

TENDER DOCUMENT

FOR SUPPLY & INSTALLATION OF INSPECTION EQUIPMENTS & OPERATION OF MODEL INSPECTION & CERTIFICATION (I&C) CENTRES

Tender No. RT-25038/11/2017-RS

Dated 10TH October, 2019

Ministry of Road Transport & Highways
Government of India

DISCLAIMER

1. This Tender Document (“Tender Document”) is being issued by The Automotive Research Association of India (ARAI) on behalf of Ministry of Road Transport& Highways (MoRTH) for the selection of a successful bidder for delivery, installation, integration of systems and system checking, testing and commissioning of Vehicle Inspection Equipment’s at the Centers, supply of special tools, and requisite software for smooth operation of the Centers. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will also be scope of the bidder. The suitable exhaust gas handling system is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits. Further, these Centers should also be operated, initially for a period of 24 months, after the Centers are commissioned which includes, but not limited to, regular maintenance of the equipment’s, providing all necessary consumables. The Bidder should be responsible for operating the Centers with Technicians, Supervisors and operators for complete in-use vehicle tests, including all tests mentioned in CMVR. Additional tests, if any, required by the executing agency for ensuring optimum safety and emission performance of in-use vehicles shall also be performed. (The above is hereinafter collectively referred to as the “**Works**”).
2. The information contained in this Tender Document is being provided for the limited purposes of enabling the interested parties (“**Bidders**”) to submit a binding proposal (“**Bid**”) for performing, executing and implementing the Works and for no other purpose. In no circumstances shall executing agencies, or their employees, advisers, consultants, contractors, servants and/or agents incur any liability arising out of or in respect of the issue of this Tender Document, or the selection procedure.
3. The possession of the Tender Document or use in any manner contrary to any applicable law is expressly prohibited. The Bidders shall inform themselves and shall observe any applicable legal requirements.
4. The information does not purport to be comprehensive or to have been independently verified. Nothing in this Tender Document shall be construed as legal, financial or tax advice. MoRTH will not be liable for any costs, expenses, however so incurred by the Bidders in connection with the preparation and submission of the Bids.
5. MoRTH reserves the right to amend this Tender Document and any information contained herein at any time to the Bidders. The amendment document shall be notified through website and such amendments shall be binding on those concerned.
6. Nothing in this Tender Document is, nor shall be relied upon as, a promise or representation as to MoRTH ultimate decision in relation to the selection process of the successful Bidder for the execution of the Contract (defined hereinafter). The Bidder(s) shall not, therefore, assume that they will have the opportunity to revise their Bids following submission except as provided in this Tender Document, without assigning any reason whatsoever. However, MoRTH reserves the right to change the basis of or the procedures (including the timetable) relating to the bidding process, reject any, or all, of the Bids, not to invite a Bidder to proceed further, not furnish a Bidder with additional information nor otherwise to negotiate with a Bidder at any time. MoRTH does not undertake to accept the lowest or indeed any Bid, without assigning any reason.
7. No person other than the one authorized by MoRTH to give any information or to make any representation not contained in this Tender Document and, if given or made, any such information or representation shall not be relied upon as having been so authorized.
8. Canvassing in any form shall result in rejection of the bid.

9. The applicant shall be deemed to have duly considered all terms of this Invitation for the bid document and acknowledge that it intends to submit bid offer in accordance with the provisions of this document having accepted the terms and conditions as have been incorporated herein and / or that may be incorporated by MoRTH through any Addendum/s.
10. This Tender Document is confidential and personal to each Bidder. The Bidders shall note that they are required to sign and submit as part of the Technical Bid, as provided in “**Form b) Letter of Undertaking**” of this Tender Document, a Letter of Undertaking to MoRTH which, inter alia, prohibits disclosure of any information as therein defined to any person or body corporate except as permitted by such Letter of Undertaking. The Bidders shall promptly return this Tender Document to MoRTH upon request and shall not use the same for any purpose whatsoever other than for submission of the Bid to MoRTH for the Works. Any failure to furnish or comply with the terms of the Letter of Undertaking shall entitle MoRTH to disqualify the relevant Bidder.
11. Any summaries or descriptions of documents or contractual arrangements contained in any part of this Tender Document are only indicative and cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future), and are in all respects qualified in their entirety by reference to them.
12. MoRTH its employees, advisers, consultants, contractors, servants, agents do not accept any responsibility for the legality, validity, effectiveness, adequacy or enforceability of any documentation executed, or which may be executed, in relation to the Works. MoRTH or the other executing agencies shall enter into a contract individually, with the successful Bidder for performance, execution and implementation of the Works (“**Contract**”). No legal or other obligation shall arise between the successful Bidder and MoRTH and / or executing agencies unless and until the Contract has been formally executed by MoRTH and / or executing agencies and the successful Bidder and any conditions precedent to the effectiveness of the Contract have been fulfilled. MoRTH reserves the right not to proceed with the bidding process and to cancel the selection procedure, or any part thereof, at any time.
13. Nothing in this Tender Document shall constitute the basis of the Contract which may be concluded in relation to performance, execution and implementation of the Works nor shall such documentation/information be used in construing the Contract. Each Bidder must rely on the terms and conditions contained in the Contract, when, and if, finally executed, subject to such limitations and restrictions which may be specified in such Contract. Any reference to this Tender Document in the Contract with MoRTH or any correspondence between MoRTH and the Bidder shall not be construed as this Tender Document forming part of such contract.
14. The Bidder is prohibited from any form of collusion or arrangement by a Bidder (or its advisers or consultants) in an attempt to influence the selection and award process. Giving or offering of any gift, bribe or inducement or any attempt to any such act on behalf of the Bidder towards any officer / employee of MoRTH or to any other person in a position to influence the decision of MoRTH or any other person associated with the bidding process, for showing any favour in relation to this Bid or any other contract, shall render the Bidder to such liability / penalty as MoRTH may deem proper, including but not limited to rejection of the Bid and forfeiture of the Earnest Money Deposit.
15. Laws of the Republic of India are applicable to this Tender Document. The courts at New Delhi shall have exclusive jurisdiction in relation to any disputes arising from this Tender Document.
16. Each Bidder’s acceptance of delivery of this Tender Document constitutes its agreement to, and acceptance of, the terms set forth in this Disclaimer. By acceptance of this Tender Document, the recipient agrees that this Tender Document and any information herewith

supersedes document(s) or earlier information, if any, in relation to the subject matter hereof.

17. All documents and communication will be in English only. Any document which is submitted in any other language, other than English will be acceptable only if accompanied by self-certified English translated version. MoRTH will have the right to verify the same independently.
18. A High Level Committee (HLC) is appointed by the MoRTH for their assistance to take final decisions on all important matters pertaining to this project. The committee consists of -
 - (i) Representative of ARAI – Chairperson
 - (ii) Representative of CIRT – Member
 - (iii) Representative of ICAT – Member
 - (iv) Representative of Transport Department, Odisha – Member
 - (v) Representative of Transport Department, Maharashtra - Member
19. Arbitration:

The disputes or differences, arising from this Invitation for bid document or in any manner connected therewith shall be subject to the following dispute resolution mechanism:

 - (i) Any dispute shall initially be referred to the designated Senior Management of the parties for amicable settlement. Parties shall nominate two persons each from their Senior Management within ten days of a dispute arising.
 - (ii) If no amicable settlement is arrived at within 30 days, then any party may refer the dispute to a Sole Arbitrator to be nominated by the MoRTH. The place of arbitration shall be New Delhi. All arbitration proceedings shall be conducted in English and in accordance with the provisions of the Arbitration and Conciliation Act 1996 as amended from time to time.
 - (iii) The Arbitration award will be final and binding upon the parties, and each party will bear its own costs of arbitration and equally share the fees of the arbitral tribunal unless the arbitral tribunal decides otherwise.
 - (iv) All disputes shall be subject to the exclusive jurisdiction of Courts at New Delhi only.
20. Governing Law:

Indian laws, both substantive and procedural, shall govern.

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TENDER DOCUMENT

1. INTRODUCTION

With the increase in vehicle population, it is essential to ensure that the in-use vehicles, which are on road, meet the safety and emission requirements for safe and environmental friendly situation. The vehicle inspection and certification (I&C) program is an effective tool to improve the condition of the in-use vehicle fleet.

Ministry of Road Transport & Highways (MoRTH), Govt. of India, has declared its intention to set up Inspection & Certification Centers. ARAI, ICAT and CIRT have been identified as Executing Agencies by the MoRTH to install and operate the 'Vehicle Test Lanes' at the inspection facilities at 10 States in India viz.,

Executing Agency	States / Union Territory
ARAI	Andhra Pradesh (Telangana), Kerala and Puducherry
ICAT	Chhattisgarh, Jammu & Kashmir and Nagaland
CIRT	West Bengal, Punjab, Mizoram and Sikkim

The Automotive Research Association of India (ARAI) is an industrial research association of the Automotive Industry, with the Ministry of Heavy Industries & Public Enterprises, Govt. of India. ARAI has been playing a crucial role in assuring safe, less polluting and more efficient vehicles in India. It provides technical expertise in R&D, Testing, Certification, Homologation and framing of vehicle regulations and actively participates in UNECE WP29 activities.

International Centre for Automotive Technology (ICAT), Manesar in the Northern region is a division of NATIS (NATRIP Implementation Society), an independent registered Society and an apex body for implementation of National Automotive Testing and R& D Infrastructure Project (NATRIP), Govt. of India. ICAT is engaged in Automotive Testing and R & D.

The Central Institute of Road Transport (CIRT), Pune is a society under the Ministry of Road Transport & Highways, Govt. of India set up jointly with the Association of State Road Transport Undertakings to develop end-to-end solutions through their research, consultancy, training, testing and certification activities in the road transport sector. Operating from its Pune center, CIRT has been working closely with various government bodies and OEM's on strengthening and improving the performance and safety of the transport sector. CIRT is MoRTH's Technical Secretariat for UNECE WP1 activities as well as AISC Technical Secretariat to review safety of motor vehicles with GVW of more than 3.5 tonnes.

The Automotive Research Association of India (ARAI) on behalf of Ministry of Road Transport & Highways, Government of India invites e-tenders for execution from the Bidders in the prescribed proforma for performing, executing and implementing the Works on the terms and conditions contained in this Tender Document and in the Contract. Brief description of Works and the timelines for tenders are summarized in the table below.

Description of Work	This Tender Document ("Tender Document") is being issued by The Automotive Research Association of India (ARAI) on behalf of Ministry of Road Transport & Highways (MoRTH) for selection of a successful bidder for delivery, installation, integration of systems and system checking, testing and commissioning of
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	Vehicle Inspection Equipment's at the Centers, supply of special tools, and requisite software for smooth operation of the Centers. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will also be scope of the bidder. The suitable exhaust gas handling system (to take care of exhaust of the vehicle under test) is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits. Further, these Centers should also be operated, initially for a period of 24 months, after the Centers are commissioned which includes, but not limited to, regular maintenance of the equipment, providing all necessary consumables. The Bidder should be responsible for operating the Centre with Technicians, Supervisors and operators for complete in-use vehicle tests, including all tests mentioned in CMVR. Additional tests, as specified in Annexure IV, required by the executing agency for ensuring optimum safety and emission performance of in- use vehicles shall also be performed. The purpose of the additional tests is to generate data to help development of further regulations for in use vehicle inspection.
Earnest Money Deposit	Rs.90.00 Lakhs (Rupees Ninety Lakhs Only) EMD to be submitted through Bank Guarantee in the name of MoRTH from Nationalized / Schedule Banks with a validity of six months from the date of opening of bid.
Availability of Tender Document	Tender Documents can be downloaded from 1000 hrs on 10.10.2019 from the website of Central Public Procurement Portal (www.eprocure.gov.in). The Bidders will have to pay the requisite Tender processing fee (Non Refundable) as indicated in the e-procurement website.
Tender Document cost	Rs. 40,000 (Rs. Forty Thousand only)
Last Date for Submission of Queries (If any)	Up to 1700 hrs on 17.10.2019 by email to bhalerao.impc@araiindia.com and meena.rr@nic.in
Pre-Bid Meeting to clarify the Queries submitted till 31.01.2019	18.10.2019 at 1500 hrs at MoRTH
Submission of Bids (Refer appropriate clauses for details)	Up to 1730 hrs on 11.11.2019 through e-procurement portal.
Opening of Technical Bids	1530 hrs on 15.11.2019 at 1530 hrs The Automotive Research Association of India (ARAI), Pune, India.

2. MODALITIES

The Tender Documents will have to be downloaded directly from the website mentioned above. The amount of Rs. **40,000 (Rs. Forty Thousand only)** should be paid to MoRTH before the due date and time of Bid Submission as Tender Document cost. Details of which have been indicated separately.

3. INSTRUCTIONS TO BIDDERS

- 3.1 The Bidder must ensure that he meets all the requirements spelt in “**Annexure III – Bidder’s Company Requirements**”.
- 3.2 The Bidders are expected to carefully examine all the contents of the Tender Document including instructions, conditions, terms, specifications and drawings and take them fully into account before submitting their Bid. Failure to comply with the requirements as detailed in these documents shall be at the Bidder’s own risk. Bids which are not responsive to the requirements of the Tender Document will be rejected.
- 3.3 While all efforts have been made to avoid errors in the drafting of the Tender Document, the Bidders are advised to check the same carefully. No claim on account of any errors detected in the Tender Document shall be entertained.
- 3.4 Bidders should study Tender Documents carefully and thoroughly before quoting and get clarifications, if required, from HLC / MoRTH in this context.
- 3.5 The Bid prepared by the Bidder and all correspondence and documents relating to the tender exchanged between the Bidder and HLC / MoRTH shall be in the English language.
- 3.6 Each of the Bid documents should be stamped and signed by the person or persons submitting the Bid in token of his/their having acquainted himself / themselves with the Tender Documents in entirety including all the Annexures and Forms. Any Bid not complying with the terms and conditions as set out in this Tender Document and / or not signed by authorized person may be rejected at the discretion of HLC/ MoRTH. All documents submitted are subject to verification with the originals and the originals of the documents uploaded shall be produced for verification upon intimation.
- 3.7 The Bid submitted on behalf of a Firm shall be signed by all the Partners of the Firm or by a Partner who has the necessary authority (supported with documentary evidence) on behalf of the Firm to submit the Bid.
- 3.8 The Bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of preparation and submission of the Bid and for entering into a Contract, must inspect the sites of the Works, acquaint himself with all local conditions, means of access to the sites, nature of the Works and all matters pertaining thereto.
- 3.9 The bidder shall fill the ‘**Form I) contact details form**’ issued with this Bidding document and upload the same along with the bidding documents and HLC / MoRTH would use these details to communicate with the bidder in case of issuance addenda & verification of Originals of the Documents submitted.

4. SCOPE OF WORK

- 4.1 The scope of Work shall be as described under “**Annexure I - Scope of Supply**”.
- 4.2 The successful Bidder shall perform, execute and implement the Works strictly in accordance with Drawings, details, specifications, standard engineering practices and instructions of executing agencies and in accordance with the terms and conditions of the Contract and shall co-operate with the other contractors / suppliers appointed by MoRTH / Executing agencies / State Govt. for carrying out related works at the project site to ensure that the Works proceed smoothly without any delay and to the satisfaction of executing agencies.
- 4.3 The Work shall be carried out strictly in compliance with the requirements of the project executing agency concerned.
- 4.4 Any subcontracting by the successful Bidder for performance, execution and implementation of the Works shall be with the prior consent of executing agencies.

- 4.5 The successful Bidder should make his own arrangement to obtain all materials required for performing, executing and implementing the Works.

5. EARNEST MONEY DEPOSIT

- 5.1 The Bids shall be accompanied by an **Earnest Money Deposit of Rs. 90,00,000/- (Rupees Ninety Lakhs only)** in the form of Bank Guarantee in the name of MoRTH from a Nationalized Banks of India valid for six months from the date of opening of bid, **“Form c) – Earnest Money Deposit”**. The scanned copy of the Bank Guarantee shall be uploaded along with the bid. The original Bank Guarantee of the EMD has to be submitted to MoRTH from 11.11.2019 to 15.11.2019 from 1000 hrs to 1500 hrs.
- 5.2 A Bid which is not accompanied by such Earnest Money Deposit, including submission of original Bank Guarantee, will be construed as non-compliant bid and shall be summarily rejected.
- 5.3 The Earnest Money Deposit of the unsuccessful Bidders will be returned without any interest by MoRTH after deciding the successful bidder.
- 5.4 The Earnest Money Deposit of the successful Bidder will be returned upon acceptance of the Purchase Order, by the successful Bidder, and furnishing the Security Deposit, an amount equivalent to 10% of the value of purchase order through bank guarantee in favor of MoRTH.
- 5.5 A Bidder shall forfeit Earnest Money Deposit in favour of MoRTH in case, such Bidder -
- 5.5.1 fails to start the work as may be indicated in the Letter of Acceptance or fails to execute the Contract within a period of 30 days from the date of issue of the Letter of Acceptance;
 - 5.5.2 without the written consent of HLC / MoRTH, has withdrawn its Bid during the validity period of the Bids and any extensions thereto;
 - 5.5.3 after opening of the financial bid, alters the quoted rates/conditions in the Bid;
 - 5.5.4 fails to provide /furnish the 10% Security Deposit of the Purchase order to MoRTH within stipulated period mentioned in the Letter of Acceptance.
- 5.6 The Security Deposit of the successful Bidder will be returned upon the successful completion of the Installation and commissioning and acceptance by the executing agency and receipt of Performance Bank Guarantee of 10% of the Purchase Order. This date of acceptance by the executing agency will be the date of successful commissioning of the Test Centre.
- 5.7 The Performance Bank Guarantee of the successful Bidder will be returned after 24 months from the date of start of operation and upon satisfactory and trouble free performance of two year of operation from the successful commissioning. Performance Bank Guarantee has to be provided in the name of MoRTH.
- 5.8 In case of the extension of the Bid validity period in the manner stated in Clause 9, the validity of the Earnest Money Deposit shall be extended for a further period of 60 (sixty) days.

6. SUBMISSION OF BIDS

E-submission of bid documents would comprise of the following submissions.

Sr. No.	Submission	Links under which documents are to be uploaded at Bid Submission
1.	Bid Processing Fee	Tender document Fee
2	Technical Bid Submission	Upload Bid Document

3	Financial Bid Submission	1.Uploading Bid Document 2. Filling the total amount in the field provided
4	Declaration	Declaration

Bid Processing Fee

The Bidders shall make payment of bid processing fee of **Rs. 40,000 (Rs. Forty Thousand only) (non-refundable)** and bid security to MoRTH through any of the following 3 (three) payment modes:

1. Demand Draft (DD) - The Demand Draft (DD) has to be submitted to MoRTH from 11.11.2019 to 15.11.2019 from 1000 hrs to 1500 hrs.
2. Fixed Deposit Receipt (FDR) - The Fixed Deposit Receipt (FDR) has to be submitted to MoRTH from 11.11.2019 to 15.11.2019 from 1000 hrs to 1500 hrs.
3. National Electronic Funds Transfer (NEFT) / RTGS in favor of MoRTH. Account details of MoRTH are as given below:

1	Beneficiary Name	Ministry of Road Transport & Highways (MoRTH), Delhi
2	Beneficiary Account Number	90621150000036
3	Beneficiary Account Type	Current Account
4	9 digit MICR Code	110025077
5	Beneficiary Bank IFSC/RTGS/NEFT Code	SYNB0009062
6	Beneficiary Bank Name	Syndicate bank
7	Beneficiary Bank Address	Transport Bhawan, Parliament Street, New Delhi-110001

The Bidders shall ensure the credit of payment of Bid Processing Fee in the respective account, on or before the Due Date and Time of Bid Submission. In case, the bid processing fee is paid through demand draft, then its scanned copy is required to be submitted with the bid. For demand draft payment mode, the bidder shall ensure credit of payment of bid processing fee in the respective bank account within 3 days from the date of submission of original DD to MoRTH. With respect to payment through NEFT / RTGS mode of e-Payment, the Bidders should upload UTR number receipt along with bid.

Earnest Money Deposit

The scanned copy of the Bank Guarantee shall be uploaded along with the Technical Bid. The original Bank Guarantee of the EMD has to be submitted to MoRTH from 11.11.2019 to 15.11.2019 from 1000 hrs to 1500 hrs.

Technical Bid Submission

The documents listed at para 6.1.2 of the Tender document shall be filled as per the formats provided, shall be duly signed by the authorized signatory and the same shall be scanned and uploaded under the respective links provided for each document under the sub-criteria "Upload Technical Bid Documents".

Financial Bid Submission

The documents shall be filled as per the format provided, shall be duly signed by the authorized signatory and the same shall be scanned and submitted/uploaded under the respective links provided for each document under the sub-criteria "Upload Bid Documents".

and “Item wise Bid Financial Offer” link.

- ✓Care shall be taken to upload the Financial Bid document only against the slot/link specified for “Financial Bid” and not to be uploaded in any other slots/links.
- ✓The Bidder shall complete the Financial Bid submission process by filling in the quoted amount (inclusive of taxes) on the blank space provided next to “**Service Fee**” under the “**Financial Offer**” link.

Declaration

The Bidder shall comply with the declaration criteria by selecting the compliance options provided in the Declaration web page.

Completion of Bid Submission:

- a. The Bidder shall complete the Bid Submission process by clicking on the “Submit Bid” link provided at the bottom of the “Bid Submission Summary/Overview” web page.
- b. The Bidder shall ensure that a “Green Tick” is displayed at the Status icons provided against each of the five Bid Submission criteria (Tender Processing Fee, EMD, Upload Bid Documents Item wise Bid Financial Offer and Declaration).

Bidders are required to submit their Bids in two parts through e-procurement portal before the closure of bid submission date/time.

Instructions to Bidders

- A. This is an E-tender, Interested tenderers/Bidders may download the tender enquiry document (TED) and submit their bids online at Central Public Procurement Portal website: www.eprocure.gov.in

Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>) by clicking on the link “Click here to Enroll”. Enrolment on the CPP Portal is free of charge

- B. Bidders should strictly follow the date & time schedule mentioned under the Tender enquiry on CPP portal www.eprocure.gov.in
- C. Bids received on e-tendering portal only will be considered. Bids in any other form sent through sealed cover/email/post/fax etc. will be rejected.
- D. ARAI/ MoRTH will not be responsible for any delay in enrollment / registration as bidder or submitting /uploading the offer tender portal. Hence, bidders are advised to register in e-tendering website URL:<https://eprocure.gov.in/eprocure/app> and enroll their Digital Signature Certificate and upload their quotation well in advance.
- E. The request for extension to “Bid submission end date” should be avoided, in case extension is inescapable, HLC / MoRTH can take the decision.
- F. For tender content related doubts bidder should contact ARAI / MoRTH contact person, contact details are given in Table above.

For portal related issued bidders must contact NIC support team on below contact details
Email -cphp-nic@nic.in or support-eproc@nic.in
Telephone -0120-4200462 / 0120-4001002 / 0120-4001005 / 0120-6277787

- G. While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected. If any tenderer stipulates any

condition of his own, such conditional tender is liable to be rejected.

H. All the tender documents & price bid to be uploaded as per this tender are to be digitally signed by the bidder.

I. GST registration no. details should be submitted in technical bid.

6.1 Part –1: The Technical Bid

6.1.1 Bidders are required to submit their Bids through e-procurement portal before the closure of bid submission date/time. Proper care should be taken to ensure that the Technical and Financial Bid documents are uploaded in the respective links only.

6.1.2 The Technical Bid shall contain the following duly filled Forms:

Form a) Letter for Submission of Technical Proposal

Form b) Letter of Undertaking

Form c) Earnest Money Deposit

Form d) Performance Bank Guarantee

Form e) Deviations Suggested

Form f) Detailed Technical Specifications

Form g) References

Form h) Service Support

Form i) Bidder's Organization, Company Profile and Sub-Contractors

Form j) Description of Approach, Methodology, Work and Training Plan

Form k) Financial Proposal (without price)

Form l) Contact Details

6.2 Part-2: The Financial Bid

The Amount quoted shall be inclusive of all applicable statutory taxes (including GST). Further the breakup of prices shall be provided as per Proforma (**Form k- Financial Proposal**). Proforma shall be duly filled and signed by an authorized signatory from the Bidder's Company.

6.2.1 The Bidders shall quote for the entire Works such that the total contract value covers all its risks, obligations and liabilities set out in or to be reasonably inferred from this Tender Document including but not limited to matters in respect of the delivery of equipment up to site, insurance, freight costs, customs clearances, interface management, detailed design, detailing, coordination, value engineering, specialist system procurement, provision, erection and/or installation, testing, commissioning, documentation, training if any, defects remediation, complete operation of the Centre, reporting to MoRTH and related works. However, in case of imported equipment, prices quoted shall include all taxes and charges including, but not limited to transit insurance charges from FOB port of shipment or Airport upto the site, including charges for Custom Clearances, etc. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will also be scope of the bidder. The suitable exhaust gas handling system (to take care of exhaust of the vehicle under test) is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits.

6.2.2 The prices shall be quoted in **Indian Rupees** only. The amounts shall be quoted in figures and words and in case of inconsistency, the words shall prevail.

6.3 Manner of submission

- 6.3.1 The two part Bid shall be submitted online upto the said date and time.
- 6.3.2 HLC / MoRTH may, at its discretion, extend the deadline for submission of Bids by issuing an addendum, in which case all rights and obligations of HLC / MoRTH and the Bidders previously subject to the original deadline will thereafter be subject to the extended deadline.
- 6.3.3 HLC / MoRTH reserves the right to, without limitation, without incurring any obligation or liability vis-à-vis any Bidder and without expressing any cause or reason thereof, at any time and at its sole discretion to independently verify, disqualify, reject and/or accept any and all Bids or other information and/or evidence submitted by or on behalf of any Bidder, including without limitation pursuant to and/or in connection with:
- (a) receipt of a Bid after the submission deadline;
 - (b) failure to submit necessary supporting documentation following a specific request by HLC / MoRTH.
- 6.3.4 All the Bid documents have to be uploaded on the e-procurement portal only. Any document submitted manually or by other means would not be accepted.

7. DEVIATIONS

- 7.1 In case the Bidder fails to respond to any of the requirements, the Bidder is given the opportunity of explaining why the proposed solution is equivalent or better to the Minimum Requirement by filling document **“Form e) Deviations Suggested”**.
- 7.2 In case, HLC / MoRTH finds any deviation which is not declared as part of the deviation form submitted by the Bidder, HLC / MoRTH reserves the right to reject the bid summarily without assigning any reasons.

8. AMENDMENT TO TENDER DOCUMENT

- 8.1 Addenda / Corrigenda to the Tender Document may be issued by HLC / MoRTH prior to the last date of submission of the Bids to clarify the documents or to reflect any modifications etc. All such addenda / corrigenda shall be treated as an integral part of the Tender Document. All such addenda / corrigenda shall be notified only in the e-procurement portal.
- 8.2 In order to afford prospective Bidders reasonable time for preparing their tenders after taking into account such amendments, HLC / MoRTH may, at its discretion, extend the deadline for submission of tenders.
- 8.3 In case after issuance of addenda, any Bidder who has already submitted its Bid, does not resubmit its Bid, it shall be deemed that such Bidder does not intend to modify its Bid on the basis of the addenda and the addenda have been taken into account.

9. VALIDITY OF BIDS

- 9.1 Bids shall be unconditional, firm and remain valid and open for acceptance for a period of **120 days** & should be extendable for additional 60 days, only on request by MoRTH, without any additional cost, from the last date of submission of Bids. Any Bid having validity lower than that specified above shall be rejected by HLC / MoRTH as being non responsive.
- 9.2 If a Bidder withdraws or revokes his offer after last date of submission of Bids, the Bidder is liable to be disqualified and the Earnest Money Deposit submitted by such Bidder is liable to be forfeited. Any Bidder shall not be allowed to carry out any revision / correction / modification in his Bid after the last date of submission of Bids.
- 9.3 In case HLC / MoRTH calls the Bidder for negotiations / clarifications then this shall not amount to cancellation or withdrawal of original offer. HLC / MoRTH reserves the right to finalize the technical evaluation by conducting such negotiations / seeking clarifications, till the start date/time of the financial bid opening and prior to declaration of technical evaluation.
- 9.4 Delivery schedule for equipment's at each site will be defined by MoRTH or their authorized

representatives at the time of order finalization for that site based on the prevailing site conditions and estimated site work completion. Part delivery of equipment at each site is not allowed to the successful bidder. This is in order to ensure one-time inspection of all equipment supplied.

- 9.5 MoRTH will place the Purchase Order within 120 days from the date of award of contract with a staggered delivery timeline as per the respective site development condition. The validity of Bid / Purchase Order of the equipment will be three years which can be further extended for another one year on same financial considerations.

10. CLARIFICATIONS TO BIDDER'S QUERIES

The Bidders are requested to raise their queries, if any, by email at bhalerao.impc@araiindia.com and meena.rr@nic.in up to the mentioned time. MoRTH will address all the queries received from all the Bidders in the Pre-Bid meeting only. The responses will be uploaded on the e – procurement website. The queries and responses thereto, would be uploaded without identifying the source of queries. MoRTH reserves the right not to respond to questions raised or provide clarifications sought, in their sole discretion, if it is considered that it would be inappropriate to do so. Nothing in this section shall be taken or read as compelling or requiring MoRTH to respond to any question or to provide any clarification.

11. BID EVALUATION PROCESS

The bidding evaluation process will be as follows:

Bank Guarantee of **Rs. 90,00,000 /- (Rupees NinetyLakhs only)** as EMD in the name of MoRTH shall be uploaded on e-procurement portal.

Any bid submitted without EMD and Tender document fee will be disqualified.

11.1. Technical Bids Opening

- 11.1.1 The Bids shall be opened online as per the prescribed schedule. (Physical attendance of bidders at ARAI is not required).

11.2 Technical Bid Evaluation

- 11.2.1 During the technical bid evaluation process, HLC / MoRTH may ask clarifications from the bidder through E-mail/ Fax, for confirming and consolidating their technical offers.
- 11.2.2 All such clarifications are required to be answered by the bidder by E-mail/Fax, within the time specified by HLC / MoRTH. The signed hard copies of the same need to be submitted to MoRTH and shall be deemed to be the part of the tender documents.
- 11.2.3 All valid bids shall be evaluated as per “**Annexure VI - Evaluation Parameters**” to determine technically qualified bids.
- 11.2.4 The result of technical bid evaluation will be published on online portal (CPPP).
- 11.2.5 Financial bids of only the technically qualified bidders shall be opened.

11.3 Financial Bids Opening

- 11.3.1 The Financial Bids of all the technically qualified Bidders shall be opened online.
- 11.3.2 HLC / MoRTH reserves the right to revise the scope of work or specifications considered necessary in the bid process through Addenda/ Corrigenda well within the last date of submission of bids.
- 11.3.3 This will be a segregated bid evaluation system.

11.4 Financial Bid Evaluation

- 11.4.1 All valid financial bids shall be evaluated/ scrutinized as per “**Annexure VI - Evaluation Parameters**”.

11.5 Determination of the Successful Bidder

- 11.5.1 The best evaluated bid shall be determined as per “**Annexure VI- Evaluation Parameters**”.
- 11.5.2 The Bidder with the lowest cost as per the evaluation parameters shall be deemed as the successful Bidder (“**Successful Bidder**”) as per the segregated bid evaluation system.

12. HLC / MoRTH’s RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDDERS

HLC / MoRTH reserves the right to accept or reject any bid, and to annul the tender process and reject all Bids, at any time prior to award of Contract without assigning any reasons for such acceptance / rejection, or to divide the Contract between / amongst Bidders without thereby incurring any liability to the affected Bidder or Bidders or any obligations to inform the affected Bidder or Bidders of the grounds for HLC / MoRTH's action. The Bidders shall not have any cause of action or claim against HLC / MoRTH for rejection of their bids.

13. NON-EXCLUSIVITY

The right of the Successful Bidder to perform executes and implements the Works or any part thereof pursuant to the Contract, is not exclusive and shall not prevent MoRTH from granting a similar right to other parties.

14. PROCESS TO BE CONFIDENTIAL

- 14.1 Except the public opening of Bids, information relating to the examination, clarification, evaluation and comparison of Bids and recommendations concerning the award of Contract shall not be disclosed to Bidders or other persons not officially concerned with such process.
- 14.2 Any effort by a Bidder to influence HLC / MoRTH or any of its functionaries in the process of examination, clarification, evaluation and comparison of tenders and in decisions concerning award of contract, may result in the rejection of the Bid.
- 14.3 As part of his Technical Bid, the Bidder shall be required to furnish an undertaking for confidentiality as “**Form b) - Letter of Undertaking**”.

15. PERFORMANCE BANK GUARANTEE

- 15.1 The balance payment against Installation and commissioning, acceptance by executing agencies will be released after receipt of Performance Bank Guarantee of 10% of the Purchase Order value in the name of MoRTH Performance Bank Guarantee is required to be submitted by the Successful Bidder only after receipt of the Purchase Order. Uploading of Performance Bank Guarantee is not required. The Bidders may upload a document stating that Performance Bank Guarantee would be submitted on receipt of the Purchase Order. This document will not be considered during evaluation of tender.

Format of performance bank guarantee is given in **form d)**.

- 15.2 The Performance Bank Guarantee of the Successful Bidder will be invoked and forfeited if the Successful Bidder fails to comply with the conditions of purchase order.

16. TERMS OF PAYMENT

- 16.1 The terms of payment shall be as described in “**Annexure VIII – Terms of payment**”.

17. GENERAL

- 17.1 HLC / MoRTH reserves the right to, without limitation, without incurring any obligation or liability vis-à-vis any Bidder and without expressing any cause or reason thereof, at any time

and at its sole discretion amend or supplement the Tender Document and/or the selection process or the dates or other terms and conditions relating thereto, suspend and/or cancel the selection process.

- 17.2 HLC / MoRTH reserves the right to, without limitation, without incurring any obligation or liability vis-à-vis any Bidder and without expressing any cause or reason thereof, at any time and at its sole discretion to independently disqualify, reject and/or accept any and all Bids or other information and/or evidence submitted by or on behalf of any Bidder, including without limitation pursuant to and/or in connection with receipt of a Bid after the submission deadline and/or determination that bidder will be able to fulfil the requirements of the tender document based on the qualification criteria specified in the document.
- 17.3 The decisions and/or the exercise of discretion by HLC / MoRTH shall not be challenged by any Bidder and are final.
- 17.4 Any failure by HLC / MoRTH to exercise any rights hereunder, pursuant hereto and/or in connection herewith shall not be a waiver of those or any other rights unless expressly stated as such in writing by HLC / MoRTH.
- 17.5 The Bidders and their respective officers, employees, agents and advisers must not engage in any collusive tendering, anti-competitive conduct or any other similar conduct with any other Bidder or any other entity in relation to the preparation or evaluation of Bids or otherwise in any aspect of the Works.

18 LIST OF ANNEXURES

The Annexures to this document are as listed below -

Annexure I: Scope of Supply

Annexure II: Sites Description

Annexure III: Bidder's Company Requirements

Annexure IV: Equipment Details

Annexure V: Characteristics of Vehicles to be tested

Annexure VI: Evaluation Parameters

Annexure VII: Acceptance Criteria

Annexure VIII: Terms of Payment

Annexure IX: General Conditions of Contract (GCC)

19. LIST OF FORMS

The Forms to this document are as listed below -

Form a) Letter for Submission of Technical Proposal

Form b) Letter of Undertaking

Form c) Earnest Money Deposit

Form d) Performance Bank Guarantee and form of Demand

Form e) Deviations Suggested

Form f) Detailed Technical Specifications

Form g) References

Form h) Service Support

Form i) Bidder's Organization, Company Profile

Form j) Description of Approach, Methodology, Work and Training Plan

Form k) Financial Proposal

Form l) Contact Details

Annexure I: Scope of Supply

1. ELEMENTS TO BE SUPPLIED

The scope of this tender is to provide the equipment and their installation and integration in the ten Inspection & Certification centers in India including operation of the test centers for 24 months and 5 years Annual Maintenance Contract (AMC) after completion of warranty period. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will also be scope of the bidder. The suitable exhaust gas handling system is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits. If compressed air is required for functioning of equipment then availability of Compressor of requisite capacity at site will be the responsibility of bidder.

1.1 List of equipment's

Following Inspection equipment for the Vehicle Inspection Centre are required. Technical requirements are given in **Annexure IV**. The final quantity may vary by +/- 20% for all the Centers put together.

Table 1: List of equipment's

S. No.	Scope of Supply	QUANTITY
1	Common Equipment	
i	Air Compressor with all pipes and linkages	10
ii	Bogie Roller Set for 20 lanes (Embedded for heavy commercial vehicles with multi axles having more than one live axle) (Refer definition of one set of Bogie roller in Annexure IV: Equipment details, clause no. 2.2.2)	20
iii	Free wheel Trolley for 20 lanes (Portable for All wheel Drive Light Commercial vehicles)	20
iv	Calibration Equipment set	10
v	Automatic Tyre pressure filler and indicator	40
vi	Number Plate Reader Camera (Digital Camera with on line connectivity to the PC) (for 10 centers)	40
vii	Desktops: (as per Annexure IV-A) (for 10 centers)	Quantity is to be decided by the bidder for smooth operation of center
viii	Speed dome camera: 1 no. per center (as per Annexure IV-A) (for 10 centers)	10
ix	Printer: 6 nos. per center (3 nos. for printing reports/certificates and 3 nos. for printing stickers) (as per Annexure IV-A) (for 10 centers)	60

2	Server, CCTV, Audio paging, LAN Network (As per clause 1.4 IT Platform of Annexure IV – Equipment Details & IV-A)	
i	Server: 2 nos. per center (1 no. per center as a backup server) (for 10 centers)	20
ii	CCTV: 18 nos. per center (10 nos. per center for test shed & admin block and 8 nos. per center for under body inspection pits) (for 10 centers)	180
iii	Audio paging: 1 no. per center (for 10 centers)	10
iv	LAN Network: (for 10 centers)	Necessary LAN network hardware with cables needs to be provided by the successful bidder.
3	Light Duty Vehicles Inspection Lane	
i	Roller brake tester	20
ii	Suspension tester	20
iii	Side slip tester	20
iv	Joint Play tester	20
v	Steering gear play detector	20
vi	Fully Automatic Head light tester	20
vii	Smoke meter (Opacimeter)	20
viii	Exhaust gas analyzer	20
ix	Speedometer Tester	20
x	Sound level Meter	20
xi	OBD scan tool	20
xii	Test fingers	20
xiii	Insulation Tester	20
4	Heavy Duty Vehicles Inspection Lane	
i	Roller brake tester	20
ii	Joint Play tester	20
iii	Steering gear play detector	20
iv	Side slip tester	20
v	Fully Automatic Head light tester	20
vi	Smoke meter (Opacimeter)	20
vii	Exhaust gas analyzer	20
viii	Speedometer	20
ix	Sound Level Meter	20
x	OBD scan tool	20
xi	Test fingers	20
xii	Insulation Tester	20

The purpose of CCTV cameras to be installed in underbody inspection pits is to monitor & record underbody inspections being carried out by operator. CCTV footage of underbody inspections, need to be stored on central server of the center.

2. RESPONSIBILITIES

The Bidder shall have total responsibility for the process including all phases of design, manufacture, assembly and functional testing of the equipment, shipment, installation, commissioning, integration of systems, training and system checking for all the elements listed in the current document and two years of operation. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will also be responsibility of the bidder. The suitable exhaust gas handling system (to take care of exhaust of the vehicle under test) is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits. Necessary information such as site layouts shall be provided to successful bidder before start of work execution. Soil test report & site address can be provided to bidder on request. Electrification & general utilities like fans, tube lights, etc. in the test shed area will be provided by respective executing agency.

Bidder is responsible to deliver the equipment as per the purchase order to the respective destination given below:

Table 2: I & C test Centers

State / Union Territory	City
Andhra Pradesh (Telangana)	Hydrabad
Kerala	Cochin
Puducherry	Puducherry
Chhattisgarh	Raipur
Jammu & Kashmir	Samba (Dist. Jammu)
Mizoram	Aizwal
West Bengal	Kolkata
Punjab	Kapurthala
Nagaland	Dimapur
Sikkim	Ranipur

The bidder shall give the final cost which includes basic cost of equipment, all the applicable taxes including GST, duty, freight and insurance charges, transport charges up to destination, installation and commissioning and trainings, cost for design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping, cost for Exhaust gas handling system (to take care of exhaust of the vehicle under test) & fresh air ducting for underbody inspection pits. The bidder shall give cost for 2 years warranty, comprehensive Annual Maintenance Contract for 3rd, 4th, 5th, 6th and 7th year and for two years operation.

The Bidder is requested to take into account all information provided in the Tender Document and its Annexures. The offer shall be suitable to the requirements listed in the complete document.

The Bidder is requested to fill “**Form f)**” with the detailed specifications of his proposal. If any proposed specification deviates from the Minimum Requirements, the Bidder shall fill a proforma in “**Form e)**”.

All other Forms also need to be filled by the Bidder according to the instructions given in the tender document.

Additionally, the Successful Bidder for this tender is also held responsible for:

2.1 Connections, power panels & exhaust gas handling system

All connections between the supplied elements cables & control panel are the responsibility of the Bidder. Each equipment shall be supplied with all cables, connectors, etc. required for the equipment operation. Cabling from control panel placed in the utility room to equipment will be responsibility of the bidder. Cabling from utility room to distribution panel in the test shed will be done by executing agencies. Suitable exhaust gas handling system (to take care of exhaust of the vehicle under test) is to be selected & supplied, installed & commissioned by the bidder. The exhaust gas handling system shall maintain proper ventilation inside the test center.

Minimum requirements of Exhaust gas handling system are as follows.

- LCV Lane:
Vehicle Exhaust Flow: 550m³/hr
Vehicle Exhaust Temperature: 80°C to 100°C
- HCV lane:
Vehicle Exhaust Flow: 1500m³/hr
Vehicle Exhaust Temperature: 100°C to 110°C

Blower should be designed considering above vehicle exhaust flow & temperature. Dilution of the vehicle exhaust should be carried out considering vehicle exhaust temperature. Suitable extraction unit should be provided along with each blower. Suction Velocity of exhaust at the end of extraction unit is to be in the range of 13-15 m/s. Suitable standard flexible hoses with required length need to be provided. While all blowers in working condition, noise level should be below 80dB inside the test shed.

Bidder should also provide fresh air ducting for all underbody inspection pits.

2.2 Software

Bidder shall ensure the system upgradation with the latest software version free of cost for the first two years under warranty. The comprehensive AMC charges for next five years should include software upgradation charges also. The referred system upgradation shall be applicable in the event of:

- Critical releases on the software
- New Operating System adoption
- Accumulation of minor upgrades in the software
- Any changes in the test limits or test procedure or reporting requirement

If Hardware upgradation is required in order to achieve the software upgradation, this will also be included free of charge. This includes, as an example, the Computer, connections and communication cards. The supplier is also responsible for completing the tests for commissioning the upgraded software. This software should have provision to match and compile the data of any new software developed by any other agency in other centers in the country. If any upgradation of the software system is required for integration with other external software the supplier shall provide full

cooperation and if required develop any new software which would eventually result in compilation with other software's. Required help for integration of software with other external software shall be provided by MoRTH & State Transport Department/NIC.

Each test lane should be designed to facilitate 3 to 4 individual test positions to achieve the maximum test throughput. In general, throughputs of minimum twelve (12) vehicles per hour for the light duty lane and minimum eight (8) vehicles per hour per lane for the heavy duty lane should be achievable with trained inspectors. The test lane instruments must be designed to achieve the required throughput and duty cycle.

Bidder is required to give details of integration software like but not limited to details such as protocols etc.

Presently all the state transport departments are using Vaahan/Saarathi software developed by NIC for registration of vehicles and issuing of driving license. The bidder is required to integrate their system software to link with above modules for vehicle data. The data storage of the tests conducted and reports have to be securely kept facility to dump the data on Vahan/Sarathi or any other software of the State Government/MoRTH may deploy has to be adhered. Software should have provision for online uploading of testing data. The availability of testing data in the public domain should be done to ensure transparency in the testing process. At the end of operation/AMC all data has to be handed over to the State Government including software's soft code i.e. software integration protocols. The bidder should provide all integration protocols for the software to be integrated with other software's.

Lane operator software shall have security locks for operator and vehicle. At each test station, test operation will commence after scanning the operator Id. Card. & Registration plate number. All the displays in the lane shall not display any test results in terms of pass or fail. The test report showing all test results should be generated automatically after completion of all tests.

Software should have the capability to register the test appointments through web, mail and manually through telephone.

Software to include facility for intimation of fitness test due through mail/Mobile/SMS. This will enable operator in scheduling vehicle tests.

The report format customization by executing agencies shall also be included in the quote. Executing agency will require, during the start-up of the Test Centre the creation of 10 report patterns. Within the first five years, executing agencies could require the update of these 10 report patterns without any additional cost. Software should have the facility to issue the pass sticker on a pre-printed stationary.

2.3 Calibration

Each equipment shall be supplied with all the required calibration certificates.

All measuring devices shall be calibrated and traceable calibration certificates shall be available by the time of pre dispatch inspection, and shall be included in the documentation delivered by the supplier. Calibration plan shall be included.

Arrangement of calibrated material for the pre dispatch inspection and final acceptance is the responsibility of the equipment supplier.

Calibration tools and plan need to comply with International Standards and Accreditation. Calibration facility and traceability to national and international laboratories should be provided.

The Smoke Meter (Opacimeter) and Exhaust Gas Analyzers shall comply with CMVR Rule 116 (3). For the remaining equipment, in case of non-availability of recognized accreditation agency, the Bidder shall submit thorough explanations on the calibration procedure used.

Calibration equipment, as described in **Annexure IV**, shall also be available with the Bidder in order to maintain the required performances of all the testing equipment included in this tender.

2.4 Climatic Conditions

The supplier is responsible for the declared performances to be reached under the climatic conditions appearing in "**Annexure II - Sites Description**".

2.5 Health & Environmental Requirements

All above equipment's must meet the Environmental, Health and Safety aspects (CE or equivalent). Certificates shall be included in the Documentation. If hazardous material is used, please provide MSDS (Material Safety Data Sheet).

2.6 Documentation

At the time of equipment delivery, the supplier is required to provide, for each equipment, at least a manual in English containing: description of the equipment with detailed drawings, instructions on the operation of the system, detailed software control commands, safety systems, calibration plan and procedure, full maintenance plan and procedure details.

Calibration certificates shall be included in the documentation.

Documentation shall be delivered in Two Hard Copies and in Two Soft Copies (CD or DVD format)

2.7 Construction of Equipment Foundations including flooring & Installation of equipment

The Supplier shall deploy an Implementation Team with demonstrable skills and experience in order to achieve the requested quality of Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping, exhaust gas handling system (to take care of exhaust of the vehicle under test), fresh air ducting for all underbody inspection pits & Installation of equipment.

The work plan proposed by the Bidder for the implementation of the equipment, needs to justify that it will be suitable for achieving the Design, construction & civil

work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping, exhaust gas handling system (to take care of exhaust of the vehicle under test), fresh air ducting for all underbody inspection pits & installation of the Scope of Supply.

The bidder is required to prepare and submit the MS Project plan covering all the activities envisaged in the project.

The work is to be completed within stipulated time from the date of award of contract by way of Letter of Acceptance, as mentioned in the milestone appearing above.

This implementation plan shall be included in document **“Form j) - Description of Approach, Methodology and Work Plan”**

Bidder shall clearly explain the steps to be followed for implementation of the Test Centre lanes, detailing the work team involved at each stage and the requirements from executing agencies, in **“Form j) - Description of Approach, Methodology and Work Plan”**

The Bidder is also required to deliver, together with its offer, a typical implementation layout. The layout should consider site conditions, utilities, expected throughput and optimized cost of operation.

The Bidder for this tender is responsible for any interface with the Civil Works and General Utilities appearing in the document **“Annexure II Sites Description”**. The supplier shall also specify any special requirement on the civil works and utilities in **“Form j) - Description of Approach, Methodology, Work and Plan”**, as per the document **“Annexure II Sites Description”**. Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping will be the responsibility of successful bidder. The suitable exhaust gas handling system (to take care of exhaust of the vehicle under test) is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits.

All the civil work of equipment foundations will be executed by successful bidder as per CPWD norms. Wherever CPWD norms are not applicable, the successful bidder will take consent from concerned executing agency for execution of civil work of equipment foundations. Thickness of Epoxy coating should be at least 3 mm. Color scheme for epoxy coating of test shed flooring will be provided by respective executing agency.

2.8 Pre dispatch inspection and Acceptance Tests

A pre dispatch inspection of the equipment to be supplied shall be performed in the presence of a team of 4- 5persons as decided by MoRTH for each test center. ARAI will be nodal agency for conducting the PDI. All arrangement in consultation with bidder shall be made by ARAI. Costs for one week, towards Travel, Lodging and Boarding of the team will be borne by MoRTH. The costs involved in the PDI will be reimbursed to ARAI by MoRTH based on the bills submitted. Any other / additional costs involved in Pre dispatch inspection to be borne by the bidder. In case duration of Pre dispatch inspections extends beyond one week, then all expenses towards lodging and

boarding, for additional stay and return travel will be borne by the bidder. These tests shall be carried out at the Bidder's premises, as per "**Annexure VII - Acceptance Criteria**". Certificates of calibration from recognized accreditation agency, as per "**Annexure VII - Acceptance Criteria**" shall be submitted. There will be maximum 10 nos. pre dispatch inspections. Additionally, bidder shall bear all expenses of any additional PDI, in case required due to non-compliance during first PDI. This applies to all centers.

Demonstration of the performance of the supplied equipment shall be performed as per tests described in "**Annexure VII - Acceptance Criteria**". The successful bidder shall provide detailed acceptance procedure during the design review meeting.

3. EXCLUSIONS

The modifications to the building, fire detection and extinguishing will be handled by executing agencies and will not be the responsibility of the equipment supplier.

Respective state government shall bear the complete cost including statutory cost for providing required electricity load for 4 lane test center. Respective State government shall provide the water, sewage system as well as waste disposal system at the center. Bidder should arrange electrical supply (via local isolators), water, fuels and compressed air adjacent to the equipment. It shall be the responsibility of the equipment supplier to make all the connections from these service points to the equipment.

The expenses of any fuel at the time of installation of equipment have to be borne by the successful bidder. Respective state government shall provide internet at the site. The expenses like fixed cost mentioned in the running bill, consumption cost and statutory payments if any for water, electricity, internet & telephone would be borne by the successful bidder. Bidder shall bear the expenses for electricity, water etc. after commissioning of the center, but before the actual operation of center. During foundation work and installation & commissioning, the running expenses for electricity should be borne by bidder. After the start of operation, all relevant expenses like payment of bills pertaining to consumption of water, electricity, internet & telephone which includes fixed cost mentioned in the running bills & consumption costs are to be borne by the successful bidder for the operation period of 2 years.

3.1 Warranty, Technical Service and Maintenance

Since the operation of the Centre will have to be done by the Bidders all responsibility of Warranty and Maintenance will have to be borne by the Bidder, who should also be operating the Test Lanes to the satisfaction of the executing agencies. Inability of checking vehicles in a particular test lane will be considered to be a break-down and any machine in a test lane should not break-down for more than 24 hrs and none of the test lanes should be non-operational for more than 100 hours per year.

The Bidder is expected to perform at a throughput efficiency of typically minimum eight (8) vehicles per hour for Heavy Duty Lanes and minimum twelve (12) vehicles per hour for Light Duty Lanes capable of 24x7 operations.

In case the lane is non-operational due to breakdown of any equipment, it could result in Penalizing the Operator of the Centers as mentioned in Clause 3.3.

The requirements for the Service Support are:

3.2 Service Support

In the event of unsatisfactory performance of the bidder in operating the test center, the executing agency will have right to select another vendor for operations of the test lane with prior approval of MoRT&H. In such case, the successful bidder shall provide necessary operational training to new operator. However, the responsibility of providing the comprehensive AMC and warranty services remains with the successful bidder only.

The Bidder is required to have a service support set up in India with sufficient trained manpower.

The Bidder shall commit a maximum response time of 24 hours after the breakdown is reported by the executing agencies representative which is accepted by the Bidders' operator or Technician, which means that in case of any breakdown within 24 hours, the Bidder's personnel should reach the site, assess the cause of the breakdown, take necessary action to resolve the issue and submit the corrective actions schedule.

The Bidder is requested to fill the corresponding part of **"Form h) Service Support"**.

3.3 Warranty

The Bidder shall be required to provide a comprehensive warranty of minimum two years after completion of successful installation and commissioning at site, for equipment supplied under this tender, including the following -

- The Bidder shall commit 95% of uptime.
- Any preventive maintenance and / or repair for breakdown shall be carried out by the Bidder at his own cost during warranty period. No charge on this account (including cost of calibration, spare parts, wear parts, consumables to be changed during maintenance, travel and accommodation expenses, etc.) will be borne by executing agency.
- The preventive maintenance will be carried out by bidder, at a frequency specified by the Bidder at time of Technical Bid Submission. Every three months, the bidder's representative will be required to inspect the equipment and submit a report on overall health & maintenance status of the equipment.
- In case a lane is non-operational for more than 100 hours in a year, Rs. 1000 charges per hour/per non-operational lane would be deducted from the subsequent bill of operations of next month.

As required in the conditions above, the Bidder shall include under the Warranty conditions both preventive and corrective maintenance during the Warranty period. This includes all scheduled preventive maintenance, as well as assistance in case of breakdown, not limited to the scheduled visits, but committing to the 24 hours response time after breakdown is reported by executing agencies representative and accepted by Bidders' operator / technician operating the Centre, independently from the cause of the breakdown. Both spare parts and labour shall be covered by these conditions in case of breakdown happening due to normal use of the facilities, and in no case executing agencies shall be charged for labour costs associated to any kind of

breakdown during this Warranty period.

The Bidder is requested to fill the corresponding part of “**Form h) Service Support**”, explicitly stating his agreement with each and all of the above conditions.

3.4 Comprehensive Annual Maintenance Contract (AMC)

The bidder will be responsible for providing 2 years warranty services and 5 years of Comprehensive AMC services after completion of warranty period.

3.5 Spares, Consumables & Wear Parts

The Bidder is required to have critical / essential spare parts stored in India. The Bidder shall be required to provide a list of critical / essential spare parts (not consumables) without prices (to be included in “**Form h) Service Support**”).

The bidder shall provide the list of the consumables including the quantity required per year.

4. TRAINING SUPPORT

4.1 Pre dispatch inspection training

Two training courses shall be included in the Offer. These two courses will happen at supplier's site during pre-acceptance tests.

- Operational training shall include basics and functioning of the system, system design and the flow schematics, system functions and parameterization, operation and trouble shooting,
- Maintenance training shall include maintenance of the system and Utilities interface.

Operational training shall be based on the same kind of system (software release and functions) to be supplied to executing agencies for I&C Centres. Maintenance training shall be based on the same actual equipment to be shipped and installed at inspection test centers.

Travelling, boarding, lodging and incidental costs for 4 – 5 persons per center for period of one week will be borne by the MoRTH. In case duration of Pre dispatch inspections extends beyond one week, then all expenses towards lodging and boarding, for additional stay and return travel will be borne by the bidder.

4.2 Installation and commissioning training

During acceptance of the facilities at test sites, executing agencies / State transport dept. team will be trained on the job. Maintenance training shall be imparted during the commissioning of the equipment's at the center. Maintenance training shall be based on the actual equipment shipped and installed at test centers.

5. Operations

The Successful Bidder is required to operate the Centre including utilities for a period of two years from the date of successful commissioning of test lane equipment's. The cost of operation must include cost of manpower, consumable including electricity,

gases, fuel etc., maintenance and spares and all other associated costs. The bidder will be responsible for providing housekeeping, security, maintenance of construction and utilities and servicing of utilities like DG set, UPS, Compressor, panels etc. for the period of two years of operation. The state govt. will collect the test fees & the department of transport will be responsible for issue of fitness certificate. The bidder will be responsible for providing test report to the department of transport authority. The Bidder shall deploy requisite number of Trained Office staff, Technicians, Operators, Supervisors and Managers at the center for operation of the equipment, testing of vehicles and issuing a Fitness Test report. The bidder is required to provide the organization chart for operation of the test centers. Eventually, the test centers are expected to run in two shifts as and when the number of vehicles increases beyond one shift operation. The bidder is required to quote for the cost of operation based on:

- Single shift operation
- Double shift operation

The bidder is required to quote the cost of operation for two years. Successful bidder will be decided only on quotation received for single shift operation.

The bidder is required to establish QA/QC document for following operations:

- Test procedures for testing vehicles in the lane
- Calibration procedure and plan
- Maintenance procedure and plan
- Data Management (Data storage, mining, archiving, etc.) & Networking
- Optimization for vehicle through-put, Plan a detail flow of the Testing process to be followed including customer handling process
- Test report customization and generation
- Interact with Vehicle operators for Testing vehicles
- Check relevant documentation

The Bidder is required to independently operate the Centre. The bidder should be able to do the following for running of operations.

1. Equipment management

- 1.1. Bidder or his consortium partner should also have experience of running computerized inspection centers.
- 1.2. The Bidder or his consortium should have the experience of inspecting the range of all type of vehicles from light commercial vehicles to heavy commercial vehicles.
- 1.3. The bidder or his consortium should have successful track record of operating the lanes and testing the vehicles.

2. Manpower management

- 2.1. The bidder should be able to deploy required manpower like Trained Technicians, Operators, Supervisors and Managers at the centers for operation of the equipment, testing of vehicles and issuing a Fitness Test report.
- 2.2. The bidder should manage the team of operators for smooth and efficient running of center and maintain the record of manpower working in the center. The bidder should furnish the required details manpower utilization periodically.
- 2.3. The bidder is required to comply with the legal requirements of deployed manpower as per applicable Indian governing laws.
- 2.4. The bidder is required to ensure to follow Industrial safety norms manpower

deployed at the operation lane.

2.5. Bidder should deploy a lane manager whose responsibility will be to manage the team responsible for inspecting and testing.

3. Trainings

3.1. Bidder should have in-house team for providing training to inspectors, other staff and DoT officials for inspection. In addition to English and Hindi, Bidder is required to provide training in local language.

3.2. Bidder should have in-house team to provide update trainings as and when required for the operators and inspectors.

4. Operation procedures

4.1. Bidder should have duly defined Operation procedures for inspecting and testing of vehicles.

4.2. Bidder should provide manuals in English, Hindi and Local Language for testing and inspection of vehicles in soft copy and hard copies.

5. Calibration

5.1. Bidder should have a scheduled calibration and maintenance plan for the equipment's.

5.2. Bidder is also required to maintain the inventory of tools and consumable items to be used in calibration of equipment's.

5.3. Bidder should clearly define the calibration and test procedure for the equipment's.

6. Spare parts

6.1. Bidder should keep the inventory of the spare parts required for the smooth running of operations.

7. Software – Bidder should have their software which should have the following features.

7.1. Software management –

7.1.1. Bidder should have their own software to be installed on the LAN.

7.1.2. Bidder should be able to maintain and manage their software.

7.1.3. Bidder should be able to update the software as and when required and provide all necessary integration software details to MoRTH or their authorized representatives.

7.2. Data management –

7.2.1. Bidder should be able to do data management in the software like data storage, mining, archiving etc.

7.2.2. Bidder should enter the information received from government and other agencies like –

7.2.2.1. Name of all manufacture of vehicle

7.2.2.2. Name of models manufactured by all OEMs.

7.2.2.3. Information about particular vehicles like registration number.

7.2.2.4. Testing specification and pass / fail criteria for vehicles.

7.3. Software operations-

7.3.1. Bidder should enter all types of information in the master database manually as received or from DoT server through the link provided which would also include the following information but not limited to

7.3.1.1. Vehicle type

- 7.3.1.2. Registration number
 - 7.3.1.3. Engine number
 - 7.3.1.4. Chassis number
 - 7.3.1.5. Date of last inspection
 - 7.3.2. Software should be able to customize and generate test reports as required by executing agencies from time to time.
8. Management of failed vehicles-
- 8.1. Bidder's lane supervisor should guide the vehicle owner for repairs of the vehicle to the approved garages displayed in the center as an option.
9. Test Runs – Bidder should periodically carry out in service checks on a defined frequency on all lanes to ensure smooth and correct running for lanes without hampering the routine operations.

The State Government to be intimated 3 months prior to commissioning/or arrival of equipment to the centre to make necessary arrangement for taking over the operation, as MoRT&H will not bear operation cost beyond 2 years. State Transport Dept. officials will be involved in the equipment commissioning activity & the center shall be taken over by the State Govt. on the date of completion of the commissioning of the equipment. State Govt. will operate the center either by themselves or through the bidder. If State Govt. does not appoint any operator after commissioning, center will be operated by bidder selected by MoRTH. In case operation is given to the bidder, then MoRTH may provide funds to the State Govt. for operation of the Centre, which in turn, would make the payment to the operator.

If the center is operated by the State Govt. themselves, no fund for operation of the center will be provided to the State Govt. If the State Govt. select agency other than that selected by the MoRTH for operating the Centre, no fund will be provided for operation of the center. However, in both the cases, responsibility of providing AMC & training to state government shall be with successful bidder only.

Operator of the center is required to get authorization from State Govt. in case of outsourcing of operation by State Govt.

After two years of operation, based on the decision taken by State Government, further decision for operating the center can be decided; however MoRT&H will not have any financial obligation towards operating the centre after 2 years.

Annexure II: Sites Description

Introduction

This document is intended to provide additional information to the Testing Equipment supplier on the general description of the test Centers.

The Bidder is requested to include along with his offer a proposal for the implementation of the equipment, by pasting a detailed layout for each Test Lane in “Form j)”.

1. General description

1.1 Operating Conditions at test centers

Temperature	-10°C to +50°C
Humidity (RH)	55 to 95 %

The Vehicle Inspection building will either be a steel structure / concrete building / Pre Engineered Building (PEB) Structure. The building will either have two, three or four complete Inspection lanes, catering to Light Duty Vehicles upto 3.5 tons GVW including Three Wheelers & Taxis and the other for Medium and Heavy Duty Vehicles depending upon the vehicle population in the region.

Electricity: Power available at site

- Three phase: AC 415 V +/- 10 % and 50Hz +/- 1
- Single phase: AC 230 V +/- 10 % and 50Hz +/- 1

Diesel generator back up will be made available at the sites.

1.2 Available Utilities

1.2.1. Bidder is required to give the details of power, server room and LAN, material handling, utility requirement such as water, UPS, lux requirement in the test center, earthing, ventilation. Successful bidder will be consulted for finalizing load requirement of each utility. Necessary provision of the sufficient air conditioners in administrative block including industrial fans on the lanes will be provided by executive agencies.

1.2.2. Bidder is required to specify special safety requirements if any.

Annexure III: Bidder's Company Requirement

1. Bidder's Company requirements

1.1 Bidder

The bidder or his consortium (Called as "Bidder") is the company which has sufficient knowledge of operating Vehicle Inspection centers and have the capability to supply complete value of the tender and have the capability to operate the Centre independently. In case the majority of the value of the Tender is outsourced the Bidder should be able to provide documental evidence of possessing a formal agreement with the company supplying the equipment's (supporting documents to be submitted along with the tender) and or providing services for operations. The main bidder would be the purchaser of the tender document and MoRTH would interact only with this bidder in terms of entertaining him for tender document clarifications, evaluating him and considering him for selection, award of contract and the subsequent execution of the contract.

A bidder cannot submit more than one bid.

1.2 Consortium

In case of Consortium the maximum no. of members are restricted to three only and one out of three members must be defined as leader, who will be considered as Bidder for the tender. The lead bidder of consortium should have office in India with valid GST number. Virtual GST no. is not valid / acceptable. The information about the Consortium needs to be furnished as per **Form i)**. No consortium leader shall be part of any other consortium.

- Lead member of Consortium shall not be permitted to participate either in individual capacity or as a member of another Consortium in the same tender. The tender form shall be submitted only in the name of the Lead member and not in the name of any constituent member. Normally EMD shall be submitted only in the name of the lead member and not in the name of constituent member.
- A copy of Memorandum of Understanding (MOU) executed by the Consortium members shall be submitted by the leader along with the tender. The complete details of the members of the Consortium, their share and responsibility in the Consortium etc. particularly with reference to financial, technical and other obligations shall be furnished in the MOU.
- Once the tender is submitted, the MOU shall not be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.
- After the contract has been awarded, alteration / change in the constitution of Consortium shall not be allowed during the current contract period.
- On issue of LOA (Letter Of Acceptance), an agreement among the members of the Consortium (to whom the work has been awarded) shall be executed and got registered before the Registrar of the Companies under Companies Act or before the Registrar/Sub-Registrar under the Registration Act, 1908. This Agreement shall be submitted by the Consortium to MoRTH before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be forfeited and other penal actions due shall be taken against partners of the Consortium and the Consortium. This Joint Venture Agreement shall have, inter-alia, following Clauses:

❖ Joint and Several Liability - Members of the Consortium to which the contract is

awarded, shall be jointly and severally liable to MoRTH for execution of the project in accordance with General and Special Conditions of Contract. The Consortium members shall also be liable jointly and severally for the loss, Damages caused to MoRTH during the course of execution of the contract or due to non-execution of the contract or part thereof.

- ❖ Duration of the Agreement - It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.
- ❖ Governing Laws- The Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws.
- ❖ Authorized Member - Consortium members shall authorize one of the members on behalf of the Consortium to deal with the tender, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the Consortium.
- No member of the Consortium shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of MoRTH in respect of the said tender/contract. Documents to be enclosed by the JV Firm along with the tender:
- In case one or more of the members of the Consortium is/are partnership firm(s), following documents shall be submitted:
 - a) Notary certified copy of the Partnership Deed,
 - b) Consent of all the partners to enter into the Agreement on stamp paper of appropriate value (in original).
 - c) Power of Attorney (duly registered as per prevailing law) in favour of one of the partners of the partnership firm to sign the Agreement on behalf of the partnership firm and create liability against the firm.
- In case one or more members is/are Proprietary Firm or HUF, the following Documents shall be enclosed:

Affidavit on Stamp Paper of appropriate value declaring that his/her Concern is a Proprietary Concern and he/she is sole proprietor of the Concern OR he/she is in position of "KARTA" of Hindu Undivided Family (HUF) and he/she has the authority, power and consent given by other partners to act on behalf of HUF.
- In case one or more members is/are limited companies, the following documents shall be submitted:
 - a) Notary certified copy of resolutions of the Directors of the Company, permitting the company to enter into an agreement, authorizing MD or one of the Directors or Managers of the Company to sign Agreement, such other documents required to be signed on behalf of the Company and enter into liability against the company and/or do any other act on behalf of the company.
 - b) Copy of Memorandum and Articles of Association of the Company. If documents are in language other than English, then both, original document & notarized copy of its English translation need to be submitted.

c) Power of Attorney (duly registered as per prevailing law) by the Company authorizing the person to do/act mentioned in the para (a) above.

- All the Members of Consortium shall certify that they are not black listed or debarred by MoRTH or any other Ministry/Department of the Govt. of India/State Govt. or any other country from participation in tenders/contract on the date of opening of bids either in their individual capacity as members of the Consortium or the Consortium in which they were/are members.

1.3 Bidder's Experience

- Bidder's experience as individually or collectively shall be as below;
 - Having supplied at least 100 test lanes in last ten years out of which at least 50 numbers must be in last five years. Test Lane supplied must comprise of at least roller brake tester, side slip tester, suspension tester and axle weight measuring equipment.
 - Having cumulative experience of government authorized lane operation more than 100 lane years. Lane year will be calculated by adding number of years of operation of each lane irrespective of type of vehicles being tested. (e.g. lane year = number of lane L1 X number of years + number of lane L2 X number of years +).
 - The Lead bidder to provide turnover details of last five financial (i.e. 2014-15, 2015-16, 2016-17, 2017-18 & 2018-19). Out of above, the lead bidder should have achieved a turnover of at least Rs. 25.00 Crores in two financial years individually.

The bidder shall submit a proof of such a business worldwide. This information shall be provided in "**Form i) Bidder's Organization, Company Profile**". Bidder is requested to fill "**Form g) References**" chapter with a list of similar projects handled by him, meaning Operating Vehicle Inspection centers, providing Equipment and Facilities of the categories mentioned in this document. Bidder is requested to provide a full list of such projects in "**Form g) References**", under the chapter "Similar References". Bidder shall have successfully operated, supplied and installed facilities worldwide of such characteristics. Bidder is requested to provide in "**Form g) References**" the full details of such references.

Bidder is requested to submit a proof of having installed and operated Inspection Stations approved by a Government, meaning that the supplied Stations are used for Official Inspection of Vehicles as per a particular enforced regulation. The references given shall belong to different countries, where the Inspection regulation shall have been enforced. The references shall be turn-key projects, where the Bidder had full responsibility to set-up the complete station and operating the same. The Bidder is requested to submit detailed information on those projects in "**Form g) References**", under the chapter "Government Approved References".

1.4 Bidder's Organization and Company Profile

Bidder is required to provide the information about him as per "**Form i) - Bidder's Organization, Company Profile and consortium**".

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1. FUNCTIONAL REQUIREMENTS

The supplier shall have total responsibility for the process including all phases of design, manufacture, assembly and functional testing of the equipment prior to shipment, installation, system checking and functional testing after installation for all its capabilities.

The inspection equipment to be installed is meant to check the correct functioning of all the components of the vehicles involved in the safety of the occupants and the compliance with the emission regulations including meeting all requirements of periodical technical inspection for roadworthiness for in-use vehicles as per Central Motor Vehicles Rule (CMVR), Government of India.

The test systems shall require flexibility to facilitate easy implementation of new test functionality, modifications for changes of the law and new vehicle functionality over the life of the test systems.

1.1 General Purpose of the inspection lane

The purpose of the testing lane is to perform all the tests needed in a standard vehicle inspection station including covering all CMVR requirements. All the equipment defined in this document shall be capable to test the types of vehicles mentioned below, especially listed in **Annexure V**.

The technical specifications include requirements for overall test performance, test lane layout, equipment interfacing, lane throughput and data networking.

1.2 Tests to be performed

The vehicles to be inspected in the facilities shall be divided into:

- Three wheelers
- Passenger Cars (PC) / Taxis
- Light Commercial Vehicles (LCV)
- Medium Commercial Vehicles (MCV)
- Heavy Commercial Vehicles (HCV)

The main tests to be performed are:

- Measurement of braking force in the wheels of each specific axle: To be performed on 3W, PC, LCV, MCV & HCV on the Roller Brake Tester.
- Check of the behavior of the suspension system in each one of the vehicle's axles for vehicle upto 3.5 tons GVW excluding 3W: To be performed on the Suspension Tester.
- Measurement of convergence and divergence between the wheels of the same axle: To be performed on PC, LCV, MCV & HCV on the Side Slip Tester.
- Inspection of the tolerance existing between the different devices linked with the wheels: To be performed on PC, LCV, MCV & HCV on the Joint Play Tester.
- Head lamp beam alignment check: To be performed on PC, LCV, MCV & HCV using the Fully Automatic Head Light Tester.

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- Measurement of exhaust gas opacity in diesel engines: To be performed on 3W, PC, LCV, MCV & HCV using Smoke Meter (Opacimeter) as per CMVR 115 (2).
- Measurement of specific components generated in the exhaust gas in Gasoline/ CNG / LPG engine vehicles: To be performed on 3W, PC, LCV, MCV & HCV using the Exhaust Gas Analyzer per CMVR 115 (2).
- Vehicle Speedometer inspection: To be performed on 3W, PC, LCV, MCV & HCV using the Speedometer.
- Visual inspection, such as reflectors, rear view mirror, Steering system, glass, horn, lights, underbody, and interior etc. including all other tests for roadworthiness mentioned in CMVR for in-use vehicles: To be performed on 3W, PC, LCV, MCV & HCV.
- Stationary noise measurement to be performed on 3W, PC, LCV, MCV & HCV using Sound Level meter
- Accessing live parts using IP XXB & IP XXD test fingers for Electric vehicles. Refer AIS-038 (Rev. 1): 2015 for detailed explanation on Test fingers.
- Checking of insulation resistance of Electric vehicles using Insulation Tester.

1.3 Test configuration

1.3.1. Inspection sequence LD

For e.g.

Administration Process

1. Document Verification
2. Collection of fee
3. Registration of Vehicle manually or through link provided by DoT.
4. Issue the token.

Station 1.

1. Exhaust Gas measurement
2. Under body inspection
3. Outer body inspection
4. Inside body inspection
5. Joint play test
6. Steering gear play detection

Station 2.

1. Speedometer test
2. Sound level measurement
3. Speed limiter test

Station 3.

1. Brake Test
2. Weight Measurement
3. Side slip test
4. Suspension Test
5. Head light test

Administration Process

1. Issue of Report and return of the Token

Bidder can suggest his own sequence of operation.

1.3.2. Inspection sequence HD

For e.g.

Administration Process

1. Document Verification
2. Collection of fee
3. Registration of Vehicle manually or through link provided by DoT.
4. Issue the token.

Station1.

1. Exhaust Gas measurement
2. Under body inspection
3. Outer body inspection
4. Inside body inspection
5. Joint play test
6. Steering gear play detection

Station 2.

1. Speedometer test
2. Sound level measurement
3. Speed limiter test

Station 3.

1. Brake Test
2. Weight Measurement
3. Side slip test
4. Head light test

Administration Process

1. Issue of Report and return of the Token.

Bidder can suggest his own sequence of operation.

1.4 IT Platform

The equipment described in this document shall comply with the following requirements:

- Selection of vehicle category as defined above such as 3W/ Multi axle vehicles etc.
- Data Acquisition and results shall be performed directly by the equipment and its control computer, and sent to a central storage PC for final evaluation without the intervention of the user.
- All results shall be traceable, with information on the operator involved in each test and step of the inspection process.
- The data and traceability shall be secured, and a record of the actions made and the results obtained shall not be editable and should be tamperproof.
- The storage of all data and results shall be secured, and shall not be physically accessible by the users/operators. The central server in the station should have access to all the data generated from the test lanes in a structured manner as may be decided by Executing Agencies from time to time.
- Test result data should be available to executing agency, State Govt. and

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MoRTH which in turn will be uploaded to Vaahan by State Govt.

- Software should have provision for online uploading of testing data. The availability of testing data in the public domain should be done to ensure transparency in the testing process.

Minimum hardware requirements: PC per station, upgradability for additional lanes/test benches. LAN or higher communicating networks, server with sufficient and reliable storage capacity, Heavy duty printer/s for test report printing & Sticker printer etc. to be expandable.

Each station must have capability of reading RFID/smart card/equivalent device. Operation of the each test at every station must be remotely operated so as to minimize operator's physical movement.

Capability for fine tuning the test procedures shall be included. When access granted by the higher authority, calculations and procedures, limit values and all test parameters shall be customizable and storable.

For ease of operation, sequencibility of tests shall be the key to lane design.

Report generation based on all information available in the database shall be customizable by the executing agencies officials in a predefined format/preprinted stationary, for delivery to customer.

Various MIS reports need to be generated for DoT. Format of these reports would be finalized during design review.

Advanced operations on the data management system shall be done from central server in a remote area. The system shall be based on the Windows Operating System. For report generation printer shall be provided and the server room shall also have a printer.

The system shall be equipped with the data mining, data back-up and archiving capability.

The software shall have the calibration and maintenance plan for each equipment of the lane incorporated. The software shall display the same at the computer to inform the lane operator for the same in advance by display warning signals. All the test measurements should be done only when the calibration of equipment is valid. The calibration data shall be stored in the central computer. All measurements shall be in Metric System. Measured value of each test needs to be provided in the test report along with permissible range.

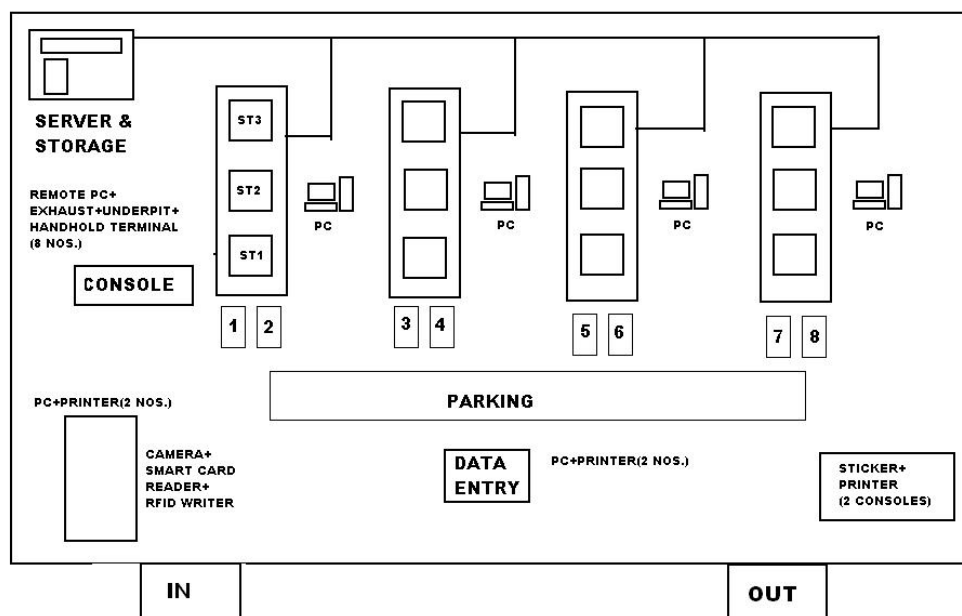
The bidder is expected to support the respective executing agencies for the I&C center layout diagram along with all the required equipment's like RFID/Smart card Reader, PASS Sticker printing, Individual PC at each test lane station, CCTV, Audio paging at each center, Operator ID and vehicle ID (RFID/ IR) sensor at each station of lane, Digital Camera at test shed entry point, Under body inspection HHT need to be communicated to the main control PC, central server with sufficient storage system.

In the absence of dedicated cycle and procedures for loaded mode testing in Indian scenario, it has been decided to incorporate dynamometers for load mode emission

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test at later stage in the same I & C Centre. Therefore the bidder is required to cater the provision for installing the dynamometers for load mode emission test in future.

Bidder is required to consider all of above equipment as per layout. Bidder is also required to give technical and financial details in technical and financial bid respectively.



The specification of PC and server motherboard has been indicated at **Annexure-IVA**.

2. TECHNICAL DESCRIPTION

Number of lanes will be based on vehicle population. However bidder should consider that there shall be maximum four inspection lanes per center, two lanes capable of testing Light Duty vehicles upto 3.5 tons GVW and Passenger Cars and the other two capable of testing MCV's and HCV's.

- Light duty vehicles (vehicles less than or equal to 3500 kg GVW) - Two lanes
- Heavy duty vehicles (vehicles above 3500 kg GVW) - Two lanes

The station, devoted to the inspection of 3W, Passenger Cars, Light Duty, Medium Duty and Heavy Duty Transport Vehicles, shall have at least the following equipment and shall fulfil the following requirements.

2.1 Technical specifications

All the supplied equipment shall meet the European Regulations (Product Safety 2001/95, Electromagnetic Compatibility 89/336 (as amended by 92/31/EEC, 93/68/EEC and 2004/108/EC) as well as the regulation 60950-1:2006 on Safety and Information technology Equipment.

If the equipment does not fulfil all the above regulations, the Bidder shall present all the documents necessary to prove that the regulations met are equivalent.

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All the supplied equipment shall be designed to meet the following good engineering criteria:

- shall be easy to use,
- shall allow improvements and upgradation and
- shall have a low maintenance cost.

Force application system shall be either Pneumatic or Hydraulic type.

Metric units shall be used.

2.2 Common Equipment

The equipment described in this chapter is only used in some cases. Therefore, it will be shared by all the lines in the I& C station.

2.2.1 Air Compressor

Sr. No.	Description	General Requirement
1	Type	Rotary Screw Type.
2	Cooling Media	Air Cooled
3	Free Air density(CFM)	(22±10%) Cfm
4	Working Pressure	10 bar
5	Drive	Belt drive (without Coupling)
6	Noise Level(dB)	64 db±5%
7	Nominal Power & Standard Electrical	400V ±10%, 3 phase with Neutral
8	Controls	Microprocessor based regulator to be mounted at one side of compressor and this comprises with electronic intelligence with all safety interlock, compressor status indicators, compressor warning & shutdown indicators, Automatic operation with energy saving.ES99
9	Ambient Temperature	Min. : 2 ° C Max. : 49° C
10	Receiver Tank Capacity(ltrs.) at 10 bar working pressure	200±20%.
11	Paint Color of Cylinder	As per IS:4379
12	Acoustic Canopy & drive arrangement	Compressor package is enclosed in a powder coated acoustic canopy with sound absorbing material for limiting the noise level, avoids entry for dust particles in the element,anti-vibration mounts support electric motor and compressor unit and isolate the moving components from rest of the structure.
13	Performance	All performance parameters with tolerances as per Indian Standards.(Ultrasonic test & Hydro test valid certificates from

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	Parameters	the standard authority are mandatory)
14	Genuine Spares	Details to be given along with the frequency of the replacement of each part.
15	Air Dryer	Refrigerant type of (22±10%) Cfm free air density standby and with auto drain. Dew Point achievable equal to 2°C.

2.2.2 Free Wheel Trolley

Device used to perform correctly Roller Brake Tests or Speedometer Tests on All Wheel Drive LCV vehicles. To accommodate large variations in vehicles wheel base, this is expected to be portable.

Description:

Portable device devoted to allow driven axels to turn without touching the floor. It shall be composed of a chassis with free turning wheels mounted onto it.

This portable device can be substituted by any other technically proved system to accomplish the purpose previously stated.

The device shall be designed to ensure safety of the people that could be nearby and the vehicle so a proper restraint system shall be proposed.

2.2.3 Bogie Roller Set

Device used to perform correctly Roller Brake Tests or Speedometer Tests on MCV & HCV with multi axle vehicles having more than one live axle.

One set of bogie roller means one bogie roller before brake tester & one bogie roller after brake tester. Brake testing of tandem axle vehicles through counter rotation of wheels using software is acceptable, provided the purpose of both brake & speedometer testing need to be served. At least one bogie roller should be installed in both heavy duty lanes before speedometer testers. The bogie rollers are to be suitably designed to accommodate varying distances between axles and are to be embedded suitably to test both brake and speedometer. Varying distance for Tandem axle is 1.4m ± 0.4m.

Description:

The device shall be designed to ensure safety of the people that could be nearby and the vehicle so a proper restraint system shall be proposed. A proper restraint system means a device that retards people from coming close to the exposed part of rotating bogie roller may be proposed.

2.2.4 Calibration Equipment Set

Calibration Equipment Set shall be available at the station. Two-point calibration system will be provided, as applicable. All the lanes may use the same calibrating devices. All the measuring equipment shall be calibrated. Bidder shall be responsible

for calibration of all measuring equipment.

Bidder to suggest, justify and provide calibration equipment's and procedures for following:

- Emission measurement system for diesel/gasoline vehicles
- Roller brake tester
- Speedometer tester
- Fully Automatic Head light tester
- Suspension tester
- Side slip tester
- Axle weight measurement
- Steering gear play measurement
- Sound level meter

In any case the bidder may suggest and justify any field calibration procedure for the above equipment. Since all calibration of the equipment will have to be done at the first instance during installation, above items would be required. For calibration of Axle weight measurement system, either calibration tool need to be supplied or renting locally from local laboratories accredited by NABL is also accepted. Subsequently, if any of the calibrating equipment's are consumables in nature will have to be replenished by the bidder as a part of the operation.

2.2.5 Automatic Tyre pressure filler and indicator:

- Technical specifications should be:
 - Resolution: +/- 0.1 bar
 - Accuracy: ± 0.5 % of Full Scale or better
 - Full scale: at least 10.6 bar

2.3 Inspection Lane LD

2.3.0 Visual Inspection

All visual inspection will be carried out at least as mentioned in Rule 62 of CMVR.

2.3.1 Roller brake tester

Device devoted to the measurement of braking force in the wheels of a specific axle taking into account the brake power applied on the brake pedal. Service, emergency and parking brakes shall be tested.

This equipment shall be used to test Light Duty Vehicles including Three-wheeled vehicles and Passenger Cars, upto 3.5 tons GVW.

- Technical Specifications
 - Rollers for Passenger Cars and Light Duty Vehicles:
 - It shall allow working with three-wheelers. No manual intervention during weighing or brake testing of three-wheeled vehicles. Supplier should make necessary provision for either

- lifting or proper braking of rollers to help easy exit of three-wheelers after testing.
- Maximum load per axle 3.0T.
- Maximum measurable brake load is at least of 6kN
- Difference in left & right braking efficiency: To be mentioned – Bidder to specify
- Brake load resolution $\leq 100\text{N}$
- Approximate Testing speed: minimum 5 km/h
- Minimum Tracking width: 250 mm to 780mm
- Maximum Tracking width: 2200mm to 2550 mm
- Minimum Roller diameter should be 200 mm
- Minimum Roller axle separation: 300 mm to 400 mm
- Roller surface: Abrasive material
 - Minimum frictional coefficient 0.6 (Supporting documents need to be provided.)
 - Service life – minimum 25000 hrs
- Measurement accuracy required shall be $\pm 100\text{ N}$.

2.3.2 Axle weight measurement

Weighing scale for measurement of each axle weight is required. The system should determine by adding together the axle weight, tare weight/Kerb weight of the vehicle.

- Technical specifications of the weight system should be:
 - Measuring range: 0 – 3000 kg or better
 - Resolution: 5 kg
 - Accuracy: $\pm 1\%$ of reading

The Specifications are provided for measuring Axle weight either separately or integrated within the equipment.

2.3.3 Suspension tester

Equipment devoted to check the behavior of the suspension system in each one of the vehicle's axles (dampers, helper springs, tyres and auxiliary equipment) determining the damping of the oscillations amplitude exteriorly.

This equipment shall be used to test Passenger Cars including other Light Duty Vehicles upto 3.5 tons GVW.

- Technical specifications:
 - Maximum load per axle, 3.0T.
 - Amplitude of excitation : 6.5 mm +/- 5 mm
 - Minimum Tracking width: 700 mm to 880 mm
 - Maximum Tracking width: 2200mm to 2550 mm
 - Working based on any of the prevailing technologies will be acceptable

2.3.4 Side slip tester

Equipment devoted to the measurements of alignment of the wheels of a same axle. This equipment shall be used to test Passenger Cars and Light Duty vehicles upto 3.5 tons GVW.

- Technical specifications:
 - Maximum load per axle 3 T.
 - Minimum Length of the Track Plate : 1000 mm
 - Minimum Width of the Track Plate : 450 mm
 - Maximum Height of the Track Plate : 100mm
 - Measuring range: ± 20 m/km
 - Measuring resolution: 1 m/km
 - Accuracy shall be ± 1.0 m/km

2.3.5 Joint Play tester

Equipment devoted to the inspection of the play between different elements of the wheels, bars and tie rods, shock absorber systems, brakes, and linkages between two specific components and the chassis of the vehicle.

This equipment shall be used to test Passenger Cars and Light Commercial vehicles upto 3.5 tons GVW.

- Technical specifications:
 - Maximum load capacity per axle of at least 3 T.
 - Maximum Force per plate is at least of 10 kN
 - Maximum movement on each side : 100 mm
 - Minimum Length of the Test Plate : 600 mm
 - Minimum Width of the Test Plate : 600 mm

2.3.6 Steering Gear Play Detector

Equipment devoted to check the free play in steering gear as per Central Motor Vehicle Rule 98

- Feature:
 - Angular movement : $\pm 30^\circ$, manufacturer has to specify the indicating mechanism
 - Easy to be incorporated with different steering wheel geometry

2.3.7 Fully Automatic Head light tester

Equipment devoted to check the horizontal and vertical light flux orientation, low beam pattern of the Head Lamp. This device shall be capable of measuring the Head Lamp's light intensity and inclination. Preferable checking could be based on spotting the headlamp reference point. Positioning (Horizontal movement) & focusing (Vertical movement) of Fully Automatic Head light tester in front of head lamps of vehicle shall be done without human intervention. Measurement of low beam pattern and test data transfer from Fully Automatic Head light tester shall be done automatically.

This equipment shall be used to test Light Duty Vehicles including Passenger Cars, upto 3.5 tons GVW.

- Technical specifications:
 - Light Intensity range measure (min): 0-100,000 cd
 - Illumination Intensity range measure: 0-200 lux

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- Headlight tester must be capable of measuring headlamp with their Centers 500 mm to 1200 mm above ground level.
- Vertical and horizontal measuring range: ± 50 cm/10 m (± 5 %)
- Maximum deviation of intensity: ± 5 % of reading
- Maximum deviation of Inclination measurement (vertical orientation): ± 0.1 %

2.3.8 Smoke meter (Opacimeter)

Equipment is devoted to the measurement of exhaust gas opacity in diesel engines. This equipment shall be used to test diesel fuelled vehicles as per CMVR/TAP 115/116.

- Technical specifications:
 - Equipment shall comply as per the requirements mentioned in the CMVR/TAP 115/116. Bidder to provide valid type approval certificate at the time of installation and commissioning as per CMVR at Bidder's own cost.
- Specifications shall meet the requirement as given in TAP document and approved by authorized test agency for use in India.
- The equipment must be certified to MoRTH/CMVR/TAP 115/116.
- Copy of Type Approval certificate needs to be attached.

2.3.9 Exhaust gas analyzer

This equipment will be used for measurements of exhaust emissions of gasoline, CNG and LPG vehicles as per CMVR/TAP 115/116.

- Technical Specifications:
 - Equipment shall comply as per the requirements mentioned in the CMVR 116(3) (International standard certificate to be available at time of bidding. Bidder to provide certification as per CMVR 116 (3) once it is installed, for commissioning at Bidder's own cost)
 - This equipment shall be capable measuring the CO, CO₂ and O₂ percentage concentration, the HC (ppm vol), the lambda value (for various fuel types including CNG, LPG & gasoline) and shall be prepared for up-gradation to measure NO_x.
 - The equipment shall transmit automatically all the data above specified to a PC and to a centralized storage system once the test is over.
- Specifications shall meet the requirement as given in CMVR/TAP document and approved by authorized test agency for use in India
- Must be certified as per MoRTH/CMVR/TAP 115/116.
- Copy of Type Approval certificate needs to be attached.

2.3.10 Speedometer Tester

Device used to measure the functioning of the speedometer of the vehicle. It measures speed and distance covered by a vehicle.

It shall be able to test Passenger Cars, 3 wheeled vehicles and vehicles upto 3.5 tons GVW.

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- Technical Specifications:
 - Maximum load capacity per axle, minimum 3 T.
 - Minimum Track width: 250mm to 780mm
 - Maximum Track width: 2200mm to 2550 mm
 - Minimum Roller diameter should be 200 mm
 - Minimum Roller axle separation: 300 mm to 400 mm
 - Measuring range: 20 – 160 km/h
 - Resolution: 1 km/h
 - Accuracy: ± 1 % of indicated reading

2.3.11 Sound level meter

- The specifications for sound level meter will be as follows:-
 - Recommended as per IEC 60651/ IEC 61672-1
 - Measuring range: $\leq 30\text{dB}$ to $\geq 120\text{dB}$
 - Frequency: A & C
 - Accuracy: ± 1.5 dB
 - Tripod stand mounted
 - Build (rechargeable) battery for power source of charging from outlet of 220V AC
 - Time weighting characteristics designated SLOW (S), Fast (F), Impulse (I).
 - Connectivity with lane software with requisite port like RS 232.
 - Environmental range
 - Minimum Temp range: -10°C to 50°C
 - Humidity: greater than 90%
 - Dust: Typical Indian testing condition

2.3.12 OBD scan tool

- Technical Specifications
 - Must be a hand held scan tool which is compatible across all vehicle classes viz. passenger cars, commercial vehicles etc.
 - Compliant to : OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145
 - Must support the different OBD modes Viz. Mode 01 to Mode 0A
 - Must support all the standard Parameter Identifications of the vehicle
 - Diagnostics Communication mediums Supported : KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)
 - The tool must be capable of automatically selecting the protocol
 - Must have an easy GUI and push buttons to navigate to different menus that are available
 - The scan tool once connected to the vehicle should be able to capture and upload following list of parameters to a software interface located at a central server.
 - MIL Status
 - Mode 1 to Mode A data.
 - DTC
 - Faults identified by scan tool should be mentioned in the test report of vehicle.

2.3.13 Test fingers

- Technical specifications:
 - IP XXB & IP XXD test fingers

2.3.14 Insulation Tester

○ Technical specifications:

-
- Rated measuring voltage: upto 500V DC/ AC (45 to 65 Hz)
- Measuring range: 10kΩ to 100MΩ or better
- Accuracy: upto 10MΩ ±2% of reading & above 10MΩ ±5% of reading
- Measurement categories: CAT III 600 V
- Display: Digital count display
- Protection grade: IP40
- Compliant to: EN61010
- Operating temperature: -10°C to +50°C
- Humidity range: greater than 90%
- Must be working on replaceable or rechargeable batteries
- Accessories: USB communication adaptor, Soft case, Line probe with remote switch, Earth probe set, Probe tip (hook type & extended type), Shoulder strap

2.4 Inspection Lane HD**2.4.0 Visual Inspection**

All visual inspection will be carried out at least as mentioned in Rule 62 of CMVR. All the equipment shall be able to test Medium and Heavy Commercial Vehicles.

2.4.1 Roller brake tester (including Axle weight measurement)

○ Technical Specifications

- Maximum load charge per axle is at least of 15T or better
- Maximum measurable brake load is at least of 40 kN.
- Difference in left & right braking efficiency: To be mentioned – Bidder to specify
- Minimum Roller Diameter : 200 mm
- Minimum Roller Separation: 450 mm
- Roller Length : 1000 mm
- Roller surface: Abrasive material
 - Minimum frictional coefficient 0.6 (Supporting documents need to be provided.)
 - Service life – minimum 25000 hrs.
- Brake load resolution ≤ 100N
- Approximate Testing speed: minimum 2.5 km/h

○ Measurement accuracy required shall be ± 2% of measured value.

2.4.2 Axle weight measurement

Weighing scale for measurement of each axle weight is required. The system should determine by adding together axle weight, tare weight/Kerb weight of the vehicle

- Technical specifications of the weight system should be:
 - Measuring range: 3500 kg – 15000 kg or better
 - Resolution: 5 kg
 - Accuracy ± 1% of reading

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The Specifications are provided for measuring Axle weight either separately or integrated within the equipment.

2.4.3 Side slip tester

Equipment devoted to the measurements of alignment of the wheels of a same axle.

- Technical specifications:
 - Maximum load per axle: at least 15T or better
 - Measuring range: ± 20 m/km
 - Measuring resolution: 1 m/km
 - Accuracy shall be ± 1.0 m/km
 - Track Plate Length : 1000 to 1400mm
 - Minimum Track Plate Width : 750 mm
 - Maximum Track Plate Height : 150mm

2.4.4 Joint Play tester

Equipment devoted to the inspection of the play between different elements of the wheels, bars and tie rods, shock absorber systems, brakes, and linkages between two specific components and the chassis of the vehicle.

- Technical specifications:
 - Maximum load capacity per axle of at least 15T or better
 - Maximum Force per plate is at least of 30 kN
 - Maximum movement on each side : 100 mm
 - Length of the Test Plate : 750 mm to 1400 mm
 - Minimum Width of the Test Plate : 650 mm

2.4.5 Steering Gear Play Detector

Equipment devoted to check the free play in steering gear as per Central Motor Vehicle Rule 98.

- Feature:
 - Angular movement : $\pm 30^\circ$, manufacturer has to specify the indicating mechanism
 - Easy to be incorporated with different steering wheel geometry

2.4.6 Fully Automatic Head light tester

Equipment devoted to check the horizontal and vertical light flux orientation, low beam pattern of the Head Lamp. This device shall be capable of measuring the Head Lamp's light intensity and inclination. Preferable checking could be based on spotting the headlamp reference point. Positioning (Horizontal movement) & focusing (Vertical movement) of Fully Automatic Head light tester in front of head lamps of vehicle shall be done without human intervention. Measurement of low beam pattern and test data transfer from Fully Automatic Head light tester shall be done automatically.

This equipment shall be used to test Medium and Heavy Commercial Vehicles above 3.5 tons GVW.

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- Technical specifications:
 - Light Intensity range measure (min): 0-100,000 cd
 - Illumination Intensity range measure: 0-200 lux
 - Headlight tester must be capable of measuring headlamp with their Centers 500 mm to 1200 mm above ground level.
 - Vertical and horizontal measuring range: ± 50 cm/10 m (± 5 %)
 - Maximum deviation of intensity: ± 5 % of reading
 - Maximum deviation of Inclination measurement (vertical orientation): ± 0.1 %

2.4.7 Smoke meter (Opacimeter)

Equipment is devoted to the measurement of exhaust gas opacity in diesel engines. This equipment shall be used to test diesel fuelled vehicles as per CMVR/ TAP 115/116.

- Technical specifications:
 - Equipment shall comply as per the requirements mentioned in the CMVR/ TAP 115/116. Bidder to provide valid type approval certificate at the time of installation and commissioning as per CMVR at Bidder's own cost.
- Specifications shall meet the requirement as given in TAP document and approved by authorized test agency for use in India.
- The equipment must be certified to MoRTH/CMVR/TAP 115/116.
- Copy of Type Approval certificate needs to be attached.

2.4.8 Exhaust gas analyzer

This equipment will be used for measurements of exhaust emissions of gasoline, CNG and LPG vehicles as per CMVR/ TAP 115/116.

- Technical Specifications:
 - Equipment shall comply as per the requirements mentioned in the CMVR 116(3) (International standard certificate to be available at time of bidding. Bidder to provide certification as per CMVR 116 (3) once it is installed, for commissioning at Bidder's own cost)
 - This equipment shall be capable measuring the CO, CO₂ and O₂ percentage concentration, the HC (ppm vol), the lambda value (for various fuel types including CNG, LPG & gasoline) and shall be prepared for up-gradation to measure NO_x.
 - The equipment shall transmit automatically all the data above specified to a PC and to a centralized storage system once the test is over.
- Specifications shall meet the requirement as given in CMVR/ TAP document and approved by authorized test agency for use in India
- Must be certified as per MoRTH/CMVR/TAP 115/116.
- Copy of Type Approval certificate needs to be attached.

2.4.9 Speedometer Tester

Device measure the functioning of the speedometer of the vehicle. It measures speed and distance covered by a vehicle.

- Technical specifications:
 - Maximum load capacity per axle: at least 15T or better
 - Measuring range: 25 – 100 km/h
 - Resolution: 1 km/h
 - Accuracy ± 1 % of indicated reading
 - Roller Diameter: 240 mm
 - Minimum Roller axle separation: 450mm
 - Minimum Track width: 700 mm to 1000mm
 - Maximum Track width: 2200mm to 2800 mm

2.4.10 Sound level meter

- The specifications for sound level meter will be as follows:-
 - Recommended as per IEC 60651/ IEC 61672-1
 - Measuring level: $\leq 30\text{dB}$ to $\geq 120\text{dB}$
 - Frequency: A & C
 - Accuracy: $\pm 1.5 \text{ dB}$
 - Tripod stand mounted
 - Build (rechargeable) battery for power source of charging from outlet of 220V AC
 - Time weighting characteristics designated SLOW (S), Fast (F), Impulse (I).
 - Connectivity with lane software with requisite port like RS 232.
 - Environmental range
 - Minimum Temp range: -10°C to 50°C
 - Humidity: greater than 90%
 - Dust: Typical Indian testing condition

2.4.11 OBD scan tool

- Technical Specifications
 - Must be a hand held scan tool which is compatible across all vehicle classes viz. passenger cars, commercial vehicles etc.
 - Compliant to: OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145
 - Must support the different OBD modes Viz. Mode 01 to Mode 0A
 - Must support all the standard Parameter Identifications of the vehicle
 - Diagnostics Communication mediums Supported : KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)
 - The tool must be capable of automatically selecting the protocol
 - Must have an easy GUI and push buttons to navigate to different menus that are available
 - The scan tool once connected to the vehicle should be able to capture and upload following list of parameters to a software interface located at a central server.
 - MIL Status
 - Mode 1 to Mode A data.
 - DTC
 - Faults identified by scan tool should be mentioned in the test report of vehicle.

2.4.12 Test fingers

Tender No. RT-25038/11/2017-RS

- Technical specifications:
 - IP XXB & IP XXD test fingers

2.4.13 Insulation Tester

- Technical specifications:
 - Rated measuring voltage: upto 500V DC/ AC (45 to 65 Hz)
 - Measuring range: 10kΩ to 100MΩ or better
 - Accuracy: upto 10MΩ ±2% of reading & above 10MΩ ±5% of reading
 - Measurement categories: CAT III 600 V
 - Display: Digital count display
 - Protection grade: IP40
 - Compliant to: EN61010
 - Operating temperature: -10°C to +50°C
 - Humidity range: greater than 90%
 - Must be working on replaceable or rechargeable batteries
 - Accessories: USB communication adaptor, Soft case, Line probe with remote switch, Earth probe set, Probe tip (hook type & extended type), Shoulder strap

2.5 Software considerations

In order to guarantee the certainty of the obtained values and to save the information, it is required that all the equipment which measures a value is connected to the central unit. A device is considered automatically connected when the result of the test is automatically obtained, transmitted to the central unit and evaluated.

The database must be stored in SQL data management software platform to enable easy exchange and analysis of data with other platforms. The bidder should develop suitable software from time to time as required by Executing Agencies with an overall objective of meeting the test requirements, the operation of the Centre and meeting all the requirement of regulating authorities.

Each input, whether automatic or manual shall be identified with the inspector's reference and stored together with all the results of the tests performed on the vehicle which shall be transmitted automatically to the central unit. The inspection pass fail criteria of a test must be automatic and not editable by the inspector.

The following equipment shall be connected automatically to the central unit:

- Roller brake tester
- Suspension tester
- Side slip tester
- Smoke Meter (Opacimeter)
- Exhaust gas analyzer
- Speedometer tester
- Fully Automatic Head light tester
- Sound level Meter
- OBD scan tool

The software shall be able to receive the results from the following inspections that will be introduced manually in any computer in the lane or the central computer.

- Visual inspection
- Any inspection from the described above not connected automatically.

The software shall verify the status of all the equipment and subsystems specified.

The software shall allow templates for easier preparation of the inspection. It shall also prepare the test file in XLS export file type or similar reports. The software shall allow to view and to obtain a printout of the results of each test separately. Measured value of each test to be provided in the report. The printout and the software operation shall be developed as required by Executing Agencies from time to time. For each test the information shall be recorded and it shall be available from all the computers in the station along with the access control.

The bidder shall provide one computer per phase to be installed in the inspection zone. The bidder shall provide a central unit and the network that links all the computers in the station.

2.6 Safety Systems

2.6.1 Personal safety systems

All the equipment supplied shall be equipped with all the safety protections required for the normal usage of the equipment and for the security of the people who work in each machine. All the essential safety devices such as Safety protection in respect of single phase failure, phase sequence change, surge protection, under & over voltage protection etc., has to be provided by the successful bidder at each console unit. Safety devices can be installed after LT panel, so that, phase change or single phasing should only affect working of 3-phase equipment & not all the equipment. Other safety items must be provided by bidder to safeguard their equipment against surge voltage including frequency corrector, Hi/Lo voltage corrector etc.

2.6.2 Power cut-off protection device

The safety procedure should take into account the fact of the power cut-off. In the case of occurring during a test measurement, the system shall be able to resume the test once electrical supply is back without any data loss.

Annexure IV A: PC & Server Specification

Server Specifications

- Processor Type: 2xIntel Xenon Processor E5-2670 (2.60GHz/8-core/20MB/8GT-s QPI/130W) or better
- Cache: Minimum of 20MB L3 Cache required
- Processor: Minimum of 8 cores/Processor
- Memory: 32GB DDR3 ECC 1333 MHz or higher
- Internal Storage: 7x900 GB SAS Disk 10 K rpm - - Hot swap
- SAS Controller: SAS Controller supporting RAID 0,1,5,6 & 10
- Server Management: Remote Management Port
- I/O Ports: Integrated Server Ethernet dual port controller (10/100/1000Gbps) with full duplex
- PCI-E Slots: Min. 1 PCI slot
- Monitor: 18.5" Wide TFT monitor Resolution: 1366 x 768 TCO certified
- Keyboard & Mouse: 104 keys OEM keyboard (USB) with bilingual support & Key Skin Cover and OEM two button with scroll optical mouse (USB)
- Operating System: 64 bit licensed Windows 2012 Pre-loaded
- Certification: Server should certify Linux/Windows/VMware
- Power supply: 650W Redundant power supply
- Integrated Graphic Controller
- USB ports
- Internal DVD writer
- System utilities with all required device driver software as per above configuration for OS installation
- System configuration & for server management
- Remote management of server over LAN
- Form Factor: 2U Rack Mount with necessary fitting accessories in rack
- Warranty: 5 years onsite comprehensive warranty

Backup System

- Appropriate Software and Hardware to take necessary backup of system for above software support

Desktop Specifications

- Intel® 4th Generation Core™ i3 Processors
- Intel Core i3-4330T 3.0 GHz base frequency,
- 3 MB cache, 2 cores, 4 threads Intel HD Graphics 4600
- Intel® Q87 Chipset,
- 4 GB 1333 MHz DDR3 SDRAM
- 104 keys OEM keyboard (PS2) with bilingual support & Key Skin Cover and Indian Rupee symbol available on the keyboard
- OEM Optical scroll mouse (USB) with mouse pad
- 500 GB 7200 RPM 3.5 HDD, SATA DVD writer
- Integrated 10/100/1000 Mbps Network Adapter with IP6 compliant
- Integrated HD audio controller
- 4 USB 3.0/2.0, Ext. mic. port, Headphone port/Line out, RJ-45
- Drivers & diagnostic utilities should be made available in optical media.
- MS Windows 8 Professional Edition 64 bit OS

- 18.5" Wide TFT monitor Resolution: 1366 x 768 TCO certified
- Desktop is Energy Star 5.2 Certified
- Small Form Factor , UL FCC ePAT Gold
- 5 Years comprehensive onsite Warranty.
- Quantity of Desktop PC's per center is to be decided by the bidder for smooth operation of center.

Printer Specifications

- LaserJet Printer
- 128 MB RAM
- Duplex printing
- Hi-Speed USB 2.0 port, 10/100 Ethernet networking
- Supported OS: Windows XP, 7, 8
- Quantity: Total 6 printers to be kept at administration building per center: 3 nos. for printing reports/certificates and 3 nos. for printing stickers. Stickers will be printed on glue side.

Number Plate Reader Camera (Digital Camera)

- **Camera**
 - Image Sensor 2/3" intelligent transportation network camera Video camera Sensor Type, 1/3" Progressive Scan CCD/CMOS
 - Min. Illumination 0.1 Lux (F1.2, AGC ON)
 - Shutter Time 1/25 s to 1/100,000 s
 - Lens range should be 5 – 50 mm or better
 - Angle of view: 101° - 30.4°
 - Lens Mount C / CS mount
 - Auto Iris DC drive
- **Compression Standard**
 - H.264 Compression output rate 32 Kbps/16M bps
- **Image**
 - Image format JPEG Maximum image size 1920 × 1080 Frame rate 25fps (1920 × 1080) Image settings Saturation, brightness, contrast, white balance, gain, 3D noise reduction software adjustable.
 - When Capture function Image Format JPEG encoder, the picture quality can be set best Image Quality License plate reader, vehicle identification, vehicle detection Flash control Flash automatic light control, time control options to support a variety of fill light: independent flash of input regulations continuous capture Interface
 - Bidder should provide License plate reader software along with camera. The accuracy of license plate reading should be 90% in both day & night time.
- **Network**
 - Local Storage: Built-in SD/SDHC slot, up to 32 GB
 - Alarm Trigger: Motion Detection, Network disconnect, IP address conflict, storage exception.
 - Protocols: TCP / IP, HTTP, DHCP, DNS, RTP, RTSP, NTP,
 - Security: Password protection, Watermark

- System Compatibility: ONVIF, PSIA, CGI
- IPv6 enabled

- **General**

- Operating Conditions -10 °C - 60 °C (14 °F - 140 °F); Humidity 90% or less (non-condensing)
- Power Supply 12 V DC \pm 10%; PoE (802.3af)
- Power Consumption Max. 10W
- Impact Protection: Standard.
- IR Range - Approx. 10 to 15 meters
- Camera should be certified as per CE, FCC, RoHS, UL.

30X, 2MP IP Speed dome Camera

- Image sensor 1/3" Progressive Scan CMOS

- **Lens:**

- 20X optical or better / digital zoom camera: Yes
- Focus: 4.3-129.0mm, 30x motorized zoom lens, auto focus, manual, day/night.

- **Minimum illumination**

- Color: 0.05Lux@F1.6
- B/W: 0.005Lux@F1.6
- 0 Lux with IR

- **White Balance:**

- Auto / Manual ,AGC :Auto / Manual ,S / N Ratio : \geq 50dB
- Shutter Time: 50Hz: 1/25-1/10,000s, 60Hz: 1/25-1/10,000s
- Day & Night: IR Cut Filter
- Focus Mode :Auto / Semiautomatic / Manual

- **Pan/Tilt/Zoom**

- Pan Range: 360° endless,
- Pan Speed: Pan Manual Speed: 0.1°-160°/s,
- Pan Preset Speed: 160°/s,
- Tilt Range: -15° ~ +90° (Auto reverse)
- Tilt Speed: Tilt Manual Speed: 0.1°-120°/s,
- Tilt Preset Speed: 120°/s,
- Number of Preset: 256,
- Patrol :8 patrols, up to 32 presets per patrol
- Park Action: Preset / Patrol / Pattern / Pan scan / Tilt scan / Random scan / Frame scan / Panorama scan

- **Network**

- Ethernet : 10Base-T / 100Base-TX, RJ45 connector
- Max. Image Resolution: 1920×1080
- Frame Rate: 50Hz: 25 fps (1920×1080) 25 fps (1280×960) 25 fps (1280×720) 60Hz: 30 fps (1920×1080)、30 fps (1280×960)、30 fps (1280×720)

- Image Compression: H.264/MJPEG/MPEG4
 - Audio Compression: G.711ulaw/G.711alaw/G.726
 - Protocols: IPv4 & IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP, DNS,DDNS, NTP,RTSP,RTP,TCP,UDP,IGMP, ICMP, DHCP, PPPoE
 - Number of Simultaneous Live View :Up to 10
 - Dual Streams: Support
 - Mini SD Memory Card: Manual REC / Alarm REC. Built-in SD/SDHC Slot, up to 32GB
 - User/Host Level: Up to 32 users, 3 Levels: Administrator, Camera control, Live view only
 - Security Measures :User authentication (ID and PW), Host authentication (MAC address)
- **Interface:**
 - Ethernet 10BASE-T/100BASE-TX, RJ-45
 - Connectors 2 alarm inputs, 1 output
 - Composite video: 1 BNC output
 - Audio 3.5 mm line in, 3.5 mm line out
- **General**
 - Operating Conditions: -10 °C ~ 60 °C (14 °F ~ 140 °F)
 - Humidity 90% or less (non-condensing)
 - Power Supply: 24 VAC ± 10%, PoE or Local power supply
 - Power Consumption: Specify
 - Protection Level: IP66 standard (outdoor dome)
 - TVS 4,000V lightning protection, surge protection and voltage transient protection
 - IR Range: IR Distance :120m IR Intensity: Automatically adjusted
 - Camera should be certified as per CE, FCC, RoHS, UL.

CCTV

- **5MP IR Bullet Camera:**
 - Number of Pixels: 5 MP (2944 × 1656)@ 20fps
 - Resolution: Max. 2944*1656 required. Should be adjustable to lower resolution through web/GUI client software from NVR/PC.
 - Scanning System: Progressive PAL/NTSC
 - Sensor: 1/2.9" Progressive Scan CMOS
 - User Access: at least 5
 - System Compatibility: ONVIF
 - WDR: 120dB
 - Image Enhancement: BLC/ROI/3D DNR
 - IR Range: IR Range Upto 50 Meter
 - Lens: Motorized Varifocal (2.8 to 12mm)
 - Dual Stream: Support
 - Compression: H.265+/H.265/H.264+/H.264/MJPEG dual Codec
 - Protocol (min 6 supported): TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
 - Smart detection: In-built video analytics: Line crossing detection, intrusion detection, unattended baggage detection, object removal detection, Motion detection, dynamic analysis.

- Alarm Trigger: Motion detection, video tampering, network disconnected, IP address conflict, illegal login, HDD full, HDD error, Alarm input, Alarm output
- General Function: One-key reset, anti-flicker, three streams, heartbeat, password protection, privacy mask, watermark, IP address filter
- Physical Layer: 1 RJ45 10M/100M self-adaptive Ethernet port
- Audio Compression: G722.1/G711ulaw/G711alaw/G726/MP2L2
- Day & Night: Day & Night Mode: Yes. Automatic IR illuminated & corrected.
- Power Supply: DC12V \pm 25%, PoE (802.3af Class3)
- Certificates: UL, CE, FCC
- Operating temperature: (-30 °C) to (+60 °C) (-22 °F to +140 °F), Humidity 95% or less
- Operating Humidity: 90 % or Higher
- Protection: IP67 , IK 10

Network Video Recorder (NVR)

- **Video/Audio Input**

- IP Video Input: 16-ch
- Two-way Audio: 1-ch BNC (2.0Vp-p, 1k Ω)

- **Video/Audio Output:**

- VGA Output: 1-ch, resolution: 1920×1080P/60Hz, 1600×1200/60Hz, 1280×1024/60Hz, 1280×720/60Hz, 1024×768/60Hz
- CVBS Output: 1-ch, BNC (1.0 Vp-p, 75 Ω)
- Resolution: 704 × 576 (PAL); 704 × 480 (NTSC)
- HDMI Output: 1-ch, resolution: 1920 × 1080P / 60Hz, 1920×1080P / 50Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1280 × 720 / 60Hz, 1024 × 768 / 60Hz
- Recording resolution: 5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF
- Audio Output: 2-ch BNC (Linear electrical level, 600 Ω)
- Playback Resolution: 5MP / 3MP / 1080P / UXGA / 720P / 4CIF / VGA / DCIF / 2CIF / CIF / QCIF
- Synchronous Playback: 16-ch

- **Hard Disk Driver:**

- Interface Type: Minimum 5 SATA interfaces for 4 HDDs + 1 DVD-R/W (default),
- Capacity: Supports Up to 4TB capacity for each disk Total must be populated for getting 16TB capacity.
- e-SATA Interface: 1 eSATA interface
 - Disk Array: Array Type: RAID0, RAID1, RAID5, RAID10,
 - Number of Array: 4
 - Number of Virtual Disk: 8

- **External Interface:**

- Network Interface: 2 RJ45 10M / 100M / 1000M adaptive Ethernet interfaces
- USB Interface: 3 USB2.0 interfaces
- Serial Interface: 1RS-485 interface, 1 RS-232 interface, 1 RS-485 keyboard interface
- Alarm Input: 16-ch
- Alarm Output: 4-ch
- IPv6 enabled

- **NVR Features:**
 - Embedded OS with video recording, surveillance software & remote client software (Min 15 nos.)
- **General:**
 - Power Supply: 100~240 VAC, 6.3A, 50~60Hz
 - Consumption: ≤45W
 - Working Temperature: -10°C ~ +55°C (14 °F ~ 131 °F)
 - Working Humidity: 10% ~ 90%
 - Chassis: 19-inch rack-mounted 2U chassis
 - Weight: Specify
- Smart TV with CCTV viewer Installed to view CCTV display :
 - 40" LED Full FHD monitors / TV,
 - minimum brightness 350 nits,
 - Contrast ratio - 5000 : 1,
 - Input ports - VGA, HDMI,
 - External Control - RS 232 / RJ 45, RoHS compliance,
 - Suitable for 24 x 7 operation

LEDs

- Display shall guide the operator for carrying out the test and no test results / pass or fail shall be displayed.
- The details can be discussed during design review.
- Display size to be such that the vehicle driver will be able to view the instruction comfortably. 32 inches LED screen is required.
- Number of LED will depend on the test stages.

Annexure V: Characteristics of Vehicles to be Tested

Basic vehicle fleet characteristics have been determined and summarized here. Publicly available data has been used to estimate the minimum and maximum dimensions of vehicles to be inspected in the test lanes. **Please refer table below.**

The commercial vehicles which are required to be subjected for inspection in the vehicle inspection at the proposed test lanes at all the ten centers shall comprise mainly of Diesel/Gasoline/CNG/LPG fuelled – Trucks, Buses, and Taxis. In case of trailers, only prime mover unit shall be tested. The bidders are requested to take note of this and provide suitable equipment's to the lanes for testing these kinds of vehicles.

The general classifications of these vehicles, for purposes of this summary, can be broadly defined as such:

3w, Passenger cars / Taxis – vehicles used for general transportation of occupants and having a GVW of less than 3500Kg. This general category can include light passenger trucks not intended for commercial use.

Trucks/ Buses – Heavy Duty lane shall be capable to conduct the test on heavy commercial vehicle having 2/3/4 axles and more than GVW 3500 Kg .

Details	3w		4w PC (M1, N1)		4w LCV (M2, N2)		HCV (M3, N3)			
	Min	Max	Min	Max	Min	Max	Trucks (N3)		Bus (M3)	
							Min	Max	Min	Max
Front Axle wt kg	90	260	420	1285	1235	1425	1235	7200	360	6000
Rear Axle wt kg	205	780	435	1115	810	1360	810	5085	1360	8900
KerbWt kg	203	800	730	2300	1500	3380	2045	12500	2660	15000
GVW kg	610	2150	935	2940	2540	10900	5300	31000	5300	22000
Wheelbase mm	1590	3070	2100	3215	2500	3800	2500	5545	2654	8350
Wheel Track mm Front	-	-	1300	1661	1630	1650	1410	1900	1630	2054
Wheel Track mm Rear	1150	1540	1315	1651	1577	1610	1406	1875	1577	1837
Length mm	2080	3510	1402	5226	4634	6875	4634	11994	5125	15000
Width mm	1100	1520	1495	1975	1700	2155	1870	2800	1910	2600
Height mm	1635	2070	1297	2550	2270	2550	2978	3940	2200	3610
Overhang mm Front	-	-	464	1125	1500	2280	1050	1695	1000	1150
Overhang mm Rear	443	790	405	1173	1500	2280	805	3484	1875	2870
Ground clearance mm	170	200	123	220	194	375	194	250	194	250
TCD m	2.8	6.2	8.33	7.95	8.5	16	13.8	23.5	11.17	23.4
TCCD m	-	-	7.95	13.4	-	-	15.89	25	12.84	27.2

Characteristic of the vehicles to be tested

Annexure VI: Evaluation Parameters

EVALUATION PARAMETERS

1.0 Eligibility Criteria

1.1 **Earnest Money Deposit-** All the bids should be accompanied by requisite Earnest Money Deposit.

1.2 Bidder must provide documentary evidences for following;

- If consortium (restricted to maximum 3 members including leader), information needs to be furnished as per **form i)** along with a declaration from the leader that they are not part of any other consortium bidding for this work.
- Bidder's experience as individually or collectively shall be as below;
 - Having supplied at least 100 test lanes in last ten years out of which at least 50 numbers must be in last five years. Test Lane supplied must comprise of at least roller brake tester, side slip tester, suspension tester and axle weight measuring equipment .
 - Having cumulative experience of government authorized lane operation at least 100 lane years. Lane year will be calculated by adding number of years of operation of each lane irrespective of type of vehicles being tested. (e.g. lane year = number of lane *L1* X number of years + number of lane *L2* X number of years +).
 - The Lead bidder to provide turnover details of last five financial (i.e. 2014-15, 2015-16, 2016-17, 2017-18 & 2018-19). Out of above, the lead bidder should have achieved a turnover of at least Rs. 25.00 Crores in two financial years individually.

1.3 **Evaluation Criteria (Technical)-** The evaluation of the bids shall be done by a Committee(HLC) constituted for the purpose. The evaluation shall be strictly based on the information and supporting documents provided by the applicants in the bid. It is the responsibility of the bidder to provide all supporting documents necessary to fulfill the mandatory eligibility criteria. In case, the required information is not provided by bidder, the Committee shall proceed with evaluation based on information provided and shall not request the bidder for further information. Hence, responsibility for providing information as required in this form lies solely with bidder.

It is expressly made clear that mere submission of bid, eligible or not eligible, shall not confer any right whatsoever on any such bidder. Any bid submitted by the bidder, which fails to satisfy the eligibility requirements, shall not be considered and would stand summarily rejected. HLC / MoRTH will have the right to reject any or all bids, received in response to this tender and its decision in this regard shall be final and binding.

Bidder is required to furnish the technical details as specified in **Annexure IV**. Any deviation to this effect needs to be addressed in **Form e)**.

1.4 Financial bids of only those bidders meeting above eligibility requirements shall be

considered for commercial evaluation

2.0 Examination of Financial Proposal and Correction of Arithmetical Errors

Financial bid of successful bidder will be evaluated as below:

Bidder must ensure that financial bid explicitly gives following information:

1. Cost of Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping.
2. Cost of exhaust gas handling system & fresh air ducting for underbody inspection pits.
3. Basic cost including 2 years warranty of all the equipment's listed for the test lane operation as per table 1, clause 1.1 list of equipment's in **Annexure I**.
4. Applicable custom duty and taxes.
5. Packing and forwarding charges.
6. Freight, insurance and transport charges up to the destination as mentioned in table 2, clause 2 responsibilities in **Annexure I**.
7. Basic cost of Lane operation & management software for ten user license.
8. Custom duty & taxes for the software
9. Installation and commissioning of all the equipment and software.
10. Two year operation cost for each test center inclusive of all running expenses which includes housekeeping, security, fixed cost as mentioned in running bill & consumption cost for water, electricity, telephone & internet and applicable taxes.
11. Documentation. (Two set of operation & maintenance manuals in English, Hindi & Local language)
12. On-site training charges for equipment operation & maintenance at each site.
13. Cost of comprehensive AMC for third, fourth, fifth, sixth & seventh years after two years of warranty.
14. Cost of consumable per year e.g. sampling probes, filters, oil, grease, calibration gases, bearings, bushes etc. (Consumables does not include spares. Spares are to be considered as part of warranty)
15. Bid to be quoted in Indian National Rupees only.

HLC / MoRTH will review the detailed contents of each financial bid to ensure that they are complete, whether the bidder has quoted all items of financial bid form and correct any arithmetical error.

HLC / MoRTH shall correct arithmetical errors on the following basis:

- (a) If there is a discrepancy between the sub component price/s and the total price that is obtained by multiplying the unit price and quantity/adding the sub component price/s, the sub component price/s shall prevail and the total price shall be corrected, unless in the opinion of the Employer that there is an obvious misplacement of the

decimal point in the sub component price, in which case the total price as quoted shall govern and the sub component price/s shall be corrected.

- (b) if there is an error in a total, corresponding to the addition or subtraction of sub-totals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above. The amount stated in the Letter to Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bidsecurity may be forfeited.

Criteria for deciding successful bidder (Lowest):

- (a) While deciding the lowest bidder, the total composite cost of acquisition and running the same for two years will be compared.
- (b) The sum total will comprise of costs as below:
 - 1. Cost quoted against sr. no. 1 to 12 under clause 2 above.
 - 2. Cost of consumables for two years as given in sr. no 14 above. (Cost indicated in sr. 14 x 2 years)

The successful bidder will be communicated suitably.

Annexure VII:Acceptance Criteria

Acceptance Test Requirements

Acceptance shall be done in two steps

1. Pre dispatch inspection at the supplier site for individual elements before shipment
2. Acceptance of the supplied elements on-site

1.1 Pre dispatch inspection

Once it has been proved through the proper documents including technical specifications and Calibration certificates that all the equipment appearing in the quotation fulfils all the technical requirements, the main systems (the actual equipment's to be supplied) shall be pre dispatch inspection before shipment at the Bidder's site by appointed authorized personnel from MoRTH on the actual equipment's to be supplied at the manufacturers place.

- Pre dispatch inspection of Roller brake tester
- Pre dispatch inspection of Suspension tester
- Pre dispatch inspection of Side slip tester
- Pre dispatch inspection of Speedometer tester
- Pre dispatch inspection of Joint Play tester
- Pre dispatch inspection of Fully Automatic Head light tester
- Pre dispatch inspection of Smoke meter (Opacimeter)
- Pre dispatch inspection of Exhaust gas analyzer
- Pre dispatch inspection of Sound Level Meter
- Pre dispatch inspection of OBD scan tool

The Pre dispatch inspection visit will imply:

- Visual inspection of the actual equipment
- Inspection of the testing equipment when running a real vehicle.
- Inspection of the calibration procedure.
- Verification of the equipment to certify that it fulfils the real needs of the Vehicle Fitness Test Centre.

All calibration certificates should be available to MoRTH by the time of Pre dispatch inspection.

For Exhaust Gas Analyzers and Smoke meter (Opacimeter) the Bidder, at its own cost, will be required to provide certification as per local and CMVR rules 116 (3) by the time of final on-site acceptance.

Remaining equipment shall be calibrated as per International Standards by an accredited certification agency. In case this is not available for some equipment, the Bidder is required to thoroughly explain the calibration procedure used, and to submit all required traceability information.

All the previous information is also required for the calibrating equipment itself.

The supplier should also deliver the procedure that will be used to qualify the equipment during the commissioning.

1.2 Commissioning

- Calibration certificate will be checked with the serial numbers of the equipment delivered on site.
- A full recalibration will be done on-site.
- Validation of the sensors (bridges, connectors, identification).
- Validation of the software.
- Connections and validation of power supply.
- Validation of system.
- Validation of calibration plan during warranty.
- Validation of the provided documentation.

1.3 Final acceptance

After complete commissioning, the following tests will be performed:

- Values obtained in the calibrations will be checked to be admissible.
- The correct running of the software and data dump will also be checked.
- Inspections will be undertaken with different type of vehicles to prove that operation and results of the equipment fulfils the requirements demanded in this tender document.

These tests might be used to validate the complete system. Bidder will ensure that there are proper vehicles and drivers required to perform the tests.

Annexure VIII: Terms of Payment**1. Payment against Equipment foundation work & Supply of Equipment**

- The payment in respect of Schedule of Works, covering items to be imported shall be through an irrevocable commercial letter of credit to be opened by MoRTH in favour of contractors.
- The payment of contractor shall be made as per details given below:
 - A) Equipment foundation work:
 - 50% payment of the item value (quoted) shall be made after completion of Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping at each site.
 - Balance 50% will be paid after epoxy coating for the flooring & completion of equipment commissioning.
 - B) Supply of Equipment:
 - 50% payment of the cost of goods i.e. cost quoted by the bidder for all equipment mentioned in financial bid, shall be made after receipt of items in good condition and correct quantity at the designated places.
 - 30% payment of the contract value i.e. cost quoted by the bidder for all equipment mentioned in financial bid, shall be made after successful installation, at site.
 - 20% payment of the contract value i.e. cost quoted by the bidder for all equipment mentioned in financial bid, shall be made after commissioning, acceptance of the entire system, against submission of performance bank guarantee of 10% amount valid for 24 months after the date of acceptance.

2. Payment against supply of Lane operating Software

- The payment in respect of Schedule of Works, covering software to be imported shall be through an irrevocable commercial Letter of Credit (LoC) to be opened by the employer in favour of contractors.
- The payment of contractor shall be made as per details given below:
 - 50% payment of the cost of software to be delivered to employee shall be made after receipt of software in working condition at the designated places.
 - 30% payment of the contract value i.e. the cost of software shall be made after successful installation, commissioning and acceptance of software along with the equipment at site.
 - 20% payment of the contract value i.e. the cost of software shall be made after commissioning, acceptance of the entire system, against submission of performance bank guarantee of 10% amount valid for 24 months after the date of acceptance.

3. Payment for two years operation of test lane

- Monthly running bill will be paid starting from at the end of first month. Such payments shall be made against invoice submitted by the bidder.

- Final month payment shall be paid after the bidder has handed over all the equipment's in good working conditions and settled all the dues such as PF/ESI dues for operators , CAR policy etc. to be paid by vendor. CAR policy means Contractors All Risks policy. It is basically related to the civil work that will be carried out by bidder at sites. In case of any mishappening at site during construction state, bidder will be solely responsible.

3(a): Payment of AMC

- The payment of AMC will be made on annual basis on receipt of bills from the bidder and recommendation of the state government.

4. Taxes & Duties

The Taxes and Duties shall be applicable as per the provisions of Clause 28 of "Annexure IX - General Conditions of Contract".

5. Deviations in Terms of Payment

The Bidder's offer must be as per the Terms of Payment given above. Any deviation from the above Terms of Payment shall not be entertained. Any offer with deviation from the above Terms of Payment shall be liable to disqualification.

Annexure IX: General Conditions of Contract**1. DEFINITIONS AND INTERPRETATIONS****1.1 Definitions**

In these General Conditions of Contract ("Conditions") the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively ascribed to them:

"Acceptance Tests" means the tests described as such in the Testing Plans.

"Advance Payment" means a sum equal to the amount described in Annexure VIII Terms of payment and paid to the Bidder by MoRTH by way of a mobilization/advance payment in accordance with Annexure VIII Terms of payment.

"Advance Payment Guarantee" means any or all of the guarantees to be procured in accordance with **Clause 27.3**.

"Affected Party" means a Party whose performance of its obligations under the Contract is prevented, hindered or delayed in whole or in part by reason of Force de Majeure.

"Applicable Clearances" means any clearance, permit, authorization, consent, license (including without limitation, any import or export licenses), lease, ruling, exemption, filing, agreements, or approval, required to be obtained and maintained by the Bidder from time to time, in order to complete the Works.

"Applicable Laws" means all laws in force and effect as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India including any revisions, amendments or re-enactments including without limitation rules, regulations and notifications made there under and judgments, decrees, injunctions, writs, orders and notifications issued by any court of record or any appropriate authorities, as may be in force and effect during the subsistence of the Contract.

"Change" means any change to Conditions of Contract, which is instructed or approved as a Change under **Clause 24**.

"Change Order" shall have the meaning ascribed to it in **Clause 24.2.4**.

"Commencement Date" shall mean the date of execution of the Contract by the Parties.

"Commissioning Spare Parts" means those commissioning spare parts required during the commissioning of the Works.

"Completion Certificate" has the meaning ascribed to it in **Clause 2.3.2**.

"Completion of the Works" means the achievement of the criteria set out in **Clause 22.1** and "Complete" "Completed" "Completion" and "Completing" shall be construed accordingly and as certified by the Completion Certificate.

"Confidential Information" means the Contract and everything contained therein, all documentation, data, particulars of the Works and/or the Project Facility and/or the

Project and technical or commercial information made by (or on behalf of) MoRTH or obtained directly or indirectly by the Bidder or which is generated by the Bidder or any subbidder or any information or data that the Bidder receives or has access to as a result of the Contract, other than information:

- (a) which is generally available in the public domain other than by any unauthorised actions or fault of the Bidder; or
- (b) which is in the possession of the Bidder with a right to disclose;

“Contract” means the Contract Agreement, these Conditions, Technical Conditions of Contract, and the further documents (if any) which are listed in the Contract Agreement and initialled by MoRTH and the Bidder and includes any amendment thereto made in accordance with the provisions hereof.

“Bidder” (Successful Bidder) includes (without limitation to) any person, company, firm, organisation, consortium with whom MoRTH has entered into a Contract for execution of the Works and the permitted legal successors in title to the Bidder, but not any assignee of the Bidder.

“Contract Agreement” means the agreement entered into or to be entered into by the Parties and forming part of the Contract.

“Bidder's Documents” means in addition to the documents mentioned in **Clause 1.5.1**, those documents to be prepared by the Bidder under the Contract including without limitation, such technical documents specified in Technical Conditions of Contract and such data, drawings, designs, design information, calculations, schedules, specifications, plans, inspection and test plans, manuals, programmes, erection and test data and all other information and documents including all eye readable or computer or other machine readable data relating to the Execution of the Works or otherwise to performance of the Contract.

“Bidder's Equipment” means all or any apparatus, machinery, equipment, vehicles, materials, plant, tools and all other things required for the Execution of the Works and the remedying of any defects to be provided by the Bidder but Bidder's Equipment excludes Equipment..

“Bidder's Insurances” means the insurance policies to be purchased and maintained in full by the Bidder.

“Contract Price” means the Contract Sum subject to such additions thereto or deductions there from as made in accordance with the Contract.

“Contract Sum” means the sum mutually agreed between MoRTH or their authorised representative and Bidder as the sum payable to the Bidder for the Execution of the Works in accordance with the provisions of the Contract.

“Date of Completion of the Works” means the date certified as such in the Completion Certificate in accordance with **Clause 22.1**.

“Delay Event” means any event set out at **Clause 19.3**.

“Encumbrance” means any encumbrance such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project Facility and/or the Works, physical encumbrances and encroachments on the Project Site.

“Equipment” means any apparatus intended to be procured for the implementation of the Works which may either be manufactured indigenously or may be procured from abroad.

“Execution of the Works” means the design, procurement, supply, assembly, erection, installation, testing, commissioning, trial runs and completion of the Works and the correction of defects in the Works and all works and things required to be undertaken pursuant to the Contract and “Executed”, “Execute” and “Execution” shall be construed accordingly.

“Execution Period” means the period beginning from the Commencement Date and ending on the Date of Completion of the Works.

“Force Majeure Period” means, the period commencing from the date of occurrence of a Force Majeure and ending on the date on which the Affected Party, acting in accordance with the Good Industry Practice, resumes or should have resumed such of its obligations the performance of which was excused in accordance with the Contract.

“Good Industry Practice” means the exercise of the highest degree of skill, diligence, prudence, safety and foresight in compliance with the undertakings and obligations under the Contract which would be expected from a skilled and experienced person engaged in the planning, design, execution, testing, implementation, operation and maintenance or supervision or monitoring thereof or any of them of works of the type, nature and scope similar to that of the Works.

“Intellectual Property” means copyright, all rights conferred under statute, common law or equity in relation to inventions (including patents), registered and unregistered trademarks and service marks, registered and unregistered designs, circuit layouts, confidential information, proprietary information and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

“Liquidated Damages” means those damages described in Annexure IX under Clause no 21 to be paid or allowed by the Bidder to MoRTH or their authorised representative as compensation.

“Maintenance Spare Parts” means the maintenance spare parts for the Equipment and includes the critical, replacement and breakdown spare parts.

“Milestone Event” means the completion of a specific activity to be achieved, which reflects progress in the Execution of the Works or the occurrence of an event in each case as identified as such in the Payment Schedule.

“Executing agencies” shall mean the Institute/Organisation authorised by MoRTH.

“Authorised agencies Representative” means the person, company or firm appointed

by authorised agencies to act as its representative for the purposes of the Contract.

“Parties” means MoRTH or their authorised representative and the Bidder and

“Party” means any one of those Parties.

“Payment Schedule” means the payment schedule described as such and set out in Annexure no VIII.

“Performance Guarantee” means the guarantee to be procured in accordance with **Clause 1.7.1**.

“Performance Standards” means such performance standards for the operation and maintenance of the Project Facility as may be applicable pursuant to the Contract.

“Pre- Acceptance Test” means tests described as such in the Testing Plans.

“Project” means the Setting up of Automated Centre for Testing & Inspection of Vehicles for inspection of Transport vehicles including Three-Wheelers, Taxis, Buses and Trucks.

“Project Facility” shall mean the facilities as specified in the Tender document, being developed in accordance with the Project and includes all its buildings, equipment, facilities, software and systems and includes without limitation, where the circumstances so require, any expansion thereof from time to time and may include any new location. The proposed locations have been mentioned in Annexure I under clause no 2.

“Project Facility Insurance” means the insurance policies to be purchased and maintained in force by respective State governments, in respect of risks set out in Part A, Schedule A [Insurances].

“Project Site” means that part of the site as indicated in Annexure I under clause no 2, on, under and over which the Works are to be Executed and any site to which any Bidder's Equipment- and Equipment are to be delivered and any other places as may be specified in the Contract as forming part of the Project Site.

“Punch List Items” means items of works of a minor or snagging nature which do not affect the performance of the Equipment, where agreed with MoRTH, which remain incomplete at the Date of Completion of the Works.

“Quality Assurance Plan” means that plan referred to in **Clause 9.1**.

“Related Works” means works other than the Works, performed or undertaken by MoRTH or other bidders or suppliers of MoRTH or any bidder employed in connection with the Project Facility and/or services related thereto or by public or private utilities or by other authorities or by any Relevant Authority, either prior to, concurrently or sequentially with the Works at, on, over or adjacent to the Project Site in connection with or related to the Project Facility and which may be connected to, associated with, ancillary to or otherwise related to or relevant to the Works.

“Related Works Bidder” means any person or persons undertaking Related Works.

“Relevant Authority” includes the Department of Customs and Excise, the Ministry of Finance, the Department of Heavy Industry, Ministry of Heavy Industries and Public Enterprises or any other subdivision or instrumentality thereof, any local authority, or any authority empowered by the Applicable Laws.

“Required Insurances” means collectively the Project Facility Insurances and the Bidder Insurances.

“Required Manufacturers Warranties” means those warranties identified as such in Technical Conditions of Contract.

“Spare Parts” means the Commissioning Spare Parts and shall include such Maintenance Spare Parts as are instructed to be provided by MoRTH.

“Subbidder” means a Subbidder to whom a part of the Works has been subcontracted by Bidder or to whom the supply of any goods or materials or labour and services for the Works has been subcontracted as permitted under **Clause 7** and the permitted legal successors in title to such person, but not any assignee of such person.

“Tax” means all forms of taxation, duties, fees, imposts and levies including (but without limitation) income tax including withholding tax, GST, value added tax, sales tax, service tax, octroi, entry tax, corporation profits tax, advance corporation tax, capital gains tax, residential and property tax, customs and other import and export duties, excise duties, stamp duty, capital duty, social insurance, social welfare or other similar contributions and other amounts corresponding thereto and any interest, surcharge, penalty or fine in connection therewith which may be payable by the Bidder, its Subbidders and any of their employees or MoRTH (as the case may be and as set out hereunder), and the words “Taxation” and “Taxes” shall be construed accordingly.

“Technical Conditions of Contract” means the document entitled Technical Conditions of Contract, as included in the Contract, and any additions and modifications to such document in accordance with the Contract. Such document includes the design and /or other technical specifications for the Works.

“Termination Date” means the date specified in the notice of Termination given by either Party to the other Party, from which the Contract shall stand terminated.

“Testing Plans” means those plans referred to in **Clause 17.1.2** which set out the tests and inspections required to be performed by the Bidder in accordance with the Technical Conditions of Contract and the means by which the Bidder intends to conduct and satisfy such tests and inspections.

“Time for Completion” means the time for Completion of the Works as stated in Main Tender document clause no 9 or such time as may be varied from time to time in accordance with the Contract, calculated from the Commencement Date.

“Training Plan” shall have the meaning assigned to it in **Clause 29.2**.

“Warranty” means an assurance from the Bidder for uninterrupted performance of the Equipment after the acceptance of the Equipment, as per the performance

parameters specified under the Contract and includes any alteration, repair or replacement of any defective or damaged part/ design or material used for the Equipment at the cost of the Bidder over the Warranty Period for ensuring such uninterrupted performance.

“Warranty Period” means the period starting from the date of acceptance of the Equipment up to duration as stated in Annexure I under clause no 3.3.

“Works” includes (without limitation to) the designing, manufacturing, assembling and functional testing prior to shipment, delivery, installation, integration of systems and system checking, testing and commissioning of the Equipment and supply of special tools, requisite software, supply of Spare Parts and training to the personnel, operators and mechanics of MoRTH including Project Facility operations personnel and Project Facility operation trainers and necessary after sales service and maintenance support, as agreed with MoRTH.

1.2 Interpretation

In the Contract, unless the context otherwise requires or as otherwise expressly stated:

- 1.2.1 the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal entity);
- 1.2.2 The Technical Conditions of Contract form an integral part of the Contract and will be in full force and effect as though they were expressly set out in the body of these Conditions. Terms defined in this Annexure, and Technical Conditions of Contract shall have the same meaning throughout the Contract;
- 1.2.3 definitions within Clauses have the meaning ascribed hereto;
- 1.2.4 metric system of measurement shall be used exclusively in the Contract.

1.3 Communications

Wherever these Conditions provide for any agreement, or the giving or issuing of any consent, approval, authorization, notice, certificate, request, determination, information or report (“communication”) from or by any Party such communication shall be valid and effectual only if:

- (i) in writing under the hands of a duly authorized representative of such Party and delivered by hand (against receipt), sent by recognized courier, registered mail, or transmitted by facsimile transmission; and
- (ii) delivered, sent or transmitted to the address for the recipient's communications as stated by MoRTH.

1.4 Confidentiality

- 1.4.1 The Bidder shall disclose to MoRTH any Confidential Information and other

information as MoRTH may reasonably require for verifying the Bidder's compliance with the Contract. Further, the Bidder shall not, without the previous written consent of MoRTH, use, copy, publish, disclose or otherwise deal with, nor cause nor permit its Subbidders or any persons for whom it is contractually or otherwise responsible for, to use, copy, publish, disclose or otherwise deal with any Confidential Information, otherwise than for the performance of its obligations under the Contract.

1.4.2 The Bidder shall not without the prior written permission of the MoRTH Representative:

- (i) disclose the Contract or any provision thereof or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of MoRTH in connection therewith, to any person other than a person employed by the Bidder in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purpose of such performance;
- (ii) make use of any document or Confidential Information enumerated in the Contract, except for the purpose of the Contract; and
- (iii) communicate or use in advertising, publicity, sales, releases or in any other medium, photographs or other reproduction of the Works under this Contract or description of the Project Site, dimensions, quantity, quality or other information, concerning the Works.

1.4.3 Any document, other than the Contract and enumerated in the Contract shall remain the property of MoRTH and shall be returned (in all copies) to MoRTH on completion of the Bidder's performance under the Contract, if so required by the MoRTH.

1.5 Bidder's Documents

1.5.1 The Bidder's Documents shall mean and include the following which shall be deemed to form a part of the Contract:

- (i) Tender Document including letter forwarding the tender documents, instructions to bidders and the conditions described in this Annexure.
- (ii) Specifications of the Equipment to be furnished under the Contract in the Technical Conditions of Contract;
- (iii) Bidder's bid proposal and the documents attached thereto including the letters of clarifications thereto between the Bidder and MoRTH prior to the award of the Contract except to the extent of repugnancy;
- (iv) all the materials, literature, data and information of any sort given by the Bidder along with its bid, subject to the approval of MoRTH;
- (v) Letter of award and any agreed variations of the conditions of the documents and special terms and conditions of the Contract, if any; and

- (vi) such additional documents within such times and in such numbers and format as MoRTH may reasonably require.

1.5.2 The Bidder shall prepare all Bidder's Documents and shall submit the Bidder's Documents to MoRTH as may be required/ directed by MoRTH and /or as called for in the Contract and in numbers and format required by the Contract and/ or by MoRTH.

1.5A Conflict of Documents

1.5A.1 In case of any inconsistency between any of the constituent documents of the Contract, the following shall be the supervening/prevailing order of priority for such documents:

- (i) Contract Agreement;
- (ii) Technical Conditions of Contract;
- (iii) Other Bidder's Documents;
- (iv) General Conditions of Contract.

It is specifically clarified that in case of conflict between any timelines set out in these Conditions with those in the Tender document.

1.5A.2 In the event of any conflict between the above mentioned documents, the decision of the MoRTH shall be final and binding upon the Parties.

1.6 MoRTH Instructions

1.6.1 All instructions given by MoRTH or by any person executing delegated functions will be issued in writing and in such form as will be advised to the Bidder after the Effective Date.

1.6.2 Where the Bidder fails to comply with an instruction, MoRTH may engage others to give effect to the instruction. All costs and charges incurred by MoRTH authorized representatives in engaging others shall be paid by the Bidder to MoRTH or may, without prejudice to any other method of recovery, be deducted by MoRTH from any monies due to the Bidder or may be recovered as a debt due and payable to MoRTH on demand.

2. THE MoRTH

2.1 The MoRTH duties and authorities

The Bidder shall be appointed by and shall be responsible to, MoRTH and shall carry out the duties specified in, or necessarily implied from the Contract and shall exercise the authority delegated to it by MoRTH. The Bidder shall take instructions, notices, communications, decisions and approvals only from MoRTH.

The MoRTH authorized Representatives shall have no authority unless given by MoRTH to amend the Contract, to release the Bidder of any of his duties, liabilities or obligations under the Contract, nor, create estoppel against it in respect thereof,

nor except as expressly provided hereunder or elsewhere in the Contract, to order any Work involving delay or any extra payment by MoRTH or their authorized representative, nor to make any variation of or in the Works nor to waive any right of MoRTH authorized representatives under the Contract.

2.2 MoRTHprotection

The Parties acknowledge and agree that provisions in the Contract to the effect that work to be done under the Contract shall be carried out with the consent, non-objection or to the satisfaction of or be certified, determined, accepted, confirmed or inspected by the MoRTH are inserted as protection to MoRTH and it is the sole responsibility of the Bidder to ensure that the Works are Executed in all respects in accordance with the Bidder's obligations under the Contract. The Bidder further acknowledges and agrees that no payment by MoRTH or their authorized representative nor any expression or implication of satisfaction or acceptance nor any action, examination, comment, rejection, confirmation, certification, determination, consent, non-objection, approval or notice by the MoRTH or failure to do the same shall restrict, debar, exclude or waive any claims, rights or actions whatsoever by MoRTH for any breach of any such obligation by the Bidder.

3. COMMENCEMENT

3.1 Condition Precedent

The Contract shall become legally binding and in force only upon:

3.1.1 the submission of the Performance Guarantee; and

3.1.2 satisfaction of any other condition(s) required by MoRTH.

4. THE PROJECT SITE

4.1 Access to and possession of the Project Site

4.1.1 Save insofar as the Contract may prescribe:

- (i) the extent of portions of the Project Site of which the Bidder is to be given access from time to time; and
- (ii) order in which portions shall be made available to the Bidder;

MoRTH will, simultaneously from the Commencement Date, give to the Bidder uninterrupted access to and possession of only so much of the Project Site as may be reasonably required by the Bidder to commence and proceed with the Execution of the Works. The Bidder represents that it shall not part with or create any

Encumbrance on the whole or any part of the Project Site and shall not, without the prior written consent of MoRTH, use the Project Site for any purpose other than for the purpose of the Execution of the Works and shall bear all costs and charges for any access required by it additional to those provided by MoRTH.

4.1.2 The Bidder shall not be entitled to uninterrupted access to or exclusive possession of any part of the Project Site during Execution of the Works at the Project Site and the Bidder's rights of access to and possession of any part of the Project Site shall in addition be subject to:

- (i) any rights of public passage or access existing over any part of the Project Site from time to time;
- (ii) the right of MoRTH, the Related Works Bidders, and representatives of any statutory authority, to have access to:
 - (a) view the Works or any operations at the Project Site on reasonable notice; and
 - (b) visit any site or workshop where goods, materials or equipment are being manufactured, prepared or stored, on reasonable notice and during normal working hours, for the purposes of general inspection and of attending any test or investigation being carried out in respect of the same; and
 - (c) visit and use, and their staff and visitors may visit and use, any facilities provided on the Project Site for their use; and
 - (d) the Project Site at any time in an emergency situation as any of them (acting reasonably) considers necessary in the circumstances; provided always that such persons shall comply with all relevant safety procedures.

4.1.3 The Bidder shall liaise with each of the Related Works Bidder(s) in relation to when the various portions of the Project Site will be made available to the Bidder. The Bidder shall keep the MoRTH fully informed as to all communications with such Related Works Bidders.

4.2 Unauthorized persons

The Bidder shall be fully responsible for the presence on or around or for the entry to the Project Site or for any other act, omission, default or interference affecting the Project Site or the Execution of the Works, by or caused by any person not authorized to be on the Project Site and any such act, omission, default or interference shall not be a breach of the obligations of MoRTH to provide access to the Project Site.

5. CONDITION OF THE PROJECT SITE

5.1 Information from MoRTH or their authorized representative

The Bidder acknowledges and agrees that any information and data on climatic, hydrological, topographical and general conditions relating to the Project Site made available to it by MoRTH or their authorized representative has been done so for the convenience of the Bidder and that the Bidder enters into the Contract based upon its own investigations and determinations.

5.2 Bidder to inspect

The Bidder warrants that it has, to its complete satisfaction, examined and inspected the Project Site and its surroundings and where applicable, any existing structures or works on, over and under the Project Site and is familiar with and has satisfied itself with the Project Site conditions including the climate, topography, access to and from the Project Site, safety, availability of labour, water and electricity. No claim by the Bidder regarding misunderstanding or misapprehension in respect of matters related to this Clause shall be maintainable.

6. THE BIDDER

6.1 The Bidder's general responsibilities

6.1.1 Subject to and in accordance with the terms and conditions of the Contract, the Bidder shall to the satisfaction of MoRTH, Execute the Works and carry out its other obligations under and/or in relation to the Contract and provide all personnel and labour, including the supervision thereof, materials, offices, workshops, tools, machinery, equipment and all other resources and things, whether of a temporary or permanent nature, required herein, and shall assume full responsibility for the same so as to meet the Time for Completion.

6.1.2 The Bidder shall at its own expense:

- (i) take full responsibility for the adequacy, stability and safety of the Works, labour, equipment and of all on-site and off-site operations and methods of manufacture, construction, and installation, commissioning, testing and reliability and acceptance procedures;
- (ii) do everything necessary (including the payment of all relevant fees) to acquire and maintain all Applicable Clearances,;
- (iii) at all times ensure that it has sufficient, suitable and qualified personnel at the Project Site and in sufficient number to undertake the responsibilities imposed upon the Bidder under the Contract and to provide full attention to the Execution of the Works.

6.2 The Bidder's representations and warranties

The Parties agree that the principal objective of the Contract is the timely completion of the Project Facility of which the Works form an integral part and that time is the essence of the Contract. The Bidder warrants that it is fully experienced in the

planning, programming, design (to the extent required by the Contract), procurement and supply, erection, installation, testing, commissioning of equipment's for the scope, complexity, size and technical sophistication of the Works and that it possesses the level of skill and expertise commensurate with such experience, upon which skill and expertise MoRTH or their authorized representative is entirely reliant and the Bidder hereby represents and warrants to MoRTH:

Design (to the extent required by the Contract)

- 6.2.1 it has satisfied itself as to, and adopts and accepts full responsibility for any design of the Works contained in and reflected by Technical Conditions of Contract;
- 6.2.2 it shall exercise in the design and specifications for the Works all the skill, care and diligence to be expected of professionals experienced in and possessing all the expertise necessary for similar projects of the size, scope, complexity and technical sophistication of the Works;
- 6.2.3 the Works have been and will continue to be designed and specified utilizing state of the art systems, procedures and technology, high quality goods, materials and equipment and the high standards of workmanship and fabrication in compliance with Technical Conditions of Contract;
- 6.2.4 the Bidder further warrants that upon the Date of Completion of the Works, the Works will be in a condition which will enable MoRTH to meet those Performance Standards which relate to the Works;
- 6.2.5 that it recognizes that the process of producing, optimizing, developing and finalizing the design of the Works will require the closest consultation, co-operation and co-ordination between itself, MoRTH, any Relevant Authority and the Related Works Bidders and that it has taken account of the same in the Contract Sum.
- 6.2.6 that it is fully responsible for the integration of and for the full and complete co-ordination of the Works with the Related Works and that:
 - (i) the Contract Sum is inclusive of the cost of the Bidder's compliance under this **Clause 6.2** and **Clause 13**; and
 - (ii) the Bidder has programmed and will continue to programme the Execution of the Works in such a way as to ensure its compliance with its obligations in respect of Related Works as set out in **Clause 13**.

Workmanship

- 6.2.7 the Works will be Executed and defects, remedied in accordance with Good Industry Practice, using state of the art systems and technology and accepted professional standards, codes of practice and regulations, and shall meet the intents and objectives of the Contract and comply with all Applicable Laws

and be in accordance with Technical Conditions of Contract and other requirements of the Contract;

- 6.2.8 the personnel to be employed by the Bidder shall be properly skilled, competent and experienced having regard to the nature and extent of the Works. Executing agency may also verify their skills as & when required;
- 6.2.9 the Works and every part thereof will be complete in all parts, will be free from defects in materials and workmanship and will be in conformity with Technical Conditions of Contract;

Equipment

- 6.2.10 it will ensure that the Works will comprise only Equipment which is of sound and merchantable quality and which is manufactured and prepared in accordance with the Applicable Laws and with Good Industry Practice applicable at the time of construction and/or installation;
- 6.2.11 that the Equipment, notwithstanding any acceptance by MoRTH, shall where appropriate be manufactured specifically for the Contract and be new and unused, will be complete in all its parts, free from defects and will meet the requirements of the Contract and in particular, but without limiting the generality of the foregoing will be such that the Works as a whole and each and every part thereof shall meet Technical Conditions of Contract;

6.3 Indemnity

- 6.3.1 The Bidder shall at all times save harmless and indemnify MoRTH from and against all claims, liabilities, expenses, costs, damages and losses suffered or incurred by MoRTH including consequential losses and damages which may arise out of or in connection with any defect, damage during transportation, inadequacy or unsuitability of the design, manufacture, workmanship or materials or failure to meet in any or all respects the requirements of the Contract or the remedying thereof either by the Bidder, or MoRTH.
- 6.3.2 MoRTH rights under this **Clause** 6.3.2 are without prejudice to any other right which it may have whether at law or otherwise.

7. SUBBIDDERS

7.1 Subcontracting

The Bidder shall not subcontract any part of the Works without the prior consent of the MoRTH. Any such consent shall not relieve the Bidder from any liability or obligation under the Contract and the Bidder shall be responsible for the acts, defaults, omissions and neglects of any Sub-Bidder, his agents, servants or workmen.

The Bidder may subcontract any part of the Works but not subcontract the whole of the Works under any circumstance.

7.2 Subbidder's Warranty and Assignment of Sub-Bidder's' Obligations

The Bidder shall procure the assignment of warranties by the Subbidder in favour of MoRTH without any costs to the account of MoRTH.

In respect of the work Executed, or Equipment supplied by a Subbidder, any continuing obligation of a Subbidder extending for a period exceeding that of the Warranty Period, shall be disclosed to MoRTH by the Bidder and be assignable to MoRTH or its nominee. The Bidder shall ensure that the Subbidder shall at any time, assign to MoRTH and at their request, such continuing obligation of a Subcontract exceeding the Warranty Period and the benefit of such obligation for the un-expired duration thereof.

7.3 Responsibility

7.3.1 Subcontracting does not relieve the Bidder from any of its liabilities or obligations under the Contract.

7.3.2 The Bidder shall be fully responsible for the acts, defaults, omissions and neglects of any Subbidder and their agents, employees, servants and workmen, as fully as if they were the acts, defaults, omissions and neglects of the Bidder.

7.4 Subcontract Terms

The Bidder shall procure that:

7.4.1 every Subbidder has knowledge of the relevant terms of the Contract and provisions in the Contract relating to confidentiality and each Subcontract entered into by the Bidder shall be let on such terms and conditions as are reasonably necessary for the Bidder to ensure compliance with its obligations under the Contract;

7.4.2 the Subbidder provides like warranties and indemnities as given by the Bidder to MoRTH or their authorised representative.

8. SUFFICIENCY OF THE CONTRACT SUM

The Bidder shall be deemed to have satisfied itself before entering into the Contract as to the correctness and sufficiency of the Contract Sum and of the rates and prices. The Contract Sum is a lump sum fixed price and will not be adjusted save as expressly provided in the Contract.

9. QUALITY ASSURANCE PLAN

9.1 The Bidder shall within 30 days (thirty days) from the Commencement Date submit a Quality Assurance Plan. The Bidder shall also submit to the MoRTH all inspection / test reports and processes and quality standards which are adhered to while manufacturing of Equipment as per Quality Assurance Plan at least 15 (fifteen) days before the pre dispatch inspection Date. MoRTH or its nominee or any other person designated by MoRTH may inspect / witness the manufacturing processes and other

information provided by the Bidder as mentioned in the Quality Assurance Plan. The Bidder agrees that neither the submission of Quality Assurance Plan nor the submission of quality / test certificate releases the Bidder from any of its responsibilities, obligations, or liabilities (including repair or replacement of any Equipment or part of the Works damaged during the carrying out of any Tests) under the Contract.

- 9.2 The Bidder shall at its own cost provide all access, assistance and facilities to enable MoRTH to verify the implementation of the Quality Assurance Plan.

10. SPARE PARTS

- 10.1 The Bidder shall be responsible, at its own cost, for the provision of the Spare Parts. Such cost shall include all costs such as customs duty for imported Spare Parts, left behind items, replacement or breakdown spare parts as well as costs for storage and insurance costs in relation to the maintenance of the Spare Parts in storage.

- 10.2 The Contactor shall ensure that:

- (i) as at the Completion of the Works, there is a full complement of Spare Parts safely stored and packed in accordance with the Contract.
- (ii) if a Maintenance Spare Part is used by the Bidder during the commissioning/ Acceptance Tests due to shortage of Commissioning Spare Parts, the Bidder shall immediately replace, at his own cost, the Maintenance Spare Parts to ensure a full complement of Maintenance Spare Parts at the end of commissioning/ Acceptance Tests.

- 10.3 The Bidder warrants the performance of all Maintenance Spare Parts for period that expires on the later of:

- (i) the manufacturer's warranty period for the applicable Maintenance Spare Parts; and
- (ii) the Warranty Period.

The Bidder shall revise and update any list of Spare Parts in accordance with the instructions of the MoRTH, and a list of Spare Parts shall be submitted to the MoRTH before the Pre- commissioning of any part of the Works to which such Spare Parts relate.

- 10.4 Where the Bidder is to supply the Spare Parts in accordance with this Clause 10.4 without prejudice to the foregoing, the Spare Parts shall be delivered to MoRTH in accordance with the Contract and without prejudice to **Clause 14** the packing and storage of the Spare Parts shall be in accordance with the Contract.

11 ENVIRONMENTAL COMPLIANCE

The Bidder shall comply with all environmental requirements stipulated in the

Contract and with all Applicable Laws and regulations having application to the Project Facility, including but not limited to standards for noise and vibration levels and airborne and waterborne pollutants.

12. ELECTRICITY, WATER

12.1 General arrangements

- 12.1.1 The Bidder shall be responsible for making all its arrangements for paying all charges in connection with consumption of electricity, calibration gases, water and the disposal of sewage and other waste as may be necessary for the Execution of the Works up to the operation of lane for two years.
- 12.1.2 Respective State government will make arrangement of water & electricity at respective site. Bidder will be responsible for paying water & electricity charges for the Execution of the Works which includes ~~erection~~ installation, testing and commissioning, operation of the center and Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping. The suitable exhaust gas handling system is to be selected & supplied, installed & commissioned by the bidder. Bidder should also provide fresh air ducting for all underbody inspection pits.

13. RELATED WORKS

13.1 Acknowledgement

The Bidder acknowledges that Related Works shall be performed and that it is of paramount importance that the Execution of the Works are fully and completely co-ordinated with the Related Works in view of their concurrent and sequential nature and that such coordination is of the utmost importance to the successful integration of the Works with the Related Works and to the timely completion of the Project Facility and the avoidance of unnecessary duplication of efforts. The Bidder agrees that it shall take all necessary steps to coordinate with the Related Works Bidders for the integration of the Works and the Related Works.

13.2 Failure to co-ordinate

In the event that the Execution of the Works and execution of the related works are not being co-ordinated and integrated to the reasonable satisfaction of e MoRTH, MoRTH may issue such instructions as are necessary including, but not limited to:

- 13.2.1 suspending the progress of the Execution of the Works or any part thereof; and/or
- 13.2.2 changing the Works including the omission of work from the Contract and its execution by others.

For the avoidance of doubt, where MoRTH acting reasonably, determines that an instruction under this Clause 13.2.2 is required as a result of a breach by the Bidder of

its obligations under this Clause 13.2.2, the Bidder shall not be entitled to any payment whatsoever in respect of any such instruction or to any extension of time in respect thereof and the costs to MoRTH of such instruction including the cost of any such suspension, or removal and execution by others shall, without prejudice to MoRTH other rights under the Contract, be deducted from the Contract Sum.

13.3 Bidder to bear costs

The Bidder shall bear all costs and expenses associated with any Change or remedied work rendered necessary for the Execution of the Works or the work of any Related Works Bidder as a result of any failure on the Bidder's part to comply with the provisions of this Clause. Subject always to this Clause 13.3, if in the opinion of MoRTH any cost is or is likely to be incurred as a result partially of a failure by the Bidder and partially as a result of a failure by a Related Works Bidder, then in the event that the Bidder and the Related Works Bidder are unable to agree on the apportionment of such costs between them, the MoRTH may instruct the Bidder to make a Change or carry out any repair it deems necessary and, notwithstanding the provisions of **Clause 24** in valuing such Change or repair, it shall be entitled to make what it, in its absolute discretion considers a fair reduction, in any payment to the Bidder to reflect its assessment of the Bidder's responsibility for the necessity to make such Change or repair as a result of the Bidder's failure to comply with the requirements of this **Clause 13**.

13.4 Bidder's indemnities

The Bidder shall indemnify and keep indemnified MoRTH against all claims, proceedings, damages, costs, losses, charges and expenses of any nature whatsoever including any consequential losses or damages arising from the Bidder's failure to comply with its obligations under this **Clause 13**.

14. DELIVERY TO THE PROJECT SITE

14.1 Delivery to the Project Site

14.1.1 The Bidder supplying indigenously manufactured Equipment shall at its own risk and expense, be fully responsible for the proper packing, marking, loading, delivery up to Project Site, insurance, freight costs, interface management, detailed design, detailing, coordination, value engineering, specialist system procurement, provision, erection and/or installation, testing, commissioning, documentation, training, defects rectification and its related works. In case of imported Equipment, the Bidder shall be responsible for shipment costs, transit insurance charges from FOB port of shipment or Airport up to the Project Site, charges for custom clearances etc. All transit insurance charges for transit up to FOB Port of shipment or Airport as well as loading charges on to the ship/ airplane shall be responsibility of the Bidder supplying imported Equipment.

14.1.2 When marking any Equipment, the Bidder shall be responsible for ensuring that such Equipment and any part thereof and their transportation containers are properly marked and consigned.

14.2 Packing List

A packing list itemizing the contents of each case shall be enclosed in each package. A copy of the packing list, together with dispatch details shall be provided forthwith by the Bidder upon dispatch to the MoRTH. The Bidder supplying indigenously manufactured Equipment shall provide all attendance, handling and transport up to and including off-loading into the appropriate Project Site storage area.

14.3 Importation

The Bidder shall be responsible at its own cost for obtaining any Applicable Clearances necessary for the export of Equipment, from the country of origin.

14.4 Documents

Upon dispatch of each shipment of significant items of Equipment, the Bidder shall notify the MoRTH by facsimile or email of the description of the Equipment and the point and means of the dispatch and the estimated time and point of delivery and the Bidder shall furnish MoRTH with all relevant documentation in respect of such Equipment, including without limitation:

14.4.1 ocean bills of lading / Airway bill (these must be a full set of "clean on-board" bill of lading.);

14.4.2 commercial invoices;

14.4.3 packing lists;

14.4.4 certificate of origin;

14.4.5 inspection and pre dispatch inspection test certificate;

14.4.6 customs declaration details.

15. OWNERSHIP OF EQUIPMENT AND OTHER PROVISIONS

15.1 Passing of property

15.1.1 Equipment supplied or to be supplied pursuant to and in compliance with the terms of the Contract shall become the property of MoRTH at whichever is the earliest of the following times:

- (i) when any sum is included in a Certificate of Payment in respect thereof; or
- (ii) for Equipment manufactured indigenously when such Equipment is delivered to the Project Site pursuant to the Contract and for imported Equipment, when such Equipment is loaded on to the aircraft or when the Equipment passes over the ship's rail.

15.1.2 Equipment in which property has passed to MoRTH shall be in the care and possession of the Bidder solely for the purposes of the Works and shall not be within

the ownership or disposition of the Bidder. Notwithstanding the ownership of the Equipment in accordance with Clause 15.1.1 the responsibility for care and custody together with the risk of loss or damage of such Equipment remains with the Bidder pursuant to Clause 31.5.1.

15.2 Marking of Equipment

Where the property in Equipment passes to MoRTH, the Bidder shall so far as is practicable and it has not done so previously, set the same aside and mark the same as the property of MoRTH. The Bidder shall procure that the MoRTH at any time upon reasonable notice may inspect any Equipment which have become the property of MoRTH and shall grant to the MoRTH authorized representatives or procure the grant of access to the Bidder's premises for such purposes or any other premises where such Equipment may be located.

15.3 Exclusion of Lien

Neither the Bidder or a Subbidder nor any other person shall have a lien on or other property interest in any Equipment which have vested in MoRTH under this Clause 15 for any sum due or accepted due to the Bidder, Subbidder or other person and the Bidder shall take such

steps as may be necessary to ensure that the title of MoRTH and the exclusion of such lien and other property interest are brought to the express notice of Subbidders and other persons dealing with or transporting any such Equipment.

15.4 Delivery of Equipment upon Termination

Upon Termination or upon termination of the performance of the whole or any part of the Works before Completion of the whole of the Works, the Bidder shall deliver Equipment to MoRTH, the property in which has vested in MoRTH by virtue of this Clause 15. If it shall fail to do so MoRTH may enter any premises of the Bidder, any Subbidder or other person or any off site place of manufacture or source of Equipment (and the Bidder hereby grants MoRTH the necessary licence to do so and undertakes to procure the same right for MoRTH from all Subbidders and other persons as the case may be) and seize such Equipment and recover the expense involved in so doing from the Bidder.

15.5 Manufacturer's warranties

Without prejudice to the Bidder's obligations and liabilities under the Contract, the Bidder must obtain for MoRTH, from the respective manufacturers, legally enforceable warranties for the Equipment which shall ensure to the benefit of MoRTH for the entire term of the warranties.

15.5 Bidder's Equipment

- 15.5.1 All Bidder's Equipment provided by the Bidder or its Subbidders shall, when brought on to the Project Site, be deemed to become the property of MoRTH in the event of Termination of Works on account of default of the Bidder and to be exclusively intended for the Execution of the Works and the Bidder shall not remove the same or any part thereof, except for the purpose of moving it from one part of the Project Site

to another, without the consent of the MoRTH. Provided that such consent shall not be required for vehicles engaged in transporting any staff, labour, Bidder's Equipment to or from the Project Site.

15.5.2 The Bidder shall upon written request by the MoRTH produce to the MoRTH all documents evidencing title to or the contractual basis of the Bidder's right to use any item of Bidder's Equipment. In the event of failure to comply with such a request within 7 (seven) days, without prejudice to any other rights or remedies available to MoRTH, MoRTH may withhold any payments otherwise due to the Bidder in accordance with the Contract.

15.5.3 In case of import of any Bidder's Equipment necessary for the Execution of the Works, the Bidder shall be solely responsible for (without limitation to) its transportation, importation, customs clearances and re-exports.

15.6 MoRTH not liable for damage

MoRTH shall not at any time be liable for the loss of or damage to any of the Bidder's Equipment.

15.7 Conditions of hire of Bidder's Equipment

15.7.1 With a view to securing, in the event of Termination, the continued availability, for the purpose of Executing the Works, of any hired Bidder's Equipment, the Bidder shall not bring on to the Project Site any hired Bidder's Equipment unless there is an agreement for the hire thereof (which agreement shall be deemed not to include an agreement for hire purchase) which contains a provision that the owner will, on request in writing made by MoRTH within [7 (seven)] days after the Termination Date and on MoRTH undertaking to pay all hire charges in respect thereof from such date, hire such Bidder's Equipment to MoRTH on the same terms in all respects as the same was hired to the Bidder, save that MoRTH shall be entitled to permit the use thereof by any other bidder employed by it on occasion of the Bidder's termination.

15.7.2 The Bidder shall upon request made by the MoRTH at any time in relation to any item of hired Bidder's Equipment immediately notify to the MoRTH Representative in writing the name and address of the owner thereof and shall certify that the contract for the hire thereof contains a provision in accordance with the requirements of Clause 15.7.1. The Bidder shall also upon request as aforesaid give a like notification (but without certification) in regard to any Bidder's Equipment held under a contract of hire purchase thereof.

15.7.3 In the event of MoRTH entering into any agreement for the hire of Bidder's Equipment pursuant to Clause 15.7.1 all sums properly paid by MoRTH under the provisions of any such agreement and all costs incurred by it (including stamp duties) in entering into such agreement shall be deemed to be part of the costs of Executing the Works.

15.8 Re-export of Bidder's Equipment

In respect of any Bidder's Equipment which the Bidder imports for the purpose of the

Execution of the Works, the MoRTH may use its reasonable endeavours to assist the Bidder if so requested and to the extent it is able to do so in procuring any Applicable Clearances for the re-export of such Bidder's Equipment by the Bidder upon the removal thereof as aforesaid.

15.9 Approval not implied

The operation of Clause 15 shall not be deemed to imply any approval by the MoRTH of the Bidder's Equipment or any part thereof, or other matters referred to therein nor shall it prevent the MoRTH right to order the removal of any such Bidder's Equipment or part thereof, at any time.

15.10 Incorporation of Clause into Subcontracts

The Bidder shall, where entering into any key or major subcontract for the Execution of any part of the Works, incorporate in such subcontract (by reference or otherwise) the provisions of this Clause 15 in relation to plant, equipment and tools and temporary works brought on to the Project Site by the Subbidder.

15.11 Revesting and removal of Bidder's Equipment

Upon removal of any Bidder's Equipment which have been deemed to become the property of MoRTH under Clause 15.5 with the MoRTH consent, as aforesaid, the property therein shall be deemed to re-vest in the Bidder and upon Completion of the Works the property in the remainder of such Bidder's Equipment as aforesaid shall, subject to the termination provisions of the Contract, re-vest in the Bidder who shall remove the same. If the Bidder shall fail to remove any Bidder's Equipment as aforesaid within such reasonable time after Completion of the Works as may be allowed by the MoRTH or should fail to comply with its obligations under Clause 34.3, MoRTH may:

15.11.1 sell any such Bidder's Equipment ; or

15.11.2 return any hired Bidder's Equipment at the Bidder's expense to the person, firm or company from whom such Bidder's Equipment was hired by the Bidder and after deducting from any proceeds of sale the cost, charges and expenses of and in connection with such sale and in connection with such return as aforesaid, MoRTH shall, subject to any right of set-off, pay the balance (if any) to the Bidder but to the extent that the proceeds of any sale or return are insufficient to meet all such costs, charges and expenses the excess shall be a debt due from the Bidder to MoRTH and shall be deductible or recoverable by MoRTH accordingly as aforesaid.

16. LABOUR AND BIDDER'S PERSONNEL

16.1 Labour Compliances

16.1.1 In the employment of labour for the Execution of the Works the Bidder shall comply and shall require its Subbidders to comply without limitation, with all requirements of any Applicable Law relating to the employment of workmen or any subsequent modification or re-enactment thereof including but not limited to, matters relating to

timely payment of wages and allowances, payment of minimum wages, payment of overtime, grant of leave, payment of workmen's compensation, working hours, safety, maternity benefits, holidays, framing of standing orders, disciplinary action against employees, payment of provident fund contributions, payment of gratuities and payment of bonuses, drinking water, food etc.

16.1.2 Medical Facilities at Project Site:

The Bidder shall, at its own cost, provide first aid and medical facilities, at the Project Site as may be prescribed by the MoRTH, on advice of medical authority in relation to the strength of the Bidder's staff and workmen employed on the Works, directly or through petty bidders or Sub-Bidders.

16.2 Bidder to indemnify

The Bidder shall indemnify MoRTH against any claim for legal action arising out of the Applicable Laws due to the failure of non-compliance of the provisions of the Applicable Laws which arise out of or in connection with the employment of any labour for the Execution of the Works and penalty or any other amount levied by the authorities from MoRTH, shall be recoverable from the payments due to the Bidders or from the security deposit or both, as debt due and payable on demand.

16.3 Engagement of Labour

The Bidder shall make its own arrangements for the engagement of all labour, local and otherwise, skilled, semi-skilled and unskilled, as may be required for the proper and timely Execution of the Works and shall use all diligence in arranging for a sufficient and suitable supply of such labour but all such arrangements in India shall be in accordance with the general local usage and subject to the Applicable Laws.

16.4 Project Site records and returns

The Bidder shall maintain and keep at the Project Site, wage books and time sheets showing the wages paid to and time worked by all labour employed by the Bidder and its Subbidders in and about the Execution of the Works or any part thereof and all records, forms, declarations, registers, notices, and copies of filings made with labour authorities as are required to be maintained by the Bidder pursuant to the Applicable Laws and the Bidder shall produce such wage books, time sheets and records for inspection by MoRTH.

16.5 Bidder's Personnel

16.5.1 General

The Bidder shall at all times ensure that it has sufficient, suitable and qualified personnel at the Project Site and in sufficient number to undertake the responsibilities imposed upon the Bidder under the Contract and to provide full attention to the Execution of the Works.

16.5.2 The Bidder's Project Organization Chart

- 16.5.2.1 The Bidder's Project Organization Chart to be submitted by the Bidder to the MoRTH Representative shall show the proposed organization to be established by the Bidder for carrying out the Works and shall be consistent with the Bidder's project organization chart submitted with the Tender submission. The chart shall evidence that the Bidder has the requisite organization in place and that it has designated and proposed suitable persons as Key Personnel, whose identities and bio-data it shall include with the Bidder's Project Organization Chart, to supervise the Execution of the Works and to deal with MoRTH as appropriate.
- 16.5.2.2 The Bidder shall promptly notify the MoRTH Representative of any proposed revision or alteration of the Bidder's Project Organization Chart.

16.5.3 Key Personnel

- 16.5.3.1 The MoRTH shall be entitled to interview any or all of the persons designated and proposed as Key Personnel before deciding whether or not to consent to their appointment. If MoRTH interviews any of the proposed Key Personnel, MoRTH shall be deemed to consent to such Key Personnel if it makes no objection within [3 (three)] days of the interview of the last proposed person to be interviewed. If MoRTH objects to any of the proposed Key Personnel within such 3 (three) day period, then the Bidder must nominate a replacement or replacements, as applicable within [7 (seven)] days and this Clause 16.5.3.1 applies to such nomination.
- 16.5.3.2 The Key Personnel are to be engaged throughout the period of the Contract and shall include suitably qualified and experienced personnel for one or more of the positions as set out in the Annexure I under clause no 5.

16.5.4 Technical Assistants

- 16.5.4.1 The Bidder and, where appropriate any Subbidder shall provide and employ in connection with the Execution of the Works only such engineers and technical assistants as are skilled and experienced in their respective callings and such engineers, managers, sub-representatives, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise.

16.5.5 Removal of Bidder's employees

The MoRTH or respective executing agency may object to and require the Bidder to immediately remove from the Works at the Bidder's expense any person employed by the Bidder or its Subbidders in relation to the Works and such person shall not be employed again upon the Works without the written permission of the MoRTH or respective executing agency. Any person so removed from the Works shall, unless the MoRTH specifies otherwise, be replaced, at the Bidder's expense as soon as possible by a competent substitute approved by the MoRTH or respective executing agency.

17. TESTING

17.1 General

- 17.1.1 All materials and workmanship shall be of the respective kinds and standards described in the Contract and in accordance with MoRTH or authorized representatives instructions and shall be subjected from time to time to such tests as provided for in the Contract. The Bidder shall provide such assistance, instruments, machines, consumables and artificial loads and labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the Works for testing as set out in the Testing Plans.
- 17.1.2 The Testing Plans shall be submitted to MoRTH in the manner stated in the Contract or as otherwise directed by MoRTH.
- 17.1.3 MoRTH or their authorized representatives or its nominee and any other person designated by MoRTH may attend and witness the Equipment at any manufacturing stage.
- 17.1.4 The Bidder agrees that neither the execution of any test nor the issue of any test certificate releases the Bidder from any of its responsibilities, obligations, or liabilities(including repair or replacement of any Equipment or part of the Works damaged during the carrying out of any Tests) under the Contract.

17.2 Testing Costs

The cost of making any test or inspection under the Contract shall be borne by the Bidder if such test or inspection is intended by or provided for in the Contract or should have reasonably been anticipated by the Bidder as likely to be required including any costs relating to accommodation and travel incurred by the MoRTH personnel for such test/ inspection.

Save, as aforesaid, where any test is ordered by the MoRTH which is neither intended nor provided for by the Contract nor could reasonably have been anticipated by the Bidder, then the cost of such test shall be borne by the Bidder if the test shows any workmanship or Equipment not to be in accordance with the Contract or the MoRTH instructions, or if the test was required as a result of any failure of the Bidder to comply with its obligations under the Contract.

17.3 Pre- Acceptance Tests and Project Site Tests

17.3.1 The Bidder must:

- (i) procure the carrying out of the Pre dispatch inspection Tests and the Project SiteTests; and
- (ii) not allow an item of Equipment to be transported to the Project Site unless it has successfully completed the Pre- Acceptance Tests .

- 17.3.2 Within [7 (seven)] days of completion of any Pre- Acceptance Tests or the Project Site Tests, the Bidder must give the MoRTH a report of the test results in a form approved by the MoRTH.
- 17.3.3 The MoRTH may, within [7 (seven)] days of receipt of a report produced in accordance with **Clause 17.3.2**, give the Bidder a notice that it considers:
- (i) such report is deficient in any way, and that it directs the Bidder to correct and re- submit the report and the Bidder must re-submit the report;
 - (ii) in its reasonable opinion, that the Bidder has failed the test; or
 - (iii) that the relevant test has been successfully performed.
- 17.3.4 If, in the reasonable opinion of the MoRTH the Equipment/ Works fail any Pre dispatch inspection Test or Project Site Test (as applicable), the Bidder must:
- (i) give the MoRTH notice of the cause of the failure and the remedial action to be taken;
 - (ii) remedy the cause of the failure; and
 - (iii) reschedule, re-perform and report on results of the test in accordance with **this Clause 17.3**.

17.4 Pre dispatch inspection Tests

The Bidder shall carry out the Pre dispatch inspection Tests of each Equipment in the presence of a team of 4 – 5 persons as decided by MoRTH as per the agreed plan prior to the shipment of the Equipment, at the Bidder's site.

17.5 Acceptance Tests

The Bidder shall carry out the Acceptance test of each Equipment in presence of MoRTH or respective executing agency as per the agreed plan with the MoRTH or their authorized representative after the completion of commissioning of the Equipment, at the Project Site.

18. TIME FOR COMPLETION

The Bidder shall complete the Works within the Time for Completion or such other time as may be determined in accordance with **Clause 19**.

19. EXTENSION OF TIME FOR COMPLETION

19.1 Bidder's notice of event likely to cause delay

The Bidder shall closely monitor the progress of the Works and shall give written

notice to MoRTH.

- 19.1.1 as soon as it can foresee any incident, circumstance and/or event of any nature affecting or likely to affect the progress of the Works such that the Completion of the Works will be or is likely to be delayed; or
- 19.1.2 should it have been unable to foresee such a incident, circumstance and/or event, then as soon as it becomes aware of the commencement of the incident, circumstance and/or event which has affected or is likely to affect the progress of the Works such that Completion of the Works will be or is likely to be delayed.

19.2 Reasons for delay and extension of time

It shall be a condition precedent to any extension of time by MoRTH under any provision of the Contract, that in respect of each and every incident, circumstance or event identified in the notice given in accordance with **Clause 19.1**, the Bidder shall, as soon as possible after such notice but in any event not later than [30 (thirty)] days after such notice or such longer period as MoRTH may in its absolute discretion determine, notify MoRTH in writing of any factors and the relevant Contract provision which it considers may entitle it to claim an extension of time together with a statement, providing details, reasons, explanation and any further substantiation for the delay.

19.3 Delay Events

Subject to the other provisions of this **Clause 19**, the Bidder will only be entitled to an extension of the Time for Completion where a delay to the achievement of Completion is caused by:

- 19.3.1 the Bidder not being given access to the Project Site or any part thereof ; or
- 19.3.2 a Change instructed other than where such Change is instructed as a consequence of any default or breach of the Contract by the Bidder; or
- 19.3.3 any act, omission, default or breach by MoRTH; or
- 19.3.4 a Force Majeure Event.

19.4 MoRTH to determine extension

Subject always to proper compliance by the Bidder with the provisions of this **Clause 19**, MoRTH or their authorised representative shall determine any extension of the time for completion and shall notify the executing agencies and bidder accordingly.

19.5 Compliance

- 19.5.1 (i) the Bidder shall constantly use its reasonable endeavours to prevent and/or minimise delay in the progress of the Works, howsoever caused, and to prevent Completion of the Works being delayed or further delayed beyond the Time for Completion and the Bidder shall not be entitled to an extension of time in respect of any cause of delay nor for any period of delay which by the

exercise of reasonable endeavours could be avoided or reduced (to the extent that such could have been reduced). The onus of proving that the Bidder has exercised all reasonable endeavours, and that despite such endeavours, the delay could not be avoided or reduced, shall in all cases rest with the Bidder;

- (ii) the Bidder shall not under any circumstances be entitled to an extension of time where the delay or likely delay is, or would be, attributable to the default, breach, negligence, improper conduct or lack of endeavour of the Bidder or any persons for whom it is contractually or otherwise responsible;
- (iii) the Bidder shall have kept and maintained such records (including those referred to in the notices under this **Clause 17 [Extension of Time for Completion]** as may be reasonably necessary to support any claim for an extension of time it may subsequently wish to make;

19.5.2 The MoRTH shall not be obliged to take into account any circumstances which are not notified to it in accordance with the periods referred to in this **Clause 19** but may upon the written request of the Bidder extend the said periods if it considers the request for such extension reasonable.

20. PROCEDURE FOR CLAIMS

20.1 Notice of claims

If the Bidder considers that it may have grounds to claim any additional payment or any extension of time pursuant to any Clause of the Conditions or otherwise, it shall in addition to compliance with any other procedure or obligation in relation thereto, give notice to the MoRTH, with a copy to MoRTH, within fourteen [14 (fourteen)] days after the event giving rise to the claim has first arisen. The notification shall include details of the clause under which the claim is made, the circumstances in which the claim arises and details of the records that the Bidder will maintain to substantiate the amount of its claim.

20.2 Substantiation of claims

Within [28 (twenty eight)] days, or such lesser time as may be reasonably required by the MoRTH, of giving notice under Clause 20.1, the Bidder shall send to the MoRTH an account giving detailed particulars of the amount claimed and the grounds upon which the claim is based. Where the event giving rise to the claim has a continuing effect, such account shall be considered to be an interim account and the Bidder shall, at such intervals as the MoRTH may reasonably require, send further interim accounts detailing the aggregate amount of the claim and any further grounds upon which it is based. In cases where interim accounts are sent to the MoRTH, the Bidder shall send a final account within [28 (twenty-eight)] days of the end of the effects resulting from the event. The Bidder shall, if required by the MoRTH so to do, copy of all accounts sent to the MoRTH pursuant to this Clause 20.2.

21. LIQUIDATED DAMAGES

21.1 Liquidated Damages

21.1.1 If the Bidder fails to Complete the Works in accordance with the Contract so that the

Date of Completion of the Works has not occurred within the Time for Completion or in the event the Bidder defaults or is in breach of any of its obligations under the Contract or the Bidder is non-compliant with or negligent in relation to any condition specified under the Contract or causing damages to MoRTH property at respective site, then the Bidder shall pay or allow to MoRTH Liquidated Damages for such default/ breach/ delay/ non-compliance/ damage which is a genuine pre-estimation of and reasonable compensation for the loss and damage that will be suffered by MoRTH, for every day which shall elapse between the Time for Completion and the date stated in the Completion Certificate as being the Date of Completion of the Works or for every day for which such breach or default (if capable of remedy as determined by the MoRTH) continues till the date of remedy. Liquidated damages in the event of delayed delivery beyond agreed schedule will be levied at 0.5 percentage per week limited to maximum 5 percentage of the contract value. Additionally, penalty will be applicable for all the incidences mentioned above. The extent of penalty for such incidences will be decided by MoRTH. If, bidder is failed to meet agreed delivery period indicated in main tender document under clause 9.

21.1.2 The payment of Liquidated Damages does not in any way relieve the Bidder from any of its obligations to complete the Works or from any other obligations and liabilities of the Bidder under the Contract.

21.1.3 For the avoidance of doubt and without prejudice to any continuing obligations of the Bidder under the Contract or otherwise, the issue of any Completion Certificate does not relieve the Bidder in respect of Liquidated Damages which have accrued up to the date of such Completion Certificate, but which have not yet been paid by the Bidder.

21.2 Genuine Pre-estimate of Damages

The Parties recognize the expense and inconvenience likely to be incurred from any need to prove the loss and damage that will be suffered by MoRTH in the event of a failure by the Bidder to achieve Completion of the Works by the relevant Time for Completion or for breach or omission or non-performance of any obligation/ condition by the Bidder under the Contract. The Parties acknowledge that the Liquidated Damages is a genuine pre-estimation of and reasonable compensation for the loss and damage that will be suffered by MoRTH in the event of any such failure on the part of the Bidder.

22. Completion of Works

22.1 The Date of Completion of the Works shall be the date upon which the following criteria have been satisfied or waived in writing by MoRTH at its sole discretion:

- (i) the Execution of the Works, other than the performance of obligations to be performed during the Warranty Period, has been completed in accordance with the Contract, save in respect of the Punch List Items;
- (ii) all outstanding work which MoRTH requires to be completed before issue of the Completion Certificate, has been satisfactorily completed;

- (iii) the Bidder has been issued the acceptance certificate post the completion of the Acceptance Tests; and
- (iv) all the training obligations of the Bidder to be performed during the Execution Period have been satisfactorily completed in accordance with the Contract;
- (v) the Bidder has provided to the MoRTH any amendment or update of any information and documentation, which is required by the MoRTH;
- (vi) any Spare Parts and other items which the Bidder is required to supply and deliver to MoRTH in accordance with the Contract and which were used or consumed during the any of the tests mentioned in the Contract have been replaced by the Bidder at its own cost.

22.2 The Bidder acknowledges that until the Works are Complete, MoRTH shall not be able to commence the Project Facility operations.

22.3 Application for and issue of the Completion Certificate

22.3.1 The Bidder shall make a written application to MoRTH with a copy to MoRTH for a Completion Certificate no later than [2 (two)] days of from the conclusion of the Acceptance Tests. Such application shall be accompanied by an undertaking to finish any outstanding work in accordance with **Clause 22.3.2**.

22.3.2 MoRTH shall, within [7 (seven)] days after receiving the Bidder's application in accordance with **Clause 22.3.1** issue the Completion Certificate to the Bidder with a copy to their authorized representatives stating the date upon which the Works achieved Completion and specifying any outstanding work, if any, which the Bidder is required to complete and the period or periods within which such work is required to be completed, such work to include:

- (a) the Punch List Items; or
- (b) any other outstanding work notified to the Bidder by MoRTH.

22.4 Completing Punch List Items and any other outstanding works

22.4.1 During the Acceptance Tests, the Bidder shall provide in writing to MoRTH reasonable notice of its reasonable requirements with respect of access to and use of the Works for the carrying out of:

- (i) the outstanding Works including any Punch List Items specified in the Completion Certificate;
- (ii) any rectification, repair or replacement of any items in accordance **Clause 23.1**.

22.4.2 MoRTH shall use reasonable endeavours to secure such access for the Bidder. When carrying out such work the Bidder shall comply with all reasonable instructions of MoRTH with regard to the safety of the Works and the ongoing performance by

MoRTH of its obligations and shall complete the work in such manner that, so far as reasonably practicable, does not prevent, hinder or otherwise interfere with the performance of MoRTH of its obligations and the exercise of its rights during the Project Facility operations period.

- 22.4.3 The Bidder shall complete any Punch List Items specified in the Completion Certificate within the time instructed reasonably by MoRTH.

23. WARRANTY PERIOD

- 23.1 The MoRTH shall have the right, but not the obligation, to instruct the Bidder in writing to Execute all such work of repair, amendment, replacement of any parts of the Equipment, rectification of defects, imperfections or other faults in the Works and any part thereof, as the case may be, at any time during the Warranty Period.

- 23.2 All such work instructed under **Clause 23.1** shall be carried out by the Bidder at its own expense.

- 23.1.3 At all times during the Warranty Period MoRTH shall be fully entitled to Execute all work of repair, amendment, replacement of any parts of the Equipment, rectification of defects, imperfections or other faults in the Works and any part thereof, as the case may be, by its own workmen or by other bidders and if the necessity thereof shall in the opinion of the MoRTH be due to the use of materials or workmanship not in accordance with the Contract or the neglect or failure on the part of the Bidder, MoRTH shall be entitled to recover from the Bidder the cost thereof or may deduct the same from any monies due or that become due to the Bidder.

23.2 Continuing Obligations

- 23.2.1 Notwithstanding the expiry of the Warranty Period the Bidder shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract prior to the expiry of the Warranty Period which remains unperformed upon the expiry of the Warranty Period and, for the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the Parties.

- 23.2.2 Notwithstanding the expiry of the Warranty Period and / or maintenance contract if any, the Bidder shall provide necessary Spare Parts, sales, services and support for the performance of the Equipment on payment basis to be mutually agreed to between the Bidder and MoRTH.

23.3 Maintenance Obligations

- 23.3.1 The Bidder shall take full responsibility for the maintenance and upholding of the permanent structures at the Project Site and the site offices (if any) used by the Bidder during the Warranty Period.

- 23.3.2 The Bidder shall ensure that its maintenance obligations are performed in such a manner as will permit the proper performance by MoRTH in its operation of the Project Facility and so as not to affect the activities of the Project Facility users.

24. CHANGES

24.1 General

- 24.1.1 The Bidder shall not carry out any Change except as directed by MoRTH. The MoRTH shall have the power to, from time to time, for the Execution of the Works, to instruct the Bidder, by notice in writing to carry out Changes without prejudice to the Contract.
- 24.1.2 The Bidder acknowledges and accepts that no Change shall in any way vitiate or invalidate the Contract.
- 24.1.3 Subject to the terms of this **Clause 24**, the Bidder will be required to perform any Change howsoever initiated and be bound by the same conditions as far as applicable, as though the said Changes occurred in the Contract.
- 24.1.4 MoRTH reserves the right to increase or decrease the quantities of items under the Contract but without any change in the unit price for such item. Such a Change in the quantity shall not be subjected to any limitations for the individual items but the total Change for all such items shall be limited to the estimate (if any) provided.

24.2 Procedure for Changes

- 24.2.1 MoRTH has the right to initiate a Change at any time by either:
- (i) instructing in writing a Change Order in which case the Bidder shall comply with **Clause 24.2**; or
 - (ii) issuing a written notice proposing a Change (a "Change Notice").
- 24.2.2 Within [14 (fourteen)] days of receipt of a Change Notice, the Bidder shall provide to MoRTH a written statement setting out detailed particulars of any effect the proposed Change would have on the Works and Related Works and/or on any other provisions of this Contract if the proposed Change is effected (a "Change Notice Response").
- 24.2.3 Following receipt of a Change Order, the Bidder must immediately implement the Change subject to the following terms:
- (i) the Contract Sum will, be amended in accordance with the principles to be mutually agreed between MoRTH and the Bidder;
 - (ii) any extension of time will be determined and MoRTH is entitled to take account of the Bidder's estimate (if any) when determining such extension of time;
 - (iii) these Conditions (as amended from time to time) will apply to the Change as though it formed part of the Works.

24.2.4 Following receipt of a Bidder's Change Notice Response, MoRTH may either:

- (i) issue a written Change Order to the Bidder, on such terms and conditions as MoRTH may deem appropriate; or
- (ii) withdraw the Change Notice.

The Bidder shall not be entitled to any costs or extension of time as a result of preparing a Change Notice Response.

24.2.5 If:

- (i) the Bidder fails to comply with its obligation under **Clause 24.2**; or
- (ii) if the MoRTH rejects the information provided by the Bidder pursuant to **Clause 24.2**;

MoRTH shall be entitled, following notification to the Bidder, to engage a third party to perform the Change, in which case the Bidder shall cooperate fully with any such third party.

24.3 Bidder's Changes

24.3.1 The Bidder may, from time to time during its performance of the Contract, propose to MoRTH any Change which the Bidder considers:

- (i) necessary for the proper Execution of the Works; or
- (ii) which adopted will:
 - (a) substantially reduce the cost of Executing, maintaining and operating the Works or the Project; or
 - (b) improve the efficiency or value to MoRTH of the Completed Works (including a reduction in the life cycle costs associated with the Project); or
 - (c) otherwise be of benefit financial or otherwise, to MoRTH and such proposal must be in writing and shall be in the form of and contain such information as required of a Change Notice Response referred to in **Clause 24.2.2**.

24.3.2 Where **Clause 24.3.1(i)** applies MoRTH may either:

- (i) issue a written Change Order to the Bidder and the Bidder shall implement the Change in accordance with **Clause 24.2.2**; or
- (ii) reject the Change proposed by the Bidder.

The Bidder shall not be entitled to any costs or extension of time as a result of preparing a proposal in accordance with **Clause 24.3.1**.

24.3.3 MoRTH may, at its sole discretion, accept or reject the Bidder's proposed Change and failure by MoRTH to respond within [14 (fourteen)] days shall be deemed to be a rejection.

24.3.4 If in the opinion of the Bidder, any Change proposed by MoRTH prevents or is likely to prevent the Bidder from fulfilling his obligations under the Contract, the Bidder shall notify the MoRTH thereof in writing and the MoRTH shall decide forthwith whether or not the same shall be carried out by the Bidder. In case the MoRTH confirms that the Change shall be carried out, the Bidder's obligations under the Contract shall be modified to an extent as may be mutually agreed to between the Parties.

24.4 Omissions

24.4.1 The Bidder acknowledges that a Change may involve the omission of any part or parts of the Works up to 10% (ten percent) of the total Contract Price and the Bidder acknowledges and agrees that MoRTH may engage others to carry out that part or parts so omitted.

24.4.2 On the omitted Works, the Bidder shall be entitled to payment, 10% (ten percent) of the value of omission which shall include Bidder's profits and overheads.

24.5 Valuation of Changes

24.5.1 The valuation of a Change to be paid by MoRTH to the Bidder, or by the Bidder to MoRTH, as the case may be, shall be calculated as follows:

- (i) the Parties will endeavour to agree to the valuation; and
- (ii) failing agreement under **Clause 24.5.1(i)** within a reasonable time (but no more than [28 (twenty-eight)] days after the MoRTH direction in accordance with **Clause 24.2.4 (i)**, MoRTH will determine the valuation, subject to the following:
 - (a) in the event that the Change involves additional works, the increase to the Contract Price will be no more than the estimate (if any) provided; and
 - (b) in the event that the Change involves the omission of part of the Works or results in a saving to the Bidder, the reduction in the Contract Price will be no less than the estimate (if any);

the following valuation principles shall apply:

1. where the varied work is similar in character to and Executed under similar conditions to work priced as per the Payment Schedule , such work shall be valued at the applicable rates and prices in the Contract;

2. where the varied work is not of a similar character to or not Executed under similar conditions to work priced in the price breakdown then the MoRTH shall establish a new rate for such work based upon the rates or prices contained in the Contract insofar as may be reasonable making such allowances thereto by way of additional or deductions as may be necessary to take account of any dissimilarity in the character of the work or the conditions under which the work was Executed;
3. where work is omitted, the rates and prices in the Contract shall be used to value the work omitted provided that if part only of an item of work is omitted their MoRTH shall establish a new rate or price by which to value the omitted work which shall be fair and reasonable.
4. where the varied work cannot be properly valued in accordance with the provisions of **Clauses** 24.5.1(ii) (1), (2) or 3 above, the MoRTH shall establish a new rate or price for such work which shall be fair and reasonable.

24.5.2 Without prejudice to **Clause** 24.2, the MoRTH may, in its absolute discretion, instruct a Change Order in circumstances where, in its absolute discretion, the Bidder will fail to meet any of its obligations under the Contract or where it is necessary on account of some default or breach of the Contract by the Bidder or those for whom it is responsible for, in which case the Bidder shall not be entitled to any extension of time or any increase in the Contract Sum, and any adjustment to the Time for Completion.

25. INTELLECTUAL PROPERTY

25.1 Intellectual Property

25.1.1 All Intellectual Property which is proprietary to MoRTH or the Bidder, shall be the exclusive property of MoRTH or the Bidder respectively, as the case maybe.

25.1.2 All Intellectual Property jointly developed by MoRTH and the Bidder or developed by the Bidder for the purposes of the performance, execution and implementation of the Works shall be the exclusive property of MoRTH. The Bidder shall however be entitled to use such Intellectual Property for a period of 5 (five) years without payment of any charges to MoRTH provided that such Intellectual Property is used by the Bidder itself for development of facilities owned by the Bidder. The use of any Intellectual Property for any facility other than facility owned by the Bidder shall be permitted subject to the execution of a non-exclusive and revocable licence agreement with MoRTH on such terms and conditions as maybe agreed to between MoRTH and the Bidder.

25.2 Infringing Matter

25.2.1 The Bidder warrants and represents that:

- (i) it has all rights and licences necessary to grant, assign and transfer to MoRTH licences and assignments in accordance with this **Clause** 25.1.2; and
- (ii) there is and will be no infringement of any Intellectual Property, in respect of

the rights licensed and transferred to MoRTH pursuant to **Clause 25.1.2** or assigned otherwise used in connection with the Works.

25.2.2 The Bidder shall indemnify and hold harmless MoRTH against all issues, claims, damages, liabilities, costs and expenses (including legal costs) incurred by it in respect of any breach of the warranty in **Clause 25.2.1**.

25.2.3 If either MoRTH or the Bidder is prevented from operating or using the Works or any Intellectual Property or any part thereof ("Infringing Matter"), the Bidder must at its own expense, in addition to its other obligations under the Contract, take all steps necessary to procure for MoRTH the right to operate or use the Infringing Matter for its intended purpose.

25.3 Patent Rights and Royalties

25.3.1 Royalties and fees for patents covering equipment's, materials, articles, apparatus, devices or processes used in the Works shall be deemed to have been included in the Contract Sum. The Bidder shall satisfy all demands that may be made at any time for such royalties or fees and the Bidder shall be liable for any damages or claims for patent infringements and shall keep MoRTH indemnified in this regard. The Bidder shall, at his own cost and expense, defend all suits or proceedings that may be instituted for alleged infringement of any patents involved in the Works and in case of any award of damages, shall pay for such damages. In the event any apparatus or equipment or any part thereof furnished by the Bidder, is in a suit or proceeding is held to constitute infringement and its use is enjoined, the Bidder shall at his option and his own expense, either procure for MoRTH, the right to continue the use of such apparatus, equipment or part thereof, replace it with non-infringing apparatus or equipment or modify it so it becomes non-infringing.

26. INSURANCES

26.1 Project Facility Insurances

Respective State government shall at its cost and expense, purchase and maintain in force (or procure that they are taken out and maintained in force) with Govt. agency, the Project Facility Insurances after the commissioning and acceptance of equipment.

26.2 Bidder Insurances

The Bidder shall at its cost and expense, purchase and maintain in force (or procure that they are taken out and maintained in force) with Govt. agency, the Bidder's Insurance / CAR policy.

26.3 Required Insurances

The terms of the Required Insurances shall entitle respective State government to maintain the policies in force after termination of the Bidder's employment under the Contract.

26.4 Evidence

Either Party, at the request of the other shall, from time to time, provide to the other Party copies of all insurance policies (or appropriate endorsements, certifications or other satisfactory evidence of insurance) obtained in accordance with the Contract (including the provision of copies of renewal confirmations as soon as possible).

26.5 Premiums

- 26.5.1 Respective State government will bear the cost of all insurance premiums in relation the Project Facility Insurances, and the Bidder will bear the cost of all insurance premiums in relation to the Bidder's Insurances.

27. PAYMENT**27.1 Payment Schedule**

The Payment Schedule shall be as per the Annexure VIII Terms of payment.

27.2 Terms of Payment

The Terms of Payment shall be as provided in the Annexure VIII.

27.3 Currency of Payment

The Contract Price and all payments to be made to the Bidder in respect thereof shall be Indian Rupees.

27.4 MoRTH right to set off

MoRTH shall, notwithstanding any provision to the contrary included in the Contract, be entitled to deduct from and set off against any amount due to the Bidder under the Contract, any amount or amounts which the Bidder is liable to pay to MoRTH under the Contract.

28. TAXES AND DUTIES**28.1 Bidder to pay Taxes**

Unless specifically stated elsewhere in the Contract, the Bidder is solely liable for payment of, and warrants that it will pay, or ensure the payment of:

- 28.1.1 all Taxes (all applicable taxes including GST imposed by central and state government such as custom duty, excise, VAT, octroi etc.);

- 28.1.2 all contributions payable by any Applicable Law, award and pursuant to any contract with all industrial or trade union or other association of employees or otherwise with respect to or ascertained by reference to the wages, salaries

or other compensation paid to employees of the Bidder or its Subbidders in respect of the Works, including Taxes or contributions for workers' compensation, unemployment or sickness benefit, old age benefit, welfare funds, pensions and disability insurance;

28.1.3 the cost of all import or export licences if required in respect of the bidder's Equipment's and Spare Parts;

28.1.4 the cost of any port dues including (but not by way of limitation) warfage dues, storage charges, quay rent, craneage, shipping dues, pilotage fees, anchorage, berthage and mooring fees, quarantine dues, loading, portorage and overtime fees for any goods, materials and Bidder's Equipment's and Spare Parts to be used in connection with the Execution of the Works;

28.1.5 all charges and other expenses in connection with the landing and shipment of all goods and equipment and any part thereof, materials and other things of whatsoever nature brought into or dispatched from India for the purposes of the Contract; and

28.1.6 the bidder indemnifies and keeps indemnified executing agencies against all liability for payment of all of the above Taxes, assessments and contributions, duties, costs and fees and all liability arising in respect of any non-payment;

28.1.7 any addition of tax till completion of operation period of project.

28.2 Withholding Tax/Income Tax deducted at source

28.2.1 The Bidder shall be responsible for payment of all Taxes on the income, surcharge on income tax and corporate tax in respect of the Contract, irrespective of the mode of contracting. MoRTH shall not in any way be liable for payment of such taxes. MoRTH shall be entitled to deduct in accordance with Applicable Law, Income Tax or withholding tax or other deductions (as the case may be), from any payments made to the Bidder, and the amount so deducted shall be deemed to be a payment made to the Bidder. MoRTH shall provide a certificate certifying the deduction so made.

28.3 Operation Cost

The Bidder on its own cost will appoint operational manpower as per guideline of Indian labour Law.

The safety of the operational staff will also be taken into consideration.

28.4 General

28.4.1 The Bidder must provide sufficient information regarding the nature and cost of the Works to enable all the relevant statutory obligations of MoRTH that are dependent upon that information to be satisfied.

28.4.2 The Bidder shall fully indemnify, save harmless and defend MoRTH including its officers, servants, agents and subsidiaries as well as the MoRTH from and against

any and all loss and damages arising out of or with respect to failure of the Bidder (a) to comply with Applicable Laws and Applicable Clearances and/or (b) to make payments of Taxes relating to the Bidder's Subbidders and representatives income or other Taxes required to be paid by the Bidder without reimbursement hereunder and/or (c) to pay amounts due as a result of materials or services furnished to the Bidder or any of its Subbidders which are payable by the Bidder or any of its Subbidders or any other person employed or engaged by the Bidder in connection with the Works.

29. OPERATIONS AND MAINTENANCE MANUALS AND TRAINING

29.1 Operation & Maintenance Manual

29.1.1 The Bidder must obtain for MoRTH all relevant instruction manuals in respect of the design, installation, erection, supply, extension, repair, operation and maintenance of the Works, anyparts thereof and any special directions or recommendations from the relevant manufacturers of any Equipment and must itself provide written instructions where such are not available from such manufacturers.

29.1.2 The Operation & Maintenance Manual must be prepared:

- (i) based on all relevant instruction manuals and special directions or recommendations from the relevant manufacturers of any Equipment or parts thereof obtained in accordance with **Clause 29.1.1**.
- (ii) so as to provide MoRTH with such detail and information as may be necessary for use by MoRTH in order to operate, maintain, dismantle, reassemble, adjust, upkeep and uphold all parts of the Works and the Works as a whole;
- (iii) based on a maintenance plan for each part of the Works that is consistent with and intended to ensure that, each part achieves any design life specified in respect thereof in the Contract;
- (iv) based on Good Industry Practice;
- (v) in full consideration of the experience, level and technical background of MoRTH personnel and the Bidder's training-related obligations under the Contract.

29.1.3 During the period of the Acceptance Tests, the Bidder must update and revise the Operation & Maintenance Manual as necessary and as may be required by MoRTH, to reflect the completion of all of the Bidder's obligations under the Contract including all defects and warranty obligations.

29.1.4 The Bidder warrants that adherence to the Operation & Maintenance Manual will facilitate and ensure the operation and maintenance of the Project Facility at the levels of capacity, safety, efficiency, reliability and maintainability required by the Contract.

29.1.5 Within 1 (one) month prior to the Warranty Period, the Bidder shall update and revise the Operation & Maintenance Manual as necessary and as may be required by MoRTH.

29.2 Training

29.2.1 The Bidder shall provide comprehensive training in the operation and maintenance of the Works to Project Facility operation trainers and Project Facility operations personnel in accordance with the Training Plan mutually formalized or to be formalized between the Bidder and the MoRTH ("Training Plan") in order to procure MoRTH objective of the timely, efficient, economic and safe operation and maintenance of the Works and the Project Facility.

29.2.2 Without limiting its obligations under the Contract, the Bidder shall adhere to the principles and procedures contained in the approved Training Plan, and any approved amendments or supplements thereto. The Bidder shall revise the Training Plan from time to time as directed by MoRTH and as and when further Project Facility operation trainers and Project Facility operations personnel are required by MoRTH to be trained, which training shall be undertaken by the Bidder without the right to any additional payment or an extension of time.

29.2.3 During such period as they may be being so trained or retrained by, or otherwise under the control of the Bidder pursuant to the provisions of the Contract, the Project Facility operation trainers and Project Facility operation personnel shall for the purposes of control and responsibility (but for the avoidance of doubt without any obligation to provide remuneration to such personnel or any responsibility in respect of Taxation and insurance of such personnel) to the extent permitted by the Applicable Laws, be deemed to be the servants of the Bidder.

29.2.4 For the purposes of providing the training pursuant to this **Clause 29.2** and so as to enable the Project Facility operation trainers and Project Facility operations personnel to familiarize themselves with the Works, the Bidder shall allow and procure access as necessary to the Project Site, places off the Project Site where Equipment is being manufactured and tested and the Works.

29.2.5 The Bidder represents and warrants that:

- (i) the numbers, qualifications and levels of experience specified by the Bidder in its Training Plan shall be such as is required to provide MoRTH with Project Facility operation trainers and Project Facility operations personnel in sufficient numbers and of sufficient qualifications and experience properly to operate and maintain the Project Facility in accordance with the Contract and the Operation & Maintenance Manual; and
- (ii) the training of adequate numbers of suitably qualified Project Facility operation trainers and Project Facility operations personnel has been or will be fully and properly undertaken under the provisions and in accordance with the terms and conditions of the Contract in order to secure the availability of a sufficient number of skilled and experienced personnel properly to undertake at all times during the Project Facility operations period in a timely, efficient, economic and safe manner, under the supervision of MoRTH or otherwise, the day to day operations of the Project Facility and the performance of routine and preventative maintenance thereof.

- (iii) The cost and expense of providing the accommodation and travelling of the Project Facility operation trainers and Project Facility operations personnel incurred in training pursuant to this **Clause 29.2** shall be borne by MoRTH.

29.3 Manufacturer's Warranties

29.3.1 Without prejudice to the Bidder's warranties in the Contract, the Bidder shall obtain for MoRTH, the Required Manufacturers Warranties for the Equipment in accordance with Technical Conditions of Contract and must obligate the respective manufacturers at their sole expense to rebuild, remove and replace Equipment which has defects and deficiencies in substantially the same manner and on terms and conditions to those contained in the Contract and, where required by MoRTH, must travel to and from and perform such activities at the Project Site.

29.3.2 At the request of MoRTH, the Bidder must seek to obtain from the manufacturers of the Equipment referred to in **Clause 29.3.1** extended warranty coverage.

29.3.4 The warranty period for any Equipment or any part must be extended for a period equal to the period that such item cannot be operated as a result of a defect and deficiency or as a result of any deficiency or damage caused by another item of Equipment, and in respect of extended warranties, the Bidder must use its best endeavours when requested by MoRTH to assist in enforcing such warranties and guarantees.

29.3.5 The installation of any and all Equipment in the Works must be in strict accordance with the manufacturers' requirements and the Contract, and without prejudice to the Bidder's warranties contained in the Contract, in the event that MoRTH seeks to enforce a claim based upon a manufacturer's warranty, and if such manufacturer fails to honour its warranty based in whole or in part, on a claim of defective installation, MoRTH is entitled to enforce the manufacturer's warranty against the Bidder in accordance with the terms of the warranty, or, at MoRTH option, the Bidder must defend and indemnify MoRTH from and against any liability in respect of such defect and deficiency, provided however, that a claim of defective installation is not a defence to any warranty claim by MoRTH.

30. MoRTH

30.1 MoRTH obligations

Notwithstanding anything contained in the Contract and in addition to and not in derogation or substitution of any of its other obligations under the Contract, MoRTH shall:

- (i) use reasonable endeavours to assist the Bidder to obtain from Statutory Authorities all Applicable Clearances other than those which are MoRTH responsibility.
- (ii) use reasonable endeavours to assist the Bidder in the procurement of the peaceful use of the Project Site by the Bidder under and in accordance with the provisions of the Contract and without any let or hindrance from any Relevant Authority or persons claiming through or under it/them; and

- (iii) upon written request from the Bidder, use reasonable endeavours to assist the Bidder with procuring assistance in obtaining access to all necessary infrastructure facilities and utilities, including water, electricity and telecommunication facilities at rates and on terms no less favourable to the Bidder than those generally available to commercial customers receiving substantially equivalent facilities/utilities. Test center will be handed over to state government immediately on completion of commissioning of test lane equipment. Hence providing all necessary utilities required for operation of center will be responsibility of respective state government.

31. BIDDER'S COVENANTS

31.1 Urgent repairs

If, by reason of any accident or failure or an emergency or other event occurring to, in or in connection with the Works or any part thereof during the period of the Contract, any repair shall, in the opinion of MoRTH, be urgently necessary and the Bidder is unable or unwilling or not available at once to do such repair, MoRTH may by its own or other workmen do such repair as MoRTH may consider necessary. If the repair so done by MoRTH is work which, in the opinion of the MoRTH, the Bidder was liable to do at its own expense under the Contract, all costs and charges properly incurred by MoRTH in so doing shall within [14 (fourteen)] days from the date of receipt of the claim be paid by the Bidder to MoRTH or their authorized representative or may without prejudice to any other method of recovery, be deducted by MoRTH from any monies due or which may become due to the Bidder or may be recovered as a debt.

31.2 Improper Equipment

The MoRTH, without prejudice to the generality of its powers, shall have the authority to issue instructions (which shall be effected by the Bidder with all reasonable speed and at its sole expense without any right to an extension of time) from time to time for:

- 31.2.1 the removal from the Project Site, within such time or times as may be specified in the instruction, of any Equipment or any other part of the Works which, in the opinion of the MoRTH, are not in accordance with the Contract;
- 31.2.2 the substitution of proper and suitable Equipment or any other part of the Works;
- 31.2.3 the removal and proper re-Execution, notwithstanding any previous test thereof or interim payment therefor, of any work which, in respect of any workmanship by the Bidder is not, in the reasonable opinion of the MoRTH, in accordance with the Contract; and
- 31.2.4 such testing, as it may consider necessary or desirable following any instruction issued pursuant to this Clause.

31.3 Illegal gratification

- 31.3.1 Bribe, commission, gift or advantage: Any bribe, commission, gift or advantage given or offered by the Bidder directly or through its partner, agent, officer or MoRTH authorized representatives, or to any person / institution connected with MoRTH, in relation to obtaining or the execution of this or any other Contract with the MoRTH shall in addition to any criminal liability which the Bidder may incur, subject the Bidder to termination of the Contract and all other Contracts with MoRTH, and liability for payment of any loss or damage to MoRTH, resulting from such termination. MoRTH shall be entitled to deduct the amounts so payable from any money / moneys due to the Bidder alone, or jointly under the Contract or any other contract with MoRTH. The Bidder shall not be due, nor shall be paid any compensation whatsoever for any loss, alleged or actual, suffered by the Bidder when the Contract is so terminated.
- 31.3.2 Monetary dealing of Bidder with employee of MoRTH: The Bidder shall not lend or borrow money from, or enter into any monetary dealings or transactions directly or indirectly, with any employee of MoRTH, and if the Bidder does so, MoRTH or their authorized representative shall be entitled forth-with to terminate the Contract and all other Contracts with MoRTH. The Bidder shall be liable to pay compensation for any loss or damage to MoRTH resulting from such termination and MoRTH shall be entitled to deduct the amounts so payable from the money(s) due to the Bidder.
- 31.3.3 Settlement of dispute as to commission of such offence: If any question or dispute as to the commission of any such offence arises under Sub-clauses (bribe, commission, gift or advantage) and (monetary dealer of Bidder with employee of MoRTH), the same shall be settled by MoRTH, in such manner as the MoRTH shall consider fit and proper, and such decision shall be final and binding.

31.4 Avoidance of Damage to Roads and Bridges

31.4.1 Bidder to prevent damage to roads and bridges

- 31.4.1.1 The Bidder shall use every reasonable means to prevent any of the highways, railway or bridges communicating with or on the routes to the Project Site (including access and link roads) from being damaged or injured by any traffic of the Bidder or any of its Subbidders. In particular the Bidder shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of plant and materials to and from the Project Site shall be limited as far as reasonably possible and so that no unnecessary damage or injury may be occasioned to such highways, railways and bridges. In case of any damage or injury to the same, the Bidder's warrants indemnifying and holding harmless MoRTH from and against claims, proceedings, damages, costs, charges or expenses in respect of the said damage.
- 31.4.1.2 Should it be found necessary for the Bidder to move one or more loads of Bidder's Equipment, machinery or pre-constructed units or part of units of works over part of a highway, railway or bridge, the moving whereof is likely to damage any highway, railway or bridge unless special protection or strengthening is carried out, then the Bidder shall before moving the load on to such highway, railway or bridge give

notice to the appropriate authority of the load to be moved and obtain the required approval of the said authorities for its proposals for protecting or strengthening the said highway, railway or bridge. The Bidder shall be responsible for the cost and expenses of any necessary work for the protection or strengthening the said highway, railway or bridge.

31.4.2 Access routes

The Bidder shall be deemed to have been satisfied as to the safety, suitability and availability of access routes up to the Project Site. Without prejudice to the generality of the foregoing:

- 31.4.2.1 MoRTH shall not be responsible for any claims which may arise from the use or otherwise of any access route to, from and over the Project Site;
- 31.4.2.2 MoRTH does not guarantee the suitability or availability of particular access routes and all costs due to non-suitability or non-availability, for the use required by the Bidder, of access routes shall (as between the Parties) be borne by the Bidder;
- 31.4.2.3 the Bidder shall provide such signs or directions along access routes to, from and over the Project Site as required by the Contract and shall obtain any permission which may be required for the provision of such signs and directions.

31.4.3 Bidder not to interfere

All operations necessary for the Execution of the Works or any part thereof shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with any or with the convenience of the public, or the access to, use and occupation of public or private roads or footpaths or any properties (adjoining the Project Site or otherwise) whether in the possession of MoRTH or of any other person.

31.4.4 Waterborne traffic

Where the nature of the Works is such as to require the use by the Bidder of waterborne transport the forgoing provisions of this Clause 31.4 shall be construed as though "road" included a lock, dock, sea wall or other structure related to a waterway and "vehicle" included craft, and shall have effect accordingly.

31.5 Care of the Works, Liability for Accidents and Damage

31.5.1 Bidder to take full responsibility for care of the Works

- 31.5.1.1 The Bidder shall bear full risk in and take full responsibility for the care of the Works and Equipment (and, without limitation for the care of any works carried out on the Project Site by other bidders) from the Commencement Date until [14 (fourteen)] days after the date of issue

of the Completion Certificate, when such responsibility for the care of the Works and Equipment shall pass to MoRTH as instructed to the Bidder by the MoRTH.

Provided that the Bidder shall take full responsibility for (i) the care of any outstanding Works and Equipment for incorporation therein which it undertakes to finish during the Warranty Period until such outstanding Works have been completed pursuant to the Contract and for (ii) the care of the Works or any part thereof which may require repair or remedy during the Warranty Period and for any part of the Works affected thereby, for the period that such Works are under repair or remedy by the Bidder.

31.5.2 Responsibility to rectify loss or damage

- 31.5.2.1 If any loss or damage happens or occurs to the Works or any part thereof, or to any Equipment during the period for which the Bidder is responsible for their care the Bidder shall rectify the loss or damage at the Bidder's risk and cost, so that the Works and Equipment conform in every respect with the provisions of the Contract and are to the satisfaction of the MoRTH.

31.5.3 Damage to persons and property

The Bidder indemnifies and keeps indemnified MoRTH against all losses and claims for death, injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the Execution of the Works and the remedying of any defects therein and against all claims demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

31.6 Clearance of the Project Site

On Completion of the Works, the Bidder shall clear away and remove from the Project Site all equipment's, surplus materials, rubbish and temporary works of every kind and leave the whole of the Project Site and the Works clean and in a workmanship condition, tidy and in an aesthetically pleasing appearance to the satisfaction of MoRTH. The Bidder shall, unless otherwise instructed in writing by MoRTH, remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary works, stockpiles of excess or waste materials and other vestiges of construction prior to the issue of the Completion Certificate.

31.7 PENALTY for Delayed Services / Late Delivery

If the bidder fails to supply, install and commission the instruments as mentioned in the tender or perform unsuccessful operation during two years, as mentioned in the purchase order within due date, the bidder is liable to pay 0.5 % of order value per week of delay subject to a maximum of 5 % beyond due date. Such money will be deducted from security deposit or from amount due to the bidder after due notification to the bidder. The MoRTH reserves the right to cancel the order in case of excessive delay.

31.8 SUSPENSION OF WORKS

MoRTH reserves the right to suspend and re-instate the Execution of the whole or any part of the Works or the delivery of any Equipment, without invalidating the provisions of the Contract. The order for suspension or re-instatement shall be issued by the MoRTH to the Bidder in writing vide a suspension order and the same shall be binding on the Bidder. The Bidder shall during any suspension, properly protect and secure the Works and the goods and Equipment's and shall not remove any goods or Equipment's from the Project Site without the prior consent of the MoRTH and the Bidder shall take all reasonable measures to minimize the costs and losses of the suspension to MoRTH. The Bidder shall undertake any necessary action instructed by the MoRTH to remedy the circumstances that led to the suspension and the Bidder shall notify the MoRTH immediately upon completing such action. Upon resumption of the Works, the Bidder shall immediately undertake an examination of the affected parts of the Works and shall make good any deterioration or defect in or loss of the Works, the Equipment or any part thereof that may have occurred during the suspension. The Time for Completion of the Works shall not be extended if the issue such a suspension order was due in any way to the act, default, omission or breach by the Bidder.

32. FORCE MAJEURE

32.1 Force Majeure - Obligations of the Parties

32.1.1 "Force Majeure" shall mean any event beyond the control of MoRTH or of the Bidder, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected, and which could not have been prevented by exercise of reasonable skill and care and good industry practices and shall include, without limitation, the following:

- (i) War, hostilities, invasion, act of foreign enemy and civil war;
- (ii) Rebellion, revolution, insurrection, mutiny, conspiracy, riot, civil commotion and terrorist acts;
- (iii) Strike, sabotage, unlawful lockout, epidemics, quarantine and plague;
- (iv) Earthquake, fire, flood or cyclone, or other natural disaster.

As soon as reasonably practicable but no more than 48 (forty-eight) hours following the date of commencement of any event of Force Majeure, an Affected Party shall notify the other Party of the event of Force Majeure setting out the date, nature, extent, proof and the damage caused by the Force Majeure event.

32.2 Meetings with MoRTH

As soon as reasonably practicable and in any case within [5 (five)] days of notification by the Affected Party in accordance with the preceding **Clause 32.1**, the Parties shall along with MoRTH and others, meet and hold discussions and where necessary conduct physical inspection and/or survey of the Works to assess the impact and formulate mitigation measures for the Force Majeure Event.

32.3 Performance obligations

32.3.1 If the Affected Party is rendered wholly or partially unable to perform any of its

obligations under the Contract because of an event of Force Majeure, it shall be excused from performance of such obligations to the extent it is unable to perform provided that in case the Affected Party is the Bidder, the Bidder shall be entitled to an extension of time.

32.3.2 When the Affected Party is able to resume performance of its obligations under the Contract, it shall give to the other Party written notice to that effect forthwith and shall promptly resume performance of its obligations hereunder.

32.3.3 The Affected Party shall continue to perform such of its obligations which are not affected by the event of Force Majeure and which are capable of being performed in accordance with the Contract.

32.4 Liability for other losses, damages etc.

Save and except as expressly provided in this **Clause 32** neither Party hereto shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any event of Force Majeure.

32.5 Exceptions to Force Majeure

None of the following events shall be construed to relieve any Party of its obligations hereunder by reason of **Clause 32**:

- (i) any changes in market conditions including without limitation changes that affect the supply prices of the Goods;
- (ii) commercial impracticability or hardship;
- (iii) a Party's lack of funds.

33. DISPUTE RESOLUTION PROCEDURE

33.1 Amicable Resolution and Mediation

33.1.1 Save where expressly stated to the contrary in the Contract, any dispute, difference or controversy of whatever nature between the Parties, howsoever arising under, out of or in relation to the Contract including disputes, if any, with regard to any acts, decision or opinion of MoRTH and so notified in writing by either Party to the other (the "Dispute") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set out in **Clause 33.1.2** below.

33.1.2 Either Party may require such Dispute to be referred to a person nominated by each Party, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within [15 (fifteen)] days of such reference to discuss and attempt to amicably resolve the Dispute.

33.1.3 In the event that the Dispute in question is not resolved amicably within 15 (fifteen) days of such meeting between the Parties in accordance with **Clause 33.1.2** either Party may refer the Dispute to arbitration in accordance with **Clause 33.2**.

33.2 Arbitration Procedure

Save where expressly stated to the contrary in the Contract, any Dispute shall be finally settled by binding arbitration under the Arbitration and Conciliation Act 1996 Act and in accordance with the UNICTRAL rules (the "Arbitration Rules") by three arbitrators appointed in accordance with the Arbitration Rules.

33.3 Place of Arbitration

The place of arbitration shall be New Delhi.

33.4 English Language

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

33.5 Enforcement of Award

The Parties agree that the decision or award resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with the provisions of the Arbitration and Conciliation Act.

33.6 Performance during Arbitration

Pending the submission of and/or decision on a Dispute and until the arbitral award is published, the Parties shall continue to perform their respective obligations under the Contract without prejudice to a final adjustment in accordance with such award.

34. REPRESENTATIONS AND WARRANTIES, DISCLAIMER**34.1 Representations and Warranties of the Bidder**

The Bidder represents and warrants to MoRTH that:

34.1.1 it is duly organized, validly existing and in good standing under the laws of incorporation of companies in India or in the country of its incorporation;

34.1.2 it has full power and authority to execute, deliver and perform its obligations under the Contract and to carry out the transactions contemplated hereby;

34.1.3 it has taken all necessary corporate and other action under Applicable Laws and its constitutional documents to authorize the Execution, delivery and performance of the Contract;

34.1.4 it has the financial standing and capacity to Execute the Works;

- 34.1.5 the Contract constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- 34.1.6 it is subject to the Applicable Laws with respect to the Contract and it hereby expressly and irrevocably waives any immunity in any jurisdiction in respect thereof;
- 33.1.7 it has complied with all Applicable Laws and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have Material Adverse Effect upon the Works;
- 33.1.8 no representation or warranty by the Bidder contained herein or in any other document furnished by it to MoRTH in relation to Applicable Clearances contains or will contain any untrue statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading; and
- 33.1.9 no bribe or illegal gratification has been paid or will be paid in cash or kind by or on behalf of the Bidder to any person to procure the Contract or any other benefit under the Contract to procure other Contracts in relation to which the Bidder may be a party in relation to the Project.
- 33.1.10 without prejudice to any express provision contained in the Contract, the Bidder acknowledges that prior to the execution of the Contract, the Bidder has after a complete and careful examination made an independent evaluation of the Project Site, the Technical Conditions of Contract and any information provided by or on behalf of MoRTH and has made an inspection of the Project Site and has determined to its satisfaction the nature and extent of risks and hazards as are likely to arise or may be faced by the Bidder in the course of performance of its obligations hereunder.

34. TERMINATION

34.1 Termination

- 34.1.1 Subject to the other provisions of the Contract, MoRTH shall have the right to serve a notice of termination of the Contract on the Bidder and forthwith terminate the Contract without prejudice to any of its other rights and remedies against the Bidder and without being liable to pay any loss or compensation if:
- (i) if any distress or execution is levied upon any of the assets of the Bidder;
 - (ii) at any time during the currency of the Contract there is a change in the effective control of the Bidder as at the date of the Contract;
 - (iii) the Bidder fails to complete, test and commission the Bidder's Works/ Project Facility within the Time for Completion or commits any other violation/breach of the terms and conditions of the Contract which is not rectified within [14 (fourteen)] days of the date of receipt of notice from MoRTH in this regard.
 - (iv) any of the following events occurs:

- (a) the passing of a resolution by the shareholders of the Bidder for the winding up of the Bidder;
- (b) the appointment of a liquidator in a proceeding for the winding up of the Bidder or the Bidder entering into a compromise with its creditors; or
- (c) the making by the court of an order winding up the Bidder,
- (d) The Bidder either:
 - (i) Appoints a subbidder without the prior approval of MoRTH, or terminates any of the Subbidder; or
 - (ii) having terminated any of the Subcontracts with the consent of MoRTH, appoints a replacement Sub-Bidder without the prior approval of MoRTH.
- (e) the Bidder without the consent of MoRTH assigns or transfers all or any of its rights or obligations under the Contract;
- (f) the Bidder repudiates the Contract or otherwise evidences an intention not to be bound by the Contract; or
- (g) the expropriation, confiscation, compulsory acquisition of the Project Facility;
- (h) as a result of Force Majeure, the Bidder is unable to proceed with the Works for a period of [90(ninety)] consecutive days or [180(One Hundred and Eighty)] days in a year (whichever is less);
- (i) if the Bidder or any of its servants or agents commit or suffer to be committed or omit or suffer to be omitted any act, deed, matter or thing which in the opinion of MoRTH whose decision (without an obligation to give reasons therefor) in this regard will be final, is prejudicial to the interests or reputation of MoRTH.
- (j) the Bidder offers, gives or promises any payment directly or indirectly to any government, political party, or official thereof, or any candidate for political office, or to MoRTH in order to influence any substantive decision of, or induce any party or person to use its influence to offset any substantive decision of any Relevant Authority or Statutory Authority or MoRTH in regard to any aspect of the Contract;
- (j) the Bidder makes any warranty or representation in or in accordance with the Contract which was materially incorrect when made so as to materially affect MoRTH interests; or
- (k) in the event that the Bidder's liability for Liquidated Damages reaches the cap on such damages as set out in this Annexure and the Completion Certificate for the whole of the Works has not been issued; or
- (l) fails to provide, maintain or renew and/or comply with its

obligations in relation to the Performance Security; or

- (v) the Bidder has, without valid reason and MoRTH consent, failed to commence the Works promptly, or fails to progress the Works regularly and/or diligently or
- (vi) the Bidder has failed to adhere to the Technical Conditions of Contract and in the reasonable estimation of the MoRTH, such failure is likely to mean that Completion of the Works is likely to be delayed beyond the relevant Time for Completion; or
- (vi) the Bidder's personnel is/are incompetent, have acted in a manner prejudicial to MoRTH best interest or have failed to comply with MoRTH health, safety, environment or other rules or regulations and procedures; or
- (viii) the Bidder has failed to achieve two Milestones consecutively.

34.2 Termination Procedure

- 34.2.1 A notice of termination given pursuant to this **Clause 34** (each a "Preliminary Termination Notice") shall specify in reasonable detail the circumstances giving rise to the Preliminary Termination Notice. If, within [21 (twenty one)] days following the service by MoRTH of a Preliminary Termination Notice, the Bidder pays all sums which are due and payable to MoRTH or remedies the breach to the satisfaction of MoRTH existing as at the date of the Preliminary Termination Notice then such Preliminary Termination Notice shall be revoked and all existing rights of termination in favour of MoRTH under the Contract shall terminate and the Bidder shall continue to perform its obligations under the Contract in a diligent and proper manner.
- 34.2.2 Within the period of [21 (twenty one)] days following the receipt of the Preliminary Termination Notice by the Bidder and unless the Parties shall have otherwise agreed or the circumstances giving rise to the Preliminary Termination Notice shall have ceased to exist or shall have not been remedied, MoRTH may terminate the Contract by giving written notice (a "Termination Notice") to the Bidder and the Contract shall terminate on the date mentioned in the Termination Notice ("Termination Date").
- 34.2.3 The termination of the Contract by MoRTH for reasons other than breach can be made by a written notice to the Bidder and nothing herein will obligate MoRTH to terminate the Contract or be liable for any exercising its right of termination and MoRTH may pursue all remedies available in law instead of termination.

34.3 Upon Termination

- 34.3.1 Upon Termination for any reason whatsoever, the Bidder shall to the extent instructed by the MoRTH:
 - (i) cease all further work as instructed by the MoRTH in the Termination Notice and the Bidder shall carry out works for the sole purpose of securing, preserving and protecting that part of the Works already Executed and any

work required to leave the Project Site and the Works in a clean and safe condition;

- (ii) remove all the Bidder's Equipment and temporary works;
- (iii) repatriate the Bidder's and Subbidder's personnel from any part of the Project Site and the Works;
- (iv) deliver to MoRTH the Works Executed by the Bidder as at the Termination Date;
- (v) ensure that it and those it is contractually or otherwise responsible for, vacate the Project Site;
- (vi) promptly and in an orderly manner deliver to MoRTH all documents relating to the Works which are for the time being under the control of the Bidder;

34.3.2 Without prejudice to **Clause 34.3.1** upon Termination:

- (i) MoRTH may enter the Project Site and the Works thereof and expel the Bidder therefrom and MoRTH may complete the Works itself or by employing any third party;
- (ii) MoRTH may, to the exclusion of any right of the Bidder over the same, take over and have free use, without payment to the Bidder, of any Bidder's Equipment and temporary works of which have been delivered to the Project Site for such period as the MoRTH considers necessary for the Execution of the Works, without being responsible to the Bidder for fair wear and tear thereof and to the exclusion of any right of the Bidder over the same.
- (iii) MoRTH may at any time sell any of the said Bidder's Equipment, temporary works and any unused materials and apply the proceeds of sale in or towards for satisfaction of any sums due or which may become due to it from the Bidder under the Contract; and
- (iv) MoRTH shall have the power and authority to prohibit the Bidder and any person claiming through or under the Bidder from entering the Project Site.

35. MISCELLANEOUS

35.1 Assignment and Charges

35.1.1 Subject to **Clauses 35.1**, neither Party shall assign the Contract or the rights, benefits and obligations hereunder save and except with prior consent of the other Party.

35.1.2 The Bidder shall not create nor permit to subsist any Encumbrance over or otherwise transfer or dispose of all or any of its rights and benefits under the Contract except with prior consent in writing of MoRTH, which consent shall not be unreasonably withheld.

35.2 Interest

Any sum which becomes payable under any of the provisions of the Contract by one Party to the other Party shall, if the same be not paid within the time allowed for payment thereof, shall be deemed to be a debt owed by the Party responsible for payment thereof to the Party entitled to receive the same. Such sum shall until payment thereof carry the Default Interest Rate from the due date for payment thereof until the same is paid to or otherwise realized by the Party entitled to the same.

35.3 Governing Law and Jurisdiction

The Contract shall be governed by the laws of India. In respect of all matters arising out of or relating to the Contract, the Courts at New Delhi, India shall have the jurisdiction to decide the matter.

35.4 Waiver

35.4.1 Waiver by either Party of any default by the other Party in the observance and performance of any provision of or obligations under the Contract:

- (i) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under the Contract;
- (ii) shall not be effective unless it is in writing and executed by a duly authorized representative of such Party; and
- (iii) shall not affect the validity or enforceability of the Contract in any manner.

35.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of the Contract or any obligation hereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver/breach of any terms, conditions or provisions of the Contract.

35.5 Survival

Termination or expiry of the Contract (i) shall not relieve the Bidder of any obligations already incurred hereunder which expressly or by implication survives termination hereof, and (ii) except as otherwise provided in any provision of the Contract expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.

35.6 Amendments

The Contract constitutes a complete and exclusive understanding of the terms of the Contract between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and evidenced in writing.

35.7 Severability

If for any reason whatsoever any provision of the Contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties shall negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any such provisions shall not be subject to dispute resolution under this Contract or otherwise.

35.8 No Partnership

Nothing contained in the Contract shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever. The Contract shall be construed to have been entered on a principal to principal basis.

35.9 Entire Agreement

The Contract constitutes the entire agreement between the Parties and supersedes all prior negotiations, commitments, representations, communications and agreements relating to the Contract either oral or in writing except to the extent they are expressly incorporated herein. The Bidder confirms that it has not relied upon any representation inducing it to enter into the Contract (whether or not such representation has been incorporated as a term of the Contract) and agrees to waive any right which it might otherwise have to bring any action in respect of such representation. The Bidder further confirms that there is not in existence at the date of the Contract any collateral contract or warranty of which the Bidder is the beneficiary which might impose upon MoRTH obligations which are in addition to or vary the obligations expressly contained in the Contract and which relate in any way to the subject matter of the Contract. The Bidder's only rights arising out of, or in connection with, any act, matter or thing said, written or done, or omitted to be said, written or done, by or on behalf of MoRTH (or any agent, employee or subbidder of MoRTH) in negotiations leading up to the Contract or in the performance or purported performance of the Contract or otherwise in relation to the Contract are the rights to enforce the express obligations of MoRTH contained in the Contract and to bring an action for breach thereof. Nothing in this **Clause 35.9** is intended to exclude liability of the Bidder for fraud or fraudulent misrepresentation.

35.10 Liability and Indemnity

35.10.1 The Bidder shall indemnify, defend and hold MoRTH harmless against any and all proceedings, actions and third party claims arising out of a breach or omission or non-performance by the Bidder of any of its obligations under the Contract except to the extent that any such claim has arisen due to breach by MoRTH of any of its obligations under the Contract.

35.10.2 In the event that either Party receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under the Contract (the "Indemnified Party") it shall notify the other Party ("Indemnifying Party") within [7 (seven)] days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, provided that, such approval shall not be unreasonably

withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim it may conduct the proceedings in the name of the Indemnified Party subject to the Indemnified Party being secured against any costs involved to its reasonable satisfaction.

- 35.10.3 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder and their reasonable costs and expenses shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the person indemnified in respect of loss to the full extent provided by this **Clause 35.10**, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or other proceedings, liabilities, payments and obligations at its expense and through counsel of its choice provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnified Party unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure, the loss to be indemnified hereunder to the extent so compromised or settled.

Form a) Letter for Submission of Technical Proposal

[To be executed on the Letter Head of the Bidder]

(To be scanned and uploaded)

[Location, Date]

To: High Level Committee (HLC) / Ministry of Road Transport and Highways
(MoRTH)

Dear Sir,

We, the undersigned, offer our bid in response to your Tender No. dated We are hereby uploading our Bid, which includes this Technical Bid and a Financial Bid. Our Bid is valid for a period of 120 days from the last date of Submission of Bids, extendable for additional 60 days, on request by MoRTH, without any additional cost

We hereby declare that all the information and statements made in this Bid is true and complete in all respects and is as per the guidelines laid down in the tender document. We further understand that any information which is found false or is not as per the guidelines and terms & conditions of the tender document may lead to our disqualification.

We hereby declare that our Technical Bid contains Earnest Money Deposit in form of Bank Guarantee for Indian Rupees Ninety Lakhs Only (Rs. 90,00,000 Only) from the bank of.....

We undertake that if our Bid is accepted, we will be committed to design, construction & civil work of equipment foundations including allied services like test shed flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping & supply the equipment including Exhaust gas handling system & fresh air ducting for underbody inspection pits as per the scope of work as per the agreed terms and conditions.

If negotiations are held during the period of validity of the Bid, we undertake that our Bid will be binding upon us and will be subject to the modifications resulting from Contract negotiations. However the Bid validity continues to be 120 days & is extendable for additional 60 days, on request by MoRTH, without any additional cost.

We understand HLC / MoRTH are not bound to accept any Proposal that it receives from us.

Yours sincerely,

Authorized Signature [In full]:

Authorized Signature [In initials]:

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____.

[Note1: Authorized person signing shall attach to this document a proof of authorization for signing on behalf of the Bidder Company]

Note2: To be signed in blue ink]

Form b) Letter of Undertaking

[On the letterhead of the Bidder]
(To be scanned and uploaded)

LETTER OF UNDERTAKING

Date: _____

HLC / MoRTH

Re: Tender No.

We acknowledge that the documents for Tender No. issued to us are confidential and we hereby undertake and agree as follows:

1. **“Confidential Information”** means the Tender documents and everything contained therein, all documentation, data, particulars of the works and technical or commercial information made by (or on behalf of) HLC / MoRTH or obtained directly or indirectly from HLC / MoRTH or its representatives by us or which is generated by us or any information or data that we receive or have access to, as a result of the Tender, as being confidential information of HLC / MoRTH, provided that such term does not include information that (a) was publicly known or otherwise known to us prior to the time of such disclosure, (b) subsequently becomes publicly known through no act or omission by us or any person acting on our behalf.
2. We shall maintain the confidentiality of Confidential Information in accordance with procedures adopted by us in good faith to protect confidential information of third parties delivered to us, provided that we may deliver or disclose Confidential Information to our authorized representatives who agree to hold confidential the Confidential Information substantially in accordance with the terms of this Undertaking.
3. We shall not at any time whatsoever:
 - i Disclose, in whole or in part, any Confidential Information received directly or indirectly from the HLC / MoRTH to any third party.
 - ii Reproduce, publish, transmit, translate, modify, compile or otherwise transfer the Confidential Information.
4. In case our bid is not accepted and immediately upon the acceptance of the bid of any of the other Bidder, we shall:
 - i Return all Confidential Information including without limitation, all originals, copies, reproductions and summaries of Confidential Information; and
 - ii Destroy all copies of Confidential Information in our possession, power or control, which are present on magnetic media, optical disk or other storage device, in a manner that ensures that the Confidential Information is rendered unrecoverable.
5. We shall certify to HLC / MoRTH that we have returned or destroyed such Confidential Information to HLC / MoRTH within two (2) days of such a request being made by HLC / MoRTH.

Name of Bidder

Signature of Authorized Representative

Form c) Earnest Money Deposit

(To be scanned and uploaded)

Date: _____

Ministry of Road Transport and Highways ,Transport Bhawan, 1, Parliament Street, New Delhi,
India.

Re: Tender No.dated

We hereby enclose the Bank Guarantee for Indian Rupees Ninety Lakhs Only (Rs. 90,00,000
Only) from the bank of

Name of Bidder

Signature of Authorized Representative

[Note: The Demand Draft to be attached with this Form]

Form d) Performance Bank Guarantee

Proforma for Performance Bank Guarantee

(To be scanned and uploaded)

(To be executed on non Judicial stamped paper of an appropriate value)

WHEREAS MoRTH having its office at Transport Bhawan, Parliament Street, New Delhi 110001- (hereinafter referred to as "**The Owner**" which expression shall unless repugnant to the context includes their legal representatives, successors and assigns), has executed a contract on [Please insert date of execution of Contract] ("**Contract**") with [insert name of the Successful Bidder].....

(hereinafter referred to as the "**Contractor**" which expression shall unless repugnant to the context include its legal representatives, successors and permitted assigns) for the performance, execution and implementation of the Works ("**Works**" shall have the meaning ascribed to it in the Contract] based on the terms & conditions set out in the Tender Documents number [insert reference number of the Tender Documents] dated [insert date of issue of Tender Documents]..... and various other documents forming part thereof.

AND WHEREAS one of the conditions of the Contract is that the Contractor shall furnish to the Owner a Bank Guarantee from a Nationalized bank in India having a branch at Pune/ Gurgaon/New Delhi for an amount equal to 10% (Ten percent) of the total Contract Sum (the amount guaranteed under this bank guarantee shall hereinafter be referred to as the "**Guaranteed Amount**") against due and faithful performance of the Contract from the post-commissioning stage of the Works under the Contract, including the performance bank guarantee obligation and other obligations of the Contractor for the supplies made and the Works being performed and executed by under the Contract. This bank guarantee shall be valid from the date hereof up to the expiry of the Warranty Period including any extension thereof.

AND WHEREAS the Contractor has approached [insert the name of the scheduled bank] (here in after referred to as the "**Bank**") having its registered office at [insert the address] and at the request of the Contractor and in consideration of the promises made by the Contractor, the Bank has agreed to give such guarantee as hereunder:-

- (i) The Bank hereby undertakes to pay under this guarantee, the Guaranteed Amount claimed by the Owner without any further proof or conditions and without demur, reservation, contest, recourse or protest and without any enquiry or notification to the Contractor merely on a demand in the form set out in Appendix I ("**Demand**") from the Owner stating that the amount claimed is due to the Owner under the Contract. Any such demand made on the Bank by the Owner shall be conclusive as regards the amount due and payable by the Bank under this bank guarantee and the Bank shall pay without any deductions or set-offs or counterclaims whatsoever, the total sum claimed by the Owner in such Demand. The Owner shall have the right to make an unlimited number of Demands under this bank guarantee provided that the aggregate of all sums paid to the Owner by the Bank under this bank guarantee shall not exceed the Guaranteed Amount.
- (ii) However, the Bank's liability under this bank guarantee shall be restricted to an amount not exceeding [figure of Guaranteed Amount to be inserted here]only).
- (iii) The Owner will have the full liberty without reference to the Bank and without affecting the bank guarantee to postpone for any time or from time to time the exercise of any powers and rights conferred on the Owner under the Contract and to enforce or to forbear endorsing any powers or rights or by reasons of time being given to the Contractor which under law relating the Surety would but for the provisions have the effect of releasing the surety.
- (iv) The rights of the Owner to recover the Guaranteed Amount from the Bank in the manner aforesaid

will not be affected or suspended by reasons of the fact that any dispute or disputes have been raised by the Contractor and / or that any dispute(s) are pending before any office, tribunal or court in respect of such Guaranteed Amount and/ or the Contract.

- (v) The guarantee herein contained shall not be affected by the liquidation or winding up, dissolution, change of constitution or insolvency of the Contractor but shall in all respects and for all purposes be binding and operative until payment of all money due to the Owner in respect of such liability or liabilities is effected.
- (vi) This bank guarantee shall be governed by and construed in accordance with the laws of the Republic of India and the parties to this bank guarantee hereby submit to the jurisdiction of the Courts of Pune/Gurgaon/New Delhi for the purposes of settling any disputes or differences which may arise out of or in connection with this bank guarantee and for the purposes of enforcement under this bank guarantee.
- (vii) All capitalized words used but not defined herein shall have the meanings assigned to them under the Contract.

NOTWITHSTANDING anything stated above, the liability of the Bank under this bank guarantee is restricted to the Guaranteed Amount and this bank guarantee shall expire on the expiry of the Warranty Period under the Contract. Unless a Demand under this bank guarantee is filed against the Bank within six (6) months from the date of expiry of this bank guarantee all the rights of the Owner under this bank guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities hereunder. However, if the Contractor's obligations against which this bank guarantee is given, are not completed or fully performed by the Contractor within the period prescribed under the Contract, the Bank hereby agrees to further extend the bank guarantee for further periods of six months each till the Contractor fulfills its obligations under the Contract.

We have the power to issue this bank guarantee in your favour under Memorandum and Article of Association and the Undersigned has full power to do so under the Power of Attorney dated [*date of power of attorney to be inserted*].....granted to him by the Bank.

Date:

Bank

Corporate Seal of the Bank

By its constituted Attorney Signature of a person duly authorized to sign on behalf of the Bank.

APPENDIX 1

Form of Demand

[To the issuing Bank]

Dear Sir/s,

The Contract between MoRTH and [*Please insert the name of the Successful Bidder*]

Bank Guarantee No. ***** ("the Bank Guarantee")

We refer to the above Contract and Bank Guarantee. Terms defined in the Bank Guarantee shall have the same meaning when used herein.

In accordance with the terms of the Bank Guarantee, we require payment by you of the sum of Rs. [*****] (** Rupees) to the following account:

Account Number: [] with [] Bank, [] Branch, Sort Code [].

Yours sincerely,

[Signed by

[]

for and on behalf of

MoRTH

Form e) Deviations Suggested (To be scanned and uploaded)

[The Bidder must present and justify here any modification or improvement to the Conditions of Contract proposed to in the interest of HLC / MoRTH. Such suggestions should be concise and to the point. In case, the Bidder does not want to suggest any deviation, this section must contain a statement indicating "No Deviation Suggested"]

[The Bidder shall use the following template in order to explain the deviations, and fill and include in the current document as many templates as deviations appear in his offer. The Bidder shall be required to furnish a separate sheet as per the following template for each deviation suggested.]

Subject	Minimum Requirement appearing on the Equipment Details
	<i>[Please copy the requirement on the Equipment Details]</i>
Proposed Specification	
<i>[Explain in detail what alternative solution are you proposing]</i>	
Reasons for the proposed solution to be superior than initial requirement	
<i>[Give clear reasons why you think the proposed solution is better than the Requirement expressed in TCC and Checklist]</i>	

Form f) Detailed Technical Specifications (To be scanned and uploaded)

[The Bidder is requested to fill each chapter of the following form with the detailed description of the proposed equipment. If required, Bidder may also provide drawings/graphical representations along with this form. The structure of this document is according to the TCC, and the Bidder shall maintain the same structure].

I&C STATIONS

1. FUNCTIONAL REQUIREMENTS

1.1 General Purpose of the inspection lane

[Please fill, giving details about how the Bidder is responding to all requirements]

1.2 Tests to be Performed

[Please fill]

1.3 Test configuration

1.3.1. Inspection sequence

[Please fill]

1.4 IT Platform

[Please fill]

2. TECHNICAL DESCRIPTION

2.1 Technical specifications

[Please fill]

2.2 Common Equipment

[Please fill]

2.2.1. Air Compressor

[Please fill]

2.2.2. Bogie Roller Set

[Please fill]

2.2.3. Free Wheel Trolley

[Please fill]

2.2.4. Calibration Equipment

[Please fill]

2.2.5. Automatic Tyre pressure filler and indicator

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Resolution	+/- 0.1 bar	
2	Accuracy	± 0.5 % of Full Scale or better	
3	Full scale	at least 10.6 bar	

2.2.6. Number Plate Reader Camera (Digital Camera with on line connectivity to the PC)

[Please fill]

2.3 Inspection Lanes LD

[Please fill]

2.3.1. Roller brake tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Working	It shall allow working with three-wheelers. No manual intervention during weighing or brake testing of three-wheeled vehicles.	
2	Maximum load per axle	3.0T	
3	Maximum measurable brake load	at least of 6kN	
4	Difference in left & right braking efficiency	To be mentioned - Bidder to specify	
5	Brake load resolution	<= 100N	
6	Approximate Testing speed	minimum 5 km/h	
7	Minimum Tracking width	250 mm to 780mm	
8	Maximum Tracking width	2200 mm to 2550 mm	
9	Minimum Roller diameter	200 mm	
10	Minimum Roller axle separation	300 mm to 400 mm	
11	Roller surface - Minimum frictional coefficient, Abrasive material	0.6 (Supporting documents need to be provided.)	
12	Roller surface - Service life	minimum 25000 hrs	

13	Measurement accuracy	± 100 N	
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2.3.2. Axle Weight Measurement

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Measuring range	0 –3000 kg or better	
2	Resolution	5 kg	
3	Accuracy	$\pm 1\%$ of reading	

2.3.3. Suspension tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load per axle	3.0T	
2	Amplitude of excitation	6.5 mm +/- 5 mm	
3	Minimum Tracking width	700 mm to 880 mm	
4	Maximum Tracking width	2200 mm to 2550 mm	
5	Working	based on any of the prevailing technologies will be acceptable	

2.3.4. Side slip tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load per axle	3 T	
2	Minimum Length of the Track Plate	1000 mm	
3	Minimum Width of the Track Plate	450 mm	
4	Maximum Height of the Track Plate	100mm	
5	Measuring range	± 20 m/km	
6	Measuring resolution	1 m/km	
7	Accuracy	± 1.0 m/km	

2.3.5. Joint Play tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load capacity per axle	at least 3 T	
2	Maximum Force per plate	at least of 10 kN	
3	Maximum movement on each side	100 mm	
4	Minimum Length of the Test Plate	600 mm	
5	Minimum Width of the Test Plate	600 mm	

2.3.6. Steering gear play detector

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Angular movement	$\pm 30^\circ$	
2	Indicating mechanism	manufacturer has to specify the indicating mechanism	
3	Incorporation with different steering wheel geometry	Easy to be incorporated with different steering wheel geometry	

2.3.7. Fully Automatic Head light tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Light Intensity range measure (min)	0-100,000 cd	
2	Illumination Intensity range measure	0-200 lux	
3	Headlight tester capable of measuring headlamp with their Centres above ground level	500 mm to 1200 mm	

4	Vertical and horizontal measuring range	±50 cm/10 m (±5 %)	
5	Maximum deviation of intensity	±5% of reading	
6	Maximum deviation of Inclination measurement (vertical orientation)	± 0.1%	
7	Type of Head light tester	Fully automatic	
8	Focusing (Vertical movement) of Head light tester in front of head lamps, measurement and data transfer	without human intervention	
9	Positioning (Horizontal movement) of head light tester	without human intervention	

2.3.8. Smoke meter (Opacimeter)

[Please fill]

Copy of Type Approval Certificate needs to be attached.

2.3.9. Exhaust gas analyzer

[Please fill]

Copy of Type Approval Certificate needs to be attached.

2.3.10. Speedometer Tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load capacity per axle	minimum 3 T	
2	Minimum Track width	250mm to 780 mm	
3	Maximum Track width	2200 mm to 2550 mm	
4	Minimum Roller diameter	200 mm	
5	Minimum Roller axle separation	300 mm to 400 mm	
6	Measuring range	20 – 160 km/h	
7	Resolution	1 km/h	
8	Accuracy	± 1 % of indicated reading	

2.3.11. Soundlevel meter

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Recommended as per	IEC 60651/ IEC 61672-1	
2	Measuring range	≤ 30dB to ≥120dB	

3	Frequency	A & C	
4	Accuracy	± 1.5 dB	
5	Mounting	Tripod stand mounted	
6	Power	Build (rechargeable) battery for power source of charging from outlet of 220V AC	
7	Characteristics	Time weighting characteristics designated SLOW (S), Fast (F), Impulse (I)	
8	Connectivity	with lane software with requisite port like RS 232	
9	Environmental range	Minimum Temp range: -10°C to 50°C	
		Humidity: greater than 90%	
		Dust: Typical Indian testing condition	

2.3.12. OBD scan tool

[Please fill]

Sr. No.	Specifications	Bidders Specifications
1	Must be a hand held scan tool which is compatible across all vehicle classes viz. passenger cars, commercial vehicles etc.	
2	Compliant to: OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145	
3	Must support different OBD modes Viz. Mode 01 to Mode 0A	
4	Must support all the standard Parameter Identifications of the vehicle	
5	Diagnostics Communication mediums Supported KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)	
6	The tool must be capable of automatically selecting the protocol	
7	Must have an easy GUI and push buttons to navigate to different menus that are available	
8	The scan tool once connected to the vehicle should be able to capture and upload following list of parameters to a software interface located at a central server. <ul style="list-style-type: none"> ○ MIL Status 	

	<ul style="list-style-type: none"> ○ Mode 1 to Mode A data. ○ DTC. 	
--	--	--

2.3.13 Test fingers

[Please fill]

Sr. No.	Specifications	Bidders Specifications
1	IP XXB & IP XXD test fingers	

2.3.14 Insulation Tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Rated measuring voltage	upto 500V DC/ AC (45 to 65 Hz)	
2	Measuring range	10kΩ to 100MΩ or better	
3	Accuracy	upto 10MΩ ±2% of reading & above 10MΩ ±5% of reading	
4	Measurement categories	CAT III 600 V	
5	Display	Digital count display	
6	Protection grade	IP40	
7	Compliant to	EN61010	
8	Operating temperature	-10°C to +50°C	
9	Humidity range	greater than 90%	
10	Must be working on	replaceable or rechargeable batteries	
11	Accessories	USB communication adaptor, Soft case, Line probe with remote switch, Earth probe set, Probe tip (hook type & extended type), Shoulder strap	

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2.4 Inspection Lane HD

2.4.1. Roller brake tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load charge per axle	at least of 15T or better	
2	Maximum measurable brake load	at least of 40 kN	
3	Difference in left & right braking efficiency	To be mentioned - Bidder to specify	
4	Minimum Roller Diameter	200 mm	
5	Minimum Roller Separation	450 mm	
6	Roller Length	1000 mm	
7	Roller Surface Minimum frictional coefficient, Abrasive material	0.6 (Supporting documents need to be provided.)	
8	Roller Surface Service life	minimum 25000 hrs	
9	Brake load resolution	≤ 100N	
10	Approximate Testing speed	minimum 2.5 km/h	
11	Measurement accuracy	± 2% of measured value	

2.4.2. Axle Weight Measurement

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Measuring range	3500 kg -15000 kg or better	
2	Resolution	5 kg	
3	Accuracy	± 1 % of reading	
4	Specifications are provided for measuring Axle weight	separately or integrated within the equipment - Bidder to specify	

2.4.3. Side slip tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load per axle	at least 15T or better	
2	Measuring range	± 20 m/km	
3	Measuring resolution	1 m/km	
4	Accuracy	±1.0m/km	
5	Track Plate Length	1000 to 1400mm	

6	Minimum Track Plate Width	750 mm	
7	Maximum Track Plate Height	150mm	

2.4.4. Joint Play tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load capacity per axle	at least 15T or better	
2	Maximum Force per plate	at least of 30 kN	
3	Maximum movement on each side	100 mm	
4	Length of the Test Plate	750 mm to 1400 mm	
5	Minimum Width of the Test Plate	650 mm	

2.4.5. Steering gear play detector

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Angular movement	$\pm 30^\circ$	
2	Indicating mechanism	manufacturer has to specify the indicating mechanism	
3	Incorporation with different steering wheel geometry	Easy to be incorporated with different steering wheel geometry	

2.4.6. Fully Automatic Head light tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Light Intensity range measure (min)	0-100,000 cd	
2	Illumination Intensity range measure	0-200 lux	

3	Headlight tester capable of measuring headlamp with their Centers above ground level	500 mm to 1200 mm	
4	Vertical and horizontal measuring range	±50 cm/10 m (±5 %)	
5	Maximum deviation of intensity	±5% of reading	
6	Maximum deviation of Inclination measurement (vertical orientation)	± 0.1%	
7	Type of Head light tester	Fully automatic	
8	Focusing (Vertical movement) of Head light tester in front of head lamps, measurement and data transfer	without human intervention	
9	Positioning (Horizontal movement) of head light tester	without human intervention	

2.4.7. Smoke meter (Opacimeter)

[Please fill]

Copy of Type Approval Certificate needs to be attached.

2.3.8. Exhaust gas analyzer

[Please fill]

Copy of Type Approval Certificate needs to be attached.

2.4.9. Speedometer Tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Maximum load capacity per axle	at least 15T or better	
2	Measuring range	25 – 100 km/h	
3	Resolution	1 km/h	
4	Accuracy	± 1 % of indicated reading	
5	Minimum Roller Diameter	240 mm	
7	Minimum Roller axle separation	450mm	
8	Minimum Track width	700 mm to 1000mm	
9	Maximum Track width	2200mm to 2800 mm	

2.4.10. Sound level meter

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Recommended as per	IEC 60651/ IEC 61672-1	

2	Measuring range	≤ 30dB to ≥120dB	
3	Frequency	A & C	
4	Accuracy	± 1.5 dB	
5	Mounting	Tripod stand mounted	
6	Power	Build (rechargeable) battery for power source of charging from outlet of 220V AC	
7	Characteristics	Time weighting characteristics designated SLOW (S), Fast (F), Impulse (I)	
8	Connectivity	with lane software with requisite port like RS 232	
9	Environmental range	Minimum Temp range: -10°C to 50°C	
		Humidity: greater than 90%	
		Dust: Typical Indian testing condition	

2.4.11. OBD scan tool

[Please fill]

Sr. No.	Specifications	Bidders Specifications
1	Must be a hand held scan tool which is compatible across all vehicle classes viz. passenger cars, commercial vehicles etc.	
2	Compliant to: OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145	
3	Must support different OBD modes Viz. Mode 01 to Mode 0A	
4	Must support all the standard Parameter Identifications of the vehicle	
5	Diagnostics Communication mediums Supported KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)	
6	The tool must be capable of automatically selecting the protocol	
7	Must have an easy GUI and push buttons to navigate to different menus that are available	
8	The scan tool once connected to the vehicle should be able to capture and upload following list of parameters to a software interface located at a central server.	

	<ul style="list-style-type: none"> ○ MIL Status ○ Mode 1 to Mode A data. ○ DTC. 	
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2.4.12 Test fingers

[Please fill]

Sr. No.	Specifications	Bidders Specifications
1	IP XXB & IP XXD test fingers	

2.4.13 Insulation Tester

[Please fill]

Sr. No.	Specifications	Requirements	Bidders Specifications
1	Rated measuring voltage	upto 500V DC/ AC (45 to 65 Hz)	
2	Measuring range	10kΩ to 100MΩ or better	
3	Accuracy	upto 10MΩ ±2% of reading & above 10MΩ ±5% of reading	
4	Measurement categories	CAT III 600 V	
5	Display	Digital count display	
6	Protection grade	IP40	
7	Compliant to	EN61010	
8	Operating temperature	-10°C to +50°C	
9	Humidity range	greater than 90%	
10	Must be working on	replaceable or rechargeable batteries	
11	Accessories	USB communication adaptor, Soft case, Line probe with remote switch, Earth probe set, Probe tip (hook type & extended type), Shoulder strap	

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2.5 Software considerations

[Please fill]

2.6 Safety Systems

2.6.1. Personal safety systems

[Please fill]

2.6.2. Power cut-off protection device

[Please fill]

Form g) References (To be scanned and uploaded)

1.1 Automotive References

[In response to requirement appearing in point 1.3 of "Annexure III Bidder's Company Requirements", Bidder shall provide the details of all projects handled by it during last ten years, where the Bidder has met specifications and accuracies similar to the requirements appearing in "Annexure IV Equipment Details", as per the table below.]

S. No.	Description of Equipment	Year of Installation	Country	Role- Supplier	Name and Contact Details of the Client
1					
2.....					
S. No.	Description of Equipment	Year of Installation	Country	Role- Operation	Name and Contact Details of the Client
1					
2.....					

1.2 Similar References

[In response to requirement appearing in point 1.3 of "Annexure III Bidder's Company Requirements" Bidder shall provide detailed description of at least one project similar to the current Scope of Supply, meaning full fix inspection lanes, where Bidder had full responsibility on the design, manufacture, supply, installation, operation of the facility. The Bidder is requested to fill and include in this chapter one proforma (see below) per each given reference.]

1.3 Government Approved References

[In response to requirement appearing in point 1.3 of "Annexure III Bidder's Company Requirements" Bidder may provide detailed description of at least two projects where the installed equipment (turn-key inspection station) is used for Government approved tests and have been used for at least five years for Official Inspection of Vehicles. The Bidder is requested to fill and include in this chapter one proforma (see below) per each given reference.]

1.4 Specific References

[The Bidder is requested to fill and include in the current chapter all Specific References requested in "Annexure III Bidder's Company Requirements". Please use as many proformas for References (see below) as necessary. In the case one reference given by the Bidder covers more than one required Specific Reference, Bidder can merge the Specific References requirements]

Proforma for References

(To be scanned and uploaded)

Reference number:	<p><i>[For "Similar References" please name each reference as "Similar Reference #..." with consecutive numbers.</i></p> <p><i>For "Specific References" please name each reference as "Specific Reference #..." with number referring to the corresponding table in "Annexure III Bidder's Company Requirements"</i></p> <p><i>For "Sub-contractor Experience", please name each reference as "Sub-contractor Reference #..." with consecutive numbers.]</i></p>				
Project and Location	Client Point of Contact				
	<p><i>[Contact Person and Contact Details including address, telephone number, mobile number, fax number, e-mail address, etc.]</i></p>				
Participation: <input type="checkbox"/> Prime <input type="checkbox"/> JV/Consortium Partner <input type="checkbox"/> Subcontractor					
Description of scope of work					
<p><i>[(i) Information on the role of the Bidder and its scope of work in the Project.</i></p> <p><i>(ii) Brief description of the equipment capabilities and accuracies.]</i></p>					
Project Duration	Reasons for delay (if any)				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">Start Date</td> <td style="width: 50%; text-align: center; padding: 5px;">Completion Date</td> </tr> <tr> <td style="height: 30px;"></td> <td></td> </tr> </table>		Start Date	Completion Date		
Start Date		Completion Date			
Other Information					
<p><i>[Any other information regarding accomplishments, project complexities, etc. that Bidder desires to provide]</i></p>					

Form h) Service Support (To be scanned and uploaded)

The Bidder is requested to include in each chapter of the current document, the following information in order to demonstrate the compliance with requirements appearing in Annexure I Scope of Supply.

1.1 Service Support Organization

[The Bidder shall provide the details of service support establishments in India with the strength of service personnel at each of the service center. The location and capacity (role and workforce) of the Service Support in India shall be clearly specified, and resumes for the key service personnel shall be provided in the current chapter, using "Proforma for Curriculum Vitae". The details of all service personnel in India shall be provided as per table below.]

Name	Location	Role	Years of Experience

[The supplier shall also describe the Structure of the Service Support which will be put at the Centers' disposal for smooth Operation and Technical Support, describing how the local Service Support will interface with the employees for operation of the Centre, in terms of work force and spare parts. Further, the Bidder shall provide the details of location and mechanism of service support from parent company if situated outside India. The Bidder shall provide the resumes of key personnel from its world-wide service support organization who will be responsible for providing the service support to State governments.]

Extent of breakdowns which would be solved, the process required to solve them and the associated duration and down times shall be described.

Further, the extent of breakdowns which would require Worldwide Support, the process required to solve them and the associated duration and down times shall also be described.]

1.2 Warranty Conditions

[The Bidder is requested to include in this chapter his acceptance of the exact same conditions required in "Annexure I Scope of Supply" about Warranty. The full Conditions and Coverage of the Warranty can also be attached to this document, provided they do not contradict the above conditions. Exclusions from Warranty need to be specified explicitly. In case there is no exclusion from the warranty, the Bidder shall be required to specifically state so. Warranty is however included as a part of the Operation Cost to be indicated by the Bidder separately. In case of breakdown of any machinery or non-operation of any equipment, the Bidder is required to replace the same at its own cost as soon as possible so as to reduce the down time.]

1.3 Comprehensive Annual Maintenance Contract

[The Bidder is requested to include in this chapter his acceptance of the exact same conditions required in Annexure I Scope of Supply about Comprehensive AMC. The complete Annual Maintenance Contract can also be attached to this document, provided they do not contradict the above conditions. The price for Maintenance Contract shall be provided in the Financial Bid. No information on the price shall be provided under this chapter. Comprehensive AMC is however included as a part of the Operation Cost to be indicated by the Bidder separately.]

1.4 Spare Parts List

[The Bidder is required to include in this chapter the full list of Spare Parts which will be required to ensure the needs for the first five years of operation of the equipment's. Complete replacement of the Spare parts for operation of the Centre is the responsibility of the Bidder.]

PROFORMA FOR CURRICULUM VITAE (To be scanned and uploaded)

1. **Name of Staff** *[Insert full name]*: _____
2. **Date of Birth**: _____ **Nationality**: _____
3. **Education** *[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]*: _____
4. **Training** *[Indicate significant training obtained]*: _____
6. **Countries of Work Experience**: *[List countries where staff has worked in the last ten years]*: _____
7. **Languages** *[For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]*: _____
8. **Details of Tasks Assigned for this Assignment** *[List all tasks to be performed under this assignment]* :

9. **Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned**
[Among the assignments in which the staff has been involved, indicate the assignments that best illustrate staff capability to handle the tasks listed under point 8.]
10. **Employment Record** *[Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment : dates of employment, name of employing organization, positions held.]*:

Form i) Bidder's Organization, Company Profile (To be scanned and uploaded)

The Bidder is requested to provide the information required in the current document in order to demonstrate its structure that it has enough capacity for successfully achieving this Project, as requested in "Annexure III Bidder's Company Requirements". In case of consortium, the bidder is required to furnish details of his partner/partners (maximum three including leader). The document should clearly indicate name of the lead partner of the consortium.

1.1 Company Information

[Bidder is requested to fill the following information as "General Company Information"]

Bidder Identification	
a) Name of Company	
b) Registered address (in full)	
c) Details of registration (in full)	
d) Principal place of business	
e) Telephone number	
f) Facsimile number	
g) Website	
h) Person to contact in connection with this Bid (Name , Designation, Contact No)	
i) Name and Address of Bankers	
Business Organization	
a) Date incorporated	
b) Where incorporated	
c) Parent/Leader company (if any) and its involvement in the project	
d) Subsidiary of	
e) Major subsidiaries and locations of other offices	
f) Brief description of company's principal activities with emphasis on scope of work (Use separate sheets as required)	
g) Has your company ever been black listed or terminated for default by any Indian government entity	<i>[If yes, provide detail in an attachment to this form]</i>

1.2 Company Description & Capability Statement

[Provide here a brief (a maximum of three pages) description of the organization and an explicit statement of capability of the organization.]

In response to requirement 1.2 in document "Annexure III Bidder's Company Requirements",

Bidder is requested to fill the following table indicating the type, number and financial amount of facilities installed in the last 5 years. Each S.No. shall correspond to one kind of projects, for example Light vehicle test lanes and heavy vehicle test lanes.]

S.No.	Description of Equipment/Projects	Place of Installation		2014	2015	2016	2017	2018	Total
1			No.						
			Amount						

1.3 Organization Structure

[Please provide in the current chapter, the Organization Chart showing company structure, including positions of directors and managers and location of all other offices in the world.

Please provide in the current chapter, a statement about the total number of employees of the Bidder, their skill sets with specific information on the employees based in India.

1.4 Financial Information

[Bidder is requested to fill the following for "Financial Company Information"]

Year	2014-15	2015-16	2016-17	2017-18	2018-19 (unaudited report information can be mentioned)
Annual Turnover					
Annual Turnover pertaining to the equipment (in tender) range*					
Annual Turnover in India*					
Total R&D expenses (% of Annual Turnover)*					
Net Profit (% of Annual Turnover)					

* Self certification indicating required information will be accepted if it is not included in balance sheet.

1.5 Consortium Information

In case of application under 'Consortium' additional documents:

Sr. No.	Description of Document	No. of pages	Remarks, if any
1	MOU between consortium members		
2	Company Profile with details of address for communication, contact person & his contact details, web-site etc. of members other than those submitted above		
3	Financial results for last five years, of members other than those submitted above		

Form j) Description of Approach, Methodology, Work and Training Plan (To be scanned and uploaded)

The Bidder is requested to provide in each chapter of the current document, the following information.

1.1 Work Plan and Implementation Schedule

[In this document the Bidder shall explain the proposed approach to the assignment, methodology for carrying out the activities and obtaining the expected output. The Bidder shall propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by Executing Agencies / MoRTH), and delivery dates, taking into account Executing Agencies / MoRTH requirements, especially Project Milestones specified in "Annexure I Scope of Supply", by means of a detailed implementation schedule. The implementation schedule should at least include –

- *The dates for commencement of Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping along with supply of exhaust gas handling system, fresh air ducting for all underbody inspection pits in all 10 Test sheds*
- *The dates for pre-acceptance testing*
- *The dates for shipment*
- *The dates for starting installation*
- *The dates for acceptance testing*
- *The dates for training of staff*
- *The dates for commissioning*
- *Commencement of Operation*

1.2 Proposed Implementation Layouts

[In this chapter the Bidder shall provide the Implementation layout, based on the layout of the facilities included in the current tender, in the document "Annexure II - Sites Description". The Bidder shall incorporate his implementation proposal in the given layout and submit as part of this Form along with his bid.]

1.3 Requirements on Civil Works and Utilities

[The Bidder is required to provide his requirements with respect to civil works and general utilities, like a. Validation of Dimensions and Structural Design

- b. General Utilities Requirements (Power and Earthing, Air Conditioning, Ventilation, etc.)*

1.4 Project Implementation Team

[In this chapter the Bidder should propose the structure and composition of the team which shall work on implementation of this project. The Bidder shall designate a Project leader who shall be overall responsible for execution of the project and shall act as a single point of contact for Executing Agencies. The Project leader shall be a person with adequate experience in installation of equipment, operation of the Centre and Design, construction & civil work of equipment foundations including allied services like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single phase cables & drainage, compressor piping including exhaust gas handling system, fresh air ducting for all underbody inspection pits. The resume of the Project Leader as well as the Site Leaders, members of the project implementation team and members of the operational team shall be provided under this chapter along with details of their experience, skill set, training received, etc., as per the Proforma for Curriculum Vitae (see below). The Bidder shall also provide information on the proposed roles of each of the team members, including the Site Leaders and when the Bidder proposes to deploy them during the assignment.]

1.5 Training Plan

[In this chapter the Bidder shall give a detailed explanation on the Training Plan with respect to (i) Pre-acceptance Training, (ii) Installation and Commissioning Training, and (iii) On-Job Training, included in the Offer, specifying what specific skills the representatives of the Bidder in India will develop, duration of each part of the training and program. This program shall be according to the requirements appearing in "Annexure I Scope of Supply". Nominated officials by executing Agencies for each I&C center shall also be trained by the Bidder as and when required in all aspect of operating the equipment, trouble shooting and total operation of the Centre.]

1.6 Operation Details

[In this chapter the Bidder shall give a detailed explanation on the Operation with respect to the details of the persons involved for managing the Inspection Centre and testing the vehicles, reporting, data integration, monitoring, and fees collection, etc. The time required for each test and how the entire operation shall be managed]

PROFORMA FOR CURRICULUM VITAE (To be scanned and uploaded)

1. **Name of Staff** *[Insert full name]*: _____
2. **Date of Birth**: _____ **Nationality**: _____
3. **Education** *[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]*: _____
4. **Training** *[Indicate significant training obtained]*: _____
6. **Countries of Work Experience**: *[List countries where staff has worked in the last ten years]*: _____
7. **Languages** *[For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]*: _____
8. **Details of Tasks Assigned for this Assignment** *[List all tasks to be performed under this assignment]* :

9. **Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned**
[Among the assignments in which the staff has been involved, indicate the assignments that best illustrate staff capability to handle the tasks listed under point 8.]
10. **Employment Record** *[Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment : dates of employment, name of employing organization, positions held.]*:

Form k) Financial Proposal
(To be scanned and uploaded)

(Excel document included separately)

Form I) Contact Details

(To be scanned and uploaded)

[PLEASE EDIT THIS PAGE AND SUBMIT]

Tender No. :

Name of Tender : FOR SUPPLY & INSTALLATION OF INSPECTION EQUIPMENTS &
OPERATION OF MODEL INSPECTION & CERTIFICATION (I&C)
CENTRES

GENERAL DETAILS

1. NAME OF THE PARENT COMPANY :.....
2. COMMUNICATION ADDRESS :.....
3. PHONE NO. :.....
4. FAX NO. :.....
5. E-Mail ID. :.....

PARTICULAR DETAILS

6. NAME OF THE CONTACT PERSON :.....
7. DESIGNATION :.....
8. PHONE NO. (DIRECT) :.....
9. MOBILE NO. :.....
10. E-MAIL ID :.....
11. NAME OF THE ALTERNATE
CONTACT PERSON :.....
12. E-MAIL ID :.....
13. ADDRESS AND CONTACT DETAILS :
OF THE INDIAN AGENT IF ANY

Signature of the
Authorized Signatory

NOTE: You are requested to check the above given e-mail IDs regularly for the incoming mails from HLC / MoRTH, bhalerao.impc@araiindia.com and meena.rr@nic.in