



National Highways & Infrastructure Development Corporation Limited

(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)

GOVT. OF INDIA

NATIONAL COMPETITIVE BIDDING

(THROUGH E-TENDERING MODE)

Name of the Work: Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal

[Contract Package No.: NHIDCL/PMU-Siliguri/NH-10/Estimate/M&R/2024]

BID DOCUMENT

VOLUME-I

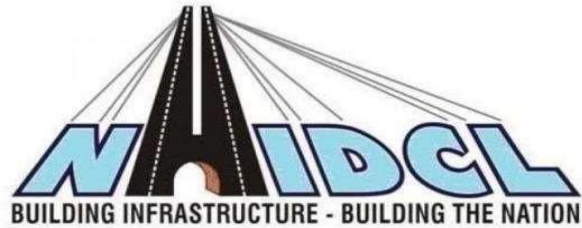
R.O. West Bengal & Sikkim (Gangtok)

National Highways & Infrastructure Development Corporation Ltd.

Amdo Golai, Opp. State Veterinary Polyclinic, Gangtok, Sikkim – 737102

Email : ro.sikkim@nhidcl.com

February 2025



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(SECTION-I)
NOTICE INVITING TENDER

SECTION-1
NOTICE INVITING TENDER

Availability of bid documents: from 19.02.2025 (1600 Hrs) to 12.03.2025 (1700 Hrs)

Date of Pre-bid meeting: 25.02.2025 (1600 Hrs onwards)

Start for submission of bid: 01.03.2025 (1600 Hrs)

Deadline for submission of bid: 12.03.2025 (1700 Hrs)

Deadline for submission of documents in physical from: 13.03.2025 (1700 Hrs)

Opening of technical bids: 15.03.2025 (1100 Hrs)

Opening of financial bids: To be intimated later

Validity of bids: 120 days from the deadline of submission of bid.

NOTICE INVITING TENDER

NHIDCL/PMU-Siliguri/NH-10/Estimate/M&R/2024

Date: 19.02.2025

1. The National Highways and Infrastructure Development Corporation Ltd. (NHIDCL) hereby invites bids **(on Single Percentage Rate Contract Basis)** through “**e-tendering mode**” from experienced firms/organizations (hereinafter referred to as the “Bidders”) to bid for the works detailed in the table as mentioned below from the eligible bidders, excluding those firms who have been declared as Non- Performer by MoRTH/NHAI/NHIDCL/Any of State PWD/BRO or blacklisted/debarred for specified period by MoRTH/NHAI/NHIDCL/Any of State PWD/BRO.

Sl. No.	Section	Length (km)	Estimated Cost (Excluding GST)	Bid Security (Rs.)	Contract Duration (months)
1.	Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal	29.0	Rs. 5,30,13,939/-	Rs. 10,60,279/-	3

Cost of Bid Documents (Non- Refundable) : Rs.11,800/-

E-Tendering Processing Fee (Non-Refundable) : NIL

2. The preliminary requirements (detailed requirements are given in the Bid Document) of bidding firm/contractor for above packages are mentioned as under:

Average Turn-over during last 3 years	Work of similar nature during last 5 years
Minimum Average Annual Turnover Rs. 530.14 lac (estimated cost of work)	Single Work of Rs. 265.07 lac (minimum 50% of estimated cost of work) Or Two similar works each of Rs. 185.549 lac (minimum 35% of estimated cost of work) Or Three similar works each of Rs. 132.535 lac (minimum 25% of estimated cost of work)

3. The Scope of Work is as per detailed BOQ.
4. To participate in the bidding, it is mandatory for the Bidders to get registered their firm with e-procurement portal <https://eprocure.gov.in/eprocure/app> to have user ID & password which has to be obtained free of cost. Following may kindly be noted:
 - (a) Registration with e-procurement portal should be valid at least up to the date of submission of BID.
 - (b) BIDs can be submitted only during the validity of registration.

The Bidders shall update their project and other details on the portal on a regular basis and apply to the tenders via the portal.

The complete BID document can be viewed / downloaded from official portal of the CPPP website (eprocure.gov.in/eprocure/app) from 19.02.2025 (1700 Hrs) to 12.03.2025 (upto 17:00 Hrs. IST). The amendments/ clarifications to the Bid Document, if any, will be hosted on the above website.

The bidder is required to submit, along with its BID, the cost of BID/RFP document, i.e. Rs. 11,800/- (Rupees Eleven Thousand Eight Hundred only), to Employer's account through RTGS into bank a/c no "94113210000020" with Canara Bank, Gangtok, Sikkim having IFSC code "CNRB0019411".

5. The Bid should be submitted online in the prescribed format given on the website. No other mode of submission is acceptable (except as specified in RFP).
6. The authorized signatory holding Power of Attorney shall only be the Digital Signatory. In case authorized signatory holding Power of Attorney and Digital Signatory are not the same, the bid shall be considered non-responsive.
7. The last date for online submission of the Bid is 12.03.2025 upto 17:00 hrs (as mentioned on the e-portal only) ("Bid Due Date"). Bidder must submit its Financial Bid and Technical Bid on CPPP e-procurement portal within the above deadline.

The bids would be opened on 15.03.2025 at 11:00 hrs. online at Regional Office – Gangtok, NHIDCL, Sikkim, representatives of the bidders (maximum of two) who choose to attend, may attend the online opening of the bids at Regional Office – Gangtok, NHIDCL, Sikkim, on the date and time as mentioned above. However, such representatives shall be allowed to attend the opening of the bids only if they produce letter of authority on the letterhead of the bidder, at the time of opening of bids as mentioned above.

8. The amount of Bid Security is Rs. 10,60,279/- (*Rupees Ten Lakhs Sixty Thousand Two Hundred and Seventy Nine Only*).
9. The period of validity of bid is 120 days from the deadline of submission of bid.

For any clarification, the office of the undersigned may be contacted.

Executive Director (P),
RO West Bengal & Sikkim (Gangtok),
National Highway & Infrastructure Development
Corporation Ltd.
Amdo Golai, Opp. State Veterinary Polyclinic,
Gangtok, Sikkim – 737102
Email : ro.sikkim@nhidcl.com

SECTION-2

INSTRUCTIONS TO BIDDERS (ITB) AND APPENDIX TO ITB

SECTION - 2
INSTRUCTIONS TO BIDDERS (ITB)

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A. GENERAL

1. Scope of Bid

1.1 The Employer (as defined in the Appendix to ITB) invites Single Percentage Rate bids through the process of e-tendering for works as described in these documents and referred to as “the Works”. The name and identification number of the Works is as defined in the **Appendix** to ITB.

1.2 The successful Bidder will be expected to complete the Works by the intended Completion Date specified in the Contract Data.

1.3 Throughout these Bidding Documents, the terms “bid” and “tender” and their derivatives (bidder/tenderer, bid/tender, bidding/tendering, etc.) are synonymous.

2. Source of Funds

2.1 The expenditure under this contract will be met by National Highways & Infrastructure Development Corporation Limited (NHIDCL).

3. Eligible Bidders

3.1 This Invitation for Bids is open to all bidders meeting the qualification requirements prescribed in **Clause 4** of ITB.

3.2 Any entity which has been blacklisted or barred by the Central or any State Government or any public sector undertaking, autonomous body or any authority under the Central or State Government, from participating in any project, and the bar subsists as on the date of Application shall not be eligible to submit the bid.

4. Qualification of the Bidder

4.1 All bidders shall furnish the following information and documents with their Bids in **Section-3**, Qualification Information, unless otherwise stated in the **Appendix** to ITB.

- a) Scanned copies of original documents defining the constitution or legal status, place of registration, and principal place of business; scanned copy of written power of attorney of the signatory of the Bid to commit the Bidder; and original copy of Written Power of Attorney to be submitted in the envelope of physical form. (refer **Clause 12.2** of ITB).
- b) Scanned copy of total monetary value of civil engineering construction and maintenance works performed for each of the last three years.
- c) Scanned copy of experience certificate in works of a similar nature and size for each of the last five years with certificates from the concerned officer of the rank of Executive Engineer or equivalent or higher.
- d) Scanned copy of evidence of availability (either owned or leased or rented) of items of construction and maintenance equipment named in **Clause 4.3 B(b) (i)**.
- e) Scanned copy of details of the technical personnel proposed to be employed for the Contract having the qualifications defined in **Clause 4.3 B (b) (ii)**.

- f) Scanned copy of reports on the financial standing of the Bidder, and a certificate from Chartered Accountant as proof of turnover for the last three years.
- g) Scanned copy of information regarding any litigation or arbitration during the last five years in which the Bidder is involved, the parties concerned, the disputed amount, and the present status.
- h) Undertaking that the bidder is not affiliated to the firm or entity that has been hired or employed by the Employer for preparation of bid documents or to supervise the contract.

4.2 Bids from joint ventures/consortiums are not allowed.

4.3 A To qualify for award of the contract, each bidder in its name should have the following; -

a) *achieved a minimum average annual financial turnover (in all classes of civil engineering construction and maintenance works only) equal to the amount indicated in NIT during last three years ending 31st March of the previous financial year duly certified by Chartered Accountant.*

b) satisfactorily completed (not less than 90% of contract value), as a prime contractor or as a partner of JV for similar works during last five years ending last day of month previous to the one in which bids are invited, either of the following:

- i. three similar completed works costing not less than amount equal to works Rs. 132.535 lac each.
- ii. two similar completed costing not less than amount equal to work Rs 185.549 lac each.
- iii. one similar completed costing not less than amount equal to Rs 265.07 lac.

iv. (the similar work constitutes construction/maintenance of roads)

The following escalation factors shall be used to bring the value of such completed works to the level of current financial year:

Year Before	Multiplying Factor
One	1.1
Two	1.21
Three	1.33
Four.....	1.46
Five	1.61

4.3 B (a) Each bidder must upload the scanned copies of following documents along with the submission of online bid:

- i) An affidavit on a Stamp Paper, duly attested from the Notary Public, that the information furnished with the bid documents is correct in all respects; and
- ii) Such other certificates as defined in **Section-3**.

Failure to submit the certificates/documents as specified above shall make the bid non-responsive.

- b) Each bidder must demonstrate for this work:
- i) evidence of availability (either owned or leased or rented) of the key equipment for this work as stated in the **Appendix** to ITB.
 - ii) availability of personnel with qualification and experience as stated in the **Appendix** to ITB.

4.4 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Available Bid capacity} = (A * N * 2.5 - B)$$

Where.

A = Maximum value of civil engineering works executed in any one year during the last three years (escalation factor as specified in this section shall be used to bring the maximum value of civil engineering works to the level of current financial year i.e.2024-25) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bid is invited.

B = Value (escalation factor as specified in this section shall be used to bring the value to the level of current financial year i.e. 2024-25) of existing commitments and on-going works to be completed during the next 3 months (period of completion of the works for which bid is invited)

4.5 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- i) made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
- ii) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc. or debarring from work etc.

5. One Bid per Bidder

5.1 Each Bidder shall submit only one Bid for the Works. A Bidder who submits more than one Bid will cause such bids to be disqualified.

6. Cost of Bidding

6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will, in no case, be responsible or liable for those costs.

7. Site Visit

7.1 The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarize himself with the Site of Works and its surroundings including source of earth, water, road aggregates, availability of labour etc. and obtain all information that may be necessary for preparing the Bid and entering into a contract for undertaking the maintenance Works. The costs

of visiting the site shall be at the Bidder's own expense. For this purpose, he may contact the person whose contact details are given in the **Appendix** to ITB.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and addenda (if any) issued in accordance with **Clause 10**:

Section 1: Notice Inviting Tender

Section 2: Instructions to Bidders (ITB) and Appendix to ITB

Section 3: Qualification Information

Section 4: Forms of Bank Guarantee, Letter of Acceptance (LOA) and Agreement

Section 5: General Conditions of Contract and Contract Data

Section 6: Addendum to General Conditions of Contract

Section 7: Road Maintenance Standards and Specifications for Road Maintenance Work, Part-I and Part-II

Section 8: Drawings and Schedule of Drawings

Section 9: Financial Bid form and Bill of Quantities

8.2 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, scope, road maintenance Standards and Specifications, bill of quantities, etc. in the Bid Documents. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to **Clause 26** hereof, Bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

9. Clarifications on Bid Documents

9.1 A prospective Bidder requiring any clarification on the Bid Documents may notify the Employer in writing or through e-tender portal at the Employer's address indicated in the notice inviting Tender. The Employer will respond to any such request for clarification received earlier than 10 days prior to the deadline for submission of Bids. Copies of the Employer's response will be hosted on website including a description of the queries but without identifying its source.

9.2 *Pre-Bid Meeting*

9.2.1 The Bidder's authorised representative is invited to attend a pre-bid meeting, if it is indicated in the **Appendix** to ITB. The purpose of the pre-bid meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.2 The bidder is requested to submit any questions in writing so as to reach the Employer not later than one week before the meeting.

9.2.3 Minutes of the meeting, including the text of the questions raised (without identifying the source of the enquiry) and the responses given will be posted without delay on website. Any modifications of the bid documents listed in **Clause 8.1**, which may become necessary as a

result of the pre-bid meeting or which are required in the opinion of the Employer shall be made by the Employer exclusively through the issue of an Addendum pursuant to **Clause 10** and not through the minutes of the pre-bid meeting.

9.2.4 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, the Employer may modify the Bidding Documents by issuing addenda.

10.2 Any addendum thus issued shall be part of the Bidding Documents and shall be hosted on e-tendering portal. Bidders are advised to keep themselves updated of all the addenda issued on e-tendering portal by daily checking the e-tendering portal and the Employer does not assume any responsibility in case the bidder fails to do so and does not take any action, if required, with respect to any relevant addendum.

10.3 To give prospective bidders reasonable time to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with **Clause 20.3**.

C. PREPARATION OF BIDS

11. Language of Bid

11.1 All documents relating to the Bid shall be in English.

12. Documents Comprising the Bid

12.1 The e-bid submitted by the bidder shall be in two separate parts namely Part-I and Part-II. Part-I shall be named Technical Bid and shall comprise of information submitted in **Section-3**. Part-II shall be named Financial Bid and shall comprise of Bill of Quantities.

12.2 Documents to be submitted in physical form must be delivered by 17:00 Hrs on 13.03.2025.

Though, the scanned copies of following documents is required to be uploaded during submission of e-bid on the e-tendering portal, as per **Clause 12.1** above, however, following original documents in physical form shall be submitted in a sealed envelope on or before the Bid Due Date and before the time of submission as specified in NIT at the address indicated in **Clause 20**, duly superscribed "Name of Work, Bid Due Date and time". Name and address of the bidder should also be indicated on the envelope.

- i) Copy of Acknowledgement for Tender Submission and EMD/Bid Security.
- ii) Bid Document Fee
- iii) Deleted
- iv) Written Power of Attorney of the signatory (whose digital signature certificate is used during e-tender submission) of the bidder to commit the Bid.

- v) Affidavit duly notarized (as per the format provided in **Section-3**)

12.3 The following documents, which are not submitted with the bid, will be deemed to be part of the bid.

- i) Notice Inviting Tender
- ii) Instructions to the Bidders and Appendix to ITB
- iii) General Conditions of Contract and Contract Data
- iv) Addendum to General Conditions of Contract
- v) Road Maintenance Standards and Specifications for Road Maintenance Works, Part-I and Part-II

13. Bid Prices

13.1 The Contract shall be for the whole Works, as described in **Clause 1. 1** based on the Bill of Quantities submitted by the Bidder.

13.2 The Bidder shall quote single percentage rate above/below the BoQ/scheduled rates on appropriate format enclosed as part of tender document on e-tender portal.

13.3 All duties, taxes (excluding GST), royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total bid price submitted by the Bidder.

13.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.

14. Currencies of Bid and Payment

All payments shall be made in Indian Rupees.

15. Bid Validity

15.1 Bids shall remain valid for a period of 120 days after the deadline date for bid submission specified in **Clause 20**. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the Bidders may extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing. A Bidder may refuse the request without forfeiting his bid security. A Bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for a period of the extension, and in compliance with **Clause 16** in all respects.

16. Earnest Money/Bid Security/Forfeiture/Debarment

16.1 The Bidder shall furnish, as part of the Bid, Earnest Money/Bid Security, in the amount as specified in the NIT. (E-Bank guarantee must be in favour of the Employer).

16.2 The Earnest Money shall be in the form of e-Bank Guarantee only (the other forms will not be acceptable) of any scheduled commercial bank approved by RBI having a net worth of not less than Rs. 500 crore as per the latest annual report of the bank and must be in the name of Employer. **Any bid having bid security for lesser value and shorter validity period shall be treated as non- responsive.**

- A. e-Bank Guarantee shall be in the name of the Employer, from following banks would be accepted: -
- i) State Bank of India or its subsidiaries,
 - ii) Any Indian Nationalised Bank
 - iii) IDBI/ICICI Bank
 - iv) Any Scheduled Commercial Bank approved by RBI having a net worth of not less than Rs. 500 crore as per the latest Annual Report of the Bank.
- B. The acceptance of the guarantees shall also be subject to the conditions that the capital adequacy of the Bank shall not be less than the latest norms prescribed by RBI.
- C. The bank guarantee issued by a Cooperative Bank shall not be accepted.

16.3 Any Bid not accompanied by an acceptable Earnest Money, shall be rejected by the Employer as non-responsive.

16.4 The Earnest Money of unsuccessful bidders will be returned within 28 days of the end of the Bid validity period specified in **Sub-Clause 15.1**.

16.5 The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.

16.6 *The Bid Security/Earnest Money will be forfeited:*

- a) if the Bidder withdraws the Bid after its submission during the period of Bid validity;
- b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - i) sign the Agreement; and/or
 - ii) furnish the required Performance Security.

16.7 *In case of forfeiture of bid security, the bidder shall also be debarred from participation in the works of MoRTH/NHAI/NHIDCL/Centrally Sponsored Scheme for a period of one year from the bid due date of this work.*

17. Alternative Proposals by Bidders

17.1 Bidder shall submit offers that fully comply with the requirement of the Bidding Documents. Conditional offer or alternate offer will not be considered further in the process of

evaluation and such a bid will be declared non-responsive.

18. Format and Signing of Bid

18.1 The Bidder shall submit e-bid comprising the documents as described in **Clause 12** of the ITB.

18.2 The documents to be submitted in the physical form along with the documentary evidence of payment of Tender Fees and EMD / Bid Security, shall be typed or written in ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. All the pages of the documents as mentioned here shall be signed by the person/persons signing the Bid. Documents as mentioned here shall contain no overwriting, alterations or additions, except those to comply with instructions, issued by the Employer or as necessary to correct errors made by the Bidder, in which case such corrections shall be made by scoring out the cancelled portion, writing the correction and signing and dating it along with the stamp by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

19. Marking of Bids

19.1 The documents to be submitted in physical form as per **Clause 12.2** of ITB shall be submitted in a sealed Envelope super scribed as “Documents in Physical Form” at the top left corner.

In case of any discrepancy between documents submitted online and documents submitted in the physical form, the documents submitted in physical form shall prevail over the documents submitted through online process.

20. Deadline for Submission of Bids

20.1 The Bidder shall ensure that the complete e-Bid is uploaded on the e-tender portal on or before the Bid Due Date and before the time specified in NIT/e-portal. The Bidder is further required to submit Documents in Physical Form on or before the Bid Due Date and before the time of submission as specified in NIT, at the following address:

Executive Director (P),
RO West Bengal & Sikkim (Gangtok),
National Highway & Infrastructure Development
Corporation Ltd.
Amdo Golai, Opp. State Veterinary Polyclinic,
Gangtok, Sikkim – 737102
Email : ro.sikkim@nhidcl.com

In the event of the specified date for the submission of Documents in Physical Form being declared a holiday for the Employer, the same will be received up to the specified time on the next working day.

20.2 The Employer assumes no responsibility for inability of a bidder to submit bids through the Employer’s e-tendering portal on account of delay in submission at bidder’s end. Bidders shall ensure that they submit the bid well before the “Bid Due Date and Time of Bid-Submission”.

The Employer shall not be responsible if bidder is not able to submit the bid on account of failure in network/internet connection or any other reason whatsoever.

20.3 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with **Clause 10**, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Submission of Documents in Physical Form:

21.1 Any document in physical form if received by the Employer after the deadline prescribed in **Clause 20** will be returned unopened to the Bidder and also the e-bid submitted by such Bidder shall not be considered.

22. Modification and Withdrawal of Bids

22.1 Bidders may modify or withdraw their e-bids as directed on the e-tendering portal, before the Bid Due Date and time as prescribed in **Clause 20**.

22.2 *No bid may be modified after the deadline for online submission of bids.*

22.3 Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in **Clause 15.1** or as extended pursuant to **Clause 15.2** shall result in the forfeiture of the Bid Security pursuant to **Clause 16**.

22.4 Bidders may modify the prices of their bids before deadline of online submission of bid.

22.5 No Late and delayed bids after Bid Due Date and time shall be permitted in e-tendering portal System. Time being displayed on e-Tendering Portal shall be final and binding on bidders and bids have to be submitted by bidders considering this time only and not the time as per their location/country.

E. BID OPENING, CLARIFICATION OF BIDS AND EVALUATION

23. Bid Opening, Clarification of Bids and Evaluation

23.1 Bid opening shall be carried out in two stages. Firstly, Part-I 'Technical Bid' of all the Bidders received (except those received late) shall be opened on the date and time mentioned in Notice Inviting Tender (NIT). Part-II' Financial Bid' of those bidders whose technical bid has been determined to be substantially responsive shall be opened on a subsequent date through online process of e-tendering, which will be notified to such bidders.

The Employer will open the "Technical Bid" of all the Bids received (except those received late), in the presence of the Bidders/Bidders' representatives who choose to attend at the time, date and place specified in the NIT. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.

23.2 In all cases, the amount of Earnest Money, forms and validity shall be announced. Thereafter, the Employer at the opening as the Employer may consider appropriate, will announce the Bidders' names and such other details.

23.3 The Employer will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with this **Clause 23**.

23.4 The bids accompanied with valid bid security, bid document fee, Tender processing fee will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to **Clause 12.1**.

As soon as possible, the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration. However, to assist in the examination, evaluation of technical bids, the Employer may at his discretion, ask any bidder for clarification of his bid, however, no additional documents in support of clarification will be entertained.

23.5 The Employer shall inform the bidders about the result of technical evaluation by uploading on the web portal giving 7 days time for objections, if any, from the bidders. The Employer shall finalise the evaluation of technical bids after due consideration of objections received and intimate the bidders, whose Technical Bids are found responsive, of the date, time and place of opening of the Financial Bids. The Bidders so informed, or their representative, may attend the event of opening of Financial Bids.

23.6 At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with **Clause 23.5** will be announced. The financial bids of only these bidders will be opened. The responsive bidders' names, the Bid prices, the total amount of each bid, pursuant to **Clause 22** and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening.

23.7 The Employer shall prepare the minutes of the opening of the Financial Bids.

24. Process to be Confidential

24.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of his Bid

25. Contacting the Employer

25.1 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Examination of Bids and Determination of Responsiveness

26.1 During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid

(a) meets the eligibility criteria defined in **Clauses 3 and 4**; (b) contains the required documents in physical form and the documents uploaded by the bidder are in order; and (c) is substantially responsive to the requirements of the Bidding Documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the Bids will be further determined with respect to the remaining bid conditions, i.e., bill of quantities, Specifications and drawings etc.

27. Correction of Errors

27.1 Financial Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- a) Where there is a discrepancy between the rates in figures and words, the rates in words will govern; and

27.2 The amount stated in the Financial Bid will be corrected as per **Clause 27.1** and shall be binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid shall be rejected and the Bid Security shall be forfeited in accordance with **Clause 16.6 (b)**.

28. Evaluation and Comparison of Financial Bids

28.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with **Clause 26**.

28.2 If the Bid of the successful Bidder is seriously unbalanced in relation to the Employer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. If, after evaluation of the price analyses, the Employer determines that the bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Employer may reject the bid/proposal.

F. AWARD OF CONTRACT

29. Award Criteria

29.1 Subject to **Clause 31**, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive according to the bidding documents and who has offered the lowest evaluated Bid price.

30. Employer's Right to Accept any Bid and to Reject any or all Bids

30.1 Notwithstanding **Clause 29**, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer's action.

31. Notification of Award and Signing of Agreement.

31.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by e-mail or facsimile confirmed by registered letter. This letter (hereinafter and in the Part I *General Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion and maintenance of the Works,

by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

31.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of **Clause 32**.

31.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the performance security is furnished.

31.4 Upon furnishing of the Performance Security by the successful Bidder, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

32. Performance Security

32.1 Within '10 (ten) days of receipt of Letter of Acceptance, the selected Bidder shall furnish to the Employer an irrevocable and unconditional guarantee from a Bank in the form set forth in Section 4 (Form of Bank Guarantee for Performance Security) for an amount equal to 5% (five percent) of the Bid Price.

A. Bank Guarantee, in the name of the Employer, from following banks would be accepted: -

i) State Bank of India or its subsidiaries,

ii) Any Indian Nationalised Bank

iii) IDBI/ICICI Bank

iv) Any Scheduled Commercial Bank approved by RBI having a net worth of not less than Rs. 500 crore as per the latest Annual Report of the Bank.

B. The acceptance of the guarantees shall also be subject to the conditions that the capital adequacy of the Bank shall not be less than the latest norms prescribed by RBI.

C. The bank guarantee issued by a Cooperative Bank shall not be accepted.

32.2 The performance security shall be valid until 60 (Sixty) days after the Defect Liability Period.

32.3 For avoidance of any doubt, in case of failure of submission of Performance Security within the stipulated time period, the award shall be deemed to be cancelled/ withdrawn. Thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of the Award shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and the Award shall be deemed to have been withdrawn by the Employer.

32.4 The agreement will be executed within 10 days of receipt of Performance Security.

- 32.5 Deleted
33. Advances
- 33.1 DELETED

G. CORRUPT OR FRAUDULENT PRACTICES

34. Corrupt or Fraudulent Practices

34.1 The bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the bidding process. Notwithstanding anything to the contrary contained herein, the Employer may reject any bid without being liable in any manner whatsoever to the bidder if it determines that the bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the bidding process.

34.2 Without prejudice to the rights of the Employer under **Clause 34.1** hereinabove, if any bidder is found by the Employer to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the bidding process, such bidder shall not be eligible to participate in any tender issued by the Employer during a period of 2 (two) years from the date such bidder is found by the Employer to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

34.3 For the purposes of this **Clause 34**, the following terms shall have the meaning hereinafter respectively assigned to them:

- a) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the bidding process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of the Employer who is or has been associated in any manner, directly or indirectly, with the bidding process or has dealt with matters concerning the Contract or arising therefrom, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Employer, shall be deemed to constitute influencing the actions of a person connected with the bidding process); engaging in any manner whatsoever, whether during the bidding process or after the award or after the execution of the Contract, as the case may be, any person in respect of any matter relating to the Works, who at any time has been or is a legal, financial or technical adviser of the Employer in relation to any matter concerning the Works;
- b) “fraudulent practice” means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the bidding process;
- c) “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the bidding process;
- d) “undesirable practice” means establishing contact with any person connected with or employed or engaged by the Employer with the objective of canvassing, lobbying or

- in any manner influencing or attempting to influence the bidding process; and
- e) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among bidders with the objective of restricting or manipulating a full and fair competition in the bidding process.
- The Employer requires the Bidder/Contractor to strictly observe the laws against fraud and corruption enforced in India, namely Prevention of Corruption Act, 1988.

H. LABOUR LAWS AND FUNDAMENTAL BREACH

35. Labour Laws and Regulations

35.1 The Bidders shall be aware of the provisions of various Labour Laws, Regulations and Welfare Measures applicable for Construction Workers in India, and other obligations stated in the Conditions of Contract.

36. Fundamental Breach and other obligations

36.1 The Bidders shall be aware of the provisions of Fundamental Breach and other obligations stated in the Conditions of Contract.

Appendix to ITB

Appendix to ITB		
Instructions to Bidders Clause Reference		
(1.1)	The Employer is National Highways & Infrastructure Development Corporation Limited, 3 rd Floor, PTI Building, 4-Parliament Street, New Delhi-110001	
(1.1)	Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal	
(4.4) B) (b) (i)	Name of the Equipment	Quantity
	Tipper/Trucks (05 Ton Capacity)	4
	Hydraulic Excavator with rock breaker attachment	2
	Back hoe loader	2
	Soil Compactor	1
	Paver finisher	1
	HMP Plant (100 - 120 TPH)	1
	Front end Loader 1 cum bucket capacity	2
	Tandem Roller	1
	Bitumen pressure distributor @ 1750 sqm per hr.	1
	Mastic Cooker	1
	Any other equipment required for carrying out work as per Ministry's specification and ground necessity.	
	Note:	
	(i) The bidder must upload scanned copy of the documentary evidence in support of his owning/leased/ rented of the above equipment. In case the bidder proposes to hire or take the above equipment on lease, he should, along with the lease/rent agreement, attach the proof of ownership of these equipment with the company/ entity from whom the equipment are proposed to be hired on lease/ rent.	

- (ii) Default of Contractor on account of mobilization of Equipment:
A penalty of 0.05% of the Contract Price per day shall be levied on the Contractor if the Contractor fails to mobilize the above-said equipment within 14 days of letter of commencement, or thereafter from the date of issuance of letter by Engineer/Employer in this regard.

Note:

The bidder must upload scanned copy of the documentary evidence in support of his owning/ leased/rented of the above equipments. In case the bidder proposes to hire or take the above equipment on lease, he should, along with the lease/rent agreement, attach the proof of ownership of this equipment with the company/entity from whom the equipment are proposed to be hired on lease/rent. Any conditional evidence of deployment of above equipment or inadequate proof as required for any of the equipment shall make the bid non-responsive and financial bid shall not be opened.

[4.3 B (b) (ii)] The Number of Technical Personnel, Qualifications and Experience will be as follows:

(4.4) (B) (b) (ii)		The Number of Technical personnel, Qualifications and Experience will be as follows: The Technical Personnel are:		
SL. No.	Personnel	Qualification	Particular Experience (Minimum requirement)	No. of Persons
1	Project Manager	B.E/B.Tech/AMIE in Civil Engineering + 5 yrs. of exp.	3 years on highway constructions / maintenance work of NH/SH/CRIF.	1
2	Site Engineer	B.E/B.Tech/AMIE in Civil Engineering + 3 yrs. of exp. /Diploma (Civil) + 5 year Exp.	3 years on highway constructions / maintenance work.	2
			Total	3

	Note: i. The detailed signed and scanned CV of the Key Technical Personnel at S. No. 1 signed by the key personnel himself, must be uploaded along with the bid. The name and educational qualification of other personnel should be given. Non-compliance of the above or non-furnishing of the CV as above or conditional deployment of any of the above personnel or proposal to employ lesser number of personnel than above shall make the bid nonresponsive and financial bid shall not be opened. ii. The Project Manager shall also look after the safety requirements at site as per MoRTH Guidelines. iii <u>Default of Contractor on account of mobilization of Manpower</u> : A penalty of 0.05% of the Contract Price per day shall be levied on the Contractor if the Contractor fails to mobilize the above-said manpower within 14 days of letter of commencement, or thereafter from the date of issuance of letter by
--	---

Note: The signed CVs must be uploaded along with the bid. Non-compliance of the above or non-furnishing of the CV as above or conditional deployment of any of the above personnel or proposal to employ lesser number of personnel than above shall make the bid non-responsive and financial bid shall not be opened.

[9.2.1] - Pre-bid meeting shall be held on 25.02.2025 (1600 Hrs onwards)

SECTION -3

QUALIFICATION INFORMATION

SECTION -3

QUALIFICATION INFORMATION

The information to be filled in by the Bidder in this section and documents submitted in physical form will be used for the purposes of post qualification as provided for in **Clause 4** of the Instructions to Bidders. This information will not be incorporated in the Contract.

QUALIFICATION INFORMATION

1. For Individual Bidders

- 1.1** a) Year of Constitution
b) Legal status of Bidder (Proprietorship/Partnership or Pvt. Ltd. firm)
[Upload scanned copy of original]
c) Place of registration: _____
d) Principal place of business: _____
- 1.2** Power of Attorney of signatory of Bid *[Upload scanned copy and also supply Original copy in envelope of physical form]]*
- 1.3** Total value of Civil Engineering construction and/or maintenance works performed in the last three years (in Rs. Lakh).

Refer ITB **Clause 4.4 A (a)**

(Upload scanned copies of certificate from Chartered Accountant and also supply original certificate from Chartered Accountant)

Year	Total value of work performed (Rs. Lac)
------	---

1.4 (a) Work performed as prime contractor/JV partner provided further that all other qualification criteria are satisfied (in the same name) of a similar nature during the last five years as per ITB Clause 4.3A(b).

Project Name	Name of the Employer*	Description of work	Value of Contract (Rs. in Lac)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay in work Completed

** Upload certificate(s) from the Employer (to be given by an officer not below the rank of Executive Engineer or equivalent or higher and also supply original or certified copy in physical form envelope)*

Note: In case of sub-contractor—a certificate from the Executive Engineer or equivalent of the Prime Employer should be obtained from whom an approval for subcontractor has been obtained.

1.4 (b) Information on Bid Capacity (works for which bids have been submitted and accepted and works which are yet to be completed) as on the date 7 days before the last date for bid submission (as per **Clause 4.4** of the ITB).

(i) Existing commitments and on-going works (B)

Description of work	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs Cr)	Stipulated Period of Completion	Value of works* remaining to be completed (Rs Cr)	Escalation factor	Anticipated date of completion	Escalated value of remaining work during completion period of work for which bids are invited
1	2	3	4	5	6	7	8	9	10

* Upload certificate (s) from the Engineer(s)-in-Charge of the rank of Executive Engineer or equivalent & also supply original or certified copy of certificate in physical form envelope.

(ii) Details of works for which bid submitted and accepted (i.e. where contract signing is pending)

Description of works	Place & State	Name & Address of Employer	Date of issue of Letter of Acceptance (LOA) *	Value given in LOA	Stipulated period for completion	Value of work during completion period of work for which bids are invited
1	2	3	4	5	6	7

* Upload copy of LOA

(iii) Bid Capacity (Bidder shall calculate, mention his bid capacity and enclose the supporting calculation)

A = Rs.....lakh (enclose the details)

N = years

B = Rs.....lakh (enclose the details)

available bid capacity = $A \times N \times 2.5 - B$

= Rs.....lakhs

1.5 Availability of Key Equipment essential for carrying out the Works [Ref. **Clause 4.3(B)** (b) (i)]. The Bidder should list all the information requested below.

Item of Equipment	Requirement		Availability Proposals		Page No of the proof attached
	No.	Capacity	Owned/Leased rented	Age/ Condition	

Note: The bidder must upload the documentary evidence in support of his owning/leased/rented of the above equipment. In case the bidder proposes to hire or take the above equipment on lease, he should, along with the lease/rent agreement, attach the proof of ownership of these equipments with the company/entity from whom the equipment are proposed to be hired on lease/rent. Any conditional evidence of deployment of above equipment or inadequate proof as required for any of the equipment shall make the bid non-responsive and financial bid shall not be opened.

1.6 Qualification and Experience of Key Personnel required for administration and execution of the Contract [Ref. **Clause 4.3 (B) (b) (ii)**]. Upload biographical data for technical personnel (Refer also to **Clause. 4.1 (e)** of Instructions to Bidders).

(Refer also to Sub **Clause 9.1** of the General Conditions of Contract).

Position	Name	Qualification	Total Professional Experience (Years)	Experience in the proposed position (Years)

Note : The signed CVs of the Technical Personnel must be uploaded along with the bid. Non-compliance of the above or non-furnishing of the CV as above or conditional deployment of any of the above personnel or proposal to employ lesser number of personnel than above shall make the bid non-responsive and financial bid shall not be opened.

1.7 Information on litigation history in which the Bidder is involved.

Other Party	Employer	Cause of Dispute	Amount involved (Rs lakh)	Remarks showing Present Status

2. Bidders should upload the scanned copy of the following affidavits/undertakings as per formats enclosed hereinafter and also send original copy of Affidavit/Undertakings: -

- i) Affidavit (it should be on stamp paper attested by Notary Public)
- ii) Undertaking regarding availability of minimum cash amounting to 25% of the value of work during implementation of the Contract towards working capital.
- iii) Undertaking that the Bids shall remain valid for the period specified in **Clause 15.1**.

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the enclosed attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s _____ have abandoned any work in India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby Authorise(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Employer to verify this statement or regarding our competence and general reputation.
4. The undersigned understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Employer and within the prescribed time.

(Signed by an Authorised Representative of the Firm)

Name of the Representative

Name of Firm

Date

To be notarized by Notary

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____
_____ shall maintain availability of minimum cash amounting to
25% of the value of the work during implementation of the Contract towards the working capital.

(Signed by an Authorised Representative of the Firm)

Name of the Representative

Name of Firm

Date

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____
_____ agree to abide by this bid for a period of _____ days after the date fixed for
receiving the same and it shall be binding on us and may be accepted at any time before the
expiration of that period.

(Signed by an Authorised Representative of the Firm)

Name of the Representative

Name of Firm

Date

SECTION-4

FORMS OF BANK GUARANTEES LETTER OF ACCEPTANCE (LOA) AND AGREEMENT

SECTION-4
FORMS OF BANK GUARANTEES
LETTER OF ACCEPTANCE (LOA) AND AGREEMENT

FORM OF e-BANK GUARANTEE FOR BID SECURITY

WHEREAS _____ (Name of Tenderer) (hereinafter called the Tenderer) wishes to submit his tender for **(Name of Tenderer) (hereinafter called the Tenderer) wishes to submit his tender for “Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal”** herein after called “the Tender” KNOW ALL MEN by these present that we _____ (Name of Bank) of _____ (Name of country) having our registered office at _____ (hereinafter called the ‘Bank’) are bound unto the _____ - _____ (hereinafter called “the Employer”) in the sum of Rs. _____ (Rupees _____) *for which payment can truly be made to the said Employer. The Bank bind themselves, their successors and assigns by these present with the common seal of the Bank this day _____ of _____ and undertake to pay the amount of _____ Rs. _____ (Rs.in words _____) to the Employer upon receipt of his first written demand without the Employer having to substantiate his demand.

The conditions of this obligation are:

- i) If the tenderer withdraws his tender during the period of Tender validity specified in the Form of Tender.
- Or
- ii) If the Tenderer having been notified of the acceptance of his Tender by the Employer during the period of tender validity.
 - a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders.

We undertake to pay to the Employer upto the above amount upon receipt of his first written demand, without the employer having to substantiate his demand, provided that in his demand

the Employer will note that the amount claimed by him is due to him owing to the occurrence of any one of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including the date 45 days beyond the validity of the bid as stated in the Instructions to Bidders or as it may be extended by the Employer, at any time prior to the closing date for submission of the Tenders Notice of which extension to the Bank is hereby waived. Any demand in respect of this guarantee should be made on the Bank on or before the date of expiry of this guarantee.

This guarantee shall also be operatable at our Branch at Gangtok, from whom, confirmation regarding the issue of this guarantee or extension/ renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment there under claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to Rs. _____ (Rs. _____ in words) and the guarantee shall remain valid till _____. Unless a claim or a demand in writing is served upon us on or before _____ all our liability under this guarantee shall cease.

E-Bank Guarantee has been sent to authority's bank through SFMS gateway as per the details below:-

Particulars	Details
Name of the Beneficiary	National Highways and Infra Dev Corp Ltd.
Beneficiary Bank Account No.	94113210000020
IFC Code	CNRB0019411
Beneficiary Bank Branch Name & Address	Canara Bank, MG Marg, Gangtok-737101
Entity id	AAECN7759E (for e-BG purpose only)

SIGNATURE OF AUTHORISED REPRESENTATIVE OF THE BANK _____

NAME AND DESIGNATION _____ EMPLOYEE CODE NUMBER _____

SEAL OF THE BANK _____

SIGNATURE OF THE WITNESS (IF THIS IS TO BE WITNESSED AS PER BANK'S POLICY) _____

NAME OF THE WITNESS _____

ADDRESS OF THE WITNESS _____

**FORM OF e-BANK GUARANTEE FOR PERFORMANCE
SECURITY**

To

[Address of Employer]

WHEREAS..... (name and address of contractor) hereinafter called "the Contractor" has undertaken, in pursuance of Letter of Acceptance No.

..... Dated..... to execute **"Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal"** (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREOF we hereby affirm that we are the guarantor and responsible to you on behalf of the Contractor, up to a total amount of **Rs.....** (amount of guarantee) (Rupees (in words) and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the works to be performed there under or of any of the contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 60 days from the date of expiry of the Defects Liability Period.

This guarantee shall also be operatable at our Branch at Gangtok, from whom, confirmation regarding the issue of this guarantee or extension/ renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment there under claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to Rs._____ (Rs._____ in words) and the guarantee shall remain valid till _____. Unless a claim or a demand in writing is served upon us on or before _____ all our liability under this guarantee shall cease.

E-Bank Guarantee has been sent to authority's bank through SFMS gateway as per the details below:-

Particulars	Details
Name of the Beneficiary	National Highways and Infra Dev Corp Ltd.
Beneficiary Bank Account No.	94113210000020
IFC Code	CNRB0019411
Beneficiary Bank Branch Name & Address	Canara Bank, MG Marg, Gangtok-737101
Entity id	AAECN7759E (for e-BG purpose only)

Signature and seal of the Guarantor with Name, Designation, Employee Code Number and Telephone Number.....

Name of the Issuing

Name of the Controlling

Bank/Branch-----

Branch/Bank-----

Address and Telephone Number

Address and Telephone Number.....

Date.....

In the presence of (if this is to be witnessed as per bank's policy)

1.....

(Name, Address and Occupation)

2.....

(Name, Address and Occupation)

An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in Indian Rupees.

FORM OF LETTER OF APPLICATION

To,

[Address of Employer]

DESCRIPTION OF WORKS: BID FOR “Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal”

Dear Sir,

Having examined the Bid Document, Instructions to Bidders, Qualification Information, Scope of works, etc. for the subject work we hereby submit our bid for the subject work.

It is certified that the information furnished in this document is true and correct. The proposal is unconditional and unqualified. We undersigned accept that the Employer reserves the right to reject any or all applications without assigning any reason.

Thanking you,

Yours faithfully,

(Authorized Signatory)

For and on behalf of M/s_____

FORM OF LETTER OF ACCEPTANCE

No.

Dated

To

M/s.....

Sub.: “Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal”

Sir,

Based on your bid submitted onin compliance of bidding document of [the Employer] for execution of the works of **“Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal”**, it is hereby notified that your bid for a Contract Price of **Rs..... (Rupees in words...)** has been accepted for and on behalf of National Highways & Infrastructure Development Corporation Limited (NHIDCL).

You are hereby requested to furnish Performance Security plus additional security in the form detailed in **Clause 32.2** of ITB for an amount equivalent to **Rs (Rupees in words...)** within 10 days as per provisions of **Clause 32.1** of ITB of the bid document and sign the contract agreement failing which the actions as stipulated in Clause-32.3 of ITB shall be taken.

Thanking you,

Yours faithfully,

(.....)

Employer

FORM OF AGREEMENT

AGREEMENT

This agreement made the _____ day of _____ between the _____ (hereinafter called "the Employer" of the one part and _____ (here in after called "the Contractor") of the other part.

AND WHEREAS the Employer invited bids from eligible bidders for the execution of **"Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal"**.

AND WHEREAS pursuant to the bid submitted by the Contractor, vide (herein after referred to as the "BID" or "OFFER") for the execution of works, the Employer by his letter of acceptance dated _____ accepted the offer submitted by the Contractor for the execution and completion of such works and remedying of any defects thereon, on terms and conditions in accordance with the documents listed in **Para 2** below.

AND WHEREAS the Contractor by a deed of undertaking dated _____ has agreed to abide by all the terms of the bid, including but not limited to the amount quoted for the execution of Contract, as stated in the bid, and also to comply with such terms and conditions as may be required from time to time.

AND WHEREAS the Contractor has agreed to undertake such works and has furnished a Performance Security pursuant to **Clause 32** of ITB (**Section-2**).

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement, words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to;
2. The following documents shall be deemed to form and be read and construed as part of this agreement viz.
 - a) Agreement;
 - b) Letter of Acceptance;
 - c) Contractor's Bid;
 - d) Contract Data;
 - e) General Conditions of Contract;
 - f) Addendum to General Conditions of Contract;
 - g) Road Maintenance Standards and Specifications for Road Maintenance Works;
 - h) Drawings, if any;
 - i) Bill of Quantities; and
 - j) Any other document listed in the Contract Data.

3. The foregoing documents shall be construed as complementary and mutually explanatory one with another. Should any ambiguity or discrepancy be noted, then the order of precedence of these documents shall be subject to the order as listed above and interpreted in the above order of priority.
4. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein in conformity in all respects with the provisions of the contract.
5. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties here to have caused this agreement to be executed the day and year above written. Signed, sealed and delivered by the said Employer through his Authorized Representative and the said Contractor through his Power of Attorney holder.

Binding Signature of Employer_____ **Binding Signature of Contractor** _____

For and on behalf of _____ For and on behalf of M/s -----

In the presence of

1. Name :

Address:

2. Name :

Address:

In the Presence of

1. Name:

Address:

2. Name:

Address:

SECTION -5

GENERAL CONDITIONS OF CONTRACT (GCC) AND CONTRACT DATA

SECTION 5
GENERAL CONDITIONS OF CONTRACT (GCC)

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A. GENERAL

1. Definitions

1.1 Terms which are defined in the Contract Data but not defined in the Conditions of Contract keep their defined meanings. Capital initials are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Contractor's Bid.

Certificate of Completion is the Certificate issued by the Engineer upon completion of works or parts thereof as applicable in accordance with **Clause 47**.

Compensation Events are those defined in **Clause 40**.

Contract is the Contract between the Employer and the Contractor to maintain the road assets and to execute, complete, and maintain the Works. It consists of the documents listed in **Clause 2.3**.

Contract Data defines the documents and other information, which comprise the Contract.

Contractor is a person or corporate body whose Bid to carry out the Road Maintenance Works and Activities has been accepted by the Employer.

Contractor's Bid is the completed Bidding Document submitted by the Contractor to the Employer.

Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; months are calendar months.

Defect is any part of the Maintenance Works and Activities not completed in accordance with the Contract Specifications.

Defects Liability Certificate is the certificate issued by the Engineer, after the Defects Liability Period has ended and upon correction of Defects by the Contractor.

Defects Liability Period means the period so stipulated in the Contract Data, calculated from the Completion Date, during which the Contractor remains responsible for the rectification of any defect in the Works he has undertaken.

Employer is the party as defined in the Contract Data, who employs the Contractor to carry out the Works. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.

Engineer is the person named in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract on behalf of the Employer.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to execute the Maintenance Works and Activities.

Intended Completion Date is the date, as given in contract data, on which it is intended that the Contractor shall complete the Works as per scope under the contract. The intended Completion Date may be revised only by the Engineer by issuing an Extension of Time after approval from the Employer.

Letter of Acceptance means the formal acceptance of the Bid by the Employer.

Materials are all supplies, including consumables, used by the Contractor for incorporation in the Maintenance Works and Activities.

Maximum Response Time means the maximum permissible time within which remedial action must be completed prior to a defect exceeding the permissible tolerance. Maximum Response Time commences from the time of earliest detection of the defect by (i) observation of the defect by the Contractor, or (ii) notification of the defect by the Engineer, or (iii) intimation of the defect by a road user.

Notice to Proceed means the notice issued by the Employer to the Contractor to proceed with the work after signing of the contract pursuant to **Clause 32.1** of ITB.

Permissible Tolerance means the maximum permissible amount or quantity of a defect in road-asset condition that will not be exceeded at any time. If any defect exceeds the permissible tolerance, it shall be treated as “non-compliance” and the Contractor shall be paid in accordance with the relevant provisions in this contract.

Project Manager is a person appointed by the Contractor who is in charge of managing all activities of the Contractor under the Contract. He is also the Contractor’s Representative for the purpose of this Contract.

Road means the Road or package of roads in network or scattered for which the Maintenance Works and Activities are to be carried out under the Contract.

“Road Assets” include the following:

- i) Main carriageway with shoulders (paved and/or earthen), medians, slip roads, service roads;
- ii) Road embankment including slopes, protection works, kerbs and chute drains;
- iii) Roadway in cutting including slopes protection works, drains;
- iv) Culverts, Bridges, Over/Underpasses, retaining walls, Guide bunds, Floor protection works;
- v) Road signs, road markings, road delineators, guard rails, safety barriers, railings, fencings, parapets, kilometre stones, 200 m stones, road boundary stones;
- vi) All types of drains, trees, plantations and erosion control measures;
- vii) Road land;
- viii) Any other project facility or asset forming integral part of the road(s).

Road Maintenance Standards is the collective term for parameters which define the condition in which the road is required to be maintained and other requirements regarding safety and quality of works to be complied with by the Contractor.

Road Maintenance Works and Activities to be carried out by Contractor shall include:

Maintenance of the road specified in the BOQ and executing other items of road maintenance works as ordered by the Engineer.

Rectification Standard

The Contractor shall maintain specific parts of the Road aspects as specified in BOQ or as ordered by Engineer in charge and ensure road user safety and comfort. The maintenance activities shall be so planned that the defects are repaired well before they reach maximum condition as per the permissible tolerance

Site is the area defined as such in the Contract Data, where maintenance works are to be executed.

Specifications means the Specifications of the Maintenance Works including the Road Maintenance Standards as per the Contract.

Start Date is given in the Contract Data. It is the date when the Contractor shall commence execution of the Works.

Service Level means the defined condition in which the road assets are to be maintained by the Contractor.

Sub-Contractor is a person or corporate body who has a Contract with the Contractor to carry out a work under the Contract, which includes part of the agreed scope of works at the Site.

Temporary Works are works designed, constructed, installed and removed by the Contractor that are needed for Works and Activities.

Time for Completion means the duration for completing the execution of maintenance works and passing the tests on completion of the Works or any Section or part thereof as stated in the Contract Data or as extended by the Engineer by issuing an Extension of Time after the approval from the Employer.

Variation is an instruction given by the Engineer in writing which varies the scope of Maintenance Works.

Work Order is an order issued by the Engineer to the Contractor for execution of certain works, specifying the time limits which may be in variance with the approved programme or in variation to the scope of work depending upon the site requirement.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract Unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.

2.2 If part completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date and the Intended Completion Date apply to any part of the Works (other than references to the Completion Date and Intended Completion Date for the whole of Works).

2.3 The following documents shall be deemed to form and be read and construed as part of the Contract. In case any ambiguity or discrepancy is noted, then the Contract shall be interpreted in the following order of priority:

- i) Agreement;
- ii) Notice to Proceed with the Work;
- iii) Letter of Acceptance;
- iv) Contractor's Bid;
- v) Contract Data;
- vi) General Conditions of Contract;
- vii) Road Maintenance Standards and Specifications for Road Maintenance Works, Part I and Part II;
- viii) Priced Bill of Quantities; and
- ix) Any other documents listed in the Contract Data.

3. Language and Law

3.1 The language of the Contract shall be in English and the law governing the Contract as given in Contract Data.

4. Engineer's Decisions

4.1 The Employer shall designate and notify the Contractor in writing the name of the Engineer.

4.2 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer. The Engineer shall have no authority to relieve the Contractor of any of his obligations under the Contract.

5. Delegation

5.1 The Engineer, duly informing the Employer, may delegate any of his duties and responsibilities to other people, after notifying the Contractor and may cancel any delegation under intimation to the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only in writing. A notice shall be effective only when it is delivered as per Indian Law.

7. Subcontracting

7.1 The Contractor may subcontract any portion of work, up to a limit specified in Contract Data, with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall neither alter the Contractor's obligations, nor relieve the Contractor from any liability or obligation under the Contract.

- 7.2** The Contractor shall not be required to obtain any consent from the Employer for:
- a) the sub-contracting of any part of the Works for which the Sub-Contractor is named in the Contract;
 - b) the provision for labour, or labour component;
 - c) the purchase of Materials which are in accordance with the standards specified in the Contract.

7.3 Beyond what has been stated in **Clauses 7.1 and 7.2**, if the Contractor proposes sub-contracting of any part of work during execution of the Works, because of some unforeseen circumstances to enable him to complete the Works as per terms of the Contract, the Employer will consider the following before according approval:

- a) The Contractor shall not sub-contract the whole of Works.
- b) The Contractor shall not sub-contract any part of the Work without prior consent of the Employer. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be fully responsible for the acts, defaults and neglects of any of his sub-Contractor, his agents or workmen as if they were the acts, defaults or neglects of the Contractor, his agents and workmen.

- 7.4** The Engineer should satisfy himself before recommending to the Employer whether
- a) the circumstances warrant such sub-contracting; and
 - b) the sub-Contractor so proposed for the Work possess the experience, qualifications and equipment necessary for the job proposed to be entrusted to him in proportion to the quantum of Works to be sub-contracted.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other Contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the Contract Data. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors and shall notify the Contractor of any such modification. The Contractor shall cooperate in such situations as well.

8.2 The Contractor should take up the works in convenient reaches as decided by the Engineer to ensure that there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other Contractors till the completion of Works.

9. Personnel and Equipment

9.1 The Contractor shall employ the technical personnel named in the Contract Data or other technical persons approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the Contract Data. If the personnel stated in the Contract Data are not deployed on site by the Contractor within 15 days of issue of notice to proceed with the work, a penalty of 5000/- per day per person shall be levied for next 30 days, beyond which it shall be treated as a breach of Contract and action will be taken as per **Clause 51**.

9.2 The Contractor shall use the equipment identified in the bid along with competent operators and adequate stock of spares for smooth operations.

9.3 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works under the Contract.

9.4 The Contractor shall establish, within his own organizational structure, a planning unit, staffed with suitably qualified personnel. The team will be headed by a Project Manager who will be assisted by his representatives, i.e. Site Manager and Manager, Planning. The task of this unit will be:

9.4.1 To plan, and to verify continuously the degree of compliance by the Contractor with the specified Road Maintenance Standards and report the same to the Engineer in the format acceptable to the Engineer.

9.4.2 To maintain and update the road condition inventory regularly.

9.4.3 To assist the Engineer in verification of the compliance.

9.5 The Contractor's planning unit mentioned under **Sub-clause 9.4** shall report the level of compliance with the required Service Levels in the standard formats acceptable to the Engineer.

10 . Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 The Employer is responsible for the expected risks which are (a) in so far as they directly affect the execution of the Maintenance Works and Activities included in the Contract, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot, commotion or disorder (unless restricted to the Contractor's employees), natural calamities and contamination from any nuclear fuel or nuclear waste or radioactive toxic, explosive.

12. Contractor's Risks

12.1 All risks of loss of or damage to physical property and of personal injury and death, which arise during and in consequence of the performance of the Contract other than the excepted risks, referred to in **Clause 11.1**, are the risks of the Contractor.

13. Insurance

13.1 The Contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the completion of defect liability period, in that amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- a) Loss of or damage to the Works and Materials
- b) Loss of or damage to Equipment
- c) Loss of or damage to property (except the Works Materials and Equipment) in connection with the Contract
- d) Third Party Liability Insurance
- e) Automobile Liability Insurance
- f) Workers' Compensation
- g) Employer's Liability
- h) Other Insurances

13.2 Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in Indian Rupees to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer had paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due from the Contractor.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

13.5 Both parties shall comply with any conditions of the insurance policies. The Contractor shall ensure that wherever applicable, its Sub-Contractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for works executed by them under the Contract unless such Sub-Contractor(s) is/are covered by the policies taken out by the Contractor.

14. Site Investigation Reports

14.1 The Contractor, in preparing the Bid, may rely at his own risks and liability on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him.

15. Queries about the Contract Data

15.1 The authorized representative of the Employer as stated in the Contract data will clarify queries on the Contract Data.

16. Contractor to Construct the Works

16.1 The Contractor's obligations cover the carrying out of all Maintenance Works and Activities as defined in the Contract for keeping the roads in accordance with the Road Maintenance Standards.

The Contractor shall construct, install and maintain the Works in accordance with the Specifications and Drawings.

17. The Works to be completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Maintenance Works and Activities on the Start Date and shall carry out the Works in accordance with the Programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

18. Approval by the Engineer

18.1 The Contractor shall prepare/propose the Maintenance Manuals as per relevant applicable Standards and Specifications and existing policies/guidelines/practices and get the same approved from the Engineer/Employer.

18.2 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with Specifications and drawings.

18.3 The Contractor shall be responsible for design of Temporary Works.

18.4 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.5 The Contractor shall obtain approval of third parties to the design of Temporary Works by Engineer.

18.6 All Drawings prepared by the Contractor for the execution of temporary or permanent Works, are subject to prior approval by the Engineer before their use.

19. Site Regulations and Safety

19.1 The Contractor shall be responsible for the safety of all activities on the Site, including arrangements for smooth flow of traffic at his own cost as per guidelines of the IRC/Ministry of Road Transport & Highways. He shall provide proper barricading, diversion boards, etc. He shall be fully responsible for the safety of workers and staff at site and provide safety helmets, reflective jackets and other PPE to the workers, inspecting officers and supervisors.

20. Discoveries

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

21.1 The Employer shall give possession of all parts of the Site to the Contractor on or before the start date of the Contract.

22. Access to the Site

22.1 The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the Engineer and any

person/persons/agency authorized by:

- a) The Engineer
- b) The Employer

23. Instructions

23.1 The Contractor shall carry out all instructions of the Engineer pertaining to the maintenance works which comply with the applicable laws where the Site is located.

23.2 The Contractor shall permit the Engineer/Employer to inspect the Contractor's contemporary records in respect of invoice of bitumen, cement, aggregates and steel, if so desired by the Engineer.

24. Procedure for Dispute Resolution

24.1 Arbitration

The procedure for arbitration will be as follows:

- i) In case of Dispute or difference arising between the Employer and the Contractor relating to any matter arising out of or connected with this contract, such disputes or differences shall be settled in accordance with the Arbitration and Conciliation Act, 1996 as amended vide Act of 2015. The Arbitral Tribunal shall consist of sole Arbitrator from the panel of three Arbitrators proposed by the Employer and choice of selecting one given to the Contractor. Contractor shall select one out of the three names of Arbitrators given to him within 30 days failing which the Employer shall nominate the Arbitrator out of the panel of three Arbitrators. In case the Contractor objects to the Arbitrator selected by the Employer, the Employer shall refer selection of Arbitrator to the Indian Roads Congress for nominating the Arbitrator for the dispute and both parties agree that the Arbitrator so selected by IRC shall decide the dispute. Indian Roads Congress shall try to appoint Arbitrator preferably from the state where the project is located or otherwise from adjoining States.
- ii) Arbitration proceedings shall be held at [Name of Place], India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- iii) The decision of the Arbitrator shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitral Tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings shall be borne by each party itself. The fees and expenses of the Arbitrator shall be shared equally by both the parties.
- iv) Performance under the contract shall continue during the Arbitration proceedings and payments due to the Contractor by the Employer shall not be withheld, unless they are the subject matter of arbitration proceedings.

B. TIME CONTROL

25. Programme

25.1 The Contractor shall submit to the Engineer for approval a programme within period specified in the contract data showing the general methods, arrangements, order, and timing for all the maintenance works and activities.

25.2 The Engineer may issue the work order in stages specifying the time limit for the same as and when required except the performance-based maintenance items.

25.3 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of progress achieved on the timing of the remaining Works, including any changes to the sequence of activities.

25.4 The Contractor shall submit to the Engineer for approval an updated Programme at intervals. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

25.5 The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme shall show the effect of Variations and Compensation Events.

26. Extension of the Intended Completion Date

26.1 The Engineer shall extend the Intended Completion Date only after approval of the Employer if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Works, which would cause the Contractor to incur additional cost.

26.2 The Engineer, within 14 days of receiving full justification from the Contractor for extension of Intended Completion Date, will refer to the Employer his recommendation. The Employer shall, in not more than 21 days from the date of receipt of Engineer's recommendation, communicate to the Engineer the acceptance or otherwise. The Engineer shall convey the decision of the Employer to the Contractor.

27. Delays Ordered by the Engineer

27.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totaling more than 30 days will require prior written approval of the Employer.

28. Management Meetings

28.1 The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans and progress for the Maintenance Works.

28.2 The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either during the management meeting or after the management meeting and to be intimated in writing to all those who attended the meeting.

C. QUALITY CONTROL

29. Identifying Defects

29.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects those are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to uncover and test any work that the Engineer considers may have a Defect.

30. Tests

30.1 The Contractor shall set up a field laboratory within period stated in contract data and be solely responsible for:

- a) Carrying out the mandatory tests prescribed in Technical Specifications and
- b) For the correctness of test/procedures, whether preformed in his laboratory or elsewhere.

30.2 If the Engineer instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the testing charges and for any number of samples. Otherwise, the Employer shall pay for the testing charges.

31. Correction of Defects noticed during the Defects Liability Period

31.1 The works carried out shall be of very high standard, requiring no major repairs on the road for at least, during defects liability period, after the date of completion of works.

31.2 If any defects including shrinkage, cracks, other faults appear in the works within the period specified hereunder after issue of "Taking over" certificate, the Engineer shall give notice to the Contractor of any defects before the end of the Defects Liability Period. The Defects Liability Period shall be extended for as long as the defects remain to be corrected.

31.3 Every time notice of a defect is given, the Contractor shall correct the notified defect at his own cost within the length of time specified in the Engineer's notice.

31.4 The Defects Liability Period is not applicable for works of routine maintenance such as pot holes/ patch repairs/ruts repairs under performance based BOQ item.

However, for other specific items of works, got executed as ordered by Engineer, the Defect Liability Period shall be **12 months**, counted from the Date of Completion stated in the Certificate of Completion issued in pursuance of **Clause 47**.

31.5 If during the Defects Liability Period any defect is found in the design, engineering, materials and workmanship of the Works and Services executed by the Contractor, then the

Contractor shall promptly, in consultation and agreement with the Engineer, appropriately remedy such defects at its cost, or repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defects as well as any damage to the Road caused by such defects.

31.6 The Contractor's obligations under this Clause 31 shall not apply to:

- a) any material that is supplied by the Employer, and normally consumed in maintenance, or have a normal life shorter than the Defects Liability Period stated herein;
- b) any design, Specification or other data, supplied or specified by or on behalf of the Employer or any matter for which the Contractor has disclaimed responsibility herein;

31.7 The Employer shall offer the Contractor all reasonable opportunity to inspect the defect(s) Noticed, as well as provide all necessary access to the Facilities and the Site to enable him to perform his obligations under this **Clause 31**.

The Contractor may remove from the Site any Plant and Equipment or any part of the Facilities that are defective, if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

32. Uncorrected Defects

32.1 If the Contractor fails to correct a Defect, to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected. The Contractor will pay to the Employer this amount or the Engineer may deduct such amount from any sums due to the Contractor, on correction of the Defect together with 20percent additional costs as the damages.

32.2 In case of any non-compliance/delayed compliance of maintenance standards, the damages/reduction in payment shall be applicable as provided under road Maintenance Standards Part – I.

D. COST CONTROL

33. Bill of Quantities

33.1 The Bill of Quantities shall contain the description of items, units, rates and amount.

33.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rates given in the Bill of Quantities with accepted/awarded tender premium for each item for the work executed.

The accepted/awarded tender premium above/below the grand total of Project cost as per BOQ shall be applicable for individual item of work to determine payable amount to Contractor subject to contractual provisions.

34. Changes in the Quantities

34.1 The final quantity of the work done may differ from the quantity given in the Bill of Quantities. The payment shall be made for the quantities executed. Provided that the items for

which lump sum rates have been quoted shall not be measured and the payments for such items not exceeding the quoted lump sum amount shall be made to the Contractor subject to meeting the specified maintenance requirements by the Contractor in accordance with the Agreement. It is agreed, beyond doubt, by the Contractor that no claims shall be entertained by the Engineer/Employer on account of reduction to any extent, due to budgetary constraints, in quantities of measurable items.

34.2 Change of Scope due to upgradation:

The Contractor shall not claim anything from NHIDCL on account of earlier foreclosure/termination of the contract i.e. before the expiry of the scheduled Contract Period or quantity of items. Notwithstanding to contrary in this contract any or all quantities, of any or all items of works, may be partially executed, exceeded or may not be executed at all.

35. Variations

35.1 The Engineer may order Variations, with the prior approval of the Employer, he considers necessary or advisable during the progress of the Works. Such Variations shall form part of the Contract and the Contractor shall execute the varied works. Oral orders of the Engineer for Variations, unless followed by written confirmation, shall not be taken into account.

36. Payments for Variations

36.1 If rates for Variation items are specified in the Bill of Quantities, the Contractor shall carry out such work at the same rate.

36.2 If the rates for Variation are not specified in the Bill of Quantities, the Engineer shall derive the rate from similar items in the Bill of Quantities.

36.3 If the rate for Variation item cannot be determined in the manner specified in **Clause 36.1** or **36.2**, the Contractor shall, within 14 days of the issue of order of Variation work, inform the Engineer the rate which he proposes to claim, supported by analysis of the rates. The Engineer shall assess the quotation and determine the rate based on prevailing market rates within one month of the submission of the claim by the Contractor and approval from the Employer shall be taken. As far as possible, the rate analysis shall be based on the Standard Data Book and the current Schedule of Rates of the district public works division. The decision of the Employer on the rate so determined shall be final and binding on the Contractor.

37. Cash Flow Forecasts

37.1 When the Programme is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

38. Payment Certificates

38.1 The Contractor shall submit to the Engineer monthly statements of the value of the work executed less the cumulative amount certified previously, supported with detailed measurement of the items of work executed.

38.2 The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the

month in question.

38.3 The value of work executed shall be determined, based on measurements by the Engineer.

38.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

38.5 The value of work executed shall also include the valuation of Variations and Compensation Events.

38.6 The Engineer/Employer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of latest information.

38.7 The final bill shall be submitted by the Contractor within one month of the actual date of completion of the work; otherwise the Engineer's certificate of the measurement and of the total amount payable for work accordingly shall be final and payment made accordingly within a period of sixty days as far as possible.

39. Payments

39.1 Payments shall be adjusted for deductions for advance payments, security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Employer shall pay the Contractor the amounts the Engineer had certified, within 28 days of the date of each certificate.

39.2 The authorized representative of the Employer shall make the payment certified by the Engineer.

39.3 Items of the Works for which no rate or price has been entered in the Bill of Quantities, will not be paid for by the Employer and shall be deemed to be covered by other rates and prices in the Contract.

39.4 The Contractor shall submit the meter reading of the engaged vehicle/machinery as a proof of its utilization along with the bill. No relaxation shall be given to the Contractor.

40. Compensation Events

40.1 The following shall be Compensation Events unless they are caused by the Contractor:

- a) The Engineer orders a delay or delays exceeding a total of 30 days;
- b) The effects on the Contractor of any of the Employer's Risks.

40.2 If a Compensation Event would prevent the Works being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Engineer shall decide whether and by how much the Intended Completion Date shall be extended after approval of the Employer.

40.3 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer/Employer.

41. Taxes and Currencies for Payments

The rates quoted by the Contractor shall be deemed to be inclusive of the GST and other

levies, duties, royalties, cess, toll, and other taxes of Central and State Governments, localbodies and authorities that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law. The GST shall be reimbursed (if applicable) subject to production of proof of such payment by the contractor (proof should contain name of work).

41.1 All payments shall be made in Indian Rupees.

42. Security Deposit/Retention Money

42.1 The Employer shall retain security deposit of five percent of the amount from each payment due to the Contractor until Completion of the whole of the Works.

42.2 The security deposit/retention money and the performance security will be released to the Contractor when the Defects Liability Period is over, and the Engineer has certified that the Defects, if any, notified by the Engineer to the Contractor before the end of this period have been corrected.

42.3 If the Contractor so desires, then the Security Deposit/retention money can be released on submission of unconditional Bank Guarantee at the following two stages:-

- a) At a point after the progress of work in financial term (gross value of work done) has reached 50% of the contract amount
- b) After the retention money has been deducted to the full value (5% of the contract amount).

43. Liquidated Damages

43.1 The Contractor shall pay liquidated damages to the Employer at the rate or part thereof stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.

Both the parties expressly agree that the liquidated damages payable by the Contractor are mutually agreed genuine pre-estimated loss and without any poof of actual damages likely to be suffered and incurred by the Employer and the Employer is entitled to receive the same and are not by way of penalty.

43.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting in the next payment certificate. The contractor shall not be paid interest on the over payment of liquidated damages.

43.3 Default of Contractor on account of mobilization of Equipment: A penalty of 0.05% of the Contract Price per day shall be levied on the Contractor if the Contractor fails to mobilize equipment and manpower as per Appendix to ITB within 14 days of letter of commencement, or thereafter from the date of issuance of letter by Engineer/Employer in this regard.

44. Advance Payment

DELETED

45. Performance Security

45.1 Subject to further condition in Contract Data, the Performance Security equal to ten percent of the Contract Price shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in the Contract Data and by a prescribed bank. The Performance Security shall be valid until a date 60 days after the expiry of Defects Liability Period. The validity shall account for additional 3 months time to account for BG verification, signing of contract and start date

46. Cost of Repairs

46.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Period shall be remedied/rectified by the Contractor at his cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

47. Completion

47.1 The Contractor shall request the Engineer to issue a certificate of Completion of the Works, and the Engineer will do so upon deciding that the Works are completed.

48. Taking Over

48.1 The Employer shall take over the Site and the Works within seven days of the Engineer's issuing a certificate of Completion.

49. Final Account

50. The Contractor shall supply to the Engineer with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 28 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 28 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate within 28 days of receiving the Contractor's revised account
Operation and Maintenance Manual

50.1 If "as built" Drawings and/or operation and maintenance manuals are required relating to construction work carried out, the Contractor shall supply them within 28 days from the date of issue of certificate of completion.

50.2 If the Contractor does not supply the Drawings and/or manuals by the stipulated date or they do not receive the Engineer approval, the Engineer shall withhold the amount equal to Rs. 5 lakh from payments due to the Contractor.

51. Termination

51.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

51.2 Fundamental breaches of Contract include, but shall not be limited to, the following:

A) Fundamental Breaches by the Contractor

- a) the Contractor stops work or grossly neglects Routine Maintenance Works and Services for 28 days when no stoppage of work is shown on the current programme and the stoppage has not been authorized by the Engineer;
- b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c) the Engineer/Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to remedy the defect and correct it within the period of time determined by the Engineer;
- d) the Contractor does not maintain a Security Deposit as per clause;
- e) the Contractor has delayed the completion of Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in **Clause 43**;
- f) the aggregate liability of the Contractor to the Employer, exceeds the total amount specified in the Contract Data, provided that this limitation shall not apply to the cost of repairing or replacing defective works and equipment;
- g) the Contractor fails to provide insurance cover as required under **Clause 13**;
- h) if the Contractor, in the judgement of the Employer, has engaged in the corrupt or fraudulent practices as defined in **Clause 34** of the Instructions to Bidders in competing for or in executing the Contract;
- i) if the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Contract Data;
- j) if the Contractor does not deploy any of the personnel stated in Contract Data within 45 days of issue of notice to proceed;
- k) The Contractor violates the provisions of Child Labour (Prohibition & Regulation) Act, 1986;

51.3 Any other fundamental breaches as specified in the contract data.

51.4 Without prejudice to any other right or remedies which the Employer may have under this contract upon occurrence of a Contractor's fundamental breach of contract, the Employer shall be entitled to terminate this contract by issuing a Termination Notice to the Contractor provided that before issuing the Termination Notice, the Employer shall by a Notice inform the Contractor of its intention to issue such Termination Notice and grant 15 days to the Contractor to make a representation and may after the expiry of such 15 days, whether or not it is in receipt of such representation issue the Termination Notice.

51.5 Notwithstanding the above, the Employer may terminate the Contract for convenience.

51.6 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

Without prejudice to any other right or remedies which the Employer may have under this contract, upon occurrence of a Contractor's fundamental breach of contract, the Employer shall be entitled to terminate this contract by issuing a Termination Notice to the Contractor ; provided that before issuing the Termination Notice, the Employer shall by a Notice inform the Contractor of its intention to issue such Termination Notice and grant 15 days to the Contractor to make a representation, and may after the expiry of such 15 days, whether or not it is in receipt of such representation, issue the Termination Notice.

52. Payment upon Termination

52.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of work done and Materials ordered less advance payments received up to the date of issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Contract Data. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer and Employer may recover the same from Performance Bank Guarantee.

52.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of work done, and a pre-determined amount specified in the contract data to cover the reasonable cost of removal of Equipment and repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract, and less taxes due to be deducted at source as per applicable law.

In case of foreclosure/termination of work as stated in CI 34.2, the Engineer shall issue a certificate for the value of work done till termination, less other recoveries due in terms of contract and less taxes due to be deducted at source as per applicable law.

53. Property

53.1 All Materials on Site, Plant, Equipment, Temporary Works and Works shall be deemed to be the property of the Employer for use for completing balance work if the Contract is terminated because of the Contractor's default.

54. Release from Performance

54.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

F. OTHER CONDITIONS OF CONTRACT

55. Labour

55.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport; and for compliance of various labour laws/regulations.

55.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on Site and such other information as the Engineer may require.

55.3 The Contractor's personnel including equipment operators shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove or cause to be removed any person employed on the site or the works, including the Contractor's representative, if applicable, who

- a) Persists in any misconduct or lack of care;
- b) Carries out duties incompetently or negligently;
- c) Falls to conform with any provision of the contract;
- d) Persists in any conduct which is prejudicial to safety, health or protection of the environment.

If appropriate, the contractor shall then appoint or cause to be appointed a suitable replacement person

56. Compliance with Labour Regulations

56.1 During continuance of the Contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made thereunder, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. (Salient features of some of the major labour laws that are applicable to construction industry are given in Addendum to General Conditions of Contract.) The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made thereunder, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

In no case shall the employees of the Contractor and the Sub-Contractor be treated as the employees of the Employer at any point of time.

57. Drawings and Photographs of the Works

57.1 The Contractor shall do photography/video photography of the site firstly before the start of work, secondly mid-way in the execution of different stages of work and lastly after the completion of each item of work. No separate payment will be made to the contractor for this.

57.2 The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under **Clause 57.1**, shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub-Contractors without the prior approval of the Engineer in writing. No photographs/video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

58. The Apprentices Act, 1961

58.1 The Contractor shall duly comply with the provisions of the Apprentices Act, 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so, he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

CONTRACT DATA

Items marked “N/A” do not apply in this Contract.

S. No.	Description				Clause Reference
1.	The Employer is Managing Director, NHIDCL Address: 3rd Floor, PTI Building, 4-Parliament Street, New Delhi-110001 Name of authorized Representative of Employer: Executive Director (P), R.O. Gangtok (Sikkim), National Highway & Infrastructure Development Corporation Ltd., Amdo Golai, Opp. State Veterinary Clinic, Gangtok, Sikkim-737102				[Cl. 1.1 of ITB]
2.	The Engineer is Dy. General Manager (Projects) Project Monitoring Unit-Siliguri, West Bengal				[Cl. 1.1 of GCC]
3.	The Intended Completion Date for whole of the work in: 3 months from start date				[Cl. 1.1, 17 & 26]
4.	The Site is located at NH-10 from 23.00 (29th mile) to Km 52+000				[Sr. No. 1 of NIT]
5.	The Start Date shall be within 15 days after the date of issue of the Notice to proceed				[Cl. 1.1 of GCC]
6.	(a) The name and identification number of the Contract is given in the table of bid notice (SECTION-I)				[Cl. 1.1 of ITB]
7.	(a) The law which applies to the Contract is the law of Union of India. (b) The language of the Contract documents is English				[Cl. 3.1 of GCC]
8.	The limit of subcontracting is Nil of initial contract price. Subcontracting not allowed.				[Cl. 7.1 of GCC]
9.	Schedule of Other Contractor - NIL				[Cl. 8.1 of GCC]
10.	The Technical Personnel are -				[Cl. 9.1 of GCC]
	S. No.	Personnel	Qualification	Particular Experience (minimum requirement)	

	1.	Project Manager	B.E/B.Tech/ AMIE in Civil Engineering + 5 yrs. of exp.	3 years on highway constructions / maintenance work of NH/SH/CRIF.	1	
	2.	Site Engineer	B.E/B.Tech/ AMIE in Civil Engineering + 3 yrs. of exp. /Diploma (Civil) + 5 year Exp.	3 years on highway constructions / maintenance work.	2	
11.	Amount for insurance are: a) Rupees equivalent to Contract Price. b) Rupees equivalent to 5% of Contract Price. c) Rupees equivalent to 5% of Contract Price d) Rupees 20 lakhs for multiple incidents. The said insurance shall include all liabilities as per Clause 13.1 and shall be deductible as per premium rate.					[Cl.13.1 of GCC]
12.	Site Investigation Report - NIL					[Cl 14.1 of GCC]
13.	The period for submission of the programme for approval of Engineer shall be 30 days from the issue of Letter of Commencement.					[Cl.25.1 of GCC]
14.	Amount to be withheld for delays in submission of updated programme: 1% of value of work corresponding to the updated programme					[Cl. 25.4 of GCC]
15.	The period for setting up a field laboratory with the prescribed equipment relevant to items of work in BOQ is 30 days from the days from the date of notice to start work.					[Cl. 30.1 of GCC]
16	The Defect Liability Period will be 12 months for periodic renewal and other improvement works executed (if any).					[Cl. 31 of GCC]
17.	a. Amount of liquidated damages for delay in completion of works	0.1 percent of the remaining value of contract to be executed, rounded off to the nearest thousand, per day with the minimum of Rs. 10000/- per day				

	b. Maximum limit of liquidated damages for delay in completion of work. c. Contractor fails to mobilize equipment and manpower as per Appendix to ITB within 14 days of letter of commencement	10 per cent of the Initial Contract Price rounded off to the nearest thousand [Clause.43 of GCC] A penalty of 0.05% of the Contract Price per day shall be levied on the Contractor	
18.	The standard form of Performance Security acceptable to the Employer shall be an unconditional e-Bank Guarantee of the type as specified in the Bidding Documents		[Cl. 45.1 of GCC]
19.	The percentage to apply to the value of work not completed representing the Employer's additional cost for completing the work shall be 20 percent. The Performance Security shall also be forfeited if the Contract is terminated because of a fundamental breach of Contract by the Contractor		[Cl.52.1 of GCC]
20	The reasonable cost of removal of equipment and repatriation of the Contractor's personnel employed solely on the works in the event of termination of the contract at the Employer's convenience or because of a fundamental breach of contract by the Employer is to be treated as [] lac		[Cl. 52.2 of GCC]

SECTION 6

ADDENDUM TO GENERAL CONDITIONS OF CONTRACT

SECTION 6

ADDENDUM TO GENERAL CONDITIONS OF CONTRACT

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORKS.

- a) **Workmen Compensation Act, 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act; 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions if an employee has completed the prescribed minimum years (five years) of service or more or on death the rate of prescribed minimum days' (15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (10) or more employees.
- c) **Employee's P.F. and Miscellaneous Provision Act 1952:** The Act provides for monthly contributions by the Employer plus workers at the prescribed rate (10 percent or 8.33 percent). The benefits payable under the Act are:
 - i) Pension or family pension on retirement or death as the case may be.
 - ii) Deposit linked insurance on the death in harness of the worker.
 - iii) Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act, 1961:** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act, 1970:** The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ minimum prescribed (20 or more) numbers of contract labour.
- f) **Minimum Wages Act, 1948:** The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways are scheduled employment.
- g) **Payment of Wages Act, 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of workers.
- h) **Equal Remuneration Act, 1979:** The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act, 1965:** The Act is applicable to all establishments employing minimum prescribed (say, 20 or more) number of workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the

prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.

- j) **Industrial Disputes Act, 1947:** The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act, 1946:** It is applicable to all establishments employing the minimum prescribed number of persons (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.
- l) **Trade Unions Act, 1926:** The Act lays down the procedure for registration of trade unions of workmen and employees. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act, 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in the building and construction industry.
- n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act, 1979:** The Act is applicable to an establishment which employs minimum prescribed number of labour (say, five or more) inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in an establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.
- o) **The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employ the minimum prescribed (say, 10 or more) number of workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2 percent of the cost of construction as may be notified by the Government. As per current notification, one percent of the cost of construction is payable by the Employer of the establishment. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near to the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act, 1948:** The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the minimum prescribed number of persons (say, 10 persons or more) with aid of power or another minimum prescribed number of persons (say, 20 or more persons) without the aid of power engaged in manufacturing process.

SECTION -7

ROAD MAINTENANCE STANDARDS AND SPECIFICATIONS FOR ROAD MAINTENANCE WORKS, PART-I AND PART-II

SECTION-7

ROAD MAINTENANCE STANDARDS AND SPECIFICATIONS FOR ROAD MAINTENANCE WORKS, PART-I AND PART-II

PREAMBLE

The Road Maintenance Standards and Specifications shall be read in conjunction with all other documents constituting the Contract viz. Notice Inviting Tender, Instructions to Bidders; Conditions of Contract, Bill of Quantities and other related documents mentioned in the Bid Documents.

General

The Standards and Specifications for the Road Maintenance Works and Activities as described hereinafter shall comprise of the following:

PART-I : Road Maintenance Standards

PART-II : Specifications for Road Maintenance Works

Carbon foot prints shall be evaluated during the execution of project. If approved by the Employer, the environment friendly machinery like Infrared Recycling Road Maintenance as approved by CRRI/IRC/MoRTH shall be got deployed.

PART-I

ROAD MAINTENANCE STANDARDS

1 Inspections

1.1 The Contractor shall carry out weekly Inspection of project road and submit report to the Engineer on the maintenance works carried out during the week and also identify other items of works with location requiring attention for maintenance.

1.2 Any maintenance which involves works of emergent nature and/or replacement shall be immediately reported to the Engineer for joint assessment and issue of the work order. Such repairs shall be carried out on authorization by the Engineer except in emergency situations where it needs to be attended to urgently for safety reasons. In such situations, temporary arrangements shall be made immediately and further directions sought from the Engineer.

1.3 The Engineer will monitor road condition and shall carry out at least fortnightly Inspection of the project road to verify that the Contractor is maintaining maintenance standards as per Contract and to make note of non-compliances of Performance based items of BOQ, other items of work and work orders issued for other works. Non-compliance/delayed compliance of maintenance work shall be dealt with as per provisions of GCC **Clause 32.1** and maintenance standards hereinbelow.

2 Maintenance Standards for performance based items

2.1 The following maintenance standards shall be achieved by the Contractor to be eligible for full payment:

Item	Permissible Tolerance/Service Level	Measurement and Detection	Maximum Response Time	Rectification Standard

Item	Permissible Tolerance/Service Level	Measurement and Detection	Maximum Response Time	Rectification Standard

(*)**Note:** This is an optional item to be included by the Employer based on need and depending on category of road, traffic volume, accident history and trauma facilities required to be provided.

3 Maintenance Standards for Other BOQ Items

3.1 Maintenance standards for cleaning, clearing and repairing roadside open/unlined/lined/covered drains and cross drainage works

- i) Safety devices and signs shall be placed as per MoRTH Specifications for Road and Bridge Works (5th Revision) **Clause No. 112.**
- ii) The excavated material shall be disposed off as directed by Engineer-in-charge with all leads and lifts.

3.2 Maintenance standards for “carrying out cleaning, removing of dust/silt/thrash from carriageway.

1.1 Maintenance standards for “Removal of rank vegetation/weeds from shoulders and embankment slopes.

1.2 Maintenance standards for routine maintenance of road signs and delineators

PART-II

SPECIFICATIONS FOR ROAD MAINTENANCE WORKS

1. General

1.1 All materials, works and construction operations shall conform to the requirements laid down in the “Specifications for Road and Bridge Works” (5th Revision), Ministry of Road Transport and Highways, Published by Indian Roads Congress (IRC), New Delhi; IRC:82 “Code of Practice for Maintenance of Bituminous Surfaces on Highways” and IRC:SP:83 Guidelines for Maintenance, Repairs and Rehabilitation of Cement Concrete Pavements” wherever applicable. Where the Specification for a work is not given, sound engineering practice shall be adopted to the satisfaction of the Engineer.

“Specifications for Road and Bridge Works, Ministry of Road Transport and Highways” (5th Revision) is hereinafter referred to as MoRTH Specifications.

2 Arrangement for Traffic during Construction

2.1 The Contractor shall take all necessary measures and make arrangements for the safety during construction in accordance with the requirements of **Clause 112** of MoRTH Specifications. He shall provide, erect and maintain all such barricades, signs, markings, flags, lights as required or directed by the Engineer for safety of traffic passing through the section under repairs/improvement.

2.2 All maintenance works on the road shall be carried out in a manner which would cause least interference to the traffic. In stretches where resurfacing or riding quality improvement works are to be taken up, the Contractor during execution of work shall provide and maintain proper passage for traffic. Where it is not possible or safe to allow traffic on part width of the carriageway, a temporary diversion of proper Specifications shall be constructed by the Contractor at his cost. The Contractor shall take prior approval of the Engineer regarding traffic arrangements during construction.

2.3 All arrangements for traffic during construction shall be considered as incidental to the work and shall be Contractor’s responsibility. The Engineer shall determine the penalty to be imposed on the Contractor for deficiency in compliance to the requirement.

3 Quality Control

3.1 Quality control on materials and workmanship is the primary responsibility of the Contractor. Quality control shall be exercised in accordance with the Quality Plan approved by the Engineer. The Engineer may, during and after construction test the quality of materials and work in order to verify conformance with the prescribed Specifications.

4 Specifications for Routine Maintenance

Before any work is started, signs, barriers, etc. shall be placed and necessary arrangements made for ensuring safety of traffic and workers in the work zone, as described in **Clause 2** of this Section

Preparation of the surface prior to application of any treatment, shall be carried out in accordance with the relevant Clauses of MoRTH Specifications.

After completion of the work, the site shall be left cleaned and tidy. No stockpiles of material shall be left on the road.

5 Repair and Maintenance works related to Rigid Pavements

SECTION 8

DRAWINGS AND SCHEDULE OF DRAWINGS

SECTION-9

FINANCIAL BID FORM AND BILL OF QUANTITIES

SECTION-9
FINANCIAL BID FORM AND BILL OF QUANTITIES

FINANCIAL BID FORM

To

(Authorized Representative of Employer)

DESCRIPTION OF WORKS: BID FOR “Special emergent repairs at different locations from km 23+000 to km 52+000 of NH 10 under PMU, Siliguri, NHIDCL on Single Percentage Rate Contract Basis in the State of West Bengal”

Reference letter No.

Dear Sir,

Having examined the site of works and Bid Documents, comprising Instructions to Bidders, Scope of Works, Conditions of Contract, Technical Specifications, Bill of Quantities and schedules for the execution of the above named works, we, the undersigned offer to execute and complete such works and remedy any defects therein in conformity with the said bid documents at tender premium as quoted in the Financial Bid.

2. We undertake, if our Bid is accepted, to commence the work within fifteen (15) days of receipt of the order to commence, and to complete and deliver the sections and whole of the works comprised in the contract within the period stated in the bid hereto.
3. If our Bid is accepted, we will furnish Performance Security (ies) in the form of a Bank Guarantee to be jointly and severally bound on us, in accordance with the Conditions of Contract.
4. We agree to abide by this Bid for a period of 120 days from the last date fixed for Bid Submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
5. We confirm our agreement to treat the Bid document and other records connected with the works as secret and confidential documents and shall not communicate information contained therein to any person other than the person authorized by the Employer or use such information in any manner prejudicial to the safety and integrity of the works.
6. Unless and until an agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us, but without prejudice to your right to withdraw such acceptance without assigning any reasons thereof.
7. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 2025

Signature _____ in the capacity of _____ duly authorized**

To Sign Bid for and on behalf of _____

(in block capital letters)

Address: _____

Signature of Witness _____

Name of witness _____

Address of witness _____

**DESCRIPTION OF WORKS:
FINANCIAL BID**

S. No.	Description	Amount
1	Grand Total of BOQ	Rs. 5,30,13,939/- (Rupees Five Crore Thirty Lakhs Thirteen Thousand Nine Hundred and Thirty Nine Only) - Excluding GST
	I/We agree to execute the above works on the tender premium % above/below the Grand Total of the project cost as given above.	(In words) ----- percent Above/Below

SECTION-10

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

PREAMBLE:

The Technical Specifications contained herein shall be read in conjunction with the other Bidding Documents as specified and as per MoRTH Guidelines, IRC specifications etc.

GENERAL REQUIREMENTS

The Technical Specifications in accordance with which the entire work described hereinafter shall be executed and completed by the Contractor shall comprise of the following:

7.2.1 PART – I – GENERAL TECHNICAL SPECIFICATIONS

The General Technical Specifications shall be the “SPECIFICATIONS FOR ROAD AND BRIDGE WORKS” (FIFTH REVISION, April 2013) issued by the Ministry of Road Transport & Highways, Government of India and published by the Indian Roads Congress, hereinafter referred to as MORT&H Specifications.

PART – II – SUPPLEMENTARY TECHNICAL SPECIFICATIONS

The Supplementary Technical Specifications shall comprise of various Amendments/Modifications/Additions to the “SPECIFICATIONS FOR ROAD AND BRIDGE WORKS” referred to in PART-I above and Additional Specifications for particular item of works not already covered in Part – I.

A particular clause or a part thereof in “SPECIFICATIONS FOR ROAD AND BRIDGE WORKS” (**FIFTH REVISION, April 2013**), referred in Part-I above, where Amended/Modified/Added upon and incorporated in Part-II, referred to above, the Amendment/ Modification/ Addition supersedes the relevant clause or part of the clause.

When an Amended/Modified/Added Clause supersedes a Clause or part thereof in the said Specifications, then any reference to the superseded clause shall be deemed to refer to the Amended/Modified/Added Clause or part thereof.

In so far Amended/Modified/Added Clause may come in conflict or be inconsistent with any of the provisions of the MOST Specifications under reference, the Amended/Modified/Added clause and the additional specifications shall always prevail.

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

on the Contractor.

PART - II

7.3 AMENDMENTS/MODIFICATIONS/ADDITIONS TO EXISTING CLAUSES OF GENERAL TECHNICAL SPECIFICATIONS (PART- I).

SECTION 100 – GENERAL

Clause 102 Definitions:

The following abbreviation shall be added in this Clause: “MOST” – Ministry of Surface Transport, Govt. of India (Now Ministry of Road Transport and Highways) “NHIDCL” – National Highways & Infrastructure Development Corporation Ltd.

Clause 106 Construction Equipment:

Clause 106 (a) Add the following sentence. “The trial run is to be carried out laying the relevant pavement material and it is not to be part of the permanent works. The trial is to be carried out on prior approval of equipment by Engineer-in-Charge.”

Add Sr. No. (g)

“The Contractor shall furnish to the engineer the detailed technical literature and other relevant documents regarding the performance of plant/equipment for approval prior to its purchase or mobilization on site.”

Clause 107 Contract Drawings:

Clause 107.3 Deleted this Sub-Clause

entirely. Clause 108.4 The clause shall be read as follows:

“Identification of quarry sites and borrow areas shall be the responsibility of the Contractor. Materials procured from quarry sites and borrow areas identified by the Contractor and to be used in Worksmust comply with the requirements of quality as stipulated in the Technical Specifications for particular item of work”.

Clause 109 Setting Out:

Clause 109.10 Add new sub-clause

“Before carrying out any survey work the Contractor shall submit to the Engineer for the approval a programme and methodology for the calibration of all optical and electronic survey equipment to be used on site during construction of the works. The Contractor will maintain calibration records for all such equipment in his site office,
available at all times for inspection by the Engineer.

Clause 110 Public Utilities:

Clause 110.1 Revise the clause as under:

Existing services like water pipes, sewers, oil pipelines, cables, gas ducts etc. Owned by various authorities including Public Undertaking an Local Authorities shall be checked and located by the Contractor prior to commencement of work.

Clause 110.2 Revise the clause as under:

The Contractor’s programme must take into account the period of notice and duration of diversionary works of each body as existing at site. The Contractor must also allow for any effect of these services and alterations upon the Works and for arranging regular meetings with the various bodies at the commencement of the Contract and throughout the period of the Works in order to maintain the required co-ordination. During the period of the Works, the contractor shall have no objection if the public utility bodies and their decisions in the execution of their proposal in terms of programme and construction. Provided that, in the opinion of the Engineer, the Contractor has received reasonable notice thereof before the relevant alterations are put in hand.

Clause 111 Precautions for Safeguarding the

Environment: Clause 111.1 General

Add the following after the first paragraph:

The Contractor shall preserve existing trees, plants and other vegetation that are to remain within or adjacent to the works and shall use every precaution necessary to prevent damage or injury thereto. On completion of the Works, all areas disturbed by the Contractor’s construction activities shall be restored in their original condition, or as may be acceptable to the Engineer. The cost of this work shall be deemed to be included in the rates generally.

Clause 111.4 Add the following sentence:

“The Contractor is to ensure that there is good drainage at all construction areas, to avoid creation of stagnant water bodies especially in urban/industrial areas, including water in old water bodies.”

Clause 111.5 Pollution from Hot Mix Plants and Batching Plants

Add the following paragraph at the end of this Sub-clause.

The H.M.P. should be sited at least 500m away from the nearest abitation.

The H.M.P. shall be fitted with a dust extraction unit in order that the exhaust gases comply with the requirements of the relevant current emission control legislation. “All operations at plants shall be undertaken in accordance with all current rules and regulations protecting the environment.”

Clause 111.6 Substances Hazardous to Health

Add the following after the first paragraph as follows:

“The use of any herbicide or other toxic chemical shall be strictly in accordance with the manufacturer’s instructions. The Engineer shall be given at least 6 working day’s notice of the proposed use of any herbicide or toxic chemical.

A register of all herbicides and other toxic chemicals delivered to the site, shall be kept and maintained up to date by the contractor. The register shall include a name physical properties and characteristics, chemical ingredients, health and safety hazard information, safe handling and storage procedures, and emergency and first aid procedures for the product.”

Clause 111.9 Add the following sentence at the end of the para.

Vehicles delivering materials to the site shall be covered to avoid spillage of materials on public roads.

Clause 111.12 After the last sentence add the following:

“The costs of compliance with Clause 111 shall be deemed to be included in the rates for items included in the Bill of Quantities.”
Refer to Clause 114.2 (xv) of MOST Specification.

Clause 111.13 Add new Sub-Clause:

“The Discharge Standards promulgated under the Environment Protection Act, 1986 shall be adhered to strictly. All waste arising from the project is to be disposed of in a manner which is acceptable to the State Pollution Control Board and the Engineer.”

All vehicles and machinery employed in the execution of the works shall be regularly maintained to ensure that pollutant emission levels comply with the relevant requirements of current pollution control legislation. During routine servicing operations, the effectiveness of exhaust silencers must be checked and if found to be defective must be replaced. Notwithstanding this requirement, noise levels from any item of plant must comply with the relevant legislation for levels of sound emission. Non compliant plant is to be removed from site.

Vehicle maintenance and refueling shall be carried out in such a fashion that spillage of fuels and lubricants do not contaminate the ground or nearby watercourse. An “oil interceptor” shall be provided for wash down and refueling areas. Fuel storage shall in proper bounded areas. All spilt and collected petroleum products shall be disposed of in accordance with the relevant legislation.

Clause 111.14 Add the following New Sub-Clause:

All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be properly designed, built and operated so that no health hazard occurs and no pollution to the air, ground or adjacent watercourses take place compliance with relevant legislation must be strictly adhered to Garbage bins must be provided in the camp and regularly emptied and the garbage disposed of in a hygienic manner. Construction camps are to be sited away from vulnerable people and adequate health care is to be provided for the work force.

Clause 111.15 Add the following New Sub-Clause:

All works are to be carried out in such a fashion that the damage or disruption to the flora and fauna is reduced to a minimum wherever possible. Trees or shrubs will only be felled or removed that impinge directly on the permanent works or necessary temporary works, after seeking approval of the Engineer.

Clause 112 Arrangement For Traffic During Construction:

Clause 112.1 General

Delete the last sentence and add the following:

“The Contractor shall submit, for the Engineer’s approval, Traffic Control Plan 5 days prior to commencement of the temporary / permanent works.”

The plan shall include:

- i. Typical drawings for temporary diversions in accordance with Clause

- 112.3
- ii. Typical details of arrangements for construction under traffic including details of traffic arrangement after the cessation of work each day. Special consideration shall be given in the preparation of the Traffic Control Plan to the safety of pedestrians and workers at night. Temporary diversions will be constructed only with the approval of the Engineer.

Clause 112.2 Passage of Traffic along a part of the Existing Carriage way under improvement:

Delete this clause replace as follows:

“For strengthening of existing carriage way, where part of the existing carriage way is proposed to be used for passage of traffic & hard holder are not available then, treated shoulders shall be provided on the side on which work is not in progress. If the existing shoulder width less than 1.5m the same shall be extended up to 1.5m for earth work duly compacted. The top 15.0cm or as directed by the engineer including extended shoulder of 1.5m width shall be filled up by granular sub base material duly bounded with binding material and compacted. The sub base material shall conform to MOST specification Clause 401, the work of excavation and filling of granular sub-base material so carried out shall be paid under relevant items of bill of quantities. The contractor shall maintain the bypass/diversion during the period of construction by way of watering, compacting, and making good loss of sub-base material after filling up of the rutting/depression etc. by additional quantity of granular sub base material. The items operations like maintenance, making good the loss of material, watering, compacting, leveling and dressing along with additional quantity of sub-base material shall be considered as incidental to the work and no extra payment will be ade for these operations. The continuous length in which such works shall be carried out would be within a range of 200 to 500m at a place.

Clause 112.6 Measurements for Payments and Rate

Add “and no extra payment will be made except the treatment of shoulders for earth work and granular sub-base as per Clause 112.2 above.” At the end of first paragraph.

Clause 112.7 Side Roads and Property Accesses

Add new sub Clause:

“At all times, the Contractor shall provide safe and convenient passage for vehicles pedestrians and livestock to and from side roads and property accesses connecting to the roadway. Work which affects the use of side roads and existing accesses shall not be undertaken without providing adequate prior provisions to the

satisfaction of the Engineer.”

Clause 112.8

Plant and

Equipment Add

new sub Clause:

“During the day, plant and equipment working in a position adjacent to traffic and having a projection beyond the normal width of the item, for example, a grader blade shall have a fluorescent red marker attached to the outer end of the projection. During poor light conditions an additional traffic controller with an illuminated red marker shall direct traffic around such plant and equipment. At night, all plant items and similar obstructions shall be removed from the normal path of vehicles, to provide a lateral clearance of at least 6m where practicable, with a minimum clearance of 1.2m. Plant and equipment, within 6m of the normal path of vehicles, shall be lit by not less than two yellow steady lamps suspended vertically from the point of the obstruction nearest to a traffic lane, and one yellow steady lamps at each end of the obstruction on the side farthest away from the traffic lane.”

Clause 121.3

Laboratory Equipment shall be provided as prescribed by the Engineer relevant to items of work in BOQ.

Clause 121.3.2

For soils and aggregates

Delete item no. (xi) and (xii)

Clause 121.3.5

Add New Sub-Clause:

For Control of Profile and Surface

Evenness

- | | | |
|------|-------------------------------|--------|
| i) | Theodolite | 2 sets |
| ii) | Precision automatic level | 2 sets |
| iii) | Precision staff | 4 sets |
| iv) | Camber templates 2 lane | |
| | a) Crown type cross-section | 4 sets |
| | b) Straight run cross-section | 4 sets |

Steel Tape

- | | | |
|----|-----------|--------|
| a) | 3 m long | 4 sets |
| b) | 5 m long | 4 sets |
| c) | 10 m long | 4 sets |
| d) | 20 m long | 4 sets |
| e) | 30 m long | 4 sets |

Clause 121.3.6

Add New Sub-Clause:

In addition clause 121.3 any equipment which is not mentioned in this clause but which is necessary for the work for complying with the provisions of the contract and Section 900 of MOST specifications or as required by the engineer shall be provided by the contractor. No extra payment shall be made to the contractor and it will be considered as incidental to the work.

Clause 121.6 Delete this Sub-Clause.

Clause 121.7 Substitute this Sub-Clause by the following:

“There is no separate item in the Bill of Quantities for establishing

and maintenance of the laboratory and supply, erection maintenance of equipment and also running cost of testing. The rates quoted by the Contractor shall be deemed to cover the cost of all these items.”

Clause 126: Supply of Videography

126.1 Description

The work consists of taking video films of important activities of the work as directed by the Engineer during the currency of the project and editing them and saving them to a Pendrive/CD as directed by the Engineer. It shall contain narration of the activities in English by competent narrator. The editing of the film and the script for narration shall be as approved by the Engineer. The Pendrive/CD shall be acceptable quality and the film shall be capable of producing colour pictures.

126.2 Measurement for Payment & Rates

No separate payment shall be made and the work shall be treated as incidental.

SECTION 300 – EARTHWORK EROSION CONTROL AND DRAINAGE

Clause 301 Excavation for Roadway and

Drains Clause 301.3.3 Excavation – General

Delete the last two sentences of last paragraph. And add,
“The earthwork shall be carried out as per the sequences stated in this contract or as directed by engineer-in-charge”.

Clause 301.3.12 Back-filling

After the last sentence add the following:

“Density requirements for back filling shall be in accordance with

Table 300-2" of MoRTH.

Clause 301.9 Rates

Clause 301.9.2 This Clause is replaced as follows:

"The contract unit rate for loosening and re-compacting at sub-grade level shall include full compensation for loosening to the specified depth, removing the loosened soil outside the roadway wherever considered necessary, rolling the surface below, breaking the clods, spreading the excavated soil layers, watering where necessary and compacting to the requirements."

Clause 304 Excavation for Structures:
Clause 304.3.7 Back filling

Add second paragraph as under:

"The working space between the structure and the excavation shall be cleared out completely of all construction materials and loose earth that fallen into the excavation during construction. The excavation shall be pumped dry and all saturated and soft earth removed prior to being inspected by the Engineer who will give his permission for the placement of any fill material, provided the space has been properly prepared. Compaction will only be carried out with mechanical compactors of sufficient capacity to ensure correct compaction of the back fill material. The fill is to be brought up in layers not greater than 150 Mass filling of mm.

structures with machines will not be permitted and contractors should make allowance in their rates for the methodology Described above."

Clause 305 Embankment Construction:

Clause 305.2 Material and General Requirements

Clause 305.2.1 Physical Requirements

Clause 305.2.1.2 Amend the first sentence of this Clause as under:

"Highly expansive soils such as Ch, MH or OH exhibiting marked

swell and shrinkage properties („free swelling index” exceeding 50 per cent when tested as per IS 2720 - Part 40) shall not be used in construction of sub grade and embankment.”

Clause 305.2.1.4 Delete the second and third sentence of Clause 305.2.1.4, i.e., “However, the Engineer may Compacted layer thickness.”

Clause 305.2.2.2 Borrow Materials

Paragraph 1 of this clause shall read as under:

“No borrow area shall be made available by the Employer for this work. The arrangement for the source of supply of the material for embankment and sub grade as well as compliance to the different environmental requirements in respect of excavation and borrow areas as stipulated, from time to time, by the Ministry of Environment and Forest, Government of India and the local bodies, as applicable shall be the sole responsibility of the Contractor.”

Paragraph 8 of this Clause given below Table 300-2 shall read as under:

“The contractor shall at least 7 working days before commencement of compaction submit the following to the Engineer for approval: Clause 121.2 Description

Delete this Clause and replace with:

“The Contractor shall construct a fully furnished and equipped field laboratory to the satisfaction of the Engineer. The laboratory will be located at a site approved by the Engineer and must be of adequate size to perform all the tests required under the contract including sufficient light, electric and water supply. The Contractor shall provide working drawings incorporating all the services based on the information given in the changes for the approval of the Engineer prior to commencement of construction. An office must be provided in the laboratory for the exclusive use of the Engineer’s, Materials Engineer, adequate toilet and washing facilities must be provided. The contractor shall provide the field laboratory within one month from the date of the commencement of the work. Prior to this, contractor must make suitable alternative arrangements for the testing of materials, which are acceptable to the Engineer

- i) The Values of maximum dry density and optimum moisture content obtained in accordance with IS 2720 (Part 8) for each fill material he intends to use.
- ii) The graphs showing values of density against moisture content from which each of the values in (i) above of the maximum dry density and optimum moisture content were determined.
- iii) The dry density-moisture content-CBR relationship for each of the fill materials he intends to use in the sub grade."

Clause 305.3 Construction Operations

Clause 305.3.4 Compacting ground supporting embankment/subgrade

Delete "where necessary" in the first sentence of the first paragraph.

Clause 305.3.5.2 In Paragraph 3, delete "IS: 2720 (Part 7) or "and "as the case may be".

Clause 305.3.6 Compaction

The second paragraph of this Clause shall read as under:

"Only vibratory rollers of not less than 8 - 10 ton static weight with plain or pad foot drum shall be used for compaction."

Clause 305.4 Construction of Embankment and sub-grade under special condition.

Clause 305.4.1 Add new para after para 1 as under:

"The earthwork for widening the existing road embankment and shoulders shall be carried out in layers duly compacted. On completion of earth work to the required height the triangular portion on the sloping face of the layers shall be cut in such a manner that the specified slope is achieved. This operation is incidental to work and no extra payment shall be made for this."

Clause 305.4.7 Earthwork for high Embankment

Substitute the first paragraph of this clause as under:

"In the case of high embankments, the Contractor shall use the material from the approved borrow area."

Soil Erosion and Sedimentation

Control Clause 306.4 Measurement for Payment

Substitute the Clause 306.4 as follows:

“All temporary sedimentation and pollution control works shall be deemed as incidental to the earthwork and other items of work and as such no separate payment shall be made for the same.”

Clause 306.5

Rate

This Clause is deleted.

Clause 307

Turfing with sods.

Clause 307.5

Add “(iii) application of top soil” after (ii). Delete “the contract unit rate for application of top soil shall be as per clause 301.9.5”.

Clause 309

Surface/Sub-Surface Drains

Clause 309.2

Surface Drains

Add at the end of third paragraph:

Metal grates for sumps on concrete lined surface drains shall be heavy duty (trafficable by commercial vehicle) proprietary products with gaps between bars no greater than 26mm. The Contractor shall submit proposals for grating to the Engineer for approval before commencing construction of the sumps.”

Clause 309.4

Measurement for Payment

Delete the first sentence and replace with:

“Surface drains not lined shall be included in the items for excavation for the roadway in accordance with Clause – 301.8.”

Clause 309.5

Rates

Add at the end of this clause as under:

“The rate for concrete lined drains shall include bedding concrete and jointing. The rate for lined surface drains shall include inlet sumps and metal grates where specified.”

Add Clause 314 as under: Clause

314

Leveling and Dressing over area:

Clause 314.1

Scope

The work shall consist of excavation, removal, filling and satisfactory disposal of all materials necessary for the area to be leveled and dressed in line, grades as directed by the Engineer. It shall include

cutting and filling the ground in all type of soil where variation of existing ground level is + 30 cm or less. It will also include the grubbing of the existing rank vegetation and clearance of undergrowth completely

Clause 314.2 Construction Operation

The engineer shall identify the area where leveling and dressing is to be carried out. The clearing and grubbing of rank vegetation and undergrowth shall be carried out as per clause 201.1. If the stagnant water is existing on the side, the same shall be pumped / bailed out. The area shall be kept dry throughout the operation of leveling and dressing. The leveling and dressing shall be carried out by excavating the high area and filling the low area with the excavated material in proper slope. This operation will be carried out manually/mechanically as per site conditions.

Clause 314.3 Measurements

The measurement shall be made for the area to be leveled and dressed in Sqm.

Clause 314.4 Rates

The contract unit rates for the items for leveling and dressing shall be payment in full for carrying out the required operations including full compensation for:

1. Cost of all labour, materials, tool, equipment and incidentals to complete the work.
2. Clearing and grubbing the rank vegetation and undergrowth and their disposal within 1000m.
3. Pumping and bailing out of water and keeping the area dry during construction.
4. In all type of soils and saturated earth.

SECTION 400 - SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS:

Clause 401.4.1 Substitute "Smooth wheeled roller" by "Vibratory Roller" or as approved by Engineer-In-charge.

Clause 401.4.2 Spreading and Compacting

The following shall be added to Paragraph 1:

"The thickness of the loose layers shall be so regulated that the maximum thickness of the layer after compaction does not exceed 150 mm."

The fifth paragraph of this Clause shall be as under:

“Immediately thereafter, rolling shall start with the help of a vibratory roller of minimum 80 to 100 KN static weight with plain drum or pad foot drum of heavy pneumatic tyre roller of minimum 200 to 300 KN weight having a minimum tyre pressure of 0.7 kN/m² or adequate capacity capable of achieving the required compaction. Rolling shall commence at the lower edge and proceed towards the upper edge longitudinally for portions having unidirectional cross fall and super-elevation and shall commence at the edges and proceed towards the crown for portions having cross falls on both sides.”

Clause 401.7

Measurement for payment:

Add paragraph 3 as under:

For carrying out full depth repair and/or reconstruction of road pavement, if the granular sub-base materials laid on the shoulders for diversion of traffic (as per clause 112) is required to be scarified/removed and re-laid after compensating the loss during handling and by movement of traffic on completion of Full depth repair/reconstruction of road pavement, this operation shall be considered incidental to the work of providing granular sub-base and no extra payment shall be made for the same.

Clause 404.2.1

Coarse aggregate:

Amend this clause as under:

Coarse aggregate shall be either crushed or broken stone. The aggregates shall conform to the physical requirements set forth in Table 400-6. The type and size range of the aggregate shall be specified in the contract or shall be as specified by the Engineer. If the water absorption value of the coarse aggregates is greater than 2 percent, the soundness test shall be carried out on the material delivered to site as per IS: 2386 (part 5).

Clause 404.2.3

Crushed Slag:

Delete this Clause

Clause 404.2.4 Over-burnt (Jhama) brick aggregates:

Delete this Clause.

Clause 404.3.4 Rolling:

Delete in first para "three wheeled to 100 kN
rollers80
capacity or tandem or"

SECTION 500 - BASE AND SURFACE COURSES (BITUMINOUS):

Clause 501.8.2.4 Profile Corrective Course and its application:

Replace (ii)) with

"The material for bituminous profile corrective course shall be laid independently of all other courses, adopting such construction procedures and using such equipment as may be appropriate to the specified type of material and thickness of the course manually/machine paid as approved by the engineer-in-charge. The method of providing profile corrective course shall be approved by the engineer-in-charge.

Clause 501.8.3.1 Preparing Existing Granular Surface

Amend the Clause as under:

"The surface on which bituminous profile corrective course is to be laid shall be thoroughly swept clean of dust and any other extraneous material using mechanical broom and dust collected removed or blown off using compressed air except in places where technical means cannot reach. A prime coat conforming to Clause 502 shall be applied prior to laying profile corrective course."

Clause 501.8.3.4 Laying the Profile Corrective Course.

Clause 501.8.3.4.1 This clause shall read as under:

"The surface on which profile corrective course is to be laid shall be thoroughly swept clean of dust and any other extraneous material using mechanical broom and dust collected removed or blown off using compressed air except in places where mechanical means cannot reach."

"After preparing the granular surface as in Clauses 501.8.3.1 and 501.8.3.2, the profile corrective course with materials as per Clause 501.8.2.3/501.8.2.4 shall be laid and compacted to the requirement

of particular Specification Clause.”

Clause 502 Prime Coat Over Granular Base :

Clause 502.2.3 The type of bitumen emulsion shall be slow setting. Clause 503 Tack Coat

Clause 503.2.1 The type of bitumen emulsion shall be medium setting. Clause 504 Bituminous Macadam :

Clause 504.2 Materials

Clause 504..2.1 Bitumen:

The penetration grade of bitumen shall be 60/70.

Clause 507& 509 Bitumen

The penetration grade of bitumen shall be 60/70.

Clause 507.9 For DBM, Clause 508.9 for SDBC and Clause 509.9 for BC

These clauses stand amended to the extent that the rate shall cover the provision of bitumen in the mix as per job mix formula. No variation in the rate for this item will be admissible on account of quantity of bitumen used.

Clause 801

801 TRAFFIC SIGNS

801.1 GENERAL

801.1 The colour, configuration, size and location of all traffic signs for highways (other than Expressways for which the size of the signs, letters and their placement shall be as specified in the drawings and relevant Specifications or as directed by the Engineer) and for other roads, shall be in accordance with the Code of Practice for Road Signs, IRC:67, or as shown on the drawings. In the absence of any details or for any missing details (for example, chevron signs etc.), the signs shall be provided in accordance with international standards and/or as directed by the Engineer.

801.1.2 Unless otherwise specified, the signs shall be reflectorised as shown on the drawings or as directed by the Engineer. They shall be of retro-reflectorised type and made of micro- prismatic type reflective as per IRC:67.

801.1.3 In general, cautionary and mandatory signs' shall be fabricated through process of screen printing. In regard to informatory signs with inscriptions or cut letters of,

coloured retroreflective sheeting comprising un metalized microprismatic element material as per IRC:67 or durable transparent, coloured overlay film shall be used which must be bonded well on the base sheeting, as directed by the Engineer.

801.2 Materials

The various materials and fabrication of the traffic signs shall conform to the following requirements:

801.2.1 Concrete : Concrete shall be of the grade shown on the Contract drawing or otherwise as directed by the Engineer.

801.2.2 Reinforcing steel: Reinforcing steel shall conform to the requirement of IS:1786 unless otherwise shown on the drawing.

801.2.3 Bolts, nuts, washers: High strength bolts shall conform to IS: 1367 whereas precision bolts, nuts, etc., shall conform to IS:1364.

801.2.4 Plates and supports: Plates and support sections for the sign posts shall conform to IS:226 and IS:2062 or any other relevant IS Specifications.

801.2.5. Substrate; Sign panels may be fabricated on aluminium sheet, aluminium composite panel, fibre glass sheeting, or sheet moulding compound. Aluminum sheets used for sign boards shall be of smooth, hard and corrosion resistant aluminium alloy conforming to IS:736-Material designation 24345 or 1900. Aluminium Composite Panel and other materials shall meet the relevant ASTM (D903, E8, E393, E732)/BS/BIS requirements.

801.2.6 Shoulder mounted ground signs with a maximum side dimension not exceeding 600mm shall not be less than 1.5 mm thick with Aluminium and 3 mm thick with Aluminum Composite Material. All other signs shall be at least 2 mm thick with Aluminium and 4 mm thick with Aluminium Composite Material. The thickness of the sheet shall be related to the size of the sign and its support and shall be such that it does not bend or deform under prevailing wind and other loads. All overhead signs made with Aluminium Composite Material shall be minimum 4 mm thick to withstand wind and other loads without deformation.

801.2.7 In respect of sign sizes not covered by IRC:67 the structural details (thickness, etc.) shall be as per the approved drawings or as directed by the Engineer.

801.3 Traffic Signs having Retro-Reflective Sheeting

801.3.1 General requirements: The retro-reflective sheeting used on the sign shall consist of the white or coloured sheeting having a smooth outer-surface which has the property of retro-reflection over its entire surface. It shall be weather-resistant and show colour fastness. It shall be new and unused and shall show no evidence of cracking, scaling, pitting, blistering, edge lifting or curling and shall have negligible shrinkage or expansion. A certificate of having tested the sheeting for co-efficient of retro-reflection, day/night time colour luminous, shrinkage, flexibility, linear removal, adhesion, impact resistance, specular gloss and fungus resistance 3 years outdoor weathering and its having passed these tests shall be obtained from a Government Laboratory, by the manufacturer of the sheeting. The retro-reflective sheeting shall be either of Engineering Grade material with enclosed lens, High Intensity Grade with encapsulated lens or Micro-prismatic Grade retro-reflective element material as given in Clause below

801.3.2 Micro Prismatic Grade Sheeting (Type XI) : Retro reflective sheeting typically manufactured as a cube corner. The reflective sheeting shall be retro reflective sheeting made of micro prismatic retro reflective material. The retro reflective surface, after cleaning with soap and water and in dry condition shall have the minimum co-efficient of retro reflection (determined in accordance with ASTM D 4956-09) as indicated in Table 800

Table 800 Acceptable Minimum Coefficient of Retro-reflection for Type XI Prismatic Grade Sheeting^A (Candelas per Lux per Square Metre)

Observation Angle	Entrance Angle	white	Yellow	Orange	Green	Red	Blue	Brown	Florescent yellow -Green	Florescent yellow	Florescent Orange
0.1° ^B	-4°	83 0	620	290	83	12 5	37	25	66 0	500	250
0.1° ^B	+30°	32 5	245	115	33	50	15	10	26 0	200	100

0.2°	-4°	58 0	435	200	58	87	26	17	46 0	350	175
0.2°	+30°	22 0	165	77	22	33	10	7	18 0	130	66
0.5°	-4°	42 0	315	150	42	63	19	13	34 0	250	125
0.5°	+30°	15 0	110	53	15	23	7	5	12 0	90	45
1.0°	-4°	12 0	90	42	12	18	5	4	96	72	36
1.0°	+30°	45	34	16	5	7	2	1	36	27	14

A Minimum Coefficient of Retro reflection (R_A) ($\text{cd.lx}^{-1}.\text{m}^{-2}$).

B Values for 0.1° observation angles are supplementary requirements that shall apply only when specified by the purchaser in the contract or order.

When totally wet, the sheeting shall show not less than 90 percent of the values, of retro reflection indicated in above Table. At the end of 10 years, the sheeting shall retain at least 80 percent of its original retro-reflectance.

801.3.3 Messages / borders: The messages (legends, letters, numerals etc.) and borders shall either be screen-printed or of cut-outs from durable transparent overlay or cut-out from same type of reflective sheeting (excluding for black color) for the cautionary/ mandatory signs. Screen printing shall be processed and finished with materials and in a manner specified by the sheeting manufacturer. For the information and other signs, the messages (legends, letters, numerals etc.) and borders shall be cut-out from durable transparent overlay film or cut out from same reflective sheeting only. Cut-outs shall be bonded with the sheeting in the manner specified by the manufacturer. Both the screen printed areas and cut-out messages sheerings and cut-out durable transparent overlay film shall be covered under the warranty period of the sheeting type, issued by the sheeting manufacturer

801.3.4 For screen-printed transparent coloured areas on white sheeting, the coefficient of retro- reflection shall not be less than 50 per cent of the values of corresponding colour in Tables 800 as applicable.

801.3.4.1 Cut-out messages and borders, wherever used, shall be made out of retro-reflective sheeting (as per Clauses 801.3.2 as applicable), except those in black which shall be of non- reflective sheeting.

801.3.5 Color: Unless otherwise specified, the general color scheme and properties shall be as stipulated in ASTM 4956-09. The colors shall be durable and uniform in acceptable hue when viewed in day light or under normal headlights at night and in inclement weather conditions.

801.3.6 Adhesives: The sheeting shall have either a pressure-sensitive adhesive of the aggressive-tack type requiring no heat, solvent or other preparation for adhesion to

a smooth clean surface, or a tack free adhesive activated by heat, applied in a heat-vacuum applicator, in a manner recommended by the sheeting manufacturer. The adhesive shall be protected by an easily removable liner (removable by peeling without soaking in water or other solvent) and shall be suitable for the type of material of the base plate used for the sign. The adhesive shall form a durable bond to smooth, corrosion and weather resistant surface of the base plate such that it shall not be possible to remove the sheeting from the sign "base in one piece by use of sharp instrument. In case of pressure-sensitive adhesive sheeting, the sheeting shall be applied in accordance with the manufacturer's Specifications. Sheeting with adhesives requiring use of

solvents or other preparation for adhesive shall be applied strictly in accordance with the manufacturer's instructions.

801.3.7 Refurbishment: Where existing signs are specified for refurbishment, the sheeting shall have a semi-rigid aluminum backing or materials as per Clause 801.2.5, pre-coated with aggressive-tack type pressure sensitive adhesive. The adhesive shall be suitable for the type of material used for the sign and should thoroughly bond with that material.

801. 3.8 Fabrication

801381 Surface to be reflectorised shall be effectively prepared to receive the retro-reflective sheeting. The sheeting of the material as per IRC:67:2010 , shall be de-greased either by acid or hot alkaline etching and all scale/dust/ coating of any type removed/ scrubbed to obtain a smooth plain surface before the application of retro-reflective sheeting. If the surface is rough, approved surface primer may be used. After cleaning, metal shall not be handled, except by suitable device or clean canvas gloves, between all cleaning and preparation operation and application of reflective sheeting/primer. There shall be no opportunity for the substrate to come in contact with grease, oil or other contaminants prior to the application of retro-reflective sheeting.

801382 Complete sheets of the material shall be used on the signs except where it is unavoidable; at splices, sheeting with pressure sensitive adhesives shall be overlapped not less than 5 mm. Where screen printing with transparent colours is proposed, only butt jointing shall be used. The material shall cover the sign surface evenly and shall be free from twists, cracks and folds. Cut-outs to produce legends and borders shall be bonded with the sheeting in the manner specified by the manufacturer.

801.3.9 Warranty and durability: The Contractor shall obtain from the manufacture a ten year warranty for satisfactory field performance including stipulated retro-reflectance of the retro- reflective sheeting of micro-prismatic sheeting, a seven-year warranty for high intensity grade and a five year warranty for the sheeting of engineering grade and submit the-same to the Engineer. In addition, a ten-year, seven year and a five year warranty for satisfactory In-field performance of the finished sign with retro-reflective sheeting of micro prismatic, high intensity grade and engineering grade respectively, inclusive of the screen printed or cut out letters/legends and their bonding to the retro- reflective sheeting shall be obtained from the contractor/supplier and submitted to the Engineer. The Contractor/ supplier shall also furnish the LOT numbers and certification that the signs and materials supplied against the assigned work meets all the stipulated requirements and carry the stipulated warranty and that the contractor/supplier is the authorized converter of the particular sheeting:

All signs shall be dated during fabrication with indelible markings to indicate the start of warranty. The warranty shall also cover the replacement obligation by the sheeting manufacturer as well as contractor for replacement/repair/restoration of the retro-reflective efficiency.

A certificate in original shall be given by the sheeting manufacturer that its offered retro-reflective sheeting has been tested for various parameters such as co-efficient of retro-reflection, day/night time colour and luminance, shrinkage, flexibility, linear removal, adhesion, impact resistance, specular gloss and fungus resistance and 3 year outdoor weathering; the tests shall be carried out by a Government Laboratory in accordance with various ASTM procedures and the results must show that the sheeting have passed the requirements for all the above mentioned parameters. A copy of the test reports shall be attached with the certificate.

801.4 Installation

80141 The traffic signs shall be mounted on support posts, which may be of GI pipes conforming to IS: 1239, Rectangular Hollow Section conforming to IS :4923 or Square Hollow Section conforming to IS:3589. Sign posts, their foundations and sign mountings shall be so constructed as to hold these in a proper and permanent position against the normal storm wind loads or displacement by vandalism. Normally, signs with an area up to 0.9 sqm shall be mounted on a single post, and for greater area two or more supports shall be provided. Post- end(s) shall be firmly fixed to the ground by means of properly designed foundation. The work of foundation shall conform to relevant Specifications as specified.

80142 All components of signs (including its back side) and supports, other than the reflective portion and G.I. posts shall be thoroughly de scaled, cleaned, primed and painted with two coats of epoxy/ fibre glass/ powder coated paint, Any part of support post below ground shall be painted with protective paint.

80143 The signs shall be fixed to the posts by welding in the case of steel posts and by bolts and washers of suitable size. After the nuts have been tightened, the tails of the bolts shall be furred over with a hammer to prevent removal.

801.5 Measurements for Payment

The measurement of standard cautionary, mandatory and information signs shall be in numbers of different types of signs supplied and fixed, while for direction and place identification signs, these shall be measured by area in square, metres.

801.6. Rate

The Contract unit rate shall be payment in full for the cost of making the road sign, including all materials, installing it at the site furnishing of necessary test certificates, warranty and incidentals to complete the work in accordance with these Specifications.

Note : The warranty as specified in clause- 801.3.9 should be in the name of NHIDCL and it must be deposited to the PD.

802 OVERHEAD SIGNS

802.1 General

802.1.1 Overhead signs may be used in lieu of, or as an adjunct to, kerb mounted signs where the situation so warrants for proper information and guidance of the road users. The following conditions may be considered while deciding about the provision of overhead signs:

- ☐ Traffic volume at or near
- ☐ capacity Complex interchange design
- ☐ Three or more lanes in each direction
- ☐ Restricted sight distance
- ☐ Closely spaced interchanges
- ☐ Multi.-lane exits
- ☐ Large percentage of commercial
- ☐ vehicles High speed traffic

804 Reflective Pavement Markers (Road Studs/Cat eyes)

804.1 General

The work cover the providing and mixing of reflective pavement marker (RPM) or road stud, a device which is bonded to or anchored within the road surface for lane marking and delineation for nighttime visibility. It reflects incident light in directions close to the direction from which it came.

804.2 Material

804.2.1 Plastic body of RPM/road stud shall be molded from ASA (Acrylic Styrene Acrylonitrile) or HIPS (Hi-impact Polystyrene) or Acrylonitrile Butadiene Styrene (ABS) or any other suitable material approved by the Engineer. The markers shall support a load of 13635 kg tested in accordance with ASTM D 4280.

804.2.2 Reflective panels shall consist of number of lenses containing single or dual prismatic cubes capable of providing total internal reflection of the light entering the lens face. Lenses shall be molded of methyl methacrylate conforming to ASTM D 788 or equivalent.

804.3 Design

The slope or retro-reflecting surface shall preferably be 35+5 degree to base and the area of each retro-reflecting surface shall not be less than 13.0 sqcm.

804.4 Optical Performance

804.4.1 Unidirectional and bi-directional studs

Each reflector or combination of reflectors on each face of the stud shall have a Coefficient of Luminous Intensity (C.I.L.) not less than that given in Table 800-12 or Table 800-13 as appropriate.

804.4.2 Omni-directional studs

Each Omni-directional stud shall have a minimum (C.I.L.) of not less than 2 mcd/lx

Table 800-12 Minimum C.I.L. Values for Category „A” studs

Entrance angle	Observation angle	White	C.I.L. in mcd/lx Amber	Red
0°U 5° L&R	0.3°	220	110	44
0°U 10° L&R	0.5°	120	60	24
Table 800-13 Minimum C.I.L. Values for Category „B” studs				
Entrance angle	Observation angle	White	C.I.L. in mcd/lx Amber	Red
0°U 6° L&R	0.3°	20	10	4
0°U 10° L&R	0.5°	15	7.5	3

Note: 1) The entrance angle or 0°U corresponds to the normal aspect of the reflectors when the reflecting road stud is installed in horizontal road surface.

2) A stud that incorporates one or more corner cube reflectors shall be considered to be included in category „A”. A stud that incorporates one or more bi-convex reflectors shall be considered to be included in category „B”.

804.5 Tests

804.5.1 Coefficient of luminance intensity can be measured by procedure described in ASTM E

809 “Practice for Measuring Photometric Characteristics” or as recommended in BS: 873 – Part 4:1973.

804.5.2 Under test conditions, a stud shall not be considered to fail the photometric requirements if the measured C.I.L. at any one position of measurement is less than the values specified in Table 800-12 or 800-13 provided that

- (i) the value is not less than 80% of the specified minimum, and
- (ii) the average of the left and right measurements for the specific angle is greater than the specified minimum.

804.6 Solar Powered Road Markers (Solar Studs)

The solar studs shall be made of Aluminum alloy and poly carbonate material which shall be absolutely weather resistance and strong enough to support a load of 13635 kg tested in accordance with ASTM D4280. Its colour may be white, red, yellow, green or blue or

combination as directed by the Engineer. Its water resistance shall meet the requirements of IP 65 in accordance with IS:12063:1987 Category 2 for protection against water ingress. The dimensions of solar studs shall not be less than 100 mm x 100 mm x 10 mm. It shall have super bright LEDs so as to provide long visibility from a distance of more than 800m. Its flashing rate shall not be less than 1 Hz. Its should be able to give the prescribed performance in the temperature range of -40⁰C to +55⁰C. Its life shall be not less than 3 years.

BILL OF QUANTITIES

- i) The Bill of Quantities (BOQ) shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Road Maintenance Standards and Specifications for Road Maintenance Works.
- ii) The quantities given in the Bill of Quantities are estimated quantities. The basis of payment will be actual quantities of items of work carried out and valued at the rates tendered in the BOQ along with accepted/awarded tender premium. The accepted/awarded tender premium above/below the grand total of the project cost shall be applicable for individual items of work to determine payable amount to Contractor for work done subject to other contractual provisions. Any variation shall be dealt with as per contract provisions.
- iii) The rates and prices tendered in the BOQ shall include all equipment, tools, spares, labour, supervision, overheads, consumables, materials, erection, maintenance, testing of input material delivered, profit, taxes (excl GST) and duties together with general risks, liabilities and obligations set out and implied in the contract and other incidentals to comply with the requirements of Standards and Specifications.

BILL OF QUANTITIES

Sl. No.	Item Description	Quantity	Units	Estimated Rate in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	6	7
1	Earthwork on Hill Road Excavation in Hill Area in Soil by Mechanical Means					
1.01	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead upto 1000 metres (Reference to MoRT&H's specification clause 301).	9467.190	CUM	145.21	1374730.66	INR Thirteen Lakh Seventy Four Thousand Seven Hundred & Thirty and Paise Sixty Six Only
2	Back filling By Materials obtained from Excavation					
2.01	Back filling behind abutment, wing wall and return wall complete including sprinkling water and thoroughly compacted with plate compactor/power rammer in layers not exceeding 150mm compacted thickness as per drawing and Technical Specification (710.1.4 of IRC:78 & MoRTH's specification 2200)	4459.550	CUM	346.83	1546705.73	INR Fifteen Lakh Forty Six Thousand Seven Hundred & Five and Paise Seventy Three Only
3	Gabion					
3.01	Providing & making of Gabion structure of size (2x1x1)m with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MoRT&H's 5 th revision clause 2500 of required size, Mesh Type 10x12(D=100 mm with tolerance of ±2%), Zinc coated, Mesh wire diameter 2.7/3.7mm (ID/OD)mechanically edged/selvedge with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge	7910.000	CUM	3962.91	31346618.10	INR Three Crore Thirteen Lakh Forty Six Thousand Six Hundred & Eighteen and Paise Ten Only
4	SDRA					

4.01	Supply and Installation of Self drilling Hollow soil / rock anchor of outer dia of 38 mm and inner dia of 19 mm, Yield Load Carrying Capacity of Minimum 400 KN in soil / overburden /rock suitable for drilling placing and cement grouting. Installation with all accessories such as 76 mm/100mm dia drill bit, couplers, 8mm thick base plate and nut and bolt complete in all respect.	1755.000	RM	3611.67	6338480.85	INR Sixty Three Lakh Thirty Eight Thousand Four Hundred & Eighty and Paise Eighty Five Only
5	Grouting					
5.01	Cement pressure grouting through hollw Soil/Solid Roack Anchor of Outer dia 76/51/38/32/25 mm in rock/overburden including all cost of material and equipment required to complete the grouting work at desired pressure.	1316.250	BAG	730.67	961744.39	INR Nine Lakh Sixty One Thousand Seven Hundred & Forty Four and Paise Thirty Nine Only
6	P.C.C. Grade M15					
6.01	Plain/Reinforced Cement Concrete in open foundations complete as per Drawing and Technical Specifications(Reference to MoRT&H's Specification 1500, 1700 & 2100). .	474.970	CUM	5671.40	2693744.86	INR Twenty Six Lakh Ninety Three Thousand Seven Hundred & Forty Four and Paise Eighty Six Only
7	By Mix in Place Method					
7.01	Construction of granular sub-base by providing graded materials such as natural sand/crushed gravel/crushed stone/combination depending upon the required grading , spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator and compacting with vibratory roller to achieve at least 98% of the maximum dry density for the material determined as per IS:2720 (Part 8), complete as per clause 401 desired density, complete as per clause 401 Rate per cum for grading-V Material	177.800	CUM	2632.62	468079.84	INR Four Lakh Sixty Eight Thousand & Seventy Nine and Paise Eighty Four Only
8	Wet Mix Macadam					
8.01	Providing, laying, spreading and compacting graded stone aggregate conforming to the grading of table 400- 13 revised vide table 2 of IRC : 109 (2015) to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density .The thickness of a single compacted layer shall not be less than 75 mm.(Reference to MoRT&H's specification 406.	573.500	CUM	2839.03	1628183.71	INR Sixteen Lakh Twenty Eight Thousand One Hundred & Eighty Three and Paise Seventy One Only

9	Prime Coat					
9.01	Providing and applying primer coat with cationic bitumen emulsion SS1 grade conforming to IS:8887 on prepared porous granular surface including clearing of road surface and spraying primer using mechanical means (Reference to MORT&H's specification clause 502).	2764.000	SQM	93.92	259594.88	INR Two Lakh Fifty Nine Thousand Five Hundred & Ninety Four and Paise Eighty Eight Only
10	Tack Coat					
10.01	Providing and applying Tack Coat with Bitumen Emulsion (MS) using emulsion pressure distributor @ 0.25 kg per sqm on the prepared bituminous/ granular surface cleaned with mechanical broom (Reference to MoRT&H's Specification Clause 503).On Granular surface treated with primer surface. ii) on bituminous surface treated with primer @ 0.25Km /sqm	2354.000	SQM	18.68	43972.72	INR Forty Three Thousand Nine Hundred & Seventy Two and Paise Seventy Two Only
11	Bituminous Macadam					
11.01	Bituminous Macadam Providing and laying bituminous macadam using crushed aggregates of specified grading premixed with bituminous binder, transported to site, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction (Reference to MORT&H's specification clause 504). With Continuous Type HMP (40-60 TPH) for Grading 2 (19 mm nominal size)	114.700	CUM	9539.00	1094123.30	INR Ten Lakh Ninety Four Thousand One Hundred & Twenty Three and Paise Thirty Only
12	Mastic Asphalt- 25mm thick					
12.01	Providing and laying 25 mm thick mastic asphalt wearing course with approved grade bitumen meeting the requirements given in table 50039, prepared by using mastic cooker and laid to required level and slope after cleaning the surface , including providing antiskid surface with bitumen precoated fined grained hard stone chipping of 13.2mm nominal size at the rate of 0.005 cum/m2 and at an approximate spacings of 10 cm centre to centre in both direction , pressed into surface when the temperature of surface is not less than 100 C , protruding 1mm to 4mm over mastic surface, all complete as per clause 516 (Ref to MORT&H's specification clause 516 along with IRC :107) (VG-40)	3385.000	SQM	828.89	2805792.65	INR Twenty Eight Lakh Five Thousand Seven Hundred & Ninety Two and Paise Sixty Five Only
13	Road Delineators					

13.01	Supply and installation of delineators (Road way inductors, hazard markers, object markers), 80-100 CM high above ground level, painted black and white in 15 cm wide strips, fitted with 80 X 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings (Reference to MORT&H's specification 806).	328.000	Nos	877.47	287810.16	INR Two Lakh Eighty Seven Thousand Eight Hundred & Ten and Paise Sixteen Only
14	Geo textile					
14.01	Supplying at site and laying in position UV stabilized needle punched, stapled fibre / continuous filament polypropylene non-woven geotextile of 300 gsm as filter, as per specification, including cost of preparing the bed, placing the geotextile as per profile with at least 15cm lapping, wherever required and anchorage at top, sewing / welding the overlapped portion, storage and transportation by all means, complete as per direction of the Engineer-in-charge. Note: 1. Payment to be made on measurement of finished surface without lapping, but including anchoring length at top. 2. Payment will be made subject to the result of 3rd Party Testing, to be done by the Engineer-in-charge departmentally. Paragraphs 2.7.7, 2.7.9 and 2.7.10 under the Chapter of "Specification for Works" in the USoR shall be reproduced and included in the tender document as "Specification and Special Terms"	3721.000	SQM	276.10	1027368.10	INR Ten Lakh Twenty Seven Thousand Three Hundred & Sixty Eight and Paise Ten Only
15	Filter Media					
15.01	Providing and laying of Filter media with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MoRT&H specifications to a thickness of not less than 600mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification (710.1.4 of IRC:78 & 2200).	30.050	CUM	358.81	10782.24	INR Ten Thousand Seven Hundred & Eighty Two and Paise Twenty Four Only
16	Cement mortar					
16.01	Plastering with cement mortar (1:3) on brick work in sub-structure complete all including raking out joints curing, etc as per Technical Specifications (Reference to MORT&H's specifications 1300 & 2200).	17.990	SQM	634.05	11406.56	INR Eleven Thousand Four Hundred & Six and Paise Fifty Six Only
17	Plum concrete					

17.01	Plain cement concrete of nominal mix (1:2:4)with coarse aggregate of which stone boulder of size 225 mm to 150mm of 70% of total dry volume to be placed in position as directed by Eng-in charge, Cement(53 grade) mechanically mixed in 1:2:4 of rest volume and placed in position and compacted by any means as directed including cost of shuttering .	4.950	CUM	3911.67	19362.77	INR Nineteen Thousand Three Hundred & Sixty Two and Paise Seventy Seven Only
18	Supplying, binding, fixing etc. HYSD bar reinforcement.					
18.01	Supplying, binding, fixing etc. including initial straightening, cutting to requisite length, hooking and bending to correct shape, placing in proper position of uncoated HYSD reinforcement bar in sub-structure complete as per drawing and Technical Specifications (Reference to MORT&H's specifications 1600 & 2200).	2.210	MT	68950.90	152381.49	INR One Lakh Fifty Two Thousand Three Hundred & Eighty One and Paise Forty Nine Only
19	RCC Grade M30					
19.01	Furnishing and Placing Reinforced/Prestressed cement concrete in superstructure all including vibrating and compacting, finishing, curing, sampling, testing etc. by mechanically mixed as per clause 1719 of MoRTH but excluding the cost of materials as per drawing and Technical Specification (Reference to MORT&H's specifications 1500, 1600, 1700 & 1800). Using Concrete Mixture	20.120	CUM	7178.52	144431.82	INR One Lakh Forty Four Thousand Four Hundred & Thirty One and Paise Eighty Two Only
20	RCC Grade M20					
20.01	Plain/Reinforced cement concrete in sub-structure complete all including vibrating and compacting, finishing, curing, sampling, testing etc. by mechanically mixed as per drawing and Technical Specifications (Reference to MORT&H's specifications 1500, 1700 & 2200).	0.230	CUM	6510.40	1497.39	INR One Thousand Four Hundred & Ninety Seven and Paise Thirty Nine Only
21	Thrie : Metal Beam Crash Barrier					

21.01	Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 811	210.000	RM	3795.84	797126.40	INR Seven Lakh Ninety Seven Thousand One Hundred & Twenty Six and Paise Forty Only
Total in Figures					53013938.62	INR Five Crore Thirty Lakh Thirteen Thousand Nine Hundred & Thirty Eight and Paise Sixty Two Only
Quoted Rate in Figures			Select		0.00	INR Zero Only

