

REQUEST FOR PROPOSAL

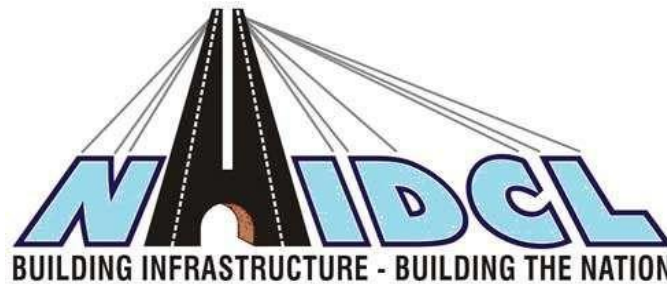
For

Short Term Maintenance of Agartala to Udaipur Section of NH-08 in the State of Tripura.

NAME OF WORK:

Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

NHIDCL/RO-Agt/STMC/Udp-Sab & Udp to Melaghar/NH-08/2025-26/771



National Highways Infrastructure Development Corporation Limited

RFP Submitted for Amounting Rs. 28,64,87,111/- (Incl. of GST)

REGIONAL OFFICE – AGARTALA

National Highways & Infrastructure Development Corporation Ltd. (A Government of India Undertaking)

September- 2025

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SECTION – 1 NOTICE INVITING TENDER

SECTION – 1

NOTICE INVITING TENDER

Availability of bid documents on website from 10-09-2025 to 01-10-2025

Date of Pre-bid meeting: 15-09-2025

Date of reply of Pre-bid queries: 20-09-2025

Last date for online submission of the Bid is 01-10-2025

Dead line for physical submission of original documents and bid: 01-10-2025

Opening of technical bids: 03-10-2025

Opening of financial bids: To be intimated later on.

Validity of bids: 120 Days from the Bid Due Date

SECTION: 1

NOTICE INVITING TENDER

NHIDCL/RO-Agt/STMC/Udp-Sab & Udp to Melaghar/NH-08/2025-26/771

Date 10.09.2025

The National Highways and Infrastructure Development Corporation Ltd., (the “Authority”) is engaged in the development of National Highways and as part of this endeavor, “the Authority” has decided to undertake the invites Single Percentage Rate Bids through e-tendering from experienced firms/organizations for maintenance works and activities for the following sections of the National Highway roads:

Sr. No.	Section	Length (km)	Estimated Cost (Rs. Lacs)	Bid Security (Rs. Lac)	Contract Duration (months)
1.	Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.	at various locations	2864.87	57.30	12 (Twelve) +DLP

The estimated cost is inclusive of GST. However, GST shall be reimbursed as per actual payment by the Contractor on submission of proof certified by CA with compulsory UDIN No.

Cost of Bid Documents (Non-Refundable): Rs. 11,800/- (Non-Refundable) in the form of RTGS/NEFT/DD in favour of Executive Director (P) NHIDCL payable at Agartala, in establishment account of RO Agartala as mentioned below:

Particulars	Details
Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited Establishment Account
Beneficiary Bank Account No.	79901010002270
Beneficiary Bank Branch	IFSC – CNRB0017990
Beneficiary Bank Branch Name	Agartala-II Branch

Beneficiary Bank Address	Canara Bank, Agartala-II Branch, Durga Bari Road, 1st floor above RMS office, Agartala, Tripura: 799001
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e-Tender Processing fee (Non-Refundable): Rs. NIL

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

Average Annual Turn-over during last 5 years	Work of similar nature during last 5 years
Minimum Average Annual Turnover Rs. 2864.87 Lakh (estimated cost of work)	As per Clause 4.3 A (b)

3. The Scope of Work includes the routine maintenance of all the assets and facilities existing within Right of Way (ROW) on the above-mentioned section including maintenance of carriageway, shoulders, median, bridges, culverts, drains, footpaths, road signage, plantation etc., and carrying out other works as specified in the bid documents.
4. To participate in the 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:
- Registration with e-procurement portal should be valid at least up to the date of submission of BID.
 - 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.

5. The complete Bid Documents can be viewed/downloaded from the official portal of the CPPP website (<https://eprocure.gov.in/eprocure/app>) and NHIDCL website www.nhidcl.com from **10-09-2025 (14:00 Hrs.) to 01-10-2025 (17:00 Hrs.)**. The amendments/clarification 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/- in the form of RTGS/NEFT/Demand in favour of**

Executive director (P) NHIDCL payable at Agartala (Non-Refundable).
Failure to submit either of the above will result in rejection of bids.

6. The Bid should be submitted online in the prescribed form at given on the website. No other mode of submission is acceptable.
7. **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.**
8. The last date for online submission of the Bid is **01-10-2025 (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. Bidder must also submit Technical Bid on BIMS Portal within the specified deadline.

The bids would be opened **03-10-2025 (at 17.05 Hrs.)** online at office of the National Highways & Infrastructure Development Corporation Limited., Regional Office, Agartala, 3rd floor, UD Bhawan, Near Ravindra Bhawan, Sakuntala, Agartala, Tripura 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.

9. The amount of Bid Security/Earnest Money is 57.30 **Lac.** to be submitted in the form of **RTGS/NEFT/Demand Draft/ E-Bank Guarantee in favour of Executive Director (P) NHIDCL payable at Agartala, in Project Account of RO Agartala as mentioned below** (any other form 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 the Employer. In case of foreign bank (issued by a branch in India) the net worth in respect of the Indian operations shall only be taken into account. It shall be valid for 45 days beyond the validity of the bid. Any bid having bid security for lesser value and shorter validity period shall be treated as non-responsive. Any Bid not accompanied by Bid Security shall also be treated as NON-RESPONSIVE. Bank Guarantee/ Demand Draft (See Clause 16 of Section-2).

S. No.	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited Project Account
2	Beneficiary Bank Account No.	79901010002266
3	Beneficiary Bank Branch	IFSC – CNRB0017990
4	Beneficiary Bank Branch Name	Agartala-II Branch
5	Beneficiary Bank Address	Canara Bank, Agartala-II Branch, Durga Bari Road, 1st floor above RMS office, Agartala, Tripura: 799001

11. The period of validity of bid is 120 days from the deadline of submission of bid.

12. No JV shall be allowed in the Biding and only sole bidders are allowed.

13. Points of Attention for submission of Bid.

(i) All data in respect of Technical / Financial Capacity of the Bidder duly certified by Statutory Auditor should be made available through UDIN verifications and the Statutory Auditor should mention the corresponding UDIN in each of its certificate. This shall be considered in respect of Qualification requirements of Bidder as per RFP clause 4.4.

(ii) The bidder has to provide 'Self Certification' that its Bid meets Local Content requirement for 'Class-I Local Supplier' / 'Class-II Local Supplier' as the case may be, mentioning the details of location(s) at which the local value addition is made in both Technical as well as Financial Bid. In case, bidder don't submit the aforesaid certification the bidder will summarily treat as 'Non-Local Supplier'.

(iii) Please note that selection of bidder shall be guided by the 'Self Certification' on Local Content in accordance with Cl. 23.7 of RFP.

(iv) 'Certificate regarding Compliance' by the Bidder to be furnished as per Cl. 4.3 B (c)(v) of RFP along with Technical Bid.

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

**Officer In-charge
Dy. General Manager (P)
Regional Office-Agartala
National Highways & Infrastructure Development Corporation Limited.
(Ministry of Road Transports & Highways, Government of India)
Regional Office, 3rd floor, UD Bhawan, Near Ravindra Bhawan,
Sakuntala, Agartala, Tripura
Email: edp-agartala@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 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 black listed 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 4.3B (b) (i)**.

e) Scanned copy of details of the technical personnel proposed to be employed for the Contract having the qualifications defined in **Clause 4.3B (b)(ii)**.

f) Scanned copy of reports on the financial standing of the Bidder, and a certificate from Chartered Accountant as a 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.

i) Scanned undertaking that the bidder will be able to invest minimum cash up to 25 % of contract value of work, during implementation of work

j) A Bidder is required to submit, along with its technical BID, a self-certification that the item offered meets the local content requirement for 'Class-I local Supplier'/'Class-II local Supplier', as the case may be. The self-certification shall also have details of the locations(s) at which the local value addition is made. In case, bidder has not submitted the aforesaid certification, the bidder will be treated as 'Non-local Supplier'

k) In the above pretext, the Class-I local Supplier, Class-II local Supplier and the Non-local Supplier are defined as under.

i) Class-I local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local Supplier' under this RFP. The 'local content' requirement to categorize a supplier as 'Class-I local Supplier' is minimum 50%.

ii) Class-II local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local Supplier' under this RFP. The 'local content' requirement to categorize a supplier as 'Class-II local Supplier' is minimum 20%.

iii) Non-local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local Supplier' under this RFP.

iv) Local content' means the amount of value added in India which shall be the total value of item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

In case of procurement for a value in excess of Rs. 10 crores, the 'Class-I local Supplier'/'Class-II local Supplier' shall provide a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing-

chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

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 five 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 i.e., slope stabilization / landslide mitigation in hilly/ mountainous region costing not less than amount equal to **Rs. 716.22 Lac.** (25%)

ii. Two similar completed works i.e., slope stabilization / landslide mitigation in hilly/ mountainous region costing not less than amount equal to **Rs. 1002.70 lac each.** (35%)

iii. one similar completed work i.e. slope stabilization / landslide mitigation in hilly/ mountainous region costing not less than amount equal to **Rs. 1432.44 Lac.**(50%)

(c) The Bidder shall have experience in following 3 criteria as additional project specific experience in the last 10 (Ten) financial years preceding the Bid Due Date:

(i)Completed construction of at least **160 m** Gabion wall with high abrasion resistant polymer coated including gabion mattress for the purpose of slope stabilization / ground improvement in hilly/mountainous terrain. Bidder may complete the required length in individual type or in aggregate of all types.

(ii)Completed construction of at least **120 m** of Reinforced soil structure with a minimum height of **12 m** at least **60 m** in hilly/ mountainous terrain for the purpose of slope stabilization / landslide mitigation in Hilly/mountainous terrain. Bidder may complete the required area in individual type or in aggregate of all types.

(iii)Completed construction of at least **120 m** of Geo-composite drain and Polymer reinforced synthetic geomat in hilly/ mountainous terrain. Bidder may complete the required length in individual type or in aggregate of all types.

(iv) In respect of additional experience as mentioned in para (i), (ii) & (iii) above, for avoidance of doubt, it is clarified that total work executed by the bidder of any of above item or in aggregate shall meet the minimum requirement by the bidder of any of above item or in aggregate shall meet the minimum requirement.

(v) For the purpose of demonstrating the additional experience the Bidder shall submit relevant experience certificate from the respective Government Authority.

(d) In case, the Bidder does not have additional project specific experience as mentioned above in Clause 4.3A(c), Bidder may enter into signing of Memorandum of Understanding (MoU) with a single Specialized Agency for technical expertise including design, drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along with their bid [This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU. Please note, the MoU shall form a part of the bid]. The **Specialized Agency** shall have experience in all 3 criteria as additional project specific experience as mentioned in para 4.3A (c) (i), (ii) & (iii). In such case, the experience certificates of the **Specialized Agency** shall be submitted along with the bid for evaluation purpose. If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the **Specialized Agency** without written permission of the Authority during the pendency of the Contract. Such **Specialized Agency** shall be an organization established under Indian Company's Act and must be existing in India for minimum 5 years having **an annual average turnover (updated to the price level of the year based on factors) of INR 2.00 Cr. for the last 5 financial years** preceding the Bid Due Date. Certificate of incorporation along with turnover certificate from auditor shall be submitted as documentary proof.

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

<u>Year Before</u>	<u>Multiplying Factor</u>
2024-25.....	1.1
2023-24	1.21
2022-23	1.33
2021-22	1.46
2020-21	1.61

b1) In the above pretext, the Class-I local Supplier, Class-II local Supplier and the Non local Supplier are defined as under:

i) 'Class-I local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local Supplier' under this RFP. The 'local content' requirement to categorize a supplier as 'Class-I local Supplier' is minimum 50%.

ii) 'Class-II local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local Supplier' under this RFP. The 'local content' requirement to categorize a supplier as 'Class-II local Supplier' is minimum 20%.

iii) 'Non-local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local Supplier' under this RFP.

iv) 'Local content' means the amount of value added in India which shall be the total value of item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

In case of procurement for a value in excess of Rs. 10 crores, the 'Class-I local Supplier'/' Class-II local Supplier' shall provide a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

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.

c) For determining the eligibility of Bidder from a country which shares a land border with India, the following shall apply:

(i) Any Bidder from a country which shares a land border with India will be eligible to bid, only if the Bidder is registered with the Competent Authority, specified in Annexure-I of Order (Public Procurement No. 1) issued by Ministry of Finance, Department of Expenditure Public Procurement Division vide F. No. 6/18/2019-PPD, dated 23rd July, 2020, which shall form an integral part of RFP and DCA (copy enclosed).

(ii) "Bidder from a country which shares a land border with India" means:

a) An entity incorporated, established or registered in such a country; or

b) A subsidiary of an entity incorporated, established or registered in such a country; or

c) An entity substantially controlled through entities incorporated, established or registered in such a country; or

d) An entity whose beneficial owner is situated in such a country; or

e) An Indian (or other) agent of such an entity; or

f) A natural person who is a citizen of such a country; or

g) A Consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

(iii) Beneficial owner for the purpose of (ii) above means:

1. In case of a company or Limited Liability Partnership, the beneficial own natural person(s), who, whether acting alone or together, or through one or more judicial has a controlling ownership interest or who exercises control through other means

Explanation:

a) “Controlling ownership Interest” means ownership of or entitlement to more than twenty-five percent of share or capital or profits of the company. “Control” shall include the right to appoint majority of the directors or to control the management or priority decisions including by virtue of their shareholding or management rights or shareholding agreement or voting agreement;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural persons(s), who whether acting alone or together, or through one or more judicial person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individual;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

(iv) An Agent is a person employed to do any act for another, or to represent another in dealing with third person.

(v) The Selected Bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of “contractor from a country which shares a land border with India” shall be as in Clause (d) (ii) above.

Certificate regarding Compliance:

A certificate on the letterhead of the Bidder shall be required to be submitted by the bidders certifying the following:

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from a country or, if from such a country, has been registered with the Competent Authority as denied in Public Procurement Order No.

F. No. 6/18/2019-PPD, dated 23rd July 2020, I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered.”

It may be noted that in case the above certification is found to be false, this would be a ground for immediate rejection of Bid/termination and further legal action in accordance with law.

Validity of Registration:

In respect of RFP, registration should be valid at the time of submission of bids and at the time of acceptance of bids. If the Bidder was validly registered at the time of acceptance, registration shall not be a relevant consideration during contract execution

vi) Self-certification the by Bidder that its Bid meets the Local Content requirement for ‘Class-I local Supplier’/‘Class-II local Supplier’, as the case may be. The Self- certification shall also have details of the location(s) at which the local value addition is made. In case, bidder do not submit the aforesaid Certification, the bidder will be summarily treated as ‘Non local supplier’.

In case of procurement for a value in excess of Rs. 10 crores, the ‘Class-I local Supplier’/ ‘Class-II local Supplier’ shall have to provide a Certificate from the Statutory Auditor or Cost Auditor of the Company (in case of Companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of Suppliers other than Companies) giving the percentage of Local Content upon construction of the Project.

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:

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 **1 year** (period of completion of the works for which bid is invited) and Value of existing commitments, works for which the bidder has emerged as the winner of the bids or ongoing works to be completed during the period of completion of the works for which BID is invited. For the sake of clarification, it is mentioned that works for which bidder has emerged as the winner of the bids but LOA has not been issued as on the day before opening the financial bids shall also be considered while calculating value of B

Note:

The Statement showing the value of all existing commitments, works for which the contractor has emerged as the winner of the bid as given by bidder and ongoing works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Client or its Engineer-in-Charge not below the rank of Executive Engineer or equivalent in respect of EPC/M&R Projects or Concessionaire/Authorized Signatory or SPV in respect of BOT Projects and verified by Statutory Auditor.

The amount of bonus received, if any, in EPC/M&R Projects should be countersigned by the Client or its Engineer-in-Charge not below the rank of Executive Engineer or equivalent in respect of EPC/M&R Projects.

4.4.1 The Bid capacity status of the bidder to be updated as on the day before opening the financial bids.

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.
- iii) Tampered the bid document in any manner

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 **Clause10**:

Section1: Notice Inviting Tender

Section2: Instructions to Bidders (ITB) and Appendix to ITB

Section3: Qualification Information

Section4: Forms of Bank Guarantee, Letter of Acceptance (LOA) and Agreement

Section5: General Conditions of Contract and Contract Data

Section6: Addendum to General Conditions of Contract

Section7: Road Maintenance Standards and Specifications for Road Maintenance Work, Part-I and Part-II

Section8: Drawings and Schedule of Drawings

Section9: 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** here of, 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 10days 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 authorized 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 **Clause8.1**, 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 **Clause20.3**.

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-Bill no. 1 to 2.

12.2 Documents to be submitted in physical form must be delivered **by 01.10.2025 (up to 17:00 Hrs.)**.

Though, the scanned copies of following documents is required to be uploaded during submission of e-bid on the e-tendering portal and BIMS Portal, as per **Clause 12.1** above, however, following original documents in physical form shall be submitted in a sealed envelope on or before bid due date **01.10.2025 (up to 17:00)** or before the time of submission as specified in NIT at the address indicated in **Clause 20**, duly super scribed "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

vi) Drawings and Schedule of Drawings

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- Bill no. 1to 3 submitted by the Bidder.

13.2 The Bidder shall quote single percentage rate above/below the BoQ/ scheduled rates On appropriate form at enclosed as part of tender document on e-tender portal <https://eprocure.gov.in/eprocure/app>

13.3 All duties, taxes, including 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 **Clause20**. 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 **Clause16** in all respects.

1. Earnest Money/Bid Security/Forfeiture/Debarment/Performance Security

1.1 The Bidder shall furnish, as part of the Bid, Earnest Money/Bid Security, in the amount as specified in the NIT. Demand Draft/NEFT/RTGS/ E-Bank Guarantee only must be in Favor of NHIDCL payable at Agartala.

1.2 The Earnest Money/ Bid Security shall, at the Bidder's option, be in the form of Demand Draft/NEFT/RTGS/E-Bank Guarantee only (any other form 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 the Employer. In case of foreign bank (issued by a branch in India) the net worth in respect of the Indian operations shall only be taken into account. It shall be valid for 45 days beyond the validity of the bid. Any bid having bid security for lesser value and shorter validity period shall be treated as non-responsive. Any Bid not accompanied by Bid Security shall also be treated as NON-RESPONSIVE.

1.3 For Electronic-BGs(e-BGs), Entity ID of NHIDCL is AAECN7759E, which may be quoted for getting EBG. The E-BGs shall be as per the format of Appendix-I. No BG shall be accepted in the physical form. Only e BG is to be submitted. For

Further details, the bidders may visit the website of National E Governance Services Limited at <https://nesl.co.in/ebg/>. Also, the bidders may refer to the Office Order of NHIDCL displayed on the website <https://nhidcl.com/wpcontent/uploads/2023/03/Notice-for-e-PBGTender-Fee-and-EMD.pdf> for ready reference. The Bid submitted without Bid Security will be summarily rejected.

A. e-Bank Guarantee or Demand Draft/Bankers Cheque/RTGS/ NEFT/FDR receipts, in the name of the Employer, from following banks would be accepted: -

i. State Bank of India or its subsidiaries,

ii. Any Indian Nationalized Bank

iii. IDBI / ICICI Bank

iv. A Foreign Bank (issued by a branch outside India) with a counter guarantee from SBI or its subsidiaries or any Indian Nationalized Bank.

v. Any Scheduled Commercial Bank approved by RBI having a net worth of not less than Rs. 500 Crores as per the latest Annual Report of the Bank. In the case of a Foreign Bank (issued by a branch in India), the net worth in respect of the Indian operations shall only be taken into account.

B. The acceptance of the guarantees shall also be subject to the following conditions: -

i. The capital adequacy of the Bank shall not be less than the norms prescribed by RBI (presently 9, with effect from 31st March, 2003,).

ii. The e-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 Bid securities of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract.

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) If a Bidder withdraws its BID during the period of Bid validity as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and the Employer;
- (c) In the case of 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 Ministry of Road Transport & Highways for a period as decided by MoRT&H.

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-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 financial instrument for fees/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 over writing, 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. Dead line 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 time of submission as specified in NIT, at the following address:

(i) Attn. of **Executive Director (Projects)**

National Highways & Infrastructure Development Corporation Limited.

(Ministry of Road Transports & Highways, Government of India)

Regional Office, 3rd floor, UD Bhawan, Near Ravindra Bhawan, Sakuntala, Agartala, Tripura

Email: edp-agartala@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 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 finalize 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 Subject to the provisions of Clause 23.5, the Bidder whose BID is adjudged as responsive as per conditions mentioned in this RFP, the bidder shall be declared as the selected Bidder (the "Selected Bidder") in pursuance to the procedure defined hereunder:

(i) Among all the responsive bidder, the lowest bidder will be termed as L1. If L1 is 'Class-I local Supplier', the contract will be awarded to L1.

(ii) If L1 is not 'Class-I local Supplier', the lowest bidder among the 'Class-I local Supplier', will be invited to match L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract will be awarded to such 'Class-I local Supplier' subject to matching the L1 price.

(iii) In case such lowest eligible 'Class-I local Supplier' fails to match the L1 price, the 'Class-I local Supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local Supplier' with the margin of purchase preference matches the L1 price, the contract shall be awarded to the L1 bidder.

'Margin of purchase preference' means the maximum extent to which the price quoted by a 'Class-I local Supplier' may be above the L1 for the purpose of purchase preference. The margin of purchase preference shall be 20%.

23.8 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 Not with standing **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 there by 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, and of routine maintenance of roads 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 after receipt of the Letter of Acceptance, the successful Bidder 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 **3% (Three percent) of the Bid Price. E-Bank Guarantee/Physical BG shall be accepted as per MoRTH circular no NH-24028/14/2014-H (Vol II), dated 31.05.2023.**

A. e-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 Nationalized Bank
- iii. IDBI/ICICI Bank
- iv. A Foreign Bank (issued by a branch outside India) with a counter guarantee from SBI or its subsidiaries or any Indian Nationalized Bank.
- v. 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. In the case of a

Foreign Bank (issued by a branch in India), the net worth in respect of the Indian operations shall only be taken into account.

B. The acceptance of the 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.

D. For E-BGs, Entity ID of NHIDCL is AAECN7759E, which may be quoted for getting EBG. The E-BGs shall be as per the format specified in Appendix N of this RFP document and shall be valid for 45 days beyond the validity of the bid. The bank details (Bank Name, IFSC etc.) are given below :

S. No.	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited Project Account
2	Beneficiary Bank Account No.	79901010002266
3	Beneficiary Bank Branch	IFSC – CNRB0017990
4	Beneficiary Bank Branch Name	Agartala-II Branch
5	Beneficiary Bank Address	Canara Bank, Agartala-II Branch, Durga Bari Road, 1st floor above RMS office, Agartala, Tripura: 799001

No BG shall be accepted in the physical form. For Further details, the bidders may visit the website of National E Governance Services Limited at <https://nesl.co.in/ebg/>. Also, the bidders may refer to the Office Order of NHIDCL displayed on the website <https://nhidcl.com/wpcontent/uploads/2023/03/Notice-for-e-PBGTender-Fee-and-EMD.pdf> for ready reference.

32.2 The performance security shall be Valid until **60 (Sixty) days** after the Defects Liability Period/completion 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. There upon 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 Notwithstanding anything to the contrary contained in this RFP, Performance Security for an amount equal to **3% (three percent)**.

33. Advances

33.1 The Employer will provide Mobilization Advance as provided in Part I General Conditions of Contract.

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 what so ever 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 there from, 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 mis representation or omission off acts or suppression off acts 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

[THE EMPLOYER SHOULD COMPLETE THIS APPENDIX BEFORE ISSUING THE BID DOCUMENTS]

ITB Clause Reference

The Employer is: - **National Highways and Infrastructure Development Corporation Ltd. 1st & 2nd floor, Tower A, World Trade Centre, Nauroji Nagar, New Delhi-110001**

1.1) Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

[(4.3. B(b) (i).] The key equipment to be deployed on contract work.

Name of the Equipment	Quantity
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(For bituminous pavement and earthwork)

1. Dozer 180 HP @ 60 cum per hr	1
2. Motor Grader	1
3. Hydraulic Excavator	1
4. Vibratory Roller	1
5. Smooth Wheeled Roller	1
6. Bitumen/emulsion sprayer @ 1750 sqm per hr	1
7. Mechanical Broom (1250 sqm per hour)	1
8. Air compressor	2
9. Backhoe loader/Front end Loader	1
10. Water Tanker	2
11. Dewatering Pumps	2
12. Tipper/dumper Truck	2
13. Hot Mix plant (Minimum 40-60 TPH)	1
14. Paver finisher	1
15. Generator set (63/100/250 KVA)	1
16. Plate compactors and hand-held tampers	1
17. Cranes or Hoists	1

**** Any other equipment required for carrying out work as per MoRTH specification**

Note: (**)- Equipment to be included if periodic renewal is also included in the contract.

Other equipment

Note: The bidder must upload scanned copy of the documentary evidence in support of his owning/leased/rented of the above equipment's. 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:

S. No.	Personnel	Qualification	Particular Experience (minimum requirement)	No. of Persons
1	Project Manager	B.E (Civil) or equivalent + 10 Years Exp.	5 years on highway constructions / maintenance work.	1
2	Site Engineer	B.E (Civil) + 3Years Exp. Or Diploma + 5 Years Exp.	2 years on highway constructions / maintenance work.	1
3	Quantity Surveyor	B.E. Civil+3Years Exp. Or Dip. Civil. +5Years Exp.	2 years on highway constructions / maintenance work.	1

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: 20.09.2025

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 with **UDIN No.**)

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

2024-25	
---------	--

2023-24	
---------	--

2022-23	
---------	--

2021-22	
---------	--

2020-21	
---------	--

Total:

Average Per Year:

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)*

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)	Updation 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 certificates.

(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

7. Upload copy of LOA

- 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 = **AxNx2.5 -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 equipment's with the company/entity from whom the equipment is 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 **Clause15.1.**

1.8 Details regarding additional project specific experience: -

Sl no.	Specific item	Project name	Length in m	Height in m
	RS wall	Project name A		
	Gabian wall	Project name B		
	Geo-Composite & Geomat	Project name C		

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

1 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 Authorized
Representative of the Firm)

Name of the Representative

Name of Firm

DATE

Appendix 1.7 [Ref. clause 4.4 B (b)(i)]

(On the letter head of the bidder)

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s..... agree to provide and will deploy required equipment as mentioned in the Appendix to ITB of the work “Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis”. Further it is certified that the documents submitted as evidence of availability of the key equipment’s for this work as stated in the Appendix to ITB, are genuine and correct. If anything, contrary to the details as submitted is found at any stage Authority would be at liberty to debar/black list my firm for an appropriate period as decided by Authority.

(Signed by an Authorised Representative of the Firm)

Name of the Representative

Name of Firm & Seal

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 BANK GUARANTEE FOR PERFORMANCE SECURITY/
ADDITIONAL PERFORMANCE SECURITY
(e-BGs Only - Entity ID of NHIDCL is AAECN7759E)**

Contract Package No: NHIDCL/RO-Agt/STMC/Udp-Sab & Udp to Melaghar/NH-08/2025-26/771

To

**National Highways & Infrastructure Development Corporation Limited.
(Ministry of Road Transports & Highways, Government of India)
Regional Office, 3rd floor, UD Bhawan, Near Ravindra Bhawan, Sakuntala, Agartala, Tripura
Email: edp-agartala@nhidcl.com**

WHEREAS..... (name and address of contractor) hereinafter called "the contractor" has undertaken, in pursuance of Letter of Acceptance No. Dated..... to execute..... (name of Contract and brief description of Works) (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 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/End of Contract Period.

This guarantee shall also be operatable at our branch at Agartala , 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.

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

S.No.	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited Project Account
2	Beneficiary Bank Account No.	79901010002266
3	Beneficiary Bank Branch	IFSC – CNRB0017990
4	Beneficiary Bank Branch Name	Agartala-II Branch
5	Beneficiary Bank Address	Canara Bank, Agartala-II Branch, Durga Bari Road, 1st floor above RMS office, Agartala, Tripura: 799001

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

Name of the Issuing Bank/ BranchName of the Controlling Branch/Bank.....

Address & Telephone Number.....Address & Telephone Number.....

Date.....

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

1.....
..... (Name, Address & Occupation)

2.....
..... (Name, Address & Occupation)

An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalance bids, if any and denominated in Indian Rupees.

FORM OF LETTER OF APPLICATION

To,

Executive Director (Projects)

National Highways & Infrastructure Development Corporation Limited.
(Ministry of Road Transports & Highways, Government of India)
Regional Office, 3rd floor, UD Bhawan, Near Ravindra Bhawan, Sakuntala, Agartala,
Tripura
Email: edp-agartala@nhidcl.com

DESCRIPTION OF WORKS: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

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.:.....**Name of Work**.....

Sir,

Based on your bid submitted on ...in compliance of bidding document of [the Employer] for execution of the works of..... , it is hereby notified that your bid for a Contract Price of **Rs..... (Rupees in words.....)** has been accepted for and on behalf of [the Employer]

You are here by 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 _____ (hereinafter called “the Contractor”) of the other part.

AND WHEREAS the Employer invited bids from eligible bidders for the execution of certain works, **viz “Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis”** 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 there on, on terms and conditions in accordance with the documents listed in **Para2** 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 **Clause32** 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 WHERE OF 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:

In the Presence of

1.Name:

Address:

Address:

2. Name:

2.Name:

Address:

Address:

SECTION -5

GENERAL CONDITIONS OF CONTRACT (GCC)

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 **Clause47**.

Compensation Events are those defined in **Clause40**.

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 **Clause2.3**.

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 Contract or 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.
 - i. Main carriage way with shoulders (paved and/or earthen), medians, slip roads, service roads;
 - ii. Road embankment including slopes, protection works, kerbs and chute drains;
 - iii. Road way 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, guardrails, safety barriers, railings, fencings, parapets, kilometer stones ,200m 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 assets are 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 the Specific parts of the road aspects as specified in BOQ or as ordered by Engineer in charge and ensure road users 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 mean 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 Contract or 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 there of 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 Contract or 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 to 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 when in writing. A notice shall be effective only when it is delivered as per Indian Law.

7. Sub contracting

7.1 The Contract or 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 Contract or from any liability or obligation under the Contract.

7.2 The Contract or 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 Contract or 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 the irrelevant 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 15days of issue of notice to proceed with the work, a penalty of **5000/-** per day per person shall be levied for next 30days, beyond which it shall be treated as a breach of Contract and action will be taken as per **Clause51**.

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 **Clause11.1**, 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) Auto mobile 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 affect 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. Contract or to Construct the Works

16.1 The Contractor's obligations cover the carrying out of all 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.

16.2 Construction and Design Standards

(i) The Contractor has to construct the work as per drawings attached with RFP.

(ii) The Contractor has to submit the drawings and the same has to be vetted by NIT Agartala the cost of Contractor.

(iii) The instructions and direction conveyed during the execution of work by employer (NHIDCL) and NIT Agartala officials shall have to be followed strictly and failing of which necessary action towards termination of contractor as per Clause 51.

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 carryout 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 with hold the amount stated in the Contract Data from the next payment certificate and continue to with hold 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 21days 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 totalling 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 setup a field laboratory within period stated in contract data and be solely responsible for:

- a) Carrying out the mandatory tests prescribed in Technical Specifications as per MoRTH specifications of Roads and Bridges and IRC SP 112 and other relevant IRC/IS codes.
- 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, and other faults appear in the works within the period specified here under 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 Defect Liability Period shall be 36 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 here in;
- 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 here in;

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 **20 percent** 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.

The contract is not subject to Price adjustment/escalation and Price adjustment/escalation is not allowed.

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.

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 carryout 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 or after taking in to 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 Contract or 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.

40. Compensation Events

40.1 The following shall be Compensation Event 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 Contract or 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

41.1 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, local bodies 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).

41.2 All payments shall be made in Indian Rupees.

42. Security Deposit/ Retention Money

42.1 The Employer shall retain security deposit of 5% (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 there of 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 over payment 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.

44. Advance Payment

44.1 The Employer will make an interest-bearing advance payment to the Contractor against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts equal to the advance payment up to 10% of Contract Price. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor.

The Contractor shall take the above advance before 2nd running bill and if the contractor delays seeking the advance, the same is not payable.

44.2 The Contractor is to use the advance payment only to pay for Equipment, plant and Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

44.3 The advance payment shall be repaid with interest @ SBI PLR applicable on the date of release of mobilization advance, by deducting from payments otherwise due to the Contractor. The mobilisation advance will be recovered from third running bill upto 8th running bill in six equal instalments and the interest will be recovered from 9th bill. In any case, the mobilisation advance with interest must be recovered within ten months from the date of agreement. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, Compensation Events, or Liquidated Damages.

45. Performance Security

45.1 Subject to further condition in Contract Data, the Performance Security equal to **three 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 28days 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

49.1 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.

50. 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;
- l) Any other fundamental breaches as specified in the contract data.
- m) If the contractor does not fulfill and comply instructions and direction conveyed during the execution of work by employer and NIT Agartala officials within a period as specified by employer.

51.3 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 or 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 its representation and may after the expiry of such 15 days, whether or not it is in receipt of such representation issue the Termination Notice.

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

51.5 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.

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.

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 there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, byelaws 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 there under, 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. Drawing 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 or 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 (Ill 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.1.1

1. The Employers is **[C1.1.of ITB]**

National Highways and Infrastructure Development Corporation Ltd. 1st & 2nd floor, Tower A, World Trade Centre, Nauroji Nagar, New Delhi-110001

Name of authorized Representative

**Dy. General Manager (Projects)
National Highways & Infrastructure Development
Corporation Limited. Regional Office 3rd floor, UD
Bhawan, Near Ravindra Bhawan,
Sakuntala road, Agartala, Tripura**

2. **Engineer:**

Designation: DGM(P), PMU Udaipur, NHIDCL **[C1.1.of GCC]**

3. The Intended Completion Date for the whole of the Works is **[12 months from Start Date]** **[Cl. 1.1, 17 & 26 of GCC]**
4. The location of site is given in the Bid notice **[Sr. No.1 of NIT]**
5. The Start Date shall be within 15 days for the date of issue of the Notice to proceed with the work. **[C1.1.of GCC]**

(a) The name and identification number of the Contract is **Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.**

6. **[C1.1.1of ITB]**

7. (a) The law which applies to the Contract is the law of Union of India. **[Cl.3.1ofGCC]**

(b)The language of the Contract documents is English

[Cl.3.1ofGCC]

8. The limit of subcontracting is **NIL** of initial contract price

[Cl.7.1ofGCC]

9. Schedule of other Contractor **NIL**

[Cl.8.1ofGCC]

10. Technical Personnel are as given in the ITB

[Cl.9.1of GCC]

S. No.	Personnel	Qualification	Particular Experience (minimum requirement)	No. of Persons
1	Project Manager	B.E (Civil) or equivalent + 10 Years Exp.	5 years on highway constructions / maintenance work.	1
2	Site Engineer	B.E (Civil) + 3Years Exp. Or Diploma + 5 Years Exp.	2 years on highway constructions / maintenance work.	1
3	Quantity Surveyor	B.E. Civil+3Years Exp. Or Dip.Civil. +5Years Exp.	2 years on highway constructions / maintenance work.	1

11. Amount for insurance are:

[Cl.13.1 of GCC]

- Rupees equivalent to Contract Price.
- Rupees equivalent to 5% of Contract Price.
- Rupees equivalent to 5% of Contract Price
- Rupees 20lakhs for multiple incidents.

The said insurance shall include all liabilities as per **Clause13.1** and shall be deductible as per premium rate.

12. Site Investigation Report-NIL

[Cl14.1 of GCC]

13. The period for submission of the programme for approval of Engineer shall be 30days 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 date of notice to start work

[Cl.30.1of GCC]

16 The Defect Liability Period- refer Cl. 31.4 of Section-5 of GCC. [Cl.31of GCC]

a. Amount of liquidated damages for delay incompletion of works	0.1percent 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 incompletion of work.	10 percent of the Initial Contract Price rounded off to the nearest thousand [Clause.43 of GCC]

18. The standard form of Performance Security acceptable to the Employer shall be an Unconditional 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 20percent. 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 (10percent or 8.33percent). 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 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 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 upto 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 & SCOPE OF WORK

PREAMBLE:

The Technical Specifications contained herein shall be read in conjunction with the other Bidding Documents as specified.

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:

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 and relevant applicable IRC Codes.

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 MORTH Specifications under reference, the Amended/ Modified/ Added clause and the additional specifications shall always prevail.

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.

The Authority/Client shall get the 3rd party quality audit of bituminous work from any.

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.

Scope of Work: Work as mentioned in BOQ

- Road maintenance–. Work as mentioned in BOQ
- Inspections Road Maintenance

The Contractor shall be required to perform all road maintenance activities along the project roads.

The Contractor shall be required to submit Maintenance Report for each component of the works.

The Contractor shall be required to utilize mechanized equipment and methods to perform these obligations.

All maintenance activities shall be carried out in accordance with relevant specifications and IRC codes prescribed in the contract. The requisite quality control tests as per specifications and codes are to be carried out by the Contractor at his cost as per directions of the Engineer.

Routine road maintenance means planned works and activities required to ensure public safety, repair small defects and to maintain the road in the required condition. Adhoc maintenance means carrying out of unscheduled maintenance occasioned by irregular events such as accidents, natural calamities, abnormal weather conditions and the like.

The routine and adhoc Road Maintenance shall include, amongst others, activities such as:

- Repairing Local Potholes

Inspection

Full and complete inspection of the highway section shall be under taken at appropriate intervals as mentioned in this section & section VIII (Implementation Manual & Maintenance Intervention Levels). The Contractor shall provide appropriate testing equipment for qualitative inspections, such as reflectivity meters, straight edges and the like.

Daily followed by weekly and monthly Inspections

Items to be inspected daily on regular basis followed by weekly and monthly inspections shall include:

- Potholes
- Cracking & Patches
- Rutting

- Cleaning of carriageway/ service road/ footpath
- Maintenance of plantation
- Incident management service
- Other routine maintenance activities.

Repairs

Repairs arising out of the inspections shall be carried out by the Contractor after a joint assessment with the Engineer and approval of NHAI.

PERFORMANCE STANDARDS

PERFORMANCE STANDARDS FOR MAINTENANCE:

The performance standards define the level at which the proposed facility is to be maintained and operated.

Road Maintenance: (As per Specifications)

SN	Serviceability Indicator	Required Maintenance Level	Permissible time limit for defect rectification	Frequency of Inspections by the contractor to ensure required
1.	Potholes/km (max. Numbers)	5nos. in a stretch of 5 km.	Two days	Daily on regular basis followed by weekly & monthly inspections
2.	Cracking & patch (max. Permissible)	5.0percent of road surface in a stretch of 1km.	Seven days	-do -
3.	Rutting (20mm), max. Permissible limit	1.0percent in a stretch of 1km (measured with 3 m straight edge.)	Three days	-do -

Maintenance standard for treatment & repair of potholes

i. The work shall consist of repair to pot holes of avg. depth 50mm BC conforming to the MoRTH 5th revision clause No.503, 504 & 3004.2 properly compacted to the requirements of these specifications.

Materials

- Bituminous Material:** The bitumen shall be straight run bitumen of a suitable grade conforming to IS73. The actual grade of bitumen to be used shall be decided by the Engineer in-charge.
- Aggregates:** The aggregates should conform to requirements as per MOST clause 504.2.2

Methods, Tools & Equipment

- i. The boundary of the pot hole to be repaired shall be marked using a string line and crayon
- ii. Affected area shall be cut in regular section, shape and to depth not less than 25mm, either with jack hammer or hand tools like chisel, pick axes etc. The edge shall be cut vertically down upto the level where the lower layer is suitable without any loose material.
- iii. Safety devices and signs are placed as per MOST clause no. 112 in the working zone
- iv. The surface shall be swept clean of dirt, dust and loose materials. Water and soft material must be removed from the affected area using gunny / jute bags.
- v. Bituminous tack coat on the area and vertical surfaces shall be applied conforming to MOST specification clause 503 using bitumen @ 3 kg / 10 sqm area
- vi. (a) Shallow Potholes (depth < 75mm)

The excavation shall be filled up with bituminous material conforming to MOST clause no. 504 laid in layers not exceeding 50mm each well compacted with plate compactor / road roller.

(b) Deep Potholes (depth > 75 mm)

The excavation shall be firstly filled up with filling pot holes with BC conforming to clause and in layer/ layers each not exceeding 75mm thickness, duly compacted upto 25mm below the existing road surface. The top 25mm shall be filled up with bituminous material conforming to MOST clause 504 well compacted using plate compactor / road roller.

- vii. Surface should be sealed as directed by Engineer.
- viii. Any loose material left around the area shall be broomed off.
- ix. The finished surface shall be checked for level with straight edge in case of edge breaking and patching for pothole shall be checked in both directions
- x. Traffic shall be opened on the surface after it has cured sufficiently

Measurements for Payment

The work shall be measured in cum as per the depth of pothole.

Rate

The contract unit rate for treatment for this work shall mean payment in full for carrying out all the required operation explained above including full compensation for

- a. Setting out and providing safety devices and signs placed in work area as per MOST clause no. 112
- b. Furnishing all materials to be incorporated in the work including all royalties, fees, taxes, rents where necessary and all leads and lifts.

- c. All labour, materials, tools equipment, safety measures, testing and incidental necessary to complete the work to specifications.

- **Maintenance Standards for Other BOQ Items**

- i. **Maintenance standards for cleaning, clearing and repairing roadside open unlined/lined/covered drains and cross drainage works**
 - i. The work shall consist of cleaning, clearing, deepening and reshaping of roadside drains and making shallow lateral drains on shoulders to drain out the rain water/ surface water effectively from bituminous surface as well as from roadside berms.
 - ii. Disposal of sediments, extraneous debris or vegetation growth, blocking flow.
 - iii. Safety devices and signs shall be placed as per MoRTH Specifications for Road and Bridge Works (5th Revision) Clause No. 112.
 - iv. The excavated material shall be disposed off as directed by Engineer-in-charge with all leads and lifts.
 - v. The drain slopes and sides shall be dressed up to original flow line and cross section.
- ii. **Maintenance standards for “carrying out cleaning, removing of dust/silt/thrash from carriageway.**
 - i. However, width of carriageway to be kept clean as per BOQ provision is up to ROW, it includes;
 - a. Total width of carriageway (LHS + RHS) including median width.
 - b. Width of service roads (LHS + RHS) wherever service roads are in existence.
 - c. Width of all structures such as flyovers, major bridges, minor bridges, culverts, subways, etc.
 - ii. For cleaning of carriageway, the Contractor shall deploy mechanical broomer with tractor. Contractor shall maintain log book of this mechanical broomer and submit the Xerox of this along with statement of work done.
- iii. **Maintenance standards for “Removal of rank vegetation/weeds from shoulders and embankment slopes.**
 - i. The contractor shall keep the shoulders, embankment slopes upto right of way (RoW) on both sides complete in all respects.
 - ii. The work shall include breaking of clods, rough dressing and disposal of waste and vegetation outside RoW as per directions of the Engineer.
 - iii. The contractor shall maintain separate signed muster rolls of deployed labours & supervisors and log books of tractors. The muster rolls and log books shall be made available for inspection. Xerox copy of log books and muster rolls shall be submitted along with statement of work done by the contractor.
 - iv. If a contractor fails to keep the specified area without weeds, unwanted vegetation, debris (as per provision of BOQ), a penalty of Rs. 500/km/incidence shall be imposed. The Engineer’s decision in this context is binding on the Contractor.
- iv. **Maintenance standards for routine maintenance of road signs and delineators**
 - The work shall consist of washing of signs, delineators, removal of posters etc. and repair to supporting structures with repainting.
 - The road signs and delineators should be thoroughly washed using a detergent solution followed by a lean rinse and whole face of the sign shall be dried.

- Defects in supporting structures like bullet holes, surface marks or bent posts shall be repaired with appropriate tools.
- Damaged area shall be cleaned and loose/flaking paint shall be removed. Bullet holes shall be filled with filler and supporting structures shall be painted with first quality enamel paint in two or more coats.

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 as per IRC SP 117. The Engineer may, during and after construction test the quality of materials and work in order to verify conformance with the prescribed Specifications.

3.2 An attempt shall be made to attend to defects like potholes, undulations, rutting, bleeding, linear and alligator cracks and eroded edges etc. at an initial stage itself. Thermal bonded patches of regular rectangular shapes without bump or sump shall preferably be adopted.

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

All repair and maintenance works related to Rigid Pavements shall be carried out following IRC:SP:83 (Guidelines for Maintenance, Repairs & Rehabilitation of Cement Concrete Pavements).

SECTION – 8

IMPLEMENTATION MANUAL & MAINTENANCE INTERVENTION LEVEL

SECTION- 8

IMPLEMENTATION MANUAL & MAINTENANCE INTERVENTION LEVEL

Introduction

Maintenance & Rehabilitation work of highway through one agency is the work of typical nature, which shall continue up to the expiry of base period specified in the contract (excluding defect liability period). These works need attention, efficiency, continuous monitoring and responsive management. This implementation manual spells out detailed guide-lines for implementing the maintenance programme successfully, defining the various activities to be accomplished by the Employer and the Contractor.

This package includes routine, periodic, recurrent and urgent maintenance activities to repair highway surface, shoulders, roadside, drainage facilities, CD work, signs, markings and inspection facilities. The works of different nature at scattered locations within specified time frame need to be performed conforming to specifications and standards in order to keep carriageway in perfect condition.

Maintenance Procedures

The complete maintenance programme shall be spread over the initial base period of three months. There are eight significant procedural areas:

- Maintenance Programme Planning
- Resource Estimation
- Identification of Priorities
- Work Scheduling
- Work Management
- Work Control and Quality Assurance
- Payment Procedures
- Records & Documentation

Maintenance Programme Planning

The maintenance programme planning shall be in two stages

a.. First Stage: Within 28 days of issuance of Letter of Commencement by the Employer. Contractor & Engineer shall identify the activities of Routine Maintenance, which shall have to be taken up immediately who check the further deterioration of paved and unpaved surface of carriageway separately. To identify these activities formal field inspection shall be carried out by technical staff of Contractor & Engineer. A management meeting shall then be called within 7 (seven) days of inspection to scrutinize the identified works and then these works shall be quantified. Engineer shall then issue indent to contractor for execution of these works specifying quantity to be executed at different locations, amount of works calculated on the basis of the unit rates quoted by contractor and date of completion. This part of work shall certainly be commenced not later than stipulated date of commencement.

- b. Finalization of yearly maintenance programme: This activity shall begin with the stipulated date of commencement. The various steps proposed to be taken under this are as under:
- i. to carry out present state inspection of entire stretch of High way by Contractor & Engineer.
 - ii. To identify defects as per various available engineering characteristics of road & measurement of all defects in each sub-section (length of subsection shall be 200m) based on representative measurements for 25m length in each sub section. The extent of defects shall be recorded in forms finalized in consultation with authority for paved road, unpaved road and structure/furniture. All Defects with its extent shall be assessed in terms of length & area of the subsection, mentioning chainage (locations) in order to have exact estimate of work.
 - iii. A comprehensive documentation shall be prepared separately by Engineer and Contractor mentioning their assessment of various types of defects in each km of road.
 - iv. Management meetings shall be called within 15 days of inspection to finalize and then to quantify the defects after comparison of measured condition of road and maintenance intervention levels set out in this Section on commonly acceptable basis. This shall be followed by identification of particular maintenance work proposed to be carried out at site to make good the defects noted above, out of various alternatives available in BOQ.

Resource Estimation

The Engineer shall work out the early requirement of funds based on unit prices rates quoted by Contractor and quantities of various items proposed to be executed. A tentative programme shall be drawn on the basis of resources available with the contractor at different times of maintenance period including available establishment, equipment and labour availability with him. Cash flow available with the contract or shall also be basic input to determine proposed maintenance programme.

Deleted

Work Scheduling

The maintenance and rehabilitation work of road is of unpredictable nature so quantities shown against each item or work are only representative. It is expected that they would be consumed during the entire base period of works but employer would not be responsible to pay any compensation etc. in case there is variation to any extent in quantity of actual execution of particular item of work with respect to representative quantity shown in BOQ for that particular work.

Scrutinized work proposals shall be negotiated by the Engineer with Contractor for quantity and time to complete those particular activities and accordingly they shall be classified into two groups:

Group –I: Works of short duration of completion (up to 2 months)

Group –II: Works of larger duration of Completion (more than 2 months)

For works under Group I, quarterly indents shall be issued and for works classified under Group 2, bi-annual indents shall be issued by the Engineer. These indents shall mean to identify, quantify the various works which contractor is expected to execute on his unit rates quoted by him at specified locations within the time period as signed in the indents. Each indent shall be treated as part of the work for which contractor has submitted Bids. The terms & conditions applicable in bid document shall also be applicable to these indented works.

In case of urgency requiring immediate actions to remove road blockade, to construct temporary diversion or urgent preventive measures to reduce extent of expected damages or to make precautionary arrangements to handle emergencies, Engineer shall issue interim indents for such works/ arrangements to be complied with by the contractor in responsible manner without loss of time.

The price of any such work which are not covered with items mentioned in price bid, the rates and prices in the contract shall be used as the basis for valuation of reasonable rates, failing which after due consultation by the Engineer with the Employer and the Contractor; suitable rates or prices shall be decided by the Engineer with the approval of Employer.

Work Management

The success of Contract maintenance system lies with good work management. The contractor shall draw activities which shall be accomplished by in house crew and portion of the work to be accomplished with sub-contractors.

For execution of maintenance works at scattered locations contractor should adopt concept of "MOBILE MAINTENANCE UNITS". The basic ingredients of "MOBILE MAINTENANCE UNITS" have been explained as under.

MOBILE MAINTENANCE UNIT

1. Introduction

For improvement of efficiency, the system of Mobile Road Gangs has been found very much cost effective in long run, particularly on heavily trafficked corridors/ Highways.

2 Requirement

The bidder shall make necessary arrangements, if necessary, for keeping mobile maintenance units. For every 100 km section of National Highways at least one such unit will be required.

2 Typical features of Mobile Maintenance Unit Tools & Plant

1. Mini Hot Mix Plant
2. Air compressor
3. Bitumen boiler
4. Mechanical sprayer
5. Walk behind roller
6. Plate compactor

Labour and Skilled Operators

Skilled operators

- Driver
- Operator Mini Plant
- Mechanic
- Operator (walk behind roller)

Semi-Skilled /Unskilled labour

- Mate/ Incharge
- Labour for feeding
- Labour bitumen boiler
- Labour pneumatic tools and sweeping
- Labour for grass cutting, embankment correction, mix unloading and spreading
- Painter

The system of quarterly reports such as budget reports, resources utilization report, quality control and status of base maintenance programme (planned versus actual) has to be generated in order to evaluate working of contract maintenance system and to work out up gradation / modification required in the programme. The modification to finalized maintenance programme can be

made with mutual consent of both the contractor and engineer to derive best results.

The contractor can also consider introducing communication system (like mobile, etc). on the Highway for better and efficient management of site.

Work Control & Quality Assurance

The Engineer shall adopt random sampling procedures to ensure quality control. Engineer shall carry out in-process inspections and end product inspections to collect sample sand shall carry out testing in order to determine the degree of adherence to the maintenance standards of delivered or constructed material. Any testing / checking of works by Engineer shall not absolve the contractor from his responsibility to execute works strictly in accordance of MoRTH/ IRC /IS specifications or laid down standards in bid document.

A quality control laboratory equipped with all instruments required to perform tests as indicated in MoRTH/ IRC/ IS specifications at frequency mentioned therein shall have to be provided by the contractor. Contractor shall ensure that testing of all material delivered or constructed is regularly carried out by his filed staff as per standard norms and results of these tests are recorded in specified manner and made available to Engineer whenever required by him. The contractor shall provide the QC laboratory, as incidental to work and no separate payment shall be made for this item. The QC lab shall also be made available to Engineer for conducting tests of his own.

In-process inspections shall be carried out by the Engineer to witness and/or to verify the quality/quantity of work, when activity is in process with aim to judge justification of payment. Engineer shall carry out end product inspections after completion of the activity to provide satisfactory evidence about acceptability of the contractor's work.

The results of in process inspections, end product inspections and quality control tests shall form basis of acceptance of completed works and issuance of Non-Conformance Report (NCR). Items of Works or unit of material or the end product do not meet the specifications/ standards shall be identified by "Non-Conformance-Report" and can become basis of rejection of work on establishing the authorized disposition.

Non-Conformance Report: Defective or uncompleted work shall not be paid. Such work shall also be notified to the Contractor within 10 days of submission of bill through non- conformance report (NCR). The NCR shall clearly identify the item of work that is non- conforming either to specification or to a specific requirement in the contract document. Once NCR is identified, it shall be evaluated and of the dispositions would be established.

- a. "Do" Identifies the work which has not been done at all at site within specified time limit. An NCR issued with "Do" disposition for the work should immediately be undertaken by contractor.
- b. "Re-Do" Identified the work that is non-conforming of all quality aspects. Such works be totally removed & redone.
- c. "Re-work" Requires part of particular item identified in this category be reworked to bring it to the quality required.

- d. "Use-as-is" Applied where Engineer accepts work "as-is" notwithstanding the fact that it does not exactly conform to the contract requirements. This work shall be accepted only for agreed reduced rates with respect to unit rates quoted in financial bid by the contractor otherwise shall be re-classified under disposition "Do" or "Re-Do".

Payment Procedures

The contractor shall submit to the Engineer after the end of each month bill in two copies, each signed by authorized contractor's representative in standard format, showing the amounts to which the contractor considered himself to be entitled upto the end of the month. These bills should be prepared each indent wise.

- The Engineer after scrutiny of the bills shall certify and recommend the payments for completed accepted works within 14 days of presentation of bill to him to the employer subject to deductions as per bid documents.
- The employer shall pay the amount due to the Contractor under certificate and recommendations by the Engineer with in 28days after it has been delivered to the Employer.

Records & Documentation

The results of all inspections shall be documented. The test results containing documentary evidence of activities and data relevant to the quality of work and performance of the contractor shall also be documented. The field daily to be filled by Site Engineer of Contractor shall be a basic form of documentation. The activities to be entered in daily dairy are

The description of day's activities, number and type of crew on job, equipment on job weather and temperature

- Any measurement made to determine pay quantities
- Daily summary of material issued in the job
- A record of significant conversations with and direction given to the contractor
- A record of bottle necks with the progress or execution of the work
- A record of material testing in lab
- Details of visit by officials

The Contractor shall carryout road roughness measurement as directed by Engineer for the entire stretch at the end of the pavement maintenance and shall submit the complete record to NHAI. There shall not be any separate payment on account of this. The payment pertaining to this shall be deemed to be included in the items of works.

MAINTENANCE INTERVENTION LEVELS

Following criteria shall be adopted by the Engineer while indenting the works.

Sr. No.	Defects	Criteria / Extent (% of sub section length)	Treatment/Action	Type of maintenance
6	Carriageway & Crust			

6.1	Stripping	a. <25 sqm.	Local sealing	Routine
		b.>25 sqm.	Ind coat surface dressing	Periodic
6.2	Rutting	a. depth of ruts <50mm		
		i. Crack <10 mm	Seal the crack with slurry	Routine
		ii. crack >10 mm	Surface dressing & fill ruts with bituminous mix	Recurrent
		b. depth of ruts >50 mm		
		i. Crack <10 mm	Seal the cracks with slurry and fill ruts with bituminous mix	Routine
		ii. crack >10 mm	Surface coat surface dressing over cracked area to be followed by overlay	Periodic/ Special attention
6.3	Pot holes	a. <20 mm	Patch repair to pot holes	Recurrent
		b.>20 mm	Patch repair to pot holes & Check dressing of crust for strengthening if reqd.	Recurrent / Special Attention

6.4	Bleeding	a. <25 sqm	Spread and rollover 6mm size heated aggregates	Routine
		b.>25 sqm	Apply surface dressing	Periodic
6.5	Cracks	a. <25 sqm	Local sealing of cracks	Routine
		b.>25 sqm	Local sealing followed by renewal	Periodic
6.6	Hungry surface	Any	Apply, slurry seal or fog seal	Recurrent
6.7	Corrugations	-----	Cutting of high spots And filling of low spots with existing surfacing material and seal the surface	Recurrent
6.8	Shoving	-----	Remove the material upto firm base and relay stable mix	Recurrent

6.9	Shallow depressions	-----	Repair the depression with pre- mixed material	Recurrent
6.10	Settlements & upheaval	a. <20 sqm	Remove the weak /defective fill up to base & redo.	Recurrent
		b.>20 sqm	i. Remove the weak /defective fill upto base & redo ii. Strengthen the crust by providing additional layers	Periodic
6.11	Edge breaking & steps	a. <25 mm	Cut affected area and patch repair to road edge; with repair to unpaved shoulders also	Recurrent
		b.>25 mm	Reconstruct shoulders and repair to carriage way edge also	Periodic

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 (Name of
work)
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.

1. We undertake, if 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 here to.
2. 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.
3. We agree to abide by this Bid for a period of One Hundred twenty (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.
4. 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.
5. 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.
6. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 20-----

Signature_____in the capacity of_____duly
authorized** To Sign Bid for and on behalf of

(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.....(Incl. 18 % GST) (Rupees..... only)

I/ We here by agree to execute the above work on the tender

- i. At par of the Grand of the Project Cost as given above
- ii. At Premium

[Figures/words]_____ % above on the Grand of
the Project Cost as given above.

- iii. At discount

[Figures/words]_____ % below on
the Grand of the Project Cost as given above

***IF FILLED IN TECHNICAL BID, BIDDER SHALL BE DISQUALIFIED**

BILL OF QUANTITIES

1. Preamble

- 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.
 - 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.
 - 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 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.
 - The rates and prices shall be quoted entirely in Indian Currency.
 - Deleted
 - The whole cost of complying with the provisions of the contract shall be included in the items provided in the priced Bill of Quantities and where no rates are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items of work.
 - The contractor shall keep the entire carriageway neat and clean throughout the contract period. The contractor shall maintain guard rails, railings, crash barriers, road furniture etc. in good condition by cleaning them frequently as advised / required by using suitable detergents/chemicals.
 - The staff of the contractors shall wear safety jackets, shoes, helmets etc. while on duty and any violation will attract a fine of Rs. 5,000/- for each incident.
 - Failure to erect safety signage or trying to carry out the works without proper precautions/safety measures as required will attract a fine of Rs.5,000/- for each incident.
- viii. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. Reference to the relevant sections of the bidding document shall be made before entering rates or prices against each item in the Bill of Quantities.
- ix. The Contractor shall submit at least once in two months video recording of condition of the Project Highway with special emphasis on performance-based items.
- x. A rate or price shall be entered as a single rate as Tender Premium % above/below on the rate/amount in the BOQ

Note: The Summary and rates/Amount as mention in Bill No. 1,2 & 3 may be revised according the to the rates/amounted quoted by the bidder in financial bid.

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
1	2	3	4	5	6
1	Excavation in Soil with Dozer with lead upto 100 metres. Excavation for roadway in soil by mechanical means with Dozer including cutting and pushing the earth to site of embankment upto a distance of 100 m (average lead of 50 metres), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections as per MoRT&H Technical Specification clauses of section 300.	6553.220	Cum	131.00	858471.8
2	Construction of Embankment with material Obtain from Borrow pit Construction of embankment with approved material obtained from borrow pits with all lifts, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per MoRT&H Technical Specification clauses of section 300.	2123.860	Cum	226.10	480204.8
3	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site , spreading, grading to required slope and compacted to meet requirement of Table 300.2 as per MoRT&H Technical Specification clauses of section 300.	2680.739	Cum	225.90	605578.9
4	Compacting Original Ground Compacting original ground supporting subgrade Loosening of the ground upto a level of 500 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.2 for subgrade construction as per MoRT&H Technical Specification clauses of section 300.	1218.840	Cum	86.70	105673.4

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
5	Granular Sub-base with Graded Material (Table:- 400.1) A. Plant Mix Meathod: Construction of granular sub-base by providing well graded material, mixing in a mechanical mix plant at OMC, carraige of mixed material to work site upto lead of 1000 m spreading in uniform layers with motor grader on prepared surface and compacting with smooth wheel roller to achieve the desired density , complete as per MoRT&H Technical Specification Clause 401. iii) Grading - III	1594.608	Cum	6664.02	10626499.6
6	Wet Mix Macadam Base Course Providing, laying, spreading and compacting graded stone aggregate 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 finisher in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density as per MoRT&H Technical Specification Clause 406.	1468.813	Cum	6999.26	10280604.1
7	Prime Coat Providing and applying primer coat with Cationic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 and requisite quantity on prepared surface of granular base including cleaning of road surface and spraying primer using Mechanical means including cost and carriage of bitumen emulsion and all other incidental costs of work complete as per Clause 502 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). (i) For WBM / WMM Surface: (with primer @ 0.70-1.0 kg/sqm)	5636.000	sqm	53.16	299609.8

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
8	Tack Coat Providing and applying tack coat with Cationic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 on the prepared surface cleaned with Hydraulic broom, moistening the surface including cost and carriage of emulsion, hire charges of machinery and labour, cost of fuel and lubricants all complete as per Clause 503 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). i) On Bituminous Surface (Using Bitumen Emulsion at the rate of 0.20 to 0.30 kg per sqm.)	5636.000	sqm	17.52	98742.7
9	Tack Coat Providing and applying tack coat with Cationic Bitumen Emulsion of approved grade conforming to IS: 8887-1978 on the prepared surface cleaned with Hydraulic broom, moistening the surface including cost and carriage of emulsion, hire charges of machinery and labour, cost of fuel and lubricants all complete as per Clause 503 of Specifications for Road & Bridge Works of MoRT&H (5th Revision). ii) On Granular surfaces treated with primer (Using Bitumen emulsion at the rate of 0.25 to 0.30 kg per sqm.)	5636.000	sqm	17.52	98742.7
10	Dense Bituminous Macadam Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 507 complete in all respects. A. For Grading 1 (i) With Bitumen VG-30	450.880	Cum	18906.52	8524571.7

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
11	<p>Bituminous Concrete Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORT&H specification clause No. 509 complete in all respects. B. For Grading 2 (13.2 mm nominal size, 30-40 mm thick.) (i) With Bitumen VG-30</p>	225.440	Cum	21694.95	4890909.5

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
12	For Gabion facia RS Unit: Gabion facia unit with integrated tail as reinforcement of length 3m that is made with double twisted hexagonal shaped steel woven Wire mesh, mechanically edged & selvedged and wire dia. 2.7/3.7mm (ID/OD) with (90% Zn +10% Al) + High abrasion resistant polymer coated with minimum tensile strength of 40kN/m and punch strength 25kN as per IRC: SP-116, IS:16014 & MORTH -Specifications for Road & Bridge Works: Section 2500. Polymer coated wire mesh, when subjected to neutral salt spray test in accordance with ISO 9227, after 10,000 hours of exposure the mesh should not exhibit more than 5% Dark Brown Rust (DBR) and polymer should be resistant to abrasion after 300 cycles and shall not expose metal wire in accordance with the procedure described in ASTM A 975. and Gabion Mattress made with double twisted hexagonal-shaped steel woven wire mesh, mechanically edged & selvedged, with prefabricated vertical ties, pleated diaphragm, (90% Zn +10% Al) + High abrasion resistant polymer coated having minimum Tensile Strength parallel to twist 37 kN/m and Punch Strength of 21 kN as per IS 16014: 2018. Polymer coated wire mesh, when subjected to neutral salt spray test in accordance with ISO 9227, after 10,000 hours of exposure the mesh should not exhibit more than 5% Dark Brown Rust (DBR) and polymer should be resistant to abrasion after 300 cycles and shall not expose metal wire in accordance with the procedure described in ASTM A 975.	3980.000	Cum	11066.41	44044311.8
13	Backfilling behind abutment, wing wall & return wall complete as per drawings, clause 710.1.4 of IRC:78 & MoRT&H technical specification Clause 2200. i) Granular Material	25158.000	Cum	4568.99	114946650.4
14	Backfilling behind abutment, wing wall & return wall complete as per drawings, clause 710.1.4 of IRC:78 & MoRT&H technical specification Clause 2200. ii) Sandy material	6847.500	Cum	1821.59	12473337.5

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
15	Geogrid Geosynthetic material used to reinforce soils and similar materials: High Strength Uni-axial geogrid is a Geogrid will act as Soil Reinforcement. The high Strength Flexible geogrid shall have a high-quality coating like LDPE and shall confirm to MoRTH-Specifications for Road & Bridge Works: section 700 and 3100. The manufacture of high strength flexible geogrid shall have creep test data from independent accredited laboratory for period over 5 years at design temperature of 20°C. High strength uni-axial Geogrid will act as primary reinforcement and mesh will act as secondary reinforcement.	25158.000	sqm	800.00	20126400.0
16	Laying of a geotextile 120 gsm non-woven membrane, 100% polyester of thickness 1 to 1.25 mm between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment material through the voids of the pitching with cement concrete blocks as well as to allow free movement of water without creating any uplift head on the pitching as per drawing and MoRT&H Technical specifications clause 700, 2504 bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	3180.000	sqm	133.30	423894.0
17	Geo Composite drain composite for use behind walls having three dimensional composite with thermobonding a draining core having “w” configuration of minimum thickness 8mm, with two filtering uv stabilized polypropylene non-woven geotextile of minimum thickness of 0.75mm characteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 1.2 l / (m.s) at hydraulic gradient of 1.0 & 200 kpa pressure and tensile strength of 18 kn/m, with mass per unit area of 890 GSM.	3228.882	sqm	205.00	661920.8

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
18	Gabian Structure for Erosion Control, River Training Works and Protection works Providing and constructing gabian structures for erosion control, river training works and protection works with wire crates of size 2 m x 1 m x 0.3 m each divided into 1m compartments by cross netting, made from 4 mm galvanised steel wire @ 32 kg per 10 sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100 mm x 100 mm, filled with boulders with least dimension of 200 mm, all loose ends to be securely tied with 4 mm galvanised steel wire. as per drawing and MoRT&H Technical specifications clause 2503.3.	4350.000	Cum	9222.01	40115743.5
19	Laying of a geotextile 120 gsm non-woven membrane, 100% polyester of thickness 1 to 1.25 mm between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment material through the voids of the pitching with cement concrete blocks as well as to allow free movement of water without creating any uplift head on the pitching as per drawing and MoRT&H Technical specifications clause 700, 2504 bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	3390.000	sqm	133.30	451887.0
20	Supply and installation of 160mm diameter semi-perforated PVC pipe inside the slope wrapped with non-woven geotextile complete as per drawing and as directed by the engineer.	2923.000	rm	609.47	1781480.8

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
21	Steel Reinforced Geo mat on the slope Providing and Spreading Reinforced Geocomposite made of Polypropylene Polymer made three dimensional matrix of minimum mass per unit area 420 grams/sqm extruded onto a mechanically woven double twisted hexagonal shaped steel wire Mesh of wire Dia. 2.7mm and Mesh Type 8 x 10 having Zn-5%Al +Polymer coating as per EN 10244 -2, the composite shall have a combined mass per unit area more than 1650 Grams / Sq.m and nominal thickness more than 10mm including fixing of U pins of 10mm diameter of typical depth 1m at 1m c/c spacing or anchor fasteners (if required) , including top/bottom support ropes, lacing required to connect the nets and all accessories such as U-clamps, including safety, all other ancillary works, material, machinery, labour, etc. complete with all leads and lifts and as directed by Engineer - In - Charge.	3039.149	sqm	758.00	2303674.9
22	As per PW(R&D) SOR 2023: 12.22 Supplying, fitting & placing uncoated Mild steel reinforcement in foundation complete as per drawings & MoRT&H technical specifications Clauses 1600.	1.322	MT	89372.06	118149.9
23	Type - B, "THRIE" : Metal Beam Crash Barrier 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 fittings 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 MoRT&H Technical Specification Clause 810.	836.000	rm	5431.11	4540408.0

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.

Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
24	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 . The finished surface to be level, uniform and free from streaks and holes. as per MoRT&H Technical Specification Clause 803.	212.700	sqm	721.90	153548.1
25	Excavation for Structures Earthwork in excavation for structures as per drawing and MoRT&H technical specifications Clause 304 including setting out, construction of shoring & bracing, removal of stumps & other deleterious material and disposal upto a lead of 50 m, dressing of sides & bottom and backfilling in trenches with excavated suitable material. B. By Mechanical Means (i) Depth upto 3 m	1172.063	cum	66.40	77825.0
26	Plain / Reinforced cement concrete in open foundation as per drawings & MoRT&H technical specifications Clauses 1500, 1700, 2100. (including centering, shuttering, staging etc. but excluding reinforcement) C RCC Grade M20 II) With Batching Plant, Transit Mixer and Concrete Pump	645.126	cum	10587.20	6830078.0
27	Anchoring Stake Supplying, fitting & placing uncoated Mild steel reinforcement in foundation complete as per drawings & MoRT&H technical specifications Clauses 1600.	0.150	MT	89372.06	13405.8
28	Providing and Laying reinforced cement concrete pipe NP3/ prestressed concrete pipe with collar for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets as per MoRT&H Technical specification Clause 2900.x 1200 mm dia	17.500	Cum	19964.30	349375.3

Name of Work: Restoration works under Special Repairs through STMC for erosion control and slope protection at damaged stretches including landslips on various chainages on NH-08 section from Udaipur to Sabroom and on Udaipur to Melaghar road (Spur NH-08), due to August 2024 floods, based on the assessment report of technical consultant NIT Agartala in the State of Tripura in the FY 2025-26 on percentage basis and work order basis.					
Sl. No.	Item Description	Quantity	Units	Estimated Rate Incl. 18% GST	Amount (In Rupees)
29	Plain / Reinforced cement concrete in open foundation as per drawings & MoRTH technical specifications Clauses 1500, 1700, 2100. (including centering, shuttering, staging etc. but excluding reinforcement) C PCC Grade M15	20.504	MT	10018.10	205411.1
Grand Total incl GST (18%) =					286487111

Note: In case of any error of Clause of MoRTH Specifications, the appropriate correct clause of the MoRTH Specifications shall prevail, as per the decision of Engineer-in-Charge/Employer.

The damaged locations & TCS drawings are appended below: -

Location near	Chainage	Length affected	Nature of Damage	Proposed structure	Approx. Structure height (m)
Melaghar	km 18+875 to km.19+043 (LHS)	168 m	Road formation breached in partial width	TCS-1(A)	Reconstruction of Pavement
Melaghar	km 19+600 to km.19+680 (LHS)	80 m	Road formation breached in partial width	TCS-6	H1 = 3.0 H2 = 8.0
Melaghar	km 19+650 to km.19+680 (RHS)	30 m	Road formation breached in partial width	TCS-6	H1 = 5.0 H2 = 7.0
BC Manu	km 72+900 to km.72+960 (RHS)	60 m	Embankment settlement	TCS-3 (11.2m)	H = 11.2
BC Manu	km 77+900 to km.77+930 (RHS)	30 m	Embankment settlement	TCS-3 (8m)	H = 8.0
Santirbazar	km 81+600 to km 81+800 (LHS)	200 m	Landslide	TCS-4	H1 = 3.0 H2 = 8.0
Jolaibari	km 99+700 to km.99+760 (LHS)	60 m	Embankment erosion	TCS-2	H1 = 5.0 H2 = 8.0
Jolaibari	km 100+100 to km.100+160 (LHS)	60 m	Embankment erosion	TCS-3 (13 m)	H = 13.0
Jolaibari	km 100+200 to km.100+260 (LHS)	60 m	Embankment with half carriageway washed out	TCS-3 (13 m)	H = 13.0
Jolaibari	km 104+300 to km.104+340 (LHS)	40 m	Embankment erosion	TCS-1	H1 = 5.0 H2 = 7.0
Manu bazar	km 107+960 to km.108+000 (LHS)	40 m	Embankment erosion	TCS-1	H1 = 5.0 H2 = 7.0
Manu bazar	km 113+500 to km.113+540 (LHS)	40 m	Embankment erosion	TCS-1	H1 = 5.0 H2 = 7.0

NOTES

General

1. All Dimensions are in meters unless otherwise specified.
2. The given scheme is tentative and not based on design.

Material Specifications

1. Polymer reinforced synthetic erosion control mat which consist of a polypropylene filaments three-dimensional matrix having random shape that is extruded onto a polypropylene extruded geogrid (reinforcement element) during the manufacturing process. Polymer reinforced synthetic erosion control mat shall have maximum cover-management factor (C-factor) of 0.015, 0.032, 0.043 for rainfall intensity of 50 mm/h, 100mm/h and 150mm/h respectively. C factor value of geocomposite shall be based on full scale test run as per ASTM D6459 certified and signed by CPEC. Self-certification from Manufacturer shall not be accepted. Geocomposite shall have a nominal/minimum thickness of 15/13 mm (EN ISO 9863-1), a minimum mass per unit area not lower than to 420 gm/m2 (EN ISP 9864), Tensile strength of 5.5 kN/m in both Machine direction and Cross Machine directionas per EN ISO 10319 and, a void index not lower than 90%.
2. Gabion facia unit with integrated tail as reinforcement of length 3m that is made with double twisted hexagonal shaped steel woven Wire mesh, mechanically edged & selvedged and wire dia. 2.7/3.7mm (ID/OD) with (90% Zn +10% Al) + High abrasion resistant polymer coated with minimum tensile strength of 40kN/m and punch strength 25kN as per IRC: SP-116, IS:16014 & MORTH -Specifications for Road &Bridge Works: Section 2500. Polymer coated wire mesh, when subjected to neutral salt spray test in accordance with ISO 9227, after 10,000 hours of exposure the mesh should not exhibit more than 5% Dark Brown Rust (DBR) and polymer should be resistant to abrasion after 300 cycles and shall not expose metal wire in accordance with the procedure described in ASTM A 975.
3. Strong fascia gabion unit is made with double twisted hexagonal shaped steel woven wire mesh, Mesh Type10 x12, Wire Dia. 2.7/3.7mm, mechanically edged & selvedged, (front panel wire dia. stronger than other panel) with (90% Zn +10% Al) + High abrasion resistant polymer coated with minimum tensile strength of 40kN/m and punch strength 25kN as per IRC: SP-116, IS:16014 & MORTH -Specifications for Road & Bridge Works: Section 3100. Polymer coated wire mesh, when subjected to neutral salt spray test in accordance with ISO 9227, after 10,000 hours of exposure the mesh should not exhibit more than 5% Dark Brown Rust (DBR) and polymer should be resistant to abrasion after 300 cycles and shall not expose metal wire in accordance with the procedure described in ASTM A 975.
4. Gabion Mattress made with double twisted hexagonal-shaped steel woven wire mesh, mechanically edged & selvedged, with prefabricated vertical ties, pleated diaphragm, (90% Zn +10% Al) + High abrasion resistant polymer coated having minimum Tensile Strength parallel to twist 37 kN/m and Punch Strength of 21 kN as per IS 16014: 2018. Polymer coated wire mesh, when subjected to neutral salt spray test in accordance with ISO 9227, after 10,000 hours of exposure the mesh should not exhibit more than 5% Dark Brown Rust (DBR) and polymer should be resistant to abrasion after 300 cycles and shall not expose metal wire in accordance with the procedure described in ASTM A 975.
5. Placing and filling stones of gabion facia of reinforced soil wall & gabion mattress, of size in the range 150mm-250mm, strong, hard, durable having good crushing strength and preferably having flat face as per details specified in the technical specifications.
6. High Strength Uni-axial geogrid is a Geogrid will act as Soil Reinforcement. The high Strength Flexible geogrid shall have a high-quality coating like LDPE and shall confirm to MoRTH-Specifications for Road & Bridge Works: section 700 and 3100. The manufacture of high strength flexible geogrid shall have creep test data from independent accredited laboratory for period over 5 years at design temperature of 20°C. High strength uni-axial Geogrid will act as primary reinforcement and mesh will act as secondary reinforcement.
7. Non-woven Geotextile (Type III) should be provided which acts as a separator at the rear end of gabion / gabion fascia units, Non-woven Geotextile (Type I) laid below the gabion mattress. Non-woven Geotextile shall be Needle punched made of Polyester Staple Fibre which are UV stabilized.The material specifications shall be as per MoRTH - section 700.

8. High Performance-Flexible Growth Medium is a flexible Growth Medium which is a hydraulically-applied,100% bio-degradable, High Performance-Flexible Growth Medium (HP-FGM) composed of 100% recycled thermally refined (within a pressure vessel) wood fibers, crimped interlocking man-made biodegradable fibers, mineral activators, naturally derived cross linked biopolymers and water absorbents.This is phyto-sanitized,free from plastic netting, requires no curing period and upon application forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.
9. Biotic Soil Media is a compost which has been designed as a topsoil alternative that accelerates the development of depleted soils/substrates with low organic matter, low nutrient levels and limited biological activity.
10. Geo Composite drain composite for use behind walls having three dimensional composite with thermobonding a draining core having “w” configuration of minimum thickness 8mm, with two filtering uv stabilized polypropylene non woven geotextile of minimum thickness of 0.75mm characteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 1.2 l / (m.s) at hydraulic gradient of 1.0 & 200 kpa pressure and tensile strength of 18 kn/m, with mass per unit area of 890 GSM.
11. The backfill shall be of good quality, free draining granular soil and plasticity index should be less than 6. The percentage of fines passing 75-micron sieve should not be greater than 15%. The maximum particle size in the structural fill shall not be more than 75 mm. The structural fill material should be basically free draining, and it should be devoid of dirt and deleterious material. The angle of friction shall be greater than or equal to 30 degrees. It should confirm to MORT&H - Specifications for Road & Bridge Works, Section 3100.
12. The structural fill shall be carefully placed and compacted in the area behind the facia units extending up to the end of the design reinforcement length for the layer of structural fill to be placed above the reinforcement the maximum particle should not exceed 40mm for a minimum compacted thickness of 200mm. structural soil shall be compacted to 95% modified proctor density.Perforated PVC Pipes of 160mm internal dia, wrapped in non woven geotextile shall be installed as indicated in drawing in Trench Drain. Backfill & structural fill shall be free draining as per MORTH specification clause 3100.
13. U-Pins shall be of Mild steel 8mm dia, of depth 500mm.
14. Anchoring stake shall be of Mild steel having 8mm dia and 1000 mm length.
15. Perforated PVC Pipes of 160mm internal dia, wrapped in non woven geotextile shall be installed as indicated in drawing.
16. Sub-surface drainage pipe shall be of 50mm dia, 3m length @ 3m c/c spacing, PVC perforated pipes wrapped with non-woven geotextile.
17. Slope protection measure with erosion control mat and U-pins aims at providing surface protection / erosion control and does not address global stability.

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

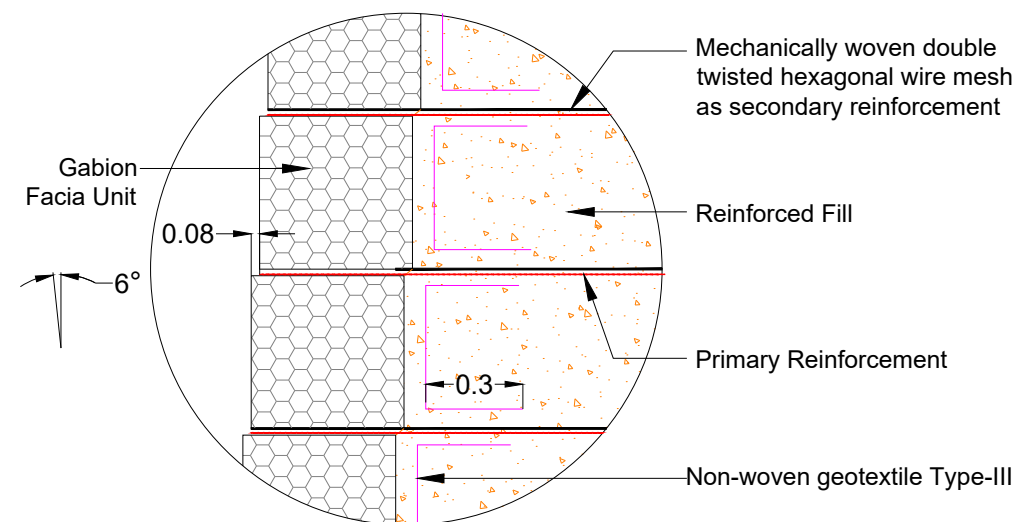
CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01

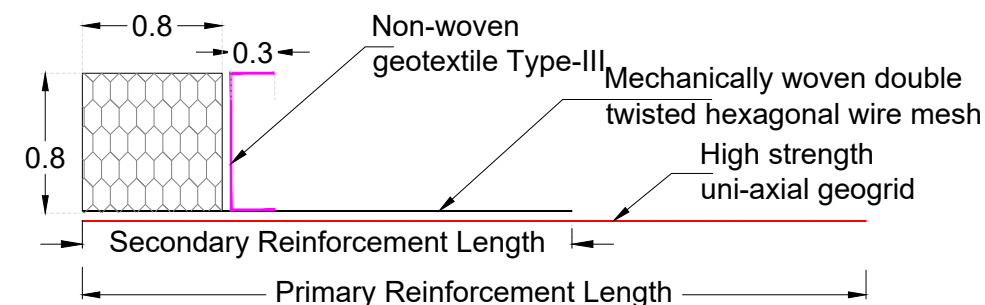
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REV. R0 DATE: 16.06.2025

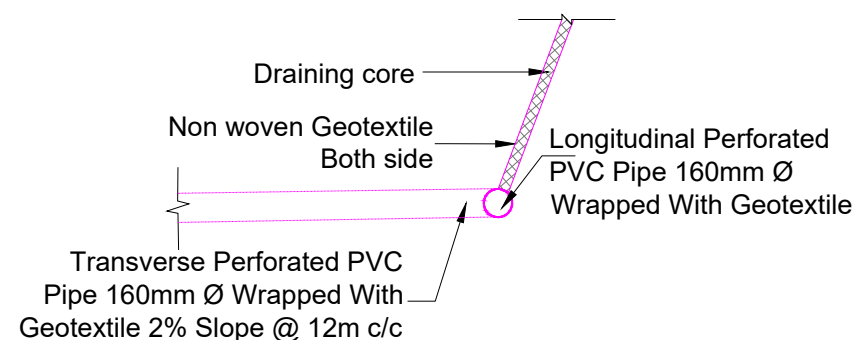
T.C.S NOT FOR CONSTRUCTION 109



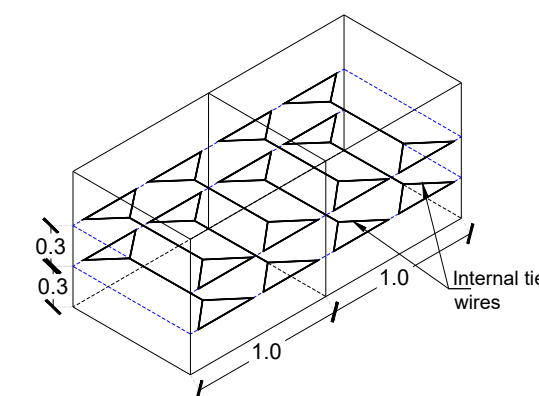
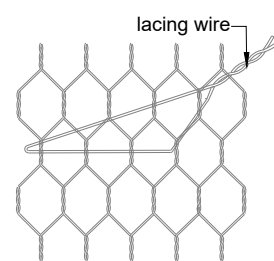
DETAIL (A) TYPICAL DETAILS OF REINFORCED SOIL STRUCTURE



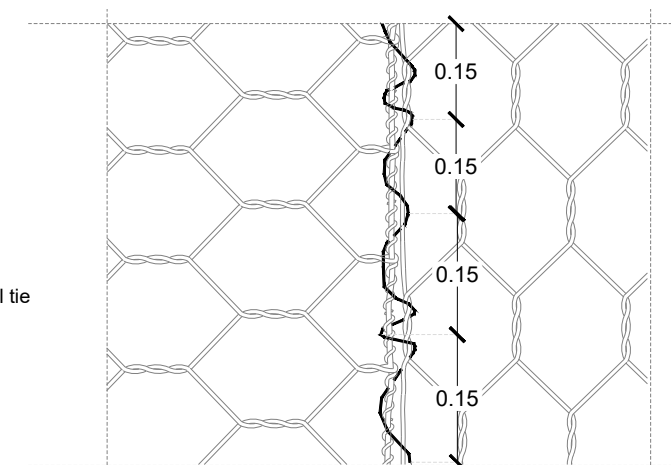
TYPICAL DETAIL OF GABION FACIA UNIT (TMS UNIT)



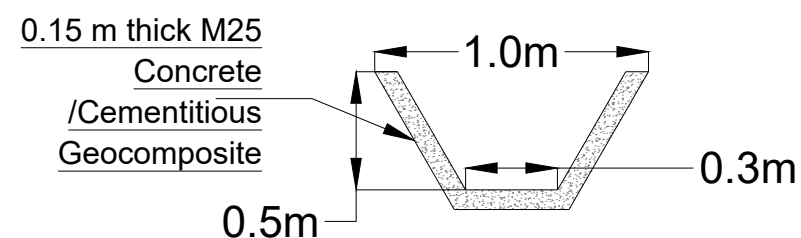
DETAIL- B OF GEOCOMPOSITE DRAIN (MACDRAIN)



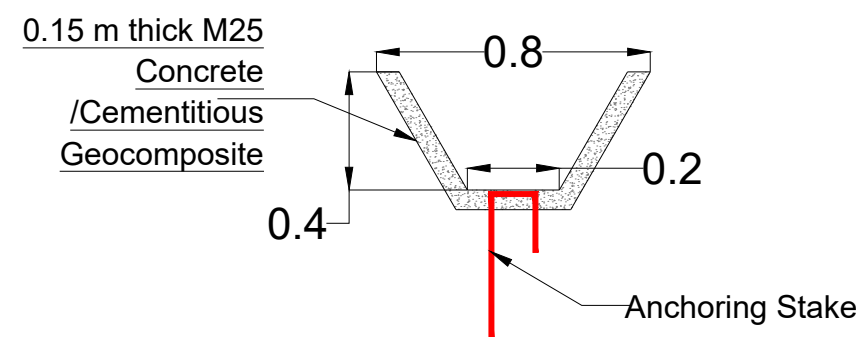
BRACING DETAILS FOR GABION FACIA



LACING DETAIL



DETAIL OF
ANCHOR TRENCH
CUM DRAIN/TOE DRAIN



DETAIL OF
ANCHOR TRENCH

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

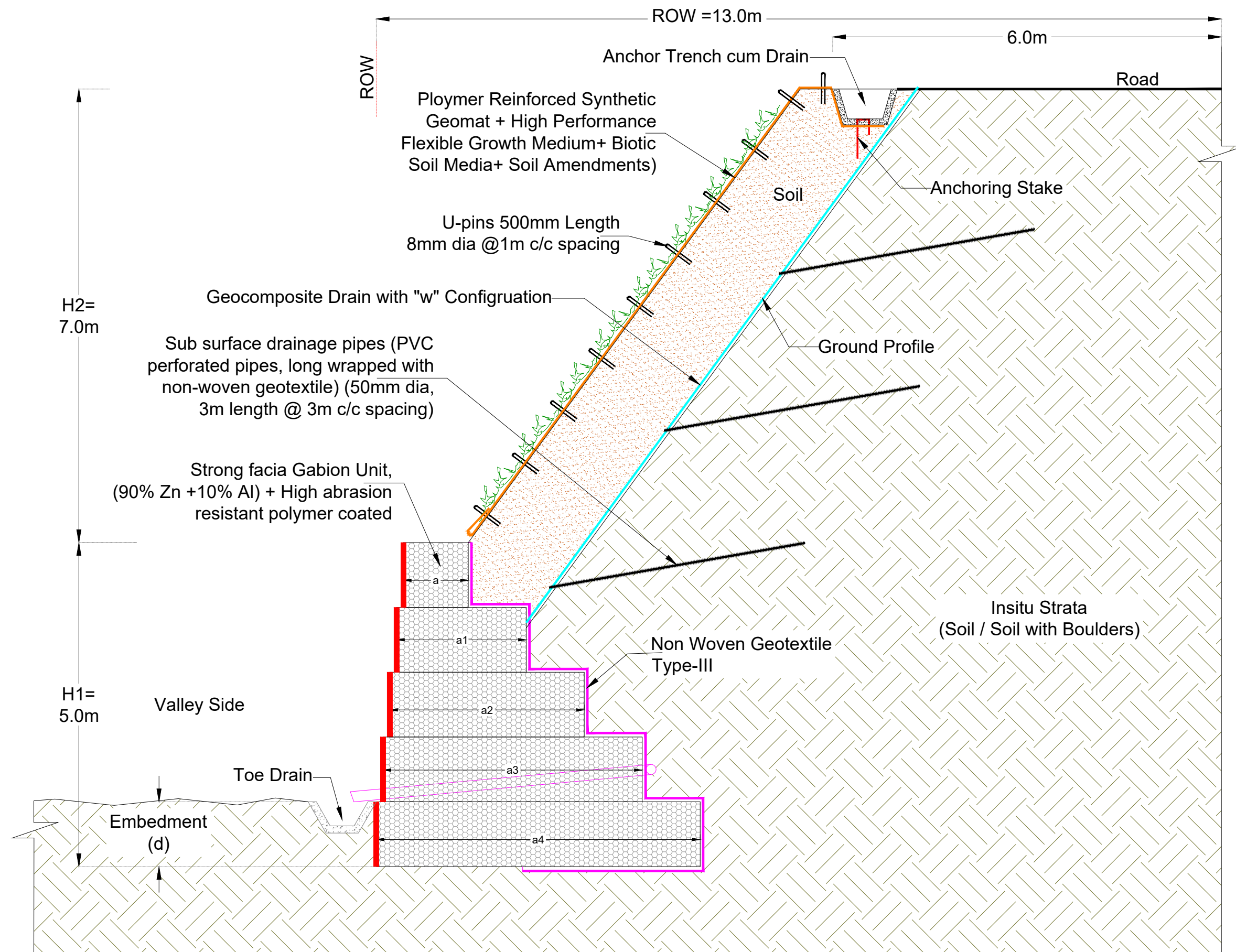
CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01

SCALE: N.T.S SHEET NO. 2 OF 10

REV. R0 DATE: 16.06.2025

T.C.S NOT FOR CONSTRUCTION 110



TCS-1 TYPICAL CROSS SECTION OF SLOPE EROSION CONTROL

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

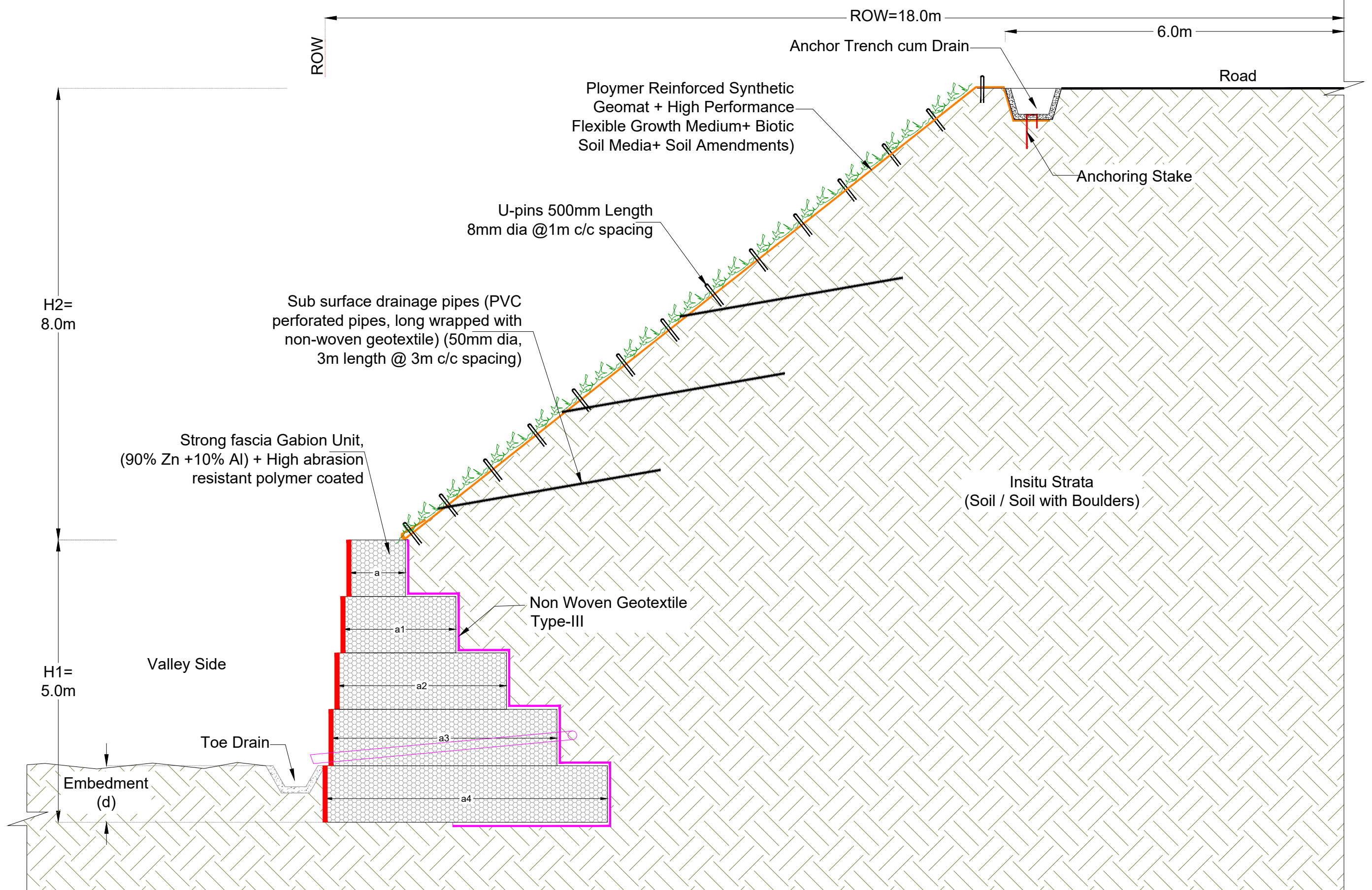
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DRAWING NO. IND-ET-2024-00XXXXX-GSY-01

SCALE: N.T.S SHEET NO. 3 OF 10

REV. R0 DATE: 16.06.2025

T.C.S NOT FOR CONSTRUCTION 111



TCS-2 TYPICAL CROSS SECTION OF EMBANKMENT EROSION CONTROL WITH TOE PROTECTION

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01

SCALE: N.T.S

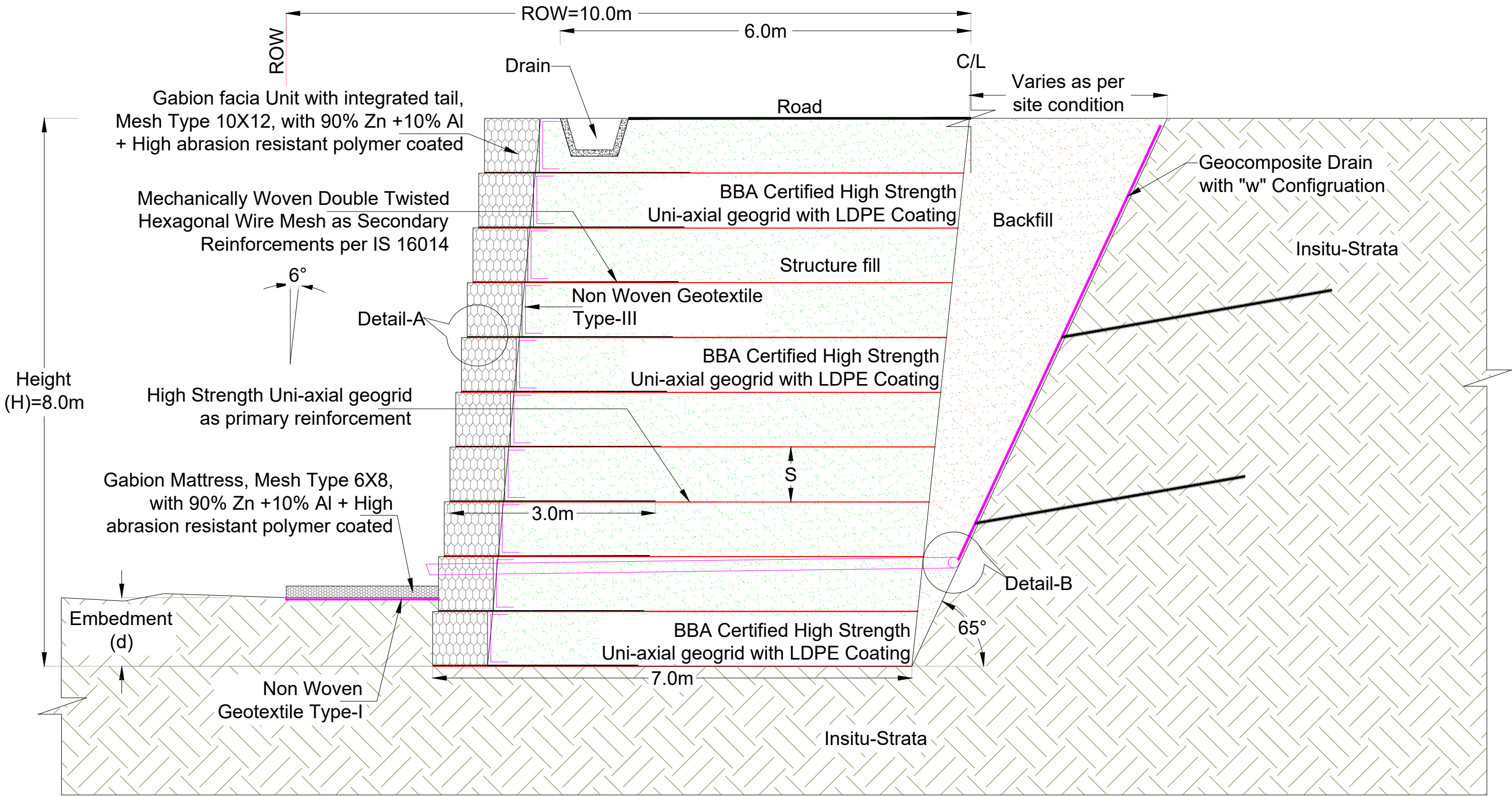
SHEET NO. 4 OF 10

REV. R0

DATE: 16.06.2025

T.C.S NOT FOR CONSTRUCTION 112

LEGEND	
S	Spacing between primary reinforcement of reinforced soil structure
I	Length of secondary reinforcement of reinforced soil structure
L	Length of primary reinforcement of reinforced soil structure
a	Width of Gabion unit



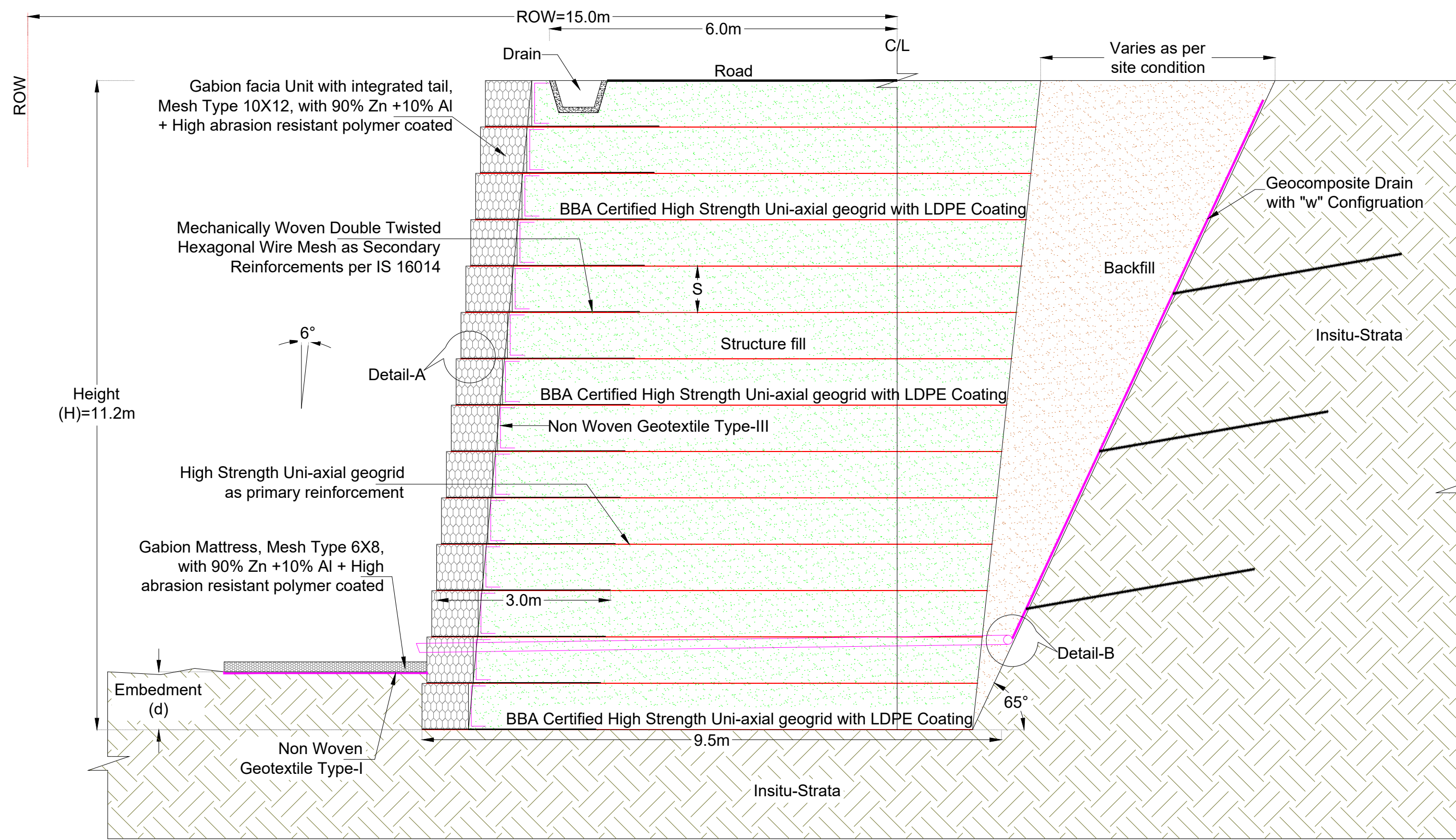
TCS-3 TYPICAL CROSS SECTION OF REINFORCED SOIL SLOPES FOR CH. 77+900 KM TO 77+930 KM

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
SCALE: N.T.S	SHEET NO. 5 OF 10
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LEGEND	
S	Spacing between primary reinforcement of reinforced soil structure
I	Length of secondary reinforcement of reinforced soil structure
L	Length of primary reinforcement of reinforced soil structure
a	Width of Gabion unit



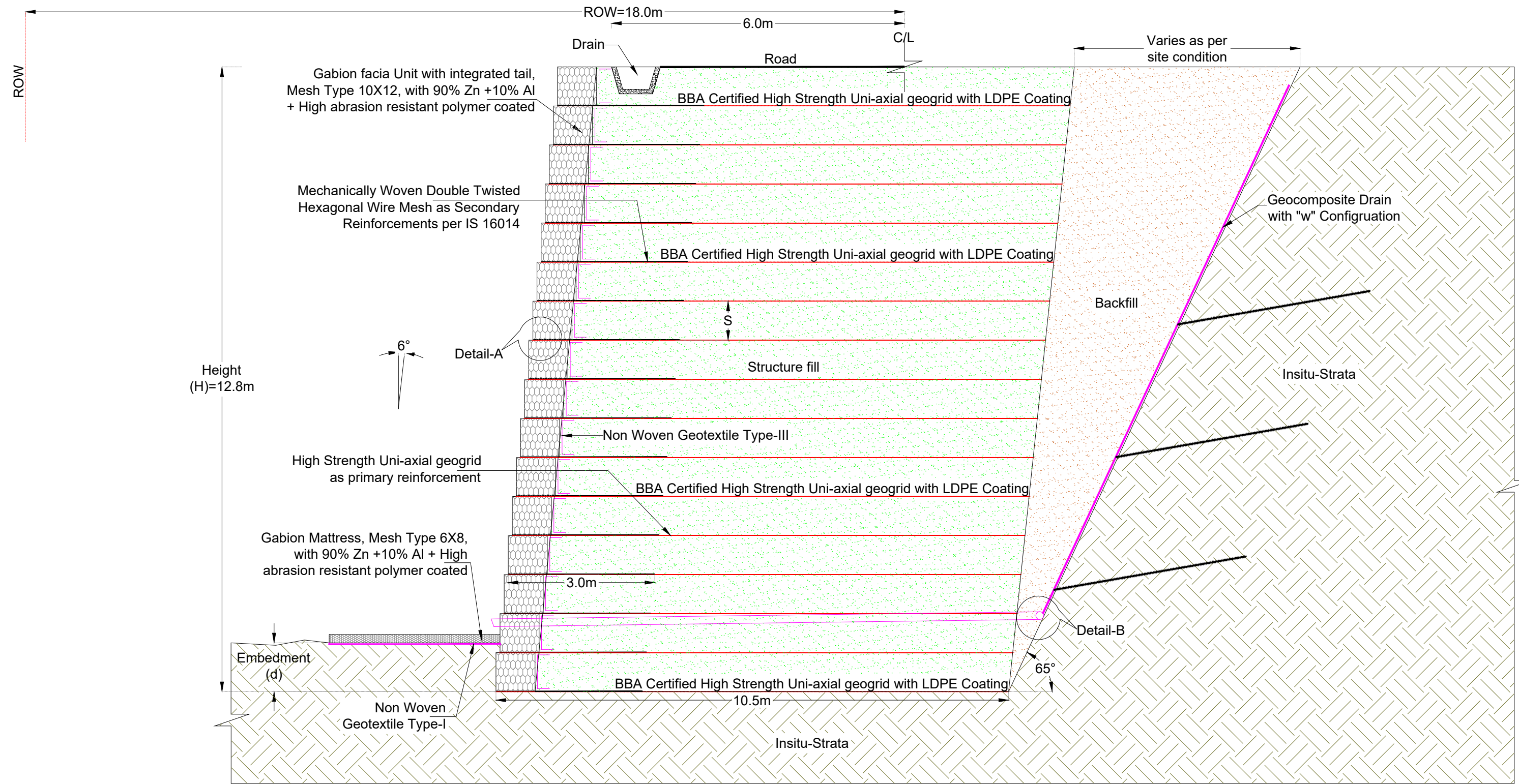
TCS-3 TYPICAL CROSS SECTION OF REINFORCED SOIL SLOPES FOR CH. 72+900 KM TO 72+960 KM

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
SCALE: N.T.S	SHEET NO. 6 OF 10
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T.C.S NOT FOR CONSTRUCTION 114	

LEGEND	
S	Spacing between primary reinforcement of reinforced soil structure
I	Length of secondary reinforcement of reinforced soil structure
L	Length of primary reinforcement of reinforced soil structure
a	Width of Gabion unit

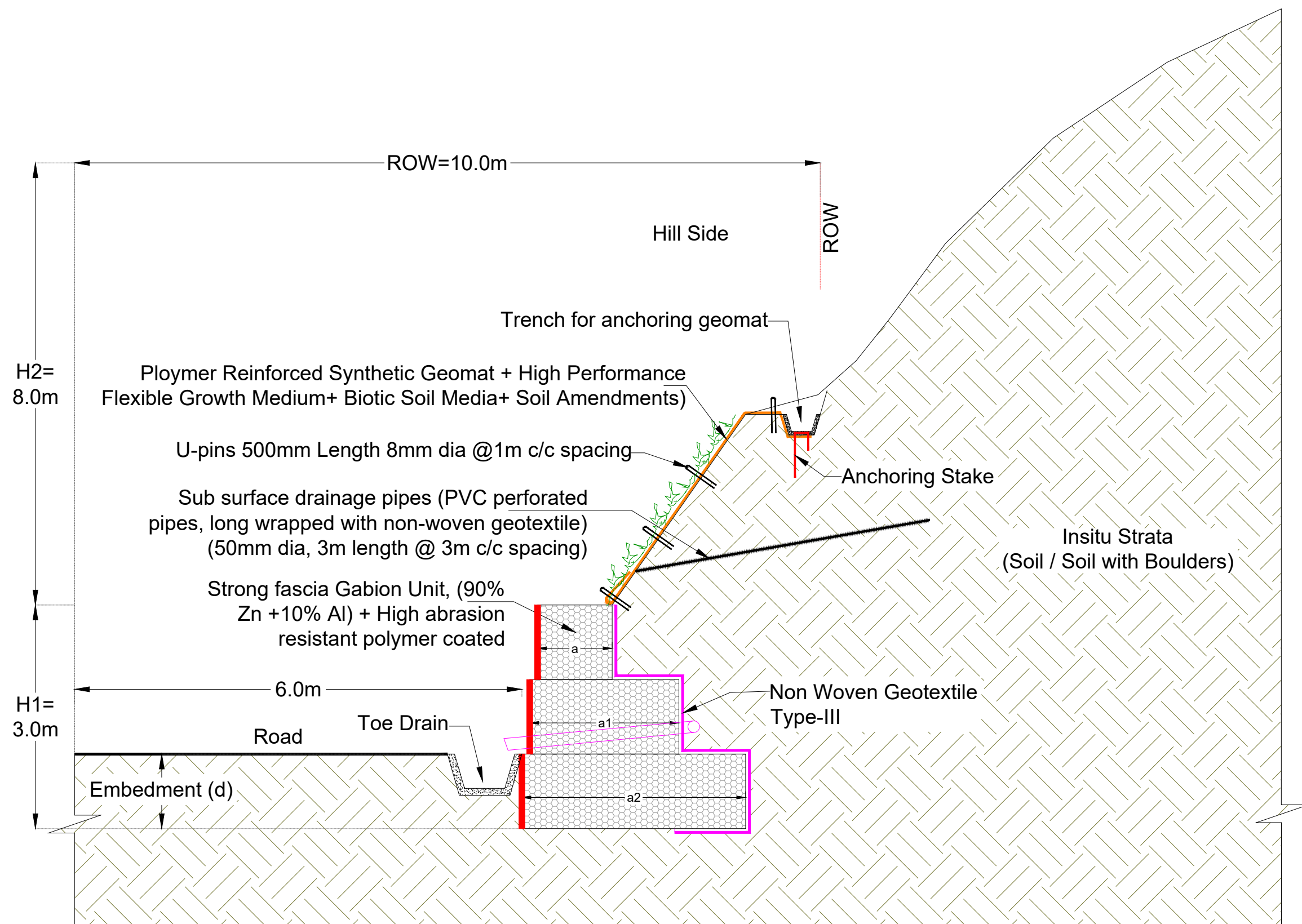


TCS-3 TYPICAL CROSS SECTION OF REINFORCED SOIL SLOPES FOR CH. 100+100 KM TO 100+160 KM

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
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TCS-4 TYPICAL CROSS SECTION OF SLOPE PROTECTION MEASURES AT HILL SIDE

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

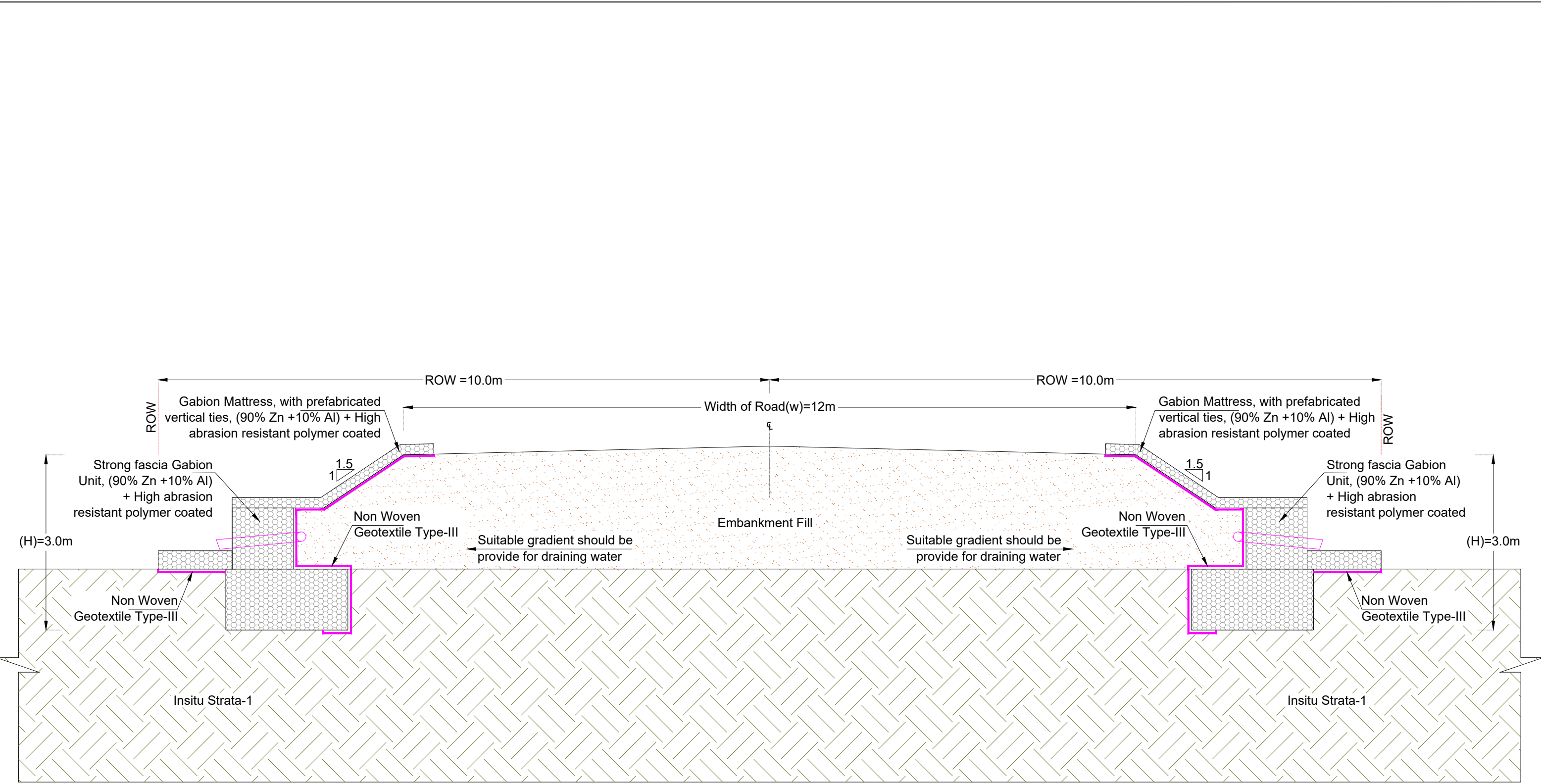
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DRAWING NO. IND-ET-2024-00XXXXX-GSY-01

SCALE: N.T.S SHEET NO. 8 OF 10

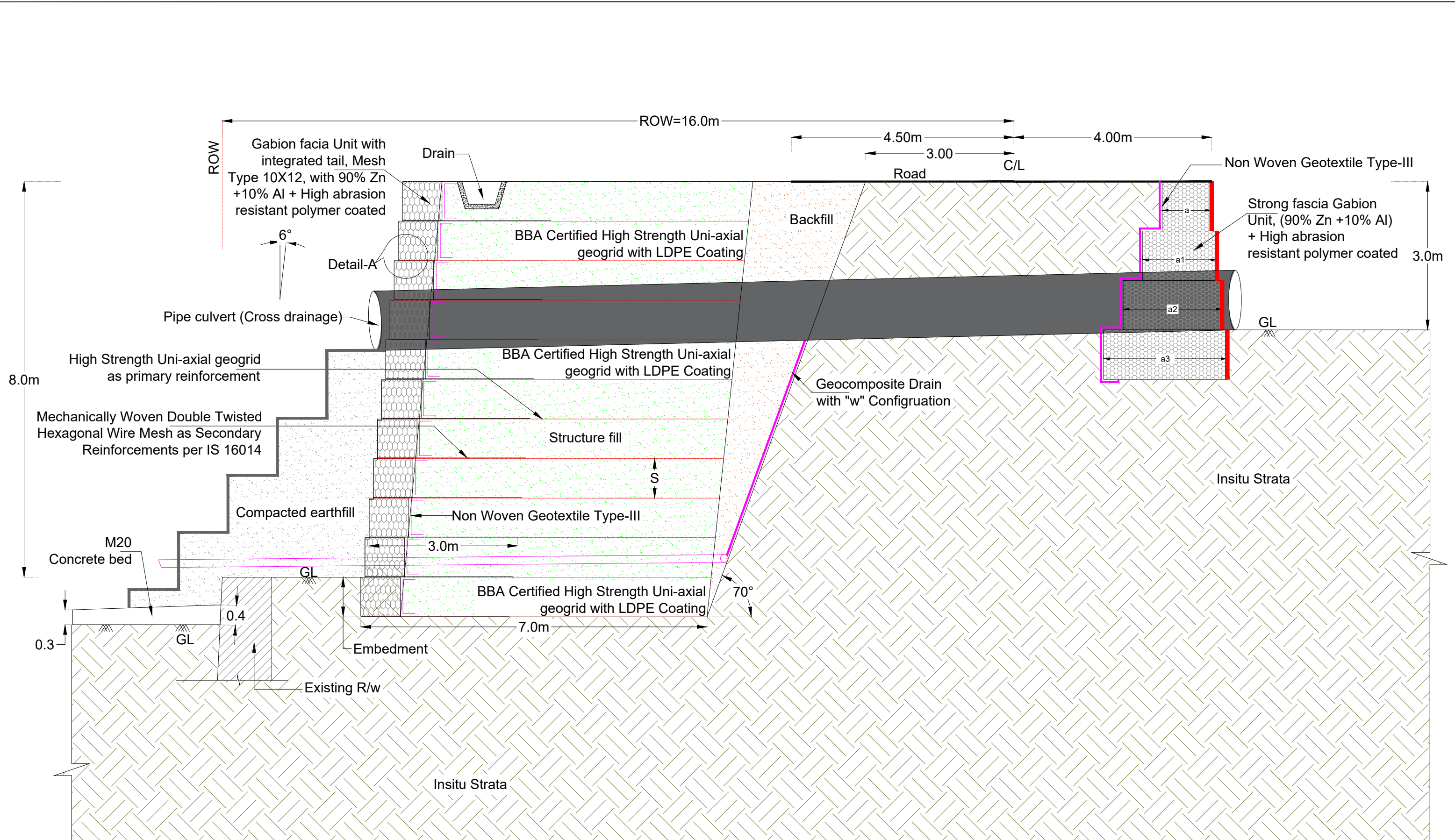
REV. R0 DATE: 16.06.2025

T.C.S NOT FOR CONSTRUCTION 116



TCS-5 TYPICAL CROSS SECTION OF EMBANKMENT PROTECTION AT POND LOCATION

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA	DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
	SCALE: N.T.S	SHEET NO. 9 OF 10
	REV. R0	DATE: 16.06.2025
	T.C.S NOT FOR CONSTRUCTION 117	
CONSULTANT: NIT AGARTALA		

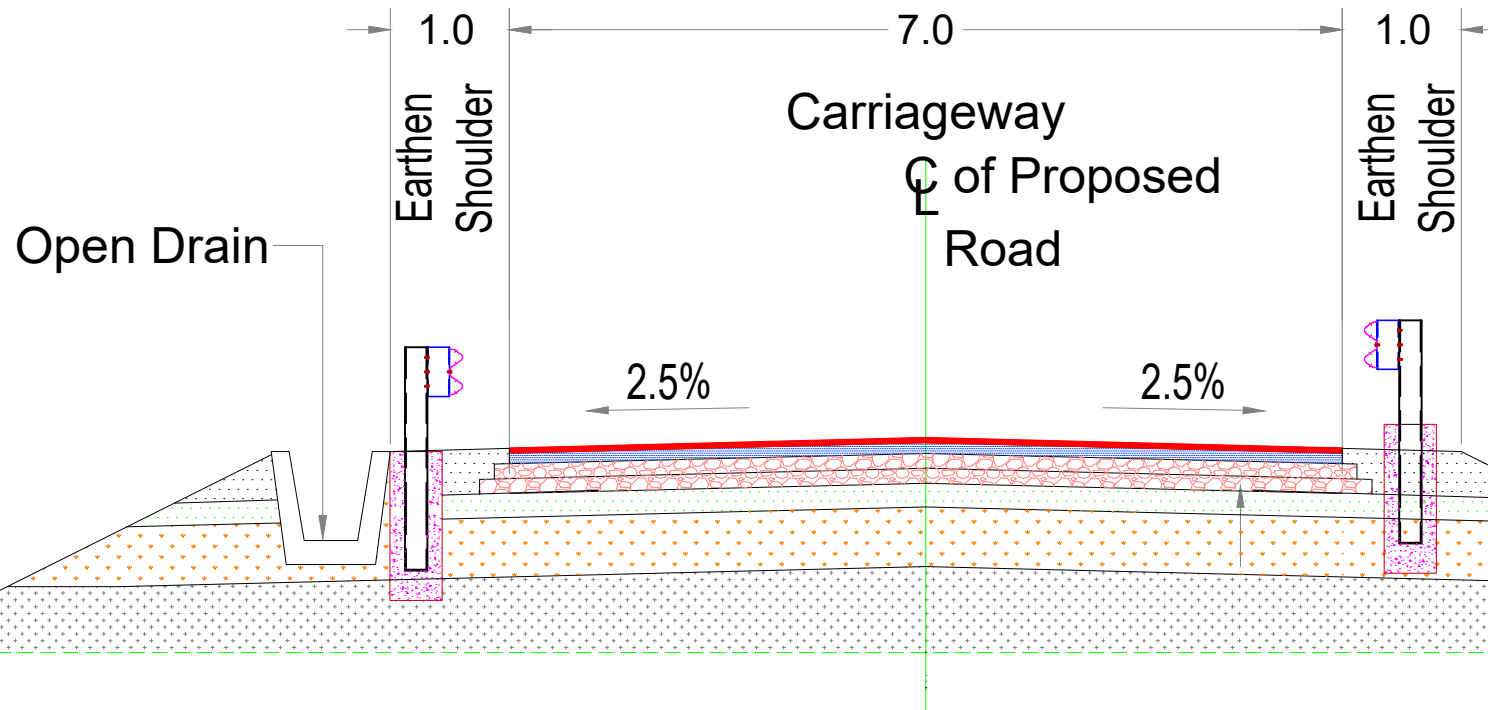


TCS-6 TYPICAL CROSS SECTION FOR CONTROLLING BREACHED ROAD FORMATION

PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
SCALE: N.T.S	SHEET NO. 10 OF 10
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T.C.S NOT FOR CONSTRUCTION 118	



TCS-1A : TYPICAL CROSS SECTION OF RECONSTRUCTION OF PAVEMENT WITH LHS TRAPEZOIDAL DRAIN