slip.

19 Multiple L-1

In case of more than one L-1 bidders, tender may be awarded to tenderer having higher Bid Capacity. In case Bid Capacity is also the same, tenderer having done more value of similar work in last three previous financial years and the current financial year up to the date of opening of the tender, may be selected for the award. Instructions with respect to Bid Capacity will follow. (Railway Board's letter no. 2017/Trans/01 /Policy dated:08.02.2018)

Signature of Tenderer(s)

National High Speed Rail Corporation Ltd,
3rd floor, Riverfront House,
Ahmedabad, 380005.

Dated:



Handwritten signature in blue ink.

SPECIAL CONDITIONS /SPECIFICATIONS OF CONTRACT (PART-I)

(A) SCOPE OF WORK OF CIVIL WORK: -

Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.

1. The detailed design of flow in the pipeline and design of pump house and sump is included in the scope of contractor. The flow in pipeline will be designed by Hydro consultant at contractors cost as proper flow of water/drainage is desired by NHSRCL. While the pump house and sump will be designed by Structural consultant. The design should be Proof checked from **IIT/NIT/Government Engineering College at the cost of contractor after approval of NHSRCL.** The contractor has to submit the detailed design in hard copy (**4 Hard copies**). Contractor has to submit the detailed working drawing on matt finish tracing paper and four set in paper print. **General Arrangement Drawings (GAD) to be provided for bidders are sample drawings for the guidance of bidders and are indicative of type of pipeline to be used.**
2. Contractor has to follow guidelines of AMC/AUDA/Indian Railway etc. while designing and submit the plan for approval of concern authorities in such a format as an agreeable/demand by authority in required copy. All interface related planning, design & execution work under this tender with AMC/AUDA/WR etc. shall be done by contractor. NHSRCL will help in this matter. In some cases, tenderer has to prepare interface drawing/document before start of work in requisite copy/size. At certain location, diversion of traffic may be required during execution of work at site. No extra payment will be made to contractor on above ground.
3. Approving authority (AMC/AUDA/Indian Railway) may suggest some modification while approving, even it has been approved by NHSRCL and 3rd party. In that case contractor has to revise the proposal as required and resubmit the drawings for approval of NHSRCL and 3rd party before submitting to AMC/AUDA/WR etc.
4. The Contractor shall maintain the sewerage system for a period of 12 months after the successful completion of testing, commissioning and handing over to the concerned authorities.
5. Foot rests within the manholes shall be provided as per the guidelines.
6. The permission for the connection of the Sewerage line to available Public/ local municipal utilities shall be obtained by the Contractor. Nothing shall be paid extra towards the same
7. Phase-I represent the identified scope of work by the NHSRCL. Phase-II represent the unidentified scope of the work until now.
The identified scope is as follows: -

K. Vasanth



SSE/W/SABARMATI OLD COLONY (WATER PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	506+800	506+900	45	100MM		At P43-SBI yard
2	506+801	506+901	45	100MM		At P42-SBI yard
3	505+300	505+400	60	100mm		At P14-SBI yard
4	505+000	505+200	170	50mm		At P9 & P10-SBI yard
SSE/W/AHMEDABAD (WATER PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	500+400	501+200	770	10"		ADI to near to IW office (kalupur office)
2	500+000	500+100	120	4"		ADI Station
3	498+600		80	6"		ADI yard
4	498+300		100	12"		ADI yard - Near proposed water tank
5	498+000	498+200	210	12"		Beetween ADI yard and anupam cinema road
SSE/W/AHMEDABAD (DRAINAGE PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	500+100	500+200	105	12"		ADI Station
SSE/W/MANINAGAR (WATER PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	497+400	497+700	295	4"		MANINAGAR NEAR CRICKET GROUND
SSE/W/VATVA (DRAINAGE PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	491+723	491+918	235	24"		
2	491+091	491+521	440	24"		
3	490+400	491+080	680	24"		
4	489+480	489+640	190	24"		
SSE/W/VATVA (WATER PIPE LINE)						
CH						
SR. NO	from	to	LENGTH	SIZE	MANHOLE	LOCATION
1	491+131	491+460	350	100MM		

8. The concrete work should be carried out with self-loading concrete mixers (i.e Fiori or Macons or similar machinery)/ Ready Mix Concrete(RMC).
9. The work schedule to be executed under this contract in addition to and/or in part suspension of the General Conditions of Contract and Standard specifications and laid in the Western Railway Works Books part III as amended by correction slip up to date.
10. The Tenderer/Tenderers shall quote his/their rates on percentage (%) above or below provided schedule of rates in metric units of Western Railway's as applicable to Ahmedabad Division and must quote tender for all the items shown in the attached schedule.
11. It shall not be obligatory on the said authority to accept the lowest tender and no tender/tenderers shall demand any explanation for cause of rejection of his/their tender.
12. The tender shall keep the offer open for a period of 90 days from the date of opening of the tenders within which period being extended, further if required by mutual agreement from time to time. Any contravention of this condition will make the tender liable for forfeit of his Earnest Money Deposit in the Performances of the foregoing stipulation.



KK Vasani

13. Tenders are invited on the basis of metric of units of rates given in the schedule of rates of NHSRCL.
14. Tenders not accompanied with proper Earnest Money Deposit in the recognize manner will be summarily rejected.
15. The NHSRCL Administration reserves the right to accept the tender in whole or part or may reject the same.
16. The tenderer is requested to sign all the pages of the tender documents.
17. When there is any conflict between these special conditions of Contract on one hand, standard specifications and General Conditions of Contract of Western Railway on the other hand, the former shall prevail.
18. Any special condition stated by the tenderer(s) in covering letter submitted along with the tender shall be deemed as part of contract to such extent only as have explicitly been accepted by the NHSRCL.
19. Partnership Deeds, Power of Attorney etc.: - In terms of clause 14 of part I 'Regulation of Tender and Contract' of the G.C.C. The NHSRCL will not bound by power of attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract. It may however, recognize such power of attorney and changes after obtaining proper legal advice the cost of which will be chargeable to the contractor. These charges have been fixed at Rs.100/- payable by the Tenderer at the time of submitting the power of attorney for security and legal advice.
20. If the power of attorney is not accepted, otherwise when for legal defect, the charges will be refunded if the power of attorney is refunded on account of legal defect for correction, separate charges of Rs. 50.00 security of corrected power of attorney will be payable by the tenderer while resubmitting power of attorney.
21. The same charges will be recoverable for security of all documents. No power of attorney in favour of an individual person will be accepted if it is irrevocable except when it is in favour of bank.
22. That the tenderer whether the sole proprietor or a limited company/individual partner/partners should submit, along with the tender, the power of attorney duly stamped and authority by Notary or by Magistrate in favour of specific person/persons whether he/they be partner/partners of the firm or another person's.
23. In case where the power of attorney/partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by advocate authorized translators of courts and licensed petition writers should be supplied by the Contractor(s) while tendering for the work.
24. None of the Engineers should be related to the tenderer/tenderers. If the tenderer/tenderers fail to give the above declaration his/their tender will be ignored. In case it is subsequently





discovered that the declaration as aforesaid in anyway in incorrect, or the information furnished therein found wrong Administration, reserves the right to take the action in accordance with clause 61 of the General Condition of the Contract will be taken. (Copy of Declaration form is attached).

- 25. Use of NHRCL Land:** - Use of NHRCL land required by the Contractor(s) for constructing temporary offices, quarters, hutments, etc. for the staff and for storing materials, will be permitted to him/them free by NHRCL, if available. The location of these offices, hutments, stores etc. will be subject to approval of Engineer or his representative. The land will be restored to NHRCL by the Contractor(s) in the same conditions as when taken over in vacant condition as desired by the Engineer, after completion of the work or at any earlier day as specified by Engineer. The failure to do so will make the contractor(s) liable to pay the cost incurred by the NHRCL for getting possession of land.
- 26. Use of Private Land:** -The Contractor will have to make his/their own arrangement for use of private land outside NHRCL limit for due fulfilment of contract or borrow pits, approaches, etc. directly with the landowners or local authority and to pay such rents if any as payable as may be mutually agreed upon between them.
- 27. Returns:** -The tenderer shall furnish to the Engineer every week during progress of the work a classified returns of the number of the people employed on the work during the week preceding the period. The contractor shall also furnish to the Engineer a report of any accident, which may have occurred within 24 hours of its occurrence.
- 28. REPRESENTATION OF WORKS:** - The contractor should nominate his representative on the **works who will authorize** to receive and acknowledge materials issued by the NHRCL and take all orders issued by inspecting officer of the NHRCL.
- 29. ERRORS, OMISSION AND DISCREPANCIES:** -The tenderer shall not take advantage of any misinterpretation of the condition due to typing or any other error and if any doubt shall bring it to the Engineer without delay in case of any contradiction, only the printed rules and books should be followed and no claim for the misinterpretation shall be entertained.
- 30. DEDUCTION FOR INCOME TAX:** - The NHRCL will deduct 2% of Income Tax on the gross of each bill while making payment to the contractors. The settlement of Income Tax should be made with the Income Tax authorities.
- 31. TRESSPASS:** - The Contractor shall at times be fully responsible for any damage of trespass committed by his agents or workmen in carrying out the work, even if such trespass in authorized by engineer.
- 32. INFLAMMABLE ARTICLES:-**Inflammable materials, such as petrol, oil etc. shall be stored separately from the other materials and do precautions as required under the Indian Explosive Act, or any other Act shall be taken by the contractor(s) to prevent any fires etc. at the site.
- 33. FIGURES, DIMENSIONS ETC:** - Figures, dimensions and drawings shall supersede measurements by scale and drawing to larger scale shall take precedence over those to **smaller** scale, special dimensions or direction in the specification shall supersede all else.



Handwritten signature in blue ink with an arrow pointing to the right.

- 34. PLEA OF CUSTOM:** - The plea of custom prevailing will not on any account be permitted as an excuse for an infringement of any of the conditions of the contract or specifications.
- 35. ARRANGEMENT FOR PERMITS/ LICENSE:** - Arrangement for permits and license for materials will not be made by the NHSRCL or any assistance given. The contractor will have to make his own arrangement. Also, no **import** license shall be arranged by the NHSRCL for this work.
- 36. TAXES AND ROYALTIES:** - All rates quoted in the tender shall be deemed to be inclusive of all taxes, royalties' payable by the contractor(s) to the Government or the public body or local authority and no additional amount will be paid or claim entertained on this account by the NHSRCL.
- 37. NOTICE TO PUBLIC BODIES:** - The contractor(s) shall give to the Municipality, Police and the other authorities all notices that may be required by law and obtain all requisite license of temporary obstructions, enclosures and pay all fees taxes/and charges which may be leviable on account of his operations in executing the contract, he should make good/repair to any damage to adjoining premises whether public or private and supply and maintain lights etc. required at sight.
- 38. WORKING HOURS:** - Work may be carried out round the clock if so desired by the contractor. The contractor(s) shall however be held responsible to ensure that none of the statutory laws are infringed.
- 39. SETTING OUT:** - The contractor(s) shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels appear during the progress of the work, the contractor at his own expenses should rectify such error if so requires to the satisfaction of the Engineer.
- 40. CARE OF STAFF:** - No quarters will be provided by the NHSRCL for the accommodations of the contractor or any of the staff employed on the work. The contractor may be allowed to erect any labour camps for housing the labour at or near the site of work on the available NHSRCL Land subject to payment of cess and water charges. The contractor shall at his own cost may call necessary and adequate arrangements for the importation, feeding and preservation at the hygiene of his staff.
- 41.** The contractor shall permit inspection, at all times of all sanitary arrangements made by him, by the Engineer or his assistance or medical staff of the NHSRCL. If the contractor fails to make adequate medical, sanitary arrangements the same will be provided by the NHSRCL the cost thereof being recovered from the contractor.
- 42. DAMAGE BY ACCIDENT, FLOODS OR TIDES:** The contractor shall take all precautions against damages from accident, floods or tides. No compensation will be allowed to the contractor for his plant or material lost or damaged by any cause whatsoever. The contractor shall be liable to make good the damages to any structure or part of the structure, plant or material of every description belonging to the administration lost or damaged by any cause during the course of contractor's work.

[Handwritten signature]



43. The Administration will not be liable to the Contractor any charges for rectification or repairs to a payment which may have occurred from any cause, whatsoever, to any part of the new existing structure, during construction.
44. **FIRST AID:** - The contractor shall maintain at readily accessible place First Aid appliances including an adequate supply of sterilized cotton wool. The appliances shall be placed under the charge of responsible person who shall be reliable during working hours.
45. **ANTI-MALARIA PRECAUTIONS:** - Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the works during construction and all receptacles used for the storage of water must be suitably protected for this purpose or must be emptied at close of the work every day.
46. **ANTI-LARVAL TREATMENT:** - Contractor(s) shall be entirely responsible for ensuring that anti-larval work as per the bye-laws of the local authorities/corporations or such other bodies etc. is provided at the cost of contractor(s).
47. **MEASUREMENTS IN METRIC UNITS:** - Measurement and payment will be made in metric units
48. **INSPECTION REGISTER:** - An inspection register shall be maintained at the site of work by the NHSRCL wherein instructions regarding the working etc. shall be recorded by the Engineer or his executive sub-ordinates. It is expected of the contractor or his representative at the site to note such instructions wherever asked upon to do so and take action accordingly.
49. **Safety at work site.**
Instructions issued in letter No. T5/1/29/O(policy) dated 13.03.2018 is required to be followed before/during the execution of the work. Copy of the same can be obtained from the concerned Engineer of NHSRCL.
50. As work involves the underground shifting of pipelines, there may be chances that railway's Signaling/telecom lines etc. are passing through the working area. So work should only start after testing trenches are dig at distances and depth to ensure no cables are beneath that depth and additional precautions and utmost care should be taken while excavating. Cost of any damages caused by contractor while working/ excavating will be borne by contractor itself. If any cables are found while execution of work, shifting of cables will be done by NHSRCL.
51. **PRODUCTION OF TEST CERTIFICATES:**
The contractor shall have to produce Test Certificates for items of material procured by him for use in the work as may be called for by the Engineer or his representative to establish that the materials conform to the specification for the works. The Contractor shall produce Test Certificates issued by an authority acceptable to the Engineer in regard to the relevant properties of high tensile steel wires, reinforcement steel or structural steel (as supplied and used by the Contractor) including the country name of manufacturer.
52. **INSPECTION REGISTER AND RECORDS:**
The Contractor/s shall maintain accurate records, plans and charts showing the dates and progress of all main operations and the Engineer shall have access to this information at all reasonable times. Records of tests made shall be handed over to the Engineer/s



K. K. Vasu

representative after carrying out the tests. The following registers will be maintained at site by the Contractor/s.

- a. **Site Order Register:** The Contractor/s shall promptly acknowledge by putting his signature in the site order against any order given therein by the Engineer or his representative or his superior officers and comply with them. The Compliance shall be reported by the Contractor/s to the Engineer in good time so that it can be checked.
- b. **Labour Register:** This register will be maintained to show daily strength of labour in different categories employed by the Contractor/s.
- c. **LOG book of events:** All events are required to be chronologically logged in this book shift wise and date wise.
- d. Any other register considered necessary by the Engineer, shall be maintained at site in which the representative of the Engineer and the Contractor will have to sign. The register Performa, charts, etc. will be property of the NHSRCL.

COMPLETION DRAWINGS

After the completion of works in all respects the contractor shall submit 5 sets of drawings containing all the details and showing the structure as it is actually constructed. These sets will also be bond as in clause 4 of this schedule.

For furnishing the completion drawings it shall be necessary that the contractor keeps a detailed record of the progress of work duly signed by NHSRCL representative and prepares the drawings when the work is in progress.



MINIMUM ELIGIBILITY CRITERIA FOR OPEN TENDERS COSTING Rs. 50 LACS AND ABOVE: -

1.	The tenderer must have successfully completed any of the three during last 07 (seven) years, ending last day of month previous to the one in which tender invited:	i.Three similar works costing not less than the amount equal to 40% (Rs. 1,04,60,835.17) of advertised value of the tender, or ii.Two similar works costing not less than the amount equal to 50% (Rs. 1,30,76,043.96) of advertised value of the tender, or iii.One similar works costing not less than the amount equal to 80% (Rs.2,09,21,670.34) of advertised value of the tender, or
2.	Total contract amount received during the last three Financial years and in the Current Financial Year.	Should be a minimum of 150% of advertised Tender value (i.e. Rs. 3,92,28,131.88), in Support of which authentic certificates shall be produced by the tenderer (s) to this effect which may be on Attested Certificate from the Employer/Client, audited balance sheet duly Certified by Chartered Account etc. should be submitted by the tenderer.

Similar work - "Shifting/Construction of Sewerage, Water & Storm pipelines in city areas".

The tenderer is required to submit proof as how they meet the eligibility criteria for the tendered work. In case they do not submit any proof for the same, the offer will be considered incomplete and will be summarily rejected.

TENDERER'S CREDENTIALS:

In support of their credentials, the tenderers should submit following documents along with their tenders.

- (a) List of Personnel, Organization available on hand and proposed to be engaged for subject work.
- (b) List of plant & Machinery available on hand (own) and proposed to be inducted (own and hired to be given separately) for the subject work.
- (c) List of works completed in the last three financial years giving description of work, organization for whom executed, approximate value of contract at the time of award, date of award and date of scheduled completion of work. Date of actual start, actual completion and final value of contract should also be given.
- (d) List of works on hand indicating description of work, contract value, and approximate value of balance work yet to be done and date of award.



Handwritten signature

NOTE: -

- (i) In case of items 'c' and 'd' above, supportive documents/certificates from the organizations with whom they have worked/are working should be enclosed.
- (ii) Tenderer shall submit adequate documentary proof of having fulfilled the eligibility criteria. There will be no back reference to confirm credentials, except for the purpose of verifying the certificates submitted along with the tender.
- (iii) If tenderer do not submit any proof of meeting with eligibility criteria as laid down in the NIT and tender conditions, offer shall be treated as incomplete and should be summarily rejected.

Address: -
.....
.....

Signature of Tenderer
Dated: -



K. K. Sharma

DECLARATION

1. I AM/WE ARE NOT RELATED TO ANY ONE EMPLOYEE ON ANY CAPACITY BY THE NHSRCL.

OR

1. I/WE DRAW ATTENTION TO THAT FACT THE I/WE ARE RELATED TO THE FOLLOWING EMPLOYEES OF THE NHSRCL.

Sr. no.	Name of the Employee	Department	Degree of Relationship

SIGNATURE OF TENDERER: - _____

ADDRESS: - _____

Note: - items which is not applicable should be struck off.



K. Vasanth

National High Speed Rail Corporation Limited

Description of work	Tender value (In Rs.)	Earnest Money To Be Deposited (In Rs)
<u>NHSRCL(ADI)/CE02/USML/2018-19/12</u> Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.	Rs.2,61,52,087.92/- (Inclusive of GST)	Rs. 2,80,800/-

NOTE: -

1. The above list and cost is only tentative and the administration reserves the right to increase or decrease the work to be carried out.
2. The contractor shall quote the rate of percentage basis above or below the NHSRCL printed revised schedule of rates in force. In case rates for any item of work do not exist in the printed schedule of rates special rates will be worked out for such items on the basis of the schedule of rates. The contractor's quotation above or below the schedule of rates will be apply to such special rates also.
3. The estimate carrying the items of the work to be carried out may be seen by the contractor in the Office of Chief Project Manager, National High Speed Rail Corporation Ltd, Third floor, Riverfront House, Ahmedabad - 380009
4. **The Rates mentioned in Tender schedules are inclusive of GST.**
5. The rates include all plant of every description and all means whatsoever employed for executing the work and also includes freight charges. No extra amount will be paid for conveying the materials from the station or the stores depot to the site of work.

Address: -

.....

.....

Signature of Tenderer

Date: -



Handwritten signature

6. Deviation/special Condition quoted by the tenderers.

- i) "Tenderers should submit their offer strictly in accordance with the terms and conditions of the tender document. Tenderer should not quote any deviation from the tender document and should not quote any conditions.
- ii) Nevertheless, as an exception, if any unavoidable deviations or conditions are quoted by the tenderers, financial impact of each of such conditions/deviations on their quoted unit rates, in terms of Rupees per unit rate, shall be clearly mentioned by the tenderer in the tender offer.
- iii) If any of the deviation/condition has no financial impact on the quoted rates, in such cases also, the tenderer must clearly mention its financial impact as 'NIL'. This is required for proper financial evaluation of such conditional / deviated offers.
- iv) Conditional offers / offers with deviations, without quantified financial impact of each of the condition / deviation on the quoted rates, shall be considered as "incomplete" and shall be summarily rejected."

Address: -

.....

.....

Signature of Tenderer
Date: -



BANK GUARANTEE BOND

To,
The Chief Project Manager,
NATIONAL HIGH SPEED RAIL CORPORATION LIMITED,
3rd, Riverfront House, Ahmedabad-380009.

1. In consideration of the NHSRCL having agreed to accept from..... (hereinafter called "the said Contractor/s), under the terms and conditions of an Agreement/Acceptance letter dated.....made between.....and
.....(herein after called "the said Agreement") the Performance Guarantee for the due fulfilment by the Contractors of the terms and conditions in the said Agreement on production of Bank Guarantee for Rs..... Rupees.....
.....only) We..... indicate the name of the Bank herein after referred to as the Bank) at the request of.....
contractor/s do hereby undertake to pay the NHSRCL an amount not exceeding Rs.....against any loss or damage caused to or suffered by or would be caused to or suffered by the NHSRCL by reason of any breach by the said contractor(s) of any of the terms or conditions contained in the said agreement.
2. We.....(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on demand from the NHSRCL stating that the amount claimed is by way of loss or damage caused to or suffered by the NHSRCL by reason of breach by the said contractor/s of any of the terms or conditions contained in the said agreement or by reasons of the contractor/s failure to perform the Agreement, any such demand made on the bank shall be conclusive as regards the amount due and payable to the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....
3. We undertake to pay to the NHSRCL any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) /supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s)/suppliers(s) shall have no.....against us for making such payment.
4. We,(indicate the name of the bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement, including maintenance/Warranty period, and that it shall continue to be enforceable till the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till..... office/Department) NHSRCL certifies that the terms and conditions of Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharged this guarantee, unless a demand or claim



K. H. Joshi

under this guarantee is made on us in writing on or before the.....we shall discharge from all liability under this guarantee thereafter.

5. We,(indicate the name of the Bank) further agree with the NHSRCL that the NHSRCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone from any time or from time to time any of the powers exercisable by the Government against the said contract and to forebear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reasons of any such variation, or extension being granted to the contractor/s or for any forbearance act or omission on the part of the NHSRCL or indulgence by the NHSRCL to the said contractor(s) or such any matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the bank or the Contractor(s)/Supplier(s).
7. We,(indicate the name of Bank)undertake not to revoke this guarantee during its currency except with the previous consent of the NHSRCL in writing.

Dated this.....day of.....year 2019.



[Handwritten signature]



SPECIAL CONDITIONS & SPECIFICATION OF CONTRACT (PART-II)

1. Variation in quantities during execution of Works Contracts Reference Railway Boards Letter No. 2007/CE-I/CT18 dated 28.09.2007)

New Clause 42(4) to Indian Railways General Conditions of Contract (Ref.: Item-9 to Railway Board's letter No.2007ICE-I/CT/18, dated 28.09.2007 and Item-2 to letter No. 2007 ICE.I/CT 118 Pt. XIII, dated 31.12.2010)

The procedure detailed below shall be adopted for dealing with variations in quantities during execution of works contracts:

1.1 Individual NS items in contracts shall be operated with variation of plus or minus 25% and payment would be made as per the agreement rate. For this, No finance concurrence would be required.

- 1.2 In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, the same shall be got executed by floating a fresh tender. If floating a fresh tender for operating that item is considered not practicable, quantity of that item may be operated in excess of 125% of the agreement quantity subject to the following conditions.

(i) Quantities operated in excess of 125% but up to 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;

(ii) Quantities operated in excess of 140% but up to 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;

(iii) Variation in quantities of individual items beyond 150% will be prohibited and would be permitted only in exceptional unavoidable circumstances with the concurrence of associate finance and shall be paid at 96% of the rate awarded for that item in that particular tender.

(a) The variation in quantities as per the above formula will apply only to the Individual items of the contract and not on the overall contract value.

(b) Execution of quantities beyond 150% of the overall agreement value should not be permitted and, if found necessary, should be only through fresh tenders or by negotiating with existing contractor, with prior personal concurrence of JGM/F/ADI and approval of GM/Civil/NHRCL/ADI.

- 1.3 In cases where decrease is involved during execution of contract:

(a) The contract signing authority can decrease the items up to 25% of individual item without finance concurrence.



[Handwritten signature]

(b) For decrease beyond 25% for individual items or 25% of contract agreement value, **the approval of an officer not less than rank of GM/NHRCL/ADI may be taken, after obtaining 'No Claim Certificate'** from the contractor and with finance concurrence, giving detailed reasons for each such decrease in the quantities.

(c) It should be certified that the work proposed to be reduced will not be required in the same work.

1.4 The limit for varying quantities for minor value items shall be 100 % (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1% of the total original agreement value.

1.5 No such quantity variation limit shall apply for foundation items.

1.6. As far as SOR items are concerned, the limit of 25% would apply to the value of SOR schedule as a whole and not on individual SOR items. However, in case of NS items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

1.7. The aspect of vitiation of tender with respect to variation in quantities should be checked and avoided. In case of vitiation of the tender (both for increase as well as decrease of value of contract agreement), sanction of the competent authority as per single tender should be obtained.

2. The work is required to be completed within the completion period as mentioned in notice inviting tenders from the date of letter of acceptance of tender.

3. The contractor shall be required to maintain the work satisfactorily in all respect for a period of **Six month from the date of completion of work and** issue of completion certificate by the sub-ordinate in charge of the work, in terms of claim of General Conditions of Contract. Failing **which** to keep the structure in style stated as above will be recovered from the security deposit of this work or any other work.

4. Taxes as applicable from time to time will be deducted from Contractor's running and final bills as per extent rules.

(a) If extra steel for reinforcement over that in drawing or any extra quantity of a cement over to the standard scale has to be issued to the contractor, due to unreasonable waste, bad workmanship or any other similar cause, the cost of such extra cement and steel will be recovered from the contractor at DOUBLE the rate as increased by freight handling, supervision and other charges as per extent rules.

(b) This formula will also be applied for less utilization of cement/steel.

K. K. Sharma



5. Measurements signing measurements billing comprising to settle to relinquish any claim preferred by the firm and sign 'NO CLAIM CERTIFICATE'.
6. (i) The provision of clause 63 & 64 to the General Conditions of Contract will be applicable only for the settlement of claims or disputes between the parties for values less than or equal to 20% of the value of the contract provisions of clause 63 & 64 and
(ii) When the claim of disputes is of value more than 20% the value of the contract, other relevant clause of the General Conditions of Contract will not be applicable and arbitration will not be a remedy for settlement of such dispute.
7. The special condition 6(i) and (ii) shall prevail over existing clause 63 of the General Conditions of Contract.
8. "If any dispute arises between the parties with respect to this agreement, any application or suit shall be instituted only in the Court with the local limits of whose jurisdiction, the Chief Project Manager, National High Speed Rail Corporation Limited (NHRCL), **Ahmedabad** is situated & both the parties shall be bound by this clause."
9. In every case in which the virtue of the provisions of section 12 sub-section (-) of The workmen's compensation Act 1973 NHRCL is obliged to pay the compensation to workmen employ by the contractor and supplied to the NHRCL for executing the work. NHRCL will recover from the contractor the amount of compensation so paid without prejudice to the right of NHRCL deducting from Security Deposit or and such due to the contractor whether under this contract otherwise, NHRCL will not bound to contest any claim made against it. NHRCL will not bound to contest any claim made against it under section-2 sub-section(1) of the said Act except on the written request of the contractor and upon his giving to NHRCL full security for all cost for which NHRCL might become liable in consequence of any tendering and such claim.
10. **Cess Charges.**
 - (a) For contractor's labour employed/residing at station and colonies where NHRCL sanitary facilities exist; contractor(s) will be required to pay cess charges as per rules in force on the NHRCL from time to time.
 - (b) For labour working between stations or at isolated place where NHRCL facilities for their labour in terms of clause 59(4) of the General Conditions of Contract in case of any failure of his/their part, the necessary facilities shall be provided by the NHRCL administration at the cost of contractor(s) and expenditure thus incurred will be recovered from his/their bills.
11. **Drinking Water.**
 - (a) The tenderer shall provide and maintain at suitable place at easily accessible to labour a sufficient supply of water fit for drinking.

Kp/Smg



(b) The contractor(s) shall make his/their own arrangement for people and water Supply required for the execution of the work as well as for this labour.

12. Contractor's responsibility to arrange Tools, Plants, Machineries: -The contractor should make their own arrangements for all plants and tools required for the successful completion of the work in time.

13. Material supplied by NHSRCL: -Tenderer shall be responsible to see that the material such as cement, steel etc. supplied by the administration are utilizing for the sole purpose, for which they have been issued to him, failing which, he is liable to dealt according to law for any misuse of these commodities by himself, his agents or workmen, etc.

14. Clause 26 to GCC: Provision of Efficient and competent staff at work sites by the contractor.

The contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound & proper manner and shall employ only such supervisors, workmen & labourers in or about the execution of any of these works as are careful and skilled in the various trades.

26.2.The contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.

26.3.In the event of the Engineer being of the opinion that the contractor is not employing on the works a sufficient number of staff and workmen as is necessary for proper completion of the works within the time prescribed, the contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour as specified by the Engineer within seven days of being so required and failure on the part of the contractor to comply with such instructions will entitle the NHSRCL to rescind the contract under Clause 62 of these conditions.

15. Wages to Labour: (GCC Clause 54) - The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act" and the Rules made thereunder in respect of any employees directly or through petty contractors or subcontractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract.

If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the NHSRCL whether in connection with any work being executed by the Contractor or otherwise for the purpose of the NHSRCL such labour shall, for the purpose of this Clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the NHSRCL, such money shall be deemed to be moneys payable to the NHSRCL by the



Handwritten signature in blue ink.

Contractor and on failure by the Contractor to repay the NHRCL any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the NHRCL shall be entitled to recover the same from any moneys due or accruing to the contractor under this or any other Contract with the NHRCL.

16 Apprentices Act: (GCC Clause 54-A)

The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly or through petty contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the contractor directly or through petty contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the NHRCL may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

Note: The contractors are required to engage apprentices when the works undertaken by them last for a period of one year or more and/or the cost of works is rupees one lakh or more.

17 Provisions of Payments of Wages Act: (GCC Clause 55) The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall never the less be deemed to comprise persons employed by the contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the NHRCL deduct the same from any moneys due to the Contractor in terms of the contract. The NHRCL shall be entitled to deduct from any moneys due to the contractor (whether under this contract or any other contract) all moneys paid or payable by the NHRCL by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor.

18. PROVISION OF CONTRACT LABOUR (REGULATION AND ABOLITION) ACT 1970. (GCC Clause 55-A)

18.1 The Contractor shall comply with the provisions of the contract labour (Regulation and Abolition) Act 1970 and the contract labour (Regulation and Abolition) central rules 1971 as modified from time to time. Whenever applicable and shall also indemnify the NHRCL from and against any claims under the aforesaid Act and the Rules.

18.2 The contractor shall obtain a valid licensee under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion



K. K. K. K.

of the work. Any failure to fulfil this requirement shall attract the penal provision of the contract arising out of the resultant non-execution of the work.

- 18.3** The contractor shall pay to employed by him directly or through sub-contractor the wages as per provision of the aforesaid Act and the Rules wherever applicable. The contractor shall not **withdraw from** the provision of the aforesaid Act and Rule wherever applicable. The contractor shall not **withdraw from** the provision of the contract to the country, cause to be paid the wages to labour indirectly engaged on the work including any engaged by his sub-contractor in connection with the said works, as if the labour had been immediately employed by him.
- 18.4** In respect of all labour directly or indirectly employed in the work performance of the contractor's part of the contract, the contractor shall comply with or cause to be complied with provision of the aforesaid Act and Rules wherever applicable.
- 18.5** In every case which may virtue of the provision of the aforesaid Act and Rules, the **NHRCL is obliged to pay amount of wages to a workman employed by the contractor** or his sub-contractor in execution of the work or to incur any expenditure in providing welfare and health amenities required to provide under the aforesaid Act and Rules or to incur expenditure on account of the contingent liability of the NHRCL due to the contractor's failure to fulfil his statutory obligations under the aforesaid Act and Rules the NHRCL will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred and without prejudice to the right of NHRCL under section 20, sub section (2) and section 21, sub section(4) of the aforesaid Act, the NHRCL shall be at liberty to recover such amount or part thereof by deducting the security deposit and/or from any sum due by the NHRCL to the contractor whether the contractor or otherwise.
- 18.6** The NHRCL shall not be bound to contest any claim made against it under sub-section (1) of section 20 and sub-section (4) of section 21 of the aforesaid Act **except** on the written request of the contractor and upon his giving to the NHRCL might become liable in contesting such claim. The decision of the NHRCL regarding the amount actually recoverable from the contractor as stated above shall be final and binding on contractor.
- 19. Provisions of Employees' Provident Fund and Miscellaneous Provisions Act 1952 (GCC Clause 55-B)**-In reference to Railway Board's Letter No.2012/CE-1/CT/0/22 dated 14-12-2012 circulated vide PCE / CCG's letter No.W.118/0/Vol.V (W.6) dated 01.01.2013, the contractor shall comply with the provisions of Para 30 and 36 - B, of the Employer's Provident Fund Scheme 1952 : Para 3 and 4 of Employees' Pension Scheme 1995 and Para 7 & 8 of Employees' Deposit Linked Insurance Scheme 1976 as modified from time to time through enactment of "Employees Provident Fund and Miscellaneous Provisions Act 1952, where ever applicable and shall also indemnify the NHRCL from and against any claims under the aforesaid Act and the rules"
- 20. Implementation of building and other construction workers (RECS) act 1996 and the building and other construction worker's welfare cess act 1996 in Railway contracts (GCC Clause 55-C)**

[Handwritten signature]



As per Railway Board letter circular No. 2008/CE-I/CT/6 dated 09.07.2008 circulated vide Western Railway Head Quarter Office Church gate letter No. W.118/0 Vol.III (W6) dated 24.07.2008 and further amended vide board letter No 2008/GE-I/ CT/6 Dt 29.11.13 circulated vide PCE/CCG.s letter No W/118/0 Vol -VI (W6) Dt 26.12.13

"The tenderers for carrying out any construction work must get themselves registered from the Registering Officer under Section 7 of the Building and Other Construction Workers Act, 1996" and rules made thereto by the concerned State Govt. and submit certificate of Registration issued from the Registering Officer of the concerned State Govt. (Labour Dept.) As per this Act, the tenderer shall be levied a cess @ 1% of cost of construction work, which would be deducted from each bill. Cost of material, when supplied under a separate schedule item, shall be outside the purview of cess".

- 21. Reporting Of Accidents: (GCC Clause 56)** The Contractor shall be responsible for the safety of all employees directly or through petty contractors or sub-contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works Indian Railways Standard General Conditions Of Contract As On 30th June 2014 Page 51 to the Engineer or the Engineers Representative and shall make every arrangements to render all possible assistance.
- 22. Provision Of Workmen's Compensation Act : (GCC Clause 57)** In every case in which by virtue of the provisions of Section 12 Sub-Section (1) of the Workmen's Compensation Act 1923, NHSRCL is obliged to pay compensation to a workman directly or through petty contractor or subcontractor employed by the Contractor in executing the work, NHSRCL will recover from the Contractor the amount of the compensation so paid, and, without prejudice to the rights of NHSRCL under Section 12 Sub-section (2) of the said Act, NHSRCL shall be at liberty to recover such amount or any part thereof by deducting it from the Security Deposit or from any sum due by NHSRCL to the Contractor whether under these conditions or otherwise, NHSRCL shall not be bound to contest any claim made against it under Section 12 Sub-Section (1) of the said Act except on the written request of the Contractor and upon his giving to NHSRCL full security for all costs for which NHSRCL might become liable in consequence of contesting such claim.
- 23. Provision Of Mines Act : (GCC Clause 57-A)** The Contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or re-enactment thereof for the time being in force and any rules and regulations made thereunder in respect of all the persons directly or through the petty contractors or sub-contractors employed by him under this contract and shall indemnify the NHSRCL from and against any claims under the Mines Act, or the rules and regulations framed thereunder, by or on behalf of any persons employed by him or otherwise.
- 24. NHSRCL Not To Provide Quarters For Contractors :(GCC Clause 58)** No quarters shall normally be provided by the NHSRCL for the accommodation of the Contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the NHSRCL's discretion, recoveries shall be made at such rates as may be fixed by the NHSRCL for the full rent of the buildings and equipment's therein as well as charges for electric current, water supply and conservancy.



- 25. Labour Camps: (GCC Clause 59 (1))** The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty contractors or sub-contractors and for temporary creche (Bal-mandir) where 50 or more women are employed at a time. Suitable sites on NHRCL land, if available, may be allotted to the Contractor for the erection of labour camps, either free of charge or on such terms and conditions that may be prescribed by the NHRCL. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.
- 26 Compliance To Rules For Employment Of Labour :(GCC Clause 59(2))** The Contractor(s) shall conform to all laws, bye-laws rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty Contractors or Subcontractors on the works.
- 27 Preservation Of Peace :(GCC Clause 59(3))** The Contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and security of property in the neighbourhood of the works. In the event of the NHRCL requiring the maintenance of a special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the NHRCL shall be recoverable from the Contractor.
- 28 Sanitary Arrangements: (GCC Clause 59(4))**
The Contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the NHRCL Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the NHRCL. Should the Contractor fail to make the Indian Railways Standard General Conditions Of Contract As On 30th June 2014 Page 52 adequate sanitary arrangements, these will be provided by the NHRCL and the cost therefore recovered from the Contractor.
- 29 Outbreak Of Infectious Disease: (GCC Clause 59(5))**
The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the NHRCL, Medical Authority. Should Cholera, plague, or other infectious disease break out, the Contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the Engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the NHRCL and the cost therefore recovered from the Contractor.
- 30 Medical Facilities at Site: (GCC Clause 59(7))**
The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the NHRCL. Medical Authority in relation to the strength of the Contractor's resident staff and workmen.

K. K. S. S. S.



31 Use of Intoxicants: (GCC Clause 59(8))

The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.

32 Restrictions On the Employment of Retired Engineers of Railway Services Within Two Years of Their Retirement: (GCC Clause 59(10))

The Contractor shall not, if he is a retired Government Engineer of Gazetted rank, himself engage in or employ or associate a retired Government Engineer of Gazetted rank, who has not completed two years from the date of retirement, in connection with this contract in any manner whatsoever without obtaining prior permission of the President and if the Contractor is found to have contravened this provision it will constitute a breach of contract and administration will be entitled to terminate the contract at the risk and cost of the contractor and forfeit his Security Deposit.

33 Non-Employment of Labourers Below the Age of 15: (GCC Clause 60(1)) The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or subcontractors for the execution of work.

34 Medical Certificate Of Fitness For Labour : (GCC Clause 60(2)) It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Performa at Annexure-VIII) granted to him by a certifying surgeon certifying that he is fit to work as an adult, is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work; a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expenses to be incurred on this account shall be Indian Railways Standard General Conditions of Contract as On 30th June 2014 Page 53 borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.

35 Period of Validity of Medical Fitness Certificate: (GCC Clause 60(3)) A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.

36 Medical Re-Examination Of Labourer : (GCC Clause 60(4)) Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 to 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so



[Handwritten signature]

directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh certificate of fitness, as the case may be.

EXPLANATIONS: (1) Only Qualified Medical Practitioners can be appointed as "Certifying Surgeons" and the term "Qualified Medical Practitioners" means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (VII to 1916) or in the Schedule to the Indian Medical Council Act, 1933 (XXVII) of 1933. (2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

37. The NHSRCL will not acquire any land for the purpose of movement of vehicle of the contractor's in doing earthwork.
38. All the available vehicles and equipment of the contractor can be drafted by the NHSRCL Administration in case of accidents/natural calamities involving human lives. The payment for such drafting shall be made according to the rates as shall be fixed by the Engineer. However, if the contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the **GM/Civil/NHSRCL/ADI** within 30 days of getting the decision of the engineer, supported by analysis of the rates claimed. The **GM/Civil/NHSRCL/ADI** decision after hearing both the parties in the matter would be final and binding on the Contractor and the NHSRCL.
39. **Arbitration clause:** - Modified Clause 64 of General Condition of contract -2014 for implementation of Arbitration and Conciliation (Amendment) Act-2015 shall be applicable.
40. The payment of contractor shall be made through Electronic Fund transfer (EFT) or Electronic Clearing System(ECS) for which Parties tendering should provide the details of bank account in line with RBI guidelines for the same. These details will be including Bank Name, Branch name and address, Account type, Bank Account No. and Bank and Branch code as appearing in the MICR cheque issued by the bank. The tenderer(s) should also attach certificate from their bank certifying the correctness of all the above mentioned information. If the tender(s) is maintaining account with bank branches having no IFSC code, may get their account transferred to bank branches having IFSC code so that payment can be made through NEFT/RTGS mode.
The above details is required to be submitted by the contractors before signing of contract agreement in the format provided in **Annexure 'A'**.
41. **Non-Compliance with the instructions/directive of the Engineer's representative: -**
- (a) The contractor shall always comply with the instructions/directive issued by the Engineer's representative from time to time. In the event of any non-compliance with such instructions/directives apart from and in addition to other remedies available to the NHSRCL as specified herein above, the Engineer's representative may employ at the work site the NHSRCL workman with necessary equipment's as considered appropriate and adequate by him to provide the requisite condition for the safe and unhampered movement of Railway traffic. The decision of the Engineer's representative in regard to the need, appropriate and adequacy of the deployment of the NHSRCL workmen with necessary equipment's shall be final and conclusive.

12/10/2019



- (b) When the workman with necessary equipment's are deployed in the above manner, recovery at the following rates shall be made from the contractor's dues under this contract or any other money of the contract available with the NHSRCL under this contract or any other contract. **The recovery for the total workmen hours employed at the work site for the above purpose shall be as per actual payment of NHSRCL labour deployed for the work.** The aggregate period of the workmen hours for the above recoveries shall be reckoned from time the NHSRCL workman are actually deployed at the site till the work is completed to the satisfaction of the Engineer's representative, whose decision in this regard shall be final and conclusive. The decision of the Engineer in charge shall be final and binding on the contractor.
- (c) If the contractor does not comply with the instructions, directives of the Engineer's representative, as part from an in addition to the remedies available to NHSRCL as specified herein above without prejudice to the NHSRCL's right in this regard, the Engineer's representative, which for the purpose of this clause shall exclude suspended the contractor work till the Engineer's representative is satisfied that the contractor is in a position/will comply with the instructions/directives issued by the Engineer's representative.
- (d) Similarly if the contractor fails to transport the material, the NHSRCL, if it so desires, shall deploy its own transport means for carrying out the necessary transportation and in addition to the labour deployed for which deduction shall be made at the rate of Rs. 30/- per man hour, deduction at the rate of Rs. 10/- per tonne per Km. for lead up to 30Kms. and at the rate of Rs. 5/- per tonne per Km. for lead beyond 30Kms. shall be made.
- (e) The decision of Engineers' representative in this regard shall be final and conclusive. The Contractor shall not have any claim whatsoever against the NHSRCL for such a short terms/long terms suspension of the contacted work.
- (f) During the above-mentioned period of suspension of work, the contractor shall not in any manner attempt to carry out any work at the work site. Any such attempt of the contractor shall than be liable for further appropriate action under the relevant provision of Indian Railway Act.

Address: -
.....
.....

Signature of Tenderer
Dated: -



KK Vaswani 39



Annexure 'A'

FORMATE FOR PAYMENT THROUGH "NEFT/RTGS" SYSTEM
CONTRACTOR/VENDOR PAYMENT

Sr. No.	Name of Party	Detail given by contractor/Vender
1	Work/Supply order No.	
2	Date	
3	Name of Bank	
4	Address	
5	Name of Bank Branch	
6	Address	
7	Place	
8	Account Number	
9	MICR Code	
10	IFS Code	
11	Mobile No (for SMS)	
12	E-Mail ID	
13	PAN Number	

Note: -

- Please attached Xerox copy of 1st page of pass book (Containing account number, name of account holder, branch name) and Xerox of one blank cheque (for IFS code) to ensure the prompt payment.
- Form should be filling up in two copies.

Signature
AUTHORISED SIGNATORY



[Handwritten signature]

Goods & Service Tax (GST) Act – 2017.

1. In terms of Railway Board's letter No. 2017/CE-I/CT/4/GST dated 23.06.2017

"Subsequent to the enactment of GST Act, Board (ME) has approved modification to para (a) of Clause 6, Part-I of Indian Railways Standard General Conditions of Contract, July 2014. The revised para (a) of clause 6 shall be read as under: -

Care in Submission of Tenders:

(A) (i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all-inclusive to accord with the provisions in Clause – 37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.

(ii) Tenderers will examine the various provision of the Central Goods and Services Tax Act, 2017(CGST)/Integrated Goods and Services Tax Act, 2017(IGST)/Union Territory Goods and Services Tax Act, 2017(UTGST)/respective state's State Goods and Services Tax Act(SGST) also, as notified by Central/State Govt. and as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.

(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to NHSRCL immediately after the award of contract, without which no payment shall be released to the contractor. The contractor shall be responsible for deposition of applicable GST to the concerned authority.

(iv) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the NHSRCL shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.

2. In terms of Railway Board's letter No. 2016/CE-I/CT/12/GST/Pt.I dated 29.6.17

"On Indian Railways presently 'work executed by contractor' is recorded in measurement books by railway, duly accepted by contractor. Railway prepares 'on account/final contract certificate' for the payable amount based on the work executed and the rates quoted by the contractor duly deducting various statutory taxes like – work contract tax/service tax/royalties/income tax etc. as per applicable rates. Further, railways deposit the statutory deductions themselves to the concerned authorities. With GST Act in force, it will be the responsibility of service providers (i.e. contractors) to submit the invoice (bill) duly segregating the GST component from the Gross amount of work executed.



H. K. Sharma

Railways are therefore advised to follow the procedure as mentioned below while dealing with contractor's payment, once GST is applicable.:

- (A) (i) All works contracts are to be provided with goods/service code based on the type of contract. In case contract consists of both goods & service, then interpretation regarding nature of contract shall be done as per clause 8, Chapter III of CGST Act, 2017. The goods/service code is notified by Ministry of Finance and can be downloaded from the website www.cbec.gov.in.
- (ii) The 'on account/final contract certificate' shall be prepared by the Railway on the basis of quantity of work executed and the agreement rates, duly segregating the GST component as detailed in para (iii) below.
- (iii) Since the agreement rates of contracts are inclusive of all taxes as per clause 37 of GCC 2014, the calculation of 'Gross amount of work executed'. 'Amount of work executed excluding GST amount' and 'GST amount' in the 'on account/final contract certificate' shall be done as under: -

Let Z = Gross amount of work executed on the basis of quantum of work executed and the agreement rates.

X = Amount of work executed excluding GST amount.

Y = GST amount as per applicable GST rate for that goods/service code.

R = Percentage rate of GST for that goods/service code.

Then, $Z = X+Y$, $Y=X *R/100$.

- (iv) Percentage rate of GST for various types of goods/services as finalized by GST council can be downloaded from the website www.cbec.gov.in.
- (B) (i) Once the 'on account/final contract certificate' is prepared by NHRCL and communicated to contractor, the contractor shall submit invoice (bill) on his Letter head duly segregating the 'Amount of work executed excluding GST amount' and 'GST amount' (i.e. "X" & "Y" as mentioned in para 3(A)(iii) (above) along with Invoice No. (bill No) and all other details required under GST Act. The sample GST compliant invoice is annexed herewith.
- (ii) In case contractor is liable to be registered under GST Act, NHRCL shall pay to the Contractor 'Gross amount of work executed' (i.e. "Z" as mentioned in para 3A(III)above) duly deducting all other leviable taxes like I/Tax, labour cess, royalty etc. as applicable. Contractor shall be liable to pay 'GST amount' to respective authority himself. Whereas, NHRCL shall deposit all other taxes deducted to concerned authority as is being done presently.
- (iii) In case contractor is not liable to be registered under GST Act, contractor shall be paid 'Amount of work executed excluding GST amount' (i.e. "X" as mentioned in para 3A (iii) above) duly

K. P. Singh



deducting all other leviable taxes like I/Tax, labour cess, royalty etc. as applicable. NHSRCL shall deposit 'GST amount' as well as all other taxes deducted to concerned authority.

(iv) In case any need arises to modify the Invoice (Bill) due to any reason, contractor shall submit amended fresh invoice for processing the payment.

ANNEXURE

1	Supplier Name
2	Supplier GSTIN
3	Invoice No.
4	Invoice Issue Date
5	Total Value
6	Taxable Value
7	Goods A/C HSN, Service Accounting Code.
8	Goods and Services Description
9	Unit Qty. Code
10	Quantity
11	Rate
12	Whether eligible for ITC – Partial/Full/NIL
13	IGST Rate
14	IGST Charged Amount
15	CGST Rate
16	CGST Charged Amount
17	SGST/UGST Rate
18	SGST Charged Amount
19	Cess Rate
20	Cess Charged Amount
21	Name/Recipient of Service / Goods
22	Place of Supply
23	Recipient GSTIN
24	Tax Payable on Reverse Charge Basis(Y/N)
25	TDS.

- (C) Structural steel work shall conform to the requirement as specified in Indian Railway Unified Standard Specifications (Works and Materials) Vol. I & II.
- (D) Necessary purchase bill along with test certificate for steel shall be obtained and submitted to the Engineer in Charge. Steel without the test certificate from approved laboratory/Engineering college shall not be used in the work. Certified copy of the same shall be submitted to **GM/Civil/NHSRCL/ADI** Office along with running bills/final bills. Steel shall be tested for Tensile strength and bend test as per IS:1599 as specified in Indian Railway Unified Standard Specifications (Works and Materials) Vol. I & II.

K. Vasanth



- (E) Quantity for this item shall be calculated as per nominal weight of steel section for the length actually used in the work. No payment will be made for the wastage and the contractor will be allowed to take away the scrap and excess steel away from site.
- (F) The contractor shall be responsible for getting the measurement of steel entered in to steel register and signed by the Engineer in charge of the work before concreting is done to avoid dispute regarding quantity of steel used in the work.
- (G) The rates quoted for this item is deemed to be inclusive of the cost of binding wire and no separate payment shall be admissible for the same.
- (H) The steel shall be kept by the contractor under his custody at the site of work and NHSRCL will not be responsible for any theft thereof.
- (I) The quantity so payable under relevant item shall be restricted to the quantity as per approved plan/drawing and decision of the Engineer in Charge in this regard shall be final and binding upon the contractor.



[Handwritten signature]

Technical Specifications

1. Works shall be carried out as per these technical specifications or Unified Standard Specifications (Works & Materials) Vol. I & II of 2010 with latest amendments of Western Railways.

2. Specification of Cement

2.1. The cement used shall be any of the following and type selected should be appropriate for the intended use.

2.1.1.33 Grade Ordinary Portland Cement conforming to IS:269

2.1.2.43 Grade Ordinary Portland Cement conforming to IS:8112

2.1.3.53 Grade Ordinary Portland Cement conforming to IS:12269

2.1.4. Rapid hardening Portland Cement conforming to IS:8041

2.1.5. Portland slag cement conforming to IS:455

2.1.6. Portland pozzolana Cement (Fly ash based) conforming to IS:1489(Part-1)

2.1.7. Portland pozzolana Cement (calcined clay based) conforming to IS:1489(Part-2)

2.1.8. Hydrophobic Cement Conforming to IS:8043

2.1.9. Low heat Portland cement conforming to IS:12600

2.1.10. Sulphate resisting Portland cement conforming to IS:12330

Note: Portland pozzolana Cement shall not be used for PSC Work

2.2. The cement shall be packed in jute sacking bags conforming to IS:2580-1982, double hessian bituminised (CRI type) or woven HDPE conforming to IS:11652-1986 woven polypropylene conforming to IS:11653-1986, jute synthetic union conforming to IS:12174-1987, or any other approved composite bags, bearing the manufacturers name or his registered trade mark if any, and grade and type of cement.

2.3. Every delivery of cement shall be accompanied by a producer's certificate confirming that the supplied cement conforms to relevant specification. These certificates shall be endorsed to the Engineer for his record. Certified copy of the same shall be submitted to Divisional Office along with running bills/final bills.

2.4. Every consignment of cement must have identification marks on packages indicating date of manufacture and grade and type of cement. Cement when brought to work shall not be more than 6 weeks old from the date of manufacture. In case due to some reason it is not possible to use the cement within three months then it should be ensured that older lot is used in the lean concrete or other unimportant items of work. Effective precautionary measures shall be taken to eliminate dust nuisance during loading or transferring cement. The procurement of cement shall be planned by the contractor this does not affect the progress of work.



K. K. Sharma

- 2.5. Cement in bags shall be stored and stacked in a shed which is dry, leak proof and as moisture proof as possible. Flooring of the shed shall consist of the two layers of dry bricks laid on well consolidated earth to avoid contact of cement bags with the floor. Stacking shall be done about 150 to 200mm clear above the floor using wooden planks, old wooden sleepers or scrap GI sheets. Cement bags shall be stacked at least 450mm clear of the walls and in rows of two bags leaving in a space of at-least 600mm between two consecutive rows. In each row the cement bags shall be kept close together so as to reduce air circulation. Stacking shall not be more than 10 bags high to avoid lumping under pressure. In stacks more than eight bags high, the cement bags shall be arranged in header and stretcher fashion, i.e. alternately lengthwise and crosswise so as to tie the stacks together and minimize the danger of toppling over.
- 2.6. Different type of cement shall be stacked and stored separately. Cement bags shall be stacked in a manner to facilitate their removal and use in the order in which they are received. For extra safety during monsoon, or when cement is expected to be stored for an unusually long period, each stack shall be completely enclosed by a water proofing membrane, such as polyethylene/tarpaulin, which shall cover the top of the stack. Care shall be taken to see that the water proofing membrane is not damaged at any time during use. Cement which is set or partially set should on no account be used. Storage of cement at the worksite shall be at the contractor's expense and risk. Any damage occurring to cement due to faulty storage in contractor's shed or on account of negligence on his part shall be the liability of the contractor.
- 2.7. After receipt of each lot of cement at godown a sample of cement at the direction of Engineer in charge shall be tested at contractor's own cost for (a) Fineness, (b) Soundness, (c) Setting time (initial and Final), (d) Compressive strength & (e) consistency of standard cement paste as prescribed in IS code) IS:4031 Part-II, Part-III, Part-V & Part-VI for each lot or every 50 tonnes or part thereof. Only on receipt of satisfactory certificates this cement shall be allowed to be used on the work. Certified copy of the same shall be submitted to Divisional Office along with running bills/final bills.
- 2.8. Cement shall be procured/purchased from cement factories/authorized dealers/retailers from various popular brands e.g. **Acc, Shriram Cement, JK Cement, Ultratech**. The contractor shall have to submit the cash memo along with the lot of cement purchased from the various cement factories/authorized dealers/retailers to Engineer in Charge in token proof of purchase of cement from reputed cement factories/authorized dealers/retailers. No cement shall have accepted by the Engineer in Charge without cash memo. Certified copy of the same shall be submitted to Divisional Office along with running bills/final bills.

K. Vasanth



2.9. Although cement payment is in MT as per item of tender, total quantities so paid shall be limited to quantity actually used in work, subject to further not exceeding the quantity laid down in Indian Railway Unified Standard Specifications (Works and Materials) Vol. I & II whichever is less.

2.10. No payment shall be made for the cement used in works rejected by Engineer. All empty bags shall be taken away by the contractor after use of cement and cost of empty cement bags shall not form part of quoted rates against the item of cement.

2.11. Cement consumption register shall be meticulously maintained giving quantity of work done/consumption of cement of each day.

2.12. Cement bags left after completion of work shall be taken away by the contractor and Railway shall not make any payment against these bags.

3. Specifications for the Cement Concrete Pipes (with and without Reinforcement)

3.1. For details of different classes of pipes Table below may be referred to. The pipes shall be with or without reinforcement as required and shall be of, the specified class. These shall conform to IS: 458. The reinforced cement concrete pipes shall be manufactured by centrifugal (or spun) process while un-reinforced cement concrete pipes by spun or pressure process. All pipes shall be true to shape, straight, perfectly sound and free from cracks and flaws. The external and internal surface of the pipes shall be smooth and hard. The pipes shall be free from defects resulting from imperfect grading of the aggregate mixing or moulding. Concrete used for the manufacture of unreinforced and reinforced concrete pipes and collars shall not be leaner than 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate). The maximum size of aggregate should not exceed one third of the thickness of the pipe or 20 mm whichever is smaller. The reinforcement in the reinforced concrete pipes shall extend throughout the length of the pipe. The circumferential and longitudinal reinforcements shall be adequate to withstand the specified hydrostatic pressure and further bending stresses due to the weight of water when running full across a span equal to the length of pipe plus three times its own weight.

Class	Description	Test pressure (Hydrostatic)	Conditions where normally used
NP2	Reinforced concrete light duty, non-pressure pipes	0.7 kg/sq.cm (7 meter head)	For drainage and irrigation use, for culverts carrying light traffic.



K. Vasu

NP3	Reinforced concrete, medium-duty non pressure pipes	0.7 kg/sq.cm (7 meter head)	For drainage and irrigation use for culverts, carrying heavy traffic
-----	---	-----------------------------	--

3.2. Dimensional requirements of concrete pipes

3.2.1. Class NP2- Reinforced Concrete Light Duty, Non-Pressure Pipes

Internal diameter of pipes Nominal mm	Barrel wall thickness mm	Collar Dimensions		
		Minimum Caulking mm	Minimum Thickness mm	Minimum Length mm
250	25	13	25	150

3.2.2. Class NP3- Reinforced Concrete, Medium Duty, Non-Pressure Pipes

Internal diameter of pipes Nominal mm	Barrel wall thickness mm	Collar Dimensions		
		Minimum Caulking mm	Minimum Thickness mm	Minimum Length mm
450	75	19	35	200

4. Construction of Manhole:

4.1. General:

- 4.1.1. At every change of alignment, gradient or diameter of a drain, there shall be a manhole or inspection chamber. Bends and junctions in the drains shall be grouped together in manhole as far as possible. IS 4111-1986 Codes of Practice for ancillary structures in sewage system Part 1 may be referred to for further details.
- 4.1.2. Manholes of different types and sizes as specified shall be constructed in the sewer line at such places and to such levels and dimensions as shown in the drawings or as directed by the Engineer-in-charge. The size specified shall indicate the inside dimensions between brick faces of the manholes.
- 4.1.3. Where the diameter of the drain is increased, the crown of the pipe shall be fixed at the same level and necessary slope given in the invert of the manhole chamber. In exceptional cases and where unavoidable, the crown of the branch sewer may be fixed at lower level but in such cases the peak flow level of the two sewers shall be kept the same.
- 4.1.4. Sewers of unequal sectional area shall not be jointed at the same invert in a manhole. The invert of the smaller sewer at its junction with main shall be at least $\frac{2}{3}$ the diameter of the main above the invert of the main. The branch sewers shall deliver sewage in the manhole in the direction of main flow and the junction

Handwritten signature



must be made with care so that flow in main is not impeded. No drain from house fittings, e.g. gully trap or soil pipe, etc to manhole shall normally exceed a length of 6 m unless it is unavoidable. Manholes 90 x 80 cm are generally constructed within compound for house drainage only and near the buildings for house drainage normally for depth of 1 m or less. Manholes 1.2 m x 90. cm are generally constructed for main drainage work for depths less than 1.5 m.

4.1.5. Manhole - 1.4 m x 90 cm are of the arched type and are generally constructed for main drainage works where depth is 1.50 m or more. The width of manholes shall be increased more than 90 cm on bends or junctions or pipes with diameter greater than 450 mm and that the benching width on either side of the channel is minimum 20 cm.

4.1.6. Manholes of circular type of 1.4 m internal diameter are generally constructed for main drainage works where depth is 2.45 m or more as an alternative to manholes of arch type. The diameter shall be increased suitably, for pipes with diameter greater than 450 mm in the same manner as in the case of rectangular manholes. Before deciding size of manholes, Local Municipal Bye Laws shall be consulted.

4.2. Excavation: The excavation for manhole shall be true to dimensions and levels shown on the plans or as directed by the Engineer.

4.3. Bed concrete: The manhole shall be built on a bed of cement concrete 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size) unless otherwise stipulated by local authorities. The thickness of the bed concrete shall be 20 cm for manholes up to 4.25 m depth and 30 cm for depths beyond 4.25 m unless otherwise specified or directed by the Engineer. In bad ground, special foundations as suitable shall be provided.

4.4. Brick Work: The brick work shall be with class 7.5 bricks in cement mortar 1:4 (1 cement: 4 coarse sand). The external joints of the brick masonry shall be finished smooth, and the joints of the pipes with the masonry shall be made perfectly leak proof. For arched type and circular manholes, brick masonry in arches and arching over the pipes shall be in cement mortar 1:3 (1 cement: 3 fine sand). In the case of manholes of circular type the excess shaft shall be corbelled inwardly on three sides at the top to reduce its size to the cover frame to be fitted.

The walls shall be built of one brick thickness for depths up to 4.25 m. Below a depth of 4.25 m in ordinary subsoil the wall thickness shall be increased to one and half brick and at 9.75 m below ground two brick thick walls shall be built.



K. Vasu

4.5. Plaster and Pointing: The walls of the manholes shall be plastered inside with 12 mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished smooth. In the case of arched type manhole, the walls of the manhole shall be plastered inside all around only up to the crown level, and flush pointed for the shaft with cement mortar 1:2 (1 cement: 2 fine sand). Where the saturated soil is met with, also the external surface of the walls of the manhole shall be plastered with 12 mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished smooth upto 30 cm above the highest sub-soil water level with the approval of the Engineer. The plaster shall further be water proofed with addition of approved water proofing compound in a quantity as per manufacturer's specifications. In case Local Authorities/Bye Laws specify richer specifications, the same shall be adopted. For earth work excavation, bed concrete brick work, plaster and pointing, R.C.C. work and refilling of earth, respective specifications shall be followed.

4.6. Benching: The channels and benching shall be done in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) and rendered smooth with neat cement. The depth of channels and benching shall be as follows.

Sizes of drain mm	Top of channel at the centre above bed concrete cm	Depth of benching at side walls above bed concrete cm
250	30	40
450	50	60

4.7. Foot Rests: All manholes deeper than 0.8 m shall be provided with M.S. foot rests. These shall be embedded 20 cm deep in 20x20x10 cm blocks of cement concrete 1:2:4 (1 cement: 2 coarse sand 4 graded stone aggregate 20 mm nominal size). The concrete block with M.S. foot rest placed in its centre shall be cast in situ along with the masonry and surface finished with 12 mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished smooth. Foot rests which shall be of 20x20 Sq. M.S. bars shall be fixed 40 cm apart vertically and staggered laterally and shall project 10 cm beyond the surface of the wall. The top foot rest shall be 45 cm below the manhole cover. Foot rests shall be painted with coal tar, the portion embedded in the cement concrete block being painted with thick cement slurry before fixing. The work shall be executed after taking prior approval from the Engineer-in Charge.

4.8. Manhole covers and Frames: The frame of manhole shall be firmly embedded to correct alignment and levels in R.C.C. slab or plain concrete as the case may be on the top of the masonry. After completion of the work, manhole covers shall be sealed by means of thick grease.



4.9. Rate: The rate shall include the cost of materials and labour involved in all the operations described above but exclude the cost of (i) excavation, (ii) M.S. foot rests and (iii) 12 mm thick cement plaster with water proofing material applied at the external surface of the manhole if required. These items shall be paid for separately under relevant items of work: Payment for extra depths of manholes shall be made separately under relevant items of work.

4.10. Reinforced Cement Concrete Man holes (Refer IS 4111- 1986 for further details)
Where sewers are to be laid in high sub-soil water conditions, manholes may be constructed in reinforced cement concrete of Grade M 20 or 1:1 ½: 3 mix (see IS 456-1978). The manholes in this type of construction shall be preferably circular type. Walls may be constructed of brick masonry above the sub-soil water level.

4.11. Safety Measures: (Refer IS 4111- 1986 for further details)

In deep manholes enlarged rest chambers should be made at about 6m intervals, each provided with a landing platform in the form of a grating incorporating a hinged trap-door immediately under the ladder. All the manholes on sewers of 1m diameter and over should be provided with provision for fixing safety chains (galvanized wrought iron close link, 6 or 10mm) for placing across the mouth of the sewer on the downstream side when men are at work; galvanized pipe handrail (nominal 38mm bore) should be provided on the edges of all benchings, platforms etc, to prevent possibility of a man falling into the sewer.

If ground conditions are such as to give rise to excessive risk of settlement and consequential damage to the manhole or sewer a concrete slab shall be provided at the top of the shaft to receive the cover frame. This should be independent of the shaft in order to avoid transmitting traffic shocks to the manhole. Any subsidence of the back filling on which the slab rests, shall be brought to the required road level without disturbing or damaging the pipe or the shaft.

No manhole shall be permitted inside a building or in any passage therein. In cascades and ramps, handrails and chains should be provided for the safety of workmen.

For further details, IS 11972 -1987 "Code of Practice for Safety precautions to be taken where entering a sewage system" may be referred to.

4.12. Laying and Jointing Cement Concrete Pipes and Specials

4.12.1. **Trenches:** Where the pipes are to be bedded directly on soil, the bed shall be suitably rounded to fit the lower part of the pipe, the cost for this operation being included in the rate for laying the pipe itself.

4.12.2. **Laying:** Loading, transporting and unloading of concrete pipes is to be done with care. Handling shall be such as to avoid impact. Gradual unloading by inclined plane or by chain pulley block is recommended. All pipe sections and

K. Vasanth



connections shall be inspected carefully before being laid. Broken or defective pipes or connections shall not be used. Pipes shall be lowered into the trenches carefully. Mechanical appliances may be used. Pipes shall be laid true to line and grade as specified. Laying of pipes shall proceed upgrade of a slope.

- 4.12.3. If the pipes have spigot and socket joints, the socket ends shall face upstream. In the case of pipes with joints to be made with loose collars, the collars shall be slipped on before, the next pipe is laid. Adequate and proper expansion joints shall be provided where directed.
- 4.12.4. In case where foundation conditions are unusual such as in the proximity of trees or holes, under existing or proposed tracks manholes etc. the pipe shall be encased all-around in 15 cm thick cement concrete 1:3:6 (1 cement: 3 fine sand: 6 graded stone aggregate 40 mm nominal size) or compacted sand or gravel.
- 4.12.5. In cases where the natural foundation is inadequate the pipes shall be laid either in concrete cradle supported on proper foundations or on any other suitably designed structure. If a concrete cradle bedding is used the depth of concrete below the bottom of the pipe shall be at least $1/4^{\text{th}}$ of the internal dia of the pipe subject to the min. of 10 cm and a maximum of 30 cm. The concrete shall extend up the sides of the pipe at least to a distance of $1/4^{\text{th}}$ of the outside diameter of pipes 300 mm and over in dia. The pipe shall be laid in this concrete bedding before the concrete has set. Pipes laid in trenches in earth shall be bedded evenly and firmly and as far up the haunches of the pipe as to safely transmit the load expected from the backfill through the pipe to the bed. This shall be done either by excavating the bottom of the trench to fit the curve of the pipe or by compacting the earth under / around the curve of the pipe to form an even bed. Necessary provision shall be made for joints wherever required.
- 4.12.6. When the pipe is laid in a trench in rock hard clay, shale or other hard material the space below the pipe shall be excavated and replaced with an equalising bed of concrete, sand or compacted earth. In no place shall pipe be laid directly on such hard material.
- 4.12.7. When the pipes are laid completely above the ground the foundations shall be made even and sufficiently compacted to support the pipe line without any material settlement. Alternatively, the pipe line shall be supported on rigid foundations at intervals. Suitable arrangements shall be made to retain the pipe line in the proper alignment, such as by shaping the top of the supports to fit the lower part of the pipe. The distance between the supports shall in no case exceed the length of the pipe. The pipe shall be supported as far as possible close to the joints. In no case shall the joints come in the centre of the span.



K. C. N. S. M. G.

Care shall be taken to see that super imposed ' loads greater than the total load equivalent to the weight of the pipe when running full shall not be permitted.

4.12.8. Suitably designed anchor blocks at change of direction and grades for pressure lines shall be provided where required.

4.12.9. **Jointing:** Joints are generally of rigid type. Where specified flexible type joints may also be provided.

4.12.9.1. **Rigid Spigot and Socket Joint:** The spigot of each pipe shall be slipped home well into the socket of the pipe previously laid and adjusted in the correct position. The opening of the joint shall be filled with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) which shall be rammed with caulking tool. After a day's work any extraneous material shall be removed from the inside of the pipe and the newly made joint shall be cured.

4.12.9.2. **Rigid Collar Joint:** The two adjoining pipes shall be butted against each other and adjusted in correct position. The collar shall then be slipped over the joint, covering equally both the pipes. The annular space shall be filled with stiff mixture of cement mortar 1:2 (1 cement: 2 fine sand) which shall be rammed with caulking tool. After a day's work any extraneous materials shall be removed from the inside of the pipe and the newly made joint shall be cured.

4.12.9.3. **Semi flexible spigot and socket Joint:** The joint is composed of specially shaped spigot and socket ends on the concrete pipes. A rubber ring shall be placed on the spigot which shall be forced into the socket of the pipe previously laid. This compresses the rubber ring as it rolls into the annular space formed between the two surfaces of the spigot and the socket, stiff mixture of cement mortar 1:2 (1 cement: 2 fine sand) shall then be filled into the remaining annular space and rammed with a caulking tool. After day's work any extraneous materials shall be removed from the inside of the pipe and the newly made joint shall be cured.

4.12.9.4. **Internal Flush Joint:** This joint is generally used for culvert pipe of 60 cm dia and over. The ends of the pipe are specially shaped to form a self-centring joint with an internal jointing space 1 -3 cm wide the finished joint is flush with both inside and outside with the pipe wall. The jointing space is filled with cement mortar 1:2 (1 cement: 2 fine sand) mixed sufficiently dry to remain in position when forced with a trowel or rammer. After day's work, any extraneous material shall be removed from the inside of the pipe and the newly made joint shall be cured.



Handwritten signature in blue ink.

- 4.12.9.5. **External Flush Joint:** This joint is suitable for pipes which are too small for jointing from inside. This joint is composed of specially shaped pipe ends. Each end shall be butted against each other and adjusted in correct position. The jointing space shall then be filled with cement mortar 1:2 (1 cement: 2 fine sand) sufficiently dry and finished off flush. Great care shall be taken to ensure that the projecting ends are not damaged as no repairs can be readily affected from inside the pipe.
- 4.12.10. In all pressure pipe lines, the recess at the end of the pipe line shall be filled with jute braiding dipped in hot bitumen or other suitable approved compound. Pipes shall be so jointed that the bitumen ring of one pipe shall set into the recess of the next pipe. The ring shall be thoroughly compressed by jacking or by any other suitable method.
- 4.12.11. The number of pipes that shall be jacked together at a time shall depend on the diameter of the pipes and the bearing capacity of the soil, for small pipes upto 25 cm diameter, six pipes can be jacked together at a time.
- 4.12.12. The quantity of jute and bitumen in the ring shall be just sufficient to fill the recess in the pipe when pressed hard by jacking or by any other suitable method. Before and during jacking care shall be taken to see that there is no offset at the joint.

4.13. Testing and Commissioning:

- 4.13.1. For pressure pipes, the completed pipeline shall be tested for pressure (Known as site test pressure) which shall not be less than the maximum pipeline operating pressure plus the calculated surge pressure, but in no case shall it exceed the hydrostatic test pressure. Respective IS codes shall be followed for the testing procedure and acceptance criteria.
- 4.13.2. If any leakage is visible, the defective part of the work shall be cut out and made good. A slight amount of sweating which is uniform may be overlooked, but excessive sweating from a particular pipe or joint shall be watched for and taken as indicating a defect to be made good.
- 4.13.3. Any joint found leaking or sweating, shall be rectified or embedded into 15 cm layer of cement concrete (1:2:4) 30 cm in length and the section retested.

4.14. Refilling of Trenches:

- 4.14.1. The specification described in respective guide lines shall apply. In case where pipes are not bedded on concrete special care shall be taken in refilling, trenches to prevent the displacement and subsequent settlement at the surface resulting in uneven street surfaces and dangers to foundations etc. The backfilling materials shall be packed by hand under and around the pipe and

K. H. Sharma



rammed with a shovel and light tamper. This method of filling will be continued upto the top of pipe. The refilling shall rise evenly on both sides of the pipe continued upto 60 cm above the top of pipe so as not to disturb the pipe. No tamping shall be done within 15 cm of the top of pipe. The tamping shall become progressively heavier as the depth of the backfill increases.

- 4.15. Measurements:** The lengths of pipes shall be measured in running metres nearest to a cm as laid or fixed, from inside of one manhole to the inside of the other manhole. The length shall be taken along the centre line of the pipes over all fittings such as bends, collars, junctions, etc. which shall not be measured separately. Excavation, refilling, shoring and timbering in trenches, and cement concreting wherever required shall be measured separately under relevant items of work.
- 4.16. Rate:** The rate shall include the cost of materials and labour involved in all the operations described above.



K. H. S. M. G.



GM /CIVIL/AHMEDABAD						
DETAILED ESTIMATE						
NAME OF WORK : Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.						
SCHEDULE 'A'						
SR. NO.	USSOR ITEM NO	QUANTITY	DESCRIPTION	RATE	UNIT	AMOUNT
1	11010		Earth work in excavation as per approved drawings and dumping at embankment site or spoil heap, within railway land, including 50m lead and 1.5m lift, the lead to be measured from the centre of gravity of excavation to centre of gravity of spoil heap: the lift to be measured from natural ground level and paid for in layers of 1.5m each, including incidental work, as per specifications-in			
	11011	4500.00	All kinds of soils	109.36	cum	492120.00
2	011070	3000.00	Extra for every additional lift of 1.5m or part thereof, after the initial 1.5m, for earth work in all soils	7.92	cum	23760.00
3	011050		Extra for lead of earth work above initial lead of 50m, in all kind of soils and rocks :			
	011051	2000.00	for every 50 m or part thereof - lead over 50m and upto 150m	10.63	cum	21260.00
	011052	2000.00	for every 50m or part thereof - lead over 150m and upto 500m	12.80	cum	25600.00
4	12030	3000.00	Extra for watering and ramming earth in foundation and floors in 15cm layers. Note : This item is payable where ramming is not included in the original rate for earthwork in filling.	20.70	Cum	62100.00
5	21080	500.00	Leading ballast, kankar, surkhi, lime, sand, ashes, stone-chips, pitching, stone, boulders, soling, stone, rubble stone, brickbats, shingle, dry mortar, laterite or similar materials including picking up and stacking, lead upto 50m	88.68	Cum	44340.00

H. Vasani



6	21081	500.00	Additional lead for every subsequent 50m or part thereof, over 50m and upto 500m over item no. 021080	22.09	Cum	11045.00
7	21090	1000.00	Leading ballast, kankar, brickbats, stone-chips, shingle, stone boulders, block kankar, pitching stones, rubble stones, laterite, coal, surkhi, dry mortar, sand, moorum, earth, manure or sludge, ashes, lime, debris, muck, malba, etc. for lead upto 25 km. Note : Lead under this item is payable when the same exceeds 500 M.	59.54	Cum	59540.00
8	31010		Providing and laying in position cement concrete of specified proportion excluding cost of cement, centering and shuttering - All works upto Plinth level :			
	31011	120.00	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)	1521.77	cum	182612.40
9	31020		Providing and laying cement concrete, up to plinth in retaining walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc, excluding the cost of cement and of shuttering, centering.			
	31023	30.00	1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size)	1645.73	cum	49371.90
10	33060		Supply and using cement at worksite :			
	33062	250.00	OPC 53 grade	4830.00	Tonne	1207500.00
11	41010		Providing and laying in position M 20 Grade concrete for reinforced concrete structural elements but excluding cost of centering, shuttering, reinforcement and Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of			



H. Harsh

			concrete, improve workability without impairing strength and durability as per direction of Engineer in charge (M 25 CONCRET WILL BE USED)			
	41011	20.00	All work upto plinth level, including raft foundation of washable aprons, HS tank, pile cap, footings of FOB, and Platform shelter etc.	1931.52	cum	38630.40
12	41012	20.00	All work in buildings above plinth level upto floor two level.	2173.63	cum	43472.60
	42010		Centering and shuttering including strutting, propping etc. and removal of form for :			
13	42013	200.00	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	303.84	sqm	60768.00
	42014	50.00	Lintels, beams, plinth beams, bed blocks, girders, bressumers and cantilevers	253.33	sqm	12666.50
14	43010		Providing, hoisting and fixing in position upto floor two level M20 Grade precast RCC work including setting in cement mortar 1:3 (1 cement : 3 coarse sand) and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete including cost of centering, shuttering, finishing, Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, excluding cost of cement and steel reinforcement, as per approved plan & direction of Engineer incharge.			
	43015	35.00	In slabs for drain covers, manhole covers, flue tops etc.	2587.39	cum	90558.65

K. Vasu



15	45010		Supplying Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.			
	45016	6500.00	Thermo-Mechanically Treated bars	57.94	Kg	376610.00
16	056040		Cement Concrete Solid Block Masonry in foundation and plinth with:(factory made blocks)			
	056042	365.00	Cement mortar 1:4 (1cement: 4fine sand)	3356.13	cum	1224987.45
	056043	70.00	Cement mortar 1:6 (1cement: 6coarse sand)	3418.27	cum	239278.90
17	56050	40.00	Extra over Item 056040 for Cement Concrete Solid Block masonry in superstructure above plinth level upto floor two level	457.11	cum	18284.40
18	81010		Structural steel work in single section including cutting, bending, straightening, drilling, rivetting, bolting, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - upto 6m height above GL			
	81011	500.00	In RSJ, tees, angles and channels	72.11	kg	36055.00
	81012	500.00	In flats, plates, round or square bars	70.83	kg	35415.00
19	95020		Providing and fixing ceramic tiles conforming to IS:15622 of manufacturers approved by railway in all colours, shades, design and abrasion resistance class as approved by the Engineer-in-Charge in floors and landings over 20mm thick bed of cement mortar 1:4 (1cement: 3coarse sand) including pointing in white cement mixed with pigment of matching shade complete			
	95023	220	Of Group B-I-b of IS : 15622 (Ceramic Tiles) of size 200x200mm to 400x400mm	449.89	Sqm	98975.8
20	111010		12 mm cement plaster of mix -			
	111012	100.00	1:6 (1cement: 6fine sand)	60.27	Sqm	6027.00
21	111020		15 mm cement plaster on the rough side of single or half brick wall of mix -			



K. Vasmei

	111021	500.00	1:4 (1cement: 4 fine sand)	69.52	Sqm	34760.00
22	131150		Providing and fixing medium grade G.I. pipes complete with G.I. fittings including trenching and refilling etc. External Work			
	131151	200.00	15 mm dia. nominal bore	133.15	metre	26630.00
	131153	300.00	25 mm dia. nominal bore	217.93	metre	65379.00
	131156	300.00	50 mm dia. nominal bore	369.36	metre	110808.00
	131158	200.00	80 mm dia. nominal bore	630.70	metre	126140.00
	131159	6500.00	100 mm dia. nominal bore	884.08	metre	5746520.00
23	131160		Making connection of medium grade G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete			
	131162	4.00	50 to 80 mm nominal bore	777.97	Each	3111.88
	131163	34.00	100 mm to 150 mm dia.	1582.89	Each	53818.26
24	133080		Providing and laying S&S Centrifugally Cast (Spun) Ductile Iron Pipes conforming to IS : 8329 of Class K-7 up to 500 mm dia			
	133082	120.00	150mm dia Ductile Iron CLass K - 7 pipes	1165.05	metre	139806.00
	133084	900.00	250mm dia Ductile Iron CLass K - 7 pipes	2022.04	metre	1819836.00
	133085	400.00	300mm dia Ductile Iron CLass K - 7 pipes	2753.18	metre	1101272.00
25	133140		Providing lead caulked joints to spun iron or C.I./ DI pipes and specials including testing of joints but excluding the cost of pig lead up to 400 mm dia			
	133142	5.00	100 mm diameter pipe	175.32	Each	876.60
	133144	5.00	150 mm dia. pipe	261.93	Each	1309.65
	133145	5.00	200 mm dia. pipe	347.85	Each	1739.25
	133146	10.00	250 mm dia. pipe	436.38	Each	4363.80
	133147	10.00	300 mm dia. pipe	526.41	Each	5264.10
26	133200		Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 100 mm dia (the tail pieces if required will be paid separately)			
	133201	50.00	Class I	3725.47	Each	186273.50

K. Vasanth



27	133220		Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 150 mm dia (the tail pieces if required will be paid separately)			
	133221	3.00	Class I	5521.32	Each	16563.96
28	133230		Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 200 mm dia (the tail pieces if required will be paid separately).			
	133231	3.00	Class I	8917.32	Each	26751.96
29	133240		Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 250 mm dia (the tail pieces if required will be paid separately)			
	133241	20.00	Class I	16708.89	Each	334177.80
30	133250		Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. 300 mm dia (the tail pieces if required will be paid separately)			
	133251	10.00	Class I	19517.94	Each	195179.40
31	133300		Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538			
	133301	2.50	Upto 300 mm dia	6020.27	Quintal	15050.68
	133302	2.50	Above 300 mm dia	6601.02	Quintal	16502.55
32	141010		Providing, laying and jointing glazed stoneware pipes grade 'A' as per IS:651 including bends etc. with stiff mixture of cement mortar in the proportion of 1:1 (1cement : 1fine sand) including testing of joints etc. complete			
	141011	200.00	100mm diameter	155.78	metre	31156.00
	141012	250.00	150mm diameter	231.20	metre	57800.00
	141013	200.00	200mm diameter	360.25	metre	72050.00

K. Vasanth



33	142010		Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes including bends etc with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement: 2fine sand) including testing of joints etc. complete upto 800mm dia.			
	142014	50.00	300mm dia. R.C.C. pipe	366.89	metre	18344.50
	142017	50.00	600mm dia. R.C.C. pipe	994.95	metre	49747.50
34	142030		Providing and laying non-pressure NP3 class (medium duty) R.C.C. pipes including bends etc with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement: 2fine sand) including testing of joints etc. complete up to 800mm dia.			
	142031	500.00	300mm dia. R.C.C. pipe	697.81	metre	348905.00
	142033	500.00	450mm dia. R.C.C. pipe	1114.29	metre	557145.00
	142035	1800.00	600mm dia. R.C.C. pipe	1530.86	metre	2755548.00
35	143110		Providing M.S. foot rests including fixing in manholes with 20x20x10cm cement concrete blocks 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size) as per standard design			
	143112	400.00	With 20mm diameter round bar	182.69	Each	73076.00
36	143120		Replacement of M.S. foot rests in manholes/ septic tanks or wells etc including dismantling concrete blocks and fixing with 20x20x10cm cement concrete blocks 1:2:4 (1cement: 2coarse sand:4graded stone aggregate 20mm nominal size)			
	143122	100.00	With 20mm diameter round bar	219.86	Each	21986.00
37	143140		Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality. (As per IS 12592-1991)			
	143145	40.00	MD- 10 circular shape 500mm internal diameter	939.82	Each	37592.80
	143146	60.00	HD- 20 circular shape 560mm	1176.35	Each	70581.00



Handwritten signature

			internal diameter			
	143147	40.00	EHD- 35 circular shape 560mm internal dia.	1640.95	Each	65638.00
38	143170		Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1cement: 3coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete			
	143171	20.00	For pipes 100 to 230mm diameter	222.38	Each	4447.60
	143172	38.00	For pipes 250 to 300mm diameter	244.86	Each	9304.68
	143173	70.00	For pipes 350 to 450mm diameter	343.64	Each	24054.80
39	144010		Cutting holes upto 30x30cm in walls including making good the same.(In OLD work only when specially ordered)			
	144011	50.00	With F.P.S. bricks	109.43	Each	5471.50
40	144050		Supplying, fitting & fixing in position C.I. Jali with frame with cement concrete 1:2:4 including all lead			
	144051	10.00	300 mm x 600 mm jali weighing 23 Kg	1548.22	Each	15482.20
	144052	10.00	450 mm x 600 mm jali weighing 56 Kg	4047.77	Each	40477.70
41	144060		Supplying, fitting & fixing in position Polyelastomer Grating & R.C.P.C. Frame with hinge arrangement with cement conc. 1:2:4			
	144061	10.00	a) 12 MT load bearing capacity Polyelastomer rectangular grating with R.C.P.C. frame (Size of grating : 450 mm x 380 mm x 50 mm thick, size of frame : 600 mm x 550 mm x 160 mm)	2527.77	Each	25277.70
	144062	10.00	b) 3 MT load bearing capacity Polyelastomer rectangular grating with R.C.P.C. frame (Size of grating : 380 mm x 290 mm x 25 mm thick size of frame : 480 mm x 410 mm x	1356.28	Each	13562.80

K. K. Vasudeva



			90 mm)			
42	181020		Demolishing plain cement concrete including disposal of material within 50m lead			
	181021	50.00	1:2:4 or richer mix with max. 20mm	592.73	cum	29636.50
	181022	50.00	Mix leaner than 1:2:4 with coarse aggregate larger than 20mm	353.62	cum	17681.00
43	181030	20.00	Demolishing R.C.C. work including cutting and stacking of steel bars and disposal of unserviceable material within 50m lead. (Extra payment for scraping, cleaning and straightening of bars to be made separately)	903.09	cum	18061.80
44	182010		Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50m lead			
	182013	50.00	In cement mortar	467.47	cum	23373.50
45	182070	150.00	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster/pointing including disposal of rubbish within 50m lead	13.23	Sqm	1984.50
46	188020		Dismantling G.I. /PVC pipes (external work) including excavation and refilling trenches after taking out the pipes, including stacking of pipes within 50m lead			
	188021	200.00	Upto 40mm dia	34.83	metre	6966.00
	188022	1500.00		38.99	metre	58485.00
47			Misc USSOR item of chapter no. 1,2,3,4, 5 & 8	1.00		2000000.00
48			Misc USSOR item of chapter no. 11,13,14,15 & 18	1.00		3000000.00
			Total			23979541.47

Kp Vaswani



Name of Work: - Shifting/Construction of Sewerage, Water & Storm pipelines of various sizes/shapes including related miscellaneous work from Vatva to Sabarmati in connection with MAHSR project.

OFFER SHEET

Sr. No.	Schedule	Cost of schedule In Rs.	RATE QUOTED BY THE TENDERER	
			In Figures	In Words
1	Schedule "A"	2,39,79,541.47	_____	_____
			%age Above/Below/At par*	%age Above/Below/At par*

* Strike whichever is not applicable (above/below/At par)

NOTES: -

1. If the tenderer is not clearly mentioning that the rates "Above, Below or at par", or kept blank then the rates shall be considered as ambiguous. and the offer will be summarily rejected.
2. In case of any discrepancy in the quoted rates in between the rates quoted in words and figures, the rates quoted on lower side shall be considered.
3. **The Rates mentioned in Tender schedules are inclusive of GST.**

Signature of Tenderer

Date: - _____



Handwritten signature



END OF DOCUMENT

KK/asmg

10/11/2019

