
NATIONAL HIGHWAYS AUTHORITY OF INDIA
Ministry of Road, Transport & Highways
Regional Officer Nagpur



Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra.

Date: 02nd July, 2026

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Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

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Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

NATIONAL HIGHWAYS AUTHORITY OF INDIA
Ministry of Road, Transport & Highways
Regional Office Nagpur

NIT/RFP No. NHAI/RO/NAG/CSN/Plantation/2026-27/22

Dated 02.07.2026

Name of Work: Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra.

The Regional Officer Nagpur, NHAI, NHAI on behalf of the NHAI, invites e-tenders for the following work(s) from the eligible Contractors as detailed in the table below.

[Collection (downloading) and Submission (uploading) of Tender can be made online through the website <https://etenders.gov.in> only].

A. List of Work(s):

Sl. No.	Name of Work	No. of Plants (Avenue plants + Median Plants)	Estimated Amount put to tenderer (Rs.)	Cost of tender documents (Tender Fees in Rs.)	Period of Completion of the work
(1)	(2)	(3)	(4)	(5)	(6)
1.	Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra.	28,000 for plantation & 82,000 maintenance	20,13,33,640/- (excluding GST)	500/-	5 yrs

• **Tender Fee – Rs. 500/-**

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

**** Tender Fees shall be paid electronically through payment link on e-tender website or electronic transfer to account details given below and payment acknowledgement receipt may submitted / uploaded along with other documents. If bidder fails to upload the payment acknowledgement receipt, then his / her tender won't be evaluated and any communication in this regard won't be entertained.**

S N	Particulars	Details
1.	Name of Beneficiary	National Highways Authority of India
2.	Name of Bank	Canara Bank, Gandhi Nagar, Nagpur
3.	Account Number	0265201012218
4.	IFSC Code	IFSC Code CNRB0000265

*****Agency have to give the undertaking as per Annexure 2 that If the bid is withdrawn or modified during the period of validity or if work is awarded and they failed to sign the contractor submit the performance security before the deadline defined in the RFP, they will be suspended for participation in the tendering process for the works of MoRTH / NHAI / NHIDCL and works under other centrally sponsored schemes for a period of one year from the bid due date of this work.**

B. Schedule of Dates:

SN	Particulars	Date & Time
1	Date of uploading NIT/RFP Documents—Online (Publishing Date)	03.07.2026
2	Documents download start date (Online)	03.07.2026
3	Documents download end date (Online)	18.07.2026
4	Bid submission start date (Online)	03.07.2026
5	Bid submission closing date (Online)	18.07.2026
6	Date of opening Bids (Online)	20.07.2026

Last date & time of submission of bids online is: 18.07.2026 at 11:00 Hours.

Note:

1. In case of any unscheduled holiday or on days of natural calamity on the aforesaid dates, the next working day will be treated as scheduled / prescribed date for the same purpose.
2. The Tender Inviting Authority may change the venue of opening the Technical or Financial Bids in case of exigent circumstances like breakdown of communications link or conditions of force majeure.
3. The Tender Inviting Authority reserves the right to defer the date of opening of either Technical or Financial Proposal or both, if required.

NATIONAL HIGHWAYS AUTHORITY OF INDIA
Ministry of Road, Transport & Highways
Office of the Regional Officer, Nagpur

NIT/RFP No. NHAI/RO/NAG/CSN/Plantation/2026-27/22,

Dated 02.07.2026

Name of Work: **Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra.**

INSTRUCTION TO BIDDERS (ITB)
Section – A

1. General Guidance for e-Tendering

- a) Instructions / Guidelines for tenderers for electronic submission of the tenders online have been shown in Web site <https://etenders.gov.in> .
- b) **Registration of Contractors**
Any contractor willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-Procurement System.
- c) **Digital Signature Certificate (DSC)**
Each contractor is required to obtain appropriate Digital Signature Certificate (DSC) for submission of tenders.
- d) **Collection of Tender Documents**
Tender documents may be downloaded electronically using the DSC; this is the only mode of collection
- e) **Participation in more than one work**
A prospective bidder shall be allowed to participate in the job either in the capacity of individual as a partner of a firm or registered company. If found to have applied severally in a single job, all his applications will be rejected for that job.

2. Submission of Tenders:

- a) Tenders are to be submitted online through the website stated in Clause 1.1 in two folders, at a time for each work, one is Technical Proposal and the other is Financial Proposal, before the prescribed date and time mentioned in the list attached. Using the Digital Signature Certificate (DSC), the documents are to be uploaded, virus scanned and digitally signed. The uploaded documents must be virus scanned and digitally signed.

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

Tenderers should specially take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.

b) Technical Proposal

The Technical Proposal should contain scanned copies and / or a declaration in standardized formats of the followings.

2.2.1. Technical Folder

- i. Tender fee deposit receipt with Unique Transaction Reference (UTR) number.
- ii. Complete RFP Document each page duly signed by Authorized signatory with seal of the agency.
- iii. All Corrigendum & Addendum issued by Authority before last date of bid submission to be submitted with signature & seal of the agency on each page.
- iv. a) Annexure I – Application duly filled and signed,
b) Annexure II – Undertaking duly filled and signed,
c) Annexure III – Affidavit duly filled and signed
- v. **COMPANY DETAILS**
 - a) Company registration certificates (as applicable)
 - b) For Company financial capacity, Company's Turnover Certificate issued and certified by Chartered Accountant
 - c) Udyog Aadhar / NGO Darpan Certificate as applicable
 - d) GST Registration Certificate
 - e) IT PAN Card
- vi. **STRUCTURE & ORGANISATION** in Section B Annexure IV
- vii. a) CV of Team Leader (with photography, signature of person & agency's representative) as per format in Annexure (V) subject to qualification as per clause 3 (e).
b) CV of 2 Team Members (with photography, signature of person & agency's representative) as per format in Annexure (V) subject to qualification as per clause 3 (e).
- viii. a) List of all Plantation related work (Completed & Partially completed) executed by agency in last 7 years in Annexure (VII).
b) Bidders who have worked with NHAI previously should compulsorily submit the past experience certificate from concerned competent authority specifying clearly that the work has been executed and completed by them in stipulated time with date of award and scheduled date of completion along with valid extension of time (EOT) granted if any. If the bidder has not completed above mentioned work in scheduled stipulated time frame, they will not be eligible for bidding and their bids will not be considered.

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- ix. Site specific project proposal with site specific details and photographs of site as per Annexure (VII).
 - x. EPF & ESIC registration certificate of bidder/s with a undertaking that agency fulfils all the criteria to acquire labour license certificate as per Annexure (VIII).
 - xi. A formal Undertaking on the agency's letterhead explicitly confirming the commitment to strictly adopt organic, sustainable, and synthetic-chemical-free protocols, and limiting plant protection exclusively to bio-control solutions, to be eligible for the 10% price preference during financial evaluation.
 - i. **Compliance:** The bidder availing this preference shall submit a written undertaking confirming compliance with the sustainable plantation protocol for the full contract period. Any deviation from the declared non-chemical / bio-control regime shall result in withdrawal of the preference and may attract penal action, including disqualification, recovery, or other remedies under the RFP and contract conditions.
 - ii. **Monitoring:** The Employer may inspect records, bills, and field practices to verify compliance with the conditions for availing price preference. The bidder shall maintain proper documentation of procurement and application of permitted inputs and shall produce the same whenever required.
 - iii.

Note: Technical Bid & Financial bid both will be submitted concurrently duly digitally signed in the Website <https://etenders.gov.in> Tender document may be downloaded from website & submission of Technical Bid/Financial Bid as per Tender Schedule

2.2.2. Important Instructions for submission of Technical Documents

- i. Authority may decide to seek clarification on the documents submitted by the agency. Authority may ask agency to re-submit or submit any additional / supporting document if authority feels that it's essential in order to evaluate the tender submitted. Agency have to comply with Authority's correspondence within the time frame provided by the authority. No request regarding extension of time will be entertained. If agency fails to respond with the time frame provided by authority, their documents will be evaluated as per the documents submitted during bid submission.
- ii. All documents submitted by the agency and the claims made by the agency will be verified with original documents within 30 days after issuance of LOA and before signing of Contract Agreement after Issuance of LOA. If agency fails to produce documents in original, the

LOA will be cancelled and agency will be barred from participating in future bids of NHAI for a period of one year.

- iii. If one agency is awarded more than one work of plantation with same set of technical persons, then in that case agency has to replace/re-engage new technical persons with same or more technical qualifications as claimed in the tender document submitted before signing of Contract Agreement. If in future it is found that same technical person is employed in any other plantation project, agency will be penalised @50,000 per month for first Team Leader and an additional @25,000 per month for each Team members thereafter for each default of employing same technical person on different projects.
- iv. Before the Signing of Contract Agreement, Agency has to produce Degree Certificates and Proof of Work experience of Technical persons whose CV has been submitted in the Technical folder of Bid Submission, Failing which Work award will be cancelled. Replacement of CV with new technical persons with same or more technical qualifications as claimed in the tender document submitted will be allowed.
- v. **For Company financial capacity, Agency has to submit Company's Financial Turnover Certificate of last 3 years issued and certified by Chartered Accountant.**
- vi. Plantation related work means the plantation component of works is the major component of work. If authority desires, authority may ask agency to produce the proof of financial transaction against any work claimed in work experience.
- vii. If agency fails to submit labour license before signing of Contract Agreement within 30 days of issue of LOA, award of work will be cancelled.

2.3. Financial Proposal

- 2.3.1. The financial proposal should contain the financial bid in one cover (folder). The contractor is to quote the rate in the space marked for quoting rate in the financial bid.
- 2.3.2. Only downloaded copy of the financial bid are to be uploaded quoting the rate, virus scanned & digitally signed by the contractor.

2.4. Pre – Bid Meeting

- 2.4.1. The Bidder or his authorized representative is invited to attend a pre-Bid meeting which will take place at NHAI RO Nagpur as mentioned in the Schedule of Events.
- 2.4.2. The purpose of the meeting will be to clarify issues and to answer questions on any matter pertaining to this RFP document. All

Bidders are requested to go through the RFP document carefully and submit any queries/ clarifications addressed to the Regional Officer, Nagpur. The Bidder is requested to submit any questions / queries by email in editable doc. so as to reach NHAI well before the scheduled date as mentioned in schedule of dates (B). Any query related to tender will be entertained in pre bid meeting only. Any query related to tender will not be entertained after pre bid meeting.

2.4.3. Clarifications to the queries will be hosted on NHAI's website/ e-tender portal only.

2.4.4. Any modification in the RFP document which may become necessary as a result of the deliberations in the pre-Bid meeting shall be made by NHAI separately through issue of an Addendum/ Amendment will also be hosted on NHAI's website/ e-tender portal.

3. Eligibility Criteria for participation in tender:

- a) Neither prospective Tenderer nor any of the constituent partners had been debarred to participate in any Tender by any State or Central Government Agency, during the last 5 (five) years prior to the date of this NIT/RFP. Such debarring will be considered as disqualification towards eligibility. (A declaration in this respect has to be furnished by the prospective bidders as per prescribed format Annexure III.)
- b) Joint ventures are not allowed.
- c) A prospective Tenderer shall be allowed to participate in the job in the capacity of individual as a partner of a firm. If the prospective Tenderer is found to have applied severally in a single job, all his applications will be rejected for that job.
- d) No conditional / Incomplete Tender will be accepted under any circumstances.
- e) The Tenderer should have at-least three staff (1 Team leader + 2 Team members) on the roll with a qualification in Forestry/ Botany/ Agriculture/ Horticulture or a person having experience in forest plantation activities as following.

S. No.	Resources	Technical Eligibility Criteria
1	Team Leader	1. Minimum 3 years of Work Experience in Plantation and its allied Activities (Documentary Evidence to be submitted) 2. Educational Qualification: Post Graduation / Graduation in Forestry / Agriculture / Horticulture or other relevant stream. (Degree Certificate to be submitted)

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2	Team Member (2 Nos)	1. Minimum 2 years of Experience in Plantation and its allied Activities (Documentary Evidence to be submitted) 2. Educational Qualification: Intermediate in Science (Degree Certificate to be submitted)
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4. Opening and Evaluation of Technical Proposal

4.1 Opening of Technical Proposal

- Technical proposals will be opened by the authorized representatives electronically from the website stated in Clause 1, using their Digital Signature Certificate.
- Intending tenderers may remain present, if they so desire.
- Technical folder/Proposal will be opened first, if found in order. If there is any deficiency in the Documents, the tender will summarily be rejected.

4.2 Evaluation of Technical Proposal

The project folder documents of all the responsive bids (documents submitted as per requirements mentioned in Clause 2.2.1) will be evaluated by Tender Evaluation Committee as per the following scoring parameters.

S. No	Criteria	Score
A	Work Experience of Technical Persons with Agency	40
B	Annual Financial Turnover	40
C	Previous work experience for plantation/ landscaping/ transplantation	10
D	Site Specific Project proposal	10
	total Marks	100

A. Work Experience of Technical Persons with Agency – 40 Marks

Team Personnel / Relevant Work Experience		Above 10 years	5 to 10 years	3 to 5 years
A1	Team Leader	20	16	12
Team Personnel / Relevant Work Experience		Above 6 years	4 to 6 years	2 to 4 years
A2	Team Member – 1	10	8	6
	Team Member – 2	10	8	6

B. Annual Financial turnover – 40 Marks

Cumulative Work Experience	More than or equal to 75 % of	More than or equal to 40 % to	More than or equal to 15 % to	Below 15 % of the project cost
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	the project cost	75% of the project cost	40% of the project cost	
Average Annual Financial Turnover of last 3 financial year*	40	32	24	0

***For Annual Financial Turnover, Average of last 3 years turnover will be considered.**

C. Previous work experience for plantation/ landscaping/ transplantation – 10 Marks

Cumulative Work Experience	More than or equal to 75 % of the project cost*	More than or equal to 40 % to 75% of the project cost	More than or equal to 15 % to 40% of the project cost	More than or equal to 5 % to 15% of the project cost
Plantation Work Experience	10	8.5	7	6

***Project cost is estimated cost of project under tender process.**

D. Site Specific Project proposal: Feasibility Study of site, (Level of Compliance with IRC SP 21:2009 and Green Highways Policy – 2015), Plantation Management (Plan for five year maintenance)– 10 Marks

Level of Compliance	Survey & site specific details	Plantation Layout & Species Selection as per Agro Climatic Zone	Maintenance Plan
75-100%	4	4	2
50-75%	2	2	1

The bidder will be considered qualified for evaluation of financial bid if he scores minimum 60 marks in the technical proposal submitted.

5. Final publication of summary list of technically qualified tenderers

Date of opening of financial bid will to be intimated through email to all technically qualified agencies.

6. Opening and Evaluation of Financial Proposal

Financial proposals of the tenderers declared technically eligible by the Tender Evaluation Committee will be opened electronically from the web portal stated on the prescribed date. The encrypted copies will be decrypted and the rates will be read out to the contractors remaining present at that time.

After evaluation of Financial Proposal, by the appropriate Authority of NHAI, may upload the final summary result containing inter-alia, name of contractors and the rates quoted by them against each work.

7. Procedures to be followed when one technically qualified tenderers participated in any tender:

Financial bid of technically qualified single tender may not be opened and fresh tender shall be invited.

8. Final evaluation & Award of work.

Financial bids of technically qualified agencies will be opened and the bidders with Lowest Financial Quote will be declared as L1 Bidder and will be awarded the work.

8.1 Price Preference for Organic and Sustainable Practices

In alignment with sustainable ecological practices, a price preference of 10% shall be accorded to companies that strictly adopt organic, sustainable, and synthetic-chemical-free protocols. to be eligible for this price preference, the bidder must ensure that plant protection is limited exclusively to bio-control solutions.

- For the sole purpose of comparative evaluation and determining the L1 Bidder, the financial quotes of eligible companies will be artificially reduced by 10%.
- If an eligible company emerges as the L1 Bidder after the application of this 10% evaluation preference, the Letter of Acceptance (LOA) and subsequent contract will be awarded at their original, actual quoted price.
- Any deviation from the committed organic, sustainable, and bio-control protocols during the project execution phase will be considered a material breach of contract, rendering the agency liable for termination and forfeiture of the Performance Security.

9. Brief details on the nature of work:

a)	Name of the project	:	Aurangabad to Telwadi (from Ch. 290.200 to Ch. 376.00) NH-52
b)	Nature of Work	:	Casualty Replacement Plantation and Maintenance (Advance field preparation, planting and maintenance) Work from Aurangabad to Telwadi (from Ch. 290.200 to Ch. 376.00) NH-52 Under PIU-Chhatrapati Sambhajinagar, Regional Office, Nagpur in the State of Maharashtra.

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

10. Tender Document costs (Tender Fees):

- a) The cost of Tender Documents (Tender Fees) is to be submitted electronically through payment link provided on e-tender website.
- b) Intending Tenderers should download the Tender Documents from the website <https://etenders.gov.in> directly with the help of Digital Signature Certificate.
- c) The payment acknowledgement receipt of payment the cost of Tender fee should be submitted / uploaded along with other documents. If bidder fails to be submit / upload the payment acknowledgement receipt then his / her tender won't be evaluated and any communication in this regard won't be entertained.
- d) Both Technical Bid and Financial Bid should be submitted duly digitally signed by the Tenderer through the website <https://etenders.gov.in> as per the 'Date & Time Schedule' stated in the NIT/RFP.

11. Opening of Tender:

- a) The Technical Bid shall be publicly opened by the authority receiving tender or by his authorized representative, as per the Date & time Schedule mentioned in NIT/RFP.
 - b) Prospective Tenderers or their authorized representatives may be present during the opening process.
 - c) Financial Bids of only those tenderers who would qualify in the Technical Bid evaluation will be opened.
 - d) The intending Tenderers shall clearly understand that whatever may be the outcome of the present Invitation of Tender, no cost of Tendering shall be reimbursable by NHAI. Regional Officer, Nagpur NHAI reserves the right to reject any tender or all Tenders without assigning any reason whatsoever and is not liable for any cost that might have incurred by any Tenderer at any stage of Tendering.
 - e) The acceptance of the tender rests with the Regional Officer, Nagpur NHAI who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason thereof.
 - f) Intending Tenderers at their own cost and risk are encouraged to inspect the site of work and get themselves thoroughly acquainted with the local condition and all factors which may affect their rates. Prior to the site visit the intending Tenderers must inform the PD, PIU- CSN NHAI about the time and date of the visit.
12. The selected Contractor must arrange to procure all materials required for the proper completion of the work (as per the Technical Specifications of the tender document). The Employer will not on any account be responsible for procuring the same.
13. The selected contractor shall apply to the PD, PIU- CSN NHAI for seeking permission for utilization of land at the close proximity of the site for arranging required plant & machineries, store of materials, labour shed, laboratory etc. at his own cost and responsibility. All such temporary shed etc. shall have to dismantled

and all debris etc. cleared from site post completion of the work or as directed by the PD, PIU- CSN, NHAI Once an order to the effect is issued from the PD, PIU- CSN NHAI in this regard, it shall be brought to effect by the contractor without contest.

14. Validity of Bids:

Bid shall remain valid for a period not less than 120 **(One Hundred Twenty) Days** after the dead line date for Financial Bid/Sealed Bid Submission. Bid validity for a shorter period shall be rejected by Tender Accepting Authority as non-responsive. If any Tenderer withdraws his offer before Bid validity period without giving any satisfactory explanation for such withdrawals, he may be disqualified for submitted tender to this Regional Officer Nagpur, NHAI for a minimum period of 1 (one) year and legal action will be taken against him.

15. Verification of credentials:

Before issuance of the work order, the Tender Accepting Authority may verify the credential and other documents of the L1 Bidder if found necessary. After verification, if it is found that such documents submitted by the L1 Bidder is either manufactured or false in that case, work order will not be issued in favour of the Tenderer under any circumstances and legal action will be taken against him.

16. Cancellation of Tender:

The Regional Officer, Nagpur NHAI reserves the right to cancel this NIT/RFP due to unavoidable circumstances at any stage of tender and no claim in this respect will be entertained.

17. Performance Security:

a) The successful Tenderer to whom a Letter of Acceptance has been issued shall submit within 10 (ten) days from the date of Letter of Acceptance, **Performance Security which is 3% (Three Percent)** of the contracted value of work. Failure in depositing this amount and / or non-submission within the specified time shall render the contract liable for termination without reference to the contractor and in such case; the deposited earnest money shall stand forfeited to the Government.

b) Additional Performance Security (APS):

In cases of Bids as mentioned below, the Selected Bidder, along with the Performance Security, shall also furnish to the Authority in the form of an Irrevocable and Unconditional Bank Guarantee (including e-Bank Guarantee) only from a Bank, in the same form, towards an Additional Performance Security ("APS") for an amount calculated as under:

Trigger Condition: If the Bid Price offered by the Selected Bidder is lower than 15% of the Estimated Cost (i.e., the bid is a below-bid of more than 15%), the Successful Bidder shall be required to furnish APS.

$$\text{APS Amount} = (\% \text{ Below Bid} - 15\%) \times \text{Quoted Bid Price}$$

Example: If Estimated Cost = ₹100 Cr and Quoted Bid Price = ₹82 Cr, then % below bid = 18%. APS = (18% - 15%) × ₹82 Cr = 3% × ₹82 Cr = ₹2.46 Cr.

Form of APS: The APS shall be furnished exclusively through a Bank Guarantee (including e-Bank Guarantee) in the prescribed form. The APS Bank Guarantee shall be Irrevocable and Unconditional and issued only from an approved Bank. No other form of security shall be accepted in lieu of APS.

Cumulative Security Obligation: The Additional Performance Security (APS) under this Clause 22(c) is in addition to, and does not replace or substitute, the Performance Security of 3% prescribed under Clause 22. Accordingly, where APS is triggered, the total security to be furnished by the Successful Bidder shall be:

Performance Security (Clause 22) = 3% of Contract Value (Bank Guarantee / Cash)
 Additional Performance Security (Clause 22(c)) = (% Below Bid - 15%) × Quoted Bid Price (Bank Guarantee only)
 total Security = 3% + APS (e.g., where bid is 18% below estimated cost: 3% + 3% = 6% of Quoted Bid Price)

17 (a) Retention Money:

from every payment for Works due to the successful Tenderer in accordance with the provisions of Clause 23 of General terms and conditions of Contract (Section C), the Authority shall deduct 5% (five per cent) thereof as guarantee money for performance of the obligations of successful Tenderer during the Plantation and Maintenance Period subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.

17 (b) Performance Security and Retention Money will be refunded to the agency within 30 days of successful handover.

18. Technical Specification and Quality of Works:

Unless otherwise stipulated, all the works are to be done as per the Technical Specifications of the tender document, Green Highways Policy-2015; IRC:SP:21-2009.

19. Deduction of Taxes Etc:

Deduction of Income Tax from the Contractor's Bill will be made as per Govt. rules. GST & all other statutory levy/ Cess will have to be borne by the contractor as per Govt. Rules and the rate in the B.O.Q. is inclusive of all the taxes & cess stated above. Deduction of Tax shall be made as per provision of the NHAI.

20. Maintenance Period:

The Contractor will be liable to maintain the work at the appropriate service level to the satisfaction of the PD, PIU- CSN, NHAI at his own cost for the project period, as stipulated in the BOQ. If any defect/damage is found during the period as mentioned above, the agency shall replace the plant with same age & height of good healthy plant within 15 days of casualty of plant and make good at his own cost. Failure to do so, penal action against the Agency will be imposed by the NHAI as deem fit. The Agency will have to quote his rate considering the above aspect. Also the Prospective Tenderers shall have to execute the work in such a manner so that appropriate service level of the work is kept during progress of work and the period of maintenance.

21. Removal of Discrepancy:

If any discrepancy arises between two similar clauses on different notification, the clause as stated in later notification will supersede former one in following sequence: -

- a. Form of Agreement
- b. Tender Form
- c. Technical Specifications
- d. General Terms and Conditions
- e. Schedule of Rates (SoR) of State Forest Department
- f. Instructions to Bidders

22. MOBILISATION ADVANCE/ COST OVER RUN:

- i. The Authority shall make an interest-bearing advance payment (the **"Advance Payment"**) @ **"Bank Rate +3%"**, equal to 10% (ten per cent) of the Contract Price, exclusively for mobilisation expenses against Bank Guarantee. The Advance Payment for mobilisation expenses shall be made in two instalments each equal to 5% (five per cent) of the Contract Price. The second 5% (five per cent) mobilisation advance would be released after submission of utilization certificate by the Contractor for the first 5% (five per cent) advance already released earlier.
- ii. Time / cost overrun and consequent cost of escalation for any materials, labour, P.O.L. etc. will not be allowed.
- iii. **The Advance Payment shall be repaid through percentage deductions from the stage payments as follows:**
 - a. **deductions shall commence in the first Stage Payment Statement;**

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

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- b. **deductions shall be made at the rate of 25% (twenty five percent) of each Stage Payment Statement until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid within 4th year payment of the project.**
- iv. **If the Advance Payment has not been fully repaid prior to Termination, as the case may be, the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Authority. Without prejudice to the provisions, in the event of Termination for Contractor Default, the Advance Payment shall be deemed to carry interest @ “Bank Rate+5%” per annum from the date of Advance Payment to the date of recovery by encashment of the Bank Guarantee for the Advance Payment. For the avoidance of doubt, the aforesaid interest shall be payable on the unrecovered balance.**
23. Canvassing in connection with the tender is strictly prohibited.
24. Site of work and necessary drawings may be handed over to the successful Tenderer along with the work order or in a phase wise manner as deemed fit by the PD, PIU-Chhatrapati Sambhaji Nagar, No claim in this regard will be entertained.
25. The successful Tenderer will have to start the work as per the work order to commence the work.
26. The Successful Tenderer will be required to obtain valid registration certificate & labour licence from respective offices (if required) where plantation work by them are proposed.
27. The successful tenderer shall have to comply with the provision of the Minimum Wages Act, 1948 and the Notifications thereof or other laws relating thereto and the rules made and orders issued there under from time to time, failure to do so will be treated as breach of contract and the Regional Officer, Nagpur, NHAI may in his discretion cancel the contract. The contractor shall also be liable for any liability arising on account of any violation by him of the provisions of the Act and Rules made there under time to time.
28. The contractor shall not be entitled for any compensation for any loss suffered by him due to delay arising out for modification of the work, due to non-delivery of the possession of site and / or modification of plantation map & planting pattern etc.
29. Prevailing safety norms has to be followed by the successful Tenderer during execution of the work so that LTI (Loss of time due to injury) is zero.

-
30. Guidelines for plantation works should be followed as per IRC SP 21 2009 and Green Highways Policy 2015.
31. No tender shall be deemed to be fit for consideration unless the tender documents are fully and completely filled in. All information that may be asked from the Tenderer must be unequivocally furnished. The eligibility of a Tenderer will be ascertained on the basis of the documents submitted by a Tenderer in support of eligibility criteria. If any document submitted by a Tenderer is found to be incomplete/incorrect/manufactured / fabricated or false, his Tender will be out rightly rejected at any stage and legal action will be taken against him.
32. A Tenderer is to quote in figures as well as in words, his rates in the following forms as applicable in his cases against the estimated value put to tender of the tender form (BOQ).
33. In the event of a tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so and if called for, legal documentations in support thereon must be produced for inspection and in the case of a firm carried out by one member or a joint family it must disclose that the firm is duly registered under the Indian Partnership Act.
34. The Tenderer must sign at the bottom of each page of the tender documents as a proof of acceptance of terms and conditions of the Tender. Overwriting shall not be allowed. All corrections, alternations etc. must be duly signed.
35. It must be clearly understood that the quantities of the various items indicated in the schedule or probable items are approximate only and may be appreciably increased or decreased during actual execution. The contractor shall remain effected by alteration.

RATES ARE FIRM FOR THE PERIOD OF THE PROJECT.

Annexure – I: APPLICATION

To,
Regional Officer, Nagpur NHAI

Sub: Name of the Work with Tender reference no.

_____.

Ref: (N.I.T No.) _____

Dear Sir,

Having examined the Clauses of this RFP document; I/We hereby submit all the necessary information and relevant documents for evaluation.

The necessary evidence admissible by law in respect of authority assigned to us on behalf of the firm for application and for completion of the contract documents is attached herewith.

I/We are interested in bidding for the work mentioned above.

I/We understand that

(a) Tender Inviting Authority and Accepting Authority can amend the scope and value of the contract bid under this project

(b) Tender Inviting Authority and Accepting Authority reserve the right to reject any tender without assigning any reason.

The application is made by me/us on behalf of

_____ in the capacity of _____ duly authorized to submit the tender.

Enclosure:

(1) Technical Proposal (Envelop-1/Folder)

(2) Financial Proposal (Envelop-2/Folder)

Date: _____

Signature of authorized officer of the
firm: _____

Title & Capacity of the

officer: _____

Name of the Firm with

Seal: _____

Annexure – II: Undertaking

to,
Regional Officer, Nagpur, NHAI

Dear Sir / Madam,

Ref: Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

Tender Reference No.

1. I/We refer to the tender notice issued by you for the Selection of Agency / Company to undertake plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra vide tender reference no. mentioned Above.
2. I hereby submit a declaration that the bid submitted by the undersigned, on behalf of bidder, ... shall not be withdrawn or modified during the period of validity i.e. not less than 120 (One hundred twenty) days from the bid due date.
3. I / we hereby agree that If the bid is withdrawn or modified during the period of validity or if work is awarded and we failed to sign the contract or submit the performance security before the deadline defined in the RFP, we will be suspended for participation in the tendering process for the works of MoRTH / NHAI / NHIDCL and works under other centrally sponsored schemes for a period of one year from the bid due date of this work.

Yours faithfully,

Signature.....

Designation:

Address:

Name of Partners of our Firm:

1)

2)

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

Section B:
Annexure III: AFFIDAVIT
(to be furnished in Non-judicial stamp paper of appropriate value
duly notarized)

- (I) I, the undersigned do certify that all the statements made in the attached documents are true and correct. In case of any information submitted, proved to be false or concealed, the application may be rejected and no objection/claim will be raised by the undersigned.
- (II) The undersigned also hereby certifies that neither our firm M/s. nor any of constituent partners had been debarred to participate in tender by the State and Central Government Agency or any of the Statutory Bodies or Government Organizations in favour of whom credentials are preferred by the undersigned towards eligibility criteria claim; during the last 5 (five) years prior to the date of this NIT/RFP
- (III) The undersigned would authorize and request any Bank, person, Firm, or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Regional Officer, Nagpur, NHAI, NHAI herein referred to as the Tender Inviting & Accepting Authority, to verify this statement.
- (IV) The undersigned understands that further qualifying information may be requested and agrees to furnish any such information at the request of the Tender Inviting & Accepting Authority.
- (V) Certified that I have applied in the tender in the capacity of individual/as partner of a firm & I have not applied severally for the same job.

Date: _____

Signature of authorized officer of the firm: _____

Title & Capacity of the officer: _____

Name of the Firm with Seal: _____

Section – B**Annexure – IV: STRUCTURE AND ORGANISATION**

A.1. Name of the applicant (Tenderer):

A.2. Office Address:

Telephone No.:

Mobile No.:

Fax No.: e-mail:

A.3. Attach an organization chart showing the structure of the company with names of key personnel and technical staff with Bio-data

Date: _____

Signature of authorized officer of the firm: _____

Title & Capacity of the officer: _____

Name of the Firm with Seal: _____

**Annexure -V: Curriculum Vitae (CV) of Resource Persons
(CV of Team Leader / Team Member -1 / Team Member – 2)
(Please tick whichever applicable)**

1. Name of Personnel:
2. Date of Birth:
3. Nationality:
4. Educational Qualifications:
5. Employment Record:
(Starting with present position, list in reverse order every employment held.)
6. List of projects on which the Personnel has worked

Passport
Size
Colour Photo

Name of project	Description of responsibilities
-----------------	---------------------------------

7. Details of the current assignment and the time duration for which services are required for the current assignment.

Certification:

I am willing to work on the Project and I will be available for entire duration of the Project assignment when required.

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

(Signature and name of the Personnel)

Place.....

Date.....

(Signature and name of the authorised signatory of the Applicant)

Notes:

- i. Use separate form for each Resource Personnel.
- ii. Each page of the CV shall be signed and dated by both the Personnel concerned and by the

Authorised Representative of the Applicant firm along with the seal of the firm.

Annexure - VI: Work Experience of Plantation / Landscaping / Transplantation projects

Work performed as prime contractor, work performed in the past as a nominated/approved subcontractor provided further that all other qualification criteria are satisfied (in the same name) of a similar nature during the last seven years

S. No	Project Name	Name of the Employer	Description of work	Contract No. / order no and date	Value of Contract (Rs. In crore)	Actual date of completion	Status (Completed /Ongoing).	If status in Ongoing, value of work completed.
A								

total Projects Completed (in INR): (as on release date of tender)

total Projects Ongoing (in INR): (as on release date of tender)

Note:

- 1) Agency should mention only projects which is completed as on date of release of tender under Completed, For Ongoing projects agency the agency should have part completion certificate from the authority (Part completion will be considered with respect to proportionate payments received by agency against the total cost of work).
- 2) For Work experience consideration, component of civil works will not be considered.
- 3) Arrange the Supporting documents in the same order as mentioned above.
- 4) Bidders who have worked with NHAI previously should compulsorily submit the past experience certificate from concerned competent authority specifying clearly that the work has been executed and completed by them in stipulated time with date of award and scheduled date of completion along with valid extension of time (EOT) granted if any. If the bidder has not completed above mentioned work in scheduled stipulated time frame, they will not be eligible for bidding and their bids will not be considered.

Section-B

Annexure - VII: Guidelines Avenue / Median Plantation Projects preparation

1. Project Details:

1.1. Name and Type of the Agency:

(Private Agency / NGO / Proprietorship firms with their Address and Contact Details)

1.2. Brief description of the project zone

(A brief of agro climate, soil types, rainfall, geographic features, forest composition, people's livelihoods etc)

1.3. Objective of the project:

(A brief about the proposed plantation to indicate its importance and utilities in terms esthetic, Financial, soil/water conservation, employment generation values.)

1.4. Name of RO and PIU of NHAI

1.5. National Highway No.

1.6. Length of highway (Kms to Kms) –

1.7. Expected Employment to be generated (in Mandays)

2. Site Specific Detail Project Report (DPR):

2.1. Average width available for Avenue Plantation:

2.2. Average width available for Median Plantation:

2.3. Approximate Area for Plantation (Hectares):

2.4. Name of existing plant species along National Highways.

2.5. Type of Soil (If possible, please attach soil health report as annexure).

This

Information must be used for selection of chemical fertilizers)

2.6. Species Planned for Median Plantation: (Multiple Species can be planted, specify species name & km planned)

2.7. Species Planned for 1st Row of Avenue Plantation: (Multiple Species can be planted, specify species name & km planned)

2.8. Species Planned for 2nd Row of Avenue Plantation: (Multiple Species can be planted, specify species name & km planned)

2.9. Species Planned for 3rd Row (if any) of Avenue Plantation: (Multiple Species can be planted, specify species name & km as planned for the project)

2.10. total number of plants in Project and average per km:

(The available trees (Planted earlier or naturally growing) and naturally growing saplings should be accounted for to decide spacing for new pits and for species selection. The naturally growing saplings may be proposed to incur maintenance expenses. The total number of plants in the project should be calculated on the basis of tree species and spacing design as provided in IRC SP 21 2009 guidelines)

2.11. Planting Materials:

(Identification of species with study and observations of best growing species in the area; The saplings raised in nursery with various techniques – simple nursery, tissue culture, mist chambers etc; age, health, height and girth plants etc)

2.12. Insecticide/pesticide/fungicide**2.13. Manure/compost/fertilizers****2.14. Irrigation Plan**

(Availability and source of water; The mechanism of watering- drip/sprinkler/flood etc according to site specific condition)

2.15. Plantation Protection Plan

(Study of protection mechanisms; mode of plants protection- live fencing/fencing with barbed wire/chain link of steel or synthetic material; tree guards of steel/bamboo/synthetic materials/other local resource etc according to local condition and biotic pressure)

2.16. Involvement of NGO/SHG/Gram Panchayat etc**2.17. Availability and source of Labour to be engaged****3. Innovation or Salient feature of project proposal:**

(Brief of innovative approach in Nursery and planting material, planting, protection plan, irrigation plan, fire protection and maintenance plan)

General instructions-

1. The GHP should be prepared following broad guidelines of IRC-SP-21-2009. The design and number of plants in project land must be strictly according to IRC guidelines. The plants planted during implementation more than required under the guidelines may not qualify for extra payment and may be rejected by PIU administration.
2. The Project should be site specific and the items of field preparation (pits size, soil change, manure/compost etc), planting stock, appropriate irrigation system, soil-water conservation, mechanism of plants protection should be justified as per site specific requirements.
3. The inventory of existing trees and naturally growing plants must be prepared and they should be accounted for to decide the species, spacing and number of plants for the project site following IRC guidelines.

-
4. The species selected for various rows should be clearly defined in the project. The best performing local species should be preferred.
 5. The Agency may adopt some innovative technique with regard to nursery practices, planting practices, mode of irrigation, plant protection mechanism, local beneficiary involvement, usufruct sharing with local people, convergence of funds etc with proper background and justification.
 6. The suggestions for sustainability and maintenance of plantation after 5 years project period may also be included.
 7. The Plantation Project prepared on the basis of above guidelines will be part of RFP.
 8. The Format and the general instructions are the guidelines to be followed for preparation of a detailed project report (DPR). The agency may elaborate the DPR further based on site specific conditions, best performing species in that climatic zone, biotic pressure on the site, availability of water, soil type and other geological conditions and requirement for the protection of plantation to ensure a successfully established avenue and median plantation at the end of project period.

Annexure – VIII: Undertaking

to,

Regional Officer, Nagpur NHAI

Dear Sir/ Madam,

Ref: Selection of Agency / Company to undertake plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra works along NH -52 under Regional Office, Nagpur in the state of Maharashtra.

Tender Reference No.

1. I/We fulfil all the criteria to acquire Labour License Certificate. We will submit the same within 30 days of Award of work.

Yours faithfully,

Signature:

Designation:

Address:

Name of Partners of our Firm:

1)

2)

FORM OF BANK GUARANTEE FOR PERFORMANCE SECURITY

to,
Regional Officer, Nagpur, NHAI

Dear Sir/ Madam,

Ref: Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra– Reg.

Tender Reference No.

WHEREAS (name and address of contractor)
hereinafter called

“the contractor” has undertaken, in pursuance of Tender Reference No.

Dated to execute Selection of Agency / Company to undertake plantation work for the **Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra** 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 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 28 days from the date of expiry of the Defects Liability Period.

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

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

The Bank Guarantee confirms that it is on the SFMS (Structural Financial messaging system Platform. The details are as under:

Sl. No	Particulars	Details
01	Name of Beneficiary	National Highways Authority of India
02	Name of Bank	
03	Beneficiary Bank Account No.	
04	IFSC Code	

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 AGREEMENT

This agreement is made on the day ofbetween the National Highways Authority of India, having its registered office at G-5 & 6, Sector-10, Dwarka, New Delhi-110075(hereinafter called “the Employer” of the one part and having its registered office at (here in after called “the Contractor”) of the other part.

AND WHEREAS the Employer invited bids from eligible bidders for the execution of median/avenue plantation and five year maintenance works, viz. RFP dated

AND WHEREAS pursuant to the bid submitted by the Contractor, vide (here in 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 **Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra**” and remedying of any defects thereon, on terms and conditions in accordance with the documents listed in para 2 below.

AND WHEREAS the contractor has agreed to undertake such works as mentioned in the agreement.

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 including Financial Bid Form,
 - d. Contract Data,
 - e. Conditions of Contract
 - f. Technical Specifications,
 - g. Drawings, if any
 - h. Scope of Work
 - i. Bill of Quantities, and
 - j. Any other document listed in the Contract Data.
3. The foregoing documents shall be construed as complementary and

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

mutually explanatory one with another. Should any ambiguity or discrepancy be noted then the order of precedence of these documents shall be subject to the order as listed above and interpreted in the above order of priority.

4. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein in conformity in all respects with the provisions of the contract.
5. The employer hereby covenants to pay the contractor in consideration of the execution and completion of the works and remedying of defects therein, the contract price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

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

Binding Signature of Employer _____

For and on behalf of National Highways Authority of India, New Delhi – 110 075

Binding Signature of Contractor _____ For and on behalf of M/s. _____

In the presence of

1. Name :

Address:

2. Name :

Address:

In the Presence of

1. Name:

Address:

2. Name:

Address:

Section C

GENERAL TERMS & CONDITIONS OF CONTRACT

1. Drawing / Map / Project Details:

The work is to be carried out in accordance with drawings / maps / Project Details related to these contract and specification, the priced scheduled of probable items with approximate quantities and directions or instructions which may be issued by the Employer or his Representative from time to time during the execution of the contract.

2. Interpretations:

In constructing these conditions, the specifications, the schedule of quantities, tender and Agreement, the following words shall have the meaning herein assigned to them except where the subject of context otherwise requires:

- i. The term EMPLOYER / AUTHORITY shall mean Regional Officer Nagpur, NHAI and include its successor and assigns or the Officers authorized to deal with any matters which those presents are concerned on its behalf.
- ii. The term REPRESENTATIVE shall mean Authorized Official of PD, PIU Chhatrapati Sambhajanagar, NHAI.
- iii. **CONTRACTOR** shall mean the firm or company or person whose tender has been accepted by the employer and includes his (their) heirs, legal representative assigns and successors.
- iv. **SITE** shall mean the site of the contract work **including any other land adjoining thereto (inclusively as aforesaid allotted by the Employer for the contractor's use).**
- v. This **CONTRACT** shall mean Articles of Agreement, these conditions, the schedule of quantities, the general instructions to the Contractor, the specifications, the drawings / maps / project details and correspondences by which the contract is added, amended, valued of modified in any way by mutual consent.
- vi. **ACT OF INSOLVENCY** shall mean any act of insolvency as desired by the Act or any amending statutes.
- vii. **THE WORKS** shall mean the work or works to be executed or done under this contract.
- viii. **The DRAWINGS / MAPS/ Project Details** shall mean the drawing/map / Project Details or drawings/maps/Project Details mentioned in NIT/RFP and any modifications of them approved by the Employer or any further Working drawings/maps/Project Details or sketches by the Employer or any further working drawings/maps/Project Details or sketches which may be furnished or approved in writing by the Employer.
- ix. The **SPECIFICATION** shall include the plantation specification and general specifications forming part of this contract.

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

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- x. The **SCHEDULE OF QUANTITIES, BILL OF QUANTITIES** shall mean the Schedule or Quantities as specified and forming part of contract.
- xi. The **PRICED SCHEDULE OR QUANTITIES** shall mean the schedule duly priced.
- xii. **NOTICE IN WRITING or WRITTEN NOTICE** shall mean a notice in writing typed or printed characters sent (by post or email) or otherwise proved to have been received by Registered Post to the last known private or business address as registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered. The work progress should be in the proportionate of the time frame set forth for the completion of the works.
- xiii. The term **APPROVED, DIRECTED or SELECTED** mean the approval direction or selection of the Employer and where ever the words ALLOW, INCLUDE, and PROVIDE occurs the cost of the items is as the risk of the contractor. **COMPLETION** shall mean that the plantation in the opinion of the Tender Inviting Authority; completed in all respect.
- xiv. **WORDS** imputing persons include Firms and Corporation, words imputing the singular only also the plural and vice/versa where the context so requires.

3. Scope of works:

The work to be done is covered in this tender. The same has been detailed in the drawings/maps/ Project Details and schedules of probable items with approximate quantities. It includes furnishing all materials, labour, tools, machinery and equipment and management necessary for and incidental to the Avenue and Median Plantation (Advance field preparation, planting and maintenance) works and completion of Work. Mechanisation as approved by the Employer is preferred. All work during its progress and upon completion shall conform to lines as shown on the drawing/map furnished by the employer. Should any details essential for efficient completion of the work be omitted from the drawings/maps / Project Details and specifications it shall be the responsibility of the Contractor to inform the Employer and to furnish and install such details with their concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use. The Tenderers are to note that the scope of work as mentioned may be reduced to any extent which is absolutely at the discretion of the Employer. This reduction of the extent of work should not be a criterion for extra claim in respect of materials stored, establishment and cost incurred or any other losses occurring out of these causes. The Contractor shall carry out and complete the works in every respect in accordance with this contract and in accordance with the directions and to the satisfaction of Employer who shall be the final authority. The Employer may in their absolute discretion issue further area drawings/maps / Project Details and /or written instructions, details, direction and explanations which are hereafter collectively referred to as the Employer's instructions in regard to:

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- a) The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
 - b) Any discrepancy in the drawings/maps/ Project Details or between the schedule of Quantities and /or Drawings/Maps/ Project Details and/or Specifications.
 - c) The removal from the site of any materials brought thereon by the Contractor and the substitution of any other materials thereof.
 - d) The demolition, removal and/or re-execution of any work executed by the Contractor.
 - e) The dismissal from the work of any person employed thereupon.
 - f) The opening up for inspection of any work covered up.
 - g) The rectification and making goods of any defects under Clause hereinafter and those arising during the maintenance period / defect liability period.

The Contractor shall forthwith comply with and duly execute any work comprised in such Employer's instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the Employer shall, if involving a variation, be confirmed in writing by the contractor within seven days. No work, for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer. Rates of items not mentioned in the Priced Schedule of Quantities shall be fixed by the Employer, as provided in Clause **VARIATION**. If complete with the Employer's instructions as aforesaid involves work and/or loss beyond that contemplated by the Contract then, unless the same were issued owing to some breach of this contract by The Contractor, the Employer shall pay to the Contractor the price of the said work an extra to be valued as hereinafter provided and /or loss.

All plantation and allied activities shall be carried out in consultation with the Joint Advisor (Environment & Plantation) and the duly authorized representative of the Employer.

4. Variations:

The Contractor may when authorized and shall when directed, in writing by the Employer or one or more representative of Employer whom the Employer may for that purpose appoint, shall be bound to add or omit from or vary the works shown upon the Drawings/Maps/Project Details or described in specification or included in the Schedule of Quantities but the Contractor shall make no addition, omission or variation without such authorization or direction. No claim for an extra shall be allowed unless it shall have been executed by the Contractor on specific direction on the Authority of Employer as herein mentioned any variation i.e. additions, omissions or substitutions shall vitiate the Contract. The employer may order to plant one species instead of another species (mentioned in specification), wherever necessary, the contractor will be bound to do such work(s) on same schedule rates. If the employer feels that the

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whole or part of works of any item of estimate is to be done departmentally, or nature of work is changed such conditions shall be acceptable for the contractor. The rates of items not included in the Schedule or Quantities shall be settled by the Employer in accordance with the following rules:

- a) For the rates for the additional, altered or substituted work for items mentioned in the tender, the tender at quoted rates will be applicable.
- b) For the rates for the additional, altered or substituted work for items not mentioned in the tender, the Contractor shall, within 7 days of the date of receipt of the order to carry out the work, inform the Employer of the rates which it is his intention to charge for such class of work, supported by required documents, vouchers etc. and analysis of rates claimed and the Employer shall determine the rates on the basis of the prevalent market rates and certify for the payment accordingly. The analysis shall be prepared on the basis of actual cost of materials and labour plus 10 (ten) per-cent to cover overhead supervision and profit etc. However, the Employer, by notice in writing, will be at liberty to cancel their order to carry out such work and arrange to carry out as they may consider advisable. But under no circumstances, the Contractor shall suspend the work on the plea of non-settlement of the rates of item falling under this clause.
- c) As regards determination of the rates, the decision of the Employer shall be accepted as final. No supplementary items shall be taken up for execution except with prior written approval of the employer. The Employer is not bound to recognize the cost of materials furnished in vouchers and in case the market value of such materials is found to be lower than the depicted in the vouchers the Employer at their discretion will fix the price of such materials based upon market value. The contractor may be asked to produce original bills and /or Cash Memos in respect of purchases of such materials from market. Bills and Cash Memos in this regard shall not be entertained unless purchases are affected from registered regular merchants engaged in the trade of such items.

5. Deviations:

No deviation from the contract will on any account be allowed unless an order in writing is obtained from the Employer.

6. Site Conditions:

The contractor shall inspect the work site where the work under this contract is to be carried out, and note carefully the area restrictions and obtain for themselves at their own responsibility all the information which may be necessary for the purpose of the successful execution of the contracted work. They must also make themselves conversant with all the local conditions, means of access to the site of work, transport facilities and character of the work, the

supply of materials, conditions affecting labour and other matter that may affect their tender. Employer does not undertake any responsibility, to obtain any concessions, permission from the owner of the adjoining plot or from other party in respect of any allowance, access, encroachments etc. whether for the facility of the works or otherwise. No claim therefore will be entertained should be Contractors have failed to comply with this condition. All equipment required to be maintained are to be kept free from damages due to operation connection with the work. The site shall be made available to the Contractors in the present condition. Site organization within this site boundary shall be the responsibility of the Contractors.

7. Persons Tendering shall visit SITE Etc.

Persons tendering shall visit the site and make themselves thoroughly acquainted with the Nature and requirements of the case, facilities of transport, conditions affecting labour and materials and removal of rubbish, cost of carriage freight and other charges and shall allow for in their tenders for any special difficulty in carrying out the work.

8. Contractor to provide everything necessary:

The Contractor shall provide everything necessary (all-inclusive and fixed rates for the proper execution of the work according to the intent and meaning of the drawings/maps, schedule of probable items with approximate quantities, specifications taken together whether the same may or may not be particularly shown or described there in provided that the same can reasonably be inferred therefore and if the Contractor finds any discrepancy therein, he will immediately refer the case in writing to the Employer whose decision shall be final and binding on the parties. Figures dimensions shall be followed in; preference to scale. The Employer shall on no account be responsible for the expense incurred by the Contractor for hired ground or water obtained from elsewhere. The quantities given in the schedule of quantities are only indicative being based on preliminary design and are liable to modification in the final design. The schedule of items and quantities include so far as can at present be determined, every material which the Contractor is likely to be called upon to perform or supply. The rate quoted against individual item will be inclusive of everything necessary to complete the said items of the work within the contemplation of the contract and beyond the NIT/RFP prices no extra payment will be allowed for individual or contingent work, labour and /or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents. The Contractor shall supply, fix and maintain at his own cost during the execution of any work necessary for alignment watching required not only for the proper execution and protection of the said work, but also for the protection of adjacent trees or plants and the safety of any adjacent roads,

houses etc. The Contractor, shall at all times give access to staffs employed by the Employer or any man deployed on the plantation site and to allow such deployed staffs with proper identity for watch & patrolling duty or any other entrusted job.

9. Protective Measures:

The Contractor from the time of being placed in possession of the site must include for watching and protecting the work, the site and surrounding property during their working hour. The Contractor shall indemnify the Employer against any possible damage to the trees, roads, or wild animals during execution of the work.

10. Access:

The Employers / Representatives of the manufacturer of the materials (used for the work) shall at all reasonable times have free access to the work site/and or other places where materials are being prepared for the contract and also to any place the materials are lying or from who they are being obtained and the Contractor shall give every facility to the all of them and their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of Public Authorities, no person shall be allowed on the work at any time without the written permission of the Employer. If any, work is to be done at a place other than the site of the work, the Contractor shall obtain the written permission of the Employer for doing so.

11. Quality of Materials & Workmanship:

All the works specified and provided for in the specification or which may be required to be done in order to perform and complete and part thereof shall be executed in the best and most workmanlike manner with materials to the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specification and as represented by the drawings / maps / Project Details or according to such other additional particulars and instructions as may from time to time be given by the Employer during the execution of the work and to their entire satisfaction.

12. Removal of Improper Work:

The Employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time to times as may be specified in the order of any materials or system of planting which in the opinion of the Employer are not in accordance with the specifications or their instructions, and the Contractor shall forthwith carry out

such an order. The Employer shall have the power to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental there to as certified by the Employer shall be borne by the Contractor or may be deducted by the Employer from any money due or that may become due to the Contractor. No certificates which may be given by the Employer in these respects shall relieve the Contractor from his liability in respect of unsound work of unskilled workers.

13. Contractor's Employees:

The Contractor shall keep for the full time a qualified and **skilled supervisor as defined in the ITB and** approved by the Employer, assisted with adequate staff constantly on the work, who will be responsible for the carrying out of the work to the true meaning of the specifications and schedule and quantities and instructions and directions given to him by the Employer. Any directions or instructions given to him in writing shall be held to have been to the Contractor officially.

The Employer/Authorized representative will have at all times access to the work site for inspection and examination of the work and materials proposed to be used. Authorised representatives of the Contractor shall have power of Attorney for receiving materials, cheque, signing measurement book etc. Any Supervisor, foreman, labour or other persons employed on the work by the contractor who fails or refuses to perform the work in the manner specified herein shall be discharged immediately, and such persons shall not again be employed on the work. When required in writing by the Employer the Contractor shall discharge any person(s) who is, in their opinion, incompetent, disorderly or otherwise unsatisfactory. Such Discharge shall not be the basis of any claim for compensation or damages against the Employer or any of its officers or employees.

The Contractor shall employ preferably local labourers from villages adjoining the project site. No labour shall be employed on the work who is below the age of sixteen years and who is not an Indian National. If female labour is engaged the Contractor shall make necessary provision for safeguarding small children and keeping them clear of the site of operations. The Contractor shall at his own expenses provide or arrange for provision of foot-wear for any labour doing the any specific work. Any labourer supplied by the Contractor to be engaged on the work on daily work basis either wholly or partly under the direct order or control of the Employer or their representative shall be deemed to be a person employed by the Contractor. The Contractor shall comply with the provisions of all labour legislations; Act and the rules framed there under and modifications thereof in respect of men employed by him in carrying out the contract. It shall

be the responsibility of the Contractor to see that any sub-contract under him, similarly complies with the above requirements. (The Employer shall not however recognize any sub-contract or subcontractor). The Contractors shall keep the Employer saved, harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workman. The Contractor shall arrange to provide first aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works, report such accident to the Employer and also to the competent authority where such report is required by law.

14. Working Hours:

Each shift shall be at least of eight hours duration and that the work must be completed within the time specified in the tender document. Work may also be done on Sundays and Holidays with intimation to the respective authority.

15. Temporary Water Supply:

The Contractor shall make suitable arrangement for supply of water for the work. The Contractor shall have to make their own arrangement for carrying water at the work site.

16. Clearing Away:

All rubbish and superfluous materials either from Contractor's own work or from works of other agencies shall be removed from the plantation site on completion to the satisfaction of the Employer.

17. Contractor Not to Sublet:

The Contractor shall not sublet any portion of the work.

18. Agreement:

The successful Tenderers shall have to enter into an agreement with the Employer. Stamp duty and all other costs connected with execution of such agreement shall be borne by the successful Tenderers.

19. Plantation & Maintenance Period and Defects after Completion:

- i. Plantation will be monitored through Geotagging of each plant with the photographs or any other mechanism arranged and suggested by NHAI.
- ii. Any defect / mortality identified by the authority will be communicated to agency through email or any other notification.
- iii. The Contractor shall replace the plant with same age & height of good healthy

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plant within 15 days of casualty of plant and make good at his own cost to the satisfaction of Employer, all defects, casualties of planted seedlings or other faults arising in the option of the Employer from workmanship not being in accordance with the specification of schedule of quantities or the instruction of Employer which may appear within the Plantation & maintenance period. **The Plantation & maintenance period shall mean a period of 5 Years from the date of commencement of work and Defect Liability Period terminates 6 months after completion of the work.** The defect in alignment, planting, dead & poor planted seedlings or other faults which may appear within the Plantation & maintenance period and a period of 6 months thereafter (hereinafter called as the defects liability period) arising in the opinion of the Representative who shall be final authority for workmanship not in accordance with the contract, shall upon the directions in writing of the Representative and within such responsible time specified therein, be amended and made good by the Contractor at his own cost unless the Representative shall decide that he ought to be paid for such amendment and for making good and in case of default the Employer may employ and pay other persons to amend and make good such defects, or other faults and all damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer from any money due or that may become due to the Contractor.

20. Materials:

The selected Contractor must arrange to procure all materials required for the proper completion of the work. The Employer will not on any account be responsible for procuring the same. The non-availability of the above materials shall not in any way be considered to be an excuse for the extension of time.

21. Method of Measurement:

Unless otherwise mentioned in the schedule of quantities the measurement will be net quantities of the work produced in accordance with the up-to-date rules laid down by the Indian Standard Institution. In the event of any disputes with regard to the measurement of work executed the decision of the Employer shall be final and binding.

22. Performance Security:

The successful Tenderer to whom a Letter of Acceptance has been issued shall submit within 10 (ten) days from the date of Letter of Acceptance, deposit an amount equal to 3% (Three percent) of the contracted value of Work. Successful tenderers may adjust the Earnest Money Deposit with Security Deposit if applies for such adjustment. Failure to deposit the Security Deposit as aforesaid within the specified time will constitute a breach of the contract rendering the contract liable to termination with forfeiture of the security to the extent of amount of the Earnest money deposited with the tender without any reference to the Tenderer.

The entire security deposit (including earnest money furnished with the tender, amount deposited at the time of execution agreement and amount deducted from progressive bills) shall be held till the issue of completion certificate. Employer shall not pay interest on the Earnest Money and Security Deposit.

22 (a) Retention Money:

from every payment for Works due to the successful Tenderer in accordance with the provisions of Clause 23 of General terms and conditions of Contract (Section C), the Authority shall deduct 5% (five per cent) thereof as guarantee money for performance of the obligations of successful Tenderer during the Plantation and Maintenance Period subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.

22 (b) Performance Security and Retention Money will be refunded to the agency within 30 days of successful handover.

22 (c) Additional Performance Security (APS):

In cases of Bids as mentioned below, the Selected Bidder, along with the Performance Security, shall also furnish to the Authority in the form of an Irrevocable and Unconditional Bank Guarantee (including e-Bank Guarantee) only from a Bank, in the same form, towards an Additional Performance Security ("APS") for an amount calculated as under:

Trigger Condition: If the Bid Price offered by the Selected Bidder is lower than 15% of the Estimated Cost (i.e., the bid is a below-bid of more than 15%), the Successful Bidder shall be required to furnish APS.

$$\text{APS Amount} = (\% \text{ Below Bid} - 15\%) \times \text{Quoted Bid Price}$$

Example: If Estimated Cost = ₹100 Cr and Quoted Bid Price = ₹82 Cr, then % below bid = 18%. APS = (18% - 15%) × ₹82 Cr = 3% × ₹82 Cr = ₹2.46 Cr.

Form of APS: The APS shall be furnished exclusively through a Bank Guarantee (including e-Bank Guarantee) in the prescribed form. The APS Bank Guarantee shall be Irrevocable and Unconditional and issued only from an approved Bank. No other form of security shall be accepted in lieu of APS.

Cumulative Security Obligation: The Additional Performance Security (APS) under this Clause 22(c) is in addition to, and does not replace or substitute, the Performance Security of 3% prescribed under Clause 22. Accordingly, where APS is triggered, the total security to be furnished by the Successful Bidder shall be:

Performance Security (Clause 22) = 3% of Contract Value (Bank Guarantee / Cash)

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Additional Performance Security (Clause 22(c)) = (% Below Bid – 15%) × Quoted Bid Price (Bank Guarantee only)

total Security = 3% + APS (e.g., where bid is 18% below estimated cost: 3% + 3% = 6% of Quoted Bid Price)

23. PAYMENT:

For projects undertaken through Private Agencies, provision for expenses after site verification by PIUs / ROs may be made. The site verification shall be carried out by Joint Advisor (Environment and Plantation) or by Plantation Associate at RO Office, along with PIU personnels and their inspection report shall form the basis for release of payments. The payments will be reimbursed according to following schedule of payments issued vide NHAI OM no 361 dated 14.09.2017 after verification of plants survival as captured through monitoring mechanism through Geotagging of plants through mobile app / or Drone photography of NH stretch / or any other mechanism prescribed by NHAI.

S.no	Stage	Payment (in percentage of project cost)
1	Signing of Agreement	0%
2	First Year (Completion of initial plantation work) – (Reimbursement for field preparation, planting material, site / tree protection as per project details)	30%
3	End of First Year – (Reimbursement for Planting, insecticide, watering and manure procurement and application etc. as per project details)	15%
4	End of Second Year (Reimbursement for soil working, weeding, watering and Casualty Replacement, maintenance and protection etc. as per project details)	15%
5	End of Third Year (Reimbursement for soil working, weeding, watering and Casualty Replacement, maintenance and protection etc. as per project details)	10%
6	End of Fourth Year (Reimbursement for soil working, weeding, watering, maintenance and protection etc. as per project details)	10%
7	End of Fifth Year (Reimbursement for soil working, weeding, watering, maintenance and protection etc. as per project details)	10%

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8	Project Completion (Successful completion of project deliverables as per project and agreement)	10%
Total:		100 %

Payment against Bills shall be made to the Contractors certified by the Representative of the Employer i.e. Joint Advisor (Environment and Plantation) or by Plantation Associate at RO Office, along with PIU personnels. All bills shall be prepared by the Contractor in the form prescribed by the Employer. For this purpose, the Contractor must submit the Bills in the proper form duly accompanied by detailed measurements of works done and showing the deductions for previous payment received by him. Also, the deduction towards cost of materials (if any), supplied by the Employer, shall be paid against measured bills only. ***Payment against the bills will be made after making statutory deductions and applicable taxes.*** All payments will be made as per schedule of payment mentioned in table above.

- i. Stage payments will be made only if survival rate is more than 90%.
- ii. No stage payment will be made for survival less than 90%.
- iii. Stage payment will be made on pro rata basis for actual number of plants survived at the end of each year, and amount remaining will be withheld till successful replacement of casualties.

Example: For 1st stage payment, if survival is less than 90%, no payment will be made. If survival is 90%, the 90% of 30% stage payment i.e. 27% payment will be made. 3% of stage payment will be withheld till successful replacement of casualties.

24. Final Payment:

The final bill shall be accompanied by a certificate of completion **from the Employer**. Payment of final bill shall be made within a month of submission of the same. The security money and retention money shall be refunded after issue of completion certificate that the Contractor has rectified all defect and all 100% plants are healthy and 5 years old, to the satisfaction of the Employer. The acceptance of payment of the final bill by the Contractor would indicate that he will have no further claim in respect of the work executed.

25. Substitution:

Should the Contractor desire to substitute any materials and workmanship, he must obtain the approval of the Employer, in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such terms and 'Equal' or other Approved etc. shall be considered as coming under the provisions of this clause as substitutions and no such materials shall be used until specific approved by the Employer has been obtained in writing.

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26. Commencement and Completion of Work:**EXTENSION OF TIME AND LIQUIDATED DAMAGES FOR DELAY:**

The entire work is to be completed in all respects in stipulated times as mentioned in the Tender Notice from the date of issue of work order. Time is essence of contract and shall be strictly observed by the Contractor. The date of commencement of the work shall be the date on which the work order is issued to the Contractor or the date when the Contractor take possession of the site officially whichever is later. The Contractor shall complete the work in all respects to the satisfaction of Employer within the stipulated time, failing which the contractor shall be bound to pay compensation @ 0.5% (half percent) over the total tender value of work for delay of every week or part of a week by way of liquidated damages and not as penalty. Provided always that the entire amount of compensation to be paid under the provision of this clause shall not exceed 10% of the contract price. The payment of deduction of such damages shall not relieve the contractor of his obligation to complete the work or from any other obligation and liability under the contract. The contractor shall within 15 (Fifteen) days of receipt of intimation that his tender has been accepted to submit the employer an abstract programme of work so drawn as would enable him to complete the work within the time contemplated. The abstract programme must indicate the work within the time contemplated. The abstract programme must indicate dates of starting and completion of respective parts of sections of the work. The abstract programme would be subjected to the approval of the employer who will have the power of making such modification there in as found necessary. The actual progress as compared with this chart will be reviewed periodically. If the contractor be delayed in the progress of the work by exceptional weather condition, civil commotion, strike or lock-outs, fire, unusual delay in transportation of unavoidable casualties, act of public enemy, acts of the government, any acts of the authority or of another contractor in the performance of his contract with the employer or any other causes beyond the contractor's control, the contractor shall apply in writing to the employer for an extension of time of the completion of work or the part or section concerned within 10 (Ten) days of such occurrence, but before the expiry of the stipulated date of completion. The employer shall on such application make an enquiry and may grant such extension of time as they think justified. The decision of the employer in this respect shall be final and binding on the contractor. The work shall not be considered as completed until the employer has certified in writing that they have been completed.

27. Escalation of Prices:

The rates quoted by the Contractor shall be firm throughout the tenure of the contract (including extension of time, if any granted) and will not be subject to any fluctuation due to increase in cost of materials, labour, sales tax, Octroi etc.

28. Damage to Persons and Property/Insurance in respect of:

The Contractor shall be responsible for all injury to persons/labourers, animals or things, and for all damage to the plantation/or adjacent NHAI property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his sub-contractor's employees, whether such injury or damage arises from carelessness, accident or any other cause whatever in any way connected with the carrying out of his contract. This clause shall be held to include, inter alia, any damage to plantation, whether immediately adjacent or otherwise and any damage to roads, footpaths, bridges or ways forming the subject of this contract by frost, rain, wind or other inclemency of the weather.

The contractor shall indemnify the employer and hold them harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or the Contractor shall restore and repair all damage of every sort mentioned in this clause so as to deliver up to the whole of contract works complete and perfect in every respect so as to make good or otherwise satisfy all claims for damage to the property of the third parties. The contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other third party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense effect and maintain, until the completion of the contract with any approved Insurance Company, a policy of insurance in the joint policy or policies with the Employer from time to time during the currency of this contract, and shall duly and punctually pay the premium payable thereof and if so required produce receipts for such payments, for the inspection of the Employer. The Contractor shall also indemnify the Employer against all claims which may be made upon the Employer, whether under the workman's Compensation Act or any other Statute in force during the currency of this contract or common law in respect of any injury to any of the contractor's or /and sub-contractor workmen or labour and shall at his own expense effect and maintain until the completion of the contract, with the approved Insurance Company a policy of Insurance in the joint names of the Employer and the Contractor against sub-risks and deposit such policy or policies with the Employer from time to time during the currency of this contract. The Contractor shall be responsible for anything which may be excluded from the Insurance Policies above referred to and also for all other damage to any property arising out of an incidental to

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the negligent or defective carrying out of this contract. The Contractor shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claims or proceeding and also in respect of any award of compensation of damages arising therefore the Employer shall be at liberty and have the power to deduct the amount of any damages, compensation costs, charges and expenses arising or to become due or to become due to the Contractor. The Contractor shall on signing the contract, issue the works and keep them insured (the works and keep them insured) until the Completion of the contract against loss or damage by the fire and /or earthquake with any approved Insurance Company in the joint name of the Employer and the Contractor for the full amount of the contract and for any further sum if called upon to be so by the Employer the premium of such further sum being allowed to the Contractor as an authorized extra. Such policy shall cover the property of the Contractor or of any sub-contractor or Employees. The Contractor shall deposit the policy and receipts for the premium with the Employer within 21 days from the date of signing the contract unless otherwise instructed by the Employer. In default of the Contractor insuring as provide above, the Employer on his behalf may so insure and may deduct the premium paid from any money due or which may become due to the Contractor. The Contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with all due diligence with the completion of the work in the same manner as through the fire had not occurred and in all respect under the same conditions of contract. The contract shall in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as the Employer may deem fit.

29. Termination of Contract:

Either party may terminate this Contract Agreement due to breach of terms agreed to in this Contract Agreement by the other party. However, the party aggrieved by the breach shall give written notice to the other party to this Contract Agreement indicating that the contract shall be terminated not earlier than 90 days from the date of the receipt of the notice.

If the contractor (being an individual or a firm) commit any act of insolvency or shall be adjusted as an insolvent or shall make an assignment or composition of the greater part in number or amount of his creditors or shall enter into a deed of assignment with his creditors, or (being incorporated company), shall have an order made against him or pass an affective resolution for winding up either compulsorily or subject to the supervision of the court or voluntarily, or if the official assignee of the contractor shall repudiate the contract, or if the official assignee or the liquidator in any such winding up shall be unable within 7 (Seven) days after notice to him requiring him to do so, to show to the responsible satisfaction of the employer that he is able to carry out and fulfil the contract and if required by the employer to give security or if the contractor (whether in individual form or incorporated company)

shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor or if the contractors shall assign or sublet the contract without the consent in writing of the employer first obtained if the contractor shall change or encumber this contract or any payment due to which may become due to the contractor their under or if the employer shall certify in writing of that in his opinion the contractor :

- a) has abandoned the contract, or
- b) has failed to commence the work, or has without any lawful excuse under these conditions suspended the progress of the work for 14 days after receiving from the Employer written notice to proceed, or
- c) has failed to proceed with the work such due diligence and failed to make such due progress as would enable the work to be completed within the time agreed upon, after receiving from Employer to employ more men, or,
- d) has failed to remove materials from site or to pull down and retained work within 7 days after receiving from the Employer as written notice that the said materials or work were condemned or rejected by the Employer under those conditions, or,
- e) has neglected or failed persistently to observe and perform all or any of the acts, matter or things by this contract to be observed and performed by the Contractor for 7 days after written notice shall have been given to the contract requiring the Contractor to observe or perform the same, or
- f) has to the detriment of good workmanship or define of the Employers instruction to the contrary sub-let any part of the contract.
- g) has not completed the entire plantation in the 1st year of Contract.

Then and in any of the said causes the employer not withstanding any previous order after giving 7 (Seven) days' notice in writing to the contractors, determine the contract, but without thereby affecting the powers of the employer of the obligations and liabilities of the contractor, the whole of which shall continue to be in force as fully as if the contractor has not been so determine and as if the works subsequently executed has been executed by or on behalf of the contractor and further the employer, his agents or representative may enter upon and take possession of the works and all plants, tools, shades, machinery and other power tools, utensils and materials, lying upon the premises or the adjoining land or

roads and use the same as his own property or may employ the by means of his own representative and workman in carrying on and completing the work or by employing any other contractors or other persons or person to complete the work, and the contractor shall not in any way interrupt, or do any matter or thing to prevent or hinder such other contractor or other person or persons employed for completing and finishing or using the materials and plant for the work when the works shall be completed or as soon thereafter as convenient, the employer shall give a notice in writing to the contractor to remove his surplus materials and plant and should the contractor failed to do so within a period of 14 (Fourteen) days after receipt thereof by him the employer may sell the same by public auction and shall give credit to the contractor or for the amount so realised.

The employer shall thereafter ascertain and certify in writing under his hand that (if anything) shall be due or payable to or by the employer, for the value of the said plant and materials so taken possession of by the employer and the expense or loss which the employer shall have been put to in getting the work to be so completed and amount if any owing to the contractor and the amount which shall be certified shall there upon be paid by the employer as the case may be and the certificate shall there upon be paid by the employer, as the case may be and the certificate of the employer shall be final and conclusive between the parties.

30. Settlement of Dispute, Arbitration:

Any dispute or difference whatsoever arising between the parties and of or relating to the construction, interpretation, application, meaning, scope, operation or effect of this Contract Agreement or the validity or the breach thereof, shall be referred to the Society for Affordable Resolution of Disputes (SAROD) and the award so made shall be final and binding on the parties. The Arbitration shall be conducted as per the Rules of "SAROD" and shall be subject to Provisions of The Arbitration and Conciliation Act, 1996, as amended time to time.

This Contract Agreement shall be governed by, and construed in accordance with, the laws of India and courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with this Contract Agreement.

SECTION C - Terms of Reference (TOR)

1. The agency shall be responsible for implementing the plantation project in specified project period of 5 years with year 1 for field preparation and planting and year 2-5 for subsequent plantation operations of irrigation, casualty replacement, weeding, hoeing, manuring, plantation protection, fire protection etc.
2. The planting should be completed in 1st year of Contract and sufficient saplings should be maintained for causality replacement to maintain survival rate of 90% with all plants of same age and growth every year.
3. The guidelines of Green Highways Policy – 2015 and IRC – SP – 21 – 2009 should be strictly adhered to for plantation layout, species selection, spacing between Rows and plant to plant.
4. Agency will finalize the list of species for plantation in Avenue and Median as per IRC-SP- 21-2009, which are local best performing species suitable to that agro-climatic zone. List of species will be submitted for approval of PD, NHAI in consultation of Joint Advisor (Plantation), RO Office.
5. Agency will submit the details of nursery from where planting material will be sourced, plants quality, species details, their storage location etc. to PD, NHAI. Joint Advisor (Plantation), RO Office may visit the site of storage / temporary nursery.
6. Plantation work has to be finished within next plantation season from the date of agreement. Maximum duration for completion of plantation work will be 120 days of Plantation Season.
7. **Agency will prepare a plantation plan as strip map for every 100 meter on A3 paper size and submit in soft copy before start of advance field preparation for approval of PD, NHAI in consultation of Joint Advisor (Plantation), RO Office.**
8. The agency should furnish monthly report about the status of plantation in the format as prescribed time to time.
9. In case the proposed plantation is to be taken up in existing highway, any damage to the median component and highway components while digging or related operations of plantation, shall be restored by Agency at their own cost to the satisfaction of Authority and Concessionaire / Contractor.
10. General Schedule of Operations and Activities for National Highways Plantations in 5-year Project Period to be followed as broad guidelines:

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

10.1. First Year:

- i. Surveying of area, collection of soil for soil health card of the site and mapping of plantation site for species matrix.
- ii. Making Species wise inventory of naturally growing trees and plants at site with details of girth of trees and collar girth of plants
- iii. Cleaning of the area from unwanted weeds and throw away materials.
- iv. Plantation protection strategy and procurement as per site requirement - chain link fencing; barbed wire fencing; Individual tree guard fencing with wire mesh / cement/ bamboo sticks / wood sticks.
- v. Seeds sowing/cuttings of local plant species to develop live fencing for plantation protection from cattle grazing. The species selection should be from locally preferred and better performing species and other local suitable thorny plant species.
- vi. Digging of pits in rows at prescribed interval leaving the marked point where natural plants exist
- vii. Soil and water conservation structures to manage proper drainage, percolation and storage of rain water.
- viii. Preparation and seasoning of saplings at temporary nursery at reasonable distance from the site. The species selection should be from best Performing trees growing in that agro climatic zone. Some plants of Rare & Endangered Trees (RET)/ local prominent plants of medicinal value should be preferred in plantation.
- ix. Collection of good quality seeds from healthy plus trees of species best Performing in that agro climatic area.
- x. Purchase of farmyard manure (FYM). Purchase of fertilizer/insecticide as per site requirement based on soil health analysis.
- xi. Filling of pits with mixture of good soil, FYM, fertilizer and insecticide.
- xii. Plantation protection fencing work on the ground as per design and specifications.
- xiii. Transport of plants from nursery at appropriate temporary site to facilitate fast planting in rainy period
- xiv. The plants should be minimum male thumb sized at its collar girth (up to 4" from base) and the height should be about median - 1 meter and avenue – 2 meter. The bamboo rhizomes should be more than a year old.
- xv. Planting in after first rain spell
- xvi. Collection of seeds from tree species available locally in that region. Sowing of seeds before rains with little soil working at appropriate spacing. Sowing of seeds or cuttings on site boundary for live fencing.
- xvii. Weeding and hoeing with water conservation saucer formation around every sapling planted. Removal of weeds hampering plantation growth.
- xviii. Application of fertilizer.
- xix. Identification and selection of plants keeping in view the growth performance, spacing and species diversity from naturally growing stock

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

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- and their marking for adoption and after care similar to planted saplings.
 - xx. Irrigation to be done at appropriate interval to ensure plant survival.
 - xxi. Thinning of saplings grown out of seed sowing or natural seed dispersal of local plants species.
 - xxii. Any incidental or allied activity / work if any.
 - xxiii. **Geotagging of each plant should be done.**

10.2. Second Year

- i. Irrigation at regular interval
- ii. Providing fertilizers and insecticides for better growth and survival of plants.
- iii. Weeds eradication and cleaning of the area to ensure protection of plantation from fire incidents. Reporting of fire incidents and assessment of damage
- iv. Maintenance of fencing, Soil Moisture Conservation (SMC) structures and other facilities established at plantation site
- v. Assessment of plants survival and their growth to ascertain compliance on defined parameters.
- vi. Plants casualty replacement with healthy plants to maintain same age and vigor profile of plantation
- vii. Weeding and soil working, removal of unwanted weeds in 1 meter diameter of plants
- viii. Maintenance and care of plantation from cattle grazing
- ix. Careful disposal of palatable grasses to local villagers
- x. Any incidental or allied activity / work if any.
- xi. **Geotagging of each plant should be done.**

10.3. Third Year

- i. Weeds and grass eradication and cleaning of area in strips to ensure protection of plants from fire.
- ii. Controlled burning of debris around plantation site to ensure protection of plantation from fire incidents
- iii. Irrigation of plants at regular intervals with proper supply of fertilizers and growth nutrients.
- iv. General maintenance of all the facilities.
- v. Maintenance of fencing, Soil Moisture Conservation (SMC) structures and other facilities established at plantation site
- vi. Assessment of plants survival and growth of planted saplings and naturally growing adopted plants.
- vii. Cutting back of deformed, stunted and damaged plants 5 centimeters above ground before first rains in May- June to facilitate coppicing of new shoots.

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- viii. Plants casualty replacement to maintain standard growth and survival of plants.
 - ix. Weeding, hoeing and soil working works; elimination of unwanted weeds and grasses around the plants planted at prescribed spacing or adopted from natural growth
 - x. Application of fertilizers and insecticides at appropriate time.
 - xi. Maintenance and care of plantation from cattle grazing
 - xii. Cutting and proper distribution of palatable grasses to local villagers
 - xiii. Any incidental or allied activity / work if any.**
 - xiv. Geotagging of each plant should be done.**

10.4. Fourth Year

- i. Weeds eradication and cleaning of the area in strips to ensure protection of plants from unforeseen fire. Reporting of fire incidents and assessment of damage if any.
- ii. Controlled burning of debris around plantation site in February to eliminate chance of stray fire.
- iii. Irrigation of plants to keep optimum moisture regime and nutrients level for growth of plants
- iv. Maintenance of fencing, Soil Moisture Conservation (SMC) structures and other facilities established at plantation site
- v. Assessment of plants survival and growth of planted saplings, sown seeds plants and naturally growing adopted plants.
- vi. Cutting back of deformed, stunted and damaged plants 5 centimeters above ground before first rains in May- June to facilitate coppicing of new shoots.
- vii. Weeding, hoeing and soil working; elimination of unwanted weeds and grasses around the plants planted or adopted from natural growth
- viii. Soil- Water conservation to ensure maximum rain water availability to growing plants.
- ix. Providing fertilizers and insecticides for better growth and survival of plants
- x. Maintenance and care of plantation from cattle grazing
- xi. Cutting and distribution of palatable grasses to local people of adjacent villages
- xii. Any incidental or allied activity / work if any.**
- xiii. Geotagging of each plant should be done**

10.5. Fifth Year

- i. Weeds eradication and cleaning of the area in strips to ensure site protection from unforeseen fire incidents. Reporting of fire incidents and assessment of damage if any.
- ii. Controlled burning of debris around plantation site in February to eliminate

-
- chance of stray fire.
 - iii. Irrigation of plants to keep optimum moisture regime and nutrients level for growth of plants
 - iv. Maintenance of fencing, Soil Moisture Conservation (SMC) structures and other facilities established at plantation site
 - v. Assessment of plants survival and growth of planted saplings, plants grown of sown seeds and naturally growing adopted plants.
 - vi. Cutting back of deformed, stunted and damaged plants 5 centimeters above ground before first rains in May- June to facilitate coppicing of new shoots.
 - vii. Weeding, hoeing and soil working; elimination of unwanted weeds and grasses around the plants planted or adopted from natural growth
 - viii. Providing fertilizers and insecticides for better growth and survival of plants
 - ix. Maintenance and care of plantation from cattle grazing
 - x. Cutting and distribution of palatable grasses to local people of adjacent villages
 - xi. Any incidental or allied activity / work if any.
 - xii. **Geotagging of each plant should be done**

**Draft Bill of Quantity (BOQ) – Not to be submitted with technical or financial bids
(Only for reference purpose)**

Name of Regional Office: Nagpur

Name of Project: Casualty Replacement Plantation and Maintenance (Advance field preparation, planting and maintenance) Work from Aurangabad to Telwadi (from Ch. 290.200 to Ch. 376.00) NH-52 Under PIU-Chhatrapati Sambhajinagar (CSN), Regional Office, Nagpur in the State of Maharashtra

National Highway No: NH 52

Chainage / milestones: km 290/200 to km 376/000

Length of the Highway: 85.8 km

No. of Plants:

Plantation – 28,000 (15,000 Avenue + 13,000 Median)

Maintenance – 82,000 (28,000 Avenue + 54,000 Median)

Bill of Quantity

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
A	AVENUE PLANTATION DEVELOPMENT WORK				
1	Labour charges for removing grass, thorny shrubs, Jungli shrub, Kubabul and a like grass along roadside making the ground clean by showel and phavaras etc. complete	Nos	15000	7	1,05,000/-
2	Flowering Trees Specifications: - Minimum Girth 6 cm. Minimum 5 to 6 branches with Maximum number of leaves, with clear trunk, healthy condition free from pest and diseases, well steeled in appropriate size of Polybag, uniform in size and root system are undamaged. (Kanchan -Bag Size 13" x 13", Minimum Height of plant 8 ft)	Nos	15000	450	67,50,000/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
3	Foliage Trees Specifications: - Minimum Girth 6 cm Minimum 5 to 6 branches with Maximum number of leaves, with clear trunk, healthy condition free from pest and diseases, well settled in appropriate size of polybag, uniform in size and root system are undamaged. (Karanj -Bag Size 13" x 13", Minimum Height of plant 8 ft)				
4	Foliage Trees. - Specifications: - Minimum Girth 6 cm. Minimum 5 to 6 branches with Maximum number of leaves, with clear trunk, healthy condition free from pest and diseases, well settled in appropriate size of Polybag, uniform in size and root system are undamaged. (Neem -Bag Size 13" x 13", Minimum Height of plant 8 ft)				
5	Foliage Trees Specifications: - Minimum Girth 6 cm Minimum 5 to 6 branches with Maximum number of leaves, with clear trunk, healthy condition free from pest and diseases, well settled in appropriate size of Polybag, uniform in size and root system are undamaged. (Peepal -Bag Size 13" x 13", Minimum Height of plant 8 ft)				
6	Foliage Trees Specifications: - Minimum Girth 6 cm Minimum 5 to 6 branches with Maximum nubmer of leaves, with clear trunk, healthy condition free from pest and diseases, well seteled in appropriate size of Polybag, uniform in size and root system are undamaged. (Wad/Banyan - Bag Size 13" x 13", Minimum Height of plant 8 ft)				
7	Supplying on site fresh Garden soil (i. e. 3-part soil) (free from stones	Nos	15000	108.57	16,28,550/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
	rubbish like dried grass roots, other such materials) for excavated pit size area of 0.60 x 0.60 x 0.60m (consolidated thickness). Quantity of soil 0.141 cum x 770/cum = 108.57/-				
8	Excavation pit size 0.60 x 0.60 x 0.60m for planting small & medium ornamental plants/ large flowering/ shady trees (plant height 1 to 2 mtr.)/ palm varieties up to height 1 to 2 mtrs. in earth, soil of all types, soft murum, including removing the excavated & unwanted material up to a required distance of 50 mtrs.	Nos	15000	55	7,74,300/-
9	Supplying on site well decomposed Farmyard Manure FYM (i. e. 1-part FYM) for excavated pit size area of 0.60 x 0.60 x 0.60m (consolidated thickness). Quantity of FYM 0.044 cum x 975/cum = 42.90/- Rs per pit.	KG	15000	42.9	6,43,500/-
10	Water Per Plant requirements, 15 ltrs as per Horticulture DSR 2023 Nashik & Aurangabad page no 5 (15*15000*4*03=900000 liter)	Tanker	540	2700	14,58,000/-
11	Fertilizer 50-gram DAP Per Plant (=0.050*15000=750 kg)	KG	750	42.9	32,175/-
12	Insecticide 20 ml per Plant (=0.020*15000=300)	Liter	300	12	3,600/-
13	Providing and supplying tools and machinery required for Plantation (Tempo for internal transporting of plants up to 5 Km)	Nos	15000	35	5,25,000/-
14	Prepared from dried sphagnum moss, good quality, good water retention capacity long life etc. Length -3 ft.	Ft	45000	120	54,00,000/-
15	Tree Guard of steel/bamboo /other local resource etc with supporting Bamboo. at least 1.8m tall with 0.3m ground anchors and 0.45m to 0.6m wide.	Nos	15000	125	18,75,000/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
16	Semiskilled Labour (Mali)	MM	6	19440	1,16,640/-
17	Supervisor	MM	4	35160	1,40,640/-
	AVENUE PLANTATION TOTAL (A):				1,94,52,405/-
B	MEDIAN PLANTATION DEVELOPMENT WORK				
1	Labour charges for Cleaning of median, removing grass, Thorney shrubs, Jungli shrub, Kubabul and a like grass from median and making the ground clean by showel and phavaras etc. complete	Nos	13000	7	91,000/-
2	Marking of Pits with spacing in different rows as per IRC guidelines and Pits digging 45*45*45 cm.	Nos	13000	5	65,000/-
3	Casualty Replacement with plants of same age and growth planted in first year (10%) No of Plants with details of species & plant size: Specification for Saplings for Median Plantations, 1. Height Around 60 cm 2. Collar Girth - 3 cm 3. Polybag Size - 10 cm x 10 cm 4. Potting Mixture 1:2:4 (Sand: FYM: Soil Mix) 5. Half of the length of the seedling should have branches and leaves Species: Calliandra 40 %, Tecoma 40% Bougainvillea 10 % and Caesalpinia Pulcherrima (Choti Gulmohar) 20 %	Nos	13000	75	9,75,000/-
4	Supplying on site fresh Garden soil (i. e. 3-part soil) (free from stones rubbish like dried grass roots, other such materials) for excavated pit size area of 0.45 x 0.45 x 0.45m (consolidated thickness). Quantity of soil 0.059 cum x 770/cum = 45.43/-	Nos	13000	45.43	5,90,590/-
5	Excavation pit size 0.45 x 0.45 x 0.45m for planting ornamental and flowering shrubs (Sapling height 2.5 to 3 ft) in earth, soil of all types, soft	Nos	13000	21.78	2,83,140/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
	murum, including removing the excavated material.				
6	Supplying on site well decomposed Farmyard Manure FYM (i. e. 1-part FYM) for excavated pit size area of 0.45 x 0.45 x 0.45m (consolidated thickness). Quantity of FYM 0.019 cum x 975/cum = 18.52/- Rs per pit.	KG	13000	18.52	2,40,760/-
7	Water Per Plant requirements, 10 ltrs. as per Horticulture DSR 2023 Nashik & Aurangabad page no 5 (10*13000*4*03=1560000 liter)	Tanker	312	2700	8,42,400/-
8	Fertilizer 50-gram DAP Per Plant (= .050*13000=650 kg)	KG	650	42.9	27,885/-
9	Insecticide 20 ml per Plant (=0.020*13000=260)	Liter	260	12	3,120/-
10	Providing and supplying tools and machinery required for Plantation (Tempo for internal transporting of plants up to 5 Km)	Nos	13000	30	3,90,000/-
11	Prepared from dried sphagnum moss, good quality, good water retention capacity long life etc. Length -2 ft.	Ft	26000	125	32,50,000/-
12	Bamboo Support stick - 2 m Height	Nos	13000	30	3,90,000/-
13	Semiskilled Labour (Mali)	MM	6	19440	1,16,640/-
14	Supervisor	MM	4	35160	1,40,640/-
	MEDIAN PLANTATION TOTAL (B)				74,06,175/-
C	TOTAL PLANTATION COST (Rs.) Sub total (A+B)				2,68,58,580/-
	MAINTENANCE WORK (5 YEARS)				
D	AVENUE MAINTENANCE WORK (5 YEARS)				
1	Unskilled Labour	MM	200	18450	36,90,000/-
2	Semiskilled Labour (Mali)	MM	200	19440	38,88,000/-
3	Supervisor	MM	120	35160	42,19,200/-
4	Irrigation (Watering with Tanker and Diesel or Rickshaw Thela with 200 ltr. Tank & pipe etc.) - tanker requirements	Tanker	12600	2700	3,40,20,000/-
5	Mortality of plants (10%) every year 2800 (5 year 14000)	Nos	14000	450	63,00,000/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
6	Providing and supplying tools and machinery required for Plantation (Tempo for internal transporting of plants up to 5 Km)	Nos	28000	30	8,40,000/-
7	Fertilizer 50-gram DAP Per Plant for plants (50*28000*15=21000000/1000=21000 kg for 5 year)	KG	21000	42.9	9,00,900/-
8	Weeding, Hoeing & Basin Making (In a year 5 months x 5 year =25) Weeding, Hoeing & Maintenance including Cutting of grass and pruning of plants)	Nos	140000	35	49,00,000/-
AVENUE MAINTENANCE COST (5 YEARS) (Rs.) (D)					5,87,58,100/-
E	MEDIAN MAINTENANCE WORK (5 YEARS)				
1	Unskilled Labour	MM	960	18450	1,77,12,000/-
2	Semiskilled Labour (Mali)	MM	960	19440	1,86,62,400/-
3	Supervisor	MM	240	35160	84,38,400/-
4	Casualty Replacement with plants of same age and growth planted in first year (10%) No of Plants with details of species & plant size: Specification for Saplings for Median Plantations, 1. Height Around 60 cm 2. Collar Girth - 3 cm 3. Polybag Size - 10 cm x 10 cm 4. Potting Mixture 1:2:4 (Sand: FYM: Soil Mix) 5. Half of the length of the seedling should have branches and leaves Species: Calliandra 40 %, Tecoma 40% Bougainvillea 10 % and Caesalpinia Pulcherrima (Choti Gulmohar) 20 % Mortality of plants (10%) for every year 5400 (5 year 27000)	Nos	27000	75	20,25,000/-
5	Providing and supplying tools and machinery required for Plantation maintenance (Tempo for internal transporting of plants up to 5 Km)	Nos	54000	30	16,20,000/-
6	Weeding, Hoeing & Basin Making (In a year 5 months x 1 year =5)	Nos	54000	35	18,90,000/-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

S. N	Description	Unit	Total Quantity	Rate Quantity (Nos)	total Amount (Rs.)
	Weeding, Hoeing & Maintenance including Cutting of of grass and pruning of plants) Weeding, Hoeing & Protection (3 times weeding and hoeing)				
7	Fertilizer: 3 times 1st time - 5 gm Urea, 2nd time - 10 gm Urea, 3rd time - 5 gm Urea. Urea = 20 gm per plant. (54000*20/1000=1080)	KG	5400	42.9	2,31,660/-
8	Insecticide: 3 times - 1st time - 5 Gm Insecticides/Pesticides, 2nd time - 5 gm Insecticides/Pesticides, 3rd time - 5 gm Insecticides/Pesticides (total Qty = Insecticides/Pesticides = 15 gm) (54000*15/1000=810)	KG	4050	250	10,12,500/-
9	Irrigation (Watering with Tanker and Diesel or Rickshaw Thela with 200 ltr. Tank & pipe etc.)	Tanker	23850	2700	6,43,95,000/-
	MEDIAN MAINTENANCE COST (5 YEARS) (Rs.) (E)				11,57,16,960 /-
F	TOTAL MAINTENANCE COST (Rs.) Sub Total (D+E)				17,44,75,060 /-
	TOTAL COST (E +F) (PLANTATION + MAINTENANCE)				20,13,33,640 /-

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra

SPECIFICATION OF AVENUE AND MEDIAN
PLANT

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India

(Ministry of Road Transport and Highways, Government of India)

जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली - 110 075 • G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष/Phone : 91-11-25074100 / 25074200



NHAI/ Policy Guidelines/ Environment/ 2024 Policy Circular No.7.4.16/2024 dated 19th December, 2024

{Decision taken on E-Office File No. EGHDI-12030/38/2024-ENV & GHD Division (Comp. No. 267282)}

Sub: Specifications of Saplings for Avenue and Median plantations - reg.

644th Executive Committee Meeting held on 13.12.2024 took cognizance of Importance of Quality of Planting Material in raising a successful Avenue and Median Plantations along the National Highways. Accordingly, the Committee has approved following specifications for saplings to be planted in avenue and Median Plantations:

A. Specifications of Saplings for Avenue Plantations.

1. Height - Minimum 2 m
2. Collar Girth - 6 cm (that means collar thickness 2 cm)
3. Polybag Size - 23 cm x 30 cm
4. Potting Mixture - 1:2:4 (Sand: FYM: Soil Mix)
5. Half of the length of the seedling should have branches and leaves
6. The seedlings should be minimum 1.5 years old. Such seedlings would be having adequate root system to establish as a tree in future.

B. Specification for Saplings for Median Plantations.

1. Height - Around 60 cm
2. Collar Girth - 4 cm
3. Polybag Size - 15 cm x 25 cm
4. Potting Mixture - 1:2:4 (Sand : FYM: Soil Mix)
5. Half of the length of the seedling should have branches and leaves

2. All Officers of NHAI are requested to ensure above specifications of Planting Material in all upcoming Plantation Projects including the ongoing Projects.

3. This issues with the approval of Competent Authority.

[Signature]
19/12/24

(CS. Sanjay Kumar Patel)
General Manager (Coord.)

To:

All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices

Copy to:

1. Hindi Division for translation in Hindi.
2. Library for hosting the circular on library site.
3. Web Admin for circulation.

Plantation work for the Replacement of Casualty and Maintenance (Advance field preparation, planting and maintenance) work in the Aurangabad to Telwadi Section of NH-52 between km 290.200 to km 376.00 under PIU-CSN in the State of Maharashtra