



OFFICE OF TRANSPORT COMMISSIONER, ODISHA

RFB No.: LX- 10/2024/1504/TC

Dated: 27.01.2024

REQUEST FOR BID

FOR

**SELECTION OF SUCCESSFUL BIDDER FOR DESIGN, CONSTRUCTION
OF AUTOMATED TESTING STATION, PROCUREMENT, SUPPLY,
INSTALLATION OF VEHICLE TESTING EQUIPMENT AND
OPERATION & MAINTENANCE AT 21 LOCATION IN ODISHA STATE**

**Issued By
Office of Transport Commissioner, Odisha.**



DISCLAIMER

1. The information contained in this RFB provided to Bidder(s) whether verbally or in documentary or any other form, by and on behalf of Transport Commissioner, Odisha on the terms and conditions set out in this RFB and such other terms and conditions subject to which such information is provided.
2. The information contained in this RFB 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 Transport Commissioner, Odisha, or its employees incur any liability arising out of or in respect of the issue of this RFB, or the selection procedure.
3. The possession of the RFB 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 RFB shall be construed as legal, financial or tax advice. Transport Commissioner, Odisha, 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. Transport Commissioner, Odisha, reserves the right to amend this RFB and any information contained herein at any time by notice, in writing, to the Bidders.
6. Nothing in this RFB is, nor shall be relied upon as, a promise or representation as to Transport Commissioner, Odisha, 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 RFB. However, Transport Commissioner, Odisha, 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. Transport Commissioner, Odisha, does not undertake to accept the lowest or indeed any Bid.
7. No person other than the one authorized by Transport Commissioner, Odisha, to give any information or to make any representation not contained in this RFB 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. This RFB is confidential and personal to each Bidder. The Bidders shall note that are required to sign and submit as part of the Technical Bid, as provided in "Form B" of this RFB, a Letter of Undertaking to Transport Commissioner, Odisha, 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 RFB to Transport Commissioner, Odisha, upon request or as specified in this RFB and shall not retain any copies thereof nor use the same for any purpose whatsoever other than for submission of the Bid to Transport Commissioner, Odisha, for the Works. Any failure to furnish or comply with the terms of the Letter of Undertaking shall entitle Transport Commissioner, Odisha, to disqualify the relevant Bidder.



10. Any summaries or descriptions of documents or contractual arrangements contained in any part of this RFB 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.
11. Transport Commissioner, Odisha, its 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. Transport Commissioner, Odisha, shall enter into a contract 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 Transport Commissioner, Odisha, unless and until the Contract has been formally executed by Transport Commissioner, Odisha, and the successful Bidder and any conditions precedent to the effectiveness of the Contract have been fulfilled. Transport Commissioner, Odisha, reserves the right not to proceed with the bidding process and to cancel the selection procedure, or any part thereof, at any time at its discretion.
12. Nothing in this RFB 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 RFB in the Contract with Transport Commissioner, Odisha, or any correspondence between Transport Commissioner, Odisha, and the Bidder shall not be construed as this RFB forming part of such contract.
13. 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 Transport Commissioner, Odisha or to any other its employees in a position to influence the decision of Transport Commissioner, Odisha, any other person associated with the bidding process, for showing any favor in relation to this Bid or any other contract, shall render the Bidder to such liability/penalty as Transport Commissioner, Odisha, may deem proper, including but not limited to rejection of the Bid and forfeiture of the Earnest Money Deposit.
14. 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. Transport Commissioner, Odisha will have the right to verify the same independently.
15. Laws of the Republic of India and Odisha are applicable to this RFB. The courts at Cuttack, Odisha shall have exclusive jurisdiction in relation to any disputes arising from this RFB.
16. Each Bidder's acceptance of delivery of this RFB constitutes its agreement to, and acceptance of, the terms set forth in this Disclaimer. By acceptance of this RFB, the recipient agrees that this RFB and any information herewith supersedes document(s) or earlier information, if any, in relation to the subject matter hereof.
17. All disputes shall be subject to the exclusive jurisdiction of Courts at Cuttack, Odisha only.



Table of Contents

Contents

DISCLAIMER	2
Table of Contents	4
SECTION - 1 INTRODUCTION	14
SECTION - 2 INSTRUCTIONS TO BIDDERS	17
2.6 PREPARATION OF BIDS/PROPOSALS	18
2.7 SCOPE OF WORK	19
2.8 EARNEST MONEY DEPOSIT (EMD)	19
2.9 BID PROCESSING FEE	20
2.10 SUBMISSION OF BIDS	20
2.11 Deadline for Submission of BIDS	21
(b) Receipt and opening of proposal by the Purchaser	22
(b) Bidder will submit only one bid.	23
Note: (a) All Forms of this RFB, required in support of Technical Bid Conditions, must be filled and submitted by the Bidder.	28
2.13 MANNER OF SUBMISSION	29
2.14 CONDITIONS GOVERNING CONSORTIUM	29
(b) In case the Bidder fails to comply with the conditions governing Consortium, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.	30
2.15 SITE VISIT	30
2.16 FRAUD AND CORRUPT PRACTICES	30
2.17 AMENDMENT TO RFB	31
2.18 VALIDITY OF BIDS	32
2.19 CLARIFICATIONS TO BIDDER'S PRE-BID QUERIES	32
Table-4	32
2.20 BID EVALUATION PROCESS	32
2.21 TECHNICAL BID EVALUATION	33
2.22 FINANCIAL BIDS OPENING	33
2.23 FINANCIAL BID EVALUATION	33
2.24 DETERMINATION OF THE SUCCESSFUL BIDDER	33
2.25 RIGHT of TRANSPORT COMMISSIONER, ODISHA TO ACCEPT OR REJECT ANY OR ALL BIDS	33
2.26 PROCESS TO BE CONFIDENTIAL	33
2.27 ACKNOWLEDGEMENT BY BIDDERS	33
2.28 EXCLUSION OF BIDS / DISQUALIFICATION	34
2.29 CANCELLATION OF PROCUREMENT PROCESS	34
2.30 CODE OF INTEGRITY FOR BIDDERS	34
2.31 DISCLOSURE OF CONFLICT OF INTEREST	35



2.32	PUNISHMENT FOR NON-COMPLIANCE OF PROCUREMENT PROCESS.....	35
2.33	REPRESENTATIONS AND WARRANTIES OF THE BIDDER	35
2.34	GENERAL CONDITIONS	36
SECTION - 3 EXECUTION OF AGREEMENT		42
SECTION - 4.....		43
4.2	SUCCESSFUL BIDDER'S RESPONSIBILITIES	45
4.3	TRANSPORT COMMISSIONER, ODISHA RESPONSIBILITIES.....	45
4.4	EQUIPMENT TO BE SUPPLIED BY SUCCESSFUL BIDDER.....	46
4.5	LIST OF EQUIPMENT	46
Table-7		46
Table 848		
Table 949		
4.9	SOFTWARE.....	51
4.10	ONLINE DASHBOARD FOR STA	54
4.11	ONLINE DASHBOARD FEATURES:	55
➤	Traceability of vehicle test report from each ATS location	55
➤	Data mining	55
➤	Daily/ Weekly/Monthly/ Annually report	55
➤	Billing, Revenue Report etc.	55
➤	All MIS features	55
➤	Downtown calculations of any equipment for all ATS.	55
➤	Vehicle Failure Report (Test wise/ vehicle class wise etc.)	55
➤	Report Authentication.....	55
➤	Any other allied features as per requirement of State Government.....	55
4.12	CALIBRATION	55
4.13	CLIMATIC CONDITIONS.....	56
4.14	HEALTH & ENVIRONMENTAL REQUIREMENTS.....	56
4.15	DOCUMENTATION	56
4.16	ACCEPTANCE TESTS	56
4.17	PROJECT IMPLEMENTATION TEAM	56
4.18	TRAINING PLAN AND TRAINING SUPPORT	56
4.19	SERVICE SUPPORT AND STOPPAGE OF SERVICE.....	56
4.20	WARRANTY & COMPREHENSIVE MAINTENANCE CONTRACT (CMC)	57
4.21	OPERATIONS AND OPERATION COST	57
(c)	Manpower management	57
4.22	QA/QC DOCUMENT	58
4.23	IMPLEMENTATION SCHEDULE.....	58
SECTION – 4A.....		61
Civil Scope of work		61
DETAILED SCOPE OF WORK		61



Structural Design & Construction.....	61
Further, details (in brief) are as under: -	62
Design Life	63
Architectural & Civil finishing for all Works under Scope	63
SHOPDRAWINGS:	67
DESIGN DRAWINGS PREPARED BY THE CONTRACTOR.....	67
FABRICATION/ERECTION AND DRAWINGS PREPARED BY THE CONTRACTOR.....	68
FABRICATION.....	68
Fabrication of Structure.....	69
Inspection & Acceptance Of the Fabrication Work	69
Shipping, Handling, and Storage:.....	70
Erection and Construction	70
Bolt Tightening	71
Material Tests	72
Safety Precautions.....	72
Warranties/Test Certificates	72
Performance Warranty Certificates:	73
Inspection and Quality	73
Execution	73
Examination	73
Preparation.....	74
Erection Of Structural Framing	74
Metal Wall Panel Installation	74
Roof Panel Installation.....	74
Metal Panel Fastener Installation	74
Flashing, Trim And Closure Installation	75
Accessory Installation	75
General	75
Dissimilar Metals	75
Gutters and Downspouts.....	75
Roof and Wall Accessories and Specialties	75
Clean-up and protection.....	75
Metal Panels	75
Touch-Up Painting.....	75
Waste Management	76
Painting of PEB structure.....	76
Providing & supplying of Colour coated Galvalume 0.58 TCT sheet with SMP finish for roofing & 0.50 TCT with SMP finish for cladding	76
MISCELLANEOUS & ALLIED WORKS	77
Plumbing & Sanitary	77



Further, details are as under:.....	77
SECTION – 5	90
GENERAL DESCRIPTION	90
SECTION - 6.....	92
SECTION - 7 EQUIPMENT SPECIFICATIONS	93
7.1 FUNCTIONAL REQUIREMENTS.....	99
7.2 GENERAL PURPOSE OF THE INSPECTION LANE	99
7.3 IT PLATFORM	99
7.5 Tyre pressure filler and indicator :	101
7.6 SOFTWARE.....	101
7.7 SAFETY SYSTEMS	102
b) Power cut-off protection device.....	102
7.8 SMART TV WITH CCTV VIEWER INSTALLED TO VIEW CCTV DISPLAY:	102
7.9 CCTV Specifications:	102
a) Camera:	102
b) Lens.....	102
c) Illuminator	103
d) Video.....	103
e) Audio	103
f) Network.....	103
g) Image.....	103
h) Interface	103
i) General	104
7.10 LEDS SCREENS/ MONITORS	104
7.11 HYBRID WAN LINK AGGREGATOR (INBOUND / OUTBOUND) SPOKE UNIT.....	104
7.12 HYBRID WAN LINK AGGREGATOR (INBOUND / OUTBOUND) HUB UNIT	106
SECTION – 7A LIST OF TESTS.....	109
a) Tests to Be Conducted at Automated Testing Station :.....	109
1. Automated Equipment Calibration Details.....	122
(3). Overall Results.....	126
(5). Inspection Photos (to be uploaded):.....	127
Digital signature of ATS operator.....	127
SECTION - 8.....	128
SECTION – 8A.....	129
SECTION - 9 EVALUATION PARAMETERS	130
EVALUATION CRITERIA (TECHNICAL BID)	130
METHODOLOGY FOR EVALUATION	130
TECHNICAL PROPOSAL EVALUATION CRITERIA.....	130
EVALUATION OF FINANCIAL BID.....	132
DETERMINATION OF SUCCESSFUL BIDDER	133



CORRECTION OF ARITHMETIC ERRORS IN FINANCIAL BIDS	133
SECTION - 10.....	134
10.1 Acceptance Test shall be done in two steps, such as:.....	134
10.2 FINAL ACCEPTANCE	135
SECTION - 11 TERMS OF PAYMENT	136
11.9 TRANSPORT COMMISSIONER, ODISHA RIGHT TO SET OFF	137
11.10 TAXES AND DUTIES	137
11.11 PENALTY FOR DELAYED SERVICES / LATE DELIVERY/ INCIDENT WISE PENALTY	138
11.12 PROJECT MANAGEMENT CONDULTANCY FEE OF ICAT	139
FORM (A)	140
FORM (A-1).....	142
(To be submitted duly notarized along with Technical Bid).....	142
REPRESENTATIONS AND WARRANTIES BY THE BIDDER	142
Ref: RFB No dated:	142
Signature of Authorised SignatoryName & Designation.....	142
FORM (B)	143
(Duly notarized to be attached along with Technical Bid).....	143
Ref: RFB No dated:	143
Signature of Authorised SignatoryName.....	143
2) Description & Capability of Firm.....	145
3) Organisation Structure of Firm	145
4) Financial Information	145
5) Work Experience	145
6) Equipment manufacturer/ supplier details	145
Signature of Authorised SignatoryName.....	145
FORM (D)	146
FORM (F).....	149
Signature of Authorised SignatoryName.....	149
FORM (F-1).....	150
Signature of Authorised SignatoryName.....	150
FORM (G)	151
FORM (H)	153
Detailed Technical Specifications	153
(To be filled and attached along with Technical Bid)	153
3. Calibration Equipment.....	155
4. Software considerations.....	155
5. Safety Systems.....	155
6. Automatic Tyre pressure filler and indicator.....	155
7. UPS 20 kVA	155
8. Air Compressor	159



9. DG Set.....	161
Signature of Authorised Signatory of the BidderName.....	170
FORM (I).....	171
Undertaking from Testing / IT Equipment Manufacturer for Warranty and CMC of Lane Testing Equipment.....	171
(Duly notarized to be attached along with Technical Bid)	171
Signature of Authorised Signatory of Equipment Manufacturer	171
FORM (J)	173
Description of Approach, Methodology Work and Training Plan	173
(To be attached along with Technical Bid)	173
1. Work Plan and Implementation Schedule	173
2. Proposed Implementation Layouts	173
3. Requirements on Civil Works and Utilities	173
4. General Utilities Requirements (Power and Earthing, Air Conditioning, Ventilation, etc.).....	173
Signature of Authorised Signatory of the Bidder.....	174
FORM (K).....	175
(To be submitted by the Successful Bidder after signing of Contract)	175
2. Date of Birth:	175
9. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned	175
Signature of Authorised SignatoryName.....	175
FORM (L)	176
Sub: Letter of Award to the Successful Bidder for ATS <Location> selected on the basis of the provisions of the RFB ... <ref number dated >	195
Form (P)	199
(Notarized affidavit to be attached along with Technical Bid)	199
Ref: RFB No dated:	199
Signature of Authorised Signatory	199
Name of Signatory	199
Designation Seal	199
Form (Q) References	200
Form (R) Service Support.....	201
1.2 Warranty Conditions	201
1.3 Comprehensive Maintenance Contract.....	201
1.4 Spare Parts List	201



DEFINITIONS

The following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively ascribed to them:

- (i) **“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 and Odisha 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.
- (ii) **“Authorized Signatory”** means the Bidder’s duly authorized representative having the Power of Attorney (PoA) to do in its name and on its behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of its Bid in response to this RFB proposed by the Transport Commissioner, Odisha, including but not limited to signing and submission of Bid and other documents and writings, participate in Pre-Bid and other conferences and providing information/ responses to the Transport Commissioner, Odisha, representing it in all matters before the Transport Commissioner, Odisha, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of its Bid, and generally dealing with the Transport Commissioner, Odisha in all matters in connection with or relating to or arising out of its Bid for the said Project.
- (iii) **“Acceptance Tests”** means the tests of Equipment as per the agreed plan with the Transport Commissioner, Odisha or their authorized representative.
- (iv) **“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 Majeure.
- (v) **“I&C Centre”** means **Inspection and Certification Centre**.
- (vi) **“ATS”** means Automated Testing Station.
- (vii) **“Successful Bidder”** includes (without limitation to) any person, company, firm, organization, consortium with whom Transport Commissioner, Odisha 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. Consortium shall not be formed by any bidder after submission of bid.
- (viii) **“Bidder's Documents”** means in addition to the RFB, 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 for the performance of the Contract.
- (ix) **“Bidder's Insurances”** means the insurance policies to be purchased and maintained in full by the Bidder.
- (x) **“CMVR”** means Central Motor Vehicles Rules, 1989 as amended from time to time.
- (xi) **“Change in Law”** means the occurrence of any of the **following after the due date of Bid**:
 - (a) the enactment of any new Indian law;
 - (b) the repeal, modification or re-enactment of any existing Indian law;
 - (c) the commencement of any Indian law which has not entered into effect until the date of Bid;
 - (d) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as



compared to such interpretation or application by a court of record prior to the date of Bid; or

(e) any change in the rates of any of the Taxes that have a direct effect on the Project.

- (xii) **“Completion of the Works”** means the execution of Works as specified in the **“Section 4 Scope of Works”** of this RFB, to the satisfaction of Transport Commissioner, Odisha and the Transport Commissioner, Odisha has issued completion certificate in this regard.
- (xiii) **“Competent Authority”** means Transport Commissioner, Odisha
- (xiv) **“Confidential Information”** means everything contained in this RFB and the consequent Contract, 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) Transport Commissioner, Odisha or obtained directly or indirectly by the Bidder or which is generated by the Bidder or any sub Bidder or any information or data that the Bidder receives or has access to as a result of the Contract, other than information:
 - (xv) which is generally available in the public domain other than by any unauthorized actions or fault of the Bidder; or which is in the possession of the Bidder with a right to disclose; **“Consortium”** A consortium of not more than three members shall be allowed to participate in the bid. At least one member of the consortium shall be an OEM as defined in the definitions. **“Contract”** means the written agreement in the **Form N** of this RFB signed between the Transport Commissioner, Odisha and the Successful Bidder, and includes the RFB along with its enclosures, annexure, schedules, addendum/ corrigendum, clarifications, issued from time to time during the Bid process
 - (xvi) **“Commencement Date”** shall mean the actual date of commencement of operation of the ATS.
 - (xvii) **“DoT”** means the Transport Commissioner, Odisha.
 - (xviii) **“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.
 - (xix) **“Equipment”** means any apparatus/machine, manufactured indigenously or abroad, procured for the implementation of the Works as per Scope of Work specified in Section 4 of this RFB.
 - (xx) **“Execution of the Works”** means the design, procurement, civil work, 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 this RFB and the consequent Contract.
 - (xxi) **“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.
 - (xxii) **“GoI”** means Government of India
 - (xxiii) **“Govt. of Odisha”** means Government of Odisha.
 - (xxiv) **“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.



- (xxv) **“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 damages described in this RFB to be paid by the Successful Bidder to the Transport Commissioner, Odisha as compensation. **“Maintenance Spare Parts”** means the maintenance spare parts for the Equipment and includes the critical, replacement and breakdown spare parts. **“MoRTH”** means Ministry of Road Transport and Highways, Government of India.
- (xxvi) **“OEM”** means the Original equipment manufacturer / OEM with valid technology transfer agreement presently manufacturing the testing equipment as defined in rule 190, table "F" of CMVR 1989.
- (xxvii) **“Performance Standards”** means such performance standards for the operation and maintenance of the Project Facility as may be applicable pursuant to the Contract.
- (xxviii) **“Pre-Dispatch Test”** means test by the consultant at manufacturing site ensuring the quality check of the equipment.
- (xxix) **“Project”** means Purchase, Supply, Installation & Commissioning of Vehicle Testing Equipment and Civil Work for Equipment Foundation as well as Operation & Maintenance of Automated Testing Station (ATS) on the terms and conditions contained in this RFB and in the consequent Contract.
- (xxx) **“Project Facility”** means the facilities as specified in the RFB, being developed in accordance with the Project and includes all its buildings, equipment, facilities, hardware, software and systems and includes without limitation, where the circumstances so require, any expansion thereof from time to time.
- (xxxi) **“Project Facility Insurance”** means the insurance policies to be purchased and maintained in force by the Successful Bidder.
- (xxxii) **“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 Transport Commissioner, Odisha which remain incomplete at the Date of Completion of the Works.
- (xxxiii) **“Quality Assurance Plan”** means that plan referred to in this Section.
- (xxxiv) **“RFB”** means Request for Bid issued by the Transport Commissioner, Odisha through tender for the selection of Successful Bidder for Supply, Installation & Commissioning of Vehicle Testing Equipment and Civil Work for Equipment Foundation as well as Operation & Maintenance of Automated Test Station (ATS) and includes the Bid document along with its Sections, Forms, Annexure, Addendum, Corrigendum et-cetera.
- (xxxv) **“Related Works”** means works other than the Works, performed or undertaken by Transport Commissioner, Odisha or other Bidders or Successful Bidders of Transport Commissioner, Odisha 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.
- (xxxvi) **“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.
- (xxxvii) **“Spare Parts”** means such Maintenance Spare Parts as are required for successful and uninterrupted operation of the ATS.



- (xl) “**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.
- (xli) “**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.
- (xlii) “**Testing Plans**” means those plans referred to in this RFB 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.
- (xliii) “**Training Plan**” means plan proposed by the Bidder in Form (J) Clause 6 of this RFB and as approved by the Transport Commissioner, Odisha.
- (xliv) “**Warranty**” means an assurance from the Bidder/Equipment Manufacturer 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.
- (xlv) “**Works**” means the Scope of Work as specified in the **Section 4** of this RFB.

SECTION - 1 INTRODUCTION

- 1.1** Transport Commissioner, Odisha decided to establish Automated Testing Stations (ATS) at 21 (Twenty-one) locations in Odisha state. The International Centre for Automotive Technology (ICAT), Manesar, Gurugram (Haryana) is selected by Transport Commissioner, Odisha to provide consultancy services for selection of Successful Bidder through tender for design, construction, supply & installation of equipment as per the requirement of CMVR Chapter XI as well as Operation & Maintenance of all Automated Testing Station.
- 1.2** Transport Commissioner, Odisha (hereinafter referred as “**Authority**”) invites tender for selection of Successful Bidder for the said work as per clause 1.3 above on the terms and conditions contained in this RFB and in the consequent Contract. Brief Scope of Work and the timeline for tender is given in the table below.

Table-1

Sr. No.	Subject	Detail Description
1	2	3
1	Name & Address of the tender inviting Authority	Transport Commissioner, Odisha Address: 6th Floor, Rajaswa Bhawan, Chandini Chowk, Cuttack, Odisha 753002 Tel : +91-671-2507042 Email : addl.comm.tech@gmail.com
2	Project Officer in- charge	Additional Commissioner Transport (Technical) Email: addl.comm.tech@gmail.com
3	Contact Person for Queries	Joint Commissioner Transport (Technical) Email : addl.comm.tech@gmail.com
4	Mode of Tendering	Online Mode, Tender document shall be published on https://enivida.odisha.gov.in
5	Scope of Work and nature of this RFB	(a) Construction of Automated Testing Station comprising of Test shed, Admin Building and allied structures at 21 (Twenty- one) locations in Odisha state. (b) The work also includes I.T, Electrical, network connectivity and fire extinguisher work. (c) Site development, security room, Equipment foundation including allied works like test shed trimix flooring, epoxy coating for the flooring, conduiting for cables including 3 phase & Single-phase cables, Compressor piping, Drainage, water supply, Internal and External Electrification, Sewage, Procurement and supply of Furniture as per list attached in this RFB. (d) Supply, installation and commissioning of vehicle testing equipment as per the specifications prescribed in section 7 of this RFB, supply of additional vehicle Testing equipment, IT Equipment as per the requirement of CMVR Chapter XI, (e) Supply, installation and commissioning of testing equipment, IT Equipment, integration of equipment,



		<p>system checking and commissioning of vehicle inspection equipment at 21 (Twenty-one) location in Odisha State.</p> <p>(f) Supply installation & commissioning of necessary utilities like DG sets, UPS, Air compressor, Metering Kiosk, Air conditioners, Water coolers with RO purifiers etc., calibration tools, special tools and requisite software for smooth operation of the Centers with necessary reports.</p> <p>(g) Supply, installation & commissioning of suitable exhaust gas handling system and provision for fresh air ducting for all underbody inspection pits</p> <p>(h) Comprehensive Maintenance Contract for 5 years after completion of warranty period of 2 years</p> <p>(i) Upkeep of all equipment, utilities and infrastructure.</p> <p>(j) Operation for a period of 7 (Seven) years & Maintenance of the said Automated Testing Station (ATS) including testing equipment , utilities etc. for the period of 7 (Seven) years including warranty period of two years by providing trained manpower as per the requirement of Transport Commissioner on the terms and conditions contained in this RFB and in the consequent Contract. The successful shall conduct vehicle functional test as per CMVR 1989, and OMVR or any additional test, if any, as required by the State Transport Department, Govt. of Odisha.</p> <p>(k) Preparation of Manuals & imparting induction training and refresher training to the officers of Motor Vehicles Department, Government of Odisha.</p> <p>(l) Preparation of Manuals & imparting induction training and refresh training to the officers of State Transport Authority, Odisha.</p> <p>(f) Payment of all statutory dues towards electricity, water , consumables, stationary and all other allied works.</p> <p>(g) Payment of network connectivity, telephone and all other operational charges are as required for operation of the ATS to conduct the functional tests.</p> <p>(h) All required statutory bodies approval/ clearances.</p> <p>(i) Audit of ATS as per timeline defined in CMVR by nominated audit agency by Transport Commissioner, Odisha</p> <p>(j) Payment of Statutory Audit fees & Consultancy fees</p> <p>(k) The Successful Bidder shall perform, execute and implement the works as per Scope of Work given in Section 4 of this RFB.</p> <p>(l) The scope of work for State Transport Authority are mentioned in Section 4 of this RFB</p> <p>(m) To provide layout designs for construction of internal roads.</p>
6	Earnest Money Deposit (EMD) Refundable	<p>EMD of Rs 80,00,000/- (Rs. Eighty Lakhs only) shall be paid in shape of Demand Draft issued by any nationalized bank drawn in favor of Transport Commissioner, Odisha payable at Cuttack.</p>



7	Bid Processing Fee (Non-refundable)	Rs 10,000/- (Ten Thousand Only) Bid Processing Fee plus taxes as applicable Bid Processing Fee shall be paid via Online Portal being used for tendering.
8	Start Date of Downloading of Bid Document	From 1100 hrs on 29.01.2024 From https://enivida.odisha.gov.in
9	Last Date of submission of pre-bid Queries	Up to 1700 hrs on 05.02.2024 through e-mail to “addl.comm.tech@gmail.com” In the prescribed format only.
10	Pre-Bid Meeting	On 07.02.2024 through Virtual Mode. The time and VC link shall be informed by 06.02.2024 to the intended bidders through mail.
11	Last Date of Submission of Bids	Up to 12 Noon on 19.02.2024 Online form on the Tender Portal
12	Last Date of Physical submission of Technical Bid Documents	On 19.02.2024 by 1400hrs at 6th Floor, Rajaswa Bhawan, Chandini Chowk, Cuttack, Odisha 753002
13	Opening of Technical Bids	4 PM on 21.02.2024 at the Office of Transport Commissioner, 6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002
14	Publication of Results of the Technical Bid	On 26.02.2024 and the result shall be published on the portal https://enivida.odisha.gov.in
15	Opening of financial Bids	Will be intimated through REGISTERED E-MAIL to the Bidders who qualify in the evaluation of Technical Bid
16	Bid Validity	270 days from the last date of Bid Submission. The authority reserves the right to extend the Bid Validity after its expiry.

SECTION - 2 INSTRUCTIONS TO BIDDERS

2.1 The RFB can be downloaded directly from the tender portal <https://enivida.odisha.gov.in>

2.2 Instruction to Bidders for participation in Tender through <https://enivida.odisha.gov.in>

- (a) Bidders/Vendors/Suppliers/Contractors must get themselves registered on the portal for participating in the e-tenders published by the department. Detailed registration help manual is available in bidder help manual kit.
- (b) Bidders must provide the details of PAN number, registration details etc as applicable and submit the related documents. The user id will be activated only after submission of complete details. The activation process will take minimum 24 working hours odishaenivida@gmail.com
- (c) Bidders must have a valid email id and mobile number.
- (d) Bidders are required to obtain Class 3 Digital Certificates (Signing & Encryption) as per their company details.
- (e) Once bidder DSC is mapped with the user id, the same DSC must not be used for another user id on the same portal. However, bidder can update the digital certificate to another user id after un mapping it from the exiting user id.
- (f) Bidders now can login with the activated user Id & DSC for online tender submission process in this portal.
- (g) Bidders can upload required documents for the tender well in advance under My Documents and these documents can be attached to the tender during tender participation as per the tender requirements. This will save the bid submission duration/time period and reduce upload time of bid documents.
- (h) Bidders must go through the downloaded tender documents and prepare and upload bid documents as per the requirements of the department.
- (i) Bidders are advised to read complete BoQ/SoQ/Price Bid/Financial Bid and Terms & Conditions before quoting rates in the bid document.
- (j) Any modification/replacement in BoQ/SoQ/Price Bid/Financial bid template is not allowed. Bidders must quote only in predefined fields in the bid sheet and save the bid sheet. After saving, the same bid sheet must be uploaded in the portal.
- (k) Bidders must pay required payments (Tender fee, EMD, Tender Processing Fee etc) as mentioned in the tender document, before submitting the bid.
- (l) Bidders are recommended to use PDF files for uploading the documents and file size must not cross 5MB. Only price bid sheet will be in Excel format.
- (m) The bidders must ensure to get themselves registered on the portal at least 1 week before the tender submission date and get trained on the online tender submission process. For tender submission and registration process bidders are advised to refer respective manuals on website. Tender inviting Authority/Department will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues like internet connectivity/PC speed/etc...
- (n) Offline Submission of financial bid/ Financial documents/rates by the bidders will not be accepted by the Authority, under any circumstance.
- (o) After final submission of the bid, a confirmation message and bid submission acknowledgement will be generated by the portal. The bid submission acknowledgement contains details of all documents submitted along with bid summary, token number, date & time of submission of the bid and other relevant details. Bidder can keep print of the bid submission acknowledgement.
- (p) If bidder is resubmitting the bid, bidder must confirm existence of all the required documents, financial bid and again submit the bid. Once submitted, the bid will be updated.
- (q) Submission of the bid means that the bid is saved online; but system does not confirm correctness of the bid. The correctness of the bid will be decided by tender inviting authority only.

- (r) The time displayed in the server is IST(GMT 5:30) and same will be considered for all the tendering activities. Bidders must consider the server time for submission of bids.
- (s) Bid documents being entered by the Bidders/Vendors/Contractors will be encrypted at the client end and the software uses PKI encryption techniques to ensure security/secrecy of the data. The submitted bid documents/data become readable only after tender opening by the authorized individual.

2.3 Guidelines for Registration

- (a) Bidders are required to enrol themselves on the eNivida Portal <https://enivida.odisha.gov.in> or click on the link “Bidder Enrolment” available on the home page by paying Registration Fees of Rs.2,500/- + Applicable GST.
- (b) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (c) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidders.
- (d) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/ TCS / nCode/ eMudhra etc.), with their profile.
- (e) Only valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- (f) Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.
- (g) The scanned copies of all original documents should be uploaded in pdf format on e-tender portal.
- (h) After completion of registration payment, bidders need to send their acknowledgement copy on help desk mail id odishaenivida@gmail.com for activation of the account.

2.4 Searching for Tender Documents

- (a) There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.
- (b) Once the bidders have selected the tenders they are interested in, then they can pay the Tender fee and processing fee (NOT REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fee tenders will be moved to the respective ‘requested’ Tab. This would enable the e-tender Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

2.5 Clarifications on using e-Nivida Portal

- (a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the bid data sheet.
- (b) Any queries relating to the process of online bid submission or queries relating to e-tender Portal in general may be directed to the Helpdesk Support.
- (c) Please feel free to contact e-Nivida Helpdesk (as given below) for any query related to e-tendering.

o Phone No.: 011-49606060, 9355030604, 9355030613

o Mail id: odishaenivida@gmail.com

2.6 PREPARATION OF BIDS/PROPOSALS

- (a) The Bidder shall ensure all the requirements specified in this RFB are duly complied.
- (b) The Bidders are expected to carefully examine all the contents of this RFB and take them fully into account before submitting their Bids. Failure to comply with the requirements as detailed in this RFB shall be at the Bidder's own risk. Bids which are not responsive to the requirements & conditions of the RFB will be summarily rejected.
- (c) While all efforts have been made to avoid errors in the drafting of the RFB, the Bidders are advised to check the same carefully. No claim on account of any errors detected in the RFB shall be entertained.
- (d) Bidders should examine the clauses and conditions mentioned in this RFB carefully and thoroughly before submitting their bids. For any clarifications, the bidder must send their queries in the prescribed format through email before the pre-bid meeting.
- (e) The Bid prepared by the Bidder and all correspondence and documents relating to the tender exchanged between the Bidder and Transport Commissioner, Odisha shall be in the English language only.
- (f) All the pages of the Bid shall be duly stamped and signed by the authorized signatory of the Sole/Lead bidder. **Authorized signatory of the Lead Bidder shall have to sign the Bid Documents of the Consortium Partners.** Any Bid not complying with the terms and conditions as set out in this RFB and / or not signed by authorized signatory will liable to be rejected.
- (g) 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, means of access to the site, nature of the Works and all matters pertaining thereto.
- (h) Bidders are advised to visit each proposed location before submission of bid to understand the current status of the site.
- (i) The Bidder shall fill the '**Contact Details Form**' issued with this bidding document. Transport Commissioner, Odisha would use these details to communicate with the Bidder.
- (j) The cost incurred for Bid Proposal Preparation, Site Visit or any other activities will be borne by the bidder. The Transport Commissioner is not responsible for arranging any activity or entertain any of the bidder during the bidding process.

2.7 SCOPE OF WORK

- (a) The scope of Work shall be as described under "Section 4 Scope of Work and Supply of Equipment".
- (b) The Successful Bidder shall perform, execute and implement the Works strictly in accordance with the terms and conditions of the RFB and the consequent Agreement. The Successful Bidder shall co-operate with the other contractors appointed by the Transport Commissioner, Odisha for carrying out related works at the project site to ensure that the Works proceed smoothly without any delay and to the satisfaction of Transport Commissioner, Odisha.
- (c) The Work shall be carried out strictly in compliance with the requirements mentioned in the RFB.
- (d) Any subcontracting by the Successful Bidder for performance, execution and implementation of the Works shall be with the prior written approval of Transport Commissioner, Odisha. In case the Successful Bidder assigns/ hires work related to tender requirements, prior written approval of Transport Commissioner, Odisha is required.
- (e) No sub-contracting shall be allowed for the operation of centre to conduct functional tests and maintenance of the testing equipment and utilities.
- (f) The successful bidder cannot sub contract to an entity that has participated in the bid. In such cases person associated to the entity participated are also included and also restricted for sub contract by the successful bidder.
- (g) The Successful Bidder shall make his own arrangements to obtain all materials required for performing, executing and implementing the Works, as per scope of work of this RFB.
- (h) The good and uninterrupted Network Connectivity with required band width at all the ATS locations shall be the responsibility of the successful bidders scope.

2.8 EARNEST MONEY DEPOSIT (EMD)

- (a) The Bids shall be accompanied by an EMD of Rs **80,00,000/- (Rs. Eighty Lakhs only)**. EMD shall be paid in shape of demand draft drawn in favor of Transport Commissioner, Odisha issued by any nationalized bank payable at Cuttack and shall be attached along with the Technical Bid of the tender.
- (b) A Bid which is not accompanied by Earnest Money Deposit as per this RFB shall be construed as non-compliant bid and shall be summarily rejected.
- (c) EMD of the unsuccessful Bidders in Technical Bid will be returned by the Transport Commissioner, Odisha after finalization of Technical Bid.
- (d) EMD of the unsuccessful Bidders in Financial Bid, will be returned after the submission of Performance Bank Guarantee by the Successful Bidders as per this RFB.
- (e) No interest shall be paid to any Bidder against the submitted EMD.
- (f) In case of the extension of the Bid validity period as per this RFB, the validity of the EMD shall be extended for a further period as required by Transport Commissioner, Odisha.
- (g) Transport Commissioner, Odisha shall have right to forfeit EMD of the Bidder, in case such Bidder: –
 - (i) has withdrawn its Bid during the validity period of the Bids and any extensions thereto without the written consent of Transport Commissioner, Odisha;
 - (ii) alters the quoted rates/conditions in the Bid after opening of the Financial Bid;
 - (iii) fails to deposit the Performance Bank Guarantee within the period specified in the RFB;
 - (iv) has provided wrong or false information;
 - (v) fails to comply with the conditions of Consortium as specified in this RFB.
- (h) Transport Commissioner, Odisha shall have right to forfeit Performance Bank Guarantee of the Bidder, in case such Bidder:
 - (i) fails to start the work as specified in this RFB or fails to execute the Contract within a period of 30 days from the date of issue of the Letter of Award;
 - (ii) has provided wrong or false information;
 - (iii) fails to comply with the conditions of Consortium as specified in this RFB.

2.9 BID PROCESSING FEE

- (a) The Bidders shall deposit bid processing fee of **Rs 10,000/- (Ten Thousand Only) Bid Processing Fee plus taxes as applicable**
- (b) The Bid Processing Fee is non-refundable.
- (c) A Bid which is not accompanied by Bid Processing Fee as per this RFB shall be construed as non-compliant bid and shall be summarily rejected.
- (d) Bid Processing Fee shall be paid Online on the Tending Portal

2.10 SUBMISSION OF BIDS

- (a) The process of bid submission shall be online on the tendering portal in the necessary format mentioned in the RFB. Any bidder failing to submit the bid online will be automatically disqualified.
- (b) The bidder should visit eNividha site (<https://enivida.odisha.gov.in>) and follow all the necessary guidelines for online submission and should also go through the digital signature requirement as well as system requirement.
- (c) The Bidder shall upload the scanned copy / copies of document in support of eligibility criteria and qualification information in prescribed format in PDF to the portal in the designated locations of Technical Bid.
- (d) The Bidder shall log on to the portal with its DSC and move to the desired tender for uploading the documents in appropriate place one-by-one simultaneously checking the documents
- (e) A two-part Bid System will be followed for this RFB with a QCBS Selection criterion
- (f) The Bidders will submit online bids on the portal in two envelope format technical and commercial separate.

- (g) All the pages of the Bid must be sequentially numbered and should be indexed properly. Any deficiency in the documentation may result in the rejection of the Bid. Late bids i.e. bids submitted beyond the prescribed deadline of submission, shall not be accepted
- (h) E-Bids cannot be submitted after due date and time. The E-Bids once submitted cannot be viewed, retrieved or corrected. The E-Bidder should ensure the correctness of the E-bid prior to uploading and take printout of the system generated summary of submission to confirm successful uploading of E-bid. The E-bids cannot be opened even by the OIT / Opener before the due date and time of opening.
- (i) Bidder shall also submit hard copies of technical bids at the below address:
Address: TRANSPORT COMMISSIONER, ODISHA,
6TH FLOOR, RAJASWA BHAWAN, CUTTACK, PIN-753002.
- (j)
- (k) Only one hard copy **Envelope** consist of technical bid to be submit.
Envelope Superscript “**Technical Bid for SELECTION OF SUCCESSFUL BIDDER FOR DESIGN, CONSTRUCTION OF AUTOMATED TESTING STATION, PROCUREMENT, SUPPLY, INSTALLATION OF VEHICLE TESTING EQUIPMENT AND OPERATION & MAINTENANCE AT 14 LOCATION IN ODISHA STATE**”
Technical Bid envelope shall have below listed documents.
a- Tender Fees
b- EMD
c- Technical Bid documents along with Supporting Documents as defined in this RFB.
- (l) A CD Drive/Pen Drive with all the scanned technical bid document along with the hard copy of bid also to be submitted by the bidder. The Bidder shall ensure that CD Drive/Pen Drive submitted by them is free from any malware/virus/trojan etc.
- (m) No physical financial bid shall be submitted to the department only technical bid shall be submitted by the bidders.
- (n) The Bids shall be submitted only on the Bid Submission Date and time given in the RFB or its extended date notified through corrigendum. No bid shall be received after the submission date & time.
- (o) The proposal and all correspondence and documents shall be written in English language. In case of accompanying literature or brochures etc being in a language other than English language, a certified translation should accompany the documents as a part of the RFP. All proposals and accompanying documentation will become the property of the department and will not be returned.
- (p) Once the Bid submission date and time is over, the bidders cannot submit their Bid. The bidders shall only be held responsible for any delay and whatsoever reason in submission of Bid.
- (q) The Transport Commissioner, Odisha, reserves the rights to modify, change, amend & remove any conditions, clauses and information provided in this RFB. Any modification, changes or removal of any clause shall be notified by issuance of suitable corrigendum or addendum. And such corrigendum or addendum or both shall be hosted in the web portal www.odishatransport.gov.in and eNividha Website <https://enivida.odisha.gov.in> before bid submission date.

2.11 Deadline for Submission of BIDS

Bids must be submitted by the Bidders online on the above mentioned eNIVIDHA website any other form of submission including physical submission of technical bid documents shall be supplementary in nature. Any bidder failing to submit the bid documents online before the submission deadline will automatically be disqualified in clause (a) not later than the date and time specified in this Tender document.

The Transport Commissioner, Odisha may extend this deadline for submission of Bids by amending the Tender document, in which case all rights and obligations of the department and

Bidders previously subject to the deadline will thereafter be subject to the deadline as extended, Bids should be submitted on or before the date and time as mentioned in tender document.

(a) Late Bids

The concerned Bidder/Consortium will be held responsible if BIDS or any of the documents are not submitted in time due to any reasons. No bids and documents will be accepted after due date and time as mentioned in this RFB.

(b) Receipt and opening of proposal by the Purchaser

(i) Interested Firms / Companies are advised to submit their proposal in Two- Bid' system with Technical and Financial bids separately.

(ii) Please note that prices should not be quoted in the Technical Bid. The Prices should be quoted in the Financial Bid only. On receipt of bid the technical proposals will be opened first by Tender Evaluation Committee (TEC) members in the office of Transport Commissioner, Odisha.

(iii) The Transport Commissioner, Odisha or the tender committee or the authorized officers by Transport Commissioner will open all technical proposals, in the presence of Bidder or their authorized representatives at on the date and time mentioned in tender document. The Interested Bidder's representatives who are/ will be present at the time of technical bid opening shall record their attendance on the attendance sheet. In the event of the specified date of the Proposal proposed technical bid opening date being declared as a holiday in that case authority shall fix up another date and shall intimate to the bidder on their registered e-mail ID. Authorization letter (on letterhead of the bidder) and Legal Identification Proof photo copy shall be submitted while attending the meeting associated with this bid process.

(iv) The bidder names & the presence and other details as the Transport Commissioner, Odisha at its discretion may consider appropriate, will be announced at the opening of the technical proposal. The names of such Bidders not meeting the qualification requirement shall be notified subsequently.

After evaluation of technical proposal, the Transport Commissioner shall notify those Bidder whose proposal were considered nonresponsive to the conditions of the RFB and those bidders who are not meeting the Qualification Requirements indicating that they did not technically qualify for this bid process. The Transport Commissioner will simultaneously notify the bidders on the Tender portal (www.odishatransport.gov.in), whose technical bid proposal was evaluated and has been qualified for opening of the financial bid proposal.

(c) Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all the document provided in the Bid Document will be construed as plea to disrupt the bidding process and in such cases the EMD shall be forfeited.

(d) The Bidder will not be able to submit his bid after expiry of the date and time of submission of Bid. The Transport Commissioner, Odisha reserves the right to extend the bid submission date by issuance of corrigendum.

(e) Bids only in the prescribed format available on the website www.odishatransport.gov.in will be considered.

(f) The cost of tender documents is non-refundable.

(g) The Technical Bid and Financial Bid shall be duly signed by the Bidder itself or by a person authorized by the Bidder. The authorization letter along with legal identity proof shall be submitted along with the Technical Bid.

(h) Any alteration in the constitution of Bidder as submitted in the Technical Bid after the submission of the Bid will result in disqualification of the Bidder or cancellation of the Agreement, as the case may be.

Part –1: The Pre-Qualification Conditions

- (a) Transport Commissioner, Odisha will not be responsible for delay in submission by any Bidder, due to any reason. The Tender shall be done in online mode. Whereas, Physical Technical Bid without rate or financial proposal to be submitted 6th Floor, Rajaswa Bhawan, Cuttack, Odisha, PIN-753002 before the closure of bid submission date and time. One Bidder/consortium member can submit only one bid. A bidder/any member of consortium cannot submit multiple bids in any manner.
- (b) **Bidder will submit only one bid.**
- (c) Proper care should to be taken to ensure that the Technical and Financial Bid documents are submitted in the respective seal bids only.
- (d) The Pre-qualification conditions of Technical Bid and the necessary documents to be submitted along with Technical Bid, are given in the table below:

Table-2

S. No.	Pre-Qualification Conditions	Documents to be submitted along with Technical Bid
1	2	3
1	<ul style="list-style-type: none"> ➤ The Bidder may be Sole Bidder or a /consortium. ➤ The Sole Bidder or members of a consortium shall be a company registered under Company Act 1956/2013 or a LLP (Limited Liability Partnership) or a registered Partnership Firm under Partnership Act 1932 or a Proprietorship firm registered under Shop & Establishment Act. ➤ In case of Consortium, the maximum numbers of members are restricted to three only. And at least one member of the consortium shall be an OEM. ➤ The Consortium partners shall nominate amongst them one lead member. ➤ The Lead Member of Consortium must have office in India. ➤ Lead member of Consortium shall not be permitted to participate either as an individual or as a member of another Consortium in the same tender. ➤ No consortium shall be formed after submission of bid. 	<p>Notarized copy of the Certificate of Incorporation of the company issued by Registrar of Companies and also attach copy of Company's Articles of Association as well as Memorandum of Association</p> <p style="text-align: center;">or</p> <p>Notarized copy of the Certificate of Incorporation of LLP issued by Registrar of Companies, and self-certified copy of deed of LLP duly uploaded on the MCA (Ministry of Corporate Affairs) website.</p> <p style="text-align: center;">or</p> <p>Notarized Copy of Registration Certificate of Partnership registered under the Partnership Act 1932 and self-certified copy of all partnership deeds.</p> <p style="text-align: center;">or</p> <p>Notarized copy of the original Certificate of Incorporation in case of Foreign Bidder / Consortium Member with English translation (if required).</p> <p style="text-align: center;">or</p> <p>Notarized copy of the original Certificate of Shop & Establishment Act</p> <p style="text-align: center;">or</p> <p>Notarized copy of the original Registration of Udyam Aadhar.</p>



		<p>In case of Consortium:</p> <p>(a) Notarized Copy of the MOU in Form (D) of this RFB clearly specifying 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.</p> <p>(b) Notarized proof of the Lead Bidder having details of office in India.</p> <p>Bid shall be submitted in the name of lead bidder, however the Lead member of the consortium will be responsible and accountable for execution of the work as defined in the RFB.</p>
2	<p>a. The sole bidder/ any consortium member should have minimum one year experience in last ten years of handling Vehicle Testing centre as per CMVR or industrial 3rd party vehicle testing or Automobile manufacturer's 3rd party vehicle testing or ISO / IEC 17025:2017/NABL Automobile certification lab for automobile testing, .</p> <p>c. The Sole bidder / any consortium member shall be an OEM should have experience of manufacturing and supplying of Test Lane equipment globally consisting of any 4 (Four) test lane equipment mentioned essential to determine End of Life Vehicle vehicles as mentioned in CMV rule 1989.</p>	<p>a. Form (C) of this RFB, duly signed by authorized signatory and relevant documents for experience to be attached with the form.</p> <p>b. Form (C) of this RFB, Details of equipment manufacturer to be provided.</p> <p>c. Bidder shall submit Notarized Form (Q) References, the bidder shall submit a proof (notary certified copy of the original Work done completion certificates issued by the Government authority /Authorized Government Authority/ or publicly listed vehicle manufacturer in India.</p> <p>d. The Equipment manufacturer , shall fill and submit notarized Form (Q) References, where the manufacturer have successfully manufactured & supplied equipment. The Equipment manufacturer shall submit a proof (Copy of GST Invoices validated by statutory Auditor / notary certified copy of the original work done completion certificates/ issued by the Government authority /Authorized Government Authority/ or publicly listed vehicle manufacturer in India. counter signed by the Bidder)</p> <p>Note:</p> <ol style="list-style-type: none"> Any Indian Manufacturer (Class – I local supplier) at the time shall be required to provide a certificate from the statutory auditor or cost auditor of the company giving the percentage of local content. Any Indian Manufacturer (Class – I local supplier) having valid technology transfer agreement for vehicle testing major equipment will be considered as OEM of major equipment and shall be allowed to utilize the credential of the principal OEM. For utilizing credential of principal OEM, the principal OEM must have a minimum 51% stake in the Indian Manufacturer.

3	<p>All members jointly in case of Consortium shall have an average annual turnover of not less than Rs 180.00 crore (One hundred and eighty crore only) Crores in the previous 3 Financial years. (i.e. 2020-21, 2021-22 & 2022-23) and should have a positive net worth in the last three financial years.</p> <p>In case of Turnover document submitted from country other than India, then the same shall be calculated as per conversion rate in INR as on date of publishing of this tender and the same shall be apostilled by the respective bidder.</p>	<ul style="list-style-type: none"> Turnover Certificate of all the said three financial years duly audited by a Chartered Accountant with UDIN. Certified Copy of the audited profit / loss statement of all the said three financial years by a Chartered accountant with UDIN, as applicable. in case the Lead Bidder is the subsidiary, fully owned by a Group, then the turnover of the parent company in India would be admissible for consideration, provided authorization from the parent company is submitted
4	The Sole/Lead Bidder shall have a minimum positive net worth during the last financial year.	Net worth certificates duly audited & certified by a Chartered Accountant with UDIN.
5	The Sole and /All members of Consortium shall have a valid GST and a valid PERMANENT ACCOUNT NUMBER (PAN).	Notarized Copy of GST Registration and PAN.
6	The Sole Bidder/all members of the Consortium shall not be under ban or debarment or blacklisting by Govt. of Odisha or any other Ministry/Department of the Govt. of India/State Govt. or any other country in the last five years from the date of publication of this Bid.	Notarized Affidavit.
7	<p>The Sole Bidder/ all members of the Consortium shall submit a Power of Attorney (PoA) in the name of its employee as Authorized Signatory in Form (E).</p> <p>In case of Consortium, Power of Attorney to be submitted by all members in favour of the Lead Member of Consortium as their authorized signatory in Form (E-1).</p> <p>If the Sole /Lead Bidder is a Company registered under Company Act, PoA shall be duly passed through resolution in the Board Meeting of the Company.</p>	Duly notarized Form (E) and Form (E-1), if applicable.
8	<p>The Sole Bidder / Lead Bidder of the Consortium shall give unconditional compliance of all the terms and conditions as mentioned in the tender document and clause by clause compliance for the technical specifications as prescribed in this tender.</p> <p>The Bidders shall submit Manufacturer's Authorization Form in the specified format for the test equipment/ IT equipment that are not manufactured by the OEM partner in the bid.</p>	Duly Notarized Affidavit.

9	The Sole Bidder / all members of the Consortium shall give affidavit that he has not been convicted by any Court of Competent Jurisdiction in the last five years from the date of publication of this Bid.	Notarized Affidavit.
10	The Sole Bidder / Lead Bidder of the Consortium shall submit duly notarized Letter for Submission of Technical Proposal.	Form (A) of this RFB on the Letter Head of the Bidder duly signed by authorized signatory and duly notarized.
11	The Sole Bidder / Lead Bidder of the Consortium shall submit representations and warranties.	FORM (A-1) duly notarized.
12	The Sole Bidder / Lead Bidder of the Consortium shall furnish an undertaking for confidentiality.	Form (B) of this RFB, duly signed by authorized signatory and duly notarized.
13	The Sole Bidder / Lead Bidder of the Consortium shall submit Bidder's Organization and Firm's Profile.	Form (C) of this RFB, duly signed by authorized signatory. Detailed Information about Consortium shall be in Form (D) Duly notarized Copy of MoU in the case of Consortium to be submitted along with Technical Bid.
14	As per the specifications mentioned in the Section 7, the Sole Bidder / Lead Bidder shall submit the detailed technical specifications.	Form (H) of this RFB, duly signed by authorized signatory, to be attached along with Technical Bid.
15	The Equipment Manufacturer of testing lane equipment shall submit an undertaking that it shall provide Warranty of minimum 2 year from the date of commissioning of the Equipment and thereafter CMC services of its Equipment uninterruptedly for a period of 5 (five) years from the date of expiry of warranty.	Form (I) of this RFB duly notarized.

S. No.	Qualification Conditions	Documents to be submitted along with Technical Bid
1	2	3
16	<p>As per Ministry of Finance, Department of Expenditure, Public Procurement Division Order (Public procurement No. 1) F.No.6/18/2019- PPD dated 23rd July, 2020 regarding Restrictions under Rule 144 (xi) of General Finance Rules (GFRs), 2017, any Bidder (including members of consortium) from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. In work contracts, including turnkey contracts, contractors shall not be allowed to sub-contract to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.</p> <p>Explanation: for this provision, Competent Authority means the concerned Ministry/Department of Government of India.</p>	<p>(a) If applicable, a certificate of compliance regarding this order shall be submitted by bidder along with technical bid.</p> <p>(b) The Sole Bidder/ Lead Bidder shall submit the declaration duly notarized about the country of origin for the quoted Equipment in Technical Bid.</p>
17	Proof of EMD Payment	<p>Demand draft details shall be quoted in Form (F)</p> <p>In case of Consortium, EMD shall be submitted only in the name of the lead member and not in the name of constituent member.</p>
18	Proof of Bid Processing Fee Payment	<p>Demand draft details shall be quoted in Form (F-1)</p> <p>In case of Consortium, Bid Processing Fee shall be submitted only in the name of the lead member and not in the name of constituent member.</p>
19	Bid shall be valid for a period of 270 days from the last date of submission of Bids.	The Sole Bidder / Lead Bidder of the Consortium shall submit Notarized Affidavit in this regard.

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

RFB No.: LX- 10/2024/1504/TC

Dated: 27.01.2024

S. No.	Qualification Conditions	Documents to be submitted along with Technical Bid
1	2	3
20	The Bidder shall not have a conflict of interest in the procurement in question	A Notarized Affidavit in this regard is to be made by the Sole Bidder/all members of the Consortium.
21	Description of Approach, Methodology Work and Training Plan	Form (J) of this RFB, duly signed by authorized signatory.
22	This RFB and its Addendum/Corrigendum documents shall be stamped and signed by the authorized signatory of Sole/Lead Bidder	Stamped and signed Bid Document.
23	Declaration on non-involvement of legal litigation by bidder or any member of the bidder (in case of consortium/partnership)	Notarized Affidavit. As per form (s)

Note: (a) All Forms of this RFB, required in support of Technical Bid Conditions, must be filled and submitted by the Bidder.

Part-2: The Financial Bid Conditions

- (a) The Bidder shall submit Financial Bid as per requirements of this RFB.
- (b) The Vehicle Fitness Inspection Test Fee as well as Fitness Certificate Issuance Fee, shall be collected by the Transport Commissioner, Odisha
- (c) In Financial Bid, the Bidder shall quote **“the Project Cost”** for one typical location only as per **Form (L) of this RFB in excel sheet.** The Form (L) comprises Schedule I, II, III, IV and V. The summary of cost of Schedule I to IV is the Project Cost i.e. **Schedule V of Form (L).** **All five Schedules are given in Form (L).** **The project cost i.e. Schedule V** is given in the following table:
- (d) The cost of a typical single location shall be quoted by the bidder which shall be used as basis for evaluating the bids by the Transport Commissioner, Odisha.

Table-3

SCHEDULE VII: PROJECT COST				
Sl. No.	Schedule	Description of item	Total Amount in Figures (Inclusive of Taxes) (in INR)	Total Amount In Words (Inclusive of Taxes)
1.	I	COST OF ALL TESTING EQUIPMENT		
2.	II	Cost of Installation & Commissioning of all equipment		
3.	III	Cost for Design and construction of Automated Testing Station at a typical location		
4.	IV	Cost of Operation and CMC		
5.	V	Cost of Online Dashboard software development and implementation and maintenance according to specifications		
6.	VI	Hybrid WAN Link aggregator (Inbound / Outbound) Hub Unit [Networking Equipment] – 2 Nos		
7.	PROJECT COST (in Figures) (Sum of all schedule)			

8.	PROJECT COST (in Words) (Sum of all schedule)	
----	---	--

Note:

1. The online dashboard software shall be developed, implemented and maintenance shall be done by “Preferred financial bidder” with Highest technical marks as per bid evaluation method prescribed in section 9 of this RFB.
2. All bidder shall quote for schedule V & VI of form L, whereas, the scope of work of schedule V & VI shall be executed by “Preferred financial bidder” with Highest technical marks. Other bidders in different cluster shall provide necessary support to the State Transport Authority to integrate their database with state dashboard software.

2.13 MANNER OF SUBMISSION

- (a) The Bid shall be submitted through online mode on the enivida Procurement portal (<https://enivida.odisha.gov.in>) within the due date and time of submission.
- (b) Transport Commissioner, Odisha may, at its discretion, extend the deadline for submission of Bids by issuing a corrigendum, in which case all rights and obligations of Transport Commissioner, Odisha and the Bidders previously subject to the original deadline, will thereafter be subject to the extended deadline.
- (c) Transport Commissioner, Odisha 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 annul bidding process, 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:
 - (i) Receipt of a Bid after the submission deadline.
 - (ii) Failure to submit necessary supporting documentation following a specific request by Transport Commissioner, Odisha.

2.14 CONDITIONS GOVERNING CONSORTIUM

- (a) In case of Consortium, the maximum number of members are restricted to three only (including the lead bidder) and The Sole/ Lead Member and all consortium members shall have office in India with valid GST number. The information about the Consortium needs to be furnished in **Form (D) of this RFB**.
- (b) Lead member and all the members of Consortium shall not be permitted to participate either in an 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. EMD shall be submitted only in the name of the lead member and not in the name of constituent member.
- (c) A copy of Memorandum of Understanding (MoU) executed by the Consortium members shall be submitted by the Lead Member 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. The sample of MoU is annexed as **Form-D**.
- (d) Once the tender is submitted, the MoU shall not be modified / altered / terminated during the validity of the tender. The MoU shall be furnished with the roles and responsibilities of each member of the consortium with respect to Scope of Work, as defined in this RFB.
- (e) After the contract has been awarded, alteration/change in the constitution of Consortium shall not be allowed during the current contract period
- (f) 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 Transport Commissioner, Odisha in respect of the said tender/contract.
- (g) Each member of the consortium will be jointly & severally responsible for execution and monitoring the project during project tenure.

(h) Documents to be enclosed by the consortium along with the tender:

(I) In case one or more of the members of the Consortium is/are partnership firm(s), following documents shall be submitted:

- (i) Notary certified copy of the Partnership Deed,
- (ii) Consent of all the partners to enter into the Agreement on stamp paper of appropriate value (in original).
- (iii) Power of Attorney (duly notarized as per prevailing law) in favor 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.

(II) In case one or more members is/are limited companies, the following documents shall be submitted:

- (i) 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.
- (ii) 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.
- (iii) Power of Attorney (duly notarized as per prevailing law) by the Company authorizing the person to act as Lead Member.

(III) In case one or more of the members of the Consortium is/are proprietorship firm, following documents shall be submitted:

- (i) Notary certified copy of the Certificate of Registration.
- (ii) Consent of all the partners to enter into the Agreement on stamp paper of appropriate value (in original).
- (iii) Power of Attorney (duly notarized as per prevailing law) in favour of one of the partners to sign the Agreement on behalf of the **proprietorship** firm and create liability against the firm.

(a) All the Members of Consortium shall certify individually that they are not banned or black listed or debarred by GOVT. OF ODISHA or any other Ministry/Department of the Govt. of India/State Govt. or any other country from participation in tenders/contract in the last five years from the date of publication of this Bid either in their individual capacity as members of the Consortium or the Consortium in which they were/are members.

(b) In case the Bidder fails to comply with the conditions governing Consortium, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.

2.15 SITE VISIT

(c) The Bidder, at its own responsibility and risk may visit and examine the sites of work and its surroundings. The costs of visiting the Sites shall be at the Bidder's own expense and will not be reimbursed by Transport Commissioner, Odisha. The State Transport Authority will arrange for the Bidder and any of its personnel or agents to gain access to the relevant office of proposed site and information, provided that the Bidder gives the Motor Vehicles Department adequate notice of a proposed visit of prior to at least Five (5) working days. No site visits shall be arranged or scheduled after the Last Date (deadline) for the submission of the Bids and prior to the award of Contract, unless specifically approved by State Transport Authority in writing.

2.16 FRAUD AND CORRUPT PRACTICES

- (d) The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the Letter of Award (LoA) and during the subsistence of the Contract Agreement.
- (e) Notwithstanding anything to the contrary contained herein, or in the LoA or the Contract Agreement, Transport Commissioner, Odisha may reject a Bid, or withdraw the LoA, or terminate the Contract Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has directly or indirectly or through

an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice, restrictive practice or collusion in the Bidding Process. In such an event, Transport Commissioner, Odisha shall be entitled to forfeit and appropriate the EMD or Performance Bank Guarantee, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to Transport Commissioner, Odisha under the Bid documents and/ or the Contract Agreement, or otherwise.

- (f) Without prejudice to the rights of Transport Commissioner, Odisha herein above and the rights and remedies which Transport Commissioner, Odisha may have under the LoA or the Contract Agreement, or otherwise, if a Bidder is found by Transport Commissioner, Odisha to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice, restrictive practice or collusion during the Bidding Process, or after the issue of LoA or the execution of Contract Agreement, such Bidder shall not be eligible to participate in any tender or RFQ or RFP issued by the Govt. of Odisha during the period of three years from the date of issuance of such debarment/blacklisting order.
- (g) For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them:

"Corrupt" means

- (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of Transport Commissioner, Odisha who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Contract Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of Transport Commissioner, Odisha, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or
- (ii) save and except as permitted under this Clause, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Contract Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or to the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of Transport Commissioner, Odisha in relation to any matter concerning the Project;

"Fraudulent" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

"Coercive" means impairing or harming, or threatening to impair or harm, action directly or indirectly, any person or property to influence any person's participation or in the Bidding Process;

"Undesirable" means establishing contact with any person connected with or employed or engaged by Transport Commissioner, Odisha with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process.

"Restrictive" means forming a cartel, or arriving at any understanding or arrangement among Bidders, with the objective of, restricting or manipulating a full and fair competition in the Bidding Process.

"Collusion" is a secret agreement between two or more parties to limit open competition by deceiving, misleading, or defrauding others of their legal rights, or to obtain an objective forbidden by law typically by defrauding or gaining an unfair market advantage.

2.17 AMENDMENT TO RFB

- (a) Transport Commissioner, Odisha reserves the right to revise the scope of work or specifications considered necessary in the bid process through Addendum/ Corrigendum before the last date of submission of bids.
- (b) Addendum/Corrigendum to the RFB may be issued by Transport Commissioner, Odisha prior to the last date of submission of the Bid to clarify the documents or to reflect any modifications

etc.

- (c) All such Addendum/Corrigendum shall be treated as an integral part of the RFB.
- (d) All such Addendum/Corrigendum shall be notified only on the tender portal.
- (e) In order to afford prospective Bidders reasonable time for preparing their tenders after taking into account such amendments, Transport Commissioner, Odisha may, at its discretion, extend the deadline for submission of tenders.
- (f) In case after issuance of Addendum/Corrigendum, 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 Addendum/Corrigendum and the Addendum/Corrigendum have been taken into account.

2.18 VALIDITY OF BIDS

- (a) Bids shall be unconditional, firm and remain valid and open for acceptance for a period of **270 days** from the last date of submission of Bids and shall be extendable for further period of 60 days each time on the request of Transport Commissioner, Odisha. Any Bid having validity lower than that specified above shall be rejected by Transport Commissioner, Odisha as being non responsive.
- (b) 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 shall liable to be forfeited. The Bidder shall not be allowed to carry out any revision/correction/modification in his Bid after the last date of submission of Bids.
- (c) In case Transport Commissioner, Odisha calls the Bidder for clarifications, then this shall not amount to cancellation or withdrawal of original offer. Transport Commissioner, Odisha reserves the right to finalize the technical evaluation by seeking clarifications, till the start date/time of the financial bid opening and prior to declaration of technical evaluation.

2.19 CLARIFICATIONS TO BIDDER'S PRE-BID QUERIES

- (a) Pre-bid meeting on scheduled date and time will be held with the prospective Bidders for any clarifications regarding this RFB.
- (b) The Bidders may submit their Pre-bid queries, if any, only by email to: **addl.comm.tech@gmail.com** before the date and time prescribed in this RFB.
- (c) The queries shall be sent in the following format **in excel file: Queries in other formats except excel file will not be accepted or entertained.**

Table-4

Company Name : M/S				
SL. No.	RFB Page No	Relevant Section / Form/Annexure of RFB	Relevant Content from RFB	Bidder's Query/Comment

- (d) Transport Commissioner, Odisha 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 Transport Commissioner, Odisha to respond to any question or to provide any clarification.

2.20 BID EVALUATION PROCESS

(a) Opening of Bids/ Pre-Qualification

- The bids that are submitted successfully shall be opened as per date and time given in Bid Data Sheet, as per the procedure only in the presence of bidders or their respective duly authorized representatives.
- Total transparency will be observed and ensured while opening the Proposals/Bids.
- Transport Commissioner, Odisha reserves the right to postpone or cancel the Bid opening schedules.
- Bid opening will be conducted in two stages i.e: Technical Evaluation and Financial Evaluation

- In the first stage, Responsive Proposals (the proposal accompanied with EMD, Tender Fee, Technical Bid envelope, Financial Bid envelope will be considered as responsive proposal) would be opened. Further Evaluation of Technical Proposals of Bidders will be opened and evaluated.
 - The Authority shall examine and evaluate the eligibility of each Bidder as per provisions of the Pre-Qualification Criterion in Section 2 – 2.7.
 - The Bidder must meet Pre-Qualification Criteria specified in the RFP Section 2- 2.7 and have submitted copies of all documents in order to qualify for the next stage of assessment.
 - In the next stage of assessment, the technical evaluation and marking shall be done on the basis of criterion mentioned in Section 9 – Evaluation Parameters
 - In the next stage , Commercial Proposal of those Bidders whose Technical Proposals will be qualified, would be opened.
 - In the event of the specified date of Bid opening being declared as Government holiday, the bids shall be opened at the same time and location on the next working day. In addition to that, if the representative(s) of any Bidder remain(s) absent, Transport Commissioner, Odisha will continue the process and open the bids of the all the other Bidders, whose representatives are present.
- (b) The Bid shall be opened by the Bid Evaluation Committee constituted by the Transport Commissioner, Odisha.
- (c) Any bid submitted without EMD and Bid processing fee will be disqualified.

2.21 TECHNICAL BID EVALUATION

- (e) All valid bids shall be evaluated and the technical qualification of a bid shall be determined, as specified in “Section 9 - Evaluation Parameters”.
- (f) Financial bids of technically qualified Bidders shall be opened only.

2.22 FINANCIAL BIDS OPENING

The Financial Bids of Bidders, who qualify in the evaluation of Technical Bids as specified in “Section 9 – Evaluation Parameters”, shall be opened on the appointed date and time in the presence of the qualified Bidders or their authorized representatives (with duly signed authority letter) who choose to be present at the time of opening of bid.

2.23 FINANCIAL BID EVALUATION

All valid Financial Bids shall be evaluated as per “Section 9 - Evaluation Parameters”

2.24 DETERMINATION OF THE SUCCESSFUL BIDDER

The successful bid shall be determined as per “Section 9 - Evaluation Parameters”

2.25 RIGHT of TRANSPORT COMMISSIONER, ODISHA TO ACCEPT OR REJECT ANY OR ALL BIDS

Transport Commissioner, Odisha 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, 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 actions of Transport Commissioner, Odisha. The Bidders shall not have any cause of action or claim against Transport Commissioner, Odisha for rejection of their bids.

2.26 PROCESS TO BE CONFIDENTIAL

- (a) 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.
- (b) Any effort by a Bidder to influence Transport Commissioner, Odisha 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.

2.27 ACKNOWLEDGEMENT BY BIDDERS

It shall be deemed that by submitting the Bid, the Bidder has:-

- (a) made a complete and careful examination of the RFB;
- (b) received all relevant information requested from Transport Commissioner, Odisha;

- (c) accepted the risk of inadequacy, error or mistake in the information provided in the RFB or furnished by or on behalf of Transport Commissioner, Odisha relating to any of the matters referred IN RFB;
- (d) satisfied itself about all matters, things and information including matters above hereinabove necessary and required for submitting a Bid, execution of the Project in accordance with the Bid documents and performance of all of its obligations there under;
- (e) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bid documents or ignorance of any of the matters referred to RFB shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from Transport Commissioner, Odisha, or a ground for termination of the Contract Agreement by the Bidder;
- (f) agreed to be bound by the undertakings provided by it under and in terms hereof.
- (g) stamp & sign all the pages of the bid document as acceptance.

The Transport Commissioner, Odisha shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFB or the Bidding Process, including any error or mistake therein or in any information or data given by the Transport Commissioner, Odisha.

2.28 EXCLUSION OF BIDS / DISQUALIFICATION

- (i) A Transport Commissioner, Odisha shall exclude / disqualify a Bid, if: -
 - (a) the information submitted, concerning the qualifications of the Bidder, is false or constituted a misrepresentation; or
 - (b) the information submitted, concerning the qualifications of the Bidder, is materially inaccurate or incomplete; and
 - (c) the Bidder is not qualified as per qualification/ eligibility criteria mentioned in the Bid document;
 - (d) the Bid materially departs from the requirements specified in the Bid document or it contains false information;
 - (e) a Bidder, in the opinion of the Transport Commissioner, Odisha, has a conflict of interest materially affecting fair competition.
- (ii) A Bid shall be excluded/ disqualified as soon as the cause for its exclusion/ disqualification is discovered.

2.29 CANCELLATION OF PROCUREMENT PROCESS

- (a) Transport Commissioner, Odisha may, for reasons to be recorded in writing, cancel the process of procurement initiated by it at any time prior to the acceptance of the Successful Bid; or after the Successful Bid is accepted in accordance with the provisions of this RFB.
- (b) Transport Commissioner, Odisha shall not open any Bids or proposals after taking a decision to cancel the procurement and shall return such unopened Bids or proposals.
- (c) The decision of Transport Commissioner, Odisha to cancel the procurement shall be immediately communicated to all Bidders that participated in the procurement process.
- (d) If the Bidder, whose Bid has been accepted as Successful, fails to sign any written contract Agreement as required, or fails to provide any required security for the performance of the contract, Transport Commissioner, Odisha may cancel the procurement process.
- (e) If any procurement process has been cancelled, it shall not be reopened but it shall not prevent Transport Commissioner, Odisha from initiating a new procurement process for the same subject matter of procurement, if required.

2.30 CODE OF INTEGRITY FOR BIDDERS

- (a) No person participating in a procurement process shall act in contravention of the code of integrity prescribed by the Government of Odisha.
- (b) The code of integrity includes provisions for: -
 - (i) prohibiting other Bidders to apply for submitting Bid;
 - (ii) any offer, solicitation or acceptance of any bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process;
 - (iii) any omission, including a misrepresentation that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;

- (iv) any collusion, Bid rigging or anti-competitive behavior to impair the transparency, fairness and progress of the procurement process;
- (v) improper use of information shared between Transport Commissioner, Odisha and the Bidders with an intent to gain unfair advantage in the procurement process or for personal gain;
- (vi) any financial or business transactions between the Bidder and any officer or employee of Transport Commissioner, Odisha;
- (vii) any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (viii) any obstruction of any investigation or audit of a procurement process;
- (c) Without prejudice to the provisions below, in case of any breach of the code of integrity by a Bidder, Transport Commissioner, Odisha may take appropriate measures including: -
 - (i) exclusion of the Bidder from the procurement process;
 - (ii) forfeiture of EMD;
 - (iii) forfeiture of any Performance Bank Guarantee relating to the procurement;
 - (iv) recovery of payments made by Transport Commissioner, Odisha along with interest thereon at bank rate;
 - (v) cancellation of the relevant contract and recovery of compensation for loss incurred by Transport Commissioner, Odisha;
 - (vi) debarment of the Bidder from participation in future procurements of Transport Commissioner, Odisha for a period of three years.

2.31 DISCLOSURE OF CONFLICT OF INTEREST

The Bidder shall not have a conflict of interest in the procurement in question. A declaration in this regard is to be made by Bidder. All Bidders found to have a conflict of interest shall be disqualified.

2.32 PUNISHMENT FOR NON-COMPLIANCE OF PROCUREMENT PROCESS

A Bidder, in addition to the recourse available in this RFB for forfeiting EMD or PBG or Both, shall liable to be punished as per other applicable laws, if it:-

- (a) withdraws from the procurement process after opening of financial Bids;
- (b) withdraws from the procurement process after being declared the Successful Bidder;
- (c) fails to enter into procurement contract after being declared the Successful Bidder;
- (d) fails to provide Performance Bank Guarantee or any other document required in terms of the Bid documents after being declared the Successful Bidder.

2.33 REPRESENTATIONS AND WARRANTIES OF THE BIDDER

The Bidder represents and warrants to Transport Commissioner, Odisha that:

- (a) it is duly organized, validly existing and in good standing under the laws of India or in the country of its incorporation;
- (b) it has full power and authority to execute, deliver and perform its obligations under the Contract and to carry out the transactions contemplated hereby;
- (c) 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;
- (d) it has the financial standing and capacity to Execute the Works;
- (e) the Contract constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (f) 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;
- (g) 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;
- (h) no representation or warranty by the Bidder contained herein or in any other document furnished by it to Transport Commissioner, Odisha 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;
- (i) 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.

- (j) without prejudice to any express provision contained in the Contract, the Bidder acknowledges that prior to the execution of the Contract, it 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 Transport Commissioner, Odisha 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.

2.34 GENERAL CONDITIONS

(a) CONFIDENTIALITY

- i. The Bidder shall disclose to Transport Commissioner, Odisha any Confidential Information and other information as Transport Commissioner, Odisha may reasonably require for verifying the Bidder's compliance with the Contract. Further, the Bidder shall not, without the previous written consent of Transport Commissioner, Odisha, use, copy, publish, disclose or otherwise deal with, nor cause nor permit its Sub Bidders 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.
- ii. The Bidder shall not without the prior written permission of the Transport Commissioner, Odisha Representative:
 - (i) Disclose the Contract or any provision thereof or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of Transport Commissioner, Odisha 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.
- iii. Any document, other than the Contract and enumerated in the Contract shall remain the property of Transport Commissioner, Odisha and shall be returned (in all copies) to Transport Commissioner, Odisha on completion of the Bidder's performance under the Contract, if so required by the Transport Commissioner, Odisha.

(b) BIDDER'S GENERAL RESPONSIBILITIES

- i. Subject to and in accordance with the terms and conditions of the Contract, the Bidder shall to the satisfaction of Transport Commissioner, Odisha, 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.
- ii. The Bidder shall at its own expense:
 1. 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. (It is related to the equipment installation, commissioning & testing of equipment);
 2. Do everything necessary (including the payment of all relevant fees) to acquire and maintain all Applicable Clearances. (For Erection & operation if any clearances required, the successful Bidder should obtain them from concerned authorities); Transport Commissioner,

Odisha will provide all the applicable clearances for erection of the equipment. The selected Bidder has to obtain the applicable clearances for operating the ATS.

3. 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.

(c) INDEMNITY

- i. The Bidder shall at all times save harmless and indemnify Transport Commissioner, Odisha from and against all claims, liabilities, expenses, costs, damages and losses suffered or incurred by Transport Commissioner, Odisha 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 Transport Commissioner, Odisha.
- ii. Transport Commissioner, Odisha rights under this Section are without prejudice to any other right which it may have whether at law or otherwise.

(d) SPARE PARTS

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.

(e) INSURANCES

i. Project Facility Insurances

The Bidder shall at its cost and expense, purchase and maintain in force with reputable insurers, the Project Facility Insurances.

ii. Bidder Insurances

The Bidder shall at its cost and expense, purchase and maintain in force with reputable insurers, the Bidder's Insurance like Accident Insurance of manpower.

iii. Required Insurances

The terms of the Required Insurances shall entitle Transport Commissioner, Odisha to maintain the policies in force after termination of the Bidder's employment under the Contract.

iv. Equipment Insurances

Pre-Dispatch Equipment Insurance / Transit Insurance till commissioning and acceptance shall be borne by the bidder.

(f) FORCE MAJEURE

(a) Force Majeure - Obligations of the Parties

"Force Majeure" shall mean any event beyond the control of Transport Commissioner, Odisha 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.

(b) MEETINGS WITH TRANSPORT COMMISSIONER, ODISHA

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, the Parties shall along with Transport Commissioner, Odisha 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.

(c) PERFORMANCE OBLIGATIONS

- (i) 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.
- (ii) 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.
- (iii) 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.

(d) LIABILITY FOR OTHER LOSSES, DAMAGES ETC.

Save and except as expressly provided in this RFB, 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.

(e) EXCEPTIONS TO FORCE MAJEURE

None of the following events shall be construed to relieve any Party of its obligations hereunder by reason of Force Majeure:

- (i) any changes in market conditions including without limitation changes that affect the supply prices of the Goods;
- (ii) Commercial impracticability.

(f) DISPUTE RESOLUTION PROCEDURE

(i) Amicable Resolution and Arbitration

- (1) The Department and the Successful Bidder shall make every effort to resolve amicably by direct negotiations any disagreement or dispute, arising between them under Contract.

(g) Legal Jurisdiction

Any dispute arising out of the Contract shall be subject to the jurisdiction of Courts of Law located at Cuttack only.

(h) TERMINATION

i. Termination for Default of the Bidder

- (1) In the event of any of the defaults specified below shall have occurred and the Bidder fails to rectify the default within a Period of 30 (thirty) days from the date of issuance of notice to rectify the defects, the Bidder shall be deemed to be in default of this Agreement unless such Default has occurred as a result of a Force Majeure Event:
 - (i) The Bidder is in Material Breach* of the Contract;
 - (ii) The Bidder is adjudged bankrupt or insolvent or if a trustee or receiver is appointed for the Bidder or for any of its property that has a material bearing on the Project;
 - (iii) Any petition for winding up of the Bidder is admitted by a court of competent jurisdiction or the Bidder is ordered to be wound up by court except for the purpose of amalgamation or reconstruction provided that, as part of such amalgamation or reconstruction, the property, assets and undertaking of the Bidder are transferred to the amalgamated or

reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Bidder under the Contract and provided that:

- (a) The amalgamated or reconstructed entity does have the technical capability and operating experience necessary for the performance of its obligations under the Contract;
- (b) The amalgamated or reconstructed entity does have the financial standing to perform its obligations under the Contract; and
- (c) The Contract remains in full force and effect.

***“Material Breach”** shall mean occurrence of any of the following events:

- (a) The Bidder fails to commence the services as per the terms of the Agreement after a period of 270 days from the date of issuance of Letter of Award (LoA); or
 - (b) The Bidder, without the prior written approval from the Transport Commissioner, Odisha fails to render the services as per the Agreement for a continuous period of 180 days at the Centre during the Contract Period; or
 - (c) The Bidder has delayed payment of any undisputed amount for a period of 45 (forty-five) days from the date the said amount is due; or
 - (d) If the Bidder fails to deliver any or all quantities of the service within the time period specified in the contract, or any extension thereof granted by Transport Commissioner, Odisha; or
 - (e) If the Bidder is found to be engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract; or
 - (f) If the Bidder commits breach of any conditions of the Contract.
- (2) In the event of the Bidder being in default under any of the provisions hereof, Transport Commissioner, Odisha shall be entitled to terminate the Contract forthwith by issuing a Termination Notice to the Bidder and upon issue of such Termination Notice by Transport Commissioner, Odisha, the Contract shall stand terminated forthwith, provided that before issuing the Termination Notice, the Transport Commissioner, Odisha shall in writing issue the Termination Notice and grant 30 (thirty) days' time to the Bidder to make its representation, if any, against such Notice and shall after the expiry of said 30 (thirty) days period, whether or not it is in receipt of such representation, in its sole discretion terminate contract.
- (3) Upon Termination:
- Upon Termination for any reason whatsoever, the Bidder shall, to the extent instructed by the Transport Commissioner, Odisha:
- (a) cease all further work as instructed by the Transport Commissioner, Odisha 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;
 - (b) repatriate the Bidder's and Sub-Contractor's personnel from any part of the Project Site and the Works;
 - (c) promptly and in an orderly manner deliver to Transport Commissioner, Odisha, subject to the Intellectual Property Rights of the Bidder, all documents relating to the Works which are for the time being under the control of the Bidder.
- (4) Upon termination the Equipment installed at the ATS shall be handed over to the Transport Commissioner, Odisha by the Successful Bidder.
- (5) If Transport Commissioner, Odisha terminates the Contract on account of default of Bidder, amount of Performance Bank Guarantee shall be forfeited.

ii. Termination for Convenience of Government of Odisha

- (a) The Transport Commissioner, Odisha, by a written notice of at least 30 days sent to the Successful Bidder, may terminate the Contract at any time for its convenience. The Notice of termination shall specify that termination is for the convenience of Govt. of Odisha and the date upon which such termination becomes effective.

(i) PATENT / INTELLECTUAL PROPERTY RIGHTS (IPR) / COPY RIGHTS

If the bidder intends to use any third-party tools or methodology or any proprietary tools, during the Project, for the project, the bidder is required to confirm that there are no infringements of any Patent or intellectual and industrial property rights or copyrights as per the applicable laws of relevant jurisdictions and **Ministry of Electronics and Information Technology (MeitY)**. During the Operation phase, the responsibility to maintain the IPR of the Application(s) provided by the selected bidder would lie with the selected bidder and the bidder will transfer the IPR to Transport Commissioner, Odisha during the Transfer stage or during Exit Management process or after the contract with Transport Commissioner, Odisha ends or after the complete project duration or intermediary due to unavoidable circumstance like poor delivery, no progress, showstopper, etc. If there is transfer of IPR for the application from Transport Commissioner, Odisha to any other firm/corporate/PSUs/Govt. Departments, the same can be transferred after mutual discussion.

Following conditions will also apply:

- **Ownership and Title:** Title to the minor enhancements, point updates and documentation, including ownership rights to patents, copyrights, trademarks, and trade secrets therein shall be the exclusive property of Transport Commissioner, Odisha.
- **Confidentiality:** The Bidder hereby acknowledges that the minor enhancements, point updates, and documentation may contain information that may be trade secret and proprietary to the Transport Commissioner, Odisha. The Bidder must agree for not to disclose such information except to persons and organizations expressly authorized by the Authority to receive such information. The Bidder shall not remove or alter any copyright notices or proprietary legends affixed by the Authority to such minor enhancements, point updates or documentation.
- **Copies:** The Bidder shall make available to the Authority an additional copy of the minor enhancements, point updates and documentation for back-up use on the computer.
- **Limitation of Damages:** The Bidder shall not be liable for any failure to perform its services because of circumstances beyond the control of Bidder, where such circumstances shall include (without limitation) wars or revolutions, fires, natural disasters, terrorism, declarations of government election, epidemics, quarantine restrictions and freight embargoes, and misuse of the Software by the Transport Commissioner, Odisha.
The Bidder along with the OEM will be responsible to provide full documentation and sample codes used in the project by way of open APIs, SDKs and other tools, documentation etc., so that the customer/nominated agency on their behalf can carry out any customization, software development, changes in UI/UX etc. as may be needed as per their needs. In addition, the bidder along with the OEM must provide an undertaking to enter into a software escrow agreement without any pre- conditions which is to cover server & client-side codes as below –
 - a. **Server software:** Source code of the dataflow of the software architecture including interconnects of all the necessary modules and model files for customization.
 - b. **Authority software:** Source code of the Authority software to interface for GUI customization. The software.

Similarly, The Source code of all the software code, data, algorithms, documentation, manuals, any other documents generated jointly developed by the bidder and the Authority, for this project implementation shall solely

vest with the Transport Commissioner, Odisha. Authority shall have rights to use the Source Code of software. This would be restricted to the internal use by Authority only. Entire source code would be handed over to Authority after completion of entire project and before final payments has been made to the bidder. The bidder must take the approval of this from Authority if it wants to use the source code that has been developed specifically for this Authority even after the expiration of contract agreement or period.

All IPR including the source code and materials developed or otherwise obtained independently of the efforts of a Party under the Agreement including any enhancement or modification thereto shall remain the sole property of that Party. During the performance of the services for the agreement, each party grants to the other party (and their sub-contractors as necessary) a non-exclusive license to use, reproduce and modify any of its pre-existing work provided to the other party solely for the performance of such services for duration of the Term of the Agreement. Except as may be otherwise explicitly agreed to in a statement of services, upon payment in full, the Implementation Agency should grant Authority a non-exclusive, perpetual, fully paid-up license to use the pre-existing work in the form delivered to Authority as part of the service or deliverables only for its internal business operations. Under such license, neither of parties will have any right to sell the pre-existing work of the other party to a Third Party. Authority's license to pre-existing work is conditioned upon its compliance with the terms of the Agreement and the perpetual license applies solely to the pre-existing work that bidder leaves with Authority at the conclusion of performance of the services.

(j) FORFEITURE OF PERFORMANCE BANK GUARANTEE

Transport Commissioner, Odisha may forfeit Performance Bank Guarantee amount in full or part in the following cases:-

- i. when any of the terms and conditions of this RFB/Contract is breached by the Bidder;
- ii. when the Bidder fails to implement the project or execute the scope of work as defined in this RFB, satisfactorily.

SECTION - 3 EXECUTION OF AGREEMENT

3.1 PERFORMANCE BANK GUARANTEE (PBG)

- 3.1.1. Performance Bank Guarantee shall be submitted by the Successful Bidder within 15 days from the date of issuance of LoA in the format prescribed in **Form G** of this RFB.
- 3.1.2. Performance Bank Guarantee shall be 10% of cumulative project cost for all ATS centre awarded to bidder, as quoted by the Successful Bidder in its Financial Bid. It shall be in shape of Bank Guarantee from any Nationalized Bank of India in favor of Transport Commissioner, Odisha. PBG shall be valid up to the period of one year after the date of expiry of the contract period.
- 3.1.3. The Performance Bank Guarantee of the Successful Bidder will be returned after one year from date of expiry of the contract period upon satisfactory performance of operation of ATS, or after the satisfactory third-party Audit by competent Independent Agency, whichever is later. The Authority reserves right to make third party audit at any point of time at its discretion.
- 3.1.4. No interest shall be payable on the PBG.
- 3.1.5. The Performance Bank Guarantee of the Successful Bidder will be forfeited if the Successful Bidder fails to comply with the terms and conditions of this RFB and consequent contract.
- 3.1.6. A written notice of at least 15 days will be given to the Successful Bidder as opportunity of hearing before PBG is forfeited.

3.2 ACCEPTANCE OF THE SUCCESSFUL BID AND AWARD OF CONTRACT

- 3.2.1. The selection of successful bidder shall be carried out as per provision given in Section -9 Evaluation parameter in this RFB.
- 3.2.2. A Bid shall be treated as Successful only after the approval of the Competent Authority.
- 3.2.3. As soon as the Bid is approved by the Authority, its written intimation duly signed by Procuring Authority with seal in the form of LOA shall be sent to the concerned Successful Bidder by email and shall be asked to execute an Agreement in the format given in this RFB on a non- judicial stamp of requisite value, and submit the amount of Performance Bank Guarantee within fifteen days from the date on which the Letter of Award is mailed to the Successful Bidder.

3.3 EXECUTION OF AGREEMENT

- 3.3.1. The Successful Bidder will be required to execute the Agreement on a non-judicial stamp of requisite value at its cost and to be purchased from anywhere in Odisha only.
- 3.3.2. The Successful Bidder shall sign the Agreement within 15 days from the date on which the Letter of Award is mailed to the Successful Bidder. The contract shall come into force from signing of the Agreement or from such subsequent date as may be decided by Transport Commissioner, Odisha.
- 3.3.3. If the Successful Bidder fails to sign the Agreement, or fails to furnish the required Performance Bank Guarantee within specified period, Transport Commissioner, Odisha shall forfeit the EMD or PBG as per the provisions of this RFB. In addition to this, other lawful actions may also be initiated by Transport Commissioner, Odisha.

3.4 CONTRACT PERIOD

- 3.4.1. The contract period shall start from the date of the signing of the agreement with Transport Commissioner, Odisha and will be valid up to 7 (Seven) years from the date of commencement of the operation of the ATS, which includes 7 years of operation period and 5 year of CMC after initial two year of warranty period.
- 3.4.2. The Authority may further extend the operation period for next two years on the same terms & condition of the contract upon satisfactory performance of selected bidder after completion of 7 years of operation period.

3.5 The terms of payment shall be as described in “Section 11 – Terms of Payment”

SECTION - 4

SCOPE OF WORK & SUPPLY OF EQUIPMENT

- 4.1** The Successful Bidder shall perform, execute and implement the following works:
- (a) Construction of Automated Testing station (ATS) (comprising of Test Sheds, admin buildings & associated structures) at 21 identified places in Odisha State. As per the attached standard layout for all locations in Annexure 1 of this RFB.
 - (b) Layout for each location shall be provided to each bidder for the selected locations.
 - (c) Shall Provide layout designs for internal road for each sites and the department shall execute the work.
 - (d) Civil scope of work is given in Section 4A of this RFB.
 - (e) Structural Design of test shed based on the layout Provided in Annexure A with this RFB, Site development, security room, construction of Test lane shed comprising of electrical, plumbing, equipment foundation, trimix flooring, epoxy coating of 3mm on the flooring, conduiting for cables including 3 phase & Single phase cables, Compressor piping, Drainage, Water Supply, Sewage, Internal and External Electrification Furniture Planning & Procurement including all statutory and local bodies approvals/ clearances.
 - (f) The work also includes I.T, Electrical and fire fighting works.
 - (g) Supply, installation and commissioning of vehicle testing equipment as per the specifications prescribed in section 7 of this RFB, supply of additional vehicle Testing equipment, IT Equipment as per the requirement of CMVR Chapter XI.
 - (h) Integration of equipment, system checking and commissioning of vehicle inspection equipment at Twenty One location in Odisha State.
 - (i) Development/ supply of Artificial Intelligence (AI) features in visual inspection software to detect major visual defects in a vehicle through its appearance.
 - (j) The accuracy of AI should be atleast 60 % in first 1000 vehicles testing, after 5000 vehicle testing accuracy of 90% should be achieved by the software. Visual parameters for AI shall be defined by the State Transport Authority, Odisha after successful selection of bidder.
 - (k) Supply installation & commissioning of necessary utilities like DG sets, UPS, Air compressor, Metering Kiosk, Air conditioners, Water coolers with RO purifiers etc., calibration tools, special tools and requisite software for smooth operation of the Centers with necessary reports.
 - (l) Supply, installation & commissioning of suitable exhaust gas handling system and provision for fresh air ducting for all underbody inspection pits.
 - (m) Comprehensive Maintenance Contract for 5 years after completion of warranty period of 2 years.
 - (n) Upkeep of all equipment, utilities and infrastructure till operational concession period.
 - (o) Provide skilled manpower for vehicle testing as per requirement given in this RFB and Maintenance of the said Automated Testing Station (ATS) for the period of 5 (Five) years with trained manpower on the terms and conditions contained in this RFB and in the consequent Contract. The successful shall conduct vehicle test as per CMVR 1989, and OMVR or any additional test, if any, as required by the State Transport Department, Govt. of Odisha.
 - (p) Preparation of Manuals & imparting induction training and refresher training to the officers of Motor Vehicles Department, Government of Odisha.
 - (q) Preparation of Manuals & imparting induction training and refresher training to the officers of Motor Vehicles Department, Government of Odisha.
 - (r) Payment of all statutory dues towards electricity, water,
 - (s) Payment of all statutory dues towards electricity, water , consumables, stationary etc.
 - (t) Payment of network connectivity, telephone and all other operational charges are as required for operation of the ATS to conduct the functional tests.
 - (u) All required statutory bodies approval/ clearances.
 - (v) Audit of ATS as per timeline defined in CMVR by nominated audit agency by State Transport Authority

- (w) Payment of Statutory Audit fees & Consultancy fees.
- (x) Network Connectivity at all these locations shall be in bidders scope for final completion of project.
- (y) Number of test lane to be establish are as under:

Table 5

S.No	Location	LMV Lanes	HMV Lanes	Two Wheeler Lanes
1.	Bhubaneswar	1	1	1
2.	Angul	1	1	1
3.	Keonjhar	1	1	1
4.	Sambalpur	1	1	1
5.	Rourkela	1	1	1
6.	Ganjam	1	1	1
7.	Chandikhole	1	1	1
8.	Mayurbhanj (Baripada)	1	1	1
9.	Koraput	1	1	1
10.	Balasore	1	1	1
11.	Nayagarh	1	1	1
12.	Nuapada	1	1	1
13.	Bargarh	1	1	1
14.	Kendrapada	1	1	1
15.	Jharsughoda	1	1	1
16.	Sundergarh	1	1	1
17.	Bhawani Patna (Kalahandi)	1	1	1
18.	Nowrangpur	1	1	1
19.	Cuttack	1	1	1
20.	Jagatsinghpur	1	1	1
21.	Boudh	1	1	1

- (z) Upkeep of ATS infrastructure will be responsibility of the successful bidder.
- (aa) Purchase, Supply and installation of all necessary vehicle testing and related equipment to test the vehicles as per provision given in CMVR and other Indian or Odisha state regulation/guideline.
- (bb) All the equipment must meet the Environmental, Health and Safety aspects.
- (cc) Undertaking from the Equipment Manufacturer of testing lane equipment installed as new equipment or upgraded equipment regarding uninterrupted Warranty for minimum 2 Years and CMC services of its Equipment installed at the ATS for the period of 5 (five) years from the date of expiry of the warranty.
- (dd) Operation and maintenance of Diesel Generator Set as well as UPS available at site for power back up for the Center.
- (ee) Purchase, Supply, installation, operation and maintenance of Desktop Computers, Servers, Printers and other necessary IT equipment and related consumables.
- (ff) Warranty of 2 years and CMC of 5 years of the installed equipment and utilities after the end of two years warranty.
- (gg) Operation of ATS for the period of 7 years.
- (hh) Deployment of technically qualified and good character manpower for successful and uninterrupted operation of the Center.

- (ii) Conducting Motor Vehicle inspection tests as per the provisions of the Central Motor Vehicles Rules (CMVR) 1989 and UP Motor Vehicles Rule 1998, as amended time to time.
- (jj) Perform additional vehicle inspection tests as directed by any Competent Court of Law or Competent Authority or Central Government or Government of Odisha,
- (kk) Perform Vehicle Pollution Emission Tests as per provisions of the CMVR 1989, as amended time to time and/or directed by any Competent Court of Law or Competent Authority or Central Government or Government of Odisha.
- (ll) All Visual checks conducted on a vehicle shall be photographed using a mobile device and the record of the same shall be preserved for at least six months for audit and assessment purposes.
- (mm) Necessary cyber security certifications shall be provided for the Information technology Systems for safe access to the electronic portal setup by central government database as applicable.
- (nn) All connections between the supplied equipment cables & control panel as well as internal wiring and cabling of equipment shed area are the responsibility of the Successful Bidder. Cables from main panel to equipment shed area will be laid by the Transport Commissioner, Odisha.
- (oo) To host the database at state data center of the state and to ensure that the functional test results of each functional test as prescribed under CMVR are stored in the state data center on real time basis.
- (pp) To maintain proper ventilation inside the test center, suitable exhaust gas handling system shall be supplied for two-wheeler test lane, installed and commissioned by the Successful Bidder.
- (qq) Audit and assessment of testing station shall be conducted every six months, and such other time as directed by Transport Commissioner, Odisha.
- (rr) Capturing GPS coordinated date and time and picture of registration plate of the vehicle through GPS enabled camera having built-in Wi-Fi and GPS support.
- (ss) Phase-wise training of officials of DoT. All Visual inspection tests i.e., Pre automated test inspection & during Automated test shall be done by the officials empowered & appointed by Transport Commissioner, Odisha such as MVI/AMVI/Jr MVI.
- (tt) House-keeping and security of the Center with necessary manpower and other requirements.
- (uu) Lane management software and System up-gradation with the latest software version.
- (vv) All necessary hardware/software for PASS Sticker to the vehicles passing the fitness test.
- (ww) Calibration of installed equipment as per defined calibration frequencies.
- (xx) Purchase and maintain in force with reputable insurers the Project Facility Insurances and other required insurances.
- (yy) Bidder shall comply with all the applicable requirements of G.S.R 652(e) Dated 23rd September 2021, G.S.R 797 (e) Dated 31st October 2022 issued by MoRTH, GOI as well as any future amendments in Chapter XI of CMVR, 1989 or any Indian Rules/ Regulations/ Guidelines related to Automated Testing Station.
- (zz) Any other requirements as desired by the Transport Commissioner, Odisha.

4.2 SUCCESSFUL BIDDER'S RESPONSIBILITIES

- (a) The Successful Bidder shall be responsible to perform, execute and implement all the works as specified in this RFB. This will include inter alia design and construction of civil foundation work of testing lane equipment, pre-dispatch functional testing, shipment, installation and commissioning of the testing equipment, and integration of systems, system checking for all the equipment listed in this RFB, operation and maintenance of the ATS throughout the contract period.
- (b) The respective Successful Bidder shall be responsible for warranty of all the supplied equipment as well as Comprehensive Maintenance Contract throughout the contract period, and shall ensure the smooth and uninterrupted operation of the ATS.

4.3 TRANSPORT COMMISSIONER, ODISHA RESPONSIBILITIES

- (a) Boundary Wall construction for each ATS premises.
- (b) Construction of internal road, Parking Area, Storm water Drainage system.

(c) Installation of Transformer and Boring for water supply.

4.4 EQUIPMENT TO BE SUPPLIED BY SUCCESSFUL BIDDER

- (a) The equipment supplied shall conform to CMVR norms and shall be upgraded in case of amendments made in the CMVR norms throughout contract period by the Successful Bidder at its own cost.
- (b) If any software modification is required, it shall be updated, and the cost incurred on that shall be borne by the Successful Bidder.
- (c) Procurement & Installation of any additional equipment after the date of signing the agreement arising due to any amendment in CMVR 1989, shall be done by the bidder subject to condition that Transport Commissioner, Odisha shall issue necessary instruction for such procurement and the cost of such procurement including installation (if any) shall be borne by Transport commissioner, Odisha.
- (d) The Successful Bidder shall have to integrate the additional equipment at its own cost with no additional cost for integration & operations.
- (e) ICAT shall inspect to ensure that all materials supplied by the successful bidder are up to standard by conducting pre-dispatch and post installation inspection.
- (f) In case of any additional equipment are required to be procured and installed due to the change in the law then ICAT shall also inspect the compliance of the additional equipment by conducting pre-dispatch & post installation inspection.
- (g) All payments related to the procurement & installation of new equipment/additional equipment (if any) shall be processed only after receipt of the above inspection report from ICAT.

4.5 LIST OF EQUIPMENT

- (a) Technical specifications of the Equipment are given in “Section 7” of this RFB.
- (b) The list of equipment that are common for the entire project are mentioned below

Table 6

Sr. No	Scope of Supply	Quantity (Entire Project)
1.	Hybrid WAN Link aggregator (Inbound / Outbound) Hub Unit [Networking Equipment]	2

(c) List and quantity of equipment are given in the following table:

Table-7

SL NO	Scope of Supply	QUANTITY (PER ATS LOCATION)
1.	Common Equipment	
i.	Air Compressor pipes and linkages	1
ii.	DG Set	1
iii.	Bogie Roller Set (Embedded for heavy commercial vehicles with multi axles having more than one live axle)	1
iv.	Free wheel Trolley (Portable for All wheel Drive Light Commercial vehicles)	1
v.	Toeing Trolley for three-wheeler (for front wheel of 3- wheeled vehicle)	1
vi.	Calibration Equipment set	1
vii.	Automatic Tyre pressure filler and indicator	3
viii.	Number Plate Reader Camera	1

ix.	Exhaust gas handling system	3
2.	IT Platform– Equipment Details	<ul style="list-style-type: none"> ☞ Server: 1 nos. ☞ Desktops for administration work: 4 Nos. ☞ Desktop for Test Lane: Bidder shall specify as per test lane requirement ☞ Printers: 2 Nos. (1 B/W and 1 color) ☞ Sticker Printer: 1 Nos. ☞ Smart TV for CCTV Viewing and for customer lounge: 2 Nos. ☞ LED for Test Lane: 7 Nos. ☞ Audio paging: 1 (one) ☞ LAN Network: Necessary LAN network hardware with cables needs to be provided by the successful bidder. ☞ Speed dome camera: 1 (one) ☞ GPS enabled camera: 3 Nos. ☞ Hand Held Tablet for visual inspection: 3 Nos. ☞ Audio Paging: 1 Nos. ☞ CCTV: 16 Nos. (2 Nos. CCTV shall be installed in each underbody inspection pit) ☞ Network Video Recorder: 1 (one) ☞ Electrical wires: as per requirement ☞ Networkconnectivity: 1 Nos. ☞ Hybrid WAN Link aggregator (Inbound / Outbound) Spoke unit [Networking equipment]– 1 nos
3.	Light Commercial Vehicle Inspection Lane	
1.	Roller brake tester	1
2.	Axle weight measurement device	1
3.	Suspension Tester	1
4.	Side Slip Tester	1
5.	Semi Automatic Headlight tester	1
6.	Smoke Meter (Opacimeter)	1
7.	Exhaust gas analyser	1
8.	Speedometer Tester	1
9.	Sound level Meter	1
10.	Joint Play tester	1

11.	Electronic Steering gear play detector	1
12.	OBD scan tool	1
13.	Test fingers	1
14.	Insulation Tester	1
4.	Heavy Commercial Vehicle Inspection Lane	
1.	Roller brake tester	1
2.	Axle weight measurement device	1
3.	Side Slip Tester	1
4.	Semi Automatic Headlight tester	1
5.	Smoke Meter (Opacimeter)	1
6.	Exhaust gas analyser	1
7.	Speedometer Tester	1
8.	Sound level Meter	1
9.	Joint Play tester	1
10.	Electronic Steering gear play detector	1
11.	OBD scan tool	1
12.	Test fingers	1
13.	Insulation Tester	1
5.	Two Wheeler Inspection Lane	
1.	Roller brake tester	1
2.	Axle weight measurement device	1
3.	Semi- Automatic Head light tester	1
4.	Exhaust gas analyzer	1
5.	OBD scan tool	1
6.	Test fingers	1
7.	Insulation tester	1

4.6 UTILITIES

The bidder is responsible for supply, installation & commissioning of utilities required for each ATS awarded to the bidder out of 6 ATS. The bidder should note that the capacity of utilities given below are for 3 lane ATS centre. Before procurement, the bidder shall submit the details site-wise, and procurement shall be done only upon written approval from the Motor Vehicles Department. If the capacity of utilities defined as under are under capacity or over capacity as per the equipment requirement, bidder shall specify the deviation for the same in the form (O) - Deviation suggested.



Table 8

Utilities requirement per ATS					
Sr. No.	Description of Utilities	Quantity	Capacity	Preferred Make	Remarks
1.	DG set	1	125 KVA	1) Kirloskar 2) Cummins 3) Ashok Leyland 4) Mahindra Powerol 5) Volvo 6) Greaves	Outdoor, With Synchronization panel and AMF panel Compliant to latest CPCB norms

2.	Air Compressor	1	10 bar	1) Ingersoll Rand 2) Elgi Equipments Limited 3) Atlas Copco	In Test shed for supply to equipment as well as for tyre inflators as per IS certified
3.	UPS	1	20 KVA	1) Emerson 2) Luminous 3) Novature 4) Vertiv 5) Numeric	Test shed area and for office area for supply to equipment PC's Half an hour backup time with maintenance free Batteries
4.	Network Connectivity	1	1 connection	Any Brand	Minimum 4 Mbps Speed
5.	Telephone, EPBX	1	1 connections	Any Brand	—
6.	Air Conditioners (Split AC)	3	1.5 T	1) Blue Star 2) Voltas 3) LG	1. For Server room, 2. Conference/ IT room 3. Centre Head Room
7.	Water cooler with RO	2	20 Ltr.	1) Blue Star 2) Voltas	One for staff and one for customers.

4.7 FURNITURE

Table 9

S. No.	ITEM	PICTURE (For representation only)	Quantity
1.	LOW BACK CHAIR		Work Station – 10 MVI – 02 Manager – 02 Cashier – 02 Conference – 09 Reception – 01 Total - 26
2.	HIGH BACK CHAIR		MVI – 01 Manager – 01 Conference – 01 Total - 03

3.	DINNING CHAIR		15
4.	3 SEATER SOFA SET		05 – In Customer Lounge
5.	DINNING TABLE		In Staff Room - 02
6.	RECEPTION TABLE		01
7.	CONFERENCE TABLE BIG		01
8.	Work Stations	For seating capacity of 10 persons	

9.	Office Table		02
10.	Over Head office Storage		01
11.	Low Height Storage		02

4.8 CONNECTIONS, POWER PANELS & EXHAUST GAS HANDLING SYSTEM

- (a) All connections between the supplied equipment cables & control panel are the responsibility of the Successful Bidder. Each equipment shall be supplied with all cables, connectors, etc. required for the equipment operation.
- (b) Cables from main panel to equipment shed area, Internal wiring and cabling of equipment shed area shall be done by the Successful Bidder.
- (c) To maintain proper ventilation inside the test Center, suitable exhaust gas handling system shall be supplied, installed and commissioned by the Successful Bidder at its own cost. Minimum requirements of Exhaust gas handling system are as follows.
 - (i) LCV and Two wheeler Lane:
Vehicle Exhaust Flow: 550m³/hr
Vehicle Exhaust Temperature: 80°C to 100°C
 - (ii) HCV lane:
Vehicle Exhaust Flow: 1500m³/hr
Vehicle Exhaust Temperature: 100°C to 110°C
- (d) Exhaust gas handling system should be designed considering above vehicle exhaust flow and temperature. Dilution of the vehicle exhaust to be carried out considering vehicle exhaust temperature. Suitable extraction unit to be provided by the Successful Bidder 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 by the Successful Bidder. While all Exhaust gas handling system in working condition, noise level should be below 80dB inside the test shed.
- (e) Successful bidder shall provide the documentary proof for to the abovementioned requirement as mentioned in clause (d).

4.9 SOFTWARE

- (a) The Successful bidder shall supply test lane software and token software (lane management

software), Token software shall integrate with the vehicle testing software provided by the equipment OEM.

- (b) Detailed features of Token/Lane Management software to be supplied provided in Section 4B of this RFB.
- (c) For two wheeler test lane testing software shall be provided by the equipment supplier which shall be integrated with the token software.
- (d) The Successful Bidder shall ensure the system up-gradation with the latest software version including CMC free of cost throughout the contract period. The referred system up-gradation shall be applicable in the event of:
 - (i) Critical releases on the software
 - (ii) New Operating System adoption
 - (iii) Accumulation of minor upgrades in the software
 - (iv) Any changes in the test limits or test procedure or reporting requirement
- (e) If Hardware up-gradation is required in order to achieve the software up-gradation, this shall also be done by the Successful Bidder at its own cost. State Transport Authority shall not bear any cost arising from system up-gradation.
- (f) The Successful Bidder 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 up-gradation of the software system is required for integration with other external software the Successful Bidder shall accordingly do the needful.
- (g) This center may be linked to other centers and centralized server for networking. In this case, data generated through this center needs to be shared on this network. Also, some data can be sent through central server to the center for configuration. The center software should have the facility to share its data and accept external data through networking. The Successful Bidder shall provide all necessary support in this networking activity by sharing necessary details related to data / data structure / web services / APIs etc. Also, Successful Bidder shall upgrade its software at its cost, if required, to support this activity.
- (h) Each test lane should be designed to facilitate 3 to 4 individual test positions to achieve the maximum test throughput. The Successful Bidder may suggest the number of test positions 3 to 4 in each test lane based on the layout to achieve the maximum throughput. In general, throughputs of 8 vehicles per hour for the light commercial vehicle lane and 6 vehicles per hour per lane for the heavy commercial vehicle lane shall be achievable with trained inspectors.
- (i) The Transport Commissioner, Odisha is using VAHAN/ SARATHI software developed by NIC for registration of vehicles and issuance of driving licenses. The Successful Bidder is required to integrate the software to link with VAHAN database/electronic portal setup by central government for vehicle data. Feasible access will be given to the VAHAN/ electronic portal setup by central government database by Transport Commissioner, Odisha. In case if the link is not available, lane software should operate in manual mode. That means it should be possible to run the lane operating software with manual data entry of vehicle details.
- (j) Lane operating software shall have security locks for operator and vehicles. At each test station, test operation will commence after verification of the Operator ID Card and Vehicle Registration Number Plate. The test report should be generated automatically after completion of all tests.
- (k) Software – The Successful Bidder shall also have software having following features:
 - (l) Software to be installed on the LAN.
 - (m) Update the software as and when required and provide all necessary protocols to Transport Commissioner, Odisha.
 - (n) The successful bidder shall share all the required protocols/API etc. for integration with different software during the concession period and after the end of concession period as and when required by the State Transport Authority, Govt. of Odisha.
 - (o) Data management in the software like data storage, mining, archiving etc.

The following documents and information shall be indicatively fetched / uploaded at the time of booking a slot for fitness test at ATS, namely: -

- i. Registration Certificate of Vehicle, along with Form 25 of CMVR, wherever applicable;
- ii. valid Insurance Certificate;
- iii. last valid Permit, wherever applicable;
- iv. mobile number and email ID of the registered owner or authorized signatory.

The other details related to the vehicle, not limited to the following, shall be fetched automatically from the electronic portal setup by central government database, namely: -

- i. Chassis Number;
- ii. Engine number;
- iii. Fuel;
- iv. Vehicle Class;
- v. Vehicle Category;
- vi. Make and Model;
- vii. Gross Vehicle Weight (GVW);
- viii. Month and Year of Manufacture; and
- ix. Speed Governor Serial Number, wherever applicable.

Software to include facility for intimation of fitness test as per appointments. This will enable operator in scheduling vehicle tests.

Lane operation 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. Display of testing station in a test lane shall not indicate any test result. All test results shall be masked on the test lane with encrypted test data. The test report shall be generated automatically and digitally signed with relevant details, immediately after completion of all tests.

The test data and report generated shall be kept in a safe and secured facility and uploaded on the electronic portal. Photographs of vehicle and its Chassis and Engine number shall be captured by Global Positioning System enabled camera and shall be kept in a secured facility and uploaded on the electronic portal along with the tests data and report. The results shall also be integrated with electronic portal setup by central government Database.

Test report so generated shall be sent to the registered owner or authorized signatory through physical and electronic mode and the test report shall include the following, namely: -

- i. ATS Name and registration number;
- ii. date and time of the test;
- iii. vehicle details – Registration number, Type, Make and Model;
- iv. visual check details;
- v. measured and permissible values of functional tests;
- vi. date of calibration of each equipment of the automated testing station on which tests are conducted;
- vii. list of functional tests or visual checks failed by the vehicle, in case certificate of fitness is not granted.
- viii. unique QR code containing vehicle test information

The report format customization by Transport Commissioner, Odisha shall also be included in the quote. Transport Commissioner, Odisha will require, during the start-up of the Test Centre the creation of report pattern. During the concession period, Transport Commissioner, Odisha

could require the update of the report format without any additional cost. Software should have the facility to print the fitness test pass sticker in the format as specified in CMVR.

4.10 ONLINE DASHBOARD FOR STA

- (a) The Successful Bidder shall develop networking software that enables seamless integration of data generated by each Automated Test Station (ATS) center.
- (b) The networking software shall facilitate the creation of a combined dashboard accessible to each Regional Transport Office (RTO)/ Addl./Asst Regional Transport Office within their respective territories.
- (c) The combined dashboard shall also provide centralized access to the Transport Commissioner for the entire state, allowing comprehensive oversight and management of data from all ATS centers.
- (d) The networking software must support efficient sharing of data across the network, ensuring real-time updates and accessibility for authorized personnel.
- (e) The Successful Bidder shall implement robust security features, including user authentication and authorization controls, to safeguard the integrity and confidentiality of the data.
- (f) In case of any external software integration, the networking software should be adaptable and provide the necessary protocols/APIs to facilitate smooth interoperability.
- (g) The networking software should have the capability to data efficiently, ensuring optimal performance even during peak usage times.
- (h) Data storage, retrieval, and archiving functionalities must be well-defined and in accordance with industry standards to maintain data integrity and compliance.
- (i) The Successful Bidder is responsible for providing detailed documentation and protocols/APIs for the integration of the networking software during and after the concession period, as required by the Transport Commissioner, Odisha.
- (j) Regular updates and maintenance of the networking software should be undertaken by the Successful Bidder to ensure compatibility with evolving technology and security standards.
- (k) The networking software should be designed to operate seamlessly in both online and offline modes, allowing continued functionality in case of connectivity issues.
- (l) The Successful Bidder shall conduct training sessions for relevant personnel at the ATS centers, RTOs/ Addl./Asst RTOs, and the Transport Commissioner's office to ensure effective utilization of the networking software.
- (m) A comprehensive user support system, including a helpline and documentation, shall be provided by the Successful Bidder to address any issues or queries related to the networking software.
- (n) The networking software should be scalable to accommodate potential future expansions or enhancements in the ATS network and data management requirements.
- (o) The Successful Bidder shall bear all costs associated with the development, implementation, and maintenance of the networking software throughout the contract period.
- (p) The Software shall be hosted at the state data centre and all the data from all the ATS centers shall be stored at the state data Centre.
- (q) The Bidders shall quote the value of the software as a lump sum in the price bid format.

4.11 ONLINE DASHBOARD FEATURES:

- **Traceability of vehicle test report from each ATS location**
- **Data mining**
- **Daily/ Weekly/Monthly/ Annually report**
- **Billing, Revenue Report etc.**
- **All MIS features**
- **Downtown calculations of any equipment for all ATS.**
- **Vehicle Failure Report (Test wise/ vehicle class wise etc.)**
- **Report Authentication**
- **Any other allied features as per requirement of State Government.**

4.12 CALIBRATION

- (a) Each equipment supplied by the Successful Bidder with all the required calibration tools and certificates.
- (b) The calibration of all the existing equipment to be upgraded by the bidder shall be responsibility of the bidder. Calibration tool of each equipment are available at site.
- (c) All measuring devices shall be calibrated and traceable calibration certificates shall be made available to the Transport Commissioner, Odisha and shall be included in the documentation delivered by the Successful Bidder. Calibration plan shall also be provided.
- (d) Arrangement of calibrated material for the pre-dispatch inspection and final acceptance is the responsibility of the Successful Bidder.
- (e) Calibration tools and plan needs to comply with International Standards and Accreditation. Calibration facility and traceability to national and international laboratories shall also be provided.
- (f) The Smoke Meter (Opacimeter) and Gas Analyzers shall comply with CMVR 1989/TAP 115/116 or AIS 137. For the remaining equipment, in case of non-availability of recognized accreditation agency, the Bidder shall submit thorough explanations on the calibration procedure used.
- (g) Calibration equipment shall also be available with the Bidder in order to maintain the required performances of all the testing equipment included in this RFB.
- (h) After the expiry of the Calibration Certificate, validity of the master tools and the certificate shall be renewed by the Successful Bidder at its own cost from the NABL accredited agencies like ICAT or other agencies authorized for the same.
- (i) The Successful Bidder at his own cost will carry out calibration of installed equipment as per below defined calibration frequencies in order to maintain their required performance:

Table 10

Sr. No.	Equipment	Calibration Frequency
1	Exhaust Gas Analyzer	4 months
2	Smoke Meter (Opacimeter)	4 months
3	Sound Level Meter	1 year
4	Roller Brake Tester	1 year
5	Axle weight measurement equipment	1 year
6	Speedometer Tester	1 year

7	Side Slip Tester	1 year
8	Suspension Tester	1 year
9	Semi- Automatic Headlight Tester	1 year
10	Electronic Steering play Detector	1 year

4.13 CLIMATIC CONDITIONS

The Successful Bidder shall be responsible for the performances of the equipment as per the climatic conditions mentioned in **“Section 5 – Site(s) Description”**

4.14 HEALTH & ENVIRONMENTAL REQUIREMENTS

All the equipment must meet the Environmental, Health and Safety aspects (CE or equivalent). The Successful Bidder is expected to provide all safety systems. The necessary certificates shall be kept all the time at the ATS by the Successful Bidder. In case of hazardous material, the Successful Bidder shall also keep Material Safety Data Sheet (MSDS) at the ATS. All the certificates kept at the ATS can be checked by the Transport Commissioner, Odisha at any time.

4.15 DOCUMENTATION

- At the time of equipment delivery, the Successful Bidder 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, and possible causes, and 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)

4.16 ACCEPTANCE TESTS

- Pre dispatch inspection shall be conducted at the manufacturer site.
- Before dispatch, the Bidder shall ensure the inspection of the equipment and only proper and quality tested equipment shall be delivered to the installation site.
- Certificates of calibration from recognized accreditation agency shall be submitted.

4.17 PROJECT IMPLEMENTATION TEAM

The Successful 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 with Transport Commissioner, Odisha. The Project leader shall be a person with adequate experience in installation of equipment and operation of the ATS.

4.18 TRAINING PLAN AND TRAINING SUPPORT

- The Successful Bidder shall give detailed information on the Training Plan with respect to (i) Pre-acceptance Training, (ii) Installation and Commissioning Training and (iii) Operational and Maintenance training.
- Such training will be given to officials** and staff of Transport Commissioner, Odisha and its subordinate offices by the Successful Bidder.
- The expenses incurred for the training shall be borne by the Successful Bidder.

4.19 SERVICE SUPPORT AND STOPPAGE OF SERVICE

- Any machine/equipment in a test lane should not break-down for more than **96 hrs**, after which a penalty of Rs.5000/- (Five Thousand) **per day per lane** shall be imposed on the Successful Bidder. Such penalty amount in a month shall not exceed the Operation cost for the said month. In case breakdown continues for two weeks, in addition to payment of penalty contract agreement shall be cancelled by Transport Commissioner, Odisha.
- The Bidder is expected to operate with the efficiency of typically six vehicles per hour for Heavy Commercial Lanes and Eight vehicles per hour for Light commercial Lanes capable

of 24x7 operations. These are the expected no. of vehicles that can be taken for testing in the LD & HD lanes respectively.

- (c) The Successful Bidder is required to have a service support set up in India with sufficient trained manpower.
- (d) The Successful Bidder shall make an automated system of reporting, recording and rectification of the breakdown at its own cost. As and when required by the Transport Commissioner, Odisha, the necessary report shall be shared by the Successful Bidder.

4.20 WARRANTY & COMPREHENSIVE MAINTENANCE CONTRACT (CMC)

- (a) The warranty of 2 years and CMC of 5 years of the all installed equipment shall be the responsibility of the Successful Bidder.
- (b) The Equipment Manufacturer of testing lane equipment shall submit an undertaking in **Form (I) of this RFB** that it shall provide Warranty and CMC services of its Equipment uninterruptedly to the DoT for the period of 5 (five) years from the date of commissioning of the Equipment.
- (c) The Successful Bidder shall ensure 95% uptime of all equipment.
- (d) Any preventive maintenance and / or repair for breakdown shall be carried out by the Successful Bidder at its own cost. 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 Transport Commissioner, Odisha.
- (e) The preventive maintenance will be carried out by the Successful Bidder, at a frequency specified by the Equipment Manufacturer. At every three month, the Successful Bidder shall be required to inspect the equipment and submit a report on overall health & maintenance status of the equipment to the Transport Commissioner, Odisha. In case of non compliance of this clause by the Successful Bidder, 10% of the operation cost of that particular month shall be deducted as penalty from the monthly operational invoice(s) of the bidder till the compliance of this clause. In case preventive maintenance is not done by successful bidder for a consecutive period of two months, in addition to payment of penalty contract agreement shall be cancelled by Transport Commissioner, Odisha
- (f) **Spares, Consumables & Wear Parts:** The Successful Bidder is required to have critical/ essential spare parts and consumables stored at the ATS.

4.21 OPERATIONS AND OPERATION COST

- (a) The Successful Bidder on its own cost will appoint required operational manpower as per applicable Indian Labour Law. The safety of the operational staff will also be taken into consideration by the Successful Bidder.
- (b) The cost of operation shall include the following services:
 - (i) Manpower for Operation of test lane equipment.
 - (ii) Manpower and consumables for maintenance of the test lane equipment.
 - (iii) Consumables including electricity, Network Connectivity, water, gases, fuel, spares, Consumables and all other associated costs etc.
 - (iv) Training of officials and staff of Transport Commissioner, Odisha after installation of equipment.
 - (v) All other services which include housekeeping, security and maintenance of Construction, utilities and manpower for administration, drivers and operators required for lane operation.
 - (vi) If any major repairs are required for infrastructure set up by the Transport Commissioner, Odisha, then it will be carried out by State Transport Authority.
- (c) **Manpower management**
 - (i) The Successful Bidder shall deploy required manpower like Trained Technicians, Supervisors at the ATS for operation of the equipment, testing of vehicles and generating a Test report on minimum wage act.
 - (ii) The minimum requirement and minimum qualifications for manpower are given in Section 6 of this RFB for ATS.

- (iii) The Successful Bidder is expected to provide qualified manpower for carrying out vehicle testing as per CMVR 1989 as amended.
- (iv) The Successful Bidder shall provide CV's of the personnel deployed at the ATS.
- (v) The Successful Bidder shall maintain the record of manpower working at the ATS.
- (vi) The Successful Bidder is required to comply with the legal requirements of deployed manpower as per applicable laws.
- (vii) The Successful Bidder is required to ensure safety norms as per regulations of Odisha Factories & Boilers Act, Hazardous Waste Disposal, CPCB norms at the respective ATS.
- (d) The Successful Bidder will be required to maintain the landscaping / horticulture.
- (e) Test Runs – The Successful Bidder shall periodically carry out in-service checks on quarterly basis on all lanes to ensure smooth and correct running for lanes without hampering the routine operations.

4.22 QA/QC DOCUMENT

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

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

4.23 IMPLEMENTATION SCHEDULE

This work plan and implementation schedule shall be included as given in the table below:

Table 11

S.No.	Activity	Timeline for the Bidder for Each ATS Location
1	Issuance of LOA to the Successful Bidder	T
2	Submission of registered Consortium Agreement (registered under Company Act 2013 or under Registration Act 1908).	T+12days
3	Submission of Performance Bank Guarantee by Successful Bidder	T+15days
4	Signing of Agreement (between State Transport Authority and Successful Bidder)	T+15days
5	Handing over the site to the Successful Bidder. Boundary Wall construction, Storm water Drainage system, Boring for water supply with power supply transformer by State Transport Authority	T+30days (T1)
6	Construction of all internal roads by State Transport Authority as per approved design and layout.	T1 + 120 days
7	Completion of construction of all ATS location awarded to successful bidder	T1+150days

8	Delivery of equipment at site by Successful Bidder	T1+45days (T2)
9	Installation of equipment by Successful Bidder	T2+30days (T3)
10	Delivery of utilities at sites	T+ 90 days
11	Installation & commissioning of utilities at sites	T+ 105 days
12	Deployment of operating manpower along with their CVs by the Successful Bidder	T2+30days
13	Training of State Transport Authority Official by Successful Bidder	T3+07days
14	Application for Pre-Commissioning Audit of equipment by the Successful Bidder to ICAT	T3+10days (T4)
15	Pre-Commissioning Audit Report by ICAT to the Successful Bidder and a copy to the State Transport Authority	T4+ 07 days (T5)
16	Application for Issuance of Completion Certificate by the Successful Bidder to the State Transport Authority	T5 + 2 working days (T6)
17	Issuance of Completion Certificate by the State Transport Authority to the Successful Bidder to commence the work	T6+ 05 working days (T7)
18	Commencement of operation of the ATS	T7+02 working days

4.24 TIME LINES FOR CIVIL WORK MILE STONES

Table 12

SL. NO.	DESCRIPTION OF MILESTONE (PHYSICAL)	TIME ALLOWED IN MONTHS (FROM T1 AS PER TABLE 12)
1	Planning, Design & Engineering Works–Topographical Survey, Geo Technical Investigation, Planning, Designing and obtaining approvals of the same from the local body, client deptt., vetting of structural design, all complete. Preparation of all architectural working drawing, landscape drawings, detailed drawings, structural drawings and MEP / E&M services drawings including obtaining all approval of all local bodies / statutory bodies, all authorities concerned, as may be applicable for the work, all complete as per direction of engineer-in-charge to start the construction activities.	T1+ 1Months
2	Sub-structure workup to Plinth Level(excavation, Foundation, Tie beams, Backfilling Etc.)	T1+ 2 Months
3	Superstructure work (Steel / RCC)	T1+ 3 Months
4	Internal and External Finishing Works	T1+ 4 Months
5	Internal Services / installation of equipment's / Connection to External Services.	T1+ 5 Months
6	Testing and commissioning of services	T1+ 5 Months
7	Handing Over	T1+ 6 Months

4.25 AUDIT AND ASSESSMENT

- (a) The performance and functioning of Automated Testing Station shall be monitored through periodic audits and Assessment, at every six months.
- (b) Pre-Commissioning Audit will be done as follows:-
 - i. At the time of completion of construction of two-wheeler test lane shed
 - ii. Commissioning of Acceptance of Equipment
 - iii. Pre-Commissioning Audit report will be submitted in Form 66 of CMVR, 1989.
- (c) Transport Commissioner, Odisha will conduct Pre-commissioning and periodic audits and assessments of by the International Center for Automotive Technology (ICAT) and the cost of **Rs Two Lakh plus applicable taxes per audit shall** be borne by the Successful Bidder. The audit amount will increase @ 10 percent after two years of audit. Boarding and lodging of two persons of ICAT shall also be paid by the Successful Bidder. GST and any other applicable taxes/charges as per law with regard to the payment of ICAT shall be borne by the Successful Bidder.
- (d) The expenses on audit and assessment shall be part of the Financial Bid.
- (e) For the purpose of payment to ICAT as per this clause, the ICAT will submit the invoice with a copy Audit and Assessment Report to the Transport Commissioner Odisha and after due verification the Transport Commissioner Odisha will make payment to the ICAT. Such payment will be adjusted from the monthly operational bill(s) of the Successful Bidder.
- (f) The audit and assessment of ATS shall cover the following aspects, namely: -
 - (i) Test equipment completeness;
 - (ii) Equipment calibration at the required frequency at least once a year or as per manufacturer's recommendation, whichever is earlier;
 - (iii) Testing procedures as specified under this RFB;
 - (iv) Calibration process of machinery;
 - (v) Manpower as per specified qualification under this RFB;
 - (vi) Sample check of at least three vehicles from each lane;
 - (vii) Data integrity; and
 - (viii) Functioning of all the Closed-Circuit Televisions installed at the ATS.
- (g) Transport Commissioner, Odisha, under exceptional circumstances, may also conduct surprise audits and assessments of ATS twice a year and the cost of such audit and assessment shall be borne by the Successful Bidder.
- (h) The Bidder's officials of the ATS shall be responsible for enabling and cooperating with the inspection at any point of time during office hours.
- (i) The audit and assessment report, including surprise audit and assessment, in **Form 67** of CMVR, 1989 along with the photographic evidence, shall be given to Transport Commissioner, Odisha.
- (j) Where any discrepancy pointed out during the audit and assessment, the same shall be rectified by the Successful Bidder within ten working days from the date of issuance of the audit and assessment report. Failure to rectify the discrepancy will attract penalty of Rs 5000/- (Five Thousand only) per day. Such penalty amount in a month shall not exceed the operation cost of the particular month. The rectification report shall be submitted to the audit and assessment agency for approval and Transport Commissioner for information. If discrepancy is not resolved by the successful bidder within 30 days in addition to levy of penalty, agreement so executed with successful bidder shall be cancelled.
- (k) The Audit and Assessment agency, if it so desires, may undertake re-audit and re-assessment for validation and approval. Cost towards the same shall be borne by successful bidder.

SECTION – 4A

Civil Scope of work

BRIEF SCOPE

Note: All efforts have been made to define the Scope of Work for the successful bidder in this document in respect of tendered work. However, defined Scope of Work specified in this document is indicative only but not limited to. All works, which are required to successfully design, construct, and handover the complete project to Authority, even if they are not specified in this document comes under the Scope of Work for the successful bidder. All the bidders are encouraged to send their queries seeking their clarifications, if any in this respect within the stipulated time. It may be noted that no extra payment, whatsoever will be admissible to the successful bidder on account of merely non mentioning of any work / component / equipment / scheme in this document which is otherwise required / necessary for successful completion of work as per standard engineering practice/s.

The scope of work includes Design, Engineering, Procurement and Construction of Automated Testing Station (ATS), Complete Shed Building and office building within the specified area, as per Conceptual Architectural drawings details and Specifications.

The scope of work for E.P.C. Contract shall include (but not limited to) the following works. Scope of work in brief for a glance is as below:

- 1 EPC contract shall include Architectural Planning, Concept Design, Geo Technical Soil investigation and Topographical Survey, Site Clearance, Tree Cutting & Transplantation - maintenance of transplanted trees till work completion, Design of Structure and MEP services including allied works, obtaining all statutory approvals (Pre construction, During construction, Post construction) from Local Authorities / Body including services, preparing submission and execution GFC drawings, getting approval from ICAT / STA (Odisha), material/ equipment supply, Construction and Commissioning of the project.
- 2 Transplantation of existing trees and plantation of new trees at site as per the requirement of the Forest Department.
- 3 Design, Engineering, Procurement and Construction and handing over of I& C Shade Structure Including Administrative Office Block.
- 4 The contractor's quoted rates are deemed to include everything from the award of work up to & including handing over of completed project, defect liability period. The EPC Contractor is required to connect all Building Internal Services to already laid external services like Water Supply, Sewerage, Drainage, Electric Supply, LAN/WAN, Network Connectivity lease line, Telephone Lines etc. to the main lines of the authorities/service providers which shall be integral part of his scope of work and deemed to be included in his quoted price. All municipal & mandatory approvals required for occupation and completion of the project shall be obtained by the Contractor.
- 5 Architectural & Civil Finishing for all works under scope.
- 6 Miscellaneous & Allied Works i/c Design / GFC Drawings / Construction/ Installation / Testing / commissioning and Handing Over complete as follows:
 - a. Internal Plumbing & Sanitary works.
 - b. All Internal Electrical Services viz. Wiring / Cabling, Fan – Light Fixtures, M V Panels, Distribution Boards, LT Cables & Earthing etc. complete in all respect.
 - c. TV – Telephone System, LAN/WAN, Network Connectivity lease line, Fire Detection System, UPS, CCTV System, EPABX / Intercom Communication System, Cable Tray & Signage System complete in all respect.
 - d. Provision for A.C. in offices with disposal of water.
 - e. Connection of All with External Services to make the buildings fully functional.

DETAILED SCOPE OF WORK

Structural Design & Construction

Structural works with Steel Structure / Prefab Technology, The Structural Design Work shall include: -

- a. Geo Technical Investigation (by NABL Accredited Lab) duly vetted by any reputed Government Engineering College / University.

- b. Detail Design/ Preparation of drawings based on DBR;
- c. Shop drawings and its approval from ICAT / STA (ODISHA) & its Proof Checking from any reputed Government Engineering College / University.
- d. Supply, fabrication, Construction, Installation and Commissioning.
- e. Obtaining all interim and completion Approvals from local statutory authorities.

Further, details (in brief) are as under: -

The detailed RCC/ Steel Structural Design, preparation of drawings for the buildings are within the scope of the contractor. The scope of work of design and drawings of RCC / Steel structural expressly (but not limited to) includes the following:

- i. Foundation drawings/details & schedule, whether pile / raft / strip footing OR combined footing.
- ii. Primary & Secondary Structural Frames, Truss, Purlins Sheeting and Insulation, Galvalume roof sheeting, wall cladding, trims and flashings, cage ladders, gutter, life line etc.
- iii. Steel Columns, pillars, piers, abutments, posts and struts.
- iv. Lintels, beams, plinth beams, girders and cantilevers.
- v. Vertical and horizontal fins individually or forming box louvers band, fasciae and eaves boards.
- vi. All other structural / Finishing works.

The detailed structural design and RCC/Steel shall be designed (suitable) for the building.

The contractor shall also give the presentations on the design schemes to be prepared by him to the ICAT / Transport Commissioner, Odisha before taking up the actual design work.

The brief Design Basis Report (DBR) is the part of the tender document. Based on DBR and architectural concept drawings, the detail design and drawings shall be prepared by the contractor.

Material and construction system has been selected to be consistent with the requirements of a “life of the building” as defined in table 1 of IS 875: “Code of Practice for Design Loads of Building and Construction”. This category relates to “Important buildings and structures and recommends a specified design life of 100 years”.

The detailed Structural design with calculations and related drawings submitted by contractor shall be checked and verified by the ICAT / Transport Commissioner, Odisha.. The structural design needs to be vetted from any reputed Government Engineering College / University. The design and vetting charges shall be paid by the contractor.

The contractor has to make necessary modification(s) in the design incorporating the observation(s) of ICAT / Authority / Local Statutory Authorities and resubmit the modified design and drawings. The contractor shall also be responsible for obtaining the approvals from local authority (ies), if any.

The contractor has to provide the structural stability certificate signed by registered Structural Engineer.

However, the checking and vetting of design/drawings shall not absolve the contractor from the responsibilities of any failure in the structural design and RCC design.

The contractor shall submit all the submittals like designs, drawings, documents, reports, schedules etc. in minimum six number of hard and six number of soft (CD/DVD) copies.

The contractor shall also submit minimum six number of hard and six number of soft copies of drawings and designs, after vetting of designs, for issue of good for construction (GFC) drawings.

The contractor shall complete all the above-mentioned works including modification(s), if any, within the One months from the 10th day of the date of the issue of letter of award. The rates quoted by the bidder is deemed to be inclusive of all the expenditure to be incurred in all the activities to be executed for detailed designing of structural design as mentioned in this clause or otherwise to be incurred for this purpose. No extra payment, whatsoever, on this account shall be payable to the contractor.

The contractor has to conduct the topographic survey drawing(s) and soil investigation before starting the detailed design / drawings works. The contractor is also responsible for collection of any and all data's/information, which he may need for his design from any relevant source including (but not limited to) to statutory bodies etc.

All these design and drawings will become the property of Transport Commissioner, Odisha. The design and drawings cannot be issued to any other person, firm or authority or used by the contractor for any other project. No copies of any design, drawing or document shall be issued to anyone except the authorized representative of Transport Commissioner, Odisha.

It shall be deemed all the expenditures to be incurred in all activities required to do complete Design / drawings of Architectural, structural and MEP design works are inclusive in the rates quoted by the contractor. No extra payment whatsoever on this account will be payable to contractor.

It shall be deemed that successful bidder has satisfied himself as to the nature and location of work, general and local condition and particularly, those pertaining to transport, handling, availability and storage of materials, availability of labour/workforce, weather conditions at site, general grounds/sub-soil conditions and all other conditions required to execute and complete the work. The contractor shall have to quote his rates / offer, accordingly.

Transport Commissioner, Odisha will bear no responsibility for the lapse of such knowledge and also the consequences thereof to the Transport Commissioner, Odisha. The information and site data shown in the drawings mentioned in the tender documents are furnished for general information and guidance only. Transport Commissioner, Odisha in no case shall be held responsible for the accuracy thereof or / and deductions, interpretations or conclusions drawn there from by the contractor or no claim shall be entertained whatsoever, if the site conditions/information's are different or otherwise incorrect. It shall be considered that the Transport Commissioner, Odisha has satisfied himself for all possible contingencies, situations, bottle necks and acts of co-ordination, which may be required between the different agencies.

- The detailed Civil/Structural, MEP Design/ preparation of Drawings for above mentioned buildings /spaces are within the Scope of the Contractor.
- The concept design (Architectural), Structural Design Philosophy of above buildings/spaces, structural framing is provided in tender documents based on which the contractor has to prepare detailed Civil/Structural/MEP drawings of each and every aspect of the project required for construction of buildings in all respect. The Structural Design & Drawings shall be got vetted by ICAT / Transport Commissioner, Odisha. No extra payment, whatsoever, on this account shall be payable to the contractor.
- The contractor shall be responsible of structural stability and correctness of structural design.
- Based on the DBR & the architectural drawings, the agency shall submit the structural & MEP design and drawings based on the Design Philosophy given in the Technical Specification, within the time as stipulated in Table of Milestone in the SCC. Every Civil/Structural/MEP drawing /detail shall be prepared conforming to detailed technical specification, CPWD specifications and relevant IS code. All dimensions of various structural members / slabs / columns / elements shall be got approved by ICAT / Transport Commissioner, Odisha.

The Civil/Structural/MEP Design & Drawings (whether RCC or Structural Steel or composite) expressly (but not limited to) includes following: -

- Studying the Architectural Concept Design, Structural/MEP Design Philosophy, submitting proposed structural design framework of each building/floor/area and obtaining approval of Transport Commissioner, Odisha. Due care to be taken for integrating the structural drawing with the Architectural Drawings & with all MEP Services, Landscape features & Elevation features etc.
- Design on appropriate software like Staad-Pro/Etab and drawing on a software like Auto CAD including fabrication drawings, shop drawings, bar bending schedule etc. of each and every component of buildings/spaces within Scope of work on suitable scale, including but not limited to:
 - Foundation Drawings/Details & Schedule, whether pile/ raft or strip footing and/or combination of footings;
 - Column Drawings/Schedule;
 - Shelves (Cast in situ/pre-cast);
 - Lintels, beams, plinth beams, girders and cantilevers;
 - Columns, Pillars, Piers, Abutments, Posts and Struts;
 - Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.
 - Mechanical, Electrical & Piping works.
 - Execution of complete work as per detail scope of work, Technical specification and drawings.
 - The Structural system is designed as Prefabricated Steel Structure. The design needs to be taken care with the severe Cyclone conditions of the State.

Design Life

Materials and construction systems has been selected to be consistent with the requirements of a “life of the building” as defined in Table 1 of IS 875: “Code of practice for design loads of building and construction”.

Architectural & Civil finishing for all Works under Scope

The scope of work of the Contractor shall be asunder:-

- Preparation of All Architectural GFC Drawing & its integration with all Structural & MEP Drawings.
- Preparation of All Shop drawings and its approval from ICAT / Transport Commissioner, Odisha.
- Supply, fabrication, Construction, Installation, Testing and Commissioning of above all.

APPLICABLE CODES:

The Pre-Engineered Steel Building shall be designed in accordance with the following codes.

- Dead, Live & Wind Load are applied in accordance with IS: 875 Part- I, II, III (1987) respectively.
- Built up sections & Hot Rolled sections are to be designed in accordance with IS: 800. -2007, (Excluding chapter -12).
- Cold Formed members are to be designed in accordance with IS: 801.
- Earthquake loads are applied in accordance with latest IS: 1893, Part-I (2002)
- All RCC work should confirm to requirement of IS 456 and detailing to be as per IS 13920 and SP34.

DESIGN PARAMETER:

Spacing of Purlin, girts, flange bracing and stiffeners on main structural member should not be considered for unsupported length in design.

PEB Design using Latest License versions of STAAD Pro software with 3DModel Concept & submit to consultant for further approval. After approval prepare shop Drawings & submit to client/consultant for approval.

DESIGN METHODOLOGY

The Design of steel structures shall be done by Limit state method in accordance with the provisions of Indian Standard IS: 800 and other relevant IS Codes as applicable to specific structures. The Structure shall be analyzed using Latest License Version STAAD Pro software with 3DModel Concept. the design of Frame members shall be worked out as per IS -800 using above said software along with manual calculations if required and complete design including connection in soft/hard copy shall be submitted to OWNER/ENGINEER for approval.

The specifications shall request the bidder to design as per IS 800 – 2007 (Limit State Method). All checks for structural members shall be as per IS 800 – 2007 (Limit State Method).

While designing the Structural members, follow the provision of latest Indian Standard code for the checking of Deflection Criteria and Slenderness Ratio Criteria for the respective members.

All buildings/structures shall be framed structure. Basic consideration for structural framing shall be stability, rigidity, building uses, ease of fabrication / erection.

All structural steel sections and welded plate members shall be designed in accordance with the applicable sections, relating to design requirements and allowable stresses that conform to the latest edition of IS Codes only.

All light-gauge cold formed structural members and covering shall be designed in accordance with the applicable sections, relating to design requirements and allowable stresses that conform to the latest edition of IS Codes only

Additional bracings/moment connections shall be used to assure stability of structures. Structure shall be designed such that the surfaces of all parts shall be accessible for inspection, cleaning, painting and maintenance.

MINIMUM THICKNESS AND SIZES OF STEEL ELEMENTS

The minimum thickness of various components of a structure shall be as follows.

Table 13

Sl	Descriptions	Details
1	All Built up sections / primary steel members. (Columns and Rafters Grade 50 confirming to ASTM A572 having min. yield stress of 345 Mpa	With minimum thickness consideration as 08 mm.
2	HOT ROLLED Members: IS 2062 Grade E 250, 250 Mpa	With minimum thickness consideration as 06 mm.

3	The Cold formed sections either “Z” or “C” shape made out of Steel Strips, ASTM A 1011M SS Gr 50-class-2 340 Mpa black, ASTM A 653 pre galvanized.	With mini thickness as 2.0 mm Flange brace /Sag angle
4	Base Plate thickness	25 mm

MATERIAL SPECIFICATION:

Primary Structural Frame Members

Primary structural steel framing shall refer to the transverse rigid frames, lean-to rafters and columns (beam and column frames), bearing frame rafters and corner columns, and end wall wind columns. This plate or bar stock shall have minimum yield strength of 345 N/mm² as per IS: 8500-1991. The plates shall be joined together on both sides of the web by a continuous automatic submerged arc welding process (i.e. two side welding) in order to produce the required section.

All Built up sections / primary steel members shall be manufactured confirming to ASTM 572, Grade 50 / IS 2062 (Latest) R350 with minimum thickness consideration as 08 mm and minimum yield strength of 345 N/mm². Minimum thickness of plates shall be 8 mm for all primary structural members.

- All Hot Rolled Sections shall be as per IS 2062-E250 A, 250 Mpa.
- All the finished steel shall be well and cleanly rolled to the dimensions, sections and masses specified. The finished material shall be free from surface defects such as pits, rolled in scales, deep scratches, grooves, laminations, cracks, rough jagged and imperfect edges, or any other harmful defects.

Web to flange welds of Built-Up members are double side fillet welds by continuous automatic submerged arc welding (SAW) process. Welding will be as per AWS D1.1

- Steel shall conform to following tests as specified in IS 8500:1991:
 1. Tensile Test
 2. Bend Test
 3. Impact Test
 4. Non-Destructive Tests-Ultrasonic testing

Secondary Structural Frame Members

- Secondary structural framing shall refer to purlins, girts, eave struts, wind bracing, flange bracing, base angles, sag angles, clips and other miscellaneous structural parts.
- Purlins, girts and eave struts shall be Galvanized cold formed sections of thickness, 2.0 mm, 2.5 mm and 3.15 mm are made from galvanized coils as per ASTM A 653 Structural steel (SS) Grade 50 Class 1 (Min. Yield strength 345 Mpa). Minimum thickness of purlins, girts and eave strut shall be 2.00 mm with pre-galvanize Minimum coating thickness of 275 GSM
- Chemical and mechanical properties for various grades of steel for secondary members (purlins, girts, and eave struts) shall conform to (ASTM-A653) or shall comply with the equivalent IS standard.

The Cold formed sections either “Z” or “C” shape made out of Steel Strips with mini thickness as 2.0 mm and shall be pre-galvanize with Minimum GI coating thickness of 275 GSM.

- Spacing of Purlins shall be provided such that the roof sheeting & Side cladding shall resist the maximum wind pressure.
- Supporting design calculation for sheeting of Roof and wall shall be submitted for approval of consultant/Owner.

Anchor Bolt/Foundation Bolt

- Anchor bolt/Foundation bolts shall be HDG 8.8 grade foundation bolts
- Foundation/Anchor bolts shall be provided along with necessary templates during fixing of anchor bolts. Supply of template in bidder's scope of works
- Nuts shall be of at least the strength grade appropriate to the grade of bolts or other threaded elements with which they are used.
- Galvanizing thickness of anchor bolts shall be minimum 275mm GSM.

Connections

- All field connections shall be bolted (unless otherwise noted).
- All primary structure bolted connections, shall be furnished & tightened with high strength bolts of Grade 8.8, A5TM A-325 M, conforming to IS 1367. All high strength bolts, nuts and washers shall be zinc plated with a bronze iridite finish for easy identification.
- All secondary bolted connections in line with approved drawings, shall be furnished with electro galvanized (yellow finish) machine bolts of Grade 4.6 conforming to IS 1367/ ASTM A 307. Machine bolts, nuts and washers shall be zinc plated.
- All shop connections shall be welded using either submerged or shielded arc process, and welding shall be done in accordance with the applicable sections, relating to design requirements and allowable stresses of the latest editions of the American Welding Society “Structural Welding Code”.

Galvalume Gutter

- Supplying, fabricating and fixing Galvalume Gutter minimum width of 450 mm for a required water discharge capacity of 200 mm/hour rain fall intensity or as per the approved drawing, whichever is bigger; including cutting, bending and welding/Bolting in required pieces, fixing the gutter to proper slope to the spout, making necessary drop ends/boxes with each outlet for down-take pipes, testing the gutter etc..
- Necessary steel supporting structure for gutters shall be provided.

Galvalume Downspout

- Supplying, fabricating and fixing Galvalume Downspouts for a water discharge capacity of 200 mm/hour rain fall intensity or as per the size given in Tender drawing whichever is bigger. Downspout shall be connected with gutter with end box. Cross sectional area of end box shall be at least 2.5 times the down spout area and minimum 200 mm depth.

Flashing, Trim & Closures

- Flashing and/or trim shall be furnished at the rake, corners, eaves, framed openings, and wherever necessary, to provide weather and water tightness and finished appearance.
- Solid or closed cell, preformed, ETP (Ethylene Polypropylene Ter-polymer) closures matching the profile of the panel shall be installed along the eave, rake and other locations specified as per manufacturer's specifications/drawing.
- Minimum Thickness of flashing, trim and closures shall be same as of Wall cladding/Roof Sheeting.

SMP Color Coated 0.50 mm/0.58 mm (TCT) Corrugated Metal Wall/Roof Cladding

- For 0.50 mm (TCT) Zinc/Aluminum alloy (Zincalume/Galvalume) color coated corrugated metal Wall cladding and 0.58 TCT sheet with SMP finish for roofing. Vendor shall include in his price supplying, fabricating, & fixing with No.12 carbon steel self-drilling screws mechanically coated with polymer finish with an integral washer head to which an EPDM elastomer layer is bonded. Self-drilling screws are conforming to AS : 3566 class-3 approved EPDM washers fixed by appropriate size of fasteners either of Corroshield or Hilti or Fisher make including cutting to proper size, metering, laps, necessary scaffolding etc.
- Finish on the weather face of wall/roof panels, and related components shall be minimum of 150 gms/sqm Aluminium / Zinc alloy coating mass (55% Aluminum + 43.5% Zinc + 1.5% Silicon. Coating class shall be Pre-treatment Chromate coating on either sides, Primer Coating (Epoxy) of 5 to 7 microns on top side, SMP material of 20-25 microns on top side and Back Coat Epoxy of 5 to 7 microns.
- Base material for color coated galvanized or galvalume substrate steel panels shall have minimum yield strength of 550 MPa (high tensile steel) and will conform to the physical specifications of ASTM A-792 or equivalent. The Aluminum/Zinc Alloy coating shall conform to ASTM A-792 – AZ 150 (150 g/m²) or equivalent.

Sealer

- Sealer for side laps, end laps shall be 6 mm wide x 5 mm thick, non – asbestos fiber filled pressure sensitive butyl tape. The sealer shall be non-asphaltic, non-shrinking, non-drying and non-toxic and shall

have superior adhesion to metals, plastics and painted surfaces at temperatures from (-) 50° C to (+) 104° C.

- Galvalume sheeting shall conform to Tata BlueScope specification or equivalent.
- Polycarbonate specification shall confirm to palram or equivalent.
- Items not specifically mentioned have to be provided by the supplier for approval of client / consultant.

Cut outs finishing with Flashing

- Cutting and finishing of cut-outs (Rectangular and Circular) made in roof sheeting, wall cladding, with Color Coated Galvalume Metal Flashing for cut out of lighting, piping, ducting, etc. is part of PEB contractor's scope within quoted price. Please note that, Location, quantity and size of the cut-out shall be provided during detail engineering.

The following Material Standards and specifications shall be followed for the design of Building Components.

Table 14

Sl. No.	Details of Structural components	Specifications
1	All Built up sections / primary steel members shall be manufactured confirming to IS 2062 (Latest) with mini. thickness consideration as 08 mm.	ASTM 572, Grade 50, 345 Mpa
2	Hot Rolled Sections, Steel Sections Beams, Channels & Angles.	As per IS 2062 –E 250 A, 250 Mpa
3	Secondary	Grade 50 confirming to IS: 277 GP350 materials having min. yield stress of 340 MPa. Or equivalent grade.
4	Welding	Web to flange welds of BuiltUp members are double side fillet welds by continuous automatic SAW process. Welding will be as per AWS D1.1
5	BRACINGS / TIES Shall be provided using HOT Rolled sections	
6	Angles, Beams, Channels – Confirming to	IS 2062 E 250 A, 250 M pa
7	Square / Rectangle hollow sections Confirming to	IS 1239 part –I, 310 Mpa, Round pipe:IS1161,240 Mpa

SHOPDRAWINGS:

- General Arrangement drawings based on Architectural details shall be submitted for the approval.
- Detail shop drawing showing Base Plate lay out, Anchor bolt position, Sectional details of column, Rafters, Purlins, Girts, Bracings, Ties, Cladding Runners etc. shall be submitted for the approval.
- All connections details of primary steel members and secondary steel members shall be made available
- All connections details of primary steel members and secondary steel members shall be made available for the approval.
- Complete Erection manual covering sequence and procedure to be followed along with necessary instructions shall be submitted.
- Length, Width & Eave height shall be as per the details given in the Drawing.
- Interior Column spacing, Roof slope, Bay spacing shall be as per the details given in the- drawing.

DESIGN DRAWINGS PREPARED BY THE CONTRACTOR

Design drawings shall be prepared by VENDOR/CONTRACTOR and all drawings so prepared shall

be furnished to the OWNER /ENGINEER for approval. These design drawings prepared by the CONTRATOR will show all the, levels, forces on members where shall necessary, size and orientation of each member, location/ size of openings. It shall be clearly understood that these drawings are not intended to show connection details, thickness of members, cuts, notches, bends and such other details.

The OWNER/ENGINEER reserves the right to make changes. Revisions to drawings, even after release for preparation of shop drawings, are very likely to be made to reflect additional data/details received and updated requirements.

FABRICATION/ERECTION AND DRAWINGS PREPARED BY THE CONTRACTOR

CONTRACTOR shall prepare detailed fabrication drawings and erection scheme based on the design drawings approved by OWNER/Engineer. Fabrication drawings shall be submitted to Engineer for approval as the responsibility for correct detailing rests exclusively on the CONTRACTOR. The VENDOR/CONTRACTOR shall prepare all fabrication and erection drawings for the entire work. All the drawings for the entire work shall be prepared in metric units. The drawings shall preferably be of one standard size and the details shown there in shall be clear and legible.

No fabrication drawings will be accepted for OWNER/ENGINEER's approval unless checked and approved by the VENDOR/CONTRACTOR's qualified structural engineer and accompanied by an erection plan showing the location of all pieces detailed. The VENDOR/CONTRACTOR shall ensure that connections are detailed to obtain ease in erection of structures and in making field connections. The VENDOR/CONTRACTOR shall be responsible for the correctness of all fabrication drawings. Fabrication drawings shall be revised by the VENDOR/CONTRACTOR to reflect all revisions in design drawings as and when such revisions are made by the OWNER/ENGINEER.

Fabrication shall be started by the VENDOR/ CONTRACTOR only after OWNER / ENGINEER's approval of fabrication drawings. Approval by the OWNER/ENGINEER of any of the drawings shall not relieve the VENDOR/CONTRACTOR from the responsibility for correctness of engineering & design of connections, workmanship, fit of parts, details, material, errors or omissions of any and all work shown thereon. Even after drawings approval, in case any modification and rectification are required during execution to meet system requirements, it shall be carried out by the contractor at his own cost without any additional financial implication to the Owner.

Fabrication shall in general follow the provisions of IS: 800, and good engineering practice where provisions of IS: 800 are not clear. Tolerance in fabricated steel work shall be as per IS: 7215.

FABRICATION

All workmanship and finish shall be of the best quality and shall conform to the best approved method of fabrication. All materials shall be finished straight and shall be machined/ground smooth true and square where so specified. All holes and edges shall be free of burrs. Shearing and chipping shall be neatly and accurately done and all portions of work exposed to view shall be neatly finished. Unless otherwise directed/ approved, reference may be made to relevant IS codes for providing standard fabrication tolerance. Material at the shops shall be kept clean and protected from weather.

Shop/field connections shall be as per approved fabrication drawings. In case of bolted connections, taper washers or flat washers or spring washers shall be used with bolts as necessary. In case of high strength friction grip bolts, hardened washers shall be used under the nuts or the bolt heads whichever

are turned to tighten the bolts. The length of the bolt shall be such that at least one thread of the bolt projects beyond the nut, except in case of high strength friction grip bolts where this projection shall be at least three times the pitch of the thread. All connections and splices shall be designed for full strength of members or loads indicated on design drawings. Column splices shall be designed for the full tensile strength of the minimum cross section at the splice. All bolts, nuts, washers, electrodes, screws etc. shall be supplied/brought to site 10% in excess of the requirement in each category and size.

Fabrication of Structure

- Metal panels and accessories shall be fabricated and finished at the factory to the greatest extent possible in accordance with the manufacturer's standard procedures and processes in order to fulfil the indicated performance requirements. The procedures shall comply with the dimensional and structural requirements. The other fabricated areas shall comply with the specifications and conditions as mentioned in the contract.
- Any defective material used in the fabrication work shall be replaced by the Contractor at his own expense. Necessary attention and precaution shall be taken in order to prevent any damage to the structure during any such removal and/or replacement.
- Any faulty fabrication pointed out at any stage of work by the Engineer-in- Charge, shall immediately be made good or replaced by the Contractor at his own cost.
- All framing members shall be shop fabricated for bolted field assembly, unless otherwise noted on the erection drawing.

Inspection & Acceptance Of the Fabrication Work

- The Owner/Engineer-In-Charge/Consultant (or his authorized representative) shall have free access at all times to those parts of the Contractor's works that are concerned with fabrication of steel work. The representative shall be provided with all the reasonable facilities to his satisfaction that the fabrication has been undertaken in accordance with the provisions of these specifications and other relevant IS Codes.
- Any structure or part of a structure be found not to comply with any of the provisions of this specification (or relevant IS Codes as referred to), it shall be liable to rejection. No structure or part of the structure, once rejected, shall be resubmitted for inspection, unless the Owner/Engineer-In-Charge/Consultant or his authorized representative shall consider the defect as rectifiable.
- Defects, which may appear during/after fabrication, shall be made good only with the consent of the Owner/Engineer-In-Charge/Consultant and according to the procedure set by him. All the necessary gauges and templates shall be supplied free to the Owner at free of cost by the Contractor whenever asked for during inspection. The Owner/Engineer-In-Charge/Consultant may, at his discretion, check the test results obtained by the Contractor's works by performing independent tests at a test house, and the cost of such tests shall be borne by the Owner. In case the result is in line with the submission of the results given by the PEB Contractor, the cost of external testing shall be borne by Owner. However, if the results are varying than what has been submitted by PEB Contractor, the cost shall be borne by PEB contractor.
- No material shall be painted or dispatched to the site without inspection and approval by the Owner/Engineer-In-Charge/Consultant unless such an inspection is waived in writing by the Owner/Engineer-In-Charge/Consultant.
- The Owner/Contractor shall provide all the testing and inspection services and facilities for shop work except where otherwise specified.
- For fabrication work carried out in the field, the same standard of supervision and quality control shall be maintained as in the shop fabricated work. Inspection and testing shall be conducted in a manner satisfactory to the Owner/Engineer-In-Charge/Consultant as per the procedure set by the Owner/Engineer-In-Charge/Consultant and the results of the same shall be available.
- The Contractor shall submit a detailed Quality Assurance Plan (QAP) to the Owner/Engineer-In-Charge/Consultant for their approval and the same shall be submitted before starting the actual fabrication at the shop. The QAP should cover the entire supply, production and dispatch and shall contain all visual, physical, chemical and mechanical tests which are required to be conducted on the raw material, welding, fabricated material etc. The PEB Contractor shall provide results for the same to the Owner/Engineer-In-Charge/Consultant upon request.

Shipping, Handling, and Storage:

- All material transported by PEB including anchor bolts, frames, bracings, HR sections, CF sections, sheeting, accessories, HYSB bolts, stiffeners, insulation etc are to be unloaded by the PEB at site or any other location fixed during the order stage.
- In case the material is obstructing movement at a later date for PEB or any other contractor they shall be shifted to an acceptable location as per instruction of the consultant / Engineer-in-charge without any cost or time implication.
- In case the PEB contractor is unable to do the shifting or loading / unloading to meet project requirement the same shall be done by Client / consultant through other agency and same shall be back-charged to the PEB vendor.
- Components, sheets, metal panels, and other manufactured items shall be packaged and delivered in a manner such that they may not be damaged or deformed and be protected during transportation and handling.
- Any steelwork damaged during off-loading, transportation, storage or erection shall be restored to conform to the standards of manufacture given in this specification and other related specifications.
- All materials shall be stored well clear of the ground, on skids or timbers. These supports shall be spaced so that no damage shall result from the deflection. Stacking of components more than three pieces high is not permitted. Individual accessibility of stored materials shall be maintained.
- Steelwork components shall be handled and stored in a manner to minimize the risk of surface abrasion and damage.
- Fasteners and small fittings shall be stored in dry conditions.
- Particular attention shall be given to storage by colour codes, structures, areas, erection programme etc. The steelwork shall be arranged so that the colour code and the member mark are clearly visible.
- Additional member marks shall be provided in the event that a particular stacking arrangement reduces the original colour code and member mark is invisible.
- Metal wall panels shall not be stored in contact with other materials that may cause staining, denting, or other surface damage.
- Strippable protective covering shall be retained on metal panel for the entire period up to metal panel installation.
- All sheeting shall be transported on site with film guard and it shall be removed after completion only.

Erection and Construction

- Erection of all structural steel work, roofing, cladding, framed openings etc., including supply of all materials, labour, supervision, plant, tools and tackles, etc., shall be carried out by the PEB Contractor.
- All materials and construction shall be conforming to the material specifications given in this document.
- Erection of the pre-engineered building shall be done in the presence/guidance of PEB Manufacturing Experts and the Owner/Engineer-In-Charge/Consultant shall not be responsible for the same. In case of an erection failure, the Contractor shall replace the damaged structure without any implication of time and cost to the Owner.
- Foundation bolts shall be fixed and grouted by the Civil Contractor. The alignment and levels shall be checked and certified by the Contractor's engineers. Necessary shim plates / pack plates below the base plate will be a part of the PEB scope of supply.
- No welding is permitted at the site after erection of the PEB structure by the PEB Contractor and/or other Sub-Contractors. Only drilling and bolting is allowed in PEB structure (if required) after erection by other Contractor/Sub- Contractor.
- Adequate measures for the stability of the 'structure under erection' shall be the
- sole responsibility of the PEB Contractor.
- The steel columns along with the tie beams/bracings may have to be shop assembled to ensure satisfactory fabrication, obtaining of adequate bearing areas, etc. if so desired by the

Owner/Engineer-In-Charge/Consultant. Contractor shall carry out all these shop assemblies at no extra cost to the Owner.

- The Erection Contractor shall ensure that no part of the structure is permanently distorted by stacking of materials or temporary erection loads during the erection process. No other Sub-Contractor shall place loads on the partly erected structure without the permission of the Erection Contractor.
- An Erection Method Statement that includes details of the erection sequence and techniques, crane capacity, lay down area, temporary supports, (additional if required) etc., shall be submitted for approval thirty days (30) prior to the commencement of field erection. Erection Method Statement shall give consideration for the sequence of erection, indicating the erection of equipment, piping etc. However, it may be necessary to defer the erection of some portions of structural steel to facilitate erection of structural equipment, columns, piping, etc. Erection Method Statement shall also verify the safety of the erected structure under applicable temporary loading & restraint conditions.
- The Contractor shall provide a Field Quality Plan for checking/accepting erection work performed at the site. This plan shall contain checking/acceptance of alignment report, connections, painting quality, sheeting line/level and installation of the same, etc.
- The Contractor shall make a sample for roof sheeting and side cladding and before proceeding further, shall obtain a written approval from Owner/Engineer- In-Charge/Consultant. After approval of the sample, the Contractor shall ensure that the work is in line with the approved sample. In case of any discrepancy, the Contractor shall replace the same at his own cost.
- The Erection Method Statement above shall include a QAP system which shall be followed at site to achieve the required alignment, tolerances in erection, required finishing in sheeting, side cladding etc.

Bolt Tightening

- Ordinarily bolts Grade 4.6 to IS 1367 shall be tightened to a “snug tight” fit. “Snug tight” is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench.
- High tensile bolts Grade 8.8 to IS 3757 shall be tightened to a torque of approximately 85% of the proof load of the bolt, by means of a power or hand operated torque wrench.
- Bolts shall be tightened to the torques given in the following table:

Table 15

Bolt Diameter for Bolt Class 8.8 of IS 3757	Torque to be applied (Nm)
M20	476
M24	822
M30	1630
M36	2850

- The overall work shall be carried out in a manner such that the work of other agencies operating at the site is not hampered due to any action of the PEB Contractor. Proper and timely coordination with other agencies shall be the responsibility of the Contractor. In case of any dispute, the decision of the Engineer-in-Charge shall be final and binding to the PEB Contractor.
- The size and location of concrete foundations and casting of anchor-bolt inserts into foundation walls and footings shall be coordinated.
- The installation of fire suppression system, equipment supports, piping and supports, and accessories shall be coordinated.
- The installation of plumbing system, equipment supports, piping and supports, and accessories shall be coordinated.
- The installation of electrical cable tray system supports and accessories shall be coordinated.
- The installation of rolling shutters and its accessories shall be coordinated.
- The installation of HVAC system, equipment supports, ductwork and supports, piping and supports, and accessories shall be coordinated.
- The installation of roof curbs, equipment supports, and roof penetrations.
- The metal panel assemblies with rain drainage work, flashing, trim, and construction of supports and other adjoining work to provide a leak-proof, secure, and non-corrosive installation shall be

coordinated.

Material Tests

- The Contractor shall submit the manufacturer's quality certificates for all the
- Materials supplied by him, duly tested through NABL.
- In case the quality certificates are not available or are incomplete or when material quality differs from the standard specifications, such materials shall not be used in the construction. However, the Contractor shall obtain the appropriate confirmation from the Owner.
- Contractor shall conduct the test in approved test houses for the materials as directed by the Owner/Engineer-In-Charge/Consultant, at no extra cost, and submit the same to the Owner/Engineer-In-Charge/Consultant for his approval. The Owner/Engineer-In-Charge/Consultant may approve the use of such materials entirely at his own discretion.
- The Contractor shall ensure that all materials brought to the site are duly approved by the Owner/Engineer-In-Charge/Consultant. Rejected materials shall not be used and shall be removed from the site forthwith. Any material of unreliable quality for which specific tests are to be carried out as per the instructions of the Owner/Engineer-In-Charge/Consultant, shall be properly identified and separately stacked. These materials shall be removed from site forthwith.

Safety Precautions

- Contractor shall take all the necessary precautions for the safety of his own personnel as well as of others working in the site area.
- Welders shall be provided with safety goggles and gloves, etc. All the personnel working at the construction site shall be provided with safety helmets. Personnel working at higher elevations shall be provided with safety belts. Adequate first aid facilities shall be provided by the Contractor at his own cost. Any negligence on the part of the Contractor in terms of safety measures would be examined extensively and the consequences arising due to such negligence shall be the sole responsibility of the Contractor.
- Contractor shall take the precautionary measures, such as providing sheets/covers below the welding area to provide protection against falling liquid metal and sparks. Area where welding is to be done shall be suitably barricaded to prevent movement of personnel underneath and signboards shall be put in areas where erection/welding is to be done.
- HSE policy shall be referred.

Warranties/Test Certificates

- The Contractor shall also submit a written warranty against design and construction failure of the building which shall include the designed loads and, in particular, shall clearly state all the conditions for which the warranty shall not be applicable.
- Contractor shall also submit the test certificates for the items listed above. The list is not comprehensive and the Owner/Engineer-In-Charge/Consultant may ask for the following additional certificates during the progress of the job as per relevant Indian standards:
 - 1) Certificate for the source of structure with steel number
 - 2) Test reports for structural steel e.g. yield, minimum tensile strength, elongation etc. As per IS2062
 - 3) Chemical composition of structural steel
 - 4) Mechanical properties for fasteners i.e. bolt nuts etc.
 - 5) Chemical and mechanical tests for sheets.
- The Owner/Engineer-In-Charge/Consultant shall reserve the right to test any material at any time during the implementation of the works. If the material is not found to meet the criteria as per the Indian Standards, it shall be replaced by the Contractor at his own cost without any implication to the Time Schedule.

NOTE: Warranty terms shall be submitted with 73he bid.

Performance Warranty Certificates:

Contractor shall submit the Performance Warranty Certificate for the following (but not limited to):

- (a) Structural stability
- (b) Leakage
- (c) Coating on structures against corrosion

Inspection and Quality

- Testing of all materials and quality control plan shall be submitted to the Owner and the compliance to the same shall be confirmed before manufacturing is commenced.
- Contractor shall be fully responsible for the quality of erection even when the erection is carried out by the Sub-Contractor. Contractor shall be responsible for any defects in the erection of building or for defects such as loose connections, missing parts, roof leaks, and damaged sheets, omission of sealer, scratched surfaces, poor alignment, inadequate drainage, and defects caused by others. In case of any defect as mentioned above or any other defect observed at the site, the Contractor shall provide an action plan to correct the same to the satisfaction of the Owner/Engineer-In-Charge/Consultant.
- All aspects of quality assurance including procurement and testing of materials certificates and other components of work shall be submitted to the Owner's QA Engineer/Inspect or and to the Consultant for inspection.
- All materials and construction shall conform to the material and painting specifications given in the erection of the Pre-Engineered Building. Erection shall only be done in the presence/guidance of the Contractor's experts.
- In addition to the alignment of the building to the correct line and level, it shall be the responsibility of the Contractor to erect a gantry girder in true line and level as per the requirement of the crane manufacturer. Gantry girder erection shall be accepted only after crane manufacturer jointly carries out the inspection with the PEB manufacturer's engineer and confirms the same in writing.
- Contractor shall submit three (3) sets of design calculations (one each for the Owner, Consultant and Proof Checker). Similarly six sets of drawings shall be submitted (two sets each for the Owner, Consultant and Proof Checker). Comments shall be conveyed in writing for the design calculations and marked on the drawing.
- Contractor shall prepare the Approval Drawings to ensure that interpretation of all the customer requirements have been accurately incorporated and attended to.

Execution

Examination

The Erector shall examine the present concrete foundation dimensions, concrete and/or masonry bearing surfaces, anchor bolt size and placement, survey slab elevation, locations of bearing plates, and other embedment and receive the structural framing with the metal building manufacturer's templates and drawings before erecting any steel components in order to conform its compliance with the requirement for installation tolerances and other conditions affecting the performance of the work.

- The Primary and Secondary framing shall be examined to verify that the rafters, purlins, angles, channels, and other structural and metal panel support members and anchorages have been installed within alignment tolerances.

The roughing-in shall be examined for components and systems of penetrating metal roof or wall panels to verify the actual locations of penetrations relative to seam locations of metal panels prior to installing metal roof or wall panels.

A written report shall be submitted to the Engineer-In-Charge and endorsed by the Erector that lists conditions detrimental to the performance of the work, so they could be addressed accordingly.

Preparation

Temporary shoring, guys, braces, and other supports shall be provided during erection to keep the structural framing secure, plumb, and in alignment against temporary construction loading or loads equal in intensity of the building design loads. Temporary support systems shall be removed after the permanent structural framing, connections, and bracing have been placed, unless otherwise indicated.

The substrates of substances harmful to insulation shall be removed along with removing projections capable of interfering with the insulation attachment and performance.

Erection Of Structural Framing

The metal building system shall be erected according to the written erection instructions, approved shop drawings and other erection documents of the manufacturer.

Structural members shall not be field cut, drilled or altered without written approval from the Engineer-In-Charge.

Structural Framing shall be set accurately in locations and structural stability of the frame shall be maintained during erection.

Concrete and masonry bearing surfaces shall be cleaned and roughened prior to setting plates. Bottom surface of plates shall be cleaned.

Structural Framing shall be aligned and adjusted before permanent bolt-up and connections. Necessary adjustments and alignment shall be made to compensate for the changes or discrepancies in elevations.

Erection tolerances of structural framing shall be maintained.

Metal Wall Panel Installation

Metal wall panels of full length shall be provided from sill to eave or restricted by shipping limitations, unless otherwise indicated. Metal wall panels and other components of the work shall be securely anchored in place. Wall panel system shall be erected in accordance with the approved erection drawings, printed instructions and safety precautions of the metal building manufacturer.

Sheets shall not be subjected to overloading, abuse, or undue impact. Bent, chipped, or defective sheets shall not be installed.

Sheets shall be erected true and plumb and in exact alignment with the horizontal and vertical edges of the building, securely anchored, and with the indicated eave and sill.

Work shall be allowed for thermal movement of the wall panel, movement of the building structure, and to provide permanent freedom from noise due to wind pressure.

Roof Panel Installation

The metal roof panels of full length shall be provided from eave to ridge or eave to wall or restricted by shipping limitations, unless otherwise indicated. The metal roof panels and other components of the work shall be securely anchored.

The roofing system shall be erected in accordance with the approved erection drawings, printed instructions and safety precautions of the metal building manufacturer.

Sheets shall not be subjected to overloading, abuse, or undue impact. Bent, chipped, or defective sheets shall not be allowed.

Sheets shall be erected true and plumb and in exact alignment with the horizontal and vertical edges of the building, and shall securely be anchored with the indicated rake and eave overhang.

Work shall be allowed for thermal movement of the roofing, movement of the building structure, and to provide permanent freedom from noise due to wind pressure.

Storage, walking, wheeling, and trucking directly on the applied roofing materials shall not be permitted. Temporary walk ways, runways, and platforms of smooth clean boards or planks shall be provided as necessary to avoid damage to the installed roofing materials, and to distribute weight in conformation with the indicated live load limits of roof construction.

Metal Panel Fastener Installation

Metal panels and other components of work shall be anchored securely in place using fasteners

according to the specifications and manufacturer's written instructions.

Flashing, Trim And Closure Installation

Compliance shall be provided with performance requirements and manufacturer's written installation instructions. Concealed fasteners shall be provided wherever possible, and units shall be set true to line and level as indicated. Work with laps, joints, and seams shall be installed that will be permanently water tight and weather resistant.

Sheet metal work is to be accomplished to form weather-tight construction without waves, warps, buckles, fastening stresses or distortion, and allow for expansion and contraction. Cutting, fitting, drilling, and other operations in connection with sheet metal required to accommodate the work of other trades, is to be performed by sheet metal mechanics.

Accessory Installation

General

The accessories shall be installed with positive anchorage to the building and weather-tight mounting and provide for thermal expansion. Installation shall be coordinated with flashings and other components.

Dissimilar Metals

Where dissimilar metals or corrosive substrates are present, they shall be protected against galvanic action by painting dissimilar metal surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each surface, or by other permanent separation techniques as recommended by the metal building manufacturer.

Gutters and Downspouts

Installation of sheet metal roof drainage items to produce complete roof drainage system shall be done. Compliance with performance requirements and manufacturer's written installation instructions shall be assured. Installation of roof shall be done per the perimeter flashing with the installation of roof drainage system.

Roof and Wall Accessories and Specialties

Roof and wall accessories and specialties shall be installed completely with the necessary hardware, anchors, dampers, weather guards, rain caps, and equipment supports, unless otherwise indicated.

Clean-up and protection

Structural Framing

All the exposed structural framing shall be cleaned at the completion of installation. Metal shavings, filings, bolts, and wires shall be removed from the work area. Grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings and drilling debris and shall be removed. Exposed metal surfaces shall be free of dents, creases, waves, scratch marks, solder or weld marks, and damage to the finish coating.

Metal Panels

All the exposed sheet metal work at the completion of installation shall be cleaned. Metal shavings, filings, nails, bolts, and wires shall be removed from the work area. Protective coverings/films, grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings and drilling debris shall be removed. The exposed metal surfaces shall be free of dents, creases, waves, scratch marks, solder or weld marks, and damage to the finish coating.

Touch-Up Painting

After erection, the field connections, rust spots, and abraded surfaces of prime-painted structural framing and accessories shall be promptly cleaned, prepared, and primed or re-primed.

Waste Management

Scrap/waste debris shall be collected and placed in the containers. It shall be promptly disposed and not be allowed to accumulate on-site. The debris shall be transported from the government property and shall be legally disposed.

Painting of PEB structure

- All Components of Pre- Engineered Building system (above 2.0mm thick) shall be painted with two coats of minimum each coat of 100 micron DFT High Build self-priming epoxy primer (Composition: Modified epoxy, cured with polyamidoamine) and two coat of high performance Acrylic Polyurethane high glossy finish paint (Composition: Acrylic resin with urethane hardener, cured with aliphatic isocyanides) of total minimum 50 micron DFT of approved colour shade (gross total minimum DFT shall be 250 micron), as per manufacturer's recommendations, on structural steel including preparation of surface by shot Blasted with grade SA 2.5/ Copper slag and thoroughly cleaning of oil, dirt, dust, rust & scale by fresh water jet cleaning, wire brushing, power tool cleaning, mechanical scrapers, etc. of approved shade either of Asian or Berger make with High / glossy / Mat finish complete in all respect.
- The Cold formed sections either "Z" or "C" shape made out of Steel Strips with thickness up to 2.0 mm of Pre- Engineered Building system shall be Galvanized as per ASTM A 1011M SS Gr 50-class-2 340 Mpa black, ASTM A 653 pre-galvanize with Minimum coating thickness of 275 GSM

Providing & supplying of Colour coated Galvalume 0.58 TCT sheet with SMP finish for roofing & 0.50 TCT with SMP finish for cladding

- Supply & Installation of the Roof shall be provided with 0.58 mm TCT Colored Galvalume sheet High Rib Color coated Galvalume sheet and 0.50mm TCT Colored Galvalume sheet high rib colour coated for cladding having High Tensile Zinc Aluminum Alloy coated with class AZ150 confirming to IS 1397. Alloy consists of about 55% Aluminum, 43.5% zinc & 1.5% Silicon. The Weathering surface to be given a finish coat of nominal 20-micron SMP. Paint & rear side to have neutral back coating of nominal 5micron.
- The sheeting work including Procurement & supply of approved make, approve colour and approved profile Galvalume sheet including transportation, loading, unloading, shifting to various work locations. Cutting, shifting, lifting, alignment and fixing in roofing & wall cladding. Roof and wall panels are fastened by No.12 carbon steel self-drilling screws mechanically coated with polymer finish with an integral washer head to which an EPD Melastomer layer is bonded. Self-drilling screws are conforming to AS : 3566class-3 approved EPDM washers fixed by appropriate size of fasteners either of **Corroshield or Hilti or Fisher** make with require overlapping of sheets and by adopting all the safety precautions such as fixing of safety nets, lifeline and fall back arrestors as per the requirements at various work location
- **NOTE:** Color scheme for the wall cladding shall be as per the details prepared by the Consultants and approved by the Owner.

TESTING OF MATERIALS

- Samples of various materials required for testing shall be provided free of cost by the contractor. Testing charges, if any, shall be borne by the contractor. All other expenditures required to be incurred for taking the samples, conveyance, packing etc. shall be borne by the contractor himself.
- The contractor shall produce all the materials in advance so that there is sufficient time for testing and approval of the materials and clearance before use in work. The Engineer incharge shall be at liberty to test representative sample(s) of each item of
- schedule of quantity in any approved laboratory as decided by him. The sample of testing shall be provided by the contractor free of cost. Any expenditure required to be incurred for taking sample, Conveyance and packing shall be borne by the contractor. In case of any sample of particular lot

fails in testing the contractor shall be bound to replace the entire lot with fresh material of prescribed specifications. The rejected lot shall be returned to the contractor only after fresh lot is supplied.

- Quality of cement concrete as revealed in the test results of 7 days cubes falling short of the prescribed standards by over 10% to 20% and pending testing of balance 3 cubes for 28 days as final confirmatory acceptance tests, crushed samples of cement concrete from the failed 7 days cubes should be preserved in a sealed bag.
- In case of concrete and reinforced concrete work, the contractor shall be required to make arrangement for carrying out crushing strength tests at his own cost. He shall render all assistance for the preparation of cubes, safe custody of the same, proper curing and carriage upto the laboratory where the test is to be performed. The cube test can be performed at any laboratory approved by the Engineer-in-charge.
- The contractor shall arrange carrying out of all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all to and from carriage charges in connection therewith. The cost of tests shall be borne by the contractor.

MISCELLANEOUS & ALLIED WORKS

Plumbing & Sanitary

The Scope of work of the Contractor shall be as under:

- Detailed Designing and preparation of Shop drawings and its approval
- Supply, fabrication, Construction, Installation and Commissioning.
- Obtaining Completion / Approval from Local Municipal Authority.

Further, details are as under:

The Plumbing/Sanitary Design & Schematic/Line drawings is part of Scope of work. The detailed fabrication/execution drawings & shop drawings, as required at site are to be prepared by the Contractor and got approved from ICAT / STA(ODISHA) before proceeding with the work.

- a. The preparation of Sanitary/Plumbing fabrication & shop drawings expressly (but not limited to) includes the following:
 - i. Integration of detailed shop drawings with Civil/Structural details and obtaining approval from ICAT / STA(ODISHA) before execution of works.
 - ii. Preparation of fabrication & shop drawings on a software like AutoCAD etc. of each and every part of building having a sanitary/plumbing aspect within Scope of work on suitable scale.
- b. The Execution of Plumbing/Sanitary work for buildings /spaces as per Scope of the work, DBR, Technical Specifications and Drawings. The Sleeves, cutout, Drainage arrangement, embedment, concealed piping, hot & cold-water arrangement, overhead tanks, water recycling system etc. and connecting the service to the main line of are expressly included (but not limited to) in the scope of work.
- c. The toilets are to be completely fitted & finished including all plumbing & sanitary fixtures & fitting.
- d. External Water Supply & Sewerage, Storm Water Drainage System, Drainage System, Rain Water Harvesting including Recharge Wells. The scope of work of the Contractor shall be as under:-
 - i. All Internal PHE Services has to be Connected to External Services.
 - ii. Detailed Designing and preparation of Shop drawings and its approval.
 - iii. Supply, fabrication, Construction, Installation and Commissioning
 - iv. Obtaining Approval / Completion from Local Municipal Body.

ELECTRIFICATION WORK

On the basis of Client requirements and discussions, the internal/external electrification details are worked out. The electrical layout drawings have been prepared accordingly. The brief system designed criteria is presented for quick review keeping in view the following codes and parameters.

1. The system shall provide:

- a) Safety to personnel
- b) Minimum fire hazards and risk
- c) Reliability of power supply to the extent possible
- d) Ease of maintenance
- e) Automatic protection of all electrical equipments through selective protective relaying system.
- f) Power supply to electrical equipments and utility services
- g) Earthing protection system
- h) Electrical wiring, communications (telephone wiring, computer wiring).
- i) Addressable Fire Detection system.

2. STANDARDS & CODES

- a) B.I.S. : Bureau of Indian Standards
- b) I.E.C. : International Electro-technical Commission
- c) N.E.C. / I.E.R. : National Electrical Code / Indian Electricity Rules
- d) F.I.R./T.A.C : Regulation Laid Down by Fire Insurance/Tariff Advisory Committee
- e) Regulation laid down by the Electrical Inspectorate, State Electricity Board.
- f) Any other Regulations laid down by the Central and State Government Authorities.

3. LV POWER DISTRIBUTION SYSTEM

- a) Voltage 415 V
- b) Neutral Earthing (Grounding) Solid

4. VOLTAGE FOR LIGHTING DISTRIBUTION**Nominal Lighting**

- a) Voltage 240 V
- b) Frequency 50 Hz.
- c) Source Main Supply / D.G. Supply

5. Emergency Lighting (Battery operated with self-Charger 12V)

- a) Voltage 240V, 50 Hz.
- b) Source Main Supply/ DG supply

6. ILLUMINATION

Illumination levels for various building will be decided on the basis of BIS No. 10322 Part-5 Section-I-1985.

Energy efficient light fixtures are considered with LED lamps, T-5 lamps, electronic ballast with high power factor.

Also light fixtures used in office areas are direct/ in-direct lighting luminaries to provide a glare-free environment.

In the area, Laboratories, area etc as per NBC-2016 Fixtures is considered.

7. POINT WIRING

The internal wiring for light, convenience outlets will be carried over with recessed PVC conduit in ceiling/walls/floor using copper conductor multi-stranded FRLS PVC insulated single core 1.1 KV grade wires / cable. Surface conduit wiring will be done in area having false ceiling as well as in Utility area. Internal wiring will be done as per IS: 732. Fixture and the third pin of outlet will be connected to earth by FRLS PVC insulated solid Cu wire.

The Light fixtures in the rooms are controlled by switches provided in the same room, whereas light fixtures in the corridor are DB controlled.

8. DISTRIBUTION SYSTEM

Each row is provided with a LD Panel & HD Panel (From Main Distribution board) and required number of distribution boards for light, Power & AC loads respectively. These distribution boards are fed from the MDB provided in the respective floor.

9. DISTRIBUTION BOARD (DB)

Concealed type distribution board with miniature circuit breaker (MCB) having O/L and S.C. protection and backed by Earth Leakage Circuit Breaker (ELCB)/RCCB are recommended keeping in view the safety.

10. EARTHING

Luminaries and convenience outlet will be wired through conduit wiring and terminated and connected in Distribution Board. Distribution boards will be connected to main earth grid through sub-mains i.e. within conduit or cable with external earth wire. The earthing system will be done meeting the requirement of IS: 3043.

11. TELEPHONE SYSTEM/ COMMUNICATION CABLING

On the basis of requirement of the building, telephone floor tag block connected with main tag block through un-armoured cable on rack (tray) above false ceiling. Provision has been made to receive telephone lines from State Government/ existing exchange. All areas are provided with required number of telephone outlets. Internal telephone point wiring between telephone to tag block in concealed conduit with 2/10/15/20 pair telephone cable shall be provided.

For computer networking cat-6 cables are considered and RJ-45 outlets are provided in all the residences and the other required areas. All the points shall be connected to the existing server.

12. FIRE ALARM SYSTEM

Early warning addressable type fire alarm. System with evacuation & paging to meet the requirement of TAC/NFPA. Smoke, heat photoelectric detectors, manual call station will be provided and wired up to the main F.A. Control panel for the building. The Master Control Panel will be installed at Chief Engineer/Security Office where the 24 hours attendant is present. In case of fire the area under fire will be sensed, analyzed and signal will be sent to Master Control Panel for deciding and actuating the devices etc. Hooters as well as the area indication light will start flickering.

Repeater panel to repeat the message from main panel shall be installed at security gate wall.

The Evacuation cum Paging System will also be linked to the main F.A. Panel for announcement.

Fire fighters telephone with auto-dialer facility in case of fire is also considered.

13. BATTERY OPERATED EMERGENCY/ EXIT LIGHT

Battery operated re-chargeable type emergency EXIT lights with 1 Nos. 11-Watt FSD lamps have been provided near the Staircases to facilitate and expedite the evacuation in case of fire.

14. FRLS WIRE / CABLES

FRLS PVC insulated copper conductor wire 1.1 KV grade shall be used in conduit for internal electrification XLPE insulated Aluminium conductor armoured cables shall be and for power distribution through underground trench/overhead cable trays / GI pipe etc.

15. MOTION DETECTORS

All toilets are provided with motion detectors or occupancy sensors. Since toilets are one of the areas where in which the electricity is most wasted even in unused conditions, occupancy sensors are provided to switch ON/OFF the lights when not in use.

16. DIESEL GENERATOR BACKUP SUPPLY

We propose to install the following capacities of DG sets in the sub-station.

For backup supply considering power factor of 0.80, loading factor of 85% and efficiency of 94%, the required DG set sizes are **1 Nos. 83.5 kVA & 1 Nos. 50 kVA**

17. ESTIMATED LOADS

The estimated maximum demand for the whole campus is **162.25.kVA**

Considering power factor of 0.80, loading factor of 80% and efficiency of 95% , the required transformer sizes are **1 x 200kVA**

Please refer the load calculation for details.

Table 16

SUMMARY OF LOADS							
Sl. No.	Items	Unit	Qty.	Load in KW	Total Load in KW	Maximum Load Factor	Maximum Load in KW
A.	Light & Power Load						
	Shed & office	Nos.	1	24.01	24.01	100%	24.01
	Total load				24.01		24.01
B	AC Load						
	Shed & office	Nos.	1	12.00	12.00	80%	9.60
	Total load				12.00		9.60
C	Equipment load						
	Light Duty Lane-01						
1	Gas analyzer and smokemeter	Nos.	1	0.3	0.30	100%	0.30
2	Speedometer	Nos.	1	3	3.00	100%	3.00
3	Light beam testers	Nos.	1	0.1	0.10	100%	0.10
4	Side slip	Nos.	1	0.4	0.40	100%	0.40
5	Extraction blower	Nos.	1	2.2	2.20	100%	2.20
6	Play detectors	Nos.	1	3	3.00	100%	3.00
7	HGV brake tester	Nos.	0	22	0.00	100%	0.00
8	Light duty brake tester / suspension tester	Nos.	1	9	9.00	100%	9.00
	Total				9.00		18

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

RFB No.: LX- 10/2024/1504/TC

Dated: 27.01.2024

	Heavy Duty Lane-01						
1	Gas analyzer and smokemeter	Nos.	2	0.3	0.60	100%	0.60
2	Speedometer	Nos.	1	3	3.00	100%	3.00
3	Light beam testers	Nos.	1	0.1	0.10	100%	0.10
4	Side slip	Nos.	1	0.4	0.40	100%	0.40
5	Extraction blower	Nos.	2	2.2	4.40	100%	4.40
6	Play detectors	Nos.	1	3	3.00	100%	3.00
7	HGV brake tester	Nos.	1	22	22.00	100%	22.00
8	Light duty brake tester / suspension tester	Nos.	0	9	0.00	100%	0.00
	Total				11.5		33.5
	Compressor load	Nos.	1	10	10.00	100%	10.00
	UPS equipment load	Nos.	1	24	24.00	80%	19.20
	Total equipment Load				20.50		80.70
D	Miscellaneous load						
1	Water Supply Load	Nos.	1	5.00	5.00	80%	4.00
2	Street Lighting Load	Nos.	1	5.00	5.00	100%	5.00
3	Fire Fighting load	Nos.	1	25.00	25.00	0%	0.00
	Total Load				35.00		9.00
	TOTAL LOAD IN KILOWATTS				91.51		123.31
	<u>D.G. SET LOAD – Equipment and shed</u>						
	TOTAL LOAD (IN KW)					80.70	kW
	TOTAL LOAD (IN KVA)	pf = .80				100.88	kVA
	OVERALL DIVERSITY FACTOR	80%				80.70	kVA
	DG SET EFFICIENCY	90%				89.67	kVA
	DG SET LOADING FACTOR	80%				112.08	kVA
	Required DG SET Size- 1 Nos. 83.5 KVA + 1 nos. 50 KVA						
	<u>TRANSFORMER LOAD</u>						
	TOTAL LOAD (IN					123.31	kW

	KW)						
	TOTAL LOAD (IN KVA)	Pf = .80				154.14	kVA
	OVERALL DIVERSITY FACTOR	80%				123.31	kVA
	TRANSFORMER EFFICIENCY	95%				129.80	kVA
	TRANSFORMER LOADING FACTOR	80%				162.25	kVA
Required Transformer Size- 1 Nos. 200 KVA							

FINISHING SCHEDULE

Table 17

NO.	ROOM	FLOOR	WALL	CEILING	SKIRTING/ DADO
1	DG PLATFORM	Trimix Concrete Floor.	OBD	26 guage single skin galvalume sheet (0.5TCT) colour coated sheets	
2	COMPRESSOR ROOM	Vitrified tiles double charged Size not less than 600x600mm		12.5 mm thick tapered edge gypsum moisture resistant ceiling 600mm x 600mm	
3	TOILETS	Anti Skid Ceramic Tiles MattFinish of size not less than 300mmx 300mm	ceramic tiles matt finish than 300mm x 600mm in all toilets	-Do-	ceramic tiles matt finish than 300mm x 600mm in all toilets
4	STAFF ROOM	Vitrified tiles double charged Size not less than 600x600mm		-Do-	
5	CORRIDOR	-Do-		-Do-	
6	CONFERENCE HALL	-Do-		-Do-	
7	MVI	-Do-		-Do-	
8	TOKEN/CASHIER	-Do-		-Do-	

9	CENTRE MANAGER	-Do-		-Do-	
10	CUSTOMER LOUNGE	-Do-		-Do-	
11	PANTRY	-Do-		-Do-	ceramic tiles matt finish than 300mm x 600mm
12	ENTRANCE PORCH	Marble tiles (polished) Raj Nagar.		-Do-	
13	ELECTRICAL ROOM	Vitrified tiles double charged Size not less than 600x600mm		26 guage single skin galvalume sheet (0.5TCT) colour coated sheets	
14	LANE	VD Flooring with Paint markings		-Do-	
15	LANE ENTRY RAMP	M40 Cement Concrete tiles	Texture paint as per design	-Do-	
16	WASHBASIN	Over Counter ceramic wash basin with mixer taps with 20mm granite counter			
17	WATER CLOSET	Floor mounted WC with concealed cistern			
18	CP FITTINGS	Chrome finish Mixer taps with hot and cold , all plumbing fittings are C.P Brass fittings			
19	Main Door Frame/shutter	2nd Class Teak Wood Frame with 35 mm Thick Flush Door with decorative veneer on both side with melamine polish with SS hardware.			
20	INTERNAL DOORS	2nd Class Polished Teak Wood Frame with 35 mm Thick Flush Door with decorative veneer on both side with			
21		melamine polish and SS Hardware.			
22	INTERNAL DOOR FOR TOILETS	30mm thk. PVC door			
23	GLAZING AND WINDOWS	Powder coated aluminium			
24	ENTRANCE RAMPS	Flamed Granite (any type may be mentioned) of Different Shades and patterns			
25	RAMPS/PAVEMENTS	Granite of Different Shades and patterns			
26	FIRE SHUTTERS	SPECIFICATION AS PER CPWD NORMS/Fire Department Approval			
27	DOOR FRAMES (FIRE)	SPECIFICATION AS PER CPWD NORMS Fire Department Approval			

APPROVED MAKE LIST
Table 18

Sl. No.	Description of Items	Name of Vendor
1	Cement: OPC 43 Grade:	ACC, Birla, Ultratech, Dalmia,SRI
2	Reinforcement Steel: Fe-500, TMT/HYSD	SAIL, TISCO, ZINDAL,JSPL
3	Structural Steel: IS-226,2062 Grade-A/B	SAIL, TISCO, RINL, JINDAL
4	Vitrified/Ceramic Tiles	Kajaria, Bell, Jhonson, Somany
5	Bare/Colour Gal valume Profile Sheet.	BlueScope, Dongbu or equivalent.
6	All Aluminium sections	ZINDAL, INDAL,MAHAVIR
7	Glass	Modi, Saint Gobian, asahi.
8	Paint	BERGER, ASIAN,
9	Sheeting Fasteners	Hilty or equivalent.
10	Furniture	Godrej, Featherlite, Geeken.

LIST OF VENDORS FOR PEB SYSTEMS

Table 19

Sl. No.	Vendors	<u>NOTE</u>
1	Zamil Steel Buildings India (P) Ltd.	A list of PEB manufacturers are given here for the reference (only) of the Bidders. Any other PEB manufacturer(s) with adequate capacity, experience and QA/QC capability at the discretion of STA(Odisha) will also be permitted as vendor. The successful Bidder shall have to get the prior approval from STA (Odisha) for the vendor (Sub-Contractor) selected by them before start of work.
2	Tata BlueScope Steel Limited.	
3	Interarch Building products (P) Ltd.	
4	Kirby Building Systems India Ltd.	
5	PEB Steel Lloyd India Ltd.	

LIST OF VENDORS FOR ELECTRICAL WORKS

Table 20

S.NO	DETAILS OF MATERIALS / EQUIPMENT	MANUFACTURER
1	Main Lt Panel And Motor Control Centre	Tricolite, Trident, Control & Switch Gear, Sterling & Wilson, Advance, Adlec, L&T, Siemens
2	MCCB, MCB, RCCB, ELCB	SCHNEIDER ELECTRIC (MERLIN GERIN), LARSEN & TOUBRO (HAGER), ABB (SERIES),GE (C&I)-SAFELINE RANGE, SEIMENS
3	Distribution Board	Schneider Electric (Merlin Gerin)-Master Pact Nw), ABB-E Max , Larsen & Toubro U Power, Siemens 3wl, GE
4	Poly Carbonate MCB DB	Hensel/Legrand Or Equivalent
5	Change Over Switch	Larsen & Toubro, Hpl-Socomec, Ge, Siemens, Schneider

6	Metal Clad Sheet Steel Enclosure Socket/Plug Box	L&T/GE/Mds/Crompton /Siemens/Schneider/ Hensel
7	Switch Fuse Unit, HRC Fuse	L&t -f- line, ABB, GE (c&i). Siemens
8	Hrc Hbc Fuses & Bases	L&T/Siemens/GE/Schneider
9	Automatic Transfer Switches	L&T/Siemens/GE/Schneider
10	Load Break Switches	L&T/Siemens/GE/Schneider
11	Protection Relay (Numeric Type)	Alstom, Abb, Siemens, L&T, Schneider
12	Modular Plate Switches And Sockets	Clipsal/Crabtree/Mk/ABB/Philips
13	Overload Relays With Built In Single Phase Preventer	Larsen & Toubro (Esbee), Siemens, Schneider Electric (Telemecanique-Ldr Series)
14	Electronic Digital Meters (A/V/Pf/Hz/Kw/Kwh) With LED Display	Cg Schlumberger, Secure, L&T-Conzerv
15	Bustrunking Rising Mains	Same Make As That Of The Lt Panels
16	Automatic Power Factor Correction Relay(Numeric Type)	Bleuk (Germany), Larsen & Toubro, Abb, Epcos, Alstom
17	Xlpe Aluminium/Copper Conductor Armoured Mv Cables Upto 1100 V Grade	Fort Gloster, Finolex, Rpg(Asian), Rr Kabel, Skytone, Havells
18	1100 Volts Grade Frls Pvc Control Cables	Fort Gloster, Finolex, Skytone, Havells, Anchor, L&T
19	11/33 Kv HT Cable	Fort Gloster, Nicco, Finolex, Rpg(Asian), Skytone, Havells
20	LT Jointing Kit / Termination	Raychem, Safe Kit, M-Seal
21	Cable Glands Double Compression With Earthing Links	Comet, Peeco, Gripwell, Dowells
22	Bimettalic Cable Lug	Dowell's , Lapp Kabel, Comet
23	Pvc Insulated Copper Conductor Stranded Flexible Wires (Frls)	Fort gloster, nicco, finolex, rpg(asian), esc,rr kabel, skytone, havells, l&T.
24	MS Conduit (ISI Approved)	Bec, Akg, Precision
25	Accessories For MS Conduit (ISI Approved)	Sharma Sales Corporation, Prakash Engineering Works, Super Sales Corporation
26	Pvc Conduit & Accessories (ISI Approved)	Bec, Precision, Polypack, Akg
27	Ceiling Fan/ Exhaust Fan	Crompton Greaves, Usha, Polar, Bajaj, Havells
28	Vcb/Ht Switchgear (11/33kv)	Siemens/Alstom/Crompton/Abb/ Schneider/Areva
29	Light Fixtures	Philips, Thorn, Keselec, Wipro, GE, Pierlite
30	External Lighting Fixture, Poles	Philips, Thorn, Keselec, Wipro, GE, Pierlite
31	Lamps	philips, osram
32	Selector Switch, Toggle Switch	salzer (larsen & toubro), kaycee, siemens
33	Timer In Distribution Boards	schneider electric (telemecanique), mds- lexic, larsen & toubro (hager), abb, siemens, ge(c&i)
37	LT Servo Automatic Voltage Stabilizer	icon, recon, selvon, automatic electric
38	Cable Trays (Factory Fabricated) /Raceways	venus/pilco/slottco/indiana/ profab/bharti / skaber

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

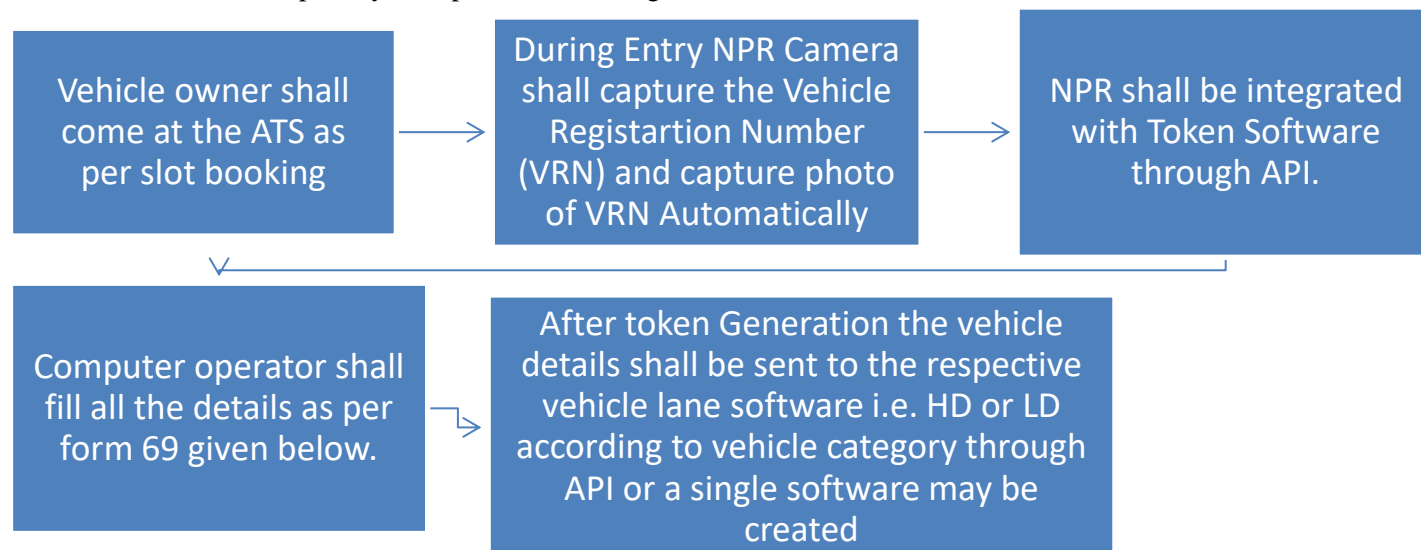
RFB No.: LX- 10/2024/1504/TC Dated: 27.01.2024

39	Fire Sealant	Birla 3M, Hilti, Promat
40	220/24v transformers	volstat electronics, automatic electric
41	Lighting High Mast System	philips, bajaj, keselec, crompton
42	Soft Starter	allen bradley, siemens, abb, l&t, schneider.
43	Variable Speed Drives	allen bradley, siemens, abb, l&t, schneider, danfoss.
44	Telephone/Data Outlets	clipsal/amp/systimax
45	Multi-Meters & Meggars	escrop/motwani or equivalent
46	Lighting Protection	indelec /piorteh/pouyet
47	Pumps	kirloskar/ksb/mather & platt/jyoti/beacon/worthington/grundfoss
48	Flexible Conduit	lapp/hensel/jainsons
49	Bakelite Sheet	hylam/formica/greenlam
50	Telecommunication Cable	batra henlay/finolex/ delton/ havells/ skytone
51	Tv Coaxial Cable	batra henlay/finolex/delton/ havells/ skytone
52	Computer/Data Cable	systimax/avaya/amp/clipsal
53	Tag Block	krone/ericcson
54	Motors	siemens/ kirloskar/ crompton/abb

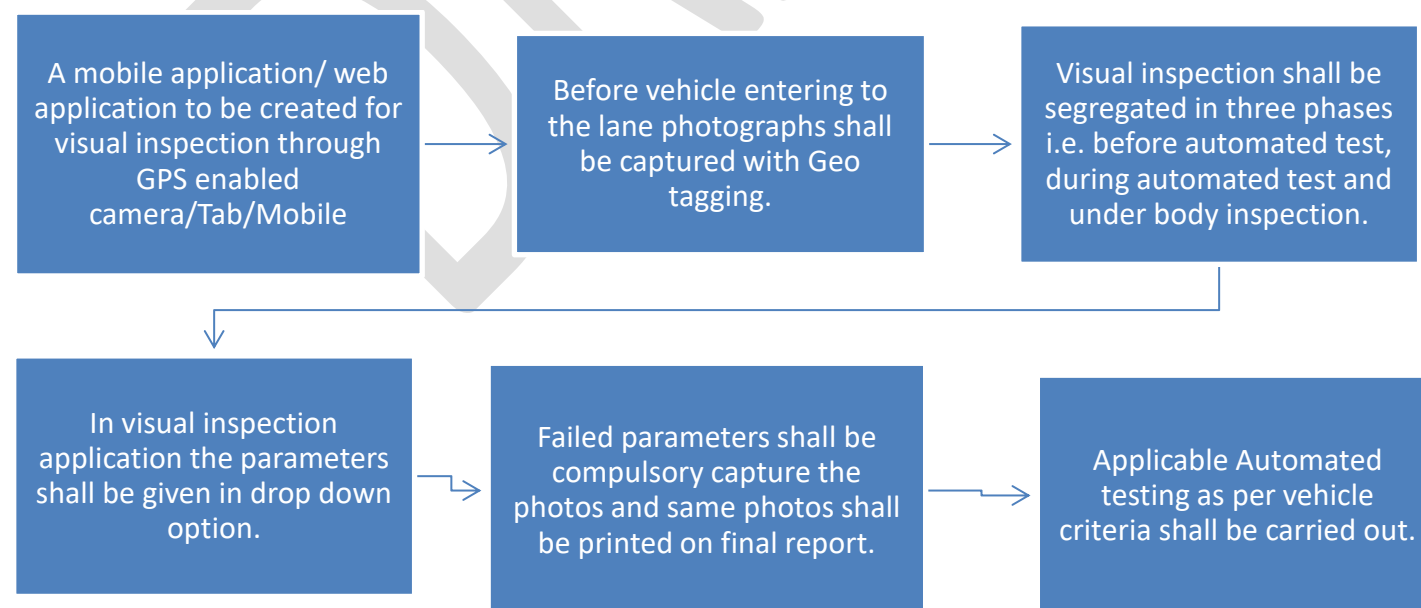
Section 4 (B)

Token/ Lane Management Software features and details

1. Process flow to be opted by the operator for testing of vehicle at ATS as below



Details of Vehicle										
Registration no.	Vehicle Class	Make	Model	Engine Number	Chassis Number	Fuel Type	Emission Norms	Speed Governor number (if any)	GVW (kg)	Year of Mfg.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)



At first Page of Test Report

Name, logo & details of the ATS Operator

QR Code	<GPS coordinated date and time>
	<Picture of the Registration Plate of the Vehicle>

At Last Page of Test Report

(5). Inspection Photos (to be uploaded):

2. Token Software features and requirements

- Inward of vehicle with required information as per form 69 (Test Report Format)
- Integration with NPR camera for fetching vehicle identification number
- The software should be capable of fetching required vehicle data from NIC database when given access by the NIC, NPR shall read the vehicle registration number and download all the data from vahan server/ electronic portal setup by central government.
- Till the time access is not granted by the NIC the NPR camera shall capture all the vehicle number plate and provide all the registration number in Txt. Or similar format read by the software through API. Also NPR should capture the number plate image which shall be printed in report along with the GPS coordinates of the captured image.
- Scheduling and lane management.
- Integration with vehicle testing software.
- Visual inspection of vehicle
- Collection of Automated testing data from vehicle testing software
- Compilation of all the automated and visual test data
- Generate Report as per form 69 of CMVR
- Integration with vahan server/ electronic portal setup by central government
- Digital signature on Test report generated through remote application interface
- Upload the test report in vahan server/ electronic portal setup by central government in the format specified by NIC
- MIS features such as: Monthly/Yearly/ Daily reports, Equipment wise report, Data mining, Data visualization through Various Charts and reports etc.

Token Software modules

Module 1
Vehicle Registration
through manual/
Govt. Portal
integration

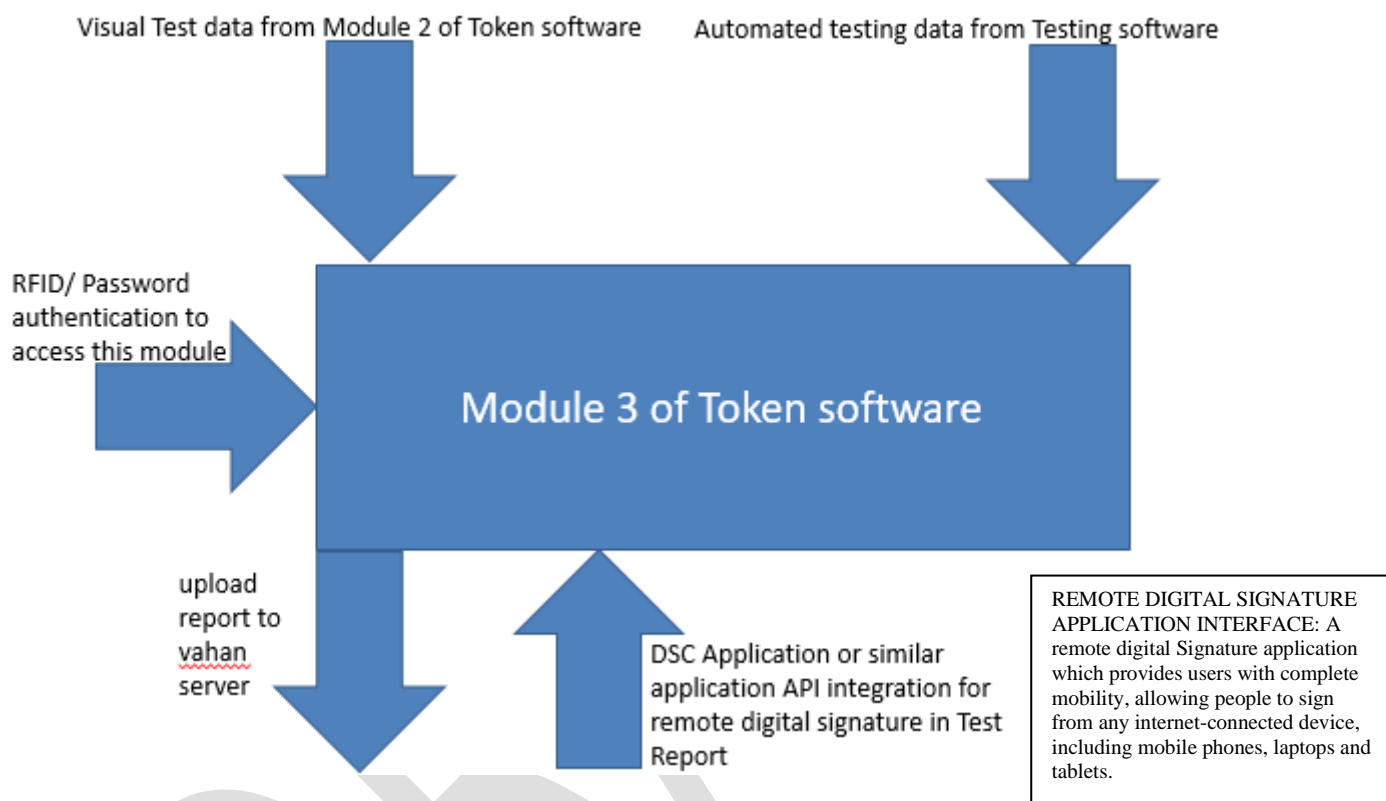
Module 2
Visual Inspection
in two stages

Module 3

- Report compilation
- Report Generation
- Digital signature
- upload report to electronic portal setup by central government server

- xv. Visual inspection should be defined in 2 stages as below:
- Pre automated test inspection: visual parameter shall be checked by the officials empowered & appointed by Transport Commissioner, Odisha such as MVI/AMVI/Jr MVI.
 - During Automated test: visual parameter shall be inspected by the officials empowered & appointed by Transport Commissioner, Odisha such as MVI/AMVI/Jr MVI.

Visual inspection parameter shall be defined in stage wise during implementation of the project.



- xvi. Token software should have multiple levels of access, viz programmer/service engineer, test engineer and operator and the software should have the capability to register the test appointments through web, mail and manually through telephone. Software should include facility for intimation of fitness test due through Mail/Mobile/SMS. Bidder should send SMS / mail to those vehicle owners that have passed as per Vehicle Testing report / record of the Center. Bidder should also send the intimation of fitness test due through mail/SMS to those vehicle owners whose list will be provided by the respective RTO. Software should have integration with number plate camera system. The cost incurred for all the requirements mentioned in this paragraph shall be borne by the Successful Bidder.
- xvii. The Transport Commissioner, Odisha may require to update the report format of vehicle testing and other related activities from the Successful Bidder and this shall be done by the Successful Bidder at its own cost.
- xviii. Software should have the facility to issue the pass sticker on a pre-printed stationary. The pass sticker is to be given to the vehicle owner/operator only in case of vehicles passing the fitness test along with the test report and fitness certificate. The required stationary and all necessary hardware/software for PASS Sticker shall be provided by the Successful Bidder at its own cost.
- xix. Software – The Successful Bidder shall also have software having following features:
- Software to be installed on the LAN.
 - Update the software as and when required and provide all necessary protocols to Transport Commissioner, Odisha.
 - Data management in the software like data storage, mining, archiving etc.
- xxiii. Software should be able to customize and generate test reports as required by Transport Commissioner, Odisha from time to time
- xxiv. The bidder shall provide all the software/hardware protocols to Transport Commissioner, Odisha at the end of the contract or in case of termination.

SECTION – 5

SITE DESCRIPTION

Important Instruction: Before quoting for this tender, Bidders are requested to visit the ATS to check the availability and actual conditions of the the proposed site, proposed layout of the site is provided in section 4 of this RFB.

Proposed ATS sites:

Table 21

S.No	Location	Address/ coordinates	Land Area Available
1.	Bhubneshwar	20°13'36.94"N 85°42'6.15"E	6 Acres
2.	Angul	20°49'49.41"N 85° 2'58.49"E	4.98 Acres
3.	Keonjhar	21°34'58.02"N 85°38'59.68"E	4 Acres
4.	Sambalpur	21°25'15.13"N 84° 1'32.88"E	3.5 Acres
5.	Rourkela	22°17'35.77"N 84°45'37.17"E	4.1 Acres
6.	Ganjam	19°10'22.67"N 84°43'6.90"E	3.5 Acres
7.	Chandikhole	20°42'54.59"N 86° 5'17.42"E	4.5 Acres
8.	Mayurbhanj (Baripada)	21°54'35.11"N 86°47'15.72"E	2.5 Acres
9.	Koraput	18°46'59.21"N 82°44'53.33"E	3.98 Acres
10.	Balasore	21°25'6.88"N 86°48'31.55"E	3 Acres
11.	Nayagarh	20° 5'57.90"N 85° 4'27.07"E	2 Acres
12.	Nuapada	20°51'20.46"N 82°30'55.14"E	1.5 Acres
13.	Bargarh	21°15'27.68"N 83°34'54.72"E	3 Acres
14.	Kendrapada	20°34'21.79"N 86°17'45.53"E	3.1 Acres
15.	Jharsughoda	21°53'22.55"N 84° 0'14.64"E	3 Acres
16.	Sundergarh	22° 6'54.46"N 84° 2'57.39"E	2.5 Acres
17.	Bhawani Patna (Kalahandi)	19°54'57.79"N 83°11'27.78"E	2 Acres
18.	Nowrangpur	19°19'35.84"N 82°29'44.53"E	3 Acres
19.	Cuttack	20°26'16.74"N 85°52'52.52"E	2.5 Acres
20.	Jagatsinghpur	20°19'52.33"N 86°34'31.42"E	2.5 Acres
21.	Boudh	20.857978° 84.229682°	2 Acre

GENERAL DESCRIPTION

5.1 Operating Conditions at Testing Station

- Temperature: 0°c to +50 °c

- Humidity (RH): up to 95%
- 5.2** The Successful Bidder shall be responsible for paying all charges in connection with consumption of electricity, calibration gases, water and the disposal of sewage and other waste throughout the contract period.
- 5.3** The maintenance of utilities (including transformer and HT panel) provided by State Transport Authority shall be done by the Successful Bidder at its own cost throughout the contract period.
-

DRAFT

SECTION - 6**MINIMUM NUMBER AND MINIMUM QUALIFICATIONS OF MANPOWER**

6.1. The minimum requirement of manpower and their minimum qualifications for the smooth operation of the ATS shall be as per the following table, namely:-

Table 23

S.No.	Designation	Minimum Qualification
(1)	(2)	(3)
1.	Centre Head/Manager	As per CMVR Rule 179
2.	Information technology in charge/ System Analyst	As per CMVR Rule 179
3.	Data Entry Operator	As per CMVR Rule 179
4.	Driver (Light Motor Vehicle/Heavy Motor Vehicle)	As per CMVR Rule 179
5.	Lane in charge / Supervisor	As per CMVR Rule 179
6.	Lane Operator	As per CMVR Rule 179
7.	Maintenance Technician	As per CMVR Rule 179

6.2. Bidder shall quote the manpower per manpower charges designation wise in form (L) financial bid of this RFB.

6.3. Transport Commissioner, Odisha shall decide the number of manpower required as per the project requirement for each ATS location. Requirement shall be furnished to the selected bidder during operation period.

Note: The Successful Bidder of ATS shall ensure compliance of all the applicable laws for the time being in force, including Labour Laws and Minimum Wages Act. The manpower for house-keeping, security, horticulture and other office attendants shall also be provided by the Successful Bidder.

SECTION - 7 EQUIPMENT SPECIFICATIONS

- (1) The equipment used at ATS shall be capable of measuring maximum safe axle weight as notified under section 58 of the Motor vehicle Act.
- (2) The equipment shall be able to test all categories of vehicle under fitness regime.
- (3) The software of the equipment shall allow modification in the inspection system as required by Transport Commissioner, Odisha.
- (4) All equipment shall be able to operate in the following environmental conditions, namely: -
 - (i) temperature range 0°C to 55°C;
 - (ii) humidity up to 95%;
 - (iii) dust: Typical Indian testing condition.
- (5) The equipment used at ATS shall comply with the specifications as prescribed in sub-rule (5) of rule 190 of CMVR 1989, as amended from time to time. *If any discrepancy between specifications mentioned in this RFB and those provisioned in the CMVR 1989 occurs, the latter will prevail.*

Table 24

Sl. No.	Equipment	Technical Specification of Vehicle Testing Equipment	
		Light Commercial Vehicles	Medium and Heavy Commercial Vehicles
(1)	(2)	(3)	(4)
1	Roller brake tester	(a) Maximum measurable brake load is at least of 6kN (b) Difference in left and right braking efficiency (c) Brake load resolution $\leq 100\text{N}$ (d) Suitable roller diameter, length and separation as per the Matrix given in sub rule (7) of this rule (e) Provision for either lifting or braking of roller for easy exit of vehicle (f) Approximate Testing speed: $5\text{ km/h} \pm 1\text{ km/h}$ (g) Roller surface (i) Minimum frictional coefficient 0.6 (Supporting documents from Internationally certified agencies or NABL accredited labs in India for confirmation of minimum frictional coefficient of roller surface need to be provided). (ii) Service life: Minimum 25000 hrs (Self-declaration from OEM specifying required useful life of rollers without any damage need to be provided) (h) Measurement accuracy: within $\pm 100\text{N}$	(a) Maximum measurable brake load is at least of 40 kN. (b) Difference in left and right braking efficiency (c) Brake load resolution $\leq 100\text{N}$ (d) Suitable roller diameter, length and separation as per the Matrix given in sub rule (7) of this rule (h) Provision for either lifting or braking of roller for easy exit of vehicle (e) Approximate Testing speed: minimum 2.5 km/h (g) Roller surface (i) Minimum frictional coefficient 0.6 (Supporting documents from Internationally certified agencies or NABL accredited labs in India for confirmation of minimum frictional coefficient of roller surface need to be provided). (ii) Service life: Minimum 25000 hrs (Self-declaration from OEM specifying required useful life of rollers without any damage need to be provided) (h) Measurement accuracy: within $\pm 2\%$ of the measured value
2	Axle Weight Measurement	(a) Weighing scale for measurement of each axle weight is required. The system should determine this by adding together the axle weight, tare weight/ Kerb weight of the vehicle. (b) Axle weight measurement system can be separate or integrated within either Suspension Tester or Roller Brake Tester equipment. (c) Measuring Range: 0-3000 kg (d) Resolution: 5kg (e) Accuracy: $\pm 1\%$ of reading	(f) Weighing scale for measurement of each axle weight is required. The system should determine this by adding together axle weight, tare weight/ Kerb weight of the vehicle. (g) Axle weight measurement system can be separate or integrated within Roller Brake Tester equipment. (h) Measuring range: 0-15000 kg (i) Resolution: 5 kg (j) Accuracy: $\pm 1\%$ of reading

3	Suspension tester	(a) Amplitude of excitation: 6.5 mm +/- 5 mm (b) Measurement accuracy: $\pm 1\%$ of wheel load	
4	Side slip tester	(a) Suitable dimension of track plate length, weight and height (b) Measuring range: ± 20 m/km (c) Measuring resolution: 1 m/km (d) Accuracy shall be ± 1.0 m/km	(a) Suitable dimension of track plate length, weight and height (b) Measuring range: ± 20 m/km (c) Measuring resolution: 1 m/km (d) Accuracy shall be ± 1.0 m/km
5	Joint Play tester	(a) Maximum Force per plate is at least of 6 kN (b) Maximum movement on each side: 50 -80 mm (Hydraulic)	(a) Maximum Force per plate is at least of 30 kN (b) Maximum movement on each side: 100 mm (Hydraulic)
6	Electronic Steering Gear Play Detector	(a) Capable of measuring angular movement up to $\pm 30^\circ$ (b) Recording mechanism to measure wheel movement against steering movement (c) Measurement accuracy: $\pm 2\%$ of full-scale deflection	(a) Capable of measuring angular movement up to $\pm 30^\circ$ (b) Recording mechanism to measure wheel movement against steering movement (c) Measurement accuracy: $\pm 2\%$ of full-scale deflection
7	Semi-Automatic Head light tester	(a) Light Intensity range measure (min): 0-100,000 cd (b) Illumination Intensity range measure: 0-200 lux (c) Headlight tester must have ability to autofocus and should be capable of measuring headlamp with their Centres 500mm to 1200 mm above ground level (d) Vertical and horizontal measuring range: ± 50 cm/10 m ($\pm 5\%$) (e) Intensity maximum deviation: $\pm 5\%$ of reading. (f) Headlamp tester to be placed on a perfectly level surface/ rails. (g) Maximum deviation of inclination measurement (vehicle orientation): $\pm 0.1\%$	(a) Light Intensity range measure: 0-100,000 cd (b) Illumination Intensity range measure: 0-200 lux (c) Headlight tester must have ability to autofocus and should be capable of measuring headlamp with their Centres 500 mm to 1200 mm above ground level. (d) Vertical and horizontal measuring range: ± 50 cm/10 m ($\pm 5\%$). (e) Intensity maximum deviation: $\pm 5\%$. (f) Headlamp tester to be placed on a perfectly level surface/ rails. (g) Maximum deviation of inclination measurement (vehicle orientation): $\pm 0.1\%$
8	Opacimeter	(a) Equipment to meet specifications as per MoRTH / Central Motor Vehicles Rules, 1989 / TAP 115 / 116 or AIS 137 (part 8)	(a) Equipment to meet specifications as per MoRTH / Central Motor Vehicles Rules, 1989 / TAP 115 / 116 or AIS 137 (part 8)



9	Exhaust gas analyzer	<p>(a) The equipment should measure gas emissions of gasoline, CNG, LPG as per Central Motor Vehicles Rules, 1989 / TAP115/116 or AIS 137 (part 8)</p> <p>(b) Threshold limits as per relevant provisions in rule 115</p> <p>(c) Measuring resolution to be as follows: (i) CO: 0.01% (ii) CO₂: 0.1% (iii) HC: 1 ppm (iv) O₂: 0.02% for measured values ≤ 4% values & 0.1% for measured values >=4% (v) Lambda: 0.001</p> <p>RPM counter: 10 rpm</p> <p>(d) The maximum deviation allowed in the rpm counter shall be ± 20 rpm or ± 2 % of the reading, whichever is greater.</p> <p>(e) Probe to be mechanically clamped to the tail pipe for suitable analysis of exhaust gas. Ambient air quality should not be disturbed due to exhaust gas emissions. Suitable mechanism to be incorporated for extraction of exhaust gas from the shed</p>	<p>(a) The equipment should measure gas emissions of gasoline, CNG, LPG as per Central Motor Vehicles Rules, 1989 / TAP 115/116 or AIS 137 (part 8)</p> <p>(b) Threshold limits as per relevant provisions in rule 115</p> <p>(c) Measuring resolution to be as follows: (i) CO: 0.01% (ii) CO₂: 0.1% (iii) HC: 1 ppm (iv) O₂: 0.02% for measured values ≤ 4% values & 0.1% for measured values >= 4% (v) Lambda: 0.001</p> <p>RPM counter: 10 rpm</p> <p>(d) The maximum deviation allowed in the rpm counter shall be ± 20 rpm or ± 2 % of the reading, whichever is greater</p> <p>(e) Probe to be mechanically clamped to the tail pipe for suitable analysis of exhaust gas. Ambient air quality should not be disturbed due to exhaust gas emissions. Suitable mechanism to be incorporated for extraction of exhaust gas from the shed.</p>
10	Speedometer Tester/ Speed Governor Tester	<p>(a) Suitable dimension of track weight, roller diameter and axle separation, as per the Matrix given in this RFB.</p> <p>(b) Provision for lifting and braking of roller for easy exit of vehicle</p> <p>(c) Measuring range: 20 – 160 km/h</p> <p>(d) Resolution: 1 km/h</p> <p>(e) Accuracy: ± 1 % of indicated reading</p>	<p>(a) Suitable dimension of track weight, roller diameter and axle separation, as per the Matrix given in this RFB.</p> <p>(b) Provision for lifting and braking of roller for easy exit of vehicle</p> <p>(c) Measuring range: 25 – 100 km/h</p> <p>(d) Resolution: 1 km/h</p> <p>(e) Accuracy: ± 1 % of indicated reading</p>
11	Sound level meter	<p>(a) Recommended as per IEC 60651/ IEC61672-1</p> <p>(b) Measuring level: ≥30dB to ≤120dB</p> <p>(c) Frequency A & C</p> <p>(d) Accuracy: ± 1.5 dB</p> <p>(e) Tripod stand mounted</p> <p>(f) Build battery for power source of charging from outlet of 220V AC and USB</p> <p>(g) Resolution: 0.1 dB</p> <p>The location of the Sound Level Meter to be clearly marked on the test station.</p>	<p>(a) Recommended as per IEC 60651/ IEC 61672-1</p> <p>(b) Measuring level: ≥30dB to ≤120dB</p> <p>(c) Frequency A & C</p> <p>(d) Accuracy: ± 1.5 dB</p> <p>(e) Tripod stand mounted</p> <p>(f) Build battery for power source of charging from outlet of 220V AC and USB</p> <p>(g) Resolution: 0.1 dB</p> <p>The location of the Sound Level Meter to be clearly marked on the test station.</p>



12	OBD Scan Tool	(a) Compliant to: OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145 (b) Must support all OBD modes (c) Diagnostics Communication mediums supported: KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)	(a) Compliant to: OBDII/EOBD/HD-OBD/WWH-OBD Scan-Tool in accordance with SAE J1979, SAE J1939 and ISO 27145 (b) Must support all OBD modes (c) Diagnostics Communication mediums supported: KWP2000 (K-Line, CAN TP2.0 and ISO-CAN), UDS (ISO-CAN)
13	Test Fingers (for Electric & Hybrid-Electric Power train vehicles only)	(a) IPXXB & IPXXD test fingers	(a) IPXXB & IPXXD test fingers
14	Insulation Tester (for Electric & Hybrid-Electric Power train vehicles only)	(a) Rated measuring voltage: upto 1000V DC/AC (45 to 65 Hz) (b) Measuring range: 10k Ω to 100M Ω or better (c) Accuracy: upto 10M Ω \pm 2% of reading & above 10M Ω \pm 5% of reading	(a) Rated measuring voltage: upto 1000V DC/AC (45 to 65 Hz) (b) Measuring range: 10k Ω to 100M Ω or better (c) Accuracy: upto 10M Ω \pm 2% of reading & above 10M Ω \pm 5% of reading
15	Free Roller Set (For Speedometer test on All Wheel Drive vehicles)	(i) The device shall be portable to accommodate large variations in wheelbase of the vehicle (ii) It shall allow driven axels to turn without touching the floor. It shall be composed of a chassis with free turning wheels mounted onto it. (iii) The device shall be designed to ensure safety of nearby people and vehicles so a proper restraint system shall be proposed	
16	Bogie Roller Set (For Roller Brake Test or Speedometer Test on multi-axle HCV with more than one live axle)		(i) Proper braking mechanism for locking of rollers during exit of vehicle shall be provided (ii) 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
Technical Specifications of equipment for testing Two Wheelers			
17	Roller brake tester	Parameter	Technical specifications
		(a) Maximum load charge per wheel	1 T
		(b) Maximum measurable brake load	3 kN
		(c) Minimum Roller Diameter	suitable roller diameter to test all types of mopeds, scooters & motorcycles
		(d) Minimum Roller Separation	Suitable roller separation to test all types of mopeds, scooters & motorcycles

		(e) Minimum Roller Length	Suitable roller length to test all types of mopeds, scooters & motorcycles
		(f) Roller Surface – Minimum frictional coefficient	0.6
		(g) Roller Surface Service life	Min. 50000 hrs.
		(h) Brake load resolution	$\leq 10N$
		(i) Brake load accuracy	$\pm 10N$ of measured value
		(j) Approximate testing speed	5 km/h
18	Semi-Automatic Headlight tester	Parameter	Technical specifications
		(a) Light Intensity range measure (min)	0 - 100000 cd
		(b) Illumination Intensity range measure	0-200 lux
		(c) Headlight tester capable of measuring headlamp with their Centre above ground level	240 mm to 1500 mm
		(d) Vertical and horizontal measuring Range	± 50 cm/10 m ($\pm 5\%$)
		(e) Maximum deviation of intensity	$\pm 5\%$ of reading
		(f) Headlamp tester to be placed on a perfectly level surface/ rails	
Technical Specifications of equipment for testing Three-Wheeler			
19	Toeing trolley or rail Trolley (For front wheel of 3-Wheeled vehicle)	(i) Toeing trolley should be capable of safe movement of front wheel of 3-wheelers by sliding over the inspection pit. (ii) Locking mechanism should be provided for loading & unloading of front wheel of 3-wheelers on the trolley.	

2.1.1 Minimum Information Technology hardware requirement

Table 25

Sl. No.	Equipment	Specification
1	Server specifications	(a) Processor Type: Intel Xenon Scalable Processor V2 or better (b) Processor: Minimum of 12 cores/Processor or better (c) Memory: 64GB DDR3 or higher (d) Power supply: 650W Redundant power supply (e) Internal Storage: Enterprise SSD 7 TB or better (f) Hot swap or better (g) SAS controller: SAS Controller 12G, 2GB cache supporting RAID 0,1,5,6 & 10 (h) Integrated Graphics controller (i) Internal DVD writer (j) Remote management of server over LAN (k) Form Factor: 2U Rack Mount with necessary fittings. (l) Operating system: 64 bit licensed window server 2019 standard Edition Pre-Loaded (m) Certification: Linux/ windows/ VMware certified server (n) Keyboard, Mouse, USB ports and LED 20" wide Monitor,

		<p>TCO Certified, warranty: 5years onsite comprehensive warranty</p> <p>(o) warranty: 5years onsite comprehensive warranty</p> <p>(p) For backup LTO 8 Tape Drive to take necessary backup of the system and software.</p>
2	Desktop specifications	<p>(a) Intel® 10th Generation Core™ i7 Processors or better</p> <p>(b) 3.0 GHz base frequency, or better</p> <p>(c) 1 TB SSD / NVMe drive</p> <p>(d) 8 GB 1333 MHz DDR3 SDRAM or better</p> <p>(e) MS windows 10 professional Edition 64- bit OS</p> <p>(f) Latest Antivirus software</p> <p>(g) 5 year comprehensive onsite Warranty</p> <p>LED 20" Wide TFT monitor</p> <p>(a) Adjustable monitor stand.</p> <p>(b) TCO certified</p> <p>(c) Warranty: 5 year comprehensive onsite Warranty</p>
3	Color Printer specifications	<p>(a) Laser and duplex printer (Black and Colour)</p> <p>(b) PPM- 30 or better</p> <p>(c) Page size supported-A4, B5, A5, Legal, Letter, Statement, Executive, Government Letter, Government Legal, Foolscap, Indian Legal Custom (Minimum 76.2 x 210mm to Maximum 216 x 356mm)</p> <p>(d) Print resolution - 600 x 600dpi or better</p>
4	Sticker Printer	<p>(a) Inkjet Color Printer</p> <p>(b) Printing Resolution: 1200 X 1200 dpi or better</p> <p>(c) Print Speed:50 mm/s or better</p> <p>(d) Media: Label roll media</p> <p>(e) Sticker length: 80 ± 2 mm to 100 ± 2mm</p> <p>(f) Sticker Width 60 ±2 mm to 45 ±2mm</p> <p>(g) Interface: Hi-speed USB 2.0 port, 10/10 networking, RS 232</p>
5	B/w Printer	<p>(a) Laser Printer</p> <p>(b) Duplex</p> <p>(c) Minimum 20 PPM copy and print</p> <p>(e) Page size supported-A4, B5, A5, Legal, Letter, Statement, Executive, Government Letter, Government Legal, Foolscap, Indian Legal Custom (Minimum 76.2 x 210mm to Maximum 216 x 356mm)</p> <p>(d) Print resolution - 600 x 600dpi or better</p>
6	Number Plate Reader Camera	<p>(a) Frames per second: 50</p> <p>(b) Megapixel: 2.0 or higher On VIF</p> <p>(c) Protocol</p> <p>(d) IP67</p>
7	Speed dome Camera	<p>(a) Image sensor 1/3" Progressive Scan CMOS</p> <p>(b) 20X optical or better / digital zoom camera</p> <p>(c) 30x motorized zoom lens and auto focus</p> <p>(d) Megapixel: 2.0 or higher</p> <p>(e) IP67</p> <p>(f) IK10</p>

8	Network Video Recorder	(a) Multiplex recording schedule options: manual, alarm, motion detection, timing (b) Multiplex operation: live view, record, play back, backup and remotely control the system simultaneously (c) HDMI and VGA output simultaneously at up to 1080P resolution (d) H.265 High profile decoding, 2 SATA HDD interface: maximum 8TB storage capacity or more.
9	Other equipment required	(a) Smart TV with CCTV viewer (b) LCDs/LEDs for carrying out the tests
10	GPS Enabled Camera	(a) Resolution : Minimum 20 megapixels (b) Optical Zoom : 3 X (c) Special Feature: Built in Wi-Fi and GPS Support (High sensitivity, high precision, built in GPS in camera should allow users to tag images with GPS co-ordinates, recall shooting locations and even route travelled with its logging functions)
11	Hand held tablet	(a) latest Android OS (b) RAM 8 GB (c) Internal storage 128 GB (d) form factor: rugged tablet (e) Integrated WiFi/ bluetooth and other communication modes (f) Minimum 6000 mAh battery (g) IP65 or higher protection (h) MIL-STD-810G compliance (i) support GPS, GLONASS

7.1 FUNCTIONAL REQUIREMENTS

- The Successful Bidder 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.

7.2 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.

7.3 IT PLATFORM

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

- Selection of vehicle category as defined above such as 2w, 3W to 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 regarding 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 Transport Commissioner, Odisha from time to time.

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 and Sticker printing 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. It should be part of lane operating software. The successful Bidder is required to discuss the detail requirement during design review.

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, sequence of tests shall be the key to lane design.

Report generation based on all information available in the database shall be customizable by the Transport Commissioner Odisha officials in a predefined format/preprinted stationary, for delivery to customer. Latest version of SQL needs to be provided for database management. The pre-defined format will be provided by Transport Commissioner, Odisha as per the requirement. This shall be provided during design review meeting. Test data need to be provided by test center operator to Transport Commissioner, Odisha as & when required.

Various MIS reports need to be generated for Transport Commissioner, Odisha. 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 the 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. The calibration data shall be stored in the central computer. All measurements shall be in Metric System. Measured value of each test to be provided in the test report along with permissible range.

The Bidder is expected to support Transport Commissioner, Odisha for the ATS layout diagram along with all the required equipment like RFID/Smart card Reader/Writer, PASS Sticker printing, individual PC at each test lane, CCTV, Audio paging at ATS, Operator ID and vehicle ID (RFID/ IR) sensor at each station of lane, Digital Camera at test shed entry point, under body inspection, Hand Held Terminal (HHT) either wired or wireless, need to be communicated to the main control PC, central server and 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 test at later stage in the same ATS. Therefore the Bidder is required to make provision for installation of dynamometers for load mode emission test one for HCV and one for LCV for ATS. The power absorption unit for loaded mode can be accommodated in the speedometer equipment pit.

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 specifications of PC, Server, Printer, Number Plate Reader Camera, Speed Dome Camera, CCTV Camera, Network Video Recorder (NVR) etc. has been provided in **"Section 7"**.

7.4 Calibration Equipment Set

- (a) Calibration Equipment Set for existing installed equipment are available at the station. Minimum Two point calibration system shall be provided. All the lanes shall use the same calibrating devices. All the measuring equipment shall be calibrated.
- (b) Bidder to provide calibration equipment and procedures for following:
 - Emission measurement system for diesel/gasoline vehicles
 - Roller brake

- Speedometer
- Head light tester
- Suspension measurement
- Side slip tester
- Steering gear play measurement
- Axle weight measurement
- Sound level meter
- Electronic Steering Play Detector

- (c) 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. Subsequently, if any of the calibrating equipment consumables in nature will have to be replenished by the Bidder as a part of the operation.

Calibration for Axle weight measurement by renting locally from local laboratories accredited to National or International standards is acceptable. Based on the equipment supplied for measurement of Steering gear play detection, Bidder should select, justify and provide calibration equipment for calibration of Steering gear play detector.

7.5 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

7.6 SOFTWARE

- (a) In order to guarantee the certainty of the obtained values and to save the information, it is required that all the equipment which measure 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.
- (b) 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 Transport Commissioner, Odisha with an overall objective of meeting the test requirements, the operation of the ATS and meeting all the requirement of regulating authorities.
- (c) 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 and it 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.
- (d) The following equipment shall be connected automatically to the central unit:
- Roller brake tester
 - Suspension tester
 - Side slip tester
 - Opacimeter / Exhaust gas analyzer
 - Speedometer
 - Head light tester
 - Sound level Meter
- (e) 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 not connected automatically.

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

- (f) 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.

- (g) 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 Transport Commissioner, Odisha from time to time.
- (h) 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.
- (i) 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.

7.7 SAFETY SYSTEMS

a) 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.

b) 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. The three phase motors must have protection device like single phasing, reverse protection system. The surge voltage and frequency protection device must also be installed.

7.8 SMART TV WITH CCTV VIEWER INSTALLED TO VIEW CCTV DISPLAY:

- a) 40" LED Full FHD monitors / TV,
- b) minimum brightness 350 nits,
- c) Contrast ratio - 5000 : 1,
- d) Input ports - VGA, HDMI,
- e) External Control - RS 232 / RJ 45, RoHS compliance,
- f) Suitable for 24 x 7 operation

Minimum one month old vehicle testing video footage should be stored by the successful bidder.

7.9 CCTV Specifications:

4MP IR Bullet Camera:

a) Camera:

- Image Sensor: 1/3" Progressive Scan CMOS
- Min. Illumination: Color: 0.01 Lux @ (F1.2, AGC ON), 0.018 Lux @ (F1.6, AGC ON), 0 Lux with IR
- Shutter Speed: 1/3 s to 1/100,000 s
- Wide Dynamic Range: 120dB
- Day & Night: IR Cut Filter
- Angle Adjustment: Pan: 0° to 355°, tilt: 0° to 75°, rotate: 0° to 355°

b) Lens

- Focus: Fixed
- Lens Type: 2.8/4/6/8 mm
- FOV: 2.8 mm, horizontal FOV: 103°, vertical FOV: 58°, diagonal FOV: 123°, 4 mm, horizontal FOV: 83°, vertical FOV: 45°, diagonal FOV: 99°, 6 mm, horizontal FOV: 51°, vertical FOV: 37°, diagonal FOV: 81°, 8 mm, horizontal FOV: 40°, vertical FOV: 29°, diagonal FOV: 60°

vertical FOV: 29°, diagonal FOV: 58°, 8 mm, horizontal FOV: 39°, vertical FOV: 22°, diagonal FOV: 45°

- Aperture: F1.6
- Lens Mount: M12
- Aperture Type: Fixed

c) Illuminator

- IR Range: Up to 30 m
- Wavelength: 850nm

d) Video

- Max. Resolution: 2688 × 1520
- Main Stream:
- 50Hz: 25fps (2688 × 1520, 2560 × 1440, 2304 × 1296, 1920 × 1080, 1280 × 720)
- 60Hz: 30fps (2688 × 1520, 2560 × 1440, 2304 × 1296, 1920 × 1080, 1280 × 720)
- Sub Stream: 50Hz: 25fps (640 × 480, 640 × 360, 320 × 240), 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
- Third Stream: 50Hz: 25fps (1280 × 720, 640 × 360, 352 × 288), 60Hz: 30fps (1280 × 720, 640 × 360, 352 × 240)
- Video Compression: Main stream: H.265/H.264, Sub-stream: H.265/H.264/MJPEG, Third stream: H.265/H.264
- Video Bit Rate: 32 Kbps to 16 Mbps
- Scalable Video Coding (SVC): H.264 and H.265 encoding

e) Audio

- Audio Sampling Rate: 8kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
- Audio Compression: G.711/G.722.1/G.726/MP2L2/PCM
- Audio Bit Rate: 64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)

f) Network

- Simultaneous Live View: Up to 6 channels
- API: ONVIF (PROFILE S, PROFILE G, PROFILE T), ISAPI, SDK, Ehome
- Protocols: TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS,
- IPv6, UDP, Bonjour, SSL/TLS
- User/Host: Up to 32 users
- Security: Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS 1.2, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, TLS1.2
- Network Storage: Support Micro SD/SDHC/SDXC card (128G), local storage and NAS (NFS, SMB/CIFS), ANR
- Web Browser: Plug-in required live view: IE8+ Plug-in free live view: Chrome 57.0+, Firefox 52.0+, Safari 11+ Local Service: Chrome 41.0+, Firefox 30.0+
- Alarm Trigger: Motion detection, video tampering, network disconnected, IP address conflict, illegal login, HDD full, HDD error

g) Image

- Day/Night Switch: Day/Night/Auto/Schedule/Triggered by Alarm In (- S)
- DNR: 3D DNR
- Image Enhancement: BLC/3D DNR/HLC
- Image Settings: Rotate mode, saturation, brightness, contrast, sharpness, AGC, and white balance

h) Interface

- Audio: 1 input (line in/mic in), 1 output (line out), terminal block, mono sound
- Alarm: 1 input, 1 output (max. 12 VDC, 30 mA), terminal block
- Video Output: No
- On-board Storage: Built-in Micro SD/SDHC/SDXC slot, up to 128 GB

- Hardware Reset: Yes
- Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port

i) General

- Operating Conditions: 10°C to 60°C, Humidity 95% or less (non- condensing)
- Power Supply: 12 VDC \pm 25%, Φ 5.5 mm coaxial power plug, PoE (802.3af, class 3)
- Protection: IK10, IP67
- Certifications: UL, CE, FCC

7.10 LEDS SCREENS/ MONITORS

- a) Display shall guide the operator for carrying out the test and no test results /pass or fail shall be displayed.
- b) The details can be discussed during design review.
- c) Display size to be such that the vehicle driver will be able to view the instruction comfortably. 32 inches LED screen is required.
- d) Bidder should decide number of LED Displays required depending on the test stages.

7.11 HYBRID WAN LINK AGGREGATOR (INBOUND / OUTBOUND) SPOKE UNIT

Table 26

Specifications	Description
Hardware	Should be appliance based solution with purpose built hardware for high performance ILL/MPLS/SDWAN Load balancing with link aggregation and NMS module along with realtime dashboard of the same OEM
	Ability to support up to 3/4 (GbE) WAN/LAN ports with one USB WAN port along with two inbuilt 4G LTE sim port for bandwidth bonding
	The appliance should have inbuilt wifi modem from day one with flexmodule for additional 5G sim slot on demand
	The LAN port should support to work as a VLAN trunk port for multiple LANs
	Each VLAN should support own interface IP address and DHCP server
	Capability of communicating with other VLANs
	Should support OSPF and RIPv2 dynamic routing protocols
	Support at least 900 Mbps bandwidth throughput
Traffic Management	Support at least 6 Internet connections
	Support using an USB 3G/4G/LTE/5G/eSIM/FusionSIM modem as WAN to deliver seamless services if all WAN link goes down.
	Ability to load balance among multiple connections along with 4G/LTE/5G connection on active mode
	Ability to fail over to another connection automatically in case of a link problem detected
	Support the following WAN connection methods:
	• Static IP
	• DHCP
	• PPPoE

	Ability to create policy rules to handle different types of outbound traffic
	Support the following outbound load balancing algorithms:
	• Distribute traffic according to a specified link ratio
	• Route traffic using the same link persistently
	• Route specified type of traffic using only the chosen link
	• Route traffic according to a specified link priority
	• Route traffic using the same link unless it gets saturated
	• Route traffic using the link that is most available
	• Route traffic using the link that has the lowest latency
	Ability to perform many to one, one to one NAT Mappings
	Ability to define local DNS records to lookup local host names
	Support SIP ALG
	Support H.323 ALG
	Ability to set monthly allowance limit for bandwidth usage on each WAN
	Ability to load balance inbound traffic
	Ability to act as an authoritative DNS server and support the following records:
	• SOA
	• NS
	• MX
	• CNAME
	• A
	• TXT
	• SRV
	• PTR
	Ability to set monthly allowance limit for bandwidth usage on each WAN
	Should support Out of Band Management for LAN/WAN to gain access to all remote devices connected to the LLB through the NMS Module
VPN	Ability to establish site-to-site VPN over dynamic IP
	Support site-to-site VPN traversing through NAT'd WAN connection
	Support IPsec VPN for Site-to-Site VPN
	Support PPTP / L2TP VPN for remote access
	Ability to authenticate PPTP and Captive Portal client by third party RADIUS or LDAP
QoS	Support X.509 certificates as a means of authentication for VPNs
	Ability to prioritize SIP traffic
	Ability for Web Filtering Blacklist
Health Monitoring	Ability to prioritize traffic for any application by specifying its protocol and port
	Support monitoring the health for each WAN connection against an Internet host
	Support the following mechanisms for health monitoring
	• Ping
	• DNS lookup
	• HTTP
	Ability to adjust health check interval and frequency
	Ability to adjust the number of consecutive unsuccessful/successful checks to determine the connection as link down/up

Reporting	Ability to post traffic data and other information to a reporting server to generate detailed usage reports of the device
	Ability to use SNMP protocol and MIB for device monitoring
	Show real-time data of transferring upload/download throughputs
Security	Ability to block specific website (http only)
	Ability to classify traffic in order to allow or deny packets according to pre-defined rules <ul style="list-style-type: none"> • IP, Protocol, and Port filtering Ability to classify traffic in order to allow or deny packets according to pre-defined rules <ul style="list-style-type: none"> • IP, Protocol, and Port filtering
	Captive Portal support for Wired and Wireless LAN Clients
	Should support Built-in Customizable Splash Page
Device Management	Device is managed by web based management (HTTP/HTTPS)
	Support Authentication of admin security using RADIUS
	Support access to device status with Command Line Interface
	Support installation of two firmware versions for rollback
	Ability to send out warning and error messages by email
	Ability to configure remote SYSLOG server to log events of the device
	Ability to configure whether a port can reply to ICMP Ping requests
	Device date and time is automatically synchronized through NTP server
Certifications	Device should have below certifications:
	• FCC
	• CE
	• RoHS

7.12 HYBRID WAN LINK AGGREGATOR (INBOUND / OUTBOUND) HUB UNIT

Specifications	Description
Hardware	Should be appliance based solution with purpose built hardware on HA for high performance ILL/MPLS/SDWAN Link aggregation & Load balancing, LTE-4G/5G-Sim Link aggregation and Inbuilt module to support multiple sim cards simultaneously on demand, WAN smoothing, Hot Fail over and multi access NMS module along with realtime analytics dashboard of the same OEM
	Ability to support up to 12 (GbE) WAN ports and expandable slot on demand with bandwidth bonding license from day one
	Ability to operate in tough conditions and high temperature scenarios. The appliance must support an operating temperature range of 0° to 40°C
	The LAN port should support to work as a VLAN trunk port for multiple LANs
	Each VLAN should support own interface IP address and DHCP server
	Capability of communicating with other VLANs
	Should support OSPF and RIPv2 dynamic routing protocols
	Support at least 20 Gbps bandwidth throughput
	Support at least 2 USB Ports as WAN
	Support Edge Computing with hot-swappable power supplies
	Device needs to be 1U rack mountable

Traffic Management	Should have VRRP support for High Availability
	Support upto 12 Internet connections on active mode
	Support using an USB 3G/4G/LTE modem as WAN from day one and 5G on demand using same hardware to deliver seamless services if all WAN link goes down.
	Ability to load balance among multiple connections with Speed fusion
	Ability to fail over to another connection automatically in case of a link problem detected
	Support the following WAN connection methods:
	• Static IP
	• DHCP
	• PPPoE
	Ability to create policy rules to handle different types of outbound traffic
	Support the following outbound load balancing algorithms:
	• Distribute traffic according to a specified link ratio
	• Route traffic using the same link persistently
	• Route specified type of traffic using only the chosen link
	• Route traffic according to a specified link priority
	• Route traffic using the same link unless it gets saturated
	• Route traffic using the link that is most available
	• Route traffic using the link that has the lowest latency
	Ability to perform many to one, one to one NAT Mappings
	Ability to define local DNS records to lookup local host names
	Support SIP ALG
	Support H.323 ALG, ANPR & VMS
	Ability to load balance inbound traffic
	Ability to act as an authoritative DNS server and support the following records:
	• SOA
	• NS
	• MX
	• CNAME
	• A
	• TXT
	• SRV
	• PTR
	Ability to set monthly allowance limit for bandwidth usage on each WAN
	Should support Out of Band Management for LAN/WAN to gain access to all remote devices connected to the LLB through the NMS Module
VPN	Ability to establish site-to-site VPN over dynamic IP
	Support site-to-site VPN traversing through NAT'd WAN connection
	Support IPsec VPN for Site-to-Site VPN
	Support PPTP VPN for remote access

	Ability to authenticate PPTP and Captive Portal client by third party RADIUS or LDAP
	Support X.509 certificates as a means of authentication for VPNs
QoS	Ability to prioritize SIP traffic
	Ability to prioritize traffic for any application by specifying its protocol and port
Health Monitoring	Support monitoring the health for each WAN connection against an Internet host
	Support the following mechanisms for health monitoring
	• Ping
	• DNS lookup
	• HTTP
	Ability to adjust health check interval and frequency
Reporting	Ability to adjust the number of consecutive unsuccessful/successful checks to determine the connection as link down/up
	Ability to post traffic data and other information to a reporting server to generate detailed usage reports of the device
	Ability to use SNMP protocol and MIB for device monitoring
Security	Show real-time data of transferring upload/download throughputs
	Ability to block specific website (http only)
	Ability to classify traffic in order to allow or deny packets according to pre-defined rules IP, Protocol, and Port filtering
	Captive Portal support for Wired and Wireless LAN Clients
Device Management	Should support Built-in Customizable Splash Page
	Device is managed by web based management (HTTP/HTTPS)
	Support Authentication of admin security using RADIUS
	Support access to device status with Command Line Interface
	Support installation of two firmware versions for rollback
	Ability to send out warning and error messages by email
	Ability to configure remote SYSLOG server to log events of the device
	Ability to configure whether a port can reply to ICMP Ping requests
	Device date and time is automatically synchronized through NTP server
Certifications	Ability to name clients
	Device should have below certifications:
	• FCC
	• CE
	• RoHS

SECTION – 7A LIST OF TESTS**(Rule 189 of CMVR, 1989)****a) Tests to Be Conducted at Automated Testing Station :**

(1) The grant and renewal of certificate of fitness to the vehicles as per characteristics given in table-H in sub-rule (7) of rule 190 (also provided in Section 8 of this RFB) shall be made only after carrying out the checks and tests as prescribed in rule 189 of CMVR 1989, as amended, namely:-

Table 27

SL. No.	Item	Auto- mated Test (Yes/No)	Check Fitment (Yes/No)	Visual Check/ Functional Test	Reference Rules / Standards for more details	Notes for information
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	Headlamp dipped Beam	Yes	No	Functional	AIS-128	Functional test requirements: Horizontal cut off of passing beam shall always be below headlamp centreline and the deviation shall be within 0.5% to 2.5%.
(2)	Headlamps Assembly	No	Yes	Visual	rule 105 and AIS-008 or AIS-008 (Rev.1) and AIS- 009 or AIS-009 (Rev.1)	Visual inspection parameters: Bulb should be working; (ii) Head lamp operating switch working; No broken lens; (iv) Lens of the lamp should not be painted with colour OR pasted with sticker (v) No moisture deposition on the inside surface of the lens.
(3)	Lights					
	(a) Top Lights	No	Yes	Visual	rule 107, 108 and AIS:008 or AIS-008 (Rev.1)	Visual inspection parameters: Coloured lens shall not be faded; Lens should not be broken; Lamp shall be working; (iv) For the lamps with dual coloured lens, red lens shall be oriented towards rear and white shall be towards front; (v) No moisture deposition on the inside surface of the lens; (vi) Secured fitment of the lamps.
	(b) Stop Lights	No	Yes	Visual	rule 102 and AIS-008 or AIS-008 (Rev.1) and AIS-009 or AIS-009 (Rev.1)	Visual inspection parameters: Coloured lens shall not be faded; Lens should not be broken; (iii) Lamp shall be working on actuation of the brake; (iv) No moisture deposition on the inside surface of the lens; Secured fitment of the lamps.

(c) Parking Lights	No	Yes	Visual	rule 109 and AIS-008 or AIS-008 (Rev.1) and AIS- 009 or AIS-009 (Rev.1)	Visual inspection parameters: Colored lens shall not be faded; Lens should not be broken; Lamp shall be working; (iv) No moisture deposition on the inside surface of the lens; Secured fitment of the lamps.
(d) Fog Lamps (if fitted)	No	Yes	Visual	AIS-008 or AIS-008 (Rev.1)	Visual inspection parameters: Coloured lens shall not be faded; Lens should not be broken; Lamp shall be working; (iv) No moisture deposition on the inside surface of the lens; Secured fitment of the lamps.
(e) Warning Lights in Ambulance	No	Yes	Visual	rule 108 and AIS-125(Part 1)	Visual inspection parameters: Coloured lens shall not be faded; Lens should not be broken; Lamp shall be working; (iv) No moisture deposition on the inside surface of the lens; Secured fitment of the lamps.
(f) Number Plate Light	No	Yes	Visual	rule 108 and AIS-008 or AIS-008 (Rev.1) and AIS- 009 or AIS-009 (Rev.1)	Visual inspection parameters: (i) White light shall be used for illuminating number plate; Lens should not be broken; Lamps shall be working; (iv) No moisture deposition on the inside surface of the lens; Secured fitment of the lamps.
(g) End-Outline Marker Lamps	No	Yes	Visual	AIS-008 or AIS-008 (Rev.1)	Visual inspection parameters: (i) Ensure secured fitment of end-outline marker lamps; (ii) Coloured lens shall not be faded; Lens should not be broken; (iv) No moisture deposition on the inside surface of the lens; Red coloured lens shall face towards rear and white lens to the front.
(h) Direction Indicators	No	Yes	Visual	rule 102 and AIS:008 or AIS-008 (Rev.1) and AIS- 009 or AIS-009 (Rev.1)	Visual inspection parameters: (i) Flashing light emitted shall be Amber in colour; Lens should not be broken; Lamps shall be working; (iv) No moisture deposition on the inside surface of the lens;
					(v) Secured fitment of the lamps.

	(i) Hazard Warning Signal lamp	No	Yes	Visual	AIS:008 or AIS-008 (Rev.1) and AIS- 009 (Rev.1)	Visual inspection parameters: Flashing light emitted shall be Amber in colour; Ensure simultaneous operation of all direction indicator lamps by use of switch.
(4)	Suppressor cap/ High Tension cable	No	Yes	Visual	-	Visual inspection parameters: (A) Suppressor Cap: (i) Suppressor cap shall be in good condition High Tension Cable: High Tension cable shall be properly insulated; Proper terminal connections shall be made on both sides of High-Tension cable.
(5)	Rear View Mirrors	No	Yes	Visual	rule 125(2) and AIS-002 (Part-1) & (Part-2) (Rev. 1)	Visual inspection parameters: Ensure fitment of required class of the mirror as per AIS 002 (Part-1) / (Part-2) (Rev-1); Symbol I / II / III / IV / V / VI / VII specifying the class to which the type of mirror belongs shall be ensured on the mirror marking; Secured fitment of mirrors in good condition.
(6)	Safety Glass (Windscreen)	No	Yes	Visual	rule 100 and IS:2553 (Part 2) Bureau of Indian Standards license marking for the vehicles registered from 1st April, 2021.	Visual inspection parameters: Except the glass area covered by stickers such as FasTag / Permits / Badges, the windscreen glass shall be transparent; the laminated safety glass for windscreen application shall bear clear and indelible _LW_ or _II_ or IV or II/P marking in addition to the trademark or manufacturer's logo as specified in IS:2553 (Part 2); Glass shall not be damaged/cracked; Coloured films shall not be pasted on the glass.
(7)	Horn	No	Yes	Visual and Functional	IS-1884, rule 119 and IS-15796	(1) Visual inspection parameters: Multi-toned horn giving a succession of different notes or with any other sound producing device giving an unduly harsh, shrill, loud or alarming noise shall not be used; Horn shall be securely fitted; Horn shall be functioning;

						Functional test requirements: Sound pressure level of the horn installed on the vehicle shall be as per IS: 15796.
(8)	Silencer					
	(a) Silencer	No	Yes	Visual	rule 120 and IS10399:1998	Visual inspection parameters: Ensure no leakage; Secured fitment of silencer; Silencer shall not be excessively rusty or damaged; Functional test requirements: (i) Stationary noise test as per IS10399:1998
	(b) Exhaust Noise Test (dB)	No	No	Functional		
(9)	Windscreen Wiper					
	(a) Windscreen Wiper Blades	No	Yes	Visual	rule 101, AIS-045, IS: 15804 and IS: 15802	Visual inspection parameters: Ensure presence of wiper blades; Wiper blade shall be in good condition.
	(b) Windscreen Wiper System	No	Yes	Functional	rule 101, AIS-045, IS: 15804 and IS: 15802	Visual inspection parameter: Ensure operation of each wiper arm(s) to cover maximum area of the windscreen; In split type windscreen for vehicles other than three- wheelers, wiper shall be operable for each windscreen; Wiper shall be securely fitted.
(10)	Dashboard Equipment	No	Yes	Visual	AIS-071 (Part 1)	Visual inspection parameters: Ensure secured mounting; Wiring shall be insulated; Dashboard illumination shall be functioning; Warning lights for ABS, lights, brake system, battery charging, OBD or engine malfunction, fuel label, engine oil pressure, engine coolant temperature shall not remain illuminated.
(11)	Exhaust					
	(a) Exhaust gas emission – CO%	Yes	No	Functional	Rule 115 (2) (i) - TABLE	Applicable for Petrol/CNG/LPG driven vehicles
	(b) Exhaust gas emission – HC (ppm)	Yes	No			
	(c) Exhaust gas emission (High idle emission) – CO%	Yes	No		Rule 115 (2) (i) - TABLE A	Applicable for petrol driven 4-Wheeler vehicles manufactured as per BS IV or BS VI norms and petrol driven 3-Wheeler vehicles manufactured as per BS VI norms
	(d) Exhaust gas	Yes	No			
						Applicable for petrol/CNG/LPG

	emission (High idle emission) – Lambda					driven 4-Wheeler vehicles manufactured as per BS IV or BS VI norms and petrol/CNG/LPG driven 3-Wheeler vehicles manufactured as per BS VI norms
	(e) Smoke Density (Free Acceleration test applicable for Diesel vehicles)	Yes	No	Functional	Rule 115 (2) (ii) - TABLE	Applicable for Diesel vehicles
(12)	Braking System					
	(a) Service Brakes	Yes	Yes	Visual and Functional	AIS-128	Visual inspection parameters: Fittings shall be secured; Brake hoses shall not be damaged or cracked; No leakage of brake fluid. (2) Functional test requirements for service brakes: Braking efficiency measured on roller brake tester should be at least 27.23%.
	(b) Parking Brakes	Yes	Yes	Visual and Functional		
(13)	Steering Gear	Yes	Yes	Functional	rule 98	Functional test requirements: Back-lash / Free play in steering gear shall not be more than 30 degrees.
(14)	Side Slip Test (This test applies to all categories of vehicles except 3-wheelers)	Yes	No	Functional	As per specification	
(15)	Suspension Test (Applicable for vehicles having GVW upto 3.5 ton excluding 3-wheelers)	Yes	No	Functional	-	Functional test requirements: No significant difference between suspension system efficiency of left and right side of vehicle.
(16)	Joint Play Test	No	Yes	Visual and Functional	-	Visual inspection parameters: Suspension system: Ensure secured attachment of springs and shock absorbers to chassis or axle; Springs shall not be damaged or fractured; Shock absorber dampers shall not have any oil leakage; Excessive wear shall not happen in swivel pin or bushes or at suspension joints; In case of Air suspension, ensure no audible system leakage

						<p>Axle:</p> <p>Secured fixing to the vehicle;</p> <p>Axle shall not be fractured or deformed;</p> <p>Excessive wear shall not happen in the swivel pin or bushes.</p> <p>(C) Steering System: Check for tie rod ends play or loose joints /bushes etc.</p>
(17)	Speedometer					
	(a)Speedometer	Yes	Yes	Visual	rule 117 and IS-11827-2008	<p>Visual inspection parameters:</p> <p>Securely fitted;</p> <p>Sufficiently illuminated;</p> <p>Dial cover shall not be broken;</p> <p>Indicator needle operational.</p>
	(b)Speedometer Test (For E-rickshaw or E-cart)	Yes	No	Functional	As per specification	<p>The vehicle shall be driven in unladen condition (with full charge and at full accelerator position) on straight, flat road or roller and when the vehicle attains full speed, the maximum speed shall be calculated by measuring time taken to travel fixed distance (viz 50 metres). Maximum speed of the vehicle shall not be more than 25 km/hr.</p>
(18)	Rear under run protection device (RUPD) for N2, N3, T3and T4	No	Yes	Visual	rule 124 (1A) and IS-14812-2005	<p>Visual inspection parameters:</p> <p>Rear Under ride Protection Device shall be fitted;</p> <p>Rear Under ride Protection Device shall not be cracked, corroded or damaged;</p> <p>Ensure that ground clearance and dimensions of Rear Underride Protection Device shall be as per IS-14812-2005.</p>
(19)	Lateral under run protection device (LUPD) for N2, N3, T3and T4	No	Yes	Visual	rule 124 (1A) and IS-14682-2004	<p>Visual inspection parameters:</p> <p>Lateral under run protection device shall be fitted</p> <p>Lateral under run protection device shall not be cracked, corroded or damaged</p> <p>Ensure that dimensions of Lateral under run protection device shall be as per IS-14682-2004.</p>
(20)	FASTag	No	Yes	Visual	rule 138 (A)	<p>Visual inspection parameters:</p> <p>To be affixed on the front windscreen;</p> <p>FASTag shall not be damaged.</p>
(21)	Priority Seats, Signs, securing	No	Yes	Visual	sub-rules (1) and (7) of	<p>Visual inspection parameters:</p> <p>(i) Buses fitted with a priority seat</p>

	of crutches/ canes/walker, hand rail/stanchions, controls at priority seats for differently abled passengers and passengers with reduced mobility				rule 125C, AIS-052 (Rev. 1) and AIS- 153	shall have pictogram(s) visible from the outside, both on the front nearside of the bus and adjacent to the relevant service door(s); A pictogram shall be placed internally adjacent to the priority seat; All Type I buses shall have at least two passenger seats in case of Mini and Midi buses and four passenger seats in case of other buses designated as priority seats for persons with disabilities; Priority seats shall be only of the forward-facing type and preferably be located behind the driver's seat; The priority seats shall be provided with appropriate facility for securing the crutches, canes, walkers etc. to facilitate convenient travel for persons with disabilities; Handrails or stanchions shall be provided at the entrance of all Type I buses; All Type I NDX buses shall be provided with controls adjacent to priority seats for requesting stops and which alert the driver that a mobility aid user wishes to disembark; Communication devices shall be placed adjacent to any priority seat.
(22)	Wheel chair entry/housing/ locking arrangement for wheel chair for differently abled passengers and passengers with reduced mobility	No	Yes	Visual	sub-rules (1) and (7) of rule 125C, AIS-052 (Rev. 1) and AIS- 153	Visual inspection parameters: Buses fitted with a wheelchair space shall have pictogram(s) visible from the outside, both on the front nearside of the bus and adjacent to the relevant service door(s); One of the pictograms shall be placed internally adjacent to each wheelchair space indicating whether the wheelchair is to be positioned facing the front or the rear of the bus; Wheelchair space shall be provided with a restraint system capable of restraining the wheelchair and the wheelchair user; Ensure sufficient space available for the Wheelchair user to maneuver without the assistance of

						a person; Vehicles of Type I shall have identified area to accommodate at least one wheelchair user; Communication devices shall be placed within identified wheelchair area.
(23)	Vehicle Location Tracking (VLT) Device	No	Yes	Visual	AIS-140	Visual inspection parameters: Vehicle Location Tracking shall be installed; Emergency alarm button shall be working.
(24)	High Security Registration Plate (HSRP)	No	Yes	Visual	rule 50 and AIS-159	Visual inspection parameters: High Security Registration Plates installed at the front & rear of the vehicle; Securely fixed.
(25)	Battery	No	Yes	Visual	-	Visual inspection parameters: Secured mounting; Ensure no leakage; Ensure top is clean, dry, free of dirt and grime.
(26)	Safety belt (Seatbelt)	No	Yes	Visual	rule 125(1) - A) and AIS- 015 or IS 15140:2003	Visual inspection parameters: Mandatory safety belts shall be available and securely fitted; Safety belts shall not be damaged; Safety belt anchorage shall not be loose; Seatbelt reminder system, if available, should be functioning; G-lock of seatbelt should be functioning.
(27)	Speed Governor	Yes	Yes	Visual and Functional	rule:118 and AIS-018	Visual inspection parameters: Securely fitted; Speed governor shall be sealed; Electrical wirings of speed governor shall not be disconnected; Functional test requirements: 80 km/hr for every transport motor vehicle of category M and N manufactured on or after 01st Oct, 2015; For transport vehicles manufactured on or after 01st October, 2015 that are dumpers, tankers, school buses, those carrying hazardous goods or any other category of vehicles, as may be specified by the Central Government by notification, the

						maximum speed limit is 60 km/hr
--	--	--	--	--	--	---------------------------------

						or any other speed as specified by the State Government.
(28)	Spray Suppression Devices	No	Yes	Visual	AIS-013 (Rev. 1)	Visual inspection parameters: Ensure presence of securely fitted spray suppression devices.
(29)	Tyres	No	Yes	Visual	rule 94 and 95	Visual inspection parameters: Tyres shall not have any serious damage (patched or repaired by an outside gaiter patch other than a vulcanized repair) or cut; The Non-Skid Depth (NSD), shall not be less than 0.8 mm in the case of three wheelers, quadricycle, E-rickshaw and E-Cart and 1.6 mm in the case of other motor vehicles, below the Tread Wear Indicator (TWI) embedded in tyres at the time of manufacture; Tyres shall be properly inflated; Tyres shall not show signs of incipient failure by local deformation or swelling; Tyre casing fabric shall not be exposed due to wear of the tread or by any unvulcanised cut or abrasion in any of its parts; Temporary spare wheel or tyre puncture repair kit shall be available.

(30)	Retro-Reflector and reflective tapes	No	Yes	Visual	rule: 104, AIS-090 and AIS- 037, AIS- 057 and AIS-057 (Rev.1)	Visual inspection parameters: (A) Reflectors Ensure presence of clean reflectors; Secured fitment of reflectors; Reflectors shall not be in damaged condition; Ensure that colour of reflectors shall be as per rule 104 i.e., red colour to the rear or white to the front. Reflective Tapes – Ensure presence of clean reflective tapes; Securely pasted to vehicle body; Ensure that size, colour and location of reflective tapes shall be as per rule 104; Reflective tapes shall not be damaged; The marks shall be visible, clearly legible on the outside of the marking material and shall be indelible.
Additional tests to be conducted on Electric Vehicles (EV) & hybrid-electric power train vehicles						
(31)	Protection against electric shock. (For electric & hybrid electric power train vehicles only) if system voltage is >60 V DC or 30 V AC)	No	No	Visual and Functional	AIS-038 (Rev.1) and (Rev. 2) as amended from time to time	Visual inspection parameters: Ensure access probe shall not touch live parts; In the case of the test for IPXXB in the areas other than passenger compartment or luggage compartment, the jointed test finger may penetrate to its 80 mm length, but the stop face (diameter 50 mm x 20 mm) shall not pass through the opening; In case of the tests for IPXXD inside the passenger compartment or luggage compartment, the access probe may penetrate to its full length, but the stop face shall not fully penetrate through the opening. Functional test requirements: When the requirements of IPXXB and IPXXD are verified by a signal circuit between the probe and live parts, ensure that the lamp shall not light

(32)	Insulation Resistance Measurement Test (For Electric vehicles & hybrid electric power train vehicles only) If system voltage is > 60 V DC or 30 V AC	No	No	Functional	AIS-038 (Rev.1) and (Rev. 2) as amended from time to time	Functional test requirements: Insulation resistance measured should be greater than 500Ω/V. The measurement of test parameters may be automated while test set-up is manual
(33)	State of Charge (SOC) Indicator on Dashboard (For Electric vehicles only)	No	Yes	Visual	AIS-038 (Rev.1)	Visual inspection parameters: (i) Manufacturer supplied SOC indicator shall be in working condition to see charging status of Battery.
Tests to be conducted on Two Wheelers						
(34)	Headlight	Yes	Yes	Functional and Visual	AIS-009 (Rev.1): 2011, Clause no. 6.2.5.2	The vertical inclination of the passing beam headlamp shall remain between - 0.5% and - 2.5%, except in the case where an external adjusting device is present.
(35)	Emission					
	(a) Exhaust gas emission – CO%	Yes	No	Functional	Rule 115 (2) (i) – TABLE	
	(b) Exhaust gas emission – HC (ppm)	Yes	No	Functional		
	(c) Exhaust gas emission (High idle emission) – CO%	Yes	No	Functional	Rule 115 (2) (i) - TABLE A	Applicable for petrol driven 2-Wheeler vehicles manufactured as per BS VI norms
	(d) Exhaust gas emission (High idle emission) – Lambda λ	Yes	No	Functional		Applicable for petrol/CNG/LPG driven 2- Wheeler vehicles manufactured as per BS VI norms
(36)	Braking System	Yes	Yes	Functional		
Additional tests to be conducted on Two-Wheeler Electric Vehicles						

(37)	Protection against electric shock (For electric vehicles only) If system voltage is > 60 V DC or 30 V AC	No	No	Visual and Functional	AIS-038 (Rev.1) and (Rev. 2) as amended from time to time	Visual inspection parameters: Ensure access probe shall not touch live parts; In the case of the test for IPXXB in the areas other than passenger compartment or luggage compartment, the jointed test finger may penetrate to its 80 mm length, but the stop face (diameter 50 mm x 20 mm) shall not pass through the opening; In case of the tests for IPXXD inside the passenger compartment or luggage compartment, the access probe may penetrate to its full length, but the stop face shall not fully penetrate through the opening. Functional test requirements: When the requirements of IPXXB and IPXXD are verified by a signal circuit between the probe and live parts, ensure that the lamp shall not light
(38)	Insulation Resistance Measurement Test (For Electric vehicles only) If system voltage is > 60V DC or 30V AC	No	No	Functional	AIS-038 (Rev.1) and (Rev. 2) as amended from time to time	Functional test requirements: Insulation resistance measured should be greater than 500Ω/V. The measurement of test parameters may be automated while test set-up is manual
Additional tests to be conducted on Vehicles other than Two Wheeler and Three Wheeler						
(39)	Malfunction Indicator Lamp - MIL (part of OBD Scan Tool)	No	No	Visual	As per CMVR 1989	If MIL is —On, it indicates the emission circuit discontinuity.

Notes.

- (1) The vehicle that fails any of the above tests, except serial numbers 14, 15, 16, 17(a) and 39 (which are only for information purpose, informing about the health of the vehicle to the owner), shall be declared Unfit. The registered owner or authorised signatory of the vehicle shall have an opportunity to apply for a re-test within thirty days of such result, after getting the defect specified in the test report of initial inspection, rectified. Such vehicle shall be re-tested only for the test(s) which it failed during initial inspection.
- (2) During the initial inspection, if the vehicle fails any of the tests as specified in serial number (1), (11), (12(a)), (13), 17(b), (31), (32), (34), (35), (37) and (38) and is not re-tested within thirty days of such result, such vehicle shall be declared as End-of-Life Vehicle (ELV).
- (3) During re-test, if the vehicle passes all the tests failed in initial test, it will be declared Fit. However, as a result of the re-test, if the vehicle fails any of the tests as specified in serial number (1), (11), 12(a), (13), 17 (b), (31), (32), (34), (35), (37) and (38), as the case may be according to the type of the vehicle, such vehicle

shall be declared as End-of-Life Vehicle (ELV). In case, during the re-test, a vehicle fails any test, except the tests specified in serial numbers 14, 15, 16, 17(a) and 39 of Table-D, such vehicle shall be declared as Unfit.

(4) In case the retest (partial or complete test) is ordered by the Appellate Authority and,—

(i) if the vehicle fails any of the test(s) as specified in serial number (1), (11), (12(a)), (13), (17(b)), (31), (32), (34), (35), (37) and (38), such vehicle shall be declared as End-of-Life Vehicle (ELV).

(ii) If the vehicle fails any of the test(s) other than those listed in (i) above and except serial numbers (14), (15), (16), (17(a)) and (39) (which are only for information purpose), such vehicle shall be declared as Unfit.

(iii) If the vehicle passes all the tests (except serial numbers (14), (15), (16), (17(a)) and (39), which are only for information purpose), such vehicle shall be declared as Fit.

(5) Reference and Standards quoted under column (6) against each item are indicative that the provisions exist under the Central Motor Vehicles Rules, 1989 and concerned Automotive Industry Standards /Indian Standards, except serial numbers (14), (15), (16), (17(a)) and (39), which are to inform the registered owner or authorised representative about the health of the vehicle. These are valid as on date and shall be applicable as amended from time to time

- (2) Visual checks (Interior and exterior vehicle checks) to be carried out before moving the vehicle to the test lane.
- (3) The test lanes at an automated testing station may be segregated into three stations, to balance activities and following tests may be conducted at each station as per the table-E given below :-

Table 28

Station-1	Station-2	Station-3
<ul style="list-style-type: none"> ● RFID Authentication of Operator ● Emission Test ● Horn Test ● Exhaust Noise Test ● Speedometer Test ● Speed Governor Test 	<ul style="list-style-type: none"> ● RFID Authentication of Operator ● Side Slip Test ● Front & Rear Suspension Test ● Service Brake & Parking Brake Test 	<ul style="list-style-type: none"> ● RFID Authentication of Operator ● Under Body Visual Inspection using Axle play detector ● Steering Angle test ● Head Light Test

- (4) Test equipment arrangement/sequence for 2W Lane

Table 29

Station-1	Station-2
<ul style="list-style-type: none"> ● RFID Authentication of Operator ● Emission Test 	<ul style="list-style-type: none"> ● RFID Authentication of Operator ● Brake Test ● Head Light Test

The operator may choose a different combination of tests (as mentioned in above table) to be conducted at each station in a lane, depending on layout of lanes and throughput.

- (5) All stations shall have the capability of accepting login and password, reading Radio Frequency Identification, smartcard or any equivalent device and the tests shall be operated remotely so as to

minimize any manual intervention.

- (6) All Visual checks conducted on a vehicle in an Automated Testing Station shall be photographed using a mobile device and the record of the same shall be preserved for at least six months for audit and assessment purposes.
- (7) *If any discrepancy between list of tests mentioned in this RFB and those provisioned in the CMVR 1989 occurs, the latter will prevail.*

Test Report format

Name, logo & details of the ATS Operator

<div style="border: 1px solid black; width: 100px; height: 40px; margin-bottom: 5px;"></div> QR Code	<p style="text-align: center;"><GPS coordinated date and time></p> <p style="text-align: center;"><Picture of the Registration Plate of the Vehicle></p>
---	--

General Details of Automated Testing Station								
Registration no.	Location			Operating Agency Name	Test no.	Date of Test (DD-MM-YY)	Time of Test	Test Status (Initial Test / 1st Re-Test / 2nd Re-test[1])
	RTO	District	State					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Due Date of Fitness test/ Re-test	
-----------------------------------	--

Details of Vehicle										
Registration no.	Vehicle Class	Make	Model	Engine Number	Chassis Number	Fuel Type	Emission Norms	Speed Governor number (if any)	GVW (kg)	Year of Mfg.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

1. Automated Equipment Calibration Details

Sl. No.	Name of Equipment	ID. No.	Calibration Frequency	Date of Last Calibration
(1)	(2)	(3)	(4)	(5)
1	Roller Brake Tester			
2	Equipment for Axle Weight Measurement			
3	Suspension Tester			
4	Side Slip Tester			

5	Joint Play Tester		N A	NA
6	Electronic Steering Gear Play Detector			
7	Headlight Tester (Semi-automatic / fully automatic)			
8	Opacimeter / Smoke meter			
9	Exhaust Gas Analyzer			
10	Speedometer/ Speed Governor Tester			
11	Sound level meter			
12	Test fingers		NA	NA
13	Insulation Tester			
14	Malfunction Indicator Lamp - MIL (part of OBD Scan Tool)		NA	NA

1. Inspection Result(a) For Quadricycles, Light, Medium & Heavy Motor Vehicles

Sl. No.	Name of Test	As per rule 189 Table D	Applicable (Yes/No)	Recorded Value / Observation	Result (P-Pass / F-Fail)
(1)	(2)	(3)	(4)	(5)	(6)
Part A: Automated Tests – Defining ELV or Fitness					
1	(a) Left headlamp dipped beam vertical deviation (%)	1 (a)			
	(b) Right headlamp dipped beam vertical deviation (%)	1 (b)			
2	(a) Exhaust gas emission – CO%	11 (a)			
	(b) Exhaust gas emission – HC (ppm)	11 (b)			
	(c) Exhaust gas emission (High idle emission) –CO%	11 (c)			
	(d) Exhaust gas emission (High idle emission) – Lambda λ	11 (d) (iv)			
	(e) Smoke density (m-1)	11 (e)			
3	Service brake efficiency (%)	12 (a)			
4	Steering gear free play (degrees)	13			
Part B: Automated Tests – Defining Fitness					
5	Speed Governor	27			
Part C: Automated Tests – Additional information about health of the vehicle					
6	Side Slip Test	14			NA
7	Suspension Test	15			NA
8	Joint Play Test	16			NA
9	Parking Brake efficiency (%)	12 (b)			NA



RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

RFB No.: LX- 10/2024/1504/TC

Dated: 27.01.2024

10	Speedometer Test	17(a)			NA
Part D: Non-Automated Tests (for electric vehicles (EV) & hybrid-electric power train vehicles)– Defining ELV or Fitness					
11	Protection against electric shock. (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	31			
12	Insulation Resistance Measurement Test (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	32			
Part E: Non-Automated Tests – Defining Fitness					
13	Headlamps Assembly	2			
14	Lights	3			
15	Suppressor cap/ High tension cable	4			
16	Rear view mirrors	5			
17	Safety glass (Windscreen)	6			
18	Horn	7			
19	Silencer	8 (a)			
20	(a) Windscreen wiper blades	9 (a)			
	(b) Windscreen wiper system	9 (b)			
21	Dashboard equipment	10			
22	Rear under run protection device (RUPD) (For N2, N3, T3 and T4)	18			
23	Lateral under run protection device (LUPD) (For N2, N3, T3 and T4)	19			
24	FASTag	20			
25	Priority Seats, Signs, securing of crutches/ canes/walker, handrail/stanchions, controls at priority seats for differently abled passengers and passengers with reduced mobility (Only for buses)	21			
26	Wheel-chair arrangements for differently abled passengers and passengers with reduced mobility (Only for buses)	22			
27	Vehicle Location Tracking (VLT) Device	23			
28	High Security Registration Plate (HSRP)	24			
29	Battery	25			
30	Safety belt (Seatbelt)	26			
31	Spray Suppression Devices (For all N, T3 and T4)	28			
32	Tyres	29			

33	Retro- Reflector and reflective tapes	30			
34	State of Charge (SOC) Indicator on Dashboard (for electric vehicles)	33			
Part F: Non-Automated Test – Additional information about health of the vehicle					
35	Malfunction Indicator Lamp - MIL (part of OBD Scan Tool)	39			
36	Exhaust Noise Test (dB)	8 (b)			

(b) For Three Wheelers

Sl. No.	Name of Test	As per rule 189 Table D	Applicable (Yes/No)	Recorded Value / Observation	Result (P- Pass / F- Fail)
(1)	(2)	(3)	(4)	(5)	(6)
Part A: Automated Tests – Defining ELV or Fitness Criteria					
1	(a) Exhaust gas emission – CO%	11 (a)			
	(b) Exhaust gas emission – HC (ppm)	11 (b)			
	(c) Exhaust gas emission (High idle emission) – CO%	11 (c)			
	(d) Exhaust gas emission (High idle emission) – Lambda λ	11 (d)			
	(e) Smoke density (m-1)	11 (e)			
2	Service brake efficiency (%)	12 (a)			
3	Speedometer (For E-rickshaw or E-cart)	17 (b)			
Part B: Automated Tests – Additional information about health of the vehicle					
4	Parking Brake efficiency (%)	12 (b)			NA
Part C: Non-Automated Tests (for electric vehicles (EV) & hybrid-electric power train vehicles)– Defining ELV or Fitness					
5	Protection against electric shock. (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	31 or 37			
6	Insulation Resistance Measurement Test (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	32 or 38			
Part D: Non-Automated Tests – Defining Fitness					
7	Headlamps Assembly	2			
8	Lights	3			
9	Suppressor cap/ High tension cable	4			
10	Rear view mirrors	5			
11	Safety glass (Windscreen)	6			
12	Horn	7			
13	Silencer	8 (a)			

14	(a)	Windscreen wiper blades	9 (a)			
	(b)	Windscreen wiper system	9 (b)			
15		Dashboard equipment	10			
16		High Security Registration Plate (HSRP)	24			
17		Battery	25			
18		Tyres	29			
19		Retro- Reflector and reflective tapes	30			
20		State of Charge (SOC) Indicator on Dashboard (Only for electric vehicles)	33			

Part E: Non-Automated Test – Additional information about health of the vehicle

21		Exhaust Noise Test (dB)	8 (b)			
----	--	-------------------------	-------	--	--	--

(b) For Two Wheelers

Sl. No.	Name of Test	As per rule 189 Table D	Applicable (Yes/No)	Recorded Value / Observation	Result (P- Pass / F- Fail)
(1)	(2)	(3)	(4)	(5)	(6)

Part A: Automated Tests – Defining ELV or Fitness Criteria

1		Headlight passing beam vertical deviation (%)	34			
2	(a)	Exhaust gas emission – CO%	35 (a)			
	(b)	Exhaust gas emission – HC (ppm)	35 (b)			
	(c)	Exhaust gas emission (High idle emission) – CO%	35 (c)			
	(d)	Exhaust gas emission (High idle emission) – Lambda λ	35 (d)			

Part B: Automated Tests – Additional information about health of the vehicle

3		Brake efficiency (%)	36			
---	--	----------------------	----	--	--	--

Part C: Non-Automated Tests (for electric vehicles (EV) & hybrid-electric power train vehicles) – Defining ELV or Fitness

4		Protection against electric shock. (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	31 or 37			
5		Insulation Resistance Measurement Test (For electric & hybrid-electric power train vehicles only, if system voltage is > 60 V DC or 30 V AC)	32 or 38			

Part D: Non-Automated Test – Additional information about health of the vehicle

6		Malfunction Indicator Lamp - MIL (part of OBD Scan Tool)	39			
---	--	--	----	--	--	--

(3). Overall Results



RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

RFB No.: LX- 10/2024/1504/TC Dated: 27.01.2024

--

(4). Summary (Issues identified):

--

(5). Inspection Photos (to be uploaded):

(6). Inspecting officer notes:

--

Digital signature of ATS operator.

The test report shall be generated as per above test report format, In case of any further amendment required due to new regulation or as per requirement of State Government, bidder shall amend the report format without charging any additional cost.

SECTION - 8**CHARACTERISTICS OF VEHICLES TO BE TESTED**

(Table H of sub-rule (7) of Rule 190 of CMVR, 1989) Characteristics of

vehicles to be tested shall be as per following table:

Table 30

S. No.	Details	3-Wheeler		Quadricycle		4-Wheeler (M1, N1)		4-Wheeler LCV (M2, N2)		HCV (M3, N3)			
		Min	Max	Min	Max	Min	Max	Min	Max	Trucks (N3)		Bus (M3)	
1.	Front Axle wt (kg)	90	260	215	215	420	1285	1045	4150	1235	8951	360	6160
2.	Rear Axle wt kg	205	780	308	308	315	1395	810	7840	810	10224	1360	8900
3.	Kerb wt kg	203	800	474	474	730	2625	1210	5440	2045	19175	2660	15000
4.	GVW kg	610	2150	823	823	935	3490	1960	11990	12990	47500	5000	22000
5.	Wheelbase mm	1590	3070	1925	1925	2050	3264	2100	4500	2500	6750	2654	8350
6.	Wheel Track mm Front	-	-	1143	1143	1300	1690	1310	2022	1410	2124	1630	2054
7.	Wheel Track mm Rear	1150	1540	1143	1143	1315	1705	1343	1814	1406	1926	1486	1880
8.	Length mm	2080	2510	2752	2752	1402	5226	3790	7965	4634	11994	5125	15000
9.	Width mm	1100	1520	1312	1312	1495	2173	1500	2470	1870	2590	1910	2600
10.	Height mm	1635	2070	1652	1652	1297	2750	1890	3410	2530	3940	2200	3730
11.	Overhang Front mm	-	-	387	387	464	1297	760	2280	1050	1695	1000	2500
12.	Overhang Rear mm	443	790	440	440	405	1375	710	2385	805	3484	1250	3560
13.	Ground clearance mm	150	255	158	158	89	220	150	375	176	300	150	259
14.	TCD m	-	-	6.96	6.96	8.33	12.6	8.5	19.7	12.3	23.99	11.17	23.4
15.	TCCD m	-	-	7.32	7.32	7.95	13.5	9.8	21.2	14	25.5	12.84	27.2

If any discrepancy between the characteristics mentioned above and those provisioned in the CMVR 1989 occurs, the latter will prevail

SECTION – 8A

Testing Process and Procedure

(Rule 181 of CMVR, 1989)

- (1) The appointment for fitness test at ATS shall be booked electronically by the Vehicle owner/operator through electronic portal setup by central government, on depositing the fee as specified in rule 81 of CMVR.
- (2) The list of tests to be conducted along with the reference standards shall be as per rule 189 of CMVR, as applicable from time to time.
- (3) The data generation, processing and storage shall be done in a manner so as to ensure that:
 - (i) the database is stored in a data management software platform to enable easy exchange and analysis of data with other platforms;
 - (ii) all automated test results shall be automatically transmitted from testing equipment to a central server installed at the automated testing station and visual checks data, including photographs, shall also be transferred on the same server;
 - (iii) the fitness criteria for pass or fail shall be in accordance with rule 189;
 - (iv) (a) display of testing station in a test lane shall not indicate any test result;
(b) all test results shall be masked on the test lane with encrypted test data;
(c) the test report shall be generated automatically and digitally signed with relevant details, immediately after completion of all tests;
 - (v) the test data and report generated shall be kept in a safe and secured facility and uploaded on the electronic portal setup by central government;
 - (vi) Photographs of vehicle and its Chassis and Engine number shall be captured by Global Positioning System enabled camera and shall be kept in a secured facility and uploaded on the electronic portal setup by central government along with the tests data and report.
- (4) The test report generated shall be through physical and electronic mode. The test report shall include the following, namely: -
 - (i) station Name and registration number;
 - (ii) date and time of the test;
 - (iii) vehicle details – Registration number, Type, Make and Model;
 - (iv) visual check details;
 - (v) measured and permissible values of functional tests;
 - (vi) date of calibration of each equipment of the automated testing station on which tests are conducted;
 - (vii) list of functional tests or visual checks failed by the vehicle, in case certificate of fitness is not granted.
- (5) The test results shall also be integrated with electronic portal setup by central government Database.
- (6) The competent officer of concerned Regional Transport Office will evaluate the test results uploaded on the electronic portal setup by central government and if the results comply with the requirements of the Motor Vehicle Act, 1988 and the rules made thereunder, then the concerned officer will approve the test results accordingly.
- (7) After approval of test results by the concerned officer of Regional Transport Office, the Bidder shall print the certificate of fitness in the prescribed Form of CMVR 1989 as amended.
- (8) If the concerned officer of Regional Transport Office does not approve/reject the test results within 2 working days from the date of upload of test results, then it will be treated as deemed approval by the said officer and electronic portal setup by central government will auto approve the said test results.

SECTION - 9 EVALUATION PARAMETERS

EVALUATION CRITERIA (TECHNICAL BID)

The evaluation of the bids shall be done by a Bid Evaluation Committee constituted for the purpose.

The evaluation shall be strictly based on the information and supporting documents provided by the bidders 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 Bid Evaluation Committee shall proceed with evaluation based on information provided and will not request the Bidder for further information. Hence, responsibility for providing information as required lies solely with the 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 summarily rejected.

Transport Commissioner, Odisha will have the right to accept or reject any or all bids, received in response to this tender and its decision in this regard shall be final and binding.

METHODOLOGY FOR EVALUATION

Technical Bids shall be tabulated by the Bid Evaluation Committee in the form of a comparative statement to evaluate the qualification of the Bidders against the criteria for Technical qualification set out in this RFB below.

The members of Bid evaluation committee shall evaluate the technical bids received and shall give marking as per below mentioned marking scheme table.

Bidders securing minimum of 50 marks shall be treated as being technically qualified and eligible for further evaluation and opening of its financial bid.

The recommendations of the Bid evaluation committee shall be subject to the approval of the Competent Authority. After approval by the Competent Authority, those who qualify in the technical evaluation shall be informed and their financial bid shall be opened in the presence of all the qualified bidders. Date for the financial bid opening shall be communicated to the bidders by the authority.

TECHNICAL PROPOSAL EVALUATION CRITERIA

Bidders who qualify in the Pre-Qualification Criteria shall be considered as qualified for Technical evaluations. Bid evaluation committee shall consider documents submitted as part of Technical Evaluation.

This is Quality and Cost Based Selection (QCBS) for technically qualified bidders.

The "Technical Score" shall be calculated out of 100 marks and shall be evaluated as below

Section	Evaluation Criteria	Total Marks
A	Bidder Financial Capacity	30
B	Bidder Technical Experience	30
C	Key Professional Experience	20
D	Subjective Marketing on Proof of Concept	20
	Total	100

The detailed Breakup of the evaluation shall be as follows,

Turnover : The Bidder (Any one member in case of Consortium) should be a profitable company and having an average annual turnover during the last three financial years:	Greater than or equal to INR 180 Crores to 200 Crore	5	20	
	Greater than INR 200 Crores to 250 Crore	10		
	Greater than INR 250 Crores	20		
Bidder (All members in case of consortium) should have positive net worth as per the audited consolidated financial statements as on 31st March 2023 (or as per Financial Year End of the country of origin)	1.INR 10 Crores And above	5	10	
	2. INR 15 Crores And above	7		
	3. INR 20 Crores And above	10		
Section B. Bidder Technical Experience				
The Sole bidder / any consortium member shall be an OEM should have experience of manufacturing and supplying of Test Lane equipment globally consisting of at least 4 (Four) test lane equipment mentioned in CMV rule 190.	4 to 7 Equipment	5	20	
	7 to 10 Equipment	10		
	More than 10 equipment	20		
The Bidder (or any member of the consortium) have experience of successfully conducting no of vehicle fitness tests during the last five (3) financial years in India as on bid submission date.	1000 to 10,000 tests	5	10	
	10,001 to 20,000	7		
	Greater than 20,000 tests	10		
Section C. Key Professional Experience				
The Sole Bidder/ Any member of the consortium should have atleast 100 technical staff on their payroll having experience in (Equipment servicing/Software service/IT Services) at the time of bid submission	100 to 150 employee	10	20	
	150 to 200 employee	15		
	200 or more employee	20		
Section D. Proof of Presentation and Demonstration				
1) ATS infrastructure and Other Facility as per CMVR Guidelines & Demo of all Equipments as per CMVR Norms.	Material of construction shall be corrosion resist for speedometer tester, sideslip tester, break tester, suspension tester, joint play tester, eletronic turn table;	2	5	20
	Solvent based Paints (At least two coats of Zinc chromate primer followed by two coats of synthetic Enamel Paint)	2		
	Epoxy Paints & Hot dip Galvanized	1		
2) Efficiency of and modularity of Equipment's communication Easy to troubleshoot the system with least complex wiring for speedometer tester, sideslip tester, break tester,	LAN/BT/Wi-fi	2	5	
	USB/RS232/RS485	3		
	CAN	5		

suspension tester, joint play tester, electronic turn table				
3) Safety features for safe Vehicle testing;	1. Vehicle axle park assist on roller set and interlock for safety in case wrong parking or failure of sensing devices for break tester and speedometer tester.	Any one-2	5	
	2. Immediate roller stoppage after achieving maximum breaking force in case of break tester hence power saving and no damage to vehicle.	Any two -3		
	3. Smart health detection of speedometer tester for required pneumatic pressure, axle alignment roller.	All - 5		
4) Following inbuilt artificial intelligence and features to ensure correct vehicle testing and correct test reading & Presentations of ATS networking	1. Smart vehicle type detection to ensure correct selection of vehicle type/category by break tester.	Any one-2	5	
	2. Inbuilt AI features to detect the vehicle visual faults, such as reflector tape, SUPD, RUPD, windshield etc.	Any two -3		
	3. Integrated plate surface of friction > 0.6 for suspension tester (both side) and joint play tester (one side) for better locking of vehicle wheel on tester surface.	All - 5		
	4. Inbuilt mechanism for removable of deformities/ stress from tyre resulting in false reading for sideslip tester.			

EVALUATION OF FINANCIAL BID

Financial Bid of the Bidders will be evaluated as below:

- (i) The Bidder shall submit Financial Bid as per requirements of this RFB.
- (ii) In Financial Bid, the Bidder shall quote **“the Project Cost”** as per **Form (L) of this RFB**. The Form (L) comprises Schedule I, II, III, IV and V. The summary of cost of Schedule I to IV is the Project Cost i.e. **Schedule V of Form (L)**. **All five Schedules are given in Form (L)**.
- (iii) All the technically qualified bidders shall be selected for participating in the financial bid opening.
- (iv) Bidders are required to quote for single typical location as per Commercial bid format specified in Annexure Form L. All prices shall be in Indian Rupees.
- (v) The quote for the single typical location, as per Form L, will serve as a reference for all locations, and the same price will be applied for contract award.
- (vi) The Bidders scoring points of 50 and above in the Technical Proposal Evaluation will qualify for Financial Proposal Evaluation. The Technical Proposal Evaluation score of technically qualified bidders would be standardized on a scale of 100, with highest point being standardized to 100 and

the rest being awarded on pro-rata basis.

- (vii) The individual bidder Technical Evaluation marks will be standardized as per the formula below:

$$T(\text{stan}) = (T(\text{bid}) / T(\text{max})) \times 100$$
Where, T(stan) = Standardized Technical score for the Bidder under consideration
T(bid) = Technical Evaluation score secured by the Bidder under consideration
T(max) = Maximum Evaluation score obtained by any Bidder
- (viii) The Financial Proposals (as per the financial bid format) of technically qualified bidders shall be evaluated as below:

$$C(\text{fs}) = (C(\text{min}) / C(\text{bid})) \times 100$$
Where, C(fs)= Financial Score for the Bidder under consideration
C(bid)= Price quoted by the Bidder under consideration
C(min)= Minimum price quoted by any of the Bidder
- (ix) The method of Final Evaluation of the Bids is described as follows:
Bids will be ranked according to their combined Technical (T(stan)) and Financial (C(fs)) scores using the weightages
The weightage given to Technical Bid is 70% as $W(\text{tech}) = 0.70$; and the weightage given to Commercial Bid is 30% as $W(\text{com}) = 0.30$. The combined Technical and Financial Score for the Bidder under consideration shall be computed as per the formula given below:
Final Score of each Bidder shall be evaluated as $\text{Final Score} = (T(\text{stan}) \times W(\text{tech})) + (C(\text{fs}) \times W(\text{com}))$
- (x) The Bidders would then be ranked in the descending order based on the Final Score obtained as per the procedure detailed in above and graded from H1, H2, H3..... to Hn. With H1 being the highest and Hn being the lowest.
- (xi) In case two or more Bidders have same Final Score, the Bidder having higher Technical Score would be considered of higher rank than the other.

DETERMINATION OF SUCCESSFUL BIDDER

- (i) The two bidders with highest final score (H1 and H2) shall be considered as the “preferred bidders”
- (ii) The Lowest financial Proposal/Project cost amongst H1 and H2 shall be considered as the “Preferred Financial proposal”
- (iii) Both the bidders with score H1 and H2 shall be offered to execute on Project cost of “Preferred Financial proposal”
- (iv) If either of the “preferred bidders” rejects the offer to execute on project cost of “Preferred Financial proposal” H3 shall be offered to execute the same adopting a similar procedure as above so on so forth till a bidder is selected for the other cluster.
- (v) The “Preferred bidders” with the “Preferred financial proposal” shall not be allowed to reject the offer. In doing so he will be blacklisted by the Transport Commissioner, Odisha.
- (vi) The prices for the manpower in the “Preferred Financial Proposal” are unit prices for each type of resource the Transport Commissioner, Odisha shall inform selected bidders of the respective clusters of the no. of manpower required for each of the ATS in their clusters during the award of the contract.

CORRECTION OF ARITHMETIC ERRORS IN FINANCIAL BIDS

If there is a discrepancy between words and figures, the value in words shall prevail.

SECTION - 10

ACCEPTANCE TEST REQUIREMENTS

10.1 Acceptance Test shall be done in two steps, such as:

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

10.1.1. PRE DISPATCH INSPECTION – ACCEPTANCE

Pre- dispatch Inspection team consisting a team of 4 persons including two members of ICAT (being technical consultant for this Project) and two other member nominated by Transport commissioner, Odisha shall conduct Pre dispatch inspection of main testing equipment (the actual equipment to be supplied) before their dispatch to the respective ATS site, at the Supplier's place. This inspection shall be for a period of 2-3 days for each ATS and may be extended subjected to completion of inspection. All expenses related to travel tickets and complete stay arrangements including lodging and boarding will be borne by the bidder. This Pre-dispatch activity will include:

- Pre dispatch inspection of Roller brake tester
- Pre dispatch inspection of Suspension tester
- Pre dispatch inspection of Speedometer tester
- Pre dispatch inspection of Side slip tester
- Pre dispatch inspection of Joint Play detector
- Pre dispatch inspection of Steering Gear Play detector
- Pre dispatch inspection of Head light tester
- Pre dispatch inspection of sound Level Meter
- Pre dispatch inspection of Electronic Steering Play detector

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 Transport Department by the time of Pre dispatch inspection.
 - ✓ For 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.
 - ✓ ICAT being Consultant, will give its Pre-dispatch inspection report to the State Transport Authority who will further direct the Bidder to dispatch the equipment to the ATS.

- ✓ Pre dispatch Inspection will be done only once. Bidder will submit in writing to the Transport Department that same equipment will be supplied, which can be cross checked by ICAT at the time of Installation of equipment at the ATS.

10.1.2. COMMISSIONING OF EQUIPMENT

- 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.

10.2 FINAL ACCEPTANCE

Before final acceptance the following requirements are to be fulfilled / checked :

- 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 types of vehicles to prove that operation and results of the equipment fulfils the requirements demanded in this RFB.

SECTION - 11 TERMS OF PAYMENT

PAYMENT AGAINST CONSTRUCTION OF TWO-WHEELER TEST LANE SHED, UPGRADATION OF EXISTING INSTALLED VEHICLE TESTING EQUIPMENT, PURCHASE, SUPPLY, INSTALLATION, COMMISSIONING AND CIVIL FOUNDATION WORK OF THE EQUIPMENT AS WELL AS AGAINST OPERATION AND CMC:

11.1 No advance payments shall be paid to the Successful Bidder.

11.2 PAYMENT AGAINST CONSTRUCTION OF AUTOMATED TESTING STATION AT RESPECTIVE LOCATION

Table 31

Sr. No.	Description	Rate (%)
1.	Test Shed and Building Works	
a)	Excavation and laying of Lean Concrete, RCC Works for Foundation	10%
b)	Erection of Test Shed, Construction of Admin Building, Utility room, Server Room and allied structures	20%
c)	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, Waterproofing Work, Road Works	20%
d)	Electrical Works including Compact Substation, L.T Panels, External Lighting, HT & LT Cables, Lightning Conductor and other allied works	20%
e)	Epoxy coating for the flooring	10%
2.	Water Supply and Sanitation Works	
a)	Sewage System and Sanitary Fixtures, Storm Water Drainage System, Water Supply System	10%
3.	Fire safety Works	10%

- For such payment, the Successful Bidder will submit invoice duly signed by the authorized signatory to the Transport Commissioner, Odisha.
- The Transport Commissioner, Odisha., on the report of ICAT about the successful completion of the civil work and commissioning of equipment, after satisfying that the invoice is in accordance with the provisions of the Financial Bid of this RFB, will make payment with deductions, if any, for penalty and/or any other dues.

11.3 PAYMENT AGAINST SUPPLY AND INSTALLATION OF TESTING EQUIPMENT AND IT EQUIPMENT

- 70 percent will be paid after successful installation and commissioning of equipment at ATS as per report submitted by the designated audit agency.
- 10 percent will be paid after 1st year of successful operation of ATS from the date of commissioning.
- 10 percent will be paid after 2nd year of successful operation of ATS from the date of commissioning.
- 10 percent will be paid after 3rd year of successful operation of ATS from the date of commissioning.
- For such payment, the Successful Bidder will submit invoice duly signed by the authorized signatory to the Transport Commissioner, Odisha.
- The Transport Commissioner Odisha, after satisfying that the invoice is in accordance with

the provisions of the Financial Bid of this RFB, will make payment with deductions, if any, for penalty and/or any other dues.

11.4 PAYMENT AGAINST SUPPLY AND INSTALLATION OF UTILITIES AND EXHAUST GAS HANDLING SYSTEM

- a) **40%** after receipt of Utilities in good condition and correct quantity at site
- b) **30%** after installation of Utilities in all respects including electrical installation
- c) **30%** after commissioning of Utilities

11.5 PAYMENT FOR SEVEN YEARS OPERATION OF ATS

- a) Payments for operation of the ATS will be made on monthly basis on the submission of monthly invoice of each ATS.
- b) The Successful Bidder shall be paid on monthly basis on submission of invoice duly signed by the authorized signatory to the concerned Regional Transport Officer.
- c) The Regional Transport Officer after satisfying that the invoice is in accordance with the provisions of the Financial Bid of this RFB and verifying the satisfactory performance of operation of Center will make payment with deductions, if any, for penalty and/or any other dues.
- d) Final month payment shall be paid after the bidder has handed over all the equipment in good working conditions and settled all the dues.

11.6 CMC PAYMENT

- a) CMC charges will be paid annually at the rate of 5 percent of the cost of the equipment and utility at the end of 3rd, 4th and 5th year from the date of commissioning. This payment will be made on successful completion of CMC work as per RFB requirement.
- b) For such payment, the Successful Bidder will submit invoice duly signed by the authorized signatory to the Transport Commissioner, Odisha.
- c) The Transport Commissioner Odisha, after satisfying that the invoice is in accordance with the provisions of this RFB, will make payment with deductions, if any, for penalty and/or any other dues.

11.7 CURRENCY OF PAYMENT

All payments shall be made to the Successful Bidder in Indian Rupees.

11.8 PAYMENT SCHEDULE

The payment will be released, as far as possible within one month, after the receipt of the invoices from the Successful Bidder.

11.9 TRANSPORT COMMISSIONER, ODISHA RIGHT TO SET OFF

Transport Commissioner, Odisha 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 Transport Commissioner, Odisha under the Contract.

11.10 TAXES AND DUTIES

- (a) 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:
 - (i) all Taxes (all applicable taxes imposed by central and state government such as GST, custom duty, excise, VAT, octroi etc.);
 - (ii) 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 Sub Bidders 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;
 - (iii) the cost of all import or export licenses if required in respect of the Bidder's Equipment and Spare Parts;

(iv) the cost of any port dues including (but not by way of limitation) wharfage 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 and Spare Parts to be used in connection with the Execution of the Works;

- 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
- the Bidder indemnifies and keeps indemnified Transport Commissioner, Odisha 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;
- Withholding Tax/Income Tax deducted at source.

(b) 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. Transport Commissioner, Odisha shall not in any way be liable for payment of such taxes. Transport Commissioner, Odisha shall be entitled to deduct at source 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. Transport Commissioner, Odisha shall provide a certificate certifying the deduction so made.

(c) The property tax, if any, shall be paid by the State Transport Authority, U.P

11.11 PENALTY FOR DELAYED SERVICES / LATE DELIVERY/ INCIDENT WISE PENALTY

- a) If the Bidder fails to construct ATS, supply, install and commission the equipment and/or fails to commence the operation of the ATS as per Implementation Schedule mentioned in the RFB, the Successful Bidder is liable to pay 0.1 % of the Contract value per week or part thereof for delay, subject to a maximum of 10% (ten percent) of the Contract value at a time.
- b) The Transport Commissioner, Odisha reserves the right to terminate the contract in case the Successful Bidder fails to commence the operation of the ATS even after 270 days from the date of issuance of LoA and forfeit the PBG.
- c) Any machine/equipment in a test lane should not break-down for more than 96 hrs, after which a penalty of Rs.5000/- (Five Thousand) per day per lane shall be imposed on the Successful Bidder. Such penalty amount in a month shall not exceed the operation cost of the particular month.
- d) In case of Downtime of any IT equipment/ any utility/ any software for more than 100 hours in a calendar year bidder shall be levied INR 1000 per hour for each component. Transport Commissioner, Odisha may terminate the agreement under clause-11.11.
- e) Incident wise penalties to be levied on successful bidder during operation of ATS as under:

Table 32

Sr. No.	Deficiencies	Fine (in INR / day / per month)			
		1st Offence	2nd Offence	3rd Offence	4th Offence onwards
1	Not providing adequate manpower as per RFB condition/ CMVR/ any prevailing norms requirements	500	1000	2000	5000
2	Not installing additional equipment or upgrading the equipment as per future amendments in CMVR requirements or any other prevailing norms/ regulation	500	1000	2000	3000
3	Not updating the Software as per the directives of Authority for complying the prevailing norms	2000	4000	8000	12000

4	Non implementation of Artificial Intelligence in visual inspection software as per requirement of this RFB	500	1000	2000	3000
5	Attempt to Change / unauthorized changes in test procedure (not align to the requirements of CMVR/ IS / AIS/ any related testing standards)/breach of contract or Event of malpractice/any information security breach/ unauthorized data leakage/ any discrepancy on Testing fee collection/ any additional fee charging from public without prior consent or approval from the State Transport Authority, Govt. of Odisha	INR 1 lakh on 1st incident INR 2 lakhs on 2nd incident Upon 3rd such incident, show cause with 30 days' notice will be issued. 2nd notice will be issued with 15 days' notice. For any incident thereafter, the Authority can terminate the contract as per defined process through a committee constitute by the State Transport Authority, Govt. of Odisha			
6	Any discrepancy pointed out during the periodic audit and assessment, the same shall be rectified by the Successful Bidder within ten working days from the date of issuance of the audit and assessment report.	Rs. 5000/- (Five Thousand only) per day.			

- f) Such penalty amount will be deducted from Performance Bank Guarantee or from amount due to the Successful Bidder; or the Successful Bidder shall be required to pay such amount separately in the form and manner as directed by Transport Commissioner, Odisha.

11.12 PROJECT MANAGEMENT CONDULTANCY FEE OF ICAT

- a) The successful bidder shall be required to pay Project Management Consultancy (PMC) fee to ICAT, Manesar electronically as per the following defined milestone:
- PMC Charges during establishment and implementation phase amounting to INR 3.5 lakhs plus applicable taxes per Test lane (HCV/LCV/Two wheeler) as per the following payment terms:
 - Payment schedule is detailed below

Table 33

Sl. No.	Payment milestone	Payment Timeline
1	50% of the amount is to be paid by the successful bidder after allotment of work and signing of agreement.	Within 7 days from the signing of Agreement.
2	Balance 50% of total amount to be paid by the shortlisted Operator after commissioning of ATS.	Within 7 days from the date of release of ICAT inspection report.

- c) All payments as detailed above shall be made as per Proforma Invoice of ICAT for each milestone completion.
- b) Expenses for a maximum of four visits per ATS location will be incurred by ICAT. If project gets delayed due to any reason, the successful bidder will have to incur travelling, lodging & boarding expenses of ICAT. All payments for additional site inspections and audits beyond four visits of ICAT at each location towards travel logistics (including air travel, local transport, 3-star lodge and boarding facilities) shall be borne by the Successful bidder for 2 ICAT officials per visit per ATS location.



FORM (A)

Letter for Submission of Technical Proposal

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

(Duly notarized to be attached along with Technical Bid)

To:

The Transport Commissioner,

Odisha,

6th Floor, Rajaswa Bhawan,

Cuttack, Odisha 753002

Dear Sir,

I/We, the undersigned, offer our bid in response to your RFB No. Dated.....

- 2) I/We are hereby submitting our Bid, which includes the Technical Bid and a Financial Bid.
- 3) My/Our Bid is valid for a period of 270 days from the last date of Submission of Bids, extendable further for the additional period of 60 days, on request of Transport Commissioner, Odisha, without any additional cost.
- 4) I/We hereby declare that all the information and statements made in this Bid, are true and complete in all respects and are as per the requirements of the RFB.
- 5) I/We further understand that any information, which is found false or is not as per the requirements and terms & conditions of the RFB, may cause disqualification of my/our Bid.
- 6) I/We hereby declare that I/We have submitted Earnest Money Deposit and Bid Processing Fee of requisite value in the form and manner as specified in the RFB.
- 7) If negotiations are held during the period of validity of the Bid, I/we undertake that my/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 270 days and is extendable further for the additional period of 60 days, on request of Transport Commissioner, Odisha, without any additional cost.
- 8) I/ We acknowledge the right of Transport Commissioner, Odisha to reject my/our Bid without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 9) I/ We certify that in the last five years from the date of publication of this bid, I / we have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part, nor been banned or debarred or blacklisted by Govt. of Odisha or any other Ministry/Department of the Govt. of India/State Govt. or any other country from participation in tenders/contract.
- 10) I/ We declare that:
 - (a) I/ We have examined and have no reservations to the RFB document;; and
 - (b) I/ We do not have any conflict of interest in accordance with any Clauses of the RFP document; and
 - (c) I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFB document, in respect of any tender or request for proposal issued by or any Agreement entered into with the Government or any other public sector enterprise or any Government, Central, Union Territory or State; and
 - (d) I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of the RFB document, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive



practice, undesirable practice or restrictive practice; and

(e) The undertakings given by me/us along with the Bid for the Project are true and correct as on the Bid Due Date and I/ we shall continue to abide by them.

- 11) I/ We understand that Transport Commissioner, Odisha may cancel the Bidding Process at any time and that Transport Commissioner, Odisha neither bound to accept any Bid that Transport Commissioner, Odisha may receive for the Project, without incurring any liability to the Bidders, in accordance with Clauses of the RFP document.
- 12) I/We believe that I/we satisfy the Net Worth criteria and meets all the requirements as specified in the RFB document and is /are qualified to submit a Bid.
- 13) I/ We certify that in regard to matters other than security and integrity of the country, I/We have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- 14) I/ We further certify that in regard to matters relating to security and integrity of the country, I/We have not been charge-sheeted by any agency or convicted by a Court of Law.
- 15) I/ We further certify that no investigation by a regulatory authority is pending either against me/us or against our Associates or against our CEO or any of our directors/managers/employees.
- 16) I/ We hereby irrevocably waive any right or remedy which I/we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by Transport Commissioner, Odisha in connection with the qualification/ short listing of Bidders, selection of the Bidder, or in connection with the selection/ Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
- 17) I/ We have studied all the Bid documents carefully and also surveyed the Project. I/We understand that except to the extent as expressly set forth in the Contract Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by Transport Commissioner, Odisha or in respect of any matter arising out of or relating to the Bidding Process including the award of Contract.
- 18) I/ We agree and understand that the Bid is subject to the provisions of the Bid documents. In no case, I/we shall have any claim or right of whatsoever nature if the Project / Contract is not awarded to me/us or our Bid is not opened or rejected.
- 19) I/ We agree and undertake to abide by all the terms and conditions of the RFB document.

In witness thereof, I/ we submit this Bid under and in accordance with the terms of the RFB document. Yours sincerely,

Authorized Signature [In full]:

Authorized Signature [In initials]: Name and Title of Signatory: Name of the Company

Address:

Seal of the Company Date:



FORM (A-1)

(To be submitted duly notarized along with Technical Bid)

REPRESENTATIONS AND WARRANTIES BY THE BIDDER

To

The Transport Commissioner,
Odisha,
6th Floor, Rajaswa Bhawan,
Cuttack, Odisha 753002

Ref: RFB No dated:

Dear Sir,

The Bidder represents and warrants to Transport Commissioner, Odisha that:

- (a) it is duly organized, validly existing and in Good standing under the laws of India or in the country of its incorporation;
- (b) it has full power and authority to execute, deliver and perform its obligations under the Contract and to carry out the transactions contemplated hereby;
- (c) 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;
- (d) it has the financial standing and capacity to Execute the Works;
- (e) the Contract constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (f) 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;
- (g) 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;
- (h) no representation or warranty by the Bidder contained herein or in any other document furnished by it to Transport Commissioner, Odisha 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;
- (i) 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.
- (j) without prejudice to any express provision contained in the Contract, the Bidder acknowledges that prior to the execution of the Contract, it 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 Transport Commissioner, Odisha 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.

**Signature of Authorised Signatory Name &
Designation
Date & Seal**



FORM (B)

LETTER OF UNDERTAKING

[On the letterhead of the Bidder]

(Duly notarized to be attached along with Technical Bid)

To

The Transport Commissioner,
Odisha,
6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002

Ref: RFB No dated:

Dear Sir,

I/We acknowledge that the documents for RFB No..... dated are confidential and I/we hereby undertake as follows:

1. I/We shall maintain the confidentiality of Confidential Information and protect confidential information of third parties delivered to us in Good faith for this project by the Transport Commissioner, Odisha.
2. I/We shall not at any time whatsoever:
 - (i) disclose, in whole or in part, any Confidential Information received directly or indirectly from the Transport Commissioner, Odisha to any third party.
 - (ii) reproduce, publish, transmit, translate, modify, compile or otherwise transfer the Confidential Information.
4. In case my/ our bid is not accepted, I/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. I/We shall certify to Transport Commissioner, Odisha that I/we have returned or destroyed such Confidential Information to Transport Commissioner, Odisha within two (2) days of non-acceptance of my/our Bid.
6. I/We shall certify to Transport Commissioner, Odisha that the Equipment supplied for the project are capable of testing the vehicles as per CMVR 1989, as amended, requirements and all additional tests, as required by this RFB, for ensuring optimum safety and emission performance of in-use vehicles shall also be performed.

Signature of Authorised Signatory

Designation

Date

Seal

**FORM (C)****Sole / Lead Bidder's Firm Profile****(To be filled and attached along with Technical Bid)**

1) Firm Information

Bidder Identification	
a) Name	
b) Registered address (in full)	
c) Details of registration (in full)	
d) Principal place of business	
e) Telephone number and mobile number	
f) Fax number	
g) Website	
h) Authorized signatory for this Bid Name Designation Email Mobile number Landline number	
i) Name and Address of Bankers	
Business Organization	
a) Date of Registration	
b) Registering Authority	
c) Parent/Leader company (if any) and it's 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

[If yes, provide detail in an attachment to this form]

2) Description & Capability of Firm

[Provide here a brief (a maximum of three pages) description of the organization and an explicit statement of capability of the organization.]

3) Organisation Structure of Firm

[Please provide the Organization Chart showing company structure, including positions of directors and managers and location of all other offices in India and the world.]

Please provide a statement about the total number of employees of the Bidder, their skillsets with specific information on the employees based in India.

4) Financial Information

Year	2020-21	2021-22	2022-23
Average Annual Turnover (in INR)			
Net Worth (in INR)			

Copies of balance sheet (Profit and loss statement) of required years certified by the Chartered Accountant with UDIN shall be attached.

5) Work Experience

Year	Year 1	Year 2	Year 3
Nature of work executed			
References			

6) Equipment manufacturer/ supplier details

Particular	Details
Company Name	
Company type (OEM/ Authorised dealer etc)	
Contact Details	
Past Experiences	

Signature of Authorised Signatory Name

Designation Seal



RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

FORM (D)

Detailed Information about Consortium
(To be filled and attached with technical bid)



FORM (E)

Power of Attorney (PoA)

(Duly notarized to be submitted along with Technical Bid)

Know all men by these present, I/We (*Name of the person (s) and designation*)....., (*name of the Company and address of the registered office*) do

hereby irrevocably constitute, nominate, appoint and authorize Mr/Ms (name),

..... son/daughter/wife of and presently residing at, who is presently employed with us and holding the position of....., as our true and lawful

attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for supply, installation, commissioning of vehicle inspection equipment as well as civil foundation work of equipment and operation & maintenance of *Automated Testing Station (ATS)* at Cuttack proposed by the Transport Commissioner, Odisha through its Transport Commissioner (the "**Procuring Authority**") including but not limited to signing and submission of Bids and other documents and writings, participate in Pre-Bid and other conferences and providing information/ responses to Transport Commissioner, Odisha, representing us in all matters before Transport Commissioner, Odisha, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our Bid, and generally dealing with Transport Commissioner, Odisha in all matters in connection with or relating to or arising out of our Bid for the said Project and/ or upon award thereof to us and/ or till the entering into of the Contract Agreement with Transport Commissioner, Odisha.

AND we hereby agree to ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

The said Power of Attorney has been executed through power received through Board Resolution dated (if applicable)

Signature of attorney is attested below:

IN WITNESS WHEREOF WE,, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED

THIS POWER OF ATTORNEY ON THIS DAY OF, 20.....

(Signature) Name: Designation: Address:

Witnesses: 1.
2.

**Form (E-1)****Power of Attorney (PoA) in favour of Lead Member of Consortium****(Duly notarized to be submitted along with Technical Bid)**

Know all men by these present, we

1(name of the Firm and address of the registered office)

2(name of the Firm and address of the registered office)

3(name of the Firm and address of the registered office)

Do hereby irrevocably constitute, nominate, appoint and authorize <..... (Name of the Firm).....> <.... address.....> as our true and lawful attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for supply, installation, commissioning of vehicle inspection equipment as well as civil foundation work of equipment and operation & maintenance of *Automated Testing Station (ATS)* at Cuttack proposed by the Transport Commissioner, Odisha through its Transport Commissioner (the "**Procuring Authority**") including but not limited to signing and submission of Bids and other documents and writings, participate in Pre-Bid and other conferences and providing information/ responses to Transport Commissioner, Odisha, representing us in all matters before Transport Commissioner, Odisha, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our Bid, and generally dealing with Transport Commissioner, Odisha in all matters in connection with or relating to or arising out of our Bid for the said Project and/ or upon award thereof to us and/ or till the entering into of the Contract Agreement with Transport Commissioner, Odisha.

AND we hereby agree to ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

The Signature of authorised signatory of Lead Member is attested below:

IN WITNESS WHEREOF WE,, THE ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 20.....

(Signature) Name of the person: Designation: Name of the Firm Address: Seal	(Signature) Name of the person: Designation: Name of the Firm Address: Seal	(Signature) Name of the person: Designation: Name of the Firm Address: Seal
--	--	--



FORM (F)

Proof of payment of Earnest Money Deposit (To be filled and attached along with Technical Bid)

To
The Transport Commissioner,
Odisha, 6th Floor,
Rajaswa Bhawan, Cuttack,
Odisha 753002

Dear Sir,

I/We hereby declare that the EMD of Indian Rupees _____ Only (Rs. _____ lakhs Only) has been paid through Bank Draft in favour of Transport Commissioner, Odisha in the Bank vide Demand Draft Number..... Dated.....

Signature of Authorised Signatory Name

Designation Seal



FORM (F-1)

Proof of payment of Bid Processing Fee (To be filled and attached along with Technical Bid)

To
The Transport Commissioner,
Odisha, 6th Floor,
Rajaswa Bhawan, Cuttack,
Odisha 753002

Dear Sir,

I/We hereby declare that the Bid Processing Fee of Indian Rupees Only (Rs <in words> ... Only) has been paid through NEFT/RTGS in favour of Transport Commissioner, Odisha in the Bank with payment details as follows:

Bank Name:

Branch Name and Address:

Account Number:

IFSC Code:

UTR No:

Date:

Signature of Authorised Signatory

Designation

FORM (G)**Performa for Performance Bank Guarantee**

(To be executed on non-Judicial stamped paper of an appropriate value after the issuance of LOA)

WHEREAS – The Transport Commissioner, Transport Commissioner, Odisha, 6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002 (hereinafter referred to as “**The Department**” which expression shall unless repugnant to the context includes its legal representatives, successors and assigns), has issued a Letter of Award ...<No..... dated> for ATS at and agreed to enter into a Contract as per RFB [*insert reference number of the RFBs*] dated [*insert date of issue of RFBs*]...and various other documents forming part thereof with [*insert name and address of the Successful Bidder*](hereinafter referred to as the “**Successful Bidder**” 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 as specified and based on the terms & conditions set out in the aforementioned RFB.

AND WHEREAS as per the requirement of the RFB, the Successful Bidder shall have to submit to the Department a Bank Guarantee from a Nationalized/Scheduled bank of India having a branch at Cuttack for an amount of Rs. (Rs. in words ... only) [the amount guaranteed under this bank guarantee shall hereinafter be referred to as the “**Guaranteed Amount**”] against due and faithful performance of the Contract, including the performance bank guarantee obligation and other obligations of the Successful Bidder for the supplies made and the Works being performed and executed as per requirements and terms & conditions of the said RFB and the consequent Contract. This bank guarantee shall be valid from the date hereof up to **the period of one year from the date of expiry of the contract period.**

AND WHEREAS the Successful Bidder 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 Successful Bidder and in consideration of the promises made by the Successful Bidder, 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 Department without any further proof or conditions and without demur, reservation, contest, recourse or protest and without any enquiry or notification to the Successful Bidder merely on a demand from the Department stating that the amount claimed is due to the Department under the Contract. Any such demand made on the Bank by the Department 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 Department in such Demand. The Department 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 Department 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 Rupees “**Guaranteed Amount**”.
- (iii) The Department 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 Department as per the said RFB and the consequent Contract and to enforce or to forbear endorsing any powers or rights or by reasons of time being given to the Successful Bidder which under law relating the Surety would but for the provisions have the effect of releasing the surety.
- (iv) The rights of the Department 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 Successful Bidder 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 Successful Bidder but shall in all respects and for all purposes be binding and operative until payment of all money due to the Department in respect of such liability or liabilities is affected.
- (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 Odisha at Cuttack 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 said RFB and the consequent 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 completion of one year from the date of expiry of Contract period. Unless a Demand under this bank guarantee is filed against the Bank within six months from the date of expiry of this bank guarantee, all the rights of the Department under this bank guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities hereunder. However, if the Successful Bidder's obligations against which this bank guarantee is given, are not completed or fully performed by the Successful Bidder 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 Successful Bidder fulfils its obligations under the Contract.

I/We have the power to issue this bank guarantee in your favour under Memorandum and Articles 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.

Any payment made hereunder shall be free and clear of and without deduction for or on account of taxes, levies, imports, charges, duties, fees, deductions or withholding of any nature imposts.

Bank Guarantee Number: Date of Issue:

Signature of Authorized Signatory
Name
Designation

Date:

Corporate Seal of the Bank

Important Instruction: The PBG is to be signed by official(s) duly authorized to sign on behalf of the Bank.

FORM (H)

Detailed Technical Specifications

(To be filled and attached along with Technical Bid)

[The Bidders are required to fill 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 Bidder shall maintain the structure of this document].

1. Vehicle Testing Equipment

S.No	Equipment	Equipment details for LCV Lane					Equipment details for HCV Lane				
		Make	Model	Country of origin	Office Address in India	Specifications	Make	Model	Country of origin	Office Address in India	Specifications
1	Roller braketester										
2	Axle Weight Measurement										
3	Suspension tester										
4	Side slip tester										
5	Joint Play tester										
6	Electronic Steering Gear Play Detector										
7	Semi-Automatic Head light tester										
8	Opacimeter										
9	Exhaust gas analyzer										
10	Speedometer Tester/ Speed Governor Tester										
11	Sound level meter										
12	OBD Scan Tool										
13	Test Fingers (for Electric & Hybrid- Electric Power train vehicles only)										
14	Insulation Tester (for Electric & Hybrid-Electric Power train vehicles only)										
15	Free Roller Set (For Speedometer test on All Wheel Drive vehicles)										
16	Bogie Roller Set (For Roller Brake Test or Speedometer Test										

	on multi-axle HCV with more than one live axle)										
Equipment details for Two Wheeler test lane											
17	Roller brake tester	Make	Model	Country of origin	Office Address in India			Specifications			
18	Semi-Automatic Headlight tester										
Equipment for testing Three-Wheeler											
19	Toeing trolley or rail Trolley (For front wheel of 3-Wheeled vehicle)	Make	Model	Country of origin	Office Address in India			Specifications			

2. IT Equipment

Sl. No.	Equipment	Make	Model	Country of origin	Office Address in India	Specifications
1	Server					
2	Desktop					
3	B/w Printer					
4	Color Printer					
5	Sticker printer					
6	Number Plate Reader Camera					
7	Speed dome Camera					
8	Network Video Recorder					
9	CCTV					
10	Smart TV					
11	LED Screen					
12	GPS enabled camera					
13	Hand held tablets					

14	Hybrid WAN Link aggregator (Inbound / Outbound) Hub Unit [Networking Equipment]					
----	---	--	--	--	--	--

3. Calibration Equipment

[Please give details as per requirement of Section – 7 of this RFB]

4. Software considerations

[Please give details as per requirement of Section – 7 of this RFB]

5. Safety Systems

[Please give details as per requirement of Section – 7 of this RFB]

6. Automatic Tyre pressure filler and indicator

[Please give details as per requirement of Section – 7 of this RFB]

7. UPS 20 kVA

Sr. No.	Description	Minimum Requirements	Bidders Specifications
1	MANUFACTURER'S DETAILS		
1.1	Brand & Country of Manufacture	Bidder to specify	
1.2	Model No.	Bidder to specify	
1.3	Capacity	20 kVA	
1.4	Rating	Bidder to specify as per 20 KVA	
2	INPUT		
2.1	Input Voltage	415 V, 3 Phase	
2.2	Input Voltage Range	-20%, +20% form nominal at 100% load and -30%, +20% for 50% load without depleting battery	
2.3	Operating Frequency	50 Hz	
2.4	Input frequency range	45 Hz to 65 Hz	
2.5	Input Power Factor	0.99	
2.6	Input current distortion	<5%	
3	RECTIFIER		
3.1	Rectifier Topology	IGBT based rectifier	
3.2	Power Modules	Bidder to specify	
3.3	Power Rating	Bidder to specify	
4	OUTPUT		
4.1	Nominal Output Voltage	415 V, 3 Phase	

4.2	Output Voltage Regulation	+/- 1% (static)	
4.3	Output Power Factor	UNITY (1) i.e. KW-Meeting requirement is mandatory.	
4.4	Paralleling Capacity	Up to 6 Units MIN without communication wiring.	
4.5	Over load capacity	15% for 5 secs	
		125% for 1 minute	
		1000% for 20 msec (bypass)	
4.6	Output Voltage Regulation (Dynamic)	+/- 5% for 10% to 90% load change	
4.7	Recovery Time	< 1 ms response time	
5	BATTERIES		
5.1	Battery Back up	30 min on full load	
5.2	Battery AH Capacity	Bidder to specify	
5.3	No. of 12 V batteries	Bidder to specify	
5.4	Type	SMF VRLA	
5.5	Make	Rocket/ Exide/ Quanta	
5.6	Battery Rack	To be provided	
5.7	Battery Rack TOP Covers	To be provided	
5.8	Battery with battery Rack Size	Bidder to specify	
5.9	Battery Life	Bidder to specify	
5.10	Replacement Guaranty	Bidder to specify	
5.11	Make / Model	Bidder to specify	
5.12	Miscellaneous	Recharge time : In the order of 6 hr or less for 90% capacity.	
		The battery charger O/P voltage shall be automatically adjusted in proportion to the ambient temp. of the battery as per the battery suppliers recommendation to avoid over-charging.	
		The end of discharge voltage of the batteries must be load dependent in order to prevent deep discharging of the batteries whilst utilizing max. available capacity.	
		The rectifier /charger output current and voltage shall be limited to battery supplier's recommendation	
		Constant Current charging under floating voltage then constant voltage, support	

		with intelligent battery management system. After recharging batteries to full capacity, the charger will enter the rest mode to increase the battery lifetime .Hence continuous float charging of the battery shall not be allowed.	
6	ELECTRONICS / DIGITAL PROTECTION		
6.1	Mains	Over / Under Voltage, Phase Failure	
6.2	DC Voltage	DC Over / Under Voltage, Inverter Over / Under Voltage	
6.3	Fault conditions	Inverter Overload, Overheat, Overload trip with manual reset, low battery trip with audible warning 3 mins. advance,	
		Battery over charge, Battery over current, reverse polarity fault conditions, battery line fuse	
6.4	Emergency	Emergency Power off, MCB –Built in soft start.	
6.5	EMI & Surge Protection	EMI & Surge Protection, for safety purpose the UPS shall be equipped with a back feed protection contractor in the bypass circuit. This Back feed protection shall be installed standards inside the UPS cabinet.	
7	INDICATION /LCD Display	Front Panel display consisting of graphical LCD display with back light : Mains voltage - frequency –current input	
		Output voltage – Frequency -current	
		Battery and DC bus voltage : Runtime on mains failure	

		Total run time (or Digital meters for above items)	
		Main ON, Inverter ON, Battery ON Charge, mains Over/ Under Voltage, Inverter Overload, Overload, Overheat, Load On Inverter, Bypass On, Manual Bypass On	
7.1	Name Plate with Minimum Data	Name of Manufacturer, Model no., Batch – Serial No., Date of manufacturing, Rating shall be provided on outside under clear visible place.	
8	AUDIBLE ALARM WITH INDICATION / DISPLAY & RESET	Mains failure, On Battery, Low Battery, On Bypass, Overhead, replacement of battery.	
9	DATA STORAGE	Sufficient to store history from minimum one week or 200 events	
10	MECHANICAL DESIGN		
10.1	Enclosure	Free standing, Dust & Vermin proof, Double front with Levelling Feet	
10.2	Ventilation	Forced Air Cooling. Air Inlet from Front & Outlet from Top	
10.3	Side Clearance	No Back and Side	
		Clearance required	
10.4	Cable Entry	Both Top and Bottom side	
10.5	Accessibility	Only from Front Side	
10.6	Service Area Required	< 900 mm only at Front side	
10.7	Mounting	On Castor wheels with standard levelling feet	
11	GENERAL		
11.1	Overall Efficiency		
11.2	At 100% Load	94% min	
11.3	At 75% Load	92.9% min	
11.4	At 50% Load	92% min	
11.5	At 25% Load	89.5% min	
11.6	Operating Temperature	0°C to 40°C	
11.7	Storage Temperature	- 15°C to +40°C	
11.8	Noise Level	53 dB (A)	

11.9	Charging Technique.	Three stage charging is required. Batteries should go through a rest cycle to enhance life once they are fully charged thus reducing the battery corrosion resulting batter life.	
11.10	Static bypass switch	Required	
12	STANDARDS		
12.1	Safety	EN 62040-1-1 EN 60950-1-1	
12.2	Performance & Technology	EN 62040-3 (VFI-SS-111)	
12.3	EMC Standard	IEC-62040-2, EN- 50091-1	
12.4	Product Certification	CE	
12.5	Surge Capacity	IEC 1000-4-5	
12.6	Harmonics Standard	IEC 61000-3-2/4	
12.7	Performance & Topology	IEC-62040-3, EN- 50091-3	
13	GENERAL REQUIREMENTS		
13.1	Display	Alphanumeric LCD display blue backlight	
13.2	Communication	RS-232/485 Serial Port	
13.3	Display	Alphanumeric LCD display	
13.4	LED	4 LED's for notice alarm	
13.5	Software interface	LCD screen, PC interface with software SNMP as an option with necessary accessories / interfacing connectors / adapters, for monitoring, controlling and shut down of the UPS system, from remote & local compatible with Windows, 2k, NT, Linux platform.	
14	WARRANTEE	Minimum 1 year for the complete installation including all parts and system of UPS and Battery	
14.1	Dimension of UPS module (W x D x H)	Bidder to specify - Should be most compact because of the space constraint at site.	
14.2	Weight of UPS Module	Bidder to specify	
14.3	Dimensions of Battery Racks	Bidder to specify	
14.4	Weight for Battery racks	Bidder to specify	

8. Air Compressor

Sr. No.	Technical Description	Minimum Requirements	Bidder specifications
AIR COMPRESSOER- Oil Injected Type			

1	Capacity	Min 30 CFM	
2	Operating pressure	10 Bar	
3	Sound level	Max 75 dB @ 1m periphery	
4	Motor efficiency	full load min 93%	
5	Motor protection	IP 55	
6	Electrical connection	415V / 3 phase / 50Hz	
8	Type of air compressor	Rotary Screw type	
9	Sizes of Air compressor L X B X H	Bidder to specify	
10	Weight of Air compressor	Bidder to specify	
11	Design of Enclosure	The enclosure is to be designed to manage the environment of the internal components and the cooling ventilation system, at the same time as significantly to reduce the sound level emitted from the machine into the installation environment	
12	Inlet Air filter filtration	shall be accomplished by a large min. 99% efficient at 3 micron and above	
13	MOC of rotors	AISI-1045 steel or EN 10083-2 C45+N steel	
14	Capacity of coolant filter	5 micron replaceable element	
15	Capacity of oil separator	The carryover after the separator element should be less than 3 ppm	
16	Max Pressure drop across oil separator	0.2 bar	
17	Vibration pad	Complete drive train shall be mounted on vibration mountings	
18	MOC of Air cooler	Aluminium finned tube construction and shall be designed to operate continuously, fully loaded in ambient air up to 45°C)	
19	Validation tests	Compressor shall undergo factory validation tests according to ISO1217:1996, Annex C	
REFRIGERATED AIR DRYER			
1	Capacity	Suitable for above air compressor	
2	Operating pressure	Suitable for above air compressor	
3	Sound level	Max 65 dB @ 1m periphery	
4	Refrigerant	Environmentally friendly refrigerant (134 A/ 407 A/ 410A)	
5	Maximum ambient Temperature	45°C	

6	Safety feature	Anti-freezing/energy savings mode shuts dryer off mode	
VERTICAL AIR RECEIVER			
1	Capacity	Min 1 m3 at min 12 Bar pressure	
2	Testing	Test certificate of Receiver tank and safety relief valve	
3	Material of Construction	Shell & Dish End, IS:2062 Gr. B	
4	Corrosion Allowance	1.5 mm	
5	Radiography / Heat Treatment	Nil	
6	Code of Construction	IS:2825	
7	Paint	Manufacturer Standard	
8	Standard Fittings to be Included	1. Pressure Safety Valve (Spring loaded, Open Bonnet, Pop Type) with test certificate 2. Pressure Gauge with Isolation Valve (4" Dial) 3. Manual Drain Valve with additional Auto drain valve	
FILTER STAGE:			
1	Requirement	Bidder has to provide filter stage to get Class-1-4-1 Air output (Oil, moisture, dust) for user as per ISO 8573-1	

9. DG Set

Sr. No.	Description	Minimum Requirements	Bidder specifications
1	DG set		
1.1	DG Set Rating	125kVA	
1.2	DG Set Model	Bidder to specify	
1.3	Length x width x height in mm of complete DG Set	Bidder to specify	
1.4	Average Load factor of DG set	Minimum 80% of rated capacity	
1.5	Life of DG Set	Minimum 15 years	
2	Environmental Conditions		
2.1	Ambient temperature	Ranges from 5°C to 50°C	
2.2	Relative humidity	Up to 95% condensing	
3	General requirement		
3.1	Mean time between failure (MTBF)	Bidder to specify	
3.2	Mean Time To Repair (MTTR)	Bidder to specify	

3.3	Painting details of DG Sets	Bidder to specify	
4	Diesel Engine		
4.1	Manufacturer Name	Bidder to specify	
4.2	Country of origin	Bidder to specify	
4.3	Applicable standard	Bidder to specify	
4.4	Make of engine	Bidder to specify	
4.5	Model of engine	Bidder to specify	
4.6	Rating of engine in kw/hp @ 1500 RPM	Bidder to specify	
4.7	Direction or rotation	Bidder to specify	
4.8	No. of cylinder	Bidder to specify	
4.9	Cylinder bore & stroke in mm	Bidder to specify	
4.10	Droop in frequency / speed when engine response to 100% load injection	Bidder to specify	
4.11	Displacement in litters	Bidder to specify	
4.12	Mechanical & thermal efficiency in percentage	Bidder to specify	
4.13	Safety protection		
4.13.1	Low lube oil pressure	To be provided	
4.13.2	High water temperature	To be provided	
4.13.3	Over speed	To be provided	
4.14	Physical dimensions		
4.14.1	Length x width x height in mm	Bidder to specify	
4.14.2	Weight in Kg / ton	Bidder to specify	
4.14.3	Type of starter	Battery start	
4.14.4	Battery make / Voltage. Ampere hour	Bidder to specify	
4.14.5	Spaces of starter	Bidder to specify	
4.14.6	Vibration with stand	4.30 G @24-1000 HZ	
4.14.7	Noise level	As per CPCB II norms	
4.14.8	Smoke level	Bidder to specify	
4.14.9	Characteristic curves of fuel consumption Vs load	To be provided	
4.14.10	Painting details of engine	Bidder to specify	
4.15	Engine Governor	Electronic governor	
4.15.1	Applicable standard	As per latest IS	
4.15.2	Manufacturer name	Bidder to specify	
4.15.3	Droop range in %	Bidder to specify	
4.16	Turbocharger		
4.16.1	Applicable standard	IS or Equivalent	
4.16.2	Manufacturer name	Bidder to specify	

4.17	Radiator		
4.17.1	Applicable standard	IS or Equivalent	
4.17.2	Manufacturer name	Bidder to specify	
4.17.3	Manufacturer model no	Bidder to specify	
4.17.4	Air flow of each fan	Bidder to specify	
4.17.5	No. of fans provided	Bidder to specify	
4.17.6	Fluid flow rate-jacket water side	Bidder to specify in LPM	
4.17.7	Fluid flow rate-after cooler water side	Bidder to specify in LPM	
4.17.8	Ambient capability	Bidder to specify	
4.17.9	Radiator capacity of Jacket water and after cooler both	Bidder to specify	
4.18	Lubricating oil system		
4.18.1	Applicable standard	IS or Equivalent	
4.18.2	Oil pressure	Bidder to specify	
4.18.3	Oil temperature	Bidder to specify	
4.18.4	Grade of oil	Bidder to specify	
4.18.5	Sump capacity	Bidder to specify	
4.18.6	Guaranteed lube oil consumption in grams per BHP-hour	Bidder to specify	
4.18.7	Recommended oil change	Bidder to specify	
4.19	Engine alarms		
4.19.1	Applicable standard	IS or Equivalent	
4.19.2	Low oil pressure setting	Bidder to specify	
4.19.3	Low water level setting as % of total cooling water capacity	Bidder to specify	
4.19.4	Over speed setting	Bidder to specify	
4.19.5	High water temperature setting	Bidder to specify	
4.19.6	High oil pressure setting	Bidder to specify	
4.20	Exhaust System		
4.20.1	Applicable standard	IS or Equivalent	
4.20.2	Silencer manufacturer's name	Bidder to specify	
4.20.3	Type of silencer	As per CPCB norms	

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.21	Fuel System		
4.21.1	Pump manufacturer's name	Bidder to specify	
4.21.2	Fuel injector manufacturer's name	Bidder to specify	
4.21.3	Pump pressure Bar	Bidder to specify	
4.21.4	Fuel consumption at Non-Thermal Plasma (NTP) in ltrs. per hour	Bidder to specify	
4.21.4.1	100% loading	Bidder to specify	
4.21.4.2	75% loading	Bidder to specify	
4.21.4.3	50% loading	Bidder to specify	
4.21.5	No of units per liter of high speed diesel (HSD) engine	Bidder to specify	
4.22	Fuel day tank		
4.22.1	Material	Bidder to specify	
4.22.2	Capacity Litre	Bidder to specify	
4.22.3	Fitted with level gauge & accessories	To be provided	
4.23	Emission Standard		
4.23.1	HC (Hydro Carbon)	Bidder to specify	
4.24	DG Control panel	Microprocessor based, Compatible with modbus RS 485 for BMS Connectivity	
4.25	Alternator (160 KVA)		
4.25.1	Manufacture's name	Bidder to specify	
4.25.2	Applicable standards	IS or equivalent	
4.25.3	Country of Origin	Bidder to specify	
4.25.4	Connection	Bidder to specify	
4.25.5	Make	Bidder to specify	
4.25.6	Type of frame	Bidder to specify	
4.25.7	Rated KVA	125 kVA	
4.25.8	Power factor	0.8	
4.25.9	Type of enclosure	IP 23	
4.25.10	Speed in RPM	1500	

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.25.11	Frequency in Hz	50 Hz \pm 3%	
4.25.12	Rated voltage	415 Volts \pm 6%	
4.25.13	Rated current	Bidder to specify	
4.25.14	Number of phases	Three phase four wires	
4.25.15	Over load capacity	Bidder to specify	
4.25.16	Class of insulation rotor and stator	H	
4.25.17	Voltage regulation	\pm 1%	
4.25.18	Direction of rotation	Bidder to specify	
4.25.19	Type and model of excitation unit	Bidder to specify	
4.25.20	Excitation at rated PF, 0.8 (voltage / current)	Bidder to specify	
4.25.21	Type of bearing DE and NDE	Bidder to specify	
4.25.22	Length x Breadth x Height in mm	Bidder to specify	
4.25.23	Weight in Kg/Ton	Bidder to specify	
4.25.24	Painting details of alternator	Bidder to specify	
4.26	Reactance		
4.26.1	On short circuit when running at normal speed and voltage	Bidder to specify in %	
4.26.2	Sub-transient reactance	Bidder to specify in %	
4.26.3	Transient reactance	Bidder to specify in %	
4.26.4	Unsaturated synchronous reactance	Bidder to specify in %	
4.26.5	Short circuit ratio	Bidder to specify	
4.26.6	Stator DC resistance per phase at 75°C	Bidder to specify IN OHMS	
4.26.7	Method of protection against shaft currents	Bidder to specify	
4.26.8	Rotor inertia	Bidder to specify in Kg m	
4.26.9	Weight of rotor	In Kg.	
4.26.10	Rotor winding resistance at 75°C	Ohms	
4.26.11	Generator response for 100% load change at a low Power factor	Bidder to specify in % voltage and % current	
4.26.12	1. Instantaneous values when at :-		

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.26.12.1	i. Minimum excitation	Bidder to specify	
4.26.12.2	ii. Maximum excitation	Bidder to specify	
4.26.13	2. After 10 Hz when initially at :-		
4.26.13.1	i. Minimum excitation	Bidder to specify	
4.26.13.2	ii. Maximum excitation	Bidder to specify	
4.26.14	State whether thermostatically controlled anti- condensation heaters are fitted in the generator	Bidder to specify	
4.26.15	Wattage of the heaters	Bidder to specify in watts	
4.27	Generator Exciter		
4.27.1	Applicable standards	IS or Equivalent	
4.27.2	Type of Excitation	PMG	
4.27.3	Manufacturer's name	Bidder to specify	
4.27.4	Field winding insulation	Class H	
4.27.5	Field winding resistance at 75°C	Bidder to specify	
4.27.6	Exciter winding insulation class	Class H	
4.27.7	Exciter winding resistance per phase at 75°C	Bidder to specify in ohms	
4.28	Generator Automatic Voltage Regulator		
4.28.1	Applicable standard	IS or equivalent	
4.28.2	Manufacturer's name	Bidder to specify	
4.28.3	Type	Bidder to specify	
4.28.4	Range of manual voltage control	Bidder to specify in volts	
4.29	Circuit Breaker – 4 Pole with LSIG Protection		
4.29.1	Applicable standard	IS or equivalent	
4.29.2	Manufacturer's name	Bidder to specify	
4.29.3	Type	Bidder to specify	
4.29.4	Country of origin	Bidder to specify	

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.29.5	Rated current	Bidder to specify	
4.29.6	Rated voltage	Bidder to specify	
4.29.7	Braking capacity	Bidder to specify	
4.29.8	Inherent protections provided		
	a) Short circuit	Bidder to specify	
	b) Over current	Bidder to specify	
	c) Range of adjustment of over current	Bidder to specify	
4.30	Isolation panel		
4.30.1	Manufacturer name	Bidder to specify	
	i. Applicable standards	Bidder to specify	
	ii. Country of origin	Bidder to specify	
	iii. Details of operation	Bidder to specify	
4.30.2	Capacity	Bidder to specify	
4.30.3	Fault level	Bidder to specify	
4.30.4	MS Sheet enclosure thickness and size	Bidder to specify	
4.30.5	Details of Bus bars (s)		
4.30.5.1	Material	Copper	
4.30.5.2	Rating of three phase + neutral bus bar to be used for DG set for termination of 300 sq.mm aluminium cables	1.2 times of the full load rated current of DG Set	
4.30.5.3	Rating of Bus bar connecting the common bus in DG panel	1.2 times of the full load rated current of each DG Set	
4.30.6	Make range of size of A.C. ammeters	Bidder to specify	
4.30.7	Make range of size of A.C. Voltmeter	Bidder to specify	
4.30.8	Make range of size of KW Meter	Bidder to specify	
4.30.9	Make range of size of KVAR Meters	Bidder to specify	
4.30.10	Make range of size of frequency meters	Bidder to specify	
4.30.11	Make range of size of KWH Meters	Bidder to specify	

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.30.12	Make range of size of D.C. Ammeters for battery charger	Bidder to specify	
4.30.13	Make range of size of D.C. Voltmeters for battery charger	Bidder to specify	
4.30.14	ELR make and rating	Bidder to specify	
4.30.15	Battery charger rating	Bidder to specify	
4.30.16	Indication, protection and safety provision	Bidder to specify	
4.30.17	Audio alarm hooter make and rating	Bidder to specify	
4.30.18	Make and rating of EFR and ELCB/Over current relay/Reverse Power Relay	Bidder to specify	
4.30.19	Painting	Bidder to specify	
4.31	Battery		
4.31.1	Manufacturer's Name	Bidder to specify	
4.31.2	Type	Bidder to specify	
4.31.3	Electrolyte	Bidder to specify	
4.31.4	Voltage	Bidder to specify	
4.31.5	Capacity at 10 hour rate Ah	Bidder to specify	
4.31.6	Number of cells	Bidder to specify	
4.31.7	Voltage per cell	Bidder to specify	
4.31.8	Normal charging rate	Bidder to specify	
4.31.9	Maximum charging rate	Bidder to specify	
4.31.10	Ampere hour efficiency at 10 Hour rate	Bidder to specify	
4.31.11	Ampere hour efficiency at 1 hour rate	Bidder to specify	
4.31.12	Dimensions of cells	Bidder to specify	
4.31.13	Dimensions of battery complete	Bidder to specify	
4.31.14	Weight of cell complete with electrolyte	Bidder to specify	
4.31.15	Total weight of battery complete	Bidder to specify	
4.31.16	Internal resistance cell when fully charged	Bidder to specify	

RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.31.17	Battery voltage at end of the duty cycle	Bidder to specify	
4.32	Battery Charger		
4.32.1	Manufacturer's Name	Bidder to specify	
4.32.2	Type	Bidder to specify	
4.32.3	AC input to charger	Bidder to specify	
4.32.4	DC output of charger	Bidder to specify	
4.32.5	Type of D.C. Voltage control	Bidder to specify	
4.32.6	Range of D.C. Voltage control	Bidder to specify	
4.32.7	Regulation	Bidder to specify	
4.32.8	Overall dimensions	Bidder to specify	
4.32.9	Total weight	Bidder to specify	
4.33	Power cable		
4.33.1	Name of manufacturer	Bidder to specify	
4.33.2	Applicable standard	IS or equivalent	
4.33.3	Number of Cores	Bidder to specify	
4.33.4	Type of cable and voltage for which suitable	Bidder to specify	
4.33.5	Continuous current rating (for ground & air)	Bidder to specify	
4.33.6	Type & normal sheathed thickness	Bidder to specify	
4.33.7	Max. outer diameter	Bidder to specify	
4.33.8	Type & nominal thickness of insulation	Bidder to specify	
4.33.9	Insulation resistance	Bidder to specify	
4.33.10	Conductor material (Al / Cu)	Copper (Cu)	
4.33.11	Maximum DC resistance at 20°C	Bidder to specify	
4.33.12	AC resistance at 90°C	Bidder to specify	
4.33.13	Short circuit duty (duration of short circuit and short circuit current limits)	Bidder to specify	



RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

4.34	Acoustic enclosure design as per latest CPCB II Norms	dB Levels – Bidder to specify	
------	--	----------------------------------	--

Signature of Authorised Signatory of the Bidder

Name

DesignationSeal



FORM (I)

Undertaking from Testing / IT Equipment Manufacturer for Warranty and CMC of Lane Testing Equipment

(Duly notarized to be attached along with Technical Bid)

To
The Transport Commissioner,
Odisha,
6th Floor, Rajaswa Bhawan,
Cuttack, Odisha 753002

Dear Sir,

- 1) We who are established and reputable manufacturers / producers of _____ having factories / development and Service facilities at (address of factory / facility and Service)
- 2) I/we are supplying the testing equipment to the bidder M/s for the RFB No.....
- 3) I/ We hereby submit this undertaking that my/our company shall provide the Warranty and Comprehensive Maintenance Contract (CMC) services for the upgraded equipment and new supplied and installed equipment at ATS Kanpur uninterruptedly to the State Transport Authority Odisha for the period of 7 (five) years from the date of commissioning of the Equipment.
- 4) We hereby declare that we are not insolvent, in receivership, bankrupt or being wound up, our affairs are not being administered by a court or a judicial officer, our business activities have not been suspended and we are not the subject of legal proceedings for any of the foregoing.
- 5) Such Products as the Transport Commissioner, Odisha may opt to purchase from the Supplier, provided, that this option shall not relieve the Supplier of any warranty obligations under the Contract; and In the event of termination of production of such Products: advance notification to the Transport Commissioner, Odisha of the pending termination, with enough time to permit Transport Commissioner, Odisha to procure needed requirements;
- 6) If the aforementioned bidder fails to provide the Warranty and Comprehensive Maintenance Contract (CMC) services for the supplied and installed testing lane equipment at ATS centres in Odisha as per the requirement of the RFB, my/our firm shall provide the said services directly to the state transport authority, Govt. of Odisha and the payment for that the payment for CMC services shall be paid by the Department to my/ our firm directly.
- 7) In case of default of aforementioned commitment, my/our company shall be liable for payment of any loss/damage incurred to the Transport Commissioner, Odisha.
- 8) To verify the above Declaration kindly Contact us on below mentioned contact details.

Lead Testing Equipment OEM/ Authorised supplier company name:

Address:

Website:

Contact person name (Director/ MD or equivalent post):

E-mail ID:

Ph. Number:

**Signature of Authorised Signatory of
Equipment Manufacturer**



RFB for establishment, Operation & Maintenance of ATS at 21 locations in Odisha State.

Name DesignationSeal



FORM (J)

Description of Approach, Methodology Work and Training Plan (To be attached along with Technical Bid)

The Bidder is requested to provide the following information:

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 delivery dates, taking into account State Transport Authority Government of Odisha requirements, by means of a detailed implementation schedule. The implementation schedule should at least include –

- 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

2. Proposed Implementation Layouts

[The Bidder shall provide the Implementation layout, based on the layout of the facilities included in the current tender, in the document “Section 5 - Sites Description”. The Bidder shall incorporate his implementation proposal in the given layout and submit as part of this Form along with his bid.]

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]

4. General Utilities Requirements (Power and Earthing, Air Conditioning, Ventilation, etc.)

5. Project Implementation Team

[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 Center. The resume of the Project Leader as well as the 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 Performa for Curriculum Vitae (Form K). The Bidder shall also provide information on the proposed roles of each of the team members, including when the Bidder proposes to deploy them during the assignment.]

6. Training Plan

[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.]

7. Operation Details

[The Bidder shall give a detailed explanation on the Operation with respect to the details of the persons involved for managing the Inspection Center 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]

**Signature of Authorised Signatory of the
Bidder**

Name Designation Seal

FORM (K)

Performa for Curriculum Vitae

(To be submitted by the Successful Bidder after signing of Contract)

1. **Name of Staff** *[Insert full name]*: _
2. **Date of Birth**: _____
3. **Nationality**: _____
4. **Education** *[Indicate college/university and other specialized education of staffmember, giving names of institutions, degrees obtained, and dates of obtainment]*: _____
5. **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.]*

Signature of Authorised Signatory Name

Designation Seal

FORM (L)

Financial Proposal

(To be submitted in the financial bid in PDF format in addition to BOQ)

(Not to be attached with Technical Bid)

To,

Transport Commissioner, Odisha,

6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002

Dear Sir,

I/We, the undersigned, offer my/our Financial Bid in response to your RFB No.

Dated..... as per Form L of the RFB.

I/We hereby declare that all the information and statements made in this Bid are true and complete in all respects and are as per the requirements of the RFB.

I/We further understand that any information which is found false or is not as per the requirements and terms & conditions of the RFB may cause disqualification of my/our Bid.

I/ We have studied all the Bid documents carefully and also surveyed the Project.

I/ We agree and understand that the Bid is subject to the provisions of the Bid documents. In no case, I/we shall have any claim or right of whatsoever nature if the Project / Contract are not awarded to me/us or our Bid is not opened or rejected.

I/ We agree and undertake to abide by all the terms and conditions of the RFB document.

In witness thereof, I/ we submit this Bid under and in accordance with the terms of the RFB document.

Yours sincerely,

Authorized Signatory Name [In full]:

Authorized Signature [In initials]:

Designation of Authorized Signatory: Name
of the Company:

Address:

Seal of the Company



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

Form (L) - Financial Proposal

(Note: Bidder to submit financial proposal for a typical location. The financial proposal will be applicable for all locations)

SCHEDULE VII: PROJECT COST				
Sl. No.	Schedule	Description of item	Total Amount in Figures (Inclusive of Taxes) (in INR)	Total Amount In Words (Inclusive of Taxes)
1.	I	COST OF EQUIPMENT		
2.	II	Cost of Installation & Commissioning of all equipment		
3.	III	Cost for Design and construction of Automated Testing Station at a typical location		
4.	IV	Cost of Operation and CMC		
5.	V	Cost of Online Dashboard software development and implementation and maintenance according to specifications		
6.	VI	Hybrid WAN Link aggregator (Inbound / Outbound) Hub Unit [Networking Equipment] – 2 Nos		
7.		PROJECT COST (in Figures) (Sum of Sr. No. 1, to 6)		
8.		PROJECT COST (in Words) (Sum of Sr.No. 1, to 6)		



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

SECTION- A: Quantity of Items to be supplied.

SECTION- B: MAJOR ELEMENTS OF THE PACKAGE (With Ex-Factory prices)

Here the Bidder shall quote their item rate for the Major Elements of the Package in INR Only. In case of Imported scope of supply Bidder shall quote their lump sum price for the Major Elements of the Package in INR

SECTION- C: Delivery Charges (PACKAGING AND FORWARDING, Transportation upto sites, etc.)

Here the Bidder shall quote their lump sum price in INR for the charges mentioned above for the Major Elements, complete with all necessary documents etc., considering all the deliverables and the terms & conditions of this tender up to the sites.

SECTION- D: GST & ALL OTHER APPLICABLE TAXES & DUTIES (GST & All other Taxes and Duties to be applied as on the date of quoting the prices & no changes would be allowed subsequently.)

Here the Bidder shall quote their lump sum price in INR for all the applicable taxes and duties with present prevailing rates.

SECTION- E: Net rate for each item after adding all the taxes.

SECTION- F : Total price (A x E) in INR

Note: quantity given below are sum of quantity for one typical ATS, price quotation for all location will be same.

The Bidder Shall not change any content of the items as given below				SECTION - B	SECTION - C	SECTION - D		SECTION - E	SECTION - F = (Ax E)
SI No	Ref:	Description of item	Qty (SECTION - A)	Major Elements of the Package in INR	Delivery Charges in INR	GST in INR	All other applicable Taxes including Duties, Cess, levies etc., in INR	Net Rate per Unit in INR	Total Cost in INR
1. Utilities									
1	Sec 4	DG Set- 125 KVA	1						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

2	Sec 4	Air Compressor-10 bar	1						
3	Sec 4	Online UPS – 20 KVA	1						
4	Sec 4	Network Connectivity	1						
5	Sec 4	Electrical Panel (LT & HT)	1						
6	Sec 4	Tulu pump-1HP	1						
7	Sec 4	Water Tank-1000 ltr.	1						
8	Sec 4	Telephone , EPBX	1						
9	Sec 4	Air Conditioners-1.5 T	3						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

10	Sec 4	Furniture- for office and customer lounge	As per requirement						
11	Sec 4	Water cooler with RO – 20 Ltr.	2						
Sub Total (In Figures)									
2. Common Equipment									
1	Sec 4	Bogie Roller Set	1						
2	Sec 4	Free wheel Trolley	1						
3	Sec 4	Toeing trolley for three wheeler	1						
4	Sec 4	Calibration Equipment set for all three test lane	1						
5	Sec 4	Automatic Tyre pressure filler and indicator	3						
6	Sec 4	Token Software/ Lane management software	1						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

7	Sec 4	Number Plate Reader Camera	1						
8	Sec 4	Desktops for Administration Work	4						
9	Sec 4	Desktop for Test Lane	As per test lane requirement (Bidder to fill the quantity)						
10	Sec 4	Speed dome camera	1						
11	Sec 4	Printer	1						
12	Sec 4	Sticker Printer	1						
13	Sec 4	Server	2						
14	Sec 4	Smart TV for CCTV Viewing and one for customer lounge	2						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

15	Sec 4	LED Displays for test lane (3 Nos for each LCV & HCV lane and 1 Nos. for Two wheeler test lane)	7						
16	Sec 4	Audio paging	1						
17	Sec 4	LAN Network: Necessary LAN network hardware needs to be provided by the Successful bidder. (As per clause 1.4 IT Platform of Annexure IV – Equipment Details & IV-A)	As per Requirement						
18	Sec 4	CCTV	16						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

19	Sec 4	Hand Held Tablets	3						
Sub Total(In Figures)									
3. Testing Equipment for LCV lane									
1	Sec 4	Roller brake tester	1						
2	Sec 4	Axle weight measurement device	1						
3	Sec 4	Suspension tester	1						
4	Sec 4	Side slip tester	1						
5	Sec 4	Joint Play tester	1						
6	Sec 4	Steering gear play detector (Electronic Turn Table)	1						
7	Sec 4	Fully Automatic Head light tester	1						
8	Sec 4	Smoke Meter (Opacimeter)	1						
9	Sec 4	Exhaust gas analyzer	1						
10	Sec 4	Speedometer Tester	1						
11	Sec 4	Sound level Meter	1						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

12	Sec 4	OBD scan tool	1						
13	Sec 4	Test fingres	1						
14	Sec 4	Insulation Tester	1						
Sub Total (In Figures)									

4. Testing Equipment for HCV Lane

1	Sec 4	Roller brake tester	1						
2	Sec 4	Axle weight measurement device	1						
3	Sec 4	Joint Play tester	1						
4	Sec 4	Steering gear play detector (Electronic Turn Table)	1						
5	Sec 4	Side slip tester	1						
6	Sec 4	Fully Automatic Head light tester	1						
7	Sec 4	Smoke Meter (Opacimeter)	1						
8	Sec 4	Exhaust gas analyzer	1						
9	Sec 4	Speedometer	1						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

10	Sec 4	Sound Level Meter	1						
11	Sec 4	OBD scan tool	1						
12	Sec 4	Test fingres	1						
13	Sec 4	Insulation Tester	1						
Sub Total (In Figures)									

5. Testing Equipment for Two Wheeler Lane

1	Sec 4	Exhaust Gas analyser	1						
2	Sec 4	Roller Brake Tester	1						
3	Sec 4	Axle weight measurement device	1						
4	Sec 4	Semi Automatic Headlight Tester	1						
5	Sec 4	OBD scan tool	1						
6	Sec 4	Test Fingers	1						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

7	Sec 4	Insulation Tester	1						
Sub Total (In Figures)									
6. Exhaust gas handling system and fresh air ducting in underbody inspection pit									
1	Sec 4	Exhaust gas handling system	8						
2	Sec 4	fresh air ducting for underbody inspection pits	8						
3	Here the Bidder shall quote their lump sum price for any other sub/components other than the Major elements covered above and in the opinion of the bidder that these are the essential components that forms to be the integral part of these Major Elements, for successful commissioning and performance of the facilities,		Bidder to specify						



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

considering all the deliverables and the terms & conditions of this tender. Incase the lump sum price of such items, quoted here is more than 5% [Five] of the total contract price at SECTION G, then the Bidder shall have to submit the list of such items with its price, separately in Bidder's own format, along with their price bid offer.						
Sub Total (In Figures)						
TOTAL COST OF SCHEDULE I TOTAL OF SECTION 'F'(in Figures)						



TOTAL COST OF SCHEDULE I
TOTAL OF SECTION 'F'
(in Words)

Schedule II : COST OF INSTALLATION & COMMISSIONING OF ALL EQUIPMENT

The Bidder Shall not change any content of the items as given below

Sl. No	Ref:	Description of item	AMOUNT (in Figures in INR) (inclusive of all taxes)	AMOUNT (in Figures in INR) (inclusive of all taxes)	Total Lump sum charge (in Figures in INR) (inclusive of all taxes)
1	Sec 4	Installation & Commissioning of all elements			0
		Total Lump sum charge (in words) (in INR) (inclusive of all taxes)			

Schedule III : COST OF DESIGN AND CONSTRUCTION OF CIVIL WORK OF EQUIPMENT FOUNDATION



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

Sl. No	Ref:	Description of item	AMOUNT (in Figures in INR) (inclusive of all taxes)	AMOUNT (in Figures in INR) (inclusive of all taxes)	Total Lump sum charge (in Figures in INR) (inclusive of all taxes)
1	Sec 4	Cost for Design and construction of one Automated Testing Station			0
Total Lump sum charge (in words) (in INR) (inclusive of all taxes)					
TOTAL COST OF SCHEDULE II + SCHEDULE III (in Figures)					
TOTAL COST OF SCHEDULE II + SCHEDULE III (in Words)					
SCHEDULE IV: COST OF OPERATION AND CMC OF THE ATS AS PER SCOPE OF WORK GIVEN IN SECTION 4 OF THE RFB					



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

Sl. No.	Ref:	Description of item	AMOUNT (in Figures in INR) (including of taxes)	AMOUNT (in words in INR) (including of all taxes)
1	Sec 4	Operation cost (Consumable and electric/ water charges/ Security and housekeeping staff and allied works for operations) for 60 months as per RFB scope of work (Operation cost per month is Rs.....)		
2	Sec 4	Centre Head/Manager		
	Sec 4	Information technology in charge/ System Analyst		
	Sec 4	Data Entry Operator		
	Sec 4	Driver (Light Motor Vehicle/Heavy Motor Vehicle)		
	Sec 4	Lane in charge / Supervisor		
	Sec 4	Lane Operator		



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

	Sec 4	Maintenance Technician		
3	Sec 4	Total Cost of Comprehensive CMC of Test lane equipment and utilities for third year after initial two years of warranty (5% of Total Equipment Cost)		
4	Sec 4	Total Cost of Comprehensive CMC of Test lane equipment and utilities for fourth year after initial two years of warranty (5% of Total Equipment Cost)		
5	Sec 4	Total Cost of Comprehensive CMC of Test lane equipment and utilities for fifth year after initial two years of warranty (5% of Total Equipment Cost)		
6	Sec 4	Total Cost of Comprehensive CMC of Test lane equipment and utilities for fifth year after initial two years of warranty (5% of Total Equipment Cost)		
7	Sec 4	Total Cost of Comprehensive CMC of Test lane equipment and utilities for fifth year after initial two years of warranty (5% of Total Equipment Cost)		



TOTAL COST OF SCHEDULE IV (in Figures)	
TOTAL COST OF SCHEDULE IV (in Words)	

SCHEDULE V: Cost of Online Dashboard software development and implementation and maintenance according to specifications

Sl. No	Ref:	Description of item	AMOUNT (in Figures in INR) (inclusive of all taxes)	AMOUNT (in Figures in INR) (inclusive of all taxes)	Total Lump sum charge (in Figures in INR) (inclusive of all taxes)
1	Sec 4	Installation & Commissioning of all elements			
		Total Lump sum charge (in words) (in INR) (inclusive of all taxes)			

SCHEDULE VI: Cost of Hybrid WAN Link aggregator

The Bidder Shall not change any content of the items as given below	SECTION - B	SECTION - C	SECTION - D	SECTION - E	SECTION - F = (Ax E)
---	--------------------	--------------------	--------------------	--------------------	---------------------------------



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

SI No	Ref:	Description of item	Qty (SECTION - A)	Major Elements of the Package in INR	Delivery Charges in INR	GST in INR	All other applicable Taxes including Duties, Cess, levies etc., in INR	Net Rate per Unit in INR	Total Cost in INR
1	Sec 4	Hybrid WAN Link aggregator (Inbound / Outbound) Spoke unit [Networking equipment]	2						
TOTAL COST OF SCHEDULE VI TOTAL OF SECTION 'F' (in Figures)									
TOTAL COST OF SCHEDULE VI TOTAL OF SECTION 'F' (in Words)									

Yours sincerely,

Authorized Signatory Name [In full]:Authorized Signature [In initials]: Designation of
Authorized Signatory:Name of the Company:
Address:



RFB for establishment, Operation & Maintenance of ATS at 14 locations in Odisha State.
RFB No:

Seal of the Company



FORM (M)

**(Not to be attached with Technical Bid) State Transport Authority,
Government of Odisha**

Transport Commissioner Office, 6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002
Email:

Letter of Award (LoA)

Letter No: **Dated:**

To,

Name of the Successful Bidder Address

Sub: Letter of Award to the Successful Bidder for ATS <Location> selected on the basis of the provisions of the RFB ... <ref number dated.....>

Dear Sir,

In reference to the aforementioned RFB, this is to inform you that you have been selected as the Successful Bidder for ATS <Location> on the basis of the provisions of the said RFB by the Transport Department, Government of Odisha vide letter number..... dated

- 2) You are hereby informed and directed to submit the Performance Bank Guarantee (PBG) of requisite value as specified in clause 3.2 of Section 3 of this RFB within 15 days from the date of issue of this LoA..
- 3) You are also informed and directed to do all the needful for signing and execution of the Contract between you and Transport Commissioner, Odisha as per relevant provisions of the said RFB.
- 4) Failure to submit the PBG and fulfill the requirements of signing and execution of the Contract as per requirement of the said RFB, shall attract penal actions in accordance with the relevant provisions of the said RFB.

Yours faithfully,

Name Designation Seal



Form (N)

(Not to be attached with Technical Bid)

Draft Contract

THIS CONTRACT is made and entered into on theday of.....<year>..... between the Transport Commissioner, Odisha represented by Transport Commissioner, (hereinafter referred to as "Govt. of Odisha", which expression shall include its head, administrators, executors and assignees), and whose office is located at 6th Floor, Rajaswa Bhawan, Cuttack, Odisha 753002, on the one part

And

M/s. (Hereinafter referred to as "Successful Bidder", which expression shall include its head, administrators, executors and assignees), having its Registered office aton the Other Part.

Whereas Transport Commissioner, Odisha invited bids on tender portal <https://enivida.odisha.gov.in> for selection of successful bidder for establishment of automated testing station, at <all locations> under RFB Nodated... 2022.

AND WHEREAS Transport Commissioner, Odisha selected "M/s ...<name of the company>....." as the Successful Bidder pursuant to the bidding process and awarded the Letter of Award (LoA) vide letter no Dated to the Successful Bidder for ATS at <Location> to execute the Works and operate the ATS Center as per terms and conditions of the said RFB and this Contract for Contract period as specified in the aforementioned RFB.

AND WHEREAS the Successful Bidder has submitted as security deposit in original the Performance Bank Guarantee of Rs (Amount in words ...) issued by Bank vide PBG number dated which is valid from the date of issuance of PBG upto the period of one year after the date of expiry of Contract and as per the provision of RFB.

AND WHEREAS this agreement is being signed to consolidate at one place all documents governing and forming part of the contract.

Now it is hereby agreed to by and between both the parties as under:

- 1) The RFB number dated Issued by the Transport Commissioner, Odisha along with its enclosures, annexure, schedules, addendum corrigendum, clarifications, issued from time to time during the Bid process, are deemed to be part of this Contract and are binding on both the parties executing this Contract.
- 2) The timelines for the prescribed Scope of Work, design, Civil construction Supply, Installation, Commissioning of equipment, deployment of manpower etc. shall be effective from the date of signing of this Contract and shall be completed by the Successful Bidder within the period as specified in the said RFB.
- 3) Any delay on the part of the Successful Bidder in making the Center operational beyond the time period specified in the said RFB, shall attract penalty as per the provisions of the said RFB. If the Successful Bidder fails to commence the operation of the Center even after 270 days from the date of issuance of LOA, then the Transport Commissioner, Odisha will be free to terminate the Contract and forfeit Performance Bank Guarantee deposited as security deposit.
- 4) Penalty in the case of stoppage of service in any test lane or otherwise, shall be deducted as per relevant provisions of the said RFB.

- 5) All disputes arising out of this Contract and all questions relating to the interpretation of this Contract shall be decided as per the procedure mentioned in the said RFB.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year indicated above.

For and on behalf of Company (Successful Bidder):	For and on behalf of Governor of Odisha
Signature (Authorized signatory) Name: Designation:	Signature (Authorized signatory) Name: Designation:
Witness: 1 Name Designation:	Witness: 1 Name Designation:

Form (O)

Deviations Suggested

[The Bidder must present and justify here any modification or improvement to the suggested Conditions of Contract proposed to in the interest of Transport Commissioner, Odisha.. 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 its 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 RFB
	[Please copy the requirement on the Equipment Details]
Proposed Specification	
[Explain in detail what alternative solution are you proposing]	
Reasons for the proposed solution to be superior than initial requirement	
[Give clear reasons why you think the proposed solution is better than the Requirement expressed in this RFB]	



Form (P)

Undertaking by the Bidder regarding claim for more than one ATS cluster

(Notarized affidavit to be attached along with Technical Bid)

To,
Transport Commissioner, Odisha,
6th Floor, Rajaswa Bhawan,
Cuttack, Odisha 753002

Ref: RFB No dated:

Dear Sir,

In response to the RFB requirement I/We hereby submit this undertaking that,

1. I/We, including my/our Consortium Partners in case of Joint Venture, will not be eligible for selection for the establishment of Automated Testing Station (ATS) more than one cluster locations as to be defined by the Transport Commissioner, Odisha.
2. I/we am/are selected as “Preferred Financial Bidder” through Tender Process for an ATS cluster locations, then I/we will not claim another ATS cluster location in any circumstances.

Note: State Transport Authority, Govt. of Odisha may award a bidder more than 1 ATS cluster locations as per provision of the RFB.

Signature of Authorised Signatory

Name of Signatory

Designation Seal

Form (Q) References

(Notarized copy to be attached along with Technical Bid)

1.1 Past Experience References

[In response to requirement appearing in point Point 2 in Table 2 of clause 2.10 of “Section 2 Instruction to bidder”, Bidder shall provide the details of all projects handled by it during last three years, where the Bidder has executed the work and qualifies the minimum requirement as prescribed in this RFB. Also the equipment manufacturer/ Supplier met specifications and accuracies similar to the requirements appearing in “Section 7”, as per the table below.]

a. References of bidder/ consortium member					
S. No.	Description of Work executed	Year of completion of work	Country	Role- operation	Name and Contact Details of the Client
1					
2					
.					
.					
.					
.					
b. References of equipment manufacturer/ Supplier					
S. No.	Description of Equipment	Year of Installation	Country	Role- supplier	Name and Contact Details of the Client
1					
2					
.					
.					
.					
.					

Form (R) Service Support

(To be attached with technical bid)

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 Section 4: scope of work & supply of equipment.

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.]

<i>Name</i>	<i>Location</i>	<i>Role</i>	<i>Years of Experience</i>

[The Equipment supplier shall also describe the Structure of the Service Support which will be put at the Center 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 "in Section 4: scope of work & supply of equipment" 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. 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 Maintenance Contract

[The Bidder is requested to include in this chapter his acceptance of the exact same conditions required in "Section 4: scope of work & supply of equipment" about Comprehensive CMC. The complete Comprehensive Maintenance Contract can also be attached to this document, provided they do not contradict the above conditions. The price for Comprehensive CMC shall be provided in the Financial Bid. No information on the price shall be provided under this chapter]

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 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.]

Form (S)
UNDERTAKING REGARDING LITIGATION/ARBITRATION
(To be filled by sole bidder/ each consortium partner)
(Duly notarized to be submitted along with Technical Bid)

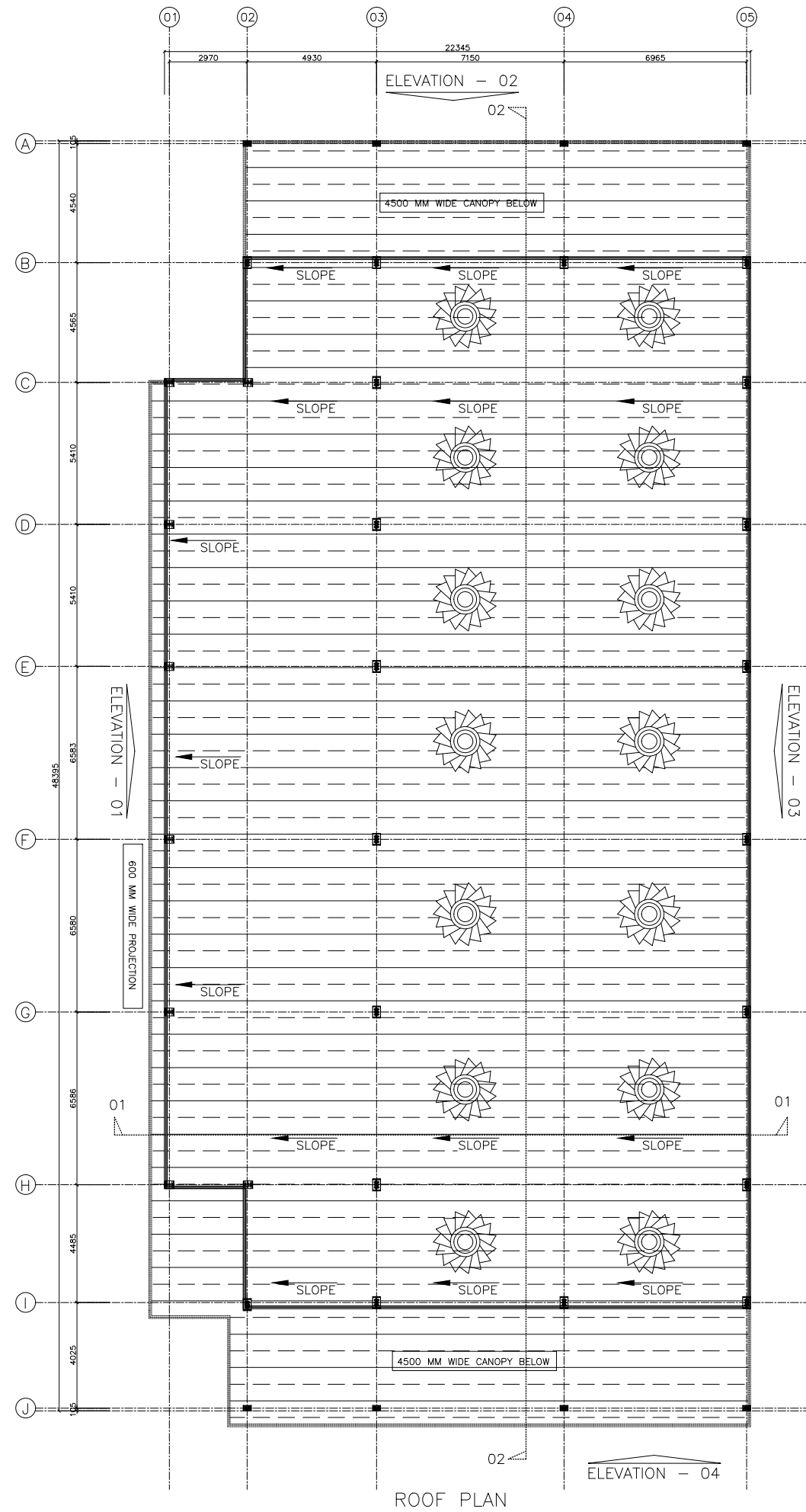
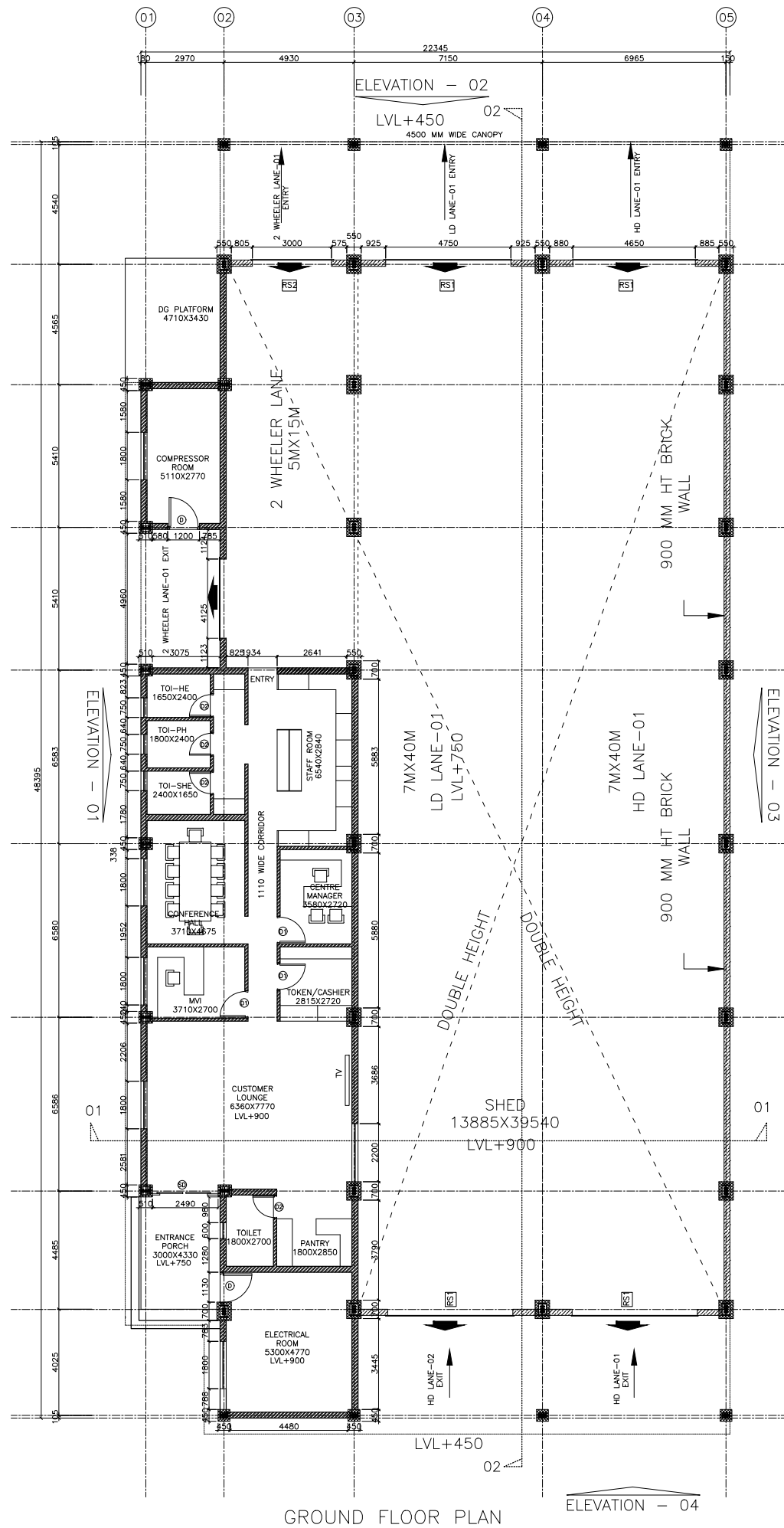
FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD WITH
REGARD TO LITIGATION/ARBITRATION, BY SOLE BIDDER/ CONSORTIUM MEMBER

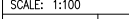

To,
The Transport Commissioner,
Odisha,
Odisha 6th Floor, Rajaswa Bhawan,
Cuttack-753002,

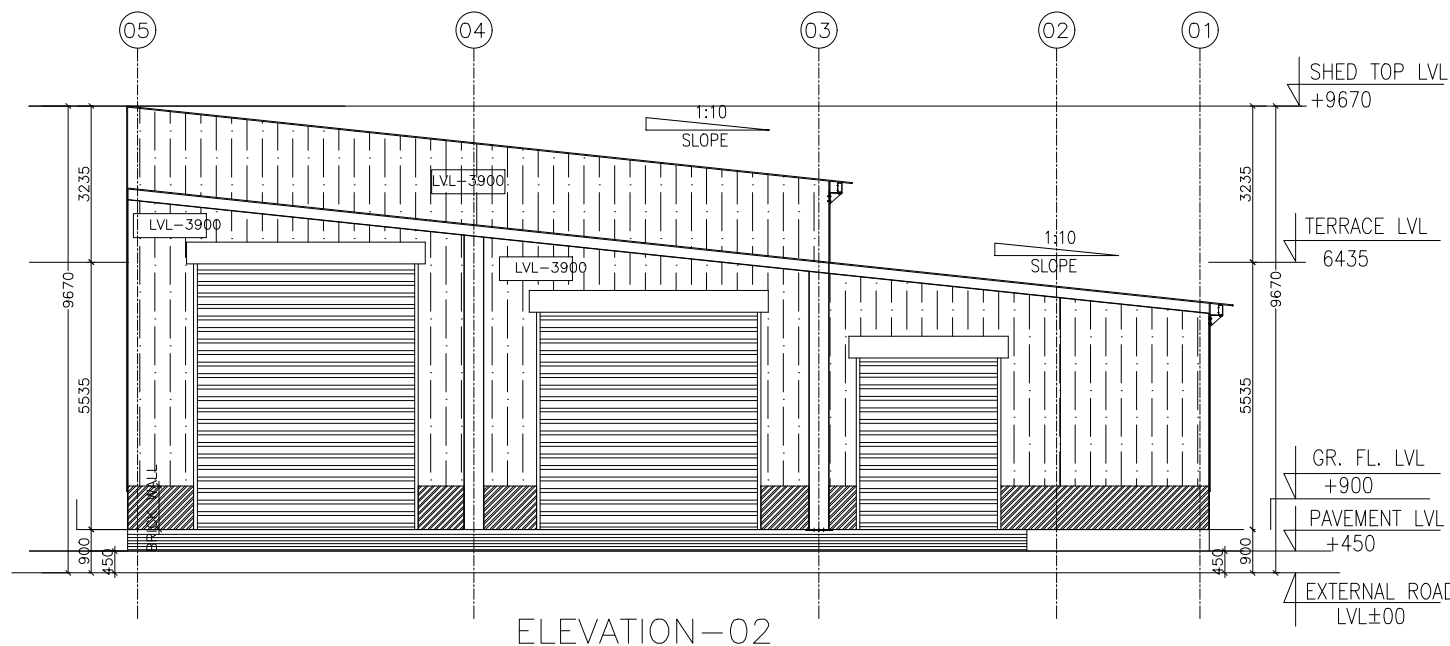
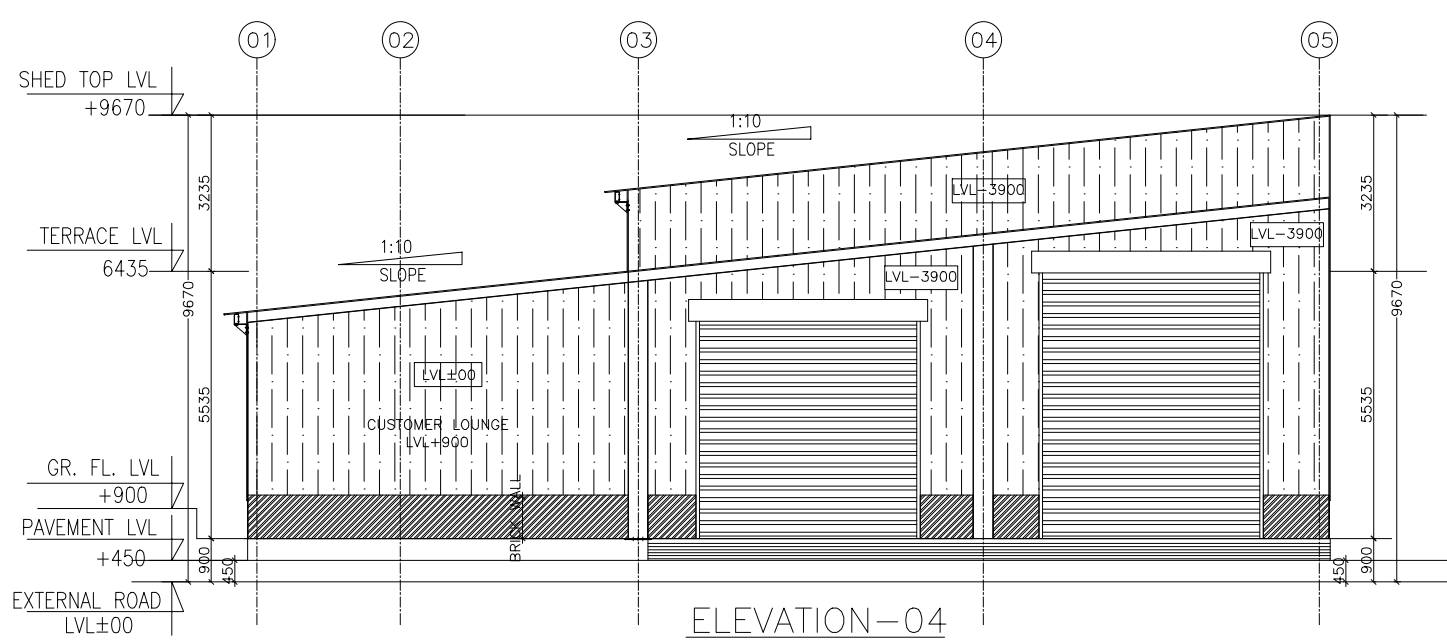
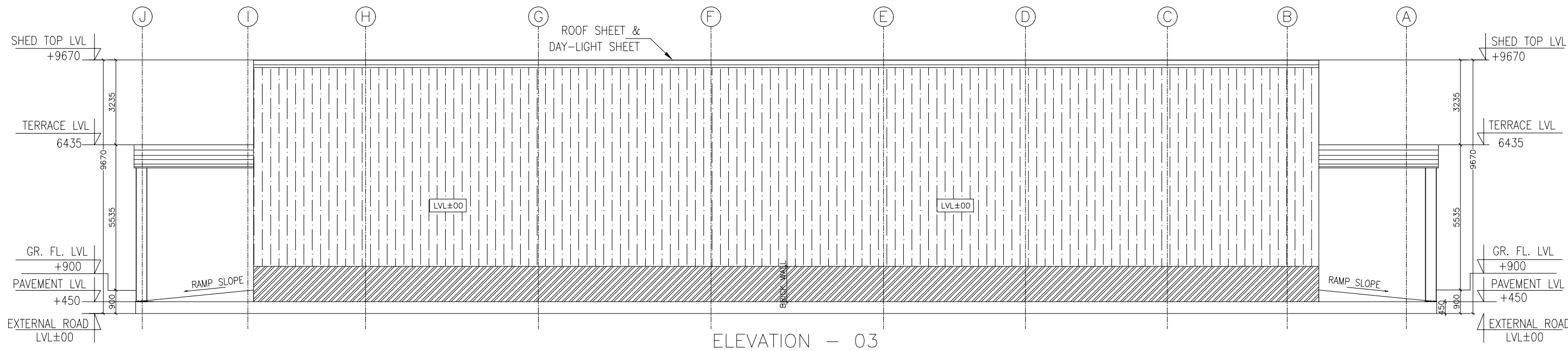
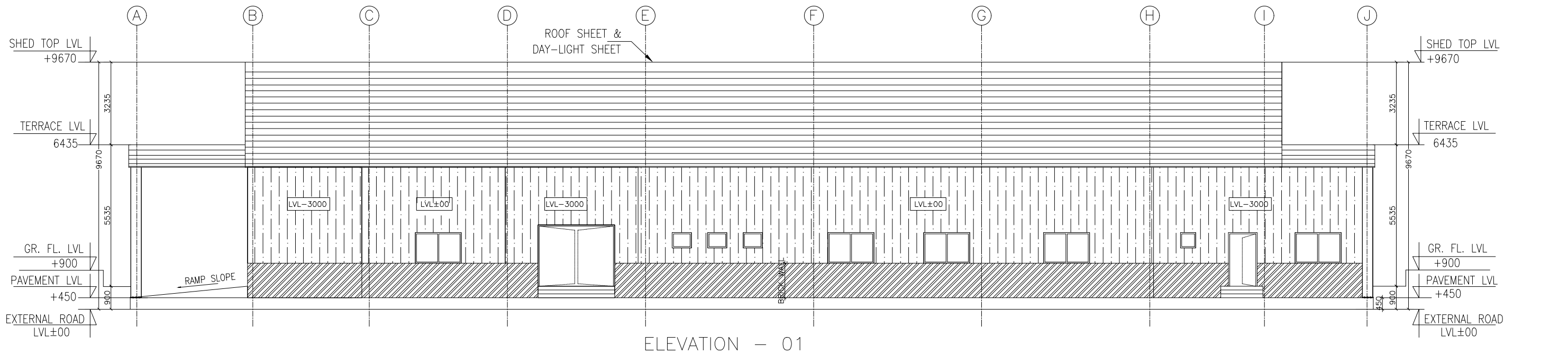
We hereby confirm and declare that we, M/s -----, does not have any litigation / Arbitration History with any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 10 years.



For -----
Authorised Signatory
Date:

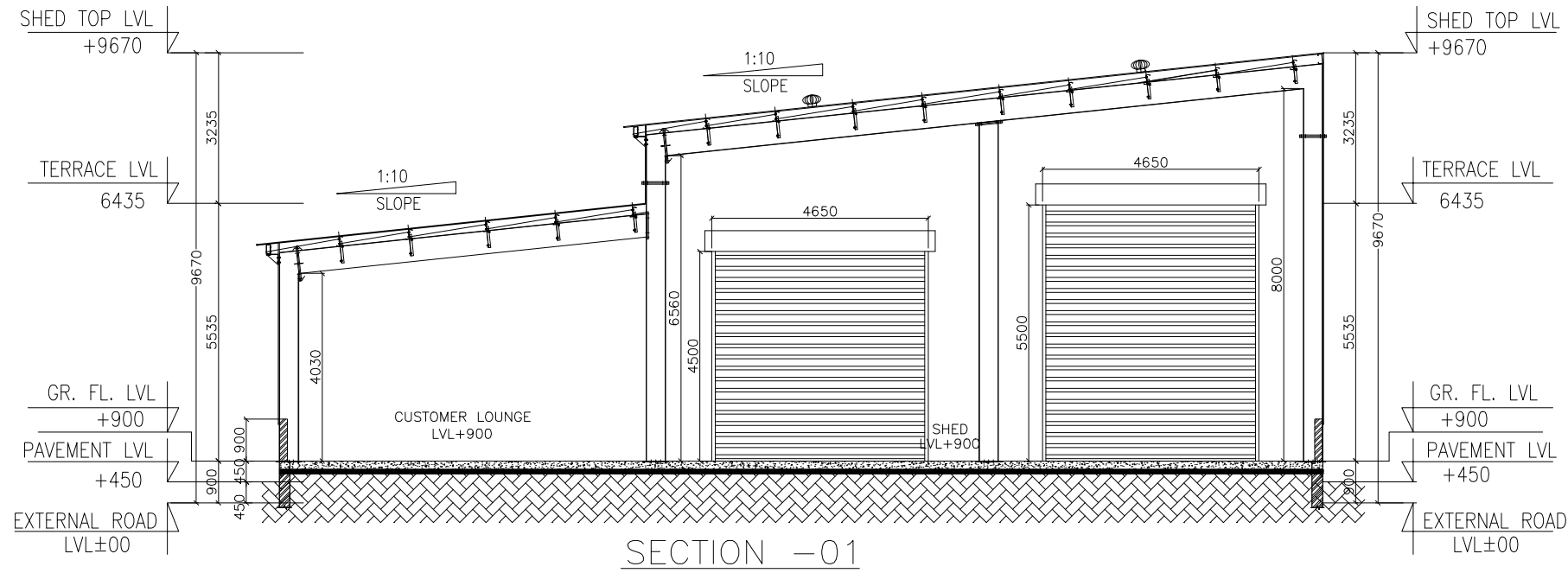
ANNEXURE 1



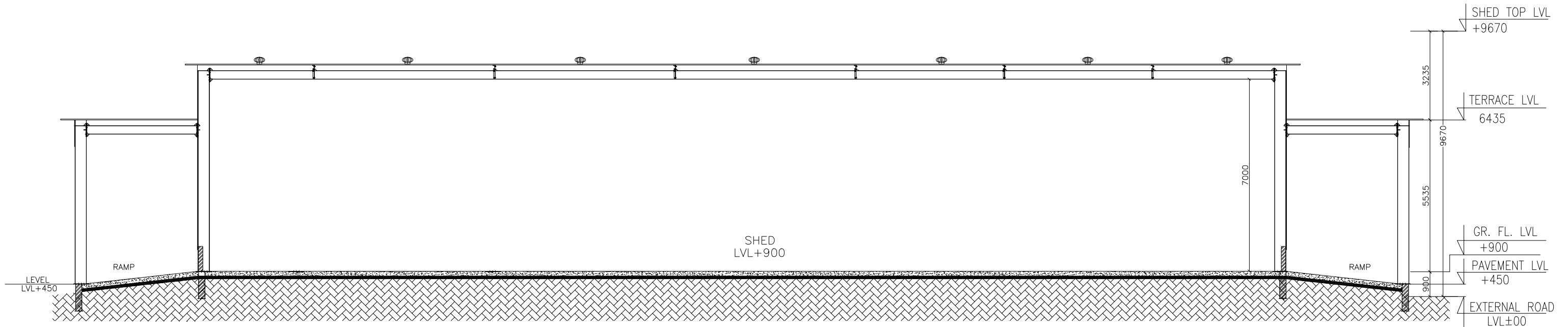
CLIENT	REVISIONS			EXECUTING AGENCY:	PRIME CONSULTANT:	DESIGNATION	SEAL & SIGNATURE	PROJECT:-	<div>NORTH</div> <div></div>	SCALE: 1:100																	
TRANSPORT DEPARTMENT, GOVERNMENT OF ODISHA.				<div> INTERNATIONAL CENTER FOR AUTOMOTIVE TECHNOLOGY</div>	<div>COMPREHENSIVE ARCHITECTURAL SERVICES, NOIDA</div> <div>C 202, UTC TOWER, SECTOR 132, NOIDA, U.P.</div> <div>MOB.: +91 9899441033, EMAIL: nirbhayshukla@gmail.com</div>	CHIEF ARCHITECT		<div>SHED AND OFFICE BUILDINGS PLANNED TOGETHER FOR ATS</div>		<table><tr><th colspan="2">BY</th><th>DATE</th></tr><tr><td>DRAWN</td><td>RAMAN ARORA</td><td>19.12.2023</td></tr><tr><td>DESIGNED</td><td>NIRBHAY</td><td>19.12.2023</td></tr><tr><td>CHECKED</td><td>NIRBHAY</td><td>19.12.2023</td></tr><tr><td>APPROVED</td><td>SHASHANK</td><td>19.12.2023</td></tr></table>	BY		DATE	DRAWN	RAMAN ARORA	19.12.2023	DESIGNED	NIRBHAY	19.12.2023	CHECKED	NIRBHAY	19.12.2023	APPROVED	SHASHANK	19.12.2023		
	BY		DATE																								
	DRAWN	RAMAN ARORA	19.12.2023																								
	DESIGNED	NIRBHAY	19.12.2023																								
CHECKED	NIRBHAY	19.12.2023																									
APPROVED	SHASHANK	19.12.2023																									
SL. REV.No.	DATE	DESCRIPTION				ARCHITECT		<div>TITLE:-</div> <div>GROUND & ROOF PLAN</div>	<table><tr><th>JOB NO.</th><th>DISCIPLINE</th><th>DRAWING NO.</th><th>REVISION</th></tr><tr><td>ODISHA/K/ARCH-2</td><td>ARCH.</td><td>AR-2.0</td><td>RO</td></tr></table>	JOB NO.	DISCIPLINE	DRAWING NO.	REVISION	ODISHA/K/ARCH-2	ARCH.	AR-2.0	RO										
JOB NO.	DISCIPLINE	DRAWING NO.	REVISION																								
ODISHA/K/ARCH-2	ARCH.	AR-2.0	RO																								




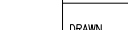
CLIENT	REVISIONS			EXECUTING AGENCY:	PRIME CONSULTANT:	DESIGNATION	SEAL & SIGNATURE	PROJECT:—	<div>NORTH</div> <div></div>	SCALE: 1:100		
TRANSPORT DEPARTMENT, GOVERNMENT OF ODISHA.				<div> INTERNATIONAL CENTER FOR AUTOMOTIVE TECHNOLOGY</div>	<div>COMPREHENSIVE ARCHITECTURAL SERVICES, NOIDA</div> <div>C 202, UTC TOWER, SECTOR 132, NOIDA, U.P. MOB.: +91 9899441033, EMAIL: nirbhayshukla@gmail.com</div>			<div>SHED AND OFFICE BUILDINGS PLANNED TOGETHER FOR ATS</div>				
						CHIEF ARCHITECT						
						ARCHITECT				TITLE:—	<div>ELEVATION - 01,02,03 & 04</div>	
	SL. REV.No.	DATE	DESCRIPTION									



SECTION -01



SECTION -02

CLIENT		REVISIONS		EXECUTING AGENCY: <div></div> INTERNATIONAL CENTER FOR AUTOMOTIVE TECHNOLOGY	PRIME CONSULTANT: COMPREHENSIVE ARCHITECTURAL SERVICES, NOIDA C 202, UTC TOWER, SECTOR 132, NOIDA, U.P. MOB.: +91 9899441033, EMAIL: nirbhayshukla@gmail.com	DESIGNATION	SEAL & SIGNATURE	PROJECT:— SHED AND OFFICE BUILDINGS PLANNED TOGETHER FOR ATS	NORTH <div></div>	SCALE: 1:100		
TRANSPORT DEPARTMENT, GOVERNMENT OF ODISHA.						CHIEF ARCHITECT		TITLE:— SECTION - 01 & 02		BY		
										DRAWN	RAMAN ARORA	19.12.2023
										DESIGNED	NIRBHAY	19.12.2023
										CHECKED	NIRBHAY	19.12.2023
	SL.	REV.No.	DATE	DESCRIPTION				APPROVED	SHASHANK	19.12.2023		
								JOB NO. ODISHA/K/ARCH-3	DISCIPLINE ARCH.	DRAWING NO. AR-3.0	REVISION RO	